

DESIGN STANDARDS



Palm Beach Park of Commerce Association, Inc.

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REVIEW AND APPROVAL PROCESS

The approval process consists of three phases: preliminary approval, final approval and post construction approval.

Preliminary Review

The preliminary review application is designed to address the major components of each lot's development.

The preliminary application must be approved by the LDRB prior to submission to Palm Beach County for Site Plan Review approval. The LDRB will issue its approval in writing.

Final Review

The final review application is designed to address all of the development components which contribute to the overall high quality standard of development.

No permitting or construction shall commence without prior written approval of the LDRB.

Post Construction Review

All improvements requiring LDRB approval must be completed within twelve (12) months from commencement date of said Improvements, unless extended by the LDRB. The final step in the LDRB approval process will be the post construction approval. Requests for said approval must be made, prior to Certificate of Occupancy Inspection by Palm Beach County, to:

Palm Beach Park of Commerce Association, Inc.
15132 Park of Commerce Blvd. Suite 101
Jupiter, Florida, 33478

The LDRB will periodically inspect the construction for compliance with the approved plans. Should the owner and/or contractor wish to make any changes to the plans and specifications, such change orders must be submitted to the LDRB for approval.

The LDRB will make a final inspection of all improvements to determine compliance and completion of all approved construction. The LDRB will issue its approval in writing. A letter of approval from the LDRB must be obtained prior to applying for a Certificate of Occupancy from Palm Beach County.

**APPLICATION FORM / PALM BEACH PARK OF COMMERCE
APPLICATION FOR PRELIMINARY and FINAL REVIEW**

Owner(s):
Name: _____

Address: _____

Telephone: _____

Architect:
Name: _____

Address: _____

Telephone: _____

Landscape Architect:
Name: _____

Address: _____

Telephone: _____

Surveyor:
Name: _____

Address: _____

Telephone: _____

Engineer:
Name: _____

Address: _____

Telephone: _____

Builder:
Name: _____

Address: _____

Telephone: _____

Submittals Accompanying this Application:

Application Fee - \$2,500

Preliminary Review:

	Yes	No
1. Property Questionnaire.....	___	___
2. Site Survey with Topography / spot elevations, existing site conditions, utilities, easements.	___	___
3. Proposed Site Plan depicting all proposed Physical Structures.....	___	___
4. Architectural Floor Plans.....	___	___
5. Building Elevations with material designations.....	___	___

Final Review

6. All items submitted preliminary.....	___	___
7. Engineering Plans (water, sewer, paving and drainage).....	___	___
8. Wastewater Pretreatment Survey Questionnaire.....	___	___
9. Fire Plans / desired fire flows / fire flow calculations.....	___	___
10. Right of Way utility permit plans.....	___	___
11. Draft Florida Health Department applications.....	___	___
12. Architectural Plans including building sections, foundation plans, wall sections, roof mounted and other exterior mechanical equipment.....	___	___
13. Building rendering.....	___	___
14. Written Descriptions of General Color Schemes w/ Color Samples or Color Identification and Manufacturer's Name.....	___	___

**APPLICATION FORM / PALM BEACH PARK OF COMMERCE
APPLICATION FOR PRELIMINARY and FINAL REVIEW**

Yes No

- 15. All Elevations and Material Designations and Samples.....
- 16. HVAC Plans.....
- 17. Lighting specifications / Photometric plans.....
- 18. Landscape Plans.....
- 19. Irrigation Plans / SFWMD permit if applicable.....
- 20. All signage plans (building / monument).....

REMARKS:

Signature of Owner

Signature of Applicant

(Type Name of Owner)

(Type Name of Applicant)

Street Address

Street Address

City, State & Zip Code

City, State & Zip Code

()
Telephone Number

()
Telephone Number

Applicant is:

- () Owner () Optionee () Lessee () Agent () Contract Purchase

Date: _____

ACTION BY LAND DEVELOPMENT REVIEW BOARD:

- () APPROVAL
- () DISAPPROVAL
- () APPROVAL SUBJECT TO THE FOLLOWING CONDITIONS:

By _____
(Signature)

(Title)

Date: _____

APPLICATION FORM / PALM BEACH PARK OF COMMERCE
APPLICATION FOR PRELIMINARY and FINAL REVIEW

SUBMITTAL REQUIREMENTS

The following items must accompany the APPLICATION FOR PRELIMINARY / FINAL PLAN APPROVAL:

1. Application is submitted electronically to Palm Beach Park of Commerce manager.
2. Filing Fee. can be paid by check to management office or ACH / Credit card for via the PBPOC.org website – “Make A Payment:

DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION:

Site Survey and Site Plan @ 1” = 50’ or larger scale

- A. Easements, trees 4” caliper or greater, with each tree identified, adjacent streets showing dimensions and radii, property lines, drainage and utility lines, water bodies, catch basins, street names and numbers, if available.
- B. Building locations, ancillary structure(s), mechanical equipment, parking areas, driveways, walkways, fire hydrants, fences, screens, and utilities.
- C. Building setbacks, building dimensions, square footage.
- D. Proposed topography, spot elevations, drainage plans, and run-off flow arrows.

ARCHITECTURE

- A. Floor Plans: Floor Plans for all floors shall be submitted for approval; such plans shall be at either a scale of ¼” = 1’ 0” or larger.
- B. Exterior Elevations: Drawings of all exterior elevations shall be submitted for approval showing the materials and colors to be used with actual color samples attached. Such elevations shall be at a scale of either ¼”=1’ 0” or larger.

LANDSCAPE PLANS

- A. Overall planting plan showing existing and proposed trees, palms, shrubs, groundcovers, vines and grasses to be used, at 1”=20’ or larger.
- B. Plant list to include common name, botanical name, plant height spread and quantity at time of installation.
- C. Irrigation Plan: Plans should indicate that the total planted lot is irrigated by an underground water system, to include all swale areas adjacent to property lines and roadway paving. Transplant areas may be irrigated by a temporary above grade system.
- D. Irrigation Well: Applications should include a copy of the SFWMD permit plus distance to nearest wetland, aerial showing distance from well location to wetland tract, drawing showing area of influence on wetlands, project draw down on wetlands. All drawings should show well location w/pump and appropriate landscape screening of pump.

ENGINEERING PLANS (WATER & WASTEWATER PLANS)

- A. All utility plans shall be prepared on 24"x36" sheets utilizing the following minimum scales:
 - i. 1" = 50' horizontal, 5' vertical for gravity Wastewater profile sheets
 - ii. 1" = 40' horizontal, 4' vertical for plans with up to two piping systems
 - iii. 1" = 30' horizontal, 3' vertical for plans with up to three piping systems
 - iv. 1" = 10' for lift station site plans
- B. All profiles shall utilize the grid format.
- C. An overall Master Plan sheet is required for projects requiring more than two water and wastewater plan sheets. The Master Plan sheet shall clearly show all water and wastewater mains, valves, fire hydrants, manholes, lift stations, metering facilities, connection points and existing facilities. Other information pertinent to the project, such as roadways, lakes, buildings, drainage system, etc., shall also be shown.
- D. Plans must indicate proposed finish floor/slab elevations, the number of building stories, and finished grade for roads, catch basins and other pertinent items. Plans shall also clearly indicate proposed driveway locations, streetlights and location of other utilities (electric, telephone, cable TV and gas). Detailed storm piping system shall be shown on utility plans, including yard drains, roof drains and exfiltration trenches.
- E. Plans must show proposed easements by shading or other easily distinguishable notation.
- F. All sanitary sewer data, including manhole invert and rim elevations; piping crossings and the invert and top of pipe elevations of each crossing must be clearly identified on the plan sheets at each location of occurrence. Clearance between the outside walls of the pipes/conduits, as well as pipe materials, must be clearly indicated on the drawings for each crossing. All sewer service lines crossing water mains and drainage lines shall be clearly identified on plan sheet with elevations called out in tabular form on the construction plans and on the record drawings.
- G. Profiles are required for gravity sewers and force mains.
- H. Profiles are also required for water mains with significant grade changes including, but not limited to, aerial crossings, jack and bore and subaqueous crossings.
- I. When separate profile sheets are used, all sewer lines must be depicted from manhole to manhole; pipe breaks between manholes will not be accepted. In addition, invert elevations must be clearly shown on profile sheets at each manhole.
- J. All manholes, fire hydrants and valves shall be numerically identified.
- K. All meter and backflow prevention assembly sizes must be clearly identified.
- L. If the project will be built in phases, the limits of each phase must be clearly indicated. Each phase shall be separated by a valve and/or manhole.
- M. Phase lines and match lines must be clearly delineated.
- N. Lift station engineering calculations (including 100 year storm data), if applicable.
- O. PBPOC Uniform Service Policy, Exhibit "B", Property Questionnaire.
- P. Wastewater Pretreatment Survey Questionnaire Exhibit "C" of the Uniform Service Policy,
- Q. Two (2) sets each of DEP potable water and wastewater permit applications.
- R. Two sets of NPBCID utility permit applications, if applicable.
- S. After the POA's plan approval, all revisions shall be noted in revision block.
- T. Copy of Capacity Reservation and proof of payment from PBPOC.

THE SITE

Applicable Codes

Development of all property within the Palm Beach Park of Commerce is governed by the Declaration of Protective Covenants, Conditions and Restrictions and agencies of Palm Beach County and the State of Florida. It is the responsibility of the lot owner to verify and conform to all requirements of public agencies and to obtain all necessary permits prior to commencement of development.

Lot Coverage

Maximum lot coverage is established in the Planned Industrial Park District Property Development Regulations as contained in the Palm Beach County Unified Land Development Code as amended from time to time.

Setbacks

Setback requirements are established in the Planned Industrial Park District Property Development Regulations as contained in the Palm Beach County Unified Land Development Code as amended from time to time.

SITE SIGNAGE

Signage Prohibitions

- No signs shall be permitted anywhere within the property without prior, written approval of the LDRB as to size, color, design, location and content.
- No moving or flashing lights shall be permitted.
- No messages shall be painted directly onto any exterior wall or building surface.

Free-Standing Major Identification Signs

The following guidelines shall apply to all single user sites within the PIPD:

Architectural Design:

All signs shall be designed integrally with the building architecture, colors, and the landscaping planned for the entrance area.

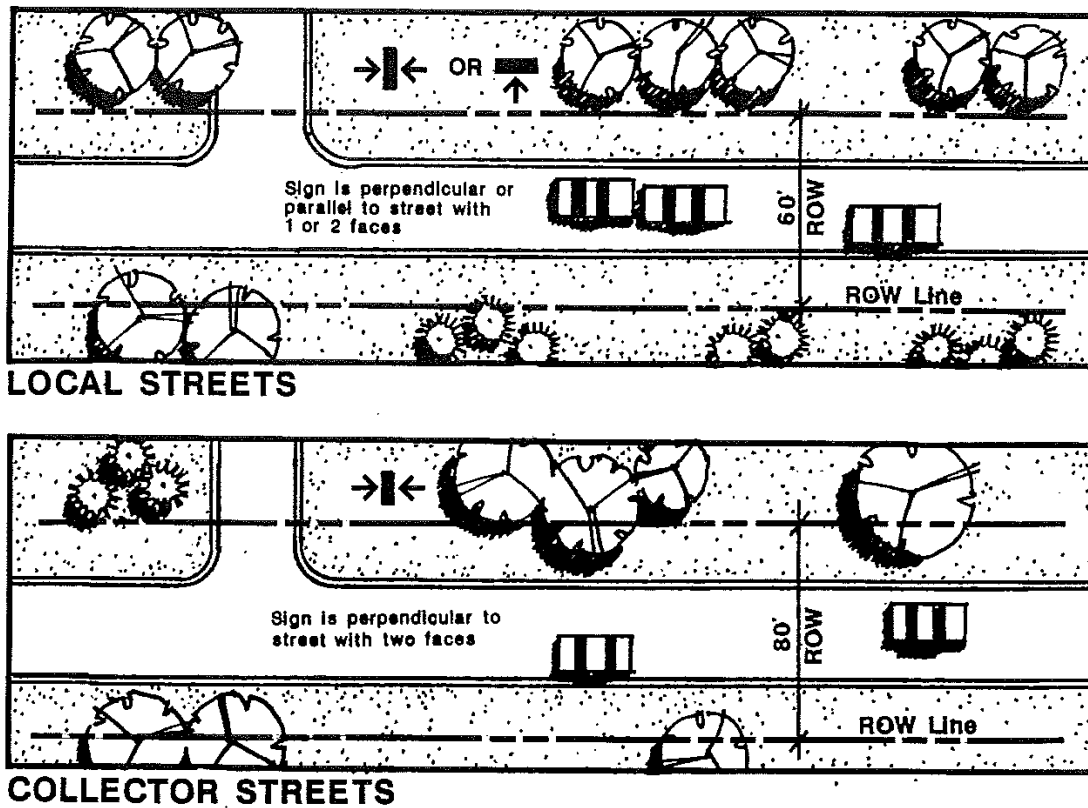
Number of signs: Only one major identification sign shall be permitted per site.

Location: At the major entrance with a minimum setback of 5 feet from the R.O.W.

Number of faces: On collector streets (80 feet of R.O.W. or greater) signs shall be required to have two faces.
On local streets (60 feet R.O.W. or less) signs may have one or two faces.

Orientation: On collector streets (over 80 feet of R.O.W.) signs shall be perpendicular to the abutting roadway.
On local streets (60 feet of R.O.W.) signs may be perpendicular or parallel to the abutting roadway. (See Diagram 1).

**DIAGRAM 1
MAJOR ID SIGN LOCATION**



Maximum Height: 8 feet (measured from proposed grade)
 Maximum Length: 12 feet

Maximum
 Message Area: 60 square feet

Message
 Limitations: Copy on the major identification sign shall be limited to the following:

1. Company Logo/symbol
2. Name of Company or building
3. Descriptive tag line consisting of Limited copy: e.g. Regional Headquarters
4. Street address

The words "Palm Beach Park of Commerce", or any combination thereof, may not be used For any of the following without the LDRB's written consent:

- 1.) In the name of any building.
- 2.) In the name of any business.
- 3.) In any advertising.
- 4.) In any dealings with the public.

Message
 Requirements: Each major identification sign shall include, at a minimum, the street address number. Including the street name is optional.

Message Type

- Size Limitation:
1. Company logo/symbol: 1.5 times maximum letter size Proposed
 2. Name of company or building: 15 feet maximum
 3. Descriptive tag line: 6 feet maximum
 4. Street address: 3 feet maximum

Mounting

Hardware: No mounting hardware is to be visible.

Lighting:

Both ground lighting and internal illumination will be permitted. Ground mounted fixtures shall be screened from view by plant material, berming, or architectural materials. All electrical hardware is to be hidden from view.

Building Signage

Wall Signs

Signs shall be affixed to the front of the building, facing its street frontage, mounted flush to the building facade. No sign shall extend above a building's roof line.

The maximum number of walls signs shall be limited to the number of business tenants occupying a building.

Maximum Length for single tenant buildings shall be a maximum of one third (1/3) of the building's front elevation.

Maximum Signage Area:

The maximum square footage of the message area shall equal the maximum type size allowed multiplied by the maximum sign length allowed, as specified herein.

Message Limitations:

Copy shall be limited to the following:

1. Company logo/symbol
2. Name of Company or building

Message Type Size Limitations:

1. Company logo/symbol: 1.5 times maximum letter size proposed
2. Name of Company or building:
 - a. buildings with front elevations less than 24 feet shall be restricted to a maximum letter height of 24 inches;
 - b. buildings with front elevations over 24 feet shall be restricted to a maximum letter height of 30 inches

Letter Fabrication Technique:

All letters shall be channel cut and mounted directly onto the building facade with all mounting hardware hidden from view.

Fabricator/Supplier:

The sign must be manufactured and installed by a vendor approved by the LDRB and according to specifications approved by the LDRB.

Temporary Signage

Temporary construction signage shall be permitted only during the construction of the permanent facility. One construction sign shall be permitted per site, and shall be located parallel to the street, a minimum of 5 feet from the property line, and adjacent to the construction trailer, if practical. The construction sign shall be a maximum of 6 feet high and 8 feet wide.

Other Site Signage

All other site signage shall be designed integrally with the building architecture, its colors and the sites landscaping, and submitted for review by the LDRB. Developers of multi-tenant sites shall prepare a signage plan showing how individual tenants will be identified. Such signs shall be limited to directories located a minimum of 50 feet from the front Property line and identification signs located near the front door entrance of each establishment.

Driveways

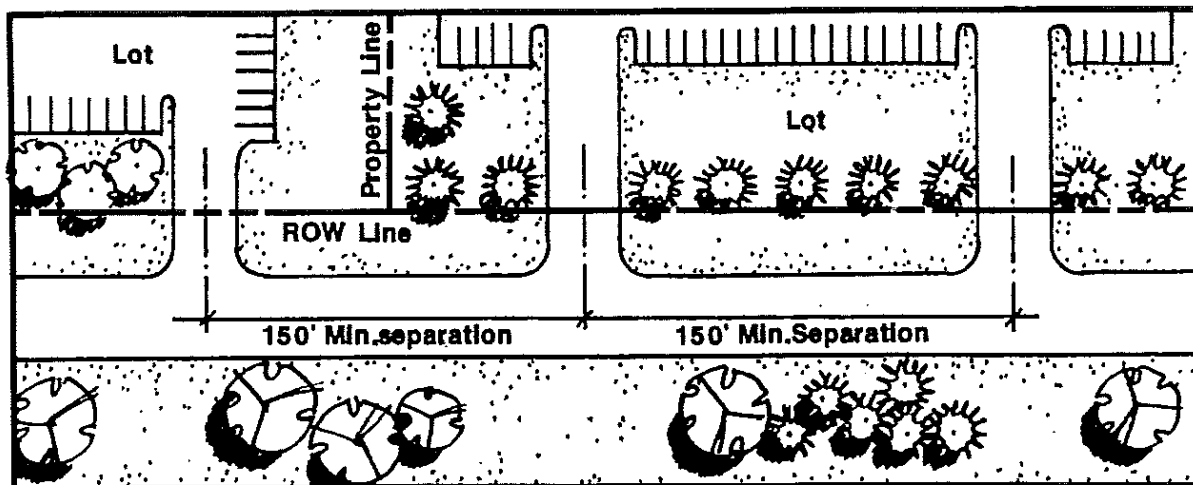
Driveways will be permitted as follows:

Lot Frontage	Maximum No. of Driveways
0 – 250 feet	1
250 – 500 feet	2
500 feet +	3 max

Driveways shall have a minimum separation of 150 feet including abutting properties, unless otherwise approved by the LDRB. (See Diagram 2).

Refer to current ULDC for further guidance regarding driveways.

**DIAGRAM 2
DRIVEWAY LOCATION**

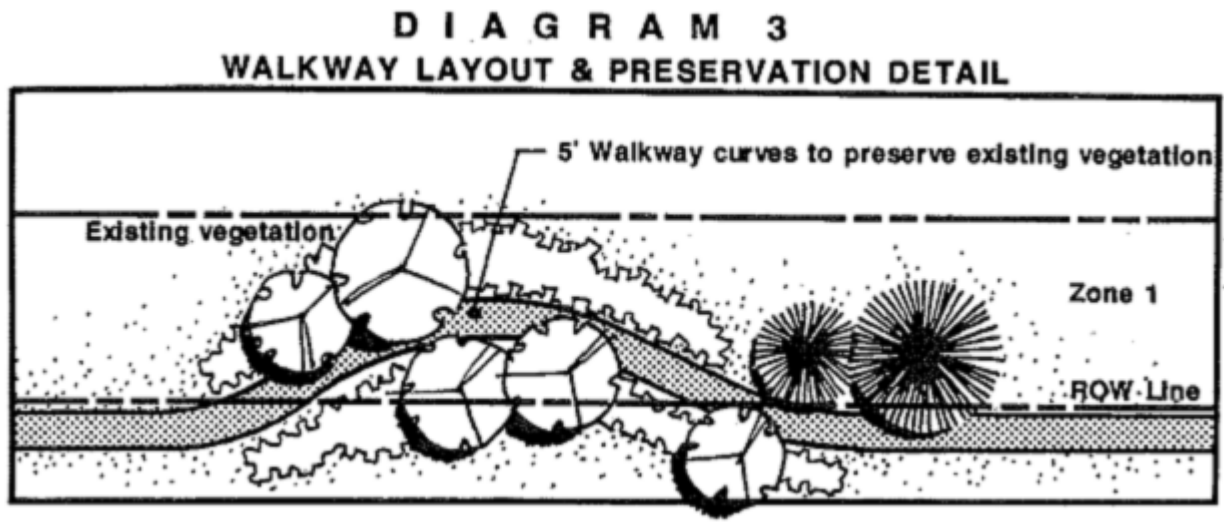


Parking Requirements

The minimum number of parking spaces shall be as per the Planned Industrial Park District Property Development Regulations as contained in the Palm Beach County Unified Land Development Code as amended from time to time.

Walkways

Where applicable, each lot owner shall be responsible for the construction of a 5 foot concrete sidewalk along the roadside of the R.O.W. adjacent to his property unless a variance is granted by Palm Beach County (See Diagram 3). Referred to the current approved Master Pedestrian Circulation Plan.



Loading Areas

Off-street loading spaces shall comply with the Planned Industrial Park District Property Development Regulations as contained in the Palm Beach County Unified Land Development Code as amended from time to time.

Loading areas are only permitted to face the side or rear property line and shall be designed so as to not interfere with movement of traffic on site; i.e., loading areas shall not be within required drives of parking areas. Loading docks shall be located and screened to minimize the visibility from any off-site views.

Exterior Storage and Trash Facilities

Exterior storage, trash and garbage facilities, shall be screened to minimize the visibility from any off-site views. Trash and garbage facilities shall not be placed in any front setback.

Height and types of screening shall be approved by the Land Development Review Board (LDRB) based on the type of item to be screened.

Fencing/Walls

Fencing/walls shall comply with all applicable codes and ordinances as established by Palm Beach County and the Northern Palm Beach County Water Control District. Additional requirements for fencing within the Palm Beach Park of Commerce PIPD have been established as follows:

Maximum Height:	6 feet in front setback/8 feet on sides and rear
Location:	Per the Planned Industrial Park District Property Development Regulations as contained in the Palm Beach County Unified Land Development Code as amended from time to time.
- Front (ROW)	Back of required landscape buffer-can't be located on the inside edge of buffer unless extra room is provided internally as shrubs are required on both sides of the fence.
- Side Interior	May be on the property line in a compatibility buffer.
- Side Street	Back of required landscape buffer-can't be located on the inside edge of buffer unless extra room is provided internally as shrubs are required on both sides of the fence.
- Rear	May be on the property line in a compatibility buffer.
- Along Beeline Highway	Back of 25 foot landscape buffer- can't be located on the inside edge of the buffer unless extra room is provide internally as shrubs are required on both sides of the fence in the ROW buffer.
Material:	<ul style="list-style-type: none"> - Masonry - Concrete - Chain link - Vinyl coated chain link within ROW Landscape Buffers

Color: To be compatible with building color.

Lighting

The developer will provide street lighting. Each lot's site lighting shall consist of similar fixtures. For purposes of accent lighting a different lamp type may be used. Permitted Lighting elements within each landscape zone are as follows:

Zone 1 - Landscape and signage accent lights only

Zone 2 - Light standards not to exceed 30 feet in height, Metal Halide lamps or LED (white light) are required in all Commercial Areas and encouraged in the Light and Heavy industrial Areas.

- Landscape and architectural accent lights.

Zone 3 - All of the above

- Pole or building mounted flood lights

(See THE LANDSCAPE, under landscape Zones Concept, for zone definitions).

In all cases, lighting type and location shall be designed to minimize any off site impacts on adjacent properties of public roads and be in compliance with Palm Beach County's lighting standards. Architectural, landscape architectural or signage accent lights shall be placed in planting areas, screened by an architectural element, or installed below grade.

Utilities

All utility connections, including electrical and telephone connections shall be made underground from the nearest available source. Transformers, electric or gas meters of any type, or other apparatus shall not be mounted on any power pole or the outside of any building, but shall be placed at grade or within the building. Transformers or similar above ground facilities shall not be placed within the front yard setback, and shall be properly screened with plant material or an architectural feature.

Mailboxes

All free standing mail boxes shall be located a minimum of 50 feet from the front property line per USPS requirements. See attached USPS application forms.

Temporary Facilities

Temporary facilities, other than construction related facilities, shall not be permitted. Construction facilities shall not be located within the front yard setback and shall be removed immediately upon completion of the permanent facility.

THE BUILDING

Exterior Materials

All improvements in the Palm Beach Park of Commerce shall be constructed of high-quality, permanent materials and shall be designed to be durable and easily maintained. All buildings and other structures within the Palm Beach Park of Commerce shall have exterior walls constructed of attractive materials.

Accessory buildings and enclosures, and any structures that are appurtenant to any building, shall be of similar or compatible materials, design and construction.

Height Limitations

The maximum building height shall be as allowed per the Planned Industrial Park District Property Development Regulations as contained in the Palm Beach County Unified Land Development Code as amended from time to time.

Screening of Equipment

All mechanical equipment, including roof mounted, shall be enclosed or screened by opaque screening so as to be an integral part of the architectural design and not to be visible from any public R.O.W.

Antennas

Radio or television antennas or other similar equipment shall not be located on the roof of any building without the approval of LDRB. Location, configuration and height shall also be subject to all applicable government approvals.

THE LANDSCAPE

Since a variety of architectural styles and materials will be allowed at the Palm Beach Park of

Commerce it is important that similar plant materials, particularly street trees and plantings, be used to create visual continuity within the Park.

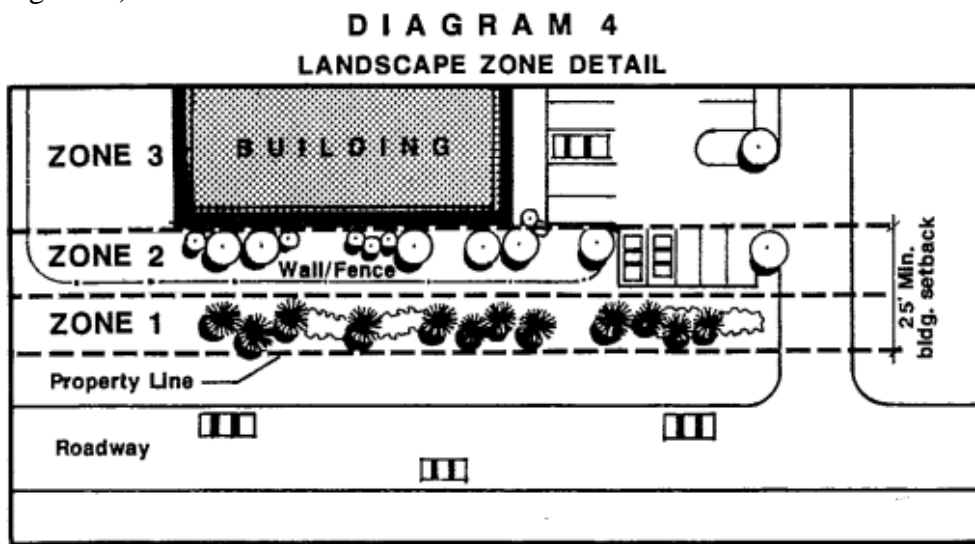
Landscape Concept

The planting theme adopted for the Palm Beach Park of Commerce is intended to take advantage of the continuity that naturally exists on the site through the preservation and enhancement of the native vegetation and the planting of compatible nursery grown material.

Zones Concept

To clarify the intended planting concept three (3) zones have been established along with guidelines for the design of each.

(See Diagram 4). These zones are as follows:



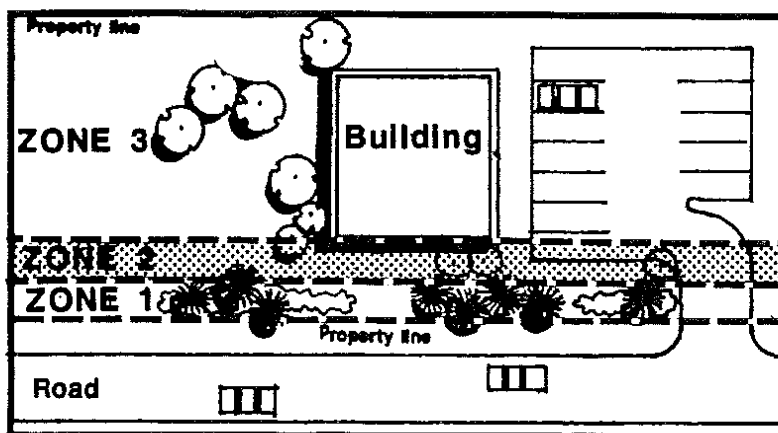
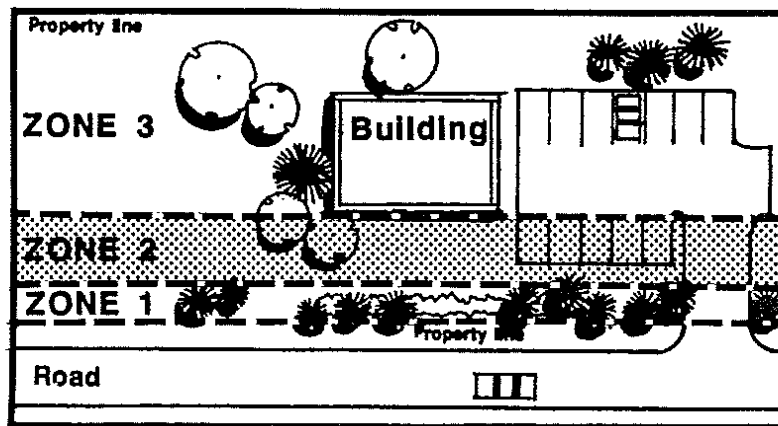
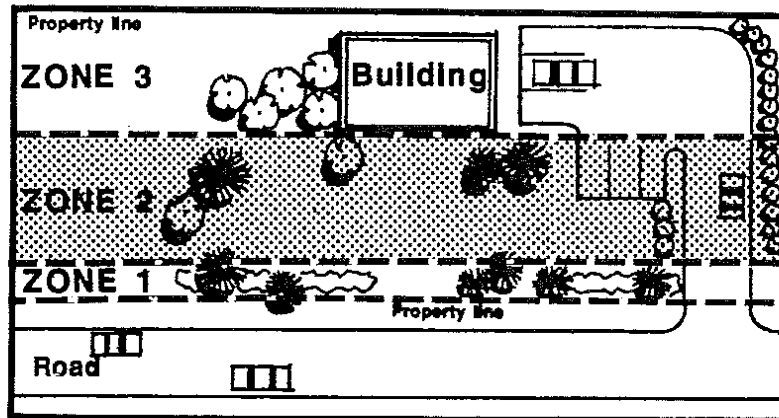
Zone 1:

Zone 1 will include all land from the edge of the right of way to the back of a 15 foot landscape strip required along the front and side corner of all properties. (See Diagram 5). Note: This area is considered the ROW Buffer per the PBC ULDC.

Zone 2:

Zone two (2) will consist of areas within the site beyond the required landscape strip up to the front of the principal building. (See Diagram 6).

**DIAGRAM 6
ZONE 2 VARIATIONS**



Zone 3:

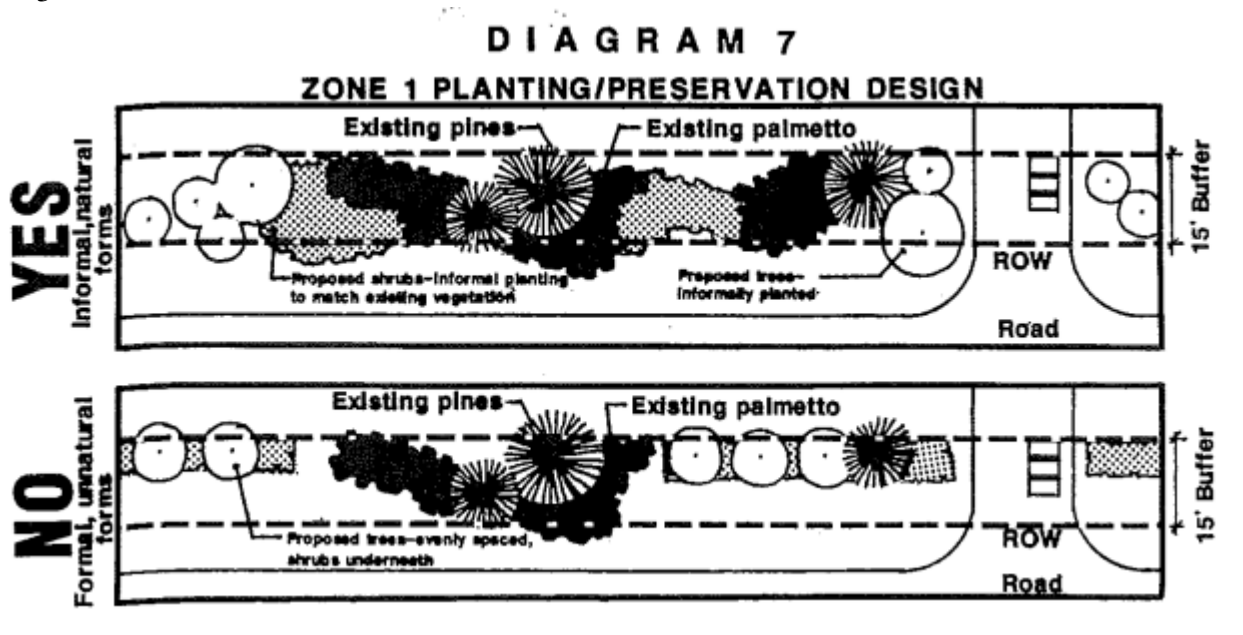
Zone Three (3) will consist of all other areas of the site.

Zone 1
Buffer Trees

Canopy/shade trees are of particular importance to the overall aesthetic impact of the PBPOC. They will provide the major unifying element along the PBPOC streets and will act as a visual link to the native vegetation on site. These trees can also act to soften less attractive architectural elevations, as well as screen service and storage areas. These trees can either be existing, nursery grown, or transplanted from on site as long as they are on the approved Zone 1 plant list. (See approved Plant Material List).

Each lot owner will be responsible for providing tree planting along the applicable roadway frontage. All required tree plantings must be within 15 foot of the abutting street R.O.W. A ratio of one (1) tree per 25 feet of roadway frontage will determine the number of street trees required per street frontage. To further enhance the natural wooded character of the site, these trees should be planted in clusters, versus straight rows. (See Diagram 7 below). In order to allow for proper growth, trees should not be planted any closer together than 15 feet for Oaks, 8 feet for wax myrtle and Pines, and 5 feet for Sabal palms.

Nursery grown buffer trees are to be 12 feet in height and 6 feet in spread at the time of installation. Transplanted trees can vary in height, but shall not be any shorter than 10 feet in height. Per the Palm Beach County ULDC existing native pines can be relocated to Zones 1, 2 and 3



Zone 1
Shrubs

In addition to canopy/shade trees, a shrub mass is required within the 15 foot Zone 1 landscape buffer. Small nursery material shall be planted no more than 24 inches on center. Large material shall be planted no more than 48 inches on center. A minimum of two (2) rows of shrubs shall be planted. These Shrub masses, like the Canopy/shade trees, should be designed in clusters and in informal “drifts”. Whenever possible, they shall be incorporated into existing saw palmetto masses, and be planted to create a layered effect, with taller plants along the back of the buffer and lower plants in the front along the R.O.W. (See Diagram 7).

Existing saw palmettos should be preserved and enhanced. A Credit shall be given at a ratio of 1 preserved plant to 2 nursery plants.

Berms

Berms along public roads are discouraged because of their inconsistency with the existing character of the site. Where no vegetation exists, limited berming will be permitted. Berms along roadways should be built with maximum side slopes of 4:1. Berm heights should not exceed '3' and are intended to create a natural rolling effect.

Zone 2

This area is considered a transitional zone from the native masses near the public roads to the building area. Plant material choices used here are to a great extent the decision of the owner and his designer.

The use of canopy/shade trees, however, is limited to those plants listed in the Zone 1 and Zone 2 approved plant list. (See Plant List)

Where possible, existing trees and shrubs should be preserved. Transplanted and nursery grown native trees should be used to extend the continuity of the Zone 1 theme further into the site.

Zone 3

As in the first two zones, the preservation of existing trees and shrubs in this zone is strongly encouraged. Where required by the Palm Beach County ULDC Landscape Section, canopy/shade trees are to be 12 feet in height and have a spread of 6 feet at installation. Trees should be clustered in minimum groups of three (3) with spaces between clustering no greater than 100 feet. In Zone 2 and 3 where an existing side property landscape strip exists, no additional landscape material is required. However, foundation planting shall be required per current PBC ULDC requirement in Zones 2 and 3.

Transplanting

Owners are encouraged to preserve existing vegetation through careful site planning and protective construction techniques. When preservation is not possible the transplanting of trees and shrubs (i.e. Wax myrtle, Pines and Saw palmettos) by mechanical means is suggested. Trees transplanted will be credited toward planting requirements at a ratio as described in the Palm Beach County Unified Land Development Code. Pine trees should be transplanted for use throughout the site but particularly along the PBPC roadways.

Open Space

Native grasses and Saw palmetto stands are considered desirable alternatives to sod or seed in open spaces. Where these conditions do not exist, approved varieties of sod or seed should be used or substituted with a combination of native grass and wild flower seed.

Irrigation

Irrigation is required for all newly landscaped areas. In preserve areas or transplant sites, however, temporary irrigation may be provided to ensure plant survival. The lot owner is responsible for the design, installation, maintenance, and continued utilization of all irrigation systems, temporary or permanent.

APPROVED PLANT MATERIAL LIST

ZONE 1 LARGE TREES

<i>Acer rubrum</i>	Florida Red Maple
<i>Pinis elliotti densa</i>	Slash Pine
<i>Bursera simaruba</i>	Gumbo Limbo
<i>Quercus Virginia</i>	Live Oak
<i>Ilex x attenuate 'East Palatka'</i>	East Palatka Holly
<i>Ilex x attenuate 'Savannah'</i>	Savannah Holly
<i>Bursera simaruba</i>	Magnolia grandiflora
<i>Ilex cassine</i>	Pinus elliotti densa
<i>Magnolia grandiflora</i>	Southern Magnolia
<i>Tabebuia heterophylla</i>	Pink Trumpet Tree
<i>Taxodium distichum</i>	Bald Cypress (low areas)

PALMS

<i>Sabal palmetto</i>	Sabal Palm
<i>Roystonea spp</i>	Royal Palm
<i>Washingtonia robusta</i>	Washington Palm
<i>Wodyetia bifurcate</i>	Foxtail Palm

ACCENT TREES

<i>Myrica cerifera</i>	Wax Myrtle
<i>Ilex cassine</i>	Dahoon Holly
<i>Conocarpus erectus</i>	Green buttonwood

SHRUBS

<i>Juniperus chinensis</i>	Phitzer Juniper
'Phitseriana'	Oleander
<i>Nerium oleander</i>	Dwarf Oleander
<i>Nerium Oleander</i>	Pittosporum
<i>Pittosporum tobira</i>	Pittosporum tobira
'varigated'	Varigated Pittosporum
<i>Pyracantha coccines</i>	Pyracantha
<i>Raphiolepis indica</i>	Indian Hanthem
<i>Viburnum suspensum</i>	Viburnum
<i>Eleagms pungens</i>	Eleagms
<i>Photinia serulata</i>	Red Tip Photina
<i>Chrysobalanus icaco spp</i>	Cocoplum (green & red)
<i>Cartaderia selloana</i>	Pampas Grass
<i>Serenea repens</i>	Saw Palmetto
<i>Conocarpus erectus var. sericeus</i>	Silver Buttonwood
<i>Conocarpus erectus</i>	Green Buttonwood
<i>Cordyline spp.</i>	Ti Plants
<i>Crinum spp</i>	Crinum
<i>Eugenia spp.</i>	Stopper
<i>Hamelia patens spp.</i>	Firebush
<i>Ilex vopmitoria</i>	Dwarf Yaupon Holly
<i>Jasmine spp.</i>	Jasmine
<i>Juniperus chinensis</i>	Parsons Juniper

Ligustrum japonicum
Muhlenbergia capillaris
Myrcianthes fragrans
Myrica cerifera
Rhapiolepis spp.
Tripsacum dactyloides
Tripsacum floridanum
Viburnus spp.
Zamia pumila

Wax Privet
Muhly Grass
Simpson's Stoper
Wax Myrtle
Indian Hawthorn
Fakahatchee Grass
Florida Gama Grass
Viburnum
Coontie

ZONE 2

ALL ZONE 1 PLANT MATERIAL, ADDITIONALLY

LARGE TREES

Bucida buceras
Swietenia inahagani
Ulmus spp.
Bursera Simaruba
Ficus rubiginosa
Pongamia pinnata

Black Olive
Mahogany
Elms
Gumbo limbo
Rusty fig
Pongam

**MINIMUM CONSTRUCTION STANDARDS AND
SPECIFICATIONS**

FOR

**WATER DISTRIBUTION SYSTEMS AND
WASTEWATER COLLECTION SYSTEMS**



**Palm Beach Park of Commerce
Association, Inc.**

November 2022

MINIMUM CONSTRUCTION STANDARDS AND SPECIFICATIONS

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SECTION I - GENERAL

A. INTRODUCTION

The Palm Beach Park of Commerce (“PBPOC | the “Park”) Board has adopted these specifications, requirements and administrative protocol so that facilities dedicated to the utility are of a quality which will minimize future maintenance and replacement costs. The procedures contained herein provide a detailed description of the utility's administrative requirements. This allows projects to be completed timely and permits The Park to treat all new projects/customers in a uniform and non-discriminatory manner.

The PBPOC Utility System is a registered Public Water System (PWS). For all permitting, test results/lab results, the following should be used:

PWS Name: Palm Beach Park of Commerce Association, Inc.

PWS ID: 4504516

It is imperative that all developers or their representatives desiring to connect to the Park’s water, and wastewater systems familiarize themselves with these specifications and procedures. Construction plans prepared without regard to the Park’s requirements will not be accepted for review.

The requirements presented in this document represent the minimum standards necessary to assure the uniformity and quality of construction of potable water mains, fire lines, gravity collection systems, force mains, lift stations, and any appurtenances associated with the same, which fall within the service area of the Park. These specifications shall be binding in all cases where facilities are being constructed, or which will be constructed, shall be owned and/or maintained by the Park, or any construction which will be or may be directly affecting facilities owned and/or maintained by the Park. All wastewater systems connecting directly or indirectly to the Park’s collection system shall be bound by these specifications, regardless of ownership.

Any planned deviation from these specifications shall be clearly identified in the plans and shall be submitted for approval.

These specifications are binding as a minimum standard; however, the Park reserves the right to require a more stringent standard be met when unusual circumstances or conditions exist on a particular site. The PBPOC further reserves the right to revise these specifications from time to time as new information and products become available. The requirements of the most recent edition shall apply to all projects except where revisions were approved after the preconstruction meeting for that project.

B. ADMINISTRATION

Plan review and project approval shall follow the administrative process outlined in The PBPOC’s prevailing Uniform Service Policy and all other directives of the Park’s Governing Board.

C. WORKMANSHIP

All contractors performing any work on a portion of facilities which will ultimately be dedicated to the Park for ownership or which directly interacts with the Park’s system shall be properly licensed to do such work and shall be able to demonstrate through past work history that the contractor is regularly engaged in such construction activities. All work materials and equipment shall be installed in strict accordance with the manufacturers' printed instructions.

D. GUARANTEE

All materials and equipment to be furnished and/or installed on water and wastewater facilities by the contractor on any project for which a developer intends to dedicate said facilities to the Park, shall be new

and shall carry a complete, indisputable guarantee against defective materials and equipment and faulty workmanship for a period of at least one (1) year from the date of final completion. In the event that any defective material and/or equipment is discovered within the one-year period, the Park will require the Developer/Contractor or his successors or assigns to replace and/or repair said defects at no cost to the Park and said materials and equipment shall be further warranted for a period of one year from the date of written acceptance of said replacement and/or repair.

All roads/rights-of-ways within the Park are owned and maintained by the Northern Palm Beach Improvement District (NPBID). Any road restoration or work within the NPBID will need to adhere to their standards.

E. APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

All design, material and work shall be in strict accordance with all the applicable governmental, regulatory, and testing organizations including, but not limited to, the following:

ANSI – American National Standards Institute

ASTM – American Society of Testing and Materials

AWWA – American Water Works Association

DOH – Department of Health

EOR – Engineer of Record

FDEP – Florida Department of Environmental Protection

FDOT – Florida Department of Transportation

Florida Building Code and Companion Codes as amended. (Latest Edition)

NPBID – North Palm Beach Improvement District

NSF – National Sanitation Foundation

OSHA – Occupational Safety and Health Administration

PBCDERM – Palm Beach County Department of Environmental Resources Management

PBCED – Palm Beach County Engineering Department

PBCFR – Palm Beach County Fire Rescue

PBCHD – Palm Beach County Health Department

PBCWUD – Palm Beach County Water Utilities Department

PBPOC – Palm Beach Park of Commerce

TSSS – Recommended Standards for Sewage Works (Ten State Standards)

TSSW – Recommended Standards for Water Works (Ten State Standards)

USEPA - United States Environmental Protection Agency

Where conflicts exist between governing agencies, the more stringent shall apply.

F. PLANS AND SPECIFICATIONS

Copies of plans and specifications for all water and wastewater projects that will be constructed within the Park's service area shall be submitted to the Park for approval and in accordance with Exhibit "A" (Project Documentation and Submittal Guidelines) as outlined within these standards.

Plans and certain other documents may be accepted by the Park for review provided they meet the following criteria:

- May be sent via email (6MB max) which must contain the name of the project, name and address of the company making the submittal, name and phone number of the person making the submittal, and a listing of attachments that are being submitted.
- Attachments must be regular PDF files.
- Plans to print out to 24" x 36" max and include a graphical scale.
- Calculation, reports and Construction Phase Documents
- Draft water and wastewater permit applications (unsigned)

Any changes made subsequent to final approval of plans by the Park shall be resubmitted to, and approved by the Park (stamped "Approval" on the plans) prior to commencement of work.

These specifications shall take precedence over any conflicts which may occur between the approved plans and these specifications or supplemental specifications which the EOR may issue.

If a contractor in the course of his work finds any discrepancy between the approved plans and these specifications or supplemental specifications which the EOR may issue, it shall be his duty to inform the Park, as well as the EOR, in writing. Until authorized in writing by the Park, any work performed in variance of these specifications shall be performed at contractor's risk. It is the EOR's responsibility to ascertain adherence to these specifications.

One copy of the PBPOC approved plans and shop drawings/approved product list shall be kept on site at all times during construction.

G. PERMITS

No work shall commence until all necessary permits are obtained as required by the following agencies, including but not limited to:

1. Florida Department of Environmental Protection
2. Florida Department of Transportation
3. Palm Beach County Department of Environmental Resources Management
4. Palm Beach County Engineering Department
5. Palm Beach County Health Department
6. South Florida Water Management District
7. Northern Palm Beach County Improvement District

H. PRECONSTRUCTION MEETING

It shall be the responsibility of the EOR to call for, arrange and coordinate a preconstruction meeting prior to commencement of any work on a project. The EOR shall invite the following parties to this meeting (in addition to themselves): a representative of the utility construction contractor, Property Owner or their designated Representative and any other interested or necessary parties. The purpose of this meeting is to discuss and outline construction procedures, scheduling, specific project concerns, maintenance of traffic and related items pertaining to the installation of water and wastewater facilities. All preconstruction meetings will be held at the PBPOC Office, 15132 Park of Commerce Blvd. Suite 101, Jupiter, FL. See Exhibit B "Prerequisite Checklist for Preconstruction Conference".

I. SHOP DRAWINGS

Prior to the preconstruction meeting, it shall be the responsibility of the EOR to obtain and review the Park's Shop Specifications List (See Exhibit D). After reviewing, the EOR shall forward the forms to the utility contractor for review and signature. The contractor shall then return them to the EOR for the EOR concurrence and signature. Once executed the EOR shall then return to the Park the originally signed forms.

As stated on the Shop Specifications List, shop drawings need not be submitted for Park approval if the contractor uses products on this list. Any product anticipated to be used that is not on this list must be approved in advance by the Park. Such approval requires the submission of sufficient copies (four minimum) of a shop drawing for each product. Shop drawings must be approved by the contractor and EOR prior to submittal to the Park and are required for all non-standard items including, but not limited to, manholes, wet wells, castings, pumps and control panels and telemetry.

J. EASEMENTS

Easements of sufficient width to guarantee unhindered access and proper maintenance to all dedicated facilities and mains shall be granted or obtained by the Developer at no cost to the Park. Easements shall be granted via plat or by instrument. When provided by instrument the easement description and sketch shall be based on the State Plane Coordinate System, Florida East Zone, and North American Datum 1983 with 1990 correction. Minimum easement sizes are as follows:

1. Lift station sites - 40' x 40'
2. Standard easements - 12' wide

K. CONSTRUCTION SAFETY

The Park's signing as the applicant for any required permit does not and will not in any way release the contractor from liability for any injuries, accidents, property damage or losses resulting from said construction.

All work shall be accomplished in a safe and workmanlike manner. The contractor shall comply with all applicable laws and regulations of any public and/or private body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The responsibility for project safety rests solely and specifically with the contractor. The PBPOC and its employees and agents are specifically indemnified and held harmless from any actions of the contractor relating to the safety procedures implemented during construction and from any claims brought by any persons regarding safety, personal injury or property damage.

L. CONSTRUCTION DEWATERING

Construction dewatering activities shall meet all Federal, State and Local requirements. If permits are

required, the applicant shall obtain and provide copies to the Park of the appropriate permit(s) from the regulatory agencies prior to dewatering operation.

A Stormwater Pollution Prevention Plan (PPP) must be prepared prior to submitting a Notice of Intent (NOI) to the FDEP/EPA. Forms can be obtained from the appropriate agency. To obtain State forms visit the Florida Department of Environmental Protection website at: www.dep.state.fl.us/water/stormwater/npdes.

M. EXISTING UTILITY NOTIFICATION AND LOCATION

The contractor shall notify Sunshine State One-Call of Florida, Inc. in accordance with Florida Statute 556 prior to actual commencement of work. The contractor must specifically request any necessary staking of the Park's facilities. The contractor shall also notify all the utilities in the area of impending construction prior to actual commencement of work to allow for utility locations. Moving or securing of existing utilities for the convenience of the contractor shall be paid for by the contractor. Drainage pipes are not located through Sunshine State One-Call of Florida, Inc. Contractor is responsible to locate all drainage facilities prior to start of construction and should contact NPBID.

N. SERVICE LINE LOCATIONS

Contractors and plumbers requesting water and/or wastewater service line locations shall provide the Park with minimum of 48 hours advance notice. The Park will identify the general location of the water/wastewater services utilizing its electronic service marker locator along with any available "record drawing" information. Developer/customer shall be responsible for all other activities required to locate service lines.

O. RESTORATION POLICY

Upon completion of maintenance or repairs of water and wastewater lines, the affected area is backfilled, compacted and re-graded to match the original grade. Sod, asphalt and concrete sidewalks damaged by the excavation activities are replaced in kind provided their placement over the water and wastewater lines was originally permitted by the Park.

P. UNAUTHORIZED CONNECTIONS AND OPERATIONS OF EXISTING FACILITIES

Connections to the Park's; water and wastewater systems for any purpose whatsoever are to be made only in the presence of a PBPOC representative. Unauthorized connections are subject to immediate disconnection, without notice, and such connections shall not take place until it has been approved and settlement is made in full for all penalties, damages and connection charges, etc. caused by reason of such unauthorized connection. Only Park representation shall operate valves in the water distribution or wastewater systems which the Park owns and maintains. All contractors requiring valves to be opened or closed shall contact the Park 48 hours in advance. Connections to facilities owned by the Park will not be allowed until contractor has demonstrated to the Park that a sufficient number of competent personnel, all necessary materials, proper equipment and tools are on hand and the site has been properly prepared.

Q. AUTHORITY OF INSPECTORS

Park representatives may inspect all construction and materials and may also inspect preparation, fabrication or manufacture of components, materials and supplies. The representative is not authorized to revoke, alter or waive any requirements of the specifications, but may call to the attention of the EOR and/or contractor any failure of work or materials to conform to the plans or specifications. The representative shall have the authority to reject materials or suspend the work until questions regarding the specific issue can be referred to and decided upon by all concerned parties. Park representatives shall in no case act as, or perform duties of the EOR and/or the contractor, nor interfere with the management of the work, and any advice which the representative may give shall in no way be construed as binding on

the Park or releasing the Developer, the EOR or the contractor from performing the work according to the intent of the plans and specifications.

R. INSPECTIONS

The Park must be provided with a minimum of 48-hours notice for scheduling inspections.

Inspections will be scheduled during regular working hours only, except for weekends or nights when preapproved service interruptions are involved. A minimum of 48-hours notice shall be given to the Park by the EOR to schedule a required service interruption. These interruptions shall be scheduled on a Wednesday whenever possible. Work will not be scheduled for weekends or holidays without the Park's authorization. Representatives will make routine passes on call to inspect such items as materials on site and clearances between conflicting lines. Scheduled inspections will be required for jack and bore/directional drill operations, connection to existing facilities, pressure tests, sanitary sewer lamping, sanitary sewer lateral televising, and any other part of construction as deemed necessary by the Park. It shall be the EOR's responsibility to coordinate inspections and their qualified representative shall be present when required by the Park.

A scheduled inspection will be canceled if said representative is not present. The EOR's representative shall arrange and observe pretesting of water mains, force mains and prelamp sanitary sewer mains to verify that these facilities are sound and ready for final testing. It shall be the contractor's responsibility to provide the necessary equipment and personnel for all inspections, including televising the sanitary sewer laterals.

This shall include all safety equipment necessary to meet OSHA requirements. Inspections will be canceled if proper testing or safety equipment is not on site and readily available at the time of the inspection.

Access to the work shall be provided by the contractor for all required inspections. In cases where the contractor has proceeded with work which the Park had requested to inspect or witness without said requested inspection, the contractor shall bear all costs associated with uncovering, retesting, additional testing, or any other means necessary to provide physical evidence as to the acceptability of the work performed by the contractor. Such costs shall be the responsibility of the contractor regardless of whether the work is found to be defective or acceptable to the Park.

S. CONSTRUCTION WATER

Contractor/Developer shall apply for and pay the necessary installation cost and deposits to obtain a temporary water meter from the Park for use during construction activities. This allows metering of all water used during construction of the facilities. Any contractor found to be bypassing said meter provided will be subject to the penalties as determined by the Park. All construction water used shall be billed at the rate approved by the Park and paid for prior to new service being provided.

T. RECORD INFORMATION

Record drawings, certified by a professional surveyor and mapper (land surveyor) registered in the State of Florida, shall be submitted to the Park 48 hours prior to the request for inspection and testing. Disclaimer statements on record drawings by the surveyor or EOR are prohibited. Record drawings submitted with disclaimers will be returned to EOR and no further inspections or testing will be performed until proper record drawings are submitted. See Exhibit E "Required Information on Record Drawings" for the information required on record drawings. The land surveyor who prepares the record drawings is required to certify on the record drawings that the constructed facilities are located in easements or rights-of-way as applicable.

Once record drawings are approved by the Park, EOR shall submit record drawings in electronic PDF format.

U. REPAIR TO NEW FACILITIES

The Park will not accept any type of repair including, but not limited to, bell repair clamps, wrap around repair clamps, sleeves (except at tie-ins) or fire hydrant extensions on new facilities being dedicated to the Park. Sanitary sewer structures must be new and undamaged. Connections and structures shall be leak free upon initial installation.

V. LANDSCAPE GUIDELINES

The Park requires landscape plans to be submitted as part of the construction plan review process for all projects. New water and wastewater service shall not be activated if plantings are installed within the specified area of the Park's facilities without the approval of the Park.

SECTION II - DESIGN/CONSTRUCTION PLAN REQUIREMENTS

A. GENERAL DESIGN REQUIREMENTS

The EOR shall comply with the following prior to making a utility construction plan submittal to the Park:

1. Main Extensions Required

- a. Developer/Property Owner shall extend water and wastewater mains to the project boundaries most remote from the current system terminus, or to a point which best facilitates service to properties as yet unconnected. The specific size and location of service extensions shall be determined by the Park. Properties requesting water or wastewater service shall be required to extend water and wastewater mains based on the developer criteria set forth above. The use of long service lines to avoid extending mains is prohibited.

2. Piping Orientation

All water and wastewater facilities shall be designed in accordance with these specifications. To the greatest extent possible, all water mains shall be designed to cross over all other pipelines i.e.: storm drainage, gas, sanitary sewer and force mains. Water mains crossing under the above referenced mains will warrant special design consideration based on actual circumstances. Force mains must be designed to be full of liquid under all operating conditions to avoid areas of gas accumulation. Special corrosion resistant linings on all ductile iron gravity sewer and force main pipe, fittings and valves are required.

3. Separation Requirements

- a. The Palm Beach County Health Department's requirements for design, construction, clearance and separation of water and wastewater facilities shall be strictly observed in addition to those as outlined in these Standards.
- b. When storm drainage piping > 15 inches is to be installed parallel to gravity sewer lines, a minimum of 10 feet of separation as measured from the outside edge of the pipes is required. Large storm drainage pipe (> 24 inch) to be located parallel to deep sanitary sewer lines (> 8 foot cut) requires separation 12 feet.
- c. When drainage piping runs parallel to force mains the minimum separation shall be 6 feet. When running parallel to water mains, the minimum separation shall be 6 feet. Greater separation may be required from drainage pipe larger than 48 inches. When storm drainage piping crosses over or under sanitary sewer lines a minimum of 9 inches of separation as measured from the outside edge of the pipes is required. The sanitary sewer must be designed with a full length of Protecto 401 lined ductile iron pipe (DIP) centered on the crossing.
- d. Sanitary sewer mains less than 100 feet in length or runs with multiple drainage crossings require Protecto 401, or Permax CTF lined DIP from manhole to manhole.
- e. Gas mains shall be 12" below water and wastewater lines and have 6-foot clearance from fire hydrants. Gas mains running parallel to water and wastewater lines are required to have 6-foot clearance. Conduits, irrigation, gas, or other dry utilities larger than 2" and any size conduits in a bank consisting of more than 2 conduits shall cross below water and

wastewater lines with 12” clearance. Conduits 2” and smaller, either singular or double are encouraged to be under the water and wastewater lines with a minimum of 12” and in no case shall be less than 6” either below or above the water and wastewater lines. Conduits, irrigation main, FPL, or other dry utilities 2” and larger, running parallel to water and wastewater lines are required to have 6 feet minimum clearance. Conduits, irrigation main, FPL, or other dry utilities 2” and smaller, running parallel to water and wastewater lines are required to have 4 feet minimum clearance.

- f. All streetlights and poles 20 feet in height or less shall be 4 feet minimum clearance from water and wastewater and appurtenances.

4. Cover Requirements

Water and force mains shall have a minimum cover of 30 inches and a maximum cover of 48 inches unless otherwise specifically approved by the Park in writing. Sanitary sewer mains shall have a minimum of 4 feet of cover. Roadway crossings shall conform to requirements of the applicable permitting agency.

5. Setback Requirements

- a. Mains (water, gravity sewer, and force) which are less than 8 feet deep, as measured from the pipe invert to finished grade, shall be installed a minimum of 12 feet horizontally from structures. This setback requirement also applies to new structures being constructed in the vicinity of existing Park facilities. The 12-foot horizontal setback shall be as measured from the outside edge of the pipe to the nearest point of the structure, including underground (e.g. footers) or aboveground (e.g. roof overhangs) features. In addition, the 12-foot setback applies only to mains adjacent to a single structure. Where deep mains are installed between structures, setbacks greater than 12 feet will be required on each side.

Mains deeper than 8 feet shall have a minimum horizontal setback calculated in accordance with the following equation:

$$S = 1 \text{ foot} + (D/0.67)$$

S = Required horizontal set back from edge of main or structure to edge of pipe

D = Depth from bottom of structure to pipe invert

- b. In general, sanitary sewer manholes shall be located in the center of roadway pavement. Manholes and sewer mains shall not be located closer than five feet to the curb line or the right-of-way line; whichever is closer, as measured from the outside edge of the manhole or pipe.

6. Improvements Installed Over Water and Wastewater Facilities

- a. No paving or sidewalks shall be permitted within 4 feet of existing water mains or force mains. No paving, sidewalk, landscaping, berms, or other improvements will be permitted over any portion of an existing utility easement (by plat or instrument), which has existing water and wastewater lines.
- b. Water mains and force mains shall not be constructed under existing or proposed structures, sidewalks, concrete slabs, roadways, parking lots or other paved areas, unless specifically noted on the plans and approved by the Park. Areas to be covered with either

concrete or paving, parking garages, walls, landscape berms, etc. shall be clearly noted on the plans. All utility easements must be clearly depicted on the landscaping plans. The EOR shall coordinate layout of water and wastewater facilities with the landscaping plans for the project such that landscaping is minimized over water and wastewater lines and their respective easements. In general, easements shall preclude structures, trees, shrubs, berms, etc. so that unhindered access to all such facilities and mains is available at all times. Landscaping placed within a utility easement, with or without the Park's approval, is at property owner's risk.

- c. When a Developer causes grade changes at or near existing valve boxes, fire hydrants, manholes, backflow preventers, cleanouts, meter boxes or any other water or wastewater facility the Developer shall adjust the affected facilities to finish grade in accordance with the Park's standards.

7. Subaqueous Crossing

Design for subaqueous crossings requires the use of special materials. Class 56 DIP with ball and socket joints is required for pressure pipe (polyethylene or Protecto 401 lining is required for sewer force mains). Gravity sewer crossings of water bodies such as canals, lakes, water management tracts, etc. require the use of Class 56 polyethylene or Protecto 401 lined DIP for the entire tract (i.e. boundary line to boundary line). Manholes are not allowed in drainage easements, water management tracts or canal rights-of-way. Any gravity sewer pipe crossing of a water body will require the gravity sewer pipe to be installed within a steel casing and installed, at a minimum, 20 feet beyond the top of each bank.

8. Directional Drills:

a. Horizontal Directional Drilling (HDD)

General: Water main and force main design and construction standards shall apply unless noted otherwise. The Park reserves the right to disapprove a horizontal directional drilling installation if the conventional open trench or jack and bore type installation is preferred by the Park because:

- Excessive number of high/low points
- Excessive depth of pipe is of concern
- A casing is required by the Park to protect the utility pipe
- Future service and main connections to the utility pipe will be negatively impacted by a horizontal directional drilling

Pipe sizes and material: The horizontal directional drilled utility main shall be manufactured approved restrain joint DIP, PVC AWWA C-900 DR14, 200 psi, NSF 61 (4" - 12") or HDPE pipe (SDR 11). If the directional-drilled pipe is to be used as a casing for a small diameter service line (up to 2" diameter), PVC DR 17 pipes are acceptable. Pipe and system components shall be free from voids, cracks, inclusions and other defects and shall be uniform in color throughout the installation.

Design Requirements: The Engineer of Record shall inquire with the Park about approval of a horizontal directional drilling procedure for a pipe installation. With the Park's concurrence, the Engineer of Record shall submit a signed and sealed pilot bore plan for review and approval.

The plan shall be submitted on a 24" x 36" sheet to a maximum 1" = 20' horizontal and 1" = 2' vertical scale (1" = 10' horizontal, 1" = 10' vertical scale preferred). The plan must show:

- Finished grade and surface improvements
- Locations of drill set-up (bore pit and receiving pit)
- Length of bore
- Deflection and radiuses of the pilot bore
- Field verified locations of existing utilities and underground structures
- Minimum horizontal and vertical clearances from underground structures, conduits, piping systems.
- Pipe size and specifications
- Proposed pilot bore pipe deflection limits shall not exceed 75% of the maximum deflection allowed by the pipe manufacturer
- The drill radius of the final HDD pipe shall be minimum 30 pipe diameters, not exceeding 80% of the max. bending radius as recommended by pipe manufacturer
- Limits of directional bore installation
- Limits of pressure testing
- Connection to existing utilities
- Rights-of-way limits, utility easements and temporary construction easements
- Minimum pipe joint restrains at each end of pipe material transition from HDPE pipe
- Tracer wires
- Isolation valves and/or transition fittings/adapters

b. Pilot Bore

The Engineer of Record shall schedule the beginning of work with the Park a minimum of 3 days in advance. The drill path shall be accurately surveyed and plotted to create an "as-built" drawing (same scale as the pilot drill plan).

A high accuracy MGS (Magnetic Guidance System) shall be capable to provide vertical pipe data with a max. + 2% deviation and horizontal pipe location data with a max. + 2 foot deviation. The data shall be collected at max. 25' intervals. Deviation of more than + 2 feet vertically or horizontally from the approved pilot bore plan shall be reported immediately to the project engineer for evaluation. The Engineer of Record shall evaluate the as-built data and confirm the compliance with the design parameters. Deviation beyond approved parameters (depth, deflection radius, and separation to other utilities or structures) shall be brought to the attention of the Park.

The signed and sealed pilot bore "as-built" drawing shall be submitted to the Park for review and approval if the "as-built" location differs substantially from the design plan.

Pull back of carrier pipe: Upon approval of the pilot bore location by the Park, the pullback operation of the required carrier pipe shall begin. The Contractor shall select the proper reamer type with the final hole opening to be a maximum of 1.5 times the outside diameter of the largest component system.

The open borehole shall be stabilized by means of bentonite drilling slurry. The slurry shall be contained at the entry or the exit side of the bore in pits or holding

tanks.

The pipe sections shall be butt fused/joined together in accordance with the manufacturer's specifications. The ends of the pipe, gaskets and couplings shall be inspected for cleanliness. Chipped, scratched, scraped, cracked or excessive deformed pipe or couplings shall be rejected. Two approved APWA color-coded HDD tracer wires shall be pulled along the sides of the product pipe and extended to nearest valve boxes (coil min. 3' wire near the surface inside valve box).

The installation of the tracer wires is an essential part of the Horizontal Directional Drill process and the Contractor shall use all reasonable means and methods to insure that the tracer wires are pulled without breakage. However, accidental tracer wire breakage shall not be a reason to require a repeat directional drill unless specifically required in the project specifications.

The pipe shall be elevated to the approximate angle of entry and supported by roller arms or equivalent. Any field welding/fusion of HDPE pipe and fittings may be performed only by personnel certified through a pipe/fitting manufacturer approved training program.

Testing: Pipe installed using HDD method shall be flushed and pressure tested using Potable Water. The pressure within the HDPE Pipe test section shall be raised to approximately 160 psi and then allowed to idle for approximately 3 hours in order to allow to stabilize. Additional make-up water/pressure shall be applied during the 3-hour stabilization period only to maintain a minimum of 140-psi pressure.

The final phase of the pressure test shall involve applying make-up water/pressure to achieve a test pressure of 150 psi or higher (as required). The test section is then allowed to idle (no make-up water pressure is added) for a period of 2 hours. After this 2-hour period, make-up water/pressure is applied and measured to reestablish the test pressure. If the measured and added quantity of water is greater than the allowable amount, the pressure test fails. NO leakage is acceptable.

Installed services, tees and sub-outs shall be pressure tested together with the main. Pressure test is not required if the installed pipe is intended to be used as a casing.

If the pipe successfully passed the pressure test, a connection to the existing pipe system may be performed. Bacteriological testing is required for water main applications.

9. Service Connections

Each customer is required to have a dedicated service connection to the Park's facilities and meter. Wastewater customers are not permitted to connect to the Park facilities if their flow is piped through facilities not owned by the Park. Turbine meters are not permitted for any uses where low flows may occur. Permanent installations shall be metered in a manner acceptable to the Park. The Park requires that fire service lines be installed in conformance with requirements of the fire service agency of jurisdiction. Each such agency shall determine the appropriate fire flow requirements for each application and note the required fire flow in gallons per minute with their approval of the construction plans.

10. Prohibited Discharges to Wastewater System

- a. Projects handling or generating any toxic/hazardous substances shall be identified and their methods of pretreatment specified. Untreated discharges are not permitted into Park facilities. Pretreatment procedures shall be acceptable to the Park and shall conform to all State and Federal regulations. Affected businesses include, but are not limited to, all commercial and industrial users of Park facilities for which Federal and/or State pretreatment standards have been promulgated. This includes businesses such as plating and metal finishing operations.
- b. Storm water, roof drains, air conditioning and refrigeration condensate, cooling tower, blowdown, softener brine, reverse osmosis reject water, treated groundwater or other "nondomestic sewage" are not permitted to discharge into the Park's wastewater system.

B. CONSTRUCTION PLAN PREPARATION REQUIREMENTS

1. Prepare plans on 24-inch X 36-inch sheets using a scale no smaller than 1 inch = 40 feet, unless specific approval for a smaller scale is obtained from the Park. Plans shall be drawn to scale using a scale that appears on a standard engineer's box scale. Like scales shall be used on plan & profile submittals with correct grids. (i.e. 1-inch = 40 feet hor., 1 inch = 4 feet vert.) Scales and grid count must be consistent. Computer generated scales that cannot be read with a standard engineer's box scale will not be accepted for review.
2. Plans must indicate proposed finish floor/slab elevations and finished grade for roads, catch basins and other pertinent items. Elevations must be in NAVD 1988 Datum with conversion table to NGVD 1929 noted on plan sheets. Place sanitary sewer data, including manhole invert and rim elevations, on plan sheets at each manhole; rim and invert elevations shown in tabular form only will be rejected. Profiles are required for gravity sewers and force mains (show all crossings). Profiles are also required for water mains with significant grade changes, including, but not limited to, aerial crossings, jack and bore, directional bores and subaqueous crossings. When separate profile sheets are used all sewer lines must be depicted from manhole to manhole, pipe breaks between manholes will not be accepted. In addition, invert elevations must be clearly shown on profile sheets at each manhole. All profiles shall utilize the grid format. Plans utilizing the datum format shall be rejected.

Other information pertinent to the project such as roadway, lakes, buildings, drainage system, etc. shall also be shown.

3. All piping crossings must be clearly identified on the plan sheets (this includes but not limited to, water mains, force mains, gravity mains, storm sewers, gas mains, underground electric, telecommunication lines and cable TV lines showing elevations of each). Clearance between the outside walls of the pipes/conduits, as well as pipe materials, must be clearly indicated on the drawings for each crossing.

Examples:

- Bottom 6-inch DIP WM = 14.73
- Top 24-inch RCP = 13.18

All wastewater service crossing water mains and drainage lines shall be clearly identified on plan sheet with elevations called out in tabular form on the construction plans and on the record drawings.

4. If the project will be built in phases the limits of each phase must be clearly indicated with the initial submittal; phasing must be decided prior to review. Each phase shall be separated by a valve and/or manhole.

5. Facilities which will ultimately be dedicated to the Park which are installed on private property shall be in easements dedicated to the Park. Plans must show proposed easements by shading or otherwise easily distinguishable on plans.
6. All projects shall clearly indicate proposed driveway locations, streetlights and location of other utilities (electric, telephone, cable TV and gas). Particular emphasis must be given for proposed structures such as switch cabinets, transformers Bellsouth splice boxes and signal booster stations.
7. Provide a cover sheet showing the applicable project name and project number, sheet index, category of improvements, and vicinity sketch.
8. Provide all applicable detail drawings, including special profile sheets as required to show special or unique situations.
9. The Park's details must be used where applicable and shall include Board approved date. If details are found to have been altered without the knowledge of the Park or without specifically stating in the transmittal which details are altered, the plans will be returned without review.
10. Obtain Fire Marshall approval of water system plans (approving fire hydrant placement and wet fireline requirements) prior to plan submission to the Park. The Fire Marshall approved set shall indicate the minimum fire flow requirement for the project.
11. Submit Fire Marshall approved set, paving and drainage plan, preliminary plat or utility easement plan at scale matching potable water, reclaimed water, and/or wastewater plans, landscaping plan, master plan, survey, cover sheet and all plan sheets with relevant and easily readable location sketch, completed wastewater survey for projects with potential pretreatment requirements, lift station calculations, canal and road permits, including preliminary FDEP forms.
12. Prior to making plan submittal to the Park, verify all items on prerequisite checklist have been completed, (see Exhibit "B").

C. INSTALLATION PROTOCOL (to be incorporated in construction drawings or project specifications)

1. All pipe is to be laid in a clean dry trench.
2. All muck and unsuitable materials encountered in trench bottom shall be removed and replaced with compacted granular material to 95% of maximum density per AASHTOT-180. Proctor and density test results shall be submitted to the EOR with a copy to the Park.
3. All backfill within road rights-of-way shall be placed in 12-inch lifts and compacted by mechanical means to 98% of maximum density per AASHTOT-180 or as otherwise required by the permitting agency. Proctor and density test results shall be submitted to the EOR with a copy to the Park. Flowable fill or controlled low strength material (CLSM) shall be an alternative to a compacted backfill with the approval of the permitting agency and the Park. These materials shall be used for general backfill applications for trenches and abutments. Flowable fill shall be excavatable and have a compressive strength that shall be less than 200 psi at twenty-eight (28) days.
4. Utilities crossing road rights-of-way shall be installed prior to road construction and backfilled and compacted within right-of-way limits in strict accordance with the directions of the EOR and requirements of all agencies of jurisdiction.

5. Embedment materials below pipe shall conform to Unified Soil Classification System (U.S.C.S.) Soil Classification Class I or II as noted in ASTM D2321.
6. All lines under construction shall be plugged with a wing plug, and all pressure pipes are to be plugged with a mechanical plug or cap at the end of the working day to prevent ground water and potential contaminants from entering completed lines and lines under construction.
7. Above ground piping, including but not limited to, aerial crossings, lift station piping, fire lines, meter/backflow prevention device assemblies, etc. shall be flanged and be coated in the following manner:

Sandblast and remove all paint and any loose material in accordance with SSPC-SP10 or NAPF 500-03 (ductile iron surfaces). Sandblasting shall be performed using non-silica media. Paint all exterior ferrous metal surfaces. The manufacturer's recommendations for surface preparation, priming, recoating, etc. shall be strictly followed. Do not paint or coat any nameplates, brass or stainless steel material. Contractor shall use the following paint system or approved equal.

TNEMEC

- a. Primer: TNEMEC CHEMBUILD- MODIFIED POLYAMIDOAMINE EPOXY #135 (3.0 to 5.0 mils DFT) aluminum color.
- b. Intermediate Coat: TNEMEC CHEMBUILD-MODIFIED POLYAMIDOAMINE EPOXY #135 (3.0 to 5.0 mils DFT) off white color
- c. Finish Coat: Series 1074 Endura-Shield II with 644 UV Blocker (2.0 to 3.0 mils)

The finished coat of paint shall be black in color for sanitary sewer, safety purple (5C08) for reclaimed appurtenances and delft (6B03) blue for potable water appurtenances.

Inspections by the Park are required after sandblast and before primer, after primer and after intermediate coat.

8. All flanged pipes shall be caulked between each flange and threads with Sika 1 A urethane caulk.
9. All tie rods, bolts, nuts, etc. installed underground must be Cor Ten and shall be painted with Sherwin Williams TarGuard – Coal Tar Epoxy or a Park approved equal. Brass and stainless-steel hardware is exempt from this requirement.
10. Coatings and linings damaged during construction due to field cutting, mishandling or otherwise must be repaired in strict accordance with the manufacturer's recommendations.

This includes, but is not limited to; cement mortar and polyethylene pipe linings, Protecto 401, galvanized coatings, PVC fence coatings and other paint type coatings. Specific approval must be obtained from the Park prior to performing coating and lining repairs.

11. All stainless-steel nuts, bolts and hardware referenced in these standards, shall be SS 316 grade and shall be so stamped by the manufacturer to verify alloy. The use of any other stainless-steel alloy will require specific approval by the Park. In general, stainless-steel nuts, bolts and hardware are required in and around lift stations and for facilities installed over or under brackish or marine waters. This requirement applies to flange bolts and nuts on flanged piping, mounting brackets, all thread rod, anchor bolts, washers, clamps and other miscellaneous hardware. Anti-galling compound anti-seize lubricant shall be applied to the threads of all stainless-steel bolts prior to installation. Anti-seize lubricant shall be graphite 50 anti-seize by Loctite Corporation, 1000 anti-seize paste by Dow Corning, 3M Lube and anti-seize by 3M.

12. All rubber and synthetic elastomeric components of products that come in contact with potable water shall be manufactured with chloramine resistant elastomers and shall bear NSF approval.
13. All mains, including fittings, shall be easily identifiable as to their contents and shall be color coded or marked using the universal color code of blue for water, green for sewer and lavender for reclaimed. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape is used to stripe pipe during installation of the pipe, the tape shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Tape shall be vinyl plastic adhesive back with a minimum width of 6 inches. Field application of paint shall not be acceptable.
14. Fire hydrants shall be clearly identified as out of service until mains have been released for service and the Park has verified the system is fully operational.
15. Any lines taken out of service shall be either removed or grouted in place as required. Those lines grouted in place shall be grouted full with an excavatable flowable grout mixture. Shop drawings of the mixture shall be submitted and approved prior to placement.

SECTION III - WATER DISTRIBUTION SYSTEM

- A. BASIS OF DESIGN** - Approval for construction, extension, expansion or use of any community water supply shall be based on the criteria as outlined in Palm Beach County Environmental Control Rule II and the references included therein as well as the following requirements:
1. There shall be no physical connection between a potable water supply and a questionable water supply, or a sanitary or storm sewage system by direct pressure, vacuum, gravity or any other means. All potable water services serving properties with a sewage pump station or an auxiliary water supply shall be provided with an approved reduced pressure backflow prevention device. Permanent dead ends in water mains will not be approved unless it can be demonstrated that looping the system is not feasible. When dead ends are necessary, the Park requires that a flush hydrant be installed on the terminal end.
 2. All water distribution systems shall be looped to the greatest extent possible. Water mains shall have a minimum nominal inside diameter of 6 inches. Water mains having an inside diameter of less than 6 inches will not normally be considered. Oversized water distribution piping which causes water quality problems are prohibited. If a project requires excessive fire flow, the design of the water distribution system will require either dual systems or separate onsite private fire storage and pumping systems.
 3. All buildings over two stories in height or requiring a consistent operating pressure above 40 PSI shall be provided with a domestic water service booster pump which may be located within the building. Drawings of pump and building must be submitted along with the pump calculations.
 4. Building fire sprinkler systems shall be equipped with booster pumps as may be required to comply with applicable fire protection codes.
 5. Approved backflow prevention devices are required on all water services connections (domestic, commercial, fire, irrigation, etc.) in accordance with Park specifications shown in standard details in this manual. Backflow devices shall be installed on the outlet side of the water meter; no tees or other branch fittings are allowed between the water meter and backflow device. In the absence of special circumstances, which would cause a great degree of hazard for cross connections, the following list covers the general backflow device required by customer type;
 - Non-Residential.....Reduced pressure zone device
 - Irrigation.....Reduced pressure zone device
 - Fireline.....Double detector check valve
 - Temporary Water.....Reduced pressure zone device
 6. Valving of all systems shall be designed to facilitate the isolation of each section of pipeline between intersections of the grid system. Generally, the number of valves at an intersection shall be one less than the number of pipes forming the intersection. All valves shall be right hand closed operation; valves 12 inches or greater shall be butterfly valves. Valves shall generally be installed at intervals of not more than 1,500 LF on transmission mains and on all primary branches connected to these lines.
 7. Meter Location:
 - a. Meters shall be set in green area generally at a common property line. Meters and control valves shall be accessible and unobstructed for 4 feet in all directions. This shall include but not be limited to transformers, telephone junction boxes, walls, trees, etc.
 - b. Meters shall not be placed in areas that can be fenced, such as backyards. Meters shall not be placed in any asphalt or concrete surfaced areas (sidewalks, curbs, driveways, etc.).

- c. In commercial areas when no other alternative is available, meters will be allowed in asphalt provided all of the following conditions are met:
 - i. The top of box shall be flush with asphalt surface and located outside of any drainage flowline (i.e. dry surface area).
 - ii. The box shall not be located within parking stalls.
 - iii. The box and lid shall be traffic bearing and shall be placed away from common traffic area. Pipe stanchions may be required under certain conditions.
 - iv. The curb valve box must be installed on main line connection.
- 8. Service lines shall not exceed 75 feet from the main to the meter. Where possible, meter shall be placed in green areas as close to the water main as possible. Service lines covered by paving between the water main and meter will not be acceptable where avoidable.
- 9. Polyethylene service lines shall be solid-wall blue pipe, shall have a co-extruded blue external skin, or shall be white or black pipe with blue stripes incorporated into, or applied to, the pipe wall.
- 10. Water mains including fittings shall be color coded or marked with blue strips or tape. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape is used to stripe pipe during installation of the pipe, the tape shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Tape shall be vinyl plastic adhesive back with a minimum width of 6 inches. Field application of paint shall not be acceptable.

B. HYDRAULIC DESIGN

Hydraulic designs shall be based on pressure data relative to the water pumping facilities which will service the proposed system. Water mains shall be sized such that the maximum velocity of water in the main will not exceed 10 feet per second under fire flow conditions and 15 feet per second in fire hydrant leads without water service connections.

C. INSTALLATION OF WATER MAINS

- 1. Contractor shall comply with Palm Beach County Health Department Technical Memoranda regarding all water main connections to existing system or lines already bacteriologically cleared.
- 2. Installation and testing of water system pipe and fittings shall be in accordance with AWWA Specification C-600 Latest Revision and the Park's Construction Standards and Specifications.
- 3. Any pavement cut shall be replaced in accordance with requirements of the NPBD and in accordance with all other applicable governing agency's permitting requirements.
- 4. Omni Marker #75025 or 3M 1403-1266 blue magnetic markers shall be placed above all fittings, changes in alignment, grade and water services and at the discretion of the Park's representative.
- 5. All loading or unloading of pipe, fittings, valves and accessories shall be done in such a manner so as to avoid damage. The pipe shall not be skidded or rolled against pipe already unloaded. Special precautions should be taken to avoid damage to cement lined fittings and pipe. The interior of all pipes, fittings and other appurtenances shall be kept free of dirt and foreign matter at all times.

6. All mains, valves, bends, tees, crosses, and dead ends shall be restrained with an approved PBPOC restraint joint system. On mains greater than 12 inches, all valves, bends, tees, crosses and dead ends shall be restrained with 2 forms of an approved PBPOC thrust restraint system. Where proprietary restrained joint are not used, tie rods and megalugs are the recommended system. Where adequate space exists, PBPOC may approve the use of thrust blocks.
7. Tie rods used as a method of joint restraint shall be by means of steel tie back bolts, nuts, washers and all thread rods meeting ASTM A-242 requirements (CorTen steel or equal) and painted in accordance with the procedures described herein. Tie rods and nuts shall be equal in diameter to the tee bolts and nuts which were supplied with the applicable fittings. Two tie rods per joint are required for sizes 4 inches diameter through 10 inches diameter, four tie rods per joint for sizes 12 inches diameter through 16 inches and 6 tie rods per joint for sizes 18 inches through 24 inches.
8. Air relief valves shall be installed at the design high points. Installation of air release valves to correct high points caused by improper installation of pipe (not at design grade) will not be permitted.
9. All pipes shall be laid to line in a clean dry trench on line and grade with valves and hydrant stems plumb. All pipes shall have a minimum cover of 30 inches and a maximum cover of 48 inches unless otherwise noted on the plans or required by permit.
10. The trench at the top of the pipe shall be kept to a maximum width of 24 inches plus the pipe diameter. The trench shall have a flat bottom, cut true and even, so that the barrel of the pipe shall bear its full length. Pipe bells will be placed in small pockets specifically excavated to receive the bell. All excavations must be in compliance with OSHA regulations.
11. No rocks larger than 2 inches in diameter or other items that may damage the pipe will be permitted over the pipe. In the event pipe is installed in rock excavation, 6 inches of granular material will be provided for bedding under the pipe. All pipe joints, thrust blocks, conflicts and service connections shall be left exposed until visually inspected and approved by a Park representative.
12. Tapping Sleeves
 - a. Tapping sleeves and tapping crosses shall be of the heavy body ductile iron, mechanical joint type or stainless steel wrap around type as approved.
 - b. All tapping assemblies installed on existing water mains shall be pressure tested and witnessed by the Park's representative prior to the actual tap of the main. The pipe coupon shall be carefully preserved and submitted to the Park's representative. All tapping sleeves shall be installed a minimum of 6 feet from pipe joints.
 - c. All field cuts and tapping operations on pipe shall require careful repair of the particular lining damaged in strict accordance with the manufacturer's recommendations. All materials utilized shall be NSF 61 approved.
13. Fire hydrants shall be dry barrel type without drain installed true and plumb. Hydrant extensions shall not be permitted in new construction.
14. A lightweight high density polyethylene pipe plug shall be required to be on all pipes delivered to the site. The plugs shall remain on both sides of the pipe until pipe is installed to ensure that the pipe will not be contaminated.

D. CLEANING AND FLUSHING

1. Upon completion of the pipe installation for any section, the mains shall be cannon flushed to remove dirt and any other foreign matter by achieving a minimum velocity of 5 feet per second on pipe sizes up to and including 12 inches and 2.5 feet per second on pipe greater than 12 inches. The duration of the flushing shall be sufficient to provide a minimum flush volume equal to three times the internal volume of the pipeline being flushed. Temporary fittings, pipe, etc. may be used to facilitate cannon flushing.
 - a. Prior to the actual line flushing operation, the contractor shall notify the Park's representative of such intended water use. No flushing shall take place without a Park representative present.
 - b. No flushing shall take place until after the 2 inch bypass line and meter is installed and the mains have been filled utilizing the 2 inch meter.
 - c. Flushing will not be scheduled until the Park has approved preliminary record drawings, unless it is required to facilitate construction of water mains.
 - d. The contractor shall exercise due care so as to ensure that the water used in flushing does not cause a nuisance or inflict property damage.
2. Pigging is required for all water mains 16 inches and greater in diameter. The Park may require water mains less than 16 inches in diameter be pigged if the Park or the EOR's representative observes mains being installed under substandard conditions.
3. No existing valves shall be operated, except by Park personnel.

E. TESTING

1. Unless otherwise approved, all hydrant connections, service connections to the curb stop at the meter, and all joints in the water mains shall remain uncovered for visual inspection by a Park representative. The contractor shall only backfill after approval by the Park's representative.
2. The contractor shall provide all necessary equipment such as pumps, gauges and water measuring tanks and shall perform all work required for pipe pressure and leakage test. Pressure and leakage tests shall be made between valves and/or connections for each section tested using the procedure outlined in ANSI/AWWA C-600 Latest Revision and Park requirements. Record drawings in accordance with Exhibit E "Required Information on Record Drawings" must be accepted by the Park prior to scheduling a pressure test. A pretest shall be successfully completed by the contractor and observed by a representative of the EOR prior to scheduling the pressure test with the Park. All other tests shall be made in accordance with these specifications and observed by the EOR and the Park's representative.
3. 1,500 LF shall be the maximum length of main to be pressure and leakage tested at any one time. Testing of isolated portions between valves within the test section may be required by the Park if a portion of that line appears questionable.
 - a. **PRESSURE AND LEAKAGE TEST** - A hydrostatic pressure of 150 psi shall be developed by the contractor, within the section of pipeline to be tested and this pressure (150 psi) shall be held for a minimum time period of one hour.

After successfully completing the pressure test, pressure in the pipeline being tested shall be reduced to 100 psi and that pressure shall be held for an additional one-hour time period. All visible leaks, including damp spots shall be corrected regardless of the results of the pressure and leakage tests.

- b. ALLOWABLE LEAKAGE - Leakage during both the pressure and leakage test shall not exceed the following formula for gasketed pipe:

$$L = (SDP^{1/2} / 148,000) \times 0.5$$

L = Allowable Leakage (gallons per hour). S = Length of Pipe to be Tested (feet)

D = Nominal Diameter of Pipe (inches) P = Average Test Pressure (PSIG)

No allowable leakage for polyethylene pipe

- c. A loss of 5 psi or more during the 150 psi, regardless of the amount of leakage shall be considered a failing test. A loss of 5 psi or more during the 100 PSI, regardless of the amount of leakage shall be considered a failure. A total loss of 10 psi or more for both test combined shall be considered a failing test.
- d. A gain in pressure during the test shall be considered a failing test.
- e. The pressure test shall be considered not acceptable unless all valves servicing hydrants, services, etc. in test section are in the open position.
The system must be completed to the full extent of the approved plans on that portion being tested. The contractor shall provide a 1/2 inch ball valve adjacent to the test pressure gauge for installation of the Park's "check gauge". The use of PVC pipe and fittings for temporary piping for pressure testing is not permitted. Test gauge shall be in 2 pound increments with a minimum 3 inch face.
- f. Failure of the test gauge to zero out upon completion of testing shall be cause for rejection.
- g. The contractor shall, at his own expense, adjust or replace, at the discretion of the EOR, any component of the pipeline which fails the prescribed tests. The pipeline shall then be tested as described above until is successfully conforms to said tests.
- h. All water utilized for the pressure and leakage test shall be potable water with an adequate chlorine residual.
- i. The Park will not schedule the pressure test until pipe has been properly backfilled, compacted and established final grade and as-builts accepted.

F. DISINFECTION

1. Disinfection of mains shall be in compliance with Rules 62-555.340 Florida Administrative Code (F.A.C.) and applicable American Water Works Association (AWWA) disinfection standards (AWWA Standards C651, C652, C653, and C654), which are incorporated by reference in Rule 62-555.330(4), F.A.C.. Each unit of completed supply line and distribution system shall be thoroughly flushed and then disinfected with chlorine. Chlorine may be applied by the following method: Liquid chlorine or a completely dissolved hypochlorite and water mixture. Flushing shall be at sufficient velocity (min. 2.5 ft/sec., where possible) to remove dirt and other foreign matter through fire hydrants or other approved blow-offs. The amount of chlorine then applied shall be sufficient to provide a dosage of not less than 50 mg/l. The chlorine material shall be introduced to the water lines and distribution systems in a manner approved by the EOR and the Park. After a contact period of not less than eight hours, the system shall be flushed with clean water until the residual chlorine content is not greater than 0.2 mg/l free chlorine. All valves in the lines being disinfected shall be opened and closed three times during the contact period. Where necessary, the contractor shall neutralize chlorinated water which has a total chlorine residual of 0.5 mg/l or greater prior to discharging to swales, ponds, canals, storm drains, etc. to prevent environmental damage.

2. The contractor shall install sampling taps required to take all necessary water samples at points designated by the EOR, the Park, Palm Beach County Health Department and FDEP.
3. The contractor shall make all arrangements with a certified testing laboratory to take all water samples required for bacteriological tests and shall maintain continuous running bacteriological sample taps, through a Park approved jumper which will maintain a combined chlorine residual of not less than 0.6 mg/l. Water mains being tested must remain under line pressure, through the approved jumper, after the sample taps are turned off. This procedure shall be followed until the Palm Beach County Health Department issues a release for service of the water lines and distribution system being disinfected. Bacteriological test results will be considered invalid if the results are for samples collected more than 30 days before the results are received by the Palm Beach County Health Department and/or the pressure in the mains is not maintained at 20 psi or greater after the samples are collected.
4. The bacteriological test result report shall include results demonstrating initial chlorine dosage of not less than 50 mg/l (unless witnessed by PBPOC personnel) and two consecutive days of satisfactory bacteriological tests.
5. Palm Beach County Health Department approval including EOR's certification shall be accomplished at the full expense of the contractor/developer and shall be submitted through PBPOC for approval.
6. After release for service is received from the Palm Beach County Health Department and with approval from the Park, the contractor shall remove the approved jumper and cap both saddles with brass plugs. The construction meter utilized for main clearance purposes shall be returned to the Park.

G. WATER SERVICE LINE/METER INSTALLATION

1. Meter curb stops shall be 8 inches below final finished grade.
2. Meter services shall be exposed and ready for the meter to be installed.
3. Service line identification
 - a. All water service line valves shall be exposed by the contractor. One 4 foot high 2 inch X 2 inch pressure treated wood stake shall be put in the earth against the plug when the service connection is backfilled. The stake shall extend 18 inches minimum above grade and shall be broken off only after authorization from the Park. The top 6 inches of the stake shall be painted blue.
 - b. A magnetic marker for water service shall be tied to the terminal end of each water service. Markers shall be Omni Marker #75025 or 3M 1403-1266 blue water marker, or equivalent.
 - c. All magnetic markers shall be returned to the Park at the time of the meter being set.
4. No meter shall be put in service until the appropriate backflow preventer has been installed and is successfully tested by the Park.
5. No meter shall be put in service in areas formerly on a private water supply system until the Park's representative verifies proper physical disconnection from the private system.

H. INSTALLATION - VALVES AND APPURTENANCES

1. Valving of all systems shall be designed to facilitate the isolation of each section of pipeline located between intersections of the grid system.

2. If a distribution system is to be constructed in phases, valves and plugs with a suitable blow-off or hydrant shall be installed at the end of each line that is to be extended.
3. All mains, valves, bends, tees, crosses, and dead ends shall be restrained with an approved Park restraint joint system. On all mains greater than 12" in diameter, 2 forms of thrust restraints or an approved Park restrained joint system shall be utilized at each joint. Where adequate spaces exist thrust blocks may be allowed with Park approval. Thrust blocks shall be used behind all hydrants.
4. When tie rods are used as a method of joint restraint all tie back bolts, nuts, washers and threaded rods shall be constructed of materials that meet ASTM A-242 requirements (Cor-Ten steel or equal) and painted in accordance with the procedures described herein. Tie rods and nuts shall be equal in diameter to the tee bolts and nuts which were supplied with the applicable fittings. Two tie rods per joint are required for sizes 4" through 10" diameter, four tie rods per joint for sizes 12" through 16" diameter and 6 tie rods per joint for sizes 18" through 24" diameter.
5. All valves installed for future connections shall be restrained in accordance with Park specifications.
6. Prior to installation, all butterfly valves shall be tested on site, above ground at 150 PSI. Both sides of disk shall be tested in the presence of an PBPOC representative.

I. MATERIALS (Also Refer To Exhibit D "Shop Specifications List")

1. Pressure Pipe - Water Mains

a. All materials, fittings and appurtenances intended for use in pressure pipe systems shall be designed and constructed for a minimum working pressure of 150 psi unless the specific application dictates a higher working pressure requirement. All brass including, but not limited, to valves, fittings, backflow preventors, corporation stops, and curb stops shall be "no lead" type less than 0.25% lead content. All rubber parts, gaskets, etc shall be chloramine resistant pipe:

- i. Pressure pipe in sizes 4 inch inside diameter and larger shall be ductile iron pipe.
- ii. Ductile iron pipe shall be Pressure Class 51 for sizes up to and including 12 inch and Pressure Class 350 for pipe sizes larger than 12 inch and shall conform to ANSI A21.51 and AWWA C-151. Pipe interior shall have a cement mortar lining.
- iii. Spool pieces for MJ connections shall be a minimum of 18 inches long, outside flange to outside flange.
- iv. Flanged pipe shall have a minimum wall thickness of 0.32 for 4 inch pipe and incremental increases of 0.02 in thickness for each increase in pipe size up to and including 14 inch. Flanged pipe over 14 inches shall require shop drawing submittal to the Park for approval.

b. Fittings:

- i. All pressure pipe fittings of size 4 inch inside diameter and larger shall be ductile iron fittings with mechanical joints, unless the plans specifically call for flanged joints, restrained joints, etc. Mechanical joint fittings shall be used for buried installations. Flanged joints shall be used for aboveground service only.
- ii. Mechanical joint fittings shall conform to ANSI/AWWA C-153/A 21.53. Glands for MJ fitting shall be ductile iron and tee bolts shall be Cor-Ten steel unless otherwise specified. Flanged fittings shall conform to ANSI/AWWA C-110/A21.10 and lined inside and outside as specified for the pipe.
- iii. Full face neoprene gaskets shall be used on all flanged connections. The use of other materials is prohibited.

- c. Thrust Blocks are not allowed.

2. Pressure Pipe - Water Service

- a. The minimum size for single services shall be 1 inch.
- b. The minimum size for double services shall be 1½ inch.
- c. Polyethylene tubing, SDR 9, ASTM D-2737, PE 3408, Cell Classification 355434 C - Latest Revision, copper tube size, with appropriate "Pack Joint" fittings is authorized for 1 inch, 1½ inch and 2 inch services.
- d. Copper tubing shall be type "K" roll copper and fittings shall be of the compression type.
- e. Copper services must be used if organic solvents are likely to be present (i.e. gasoline stations, etc).

3. Water Service - Fittings

- a. All fittings shall be NSF certified lead free.
- b. Only lead free solder and flux shall be used on all soldered joints.
- c. Both double strap tapping saddles and corporation stops shall have AWWA threads.
- d. "Pack Joint" fittings for use with polyethylene pipe shall be provided with stainless steel stiffeners.
- e. Both polyethylene and copper tubing shall be run in one continuous piece, from corporation stop to curb stop (i.e. no fittings between these points).
- f. Curb stops shall be 1 inch (minimum) in size. One inch curb stops with ¾ inch valves shall not be allowed.
- g. Curb stops at the meter shall be provided with locking wings and an appropriate sized drilled swivel meter nut.
- h. Only lead free solder and flux shall be used on all soldered joints.
- i. Where service taps are made under paving or sidewalks special requirements apply which will permit access to the connection to the water main (curb valve boxes, 90° tap orientation).

4. Tapping Sleeves and Saddles

- a. Tapping sleeves and tapping crosses shall be of the heavy body ductile iron, mechanical joint or stainless steel wrap around, as approved by the Park.
- b. Tapping Saddles: No direct taps shall be allowed. All service line taps shall be supplied with corporation stops. Water service taps on the main shall be spaced at a minimum distance of 18 inches. All service taps must be at least 18 inches from a bell or fitting. (90° taps are required for services under paving or sidewalks). Brass double strap tapping saddles shall be used.
- c. All tapping assemblies installed on existing water mains shall be pressure tested and witnessed by the Park's representative prior to the actual tap of the main. The pipe coupon shall be carefully preserved and submitted to the Park's representative. All tapping sleeves shall be installed a minimum of 6 feet from pipe joints.
- d. Connection to existing water mains shall be double valved as approved by the Palm Beach

County Health Department.

- e. Connection to existing water mains requires the approval and direct observation of the Park's representative.

J. FIRE HYDRANTS

1. Fire hydrants shall conform in all respects to AWWA C-502 (Latest Revision) and shall be of the dry barrel breakaway type with two 2½ inch hose nozzles and one 4½ inch pumper nozzle without drains. All nozzles shall be brass with National Standard hose threads. The hydrant shall be provided with an interior valve opening of 5¼ inch with a brass to brass threaded stationary seat. The centerline of the nozzles shall be 18 inches above the finish grade. In addition, the hydrant shall be fitted with a mechanical joint connection per ANSI A 21.11/AWWA C-111 (Latest Revision) with a minimum cover of 30 inches.
2. Each fire hydrant shall be capable of delivering a flow of 1,000 gallons per minute with a residual pressure of not less than 20 psi. Fire hydrant branches (from main to hydrant) shall be not less than 6 inches in diameter. Each branch shall be provided with a gate valve located as close as possible to the main and the hydrant shall be suitably restrained. Separate fire lines shall be valved as close as possible to the main and restrained with adequate thrust blocks. Hydrants shall be located at or near road right- of-way lines with pumper discharge nozzle facing the roadway. No obstruction shall be placed near the hydrant which would prevent maintenance or access. Hydrants that are installed in a vulnerable area shall be protected by 4-inch cement filled DIP stanchions.
3. All fire hydrants shall be free of corrosion and all working parts shall be properly lubricated and the hydrant painted as required by the Park.
4. The contractor shall provide and install only fire hydrants which conform to the above specifications and are specified in Exhibit D "Shop Specifications List".
5. Fire hydrants may be inspected in the field for conformance to the above specifications by the Park and/or other regulatory agencies.
6. Fire hydrant extensions shall not be used in new construction.
7. A 7 ½ foot clear zone around the front and sides, and a 5 foot clear zone around the rear of the fire hydrant shall be maintained.
8. Maintain 15 feet minimum from fire hydrant to all structures.

K. VALVES AND VALVE BOXES

1. Valves smaller than 3 inches shall be bronze ball valves and conform to Federal Specification WW-V-35B, Type II, Class A. Valve must be rated at 600 psi WOG.
2. Valves up to and including 10 inch shall be iron body, bronze mounted, gate valves conforming to AWWA C-500 (Latest Revision) being resilient wedge, non-rising stem type and appropriate ends for horizontal position in line, and shall open left (counter- clockwise) with 2-inch square operating nut. The coating on resilient wedges shall be chloramine resistant.
3. Gate valves shall be carefully inspected, opened wide, and then tightly closed, and all the various nuts and bolts thereon shall be tested for tightness. Special care shall be taken to prevent joint material, stones, or other substances from becoming lodged in the valve seat. Gate valves, unless shown otherwise, shall be set with their stems vertically above the centerline of the pipe.
4. All valves 12 inch and larger used in water mains shall be factory tested and labeled as bi-

directional butterfly valves unless otherwise specified. The valves shall conform to AWWA Standard C-504, Latest Revision and shall be Class 150. All 12-inch and larger butterfly valves shall be tested on site prior to install. Each side shall be tested at 150 PSI in the presence of a Park representative.

5. Check valves shall have a ductile iron body with a bronze or stainless steel to red rubber silicone seating arrangement, non-corrosive shaft. Fireline checks shall have a 300 psi hydrostatic test pressure rating. Check valves smaller than 4 inches shall be bronze, bronze disc, conforming to Federal Specification WW-V-51E, Type 4, Class A, 125 pressure rating.
6. Air release valves installed below grade shall be of the manual type unless otherwise specified by the Park. Air release valves shall be installed in a concrete manhole as shown in the detail and conform to manhole requirements as outlined in Section IV D.
7. Cast iron valve boxes shall be provided for all valves installed underground. The boxes shall be adjustable to fit the depth of earth cover over the valve and shall be designed and installed so as to prevent the transmission of surface loads directly to the valve or piping.
8. Valve boxes shall be carefully centered over the operating nut of the gate valves so as to permit a valve key to be easily fitted to the operating nut. The tops of valve boxes shall be set flush with finished grade, with allowance made for the settlement of surrounding backfill or surface. An 8-inch thick concrete collar shall surround the top of the valve box, as shown on the Park's Underground Valve Installation Construction Detail Drawing.

L. METER AND METER BOX

1. All meters shall be obtained from the Park and remain the property of the Park.
2. A meter fee shall be collected by the Park from the Developer/Customer requesting the desired service prior to the actual installation of the meter.
3. The Park shall furnish and install all meters and meter boxes for meter sizes up to and including 2 inch.
4. The Developer/Customer shall be responsible for resetting the meter box after the meter has been set initially by the Park. Any damage to the meter box or meter set shall be paid for by the Developer/Customer.
5. The design of all 3 inch and larger domestic, fire line and irrigation water meter/backflow prevention device installations shall be handled on a case by case basis. Compound water meters must be utilized for all projects that will have variable water demands. All installations shall conform to the Park's Construction Standards and Specifications. The EOR shall submit detailed drawings covering the proposed installation.
6. The above grade piping of the metering and backflow devices larger than 2 inch shall be coated as outlined in Section II.

M. BACKFLOW PREVENTION DEVICES

The contractor shall provide and install the appropriate type backflow prevention device as specified in Exhibit D "Shop Specifications List".

N. ON-SITE MORTAR/CONCRETE/GROUT MIX

1. All concrete and/or mortar mixed on site (field mixed) for use on any component of the water distribution system shall be made with Type II Portland cement, masonry sand, clean properly

sized aggregate (if required) and clean potable water. In no case shall local on-site sand/dirt, rock or stones or non-potable water be used.

2. When cement asbestos pipe is to be abandoned in place, the pipe must be grouted full by pumping in an approved grout mix. The procedure must comply with all applicable regulations and shall be the Developer's responsibility.

SECTION IV - SANITARY SEWER SYSTEM

A. BASIS OF DESIGN

1. Sizes of gravity sewers, pumping stations and force mains will depend upon industrial and commercial requirements and peak domestic load. Sewage systems shall be designed on the basis of an average per capita daily flow of not less than 100 gallons of sewage or 275 gallons per day per ERC as defined in the Park’s Uniform Extension Policy. On this basis, sewers shall be designed with capacities when running full of not less than 2.5 times the average flow. Special allowance shall be made in each case for sewage from industrial plants and other large non-residential projects.
2. Force mains shall be designed to be full of liquid under all operating conditions whenever possible. Special linings will be required on all piping.
3. Force mains shall be designed utilizing 45 degree bends in lieu of 90 degree bends wherever possible.
4. Industrial wastes from any source, including but not limited to, service station wash-racks, lubrication racks and shop floor drains shall not be connected into the sanitary sewer system without pretreatment specifically approved by the Park.
5. Sanitary sewers shall be designed to flow into the nearest possible Park owned gravity sewer system. Private lift stations and private force mains will not be acceptable unless gravity sewer systems are not available. Availability of gravity sewer will be determined by the PBPOC on a case by case basis.
6. Valving of force mains shall be designed to facilitate the isolation of each section of pipeline. Generally, the number of valves at an intersection shall be one less than the number of pipes forming the intersection. All below grade valves shall be side actuated. Valves shall generally be installed at intervals of not more than 1,500 LF on transmission mains and on all primary branches connected to these lines.
7. Service laterals shall not exceed 75 feet.
8. Clean outs shall not be placed in areas that will be fenced, or where they will be inaccessible.

B. HYDRAULIC DESIGN

1. Size: The minimum allowable size for a gravity sewer main shall be 8 inch.
2. Slopes: All sewers shall be constructed with hydraulic slopes sufficient to give mean velocities, using average day flow through the sewer, of not less than 2.0 feet per second, based on Manning's Formula. For 8 inch to 24-inch sewers, velocities shall be determined using a value of "manning's" of not less than 0.013. The design of oversized gravity sewer pipe to obtain additional reach to avoid deeper cuts or lift stations is strictly prohibited. The following minimum grades are required.

8-inch sewers	0.40%
10-inch sewers	0.28%
12-inch sewers	0.22 %
15-inch sewers	0.15 %
18-inch sewers	0.12 %
21-inch sewers	0.10%
24-inch sewers	0.08 %

3. **Increasing Size:** When sewers are increased in size, or when a smaller sewer joins a larger one, the invert of the larger sewer shall be lowered sufficiently to maintain the same energy gradient. Change in pipe size requires a manhole.
4. **Alignment:** Sewers of all sizes shall be laid with uniform slope and alignment between manholes. Design slopes shall be kept constant from manhole to manhole except where design considerations such as conflicts require deviating slopes. The standard design slope for 8-inch gravity sewers shall be 0.42%. Designs which incorporate excessive slopes to avoid drop manholes will not be approved.
5. **Drop Through Manholes:** The minimum drop through all manholes shall be 0.1 foot.
6. **Minimum manhole depth from invert to finish grade shall be 4 feet. Maximum depth from invert to finish grade shall be 18 feet.**
7. **Ductile Iron Pipe Lining:** Whenever the use of DIP is required for gravity sewers, the pipe shall be lined with polyethylene or Protecto 401, with attention paid to repairs to the lining caused by field cutting the pipe.
8. **Transition from SDR 18 C-900 to SDR 26 PVC is not permitted between manholes. The total run of sanitary sewer line must be of the same class PVC pipe from manhole to manhole.**
9. **Gravity sewer fittings used within the SDR 26 PVC mains shall be PVC injected molded conforming to ASTM 3034 SDR 26 or SDR 35 and shall provide a smooth flow line.**
10. **Force Mains:**
 - a. **Design Friction Losses:** Friction losses through force mains shall be based on the Hazen and Williams Formula and a "C" factor of 120 shall be used for design unless otherwise justified by the EOR.
 - b. **Main Sizes:** Force mains shall not be less than 4 inches inside diameter and designed with a flow velocity of not less than 2.0 feet per second (fps) where possible. Maximum velocity shall not exceed 10 feet per second.
 - c. **Air Release Valve:** An air release valve shall be placed at high points in the force main to prevent air accumulation. The force main must be designed with as few high points as possible to consistently maintain a full pipe. This must be carefully considered when designing profile for force mains.
 - d. **Plug Valves:** Below grade plug valves shall be side actuated gear operator type.
 - e. **Force Mains Discharging into Gravity Systems:** Connections to gravity lines shall require a design such that the force main remains full of liquid at all times, including when pumps are off, wherever possible. Polyethylene or Protecto 401 or Permox CTF lined DIP force mains and fittings will be required.
 - f. **Where private force mains tie to the Park's force main an approved check valve shall be installed on Developer's side of the plug valve.**
 - g. **Pigging is required for all force mains 16" and greater in diameter. The Park may require the force mains less than 16" in diameter to be pigged if the Park or the EOR's representative observes mains being installed under substandard conditions.**

C. INSTALLATION OF GRAVITY SEWER MAINS

1. All sewer pipes shall be true to line and grade with bells facing upstream. The sections of the pipe shall be so laid and fitted together that when complete, the sewer shall have a smooth and uniform invert. All pipe shall be free from defects. Trenches shall be kept dry while the pipe is being laid.
2. Bedding of the pipe shall be on stable materials. Bell holes shall be deep enough to insure proper bearing of the pipe barrel on the bedding.
3. All joints shall be carefully fitted together in the trench in strict accordance with the manufacturer's instructions, so as to ensure a watertight joint. Joints shall not be covered until released by the EOR's representative.

The exposed end of all pipe shall be properly plugged so as to prevent dirt or other debris from entering the pipe.

4. Backfill shall be placed in accordance with the standard trenching detail and all other permitting requirement and compacted to a level 12 inches above the top of the pipe, at which time the completed sections will be visually observed by the EOR's representative. Those portions found acceptable may then be backfilled in accordance with these specifications.
5. Upon completion of the entire system (or a large enough portion to warrant separate testing and approval of record drawing) the contractor shall perform and witness by EOR exfiltration tests, as required by FDEP. EOR shall provide the Park with the test results prior to scheduling a lamping with the Park. All completed sections must meet the minimum requirements shown on these specifications.
6. The contractor shall ensure that all sewer mains and laterals installed are free of grit, sand, rocks, and other debris. As a minimum, all sewer lines shall be flushed clean by the high velocity water jetting method. Velocities of not less than 10 feet per second shall be generated and maintained until each section of main is visibly clear of all debris, at which time the EOR's representative will release all portions of the system which meet all visual and leakage specifications. Contractor shall also be required to vacuum all accumulated deposits from lift station wet well(s) and sewer manholes generated by the cleaning operations.
7. All PVC sewer pipe & fittings shall be green in color.

D. MANHOLES

1. Location: Manholes shall be installed at the end of each sewer; at every change in grade, size or alignment; at all sewer intersections; and at distances not greater than 400 feet for sewers of 15 inches diameter or less, and 500 feet for sewers 16 inches to 30 inches. Manholes shall be placed in accessible locations, preferably in pavement, always flush to the surface. A concrete collar shall be placed around manholes in grassed areas.
2. Drop Manholes: An outside drop pipe shall be provided for a sewer entering a manhole at an elevation of 24 inches or more above the manhole channel invert. In cases where the elevation difference between the inverts is less than 24 inches, a channel shall be constructed to prevent solids deposition in the manhole. Concrete encasement pad for drop connection shall be poured integrally with both manhole base slab and wall.
3. Diameter: All manholes shall be a minimum interior diameter of 48 inches for pipe sizes up to and including 12 inches and a minimum interior diameter of 60 inches for pipe sizes larger than 12 inches with a 30-inch opening at the top of the concentric corbel.

4. Flow Channel: The manhole floor shall have a flow channel made to conform in shape and carrying capacity to that of the sewers. The minimum drop between inverts in all manholes shall be 0.1 foot.
5. Depth: The minimum depth allowed for sanitary manholes shall be 4 feet from finish grade elevation to invert elevation.
6. Pipe Connections: Pipe connections to manholes shall be by couplings, rubber ring water stop cast directly into manhole, or other approved method. Shop drawing of the device shall be submitted to the Park for approval.
7. Openings in the structure shall be either cast in place or core drilled and shall be a minimum of three (3) inches from any joint in the structure.
8. Existing Manholes: After connecting to an existing manhole, the existing manhole interior surface shall be properly prepared and coated with Sewper Coat Calcium Aluminate or Strong Seal High Performance Mix in accordance with manufacturers' instructions.
9. Protection Against Surface Water Inflow: When manholes are placed in areas prone to surface water ponding (e.g. roadway swales, depressed landscape areas, roadway curb areas, low spots on inverted crown roadways or parking lots), the Park will require watertight manhole inserts such as SEWER GUARD or approved equivalent to be installed in these manholes.
10. The interior of all new manholes shall be lined with Agru Sure-Grip HDPE Liner with 3M sealant type 5354 and ADEKA P-201 water stop in strict accordance with manufacturer's instructions. The surface area of the lining shall be checked for pinholes with a high voltage holiday detector at the precast yard prior to job site delivery and shall have notations on the liner the date of spark test and person performing the tests. Prior to placing manholes into service, the lining shall be retested by a certified tester. The lining shall be free of any pinholes. All linings shall have a minimum five (5) year labor and materials warranty including all costs necessary and related to the repair or replacement of the defective application. All testing shall be performed by a tester certified by Agru Liner. Test report for each manhole shall be submitted to the Park prior to acceptance. The report shall include date of testing, equipment used, manhole location, pass or fail, project name, certified tester's name and number along with tester address and contact information. If failed, what corrective measures were taken.

E. LIFT/PUMPING STATION DESIGN

1. If required, the lift/pump station shall meet the criteria/design stipulated in the Seacoast Utility Authority standards.

F. INSTALLATION OF FORCE MAINS

1. Contractor shall comply with Palm Beach County Health Department Technical Memoranda and FDEP.
2. Installation and testing of force main pipe and fittings shall be in accordance with AWWA Specification C-600 Latest Revision and the Park's Construction Standards and Specifications.
3. Any pavement cut shall be replaced in accordance with requirements of the Park's Pavement Replacement Construction Detail Drawing and in accordance with all other applicable governing agency's permitting requirements.
4. Omni Marker #75027 green or 3m 1404-XR green shall be placed above all fittings, changes in alignment, grade, sewer services and at the discretion of the Park's representative.

5. All loading or unloading of pipe, fittings, valves and accessories shall be done in such a manner so as to avoid damage. The pipe shall not be skidded or rolled against pipe already unloaded. Special precautions should be taken to avoid damage to linings and coatings of fittings and pipe. The interior of all pipe, fittings and other appurtenances shall be kept free of dirt and foreign matter at all times.
6. Force main pipe shall have green stripes applied to the pipe wall at the time of manufacturing.

Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape is used to stripe during installation of the pipe, the tape shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Field application of paint shall not be acceptable. Tape shall be vinyl plastic adhesive back with a minimum width of 6 inches. Field application of paint shall not be acceptable.
7. All mains, valves, bends, tees, crosses, and dead ends shall be restrained with an approved Park restrained joint system. On mains greater than 12 inch diameter, 2 forms of an approved Park thrust restraint system shall be utilized at each joint per restraint table. Where adequate spaces exist thrust blocks may be allowed with the Park's approval.
8. When tie rods are used as a method of joint restraint they shall be by means of steel tie back bolts, nuts, washers and all thread rods meeting ASTM A-242 requirements (Cor-Ten steel or equal) and painted in accordance with the procedures described herein. Tie rods and nuts shall be equal in diameter to the tee bolts and nuts which were supplied with the applicable fittings. Two tie rods per joint are required for sizes 4 inch diameter through 10 inch diameter, four tie rods per joint for sizes 12 inch diameter through 16 inch and 6 tie rods per joint for sizes 18 inch through 24 inch.
9. Air release valves shall be installed at the designed high points. Installation of air release valves to correct high points caused by improper installation of pipe (not at design grade) will not be permitted.
10. All pipe shall be laid in a clean dry trench and on line and grade with valves plumb. All pipe shall have a minimum cover of 30 inches and a maximum of 48 inches unless otherwise noted on the plans or required by permit.
11. The trench at the top of the pipe shall be kept to a maximum width of 24 inches plus the pipe diameter. The trench shall have a flat bottom, cut true and even, so that the barrel of the pipe shall bear its full length. Pipe bells will be placed in small pockets specifically excavated to receive the bell. All excavations must be in compliance with OSHA regulations.
12. No rocks larger than 2 inches in diameter or other items that may damage the pipe will be permitted over the pipe. In the event pipe is installed in rock excavation, 6 inches of granular material will be provided for bedding for under the pipe. All pipe joints, thrust blocks, conflicts and service connections shall be left exposed until visually inspected and approved by a Park representative.
13. All joints, thrust blocks and conflicts in the force mains shall remain uncovered for visual inspection by the Park's representative. The contractor shall only backfill after approval by the Park's representative.

14. Tapping Sleeves

- a. Tapping sleeves and tapping crosses shall be of the heavy body ductile iron, mechanical joint type or 316 stainless steel wrap around type as approved.
- b. All tapping assemblies installed on existing force mains shall be pressure tested and witnessed by the Park's representative prior to the actual tap of the main.

The pipe coupon shall be carefully preserved and submitted to the Park's representative. All tapping sleeves shall be installed a minimum of 6 feet from pipe joints.

- c. All field cuts and tapping operations on pipe shall require careful repair of the particular lining damaged in strict accordance with the manufacturer's recommendations.
15. Prior to installation, plug valves 10 inch and larger shall be tested on site above ground at 150 PSI. Both sides of plug valve shall be tested individually in the presence of a PBPOC representative.

G. TESTING

1. Gravity Sewer

- a. Required tests for gravity sewers are: Density Test; Lamp mains; Laser Profile mains that are deemed questionable; Televiser laterals; Exfiltration tests. The maximum allowable exfiltration rate measured by test shall be 50 gallons per inch of pipe diameter per mile per 24 hours for gravity sewer pipe: Infiltration test. Any infiltration or visible leakage, including damp areas on the walls of manholes, will be cause for rejection of these facilities. The infiltration test can be accomplished at the same time as the lamping. All sections of gravity sewer mains and laterals, not meeting these specifications shall be repaired by the contractor and retested at his expense to assure full compliance with these specifications. The repair method to be used shall be approved, in advance, by the Park.

2. Force Main

- a. The contractor shall provide all necessary equipment such as pumps, gauges and water measuring tanks and shall perform all work required for pipe pressure and leakage test. Pressure and leakage tests shall be made between valves and/or connections for each section tested using the procedure outlined in ANSI/AWWA C-600 Latest Revision and Park requirements. A pretest shall be successfully completed by the contractor and observed by a representative of the EOR prior to scheduling the pressure test with the Park. All tests shall be made under the supervision of the EOR and the Park's representative. The use of PVC pipe and fittings for pressure testing is not permitted.
- b. 1,500 LF shall be the maximum length of main to be pressure and leakage tested at any one time. Testing of isolated portions between valves within the test section may be required by the Park, if a portion of that line appears questionable after testing.

3. PRESSURE AND LEAKAGE TEST - hydrostatic pressure of 150 psi shall be developed by the contractor, within the section of pipeline to be tested and shall be held for a minimum time period of one hour.

After successfully completing the 150 psi pressure test, pressure in the pipeline being tested shall be reduced to 100 psi and that pressure shall be held for an additional one hour time period. All visible leaks, including damp spots shall be corrected regardless of the results of the pressure and leakage tests.

4. ALLOWABLE LEAKAGE - Leakage during both the pressure and leakage test shall not exceed the following formula for gasketed pipe:

$$L = (SDP^{1/2} / 148,000) \times 0.5$$

L = Allowable Leakage (gallons per hour). S =

Length of Pipe to be Tested (feet).

D = Nominal Diameter of Pipe (inches). P =

Average Test Pressure (PSIG).

No allowable leakage for polyethylene pipe or glued joint pipe.

- a. Private low pressure residential force main shall be tested at a minimum of 100 PSI for one hour with no loss in pressure.
- b. A loss of 5 psi or more during the 150 psi testing, regardless of the amount of leakage shall be considered a failing test. A loss of 5 psi or more during the 100 psi testing, regardless of the amount of leakage shall be considered a failure. A total loss of 10 psi or more for both test combined shall be considered a failing test.
- c. A gain of pressure during the test shall be considered a failing test.
- d. The pressure test shall be considered not acceptable unless all valves in test section are in the open position. The system must be completed to the full extent of the approved plans on that portion being tested. The contractor shall provide a 1/2 inch ball valve adjacent to the test pressure gauge for installation of the Park's "check gauge". The use of PVC pipe and fittings for temporary piping for pressure testing is not permitted. Test gauge shall be in 2-pound increments with a minimum 4-inch face, Class A1 glycerin filled.
- e. Failure of the test gauge to zero out upon completion of test shall be cause for rejection.
- f. The contractor shall, at his own expense, adjust or replace, at the discretion of the EOR, any component of the pipeline which fails the prescribed tests. The pipeline shall then be tested as described above until it successfully conforms to said tests.
- g. Special testing requirements in accordance with FDEP and Palm Beach County Health Department will be necessary for force mains and gravity sewer systems installed within potable water well zones of influence.
- h. Water for testing force main shall be clean fresh water. In no case shall it be tested with saline, brackish or turbid water.
- i. The Park will not schedule the pressure test until pipe has been properly backfilled, compacted, finish grade established, and as-builts accepted.

H. SERVICE LATERALS

1. Sanitary service laterals shall have a slope of 1.0%.
2. No sanitary services shall connect directly into a manhole.
3. Service laterals shall be no longer than 75 feet from main to property line.

4. Clean outs will be required at the property line. Additional clean outs will be required at changes in direction over 45°, every 75 feet or as required by the appropriate plumbing code or applicable agency.
5. All lateral connections which are for future use shall be properly capped.
6. Clean out stacks shall be continuous pipe with no joints from wye to clean out cap.
7. The upper end of residential service connections shall be laid at a depth not less than 30 inches or more than 48 inches below the finished grade elevation.
8. Service line identification:
 - a. One 4-foot high 2-inch X 2- inch pressure treated wood stake shall be put in the earth against the plug when service connection is backfilled. The stake shall extend 18 inches minimum above grade and shall be broken off only by authorization from the Park. The top 6 inches of the stake shall be painted red.
 - b. A magnetic marker for sewer service shall be tied to the terminal end of each sanitary service. Markers shall be either Omni Marker #75027 or 3M 1403-1265 green sanitary marker, or equivalent.
 - c. EMS markers shall be returned to the Park at the time of sewer tie-in inspections.
9. Minimum size pipe for a single residential service lateral is 4 inch and the minimum size pipe for a double residential service lateral is 6 inch. Minimum size pipe for non-residential service lateral shall be 6 inch.
10. Sewer Tie-in connections - Flexible rubber type connectors (Fernco Couplings with stainless steel stiffener) are permitted only on existing VCP laterals and mains.
11. Clean out at property line shall be accessible and unobstructed for 4 feet in all directions. This shall include but not be limited to transformer, telephone junction box, wall, trees, etc.

I. MATERIALS - (ALSO REFER TO "SHOP SPECIFICATIONS" LIST)

1. Precast Manholes
 - a. Precast manholes shall conform to ASTM C478 and ASTM C-76, Latest Revision, Class II, Wall B, Type II Portland Cement, 4,000 PSI.
 - b. Steel reinforcement shall conform to ASTM A185. Wall thickness shall be 8- inch minimum.
 - c. Precast manholes shall have a minimum 7-day cure time before delivery to the site.
 - d. Any visible reinforcing wire, steel or honeycombs on precast structures shall be cause for rejection.
 - e. The base slab and first ring of the precast manhole shall be cast monolithically and have a minimum height of 26 inches.
 - f. Only concentric corbels shall be used on manholes.
 - g. The minimum diameter of manholes shall be 48 inches with an opening of 30 inches at the top of the corbel.

- h. The exterior walls of manholes, which do not have the interior lined with Agru- Sure – grip, shall have the exterior walls coated with two coats of an approved coal tar epoxy (Kop-Coat 300-M or equivalent) applied in strict accordance with the manufacturer's instructions. Each coat shall be a different color, with the final coat being black and each shall be a minimum of 10-mils D.F.T.

2. Manhole Cover and Frame

The frame shall have a 30-inch opening. The cover shall be two pieces and shall have the words "sanitary sewer" cast into it. Cover and frame shall be U.S. Foundry & Mfg. Corp. Model #230-AB-M; Vulcan Foundry Model #VM-101 or approved equivalent.

3. Gravity Sewer Main and Services

- a. PVC pipe shall conform to ASTM D-3034, SDR 26 (Latest Revision) and shall also meet the requirements of ASTM D-3212 (Latest Revision) on joints for drain and sewer pipe using flexible elastomeric seals.
- b. For finish pipe depths greater than 12 feet utilize AWWA SDR 18 C-900 pipe.
- c. Ductile iron pipe shall conform to ANSI A21.51 and AWWA C-151 Class 51 for sizes up to and including 12 inch and Pressure Class 350 for pipe sizes larger than 12 inch and shall conform to ANSI A21.51 and AWWA C-151. Pipe interior shall have polyethylene lining. Wherever polyethylene, Protecto 401 or Permax CTF lined ductile iron pipe is field cut or tapped the damaged lining shall be repaired in strict accordance with the manufacturer's recommendation. The Park's representative shall be notified when repairs are to be made and shall have the option of being present during repairs.
- d. Fittings shall be compatible with the type of pipe used.
- e. PVC fittings with welded or clamped connections are not permitted.
- f. Flexible rubber type connectors (Fernco Couplings) are permitted only on existing VCP, Cast Iron, Ductile Iron, or other non-PVC laterals and mains.
- g. Clean outs are required at the property line. Where clean outs fall in paving, parking lots or sidewalks a 9 inch cast iron ring and cover is required with the letter "S" cast into it.
- h. All PVC pipe and fittings shall be factory color coded green.

4. On Site Mortar/Concrete/Grout Mix

- a. All concrete and/or mortar mixed on site (field mixed) for use on any component of the sanitary sewer collection/transmission system shall be made with Type II Portland cement conforming to ASTM C 150, clean, uniformly graded, ASTM C33 or ASTM C404, masonry sand, clean properly sized aggregate (if required) and clean potable water. In no case shall local on-site sand/dirt, rock, stones or water be used.
- b. Prior to placing any mortar/concrete/grout mix the new/repaired opening shall first be thoroughly prepared.
- c. No Portland cement accelerators shall be used without written approval from the Park.

5. Pressure Pipe - Force Main

All materials, fittings and appurtenances intended for use in pressure pipe systems shall be designed and constructed for a minimum working pressure of 150 psi unless the specific

application dictates a higher working pressure requirement.

a. Pipe:

- i. All pipe under paved areas (roadway, parking lots, etc.); within public rights-of-way or privately dedicated roadway easements shall be ductile iron pipe.
- ii. Ductile iron pipe shall be Class 51 for sizes up to and including 12 inch and Pressure Class 350 for pipe sizes larger than 12 inch and shall conform to ANSI A21.51 and AWWA C-151. Pipe and fittings must have polyethylene Protecto 401 or Permax CTF lining. Whenever lined ductile iron pipe is field cut or tapped the damaged lining shall be repaired in strict accordance with the manufacturer's recommendations. The Park's representative shall be notified when repairs are to be made and shall have the option of being present during repairs.
- iii. Flanged pipe shall be polyethylene, Protecto 401, or Permax CTL lined and shall have a minimum wall thickness of 0.32 for 4-inch pipe and incremental increases of 0.02 in thickness for each increase in pipe size up to and including 14 inch.
- iv. Flanged pipe over 14 inches shall require shop-drawing submittal to the Park for approval. Pipe shall not be stored in an outside yard more than 1 year from the date the lining was installed.
- v. Spool pieces for MJ connections shall be a minimum of 18 inches long, outside flange to outside flange.

b. Fittings:

- i. All pressure pipe fittings of size four inch inside diameter and larger shall be ductile iron fittings with mechanical joints, unless the plans specifically call for flanged joints, restrained joints, etc. Mechanical joint fittings shall be used for buried installations. Flanged joints shall be used for wet well and above ground service only. Fittings shall conform to requirements or ANSI A21.20 and AWWA C-110 and lined inside and outside as specified for the pipe. Fittings shall not be stored in an outside yard more than 1 year from the date the lining was installed.
- ii. Full-face neoprene gaskets shall be used on all flanged connections. The use of other materials is not permitted.

c. Thrust Blocks (not allowed).

6. Valves:

- a. Adjustable cast iron valve boxes with covers marked "sewer" shall be provided for all valves installed underground.
- b. Plug valves for pipe 4 inches and greater shall have a ductile iron body with a minimum 80% port opening and bi-directional pressure rating.
 - i. Below grade installation shall be mechanical joint only with side actuated gear operator with 2 inch operating nut and standard valve box.
 - ii. Above grade installations shall be flanged with standard 1/4 turn operators.
 - iii. Resilient seat (wedge) valves shall be used with all tapping tees on existing force main installations.

- iv. Wet taps on polyethylene lined DIP will not be permitted.
- c. Air release valves shall be of the automatic type as specified by the Park.
- d. Check valves and swing check valves shall have a ductile iron body with a bronze or stainless steel to neoprene seating arrangement, a non-corrosive shaft with attachment of an outside lever and weight, and a 300-psi hydrostatic test pressure rating.
- e. The valve boxes shall be adjustable to fit the depth of earth cover over the valve and shall be designed and installed so as to prevent the transmission of surface loads directly to the valve or piping.
- f. Valve boxes shall be carefully centered over the operating nuts of the plug valves so as to permit a valve key to be easily fitted to the operating nut. The tops of valve boxes shall be set flush with finished grade, with allowance made for the settlement of surrounding backfill or surface. An 8-inch thick concrete collar shall surround the top of the valve box, as shown on the Park's Underground Valve Installation Construction Detail Drawing.

EXHIBIT "A"

PROJECT DOCUMENTATION AND SUBMITTAL GUIDELINES

A. SERVICE AVAILABILITY

1. Property Questionnaire.
2. Boundary survey of property.
3. Site plan.
4. Fee simple titleholder authorization letter

B. INITIAL SUBMITTAL

1. Documents are not required to be signed and sealed at this time.
2. Preliminary plat with dedication sheet (2 sets).
3. Landscape plans (2 sets) utility easements and water and wastewater facilities must be shown.
4. Fire Marshall approval (1 set) including desired fire flow rate must be shown.
5. Fire flow calculations.
6. Construction Drawings:
 - a. Paving and Drainage (2 sets).
 - b. Water and Wastewater (2 sets).
7. Plumbing, mechanical & HVAC plans for multi-story buildings and non-residential buildings.
8. F.D.E.P. Permit Applications - Water and Wastewater (2 each-draft copies).
9. Right-of-Way Utility Permit Applications (2 each-draft copies).
10. Topographical survey of property.
11. Utility Plan

C. FINAL PLAN SUBMITTAL FOR PBPOC FILES (All documents shall be fully executed, signed and sealed. Number of sets noted below reflects number of sets which will be retained by PBPOC. Additional sets required for permitting).

1. Water and Wastewater Permit Applications - (1 each).
2. Paving and Drainage Plans (1 set)
3. Water and Wastewater Plans (3 sets)
4. Proposed plat with dedication sheet (1 each).
5. Off site easements and Title Insurance Commitment or Title Insurance Policy.

6. Provide survey of existing facilities (above & below ground) within the parameters of the project including but not limited to water, wastewater, drainage, electric, telephone, cable, etc.
7. Developers Agreement and associated items.
8. Landscape plans with municipal approval (2 sets).

D. PRIOR TO PRECONSTRUCTION MEETING (see Exhibit "B" for detailed description of requirements)

1. Right-of Way utility permit(s).
2. Contractor's licenses.
3. Water and Wastewater system Permits.
4. Shop Drawings and Shop Specifications

E. FINAL DOCUMENTATION

1. Reproducible mylar of recorded plat and a digital copy of the plat rotated and translated to State plane coordinates NAD 83, Florida east zone in a DWG and PDF format.
2. Request for Release - Water System with Bacteriological Results (2 sets of originals) less than 30 days from first sample, including two sets of record drawings highlighting all sample points.
3. Certification of Completion (2 sets) - Wastewater System.
4. Two sets record drawings prints signed and sealed by PLS (see Exhibit "E").

F. PRIOR TO CONSTRUCTION METER BEING SET

1. Release for service by Health Department
2. Inspection of water and wastewater system.
3. Submittal of construction meter application.

G. PRIOR TO PERMANENT METER BEING SET OR WASTEWATER SERVICE PROVIDED

1. Inspection of water and wastewater system to verify punch list items were properly corrected.
2. Inspection of sewer lateral tie in and backflow preventer installation.
3. Submittal of meter application and payment of required fees.
4. DWG and PDF file of Record Drawing

H. PROJECT CLOSEOUT

1. Inspection of concrete collars on sewer cleanouts and meter set.
2. Final inspection of water and wastewater system.
3. Once all the above have been completed then service approval will be released to the appropriate building department.

EXHIBIT "B"

PRECONSTRUCTION MEETING PREREQUISITE CHECKLIST

No preconstruction meeting may be scheduled until all of these items are in hand and approved by the Park.

1. FDEP, PBCHD, NPBID and all other applicable permits and approved plans
2. Four (4) copies of the Park's "Shop Specifications" (see Exhibit "D") with selected items highlighted and acknowledged/approved by the Contractor and Engineer.
3. Four (4) copies of shop drawings for manholes and any other appurtenances not covered by "Shop Specifications" requiring submittals approved by the Contractor and Engineer.
4. Completed Contractor's License Verification form (see Exhibit "C") along with copy of license.
5. Contractor's work history, if applicable.
6. All other applicable permits, including but not limited to road right-of-way construction permits, railroad crossing permits, and dewatering permits.

The EOR shall notify in writing and forward a copy of said notification to PBPOC, all applicable utilities and agencies of jurisdiction whose presence will be required at the meeting. A copy of this notice must be received by the Park 72 hours prior to the pre-construction meeting.

EXHIBIT "C"
CONTRACTOR'S LICENSE VERIFICATION

DATE: _____

PROJECT NAME: _____

Name of Company: _____

Address: _____

Telephone No.: _____

Fax No.: _____

The undersigned does hereby certify that the above-named company is licensed by the State of Florida **TO PERFORM UNDERGROUND WATER AND WASTEWATER UTILITY INSTALLATIONS** as required by Florida Statutes and as defined in Florida Administrative Code.

Licensee _____
(Signature)

President _____
(Signature)

Name _____
Please Type

Name _____
Please Type

State License No. _____

Attach copy of license:

EXHIBIT "D"

**PALM BEACH PARK OF COMMERCE
15132 PARK OF COMMERCE BLVD
JUPITER, FL 33478**

**APPROVED MATERIAL LIST
("SHOP" SPECIFICATIONS)**

Project Name: _____

Concurrence of Utility Contractor: _____
Signature Date

Firm

Concurrence of the Engineer: _____
Signature Date

Firm

By signature above, the utility contractor and engineer for referenced project agrees to adhere to both the following product specifications and the Park's Construction Standards and Specifications (latest edition). It is understood that the Park will reject construction not in accordance with this document.

Basis: The following products and specifications have been found to be acceptable and/or desirable in their respective groups. Shop drawings need not be submitted for the Park's approval if the contractor uses products on this list. Any product that is not on this list must be approved in advance by the Park. Such approval requires the submission of sufficient copies (Park will retain two copies) of a shop drawing for each product that has been approved by the EOR. Shop drawings will also be required for all non- standard items including, but not limited to all precast concrete structures, manholes. All material for use in a potable water system shall be NSF61 certified.

CIRCLE ITEMS OF CHOICE.

I. MAIN LINE CONSTRUCTION

A. Pipe - All pipe must be properly labeled.

i. Water Main/Reclaimed Water Main

a. Push on and mechanical joint-DIP, Class 51 through 12" over 12" Class 350, Cement mortar lining AWWA C-151 and C-104. MJ pipe shall require ductile iron glands and Cor-Ten tee bolts.

1. American 2. U.S. Pipe 3. Griffin 4. Clow 5. McWane

b. Flanged DIP Class 53, Cement mortar lining AWWA C-151 and C-104, flanges must be ductile iron.

1. American 2. U.S. Pipe 3. Griffin 4. Clow 5. McWane

- c. Push on Joint PVC pipe, AWWA C-900, SDR-18 min., 235 psi min., NSF-61:
 - 1. JM Manufacturing Company*
 - 2. Diamond Plastic Corporation*
 - 3. Certain Teed*
 - 4. North American Pipe Corp.; NAPCO*
 - 5. IPEX, Inc.**
 - 6. National Pipe and Plastics**
 - 7. Sanderson Pipe**

[*No pipe deflection at joint allowed.]
 [**Up to two (2) degrees deflection at pipe joint is allowed]

- d. Restrained Joint PVC Pipe, AWWA C-900, SDR-18 min., NSF-61:
 - D1. Non-metallic Modular Joint Restraint Design
 - 1. CertainTeed Certalok
 - D2. Belle Integrated Metallic Ring Restraint Design
 - 1. JMM Eagle Lok
- e. HDPE Pipe (Fusible HPDE, PE 4710, AWWA C-906); minimum 40 ft standard lengths, DR-11 minimum, 3” or larger
 - 1. CP Chem
 - 2. JM Manufacturing Company
 - 3. IPEX, Inc.
 - 4. Polypipe by Dura-Line
 - 5. KWH Pipe by Uponor Infra Ltd.

ii. Sanitary Force Main

- a. Push on and mechanical joint-DIP, Class 51 through 12" over 12" Class 350, polyethylene or Protecto 401 lined, AWWA C-151 and C-104. MJ pipe shall require ductile iron glands and Cor-Ten Tee Bolts.
 - 1. American
 - 2. U.S. Pipe
 - 3. Griffin
 - 4. Clow
 - 5. McWane
- b. Flanged DIP Class 53, Polyethylene Protecto 401, or Permax CTF lined AWWA C-115 and C-104. Flanges must be ductile iron. (The lining must be installed at pipe manufacturing plant.)
 - 1. American
 - 2. U.S. Pipe
 - 3. Griffin
 - 4. Clow
 - 5. McWane
- c. Push-on Joint PVC pipe, AWWA C-900, SDR-18 min., 235 psi min., NSF-61:
 - 1. JM Manufacturing Company*
 - 2. Diamond Plastic Corporation*
 - 3. CertainTeed*
 - 4. North American Pipe Corp.; NAPCO*
 - 5. IPEX, Inc.**
 - 6. National Pipe and Plastics**
 - 7. Sanderson Pipe**

[*No pipe deflection at the joint allowed. **Up to two (2) degrees deflection at pipe joint is allowed.]

- d. Restrained Joint PVC Pipe, AWWA C-900, SDR-18 min., NSF-61:
 - D1. Non-metallic Modular Joint Restraint Design
 - 1. CertainTeed Certalok
 - D2. Belle Integrated Metallic Ring Restraint Design
 - 1. JMM Eagle Lok.
- e. HDPE Pipe (Fusible HPDE, PE 4710, AWWA C-906); minimum 40 ft standard lengths, DR-11 minimum, 3” or larger

- | | |
|----------------------------------|-----------------------------|
| 1. CP Chem | 2. JM Manufacturing Company |
| 3. IPEX, Inc. | 4. Polypipe by Dura-Line |
| 5. KWH Pipe by Uponor Infra Ltd. | |

iii. Gravity Sewer Main

a. Pipe

1. PVC - ASTM D-3034, SDR 26, For 12' and deeper cut or where plans require use SDR18 AWWA C-900. Transition from SDR 18 to SDR 26 not permitted in run between manholes, Factory color coded green.
2. DIP - Class 51 through 12" over 12" Class 350 AWWA C-151 polyethylene, Protecto 401, or Permax CTF lined must be used in areas requiring special structural integrity.

- | | | | |
|-------------|--------------|------------|-----------|
| 1. American | 2. U.S. Pipe | 3. Griffin | 4. McWane |
|-------------|--------------|------------|-----------|

b. Manhole Cover (Double Cover Type)

1. U. S. Foundry Model #230-AB-M
2. Vulcan Foundry Model #VM-101

B. High Density Polyethylene Pipe (HDPE) Water Main / Force Main

i. High Density Polyethylene Pipe (HDPE), greater than or equal to 3"

- a. CP Chem – Performance Pipe
- b. JM Manufacturing Company
- c. WL Plastics
- d. ISCO
- e. ENDOT
- f. Charter Plastics

ii. HDPE/DIP Electro-Fusion Couplings and Fittings

- a. GT/Central Plastics Company
- b. Ipex Friatec
- c. Integrity Fusion Products

iii. HDPE/DIP MJ Adapter

- a. Improved Piping Products, Inc.
- b. GF/Central Plastics Company
- c. Integrity Fusion Products

iv. Stainless Steel Stiffening Inserts for HDPE Pipe Restraint, greater than or equal to 3"

- a. Cascades
- b. JCM 231

C. Valves and Fittings - All rubber and synthetic elastomeric components of products that come in contact with potable water shall be manufactured with chloramine resistant elastomers.

- i. Resilient Seat Gate Valves AWWA C-509, C-515 (Wedge material to be EPDM. EPDM to be clearly stamped on wedge)

- a. American
 - b. U.S. Pipe
 - c. Mueller
 - d. Clow
 - e. Kennedy
- ii. Butterfly Valves C-504 12 inch and larger (Ductile iron body, bi-directional, and seat material shall be EPDM. Valve shall clearly identify that seat material is EPDM and is bi-directional)
- a. Mueller Lineseal
 - b. Pratt
 - c. M&H 4500 12"-24" 1450-30"
 - d. GA Series 800
- iii. OS & Y Valves (Flanged - Above ground fire line use only – wedge material to be EPDM. EPDM to be clearly stamped on wedge)
- a. Valves shall be resilient seat and equipped with bronze follower packing gland and bronze follower studs and nuts. (Cast iron and/or cadmium-plated steel are not acceptable). AWWA C-509.
 - 1. U. S. Pipe
 - 2. American
 - 3. Kennedy
 - 4. Clow
- iv. Plug Valves (Minimum 80% port opening, bi-directional Ductile Iron Body)
- a. Below grade - mechanical joint, side actuated with 2" square operating nut
 - 1. Kennedy
 - 2. GA Eco-Centric
 - b. Above grade - flanged 4" to 8" - top activated with 2" square operating nut. Ten inch and larger, wheel operated
 - 1. Kennedy
 - 2. GA Eco-Centric
- v. Insertion Valves
- a. Team Insert Valve
 - b. Hydra-Stop Insert Valve 250 Patriot Series
- vi. Tapping Sleeve and Valve
- a. Tapping sleeves for water mains.
 - 1. For use on 4" to 24" cast iron, ductile iron, and PVC. 316 stainless steel construction required, including outlet flange.
 - a. Ford FTSS
 - b. JCM 432
 - c. Mueller H304
 - d. Cascade CST-EX
 - e. JCM 452
 - 2. For use on 12" and larger cast iron or ductile iron mains.
 - a. Mueller H-615

- b. American Series 2800-C
 - 3. Sanitary Sewer Force Main (316 stainless steel body, bolts and outlet).
 - a. JCM 432
 - b. Tapping Valves
 - 1. Water (Resilient seat - Wedge material to be EPDM. EPDM to be clearly stamped on wedge).
 - a. Mueller
 - b. American
 - c. Kennedy
 - d. Glow
- vii. Check Valves
 - a. Meter assembly bypass ≥ 3 inches (spring loaded) with red silicone rubber seats
 - 1. Ames 2000 SS
- viii. Air Release Valves
 - a. Potable main 1" inlet
 - 1. Val-Matic Model #25 2. Crispin Model # PL10 3. APCO Model #200A
 - b. Force Main 2" Inlet
 - 1. Val-Matic Model #48 A with 316 SS internal hardware
 - 2. APCO Model #400
- ix. Fittings, AWWA C-104 AWWA C-110, Mechanical joint fitting to be compact ductile iron (Class 350 AWWA C-153) only. Glands for MJ fittings shall be ductile iron and tee bolts shall be Cor-Ten steel. Flange fittings AWWA C104 AWWA C110. Epoxy control fittings shall also meet or exceed ANSI/AWWA C550 and C116/AZI 116.
 - c. Cement lined for water main use
 - d. Polyethylene, Protecto 401, or Permax CTF lined for force main use
 - e. Full face neoprene gaskets shall be required on all flanged fittings.
 - f. Flange bolts on flanged connections inside lift station wet wells shall be 316 stainless steel.
 - 1. Tyler/Union 2. Sigma 3. SIP 4. Star 5. Griffin
- x. Transition Couplings - Ductile iron body and glands only with ductile iron or stainless-steel nuts and bolts and EPDM gaskets.
 - a. Ford FC2A-EPDM-SH
 - b. Mueller Maxi-Range
- xi. Fire Hydrants (AWWA C-502 "traffic type" break away flange, no cut bolts, non-rising stem dry barrel; 5-1/4 inches main valve opening; bronze to bronze seating) no drain.

- a. Mueller Super Centurion
 - b. Kennedy K-81 D (Guardian)
 - c. American Flow Control B-84-B
 - d. Clow Medallion F-2545 No Drain
- xii. Tie Rods - all valves, hydrants, tees, joints and other appurtenances which are restrained by means of tie back bolts, nuts, washers and all thread rods shall meet ASTM A-242 requirements (Cor-Ten steel or equivalent) and painted in accordance with Authority's specifications. Tie back bolts shall be Star Model SST 753 of Cor-Ten steel or approved equivalent. All tie rods shall be a minimum 3/4" diameter; the use of rebar with welded thread is prohibited. Two tie rods are required per joint for pipe sizes 4" through 10". A minimum of four tie rods are required per joint for pipe sizes 12" and larger.
- xiii. Self-restraining gaskets for push on PVC
- a. U.S. Pipe - "Field Lok"
 - b. American - "Fast Grip"
 - c. McWane – "Sure Stop 350"
- xiv. Restrained mechanical joint gland
- a. Ebaa Iron - "Megalug" (all sizes)
 - b. Sigma – One Lok (all sizes)
 - c. Star Pipe – Stargrip 3000 (sizes through 24")
 - d. TUF Grip (4" through 12")
 - e. American
- xv. Casing Pipe Spacers
- a. Cascade MFG. Co.

II. SERVICE LINE CONSTRUCTION

A. Pipe

- i. Water Service – 3/4", 1", 1 1/2", or 2"
 - a. JM Eagle PE4710, SDR9 Copper Tube Size Polyethylene tubing
 - b. Type "K" copper tubing
- ii. Sanitary Sewer Service Lateral – factory color coded green
 - a. PVC (conforming to ASTM D3034, SDR 26)
 - b. SDR 18 AWWA C-900 PVC pipe shall be required for services connecting to deep sanitary sewer main.

B. Fittings

- i. Water Service - Standard (Service under paving requires shop drawing submittal on corporation stop, and curb valve box, curb and corporation stop shall be same manufacturer).
 - a. Polyethylene tubing - "Pack-Joint" fittings, or equal with stainless steel inserts.
 - b. Type "K" copper tubing
 - 1. Cast brass solder joint fittings, or equal for above ground backflow prevention device installation.

2. Both lead free solder and flux shall be used on all solder joints.
3. Ford Compression fittings
 - i. Ball Valve Branch - Ford UVB43-42W-65
 - ii. "Y" Branch - Ford Y44-264 NL 65 (Brass)
- c. Service Saddles (Brass double strap saddle only, AWWA Threads)
 1. Mueller
 2. Ford 202B
 3. Romac Style 202B
 4. A.Y. McDonald 3825 Series
 5. Smith-Blair 325
- d. Corporation Stops (AWWA Inlet Threads x compression, lead free)
 1. A.Y. McDonald Mfg. Co. Model #4101B-22
 2. Ford - FB 1000 – 4 NL for 1" inlet & outlet
 - i. FB 1000 - 6 NL for 1 ½"
 - ii. FB 1000 - 7 NL for 2"
 3. Mueller Co. Model # P2500
- e. Curb Stops (Locking wings & drilled meter nut, lead free)
 1. Ford Straight Ball Meter Valves
 2. Mueller Model #300
 3. McDonald Model 6100 MW-22
- ii. Gravity Sewer Service Fittings – factory color coded green or white
 - a. PVC injection molded conforming to, and compatible with ASTM 3034 SDR 26 or SDR 35 PVC pipe
 - b. SDR 18 AWWA C-900 PVC pipe shall be required for services connecting to deep sanitary sewer mains
 - c. Miscellaneous
 1. Sanitary clean-out cover – cover to be cast with "S" in the center.
 - i. US Foundry No. 7621 Reversible Handhole ring and cover

III. BACKFLOW PREVENTION DEVICES - All backflow prevention devices shall be USC approved.

- A. Reduced Pressure Backflow Preventer – Non-residential, multi-family, or residential with three or more units. Supply with chloramine resistant elastomers lead free brass with silicone rubber seal rings or disks.
 - i. ¾" to 2"
 - a. Watts Model LF919
 - b. Ames Model LF400B
 - c. Wilkins 975 XL2
 - d. Apollo Model RPLF 4A
 - ii. 4" and larger
 - a. Apollo Model RPL 4A, 4" to 12"
 - b. Ames Model 4000 SSSR, 4" to 10"

- c. Ames Model 4000 SSI, 4" to 10"
 - iii. Apollo Model RPL 4A 4" to 12"
 - B. Dual Reduced Pressure Backflow Preventer – supply with chloramine resistant elastomers, lead free brass.
 - i. Apollo 4ALFO4 – union ball valves ¾" – 2"
 - ii. Zurn Wilkins 975 XL2U – union ball valves ¾" – 2"
 - iii. Zurn Wilkins 975XL2V – union swivel elbows ¾" – 1"
 - C. Double Detector Check Valve with Bypass Valve, Check Valve and Meter Assembly – Firelines only. Supply with chloramine resistant silicone rubber seal rings or disks lead free brass, OSY x Flg OSY.
 - i. Watts Model 774 DCDA Series 994
 - ii. Apollo Model DCDA LF 4A (4"-12")
 - iii. Ames Model 3000 SSR
 - iv. Ames Model 3000 SSI
 - D. Double check valve assembly for emergency master meter bypass assembly with chloramine resistant silicone rubber seal rings or disks, Flg NRS x Flg NRS
 - i. Ames 2000 SS

IV. PIPELINE MARKING TAPE

- A. Vinyl plastic tape PVC backing material with rubber based adhesive, minimum 6 inch width, 0.006 inches in thickness, 20.0 lb inch Tensile strength. Wording, minimum 5/8 inch in height. Wording and color according to application.
 - i. Proline Safety
- B. Adjustable cast iron tracer wire access box with stainless steel terminal connectors.
 - i. Valco, Model TWABADJ18

V. MAGNETIC MARKERS

- A. OMNI 75027
- B. 3M 1404-1265

VI. ADJUSTABLE VALVE BOX (2 piece – 5' 4")

- A. Tyler
- B. Proselect

EXHIBIT “E”

The PBPOC

RECORD DRAWING SUBMITTAL GUIDE

The following shall be used as a guide for submittal of record drawings to Seacoast Utility

1. Two (2) sets of prints shall be submitted by the EOR to the Park for review prior to scheduling inspections such as, but not limited to, pressure test, sanitary sewer lamping or any other element of the system which is determined necessary by the Park. The drawings shall have been reviewed by the EOR for deficiencies.
2. The drawings will be reviewed by the Park for deficiencies. Deficiencies will be indicated on one (1) set of prints which will be returned to the EOR for necessary corrective action.
3. Elevations shall be provided in NAVD 1988 Datum. A conversion table to NGVD 1929 shall be provided on each plan sheet of the drawing set.
4. After final inspection and upon acceptance of as-built data, two (2) prints (signed and sealed by a Florida registered land surveyor) a PDF file of the record drawing rotated and translated to state plane coordinates to the nearest hundredth's (2 decimal places) NAD 83, Florida East Zone.
5. No disclaimers on drawings will be accepted.

The attached list of required information is to be used as guide for submittal of Record Drawings to the Park. Additional information may be required by the Park if it is determined by the Park that the information supplied would be insufficient for a utility worker, with no surveying experience, to be able to locate mains, fittings, etc. The submittal record drawings shall meet Chapter 61 G17-6 Minimum Technical Standards. As noted in Section 61 G17-6.003, the public must be able to rely on the accuracy as noted in Section 61 G17-6.005

- (a) When performing as-built or record surveys, the surveyor and mapper shall obtain field measurements of vertical or horizontal dimensions of constructed improvements so that the constructed facility can be delineated in such a way that the location of the construction may be compared with the construction plans, and when the surveyor and mapper prepares as- built maps they will clearly show by symbols, notations, or delineations, those constructed improvements located by the survey. All maps prepared shall meet applicable minimum technical standards.
- (b) The vertical and horizontal accuracy shall be such that it may be determined whether the improvements were constructed consistent with planned locations.
- (c) Northerly and Easterly coordinates on all field obtained measurements and provided on all record drawing submittals.

REQUIRED INFORMATION ON RECORD DRAWINGS

GENERAL

1. Drawings on 24" x 36" that will reproduce legibly.
2. Label drawings "Record Drawings" with date.
3. Complete title block with current file name.
4. Location sketch.
5. Correct Street/Road names.
6. GPS collected as-built information to be in DFX file format.
7. All record information shall be denoted by either a cloud or bold print. Design information shall be crossed out.
8. Profile as-builts required on projects where profiles were part of approved construction plans.
9. Utility Easements – with ties of facilities to easement lines.

GRAVITY SEWER

1. As-built distance of gravity main from centerline of road or easement right-of-way line, buildings, or as determined by the PBPOC. Extensions of an imaginary line will not be acceptable as reference points.
2. Type of materials installed - mains and services.
3. Stationing of each manhole.
4. Stationing of each sewer service wye from sewer nearest manhole and off set distance and stationing of cleanout from sewer main.
5. As-built elevations - each invert.
6. As-built rim elevation.
7. As-built sewer slope.
8. As-built sewer inverts and finished grade at clean outs.
9. As-built crossing elevations including sewer service lines.
10. As-builts information shall include plan and profile.

PRESSURE PIPE

1. As-built distance of mains at 100' intervals from centerline of paved road, easement, right-of-way, buildings, wastewater main or as determined by the PBPOC. Extensions of an imaginary line will not be acceptable as reference points.
2. As-built elevations at 100' intervals as well as any change in direction and/or elevation. Elevations shown at these intervals and changes must show top of pipe elevation and finished grade elevation at that location.
3. Stationing offset, top of pipe, and finished grade of each valve, fitting, air release valve, service line, taps, plugs, etc. and radial dimensions from a nearby permanent object.
4. Type of materials installed - pipe and appurtenances. Indicate all locations of change of material including joint type (MJ, slip, restrained).
5. Valve type (butterfly, gate, and plug).
6. As-built length of all jack and bore casings or directional mores indicating distance from centerline of paving to each end of casing. As-built invert and top of casing elevation of each end of casing as-built finish grade of each end of casing. As-built distance from each end of casing to limits of mechanical joint pipe is also required.
7. As-built all crossing information between utilities including bottom of pipe, top of pipe, size and type.
8. Provide as-built information on plan and profile when profile is included in original plans.
9. As-built lengths of water service lines.
10. As-built fire hydrant locations and type of hydrant used including flange grade.
11. As-built all flush hydrants and size, if any.
12. Size of mains, service lines, backflows, meters, etc.
13. As-built blow up detail may be required of congested areas to ensure readability.

EXHIBIT "F"

**CONSTRUCTION DETAILS
GENERAL DETAILS**

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EXISTING	PROPOSED	
		BEND
		TEE
		VALVE
		REDUCER
		FIRE HYDRANT
		WATER MAIN
		SAMPLE POINT
		SINGLE WATER SERVICE WITH METER
		SPRINKLER HEAD (IRR)
		SANITARY SEWER ELEVATIONS
		FORCE MAIN
		MANHOLE
		SANITARY SEWER
		SINGLE SANITARY SERVICE
		CLEAN OUT
		GAS MAIN
		STORM SEWER ELEVATIONS
		STORM SEWER
		POWER POLE
		LIGHT POLE
		GUY WIRE & ANCHOR
		BACKFLOW PREVENTER ASSEMBLY

PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

Symbols

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
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STANDARD WATER AND SEWER SEPARATION STATEMENT

1. STORM SEWER, GRAVITY WASTEWATER AND FORCE MAINS CROSSING UNDER POTABLE WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE (12) INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE CROWN OF THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED BETWEEN GRAVITY SEWER OR STORM SEWER, THE CROSSING SHALL BE ARRANGED SO THAT THE STORM/GRAVITY SEWER PIPE JOINTS AND POTABLE WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN SIX (6) FEET BETWEEN ANY TWO JOINTS, BOTH PIPES SHALL BE D.I.P., AND THE MINIMUM VERTICAL SEPARATION SHALL BE SIX (6) INCHES. WHERE THERE IS NO ALTERNATIVE TO STORM/WASTEWATER/FORCE MAIN MAINS CROSSING OVER A POTABLE WATER MAIN, THE CRITERIA FOR MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN LINES AND JOINT ARRANGEMENT, AS STATED ABOVE, SHALL BE REQUIRED, AND BOTH PIPES SHALL BE D.I.P. IRRESPECTIVE OF SEPARATION, IN ALL OF THE ABOVE CASES D.I.P. IS NOT REQUIRED FOR STORM SEWER PIPE.
2. FORCE MAINS CROSSING STORM SEWER SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE (12) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND THE OUTSIDE OF THE STORM SEWER.
3. AT THE UTILITY CROSSING DESCRIBED IN ITEMS 1 AND 2 ABOVE, ONE FULL LENGTH OF DUCTILE IRON WATER MAIN PIPE SHALL BE CENTERED SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE JOINTS. WHERE THIS IS NOT POSSIBLE, JOINTS SHALL BE AT LEAST THREE (3) FEET FROM STORM SEWERS AND SIX (6) FEET FROM GRAVITY SEWER MAINS AND FORCE MAINS.
4. SEWER SERVICE LATERALS SHALL CROSS UNDER WATER MAINS WITH A MINIMUM VERTICAL SEPARATION OF TWELVE (12) INCHES. IF 12" VERTICAL SEPARATION CANNOT BE MAINTAINED, THEN THE WATER MAIN SHALL BE D.I.P. AND THE SEWER SERVICE LATERAL SHALL BE C-900 SDR 18 OR BETTER AND THE MINIMUM SEPARATION SHALL BE SIX (6) INCHES. WHEN IT IS NOT POSSIBLE FOR THE WATER MAIN TO CROSS OVER THE SEWER SERVICE LATERAL A MINIMUM VERTICAL SEPARATION OF AT LEAST TWELVE (12) INCHES MUST BE MAINTAINED, THE WATER MAIN SHALL BE D.I.P. AND THE SEWER LATERAL SHALL BE C-900 SDR 18 OR BETTER.
5. MAINTAIN MINIMUM TEN (10) FEET HORIZONTAL DISTANCE BETWEEN POTABLE WATER MAIN OR FORCE MAIN, STORM SEWER OR GRAVITY SEWER MAIN OR ON SITE SEWAGE DISPOSAL SYSTEMS. ADDITIONAL SEPARATION MAY BE REQUIRED AS DETERMINED BY THE LDRB.

Water and Sewer Separation Statement

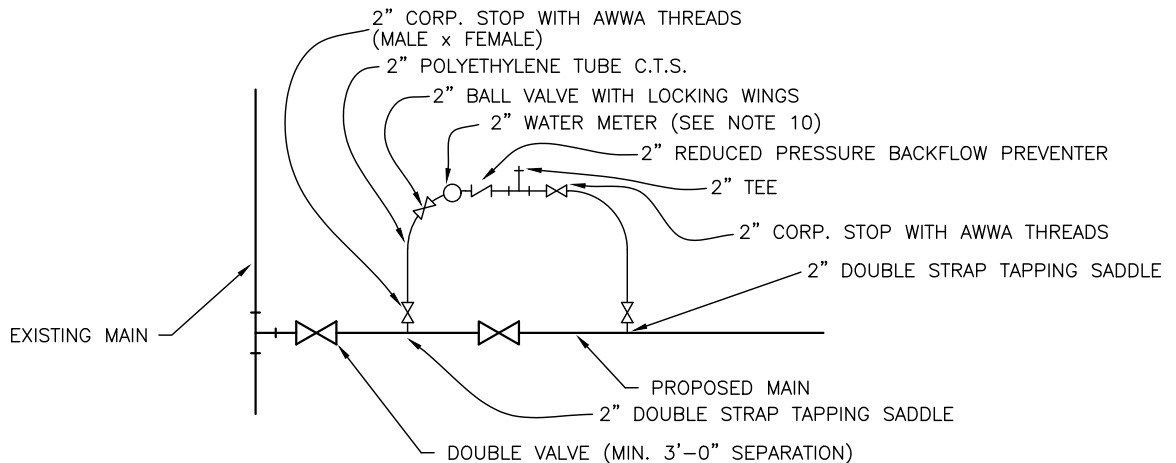
PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. THIS METHOD SHALL BE COMPLIED WITH WHEN CONNECTING TO AN EXISTING WATER MAIN, (ONE THAT HAS ALREADY BEEN BACTERIOLOGICALLY CLEARED OR IS IN USE) WHETHER BY TEE AND VALVE OR BY CONTINUATION OF A PLUGGED STUB OUT WITH AN EXISTING GATE VALVE.
2. THESE REQUIREMENTS ARE BASED ON PALM BEACH COUNTY HEALTH DEPARTMENT REQUIREMENTS.
3. WHEN A TAPPING TEE AND VALVE IS INSTALLED, A PRESSURE/LEAKAGE TEST SHALL BE PERFORMED ON THE ASSEMBLY IN THE PRESENCE OF AN AUTHORIZED POAPWS REPRESENTATIVE PRIOR TO PERFORMING THE ACTUAL TAP.
4. ALL TAPS ON PIPE SIX (6) INCH IN DIAMETER AND LARGER SHALL BE INSTALLED AT THE CENTER/MIDDLE OF A LENGTH OF PIPE.
5. DOUBLE VALVING PERMITS PHYSICAL CONNECTION TO AN EXISTING WATER MAIN WHEN USED IN CONJUNCTION WITH A BYPASS LINE.
6. A 2" BYPASS LINE (MAXIMUM) SHALL BE INSTALLED AS SHOWN BELOW PRIOR TO CANNON FLUSHING.
7. THE 2" TEE SHALL BE USED FOR FEEDING CHLORINE SOLUTION AND FOR ATMOSPHERIC VENT DURING PRESSURE/LEAKAGE TESTS.
8. UNDER NO CIRCUMSTANCES SHALL VALVES BE OPERATED WITHOUT AN AUTHORIZED POAPWS REPRESENTATIVE PRESENT.
9. ALL WATER MAINS SHALL BE FILLED WITH WATER UTILIZING JUMPER METER AND THEN BE THOROUGHLY CANNON FLUSHED IN ACCORDANCE WITH PBPOC POA SPECIFICATIONS PRIOR TO PRESSURE/LEAKAGE TESTING. THE PROCEDURE SHALL BE DONE ONLY IN THE PRESENCE OF AN AUTHORIZED POAPWS REPRESENTATIVE.
10. FOLLOWING INITIAL CANNON FLUSHING, ALL WATER FOR PRESSURE/LEAKAGE TESTING AND BACTERIOLOGICAL CLEARANCES MUST BE DRAWN FROM THE BYPASS LINE WITH METER AND REDUCED PRESSURE BACKFLOW PREVENTER IN PLACE. THE WATER METER SHALL BE PROVIDED BY THE PBPOC POA. ALL WATER USED FOR CONSTRUCTION PURPOSES SHALL BE IN ACCORDANCE WITH THE PBPOC POA UNIFORM SERVICE POLICY. METER, BALL VALVE, REDUCED PRESSURE BACKFLOW PREVENTER AND TEE SHALL INSTALLED AT LEAST 18" ABOVE EXISTING GRADE, SUPPORTED, AND PROTECTED FROM DAMAGE. ANY DAMAGE SHALL BE APPLICANT'S RESPONSIBILITY AND SHALL BE CHARGED ACCORDINGLY.
11. EXCEPT DURING CANNON FLUSHING VALVES SHALL NOT BE OPENED UNTIL AFTER AN APPROVED PRESSURE/ LEAKAGE TEST, BACTERIOLOGICAL CLEARANCE, CERTIFICATION BY THE ENGINEER OF RECORD, RELEASE FROM THE PALM BEACH COUNTY HEALTH DEPARTMENT AND APPROVAL BY POAPWS.
12. DISINFECTION AND BACTERIOLOGICAL CLEARANCES SHALL COMPLY WITH CURRENT AWWA PROCEDURES, PALM BEACH COUNTY HEALTH DEPARTMENT, AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.



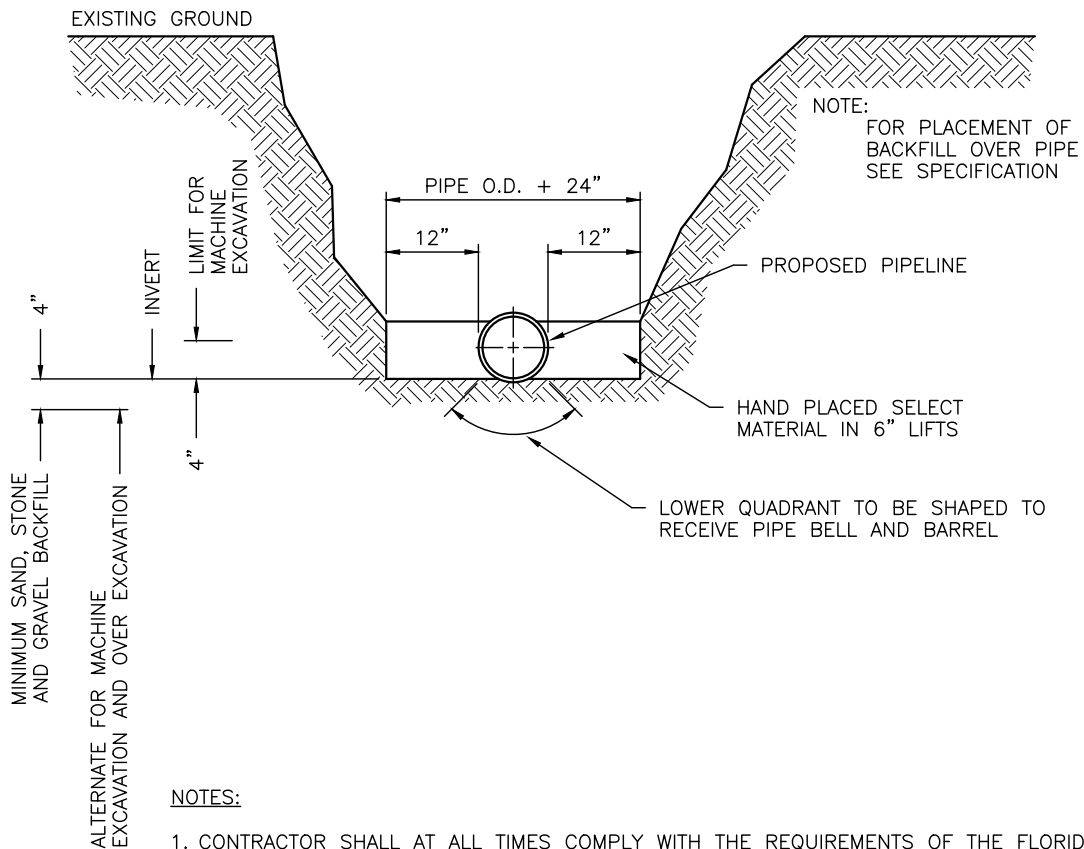
Tapping and Main Clearing Procedure

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
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(PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)



1. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
2. EXCAVATION, SIDE SLOPE SHORING, ETC. SHALL CONFORM TO O.S.H.A. STANDARDS. COMPACT TRENCH BACKFILL TO 98% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-180. DENSITY TESTS SHALL BE TAKEN AT TWELVE (12) INCH LIFTS EVERY 100' IN PUBLIC RIGHT-OF-WAY AND 200' IN EASEMENTS
3. FOR PLACEMENT OF BACKFILL OVER PIPE SEE SPECIFICATION

Standard Trenching Procedure

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PUSH ON JOINT PIPE RESTRAINT REQUIREMENTS AT FITTINGS, VALVES AND DEAD ENDS

PIPE SIZE	90° BEND	45° BEND	22½° BEND	11¼° BEND	REDUCER	VALVE	DEAD END	TEE
4"	54'	54'	36'	36'	54'	72'	72'	72'
6"	54'	54'	36'	36'	54'	72'	72'	72'
8"	54'	54'	36'	36'	54'	72'	72'	72'
10"	54'	54'	36'	36'	54'	108'	108'	108'
12"	72'	72'	54'	54'	72'	108'	108'	108'
14"	72'	72'	54'	54'	72'	108'	108'	108'
16"	72'	72'	54'	54'	72'	154'	154'	154'
18"	72'	72'	54'	54'	72'	154'	154'	154'
20"	90'	90'	54'	54'	90'	154'	154'	154'
24"	90'	90'	54'	54'	90'	172'	172'	172'
30"	90'	90'	54'	54'	90'	180'	180'	180'
36"	90'	90'	54'	54'	90'	270'	270'	270'
42"	108'	108'	54'	54'	108'	270'	270'	270'
48"	108'	108'	54'	54'	108'	270'	270'	270'
54"	108'	108'	54'	54'	108'	270'	270'	270'

MINIMUM LENGTH OF PUSH ON JOINT PIPE WITH SPECIAL RESTRAINING GASKETS

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

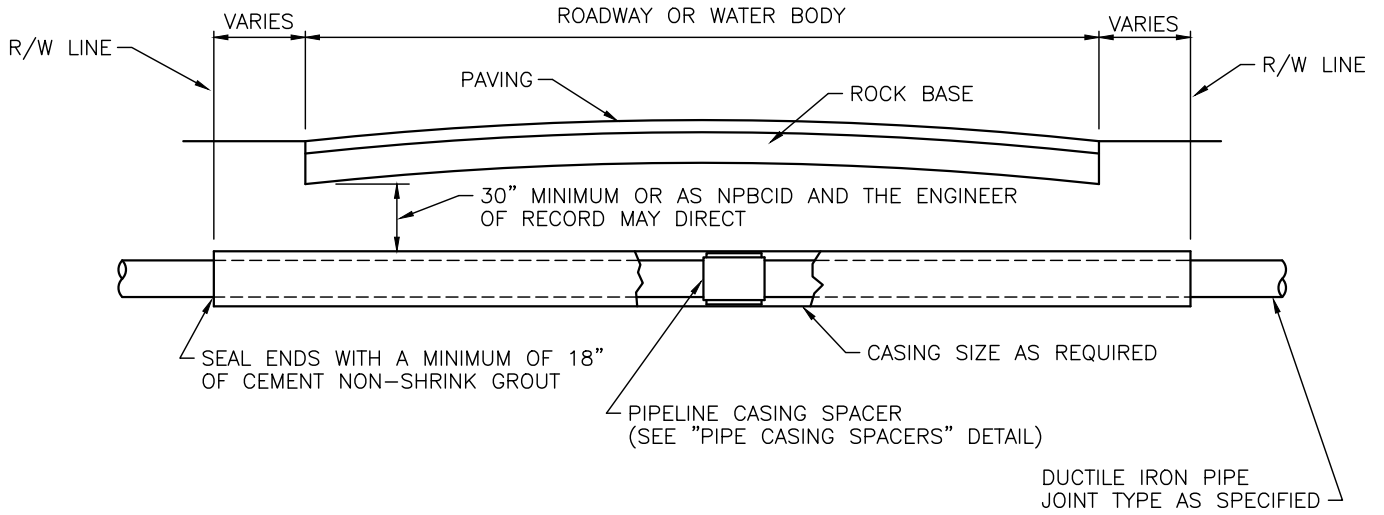
1. ALL BURIED PRESSURE MAINS SHALL INCLUDE A RESTRAINED JOINT SYSTEM. THE CONTRACTOR SHALL USE A DUCTILE IRON RESTRAINING SYSTEM AS MANUFACTURED BY EBAA IRON, INC. (MEGALUG) OR APPROVED EQUAL FOR ALL MECHANICAL JOINT FITTINGS AND LOCKING GASKETS FOR PUSH-ON JOINT PIPE.
2. RESTRAINING LENGTHS SHOWN ARE THE MINIMUM LENGTH REQUIRED BASED ON A TEST PRESSURE OF 150 P.S.I.G. WITH A MINIMUM COVER OF 30".
3. IF LENGTH BETWEEN MECHANICAL JOINT FITTINGS AND/OR VALVES IS LESS THAN THE MINIMUM LENGTHS SHOWN IN THIS TABLE, THE CONTRACTOR SHALL RESTRAIN THE ENTIRE LENGTH.

Pipe Restraint Table

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOMINAL PIPE SIZE	STEEL CASING	THICKNESS SCHEDULE
4"	12"	.375
6"	16"	.375
8"	18"	.375
10"	20"	.375
12"	24"	.375
14"	24"	.375
16"	30"	.375
18"	30"	.375
20"	36"	.375
24"	42"	.500
30"	48"	.500
36"	54"	.500
42"	60"	.500
48"	72"	.500

FAST GRIP OR
FIELD LOK
GASKET

RESTRAINED
MECHANICAL
JOINT

(PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

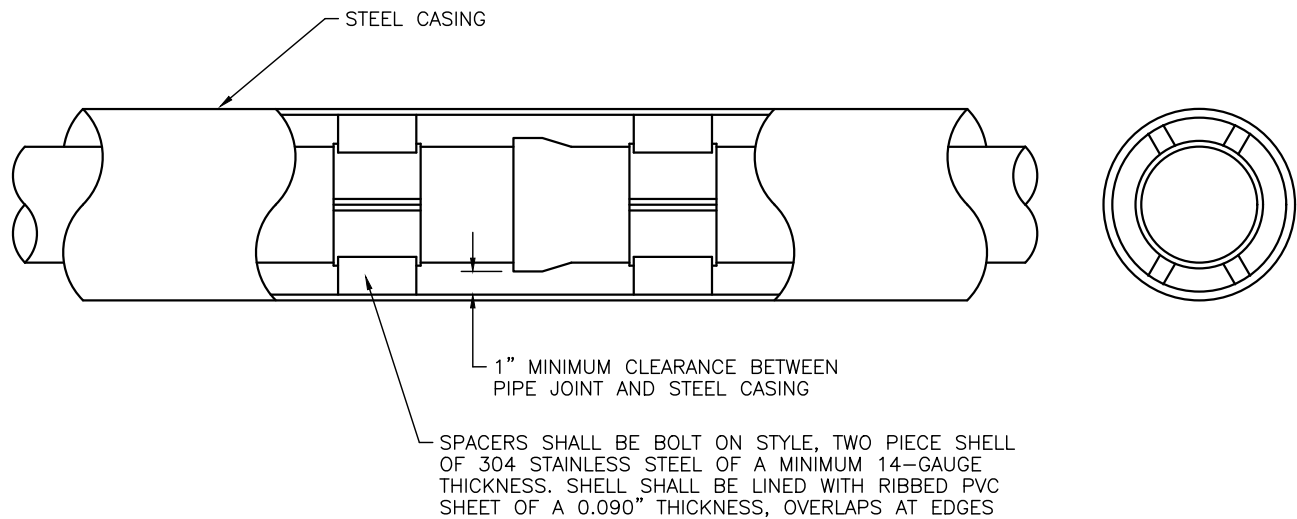
Steel Casing Installation

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. CARRIER PIPE FOR 4" THROUGH 24" DIAMETER PIPE WITHIN CASING SHALL BE RESTRAINT GASKET.
2. RESTRAINED MECHANICAL JOINTS SHALL BE USED FOR PIPE 30" DIAMETER AND ABOVE AND SHALL HAVE FACTORY WELDED RETAINING RINGS. AMERICAN RESTRAINED JOINT PIPE OR APPROVED EQUAL MAY BE USED.
3. FOR PIPE DIAMETERS 4" THROUGH 12" INSTALL STAINLESS STEEL PIPE CASING SPACERS 5' OR LESS FROM EACH END OF PIPE BUT NOT MORE THAN 10' APART (2 PER PIPE). FOR PIPE DIAMETERS 14" AND LARGER INSTALL STAINLESS STEEL PIPE CASING SPACERS 5' OR LESS FROM EACH END OF PIPE AND ONE CENTERED ON PIPE (3 PER PIPE)(CASCADE MFG. CO. OR APPROVED EQUAL).
4. PIPE CASING SPACERS SHALL BE CENTER POSITIONED.
5. ALTERNATE METHODS OF PIPE SUPPORT WITHIN THE CASING MUST BE APPROVED BY POAPWS PRIOR TO INSTALLATION.

Pipe Casing Spacers

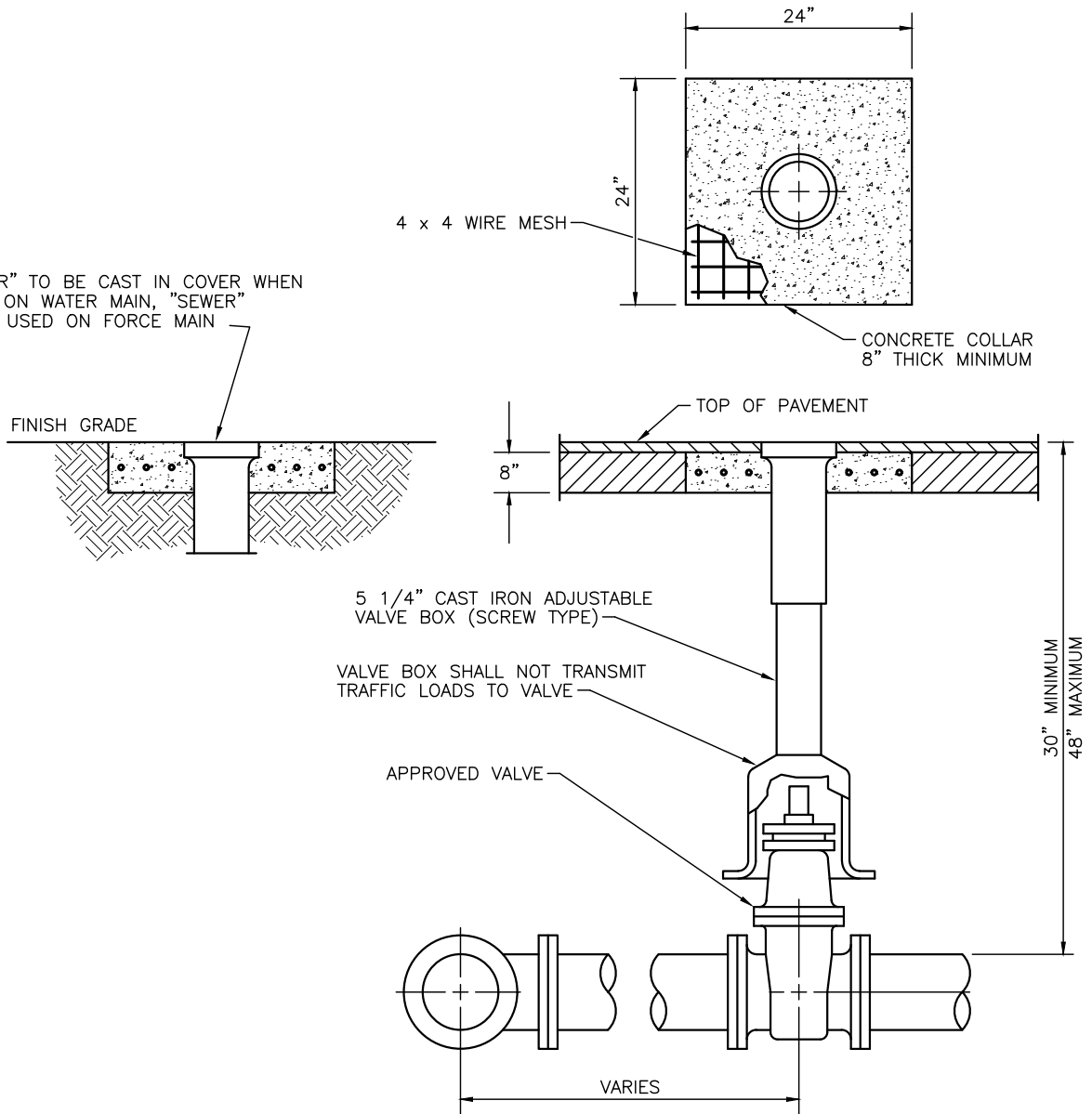
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"WATER" TO BE CAST IN COVER WHEN USED ON WATER MAIN, "SEWER" WHEN USED ON FORCE MAIN



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. CONCRETE COLLAR MAY NOT BE REQUIRED IN PAVED AREAS IF PAVEMENT SURFACE IS FINISHED PRIOR TO FINAL INSPECTION AND VALVE BOX LID IS AT FINISHED GRADE.
2. WHEN VALVE IS DEEPER THAN 48" AN EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT TO 24" OF FINISHED GRADE.
3. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12".
 - A) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)
 - B) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.

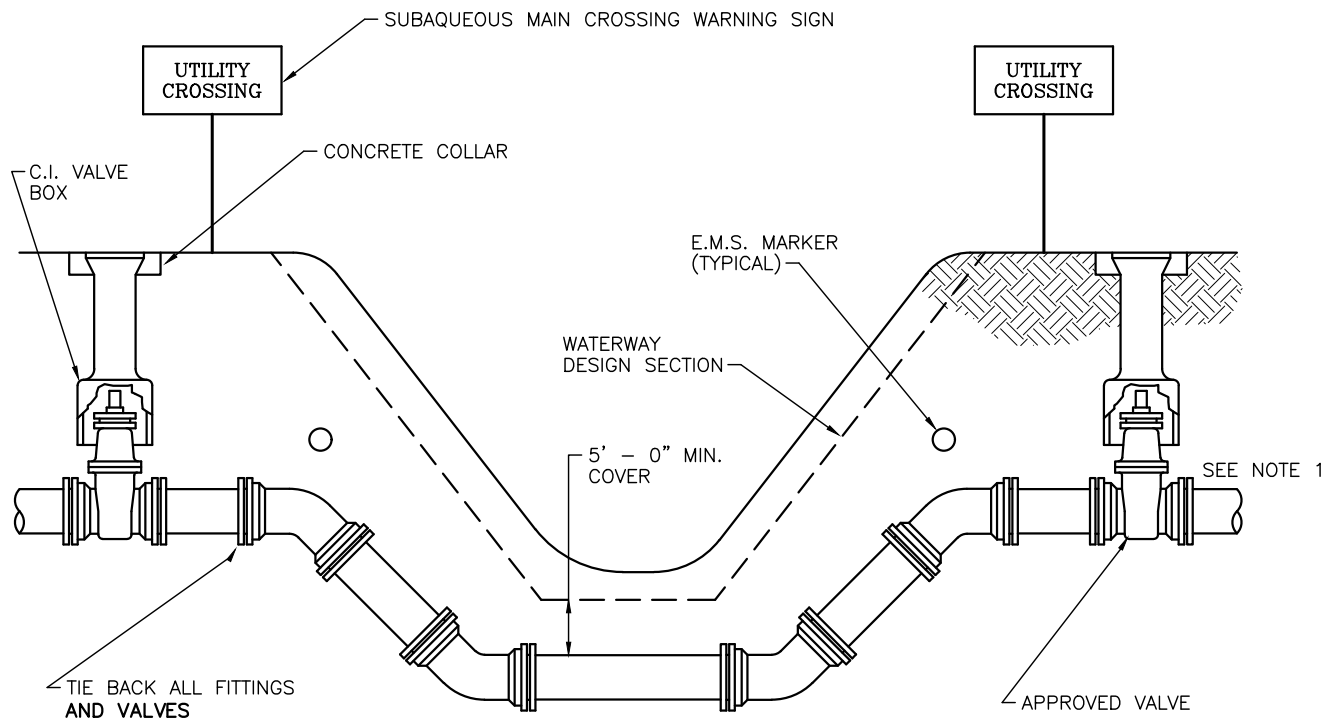
Typical Underground Valve Installation

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. DIRECT BURY ALLOWED ONLY IF DIRECTIONAL BORE METHOD IS NOT FEASIBLE.
2. VALVES TO BE TIED BACK TO NEAREST FITTING ONE EACH SIDE PER POAPWS STANDARDS. ALL TIE RODS AND BOTS SHALL BE COATED WITH KOPPERS 300-M OR APPROVED EQUAL.
3. VALVE EXTENSIONS AND BOXES SHOULD NOT BE LOCATED IN THE MAINTENANCE EASEMENT WITHOUT NPBCID APPROVAL.
4. MEGALUG RESTRAINTS REQUIRED. (TYPICAL)
5. FLOW THROUGH CANAL SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
6. FLOW DIVERSION WILL NOT BE PERMITTED DURING WET SEASON.
7. IN SOME CASES AIR RELIEF VALVES MAY BE REQUIRED.

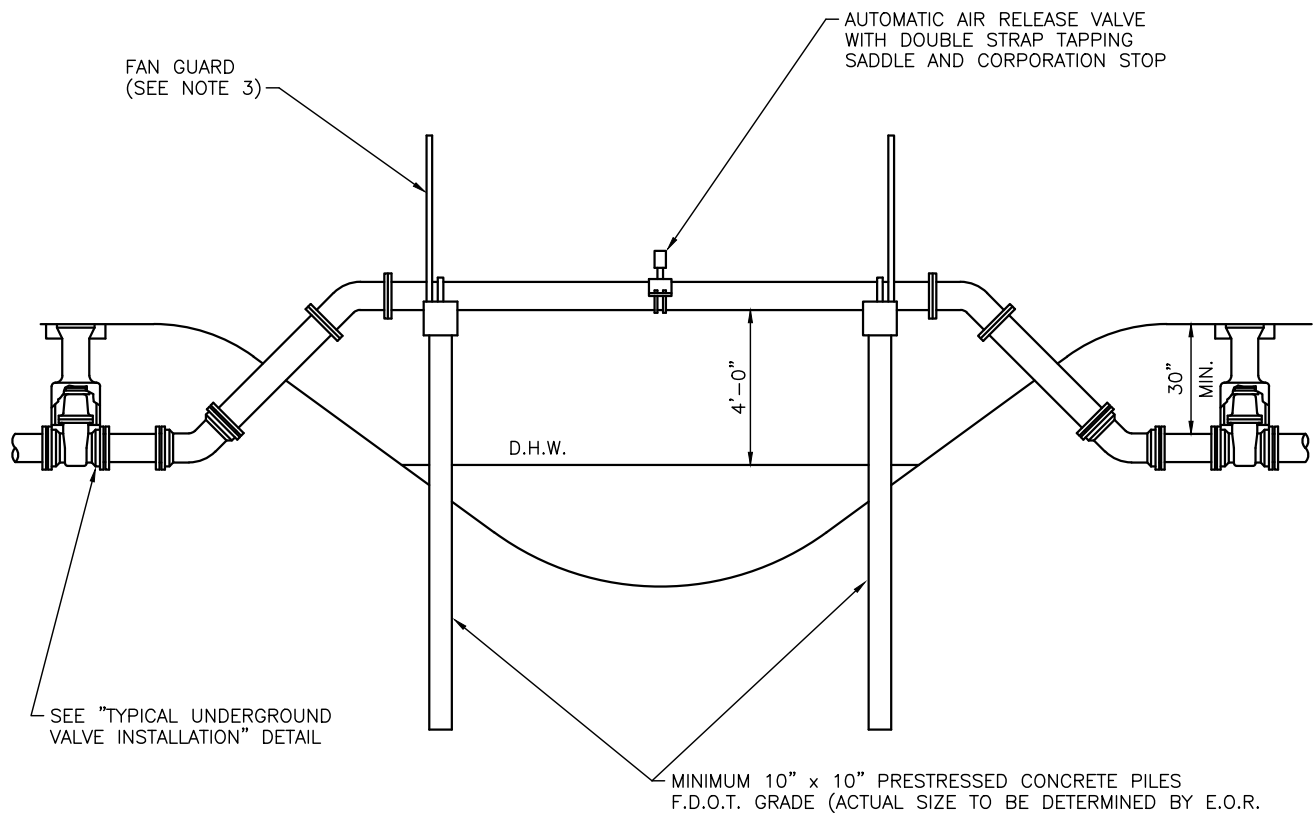
Subaqueous Crossing - Direct Bury

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. ALL EXPOSED PIPE SHALL BE DUCTILE IRON WITH FLANGED FITTINGS. RETAINER GLANDS AND UNIFLANGE TYPE FITTINGS ARE NOT TO BE SUBSTITUTED FOR FLANGED FITTINGS.
2. SPAN LENGTHS AS REQUIRED BY PERMITTING AGENCY.
3. FAN GUARDS ARE REQUIRED. SEE "TYPICAL FAN GUARD" DETAIL.
4. PIPE SHALL BE CRADLED ON NEOPRENE, 1/2" THICK MINIMUM.
5. TIE-DOWN STRAPS SHALL FIT PROPERLY AND SECURE PIPE IN CRADLE.
6. PIPE CRADLE IN CAP SHALL CONTACT 1/2 CIRCUMFERENCE OF PIPE.
7. SHOW ULTIMATE CANAL SECTION AND RELEVANT ELEVATIONS AND DISTANCES ON PLANS.
8. PIPE SHALL BE RESTRAINED FOR A MINIMUM DISTANCE OF 60' FROM EACH BOTTOM DEFLECTION. SEE "PIPE RESTRAINT TABLE" DETAIL FOR ADDITIONAL RESTRAINT DISTANCES FOR PIPE 12" AND LARGER.
9. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED ON ALL BELOW GRADE FITTINGS.
 - A) APPROVED MECHANICAL JOINT RESTRAINT. (i.e. MEGALUG)
 - B) TIE ROD AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.
10. STAINLESS STEEL (316) REQUIRED FOR ALL STRAPS, SADDLES, FLANGE BOLTS, AND OTHER HARDWARE FOR INSTALLATIONS OVER BRACKISH OR MARINE WATERS (ANTI-GALL COMPOUND TO BE USED WHEN ASSEMBLING STAINLESS STEEL NUTS AND BOLTS.)
11. PILES SHALL BE SET A MINIMUM OF 10' INTO FIRM SOIL. LENGTH OF SPAN WILL DETERMINE NUMBER OF PILES REQUIRED.
12. AERIAL CROSSING TO BE FIELD COATED PER SPECIFICATIONS. COLOR SHALL BE PER SPECIFICATIONS.
13. ENGINEER SHALL BE REQUIRED TO DESIGN AND PROVIDE A DETAILED DRAWING OF PROPOSED PILE AND PILE CAP. THE DESIGN AND INSTALLATION SHALL MEET MANUFACTURERS RECOMMENDATION.

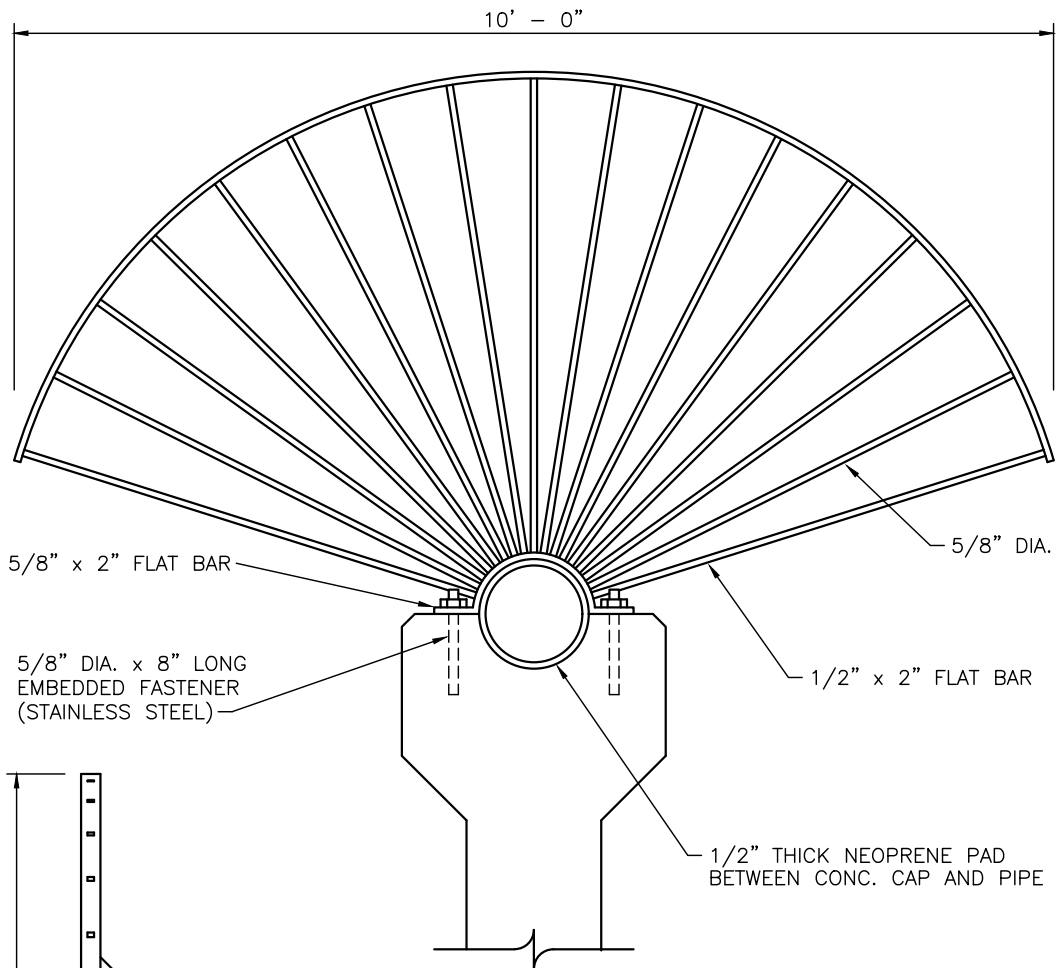
Canal Crossing

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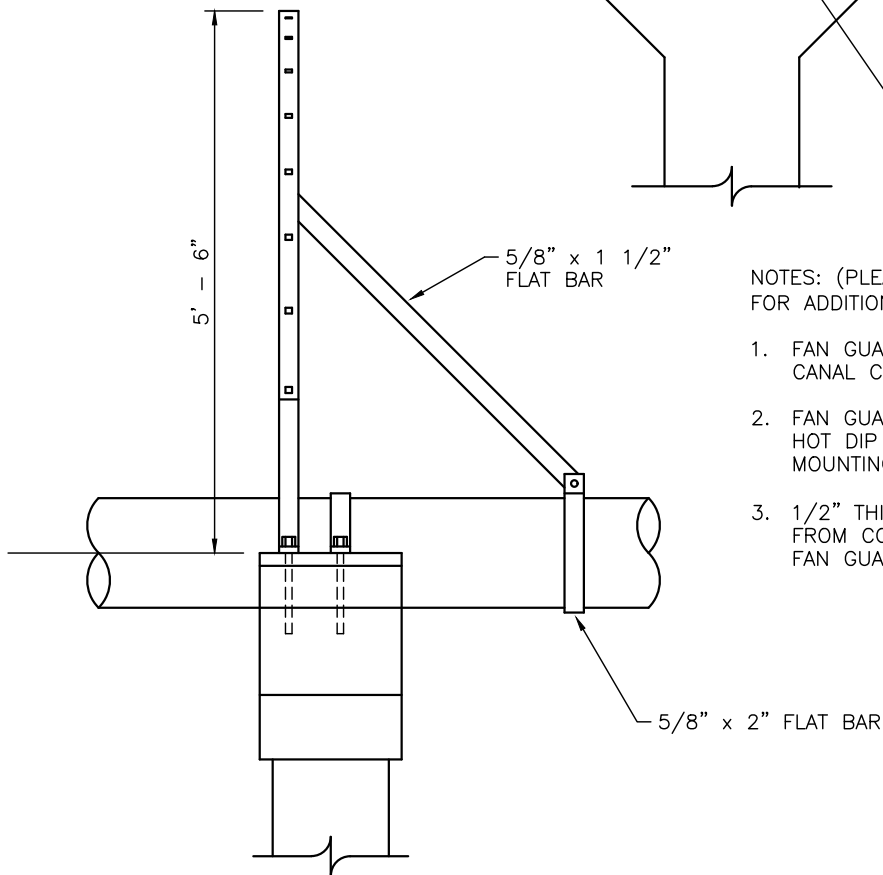
5/8" x 2" FLAT BAR

5/8" DIA. x 8" LONG
EMBEDDED FASTENER
(STAINLESS STEEL)

5/8" DIA.

1/2" x 2" FLAT BAR

1/2" THICK NEOPRENE PAD
BETWEEN CONC. CAP AND PIPE



5' - 6"

5/8" x 1 1/2"
FLAT BAR

5/8" x 2" FLAT BAR

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS
FOR ADDITIONAL REQUIREMENTS)

1. FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
2. FAN GUARD AND ALL MOUNTING BRACKETS TO BE HOT DIP GALVANIZED AFTER FABRICATION AND MOUNTING HARDWARE TO BE STAINLESS STEEL.
3. 1/2" THICK NEOPRENE PAD TO INSULATE PIPE FROM CONTACT WITH ALL MOUNTING HARDWARE, FAN GUARD HARDWARE, AND CONCRETE SURFACES.

Typical Fan Guard

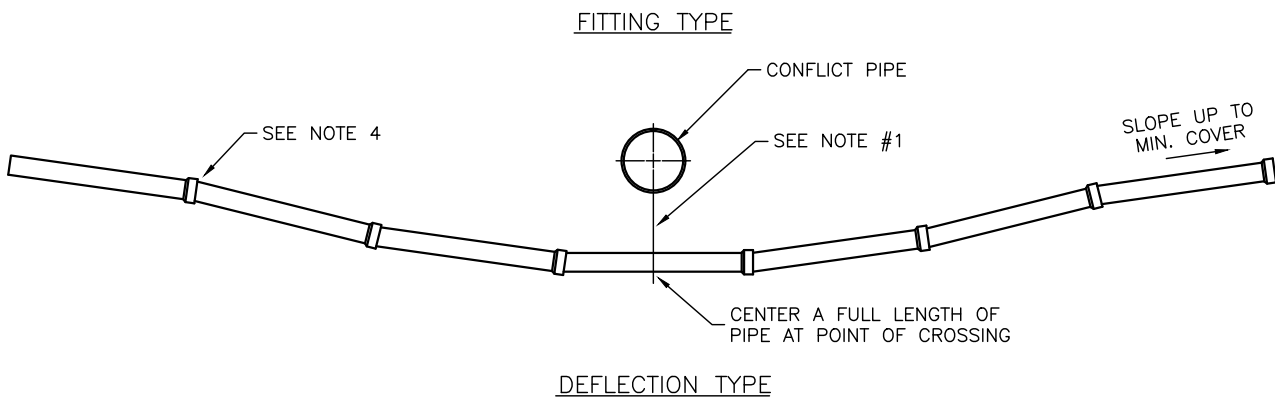
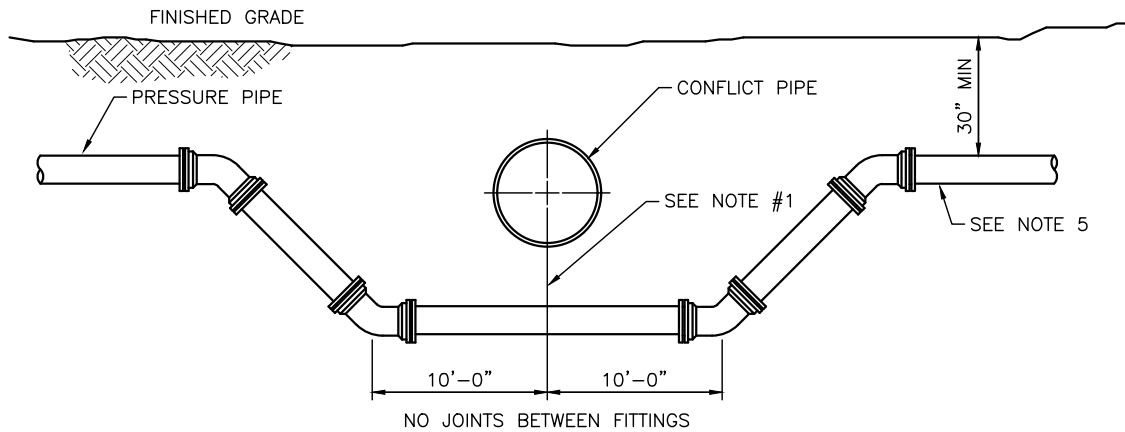
PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. FOR VERTICAL SEPARATION SEE "WATER AND SEWER SEPARATION STATEMENT" DETAIL.
2. ONE OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED FROM FITTING TO FITTING FOR PIPE SIZES UP TO AND INCLUDING 12", FOR PIPE SIZES GREATER THAN 12" BOTH FORMS OF RESTRAINT SHALL BE USED.
 - A) APPROVED MECHANICAL JOINT RESTRAINT. (i.e. MEGALUG)
 - B) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.
3. THE DEFLECTION TYPE CROSSING IS PREFERRED, BUT IN INSTANCES WHERE THE FITTING TYPE DEFLECTION IS USED, 22 1/2' BENDS ARE PREFERRED.
4. DO NOT EXCEED 75% OF MANUFACTURERS RECOMMENDED MAXIMUM JOINT DEFLECTION.
5. PIPE SHALL BE RESTRAINED FOR A MINIMUM DISTANCE OF 60' FROM EACH TOP DEFLECTION. SEE "PIPE RESTRAINT TABLE" DETAIL FOR ADDITIONAL RESTRAINT DISTANCES FOR PIPE GREATER THAN 12".

Pressure Pipe Deflection

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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INSTALLATION PROTOCOL

1. All pipe is to be laid in a clean dry trench.
2. All muck and unsuitable materials encountered in trench bottom shall be removed and replaced with compacted granular material to 100% of maximum density per AASHTO T-180. Proctor and density test results shall be submitted to EOR with a copy to PBPOC POA.
3. All backfill shall be placed in 12 inch lifts and compacted by mechanical means to 98% of maximum density per AASHTO T-180 or as otherwise required by the permitting agency.
4. Utilities crossing road right-of-way shall be installed prior to road construction and backfilled and compacted within right-of-way limits in strict accordance with the directions of the EOR and requirements of all agencies of jurisdiction.
5. Embedment materials below pipe shall conform to Unified Soil Classification System (U.S.C.S.) Soil Classification Class I or II as noted in ASTM D2321.
6. All lines under construction shall be plugged with a wing plug, and all pressure pipes are to be plugged with a mechanical plug or cap at the end of the working day to prevent ground water and potential contaminants from entering completed lines and lines under construction.
7. Above ground piping, including but not limited to, aerial crossings, lift station piping, fire lines, meter/backflow prevention device assemblies, etc. shall be flanged and be coated in the following manner:

 Blast clean and remove all paint and any loose material in accordance with NADF 500-3. Blasting Cleaning shall be performed using non-silica media. Paint all exterior ferrous metal surfaces. The manufacturer's recommendations for surface preparation, priming, recoating, etc. shall be strictly followed. Do not paint or coat any nameplates, brass or stainless steel surfaces. Contractor shall use the following paint system or approved equal. TNEMEC
 - a. Primer: TNEMEC-MODIFIED POLYAMIDOAMINE EPOXY #135 (3.0 to 5.0 mils DFT) aluminum color
 - b. Intermediate Coat: TNEMEC-MODIFIED POLYAMIDOAMINE EPOXY (3.0 to 5.0 mils DFT) off white color
 - c. Finish Coat: Series 1074 Endura-Shield, DFT.
 The finished coat of paint shall be green in color for sanitary sewer and blue for potable water appurtenances.
8. All flanged pipe shall be caulked between each flange and threads with Sika 1 A urethane caulk.
9. All tie rods, bolts, nuts, etc. installed underground must be Cor Ten and shall be painted with Koppers 300-M or an approved equal. Brass and stainless steel hardware is exempt from this requirement.
10. Coatings and linings damaged due mishandling or otherwise, must be replaced. Coating and linings damaged due to field cutting shall be repaired in strict accordance with the manufacturer's recommendations. This includes, but is not limited to, cement mortar and polyethylene pipe linings, Protecto 401, galvanized coatings, PVC fence coatings and other paint type coatings. Specific approval must be obtained from POAPWS prior to performing coating and lining repairs. The POAPWS will require inspections of all repairs.
11. All stainless steel nuts, bolts and hardware referenced in these standards, shall be SS 316 grade and shall be so stamped by the manufacturer to verify alloy. The use of any other stainless steel alloy will require specific approval by the POAPWS. In general, stainless steel nuts, bolts and hardware are required in and around lift stations and for facilities installed over or under brackish or marine waters. This requirement applies to flange bolts and nuts on flanged piping, mounting brackets, all thread rod, anchor bolts, washers, clamps and other miscellaneous hardware. Anti-galling compound anti-seize lubricant shall be applied to the threads of all stainless steel bolts prior to installation.

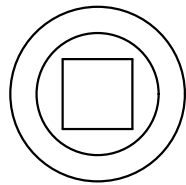
 Anti-seize lubricant shall be graphite 50 anti-seize by Loctite Corporation, 1000 anti-seize paste by Dow Corning, 3M Lube and anti-seize by 3M.
12. All rubber and synthetic elastomeric components of products that come in contact with potable water shall be manufactured with chloramine resistant elastomers and shall bear NSF approval.
13. All main, including fittings, shall be easily identifiable as to their contents and shall be color coded or marked using the universal color code of blue for water and green for sewer. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape is used to stripe pipe during installation of the pipe, the tape shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipes with an internal diameter of 24 inches or greater, tape shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe.

Pipe Installation Protocol

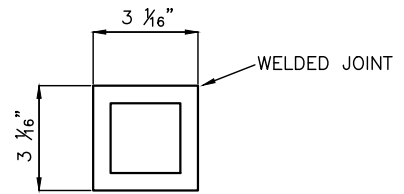
PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOVEMBER 2022

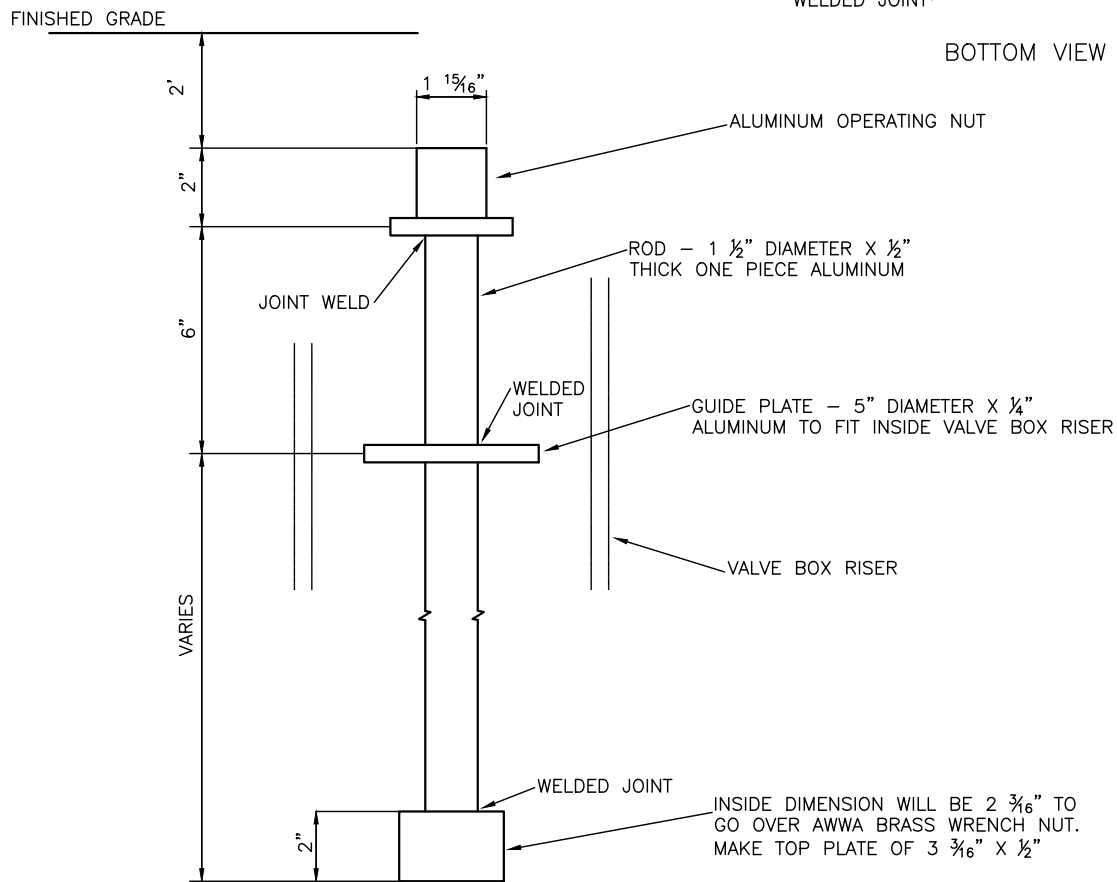
DRAWING No. 13
90



TOP VIEW



BOTTOM VIEW



SIDE VIEW

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. EXTENSIONS ARE REQUIRED FOR VALVES EXTENDING FOR MORE THAN 4 FEET BELOW FINISHED GRADE.
2. ALL MATERIALS SHALL BE 6061 T-6 ALUMINUM.

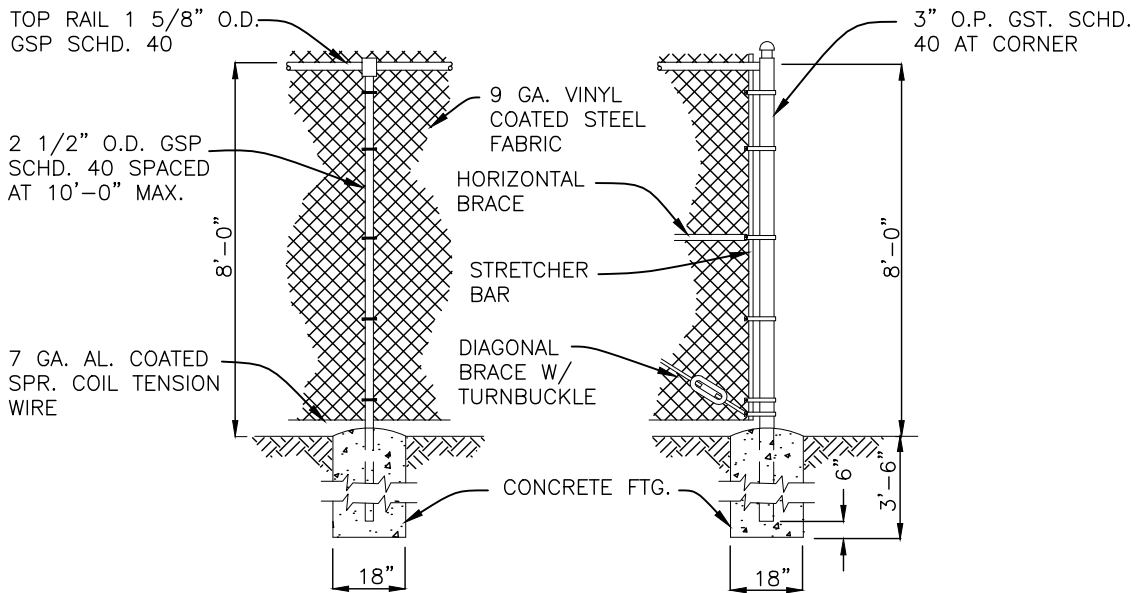
Valve Extension

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CONSTRUCTION STANDARDS AND DETAILS

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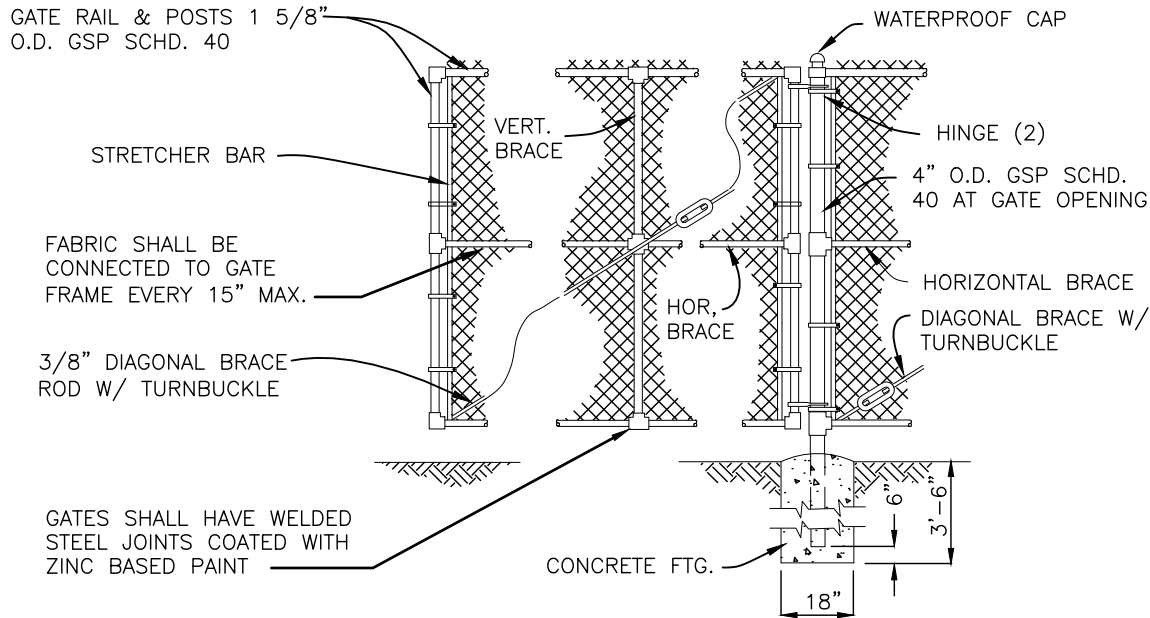
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91



LINE POST

CORNER POST



GATE

GATE POST

GATES SHALL HAVE WELDED STEEL JOINTS COATED WITH ZINC BASED PAINT

NOTES:

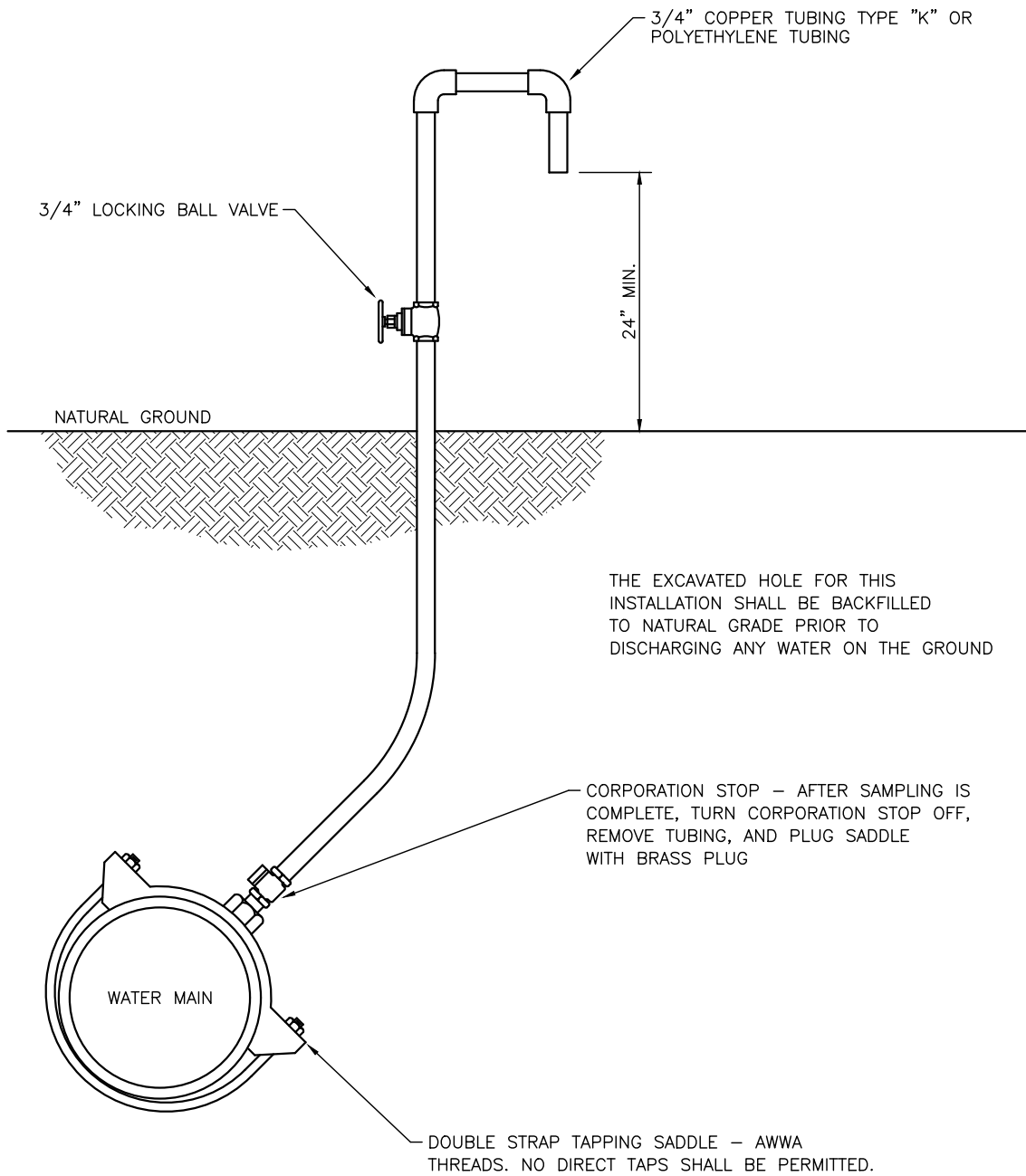
1. GATE TO BE SIZED PER REQUIREMENTS
2. VINYL COATED STEEL WOVEN WIRE FABRIC TO BE STRETCHED TAUT W/ STRETCHER BARS AND STRAPS AND FASTENED TOP & BOTTOM AND AT LINE POSTS WITH GALV. PIG RING TIES.
3. GATE TO BE SECURED OPEN WITH GATE STOP SET IN CONCRETE.
4. ALL RAILS, POSTS AND HARDWARE TO BE BLACK VINYL COATED.
5. WHERE POSTS COME IN CONTACT WITH CONCRETE THEY SHALL BE COATED WITH KOPPERS 300M OR APPROVED EQUAL.
6. GA. CALL-OUTS ARE FOR WIRE BEFORE VINYL COATING.
7. VERTICAL BLACK PVC FENCE SLATS REQUIRED.

Fence Detail

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. WHERE POSSIBLE, SERVICE TAPS OR FIRE HYDRANTS (SEE "SAMPLE POINT - FIRE HYDRANT" DETAIL) SHALL BE USED AS SAMPLING POINTS.

Sample Point - In Line

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CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
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FIRE HYDRANT
AS SPECIFIED

2 1/2" x 3/4" HYDRANT ADAPTER

3/4" PVC SCH 40
OR COPPER

3/4" LOCKING
BALL VALVE

18"

2'-0" MIN.

FINISH GRADE

30" MIN.

PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

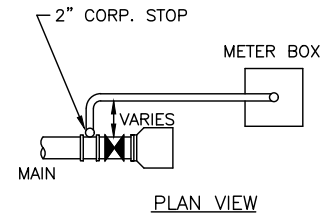
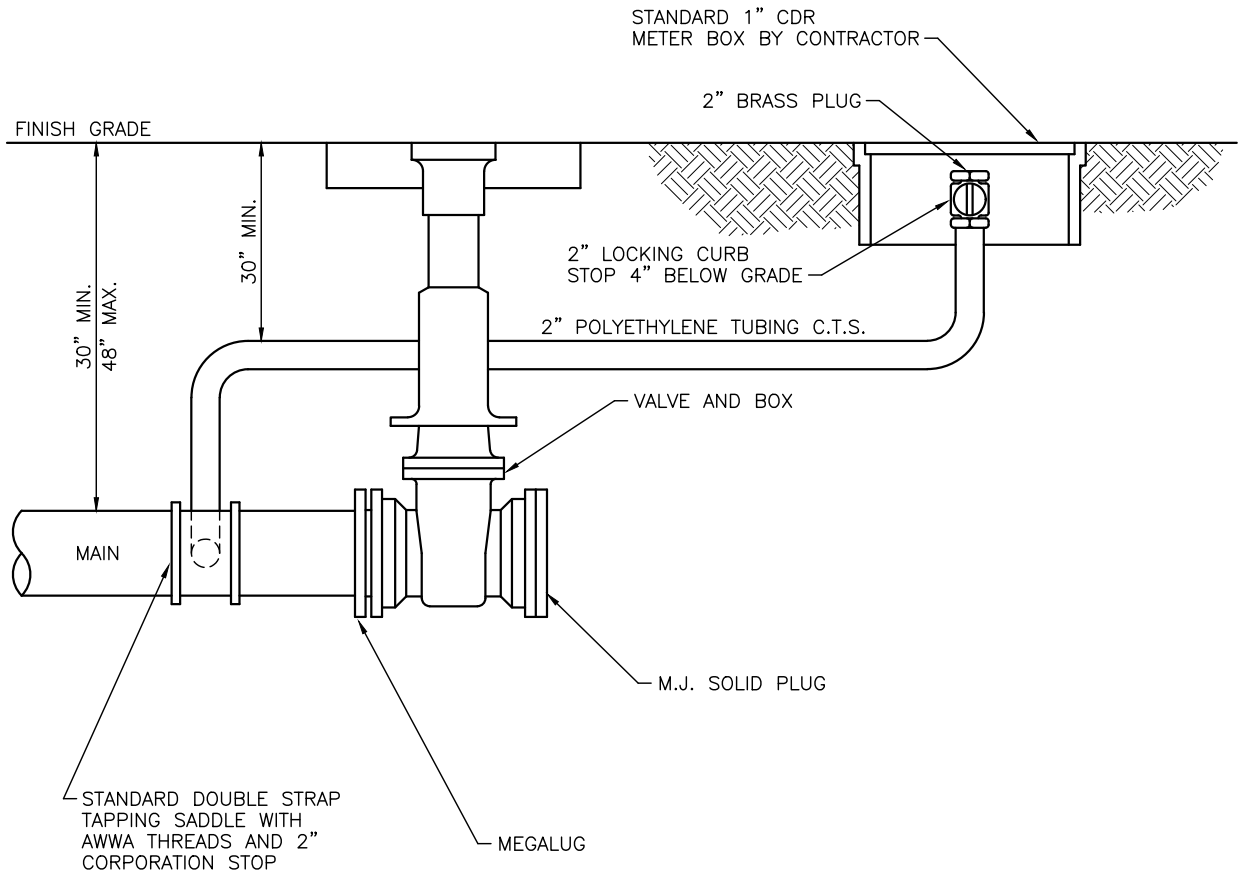
Sample Point - Fire Hydrant

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOVEMBER 2022

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94



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. TRAFFIC BEARING METER BOXES WILL BE REQUIRED IN ALL PAVED AREAS AND AREAS WHICH MAY BE PAVED IN THE FUTURE.
2. TUBING SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP, NO FITTINGS SHALL BE PERMITTED.
3. PREVIOUS JOINTS SHALL BE RESTRAINED IN ACCORDANCE WITH "PIPE RESTRAINT TABLE" DETAIL.

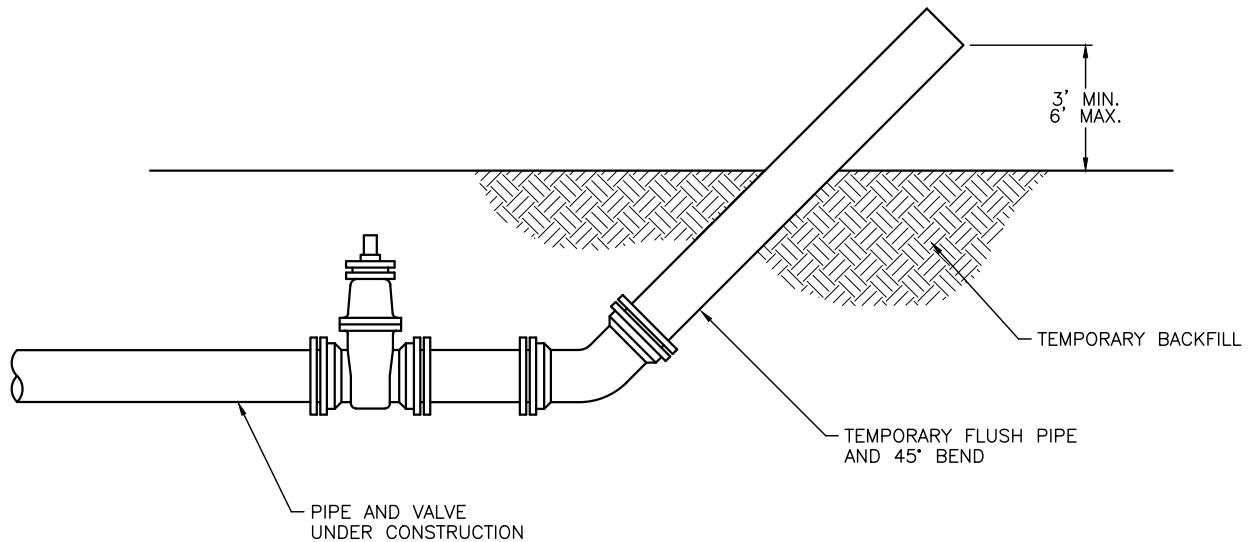
Temporary Blow Off

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
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DRAWING No.

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. UPON COMPLETION OF THE PIPE INSTALLATION FOR ANY SECTION, THE MAINS SHALL BE CANNON FLUSHED TO REMOVE DIRT AND ANY OTHER FOREIGN MATTER BY ACHIEVING A MINIMUM VELOCITY OF 2.5 FEET PER SECOND IN THE PIPE. TEMPORARY FITTINGS, PIPE, ETC. MAY BE NEEDED TO FACILITATE CANNON FLUSHING.
2. INSTALL A 45° BEND AND ASSOCIATED PIPING AS SHOWN TO DIRECT THE FLUSHING WATER AWAY FROM THE IMMEDIATE WORK AREA, EXERCISE DUE CARE TO ENSURE THAT THE WATER USED IN FLUSHING DOES NOT CAUSE A NUISANCE OR CAUSE PROPERTY DAMAGE.
3. BENDS AND PIPING SHALL BE THE SAME SIZE AS THE LINE TO BE FLUSHED.
4. PRIOR TO THE ACTUAL LINE FLUSHING OPERATION, THE CONTRACTOR SHALL PROPERLY NOTIFY PBPOC POA OF SUCH INTENDED WATER USE.
5. NO EXISTING VALVES SHALL BE TURNED ON OR OFF, EXCEPT BY AUTHORIZED POAPWS PERSONNEL.
6. FLUSHING SHALL NOT BE ACCOMPLISHED WITHOUT THE ACTUAL PRESENCE OF A POAPWS REPRESENTATIVE.
7. AFTER THE LINE UNDER CONSTRUCTION HAS BEEN SUCCESSFULLY FLUSHED THE CONTRACTOR SHALL REMOVE THE TEMPORARY PIPING ARRANGEMENT AND PROCEED WITH THE REMAINING CONSTRUCTION AS SPECIFIED.
8. THERE ARE SPECIAL REQUIREMENTS FOR CLEANING AND FLUSHING PIPE LARGER THAN 12".

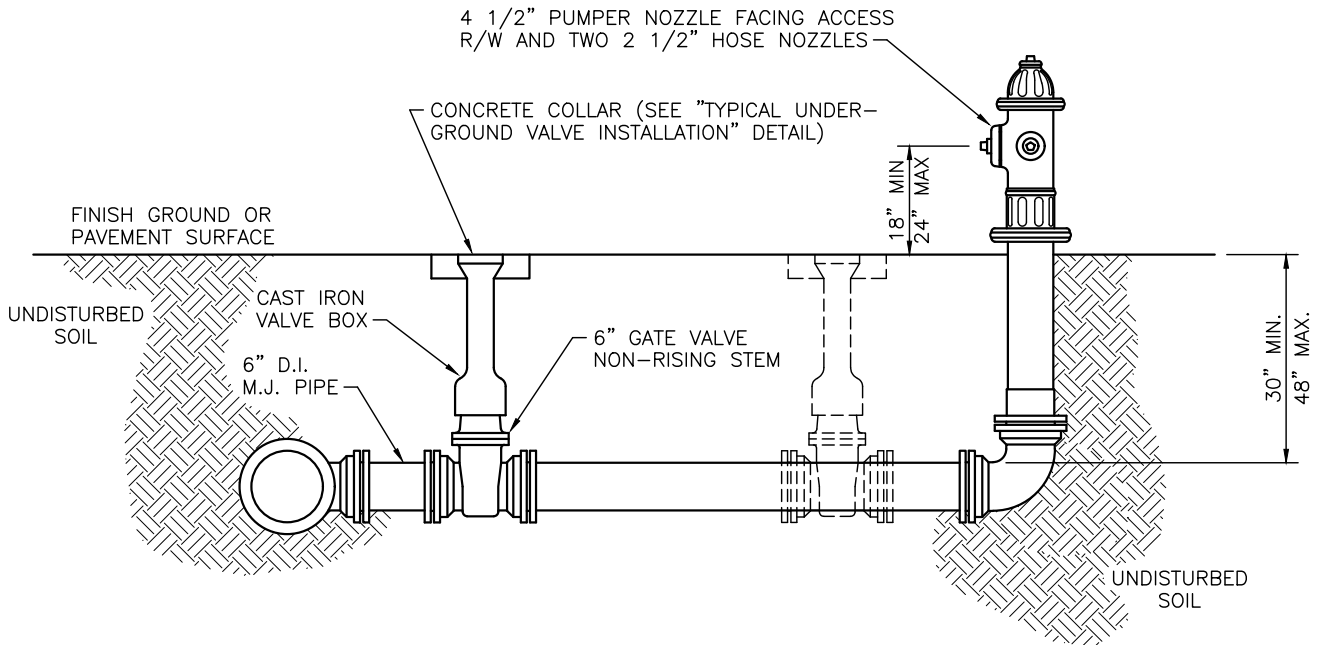
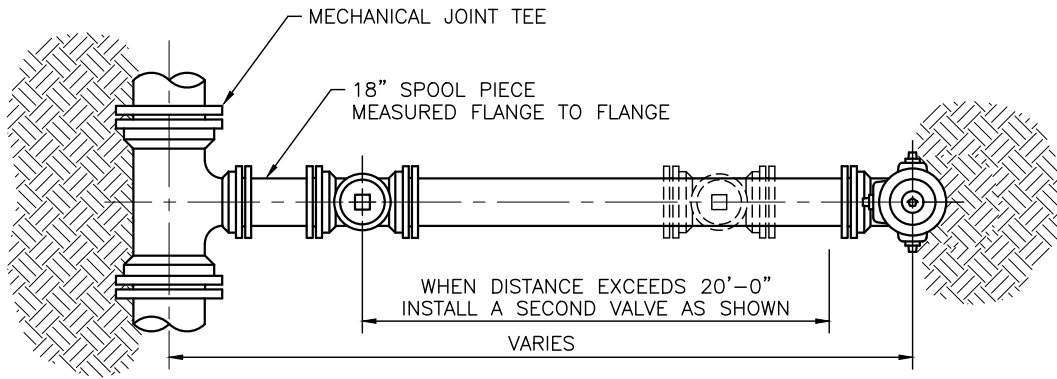
Cannon Flushing Procedure

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
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DRAWING No.

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. DRAINS OR WEEP HOLES ON HYDRANT BARREL SHALL BE PLUGGED.
2. FIRE HYDRANT SHALL BE INSTALLED PLUMB AND TRUE.
3. REFER TO SHOP SPECIFICATION LIST FOR ACCEPTABLE FIRE HYDRANTS.
4. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12".
 - A) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)
 - B) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.

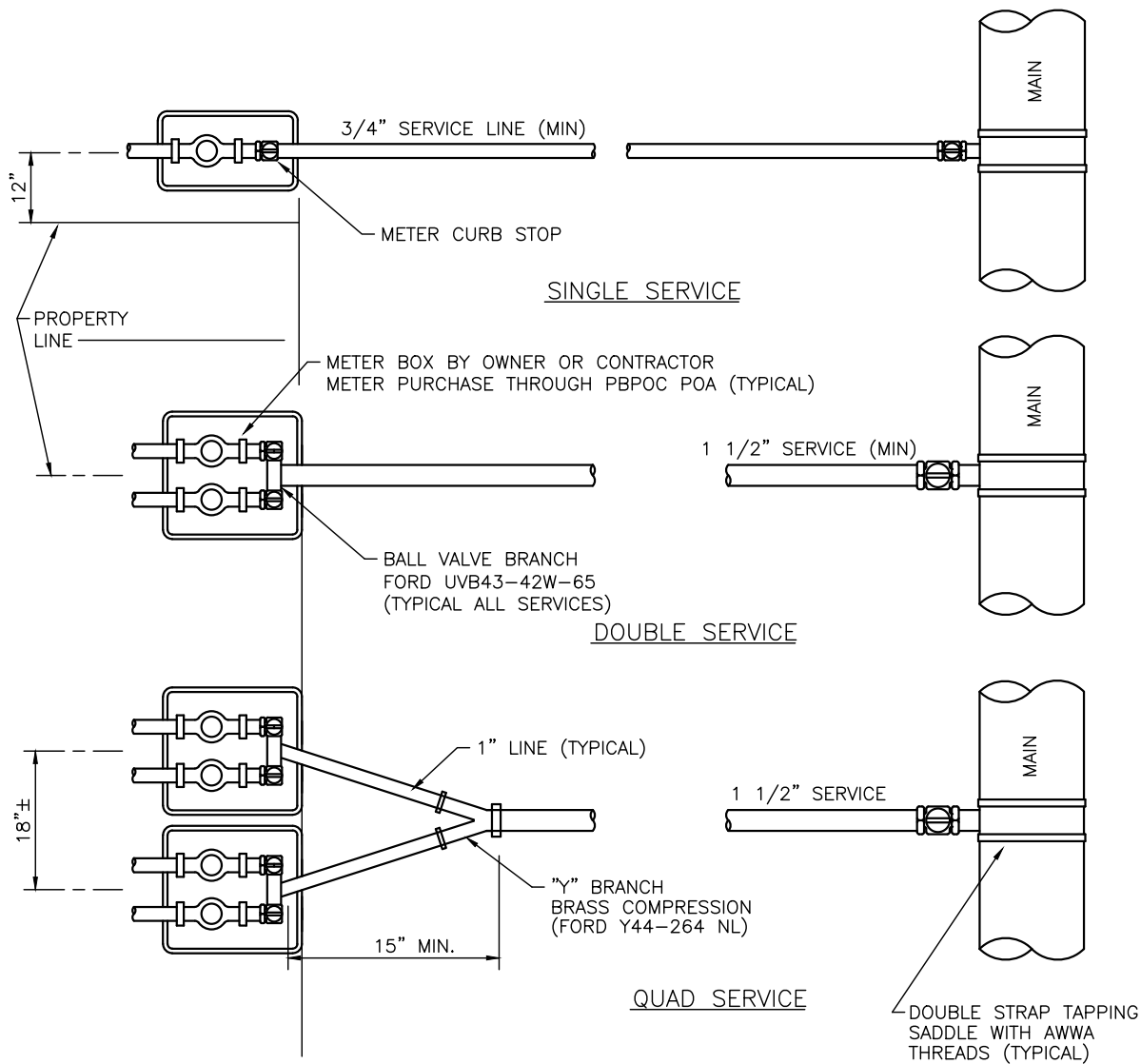
Typical Fire Hydrant Installation

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. REQUIRED LOCATION OF METER AND METER BOX MAY VARY DEPENDENT UPON SITE CONDITIONS.
2. AUTHORIZED SERVICE LINE MATERIAL:
 - A) TYPE "K" COPPER TUBING WITH COMPRESSION FITTINGS.
 - B) POLYETHYLENE TUBING SDR 9, COPPER TUBE SIZE.
3. METER CURB STOP SHALL BE 1" MINIMUM.
4. 1" METER CURB STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
5. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER SERVICE AND SERVICE LINES LARGER THAN 2" IN DIAMETER SHALL BE HANDLED ON AN INDIVIDUAL BASIS.
6. METER CURB STOPS 1 1/2" AND 2" IN SIZE SHALL BE PROVIDED WITH BOTH A LOCKING CAP AND METER FLANGE.
7. NO FITTINGS BETWEEN CORP STOP AND METER CURB STOP ALLOWED WHEN USING POLYETHYLENE TUBING.

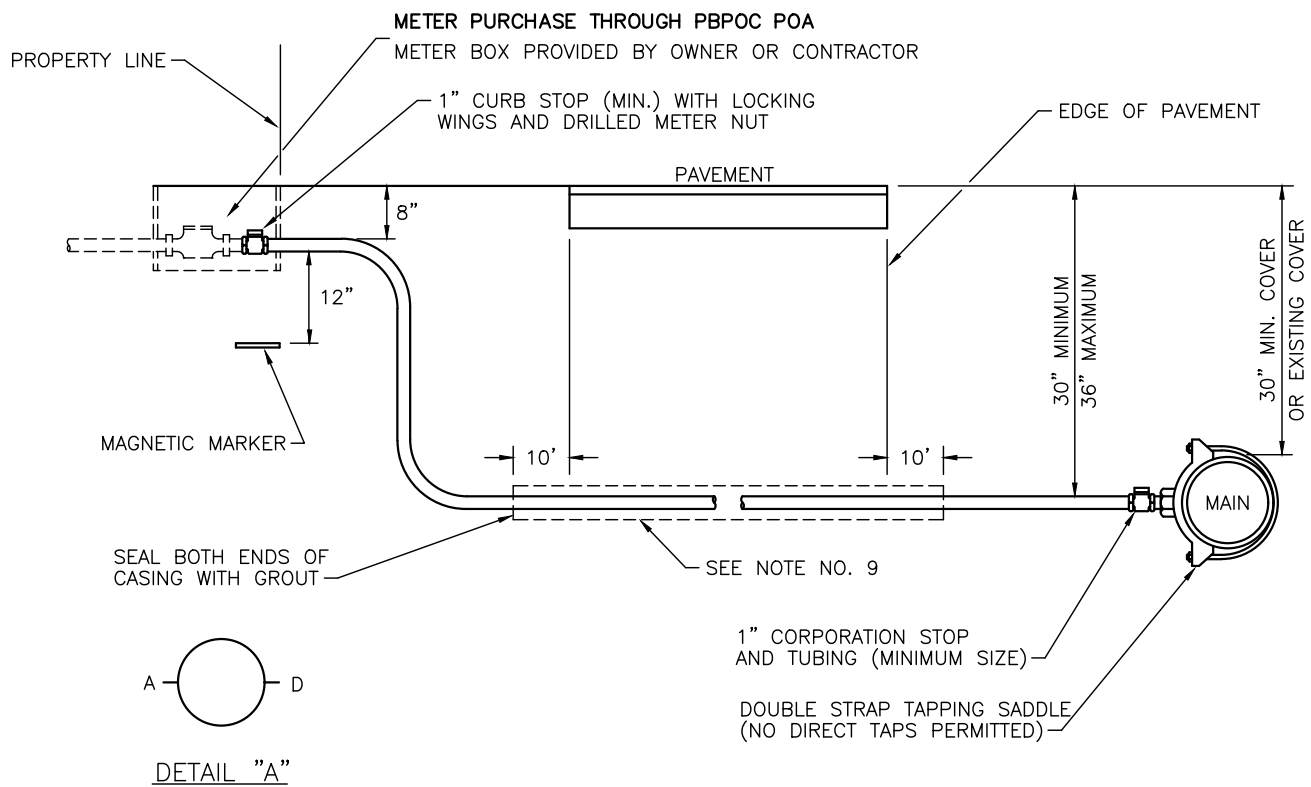
Typical Water Service

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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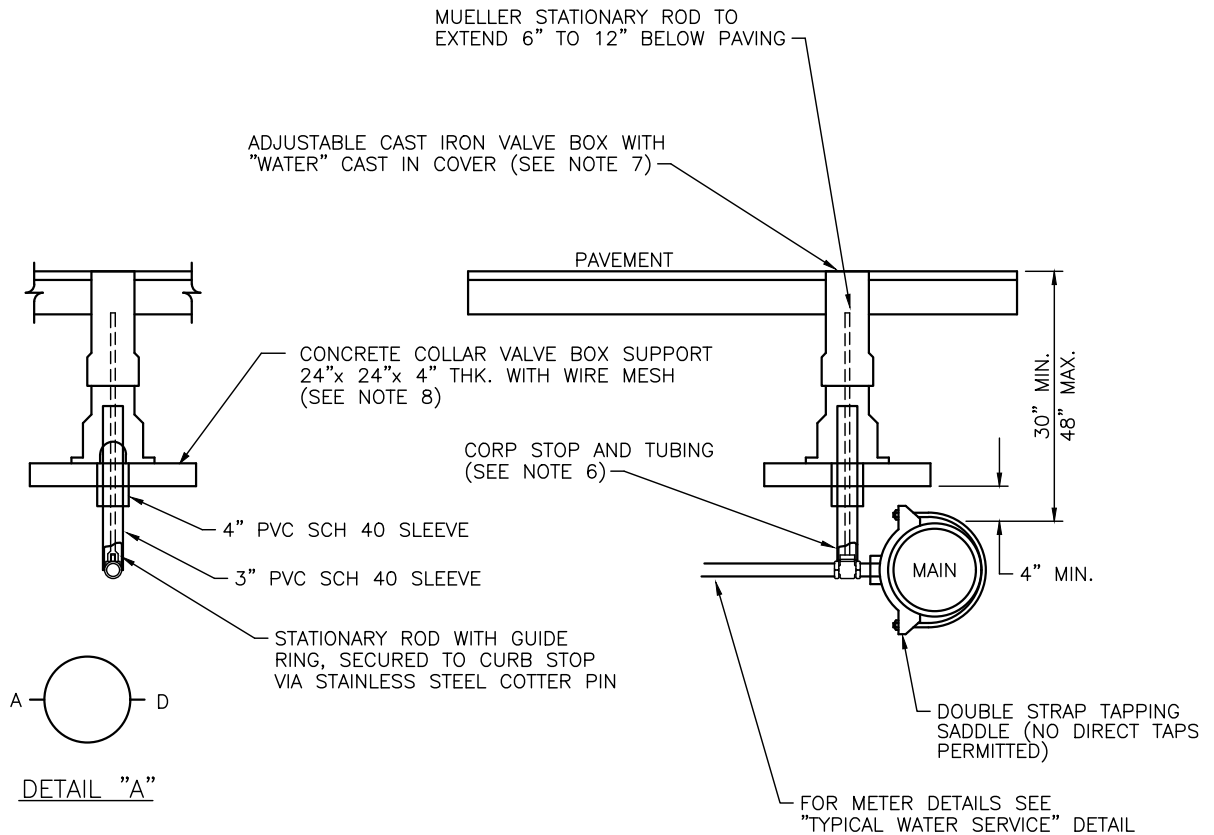
NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. CASINGS SHALL BE REQUIRED FOR ALL LONG SIDE SERVICES.
2. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" OFFSET AND AT 90° FROM THE CENTERLINE AS SHOWN ON DETAIL "A".
3. WHERE NO SIDEWALK EXISTS, METER BOXES SHALL BE SET TO CONFORM TO FINISH GRADE.
4. COPPER TUBING SHALL BE TYPE "K" WITH COMPRESSION FITTINGS.
5. POLYETHYLENE TUBING SHALL BE SDR 9, COPPER TUBE SIZE.
6. ROTATE THE CORPORATION STOP SO THAT THE OPERATING NUT IS ACTUATED FROM THE VERTICAL POSITION RATHER THAN THE HORIZONTAL.
7. BOTH COPPER AND POLYETHYLENE TUBING SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP WITH NO FITTINGS IN BETWEEN.
8. TAPPING SADDLES AND CORPORATION STOPS SHALL HAVE AWWA INLET THREADS.
9. SERVICE CASING SHALL NOT BE INSTALLED BY WATER JETTING UNDER ROADWAY.
10. GALVANIZED SCHEDULE 40 CASING REQUIRED FOR ANY INSTALLATION REQUIRING A JACK AND BORE , SCHEDULE 40 PVC MAY BE USED FOR AN OPEN CUT INSTALLATION WITH THE APPROVAL OF PBPOC LDRB, CASING SHOULD EXTEND TEN (10) FEET BEYOND EDGE OF PAVEMENT AND SIZED AS FOLLOWS:
 - A.) 1" SERVICE USE 2" CASING
 - B.) 1 1/2" SERVICE USE 3" CASING
 - C.) 2" SERVICE USE 4" CASING

Typical Water Service Installation

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: NOVEMBER 2022
DRAWING No. 25



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" OFFSET AND AT 90° FROM THE CENTERLINE AS SHOWN ON DETAIL "A".
2. COPPER TUBING SHALL BE TYPE "K" WITH COMPRESSION FITTINGS.
3. POLYETHYLENE TUBING SHALL BE SDR 9, COPPER TUBE SIZE.
4. BOTH COPPER AND POLYETHYLENE TUBING SERVICE LINES SHALL BE CONTINUOUS FROM CURB STOP TO ANGLE METER STOP WITH NO FITTINGS IN BETWEEN.
5. TAPPING SADDLES TO HAVE AWWA THREADS.
6. CORPORATION STOP AT THE MAIN TO HAVE MALE AWWA THREADS ON ONE SIDE AND BE COMPRESSION ON THE OTHER SIDE.
7. VALVE BOX SHALL BE 5 1/4" CAST IRON SCREW TYPE ADJUSTABLE.
8. CONCRETE COLLAR VALVE BOX SUPPORT TO BE PLACED ON COMPACTED SOIL TO SUPPORT VALVE BOX SO THAT A MINIMUM OF 4 INCHES EXISTS BETWEEN THE BOTTOM OF THE CONCRETE COLLAR AND THE TOP OF THE WATER MAIN.

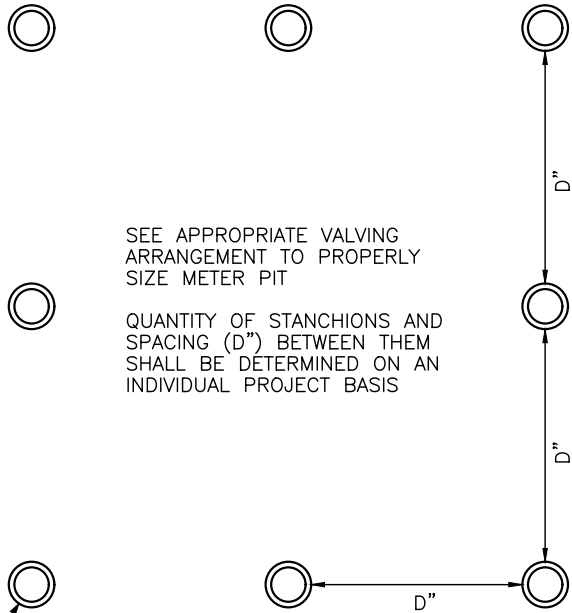
Water Service Tap Under Pavement

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

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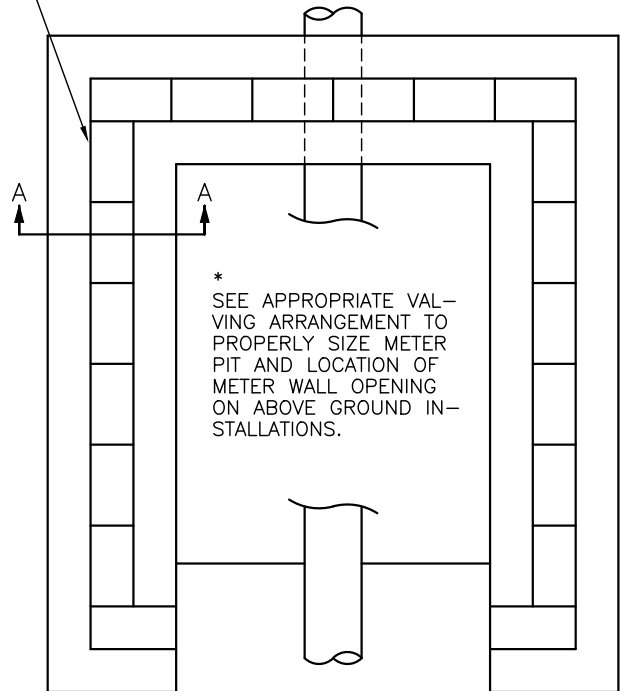
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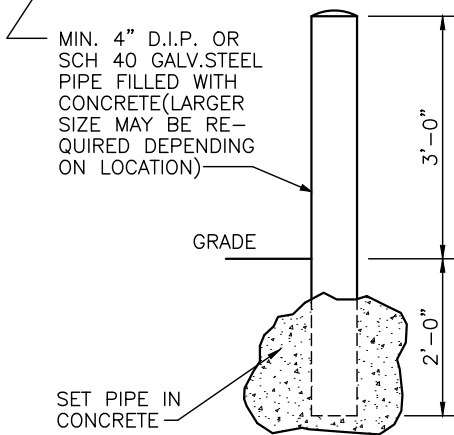
SEE APPROPRIATE VALVING ARRANGEMENT TO PROPERLY SIZE METER PIT

QUANTITY OF STANCHIONS AND SPACING (D") BETWEEN THEM SHALL BE DETERMINED ON AN INDIVIDUAL PROJECT BASIS

CONCRETE BLOCKS WITH #5 REBAR AT CORNERS AND ON 2'-0" CENTERS, FILL VOIDS WITH 2500 P.S.I. CONCRETE



* SEE APPROPRIATE VALVING ARRANGEMENT TO PROPERLY SIZE METER PIT AND LOCATION OF METER WALL OPENING ON ABOVE GROUND INSTALLATIONS.



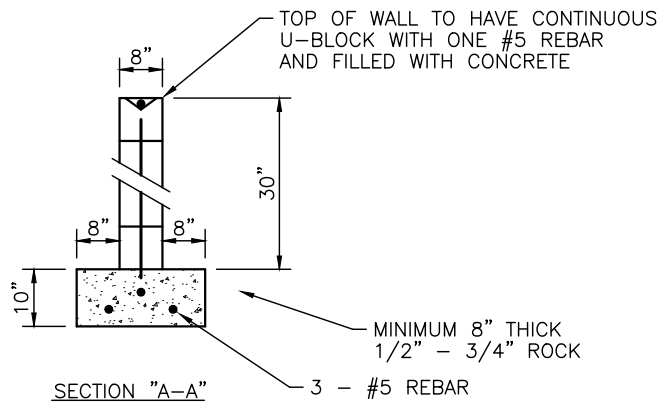
MIN. 4" D.I.P. OR SCH 40 GALV. STEEL PIPE FILLED WITH CONCRETE (LARGER SIZE MAY BE REQUIRED DEPENDING ON LOCATION)

GRADE

SET PIPE IN CONCRETE

OPTION "A"

PROTECTIVE PIPE STANCHIONS



TOP OF WALL TO HAVE CONTINUOUS U-BLOCK WITH ONE #5 REBAR AND FILLED WITH CONCRETE

MINIMUM 8" THICK 1/2" - 3/4" ROCK

SECTION "A-A"

3 - #5 REBAR

OPTION "B"

SCREENING WALL

* BACK FOOTER TO BE A MINIMUM OF 12" FROM PIPE ASSEMBLY AND SIDE WALLS TO BE A MINIMUM OF 36" FROM PIPE ASSEMBLY

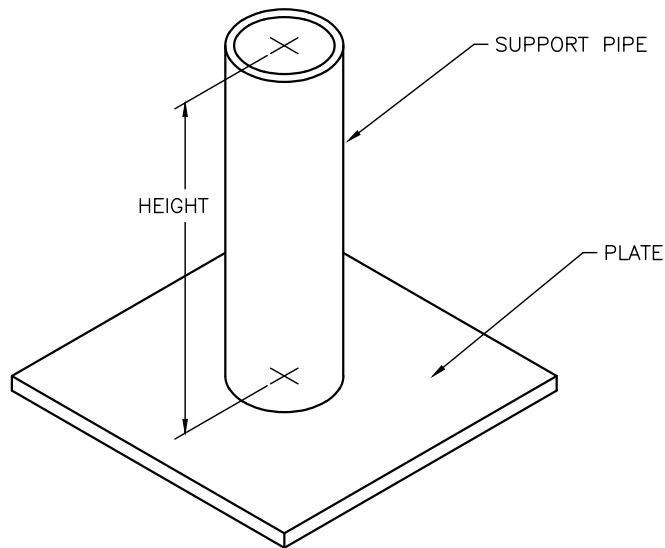
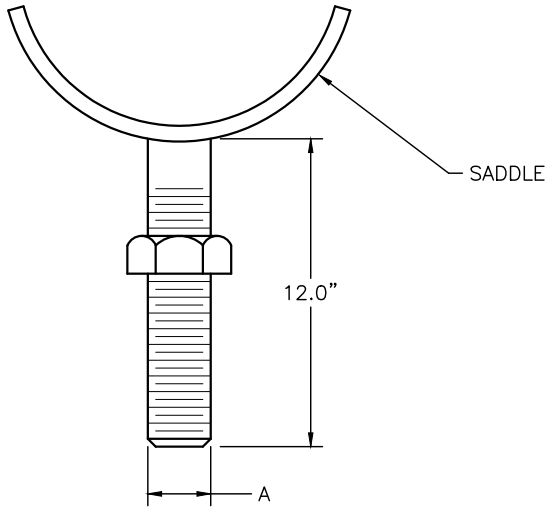
PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

Protective Enclosures for Above Ground Devices

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

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101



PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

PIPE SIZE	A	SUPPORT PIPE	SADDLE	PLATE	HEIGHT
3"	3/4"	1"	1/4" x 2"	4" x 4"	1' - 0"
4"	3/4"	1"	1/4" x 2"	4" x 4"	1' - 0"
6"	3/4"	1"	1/4" x 2"	4" x 4"	1' - 0"
8"	3/4"	1"	1/4" x 2"	4" x 4"	1' - 0"
10"	1"	1 1/4"	3/8" x 3"	6" x 6"	1' - 0"
12"	1"	1 1/4"	3/8" x 3"	6" x 6"	1' - 0"
14"	1"	1 1/4"	3/8" x 3"	6" x 6"	1' - 0"
16"	1 1/4"	1 1/2"	1/2" x 3"	6" x 6"	1' - 0"
18"	1 1/4"	1 1/2"	1/2" x 3"	6" x 6"	1' - 0"

NOTE: ALL MATERIAL SHALL BE 316 STAINLESS STEEL

Pipe Support

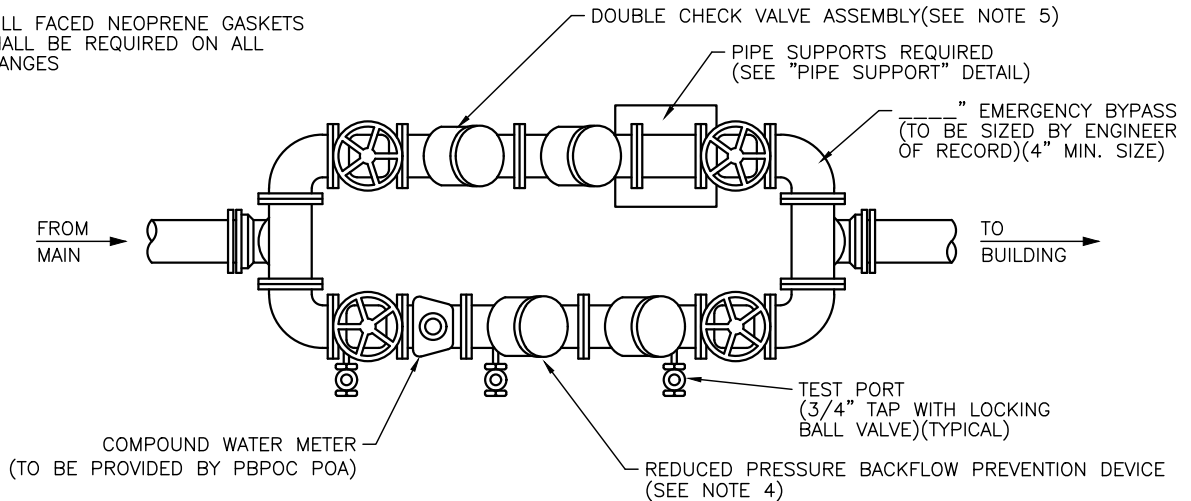
PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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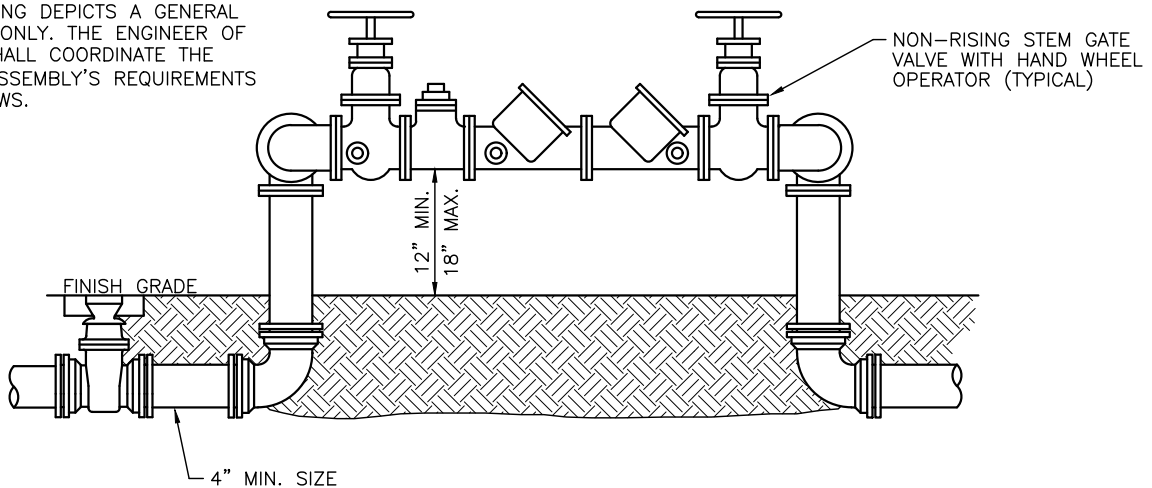
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FULL FACED NEOPRENE GASKETS SHALL BE REQUIRED ON ALL FLANGES



THIS DRAWING DEPICTS A GENERAL ASSEMBLY ONLY. THE ENGINEER OF RECORD SHALL COORDINATE THE SPECIFIC ASSEMBLY'S REQUIREMENTS WITH POAPWS.



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO UNIFLANGES PERMITTED.
2. PAINT THE ABOVE GROUND ASSEMBLY IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL OR BRASS FITTINGS.
3. WHEN PROTECTIVE PIPE STANCHIONS OR A SCREEN WALL IS REQUIRED, SEE "PROTECTIVE ENCLOSURES FOR ABOVE GROUND DEVICES" DETAIL.
4. APPROVED REDUCED PRESSURE BACKFLOW PREVENTER WITH SILICONE RUBBER SEAL RINGS OR DISKS:
 - A.) APOLLO MODEL RPL 4A, 4" TO 12"
 - B.) AMES MODEL 4000 SSSR, 4" TO 10"
 - C.) AMES MODEL 4000 SSI, 4" TO 10"
5. APPROVED DOUBLE CHECK VALVE ASSEMBLIES WITH SILICONE RUBBER SEAL RINGS OR DISKS.
 - A.) AMES 2000 SS
6. 3" METER REQUIRES 4" BACKFLOW ASSEMBLY AND PIPING.
7. ALL TEST PORTS SHALL BE PLUGGED WITH BRASS PLUGS.

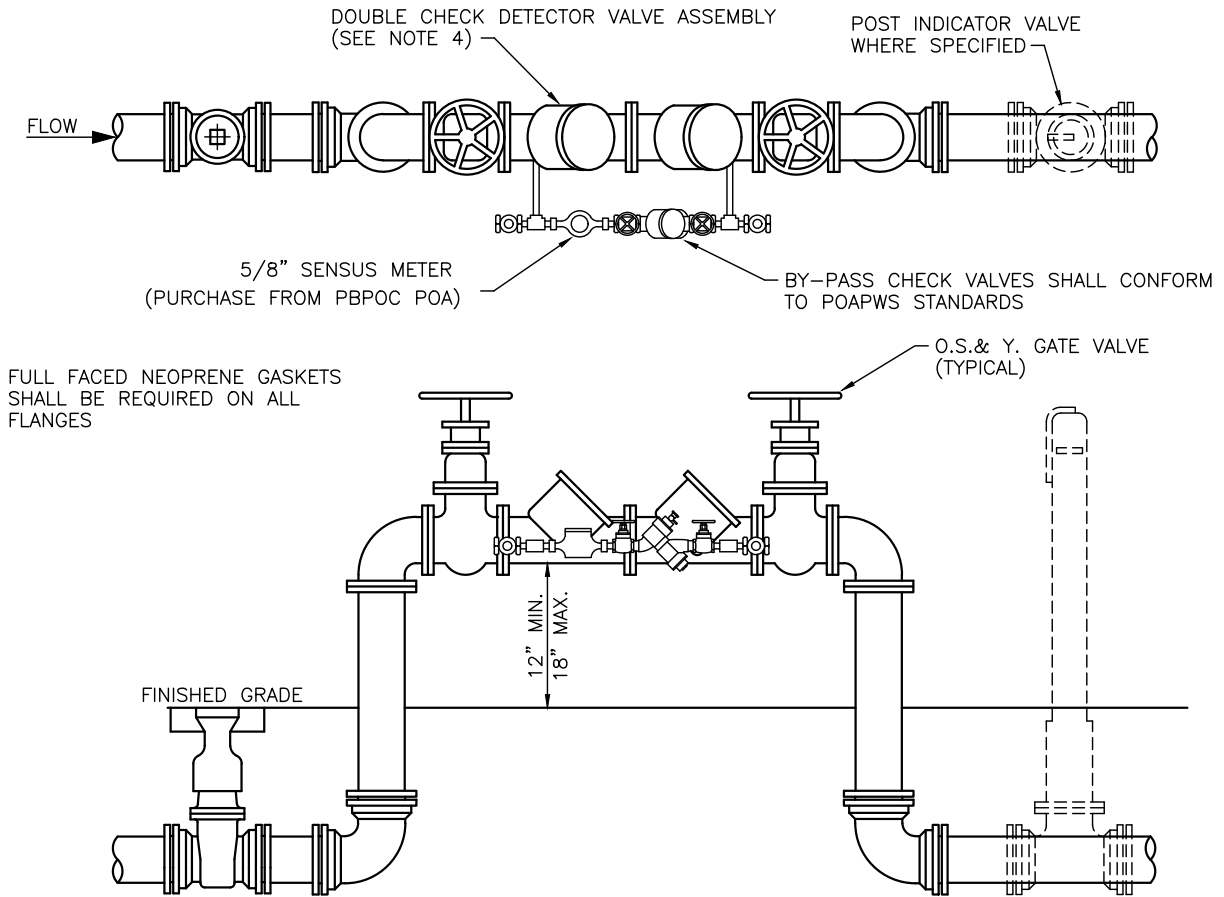
Meter and Backflow Assembly (3" and Larger)

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO UNIFLANGES PERMITTED.
2. PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL OR BRASS FITTINGS.
3. WHEN PROTECTIVE PIPE STANCHIONS OR A SCREEN WALL IS REQUIRED, SEE "PROTECTIVE ENCLOSURES FOR ABOVE GROUND DEVICES" DETAIL.
4. APPROVED DOUBLE CHECK DETECTOR VALVE ASSEMBLIES WITH SILICONE RUBBER SEAL RINGS OR DISKS:
 - A.) AMES MODEL 3000 SSI
 - B.) AMES MODEL 3000 SSR
 - C.) WATTS MODEL 774 DCDA SERIES 994
 - D.) APOLLO MODEL DCDA LF4A
5. SPECIAL FIRE PROTECTION SYSTEMS USING INTERNAL PUMPS, TANKS, ETC. SHALL BE REQUIRED TO USE AN APPROVED REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY.
6. ALL TEST PORTS SHALL BE PLUGGED WITH BRASS PLUGS.
7. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12".
 - A) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)
 - B) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.

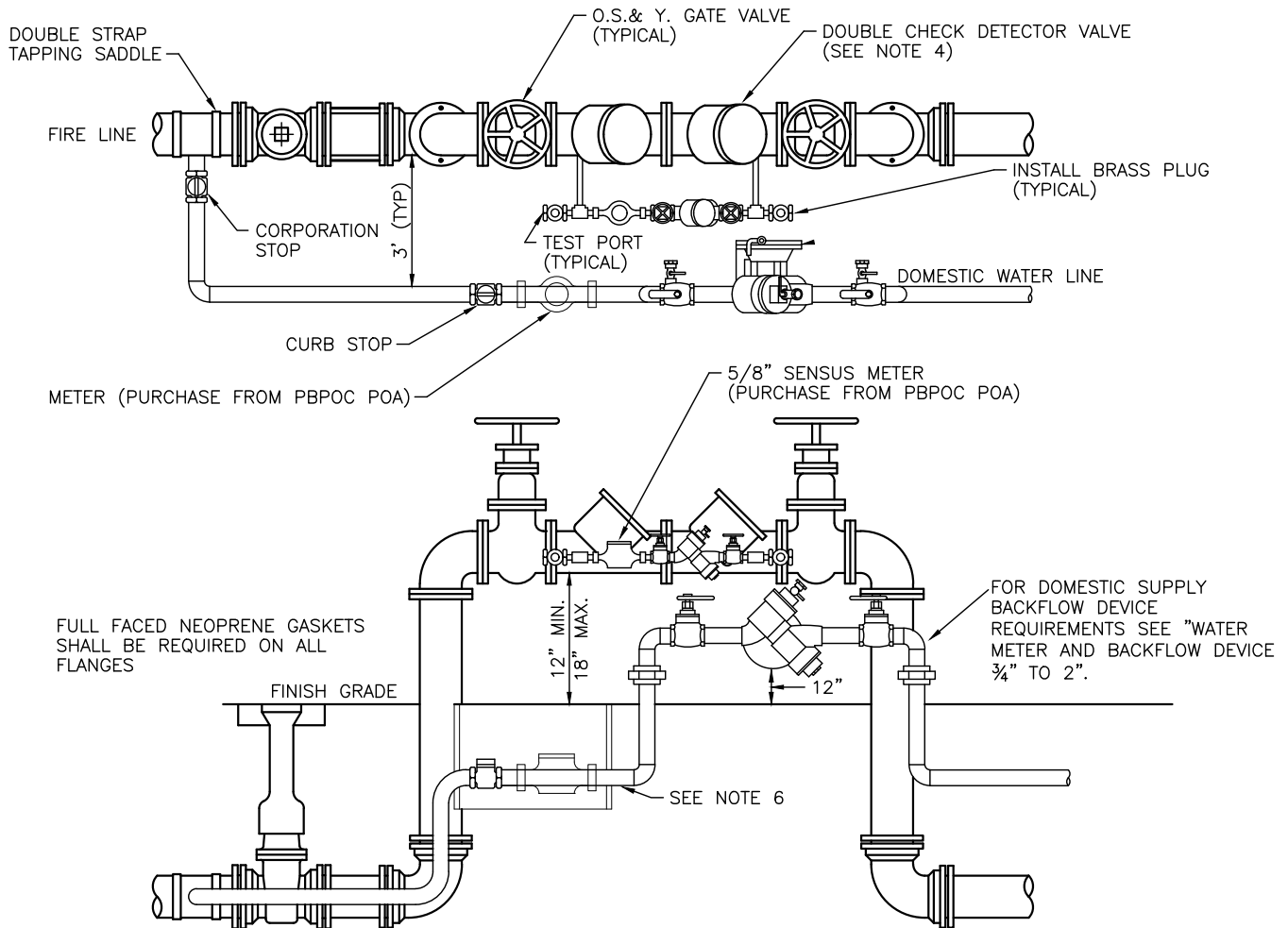
Above Ground Fireline

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

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NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO UNIFLANGES PERMITTED.
2. PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL OR BRASS FITTINGS.
3. WHEN PROTECTIVE PIPE STANCHIONS OR SCREEN WALL IS REQUIRED, SEE "PROTECTIVE ENCLOSURES FOR ABOVE GROUND DEVICES" DETAIL.
4. APPROVED DOUBLE CHECK DETECTOR VALVE ASSEMBLIES WITH SILICONE RUBBER SEAL RINGS OR DISKS:
 - A.) AMES MODEL 3000 SSI
 - B.) AMES MODEL 3000 SSR
 - C.) WATTS MODEL 774 DCDA SERIES 994
 - D.) APOLLO MODEL DCDA LF4A 4" - 12"
5. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBING SIZE. (UNDERGROUND USE ONLY) IF DISTANCE BETWEEN METER AND RISER IS LESS THAN 6 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
6. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12".
 - A) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)
 - B) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.

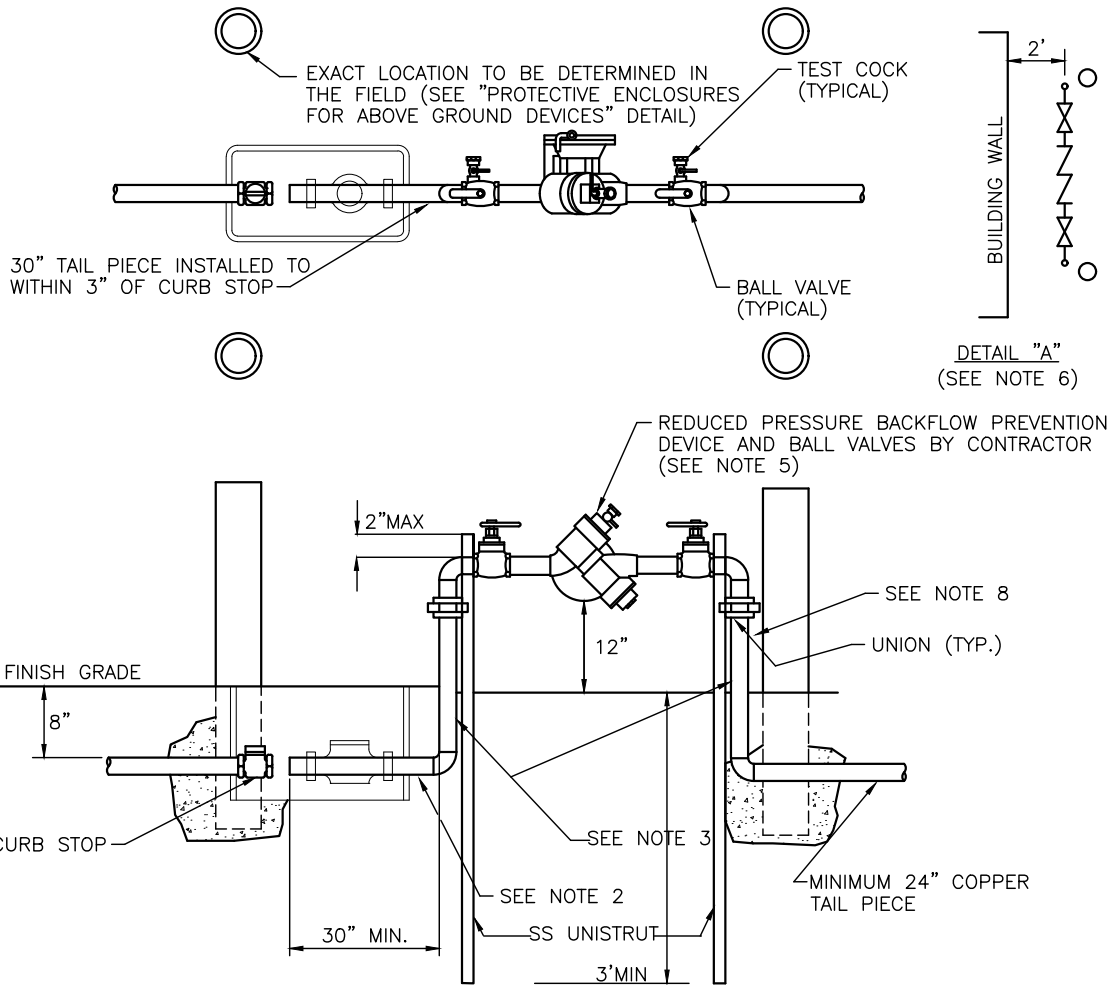
Fireline with 1" to 2" Domestic Supply

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No.

31
105



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBE SIZE.
2. IF THIS DISTANCE IS LESS THAN 6 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
3. BOTH RISERS SHALL BE TYPE "K" COPPER TUBING (HARD DRAWN) WITH COPPER/BRASS SOLDER FITTINGS AND ADAPTERS. ONLY LEAD FREE SOLDER AND FLUX SHALL BE PERMITTED.
4. 1 1/2" AND 2" METER STOPS SHALL BE EQUIPPED WITH LOCKING CAPS AND METER FLANGES.
5. APPROVED BACKFLOW PREVENTION DEVICES WITH SILICONE RUBBER SEAL RINGS OR DISKS:
 - A.) WATTS MODEL LF919 3/4" TO 2"
 - B.) AMES MODEL LF400B 3/4" TO 2"
 - C.) WILKINS 975 XL2 3/4" TO 2"
 - D.) APOLLO MODEL RPLF 4A 3/4" TO 2"
6. WHEN THE DEVICE IS INSTALLED PARALLEL TO A BUILDING WALL THERE SHALL BE A MINIMUM OF 2' BETWEEN THE EDGE OF THE DEVICE AND THE BUILDING WALL.
7. BACKFLOW PREVENTION DEVICE SHALL BE EQUIPPED WITH BALL VALVES.
8. BACKFLOW PREVENTION DEVICE SHALL BE SUPPORTED AT BOTH RISERS WITH A MINIMUM OF 2 - 1 1/8" STAINLESS STEEL UNISTRUTS. RISERS TO BE SECURED TO UNISTRUT WITH 304 STAINLESS STEEL MOUNTING HARDWARE AND 1/4" NEOPRENE INSULATORS BETWEEN ALL DISSIMILAR METALS.
9. BACKFLOW DEVICES SHALL BE A MINIMUM OF 3' FROM BACK OF CURB.

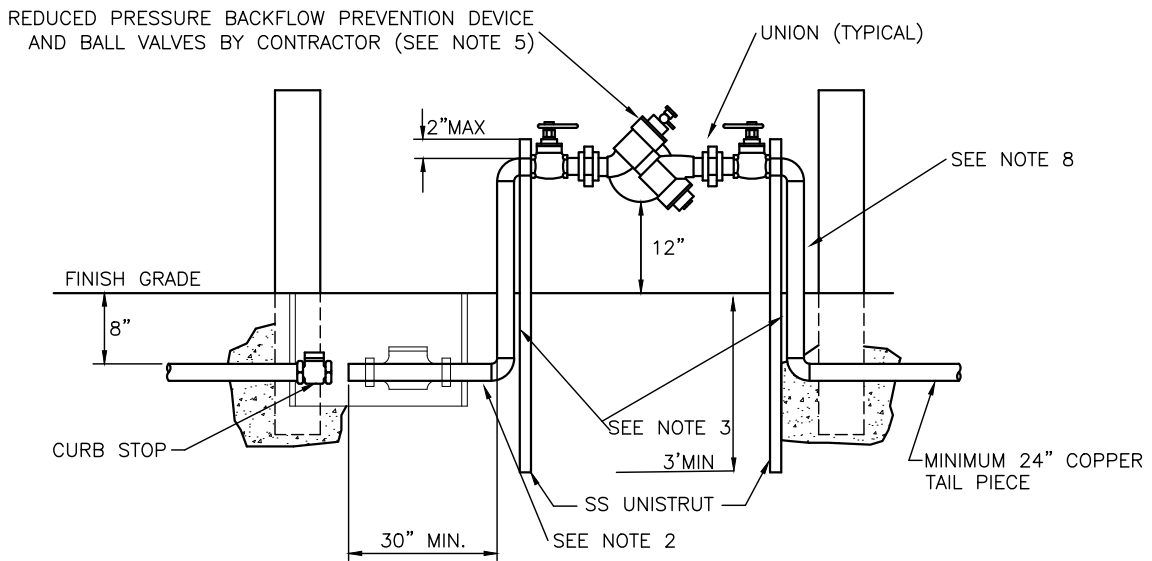
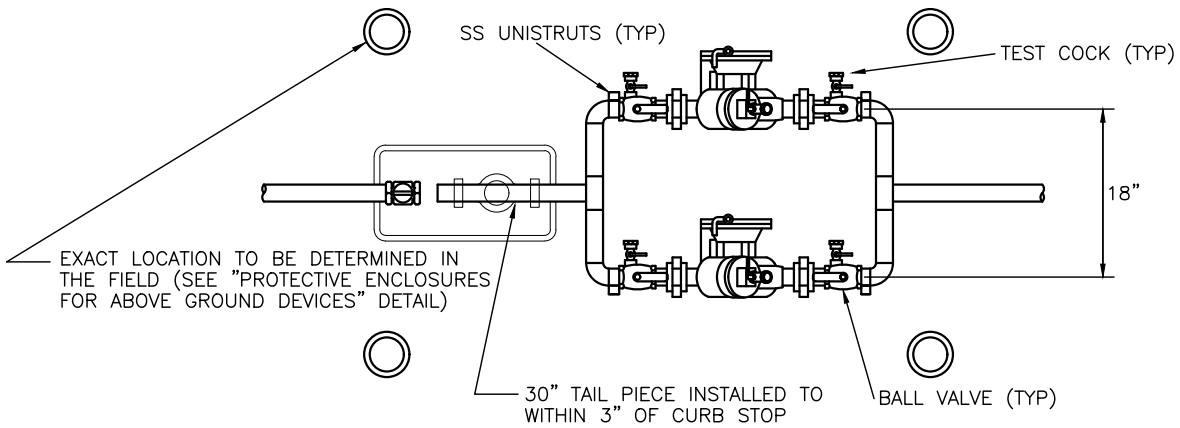
Water Meter and Backflow Device 3/4" to 2"

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No.

32
106



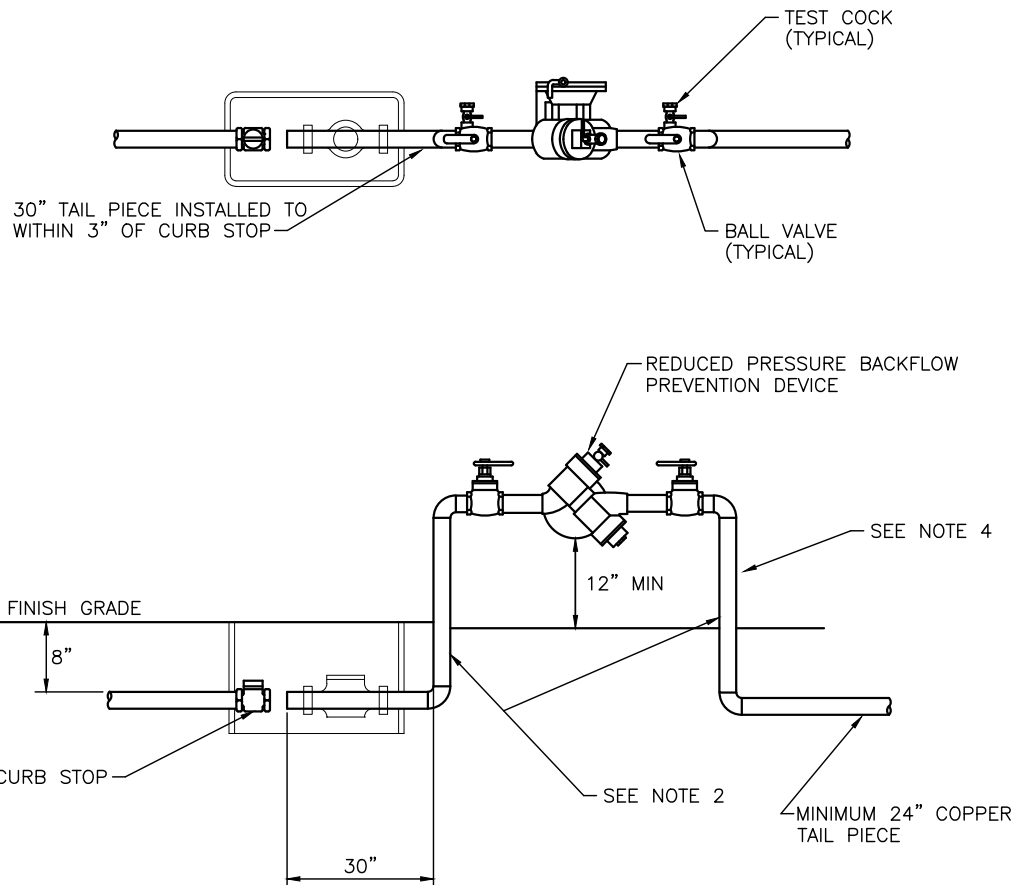
NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBE SIZE.
2. IF THIS DISTANCE IS LESS THAN 6 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
3. BOTH RISERS SHALL BE TYPE "K" COPPER TUBING (HARD DRAWN) WITH COPPER/BRASS SOLDER FITTINGS AND ADAPTERS. ONLY LEAD FREE SOLDER AND FLUX SHALL BE PERMITTED.
4. 1 1/2" AND 2" METER STOPS SHALL BE EQUIPPED WITH LOCKING CAPS AND METER FLANGES.
5. APPROVED BACKFLOW PREVENTION DEVICES WITH SILICONE RUBBER SEAL RINGS OR DISKS:
 - A.) WATTS MODEL LF919 3/4" TO 2"
 - B.) AMES MODEL LF400B 3/4" TO 2"
 - C.) WILKINS 975 XL2 3/4" TO 2"
 - D.) APOLLO MODEL RPLF 4A 3/4" TO 2"
6. WHEN THE DEVICE IS INSTALLED PARALLEL TO A BUILDING WALL THERE SHALL BE A MINIMUM OF 2' BETWEEN THE EDGE OF THE DEVICE AND THE BUILDING WALL.
7. BACKFLOW PREVENTION DEVICE SHALL BE EQUIPPED WITH BALL VALVES.
8. BACKFLOW PREVENTION DEVICE SHALL BE SUPPORTED AT BOTH RISERS WITH A MINIMUM OF 4 - 1 1/8" STAINLESS STEEL UNISTRUTS. RISERS TO BE SECURED TO UNISTRUT WITH 304 STAINLESS STEEL MOUNTING HARDWARE AND 1/4" NEOPRENE INSULATORS BETWEEN ALL DISSIMILAR METALS.
9. BACKFLOW DEVICES SHALL BE A MINIMUM OF 3' FROM BACK OF CURB.

Water Meter and Dual Backflow Device 3/4" to 2"

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
 CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
 NOVEMBER 2022
 DRAWING No. **33**
 107



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBE SIZE.
2. BOTH RISERS SHALL BE TYPE "K" COPPER TUBING (HARD DRAWN) WITH COPPER/BRASS SOLDER FITTINGS AND ADAPTERS. ONLY LEAD FREE SOLDER AND FLUX SHALL BE PERMITTED.
3. BACKFLOW PREVENTION DEVICES SHALL BE USC APPROVED WITH SILICONE RUBBER SEAL RINGS OR DISKS:
4. BACKFLOW PREVENTION DEVICE SHALL BE SUPPORTED AT BOTH RISERS WITH STAINLESS STEEL UNISTRUT. RISERS TO BE SECURED TO UNISTRUT WITH 304 STAINLESS STEEL MOUNTING HARDWARE AND $\frac{1}{4}$ " NEOPRENE INSULATORS BETWEEN ALL DISSIMILAR METALS.
5. BACKFLOW DEVICES SHALL BE A MINIMUM OF 3' FROM BACK OF CURB AND SIDEWALKS

Private Auxiliary Water Supply Backflow Device

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

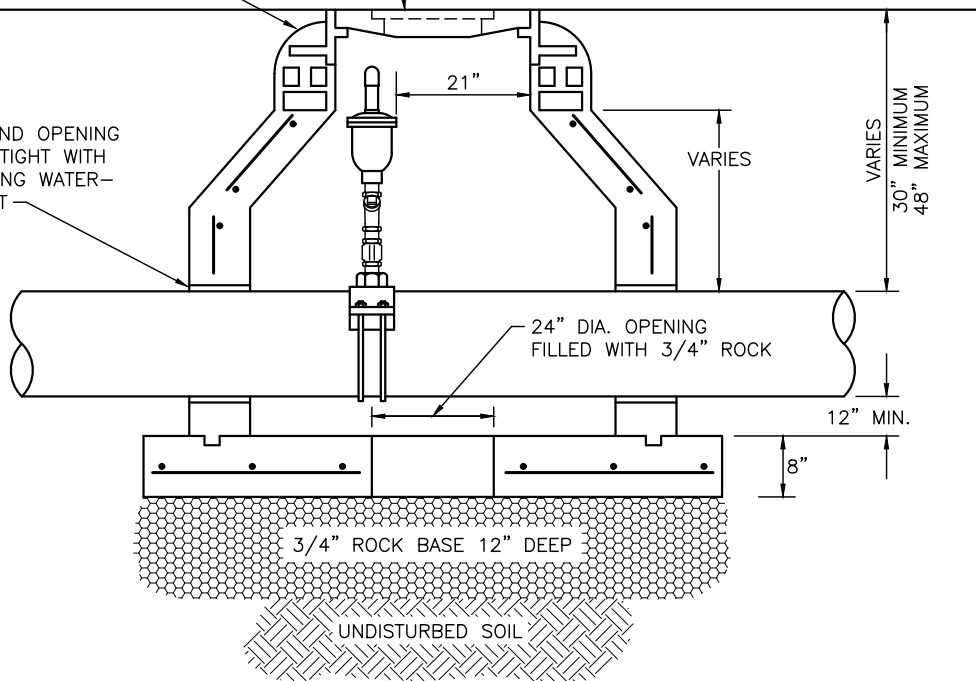
DRAWING No.

34
108

ADJUST WITH COURSE(S) OF BRICK AND MORTAR TO BRING TO GRADE (MIN. 2 COURSES OF BRICK - 6") (MAX. 5 COURSES OF BRICK - 18")

SEE "MANHOLE FRAME AND COVER-30" OPENING" DETAIL

4" ALL AROUND OPENING SEAL WATER TIGHT WITH NON-SHRINKING WATER-PROOF GROUT



FINISH GRADE

PRECAST CONCRETE CONCENTRIC MANHOLE SECTION

1" CHECK VALVE

LOCKING 1" CORPORATION STOP WITH AWWA THREADS

BRASS DOUBLE STRAP TAPPING SADDLE

STANDARD PRECAST SECTION (4'-0" DIA.)

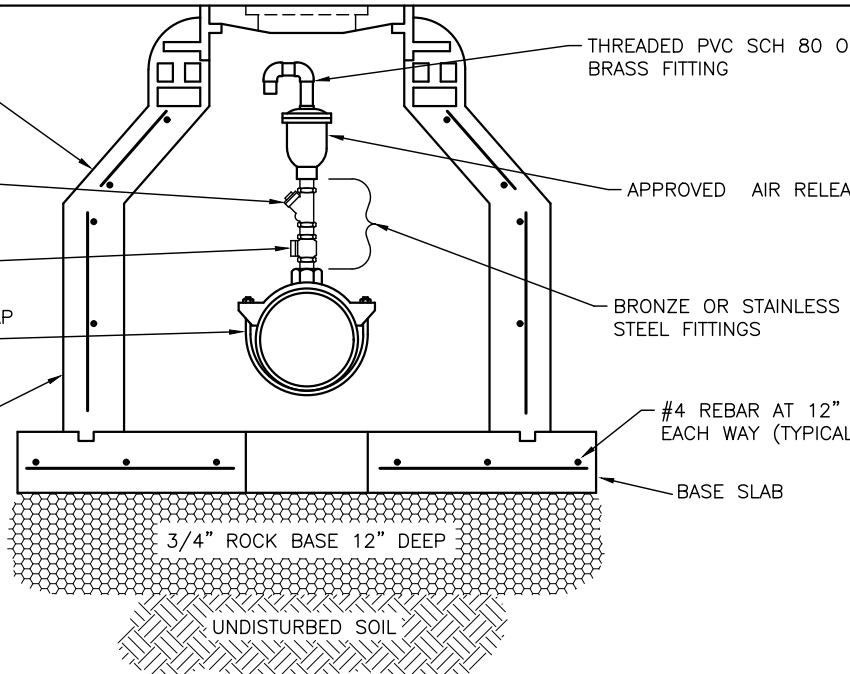
THREADED PVC SCH 80 OR BRASS FITTING

APPROVED AIR RELEASE VALVE

BRONZE OR STAINLESS STEEL FITTINGS

#4 REBAR AT 12" O.C. EACH WAY (TYPICAL)

BASE SLAB



PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

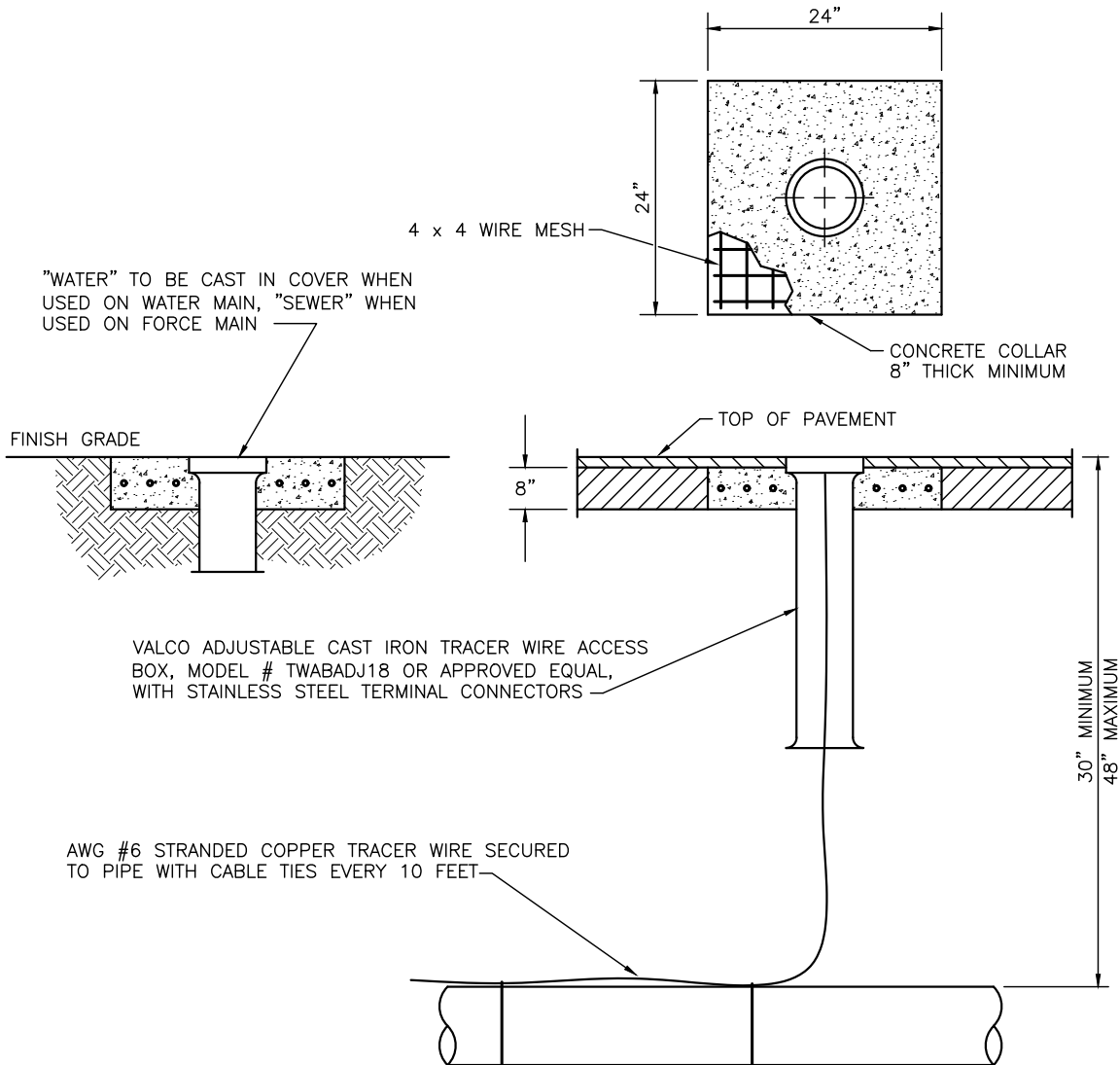
Automatic Air Release Valve (Underground Water Main)

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No.

35
109



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. REQUIRED FOR HDD OR AS DIRECTED BY PBPOC.

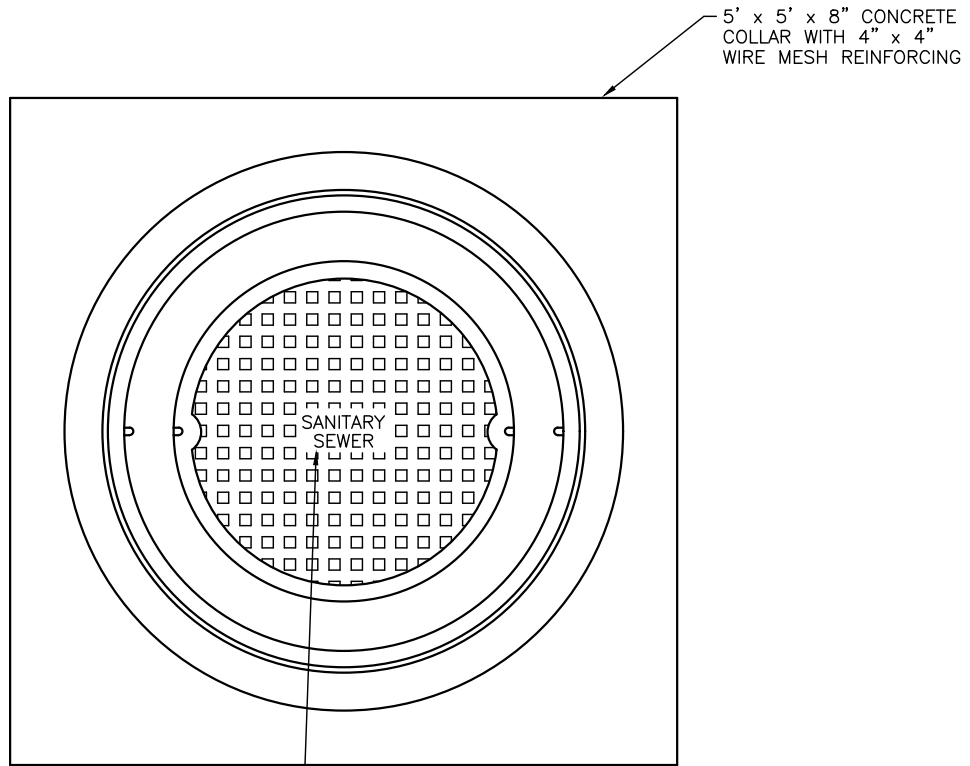
Tracer Wire Access Box

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

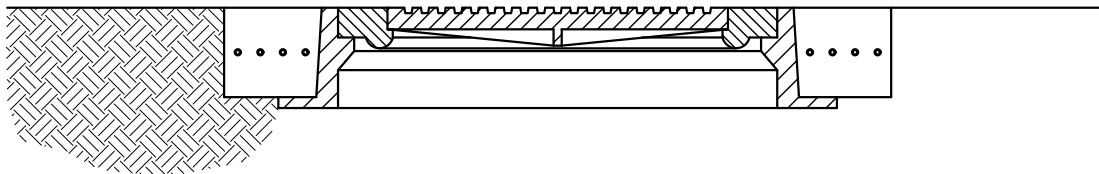
DRAWING No.

36
110



"WATER" TO BE CAST IN COVER WHEN USED ON WATER MAIN AIR RELEASE VALVE STRUCTURE, "SANITARY SEWER" WHEN USED ON SANITARY SEWER COLLECTION STRUCTURE OR FORCE MAIN AIR RELEASE VALVE STRUCTURE

FINISHED GRADE



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

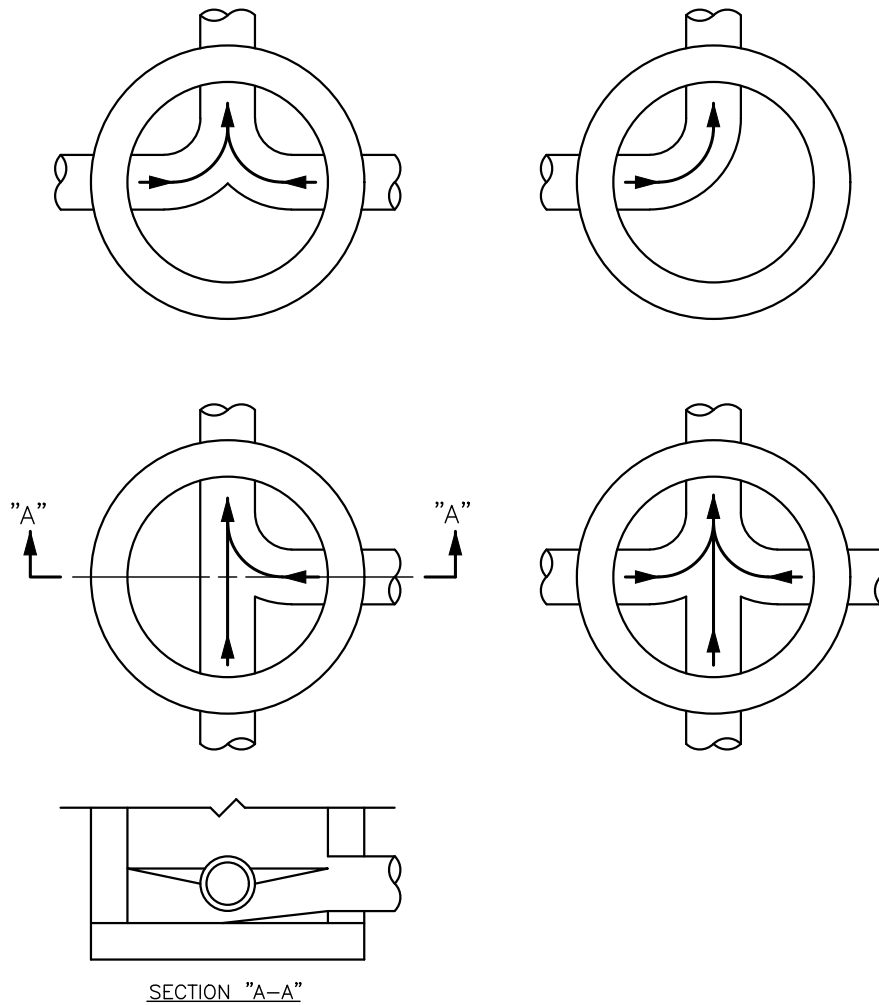
1. IN GREEN AREAS OR ANY AREA DEEMED TO HAVE QUESTIONABLE DRAINAGE, A WATER TIGHT MANHOLE INSERT SUCH AS "SEWER GUARD" OR APPROVED EQUAL WILL BE REQUIRED.
2. APPROVED MANHOLES (DOUBLE COVER TYPE):
 - A) U.S. FOUNDRY MODEL No. 230-AB-M
 - B) VULCAN FOUNDRY MODEL No. VM-101
3. CONCRETE COLLAR IS REQUIRED ONLY WHEN MANHOLE IS OUT OF PAVEMENT.

Manhole Frame and Cover (30" Opening)

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No. 40
111



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

Flow Patterns for Invert Channels

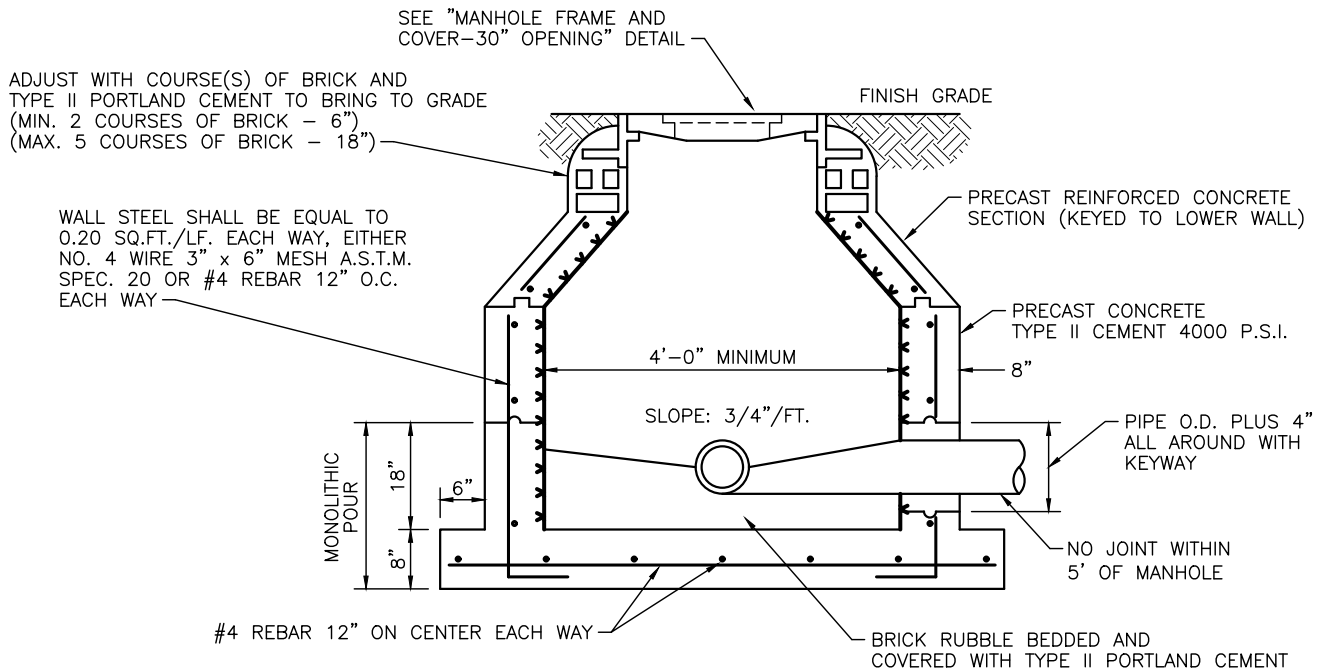
PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No.

41

112



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. MANHOLES SHALL CONFORM TO A.S.T.M. C478.(MIN.)
2. WALL REINFORCEMENTS A.S.T.M. DESIGNATION A185-64.(LATEST REVISION)(MIN.)
3. IF TWO CAGES OF WIRE MESH ARE USED, ONE SHALL BE POSITIONED 3" FROM THE INSIDE SURFACE AND ONE 3" FROM THE OUTSIDE SURFACE. IF A SINGLE CAGE OR REBAR IS USED, IT SHALL BE CENTERED WITHIN WALL THICKNESS. NO EXPOSED STEEL SHALL BE PERMITTED.
4. LIFT HOLES THROUGH PRECAST STRUCTURE ARE PERMITTED.
5. A MINIMUM OF SEVEN DAYS CURE TIME IS REQUIRED PRIOR TO DELIVERY.
6. ALL PIPE HOLES SHALL BE PRECAST OR CORE DRILLED. OVERSIZED HOLES WILL BE REJECTED.
7. ANY VISIBLE REINFORCING WIRE, STEEL OR HONEYCOMBS SHALL BE CAUSE FOR REJECTION.
8. SEE TECHNICAL SPECIFICATIONS FOR BEDDING REQUIREMENTS.
9. "RAM-NEK" OR APPROVED EQUAL AT ALL RISER JOINTS (1/2" THICK WITH WIDTH AT LEAST 1/2 THE WALL THICKNESS) WITH GROUT ON INSIDE AND OUTSIDE.
10. ALL OPENINGS SHALL BE SEALED USING ONLY TYPE II PORTLAND CEMENT/SAND MORTOR AND POTABLE WATER FOR MUD WORK ON JOINTS, LIFTING HOLES, INVERTS, ETC. WHEN AN ACCELERATOR IS NECESSARY, "ANTI HYDRO" IS THE ONLY PRODUCT APPROVED.
11. BRICK MASONRY CONSTRUCTION TO BE STUCCOED WITH 3/4" TYPE II CEMENT INSIDE AND OUTSIDE, AND INSIDE TO BE COATED WITH TWO COATS OF KOPPERS 300 OR APPROVED EQUAL.
12. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM, AND COATED WITH TWO COATS OF KOPPERS 300 OR APPROVED EQUAL
13. INTERIOR OF ALL SANITARY MANHOLES SHALL HAVE AGRU SURE GRIP CONCRETE PROTECTIVE LINER INSTALLED AT THE TIME OF MANUFACTURING. SEE "AGRU SURE GRIP LINER DETAILS" DRAWING FOR ADDITIONAL AGRU SURE GRIP REQUIREMENTS.

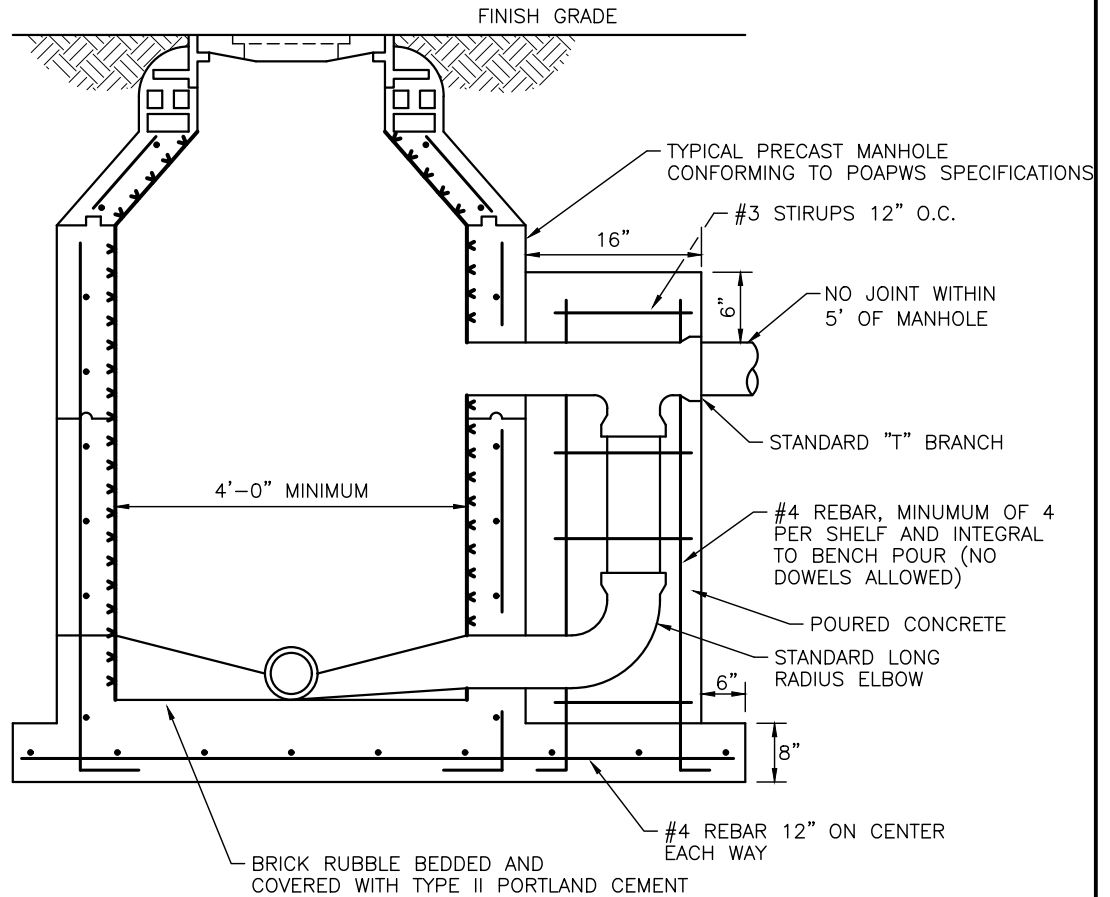
Standard Precast Manhole

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No.

42
113



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

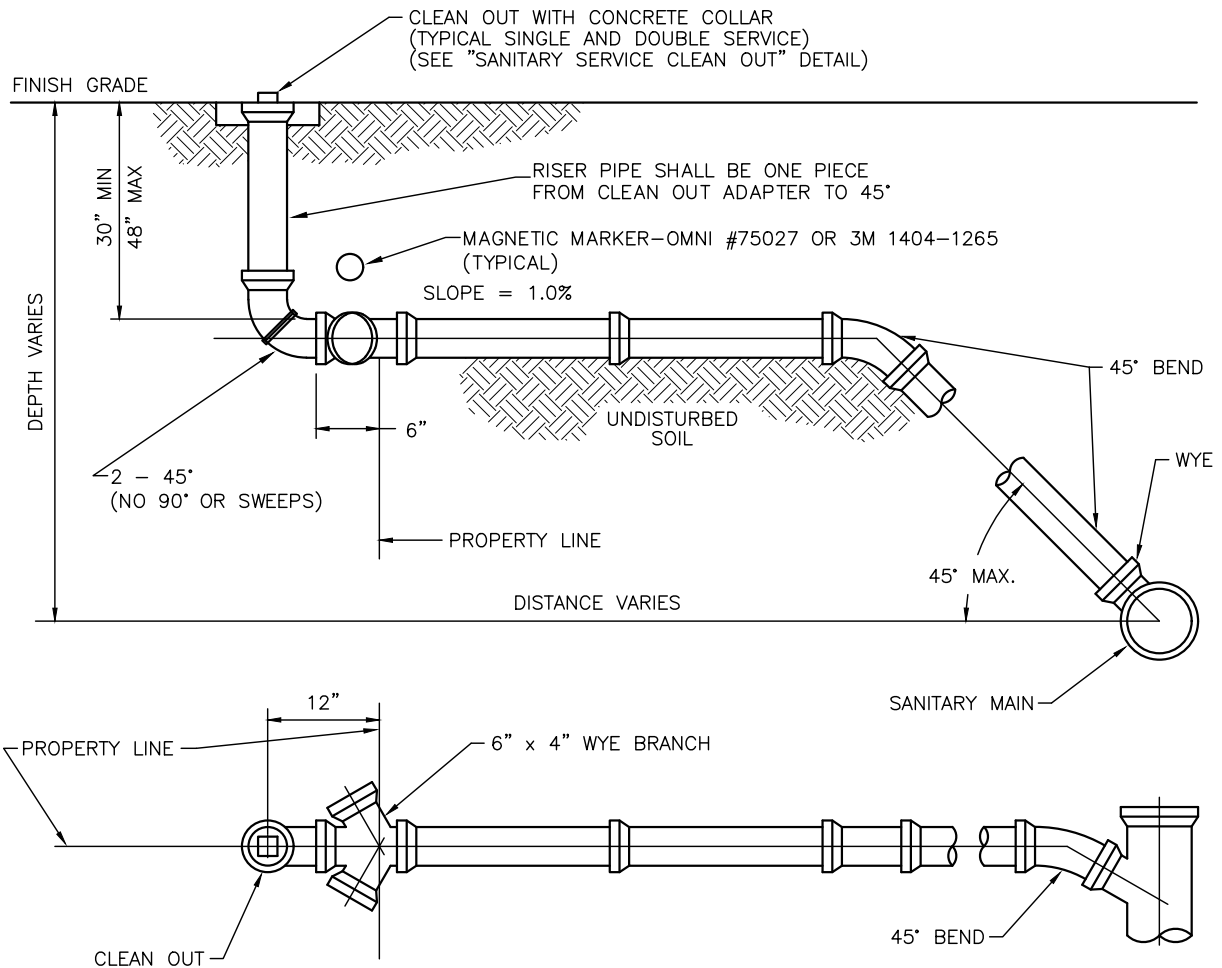
1. CONCRETE ENCASEMENT FOR DROP CONNECTION TO BE FIELD POURED.
2. DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED TWO (2) FEET OR MORE ABOVE THE MAIN INVERT CHANNEL.
3. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
4. WHEN PVC IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT PVC FITTINGS MAY BE UTILIZED IN THE DROP ASSEMBLY ONLY.
5. MINIMUM PIPE SIZE FOR DROP IS 8".
6. SEE "STANDARD PRECAST MANHOLE" DETAIL FOR ADDITIONAL REQUIREMENTS.

Precast Manhole - Drop Connection Type A

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
 CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
 NOVEMBER 2022

DRAWING No. **43**
 114



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2" x 2" TREATED WOOD STAKE AND AN E.M.S. SANITARY SEWER MARKER.
2. EACH SERVICE CONNECTION SHALL BE PLUGGED WATERTIGHT WITH AN APPROVED CAP OR PLUG.
3. FOR PVC INSTALLATIONS, CONNECT TO EXISTING "BELL END" AND CONNECT OPPOSITE END WITH PVC TO PVC KNOCK ON SLEEVE.
4. SOLIDLY TAMP BACKFILL AT LEAST ONE FOOT ABOVE TOP OF PIPE. SERVICES UNDER PAVED AREAS SHALL BE BACKFILLED TO THE SAME SPECIFICATIONS AS SHOWN ON "PAVEMENT REPLACEMENT" DETAIL.
5. CONTRACTOR SHALL MARK ON A CLEAN SET OF PLANS THE FINAL STATIONING OR DISTANCE AND DIRECTION FROM MANHOLE TO EACH SERVICE LATERAL AND GIVE TO ENGINEER FOR RECORD DRAWING PURPOSES.
6. ANY DEVIATION FROM THESE METHODS MUST BE APPROVED BY PBPOC.
7. THE USE OF UNNECESSARY FITTINGS ON THE CUSTOMERS LINE TO REDUCE EXCAVATION EFFORTS WILL BE CAUSE FOR REJECTION.
8. THE USE OF 90° SWEEPS ON THE CUSTOMERS LINE IN LIEU OF 45° BENDS WILL REQUIRE AN ADDITIONAL CLEAN OUT AS SHOWN ON "SANITARY SERVICE CLEAN OUT DETAIL". THE CLEAN OUT SHALL BE ON THE HOUSE SIDE OF THE TOP SWEEP WITHIN 2' OF THE SWEEP.

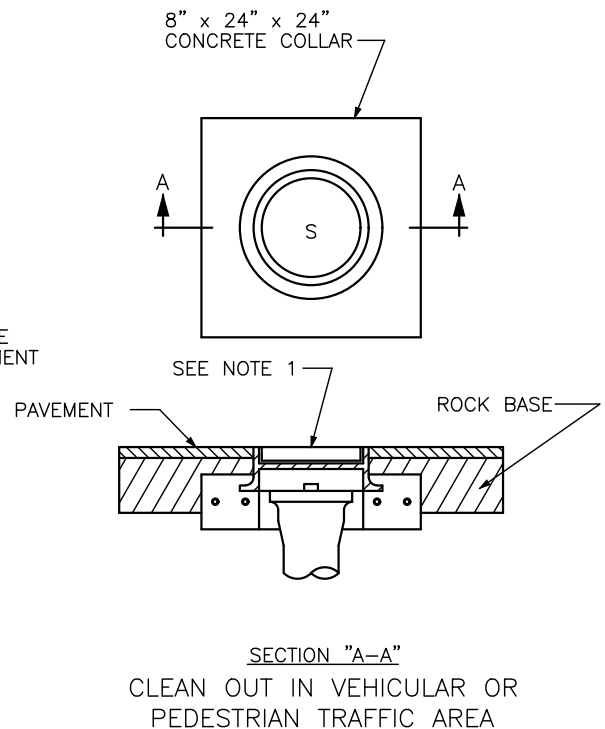
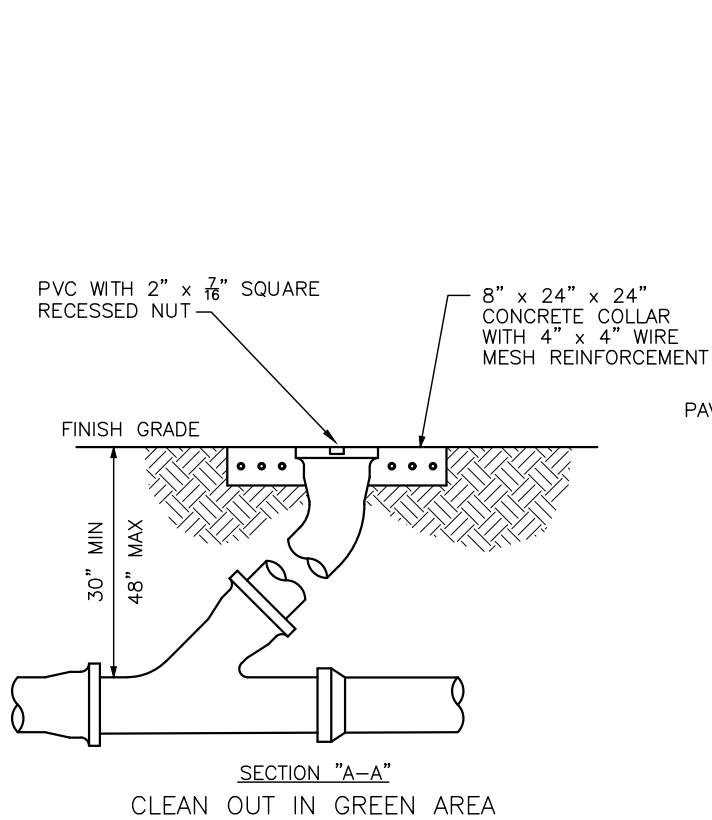
Sewer Service Connection (Wye Branch)

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No.

44
115



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

1. U.S. FOUNDRY NO. 7621 REVERSIBLE HANDHOLE RING AND COVER OR APPROVED EQUAL SHALL BE USED, COVER TO BE CAST WITH "S" IN THE CENTER.
2. CLEAN OUT REQUIRED ON ALL SERVICES AT PROPERTY LINE OR EASEMENT LINE WHERE APPLICABLE.
3. STANDARD WYE SHALL BE USED AT CLEAN OUT.

Sanitary Service Clean Out

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

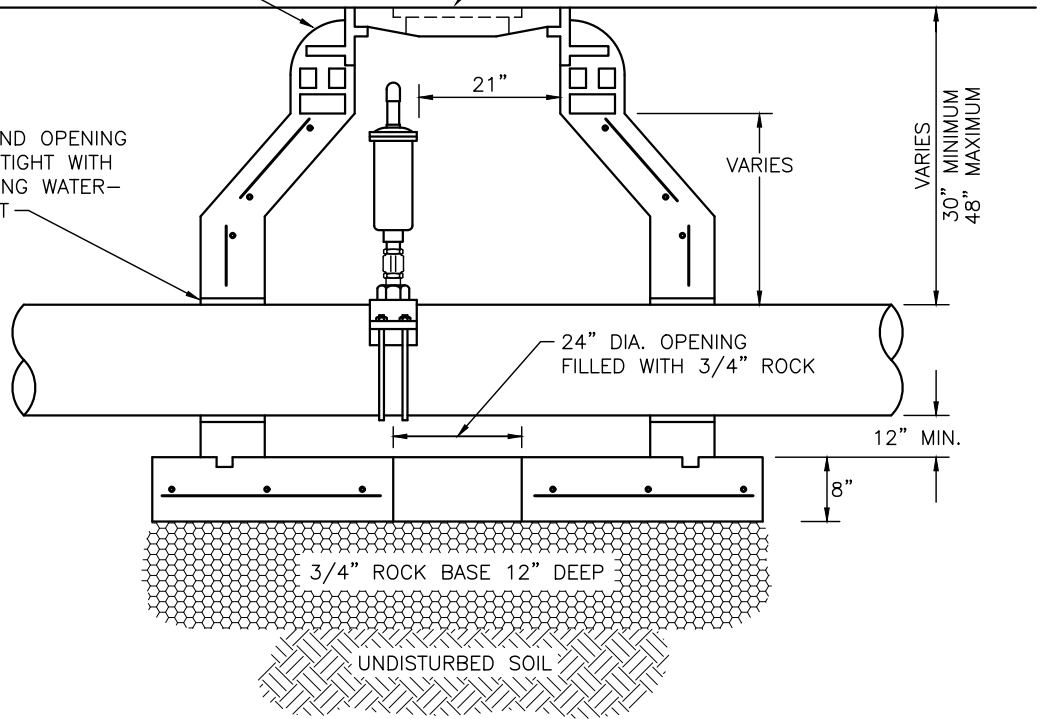
DATE APPROVED:
NOVEMBER 2022

DRAWING No. **45**
116

ADJUST WITH COURSE(S) OF BRICK AND MORTAR TO BRING TO GRADE
(MIN. 2 COURSES OF BRICK - 6")
(MAX. 5 COURSES OF BRICK - 18")

SEE "MANHOLE FRAME AND COVER-30" OPENING" DETAIL

4" ALL AROUND OPENING SEAL WATER TIGHT WITH NON-SHRINKING WATER-PROOF GROUT



FINISH GRADE

PRECAST CONCRETE CONCENTRIC MANHOLE SECTION

INTERIOR TO BE COATED WITH TWO COATS OF COAL TAR EPOXY

BRASS DOUBLE STRAP TAPPING SADDLE

STANDARD PRECAST SECTION (4'-0" DIA.)

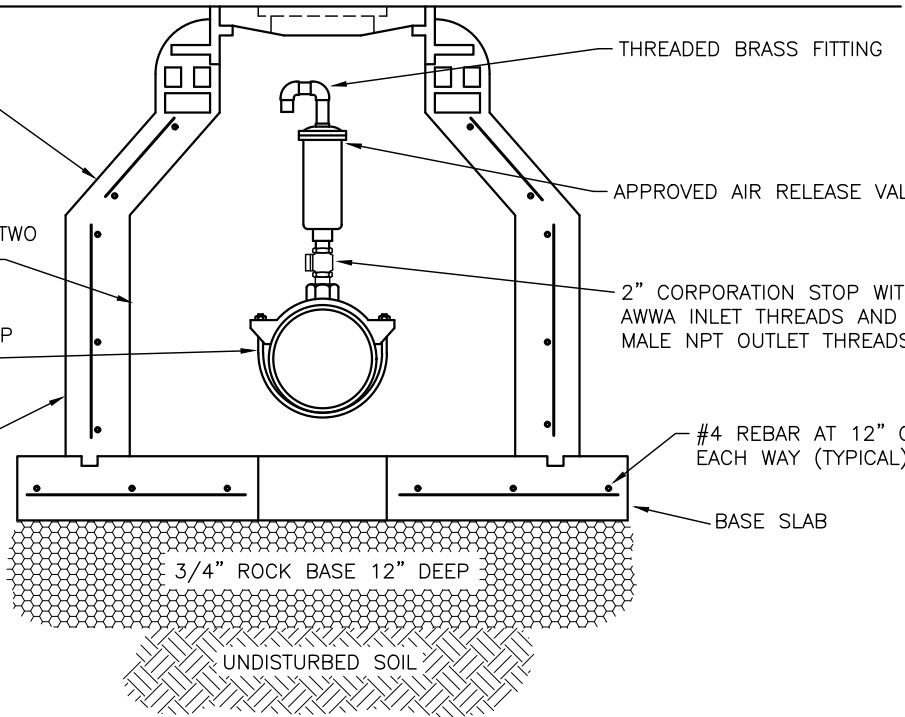
THREADED BRASS FITTING

APPROVED AIR RELEASE VALVE

2" CORPORATION STOP WITH AWWA INLET THREADS AND MALE NPT OUTLET THREADS

#4 REBAR AT 12" O.C. EACH WAY (TYPICAL)

BASE SLAB



PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

Air Release Valve (Underground Force Main)

PALM BEACH PARK OF COMMERCE ASSOCIATION, Inc.
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
NOVEMBER 2022

DRAWING No. 46
117



Palm Beach Park of Commerce

**Palm Beach Park of Commerce
Association, Inc.**

UNIFORM SERVICE POLICY

ON

WATER, WASTEWATER

AND

FIRE PROTECTION

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I. Intent

II. Definitions

III. Connection Charges

IV. Monthly Service Charges

V. Payment Schedule

Exhibit A: Water Supply Agreement
Memorandum of Water Supply Agreement

Exhibit B: Property Questionnaire
Application for Water and/or Sewer Service
Application for Meter Installation

Exhibit C: Pretreatment Survey Questionnaire
Wastewater Pretreatment
Rules and Regulations

I. INTENT

PALM BEACH PARK OF COMMERCE ASSOCIATION, INC. (the "Association") has established this Uniform Schedule designed to set forth the service relationship between the Association and property owners, builders and developers seeking to obtain water, wastewater and fire protection service for the benefit of their property in accordance with the provisions of the "Restated Declaration of Protective Covenants, Conditions, and Restrictions for Palm Beach Park of Commerce" recorded in Official Records Book 15898, Page 0890, Public Records of Palm Beach County, and all subsequent amendments.

Connection Charges are not charged or received as compensation for the sale of water or wastewater services and are not considered "service" within the context of Section 166.231 Florida Statutes, or its successor Statute. Connection Charges are "Contributions In Aid of Construction" (CIAC) which means the amount of money which is used to offset the acquisition, improvement or construction costs of the water system, facilities or equipment used to provide utility services. The Connection Charges may be used by the Association for payment of, without limitation to; (i) debt service; (ii) repairs and maintenance; (iii) reserves; (iv) acquisition, improvement or construction costs; and (v) all other related costs for the Association's water and wastewater system and infrastructure.

It is the Association's intent that the Connection Charges provided herein be established from time to time, so as to balance the financial requirements of the system equitably and properly between the existing water consumers of the Association and those prospective consumers seeking service. The required **Water Supply Agreement** form and related **Memorandum of Water Supply Agreement** are attached hereto as **Exhibit "A"** for review. All necessary application forms are also attached

hereto as **Exhibit "B"**. Each attached form should be completed in full and submitted to the Association in order to initiate the service relationship at the beginning of any new project. In addition, it is the Association's intent that all property owners, builders and developers who begin receiving water and sewer services from the Association comply with the Association's **Wastewater Pretreatment Rules and Regulations**, a copy of which is attached hereto as **Exhibit "C"**.

II. DEFINITIONS

The Association: Palm Beach Park of Commerce Association, Inc., a Florida not-for-profit corporation, was formerly known as First Park South Florida Association Inc., established on July 29, 1983. On January 31, 2008, the Association filed a name change with the Secretary of State and changed its name back to PALM BEACH PARK OF COMMERCE Association, Inc.

- (a) The Association: Palm Beach Park of Commerce Association, Inc., a Florida not for profit corporation, was established as a separate legal entity on July 29, 1983. Subsequently, on January 31, 2008 Palm Beach Park of Commerce Association, Inc. filed a name change with the Secretary of State and changed its name to FIRST PARK SOUTH FLORIDA Association, Inc. Subsequent to January 2008 First Park South Florida Association, Inc. filed a name change with the Secretary of State and changed its name back to PALM BEACH PARK OF COMMERCE ASSOCIATION, INC. as documented by the Sixth Amendment to the Declaration dated January 21, 2015.
- (b) Connection Charges: Those amounts charged by the Association to each owner, builder or developer for the fair share of the cost of the water and wastewater treatment system and the master water distribution and sewerage collection facilities based upon the amount of capacity required by the property of said owner, builder or developer. These charges correspond with Section 6. (c) of the Water Supply Agreement.
- (c) Connected Units: A connected unit (wastewater) shall be considered as any single drain connected to the sanitary system and shall include but not be limited to, toilets, sinks, floor drains, urinals, washers, wash basins and any machinery that is connected to or discharges into the sanitary wastewater lines.

III. CONNECTION CHARGES

The Connection Charges, until adjusted by the Association, are as follows:

<u>METER SIZE</u>	<u>TOTAL ERC's *)</u>	<u>WATER</u> per ERC	<u>WASTE- WATER</u> per ERC	<u>TOTAL</u>
smaller than ¾"	1.0	\$6,621.00	\$3,956.00	\$ 10,577.00
¾"	1.5	\$6,621.00	\$3,956.00	\$ 15,865.50
1"	2.5	\$6,621.00	\$3,956.00	\$ 26,442.50
1½"	6.0	\$6,621.00	\$3,956.00	\$ 63,462.00
2"	8.0	\$6,621.00	\$3,956.00	\$ 84,616.00
3"	16.0	\$6,621.00	\$3,956.00	\$ 169,232.00
4"	25.0	\$6,621.00	\$3,956.00	\$ 264,425.00
6"	50.0	\$6,621.00	\$3,956.00	\$ 528,850.00
8"	80.0	\$6,621.00	\$3,956.00	\$ 846,160.00
10"	115.0	\$6,621.00	\$3,956.00	\$1,216,355.00
Temporary Connection during construction: (lumpsum)				\$ 2,800.00
Administrative Fee: (per Sections 4. (b) + (c) Water Supply Agreement)				\$ see separate Rate Schedule

*) ERC = Equivalent Residential Connection

IV. MONTHLY SERVICE CHARGES

WATER POTABLE

Rate

Same as rate charged by Seacoast Utility Authority to PBPOC with annual increase.

FIRE PROTECTION

<u>Fire Line Size</u>	<u>Rate</u>
2 "	\$ 20.00
3 "	\$ 30.00
4 "	\$ 50.00
6 "	\$ 90.00
8 "	\$140.00
10 "	\$200.00
12 "	\$400.00

WASTEWATER

<u>Connected Units</u>	<u>Rate per Unit</u>
0 - 20	\$3.00
20 - 50	\$2.50
51 - 100	\$2.00
100 - more	\$1.50

V. PAYMENT SCHEDULE

- (a) Temporary Connection Charges
- (b) The first 50% of all Connection Charges

Due and payable upon execution of Water Supply Agreement

- (c) The remaining 50% of all Connection Charges

Due and payable as meter(s) is/are requested.

- (d) Monthly Service Charges:

Monthly Services Charges for water and sewer service are billed monthly, dated the first day of each calendar month and due on or before the last day of such calendar month. All late payments shall become subject to a 1.5% monthly finance charge. The Association shall have the right to disconnect service in the event late payments and applicable finance charges are not received within sixty (60) days of the date of the monthly invoice.

Exhibit "A"
WATER SUPPLY AGREEMENT

THIS AGREEMENT ("Agreement") made and entered by date last signed, _____, 202__, by and between _____, a _____, hereinafter referred to as "**Customer**", and **PALM BEACH PARK OF COMMERCE ASSOCIATION, INC.**, a Florida not-for-profit corporation, hereinafter referred to as the "**Association**".

WHEREAS, Customer owns lands located in Palm Beach County, Florida, and described in **Exhibit "A"**, attached hereto and made a part hereof as if fully set out in this paragraph and hereinafter referred to as the "Property", and Customer intends to develop the Property by constructing improvements thereon; and

WHEREAS, pursuant to and in accordance with the terms and conditions of that certain Interlocal Agreement by and between Palm Beach County, a political subdivision of the State of Florida (the "**County**") and Seacoast Utility Authority, a separate legal public entity pursuant to the provisions of Chapter 163, Florida Statutes, its successor and or/assigns ("**Seacoast**"), dated April 18, 2006, and recorded in Official Records Book 20252, Page 259 in the Public Records for Palm Beach County, Florida, as may be amended from time to time (the "**County Agreement**"); Seacoast has the sole and exclusive authority and right to provide water and sewer services to all the real property located within Seacoast's service area, as defined therein (the "**Seacoast Service Area**");

WHEREAS, the Property lies within the boundaries of the Seacoast Service Area;

WHEREAS, pursuant to and in accordance with the terms and conditions of that certain Water and Sewer Service Agreement by an between Seacoast and the Association, dated June 7, 2007, as may be amended from time to time (the "**Seacoast Agreement**"), and in accordance with Seacoast's prevailing Service Code, the Association has the sole and exclusive authority and right to provide water and sewer services to all the real property (existing and any additional real property subsequently added thereto) as are now or hereafter made subject to the Restated Declaration of Protective Covenants, Conditions and Restrictions for PALM BEACH PARK OF COMMERCE, dated September 22, 2003 and recorded in Official records Book 15898, Page 0890, in the Public Records of Palm Beach County, as amended, and as further amended from time to time (the "**Declaration**"), including without limitation, the Property (all real property now or hereinafter made subject to the Declaration shall be collectively referred to herein as the "**Park Property**");

WHEREAS, Customer desires that the Association provide water and sewer service for Customer's Property herein described; and

WHEREAS, the Association is willing to provide, to the extent of the Association's rights pursuant to the County Agreement and the Seacoast Agreement, and in accordance with the provisions of this Agreement, the Association's Uniform Service Policy on Water, Wastewater and Fire Protection, as may be amended from time to time (the "**Uniform Service Policy**"), and the Association's Wastewater Pretreatment Rules and Regulations, as may be amended from time to time (the "**Rules**") (which are an Exhibit to the Uniform Service Policy), water and sewer services to the Property so that the occupants of the improvements on the Property will receive water supply and sewage service from the Association.

Exhibit "A"

NOW, THEREFORE, for and in consideration of the promises, the mutual undertakings and agreements herein contained and assumed, Customer and the Association hereby covenant and agree as follows:

1. The foregoing recitals are true, correct and incorporated herein by reference.
2. Customer agrees to strictly adhere to the Uniform Service Policy, the Rules and all other directives of the Association, Seacoast and/or the County.
3. Assurance of Title - At the time of execution of this Agreement, the Customer agrees to deliver to the Association a copy of a Title Insurance Policy, or an opinion of title from a qualified attorney-at-law addressed to the Association in a form and substance satisfactory to the Association with respect to the Property, which opinion shall include a current report on the status of the title, setting out the name of the legal title holders, the outstanding mortgages, taxes, liens and covenants. The provisions of this paragraph are for the purpose of evidencing Customer's legal right to agree to the provisions contained in this Agreement.
4. On-Site Installation. Subject to the Association's approval and terms and conditions set forth herein, Customer shall, at Customer's sole cost and expense, secure any permits and approvals necessary for and construct the on-site water distribution and sewage collection systems in accordance with the plans and specifications as set forth on as **Exhibit "B"** attached hereto and incorporated herein by reference (the "**Plans**"). The term "on-site water distribution and sewage collection systems" means and includes all water distribution and supply mains, lines and pipes, and related facilities, and sewage collection lines, facilities and equipment, including pumping stations, constructed within the boundaries of Customer's Property adequate in size to serve the Property or as otherwise required by the Association. The on-site water distribution and sewage collection systems shall be owned and serviced by Customer and shall herein after be referred to as the "**On-Site System**".

The Customer shall give the Association written advance notice of its desire to connect the On-Site System to the Association's water and wastewater system. Upon completion of construction of the On-Site System, Customer's engineer of record shall submit to the Association all proper documentation as described in the Association's Design Standards. The Association shall connect, or cause the connection of, the On-Site System to the Association's water and wastewater system at the boundaries of Customer's Property as depicted on **Exhibit "B"**, at Customer's sole cost and expense. Customer understands and agrees that the Association shall not be required to connect and service the Property until all items are received and found to be reasonably acceptable to the Association and all fees as set forth herein are paid. Customer agrees to warrant and/or guaranty its On-Site System and all utility facilities being constructed by Customer against faulty workmanship and defective materials. Customer covenants to indemnify and save harmless the Association for any loss, damages, costs, claims, suits, debts or demands by reason of defects in the On-Site System.

Customer agrees to pay all costs associated with adjusting or relocating facilities herein constructed by Customer when such adjustments or relocations are caused by changes initiated by Customer or his successors and assigns.

Exhibit "A"

In accordance with the Association's obligations under the Seacoast Agreement, the Customer shall be required to maintain water quality at each individual outlet and to comply with the Rules, which includes without limitation compliance with all drinking water standards promulgated by the Florida Department of Environmental Protection and Palm Beach County Public Health Unit. At no time shall such water quality standards be required to be in excess of those attained at the Association's point of delivery to the master meter. The Customer shall ensure that all effluent being delivered into the Association's system shall meet all governmental standards, including those pertaining to pre-treatment of industrial waste and as set forth in the Rules. The Association, its agents or representatives, including without limitation to, Seacoast and the County, shall have the right to sample, or to participate in the sampling of, the effluent generated by the Customer in order to determine compliance with all applicable pretreatment requirements.

5. Off-Site Installation – Subject to the Association's approval, Customer shall, at Customer's sole cost and expense, be required to: (i) secure any and all permits and approvals for; and (ii) design and construct any and all necessary improvements, upgrades, extensions of and additional facilities required to the Association's existing water and wastewater system in order to connect and provide service to the On-Site System (the "**Off-Site Improvements**") all as set for on **Exhibit "B"**. Upon completion of construction of the Off-Site Improvements, Customer's engineer of record shall submit to the Association all proper documentation as described in Association's Design Standards. Customer understands and agrees that the Association shall not be required to connect and service the Property until all items are received and found to be reasonably acceptable to the Association and all fees as set forth herein are paid. Customer agrees to warrant and/or guaranty the Off-Site Improvements against faulty workmanship and defective materials. Customer covenants to indemnify and save harmless the Association for any loss, damages, costs, claims, suits, debts or demands by reason of defects in the Off-Site Improvements. Once completed and approved by the Association, Customer shall convey the Off-Site Improvements to the Association which shall thereafter be owned and serviced by the Association.

6. Fees and Charges. Pursuant to the Seacoast Agreement, the Association is/was required to construct and maintain water and sewer system infrastructure and pay Seacoast certain fees and charges in order to provide water and sewer services to the Park Property. The parties hereto acknowledge and agree that to the extent the following fees and charges are pass-through charges from Seacoast: (i) such charges and fees are set by Seacoast in accordance with the Seacoast Agreement and the Association has no control of same; and (ii) the Association shall charge Customer an equal amount charged the Association by Seacoast. The Association shall uniformly charge all owners of Park Property the following fees and charges. Customer hereby agrees to pay the following:

- (a) Land Development Review Fee/Administrative Fee. A land development review fee to the Association for document preparation, Plans review, inspection and engineering coordination. The initial fee shall be the standard fee in effect at the time of submission per set of plans submitted. Additional fees shall be charged for revisions to plans based upon the then existing rates of the Association's consultants. All fees are the responsibility of Customer. For clarification, the Plans set forth on **Exhibit "B"** are deemed one set of plans regardless of the number of revisions necessary. No portion of the fee shall be refundable.

Exhibit "A"

- (b) Capacity Reservation Fees. Customer acknowledges and agrees that Capacity Reservation Fees are set and controlled by the County, Seacoast and in accordance with the County Agreement and Seacoast Agreement, and therefore, are subject to change. Subject to the foregoing, Customer agrees to pay Capacity Reservation Fees at the existing rates at the time of the request on each phase of the project as initially set forth on **Exhibit "C"**. Customer understands that capacity is guaranteed for its needs only for and to the extent that Capacity Reservation Fees are paid. As active connections are made, the Capacity Reservation Fees obligation of Customer shall be proportionately reduced, if applicable. Capacity Reservation Fees are only refundable to the extent Seacoast refunds Capacity Reservation Fees to the Association. Typically, but without guarantee, Capacity Reservation Fees may be refunded until such time as a building permit for development of the Property is obtained.
- (c) Connection Charges. Customer shall pay Connection Charges, as defined and set forth in the Uniform Service Policy and as calculated in **Exhibit "D"** attached hereto and incorporated herein by reference. The Connection Charges may be used by the Association for payment of, without limitation to; (i) debt service; (ii) repairs and maintenance; (iii) reserves; (iv) acquisition, improvement or construction costs; and (v) all other related costs for the Association's water and wastewater system and infrastructure. The Connection Charges shall be paid in accordance with **Exhibit "D"**.
- (d) Meter and Meter Installation. The Association shall order the necessary water meter(s), meter box(es) and appurtenances for the Property (collectively, the "**Meter Facilities**"). The Association, or its designee, shall install all Meter Facilities upon the Park Property and the Association is obligated to pay the charges imposed for such installations (including the cost of any other parts or facilities which may be necessary for installation (the "**Meter Facilities Installation Fee**"). Upon the installation of the Meter Facilities for the Property, the Association shall invoice Customer for the amounts paid by the Association (together with a copy of the invoices paid by the Association) for the Meter Facilities and the Meter Facilities Installation Fee which shall be due the Association Net 30 days from Customer's receipt of such invoice.
- (e) Monthly Service Charges. See the Uniform Service Policy and Section 11 below.

Payment of the aforementioned costs, fees and charges does not and will not result in the Association waiving any of its rights, rates or rules and regulations, and their enforcement shall not be affected in any manner whatsoever by Customer making payment of same. The Association shall not be obligated to refund to Customer any portion of the value of the aforementioned costs, fees and charges for any reason whatsoever, unless specifically provided for herein.

7. Equivalent Residential Connections Reserved. The parties agree that in accordance with the Seacoast Agreement, Uniform Service Policy and **Exhibit "C"**, the capacity needed to provide service to the Property for the proposed development is _____ gallons per day or _____ equivalent residential connections ("**ERC's**") for water supply and _____ gallons per day or _____ ERC's for wastewater removal. Customer acknowledges and agrees that pursuant to the Seacoast Agreement, in the event the Association utilizes more water or sewer capacity than 1.33 times the water or sewer capacity reserved by the Association, the Association shall pay Seacoast 150% of the then current water or sewer rate, as the case may be, for all excess use. Accordingly, in the event Customer's capacity exceeds 1.33 times the water and/or sewer

Exhibit "A"

capacity reserved in any given month, Customer shall reimburse the Association any and all fees, penalties and charges imposed by Seacoast against the Association for such excess use, to the extent caused by Customer. Furthermore, if Customer utilizes excess monthly capacity on a continuous and repeated basis, the then Customer shall (i) cease such excess use; or (ii) apply to the Association to acquire additional capacity within thirty (30) days of receiving written notice from the Association concerning the continuous or repeated excess use. In the event such additional capacity is not available to the Association to make available to the Customer within sixty (60) days of Customer's application for additional capacity, then Customer shall cease such excess use (unless otherwise approved by the Association in writing on or before the expiration of such sixty (60) day time period.

8. Easements - Customer hereby grants the Association, its agents and/or representatives, including without limitation, Seacoast and the County, an easement on, over, through and under the Property for necessary access and ingress and egress to exercise their respective inspection, sampling, repair and maintenance and enforcement rights set forth hereunder. Customer shall obtain any and all necessary off-site easements that may be required in order to carry out the terms, conditions and intent hereof, at Customer's expense, and shall convey same to the Association at the Association's request. Mortgagees, if any, holding prior liens on the Property shall be required to release such liens, subordinate their position or join in the grant or dedication of the easements or rights-of-way, or give to the Association assurance by way of a "non-disturbance agreement", that in the event of foreclosure, mortgagee would continue to recognize the easement rights of the Association and not extinguish the Association's easement rights. The On-Site System shall be covered by easements or rights-of-way if not located within platted or dedicated roads or rights-of-way for utility purposes.

In the event Customer and the Association agree that Association is to install any of its water and/or wastewater system in lands within the Property, then the Customer shall grant to the Association (and Seacoast and the County, if required by the Association), without cost or expense to the Association, the necessary easement or easements for such "private property" installations. The Association covenants that it will use due diligence in ascertaining all easement locations; however, should the Association install any of its water system outside a dedicated easement area, the Association will not be required to move or relocate any water systems lying outside a dedicated easement area, so long as such facilities do not interfere with the then or proposed use of the area in which the facilities have been installed. The use of easements granted by Customer to the Association under this paragraph shall preclude the use by other utilities of these easements, such as for cable television, telephone, electric or gas utilities, unless otherwise agreed to in writing by the Association.

At the Association's request, Customer shall execute the Association's standard form of easement to be recorded in the Public Records of Palm Beach County to evidence such grants of easement(s).

Customer hereby affirms that, to the best of Customer's knowledge and belief, the portion of Property within which the On-Site System is to be constructed is free of soil and ground water contamination. Customer hereby indemnifies and holds the Association harmless for all claims and damages resulting from such contamination, whether existing before development began or occurring during or after development.

Exhibit "A"

9. Agreement to Serve – Upon: (i) the completion of construction of the On-Site System and Off-Site Improvements required hereunder by Customer and the final inspection of same; (ii) issuance of the final letter of acceptance by the Association; (iii) receipt of all appropriate governmental agency approvals (including, without limitation to, Seacoast and the County); and (iv) the On-Site System and Off-Site Improvements being in compliance with the Uniform Service Policy, and the other terms of this Agreement, including fees paid, the Association covenants and agrees that it will connect or oversee the connection of the On-Site System installed by Customer to the Association's water and wastewater system in accordance with the terms and intent of this Agreement. Such connection shall at all times be in accordance with rules, regulations and orders of the applicable governmental authorities. The Association agrees that once it provides water and sewer service to the Property, that thereafter the Association will continuously provide (to the extent within the Association's reasonable control), but in accordance with other provisions of this Agreement, including rules and regulations and rate schedules, water and sewer service to the Property in a manner to conform with all requirements of the applicable governmental authorities having jurisdiction over the operations of the Association. Notwithstanding the foregoing, Customer acknowledges and agrees that pursuant to the County Agreement, in the event the South Florida Water Management District, or other governmental unit with just cause and authority declares a water shortage, then the County shall have the right to restrict service to Seacoast by the same percentage, level and/or manner as the County restricts service to customers located within the County limits, and may adjust Seacoast's rates in the same manner as rates may be adjusted for customers located within the County limits. Accordingly, Customer acknowledges and agrees that in the event the County exercises such rights: (i) Seacoast may restrict service to the Association by the same percentage, level and/or manner as Seacoast restricts service to customers located within the Seacoast Service Area, and may adjust the Association's rates in the same manner as rates may be adjusted for customers located within the Seacoast Service Area; and (ii) the foregoing shall cause the Association to restrict service to the Property by the same percentage, level and/or manner as the Association restricts service to other customers located within the Park Property, and may adjust the Customer's rates in the same manner as rates may be adjusted for other customers located within the Park Property. Subject to the foregoing and the terms and conditions hereunder, the Association shall not, through any fault of its own, otherwise artificially alter or limit water service to the Property.

10. Association Service Obligations. The Association's obligations to provide water and sewer service hereunder shall last only so long as the Association has a contractual right to procure such services to the Park Property from Seacoast, Seacoast has suitable facilities in place to service the Park Property and Customer is otherwise in full compliance with this Agreement. Notwithstanding the foregoing, should service from Seacoast for the Park Property become unavailable to the Association, the Association may, in its sole discretion, elect to provide the Park Property with an alternative means of service (if available), in which case this Agreement shall continue in full force and effect; otherwise this Agreement will terminate on the date the water and sewer service is no longer available through Seacoast. In the event the Seacoast Agreement is terminated pursuant to the terms and conditions thereof, the Association will refund to Customer any Capacity Reservation Fee collected from Customer, except to the extent that Seacoast refuses or fails to refund any Capacity Reservation Fee to the Association which Seacoast collected from the Association to provide service availability to the Property. So long as the Association provides service to the Property by utilizing, in whole or in part, facilities owned by the Association, Seacoast, and/or the County, Customer shall comply with all County, Seacoast and Association rules, regulations and requirements relating to water or water service, including all waste water pre-treatment requirements.

Exhibit "A"

11. Rates – Customer and the Association acknowledge and agree that a portion of the rates to be charged Customer for water and sewer service: (i) are determined by Seacoast pursuant to the Seacoast Agreement; and (ii) Seacoast may establish, amend or revise, from time to time and enforce rates or rates schedules. The Association agrees that the rates to be charged Customer for water and sewer service (inclusive of the portion set by Seacoast) shall be set forth in the Uniform Service Policy, as may be established, amended, revised amended from time to time. In accordance with the Declaration, the Association shall uniformly charge all Park Property owners identical water and sewer service rates as may be in effect at any given time. Any such initial or future increased rates, rate schedules, and rules and regulations established, amended or revised and enforced by the Association from time to time, shall be binding upon Customer; upon any person or other entity holding by, through or under Customer; and upon any user or consumer of the water and sewer services provided to the Property by the Association. Commencing upon the date the Association installs the temporary water meter to the Property and ending on the date the Meter Facilities are installed, Customer shall only pay the potable water portion of the Monthly Service Charge at the identical rate all Park Property owners are paying, as may be in effect at such time. Pursuant to the Uniform Service Policy, Monthly Services Charges for water and sewer service are billed monthly, dated the first day of each calendar month and due on or before the last day of such calendar month (the "**Monthly Invoice**"). If payment is not received on or before the due date, the Association shall provide Customer with written notice (in accordance with Section 13 hereof) of late/overdue payments (the "**Late Payment Notice**"). All late payments shall become subject to a 1.5% monthly finance charge. Customer shall have thirty (30) days from the date of the Late Payment Notice to cure such non-payment (inclusive of the finance charge). The Association shall have the right to disconnect service in the event late payments and applicable finance charges are not received within sixty (60) days of the date of the Monthly Invoice.

12. Binding Effect of Agreement - This Agreement shall be binding upon and shall inure to the benefit of Customer, the Association and their respective assigns and successors by merger, consolidation, conveyance or otherwise, subject to the terms and conditions of this Agreement. Customer understands and agrees that capacity reserved hereunder cannot and shall not be assigned by Customer to Third Parties, except in the case of a bona fide sale of Customer's Property, or other valid transfer or assignment of Property, including, without limitation, the transfer or assignment of the Property as a result of a judicial proceeding such as mortgage foreclosure or sale, and assignment for the purposes of obtaining financing. In any such case, the Customer shall provide a Notice or evidence of such assignment, or partial assignment as the case may be, to the Association. The Association shall have the right to assign its rights and obligations contained herein without the consent of Customer.

13. Notice - Until further written notice by either party to the other, all notices provided for herein shall be in writing and transmitted by email and: (i) reputable messenger, (ii) certified mail, or (iii) overnight delivery to:

to Customer, at:

Attn. _____

Tel : _____
Email: _____

Exhibit "A"

With a copy to:

Attn. _____

Tel : _____
Email: _____

and to POA, at:

PALM BEACH PARK OF COMMERCE ASSOCIATION, INC.
15132 Park of Commerce Blvd. #101
Jupiter, FL 33478
Tel: (561) 625-8027
Email: Jeanne.Murphy@CBRE.com

14. Laws of Florida - Regardless of where executed, this Agreement shall be governed by the laws of the State of Florida. Notwithstanding contrary principles of conflicts of law, if any, and it shall be and become effective immediately upon execution by both parties hereto, subject to any approvals which must be obtained from governmental authorities, if applicable.

15. Headings and Plural Terms- The headings preceding the text of the paragraphs of this Agreement are for purposes of convenience only and are not to be used in the interpretation or enforcement of this Agreement. Terms defined in the singular have the same meaning in the plural and vice versa.

16. Legal Costs and Attorney's Fees - In the event any party hereto seeks to enforce this Agreement or should any action be initiated arising from or relating to this Agreement, the prevailing party shall be entitled to recover from the other party its reasonable attorney's fees and costs incurred prior to any lawsuit or arbitration being initiated, during litigation and/or appeal.

17. Force Majeure - In the event that the performance of this Agreement by either party is prevented or interrupted in consequence of any cause beyond the control of such party, including, but not limited to, Acts of God or of the public enemy, war, national emergency, allocation of or other governmental restrictions upon the use or availability of labor or materials, rationing, civil insurrection, riot, racial or civil rights disorder or demonstration, strike, embargo, flood, tidal wave, fire, explosion, bomb detonation, nuclear fallout, windstorm, hurricane, earthquake, or other casualty or disaster or catastrophe, unforeseeable failure or breakdown of pumping transmission or other facilities, any and all governmental rules or acts or orders or restrictions or regulations or requirements, acts or action of any government or public or governmental commission or board or agency or agent or official or officer, the enactment of any statute or ordinance or resolution or regulation by governmental entities having jurisdiction over the operation of the Association or otherwise having valid legal jurisdiction, excluding any acts or rules or regulations adopted by the Association, or rule or ruling or order, order or decree or judgment or restraining order or injunction of any court, or other cause beyond the Association's control, then such party shall not be liable for such non-performance.

Exhibit "A"

18. Indemnification – Customer acknowledges that pursuant to the Seacoast Agreement, the Association is obligated to indemnify and hold Seacoast harmless from and against any and all liabilities, claims, damages, costs and expenses (including reasonable attorney's fees) to which Seacoast may become subject by reason of or arising out of the Association's breach or non-performance of the Seacoast Agreement. Accordingly, Customer agrees to indemnify and hold the Association harmless from and against any and all liabilities, claims, damages, costs and expenses (including reasonable attorney's fees) to which the Association may become subject by reason of or arising out of Customer's breach or non-performance of this Agreement. This indemnification provision shall survive the actual connection to the Association's water and wastewater system.

19. Seacoast Authority/Requirements. The Seacoast Agreement requires that the Association incorporate into all water and wastewater agreements with owners of Park Property the following provisions. Therefore, and notwithstanding any provision to the contrary contained herein, Customer specifically acknowledges and agrees:

- a. Association and Seacoast shall have the right to inspect the Property in order to determine the use or uses, and the intensity of uses(s) of the Property, as well as the demand which such uses places on the water and sewer facilities;
- b. Association and Seacoast shall have the right to inspect the water and sewer facilities located on or under the Property (and/or the On-Site Facilities) in order (i) to determine the capability, suitability, performance and condition of the water and sewer facilities and (ii) to ensure continued compatibility with the services and facilities being provided by the Association and Seacoast, and to require improvement, expansion, modification, repair, maintenance or replacement if reasonably determined by the Association or Seacoast;
- c. Association and Seacoast shall have the right to sample, or to participate in sampling of, the effluent generated by any Association sewer customer in order to determine compliance with all applicable pre-treatment requirements;
- d. Association and Seacoast shall have the right to inspect individual meter settings and sewer connections for the Property prior to connection to the Association system and shall have the right of prior approval of all such connections, together with the right to require reasonable modifications or improvements thereto;
- e. Notwithstanding any provision to the contrary herein, Association and Seacoast shall have the right, but not the obligation, without notice to Customer, to conduct emergency repairs on the On-Site System or water and sewer facilities on the Property, regardless of ownership of the facilities;
- f. Association and Seacoast shall have the right of ingress and egress over the Property;
- g. That the customer shall strictly comply with Seacoast's prevailing Service Code and Uniform Service Policy, as either may be amended from time to time, all directives from the Association and Seacoast's governing board, and, for so long as the Association and Seacoast provide service to the Park Property by utilizing, in whole or in part, facilities owned by the County, Seacoast and the Association rules, regulations and requirements

Exhibit "A"

relating to water or sewer service, including all waste water pre-treatment requirements; and

- h. The Association shall have the right and, if reasonably required by Seacoast, the obligation, to discontinue service to Customer in the event Customer violates the terms of this Agreement after five (5) days' notice.

The Association shall use all reasonable efforts to provide Customer with at least twenty-four (24) hours advance notice prior to exercising its rights as set forth above. Customer acknowledges and agrees that neither Seacoast nor the County is required to give Customer prior notice before exercising any of their respective rights, in accordance with the County Agreement and Seacoast Agreement. This provision shall be binding on the successors and assigns of the Customer.

20. Default. In the event Customer breaches any of the terms of this Agreement, then, in addition to any remedies provided by law, the Association shall be entitled to discontinue water and sewer service to the Property upon giving thirty (30) days written notice (subject to Section 19(h) above). In the event Customer is the cause of the Association's breach or threatened breach of the Seacoast Agreement, the Association shall have the right to take such action as is necessary in order to stop or cure the offending behavior including, but not limited to, discontinuation of service to Customer. In the event of any breach by the Association of any term of this Agreement, including but not limited to, failing to provide service, Customer shall be entitled to all remedies to it by law or in equity; provided, however, that the Association shall in no event be liable for consequential damages or lost profits, nor shall the Association be liable for damages associated with periodic interruptions in service resulting from or associated with equipment failure, repair or maintenance activities, provided that the Association diligently remedies such service interruptions.

MISCELLANEOUS PROVISIONS

21. Recordation of Agreement. Upon full execution of this Agreement by Customer and the Association, this Agreement shall not be recorded. Rather, the parties hereto shall execute and the Association shall cause a Memorandum of Agreement, in a form set forth in the Uniform Service Policy, to be recorded with the Clerk of the Circuit Court of Palm Beach County.

22. Survival. The rights, privileges, obligations and covenants of Customer and the Association shall survive the completion of the On-Site System and Off-Site Improvements to be completed by Customer hereunder.

23. Prior Agreements. This Agreement supersedes all previous agreements or representations, either verbal or written, heretofore in effect between Customer and the Association, made with respect to the matters herein contained, and when duly executed, fully constitutes the agreement between Customer and POA.

24. No Oral Amendment. The provisions of this Agreement may not be amended, supplemented, waived or changed orally, but only by a writing signed by the party as to whom enforcement of any such amendment, supplement, waiver or modification is sought and making specific reference to this Agreement.

Exhibit "A"

25. Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable for any reason, the unenforceable provision must be construed as nearly as possible to reflect the original intent of the parties, the remaining provisions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

26. Authority. Customer represents and warrants to the Association that it has the sole right, power and exclusive authority to enter into, execute and perform under this Agreement and such actions do not violate any other agreement. Each signatory to this Agreement hereby represents and warrants that: (a) he/she is authorized, empowered and have the capacity to sign this Agreement and to bind their agents, successors, representatives, heirs and assigns, as the case may be, to the terms of this Agreement and to receive the consideration specified herein; (b) he/she has not executed this Agreement in reliance on any representation, inducement, promise, agreement, or warranty that is not contained in this Agreement; and (c) he/she fully reviewed this Agreement, fully understands the terms of this Agreement and has entered into this Agreement voluntarily without any coercion or duress on the part of any person or entity and was given adequate time to consider all implications of this Agreement prior to entering into it.

27. In the event that Customer does not move forward with development of the Property or development on any parcel of the Property if the Property consists of multiple parcels, within twelve (12) months from the date of this Agreement, this Agreement shall become null and void. The Association shall not be required to return any fees or charges previously paid to the Association unless otherwise provided for and only to the extent as provided for herein.

28. Whenever the singular number is used in this Agreement and when required by the context, the same shall include the plural, and the masculine, feminine and neuter genders shall each include the others.

29. Exhibits mentioned herein have been signed or initialed by the duly authorized officers, agents or attorneys of the parties hereto and are hereby incorporated herein by reference and made a part hereof as fully as if set forth herein.

30. Whenever approvals of any nature are required by either party to this Agreement, it is agreed that same shall not be unreasonably withheld, conditioned or delayed unless otherwise specifically set forth herein.

31. The submission of this Agreement for examination by Customer does not constitute an offer, but becomes effective only upon execution thereof by the Association.

32. It is agreed by and between the parties hereto that all words, terms and conditions contained herein are to be read in concert, each with the other, and that a provision contained under one heading may be considered to be equally applicable under another in the interpretation of this Agreement.

33. The Association's failure to insist upon strict compliance of any of the terms, covenants or conditions herein shall not be deemed a waiver of such terms, covenants or conditions, nor shall any waiver or relinquishment of any right or power hereunder at any one time or times be deemed a waiver or relinquishment of such right or power at any other time or times.

Exhibit "A"

34. This Agreement is binding on the successors and assigns of the parties hereto.

35. Except as otherwise provided for herein, there shall be no liability whatsoever on the Association for failure to deliver water and/or wastewater service to Customer according to Customer's needs or schedules. This Agreement constitutes a promise of good faith and not a timetable for delivery of utility services.

36. Each party hereby agrees to grant such further assurances and provide such additional documents as may be reasonably required, each by the other, in order to carry out the terms, conditions and comply with the express intention of this Agreement.

[signatures on following pages]

Exhibit "A"

IN WITNESS WHEREOF, Customer and the Association have executed or have caused this Agreement, with the named Exhibits attached, to be duly executed in several counterparts, each of which counterpart shall be considered an original executed copy of this Agreement.

WITNESSES:

**PALM BEACH PARK OF COMMERCE
ASSOCIATION, INC.**

By: _____
Name/Title: Stephen Santola President

CUSTOMER:

a _____ corporation

By: _____
Name/Title: _____

Exhibit "A"

For the Association

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 202_,
by Stephen Santola, President of PALM BEACH PARK OF COMMERCE ASSOCIATION, INC.,
who is personally known to me and who did not take an oath.

Notary Signature

Print Name
Notary Public - State of New Jersey
Commission No.
My Commission Expires:

For CUSTOMER:

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____,
202_, by _____ of _____,
who is personally known to me or who has produced _____ as identification and who did
take an oath.

Notary Signature

Print Name
Notary Public - State of _____
Commission No.
My Commission Expires:

Exhibit "A"

MORTGAGEE JOINDER (for Customer, if applicable)

_____ By: _____

For MORTGAGEE JOINDER (for Customer):

STATE OF
COUNTY OF

The foregoing instrument was acknowledged before me this ___ day of _____, 202,
by _____ of _____ who is personally known to me or who has
produced _____ as identification and who did ___ take an oath.

[Notary Seal]

Notary Signature

Print Name

Exhibit "A"

EXHIBIT "A"

PROPERTY DESCRIPTION

Initials:

Association

Customer

Exhibit "A"

EXHIBIT "B"

ON-SITE SYSTEM AND OFF-SITE IMPROVEMENTS PLANS

The Customer shall provide, install and construct for the Association all pipe, services, mains and appurtenances thereto in accordance with the Association's standards and specifications as indicated on the plans drawn by _____, being Job no. _____, last dated _____ and Plans _____, being Job no. _____.

Said plans may be subject to revisions prior to final approval by the Association.

Water:

The point of delivery for this Project's water distribution system is up to and not past the Property line.

Wastewater:

The point of collection (delivery) for this Project's sanitary sewer system is up to and not past the Property line.

Initials:

Association

Customer

Exhibit "A"

Exhibit "C"

Equivalent Residential Connections Reserved and Capacity Reservation Fees

Customer agrees to pay the Association the following Capacity Reservation Fees to induce the Association to reserve the following main capacities for Customer's proposed connection of the On-Site System within the Property to the Association's water and wastewater systems. Customer understands that such capacities are only reserved upon payment of charges by Customer to the Association. Said charges to be paid by Customer are those which are set forth in the Association's Uniform Service Policy, pursuant to the Seacoast Agreement. These charges may be changed from time to time by Seacoast, and therefore, such charges shall change in accordance with the order of the Association's Board of Directors. In the event the Property use exceeds ERC's listed below, Customer, its successors, and assigns agree to pay all prevailing POA rates, fees, and charges associated with such overage. In order to facilitate the processing of zoning, PUD, and land use, or other required approvals, Customer is required to submit one year's capacity reservation charges in advance to the Association. The Capacity Reservation Fees are due the Association prior to release of allocation/concurrency letter to Customer to submit with Customer's application for building permits.

Allocation

OFFICE PORTION

sf X = GALS/DAY ÷ 275 = ERC'S

WAREHOUSE

sf X = GALS/DAY ÷ 275 = _____ ERC'S

TOTAL ERC'S _____ ERC'S

WATER FEES DUE

ERC'S X GALS/DAY @ /GAL = \$ WATER

ERC'S X GALS/DAY @ /GAL = \$ SEWER

TOTAL CAPACITY RESERVE FEE

DUE

Future Capacity (TBD and agreed upon at a future date but not after the permanent water meter connection). 275 Gallons Per Day = 1 ERC for both water and sewer.

Water:

_____ Gallons per day ÷ 275 = _____ ERC's

Sewer:

_____ Gallons per day ÷ 275 = _____ ERC's

Capacity Reservation Fees

Water:

ERC's X 350gpd @ current contract rate = \$ _____

Sewer:

ERC's X 250gpd @ current contract rate = \$ _____

Total water and sewer Capacity Fees due = \$ _____

Initials:

_____ Association _____ Customer

Exhibit "A"

Exhibit "D"

CONNECTION CHARGES

Connection Charges are defined in the Uniform Service Policy and calculated as set forth below. The Connection Charges may be used by the Association for payment of, without limitation to; (i) debt service; (ii) repairs and maintenance; (iii) reserves; (iv) acquisition, improvement or construction costs; and (v) all other related costs for the Association's water and wastewater treatment system and master water distribution and sewerage collection facilities.

This project consists of a _____ sf building (_____ office/ _____ warehouse) to be constructed in one phase(s). The following payment schedule outlines the charges to be paid at this time for connection to the Association's water and wastewater system.

PAYMENT SCHEDULE

The following formula was used to determine Customer's share of plant and main capacity:

<u>Customer Category</u>	<u>Total ERC's</u>	<u>Charge Per ERC</u>	<u>Total Charges</u>
Meter Size:			
Water		\$	\$
Sewer		\$	\$
<u>Subtotal – " meter</u>			\$
Meter Size: __"			
Water		\$	\$
Sewer		\$	\$
<u>Subtotal – 2" meter</u>			\$
Total Connection Charge due both meters			\$ _____
Temporary Connection:			\$ <u>2,800.00</u>
Total:			\$ _____

This fee is to be paid as follows:

Temporary Connection charges paid at the time of signing this Agreement = \$ 2,800.00

The first 50 percent of the regular Connection charges paid at time of signing this Agreement = \$ _____ = \$

The remaining 50 percent Connection charge paid when permanent meter is requested = \$ _____ = \$

Initials:

Association Customer

EXHIBIT "A"

Instrument Prepared By and Return to:
Palm Beach Park of Commerce
Association, Inc.
15132 Park of Commerce Blvd. #101
Jupiter, FL 33478

MEMORANDUM OF WATER SUPPLY AGREEMENT

This MEMORANDUM OF WATER SUPPLY AGREEMENT ("Memorandum") is made as of the ____ day of _____, 202____, by _____, a _____ corporation, ("Customer"), and **PALM BEACH PARK OF COMMERCE ASSOCIATION, INC.**, a Florida not-for-profit corporation ("Association").

BACKGROUND

A. Customer owns lands located in Palm Beach County, Florida, and described in **Exhibit "A"**, attached hereto and made a part hereof as if fully set out in this paragraph and hereinafter referred to as the "Property".

B. Pursuant to and in accordance with the terms and conditions of that certain Interlocal Agreement by and between Palm Beach County, a political subdivision of the State of Florida (the "**County**") and Seacoast Utility Authority, a separate legal public entity pursuant to the provisions of Chapter 163, Florida Statutes, its successor and or/assigns ("**Seacoast**"), dated April 18, 2006, and recorded in Official Records Book 20252, Page 259 in the Public Records for Palm Beach County, Florida, as may be amended from time to time (the "**County Agreement**"); Seacoast has the sole and exclusive authority and right to provide water and sewer services to all the real property located within Seacoast's service area, as defined therein (the "**Seacoast Service Area**");

C. The Property lies within the boundaries of the Seacoast Service Area;

D. Pursuant to and in accordance with the terms and conditions of that certain Water and Sewer Service Agreement by an between Seacoast and the Association, dated June 7, 2007, as may be amended from time to time (the "**Seacoast Agreement**"), and in accordance with Seacoast's prevailing Service Code, the Association has the sole and exclusive authority and right to provide water and sewer services to all the real property (existing and any additional real property subsequently added thereto) as are now or hereafter made subject to the Restated Declaration of Protective Covenants, Conditions and Restrictions for PALM BEACH PARK OF COMMERCE, dated September 22, 2003 and recorded in Official records Book 15898, Page 0890, in the Public Records of Palm Beach County, as amended, and as further amended from time to time (the "**Declaration**"), including without limitation, the Property (all real property now or hereinafter made subject to the Declaration shall be collectively referred to herein as the "**Park Property**");

EXHIBIT "A"

E. Customer and Association entered into that certain Water Supply Agreement with an effective date of _____, 201__, ("Agreement") wherein the Association agreed to provide water and sewer service to Customer's Property in accordance with the terms, provisions and conditions therein.

NOW, THEREFORE, in consideration of the Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and after being duly sworn, Customer hereby provides actual and constructive notice to all persons whomsoever of the following:

1. Customer has agreed to construct certain on-site water distribution and sewage collection systems on, over, through and under the Property and certain off-site improvements (as more particularly described in the Agreement) to connect to the Association water and wastewater system. Customer further agreed to make payment of certain fees and charges to the Association in accordance with the Association's Uniform Service Policy as it may be amended from time to time.

2. Customer hereby grants the Association, its agents and/or representatives, including without limitation, Seacoast and the County, a non-exclusive easement on, over, through and under the Property for necessary access and ingress and egress to inspect, sample, repair, maintain and operate the water and wastewater system and enforce their rights set forth under the County Agreement, Seacoast Agreement and Agreement, respectively.

3. The Agreement and this Memorandum are binding upon Customer and its respective assigns and successors by merger, consolidation, conveyance or otherwise. In the event of a conflict between the terms of this Memorandum and the terms of the Agreement, the terms of the Agreement shall control. The rights and obligations of any assigns and successors of Customer can be determined by a review of the complete Agreement, a copy of which can be obtained at the address of POA as listed below:

PALM BEACH PARK OF COMMERCE ASSOCIATION, INC.
15132 Park of Commerce Blvd. #101
Jupiter, FL 33478
Tel: (561) 625-8027

(Signature Page to Follow)

EXHIBIT "A"

IN WITNESS WHEREOF, this Memorandum of Water Supply Agreement was executed this ____ day of _____, 201__.

Signed, sealed and delivered in the presence of:

The "Association"

Palm Beach Park of Commerce Association, Inc., a Florida corporation
Not-for-profit

Print Name: _____

By: _____
Stephen Santola, President

Print Name: _____

Attest: _____
_____, _____
Name Title

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 202__, by Stephen Santola as President and _____ as _____ of Palm Beach Park of Commerce Association, Inc. They are both personally known to me and did not take an oath.

Notary Signature

Print Name
Notary Public - State of _____
Commission No.
My Commission Expires:

EXHIBIT "A"

"CUSTOMER":

Print Name: _____

a _____

Print Name: _____

By: _____
Name, Title

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 202__,
by _____ of _____. He / She [] is personally known to me or [] has
produced _____ as identification and he did ____ take an oath.

Notary Signature

Print Name
Notary Public - State of _____
Commission No.
My Commission Expires:

EXHIBIT "A"

PROPERTY DESCRIPTION

Initials: _____
Association

Customer

4846-8851-4374, v. 1

APPLICATION FOR WATER AND / OR SEWER SERVICE BY
INDIVIDUAL / BUSINESS / ASSOCIATION / ORGANIZATION



**Palm Beach
Park of Commerce**

PALM BEACH PARK OF COMMERCE ASSOCIATION, INC.

15132 Park of Commerce Blvd. Suite 101
Jupiter, Florida 33478
Phone (561) 625-8027

Date Service Requested _____

Date Service to begin _____

"NON-RESIDENTIAL"

Services not otherwise specifically described as a single family or multi family, except single and multi family irrigation. Such service includes, but is not limited to, separately metered irrigation, commercial, industrial, guardhouse, boat slip, pool, recreation center, utility room, and water cooled air conditioning.

NON-RESIDENTIAL: _____ COMM _____ IRR _____ UTIL ROOM _____

OTHER: _____

PLEASE READ AND FILL OUT the form below showing us exactly the name on the account. Be sure and provide the service address and a mailing address if you wish your bill sent to you at an address other than the service location. The following information and your signature is needed to establish an account with Palm Beach Park of Commerce Association, Inc.

PLEASE TYPE OR PRINT:

Name of Landowner:

Service Address: _____

Mailing Address: _____

Details for Landowner (Corporation/Association, Officers, Partners, or Individuals):

President/Owner _____

Bus. Phone _____

Vice President/Co-Owner _____

Bus. Phone _____

Secretary/Treasurer _____

Bus. Phone _____

Corporate Charter No. _____

Fax Number _____

Owner's Social Security # _____ Driver's License _____ DOB _____

Emergency Contact (NOT AT SERVICE ADDRESS):

Name _____

Title _____

Address _____

Relationship _____

Phone _____

The undersigned acknowledges that service will be provided subject to strict adherence to Palm Beach Park of Commerce Association's Service Code and may be interrupted pursuant to any violation thereof. Undersigned also agrees to receive and pay for water and/or sewage disposal service in accordance with the rates, rules and regulations of Palm Beach Park of Commerce Association, Inc., per separate Water Supply Agreement, until this service is formally discontinued.

Customer's Signature

Date

..... **FOR OFFICE USE ONLY**

Account No. _____ opened

Rep _____

EXHIBIT B

PROPERTY QUESTIONNAIRE

FILL IN ALL LINES THAT ARE APPLICABLE, CHECK APPROPRIATE BOXES

1. Project Name (if known at this time):

 New Project Existing Building/Structure

2. Project Location (Use street names or distances from nearest major roadways):

3. Municipality (list County if in unincorporated area):

4. Current owner of property:

Property Control Number:

5. Business identity:

6. Project Engineer/Architect (if known)

Address: _____

Phone: _____ Fax: _____ Email: _____

7. Relationship of petitioner to property owner -- please check where appropriate.

Title Holder Representative of Owner Realtor Developer

Other _____

8. Written response is requested for:

Capacity Availability Water / Sewer main locations Fees

Capacity Reservation Other _____

Payment of the capacity reservation fee is required prior to receiving capacity reservation letter.

EXHIBIT B

9. Complete this section to serve as the basis for our fee response. If information provided is incorrect, fees quoted will be incorrect. Fees paid will be those in effect at the time of remittance and execution of Water Supply Agreement:

Type of development planned (if mixed use, indicate all uses):

A. Restaurant -

Dining (# of seats) _____

Bar & Cocktail Lounge (# of seats) _____

Drive In/Carry Out (gross square feet) _____

Institutions (# of meals / # of seats) _____

B. Doctor or Dentist (# of practitioners) _____ (# of employees) _____

C. Shopping Centers / Retail Stores / Service Businesses without food or laundry
(gross square feet) _____

D. Schools, Day Care Centers or Nurseries (# of students, faculty, and staff) _____

E. Office Building (gross square feet) _____

F. Irrigation (gross square feet) _____

G. Air Conditioning Water Cooling Towers (rating in tons) _____

H. Other (please include detailed use and project size, i.e. # of beds, square feet,
of students, etc., and type of business) _____

10. Date you are anticipating start of project _____

11. Will project be phased? Yes No

If phased, how many are anticipated and dates of each phase:

12. COMPLETE THIS SECTION TO SERVE AS THE BASIS FOR A WATER SUPPLY AGREEMENT.

A. Entity under which Water Supply Agreement will be drawn up:

B. Person authorized to execute Water Supply Agreement

Name: _____ Title: _____

Address To Mail Water Supply Agreement: _____

Phone: _____ Fax: _____

EXHIBIT B

13. Provide information to whom all correspondence, etc. concerning this project should be sent.

Name: _____ Organization: _____

Address: _____

Phone: _____ Fax: _____ Email: _____

ALL REQUESTS SUBMITTED MUST CONTAIN COMPLETED PROPERTY QUESTIONNAIRE, CURRENT SURVEY AND AUTHORIZATION LETTER FROM FEE SIMPLE TITLE HOLDER, IF APPLICABLE.

DO NOT begin civil engineering work until a preliminary engineering meeting is held with POA representative.

After the above information is reviewed, you will be contacted if further information is needed to complete your request.

I hereby affirm that I am either the property owner or the authorized agent of the property owner and that the information provided herein is true and correct to the best of my knowledge and belief.

Date: _____

Applicant's Signature

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20__ by _____, who is personally known to me or who has produced _____ as identification.

Notary Public, State of _____

Notary Seal

Name of Notary Printed, Stamped or Typed

EXHIBIT B

PALM BEACH PARK OF COMMERCE

UTILITY SERVICES
APPLICATION FOR METER INSTALLATION (PART I)

Account # _____

Cust. Number _____

S/O # _____

Written By: _____

Assigned to: _____

Written Date: _____

Scheduled Date: _____

Deposit Receipt #: _____

Deposit Amt. \$ _____

Meter Charge Amt. \$ _____

Temporary Connection\$ 2,800.00 Water

Conn. Charge Amt. \$ _____

Sewer Conn. Charge Amt. \$ _____

Backflow Charge Amt. \$ _____

Total Charges \$ _____

The undersigned acknowledges that service is provided subject to strict adherence to POA's Uniform Service Policy and may be interrupted pursuant to any violation thereof.

Signed: _____
Land Owner

Date: _____

Phone: _____

Customer Service: 561-625-8027 (9:00 AM - 4:30 PM),
15132 Park of Commerce Blvd. #101, Jupiter, FL 33478

Field Notes: _____

New Temporary Meter # _____

New Temporary Meter Set (Date): _____

New Reading _____

Completed By: _____

New Backflow: _____ Size: _____

Date: _____ Time: _____

Meter Size

- [] 3/4 inch [] 3 inch [] 8 inch
[] 1 inch [] 4 inch [] 10 inch
[] 2 inch [] 6 inch [] Other: _____

Connections

- 1. Toilets _____ 3. Sinks _____ 5. Drains _____
2. Baths _____ 4. Showers _____ 6. Other _____

UTILITY SERVICES
APPLICATION FOR METER INSTALLATION (PART II)

Account -
Cust. Number -

S/O#

PLEASE HOLD ON TO THIS PAGE UNTIL YOUR PERMANENT WATER METER HAS BEEN INSTALLED AND RETURN WHEN COMPLETELY FILLED OUT.

New Permanent Meter # _____

New Permanent Meter Set (Date): _____

New Reading _____ Completed By: _____

New Backflow: _____ Size: _____ Date: _____ Time: _____

Meter Size

- | | | |
|---------------------------------|---------------------------------|---------------------------------------|
| <input type="checkbox"/> ¾ inch | <input type="checkbox"/> 3 inch | <input type="checkbox"/> 8 inch |
| <input type="checkbox"/> 1 inch | <input type="checkbox"/> 4 inch | <input type="checkbox"/> 10 inch |
| <input type="checkbox"/> 2 inch | <input type="checkbox"/> 6 inch | <input type="checkbox"/> Other: _____ |

Connections

- | | | |
|------------------|------------------|-----------------|
| 1. Toilets _____ | 3. Sinks _____ | 5. Drains _____ |
| 2. Baths _____ | 4. Showers _____ | 6. Other _____ |

Fire Line Size

- | | | |
|---------------------------------|----------------------------------|---------------------------------------|
| <input type="checkbox"/> 2 inch | <input type="checkbox"/> 6 inch | <input type="checkbox"/> 12 inch |
| <input type="checkbox"/> 3 inch | <input type="checkbox"/> 8 inch | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> 4 inch | <input type="checkbox"/> 10 inch | |

The undersigned acknowledges that service is provided subject to strict adherence to POA's Uniform Service Policy and may be interrupted pursuant to any violation thereof.

Signed: _____
Land Owner

Date: _____
Phone: _____

EXHIBIT "C"
Palm Beach Park of Commerce Association, Inc.
Wastewater Pretreatment Survey Questionnaire

1. What type of business does this facility conduct (Please circle all that apply)?
- a. Abrasive, asbestos, miscellaneous nonmetallic mineral products – stone, glass, clay, concrete, etc.
 - b. Fiberglass boat /spa – manufacturing and/or repairs
 - c. Chemical products (miscellaneous) – pesticides, herbicides
 - d. Soaps/cleaners manufacturing
 - e. Metal finishing, electroplating, circuit board manufacturing
 - f. Food processor, restaurant, grocery store, hotel/motel, school, day care, dairy products
 - g. Grease, fats, oils – processing/recycling
 - h. Hospitals, laboratories
 - i. Electronics, electrical equipment
 - j. Fertilizers
 - k. Pharmaceuticals, vitamins
 - l. Laundering operations
 - m. Metal working, machine shop, casting, molding
 - n. Metal fabrication – structural products
 - o. Ophthalmic goods
 - p. Photo finishing
 - q. Printing, publishing, inks, dyes
 - r. Hair salons, pet grooming, kennels
 - s. Rubber and plastic products, injection molding
 - t. Manufacturing industries miscellaneous
 - u. Automotive service, repairs, car wash
 - v. Paints, varnishes, lacquers, enamels
 - w. Battery manufacture
 - x. Metal forming – non-ferrous
 - y. Other categories not specified here _____
-

EXHIBIT "C"
Palm Beach Park of Commerce Association, Inc.
Wastewater Pretreatment Survey Questionnaire

2. Please describe your business (attach a separate sheet if necessary).

3. Will hazardous waste (per 40CFR 261) be generated? _____ (Y/N)

Will non-hazardous substances be generated? _____ (Y/N)

a. If yes, what? _____

b. Where is it stored? _____

c. Where is it disposed of? _____

d. Who disposes of it? _____

4. Do you currently have an analysis or expected composition of the hazardous or nonhazardous substance(s) available? _____ (Y/N). If yes, please provide.

5. Days of operation and number of employees per shift:

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
1 st shift							
2 nd shift							
3 rd shift							

6. Are there seasonal variations of activities expected at this facility? _____ (Y/N)

a. If yes, please describe: _____

EXHIBIT "C"
Palm Beach Park of Commerce Association, Inc.
Wastewater Pretreatment Survey Questionnaire

7. Anticipated start date of first discharge: _____
8. Anticipated volume (gal.) of discharge per day: _____
9. Will this facility discharge any wastewater other than from the restrooms to the public wastewater collection system? _____ (Y/N)
- a. If yes, please indicate the source(s) of the wastewater:
- _____ Cooling water, non-contact
 - _____ Cooling water, contact
 - _____ Boiler/tower blow down
 - _____ Pollution control unit/pretreatment system
 - _____ Process (specify): _____
 - _____ Other (specify): _____

**PALM BEACH PARK OF COMMERCE
ASSOCIATION, INC.**

**WASTEWATER PRETREATMENT
RULES AND REGULATIONS**

WASTEWATER PRETREATMENT RULES AND REGULATIONS

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SECTION I – GENERAL PROVISIONS

1.1 Applicability

This Wastewater Pretreatment Rules and Regulations (the “Wastewater Rules and Regulations”) shall be applicable to all Users¹ of the Wastewater System and shall be liberally construed to effectuate the purposes set forth herein.

1.2 Purposes and Objectives

Palm Beach Park of Commerce Association, Inc. (the “Association”) has the sole and exclusive right to provide water and sewer services to the Property and each Lot therein, and to the occupants of any improvements constructed thereon. In furtherance of that certain Water and Sewer Agreement, by and between the Association and SUA, the Association hereby creates this Wastewater Rules and Regulations. This Wastewater Rules and Regulations, among other things, sets forth the rules, regulations and enforcement provisions relating to the Wastewater System.

1.3 Adoption of Palm Beach County Ordinance

The Association hereby adopts by reference, and makes a part hereof, Palm Beach County Ord. No. 96-3, Art. IV, §§27-61—27-80, adopted January 23, 1996, in its entirety, as it now exists and may be amended from time to time (“the Palm Beach County Ordinance”). Users shall be subject to and shall comply with all the provisions of the Palm Beach County Ordinance, in addition to all other applicable local, state and federal rules and regulations as they pertain to the Pretreatment of water, including the Federal Water Pollution Control Act, also known as the Clean Water Act (33 U.S.C. 1251), the State of Florida Department of Environmental Protection’s Pretreatment requirements (Rule 62-625, F.A.C.), and General Pretreatment Regulations (40 C.F.R., Part 403), as amended from time to time. The Association shall make a copy of the Palm Beach county Ordinance available upon request.

1.4 User Liability

In the event that a User violates any provisions of the Palm Beach County Ordinance, or any other Pretreatment Standard or Requirement, such User may be liable to the appropriate governmental entity or the Association for any damages resulting from such violation. Any facilities necessary for compliance with the Palm Beach County Ordinance, the Wastewater Rules and Regulations or any other Pretreatment Standard or Requirement shall be provided, operated and maintained at the User’s expense.

1.5 Definitions

The following terms and phrases when used in this Wastewater Rules and Regulations shall have the meaning ascribed to them in this section except where the

¹ Capitalized terms are defined in Section 1.5 below.

context clearly indicates a different meaning. These definitions are not intended to be authoritative and are not intended to be accurate with respect to their technical content or to reflect the usage of expert in various fields. Words used in the present tense shall include the future, and the singular number includes the plural, and the plural the singular.

1. Act or the Act. The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et seq.
2. Authorized Representative of the User. For purposes of this Wastewater Rules and Regulations it shall mean:
 - a) If the User is a Corporation: A principal executive officer of at least the level of vice-president, if the User is a corporation.
 - b) If the User is a partnership or proprietorship: a general partner or proprietor, respectively.
 - c) If the User is a Federal, State or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.
 - d) The individuals described in paragraphs (a) through (c), above, may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the Discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the Association.
3. Board. The Board of Directors of the Association.
4. Bypass. The intentional diversion of Wastewater streams from any portion of the Pretreatment Facilities.
5. Categorical Pretreatment Standards. Any regulation containing Pollutant Discharge limits promulgated by the EPA in accordance with Sections 307(b) and (c) of the Act which applies to a specific category of industrial users and which appears in 40 CFR Chapter 1, Subchapter N, Parts 405-471, as amended.
6. CFR. Code of Federal Regulations.
7. City. The City of West Palm Beach.
8. Constituents. The particles and conditions which exist in Wastewater.

9. County. Palm Beach County, a political subdivision of the State of Florida.
10. DEP. The Florida Department of Environmental Protection.
11. Dilution. Any addition to a Wastewater Discharge for the purpose of, but not limited to, making weaker, less potent, mixing, dispersing, or thinning, so as to alter the physical, chemical or biological properties, other than what is defined as Pretreatment.
12. Discharge. To dispose, deposit, place, emit, unload, release, or cause or allow to be disposed of, deposited, placed, emitted, unloaded, or released.
13. Domestic Waste. Any superfluous solid, liquid, or gaseous material derived principally from the use of sanitary conveniences of residences (including apartments, businesses, structures and improvements); Wastewater produced from a noncommercial or a nonindustrial source.
14. Enforcement. Actions taken by the Association in response to Noncompliance with or violations of this Wastewater Rules and Regulations, Palm Beach County Ordinance or any Pretreatment Standard or Requirement.
15. Environmental Protection Agency (EPA). The U.S. Environmental Protection Agency or, where appropriate, the Regional Water Management Division Director, or other duly authorized official of said agency.
16. F.A.C. Florida Administrative Code.
17. Sample. A sample which is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.
18. Holding Tank Waste. Waste from holding tanks including, but not limited to vessels, chemical toilets, campers, trailers, Septic Tanks, and vacuum-pump tank trucks.
19. Industrial Wastewater. Wastewater from industrial operations, trade or business activities as distinct from Domestic Waste.
20. Interference. A Discharge which, alone or in conjunction with a Discharge from other sources inhibits or disrupts the Wastewater System, its treatment processes or operations, or its sludge processes, use or disposal.
21. Lot. A portion of the Property which is platted or legally described as a distinct parcel.

22. Medical Waste. Wastes including, but not limited to, isolation wastes, infectious wastes, infectious agents, human blood and blood byproducts, pathological wastes, sharps, body parts, formaldehyde, etiologic agents, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.
23. Noncompliance. A User's failure or refusal to conform to this Wastewater Rules and Regulations, Palm Beach County Ordinance or any other Pretreatment Standard or Requirement.
24. Sludge. Any solid or semisolid waste generated from a County, municipal, commercial or Industrial Wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a Wastewater treatment plant.
25. Owner. The record owner, whether one or more persons or entities, of the fee simple title to any Lot situated upon the Property. An Owner shall also mean (i) a condominium association administering a condominium constituting a Lot/Unit as more particularly described in the Association's governing documents, (ii) the holder of a long-term leasehold interest (i.e., one having an initial term in excess of twenty five (25) years) in a Lot, and (iii) any officer, director, partner, principal, employees, agents and representatives of the record owner.
26. Palm Beach County Water Utilities Department Wastewater System (Palm Beach Utilities). All facilities for collecting, pumping, treating, and/or disposing of Wastewater and Wastewater sludge which are owned, operated and controlled by the Board of County Commissioners of Palm Beach County, Florida.
27. Pass-Through. A Discharge which exits the Wastewater System into waters of the state or of the United States in quantities or concentrations which, alone or in conjunction with a Discharge from other sources, is a cause of a violation of any Pretreatment Requirements.
28. Person. Any individual, firm, company, association, society, corporation, partnership, sole proprietorship, association, or any other business entity.
29. Pollutant. Any dredged spoil, solid waste, incinerator residue, Wastewater, garbage, Wastewater sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or Discharge equipment, rock, sand, cellar dirt or industrial, municipal, or agricultural waste discharged into water.
30. Pollution. Man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of water.

31. Pretreatment or Treatment. Reduction of the amount of Pollutants, the elimination of Pollutants, or the alteration of the nature of Pollutant properties in Wastewater prior to or in lieu of discharging or otherwise introducing such Pollutants into the Wastewater System or the Palm Beach Utilities. The reduction or alteration can be obtained by physical, chemical, or biological processes, or process changes or other means, except as prohibited by Rule 62-625(4)(g)6.
32. Pretreatment Requirements or Requirements. Any substantive or procedural requirement related to Pretreatment imposed on a User, other than Pretreatment Standards.
33. Pretreatment Standards. Prohibited Discharge Standards, Categorical Pretreatment Standards and local limits.
34. Prohibited Discharge Standards or Prohibited Discharges. Absolute prohibitions against the discharge of certain substances; these prohibitions appear in Section 2.1 of this Wastewater Rules and Regulations.
35. Property. All existing properties, and additions thereto, as are now or hereafter made subject to the Declaration of Protective Covenants, Conditions and Restrictions for Palm Beach Park of Commerce.
36. Sanitary Sewer. A sewer intended to carry Domestic Waste from residences, commercial buildings, industrial plants and institutions, together with small quantities of ground, storm and surface waters that are not intentionally admitted.
37. Seacoast Utility Authority (SUA). Non-profit governmental regional water and Wastewater utility. Pursuant to that certain June 7, 2007 Water and Sewer Service Agreement, by and between the Association and SUA, SUA is to provide water and sewer service to the Property.
38. Septic Tank. A tank where solid matter or Sewage is disintegrated by bacteria.
39. Sewage. Human excrement and gray water (household showers, dishwashing operations, etc.).
40. Sewer. A pipe or conduit intended to carry Wastewater.
41. Slug. Any Discharge at any flow rate or concentration that could cause a violation of the Prohibited Discharges of this Wastewater Rules and Regulations.
42. Slug load. Any Discharge of water, Wastewater, or Industrial Wastewater in which concentration of any given constituent exceeds, for any period of

duration longer than fifteen (15) minutes, five (5) times the average twenty-four-hour concentration or flow during normal operations.

43. Tenants. Any individual, firm, company, association, corporation, partnership or any other entity occupying any property in any capacity (whether as a tenant, subtenant, assignee, or otherwise) for any purpose and/or length of time.
44. Uniform Policies and Procedures (UPAP) Manual. The codification of the major policies and procedures governing the County water utilities department.
45. Upset. An exceptional incident in which there is unintentional and temporary Noncompliance with Pretreatment Standards because of factors beyond the reasonable control of the User.
46. User. Any Person, including without limitation Owners, Tenants, or any other person occupying the property of the Owner, who contributes, causes or permits the Discharge of Wastewater into the Wastewater System.
47. Wastewater. The spent water of a community, including water carried wastes from residences, commercial buildings, industrial plants and institutions, as well as ground water, surface water and storm water.
48. Wastewater System. The structures, equipment, and processes required to collect, carry away, and treat domestic, industrial, medical, Holding Tank Waste and any other wastes and dispose of the effluent that is currently servicing the Property.

SECTION 2 – GENERAL SEWER USE REQUIREMENTS

2.1 General Prohibitions

No User shall introduce or cause to be introduced into the Wastewater System any Discharge in violation of the Palm Beach County Ordinance, this Wastewater Rules and Regulations or any other National, State, or local Pretreatment Standards or Requirements.

2.2 Protection from Damage

No Person shall break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is part of the Wastewater System or part of the Palm Beach Utilities (the “Destruction of the Wastewater System”). In addition to any other relief provided herein, any Person who commits Destruction of the Wastewater System shall be liable for damages.

2.3 Right to Amend

The Association recognizes that the Palm Beach County Ordinance and all other state and federal statutes referenced therein, may be amended or supplemented from time to time (the "Ordinance Amendments"). Notwithstanding any Ordinance Amendments, the Association reserves the right to amend the provisions of this Wastewater Rules and Regulations as it deems necessary.

SECTION 3 – PRETREATMENT OF WASTEWATER

3.1 Pretreatment Measures

1. The Association shall have all Enforcement rights granted to Palm Beach County and SUA, including without limitation the right to require Users to restrict their Discharge during peak flow periods, designate that certain Wastewater be discharged only into specific Sewers, relocate and/or consolidate points of Discharge, and such other conditions as may be necessary in order for Users to comply with the requirements of the Wastewater Rules and Regulations.
2. In the event that a User has the potential to Discharge flammable substances, the Association shall have the right to require such User to install and maintain an approved combustible gas detection meter. The User shall bear the cost of such installation

3.2 Accidental Discharges

1. General. Each User shall implement procedures to provide protection from accidental Discharge of prohibited materials or other substances regulated by the Palm Beach County Ordinance, the Wastewater Rules and Regulations or any other applicable local, state or federal regulatory statute. Any procedures to provide this protection shall be submitted to the Association for review and shall be approved by the Association. Review and approval of such procedures shall not relieve the User from the responsibility to modify the procedures as necessary to meet the requirements of the Wastewater Rules and Regulations, or any other local or state regulations, as amended from time to time.
2. Notification of accidental Discharge, Upset or Bypass. In the event of an accidental Discharge, Upset or Bypass, it is the responsibility of the User to immediately telephone and notify the Association of the incident. The notification shall include location of Discharge, type of waste, concentration and volume, and corrective actions. Within five (5) days following an accidental Discharge or Slug, the User shall submit to the Association a detailed written report describing the cause of the Discharge and the measures to be taken by the User to prevent similar future occurrences. Said notification of accidental Discharge, Upset or Bypass shall not relieve the User of any expense, loss, damage, or other liability

which may be incurred by said Discharge and may include, but not be limited to, damage to the Wastewater System, fish kills, or any other damage to Person or property. Enforcement action, including but not limited to fines or civil penalties, may be imposed in accordance with the Wastewater Rules and Regulations.

3. No False Reports. Users shall not knowingly falsify tamper with, render inaccurate, or make false statements, representations, certifications of information provided to and/or required by the Association.

SECTION 4- REPORTING REQUIREMENTS

4.1 Sampling

1. In the event that the Association is required to collect Wastewater samples from the User's premises in order to determine whether the User is in compliance with all Pretreatment Standards and Requirements, the User shall pay to the Association a sum equal to the actual cost of testing for each sample tested by the Association.
2. Where monitoring shows a violation, the User must resample and resubmit the results within thirty (30) days of the original sample date and shall bear the costs of such re-sampling.

4.2 Accepted Methods for Testing

All measurements, tests, and analyses of the characteristics of Wastewater to which reference is made in the Wastewater Rules and Regulations shall be determined in accordance with the rules and regulations of the Florida Administrative Code and shall be carried out in accordance with methods specified in Rule 62-160.670, F.A.C.

4.3 Reports of Changed Conditions

Each User must notify the Association of any planned significant changes to the User's operations which might alter the nature, quality, or volume of its Wastewater at least five (5) days before the change.

1. The Association may require the User to submit such information as may be deemed necessary to evaluate the changed condition.
2. The Association may order a user to modify an existing Wastewater Discharge in response to changed conditions or anticipated changed conditions.

4.4 Reports of Potential Problems

In the case of any Discharge, including but not limited to, accidental Discharges, Discharges of a nonroutine, episodic nature, a noncustomary batch Discharge that may

cause potential problems, the User shall follow the reporting Requirements under the Wastewater Rules and Regulations.

4.5 Certification

All reports and other submittals required pursuant to the Wastewater Rules and Regulations shall be signed by the User or the Authorized Representative of the User and shall include the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person(s) who manage the system, or those person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.”

4.6 Notice of Violation

If sampling performed by a User indicates a violation, the User must notify the Association within twenty-four (24) hours after becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Association within thirty (30) days of becoming aware of the violation.

SECTION 5 - COMPLIANCE MONITORING

5.1 Right of Entry

The Association and authorized representatives of the County, the City, SUA, DEP and the EPA bearing proper credentials, are empowered to enter upon property from which Wastewater is being discharged for the purposes of inspection, monitoring, sampling, copying of records and ascertain whether the purpose of the Wastewater Rules and Regulations is being met.

5.2 Inspection and Sampling

1. In the event that a particular User has procedures in place which require proper identification and clearance before entry into their premises, the User shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, personnel from the Association, The County, the City, SUA, DEP or EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.
2. The Association, the County, the City, SUA, DEP or EPA shall have the right to set up or require installation of, on the User's property, devices that

are necessary to conduct sampling, and/or metering of the User's operations.

3. The Association shall have the right to require the User to install monitoring equipment, as necessary. The Wastewater System's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the User. All devices used to measure Wastewater flow and quality shall be calibrated periodically to ensure their accuracy.
4. Any temporary or permanent obstruction to safe and easy access to the premises to be inspected and/or sampled shall be promptly removed by the User at the written or verbal request of the Association and shall not be replaced. The costs of clearing such access shall be borne by the User.
5. Unreasonable delays in allowing authorized personnel access to the User's premises shall be a violation of the Wastewater Rules and Regulations.

5.3 Refusal To Provide Entrance

In addition to all other remedies available to the Association, when a representative of the Association has been refused access to a building, structure, or any part thereof, and there is reasonable cause to believe that there may be a violation of the Wastewater Rules and Regulations, or that there is a need to inspect and/or sample, as part of a routine inspection of the Association or SUA, designed to verify compliance with this Wastewater Rules and Regulations or any other local or federal law or to protect the overall public health, safety and welfare of others, then the Association may seek injunctive relief to compel the specific performance of the Requirement imposed by this Wastewater Rules and Regulations.

SECTION 6 – ENFORCEMENT REMEDIES

6.1 Enforcement

The Association shall order Enforcement of this Wastewater Rules and Regulations and of other local, state and federal regulations as amended from time to time, and coordinate the Enforcement action with other governmental entities where appropriate.

6.2 Immediate Threat to Public Health

In the event that a Discharge by a User is deemed to present or cause an immediate threat or substantial endangerment to the health, safety or welfare of the public, to the environment, or to the operations of the Wastewater System, the Board shall be entitled to take such action as it is necessary and appropriate to immediately

stop the Discharge, including without limitation disconnecting the User's water service and capping or plugging the User's Sewer connection.

6.3 Other Violations

Notwithstanding the provisions as set forth hereinabove, violations that may result in Enforcement action pursuant to this Wastewater Rules and Regulations may include but are not limited to the following:

1. Any violation of a provision of this Wastewater Rules and Regulations or of any applicable provision of other local or state regulations, as amended from time to time.
2. Failure to report and/or truthfully report the Constituents and/or characteristics of Wastewater Discharge and significant changes in processing.
3. Refusing the duly authorized representatives reasonable access to the User's premises in order for the Association, The County, the City, SUA, DEP or EPA to perform inspections, monitoring, sampling, copying of records, or investigations.

6.4 Notice of Violation

When the Board or a person designated by the Board is informed that a User has violated, or continues to violate, any provision of this Wastewater Rules and Regulations or any Pretreatment standard or Requirement, the Board or a person designated by the Board, may serve upon that User a written Notice of Violation (NOV). Within fifteen (15) days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the User to the Association. Submission of this plan in no way relieves the User of liability for any violations occurring before or after receipt of the NOV. Nothing in this Section shall limit the authority of the Association to take any action, including emergency actions or any other Enforcement action, without first issuing a NOV.

6.5 Orders of Consent

The Association may enter into documents establishing agreements with any Users responsible for Noncompliance. Such documents will include specific action to be taken by the User to correct the Noncompliance within a time period specified by the document. Such documents shall be judicially enforceable.

6.6 Show Cause Hearing

The Association, through its Board may order a User which has violated, or continues to violate, any provision of this Wastewater Rules and Regulations or any other Pretreatment Standard or Requirement, to appear before the Board and show

cause why the proposed Enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed Enforcement action, the reasons for such action, and a request that the User show cause why the proposed Enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least three (3) days prior to the hearing. Such notice may be served on any Authorized Representative of the User. A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the User.

6.7 Compliance Orders

In the event that the Association finds that a User has violated, or continues to violate, any provision of this Wastewater Rules and Regulations or any other Pretreatment Standard or Requirement, the Association may issue an order to the User responsible for the Discharge directing that the User come into compliance within a specified time. If the User does not come into compliance within the time provided, Sewer service may be discontinued. Compliance orders also may contain other requirements to address the Noncompliance. A compliance order may not extend the deadline for compliance established for a Pretreatment Standard or Requirement, nor does a compliance order relieve the User of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the User.

SECTION 7 – JUDICIAL ENFORCEMENT REMEDIES

7.1 Legal and Equitable Relief Due to Noncompliance

In the event that a User violated or continues to violate, any provision of this Wastewater Rules and Regulations or any other Pretreatment Standard or Requirement, the Association may commence an action in law or equity. Without limiting any other remedy that may be available to it, the Association may petition the Circuit Court for The County to issue a temporary or permanent injunction, or both, as may be appropriate under the circumstances, in order to restrain or compel the specific performance of the Requirement imposed by this Wastewater Rules and Regulations on activities of the User. A petition for injunctive relief shall not be a bar or a prerequisite for taking any other action against the User. Any actions which seek legal or equitable relief or any action brought to interpret the provisions of this Wastewater Rules and Regulations shall be brought and maintained only in the State or Federal Courts in Palm Beach County, Florida.

7.2 Indemnification

A User who violates any provision of this Wastewater Rules and Regulations, the Palm Beach County Ordinance, or any other Pretreatment Standard or Requirement shall indemnify and hold the Association harmless for any suits, claims, demands or causes of action brought by or on behalf of SUA, the appropriate governmental entity, or any other person or entity, arising out of or relating to the User's violation.

7.3 Fees

The Association may recover reasonable attorneys' fees, court costs, and other expenses associated with Enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the Association. The Association, pursuant to its governing documents, shall have the authority to make, levy and collect assessments to pay for the costs of all expenses associated with Enforcement activities. Filing a suit for fees incurred shall not be a bar or a prerequisite for taking any other action against a User.

7.4 Remedies Nonexclusive

The remedies provided for in this Wastewater Rules and Regulations are not exclusive. The Board may take any, all, or any combination of these actions against a noncompliant User. Enforcement of Pretreatment violations will generally be in accordance with the Association's Enforcement response plan, as amended from time to time.

7.5 No Liability on Association

Nothing contained herein shall be construed as imputing liability on the Association as a result of a User's violation of the Palm Beach County Ordinance or any other Pretreatment Standard or Requirement promulgated by local, state and/or federal law.

SECTION 8 – CRIMINAL LIABILITY

A User who violates any provision of this Wastewater Rules and Regulations, the Palm Beach County Ordinance, or any other Pretreatment Standard or Requirement may be subject to criminal liability. Such criminal liability may arise, including without limitation, under the following circumstances:

1. A User who willfully or negligently violates any provision of this Wastewater Rules and Regulations, the Palm Beach County Ordinance, or any other Pretreatment Standard or Requirement may be punished according to applicable state and federal law by the appropriate governmental agency.
2. A User who willfully or negligently introduces any substance into the Wastewater System which causes personal injury or property damage may be punished according to applicable state and federal law by the appropriate governmental agency.
3. A User who knowingly makes any false statements, representations, or certifications in any application, record, report, plan or other documents filed, or required to be maintained, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, method or sample required under this provision or other local, state or federal requirement

may be punished by applicable state and federal law by the appropriate governmental agency.

Nothing contained in this Section is intended to be a complete list of all applicable local, state and/or federal law relating to criminal liability.



Palm Beach Park of Commerce

Palm Beach Park of Commerce Association, Inc.

I, _____, do acknowledge receipt of the following documents.

Uniform Service Policy on Water, Wastewater and Fire Protection with the following exhibits.

Exhibit A: Water Supply Agreement
Memorandum of Water Supply Agreement

Exhibit B: Property Questionnaire
Application for Water and/or Sewer Service
Application for Meter Installation

Exhibit C: Wastewater Pre-Treatment Questionnaire
Wastewater Pre-treatment
Rules and Regulations

Acknowledgement:

Signature

Date

Address