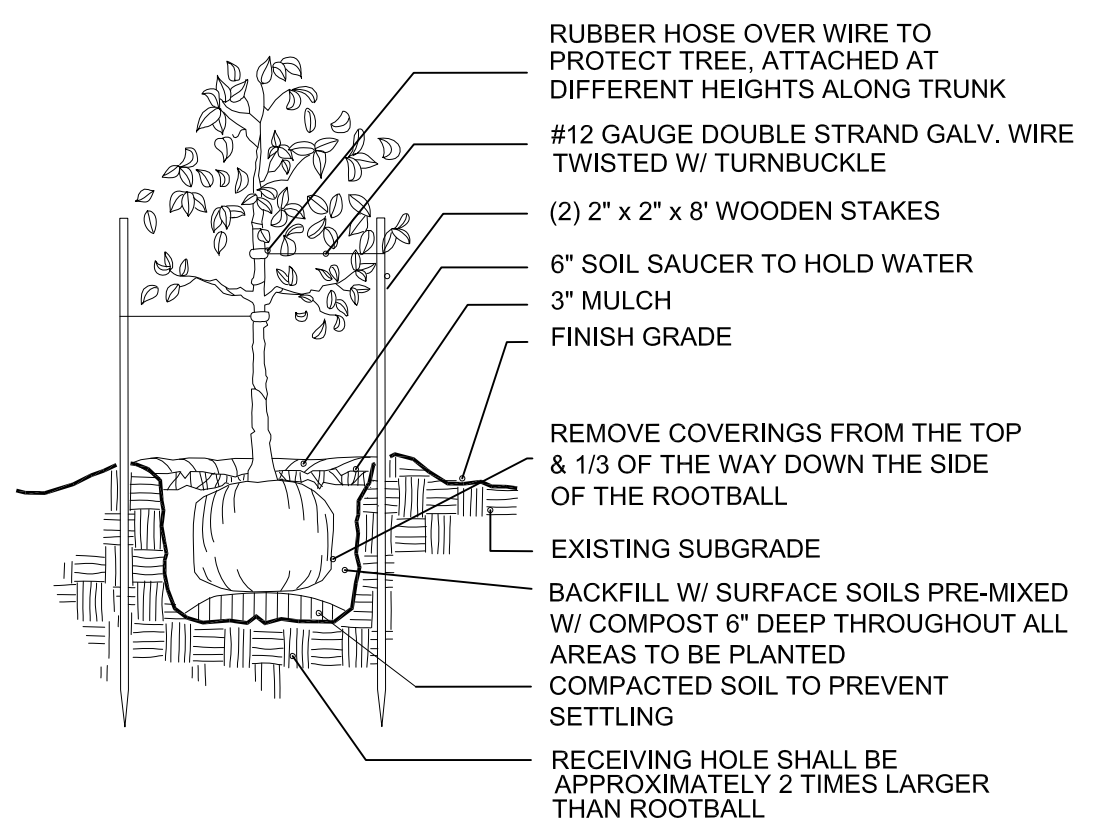


SOUTH END PLAN

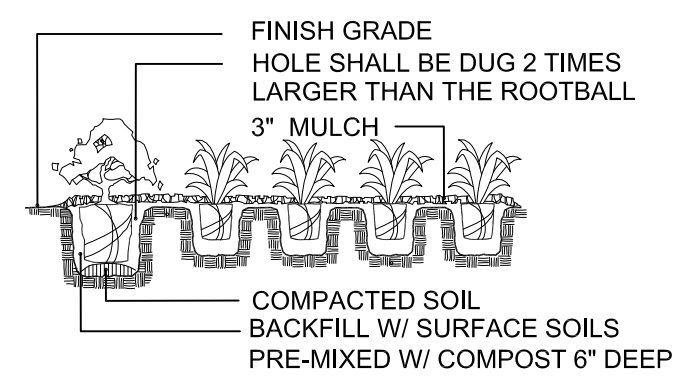
NORTH END PLAN

PLANTING DETAILS



TREE PLANTING/STAKING

N.T.S.



SHRUB AND GROUNDCOVER PLANTING

N.T.S.

PLANT LIST

COMMON NAME/ Botanical Name	Specification	Quan
TREES AND PALMS		
LIVE OAK <i>Quercus virginiana</i>	3" cal, 12" ht x 6" sp, 5" cst, florida fancy	6
GREEN BUTTONWOOD <i>Conocarpus erectus</i>	2" cal, 8" ht x 3" sp, 3" cst, florida fancy	2
SILVER BUTTONWOOD <i>Conocarpus erectus 'sericeus'</i>	2" cal, 8" ht x 3" sp, 3" cst, florida fancy	2
LARGE SHRUBS		
SAW PALMETTO <i>Serenoa repens</i>	3 gal, 14" ht x 14" sp, full space as shown	7
DWARF SHRUBS/GROUNDCOVER		
FROGFRUIT <i>Phylla nodiflora</i>	1 gal, 6" ht x 8" sp, full 24" oc	425
NATIVE GRASSES		
PINK MUHLY GRASS <i>Muhlenbergia capillaris</i>	1 gal, 16" ht full 30" oc	120
SALTMEADOW CORDGRASS <i>Spartina patens</i>	3 gal, 16" ht full 48" oc	118
DWARF FAKAHATCHEE <i>Tripsacum floridanum</i>	3 gal, 16" ht full 48" oc	106
SOD		
BAHIA <i>Argentina</i>	sf, sod; certified premium as needed in disturbed areas	tbd
SITE PREPARATION AND FINISHING		
Pinestraw Mulch	3" depth; large bales 14 x 14 x 24	50

LIST OF ABBREVIATIONS:

cst	clear single trunk	ht	height	ftg	full to ground	gal	gallon
sp	spread	oc	on center	sf	square foot	cmt	clear multi trunk
dbh	diameter	breast	height	tbd	to be determined	rpg	roots plus grown

Note:
For changes in product specification, a suitable equivalent product/system must be approved by the City and the Landscape Architect.

GENERAL NOTES:

All plant materials utilized to satisfy the landscaping requirements in conformance with the provisions of this article shall be good, healthy and sturdy plants and shall conform to the standards for Florida #1 grade or better unless specified as Florida Fancy, as defined by Grades and Standards for Nursery Plants and any amendments thereto, published by the State of Florida Dept. of Agriculture and Consumer Services, Division of Plant Industry. Soil testing shall be performed in multiple planting areas and a soil report provided to the Landscape Architect or Owner prior to planting.

The location of vegetation or trees shall not interfere with utility services or create an unsafe visual clearance or other safety hazard to the extent that correction cannot be remedied by trimming. In no case will a large tree be located under or within 15 feet either side of an existing utility wire.

Plantings shall not interfere with vehicular or pedestrian traffic and circulation or visibility, both within the project and at the entrance/exit of a project. Plantings shall be protected from vehicular encroachment.

Lawn areas, Trees and plants shall be handwatered to establish for a period of 60 days. See watering chart for TREE AND SHRUB ESTABLISHMENT this sheet.

All new trees located in lawn areas shall be centered in a 5' dia. circular mulch ring.

Contractors to abide by landscape technical specifications attached.

During construction, it shall be unlawful to place attachments or wires other than those of a protective nature to any tree which is to be retained.

All landscaping shall be installed in a sound, workmanlike manner and according to accepted good planting practice (including mulched areas around appropriate species so as to protect and present a finished appearance) with the quality of plant materials as hereinafter described. A qualified representative of the City of Cocoa Beach or designated qualified agent shall inspect all landscaping and no certificates of occupancy or similar authorization will be issued unless the landscaping meets the requirements provided herein.

Maintenance: the health and viability of all required landscape materials on the site, whether preserved or newly planted, must be maintained through proper care or replacement in perpetuity after issuance of the certificate of occupancy, certificate of completion, or restoration as may be required to resolve a code violation.

Any person owning or occupying the site shall have the continuing duty and obligation to maintain or cause the maintenance of all landscaping required pursuant to this article by the approved site plan, landscape plan, or the City of Cocoa Beach Code in compliance with the following minimum maintenance standards: (1) All landscaping and landscape areas shall be maintained so as to present a neat and orderly appearance. (2) All dead plant material shall be promptly replaced with plant material meeting the requirements of the approved site plan and landscape plan. (3) Trees and palms that are removed, excessively pruned, dead or beyond recovery shall be replaced.

The contractor shall be responsible for the maintenance of all landscaping, which shall be maintained in good condition so as to present a healthy, neat and orderly appearance at all times and shall be kept free from refuse and debris. All landscape material shall be maintained so as to provide for access for utilities, emergency services and vehicles. Maintenance shall include the immediate replacement of all dead plant material, as well as the pruning of trees to establish a central leader (except for multi-trunk species) and minimize co-dominant stem growth. The maintenance area also includes adjacent public and/or private streets and rights-of-way.

All newly planted trees shall be planted in a mulched area of at least twenty-five (25) square feet with the minimum dimensions of five (5) feet of the mulch bed for small trees. Large canopy trees shall not be planted in an area of less than 15' in either dimension.

Trees and plants showing evidence of construction damage shall not be accepted. Trees of species whose roots are known to cause damage to public roadways or other public works shall not be planted closer than twelve (12) feet to such public works.

SOILS AND GRADING:

Required for the planting bed areas only; not for areas of Bahia Lawn unless required by the Owner:

General or Landscape Contractor is to perform a Proctor Density Test and Soil Composition test prior to beginning planting landscape/irrigation work. If compaction exceeds 80% or soils are of an anaerobic nature then contractor is to remediate by loosening the soils and recompact soils to 75-80% maximum. Contractor is to perform a percolation test for positively draining soils in all landscape areas.

If the soils composition tests to have less than 8% organics content, and/or a sand content of less than 50%, then, all landscape soils shall be remediated to these percentages.

If the soils testing reveals deficiencies as above, contractor is to consult with the Landscape Architect for possible solutions. The acceptable process is that clean yellow or white sand shall be incorporated to a depth of 24" throughout the landscape areas by gently lifting the existing dirt to work the sand in at 50% total composition. Once, the sand and existing soil are mixed, 3 to 6 inches of compost is to be worked into the rough surface to a depth of 12". Finish grading to a compaction of 75 to 80% maximum Proctor Density.

If the soil is dry and deficient only in compost, which is typical in most cases, all soils shall be prepared by pre-mixing 3" of certified composted bark and manure mix to a depth of 6". Do not till. Lightly lift and drop the soils to mix.

All soils shall be of a well-draining nature with a minimum of 8% organics content. Soil in all new planting areas is to be of sufficient quality as to support healthy plant life (i.e. ph value of 6.5 to 7.5, clear of large aggregates). All planting excavations and sod areas shall be prepared and amended as per technical specifications attached.

Contact Landscape Architect or Owner for any further detail prior to bidding.

For percolation, a 24" deep hole must be filled with water until it drains completely. Then, the hole is immediately filled again. If the water takes more than 15 minutes to drain, then, the Contractor is to consult with the Landscape Architect to determine the appropriate remediation.

Once soils are properly prepared, or if soils compaction and composition testing meet the required percentages and meet the percolation times, then proceed as per technical details.

Circling and rootbound roots within the rootball of any tree will not be accepted.

Compost provided must be certified as to content, pH, salt and be fully composted and be sourced from a state licensed compost supplier. Supplier and product must be approved by Landscape Architect prior to bid award. Compost source:

General contractor to provide electrical, mainline and lateral line sleeving under walks and driveways. Rain Sensor and Irrigation Controller to be provided and all required equipment to for the operation of the irrigation system.

See Sheet L-1 for Landscape Plan and Details, L-2 for Irrigation Plan and Details, L-3 for Technical Specs

4.feb.2020 as per city review
Date: _____
Revision: _____

Sec: _____
Twp: _____
Rng: _____
Design: khb
Drawn: khb
Checked: _____

Kathleen Hodgson Burson
Florida Registered Landscape Architect
License # LA00001325

designed by:
INDIAN RIVER GARDEN
Site Planning + Landscape Architecture + Design Build + Arborist Consulting
2950 Knowlton Drive, Titusville, FL 32780
kbburson@gmail.com 321-546-2574
Cocoa Beach, Florida

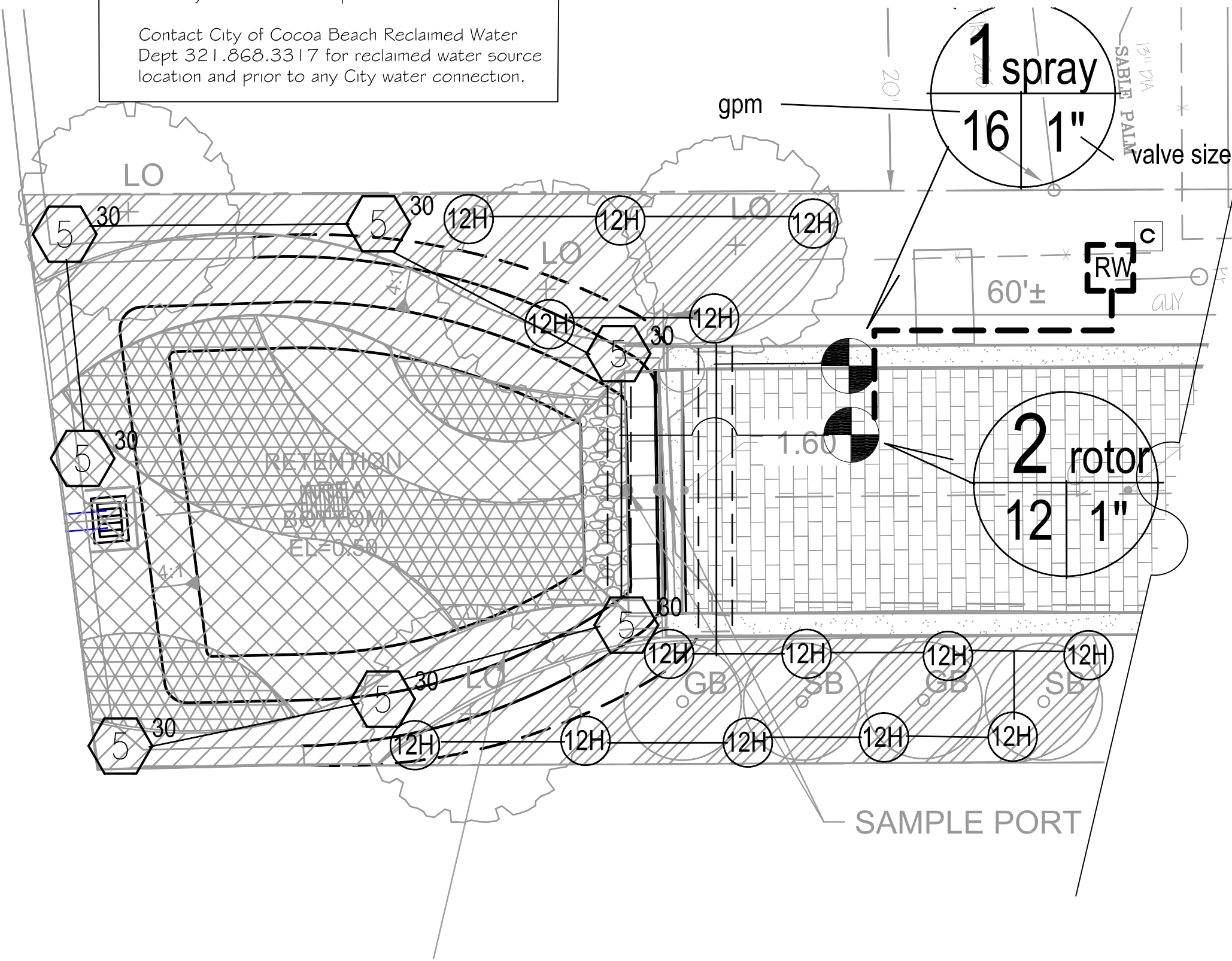
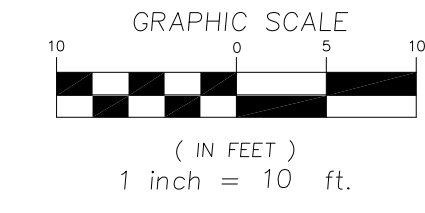
Landscape Plan and Details prepared for:
CONVAIR COVE SW-LID IMPROVEMENT

Date: 10 Jan 2020
Scale: as shown
Proj #: _____
Sheet #: _____
L-1 of 3

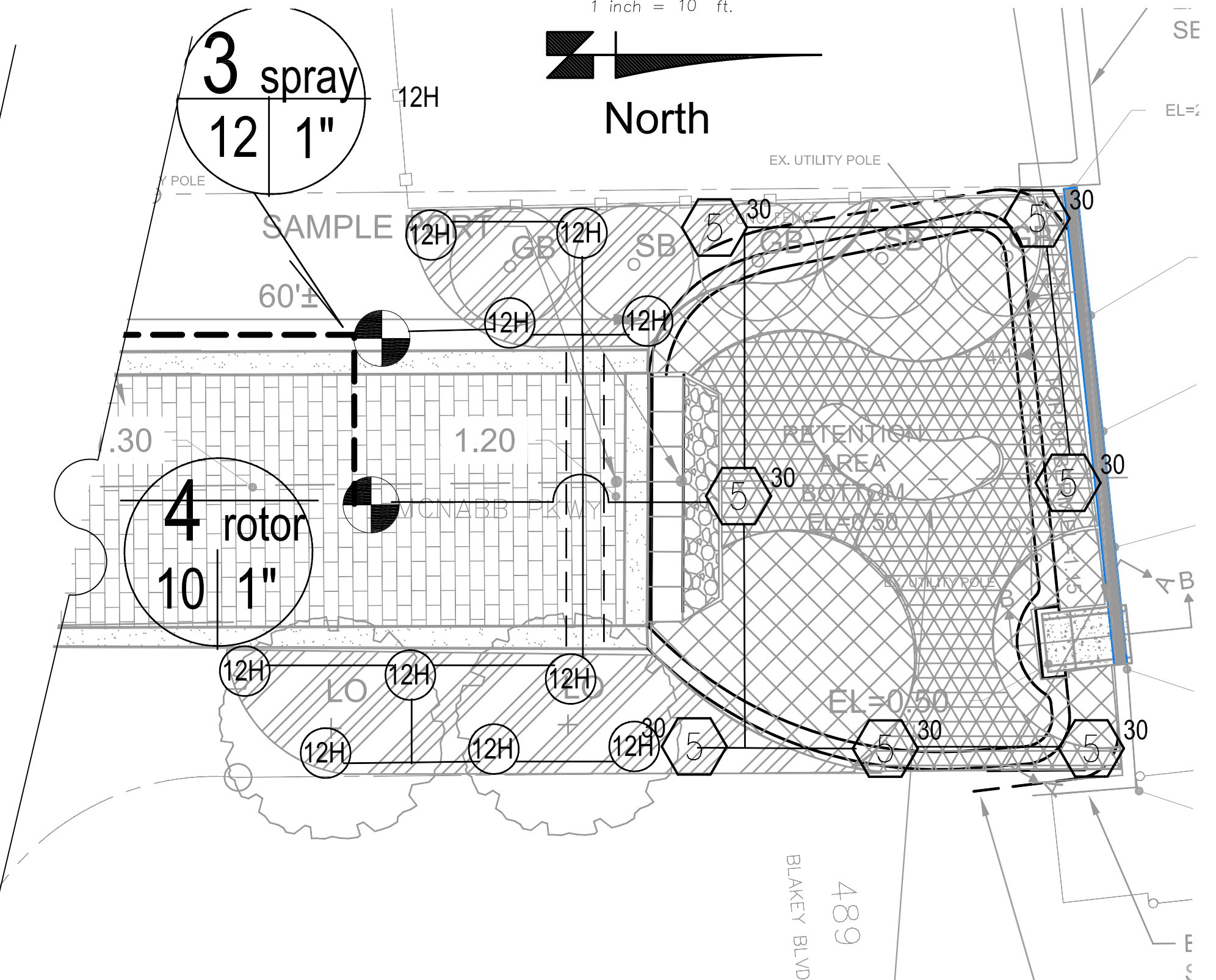
Note:

For changes in product specification, a suitable equivalent product/system must be approved by the City and the Landscape Architect.

Contact City of Cocoa Beach Reclaimed Water Dept 321.868.3317 for reclaimed water source location and prior to any City water connection.



SOUTH END PLAN



NORTH END PLAN

GENERAL IRRIGATION SCHEDULE

- 1) THE IRRIGATION CONTR SHALL REFER TO THE LANDSCAPE PLAN WHEN LAYING PIPE TO AVOID NEW AND EXISTING TREES AND LARGE SHRUBS.
- 2) ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES, SHALL BE UF-14-1 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY, USING 3M "DRY-SPLICE" OR APPROVED EQUAL. PROVIDE SLEEVES FOR WIRE UNDER PAVED AREAS AS REQUIRED.
- 3) IRRIGATION HEADS NEAR WALLS ARE TO BE SITUATED TO SPRAY WATER AWAY FROM WALLS.
- 4) THE CONTR SHALL INSTALL THE IRRIGATION CONTROLLER AS INDICATED ON THE DRAWINGS WITH A SPECIFIC LOCATION PROVIDED BY THE CLIENT.
- 5) THE CONTR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON PLANS ON-SITE PRIOR TO COMMENCEMENT OF WORK UNDER THIS CONTRACT.
- 6) ALL IRRIGATION INSTALLATION SHALL MEET LOCAL CODES AND REG'S.
- 7) CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS FOR ALL WORK.
- 8) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL ADJUSTMENT OF THE SPRINKLERS ARC AND RADIUS TO ASSURE 100 PERCENT COVERAGE.
- 9) 110 VOLT, 15 AMP, SINGLE PHASE ELECTRICAL POWER SHALL BE PROVIDED FOR THE IRRIGATION CONTROLLER. ALL HIGH VOLTAGE ELECTRICAL IS TO BE PROVIDED BY A CERTIFIED ELECTRICIAN. ALL LOW VOLTAGE WIRING TO THE CONTROL VALVES, SOLENOID CONNECTIONS AND RELAYS TO BE PROVIDED BY THE IRRIGATION CONTRACTOR.
- 10) IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS AND PAVING ETC.
- 11) DESIGN MODIFICATIONS SHALL ONLY BE MADE AS NECESSARY TO MEET FIELD CONDITIONS AND ONLY UPON APPROVAL OF THE OWNER.
- 12) ALL PIPING ON THE PLANS IS DIAGRAMMATICALLY ROUTED FOR DRAWING CLARITY AND SHALL ACTUALLY BE ROUTED TO AVOID TREES, UTILITIES AND EQUIP. ANY VALVES, LATERAL LINES AND/OR MAINLINE SHOWN IN PAVED AREAS OR OFFSITE OR ON ANY OUTPARCELS IS FOR SCHEMATIC PURPOSES ONLY. ACTUALLY LOCATE ALL IRRIGATION EQUIPMENT AND PIPING AT THE INSIDE EDGE OF CURBS AND SIDEWALKS WHENEVER POSSIBLE, AND WITHIN THE PROPERTY LIMITS OF THE PROJECT, WITHIN THE STREETScape BUFFERS AND WITHIN THE ADJACENT PLANTING AREAS AND/OR SLEEVING. ALL PIPING CROSSING THE PAVED AREAS SHALL BE INSTALLED WITHIN SLEEVING. NO PIPE FITTINGS OR CHANGES OF DIRECTION ARE TO OCCUR UNDER PAVED AREAS.

Contractor is to be fully versed of the engineering and utilities documents and mark all utilities before beginning construction.

All irrigation piping should be laid outside of the dripzone of existing trees and a minimum of 6' from the trunk of new trees, as far as possible. Pipe can come directly towards a tree to place a spray or rotor; however, placing pipe perpendicular to the radial root growth is highly discouraged.

Irrigation piping shown on walks and other pavement, unless crossing a drive or walk, is for schematic purposes only, locate in adjacent planting area. Provide electrical and irrigation pipe sleeving for all driveway crossings.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	INCHES PER HR	RUN TIME/ MINUTES
01	RAINBIRD 100 pesb prs	1"	spray	16	1.5	30
02	RAINBIRD 100 pesb prs	1"	rotor	12	1.5	30
03	RAINBIRD 100 pesb prs	1"	spray	12	1.5	30
04	RAINBIRD 100 pesb prs	1"	rotor	10	1.5	30

- IRRIGATION_PIPING_SCHEDULE**
- PURPLE-CODED RE-USE IRRIGATION LATERAL PVC CLASS 160; SMALLEST LATERAL PIPE SIZE IS 1". SIZE INDICATED ON PLAN.
 - PURPLE-CODED RE-USE MAINLINE: PVC CLASS 200 1.5" AND ABOVE.
 - PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL BE TWICE THE SIZE OF ITEM SLEEVED. 1 ITEM PER SLEEVE. ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION. PROVIDE SLEEVES UNDER ALL SIDEWALK AND DRIVEWAY PAVEMENTS.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
1806 SPRAYS				
⊙	RAINBIRD HE-VAN-12 HIGH EFFICIENCY VARIABLE ARC NOZZLE; 1806 6" POP-UP BODY, TURF SPRAY 9-12' RADIUS	30	6-2.4	12'
ROTORS				
⊙	RAINBIRD 5006-MPR-35 MATCHED PRECIP ROTOR 6" POP-UP BODY, LAWN ROTOR; Q.H. 3/4, or F	45	varies	35'

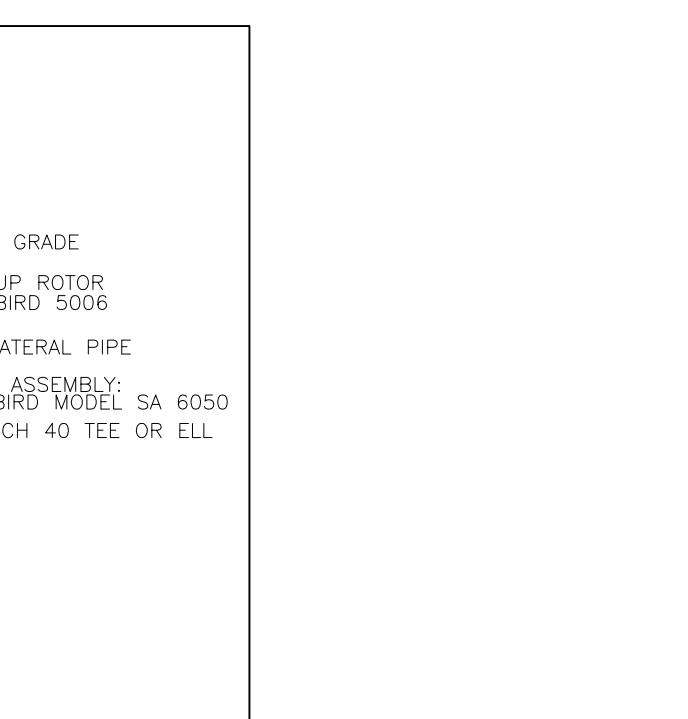
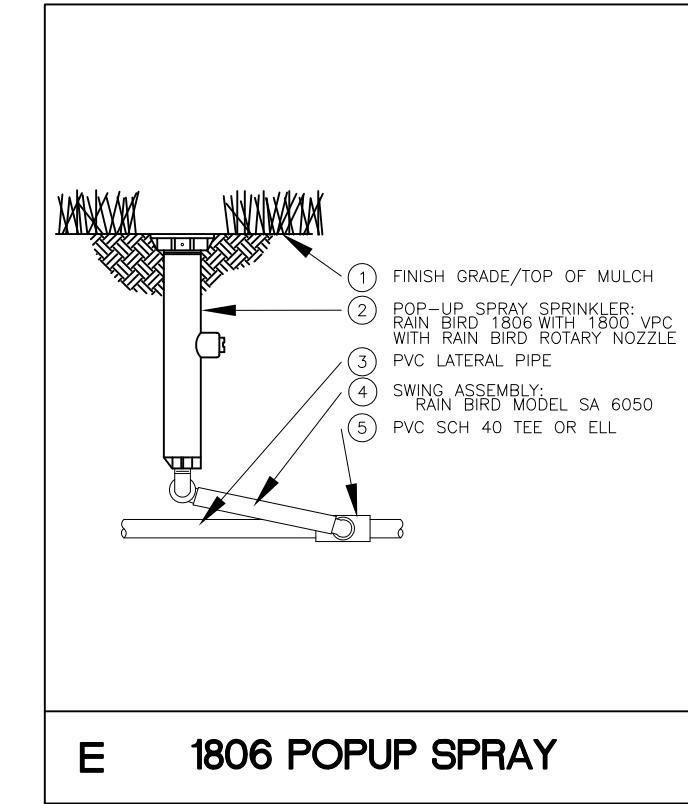
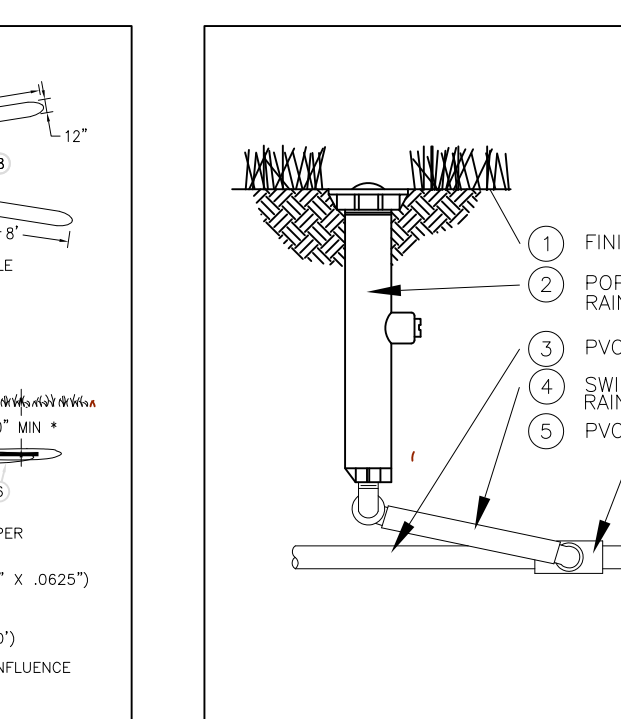
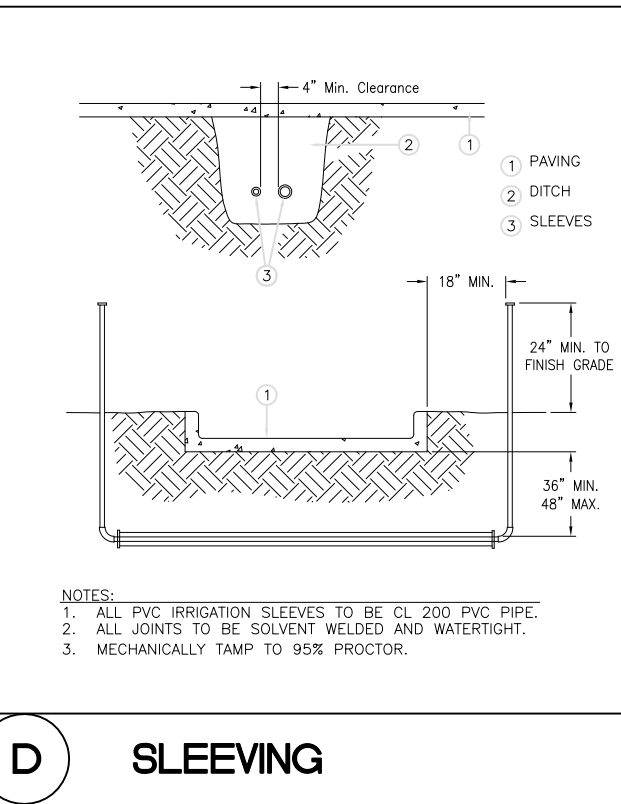
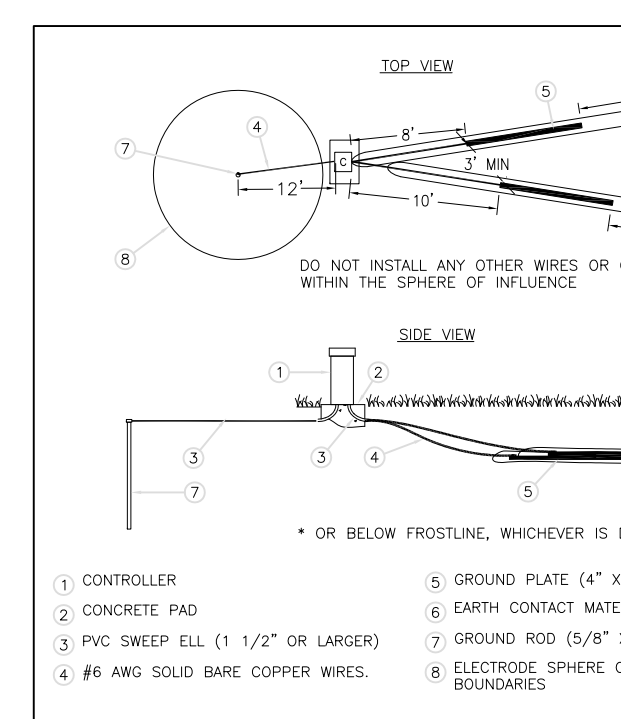
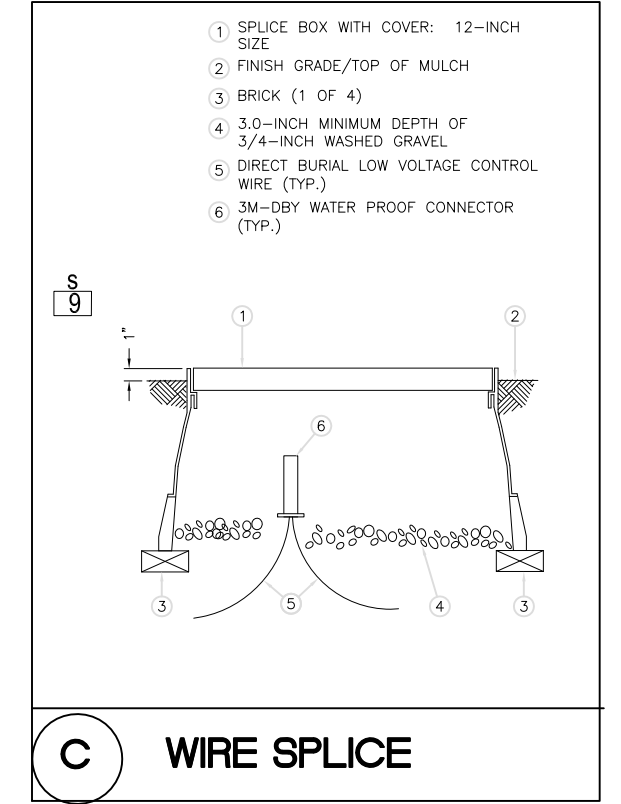
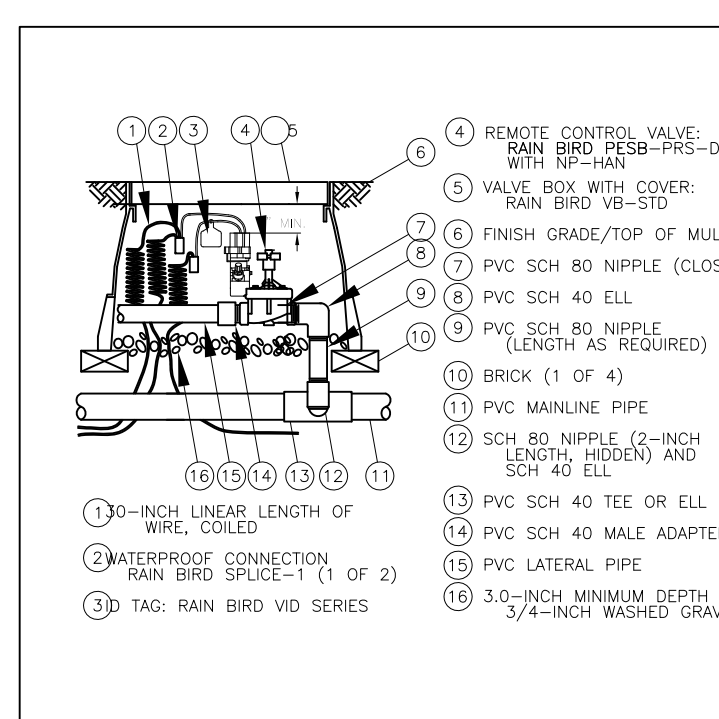
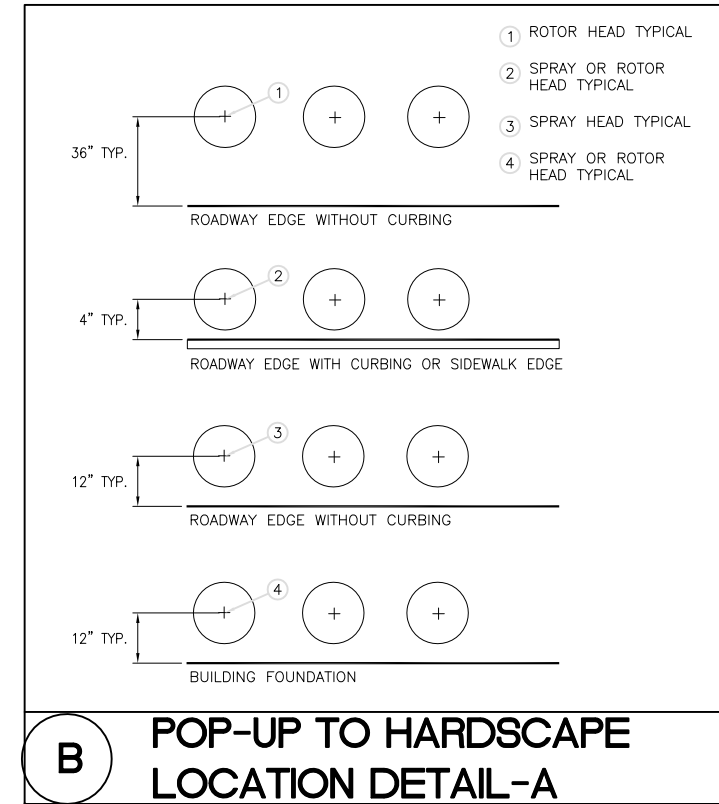
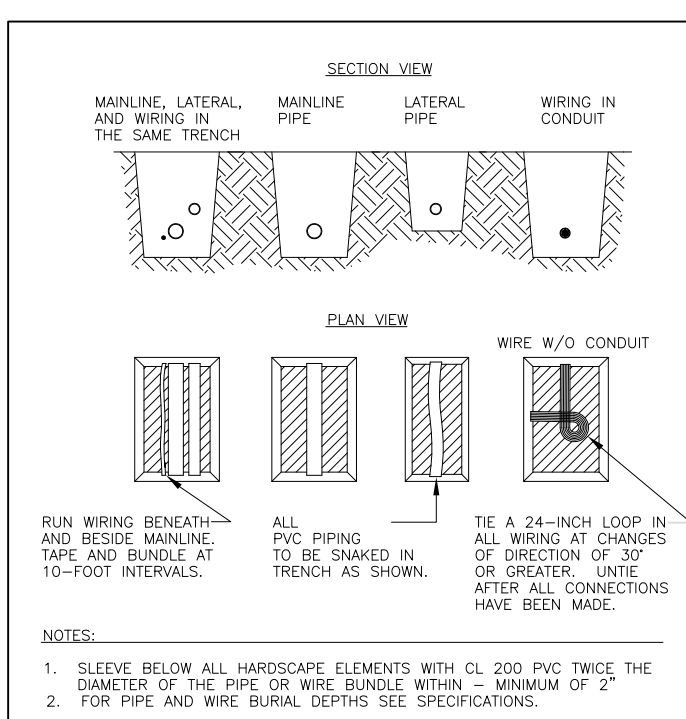
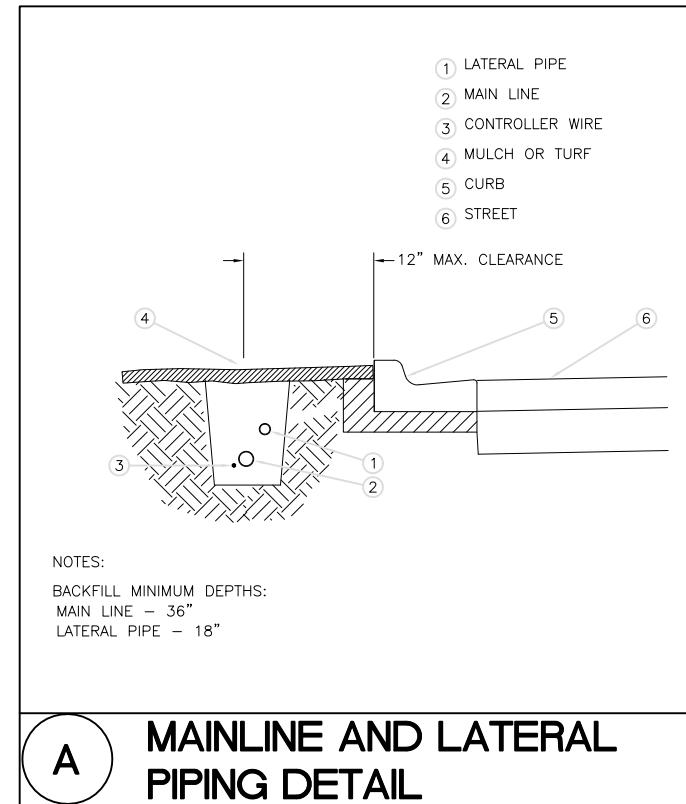
PIPE SIZING 1.60 CLASS LATERAL

PIPE SIZE	MAX GPM
1"	0-16
1 1/4"	16-28
1 1/2"	28-35
2"	35-55

IRRIGATION EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
⊙	RAINBIRD 100-PESB-PRS, 150-PESB-PRS OR 200-PESB-PRS ELECTRIC REMOTE CONTROL SCRUBBER VALVES; SEE SIZE ON VALVE SCHEDULE.
C	RAINBIRD ESP-TM2 - 12 - 120V CONTROLLER IN WALL MOUNT PLASTIC CABINET; 12 ZONE W/ RSD SERIES RAIN SENSOR
RW	Reclaimed water source: contact the City of Cocoa Beach Reclaimed Water Dept.

See Sheet L-1 for Landscape Plan and Details, L-2 for Irrigation Plan and Details, L-3 for Technical Specs



Irrigation Plan prepared for: CONVAIR COVE SW-LID IMPROVEMENT

designed by: INDIAN RIVER GARDEN
Site Planning + Landscape Architecture + Design Build + Arborist Consulting
2950 Knox McGee Drive, Titusville, FL 32780 kburson@gmail.com 321.543.2574
Cocoa Beach, Florida

Date: 10 Jan 2020
Scale:
Proj #:
Sheet #: L-2 of 3

Kathleen Hodgson Burson
Florida Registered Landscape Architect
License #: LA00001525