

BAYWALK (ISLANDWALK) NORTH PLAZA **CONSTRUCTION PLANS** FOR **NORTH BAY VILLAGE**



OWNER

NORTH BAY VILLAGE 1666 KENNEDY CAUSEWAY, 3RD FLOOR NORTH BAY VILLAGE, FLORIDA 33141 CONTACT: RODNEY CARRERO-SANTANA, DIRECTOR

CIVIL ENGINEER KIMLEY-HORN

355 ALHAMBRA CIR #1400, CORAL GABLES, FL 33134 TEL: (305) 673-2025 CONTACT: ALBERTO HERRARA, P.E.

LANDSCAPE ARCHITECT

KIMLEY-HORN 355 ALHAMBRA CIR #1400, CORAL GABLES, FL 33134 TEL: (305) 673-2025 CONTACT: GEORGE PUIG, P.L.A.

STRUCTURAL ENGINEER

KIMLEY-HORN 1920 WEKIVA WAY SUITE 200 WEST PALM BEACH, FL 33411 TEL: (561)-845-0665 CONTACT: CASEY LONG, P.E.

ELECTRICAL ENGINEER

KIMLEY-HORN 214 OCEANSIDE DR NASHVILLE, TN 37204 TEL: (615)-564-2701 CONTACT: BRYAN LARSEN





VICINITY MAP NTS

BID SET ITB 2022-001 FM#440846



355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134 PHONE: 305-673-2025 WWW.KIMLEY-HORN.COM REGISTRY 696

	Sheet List Table
Sheet Number	Sheet Title
L-000	COVER SHEET
L-100	EXISTING CONDITIONS
L-200	TREE MITIGATION
L-250	TREE MITIGATION NOTES AND DETAILS
L-300	HARDSCAPE PLAN
L-350	HARDSCAPE DETAILS
L-351	HARDSCAPE DETAILS
L-352	HARDSCAPE DETAILS
L-400	LANDSCAPE PLAN
L-450	LANDSCAPE NOTES AND DETAILS
L-451	LANDSCAPE NOTES AND DETAILS
L-500	IRRIGATION PLAN
L-550	IRRIGATION NOTES AND DETAILS
L-551	IRRIGATION NOTES AND DETAILS
L-552	IRRIGATION NOTES AND DETAILS
L-553	IRRIGATION NOTES AND DETAILS

	Sheet List Table
Sheet Number	Sheet Title
C-101	GENERAL NOTES
C-200	DEMOLITION NOTES
C-201	DEMOLITION PLAN
C-300	EROSION CONTROL NOTES
C-301	EROSION CONTROL PLAN AND DETAILS
C-400	PAVING & GRADING PLAN
C-401	DRAINAGE PLAN
C-402	PAVING, GRADING, AND DRAINAGE DETAILS
C-500	WATER AND IRRIGATION PLAN

PROJECT LOCATION

	Sheet List Table
Sheet Number	Sheet Title
E-100	LIGHTING PLAN
E-101	ELECTRICAL PLAN
E-102	ELECTRICAL PLAN
L-650	LIGHTING DETAILS
R2	PHOTOMETRICS PLAN

	Sheet List Table
Sheet Number	Sheet Title
S-100	STRUCTURAL PLAN
S-101	STRUCTURAL DETAILS



THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.



Sunshine [[]] days before digging to have u located and marked.

L-000



R/W	Right-of-Way Line
P/L	Property Line
I.D.	Identification
C.S.	Concrete Slab
Ę	Center Line
Μ _	Monument Line
В.	Book
P.B.	Plat Book
PG.	Page
ASPH.	Asphalt
TYP.	Typical
F.F.E.	Finish Floor Elevation
A/C	Air Conditioner

SHEET NUMBER

L-100

Sunshine

s days before digging to have u located and marked.



									11/5/2021 12/23/2021	02/18/2022	DATE BY
		T _	REE MITI	GATION	N LEG	END			OMMENTS		
				EXISTING N	IOT IN SCOPE				DOT ERC CC		REVISIONS
			EXISTING	TREE TO BE REM	MAIN				90% FI FINAL F	100%	
SHRUBS MOVED	AYNE	X		TO BE REMOVED)						U.O.Z.
BISC	BA		TREE NO	LONGER EXISTS						NC. FL 34232	(0
		-		STING TREE CAN	IOPY SPREAD					CIATES, I RASOTA,	0000696
		N' 1. 2. 3.	STES: SEE CIVIL PLANS CONTRACTOR SHA PLANS TO ENSUR SEE SHEET L-250	FOR SILT FENCI LL COORDINATE E THAT TREES D FOR TREE MIT	NG LOCATIONS PHASING OF TO REMAIN AF IGATION NOTE	5 & DETAILS. TREE MITIGAT RE FULLY PRO S AND DETAIL	ION / PROTE TECTED. .S	CTION		AND ASSO EE 200, SAF	COM CA
		RCHO	DYAL PALMS CANNOT DLDING AREA BECAUS	BE RELOCATED C E THE ENTIRE SIT	ON-SITE AS THE	ERE IS NO AVA ROVED.				LEY-HORN ROAD, SUIT	EY-HORN.(
				uuu			·····		3	2021 KIMI TTLEMEN F	www.kiml
	EXISTING STRU	CTURE TO							N.	© 2601 CA	
									SIONAL		
									SED PROFESS		
									LICENS		DATE:
RDRAIL									ROJECT 58022 TF	S SHOWN	C C
R MORE									KHA PI 04313 DA	12/23 scale A Designed F	CHECKED E
Jung											
									REVIEW		
	SCIENTIFIC NAME	ST							LS FOR	GAT	
TREE NO. 1 2	Nerium oleander Nerium oleander	Oleander Oleander	n/a	n/a n/a	DBH (IN.) n/a n/a	n/a n/a	ACTION REMAIN REMOVE	MITIGATION 0 0	AL PLAN) LI	
4 5 6	Roystonea regia Roystonea regia Roystonea regia	Royal Palm Royal Palm Royal Palm Royal Palm	26' 26' 26'	20' 20' 20'	24' 24' 24'	n/a n/a n/a	REMOVE REMOVE REMOVE	314 314 314 314	0846 FIN	$\sum_{i \in I}$	
7	Roystonea regia	Royal Palm	26'	20'	24'	n/a	REMOVE	314	FM #440	RE	
NOTE: TREES 1 AN REGULATED SIZE	ND 2 ARE NOT									H	
MITIGA											
SHADE TREE 1 SHADE TREE 2	0 0	Sector (sqit.) CANOPY (stress of stress of str	41t.)							С Ш С	
PALM TREE 1 PALM TREE 2 SMALL TREE	7 9 0	300 2100 100 900 200 0								LLA LLA	
	TOTAL CANC	DPY PROVIDED= 3,0	00.00								
									A	REPAR BA	×
											COUN
									BA	NON	-DADE
			GRAPHIC SC 0 5 1	ALL IN FEET 0 20	NORTH	⊢					MIAMI
					\forall			Call 811 or www.sunshine81 business days before digging t located and marke	L.com two full to have utilities ed.	ieet number L -200	< The second sec

					12/23/2021 12/23/2021 02/18/2022	DATE BY
SHRUBS	TREE MITI (,,) EXISTING T (,,) EXISTING T	CATION LEG EXISTING NOT IN SCOPE REE TO BE REMAIN	END		Image: Summary Summar	No. REVISIONS
NOVED BISCAN BISCAN EXISTING STRUCTURE REMAIN	TREE NO L TREE NO L TREE NO L TREE NO L TREE NO L TREE NO L NOTES: 1. SEE CIVIL PLANS I 2. CONTRACTOR SHAA PLANS TO ENSURE 3. SEE SHEET L-250 ROYAL PALMS CANNOT H HOLDING AREA BECAUSE	O BE REMOVED ONGER EXISTS TING TREE CANOPY SPREAD FOR SILT FENCING LOCATIONS L COORDINATE PHASING OF THAT TREES TO REMAIN AR FOR TREE MITIGATION NOTES BE RELOCATED ON-SITE AS THE THE ENTIRE SITE IS BEING IMPR	& DETAILS. TREE MITIGATION / PROTECTI E FULLY PROTECTED. ; AND DETAILS RE IS NO AVAILABLE OVED.	N	SCO1 CATTLEMEN ROD, SOCIATES, INC. 2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232 PHONE: 941-379-7600	WWW.KIMLEY-HORN.COM CA 00000696
RDRAIL					RMA FRUJEUT LICENSED PROFESSIONAL 043138022 DATE 12/23/2021 SCALE AS SHOWN DESIGNED BY CJ	CHECKED BY GP DATE:
TREE DISPOSITION LIST TREE NO. SCIENTIFIC NAME COM 1 Nerium oleander 0 2 Nerium oleander 0 3 Roystonea regia R 4 Roystonea regia R 5 Roystonea regia R 6 Roystonea regia R 7 Roystonea regia R 8 Roystonea regia R 9 Roystonea regia R 9 Roystonea regia R 9 Roystonea regia R 9 R	IMON NAMEHEIGHT OA. (FT)Oleandern/aOleandern/aoyal Palmn/aoyal Palm26'oyal Palm26'oyal Palm26'oyal Palm26'oyal Palm26'	SPREAD DBH (IN.) n/a n/a n/a n/a n/a n/a 20' 24' 20' 24' 20' 24' 20' 24' 20' 24' 20' 24'	CONDITIONACTIONMn/aREMAIN	ITIGATION 0 0 0 314 314 314 314 314	FM #440846 FINAL PLANS FOR REVIEW TREE MITIGATION	
MITIGATION CALCULATION CATEGORY QUANTITY CANOPY CREDIT (sq SHADE TREE 1 0 300 PALM TREE 1 7 300 PALM TREE 2 9 100 SMALL TREE 0 200	IS t) CANOPY (sqft.) 0 0 2100 0 900 0 = 3,000.00	ALE IN FEET		Sunshine@indotestations	BAYWALK PLAZA BAYWALK PLAZA PREPARED FOR NORTH BAY VILLAGE REET NUMBER T-500	MIAMI-DADE COUNTY FL

TREE REMOVAL SPECIFICATIONS

PART 1 - EXPLANATION OF NATURAL RESOURCE PRESERVATION PROCEDURES

- The sequence of operation is critical to the protection of the trees. A. Tree canopy pruning is to compensate for root loss and damage.
- B. Fertilization is to stimulate root systems to heal quickly and grow back in root-pruned areas. It also produces faster availability of food to a root system that is less efficient due to the damage incurred.
- C. Root pruning is to remove the roots with a trenching procedure that is less damaging to the roots than
- regular construction.
- PART 2 DEFINITIONS
 - A. Natural Resource Existing trees or palms.
 B. Critical Root Zone The mass of roots surrounding a tree that is required by the tree to live. The critical root zone is often much larger than the canopy. The critical root zone for each tree or palm within the
 - project limits to be determined by the Contractor's Certified Arborist. C. DBH - Diameter Breast High - Indicates the location on the trunk, approximately 4.5' above ground, to
 - measure the diameter of a tree.D. Grade The grade of a tree refers to the overall health and appearance of the tree. The grades range from "A" being excellent to "D" being hazardous.
 - E. Preserved Trees Trees that are to be saved/remain in place.
 - F. Owner's Representative A representative, hired and paid for by the owner, that supervises the construction of the procedures shown on the tree disposition plans.
 - G. Protection Zones/Areas Any area enclosed partially or completely by a tree protector barrier/fence
 - H. Contractor's Certified Arborist an independent ISA Certified Arborist, hired and paid for by the contractor, that supervises the construction of the procedures shown on the tree disposition plans.

PART 3 - PRODUCTS FOR TREE TREATMENT

Every effort shall be made to utilize chemicals of an organic or biodegradable nature in order to offer the least impact to the natural environment. Contractor is responsible for mixing, applying, and disposal of all chemicals in accordance with strict adherence to manufacturer's directions, unless otherwise directed in these drawings. Refer to "Part 4B" below.

- A. Chemical Treatments.1. Recommended Fertilizer:
 - a. "XL Injecto Feed", product of Doggett Corp., Lebanon, New Jersey (908) 236-6335.
 Apply a 12/24/24 ratio with a dilution rate 1/3 more water than specified on bag.
 - Recommended Wetting Agent:
 - a. "APSA-80", product of Amway Corp. (800) 253-7088.
 - Mycorrhizal Treatment:
 a. Plant Health Care, Inc. (800) 421-9051.
 - Products of the same type from other sources shall not be excluded, provided they possess like physical and functional characteristics and are approved by the Project Landscape Architect.
- B. Insecticide Treatments.1. "Astro", a product of FMC Corporation. (800) 321-1362.

PART 4 - EXECUTION

- A. Tree Canopy/Root Pruning Operation
 - Trees to be pruned shall include only trees affected by construction or as designated on the tree disposition list. This item is to be coordinated by the Contractor's Certified Arborist
- with the Owner's Representative. 2. All pruning shall be done in accordance with ANSI A300 (Part 1) Pruning.
- All pruning shall be done in accordance with ANSI ASSO (Part 1) Fruning.
 The Contractor's Certified Arborist must be present during all pruning operations.
- 4. Pruning shall consist of the following methods:
- a. Cleaning
- b. Interfering branch removal.c. Raising
- d. Root pruning.
- B. Fertilization Operation
- Only trees affected by construction (canopy and/or root pruning) shall be fertilized.
- 2. Trees specified to receive fertilizer shall be treated during the time of year as recommended
 - by the Contractor's Certified Arborist. a. Mix fertilizer with a dilution rate 1/3 more water than label instructions into a tank with
 - agitation capability (15lbs. = 133 Gallons). b. Mix Wetting Agent at a rate of 5 oz. Per 100 gallons of fertilizer solution into same
 - tank with fertilizer. Agitate mix.
 c. Inject the mixture with a hydraulic injection system set at 100 to 150 p.s.i. for sandy soils, 200 p.s.i. for silt/clay soils, into the upper 6-12 inches of soil with a soil probe.
 - Inject at the rate of one third (1/3) gallon at each injection site.Critical Root Zone areas shall be injected, where possible, in the Critical Root Zone
 - area plus 2' beyond Critical Root Zone, but not beyond Root Prunes.
 - Fertilizer shall be installed prior to installation of any aeration systems (if applicable).
 AT THE REQUEST OF THE OWNER'S REPRESENTATIVE, EMPTY PRODUCT BAGS TO BE RETURNED TO THE OWNER'S REPRESENTATIVE FOR PROOF OF USE.
- Injectable Fertilizer Treatment.
 Mix fartilizer with a dilution rate 1/2 more water than label instructions into a to
 - a. Mix fertilizer with a dilution rate 1/3 more water than label instructions into a tank with agitation capability (15lbs. = 133 Gallons).
 b. Mix Wetting Agent at a rate of 5 oz. Per 100 gallons of fertilizer solution into same
 - tank with fertilizer. Agitate mix.c. Inject the mixture with a hydraulic injection system set at 100 to 150 p.s.i. for sandy soils, 200 p.s.i. for silt/clay soils, into the upper 6-12 inches of soil with a soil probe.
 - Inject at the rate of one third (1/3) gallon at each injection site. EMPTY PRODUCT BAGS TO BE STOCKPILED FOR INSPECTION BY OWNER'S
 - REPRESENTATIVE PRIOR TO DISPOSAL.
- 4. Inoculant & Biostimulant.
 - a. Use one 3 oz. Packet of MycorTree Tree Saver Transplant Mycorrhizal Transplant Inoculant for every one (1)foot diameter of root ball. Mix inoculant in 10" wide topsoil ring around the root ball.
 - b. Mix one 4 oz. Bag of MycorTree Tree Saver Injectable Mycorrhizal Inoculant and 4
 - packs (to equal 1 pound) PHC BioPack per 100 gallons of water. c. Agitate for 10 minutes.
 - d. Inject the mixture with a hydraulic injection system set at 100 to 150 p.s.i. for sandy soils, 200 p.s.i. for silt/clay soils, into the upper 6-12 inches of soil with a soil probe.
 - Inject at the rate of one third (1/3) gallon at each injection site. See transplant details on this sheet for injection locations.
 - EMPTY PRODUCT BAGS TO BE STOCKPILED FOR INSPECTION BY OWNER'S REPRESENTATIVE PRIOR TO DISPOSAL.
- C. Insecticide Operation
 - 1. Apply "Astro" as a topical solution as directed by the Contractor's Certified Arborist.
 - Notify Owner's Representative if an infestation is noticed. Apply around base of trunk to soil line, trunk and any limb 1/3 the size of the trunk to 25'-30' high. Insure complete coverage. Reapply "Astro" 2-3 months after initial application utilizing same procedure.
 - 2. Follow all manufacturers' recommendations concerning application when applying "Astro".
 - Read all warning labels. Any pets, as well as, the pets food and water bowls should be removed
 - from the area and any swimming pools should be covered (if applicable). 3. Contractor shall ensure no mixing of chemicals occurs without protective measures to prevent spillage and
- potential contamination of soils.
- D. Root Pruning Trenching Operation
 1. Trenching locations shall be approved in the field by the Owner's Representative and the Contractor's Certified Arborist.
- Trenching equipment that will turn at high RPM's is preferred. Trenching equipment is to be used to perform all root pruning operations.
- A minimum depth of three feet is required or as determined by Contractor's Certified Arborist. Clean cut roots in trench on tree side with sterile equipment, loopers, or chain saw after trenching is complete.
- The trench shall be backfilled and compacted immediately, as directed by the Contractor's Certified Arborist.
 Phased root pruning timeframes vary by species. Contractor's certified arborist shall direct pruning schedule.

F. Tree Removals

1. Contractor shall remove and discard all trees shown as "Remove" on the Tree Disposition Plan and the Tree Disposition List. All trees shown to be removed shall be felled with a chain saw and stump ground 6" below surface. Any tree shown to be

removed and is in an area where compaction is critical, the tree shall be felled with a chain saw and stump removed by the

Contractor. Care must be taken not to damage the existing trees marked to remain.

2. If Tree Protector Barrier is damaged, repair is to be performed immediately. Care must be taken not to damage the trees to remain.

3. Contractor shall remove and haul away from the job site all wood generated from tree removals, including stumps, the same day the removal happens.

4. Burn pits are not allowed.

A. Repair of Damaged Trees To Remain

PART 5 - PENALTIES

PART 7 - IRRIGATION

1. If any damage to trees to remain or other natural resources should occur by accident or negligence during the construction period, the Owner's Representative shall appraise the damage and make recommendations to the Owner for repair by the Contractor, at the Contractor's expense.

2. If any tree that is designated to remain is deemed substantially damaged or dead due to construction damage, at the sole discretion of the Owner's Representative,

the following penalties will apply:a. Trees 1" - 12" of trunk diameter, measured at 1' from the ground will be valued at \$300.00 per diameter inch.

b. Trees 13" and above of trunk diameter measured at 4.5' from the ground will be valued at \$400.00 per diameter inch.
c. If any tree designated to remain is removed from the site without permission of the owner's Representative, the penalty will be \$600.00 per inch.

PART 6 - NATURAL RESOURCE PROTECTION SEQUENCE

A. The sequence of tree treatment and preservation measures shall be:
 1. Contractor shall submit a staging/access plan provided to Contractor's Certified Arborist for written approval prior

to commencement. 2. Tree Protector Barrier

3. Root Pruning and Root Barriers

Clearing and Grading
 Tree Pruning

Fertilization
 Insecticide

B. Contractor's Surveyor shall stake all site improvements in order to facilitate accurate location of trenching and fencing operations.

C. Contractor's Certified Arborist to determine the location of the Tree Protector Barrier around each tree to remain based on his/her analysis of each existing tree to remain that is adjacent to construction improvements such as utility installation, pavement addition and/or restoration, etc.

D. Contractor shall maintain and repair the Tree Protector Barrier during site construction operations.
 E. Contractor's access to the fenced tree protection areas will be permitted only with approval of Owner's Representative and Contractor's Certified Arborist's written directive.

F. Contractor shall perform any excavation or grading required within the fenced root zone areas by hand. This operation is to be done

under the direct supervision of the Contractor's Certified Arborist and the Owner's Representative. G. Contractor to limit required grading within the fenced tree protection areas to a maximum of 3" cut or fill of the tree critical root zone areas. All grading to be

supervised by the Contractor's Certified Arborist and the Owner's Representative. H. Contractor shall clear by hand trees designated to be removed within critical root zone areas of the trees to remain.

I. Contractor shall not install conduit, sprinklers, or any utility line in any critical root zone areas without the approval of the Contractor's Certified Arborist and Owner's Representative.

Contractor shall water the trees that have been pruned (canopy and/or root) as shown below.

Water all pruned trees immediately after pruning. Contractor shall water by hand. If a potable water source is not available on-site or if it is not in working condition, then the Contractor will be responsible for providing the water and water source at his/her own expense.

A. Hand Watering Schedule

Use the following watering schedule: 1. Contractor shall water all newly (canopy and root) pruned trees:

(3) three times a week for the first three months

(2) two times a week for months four and five

(1) one time a week for month six

2. Contractor shall consult his/her Certified Arborist for watering requirements for the trees that have been canopy and/or root pruned.

B. Per direction of 1 and 2, Contractor shall proceed with the more stringent watering schedule.

	TS 11/5/2021	NTS 12/23/2021	UTS 02/18/2022					DATE BY
	90% FDOT ERC COMMEN	FINAL FDOT ERC COMMEN	100% FDOT ERC COMMEN					REVISIONS
	$\overline{\mathbb{V}}$	$\overline{\mathbb{A}}$	<u> </u>					No.
					© 2021 KIMLEY-HORN AND ASSOCIATES, INC.	2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232	PHONE: 941–379–7600	
	LICENSED PROFESSIONAL							DATE:
	KHA PROJECT	043138022	DATE 1 2 / 2 7 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2		SCALE AS SHUWN	DESIGNED BY GF	DRAWN BY C.	снескер ву GF
	FM #440846 FINAL PLANS FOR REVIEW					NOTES AND DETAILS		
				PREPARED FOR				MIAMI-DADE COUNTY
ŋ.	-	S	HEE	ΞT	NUI	MBE	ER	



	WALL ELEVATION S	SCHEDULE
POINT#	TOP OF WALL A.F.F. / ELEVATION	TOP OF WALL A.F.F / ELEVATION
A-0	1.55 / 10.8	
A-0.5		1.00 / 10.25
A-1	2.00/11.40	-
A-2	-	1.55 / 10.95
A-3	3.00 / 12.25	-
A-4	-	2.55 / 11.8
A-5	2.00/11.30	-
A-6	-	1.55 / 10.85
A-7	4.00 / 13.4	-
A-8	-	3.55 / 12.95
A-9	3.00 / 12.4	-
A-10	-	2.55 / 11.95
A-11	2.00 / 11.4	-
A-12	-	1.55 / 10.95
A-13	4.00 / 13.4	-
A-14	-	3.55 / 12.95
A-15	6.00/15.35	-
A-16	-	5.55 / 14.9
A-17	4.00/11	-
A-18	-	3.55 / 10.55

WALL ELEVATION SCHEDULE

B-1	2.00/11.30	-	
B-2	-	1.55 / 10.55	
B-3	3.00 / 11.4	Η.	
B-4	-	2.55 / 11.95	
B-5	1.55 / 10.95	-	
B-6	-	2.00 / 11.4	
B-7	4.00/13.3	.	
B-8	-	3.55 / 12.85	
B-9	5.55 / 13.88	-	
B-10	-	6.00 / 14.33	
B-11	4.55 / 12.2	-	
B-12	-	5.00 / 12.65	
B-13	4.00 / 10.9	-	
B-14	-	3.55 / 10.45	
B-15.5	4.00/11		
B-16.5		3.55 / 10.55	
B-15	3.55 / 12.9	-	
B-16		4.00 / 13.35	
B-17	4.55 / 12.15	-	FROM RAMP ELEVATIO
B-18	-	5.00 / 12.6	FROM RAMP ELEVATIO
B-19	6.00 / 14.33	-	FROM RAMP ELEVATIO
B-20	-	5.55/13.88	FROM RAMP ELEVATIO
B-21	3.55 / 12.85	-	FROM RAMP ELEVATIO
B-22	-	4.0 / 13.30	FROM RAMP ELEVATIO

REFER TO CIVIL ENGINEERING PLANS FOR ALL GRADING RELATED INFORMATION & STRUCTURAL ENGINEER DRAWINGS FOR ALL WALLS AND STRUCTURAL ELEMENTS.

HARDSCAPE SCHEDULE

DESCRIPTION DETAIL <u>SYMBOL</u> F-101 PROPOSED GUARDRAIL 8/L-351 HARDSCAPE DESCRIPTION DETAIL SYMBOL H-101 CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. 3/L-351 PROVIDE GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL. H-102 CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. 3/L-351 PROVIDE LIGHT SANDBLAST TO EXPOSE LIMESTONE. H-103 CONCRETE WITH 1/4" LIMESTONE AGGREGATE. PROVIDE 3/L-351 HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE DARK GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL. PLANTER DESCRIPTION SYMBOL DETAIL PL-101 PLANTING AREA SITE SIGNAGE/WAYFINDING DESCRIPTION DETAIL <u>SYMBOL</u> SS-101 PYLON MONUMENT SIGN 3/L-352 DESCRIPTION DETAIL SYMBOL ST-101 POURED IN PLACE CONCRETE STAIR. FINISH TO MATCH 6/L-351 H-101. <u>SYMBOL</u> DESCRIPTION DETAIL WL-101 POURED IN PLACE CONCRETE WALL 1/S-100

NOTES

SURFACES.

- 1. CONTRACTOR TO PROVIDE SUBMITTAL FOR REVIEW AND APPROVAL PRIOR TO POURING QUALITY CONTROL MOCK UPS.
- 2. PROVIDE 4' X 4' QUALITY CONTROL MOCK UP OF EACH CONCRETE TYPE, COMPLETE WITH COLOR, FINISH TECHNIQUES, SAWCUT JOINTS AND EXPANSION JOINTS AS SPECIFIED.
- 3. PROVIDE GLAZE AND SEAL PENETRATING CONCRETE SEALER ON ALL CONCRETE
- 4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITIES COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST THE EXACT FIELD LOCATION OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- 5. CONTRACTOR SHALL CROSS-REFERENCE THE STRUCTURAL ENGINEERING DRAWINGS FOR ALL STRUCTURAL ELEMENTS (TYP.).
- 6. CONTRACTOR SHALL REPLACE ALL UTILITY LID / COVERS THAT DO NOT MEET ADA CRITERIA.
- CONTRACTOR SHALL CROSS REFERENCE ENTIRE SET THROUGHOUT IMPLEMENTATION TO ENSURE THE DESIGN INTENT IS MET. ANY DISCREPANCIES SHALL BE NOTED AND BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR CLARIFICATION WITH DESIGN TEAM.
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING SITE PRIOR TO BIDDING IN ORDER TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS AFFECTING THE WORK, INCLUDING BUT NOT LIMITED TO, PRIVATE AND PUBLIC UTILITIES ON AND OFF SITE, ACCESS ROADS, AND OTHER SUPPORT FACILITIES.
- 9. CONTRACTOR MUST NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY OF ANY UNEXPECTED OR UNKNOWN CONDITIONS OR DISCREPANCIES IN THE DRAWINGS AND CONTRACT DOCUMENTS, AS WELL AS ANY ERRORS OR OMISSIONS ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK OR SHOP FABRICATION.
- 10. ALL HARDSCAPE SHALL BE SLIP RESISTANT IN COMPLIANCE WITH FBC 454.1.3.1.

full ilities					<		-	
		FM #440846 FINAL PLANS FOR REVIEW	KHA PROJECT LICENSED PROFESSIONAL		$\overline{\mathbb{A}}$	90% FDOT ERC COMMENTS	11/5/2021	
			045158022		$\overline{\mathbb{A}}$	FINAL FDOT ERC COMMENTS	12/23/2021	
L			DATE		₹	100% FDOT ERC COMMENTS	02/18/2022	
-(PREPARED FOR		1202/22/21					
<u>3C</u>			SCALE AS SHOWN	© 2021 kimley-horn and associates, inc.				
)0			DESIGNED BY GP	2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232				
	ER		DRAWN BY CJ	PHONE: 941-379-7600				
	MIAMI-DADE COUNTY		CHECKED BY GP DATE:	WWW.MIMEET-HOKIN.COM CA 0000030	No.	REVISIONS	DATE BY	



SYMBOL	DESCRIPTION	<u>aty</u>	
H-101	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL.		3/L-351
H-102	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE LIGHT SANDBLAST TO EXPOSE LIMESTONE.		3/L-351
H-103	CONCRETE WITH 1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE DARK GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR		3/L-351

WALL ELEVATION SCHEDULE

	POINT#	TOP OF WALL A.F.F. / ELEVATION	TOP OF WALL A.F.F / ELEVATION
	A-0	1.55 / 10.8	
	A-0.5		1.00 / 10.25
	A-1	2.00/11.40	-
	A-2	-	1.55 / 10.95
	A-3	3.00 / 12.25	-
	A-4	-	2.55 / 11.8
	A-5	2.00/11.30	-
	A-6	-	1.55 / 10.85
	A-7	4.00 / 13.4	_
WALL A	A-8	-	3.55 / 12.95
	A-9	3.00 / 12.4	-
	A-10	-	2.55 / 11.95
	A-11	2.00 / 11.4	_
	A-12	-	1.55 / 10.95
	A-13	4.00 / 13.4	-
	A-14	· -	3.55 / 12.95
	A-15	6.00/15.35	-
	A-16	-	5.55 / 14.9
	A-17	4.00/11	_
	A-18	-	3.55 / 10.55

	WALL ELEVATION	N SCHEDULE	
B-1	2.00/11.30	-	
B-2	-	1.55 / 10.55	
B-3	3.00 / 11.4	H	
B-4	-	2.55 / 11.95	
B-5	1.55 / 10.95	-	
B-6	-	2.00 / 11.4	
B-7	4.00 / 13.3	H	
B-8	-	3.55 / 12.85	
B-9	5.55 / 13.88	-	
B-10	-	6.00 / 14.33	
B-11	4.55 / 12.2	-	
B-12	-	5.00 / 12.65	
B-13	4.00 / 10.9	-	
B-14	-	3.55 / 10.45	
B-15.5	4.00 / 11		
B-16.5		3.55 / 10.55	
B-15	3.55 / 12.9	-	
B-16	-	4.00 / 13.35	
B-17	4.55 / 12.15	-	FROM RAMP ELEVATION
B-18	-	5.00 / 12.6	FROM RAMP ELEVATION
B-19	6.00 / 14.33	-	FROM RAMP ELEVATION
B-20	-	5.55/ 13.88	FROM RAMP ELEVATION
B-21	3.55 / 12.85	H	FROM RAMP ELEVATION
B-22	-	4.0/13.30	FROM RAMP ELEVATION

WALL B

REFER TO CIVIL ENGINEERING PLANS FOR ALL GRADING RELATED INFORMATION & STRUCTURAL ENGINEER DRAWINGS FOR ALL WALLS AND STRUCTURAL ELEMENTS.





<u>SYMBOL</u>	DESCRIPTION	<u>aty</u>	
H-101	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL.		3/L-351
H-102	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE LIGHT SANDBLAST TO EXPOSE LIMESTONE.		3/L-35
H-103	CONCRETE WITH 1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE DARK GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL.		3/L-351







Provide the p		S 2021 KIMLEY-HORN AND ASSOCIATES, INC.
Weiter, Veneer, To be APPLIED IN ASHLAR PATTERN. ALL EXPOSED EQGES SHALL RECEIVE 144" BULLNOSE 2) TAPERED WHITE CONCRETE PYLON 3) PAINTED METAL PAREL WITH FLUSH MOUNTED LETTERING 4) PAINTED METAL PAREL WITH FLUSH MOUNTED LETTERING 5) SIGNAGE COPY AREA. SEE 1-3522 6) LED LIGHT STRIP (TYP). PROVIDE 50% BLUE AND 50% GREEN LIGHTS. OTES: 1. DETAIL IS DESIGN INTENT ONLY. 2. ALL MATERIAS TO BE SINGLY AND APPROVAL PRIOR TO FABRICATION. 3. CONTRACTOR TO PROVIDE SINGLE AND STRUCTURAL DESIGN OF REVIEW AND APPROVAL PRIOR TO FABRICATION. 3. CONTRACTOR TO PROVIDE SINGLE AND STRUCTURAL DESIGN OF ALL RELATED MONUMENT SIGN COMPONENTS. 4. CONTRACTOR TO PROVIDE SINGLE AND STRUCTURAL DESIGN OF ALL RELATED MONUMENT SIGN COMPONENTS. 4. CONTRACTOR TO CORDINATE ELECTRICAL REQUIREMENTS AS NECESSARY. 5. KEYSTONE VENEER TO MATCH FINISH OF KEYSTONE VENEER USED ON THE PRIVACY WALLS ALONG THE WESTERN PORTION OF J#R CAUSEWAY RIGHT-OF-WAY LANDSCAPE. SHEET NUMBER 43-138-022-58	1.14*X 1.14*TAPERED CONCRETE BASE WITH 1" THICK KEYSTONE	FM #40046 FINAL PLANS FOR REVIEW KHA PROJECT LICENSED PROFESSIONAL ABAE DATE DATE 12/23/2021 12/23/2021 SCALE AS SHOWN DESIGNED BY CP DRAWN BY CD DRAWN BY CP
Sunshine Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked. Check positive response codes before you digt	ALLERPOSED EDGES SHALL RECEIVE 14* BULLNOSE TAPERED WHITE CONCRETE PYLON PAINTED METAL PANEL WITH FLUSH MOUNTED LETTERING PAINTED METAL PANEL WITH FLUSH MOUNTED LETTERING SIGNAGE COPY AREA. SEE I-352/2 ED LIGHT STRIP (TYP). PROVIDE 50% BLUE AND 50% GREEN LIGHTS. DTES: 1. DETAIL IS DESIGN INTENT ONLY. 2. ALL MATERIALS TO BE SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. 3. CONTRACTOR TO PROVIDE SIGNED AND STALED SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. 4. CONTRACTOR TO COORDINATE ELECTRICAL REQUIREMENTS AS NECESSARY. 5. KEYSTONE VENEER TO MATCH FINISH OF KEYSTONE VENEER USED ON THE PRIVACY WALLS ALONG THE WESTERN PORTION OF JFK CAUSEWAY RIGHT-OF-WAY LANDSCAPE. 3/4* = 1-0* 043-138-022-58	BAYWALK PLAZA BAPARED FOR PREPARED FOR NORTH BAY VILLAGE
	Call 811 or www.sunshine&11.com two full business days before digging to have utilities located and marked. Check positive response codes before you digt	SHEET NUMBER

ERC

V V V

o full tilities									
		FM #440846 FINAL PLANS FOR REVIEW	KHA PROJECT	LICENSED PROFESSIONAL		06	% FDOT ERC COMMENTS	11/5/2021	-
			043138022			PIN,	AL FDOT ERC COMMENTS	12/23/2021	
			DATE			A 100	0% FDOT ERC COMMENTS	02/18/2022	
	PREPARED FOR		1707/07/71						
1C		LANUSCAPE PLAN	SCALE AS SHOWN		© 2021 KIMLEY-HORN AND ASSOCIATES. INC.				
)0			DESIGNED BY GP		2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232				
_ ()	ĒR		DRAWN BY CJ		PHONE: 941-379-7600				
	MIAMI-DADE COUNTY FL		снескер ву GP р	ATE:	WWW.KIMLEITTUKN.COM CA UUUUDSO	No.	REVISIONS	DATE BY	-

<u>DN NAME</u>	<u>CONT</u>	CAL	HT	NATIVE	REMARKS
GE PALM	CONT.	HEAVY	16` - 25` CT.	YES	CURVED TRUNK, STAGGERED HEIGHTS
A THATCH PALM	CONT.	-	6` - 8` OA HT	YES	
A THATCH PALM	CONT.	-	5` CT	YES	TRIPLE TRUNK
ON NAME	CONT	SPACING	<u>SIZE</u>	NATIVE	REMARKS
H STOPPER	CONT.	SEE PLAN	6` - 8` HT	YES	MULTI TRUNK BUSH FORM
SAW PALMETTO	CONT.	SEE PLAN	2` HT	YES	
DAR	CONT.	SEE PLAN	4` HT	YES	MULTI TRUNK BUSH FORM
ON NAME	<u>CONT</u>	SPACING	SIZE	NATIVE	REMARKS
N CREEPER	CONT.	12" O.C.	15" HT	YES	
ISLAND FICUS	CONT.	18" O.C.	18" HT	YES	
SUNFLOWER	CONT.	18" O.C.	15" HT	YES	
VENDER	CONT.	18" O.C.	18" HT	YES	
AD VINE	CONT.	12" O.C.	6" HT	YES	

Sunshine 811 or www.sunshine811.com to less days before digging to have located and marked.

- 1. TREES, PALMS, AND LARGE SHRUBS (15 GAL OR GREATER) SHALL BE PLANTED IN SIMILAR MANNER
- 2. 3" MINIMUM OF MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOD, MULCH RING FOR TREES COVER ROOTBALL SIDES AND EXTEND 18" BEYOND ON ALL SIDES. NO MULCH SHALL BE
- 3. SHALLOW/ WIDE PLANT HOLE; TOP SHALL BE 3X THE
- 4. FINISHED GRADE LANDSCAPE SOIL 5. FIND TOP-MOST ROOT ON ROOTBALL: POSITION
- ROOTBALL SO THIS TOP ROOT IS 1-2" ABOVE LANDSCAPE SOIL. (APPROX. 10% OF ROOTBALL SHALL BE ABOVE LANDSCAPE SOIL)
- 6. BERM SOIL SO THAT TOP OF BERM IS JUST BELOW THE TOP 10% OF THE TOP OF THE ROOTBALL. SLOPE DOWNHILL PORTION OF BERM AS REQUIRED TO MEET EXISTING GRADE.
- 7. B & B OR CONTAINER REMOVE ALL SYNTHETIC MATERIALS FROM ROOTBALL. (SEE SPECIFICATIONS FOR OTHER ROOT BALL REQUIREMENTS)
- 8. ROOTBALLS SHALL BE PLACED ON UNDISTURBED SOIL TO PREVENT SETTLING.
- A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION. B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE
- C. SEE ALTERNATE STAKING METHODS, THIS

- (or) DeepRoot (800)458-7668 (or approved equal)

/2021 /2021 /2022	TEBY
11/5/2 02/18/	DAT
90% FDOT ERC COMMENIS FINAL FDOT ERC COMMENTS 100% FDOT ERC COMMENTS	REVISIONS
	O Z
Kimley » Horn © 2021 KIMLEY-HORN AND ASSOCIATES, INC.	2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232 PHONE: 941-379-7600 WWW.KIMLEY-HORN.COM CA 00000696
LICENSED PROFESSIONAL	DATE:
KHA PROJECI 043138022 DATE 12/23/2021 scale AS SHOWN	DESIGNED BY GP DRAWN BY CJ CHECKED BY GP
FM #440846 FINAL PLANS FOR REVIEW LANDSCAPE NOTES	
WALK PLAZA PREPARED FOR TH RAV VILLAGE	
BAY BAY	AIAMI-DADE CC

GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

A. SCOPE OF WORK

- 1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.
- 2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

- 1. ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
- C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED WHERE HEAT WILL DAMAGE ANY PLANT. EXISTING
 - TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/ OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCH CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCH CALIPER.

D. MATERIALS

1. GENERAL

a. MATERIALS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL. UPON SUBMITTALS' APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

MATERIAL	SUBMITTAL
MULCH	PRODUCT DATA
TOPSOIL MIX	AMENDMENT MIX/ PRODUCT DATA/ TEST RESULTS
PLANTS	PHOTOGRAPHS OF ONE (1) OF EACH SPECIES (OR TAGGED IN NURSERY) INDICATE SIZES (HEIGHT/WIDTH) AND QUALITY PER SPEC. CLIENT REQUESTED TAGGING MAY SUBSTITUTE PHOTOS.
FERTILIZER	PRODUCT DATA
INNOCULANT	PRODUCT DATA
HERBICIDE	PRODUCT DATA

2. PLANT MATERIALS

- a. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNER'S REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- b. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
- c. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY; SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

E. SOIL MIXTURE

- 1. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF 50% COARSE SAND AND 50% FLORIDA PEAT, AS DESCRIBED BELOW.
- 2. SOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL HAVE A PH BETWEEN 5.5 AND 7.0 - SUBMIT SAMPLE AND PH TESTING RESULTS FOR APPROVAL.
- 3. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TEST FOR THE SOIL AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY THE OWNER.
- 4. CONTRACTOR TO SUBMIT SAMPLES OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.
- 5. CONTRACTOR SHALL PROVIDE PH TEST RESULT FOR ALL MIX COMPONENTS. 6. CONTRACTOR SHALL PROVIDE PENETROMETER ON-SITE AT ALL TIMES FOR COMPACTION INSPECTION AT THE DISCRETION OF THE LANDSCAPE ARCHITECT
- 7. PENETROMETER CRITERIA / SPECIFICATION SHALL RANGE FROM APPROX. 75 PSI TO LESS THAN 300 PSI OR AS DETERMINE BY LANDSCAPE ARCHITECT.
- 8. SOIL SHALL BE SUPPLIED BY ATLAS PEAT & SOIL INC. 9621 STATE RD, BOYNTON BEACH, FLORIDA 33472. PHONE: 561-734-7300 OR APPROVED EQUAL.
- 9. FINAL MIX SHALL BE TESTED TO HAVE A SATURATED WEIGHT OF NO MORE THAN 110 POUNDER PER CUBIC FOOT WHEN COMPACTED TO 85% STANDARDS PROCTOR.

F. WATER

- THE OWNER.
- ESTABLISHES READILY.
- THE CLIENT.
- JURISDICTIONAL AUTHORITY. G. FERTILIZER
- NATURALLY-DERIVED.
- AUTHORITY.
- H. MULCH
- SHREDDED, STERILE EUCALYPTUS MULCH. I. DIGGING AND HANDLING
 - WATER LOSS.
 - SHALL NOT BE HANDLED BY STEMS.
 - DURING TRANSPORTATION AND PRIOR TO PLANTING.
 - DETAIL.
- J. CONTAINER GROWN STOCK
- CONDITION, FLORIDA #1 OR BETTER.

- K. COLLECTED STOCK
- SAME VARIETY. L. NATIVE STOCK
- NURSERY ROW. M. MATERIALS LIST
- N. FINE GRADING
- CONTRACTOR, UNLESS OTHERWISE NOTED.
- LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.
- FINAL GRADES.

1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC.. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO

2. CONTRACTOR SHALL INSURE ALL PLANT MATERIAL RECEIVES APPROPRIATE WATER THROUGHOUT THE GUARANTEE PERIOD SO PLANT MATERIAL THRIVES AND

3. CONTRACTOR SHALL SUBMIT A WATERING SCHEDULE FOR WRITTEN APPROVAL BY

*WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S

1. CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE

*FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL

1. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A MINIMUM DEPTH OF 3 INCHES. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE). TYPE OF MATERIAL: "FLORIMULCH" OR

1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILTPRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL

2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS, COMPLYING WITH FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS, CURRENT EDITION. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT

4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING

5. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB-BASES.

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

3. PLANT ROOTS BOUND IN CONTAINERS ARE NOT ACCEPTABLE.

4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL IS OBTAINED FROM THE OWNER OR OWNER'S REPRESENTATIVE.

1. WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE

1. PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE

1. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.

1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE

2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END

3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR

O. PLANTING PROCEDURES

- 1. 1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL NATIONAL ONE CALL - 811 - TO LOCATE UTILITIES.
- 3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36". CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND ADEQUATE PERCOLATION CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE
- 4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
- 5. GENERAL COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES, METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.
- 6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
- 7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER PERCOLATION. IF POOR PERCOLATION EXISTS, UTILIZE "POOR DRAINAGE CONDITION" PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "JETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED.
- 8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
- SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS. 10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE
- GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACKFILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING). 11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER
- MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.
- 12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES. STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
- 13.PRUNING: TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY LICENSED ARBORIST, IN ACCORDANCE WITH ANSI A-300.
- 14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6", REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" TO ACHEIVE SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
- 15. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
- 16.MULCHING: PROVIDE A THREE INCH (MINIMUM) LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT PLANTED UNDER THIS CONTRACT.
- 17. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER. "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)

P. LAWN SODDING

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER

2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.

3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY. 4. SODDING

- a. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- b. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.
- c. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS. ADJACENT TO BUILDINGS, A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED -REFER TO DETAILS. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.

5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE. 6. LAWN MAINTENANCE:

- a. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"X12") UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).
- b. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.

Q. CLEANUP

1. UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE. THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

R. PLANT MATERIAL MAINTENANCE

1. ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. MAINTENANCE AFTER THE CERTIFICATION OF ACCEPTABILITY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE TO COVER LANDSCAPE AND IRRIGATION MAINTENANCE FOR A PERIOD OF 90 CALENDAR DAYS COMMENCING AFTER ACCEPTANCE.

S. MAINTENANCE (ALTERNATE BID ITEM)

1. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST-PER-MONTH BASIS. T. FINAL INSPECTION AND ACCEPTANCE OF WORK

1. FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

U. WARRANTY

1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.

2. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED UNDER "PLANTING", AT NO ADDITIONAL COST TO THE OWNER.

3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH. IT IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

FM #440846 FINAL PLANS FOR REVIE	2			AND DE IAILO		
KHA PROJECT LICENSED PROFESSIONAL	045158022	DATE	SCALE AS SHOWN	DESIGNED BY GP	DRAWN BY CJ	CHECKED BY GP DATE:
			© 2021 KIMLEY-HORN AND ASSOCIATES, INC.	2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232	PHONE: 941-379-7600 WWWW KIMIEY LIODN COM CA CONDECCE	WWW.KIMLET-FIUKIN.CUM CA UUUUUUU
1001 %06 🛛 🐺	A FINAL FDO	A 100% FDO				No.
- ERC COMMENTS	T ERC COMMENTS	T ERC COMMENTS				EVISIONS
11/5/2021	12/23/2021	02/18/2022				DATE BY

۲	SMALL TREE/ PALI CONTRACTOR TO DIFF SINGLE OUTL	M DRIP EMITTER PROVIDE TWO (2) RAINBIRD PC ET, PRESSURE COMPENSATING	16	21 KIMLEY-H EMEN ROAD, PHONE: W.KIMLEY-HO
(@)	SMALL TREE/ PALM CONTRACTOR TO DIFF SINGLE OUTL DRIP EMITTERS W AND DIFFUSER CA	M DRIP EMITTER PROVIDE TWO (2) RAINBIRD PC .ET, PRESSURE COMPENSATING ITH SELF-PIERCING BARB INLET .P. FLOW RATE: 24GPH=ORANGE.	16	© 2021 KIMLE WWW.KIMLEY
	AREA TO RECEIVE RAIN BIRD XFS-P-0 XFS SUB-SURFACI LANDSCAPE DRIPI TECHNOLOGY. 0.9 DRIPLINE LATERAI EMITTERS OFFSET PURPI E TUBING F	DRIPLINE 9-18 (18) E PRESSURE COMPENSATING INE W/COPPER SHIELD GPH EMITTERS AT 18.0" O.C. S SPACED AT 18.0" APART, WITH FOR TRIANGULAR PATTERN. OR NON-POTABLE WATER	1,683 S.F.	ESSIONAL
SYMBOL	MANUFACTURER/	MODEL/DESCRIPTION	QTY	SED PROFE
С	RAIN BIRD ESP4ME 7 STATION, HYBRII CONTROLLER. FO COMMERCIAL APP	E WITH (1) ESP-SM3 D MODULAR OUTDOOR R RESIDENTIAL OR LIGHT LICATIONS.	1	CJ CP LICENS
®	RAIN BIRD RSD-BE RAIN SENSOR, WIT EXTENSION WIRE.	X TH METAL LATCHING BRACKET,	1	HA PROJEC ⁻ 143138022 DATE 2/23/202 E AS SHO GNED BY WN BY
	WATER METER 2" — IRRIGATION LATEF	RAL LINE: PVC CLASS 200 SDR 21 +	1 -/- 73.0 L.F.	KI SCAL
	 IRRIGATION MAINL PIPE SLEEVE: PVC 	INE: PVC SCHEDULE 40 +	/- 50.7 L.F. AS NEEDED	
#•#• #"•	Valve Callout Valve Number Valve Flow Valve Size	TYPICAL PIPE SLEEVE FOR IRRIGATI SLEEVE SIZE SHALL ALLOW FOR IRR AND THEIR RELATED COUPLINGS TO THROUGH SLEEVING MATERIAL. EX 18 INCHES BEYOND EDGES OF PAVIN CONSTRUCTION.	ON PIPE. PIPE IGATION PIPING EASILY SLIDE TEND SLEEVES NG FOR	FM #440846 FINAL PLANS FOR REV IRRIGATION PL,
		E: NORTH SIDE	GPM	i

XFS [Dripline I	Maximun	n Latera	Length	s (Feet)	
	12" Sp	bacing	18" Sp	bacing	24" Sj	pacing
nlet Pressure psi	Nominal F	low (gph)	Nominal F	low (gph)	Nominal F	low (gph)
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

UNDERGROUND IRRIGATION SYSTEM

PART I: GENERAL 1.01 SCOPE

- A. The work covered by this specification shall include the furnishing of all labor, materials, tools and equipment necessary to perform and complete the installation of an automatic irrigation system as specified herein and as shown on the drawings and any incidental work not shown or specified which can reasonably be determined to be part of the work and necessary to provide a complete and functional system.
- B. The work covered by this specification also includes all permits, federal, state and local taxes and all other costs, both foreseeable and unforeseeable at the time of construction.
- C. No deviation from these specifications, the accompanying drawings, or agreement is authorized or shall be made without prior written authorization signed by the Owner or his duly appointed representative.

1.02 QUALITY ASSURANCE

- D. Installer Qualifications: A firm specializing in irrigation work with not less than five (5) years of experience in installing irrigation systems similar to those required for this project.
- E. Coordination: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.
- F. Inspection of Site: The Contractor shall acquaint himself with all site conditions, including underground utilities before construction is to begin. Contractor shall coordinate placement of underground materials with contractors previously working underground in the vicinity or those scheduled to do underground work in the vicinity. Contractor is responsible for minor adjustments in the layout of the work to accommodate existing facilities.
- G. Protection of Existing Plants and Site Conditions: The Contractor shall take necessary precautions to protect site conditions to remain. Should damages be incurred, this Contractor shall repair the damage to its original condition at his own expense. Any disruption, destruction, or disturbance of any existing plant, tree, shrub, or turf, or any structure shall be completely restored to the satisfaction of the Owner and his representatives, solely at the Contractor's expense.
- H. Protection of Work and Property: The Contractor shall be liable for and shall take the following actions as required with regard to damage to any of the Owner's property.
- Any existing building, equipment, piping, pipe coverings, electrical systems, sewers, sidewalks, roads, grounds, landscaping or structure of any kind (including without limitation, damage from leaks in the piping system being installed or having been installed by Contractor) damaged by the Contractor, or by his agents, employees, or subcontractors, during the course of his work, whether through negligence or otherwise, shall be replaced or repaired by Contractor at his own expense in a manner satisfactory to Owner, which repair or replacement shall be a condition precedent to Owner's obligation to make final payment under the Contract.
- Contractor shall also be responsible for damage to any work covered by these specifications before final acceptance of the work. He shall securely cover all openings into the systems and cover all apparatus, equipment and appliances, both before and after being set in place to prevent obstructions on the pipes and the breakage, misuse or disfigurement of the apparatus, equipment or appliance.
- 3. All trenching or other work under the leaf canopy of any and all trees shall be done by hand or by other methods so that no branches are damaged in any way.

Buildings, walks, walls, and other property shall be protected from damage. Open ditches left exposed shall be flagged and barricaded by the Contractor by approved means. The Contractor shall restore disturbed areas to their original condition.

4. The Contractor shall be responsible for requesting the proper utility company to stake the exact location of any underground lines including but not limited to electric, gas, telephone service, water, and cable.

The Contractor shall take whatever precautions are necessary to protect these underground lines from damage. In the event damage does occur, all damage shall be completely repaired to its original condition, at no additional cost to the Owner.

- 5. The Contractor shall request the Owner, in writing, to locate any private utilities (i.e., electrical service to outside lighting) before proceeding with any excavation. If, after such requests and necessary staking, private utilities which were not staked are encountered and damaged by the Contractor, they shall be repaired by the Owner at no cost to the Contractor. If the Contractor damages staked or located utilities, they shall be repaired at the Contractor's expense.
- J. Codes and Inspections: The entire installation shall comply fully with all local and state laws and ordinances and with all established codes arrange for all necessary inspections and shall pay all fees and expenses in connection with same, as part of the work under this Contract. Upon completion of the work, he shall furnish to the "Owner" all inspection certificates customarily issued in connection with the class of work involved.
- K. The Contractor shall keep on his work, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Owner, or Owner's representative.
- L. The superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor.
- M. The Owner's Landscape Architect or designated individual shall have full authority to approve or reject work performed by the Contractor. The Owner's Authorized Representative shall also have full authority to make field changes that are deemed necessary.
- N. Final Acceptance: Final acceptance of the work may be obtained from the Owner upon the satisfactory completion of all work. Acceptance by the Landscape Architect and/or Owner in no way removes the Contractor of his responsibility to make further repairs, corrections and adjustments to eliminate any deficiencies which may later be discovered.
- O. Guarantee: All work shall be guaranteed for one year from date of final acceptance against all defects in material, equipment and workmanship to the satisfaction of the Owner. Repairs, if required, shall be done promptly at no cost to the Owner.
- 1. The guarantee shall also cover repair of damage to any part of the premises resulting from leaks or workmanship, to the satisfaction of the Owner. The Contractor shall not be responsible for work damaged by others. Repairs, if required, shall be done promptly. The guarantee shall state the name of the Owner, provide full guarantee terms, effective and termination date, name and license number of Contractor providing guarantee, address, and telephone number. It shall be signed by the chief executive of the Contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee.
- 2. If, within ten (10) days after mailing of written notice by the Owner to the Contractor requesting repairs or replacement resulting from a breach of warranty, the Contractor shall neglect to make or undertake with due diligence to make the same, the Owner may make such repairs at the Contractor's expense; provided, however, that in the case of emergency where, in the judgment of the Owner, delay would cause serious loss or damage, repairs or replacement may be made without notice being sent to the Contractor, and Contractor shall pay the cost thereof.

	The Contractor shall provide full, 100% irrigation coverage in all areas designed with proposed plantings, in accordance with the site's governing permitting requirements and as designed.	2.02 PIPING
Q.	On-site Observation: At any time during the installation of the irrigation system by the Contractor, the Owner or Landscape Architect may visit the site to observe work underway. Upon request, the Contractor shall be required to uncover specified work as directed	A. General Provi Landscap
	by the Owner or material, workmanship or method of installation not meet the standards specified herein, the Contractor shall replace the work at his own expense.	B. Polyvinyl Chlo
R.	Workmanship: All work shall be installed by qualified, skilled personnel, proficient in the trades required, in a neat, orderly, and responsible manner with recognized standards of workmanship. The Contractor shall have had considerable experience and	1. Laterals: dian
	demonstrated ability in the installation of sprinkler irrigation systems of this type.	2. Main Line with
1.04	SUBMITTALS	3. Pipe Mar
All	naterials shall be those specified and/or approved by the Landscape Architect.	
A.	Product Data: After the award of the Contract and prior to beginning work, the Contractor shall submit for approval by the Owner and Landscape Architect, two copies of the complete list of materials, manufacturer's technical data, and installation instructions which he proposes to install.	
В.	Commence no work before approval of material list and descriptive material by the Landscape Architect.	2.04 PVC J
C.	Record Drawings: The Contractor shall record on reproducibles, all changes that may be made during actual installation of the system. Provide controller sequencing and control valve locations.	Joints in the solve
	1 Immediately upon installation of any nining valves wiring sprinklers etc. in locations other than shown on the original drawings	2.05 THREADED CO
	or of sizes other than indicated, the Contractor shall clearly indicate such changes on a set of blueline prints. Records shall be made on a daily basis. All records shall be neat and subject to the approval of the Owner.	A. Threaded PVC
	2. The Contractor shall also indicate on the record prints the location of all wire splices, original or due to repair, that are installed underground in a location other than the controller pedestal, remote control valve box, power source or connection to a valve-in-head sprinkler.	B. Connection be and nipp
	3. These drawings shall also serve as work progress sheets. The Contractor shall make neat and legible notations thereon daily as the	2.06 SOLVENT CEM
	work proceeds, showing the work as actually installed. These drawings shall be available at all times for review and shall be kept in a location designated by the Owner's Representative.	A. General: Prov solvent v
	4. Progress payment request and record drawing information must be approved by Landscape Architect before payment is made.	B. Thrust Blocks manufac
	5. If in the opinion of the Owner or his representative, the record drawing information is not being properly or promptly recorded, construction payment may be stopped until the proper information has been recorded and submitted.	thrusts s
	6. Before the date of the final site observation and approval, the Contractor shall deliver one set (copies) of reproducible record drawing plans and notes to the Landscape Architect. Record drawing information shall be approved by the Landscape Architect prior to submittal to Owner for final payments, including retentions.	2.07 PIPE AND WIF
W.	Operations and Maintenance Manuals: The Contractor shall prepare and deliver to the Owner, or his designated representative within	A. Sleeves to be
	ten (10) calendar days prior to completion of construction, a hard cover binder with three rings containing the following information:	1. The Cont
	1. Index sheet stating the Contractor's address and business telephone number, list of equipment with name(2) and address(es) of local manufacturer's representative(s).	a. b.
	2. Catalog and parts sheets on every material and equipment installed under this Contract.	
	3. Complete operating and maintenance instruction on all major equipment. Include initial controller schedule and recommended	С.
	schedule after establishment period.	d.
	4. Demonstrate to and provide the Owner's maintenance personnel with instructions for major equipment and show evidence in writing to the Owner, or his designated representative at the conclusion of the project that this service has been rendered.	e.
1.05	EXPLANATION OF DRAWINGS	
A.	Due to the scale of the drawings, it is not possible to indicate all offsets, fittings and sleeves which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of the work and plan his work accordingly, furnishing such offsets, fittings and sleeves as may be required to meet such conditions.	2.08 SPRINKLER HE
В.	The drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting and architectural features. Deviations shall be brought to the Landscape Architects attention.	A. Spray Sprinkler on plan) shall be i
C.	All work called for a on the drawings by notes or details shall be furnished and installed whether or not specifically mentioned in the specifications.	Riser mo riser-mo
D.	The Contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or discrepancies in area dimensions exist that might not have been known in engineering. Such obstructions or differences should be brought to the attention of the Landscape Architect. In the event that notification is not performed, the Contractor shall assume full responsibility for any revision necessary.	assembly
E.	If, in the opinion of the Landscape Architect, the labor furnished by the Contractor is incompetent, unskilled, or unreliable, his equipment inadequate, improper or unsafe, or if the Contractor shall fail to continuously and diligently execute the construction, the Landscape Architect or Owner shall, in writing, instruct the Contractor to remove all such causes of noncompliance and the Contractor shall promptly comply.	
F.	The Contractor shall be responsible for full and complete coverage of all irrigation areas. The Landscape Architect shall be notified of any necessary adjustments at no additional cost to the Owner. Any revisions to the irrigation system must be submitted and answered in written form, along with any change in Contract price. Layout may be modified, if necessary to obtain coverage. Spacing not to exceed 60% of the diameter.	

Material and equipment shall be supplied by the Contractor. No substitutions shall be allowed without the prior written approval of the Owner/Landscape Architect. The Contractor shall inspect all materials and equipment prior to installation, and defective materials shall be replaced with the proper materials and equipment. Those items used in the installation found to be defective, improperly installed or not as specified, shall be removed and the proper materials and equipment installed in the proper manner, as interpreted by the Owner/Landscape Architect. The Contractor shall remove all damaged and defective pipe and equipment from the site.

Hose Bibb shall be provided at all Canyon Terrace Levels by approval of Landscape Architect prior to installation.

naterials throughout the system shall be new and in perfect condition unless otherwise directed by the

(PVC): (Where indicated on plan, use non-potable purple piping.)

l conform to the requirements of ASTM Designation D 2241, Class 1120 or 1220. All lateral piping less than 3" in I be Class 200 SDR-21.

ressure: PVC shall conform to the requirements of ASTM Designation D 2241, Class 1120 or 1220, Schedule 40 nd for solvent weld connection.

PVC pipe shall bear the following markings: Manufacturer's Name Nominal Pipe Size Schedule or Class Pressure Rating of PSI

NSF (National Sanitation Foundation) Approval Date of Extrusion

smaller than 3" shall be solvent welded in accordance with the recommendations of the pipe manufacturer; r and welding compound furnished with the pipe.

DNS

ons shall be made up using Teflon tape only.

ainline pipe fittings and automatic or manual control valves shall be made using Schedule 80 threaded fittings

nt cement and primer for PVC solvent weld pipe and fittings recommended by the manufacturer. Pipe joints for to be belled end. Pipe joints for gasketted pipe to be intrical ring type. Insert gaskets will not be accepted.

e piping 3" or greater in diameter shall have thrust blocks sized and placed in accordance with the pipe ommendations or, in the absence of specified recommendations by the pipe manufacturer. 3000 PSI concrete operly installed at tees, elbows, 45's, crosses, reducers, plugs, caps and valves.

5

all install irrigation system pipe and wire sleeves conforming to the following:

sleeves shall extend a minimum of 36" beyond the edges of pavement.

sleeves to be installed beneath future/existing road surfaces shall be PVC pipe Schedule 40 or jack and bore steel per FDOT specifications, and as shown on plans.

ation system wires shall be sleeved seperately from main or lateral lines.

sleeves shall be installed at the minimum depth specified for main lines, lateral lines, and electric wire.

ctor shall coordinate all pipe sleeve locations and depths prior to initiating installation of the irrigation system.

rinkler shall be a fixed spray type designed for in-ground installation. The nozzle shall elevate 6" (or as designated operation. The body of the sprinkler shall be constructed of non-corrosive heavy duty Cycolac. A filter screen zle piston. All sprinkler parts shall be removable through the tip of the unit by removal of a threaded cap.

ray shall be as indicated on the plans. The sprinkler shall consist of a nozzle and body. The body of the kler shall be constructed of non-corrosive materials. A cone strainer shall be a separate part with the nozzle for easy flushing of the sprinkler. Maximum working pressure at the base of the sprinkler shall be 40 PSI.

		<u></u>	N					В
	11/5/2021	12/23/202	02/18/202					DATE
	90% FDOT ERC COMMENTS	FINAL FDOT ERC COMMENTS	100% FDOT ERC COMMENTS					REVISIONS
	$\overline{\mathbb{V}}$	2 F	<u>ک</u>					No.
					© 2021 KIMLEY-HORN AND ASSOCIATES, INC.	2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232	PHONE: 941-379-7600	WWW.KIMEET-HOKN.COM CA OCOCOSO
	JECT LICENSED PROFESSIONAL)22			SHOWN	GP	CJ	GP DATE:
	KHA PROJ	0451580	DATE	7/07/71	SCALE AS S	DESIGNED BY	JRAWN BY	СНЕСКЕД ВҮ
	FM #440846 FINAL PLANS FOR REVIEW							
				PREPARED FOR				MIAMI-DADE COUNTY
1.com two full to have utilities ed,		S	HE E	=⊤ -5	NUN	иве 52	ĒR	
gore you dig!	1							

2.09 AUTOMATIC CONTROL VALVE

The automatic remote control valves shall be as specified on the plans, or approved equal.

2.10 GATE VALVES

- A. Gate valves for 3/4" through 2-1/2" shall be of brass or bronze construction, solid wedge, IPS threads, non-rising stem with wheel operating handle, for a continuous working pressure of 150 PSI.
- B. Gate valves for 3" and larger: Iron body, brass or bronze mounted AWWA gate valves, with a clear waterway equal to the full nominal diameter of the valve, rubber gasket for a continuous working pressure of 150p PSI. Valve shall be equipped with a square operating nut.

2.11 VALVE BOXES

- A. For gate valves, use AMETEK #10-181-014 box with #10-181-015 locking lid, or as per the drawings.
- B. For control valves 3/4" through 2", the drip valve assemblies, use AMETEK #10-181-014 box with #10-181-015 locking lid, or sized as necessary to effectively house the equipment
- C. For control wiring splices, use AMETEK #10-181-014 box with #10-181-015 locking lid, or as per the drawings.

2.12 IRRIGATION WIRING

- A. Wiring used for connecting the electric control valves to the controllers shall be Type UF, 600 volt, single strand, solid copper with PVC insulation 4/64" thick. Size shall be 14 gauge, red for "hot" or lead wires, and common wire to be 14 gauge, white in color.
- B. Contractor shall perform an ohm test on ground to assure adequate protection against surges and indirect lightning strikes.

2.13 MISCELLANEOUS MATERIALS

- A. Drainage Backfill: Cleaned gravel or crushed stone, graded from 1" maximum to 3/4" minimum.
- B. Metalized Underground Tape: The detectable, underground utility marking tape shall consist of a minimum: 5 mil (0.005") overall thickness; five-ply composition; ultra-high molecular weight, 100% virgin polyethylene; acid, alkaline and corrosion resistant; with no less than 150 pounds of tensile break strength per 6" width; color-code impregnated with color stable, lead-free, organic pigments suitable for direct burial. Tapes utilizing reprocessed plastics or resins shall not be acceptable. The detectable, underground utility marking tape shall have a 35 gauge (0.0035") solid aluminum foil, core encapsulated within a 2.55 mil (0.00255") polyethylene backing and a 0.6 mil (0.006") PET cover coating. The laminate on each side shall consist of a 0.75 mil (0.00075") layer of hot LPDE, poly-fusing the "sandwich" without use of adhesives.
- 2.14 AUTOMATIC CONTROL SYSTEM

An Independent Station Controller: Furnish a solid state controller, as specified on the plans.

Each station shall be capable of timing from zero (0) minute to 99 minutes per station in one (1) minute increments.

Each station shall be capable of operating two (2) 7VA electric valve-in-head solenoids.

The stand-alone controller shall have two (2) possible programs.

The stand-alone controller shall provide global percentage increase/decrease (water budget) for all stations simultaneously, from ten (10) to two hundred (200) percent, in ten (10) percent increments.

All stations shall be able to be turned on/off manually buy operating timing mechanism or by manual switch at station output.

The stand-alone controller shall incorporate an integral MOV surge protection into the terminal block for each of its 24 VAC field wire outputs. Controller power input wires will also incorporate surge protection.

The control panel shall provide continuous display time. It shall have alphanumeric displays of descriptive English menus and legend identifiers with cursor selection of function and precision value adjustment by rotary dial input.

The stand-alone controller shall be UL listed and FCC approved.

The stand-alone controller shall have 117 VAC, 60 Hz input, 26.5 VAC, 60 Hz output for operating 24 VAC solenoids.

The stand-alone controller cabinet shall be a lockable and weather-resistant outdoor cabinet. Mount as noted on plans.

The controller shall be equipped with lightening protection, by the Contractor, on both the primary (120v) and each secondary (24v) circuit. The controller circuits shall be grounded to a copper clad grounding rod located at each controller.

The controller shall be equipped for a water conservation device. as specified.

PART III: EXECUTION

3.01 INSPECTION

The Contractor shall examine the areas and conditions under which landscape irrigation system is to be installed and notify the Landscape Architect in writing of conditions detrimental to the proper and timely completion of the work. The Contractor shall proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Landscape Architect.

3.02 PREPARATION

The Contractor shall provide sleeves to accommodate piping under walks or paving. The Contractor shall coordinate with other trades and install to accurate levels prior to paving work. Cutting and patching of paving and concrete will not be permitted. The Contractor shall maintain all warning signs, shoring, barricades, flares and red lanterns, as required by any local codes, ordinances or permits.

3.03 TRENCHING AND BACKFILLING

A. Excavation: The Contractor shall stake out the location of each run of pipe, sprinkler heads, sprinkler valves and isolation valves prior to trenching. Excavation shall be open vertical construction sufficiently wide to provide free working space around the work installed and to provide ample space or backfilling and tamping. Trenches for pipe shall be cut to required grade lines, and compacted to provide accurate grade and uniform bearing for the full length of the line. The bottom of the trenches shall be free of rock or other sharp edged objects. Minimum cover shall be as follows:

Pipe and Wire Depth

- Pressure Mainline Lateral Piping (rotor) Lateral Piping (pop-up) Control Wiring
 - 18" at top of pipe from Finish Grade 12" at top of pipe from Finish Grade 12" at top of pipe from Finish Grade Side of main Line
- B. Minimum Clearances: All pipelines shall have a minimum clearance of six inches from each other and from lines of other crafts. Parallel lines shall not be installed directly over one another. No lateral line shall be installed in the main-line trench.

3.04 INSTALLATION OF PIPING

- A. PVC Pipe and Joints: The Contractor shall not install solvent wild pipe when air temperature is below 40% F. Installation shall be in accordance with the manufacturer's instructions.
- 1. Only the solvent recommended by the pipe manufacturer shall be used. All PVC pipe and fittings shall be installed as outlined and instructed by the pipe manufacturer, and it shall be the Contractor's full responsibility to make arrangements with the pipe manufacturer for any field assistance that may be necessary. The Contractor shall assume full responsibility for the correct installation.

3.05 BACKFILLING PROCEDURES

Initial backfill on PVC lines shall be pulverized native soil, free of foreign matter. Within radius of 4" of the pipe shall be clean soil or sand. Plant locations shall take precedence over sprinkler and pipe locations. The Contractor shall coordinate the location of trees and shrubs with the routing of lines and final head locations.

- A. Backfill and Compaction: The Contractor shall leave trenches slightly mounded to allow for settlement after the backfilling is completed. The Contractor shall clean the site of the work continuously of excess waste materials as the backfilling progresses, and leave in a neat condition. No trenches shall be left open for a period of more than 48 hours. Protect open trenches as required.
- The Contractor shall carefully backfill excavated materials approved for backfilling, consisting of earth, loam, sand, and other approved materials, free of rock and debris over 1" in size. Backfill shall be compacted to original density of surrounding soil without dips, sunken areas, or irregularities.
- The Contractor shall conform to DOT requirements for methods and required compaction percentages, for roads and paving.
- The Contractor shall hand place the first 6" of backfill (or to top of pipe) and have it walked on so as to secure the position of the pipe and wire.
- No wheel rolling will be allowed. The Contractor shall remove rock or debris extracted from backfill materials and dispose of offsite. The Contractor shall fill any voids left in backfill with approved backfill materials.
- B. Existing Lawns: Where trenching is required across existing lawns, uniformly cut strips of sod 6" wider than trench. The Contractor shall remove sod in rolls of suitable size for handling and keep moistened until replanted. The Contractor shall replant sod within 48 hours after removal, roll and water generously. The Contractor shall resod any areas not in healthy condition equal to adjoining lawns 10 days after replanting.
- C. Seeded Area: Trenching will be required across existing seeded areas, primarily roadway edging. The Contractor shall conform to the requirements of seeding, Section 02930 for the reseeding of the disturbed trench area.
- D. Pavements: Jack and bore or directional bore piping under paving materials as per local regulatory codes. No cutting and patching of pavement will be permitted.

3.06 VALVES

- A. Isolation Valves: Shall be sized corresponding to adjacent pipe size. Specified valve boxes shall be installed flush with finish grade in such a manner that surface forces applied to their exposed area will not be transmitted to the piping in which the valve is installed nor any other piping, wiring or other lines in the vicinity of said valves.
- B. Gate Valves: Install where shown, in valve boxes.
- C. Electric Control Valves: Shall be installed in specified valve boxes. The valve shall have 6" of 3/4" pea gravel installed below the bottom of the valve. If the valve box does not extend to the base of the valve, a valve box extension shall be installed. Electric control valves shall be installed where shown and grouped together where practical. The Contractor shall place no closer than 24" to walk edges, bikeway edges, buildings and walls. The Contractor shall adjust the valve to provide flow rate or rated operating pressure required for each sprinkler circuit.

3.07 CONDUIT AND SLEEVES

3.08 CONTROLS

- zones will be labeled on the controller.
- of 8' into the ground and clamped.

3.09 CONTROL WIRE

3.10 SPRINKLER HEADS

- A. General Provisions:

- B. Head Types:
- 24" from edge of pavement.
- installed 24" from the edge of pavement.

3.11 COMPLETION

3.12 WARRANTY

- for said damages.

A. Conduit and Sleeves for Control Wiring and Main/Lateral Pipe: The Contractor shall provide and install where necessary. Contractor shall coordinate locations of previously installed sleeving with the General Site Contractor.

The Contractor shall coordinate installation of sleeves with work of other disciplines.

A. The Contractor shall connect electric control valves to controllers in a clockwise sequence to correspond with station settings beginning with Stations 1, 2, 3, etc. Automatic controllers shall be provided and installed by the Contractor as noted on the drawings. All

B. Controllers shall be equipped with lightning protection and grounded to a standard 5/8" copper clad steel ground rod driven a minimum

C. The electrical service to the controllers shall be performed by an electrical subcontractor in compliance with NEC requirements.

A. Control wiring between the controller and electric valves shall be buried in main line trenches or in separate trenches. Electrical connection at valve will allow for pigtail so solenoid can be removed from valve with sufficient slack to allow ends to be pulled 12" above ground for examination and cleaning.

B. An expansion loop shall be provided at every valve at 100' o.c. Expansion loop shall be formed by wrapping wire at least eight times around a 3/4" pipe and withdrawing pipe.

C. The wire shall be bundled and taped every ten feet. The wire shall be laid in the trench prior to installing the pipe being careful to install wire beneath and 6" to the side of the main pipe line.

D. Electrical connections to electric control valves shall be made with Rainbird Pen-Tite or Techdel GT-3-GEL - Tite connectors or equal.

Power Connections: Electrical connections to power and signal wires shall be made using 3M 82-A2 power cable splice kits.

1. Sprinkler heads shall be installed as designated on the shop drawings. Heads shall be installed on flexible PVC. Top to be flush with finish grade or top of curb.

2. Spacing of heads shall not exceed the maximum indicated on the shop drawings (unless directed by the Landscape Architect). In no case shall the spacing exceed the maximum recommended by the manufacturer.

1. Pop-up- Rotary Sprinkler Heads: Shall be installed on flex joint and be set with top of head flush with finish grade. Heads installed at curb shall have 6" to 10" between perimeter of head and concrete. Heads placed at edge of pavement having no curb shall be installed

2. Spray Pop-up Sprinkler Heads: Shall be installed on flexible PVC and be set with top of head flush with finished grade. Sprinkler heads placed adjacent to curbs will be installed 9" from concrete. Sprinkler heads placed adjacent to pavement having no curb shall be

A. Flushing: Before sprinkler heads are set, the Contractor shall flush the lines thoroughly to make sure there is no foreign matter in the

The Contractor shall flush the main lines from dead end fittings for a minimum of five minutes under a full head of pressure.

B. Testing: The Contractor shall notify Landscape Architect and Owner forty-eight (48) hours in advance of testing.

Prior to backfilling of main line fittings, Contractor shall fill the main line piping with water, in the presence of the Owner/Landscape Architect, taking care to purge the air from it by operating all the sprinkler control valves one or more times and/or such other means as may be necessary. A small, high pressure pump or other means of maintaining a continuous water supply shall be connected to the main line and set so as to maintain 100 PSI in the main line system for two (2) hours without interruption. When this has been accomplished and while the pressure in the system is still 100 PSI, leakage testing shall be performed in accordance with AWWA Standard C-600. Pressure readings shall be noted and make up water usage shall be recorded. Should the rate of make up water usage indicate significant leakage, the source of such leakage shall be found and corrected and the system then retested until the Owner/Landscape Architect is satisfied that the system is reasonably sound. Lateral line testing shall be conducted during the operating testing of the system by checking visually the ground surface until no leaks in this portion of the system are evident. Leaks shall be repaired or paid for by the Contractor at any time they appear during the warranty period.

C. Adjustment and Coverage of System: Coordinate pressure testing with adjustments and coverage test of system so both may occur at the same time. The Contractor shall balance and adjust the various components of the system so that the overall operation of the system is most efficient. This includes a synchronization of the controllers, adjustments to pressure regulators, pressure relief valves, part circle sprinkler heads, and individual station adjustments on the controllers.

A. The Contractor shall fully warrant the landscape irrigation system for a period of one (1) year after the written final acceptance and will receive a written confirmation from the Landscape Architect that the warranty period is in effect.

B. During the warranty period, the Contractor will enforce all manufacturer's and supplier's warranties as if made by the Contractor himself. Any malfunctions, deficiencies, breaks, damages, disrepair, or other disorder due to materials, workmanship, or installation by the Contractor and his suppliers shall be immediately and properly corrected to the proper order as directed by the Owner and/or Landscape Architect.

C. Any damages caused by system malfunction shall be the responsibility of the Contractor who shall make full and immediate restoration

GENERAL NOTES AND SPECIFICATIONS

I. APPLICABLE CODES

- 1. ALL WORK AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF THE FLORIDA BUILDING CODE, CITY OF NORTH BAY VILLAGE PUBLIC WORKS, MIAMI-DADE COUNTY RER, MIAMI-DADE WATER AND SEWER DEPARTMENT (MDWASD), FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS AND SPECIFICATIONS, AS WELL AS ALL OTHER LOCAL, STATE, AND NATIONAL CODES AND REGULATORY REQUIREMENTS, AS APPLICABLE.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
- 3. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER EXISTING SITE IMPROVEMENTS. FEATURES AND CONDITIONS SHOWN ON THE DRAWINGS WERE OBTAINED FROM THE FOLLOWING TOPOGRAPHIC BOUNDARY SURVEY SPECIFICALLY PREPARED FOR THIS PROJECT:

- 4. EXISTING AND PROPOSED GRADE ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM, 1929 (NGVD 29). BENCHMARKS USED ARE THOSE IDENTIFIED ON THE TOPOGRAPHIC BOUNDARY SURVEY.
- 5. THE HORIZONTAL LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS REFLECT UTILITY INFORMATION PROVIDED BY:

MIAMI-DADE COUNTY WATER AND SEWER DEPARTMENT MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT (TRANSPORTATION DIVISION) CITY OF NORTH BAY VILLAGE PUBLIC WORKS DEPARTMENT

- 6. PROPOSED ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES.
- 7. EXISTING UTILITIES TO BE ADJUSTED IN ACCORDANCE WITH PROPOSED GRADES AND REQUIREMENTS OF UTILITY OWNERS, AS REQUIRED.
- 8. EXISTING STRUCTURES, TREES, UTILITIES AND OTHER IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE SUCH AS BUILDING SEWERS, DRAINS, WATER OR GAS PIPES, CONDUITS, POLES, WALLS, COLUMNS, ETC., WHETHER OR NOT SHOWN ON THE PLANS, ARE TO BE CAREFULLY PROTECTED FROM DAMAGE. IF DAMAGE OCCURS FROM WORK PERFORMED UNDER THIS CONTRACT, THE CONTRACTOR SHALL PROMPTLY REPAIR THE DAMAGED ITEM(S) TO THE CONDITION OF THE ITEM(S) PRIOR TO THE DAMAGE. THIS WORK SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
- 9. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.
- 10. CONTRACTOR SHALL PRESERVE ALL STREET SIGNS, PARKING METERS, BENCHES, TRAFFIC CONTROL SIGNS, ETC. WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL REINSTALL THESE OR DELIVER SAID PUBLIC PROPERTY TO THE RESPECTIVE OWNER.
- 11. THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH ANY OTHER UTILITY AND BUILDING TRADES WORKING ON THIS OR ADJACENT PROJECT.
- 12. ALL DITCH EXCAVATION SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE PROVISIONS OF THE FLORIDA TRENCH SAFETY ACT.
- 13. THE CONTRACTOR SHALL TAKE SPECIAL NOTE OF SOIL CONDITIONS THROUGHOUT THIS PROJECT. ANY SPECIAL SHORING, SHEETING OR OTHER PROCEDURES NECESSARY TO PROTECT ADJACENT PROPERTY, EITHER PUBLIC OR PRIVATE, DURING EXCAVATION OF SUBSOIL MATERIAL OR DURING THE FILLING OF ANY AREA, OR FOR ANY OPERATION DURING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

II. SHOP DRAWINGS

PRIOR TO FABRICATION OR CONSTRUCTION, SHOP DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD FOR APPROVAL OF THE FOLLOWING ITEMS:

- 1. DRAINAGE:
- a. TRENCH OR SLOT DRAINS INCLUDING CHANNELS, ANCHORS, GRATES, OUTLETS, ETC. b. DRAINAGE PIPE AND FITTINGS c. CLEANOUTS
- 2. WATER DISTRIBUTION

a. PIPE AND FITTINGS **b.BACKFLOW PREVENTION DEVICES**

III. PRECONSTRUCTION RESPONSIBILITIES

- 1. THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT ANY AND ALL INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- 2. TWO (2) BUSINESS DAYS BEFORE BEGINNING CONSTRUCTION IN THE AREA, THE CONTRACTOR SHALL NOTIFY SUNSHINE STATE CALL ONE OF FLORIDA, INC. AT 1-800-432-4770 AND ANY OTHER UTILITY COMPANIES WHICH MIGHT BE AFFECTED.
- 3. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER, AND THE ENGINEER OF RECORD.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING A TRAFFIC CONTROL PLAN THAT ADDRESSES THE MAINTENANCE OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC IN A SAFE AND REASONABLY ADEQUATE MANNER AROUND THE WORK SITE. PRIOR TO COMMENCING WITH ANY ACTIVITIES AT THE JOB SITE, THE CONTRACTOR SHALL OBTAIN APPROVAL FOR THE TRAFFIC CONTROL PLAN FROM ALL AGENCIES HAVING JURISDICTION.
- 5. THE CONTRACTOR SHALL APPLY FOR AND PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, TAXES, ROYALTIES & FEES, AND GIVE ALL NOTICES NECESSARY TO COMPLETE THIS PROJECT.
- 6. THE CONTRACTORS SHALL COORDINATE WITH UTILITY COMPANIES TO ARRANGE FOR ANY REMOVAL, RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK, IF APPLICABLE.
- 7. THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL LOCATE AND EXPOSE ALL EXISTING UTILITIES TO BE CONNECTED SUFFICIENTLY AHEAD OF CONSTRUCTION TO ALLOW REDESIGN BY THE ENGINEER IF SUCH UTILITIES ARE FOUND TO BE DIFFERENT THAN THOSE SHOWN ON PLANS.

IV. INSPECTION AND TESTING

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD VIA TELEPHONE AND EMAIL AT LEAST TWO BUSINESS DAYS PRIOR TO THE FOLLOWING:
- a. <u>FINISHED PAVEMENT</u> PRIOR TO PLACEMENT OF ANY FINISHED ASPHALT, CONCRETE AND/OR BRICK PAVING.
- **b.SUBSTANTIAL COMPLETION**
- c. FINAL INSPECTION

REGARDLESS OF WHETHER OR NOT THE ABOVE ARE WITNESSED BY OTHERS, IF THE CONTRACTOR FAILS TO NOTIFY THE ENGINEER OF RECORD AT LEAST 2 BUSINESS DAYS PRIOR AND THESE ARE <u>completed without the engineer of record present, the contractor shall again expose</u> THE WORK AND REPEAT ALL TESTS AS REQUESTED BY THE ENGINEER OF RECORD AT NO <u>ADDITIONAL COST TO THE CONTRACT. OTHERWISE, THE ENGINEER OF RECORD RESERVES THE RIGHT</u> O REFUSE ISSUANCE OF ANY CERTIFICATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND CALLING FOR ANY TESTING AND INSPECTIONS REQUIRED BY CITY, COUNTY, STATE AND FEDERAL AGENCIES HAVING JURISDICTION OVER THE CONTRACTOR'S WORK.

V. TEMPORARY FACILITIES

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY DURING CONSTRUCTION.
- 2. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE ACCESS ENTRANCE TO ADJACENT PROPERTIES AT ALL TIMES.
- 3. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION.
- 4. ALL EXISTING DRAINAGE INLETS, DRAINAGE DITCHES AND WATER BODIES ABUTTING THE PROJECT SHALL BE PROTECTED FROM DEBRIS, SILT AND SOIL EROSION (REFER TO EROSION CONTROL PLAN AND DETAILS). EROSION CONTROL MEASURES SHALL BE CAREFULLY MAINTAINED UNTIL CONSTRUCTION ACTIVITIES ARE COMPLETE.
- 5. THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAG PERSONS AS NECESSARY FOR THE MAINTENANCE OF TRAFFIC WITHIN PUBLIC RIGHT-OF-WAYS IN ACCORDANCE WITH FDOT STANDARD PLANS, SERIES 102-600.
- 6. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN AND BARRICADED/SHIELDED DURING NIGHTTIME HOURS WITHOUT THE EXPRESS PERMISSION OF THE CITY OF MIAMI PUBLIC WORKS DEPARTMENT, AND/OR FDOT.

VI. PROJECT CLOSE OUT:

- DETERMINED BY THE ENGINEER.

VII. STORM DRAINAGE

- SPECIFICATIONS.
- FINISHED

VIII. ENVIRONMENTAL

POTENTIALLY CONTAMINATED.

ONE POTENTIALLY CONTAMINATED SITE LOCATED WITHIN A 500-FT RADIUS OF THE PROJECT CORRIDOR HAS BEEN IDENTIFIED. THE CONTRACTOR SHALL NOTIFY THE LAP CITY OF NORTH BAY VILLAGE ENGINEER FOR TECHNICAL ASSISTANCE BEFORE APPLYING FOR A DEWATERING PERMIT FROM ANY ENVIRONMENTAL REGULATORY AGENCY TO AVOID POTENTIAL CONTAMINATION PLUME EXACERBATION AND DETERMINE PROPER GROUNDWATER MANAGEMENT ASSOCIATED WITH THE ABOVE REFERENCED AREA.

 $\overleftarrow{}$

AREA.

1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEANUP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEPT BROOM CLEAN.

2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS/HER WORK, EQUIPMENT AND/OR EMPLOYEES TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS AS DETERMINED BY THE ENGINEER.

3. UNLESS NOTED OTHERWISE, THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZED EARTH. CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS REMOVED DURING CONSTRUCTION WITH THE SAME TYPE OF MATERIAL AND TO THE CONDITION WHICH EXISTED PRIOR TO THE BEGINNING OF OPERATIONS.

4. WHERE MATERIAL OR DEBRIS HAVE WASHED OR FLOWED INTO, OR HAVE BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION AS

5. ALL DISPOSAL OF EXCESS AND UNSUITABLE EXCAVATED MATERIAL, DEMOLITION, VEGETATION, RUBBISH AND DEBRIS SHALL BE MADE OUTSIDE THE LIMITS OF CONSTRUCTION AT A LEGAL DISPOSAL SITE PROVIDED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE, WITH THE PRIOR APPROVAL OF THE ENVIRONMENTAL ENGINEER. MATERIAL CLEARED FROM THE SITE SHALL NOT BE DEPOSITED ON ADJACENT AND/OR NEARBY PROPERTY.

6. ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

7. DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH AND ELEVATION OF ANY EXISTING FACILITIES NOT FOUND TO BE EXACTLY AS SHOWN ON THE PLANS, AND ANY NEW FACILITIES NOT BUILT EXACTLY ACCORDING TO PLANS.

8. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH AS-BUILT GRADES AND LOCATIONS OF FINISHED PAVEMENT, SIDEWALKS, CURBS, DRAINAGE STRUCTURES, AND ALL PHYSICAL IMPROVEMENTS. SUCH GRADES SHALL BE OBTAINED BY A LICENSED SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF FLORIDA, AND SHALL DOCUMENT THE INTENT OF THE PROPOSED GRADES SHOWN ON THE PLANS. THIS SHALL BE DONE AT NO COST TO THE OWNER.

9. CONTRACTOR TO REPLACE ALL FOUND PIPES WITH NAIL AND DISKS.

. ALL ONSITE STORM DRAINAGE MATERIALS AND INSTALLATION SHALL CONFORM TO THE APPLICABLE CITY OF NORTH BAY VILLAGE PUBLIC WORKS, MIAMI DADE COUNTY PUBLIC WORKS AND FDOT

2. PROVIDE A MINIMUM PROTECTIVE COVER OF 24 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL PROTECT COMPLETED DRAINAGE STRUCTURES AND EXFILTRATION TRENCH SYSTEMS FROM CONTAMINATION OF SILT AND CONSTRUCTION DEBRIS. PLACE PLYWOOD ON, OR FILTER FABRIC BETWEEN, THE FRAME AND INLET GRATE UNTIL CONSTRUCTION OPERATIONS ARE

4. CONTRACTOR TO USE CAUTION WHEN EXCAVATING NEAR EXISTING SEAWALL TO AVOID DAMAGING THE SEAWALL AND ANY POSSIBLE TIE-BACK SUPPORTS.

1. THE AREAS WITHIN APPROXIMATELY STA 109+00 TO STA 111+70 HAS/HAVE BEEN IDENTIFIED AS

A COORDINATION MEETING BETWEEN THE LAP CITY OF NORTH BAY VILLAGE ENGINEER OR A DESIGNATED QUALIFIED ENVIRONMENTAL INDIVIDUAL/CONSULTANT AND THE CONTRACTOR SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION TO COORDINATE ACTIVITIES WITHIN THE PROJECT

Always call 811 two full business days before you dig

CIVIL RELATED DEMOLITION NOTES AND SPECIFICATIONS:

SHOULD ANY SECTION OF THESE DEMOLITION NOTES BE IN DIRECT CONFLICT WITH THE PROVISIONS OR TECHNICAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENT FOR THIS PROJECT, THE INTENT OF THE CONTRACT DOCUMENT SHALL GOVERN.

I. GENERAL $\overline{}$

- 1. FOR THIS PROJECT, "OWNER" SHALL MEAN NORTH BAY VILLAGE, "SURVEY" SHALL MEAN THE BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY HADONNE PROFESSIONAL LAND SURVEYORS AND MAPPERS DATED JULY 16TH, 2014 AND SUBSURFACE UTILITY ENGINEERING PREPARED BY UTILITY POTHOLING & AIR EXCAVATION DATED AUGUST 24TH 2020, AND "ENGINEER" SHALL MEAN THE ENGINEER OF RECORD.
- EXISTING CONDITIONS, UTILITIES, STRUCTURES AND OTHER IMPROVEMENTS, AS SHOWN ON THE DEMOLITION DRAWINGS, WERE TAKEN FROM THE SURVEY, AND FROM INFORMATION PROVIDED BY UTILITY COMPANIES. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING STRUCTURES, UTILITIES, DRIVES, WALKS, ETC., IN THEIR APPROXIMATE LOCATION. OTHERS MAY EXIST AND MAY BE FOUND UPON VISITING THE SITE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE ALL FACILITIES AND TO DETERMINE THEIR EXTENT. IF SUCH FACILITIES OBSTRUCT THE PROGRESS OF THE WORK AND ARE NOT INDICATED TO BE REMOVED OR RELOCATED, THEY SHALL BE REMOVED OR RELOCATED ONLY AS DIRECTED BY THE OWNER, ARCHITECT, OR ENGINEER OF RECORD, AT NO ADDITIONAL COST TO THE OWNER.
- 3. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
- 4. ORGANIZE AND PERFORM DEMOLITION WORK TO AVOID DAMAGE TO CONSTRUCTION INTENDED TO REMAIN, INCLUDING TREES (SEE LANDSCAPE PLANS FOR DETAILS).
- 5. DEMOLITION AND REMOVAL OPERATIONS SHALL BE CONDUCTED IN AN EXPEDIENT MANNER, WITH PRECAUTIONS TAKEN TO PREVENT THE DEMOLITION SITE FROM BEING A NUISANCE.
- 6. PERFORM REMOVAL AND DEMOLITION IN ACCORDANCE WITH DEMOLITION SCHEDULE (REFER TO SECTION IV.) AND TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING ADJACENT BUILDINGS, FURNISHINGS, AND EQUIPMENT. NOTIFY THE ENGINEER OF ANY CONDITIONS THAT MAY AFFECT THE SAFETY OF OCCUPANTS OF ADJACENT BUILDINGS, THE NORMAL USE OF THESE FACILITIES, OR THE PHYSICAL CONDITION OF THE STRUCTURES.
- 7. ALL EXISTING UTILITIES OUTSIDE THE PROPERTY BOUNDARIES ARE TO REMAIN, UNLESS OTHERWISE NOTED.
- 8. PRIOR TO DEMOLITION ACTIVITIES, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL AFFECTED UTILITY COMPANIES IN ORDER TO COORDINATE THE DEACTIVATION OF ALL EXISTING UTILITY LINES WITHIN THE PROPERTY. ONCE ALL ONSITE UTILITIES HAVE BEEN DEACTIVATED, ALL LINES SHALL BE CUT AND CAPPED INSIDE THE PROPERTY LINE, AND REMOVED (UNLESS OTHERWISE INDICATED).
- 9. THE CONTRACTOR SHALL USE EXTREME CAUTION IN REMOVING ANY STRUCTURES AND UTILITIES ABOVE AND BELOW GRADE TO PREVENT DAMAGE TO EXISTING UTILITIES WHICH ARE TO REMAIN IN SERVICE. ANY DAMAGE TO EXISTING PIPELINES, UTILITIES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, IN A MANNER ACCEPTABLE TO THE PARTY IN OWNERSHIP OF THE DAMAGED PROPERTY. THE CONTRACTOR SHALL REPORT ANY EXISTING DAMAGE PRIOR TO BEGINNING WORK. IN THE EVENT OF ACCIDENTAL DISRUPTION OF UTILITIES OR THE DISCOVERY OF PREVIOUSLY UNKNOWN UTILITIES, STOP WORK IMMEDIATELY AND NOTIFY THE AFFECTED UTILITY COMPANY AND THE ENGINEER. DO NOT CONTINUE WORK UNTIL THE UTILITY COMPANY, ENGINEER, AND CONTRACTOR AGREE ON A PLAN TO CORRECT THE SITUATION OR IDENTIFY THE UTILITY SERVICE LINE.
- 10. EXISTING WORK NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARILY REMOVED, DAMAGED, EXPOSED, OR IN ANY WAY DISTURBED OR ALTERED BY THE CONTRACTORS ACTIVITIES SHALL BE REPAIRED, PATCHED OR REPLACED, SOLELY AT THE CONTRACTOR'S EXPENSE, TO THE ENGINEER'S AND OWNER'S SATISFACTION.
- 11. TITLE AND RESPONSIBILITY TO MATERIALS AND EQUIPMENT TO BE REMOVED, EXCEPT SALVAGEABLE EQUIPMENT TO BE RETAINED BY THE OWNER, IS VESTED TO THE CONTRACTOR UPON RECEIPT OF NOTICE TO PROCEED. THE OWNER WILL NOT BE RESPONSIBLE FOR THE CONDITION, LOSS OR DAMAGE TO SUCH MATERIALS AND EQUIPMENT AFTER THE ISSUANCE OF THE NOTICE TO PROCEED.
- 12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO: A. PROTECT ALL EXISTING STRUCTURAL AND VEGETATIVE ELEMENTS TO REMAIN DURING DEMOLITION UNLESS OTHERWISE SPECIFIED.
 - B. IF APPLICABLE, PATCH AND REPAIR ALL SURFACES WITHIN THE PUBLIC R/W AFFECTED BY DEMOLITION
 - C. SAW-CUT IN NEAT, STRAIGHT LINES, EXISTING CONC. OR ASPHALT PAVEMENT.
 - D. REMOVE ALL EXISTING IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED.
 - E. NO ELECTRIC POLES, STREET LIGHTS, WATER METERS/VALVES, FIRE HYDRANTS ETC. WILL BE REMOVED WITHIN THE ROADWAY RIGHT-OF-WAY, UNLESS OTHERWISE NOTED ON THE DEMOLITION PLANS.
 - F. REFER TO LANDSCAPE PLANS FOR VERIFICATION OF ALL EXISTING TREES TO BE REMOVED, RELOCATED OR TO REMAIN.
 - G. MAINTAIN ALL EXISTING SURVEY REFERENCES AND MARKERS IN PLACE, OTHERWISE THEY SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

II. DESCRIPTION

- 1. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, ETC., NECESSARY AND INCIDENTAL TO THE COMPLETION OF ALL SITE DEMOLITION AND CLEARING WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING THE LEGAL TRANSPORT AND OFF-SITE DISPOSAL OF DEMOLITION DEBRIS.
- 2. ALL SITE WORK INCLUDES , BUT IS NOT LIMITED TO THE FOLLOWING:
 - A. FULL-DEPTH REMOVAL OF EXISTING SIDEWALKS, DRIVES, CURBS, AND PAVEMENT. B. FULL DEPTH REMOVAL OF EXISTING BUILDING FOUNDATIONS, UNDERGROUND UTILITIES AND RELATED STRUCTURES.
 - C. CLEARING SITE OF VEGETATION AND TREES AS NOTED ON THE LANDSCAPE PLANS.
 - D. CLEARING SITE OF DEMOLITION DEBRIS.
 - E. REMOVAL FROM SITE AND DISPOSAL OF ALL EXCESS AND UNUSABLE MATERIAL.
 - F. COORDINATION WITH ALL UTILITY COMPANIES/OWNERS PRIOR TO DEACTIVATION OF EXISTING UTILITIES.

III. APPLICABLE CODES

- 1. DEMOLITION AND TRANSPORTATION OF DEBRIS SHALL COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS GOVERNING THESE OPERATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS, BONDS, LICENSES, ETC., REQUIRED FOR DEMOLITION AND CLEARING WORK.
- 2. ANY WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF MIAMI PUBLIC WORKS DEPARTMENT, AND OTHER GOVERNMENTAL AGENCIES WHO MAY HAVE JURISDICTION OF THE PUBLIC RIGHT-OF-WAY. SAID WORK SHALL NOT BEGIN UNTIL THE CONTRACTOR HAS OBTAINED ALL PERMITS AND NOTIFIED ALL THE GOVERNING AUTHORITIES.

IV. SEQUENCING AND SCHEDULING

- 1. AREAS ADJACENT TO DEMOLITION AND REMOVAL WORK MAY BE OCCUPIED AND THEIR ACTIVITIES CANNOT BE INTERRUPTED OR DISTURBED DURING NORMAL WORKING HOURS. DEMOLITION SCHEDULE SHALL BE COORDINATED WITH ALL ADJACENT PROPERTY OWNERS AND ANY OTHER PARTIES WHOSE DAILY ACTIVITIES WOULD BE AFFECTED BY THE DEMOLITION WORK.
- 2. COORDINATE WITH APPLICABLE UTILITY COMPANIES FOR UTILITY LINE REMOVAL, CAPPING AND UTILITY SHUTDOWNS NECESSITATED BY REMOVAL WORK.

V. ENVIRONMENTAL PROTECTION

- 1. CONTROL AMOUNT OF DUST RESULTING FROM CONSTRUCTION OR DEMOLITION TO PREVENT SPREAD OF DUST TO OTHER BUILDINGS AND TO AVOID CREATION OF A NUISANCE IN SURROUNDING AREAS. USE OF WATER TO CONTROL DUST WILL NOT BE PERMITTED WHEN IT WILL RESULT IN, OR CREATE, HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS FLOODING.
- 2. NOISE PRODUCING ACTIVITIES SHALL BE HELD TO A MINIMUM. INTERNAL COMBUSTION ENGINES AND COMPRESSORS, ETC., SHALL BE EQUIPPED WITH MUFFLERS TO REDUCE NOISE TO A MINIMUM. CONTRACTOR SHALL COMPLY WITH ALL NOISE ABATEMENT ORDINANCES.
- 3. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.
- 4. DISPOSAL OF DEMOLISHED MATERIALS BY BURNING IS NOT PERMITTED.
- 5. ALL CLEARING SHALL BE PERFORMED IN A MANNER SUCH AS TO PREVENT ANY WASH-OFF OF SOILS AND DEBRIS FROM THE SITE INTO PUBLIC RIGHT-OF-WAY WATER BODIES, AND/OR STORM DRAINAGE SYSTEMS. APPROPRIATE SEDIMENTATION PONDS, DIKES, COLLARS, AND FILTER MEDIA SHALL BE EMPLOYED TO INSURE COMPLIANCE WITH THESE REQUIREMENTS. WHERE A SPECIFIC STATUTE GOVERNS THESE PROCEDURES, SUCH STATUTE SHALL BE COMPLIED WITH IN ITS ENTIRETY.
- 6. AT ALL TIMES DURING THE CLEARING OPERATION, THE EXPOSED AREAS OF SUBGRADE SHALL BE MAINTAINED IN A CONDITION COMPATIBLE WITH POSITIVE DRAINAGE OF THE WORK AREA. NO WATER WILL BE PERMITTED TO STAND IN OPEN EXCAVATIONS. ALL STORMWATER RUNOFF SHALL BE CONTAINED WITHIN THE SITE. FAILURE TO MAINTAIN SUCH DRAINAGE SHALL BE CONSIDERED ADEQUATE CAUSE TO ORDER TEMPORARY SUSPENSION OF THE WORK.
- 7. IF IT SHOULD BECOME NECESSARY TO STOP WORK FOR INDEFINITE PERIODS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PREVENT DAMAGE OR DETERIORATION OF THE WORK ALREADY PERFORMED, PROVIDE SUITABLE AND FUNCTIONAL DRAINAGE BY OPENING DITCHES, FILTER DRAINS, TEMPORARY CUT-OFF LINES, ETC., AND ERECT TEMPORARY PROTECTIVE STRUCTURES WHERE NECESSARY. ALL EMBANKMENTS SHALL BE BACK-BLADED AND SUITABLY SEALED TO PROTECT AGAINST ADVERSE WEATHER CONDITIONS.
- 8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS WHEN REMOVING ABANDONED AND DE-ENERGIZED MATERIALS. IF ASBESTOS PIPES ARE ENCOUNTERED, THE CONTRACTOR WILL TAKE ALL NECESSARY ABATEMENT STEPS AS REQUIRED BY GOVERNING REGULATIONS TO SAFELY REMOVE AND DISPOSE OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF SAID MATERIALS.
- 9. THE CONTRACTOR SHALL SECURE THE WORK AREA WITH FENCING OR OTHER MEANS AS APPROVED BY THE OWNER.

- JURISDICTIONAL AGENCY.
- ONTO TRAFFIC SURFACES.

VII. CLEAN UP

BEST MANAGEMENT PRACTICES (BMPS)

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF THE MIAMI-DADE COUNTY LAND DEVELOPMENT REGULATIONS, THE RULES OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), CHAPTER 17-25, F.A.C., THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), CHAPTER 40D-4, F.A.C. AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) DOCUMENT NO. EPA 832/R-92-005 (SEPTEMBER 1992). THE PLAN ADDRESSES THE FOLLOWING:

A. PREVENT LOSS OF SOIL DURING CONSTRUCTION BY STORMWATER RUNOFF AND/OR WIND EROSION. INCLUDING PROTECTING TOPSOIL BY STOCKPILING FOR REUSE.

B. SEDIMENTION PROTECTION OF STORM SEWER OR RECEIVING STREAM.

C. PREVENT POLLUTING THE AIR WITH DUST AND PARTICULATE MATTER. THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. ALSO IDENTIFIED IS A CROSS-REFERENCE TO A DIAGRAM OR FIGURE REPRESENTING THE TECHNIQUE. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN ACCORDANCE WITH THE CURRENT FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS. CONTRACTOR SHALL PREPARE REQUIRED NPDES DOCUMENTATION AND OBTAIN PERMIT PRIOR TO COMMENCEMENT OF CONSTRUCTION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE THE REQUIRED NPDES DOCUMENT AND OBTAIN THE NPDES PERMIT ALL COST ASSOCIATED WITH SUCH WORK SHALL BE DEEMED INCIDENTAL TO THE PROJECT LUMP SUM COST.

GENERAL EROSION CONTROL NOTES

A. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING, THE STANDARD DETAILS, THE NPDES PERMIT (TO BE OBTAINED BY CONTRACTOR) AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THIS DRAWING AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP) IN ALL CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- FUEL SPILLS AND LEAKS PREVENTION
- PREVENT/REDUCE VEHICLE AND EQUIPTMENT WASHING AND STEAM CLEANING VEHICLE AND EQUIPTMENT MAINTENANCE AND REPAIR
- PROPER OUTDOOR LOADING/UNLOADING OF MATERIALS
- PREVENT/REDUCE OUTDOOR STORAGE OF RAW MATERIALS, PRODUCTS. AND BY-PRODUCTS
- SOLID WASTE MANAGEMENT HAZARDOUS WASTE MANAGEMENT
- CONCRETE WASTE MANAGEMENT
- SANDBLASTING WASTE MANAGEMENT
- STRUCTURE CONSTRUCTION AND PAINTING SPILL PREVENTION AND CONTROL
- 12 CONTAMINATED SOIL MANAGEMENT
- 13. SANITARY/SEPTIC WASTE MANAGEMENT SOIL EROSION CONTROL 14
- STORM WATER TURBIDITY MANAGEMENT 15.

ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMPS) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LÓCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. CONTRACTOR MUST MAINTAIN ALL PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS ON SITE AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

G. CONTRACTOR SHALL BEGIN CLEARING AND GRUBBING THOSE PORTIONS OF THE SITE NECESSARY TO IMPLEMENT PERIMETER CONTROL MEASURES. CLEARING AND GRUBBING FOR THE REMAINING PORTIONS OF THE PROPOSED SITE SHALL COMMENCE ONCE PERIMETER CONTROLS ARE IN PLACE. PERIMETER CONTROLS SHALL BE ACTIVELY MAINTAINED UNTIL SAID AREAS HAVE BEEN STABILIZED AND SHALL BE REMOVED ONCE FINAL STABILIZATION IS COMPLETE.

H. GENERAL EROSION CONTROL BMPS SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL LAKE SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION.

I. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

J. TOPSOIL CANNOT BE STOCKPILED INSIDE THE PROPERTY FOR REFUSE.

K. SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BMP'S IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

STORM WATER EROSION CONTROL PRACTICES:

A. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

B. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.

D. WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.

EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:

1. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.

3. A TEMPORARY SEDIMENT TRAP SHOLD BE CONSTRUCTED TO DETAIN SEDIMENT-LADEN RUNOFF FROM DISTURBED AREAS.

F. SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.

G. SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 3H:1V FROM TOP OF BANK TO TWO FEET BELOW NORMAL WATER LEVEL, AS APPLICABLE.

H. SOD SHALL BE PLACED FOR A 2-FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS. SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.

I. WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE, A TEMPORARY SEDIMENT SUMP SHALL BE CONSTRUCTED.

J. FILTER FABRIC SHOULD BE USED FOR STORM DRAIN INLET PROTECTION BEFORE FINAL STABILIZATION.

WIND EROSION CONTROL PRACTICES:

A. WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:

BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

2. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED (SEE PERMANENT STABALIZATION PRACTICES FOR DETAILS). THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN. CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY OR OVERSEEDED AND PERIODICALLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUNDCOVER (SEE TEMPORARY STABALIZATION PRACTICES FOR DETAILS).

3. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS SHOULD INCLUDE ERECTION OF DUST CONTROL FENCES. A 6-FT GEOTEXTILE FILTER FIBER SHOULD BE HANGING AGAINST THE EXISTING CHAIN LINK FENCE AND GATE.

B. ALL DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

SPILL CONTROL PRACTICES:

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

SPILL CLEANUP INFORMATION SHALL BE POSTED ON SITE TO INFORM EMPLOYEES ABOUT CLEANUP PROCEDURES AND RESOURCES.

B. THE FOLLOWING CLEAN-UP EQUIPMENT MUST BE KEPT ON-SITE NEAR THE MATERIAL STORAGE AREA: GLOVES, MOPS, RAGS, BROOMS, DUST PANS, SAND, SAWDUST, LIQUID ABSORBER, GOGGLES, AND TRASH CONTAINERS.

C. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ONSITE AND READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

D. ALL SPILLS SHALL BE CLEANED UP AS SOON AS POSSIBLE.

WHEN CLEANING A SPILL, THE AREA SHOULD BE WELL VENTILATED AND THE EMPLOYEE SHALL WEAR PROPER PROTECTIVE COVERING TO PREVENT INJURY.

F. TOXIC SPILLS MUST BE REPORTED TO THE PROPER AUTHORITY REGARDLESS OF THE SIZE OF THE SPILL.

G. AFTER A SPILL, THE PREVENTION PLAN SHALL BE REVIEWED AND CHANGED TO PREVENT FURTHER SIMILAR SPILLS FROM OCCURRING. THE CAUSE OF THE SPILL, MEASURES TO PREVENT IT, AND HOW TO CLEAN THE SPILL UP SHALL BE RECORDED.

H. THE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND IS RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS. THE SUPERINTENDENT ALSO OVERSEES THE SPILL PREVENTION PLAN AND SHALL BE RESPONSIBLE FOR EDUCATING THE EMPLOYEES ABOUT SPILL PREVENTION AND CLEANUP PROCEDURES.

STABILIZATION PRACTICES:

A. TEMPORARY STABILIZATION – TOPSOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASE FOR AT LEAST 21 DAYS, SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH WITHIN 14 DAYS OF THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED REQUIRED CAN BE FOUND IN TABLE 1.65 A OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, WHERE SOILS ARE ACIDIC 2 TONS OF PULVERIZED AGRICULTURAL LIMESTONE SHOULD BE ADDED PER ACRE AND 450 POUNDS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EACH ACRE. AFTER SEEDING, EACH AREA SHALL BE IMMEDIATELY MULCHED WITH STRAW OR EQUIVALENT EQUAL AREAS OF THE SITE WHICH ARE TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING GEOTEXTILE AND STONE SUB-BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

B. PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE APPROPRIATE PERMANENT SEED MIX CAN BE FOUND IN TABLES 1.66A, 1.66B AND 1.66C OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, 2 TONS/ACRE OF FINELY GROUND AGRICULTURAL LIMESTONE AND THE PROPER FERTILIZER BASED ON THE TYPE OF SEEDING SHALL BE APPLIED TO EACH ACRE TO PROVIDE PLANT NUTRIENTS. AFTER SEEDING, EACH AREA SHALL BE MULCHED IMMEDIATELY.

C. STABILIZATION WILL BE INITIATED ON ALL DISTURBED AREAS WITHIN 14 DAYS OF WORK CEASING. UNLESS CONSTRUCTION ACTIVITY WILL RESUME IN THAT AREA WITHIN 21 DAYS AFTER WORK STOPPAGE. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

D. CONTRACTOR TO ENSURE THAT EXISTING VEGETATION ON OR ADJACENT TO THE PROPOSED SITE IS PRESERVED AND DISTURBED PORTIONS OF THE SITE ARE STABILIZED. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL. BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.

E. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

F. SHALL BE IN ACCORDANCE WITH DEP DOCUMENT NO. 62-621.300(4)(a)

STRUCTURAL PRACTICES:

A. EARTH DIKE - IF REQUIRED, AN EARTH DIKE SHALL BE CONSTRUCTED ALONG THE SITE PERIMETER. A PORTION OF THE DIKE SHALL DIVERT RUN-ON AROUND THE CONSTRUCTION SITE THE REMAINING PORTION OF THE DIKE SHALL COLLECT RUNOFF FROM THE DISTURBED AREA AND DIRECT THE RUNOFF TO THE SEDIMENT BASIN.

B. SEDIMENT BASIN – A SEDIMENT BASIN SHALL BE CONSTRUCTED IN THE COMMON DRAINAGE AREA FOR THE SITE. ALL SEDIMENT COLLECTED IN THE BASIN MUST BE REMOVED FROM THE BASIN UPON COMPLETION OF CONSTRUCTION. SEDIMENT FROM THE BASIN MAY BE USED AS FILL ON THE SITE IF IT IS SUITABLE SOIL.

C. SHALL BE IN ACCORDANCE WITH DEP DOCUMENT NO. 62-621.300(4)(a)

WASTE DISPOSAL

A. WASTE MATERIALS - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER WITH A SECURE LID IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITIES TO HAVE THE DUMPSTER EMPTIED AT LEAST TWICE A WEEK AND THE WASTE TAKEN TO AN APPROPRIATE LANDFILL. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE. THE SUPERINTENDENT SHALL ORGANIZE TRAINING FOR THE EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH WASTE MATERIALS. THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR POSTING AND ENFORCING WASTE MATERIAL PROCEDURES.

B. HAZARDOUS WASTE - HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS OR AS DIRECTED BY THE MANUFACTURER. THE SUPERINTENDENT SHALL ORGANIZE THE PROPER TRAINING FOR EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH HAZARDOUS WASTE MATERIALS. THESE PROCEDURES SHALL BE POSTED ON THE SITE. THE PERSON WHO MANAGES THE SITE SHALL BE RESPONSIBLE FOR ENFORCING THE PROCEDURES.

C. SANITARY WASTE - SANITARY WASTE SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITY FOR COLLECTION OF THE SANITARY WASTE AT LEAST THREE TIMES A WEEK TO PREVENT SPILLAGE ONTO THE SITE.

D. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

E. ANY CONSTRUCTION DEBRIS GENERATED AS A RESULT OF THIS PROJECT WILL BE DISPOSED OF OFF-SITE AN AT APPROPRIATE WASTE FACILITY.

F. CONCRETE WASHOUT LOCATIONS WILL BE PROVIDED IN AREAS WHERE THE DISPOSAL MATERIALS WILL BE CONTAINED TO PREVENT DISCHARGE OUTSIDE OF THE PROJECT LIMITS AND INTO THE WATERWAYS.

INSPECTION AND MAINTENANCE

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

A. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

B. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

C. THE SILT FENCE SHALL BE INSPECTED PERIODICALLY FOR HEIGHT OF SEDIMENT AND CONDITION OF FENCE. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.

D. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

E. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

F. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. THE SEDIMENT BASINS/DITCHES SHALL BE CHECKED MONTHLY FOR DEPTH OF SEDIMENT. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 10% AND AFTER CONSTRUCTION IS COMPLETE.

G. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN SEVEN CALENDAR DAYS FOLLOWING THE INSPECTION.

H. DIVERSION DIKES SHALL BE INSPECTED MONTHLY. ANY BREACHES SHALL BE PROMPTLY REPAIRED.

I. A MAINTENANCE REPORT SHALL BE COMPLETED DAILY AFTER EACH INSPECTION OF THE SEDIMENT AND EROSION CONTROL METHODS. THE REPORTS SHALL BE FILED IN AN ORGANIZED MANNER AND RETAINED ON-SITE DURING CONSTRUCTION. AFTER CONSTRUCTION IS COMPLETED, THE REPORTS SHALL BE SAVED FOR AT LEAST THREE YEARS. THE REPORTS SHALL BE AVAILABLE FOR ANY AGENCY THAT HAS JURISDICTION OVER EROSION CONTROL.

J. ALL REPAIRS MUST BE MADE WITHIN 24 HOURS OF REPORT.

K. THE SUPERINTENDENT SHALL ORGANIZE THE TRAINING FOR INSPECTION PROCEDURES AND PROPER EROSION CONTROL METHODS FOR EMPLOYEES THAT COMPLETE INSPECTIONS AND REPORTS.

OFFSITE TRACKING:

A. STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO REDUCE SEDIMENT TRACKING OFFSITE. THE MAJOR ROAD CONNECTED TO THE PROJECT SHALL BE CLEANED ONCE A DAY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK RESULTING FROM CONSTRUCTION TRAFFIC. ALL TRUCKS HAULING MATERIALS OFFSITE SHALL BE COVERED WITH A TARPAULIN.

B. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATION PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE, ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.

C. ALL WASH WATER FROM CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC. SHALL BE DETAINED ON SITE AND SHALL BE PROPERLY TREATED OR DISPOSED.

D. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

E. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

SPILL PREVENTION AND CONTROL

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.

A. GOOD HOUSEKEEPING

1. SUPERINTENDENT SHALL INSPECT PROJECT AREA DAILY FOR PROPER STORAGE, USE, AND DISPOSAL OF CONSTRUCTION MATERIALS.

COMPLETION.

3. ALL SUBSTANCES SHOULD BE USED BEFORE DISPOSAL OF CONTAINER.

4. ALL CONSTRUCTION MATERIALS STORED SHALL BE ORGANIZED AND IN THE PROPER CONTAINER AND IF POSSIBLE, STORED UNDER A ROOF OR PROTECTIVE COVER.

5. PRODUCTS SHALL NOT BE MIXED UNLESS DIRECTED BY THE MANUFACTURER.

6. ALL PRODUCTS SHALL BE USED AND DISPOSED OF ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

1. MATERIALS SHOULD BE KEPT IN ORIGINAL CONTAINER WITH LABELS UNLESS THE ORIGINAL CONTAINERS CANNOT BE RESEALED. IF ORIGINAL CONTAINERS CANNOT BE USED, LABELS FOR THIS SITE. AND PRODUCT INFORMATION SHALL BE SAVED.

IN ACCORDANCE WITH MANUFACTURER AND LOCAL/STATE REGULATIONS.

C. PRODUCT SPECIFIC PRACTICES

PETROLEUM PRODUCTS MUST BE STORED IN PROPER CONTAINERS AND CLEARLY LABELED. VEHICLES CONTAINING PETROLEUM PRODUCTS SHALL BE PERIODICALLY INSPECTED FOR LEAKS. PRECAUTIONS SHALL BE TAKEN TO AVOID LEAKAGE OF PETROLEUM PRODUCTS ON SITE.

2. THE MINIMUM AMOUNT OF FERTILIZER SHALL BE USED AND MIXED INTO THE SOIL IN ORDER TO LIMIT EXPOSURE TO STORM WATER. FERTILIZERS SHALL BE STORED IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

3. PAINT CONTAINERS SHALL BE SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT MUST BE DISPOSED OF IN AN APPROVED MANNER.

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

2. STORE ONLY ENOUGH MATERIAL ON SITE FOR PROJECT

B. HAZARDOUS PRODUCTS

STORMWATER POLLUTION PREVENTION PRACTICES: (FOR PROJECTS OF 0.5 ACRES OR MORE CITY ORDINANCE NUMBER 13081)

TREE PROTECTION AND PRUNING SHALL BE ACCOMPLISHED AS DETAILED IN SPECIAL PROVISIONS, THE CONSTRUCTION PLANS, AND/OR PER TREE ORDINANCE 12636.

2. ENVIRONMENTAL CONTROL FEATURES AS PROVIDED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), ARE TO BE INSTALLED AT ALL AREAS OF EXCAVATION OR FILL FOR DRAINAGE SYSTEM, OR STRUCTURE CONSTRUCTION PRIOR TO SUCH EXCAVATION OR FILL. INLET ENTRANCES ARE ALSO TO BE PROTECTED FROM SILTATION AS DETAILED ON SHEET 2 OF 4 OF THE MISC. 35-89-5 OF THE CITY OF MIAMI PUBLIC WORKS ENGINEERING STANDARD FOR DESIGN AND CONSTRUCTION MANUAL.

3. ALL ENVIRONMENTAL CONTROL FEATURES ARE TO BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT IN ACCORDANCE WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS. THE CONTRACTOR MUST ENSURE THAT ALL EROSION CONTROL FEATURES FUNCTION PROPERLY AT ALL TIMES.

4. ALL EROSION AND MATERIAL DEPOSITS MUST BE CONTAINED WITHIN THE PROJECT LIMITS.

DITCH BOTTOM INLETS SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL THE PROJECT IS COMPLETE. ELEVATION OF GROUND OUTSIDE OF INLET TOP SHALL NOT BE HIGHER THAT INLET TOP. ROCK BAGS SHALL BE INSTALLED AROUND INLET TOP. COMPLETED INLETS IN PAVED AREAS SHALL ALSO BE PROTECTED WITH ROCK BAGS TO PREVENT SEDIMENT INTAKE

6. CURB INLETS SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL THE PROJECT IS COMPETE. ALL EXPOSED SLOPED MATERIAL ADJACENT TO INLETS SHALL BE COVERED WITH EROSION CONTROL MATTING WITH OUTER LIMITS PROTECTED BY ROCK BAGS. ANY DAMAGED OR INEFFECTIVE ROCK BAGS ARE TO BY REPLACED WITH NEW ONES.

7. STOCKPILED MATERIAL SHALL NOTE BE LEFT IN EROSION PRONE AREAS UNLESS PROTECTED BY COVER OR ROCK BAGS.

8. INSPECTION OF EROSION CONTROL MEASURES AND CONDITION OF ADJACENT PROPERTIES SHALL BE PERFORMED DAILY BY THE CONTRACTOR'S REPRESENTATIVE AND THE PROJECT ENGINEER. DEFICIENCIES SHALL BY NOTED AND CORRECTED.

ANY OFFSITE SEDIMENT DISCHARGE TO A MUNICIPAL SEPARATE STORMWATER SYSTEM ARISING FROM THE CONTRACTOR'S ACTIVITIES IS NOT ALLOWED. REFER TO PUBLIC WORKS BULLETIN NO. 25.

10. THE USE OF SANITARY SEWERS, FRENCH DRAINS, COVER DITCHES AND/OR ROCK DRAINS FOR THE DISPOSAL OF WASTEWATER IS EXPRESSLY PROHIBITED. REFER TO PUBLIC WORKS BULLETIN NO. 25.

PROJECT DESCRIPTION:

 $\overline{}$ PROJECT LOCATION: REFER TO SURVEY PREPARED BY HADONNE ROJECT LIMITS: TOTAL PROJECT AREA IS APPROXIMATE 7.96 ACRES. THE TOTAL DISTURBED AREA IS APPROXIMATELY 6.69 ACRES.

CONSTRUCTION ACTIVITY: CONSTRUCTION OF PROPOSED BUILDING, ROADWAY IMPROVEMENTS, SIDEWALKS, LANDSCAPING, UTILITIES, AND DRAINAGE SYSTEM.

3. MAJOR SOIL DISTURBING ACTIVITIES: CLEARING AND GRUBBING, INSTALLATION OF DRAINAGE SYSTEM, INSTALLATION OF UTILITIES, CONSTRUCTION OF BUILDING FOUNDATION.

4. DEWATERING ACTIVITIES: DEWATERING IS NOT ANTICIPATED

5. SOIL CHARACTERISTICS: THE SOIL TYPE WITHIN THE 2. PROPER DISPOSAL PRACTICES SHALL ALWAYS BE FOLLOWED PROJECT'S LIMIT OF DISTURBANCE IS CLASSIFIED AS URBAN SOIL AND IS NOT HIGHLY ERODIBLE.

> 0.35 6. RUNOFF COEFFICIENTS: EXISTING:

DURING	
CONSTRUCTION:	0.80
PROPOSED:	0.86

PROPOSED: SEQUENCE OF CONSTRUCTION:

SEQUENCE OF SOIL DISTURBING ACTIVITIES AND IMPLEMENTATION OF CONTROLS:

PRIOR TO COMMENCEMENT OF ANY EARTH DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING, INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE EROSION CONTROL PLAN, STANDARD DETAILS, NPDES REQUIREMENTS, AND THE CITY OF MIAMI PUBLIC WORKS ENGINEERING STANDARD FOR DESIGN AND CONSTRUCTION MANUAL.

2. BEGIN CLEARING AND GRUBBING.

INSTALL DRAINAGE SYSTEM, INCLUDING: CONCRETE INLETS, DRAIN BASINS, DRAINAGE PIPES, DRAINAGE WELLS, AND EXFILTRATION TRENCHES.

4. INSTALL INLET PROTECTION AND ROCK BAGS ON ALL INLETS AND MANHOLES IN THE LOCATIONS SHOWN ON THE PLANS AND PER THE STANDARD DETAILS PROVIDED AND THE CITY OF MIAMI PUBLIC WORKS ENGINEERING STANDARD FOR DESIGN AND CONSTRUCTION MANUAL.

5. PREPARE SUBBASE MATERIAL.

6. BEGIN ASPHALT AND CONCRETE INSTALLATION.

7. AFTER COMPLETION OF SITE WORK, BEGIN SITE STABILIZATION AND PERMANENT SEEDING.

8. ONCE SITE STABILIZATION IS COMPLETE, CONTRACTOR TO CLEAN ALL CONSTRUCTION DEBRIS FROM CONSTRUCTION SITE.

9. ONCE A UNIFORM 70% VEGETATIVE COVER OF PERENNIAL VEGETATION IS ACHIEVED ACROSS THE ENTIRE DISTURBED AREA THE REMOVAL OF TEMPORARY EROSION CONTROL MEASURES MAY BEGIN.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ALBERTO P. HERRERA, P.E., ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT

CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

<u>Always call 811 two full business days before you dig</u>

Ш \geq m Sunshinesilleon SHEET NUMBER C-300

00% FD	FINAL FI	100% FC					
$\overline{\mathbb{V}}$	$\overline{\mathbb{A}}$	<u> </u>					
				© 2017 KIMLEY-HORN AND ASSOCIATES, INC.	355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134	PHONE: 305-673-2025	WWW KINI EX-HOBN CONI - CA DODOGGE
	CENSES CONSTRUCTION					R 1 Storior	
KHA PROJECT	043138022	DATE	$\frac{1}{2}$	SCALE AS SHOV	DESIGNED BY AF	DRAWN BY	
			I				

(「)

 \mathbf{m}

N

Ο Z

N.T.S.

NORTH

SHEET NUMBER

E-100

LIGHTING NOTES:

- 1. THE CONTRACTOR SHALL PERFORM AN INVENTORY OF THE EXISTING LIGHTING SYSTEM PRIOR TO THE BE WILL BE PREPARED LISTING ALL LIGHTING ITEMS OPERABLE AND INOPERABLE. THE COMPLETED REPORT V COPIES TO THE MAINTAINING AGENCY PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 2. ENDS OF CONDUITS SHALL BE SEALED WITH POLYURETHANE FOAM AFTER WIRING IS COMPLETE. FOAM SE CONDUCTORS FROM ABRASION IN RACEWAYS. GALVANIZED RIGID METAL CONDUIT SHALL HAVE PROPER F
- 3. ATTACH LIGHTNING ARRESTOR TO THE WALL OF THE PULL BOX BY MEANS OF A SELF-TAPPING SCREW OR UTILIZING THIS METHOD NOT TO BREAK THE SUPPORTING TABS; SCREWS SHOULD BE FIRM BUT NOT SNUG
- 4. PROVIDE TWO 5/8" X 20' COPPER CLAD STEEL GROUNDING ELECTRODES AT EACH SERVICE POINT. THEY M FROM EACH OTHER WHEN INSTALLED AS AN ARRAY. WHEN THE GROUNDING ELECTRODE CONDUCTOR IS E RACEWAYS AND ALL INTERVENING RACEWAYS AND METALLIC ENCLOSURES CONTAINING THE GROUNDING GROUNDING ELECTRODE CONDUCTOR.
- 5. ALL AERIAL GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED AS PER F.D.O.T. SPECIFICAT SYSTEM IS EMPLOYED (MG SQUARE, DOT 3), GROUNDING CONNECTIONS TO THE DISTRIBUTION BLOCK AND LEADS SMALLER THAN # 8 AWG, SHALL BE DONE BY MECHANICAL CONNECTIONS OR OTHER APPROVED MEA
- 6. THE CONTRACTOR SHALL CHECK THE CONTINUITY OF GROUNDING CONDUCTOR USING MEGGER OR EQUA WITHIN THE PAST 180 DAYS. A NEUTRAL / GROUND LOOP RESISTANCE OF MORE THAN 0.5 OHMS-PER THOU
- 7. ONLY LINE CONDUCTORS WILL BE PERMITTED IN SERVICE PULL BOX. NO GROUND RODS OR ANY OTHER IT
- 8. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED AT A GRADE THAT IS FLUSH WITH THE ADJACENT AND SUR
- 9. THE COST TO RESTORE THE EXISTING SIDEWALK TO THE NEAREST FLAG JOINT SHALL BE INCLUDED IN BID
- 10. POLE CABLE DISTRIBUTION SYSTEM USED SHALL BE MG SQUARE DOT 3 AS DESCRIBED IN STANDARD SPEC
- 11. SPLICES FOR #4 AWG AND #6 AWG CONDUCTORS SHALL UTILIZE THE MOLDED SPLICE KIT TYCO-RAYCHEM (
- 12. NO UNNECESSARY SPLICING WILL BE PERMITTED IN PULL BOXES
- 13. WHERE CONVENTIONAL WIRING SYSTEMS ARE EMPLOYED OR THE EXISTING POLES ARE UTILIZED, CONDUC TERMINATE ON THE LINE SIDE OF THE FUSE-HOLDERS (HEB'S & HEBR'S).
- 14. PAYMENT FOR CONDUCTOR SHALL BE BASED ON THE LINEAR FEET OF SINGLE CONDUCTOR IN HORIZONTA CONNECTION IN PULL BOXES, CABINETS OR POLES.
- 15. THE CONTRACTOR IS RESPONSIBLE TO PAY THE POWER COMPANY THE COST OF PROVIDING ELECTRICITY MOMENT THE EXISTING SERVICE IS DISCONNECTED UNTIL FINAL ACCEPTANCE OF THE NEW LIGHTING BY T 102-1 MAINTENANCE OF TRAFFIC
- 16. ABOVE GROUND UTILITY LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL FIELD LOCATION OF PROPOSED LIGHT POLES PRIOR TO SUBMITTING SHOP DRAWINGS, COST OF PRE-TRENCHING
- 17. CONTRACTOR SHALL ADJUST LOCATION OF PROPOSED LIGHT POLES AND CONDUIT ACCORDINGLY TO AVC APPROVED BY THE ENGINEER.
- 18. THE LOCATION OF UTILITIES WITHIN THE JOHN F. KENNEDY CAUSEWAY RIGHT OF WAY WERE UNKNOWN AT RESPONSIBLE FOR ALL COORDINATION WITH UTILITIES.

	Call 811 or www.sunshine&11.com two full business days before diging to have utilities located and marked.	SHEET NUMBER E-101
URFACE DETAIL BOX		FM #440846 FINAL PLANS FOR REVIEW ELECTRICAL PLAN
DID UTILITY FIELD CONFLICTS, FINAL LOCATIONS SHALL BE T THE TIME OF DESIGN. THE CONTRACTOR SHALL BE LID SHALL BE TIER 15 RATED		KHA PROJECTLICENSED PROFESSIONALDATEDATE01/14/2022SCALEAS SHOWNSCALEAS SHOWNDESIGNED BYDESIGNED BYDESIGNED BYDRAWN BYZABCHECKED BYDATE:01/14/2022
AL LOW RESISTANCE / HIGH CAPACITY OHMMETER CALIBRATED USAND FEET SHALL BE CONSIDERED INADEQUATE. TEMS OR DEVICES SHALL BE ALLOWED. RROUNDING SIDEWALK. D ITEMS ASSOCIATED WITH THE POLE INSTALLATION. D ITEMS ASSOCIATED WITH THE POLE INSTALLATION. DIFICATIONS SUBARTICLE 992-12.2. CATALOG # GELCAP-SL-2/0-3 HOLE. UCTORS SHALL BE SO ROUTED AND COORDINATED AS TO AL MEASUREMENT. NO ALLOWANCES SHALL BE MADE FOR Y TO THE TEMPORARY AND PROPOSED LIGHTING FROM THE THE MAINTAINING AGENCY. COST TO BE INCLUDED IN PAY ITEM D VERIFY THIS INFORMATION BY PRE-TRENCHING THE IG TO BE INCLUDED IN THE COST OF THE LIGHT POLES.		SEO15 KIMLEY-HORN AND ASSOCIATES, INC. 2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232 PHONE: 941-379-7600 WWW.KIMLEY-HORN.COM CA 00000696
EGINNING OF CONSTRUCTION ACTIVITIES. A WRITTEN REPORT WILL BE FORWARDED TO THE PROJECT ENGINEER WITH EAL SHALL NOT BE USED AS A MEANS TO PROTECT FITTINGS TO PROTECT CONDUCTORS FROM ABRASION. & BY A MASONRY SCREW. CARE SHOULD BE EXERCISED WHEN > AGAINST THE SUPPORTING TABS. WUST BE SPACED A MINIMUM OF SIX FEET AND SIX INCHES ENCLOSED IN A METAL RACEWAY, BOTH ENDS OF THE > ELECTRODE CONDUCTOR MUST BE BONDED TO THE TIONS SECTION 715-11 WHERE THE POLE CABLE DISTRIBUTION D LIGHTNING ARRESTER OR OTHER DEVICES CONTAINING ANS.		 ▲ 90% FDOT ERC COMMENTS ▲ CONDURINATERNIMATERN SUMMINTS ▲ 100% FDOT ERC COMMENTS No.
		11/5/2021 12/204/2021 02/18/2022 02/18/2022

	PANEL BOA	ARD	SCł	HEDUL	E						
EMA-1	10,3W,24Ø/12ØV, (2P - 1ØØ A MCB)										
10,000 RMS SYMETRICAL SURF-MTD											
KT NO	SERVING	KVA	AMPS	C. BKR	CONDUCTOR						
2	PLAZA LIGHTS	2.8	11.7	2ØA/2P	4						
З	NORTH IRRIGATION CONTROLLER	Ø.12	1 . Ø	20A/1P	1Ø						
4	SOUTH IRRIGATION CONTROLLER	Ø.12	1.Ø	2ØA/1P	1Ø						

ss days before digging to have located and marked.

90% FDOT ERC COMMENTS	FINAL FDOT ERC COMMENTS					REVISIONS
			© 2015 KIMLEY-HORN AND ASSOCIATES. INC.	2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232	PHONE: 941-379-7600	WWW.NIMLET-HUNN.COM CA UUUUUUU
LICENSED PROFESSIONAL						_{DATE:} 01 /14/2022
KHA PROJECT	DATE	01/14/2022	SCALE AS SHOWN	DESIGNED BY	DRAWN BY ZAB	CHECKED BY
FM #440846 FINAL PLANS FOR REVIEW			ELECTRICAL DETAILS			

E-102

Iuminii

LLX18-RGB Wet Color-changing linear LED strip for wet locations - 24V

LLX18-RGB

18

169 lumen/ft*

4.6 W/ft*

4.0 A

4.00″

30 ft

0.39" W

0.11 ″ H

wires (72") SL - Soldered lead

NC

NC - No connector

wires (72")

for increment options

page 1 of 4

Technical specifications

MODEL

LEDs/ft

Light output

15' section

increment

length

Ordering code

REV3.0

LLX18WET-RGB

Average power

Amperage load

at maximum run Ordering

Maximum run

Dimensions

LLX18WET-RGB SL - Soldered lead

*with all 3 circuits at full brightness

SL

consumption (for

The LLX18-RGB Wet is a small profile and energy efficient color-changing light strip. It is easily installed directly on to the mounting surface with double sided tape or within discrete mounting extrusions. The durable but flexible circuit board enables the perfect fit for every application.

Applications: Indoor/outdoor use, exterior accents, decks, gazebos, barbecue stations, wet bars, signage,

Operating voltage 24 VDC (RGB controller and PSV series power supply required)

Operating temperature -40°F to 140°F (-40°C to 60°C)

Beam Angle

Average life 50,000 hours

Mounting LLX18-RGB strip is equipped with 3M self-adhesive tape. Mounting to an aluminum profile or the HST aluminum heat sink tape is required to reach the rated 50,000 hours average life.

Approvals cETLus listed for wet locations

Section start/end options

www.luminii.com tel: 224-333-6033

LLX18-RGB Wet Color-changing linear LED strip for wet locations - 24V

Optional mounting channels - Single row LEDs

page 4 of 4

REV3.0

www.luminii.com tel: 224-333-6033

CITY ELEMENTS 230 AA900 LED

City Elements 230 offers design professionals the flexibility of a multi-purpose lighting system in a single architectural structure. The modularity of the light column system allows each column to be customized for area lighting, accenting, waymarking, or pathway illumination or a combination of several different functions. Modules are fully rotatable and adjustable internally for highlighting and aiming. Heights range from low level bollards to columns up to thirty feet tall. Base elements are available in flanged or flangeless models. Optional modules are also available to accomodate security cameras or convenience outlets with in-use covers for remote power. Luminaire housings and extruded aluminum shaft with flush handhole are finished in finely textured paint. All hardware is stainless steel. Consult on-line Configurator at www.hessamerica.com for detailed technical specifications and information on CE180 for smaller diameter columns . CSA Certified for Wet Locations.

.hess

CE230/AA900/2LV	NW	S	UNV	СС	N
Ordering Information					
				CC - Custom Colo	or
				BLK - Matte Blac	k
	CW - 5600K			GG - Graphite Grey	
CE230/AA900/2LV - 2 LEVO Modules	NW - 4000K	S - Type II		DG - Dark Grey	N - None
CE230/AA900/1LV - 1 LEVO Module	WW -3000K	ME - Type III	UNV - 120-277V	SG - Silver Grey	DIM - 0-10vD Dimming
Model	Color Temperature	Distribution	Volt	Finish	Option

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Columns > CITY ELEMENTS 230 http://www.hessamerica.com/Products/Lighting/Illuminating_Columns/ CITY_ELEMENTS_230/ Page 1

CITY ELEMENTS 230 AA900 LVC

DESCRIPTION Top element luminaire with 240 degree window for City Elements 230 modular light column system.

HOUSING

Luminaire housing is machined and fabricated from 6061 aluminum tubing with nominal diameter of 9.1" and thickness of 0.315". Clear acrylic lens is bonded to the housing for a weather-tight seal. Top housing assembly includes removable cap for access to optical assembly and heat sink. Gore-tex filter prevents intrusion of moisture and particulate matter.

Specification

OPTICS

Optical assembly consists of one LEVO C LED module mounted within the cylindrical clear acrylic lens. The module consists of an aluminum core PCB with four high-power LEDs and a single piece lens molded from optical quality acrylic. Light distributions include a choice of Type II, III, or IV optics. LED circuit boards are equipped with electrical disconnects to allow for future technology upgrades. CRI is 80+.

ELECTRICAL

Electronic LED driver supplies 700mA drive current to the LED module with input voltage range from 120v through 277v at 50/60Hz. Power consumption is 37 watts. Optional o-10v DC dimming is available on request.

DELIVERED LUMEN OUTPUT / BUG RATING

3000K

Type 2 = 2926 lumens / B1-U1-G1 Type 3 = 2818 lumens / B1-U1-G1 Type 4 = 2782 lumens / Bo-U1-G1

4000K

Type 2 = 3112 lumens / B1-U1-G1 Type 3 = 2998 lumens / B1-U1-G1 Type 4 = 2960 lumens / Bo-U1-G1

NOTE : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of HessAmerica. Consult factory for current technical data.

MOUNTING

Top element is factory installed to the modular column assembly and ships as a complete column.

FINISH Housing is cleaned ultrasonically prior to painting. Standard finish is finely textured matte silver grey metallic, dark grey, or

graphite grey. Special colors available on request.

WARRANTY

Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

CERTIFICATION

CSA Certified for Wet Locations

	11/5/2021 121/204/2021 02/18/2022 02/18/2022 DATE BY
	A 90% FDOT ERC COMMENTS A POLE FSREC EDEFETEREPORTENTS A 100% FDOT ERC COMMENTS No. REVISIONS
	Kimley-Horn and Associates, INC. 2601 CATTLEMEN ROAD, SUITE 200, SARASOTA, FL 34232 PHONE: 941-379-7600 WWW.KIMLEY-HORN.COM CA 00000696
	LICENSED PROFESSIONAL NN AB DATE: 01/14/2022
	KHA PROJECT DATE 01/14/2022 SCALE AS SHOV DESIGNED BY DRAWN BY Z/ CHECKED BY
	FM #440846 FINAL PLANS FOR REVIEW LIGHTING DETAILS
Sunshine Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.	SHEET NUMBER

													$\left(\int \right)$				
Zuminaire Schedule Symbol Qty Lab 6 T 2	1 Arr	rangement Total La Igle N.A.	ap Lumens LLF 0.460	Description LUMINII LLXIS-RGBN+30K													
53 T 6 A	Sir Sir	ngle N.A.	1.000	LIMINII LIX8-RGM-30K HESS CE230-AA900-72-HH											6	1	
LALGUILIN SUMMARY Label PLATFORM 1_Top PLATFORM 2_Top PLATFORM 3_Top	CalcType Filuminance Filuminance Filuminance	Units Avg Max Fc 3.40 8.3 Fc 33.73 67.0 Fc 24.74 59.3	Min Avg/M 1.2 2.83 8.0 4.22 6.0 4.12	Max/Min Description 6.92 HORIZONTAL PLANE OF C 8.38 HORIZONTAL PLANE OF C 9.85 HORIZONTAL PLANE OF C	CALCULATION AT SURFACE CALCULATION AT SURFACE CALCULATION AT SURFACE										XE	\mathcal{O}	
RAMP 3_Planar RAMP2_Planar SIDEMALK_Planar STEP6_1_Top	Illuminance Illuminance Illuminance Illuminance	Pc 18.71 46. Fc 23.21 54.2 Fc 14.58 61.1 Fc 3.85 4.0	4.4 4.25 6.0 3.87 0.6 24.30 3.7 1.04	10.45 HORIZONTAL PLANE OF C 9.03 HORIZONTAL PLANE OF C 101.83 HORIZONTAL PLANE OF C 1.08 HORIZONTAL PLANE OF C	CALCULATION AT SURFACE											-	
STEPS_2_gop STEPS_Top TOP RAMP_Planar	Tiluminance Tiluminance Tiluminance	Pc 3.90 4.0 Fc 4.40 4.7 Fc 20.68 49.1	3.8 1.03 4.1 1.07 2.6 7.95	1.05 HORIZONTAL PLANE OF C 1.15 HORIZONTAL PLANE OF C 18.88 HORIZONTAL PLANE OF C	CALCULATION AT SURFACE										VE		
Luminaire Location Summary LumNo Label 13 A 14 A	x x 570.95 606.11 610.73 637.59	z orient Tilt 12 303.048 0 12 299.055 0	Switched On On	Object Summary Label BENCH SEAT BENCH SEAT_1	Fyre Polygon-Flat Polygon-Flat	Description REFLECTANCE 20%								GH	ring :		EMS
15 A 16 A 17 A 18 A	634.55 652.32 661.74 674.77 674.3 701.46 709.86 698.88	12 296.205 0 12 317.781 0 12 313.557 0 12 137.276 0	0n 0n 0n 0n	CAP PLATFORM 1 PLATFORM 2 PLATFORM 3	Polygon-Flat Polygon-Flat Polygon-Flat Polygon-Flat	REFLECTANCE 20% REFLECTANCE 20% REFLECTANCE 20% REFLECTANCE 20%											
27 * 28 7 29 7 30 7 31 7	616.07 640.92 619.78 643.2 636.87 637.76 625.92 648.54	2 231.116 0 2 184.686 0 2 231.116 0 2 79.16 0 2 11.215 0	0n 0n 0n 0n	RAMP 3 RAMP2 SIDEMALK STEPS STEPS 1	Planar Planar Planar Polygon-Flat Polygon-Flat	REFLECTANCE 20% REFLECTANCE 20% REFLECTANCE 20% REFLECTANCE 20% REFLECTANCE 20%							NOTI	ËS			
32 т 33 ч 34 ч 35 ч	629.938 649.244 633.875 649.538 637.43 651.69 640.296 654.53	2 10.024 0 2 9.893 0 2 42.833 0 2 42.833 0	0n 0n 0n 0n	THPS_2 TOP RAMP WALL WALL_4	Polygon-Flat Planar Polygon-Flat Polygon-Flat Polygon-Flat	REFLECTANCE 20% REFLECTANCE 20% REFLECTANCE 20% HALL AT 3FT AFG REFLECANCE 20	1						Base dime	d on th nsions	e informatio and lumina	on provi lire loca	ided, all tions shown
36 Т 37 Т211 38 Т 39 Т	643.253 657.289 645.499 659.369 648.52 661.76 651.886 663.321	2 42.833 0 2 42.833 0 2 33.69 0 2 33.69 0	On On On On	WALL 2	Polygon-Flat	NALL 2.5FT AFG REFLECTANCE 201							engir appli	neer an cability	d/or archite of the layo	ect must ut to exi	t determine isting or
40 マ 41 マ 42 マ 44 マ	655.252 666.082 658.618 669.242 661.965 670.403 664.95 674.32	2 33.69 0 2 33.69 0 2 33.69 0 2 85.179 0	0n 0n 0n 0n										futur This level	e field c lighting s calcul	conditions. pattern rep ated from b	oresents aborato	s illumination orv data taken
45 τ 46 τ 47 τ 48 τ	665.282 678.306 665.614 682.292 667.38 685.6 670.414 688.207	2 85.179 0 2 85.179 0 2 41.326 0 2 41.326 0	0n 0n 0n 0n										unde indus	r contro stry star	olled condit ndard lamp	ions util ratings	in in
49 7 50 7 51 7 52 7 52 7	673.448 690.814 676.482 693.42 678.47 697.7 677.456 701.569	2 41.326 0 2 41.326 0 2 105.387 0 2 105.387 0	0n 0n 0n 0n										Socie	ety app rmance	roved meth e of any ma	iods. Ao Inufactu	ctual irer's
3.3 * 54 * 55 * 56 * 57 *	699.73 711.2 702.778 708.608 705.837 705.987 708.885 703.385 708.90 708.4	3.32 318.629 0 3.29 318.629 0 3.27 318.629 0 3.23 239.421 0	0n 0n 0n 0n										lumir elect othei	aire ma rical vo [.] variab	ay vary due Itage, tolera le field con	e to varia ance in ditions.	ation in lamps and
58 7 59 7 60 7 61 72ft	706.919 696.96 704.857 693.49 702.796 690.001 701.244 687.381	3.23 239.421 0 3.15 239.421 -3 2.99 239.421 -3 2.83 239.421 -3	0n 0n 0n 0n														
62 Ф. 63 Ф. 64 Т. 65 Ф.	698.8 685.13 695.345 682.915 691.92 680.66 688.525 678.745	2.77 212.067 0 2.68 212.067 0 2.58 212.067 -3 2.32 212.067 -3	0n 0n 0n 0n														
66 7 67 7 68 7 69 7	685.239 676.7 681.844 674.585 678.81 671.66 676.52 668.38	2 212.067 0 2 212.067 0 2 235.039 0 2 235.039 0	0n 0n 0n 0n														
70 7 246 71 7 72 7 73 7 74 7	674.6 665.601 672.1 663.7 668.483 661.992 664.866 660.285 661.248 658.577	2 235.039 0 2 204.944 0 2 204.944 0 2 204.944 0 2 204.944 0 2 204.944 0 2 204.944 0	0n 0n 0n 0n														
75 * 76 * 77 * 78 *	657.7 656.2 654.834 653.41 651.968 650.619 649.102 647.829	2 224.053 0 2 224.053 0 2 224.053 0 2 224.053 0 2 224.053 0	0n 0n 0n 0n														
79 7 80 7 2ft 81 7 82 7 2ft	646.236 645.038 644.02 642.778 641.31 641.35 638.41 640.23	2 224.053 0 2 224.053 0 2 201.496 0 2 201.496 0	0n 0n 0n 0n														
84 T 85 7 86 7 87 7	695.05 705.03 698.08 702.37 699.08 698.93 696.75 695.65	0.75 318.769 0 0.75 318.769 0 0.75 234.205 0 0.75 234.205 0	0n 0n 0n 0n														
88 T 91 7 2ft 92 T 93 T 94 9	689.18 688.64 694.99 693.22 685.91 686.27 682.66 683.92	0.75 35.923 0 0.75 54.293 0 0.75 35.923 0 0.75 35.923 0 0.75 35.923 0	0n 0n 0n 0n														
[*														PH	OTMETRI	CS PL	AN
													1 1		ADDITION L	IGHTS	12/25/15
						A		MAN AN IL	and a set	R					Revision/1	SSUE	Date
)		1 A			~	AND LONG		- -		EN	VISIO	N LIGHTI	NG S	YSYEMS
					\square	and the second	ASA	V.J.	Arm.					St Pe	tersburg	, FL 3	3716
		S. S.		Ť		EXIS	,	~	na Ar	IS 6		₹ ₹	www	.envis	ionlighti	•8488 ngsys	yems.com
US I KIN	CONT	States				ALL A	MAJOIS	NAWS	18		EXTON OF		Project	lame and Add	Iress		\square
-Xa	EXISL		Latravo TTaa						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$		~~~	BA PF	YWA R P	ALK R DF AI	E∨I ⊢I	ISED
	\rangle					AND A	-DNIES	A Barris			.NA2	EK BL'	FI>	(TÚF	RESE]N	
AL CHOIO	LS 'LSIX:	°W°N	IS	EXI EXI			OD AGINA GARANO,	The states	~	and lora		A -	FILE	XXX XXX			
		CONTR	EXIZ	¢E	MOTS T2	<u>EXI</u>		N. I. A. B. C. T.	XI	A. M. S.	>>		Project	XXX		Sheet	
X		4 g	7				\geq	EBI		5129	I.O		Date	01/12/2	2022	┤ ┣	\mathbf{R}^{2}
									hite	99°48	EXT		Scale	NOT TO	O SCALE	DRAWN E	BY A

