



Development Services Department

BOARD ACTION REPORT – APPEALABLE ITEM

Project Name: Banyan Court

Project Location: 13132 and 13038 Barwick Road & PCN 00424612000001050

Request: Master Development Plan Approval

Board: Planning & Zoning Board

Meeting Date: October 21, 2019

Board Action:

At its October 21, 2019 meeting, the Planning & Zoning Board (PZB) considered a Master Development Plan (MDP) with three waivers for a 40-unit, zero lot line, single-family development and voted 7-0 to approve.

Project Description:

The Master Development Plan with waivers was submitted in conjunction with an annexation petition; Future Land Use Map (FLUM) amendment from Palm Beach County MR-5 to City of Delray Beach MD – Medium Density, 5-12 du / acre; and rezoning from Palm Beach County Agricultural Residential (AR) and Residential High (RH) to Planned Residential Development, 6 du / acre (PRD-6).

In 2017, the applicant filed an application with Palm Beach County to amend the land use designation from MR-5 to 8 du/acre. During the review process, it was determined by the Delray Beach City Manager, City Attorney, and City Development Services Director that the applicant should file a petition to annex into the City of Delray Beach. In 2018, the applicant filed a petition for annexation; future land use amendment to City MD - Medium Density, 5-12 du/acre; and rezoning to City RM-8 - Multiple-Family Residential to allow 53 townhomes. On October 15, 2018, the Planning and Zoning Board unanimously recommended approval of the annexation and FLUM amendment, and recommended approval of the rezoning (voting 4-2). However, the annexation petition and future land use petition were postponed prior to final action by the City Commission in December 2018, and the rezoning request (voted on as Ordinance 29-19) was withdrawn. The applicant resubmitted the rezoning request in early 2019 for rezoning to Planned Residential Development, 6 du / acre (PRD-6) to accommodate a 40-unit zero lot-line, single-family development. PRDs must be considered in conjunction with a Master Development Plan. The Board voted 7-0 on October 21, 2019 to approve the MDP with waivers, and voted 7-0 to recommend approval of the rezoning request.

The proposed Banyan Court development is bordered on the north by the LWDD L-30 Canal; to the east by Banyan Creek Elementary School; to the south by single family residences located in unincorporated Palm Beach County (the north side of Sabal Lakes Road); and to the west by Bexley Park, a Planned Residential Development (PRD) located within the City of Delray Beach; as well as a single family subdivision known as Golf Club Estates. The subject property encompasses three parcels: one single-family residence with two accessory structures is located on the northernmost parcel and the other two parcels are vacant.

Board Comments:

The Board expressed appreciation to the applicant for responding positively to board and community feedback about the rezoning request and development proposal initially presented to the board in October 2018.

Public Comments:

Members of the public spoke in support of the project.

Associated Actions:

The associated annexation petition, FLUM amendment, and rezoning request will be considered by City Commission at 1st reading on November 19, 2019 and at 2nd reading / adoption on January 14, 2020 (tentative).

Next Action:

The PZB action is final unless appealed by the City Commission.



DEVELOPMENT SERVICES

BUILDING | HISTORIC PRESERVATION | PLANNING & ZONING

PLANNING AND ZONING BOARD STAFF REPORT

Banyan Court (fka Banyan Cove) Rezoning

Meeting	File No.	Application Type
October 21, 2019	2018-162	Rezoning

Request

Provide a recommendation to the City Commission regarding the rezoning of three (3) parcels totaling 6.68± acres from Palm Beach County Agricultural Residential (AR) and Residential High (RH) to City of Delray Beach Planned Residential Development, 6 du / ac (PRD-6), and an associated Master Development Plan and waivers for Banyan Court (fka Banyan Cove).

Background Information

Banyan Court is a proposed single-family residential development on 6.68± acres bordered to the north by Canal LWDD L-30; to the east by the Banyan Creek Elementary School; to the south by single family residences located in unincorporated Palm Beach County (the north side of Sabal Lakes Road); and to the west by Bexley Park, a Planned Residential Development (PRD) located within the City of Delray Beach; as well as a single family subdivision known as Golf Club Estates and a single family residence (located south of the L-30 Canal) all located within unincorporated Palm Beach County. The subject property encompasses three parcels: one single-family residence with two accessory structures is located on the northernmost parcel and the remaining two parcels are vacant.

The request for rezoning accompanies a petition for annexation and future land use map (FLUM) amendment. Several requests have previously been made to the City pertaining to the subject property. The history of petitions is outlined below.

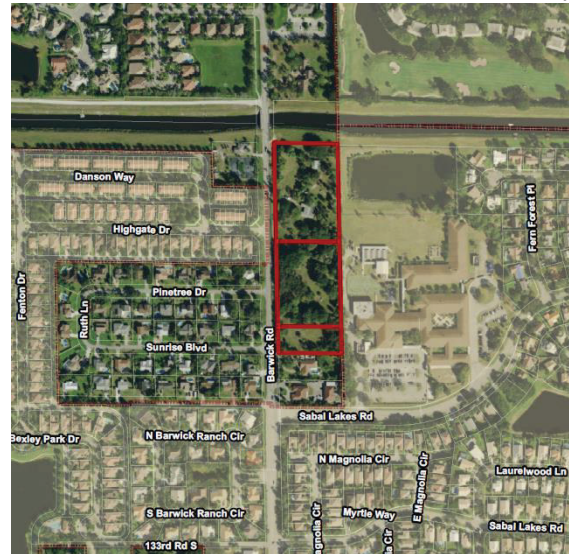
13132 Barwick Road & Unaddressed Parcel (South 3.54-acres)

March 17, 1997: The Planning and Zoning Board considered requests for Annexation, Future Land Use Map amendment, and zoning of Medium Density Residential (RM) and recommended that the requests be approved with an initial zoning of Medium Density Residential - 8 du/ac (RM-8). The petitions were withdrawn prior to final action by the City Commission.

June 2, 2000: Application requests for Annexation, Future Land Use Map amendment, and zoning of Community Facilities (CF), and a conditional use for the expansion of the Pathway to Recovery Facility were submitted.

August 21, 2000: The Planning and Zoning Board recommended approval of the Annexation and Small-Scale Future Land Use Map amendment re-designating from Palm Beach County MR-5 to City CF, with a zoning designation of CF for Pathways to Recovery, Inc.

October 3, 2000: The City Commission denied the annexation, small-scale FLUM amendment, and rezoning request submitted on August 21, 2000. Subsequently, the buildings were demolished and the site has remained vacant.



13038 Barwick Road (North 3.13-acre Parcel)

March 19, 2012: The Planning and Zoning Board considered requests for Annexation, FLUM amendment re-designating from Palm Beach County MR-5 to City MD, and re-designating the zoning district from Palm Beach County AR to City Agricultural (A). The Board recommended approval to the City Commission of the requested petitions.

March 20, 2012: Palm Beach County Planning Department issued a letter of objection to the annexation contending that the proposed annexation would create an enclave. The application did not move forward to the City Commission.

June 8, 2012: A Water Service Agreement was approved to provide City water services for the property, for the use by the single-family residential structure.

13038 Barwick Road, 13132 Barwick Road & Unaddressed Parcel (All Parcels)

2017: The applicant filed an application with Palm Beach County to amend the land use designation from MR-5 to 8 du/acre. During the review process, it was determined by the Delray Beach City Manager, City Attorney, and City Development Services Director that the applicant should file a petition to annex into the City of Delray Beach. In 2018, the applicant filed a petition for annexation into the City, future land use amendment to City MD - Medium Density, 5-12 du/acre, and rezoning to City RM-8 - Multiple-Family Residential to allow 53 townhomes. The Planning and Zoning Board recommended approval of the annexation, FLUM amendment, and rezoning on October 15, 2018. However, the annexation petition and future land use petition were postponed prior to final action by the City Commission in December 2018, and the rezoning request (voted on as Ordinance 29-19) was withdrawn.

Review and Analysis

Rezoning

In accordance with **LDR Section 2.4.5(C)(3)** and **Section 4.2.3**, the subject request for rezoning is being considered in conjunction with the annexation request and FLUM amendment that the Planning and Zoning Board previously recommended approval of on October 15, 2018. The applicant has submitted a new rezoning request, to reflect feedback from City Boards, elected officials, and members of the public. The requested rezoning is to PRD-6 (no greater than 6 dwelling units per acre), with an associated Master Development Plan (which includes 3 waivers) for 40 zero-lot line single-family residences.

Pursuant to **LDR Section 2.4.5(D)(1)**, the City Commission may amend the Official Zoning Map by ordinance after review and recommendation for approval by the Planning and Zoning Board. **LDR Section 2.4.5(D)** outlines the procedures for a zoning change, which includes the standard application items in **LDR Section 2.4.3**. In accordance with **2.4.3(E)**, a traffic study must be prepared to address the development of property under reasonable intensity pursuant to the existing and proposed zoning. Based on the traffic study (dated May 2, 2019) submitted by the applicant, the trips generated by the proposed 40 units would be 400 tpd, with 30 AM peak hour trips and 42 peak hour trips. The traffic study concludes that the estimated trips per day and AM / PM peak hour trips at project build-out in 2023 meets the requirements of Palm Beach County Traffic Performance Standards (TPS). The TPS approval letter from the Palm Beach County Traffic Division, dated July 18, 2019, confirms that the proposed development meets Palm Beach County Traffic Performance Standards.

Pursuant to **LDR Section 2.4.5(D)(2)**, valid reasons for approving a change in zoning are:

- That the zoning had previously been changed, or was originally established, in error;
- That there has been a change in circumstance which makes the current zoning inappropriate;
- That the requested zoning is of similar intensity as allowed under the Future Land Use Map and that it is more appropriate for the property based upon circumstances particular to the site and/or neighborhood.

The application fulfills the last two criteria. The change of circumstance (annexation from Palm Beach County and land use map amendment) necessitates the adoption of City zoning. Concurrent with annexation, an initial zoning designation must be applied to the property consistent with the FLUM designation; Table L-6 in the Future Land Use Element considers the MD designation to be compatible with the PRD zoning district. The proposed zoning can be considered more appropriate to the surrounding neighborhoods than the existing AR and RH zoning designations because it allows a development intensity that is compatible with and similar to the existing

development. The surrounding uses are single family residential to the north; an elementary school to the east; single family residential to the south; and a mix of traditional single family, zero lot line single family, a multi-family triplex, and townhomes to the west.

Rezoning requests must meet five standards pursuant to **LDR Section 3.2.2**, which are described below as they relate to the proposed rezoning under consideration.

- (A) *The most restrictive residential zoning district that is applicable given existing development patterns and typical lot sizes shall be applied to those areas identified as "stable" and "stabilization" on the Residential Neighborhood Categorization Map. Requests for rezonings to a different zoning designation, other than Community Facilities, Open Space, Open Space and Recreation, or Conservation shall be denied.*

Because the subject property is located in unincorporated Palm Beach County, a category on the Residential Neighborhood Categorization Map has not been assigned. However, the City of Delray Beach neighborhoods adjacent to the subject property are categorized as Stable.

- (B) *Rezoning to AC (Automotive Commercial) to accommodate auto dealerships shall not be permitted west of I-95.*

Not applicable. This is a residential development.

- (C) *Zoning changes that would result in strip commercial development shall be avoided. Where strip commercial developments or zoning currently exists along an arterial street, consideration should be given to increasing the depth of the commercial zoning in order to provide for better project design.*

Not applicable. The proposed development is residential and does not have a commercial component.

- (D) *That the rezoning shall result in allowing land uses which are deemed compatible with adjacent and nearby land use both existing and proposed; or that if an incompatibility may occur, that sufficient regulations exist to properly mitigate adverse impacts from the new use.*

Under the proposed MD land use, PRD is a compatible zoning district. The PRD zoning district is characterized by "flexible densities in which multiple family and single family detached dwellings are designed together so as to: promote improved design, character, and quality of development; to preserve natural, scenic, and open space features of a site; and to accommodate flexibility in design." The existing uses and zoning surrounding the proposed development is as follows:

	Zoning Designation	Land Use	Use
North	LWDD L-30 Canal; County-Single Family (RS)	County-Low Residential, 3 units / acre (LR-3)	Single family
South	County-Agricultural Residential (AR)	County- Medium Density Residential (MR-5)	Single family
East	City-Community Facilities (CF)	City-Community Facilities (CF)	Banyan Creek Elementary
West	County-Agricultural Residential (AR)	Low Density Residential (LD)	Golf Club Estates: single family Bexley Park: zero lot line, and townhomes

The proposed zoning is compatible with and similar to the surrounding residential development both in use and in development intensity. The Lake Worth Drainage District L-30 canal is located to the north of the development, which provides separation from the development to the north. Banyan Creek Elementary is located to the east, and a large portion of the site is retention / green space. Those applicable requirements to "properly mitigate adverse impacts from the new use" are reviewed with the Master Development Plan.

- (E) *Remaining, isolated infill lots within the coastal planning area shall be developed under zoning which is identical or similar to the zoning of adjacent properties; and, the resulting development shall be of a design and intensity which is similar to the adjacent development.*

Not applicable. The proposed development is not within the coastal planning area.

LDR Section 4.4.7 - Planned Residential Development (PRD) District “provides a residential zoning district with flexible densities in which multiple family and single family detached dwellings” are allowed to “promote improved design, character, and quality of development; to preserve natural, scenic, and open space features of a site; and to accommodate flexibility in design.” Single family conventional and zero lot line are allowed within the PRD district. Rezoning to PRD must be accompanied by a Master Development Plan (MDP). The applicant has submitted a MDP, along with a request for three waivers. Subsequent to approval of the MDP by the Planning and Zoning Board, the elevations must be approved by the Site Plan Review and Appearance Board (SPRAB). Development standards for the PRD are as follows:

- a) *At least 50 percent of the units must be in single family detached units where the overall density is six units per acre or less, or at least 40 percent where the overall density is greater than six units per acre;*

The project is 100 percent single family detached units.

- b) *Fifteen percent of the gross area of the site must be placed in common open space where the overall density is six units per acre or less, or at least 20 percent where the overall density is greater than six units per acre;*

The project has provided 32.8 percent open space.

- c) *Minimum site area is five acres.*

The site is 6.68 acres.

Master Development Plan

LDR Section 2.4.5(F) provides the criteria for MDP approval. Generally, “the approving body must make a finding that development of the property pursuant to the site plan will be compatible and harmonious with adjacent and nearby properties and the City as a whole, so as not to cause substantial depreciation of property values.” The MDP is subject to the provisions of LDR Section 3.2.3 (Standards for site plan and / or plat actions), as described below.

- (a) *The development plan provides for an effective and unified treatment of the development potential of the site, making appropriate provisions for the preservation of scenic features and amenities of the site;*

The proposed development provides circulation throughout the site with vehicle and pedestrian travelways. Three different home models are proposed by the applicant. Model A is 1,916 SF on a single-story. Models B and C are both two stories. Model B is 2,694 SF and Model C is 2,995 SF. The site layout preserves open space through the inclusion of four (4) green swales on the north west and south west borders of the property. A biological survey and a habitat analysis are not required based upon the existing conditions of the properties determined in a field assessment. However, the applicant is required to relocate and mitigate certain trees (relocation details are provided on the landscape plan).

- (b) *The development plan fosters harmony with existing or proposed development in areas surrounding the site.*

The surrounding existing developments provide a mix of community facilities, single-family homes, single-family zero lot line homes, triplexes, and townhomes. As a single-family zero lot line development, the proposed development is similar.

- (c) *Buildings in the layout shall be an integral part of the development and have convenient access to and from adjacent uses and blocks;*

The development provides two points of ingress / egress on Barwick Road. There is also a linear park with a walking trail along Barwick Road, and a pedestrian arcade approximately midway between each driveway perpendicular to Barwick Road. This improves circulation and provides residents multiple options for mobility within the development and connection to the surrounding area.

- (d) *In the multiple family portion, individual buildings shall be related to each other in design, masses, materials, placement, and connections so as to provide a visually and physically integrated development. Treatment of the sides and rear of buildings shall be comparable in amenity and appearance to the treatment given to the front.*

Not applicable. The proposed development is a single-family development.

- (e) *The landscape treatment for plazas, streets, paths, and service and parking areas shall be designed as an integral part of a coordinated landscape and street furniture design.*

The linear path along Barwick Road has plantings along the pathway, as well as a row of plantings along the adjacent property line. The streets internal to the neighborhood have trees planted in front of each property, and the pedestrian entrance to the neighborhood is lined with a row of trees. Three of the four swale areas will have trees that have been relocated from other areas of the property; the fourth swale area includes many new trees, all identified in the landscape plan.

- (f) *The location, shape, size, and character of the common open space must be suitable for the contemplated development in terms of density, population characteristics, and housing types;*

Section 4.4.7(F)(2) requires that fifteen percent of the gross area of the site must be placed in common open space where the overall density is six units per acre or less. The development has provided 32.8% dispersed throughout the four large swale areas on the north west and south west sides of the property ;two of the areas provide covered pavilions with benches and dog waste stations.

- (g) *Common open space must be used for amenity or recreational purposes and must be suitably improved for its intended use. Natural features, worthy of preservation, shall be incorporated into the common open space system;*

Several large trees are identified for relocation to swale areas on the landscape plan; two of the four swale areas include pavilions with benches, and dog waste stations.

- (h) *Roads, pedestrian ways, and open space shall be designed as an integral part of the overall design and shall be properly related to buildings and appropriately landscaped;*

There are two driveways that provide ingress and egress to the development from Barwick Road. An additional landscaped pedestrian pathway is located midway between the two entrances perpendicular to Barwick Road. The roads internal to the development have trees located at 40' intervals. The sidewalk runs through a landscaped linear park along the west property line along Barwick Road.

- (i) *There shall be an adequate amount of pedestrian ways and landscape spaces to limit pedestrian use of vehicular ways, and to separate pedestrian ways and public transportation loading places from general vehicular circulation;*

The applicant has provided 4' sidewalks internal to the development on both sides of the north-south road, and on both sides of the south roadway. There is a 5' sidewalk along the length of the property along Barwick Road, and a landscaped pedestrian arcade perpendicular to Barwick Road midway between the two entrances. A bus stop is located south of the development site along Barwick Road.

- (j) *The location and design of pedestrian ways should emphasize desirable views of new and existing development.*

The development provides multiple pedestrian pathways throughout the development that provide connectivity to the pedestrian network outside of the development. Additionally, all sidewalks are landscaped with trees at 40' intervals.

- (k) *Tot lots and recreational areas shall be a feature of all new housing developments which utilize PRD zone districts. (OSR A-3.3)*

The applicant has provided two pavilions with dog waste stations and benches in two of the four green swale areas.

Waivers

The applicant has requested the following:

Waiver	Code Section	Required	Proposed	Request
Waiver 1	Zero Lot Line Side Setbacks Section 4.3.4(H)(3)(a)	0/15'	0/10'	5' Reduction
Waiver 2	Minimum Lot Width/Frontage for Zero Lot Line PRD Corner Lots Section 4.3.4(k)	60'	40'	20' Reduction
Waiver 3	Sidewalk Width Section 6.1.3(B)(1)(b)	5'	4' (Internal)	1' Reduction

Pursuant to **LDR Section 2.4.7(B)(5), Waivers: Findings**, prior to granting a waiver, the granting body shall make findings that the granting of the waiver:

- a) *Shall not adversely affect the neighboring area;*

The requested waivers, to reduce the zero lot line side setbacks from 15' to 10', the minimum lot width and frontage from 60' to 40', and the sidewalk width from 5' to 4', are internal to the project and should have no direct effect on the neighboring area because they are internal to the neighborhood and do not face adjacent neighborhoods.

- b) *Shall not significantly diminish the provision of public facilities;*

The requested waivers to reduce the minimum lot frontage and width and side setbacks relate to the site plan layout and do not impact public facilities, including the provision of water and sewer and access by emergency responders. The requested sidewalk width waiver relates to public facilities and required access. However, granting of the waiver will not negatively impact the public facility as the driveways function as the required passing area at 200-foot intervals, and is compliant with the Americans With Disabilities Act by meeting the slope requirements.

- c) *Shall not create an unsafe situation;*

Waiver 1 allows sufficient space between the homes within the development for air circulation and landscaping. The reduction of corner lots in Waiver 2 provides sufficient and safe separation from roadways because of the parking spaces provided between the property lines along the street. The reduced sidewalk widths in Waiver 3 is compliant with the Americans with Disabilities Act and allows safe mobility for wheelchair users.

- d) *Does not result in the grant of a special privilege in that the same waiver would be granted under similar circumstances on other property for another applicant or owner.*

The requested waivers could be granted in a similar circumstance for another applicant if they do not create any unsafe conditions, diminish public facilities, or adversely impact adjacent developments.

The applicant's waiver request and justification statement is attached.

Outstanding Technical Requirements

The following items are outstanding technical items that must be addressed prior to site plan certification of the Master Development Plan:

- The applicant must create easements for the water and sewer mains by separate instrument based on as-built locations, not on the plat. The City does not want the roadway ownership to be able to be confused with utility easements. Prior to Site Plan Certification show the proposed easements on the plans.
- The photometric plans show items labelled SD MH: 4 and SD MH: 1 out in the Right-of-Way of Barwick Road but these items are not identified as to what they are. There are details for a bollard light and a pole mounted light neither of which are acceptable to be placed in Barwick Road Right-of-Way although they are perfectly acceptable within the private roads/common areas. The City will require use of the City Standard light pole in Barwick Road Right-of-Way. This must be accomplished prior to Site Plan Certification.
- The minimum width for sidewalks per ADA is 5'. The driveways can be used as the required 60" x 60" wheelchair passing area every 200 feet. However, the driveway grades must accommodate the ADA required slope.
- As a new residential development greater than 25 units, the applicant must provide 100% of the cost of the purchase and installation of a bus shelter (\$11,000) per City of Delray Beach Comprehensive Plan, Policy A-1.5 and LDR Section 2.4.3 (D) (7) that at the time of building permit.

Review By Others

The subject property is not within a redevelopment area or overlay.

The **City Commission** is anticipated to review Ordinance No. 38-19 (Rezoning), Ordinance No. 37-19 (Future Land Use Map amendment), and Ordinance 27-18 (Annexation) at its meetings on November 19, 2019 (First Reading) and January 14, 2020 (Second Reading, Final Adoption).

Board Action Options

Separate motions must be made for the rezoning request and the master development plan with waivers. Options for board actions for each item are provided below.

Rezoning

- Recommend **approval** of Ordinance No. 38-19, a privately-initiated request to rezone 6.68± acres from Palm Beach County Agricultural Residential (AR) and Residential High (RH) to City Planned Residential Development, 6 du/acre (PRD-6), finding that the rezoning and approval thereof is consistent with the Comprehensive Plan and meets the criteria set forth in the Land Development Regulations.
- Recommend **denial** of Ordinance No. 38-19, a privately-initiated request to rezone 6.68± acres from Palm Beach County Agricultural Residential (AR) and Residential High (RH) to City Planned Residential Development, 6 du/acre (PRD-6), finding that the rezoning and approval thereof is not consistent with the Comprehensive Plan and does not meet the criteria set forth in the Land Development Regulations.
- Continue With Direction

Master Development Plan and Waivers

- Recommend **approval** of the Banyan Court Master Development Plan for 40 zero lot line single family lots; with a waiver from LDR Section 4.3.4(H)(3)(a) to allow a reduction from the required 15 foot setback to 10 feet, a waiver from LDR Section 4.3.4(k) to reduce the required frontage for corner lots from 60 feet to 40 feet, and a waiver from LDR Section 6.1.3(B)(1)(b) to reduce the width of internal sidewalks from 5 feet to four feet; finding that the approval thereof is consistent with the Comprehensive Plan and meets the criteria set forth in the Land Development Regulations.
- Recommend **approval, as amended**, of the Banyan Court Master Development Plan for 40 zero lot line single family lots ; with a waiver from LDR Section 4.3.4(H)(3)(a) to allow a reduction from the required 15 foot setback to 10 feet, a waiver from LDR Section

4.3.4(k) to reduce the required frontage for corner lots from 60 feet to 40 feet, and a waiver from LDR Section 6.1.3(B)(1)(b) to reduce the width of internal sidewalks from 5 feet to four feet; finding that the approval thereof is consistent with the Comprehensive Plan and meets the criteria set forth in the Land Development Regulations.

- C. Recommend **denial** of the Banyan Court Master Development Plan for 40 zero lot line single family lots; with a waiver from LDR Section 4.3.4(H)(3)(a) to allow a reduction from the required 15 foot setback to 10 feet, a waiver from LDR Section 4.3.4(k) to reduce the required frontage for corner lots from 60 feet to 40 feet, and a waiver from LDR Section 6.1.3(B)(1)(b) to reduce the width of internal sidewalks from 5 feet to four feet; finding that the approval thereof is not consistent with the Comprehensive Plan and does not meet the criteria set forth in the Land Development Regulations.

D. Continue With Direction

Public and Courtesy Notices

X Courtesy Notices are not applicable to this request.

--- Public Notices are not required for this request.

X Public Notice was posted at the property 7 calendar days prior to the meeting.

X Public Notice was mailed to property owners within a 500' radius 10 days prior to the meeting.

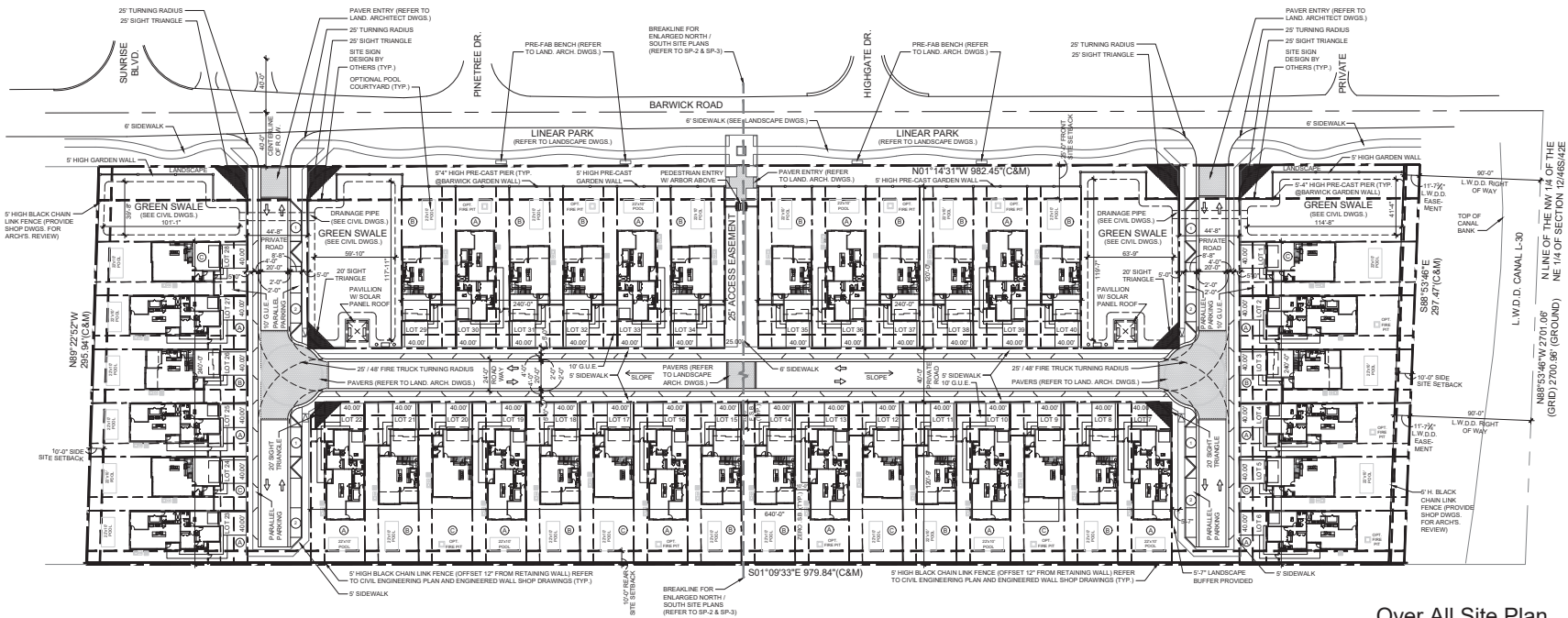
--- Public Notice was mailed to the adjacent property owners 20 days prior to the meeting.

X Public Notice was published in the Sun Sentinel October 11, 2019, 10 calendar days prior to the meeting.

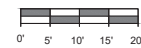
X Public Notice was posted to the City's website 10 calendar days prior to the meeting.

X Public Notice was posted in the main lobby at City Hall 10 working days prior to the meeting.

X Agenda was posted at least 5 working days prior to meeting.



Over All Site Plan



Scale: 1"=40'



Barwick Road Street Scene

Scale: 1"=40'



Barwick Road Enlarged Partial Street Scene

Scale: 1"=10'

RICHARD JONES
ARCHITECTURE

10000 FIRST AVENUE, SUITE 100
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | BB26001056

WWW.RICHARDJONESARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSE

AA26001617 | BB26001056

COMMISSION # 18-059
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO 05.03.19
ZONING 07.15.19
ADDRESS
COMMENTS
#2 ZONING 08.23.19
COMMENTS

REVISIONS:

SITE
PLAN

SP-1

THE FOLLOWING FIRE CODES ARE FOLLOWED:
FLORIDA FIRE PREVENTION CODE 2015 EDITION, FLORIDA SPECIFIC NFPA 1
FIRE CODE, 2015 EDITION, FLORIDA SPECIFIC NFPA 101 LIFE SAFETY CODE, 2015 EDITION.

WARRANT REQUESTS:
1) PURSUANT TO LDR SECTION 4.3.4(1)(3)(4), ZERO LOT LINE SETBACKS
REQUIRED TO BE 10'-0" THROUGHOUT THE DEVELOPMENT. REQUEST FOR
10'-0" SIDE SETBACKS THROUGHOUT THE DEVELOPMENT.
2) PURSUANT TO LDR SECTION 4.3.4(4) TABLE 801, DEVELOPMENT STANDARDS
MATRIX FOR CORNER LOTS REQUIRED TO BE 60'-0" WIDE THROUGHOUT THE
DEVELOPMENT. REQUEST FOR ONLY (d) CORNER LOTS TO BE 40'-0" WIDE
THROUGHOUT THE DEVELOPMENT.
3) PURSUANT TO LDR SECTION 4.3.4(1)(3)(4), SIDEWALK WIDTH REQUIRED TO BE
MINIMUM 5'-0" WIDE REQUIRED THROUGHOUT THE DEVELOPMENT
REQUEST FOR 4'-0" SIDEWALK THROUGHOUT THE DEVELOPMENT.

SITE CALCULATIONS

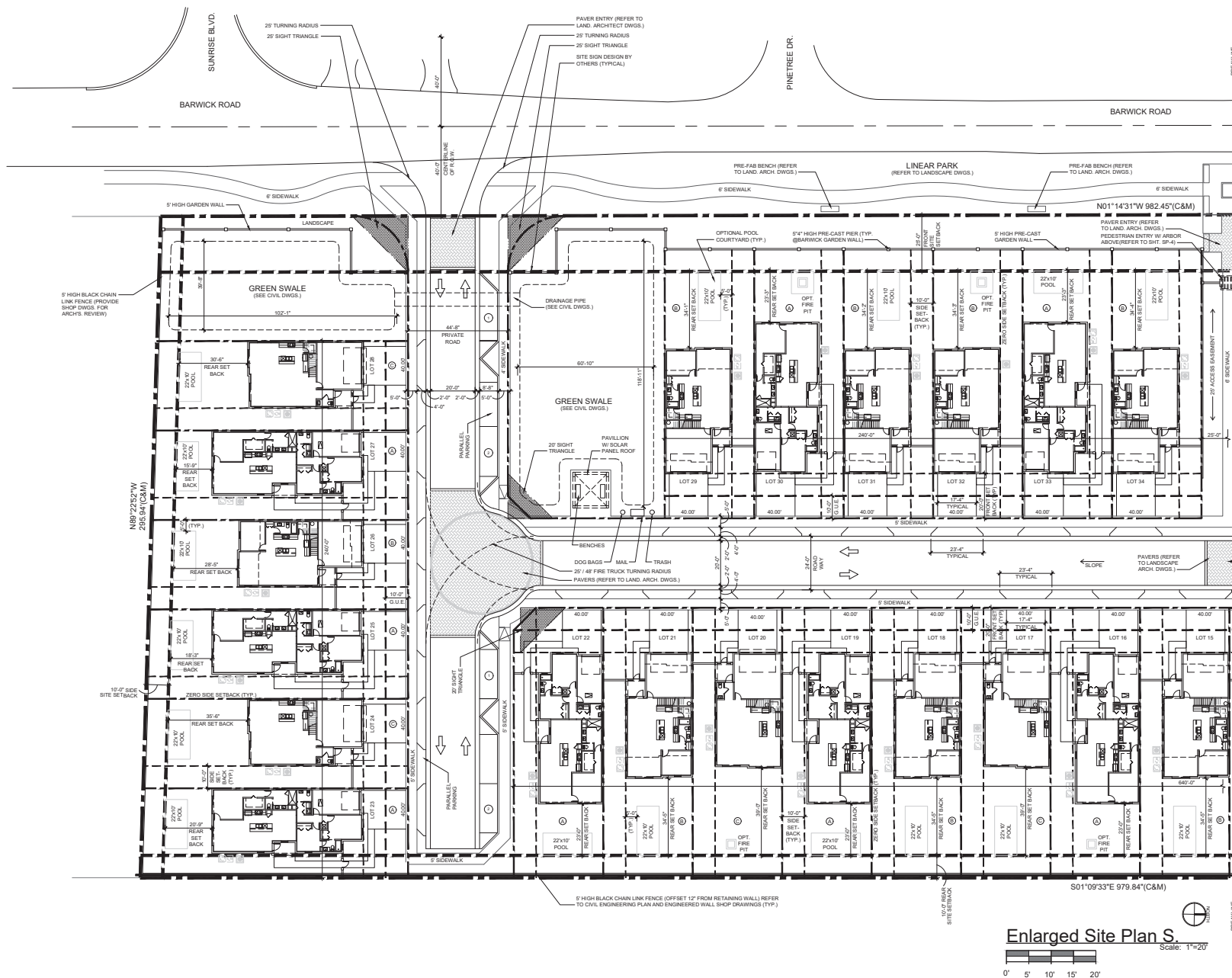
	Square Feet	Percentage
Total Site Area =	290,081	100.0%
Impervious Area =	195,554	67.4%
Permeable Area =	95,396	32.6%
Site Coverage =	76,230	26.2%
(Minimum 25% Non-Vehicular Open Space Required)	95,396	32.8%
Impervious Right of Way =	47,068	16.2%
Permeable Right of Way =	7,383	2.5%
Total Right of Way =	54,151	18.6%

BUILDING LOT SETBACKS

	Required	Provided
Front Setback	20'-0"	20'-0"
Rear Setback	10'-0"	10'-0" MIN. (REFER TO LOT)
Side Setback - Zero Slope	0'-0"	0'-0"
Side Setback - Non Zero Slope	10'-0"	10'-0"

BUILDING LOT REQUIREMENTS

	Required	Provided
Lot Area =	4,500 SQ. FT.	MIN. 4,516 S.F. (REFER TO LOT)
Lot Width =	40.00'	40.00'
Lot Depth =	85.00'	112'-0" MIN. (REFER TO LOT)
Lot Frontage =	40.00'	40.00'
Building Height =	35'-0"	35'-0" MAX. (FROM C. OF R.)



Enlarged Site Plan S.
Scale: 1"=20'



1033 E. FIRST AVENUE, SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | BB26001056

WWW.RICHARDJONESARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSEURE

AA26001617 | BB26001056

COMMISSION # 18-4599
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ
SUBMITTALS:
ISSUE TO: 05.03.19
ZONING: 07.15.19
ADDRESS COMMENTS
#2 ZONING COMMENTS 08.23.19

REVISIONS:

ENLARGED
SITE PLAN
SOUTH

SP-2

RICHARD JONES ARCHITECTURE

© COPYRIGHT 2019 BY RICHARD JONES ARCHITECTURE. INCORPORATED ALL RIGHTS ARE RESERVED. NO PART OF THESE PLANS, SPECIFICATIONS, OR INFORMATION MAY BE REPRODUCED, COPIED, OR UTILIZED GRAPHICALLY IN ANY FORM WITHOUT EXPRESS WRITTEN PERMISSION OF RICHARD JONES ARCHITECTURE, INCORPORATED.

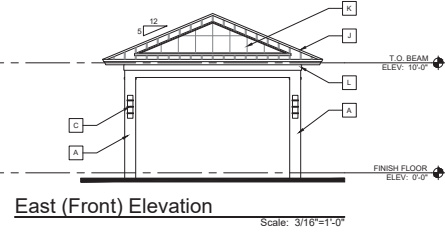
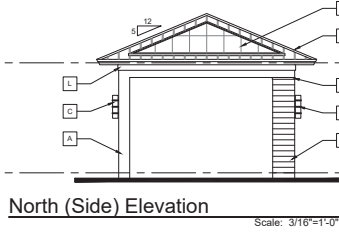
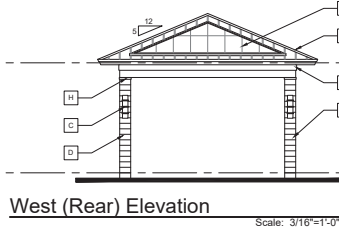
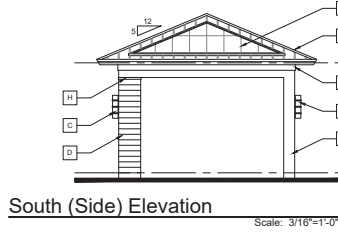
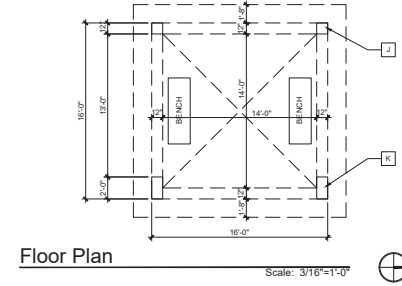
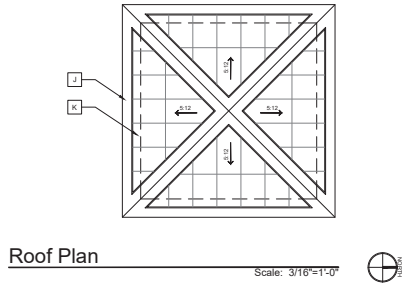


Enlarged Site Plan N. _____
Scale: 1"=20'

SP-3

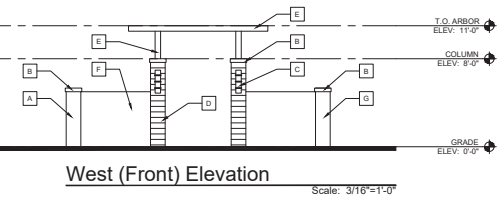
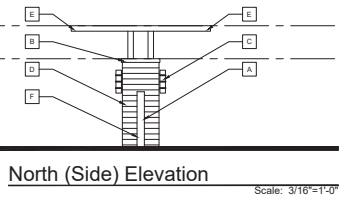
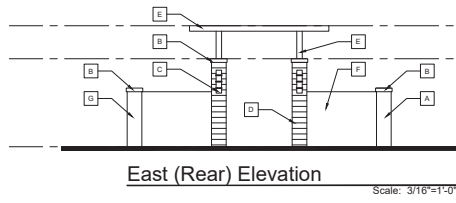
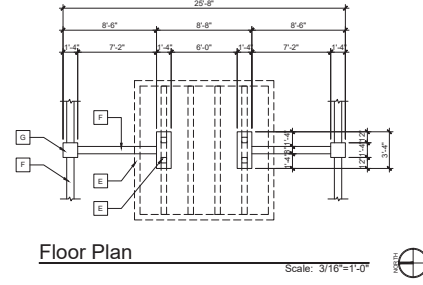
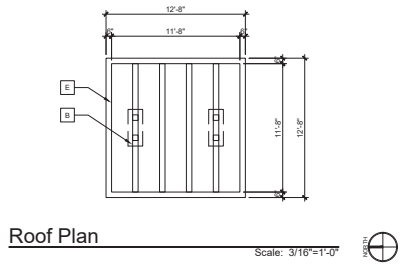
RICHARD JONES ARCHITECTURE

KEY NOTES	
A	SMOOTH STUCCO FINISH
B	4" SMOOTH STUCCO FINISH BANDING
C	LIGHT FIXTURE
D	WOOD LOOK PORCELAIN TILE
E	6"x6" ALUMINUM ARBOR
F	PRE-CAST WALL PANEL TOP +5'-0" ABV. FIN. GRADE (SEE SITE PLAN)
G	PRE-CAST PIER TOP +5'-4" ABOVE FINISH GRADE (SEE SITE PLAN)
H	2" SMOOTH STUCCO FINISH BANDING
J	METAL ROOF
K	SOLAR PANEL
L	6" SMOOTH STUCCO FRIEZE BOARD



PAVILLION W/ SOLAR PANEL ROOF

KEY NOTES	
A	SMOOTH STUCCO FINISH
B	4" SMOOTH STUCCO FINISH BANDING
C	LIGHT FIXTURE
D	WOOD LOOK PORCELAIN TILE
E	6"x6" ALUMINUM ARBOR
F	PRE-CAST WALL PANEL TOP +5'-0" ABV. FIN. GRADE (SEE SITE PLAN)
G	PRE-CAST PIER TOP +5'-4" ABOVE FINISH GRADE (SEE SITE PLAN)
H	2" SMOOTH STUCCO FINISH BANDING
J	METAL ROOF
K	SOLAR PANEL
L	6" SMOOTH STUCCO FRIEZE BOARD



PEDESTRIAN ENTRY W/ ARBOR



103 E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | BB26001056

WWW.RIARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSURE

AA26001617	BB26001056
COMMISSION #	18-4599
DESIGNER:	RJ
DRAWN BY:	Gd
PLAN REVIEW:	RJ
SUBMITTALS:	
ISSUE TO ZONING	05.03.19
ADDRESS COMMENTS	07.15.19
#2 ZONING COMMENTS	08.23.19

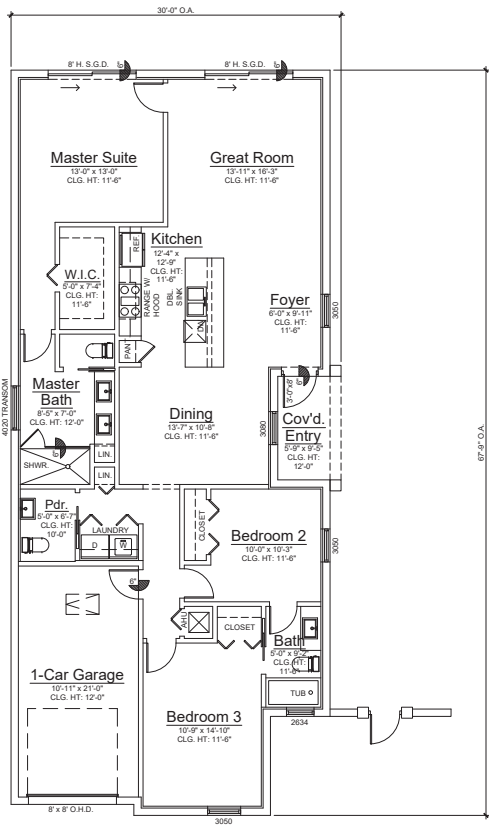
REVISIONS:

SITE
STRUCTURE
PLAN

SP-4

RICHARD JONES ARCHITECTURE

© COPYRIGHT 2019 BY RICHARD JONES ARCHITECTURE INCORPORATED ALL RIGHTS ARE RESERVED NO PART OF THESE PLANS, SPECIFICATIONS, OR INFORMATION MAY BE REPRODUCED, COPIED OR UTILIZED GRAPHICALLY IN ANY FORM WHATSOEVER WITHOUT THE EXPRESS WRITTEN CONSENT OF RICHARD JONES ARCHITECTURE INCORPORATED.



Floor Plan
Scale: 3/16"=1'-0"

MODEL A AREA CALCULATIONS	
FLOOR A/C	1,809 SQ.FT.
TOTAL A/C	1,809 SQ.FT.
GARAGE	251 SQ.FT.
COVERED ENTRY	96 SQ.FT.
TOTAL AREA	1,916 SQ.FT.



10 S.E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9186
AA26001617 | BB26001056

WWW.RIARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSEURE

AA26001617 | BB26001056

COMMISSION # 18-4059
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO 05.03.19
ZONING 07.15.19
ADDRESS
ZONING
COMMENTS
#2 ZONING 08.23.19
COMMENTS

REVISIONS:

MODEL A

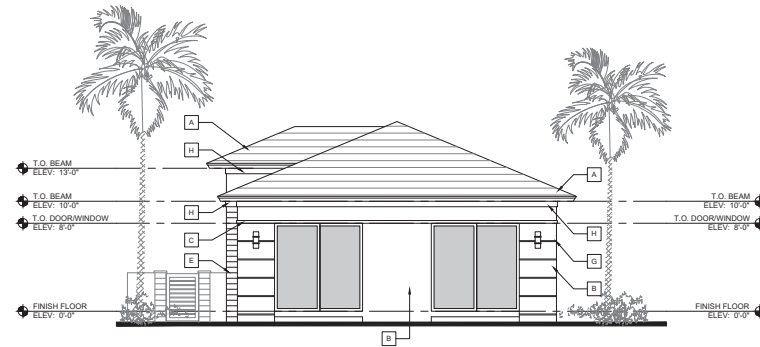
FLOOR
PLAN

A-1



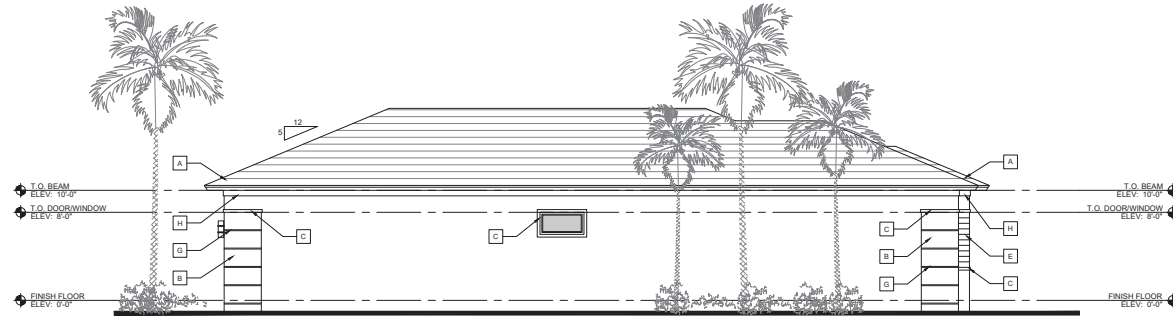
Model A Front Elevation

Scale: 3/16"=1'-0"



Model A Rear Elevation

Scale: 3/16"=1'-0"



Model A Zero-Side Elevation

Scale: 3/16"=1'-0"



Model A Side Elevation

Scale: 3/16"=1'-0"

ELEVATION NOTES

A	FLAT CONCRETE ROOF TILE
B	SMOOTH STUCCO FINISH
C	3" SMOOTH STUCCO FINISH BAND @WINDOW & DOOR SURROUNDS
D	LIGHT FIXTURE
E	WOOD LOOK PORCELAIN TILE
F	6" SMOOTH STUCCO BANDING
G	1" SCORE LINE IN SMOOTH STUCCO FINISH
H	6" SMOOTH STUCCO FRIEZE BOARD
J	HORIZONTAL ALUMINUM RAILING +36" ABOVE FINISH FLOOR
K	MASONRY GARDEN WALL W/ ALUMINUM GATE

RICHARD JONES
ARCHITECTURE

103 E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | BB26001056

WWW.RICHARDJONESARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSURE

AA26001617 | BB26001056
COMMISSION # 18-4599
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO 05.03.19
ZONING 07.15.19
ADDRESS 07.15.19
COMMENTS
#2 ZONING 08.23.19
COMMENTS

REVISIONS:

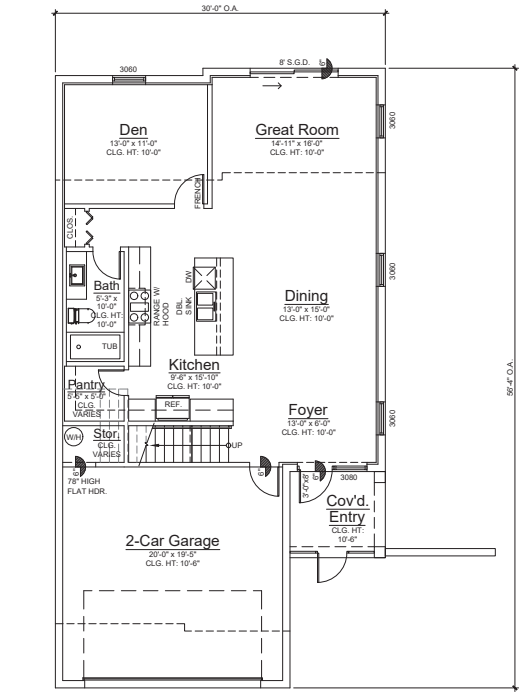
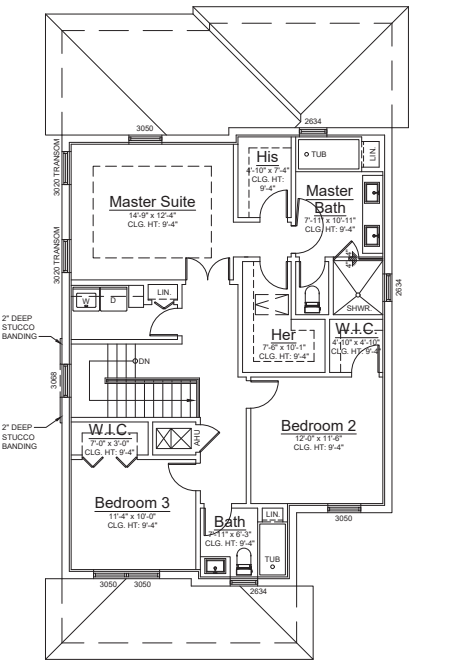
MODEL A

ELEVATIONS

A-2

RICHARD JONES ARCHITECTURE

© COPYRIGHT 2019 BY RICHARD JONES ARCHITECTURE. INCORPORATED ALL RIGHTS ARE RESERVED. NO PART OF THESE PLANS, SPECIFICATIONS, OR INFORMATION MAY BE REPRODUCED, COPIED OR UTILIZED GRAPHICALLY IN ANY FORM WHATSOEVER WITHOUT THE EXPRESS WRITTEN CONSENT OF RICHARD JONES ARCHITECTURE, INCORPORATED.



MODEL B AREA CALCULATIONS	
GROUND FLOOR A/C	1,082 SQ.FT.
SECOND FLOOR A/C	1,116 SQ.FT.
TOTAL A/C	2,198 SQ.FT.
GARAGE	428 SQ.FT.
COVERED ENTRY	68 SQ.FT.
TOTAL AREA	2,694 SQ.FT.



10 S.E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | BB26001056

WWW.RIARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSEURE

AA26001617 | BB26001056

COMMISSION # 18-4959
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO 05.03.19
ZONING 07.15.19
ADDRESS
COMMENTS
#2 ZONING 08.23.19
COMMENTS

REVISIONS:

MODEL B

FLOOR PLANS

A-3

RICHARD JONES ARCHITECTURE

© COPYRIGHT 2019 BY RICHARD JONES ARCHITECTURE INCORPORATED ALL RIGHTS ARE RESERVED NO PART OF THESE PLANS, DESIGN OR INFORMATION MAY BE REPRODUCED, COPIED OR UTILIZED GRAPHICALLY IN ANY FORM WHATSOEVER WITHOUT THE EXPRESS WRITTEN CONSENT OF RICHARD JONES ARCHITECTURE INCORPORATED



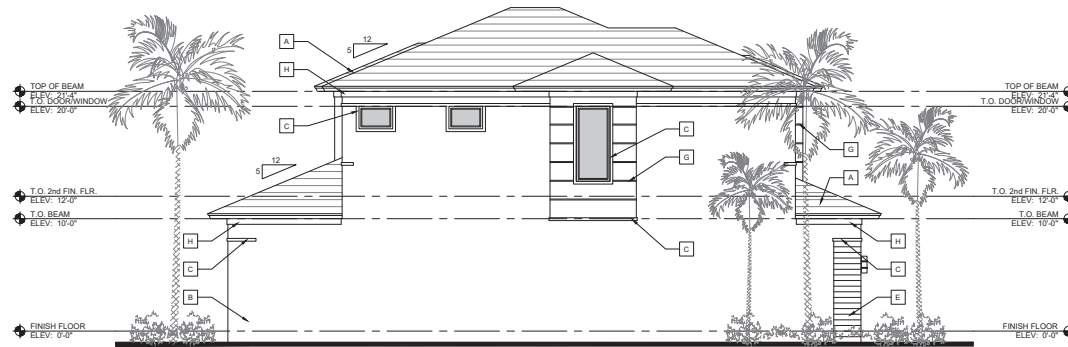
Model B Front Elevation

Scale: 3/16"=1'-0"



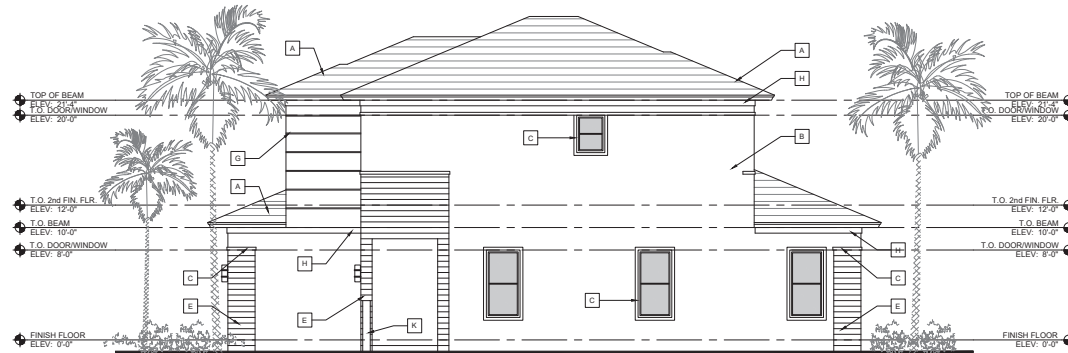
Model B Rear Elevation

Scale: 3/16"=1'-0"



Model B Zero-Side Elevation

Scale: 3/16"=1'-0"



Model B Side Elevation

Scale: 3/16"=1'-0"

ELEVATION NOTES

A	FLAT CONCRETE ROOF TILE
B	SMOOTH STUCCO FINISH
C	3" SMOOTH STUCCO FINISH BAND @ WINDOW & DOOR SURROUNDS
D	LIGHT FIXTURE
E	WOOD LOOK PORCELAIN TILE
F	6" SMOOTH STUCCO BANDING
G	1" SCORE LINE IN SMOOTH STUCCO FINISH
H	6" SMOOTH STUCCO FRIEZE BOARD
J	HORIZONTAL ALUMINUM RAILING + 36" ABOVE FINISH FLOOR
K	MASONRY GARDEN WALL W/ ALUMINUM GATE



10 S.E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V: 561.274.9106 | F: 561.274.9108
AA26001617 | JB26001056

WWW.RJARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSE

AA26001617 | JB26001056

COMMISSION # 18-459
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO ZONING 05.03.19
ADDRESS 07.15.19
ZONING COMMENTS
#2 ZONING COMMENTS 08.23.19

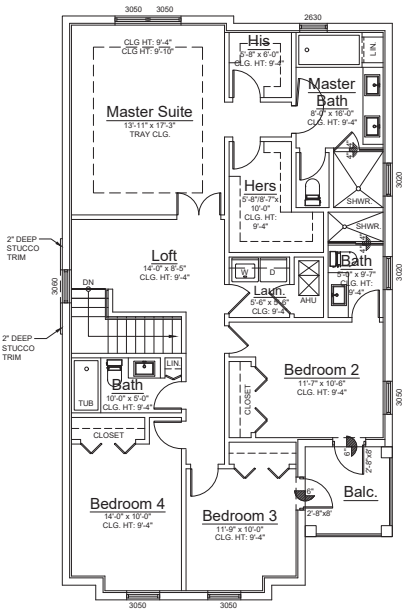
REVISIONS:

MODEL B

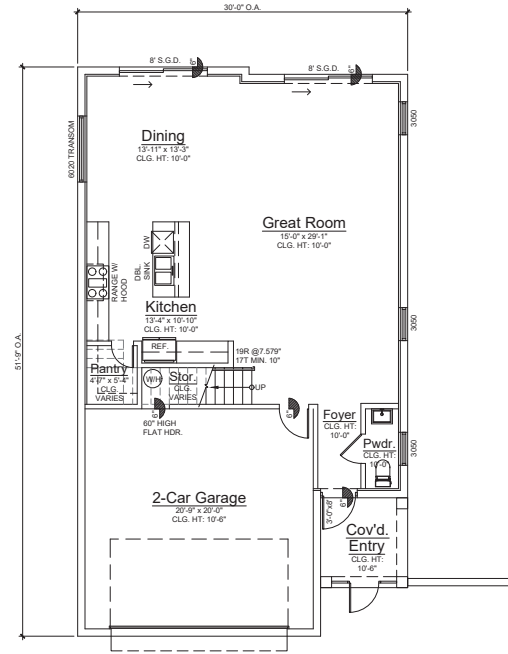
ELEVATIONS

A-4

RICHARD JONES ARCHITECTURE

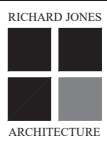


Second Floor Plan
Scale: 3/16"=1'-0"



Ground Floor Plan
Scale: 3/16"=1'-0"

MODEL C AREA CALCULATIONS	
GROUND FLOOR A/C	992 SQ.FT.
SECOND FLOOR A/C	1,422 SQ.FT.
TOTAL A/C	2,414 SQ.FT.
GARAGE	481 SQ.FT.
COVERED ENTRY	65 SQ.FT.
BALCONY	65 SQ.FT.
TOTAL AREA	2,965 SQ.FT.



10 S.E. FIRST AVENUE, SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9186
AA26001617 | BB26001056

WWW.RIARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSEURE

AA26001617 | BB26001056

COMMISSION # 18-4599
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO 05.03.19
ZONING 07.15.19
ADDRESS
COMMENTS
#2 ZONING 08.23.19
COMMENTS

REVISIONS:

MODEL C

FLOOR PLANS

A-5

RICHARD JONES ARCHITECTURE

© COPYRIGHT 2019 BY RICHARD JONES ARCHITECTURE INCORPORATED ALL RIGHTS ARE RESERVED NO PART OF THESE PLANS, DESIGN OR INFORMATION MAY BE REPRODUCED COPIED OR UTILIZED GRAPHICALLY IN ANY FORM WHATSOEVER WITHOUT THE EXPRESS WRITTEN CONSENT OF RICHARD JONES ARCHITECTURE INCORPORATED



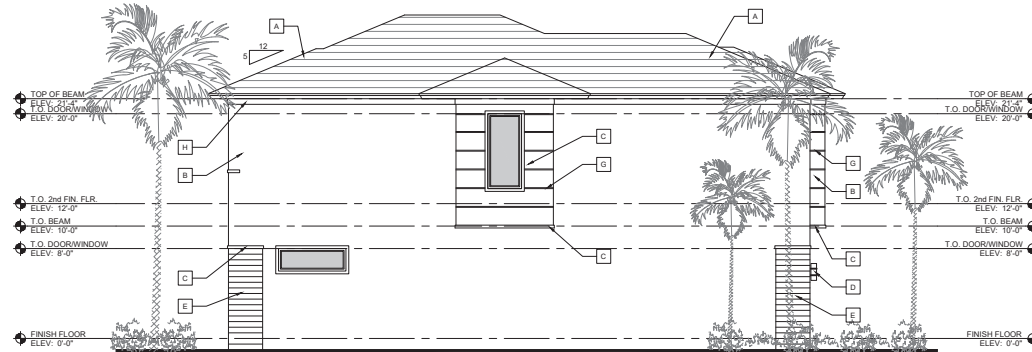
Model C Front Elevation

Scale: 3/16"=1'-0"



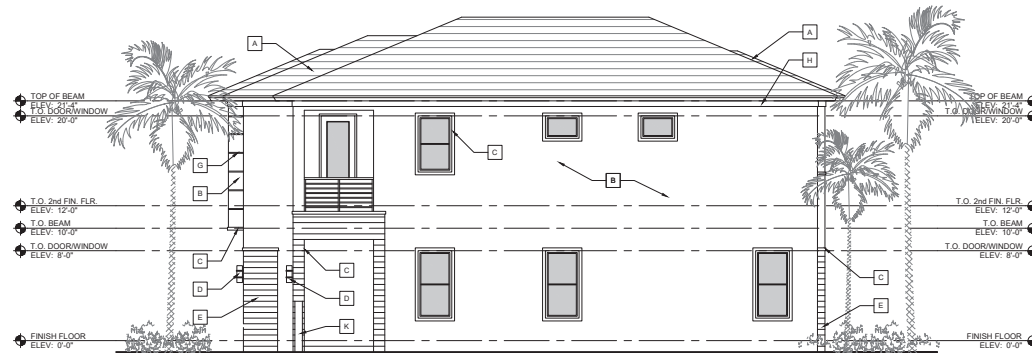
Model C Rear Elevation

Scale: 3/16"=1'-0"



Model C Zero-Side Elevation

Scale: 3/16"=1'-0"



Model C Side Elevation

Scale: 3/16"=1'-0"

ELEVATION NOTES

A	FLAT CONCRETE ROOF TILE
B	SMOOTH STUCCO FINISH
C	3" SMOOTH STUCCO FINISH BAND @ WINDOW & DOOR SURROUNDS
D	LIGHT FIXTURE
E	WOOD LOOK PORCELAIN TILE
F	6" SMOOTH STUCCO BANDING
G	1" SCORE LINE IN SMOOTH STUCCO FINISH
H	6" SMOOTH STUCCO FRIEZE BOARD
J	HORIZONTAL ALUMINUM RAILING + 36" ABOVE FINISH FLOOR
K	MASONRY GARDEN WALL W/ ALUMINUM GATE



10 S.E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
P: 561.274.9106 | F: 561.274.9108
AA26001617 | JB26001056

WWW.RJAARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA
STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-118
FORT LAUDERDALE, FL 33309

FLORIDA LICENSURE

AA26001617 | JB26001056

COMMISSION # 18-499
DESIGNER: RJ
DRAWN BY: Gd
PLAN REVIEW: RJ

SUBMITTALS:
ISSUE TO ZONING 05.03.19
ADDRESS ZONING 07.15.19
COMMENTS 08.23.19

REVISIONS:

MODEL C

ELEVATIONS

A-6

RICHARD JONES ARCHITECTURE

U5134TIIS-10676

Prestressed Concrete Pile

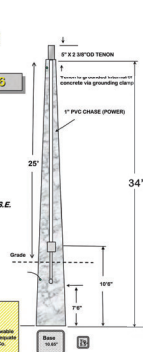
- Pile Weight= 2,160lbs
- Wind speed= 175mph 1'ult
- Exposure "C"
- Risk Category II
- Gust Factor = 1.3
- Load factor = 1.2
- 2017 FBD 1620 IFWZ,1608, 1619
- ASCE 7-10
- Min. Bk. Strength 1,800k
- Concrete 6,000psi @ 28-days
- Grd. Wire #6 str. copper
- Strand 1/2" @ 70% Ultimate
- Tenson 2 3/8" OD x 1" Hgt.

SELECT STRUCTURAL, LLC

SHAWN R. ANDERSON, P.E., S.E.

PROJECT:

This pole embedded 9' in to soils with an allowable Passive pressure of 300psf is structurally adequate To Resist the local wind speeds of Broward Co. with the 1.0psf cos attached.



Conc. Light Pole Detail
Scale: N.T.S.

OSQ Series

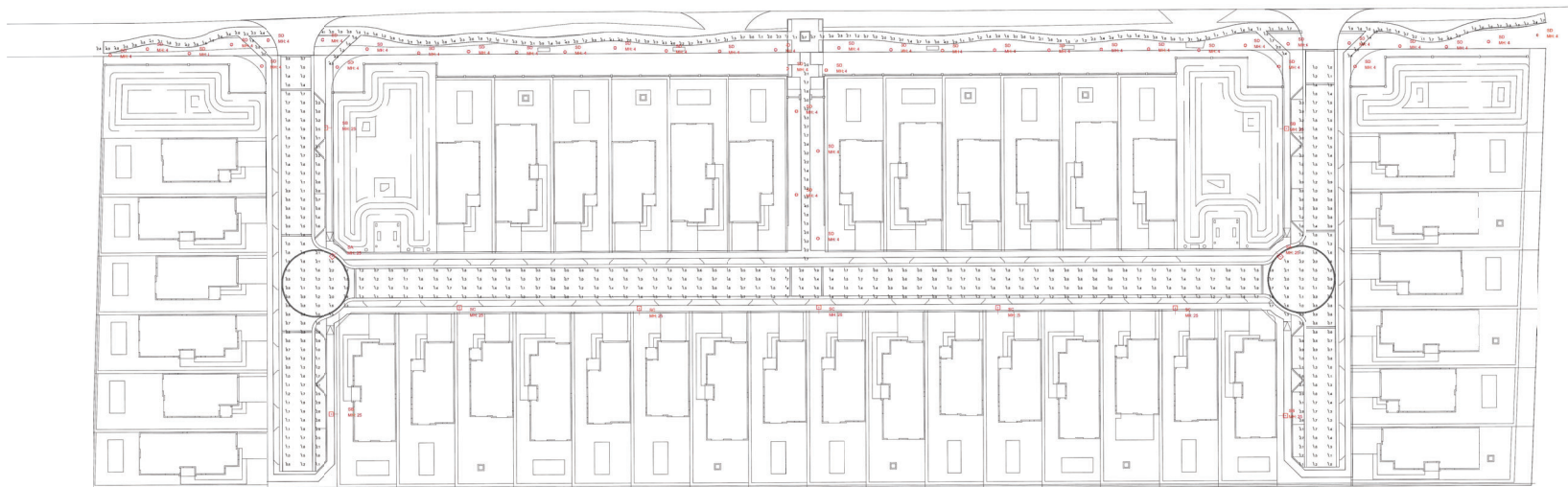
[illegible]

Light Head Detail Scale: N.T.S.

Cree Edge™ Series



Ballard Detail Scale: N.T.S.



Photometric Plan

RICHARD JONES

 ARCHITECTURE

10 S.E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | IB26001056

WWW.RJARCHITECTURE.COM

**BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA**

FLORIDA	LICENSURE
---------	-----------

AA26001617 IB26001056	
COMMISSION #	18-059
DESIGNER:	RJ
DRAWN BY:	GsJ
PLAN REVIEW:	RJ

SUBMITTALS:	
ISSUE TO ZONING	05.03.19
ADDRESS ZONING COMMENTS	07.15.19
#2 ZONING COMMENTS	08.23.19

REVISIONS:

PHOTO-
METRIC
PLAN

PH-1

RICHARD JONES ARCHITECTURE

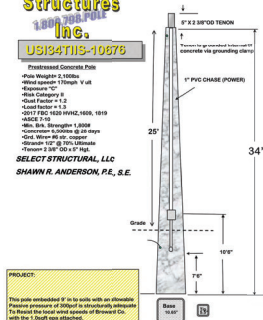
U5134T1IS-10676

Prestressed Concrete Pile

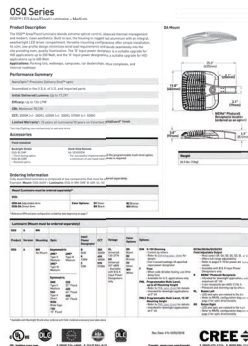
- Pile Weight: 2,100lbs
- Wind speed: 115mph V-ult
- Exposure "C"
- Risk Category I
- Gust Factor = 1.3
- Load factor = 1.2
- 2017 FBC 1610 HWHZ, 1608, 1619
- ASCE 7-10
- Min. Brk. Strength 1,800k
- Corrosion 6,500hrs @ 28-days
- Dkt. Width 66 inch
- Strands 12" @ 20% Ultimate
- Tension 2 3/8" OD x 5" Hgt.

SELECT STRUCTURAL, LLC

SHAWN R. ANDERSON, P.E., S.E.



Scale: N.T.S.



Scale: N.T.S.



Cree Edge™ Series

Product Description

The Cree Edge™ Series is a new generation of LED street lighting designed specifically for the commercial market. The series includes a variety of luminaire styles and mounting options to meet the needs of different applications. The luminaires are available in multiple wattage configurations and color temperatures, providing a range of lighting solutions for various environments.

Key Features:

- High-efficiency LED technology for long life and energy savings
- Available in multiple wattage configurations (e.g., 40W, 60W, 80W)
- Multiple color temperature options (e.g., 3000K, 4000K, 5000K)
- Durable construction for outdoor use
- Easy installation and maintenance

Technical Specifications

Model Number	Power (Watt)	Color Temperature (Kelvin)	Beam Angle (Degrees)	Mounting Type	Height (Feet)
CE-40-3000	40	3000	120	Standard	10-12
CE-60-4000	60	4000	120	Standard	10-12
CE-80-5000	80	5000	120	Standard	10-12

Dimensions

Side View Dimensions:
H = Luminaire Height
W = Luminaire Width

Ordering Information

Please refer to the following table for detailed ordering information, including part numbers and descriptions.

Part Number	Description	Notes
CE-40-3000-S	Cree Edge 40W 3000K Standard Mount	Standard luminaire configuration
CE-60-4000-S	Cree Edge 60W 4000K Standard Mount	Standard luminaire configuration
CE-80-5000-S	Cree Edge 80W 5000K Standard Mount	Standard luminaire configuration

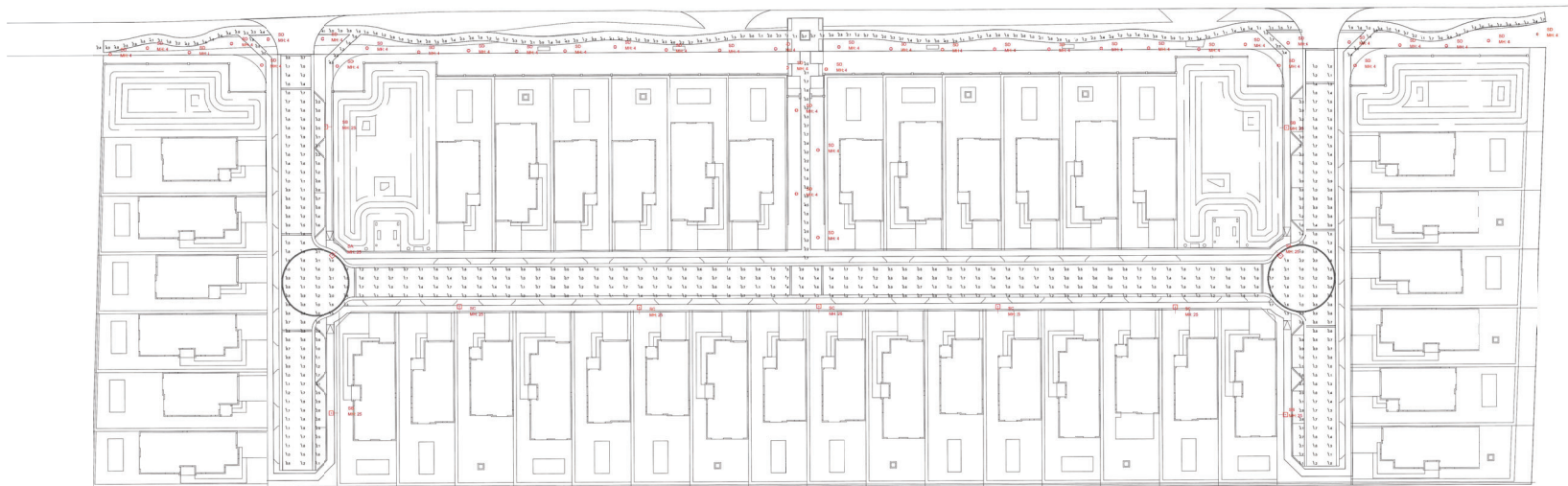
Warranty

The Cree Edge Series is covered by a limited warranty against defects in materials and workmanship for a period of five years from the date of purchase.

Contact Us

For more information or to place an order, please contact your local distributor or visit our website at [www.cree.com](#).

Scale: N.T.S.



Scale: 1"=40'

10 S.E. FIRST AVENUE | SUITE 102
DELRAY BEACH, FLORIDA 33444
V 561.274.9186 | F 561.274.9196
AA26001617 | IB26001056

WWW.RJARCHITECTURE.COM

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

STELLAR COMMUNITIES
2700 WEST CYPRESS CREEK ROAD, SUITE D-1
FORT LAUDERDALE, FL 33309

FLORIDA	LICENSURE
---------	-----------

AA26001617 | IB26001056

COMMISSION #	18-059
DESIGNER:	RJ
DRAWN BY:	Gsj
PLAN REVIEW:	RJ

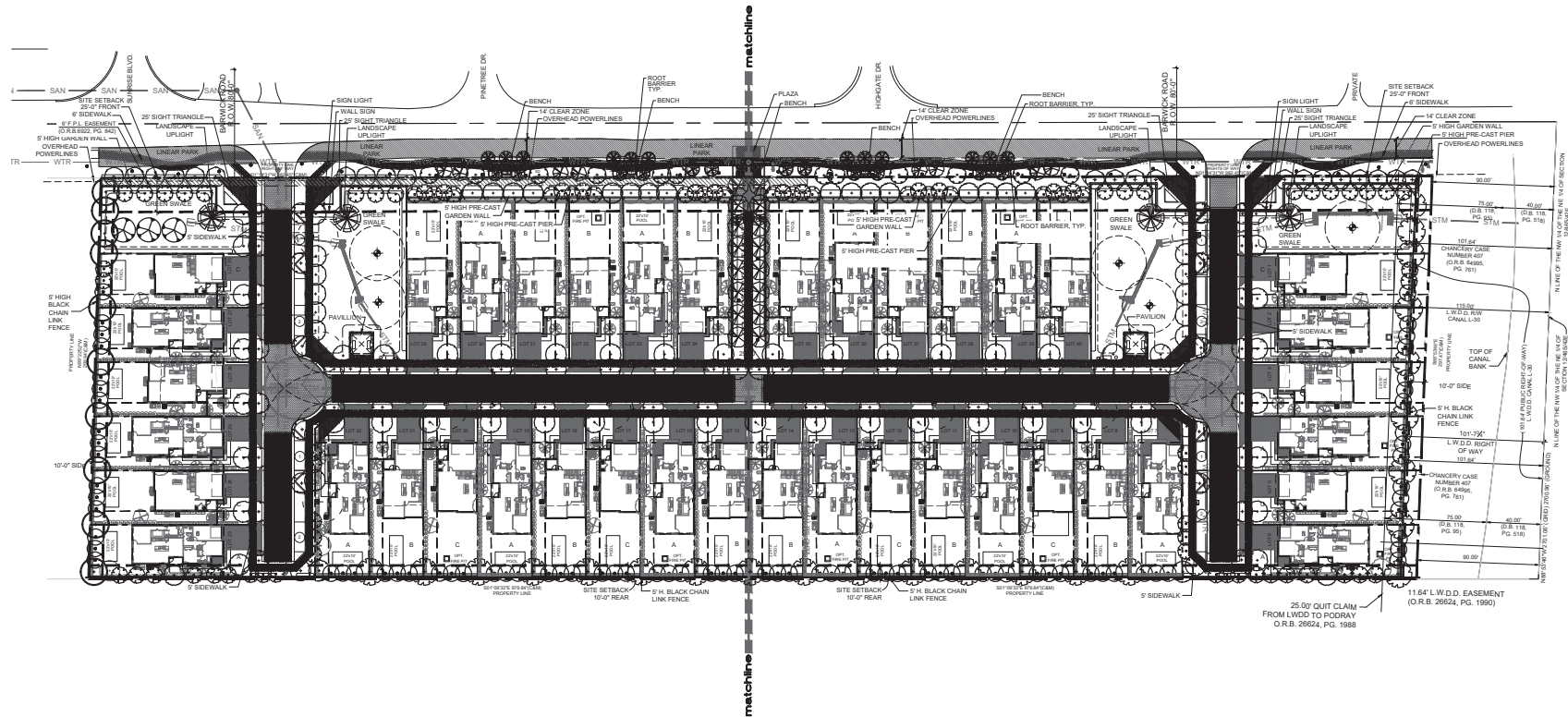
SUBMITTALS:	
ISSUE TO ZONING	05.03.19
ADDRESS ZONING	07.15.19
COMMENTS	
#2 ZONING	08.23.19
COMMENTS	

REVISIONS:

PHOTO-
METRIC
PLAN

PH-1

RICHARD JONES ARCHITECTURE



banyan court
delay beach, fl

dave bodker
landscape architecture/planning inc.
601 n. congress ave., suite 105-a
delay beach, florida 33445
561-276-6311
#A0000999
sheet title:

**overall
planting plan**
project number:
1319
date: 06/03/2019
scale: 1" = 40'
drawn by:

revisions:
7-28-2019 per city comments
8-30-2019 per city comments
A
A
A
A

sheet:



L-1
1 of 7 sheets



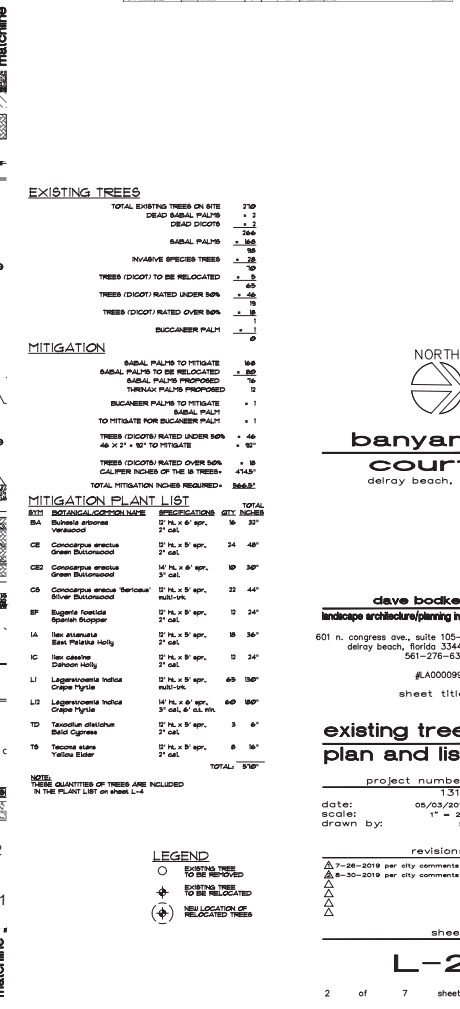
LOBBY BENCH
Manufacturer: Doty & Sons
Item No. 54651, 72"
Detail: 72", 402lbs
Concrete legs to have SB6 finish (sandblast)
Seat to be 4 boards recycled plastic lumber (color is Gray RPL3)
Mount to concrete pads with anchor kits item no. AK1010 (2 per lobby bench)

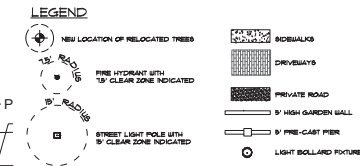


LITTER RECEPTACLES
Manufacturer: Doty & Sons
Item No. LR3500
Detail: 18" square x 34.5" height
Standard sandblast finish (SB6)
Mount to concrete pads with anchor kits item no. AK1065 (1 per litter receptacle)



DOG BAG DISPENSER
Manufacturer: Dog Waste Depot with ONEpul Bag System
Deposit-022-B
Round Waste Can with lid
Black powder coated

[illegible]



CODE DATA

STREET TRENCH	
1 tree / 40' U.	60 trees required
240' rad	60 provided

NOTE: SEE SHEET L-6 FOR TYPICAL UNIT PLANTING PLANS

deve bocker
landscape architecture/planning inc.

601 n. congress ave., suite 105-0
dreyer beach, florida 33440
561-276-6311

#LA0000991

sheet title

dave bodker
landscape architecture/planning inc.
601 n. congress ave., suite 105-a
delray beach, florida 33445
561-276-6311
#A0000995
sheet title

revisions
 ▲ 7-26-2019 per city comments
 ▲ 8-30-2019 per city comments
 ▲
 ▲
 ▲

sheet

L-4

4 of 7 sheets

9" HT. PRIVACY COMMUNITY WALL ALONG BARBUCK

9" HT. MIN. BLACK VINYL COATED CHAIN-LINK FENCE

SEE OVERALL PLAN FOR THESE TREES

PATIO

600

600

600

Master Suite

Great Room

30 CHR

4 CHR

5 GLU

8 BCU

1 TB

Kitchen

Master Bath

Foyer

Dining

Cov'd Entry

30

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

[illegible][illegible]

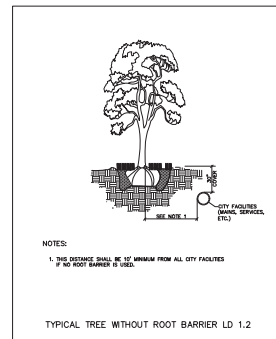
CODE DATA-Unit A		BURDEN COUNT
A	TOTAL LOT AREA	4000 SQ. FT.
B	STRUCTURES, PAVING, SURFACES, DRIVEWAYS ETC.	12000 SQ. FT.
C	TOTAL PROVIDED LOT AREA	$C = (A + B)$ 16000 SQ. FT.
D	PERCENT OF AREAS AND AROUND COVERED REQUIREMENTS	$D = (C \times .25)$ 4000 SQ. FT.
E	PERCENT OF AREAS AND AROUND COVERED REQUIREMENTS	4000 SQ. FT.
F	NATIVE VEGETATION REQUIRED	$F = (D \times .25)$ 1000 SQ. FT.
G	NATIVE VEGETATION PROVIDED	1000 SQ. FT.
H	TOTAL NUMBER OF TREES BURNED ON SITE	544 ECTS.
I	TOTAL NUMBER OF TREES REQUIRED	$I = (G \div 2500000) \times 1000$ 2 TREES
J	TOTAL NUMBER OF TREES ON PLANS PROVIDED	2 TREES
K	TOTAL NUMBER OF NATIVE TREES REQUIRED	$K = (I \times 1 \times 200)$ 1 TREE
L	TOTAL NUMBER OF NATIVE TREES PROVIDED	1 TREE

800	<i>Stenanthus secundatus</i> [<i>S. Augustine</i> Bod]	full, fresh seed	as req.
	Black Mulch	3" layer	as req.

CODE DATA-Unit B

			BURIED CODE
A	TOTAL LOT AREA		4,000 SQ FT
B	STRUCTURES, PAVEMENT, PLANTINGS, DRIVE, ETC.		250 SQ FT
C	TOTAL PERVIOUS LOT AREA	$G + (A - B)$	1,000 SQ FT
D	AREA OF BULKHEAD AND GROUND COVERED	$D = C \times 2\%$	173 SQ FT
E	AREA OF BULKHEAD AND GROUND COVERED PROVIDED		400 SQ FT
F	NETTIVE VEGETATION REQUIRED	$F = (D - E)$	62 SQ FT
G	NETTIVE VEGETATION PROVIDED		104 SQ FT
H	TOTAL NUMBER OF TREES		
I	NUMBER OF TREES		
J	TOTAL NUMBER OF TREES	$I \times (A/25000) \times 800$	3 TREES

CODE DATA-Unit C		BURN-IN COUNT
A	TOTAL LOT AREA	1,440,000
B	AREA OF BURN-IN AREA SALVAGE SHEDS ETC.	5,400,000
C	AREA OF BURN-IN AREA AREA OF BURN-IN AREA	$D \times (14 - 8)$ 474,000
D	AREA OF BURN-IN AND WINDING AREA OF BURN-IN AND WINDING	$D \times (7 \times 36)$ 378,000
E	AREA OF BURN-IN AND WINDING AREA OF BURN-IN AND WINDING	36,000
F	NATIVE VEGETATION REQUIRED NATIVE VEGETATION REQUIRED	$F \times (2 \times 26)$ 78,000
G	NATIVE VEGETATION REQUIRED NATIVE VEGETATION REQUIRED	402,000
H	TOTAL NUMBER OF TREES EXPECTED ON SITE	3 TREES
I	TOTAL NUMBER OF TREES ON PLANT PRODUCTION	$I \times (14,000,000 - 100)$ 3 TREES
J	TOTAL NUMBER OF TREES ON PLANT PRODUCTION	3 TREES
K	TOTAL NUMBER OF NATIVE TREES REQUIRED	$K \times (14 - 1) \times 260$ 1 TREE



LEGEND:

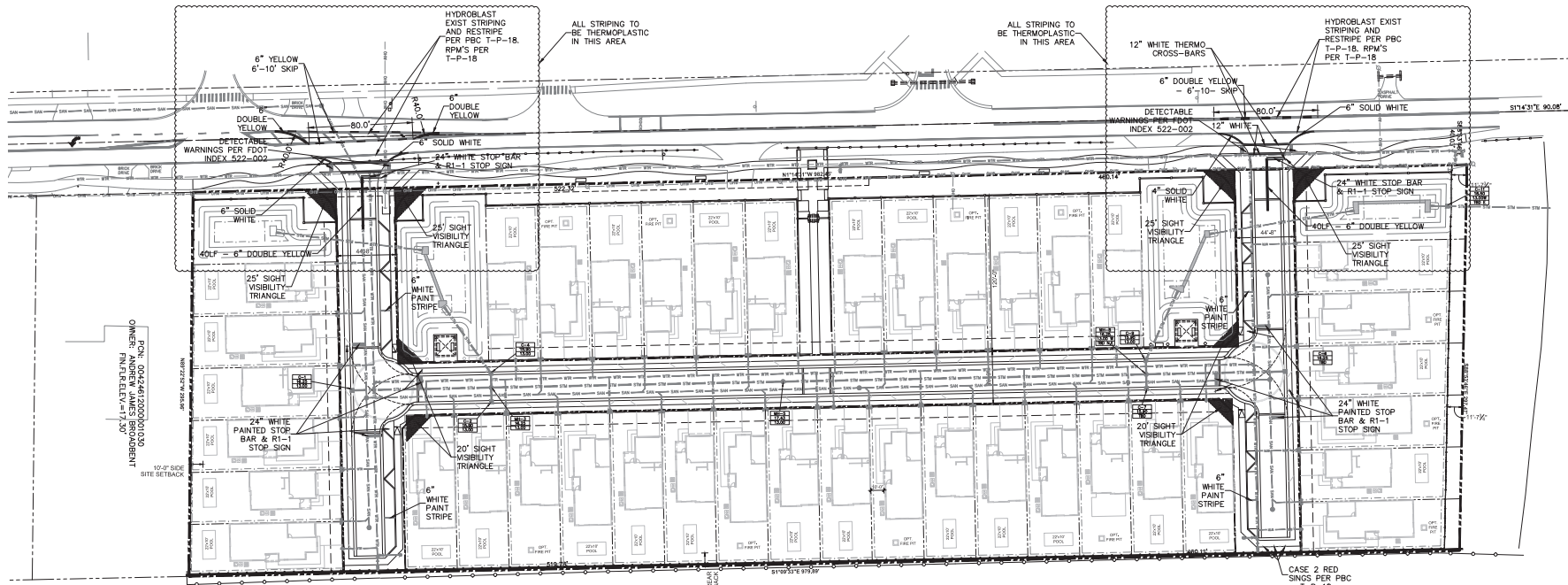
- PROPERTY LINE
- PROPOSED STORM LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING STORM LINE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING OVERHEAD LINES
- DENOTES AREA OF PROPOSED ASPHALT PAVING
- DENOTES AREA PROPOSED 1" MILL & OVERLAY
- DENOTES AREA OF PROPOSED BRICK PAVERS SEE DETAIL SHEET 2 - SEE LANDSCAPE PLANS FOR PATTERN
- DENOTES AREA OF PROPOSED POOL DECK BY OTHERS - SEE LANDSCAPE PLANS FOR SPECIFICATIONS
- DENOTES AREA OF EXISTING PAVEMENT AND BASE TO BE REMOVED & REPLACED WITH CLEAN FILL
- DENOTES AREA OF EXISTING PAVEMENT TRENCH REPAIR FOR UTILITY INSTALLATION -SEE DETAIL SHEET 2



LOCATION MAP
N.T.S.



"NOT FOR CONSTRUCTION"



SEE SHEET 2 FOR PAVING & DRAINAGE
SEE SHEET 4 FOR WATER & WASTEWATER

SEE SHEET 3 FOR PAVING & DRAINAGE
SEE SHEET 5 FOR WATER & WASTEWATER

NOTE: CONTRACTOR TO FIELD
VERIFY EXACT LOCATION, SIZE, AND
ELEVATION OF ALL IMPROVEMENTS
AT TIME OF CONSTRUCTION AND
REPORT ANY DISCREPANCIES TO
ENVIRODESIGN ASSOCIATES, INC.



Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

SCALE: 1" = 40'
0 20 40 60 80

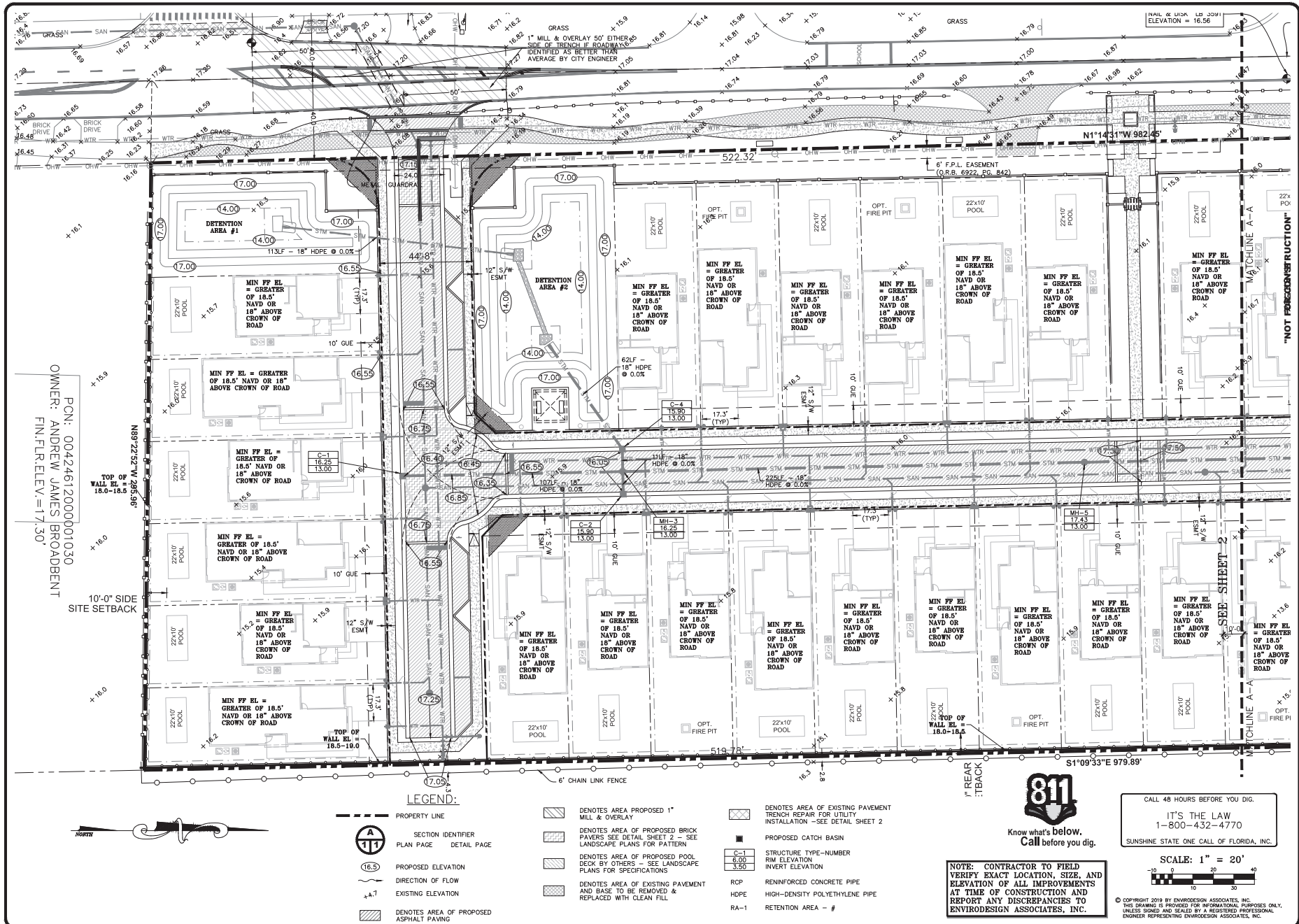
CIVIL SITE IMPROVEMENTS KEY PLAN FOR:

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

EnviroDesign
Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF REGISTRATION NO. 6506
298 Pineapple Grove Way Delray Beach, Florida 33444
Phone: (561) 244-5555 Fax: (561) 244-5555

DRAWN:
B.A.B.
CHECKED:
J.A.P.

DATE:
9/12/19
JOB NO.
19007-ENG
SHEET NO.
1 OF 14



NO.	DATE:	REVISIONS	BY:
1	9/12/19	REVISE PER CITY COMMENTS	BAW
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			



EnviroDesign
ASSOCIATES, INC.
www.envirodesign.com

ENGINEERS

ENVIRONMENTAL CONSULTANTS

FLORIDA CERTIFICATE OF AUTHORIZATION NO. 60093444
298 Pineapple Grove Way Delray Beach, Florida 33444
Phone: (561) 244-2555 Fax: (561) 244-2555

DRAWN:

B.A.B.

CHECKED:

J.A.P.

DATE:

9/12/19

JOB NO.

19007-ENG

SHEET NO.

2

2

OF 14

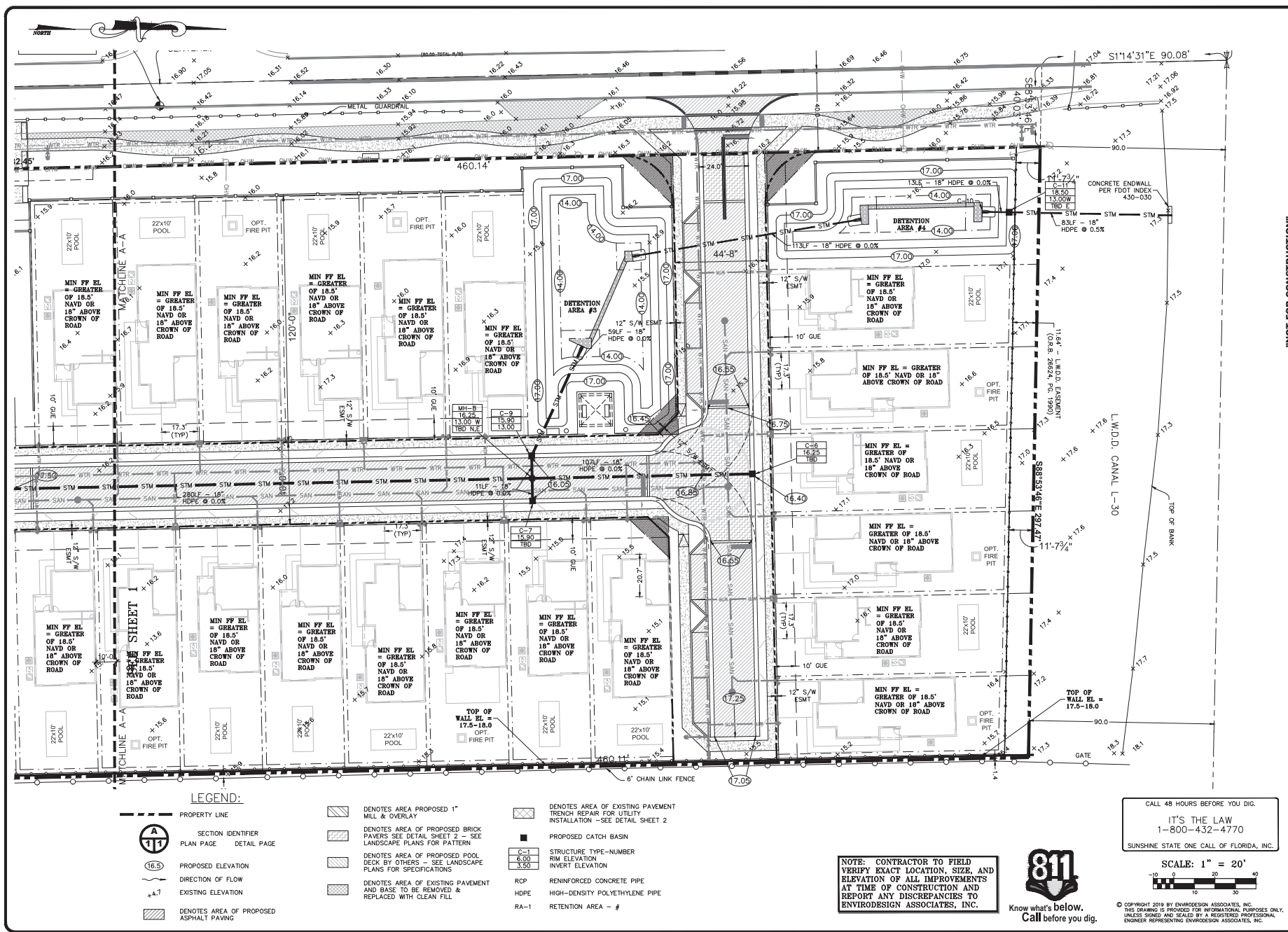
PAVING & DRAINAGE PLAN FOR:

BANYAN COURT

BARWICK ROAD

DELRAY BEACH, FLORIDA

JOSEPH A. PINE, P.E.
FL REG # 42686

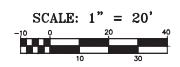


- LEGEND:**
- | | | | | | |
|--|---|--|--|--|---|
| | PROPERTY LINE | | DENOTES AREA PROPOSED 1" MILL & OVERLAY | | DENOTES AREA OF EXISTING PAVEMENT TRENCH REPAIR FOR UTILITY INSTALLATION - SEE DETAIL SHEET 2 |
| | SECTION IDENTIFIER | | DENOTES AREA OF PROPOSED BRICK PAVERS SEE DETAIL SHEET 2 - SEE LANDSCAPE PLANS FOR PATTERN | | PROPOSED CATCH BASIN |
| | PLAN PAGE | | DENOTES AREA OF PROPOSED POOL DECK BY OTHERS - SEE LANDSCAPE PLANS FOR SPECIFICATIONS | | STRUCTURE TYPE-NUMBER
RM ELEVATION
INVERT ELEVATION |
| | PROPOSED ELEVATION | | DENOTES AREA OF EXISTING PAVEMENT TO BE REMOVED & REPLACED WITH CLEAN FILL | | REINFORCED CONCRETE PIPE |
| | DIRECTION OF FLOW | | HDPE | | RETENTION AREA - # |
| | EXISTING ELEVATION | | | | |
| | DENOTES AREA OF PROPOSED ASPHALT PAVING | | | | |

NOTE: CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, AND ELEVATION OF ALL IMPROVEMENTS AT TIME OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENVIRODESIGN ASSOCIATES, INC.



CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

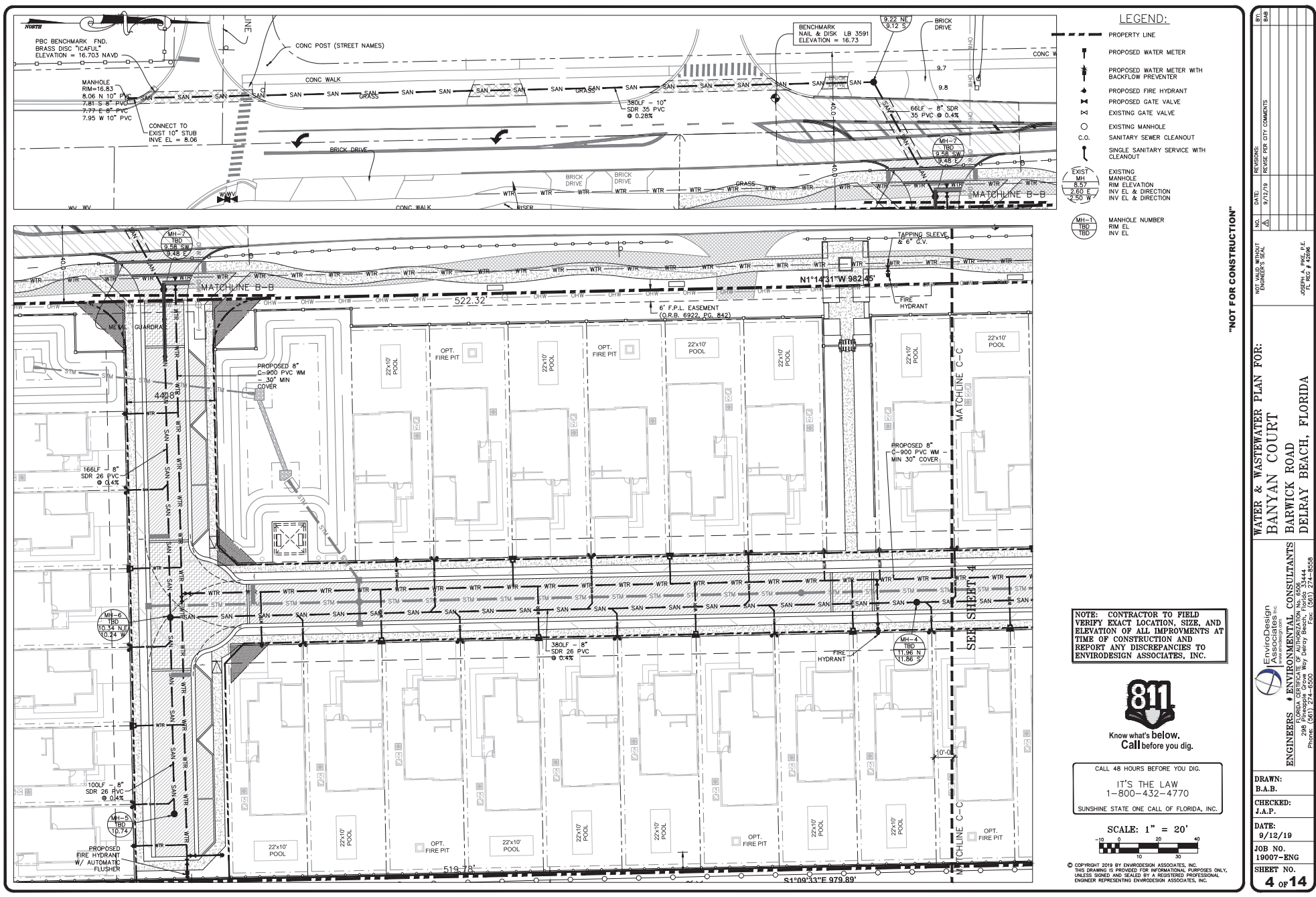


"NOT FOR CONSTRUCTION"


DRAWING TITLE: PAVING & DRAINAGE PLAN FOR: BANYAN COURT BARWICK ROAD DELRAY BEACH, FLORIDA	
DATE: 9/12/19	DESIGNED BY: J.A.P.
CHECKED BY: J.A.P.	DRAWN BY: B.A.B.
SHEET NO. 3 OF 14	

EnviroDesign Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF REGISTRATION NO. 6508
290 Pineapple Grove Way Delray Beach, Florida 33444
Phone: (561) 241-2555 Fax: (561) 241-2555

NOT VALID WITHOUT ENGINEER'S SEAL
DATE: 9/12/19
REVISE PER CITY COMMENTS



NOTE: CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, AND ELEVATION OF ALL IMPROVEMENTS AT TIME OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENVIRODESIGN ASSOCIATES, INC.



Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.

IT'S THE LAW
1-800-432-4770

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

SCALE: 1" = 20'

0 10 20 30 40

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC. THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. UNLESS NOTED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.

"NOT FOR CONSTRUCTION"

WATER & WASTEWATER PLAN FOR:
BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

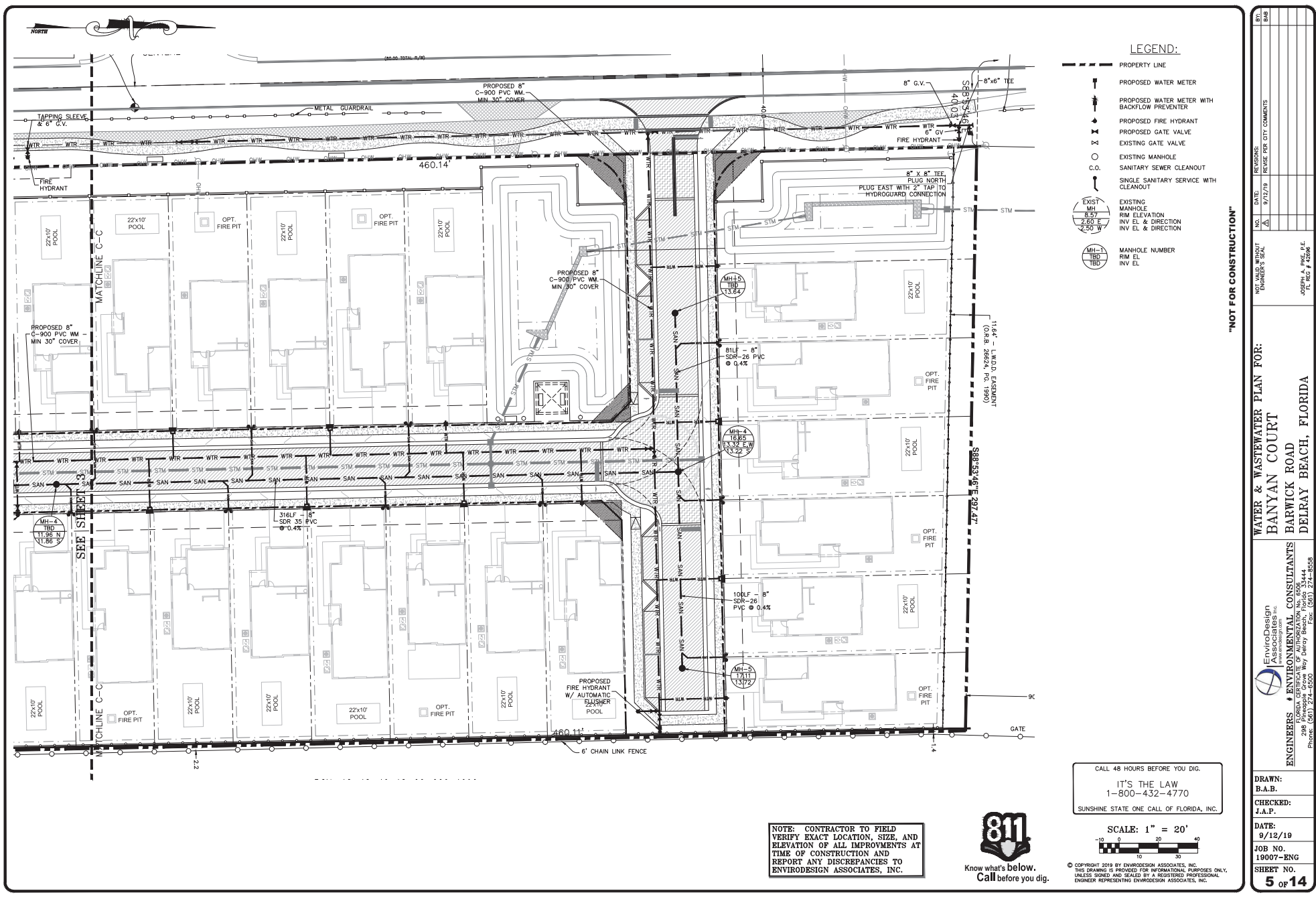
EnviroDesign Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF AUTHORIZATION No. 6506
2901 Everglades Drive, Suite 200, Delray Beach, Florida 33444-4658
Phone: (561) 274-1555 Fax: (561) 274-6558

DRAWN: **B.A.B.**
CHECKED: **J.A.P.**
DATE: **9/12/19**
JOB NO. **19007-ENG**
SHEET NO. **4 OF 14**

REV.	DATE	REVISIONS	NO.	DATE	REVISIONS
1	9/12/19	REVISED PER CITY COMMENTS			

NOT VALID WITHOUT
ENGINEER'S SEAL

JOHN A. PINE, P.E.
FL. REG. # 42506



LEGEND:

- PROPERTY LINE
- PROPOSED WATER METER
- PROPOSED WATER METER WITH BACKFLOW PREVENTER
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- EXISTING GATE VALVE
- EXISTING MANHOLE
- SANITARY SEWER CLEANOUT
- SINGLE SANITARY SERVICE WITH CLEANOUT
- EXISTING MANHOLE RIM ELEVATION INV EL & DIRECTION
- MANHOLE NUMBER INV EL

"NOT FOR CONSTRUCTION"

WATER & WASTEWATER PLAN FOR:
BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

EnviroDesign Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF AUTHORIZATION No. 6506
298 EnviroDesign Associates Way, Delray Beach, Florida 33444-4558
Phone: (561) 274-4558 Fax: (561) 274-4559

DRAWN: B.A.B.
CHECKED: J.A.P.
DATE: 9/12/19
JOB NO. 19007-ENG
SHEET NO. 5 OF 14

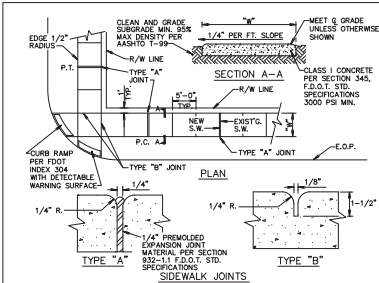
NOTE: CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, AND ELEVATION OF ALL IMPROVEMENTS AT TIME OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENVIRODESIGN ASSOCIATES, INC.



CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

SCALE: 1" = 20'
10 20 30 40

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC. THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.

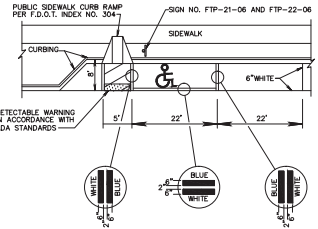


NOTE: 1. ALL SIDEWALKS SHALL BE CONSTRUCTED THRU DRIVEWAYS.
 2. ALL SIDEWALKS SHALL INCLUDE ADA COMPLIANT RAMPS @ INTERSECTIONS.
 3. ALL SIDEWALKS SHALL INCLUDE CROSS SLOPE AND RUNNING SLOPE IN ACCORDANCE WITH ADA REQUIREMENTS.
 4. CURB RAMP DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH OF THE RAMP, AND 24" DEEP.

TABLE OF SIDEWALK THICKNESS	
RESIDENTIAL AREAS	4"
WITHIN 10' OF CROSS-STREETS, AT DRIVEWAYS & OTHER AREAS	6" @ 95% MIN.
TABLE OF SIDEWALK WIDTHS - "W"	
SINGLE-FAMILY AREAS	5'
MULTI-FAMILY AREAS	5'
OTHER AREAS AS SPECIFIED BY THE CITY ENGINEER	

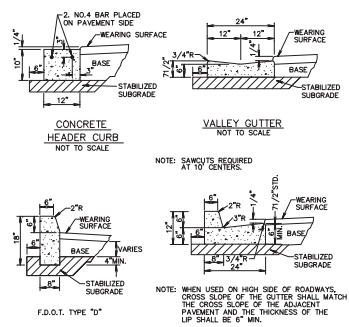
TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
"A"	P.C. AND P.T. OF CURVES, JUNCTION OF EXISTING & NEW SIDEWALKS & EVERY 30'
"B"	5'-0" CENTER TO CENTER ON SIDEWALKS SCORED DURING PLACEMENT OR SAWCUT WITHIN 24 HOURS OF PLACEMENT.
"A"	WHERE SIDEWALK MEETS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES.

SIDEWALK CONSTRUCTION RT 5.1



NOTE:
 1. HANDICAPPED PARKING SPACE MUST BE FIRST OR LAST PARALLEL PARKING SPACE IN THE ROW. ADJACENT TO LANDSCAPE ISLAND. IF SPACE, IS AT THE FRONT OF PARKING ROW ACCESS PANEL MUST BE IN FRONT OF CAR AND IF SPACE IS AT THE END OF PARKING ROW ACCESS PANEL MUST BE AT THE REAR OF CAR.
 2. WHEN PARKING SPACE IS ADJACENT TO LANDSCAPE ISLAND SPACE WAYNE REDUCED TO 20' FROM THE STANDARD 22' LENGTH.

TYPICAL PARKING SPACES (3 OF 3) DETAIL RT 4.2c



CONCRETE CURB AND GUTTER NOT TO SCALE

NOTE: 1. ROADWAY SUBGRADE SHALL IN ALL CASES EXTEND BELOW CURBING.
 2. SAWCUTS AT 10' CENTERS SHALL BE MADE WITHIN 24 HOURS OF CONCRETE PLACEMENT.

CURB AND GUTTER SECTIONS RT 6.1

PAVEMENT MARKING SPECIFICATIONS

All Pavement markings to be installed per these typicals, plans and specifications, and as directed by the City Engineer and shall conform to the requirements of F.D.O.T. and the manual on uniform traffic control devices (MUTCD).

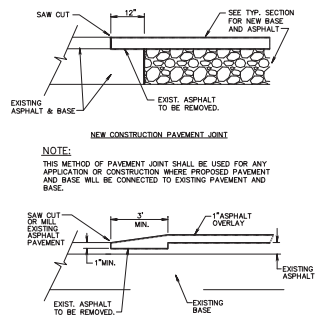
PERMANENT MARKINGS

- Installation:
 - All markings shall be installed by the extruded method.
 - Markings shall be free of weeds, bows, drips, drips, and other degrading items.
 - Chalk shall be used for all layout markings.
- Materials:
 - All materials shall be dyed or hydrocarbon thermoplastic meeting all FDOT specifications.
- Thickness:
 - All markings shall be installed to yield 90 mils of material measured above the pavement surface.
- Spheres:
 - Reflective glass spheres are to be applied to all stripes and markings per FDOT specifications.
- Alternate Material:
 - STAMARK marking tape, or equivalent may be used, as approved or directed by the City Engineer.
- Layout:
 - Layout shall be made using marking chalk.
 - It is recommended that marking layout be inspected by the City Engineer prior to the placement of final markings.

TEMPORARY MARKINGS

- Temporary markings may be used only as specified in this section, or as approved or directed by the City Engineer.
- Final Pavement Surface:
 - Only full backed marking tape is allowed.
 - All tape shall be totally removed concurrent with permanent marking placement.
- Other Pavement Surfaces:
 - Intermediate pavement surfaces may be marked with FDOT approved materials, designs, and specifications.

PAVEMENT MARKING SPECIFICATIONS RT 8.1a (Sheet 1 of 2)



PAVEMENT JOINT DETAIL RT 7.1

ALL PAVEMENT MARKINGS

All paved surfaces shall be properly marked prior to the hours of darkness.

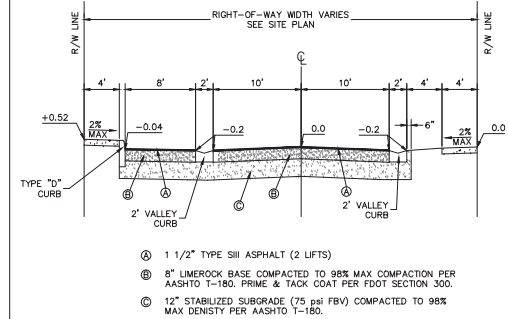
RAISED PAVEMENT MARKERS

- R.P.M.s shall be installed on all lane lines and centerlines, spaced at 20' or 40'.
- R.P.M.s shall be a 4 x 4 type class "B" marker meeting F.D.O.T. specifications and shall be approved by the City Engineer prior to use.
- R.P.M.s shall be installed using dyed thermoplastic on asphalt and epoxy on concrete.

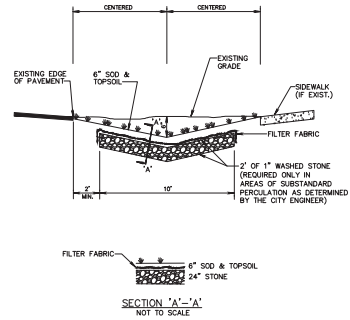
OTHER NOTES

- All Materials within right-of-way shall be thermoplastic and per F.D.O.T. specifications.
- Pavement marking within private parking lots may be painted according to F.D.O.T. specifications, except for all stop bars adjacent to public right-of-way.

PAVEMENT MARKING SPECIFICATIONS RT 8.1b (Sheet 2 of 2)



TYPICAL RIGHT-OF-WAY SECTION NOT-TO-SCALE



NOTE:
 1. CONTRACTOR TO REPLACE ALL IRRIGATION, TREES & SHRUBBERY IN SWALES DAMAGED DURING CONSTRUCTION.

SWALE REPLACEMENT DETAIL D10.1

"NOT FOR CONSTRUCTION"

PAVING & DRAINAGE DETAILS FOR:
BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

EnviroDesign Associates, Inc.
 ENGINEERS & ENVIRONMENTAL CONSULTANTS
 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 6006
 2980 Penelope Grove Way Delray Beach, Florida 33444-4444
 Phone: (561) 241-2555 Fax: (561) 241-2555

DRAWN:
B.A.B.
 CHECKED:
J.A.P.

DATE:
7/25/19

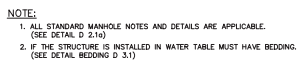
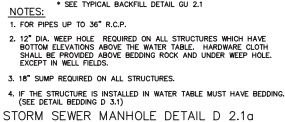
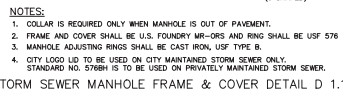
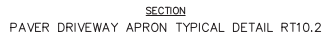
JOB NO.
19007-DTL

SHEET NO.
6 OF 14



CALL 48 HOURS BEFORE YOU DIG.
 IT'S THE LAW
 1-800-432-4770
 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC.
 THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
 UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.




CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC.
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL
ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.

"NOT FOR CONSTRUCTION"

PAVING & DRAINAGE DETAILS FOR:
BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

 **EnviroDesign
Associates Inc.**
www.envirodesign.com

ENGINEERS • ENVIRONMENTAL CONSULTANTS

FLORIDA CERTIFICATE OF AUTHORIZATION No. 85003
2085 UNIVERSITY BLVD., SUITE 200, AUSTIN, TX 78705-5444
Phone: (512) 274-6500 Fax: (512) 274-6556
E-mail: info@envirodesign.com

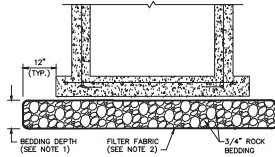
DRAWN: B.A.B.
CHECKED: J.A.P.

DATE:
7/23/10

JOB NO.
19003-DT

SHEET NO

7 OF 14



NOTES:

- BEDDING DEPTH SHALL BE 10" UNDER DRAINAGE STRUCTURES AND 16" UNDER SANITARY STRUCTURES.
- ROCK SHALL BE WRAPPED IN FILTER FABRIC THAT MEETS THE REQUIREMENTS OF F.O.D.T. SPECIFICATION SECTION 985.

STANDARD BEDDING D 3.1

INLET TYPE	DIMENSIONS		GRATE TYPE	MAX. PIPE SIZE	
	A	B		WALL A	WALL B
"C"	2'-0"	3'-1"	U.S. FOUNDRY No. 6212	15" R.C.P.	24" R.C.P.
"E"	3'-0"	4'-0"	U.S. FOUNDRY No. 6250	24" R.C.P.	36" R.C.P.

U.S. FOUNDRY GRATE #6212 OR EQUAL



TYPE "C"

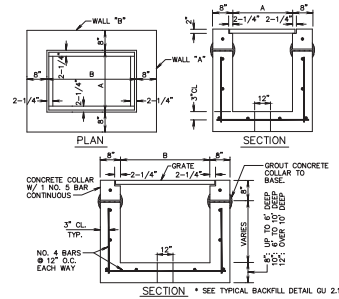


TYPE "E"

NOTES:

- ALL GRATES SHALL BE SUITABLE FOR H-20 LOADING (HIGHWAY TRAFFIC LOADS)
- WHEN INSTALLED IN PAVEMENT OR WITHIN 6" OF PAVEMENT USE U.S.F. 4160-6210

TYPE C & E INLET GRATE DETAIL D 6.1



INLET TYPE	DIMENSIONS		GRATE TYPE	MAX. PIPE SIZE	
	A	B		WALL A	WALL B
"C"	2'-0"	3'-1"	U.S. FOUNDRY No. 6212	15" R.C.P.	24" R.C.P.
"E"	3'-0"	4'-0"	U.S. FOUNDRY No. 6250	24" R.C.P.	36" R.C.P.

NOTES:

- INLET TO BE PRECAST WITH CLASS "A" 4000 P.S.I. CONCRETE.
- ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".
- 12" DIA. HOLE REQUIRED ON ALL STRUCTURES WHICH HAVE A BOTTOM ELEVATION ABOVE THE WATER TABLE EXCEPT IN WELLFIELDS.
- 18" SUMP REQUIRED IN ALL DRAINAGE STRUCTURES.
- SEE BEDDING DETAIL D 3.1
- ALL STRUCTURES TO BE 4 SIDED ANGLE SHOULDERS.

TYPE C & E INLET DETAIL D 7.1

"NOT FOR CONSTRUCTION"

PAVING & DRAINAGE DETAILS FOR:

BANYAN COURT

BARWICK ROAD

DELRAY BEACH, FLORIDA



EnviroDesign Associates, Inc.

ENGINEERS & ENVIRONMENTAL CONSULTANTS

FLORIDA CERTIFICATE OF AUTHORIZATION No. 6506
2980 Pineapple Grove Way Delray Beach, Florida 33444-4555
Phone: (561) 271-6555 Fax: (561) 271-6555

DRAWN:

B.A.B.

CHECKED:

J.A.P.

DATE:

7/23/19

JOB NO.

19007-DTL

SHEET NO.

8 OF 14



Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.

IT'S THE LAW
1-800-432-4770

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC.
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL
ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL PAVING AND DRAINAGE WORK IN THE PALM BEACH COUNTY (PBC) RIGHT-OF-WAY SHALL BE CONSTRUCTED IN FULL ACCORDANCE WITH THE PBC LATEST STANDARDS. IN ADDITION, THE THICKNESS OF THE SURFACE COURSE SHALL BE AS SHOWN ON THE DETAILED DRAWINGS.
2. COMPACTED SUBGRADE SHALL BE COMPACTED AND MEET THE DENSITY REQUIREMENTS AS DETERMINED BY THE AASHTO T-180 SPECIFICATIONS. SUBGRADE SHALL EXTEND 12 INCHES BEYOND THE PROPOSED EDGE OF PAVEMENT AND/OR 6" BEYOND VALLEY GUTTER, TYPE "F" CURB & GUTTER, OR TYPE "D" CURB. SUBGRADE SHALL BE 12 INCHES THICK COMPACTED TO 98% ACCORDING TO AASHTO T-180. ALL MUCK, STUMPS, ROOTS OR OTHER DELETERIOUS MATTER ENCOUNTERED IN THE PREPARATION OF THE SUBGRADE SHALL BE REMOVED COMPLETELY FROM THE CENTERLINE OF THE ROADWAY TO A WIDTH OF TEN FEET BEYOND THE EDGE OF PAVEMENT. IF SUBGRADE IS REQUIRED TO BE STABILIZED, THE REQUIRED BEARING VALUE DETERMINATIONS SHALL BE MADE BY THE FLORIDA BEARING TEST, TEST METHOD "C" OF AASHTO T-180 SPECIFICATIONS.
3. SHELLROCK BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 250 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE THICKNESS OF THE SHELLROCK BASE SHALL BE AS SHOWN ON THE DETAIL DRAWINGS AND SHALL BE COMPACTED TO A DENSITY OF 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. THE SHELLROCK SHALL HAVE A MINIMUM OF 40% CARBONATES OF CALCIUM AND MAGNESIUM IN THE MATERIAL.
4. LIMEROCK BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE THICKNESS OF THE LIMEROCK BASE SHALL BE AS SHOWN ON THE DETAILED DRAWINGS AND SHALL BE COMPACTED TO A DENSITY OF 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
5. MUCK AND PEAT – IF MUCK AND/OR PEAT ARE ENCOUNTERED IN THE ROAD OR PARKING AREA, THEY WILL BE REMOVED COMPLETELY TO A WIDTH OF TEN FEET BEYOND THE EDGE OF PAVEMENT AND SHALL BE BACKFILLED WITH GRANULAR MATERIAL. IF HARPAN IS ENCOUNTERED IN THE SWALE AREA, IT WILL BE REMOVED TO A WIDTH OF TEN FEET AT THE SWALE INVERT AND REPLACED WITH GRANULAR MATERIAL.
6. WHERE SOD IS DESIRED, LOWER THE GRADE 2 INCHES BELOW THE FINISHED GRADE TO ALLOW FOR THE THICKNESS OF THE SOD.
7. CLEARING AND GRUBBING – WITHIN THE LIMITS OF CONSTRUCTION ALL VEGETATION AND ROOT MATERIAL SHALL BE REMOVED.
8. GUMBO – WHERE GUMBO OR OTHER PLASTIC CLAYS ARE ENCOUNTERED, THEY SHALL BE REMOVED WITHIN THE ROADWAY AND PARKING AREAS ONE FOOT BELOW THE SUBGRADE EXTENDING HORIZONTALLY TO THE OUTSIDE EDGE OF THE SHOULDER AREA.
9. PRIME COAT SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE FOOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. PRIME COAT SHALL BE 90-70 OR ASPHALT EMULSION PRIME (AEP). PRIME COAT SHALL BE APPLIED AT A RATE OF APPLICATION NOT LESS THAN 0.10 GALLONS PER SQUARE YARD FOR LIMEROCK BASES AND NOT LESS THAN 0.15 GALLONS PER SQUARE YARD FOR SHELL ROCK OR COQUINA SHELL BASES.
10. TACK COAT – BITUMINOUS TACK COAT SHALL CONFORM WITH THE REQUIREMENTS OF THE FOOT SPECIFICATIONS, LATEST EDITION AND SHALL BE APPLIED AT THE RATE OF 0.08 GALLONS PER SQUARE YARD, UNLESS A VARIATION IS APPROVED BY THE ENGINEER.
11. ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH SECTION 334 OF THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE THICKNESS OF THE SURFACE COURSE SHALL BE AS SHOWN ON THE DETAILED DRAWINGS.
12. ALL CONCRETE SHALL DEVELOP 2500 p.s.i. (MINIMUM) 28 DAY COMPRESSIVE STRENGTH OR GREATER WHERE NOTED ON PLANS. CLASS I CONCRETE SHALL CONFORM WITH THE FOOT SPECIFICATIONS, LATEST EDITION. CLASS I CONCRETE USED AS PAVING SHALL DEVELOP 3000 p.s.i. (MINIMUM) 28 DAYS COMPRESSIVE STRENGTH.
13. PAVEMENT TRAFFIC STRIPES AND MARKINGS SHALL BE IN ACCORDANCE WITH CITY OF DELRAY BEACH CURRENT STANDARDS AND/OR MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND/OR PALM BEACH COUNTY TRAFFIC DEPARTMENT TYPICAL T-P-17, WHERE APPLICABLE.
14. SEQUENCE OF CONSTRUCTION – THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATIONS OF EVERY KIND THAT ARE BENEATH THE PAVEMENT, SHALL BE IN PLACE AND HAVE PROPER DENSITY PRIOR TO THE CONSTRUCTION AND COMPACTION OF THE SUBGRADE.
15. INLETS AND MANHOLES – ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOOT SPECIFICATIONS, LATEST EDITION, AND ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION, AND PBC STANDARDS LATEST EDITION, WHERE APPLICABLE.
16. GRADE ELEVATIONS REFER TO THE FLOWLINE OF THE GRADE.
17. GRADES SHOWN ARE FINISHED GRADES.
18. MINIMUM ROAD CROWN ELEVATION SHALL BE EL. 14.50' N.A.V.D.
19. REINFORCED CONCRETE PIPE – THE PIPE SHALL CONFORM WITH THE REQUIREMENTS OF CLASS III OF ASTM C-76 AND WITH THE FOOT SPECIFICATIONS, LATEST EDITION. THE FIRST JOINT OF PIPE ENTERING OR LEAVING A MANHOLE OR INLET SHALL BE WRAPPED WITH FILTER FABRIC PER FOOT SPECIFICATIONS.
20. CORRUGATED ALUMINUM PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M196 AND SECTIONS 125, 430 AND 943 OF THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
21. MEASUREMENT OF THE LENGTH OF PIPE SHALL BE FROM THE CENTER OF THE STRUCTURE TO THE CENTER OF THE STRUCTURE.
22. PIPE BACKFILL – REQUIREMENTS FOR PIPE BACKFILL CROSSING ROADS OR PARKING AREAS SHALL BE DEFINED IN THE FOOT SPECIFICATIONS, LATEST EDITION. PIPELINE BACKFILL SHALL BE PLACED IN SIX INCH LIFTS AND COMPACTED TO 100% OF THE STANDARD PROCTOR (AASHTO) T-99 SPECIFICATIONS.
23. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THREE (3) CERTIFIED COPIES OF A CHEMICAL AND SIEVE ANALYSIS OF THE SHELL ROCK BY A STATE OF FLORIDA CERTIFIED LAB WHEN CONSTRUCTING A SHELL ROCK BASE FOR ROADWAY.
24. PRIOR TO CERTIFICATION OF THE DRAINAGE SYSTEM, THE CONTRACTOR MUST PUMP DOWN AND LAMP THE DRAINAGE SYSTEM FOR INSPECTION BY THE ENGINEER AFTER FINISHED ROCK FOR THE ROADWAYS HAS BEEN INSTALLED.

GENERAL NOTES

1. CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID SURVEY MARKERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF PERMANENT REFERENCE MONUMENTS DISTURBED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE PLANS. UTILITIES SHOWN ON THE PLANS ARE FOR REFERENCE ONLY AND MAY NOT DEPICT ACTUAL LOCATIONS. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES FOR LOCATION AND DEPTH OF THEIR LINES PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PAY FOR THE DEENERGIZING OF POWER LINES AND/OR HOLDING POWER POLES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PAY FOR THE REPLACEMENT OF TRAFFIC LOOPS IF DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
5. ALL ELEVATIONS REFER TO N.A.V.D. 1988. MINIMUM FINISHED FLOOR ELEVATION FOR ANY RESIDENTIAL STRUCTURE SHALL BE SET AT OR ABOVE ELEVATION 18.50' (WHICH IS ABOVE THE 100-YEAR FREQUENCY STORM).
6. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION OR INSTALLATION AS REQUIRED BY THE ENGINEER OR BY THE APPROPRIATE GOVERNING AGENCIES.
7. CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AND PAY FOR, AT NO ADDITIONAL COST TO THE OWNER, ALL NECESSARY PERMITS, FEES AND LICENSES.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR GIVING THE REQUIRED NOTICES AND COMPLYING WITH ALL PERMIT(S) CONDITIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PAY FOR THE HOLDING OF OTHER UTILITY POLES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
10. ALL CONCRETE SHALL DEVELOP 2500 p.s.i. (MINIMUM) 28 DAY COMPRESSIVE STRENGTH OR GREATER WHERE NOTED ON PLANS. CLASS I CONCRETE SHALL CONFORM WITH THE FOOT SPECIFICATIONS, LATEST EDITION. CLASS I CONCRETE USED AS PAVING SHALL DEVELOP 3000 p.s.i. (MINIMUM) 28 DAYS COMPRESSIVE STRENGTH.
11. ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL UTILITY.
12. ENVIRODESIGN ASSOC. INC. SHALL NOT BE RESPONSIBLE FOR THE SAFETY OF THE WORKERS OR THE GENERAL PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFETY TO THE WORKERS IN ACCORDANCE WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATIONS (OSHA) REQUIREMENTS AND THE SAFETY OF THE GENERAL PUBLIC.
13. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LOCAL UTILITY STANDARDS AND SPECIFICATIONS.
14. THE CONTRACTOR SHALL CALL SUNSHINE 1-800-432-4770 48 HOURS BEFORE DIGGING FOR FIELD LOCATIONS OF UNDERGROUND UTILITIES.
15. CORRUGATED ALUMINUM PIPE USED BENEATH PAVEMENT SHALL BE IN CONFORMANCE WITH SEC. 8.24(E.5)
16. ALL CONSTRUCTION ACTIVITY, INCLUDING TRENCHING, IS TO BE A MINIMUM OF SIX FEET FROM THE BASE OF ANY TREE THAT IS DESIGNATED TO REMAIN.
17. ALL LIMEROCK AND BASE MATERIALS SHALL BE REMOVED FROM THE PLANTER AREAS/ISLANDS AND REPLACED WITH APPROPRIATE PLANTING SOIL PRIOR TO THE LANDSCAPING OF THE SITE.
18. THE REMOVAL OF ANY TREE ON THE SITE IS PROHIBITED WITHOUT THE REQUIRED PERMITS.
19. ALL MATERIALS AND CONSTRUCTION WITHIN THE FOOT RIGHT-OF-WAY SHALL CONFORM TO THE FOOT DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM (LATEST ED.).
20. LANE CLOSURES WITHIN THE FOOT RIGHT-OF-WAY SHALL BE LIMITED TO THE HOURS OF 8AM-3PM, MONDAY-FRIDAY EXCLUDING GOVERNMENTAL HOLIDAYS. MAINTENANCE OF TRAFFIC SHALL BE PROVIDED IN ACCORDANCE WITH INDEX 613 OF THE FOOT DESIGN STANDARDS (LATEST ED.).

CITY OF DELRAY BEACH GENERAL NOTES

DEFINITIONS

1. CITY – THE CITY OF DELRAY BEACH
2. CONTRACTOR – UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS
3. ENGINEER – ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION

PROCEDURE

1. A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INSTALLATION OF ANY WATER AND SEWER CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE CITY, CONTRACTOR, SUBCONTRACTORS, ENGINEER AND OTHER INTERESTED PARTIES.
2. ANY REVISIONS TO THE APPROVED PLANS MUST BE APPROVED BY THE CITY PRIOR TO THE PRE-CONSTRUCTION MEETING.
3. A MINIMUM OF THREE (3) COPIES OF THE CURRENT APPROVED PRODUCT LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING. ALL PIPE MANUFACTURERS SHALL SUBMIT THREE (3) COPIES OF AN AFFIDAVIT THAT THE PIPE AND COATINGS WERE MANUFACTURED IN ACCORDANCE WITH AWWA C151/A21.51-91.
4. ALL APPLICABLE PERMITS MUST BE OBTAINED WITH COPIES PROVIDED TO THE CITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.
6. ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED BY THE CITY PRIOR TO CONSTRUCTION. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
7. THE LOCATION OF THE EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. ONLY THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF OTHER UTILITIES (NOT SHOWN ON THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE CITY AND NOTIFY THE RESPECTIVE UTILITY OWNER TO RESOLVE THE UTILITY CONFLICTS AND THE UTILITY ADJUSTMENTS AS REQUIRED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS OF ALL OTHER UTILITY FACILITIES.
10. THE CONTRACTOR SHALL SCHEDULE INSPECTIONS AND TESTS WITH THE CITY A MINIMUM OF 24 HOURS IN ADVANCE.
11. CONTRACTOR SHALL NOT DISTURB EXISTING CITY MANS OR STRUCTURES WITHOUT THE PRESENCE OF A CITY INSPECTOR. CITY UTILITY SYSTEM VALVES AND APPURTENANCES MAY ONLY BE OPERATED BY CITY PERSONNEL.
12. FACILITIES PROVIDED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE CITY.
13. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF THE WORK, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.
14. PAVING, DRAINAGE AND TRAFFIC CONSTRUCTION SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND DESIGN STANDARDS, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND PALM BEACH COUNTY TYPICAL T-P-17 (LATEST REVISION) UNLESS SHOWN OTHERWISE.
15. AS-BUILT DRAWINGS SHALL BE PREPARED BY A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, AND SUBMITTED BY THE CONTRACTOR TO THE CITY.
16. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 353-B01 FOR PROTECTION OF UNDERGROUND GAS PIPE LINES.
17. CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE (1-800-432-4770) 48 HOURS IN ADVANCE OF CONSTRUCTION.
18. GRADES SHOWN ON PLANS ARE FINISHED GRADES. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST EXISTING SANITARY SEWER MANHOLE TOPS AND VALVE BOX COVERS TO FINISHED GRADE.
19. CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES DURING CONSTRUCTION AND SHALL BE REQUIRED TO PROVIDE ALL BARRICADES, LIGHTING, SIGNAGE AND FLAMELANS AS NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC IN THE WORK AREA. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC MAINTENANCE PLAN PRIOR TO CONSTRUCTION.
20. EXISTING BASE MATERIAL THAT IS REMOVED DURING CONSTRUCTION SHALL NOT BE IN THE CONSTRUCTION OF NEW LIMEROCK BASE.
21. ALL VEGETATION, DEBRIS, CONCRETE OR OTHER UNSUITABLE MATERIAL SHALL BE LEGALLY DISPOSED OF OFF-SITE IN AN AREA AT THE CONTRACTORS EXPENSE.
22. CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES SUCH AS TURBIDITY SCREENS, CURTAINS AND FLOATING SILT BARRIERS WHERE NECESSARY IN ORDER TO COMPLY WITH ALL STATE AND LOCAL WATER QUALITY STANDARDS.
23. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE CLASS II, UNLESS OTHERWISE NOTED.
24. ALL PAVED SURFACES SHALL BE PROPERLY MARKED PRIOR TO HOURS OF DARKNESS. PERMANENT PAVEMENT MARKING SHALLS SHALL BE LAID OUT USING MARKING CHALK. LAYOUT TO BE REVIEWED BY THE CITY PRIOR TO PLACEMENT OF FINAL MARKING.
25. EMBANKMENT (FILL) AND EXCESS MATERIAL REQUIRED FOR ROADWAY RECONSTRUCTION AND UTILITY INSTALLATIONS SHALL BE SUPPLIED AND/OR DISPOSED OF BY THE CONTRACTOR. ALL COSTS ASSOCIATED WITH EMBANKMENT REQUIREMENTS TO COMPLETE THE ROADWAY RECONSTRUCTION AND UTILITY IMPROVEMENTS SHALL BE INCLUDED IN THE COSTS OF OTHER APPROPRIATE PAY ITEMS.
26. CONTINUITY OF WATER AND SEWER SERVICE TO CITY UTILITY CUSTOMERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS PROJECT. IF A BREAK IN SERVICE IS UNAVOIDABLE TO ACCOMMODATE CONNECTION OF NEW FACILITIES, IT SHALL BE SCHEDULED FOR OFF PEAK HOURS WITH THE CITY. DETERMINATION OF SERVICE BREAK REQUIREMENT WILL BE MADE BY THE CITY.
27. SITE INFORMATION BASED ON A SURVEY PREPARED BY CAULFIELD & WHEELER, INC.
28. THE EXTENT OF ROAD CONSTRUCTION WORK TO BE COMPLETED BY THE CONTRACTOR, WITHIN THE RAILROAD RIGHT-OF-WAY SHALL BE DETERMINED BY THE CITY AND COORDINATED WITH THE FLORIDA EAST COAST RAILWAY COMPANY AT THE TIME OF CONSTRUCTION.
29. RELOCATION OF UTILITY POLES AND GAS PIPE LINES SHALL BE COORDINATED BY THE CONTRACTOR WITH FLORIDA POWER AND LIGHT, AND FLORIDA PUBLIC UTILITIES, RESPECTIVELY. EACH UTILITY HAS BEEN NOTIFIED THAT THEY WILL BE REQUIRED TO RELOCATE THEIR UTILITIES.
30. ALL CITY OF DELRAY BEACH STANDARD DETAILS INCLUDED IN THE CIVIL PLANS PREPARED BY ENVIRODESIGN ASSOCIATES, INC. HAVE NOT BEEN MODIFIED FROM THEIR ORIGINAL CONTENT.
31. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENVIRODESIGN ASSOCIATES, INC.
32. NO PROPOSED IMPROVEMENTS, BUILDINGS OR ANY KIND OF CONSTRUCTION CAN BE PLACED ON OR WITHIN ANY WATER, SEWER OR DRAINAGE EASEMENTS UNLESS APPROVED BY THE CITY OF DELRAY BEACH CITY ENGINEER.
33. NO PROPOSED STRUCTURES SHALL BE INSTALLED WITHIN A HORIZONTAL DISTANCE OF 10-FEET FROM ANY EXISTING OR PROPOSED WATER, SEWER OR DRAINAGE FACILITIES UNLESS APPROVED BY THE CITY OF DELRAY BEACH CITY ENGINEER.
34. NOTE: ANY TREES OR SHRUBS PLACED WITHIN WATER, SEWER OR DRAINAGE EASEMENTS THEY SHALL CONFORM TO THE CITY OF DELRAY BEACH STANDARD DETAILS LD 11 & LD 13.
35. ALL SIDEWALKS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA REQUIREMENTS. ALL SIDEWALKS NOT TO EXCEED 1:48 CROSS-SLOPE AND 1:20 RUNNING SLOPES. ALL RAMPS NOT TO EXCEED 1:48 CROSS-SLOPE AND 1:12 RUNNING SLOPES WITH MAXIMUM RISE AND RUNS FOR ADA REQUIREMENTS WITH RAMPED WHERE NEEDED. LANDINGS WITH 1:48 CROSS- AND RUNNING-SLOPES ARE TO BE PROVIDED AT TOPS AND BOTTOMS OF ALL RAMPS.
36. CITY OF DELRAY BEACH UTILITY DIVISION MUST BE CONTACTED AT LEAST 48 HOURS PRIOR TO ANY SHUTDOWNS AND/OR REMOVAL OF EXISTING WATER MAIN OR SANITARY SEWER LINES AT 561-243-7312.
37. THE EXISTING SANITARY SEWER LINE MUST BE TELEVIEWED PRIOR TO AND AFTER ANY SANITARY SEWER SERVICE CONNECTION, REMOVAL AND/OR ABANDONMENT.
38. UPON APPROVAL AND RECEIPT OF PERMIT, THE CONTRACTOR SHALL CONTACT THE CITY OF DELRAY BEACH DEPUTY DIRECTOR OF CONSTRUCTION AT 561-243-7320 TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO STARTING ANY SITE WORK.
39. ALL WATER METER SIZES TO BE DETERMINED BY THE ENGINEERING OF RECORD AND SHALL BE CHECKED AND AUTHORIZED BY CITY OF DELRAY BEACH UTILITIES DIVISION.
40. ALL CITY OF DELRAY BEACH 2016 STANDARD DETAILS INCLUDED IN THIS SET OF PLANS AND DETAILS HAVE NOT BEEN MODIFIED FROM THEIR ORIGINAL CONTENT.

"NOT FOR CONSTRUCTION"

GENERAL NOTES FOR:

BANYAN COURT

BARWICK ROAD

DELRAY BEACH, FLORIDA

EnviroDesign Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF REGISTRATION No. 6506
2901 Everglades Grove Way Delray Beach, Florida 33444-4658
Phone: (561) 243-7320 Fax: (561) 243-7358DRAWN:
B.A.B.CHECKED:
J.A.P.DATE:
7/23/19JOB NO.
19007-DTL

SHEET NO.

9 OF 14

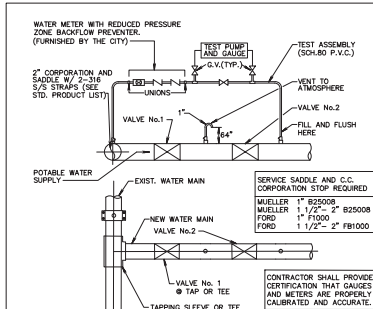
811
Call what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.

IT'S THE LAW
1-800-432-4770

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

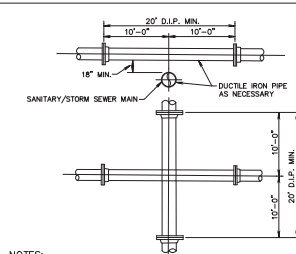
© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC. THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.



NOTES:

- BOTH VALVES SHALL BE KEPT CLOSED UNTIL FILLING, FLUSHING, AND BACTERIOLOGICAL TESTING IS COMPLETED AND APPROVED.
- GAUGE AND RISER TO BE REMOVED AFTER PRESSURE TEST.
- CITY SHALL BE NOTIFIED BEFORE FILLING AND FLUSHING.
- AFTER RELEASE FROM THE HEALTH DEPARTMENT, BOTH VALVES TO BE LEFT OPEN WITH VALVE BOX INSTALLED ON BOTH VALVES.
- PRESSURE TEST RUM MAY CONNECT TO SERVICE LINE, FIRE HYDRANTS OR BLOWOFF, NO EXTRA TAPS ARE PERMITTED SOLELY FOR TESTING PURPOSES UNLESS PRECEDING ARE NOT PRESENT IN TEST SECTION.
- TAPPING SADDLE OR SLEEVE (PER CURRENT CITY PRODUCT LIST) IS REQUIRED ON EXISTING MAIN CONNECTIONS TO INCLUDE ATMOSPHERE VENTS AS SHOWN ABOVE.
- OUTLET ON VENT TO ATMOSPHERE A MINIMUM 24" ABOVE EXISTING GRADE.

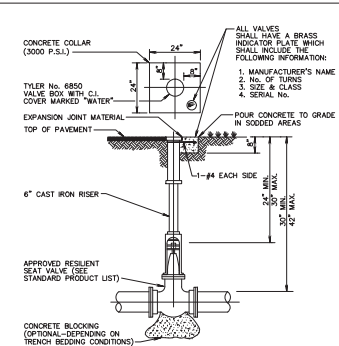
FILL & FLUSH DETAIL PW 1.1



NOTES:

- STORM AND SANITARY SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE CROWN AND WATER MAIN ARE EQUIDISTANT FROM POINT OF CROSSING WITH NO LESS THAN (10) FEET BETWEEN ANY TWO JOINTS AND BOTH PIPES SHALL BE D.I.P. AND THE MINIMUM VERTICAL SEPARATION SHALL BE 4' INCHES. WHEN THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM 18" VERTICAL SEPARATION BETWEEN LINES AND JOINT ARRANGEMENT AS STATED ABOVE, SHALL BE REQUIRED AND BOTH PIPES SHALL BE CLASS 52 D.I.P., RESPECTIVE OF SEPARATION. D.I.P. IS NOT REQUIRED FOR STORM SEWERS.
- MAINTAIN (10) FEET HORIZONTAL DISTANCE BETWEEN WATER MAIN AND STORM OR SANITARY SEWER MAIN, AS A MINIMUM.
- FORCE MAIN CROSSING WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE CROWN OF THE FORCE MAIN AND THE OUTSIDE OF THE WATER MAIN WITH WATER MAIN CROSSING OVER FORCE MAIN.
- SEWER SERVICE LATERALS SHALL CROSS UNDER WATERMAIN WITH A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE CROWN OF THE SEWER SERVICE LATERAL AND THE OUTSIDE OF THE WATER MAIN. THE MINIMUM VERTICAL 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 WATERMAIN SHALL BE D.I.P. AND THE SEWER LATERAL SHALL BE C-900 SDR-18 OR BETTER.

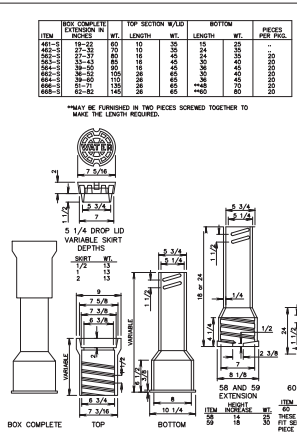
WATER MAIN & SEWER CONFLICT DETAIL PW 2.1



NOTES:

- WHEN VALVE IS DEEPER THAN 30" AN EXTENSION WITH UNIVERSAL JOINT SHALL BE REQUIRED TO BRING OUTSIDE OF VALVE TO 30" BELOW FINISHED GRADE. EXTENSION BOLTS & NUTS SHALL BE 316 STAINLESS STEEL. A 316 STAINLESS STEEL COVERING PLATE SHALL ALSO BE REQUIRED.
- AT DEAD END OR WHERE MAIN LINES CHANGE DIRECTION, VALVES SHALL BE RESTRAINED USING MECHANICAL JOINT RESTRAINTS, TIEDORS, OR OTHER APPROVED RESTRAINT.

TYPICAL GATE VALVE DETAIL
4" THRU 12" PW 3.1



CAST IRON VALVE BOXES, TWO-PIECE PW 3.2

PRESSURE PIPE NOTES:

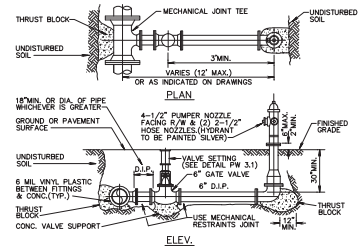
- THERE SHALL BE 30" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE. FOR PIPE SIZE 10" AND LARGER THERE SHALL BE 36" MINIMUM COVER.
- DUCTILE IRON PIPE (DIP) FOR FORCE MAINS SHALL BE CLASS 350 EPOXY LINED IN ACCORDANCE WITH ANWA C550.
- DUCTILE IRON PIPE (DIP) FOR WATER MAINS SHALL BE CLASS 350 IN ACCORDANCE WITH ANWA C151 (KANSAS A21.51), AND SHALL HAVE AN INTERNAL LINING OF CEMENT MORTAR IN ACCORDANCE WITH ANWA C104/ A21.4 IN ACCORDANCE.
- C-900 PVC PRESSURE PIPE MAY BE USED IN LIEU OF DIP WATER MAIN METAL TAPE ABOVE C-900.
- ALL FITTINGS SHALL BE CLASS 350 DUCTILE IRON WITH MECHANICAL JOINTS AND EPOXY LINING.
- WATER MAIN AND SEWAGE FORCE MAIN VALVES 12 INCHES AND SMALLER SHALL BE RESILIENT WEDGE GATE VALVES IN ACCORDANCE WITH ANWA C550. WATER MAIN VALVES LARGER THAN 12 INCHES SHALL BE BUTTERFLY VALVES IN ACCORDANCE WITH ANWA C504. SEWAGE FORCE MAIN VALVES LARGER THAN 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES IN ACCORDANCE WITH ANWA C515.
- WATER AND FORCE MAINS SHALL BE PIGGED, AS WELL AS, PRESSURE TESTED FOR A PERIOD OF NOT LESS THAN TWO HOURS AT 150 PSI IN ACCORDANCE WITH ANWA C500 LATEST STANDARDS. ALLOWABLE LEAKAGE SHALL BE DETERMINED AS FOLLOWS:

$$L = \frac{(SD)(D)(P)}{148,000} \times (X)(50)$$

WHERE:
L = ALLOWABLE LEAKAGE (GALLONS PER HOUR)
S = PIPE LENGTH (FEET)
D = NOMINAL DIAMETER OF PIPE (INCHES)
P = AVERAGE TEST PRESSURE (PSI)

- RESTRAINTS SHALL BE PROVIDED AT ALL FITTINGS AS SHOWN ON PP.2.1
- PRIOR TO ANY TESTING UNDER FUTURE PAVEMENT, ROCK SHALL BE FINISHED & PRIMED OR 1ST LIFT OF ASPHALT PLACED.
- PIG SIZE SHALL BE PIPE DIA. PLUS 2" OR NEXT LARGER DIA.
- NO PROPOSED STRUCTURES SHALL BE INSTALLED WITHIN A HORIZONTAL DISTANCE OF 10- FEET FROM ANY EXISTING OR PROPOSED WATER MAINS, OR FORCE MAINS.
- LINE STOPS SHALL BE INSTALLED A MINIMUM OF 3 PIPE LENGTHS FROM LOCATION OF PIPE REMOVED, OTHERWISE, PROVIDE NECESSARY JOINT RESTRAINTS.

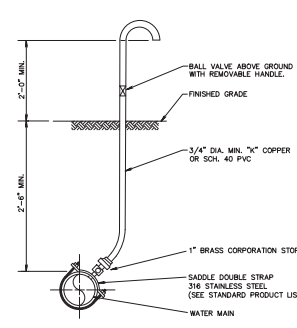
PRESSURE PIPE NOTES PP 1.1



NOTES:

- HYDRANT SHALL BE INSTALLED PLUMB AND TRUE IN UNDISTURBED LOCATION. (7/5" CLEARANCE ON THREE SIDES, 4" CLEARANCE AT REAR, WITH 3" ACCESS LANE)
- NO BARREL EXTENSION SHALL BE PERMITTED WITHOUT PRIOR CONSENT OF CITY ENGINEER.
- VALVE SHALL BE PLACED ADJACENT TO MAIN, TIED TO TEE.
- ANCHOR TEES AND FITTINGS ARE PERMITTED.
- HYDRANT SHALL BE WUELLER CENTURION, AMERICAN B-5HD, CLOP MEDALLION OR KENNEDY K81A WITH TRAFFIC BREAKAWAY FLANGE AND 5-1/4" VALVE.
- HYDRANTS SHALL NOT ENDOCRAN IN SIDEWALKS, ROADWAYS, OR BIKE PATHS.
- ON RUNS LONGER THAN 20 FEET A SECOND VALVE IS REQUIRED AT THE HYDRANT.
- ALL HYDRANT INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF DELRAY BEACH FIRE PREVENTION CODE SEC. 96.05.
- IN CERTAIN SITUATIONS, PROTECTIVE BOLLARDS MAY BE REQUIRED AS DIRECTED BY THE ENGINEERING DEPT. (SEE BOLLARD DETAIL PW 5.2)
- FIRE HYDRANTS INSTALLED BUT NOT YET IN SERVICE SHALL BE COVERED WITH A BOLLARD OR PLASTIC BOLLARD, OR HAVE OUT OF SERVICE SIGN IN PLACE.
- ALL HYDRANT LEADS GREATER THAN 20- FEET MUST HAVE AUTOMATIC FLUSHER INSTALLED AT HYDRANT END (HYDROGRAND HG-1 STANDARD).

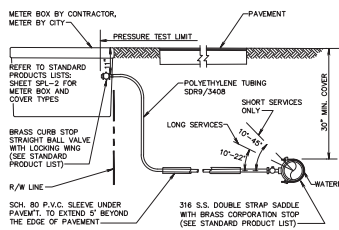
TYPICAL FIRE HYDRANT INSTALLATION PW 5.1



NOTES:

- SAMPLE POINT SHOULD BE AT SERVICE LINE OR FIRE HYDRANT IF POSSIBLE.
- IF SAMPLE POINT IS NOT AT SERVICE LINE OR FIRE HYDRANT, CORP. STOP SHALL BE SHUT OFF AT MAIN AND ALL TUBING SHALL BE REMOVED, AND CORP. STOP SHALL HAVE A BRASS PLUG OR CAP INSTALLED AFTER RELEASE OF WATER MAIN BY PALM BEACH COUNTY HEALTH DEPARTMENT.
- IF AT ALL POSSIBLE SAMPLE POINT SHALL NOT BE LOCATED IN A TRAFFIC AREA.
- SAMPLE POINTS SHALL KEEP RUNNING UNTIL HEALTH DEPT. RELEASE AND MAIN LINE VALVES ARE OPENED.

TYPICAL SAMPLE POINT PW 7.1



NOTES:

- SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" ON CENTER.
- SERVICE LINES SHALL NOT BE PLACED UNDER DRIVEWAYS.
- ALL METERS REQUIRE A LOCKING BRASS CURB STOP WITH LOCK WING (1" MIN.).
- NO FITTINGS BETWEEN CORPORATION STOP AND BRANCH ASSEMBLY.
- MAXIMUM SERVICE LENGTH IS 100' TO METER.
- CASING PIPE I.D. SHALL BE SERVICE O.D. PLUS 1" MINIMUM.
- MINIMUM BEND RADIUS ON SERVICES SHALL BE 14" ON ALL SERVICES BEHIND METER.
- METER SIZE WILL BE DETERMINED BY PUBLIC UTILITIES DEPT. UPON APPLICATION FOR SERVICE.
- ALL VALVES TO BE BALL VALVES.
- METER BOX SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR.
- ALL SERVICES UNDER ROADWAYS ARE TO BE INSTALLED BY TRENCHLESS METHOD, UNLESS OTHERWISE APPROVED.
- ALL EXISTING SERVICES TO BE FIELD VERIFIED BY BUILDER/CONTRACTOR/DEVELOPER. IF EXISTING SERVICE IS GALVANIZED, BUILDER/CONTRACTOR/DEVELOPER SHALL REPLACE WITH POLYETHYLENE PIPING FROM MAIN TO THE METER.

TYPICAL SERVICE CONNECTION PW 9.1a

"NOT FOR CONSTRUCTION"

WATER & WASTEWATER DETAILS FOR:

BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

EnviroDesign Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF ACHIEVATION No. 6506
2980 Riverside Drive, Delray Beach, Florida 33444-4558
Phone: (561) 271-1555 Fax: (561) 271-4558

DRAWN: B.A.B.
CHECKED: J.A.P.
DATE: 7/23/19

JOB NO. 19007-DTL

SHEET NO. 10 OF 14



Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

© COPYRIGHT 2019 BY ENVIRONDESIGN ASSOCIATES, INC.
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL
ENGINEER REPRESENTING ENVIRONDESIGN ASSOCIATES, INC.

MINIMUM LENGTHS OF PIPE (FT) TO BE RESTRAINED

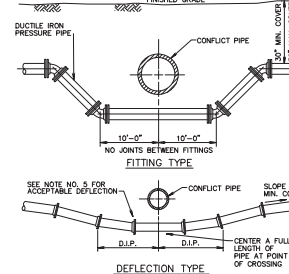
FITTING TYPE	PIPE SIZE									
	4"	6"	8"	10"	12"	16"	20"	24"		
90° HORIZ. BEND	14	20	25	30	35	45	54	62		
45° HORIZ. BEND	6	8	11	13	15	19	23	26		
22.5° HORIZ. BEND	4	4	5	6	7	9	11	12		
11.25° HORIZ. BEND	1	2	3	3	4	4	5	6		
90° VERT. OFFSET	UPPER BEND	55	79	103	125	147	189	228	266	
	LOWER BEND	22	38	49	59	69	86	106	123	
45° VERT. OFFSET	UPPER BEND	22	32	42	51	60	77	93	109	
	LOWER BEND	10	14	19	23	28	35	43	50	
22.5° VERT. OFFSET	UPPER BEND	7	12	17	21	26	34	42	49	
	LOWER BEND	2	4	6	8	10	14	17	21	
11.25° VERT. OFFSET	UPPER BEND	3	4	6	9	11	15	19	22	
	LOWER BEND	1	1	1	2	3	5	7	8	
PLUG (DEAD END)		32	45	59	70	83	107	129	151	
INLINE VALVE		32	45	59	70	83	107	129	151	
TEE (BRANCH RESTRAINT)	4"x10"	23								
	8"x10"	21	35							
	8"x10"	18	34	47						
	10"x10"	16	32	46	58					
	12"x10"	13	30	44	57	69				
	16"x10"	7	26	41	55	67	90			
	20"x10"	1	21	38	52	65	88	109		
	24"x10"	1	16	34	49	62	86	108	129	
	4"x10"	23								
	8"x10"	38	25							
	10"x10"	57	43	24						
	12"x10"	72	60	44	41					
	16"x10"	99	90	78	75	45				
	20"x10"	123	116	107	105	81	45			
	24"x10"	146	140	132	131	111	82	45		

PIPE RESTRAINT TABLE FOR PRESSURE PIPE
PP 2.1A
(SHEET 1 OF 2)

NOTES:

- THE DATA IN THE PREVIOUS TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
SOIL TYPE.....SAND
TEST PRESSURE.....150 PSI, 200 PSI FOR PIPES LARGER THAN 24"
DEPTH OF BURY.....5'
TRENCH TYPE.....3'
SAFETY FACTOR.....1.5
VERTICAL OFF-SET.....3'
MINIMUM PIPE LENGTHS.....5'
ALONG TEE RUN.....5'
- THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON PIPE AND PVC PIPE.
- ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
- RESTRAINED PIPE LENGTHS FOR VALVES APPLY TO PIPE ON BOTH SIDES OF VALVES.
- THE PREVIOUS TABLE SHALL BE USED AS A GENERAL DESIGN GUIDE ONLY. IT IS THE ENGINEER OF RECORD'S RESPONSIBILITY TO JUSTIFY AND DOCUMENT ANY DEVIATIONS FROM THE PIPE LENGTHS SPECIFIED IN THE PREVIOUS TABLE.
- SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1 AND DIPA THRUST RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2.
- RESTRAINT JOINTS SHALL EXTEND ONE JOINT BEYOND MIN. LENGTH REQUIRED.

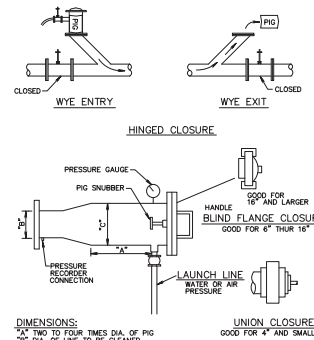
PIPE RESTRAINT TABLE FOR PRESSURE PIPE
PP 2.1B
(SHEET 2 OF 2)



NOTES:

- THERE SHALL BE IN ALL CASES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN WATER MAINS AND FORCE MAINS.
- WHEREVER POSSIBLE WATER MAINS SHALL PASS OVER FORCE MAINS OR STORM SEWERS.
- FITTINGS SHALL BE RESTRAINED WITH MECHANICAL JOINT RESTRAINTS.
- THE DEFLECTION TYPE CROSSING IS PREFERRED.
- DO NOT EXCEED 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION.
- REFER TO TYPICAL RESTRAINING DETAIL PP 2.1.

PRESSURE PIPE CONFLICT DETAIL PP 3.1



NOTES:

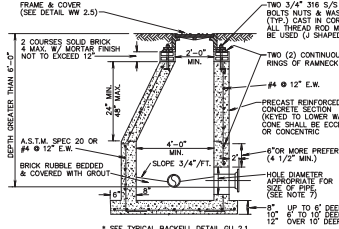
- TWO TO FOUR TIMES DIA. OF PIG
- 2" OF LINE TO BE CLEANED
- PIPE SIZE LARGER THAN PIG

PIG LAUNCHER DETAIL PP 5.1

GRAVITY SEWER NOTES

- MANHOLES SHALL BE INSPECTED BY THE ENGINEER BEFORE PLACEMENT AND SURFACE TREATMENT.
- ALL OPENINGS IN PRECAST MANHOLES SHALL BE CAST AT TIME OF MANUFACTURE. CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE ENTRY ONLY.
- ALL MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE.
- (PVC) GRAVITY SEWER PIPE SHALL CONFORM TO ASTM D 3034, SDR 35, LATEST REVISIONS, WITH PUSH ON RUBBER GASKET JOINTS.
- (DIP) GRAVITY SEWER PIPE SHALL BE CLASS 350, EPOXY LINED OR AS OTHERWISE APPROVED BY ENVIRONMENTAL SERVICES DEPARTMENT.
- NO SERVICE CONNECTIONS, WYES, SERVICES OR VALVES WILL BE PERMITTED IN RESIDENTIAL OPENINGS.
- MANHOLE FRAMES SHALL BE ATTACHED TO THE PRECAST STRUCTURE WITH A MINIMUM OF TWO 3/4" DIA. S/S BOLTS & NUTS AND WASHERS. FRAMES SHALL BE SEALED WITH A MINIMUM OF TWO 1/2" BEADS OF RAM-NEK CAULKING.
- REINFORCES SHALL BE USED TO ENABLE PIPE AND APPURTENANCES TO BE INSTALLED FREE OF WATER ON UNDISTURBED SOIL. IF UNSTABLE SUBSURFACE MATERIAL IS ENCOUNTERED, EXCAVATE EXTRA 6" AND BACKFILL WITH 3/4" GRAVEL.
- PVC SHALL BE LAID IN STRICT CONFORMANCE TO MANUFACTURER'S SPEC (JOHN MANVILLE RING TITE PVC PIPE INSTALLATION GUIDE OR EQUAL). BACKFILLING OF UTILITY TRENCHES WILL NOT BE ALLOWED UNTIL INSPECTED BY THE ENGINEER.
- BACKFILL MATERIAL FOR SEWER MAIN AND LINES SHALL BE NON-COHESIVE, NON PLASTIC MATERIAL, FREE OF ALL DEBRIS, LUMPS AND ORGANIC MATTER. BACKFILL MATERIAL PLACED WITHIN ONE (1) FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO (2) INCHES IN DIAMETER (FOR PVC PIPE) AND NO STONES LARGER THAN SIX (6) INCHES IN DIAMETER WILL BE PERMITTED IN ANY BACKFILL.
- ALL EXCAVATION IN EXISTING RIGHT OF WAY SHALL BE BACKFILLED AND STABILIZED AT THE END OF EACH DAY TO PREVENT PEDESTRIAN AND VEHICULAR TRAFFIC PRIOR TO THE CONTRACTOR LEAVING THE SITE.
- WHERE SEWER IS NOT WITHIN PUBLIC R/W, IT IS TO BE LOCATED IN A 12" UTILITY EASEMENT. CITY MAINTENANCE RESPONSIBILITY IS MANHOLE TO MANHOLE ONLY.
- UPON COMPLETION OF THE WORK AND PRIOR TO PLACEMENT OF ASPHALT A VISUAL INSPECTION BY THE ENGINEER SHALL BE MADE OF THE COMPLETED SYSTEM ALONG WITH A LOW PRESSURE AIR TEST, AFTER ROCK BASE FINISHED & PRIMED, OR TEST LEFT OF ASPHALT PLACED. AFTER ALL OTHER TESTING HAS BEEN COMPLETED, A CD VIDEO RECORDING SHALL BE MADE BY THE CONTRACTOR AND APPROVED BY THE ENGINEER, BEFORE THE LINDING ARE ACCEPTED FOR MAINTENANCE.
- EACH LINE SEGMENT SHALL BE LAMPED TO DETERMINE PROPER ROUNDNESS.
- COMPLETE "AS BUILT" INFORMATION RELATIVE TO MANHOLES, VALVES, SERVICES, FITTINGS, PIPE LENGTHS, INVERTS AND SLOPES SHALL BE ACCURATELY RECORDED & SUBMITTED TO THE ENGINEER CITY SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR.
- AT THE END OF THE ONE (1) YEAR WARRANTY PERIOD THE DEVELOPER/CONTRACTOR WILL T.V. INSPECT, AIR TEST EVERY JOINT, AND CHECK MANHOLE JOINTS AND CONNECTIONS TO DETERMINE IF REPAIRS ARE NECESSARY BEFORE THE WARRANTY BOND IS RELEASED.
- NO PROPOSED STRUCTURES SHALL BE INSTALLED WITHIN A HORIZONTAL DISTANCE OF 10-Feet FROM ANY EXISTING SEWER FACILITY.
- ANY PIPE INTRODUCED INTO AN EXISTING MANHOLE MUST HAVE CARBOLINE BUTASTIC JOINT OR APPROVED EQUAL APPLIED EXTERNALLY WITHIN A MINIMUM 2-FOOT RADIUS OF JOINTING AND THE EXISTING MANHOLE MUST HAVE SEMENT COAT OR APPROVED EQUAL APPLIED INTERNALLY.
- ANY REHABILITATION TO AN EXISTING MANHOLE MUST BE INTERNALLY STRIPPED AND LINED WITH SEMENT COAT OR APPROVED EQUAL.

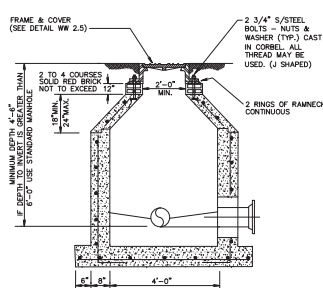
GRAVITY SEWER NOTES WW 1.1

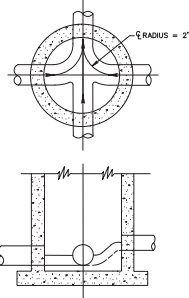


NOTES:

- PRECAST CONCRETE TYPE II 4000 P.S.I.
- RAINNECK AT ALL RISER JOINTS WITH GROUT ON INSIDE AND OUTSIDE AT ALL RISER JOINTS.
- ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
- FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT INFILTRANT INTO FLOW STREAM.
- LEFT HOLES SHALL BE FILLED WITH EXPANDABLE GROUT.
- ALL PIPE HOLES SHALL BE PRECAST.
- CAST IN PLACE FLEXIBLE PIPE-TO MANHOLE CONNECTOR (LOOK JOINT FLEXIBLE SLEEVE ELASTOMER EPDM OR RUBBER GASKET WITH GLASS FIBER REINFORCED NYLON 6/6 INTERNAL EXPANSION RING) INSTALLED PER MANUFACTURER.
- PAINT MANHOLE INSIDE AND OUTSIDE WITH ONE (1) COAT RED CARBOLINE BUTASTIC JOINT THEN ONE (1) COAT BLACK OR APPROVED EQUAL, 1/8 TO 1/4 MILS D.P.T. COAT RED RED THEN BLACK.
- MANHOLE FABRICATION SHALL BE IN ACCORDANCE W/ ASTM C-478, LATEST STANDARD.
- IF THE STRUCTURE IS INSTALLED IN WATER TABLE MUST HAVE BEDDING. (SEE DETAIL BEDDING WW1.1)

STANDARD MANHOLE DETAIL WW 2.1

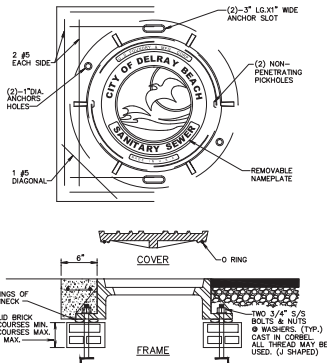




NOTES:

1. ALL INVERT CHANNELS ARE TO BE CONSTRUCTED FOR SMOOTH FLOW WITHOUT OBSTRUCTION OR TURBULENCE.
2. PROPERLY SHAPED SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS TO PROVIDE FOR SMOOTH FLOWS.
3. SERVICE LATERALS SHALL NOT ENTER MANHOLES.
4. 2500 PSI CONCRETE ONLY PERMITTED AS FLOW CHANNEL BUILDUP.

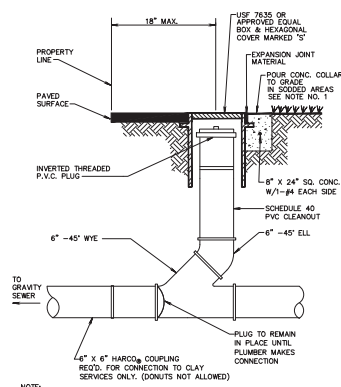
INVERT FLOW CHANNELS WW 2.4



NOTES:

1. COLLAR IS REQUIRED ONLY WHEN MANHOLE IS OUT OF PAVEMENT.
2. COVER SHALL BE U.S. MB-ORS AND RING SHALL BE USF 576 RING WITH BITUMASTIC CON. TAG.
3. MANHOLE ADJUSTING RINGS SHALL BE CAST IRON, USF TYPE B.

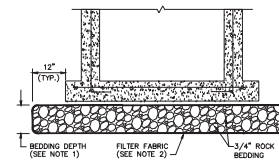
SANITARY SEWER MANHOLE FRAME AND COVER WW 2.5



NOTE:

1. INVERTED BRASS CAP SHALL BE USED IN GRASS AREAS IN LIEU OF CASTING AND CONE COLLAR.
2. MINIMUM DEPTH OF SERVICE LATERAL SHALL BE 3 FEET.

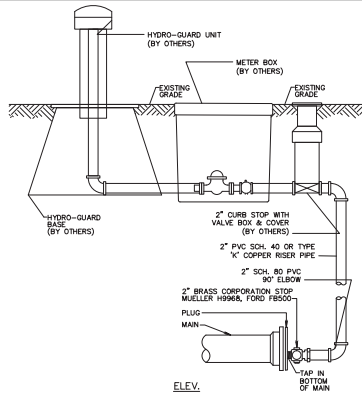
TYPICAL COMMERCIAL CLEANOUT WW 5.2



NOTES:

1. BEDDING DEPTH SHALL BE 10" UNDER DRAINAGE STRUCTURES AND 18" UNDER SANITARY STRUCTURES.
2. ROCK SHALL BE WRAPPED IN FILTER FABRIC THAT MEETS THE REQUIREMENTS OF F.D.O.T. SPECIFICATION SECTION 985.

STANDARD BEDDING DETAIL



NOTES:

1. GALVANIZED PIPING AND FITTINGS SHALL NOT BE USED.
2. JOINT RESTRAINTS TO BE INSTALLED MIN. TWO JOINTS BEFORE DEAD END.
3. HYDRO-GUARD IS TO BE USED AT ALL PERMANENT DEAD ENDS.

TYPICAL 2" TERMINAL BLOW-OFF FOR PERMANENT DEAD ENDS PW 6.1b

"NOT FOR CONSTRUCTION"

WATER & WASTEWATER DETAILS FOR:

BANYAN COURT

BARWICK ROAD

DELRAY BEACH, FLORIDA



EnviroDesign Associates, Inc.

ENGINEERS & ENVIRONMENTAL CONSULTANTS

FLORIDA CERTIFICATE OF AUTHORIZATION No. 6506

2980 Everglades Grove Way Delray Beach, Florida 33444-4558

DRAWN:

B.A.B.

CHECKED:

J.A.P.

DATE:

7/23/19

JOB NO.

19007-DTL

SHEET NO.

12 OF 14



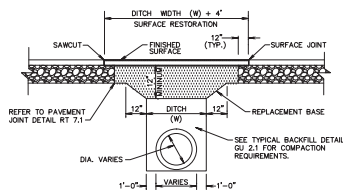
Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.

IT'S THE LAW
1-800-432-4770

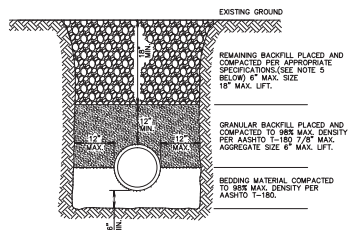
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC.
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL
ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.



1. REPLACEMENT BASE TO BE AT MIN. 12" THICK.
- 2a. BASE MATERIAL SHALL BE PLACED IN TWO LIFTS AND EACH LIFT COMPACTED TO 98% MAX. DENSITY PER AASHTO T-150 (MAX. LIFT THICKNESS = 6").
- 2b. 12" EXCAVATABLE FLOWABLE FILL MIN. 100 P.S.I. MAY BE USED IN LIEU OF 12" BASE.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWN.
4. ALL DISTURBED PAVEMENT MARKINGS SHALL BE RESTORED IN ACCORDANCE WITH CITY STANDARDS.
5. SURFACE MATERIAL SHALL BE F.O.D.T. TYPE 5-1 OR 5-III ASPHALTIC CONC. (MIN. THICKNESS 1 1/2").
6. ANY PAVT. CUTS SHALL BE COLD PATCHED AT END OF EACH WORKING DAY TO FACILITATE UNHINDERED TRAFFIC FLOW.

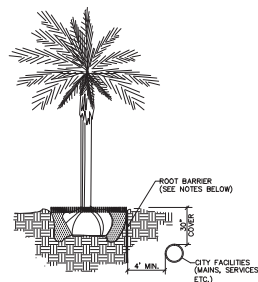
PAVEMENT REPAIR DETAIL GU 1.1



NOTES:

1. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGE ROCKS SHALL BE REMOVED, BEDDING MATERIAL AND BACKFILL, CONSISTING OF WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING.
2. THE PIPE AND/OR STRUCTURE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE AND/OR STRUCTURE SHALL BE PLACED IN A DRY TRENCH.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
5. COMPACT BACKFILL TO 98% DENSITY UNDER PAVEMENT AND TO 90% DENSITY ELSEWHERE (AASHTO T-150).
6. COMPACTION AND DENSITY TESTS SHALL BE COMPLETED DURING BACKFILL OPERATIONS. CONTRACTORS NOT FOLLOWING THIS PROCEDURE, FOR WHATEVER REASONS, SHALL BE REQUIRED TO RE-EXCAVATE THE AREA IN QUESTION, DOWN TO THE BEDDING MATERIAL, THEN BACKFILL FOLLOWING THE ABOVE PROCEDURES.

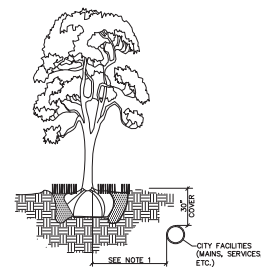
TYPICAL BACKFILL DETAIL GU 2.1



NOTES:

1. ALL ROOT BARRIERS SHALL BE 4" MINIMUM FROM ALL CITY FACILITIES.
2. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH CITY AND INSPECTED BY CITY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
3. ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BOBARRIER.
4. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

TYPICAL TREE WITH ROOT BARRIER LD 1.1



NOTES:

1. THIS DISTANCE SHALL BE 10' MINIMUM FROM ALL CITY FACILITIES IF NO ROOT BARRIER IS USED.

TYPICAL TREE WITHOUT ROOT BARRIER LD 1.2



Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

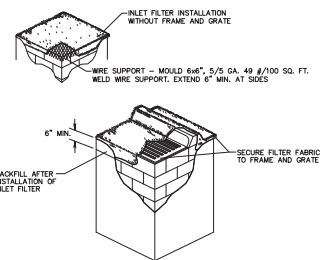
"NOT FOR CONSTRUCTION"

WATER & WASTEWATER DETAILS FOR:
BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

EnviroDesign Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF AUTHORIZATION No. 6506
2980 Everglades Grove Way Delray Beach, Florida 33444-4458
Phone: (561) 241-1555 Fax: (561) 241-1555

DRAWN:
B.A.B.
CHECKED:
J.A.P.
DATE:
7/23/19
JOB NO.
19007-DTL
SHEET NO.
13 OF 14

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC.
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL
ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.



NOTES:

- CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
- CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.

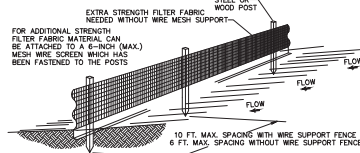
A SEDIMENT TRAP WILL BE EXCAVATED BEHIND THE CURB AT THE INLET. THE BASIN SHALL BE AT LEAST 12 TO 14 INCHES IN DEPTH, APPROXIMATELY 26 INCHES IN WIDTH, AND APPROXIMATELY 7 TO 10 FEET IN LENGTH PARALLEL TO THE CURB.

STORM WATER WILL REACH THE SEDIMENT TRAP VIA CURB CUTS ADJACENT TO EACH SIDE OF THE INLET STRUCTURE. THESE OPENINGS SHALL BE AT LEAST 12 INCHES IN LENGTH. STORM WATER MAY ALSO REACH THE BASIN VIA OVERLAND FLOW LAND AREA BEHIND THE CURB. THE CURB CUTS SHALL BE REPAIRED WHEN THE SEDIMENT TRAP IS REMOVED.

INLET FILTER DETAIL D 8.1

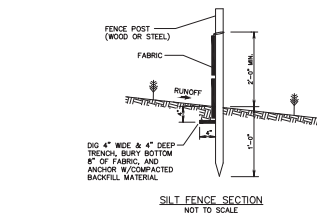
- THE INTENT OF EROSION CONTROL MEASURES INDICATED GRAPHICALLY ON PLANS IS TO PROVIDE A BARRIER TO CONTROL SILT AND SEDIMENT ON THE PROJECT SITE. THIS REPRESENTATION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE BEST OF EROSION CONTROL EFFECTIVENESS IS NOT TO BE DETERMINED BY ADHERENCE TO THE REPRESENT SET FORTH ON THE DRAWINGS AND SPECIFICATIONS, BUT BY MEETING THE REGULATIONS SET FORTH BY THE AUTHORITY HAVING JURISDICTION OVER WATER QUALITY CONTROL AND OTHER SEDIMENTATION RESTRICTION REQUIREMENTS IN THE REGION.
- APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBANCE ACTIVITIES, EXCEPT THOSE OPERATIONS NEEDED TO INSTALL SUCH MEASURES.
- INSPECTION OF ALL EROSION CONTROL MEASURES SHALL BE CONDUCTED WEEKLY, OR AFTER EACH RAINFALL EVENT, REPAIR AND/OR REPLACEMENT OF SUCH MEASURES SHALL BE MADE PROMPTLY, AS NEEDED.
- KEEP DUST WITHIN TOLERABLE LIMITS BY SPRINKLING OR OTHER ACCEPTABLE MEANS.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED IF DEEMED NECESSARY BY ONSITE INSPECTION.
- FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES SHALL RESULT IN CONSTRUCTION STOPPAGE.
- DRAINAGE INLETS SHALL BE PROTECTED BY FILTER AND GRADED ROCK AS PER INLET PROTECTION DETAIL.
- ANY ACCESS ROUTES TO SITE SHALL BE BASED WITH CRUSHED STONE, WHERE PRACTICAL.
- EROSION CONTROL MEASURES ARE TO BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- WHenever FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.
- ALL WORK IS TO BE IN COMPLIANCE WITH THE RULES AND REGULATIONS SET FORTH BY THE STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE CITY OF DELRAY BEACH.
- DISCHARGE FROM Dewatering OPERATIONS SHALL BE RETAINED ONSITE IN A CONTAINMENT AREA.

EROSION CONTROL NOTES DETAIL D9.1



- NOTES:
- THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (90 CM).
 - THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL OUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
 - POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3 M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET (1.8 M).
 - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10 CM) WIDE AND 4 INCHES (10 CM) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
 - WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25 MM) LONG. THE WIRE, OR 100 RINGS, THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5 CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 - THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20 CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 - THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 - ALL PROJECTS REQUIRE SUBMITTAL OF POLLUTION PREVENTION PLAN (PPP).
 - ALL PROJECTS 1 AC. OR MORE MUST SUBMIT NOTICE OF INTENT (NOI) TO DEP.

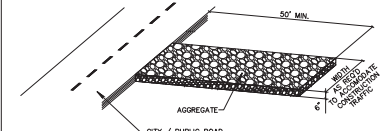
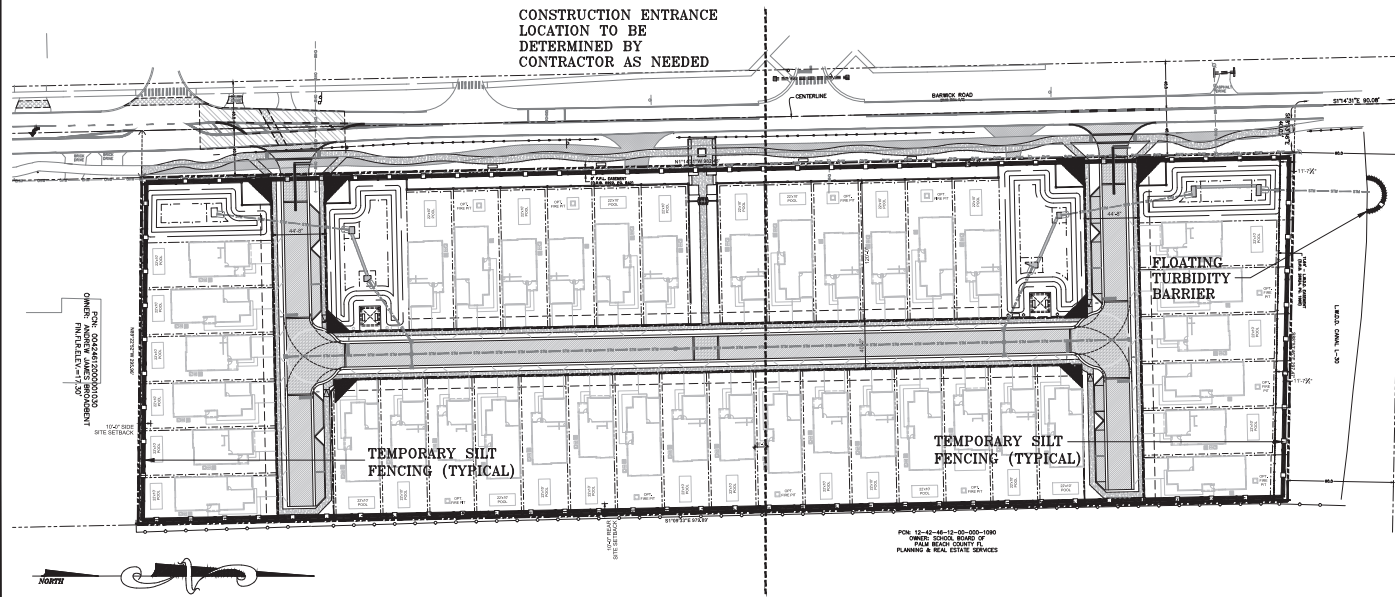
SILT FENCE INSTALLATION DETAIL D 9.1a
Sheet 1 of 2



- NOTES:
- PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
 - ROTATE BOTH POSTS AT LEAST 90 DEGREES IN A COUNTERCLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
 - DRIVE BOTH POSTS ABOUT 18 INCHES INTO THE GROUND AND BURY FLAP.

ATTACHING TWO SILT FENCES
NOT TO SCALE

SILT FENCE INSTALLATION DETAIL D 9.1b
Sheet 2 of 2



NOTE:

A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AND CONTAIN AN AGGREGATE LAYER (FOOT AGGREGATE NO.1). AT LEAST 6-INCHES THICK. IT MUST EXTEND TO THE WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA.

STABILIZED CONSTRUCTION ENTRANCE DETAIL D9.1C

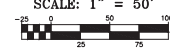
CALL 48 HOURS BEFORE YOU DIG.

IT'S THE LAW
1-800-432-4770

SUNSHINE STATE ONE CALL OF FLORIDA, INC.



Know what's below.
Call before you dig.



SCALE: 1" = 50'

0 25 50 75 100

"NOT FOR CONSTRUCTION"

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		
76		
77		
78		
79		
80		
81		
82		
83		
84		
85		
86		
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		

POLLUTION PREVENTION PLAN FOR:
BANYAN COURT
BARBIC ROAD
DELRAY BEACH, FLORIDA

EnviroDesign
Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 6506
2980 Everglades Drive, Suite 200, Delray Beach, FL 33444-4558
Phone: (561) 241-1555 Fax: (561) 241-1558

DRAWN:
B.A.B.
CHECKED:
J.A.P.
DATE:
9/12/19
JOB NO.
19007-ENG
SHEET NO.
14 OF 14



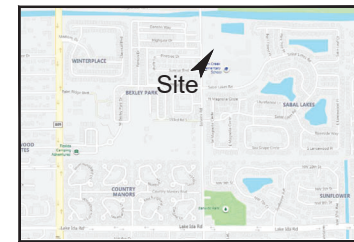
UTILITY PROVIDER SIGNOFF:

FPL: SIGNATURE _____ TITLE _____
PRINT NAME _____ DATE _____

COMCAST: SIGNATURE _____ TITLE _____
PRINT NAME _____ DATE _____

AT&T: SIGNATURE _____ TITLE _____
PRINT NAME _____ DATE _____

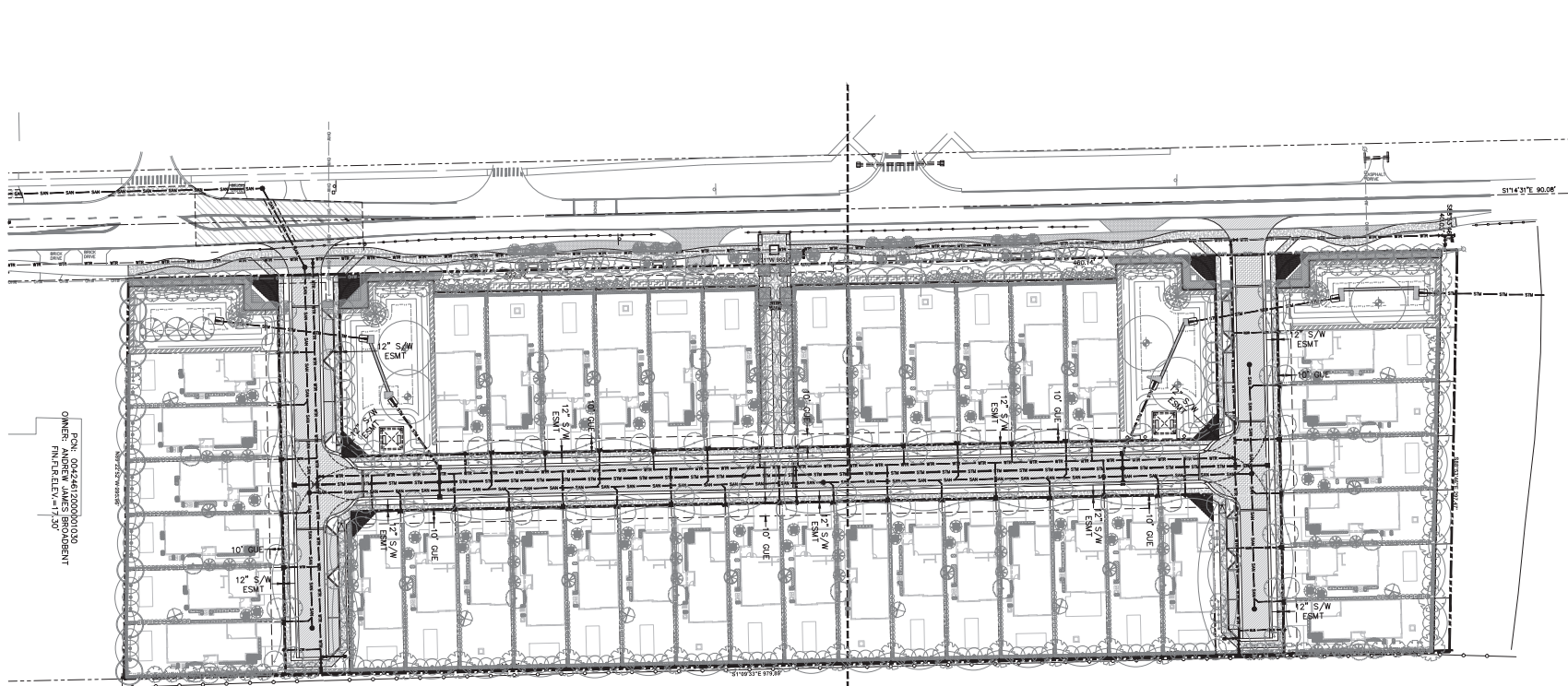
FP2: SIGNATURE _____ TITLE _____
PRINT NAME _____ DATE _____



LOCATION MAP
N.T.S.



"NOT FOR CONSTRUCTION"



OWNER: ANDREW JAMES BROUGHTON
7/11/2017 11:30

LEGEND:

— P — P — P — P — P — P —	PROPERTY LINE	— E — E — E — E — E — E —	EXISTING STORM LINE
— S — S — S — S — S — S —	PROPOSED STORM LINE	— SA — SA — SA — SA — SA — SA —	EXISTING SANITARY SEWER LINE
— W — W — W — W — W — W —	PROPOSED SANITARY SEWER LINE	— W — W — W — W — W — W —	EXISTING WATER LINE
— E — E — E — E — E — E —	PROPOSED WATER LINE	— O — O — O — O — O — O —	EXISTING OVERHEAD LINES
— G — G — G — G — G — G —	PROPOSED ELECTRIC UNDERGROUND LINE	— G — G — G — G — G — G —	EXISTING GAS LINES
— G — G — G — G — G — G —	PROPOSED GAS LINE		

NOTE: CONTRACTOR TO FIELD
VERIFY EXACT LOCATION, SIZE, AND
ELEVATION OF ALL IMPROVEMENTS
AT TIME OF CONSTRUCTION AND
REPORT ANY DISCREPANCIES TO
ENVIRODESIGN ASSOCIATES, INC.



Know what's below.
Call before you dig.

CALL 48 HOURS BEFORE YOU DIG.
IT'S THE LAW
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

SCALE: 1" = 10'
-5 0 10 20
5 10 20

© COPYRIGHT 2019 BY ENVIRODESIGN ASSOCIATES, INC.
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
UNLESS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL
ENGINEER REPRESENTING ENVIRODESIGN ASSOCIATES, INC.

COMPOSITE UTILITY PLAN FOR:
BANYAN COURT
BARWICK ROAD
DELRAY BEACH, FLORIDA

EnviroDesign
Associates, Inc.
ENGINEERS & ENVIRONMENTAL CONSULTANTS
FLORIDA CERTIFICATE OF AUTHORIZATION No. 6006
298 Pineapple Grove Way Delray Beach, Florida 33444
Phone (561) 244-5555 Fax (561) 244-5558

DRAWN:
B.A.B.
CHECKED:
J.A.P.

DATE:
9/12/19
JOB NO.
19007-ENG
SHEET NO.
1 OF 1

NO.	DATE	REVISIONS
1		NOT MADE WITHOUT ENGINEER'S SEAL
2		
3		
4		
5		
6		
7		
8		
9		
10		

JERRY A. PINE, P.E.
JERRY A. PINE, P.E.
JERRY A. PINE, P.E.