

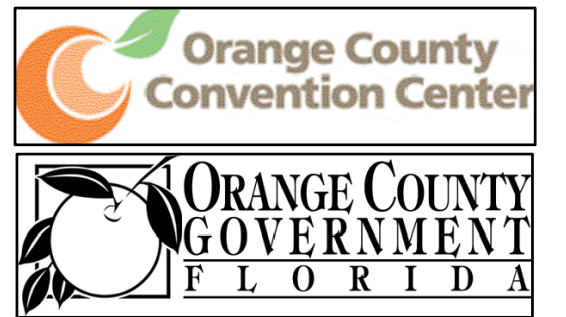
# ORANGE COUNTY CONVENTION CENTER

## North/South Building Exterior Show Power Upgrades

### ORANGE COUNTY, FL

#### Capital Planning Division

#### 9400 International Drive, Orlando, FL 32819



Orange County  
Convention Center  
North/South Building  
Exterior Show Power  
Upgrades

Client  
Orange County  
Convention Center  
P.O. Box 691509  
Orlando, Florida 32869

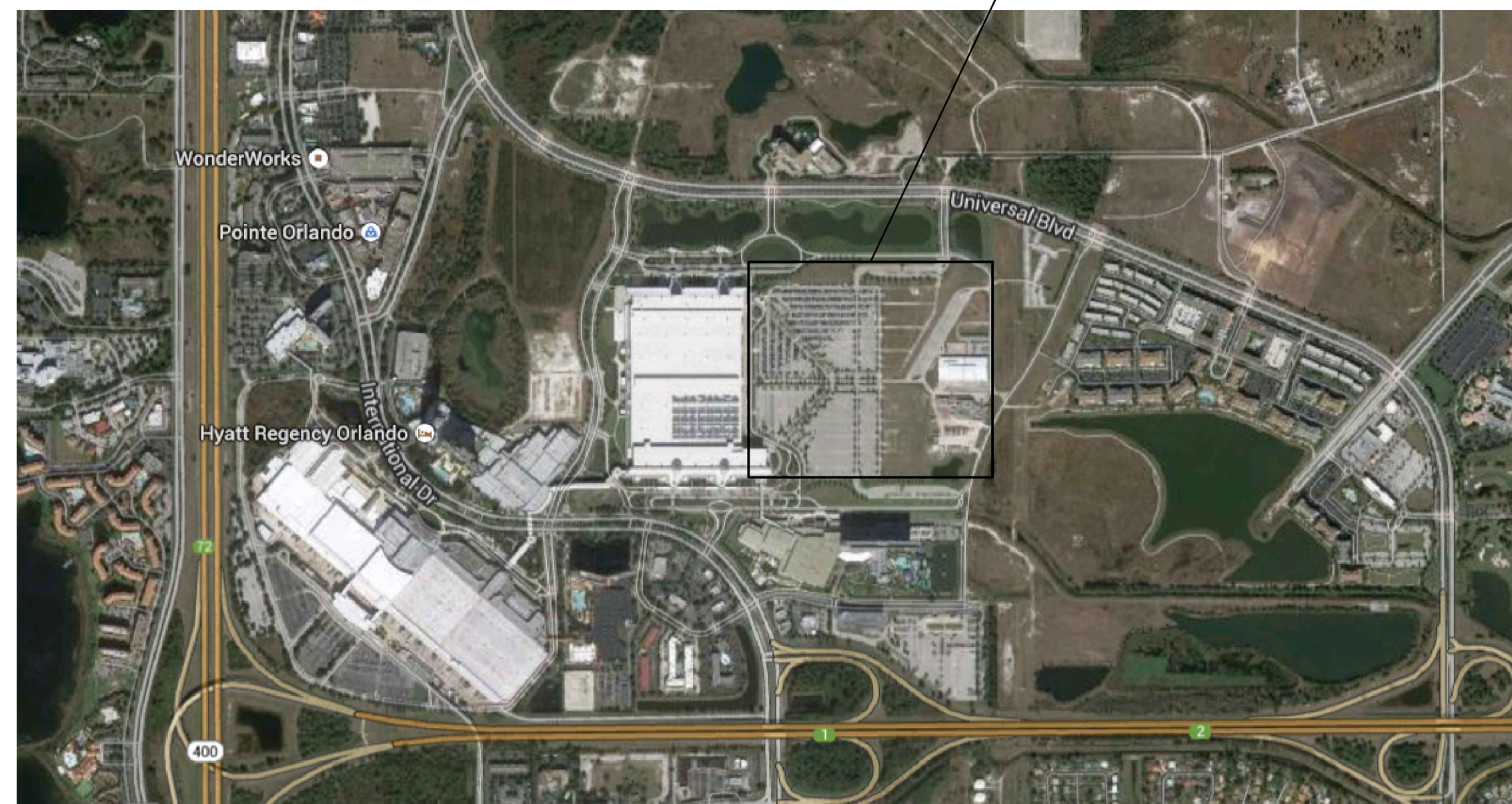
Electrical Engineer:



Civil Engineer:



FLORIDA ENGINEERING GROUP, INC.  
5127 S. ORANGE AVE., SUITE 200  
ORLANDO, FLORIDA 32809  
407-895-0324  
www.feg-inc.us



Location Map

### GENERAL SCOPE OF WORK

THIS PROJECT SITE IS LOCATED WITHIN AND ADJACENT TO THE NORTH-SOUTH CONVENTION CENTER PARKING LOT. THIS PROJECT CONSISTS OF THE FOLLOWING TASKS:

#### BASE BID

##### ELECTRICAL

- TO PROVIDE (3) EXTERIOR MAIN ELECTRICAL SERVICES, EACH SERVICE SHALL CONSIST OF A: (3 PHASE, 277/480V, 1600A MAIN CIRCUIT BREAKER SWITCHBOARD) FED FROM AN OUC UTILITY PAD MOUNTED TRANSFORMER.
- TO PROVIDE EXTERIOR POWER CONNECTIONS AT (6) LOCATIONS WITHIN THE PARKING LOT AREA, EACH LOCATION SHALL HAVE CONDUIT, WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A NEW CONCRETE PEDESTAL; ALSO TO ACCOUNT FOR (2) ADDITIONAL FUTURE LOCATIONS IN THE AREA THIS SHALL CONSIST OF PROVIDING EMPTY CONDUITS ONLY (NO WIRING AND NO DISCONNECTS).
- TO PROVIDE EXTERIOR POWER CONNECTIONS AT (2) LOCATIONS WITHIN THE OVERFLOW PARKING AREA, EACH LOCATION SHALL HAVE CONDUIT, WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A CONCRETE PEDESTAL; ALSO TO ACCOUNT FOR (2) ADDITIONAL FUTURE LOCATIONS IN THE AREA THIS SHALL CONSIST OF PROVIDING EMPTY CONDUITS ONLY (NO WIRING AND NO DISCONNECTS).

##### CIVIL

- CONSTRUCTION OF A WATER DISTRIBUTION SYSTEM WITH A TOTAL OF 2,922 L.F. WATER SERVICE PIPING TO PROVIDE 1 INCH WATER SERVICE AT 12 LOCATIONS WITHIN THE PARKING LOT.
- CONSTRUCTION OF AN OVERFLOW PARKING LOT EAST OF THE CURRENT NS BUILDING PARKING LOT. THIS 12 ACRE GRASS AREA IS PRESENTLY AN UNPAVED OVERFLOW PARKING LOT. THE PROPOSED OVERFLOW PARKING LOT CONSTRUCTION CONSISTS OF PAVED DRIVE AISLES WITH GRASS PARKING SPACES AND DRAINAGE STRUCTURE IMPROVEMENTS. THE IMPROVEMENTS INCLUDE 26 DRAINAGE STRUCTURES, 2,505 L.F. STORM PIPING AND 21,831 S.Y. OF PAVEMENT.

#### ADDITIVES

##### ADDITIVE E1

- TO PROVIDE WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A CONCRETE PEDESTAL AT EACH OF THE (2) ADDITIONAL FUTURE LOCATIONS WITHIN THE OVERFLOW PARKING AREA.

##### ADDITIVE E2

- TO PROVIDE WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A CONCRETE PEDESTAL AT EACH OF THE (2) ADDITIONAL FUTURE LOCATIONS WITHIN THE PARKING LOT AREA.

#### ALTERNATES

##### ALTERNATE C1

- TO REPLACE THE BASE BID PAVEMENT DESIGN SECTION WITH 12" STABILIZATION, 6" BASE AND 1.5" ASPHALT PAVEMENT.

### SHEET INDEX

#### GENERAL

T001 TITLE SHEET

#### ELECTRICAL

E 0.01 ELECTRICAL GENERAL INFORMATION  
E 1.00 ELECTRICAL SITE PLAN  
E 2.00 ELECTRICAL ONE-LINE DIAGRAM  
E 3.00 ELECTRICAL DETAILS

#### CIVIL

C - 1 OVERALL SITE PLAN  
C - 2A SITE GEOMETRY, PAVING, GRADING, AND DRAINAGE PLAN (NORTH)  
C - 2B SITE GEOMETRY, PAVING, GRADING, AND DRAINAGE PLAN (SOUTH)  
C - 3A SITE UTILITY PLAN (NORTH)  
C - 3B SITE UTILITY PLAN (SOUTH)

### PROJECT TEAM

<b>Civil</b>	<b>Electrical</b>
Florida Engineering Group 5127 S. Orange Ave Suite #200 Orlando, FL 32809 Phone: (407) 895-0324 Fax: (407) 895-0325	RTM Engineering Consultants 952 S Semoran Blvd Suite 100 Winter Park, FL 32792 Phone: (407) 678-2055 Fax: (407) 678-2088 contact: Mitesh Smart

## BOARD OF COUNTY COMMISSIONERS

10/12/2016  
Maen Jauhary, PE 76232 (FL)

Engineer of Record

10/12/2016  
Maen Jauhary, PE 76232 (FL)

Issuance:

PROGRESS SET

#	DATE	DESCRIPTION
1	10/12/16	PERMIT SET

ELECTRICAL GENERAL INFORMATION

Sheet Title

Job No. 16.0CCC.008  
Date October 12, 2016  
Drawn MJ  
Checked MJ  
Scale AS SHOWN

T001

Sheet No.

Teresa Jacobs  
County Mayor

S. Scott Boyd  
District 1 Commissioner

Bryan Nelson  
District 2 Commissioner

Pete Clarke  
District 3 Commissioner

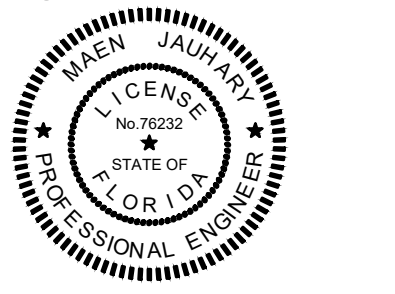
Jennifer Thompson  
District 4 Commissioner

Ted B. Edwards  
District 5 Commissioner

Victoria P. Siplin  
District 6 Commissioner

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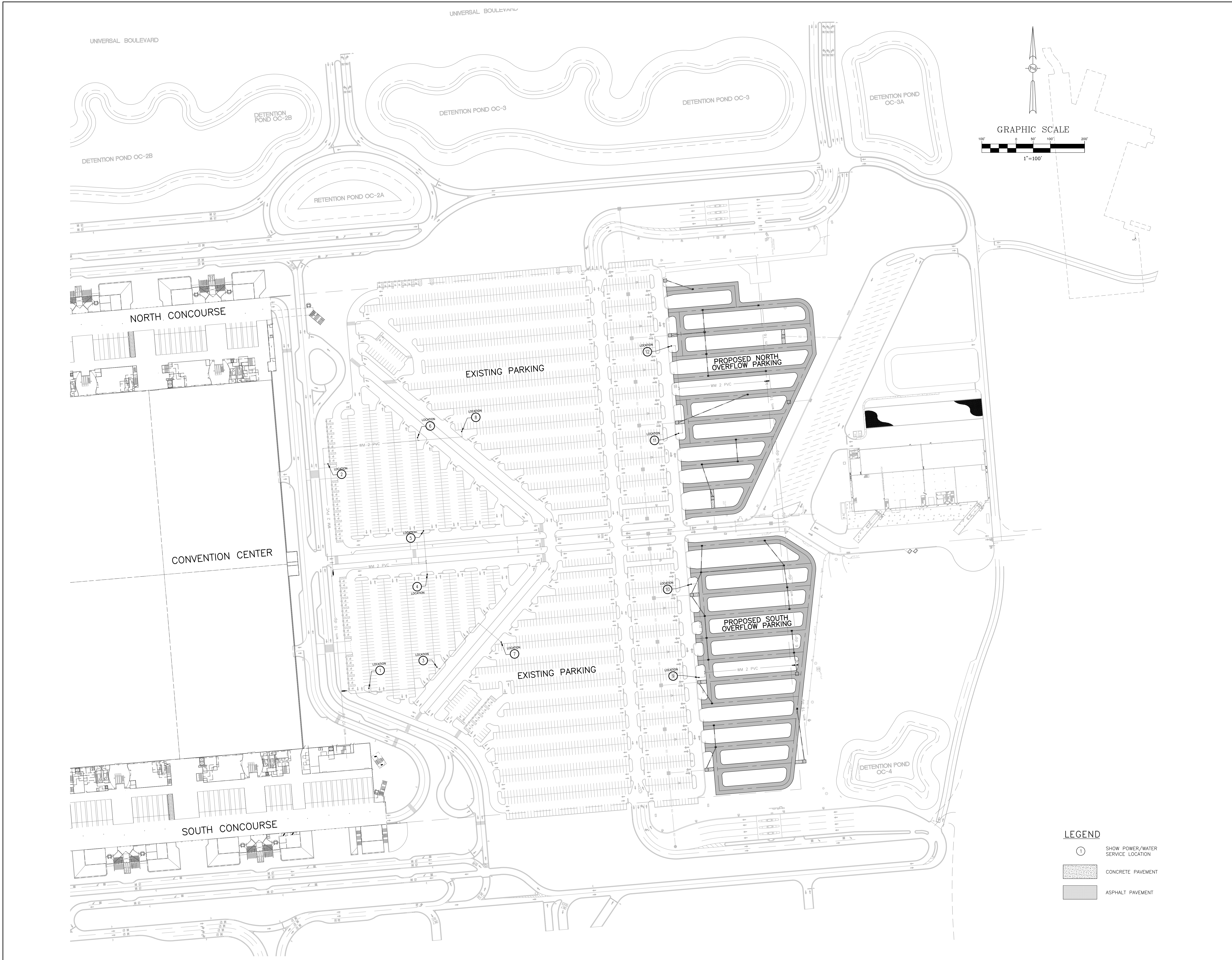
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GENERAL  
INFORMATION

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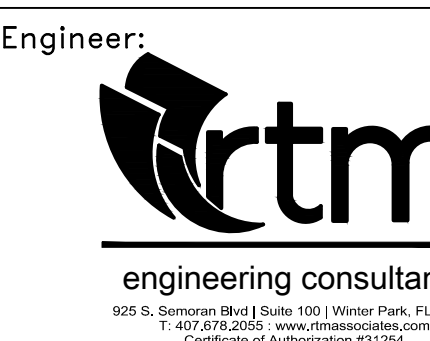
T001

Sheet No.



**Orange County  
Convention Center  
North/South Building  
Exterior Show Power  
Upgrades**

Client  
Orange County  
Convention Center  
P.O. Box 691509  
Orlando, Florida 32869



Structural Engineer:



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FLORIDA ENGINEERING GROUP, INC.  
CERTIFICATE NO. EB-0006595

WILLIAM R. HOCKENSMITH, P.E.  
LICENSE NO. 35540

Issuance:

1 10-12-2016 Permit Set

**OVERALL SITE PLAN**

Sheet Title  
Job No. 16.0CCC.007  
Date 08.11.2016  
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Scale 1"=100'

FEG PROJECT NO. 16-021

**C-1**

Sheet No.  
16-021\_OverallSitePlan.dwg

**LEGEND**

- ① SHOW POWER/WATER SERVICE LOCATION
- [Pattern] CONCRETE PAVEMENT
- [Pattern] ASPHALT PAVEMENT

Client  
 Orange County Convention Center  
 P.O. Box 691509  
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 engineering consultants  
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 (352) 272-2265 • www.rtmeng.com

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Civil Engineer:  
  
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SITE GEOMETRY,  
 PAVING,  
 GRADING and  
 DRAINAGE PLAN  
 (NORTH)

Sheet Title  
 Job No. 16.0CCC.007  
 Date 08.11.2016  
 Drawn HA  
 Checked WRH  
 Scale 1" = 40'

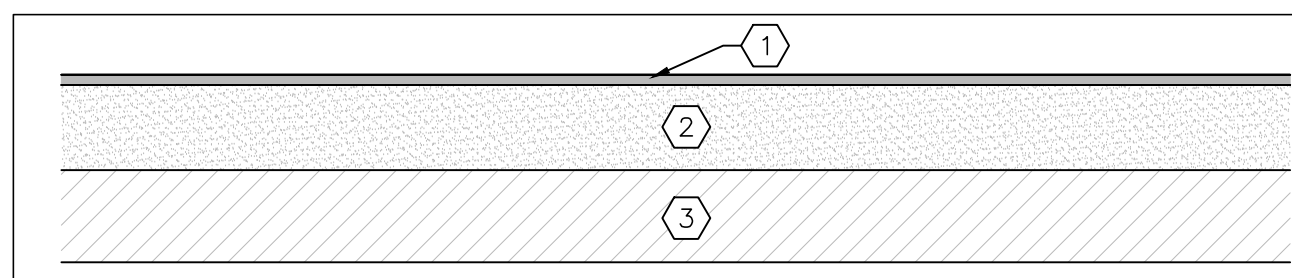
FEG PROJECT NO. 16-021

C-2A

Sheet No. 16-021\_Plans.dwg

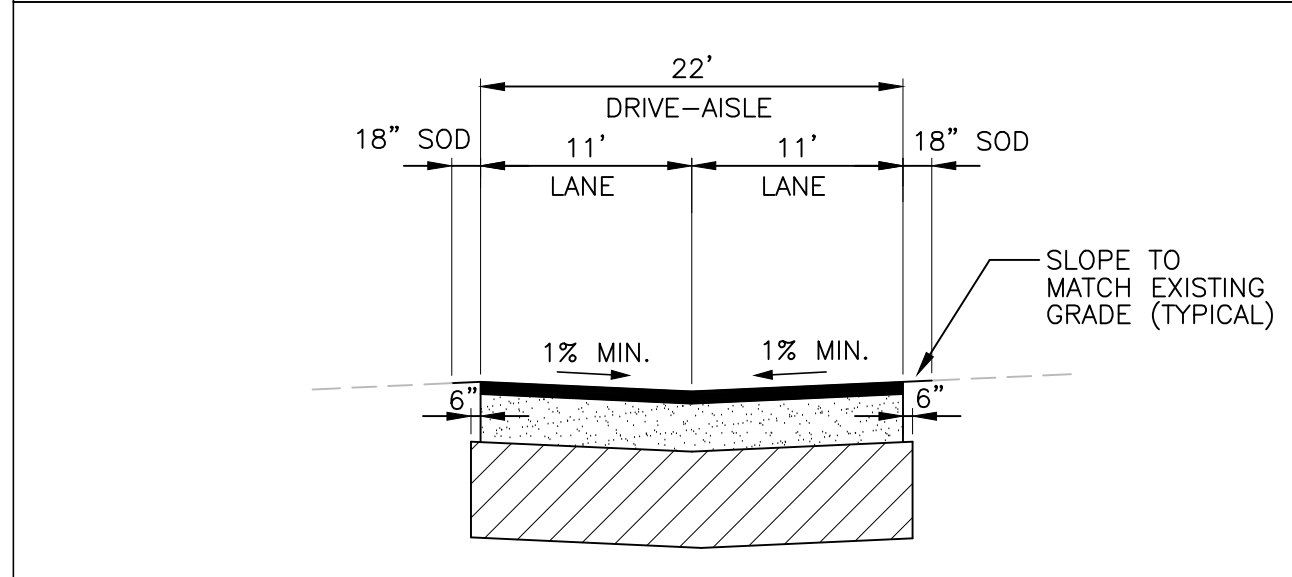
**DRAINAGE STRUCTURE LEGEND**

<b>SD-EX1</b> EXISTING INLET TOP ELEV. 95.34 INV. ELEV. (EX.) 90.84 S INV. ELEV. (NEW) 90.88 SE	<b>SD-EX2</b> EXISTING INLET TOP ELEV. 95.82 INV. ELEV. (EX.) 90.29 N INV. ELEV. (NEW) 90.11 W INV. ELEV. (NEW) 90.28 E	<b>SD-EX3</b> EXISTING INLET TOP ELEV. 95.74 INV. ELEV. (EX.) 90.36 W INV. ELEV. (NEW) 90.59 NE
<b>SD-EX4</b> EXISTING INLET TOP ELEV. 94.95 INV. ELEV. (EX.) 89.84 S INV. ELEV. (NEW) 90.10 N	<b>SD-EX5</b> EXISTING INLET TOP ELEV. 95.09 INV. ELEV. (EX.) 91.08 E	<b>SD-1</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.65 INV. ELEV. 91.50 NW
<b>SD-2</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.20 INV. ELEV. 91.94 W	<b>SD-3</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.62 INV. ELEV. 91.12 E INV. ELEV. 91.12 S	<b>SD-4</b> MANHOLE F.D.O.T. TYPE "8" TOP TYPE "8" STRUCTURE BOTTOM PER F.D.O.T. INDEX "201" TOP ELEV. 96.52 INV. ELEV. 90.79 N INV. ELEV. 90.79 S INV. ELEV. 90.79 W
<b>SD-5</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.08 INV. ELEV. 92.30 W	<b>SD-6</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.89 INV. ELEV. 91.45 E INV. ELEV. 91.45 N	<b>SD-7</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.09 INV. ELEV. 91.13 S INV. ELEV. 91.13 N
<b>SD-8</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.60 INV. ELEV. 91.70 SW	<b>SD-9</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.81 INV. ELEV. 91.47 S	<b>SD-10</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.09 INV. ELEV. 91.15 N INV. ELEV. 91.15 W
<b>SD-11</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.00 INV. ELEV. 90.82 E INV. ELEV. 90.62 S	ALL HDPE PIPE SHALL BE CLASS I WITH COATING WIRE.	



- KEYNOTES**
- 1" MINIMUM, TYPE S-III ASPHALTIC CONCRETE WEARING SURFACE COMPACTED TO 95% OF LAB DENSITY (MINIMUM MARSHALL STABILITY OF 1,500 LBS.).
  - 4" LIMEROCK OR CRUSHED CONCRETE BASE (LBR 100), COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).
  - 6" STABILIZED SUBBASE (LBR = 40) COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

- ALTERNATE - C1**
- 1-1/2" MINIMUM, TYPE S-III ASPHALTIC CONCRETE WEARING SURFACE COMPACTED TO 95% OF LAB DENSITY (MINIMUM MARSHALL STABILITY OF 1,500 LBS.).
  - 6" LIMEROCK OR CRUSHED CONCRETE BASE (LBR 100), COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).
  - 12" STABILIZED SUBBASE (LBR = 40) COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

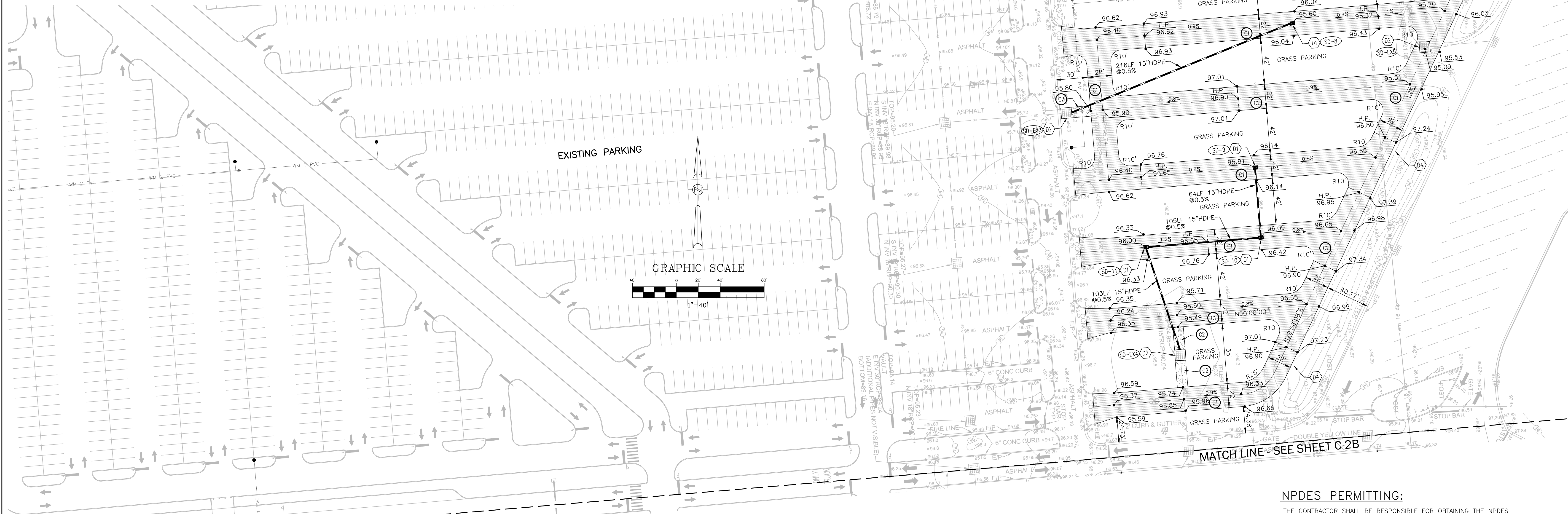


**SITE CONSTRUCTION KEYNOTES**

- C1. CONSTRUCT ASPHALT PAVEMENT.
- C2. CONSTRUCT CONCRETE PAVEMENT AT INLETS, (4" THICK TYPICAL).

**SITE DRAINAGE KEYNOTES**

- D1. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. INDEX No. 232, TYPICAL.
- D2. EXISTING INLET.
- D3. STORM DRAINAGE MANHOLE PER F.D.O.T. INDEX No. 201, TYPICAL.
- D4. REGRADE BERM ADJACENT TO NEW PAVEMENT AT 3:1 MAX. AND SOD DISTURBED AREAS.



**NPDES PERMITTING:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NPDES PERMIT AND ALL MONITORING/INSPECTION REPORTS.

**AS-BUILT SURVEY**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE OWNER AN AS-BUILT SURVEY OF ALL NEW SITE, DRAINAGE & UTILITY IMPROVEMENTS.

FEG PROJECT NO. 16-021

C-2A

Sheet No. 16-021\_Plans.dwg

Client  
Orange County  
Convention Center  
P.O. Box 691509  
Orlando, Florida 32869

Engineer:  
**rtm**  
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800 S. Orange Blvd. Suite 100, Orlando, FL 32816  
www.rtmca.com

Structural Engineer:

Civil Engineer:  
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CERTIFICATE No. EE-0006595

WILLIAM R. HOCKENSMITH, P.E.  
LICENSE NO. 35540

Issuance:

1 10-12-2016 Permit Set

**SITE GEOMETRY,  
PAVING,  
GRADING and  
DRAINAGE PLAN  
(SOUTH)**

Sheet Title  
Job No. 16.OCCC.007  
Date 08.11.2016  
Drawn HA  
Checked WRH  
Scale 1" = 40'

FEG PROJECT NO. 16-021

C-2B

Sheet No. 16-021\_Plans.dwg

**DRAINAGE STRUCTURE LEGEND**

<b>SD-06</b> EXISTING INLET TOP ELEV. 95.88 INV. ELEV. (EX.) 90.81 W INV. ELEV. (EX.) 90.97 E INV. ELEV. (NEW) 90.90 NE INV. ELEV. (NEW) 90.90 SE	<b>SD-07</b> EXISTING INLET TOP ELEV. 95.98 INV. ELEV. (EX.) 90.81 W INV. ELEV. (EX.) 90.97 E INV. ELEV. (NEW) 91.00 SE	<b>SD-08</b> EXISTING INLET TOP ELEV. 95.94 INV. ELEV. (EX.) 90.76 W INV. ELEV. (EX.) 90.93 E INV. ELEV. (NEW) 90.96 NE
<b>SD-09</b> EXISTING INLET TOP ELEV. NOT FOUND	<b>SD-10</b> EXISTING INLET TOP ELEV. 95.25 INV. ELEV. (EX.) 91.66 W INV. ELEV. (NEW) 91.73 NE	<b>SD-11</b> EXISTING INLET TOP ELEV. 95.22 INV. ELEV. (EX.) 91.50 W INV. ELEV. (NEW) 91.60 N
<b>SD-12</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.26 INV. ELEV. 91.64 S	<b>SD-13</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.20 INV. ELEV. 91.25 N INV. ELEV. 91.25 SW INV. ELEV. 91.25 E	<b>SD-14</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.05 INV. ELEV. 91.26 N INV. ELEV. 91.26 NW
<b>SD-15</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.20 INV. ELEV. 91.58 S INV. ELEV. 91.58 N	<b>SD-16</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.30 INV. ELEV. 91.32 N INV. ELEV. 91.32 SW	<b>SD-17</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.15 INV. ELEV. 91.36 NW
<b>SD-18</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.35 INV. ELEV. 91.64 S	<b>SD-19</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.30 INV. ELEV. 91.32 N INV. ELEV. 91.32 SW	<b>SD-20</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 96.10 INV. ELEV. 92.44 SE
<b>SD-21</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.70 INV. ELEV. 91.98 NW INV. ELEV. 91.98 W	<b>SD-21A</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.30 INV. ELEV. 92.30 N INV. ELEV. 92.30 S	<b>SD-22</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.35 INV. ELEV. 92.62 N
<b>SD-23</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.70 INV. ELEV. 92.36 SW	<b>SD-24</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.20 INV. ELEV. 92.04 SW INV. ELEV. 92.04 NE	<b>SD-25</b> TYPE "C" INLET PER F.D.O.T. INDEX "232" TOP ELEV. 95.20 INV. ELEV. 92.38 S



**Ⓢ SITE CONSTRUCTION KEYNOTES**

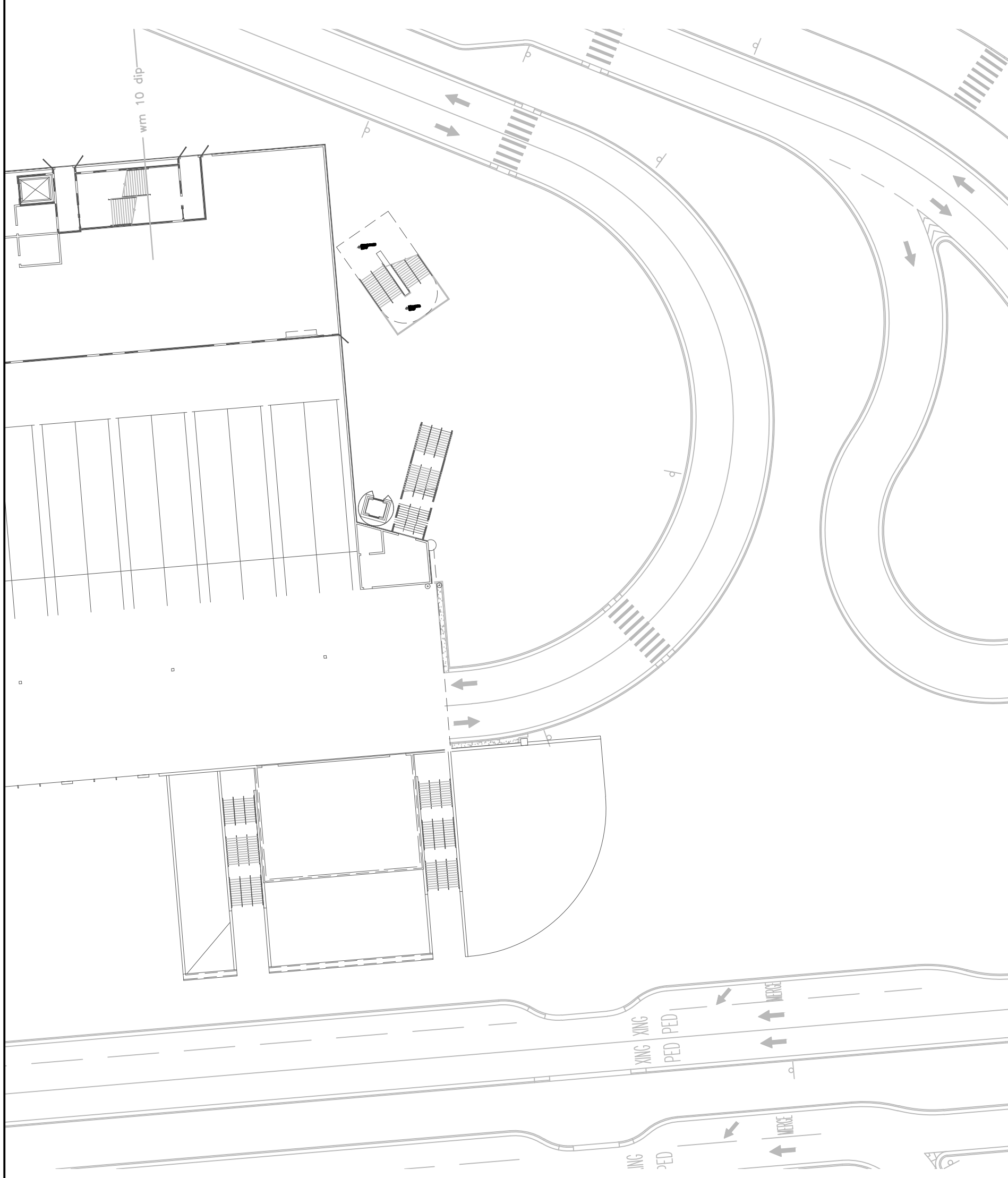
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- C2. CONSTRUCT CONCRETE PAVEMENT AT INLETS, (4" THICK TYPICAL).

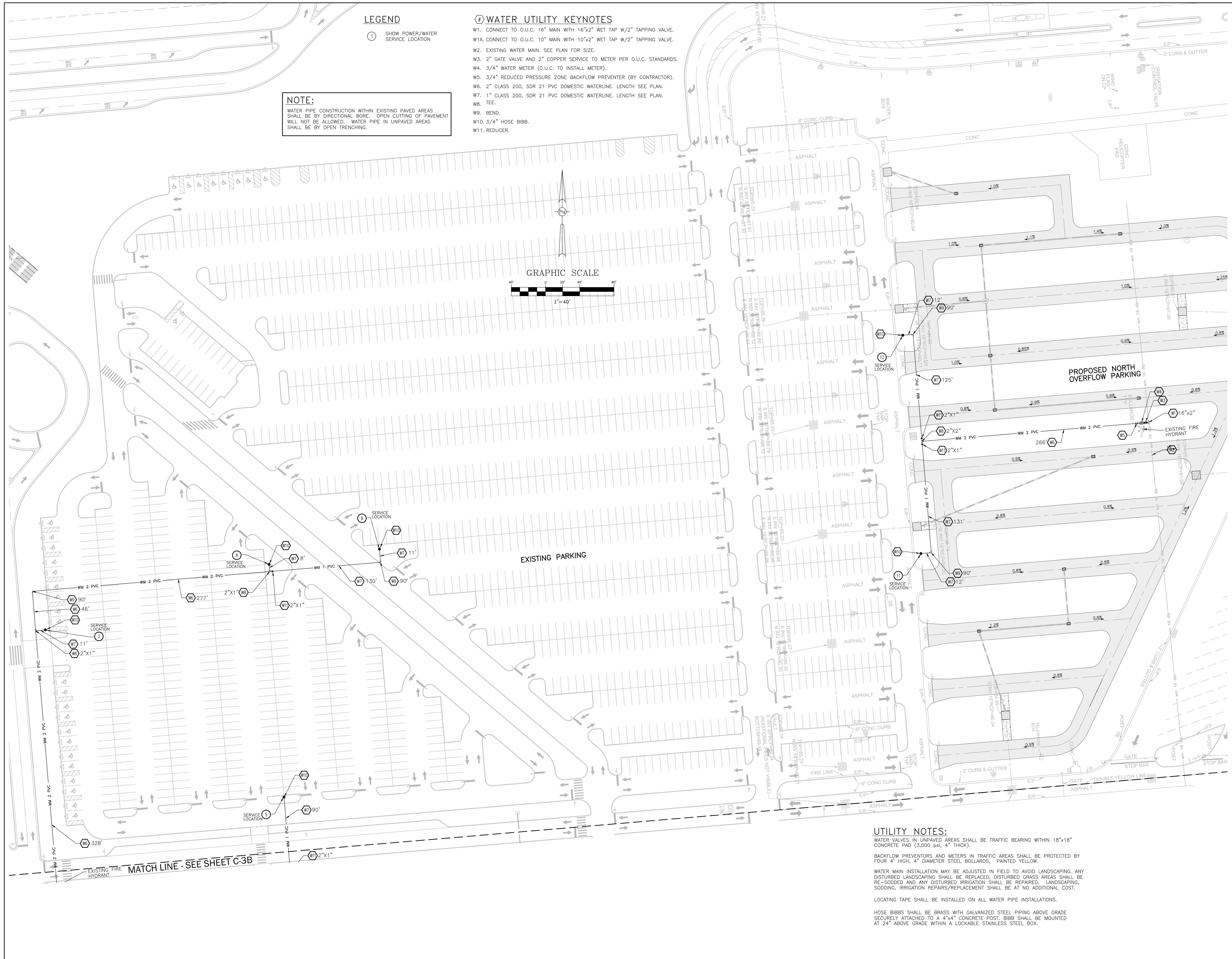
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- D3. STORM DRAINAGE MANHOLE PER F.D.O.T. INDEX No. 201, TYPICAL.
- D4. REGRADE BERM ADJACENT TO NEW PAVEMENT AT 3:1 MAX. AND SOD DISTURBED AREAS.

**PAVEMENT LEGEND**

	CONCRETE PAVEMENT
	ASPHALT PAVEMENT
H.P.	HIGH POINT





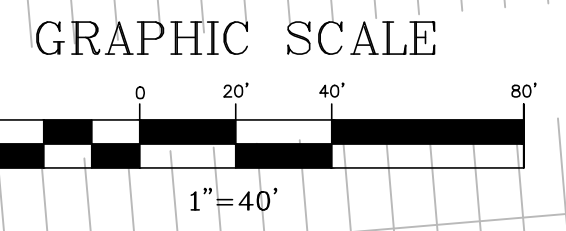
**LEGEND**

- 1 SHOW POWER/WATER SERVICE LOCATION

**Ⓜ WATER UTILITY KEYNOTES**

- W1. CONNECT TO O.U.C. 16" MAIN WITH 16"x2" WET TAP W/2" TAPPING VALVE.
- W1A. CONNECT TO O.U.C. 10" MAIN WITH 10"x2" WET TAP W/2" TAPPING VALVE.
- W2. EXISTING WATER MAIN. SEE PLAN FOR SIZE.
- W3. 2" GATE VALVE AND 2" COPPER SERVICE TO METER PER O.U.C. STANDARDS.
- W4. 3/4" WATER METER (O.U.C. TO INSTALL METER).
- W5. 3/4" REDUCED PRESSURE ZONE BACKFLOW PREVENTER (BY CONTRACTOR).
- W6. 2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. LENGTH SEE PLAN.
- W7. 1" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. LENGTH SEE PLAN.
- W8. TEE.
- W9. BEND.
- W10. 3/4" HOSE BIBB.
- W11. REDUCER.

**NOTE:**  
 WATER PIPE CONSTRUCTION WITHIN EXISTING PAVED AREAS SHALL BE BY DIRECTIONAL BORE. OPEN CUTTING OF PAVEMENT WILL NOT BE ALLOWED. WATER PIPE IN UNPAVED AREAS SHALL BE BY OPEN TRENCHING.



**UTILITY NOTES:**

- WATER VALVES IN UNPAVED AREAS SHALL BE TRAFFIC BEARING WITHIN 18"x18" CONCRETE PAD (3,000 psi, 4" THICK).
- BACKFLOW PREVENTORS AND METERS IN TRAFFIC AREAS SHALL BE PROTECTED BY FOUR 4" HIGH, 4" DIAMETER STEEL BOLLARDS, PAINTED YELLOW.
- WATER MAIN INSTALLATION MAY BE ADJUSTED IN FIELD TO AVOID LANDSCAPING. ANY DISTURBED LANDSCAPING SHALL BE REPLACED. DISTURBED GRASS AREAS SHALL BE RE-SODDED AND ANY DISTURBED IRRIGATION SHALL BE REPAIRED. LANDSCAPING, SODDING, IRRIGATION REPAIRS/REPLACEMENT SHALL BE AT NO ADDITIONAL COST.
- LOCATING TAPE SHALL BE INSTALLED ON ALL WATER PIPE INSTALLATIONS.
- HOSE BIBBS SHALL BE BRASS WITH GALVANIZED STEEL PIPING ABOVE GRADE SECURELY ATTACHED TO A 4"x4" CONCRETE POST. BIBBS SHALL BE MOUNTED AT 24" ABOVE GRADE WITHIN A LOCKABLE STAINLESS STEEL BOX.



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**Structural Engineer:**

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**William R. Hockensmith, P.E.**  
 LICENSE NO. 35540

**Issuance:**

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**SITE UTILITY  
 PLAN  
 (NORTH)**

**Sheet Title**  
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FEG PROJECT NO. 16-021

**C-3A**

Sheet No. 16-021\_Plans.dwg

Orange County Convention Center  
 North/South Building  
 Exterior Show Power Upgrades

Client  
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1 10-12-2016 Permit Set

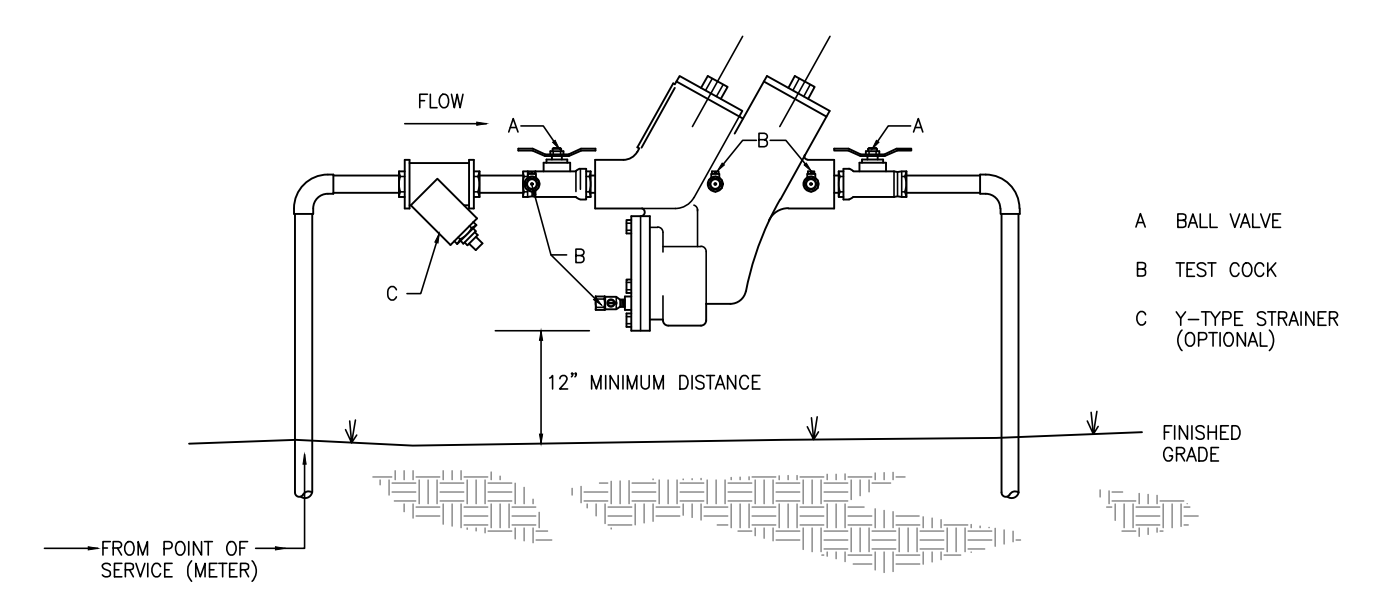
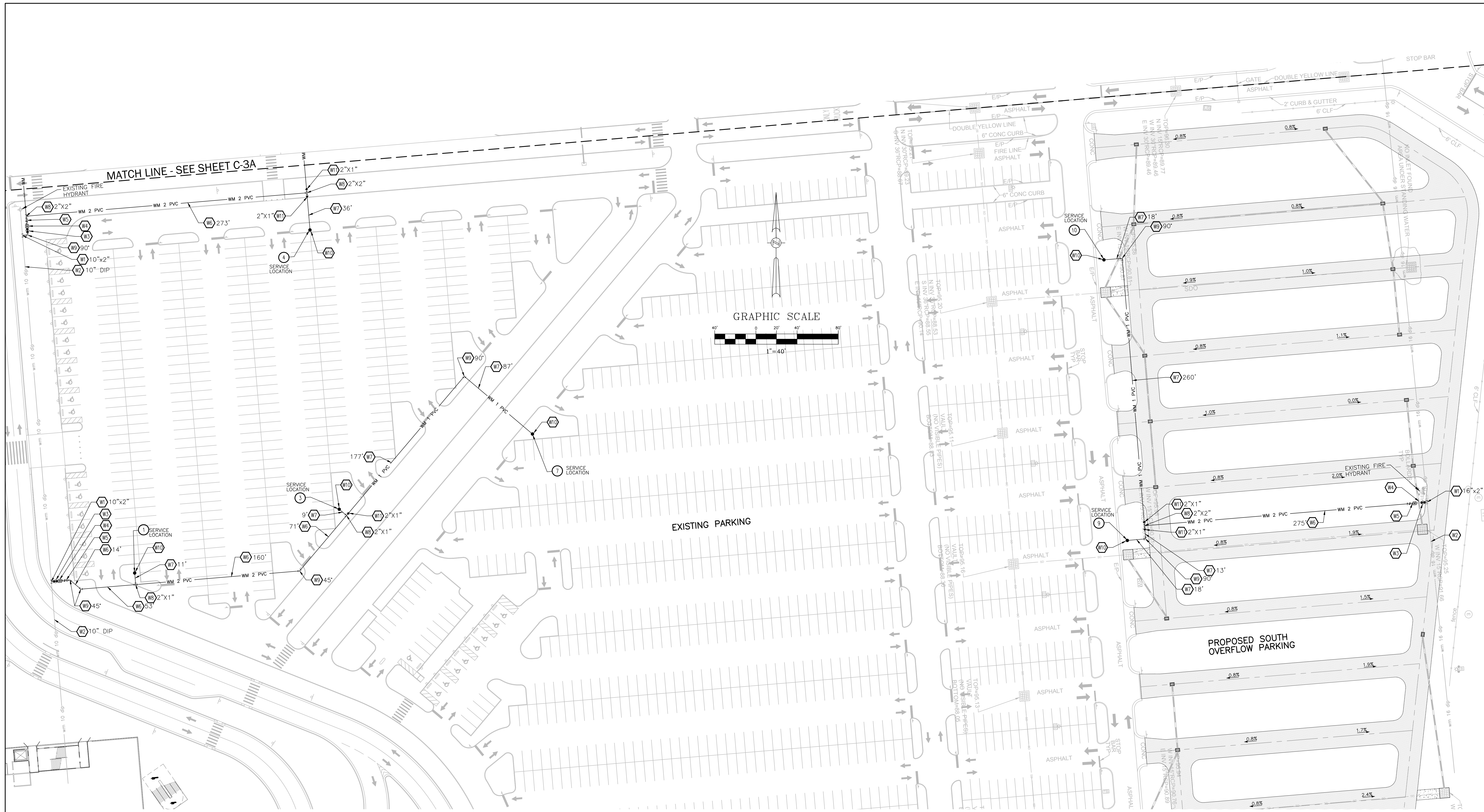
**SITE UTILITY PLAN (SOUTH)**

Sheet Title  
 Job No. 16.0CCC.007  
 Date 08.11.2016  
 Drawn HA  
 Checked WRH  
 Scale 1" = 40'

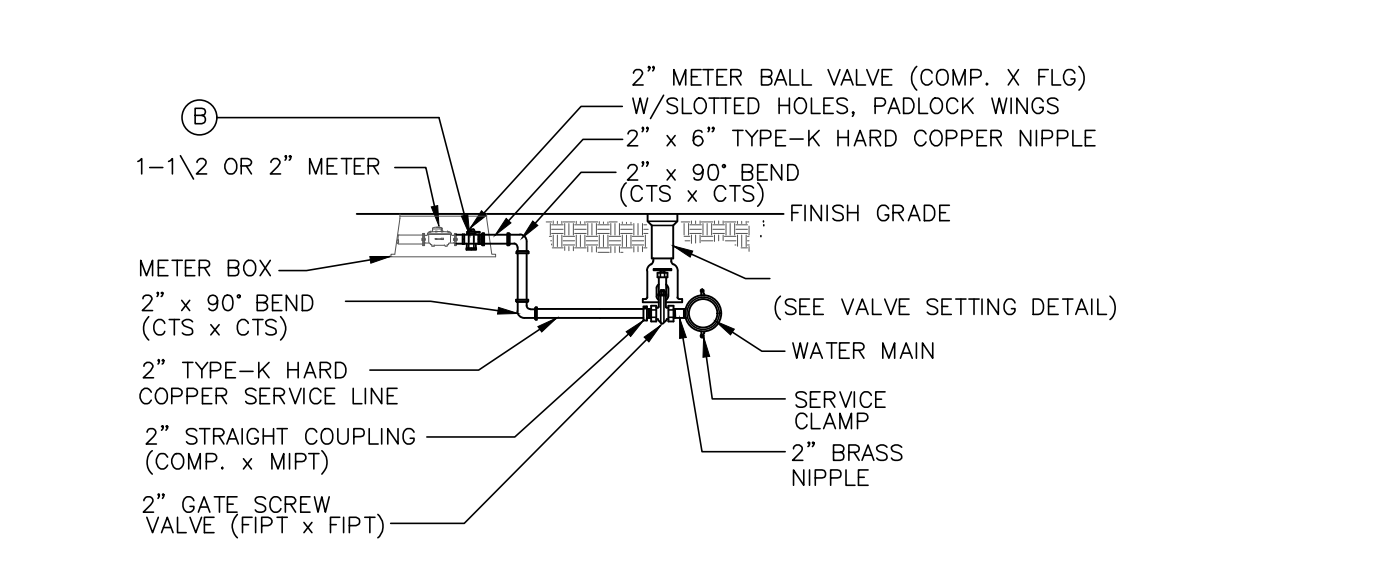
FEG PROJECT NO. 16-021

**C-3B**

Sheet No. 16-021\_Plans.dwg



O.U.C. - REDUCED PRESSURE ZONE DETAIL



O.U.C. - TYPICAL 2" NEW SHORT SERVICE

**LEGEND**

- 1 SHOW POWER/WATER SERVICE LOCATION
- ④ WATER UTILITY KEYNOTES
- W1. CONNECT TO O.U.C. 16" MAIN WITH 16"x2" WET TAP W/2" TAPPING VALVE.
- W1A. CONNECT TO O.U.C. 10" MAIN WITH 10"x2" WET TAP W/2" TAPPING VALVE.
- W2. EXISTING WATER MAIN. SEE PLAN FOR SIZE.
- W3. 2" GATE VALVE AND 2" COPPER SERVICE TO METER PER O.U.C. STANDARDS.
- W4. 3/4" WATER METER (O.U.C. TO INSTALL METER)
- W5. 3/4" REDUCED PRESSURE ZONE BACKFLOW PREVENTER (BY CONTRACTOR).
- W6. 2" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. LENGTH SEE PLAN.
- W7. 1" CLASS 200, SDR 21 PVC DOMESTIC WATERLINE. LENGTH SEE PLAN.
- W8. TEE.
- W9. BEND.
- W10. 3/4" HOSE BIBB.
- W11. REDUCER.

**OUC Water Engineering Notes (Rev. 10/30/13):**  
 The developer/customer shall accomplish all water main and service work through the point of service/control valve and water meters and deed to OUC. OUC will own and operate up to and including the OUC point of service/control valve and meters only. The required work shall be performed per current OUC guidelines, OUC Water Distribution Standard Specifications and OUC Water Distribution Material Specifications and water detail sheet under OUC inspection. The developer/customer must contact OUC Inspection at 407-649-4428 to schedule a pre-construction meeting prior to any water construction.  
 A minimum 4' clearance (including landscaping) must be maintained around meter assembly.  
 Domestic / fire master meter assembly will be provided by OUC at the developer/customers expense and shall be installed by the developer/customer. After payment, allow 30 days for receipt of the meter by OUC. The developer/customer shall arrange pickup from the OUC warehouse facility through the OUC inspector.  
 Contact OUC Inspection department for approved material and construction specifications pertaining to the installation of ductile iron pipe via directional or jack and bore method.  
 The developer/customer shall field verify the horizontal and vertical location of existing OUC water facilities before commencement of construction.  
**For water wet taps, use only OUC approved tapping contractors:**  
 Action Industries, Inc. 352-732-6941 or 800-216-4464  
 Central Florida Tapping and Construction Services, Inc. 407-834-8271  
 Mac Tapping, Inc. 407-468-0557  
 Rangeline Tapping Services, Inc. 800-346-5971  
 TDW Services, Inc. 407-843-2800  
 T & R Tapping Service, Inc. 407-339-3685  
 EA Services 407-880-6786  
**Easements:**  
 All on-site OUC water facilities (mains, services, meters, and fire hydrants) shall be located within a utility easement in accordance with current OUC private property guidelines. The developer is to furnish all necessary information, including legal description(s) to prepare and document this easement. Water meters and fire services will not be activated until the final easement(s) have been received and approved by OUC. Any questions or comments please contact OUC Property and Right of Way department at 407-434-2158.

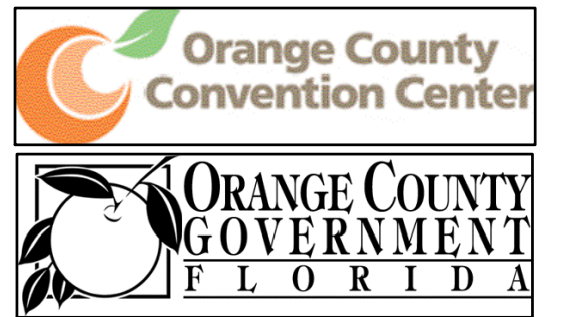
**Connection to Existing valve**  
 Contractor to verify location, condition and pressure test existing valve prior to connection. If valve does not hold required pressure test additional valve will be required at developer/contractor's expense.

**OUC Backflow Prevention Requirements:**  
 Backflow devices will be owned and maintained by customer unless otherwise noted. Any questions contact OUC Backflow Prevention Department at 407-649-4428.

**Domestic and Irrigation**  
 The Developer/Customer is responsible for the required Reduced Pressure Backflow Preventer. Residential domestic backflow preventers are required in areas where reclaimed or other water supply, i.e. well, is provided to the site.

**Fire Lines:**  
 The Developer/Customer is responsible for the required Reduced Pressure Detector Check Assembly w/Monitoring meter for backflow prevention.

**As - Built Drawings**  
 The customer/developer shall provide vertical and horizontal as-built information relative to all constructed utilities and structures. The submittal will include a signed and sealed drawing and a CD with the as built information in AutoCAD 2004 format.  
 State Plane Coordinates, East Florida, NAD 1983-90 is the preferred coordinate system. If a project coordinate system is used, all drawings will be based on this system and existing features i.e. edge of pavement, road intersections, buildings must be referenced to aid in the locating of project infrastructure in OUC's Geographic Information System. If no existing features are shown at least 2 State Plane Coordinate points must be surveyed and bench marked.  
 As-Built information for the water system shall include, but not be limited to, the following:  
 1. Location of all valves, fittings, hydrants, and services.  
 2. Location of the water main tied horizontally to the back of curb or edge of pavement.  
 3. Certification as to the system meeting the minimum cover requirements.  
 4. Horizontal and vertical data for any construction which deviates from the approved engineering plans.  
 The contractor shall cut "W" in the top curb of each water service and a "V" at all valve locations. Cut W's and V's shall be highlighted with blue paint.



Orange County  
Convention Center  
North/South Building  
Exterior Show Power  
Upgrades

Client  
Orange County  
Convention Center  
P.O. Box 691509  
Orlando, Florida 32869

Electrical Engineer:  
 rtm  
engineering consultants  
824 S. Orange Blvd., Suite 100, Orange Park, FL 32067  
407-270-2200, www.rtmconsultants.com  
Certification of Authorization #010014

Civil Engineer:  
 FEG  
FLORIDA ENGINEERING GROUP, INC.  
Engineering the Future  
5127 S. ORANGE AVE., SUITE 200  
ORLANDO, FLORIDA 32839  
407-895-0324  
www.feg-inc.us

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Engineer of Record  
 10/12/2016  
Maen Jaahary, PE 76232 (FL)

Issuance:

PROGRESS SET

#	DATE	DESCRIPTION
1	10/12/16	PERMIT SET

ELECTRICAL  
GENERAL  
INFORMATION

Sheet Title  
Job No. 16.OCCC.008  
Date October 12, 2016  
Drawn MJ  
Checked MJ  
Scale AS SHOWN

E0.01

Sheet No.

GENERAL ELECTRICAL NOTES	ABBREVIATIONS	RENOVATION/DEMOLITION LEGEND	POWER PLAN LEGEND
<p>1. THE ELECTRICAL WORK IS SUBJECT TO ALL OF THE PURCHASER'S TERMS, CONDITIONS AND SPECIFICATIONS, INCLUDING WORKMANSHIP.</p> <p>2. GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1 "STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION" (ANSI).</p> <p>3. IT IS THE INTENT OF THESE ELECTRICAL DRAWING SHEETS TO CALL FOR FINISHED WORK, TESTED, AND READY FOR OPERATION. FOR THE ELECTRICAL WORK, "PROVIDE" IS AN ALL-INCLUSIVE TERM REQUIRING CONTRACTOR TO PROCURE, FABRICATE, FURNISH, INSTALL, MOUNT, WIRE, CONNECT AND SUPPLY ALL MATERIAL AND LABOR NECESSARY TO COMPLETE THE WORK TO THE ACCEPTANCE OF THE OWNER AND THE AUTHORITY HAVING JURISDICTION (AHJ).</p> <p>4. ALL MATERIAL PROVIDED BY THE CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS, LISTED/LABELED FOR THE INTENDED PURPOSE BY UNDERWRITERS LABORATORY (UL) OR OTHER ORGANIZATION THAT IS ACCEPTABLE TO THE AHJ.</p> <p>5. ALL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, UNLESS OTHERWISE NOTED.</p> <p>6. CONTRACTOR SHALL INSPECT SITE FOR FIELD VERIFICATION OF ALL ASPECTS OF THE WORK PRIOR TO BIDDING.</p> <p>7. ALL DISCREPANCIES ON DRAWING SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO SUBMISSION OF BIDS. CONTRACTORS SUBMISSION OF A BID CONSTITUTES ACCEPTANCE OF ALL CONDITIONS INCLUDING FIELD CONDITIONS.</p> <p>8. THE CONTRACTOR SHALL OBTAIN AND FURNISH ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS. THE CONTRACTORS BID SHALL INCLUDE COST OF ALL REQUIRED PERMITS AND FEES, INCLUDING UTILITY FEES.</p> <p>9. THE ELECTRICAL SHEETS ARE DIAGRAMMATICAL IN NATURE AND INDICATE THE GENERAL LOCATION OF OUTLETS, EQUIPMENT, AND THE CIRCUIT ARRANGEMENT OF THE REQUIRED WIRING. ALTHOUGH THE DRAWINGS DO NOT NECESSARILY INDICATE THE ACTUAL ROUTES OF CONDUITS, WHERE INDICATED, THEY SHALL BE FOLLOWED AS CLOSELY AS PROPER COORDINATION WITH THE WORK OF OTHER TRADES AND SPACE WILL PERMIT. WHERE CONDUIT RUNS ARE NOT SHOWN ON THE DRAWINGS, COORDINATE CONDUIT RUNS WITH THE WORK OF OTHER TRADES AND STRUCTURE. SIMPLIFY INSTALLATION WHENEVER POSSIBLE, BUT SUBJECT TO APPROVAL BY THE ARCHITECT FOR VISUAL AND STRUCTURAL REASONS. IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, BENDS, PULL BOXES, AND OBSTRUCTIONS. THE DRAWINGS ARE NOT INTENDED TO BE SCALED, REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS. IN CASE OF DISCREPANCY BETWEEN ELECTRICAL AND ARCHITECT SHEET SET FOR MOUNTING ELEVATIONS OR REFLECTED CEILINGS, FOLLOW ARCHITECT SHEETS.</p> <p>10. MAINTAIN ON THE JOB SITE, IN GOOD CONDITION, ONE SET OF UP-TO-DATE ELECTRICAL DRAWINGS, PROGRESSIVELY, NEATLY, LEGIBLY, AND EXACTLY RECORDED ON THESE DRAWINGS THE LOCATION OF ALL CONCEALED CONDUIT RUNS AND ALL WORK WHICH IS INSTALLED DIFFERENTLY THAN IN THE LOCATION AND MANNER INDICATED ON THE DRAWINGS. UPON COMPLETION OF THE WORK, THE DRAWINGS SHALL BE TURNED OVER TO THE ARCHITECT FOR APPROVAL AND POSSESSION AS A PERMANENT AND COMPLETE RECORD DOCUMENT OF THE ELECTRICAL WORK.</p> <p>11. WHEN FOLLOWED BY THE PHRASE "OR EQUAL," SPECIFIC MANUFACTURERS PRODUCTS ARE USED AS A BASIS OF DESIGN. ALTERNATE PRODUCT MAY BE PROVIDED IF APPROVED "AS EQUAL" BY THE ENGINEER OF RECORD AND THE AHJ.</p> <p>12. FOR ALL ELECTRICAL &amp; COMMUNICATIONS DEVICES AND CIRCUITS, CONTRACTOR SHALL FIELD VERIFY WITH OWNER AND COORDINATE WITH ALL OTHER TRADES FINAL LOCATION(S) PRIOR TO ROUGH IN.</p> <p>13. PRIOR TO FINAL ACCEPTANCE, CLEAN ALL SWITCHES, CABINETS, DEVICE PLATES, FIXTURES, AND OTHER ITEMS FURNISHED UNDER THIS CONTRACT AND ENSURE THAT ALL PANEL BOARD DIRECTORIES ARE IN PLACE AND COMPLETED OR REVISED AS REQUIRED BY THE WORK, AND THAT ALL MARKING AND IDENTIFICATION OF ALL EQUIPMENT, JUNCTION BOXES, AND OTHER ITEMS IS COMPLETED. REPAIR OR REPLACE, AS DIRECTED BY THE OWNER, ANY ITEMS DAMAGED DUE TO INSTALLATION OR RELOCATION OF EQUIPMENT OR DEVICES AT NO ADDITIONAL COST TO THE OWNER.</p> <p>14. UPON THE COMPLETION OF THE WORK, THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEMS READY FOR OPERATION AND TO HAVE AN ELECTRICIAN AVAILABLE TO OPERATE SAME IN ACCORDANCE WITH OR UNDER THE SUPERVISION OF THE ARCHITECT/ENGINEER AND OR AHJ. THE CONTRACTOR SHALL BE AVAILABLE TO ASSIST IN REMOVAL OF PANEL FRONTS, ETC. TO PERMIT INSPECTION AS REQUIRED.</p> <p>15. ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, NATIONAL ELECTRIC CODE (NFPA 70), LOCAL ORDINANCES AND THE AUTHORITY HAVING JURISDICTION.</p> <p>16. FLEXIBLE CONDUIT INSTALLED OUTDOORS, IN ANY MECHANICAL EQUIPMENT ROOM, OR IN NORMALLY WET AREAS SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.</p> <p>17. COORDINATE WITH ALL MECHANICAL TRADES FOR SPACE REQUIREMENTS IN MECHANICAL ROOMS, CORRIDORS, SHAFTS, ABOVE CEILING, ETC. THIS INCLUDES SPACE ABOVE PANELS WHERE DUCTS AND PIPING ARE PROHIBITED.</p> <p>18. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT, SEE MECHANICAL PLANS.</p> <p>19. PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FAR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.</p> <p>20. AS PER FLORIDA BUILDING CODE, FEEDER AND CUSTOMER OWNED SERVICE CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2 PERCENT AT DESIGN LOAD, BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3 PERCENT AT DESIGN LOAD.</p>	<p>A AMPERE AF AMPERE FRAME AFC AVAILABLE FAULT CURRENT AFCI ARC FAULT CIRCUIT INTERRUPTER AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE AHU AIR HANDLER UNIT (HVAC) AHJ AUTHORITY HAVING JURISDICTION AIC AMPERE INTERRUPTING CAPACITY AT AMPERE TRIP AWG AMERICAN WIRE GAUGE BKR BREAKER C CONDUIT OR CONDUCTOR CB CIRCUIT BREAKER CEG CEILING CO CONDUIT ONLY CPT CONTROL POWER TRANSFORMER CU CONDENSING UNIT (HVAC), COPPER DS DISCONNECT (SAFETY) SWITCH EC EMPTY CONDUIT EF EXHAUST FAN EL EMERGENCY LIGHT (UNSWITCHED) ELE ELECTRICAL, ELECTRIC EM EMERGENCY EMT ELECTRICAL METALLIC TUBING ENT ELECTRICAL NONMETALLIC TUBING EWH ELECTRIC WATER HEATER EX EXISTING FBC FLORIDA BUILDING CODE FDS FUSED DISCONNECT (SAFETY) SWITCH FLOOR FLOOR FMC FLEXIBLE METAL CONDUIT FMT FLEXIBLE METAL TUBING GND GROUND (ELECTRICAL) GEN GENERATOR GFI GROUND FAULT INTERRUPTER GWH GAS WATER HEATER HH HAND HOLE HID HIGH INTENSITY DISCHARGE LIGHT HP HORSE POWER HPS HIGH PRESSURE SODIUM LIGHT HZ HERTZ (ELECTRICAL) ICCB INSULATED CASE CIRCUIT BREAKER IG ISOLATED GROUND IMC INTERMEDIATE METAL CONDUIT JB JUNCTION BOX KCMIL THOUSAND CIRCULAR MILS KVA KILOVOLT-AMPERE KW KILOWATT KWH KILOWATT-HOUR LTC LIGHT LIGHTING LFMC LIQUIDTIGHT FLEXIBLE METAL CONDUIT LFNC LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT MCC MAIN CIRCUIT BREAKER MCC MOTOR CONTROL CENTER MCCB MOLDED CASE CIRCUIT BREAKER MDP MAIN DISTRIBUTION PANEL MH METAL HALIDE LIGHT, MAN HOLE MLO MAIN LUGS ONLY N, NEUT NEUTRAL (ELECTRICAL) NEC NATIONAL ELECTRICAL CODE NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSN NFPA NATIONAL FIRE PROTECTION ASSOCIATION NL NIGHT LIGHT P POLE PB PULL BOX PCB POWER CIRCUIT BREAKER PH PHASE (ELECTRICAL) PNL PANEL PNLB PANELBOARD PVC PLASTIC CONDUIT PWR POWER (ELECTRICAL) RCPT RECEPTACLE RMC RIGID METAL CONDUIT RNC RIGID NONMETALLIC CONDUIT RTU ROOF TOP UNIT (HVAC) SC SHORT CIRCUIT SF SUPPLY FAN SH SHIELDED SW SWITCH SWBD SWITCHBOARD TEL TELEPHONE TTB TELEPHONE TERMINAL BOARD UG UNDERGROUND UL UNDERWRITERS LABORATORY UPS UNINTERRUPTIBLE POWER SUPPLY UON UNLESS OTHERWISE NOTED V, VAC VOLT, VOLT AC W WATT WP WEATHERPROOF XFMR POWER TRANSFORMER</p> <p>NOT ALL ABBREVIATIONS ARE USED IN EVERY DESIGN</p> <p><b>CODE DISCLAIMER</b></p> <p><b>ELECTRICAL DESIGN IN ACCORDANCE WITH 2011 NATIONAL ELECTRIC CODE (NFPA-70), AS INCORPORATED BY THE 2014 FLORIDA BUILDING CODE AND 2014 EDITION OF THE FLORIDA FIRE PREVENTION CODE.</b></p> <p>NOT ALL SYMBOLS ARE USED IN EVERY DESIGN</p>	<p>SYMBOL: DESCRIPTION:</p> <p>&lt;E&gt; EXISTING TO REMAIN.</p> <p>EXISTING TO BE REMOVED.</p> <p>&lt;R&gt; EXISTING TO BE RELOCATED.</p> <p><b>CONDUIT RACEWAY &amp; WIRING LEGEND</b></p> <p>SYMBOL: DESCRIPTION:</p> <p>RACEWAY CONDUIT CONCEALED ABOVE CEILING OR WITHIN WALL UNLESS OTHERWISE NOTED. EACH CIRCUIT SHALL CONSIST OF PHASE, NEUTRAL AND GROUND CONDUCTORS. EVERY CIRCUIT SHALL HAVE ITS OWN INDIVIDUAL NEUTRAL. FOR LIGHTING CIRCUITS PROVIDE REQUIRED SWITCH LEGS TO ACHIEVE SWITCHING INDICATED ON PLANS.</p> <p>HOME RUN TO PANEL ALL HOMERUNS SHALL BE #10 AWG, 3/4" C. MINIMUM WIRING HOME RUN. LETTER INDICATES PANEL; NUMBER IS BRANCH CIRCUIT(S).</p> <p>GROUNDING CONDUCTOR.</p> <p>CONDUIT IN/UNDER SLAB OR UNDERGROUND.</p> <p>CONDUIT CAP.</p> <p>CONDUIT FOR POWER.</p> <p>CONDUIT STUB-DOWN.</p> <p>CONDUIT STUB-UP.</p> <p>GROUNDING ELECTRODE CONDUCTOR</p>	<p>SYMBOL: DESCRIPTION:</p> <p>DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT 18" AFF UON.</p> <p>DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT 42" AFF OR ABOVE COUNTER.</p> <p>DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT 18" AFF UON (GROUND FAULT CIRCUIT INTERRUPTED).</p> <p>JUNCTION BOX WITH BLANK PLATE; BRACKET INDICATES WALL MOUNTED.</p> <p>PANELBOARD (RECESSED FLUSH-MOUNTED UON).</p> <p>MAIN SWITCHBOARD.</p> <p>ELECTRICAL MAIN DISTRIBUTION PANELBOARD OR SWITCHBOARD</p> <p>TRANSFORMER (NON-UTILITY) NUMBER INDICATES KVA, EX: 45=45KVA</p> <p>TRANSFORMER (UTILITY)</p> <p>PULL BOX</p> <p>ELECTRICAL MOTOR</p> <p>NON-FUSED DISCONNECT SWITCH</p> <p>ELECTRICAL METER</p> <p><b>LIGHTING PLAN LEGEND</b></p> <p>WALL SWITCH, SINGLE POLE, 125/277VAC, 20A, MOUNT 48" AFF UON.</p> <p>WALL SWITCH, THREE WAY, 125/277VAC, 20A, MOUNT 48" AFF UON.</p> <p>SINGLE HEADED POLE MOUNTED FIXTURE.</p> <p>DOUBLE HEADED POLE MOUNTED FIXTURE.</p>

SUBMITTAL/ SHOP DRAWING DATA

PROVIDE 6-SETS (EACH) OF MANUFACTURER'S DATA, O&M MANUALS, ELECTRICAL DATA, DIMENSIONAL DATA AND CLEARANCES, CONNECTION DATA, COLOR SAMPLES (IF REQUIRED), AND TEST DATA FOR THE FOLLOWING:

PANELS, DISCONNECT SWITCHES, PULL BOXES.

SHOP DRAWINGS MUST BE SUBMITTED AND APPROVED PRIOR TO ORDERING OF EQUIPMENT. ENGINEER WILL REQUIRE 7 WORKING DAYS TO REVIEW DRAWINGS. ANY ITEM FURNISHED AND/OR INSTALLED WITHOUT THE BENEFIT OF REVIEW AND ACCEPTANCE FOUND TO BE DEFICIENT SHALL BE SUBJECT TO REPLACEMENT AT THE DIRECTION OF THE ENGINEER AND AT THE CONTRACTOR'S SOLE EXPENSE. ENGINEER WILL REQUIRE DETAILED, COMPLETED SUBMITTALS.

**GENERAL NOTES:**

- 1 REFER TO SHEET E2.00 FOR EQUIPMENT AND FEEDER SIZING.
- 2 COORDINATE ALL UNDERGROUND INSTALLATION WITH CIVIL DRAWINGS.
- 3 FINAL EXACT LOCATIONS OF UTILITY TRANSFORMERS, SWITCHBOARDS & DISCONNECTS SHALL BE COORDINATED IN FIELD AS NOT TO INTERFERE WITH OTHER OBJECTS OR TREES.

**KEY NOTES:**

- 1 PROVIDE & INSTALL 2- 4" PVC CONDUITS SCH. 80 FOR UTILITY TRANSFORMER PRIMARY CONDUCTORS.
- 2 EXISTING UTILITY PULL BOX #431J301 FOR PRIMARY CONDUITS.
- 3 EXISTING UTILITY PULL BOX #431A02 FOR PRIMARY CONDUITS.
- 4 UNDERGROUND CONDUIT INSTALLATIONS IN THIS AREA SHALL BE ACCOMPLISHED THROUGH DIRECTIONAL BORING.
- 5 UNDERGROUND CONDUIT INSTALLATIONS IN THIS AREA SHALL BE ACCOMPLISHED WITHOUT DIRECTIONAL BORING.

**BASE BID INCLUDES**

- TO PROVIDE (3) EXTERIOR MAIN ELECTRICAL SERVICES, EACH SERVICE SHALL CONSIST OF A (3) PHASE, 277/480V, 1600A MAIN CIRCUIT BREAKER SWITCHBOARD) FED FROM AN OUC UTILITY PAD MOUNTED TRANSFORMER.
- TO PROVIDE EXTERIOR POWER CONNECTIONS AT (6) LOCATIONS WITHIN THE PARKING LOT AREA, EACH LOCATION SHALL HAVE CONDUIT, WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A NEW CONCRETE PEDESTAL. ALSO TO ACCOUNT FOR (2) ADDITIONAL FUTURE LOCATIONS IN THE AREA THIS SHALL CONSIST OF PROVIDING EMPTY CONDUITS ONLY (NO WIRING AND NO DISCONNECTS).
- TO PROVIDE EXTERIOR POWER CONNECTIONS AT (2) LOCATIONS WITHIN THE OVERFLOW PARKING AREA, EACH LOCATION SHALL HAVE CONDUIT, WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A CONCRETE PEDESTAL. ALSO TO ACCOUNT FOR (2) ADDITIONAL FUTURE LOCATIONS IN THE AREA THIS SHALL CONSIST OF PROVIDING EMPTY CONDUITS ONLY (NO WIRING AND NO DISCONNECTS).

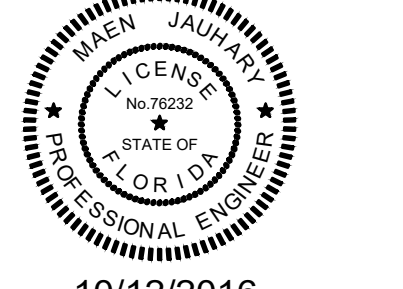
**ADDITIVE E1**

- TO PROVIDE WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A CONCRETE PEDESTAL AT EACH OF THE (2) ADDITIONAL FUTURE LOCATIONS WITHIN THE OVERFLOW PARKING AREA.

**ADDITIVE E2**

- TO PROVIDE WIRING AND A 3 PHASE, 400A MAIN DISCONNECT SWITCH INSTALLED ON A CONCRETE PEDESTAL AT EACH OF THE (2) ADDITIONAL FUTURE LOCATIONS WITHIN THE PARKING LOT AREA.

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Engineer of Record  
  
 10/12/2016  
 Maen Jauhary, PE: 76232 (FL)

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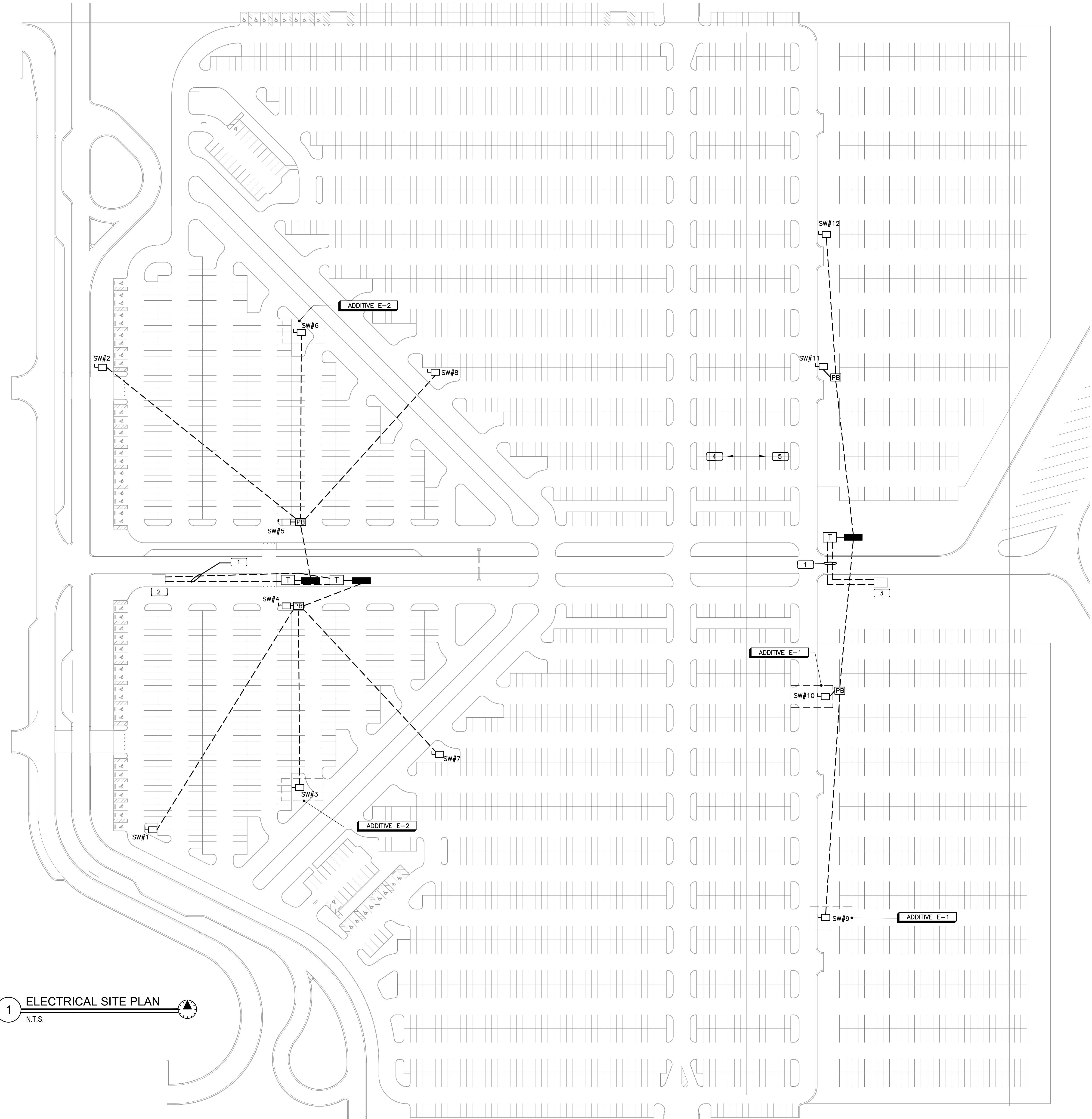
**PROGRESS SET**

#	DATE	DESCRIPTION
1	10/12/16	PERMIT SET

**ELECTRICAL  
SITE PLAN**

Sheet Title

Job No.	16.0CCC.008
Date	October 12, 2016
Drawn	MJ
Checked	MJ
Scale	AS SHOWN



1 ELECTRICAL SITE PLAN  
N.T.S.



Orange County  
Convention Center  
North/South Building  
Exterior Show Power  
Upgrades

Client  
Orange County  
Convention Center  
P.O. Box 691509  
Orlando, Florida 32869

Electrical Engineer:



rtm  
engineering consultants  
1815 S. Orange Blvd., Suite 101, Orlando, FL 32819  
407-965-0244  
www.rtm-inc.com

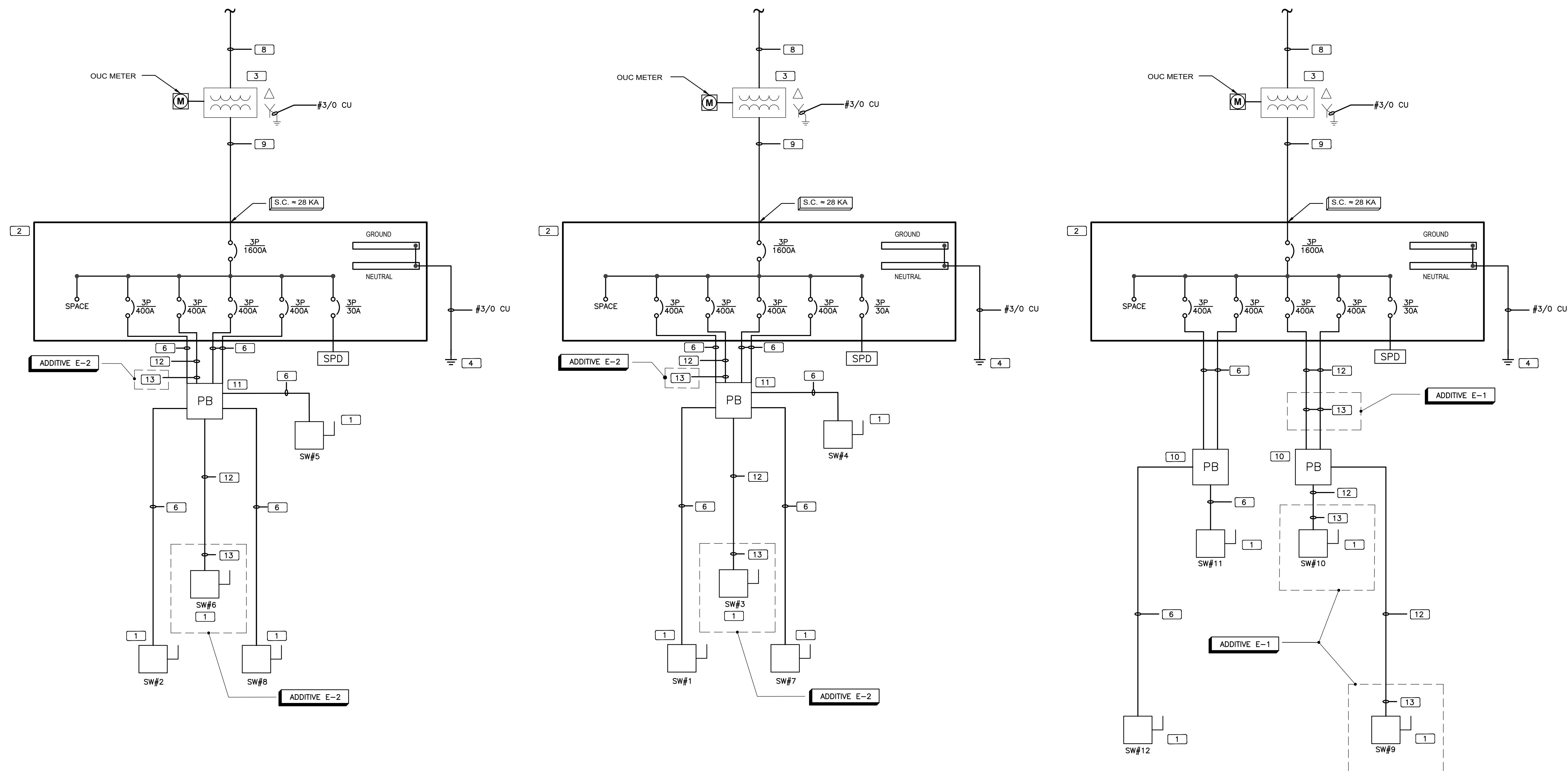
Civil Engineer:



FEG  
FLORIDA ENGINEERING GROUP  
Engineering the Future  
FLORIDA ENGINEERING GROUP, INC.  
5127 S. ORANGE AVE., SUITE 200  
ORLANDO, FLORIDA 32809  
407-965-0244  
www.feg-inc.us

KEY NOTES

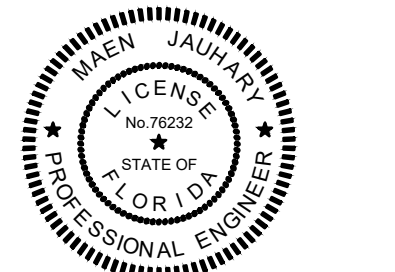
- 1 3P-400A, NON-FUSED, NEMA 3R DISCONNECT SWITCH.
- 2 SWITCHBOARD "MSWB" 1600A, 480Y/277V, 3Ø, 4W, 65KAIC, SERVICE ENTRANCE RATED.
- 3 UTILITY TRANSFORMER, 750 KVA, ESTIMATED, 3Ø, 4W, 480Y/277V, SECONDARY, W/INTERNAL CT CABINET.
- 4 (3) 3/4" x 10' COPPER GROUND RODS, INSTALLED 8' APART.
- 5 NOT USED.
- 6 (2) SETS OF 4-300 KCMIL, 1 #1G IN (1) 4" PVC CONDUIT SCH. 40.
- 7 NOT USED.
- 8 4" PVC CONDUIT TO EXISTING UTILITY PULL BOX, REFER TO SITE PLAN
- 9 (4) SETS OF 4-600 KCMIL IN (4) 4" PVC CONDUITS SCH. 40.
- 10 EXTERIOR TRAFFIC RATED GROUND PULL BOX, 30" X 30" X 12".
- 11 EXTERIOR TRAFFIC RATED GROUND PULL BOX, 36" X 36" X 12".
- 12 4" PVC CONDUIT SCH. 40.
- 13 (2) SETS OF 4-300 KCMIL, 1 #1G IN INSTALLED CONDUIT FROM BASE BID.



1 ELECTRICAL ONE LINE DIAGRAMS  
N.T.S.

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Engineer of Record



10/12/2016  
Maen Jaubary, PE 76232 (FL)

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PROGRESS SET

#	DATE	DESCRIPTION
1	10/12/16	PERMIT SET

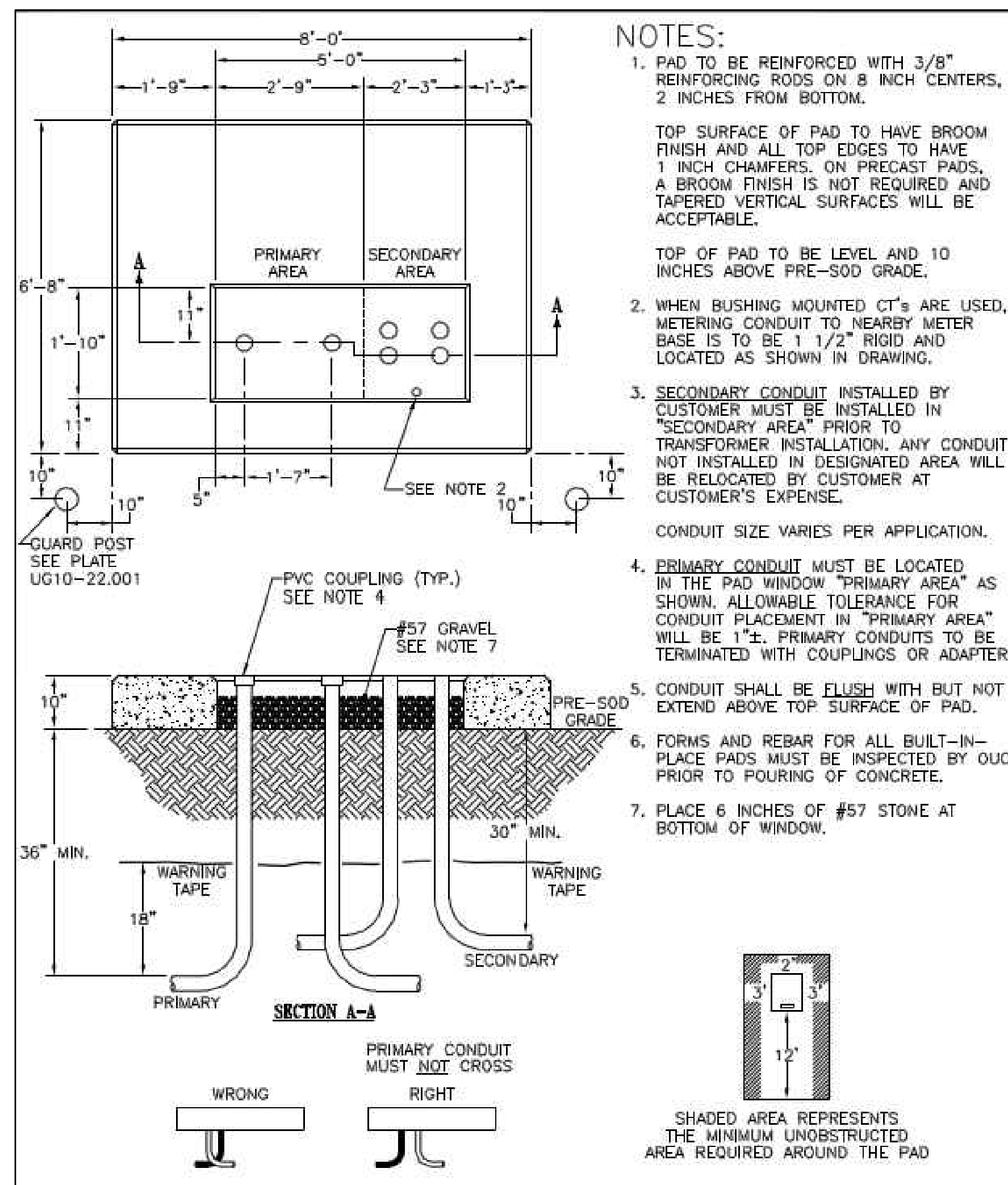
ELECTRICAL  
ONE-LINE  
DIAGRAM

Sheet Title

Job No. 16,0CCC.008  
Date October 12, 2016  
Drawn MJ  
Checked MJ  
Scale AS SHOWN

E2.00

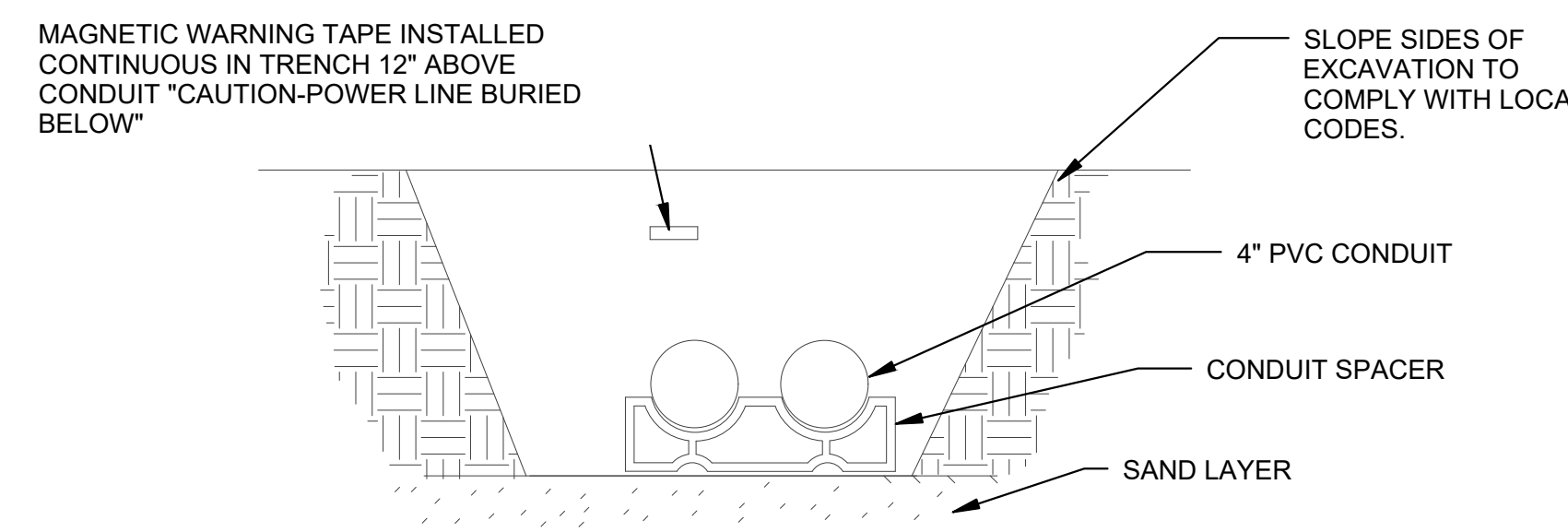
Sheet No.



30. 750-1500KVA, 15KV & 25KV UTILITY TRANSFORMER PAD DETAIL (TYPICAL FOR 3)  
N.T.S.

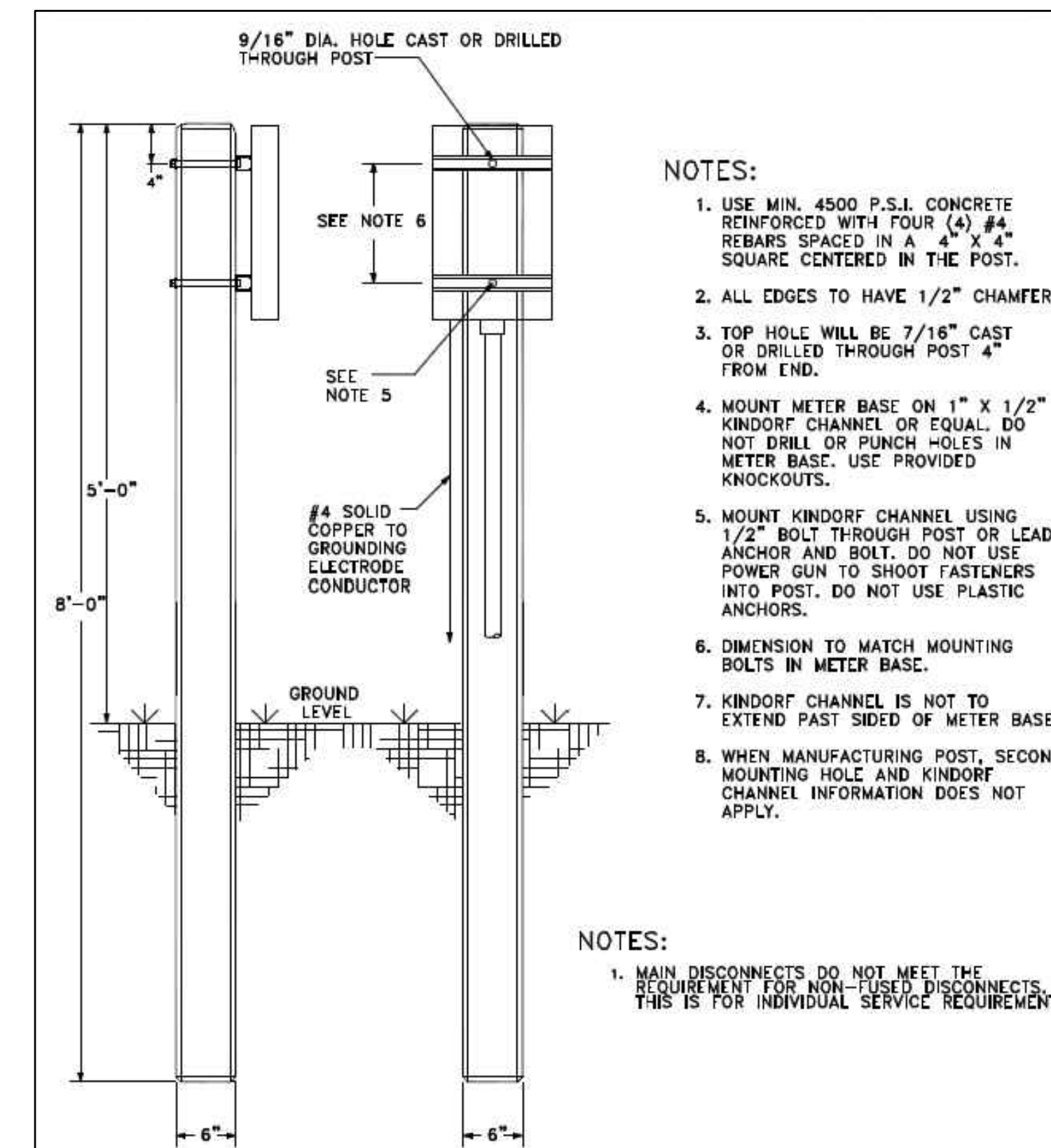
PVC SCHEDULE	
MINIMUM COVER REQUIREMENTS, 0 TO 600 VOLTS, NOMINAL, BURIAL IN INCHES (COVER IS DEFINED AS THE SHORTEST DISTANCE MEASURED BETWEEN A POINT ON THE TOP SURFACE OF ANY DIRECT BURIED CONDUCTOR, CABLE, CONDUIT, OR OTHER RACEWAY AND THE TOP SURFACE OF FINISHED GRADE, CONCRETE, OR SIMILAR COVER.)	
LOCATION OF WIRING METHOD OR CIRCUIT	SCHEDULE 80 RIGID NONMETALLIC CONDUIT APPROVED FOR DIRECT BURIAL WITHOUT CONCRETE ENCASUREMENT
ALL LOCATIONS NOT SPECIFIED BELOW	18
IN TRENCH BELOW 2 INCH THICK CONC. OR EQUIVALENT	12
UNDER A BUILDING	0
UNDER MIN. OF 4-INCH THICK CONCRETE EXTERIOR SLAB WITH NO VEHICULAR TRAFFIC AND THE SLAB EXTENDING NOT LESS THAN 6 INCHES BEYOND UNDERGROUND INSTALLATION.	4
UNDER STREETS, HIGHWAYS, ROADS, ALLEYS, DRIVEWAYS, AND PARKING LOTS.	24

**NOTE:**  
ALL CONDUITS ENTERING BUILDINGS SHALL BE RIGID GALVANIZED STEEL W/ CONDUIT SLEEVES. TRANSITION OF PVC TO RGS SHALL BE MADE WITHIN 5'-0" OF BUILDING LINE WITH CONDUIT ADAPTERS.



**NOTE:**  
REFER TO SCHED FOR PVC CONC. INSTALLATION AND OTHER REQUIREMENTS.

UNDERGROUND CONDUIT INSTALLATION DETAIL  
N.T.S.

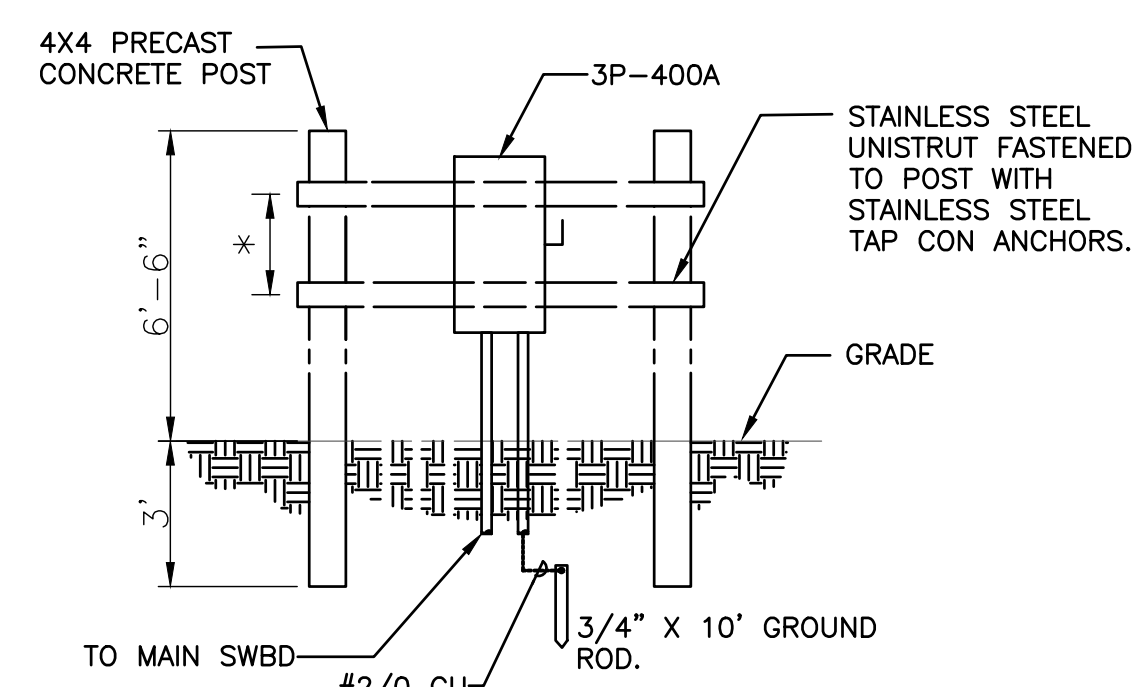


- NOTES:**
- USE MIN. 4500 P.S.I. CONCRETE REINFORCED WITH FOUR (4) #4 REBARS SPACED IN A 4" X 4" SQUARE CENTERED IN THE POST.
  - ALL EDGES TO HAVE 1/2" CHAMFER.
  - TOP HOLE WILL BE 7/16" CAST OR DRILLED THROUGH POST 4" FROM END.
  - MOUNT METER BASE ON 1" X 1/2" KINDORF CHANNEL OR EQUAL. DO NOT DRILL OR PUNCH HOLES IN METER BASE. USE PROVIDED KNOCKOUTS.
  - MOUNT KINDORF CHANNEL USING 1/2" BOLT THROUGH POST OR LEAD ANCHOR AND BOLT. DO NOT USE POWER GUN TO SHOOT FASTENERS INTO POST. DO NOT USE PLASTIC ANCHORS.
  - DIMENSION TO MATCH MOUNTING BOLTS IN METER BASE.
  - KINDORF CHANNEL IS NOT TO EXTEND PAST SIDES OF METER BASE.
  - WHEN MANUFACTURING POST, SECOND MOUNTING HOLE AND KINDORF CHANNEL INFORMATION DOES NOT APPLY.

**NOTES:**

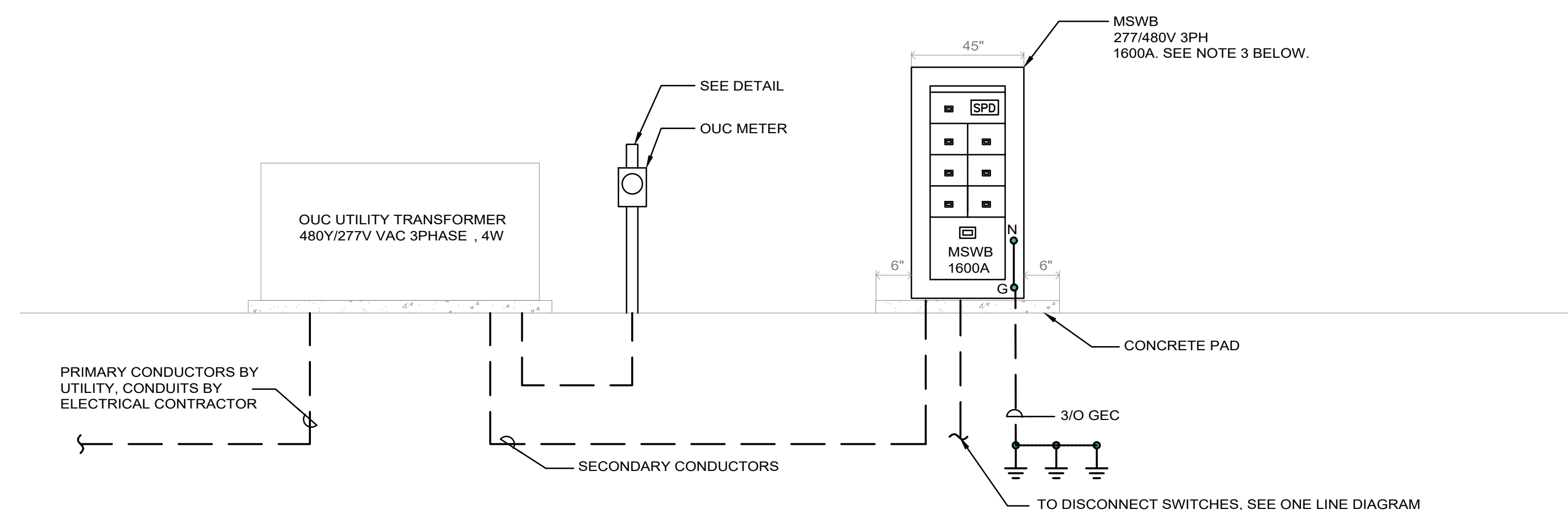
- MAIN DISCONNECTS DO NOT MEET THE REQUIREMENT FOR NON-USE OF DISCONNECTS. THIS IS FOR INDIVIDUAL SERVICE REQUIREMENTS.

UTILITY METER MOUNTING DETAIL (TYPICAL FOR 3)  
N.T.S.



\* SPACE TO MATCH ENCLOSURE MOUNTING HOLES. ADD UNISTRUT AS REQUIRED.

EXTERIOR SHOW POWER DISCONNECT SWITCH MOUNTING DETAIL (TYPICAL FOR 8, 10 OR 12)  
N.T.S.



MSWB DETAIL (TYPICAL FOR 3)  
N.T.S.

**NOTES:**

- CENTER ALL EQUIPMENT ON CONCRETE PAD.
- COORDINATE FINAL DIMENSIONS OF CONCRETE PAD & ENCLOSURE WITH FINAL EQUIPMENT SELECTED.
- SWITCHBOARD ENCLOSURE SHALL BE NEMA 3R OUTDOOR, VENTED, TYPE 304 STAINLESS STEEL PAINTED WITH ANSIBI PAINT. IT SHALL HAVE A FULL HEIGHT SOLID EXTERIOR LOCKABLE DOORS. ENCLOSURE SPACE HEATER SHALL BE SELF POWERED WITHIN THE ENCLOSURE. BUT SHALL BE TIN PLATED COPPER. PROVIDE INTERGRAL SPD RATED AT 200KA AND INCLUDE A SURGE COUNTER.

Orange County Convention Center North/South Building Exterior Show Power Upgrades

Client  
Orange County Convention Center  
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Orlando, Florida 32869

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Engineer of Record  
Maen Jauhary, PE  
10/12/2016  
Maen Jauhary, PE 76232 (FL)

Issuance:

PROGRESS SET

#	DATE	DESCRIPTION
1	10/12/16	PERMIT SET

ELECTRICAL DETAILS

Sheet Title  
Job No. 16.OCCC.008  
Date October 12, 2016  
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Checked MJ  
Scale AS SHOWN

E3.00

Sheet No.