LES THOMAS
A R C H I T E C T
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

Neptune Beach

Senior Community Center

FOUNDATION
34 - 16x16x12 TYPE "A"
4 - 16x24x12 TYPE "B"
26 - 16x20x12 TYPE "C"
3 - 24x24x12 TYPE "D"

CONCRETE MASONRY UNITS
130 - 8x8x12 CMU (5 EA PIER)
15 - 8x12x12 CMU (5 EA PIER)

REBAR
240 - 10" #5
28 - 18" #5
58 - 48" #5 L-BAR

CONCRETE
5.177 - CUBIC YARDS

JOISTS AND POSTS
10 - 2x12x20
12 - 2x12x18
50 - 2x12x16
18 - 2x12x10
7 - 2x12x8
66 - 2x10x14
2 - 2x10x12
20 - 2x10x10
14 - 2x10x8
68 - 6x6x10
68 - ABU66Z (10)
68 - WA62600 5/8x6" (20)
244 - LUS210Z (50)
24 - LUS210-2Z (25)

LES THOMAS
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32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

BEAMS AND ROOF
4 - 2x12x16
24 - 2x12x10
17 - 2x12x8
2 - 2x12x12
90 - 2x12x18
24 - 2x10x16
6 - 2x10x24
2 - 2x10x20
3 - 2x10x10
4 - 2x10x8
2 - 2x6x24
2 - 2x8x16
2 - 2x8x12
2 - 2x8x10
1 - 2x8x8
60 - 2x10 SLOPE HANGER
24 - 2x10 SLOPE SKEW RIGHT
24 - 2x10 SLOPE SKEW LEFT
2 - SIMPSON HUC210 (25)
200 - SIMPSON H2.5A (100)
100 - 7/16x4x8 OSB
1000 - PSCA 7/16 (250)
16 - HIGH TEMP ICE AND WATER
355 - 5/4x6x16 STD TR DECKING

STAIRS AND RAILINGS
385'+/- WOOD RAILING
10 - 2x12 STRINGERS

ROOFING
26 SQUARES - 24" STANDING SEAM METAL ROOFING
240'+/- METAL DRIP
140'+/- METAL FLASHING

BUILDING FINISH
40 Sq Ft +/- HORIZ. HARDIE BOARD SIDING
24 - COLUMN TOP & BOTTOM TRIM
3 - DECORATIVE VINYL SHUTTER SETS
342 Sq Ft +/- VINYL LATTICE

NOTE:
ARCHITECT'S MATERIAL LIST SHALL BE USED AS REFERENCE ONLY.
CONTRACTOR/BUILDER SHALL CALCULATE AND SUBMIT
THEIR OWN MATERIALS LIST FOR BIDING AND CONSTRUCTION.
VERIFY ALL DIMENSIONS AND CONDITIONS.

JACKSON GEOTECHNICAL ENGINEERING

Consulting Geotechnical Engineers

REPORT OF GEOTECHNICAL EXPLORATION
NEPTUNE BEACH SENIOR CENTER DRAINAGE IMPROVEMENTS
NEPTUNE BEACH, FLORIDA
JGE PROJECT NO. 22-246.1

Prepared for:

Marquis Latimer & Halback
34 Cordova Street
St. Augustine, Florida 32084

Prepared by:

Jackson Geotechnical Engineering
164 Plaza Del Rio Drive
St. Augustine, Florida 32084
Phone: 904-252-2292

April 8, 2022

JACKSON GEOTECHNICAL ENGINEERING

Consulting Geotechnical Engineers

April 8, 2022

Mr. Jeremy Marquis
Marquis Latimer & Halback
34 Cordova Street
St. Augustine, Florida 32084

Report of Geotechnical Exploration and Engineering Services
Neptune Beach Senior Center Drainage Improvements
Neptune Beach, Florida
JGE Project No. 22-246.1

Dear Mr. Marquis:

As requested, Jackson Geotechnical Engineering has completed a geotechnical exploration for the subject project. The exploration was performed to evaluate the general subsurface conditions at the location of the proposed stormwater pond, and to provide soil and groundwater parameters to facilitate retention pond design.

We appreciate this opportunity to be of service as your geotechnical consultant on this phase of the project. Please contact us if you have any questions, or if we may be of any further service.

Sincerely:
Jackson Geotechnical Engineering, LLC.

Jeff S. Jackson, P.E.
Licensed, Florida 51979

cc: Mr. Jeremy Calloway, P.E.
Maverick Engineering

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BORING LOCATION PLAN I
SUBSURFACE PROFILE I

APPENDIX B II

KEY TO SOIL CLASSIFICATION II
FIELD AND LABORATORY TEST PROCEDURES II

1.0 PROJECT INFORMATION

1.1 Site Location and Description

The project is located adjacent to the west side of Strickland Road, approximately 225 feet north of Forest Avenue, in Neptune Beach, Florida. The site is cleared, with vegetation consisting of grass. Based on visual observation, the subject area is relatively level.

1.2 Project Description

Project information was provided to us during correspondence with Mr. Jeremy Calloway, P.E. of Maverick Engineering. We were provided with an excerpt from a site plan that shows the layout of the proposed pond excavation, property boundaries, and adjacent roadways.

We understand the proposed project consists of excavating a retention pond at the site. The pond will be utilized for the collection and treatment of stormwater. It is expected the pond will be designed in accordance with dry retention criteria.

2.0 FIELD EXPLORATION

In order to explore the subsurface conditions within the area of the proposed stormwater pond, one auger boring (A-1) was performed to a depth of 6 feet below the ground surface. In addition, two permeability tests were performed on relatively undisturbed soil samples obtained from the location of the auger boring. The auger boring was located by measurement from existing site features. The location of the field testing, and the subsurface conditions encountered at the boring location, are presented in Appendix A on the Boring Location Plan and Subsurface Profiles, respectively.

3.0 LABORATORY TESTING

3.1 Index Testing

Soil samples recovered during the field exploration were visually classified in accordance with ASTM D 2488. The results of the classification testing are presented on the Subsurface Profile in Appendix A.

3.2 Permeability Testing

A horizontal and vertical permeability (hydraulic conductivity) test were conducted on the undisturbed soil samples to estimate the coefficient of horizontal permeability of the appropriate soil layers. The coefficient of permeability is a measure of a soil's ability to transmit water under hydraulic loading conditions. It typically is a required input parameter for groundwater modeling, such as dry pond recoveries, background seepage, etc. The laboratory permeability test is typically conducted by placing the undisturbed soil sample in a permeameter, and while in the permeameter, the soil sample is subjected to differential hydraulic loading over a period of time. The volume of water that is transmitted through the soil sample is recorded, and along with the known hydraulic

loading conditions, Darcy's law is utilized to calculate the coefficient of permeability. The coefficient of permeability is shown on the Subsurface Profile at the depth of which the soil samples were obtained.

4.0 GENERAL SUBSURFACE CONDITIONS

4.1 General Soil Profile

The boring location and general subsurface conditions that were encountered are presented on the Boring Location Plan and Subsurface Profile. When reviewing these records, it should be understood the soil conditions may change significantly at adjacent, unexplored locations. The following discussion summarizes the soil conditions encountered.

In general, the boring encountered fine sand (SP) throughout the 6-foot exploration depth. Three inches of topsoil was present at the boring location.

4.2 Groundwater Level

The groundwater level was measured at the boring location at a depth of 4.8 feet below existing grade. The depth of the groundwater level encountered at the boring location is presented on the Subsurface Profile.

The groundwater table will fluctuate depending on seasonal variations, adjacent construction, surface water runoff, etc. Our estimate of the normal seasonal high groundwater level at the boring location is presented on the Subsurface Profile in Appendix A. Our estimate is based on the results of the soil boring, review of available published literature, and information provided for this study. Should rainfall intensity exceed normal quantities, or should other variables that affect the seasonal high groundwater level be altered, the groundwater profile at the site could change significantly.

5.0 RETENTION POND RECOMMENDATIONS

5.1 General

The drainage system includes a dry retention pond. Dry ponds retain the necessary minimum amount of stormwater runoff (treatment volume) during the storm event. The volume retained is treated by infiltration into the ground. Infiltration into the ground is primarily affected by permeability of the soil, vertical height of stormwater stored in the pond (hydraulic loading), depth of the aquifer, soil porosity, and vertical distance between the pond bottom and the water table.

5.2 Retention Pond Modeling

The table below summarizes our recommendations for pond recovery modeling. A factor of safety of 2.0 should be utilized in the recovery analysis.

Location	Horizontal Permeability (ft/day)	Vertical Permeability (ft/day)	Effective Porosity	Depth to Bottom of Aquifer[1,2] (feet)	Estimated Depth of Seasonal High Groundwater Level[1] (feet)
A-1	30.0	26.3	25%	6	2.7

(1) Depth references ground surface at the time of the subsurface exploration.
(2) Aquifer depth limited to bottom of boring, in accordance with SJRWMD guidelines.

Note: Permeability values represent existing, in-situ soils. If fill is utilized, it should meet the specifications of the drainage engineer.

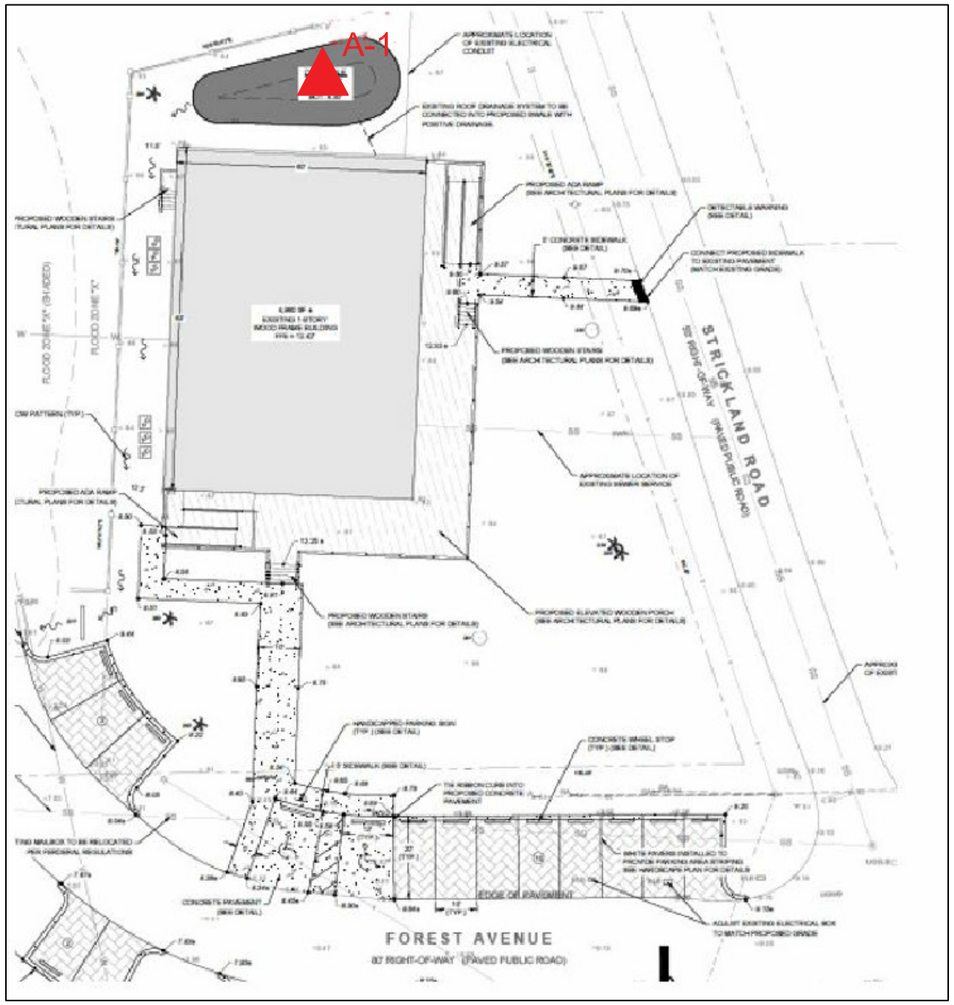
6.0 LIMITATIONS

We have conducted the geotechnical engineering in accordance with principles and practices normally accepted in the geotechnical engineering profession. Our analysis and recommendations are dependent on the information provided to us. Jackson Geotechnical Engineering is not responsible for independent conclusions or interpretations based on the information presented in this report.

APPENDIX A

BORING LOCATION PLAN

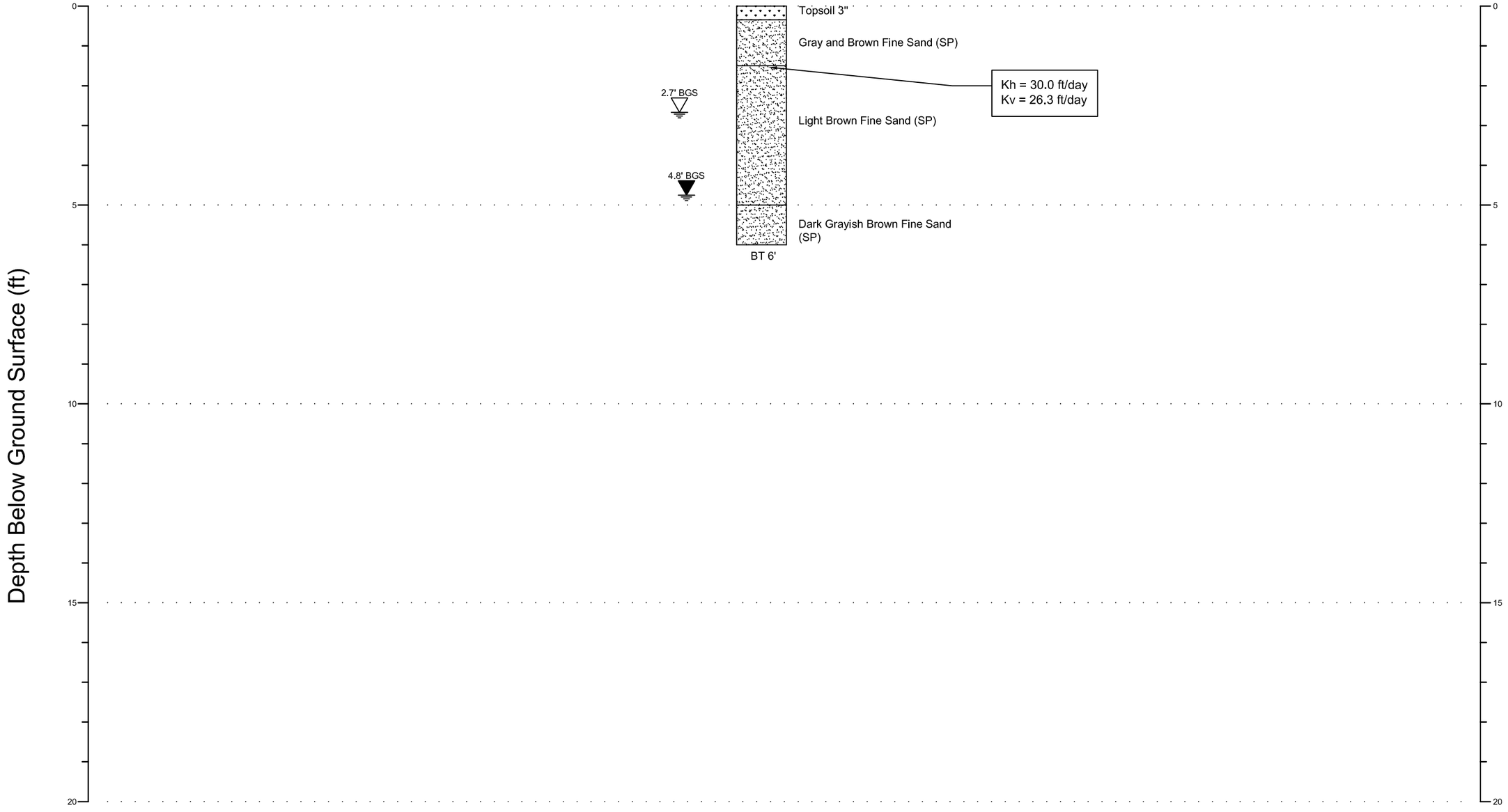
SUBSURFACE PROFILE



▲ Auger Boring Location

Jackson Geotechnical Engineering	
Boring Location Plan	
Neptune Beach Senior Center	
April 4, 2022	Drawn by: MJ
Project No. 22-246	Figure 1

A-1



Fine Sand (SP)

Topsoil

Groundwater Table Measured Below Ground Surface

Seasonal High Groundwater Table Estimated Below Ground Surface at Time of Exploration

Kh Coefficient of Horizontal Permeability

Kv Coefficient of Vertical Permeability

BT Boring Terminated

BGS Below Ground Surface

Jackson Geotechnical Engineering	
Subsurface Profiles	
Neptune Beach Senior Center	
April 4, 2022	Drawn by: MJ
Project No. 22-246	Figure 2

APPENDIX B

KEY TO SOIL CLASSIFICATION

FIELD AND LABORATORY TEST PROCEDURES

JACKSON GEOTECHNICAL ENGINEERING

Consulting Geotechnical Engineers

KEY TO SOIL CLASSIFICATION

CORRELATION OF PENETRATION WITH RELATIVE DENSITY & CONSISTENCY

SANDS AND GRAVEL	
BLOW COUNT	RELATIVE DENSITY
0-3	VERY LOOSE
4-10	LOOSE
11-30	MEDIUM DENSE
31-50	DENSE
OVER 50	VERY DENSE

SILTS AND CLAYS	
BLOW COUNT	CONSISTENCY
0-2	VERY SOFT
3-4	SOFT
5-8	FIRM
16-30	VERY STIFF
31-50	HARD
OVER 50	VERY HARD

PARTICLE SIZE IDENTIFICATION (UNIFIED CLASSIFICATION SYSTEM)

CATEGORY	*DIMENSIONS*
Boulders	Diameter exceeds 12 inches
Cobbles	3 to 12 inches
Gravel	Coarse – 0.75 to 3 inches in diameter Fine – 4.76 mm to 0.75 inch diameter
Sand	Coarse – 2.0 mm to 4.76 mm diameter Medium – 0.42 mm to 2.0 mm diameter Fine – 0.074 mm to 0.42 mm diameter
Silt and Clay	Less than 0.074 mm (invisible to the naked eye)

MODIFIERS

These modifiers provide our estimate of the amount of minor constituent (sand, silt, or clay size particles) in the soil sample

PERCENTAGE OF MINOR CONSTITUENT	*MODIFIERS*
0% to 5%	No Modifier
5 % to 12 %	With Silt, With Clay
12% to 30%	Silty, Clayey, Sandy
30% to 50%	Very Silty, Very Clayey, Very Sandy

APPROXIMATE CONTENT OF OTHER COMPONENTS (SHELL, GRAVEL, ETC.)	*MODIFIERS*	*APPROXIMATE CONTENT OF ORGANIC COMPONENTS*
0% to 5%	TRACE	1 to 2%
5% to 12%	FEW	2% to 4%
12% to 30%	SOME	4% to 8%
30% to 50%	MANY	>8%

FIELD AND LABORATORY TEST PROCEDURES

Auger Borings

The auger borings were performed using a continuous flight auger attached to a rotary drill rig or manually using a post-hole auger; and thus in general accordance with ASTM D 1452-80, "Soil Investigation and Sampling by Auger Borings". Representative samples of the soils brought to the ground surface by the augering process were placed in watertight containers and sealed. After completing the drilling operations, the samples for each boring were transported to the laboratory where the Geotechnical Engineer examined them in order to verify the driller's field classifications. The samples will be kept in our laboratory for a period of two months after submittal of formal written report, unless otherwise directed by the Client.

Soil Classification

Soil samples obtained from the performance of the borings were transported to our laboratory for observation and review. An engineer, registered in the State of Florida and familiar with local geological conditions, conducted the review and classified the soils in accordance with ASTM 2488. The results of the soil classification are presented on the boring records.

Constant Head Permeability Test

The coefficient of permeability for the laminar flow of water through granular soils was determined in general accordance with the latest revision of ASTM D 2434. The constant head permeability test is a measure of the quantity of water that flows through a sample contained in a cylinder of known height and diameter in a measured time while maintaining a constant head of water on the sample. The coefficient of permeability is determined by application of the Darcy's Law shown below:

$$k = \frac{Q\,L}{hAt}$$

k = Coefficient of permeability

Q = Quantity of water discharge

L = Length of specimen

h = Constant head of water

A = Cross-sectional area of specimen

t = Total time of discharge

Undisturbed Sampling

Relatively undisturbed samples were obtained in general accordance with the latest revision of ASTM A 1587, "Thin-Walled Tube Sampling of Soils". Manual methods were used to advance the 3-inch O.D. – 16 gauge stainless steel sampler tubes into the soils at the selected depths. After retrieving the samples, the ends were capped and then transported to our laboratory.

BUILDING FOOTAGE INFORMATION

NEW DECK ——— 1614 Sq. Ft.
NEW H.C. RAMPS ——— 474 Sq. Ft.

TYPE OF CONSTRUCTION

TYPE VB
PROJECT IS LOCATED EAST OF I-95 WIND-BORNE DEBRIS PROTECTION IS REQUIRED

WIND ZONE INFORMATION

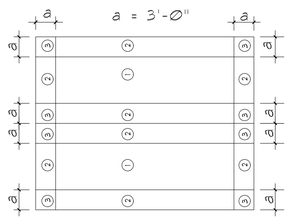
THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH, & MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2020 7th EDITION

1. BASIC WIND SPEED (3 SECOND GUSTS) ——— 130 M.P.H.
2. WIND IMPORTANCE FACTOR ——— 1.0
3. WIND EXPOSURE CATEGORY ——— B
4. INTERNAL PRESSURE COEFFICIENT +.18 OR -.18
5. COMPONENT & CLADDING WIND LOADS Lbs/Sq.FT.

HEIGHT AND EXPOSURE ADJUSTMENT COEFFICIENTS = 1.00

	EFFECTIVE WIND AREA Ft. Sq.							
	10		20		50		100	
ROOF								
1	10.5	-25.9	10.0	-25.2	10.0	-24.4	10.0	-23.7
2&3	10.5	-43.5	10.0	-38.8	10.0	-32.7	10.0	-28.1
WALL								
4	25.9	-28.1	24.7	-26.9	23.2	-25.4	22.0	-24.2
5	25.9	-34.7	24.7	-32.4	23.2	-29.3	22.0	-26.9

ROOF OVERHANG	10	20	50	100
	-37.3	-36.7	-35.2	-35.1
	-61.5	-48.3	-30.8	-17.6

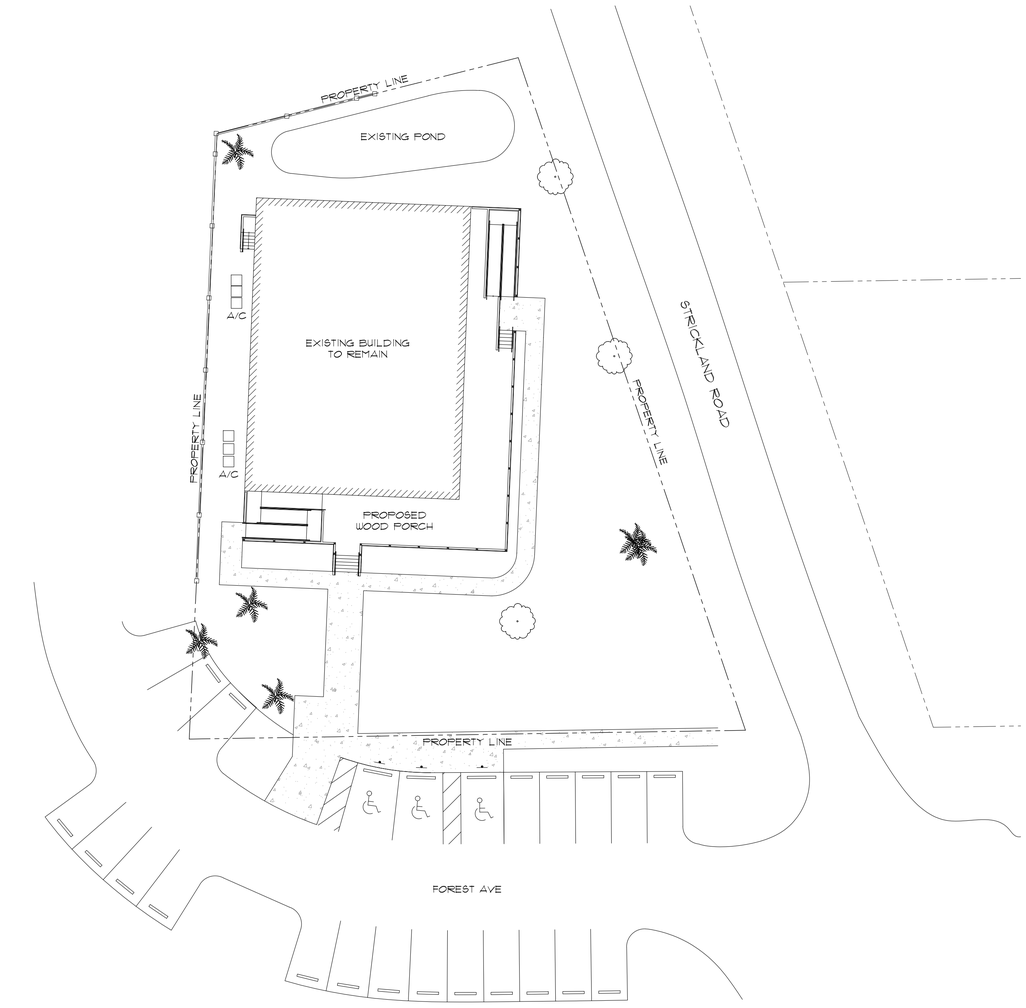


NOTES:

1. FOR EFFECTIVE AREAS BETWEEN THOSE GIVEN ABOVE THE LOAD MAY BE INTERPOLATED BY THE DESIGNER, OTHERWISE USE THE LOAD ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
2. SEE FIGURES FOR LOCATION OF ZONES.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURE ACTING TOWARD AND AWAY FROM THE BUILDING SURFACES.

CODE ANALYSIS

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH, & MEETS THE REQUIREMENTS OF:
BUILDING - FLORIDA BUILDING CODE, BUILDING 2020 7th EDITION
PLUMBING - FLORIDA BUILDING CODE, PLUMBING 2020 7th EDITION
MECHANICAL - FLORIDA BUILDING CODE, MECHANICAL 2020 7th EDITION
LIFE SAFETY - NATIONAL FIRE PREVENTION ASSOC. CODE, LATEST EDITION
FIRE CODE - FLORIDA FIRE PREVENTION CODE 7th EDITION
HANDI-CAP CODE - FLORIDA BUILDING CODE, CHAPTER 11 - ACCESSIBILITY, 2020 7th EDITION
ACCESSIBILITY CODE - FLORIDA BUILDING CODE, CHAPTER 11 - ACCESSIBILITY, 2020 7th EDITION
ENERGY CODE - FLORIDA BUILDING CODE, ENERGY CONSERVATION, 2020 7th EDITION
NATIONAL ELECTRIC CODE CURRENT EDITION



N
Site Plan
1"=20'-0"

Neptune Beach
Senior Community Center
Neptune Beach, Florida

INDEX OF DRAWINGS

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A2 FLOOR PLAN
A3 BUILDING ELEVATIONS
A4 FOUNDATION PLAN
A5 FLOOR FRAMING PLAN
A6 ROOF FRAMING PLAN
A7 BUILDING SECTIONS AND DETAILS
A8 ELECTRICAL PLAN

STRUCTURAL NOTES

1. DESIGN LOADS:
   A. ROOF LIVE LOADS ——— 16 p.s.f.
   B. FLOOR LIVE LOADS ——— 40 p.s.f.
   C. WIND LOADS ——— 130 m.p.h.
   (FL. BLDG. CODE 2020)
2. MATERIAL
A. CONCRETE: DESIGN AND CONSTRUCTED PER A.C.I. 318-83

ITEM	COMPRESSIVE STRENGTH @ 28 DAYS
SLAB	2500 P.S.I.
C.M.U. FILLED CELLS & BEAMS	2500 P.S.I.

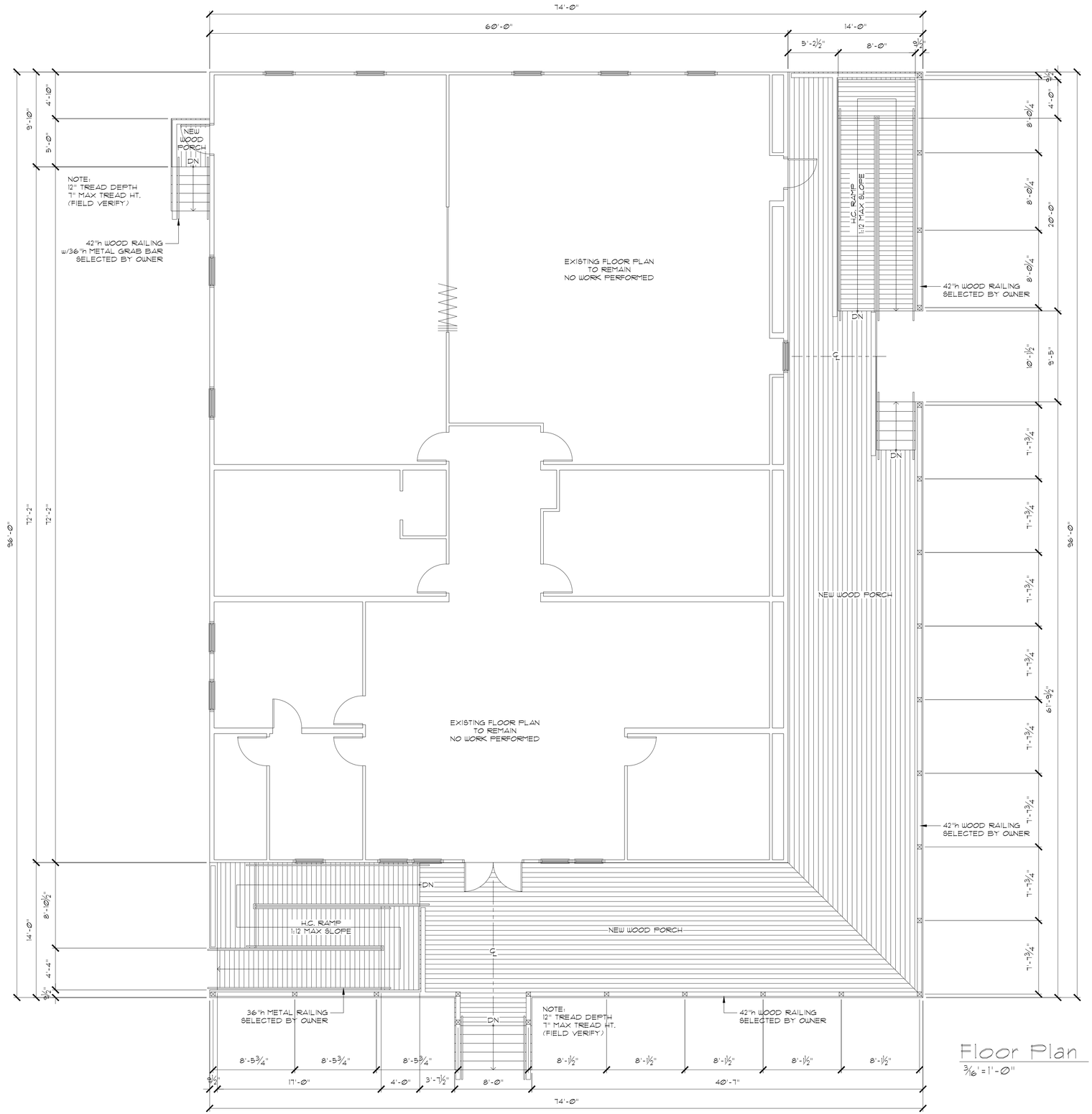
B. REINFORCING STEEL: CONFORM TO ASTM A-615 GAGE 60
C. STRUCTURAL STEEL: DESIGN PER CURRENT ADDITION OF A.I.S.C.
   1. SHAPES AND PLATES CONFORM TO ASTM A-36
   2. WELDING CONFORM TO "AWS D1.1, STRUCTURAL WELDING CODE"
   3. ANCHOR BOLTS AND STEEL TO WOOD SHALL CONFORM TO ASTM A-307
   4. WELDED CONNECTIONS NOT SHOWN ON DRAWING SHALL HAVE ALL CONTACTING STEEL SURFACES CONTINUOUS WELDED WITH SUFFICIENT WELD TO FULLY DEVELOP THE THINNER MATERIAL.
D. FRAMING LUMBER: SOUTHERN PINE PER N.F.P.A., NATIONAL DESIGN SPECS. FOR WOOD CONSTRUCTION.
   1. SAWN LUMBER 2x4 THRU 2x12 SHALL BE SOUTHERN PINE NO. 2 @ 19% M.C.
   2. INTERIOR WALL STUDS SHALL BE SPRUCE-PINE-FIR NO.2
   3. L.V.L. BEAMS SHALL BE SOUTHERN PINE Fb=2400 P.S.I.
   4. SAWN LUMBER 4x4 AND LARGER SHALL BE SOUTHERN PINE NO. 1 @ 19% M.C.
E. WOOD FLOOR & ROOF TRUSSES: DESIGN BY THE MANUFACTURER TO SUPPORT DEAD, WIND AND LIVE LOADS.
   1. MANUFACTURE SHALL SUBMIT ERECTION DRAWINGS FOR REVIEW BEFORE FABRICATING TRUSSES.
   2. ERECTION DRAWINGS SHALL SHOW ALL LATERAL AND DIAGONAL BRACING AS REQUIRED IN THE TRUSS SYSTEM.
   3. TRUSS TO TRUSS CONNECTIONS SHALL BE DESIGNED BY THE MANUFACTURER.
F. PLYWOOD ROOF AND WALL SHEATHING:
   CONFORM TO THE AMERICAN PLYWOOD ASSOC. STANDARDS AND SHALL BE AP C-D INT. WITH EXTERIOR GLUE (CDX) MIN.
G. CONCRETE MASONRY UNITS: CONFORM TO ASTM C-90.
   MORTAR SHALL BE TYPE M OR S.
H. WOOD FRAMING ANCHORS AND HURRICANE TIE CLIPS
   SHALL BE "GO-BOLTS" OR EQUAL.
4. CONCRETE MASONRY UNITS:
   A. ALL C.M.U. SHALL HAVE #5 BAR VERTICAL WITH CELL FILLED WITH CONCRETE AS SHOWN ON DRAWINGS.
   B. ALL C.M.U. SHALL HAVE HORIZONTAL JOINT REINFORCING SPACED 16" O.C. VERTICAL. REINFORCING SHALL BE FABRICATED FROM 9 GUAGE GALVANIZED WIRE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMP. BRACING UNTIL THE ENTIRE STRUCTURE IS PLUMB AND SECURED IN PLACE.
6. SHEATHING NAILING:
   A. ROOF SHEATHING SHALL BE NAILED AS FOLLOWS:
      8d RING SHANK NAILS
      8d NAILS @ 6" O.C. AT PANEL EDGES.
      8d NAILS @ 9" O.C. AT ALL INTERMEDIATE SUPPORTS.
      8d NAILS @ 4" O.C. AT ALL SUPPORTS WITHIN 4'-0" OF EDGES.
   B. PORCH CEILING OR SUB CEILING WITH RING SHANK NAILS:
      8d NAILS @ 4" O.C. AT PANEL EDGES.
      8d NAILS @ 8" O.C. AT ALL INTERMEDIATE SUPPORTS.
   C. ALL EXTERIOR WALLS BETWEEN OPENINGS AND AT CORNERS SHALL BE SHEAR WALL SEGMENTS.
      PLY-WOOD NAILING TO BE: 8d NAILS @ 6" O.C. EACH SHEAR WALL SEGMENT SHOULD HAVE 1/2 Ø THREADED ROD WITHIN 8" OF SHEAR WALL.
7. C.M.U. WALL OPENING HEADS, JAMBS, AND WINDOW SILLS SHALL BE 2x6 MIN. P.T. WITH 1/4" DIA. x 3 1/4" LONG "TAPCONS" @ 18" O.C.
8. ALL EXTERIOR WINDOWS AND DOORS SHALL MEET 130 M.P.H. WIND SPEED. WIND BORNE DEBRIS PROTECTION REQUIRED: IMPACT RESISTANT WINDOWS OR SHUTTERS BY ARCHITECT OR CONTRACTOR.

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A1



Floor Plan

3/16" = 1'-0"

NOTE:
CONTRACTOR/BUILDER
SHALL FIELD VERIFY
ALL DIMENSIONS AND CONDITIONS
PRIOR TO CONSTRUCTION.

LES THOMAS
A R C H I T E C T
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

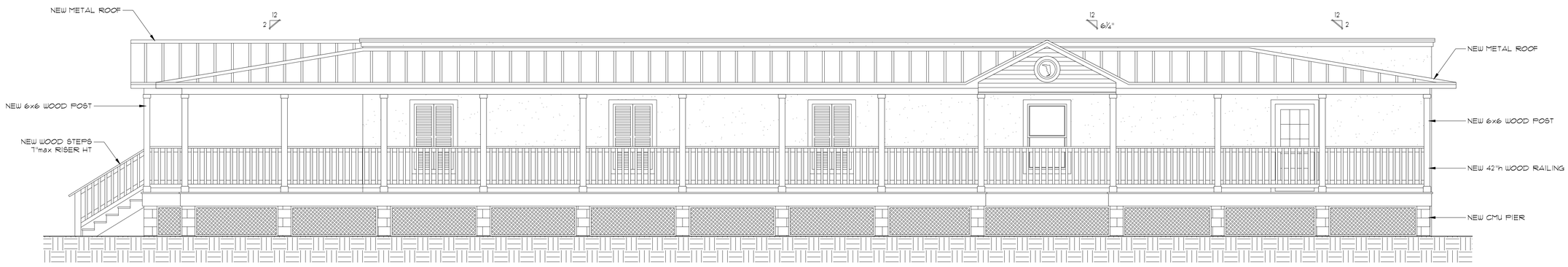
NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A2

Front Elevation

1/4"=1'-0" North



Right Elevation

1/4"=1'-0" East

NOTE:
ELEVATION DRAWINGS ARE INTENDED FOR DESIGN PURPOSES ONLY. CONTRACTOR/BUILDER SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION...

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A3

Foundation Plan
3/16" = 1'-0"

Foundation Details
1/2" = 1'-0"

Footing Types
1/2" = 1'-0"

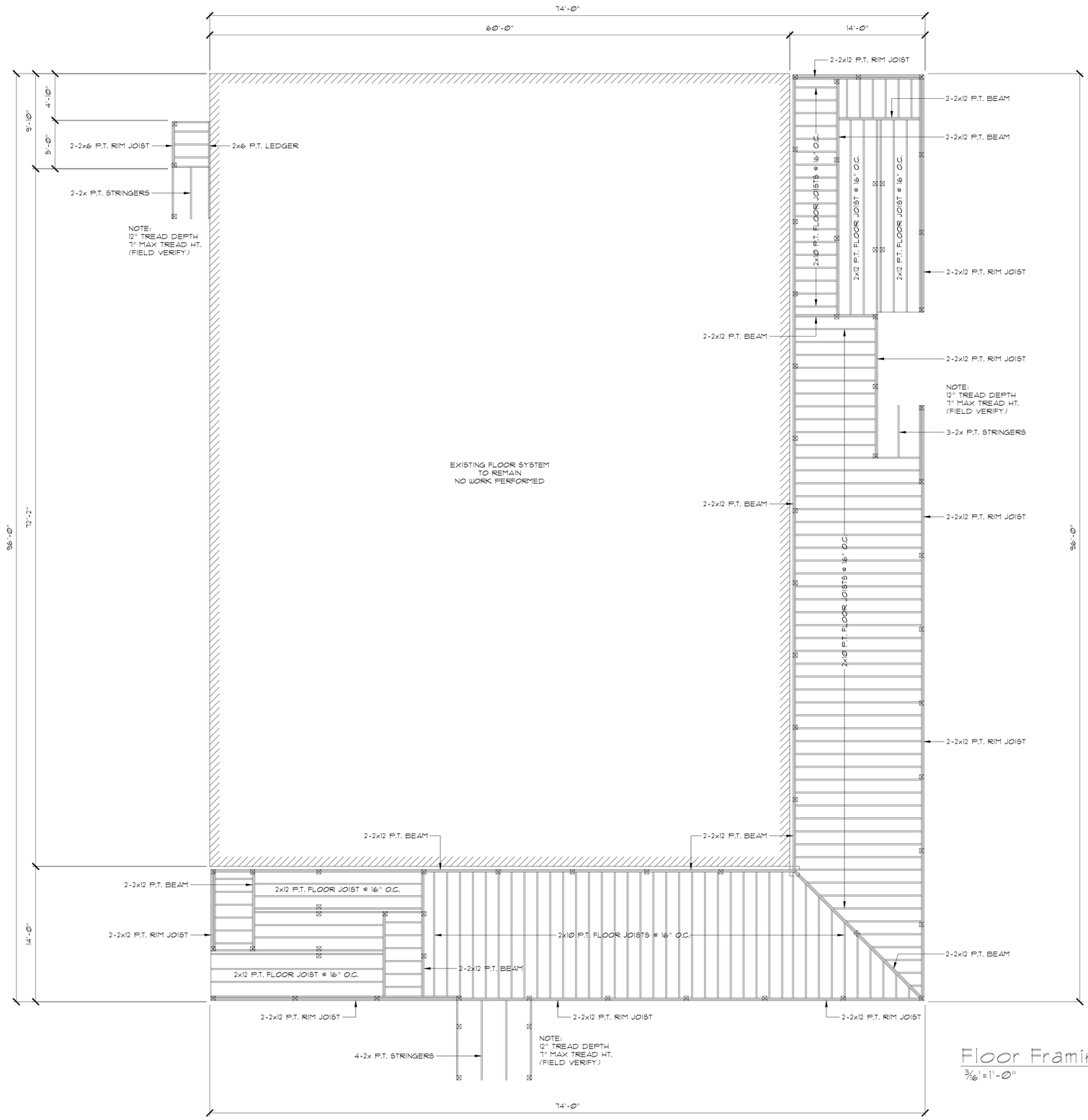
NOTE:
CONTRACTOR/BUILDER
SHALL FIELD VERIFY
ALL DIMENSIONS AND CONDITIONS
PRIOR TO CONSTRUCTION.

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A4



Floor Framing Plan

3/16" = 1'-0"

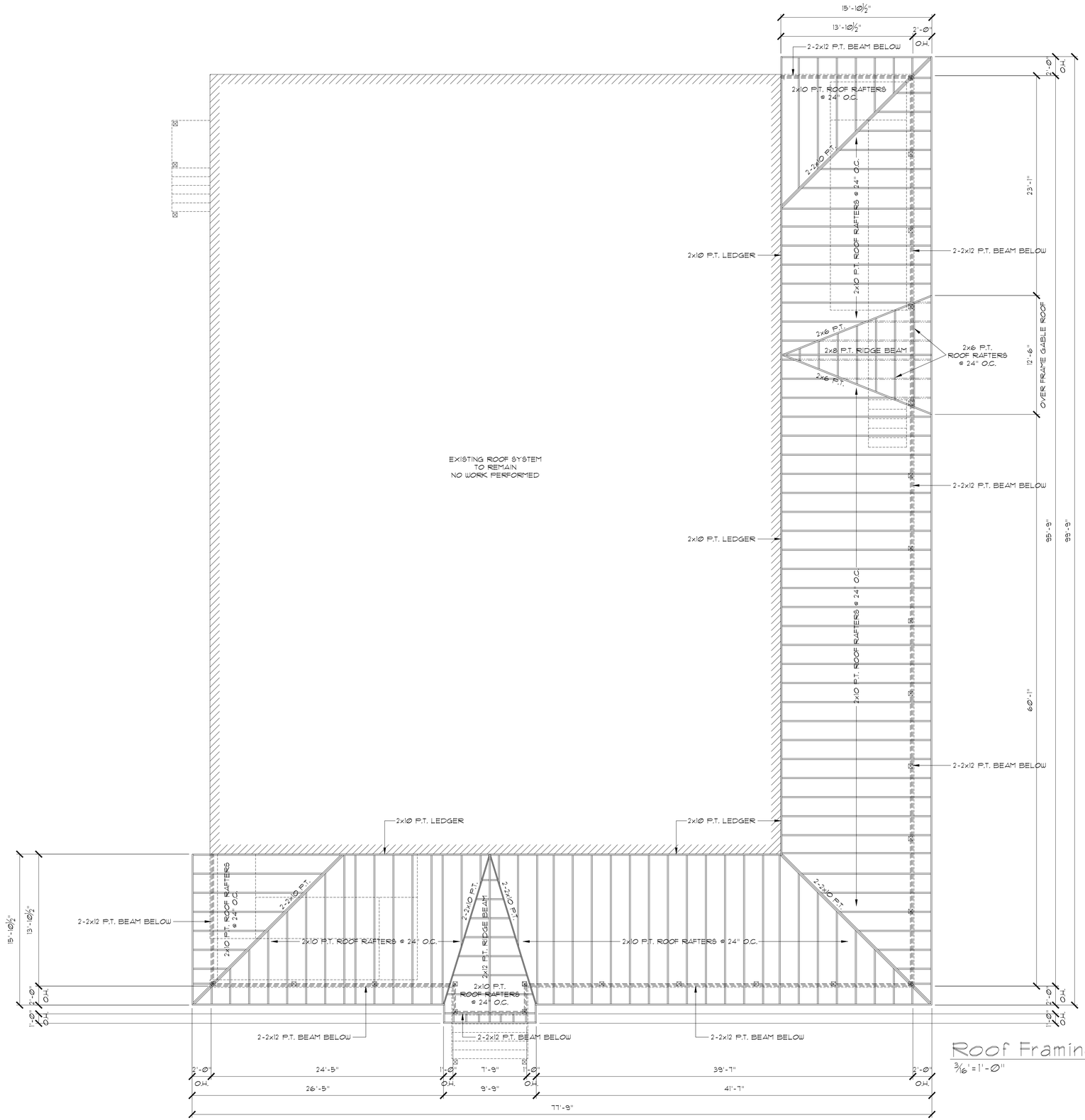
NOTE:
CONTRACTOR/BUILDER
SHALL FIELD VERIFY
ALL DIMENSIONS AND CONDITIONS
PRIOR TO CONSTRUCTION.

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A5



Roof Framing Plan

3/16" = 1'-0"

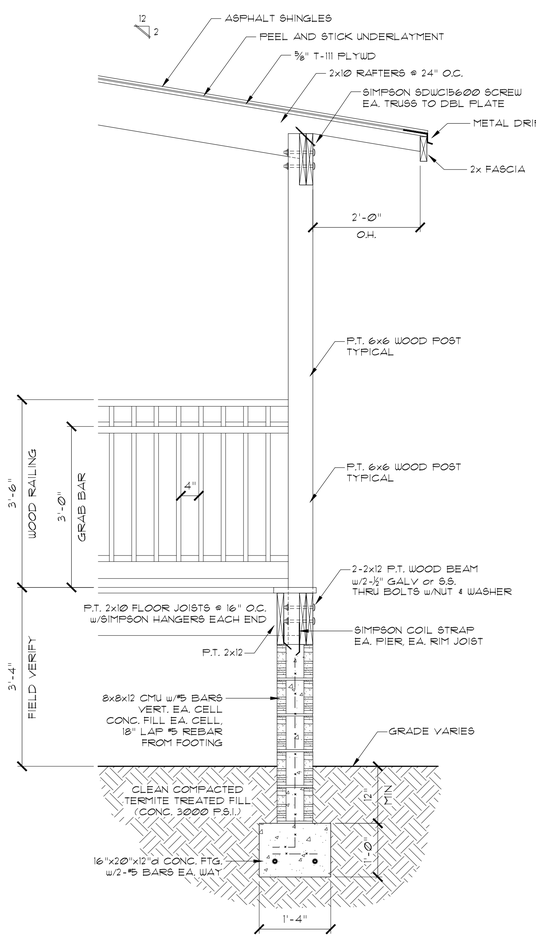
NOTE:
CONTRACTOR/BUILDER
SHALL FIELD VERIFY
ALL DIMENSIONS AND CONDITIONS
PRIOR TO CONSTRUCTION.

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

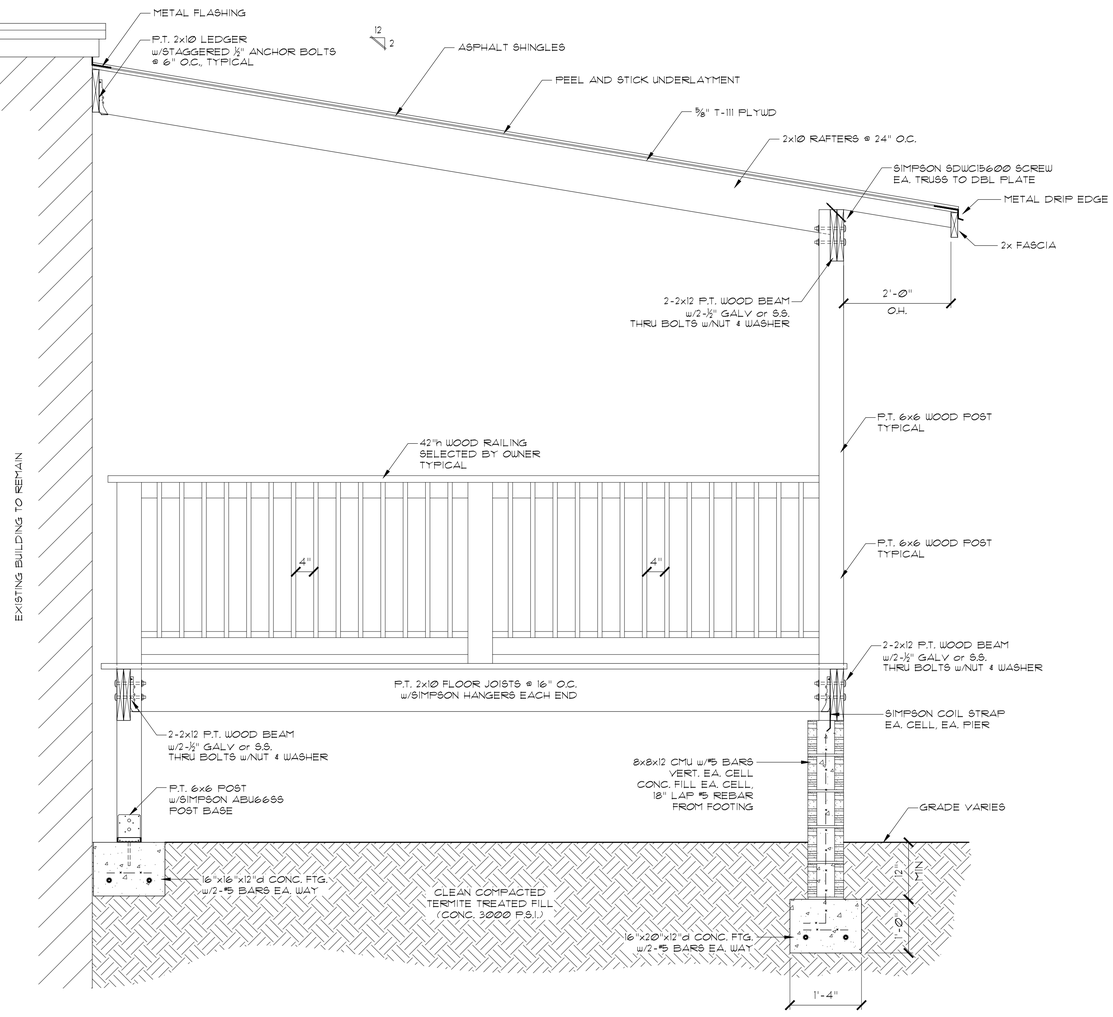
Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A6



Ramp Section

3/4" = 1'-0"



Typ Section

3/4" = 1'-0"

NOTE:
CONTRACTOR/BUILDER
SHALL FIELD VERIFY
ALL DIMENSIONS AND CONDITIONS
PRIOR TO CONSTRUCTION.

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A7

Electrical Legend

- 120V WALL MOUNT DUPLEX RECEPTACLE 12" A.F.F. U.N.O.
- WALL MTD LIGHT, SELECTED BY OWNER
- CEILING MTD LIGHT, SELECTED BY OWNER
- WALL MOUNTED SWITCH - 48" A.F.F. U.N.O
- GFI w/ GROUND FAULT INTERRUPTER
- WP WEATHER PROTECTED
- CEILING MTD FAN WITH LIGHT, SELECTED BY OWNER

Electrical Plan

3/16" = 1'-0"

LES THOMAS
ARCHITECT
32 CORDOVA ST., ST. AUGUSTINE, FLORIDA 824-9508

NEW PORCH
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA

Date:	4.29.22
Scale:	AS NOTED
Drawn:	MURPHY
File:	NEPTUNE

SHEET
A8

NEPTUNE BEACH SENIOR COMMUNITY CENTER

2010 FOREST AVENUE
NEPTUNE BEACH, FLORIDA

PREPARED FOR:

CITY OF NEPTUNE BEACH

PROJECT TEAM:

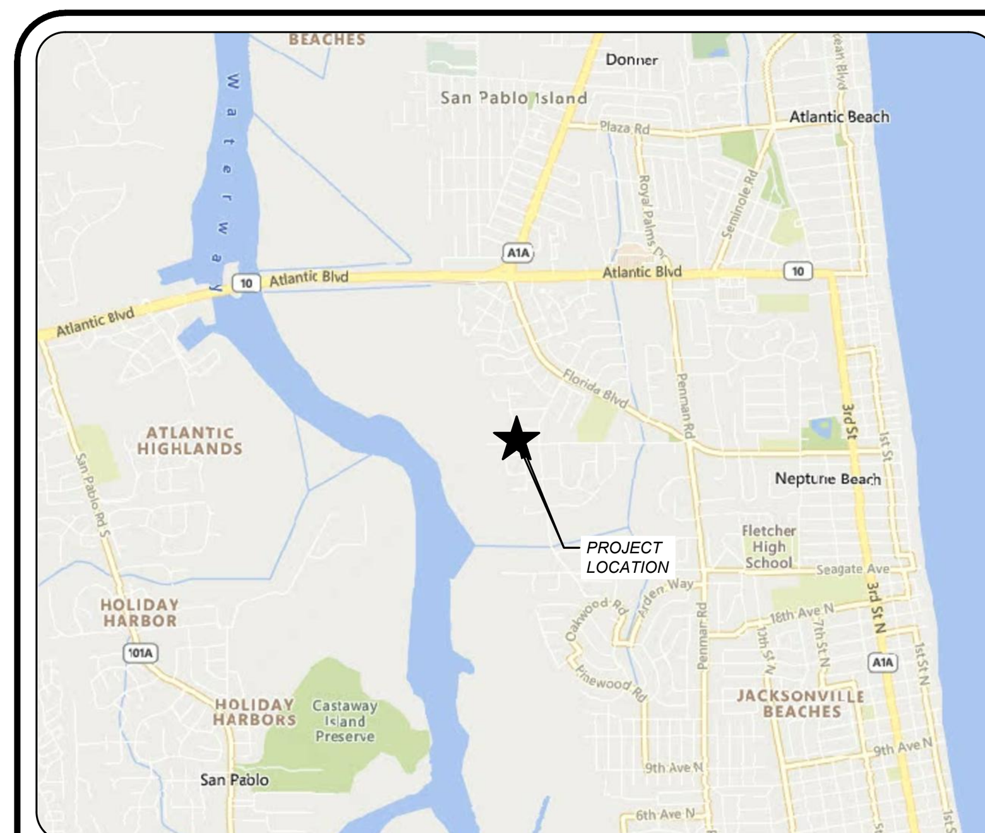
DEVELOPER:
CITY OF NEPTUNE BEACH, FL
2010 FOREST AVENUE
NEPTUNE BEACH, FL 32266
(904) 270-2423

CIVIL ENGINEER:
MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FL 32259
(904) 655-6687
ATTN: JEREMY W. CALLOWAY, PE

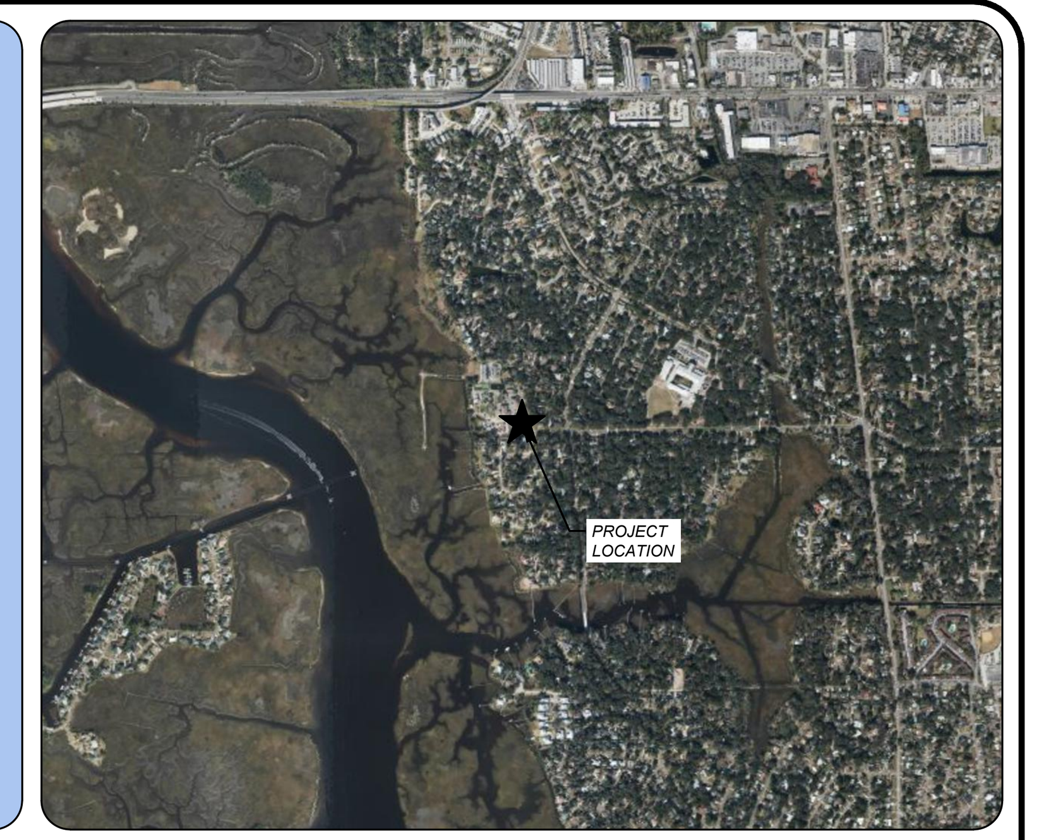
LANDSCAPE ARCHITECT:
MARQUIS LATIMER + HALBACK, INC.
34 CORDOVA STREET, SUITE A
ST. AUGUSTINE, FL 32084
(904) 825-6747
ATTN: JEREMY MARQUIS, RLA

ARCHITECT:
LES THOMAS ARCHITECT
32 CORDOVA STREET
ST. AUGUSTINE, FL 32084
(904) 824-9508
ATTN: LES THOMAS, AIA

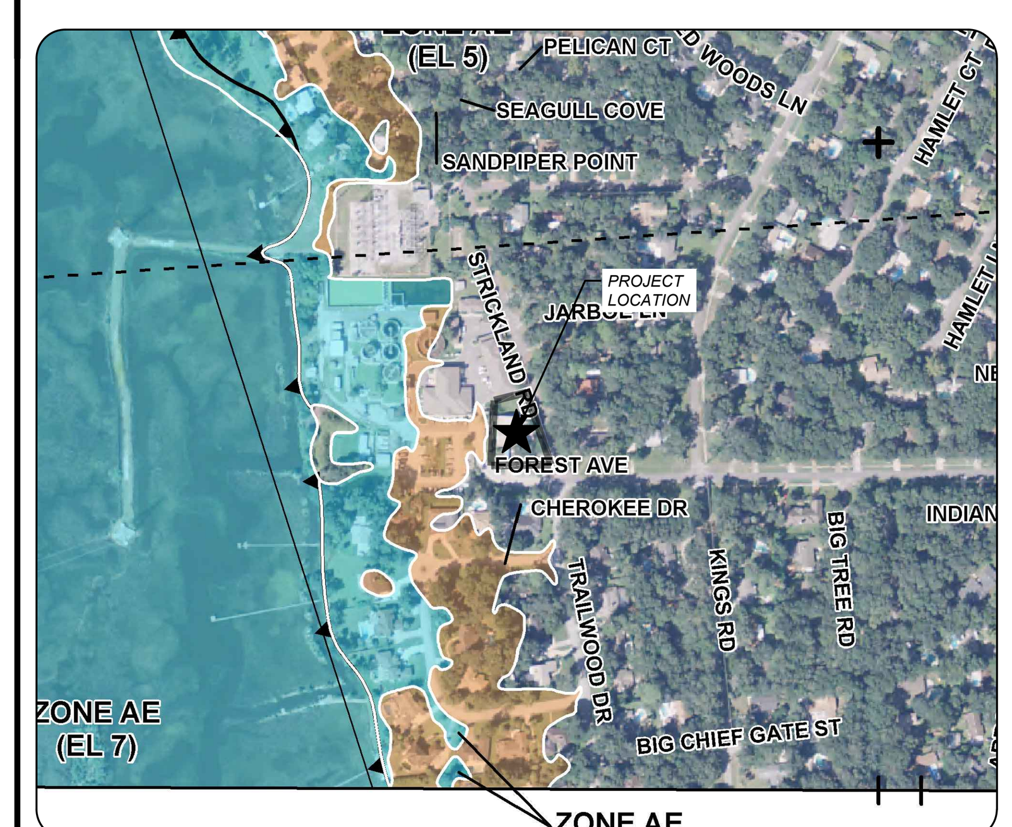
SURVEYOR:
BOATWRIGHT LAND SURVEYORS, INC.
1500 ROBERTS DRIVE
JACKSONVILLE BEACH, FL 32250
(904) 241-8550
ATTN: JASON D. BOATWRIGHT, PSM



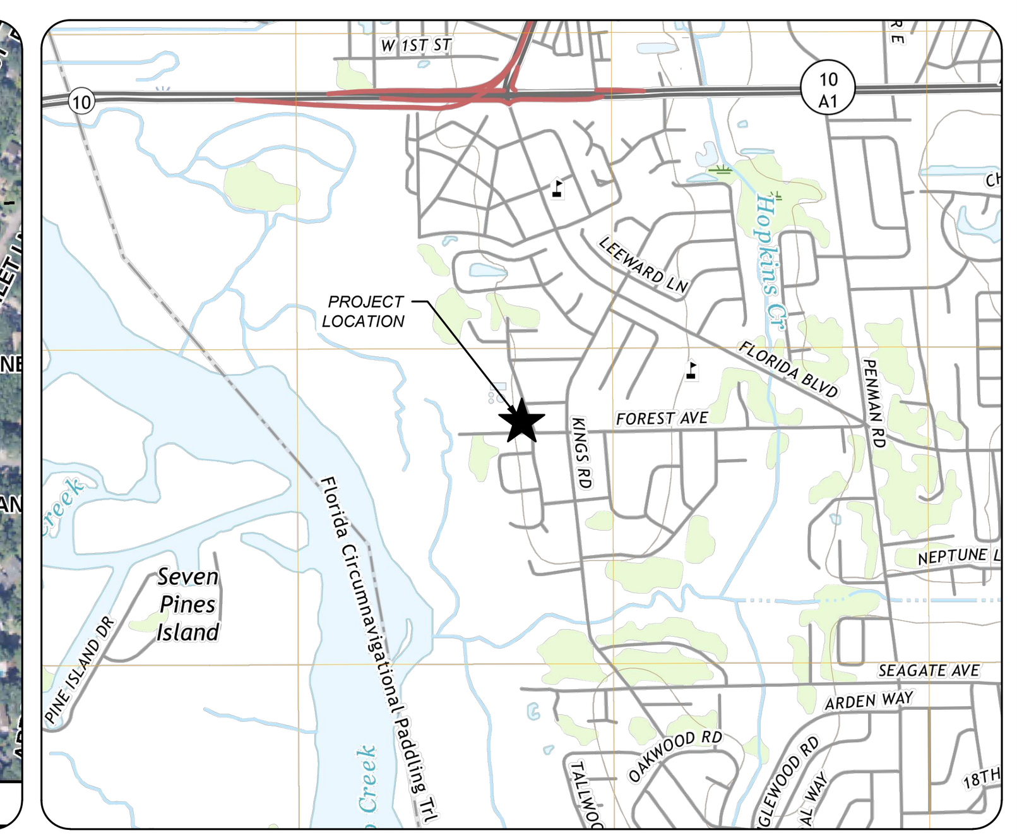
VICINITY MAP - 1" = 4,000'



AERIAL MAP - 1" = 2,000'



FLOOD MAP - 1" = 500'



QUAD MAP - 1" = 2,000'

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
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2	SIGNATURE SHEET
3	GENERAL NOTES
4	SURVEY
5	DEMOLITION & EROSION CONTROL PLAN
6	SITE IMPROVEMENTS PLAN
7	CONSTRUCTION DETAILS
8	SWPPP DETAILS
9	CONTRACTOR CERTIFICATION
L-2.1	HARDSCAPE PLAN
L-2.2	HARDSCAPE DETAILS AND NOTES
L-3.1	LANDSCAPE PLAN AND SCHEDULE
L-3.2	LANDSCAPE NOTES
L-3.3 - L-4.1	LANDSCAPE DETAILS
L-4.1	IRRIGATION PLAN AND SCHEDULE
L-4.2	IRRIGATION DETAILS
L-5.1	IRRIGATION DETAILS
L-5.2	IRRIGATION DETAILS

REGULATORY AGENCIES:

CITY OF NEPTUNE BEACH PUBLIC WORKS DEPARTMENT:
2010 FOREST AVENUE
NEPTUNE BEACH, FL 32266
(904) 270-2423

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT:
7775 BAYMEADOWS WAY, SUITE 102
JACKSONVILLE, FL 32256
(904) 424-3410

GENERAL NOTES:

(1) SEE SURVEY FOR LEGAL DESCRIPTION
(2) ALL ELEVATIONS SHOWN HEREIN ARE REFERENCED TO THE NORTH AMERICAN GEODETIC VERTICAL DATUM 1988 (NAVD88)
(3) ANY AND ALL WORK PERFORMED IN CITY OF NEPTUNE BEACH RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH APPLICABLE CITY STANDARDS.
(4) IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO CONSTRUCTION COMMENCEMENT. IF A DISCREPANCY IS DISCOVERED BETWEEN THE SURVEY, ABOVE AND BELOW GROUND FIELD VERIFICATION, AND/OR APPLICABLE CODES, THE ENGINEER OF RECORD MUST BE NOTIFIED IN WRITING PRIOR TO THE INITIATION OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER OF RECORD SHALL CONSTITUTE FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DETAILED BY THE DRAWINGS AND SPECIFICATIONS AND IN FULL CONFORMANCE WITH APPLICABLE REGULATIONS AND CODES.
(5) THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO ADJACENT PROPERTY AND EXISTING SITE FEATURES TO REMAIN AND WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGE.
(6) IT IS THE APPLICANT'S RESPONSIBILITY TO SCHEDULE A PRE-CONSTRUCTION/ PRE-PERMIT MEETING WITH CITY OF NEPTUNE BEACH AFTER PLANS ARE RELEASED FOR CONSTRUCTION AND BEFORE STARTING ANY SITE CONSTRUCTION ACTIVITIES.

PREPARED BY:

MAVERICK
ENGINEERING

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FLOOD ZONE:

THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE "X" PER FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 12031C0408J, DATED NOVEMBER 2, 2018

PROJECT DATUM: NAVD '88

JEREMY W. CALLOWAY, P.E.
CA#34646 PE#70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

REVISIONS

#	DATE	DESCRIPTION
1	1/28/2022	REVISED PER CLIENT COMMENTS
2	4/18/2022	REVISED PER SJRWMD COMMENTS
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DRAWING BY: PET
DESIGN BY: PET
CHECKED BY: JWC
DATE: 12/06/2021
PROJECT #: 2116

COVER SHEET
NEPTUNE BEACH SENIOR COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
PREPARED FOR:
CITY OF NEPTUNE BEACH

1
OF 9

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JEREMY W. CALLOWAY, P.E. ON THE DATE ADJACENT TO THE SEAL

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THE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES
4	SURVEY
5	DEMOLITION & EROSION CONTROL PLAN
6	SITE IMPROVEMENTS PLAN
7	CONSTRUCTION DETAILS
8	SWPPP DETAILS

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JEREMY MARQUIS, RLA ON THE DATE ADJACENT TO THE SEAL

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THE NAMED PROFESSIONAL LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G1-16.005, F.A.C.

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
L-2.1	HARDSCAPE PLAN
L-2.2	HARDSCAPE DETAILS AND NOTES
L-3.1	LANDSCAPE PLAN AND SCHEDULE
L-3.2	LANDSCAPE NOTES
L-3.3 - L-4.1	LANDSCAPE DETAILS
L-4.1	IRRIGATION PLAN AND SCHEDULE
L-4.2	IRRIGATION DETAILS
L-5.1	IRRIGATION DETAILS
L-5.2	IRRIGATION DETAILS

JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER

JEREMY W. CALLOWAY, P.E.
CA#34646 PE# 70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

REVISIONS

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DRAWING BY: PET
DESIGN BY: PET
CHECKED BY: JWC
DATE: 12/06/2021
PROJECT #: 2116

SIGNATURE SHEET

NEPTUNE BEACH SENIOR COMMUNITY CENTER

NEPTUNE BEACH, FLORIDA

PREPARED FOR:
CITY OF NEPTUNE BEACH

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE JOB SITE TO INSURE THAT ALL NEW WORK WILL FIT IN THE MANNER INTENDED ON THE PLANS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE LOCAL GOVERNING BODY OF SUCH DIFFERENCES IMMEDIATELY AND PRIOR TO PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AS SET FORTH BY THE WATER MANAGEMENT DISTRICT AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
3. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION SITE IN A SECURE MANNER. ALL OPEN TRENCHES AND EXCAVATED AREAS SHALL BE PROTECTED FROM ACCESS BY THE GENERAL PUBLIC.
4. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE ENGINEER.
5. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT AND EROSION CONTROLS PRIOR TO ANY EARTH DISTURBING ACTIVITIES. ALL COMPONENTS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL VEGETATION IS ESTABLISHED, THE ENTIRE PROJECT AREA IS STABILIZED, AND THE OWNER HAS ACCEPTED OPERATION AND MAINTENANCE.
6. ALL DISTURBED AREAS NOT SODDED SHALL BE SEEDED WITH A MIXTURE OF LONG-TERM VEGETATION AND QUICK GROWING SHORT-TERM VEGETATION FOR THE FOLLOWING CONDITIONS. FOR THE MONTHS FROM SEPTEMBER THROUGH MARCH, THE MIX SHALL CONSIST OF 70 POUNDS PER ACRE OF LONG-TERM SEED AND 20 POUNDS PER ACRE OF WINTER RYE. FOR THE MONTHS OF APRIL THOUGH AUGUST, THE MIX SHALL CONSIST OF 70 PER ACRE OF LONG-TERM SEED AND 20 POUNDS PER ACRE OF MILLET.
7. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL UTILITIES WITHIN THE PROJECT AREAS.
8. ALL UTILITY CONSTRUCTION SHALL MEET THE WATER AND WASTEWATER UTILITY STANDARDS OF THE UTILITY SERVICE PROVIDER IN THE PROJECT AREA.
9. THE CONTRACTOR SHALL WASTE ALL EXCESS EARTH ON SITE AS DIRECTED BY THE ENGINEER.
10. ALL SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL GOVERNING BODY'S LAND DEVELOPMENT REGULATIONS.
11. CONTRACTOR SHALL REVIEW AND BECOME FAMILIAR WITH ALL REQUIRED UTILITY CONNECTIONS PRIOR TO BIDDING. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS REQUIRED TO COMPLETE CONNECTION TO THE EXISTING UTILITIES. THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE CORING, WET TAPS, PAVEMENT REPAIRS AND DIRECTIONAL BORING.
12. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS WITHIN PROJECT AREA.
13. CONTRACTOR SHALL PROVIDE ACTUAL INVERT ELEVATIONS ON ALL DRAINAGE STRUCTURES, INCLUDING CULVERTS, PRIOR TO PLACING ANY BASE MATERIAL. DEVIATIONS FROM THE PLANS SHALL BE APPROVED BY THE ENGINEER BEFORE CONTINUING WORK.
14. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CURRENT EDITION) AND THE F.D.O.T. DESIGN STANDARDS (CURRENT EDITION), AWWA SPECIFICATIONS, AND THE LOCAL GOVERNING BODY'S DEVELOPMENT STANDARDS UNLESS OTHERWISE NOTED.
15. IF UNSUITABLE MATERIAL IS ENCOUNTERED DURING GRADING, CONTRACTOR SHALL REMOVE UNSUITABLE MATERIAL TO A DEPTH OF 24" BELOW FINISHED GRADE WITHIN THE CONSTRUCTION LIMITS AND REPLACE WITH CLEAN COARSE SAND HAVING NO MORE THAN 5% PASSING THE No. 200 SIEVE KVS= 23.4 FT/DAY.
16. THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNING BODY AT LEAST 48 HOURS IN ADVANCE PRIOR TO BEGINNING OF CONSTRUCTION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION COMMENCEMENT NOTICE AND NOTIFYING THE ENGINEER OF THE CONSTRUCTION SCHEDULE.
18. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCING AND NO TRESPASSING SIGNS FOR THE DURATION OF CONSTRUCTION.
19. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING.
20. THESE DRAWINGS REPRESENT KNOWN STRUCTURES AND UTILITIES LOCATED IN THE PROJECT AREA. THE CONTRACTOR IS CAUTIONED THAT OTHER STRUCTURES AND UTILITIES, ABOVE OR BELOW GROUND, MAY BE ENCOUNTERED DURING THE COURSE OF THE PROJECT. THE CONTRACTOR SHOULD NOTIFY THE ENGINEER IMMEDIATELY UPON ENCOUNTERING ANY UNEXPECTED STRUCTURE, UTILITY LINE, OR OTHER UNUSUAL CONDITION.
21. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION.
22. ADEQUATE PROVISIONS SHALL BE MADE FOR FLOW OF SEWERS, DRAINS, AND WATER COURSES ENCOUNTERED DURING CONSTRUCTION.
23. THE CONTRACTOR SHALL PLACE AND MAINTAIN ADEQUATE BARRICADES, CONSTRUCTION SIGNS, FLASHING LIGHTS, TORCHES, RED LANTERNS AND GUARDS DURING CONSTRUCTION WORK UNTIL IT IS SAFE FOR BOTH PEDESTRIAN AND VEHICULAR TRAFFIC.
24. ALL DEMOLISHED ASPHALT, CONCRETE, PIPE, STRUCTURES AND OTHER DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A LEGAL MANNER.
25. MAINTAIN 12" VERTICAL SEPARATION BETWEEN ALL POTABLE WATER MAINS AND SANITARY SEWER GRAVITY AND FORCE MAINS.
26. WHERE WATER MAINS CROSS THE SANITARY SEWER, THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A DISTANCE OF 10 FEET BOTH SIDES OF THE WATER MAIN, UNLESS A MINIMUM OF 12" VERTICAL SEPARATION IS MAINTAINED WITH THE WATER ABOVE TO SEWER MAIN.
27. ALL NEW SEWER MAINS SHALL HAVE A MINIMUM COVER OF 36".
28. ALL EXISTING DRIVES, ROADS, CULVERTS, ETC. THAT ARE DAMAGED DURING CONSTRUCTION ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION.
29. ALL DISTURBED AREAS ARE TO BE CLEANED, GRADED AND ROLLED TO ORIGINAL CONTOURS, HYDROSEEDED TO DOT SPECIFICATIONS UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR SHALL MAINTAIN DISTURBED AREAS UNTIL A SATISFACTORY STAND OF GRASS IS ESTABLISHED WITHOUT BARE SECTIONS OR ERODED AREAS.
30. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED AS-BUILTS BY A LICENSED PLS TO THE EOR FOR REVIEW AND APPROVAL.

EROSION CONTROL NOTES

1. THIS EROSION AND SEDIMENTATION CONTROL PLAN COMPLIES WITH THE REQUIREMENTS OF THE "FLORIDA DEVELOPMENT MANUAL" AND THE "FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL".
2. THE CONTRACTOR SHALL ADHERE TO THE LOCAL GOVERNING BODY, F.D.E.P, AND OTHER GOVERNING AUTHORITIES FOR EROSION AND SEDIMENT CONTROL REGULATIONS. IF THE CONTRACTOR NEEDS TO CHANGE THIS PLAN TO MORE EFFECTIVELY CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR SHALL USE BMP's FROM THE "FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL".
3. THE CONTRACTOR SHALL ADJUST AND REVISE THIS PLAN TO MEET ACTUAL FIELD CONDITIONS. ANY REVISIONS SHALL BE APPROVED BY THE REVIEWING AGENCIES.
4. SEDIMENT AND EROSION CONTROL FACILITIES, STORM DRAINAGE FACILITIES AND DETENTION BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
5. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL AND REPLACED AS NECESSARY.
6. SEDIMENT AND EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETE AND UNTIL A PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
7. ALL OPEN DRAINAGE SWALES SHALL BE GRASSED AND RIPRAP SHALL BE PLACED AS REQUIRED TO CONTROL EROSION.
8. SILT FENCES SHALL BE LOCATED ON SITE TO PREVENT SEDIMENT AND EROSION FROM LEAVING PROJECT LIMITS.
9. CONTRACTOR SHALL PLACE A DOUBLE ROW OF SILT FENCE IN AREAS WHERE RUNOFF FROM DISTURBED AREAS MAY ENTER WETLANDS.
10. DURING CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE, ALL STRUCTURES SHALL BE CLEANED OF ALLDEBRIS AND EXCESS SEDIMENT.
11. ALL GRADED AREAS SHALL BE STABILIZED IMMEDIATELY WITH A TEMPORARY FAST-GROWING COVER AND/OR MULCH.
12. A PAD OF RUBBLE RIP RAP SHALL BE PLACED AT THE BOTTOM OF ALL COLLECTION FLUMES AND COLLECTION PIPE OUTLETS. GRANITE OR LIMESTONE RIPRAP IS REQUIRED, NO BROKEN CONCRETE WILL BE ACCEPTED.
13. ALL SIDE SLOPES STEEPER THAN 3:1 SHALL BE ADEQUATELY PROTECTED FROM EROSION THROUGH THE USE OF HAY BALES OR SODDING.
14. ALL STABILIZATION PRACTICES SHALL BE INITIATED AS SOON AS PRACTICABLE IN AREAS OF THE JOB WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY STOPPED, BUT IN NO CASE SHALL THE DISTURBED AREA BE LEFT UNPROTECTED FOR MORE THAN SEVEN DAYS.
15. ALL WASTE GENERATED ON THE PROJECT SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY CONTRACTOR.
16. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPS.
17. EXCESS DIRT SHALL BE REMOVED DAILY.
18. THIS PROJECT SHALL COMPLY WITH ALL WATER QUALITY STANDARDS.
19. QUALIFIED PERSONNEL SHALL INSPECT THE AREA USED FOR STORAGE OF STOCKPILES, THE SILT FENCE AND STRAW BALES, THE LOCATION WHERE VEHICLES ENTER OR EXIT THE SITE, AND THE DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED, AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM OF 0.5 INCHES OR GREATER.
20. SITES THAT HAVE BEEN FINALLY STABILIZED WITH SOD OR GRASSING SHALL BE INSPECTED AT LEAST ONCE EVERY WEEK.

RIGHT-OF-WAY CONSTRUCTION NOTES

ALL WORK IN THE COUNTY RIGHT OF WAY SHALL CONFORM TO THE FOLLOWING:

1. CONTRACTOR SHALL NOTIFY THE COUNTY PUBLIC WORKS DEPT. 24 HOURS IN ADVANCE OF STARTING PROPOSED WORK.
2. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT STANDARD INDEXES.
3. ALL DISTURBED AREAS IN THE COUNTY RIGHT OF WAY NOT RESTORED AS PAVEMENT SHALL BE SODDED.
4. RPM'S SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD INDEX 17352.
5. ALL PERMANENT STRIPING IN COUNTY R.O.W. SHALL BE THERMOPLASTIC.

WATER AND SEWER NOTES

1. ALL UTILITY CONSTRUCTION SHALL MEET THE UTILITY PROVIDER AND LOCAL GOVERNING BODY'S WATER AND WASTEWATER UTILITY STANDARDS.
2. THE CONTRACTOR SHALL MAINTAIN EXISTING WATER MAINS IN SERVICE DURING CONSTRUCTION. IN THE EVENT INTERRUPTIONS TO SERVICE ARE REQUIRED DURING CONSTRUCTION, SUCH INSTANCES SHALL BE MINIMIZED.
3. ALL NEW OR RELOCATED WATER MAINS THAT SERVE FIRE HYDRANTS AND ALL FIRE HYDRANT LEADS SHALL BE NO SMALLER THAN SIX INCHES IN DIAMETER. AUXILIARY VALVES SHALL BE PROVIDED ON ALL HYDRANT LEADS.
4. SUFFICIENT VALVES SHALL BE PROVIDED IN NEW AND RELOCATED WATER MAINS SO THAT INCONVENIENCE AND SANITARY HAZARDS WILL BE MINIMIZED DURING REPAIRS. (VALVES SHALL BE PLACED IN NO MORE THAN 500-FOOT INTERVALS IN COMMERCIAL DISTRICTS AND AT NO MORE THAN ONE-BLOCK OR 800-FOOT INTERVALS IN OTHER DISTRICTS.)
5. IF THERE ARE ANY NEW OR RELOCATED WATER MAINS THAT CROSS UNDER ANY SURFACE WATER, A MINIMUM COVER OF TWO FEET SHALL BE PROVIDED OVER THE WATER MAIN PIPE AT EACH SURFACE WATER CROSSING, AND IF THE SURFACE WATER IS GREATER THAN 15 FEET IN WIDTH, THE FOLLOWING FEATURES SHALL BE PROVIDED: (A) FLEXIBLE WATER TIGHT JOINTS FOR THE WATER MAIN PIPE AT THE CROSSING, (B) EASILY ACCESSIBLE VALVES LOCATED IN A MANHOLE, AND (C) PERMANENT TAPS ON EACH SIDE OF THE VALVE WITHIN THE MANHOLE TO ALLOW FOR SAMPLING AND INSERTION OF A SMALL METER TO DETERMINE LEAKAGE.
6. PROPER BACKFLOW-PREVENTION ASSEMBLIES/DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH RULE 62-555.360, F.A.C., AND THE AWWA'S MANUAL M/4, RECOMMENDED PRACTICE FOR BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL.
7. THIS PROJECT SHALL NOT INCLUDE ANY INTERCONNECTION BETWEEN PREVIOUSLY SEPARATE PUBLIC WATER SYSTEMS THAT HAVE SEPARATE WATER SUPPLY SOURCES. (A SPECIFIC CONSTRUCTION PERMIT IS REQUIRED FOR SUCH AN INTERCONNECTION.)
8. ALL NEW RELOCATED WATER LATERALS THAT CROSS ANY SANITARY SEWERS, STORM SEWERS, FORCE MAINS, OR RECLAIMED WATER LINES SHALL CROSS ABOVE SUCH PIPELINES.
9. CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY MEETING THE REQUIREMENTS OF CHAPTER 61G17 F.A.C. FOR THE POTABLE WATER MAIN EXTENSION AND THE SANITARY SEWER MAIN EXTENSIONS. INCLUDE HORIZONTAL AND VERTICAL DIMENSIONAL DATA SO THAT IMPROVEMENTS ARE LOCATED AND DELINEATED RELATIVE TO THE BOUNDARY. PROVIDE SUFFICIENT DETAILED DATA TO DETERMINE WHETHER THE IMPROVEMENTS WERE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. SUBMIT THE SURVEY TO THE ENGINEER IN DIGITAL AUTOCAD FORMAT.
10. COPPER TRACER WIRE SHALL BE PLACED ON ALL POTABLE WATER LINES AND WATER LATERALS. TRACER WIRE SHALL BE CONTINUOUS WITH NO INTERRUPTIONS.
11. LOCATOR BALLS SHALL BE PROVIDED AT END OF ALL WATER AND SANITARY SEWER LATERALS. THE LOCATOR BALLS SHALL BE SECURED TO THE LATERALS WITH A PLASTIC TIE STRAP.
12. WATER AND SANITARY SEWER LATERALS SHALL BE LEFT UNCOVERED UNTIL INSPECTED BY THE ENGINEER OR THE ENGINEER'S INSPECTOR.
13. CONTRACTOR SHALL PROVIDE TEMPORARY STAKES (2" BY 2" WOODEN STAKES) AT THE END OF EACH LATERAL. EACH STAKE SHALL INDICATE EITHER WATER OR SANITARY SEWER LATERAL. CONTRACTOR SHALL MAINTAIN THE STAKES UNTIL AN AS-BUILT SURVEY OF WATER AND SANITARY SEWER MAINS AND LATERALS ARE COMPLETE AND APPROVED BY THE ENGINEER.
14. MEGALUG MECHANICAL JOINT RESTRAINTS OR SERIES 1390 UNI-FLANGE BLOCK BUSTER RESTRAINT DEVICES SHALL BE USED WITH MANUFACTURER'S RECOMMENDATIONS. ALL RESTRAINED JOINTING MUST BE LEFT OPEN UNTIL VIEWED BY THE CITY INSPECTOR.
15. FOR SANITARY SEWER PERFORM HYDROSTATIC TEST. ALLOWABLE LEAKAGE IS A MAXIMUM OF 50 GAL. PER INCH OF NOMINAL PIPE SIZE PER MILE OF PIPE, DURING A 24-HOUR PERIOD. OPTION: TEST DUCTILE-IRON PIPING ACCORDING TO AWWA C600, SECTION "HYDROSTATIC TESTING". USE TEST PRESSURE OF AT LEAST 10 PSI. FOR SANITARY SEWERAGE, PERFORM AIR TEST ACCORDING TO UNI-B-6.
16. FOR SANITARY SEWERAGE ALIGNMENT: EACH SECTION OF THE COMPLETED SEWER SYSTEM SHALL BE INSPECTED FOR PROPER ALIGNMENT. INSPECTION SHALL CONSIST OF "LAMPING" FROM MANHOLE TO MANHOLE. ANY SECTION OF THE SEWER SYSTEM, WHICH DOES NOT DISPLAY TRUE, CONCENTRIC ALIGNMENT, SHALL BE INSTALLED AT NO ADDITIONAL EXPENSE TO THE OWNER.
17. CLEAN AND DISINFECT WATER DISTRIBUTION PIPING SYSTEMS AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED OR REPAIRED BEFORE USE. USE PURGING AND DISINFECTING PROCEDURE PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR USE PROCEDURE PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR USE PROCEDURE DESCRIBED IN AWWA C651.
18. PVC GRAVITY FLOW SEWER PIPE AND FITTINGS 15 INCH AND SMALLER IN DIAMETER SHALL BE SDR35 PIPE WITH BELL AND SPIGOT GASKET JOINT THAT COMPLIES WITH THE REQUIREMENTS OF ASTM D3034.
19. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
20. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATIONS, OR REQUIREMENTS REFERENCED IN PARAGRAPH 62- 555.320(3)(B), F.A.C.
21. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LED.
22. ALL WATER PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B) 3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR WILL BE COLOR-CODED OR MARKED LIKE UNDERGROUND PIPE.)
23. SUFFICIENT VALVES SHALL BE PROVIDED ON NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SO THAT INCONVENIENCE AND SANITARY HAZARDS WILL BE MINIMIZED DURING REPAIRS.
24. ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL HAVE UNPLUGGED, UNDERGROUND DRAINS SHALL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER; CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER; OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-10, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
25. NEW OR ALTERED CHAMBERS, PITS, OR MANHOLES THAT CONTAIN VALVES, BLOW-OFFS, METERS, OR OTHER SUCH WATER DISTRIBUTION SYSTEM APPURTENANCES AND THAT ARE INCLUDED IN THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER, AND BLOW-OFFS OR AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT SHALL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER.
26. NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS OR IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED PROCEDURES.
27. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT.
28. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS INSTALLED UNDER THIS PROJECT SHALL BE PROVIDED WITH RESTRAINED JOINTS TO PREVENT MOVEMENT.
29. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE CONSTRUCTED OF ASBESTOS-CEMENT OR POLYVINYL CHLORIDE PIPE SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C., AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-555.330.
30. NEW OR ALTERED WATER MAINS, INCLUDING FIRE HYDRANT LEADS AND INCLUDING SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, SHALL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62-555.340, F.A.C.
31. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE INSTALLED IN AREAS WHERE THERE ARE KNOWN AGGRESSIVE SOIL CONDITIONS SHALL BE PROTECTED THROUGH USE OF CORROSION-RESISTANT WATER MAIN MATERIALS, THROUGH ENCASEMENT OF THE WATER MAINS IN POLYETHYLENE, OR THROUGH PROVISION OF CATHODIC PROTECTION.
32. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
33. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL HAVE A HORIZONTAL DISTANCE OF AT LEAST SIX AND TEN FEET IS PREFERRED BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER, EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
34. THE HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST TWELVE INCHES ABOVE THE TOP OF THE SEWER.
35. A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
36. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE.
37. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, SEPARATION DISTANCE SHALL NOT APPLY WHERE A WATER SERVICE PIPE CROSSES A SEWER PIPE, PROVIDED THE WATER SERVICE PIPE IS SLEEVED TO AT LEAST FIVE FEET HORIZONTALLY FROM THE SEWER PIPE CENTERLINE ON BOTH SIDES OF SUCH CROSSINGS PIPE MATERIAL LISTED IN FLORIDA BUILDING CODE SECTION 603.2.
38. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ABOVE SURFACE WATER SHALL BE ADEQUATELY SUPPORTED AND ANCHORED, PROTECTED FROM DAMAGE AND FREEZING, AND ACCESSIBLE FOR REPAIR OR REPLACEMENT.
39. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS UNDER SURFACE WATER COURSES GREATER THAN 15 FEET IN WIDTH SHALL HAVE FLEXIBLE OR RESTRAINED, WATERTIGHT PIPE JOINTS AND WILL INCLUDE VALVES AT BOTH ENDS OF THE WATER CROSSING SO THE UNDERWATER MAIN CAN BE ISOLATED FOR TESTING AND REPAIR; THE AFOREMENTIONED ISOLATION VALVES WILL BE EASILY ACCESSIBLE AND WILL NOT BE SUBJECT TO FLOODING; THE ISOLATION VALVE CLOSEST TO THE WATER SUPPLY SOURCE WILL BE IN A MANHOLE; AND PERMANENT TAPS WILL BE PROVIDED ON EACH SIDE OF THE ISOLATION VALVE WITHIN THE MANHOLE TO ALLOW FOR INSERTION OF A SMALL METER TO DETERMINE LEAKAGE FROM THE UNDERWATER MAIN AND TO ALLOW FOR SAMPLING OF WATER FROM THE UNDERWATER MAIN.
40. AIR RELIEF VALVES SHALL BE INSTALLED AT HIGH POINTS IN THE FORCE MAIN AT ANY LOCATIONS HAVING 3' OR GREATER ELEVATION CHANGE WITHIN 100 LF OF LINE.

JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER

JEREMY W. CALLOWAY, P.E.
CA#34646 PE#70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

REVISIONS

#	DATE	DESCRIPTION
1	1/28/2022	REVISED PER CLIENT COMMENTS
2	4/18/2022	REVISED PER SJRWMD COMMENTS
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---	---	---

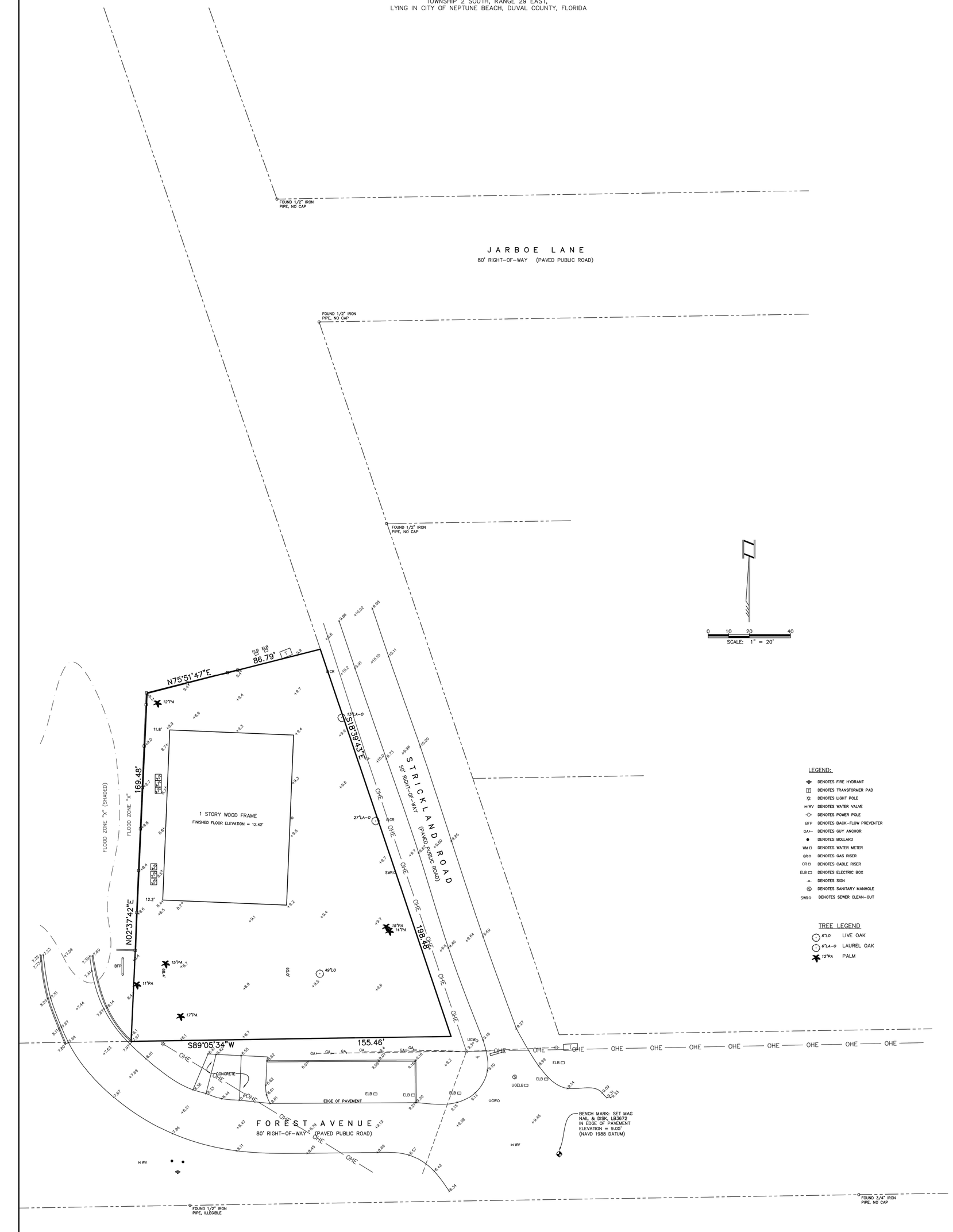
DRAWING BY: PET
DESIGN BY: PET
CHECKED BY: JWC
DATE: 12/06/2021
PROJECT #: 2116

GENERAL NOTES

NEPTUNE BEACH SENIOR COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
PREPARED FOR:
CITY OF NEPTUNE BEACH

MAP SHOWING SURVEY OF

BEING A PORTION OF B DE CASTRO Y FERRER GRANT, SECTION 38,
TOWNSHIP 2 SOUTH, RANGE 29 EAST,
LYING IN CITY OF NEPTUNE BEACH, DUVAL COUNTY, FLORIDA



LEGEND:

- DENOTES FIRE HYDRANT
- DENOTES TRANSFORMER PAD
- DENOTES LIGHT POLE
- WV DENOTES WATER VALVE
- DENOTES POWER POLE
- BFP DENOTES BACK-FLOW PREVENTER
- GA DENOTES GUY ANCHOR
- DENOTES BOLLARD
- WM DENOTES WATER METER
- GR DENOTES GAS RISER
- CR DENOTES CABLE RISER
- ELB DENOTES ELECTRIC BOX
- DENOTES SIGN
- S DENOTES SANITARY MANHOLE
- SWR DENOTES SEWER CLEAN-OUT

TREE LEGEND

- 6"LO LIVE OAK
- 6"LA-O LAUREL OAK
- 12"PA PALM

NOTES:
1. THIS IS A TOPOGRAPHIC SURVEY WITH TREE LOCATION.
2. BEARINGS BASED ON FLORIDA STATE PLANE EAST ZONE NAD 83 DATUM. ESTABLISH BY GPS.
3. BENCHMARK USED IS A SET MAG NAIL & DISK, LB 3672, ELEVATION = 9.05' (N.A.V.D. 1988), ESTABLISHED BY GPS OBSERVATIONS USING SPECTRA PRECISION SP 80.

THE PROPERTY DESCRIBED HEREON LIES IN FLOOD ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) AND FLOOD ZONE "X" (SHADED, AREA OF 0.2% ANNUAL CHANCE OF FLOOD HAZARD) AS DETERMINED FROM THE FLOOD INSURANCE RATE MAP No. 12031C0408J, REVISED NOVEMBER 2, 2018 FOR DUVAL COUNTY, FLORIDA.

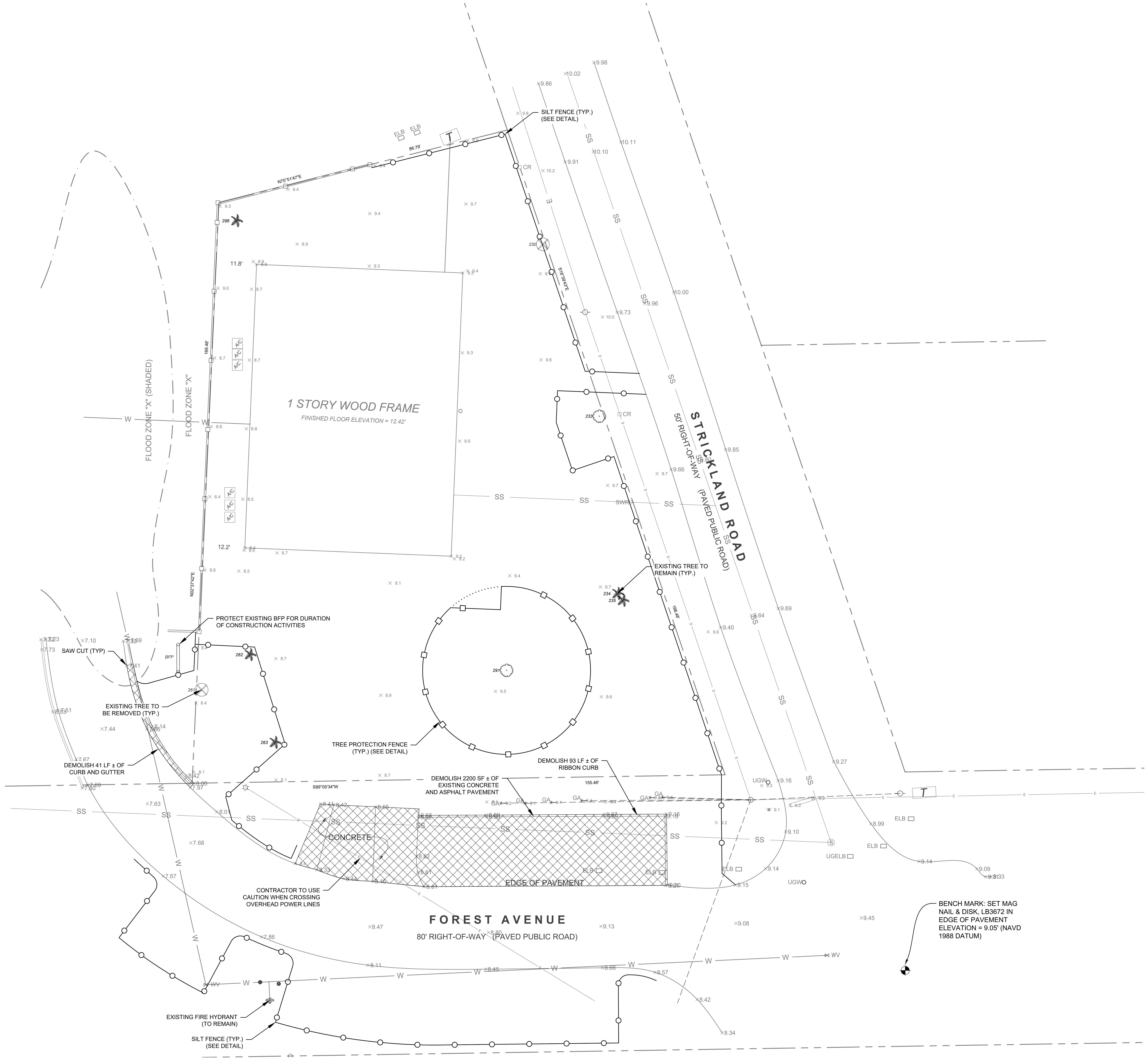
"NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER."

THIS SURVEY IS CERTIFIED TO:
NEPTUNE BEACH SENIOR CENTER; CITY OF NEPTUNE BEACH

JASON D. BOATWRIGHT, P.S.M.
FLORIDA LICENSED SURVEYOR and MAPPER No. LS 7292
FLORIDA LICENSED SURVEYING & MAPPING BUSINESS No. LB 3672

BOATWRIGHT LAND SURVEYORS, inc.
1500 ROBERTS DRIVE JACKSONVILLE BEACH, FLORIDA (904)241-8550

CHECKED BY: FILE: DRAWN BY: DATE: OCTOBER 30, 2021 SHEET 1 OF 1



N
W E
S

0 1' 2'
1" = 15'

EXISTING LEGEND

- PROPERTY / RIGHT OF WAY
- EXISTING EDGE OF PAVEMENT
- EXISTING WALL
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FLOOD LINE
- EXISTING TREE TO BE REMOVED
- EXISTING OAK TREE TO REMAIN
- EXISTING PALM TREE TO REMAIN

PROPOSED LEGEND

- PROPOSED SILT FENCE
- PROPOSED TREE PROTECTION FENCE

HATCH LEGEND	
	DEMOLISH

GENERAL NOTES:

1. EXISTING FEATURES SHOWN PER SURVEY PROVIDED BY BOATWRIGHT LAND SURVEYORS, INC., AND PER CITY OF NEPTUNE BEACH HISTORICAL RECORDS. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING FEATURES PRIOR TO CONSTRUCTION COMMENCEMENT AND NOTIFY ENGINEER OF RECORD IF DISCREPANCIES ARE DISCOVERED.
2. CONTRACTOR SHALL ADHERE TO ALL CITY OF NEPTUNE BEACH EROSION AND SEDIMENTATION CONTROL MEASURES.
3. EXISTING FEATURES SHOWN SHALL REMAIN IN PLACE AND UNHARMED UNLESS OTHERWISE DETAILED IN THESE PLANS.
4. ANY DAMAGED OR REMOVED SIGNAGE DURING CONSTRUCTION ACTIVITIES SHALL BE REINSTALLED OR REPLACED PER CURRENT FDOT DESIGN STANDARDS.
5. CONTRACTOR TO COORDINATE WITH CITY OF NEPTUNE BEACH FOR PLACEMENT OF CONSTRUCTION ENTRANCE. FOR CONSTRUCTION ENTRANCE DETAIL, SEE SHEET 7.

JEREMY W. CALLOWAY, P.E.
CA#34646 PE#70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

REVISIONS

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****	****	****
****	****	****

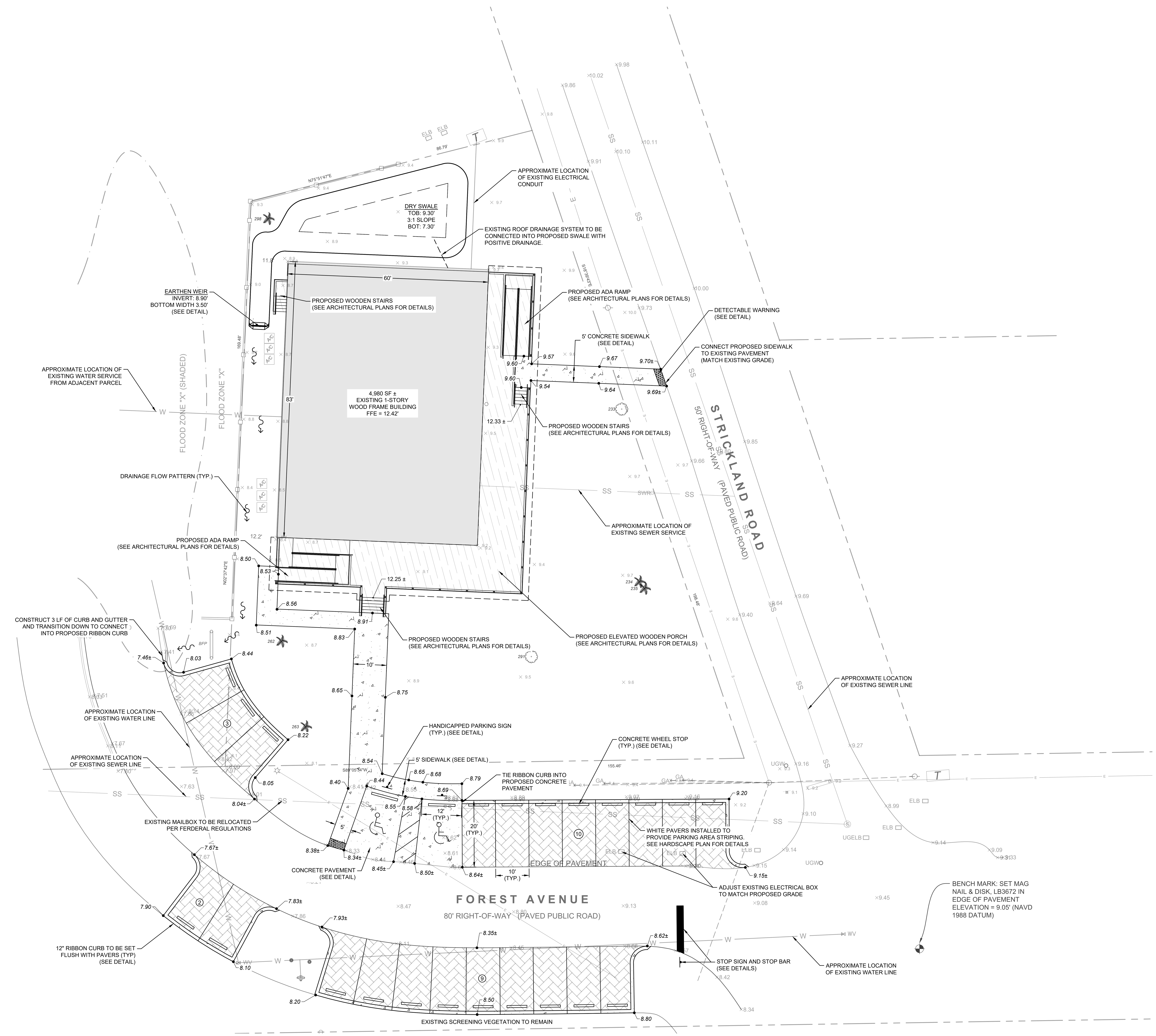
DRAWING BY:	PET
DESIGN BY:	PET
CHECKED BY:	JWC
DATE:	12/06/2021
PROJECT #:	2116

DEMOLITION & EROSION CONTROL PLAN

NEPTUNE BEACH SENIOR COMMUNITY CENTER

NEPTUNE BEACH, FLORIDA

PREPARED FOR:
CITY OF NEPTUNE BEACH



EXISTING LEGEND

- PROPERTY / RIGHT OF WAY
- EXISTING EDGE OF PAVEMENT
- EXISTING WALL
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FLOOD LINE

HATCH LEGEND

	CONCRETE
	PERVIOUS PAVERS
	WOOD
	BUILDINGS
	SWALE

SITE DATA TABLE

TOTAL PROJECT AREA	21,735 SF	0.50 AC
EXISTING BUILDING	4,980 SF	
PROPOSED OVERHANG	2,582 SF	
PROPOSED PAVEMENT	305 SF	
PROPOSED CONCRETE	803 SF	
TOTAL IMPERVIOUS AREA	8,670 SF	
TOTAL PERVIOUS AREA	13,065 SF	
TOTAL IMPERVIOUS %	40%	
TOTAL PERVIOUS %	60%	
OPEN SPACE	13,065 SF	
FLOOR AREA	2,582 SF	
FLOOR AREA RATIO (FAR)	12%	
ZONING	NR-1	
PARCEL NUMBER(S)	177490-0000	
FLOOD ZONE	X	

PARKING CALCULATIONS

GROSS FLOOR AREA	=	1 SPACE PER	250 SF
GROSS FLOOR AREA	=	4,980 SF	20 SPACES
TOTAL REQUIRED	=	20 SPACES	
TOTAL PROVIDED	=	24 SPACES	
ADA REQUIRED	=	1 SPACES	
ADA PROVIDED	=	2 SPACES	

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DRAWING BY: PET
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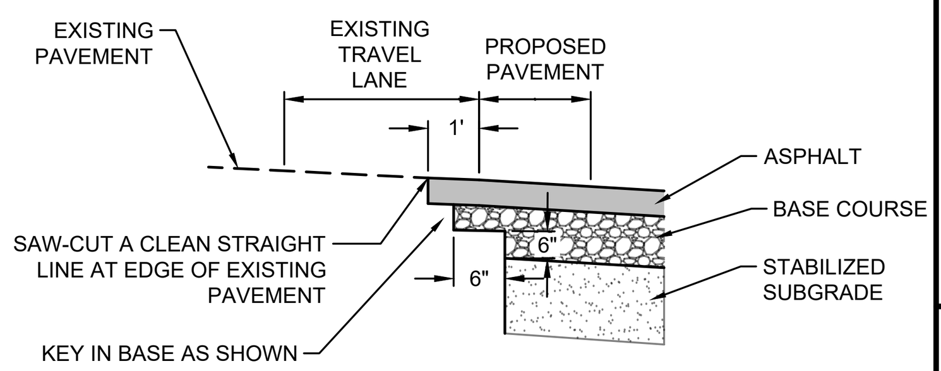
PROJECT #: 2116

SITE IMPROVEMENTS PLAN

NEPTUNE BEACH SENIOR COMMUNITY CENTER

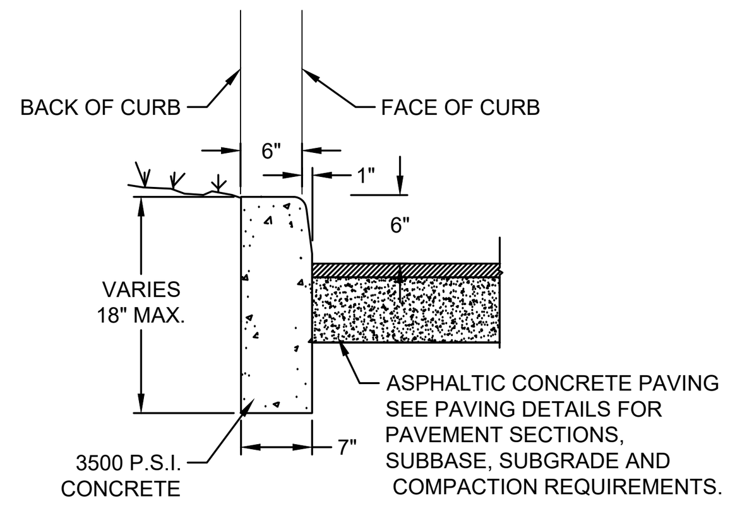
NEPTUNE BEACH, FLORIDA

PREPARED FOR:
CITY OF NEPTUNE BEACH

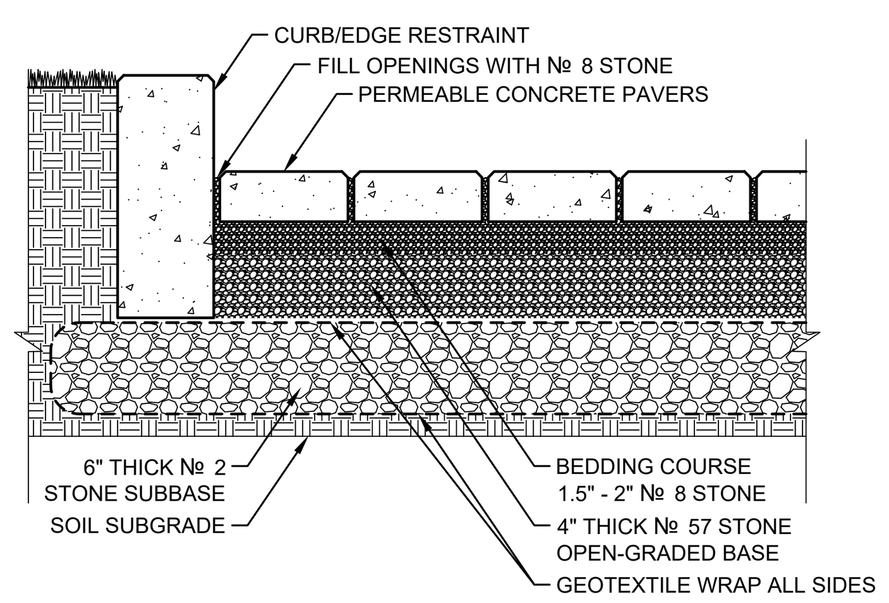


NOTE:
- SEE TYPICAL PAVEMENT SECTION FOR MATERIAL AND THICKNESS

CONNECTION TO EXISTING PAVEMENT DETAIL
N.T.S.



6" HEADER CURB DETAIL
N.T.S.



TYPICAL PAVER SECTION
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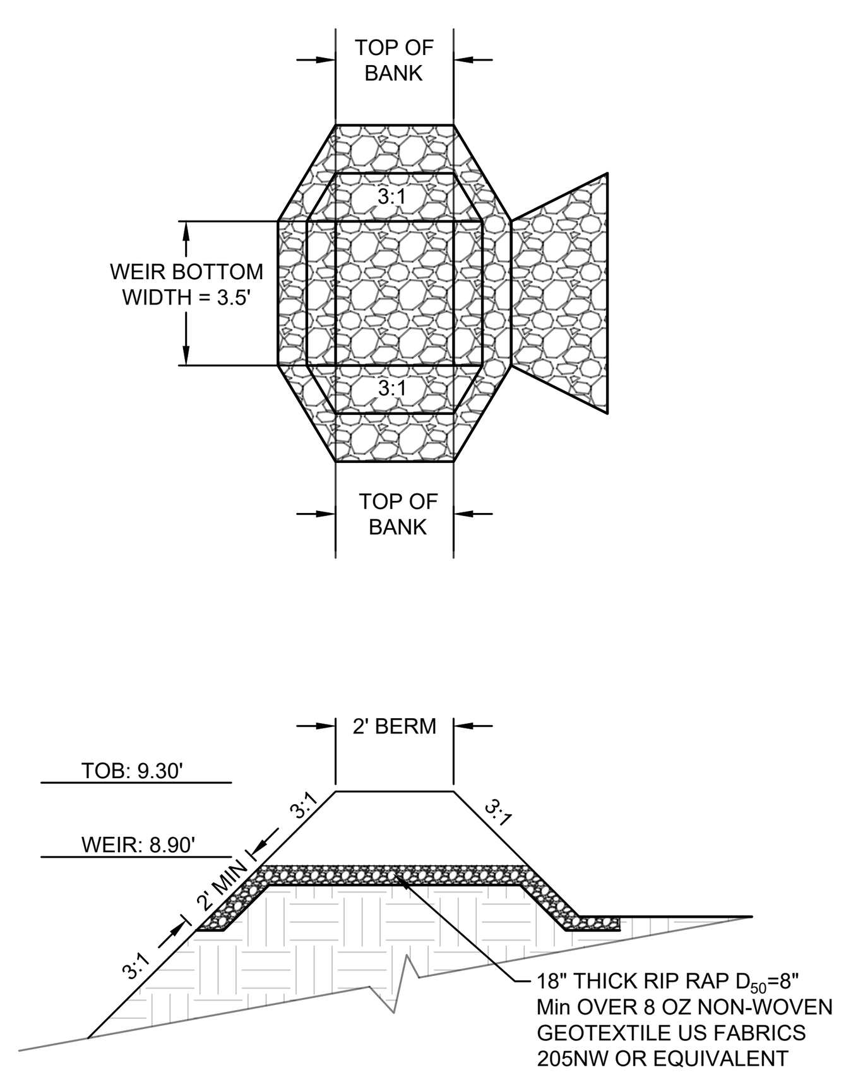
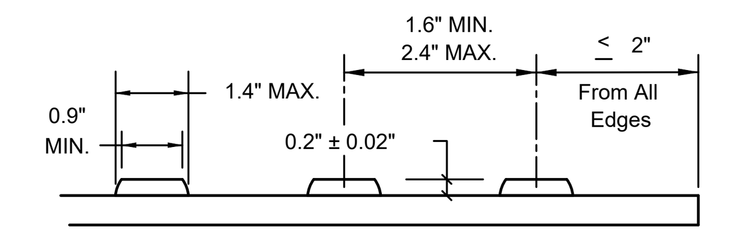
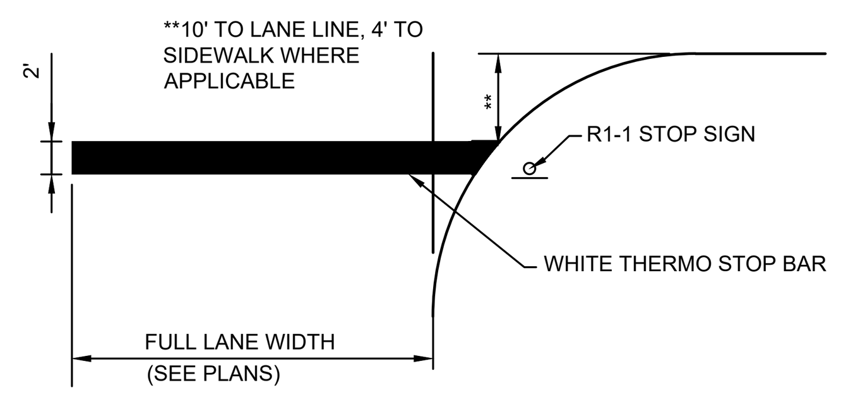


EARTHEN OVERFLOW WEIR WITH RIP RAP
N.T.S.



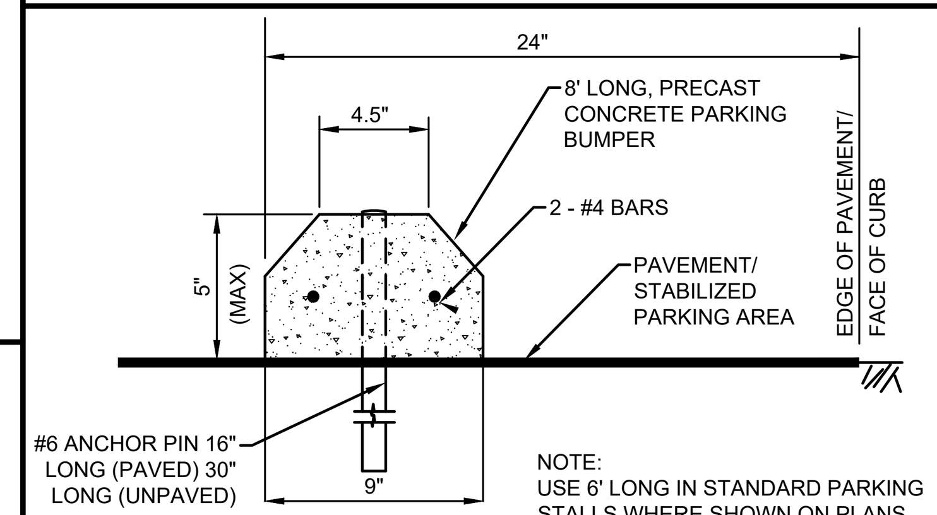
NOTE:
ALL NEW CONCRETE RAMP SURFACES TO RECEIVE TRUNCATED DOME MAT UNLESS OTHERWISE NOTED

DETECTABLE WARNING SURFACE DETAIL
N.T.S.



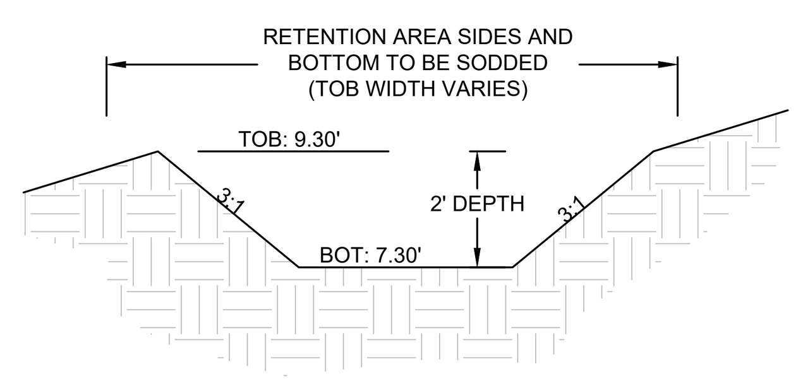
NOTE:
ALL TRAFFIC MARKINGS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT.

STOP BAR DETAIL
N.T.S.

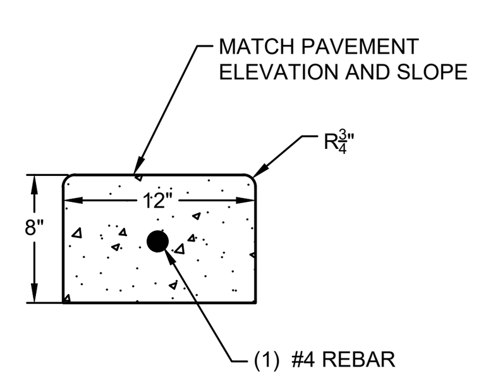


NOTE:
USE 6' LONG IN STANDARD PARKING STALLS WHERE SHOWN ON PLANS.

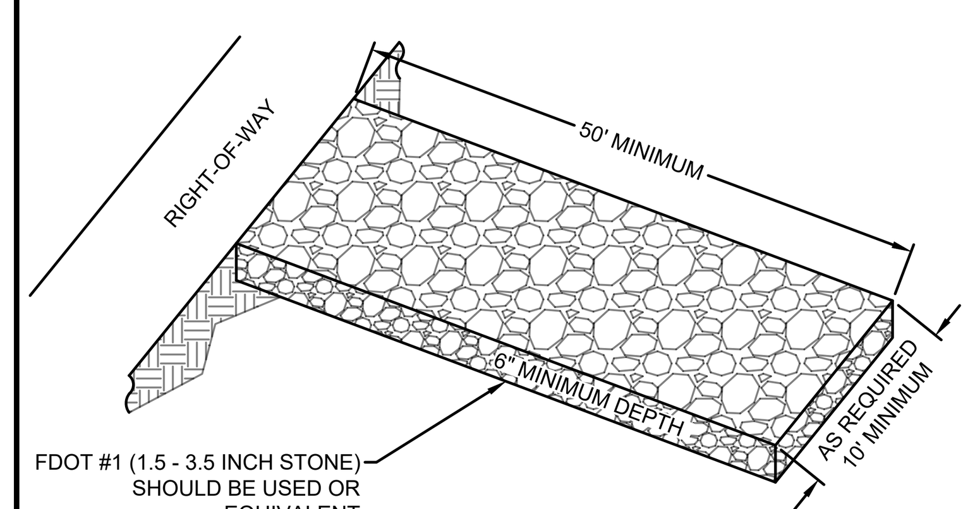
CONCRETE WHEELSTOP DETAIL
N.T.S.



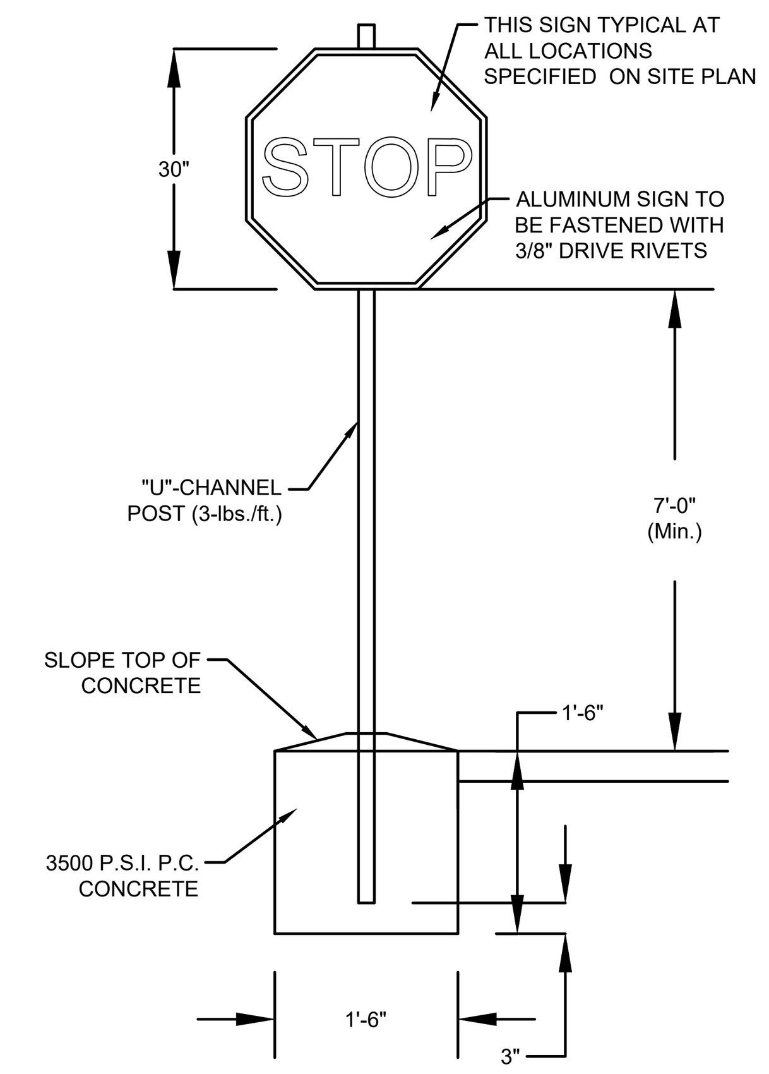
SWALE DETAIL
N.T.S.



RIBBON CURB DETAIL
N.T.S.



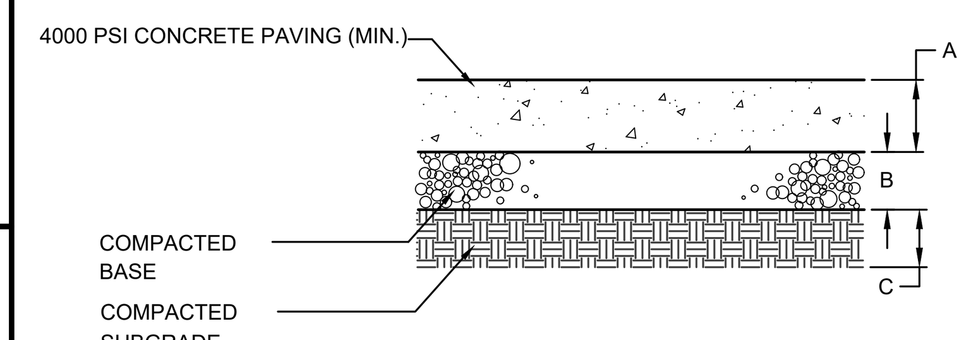
CONSTRUCTION ENTRANCE DETAIL
N.T.S.



STOP SIGN DETAIL
N.T.S.

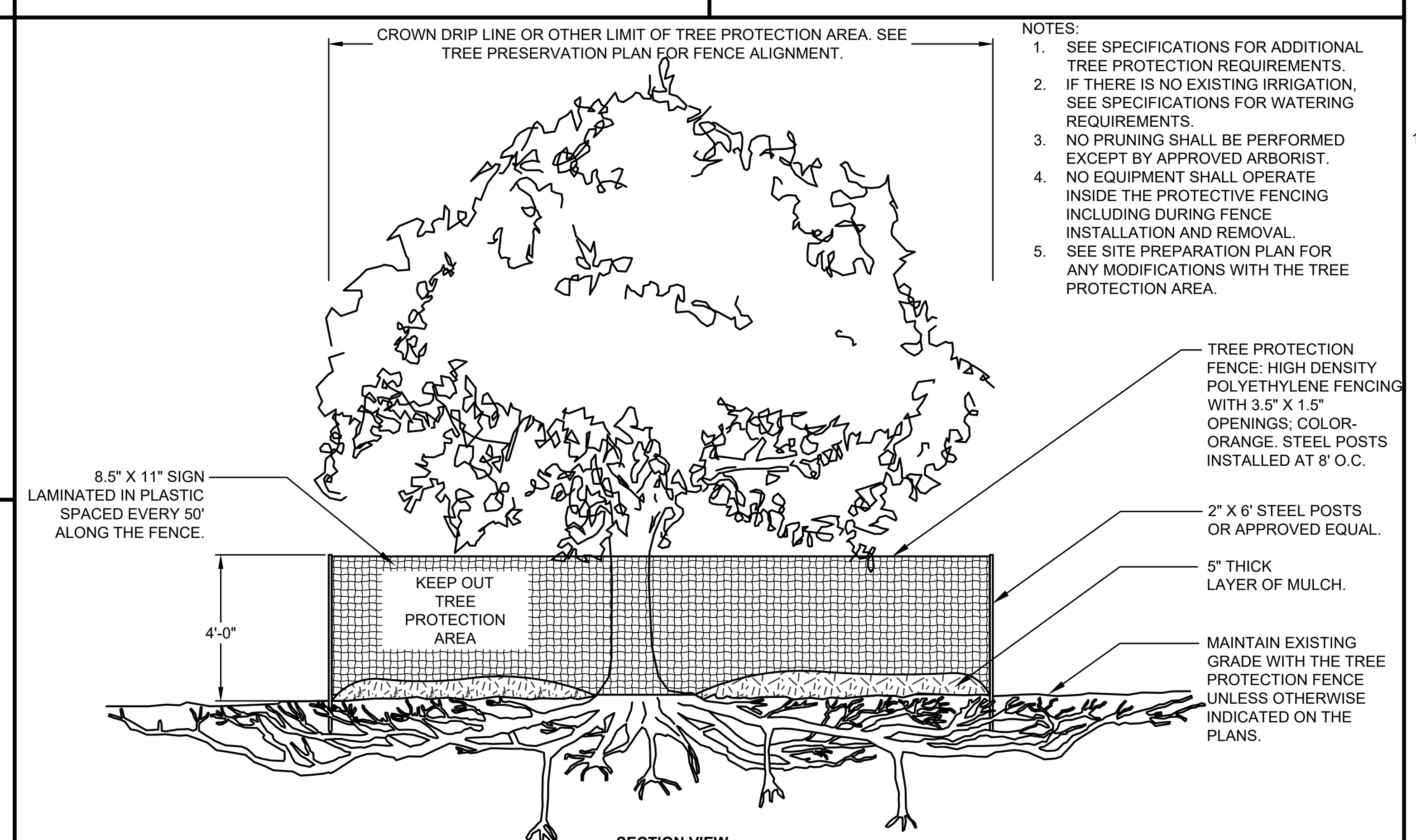
DIMENSION & TYPE

CONCRETE SECTION	A	B	C
PARKING AREAS	5"	N/A	SEE NOTE 1
LOADING/DUMPSTER/DRIVEWAYS	6"	N/A	SEE NOTE 1
PERVIOUS PAVEMENT	6"	N/A	SEE NOTE 2



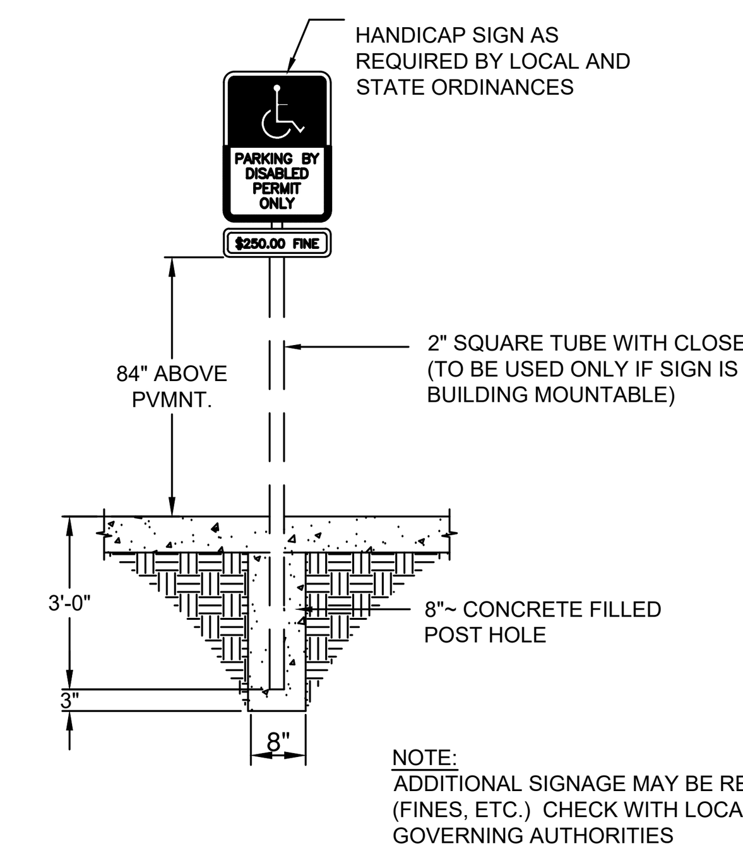
NOTES:
1. COMPACTED BASE/SUBGRADE SHOULD BE AS SPECIFIED IN GEOTECHNICAL REPORT.
2. SEE PORTLAND CEMENT PERVIOUS CONCRETE SPECS BY FCPA. SEE FDOT AND AMERICAN CONCRETE INSTITUTE (ACI) FOR ALL OTHER CONCRETE REQUIREMENTS.
3. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

CONCRETE PAVEMENT SECTION
N.T.S.



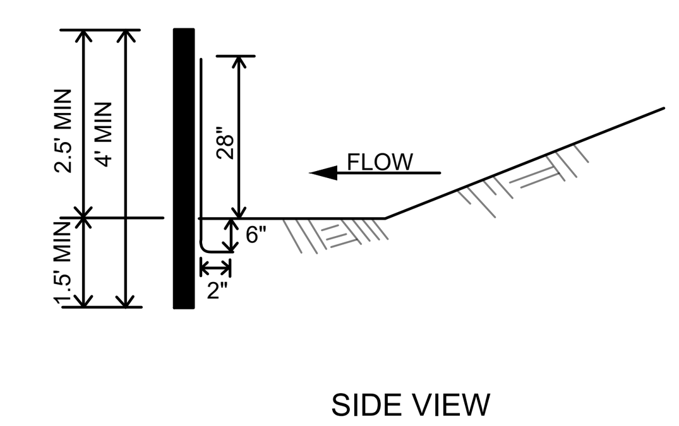
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. IF THERE IS NO EXISTING IRRIGATION, SEE SPECIFICATIONS FOR WATERING REQUIREMENTS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. SEE SITE PREPARATION PLAN FOR ANY MODIFICATIONS WITH THE TREE PROTECTION AREA.

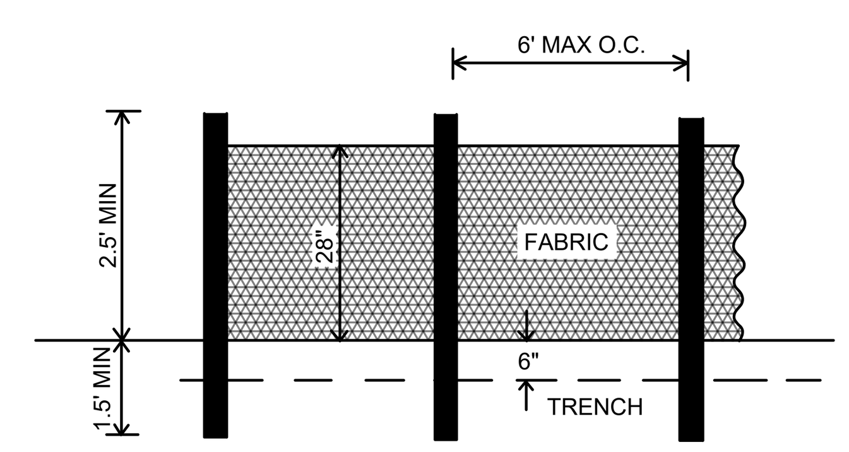
TREE PROTECTION DETAIL
N.T.S.



NOTE:
ADDITIONAL SIGNAGE MAY BE REQUIRED (FINES, ETC.) CHECK WITH LOCAL GOVERNING AUTHORITIES

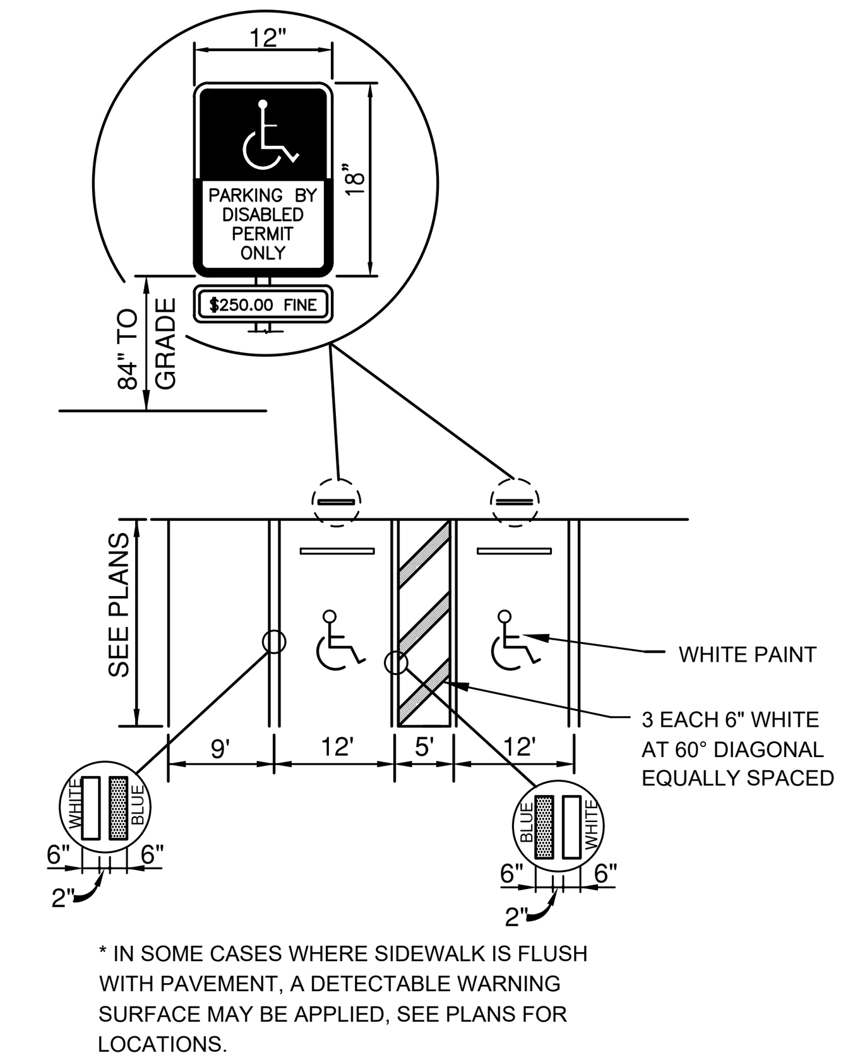
HANDICAP PARKING SIGN DETAIL
N.T.S.

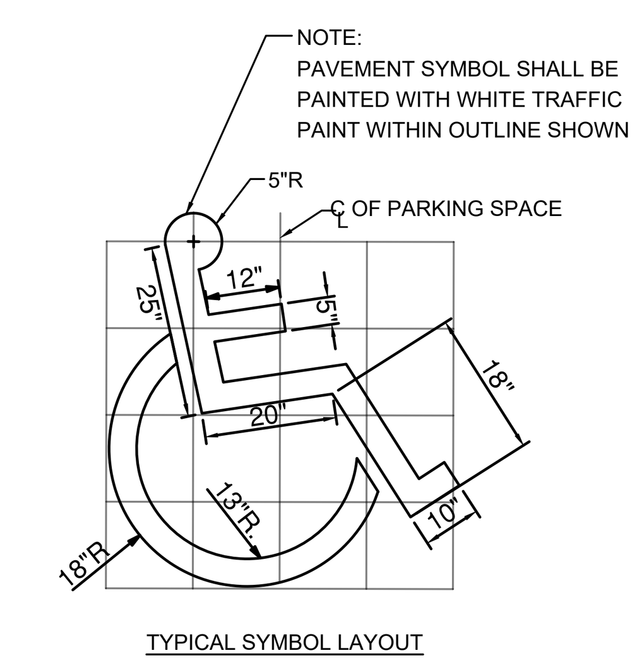




NOTE:
USE 36" FDOT APPROVED FABRIC
USE WOOD OR STEEL POSTS

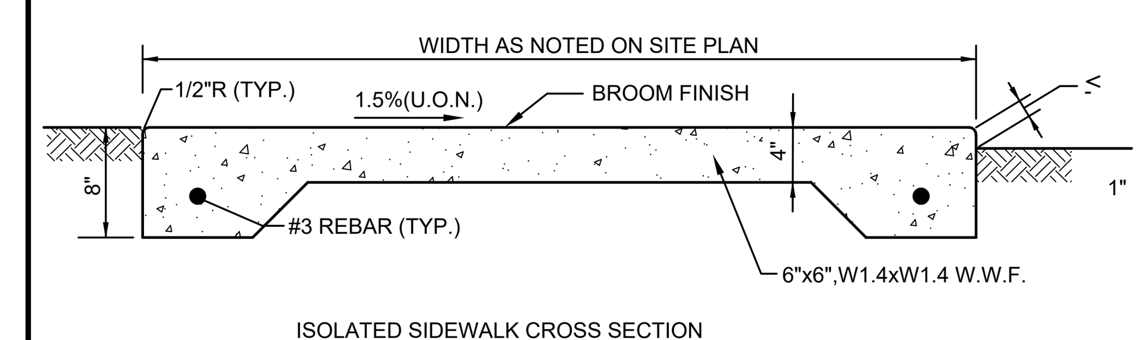
SILT FENCE DETAIL
N.T.S.



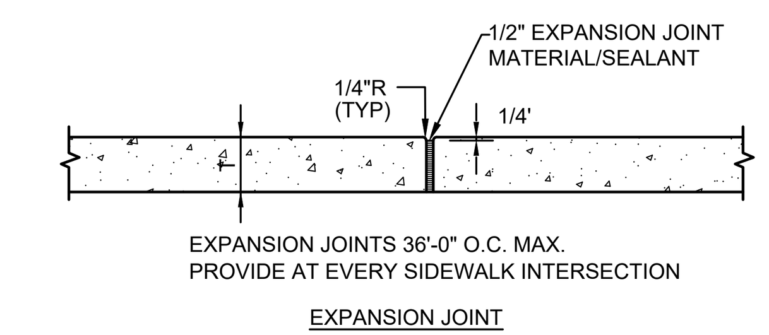


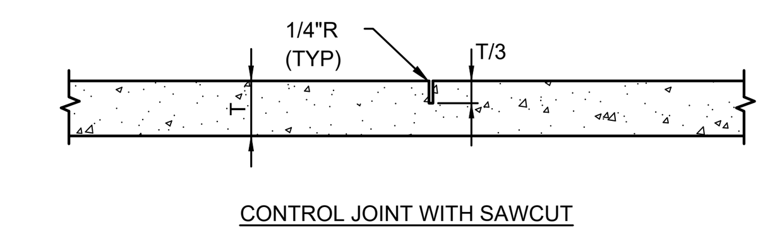
NOTES:
1. EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY OUTLINED IN BLUE PAINT, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE-GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY OR THE CAPTION "PARKING BY DISABLED PERMIT ONLY", OR BEARING BOTH SUCH SYMBOL AND CAPTION. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL HANDICAPPED PARKING SPACES MUST DESIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE LATEST FLORIDA BUILDING CODE, SECT. 11-4.
2. WITHIN THE HANDICAP PARKING SPACES AND ACCESS AISLE, SURFACE SLOPES SHALL NOT EXCEED 2 PERCENT IN ANY DIRECTION.

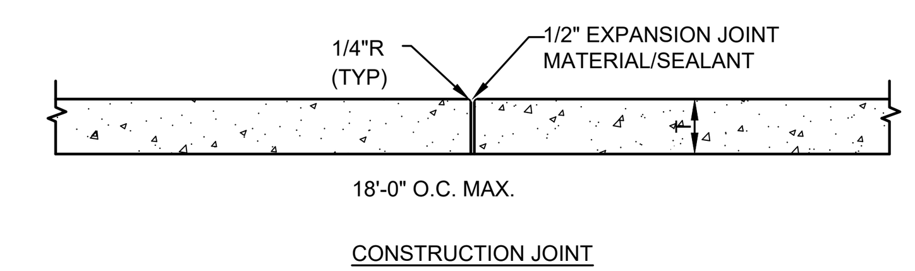
HANDICAP PARKING STALL DETAIL
N.T.S.

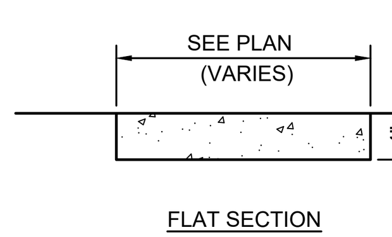


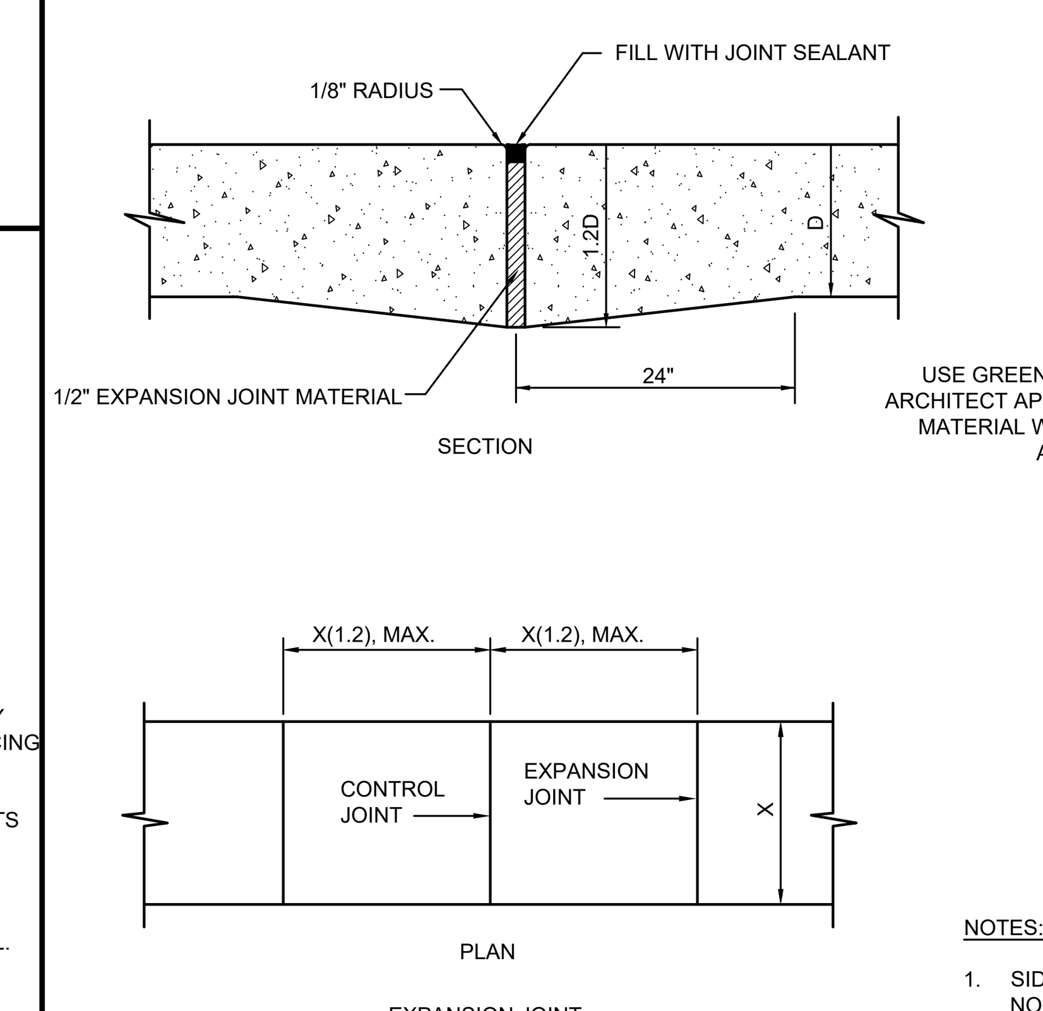
NOTES:
1. WHERE SIDEWALK ABUTS BUILDING, SEPARATE W/ A 1/2" PREMOLDED MASTIC STRIP CONTINUOUS.
2. LONGITUDINAL WALK SLOPE VARIES, SEE PLAN SIDEWALK IN CITY R-O-W SHALL BE FIBER REINFORCED CONCRETE AS WWF IS NOT ALLOWED IN THE R-O-W.

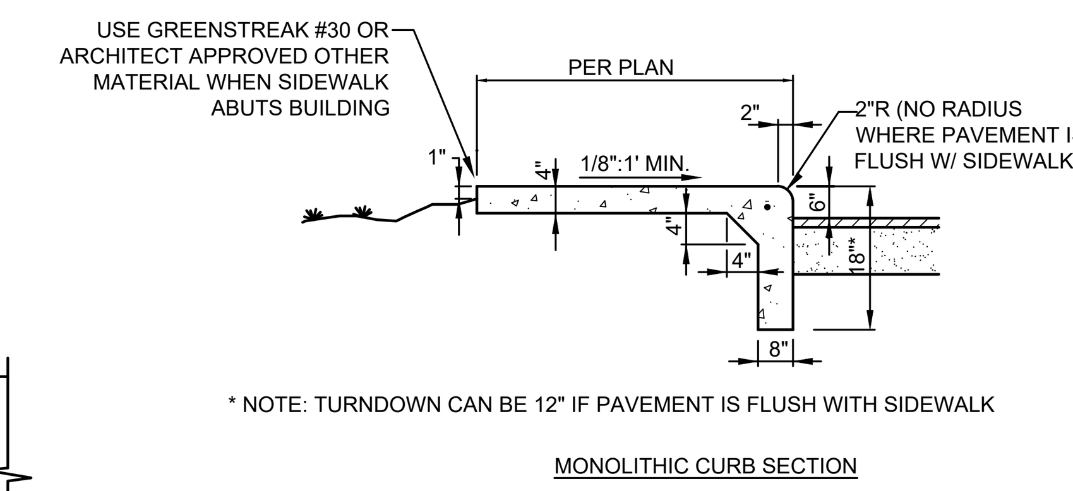












NOTES:
1. SIDEWALKS SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE, CLASS NON-STRESS (NS), AND ALL METHODS OF CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE TO THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE STANDARD SPECIFICATIONS.
2. EXPANSION JOINTS SHALL ALSO BE APPLIED AT ALL SIDEWALK INTERSECTIONS.
3. SEE PLANS FOR LOCATION OF DETECTABLE WARNINGS.
4. CONCRETE FOR SIDEWALKS SHALL BE 3,000 PSI MINIMUM, 5" MAX. SLUMP.

CONCRETE SIDEWALK DETAILS
N.T.S.

JEREMY CALLOWAY, P.E.
CA#34646 PE#70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

REVISIONS

#	DATE	DESCRIPTION
1	1/28/2022	REVISED PER CLIENT COMMENTS
2	4/18/2022	REVISED PER SJRWMD COMMENTS
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DRAWING BY:	PET
DESIGN BY:	PET
CHECKED BY:	JWC
DATE:	12/06/2021
PROJECT #:	2116

CONSTRUCTION DETAILS

NEPTUNE BEACH SENIOR COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
PREPARED FOR:
CITY OF NEPTUNE BEACH

STORM WATER POLLUTION PREVENTION PLAN

OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
NEPTUNE BEACH SENIOR COMMUNITY CENTER
2010 FOREST AVENUE
NEPTUNE BEACH, FL 32266

OWNER NAME AND ADDRESS:
CITY OF NEPTUNE BEACH
116 FIRST STREET
NEPTUNE BEACH, FL 32266

DESCRIPTION:

PARKING AND SIDEWALK RENOVATIONS FOR EXISTING 4980 SF± BUILDING

SOIL DISTURBING ACTIVITIES WILL INCLUDE:
TREE CLEARING; EARTHWORK, PAVEMENT AND GRADING, AND PREPARATION FOR FINAL PLANTING AND SEEDING.

RUNOFF CURVE NUMBERS:
1. PRE-CONSTRUCTION = ##
2. DURING CONSTRUCTION = ##
3. POST-CONSTRUCTION = ##

SOILS:
SEE GEOTECHNICAL REPORT FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED GRADING PLAN FOR PRE & POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.
* SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS
* SEE GENERAL NOTES FOR REQUIRMENTS FOR TEMPORARY AND PERMANENT STABILIZATION.

SITE AREA:
1. TOTAL AREA OF SITE = 0.50 ACRE
2. TOTAL AREA TO BE DISTURBED = ##.## ACRE

NAME OF RECEIVING WATERS: ONSITE CONVEYANCE DITCH

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY (DESRIPTION:)
ON-SITE COLLECTION SYSTEM DISCHARGING TO ON-SITE CONVEYANCE SWALE.

FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE, WHEN CONSTRUCTION IS COMPLETE, A TOTAL OF ##.## ACRES WILL HAVE BEEN REGRADED, ##.## ACRES LEFT UNDISTURBED. THE SITE DISCHARGES TO AN ON-SITE CONVEYANCE DITCH. WHERE PRACTICAL, TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT CONVEYANCE DITCH.

TIMING OF CONTROLS/MEASURES

REFER TO " CONTRACTOR'S REQUIREMENTS" FOR THE TIMING OF CONTROL/MEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

D.E.R. DREDGE/FILL PERMIT #________________
C.O.E. DREDGE/FILL PERMIT #________________
S.J.R.W.M.D. ENVIRONMENTAL RESOURCE PERMIT #________________

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED:____________________________________

DATED:________________________

CONTRACTOR'S REQUIREMENTS

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION, THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION, THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

THE GENERAL ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER.
10. APPLY BASE TO PAVED AREAS
11. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING
12. COMPLETE FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION & TURBIDITY CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSON AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED,TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS
STABILIZATION PRACTICES

1. HAY BALE BARRIER: HAY BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
   REFER TO CITY STANDARD DETAIL D-913 FOR CONSTRUCTING THE HAY BALE BARRIER. ALSO REFER TO D-901, D-911 AND D-12 FOR PROPER LOCATION, MATERIAL & USAGE.
2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   REFER TO CITY STANDARD DETAIL D-910 FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.
3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE. LEVEL SPREADER SHALL BE CONSTRUCTED IN ACCORDANCE TO CITY STANDARD DETAIL D-914.
5. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.
11. TEMPORARY REGRASSING : IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY. AND IT SHALL BE CONSTRUCTED IN ACCORDANCE TO D-914.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA.
   THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDANTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:
   A. BLOCK & GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. REFER TO D-902 FOR CONSTRUCTION OF A CURB INLET SEDIMENT FILTER, AND D-904 FOR CONSTRUCTION OF A DROP INLET SEDIMENT FILTER.
   B. GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS. REFER TO D-903 FOR CONSTRUCTION OF CURB INLET & DROP SEDIMENT TRAP.
   C. DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS. REFER TO D-905 FOR CONSTRUCTION OF HAY BALE & FABRIC SEDIMENT FILTER.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES & HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.
4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE.

THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS,WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

☐ Concrete	☐ Fertilizers	☐ Wood
☐ Asphalt	☐ Petroleum Based Products	☐ Masonry Blocks
☐ Tar	☐ Cleaning Solvents	☐ Roofing Materials
☐ Detergents	☐ Paints	☐ Metal Studs
☐ ______	☐ ______	☐ ______

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.

* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.

* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.

* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.

* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.

* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.

* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

* WATER FROM WATER LINE FLUSHING

* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

RESPONSIBLE FOR/DUTIES	BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS	SIGNATURE
GENERAL CONTRACTOR		
SUB-CONTRACTOR		
SUB-CONTRACTOR		
SUB-CONTRACTOR		
SUB-CONTRACTOR		

JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER
JEREMY W. CALLOWAY, P.E.
CA#34646 PE#70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

REVISIONS

#	DATE	DESCRIPTION
1	1/28/2022	REVISED PER CLIENT COMMENTS
2	4/18/2022	REVISED PER SJRWMD COMMENTS
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----	----	----

DRAWING BY: PET
DESIGN BY: PET
CHECKED BY: JWC
DATE: 12/06/2021
PROJECT #: 2116

SWPPP DETAILS
NEPTUNE BEACH SENIOR COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
PREPARED FOR:
CITY OF NEPTUNE BEACH

PROJECT: NEPTUNE BEACH SENIOR COMMUNITY CENTER

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.25 INCHES OR MORE

INSPECTOR:______________________ DATE:______________

INSPECTOR'S QUALIFICATIONS:

____

____

____

____

DAYS SINCE LAST RAINFALL:__________ AMOUNT OF LAST RAINFALL __________ INCHES

STABILIZATION MEASURES

INSPECTION AREA (DESCRIPTION OF LOCATION)	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABLIZED ? (YES/NO)	STABILIZED WITH	CONDITION

STABILIZATION REQUIRED:

____

____

____

____

TO BE PERFORMED BY:____________________ ON OR BEFORE:____________

PROJECT: NEPTUNE BEACH SENIOR COMMUNITY CENTER

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

STRUCTURAL CONTROLS

DATE:____________________

EARTH DIKES/SWALES

DIKE OR SWALE	FROM	TO	IS DIKE/SWALE STABILIZED ?	IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING

MAINTENANCE REQUIRED FOR EARTH DIKE/SWALE:

____

____

____

____

TO BE PERFORMED BY:____________________ ON OR BEFORE:____________

CATCH BASIN/CURB INLET/OUTFALL TURBIDITY CONTROLS

STRUCTURE/ OUTFALL	ARE TURBIDITY CONTROLS IN PLACE	ANY EVIDENCE OF CLOGING/WASHOUT OR BYPASSING ?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROL

MAINTENANCE REQUIRED FOR CATCH BASIN/CURB INLETS/OUTFALLS TURBIDITY CONTROLS:

____

____

____

____

TO BE PERFORMED BY:____________________ ON OR BEFORE:____________

PROJECT: NEPTUNE BEACH SENIOR COMMUNITY CENTER

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

SEDIMENT BASIN

DEPTH OF SEDIMENT IN BASIN	DEPTH OF SEDIMENT SIDE BASIN	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT ?	CONDITION OF OUTFALL FROM SEDIMENT BASIN

MAINTENANCE REQUIRED FOR SEDIMENT BASIN:

____

____

____

____

TO BE PERFORMED BY:____________________ ON OR BEFORE:____________

OTHER CONTROLS

STABILIZED CONSTRUCTION ENTRANCE

DOES MUCH SEDIMENT GET TRACKED ON TO ROAD ?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE ?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

____

____

____

TO BE PERFORMED BY:____________________ ON OR BEFORE:____________

PROJECT: NEPTUNE BEACH SENIOR COMMUNITY CENTER

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

____

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REASONS FOR CHANGES:

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____

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE:______________________________

DATE:______________

NOTE TO CONTRACTOR:

THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER 5 ACRES. THIS CERTIFICATION MUST BE COMPLETED WEEKLY AND AFTER EVERY RAINFALL EVENT OVER 0.25 INCHES.

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CA#34646 PE#70838

MAVERICK ENGINEERING
10 WILLOW WINDS PARKWAY
ST. JOHNS, FLORIDA 32259
(904) 655-6687

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DRAWING BY: PET
DESIGN BY: PET
CHECKED BY: JWC
DATE: 12/06/2021
PROJECT #: 2116

CONTRACTOR CERTIFICATION

NEPTUNE BEACH SENIOR COMMUNITY CENTER

NEPTUNE BEACH, FLORIDA

PREPARED FOR:
CITY OF NEPTUNE BEACH

NEPTUNE BEACH SENIOR COMMUNITY CENTER

PERMIT AND BID SET

Marquis Latimer + Halback, Inc.
Project Management + Landscape Architecture
Project Manager: Jeremy Marquis | jeremy@halback.com
34 Cordova Street, Suite A, St. Augustine, FL 32084
Ph: 904.825.6747
Florida LA6667110

Maverick Engineering
Civil engineer
Project Manager: Jeremy Calloway |jeremy@mavengineers.com
10 Willow Winds Parkway, St Johns, FL 32259
Ph: 904.655.6687

Les Thomas Architect, Inc.
Architecture
Project Manager: Les Thomas| lesthomasarchitect@gmail.com
32 Cordova Street, St. Augustine, FL 32084
Ph: 904.824.9508

Prepared For
City of Neptune Beach, Florida
Project Manager
Jeremy Marquis, RLA
Site Location
2004 FOREST AVENUE
NEPTUNE BEACH, FLORIDA
Jurisdictional Review
City of Neptune Beach
Planning and Community Development

Sheet List Table

Sheet Number	Sheet Title	Issue Date	Revision Date
--	COVER SHEET	02/17/2022	
L-2.1	HARDSCAPE PLAN	02/17/2022	
L-2.2	HARDSCAPE DETAILS	02/17/2022	
L-3.1	LANDSCAPE PLAN	02/17/2022	
L-3.2	LANDSCAPE NOTES	02/17/2022	
L-3.3	LANDSCAPE DETAILS	02/17/2022	
L-4.1	IRRIGATION PLAN	02/17/2022	
L-4.2	IRRIGATION DETAILS	02/17/2022	
L-4.3	IRRIGATION DETAILS	02/17/2022	
L-4.4	IRRIGATION DETAILS	02/17/2022	
L-4.5	IRRIGATION DETAILS	02/17/2022	

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

PLEASE REFERENCE CIVIL AND ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

NOT FOR CONSTRUCTION.
FOR PERMIT REVIEW AND BIDDING PURPOSES ONLY.

ML+H
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Ph 904.825.6747 www.halback.com
LA6667110 Qualifier

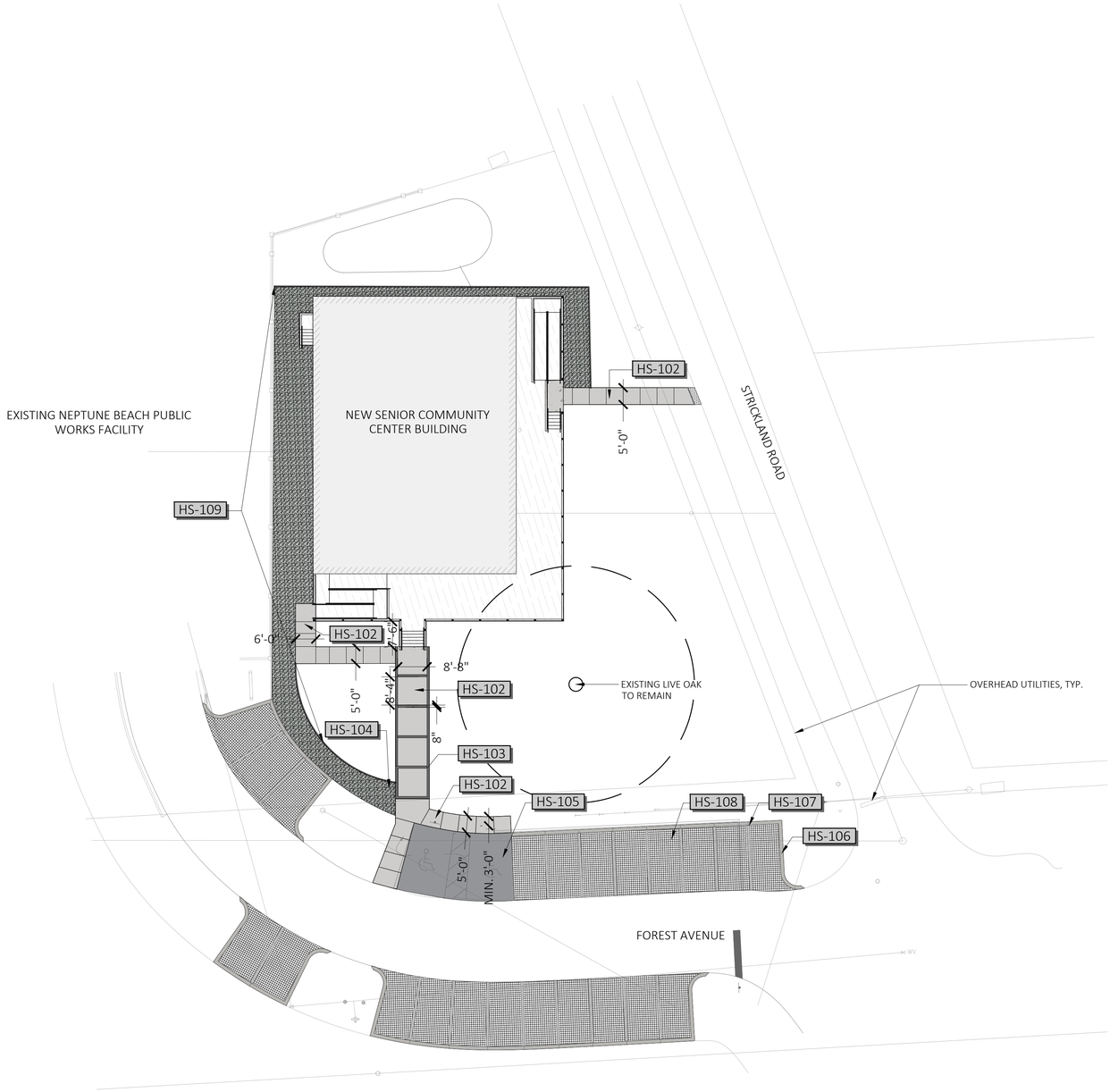
JEREMY MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: CS/GC

NEPTUNE BEACH SENIOR COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
COVER SHEET

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L0.0



REFERENCE NOTES SCHEDULE

2022-02-15 15:37

SYMBOL	HARDSCAPE DESCRIPTION MANUFACTURER/SUPPLIER	QTY	DETAIL	DESCRIPTION	FINISH/COLOR	
HS-102	CIP COQUINA CONCRETE	1,136 SF				
HS-103	PAVER BANDING COURSE	89 SF		4"X8" HEADER COURSE	SILVER SAM	ARTISTIC PAVER
HS-104	AGGREGATE - 89 ROCK	2,021 SF				
HS-105	PARKING CONCRETE	641 SF				
HS-106	CONCRETE PARKING BORDER	384 SF				
HS-107	PARKING STRIPE - PERMEABLE PAVERS	228 SF		8"X8" SF RIMA	SAND DUNE	TREMRON
HS-108	PARKING - PERMEABLE PAVERS	4,333 SF		8"X8" SF RIMA	GRANITE	TREMRON
HS-109	ANNODIZED ALUMINUM EDGING	172 LF		4"	SILVER	PERMALOC

0' 10' 20' 40'
SCALE: 1"=20'-0"

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JEREMY MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER

NEPTUNE BEACH, FLORIDA

HARDSCAPE PLAN

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-2.1

PERMALOC
CLEANLINE XL
ALUMINUM LANDSCAPE EDGING

PERMALOC CORPORATION, 13505 BARRY STREET HOLLAND, MI, 49424
(800) 356-9660 PHONE: (616) 399-9600 fax: (616) 399-9770 WWW.PERMALOC.COM

ARCHITECT NOTE: CHECK OFF APPLICABLE SIZE & FINISH DESIRED

SIZE:

☐ 3/16. 8" (4.8MM X 203MM)0.116" (2.95MM) THICK WALL w/ 0.3" (7.62MM) EXPOSED TOP LIP ☐ MF

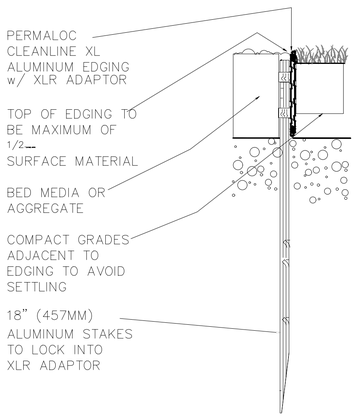
All dimensions are nominal and may have some variance

PRE-MANUFACTURED CORNERS AVAILABLE UPON REQUEST

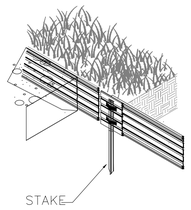
FINISH LEGEND:
(MF) MILL FINISH-NATURAL ALUMINUM

NOTES:

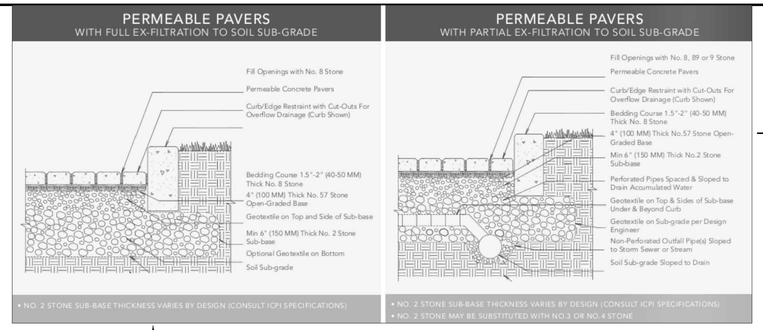
1. INSTALL PER MANUFACTURER'S "INSTALLATION GUIDELINES"
2. 8'-0" (2.44 M) SECTIONS TO INCLUDE (3) 18" (457 MM) ALUMINUM STAKES AND (3) XLR ADAPTORS
3. 16'-0" (4.88 M) SECTIONS TO INCLUDE (5) 18" (457 MM) ALUMINUM STAKES AND (3) XLR ADAPTORS
4. CORNERS - CUT BASE EDGING UP HALFWAY AND FORM A CONTINUOUS CORNER.
5. PERMALOC CLEANLINE XL AS MANUFACTURED BY PERMALOC CORPORATION, HOLLAND MI. (800) 356-9660, (616) 399-9600
6. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT: WWW.PERMALOC.COM



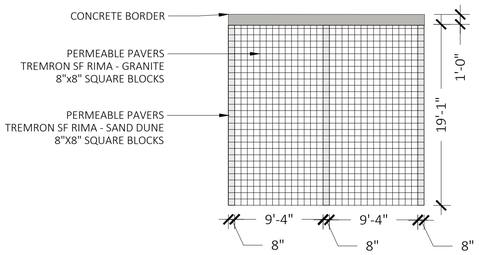
5 PERMALOC CLEANLINE ALUMINUM EDGING
NOT TO SCALE P-MU-NCC-04



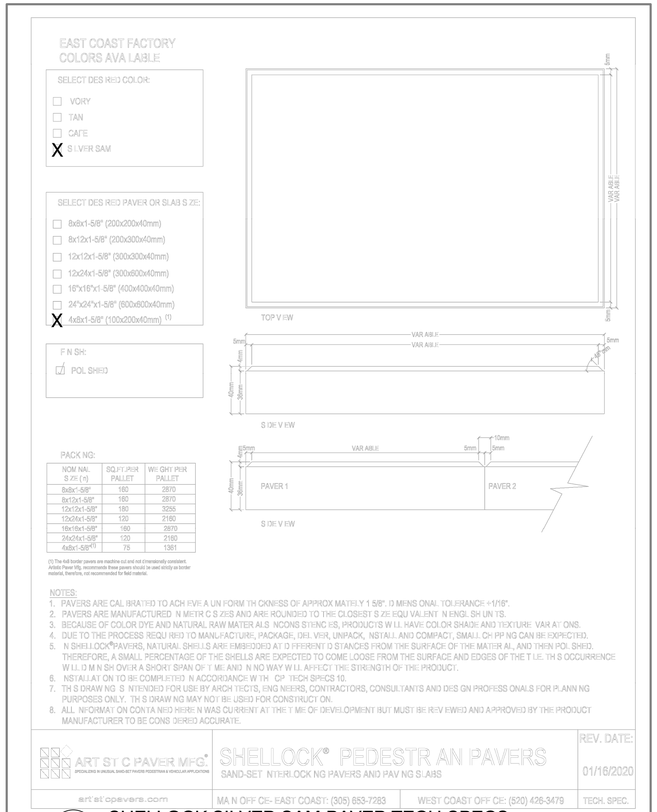
ISOMETRIC VIEW
NTS



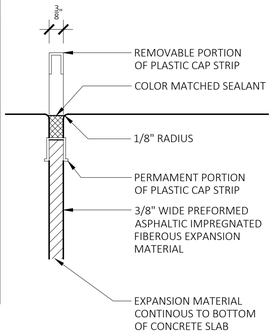
MANUFACTURER DETAILS FOR INSTALLATION



4 PERMEABLE PAVER PARKING SPACES
1/8" = 1'-0" P-MU-NCC-01



06 SHELLOCK SILVER SAM PAVER TECH SPECS
NOT TO SCALE



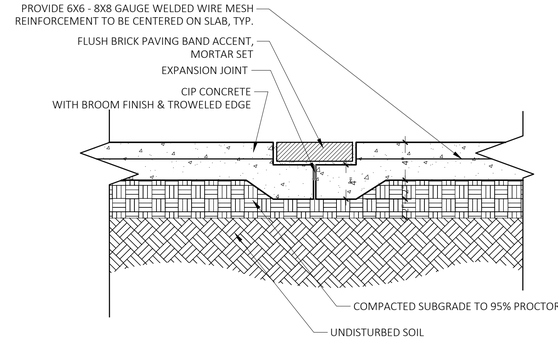
EXPANSION JOINT

EXPANSION JOINTS TO BE LOCATED PER LAYOUT PLANS, ALONG VERTICAL EDGES, AND ALL CHANGES IN MATERIAL

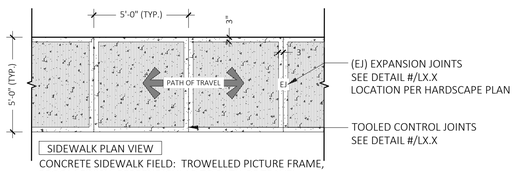
CONTROL JOINT

REFER TO LAYOUT PLANS FOR TYPICAL LOCATIONS

3 CONCRETE JOINTS
6" = 1'-0" 321313.13-06

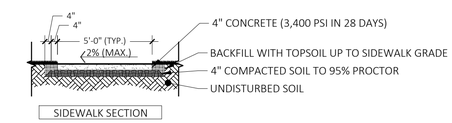


2 BRICK PAVING BAND ACCENT - TYPICAL SECTION
1 1/2" = 1'-0" P-MU-NCC-02



SIDEWALK PLAN VIEW

CONCRETE SIDEWALK FIELD: TROWELLED PICTURE FRAME, BROOM FINISH, PERPENDICULAR TO PATH OF TRAVEL



SIDEWALK SECTION

1 CONCRETE SIDEWALK
1/4" = 1'-0" P-MU-NCC-03

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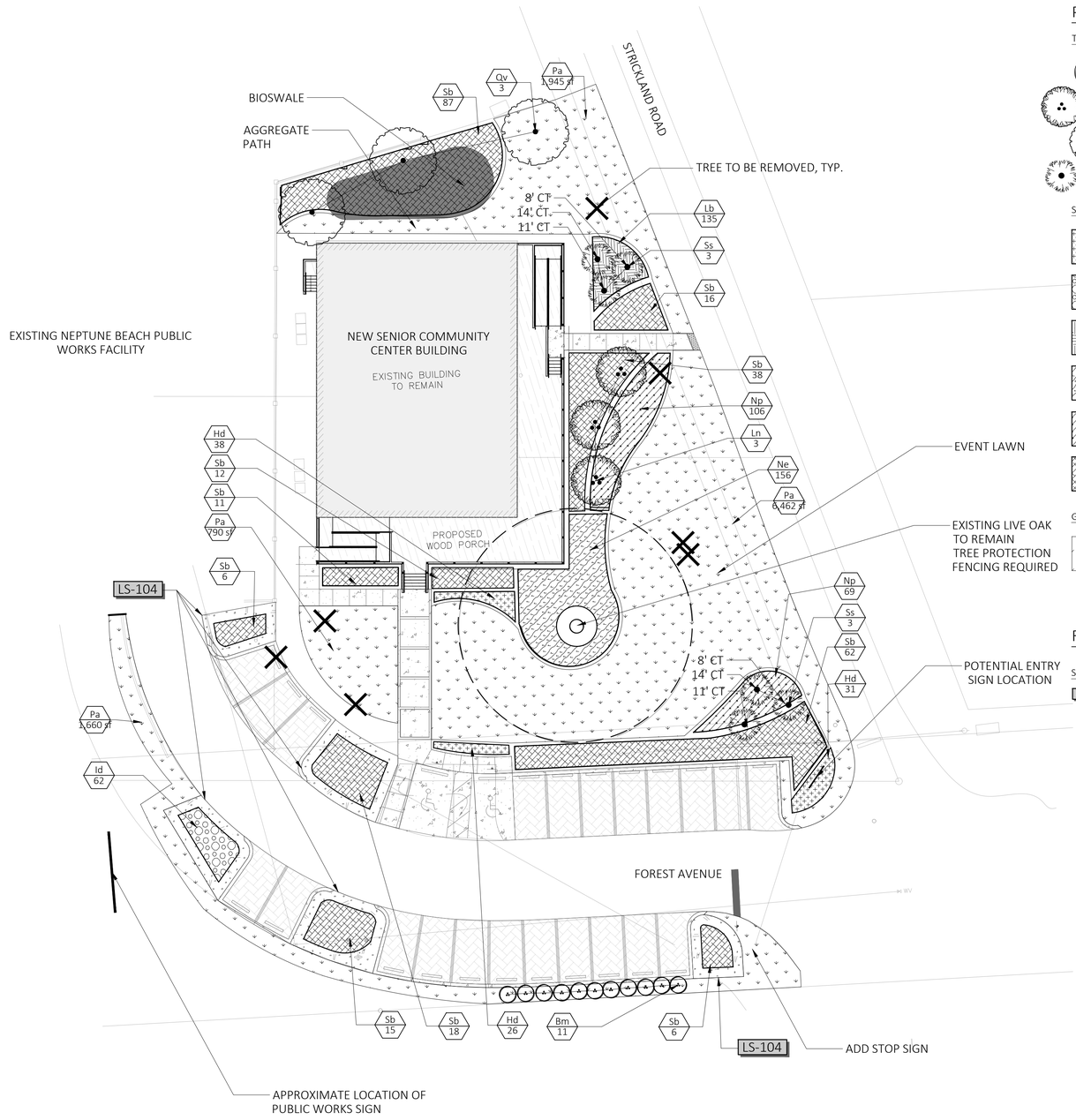
JEREMY MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
HARDSCAPE DETAILS AND NOTES

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-2.2



PLANT SCHEDULE

2022-02-17 11:00

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	HEIGHT	QTY
	Bm	BAMBUSA MALINGENSIS / SEABREEZE BAMBOO	25 GAL.	MIN. 12-15 CANES	12`-14`	11
	Ln	LAGERSTROEMIA INDICA X FAUREI `NATCHEZ` / NATCHEZ CRAPE MYRTLE	B&B, ROOT PLUS GROWERS	MULTI, 5 TRUNKS - 6-7" CALIPER	12`-14` HT	3
	Qv	QUERCUS VIRGINIANA `FBQV22` TM / BOARDWALK SOUTHERN LIVE OAK	B&B, ROOT PLUS GROWERS	4"	14` - 16`	3
	Ss	SABAL PALMETTO / CABBAGE PALMETTO	B&B; REGENERATED		8`-14` CT	6

SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	SPACING	QTY
	Hd	HELIANTHUS DEBILIS / DUNE SUNFLOWER	1 GAL.	8"	12"	24" o.c.	71
	Id	ILEX VOMITORIA 'SCHILLINGS DWARF' / SCHILLINGS DWARF YAUPON HOLLY	3 GAL.	12"	12"	21" o.c.	62
	Lb	LIRIOPE MUSCARI `BIG BLUE` / BIG BLUE LILYTURF	3 GAL.	12"	12"	18" o.c.	102
	Ne	NEPHROLEPIS EXALTATA / BOSTON FERN	3 GAL.	16"	16"	28" o.c.	156
	Np	NERIUM OLEANDER 'PETITE PINK' / PETITE PINK OLEANDER	7 GAL.	18"	18"	28" o.c.	141
	Sb	SPARTINA BAKERI / SAND CORDGRASS	1 GAL.	24"	16"	50" o.c.	222

GROUND COVERS	CODE	BOTANICAL / COMMON NAME	SPACING	QTY
	Pa	PASPALUM NOTATUM `ARGENTINE` / ARGENTINE BAHIAGRASS		11,008 SF

REFERENCE NOTES SCHEDULE

2022-02-09 11:21

SYMBOL	LANDSCAPE DESCRIPTION	QTY	DETAIL
LS-104	MULCH	995 SF	

0' 10' 20' 40'
SCALE: 1"=20'-0"

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Ph 904.825.6747 www.halback.com
LA6667110 Qualifier

JEREMY MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: CS/GC

NEPTUNE BEACH SENIOR COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
LANDSCAPE PLAN AND SCHEDULE

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-3.1

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE LANDSCAPE BED PREPARATION, INCLUDING REMOVAL AND DISPOSAL OF EXISTING LANDSCAPE AND TREES (TREES TO REMAIN ARE NOTED ON PLAN). CONTRACTOR SHALL PULL ANY APPLICABLE PERMITS, SUCH AS TREE REMOVAL PERMIT.
2. SPRAY DOWN BASE OF BUILDING TO REMOVE SOIL FROM CONSTRUCTION ACTIVITIES.
3. PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR GRADE #1 OR BETTER AS GIVEN IN THE LATEST "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES . PLANT SIZE IS TO TAKE PRECEDENCE OVER CONTAINER SIZE.
4. ALL TREES AND SHRUBS ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. BERMS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.
5. WEEDS ARE TO BE ADEQUATELY AND PROPERLY TREATED AND REMOVED PRIOR TO LANDSCAPE INSTALLATION. ALL SOIL AMENDMENTS SHOULD BE CERTIFIED AS WEED-FREE FROM THE SUPPLIER.
6. LANDSCAPE MATERIAL IS TO BE MAINTAINED BY THE LANDSCAPE CONTRACTOR (INCLUDING MOWING, PRUNING, AND WEEDING) UNTIL PLANTING IS APPROVED BY THE LANDSCAPE ARCHITECT. THE LANDSCAPE CONTRACTOR MUST PROVIDE: (A.) A WARRANTY ON ALL TREES AND PALMS FOR A PERIOD OF (12) TWELVE MONTHS. (B.) A WARRANTY ON ALL SHRUBS AND GROUNDCOVERS FOR A PERIOD OF (12) TWELVE MONTHS. (C.) GUIDELINES FOR PROPER MAINTENANCE.
7. TREES SHALL NOT BE PLANTED CLOSER THAN 7.5' FROM THE CENTERLINE OF UNDERGROUND UTILITIES; ADJUST IN THE FIELD IF NEEDED.
8. BALLED AND BURLAPPED STRAPPING WIRE, AND ANY SYNTHETIC MATERIAL, SHALL BE REMOVED PRIOR TO FINAL INSPECTION. WIRE BASKETS SHOULD BE PULLED AWAY FROM THE TRUNK.
9. CONTRACTOR SHALL SCARIFY SOIL TO A DEPTH OF 12" IN AREAS WITH COMPACTED SOIL. CONTRACTOR SHALL EXCAVATE AND DISPOSE OF ALL STONE, DEBRIS AND BASE MATERIAL FROM PREVIOUS PARKING AREAS. BACK FILL WITH TOP SOIL WITH HIGH ORGANIC CONTENT AND CERTIFIED WEED FREE.

COORDINATION WITH PROJECT WORK

1. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.
2. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.
3. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED.

LAYOUT AND PLANTING SEQUENCE

1. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE LANDSCAPE ARCHITECT.
2. NOTIFY THE LANDSCAPE ARCHITECT, ONE (1) WEEK PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS. PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION. LAYOUT BED LINES WITH PAINT FOR THE LANDSCAPE ARCHITECT'S APPROVAL. SECURE THE LANDSCAPE ARCHITECT'S ACCEPTANCE BEFORE DIGGING AND START OF PLANTING WORK.

PLANTING GUIDELINES: TREES, SHRUBS & GROUNDCOVER

1. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL NOT BE APPLIED LESS THAN 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.
2. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.
3. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED.
4. DIG PLANTING HOLES TWO TIMES (2x) THE WIDTH OF THE ROOT BALL AND BACK FILL WITH PLANTING MIX. SEE "SOIL MIX" GUIDELINES.
5. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.
6. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.
7. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH.
8. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

PALM PLANTING

1. PALM TREES SHALL BE PLACED AT GRADE MAKING SURE NOT TO PLANT THE TREE ANY DEEPER IN THE GROUND THAN THE PALM TREES ORIGINALLY STOOD.
2. THE TREES SHALL BE PLACED WITH THEIR VERTICAL AXIS IN A PLUMB POSITION.
3. ALL BACKFILL SHALL BE NATIVE SOIL EXCEPT IN CASES WHERE PLANTING IN ROCK. WATER-SETTLE THE BACK FILL.
4. DO NOT COVER ROOT BALL WITH MULCH OR TOPSOIL.
5. PROVIDE A WATERING BERM AT EACH PALM. BERMS SHALL EXTEND A MINIMUM OF 18 INCHES OUT FROM THE TRUNK ALL AROUND AND SHALL BE A MINIMUM OF (6) INCHES HIGH.
6. REMOVE TWINE WHICH TIES FRONDS TOGETHER AFTER PLACING PALM IN PLANTING HOLE AND SECURING IT IN THE UPRIGHT POSITION.

PRUNING OF TREES AND SHRUBS

1. IF PRUNING OF EXISTING TREES OR PLANT MATERIAL IS REQUIRED THE CONTRACTOR SHALL ADHERE TO ANSI Z133.1 STANDARDS FOR TREE CARE AND INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) BEST MANAGEMENT PRACTICES.

MULCHING OF PLANTS

1. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.
2. APPLY A MINIMUM OF 2-3 INCHES DEPTH OF PINE STRAW MULCH BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ABUTTING PAVEMENT.
3. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 5 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS AND SPACED AT LEAST SIX INCHES AWAY FROM THE TREE TRUNK. MULCH TREES IN TURF AREAS PRIOR TO HYDROSEEDING.
4. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

SOIL MIX

1. CONTRACTOR SHALL OBTAIN SOIL TESTING FOR THE PROJECT AREA TO DETERMINE AGONOMIC SUITABILITY. RESULTS SHALL BE REVIEWED WITH THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO PLANTING. AT A MINIMUM, SOIL TESTS SHOULD CONSIDER THE FOLLOWING
2. PH / BUFFER PH
3. SALINITY
4. ORGANIC CONTENT / SAND CONTENT / SILT AND CLAY CONTENT (PERCENTAGE)
5. PHOSPHOROUS / POTASSIUM / CALCIUM / MAGNESIUM
6. AASHTO CLASSIFICATION
7. PERCOLATION RATE
8. CONTRACTOR IS TO PROPOSE A SOIL MIX DESIGN BASED UPON RESULTS OF TESTING. THESE RECOMMENDATIONS SHOULD ALSO TAKE INTO ACCOUNT THE TEST RESULTS FROM SAMPLES AND TESTING DATA SHALL BE SUBMITTED AT THE SAME TIME. PROVIDE A SUBMITTAL OF A TWO GALLON SAMPLE WITH TESTING DATA THAT INCLUDES RECOMMENDATIONS FOR CHEMICAL ADDITIVES FOR THE TYPES OF PLANTS TO BE GROWN.. CONTRACTOR SHALL INCLUDE THE COST OF SOIL TESTING IN THE BASE BID AS WELL AS A APPLICATION OF SLOW RELEASE BALANCED FERTILIZER. CONTRACTOR WILL PROVIDE A PROPOSAL FOR ANY ADDITIONAL AMENDMENTS..
9. AT THE TIME OF FINAL GRADING, ADD FERTILIZER OR ACIDIFIER IF REQUIRED TO THE PLANTING SOIL AT RATES RECOMMENDED BY THE TESTING RESULTS FOR THE PLANTS TO BE GROWN.

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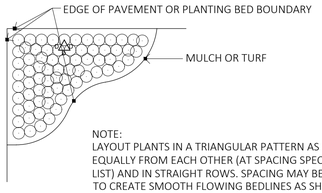
DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
LANDSCAPE NOTES

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

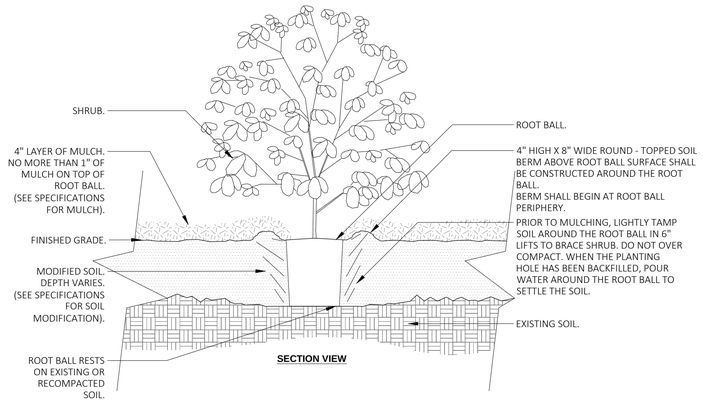
DRAWING NO.: L-3.2



NOTE:
LAYOUT PLANTS IN A TRIANGULAR PATTERN AS SHOWN, SPACED EQUALLY FROM EACH OTHER (AT SPACING SPECIFIED IN THE PLANT LIST) AND IN STRAIGHT ROWS. SPACING MAY BE ADJUSTED SLIGHTLY TO CREATE SMOOTH FLOWING BEDLINES AS SHOWN ON LANDSCAPE PLANS. PROVIDE 6" - 12" UNIFORM CLEARANCE (MULCH STRIP) BETWEEN PLANT FOLIAGE AND EDGE OF BEDLINE (TYP.).

7 SHRUB SPACING DETAIL

NOT TO SCALE 00-07



NOTES:
1- SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.
3- ALL TREES PLANTED SHALL BE STAKED OR GUYED FOR A PERIOD OF AT LEAST SIX (6) MONTHS IN ACCORDANCE WITH THE FOLLOWING DETAIL.

6 SHRUB - MODIFIED SOIL

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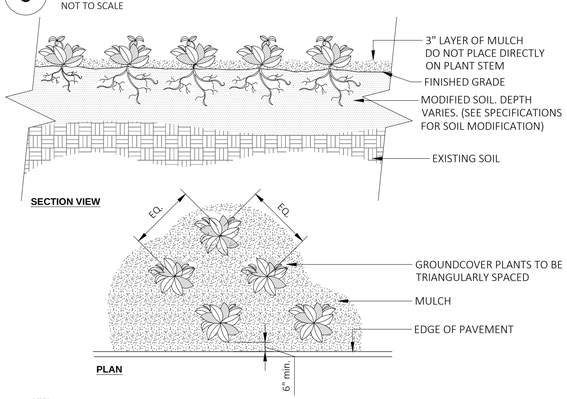

NOTES:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2- SMALL ROOTS (¼" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPERHY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

5 GROUNDCOVER

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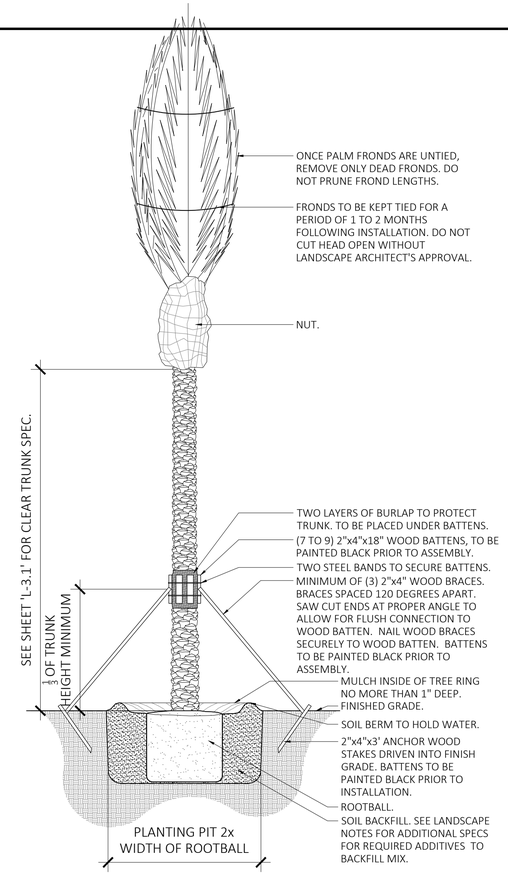
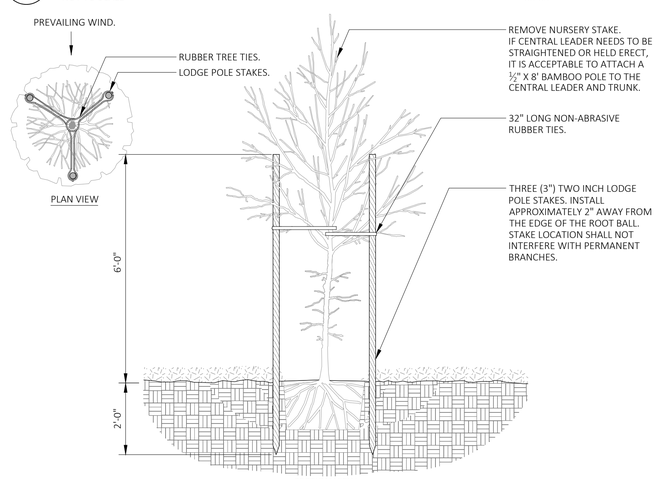


NOTES:
1- CONTRACTOR TO ASSURE DRAINAGE/PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION.
2- CONTRACTOR TO STAKE LOCATION OF PALMS, OUTSIDE OF CONFLICT WITH UNDERGROUND UTILITIES, FOR LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL PRIOR TO INSTALLATION.
3- ALL TREES PLANTED SHALL BE STAKED OR GUYED FOR A PERIOD OF AT LEAST SIX (6) MONTHS IN ACCORDANCE WITH THE FOLLOWING PLANTING DETAIL.

4 PALM PLANTING & STAKING DETAIL

NOT TO SCALE 00-03



3 TREE STAKING - LODGE POLES (3) (TREES >12' OA.)

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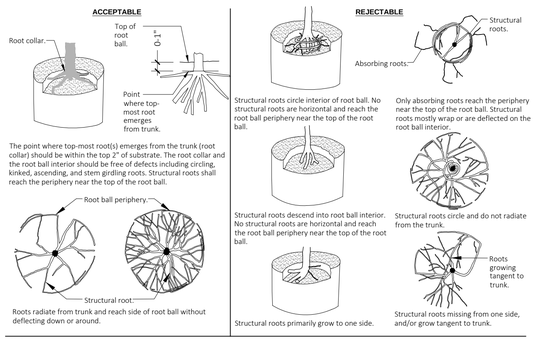

Notes:
1- Observations of roots shall occur prior to acceptance. Roots and substrate may be removed during the observation process; substrate/soil shall be replaced after observation has been completed.
2- Small roots (¼" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. Roots on the periperhy can be removed at the time of planting. (See root ball shaving container detail).

2 ROOT OBSERVATIONS DETAIL - CONTAINER

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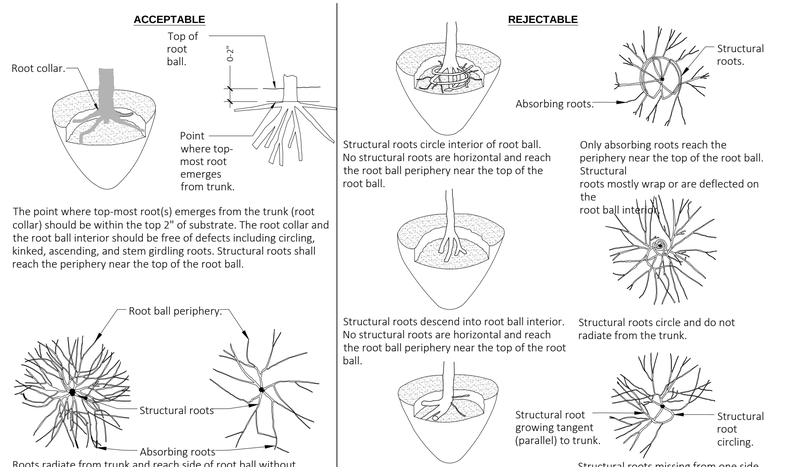
1" = 1'-0" 00-08



Notes:
1- Observations of roots shall occur prior to acceptance. Roots and soil may be removed during the observation process; substrate/soil shall be replaced after the observations have been completed.
2- See specifications for observation process and requirements.

1 ROOT OBSERVATIONS DETAIL - BALLED AND BURLAPPED

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DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER

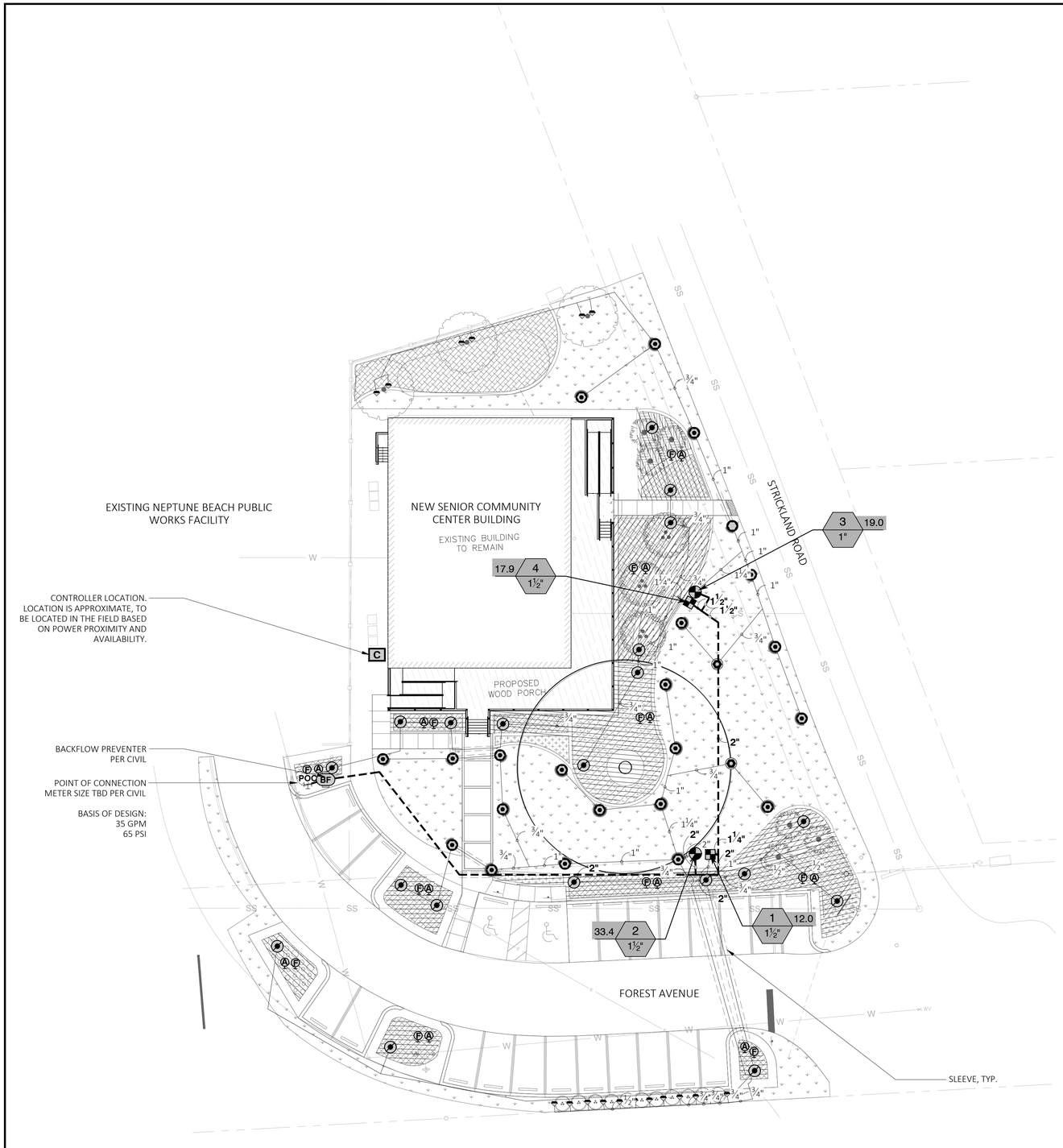
NEPTUNE BEACH, FLORIDA

LANDSCAPE DETAILS

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-3.3



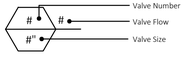
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
18 ADJ 18 FT	RAIN BIRD R-VAN18 1804-SAM-P45 TURF ROTARY, 13`-18` 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2" NPT FEMALE THREADED INLET.	1	45
24 ADJ 24 FT	RAIN BIRD R-VAN24 1804-SAM-P45 TURF ROTARY, 17`-24` 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2" NPT FEMALE THREADED INLET.	23	45
1401 1402 1404 1408	RAIN BIRD 1804-1400 FLOOD 1401 FLOOD BUBBLER 4.0" POPUP	18	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	RAIN BIRD XCZ-150-LCS HIGH FLOW CONTROL ZONE KIT, FOR LARGE COMMERCIAL DRIP ZONES. 1-1/2\" PEB GLOBE VALVE WITH SINGLE 1-1/2\" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. FLOW RANGE: 15-62 GPM.	2	
	PIPE TRANSITION POINT ABOVE GRADE PIPE TRANSITION POINT FROM PVC LATERAL TO DRIP TUBING WITH RISER TO ABOVE GRADE INSTALLATION.	20	
P	RAIN BIRD MDCFCAP DRIPLINE FLUSH VALVE CAP IN COMPRESSION FITTING COUPLER.	11	
A	RAIN BIRD ARV050 1/2" AIR RELIEF VALVE, MADE OF QUALITY RUST-PROOF MATERIALS, WITH A 6" DRIP VALVE BOX (SEB 7XB EMITTER BOX). USE WITH INSTALLATION BELOW SOIL. THE VALVE WILL ALLOW AIR TO ESCAPE THE PIPELINE, THUS PREVENTING WATER HAMMER OR BLOCKAGE.	11	
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFD-06-18 XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT. SPECIFY XF INSERT FITTINGS.	4,742 L.F.	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PEB 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	2
BF	ZURN 375 1-1/2" REDUCED PRESSURE PRINCIPLE ASSEMBLY. SIZES 1/2",3/4", 1", 1-1/4", 1-1/2", 2".	1
C	RAIN BIRD ESP4ME3 WITH (1) ESP-SM3 7 STATION, HYBRID MODULAR OUTDOOR CONTROLLER. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LNK WIFI MODULE AND FLOW SENSOR READY.	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	1,498 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	265.0 L.F.
	PIPE SLEEVE: PVC CLASS 200 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	188.9 L.F.

Valve Callout



VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PIPE	WIRE	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	14.41	1,802 L.F.	381.1	202.9	40	45.78	59.45	0.61 in/h
2	RAIN BIRD PEB	1-1/2"	TURF ROTARY	33.44	279.7 L.F.	507.8	193.1	40	46.23	59.78	0.58 in/h
3	RAIN BIRD PEB	1"	TURF ROTARY	19.04	15	361.9	293.0	45	50.38	64.98	0.36 in/h
4	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	17.91	2,687 L.F.	247.3	287.6	40	43.71	58.25	0.53 in/h
	Common Wire						265.0				

0' 10' 20' 40'
SCALE: 1"=20'

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NEPTUNE BEACH COMMUNITY CENTER

NEPTUNE BEACH, FLORIDA

IRRIGATION PLAN AND SCHEDULE

SYM	DESCRIPTION	DATE
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	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

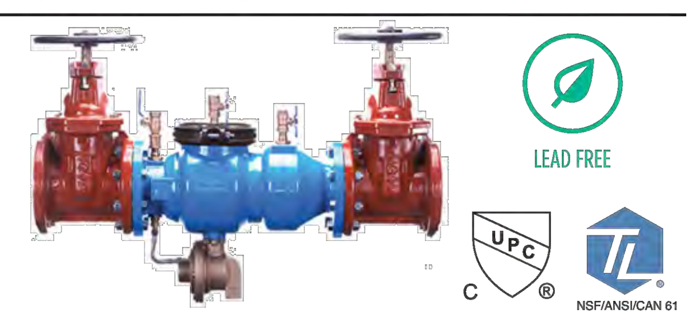
DRAWING NO.: L-4.1

SEE IRRIGATION SCHEDULE ON SHEET L-4.1 FOR SPECS.

ZURN®

Model 375
Reduced Pressure Principle Assembly

Application
Designed for installation on potable water lines to protect against both backsiphonage and backpressure of contaminated water into the potable water supply. The Model 375 provides protection where a potential health hazard exists. Ideal for use where lead-free* valves are required.



Standards Compliance
(Unless Otherwise Noted, Sizes 2 1/2" Thru 10")
- ASSE® Listed 1013
- IAPMO® Listed
- CSA® Certified B64.4 (2 1/2" thru 8")
- AWWA Compliant C511, and C550
- FM® Approved
- UL® Classified
- C-UL® Classified
- NYC MEA 49-01-M Vol 2
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California.
- Meets the requirements of NSF/ANSI/CAN 61*

*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

Materials

Main valve body	Ductile Iron ASTM A 536
Access covers	Ductile Iron ASTM A 536
Coatings	NSF Approved fusion epoxy finish
Internals	Stainless steel, 300 Series NORYL™
Fasteners	Stainless Steel, 300 Series
Seal rings	EPDM (FDA approved)
O-rings	Buna Nitrile (FDA approved)
Springs	Stainless Steel, 300 Series
Sensing line	Stainless Steel, braided hose

Features
Sizes: 2 1/2", 3", 4", 6", 8", 10"

Maximum working water pressure	175 PSI
Maximum working water temperature	140°F
Hydrostatic test pressure	350 PSI
End connections (Grooved for steel pipe)	AWWA C606
(Flanged)	ANSI B16.42 Class 150

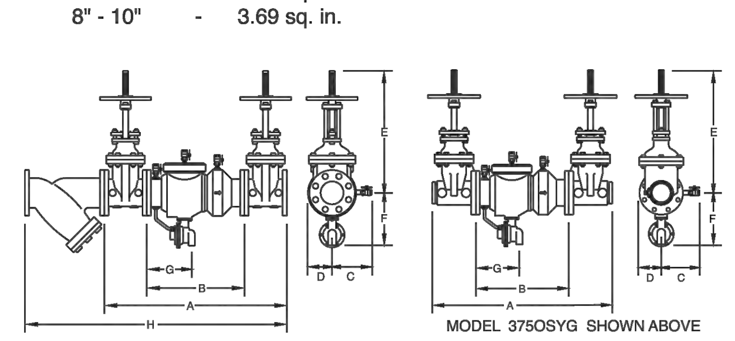
Options (Suffixes can be combined)
- ☐ - with NRS shut-off valves (standard)
- ☐ FSC - with epoxy coated wye type strainer (flanged only)
- ☐ G - with grooved end NRS gate valves
- ☐ GF - with grooved inlet connection and flanged outlet connection
- ☐ FG - with flanged inlet connection and grooved outlet connection
- ☐ L - less shut-off valves (flanged body connections)
- ☐ OSY - with OS&Y gate valves
- ☐ PI - with Post Indicator gate valve
- ☐ BG - with grooved end butterfly valves with integral supervisory switches

*New Connected Products. Search ZCSM-PF on Zurn.com for details.

Accessories
- ☐ Connected Pressure Monitor (Model ZCSM-PF)*
- ☐ Connected Flow Meter Option (Model ZCSM-BTM must be ordered with Model ZCSM-PF)*
- ☐ OS & Y Gate valve tamper switch (OSY-40
- ☐ Air gap (Model AG)
- ☐ QT-SET Quick Test Fitting Set
- ☐ Repair kit (rubber only)
- ☐ Thermal expansion tank (Model XT)
- ☐ Wireless Monitor Retrofit Kit for conversion of existing model 375 (212-6-RFK-375W1, 8-10-RFK-375W1)

Relief Valve discharge port:
2 1/2" - 6" - 2.75 sq. in.
8" - 10" - 3.69 sq. in.

Attention:
Model 375 (flange body) and Model 375A (grooved body) have different lay lengths.



Dimensions & Weights (do not include pkg.)

MODEL 375 SIZE in.	mm	A in.	A mm	A WITH BUTTERFLY VALVES in.	mm	B LESS GATE VALVES in.	mm	C in.	mm	D in.	mm	E OS&Y OPEN in.	mm	E OS&Y CLOSED in.	mm	E NRS GATE in.	mm	E WITH BUTTERFLY VALVES in.	mm	F in.	mm	G in.	mm	H in.	mm	LESS SHUT-OFF VALVES lbs.	kg	NRS GATE VALVES FLANGED lbs.	kg	NRS GATE VALVES GROOVED lbs.	kg	OS&Y GATE VALVES FLANGED lbs.	kg	OS&Y GATE VALVES GROOVED lbs.	kg	BUTTERFLY VALVES GROOVED lbs.	kg
2 1/2	65	31	787	28	711	15 7/8	403	7 1/4	184	3 3/4	95	17 3/4	451	15 3/8	391	11 1/2	292	8 1/4	210	9 1/2	241	8 3/8	213	41 1/4	1048	60	27	162	73	144	65	170	77	152	69	132	60
3	80	32	813	28 1/2	724	15 7/8	403	7 1/4	184	3 3/4	95	20 1/4	514	17	432	12 3/4	324	8 1/2	216	9 1/2	241	8 3/8	213	42 3/4	1086	60	27	184	83	154	70	190	86	142	64	112	51
4	100	37 5/8	956	32 8/9	835	19 1/2	495	8	203	4 1/2	114	22 1/2	572	18 1/4	464	14 1/2	368	9	229	11	279	9 1/4	235	52 3/4	1340	98	44	278	126	260	118	288	131	274	124	182	83
6	150	44 5/8	1133	37 5/8	956	23 1/2	597	10	254	6	152	30 1/2	775	24 1/4	616	18	457	10 1/4	260	12 3/8	314	10 3/4	273	62 3/4	1594	175	79	459	208	431	196	475	215	449	204	293	133
8	200	60 7/8	1546	53 7/8	1369	37 3/4	959	11	279	10	254	37	940	28 1/2	724	21 1/8	537	12	305	15 3/8	391	16 3/4	425	85	2159	377	171	829	376	795	361	853	387	805	365	551	250
10	250	63 7/8	1622	57 7/8	1470	37 3/4	959	11	279	10	254	45 5/8	1159	34 3/4	883	24 3/4	629	13	330	15 3/8	391	16 3/4	425	93 1/4	2369	407	185	1167	529	1101	499	1225	556	1159	526	795	361

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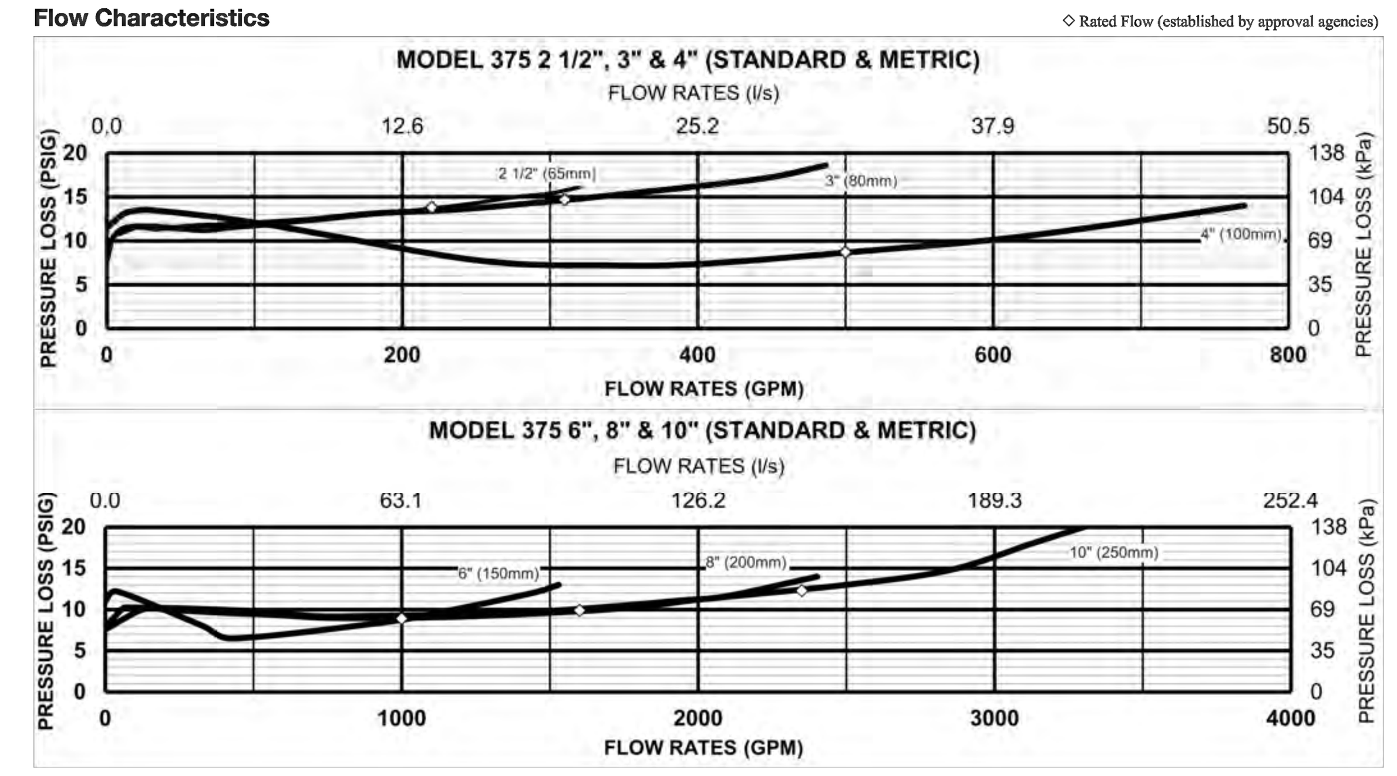
Rev. M
Date: 9/21
Document No. BF-375
Patent No. 5, 913, 331
Product No. Model 375

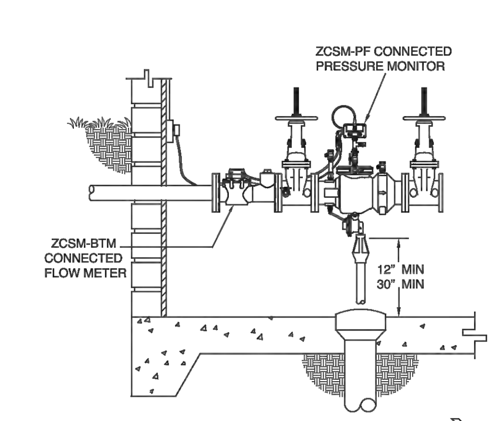
Page 1 of 2

Flow Characteristics

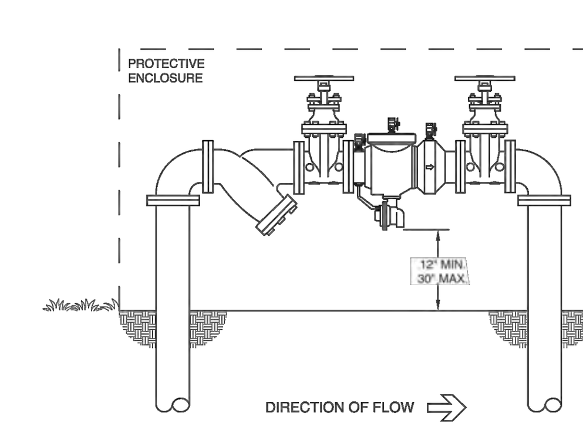


Typical Installation
Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe (GPM)				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	**75**	**112**	**149**	**224**
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687
12"	1763	2644	3525	5288



INDOOR INSTALLATION
(375OSY with ZCSM-PF Connected Pressure Monitor and ZCSM-BTM Connected Flow Meter accessories)



OUTDOOR INSTALLATION

Specifications
The Reduced Pressure Principle Backflow Prevention Assembly shall be certified to NSF/ANSI/CAN 61, ASSE® Listed 1013, and supplied with full port gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536), the seat ring and check valve shall be NORYL™, the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The checks and the relief valve shall be accessible for maintenance without removing the device from the line. The Reduced Pressure Principle Backflow Prevention Assembly shall be a ZURN WILKINS Model 375.

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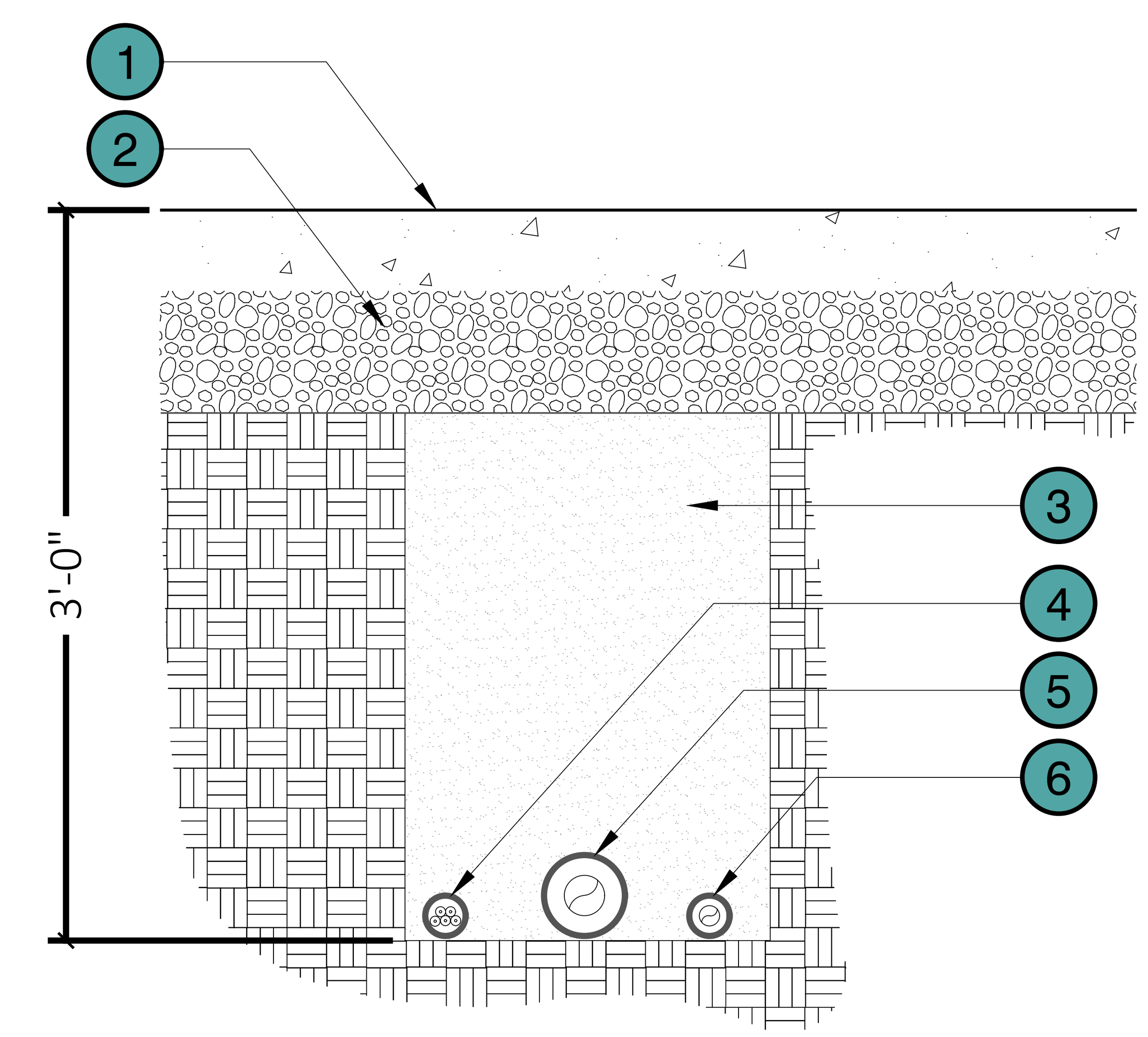
02 ZURN 375 BACKFLOW SPEC SHEET



1. PAVEMENT
2. BASE ROCK
3. CLEAN BACKFILL, 95% RELATIVE COMPACTION UNDER PAVING OR PER CIVIL ENGINEER'S PLANS
4. CONTROL WIRES, SLEEVE UNDER PAVING. INSTALL ADJACENT TO PRESSURIZED MAINLINE. BUNDLE SHALL BE NO MORE THAN 50% OF PIPE DIAMETER
5. MAINLINE, SLEEVE UNDER PAVING TO BE TWO TIMES THE DIAMETER OF THE PRESSURIZED MAINLINE PIPE
6. NON-PRESSURIZED LINE, SLEEVE UNDER PAVING TO BE BE TWO TIMES THE DIAMETER OF THE LATERAL LINE

NOTES:

1. SEE IRRIGATION LEGEND FOR MAINLINE SIZE AND TYPE.
2. ALL SLEEVES SHALL BE SCH. 40 PVC PIPE.
3. ALL SLEEVES SHALL EXTEND 12" BEYOND THE EDGE OF PAVEMENT.
4. END OF SLEEVES SHALL BE LOCATED WITH A WOODEN STAKE OR PVC PIPE. LOCATORS SHALL RUN CONTINUOUSLY FROM THE END OF THE SLEEVE TO FINISHED GRADE.

1 PIPE BENEATH PAVEMENT
1" = 1'-0"
FX-IR-FX-AUXEQ-05

ML+H
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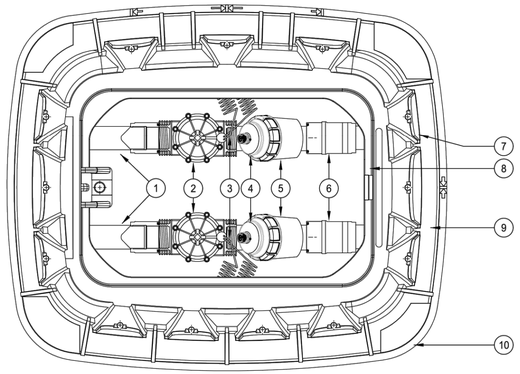
LA6667110 Qualifier
JEREMY MARQUIS
LIC. # LA6667110

SEAL
DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
IRRIGATION DETAILS

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0
DRAWING NO.: L-4.2



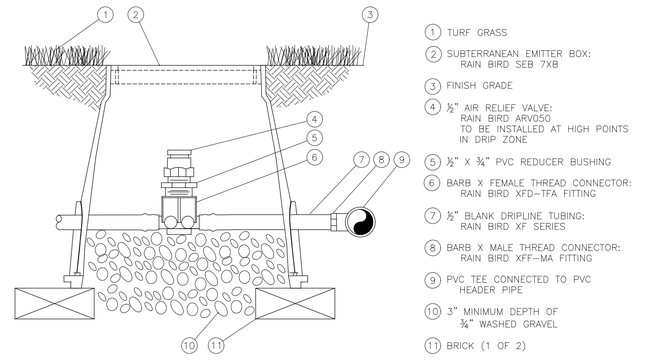
1. CONNECTION TO MAINLINE
2. 1 1/2" PESB-R VALVE (INCLUDED IN XCZ-150-LCDR KIT)
3. 30-INCH LINEAR LENGTH OF WIRE, COILED
4. 1 1/2" SCH 40 ADAPTER (INCLUDED IN XCZ-150-LCDR KIT)
5. 1 1/2" FILTER - RAIN BIRD LARGE CAPACITY DISC FILTER (INCLUDED IN XCZ-150-LCDR KIT)
6. 1 1/2" HIGH FLOW PRESSURE REGULATOR (INCLUDED IN XCZ-150-LCDR KIT)
7. USE TWO(2) OF THREE(3) OPENINGS ON SHORT SIDE OF VALVE BOX FOR THE LATERAL LINES OUT OF THE BOX
8. TOP OF RAIN BIRD VALVE BOX
9. JUMBO VALVE BOX WITH PURPLE COVER: RAIN BIRD VBJMBPL
10. BASE OF RAIN BIRD VALVE BOX

D XCZ-150-LCDR 1.5" COMMERCIAL - TWO CONTROL ZONE KITS IN JUMBO VALVE BOX

2-14-18

N.T.S.

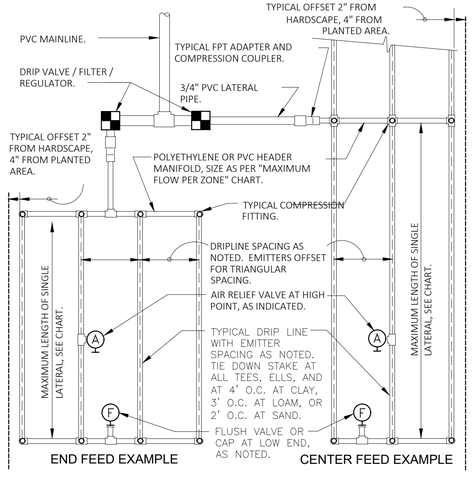
XCZ-150-LCDR 2 VALVES.dwg



1. TURF GRASS
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. FINISH GRADE
4. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
5. ½" X ¾" PVC REDUCER BUSHING
6. BARB X FEMALE THREAD CONNECTOR: RAIN BIRD XFD-TFA FITTING
7. ½" BLANK DRIPLINE TUBING: RAIN BIRD XF SERIES
8. BARB X MALE THREAD CONNECTOR: RAIN BIRD XFF-MA FITTING
9. PVC TEE CONNECTED TO PVC HEADER PIPE
10. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL
11. BRICK (1 OF 2)

03 ZONE CONTROL SPEC SHEET DETAIL

SEE IRRIGATION SCHEDULE ON SHEET L-4.1 FOR SPECS.



MAXIMUM LATERAL LENGTH (FEET)						
	EMITTER FLOW RATE GPH					
	12" SPACING		18" SPACING		24" SPACING	
PSI	0.6	0.9	0.6	0.9	0.6	0.9
10	125	96	175	135	218	171
20	249	191	350	171	442	340
30	307	236	434	333	550	422
40	350	268	495	380	627	171
50	125	96	175	135	218	171
60	125	96	175	135	218	171

GRID PRECIPITATION RATES (IN/HR)			
		EMITTER FLOW RATE	
EMITTER SPACING	LATERAL SPACING	0.6	0.9
12	12	0.96	1.44
18	18	0.69	1.03
24	24	0.28	0.41

LATERAL FLOW PER 100 FT (GPM)			
EMITTER FLOW	12" SPACING	18" SPACING	24" SPACING
0.6 GPH	1.0 GPM	0.67 GPM	0.50 GPM
0.9 GPH	1.5 GPM	1.0 GPM	0.75 GPM

MAXIMUM FLOW PER ZONE		
	MAX GPM	PSI LOSS
SCHEDULE 40 PVC HEADER SIZE		
1/2"	4.7 GPM	7.7 PSI
3/4"	8.3 GPM	5.6 PSI
1"	13.5 GPM	4.2 PSI
1-1/2"	33.9 GPM	2.9 PSI
2"	52.4 GPM	1.9 PSI
POLY PIPE HEADER SIZE		
1/2"	4.7 GPM	8.8 PSI
3/4"	8.3 GPM	6.3 PSI
1"	13.5 GPM	4.8 PSI
1-1/2"	31.8 GPM	2.9 PSI
2"	52.4 GPM	2.2 PSI

SLOPED CONDITION NOTE:
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE.
2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.
3. NORMAL SPACING WITHIN THE TOP ⅔ OF SLOPE,
4. INSTALL DRIPLINE AT 25% GREATER SPACING AT THE BOTTOM ⅓ OF THE SLOPE.
5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM ⅓ ON A SEPARATE VALVE.

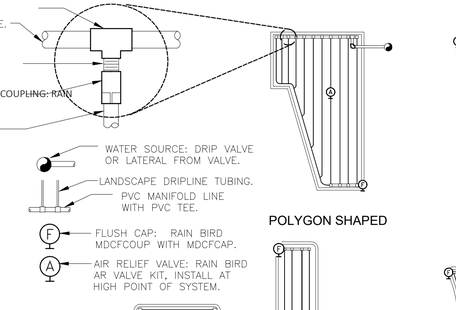
1 TYPICAL RAIN BIRD DRIPLINE REQUIREMENTS

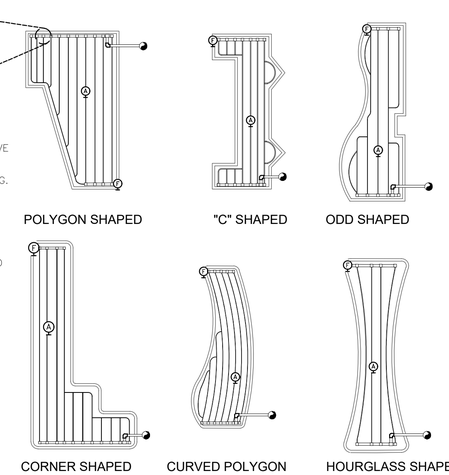
N.T.S.

2 RAINBIRD ARV050 1/2" AIR RELIEF VALVE WITH 6" DRIP VALVE BOX

NOT TO SCALE

0000-06





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LA6667110 Qualifier

JEREMY MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
IRRIGATION DETAILS

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-4.3

FX-IR-RB-DRIP-25

RAIN BIRD

Tech Spec

1800™ Series Spray Heads

Industry's Leading Spray Heads

Trusted for over 30 years, 1800 Series Spray Heads have provided unmatched durability, reliability, and performance.

Superior components and features make the 1800 Series Spray Head the spray head of choice for a wide variety of applications.

Features

Co-molded, pressure-activated, multi-functional wiper seal assures positive seal without excess "flow-by" which enables more heads to be installed on the same valve.

- Designed for use with all Rain Bird plastic spray head nozzles – U-Series, HE-VAN, R-VAN, MPR, VAN, and SAM Series.
- Precision controlled flush at pop-down clears debris from unit, assuring positive stem retraction in all soil types.
- Strong stainless steel spring provides reliable stem retraction.
- Ratchet mechanism on all models allows easy nozzle pattern alignment without tools.
- Pre-installed 1800 Pop-Top™ flush plug blocks debris from entering after flushing. Allows for easy nozzle installation.
- Constructed of time-proven UV-resistant plastic and corrosion resistant stainless steel parts, assuring long product life.
- All sprinkler components are removable from the top without special tools, providing for quick and easy flushing and maintenance of the sprinkler.
- Side inlets featured on 1806, 1806PRS, 1806P45, 1812, 1812PRS, and 1812P45 models only.
- Five-year trade warranty.

Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3 m)
- Pressure: 15 to 70 psi (1.0 to 4.8 bar)

Specifications

- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise

Dimensions/Models

- ½" (15/21) NPT female threaded inlet
- Models and height:
  1802: 4" (10 cm) body height; 2" pop-up height (5 cm)
  1804: 6" (15 cm) body height; 4" pop-up height (10 cm)
  1806: 9 ¾" (24 cm) body height; 6" pop-up height (15 cm)
  1812: 16" (40 cm) body height; 12" pop-up height (30 cm)
- Exposed surface diameter: 2¼" (5.7 cm)

How To Specify

1804 - SAM - PRS

- **Model** 1804: 4" (10.2 cm) pop-up height
- **Optional Feature** SAM: Seal-A-Matic™ check valve
- **Optional Feature** P45: 45psi (3.1 bar) in-stem pressure regulation
- **Optional Feature** PRS: 30psi (2.1 bar) in-stem pressure regulation

SAM

PRS-30

PRS-45

How To Specify

1804 - SAM-P45 - R-VAN18-360

- **Model** 1804: 4" (10.2 cm) pop-up height
- **Optional Feature** SAM: Seal-A-Matic™ check valve
- **Optional Feature** P45: 45psi (3.1 bar) in-stem pressure regulation
- **Radius Range**
  8' - 14' (2.4 m to 4.6m) R-VAN14: 45° - 270°
  R-VAN14-360: 360°
  13' - 18' (4.0 to 5.5m) R-VAN18: 45° - 270°
  R-VAN18-360: 360°
  17' - 24' (5.2 to 7.3m) R-VAN24: 45° - 270°
  R-VAN24-360: 360°
- **Strip Nozzles**
  R-VAN-LCS: 5' x 15' (1.5 x 4.6m)
  R-VAN-RCS: 5' x 15' (1.5 x 4.6m)
  R-VAN-SST: 5' x 30' (1.5 x 9.1m)

SAM-PRS-30

SAM-PRS-P45

1800™ SAM Series

Ideal for use in areas with changing elevations, the 1800 SAM Series offers all 1800 Series features plus:

- Built-in Seal-A-Matic™ (SAM) check valve. Eliminates the need for under-the-head check valves. No parts to be installed at the site.
- Stronger retract spring to accommodate elevation changes up to 14' (4.2 m). One of the strongest springs in the industry.
- Prevents drainage from spray heads at lower elevations. Stops water waste. Ends landscape damage due to flooding and/or erosion.
- Helps retain water in lateral pipes which reduces wear on system components by minimizing water hammer during start-up.
- Designed for use with all Rain Bird plastic spray head nozzles.
- "SAM" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3 m)
- Pressure: 25 to 70 psi (1.7 to 4.8 bar)

Specifications

- SAM capability: holds up to 14 feet (4.2 m) of head; 6 psi (0.3 bar)
- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise
- Installation: bottom inlet only

Dimensions

- ½" (15/21) NPT female threaded inlets
- Body height: 1804 SAM - 6" (15 cm), 1806 SAM - 9¼" (24 cm), 1812 SAM- 16" (40 cm)
- Exposed surface diameter: 2¼" (5.7 cm)

Models

- 1804 SAM: 4" pop-up height (10 cm)
- 1806 SAM: 6" pop-up height (15 cm)
- 1812 SAM: 12" pop-up height (30 cm)

WaterSense Meets EPA Criteria
Certified by ICC-ES

All Rain Bird Spray Bodies with PRS are WaterSense certified

1800 PRS Series

Designed for areas with high and/or widely fluctuating water pressures, the 1800 PRS Series has all 1800 Series features plus:

- **PATENTED** PRS pressure regulator built into the stem. No parts to be installed at the site. Saves time and money.
- Maintains constant outlet pressure at 30psi (2.1 bar). Spray nozzles perform best at 30psi. Ensures maximum nozzle performance, even with varying inlet pressures. Maintains constant pressure regardless of nozzles used.
- Restricts water loss by up to 70% if nozzle is removed or damaged. Saves water and money. Reduces possibility of accidents and property damage. Recommended for vandal-prone areas.
- Ensures consistent performance throughout zone if nozzle is removed or damaged. Keeps plant life covered by other spray heads properly irrigated.
- Ends misting and fogging caused by high pressure. Stops water waste. Ensures necessary watering occurs in high pressure or wind conditions.
- Designed for use with all Rain Bird plastic spray head nozzles.
- "PRS-30" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3 m)
- Pressure: 15 to 70 psi (1 to 5 bar)

Specifications

- Regulates nozzle pressure to an average 30 psi (2.1 bar) with inlet pressures of up to 70 psi (4.8 bar)
- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise
- Installation: side or bottom inlet
- Side inlet installation not recommended in freezing climates

Dimensions

- ½" (15/21) NPT female threaded inlets
- Body height: 1804 PRS - 6" (15 cm), 1806 PRS - 9¼" (24 cm), 1812 PRS - 16" (40 cm)
- Exposed surface diameter: 2¼" (5.7 cm)

Models

- 1804 PRS: 4" pop-up height (10 cm)
- 1806 PRS: 6" pop-up height (15 cm)
- 1812 PRS: 12" pop-up height (30 cm)

1800 P45 Series

Designed for areas with high and/or widely fluctuating water pressures, the 1800 P45 Series has all 1800 Series features plus:

- **PATENTED** PRS pressure regulator built into the stem. No parts to be installed at the site. Saves time and money.
- Maintains constant outlet pressure at 45psi (3.1 bar). Rotary nozzles perform best at 45psi. Ensures maximum nozzle performance, even with varying inlet pressures. Maintains constant pressure regardless of nozzles used.
- Restricts water loss by up to 70% if nozzle is removed or damaged. Saves water and money. Reduces possibility of accidents and property damage. Recommended for vandal-prone areas.
- Ensures consistent performance throughout zone if nozzle is removed or damaged. Keeps plant life covered by other spray heads properly irrigated.
- Ends misting and fogging caused by high pressure. Stops water waste. Ensures necessary watering occurs in high pressure or wind conditions.
- Designed for use with all Rain Bird plastic spray head nozzles.
- "PRS-45" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 8 to 24 feet (2.4 to 7.3 m)
- Pressure: 15 to 70 psi (1.7 to 4.8 bar)

Specifications

- Regulates nozzle pressure to an average 45 psi (3.1 bar) with inlet pressures of up to 70 psi (4.8 bar)
- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise
- Installation: side or bottom inlet
- Side inlet installation not recommended in freezing climates

Dimensions

- ½" (15/21) NPT female threaded inlets
- Body height: 1804 P45 - 6" (15 cm), 1806 P45 - 9¼" (24 cm), 1812 P45 - 16" (40 cm)
- Exposed surface diameter: 2¼" (5.7 cm)

Models

- 1804 P45: 4" pop-up height (10 cm)
- 1806 P45: 6" pop-up height (15 cm)
- 1812 P45: 12" pop-up height (30 cm)

1800 SAM-PRS-30 Series

Meets the needs of spray body applications using Spray Nozzles regardless of changing elevation or water pressures. Incorporates 1800 Series SAM feature and regulates operating pressure at 30 psi (2.1 bar).

- Designed to maximize application efficiency when using Spray Nozzles.
- Maintains constant outlet pressure at 30psi (3.1 bar) at varying inlet pressures. Maintains constant pressure regardless of nozzle used.
- "SAM-PRS-30" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3 m)
- Pressure: 25 to 70 psi (1.7 to 4.8 bar)

Specifications

- SAM capability: holds up to 14 feet (4.2 m) of head; 6 psi (0.3 bar)
- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise
- Installation: bottom inlet only
- Regulates nozzle pressure to an average 30 psi (2.1 bar) with inlet pressures of up to 70 psi (4.8 bar)

Dimensions

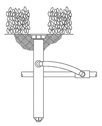
- ½" (15/21) NPT female threaded inlets
- Body height: 1804 SAM-PRS - 6" (15 cm), 1806 SAM-PRS - 9¼" (24 cm), 1812 SAM-PRS - 16" (40 cm)
- Exposed surface diameter: 2¼" (5.7 cm)

Models

- 1804 SAM-PRS: 4" pop-up height (10 cm)
- 1806 SAM-PRS: 6" pop-up height (15 cm)
- 1812 SAM-PRS: 12" pop-up height (30 cm)

1806 with Swing Joint on Bottom Inlet

1812 with Swing Pipe on Side Inlet



1800 SAM-P45 Series

Meets the needs of spray body applications using Rotary Nozzles regardless of changing elevation or water pressures. Incorporates 1800 Series SAM feature and regulates operating pressure at 45 psi (3.1 bar).

- Designed to maximize application efficiency when using Rotary Nozzles.
- Maintains constant outlet pressure at 45psi (3.1 bar) at varying inlet pressures. Maintains constant pressure regardless of nozzle used.
- "SAM-P45-45" stamped on cap for easy identification and maintenance.
- Five-year trade warranty.

Operating Range

- Spacing: 8 to 24 feet (2.4 to 7.3 m)
- Pressure: 25 to 70 psi (1.7 to 4.8 bar)

Specifications

- SAM capability: holds up to 14 feet (4.2 m) of head; 6 psi (0.3 bar)
- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise
- Installation: bottom inlet only
- Regulates nozzle pressure to an average 45 psi (3.1 bar) with inlet pressures of up to 70 psi (4.8 bar)

Dimensions

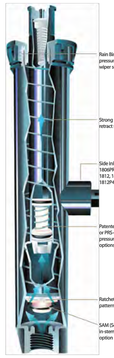
- ½" (15/21) NPT female threaded inlets
- Body height: 1804 SAM-P45 - 6" (15 cm), 1806 SAM-P45 - 9¼" (24 cm), 1812 SAM-P45 - 16" (40 cm)
- Exposed diameter: 2¼" (5.7 cm)

Models

- 1804 SAM-P45: 4" pop-up height (10 cm)
- 1806 SAM-P45: 6" pop-up height (15 cm)
- 1812 SAM-P45: 12" pop-up height (30 cm)

WaterSense Meets EPA Criteria
Certified by ICC-ES

All Rain Bird Spray Bodies with PRS are WaterSense certified



RAIN BIRD

Specifications

1802, 1804, 1806 and 1812 Pop-up Spray Sprinkler

The sprinkler body, stem, nozzle and screen shall be constructed of heavy-duty, ultra-violet resistant plastic. It shall have a heavy-duty stainless steel retract spring for positive pop-down and a ratcheting system for easy alignment of the pattern. The sprinkler shall have a soft elastomer pressure-activated co-molded wiper seal for cleaning debris from the pop-up stem as it retracts into the case to prevent the sprinkler from sticking up to minimize "flow-by."

The sprinkler shall have a matched precipitation rate (MPR) plastic or brass nozzle with an adjusting screw capable of regulating the radius and flow. The sprinkler shall be capable of housing protective, non-clogging filter screens or pressure compensating screens (PCS) under the nozzle. The screen shall be used in conjunction with the adjusting screw for regulating. The 6" (15 cm) and 12" (30 cm) models shall have both a side and a bottom ½" (15/21) (FNPT) inlet for ease of installation.

The sprinkler shall have a Pop-Top™ Flush Plug pre-installed. The plug shall prevent debris from clogging the sprinkler during installation and allow for the system to be flushed before nozzling. The plug shall be bright green in color and constructed of polypropylene material.

1804 SAM, 1806 SAM and 1812 SAM Circle Seal-A-Matic™ Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinklers shall also include a Seal-A-Matic (SAM) check valve to prevent low-head drainage of up to 14 feet of head. This feature shall require the use of the bottom inlet only. These units shall be identifiable from the top with "SAM" marking on the cap. The sealing device shall be an integral part of the pop-up stem, removable through the top of the sprinkler, and shall seal against the bottom case inlet. It shall create no more than 1 psi pressure drop at the maximum rated flow.

1804 P45, 1806 P45 and 1812 P45 Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a pressure regulating (PRS) device to prevent high pressure fogging to the nozzle stream. This regulating device shall be an integral part of the pop-up stem, removable through the top of the case. These units shall be identifiable from the top with "PRS-30" markings on the cap.

The device shall regulate the nozzle pressure to 30 psi for inlet pressures from 35 to 70 psi. Below 35 psi the pressure loss shall not exceed 6 psi.

1804 PRS, 1806 PRS and 1812 PRS Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a pressure regulating (PRS) device to prevent high pressure fogging to the nozzle stream. This regulating device shall be an integral part of the pop-up stem, removable through the top of the case. These units shall be identifiable from the top with "PRS-30" markings on the cap.

The device shall regulate the nozzle pressure to 30 psi for inlet pressures from 35 to 70 psi. Below 35 psi the pressure loss shall not exceed 6 psi. These models shall utilize the bottom inlet only.

1804 P45, 1806 P45 and 1812 P45 Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a pressure regulating (PRS) device to prevent high pressure fogging to the nozzle stream. This regulating device shall be an integral part of the pop-up stem, removable through the top of the case. These units shall be identifiable from the top with "PRS-45" markings on the cap.

The device shall regulate the nozzle pressure to 45 psi for inlet pressures from 50 to 70 psi. Below 50 psi the pressure loss shall not exceed 6 psi.

1804 SAM-PRS, 1806 SAM-PRS and 1812 SAM-PRS Seal-A-Matic Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a Seal-A-Matic (SAM) check valve and a pressure regulating (PRS) device. These units shall be identifiable from the top with "SAM-PRS-30" markings on the cap.

The check valve shall prevent low-head drainage of up to 14 feet of head. The pressure regulating device shall prevent high pressure fogging of the nozzle stream by regulating the nozzle pressure to 30 psi for inlet pressures from 35 to 70 psi. Below 35 psi the pressure loss shall not exceed 6 psi. These models shall utilize the bottom inlet only.

1804 SAM-P45, 1806 SAM-P45, and 1812 SAM-P45 Seal-A-Matic Pressure Regulating Pop-up Spray Sprinkler

Optional Feature Specifications:

When so indicated on the design, the 4", 6" or 12" high pop-up spray sprinkler shall also include a Seal-A-Matic (SAM) check valve and a 45 psi (3.1 bar) pressure regulating (P45) device. These units shall be identifiable from the top with "SAM-PRS-45" markings on the cap.

The check valve shall prevent low-head drainage of up to 14 feet of head. The pressure regulating device shall prevent high pressure misting and undesirable performance of the nozzle stream by regulating the nozzle pressure to 45 psi for inlet pressures from 50 to 70 psi. Below 50 psi the pressure loss shall not exceed 6 psi. These models shall utilize the bottom inlet only.

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03 1800 SERIES SPRAY HEAD SPEC SHEET

SEE IRRIGATION SCHEDULE ON SHEET L-4.1 FOR SPECS.

02 POP UP SPRAY HEAD SPEC SHEET

RAIN BIRD

Tech Spec

Bubbler Heads

Adjustable Full-Circle Bubbler 1300A-F

Designed for tree, shrub and flower areas.

Operating Range

- Flow: 1.0 to 2.3 gpm (0.23 to 0.52 m³/h; 0.06 to 0.14 l/s)
- Spacing: 1 to 3 feet (0.3 to 0.9 m)
- Pressure: 10 to 60 psi (0.7 to 4.0 bar)

Dimensions

- ½ inch (15/21) female threaded inlet
- Height: 1 inch (2.5 cm)
- Top diameter: 1 inch (2.5 cm)

1300A-F

1300A-F

Nozzle	Pressure psi	Flow gpm
F	10	1.0
	20	1.4
	30	1.7
	40	1.9
	50	2.1
	60	2.3

1300A-F METRIC

Nozzle	Pressure bar	Radius m/h	Flow l/m
F	0.7	0.23	3.6
	1.0	0.26	4.2
	1.5	0.30	4.8
	2.0	0.34	5.4
	2.5	0.39	6.0
	3.0	0.43	7.2
	3.5	0.48	7.8
	4.0	0.52	8.4
	4.1	0.53	8.4

Pressure Compensating Full-Circle Bubblers 1400 Series

Designed for irrigating tree, shrub and flower areas where pressure compensation is required.

Operating Range

- Flow: 0.25 to 2.0 gpm (0.06 to 0.46 m³/h; 0.02 to 0.13 l/s)
- Spacing: 1 to 3 feet (0.3 to 0.9 m)
- Pressure: 20 to 90 psi (1.5 to 6.0 bar)

Dimensions

- Same as 1300A-F

Models and Specifications

- 1401: 0.25 gpm (0.06 m³/h; 0.02 l/s); full circle, trickle pattern
- 1402: 0.5 gpm (0.11 m³/h; 0.03 l/s); full circle, trickle pattern
- 1404: 1.0 gpm (0.23 m³/h; 0.06 l/s); full circle, umbrella pattern
- 1408: 2.0 gpm (0.46 m³/h; 0.12 l/s); full circle, umbrella pattern

1400 Series

How To Specify

1404

- **Model**
  1300A-F
  1401
  1402
  1404
  1408

RAIN BIRD

Specifications

1300A-F
Adjustable Flood Bubbler

The bubbler body shall be constructed of durable UV-resistant plastic. It shall have a plastic inlet filter screen to protect the nozzle against clogging, and a stainless steel adjusting screw, capable of shutting off the bubbler and regulating the flow.

The bubbler shall have a ½ inch (15,21) female threaded inlet for connecting to the piping system riser.

The bubbler shall be as manufactured by Rain Bird Corporation, Glendora, California.

1401, 1402, 1404, 1408
Pressure Compensating Flood Bubbler

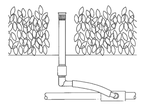
The bubbler shall have a "trickle" pattern (1401 & 1402 models) or an "umbrella" pattern (1404 & 1408 models) discharge.

The bubbler assembly shall have a plastic inlet filter screen to protect the nozzle against clogging.

The pressure compensating bubbler shall be of a permanently assembled design constructed of durable, UV-resistant plastic with an integral rubber flow washer for regulating the flow rate at an operating pressure range of 20 to 90 psi (1,5 to 6,0 bar).

The pressure compensating bubbler shall have a ½ inch (15,21) female threaded inlet for connection to the piping system riser.

The pressure compensating bubbler shall be as manufactured by Rain Bird Corporation, Glendora, California.



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01 BUBBLER HEAD SPEC SHEET

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084
Ph 904.825.6747 www.halback.com
LA6667110 Qualifier

JEREMY MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: CS/GC

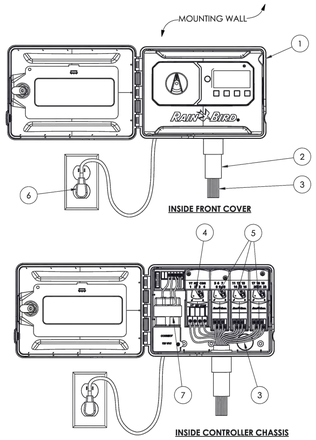
NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
IRRIGATION DETAILS

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-4.4

SEE IRRIGATION SCHEDULE ON SHEET L-4.1 FOR SPECS.



GENERAL NOTES:

1. MODULAR HYBRID CONTROLLER: RAIN BIRD ESP-ME3 INSIDE WALL MOUNT
2. 1-INCH PVC SCH 40 CONDUIT AND FITTINGS
3. WIRES TO REMOTE CONTROL VALVES
4. STANDARD MODULE FOR 4-STATION CONTOLLERS
5. OPTIONAL MODULES FOR 22-STATION CONTROLLER
6. STANDARD 120 V PLUG
7. 120 VAC, 60 HZ INTERNAL TRANSFORMER

CHOOSING CONTROLLER FEATURES

SELECTING THE MODEL
TO SELECT THE DESIRED MODEL
TURN ON ONE OF THE FOLLOWING LAYERS

OPTION-4-STATION
OPTION-7-STATION
OPTION-10-STATION
OPTION-13-STATION
OPTION-16-STATION
OPTION-19-STATION
OPTION-22-STATION

TO TURN OFF THIS INSTRUCITON BOX,
TURN OFF LAYER "INSTRUCTION-OPTION".

D **ESP-ME3 MODULAR HYBRID CONTROLLER** 4-5-19 N.T.S.

02 CONTROLLER SPEC SHEET

RAIN BIRD **Tech Spec**

ESP-ME3 Modular Controller

ESP-ME3 Series Controllers

America's favorite modular controller, the ESP-Modular is now WiFi and flow sensor compatible with new design and an enhanced feature set to provide contractors with the industry's most flexible irrigation controller solution. The ESP-ME3 Controller supports up to 22 stations, 4 programs and 6 start times.

Applications
The ESP-ME3 WiFi Compatible Controller provides flexible scheduling features that make the controller ideal for all your irrigation controller needs.

Easy to Use
The ESP-ME3 WiFi Compatible Controller was designed with ease of use in mind. The controller boasts the industry's largest back-lit LCD screen for its class and also incorporates universal icons on both the controller overlay and the LCD.

Easy to Install
The ESP-ME3 WiFi Compatible Controller mounts with as few as two mounting screws. A guide for ½"or ¾" conduit fittings allows for professional installation of field wires into the cabinet. For larger field wire needs, remove the knockout for a 1" diameter overlay and the LCD.

Controller Hardware
- Plastic wall-mount case with door
- 4 station base module
- Mounting Screws
- Wire nuts for outdoor models

Controller Features
- Large LCD display with easy to navigate user interface
- Rain Sensor input with override capability
- Master valve/pump start circuit
- Non-Volatile (100 year) storage memory
- Remotely Programmable under 9V battery power (not included)

Scheduling Features
- Program based scheduling allows 4 individual programs with 6 independent start times per program for 24 total start times
- Watering schedule options: By days of week, ODD calendar days, EVEN calendar days, or Cyclic (every 1 – 30 days)

Advanced Features
- Advanced diagnostics and short detection with LED alert
- Contractor Default™ Program Save/ Restore saved program(s)
- Rain Sensor bypass by Station
- One Touch manual watering
- Delay Watering up to 14 days (applies only to stations not set to ignore Rain Sensor)
- Manual Watering option by program or station
- Seasonal Adjust applied to all programs or individual program
- Adjustable delay between valves (default set to 0)
- Master Valve on/off by station

Operating Specifications
- Station timing: 1 minute to 6 hours
- Seasonal Adjust: 5% to 200%
- Max operating temperature: 149°F (65°C)

Electrical Specifications
- Input required: 120VAC ± 10%, 60Hz (International models: 230VAC ± 10%, 50/60Hz)
- Output: 25.5VAC 1A
- Master Valve/Pump Start Relay Operating Voltage: 24VAC 50/60Hz Max Coil Inrush: 11VA Max Coil Holding: 5VA
- Idle/Off power draw 0.06 amps at 120VAC
- Power back-up not required. Nonvolatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages.

Certifications
- cULus [US and Canada], FCC Part 15b [US], CAN ICES-3(B)/NMB-3(B) [Canada], NOM [Mexico], CE [European Union], IRAM [Argentina], INMETRO [Brazil], IPX4, RCM [Australia and New Zealand], IP24.
- WaterSense® certified with up to 30% water savings when installed with Rain Bird LNK™ WiFi Module and WR2 Rain Sensor. Meets EPA criteria for high-performing, water-efficient products.

look for WATERSENSE

Dimensions
- Width: 10.7 in. (27,2 cm)
- Height: 7.7 in. (19,5 cm)
- Depth: 4.4 in. (11,2 cm)

How to specify your model:

ESP-ME3 WiFi Compatible Controller

120V 4 station base controller

Indoor/Outdoor	ESP-ME3
230V (available in outdoor models only)	
ESP-ME3EUR	230V markets except Australia
ESP-ME3AUS	230V Australia
Expansion Modules for all models	
ESPSM3	3 station expansion module
ESPSM6	6 station expansion module

RAIN BIRD

Specifications
The ESP-ME3 Controller shall be capable of fully automatic or manual operation. The controller shall be housed in a wall-mountable, weather resistant plastic cabinet with a key-locking cabinet door suitable for either outdoor or indoor installation.

The controller shall include a base unit module with 4 stations as well as three expansion slots capable of receiving expansion station modules of either three or six stations to achieve total station capacity of up to 22 stations. The controller shall accept the modules in any configuration and shall not require the installation of a three station module in order to install a 6 station module.

Station run times shall range from 1 minute to 6 hours. The controller shall be set with a factory default start time of 8 AM and default run time of 10 minutes for the first 4 stations for Program A only.

The controller shall have a Seasonal Adjust feature to adjust the run time for all stations from 5% to +200% in 5% increments. Seasonal Adjust can be applied to all programs simultaneously or individually.

The controller shall have 4 independent programs that can have 6 different start times. The controller shall stack multiple start times in sequence to prevent hydraulic overload. All programs run consecutively.

The controller shall be capable of operating two 24VAC solenoid valves per station plus a master valve or remote pump start relay. The controller shall operate on 120VAC± 10% at 60Hz (230VAC ± 10% at 50Hz for international models). A master valve or pump start relay shall operate on 24VAC at 50/60Hz, Max Coil Inrush of 11VA and Max Coil Holding of 5VA.

Watering day cycles shall be: By Day of the week, Odd, Even and Cyclic (Every # day). Odd, Even, and Cyclic shall support permanent days off. A day set to "Permanent Off" shall override the normal repeating schedule.

The controller shall have an electronic diagnostic circuit breaker that shall sense a station with an electrical overload or short circuit and shall bypass that station and continue to operate all other stations. When an electrical condition exists that is preventing normal operation the red LED shall illuminate continuously and scroll a message across the LCD as to what the problem is. When an alert condition is present that is related to programming errors or flow detection, the red LED shall continuously blink and scroll a message.

The controller shall have a 12-hour AM/PM or 24 hour military (for 50Hz models) clock with a midnight day change over. The clock shall default to the time format based upon the power detected. The controller shall have a 365-day calendar backed up against power interruptions by an internal lithium battery that will maintain date and time for approximately 10 years.

The controller shall provide the user the ability to bypass the Rain Sensor or flow sensor for each station independently.

The controller shall be equipped with a variety of Special Features (SF) that can be accessed by turning to the appropriate dial position and pressing and holding the two arrow keys simultaneously for 3 seconds.

Special Features include:
- Rain Sensor Bypass by Station
- Flow Sensor Bypass by Station
- Permanent Days Off (Odd, Even, Cyclic only)
- Store/Restore Saved Programs
- Reset to Factory Defaults
- Set Inter-station Delay timing
- Set Master Valve operation by Station

The features above will be included on a Special Features Card included with every controller.

The controller shall offer manual watering of ALL stations or ONE station at a time. When manual watering is triggered, the unit shall ignore the status of the weather sensor (if connected) and re-enable the sensor when manual watering is completed.

The controller shall display on the LCD the message NO AC to indicate to the user when AC Power is not present (only if 9 volt battery is present).

The controller shall be compatible with Rain Bird's LNK WiFi Module, allowing wireless connectivity to the controller.

The controller shall be compatible with Flow Sensors, allowing for flow monitoring which can give alerts and skip automatically scheduled irrigation for problem stations.

The controller shall provide a method for the installer to save the irrigation schedule into non-volatile memory for easy recall later if unwanted schedule changes are made.

The controller shall provide a method for the installer to restore the schedule to the factory fresh condition in order to start programming from a "blank" state.

The controller shall provide a method to wire the controller through a ½", ¾" and 1" wire conduit fitting to allow for a more professional installation.

The controller shall have a reset button to reset the controller in the case of micro-controller "lock-up" due to power surges or frequent interruption of power to the power supply.

The controller shall be upgradable to an EPA WaterSense approved smart controller without having to replace the cabinet, nor disconnect station modules.

Suggested accessories for use with this controller:
- LNK WiFi Module (wireless connectivity)
- RSD Series Wired Rain Sensors
- WR2 Series Wireless Rain Sensors
- All Rain Bird rotors, valves, nozzles, sprays and drip products

The controller shall be manufactured by Rain Bird Corporation in a USMCA member country.

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Fax: (626) 852-7343

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03 RAIN SENSOR SPEC SHEET

English User Guide

RSD Rain Sensor

The Rain Bird® RSD Series Rain Sensor is an easy to install, durable and visually pleasing rain sensor device suitable for 24VAC residential and commercial applications. This high quality product saves water by automatically measuring precipitation amounts and suspends irrigation cycles when watering is unnecessary.

NOTE: The RSD Rain Sensor is a low-voltage device compatible with all 24 volt alternating current (VAC) control circuits and 24 VAC pump start relay circuits. Electrical rating suitable for use with controllers that can actuate up to ten 24 VAC, 7 VA solenoid valves per station, plus one master valve.

DO NOT use with any 110/250 VAC devices or circuits, such as direct-acting pump start systems or pump start relays.

Selecting a Location

Install the Rain Sensor in a location where it can collect natural precipitation without interference from man-made or natural obstructions. Place the device at a height that deters vandalism. Avoid rain sensor mounting locations such as those shown in **Figure 1**.

DO NOT install the Rain Sensor where the device's ability to collect and record natural precipitation events are affected by sprinklers, rain gutters, trees, etc.

DO NOT install the Rain Sensor where it could accumulate debris from trees.

DO NOT install the Rain Sensor in a location exposed to high winds.

Operation

Set Rainfall Setting

The rainfall setting on the sensor determines the amount of rainfall needed to suspend the irrigation watering cycle. You can adjust the rainfall setting from 1/8" to 3/4" (5mm to 20mm). Adjustments are made by turning the sensor dial cap clockwise or counter clockwise. To set the rainfall setting, turn the sensor dial cap until the desired rainfall setting lines up with the arrow on the sensor body (**A**), as shown in **Figure 2**.

The ideal rainfall setting for your location depends on soil type, wind, amount of direct sunlight the sensor receives as well as frequency and amount of rainfall. The table below gives some guidelines to help determine the appropriate rainfall setting.

Irrigation Site Conditions	Rainfall Setting
• Sensor receives long periods of direct sun • Clay-type soils	1/8" to 1/4" (3mm to 6mm)
• Frequent, heavy rains • Sensor mounted in a mostly shady area • Sandy soils	1/2" to 3/4" (13mm to 20mm)

Set Vent Ring

The vent ring determines "drying time" – the length of time the sensor suspends irrigation after a rainfall. For most installations set the vent ring to the fully open position.

At properties where water has a tendency to pool after a rainfall, partially close the sensor's vent ring. This adjustment to the vent ring extends the period of time that the irrigation cycle is suspended, allowing the property time to drain.

To set the drying time, turn the vent ring below the sensor dial cap to the desired position, as shown in **Figure 3**.

Mounting

NOTE: Follow the installation instructions carefully and install the unit only in full compliance with the National Electrical Code (NEC) or your local electrical code.

Bracket Model

To install the RSD-BEx Rain Sensor bracket model:

1. Select an appropriate mounting location within 25' (7,6m) of your controller. It is not recommended to add additional wire to the provided 25' (7,6m).
2. Drive two mounting screws through the holes (**C**) in the mounting bracket, as shown in **Figure 4 (C)**. Use the fasteners appropriate for the mounting surface (wood, tile, masonry, etc.).
3. Make sure the rain sensor dial cap is level and free from overhead obstructions.

Conduit Model

To install the RSD-CEx Rain Sensor conduit model:

1. Select an appropriate mounting location within 25' (7,6m) of your controller. It is not recommended to add additional wire to the provided 25' (7,6m).
2. Thread the Rain Sensor's lead wires through an adaptor fitting appropriate for your installation and screw the sensor into the adaptor, as shown in **Figure 5**. It is not recommended to add additional wire to the provided 25' (7,6m).
3. Make sure the rain sensor dial cap is level and free from overhead obstructions.
4. Secure the adapter fitting to the conduit, and then connect the Rain Sensor to the controller using the appropriate procedure as described in the "Rain Sensor Wiring" section.

Rain Sensor Wiring

Controllers With Rain Sensor Terminals

Many modern controllers (such as those from Rain Bird) include built-in terminals for rain sensor lead wires. Dedicated rain sensor terminals are usually labeled "sensor", "SENS", "S or "SN" on the controller's terminal strip.

1. Disconnect the rain sensor, remove the jumper wire (if present) from the controller's rain sensor terminals.
2. Connect the red and black lead wires from the rain sensor to the controller's sensor terminals, as shown in **Figure 7**. It does not matter which wire goes to each terminal.

Controllers Without Rain Sensor Terminals

Use the procedure below if your controller does NOT have dedicated rain sensor terminals.

1. Disconnect the wire from the common terminal ("C" or "COM") on the controller's terminal strip. Then connect this wire to the red Rain Sensor lead wire.
2. Connect the black Rain Sensor lead wire to the common terminal ("C" or "COM") on the controller's terminal strip, as shown in **Figure 8**.

Testing the System

After installation; test the sensor to ensure it is working correctly. Turn the controller on to initiate irrigation. Hold down the plunger located on top of the rain sensor as shown in **Figure 4 (B)**. The zone should turn off after a few seconds. If it does not turn off; check your rain sensor wire connections.

Maintenance

The RSD Rain Sensor operates automatically and requires no scheduled maintenance. However, the disks inside the sensor dial cap sometimes become contaminated with debris or insects. If this happens, use the following procedure to clean the Rain Sensor.

1. Turn the dial cap to the 3/4" rainfall setting, as shown in **Figure 2**.
2. Press the tab labeled "Press" on the side of the sensor body, as shown in **Figure 6 (D)**. Then turn the dial cap about 1 1/4 turns further to remove the cap from the sensor body.
3. Remove the plunger and disks from the sensor body and wash them in clean water.
4. Reinstall the plunger and disks. Then reset the rainfall setting to the desired position, as shown in **Figure 2**.

NOTE: If you wash the disks, give them at least 24 hours to dry before reinstalling them. If not, irrigation could be prohibited until they are completely dry.

RAIN BIRD **Tech Spec**

PEB and PESB Series Valves

Designed to Outperform. Engineered to Outlast.

Pressure surges? Effluent water? Clogging debris? No problem. PEB and PESB Series valves offer long life and efficient, trouble-free performance—even under harsh conditions. Constructed of heavy-duty, glass-filled nylon, these valves resist clogging. And the PESB model features a patented scrubber to actively fight dirt, debris and particles.

Features
- Body constructed of durable glass-filled nylon for long life and heavy-duty performance at 200 psi (13.80 bar) pressure
- Stainless steel studs molded into the body. Bonnet can be attached and removed more easily without damaging threads
- One-piece solenoid design with captured plunger and spring for easy servicing. Prevents loss of parts during field service
- External bleed protects the solenoid ports from debris when system is flushed
- Internal bleed operates the valve without allowing water into the valve box; allows pressure regulator to be adjusted without turning on the valve at the controller first
- Low flow operating capability (0.25 gpm; 0.06 m³/h; 1.2 l/m) for a wide range of applications. For flows below 5 gpm (1.14 m³/h; 19.2 l/m) or any Xerigation® application, install Rain Bird Y filter upstream
- Slow closing to prevent water hammer and subsequent system damage
- PESB only: Scrubber scrapes its stainless steel screen clean to break down grit and plant material. Prevents debris build-up and clogging

Options (order separately)
- Accommodates optional, field installed PRS-D pressure regulating module to ensure optimum sprinkler performance
- Optional purple flow control handles for non-potable water applications
  - PEB-NP-HAN1(1")
  - PEB-NP-HAN2 (1½" and 2")
- Accepts latching solenoid for use with Rain Bird battery-operated controllers up to 150 psi (10,35 bar)

Operating Range
- Pressure: 20 to 200 psi (1,38 to 13,80 bar)
- Flow: 0,25 to 200 gpm (0,06 to 45,40 m³/h; 1,2 to 757 l/m)
- Flow with PRS-D: 5 to 200 gpm
- (1,14 to 45,40 m3/h; 19,2 to 757 l/m)
- Temperature: up to 150° F (66° C)

Electrical Specifications
- Power: 24 VAC 50/60 Hz (cycles/sec) solenoid
- Inrush current: 0.41 A (9,84 VA) at 60 Hz
- Holding current: 0.14A (3,43VA) at 60Hz
- Coil resistance: 30-39 Ohms
- Compatible with ESP-LXD decoders

PEB and PESB Series Valve Pressure Loss (psi)

Flow GPM	100-PEB 1"	150-PEB 1½"	200-PEB 2"
0.25	0.8	-	-
0.5	1.6	-	-
1	1.3	-	-
5	1.7	-	-
10	1.8	-	-
20	2.9	3.9	-
30	5.6	3.6	-
40	10.0	3.5	-
50	15.6	3.6	4.8
75	-	5.4	4.5
100	-	9.6	5.2
125	-	14.6	8.2
150	-	21.2	11.8
175	-	-	15.5
200	-	-	19.5

PEB and PESB Series Valve Pressure Loss (bar)

Flow m³/h	Flow l/m	100-PEB 2.5 cm	150-PEB 3.8 cm	200-PEB 5.1 cm
0.06	1	0.06	-	-
0.3	5	0.09	-	-
0.6	10	0.10	-	-
1.2	20	0.12	-	-
3	50	0.15	-	-
6	100	0.32	0.26	-
9	150	0.68	0.24	-
12	200	-	0.26	0.33
15	250	-	0.33	0.32
18	300	-	0.42	0.32
21	350	-	0.57	0.34
24	400	-	0.74	0.41
27	450	-	0.92	0.51
30	500	-	1.14	0.64
33	550	-	1.38	0.77
36	600	-	-	0.90
39	650	-	-	1.04
42	700	-	-	1.18
45	757	-	-	1.34

Notes
1) Loss values are with flow control fully open.
2) PRS-D module recommended for all flow ranges.
Recommendations
1) Rain Bird recommends flow rates in the supply line not to exceed 7.5 ft./sec. (2,29 m/s) in order to reduce the effects of water hammer.
2) For flows below 5 gpm (1.14 m³/h; 19.2 l/m) Rain Bird recommends use of upstream filtration to prevent debris from collecting below the diaphragm.
3) For flows below 10 gpm (2,27 m³/h; 37.8 l/m) Rain Bird recommends the flow control item be turned down two full turns from the fully open position.

PESB Cutaway

Dimensions

Size	Height	Length	Width
100	6¼" (16,5 cm)	4" (10,2 cm)	4" (10,2 cm)
150	8" (20,3 cm)	6" (15,2 cm)	6" (15,2 cm)
200	8" (20,3 cm)	6" (15,2 cm)	6" (15,2 cm)

Note: The PRS-D option adds 2" (5,1 cm) to valve height.

Models
- 100PEB and 100PESB 1"
- 150PEB and 150PESB 1½"
- 200PEB and 200PESB 2"

BSP threads available, specify when ordering.

How To Specify

100	-	PEB	-	PRS-D
Size 100: 1" 150: 1½" 200: 2"		Model PEB PESB: scrubber model		Optional Feature PRS-Dial: pressure regulating module *(must be ordered separately)*

Note: Valve and PRS-Dial module must be ordered separately. For non-U.S. applications, it is necessary to specify NPT or BSP thread type.

RAIN BIRD

Specifications
The electric remote control valve shall be a normally closed 24 VAC 50/60 Hz (cycles/sec) solenoid actuated globe pattern design. The valve pressure rating shall not be less than 200 psi (13.80 bar). The valve shall have the following characteristics (circle one):

Flow rate: _____ gpm m³/h l/m

Pressure loss not to exceed: _____ psi bar

The valve body shall be constructed of heavy-duty glass-filled UV-resistant nylon and have stainless steel studs and flange nuts; diaphragm shall be of nylon reinforced nitrile rubber.

The valve shall have both internal and external manual open/close control (internal and external bleed) to manually open and close the valve without electrically energizing the solenoid. The valve's internal bleed shall prevent flooding of the valve box.

The valve shall house a fully-encapsulated, one-piece solenoid. The solenoid shall have a captured plunger with a removable retainer for easy servicing and a leverage handle for easy turning. This 24 VAC 50/60 Hz solenoid shall open with 19.6 VAC minimum at 200 psi (13.80 bar). At 24 VAC, average inrush current shall not exceed 0.41 amps. Average holding current shall not exceed 0.28 amps.

The valve shall have a brass flow control stem for accurate manual regulation and/or shut-off of outlet flow. The valve must open or close in less than 1 minute at 200 psi (13.80 bar), and less than 30 seconds at 20 psi (1.38 bar).

The PESB valve shall have a self-cleaning stainless steel screen designed for use in dirty water applications.

The valve construction shall be such as to provide for all internal parts to be removable from the top of the valve without disturbing the valve installation.

Optional Feature Specification

PRS-D Pressure Regulating Module:

100PEB-PRS-D	**100PESB-PRS-D**
150PEB-PRS-D	**150PESB-PRS-D**
200PEB-PRS-D	**200PESB-PRS-D**

When so indicated on the design, the 1", 1½" and 2" electric remote control plastic valves shall have a pressure regulating module (PRS-D) capable of regulating outlet pressure between 15 and 100 psi (±3 psi) (1.04 and 6.90 bar (±0.21 bar)).

The PRS-D module shall have an adjusting knob for setting pressure and Schrader valve connection for monitoring pressure. The pressure shall be adjustable from the PRS-D when the valve is internally manually bled or electrically activated.

Non-Potable Flow Control Handle *

PEB-NP-HAN1 - Fits 1"

PEB-NP-HAN2 - Fits 1½" and 2"

When so indicated on the design, the valve shall have a purple flow control handle to indicate to the user that non-potable water is being used. There shall be no difference between the black and purple handles except for the color.

**Rain Bird offers the PESB-R reclaimed water valve and conversion kits for reclaimed water application. Please see Tech Spec D373388, the Rain Bird catalog, or visit www.rainbird.com for more information.*

Plastic Electric Remote Control PEB or PESB Valve (with PRS-D)

Rain Bird Corporation
6991 East Southpoint Rd.
Tucson, AZ 85756
Phone: (520) 741-6100

Rain Bird Corporation
970 West Sierra Madre Avenue
Azusa, CA 91702
Phone: (626) 812-3400

The Intelligent Use of Water™
www.rainbird.com

D38950PEO

01 VALVE SPEC SHEET

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084

Ph 904.825.6747 www.halback.com
LA6667110 Qualifier

JEREMY MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: CS/GC

NEPTUNE BEACH COMMUNITY CENTER
NEPTUNE BEACH, FLORIDA
IRRIGATION DETAILS

SYM	DESCRIPTION	DATE
	PERMIT+BID SET	02/17/22
	30% DD REVIEW	12/23/21

SIZE: ANSI D
PRIME PROJECT #:
ML+H PROJECT #: 21.45.0

DRAWING NO.: L-4.5

21.45.00 NEPTUNE BEACH SENIOR COMMUNITY CENTER
SCHEDULES

LANDSCAPE SCHEDULE

Botanical/Common	Code	Cont	Cal	Height	Quantity
BAMBUSA MALINGENSIS / SEABREEZE BAMBOO	Bm	25 GAL.	MIN. 12-15 CANES	12`-14`	11
LAGERSTROEMIA INDICA X FAUREI `NATCHEZ` / NATCHEZ CRAPE MYRTLE	Ln	B&B, ROOT PLUS GROWERS	MULTI, 5 TRUNKS - 6-7" CALIPER	12`-14` HT	3
QUERCUS VIRGINIANA `FBQV22` TM / BOARDWALK SOUTHERN LIVE OAK	Qv	B&B, ROOT PLUS GROWERS	4"	14` - 16`	3
SABAL PALMETTO / CABBAGE PALMETTO	Ss	B&B; REGENERATED		8`-14` CT	6

Botanical/Common	Code	Cont	Height	Spread	Quantity
HELIANTHUS DEBILIS / DUNE SUNFLOWER	Hd	1 GAL.	8"	12"	71
ILEX VOMITORIA 'SCHILLINGS DWARF' / SCHILLINGS DWARF YAUPON HOLLY	Id	3 GAL.	12"	12"	62
LIRIOPE MUSCARI `BIG BLUE` / BIG BLUE LILYTURF	Lb	3 GAL.	12"	12"	102
NEPHROLEPIS EXALTATA / BOSTON FERN	Ne	3 GAL.	16"	16"	156
NERIUM OLEANDER 'PETITE PINK' / PETITE PINK OLEANDER	Np	7 GAL.	18"	18"	141
SPARTINA BAKERI / SAND CORDGRASS	Sb	1 GAL.	24"	16"	222

Botanical/Common	Code	Cont	Height	Spread	Quantity
PASPALUM NOTATUM `ARGENTINE` / ARGENTINE BAHIAGRASS	Pa		11008		

IRRIGATION SCHEDULES

IRRIGATION SCHEDULES

MANUFACTURER/MODEL	DESCRIPTION	QTY	PSI
RAIN BIRD R-VAN18 1804-SAM-P45	TURF ROTARY, 13`-18` 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2" NPT FEMALE THREADED INLET.	1	45
RAIN BIRD R-VAN24 1804-SAM-P45	TURF ROTARY, 17`-24` 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2" NPT FEMALE THREADED INLET.	21	45
RAIN BIRD R-VAN24 1804-SAM-P45	TURF ROTARY, 17`-24` 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2" NPT FEMALE THREADED INLET.	2	45
RAIN BIRD 1804-1400 FLOOD 1402	FLOOD BUBBLER 4.0" POPUP	18	40

MANUFACTURER/MODEL/	DESCRIPTION	QTY	PSI
RAIN BIRD XCZ-150-LCS	1-1/2" HIGH FLOW CONTROL ZONE KIT, FOR LARGE COMMERCIAL DRIP ZONES. 1-1/2\" PEB GLOBE VALVE WITH SINGLE 1-1/2\" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. FLOW RANGE: 15-62 GPM.	2	
PIPE TRANSITION POINT ABOVE GRADE	PIPE TRANSITION POINT FROM PVC LATERAL TO DRIP TUBING WITH RISER TO ABOVE GRADE INSTALLATION.	20	
RAIN BIRD MDCFCAP	DRIPLINE FLUSH VALVE CAP IN COMPRESSION FITTING COUPLER.	11	
RAIN BIRD ARV050	1/2" 1/2" AIR RELIEF VALVE, MADE OF QUALITY RUST-PROOF MATERIALS, WITH A 6" DRIP VALVE BOX (SEB 7XB EMITTER BOX). USE WITH INSTALLATION BELOW SOIL. THE VALVE WILL ALLOW AIR TO ESCAPE THE PIPELINE, THUS PREVENTING WATER HAMMER OR BLOCKAGE.	11	
RAIN BIRD XFD-06-18	XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT. SPECIFY XF INSERT FITTINGS.	4742.13	40

MANUFACTURER/MODEL	DESCRIPTION	QTY	
RAIN BIRD PEB	1-1/2" 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1	
RAIN BIRD PEB	1" 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1	
ZURN 375 1-1/2"	REDUCED PRESSURE PRINCIPLE ASSEMBLY. SIZES 1/2",3/4", 1", 1-1/4", 1-1/2", 2".	1	
RAIN BIRD ESP4ME3 WITH (1) ESP-SM3	7 STATION, HYBRID MODULAR OUTDOOR CONTROLLER. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LNK WIFI MODULE AND FLOW SENSOR READY.	1	
IRRIGATION LATERAL LINE:	PVC CLASS 200 SDR 21 1/2"	973.96	
IRRIGATION LATERAL LINE:	PVC CLASS 200 SDR 21 3/4"	310.37	
IRRIGATION LATERAL LINE:	PVC CLASS 200 SDR 21 1"	158.39	1,498 L.F.
IRRIGATION LATERAL LINE:	PVC CLASS 200 SDR 21 1 1/4"	48.77	
IRRIGATION LATERAL LINE:	PVC CLASS 200 SDR 21 2"	6.68	
IRRIGATION MAINLINE:	PVC SCHEDULE 40 1 1/4"	2.59	
RRIGATION MAINLINE:	PVC SCHEDULE 40 1 1/2"	14.87	265.0 L.F.
IRRIGATION MAINLINE:	PVC SCHEDULE 40 2"	247.53	
PIPE SLEEVE: PVC CLASS 200	TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	188.87	

21.45.00 NEPTUNE BEACH SENIOR COMMUNITY CENTER
SCHEDULES

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PIPE	WIRE	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	14.41	1,802 L.F.	381.1	202.9	40	45.88	59.45	0.61
2	RAIN BIRD PEB	1-1/2"	TURF ROTARY	33.44	279.7 L.F.	507.8	193.1	45	51.06	59.78	0.58
3	RAIN BIRD PEB	1"	TURF ROTARY	19.04	15	361.9	293	45	50.38	64.98	0.36
4	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	17.91	2,687 L.F.	247.3	287.6	40	44.01	58.25	0.53
	Common Wire						265				

HARDSCAPE SCHEDULES

SYMBOL	DESCRIPTION	QTY	DETAIL	DESCRIPTION	FINISH/COLOR	MANUFACTURER/SUPPLIER
HS-102	CIP COQUINA CONCRETE	1,136				
HS-103	PAVER BANDING COURSE	89		4"X8" HEADER COURSE	SILVER SAM	ARTISTIC PAVER
HS-104	AGGREGATE - 89 ROCK	2,021				
HS-105	PARKING CONCRETE	641				
HS-106	CONCRETE PARKING BORDER	384				
HS-107	PARKING STRIPE - PERMEABLE PAVERS	228		8"X8" SF RIMA	SAND DUNE	TREMRON
HS-108	PARKING - PERMEABLE PAVERS	4,333		8"X8" SF RIMA	GRANITE	TREMRON
HS-109	ANNODIZED ALUMINUM EDGING	172		4"	SILVER	PERMALOC