

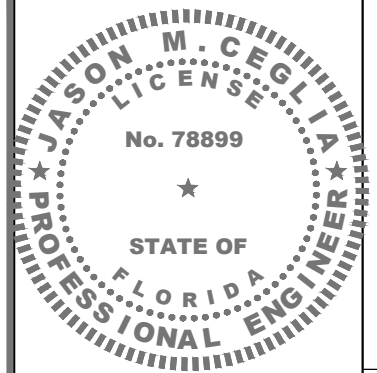
NODE ID: SFL10217

R.O.W. OF PINE TREE DRIVE

NEAR ADDRESS: 4090 PINE TREE DRIVE MIAMI BEACH, FL 33140

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0	07/28/21	ISSUED FOR PERMIT
C	07/26/21	REVIEW COMMENTS
B	07/02/21	PHOTOMETRIC REVISION
A	06/23/21	ISSUED FOR CLIENT REVIEW
No.	Date	Action

Tower Owner/Client:

Consultant:

MORRISON HERSHFIELD
Two South University Drive, Suite 245,
Plantation, FL 33324
Tel: 954.577.4655 Fax: 954.577.4656
FL C OF A #8508
FL ARCHITECT BUSINESS #AA26002368
www.morrisonhershfield.com

Project:
SFL10217
R.O.W. OF PINE TREE DRIVE
NEAR ADDRESS:
4090 PINE TREE DRIVE
MIAMI BEACH, FL 33140

Drawing Title:
COVER SHEET

Project No.: 1801686	
Designer: SB	Date: 06/22/21
Drawn By: RC	Checked By: RL
PM Review: RL	Client Approval
Issue No.: 1	Drawing No.: T-1

SITE INFORMATION	
R.O.W. OF PINE TREE DRIVE	
NEAR ADDRESS: 4090 PINE TREE DRIVE MIAMI BEACH, FL 33140	
POLE OWNER: CCI	
LATITUDE: 25° 48' 48.48" N (25.813468°)	
LONGITUDE: 80° 07' 35.96" W (-80.126656°)	
R.O.W. JURISDICTION: • MIAMI-DADE (UTILITY POLE & ELEC.) • CITY OF MIAMI BEACH (ELEC.)	

APPLICANT INFORMATION	
NAME: CROWN CASTLE FIBER, LLC.	
PROJECT MANAGER: APRIL NEGRON April.Negron@crowncastle.com	
ADDRESS: 9250 WEST FLAGLER STREET 5th FLOOR, MIAMI, FL 33174	
PHONE: (561) 544-4969	

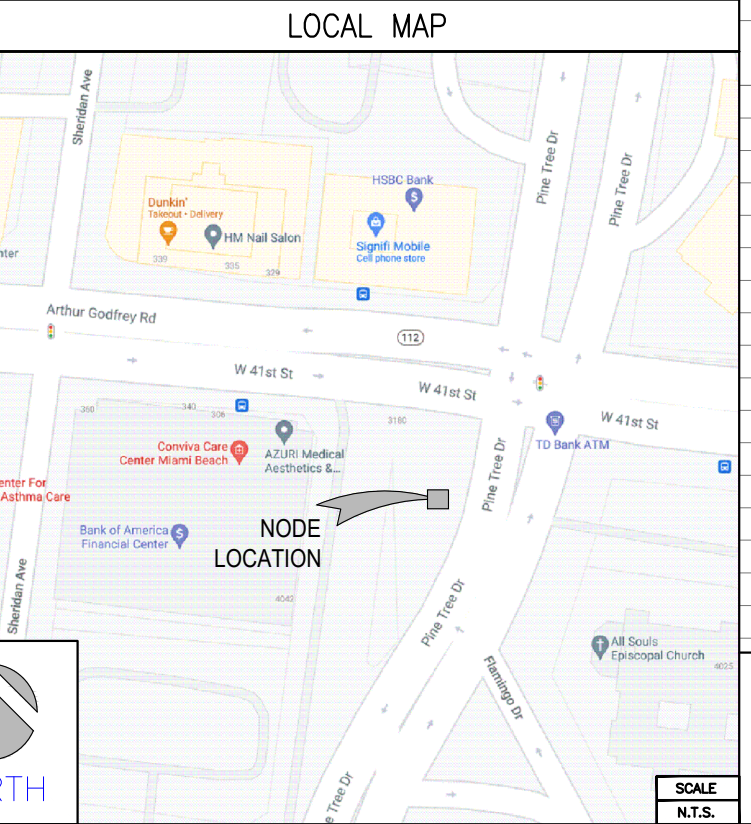
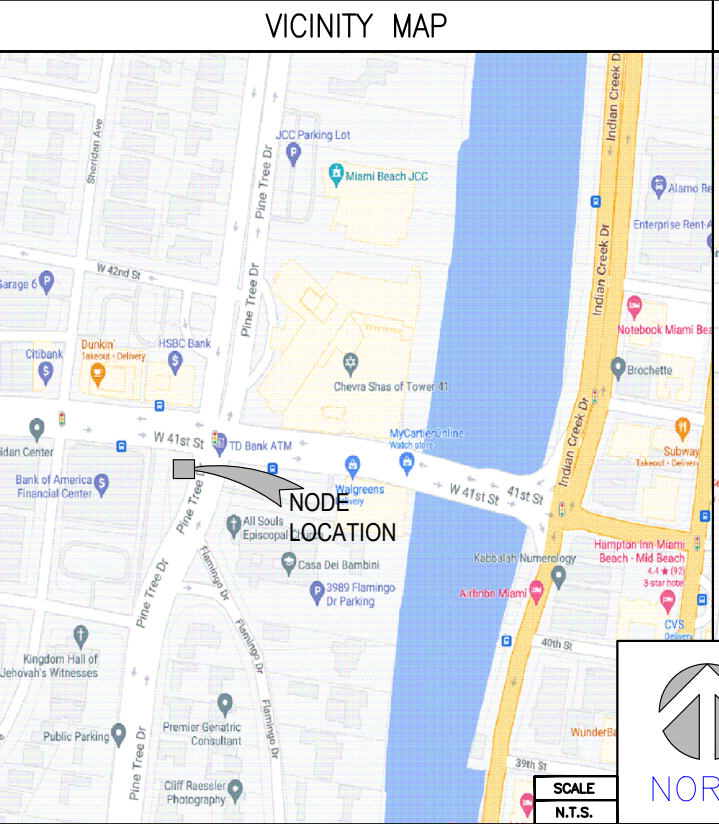
PROJECT DESCRIPTION

SCOPE OF WORK INCLUDES THE INSTALLATION OF THE FOLLOWING IN AN EXISTING RIGHT-OF-WAY: (SUPER BOWL)

- NEW INTEGRATED STEALTH POLE W/ STREET LIGHT, (TO REPLACE EXISTING POLE W/ STREET LIGHT) AND ANTENNA ON TOP AND COMMUNICATION EQUIPMENT WITHIN POLE

INDEX OF DRAWINGS		
SHT. NO.	DESCRIPTION	REV. NO.
T-1	COVER SHEET	1
C-1	SITE PLAN	1
C-2	POLE ELEVATION, ENLARGED PLAN & DETAIL	1
C-3	EROSION AND SEDIMENT CONTROL NOTES	0
E-1	PANEL SCHEDULE, SINGLE LINE DIAGRAM & DETAILS	0
E-2	FAULT CURRENT LETTER & CALCULATION	0
E-3	PHOTOMETRIC SITE PLAN	0
E-4	PROPOSED LIGHTING FIXTURE SPECIFICATIONS	0
SP-1	SPECIFICATIONS	0
SP-2	SPECIFICATIONS	0
SP-3	SPECIFICATIONS	0

APPLICABLE BUILDING CODES AND STANDARDS	
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT CONDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:	
1.	2017 FLORIDA BUILDING CODE
2.	NATIONAL ELECTRICAL CODE (NFPA 70-2014)
3.	CITY AND/OR COUNTY ORDINANCES



CONTACTS	
PROFESSIONALS OF RECORD:	ROBERT JERRY LARA REGISTERED ARCHITECT FL LIC. # 92824 MORRISON HERSHFIELD CORPORATION PHONE: (954) 577-4655 rlara@morrisonhershfield.com JASON M. CEGLIA REGISTERED PROFESSIONAL ENGINEER FL LIC. # 78899 MORRISON HERSHFIELD CORPORATION PHONE: (954) 577-4655 jceglia@morrisonhershfield.com

Sunshine 811
Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.
check positive response codes before you dig!

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE A/E FIRM IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

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SYMBOL LEGEND

- ⊗ PROPOSED STEALTH METAL UTILITY POLE W/ ANTENNA ON TOP
- MANHOLE
- ⊕ HYDRANT
- OHU — OVERHEAD UTILITIES
- UGF — UNDERGROUND FIBER
- UGP — UNDERGROUND POWER
- UGU — UNDERGROUND UTILITY
- GAS — UNDERGROUND GAS
- PWR — ABOVE GROUND POWER
- — — CENTERLINE OF ROAD
- — — GROUND CONDUCTOR
- E — POWER CONDUIT
- T — TELCO CONDUIT
- FOC — FIBER OPTIC CABLE
- OHE — OVERHEAD CONDUCTORS
- FMS — FORCE MAIN SEWER
- X — FENCE
- WATER — WATER
- SW — SEWER
- ST — STORM
- ① ← REPRESENT DETAIL #
- ③ ← REPRESENT SHEET #

ANY DAMAGE DURING WORK SHALL BE FULLY RESTORED OR REPLACED PER THE 2021-22 FDOT INDEXES LISTED BELOW:

INDEX	DESCRIPTION
520-001	CURB & GUTTER
522-001	CONC. SIDEWALK
522-002	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS
522-003	CONC. FLARED DRIVEWAYS
570-010	SHOULDER SODDING & TURF ON EXISTING FACILITIES
635-001	HANDHOLE & PULL BOXES

SEE SHEET C-4 FOR EROSION & SEDIMENT CONTROL NOTES

ANY DAMAGED TREES SHALL BE REPLACED BY PERMITTEE.

REMOVE AND RE-SOD 50 SQ. FT. TO EQUAL OR BETTER CONDITION

NOTES:

- CONTRACTOR SHALL MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS, SIDE STREETS AND WALKWAYS AT ALL TIMES UNLESS OTHERWISE PERMITTED.
- CONTRACTOR SHALL PREPARE A MAINTENANCE OF TRAFFIC (M.O.T) PLAN FOR PEDESTRIAN TRAFFIC AND WORK WITHIN THE RIGHT-OF-WAY, INCLUDING VEHICLE PARKING AND EQUIPMENT STAGING.
- CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER, INCLUDING BUT NOT LIMITED TO LANDSCAPING, SOD, PAVING, SIDEWALK REPAIR AND OR FENCE REPAIR.
- LOCATE AND MARK ANY AND ALL UTILITIES PRIOR TO START OF CONSTRUCTION.
- ALL PROPOSED WORK TO BE PERFORMED PER LATEST CROWN CASTLE STANDARDS & SPECIFICATIONS.

ADA SIDEWALK RESTORATION NOTES:

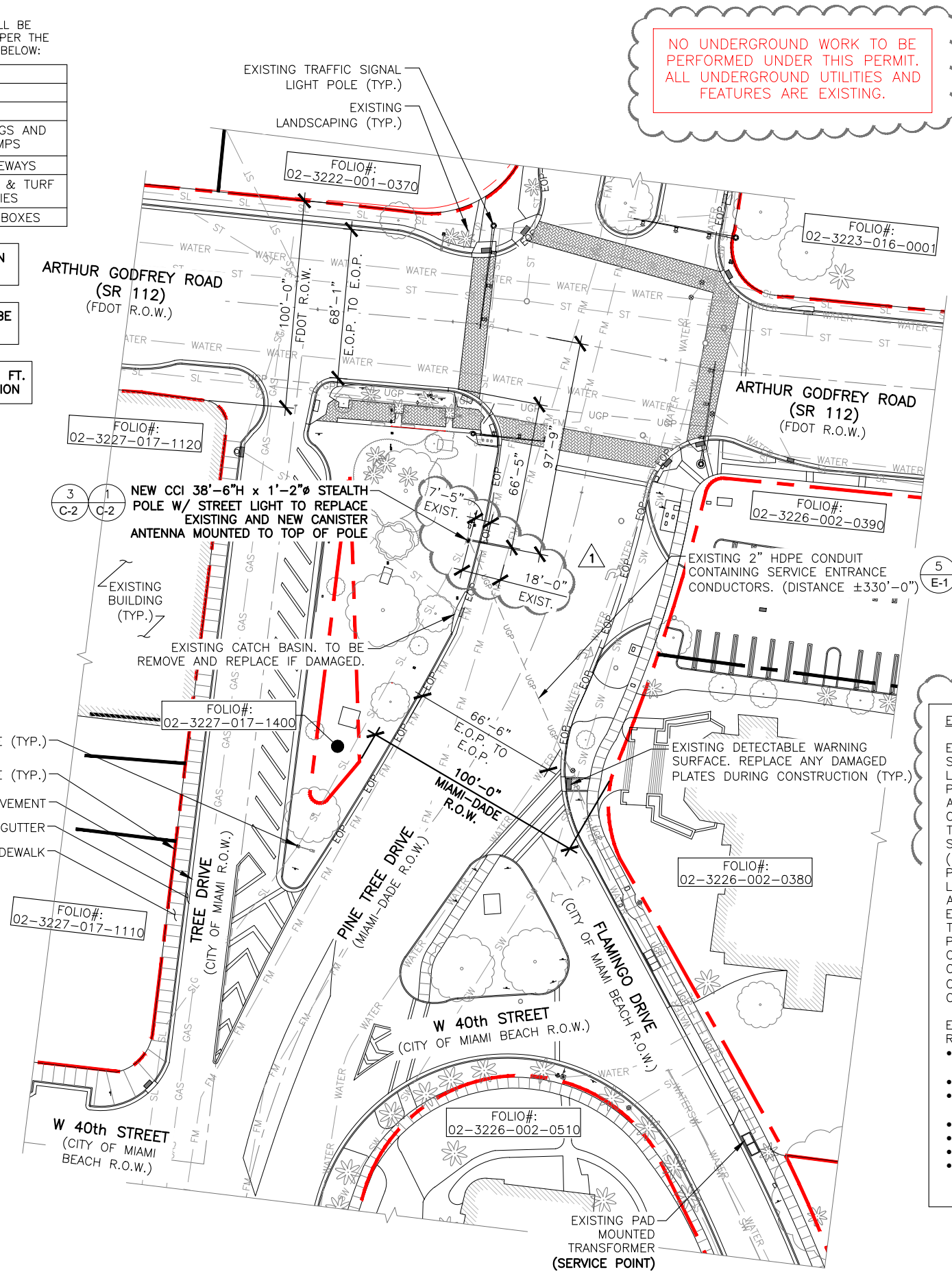
- SIDEWALK RESTORATION MUST COMPLY WITH ADA GUIDELINES AND R-13.1
- EXISTING SIDEWALK IMMEDIATELY ADJACENT TO THE AFFECTED SIDEWALKS MUST BE ADA COMPLIANT, OTHERWISE NEEDS TO BE REPLACED.
- MINIMUM SIDEWALK CLEAR PEDESTRIAN ACCESS ROUTE (PAR) IS 32" WIDE.
- DAMAGED CURB AND GUTTER TO BE REPLACED FROM JOINT TO JOINT.
- IF PULL BOXES, MANHOLES, ETC. ARE PLACED IN THE SIDEWALKS, ALL LID SURFACES ON THE SIDEWALK MUST BE FLUSH AND ADA COMPLIANT.



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SITE PLAN



NO UNDERGROUND WORK TO BE PERFORMED UNDER THIS PERMIT. ALL UNDERGROUND UTILITIES AND FEATURES ARE EXISTING.

POSTED SPEED LIMIT:
 PINE TREE DR - 30 MPH
 FLAMINGO DR - 30 MPH
 W 40th STREET - 20 MPH
 TREE DR - 20 MPH
 ARTHUR GODFREY RD - 30 MPH

REFER TO MOT PLAN FOR TRAFFIC CONTROL

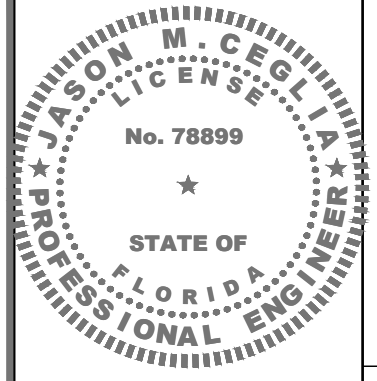
RESTORATION AS PER R21.1, R13.1 AND G2.1

ENGINEER'S NOTES:

EXISTING UNDERGROUND UTILITIES: INFORMATION SHOWN ON THE DRAWINGS AS TO THEIR LOCATION AND CHARACTER HAS BEEN PREPARED FROM THE MOST RELIABLE DATA AVAILABLE TO THE ENGINEER. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. (1-800-432-4770) TWO (2) BUSINESS DAYS PRIOR TO ANY EXCAVATION TO DETERMINE SAID LOCATIONS AND THE LOCATIONS OF RECENT ADDITIONS TO THE SYSTEMS NOT SHOWN. EXTREME CAUTION SHALL BE EXERCISED BY THE CONTRACTOR TO ELIMINATE ANY POSSIBILITY OF DAMAGE TO UTILITIES DURING CONSTRUCTION. THE LOCATION AND CHARACTER OF ALL UTILITIES SHALL BE VERIFIED AND THE OWNER'S REPRESENTATIVE NOTIFIED OF ANY CONFLICT THAT MIGHT OCCUR.

- EXISTING UNDERGROUND UTILITY MAPS RECEIVED FROM CITY INCLUDES:
- SEWER SYSTEM DATED FEB-1937 (SN37H_BP)
 - STORM WATER SYSTEM
 - WATER SYSTEM DATED FEB-1937 (SN37H_BP)
 - STREET LIGHT SYSTEM
 - GAS SYSTEM
 - STORM SYSTEM AS-BUILT
 - FORCE MAIN SYSTEM DATED FEB-1937 (SN37H_BP)

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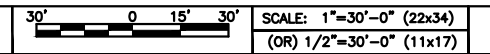
Consultant:

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Project:
SFL10217
 R.O.W. OF PINE TREE DRIVE
 NEAR ADDRESS:
 4090 PINE TREE DRIVE
 MIAMI BEACH, FL 33140

Drawing Title:
SITE PLAN

Project No.: 1801686	Date: 06/22/21
Designer: SB	Checked By: RL
Drawn By: RC	Client Approval
PM Review: RL	
Issue No.: 1	Drawing No.: C-1

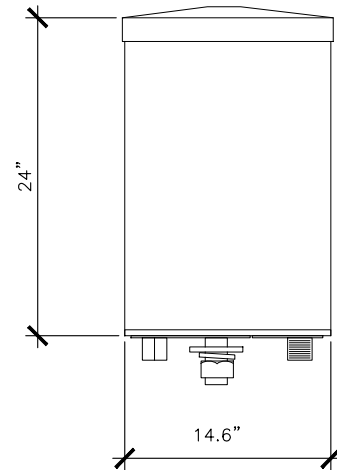


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WIRELESS CANISTER ANTENNA DUAL ANTENNAS INTEGRATED UNDER A SINGLE RADOME

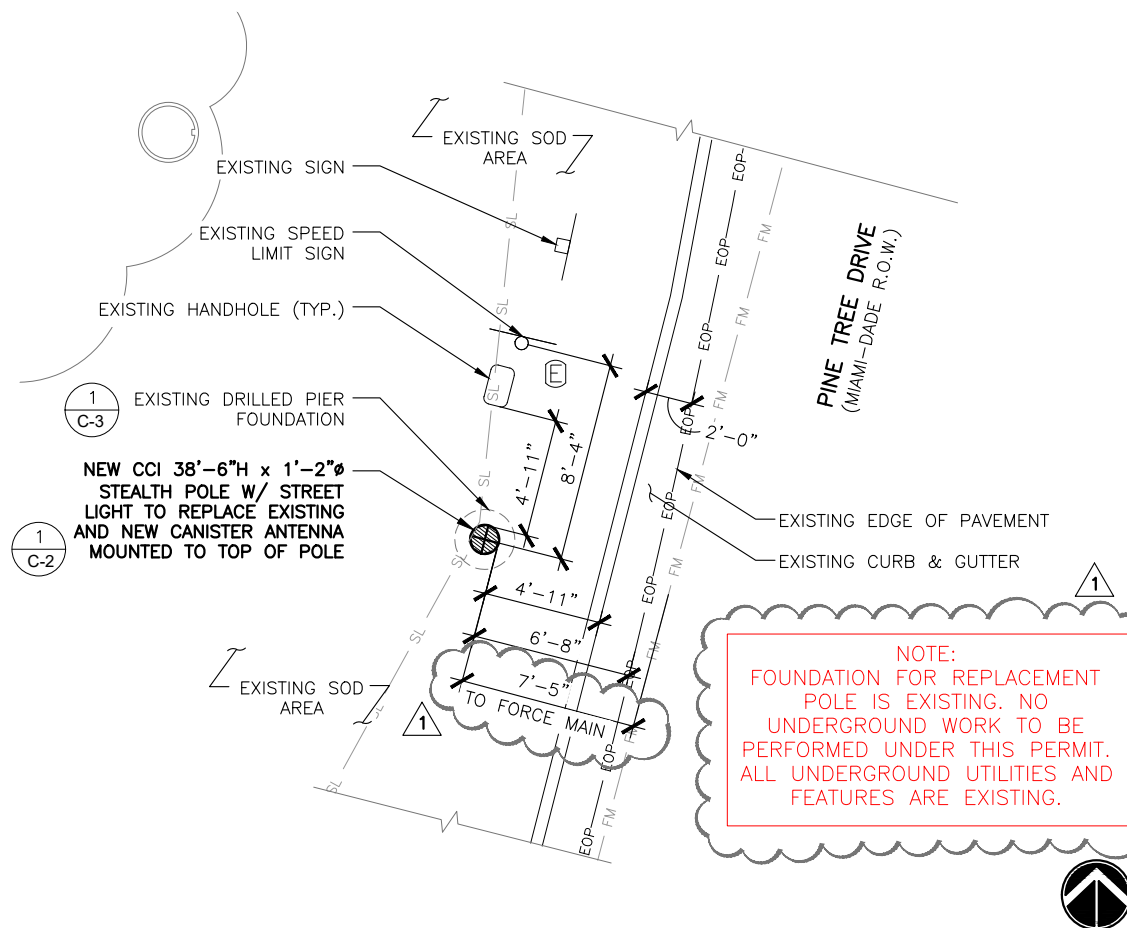
MECHANICAL CHARACTERISTICS

DIMENSIONS, HEIGHT/DIAMETER	24.0x14.6 IN
WEIGHT WITHOUT MOUNTING BRACKET	<28 LBS
ANTENNA VOLUME	2.3 CU. FT
SURVIVAL WIND SPEED	150 MPH
WIND AREA	2.4 SQ. FT
WIND LOAD (160km/hr or 100 mph)	43 LBF



ANTENNA SPECIFICATIONS

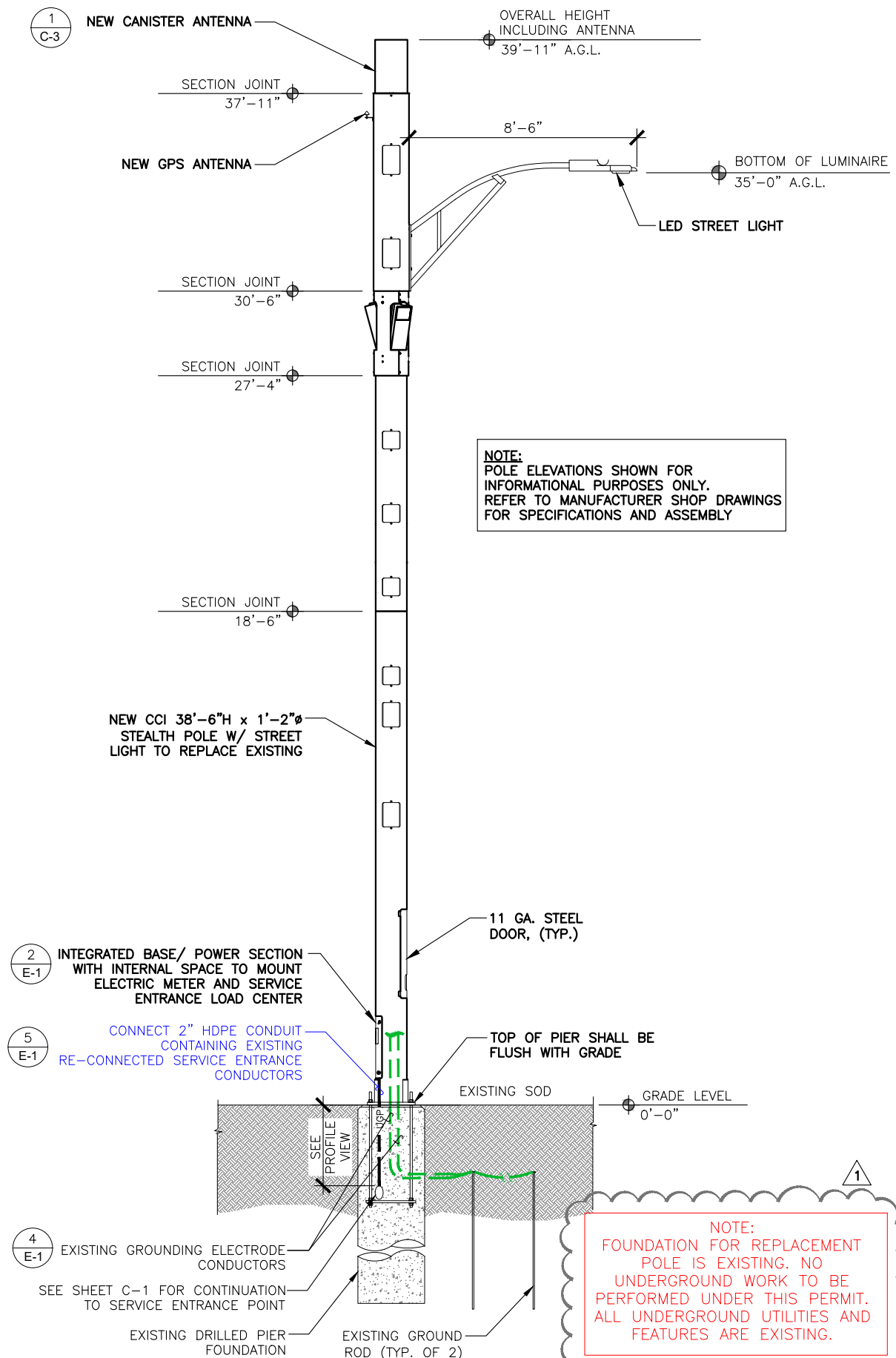
SCALE
N.T.S. 1



ENLARGED SITE PLAN

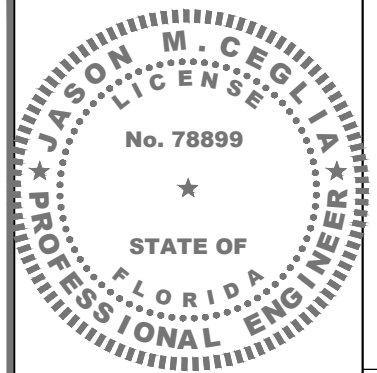
SCALE: 1"=4'-0" (22x34)
(OR) 1/2"=4'-0" (11x17)

POLE ELEVATION



SCALE: 3/8"=1'-0" (22x34)
(OR) 3/16"=1'-0" (11x17)

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CROWN CASTLE

Consultant:
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Project:
SFL10217
R.O.W. OF PINE TREE DRIVE
NEAR ADDRESS:
4090 PINE TREE DRIVE
MIAMI BEACH, FL 33140

Drawing Title: POLE ELEVATION, ENLARGED PLAN & DETAIL

Project No.: 1801686	Date: 06/22/21
Designer: SB	Checked By: RL
Drawn By: RC	Client Approval
PM Review: RL	
Issue No.: 1	Drawing No.: C-2

SCALE IS BASE ON 22" X 34" D" SIZE

General Sediment and Erosion Control Notes

1. The contractor is responsible for following the best erosion and sediment control practices as outlined in the plans, specification, applicable permit(s), and the prevention, correction, control, and abatement of erosion and water pollution in accordance with chapter 62-302, Florida Administrative Code.
2. Erosion and sediment control barriers shall be placed where there is potential for downstream water quality degradation.
3. The site contractor is responsible for removing the temporary erosion and sediment control devices after completion of construction and only when areas have been stabilized.
4. The site contractor is responsible for the maintenance of BMPs to make sure they are functioning as designed at all times.
5. The BMP structures shall be inspected after each rain and repairs made as needed. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
6. Correctly installed silt fences will be used along the limits of construction to minimize offsite siltation migration.
7. Sod shall be placed in areas which may require immediate erosion protection to ensure water quality standards are maintained and where no active construction is occurring.
8. The contractor shall pay for any water quality control violations from any agency that results in fines being assessed to the owner because of the contractor's failure to eliminate turbid runoff from leaving the site and raising background levels of turbidity above existing background levels.

Inlet Protection

9. Wire mesh shall be laid over the top drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. Hardware cloth or comparable wire mesh with 1/2 - inch opening shall be used. If more than one strip of mesh is necessary the strips shall be overlapped.
10. FDOT NO. 1 coarse aggregate shall be placed over the wire mesh as indicated on detail. The depth of stone shall be at least 12 inches over the entire inlet opening. The stone shall extend beyond the inlet opening at least 18 inches on all sides.
11. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the inlet, cleaned and replaced.
12. The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet and width of a bale to a minimum depth of four inches. After the bales are stacked, the excavated soil shall be backfilled and compacted against the filter barrier.
13. Bale shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.
14. Bales shall be placed lengthwise in single row surrounding the inlet with the ends of adjacent bales pressed together.
15. Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.
16. Loose straw should be wedged between bales to prevent water from entering between bales.

Turbidity Barriers

17. Floating turbidity barriers will be placed at all outfall locations connected to the work area during active construction. If seagrasses are present barriers will not be placed over them. The floating turbidity barriers shall be installed in a manner to prevent manatee entanglement.
18. Turbidity barriers to be marked with site contractor's company name using permanent markings no smaller than 3 inches in height on the top of the barrier.

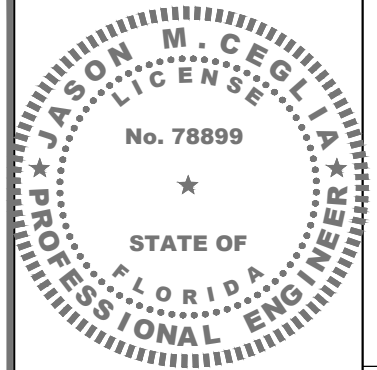
EROSION AND SEDIMENT CONTROL GENERAL NOTES
N.T.S.

F:\WORK\BALL\CAD-DWG\STANDARDS\CMB-STANDARD_DETAILS\Public Works Manual (2015)\CMB Site Earthwork Details\Earthwork Detail.dwg



APPROVED 06/01/2010	REVISED 12/16/2011 11/15/2012 07/11/2017	TITLE: SITE EARTHWORK DETAILS NO.2 EROSION AND SEDIMENT CONTROL GENERAL NOTES	SES14
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Drawing Title:

**EROSION AND
SEDIMENT CONTROL
NOTES**

Project No.: 1801686	
Designer: SB	Date: 06/22/21
Drawn By: RC	Checked By: RL
PM Review: RL	Client Approval
Issue No.: 0	Drawing No.: C-3

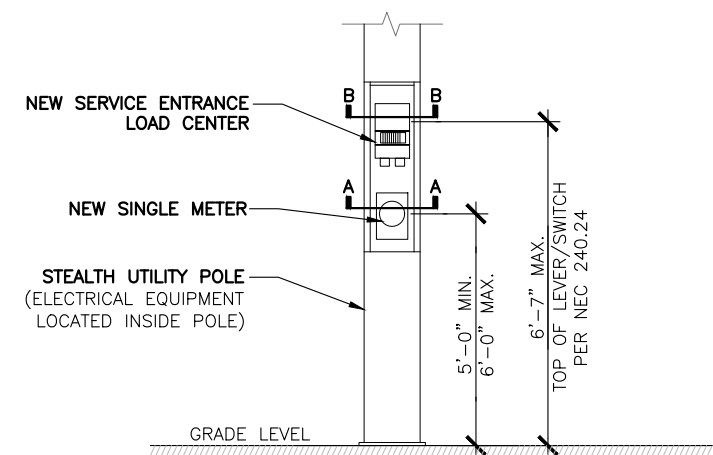
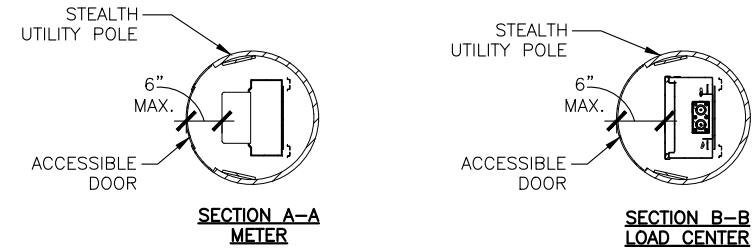
SCALE
N.T.S. 1

NEW PANEL "PP1"
100A, 120/240V-1Ø-3W, 60A M.C.B.

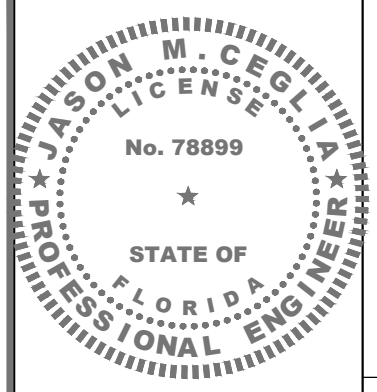
BUS A B	AMPS	COND	GND	WIRE	LOAD	BUS VA	
						A	B
1	15	*	#14	#14	NEW RRU/PSU	320	
2	15	*	#14	#14	NEW RRU/PSU		320
3	15	*	#14	#14	NEW RRU/PSU	320	
4	15	*	#14	#14	NEW 5G RRU		400
5	15	*	#14	#14	NEW 5G RRU	400	
6	15	*	#14	#14	NEW 5G RRU		400
7	15	-	-	-	SPARE	-	-
8	15	-	-	-	SPARE	-	-
9	15	-	-	-	SPARE	-	-
10	15	-	-	-	SPARE	-	-
11	15	-	-	-	SPARE	-	-
12	15	-	-	-	SPARE	-	-
13	15	-	-	-	SPARE	-	-
14	15	-	-	-	SPARE	-	-
15	15	-	-	-	SPARE	-	-
16	15	*	#14	#14	STREET LIGHT		400

TOTAL VA: BUS A **1040** BUS B **1520** CONNECTED VA: **2560**
 AMPERES: BUS A **9** BUS B **13** TOTAL **11**
 RATED VOLTAGE: 120/208 **120/240** 277/480 **1 PHASE, 3 WIRE**
 RATED AMPS: **100A** 200 400
 BRANCH POLES 8 **16** 20 24 30 36 42
 CABINET: SURFACE FLUSH KEYED DOOR LATCH ENCLOSURE TYPE: NEMA-3R
 FULL NEUTRAL BUS GROUND BUS HINGED DOOR
 BRANCH DEVICES: FUSED CIRCUIT BREAKER
 MAIN LUG ONLY MAIN: **60A** BREAKER FUSED SWITCH
SERVICE ENTRANCE RATED LOAD CENTER SHALL BE SERIES AIC RATED UNLESS OTHERWISE NOTED BY MANUF.

- NOTES:**
- LOADS ON PANEL ASSUMES A 1.0 POWER FACTOR
 - *= REFER TO POLE MANUFACTURER ELEVATION DETAIL FOR THE RACEWAY/CONDUIT METHOD FOR BRANCH CIRCUITS TO RADIOS AND STREET LIGHT.
 - ALL OTHER CIRCUIT BREAKERS TO BE PROVIDED BY CONTRACTOR.
 - SERVICE MAIN SHALL BE AT 10,000 AIC MIN. AND BRANCH BREAKERS AT 10,000 AIC MIN.**



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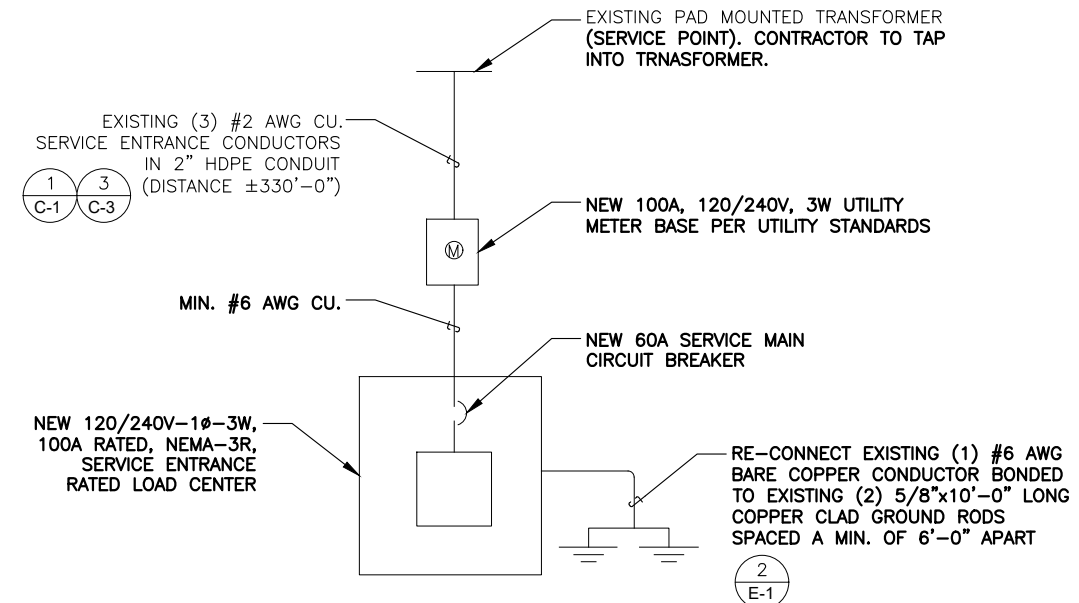
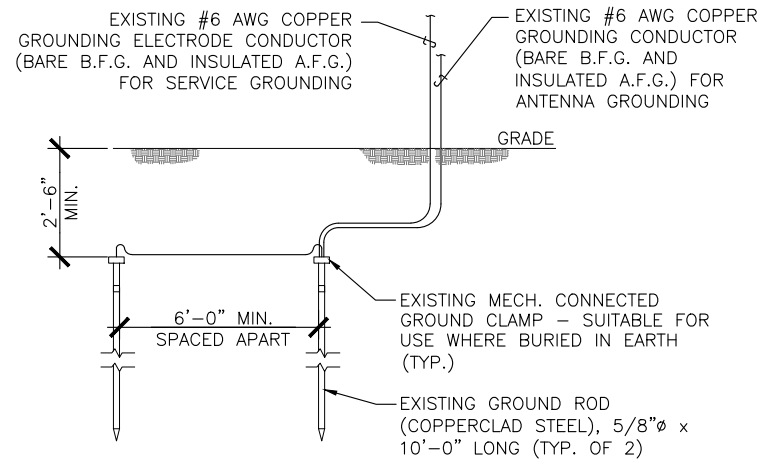
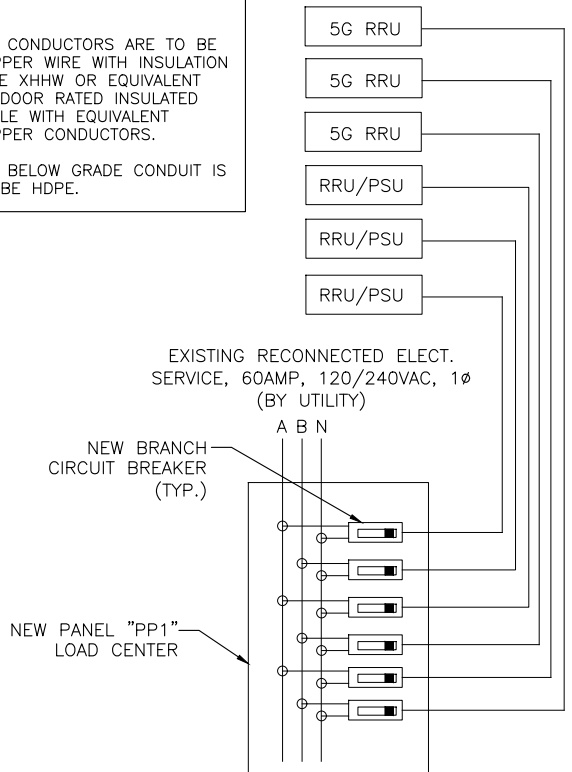
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A	06/23/21	ISSUED FOR CLIENT REVIEW

PANEL SCHEDULE

ELECTRICAL EQUIPMENT MOUNTING HEIGHTS

- NOTES:**
- ALL CONDUCTORS ARE TO BE COPPER WIRE WITH INSULATION TYPE XHHW OR EQUIVALENT OUTDOOR RATED INSULATED CABLE WITH EQUIVALENT COPPER CONDUCTORS.
 - ALL BELOW GRADE CONDUIT IS TO BE HDPE.



RRU POWER DETAIL

GROUND ROD DETAIL

SINGLE-LINE DIAGRAM

Tower Owner/Client:
CROWN CASTLE

Consultant:
MORRISON HERSHFIELD
 Two South University Drive, Suite 245,
 Plantation, FL 33324
 Tel: 954.577.4655 Fax: 954.577.4656
 FL C OF A #8508
 FL ARCHITECT BUSINESS #AA26002368
 www.morrisonhershfield.com

Project:
SFL10217
 R.O.W. OF PINE TREE DRIVE
 NEAR ADDRESS:
 4090 PINE TREE DRIVE
 MIAMI BEACH, FL 33140

PANEL SCHEDULE, SINGLE LINE DIAGRAM & DETAIL

Project No.: 1801686	Date: 06/22/21
Designer: SB	Checked By: RL
Drawn By: RC	Client Approval
PM Review: RL	
Issue No.: 0	Drawing No.: E-1

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June 15, 2021

Charles G Jolly
2056 Vista Parkway Suite 420
West Palm Beach, FL 33411

Fault Current for SFL10217

Dear Timothy P Hewitt:

Thank you for contacting FPL about the available fault current at SFL10217. Based on the plans you have provided dated May 05 2021, the maximum available fault current at the transformer secondary terminals is estimated to be 10904 symmetrical amperes at 120/240 volts. The protective device on the line side of the transformer currently in place or to be installed and serving your property located at the subject location is a 4 amp type KS fuse. The primary service voltage is 13.2kV L-L. This calculated symmetrical fault current is not intended for use as the basis for motor starting calculations and does not include:

- Consideration for any motor contribution or
- Fault current asymmetry.

The FPL equipment currently serving or planned to serve your facility may change over time as a result of any number of factors, including but not limited to transformer replacements due to load growth, electrical grid changes or emergencies. As a result, although we are providing you with this information for the sole purpose of assisting you in the completion of your study, you and your client should not design, install or operate your system in reliance upon any expectation that the specific size and type of equipment currently in place will remain so. If and when the size and type of the equipment changes, our employees are not always in a position to immediately notify customers.

As the construction project progresses, any questions or information you may need can be communicated through me. I have enclosed my business card for easy reference and look forward to hearing from you in the near future.

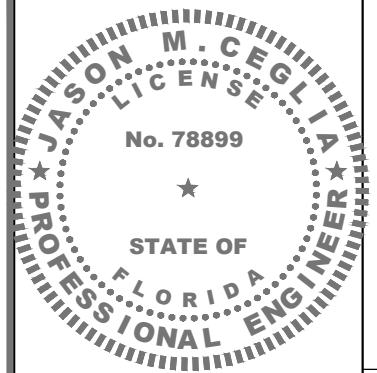
Sincerely,

JOHN RYAN
Engineer II
John Ryan

SINGLE PHASE LINE TO LINE FAULT CURRENT CALCULATION	
LINE TO LINE (L-L) AMPS SHORT CIRCUIT FROM ELECTRICAL UTILITY COMPANY	10904
CONDUIT TYPE	HDPE
WIRE SIZE	#2 AWG
NUMBER OF CONDUCTORS PER PHASE	1
CONDUCTOR LENGTH IN FEET "L"	330
CONDUCTOR "C" VALUE	6044
VOLTAGE "E"	240
$f = (2 \times L \times I) / (C \times E)$	4.961
$M = 1 / (1 + f)$	0.168
$I_{sca} = I_{util} \times M$	1829.14

MINIMUM REQUIRED SCCR & MAIN BREAKER/FUSE AIC RATING 10000.00 AMPS

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Tower Owner/Client:

Consultant:

MORRISON HERSHFIELD
Two South University Drive, Suite 245,
Plantation, FL 33324
Tel: 954.577.4655 Fax: 954.577.4656
FL C OF A #8508
FL ARCHITECT BUSINESS #AA26002368
www.morrisonhershfield.com

Project:
SFL10217
R.O.W. OF PINE TREE DRIVE
NEAR ADDRESS:
4090 PINE TREE DRIVE
MIAMI BEACH, FL 33140

Drawing Title:
**FAULT CURRENT
LETTER &
CALCULATION**

Project No.: 1801686	
Designer: SB	Date: 06/22/21
Drawn By: RC	Checked By: RL
PM Review: RL	Client Approval
Issue No.: 0	Drawing No.: E-2

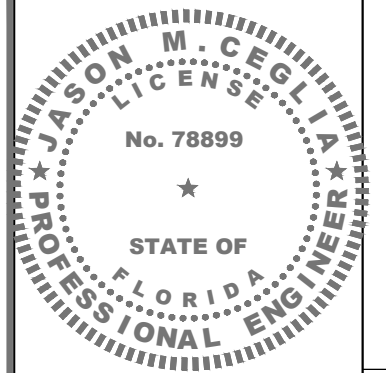
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LIGHT CONFIGURATION																			
POLE NO#	LUMINAIRE	STREET	OFFSET (EOP TO POLE)	LEFT	RIGHT	POLE TYPE	POLE HEIGHT	LIGHT HEIGHT	WATTAGE /TYPE	LUMINAIRE TYPE/DISTRIBUTION	ARM LENGTH	LUMINAIRE MODEL	TOTAL LAMP LUMENS	LLF	X	Y	Z	ORIENT	TILT
1	EXISTING	PINE TREE DRIVE	12'-10"	159'-7"	-	METAL	22'-0"	25'-0"	400W MH	COBRA/DOUBLE	±7'-0"	GE451002	51000	1.000	21246.50	1309.847	39	343.055	0
2	EXISTING	PINE TREE DRIVE	7'-11"	159'-7"	-	METAL	22'-0"	25'-0"	400W MH	COBRA/DOUBLE	±7'-0"	285W LED 400W EQUIV	NA	1.000	21246.46	1309.865	41	162.594	0
3	PROPOSED	PINE TREE DRIVE	6'-7"	-	-	METAL	39'-11"	34'-11"	251W LED	COBRA/SINGLE	8'-6"	ERL2_28C330	NA	1.000	21324.0	1449.346	34.92	344.437	0

- NOTES:**
- THE SITE IS IN A LOCAL ROADWAY WITHIN A COMMERCIAL/INDUSTRIAL AREA OF CLASSIFICATION
 - ALL FIXTURES ASSUMED TO BE 120-277V, 3000K, AND INCLUDE ANSI 7-WIRE PHOTOCONTROL RECEPTACLE (PCR7), WATTAGE LABEL (WL) AND SHORTING CAP (SC)

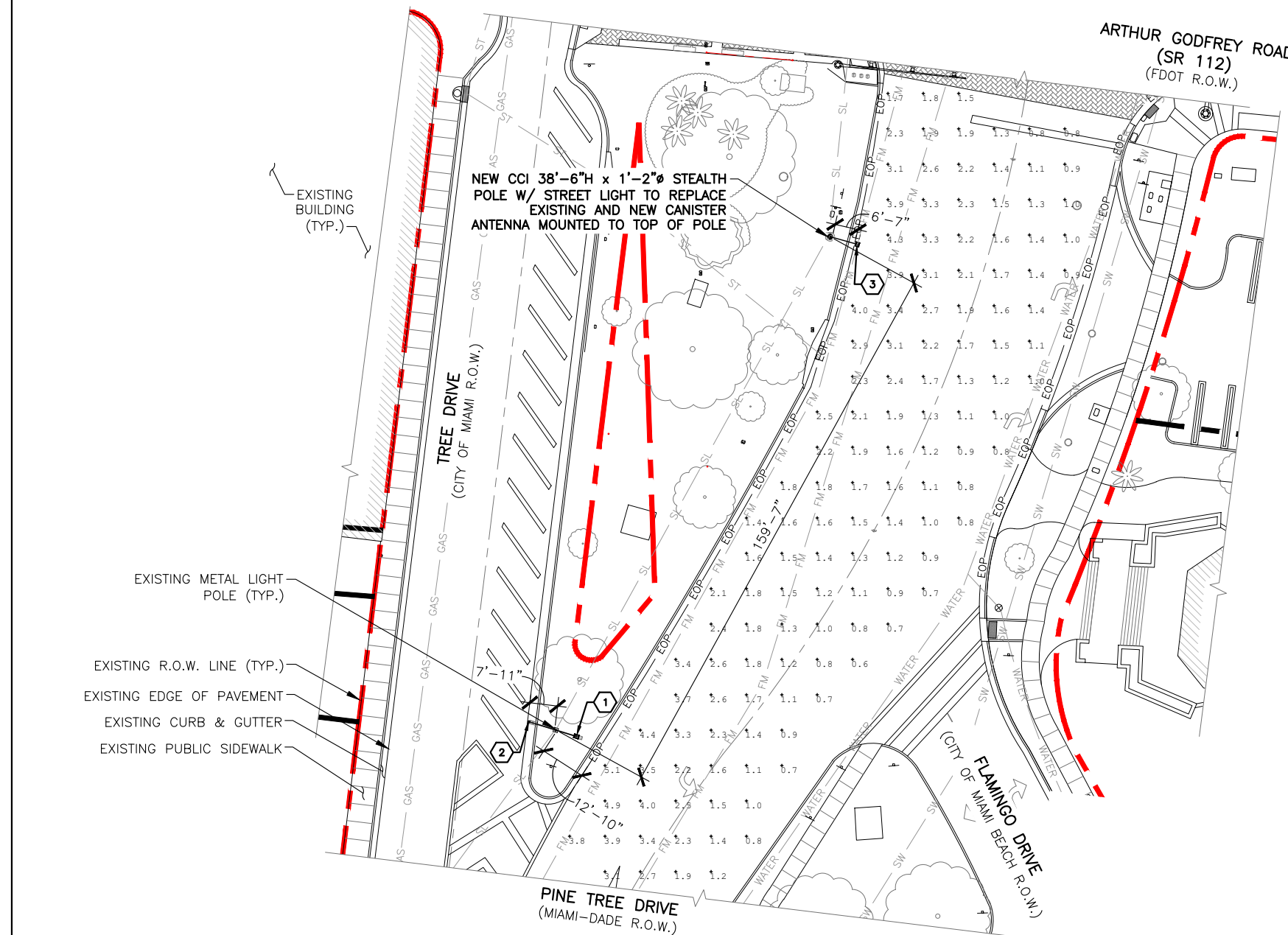
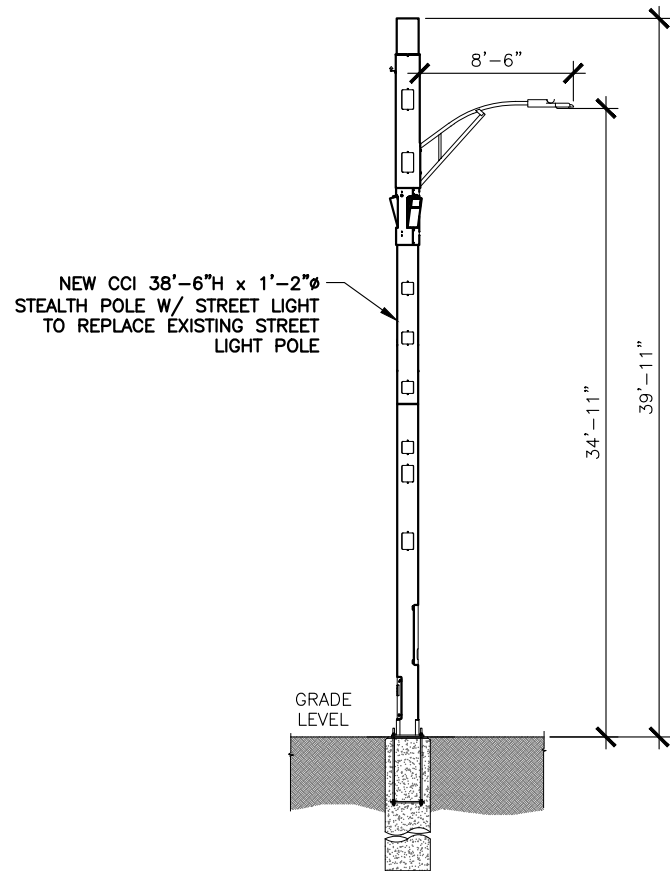
CALCULATION SUMMARY					
CALCULATION ZONE	CALCTYPE	UNITS	AVG	AVG/MIN	MAX/MIN
PINE TREE DRIVE	ILLUMINANCE	FC	1.89	3.15	8.50

SECTION 13 - TABLE 1						
CLASSIFICATION	CALCTYPE	UNITS	MIN. AVG	MAX. AVG	MAX. AVG/MIN. RATIO	MAX. MAX./MIN. RATIO
INTERSECTION (COMMERCIAL)	ILLUMINANCE	FC	3.0	4.5	4:1	10:1
LOCAL ROADWAYS (COMMERCIAL)	ILLUMINANCE	FC	2.0	3.0	4:1	10:1



NOTES & TABLES

SCALE 1
N.T.S.



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Project:
SFL10217
 R.O.W. OF PINE TREE DRIVE
 NEAR ADDRESS:
 4090 PINE TREE DRIVE
 MIAMI BEACH, FL 33140

Drawing Title:
PHOTOMETRIC SITE PLAN

Project No.: 1801686	
Designer: SB	Date: 06/22/21
Drawn By: RC	Checked By: RL
PM Review: RL	Client Approval
Issue No.: 0	Drawing No.: E-3

REPLACEMENT POLE

SCALE: 3/16"=1'-0" (22x34)
 (OR) 3/32"=1'-0" (11x17)

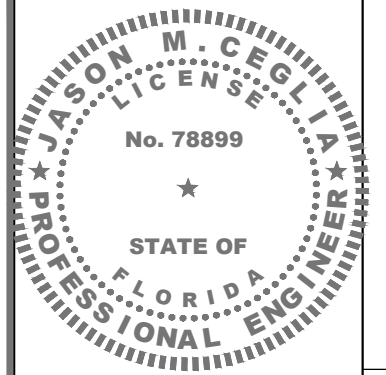
2 SITE PLAN

SCALE: 1"=20'-0" (22x34)
 (OR) 1/2"=20'-0" (11x17)

SCALE 3
N.T.S.

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 NEAR ADDRESS:
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 MIAMI BEACH, FL 33140

Drawing Title:
PROPOSED LIGHTING FIXTURE SPECIFICATIONS

Project No.: 1801686	
Designer: SB	Date: 06/22/21
Drawn By: RC	Checked By: RL
PM Review: RL	Client Approval
Issue No.: 0	Drawing No.: E-4

GE Evolve®
 LED Roadway Lighting
 ERL1-ERLH-ERL2



The Evolve® LED Roadway Luminaire is optimized for customers requiring a LED solution for local, collector and major roadways. GE's unique reflective optics are designed to optimize application efficiency and minimize glare. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life. This reliable unit has a 100,000 hour design life, significantly reducing maintenance needs and expense over the life of the fixture. This efficient solution lowers energy consumption compared to a traditional HID fixture for additional operating cost savings.

Features:

- Optimized roadway photometric distributions
- Evolve® light engine consisting of reflective technology designed to optimize application efficiency and minimize glare
- 70 CRI at 2700K, 3000K and 4000K typical.
- 40°C to 50°C UL Ambient Typical.
- ULOR = 0 (zero uplight)
- Designed & Assembled in USA

Applications:

- Local Roadways
- Collector Roadways
- Major Roadway/Streets

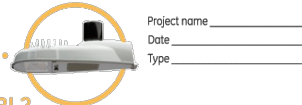


Compatible with LightGrid Outdoor Wireless Control System



To learn more about GE Evolve® LED Roadway Lighting, go to: www.currentbyge.com

GE Evolve®
 LED Roadway Lighting
 ERL1-ERLH-ERL2



Typical Specifications: ERL1-ERLH-ERL2
LED & Optical

- Output Range: 1900 – 30000 lm
- Photometric Options: Type II Narrow, Type II Wide, Type III, Type IV
- System Efficacy: 100 - 145 LPW
- CCT: 2700K, 3000K, 4000K; LEDs @ 70 CRI

Lumen Maintenance Tables
 Projected Lxx per IES TM-21 at 25°C for reference:

ERL1 LUMEN OUTPUT CODES	L96	L95	L94
02,03,04,05,06	L96	L95	L94
07,08,09	L95	L94	L93
10	L94	L93	L92

ERL1 LUMEN OUTPUT CODES	L96	L95	L94	L93
10,11	L97	L96	L95	L94
12,14	L95	L94	L93	L92
15,16	L94	L93	L92	L91

ERL2 LUMEN OUTPUT CODES	L96	L95	L94	L93
16,18,19,21,23	L96	L95	L94	L93
25,27,28	L95	L94	L93	L92
30	L94	L93	L92	L91

Note: Projected Lxx based on L90 010000 hour testing. Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Electrical

- Input Voltage: 120-277 volt and 347-480 volt
- Input Frequency: 50/60Hz
- Power Factor (PF)*: >90%
- Total Harmonic Distortion (THD)*: <20%

*Power factor and THD tolerance exceptions: ERL1 10" Lumen output: PF and THD within tolerance above only at 120 volt. ERL1 10" Lumen output: @120 volt PF <0.85 @ 480 volt THD >20% ERL1 10" Lumen output: @480 volt THD >20%

- Ratings**
- Surge Protection: per ANSI C136.2-2015:
 - Driver Internal:
 - 5kV/5kA "Basic" (120 Strikes)" - Standard on ERL1 (02-06)
 - 10kV/5kA "Enhanced" (40 Strikes)" - Standard on ERL1 (07 - 10), ERLH, ERL2
 - (Additional Separate Secondary SPD)
 - 10kV/5kA "Enhanced" (40 Strikes)" - Option "R"
 - 20kV/10kA "Elevated" (40 Strikes)" - Option "T"
 - Safety: UL/cUL Listed, UL 1598 listed, suitable for wet locations
 - Environmental: Compliant with the materials restrictions of RoHS
 - EMC: Title 47 CFR Part 15 Class A
 - Vibration: 3G per ANSI C136.31-2010
 - LM-79 testing in accordance with IESNA Standards
 - Std. Optical enclosure rated per ANSI C136.25-2009:
 - ERL1/ERLH/ERL2 = IP65, Optional: IP66

International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

- Operating Temperature:
 - ERL1: 02-10: -40°C to 50°C
 - ERLH: 10-11, 13: -40°C to 50°C
 - ERLH: 12-15: -40°C to 45°C
 - ERL2: 16-28: -40°C to 50°C
 - ERL2: 30: -40°C to 45°C
- Delayed start may be experienced < -35°C

Construction & Finish

- Housing:
 - Die Cast Enclosure
 - Casting-Integral heat sink for maximum heat transfer
- Lensing: Impact resistant tempered glass, standard
- Paint: Corrosion resistant polyester powder paint, minimum 2.0 mil. thickness.
 - Standard Colors: Dark Bronze, Black, & Gray
 - RAL & custom colors available
 - Optional coastal finish available.
- Weight: 12.4lbs (5.6kg) - 24lbs (10.9kg)

- Warranty**
- System Warranty: 5 Year Standard, 10 Year Optional

- Controls**
- Dimming:
 - Standard: 0-10V; Optional: DALI (120-277V Only)
 - Sensors:
 - Photo electric sensors (PE) available.
 - LightGrid™ compatible

- Mounting**
- Slipfitter with +/- 5 degree of adjustment for leveling.
 - Integral die cast mounting pipe stop.
 - Adjustable for 1.25 in. or 2 in. mounting pipe.

Suggested HID Replacement Lumen Levels

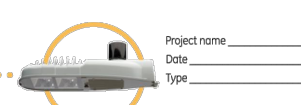
- ~4,000-5,000 lumens to replace 100W HPS Cobra-head
 - ~7,000-8,000 lumens to replace 150W HPS Cobra-head
 - ~8,500-11,500 lumens to replace 200W HPS Cobra-head
 - ~11,500-14,000 lumens to replace 250W HPS Cobra-head
 - ~21,000-30,000 lumens to replace 400W HPS Cobra-head
- Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

CONVERSION FROM PREVIOUS GENERATION OPTICS TO CURRENT GENERATION OPTICS*

PREVIOUS DESCRIPTION	CURRENT DESCRIPTION
A1, B1 Extra Narrow/Narrow Asymmetric	A3 Type II Narrow
C1, E1 Asymmetric Short/Medium	B3 Type II Wide
D1, G1 Asymmetric Forward/Extra Wide	C3 Type III
F1 Asymmetric Wide	D3 Type IV
	E3 Type II Enhanced Back Light

*The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is do a lighting layout utilizing AGI.

GE Evolve®
 LED Roadway Lighting
 ERL1-ERLH-ERL2



ERL2

MODEL ID	VOLTAGE	LUMEN OUTPUT	DESCRIPTION	TYPE	OPTIONS	FINISH	CONTROL
E = Evolve	0 = 120-277V*	16	A3 - Type II Narrow	72 - 2700K-0	A = ANSI C136.41 7-pin	GMF = Gray	A = 4-Bolt Slipfitter †
R = Roadway	1 = 120	18	B3 - Type II Wide	80 - 3000K-0	D = ANSI C136.41 7-pin with	BLCK = Black	P = Fluting
L = Local	2 = 208	19	E3 - Type II Enhanced Back Light	40 - 4000K	E = ANSI C136.41 7-pin with non-Dimming PE Control*	DKBZ = Dark Bronze	G = Internal Bubble Level
Z = Double Module	3 = 240	21		40 - 4000K	† Select 2700K or 3000K CCT for IDA approved units.		L = 956 Control
	4 = 277	23		40 - 4000K	* PE Control Only available for 120-277V or 480V. Discrete. Not available for 347-480V or 347V. Discrete.		M = Magnegrip™
	5 = 480	25		40 - 4000K	NOTE: Dimming controls wired for 0-10V standard unless DALI option "V" requested.		R = Secondary 120V/5kA SPD
	W = 347-480V**	27		40 - 4000K			T = Secondary 250V/10kA SPD
		29		40 - 4000K			U = DALI Programmable †
		31		40 - 4000K			V = Coasted Finish †
		33		40 - 4000K			W = Special Options

† Contact manufacturer for Lead-Time
 * Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time.
 † Compatible with LightGrid 2.0 nodes.
 ** Not available in 347V, 480V or 347-480V.
 *** Not available with DALI 8i option.
 **** 25 features per Magnegrip.

GENERAL PROVISIONS

CONTRACT OVERVIEW

1. THE INTENTION OF THE DOCUMENTS IS TO SHOW THE COMPLETE INSTALLATION AND TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY, WHETHER OR NOT SPECIFICALLY INDICATED, FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT. THE INTENT OF THIS DOCUMENT IS NOT TO DESIGNATE THE MEANS AND METHODS OF PROCEDURE OF THE WORK. THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS. HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
2. THE ENGINEERING DRAWINGS SHOW PRINCIPAL AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE ENGINEERING DRAWINGS DUE TO CHANGES AFFECTING EXISTING ELECTRICAL OR OTHER SYSTEMS. SUCH INCIDENTAL WORK IS ALSO A PART OF THIS CONTRACT. INSPECT THOSE AREAS AND ASCERTAIN WHAT IS NEEDED TO DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
3. DO NOT SCALE DRAWINGS. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE.
4. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK HOWEVER, NO CHANGE THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT A CHANGE ORDER.
5. GENERAL CIVIL, STRUCTURAL, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
6. THE GENERAL NOTES CONTAINED HEREIN ARE PART OF THE PLANS AND SPECIFICATIONS, AND ARE TO BE COMPLIED WITH IN ALL RESPECTS. THE MOST RESTRICTIVE NOTES SPECIFIED ARE TO TAKE PRECEDENCE. CERTAIN SECTIONS OF THE GENERAL NOTES MAY NOT APPLY TO EVERY SITE. THE CONTRACTOR IS TO COMPLY WITH ALL APPLICABLE GENERAL NOTES IN ALL RESPECTS. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENT TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE
7. REPRESENTATION OF TRUE NORTH OTHER THAN THOSE FOUND ON THE PLOT OF THE SURVEY DRAWING SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF THE TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWING AND ANY SURVEYOR'S MARKING AT THE SITE FOR THE ESTABLISHMENT OF THE TRUE NORTH, AND SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ENGINEER.
8. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
9. THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD THE DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS SUCH AS OSHA COMPLIANCE DURING THE PROGRESS OF THE WORK. THE ENGINEER WILL NOT ADVISE NOR PROVIDE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
11. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY OF THE SECURITY OF THE SITE UNTIL COMPLETION OF THE CONSTRUCTION.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.
13. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE PROPERTY OWNER WELL IN ADVANCE OF THE STARTING DATE OF THE WORK. THE OWNER SHALL ALSO BE NOTIFIED OF A CHANGE IN THE CONSTRUCTION SCHEDULE.
14. EACH CONTRACTOR IS RESPONSIBLE FOR PULLING THE BUILDING PERMIT AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND SHALL PROVIDE THE JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS THE CONTRACTOR IN THE JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATIONS, ETC. PRIOR TO BEGIN THE WORK.
15. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND BE RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO SCHEDULE THE REQUIRED INSPECTIONS. A MINIMUM OF 48 HOURS OF NOTICE SHOULD BE GIVEN TO AUTHORITIES. AN EXTENSION IN THE CONTRACT SCHEDULE WILL NOT BE GRANTED DUE TO DELAY CAUSED BY INSPECTIONS.
16. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILTS CHANGES, REVISIONS, ADDENDA, OR CHANGES ORDERS.
17. THE CONTRACTOR IS TO PROVIDE THE OWNER WITH A FULL SET OF RECORD DRAWINGS WITH ACTUAL DIMENSIONS, ROUTING AND CIRCUITS UPON COMPLETION OF CONSTRUCTION.

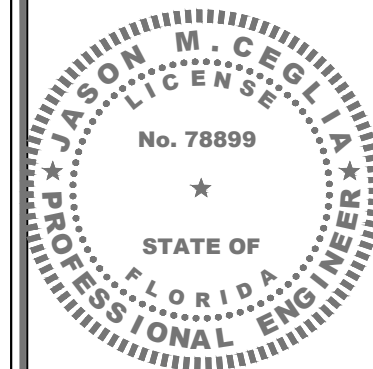
18. THE CONTRACTOR IS TO CONTACT BOTH LOCAL POWER AND TELEPHONE UTILITY COMPANIES BEFORE CONSTRUCTION BEGINS TO ORDER SERVICE, OBTAIN AND PAY ALL FEES ASSOCIATED WITH CONSTRUCTION, SCHEDULE INSTALLATION OF SERVICE, COORDINATE CONDUIT RUN/TERMINATION POINT AND OBTAIN ANY FIELD MATERIALS THAT MAY BE SUPPLIED BY THE UTILITY COMPANIES AND INSTALLED BY THE CONTRACTORS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK AND THE PROTECTION OF ALL WORK DURING CONSTRUCTION TO AVOID DAMAGE, COLLAPSE, DISTORTION, MISALIGNMENT AND ALTERATION OF ROOFING WARRANTIES.
20. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.
21. THE CONTRACTOR SHALL MONITOR ALL EXISTING STRUCTURES DURING CONSTRUCTION.
22. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN SAFE CONDITIONS PRIOR TO INSTALLATIONS, AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT.
23. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK RELATED OR NOT TO THIS CONTRACT. ANY EQUIPMENT OR MATERIAL STORAGE MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER. THE CONTRACTOR SHALL INSPECT THOROUGHLY ALL MATERIALS AND EQUIPMENT PRIOR TO ANY INSTALLATION. DAMAGED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED PERMANENTLY.
24. ALL MATERIALS SHALL BE INSTALLED PER THE MANUFACTURERS' INSTRUCTIONS.

EXISTING CONDITIONS AND STRUCTURES

1. BY SUBMITTING A BID FOR THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS THOROUGHLY REVIEWED AND UNDERSTOOD THE CONSTRUCTION DOCUMENTS, VISITED THE SITE AND IS FAMILIAR WITH THE CONDITIONS ENCOUNTERED AT THE SITE.
2. THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING WHICH SUCH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING.
3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED WILL BE ACCEPTED AS A REASON FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
4. IT IS UNDERSTOOD BY THE OWNER THAT THE CONTRACTOR IN SUBMITTING HIS BID, WARRANTS THAT HE HAS CAREFULLY EXAMINED THE SITE OF THE PROJECT TO ACQUAINT HIMSELF WITH THE SURROUNDING PROPERTIES, THE MEANS OF APPROACH TO THE SITE, THE CONDITIONS OF THE ACTUAL JOB SITE, THE FACILITIES FOR DELIVERING, STORING, PLACING, HANDLING AND THE REMOVAL OF MATERIALS AND EQUIPMENT AND ALL DIFFICULTIES THAT MAY BE ENCOUNTERED DURING THE EXECUTION OF ALL WORK IN ACCORD WITH THE CONTRACT DOCUMENTS.
5. THE LOCATION OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION AND ACCEPTS FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED THE CONTRACTOR FAILURE TO LOCATE ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK.
6. SHOULD ANY ERROR OR INCONSISTENCY APPEAR IN THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK MUST MAKE MENTION OF THE SAME TO THE ENGINEER AND OWNER FOR PROPER ADJUSTMENT AND IN NO CASE PROCEED WITH THE WORK IN UNCERTAINTY OR WITH INSUFFICIENT DRAWINGS.
7. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ENGINEER AND THE OWNER REPRESENTATIVE FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR ITS REPRESENTATIVE
8. TRADE, PRODUCT NAMES OR MANUFACTURER'S NAMES OR CATALOG NUMBERS AND INDICATIONS OF EXISTING PRODUCT TYPES SHOWN ON THE DRAWINGS ARE BELIEVED TO BE ACCURATE. IF THEY ARE DISCOVERED TO BE INACCURATE, NOTIFY ENGINEERS IMMEDIATELY AND DO NOT PROCEED WITHOUT INSTRUCTIONS.
9. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGES WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGES TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE COST OF REPAIRING OR REPLACING ANY DAMAGES AREAS.
10. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES AND EFFORTS TO PROTECT THE STRUCTURAL INTEGRITY OF EXISTING STRUCTURES. WHEN WORK IS PERFORMED IN THE VICINITY OF EXISTING STRUCTURE, THE STRUCTURAL INTEGRITY AND STABILITY SHALL BE MONITORED AT ALL TIMES DURING EVERY PHASE OF THE CONSTRUCTION.

11. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTAL DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.
12. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.
13. WHERE INDICATED ON THE PLANS, THE CONTRACTOR SHALL PAINT ALL NEW ANTENNAS SHROUDS AND RELATED MOUNTING HARDWARE TO MATCH THE EXISTING ADJACENT SURFACES, THE CONTRACTOR SHALL NOT USE A METAL BASED PAINT FOR ANTENNAS. ALL SURFACE CONTAMINATION SHALL BE REMOVED PRIOR TO PAINTING NEW SURFACES.
14. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED, IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN; AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. BEFORE YOU DIG, DRILL OR BLAST, CALL THE UNDERGROUND SERVICES ALERT NUMBER ON SHEET T1 AT THE REQUIRED TIME
15. ALL EXISTING ACTIVE SEWER, WATER GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.
16. IF AN INACTIVE ELECTRICAL, TELEPHONE, SEWER, WATER OR ANY OTHER UTILITY ARE ENCOUNTERED AND INTERFERE WITH THE EXECUTION OF THE WORK, THE CONTRACTOR IS TO REMOVE THE UTILITY AND CAP, PLUG OR OTHERWISE TERMINATE THE UTILITY AT A POINT WHERE IT NO LONGER CONFLICT WITH THE WORK. THE UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE UTILITY COMPANIES RECOMMENDATIONS AND PER LOCAL AUTHORITY HAVING JURISDICTION.
17. ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.
18. MAINTAIN FLOW FOR ALL EXISTING UTILITIES.
19. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.
20. MAINTAIN FINISHED SURFACES CLEAN, UNARMED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE OWNER.
21. IN THE EVENT OF DAMAGE TO AN EXISTING STRUCTURE, THE CONTRACTOR SHALL NOTIFY THE OWNER OR ITS REPRESENTATIVE IMMEDIATELY, AND THEN PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS TO THE SATISFACTION OF THE OWNER. THE OWNER MAY ELECT TO USE A THIRD PARTY CONTRACTOR TO PERFORM THE REPAIRS. ALL EXPENSES ASSOCIATED WITH THE REPAIRS AND REPLACEMENTS SHALL BE PAID BY THE GENERAL CONTRACTOR SELECTED FOR THIS CONTRACT.
22. ADDITIONAL TIME REQUIRED TO SECURE REPLACEMENT AND MAKE REPAIRS WILL NOT BE CONSIDERED BY THE OWNER TO JUSTIFY AN EXTENSION IN THE CONTRACT TIME FOR COMPLETION.

DO NOT SCALE DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY ERRORS OR OMISSIONS. NO VARIATIONS OR MODIFICATIONS TO WORK SHOWN SHALL BE IMPLEMENTED WITHOUT PRIOR WRITTEN APPROVAL. ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED BY THE LATEST REVISION. ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF MORRISON HERSHFIELD CORPORATION. NEITHER MORRISON HERSHFIELD NOR THE ARCHITECT WILL BE PROVIDING CONSTRUCTION REVIEW OF THIS PROJECT.



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No.	Date	Action
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1	11/19/21	REVIEW COMMENTS
0	07/28/21	ISSUED FOR PERMIT
C	07/26/21	REVIEW COMMENTS
B	07/02/21	PHOTOMETRIC REVISION
A	06/23/21	ISSUED FOR CLIENT REVIEW

Tower Owner/Client:



Consultant:



Project:

SFL10217
R.O.W. OF PINE TREE DRIVE
NEAR ADDRESS:
4090 PINE TREE DRIVE
MIAMI BEACH, FL 33140

Drawing Title:

SPECIFICATIONS

Project No.:

1801686

Designer:

SB

Date:

06/22/21

Drawn By:

RC

Checked By:

RL

PM Review:

RL

Client Approval

Issue No.:

0

Drawing No.

SP-1

GENERAL PROVISIONS CONT'D

ACCESS

1. USE MOST DIRECT ROUTE FROM PUBLIC STREET AS AGREED TO BY OWNER.
2. COORDINATE WITH SITE OWNER CONSTRUCTION SCHEDULE & SITE ACCESS. ENSURE THAT THE OWNER OF PARENT PARCEL IS NOTIFIED IN WRITING OF CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL COORDINATE ALL SPECIAL CONSIDERATIONS OF CONSTRUCTION SUCH AS NOISY OPERATION, INTERRUPTION OF ANY MECHANICAL AND/OR ELECTRICAL SERVICES, MATERIAL DELIVERIES AND STORAGE, STAGING AREA, CRANE LIFTS WITH THE OWNER PRIOR TO THE START OF THE WORK.
4. CONTRACTOR SHALL COORDINATE WITH AN OWNER REPRESENTATIVE, THE TEMPORARY REMOVAL OF FENCE, LANDSCAPING & ANY EXPECTED DAMAGE TO ACCESS ROAD OR ADJACENT REPAIR OF PROPERTY PRIOR TO COMMENCING THE WORK.
5. THE CONTRACTOR SHALL COORDINATE WORK HOURS & STAGING AREAS WITH OWNER.
6. CONTRACTOR TO NOTIFY PROPERTY OWNER OF CONSTRUCTION START DATE WELL IN ADVANCE OF CONSTRUCTION.

SITE MAINTENANCE

1. REMOVE STAINING OR REACTIVE MATERIALS FROM NEW AND EXISTING SURFACES IMMEDIATELY. REMOVE HAZARDOUS ACCUMULATIONS OF DEBRIS PROMPTLY, AT LEAST DAILY. CONFINE DUST PRODUCING OPERATIONS DURING CUTTING, DRILLING, PAINTING AND FINISHING. THERE SHOULD BE NO OVER SPRAYING PAINT IN PARKING AREA VACUUM IMMEDIATELY AFTER COMPLETION.
2. THERE SHALL NOT BE ANY CREATION OF NOISE OUTSIDE THE NORMAL HOURS OF 7 AM TO 6 PM, UNLESS OTHERWISE AGREED UPON WITH THE OWNER. NOISE SHOULD BE KEPT TO A MINIMUM THROUGHOUT CONSTRUCTION.
3. NOISE AND EXISTING BUILDING STRUCTURE VIBRATION GENERATED BY CONSTRUCTION PROCEDURES, EQUIPMENT, TOOL AND OPERATIONS ARE TO BE KEPT TO A PRACTICABLE MINIMUM. WHERE USE OF HIGH NOISE LEVEL EQUIPMENT IS UNAVOIDABLE, AND CAN BE HEARD, CONFINE TO HOURS BEFORE 7 AM. AND AFTER 6 P.M. MONDAY THROUGH FRIDAY OR AS AGREED TO BY BUILDING OWNER.
4. THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2-ABC WITHIN 75FT OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND GROUNDS, REMOVE AND DISPOSE LEGALLY OFF SITE ALL RUBBISH, WASTE MATERIALS, UTTER, AND ALL FOREIGN SUBSTANCES. REMOVE PETROCHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE.
6. THE SITE SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION IN ORDER TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE PREMISES. EXISTING AND NEW EQUIPMENT AND MATERIALS REMAIN THE CONTRACTOR'S RESPONSIBILITY AT ALL TIME DURING CONSTRUCTION.
7. THE TENANT'S INGRESS AND EGRESS OF THE SITE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
8. THE CONTRACTOR SHALL TAKE ALL MEASURE NECESSARY TO MAINTAIN POLLUTION CONTROL COMPLY WITH ALL GOVERNING REGULATION PERTAINING TO ENVIRONMENTAL PROTECTION, AND PROMPTLY REMOVE ALL DEBRIS AND ACCUMULATION OF MATERIALS RESULTING FROM THE WORK.

TEMPORARY FACILITIES

1. THE CONTRACTOR SHALL CONSIDER THAT WATER, POWER AND LIGHT ARE NOT AVAILABLE AT THIS SITE WHEN PERMANENT POWER IS ESTABLISHED, ALL CONTRACTORS MAY USE THE SERVICE CONNECTION FOR PRODUCTION WORK ONLY, PROVIDED THAT ELECTRICAL CODES AND CONNECTIONS ARE FURNISHED BY THE CONTRACTORS AND ARE DISCONNECTED AND PROPERLY STORED DURING NON-WORKING HOURS.
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.

SITE WORK

CLEARING AND GRUBBING

1. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY THE TREES NECESSARY FOR THE CONSTRUCTION OF THE FACILITY SHALL BE REMOVED. ANY DAMAGES TO PROPERTY OUTSIDE THE CONSTRUCTION LIMIT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
2. THE CONTRACTOR SHALL PROTECT EXISTING TREES, VEGETATION, LANDSCAPING MATERIALS AND SITE IMPROVEMENTS NOT SCHEDULED FOR CLEARING OR REMOVAL WHICH MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES.
3. REMOVE AND LEGALLY DISPOSE OF CLEARED MATERIALS.

EXCAVATION AND BACKFILL

1. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
2. ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE OWNER'S REPRESENTATIVE ON THE DRAWINGS OR GEO-TECHNICAL REPORT RECOMMENDATIONS.
3. THIS PROJECT INCLUDES:
 - EXCAVATION, TRENCHING, FILLING, COMPACTING AND GRADING FOR STRUCTURES, SITE IMPROVEMENTS, ACCESS ROAD AND UTILITIES.
 - ALL MATERIALS FOR SUB-BASE, DRAINAGE FILL, BACK FILL AND GRAVEL FOR SLABS, PAVEMENT AND IMPROVEMENTS.
4. FILL LAYERS THAT REQUIRE COMPACTION SHALL HAVE A MAXIMUM THICKNESS OF 6 INCHES.
5. THE COMPACTING UNDER STRUCTURES, BUILDING SLABS, STEPS, PAVEMENT AND WALKWAYS SHALL BE 95% MAXIMUM DENSITY, ASTM D-1557, TESTED IN EACH OF THE COMPACTING LAYERS AT EACH COMPACTING SITE, OR AT LEAST IN EACH 100CU. PER YARDS OF MATERIAL VOLUME.
6. THE COMPACTING UNDER SOD OR UNPAVED AREAS SHALL BE 85% MAXIMUM DENSITY, ASTM D1557.
7. AREAS THAT DO NOT MEET ASTM D-1557 REQUIREMENTS MUST BE RECOMPACTED AT THE CONTRACTOR'S EXPENSES.
8. ALL TRENCH EXCAVATIONS AND ANY REQUIRED SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION.
9. THE USE OF EXPLOSIVE IS PROHIBITED ON SITE.
10. ALL EXCAVATION ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIAL HORIZONTAL, UNDISTURBED AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQUIRED.
11. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH OTHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
12. BACK FILL SHALL USE APPROVED MATERIALS CONSISTING OF LOAM, SANDY CLAY, SAND, GRAVEL OR SOFT SHALE AND SHALL BE FREE FROM CLOUDS OR STONES OVER 2 1/2".
13. AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE AND BEFORE BACK FILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIALS SUCH AS VEGETATION, DEBRIS, TRASH AND ANY FOREIGN MATERIAL.

DRAINAGE

1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AWAY FROM BUILDING OR EQUIPMENT ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
3. ANY DRAINFIELD TILE OR DRAINAGE STRUCTURE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL OR BETTER CONDITIONS AFTER CONSTRUCTION AND BE NOTED ON THE RECORD DOCUMENTS.

GRADING

1. ALL GROUNDING, UTILITIES AND UNDERGROUND EQUIPMENT EXPOSED BY GRADING SHALL BE REPLACED AND PROPERLY CONNECTED TO THE EXISTING PORTION OF THE ORIGINAL SYSTEM PER APPROVED CODES AND JURISDICTION REQUIREMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AND RE-GRADING ROADWAY AND/OR FIELD FOLLOWING THE INSTALLATION OF UTILITIES.
3. PROTECT EXISTING GRAVEL SURFACING AND SUB-GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD EQUIPMENT LOADS. REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUB-GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE RESTORED TO MATCH THE ADJACENT UNDAAGED GRAVEL SURFACING AND SHALL BE THE SAME THICKNESS.

DEMOLITION & EXISTING STRUCTURAL ALTERATION

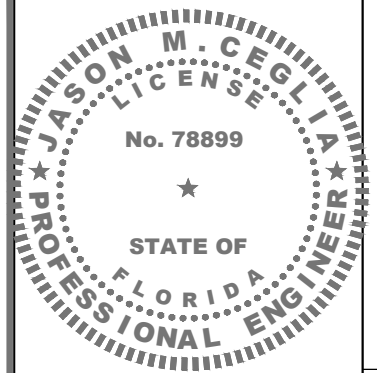
DEMOLITION

1. GENERAL CONTRACTOR IS TO DEMOLISH AND REMOVE FROM SITE (AND DISPOSE OF APPROPRIATELY) ALL ITEMS NOTED FOR DEMOLITION IN THE ARCHITECTURAL, CIVIL, ELECTRICAL AND/OR STRUCTURAL DRAWINGS, INCLUDING BELOW GRADE FOUNDATION AND STRUCTURES. CONTRACTOR SHALL COORDINATE WITH THE OWNER REPRESENTATIVE THE DISPOSAL OF EQUIPMENT & MATERIALS.
2. GENERAL CONTRACTOR IS TO EXERCISE UTMOST CARE DURING DEMOLITION AND PROMPTLY INFORM THE ENGINEER OF ANY DEVIATION TO THE EXISTING STRUCTURE FROM WHAT IS SHOWN IN THESE PLANS PRIOR TO PROCEEDING WITH THE WORK.
3. GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SHORING, BRACING, PROVIDING LATERAL SUPPORT, AND FOR MAINTAINING THE INTEGRITY OF THE EXISTING STRUCTURE DURING ALL PHASES OF THE DEMOLITION AND CONSTRUCTION AND SHALL PROVIDE, IF REQUIRED, SIGNED & SEALED SHOP DRAWINGS, BY A REGISTERED PROFESSIONAL ENGINEER, FOR THE SHORING OF ALL WALLS, BEAMS, SLABS, ROOF JOISTS, OR OTHER ELEVATED STRUCTURAL ITEMS, THAT ARE HAVING THE SUPPORT BELOW NOTED FOR DEMOLITION.
4. ANY DAMAGE DUE TO DEMOLITION, OR OTHER CONSTRUCTION ACTIVITIES, DONE TO ANY EXISTING SURFACE TO REMAIN SHALL BE REPAIRED TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.

CUTTING & PATCHING

1. WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING FINISHES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT AND A NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK AND FINISH TO MATCH ADJACENT EXISTING SURFACES.
2. REPAIR, PATCH, FINISH AND/OR REFINISH AS APPLICABLE TO MATCH ADJACENT EXISTING FINISHES THOSE EXISTING SURFACES DAMAGED OR NEW PROPOSED SURFACES DURING PERFORMANCE OF THE WORK UNDER THIS CONTRACT.

DO NOT SCALE DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY ERRORS OR OMISSIONS. NO VARIATIONS OR MODIFICATIONS TO WORK SHOWN SHALL BE IMPLEMENTED WITHOUT PRIOR WRITTEN APPROVAL. ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED BY THE LATEST REVISION. ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF MORRISON HERSHFIELD CORPORATION. NEITHER MORRISON HERSHFIELD NOR THE ARCHITECT WILL BE PROVIDING CONSTRUCTION REVIEW OF THIS PROJECT.



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Consultant:



Project:

SFL10217
 R.O.W. OF PINE TREE DRIVE
 NEAR ADDRESS:
 4090 PINE TREE DRIVE
 MIAMI BEACH, FL 33140

Drawing Title:

SPECIFICATIONS

Project No.: 1801686	
Designer: SB	Date: 06/22/21
Drawn By: RC	Checked By: RL
PM Review: RL	Client Approval
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ELECTRICAL NOTES

GENERAL

- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, TRANSPORTATION, CONSTRUCTION TOOLS, ETC., FOR THE INSTALLATION OF COMPLETE AND PROPERLY OPERATING SYSTEMS. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LAWS AND ORDINANCES OF ALL AUTHORITIES HAVING JURISDICTION AND WITH ALL ASSOCIATED UTILITY COMPANY REGULATIONS AND APPLICABLE REQUIREMENTS. INSTALLATION WILL ALSO COMPLY WITH THE LATEST EDITIONS OF ALL CODES AND STANDARDS OF THE ENTITIES LISTED ON SHEET SP1, NOTE 2
- THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
- THE CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS AND PAY ALL REQUIRED FEES.
- RECORD DRAWINGS: MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DOCUMENTS WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT.
- ALL BROCHURES, OPERATION MANUALS, CATALOGS, SHOP DRAWINGS, SPECIFICATIONS, ETC., SHALL BE TURNED OVER TO THE CARRIER AT THE COMPLETION OF THE PROJECT.
- GUARANTEE/WARRANTY: GUARANTEE INSTALLATION TO BE FREE OF DEFECTS, SHORTS, GROUND, ETC., FOR A PERIOD OF ONE YEAR. FURNISH WARRANTY SO THE DEFECTIVE MATERIAL AND/OR WORKMANSHIP WILL BE REPAIRED/REPLACED IMMEDIATELY UPON NOTIFICATION AT NO COST TO THE OWNER FOR PERIOD OF WARRANTY. IF, AFTER THIRTY (30) DAYS THE CORRECTIONS ARE NOT COMPLETE, THE OWNER RESERVES THE OPTION OF ARRANGING FOR THE NECESSARY REPAIRS AND BACKCHARGING THE CONTRACTOR FOR THE WORK
- THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES, AS NECESSARY.
- DO NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER OF THAT SERVICE AND WRITTEN PERMISSION OF THIS INSTALLATION'S CARRIER.
- CHANGES: NO ADDITIONAL COSTS FOR LABOR OR MATERIALS WILL BE ALLOWED FOR CHANGES OR MODIFICATIONS MADE UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE ARCHITECT, ENGINEER OR OWNER IN THE FORM OF A CHANGE ORDER.
- DRAWINGS: ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT TO BE SCALED.
- DISCREPANCIES: DISCREPANCIES ON THESE PLANS, SPECIFICATIONS, ETC., MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
- SURVEY AND CONDITIONS: VISIT THE JOB SITE PRIOR TO SUBMITTING BID, AND MAKE A SURVEY OF EXISTING CONDITIONS WHICH MAY AFFECT THE WORK TO BE PERFORMED. NO OTHER ALLOWANCES WILL BE GIVEN FOR THE SITE CONDITION.
- CO-OPERATION: CO-OPERATE WITH OTHER CONTRACTORS AND SUBCONTRACTORS ON SITE ARRANGE AND EXECUTE WORK IN SUCH A MANNER AS REQUIRED FOR THE SATISFACTORY AND EFFICIENT CONSTRUCTION OF THIS PROJECT BY ALL TRADES CONCERNED.
- TEMPORARY POWER: ARRANGE AND PAY FOR THE CARRIER'S TEMPORARY POWER DURING CONSTRUCTION.
- INSTALLATION SHALL COMPLY SPECIFICALLY WITH ENGINEERING STANDARDS MANUAL ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO COMMENCEMENT OF WORK
- PROCUREMENT VERIFICATION: PROVIDE AN ITEMIZED CERTIFICATION TO THE PROJECT MANAGER THAT EQUIPMENT AND RELATED HARDWARE HAVE BEEN ORDERED WITHIN 24 HOURS OF NOTICE TO PROCEED.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

INSPECTIONS

- GENERAL: DURING AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT AND IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT.
- INSPECTIONS REQUIRED: AS PER THE LAWS AND REGULATIONS OF THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE
- INSPECTION AGENCY: APPROVED BY THE LOCAL MUNICIPALITY/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE
- CERTIFICATES: SUBMIT ALL REQUIRED INSPECTION CERTIFICATES TO THE CARRIER AND UTILITY.

HANGERS AND SUPPORTS

- MATERIALS: ALL HANGERS, SUPPORTS, FASTENERS AND HARDWARE SHALL BE ZINC COATED OR OF EQUIVALENT CORROSION RESISTANCE BY TREATMENT OR INHERENT PROPERTY AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION. PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIP GALVANIZED.

- TYPES: HANGERS, STRAPS, RISER SUPPORTS, CLAMPS, U-CHANNEL, THREADED RODS, ETC., AS INDICATED OR REQUIRED.
- INSTALLATION: RIGIDLY SUPPORT AND SECURE ALL MATERIAL. RACEWAY AND EQUIPMENT TO BUILDING STRUCTURE USING HANGERS, SUPPORTS AND FASTENERS SUITABLE FOR THE USE ON MATERIALS AND LOADS ENCOUNTERED. PROVIDE ALL NECESSARY HARDWARE. PROVIDE CONDUIT SUPPORTS AT MAXIMUM 5 FT. O.C.
- STRUCTURAL MEMBERS: DO NOT CUT, DRILL OR WELD ANY STRUCTURAL MEMBER EXCEPT AS SPECIFICALLY APPROVED BY THE ENGINEER.
- MISCELLANEOUS SUPPORTS: PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT STEEL BRACKETS, ANGLES, FASTENERS AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMENT.
- ONE-HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 3/4 INCHES.

ENCLOSURES / WIREWAYS

- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND BE RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- JUNCTION BOXES: JUNCTION BOXES SHALL BE A MINIMUM SIZE OF 4 INCHES SQUARE BY 1-1/4 INCHES DEEP.

HOLES, SLEEVES AND OPENINGS

- GENERAL: PROVIDE ALL HOLES, SLEEVES AND OPENINGS REQUIRED FOR THE COMPLETION OF WORK AND RESTORE ALL DAMAGED SURFACES TO MATCH SURROUNDING SURFACES.
- CONDUIT PENETRATIONS: SIZE CORE-DRILLED HOLES SO THAT AN ANNULAR SPACE OF NOT LESS THAN 1/4 INCH AND NOT MORE THAN 1 INCH IS LEFT AROUND THE CONDUIT, PIPE, ETC. WHEN OPENINGS ARE CUT IN LIEU OF CORE-DRILLED, PROVIDE SLEEVE IN ROUGH OPENING. SIZE SLEEVES TO PROVIDE AN ANNULAR SPACE OF NOT LESS THAN 1/4 INCH AND NOT MORE THAN 1 INCH AROUND THE CONDUIT, PIPE, ETC. PATCH AROUND SLEEVE TO MATCH SURROUNDING SURFACE.
- PROVIDE APPROPRIATE WEATHERPROOFING MATERIALS FOR PENETRATIONS NEEDING TO BE SEALED FROM POTENTIAL WATER INTRUSION. PROVIDE FIREPROOF MATERIALS FOR PENETRATIONS REQUIRING A FIRE RATED SEAL REFER TO CUTTING AND PATCHING NOTES UNDER SECTION 1 - GENERAL
- GENERAL: PROVIDE ALL CUTTING, DRILLING, FITTING AND PATCHING NECESSARY FOR ACCOMPLISHING THE WORK. THIS INCLUDES REMOVAL AND REPLACEMENT OF DEFECTIVE WORK AND WORK NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- REPAIRS: REPAIR ANY AND ALL DAMAGE TO WORK OF OTHER TRADES CAUSED BY CUTTING AND PATCHING OPERATIONS USING SKILLED MECHANICS OF THE TRADES INVOLVED.
- DO NOT CUT MAJOR STRUCTURAL ELEMENTS WITHOUT APPROVAL. PATCHING SHALL BE OF QUALITY EQUAL TO AND OF MATCHING APPEARANCE OF EXISTING CONSTRUCTION.

CONDUCTORS

- USE 98% CONDUCTIVITY COPPER WITH TYPE XHHW-2 INSULATION, 600VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG, STRANDED CONDUCTORS FOR WIRE LARGER THAN NO. 8 AWG. USE PRESSURE-TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER, SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER. ALUMINUM CONDUCTORS SHALL NOT BE USED.
- NO BX, MC OR ROMEX CABLE SHALL BE PERMITTED.
- EACH END OF EVERY POWER, GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAP WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL REMOVE SHARP EDGES.
- ALL CONDUIT SIZES SPECIFIED IN THIS DOCUMENT WERE DONE SO TAKING INTO ACCOUNT THE USE OF COPPER CONDUCTORS.
- CONTRACTOR SHALL VERIFY LENGTH OF ALL CONDUCTORS RUNS AND INCREASE WIRE SIZE AS REQUIRED SUCH THAT VOLTAGE DROP DOES NOT EXCEED 5% FOR BOTH BRANCH CIRCUITS AND FEEDERS COMBINED.

ELECTRICAL SERVICE

- GENERAL: COMPLY WITH AND CO-ORDINATE ALL REQUIREMENTS OF THE UTILITY COMPANY.
- SHORT CIRCUIT RATINGS: PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT.
- CONTRACTOR TO VERIFY UTILITY CO. FAULT CURRENT AND ENSURE THAT ALL EQUIPMENT MEETS FAULT CURRENT (AT A MINIMUM ALL EQUIPMENT TO BE 10,000 AIC).
- THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE ELECTRIC UTILITY RELATIVE TO A TIMELY INSTALLATION OF THE NEW SERVICE AND PAYING ALL ASSOCIATED FEES.
- IDENTIFICATION: IDENTIFY SERVICE DISCONNECTION MEANS WITH PERMANENT NAMEPLATE.
- THE LOCATION SHOWN FOR A UTILITY POLE OR CONNECTION TO NEW UTILITIES IS FOR CONCEPTUAL USE ONLY. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION WITH THE ELECTRIC UTILITY.
- LOCATION AND ARRANGEMENTS: DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATION OF EQUIPMENT, AND ARE NOT TO BE SCALED PROPER JUDGMENT MUST BE EXERCISED IN THE EXECUTION TO ENSURE THE BEST POSSIBLE INSTALLATION.
- PANEL AND DISTRIBUTION BOARD IDENTIFICATION: SWITCHBOARDS, PANELBOARDS, TRANSFORMERS AND DISTRIBUTION SECTIONS SHALL BE IDENTIFIED WITH ENGRAVED, WHITE ON BLACK, LAMINATED, RIGID PHENOLIC NAMEPLATES WITH 1/4 INCH CHARACTERS, SECURELY AFFIXED TO FACE OF CABINET.

CHECKOUT, TESTING AND ADJUSTING

- CORRECTION/REPLACEMENT: AFTER TESTING BY CONTRACTOR, OWNER OR ENGINEER, CORRECT ANY DEFICIENCIES AND REPLACE MATERIALS AND EQUIPMENT SHOWN TO BE DEFECTIVE OR UNABLE TO PERFORM AT DESIGN OR RATED CAPACITY.
- POWER CONDUCTORS: CONTRACTOR SHALL CONDUCT A CONTINUITY AND INSULATION TEST ON CONDUCTORS BETWEEN SERVICE DISCONNECT SWITCH AND LOAD CENTER.
- WHEN SITE POWER IS DERIVED FROM A 3-PHASE SOURCE, LOAD READINGS WILL BE TAKEN AND RECORDED TO MAINTAIN A BALANCED LOAD AT THE PRIMARY SOURCE RECORDS SHALL BE RETURNED TO THE OWNER'S REPRESENTATIVE.

RACEWAY SYSTEMS / CONDUIT

- GRS CONDUITS, WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LB. TEST POLYETHYLENE CORD.
- ALL CONDUIT BENDS SHALL BE MINIMUM OF 24 INCH RADIUS.
- ALL METALLIC RACEWAYS SHALL BE GROUNDED PER NEC.
- THE CONTRACTOR SHALL FIELD VERIFY THE BEST AND LEAST DISRUPTIVE ROUTING OF CONDUITS, CABLE TRAYS AND DUCTS. CONDUIT ROUTING IS SHOWN AS A GUIDE ONLY, ACTUAL CONDUIT PLACEMENT IS TO BE DONE IN A PROFESSIONAL MANNER.

BELOW GRADE

- THIS SITE INCLUDES NEW CRITICAL UNDERGROUND ELECTRIC, TELEPHONE AND OTHER SERVICES IN THE VICINITY OF OTHER UNDERGROUND SERVICES AND EQUIPMENT SUPPORTS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID SERVICE DISRUPTION TO THESE FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT ELECTRIC AND TELEPHONE, AND ALL OTHER APPROPRIATE AGENCIES PRIOR TO EXCAVATION AT THIS SITE.
- PRIOR TO EXCAVATION, A UTILITY MARK OUT SHALL BE DONE TO LOCATE EXISTING UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES MUST BE LOCATED AND MARKED OUT PRIOR TO ANY EXCAVATION WORK BEING PERFORMED. PHOTOS SHALL BE TAKEN OF ALL UNDERGROUND WORK AND GIVEN TO THE CARRIER DURING THE SITE'S HANDOFF.
- ALL TRENCHING AND EXCAVATION WITHIN EXISTING COMPOUNDS MUST BE PERFORMED BY HAND IN ACCORDANCE WITH THE OWNER'S SPECIFICATIONS. ANY OTHER METHODS OF DIGGING MUST FIRST BE APPROVED BY THE CONSTRUCTION MANAGER.
- UNDERGROUND CONDUIT SHALL BE ENCASED IN REINFORCED CONCRETE IN AREAS OF VEHICLE TRAFFIC. CONCRETE ENCASEMENT SHALL BE 3" MINIMUM ALL AROUND AND BETWEEN CONDUITS.
- ALL BURIED CONDUIT SHALL BE IDENTIFIED WITH ELECTRICAL MARKER TAPE WHEN TRENCHING. TAPE SHALL BE PLACED 12" ABOVE CONDUIT FOR EASY IDENTIFICATION.

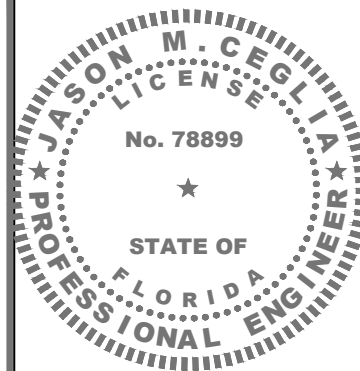
EQUIPMENT

- THE MAIN CIRCUIT BREAKER SHALL BE RATED FOR STANDARD A.I.C. RATING HIGHER THAN INCOMING EQUIPMENT A.I.C.
- ALL EQUIPMENT SHALL BE BRACED FOR STANDARD A.I.C. RATING HIGHER THAN INCOMING FROM UTILITY CO.
- THE CONTRACTOR SHALL PROVIDE AN ITEMIZED CERTIFICATION TO THE CARRIER OF ALL EQUIPMENT AND RELATED HARDWARE, SPECIFIED TO BE PURCHASED AND INSTALLED BY THE CONTRACTOR, WHERE ORDERED WITHIN 24 HRS OF THE NOTICE TO PROCEED.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH ITS VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND BE RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2, AND BE RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (WP OR BETTER) OUTDOORS.

TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS)

- TVSS DEVICES FOR AC POWER SHALL BE INSTALLED IN ALL EXISTING FACILITIES THAT ARE MISSING TVSS DEVICES OR HAVE UNSUITABLE TVSS DEVICES.
- THE AC POWER COMMON MODE SURGE SUPPRESSOR SHALL BE CONNECTED TO THE COMMERCIAL POWER INPUT SIDE OF THE MANUAL TRANSFER SWITCH.
- IN MARKETS WITH LIGHTNING ZONE > OR = TO 4, RF TVSS DEVICE SHALL BE INSTALLED AT THE ENTRANCE TO THE SHELTER OR AS CLOSE AS POSSIBLE TO THE BTS CABINET FOR OUTDOOR SITES, TO PROTECT AGAINST LIGHTNING AND TRANSIENT VOLTAGES.
- A T1 TRANSPORT TVSS DEVICE SHALL BE INSTALLED AT ALL SITES BETWEEN THE NIU AND THE BTS.

DO NOT SCALE DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY ERRORS OR OMISSIONS. NO VARIATIONS OR MODIFICATIONS TO WORK SHOWN SHALL BE IMPLEMENTED WITHOUT PRIOR WRITTEN APPROVAL. ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED BY THE LATEST REVISION. ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF MORRISON HERSHFIELD CORPORATION. NEITHER MORRISON HERSHFIELD NOR THE ARCHITECT WILL BE PROVIDING CONSTRUCTION REVIEW OF THIS PROJECT.



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1	11/19/21	REVIEW COMMENTS
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C	07/26/21	REVIEW COMMENTS
B	07/02/21	PHOTOMETRIC REVISION
A	06/23/21	ISSUED FOR CLIENT REVIEW
No.	Date	Action

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Drawing Title:
SPECIFICATIONS

Project No.: 1801686	
Designer: SB	Date: 06/22/21
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