STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 240200-2-52-01

(FEDERAL FUNDS)

SEMINOLE COUNTY (77320)

STATE ROAD NO. 429 (WEKIVA PARKWAY SECTION 7A)

TOLL FACILITIES PLANS

INDEX OF TOLL FACILITIES PLANS

TOLL FACILITIES PLANS
ENGINEER OF RECORD:

RAJNIKANT J. PATEL, P.E.
PE No.: 51149
AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
Phone (813) 286-1711
CONTRACT NO. C-9855
VENDOR NO. F952661922
CERTIFICATE OF AUTHORIZATION NO. 00008115

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.	DRAWING NO.
T5626	18	1	GN-001

RAJNIKANT J. PATEL
LICENSE
No 51149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Rajnikant J Patel
Digitally signed by Rajnikant J Patel
Date: 2017.07.31 13:54:56 -04'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

AECOM TECHNICAL SERVICES, INC.
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
RAJNIKANT J. PATEL, P.E. NO. 51149

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

TOLL FACILITIES PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
1	GN-001	Key Sheet
2	GN-002	Signature Sheet

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SIGNATURE SHEET

DRAWING NO. GN-002
SHEET NO. 2

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 240200-2-52-01

(FEDERAL FUNDS)

SEMINOLE COUNTY (77320)

STATE ROAD NO. 429 (WEKIVA PARKWAY SECTION 7A)

TOLL FACILITIES - SITE PLANS

INDEX OF TOLL FACILITIES-SITE PLANS

* Note:
A = Plans to be submitted for the State Building Permit for Ramp F
B = Plans to be submitted for the State Building Permit for Ramp E

TOLL FACILITIES-SITE PLANS
ENGINEER OF RECORD:

RAJNIKANT J. PATEL, P.E.
PE No.: 51149
AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
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CONTRACT NO. C-9855
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CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.	DRAWING NO.
T5626	18	1	GC-001

RAJNIKANT J. PATEL
LICENSE
No 51149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Rajnikant J Patel
Digitally signed by Rajnikant J Patel
Date: 2017.07.31 13:56:42 -04'00'

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AECOM TECHNICAL SERVICES, INC.
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
RAJNIKANT J. PATEL, P.E. NO. 51149

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

TOLL FACILITIES - SITE PLANS

CIVIL SITE PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
1	GC-001	Key Sheet
2	GC-002	Signature Sheet
3	GC-003	Toll Site Layout - Ramp E
4	GC-004	Toll Site Layout - Ramp F
5	GC-005	Toll Site Details
6	GC-006	Toll Site Grading - Ramp E
7	GC-007	Toll Site Grading - Ramp F

PETER J. PASTORE
LICENSE
No 77103
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Peter Pastore
Digitally signed by Peter Pastore
Date: 2017.07.31 13:43:00 -04'00'

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AECOM Technical Services, Inc.,
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
PETER J. PASTORE, P.E. NO. 77103

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

TOLL FACILITIES - SITE PLANS

ELECTRICAL SITE PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
2	GC-002	Signature Sheet
8	CE-101	Electrical Symbols, Legend and Abbreviations
9	CE-102	Electrical General Notes
10	CE-111	Site Electrical Plan at Ramp E
11	CE-112	Enlarged Site Electrical Plan at Ramp E
12	CE-113	Lightning Protection Plan at Ramp E
13	CE-114	Tolling Loop Conduit & Pull Box Details
14	CE-201	Electrical Symbols, Legend and Abbreviations
15	CE-202	Electrical General Notes
16	CE-211	Site Electrical Plan at Ramp F
17	CE-212	Enlarged Site Plan Electrical at Ramp F
18	CE-213	Lightning Protection Plan at Ramp F
19	CE-214	Tolling Loop Conduit & Pull Box Details

REVISIONS			
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AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

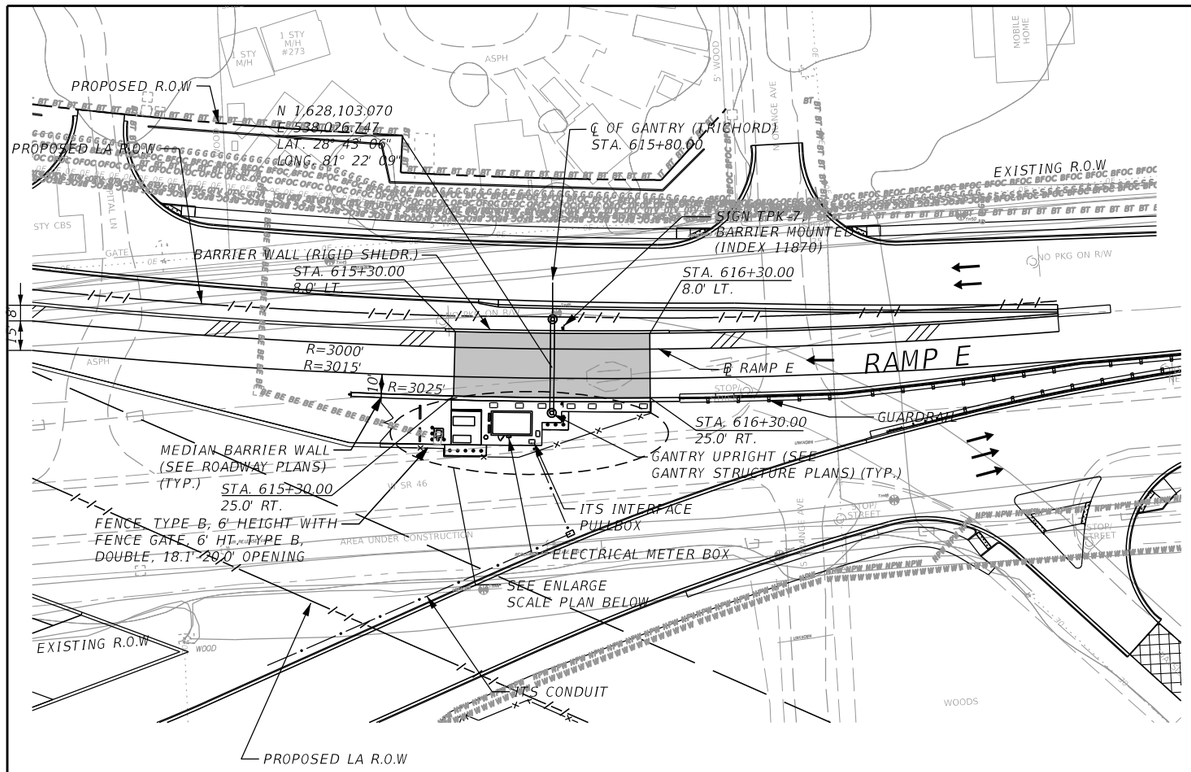
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

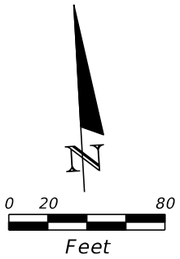
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SIGNATURE SHEET
(SITE PLANS)

DRAWING NO. GC-002
SHEET NO. 2

raj.patel 7/31/2017 11:40:31 AM S:\Projects_RDWY\ProjFdot\ProjFDOT\V8\24020025201\arch\civil\SIGNRD99.DGN





NOTES:

1. THIS PLAN TO BE READ IN CONJUNCTION WITH
ROADWAY PLANS - Roadway, Drainage, Profiles, cross-sections, Traffic Control Plans, Utility Adjustment Sheets
TOLL FACILITIES - GANTRY PLAN: Gantry Structures and Gantry Electrical
TOLL FACILITIES - BUILDING PLAN: Architectural Plans, Building Structure Plans, Screen Wall, Building Electrical and Mechnical Plans
SIGNING & PAVEMENT MARKINGS PLANS
ITS PLANS
LIGHTING PLANS

2. REINFORCED STEEL STRUCTURES, ANY METALLIC OBJECTS AND LOW OR HIGH VOLTAGE TRANSMISSION CABLES ARE NOT ALLOWED BENEATH ASPHALT GANTRY PAVEMENT (SHADED AREA AS SHOWN IN PLAN VIEW).

3. CONCRETE PADS TO BE MINIMUM 2" HIGHER THAN ADJACENT CONCRETE SIDEWALK WITH ½" EXPANSION JOINT AND SEALER ALONG PERIMETER. EXPANSION JOINTS SHALL BE PROVIDED BETWEEN CONCRETE SIDEWALK AND DRILLED SHAFT FOUNDATION, CONCRETE BARRIER WALL AND DRYWALL.

4. LOOPS IN ASPHALT PAVEMENT ARE INSTALLED BY TOLL EQUIPMENT CONTRACTOR (NOT DEPICTED ON PLANS FOR CLARITY).

5. FOR JOINTS BETWEEN CONCRETE SIDEWALK AND CONCRETE STRUCTURES REFER TO INDEX 305.

6. FOR JOINTS BETWEEN CONCRETE SIDEWALK AND ASPHALT PAVEMENT REFER TO DETAIL 'CONC. SIDEWALK/ASPHALT PAVEMENT JOINT DETAIL' DEPICTED ON DRAWING # GC-005.

7. FOR CONCRETE SIDEWALK JOINTS REFER TO INDEX 310.

8. FOR BOLLARD AND CONCRETE PAD DETAIL REFER TO DRAWING NUMBER 'GC-005'.

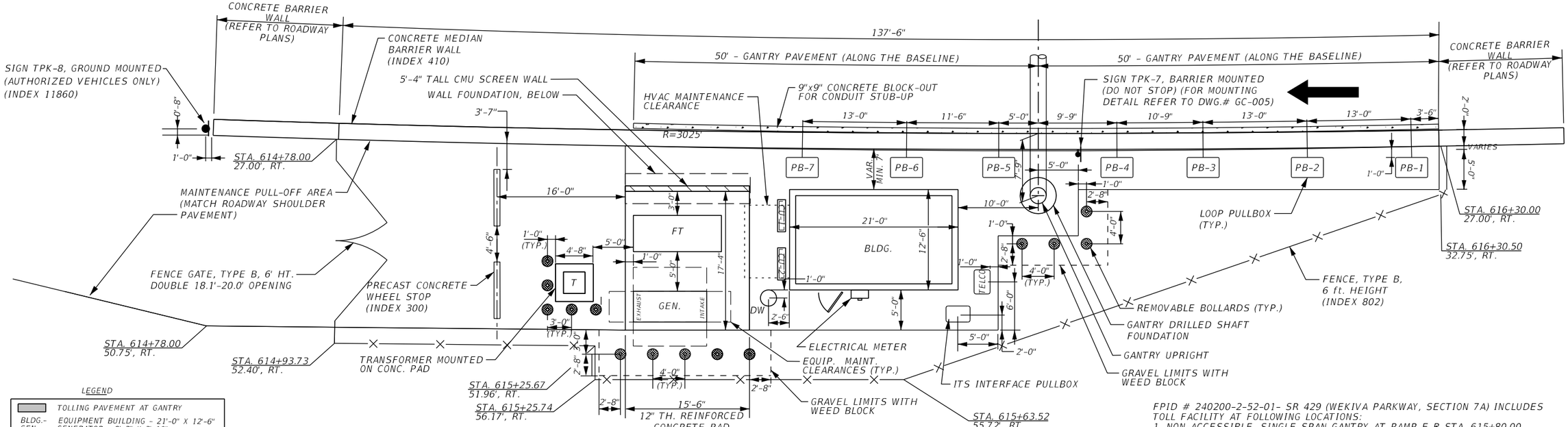
9. GENERATOR TO BE POSITIONED IN SUCH MANNER THAT AIR INTAKE IS DIRECTED TOWARDS THE BUILDING SIDE AND THE EXHAUST IS DIRECTED TOWARDS TRANSFORMER SIDE FOR THIS PROJECT.

10. SODDING LIMITS - 100 FEET ON EITHER SIDE OF GANTRY LOCATION AND FROM RIGHT-OF-WAY LINES FOR ALL AREAS THAT ARE DISTURBED FROM CONSTRUCTION ACTIVITIES.

11. ITEMS LISTED BELOW, WITHIN THE LIMITS OF GANTRY PAVEMENT SHALL BE PAID UNDER FOLLOWING ROADWAY PAY ITEMS:

110-1-1	CLEARING & GRUBBING	334-1-53	SUPERPAVE ASPH. CONC, TRAFFIC C, PG 76-22
120-1	REGULAR EXCAVATION	337-7-83	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-12.5, PG 76-22
120-4	SUBSOIL EXCAVATION		
120-6	EMBANKMENT	521-1	MEDIAN CONCRETE BARRIER WALL
160-4	TYPE B STABILIZATION	521-72-3	SHOULDER CONCRETE BARRIER WALL, RIGID-SHOULDER
285-70-6	OPTIONAL BASE, BASE GROUP 06	536 1 1	GUARDRAIL -ROADWAY
285-70-9	OPTIONAL BASE, BASE GROUP 09	570-1-1	PERFORMANCE TURF
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C		

12. ALL WORK AT TOLL SITE, WITHIN THE LIMITS OF GANTRY PAVEMENT AS DESCRIBED IN THE TECHNICAL SPECIAL PROVISION - 'SR 429 (WEKIVA PARKWAY, SECTION 7A)', AND NOT LISTED IN NOTE # 11 SHALL BE PAID AS LUMP SUM UNDER PAY ITEM 735-74-1.



LEGEND

- TOLLING PAVEMENT AT GANTRY
- BLDG. - EQUIPMENT BUILDING - 21'-0" X 12'-6"
- GEN. - GENERATOR - 9'-2" X 3'-10"
- FT - FUEL TANK - 11'-0" X 4'-6"
- T - TRANSFORMER - 4'-8" X 4'-8"
- DW - CONDENSATE DRYWELL
- ● - REMOVABLE BOLLARDS

SITE LAYOUT (ENLARGED)

(N.T.S)

FPID # 240200-2-52-01- SR 429 (WEKIVA PARKWAY, SECTION 7A) INCLUDES TOLL FACILITY AT FOLLOWING LOCATIONS:
1. NON-ACCESSIBLE, SINGLE SPAN GANTRY AT RAMP E @ STA. 615+80.00
2. NON-ACCESSIBLE, SINGLE SPAN GANTRY AT RAMP F @ STA. 712+00.00
(FOR SITE LOCATION MAP REFER TO 'SYMBOLS, LEGEND AND NOTES', DRAWING # AG-100).

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

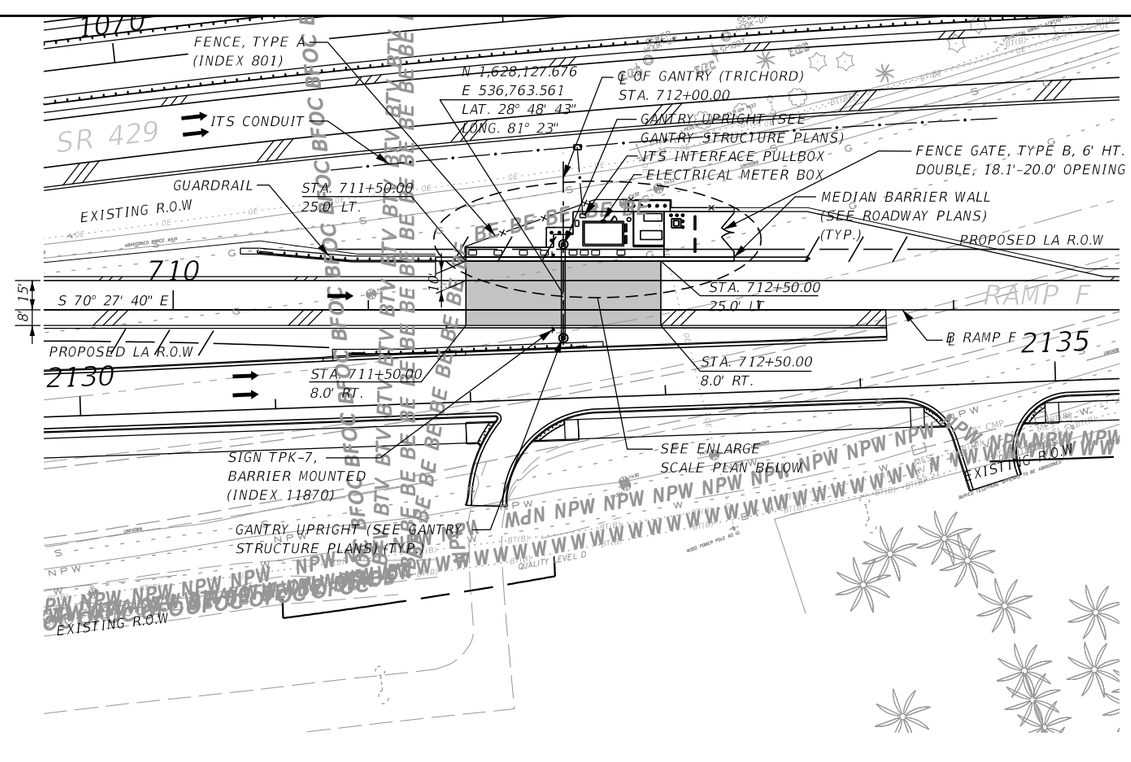
TOLL SITE LAYOUT - RAMP E

(WEKIVA PARKWAY SECTION 7A)

DRAWING NO. GC-003

SHEET NO. 3

raj.patel 7/28/2017 7:10:14 AM S:\Projects_RDWY\ProjFdot\ProjFDOT\V8\24020025201\arch\civil\spdtrd00.DGN



NOTES:

1. THIS PLAN TO BE READ IN CONJUNCTION WITH
ROADWAY PLANS – Roadway, Drainage, Profiles, cross-sections, Traffic Control Plans, Utility Adjustment Sheets
TOLL FACILITIES – GANTRY PLAN: Gantry Structures and Gantry Electrical
TOLL FACILITIES – BUILDING PLAN: Architectural Plans, Building Structure Plans, Screen Wall, Building Electrical and Mechnical Plans
SIGNING & PAVEMENT MARKINGS PLANS
ITS PLANS
LIGHTING PLANS

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3. CONCRETE PADS TO BE MINIMUM 2" HIGHER THAN ADJACENT CONCRETE SIDEWALK WITH ½" EXPANSION JOINT AND SEALER ALONG PERIMETER. EXPANSION JOINTS SHALL BE PROVIDED BETWEEN CONCRETE SIDEWALK AND DRILLED SHAFT FOUNDATION, CONCRETE BARRIER WALL AND DRYWALL.

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6. FOR JOINTS BETWEEN CONCRETE SIDEWALK AND ASPHALT PAVEMENT REFER TO DETAIL 'CONC. SIDEWALK/ASPHALT PAVEMENT JOINT DETAIL' DEPICTED ON DRAWING # GC-005.

7. FOR CONCRETE SIDEWALK JOINTS REFER TO INDEX 310.

8. FOR BOLLARD AND CONCRETE PAD DETAIL REFER TO DRAWING NUMBER 'GC-005'.

9. GENERATOR TO BE POSITIONED IN SUCH MANNER THAT AIR INTAKE IS DIRECTED TOWARDS THE BUILDING SIDE AND THE EXHAUST IS DIRECTED TOWARDS TRANSFORMER SIDE FOR THIS PROJECT.

10. SODDING LIMITS – 100 FEET ON EITHER SIDE OF GANTRY LOCATION AND FROM RIGHT-OF-WAY LINES FOR ALL AREAS THAT ARE DISTURBED FROM CONSTRUCTION ACTIVITIES.

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120-1	REGULAR EXCAVATION	337-7-83	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-12.5, PG 76-22
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285-70-9	OPTIONAL BASE, BASE GROUP 09		
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C		

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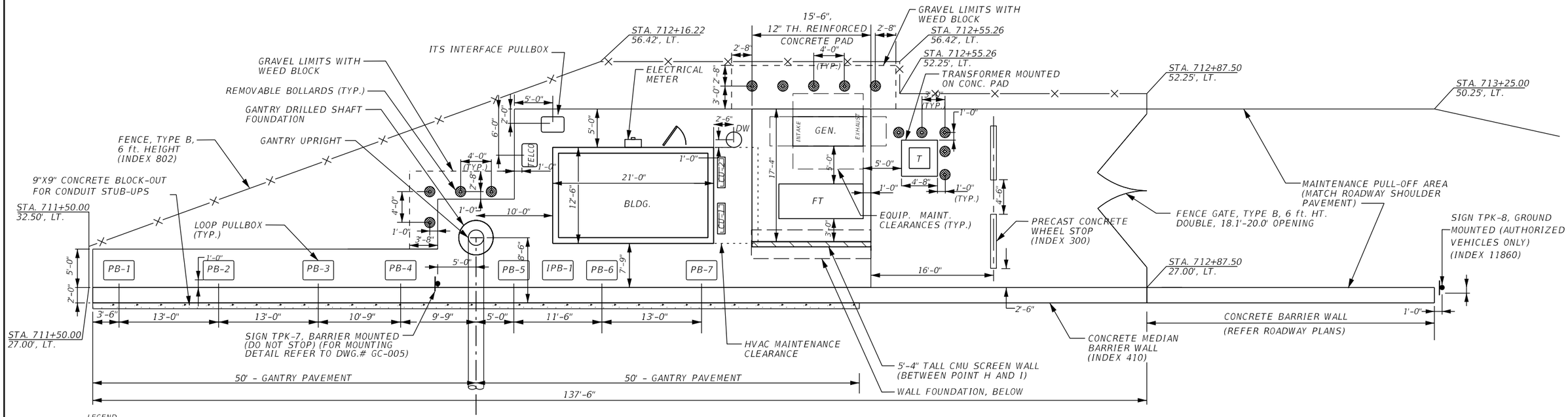

LEGEND

- ROADWAY PAVEMENT AT GANTRY
- BLDG.- EQUIPMENT BUILDING - 21'-0" X 12'-6"
- GEN. - GENERATOR - 9'-2" X 3'-10"
- FT - FUEL TANK - 11'-0" X 4'-6"
- T - TRANSFORMER - 4'-8" X 4'-8"
- DW - CONDENSATE DRYWELL
- ● - REMOVABLE BOLLARDS

SITE LAYOUT (ENLARGED)

(N.T.S)

FPID # 240200-2-52-01- SR 429 (WEKIVA PARKWAY, SECTION 7A) INCLUDES TOLL FACILITY AT FOLLOWING LOCATIONS:
1. NON-ACCESSIBLE, SINGLE SPAN GANTRY AT RAMP E ℄ STA. 615+80.00
2. NON-ACCESSIBLE, SINGLE SPAN GANTRY AT RAMP F ℄ STA. 712+00.00
(FOR SITE LOCATION MAP REFER TO 'SYMBOLS, LEGEND AND NOTES', DRAWING # AG-100).

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

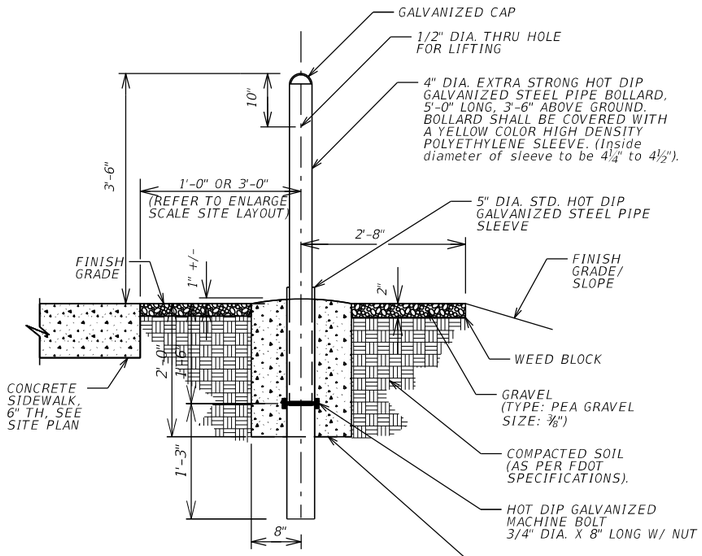
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

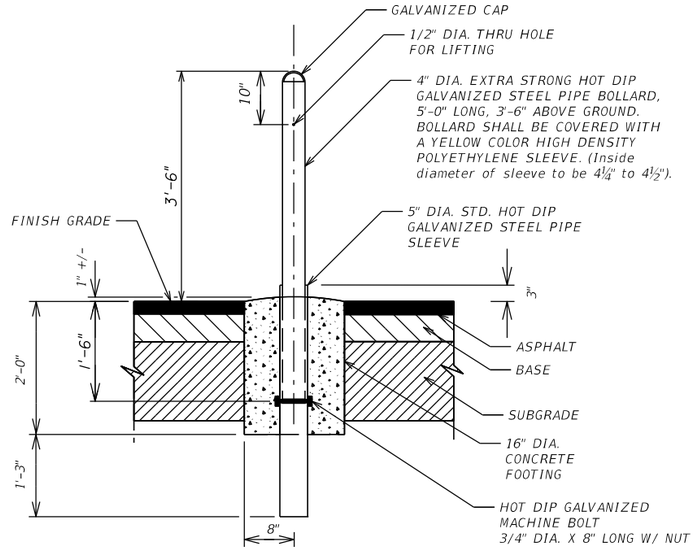
TOLL SITE LAYOUT - RAMP F

(WEKIVA PARKWAY SECTION 7A)

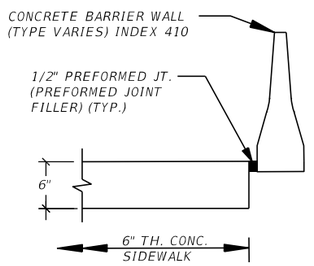
DRAWING NO. GC-004
SHEET NO. 4



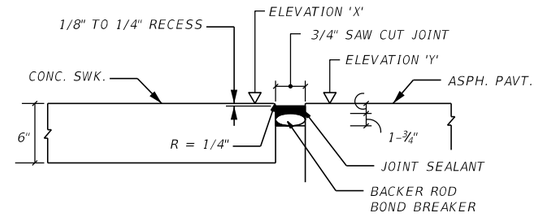
REMOVABLE BOLLARD DETAIL
(ON EXISTING GROUND)
SCALE: N.T.S.



REMOVABLE BOLLARD DETAIL
(ON ASPHALT PAVEMENT)
SCALE: N.T.S.

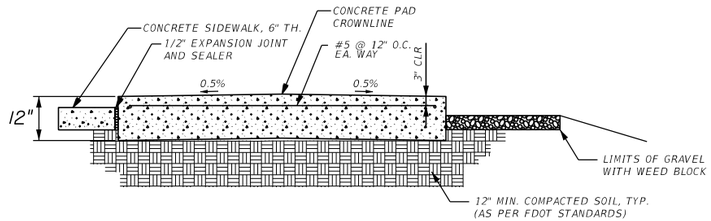


(CONCRETE SIDEWALK ADJACENT TO CONCRETE BARRIER WALL)
SCALE: N.T.S.



ELEVATION 'X' = ELEVATION 'Y'

CONC. SIDEWALK/ASPHALT PAVEMENT JOINT DETAIL (INDEX 305)
SCALE: N.T.S.

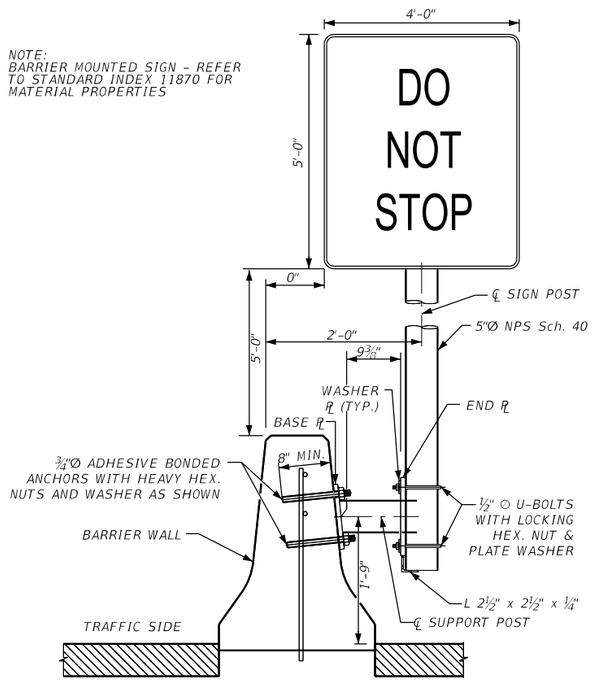


CONCRETE PAD FOR GENERATOR AND FUEL TANK - 12" THICK
SCALE: N.T.S.

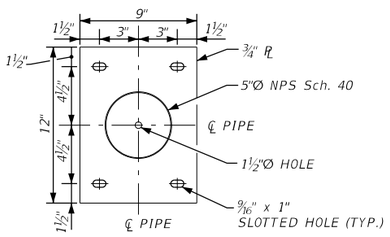
PAD CONSTRUCTION MATERIAL: CONCRETE: CLASS II, FDOT 3400 PSI, 28 DAYS
REIN. STEEL: ASTM A615, GRADE 60 UNCOATED

NOTE: CONCRETE PAD FOR TRANSFORMER - CONTRACTOR TO COORDINATE WITH THE LOCAL ELECTRIC UTILITY COMPANY TO DETERMINE THE CORRECT TRANSFORMER PAD SIZE, SHAPE AND CUTOUTS THAT ARE REQUIRED BY THE UTILITY.

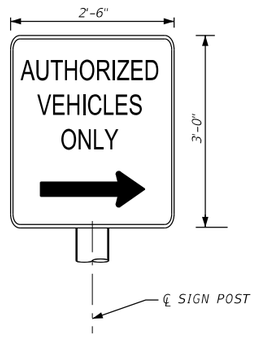
NOTE:
BARRIER MOUNTED SIGN - REFER TO STANDARD INDEX 11870 FOR MATERIAL PROPERTIES



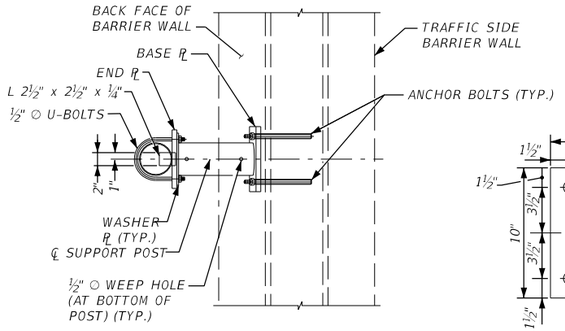
TYPICAL SECTION THRU BARRIER WALL AT SIGN SUPPORT BRACKET
(LOOKING IN DIRECTION OF TRAFFIC)
SCALE: N.T.S.



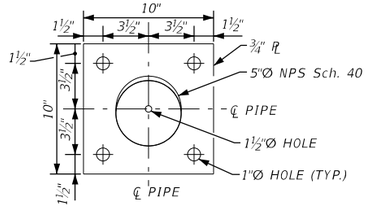
END PLATE



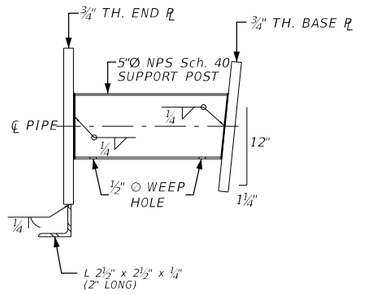
SIGN TPK - 8 (RIGHT)
GROUND MOUNTED
(INDEX 11860)
SCALE: N.T.S.



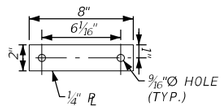
PLAN
SIGN SUPPORT BRACKET



BASE PLATE



SIGN SUPPORT WELDMENT DETAIL



U-BOLT PLATE WASHER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

TOLL SITE DETAILS

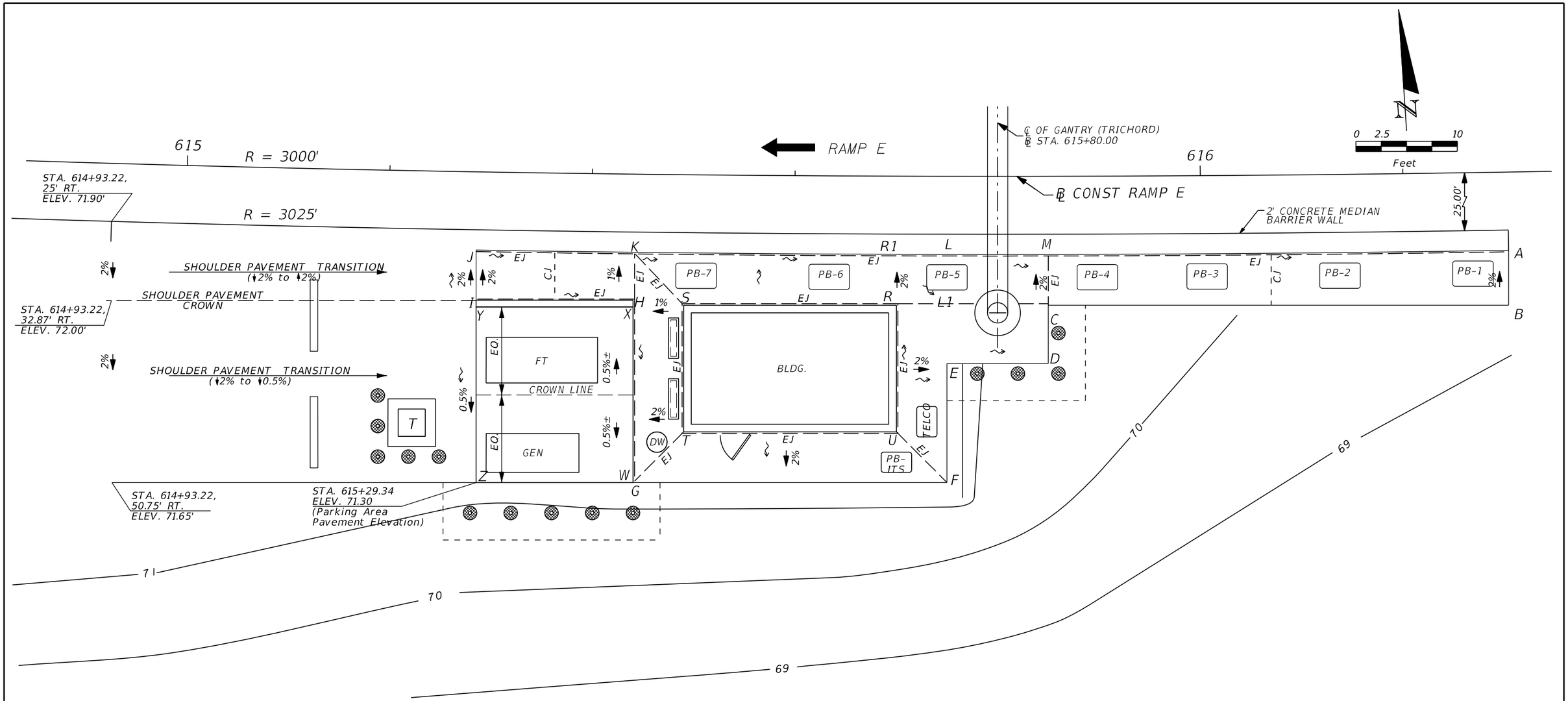
(WEKIVA PARKWAY SECTION 7A)

DRAWING NO. GC-005

SHEET NO. 5

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

raj.patel 7/28/2017 9:12:04 AM S:\Projects_RDWY\ProjFdot\ProjFDOT\V8\24020025201\arch\civil\SPDTRD02.DGN



EJ — EXPANSION JOINT - REFER TO NOTE #7 ON DWG. NO. 'GC-003'.

CJ — CONTRACTION JOINT - REFER TO NOTE #7 ON DWG. NO. 'GC-003.

LEGEND

BLDG.	-	TOLL EQUIPMENT BUILDING 21'-0" X 12'-6"
DW	-	CONDENSATE DRYWELL
FT	-	FUEL TANK - 11'-0" X 4'-6"
GEN	-	GENERATOR - 9'-2" X 3'-10"
T	-	PAD MOUNTED TRANSFORMER - 4'-8" X 4'-8"
⊗	-	REMOVABLE BOLLARDS

6" THICK CONCRETE SIDEWALK

POINT	STATION	OFFSET	ELEVATION
A	616+30.00	27.00' RT	69.40'
B	616+30.00	33.16' RT	69.50'
C	615+84.95	32.75' RT	70.70'
D	615+84.94	37.75' RT	70.80'
E	615+75.06	37.75' RT	71.08'
F	615+75.08	49.50' RT	71.15'
G	615+44.59	49.71' RT	71.15'
H	615+44.39	32.43' RT	71.20'
I	615+29.00	32.66' RT	71.40'
J	615+28.96	27.00' RT	71.30'
K	615+44.39	27.00' RT	71.15'
L	615+75.06	27.00' RT	70.90'
M	615+84.95	27.00' RT	70.60'
R1	615+70.11	27.00' RT	71.00'
L1	615+75.06	32.00' RT	71.00'

BUILDING EXTERIOR CORNERS

POINT	STATION	OFFSET	ELEVATION
R	615+70.11	32.02' RT	71.10'
S	615+49.33	32.16' RT	71.20'
T	615+49.45	44.66' RT	71.25'
U	615+70.15	44.52' RT	71.25'

12" THICK CONCRETE PAD

POINT	STATION	OFFSET	ELEVATION
W	615+44.59	49.71' RT	71.60'
X	615+44.39	32.43' RT	71.60'
Y	615+29.05	32.66' RT	71.60'
Z	615+29.34	49.93' RT	71.60'

TOP OF PULL BOX ELEVATIONS

POINT	ELEVATION
PB-1	69.62'
PB-2	70.07'
PB-3	70.30'
PB-4	70.60'
PB-5	70.94'
PB-6	71.09'
PB-7	71.18'
PB-ITS	71.18'
TELCO	71.20'
DW	71.20'

100 YEAR FLOOD ELEVATION:
Lake Sylvan (South side of Mainline): 42.2' (NAVD 88)
Yankee Lake (North side of Mainline): 37.2' (NAVD 88)
(REFER TO ' DRAINAGE DESIGN DOCUMENTATION '
- FPID # 240200-2-52-01, WEKIVA PARKWAY, SECTION 7A)

BUILDING FLOOR ELEVATION - 71.30'
FUEL TANK / GENERATOR PAD ELEVATION - 71.65'
TRANSFORMER PAD ELEVATION - 71.55'

PULL BOX ELEVATIONS DEPICTED HERE ARE AT THE CENTER OF THE PULL BOX. THE PULL BOX TOP SHALL MATCH THE CROSS SLOPE OF ADJACENT CONCRETE WORK.

STATION OFFSET DEPICTED ON THIS PLAN SHEET ARE RADIAL TO THE RAMP E BASELINE.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

TOLL SITE GRADING - RAMP E

S.R. 429 (WEKIVA PARKWAY SECTION 7A)

DRAWING NO. GC-006

SHEET NO. 6

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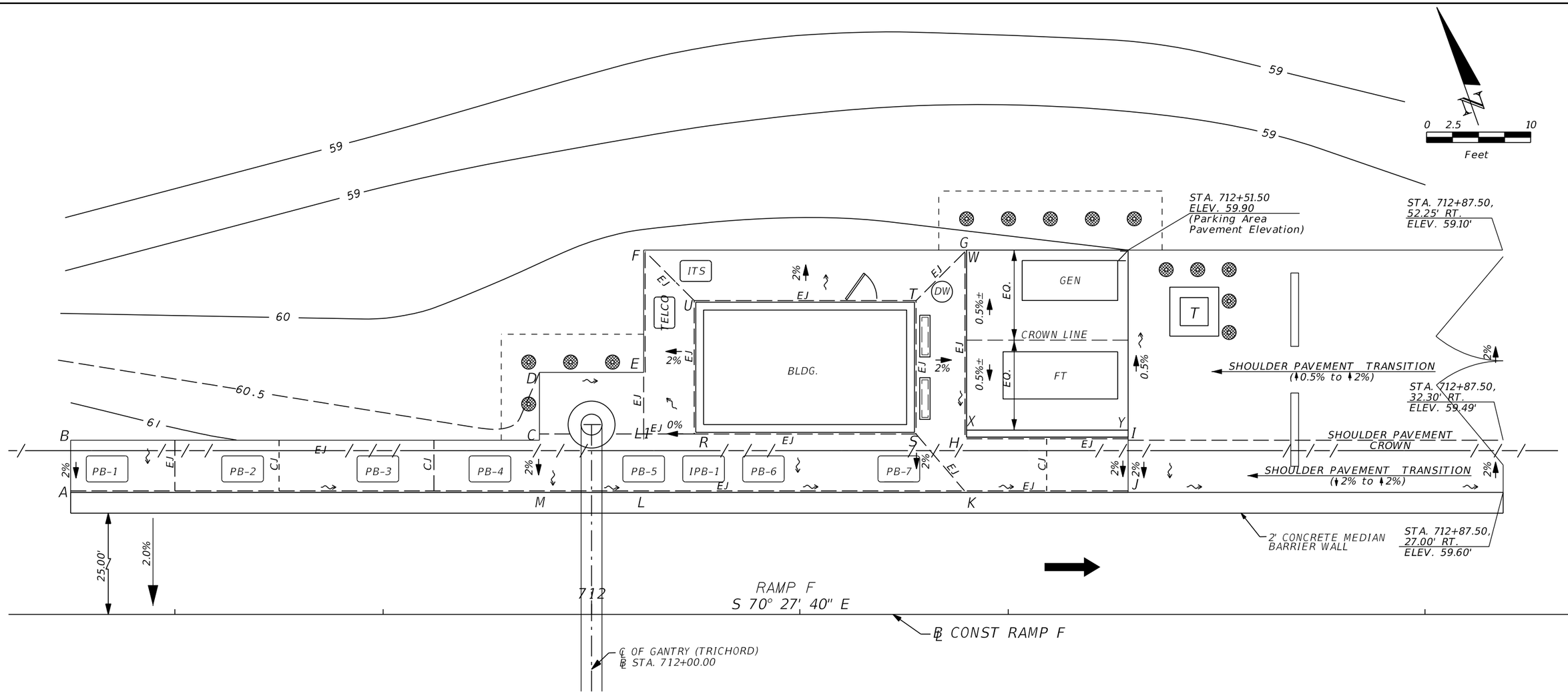

EJ — EXPANSION JOINT - REFER TO NOTE #7 ON DWG. NO. 'GC-004'.

CJ — CONTRACTION JOINT - REFER TO NOTE #7 ON DWG. NO. 'GC-004.

LEGEND

BLDG. - TOLL EQUIPMENT BUILDING 21'-0" X 12'-6"
DW - CONDENSATE DRYWELL
FT - FUEL TANK - 11'-0" X 4'-6"
GEN - GENERATOR
T - PAD MOUNTED TRANSFORMER - 4'-8" X 4'-8"
⊗ - REMOVABLE BOLLARDS

6" THICK CONCRETE SIDEWALK

POINT	STATION	OFFSET	ELEVATION
A	711+50.00	27.00' LT	61.10'
B	711+50.00	32.00' LT	61.20'
C	711+95.00	32.00' LT	60.50'
D	711+95.00	38.50' LT	60.50'
E	712+05.00	38.50' LT	60.20'
F	712+05.00	52.25' LT	60.20'
G	712+36.00	52.25' LT	60.20'
H	712+36.00	32.30' LT	60.10'
I	712+51.50	32.30' LT	60.00'
J	712+51.50	27.00' LT	59.90'
K	712+36.00	27.00' LT	60.00'
L	712+05.00	27.00' LT	60.20'
M	711+95.00	27.00' LT	60.40'
R1	712+10.00	27.00' LT	60.18'
L1	712+05.00	32.75' LT	60.30'
S1	712+31.00	27.00' LT	60.15'

BUILDING EXTERIOR CORNERS

POINT	STATION	OFFSET	ELEVATION
R	712+10.00	32.75' LT	60.30'
S	712+31.00	32.75' LT	60.20'
T	712+31.00	45.25' LT	60.30'
U	712+10.00	45.25' LT	60.30'

12" THICK CONCRETE PAD

POINT	STATION	OFFSET	ELEVATION
W	712+36.00	52.25' LT	60.40'
X	712+36.00	32.30' LT	60.40'
Y	712+51.50	32.30' LT	60.40'
Z	712+51.50	52.25' LT	60.40'

TOP OF PULL BOX ELEVATIONS

POINT	ELEVATION
PB-1	61.09'
PB-2	60.88'
PB-3	60.68'
PB-4	60.50'
PB-5	60.26'
PB-6	60.21'
PB-7	60.15'
PB-ITS	60.24'
TELCO	60.24'
DW	60.26'
IPB-1	60.24'

100 YEAR FLOOD ELEVATION:
Lake Sylvan (South side of Mainline): 42.2' (NAVD 88)
Yankee Lake (North side of Mainline): 37.2' (NAVD 88)
(REFER TO ' DRAINAGE DESIGN DOCUMENTATION '
- FPID # 240200-2-52-01, WEKIVA PARKWAY, SECTION 7A)

BUILDING FLOOR ELEVATION - 60.35'
FUEL TANK / GENERATOR PAD ELEVATION - 60.45'
TRANSFORMER PAD ELEVATION - 60.20'

PULL BOX ELEVATIONS DEPICTED HERE ARE AT THE CENTER OF THE PULL BOX. THE PULL BOX TOP SHALL MATCH THE CROSS SLOPE OF ADJACENT CONCRETE WORK.

REVISIONS			
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Campbell Causeway
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C.A. No. 8115
Rajnikant J. Patel, P.E. No. 51149

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

TOLL SITE GRADING - RAMP F

S.R. 429 (WEKIVA PARKWAY SECTION 7A)

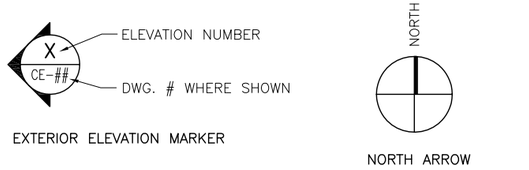
DRAWING NO. GC-007
SHEET NO. 7

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

ELECTRICAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION
	CONDUIT UP.
	CONDUIT DOWN.
C-1,3 (TIE)	HOMERUN TO PANEL – LETTER INDICATES PANEL, NUMBERS INDICATE CIRCUITS. ALL RACEWAYS WITHOUT FURTHER DESIGNATION INDICATE A TWO-WIRE CIRCUIT. FOUR WIRES ARE INDICATED. LONG MARKS INDICATE NEUTRAL CONDUCTOR, SHORT MARKS INDICATE PHASE CONDUCTORS. PROVIDE GREEN GROUND CONDUCTOR IN ALL CONDUITS. (TIE) INDICATES CIRCUIT IS SHARED WITH ADDITIONAL RECEPTACLES.
	DEVICE OR EQUIPMENT AS NOTED
#	REFERENCE NOTES
J	OUTLET OR JUNCTION BOX, SIZE PER NEC.
	PANELBOARD. (DIRTY POWER)
	SQUARE D POWERLINK PANELBOARD (CRITICAL POWER) PANELBOARD FED VIA UPS
	CONTROL PANEL.
ATS	AUTOMATIC TRANSFER SWITCH.
SPD	SURGE PROTECTION DEVICE.
PB	PULL BOX.
S	EMERGENCY POWER SHUTOFF SWITCH.
LP	LIGHTNING PROTECTION CONDUCTOR.
G	UNDERGROUND GROUND CONDUCTOR.
	CONDUIT RACEWAY EXPOSED.
	CONDUIT RACEWAY CONCEALED IN CEILING SPACE OR WALLS.
	CONDUIT RACEWAY IN CONCRETE SLAB OR UNDERGROUND.
	WIREWAY
	WIREWAY FITTING
	GROUND INSPECTION WELL
	GROUND BUSBAR
	GROUND ROD

GENERAL SYMBOL LEGEND:



ABBREVIATIONS:

A	AMPS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	AIR CONDITIONING [UNIT]
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AL, ALUM.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AVI	AUTOMATIC VEHICLE IDENTIFICATION
AWG	AMERICAN WIRE GAUGE
BCU	BATTERY CHARGER UNIT
BLDG.	BUILDING
BPS	BYPASS SWITCH
C.	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CKT.	CIRCUIT
COMP	COMPUTER
CU	COPPER
COMM.	COMMUNICATION
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIA.	DIAMETER
DN	DOWN
DWG.	DRAWING
E6	ENCOMPASS 6 MULTIPROTOCOL READER
EB	EASTBOUND
ENG.	ENGINE
E.T.C.	ELECTRONIC TOLL COLLECTION
ETC.	ET CETERA
EQUIP.	EQUIPMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPO	EMERGENCY POWER OFF
EXT.	EXTERIOR
FBC	FLORIDA BUILDING CODE
FOC	FIBER OPTIC CABLE
FT	FOOT; FEET
FTE	FLORIDA'S TURNPIKE ENTERPRISE
FTL	FEED THROUGH LUGS
FTM	FUEL TANK MONITOR
FUT	FUTURE
GA	GAUGE
GAL.	GALLON
GEC	GROUNDING ELECTRODE CONDUCTOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HORIZONTAL, HERTZ
I.C.	INTERRUPTING CAPACITY
I.D.	IDENTIFICATION
IN.	INCHES
IPB	INTERMEDIATE PULLBOX
ITS	INTELLIGENT TRANSPORTATION SYSTEM
JB	JUNCTION BOX
KA	KILOAMPERES
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LN CTR	LANE CONTROLLER
LOC.	LOCATION
LLC	LEAD LAG CONTROLLER
LP	LIGHTNING PROTECTION
LTG	LIGHTING
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MTS	MANUAL TRANSFER SWITCH
MIN.	MINIMUM
ML	MAINLINE
M.L.O.	MAIN LUGS ONLY
MOT	MAINTENANCE OF TRAFFIC
MPB	MEDIAN PULLBOX
MTD	MOUNTED
N	NEUTRAL
NB	NORTHBOUND
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE

ABBREVIATIONS CONT:

NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE
N3R	NEMA 3R
OC	ON CENTER
ORT	OPEN ROAD TOLLING
Ø	PHASE
P	POLE
PB	PULLBOX
PCB	POLYCHLORINATED BIPHENYL
PNL	PANEL
PTZ	PAN-TILT-ZOOM
PVC	POLYVINYL CHLORIDE
RECEPT.	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARED
SB	SOUTHBOUND
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCH.	SCHEDULE
SCP	SCADA CONTROL PANEL
SCTE	SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS
SD	SQUARE D
SER	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTIVE DEVICE
SPEC(S)	SPECIFICATION(S)
S.P.S.T.	SINGLE POLE SINGLE THROW
S.S.	STAINLESS STEEL
STP	SHIELDED TWISTED PAIR
SQ.	SQUARE
STFE	STATE TOLL FACILITY ENGINEER
SYMM.	SYMMETRICAL
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T&H	TEMPERATURE AND HUMIDITY SENSOR
T.O.	TOLL OPERATIONS
TSP	TECHNICAL SPECIAL PROVISIONS
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VDAC	VEHICLE DETECTION AND CLASSIFICATION UNIT
VES	VIOLATION ENFORCEMENT SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
W	WIRE; WATT
W/	WITH
WB	WESTBOUND
WP	WEATHERPROOF (NEMA 3R)
XFMR	TRANSFORMER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL SYMBOL LEGEND AND ABBREVIATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-101**

SHEET NO. **8**

ELECTRICAL GENERAL NOTES:

1. FEED ALL RECEPTACLES AND DEVICES WITH (2) #12, (1) #12 GND IN 3/4" C, UON.
2. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.
3. ALL 120V, 20A CIRCUIT HOMERUNS OVER 50FT. SHALL BE #10 CU MINIMUM, UON.
4. ALL 120V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #8 CU MINIMUM, UON.
5. ALL 240V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #10 CU. MINIMUM, UON.
6. ALL 240V, 20A CIRCUIT HOMERUNS OVER 300FT. SHALL BE #8 CU MINIMUM, UON.
7. VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
8. PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT AND RACEWAYS WITH LABELING AT EACH END. REFER TO DETAIL 3, DWG. CE-114.
9. THE USE OF ANY PROCESS INVOLVING ASBESTOS OR PCB, AND THE INSTALLATION OF ANY PRODUCT, INSULATION, COMPOUND OR MATERIAL CONTAINING OR INCORPORATING ASBESTOS OR PCB, IS PROHIBITED. PROVIDE A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM WITHOUT THE USE OF ASBESTOS OR PCB.
10. CONTACT THE POWER COMPANY AND TELEPHONE COMPANY WITHIN 10 BUSINESS DAYS OF THE AWARD OF THE CONTRACT AND SCHEDULE NEW SERVICE INSTALLATION.
11. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID. SUBMISSION OF A BID WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
12. INCLUDE THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
    A) COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS.
    B) TRANSPORT AND DISPOSE OF LAMPS, BALLASTS AND OTHER MATERIALS IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES.
    C) PROVIDE WRITTEN CERTIFICATION THAT ALL MATERIALS WERE RECYCLED OR DISPOSED OF PROPERLY PER THE GUIDELINES NOTED ABOVE.
13. LOCATE EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE.
14. PHASE WORK AS REQUIRED BY MOT PLANS.
15. UNDERGROUND CONDUIT SHALL BE PVC SCH. 80, UON. UNDERGROUND CONDUIT SHALL TRANSITION TO RGS CONDUIT WITH PVC TO RGS CONDUIT FITTINGS. CONDUIT SHALL BE RGS ABOVE GRADE THROUGH AND INCLUDING THE FIRST 90 DEGREE FITTING UNDERGROUND UON. APPLY 2-COAT BITUMASTIC COATING TO DIRECT BURIED PORTION OF RGS CONDUIT, UP TO AND INCLUDING 6" ABOVE FINAL GRADE. REFER TO TSP FOR FURTHER INFORMATION.
16. TOLL EQUIPMENT AND ALL WIRING/CABLING FOR TOLL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY T.E.C., UON.
17. UNDERGROUND CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE.
18. EXPOSED EXTERIOR CONDUIT SHALL BE RGS THROUGH AND INCLUDING THE FIRST 90° BEND INSTALLED UNDERGROUND. TRANSITIONS BETWEEN RGS AND PVC CONDUIT SHALL BE MADE WITH A RGS TO PVC CONDUIT FITTING.
19. EQUIPMENT SPECIFIED WITH CATALOG NUMBERS OR PART NUMBERS SHALL NOT BE SUBSTITUTED UNLESS "OR EQUAL" IS INDICATED.
20. CONDUIT RESERVED FOR TOLLING LOOPS SHALL BE SCH. 80 PVC.
21. PLASTIC END CAPS SHALL BE INSTALLED ON ENDS OF UNISTRUT.
22. ALL LIQUID-TIGHT, FLEXIBLE CONDUIT SHALL BE METALLIC.
23. ADJUST THE LOCATIONS OF THE SPD'S SUCH THAT THE MAXIMUM SPD BRAIDED/TWISTED LEADS LENGTH DO NOT EXCEED 24 INCHES AND HAVE NO SHARP TURNS.
24. AC OR DC ELECTRICAL CIRCUITS OR WIRING THAT OPERATES AT 25 VOLTS OR GREATER SHALL NOT BE INSTALLED AND/OR LOCATED WITHIN 5 FEET OF ANY TRAFFIC DETECTION LOOP OR LOOP PULL BOX.
25. MAINLINE GANTRY DATA WIRE TROUGHS SHALL BE MODIFIED BY A UL OR ETL LISTED PANEL SHOP. THE WIREWAYS TERMINATED TO THE TOP OF THE WIRE TROUGH SHALL BE MODIFIED AND ASSEMBLED IN THE PANEL SHOP & NOT IN THE FIELD TO ENSURE PROPER WATERTIGHT SEAL. SHOP DRAWINGS INCLUDING DIMENSIONED SKETCHES & MATERIAL PRODUCT DATA SHALL BE SUBMITTED FOR REVIEW FOR FABRICATION OF DATA WIRE TROUGH. REFER TO MAINLINE GANTRY DETAILS FOR ADDITIONAL REQUIREMENTS.
26. CONDUIT BENDS SHALL NOT EXCEED 270° BETWEEN PULL POINTS.
27. OUTLET AND DEVICE JUNCTION BOXES INSTALLED OUTDOORS SHALL BE MANUFACTURED FROM GALVANIZED CAST IRON WITH THREADED HUBS, UON. REFER TO TSP SECTION 26 05 33 FOR DETAILS.
28. REFER TO CIVIL PLANS FOR TOLL FACILITY SITE LOCATIONS.
29. THESE PLANS SHALL BE READ IN CONJUNCTION WITH ALL COMPONENTS OF THE ROADWAYS PLANS, TOLL FACILITIES GANTRY PLANS, TOLL FACILITY BUILDING PLANS, SIGNING & PAVEMENT MARKING PLANS, ITS PLANS AND LIGHTING PLANS.

REVISIONS			
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No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

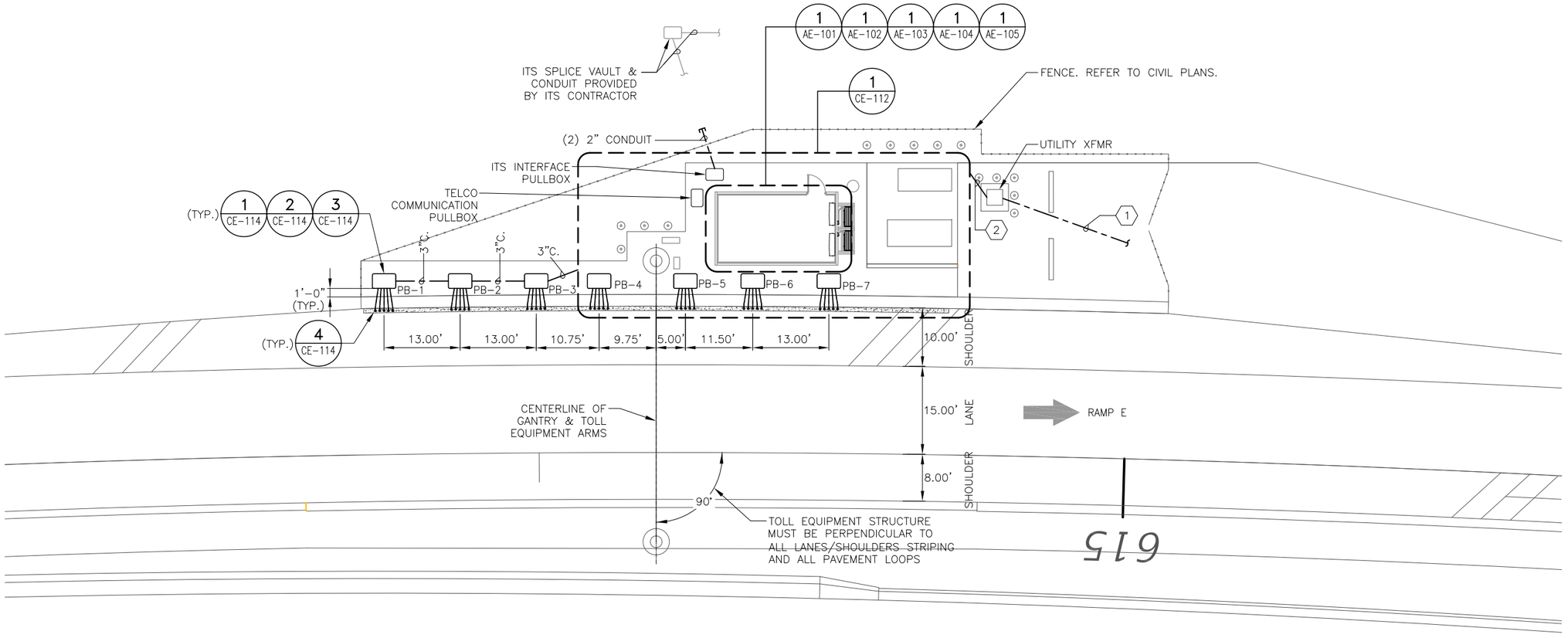
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL GENERAL NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-102**

SHEET NO. **9**



615

1 / CE-111 SITE ELECTRICAL PLAN – RAMP E
SCALE: 1"= 20'-0"

REFERENCE NOTES:

1. PROPOSED BURIED PRIMARY CIRCUITING BY POWER COMPANY. REFER TO UTILITY ADJUSTMENT SHEETS FOR CONTINUATION AND DETAILS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE UTILITY COMPANY (FP&L, GARRETT PETERSON, 407-328-1934) WITHIN TWO WEEKS OF NTP TO ENSURE ELECTRICAL SERVICE IS AVAILABLE WHEN CONSTRUCTION OF THE TOLL BUILDING IS COMPLETE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE POWER COMPANY TO BRING POWER TO THE TRANSFORMER (PRIMARY).
2. UNDERGROUND SERVICE LATERAL, SEE DWG. AE-130. THE CONTRACTOR SHALL RUN SERVICE LATERAL AROUND, BUT NOT UNDER, LARGE PIECES OF EQUIPMENT AND/OR BUILDING FOOTERS. CONTRACTOR SHALL PAY FOR COSTS ASSOCIATED WITH THE INSTALLATION OF THE ELECTRICAL SERVICE FROM THE SECONDARY LUGS OF THE UTILITY XFMR TO AND INCLUDING THE SERVICE DISCONNECTING MEANS, GROUNDING, METER SOCKET AND OTHER WORK AS SPECIFIED.

NORTH

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

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7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

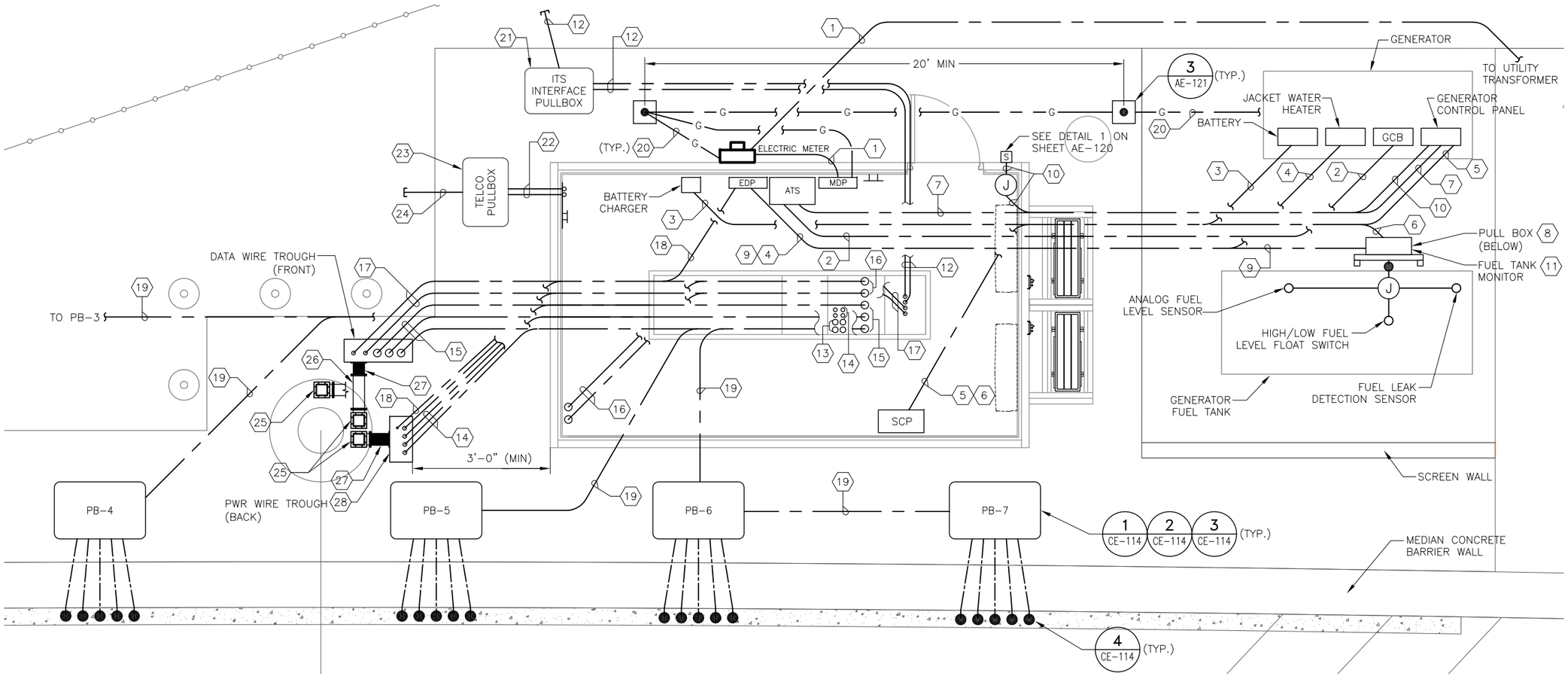
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SITE ELECTRICAL PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-111**

SHEET NO. **10**



1 ENLARGED SITE ELECTRICAL PLAN – RAMP E
CE-112 SCALE: 1"= 5'-0"

REFERENCE NOTES:

1. SERVICE LATERAL. REFER TO POWER RISER DIAGRAM ON DWG. AE-130 FOR DETAILS.
2. POWER CIRCUITING FROM GENERATOR CIRCUIT BREAKER (GCB) TO ATS. REFER TO POWER RISER DIAGRAM, DWG. AE-130.
3. 1" CONDUIT FOR BATTERY CHARGING CIRCUIT, 2 #6 (COLOR RED FOR +12V, COLOR BLACK FOR -12V), TYPE MTW CONDUCTORS.
4. 1" CONDUIT FOR JACKET WATER HEATER CIRCUITING. REFER TO PANEL SCHEDULE, DWG. AE-131.
5. (1) 1-1/2" CONDUIT FROM GENERATOR CONTROL PANEL TO SCADA PANEL. REFER TO DWG. AE-133.
6. (1) 1-1/2" CONDUIT FOR SCADA CONNECTIONS. REFER TO DWG. AE-133.
7. 2 #14 (GENSET RUN), 4 #14 (SPARE), 1 #14 GND. 1"C.
8. 4" X 4" WEATHERPROOF CAST IRON BOX WITH A GASKETED COVER, APPLETON CATALOG # FSD-2-75 OR APPROVED EQUAL.
9. 1" CONDUIT. REFER TO PANEL SCHEDULE, DWG. AE-131.
10. (1) COMMUNICATION CABLE IN 1"C. FROM GENERATOR CONTROL PANEL TO EPO STATION ON EXTERIOR WALL OF ENTRANCE DOOR. REFER TO DETAIL 3, DWG. AE-120.
11. MOUNT TOP OF EQUIPMENT 5'-0" AFG ON UNISTRUT SUPPORT STRUCTURE. SEE DETAIL 3 ON DRAWING GE-113.
12. PROVIDE (2) 2"C WITH PULL STRING FOR FOC NETWORK CONNECTIONS. EXTEND CONDUITS 5'-0" BEYOND CONCRETE EDGE AND CAP. CONDUIT CONTINUATION & FOC WILL BE INSTALLED BY ITS CONTRACTOR.
13. (4) 3" CONDUIT (LOOPS).
14. (4) 2" CONDUIT (POWER).
15. (3) 4" CONDUIT (DATA).
16. (2) 4" CONDUIT (E6).
17. (2) 2" CONDUIT (CCTV).
18. (1) 1"C. (POWER FOR PTZ CAMERA).
19. (1) 3" CONDUIT (LOOPS).
20. GROUNDING ELECTRODE SYSTEM. REFER TO DWG. AE-121 AND AE-130.
21. PROVIDE 24"x36"x24" POLYMER CONCRETE PULLBOX WITH COVER STAMPED "ITS INTERFACE". PULLBOX AND COVER SHALL BE MINIMUM UL LISTED, ANSI/STCE 77 LOAD COMPLIANT, AND ANSI TIER 15 RATED.
22. (2) 2"C. WITH PULL STRING FOR COMMUNICATION SERVICE CONNECTIONS.
23. PROVIDE 24"X36"X24" POLYMER CONCRETE PULLBOX WITH COVER STAMPED "TELCO COMMUNICATIONS" FOR COMMUNICATION SERVICE. PULLBOX AND COVER SHALL BE MINIMUM UL LISTED, ANSI TIER 15 RATED.
24. PROVIDE (2) 2"C. FOR TELCO COMMUNICATION SERVICE. EXTEND CONDUIT 5'-0" BEYOND CONCRETE EDGE FOR FUTURE CONNECTION BY OTHERS.
25. 90 DEGREE WIREWAY FITTING. FITTING SHALL BE UL LISTED FOR HORIZONTAL TO VERTICAL TRANSITION. REFER TO TSP 26 05 34.
26. 6" X 6" FEED THROUGH WIREWAY. REFER TO TSP 26 05 34 FOR WIREWAY RATING AND DETAILS.
27. PROVIDE FLEXIBLE FITTING TO COMPENSATE FOR MISALIGNMENT, STRETCH LENGTH RANGE FROM 3-1/2" TO 12", HYPALON BELLOW WITH STAINLESS STEEL FLANGES.
28. 12" X 12" X 24" NEMA 3R POWER WIRE TROUGH. MOUNT 5'-0" AFG. PROVIDE (20) TERMINAL GROUND BAR AND ROUTE #8 BARE, STRANDED CU. CONDUCTOR FROM GROUND BAR TO PANEL 'EDP'. REFER TO DETAIL 3 ON GE-113, AND DETAIL 2 ON GE-116.

NORTH

GRAPHIC SCALE
SCALE: 1"= 5'
0 2.5' 5'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
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Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

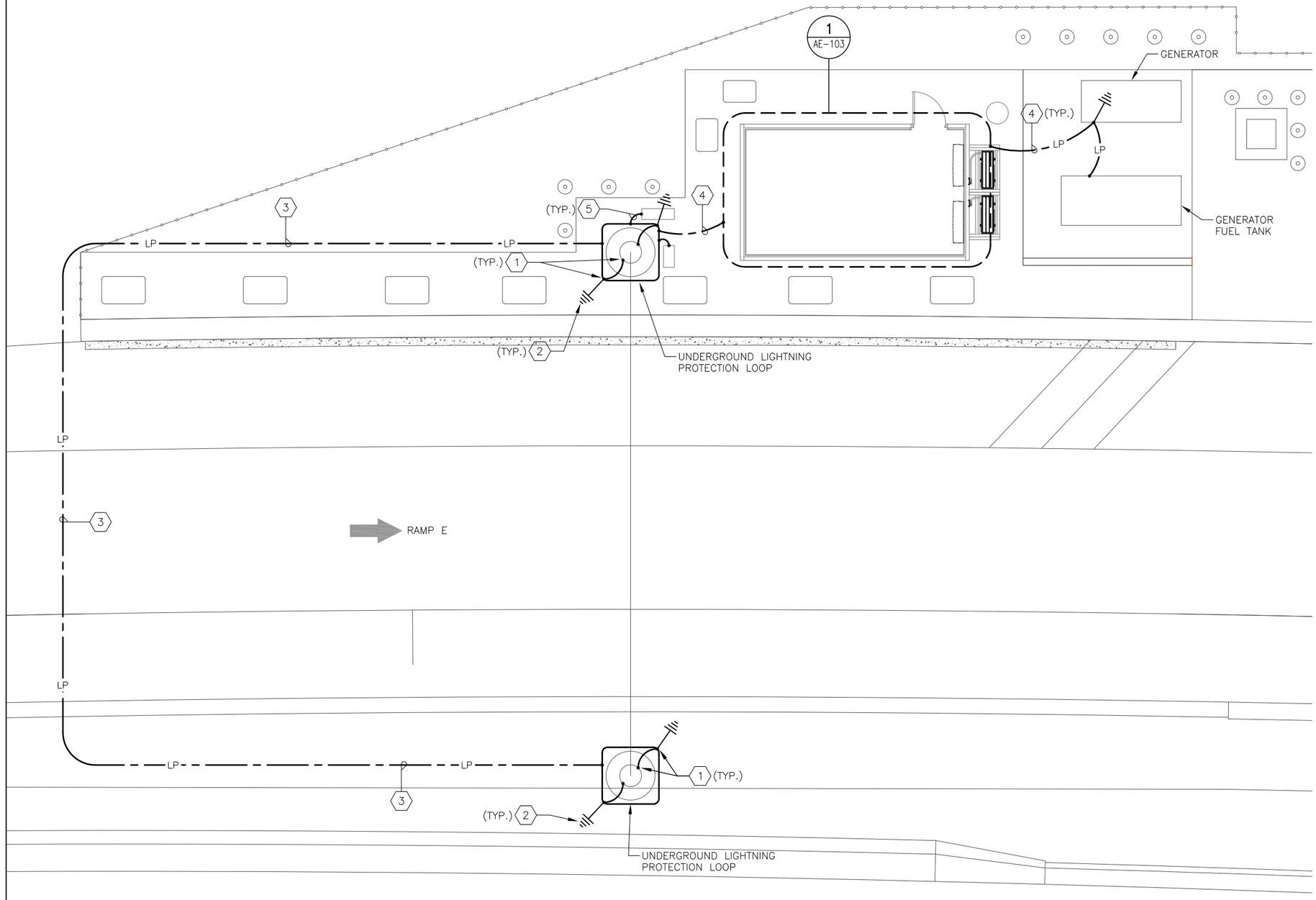
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ENLARGED SITE ELECTRICAL PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-112**

SHEET NO. **11**



GENERAL NOTES:

1. THIS SHEET DEPICTS THE LIGHTNING PROTECTION SYSTEM FOR THE GANTRY. ALL WORK SHALL MEET NFPA 780.
2. SEE TSP SECTION 26 41 13.

REFERENCE NOTES:

1. STRANDED COPPER LIGHTNING PROTECTION CONDUCTOR, BONDED TO GANTRY COLUMN AND TO GROUND RING ELECTRODE. REFER TO DRAWING GE-116.
2. 20' LONG X 5/8" DIAMETER COPPER-CLAD STEEL GROUND ROD.
3. BARE, STRANDED-COPPER CONDUCTOR, 36" BELOW FINISHED GRADE. DO NOT ROUTE CONDUCTOR UNDER TOLLING LOOP PAVEMENT.
4. LIGHTNING PROTECTION CONDUCTOR (DIRECT BURIED) TO TOLL EQUIPMENT BUILDING GROUND RING ELECTRODE.
5. BOND ALL METAL WIRE TROUGHS TO THE UNDERGROUND LIGHTNING PROTECTION GROUND RING ELECTRODE.

NORTH

GRAPHIC SCALE
SCALE: 1"= 10'
0 5' 10'

1 CE-113 LIGHTNING PROTECTION PLAN – RAMP E
SCALE: 1"= 10'-0"

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

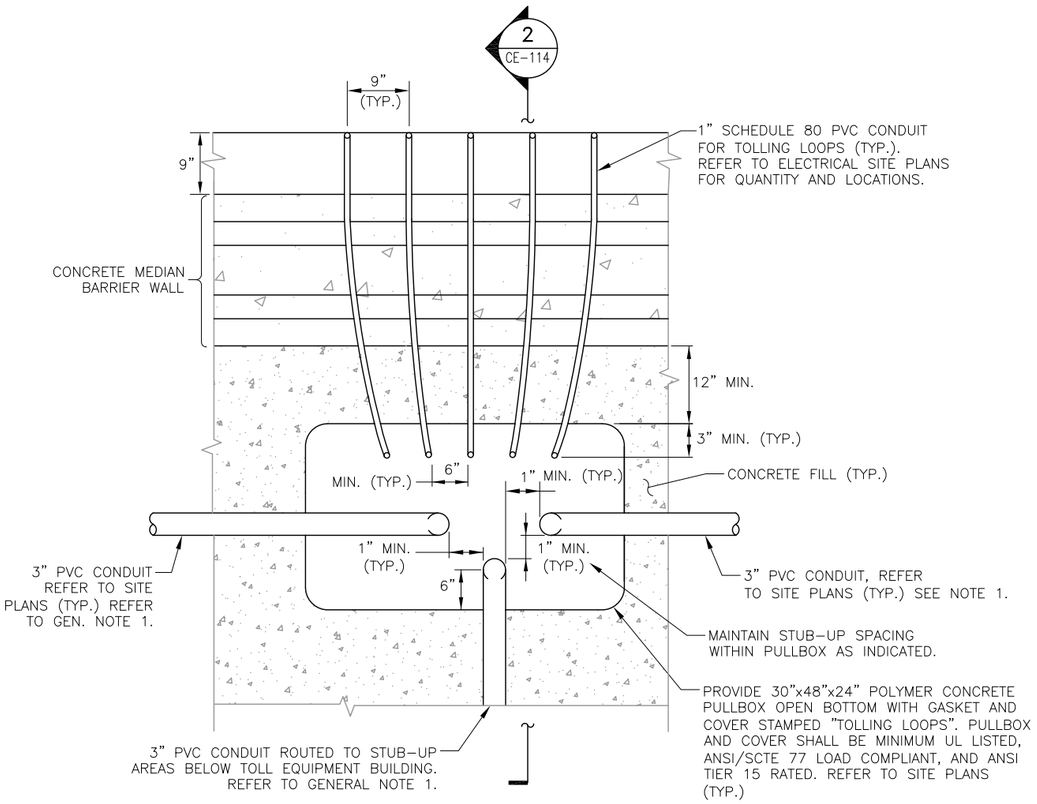
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **LIGHTNING PROTECTION PLAN AT RAMP E**

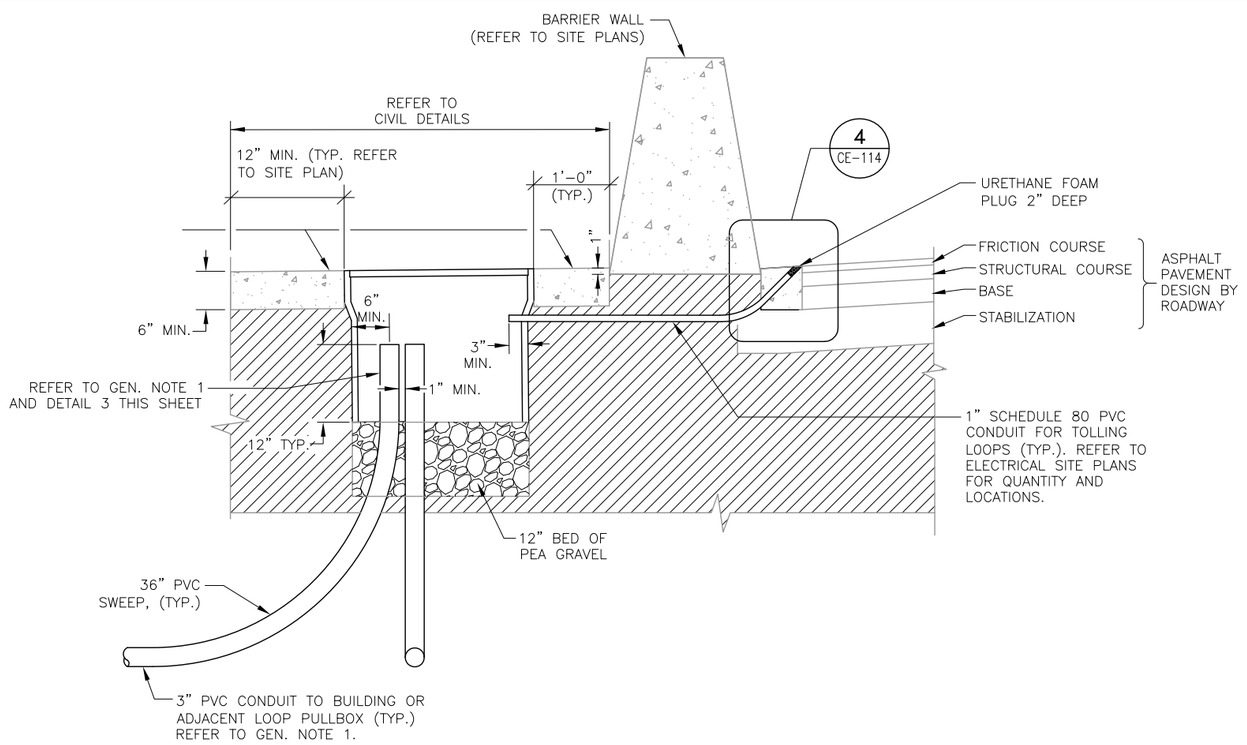
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-113**

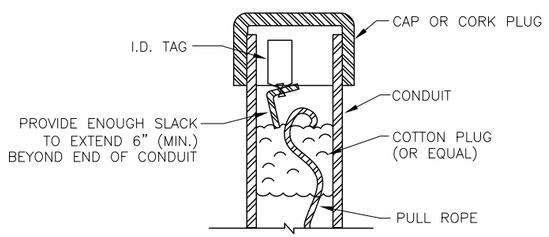
SHEET NO. **12**



1 CE-114 TOLLING LOOP PULL BOX – TYPICAL PLAN
SCALE: N.T.S.



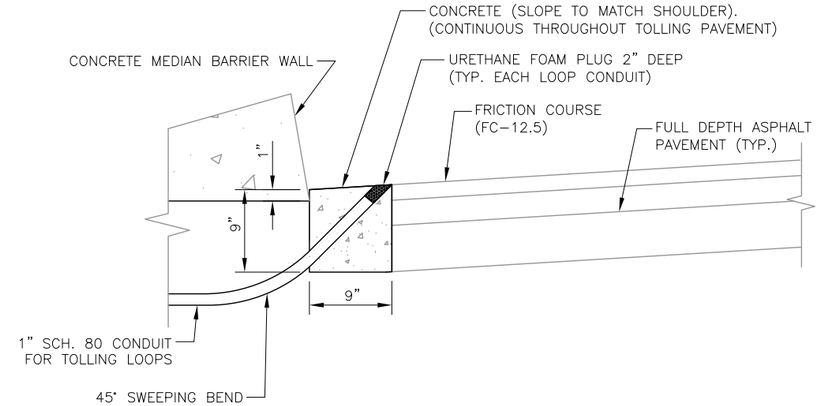
2 CE-114 TYPICAL TOLLING LOOP PULL BOX SECTION A–A
SCALE: N.T.S.



CONDUIT I.D. NOTES:

1. CAPPED CONDUIT SHOWN. USE SIMILAR INSTALLATION WITH COUPLING AND URETHANE FOAM PLUG. REFER TO DETAIL 1, THIS SHEET, FOR LANE LOOP STUB-OUT CONDUITS.
2. I.D. TAG TO INCLUDE FOLLOWING INFORMATION: NAME OF CONDUIT SYSTEM, INTENDED EQUIPMENT OR DEVICE LOCATED AT OTHER END OF CONDUIT.

3 CE-114 EMPTY CONDUIT PULL ROPE AND IDENTIFICATION DETAIL
SCALE: N.T.S.



4 CE-114 LOOP CONDUIT STUB-OUT DETAIL
SCALE: N.T.S.

GENERAL NOTES:

1. SEAL BOTH ENDS OF CONDUIT WITH NON-CONDUCTING SEALING COMPOUND MANUFACTURED FOR THAT PURPOSE.
2. A SINGLE CONTINUOUS SLAB SHALL BE POURED TO ENCOMPASS ALL LOOP PULL BOXES. UON, SLAB SHALL EXTEND A MIN. OF 12" ON ALL SIDES OF PULL BOXES.
3. COORDINATE INSTALLATION OF ALL LOOP CONDUITS AND PULLBOXES WITH ROADWAY AND BARRIER WALL CONSTRUCTION.

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No. 8115
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **TOLLING LOOP CONDUIT & PULL BOX DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

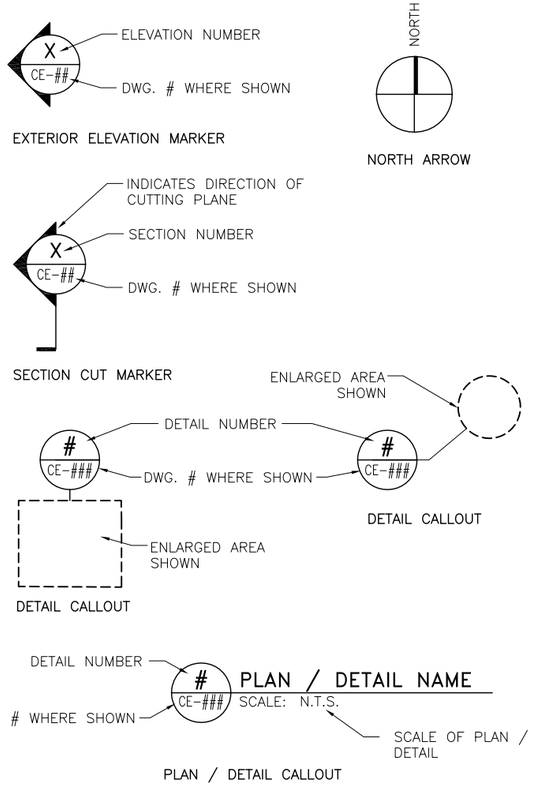
DRAWING NO. **CE-114**

SHEET NO. **13**

ELECTRICAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION
	CONDUIT UP.
	CONDUIT DOWN.
C-1,3 (TIE)	HOMERUN TO PANEL – LETTER INDICATES PANEL, NUMBERS INDICATE CIRCUITS. ALL RACEWAYS WITHOUT FURTHER DESIGNATION INDICATE A TWO-WIRE CIRCUIT. FOUR WIRES ARE INDICATED. LONG MARKS INDICATE NEUTRAL CONDUCTOR, SHORT MARKS INDICATE PHASE CONDUCTORS. PROVIDE GREEN GROUND CONDUCTOR IN ALL CONDUITS. (TIE) INDICATES CIRCUIT IS SHARED WITH ADDITIONAL RECEPTACLES.
	DEVICE OR EQUIPMENT AS NOTED
#	REFERENCE NOTES
J	OUTLET OR JUNCTION BOX, SIZE PER NEC.
	PANELBOARD. (DIRTY POWER)
	SQUARE D POWERLINK PANELBOARD (CRITICAL POWER) PANELBOARD FED VIA UPS
	CONTROL PANEL.
ATS	AUTOMATIC TRANSFER SWITCH.
SPD	SURGE PROTECTION DEVICE.
PB	PULL BOX.
S	EMERGENCY POWER SHUTOFF SWITCH.
LP	LIGHTNING PROTECTION CONDUCTOR.
G	UNDERGROUND GROUND CONDUCTOR.
	CONDUIT RACEWAY EXPOSED.
	CONDUIT RACEWAY CONCEALED IN CEILING SPACE OR WALLS.
	CONDUIT RACEWAY IN CONCRETE SLAB OR UNDERGROUND.
	WIREWAY
	WIREWAY FITTING
	GROUND INSPECTION WELL
	GROUND BUSBAR
	GROUND ROD

GENERAL SYMBOL LEGEND:



ABBREVIATIONS:

A	AMPS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	AIR CONDITIONING [UNIT]
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AL, ALUM.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AVI	AUTOMATIC VEHICLE IDENTIFICATION
AWG	AMERICAN WIRE GAUGE
BCU	BATTERY CHARGER UNIT
BLDG.	BUILDING
BPS	BYPASS SWITCH
C.	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CKT.	CIRCUIT
COMP	COMPUTER
CU	COPPER
COMM.	COMMUNICATION
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIA.	DIAMETER
DN	DOWN
DWG.	DRAWING
E6	ENCOMPASS 6 MULTIPROTOCOL READER
EB	EASTBOUND
ENG.	ENGINE
E.T.C.	ELECTRONIC TOLL COLLECTION
ETC.	ET CETERA
EQUIP.	EQUIPMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPO	EMERGENCY POWER OFF
EXT.	EXTERIOR
FBC	FLORIDA BUILDING CODE
FOC	FIBER OPTIC CABLE
FT	FOOT; FEET
FTE	FLORIDA'S TURNPIKE ENTERPRISE
FTL	FEED THROUGH LUGS
FTM	FUEL TANK MONITOR
FUT	FUTURE
GA	GAUGE
GAL.	GALLON
GEC	GROUNDING ELECTRODE CONDUCTOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HORIZONTAL, HERTZ
I.C.	INTERRUPTING CAPACITY
I.D.	IDENTIFICATION
IN.	INCHES
IPB	INTERMEDIATE PULLBOX
ITS	INTELLIGENT TRANSPORTATION SYSTEM
JB	JUNCTION BOX
KA	KILOAMPERES
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LN CTR	LANE CONTROLLER
LOC.	LOCATION
LLC	LEAD LAG CONTROLLER
LP	LIGHTNING PROTECTION
LTG	LIGHTING
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MTS	MANUAL TRANSFER SWITCH
MIN.	MINIMUM
ML	MAINLINE
M.L.O.	MAIN LUGS ONLY
MOT	MAINTENANCE OF TRAFFIC
MPB	MEDIAN PULLBOX
MTD	MOUNTED
N	NEUTRAL
NB	NORTHBOUND
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE

ABBREVIATIONS CONT:

NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE
N3R	NEMA 3R
OC	ON CENTER
ORT	OPEN ROAD TOLLING
Ø	PHASE
P	POLE
PB	PULLBOX
PCB	POLYCHLORINATED BIPHENYL
PNL	PANEL
PTZ	PAN-TILT-ZOOM
PVC	POLYVINYL CHLORIDE
RECEPT.	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARED
SB	SOUTHBOUND
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCH.	SCHEDULE
SCP	SCADA CONTROL PANEL
SCTE	SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS
SD	SQUARE D
SER	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTIVE DEVICE
SPEC(S)	SPECIFICATION(S)
S.P.S.T.	SINGLE POLE SINGLE THROW
S.S.	STAINLESS STEEL
STP	SHIELDED TWISTED PAIR
SQ.	SQUARE
STFE	STATE TOLL FACILITY ENGINEER
SYMM.	SYMMETRICAL
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T&H	TEMPERATURE AND HUMIDITY SENSOR
T.O.	TOLL OPERATIONS
TSP	TECHNICAL SPECIAL PROVISIONS
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VDAC	VEHICLE DETECTION AND CLASSIFICATION UNIT
VES	VIOLATION ENFORCEMENT SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
W	WIRE; WATT
W/	WITH
WB	WESTBOUND
WP	WEATHERPROOF (NEMA 3R)
XFMR	TRANSFORMER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL SYMBOL LEGEND AND ABBREVIATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-201**

SHEET NO. **14**

ELECTRICAL GENERAL NOTES:

1. FEED ALL RECEPTACLES AND DEVICES WITH (2) #12, (1) #12 GND IN 3/4" C, UON.
2. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.
3. ALL 120V, 20A CIRCUIT HOMERUNS OVER 50FT. SHALL BE #10 CU MINIMUM, UON.
4. ALL 120V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #8 CU MINIMUM, UON.
5. ALL 240V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #10 CU. MINIMUM, UON.
6. ALL 240V, 20A CIRCUIT HOMERUNS OVER 300FT. SHALL BE #8 CU MINIMUM, UON.
7. VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
8. PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT AND RACEWAYS WITH LABELING AT EACH END. REFER TO DETAIL 3, DWG. CE-214.
9. THE USE OF ANY PROCESS INVOLVING ASBESTOS OR PCB, AND THE INSTALLATION OF ANY PRODUCT, INSULATION, COMPOUND OR MATERIAL CONTAINING OR INCORPORATING ASBESTOS OR PCB, IS PROHIBITED. PROVIDE A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM WITHOUT THE USE OF ASBESTOS OR PCB.
10. CONTACT THE POWER COMPANY AND TELEPHONE COMPANY WITHIN 10 BUSINESS DAYS OF THE AWARD OF THE CONTRACT AND SCHEDULE NEW SERVICE INSTALLATION.
11. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID. SUBMISSION OF A BID WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
12. INCLUDE THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
    A) COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS.
    B) TRANSPORT AND DISPOSE OF LAMPS, BALLASTS AND OTHER MATERIALS IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES.
    C) PROVIDE WRITTEN CERTIFICATION THAT ALL MATERIALS WERE RECYCLED OR DISPOSED OF PROPERLY PER THE GUIDELINES NOTED ABOVE.
13. LOCATE EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE.
14. PHASE WORK AS REQUIRED BY MOT PLANS.
15. UNDERGROUND CONDUIT SHALL BE PVC SCH. 80, UON. UNDERGROUND CONDUIT SHALL TRANSITION TO RGS CONDUIT WITH PVC TO RGS CONDUIT FITTINGS. CONDUIT SHALL BE RGS ABOVE GRADE THROUGH AND INCLUDING THE FIRST 90 DEGREE FITTING UNDERGROUND UON. APPLY 2-COAT BITUMASTIC COATING TO DIRECT BURIED PORTION OF RGS CONDUIT, UP TO AND INCLUDING 6" ABOVE FINAL GRADE. REFER TO TSP FOR FURTHER INFORMATION.
16. TOLL EQUIPMENT AND ALL WIRING/CABLING FOR TOLL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY T.E.C., UON.
17. UNDERGROUND CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE.
18. EXPOSED EXTERIOR CONDUIT SHALL BE RGS THROUGH AND INCLUDING THE FIRST 90° BEND INSTALLED UNDERGROUND. TRANSITIONS BETWEEN RGS AND PVC CONDUIT SHALL BE MADE WITH A RGS TO PVC CONDUIT FITTING.
19. EQUIPMENT SPECIFIED WITH CATALOG NUMBERS OR PART NUMBERS SHALL NOT BE SUBSTITUTED UNLESS "OR EQUAL" IS INDICATED.
20. CONDUIT RESERVED FOR TOLLING LOOPS SHALL BE SCH. 80 PVC.
21. PLASTIC END CAPS SHALL BE INSTALLED ON ENDS OF UNISTRUT.
22. ALL LIQUID-TIGHT, FLEXIBLE CONDUIT SHALL BE METALLIC.
23. ADJUST THE LOCATIONS OF THE SPD'S SUCH THAT THE MAXIMUM SPD BRAIDED/TWISTED LEADS LENGTH DO NOT EXCEED 24 INCHES AND HAVE NO SHARP TURNS.
24. AC OR DC ELECTRICAL CIRCUITS OR WIRING THAT OPERATES AT 25 VOLTS OR GREATER SHALL NOT BE INSTALLED AND/OR LOCATED WITHIN 5 FEET OF ANY TRAFFIC DETECTION LOOP OR LOOP PULL BOX.
25. MAINLINE GANTRY DATA WIRE TROUGHS SHALL BE MODIFIED BY A UL OR ETL LISTED PANEL SHOP. THE WIREWAYS TERMINATED TO THE TOP OF THE WIRE TROUGH SHALL BE MODIFIED AND ASSEMBLED IN THE PANEL SHOP & NOT IN THE FIELD TO ENSURE PROPER WATERTIGHT SEAL. SHOP DRAWINGS INCLUDING DIMENSIONED SKETCHES & MATERIAL PRODUCT DATA SHALL BE SUBMITTED FOR REVIEW FOR FABRICATION OF DATA WIRE TROUGH. REFER TO MAINLINE GANTRY DETAILS FOR ADDITIONAL REQUIREMENTS.
26. CONDUIT BENDS SHALL NOT EXCEED 270° BETWEEN PULL POINTS.
27. OUTLET AND DEVICE JUNCTION BOXES INSTALLED OUTDOORS SHALL BE MANUFACTURED FROM GALVANIZED CAST IRON WITH THREADED HUBS, UON. REFER TO TSP SECTION 26 05 33 FOR DETAILS.
28. REFER TO CIVIL PLANS FOR TOLL FACILITY SITE LOCATIONS.
29. THESE PLAN SHALL BE READ IN CONJUNCTION WITH ALL COMPONENTS OF THE ROADWAYS PLANS, TOLL FACILITIES GANTRY PLANS, TOLL FACILITY BUILDING PLANS, SIGNING & PAVEMENT MARKING PLANS, ITS PLANS AND LIGHTING PLANS.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

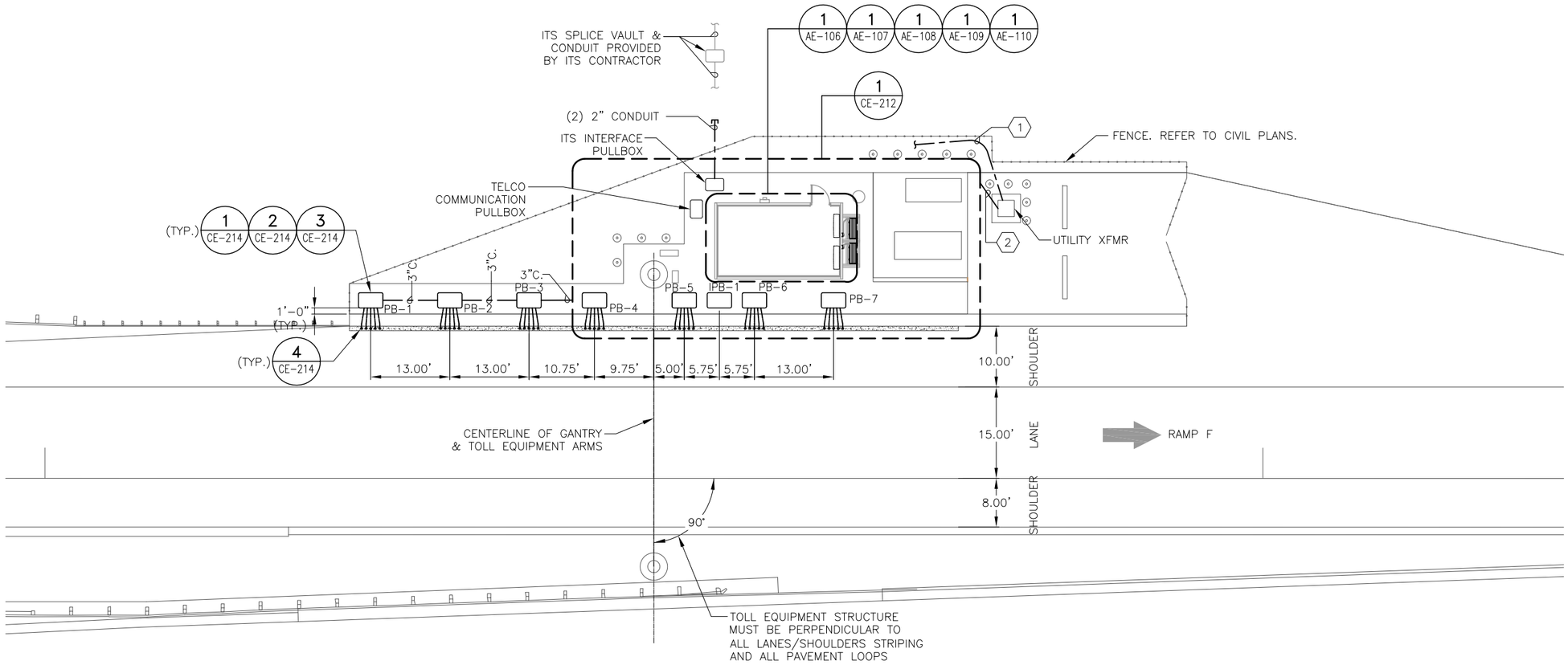
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL GENERAL NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-202**

SHEET NO. **15**



1 CE-211 SITE ELECTRICAL PLAN – RAMP F
SCALE: 1"= 20'–0"

REFERENCE NOTES:

1. PROPOSED BURIED PRIMARY CIRCUITING BY POWER COMPANY. REFER TO UTILITY ADJUSTMENT SHEETS FOR CONTINUATION AND DETAILS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE UTILITY COMPANY (FP&L, GARRETT PETERSON, 407–328–1934) WITHIN TWO WEEKS OF NTP TO ENSURE ELECTRICAL SERVICE IS AVAILABLE WHEN CONSTRUCTION OF THE TOLL BUILDING IS COMPLETE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE POWER COMPANY TO BRING POWER TO THE TRANSFORMER (PRIMARY).

2. UNDERGROUND SERVICE LATERAL, SEE DWG. AE–130. THE CONTRACTOR SHALL RUN SERVICE LATERAL AROUND, BUT NOT UNDER, LARGE PIECES OF EQUIPMENT AND/OR BUILDING FOOTERS. CONTRACTOR SHALL PAY FOR COSTS ASSOCIATED WITH THE INSTALLATION OF THE ELECTRICAL SERVICE FROM THE SECONDARY LUGS OF THE UTILITY XFMR TO AND INCLUDING THE SERVICE DISCONNECTING MEANS, GROUNDING, METER SOCKET AND OTHER WORK AS SPECIFIED.

NORTH

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

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SITE ELECTRICAL PLAN AT RAMP F**

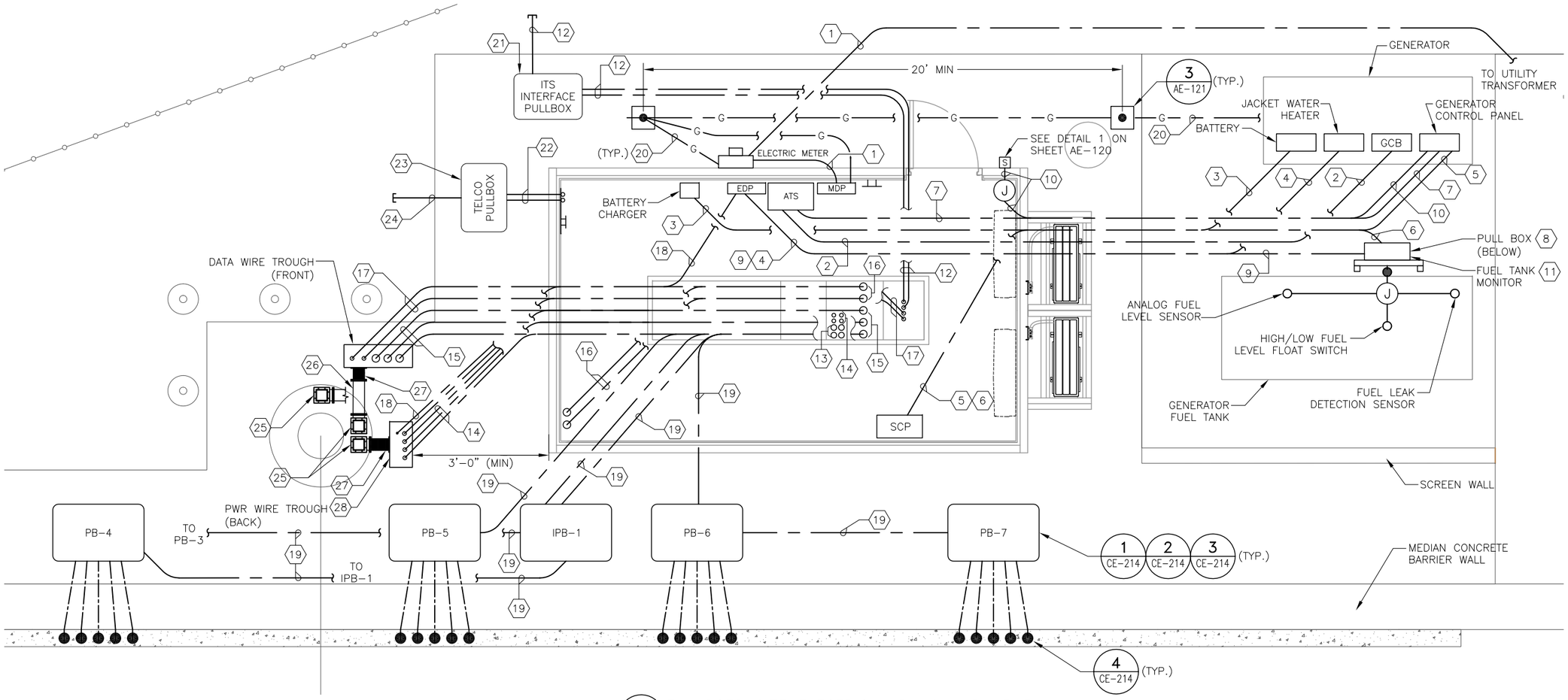
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-211**

SHEET NO. **16**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15–23.004, F.A.C.

C:\Users\pastorep\Desktop\TOLL GANTRY–DESKTOP\240200 – WEKIVA 7A\24020025201\24020025201\arch\CE–211.dwg 07/28/2017 0:47



1 CE-212 ENLARGED SITE ELECTRICAL PLAN – RAMP F

SCALE: 1"= 5'-0"

REFERENCE NOTES:

1. SERVICE LATERAL. REFER TO POWER RISER DIAGRAM ON DWG. AE–130 FOR DETAILS.
2. POWER CIRCUITING FROM GENERATOR CIRCUIT BREAKER (GCB) TO ATS. REFER TO POWER RISER DIAGRAM, DWG. AE–130.
3. 1" CONDUIT FOR BATTERY CHARGING CIRCUIT, 2 #6 (COLOR RED FOR +12V, COLOR BLACK FOR –12V), TYPE MTW CONDUCTORS.
4. 1" CONDUIT FOR JACKET WATER HEATER CIRCUITING. REFER TO PANEL SCHEDULE, DWG. AE–131.
5. (1) 1–1/2" CONDUIT FROM GENERATOR CONTROL PANEL TO SCADA PANEL. REFER TO DWG. AE–133.
6. (1) 1–1/2" CONDUIT FOR SCADA CONNECTIONS. REFER TO DWG. AE–133.
7. 2 #14 (GENSET RUN), 4 #14 (SPARE), 1 #14 GND. 1"C.
8. 4" X 4" WEATHERPROOF CAST IRON BOX WITH A GASKETED COVER, APPLETON CATALOG # FSD–2–75 OR APPROVED EQUAL.
9. 1" CONDUIT. REFER TO PANEL SCHEDULE, DWG. AE–131.
10. (1) COMMUNICATION CABLE IN 1"C. FROM GENERATOR CONTROL PANEL TO EPO STATION ON EXTERIOR WALL OF ENTRANCE DOOR. REFER TO DETAIL 3, DWG. AE–120.
11. MOUNT TOP OF EQUIPMENT 5'–0" AFG ON UNISTRUT SUPPORT STRUCTURE. SEE DETAIL 3 ON DRAWING GE–213.
12. PROVIDE (2) 2"C WITH PULL STRING FOR FOC NETWORK CONNECTIONS. EXTEND CONDUITS 5'–0" BEYOND CONCRETE EDGE AND CAP. CONDUIT CONTINUATION & FOC WILL BE INSTALLED BY ITS CONTRACTOR.
13. (4) 3" CONDUIT (LOOPS).
14. (4) 2" CONDUIT (POWER).
15. (3) 4" CONDUIT (DATA).
16. (2) 4" CONDUIT (E6).
17. (2) 2" CONDUIT (CCTV).
18. (1) 1"C. (POWER FOR PTZ CAMERA).
19. (1) 3" CONDUIT (LOOPS).
20. GROUNDING ELECTRODE SYSTEM. REFER TO DWG. AE–121 AND AE–130.
21. PROVIDE 24"x36"x24" POLYMER CONCRETE PULLBOX WITH COVER STAMPED "ITS INTERFACE". PULLBOX AND COVER SHALL BE MINIMUM UL LISTED, ANSI/STCE 77 LOAD COMPLIANT, AND ANSI TIER 15 RATED.
22. (2) 2"C. WITH PULL STRING FOR COMMUNICATION SERVICE CONNECTIONS.
23. PROVIDE 24"X36"X24" POLYMER CONCRETE PULLBOX WITH COVER STAMPED "TELCO COMMUNICATIONS" FOR COMMUNICATION SERVICE. PULLBOX AND COVER SHALL BE MINIMUM UL LISTED, ANSI TIER 15 RATED.
24. PROVIDE (2) 2"C. FOR TELCO COMMUNICATION SERVICE. EXTEND CONDUIT 5'–0" BEYOND CONCRETE EDGE FOR FUTURE CONNECTION BY OTHERS.
25. 90 DEGREE WIREWAY FITTING. FITTING SHALL BE UL LISTED FOR HORIZONTAL TO VERTICAL TRANSITION. REFER TO TSP 26 05 34.
26. 6" X 6" FEED THROUGH WIREWAY. REFER TO TSP 26 05 34 FOR WIREWAY RATING AND DETAILS.
27. PROVIDE FLEXIBLE FITTING TO COMPENSATE FOR MISALIGNMENT, STRETCH LENGTH RANGE FROM 3–1/2" TO 12", HYPALON BELLOW WITH STAINLESS STEEL FLANGES.
28. 12" X 12" X 24" NEMA 3R POWER WIRE TROUGH. MOUNT 5'–0" AFG. PROVIDE (20) TERMINAL GROUND BAR AND ROUTE #8 BARE, STRANDED CU. CONDUCTOR FROM GROUND BAR TO PANEL 'EDP'. REFER TO DETAIL 3 ON GE–213, AND DETAIL 2 ON GE–216.

NORTH

GRAPHIC SCALE
SCALE: 1"= 5'
0 2.5' 5'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ENLARGED SITE ELECTRICAL PLAN AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-212**

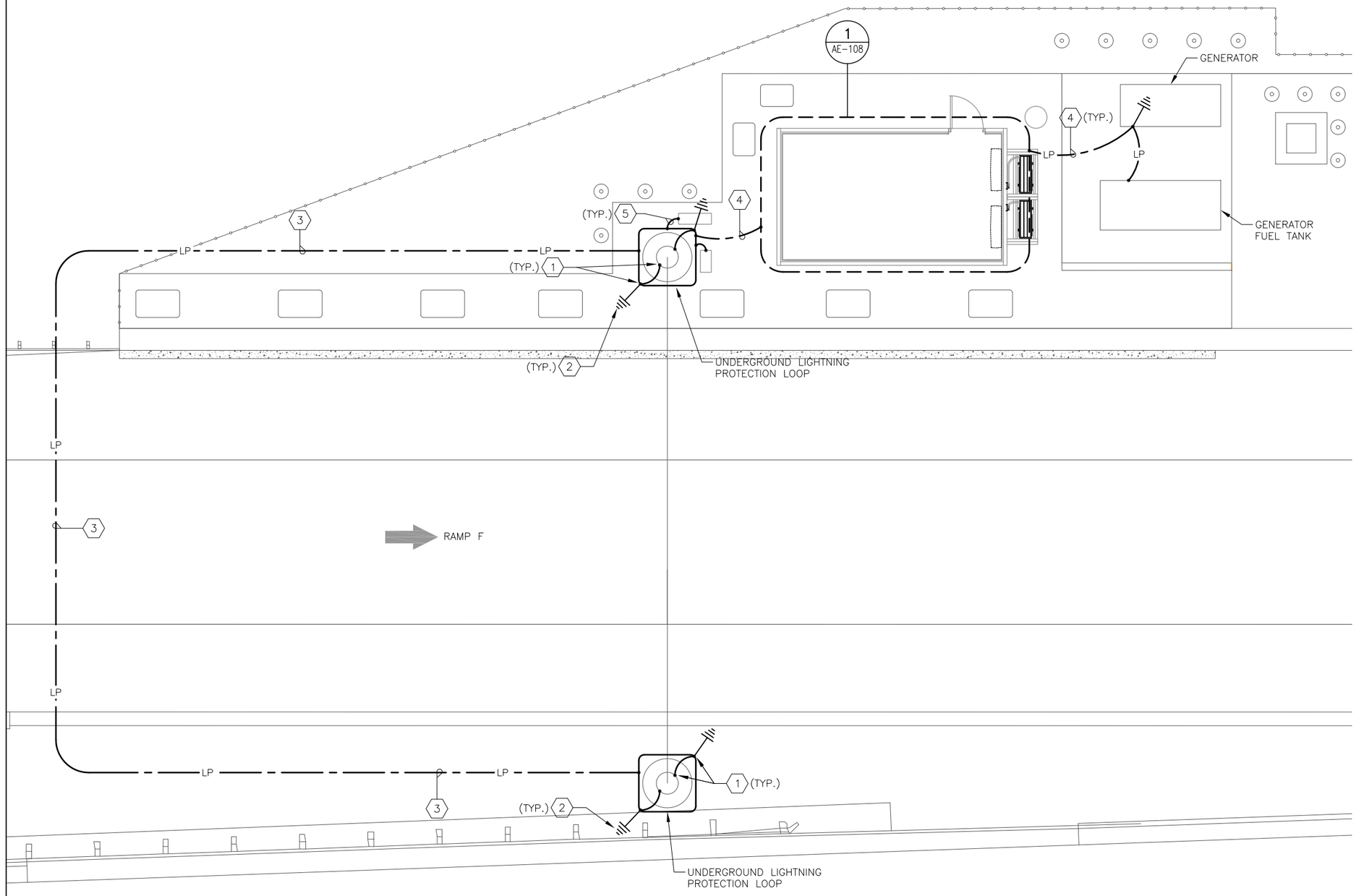
SHEET NO. **17**

GENERAL NOTES:

1. THIS SHEET DEPICTS THE LIGHTNING PROTECTION SYSTEM FOR THE GANTRY. ALL WORK SHALL MEET NFPA 780.
2. SEE TSP SECTION 26 41 13.

REFERENCE NOTES:

1. STRANDED COPPER LIGHTNING PROTECTION CONDUCTOR, BONDED TO GANTRY COLUMN AND TO GROUND RING ELECTRODE. REFER TO DRAWING GE-216.
2. 20' LONG X 5/8" DIAMETER COPPER-CLAD STEEL GROUND ROD.
3. BARE, STRANDED-COPPER CONDUCTOR, 36" BELOW FINISHED GRADE. DO NOT ROUTE CONDUCTOR UNDER TOLLING LOOP PAVEMENT.
4. LIGHTNING PROTECTION CONDUCTOR (DIRECT BURIED) TO TOLL EQUIPMENT BUILDING GROUND RING ELECTRODE.
5. BOND ALL METAL WIRE TROUGHS TO THE UNDERGROUND LIGHTNING PROTECTION GROUND RING ELECTRODE.



1 / CE-213 LIGHTNING PROTECTION PLAN – RAMP F
SCALE: 1"= 10'-0"

NORTH

GRAPHIC SCALE
SCALE: 1"= 10'
0 5' 10'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

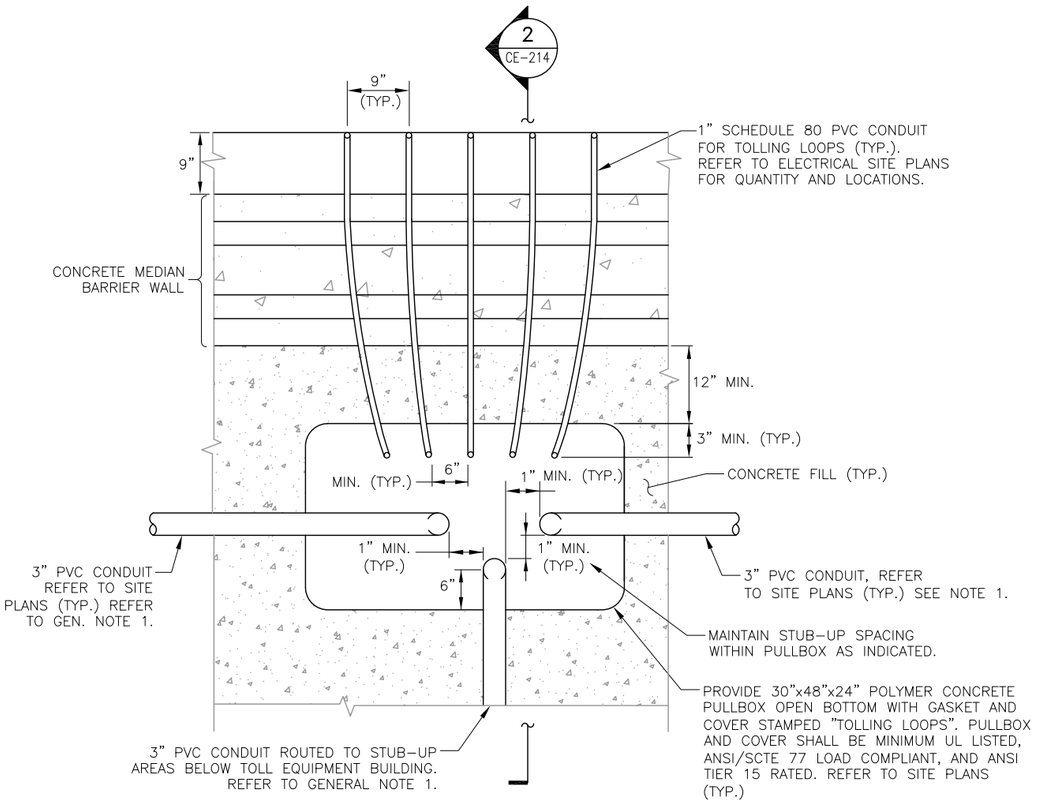
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **LIGHTNING PROTECTION PLAN AT RAMP F**

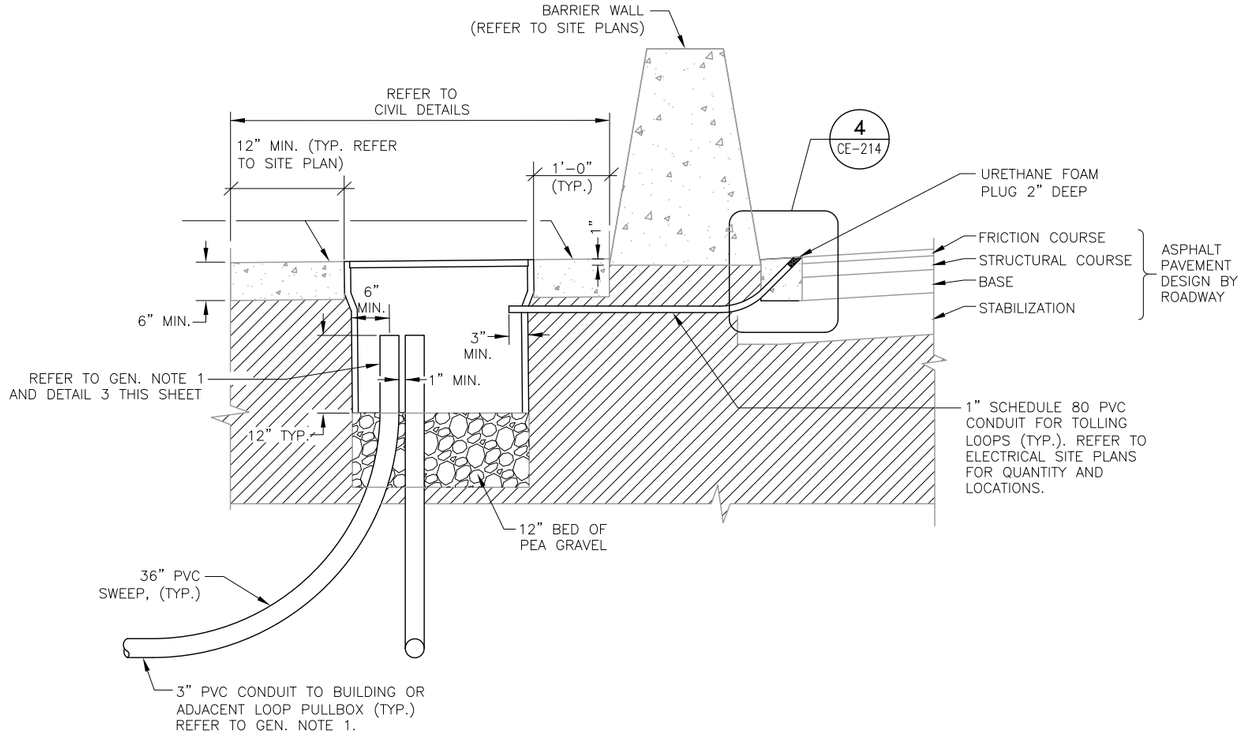
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-213**

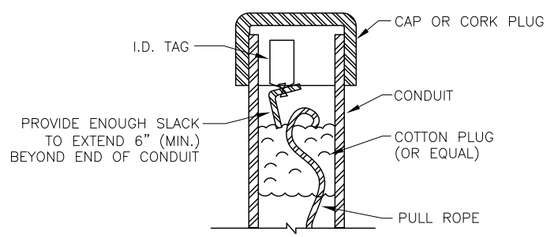
SHEET NO. **18**



1 CE-214 TOLLING LOOP PULL BOX – TYPICAL PLAN
SCALE: N.T.S.



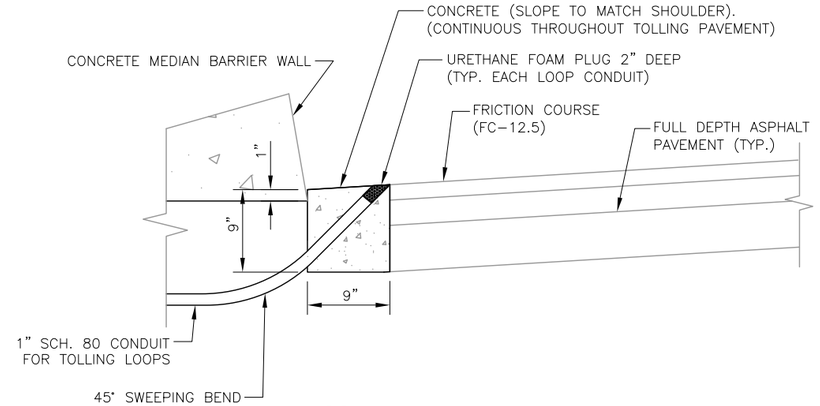
2 CE-214 TYPICAL TOLLING LOOP PULL BOX SECTION A–A
SCALE: N.T.S.



CONDUIT I.D. NOTES:

1. CAPPED CONDUIT SHOWN. USE SIMILAR INSTALLATION WITH COUPLING AND URETHANE FOAM PLUG. REFER TO DETAIL 1, THIS SHEET, FOR LANE LOOP STUB-OUT CONDUITS.
2. I.D. TAG TO INCLUDE FOLLOWING INFORMATION: NAME OF CONDUIT SYSTEM, INTENDED EQUIPMENT OR DEVICE LOCATED AT OTHER END OF CONDUIT.

3 CE-214 EMPTY CONDUIT PULL ROPE AND IDENTIFICATION DETAIL
SCALE: N.T.S.



4 CE-214 LOOP CONDUIT STUB-OUT DETAIL
SCALE: N.T.S.

GENERAL NOTES:

1. SEAL BOTH ENDS OF CONDUIT WITH NON-CONDUCTING SEALING COMPOUND MANUFACTURED FOR THAT PURPOSE.
2. A SINGLE CONTINUOUS SLAB SHALL BE POURED TO ENCOMPASS ALL LOOP PULL BOXES. UON, SLAB SHALL EXTEND A MIN. OF 12" ON ALL SIDES OF PULL BOXES.
3. COORDINATE INSTALLATION OF ALL LOOP CONDUITS AND PULLBOXES WITH ROADWAY AND BARRIER WALL CONSTRUCTION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **TOLLING LOOP CONDUIT & PULL BOX DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **CE-214**

SHEET NO. **19**

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 240200-2-52-01

(FEDERAL FUNDS)

SEMINOLE COUNTY (77320)

STATE ROAD NO. 429 (WEKIVA PARKWAY SECTION 7A)

TOLL FACILITIES - BUILDING PLANS

INDEX OF TOLL FACILITIES - BUILDING PLANS

TOLL FACILITIES-BUILDING PLANS
ENGINEER OF RECORD:

SUSAN FUNK NUTE, AR
AR No.: 11913
AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
Phone (813) 286-1711
CONTRACT NO. C-9855
VENDOR NO. F952661922
CERTIFICATE OF AUTHORIZATION NO. 00008115

FDOT PROJECT MANAGER:

KEVIN MOSS, P.E.

DRAWING NO.
AG-001

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
T5626	18	1

STATE OF FLORIDA
SUSAN FUNK NUTE
AR 11913
REGISTERED ARCHITECT

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Susan K Nute
2017.07.31 13:39:37 -04'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

AECOM TECHNICAL SERVICES, INC.
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
SUSAN FUNK NUTE, A.R. NO. 11913

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

TOLL FACILITIES - BUILDING PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
1	AG-001	Key Sheet
2	AG-002	Signature Sheet
3	AG-100	Symbols Legend and Notes
4	AG-101	Gantry Equipment Building Code data and Life Safety Plan
5	AA-101	Floor Plan at Ramp E
6	AA-102	Reflected Ceiling Plan & Roof Plan at Ramp E
7	AA-103	Floor Plan at Ramp F
8	AA-104	Reflected Ceiling Plan & Roof Plan at Ramp F
9	AA-201	Building Elevations
10	AA-301	Building Wall Sections
11	AA-501	Building Door Details
12	AA-601	Door Schedule, Door and Door Frame Types

MICHAEL J. OVER
LICENSE
No 65665
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Michael J Over
2017.07.31
13:49:20 -04'00'

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AECOM TECHNICAL SERVICES, INC.
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
MICHAEL J. OVER, P.E. NO. 65665

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

TOLL FACILITIES - BUILDING PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
2	AG-002	Signature Sheet
18	AM-001	HVAC General Notes and Legend
19	AM-101	HVAC Floor Plan at Ramp E
20	AM-102	HVAC Floor Plan at Ramp F
21	AM-501	Mechanical Details
22	AM-502	Generator Plan Elevation Detail and Notes
23	AM-503	Fuel Tank Anchoring Details

GEORGE R. PAPADOPOULOS
LICENSE
No 55843
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by George Papadopoulos
Date: 2017.07.31 13:33:29 -04'00'

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AECOM Technical Services, Inc.,
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
GEORGE R. PAPADOPOULOS, P.E. NO. 55843

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

TOLL FACILITIES - BUILDING PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
2	AG-002	Signature Sheet
13	AS-001	Structural General Notes
14	AS-100	Plans
15	AS-200	Exterior Elevations
16	AS-300	Sections and Details
17	AS-301	Sections and Details

PETER J. PASTORE
LICENSE
No 77103
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Peter Pastore
Digitally signed by Peter Pastore
Date: 2017.07.31 13:45:14 -04'00'

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AECOM Technical Services, Inc.,
7650 W. COURTNEY CAMPBELL CAUSEWAY
TAMPA , FL 33607-1462
CA NO. 00008115
PETER J. PASTORE, P.E. NO. 77103

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

TOLL FACILITIES - BUILDING PLANS

SHEET NO.	DRAWING NO.	SHEET DESCRIPTION
2	AG-002	Signature Sheet
24	AE-010	Electrical Symbols, Legend and Abbreviations
25	AE-011	Electrical General Notes
26	AE-101	Building - Power Plan at Ramp E
27	AE-102	Building - Lighting Plan at Ramp E
28	AE-103	Building - Lightning Protection Plan at Ramp E
29	AE-104	Building - Scada and Security System Plan at Ramp E
30	AE-105	Building - Tolling System Plan at Ramp E
31	AE-106	Building - Power Plan at Ramp F
32	AE-107	Building - Lighting Plan at Ramp F
33	AE-108	Building - Lightning Protection Plan at Ramp F
34	AE-109	Building - Scada and Security System Plan at Ramp F
35	AE-110	Building - Tolling System Plan at Ramp F
36	AE-111	Building - Tolling Communication Cabinet Detail
37	AE-112	Building - Interior Elevations (1 of 3)
38	AE-113	Building - Interior Elevations (2 of 3)
39	AE-114	Building - Interior Elevations (3 of 3)
40	AE-120	Building - Electrical Details
41	AE-121	Building - Grounding Details (1 of 2)
42	AE-122	Building - Grounding Details (2 of 2)
43	AE-123	Building - Lightning Protection Details
44	AE-124	Building - Security and Access Control System Details
45	AE-125	Building - Raceway Installation Details
46	AE-126	Building - Conduit Stub-up Details
47	AE-130	Building - Power Riser Diagram
48	AE-131	Building - Panel Schedules and Load Summary
49	AE-132	SCADA System Block Diagram Notes
50	AE-133	SCADA System Block Diagram

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Susan Funk Nute, AR No. 11913

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SIGNATURE SHEET (BUILDING PLANS)

DRAWING NO. AG-002
SHEET NO. 2

raj.patel 7/31/2017 11:40:59 AM S:\Projects_RDWY\ProjFdot\ProjFDOT\V8\24020025201\arch\civil\SIGNRD99.DGN

ARCHITECTURAL PROJECT NOTES

1. GENERAL CONTRACTOR, PERMIT HOLDER AND/OR QUALIFYING AGENT MUST COMPLY WITH LATEST EDITION OF THE FTE TOLL EQUIPMENT BUILDING CODE COMPLIANCE PROCEDURES FOR OBTAINING CERTIFICATE OF OCCUPANCY OR COMPLETION DOCUMENTS FROM BCAS (BULDING CODE ADMINISTRATOR SERVICES) AS REFERENCED IN THE GENERAL TOLLING REQUIREMENTS, FOR ALL PERMITTING AND INSPECTIONS RELATED TO TOLL EQUIPMENT BUILDING CONSTRUCTION AND/OR DEMOLITION.
2. ALL TOLL EQUIPMENT BUILDING MANUFACTURERS SUPPLYING TOLL EQUIPMENT BUILDINGS FOR FDOT MUST BE DBPR CERTIFIED MANUFACTURERS. THE MANUFACTURER'S CURRENT DBPR CERTIFICATE MUST BE PROVIDED TO BCAS AT THE TIME OF SUBMISSION OF THE PLANS FOR BCAS REVIEW.
3. THE 100% APPROVED FDOT CONSTRUCTION DOCUMENTS FOR MANUFACTURED TOLL EQUIPMENT BUILDINGS MUST BE SUBMITTED TO DBPR OR IT'S "THIRD PARTY AGENCY" FOR REVIEW AND APPROVAL.
4. THE DBPR–APPROVED PLANS MUST BE AVAILABLE ON THE DBPR WEBSITE FOR CERTIFICATION VERIFICATION (CURRENTLY, HTTP://FLORIDABUILDING.ORG/C/DEFAULT.ASPX).
5. ANY CODE CHANGES MADE TO DBPR–APPROVED PLANS WILL MAKE THE PLANS OBSOLETE UNTIL THEY HAVE BEEN REVIEWED, APPROVED FOR CODE COMPLIANCE BY DBPR OR IT'S "THIRD PARTY AGENCY" AND RE–POSTED ON THE DBPR WEBSITE.
6. ALL BUILDING CODE COMPLIANCE INSPECTIONS MUST BE CONDUCTED AT THE MANUFACTURER BY DBPR OR ITS "THIRD PARTY AGENCY" TO ENSURE THE STRUCTURES ARE BEING BUILT TO THE SPECIFIC, DBPR–APPROVED PLANS.
7. ALL MANUFACTURED TOLL EQUIPMENT BUILDINGS MUST BEAR THE DBPR INSIGNIA, VERIFYING DBPR CERTIFICATION AND INSPECTION.
8. NO ROOFING INSPECTION CONDUCTED BY BCAS, INC. WILL BE REQUIRED, PROVIDED THAT THE ROOF IS INSTALLED AT THE TEB MANUFACTURER BY A MANUFACTURER–APPROVED INSTALLER AND A PROGRESS INSPECTION IS CONDUCTED BY THE ROOFING MANUFACTURER TO CERTIFY AND WARRANTY THE ROOF.
9. IF THE ROOFS WILL BE INSTALLED AT THE JOB SITE, BCAS, INC. WILL NEED TO CONDUCT ITS OWN "IN PROGRESS" AND FINAL ROOF INSPECTIONS TO CERTIFY COMPLIANCE.
10. THE BUILDING MANUFACTURER MUST ALSO CERTIFY THAT THEY HAVE BUILT THESE TOLL EQUIPMENT BUILDINGS IN ACCORDANCE WITH THE 100%–APPROVED FDOT CONSTRUCTION DOCUMENTS FOR THESE SPECIFIC TOLL EQUIPMENT BUILDINGS. THEY MUST ALSO WARRANTY THESE BUILDINGS.
11. IF ANY OF THESE ITEMS HAVE NOT BEEN ADHERED TO, THE BUILDING OFFICIAL, HAS JURISDICTION UNDER FLORIDA STATUTE 553.791 (13) TO "RED TAG" ANY JOB UNTIL SAID DEFICIENCIES HAVE BEEN SATISFACTORILY ADDRESSED OR RECTIFIED.
12. ARCHITECTURAL PROJECT NOTES APPLY TO ALL ARCHITECTURAL DRAWINGS.
13. GENERAL NOTES AND SPECIFIC KEYED NOTES APPLY ONLY TO THE SHEET ON WHICH THEY APPEAR.
14. CONTRACTOR SHALL COMPLY WITH GOVERNING CODES AND LOCAL REGULATIONS.
15. DO NOT SCALE DRAWINGS.
16. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING ANY WORK AND SHALL BE RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS, WORK AND MATERIALS REQUIRED.
17. CONTRACTOR SHALL REPORT ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION ON THE AFFECTED ITEM.

SECURITY NOTES

1. ACCESS TO SITE: COORDINATE WITH THE DEPARTMENT FOR ACCESS REQUIREMENTS FOR ALL EMPLOYEES AND EQUIPMENT OF THE CONTRACTOR AND OR SUB–CONTRACTORS.

DIMENSION NOTES

1. ALL DIMENSIONS ARE ACTUAL AND ARE TO FACE OF CONCRETE WALLS, FACE OF MASONRY WALLS, FACE OF FRAME (ON FRAME WALLS) OR CENTERLINE OF COLUMNS, UNLESS NOTED OTHERWISE.

ABBREVIATIONS

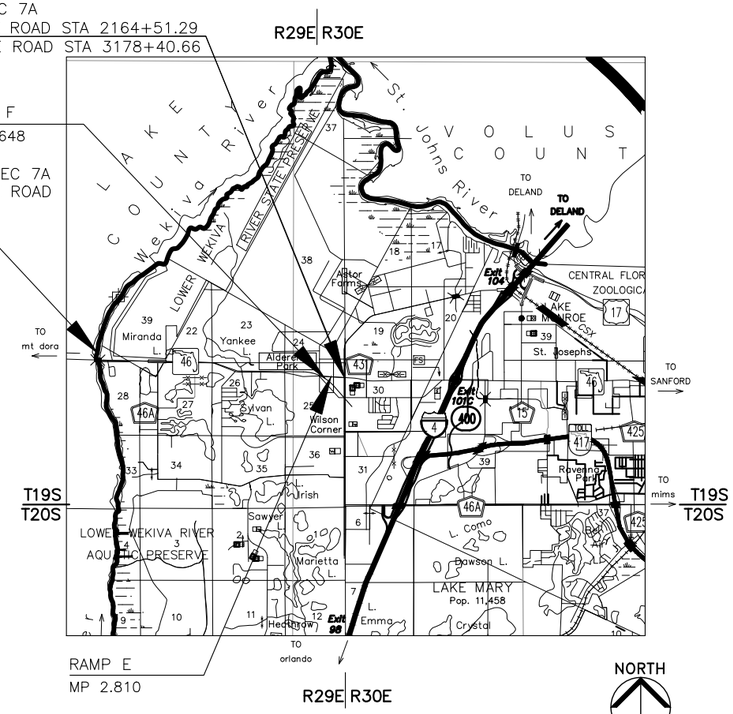
1. ABBREVIATIONS APPLY TO DRAWING SHEETS. ADDITIONAL ABBREVIATIONS NOT NOTED BELOW MAY OCCUR ON OTHER DRAWING SHEETS.
2. WORDS MAY OCCUR AS ABBREVIATIONS OR SPELLED OUT IN FULL.
3. THE CONTRACTOR SHALL BE FAMILIAR WITH THE ABBREVIATIONS AS LISTED BELOW.
4. ABBREVIATIONS FOLLOWED BY AN "S" INDICATE THE WORD HAS BEEN MADE PLURAL.

AIR CONDITIONING UNIT	ACU	FOOTING	FTG	PLATE	PL
AIR CONDITIONING	A/C	FRAME	F	POLYVINYL CHLORIDE	PVC
ABOVE FINISH FLOOR	AFF	FRONT AND BACK	F/B	POUNDS	LBS
ADDITIONAL	ADDNL	GALVANIZED	GALV	POUNDS PER SQUARE INCH	PSI
ALUMINUM	ALUM	GAS	G	POINT OF TANGENCY	P.T.
ANCHOR	ANC	GAS METER	GM	PRESSURE TREATED	PT
ANCHOR BOLT	AB			RADIUS	RAD
ASPHALT	ASPH	GLAZING	GLZ	REFERENCE	RE
AUXILIARY	AUX	GRADE	GR	REINFORCING	REINF
AVERAGE	AVG	GROUND	GND	REINFORCING BAR	REBAR
BETWEEN	B/W	GROUND FAULT INTERRUPTER	GFI	REQUIRED	REQD
BLOCK	BLK	GYPSUM BOARD	GYP BD	REVISED	REV
BOTTOM	BOT	HEATER VENT	HV	ROOF DRAIN	RD
BUILDING	BLDG	HEIGHT	HT	ROADWAY	RDWY
BUILDING LINE	BL	HIGH INTENSITY DISCHARGE	HID	ROOM	RM
CAST IRON	CI	HORIZONTAL	HORIZ	SCHEDULE	SCH
CENTERLINE	CL	HEIGHT	HT	SECOND	SEC
CENTER TO CENTER	C TO C	INSIDE DIAMETER	ID	SECTION	SECT
CEILING HEIGHT	CH	INCH	IN	SHEET	SHT
CIRCUIT	CKT	INFORMATION	INFO	SIDEWALK	S/W
CLEARANCE	CLR	INSIDE DIAMETER	ID	SIMILAR	SIM
COLUMN	COL	INVERT	INV	SOUTH	S
CONCRETE	CONC	IRON PIPE	IP	SOUTHEAST	SE
CONCRETE MASONRY UNIT	CMU	JOINT	JT	SOUTHWEST	SW
CONSTRUCTION	CONST	JUNCTION BOX	JB	SPECIFICATION	SPEC
CONSTRUCTION DOCUMENTS	CD	KIPS	K	SQUARE	SQ
CONTROL JOINT	CJ	KIPS PER SQUARE INCH	KSI	SQUARE FEET	SF
CONTINUOUS	CONT	KILOVOLT–AMPERES	KVA	STANDARD	STD
COPPER	CU	LAVATORY	LAV	STAINLESS STEEL	SS
CUBIC INCH	CI	LIGHT	LT	STEEL	STL
DETAIL	DET	LIGHTWEIGHT	LT WT	STIRRUP	STR
DIAMETER	DIA OR ø	LENGTH	L	STREET	ST
DIAGONAL	DIAG	LIGHTING	LTG	SWITCH	SWT
DIMENSION	DIM	LINEAR	LIN	SYMMETRICAL	SYM
DISTANCE	DIST	LINEAR FEET	LF	TANGENT	TAN
DOWN	DN	LONG	LG	TELEPHONE	TELE
DOWNSPOUT	DS	MATERIAL	MATL	TEMPORARY	TEMP
DRAWING	DWG	MANUFACTURER	MANUF	THICKNESS	THK
DRINKING FOUNTAIN	DF	MAXIMUM	MAX	TOP AND BOTTOM	T/B
DRIVE	DR	MEAN SEA LEVEL	MSL	TOP FACE	T/F
EACH	EA	MECHANICAL	MECH	TOP OF CONCRETE	T/C
EACH WAY	EW	MEDIUM	MED	TOP OF CURB	TC
EAST/EASTING	E	METAL	MTL	TOP OF SLAB	T/S
ELEVATION	EL OR ELEV	MINIMUM	MIN	TOP OF STEEL	T/STL
ELECTRICAL	ELEC	MISCELLANEOUS	MISC	TYPICAL	TYP
EQUIPMENT	EQUIP	NORTH/NORTHING	N	UNLESS NOTED OTHERWISE	UNO
EQUAL	EQ	NORTHEAST	NE	UNDERWRITERS LABORATORIES INC.	UL
EXHAUST FAN	EX	NORTHWEST	NW	URINAL	UR
EXISTING	EXIST	NOT APPLICABLE	N/A	VARIABLE	VAR
EXPANSION JOINT	EJ	NOT IN CONTRACT	NIC	VENT THRU ROOF	VTR
EXPOSED STRUCTURE	EXP STR	NOT TO SCALE	NTS	VERIFY IN FIELD	VIF
EXTERIOR	EXT	NUMBER	#	VERTICAL	VERT
FEEDER	FDR	ON CENTER	O/C	WATER LINE	WL
FEET	FT	OPPOSITE	OPP	WATER CLOSET	WC
FINISH FLOOR ELEVATION	FFE	OUTSIDE DIAMETER	OD	WIDTH	W
FIRE EXTINGUISHER	FE	OVERHEAD	OH	WITH	W/
FLOOR	FL	PANEL	PNL	WITHOUT	W/O
FLOOR DRAIN	FD	PAVEMENT	PVMT	WOOD	WD
FOOT	FT	PERCENT	%		

END CONSTRUCTION SEC 7A
℄ CONST EB FRONTAGE ROAD STA 2164+51.29
℄ CONST WB FRONTAGE ROAD STA 3178+40.66

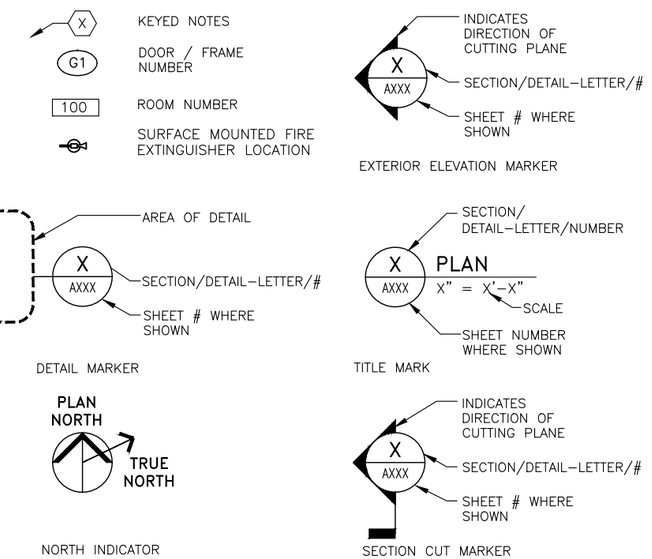
RAMP F
MP 2.648

BEGIN CONSTRUCTION SEC 7A
℄ CONST WB FRONTAGE ROAD
STA 3000+00.00



LOCATION MAP
NTS

SYMBOLS LEGEND



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
AA 26000687
Susan Funk Nute, AR 11913

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SYMBOLS LEGEND AND NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AG-100**

SHEET NO. **3**

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1–16.005, F.A.C.

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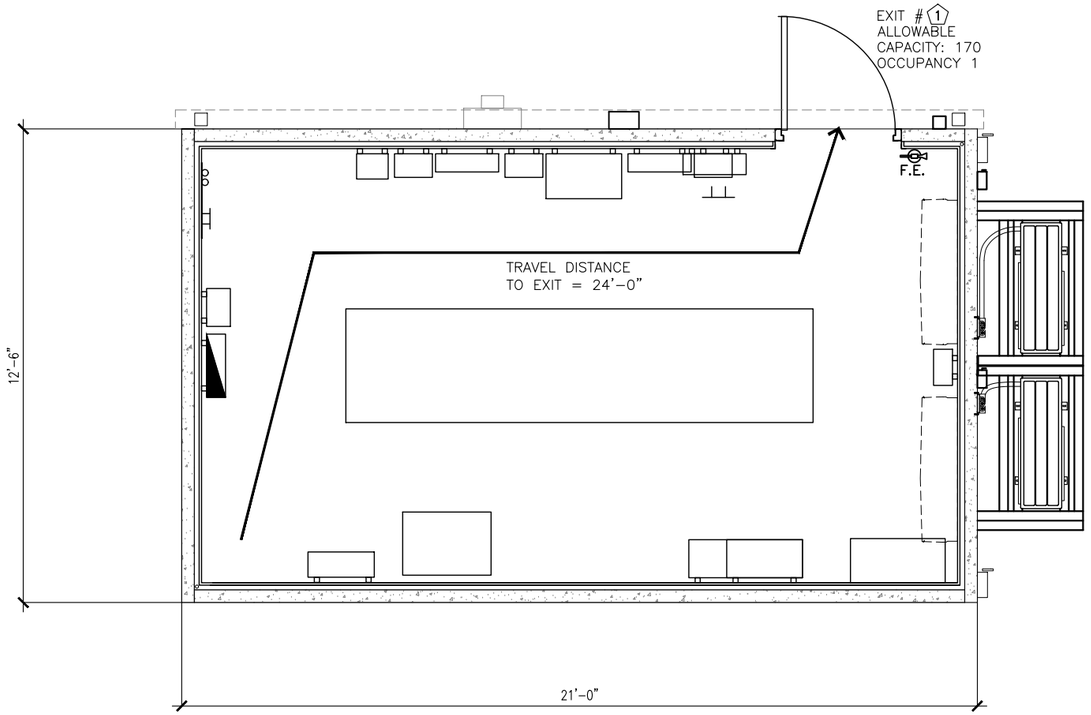
NOTICE OF ACCEPTANCE BASIS OF DESIGN

PRODUCT	SUB CATEGORY	MANUFACTURER	NOTICE OF ACCEPTANCE (NOA) OR STATE OF FLORIDA APPROVAL NUMBER
EXTERIOR DOORS	SWINGING	CECO DOOR PRODUCTS	FLORIDA APPROVED PRODUCT NO. 4553-R10
ROOFING	SBS MODIFIED BITUMEN ROOFING SYSTEM	SOPREMA	NOA NO. 15-0709.14
ROOFING	ROOFING ACCESSORIES THAT ARE AN INTEGRAL PART OF THE ROOFING SYSTEM	SOPREMA	NOA NO. 12-0315.02

* CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL DOCUMENTATION REQUIRED TO SUBSTANTIATE NOA COMPLIANCE FROM MANUFACTURER.

NOTICE OF ACCEPTANCE GENERAL NOTES

1. ALL EXTERIOR BUILDING ENVELOPE COMPONENTS AND SYSTEM PRODUCTS SHALL BE CERTIFIED AND LABELED IN ACCORDANCE WITH FLORIDA STATUTES 553.842 PRODUCT EVALUATION AND APPROVAL AND MEET THE FLORIDA BUILDING CODE 2014, HIGH VELOCITY HURRICANE ZONE STRUCTURAL AND BUILDING CONSTRUCTION REQUIREMENTS.
2. CONTRACTOR TO PROVIDE A VALID FLORIDA PRODUCT APPROVAL CERTIFICATION OR A NOTICE OF ACCEPTANCE (NOA) FOR ALL BUILDING ENVELOPE COMPONENTS AND SYSTEMS.
3. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL PROJECT SYSTEMS AND EXTERIOR BUILDING ENVELOPE COMPONENTS THAT REQUIRE TESTING, EVALUATION, AND OR CERTIFICATION.
4. FIRE SUPPRESSION SYSTEMS, EARLY WARNING AND MANUAL OVERRIDES WILL BE FURNISHED AND INSTALLED BY THE DEPARTMENT. SEPARATE CONTRACT DOCUMENTS WILL BE PREPARED BY THE DEPARTMENT AND ASSOCIATED TO THIS FACILITY TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF THE APPLICABLE FIRE CODE. THE SYSTEMS WILL BE UNDER SEPARATE CONTRACT AND SUBMITTAL REVIEW. ALL SYSTEMS WILL BE IN OPERATION PRIOR TO THE FINAL CERTIFICATE OF OCCUPANCY OF THIS FACILITY.



1 / AG-101 LIFE SAFETY PLAN
SCALE: 1/4"= 1'-0"

LIFE SAFETY INFORMATION

APPLICABLE CODES AND STANDARDS:	FLORIDA BUILDING CODE 2014 FLORIDA FIRE PREVENTION CODE, 2014 NFPA 101, 2012 FLORIDA BUILDING CODE ENERGY CONSERVATION 2014 FLORIDA MECHANICAL CODE, 2014 FLORIDA PLUMBING CODE, 2014 NFPA 70, 2011 (NATIONAL ELECTRIC CODE) FLORIDA TURNPIKE ENTERPRISE GENERAL TOLLING REQUIREMENTS (GTR) JUNE 6, 2014
OCCUPANCY CLASSIFICATION:	GROUP S-2 – LOW HAZARD INDUSTRIAL STORAGE (CHAPTER 3, SECTION 311.3) UNMANNED BUILDING
OCCUPANCY SEPARATION:	NO SEPARATION REQUIRED
FIRE RESISTANCE:	NON-COMBUSTIBLE

TYPE IIB – PROTECTED CONSTRUCTION, INERT GAS SYSTEM
(CONSTRUCTION REQUIREMENTS PER TABLE 601 (FBC, 2014)

INTERIOR BEARING WALLS	NON-COMBUSTIBLE
INTERIOR NON BEARING WALL	NON-COMBUSTIBLE
COLUMNS	NON-COMBUSTIBLE
BEAMS, GIRDERS, TRUSSES AND ARCHES	NON-COMBUSTIBLE
FLOORS AND FLOOR/CEILING ASSEMBLIES	NON-COMBUSTIBLE
ROOFS AND ROOF/CEILING	NON-COMBUSTIBLE
EXTERIOR BEARING WALLS	10'-20'; NON-COMBUSTIBLE
EXIT ACCESS CORRIDOR WALLS	NON-RATED (LESS THAN 30 OCCUPANTS) (FBC TABLE 1018.1)

HEIGHT AND AREA LIMITATIONS FOR TYPE IIB, PROTECTED CONSTRUCTION
UNSPRINKLERED (PER FBC TABLE 503)
MAX HEIGHT ALLOWED: 55' ACTUAL HEIGHT: 11'-3" MAX AREA ALLOWED: 26,000 S.F.

FLOOR AREA EQUIPMENT BUILDING:

TOTAL GROSS BUILDING AREA	= 263 S.F. TOTAL
NET BUILDING AREA	= 228 S.F.

OCCUPANCY LOAD CALCULATIONS

USE OF AREA	AREA (SQ FT) OCC. PER SF	OCC. LOAD (ROUNDED UP) MECH/ELEC./STOR.
	228 (GROSS) / 300	= 1 (1 MAINTENANCE STAFF MAY BE PRESENT)
TOTAL OCCUPANCY LOAD		= 0 (ROUNDED UP)

EXIT CALCULATIONS

TOTAL BUILDING OCCUPANT LOAD	= 0 UNMANNED BUILDING
TOTAL EGRESS WIDTH OF DOOR REQUIRED:	32" MIN. PER FBC 1008.1.1
FIRST FLOOR (0 X 0.2)	= 0.0 INCH
PROVIDED TOTAL EXIT DOOR WIDTH	= 34 INCHES
MINIMUM CLEAR WIDTH OF EXIT DOOR PROVIDED:	34 INCHES > 32 INCHES; ACCEPTABLE

LIFE SAFETY NOTES AND SYMBOLS

CLASSIFICATION OF OCCUPANCY	(NFPA 101 – 2012 EDITION)
OCCUPANCY BY CODE DEFINITION:	LOW HAZARD INDUSTRIAL STORAGE

→: MEANS OF EGRESS GREATEST PATH OF TRAVEL W/OCCUPANT LOAD AT EXIT.

MAXIMUM ALLOWABLE TRAVEL DISTANCE	(TABLE 1016.2) AND (CHAPTER 9, SECTION 904.2)
LOW HAZARD INDUSTRIAL STORAGE:	300 FEET
MAX. ACTUAL TRAVEL DISTANCE:	24 FEET

(#): INDICATES LIFE SAFETY PLAN EGRESS DOOR EXIT.

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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7650 West Courtney
Campbell Causeway
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AA 26000687
Susan Funk Nute, AR 11913

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **GANTRY EQUIPMENT BUILDING CODE DATA AND LIFE SAFETY PLAN**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AG-101**

SHEET NO. **4**

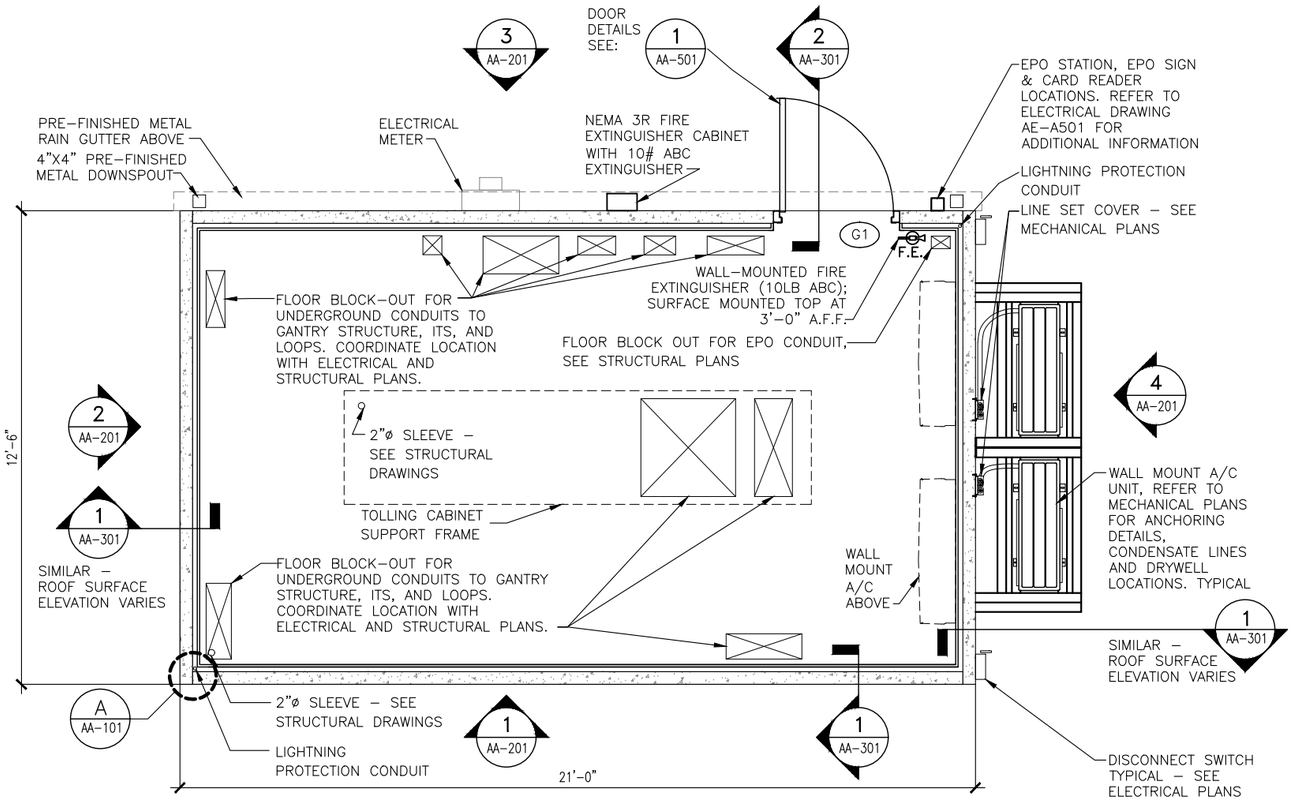
INTERIOR COLOR SCHEDULE	
COLOR 3	BROWN – FED STD 595 NO. 20062
COLOR 4	WHITE – FED STD 595 NO. 17925

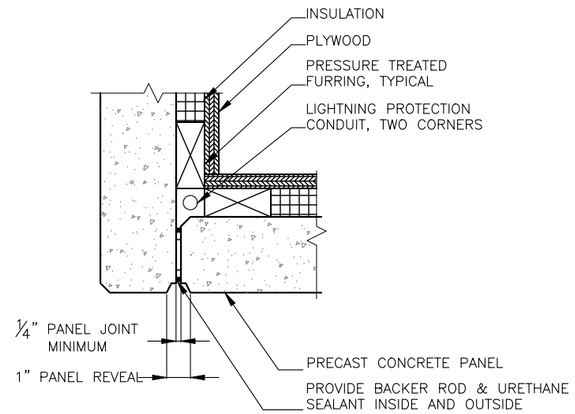
FLOOR ELEVATION

TOLL EQUIPMENT BUILDING FINISH FLOOR SLAB ELEVATION ON BUILDING PLANS INDICATED AS 0'–0" EQUALS 1'–6" ABOVE THE ESTABLISHED 100 YEAR FLOOD PLAIN. REFER TO CIVIL DRAWINGS FOR ACTUAL SLAB ELEVATION.

GENERAL NOTES

A. REFER TO CIVIL PLANS FOR SITE INFORMATION, INCLUDING SIDEWALK LOCATIONS.
B. SEE STRUCTURAL PLANS FOR LOCATION OF OPENINGS AND REVEALS IN PRECAST CONCRETE PANELS.
C. PROVIDE, INSTALL AND TEST GROUND RODS PRIOR TO SLAB INSTALLATION, SEE ELECTRICAL PLANS.
D. INTERIOR EXPOSED CONCRETE SLAB TO RECEIVE CLEAR COAT CONCRETE SEALER.
E. PAINT INTERIOR WALLS AND CEILING COLOR 4
F. RESILIENT BASE SHALL BE COLOR 3
G. DOOR AND DOOR FRAME SHALL BE COLOR 1 INSIDE AND OUTSIDE (SEE EXTERIOR COLOR SCHEDULE ON AA–201).





A AA–101 TYPICAL CORNER JOINT SCALE: 1 1/2"= 1'–0"

1 AA–101 FLOOR PLAN SCALE: 1/4"= 1'–0"

PLAN NORTH / TRUE NORTH

GRAPHIC SCALES
SCALE: 1 1/2"= 1'–0" (0, 3", 6")
SCALE: 1/4"= 1'–0" (0, 2', 4')

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
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Susan Funk Nute, AR 11913

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **FLOOR PLAN AT RAMP E**

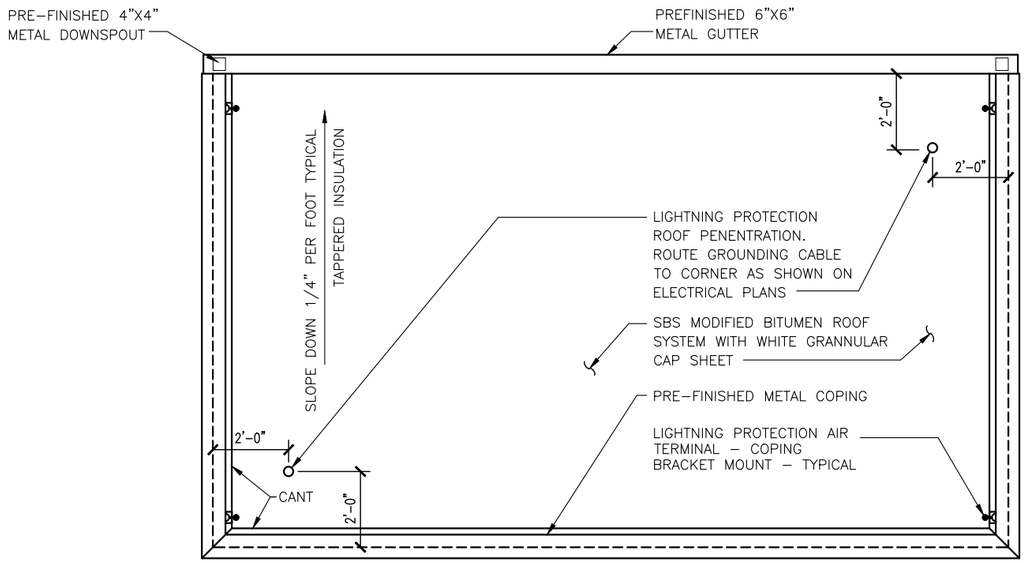
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-101**

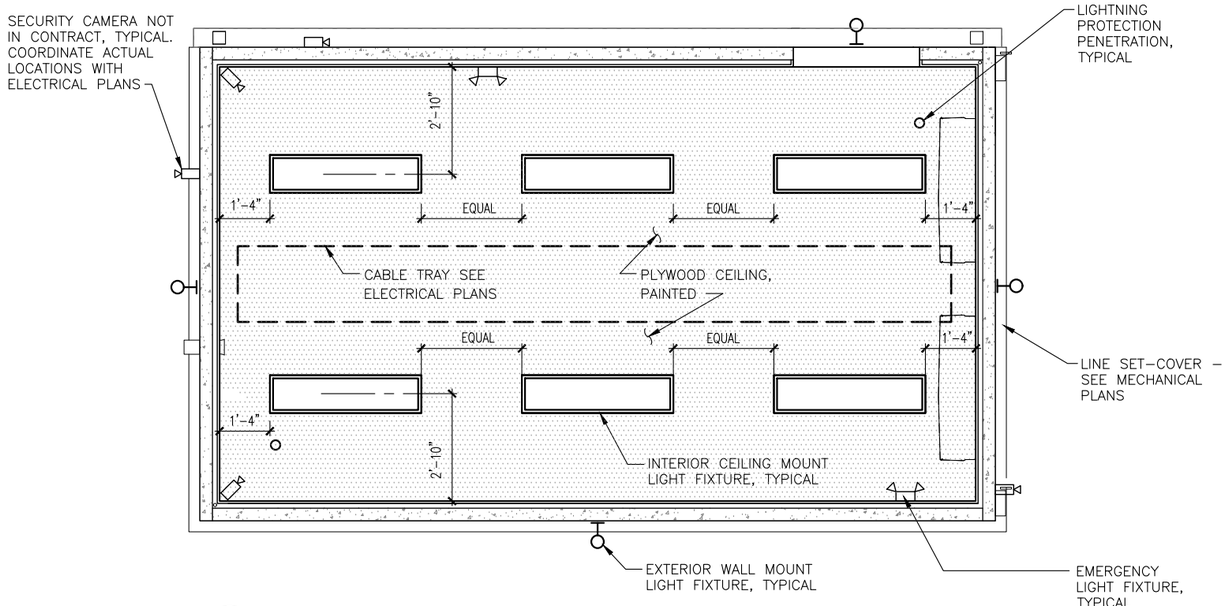
SHEET NO. **5**

GENERAL NOTES

A. ALL ROOF COMPONENTS SHALL MEET FLORIDA BUILDING CODE WIND LOAD POSITIVE AND NEGATIVE PRESSURES AND HAVE A VALID FLORIDA PRODUCT APPROVAL CERTIFICATE AND/OR A MIAMI–DADE N.O.A. FOR THESE LOADS. SEE STRUCTURAL PLANS FOR DESIGN LOADS.



1 AA–102 **ROOF PLAN**
SCALE: 1/4"= 1'–0"



2 AA–102 **REFLECTED CEILING PLAN**
SCALE: 1/4"= 1'–0"

PLAN NORTH
TRUE NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'–0"
0 2' 4'

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **REFLECTED CEILING PLAN & ROOF PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-102**

SHEET NO. **6**

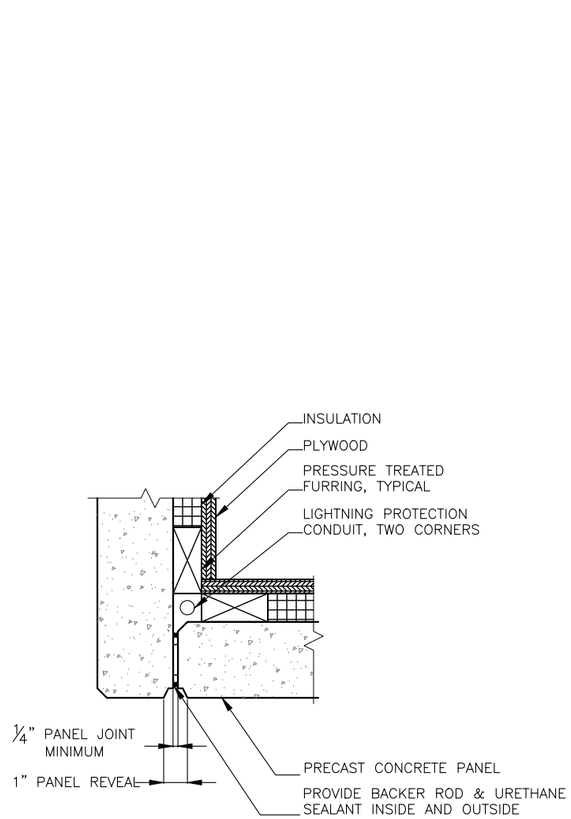
INTERIOR COLOR SCHEDULE	
COLOR 3	BROWN – FED STD 595 NO. 20062
COLOR 4	WHITE – FED STD 595 NO. 17925

FLOOR ELEVATION

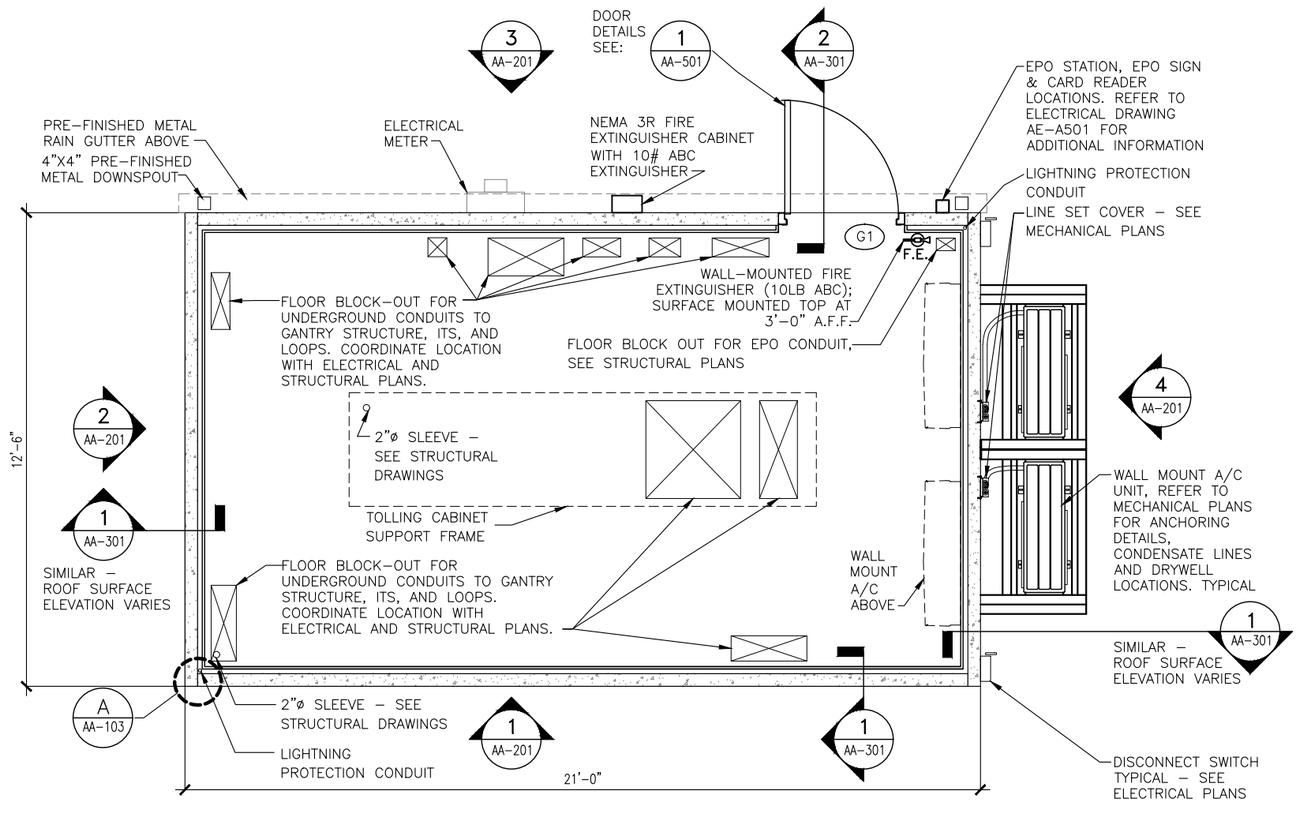
TOLL EQUIPMENT BUILDING FINISH FLOOR SLAB ELEVATION ON BUILDING PLANS INDICATED AS 0'–0" EQUALS 1'–6" ABOVE THE ESTABLISHED 100 YEAR FLOOD PLAIN. REFER TO CIVIL DRAWINGS FOR ACTUAL SLAB ELEVATION.

GENERAL NOTES

A. REFER TO CIVIL PLANS FOR SITE INFORMATION, INCLUDING SIDEWALK LOCATIONS.
B. SEE STRUCTURAL PLANS FOR LOCATION OF OPENINGS AND REVEALS IN PRECAST CONCRETE PANELS.
C. PROVIDE, INSTALL AND TEST GROUND RODS PRIOR TO SLAB INSTALLATION, SEE ELECTRICAL PLANS.
D. INTERIOR EXPOSED CONCRETE SLAB TO RECEIVE CLEAR COAT CONCRETE SEALER.
E. PAINT INTERIOR WALLS AND CEILING COLOR 4
F. RESILIENT BASE SHALL BE COLOR 3
G. DOOR AND DOOR FRAME SHALL BE COLOR 1 INSIDE AND OUTSIDE (SEE EXTERIOR COLOR SCHEDULE ON AA–201).



A / AA–103 TYPICAL CORNER JOINT
SCALE: 1 1/2"= 1'–0"



1 / AA–103 FLOOR PLAN
SCALE: 1/4"= 1'–0"

GRAPHIC SCALES
SCALE: 1 1/2"= 1'–0"
0 3" 6"
SCALE: 1/4"= 1'–0"
0 2' 4'

TRUE NORTH
PLAN NORTH

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **FLOOR PLAN AT RAMP F**

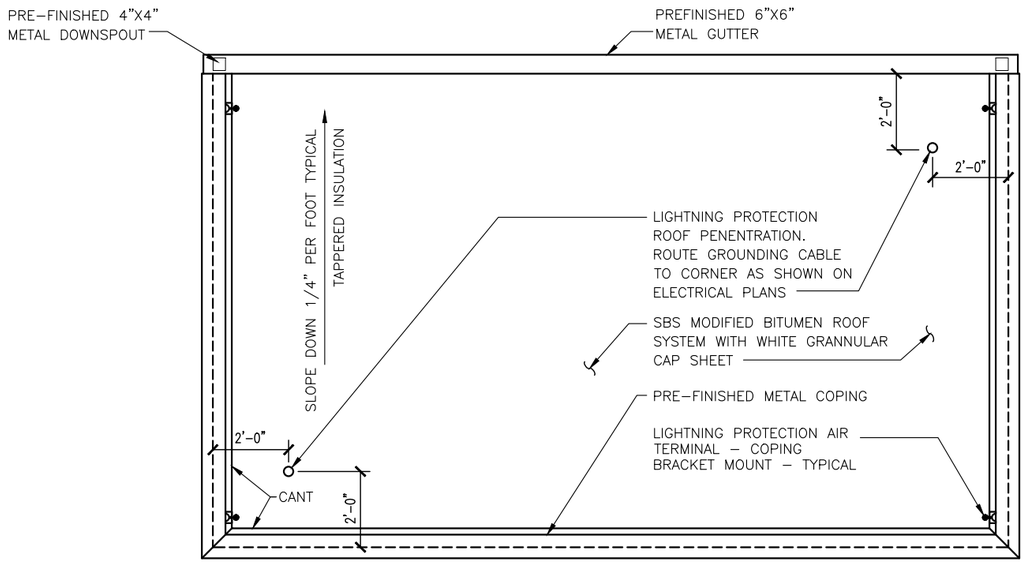
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-103**

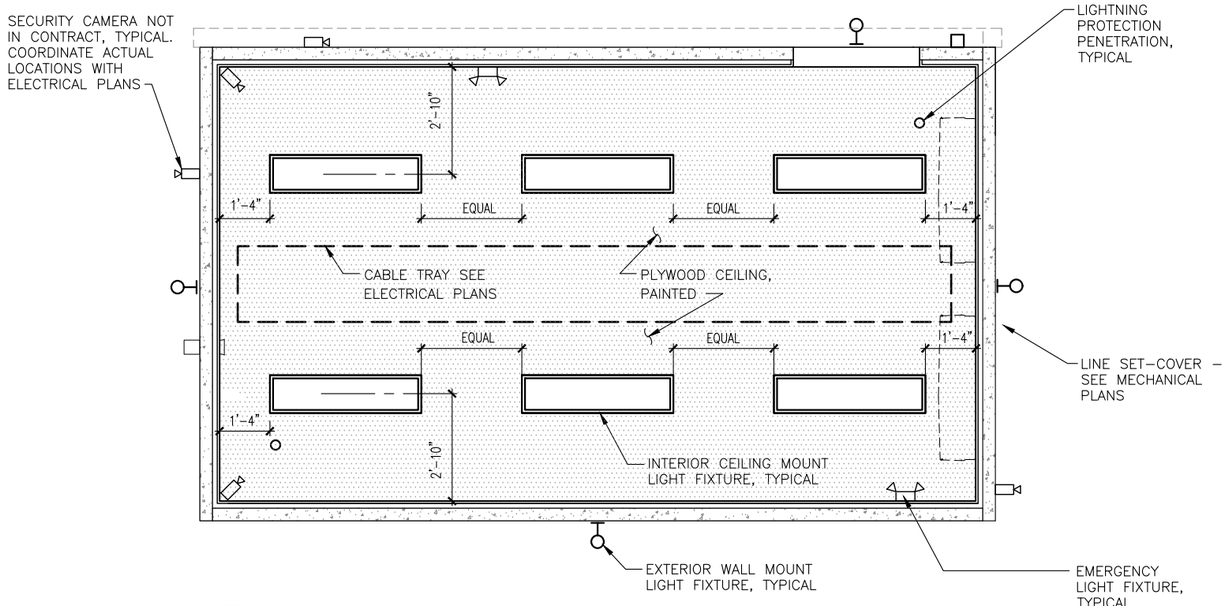
SHEET NO. **7**

GENERAL NOTES

A. ALL ROOF COMPONENTS SHALL MEET FLORIDA BUILDING CODE WIND LOAD POSITIVE AND NEGATIVE PRESSURES AND HAVE A VALID FLORIDA PRODUCT APPROVAL CERTIFICATE AND/OR A MIAMI-DADE N.O.A. FOR THESE LOADS. SEE STRUCTURAL PLANS FOR DESIGN LOADS.



1 AA-104 **ROOF PLAN**
SCALE: 1/4"= 1'-0"



2 AA-104 **REFLECTED CEILING PLAN**
SCALE: 1/4"= 1'-0"

TRUE NORTH / PLAN NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **REFLECTED CEILING PLAN & ROOF PLAN AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-104**

SHEET NO. **8**

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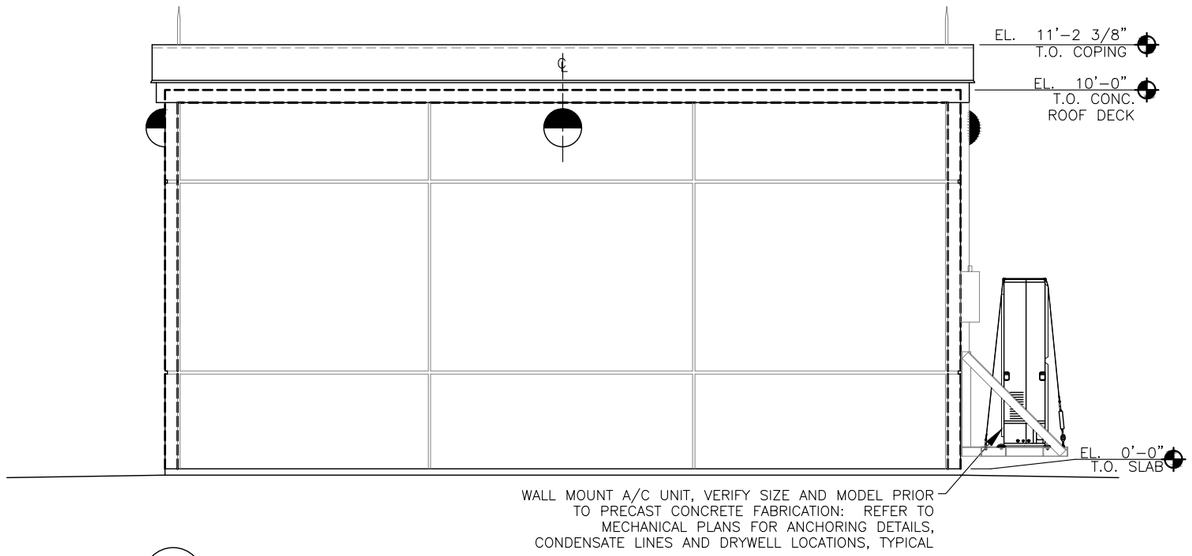
EXTERIOR COLOR SCHEDULE	
COLOR 1	PEARL GRAY – 872D4
COLOR 2	DARK BRONZE

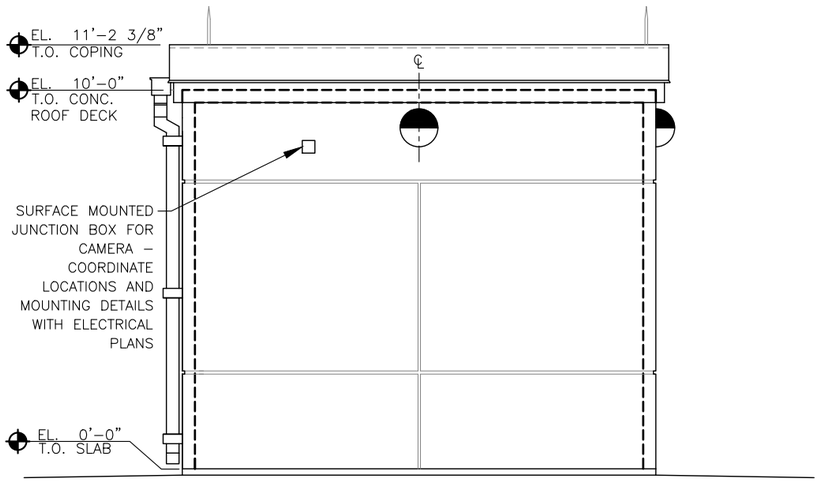
GENERAL NOTES

A. NOTES INDICATED AS "TYPICAL" ON ELEVATION 1/AA–201 AND 3/AA–201 APPLY TO ALL ELEVATIONS.

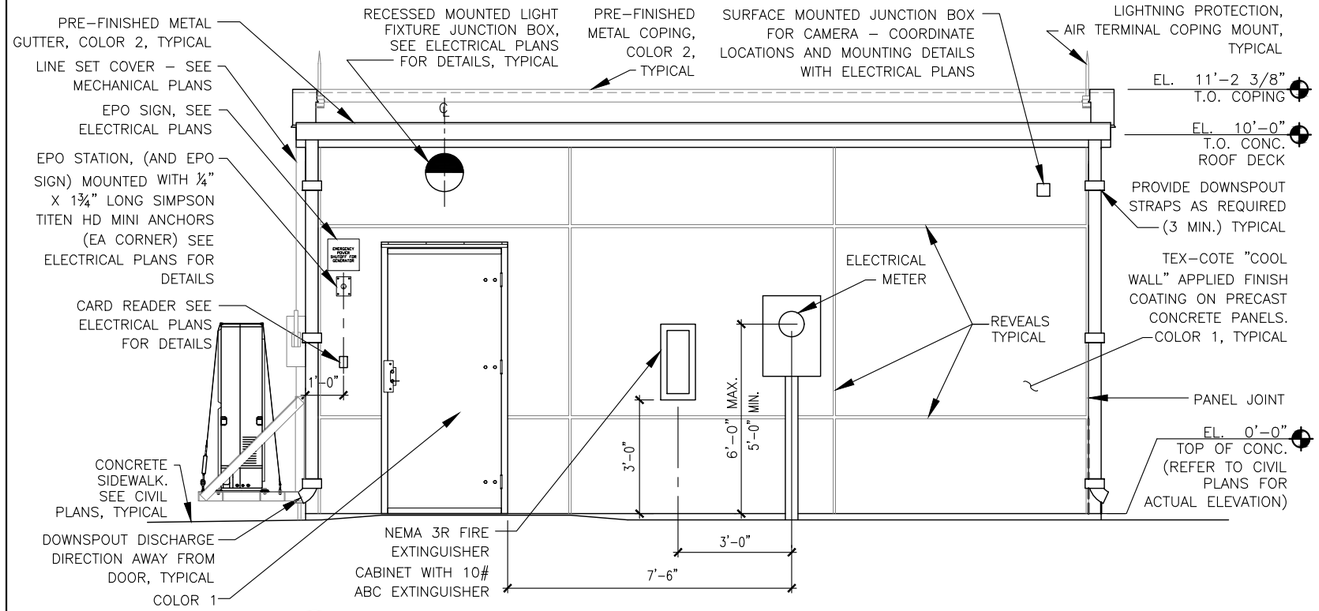
B. ALL REVEALS AND PENETRATIONS IN PRECAST WALL PANELS ARE DIMENSIONED IN THE STRUCTURAL DRAWINGS.



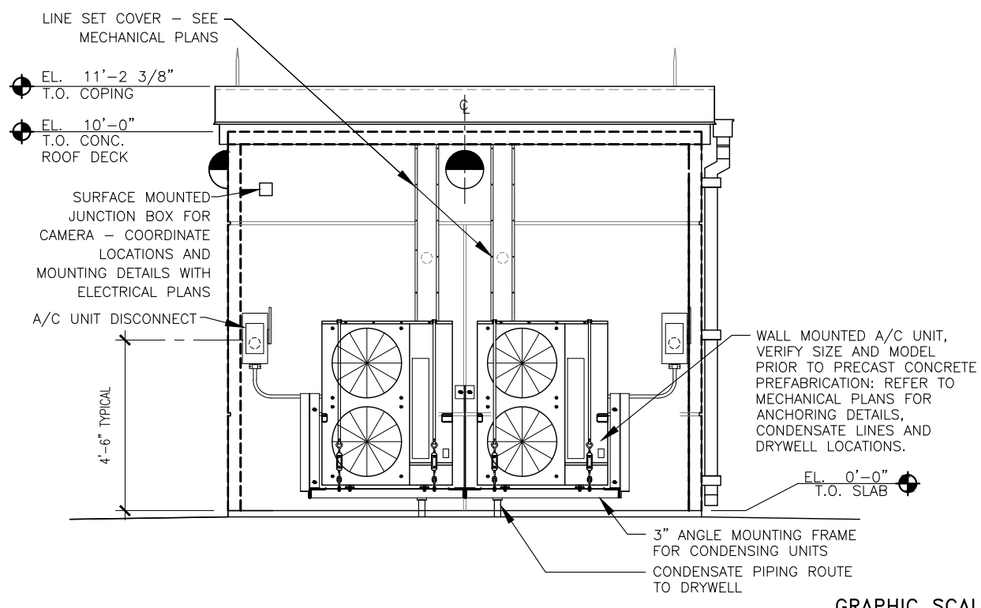
1 AA–201 ELEVATION
SCALE: 1/4"= 1'–0"



2 AA–201 ELEVATION
SCALE: 1/4"= 1'–0"



3 AA–201 ELEVATION
SCALE: 1/4"= 1'–0"



4 AA–201 ELEVATION
SCALE: 1/4"= 1'–0"

GRAPHIC SCALE
SCALE: 1/4"= 1'–0"
0 2' 4'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

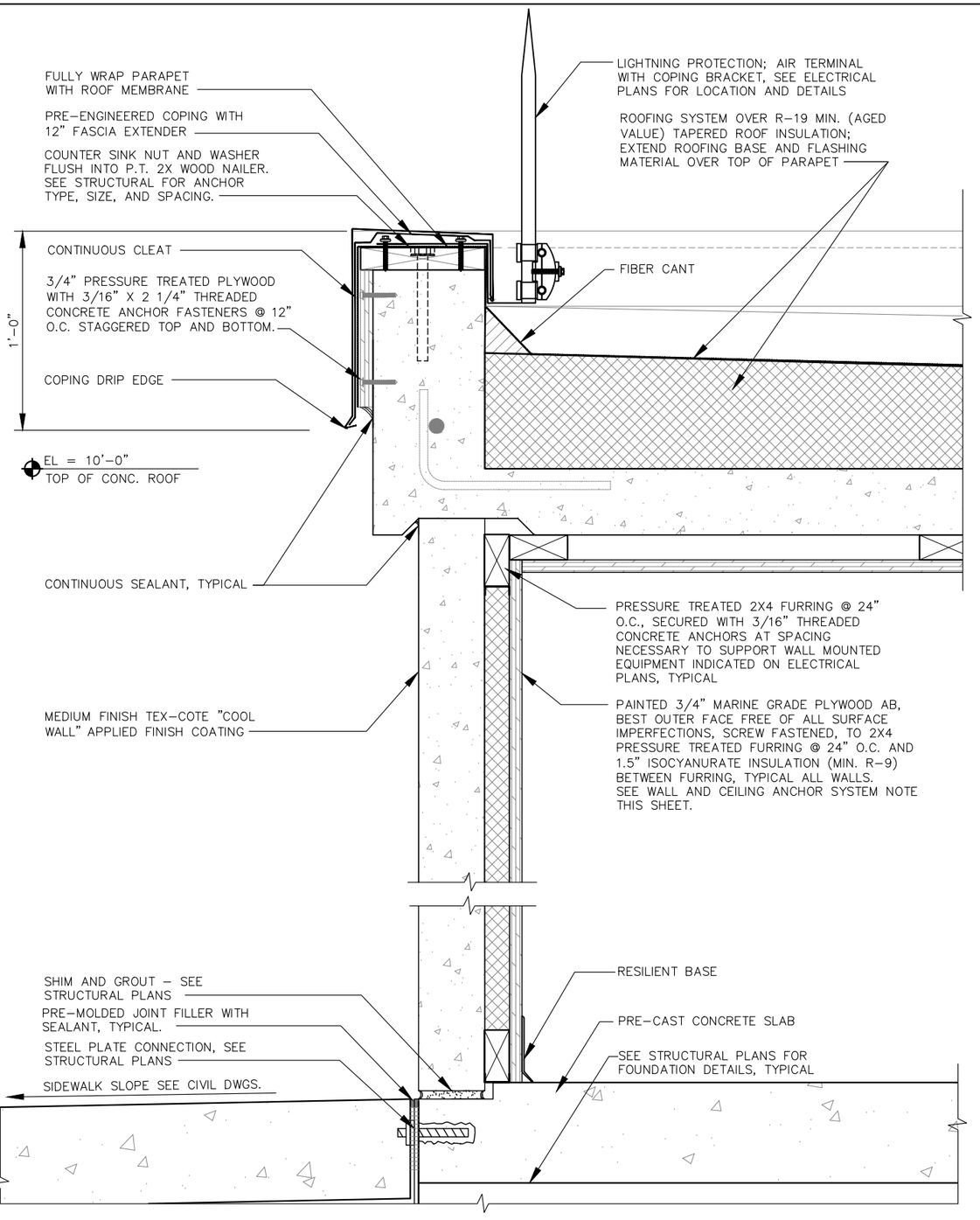
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING ELEVATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-201**

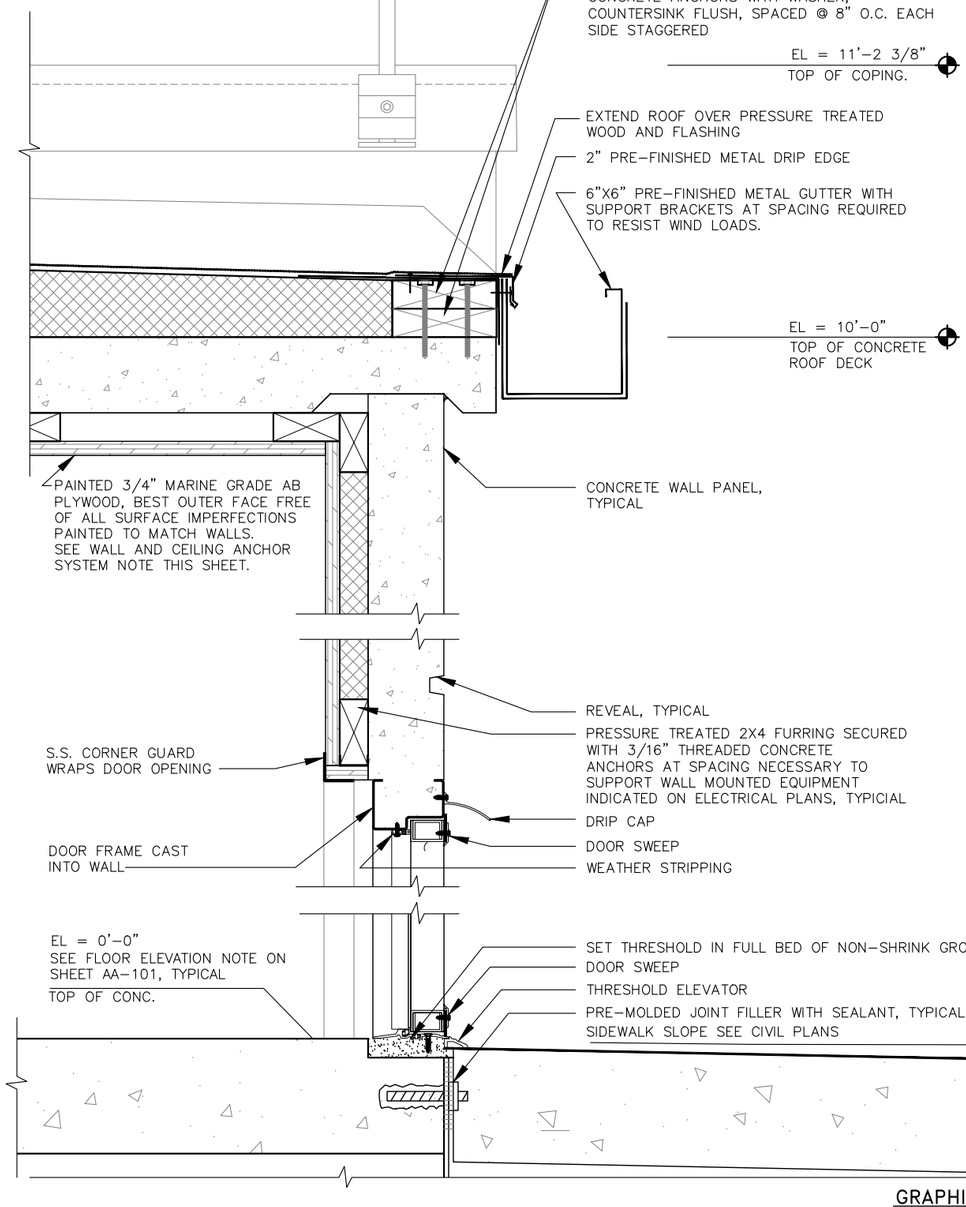
SHEET NO. **9**



1 WALL SECTION
AA-301 SCALE: 1 1/2"= 1'-0"

WALL AND CEILING ANCHOR SYSTEM

A. ATTACH P.T. 2"X4" FURRING TO CONCRETE WALL WITH 3/16"ø X 2½" L. TAPCON FASTENERS (ALLOWABLE TENSION LOAD = 260 LBS/FASTENER) @ MAXIMUM 8" O.C. ATTACH PLYWOOD TO P.T. 2"X4" FURRING WITH #10-10 X 2" L. FLATHEAD EXTERIOR CONSTRUCTION WOOD SCREWS (LOAD AND RESISTANCE FACTOR = 363 LBS/FASTENER) @ MAXIMUM 8" O.C. FOR AN AVERAGE OF .75 FASTENERS PER SQ. FT.



2 WALL SECTION
AA-301 SCALE: 1 1/2"= 1'-0"

GRAPHIC SCALE
SCALE: 1 1/2"= 1'-0"
0 3" 6"

REVISIONS			
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING WALL SECTIONS**

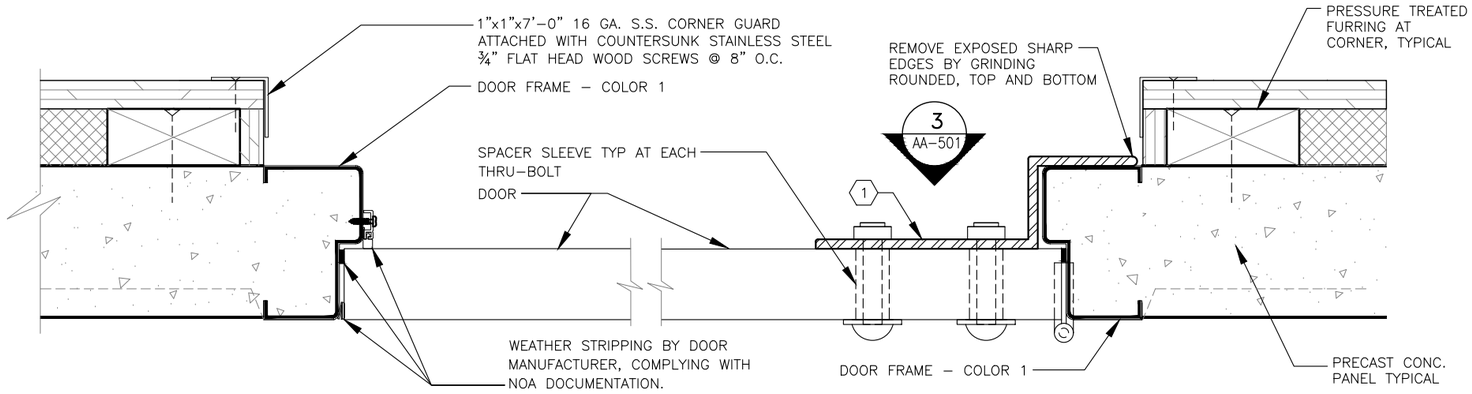
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-301**

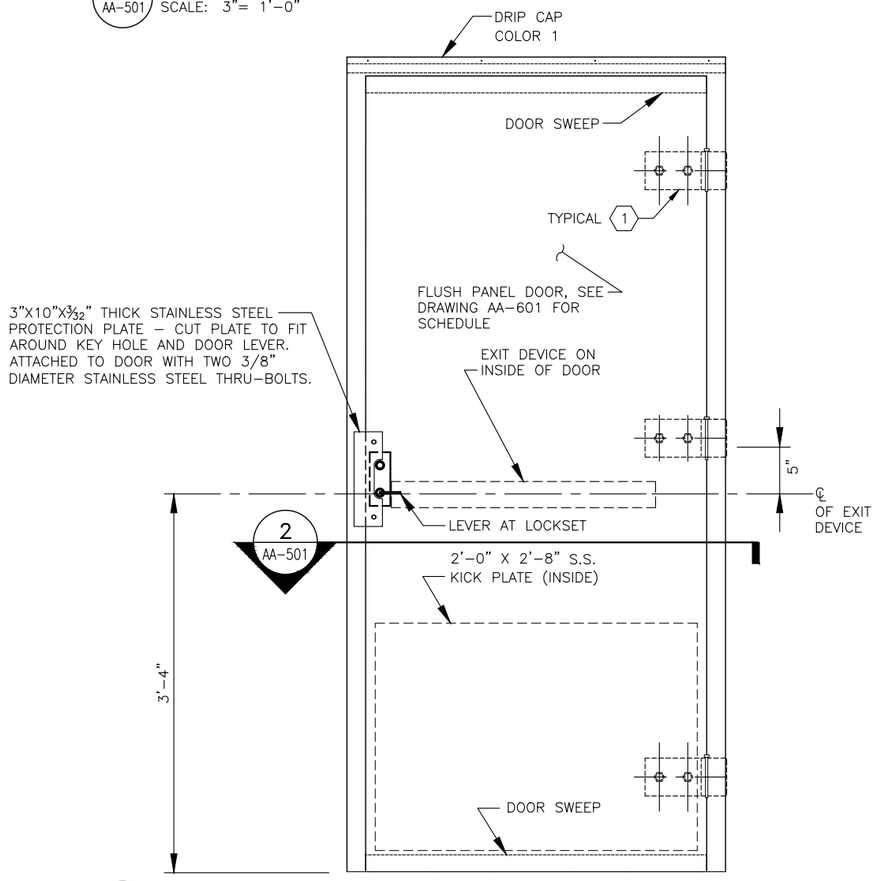
SHEET NO. **10**

KEY NOTES

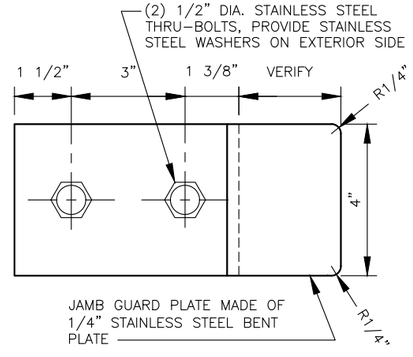
(1) PROVIDE THREE STAINLESS STEEL JAMB GUARD PLATES ON THE INTERIOR SIDE AT LOCATIONS INDICATED, COORDINATE SIZE OF JAMB GUARD WITH DOOR FRAME PROVIDED BY TOLL EQUIPMENT BUILDING MANUFACTURER.



2 AA-501 **DOOR JAMBS SECTION**
SCALE: 3"= 1'-0"



1 AA-501 **DOOR EXTERIOR ELEVATION**
SCALE: 3/4"= 1'-0"



3 AA-501 **INTERIOR ELEVATION – JAMB GUARD**
SCALE: 3"= 1'-0"

GRAPHIC SCALE
SCALE: 3"= 1'-0"
0 1 1/2" 3"
SCALE: 3/4"= 1'-0"
0 6" 1'

REVISIONS			
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING DOOR DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AA-501**

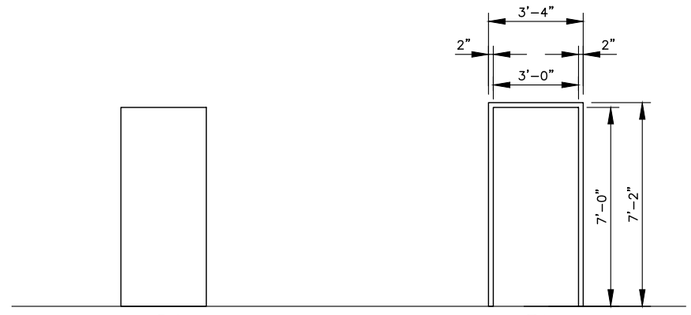
SHEET NO. **11**

DOOR / FRAME SCHEDULE

DOOR NUMBER	BUILDING NAME	DOOR SIZE	DOOR THICKNESS	DOOR TYPE	DOOR LOUVER	DOOR LABEL	DOOR MATERIAL	DOOR UNDER CUT	FRAME TYPE	FRAME MAT.	FRAME THRESHOLD	HARDWARE SET	REMARKS
G1	RAMP GANTRY	3'–0" X 7'–0"	1 3/4"	D1	–	–	H.M.	–	F1	H.M.	NOTE 2	NOTE 2	SEE ELECTRICAL FOR ACCESS CONTROL REQUIREMENTS

DOOR SCHEDULE NOTES:

1. DOOR AND HARDWARE SHALL MEET FBC FOR POSITIVE AND NEGATIVE PRESSURES AND HAVE A FLORIDA PRODUCT APPROVAL FOR THESE LOADS. SEE STRUCTURAL FOR DESIGN LOADS.
2. REFER TO SPECIFICATIONS SECTION 08 71 00 FOR HARDWARE REQUIREMENTS.



1 AA–601 DOOR TYPE
SCALE: 3/16" = 1'–0"

2 AA–601 FRAME TYPE
SCALE: 3/16" = 1'–0"

GRAPHIC SCALE
SCALE: 3/16"= 1'–0"
0 4' 8'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
AA 26000687
Susan Funk Nute, AR 11913

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **DOOR SCHEDULE DOOR AND DOOR FRAME TYPES**
DRAWING NO. **AA-601**
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**
SHEET NO. **12**

STRUCTURAL GENERAL NOTES:

A. BUILDING CODES:

1. FLORIDA BUILDING CODE, 2014 EDITION.
2. ACI 318–11 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, THIRTEENTH EDITION.
4. AWS STRUCTURAL WELDING CODE (CURRENT EDITION).

B. DESIGN CRITERIA:

1. LIVE LOADS:
   BUILDING ROOF 65 PSF
   SLAB–ON–GRADE 125 PSF
2. DEAD LOADS:
   ROOF 4 PSF
   MISC 3 PSF
3. BUILDING WIND LOADS AS PER ASCE 7–10 FOR A ULTIMATE DESIGN WIND SPEED (3–SECOND GUST) OF 186 MPH AND NOMINAL DESIGN WIND SPEED OF 144 MPH.
   RISK CATEGORY: IV
   EXPOSURE "C"
   INTERNAL PRESSURE COEFFICIENT (TABLE 26.11–1: ±0.18)
   ENCLOSURE CLASSIFICATION: ENCLOSED
   COMPONENT AND CLADDING PRESSURES: BASED ON ULTIMATE DESIGN WIND SPEED (3–SECOND GUST) OF 186 MPH: DOOR/HVAC UNIT HUNG ON WALL (+67 PSF; (–)89 PSF)
   SCREEN WALL WIND LOADS AS PER ASCE 7–10 FOR A ULTIMATE DESIGN WIND SPEED (3–SECOND GUST) OF 186 MPH AND A NOMINAL DESIGN WIND SPEED OF 144 MPH.
4. ALLOWABLE SOIL PRESSURE – 2500 PSF (NET)

C. CONSTRUCTION MATERIALS:

1. CAST–IN–PLACE CONCRETE COMPRESSIVE STRENGTH:
   4000 PSI AT 28 DAYS (SLAB, FOUNDATION, EQUIPMENT PADS)
   2500 PSI AT 28 DAYS (GROUT IN 8" CMU WALL)
2. REINFORCING STEEL – ASTM A 615, GRADE 60 UNCOATED.
3. WELDING ELECTRODES – AWS E–70XX.
4. WELDED STEEL WIRE FABRIC – ASTM A 185
5. PRECAST CONCRETE COMPRESSIVE STRENGTH:
   5000 PSI AT 28 DAYS (BUILDING)
6. ALL MISCELLANEOUS STEEL ASTM – A 36.
7. ANCHOR BOLTS – A307 OR A36, GALVANIZED
8. MINIMUM COMPRESSIVE STRENGTH OF MASONRY F'm = 1500 PSI
   NOTE:
   NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS WITH TYPE M OR S MORTAR = 1900 PSI

D. FOUNDATIONS:

1. ALL EARTHWORK AND COMPACTION FOR STRUCTURES SHALL BE AS PER TECHNICAL SPECIAL PROVISION SECTION 31 00 00, EARTHWORK.

E. PRECAST CONCRETE BUILDING:

1. PRECAST CONCRETE BUILDING DESIGN TO MEET APPLICABLE DESIGN CRITERIA LISTED IN THE STRUCTURAL GENERAL NOTES AT A MINIMUM.
2. PRECAST CONCRETE BUILDING DESIGN SHALL ALSO CONSIDER LOADS FROM CONDUIT, CABLE TRAYS, AND ALL OTHER SUSPENDED ITEMS.
3. PRECAST CONCRETE BUILDING DESIGN AND WALL CONSTRUCTION SHALL PROVIDE THE CODE REQUIRED CLEAR COVER AT THE WALL REVEALS.

F. MASONRY:

1. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1/ASCE 6/TMS 602) PUBLISHED BY ACI EXCEPT AS MODIFIED BY REQUIREMENTS OF THE TECHNICAL SPECIFICATIONS.
2. ALL BLOCK SHALL BE 8" HOLLOW LOAD–BEARING (NORMAL WEIGHT) CONCRETE BLOCK CONFORMING TO ASTM C90, GRADE N, TYPE II. ALL MORTAR SHALL CONFORM TO ASTM C270 TYPE S, EXCEPT USE TYPE M BELOW GRADE.

G. GENERAL NOTES:

1. ALL CONCRETE EMBEDDED STEEL ANGLES, WELD PLATES, ANCHORAGE DEVICES, ETC., SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123 AND / OR F 2329.
2. ALL REINFORCEMENT TO BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE ACI DETAILING MANUAL – 2004 [SP–66(04)]. ALL CONSTRUCTION JOINTS, WITH REINFORCING PASSING THROUGH THE JOINT, SHALL BE ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY ¼" INCH, UNLESS NOTED OTHERWISE.
3. PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE ON THE PLANS:
   FOUNDATIONS – – – – – – – – 3"
   SLABS ON GRADE – – – – – – – CENTERED
4. VERIFY AND CORRELATE ALL DIMENSIONS BEFORE PROCEEDING WITH FABRICATION AND CONSTRUCTION.
5. CHAMFER ALL EXPOSED CONCRETE EDGES ¾"x¾", EXCEPT AS NOTED OTHERWISE.
6. ALL DIMENSIONS ARE MEASURED HORIZONTALLY OR VERTICALLY UNLESS NOTED OTHERWISE.
7. REINFORCING STEEL SHALL NOT BE CUT AT FLOOR BLOCK–OUTS.

H. COORDINATION:

1. COORDINATE ALL MECHANICAL AND CONDUIT PENETRATIONS THROUGH CONCRETE WITH THE CIVIL, MECHANICAL, AND ELECTRICAL SHOP DRAWINGS PRIOR TO PLACING CONCRETE.
2. THE STRUCTURAL SHEETS SHALL BE COORDINATED WITH THE CIVIL, ARCHITECTURAL, MECHANICAL, AND ELECTRICAL SHEETS TO PROPERLY LOCATE PIPE SLEEVES, BLOCK–OUTS, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
3. THE STRUCTURAL SHEETS SHALL BE COORDINATED WITH THE STANDARD SPECIFICATIONS, SUPPLEMENTS, AND TECHNICAL SPECIAL PROVISIONS.

I. DEWATERING

1. EXPECT TO PERFORM DEWATERING FOR FOUNDATIONS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE FLOTATION OF STRUCTURES UNTIL ALL BACKFILL IS PROPERLY COMPACTED IN PLACE AND CONSTRUCTION IS COMPLETE.

J. SUBMITTAL

1. SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   CONCRETE MIX DESIGN
   PRECAST CONCRETE BUILDING (INCLUDING SIGNED AND SEALED CALCULATIONS/DRAWINGS BY A LICENSED FLORIDA PROFESSIONAL ENGINEER)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
George R. Papadopoulos P.E. No. 55843

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

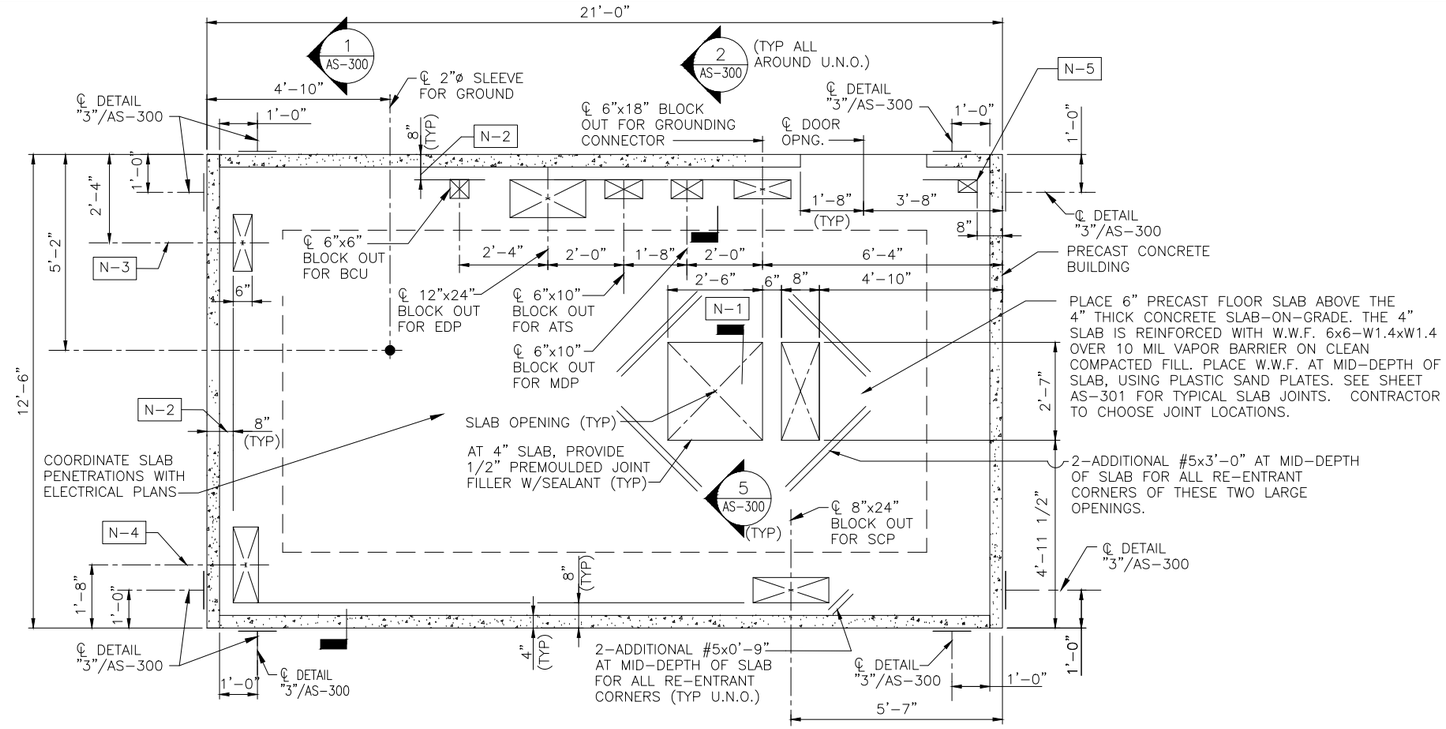
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **STRUCTURAL GENERAL NOTES**

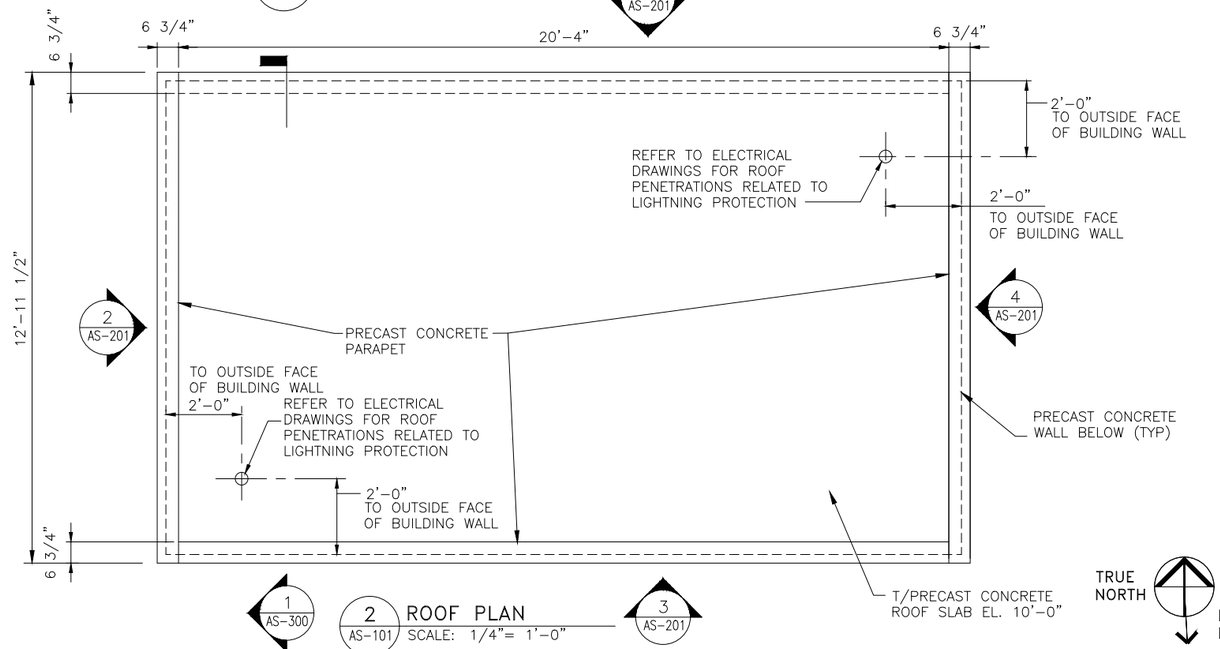
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AS-001**

SHEET NO. **13**



1 AS-101 FOUNDATION / SLAB PLAN SCALE: 1/4"= 1'-0"



TRUE NORTH
PLAN NORTH
RAMP E

STRUCTURAL ITEM NOTES:

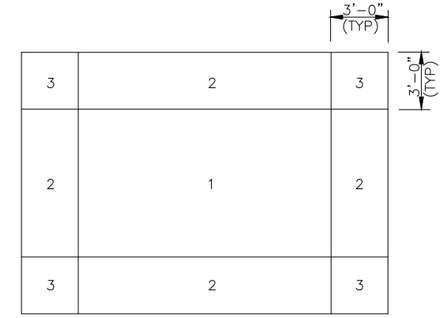
N-1 CONDUIT PENETRATION ZONE. REFER TO ELECTRICAL DRAWINGS FOR QUANTITY, SIZE, AND LOCATION OF CONDUITS.

N-2 THE 8" DIMENSION WAS CHOSEN TO ALLOW VERTICAL INSTALLATION (NO BENDS) OF CONDUIT AND CONDUCTORS. ALL BLOCK OUTS TO BE FILLED IN AND REINFORCED AS PER SECTION "5"/AS-300.

N-3 ℄ 6"x18" BLOCK OUT FOR TELEPHONE COMMUNICATION BACKBOARD AND UPS GROUND.

N-4 ℄ 8"x24" BLOCK OUT FOR E6 READERS.

N-5 4"X6" BLOCKOUT FOR EPO CONDUIT PENETRATION.



COMPONENTS & CLADDING ROOF ZONES

COMPONENTS & CLADDING GROSS UPLIFT PRESSURES			
AREA (SQ.FT.)	ROOF ZONE		
	1	2	3
≤ 10	−76 PSF	−127 PSF	−191 PSF
20	−74 PSF	−113 PSF	−158 PSF
50	−71 PSF	−95 PSF	−115 PSF
≥ 100	−69 PSF	−82 PSF	−82 PSF

(BASED ON ULTIMATE DESIGN WIND SPEED (3-SECOND GUST) OF 186 MPH)

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
George R. Papadopoulos P.E. No. 55843

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **PLANS AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AS-101**

SHEET NO. **14**

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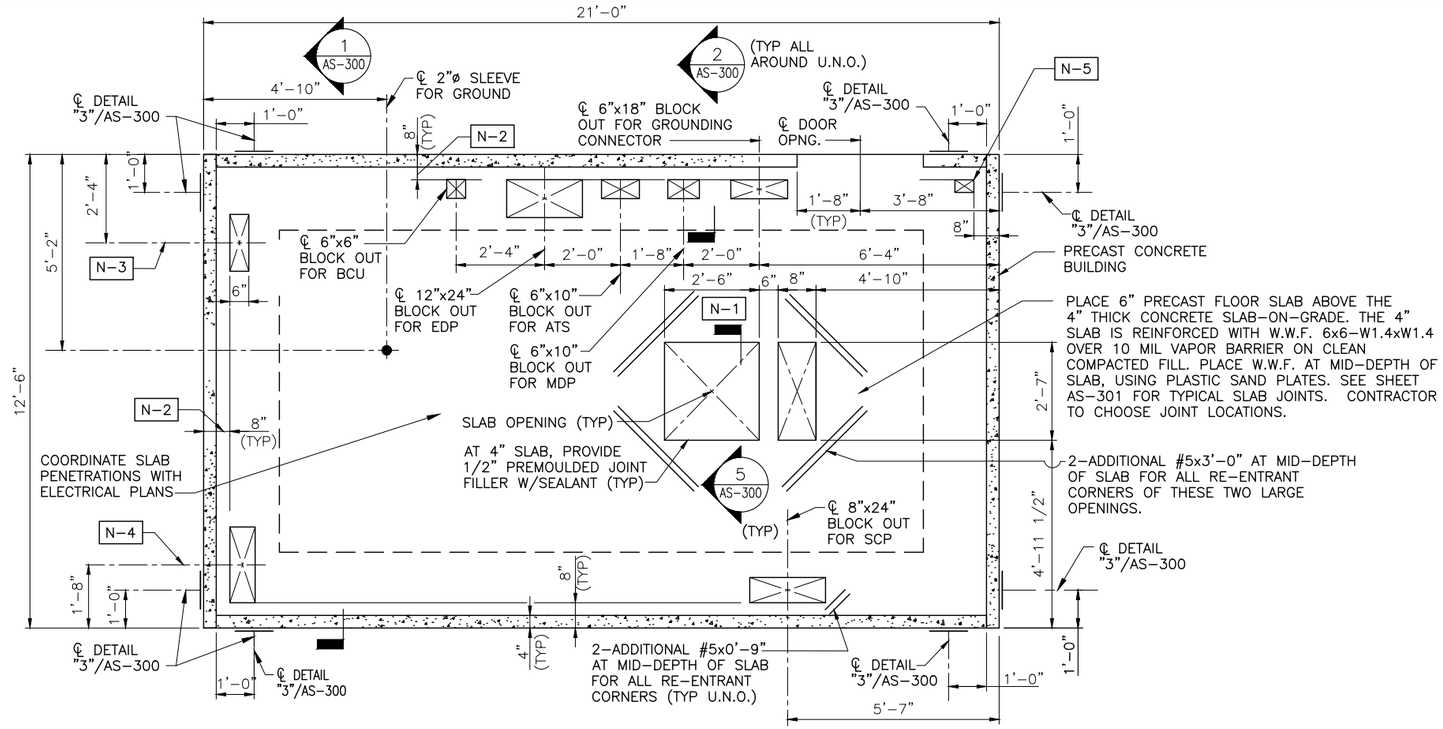
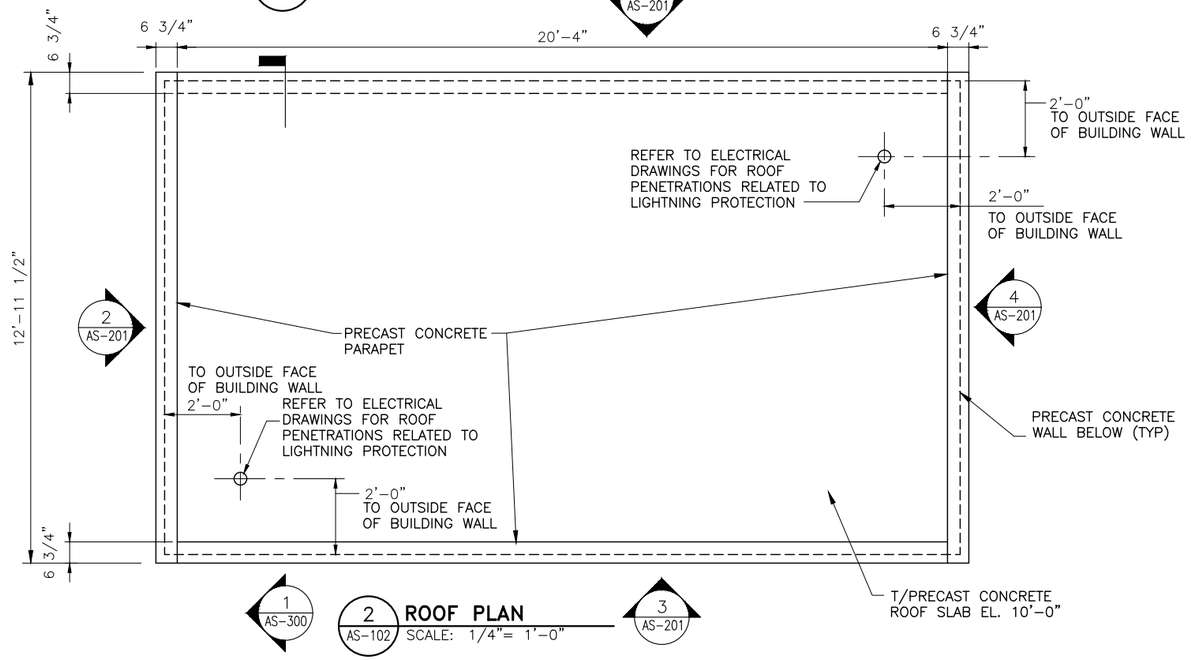


1 AS-102 **FOUNDATION / SLAB PLAN** SCALE: 1/4"= 1'-0"

1 AS-201



STRUCTURAL ITEM NOTES:

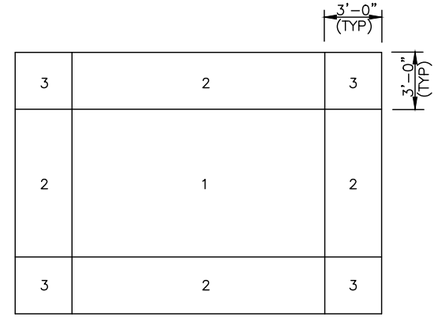
N-1 CONDUIT PENETRATION ZONE. REFER TO ELECTRICAL DRAWINGS FOR QUANTITY, SIZE, AND LOCATION OF CONDUITS.

N-2 THE 8" DIMENSION WAS CHOSEN TO ALLOW VERTICAL INSTALLATION (NO BENDS) OF CONDUIT AND CONDUCTORS. ALL BLOCK OUTS TO BE FILLED IN AND REINFORCED AS PER SECTION "5"/AS-300.

N-3 ℄ 6"x18" BLOCK OUT FOR TELEPHONE COMMUNICATION BACKBOARD AND UPS GROUND.

N-4 ℄ 8"x24" BLOCK OUT FOR E6 READERS.

N-5 4"X6" BLOCKOUT FOR EPO CONDUIT PENETRATION.



COMPONENTS & CLADDING ROOF ZONES

COMPONENTS & CLADDING GROSS UPLIFT PRESSURES			
AREA (SQ.FT.)	ROOF ZONE		
	1	2	3
≤ 10	−76 PSF	−127 PSF	−191 PSF
20	−74 PSF	−113 PSF	−158 PSF
50	−71 PSF	−95 PSF	−115 PSF
≥ 100	−69 PSF	−82 PSF	−82 PSF

(BASED ON ULTIMATE DESIGN WIND SPEED (3-SECOND GUST) OF 186 MPH)

PLAN NORTH

TRUE NORTH

RAMP F

GRAPHIC SCALE

SCALE: 1/4"= 1'-0"

0 2' 4'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
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Campbell Causeway
Tampa, FL 33607-1462
No. 8115
George R. Papadopoulos P.E. No. 55843

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **PLANS AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AS-102**

SHEET NO. **15**

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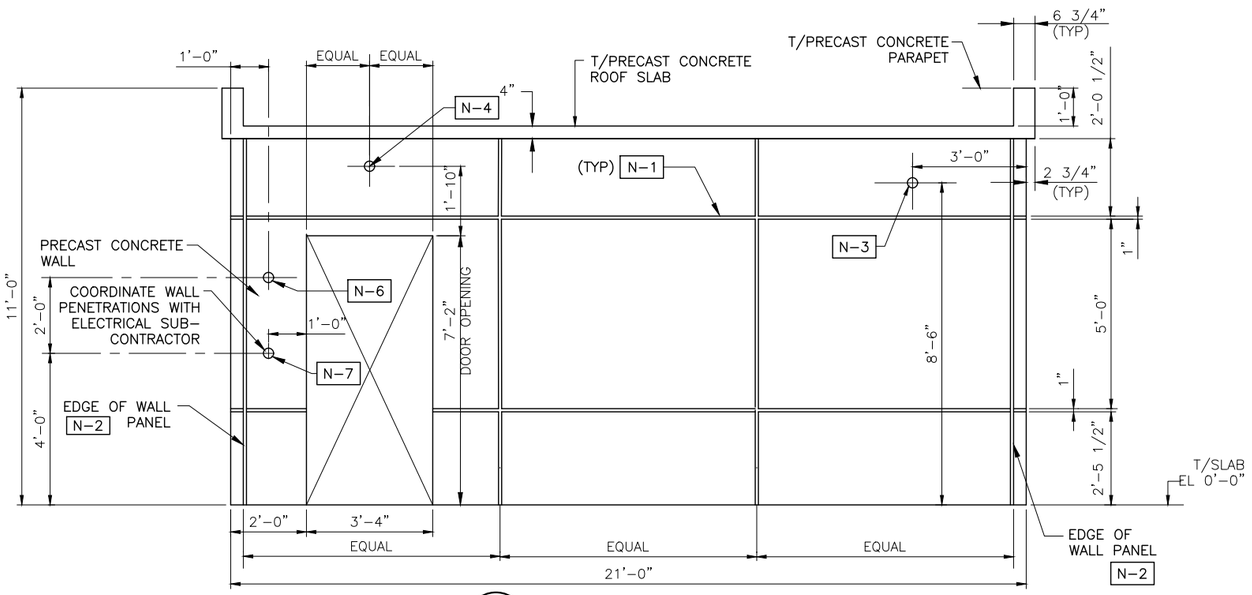
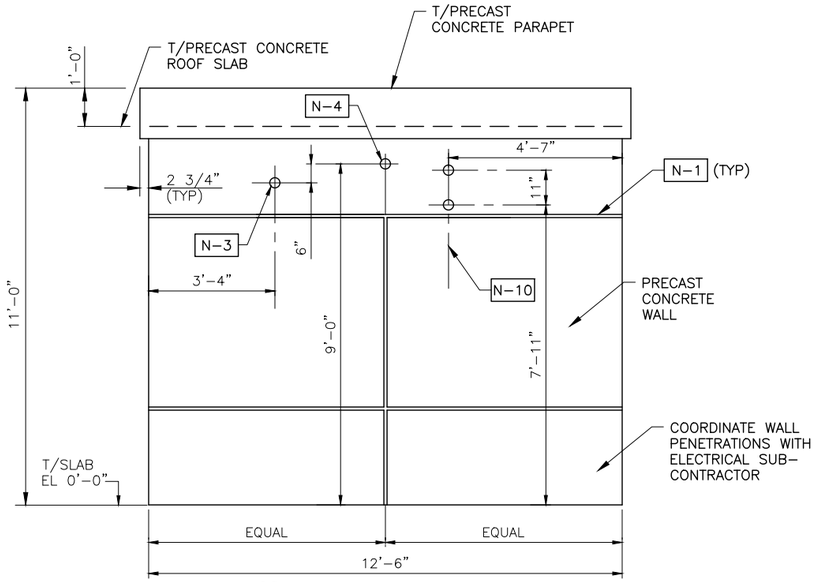
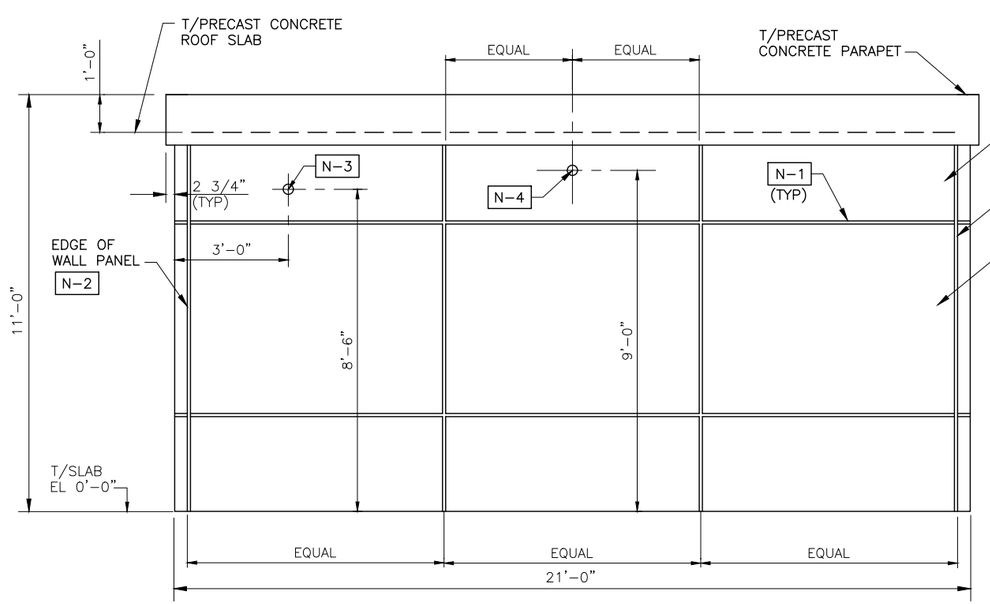


1 AS-201 **ELEVATION**
SCALE: 1/4"= 1'-0"



2 AS-201 **ELEVATION**
SCALE: 1/4"= 1'-0"

✳ – COORDINATE THE ATTACHMENTS FOR THE WALL MOUNTED CONDENSING UNITS WITH THE MECHANICAL DRAWINGS.



3 AS-201 **ELEVATION**
SCALE: 1/4"= 1'-0"

STRUCTURAL ITEM NOTES:

N-1 REFER TO DETAIL 6/AS-300 FOR DETAIL OF REVEALS

N-2 SEE ARCHITECTURAL DRAWINGS FOR TYPICAL CORNER JOINT DETAIL.

N-3 SEE DETAIL "2"/AE-125 FOR WALL PENETRATION INFORMATION.

N-4 SEE DETAIL "4"/AE-125 FOR WALL PENETRATION INFORMATION.

N-5 SEE DETAIL "1"/AE-125 FOR WALL PENETRATION INFORMATION.

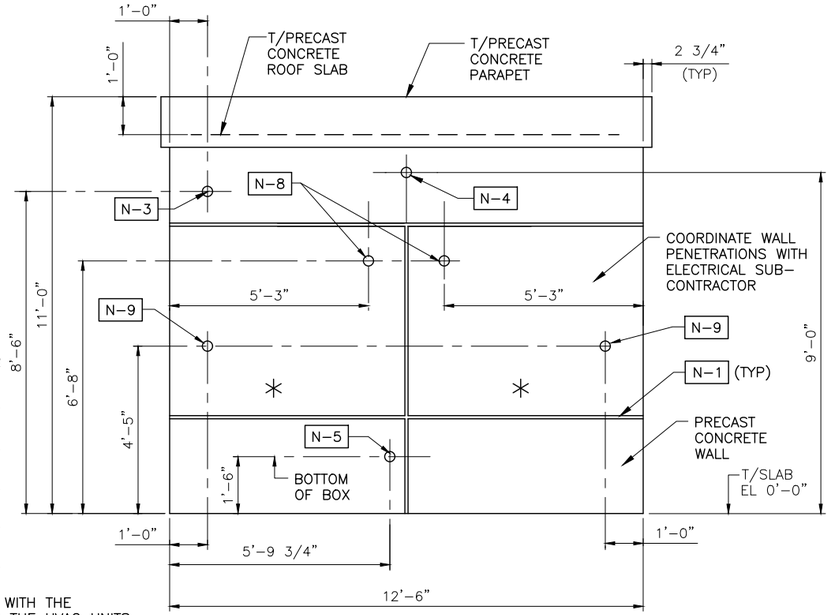
N-6 SEE DETAIL "1"/AE-120 FOR WALL PENETRATION INFORMATION.

N-7 SEE DETAIL "1"/AE-124 FOR WALL PENETRATION INFORMATION.

N-8 SLOPED PIPE SLEEVE. COORDINATE WITH THE MECHANICAL DRAWINGS RELATED TO THE HVAC UNITS.

N-9 PENETRATION FOR A/C UNIT DISCONNECT. SEE ELECTRICAL AND ARCHITECTURAL PLANS.

N-10 SEE DETAILS ON SHEET GE-112 FOR WALL PENETRATION INFORMATION.



4 AS-201 **ELEVATION**
SCALE: 1/4"= 1'-0"

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **EXTERIOR ELEVATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AS-201**

SHEET NO. **16**

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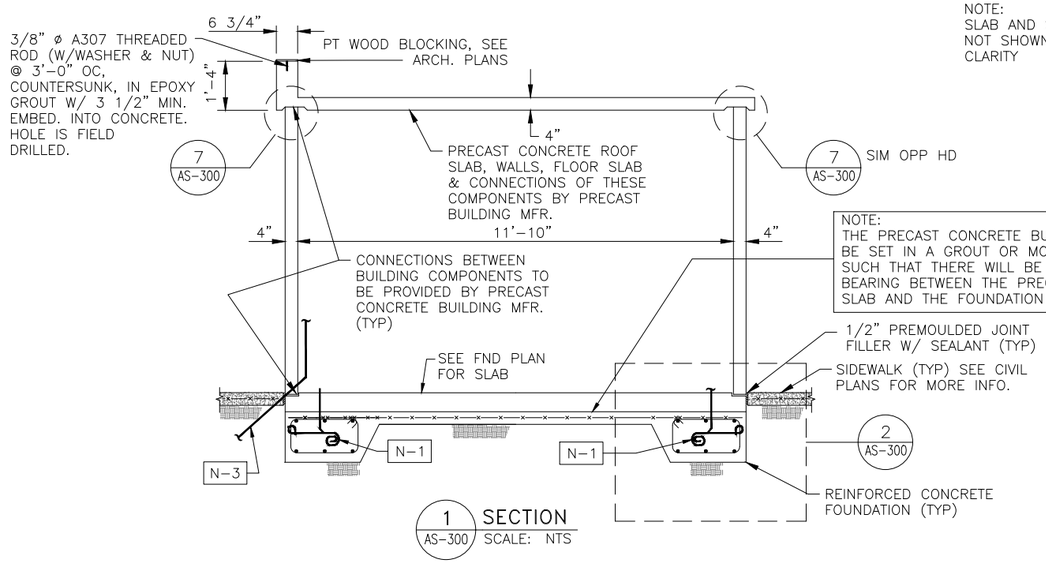
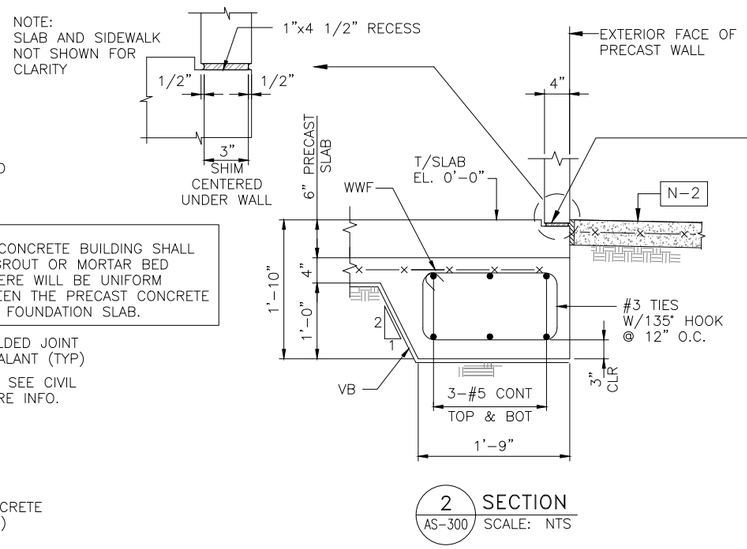
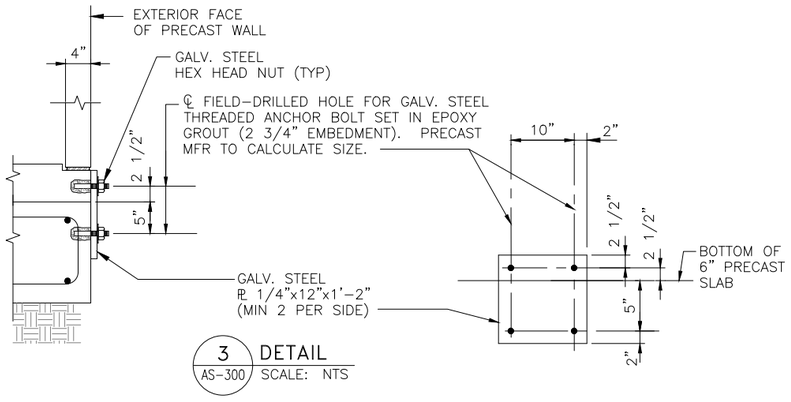
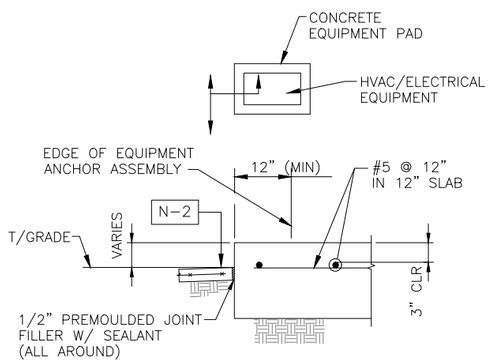


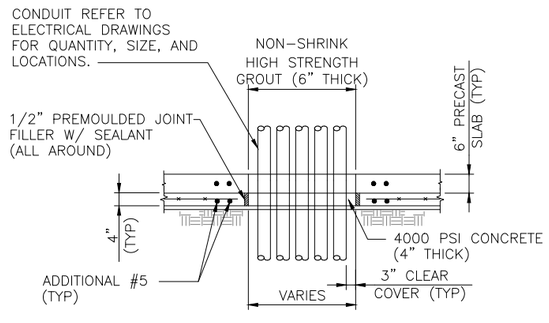


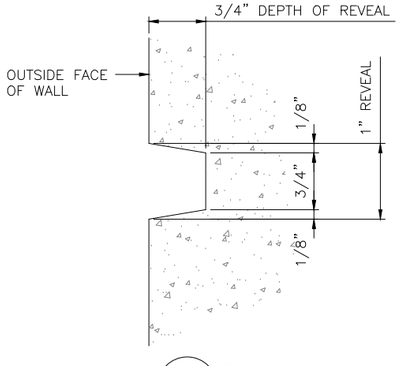


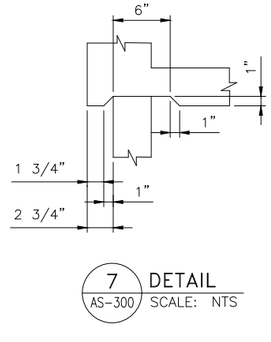


STRUCTURAL ITEM NOTES:

- N-1 GROUNDING ELECTRODE CONDUCTOR BONDED TO FOUNDATION REBAR AND EXTENDING ABOVE FLOOR SLAB. CONDUCTOR TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL DRAWINGS AND COORDINATE PRIOR TO PLACEMENT OF THE CONCRETE FOUNDATION
- N-2 CONCRETE SIDEWALK, SEE CIVIL PLANS
- N-3 DOWN CONDUCTOR THROUGH BUILDING WALL. REFER TO ELECTRICAL DRAWINGS FOR COORDINATION.
- N-4 SUPPORT SLAB AT GENERATOR AND FUEL TANK. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR COORDINATION.







REVISIONS			
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No. 8115
George R. Papadopoulos P.E. No. 55843

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SECTIONS AND DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AS-300**

SHEET NO. **17**

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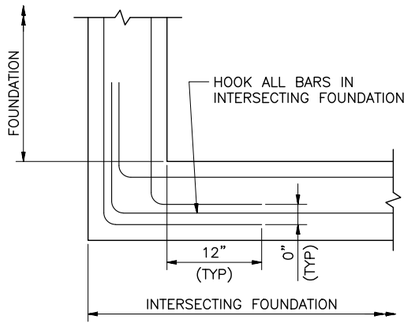
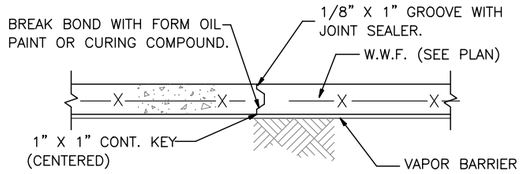
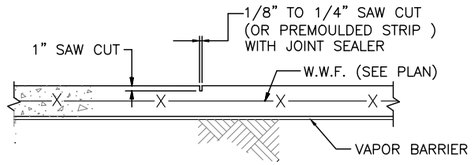


TYPICAL FOUNDATION CORNER REINFORCING
NTS



OPTIONAL CONTROL JOINT OR CONSTRUCTION JOINT

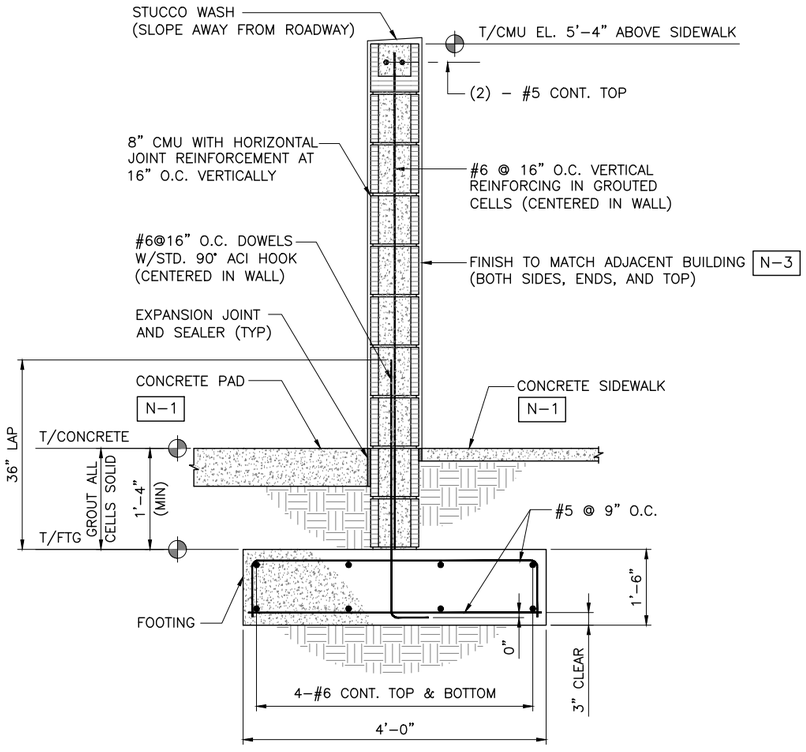


CONTROL JOINT (C.J.)

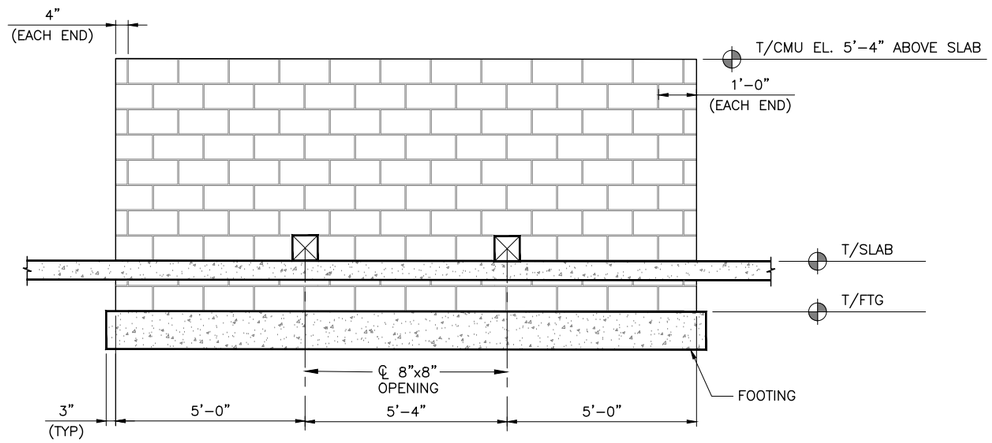
SAW CONTROL JOINT NOTES:

1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB. BEGIN SAW CUTTING OF SLAB WITHIN 8 HOURS OF SLAB BEING FINISHED.
2. CLEAN JOINT PRIOR TO FILLING, WITH JOINT SEALER

TYPICAL SLAB JOINTS
NTS



1 AS-301 **SCREEN WALL SECTION** N-2
SCALE: NTS



2 AS-301 **SCREEN WALL ELEVATION** N-2
SCALE: NTS

STRUCTURAL ITEM NOTES:

N-1 REFER TO CIVIL PLANS FOR CONCRETE PAD AND CONCRETE SIDEWALK.

N-2 FULLY GROUT ALL CELLS OF THIS MASONRY WALL.

N-3 PROVIDE REVEALS SIMILAR TO ADJACENT TOLL EQUIPMENT BUILDING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
George R. Papadopoulos P.E. No. 55843

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SECTIONS AND DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AS-301**

SHEET NO. **18**

GENERAL NOTES:

1. IN GENERAL, PLANS AND DIAGRAMS OF UTILITY RUNS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. TAKE RESPONSIBILITY TO COORDINATE AT SITE ALL PLUMBING, HVAC AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THE CONTRACT.
2. TAKE RESPONSIBILITY TO READ AND COMPLY WITH DIVISIONS 23 AND 26 OF THE CONTRACT SPECIFICATIONS SPECIAL TECHNICAL PROVISIONS FOR ALL WORK SHOWN ON THESE DRAWINGS.
3. WHERE THE CONTRACTOR PROPOSES TO USE AN APPROVED SUBSTITUTION ITEM OTHER THAN THAT SPECIFIED OR DETAILED ON THE DRAWINGS WHICH REQUIRES ANY REDESIGN OF THE STRUCTURE, PARTITIONS, FOUNDATIONS, PIPING, WIRING OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, ALL SUCH REDESIGN AND CONSTRUCTION COSTS AND ALL NEW DRAWINGS AND DETAILING REQUIRED SHALL BE PREPARED AND INSTALLED BY THE CONTRACTOR AT HIS OWN EXPENSE. PRIOR APPROVAL FOR THIS WORK MUST BE SUBMITTED TO THE ENGINEER.
4. SPACE ALLOTTED FOR MECHANICAL AND ELECTRICAL WORK IS CRITICAL. MECHANICAL AND ELECTRICAL EQUIPMENT HAVE BEEN LOCATED TO ACHIEVE REQUIRED SERVICE CLEARANCES AND MAY NOT BE CHANGED WITHOUT THE CONSENT OF THE ENGINEER. TAKE RESPONSIBILITY TO THOROUGHLY FAMILIARIZE SELF WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS PRIOR TO FABRICATING AND INSTALLING ANY MATERIALS.
5. ALL POWER WIRING OF MECHANICAL EQUIPMENT SHALL BE BY DIVISION 26.
6. ALL CONTROL WIRING, CONDUIT, AND RELATED CONTROL DEVICES SHALL BE INSTALLED UNDER DIVISION 23 AND SHALL COMPLY WITH THE REQUIREMENTS OF DIVISION 26.
7. MECHANICAL CONTRACTOR SHALL TAKE RESPONSIBILITY FOR THE PROTECTION OF STORED MATERIALS AND EQUIPMENT FOR THE DURATION OF THE PROJECT. PROVIDE PROTECTIVE COVER OVER EQUIPMENT TO ENSURE AGAINST WATER AND DUST DAMAGE AND PROVIDE SUITABLE PALLETS BETWEEN EQUIPMENT AND MATERIALS STORED ON GROUND.
8. IN THE EVENT THAT IT BECOMES NECESSARY FOR THE AIR CONDITIONING EQUIPMENT TO BE TURNED ON FOR BUILDING DEHUMIDIFICATION DURING THE FINAL PHASES OF CONSTRUCTION, TAKE RESPONSIBILITY FOR AND IMPLEMENT ALL PRECAUTIONS TO PROTECT THE EVAPORATOR COILS FROM DUST. A COMPLETE CHANGE OF FILTERS WILL BE REQUIRED PRIOR TO TESTING AND BALANCING THE SYSTEM.
9. MECHANICAL CONTRACTOR SHALL TAKE RESPONSIBILITY FOR COORDINATING SUPPLY AND RETURN AIR OPENINGS IN PRECAST WALLS WITH TOLL EQUIPMENT BUILDING AND MECHANICAL EQUIPMENT MANUFACTURERS. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
10. REFER TO TSPs FOR SEQUENCE OF OPERATION.

HVAC LEGEND

#x#	DUCTWORK SIZE. FIRST NUMBER DENOTES WIDTH AND SECOND NUMBER DENOTES DEPTH. SIZE INDICATES CLEAR INSIDE DIMENSIONS.
	AIR FLOW
AHU–1	EQUIPMENT IDENTIFICATION
CD	CONDENSATE DRAIN
AHU	AIR HANDLING UNIT
CU	CONDENSING UNIT
CFM	CUBIC FEET PER MINUTE
AFF	ABOVE FINISHED FLOOR
FTE	FLORIDA'S TURNPIKE ENTERPISE
SS	STAINLESS STEEL
1	KEYED NOTE
A / –	SECTION LETTER SECTION SYMBOL SHEET WHERE SECTION IS SHOWN
1 / –	DETAIL NUMBER DETAIL SYMBOL SHEET WHERE DETAIL IS SHOWN
A / –	ELEVATION LETTER ELEVATION SYMBOL SHEET WHERE SECTION IS SHOWN

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Michael J. Over PE 65665

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **HVAC GENERAL NOTES AND LEGEND**

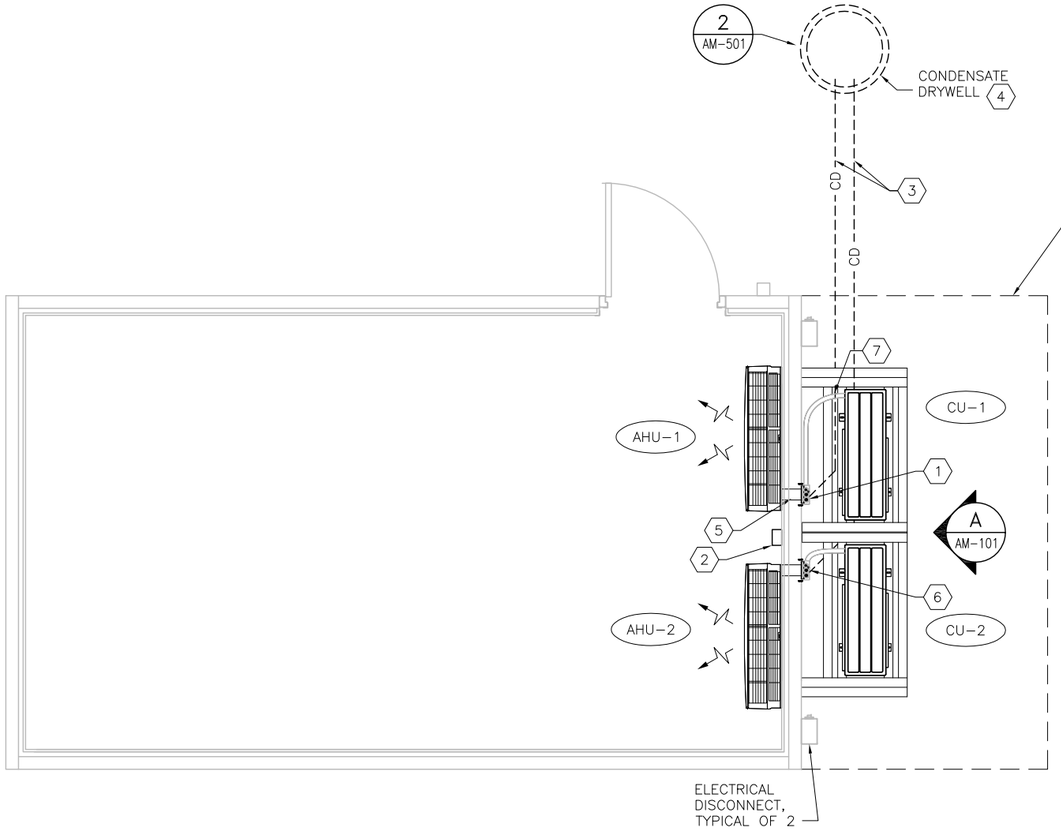
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AM-001**

SHEET NO. **18**

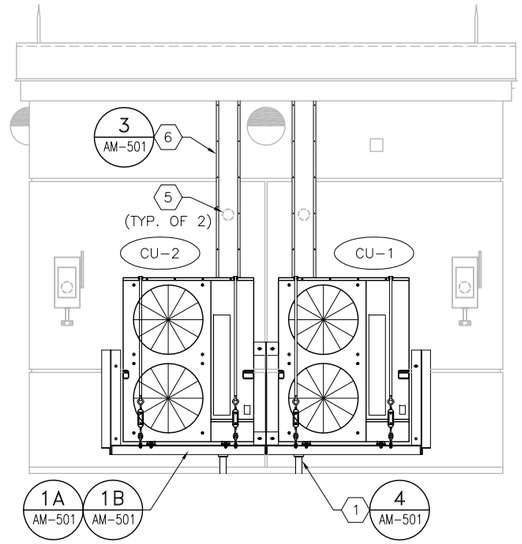
NOTES:

1. ⅝" AC UNIT CONDENSATE DRAIN LINE. INSULATE ENTIRE LENGTH WITH ½" THICK FLEXIBLE CLOSED CELL ELASTOMERIC PIPING INSULATION. UNIT PROVIDED WITH INTERNAL DRAIN TRAP, EXTERNAL TRAP NOT REQUIRED. INDIRECT WASTE TO 2" CONDENSATE RECEPTOR WITH AIR GAP. TYPICAL OF 2.
2. DUAL UNIT CONTROLLER WITH INTEGRAL THERMOSTAT AND TIMER. INSTALL CONTROLLER AT 92" AFF. COORDINATE ALL THERMOSTAT SEQUENCING AND ALARM SET-POINTS WITH FTE REPRESENTATIVE.
3. 2"ø SCHEDULE 40 PVC CONDENSATE DRAIN LINE BELOW GRADE, TYPICAL OF 2. MINIMUM SLOPE SHALL BE ⅛" PER FOOT.
4. CONTRACTOR SHALL TAKE RESPONSIBILITY OF FINAL FIELD COORDINATION WITH CIVIL SITE AND GRADING PLANS, UTILITY PLANS AND ALL OTHER TRADES FOR THE EXACT LOCATION OF CONDENSATE DRY WELL. SEE CIVIL SITE AND GRADING PLANS FOR DRYWELL LOCATION.
5. 3-1/2" SLOPED PIPE SLEEVE THROUGH WALL FOR ELECTRICAL INTERCONNECT, REFRIGERANT AND CONDENSATE PIPING, TYPICAL OF TWO. PIPING PENETRATION SHALL BE COMPLETELY CONCEALED BEHIND THE AIR HANDLING UNIT. THE PENETRATION SHALL BE INCLINED SO THAT THE OUTSIDE OPENING IS LOWER THAN THE INSIDE OPENING. LOCATE CENTER OF SLEEVE AT APPROXIMATELY 80" AFF. FOLLOWING PIPING INSTALLATION, INSULATE AND SEAL PENETRATION WITH EXPANDING FOAM SEALANT. COORDINATE EXACT LOCATION AND PENETRATION REQUIREMENTS WITH THE APPROVED AC UNIT MANUFACTURER'S INSTALLATION REQUIREMENTS PRIOR TO CASTING THE WALL.
6. 26 GAUGE GALVANIZED STEEL LINE-SET COVER TREATED WITH PAINT GRIP, TYPICAL OF TWO. PAINT COVER TO MATCH BUILDING WALL COLOR. INSTALL VERTICALLY FROM SOFFIT ABOVE DOWN TO 24" ABOVE FINISHED GRADE. ENSURE ALL BUILDING REVEAL CROSSINGS AND FITTING ENDS ARE PROPERLY SEALED TO PREVENT WATER INTRUSION OR RODENT ENTRY.
7. REFRIGERANT PIPING SIZED PER MANUFACTURERS RECOMMENDATIONS. INSULATE ENTIRE LENGTH OF LIQUID AND GAS PIPES SEPARATELY WITH ½" THICK FLEXIBLE CLOSED CELL ELASTOMERIC PIPING INSULATION, TYPICAL OF 2.



1 AM-101 HVAC FLOOR PLAN RAMP E
SCALE: 1/4"= 1'-0"

NORTH



A AM-101 HVAC ELEVATION
SCALE: 1/4"= 1'-0"

DUCTLESS SPLIT SYSTEM AC UNIT SCHEDULE		
RATED/TOTAL CAPACITY (MBH)		36.0
SENSIBLE CAPACITY (MBH)		25.2
VARIABLE CAPACITY RANGE (MBH)		16.0 – 36.0
MINIMUM SYSTEM SEER/EER		18.8 / 10.8
REFRIGERANT		R410A
SYSTEM ELECTRICAL REQUIREMENTS (VOLTS/PHASE/HERTZ)		240/1/60
MCA INDOOR/OUTDOOR (AMPS)		1 / 25
INDOOR WALL MOUNTED AIR HANDLING UNIT (AHU)		
EQUIPMENT TAG		AHU-1 & 2
TOTAL SUPPLY/OUTSIDE AIR FLOW (CFM)		830/0
SUPPLY AIR FLOW RATES (LOW-MED-HIGH) WET COIL		635/730/830
AIR TEMP. (°F) DB/WB	ENTERING	75/62.5
	LEAVING	55/54
ECM BLOWER MOTOR FLA (AMPS)		0.57
ECM BLOWER MOTOR OUTPUT (WATTS)		56
SHF / MOISTURE REMOVAL (PINTS/HOUR)		0.70 / 9.7
FILTER		WASHABLE
UNIT WEIGHT (LBS)		46
OUTDOOR CONDENSING UNIT (CU)		
EQUIPMENT TAG		CU-1 & 2
COMPRESSOR DRIVE		DC INVERTER
COMPRESSOR TYPE		TWIN ROTORY
COMPRESSOR RLA (AMPS)		8
ECM FAN MOTOR FLA (QTY. / AMPS)		2 / 0.5
MOCP (AMPS)		31
RATED OUTDOOR AMBIENT TEMP. (°F)		95
UNIT WEIGHT (LBS)		211
NOTES		1-9

SCHEDULE NOTES:

1. PROVIDE WITH SINGLE POINT POWER CONNECTION AT THE OUTDOOR UNIT. INDOOR UNIT POWER SUPPLIED VIA ELECTRICAL INTERCONNECT FROM OUTDOOR UNIT.
2. PROVIDE ELECTRICAL INTERCONNECT; 3-#14 AWG CONDUCTORS AND 1-#14 AWG GROUND. COORDINATE WITH APPROVED EQUIPMENT MANUFACTURERS INSTALLATION REQUIREMENTS AND NEC.
3. PROVIDE OUTDOOR CONDENSING UNITS WITH MANUFACTURER'S SEACOAST PROTECTION PACKAGE.
4. PROVIDE MANUFACTURERS DUAL UNIT AC CONTROLLER FOR LEAD/LAG SEQUENCING. CONTROLLER SHALL HAVE A SOLID STATE TIMER WITH AUTO SEQUENCING.
5. THE TOLL BUILDING SCADA SYSTEM SHALL MONITOR AND PROVIDE ALARM OUTPUTS TO INDICATE EACH OF THE FOLLOWING ALARM CONDITIONS:
   - LOSS OF CURRENT ON THE BRANCH CIRCUITS TO EACH OUTDOOR UNIT. MONITORED AT THE CIRCUIT BREAKER.
   - LOSS OF VOLTAGE ON THE BRANCH CIRCUIT TO EACH OUTDOOR UNIT. MONITORED AT THE DISCONNECT SWITCH.
6. PROVIDE RIGID CONDUIT (EMT) FOR ALL CONTROL WIRING.
7. PROVIDE ENGRAVED PLASTIC EQUIPMENT NAMEPLATES.
8. REFER TO SPECIFICATIONS FOR UNIT AND CONTROLLER REQUIREMENTS.
9. REFER TO TSP SECTION 23 09 00 FOR SEQUENCE OF OPERATION.

DESIGN CONDITIONS SCHEDULE			
ORLANDO SANFORD, FL	SUMMER		WINTER
	DB(°F)	WB(°F)	DB(°F)
INDOOR	75	62.5	50
OUTDOOR*	93.0	75.2	40.9

*PER ASHRAE 2013 FUNDAMENTALS HANDBOOK

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Michael J. Over PE 65665

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **HVAC FLOOR PLAN**
DRAWING NO. **AM-101**
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**
SHEET NO. **19**

NOTES:

1. ⅝" AC UNIT CONDENSATE DRAIN LINE. INSULATE ENTIRE LENGTH WITH ½" THICK FLEXIBLE CLOSED CELL ELASTOMERIC PIPING INSULATION. UNIT PROVIDED WITH INTERNAL DRAIN TRAP, EXTERNAL TRAP NOT REQUIRED. INDIRECT WASTE TO 2" CONDENSATE RECEPTOR WITH AIR GAP. TYPICAL OF 2.
2. DUAL UNIT CONTROLLER WITH INTEGRAL THERMOSTAT AND TIMER. INSTALL CONTROLLER AT 92" AFF. COORDINATE ALL THERMOSTAT SEQUENCING AND ALARM SET-POINTS WITH FTE REPRESENTATIVE.
3. 2"ø SCHEDULE 40 PVC CONDENSATE DRAIN LINE BELOW GRADE, TYPICAL OF 2. MINIMUM SLOPE SHALL BE ⅛" PER FOOT.
4. CONTRACTOR SHALL TAKE RESPONSIBILITY OF FINAL FIELD COORDINATION WITH CIVIL SITE AND GRADING PLANS, UTILITY PLANS AND ALL OTHER TRADES FOR THE EXACT LOCATION OF CONDENSATE DRY WELL. SEE CIVIL SITE AND GRADING PLANS FOR DRYWELL LOCATION.
5. 3-1/2" SLOPED PIPE SLEEVE THROUGH WALL FOR ELECTRICAL INTERCONNECT, REFRIGERANT AND CONDENSATE PIPING, TYPICAL OF TWO. PIPING PENETRATION SHALL BE COMPLETELY CONCEALED BEHIND THE AIR HANDLING UNIT. THE PENETRATION SHALL BE INCLINED SO THAT THE OUTSIDE OPENING IS LOWER THAN THE INSIDE OPENING. LOCATE CENTER OF SLEEVE AT APPROXIMATELY 80" AFF. FOLLOWING PIPING INSTALLATION, INSULATE AND SEAL PENETRATION WITH EXPANDING FOAM SEALANT. COORDINATE EXACT LOCATION AND PENETRATION REQUIREMENTS WITH THE APPROVED AC UNIT MANUFACTURER'S INSTALLATION REQUIREMENTS PRIOR TO CASTING THE WALL.
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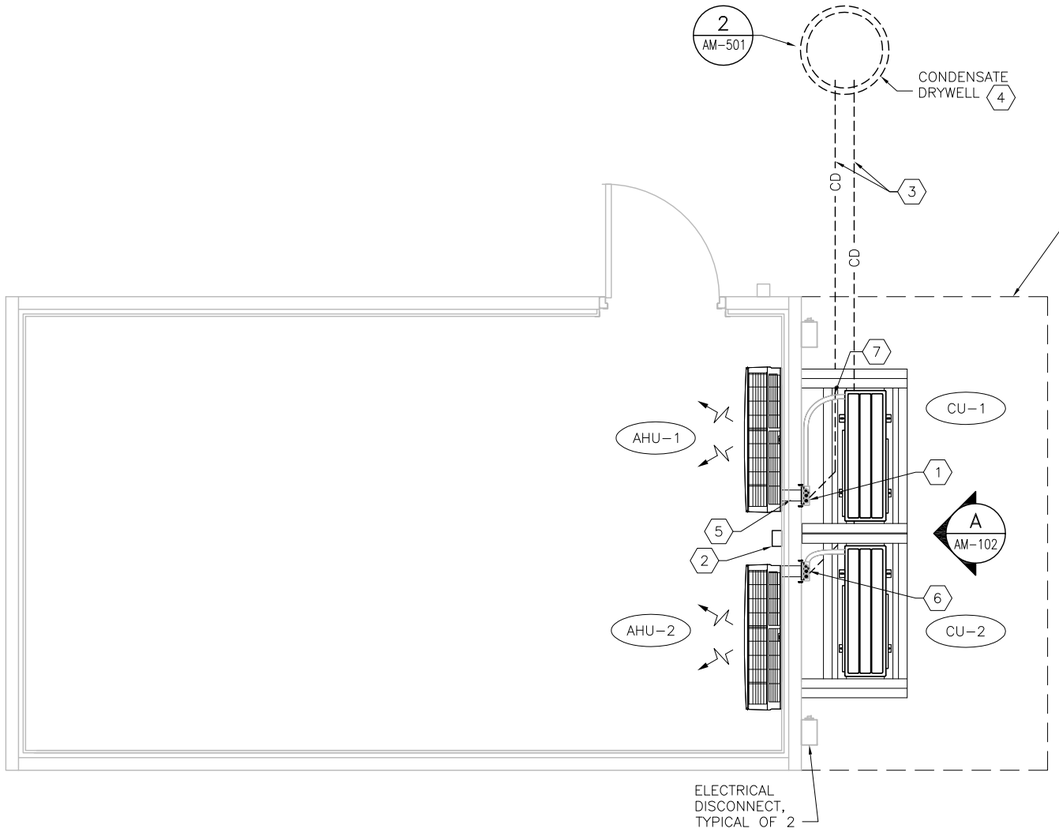
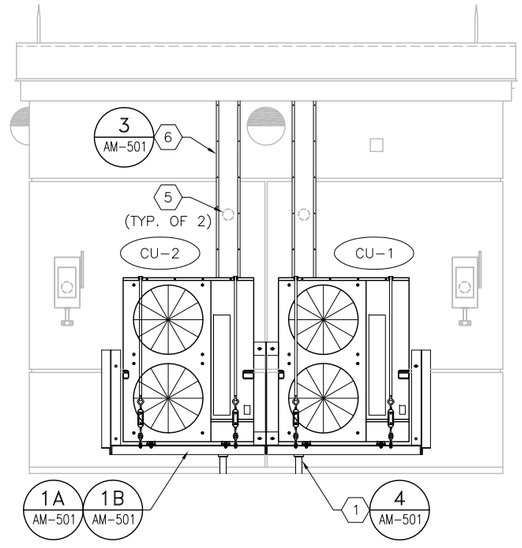


1 AM-102 HVAC FLOOR PLAN RAMP F
SCALE: 1/4"= 1'-0"

NORTH



A AM-102 HVAC ELEVATION
SCALE: 1/4"= 1'-0"

DUCTLESS SPLIT SYSTEM AC UNIT SCHEDULE		
RATED/TOTAL CAPACITY (MBH)		36.0
SENSIBLE CAPACITY (MBH)		25.2
VARIABLE CAPACITY RANGE (MBH)		16.0 – 36.0
MINIMUM SYSTEM SEER/EER		18.8 / 10.8
REFRIGERANT		R410A
SYSTEM ELECTRICAL REQUIREMENTS (VOLTS/PHASE/HERTZ)		240/1/60
MCA INDOOR/OUTDOOR (AMPS)		1 / 25
INDOOR WALL MOUNTED AIR HANDLING UNIT (AHU)		
EQUIPMENT TAG		AHU-1 & 2
TOTAL SUPPLY/OUTSIDE AIR FLOW (CFM)		830/0
SUPPLY AIR FLOW RATES (LOW-MED-HIGH) WET COIL		635/730/830
AIR TEMP. (°F) DB/WB	ENTERING	75/62.5
	LEAVING	55/54
ECM BLOWER MOTOR FLA (AMPS)		0.57
ECM BLOWER MOTOR OUTPUT (WATTS)		56
SHF / MOISTURE REMOVAL (PINTS/HOUR)		0.70 / 9.7
FILTER		WASHABLE
UNIT WEIGHT (LBS)		46
OUTDOOR CONDENSING UNIT (CU)		
EQUIPMENT TAG		CU-1 & 2
COMPRESSOR DRIVE		DC INVERTER
COMPRESSOR TYPE		TWIN ROTORY
COMPRESSOR RLA (AMPS)		8
ECM FAN MOTOR FLA (QTY. / AMPS)		2 / 0.5
MOCP (AMPS)		31
RATED OUTDOOR AMBIENT TEMP. (°F)		95
UNIT WEIGHT (LBS)		211
NOTES		1-9

SCHEDULE NOTES:

1. PROVIDE WITH SINGLE POINT POWER CONNECTION AT THE OUTDOOR UNIT. INDOOR UNIT POWER SUPPLIED VIA ELECTRICAL INTERCONNECT FROM OUTDOOR UNIT.
2. PROVIDE ELECTRICAL INTERCONNECT; 3-#14 AWG CONDUCTORS AND 1-#14 AWG GROUND. COORDINATE WITH APPROVED EQUIPMENT MANUFACTURERS INSTALLATION REQUIREMENTS AND NEC.
3. PROVIDE OUTDOOR CONDENSING UNITS WITH MANUFACTURER'S SEACOAST PROTECTION PACKAGE.
4. PROVIDE MANUFACTURERS DUAL UNIT AC CONTROLLER FOR LEAD/LAG SEQUENCING. CONTROLLER SHALL HAVE A SOLID STATE TIMER WITH AUTO SEQUENCING.
5. THE TOLL BUILDING SCADA SYSTEM SHALL MONITOR AND PROVIDE ALARM OUTPUTS TO INDICATE EACH OF THE FOLLOWING ALARM CONDITIONS:
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   - LOSS OF VOLTAGE ON THE BRANCH CIRCUIT TO EACH OUTDOOR UNIT. MONITORED AT THE DISCONNECT SWITCH.
6. PROVIDE RIGID CONDUIT (EMT) FOR ALL CONTROL WIRING.
7. PROVIDE ENGRAVED PLASTIC EQUIPMENT NAMEPLATES.
8. REFER TO SPECIFICATIONS FOR UNIT AND CONTROLLER REQUIREMENTS.
9. REFER TO TSP SECTION 23 09 00 FOR SEQUENCE OF OPERATION.

DESIGN CONDITIONS SCHEDULE			
ORLANDO SANFORD, FL	SUMMER		WINTER
	DB(°F)	WB(°F)	DB(°F)
INDOOR	75	62.5	50
OUTDOOR*	93.0	75.2	40.9

*PER ASHRAE 2013 FUNDAMENTALS HANDBOOK

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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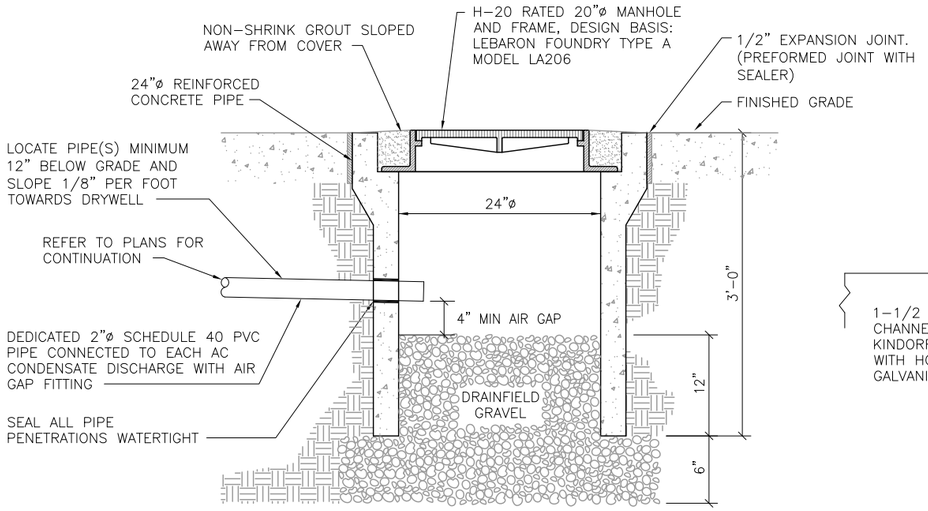
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Michael J. Over PE 65665

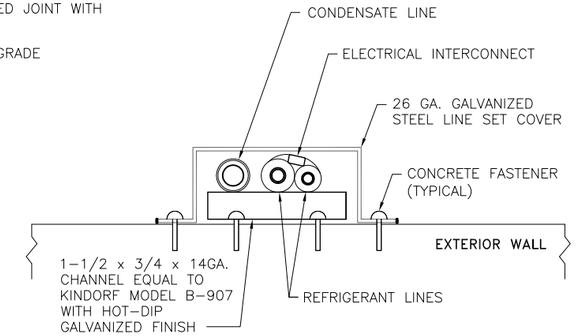
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

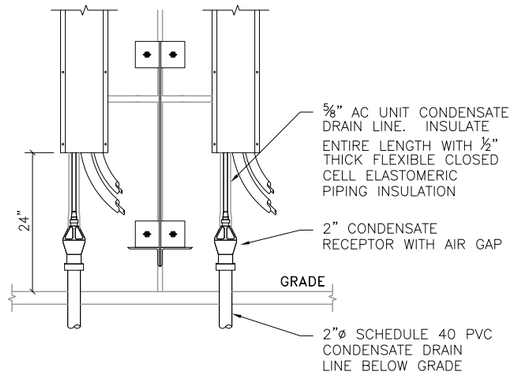
SHEET TITLE: **HVAC FLOOR PLAN**
DRAWING NO. **AM-102**
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**
SHEET NO. **20**



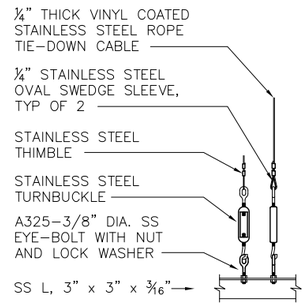
2 AM–501 **CONDENSATE DRYWELL**
SCALE: NOT TO SCALE



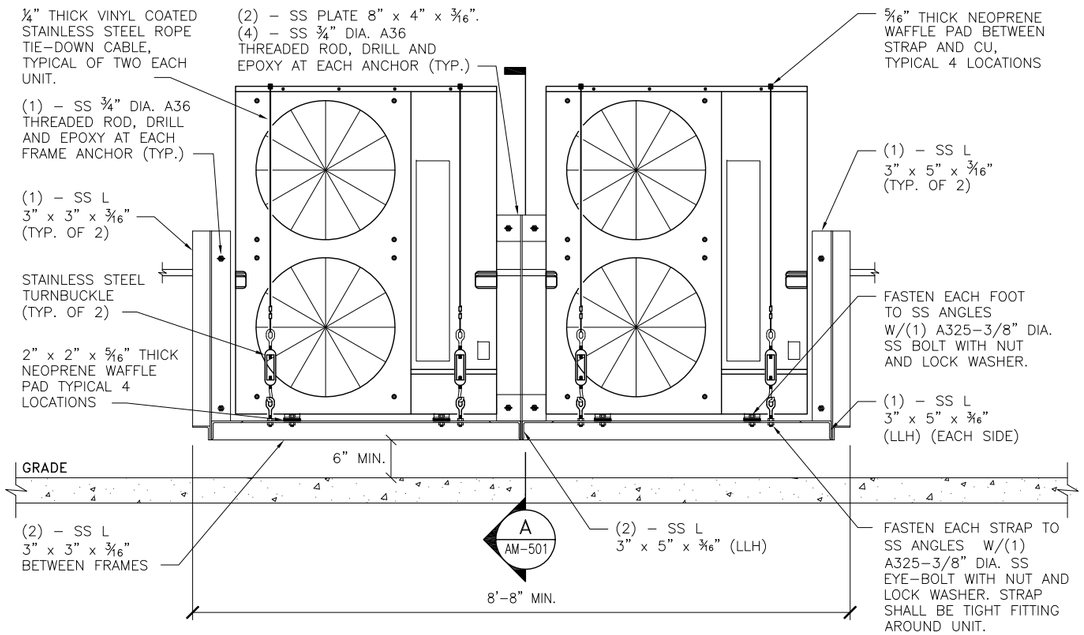
3 AM–501 **LINE SET COVER DETAIL**
SCALE: NOT TO SCALE



4 AM–501 **CONDENSATE DRAIN DETAIL**
SCALE: NOT TO SCALE

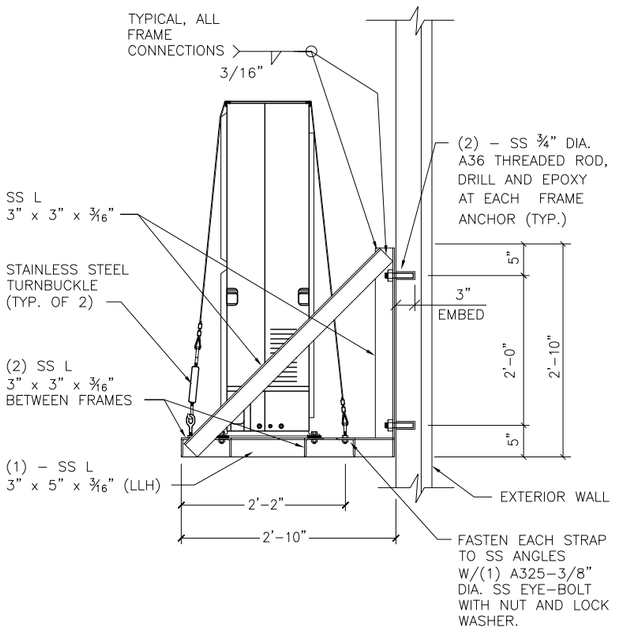


5 AM–501 **ATTACHMENT DETAIL**
SCALE: NOT TO SCALE

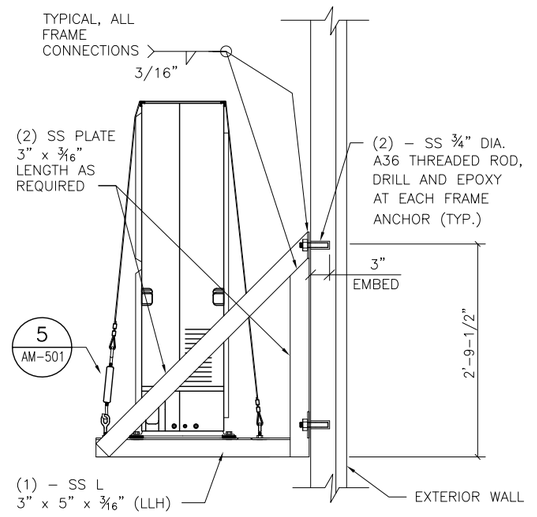


1A AM–501 **WALL–MOUNTED CONDENSING UNIT – FRONT VIEW**
SCALE: NOT TO SCALE

PROVIDE STAINLESS STEEL ANGLE EQUIPMENT SUPPORT FRAME SHOP WELDED. COORDINATE EXACT SIZE AND CLEARANCE REQUIREMENTS WITH THE APPROVED CONDENSING UNIT EQUIPMENT MANUFACTURERS DIMENSIONS AND INSTALLATION INSTRUCTIONS.



1B AM–501 **WALL–MOUNTED CONDENSING UNIT – SIDE VIEW**
SCALE: NOT TO SCALE



A AM–501 **SECTION VIEW**
SCALE: NOT TO SCALE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
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DEPARTMENT OF TRANSPORTATION

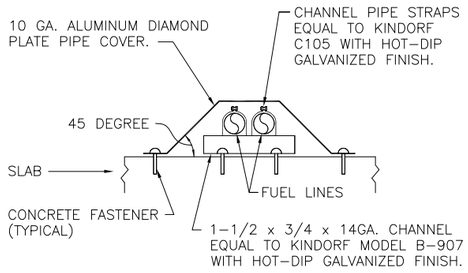
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **MECHANICAL DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AM-501**

SHEET NO. **21**



NOTE:

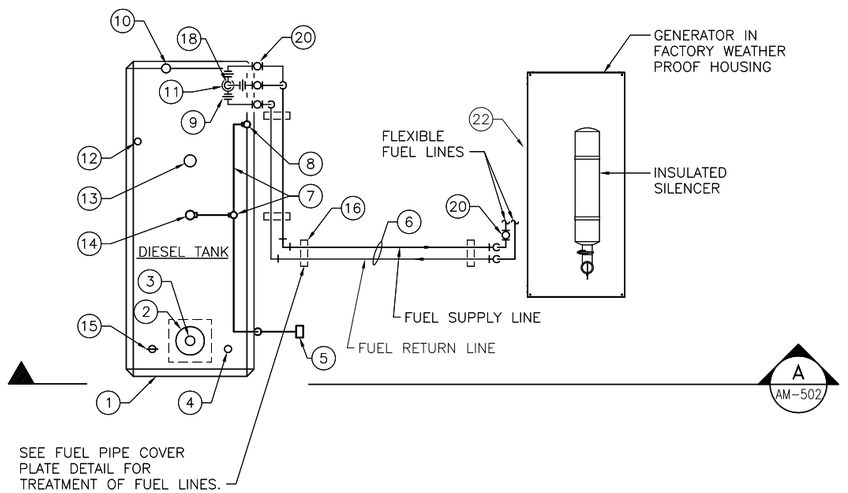
1. FUEL PIPE COVER PLATE SHALL BE PROVIDED FOR ALL EXPOSED PIPING ROUTED WITHIN SERVICE WALKWAYS OR PATHS. REFER TO CIVIL SITE AND GRADING PLANS FOR INDIVIDUAL SITE LOCATIONS AND EQUIPMENT LAYOUT.

FUEL PIPE COVER PLATE DETAIL

SCALE: N.T.S.

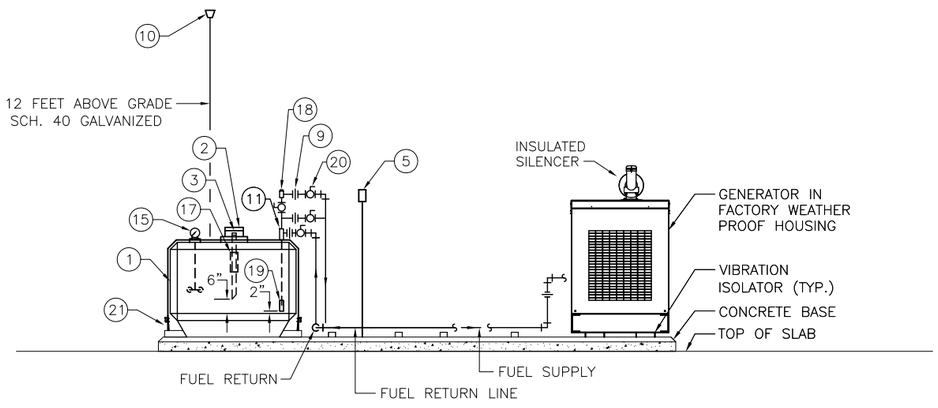
NOTE:

1. FOR LOCATION OF GENERATOR AND DIESEL FUEL TANK REFER TO CIVIL SITE AND GRADING PLANS. LAYOUT AND CONFIGURATION WILL VARY.



FLOOR PLAN

SCALE: N.T.S.



ELEVATION

SCALE: N.T.S.

A
AM-502

GENERATOR FUEL TANK & ACCESSORIES

ITEM No.	DESCRIPTION
1	RECTANGULAR 500 GALLON ABOVE GROUND FIRE RATED MONOLITHIC CONCRETE VAULTED DIESEL FUEL TANK. TANK SHALL BE UL-142 AND UL-2085 LISTED. FDEP APPROVED EQUIPMENT LIST NO. EQ-750.
2	7 GALLON CAPACITY, (UL) LISTED OVERSPILL CONTAINMENT.
3	2" TANK INLET SPOUT ADAPTOR WITH DUST CAP.
4	2" TANK INLET FOR FUEL LEVEL SENSOR. REFER TO ELECTRICAL DRAWINGS FOR DETAILS AND SPECIFICATION.
5	FUEL TANK MONITOR: SEE ELECTRICAL ENLARGED SITE PLANS FOR INSTALLATION LOCATION AND DETAILS. SEE SCADA SYSTEM BLOCK DIAGRAM AND NOTES FOR SPECIFIED FUEL TANK MONITOR AND CONNECTED ACCESSORIES.
6	3/4" SCH. 40, BLACK IRON FUEL SUPPLY AND RETURN LINES.
7	SEE ELECTRICAL DRAWINGS FOR CONDUIT, WIRING JUNCTION BOXES AND EQUIPMENT GROUNDING.
8	LEAK DETECTION SWITCH AND STEM WITH SENSOR CABLE FOR TANK INTERSTITIAL SPACE MONITORING. PROVIDE WITH ALARM CONSOLE.
9	3/4" UNION.
10	2" PRIMARY VENT AND CAP.
11	2" TANK FITTING FOR COMBINATION FUEL SUPPLY AND RETURN LINE.
12	2" TANK FITTING AND OPEN VENT FITTING FOR TANK INTERSTITIAL SPACE.
13	4" EMERGENCY VENT.
14	2" OPENING FOR HIGH/LOW LEVEL ALARM SWITCH. SET HIGH LEVEL AT 90% TANK FILL LEVEL AND LOW LEVEL AT 30% TANK FILL.
15	LIQUID LEVEL CLOCK GAUGE WITH STAINLESS STEEL BALL AND CHAIN.
16	PIPE SUPPORT AND COVER PLATE. (SEE DETAIL)
17	AST OVERFILL PREVENTION VALVE ASSEMBLY, SET TO SHUT-OFF FUEL SUPPLY AT 95% TANK FILL.
18	3/4" UL LISTED ANTI-SIPHON VALVE DESIGNED FOR DIESEL FUEL APPLICATIONS. THE ANTI-SIPHON VALVE SHALL BE INSTALLED IN THE FUEL SUPPLY LINE FROM THE TANK WITH MANUAL BALL VALVES FOR BYPASSING AND ISOLATING THE ANTI-SIPHON VALVE. THE ANTI-SIPHON VALVE SHALL BE SELECTED FOR ACTUAL EQUIPMENT AND PIPING LAYOUT HEAD REQUIREMENTS AND VERIFIED WITH HEAD LOSS CALCULATIONS.
19	1" BRASS STRAINER WITH #20 MESH SCREEN FILTER.
20	CARBON STEEL, FULL PORT, FIRE SAFE DESIGN BALL VALVE, TYPICAL.
21	TIE DOWN STRAP, TWO REQUIRED. REFER TO FUEL TANK ANCHORING DETAILS.

GENERAL NOTES:

1. FUEL LEVEL SENSOR, FUEL TANK MONITOR, AND ALL WIRED OR POWERED ACCESSORIES ARE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE. SEE MECHANICAL AND ELECTRICAL SPECIFICATIONS.
2. MECHANICAL CONTRACTOR SHALL COORDINATE ALL TANK OPENINGS (SIZE AND LOCATION) WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING FUEL TANK.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

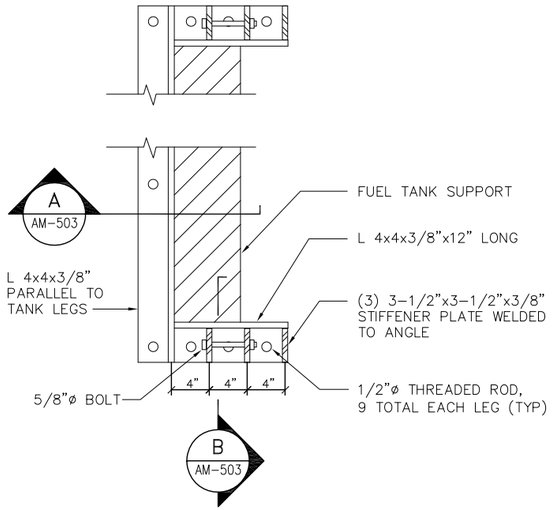
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **GENERATOR PLAN ELEVATION DETAIL AND NOTES**

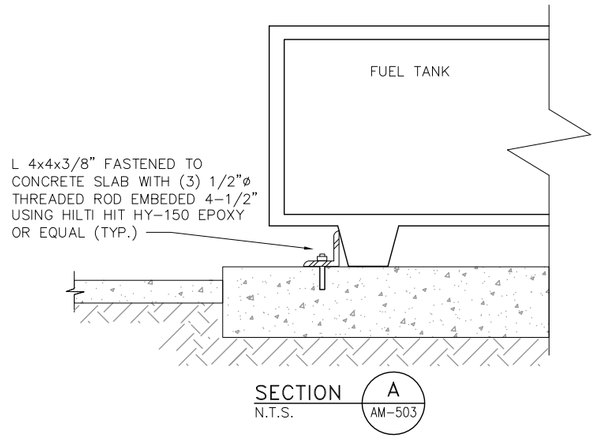
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AM-502**

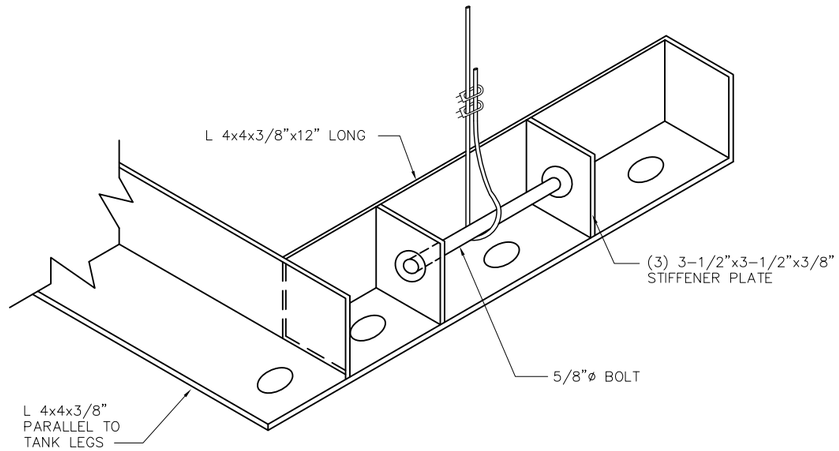
SHEET NO. **22**



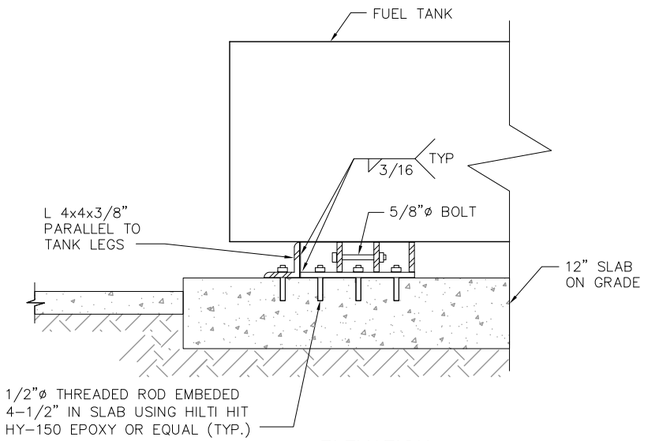
PLAN VIEW
N.T.S.



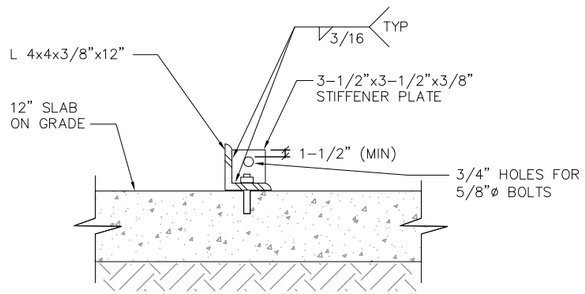
SECTION A
N.T.S.
AM-503



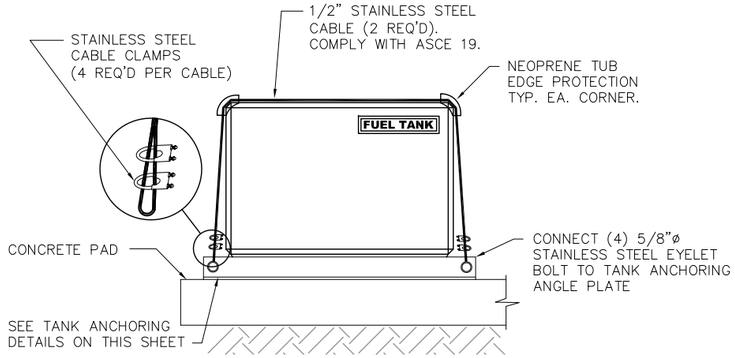
FUEL TANK HOLD DOWN
CABLES, ENLARGED VIEW
N.T.S.



ELEVATION
N.T.S.



SECTION B
N.T.S.
AM-503



NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.
2. ALL WELDS SHALL BE IN ACCORDANCE WITH AWS CODE. ELECTRODE SHALL BE E70XX.
3. THREADED ROD SHALL BE STANDARD ASTM A36.
4. BOLTS SHALL CONFORM TO ASTM A325.
5. PAINT ALL EXPOSED STEEL WITH GRAY COLD GALVANIZED PAINT.

PROVIDE TANK WITH OSHA AND ANSI COMPLIANT PERMANENT SAFETY SIGNS TO INDICATE THE FOLLOWING:

1. TYPE GRADE AND CLASS OF LIQUID IN TANK
2. HAZARD/DANGER
3. COMBUSTIBLE LIQUID
4. VOLUME OF TANK
5. NO SMOKING
6. NO OPEN FLAME

IDENTIFICATION SHALL BE POSITIONED SO THAT IT CAN BE EASILY SEEN FROM THE NORMAL ANGLE OF APPROACH.

FUEL TANK HOLD DOWN CABLES
N.T.S.

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **FUEL TANK ANCHORING DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AM-503**

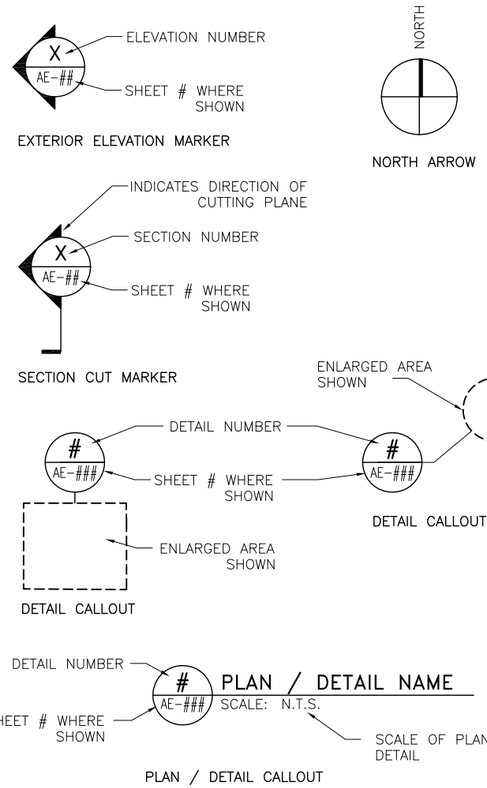
SHEET NO. **23**

ELECTRICAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION
A	FLUORESCENT LIGHTING FIXTURE WITH OUTLET BOX. LETTER INDICATES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.
B	LED LIGHTING FIXTURE, SURFACE MOUNTED. LETTER INDICATES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.
S	SINGLE POLE TOGGLE SWITCH. MOUNTED TOP 48" AFF.
ST	SINGLE POLE SWITCH WITH TIME DELAY DEVICE AS NOTED.
C	EMERGENCY LIGHT UNIT WALL MOUNTED 7'-0" AFF. CONNECT TO LINE SIDE (UNSWITCHED CONDUCTOR) OF CIRCUIT.
GFI WP	125V, 20A NEMA L-20R, DUPLEX RECEPTACLE. 'WP' INDICATES WEATHERPROOF WITH LOCKABLE METAL WHILE-IN-USE COVER. 'GFI' INDICATES GROUND FAULT INTERRUPTER. MOUNTED BOTTOM 16" AFF UNLESS OTHERWISE NOTED.
	QUAD (TWO DUPLEX) RECEPTACLE. MOUNTED BOTTOM 16" AFF. UNLESS OTHERWISE NOTED.
	QUAD RECEPTACLE - ORANGE NYLON FACE AND ORANGE THERMOPLASTIC WALL PLATE. MOUNTED BOTTOM 16" AFF UNLESS OTHERWISE NOTED.
	SPECIAL RECEPTACLE AS NOTED.
J	JUNCTION BOX 4" SQ. OR AS NOTED.
	PUSHBUTTON. MOUNTED AS NOTED.
SM	MANUAL MOTOR STARTER WITH OVERLOAD ELEMENT. MOUNTED AS NOTED.
	DISCONNECT SWITCH AS NOTED.
	METALLIC LIQUID TIGHT FLEXIBLE CONDUIT CONNECTION.
J	OUTLET OR JUNCTION BOX, SIZE PER NEC.
	PANELBOARD. (DIRTY POWER)
	SQUARE D POWERLINK PANELBOARD (CRITICAL POWER) PANELBOARD FED VIA UPS
	CONTROL PANEL.
ATS	AUTOMATIC TRANSFER SWITCH.
SPD	SURGE PROTECTION DEVICE.
	ROOF-MOUNTED AIR TERMINAL.
	GROUND ROD UON.
PB	PULL BOX.
K	KNOX BOX. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH LOCAL FIRE MARSHAL.
S	EMERGENCY POWER SHUTOFF SWITCH.
LP	LIGHTNING PROTECTION CONDUCTOR.
G	UNDERGROUND GROUND CONDUCTOR.
N	NEUTRAL CONDUCTOR.
	CONDUIT RACEWAY EXPOSED.
	CONDUIT RACEWAY CONCEALED IN CEILING SPACE OR WALLS.
	CONDUIT RACEWAY IN CONCRETE SLAB OR UNDERGROUND.

	CONDUIT UP.
	CONDUIT DOWN.
C-1,3 (TIE)	HOMERUN TO PANEL - LETTER INDICATES PANEL, NUMBERS INDICATE BRANCH CIRCUITS. ALL RACEWAYS WITHOUT FURTHER DESIGNATION INDICATE A TWO-WIRE CIRCUIT. FOUR WIRES ARE INDICATED. LONG MARKS INDICATE NEUTRAL CONDUCTOR, SHORT MARKS INDICATE PHASE CONDUCTORS. PROVIDE GREEN GROUND CONDUCTOR IN ALL CONDUITS. (TIE) INDICATES CIRCUIT IS SHARED WITH ADDITIONAL RECEPTACLES.
	DEVICE OR EQUIPMENT AS NOTED
#	REFERENCE NOTES
	TELEPHONE OUTLET BOX, INCLUDING TELEPHONE SET
PTZ	PAN TILT ZOOM CAMERA
	BACK BOX FOR CCTV CAMERA

GENERAL SYMBOL LEGEND:



ABBREVIATIONS:

A	AMPS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	AIR CONDITIONING [UNIT]
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AL, ALUM.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AVI	AUTOMATIC VEHICLE IDENTIFICATION
AWG	AMERICAN WIRE GAUGE
BCU	BATTERY CHARGER UNIT
BLDG.	BUILDING
BPS	BYPASS SWITCH
C.	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CKT.	CIRCUIT
COMP	COMPUTER
CU	COPPER
COMM.	COMMUNICATION
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIA.	DIAMETER
DN	DOWN
DWG.	DRAWING
E6	ENCOMPASS 6 MULTIPROTOCOL READER
ENG.	ENGINE
E.T.C.	ELECTRONIC TOLL COLLECTION
ETC	ET CETERA
EQUIP.	EQUIPMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPO	EMERGENCY POWER OFF
EXT.	EXTERIOR
FOC	FIBER OPTIC CABLE
FT	FOOT; FEET
FTE	FLORIDA'S TURNPIKE ENTERPRISE
FTL	FEED THROUGH LUGS
FTM	FUEL TANK MONITOR
FUT	FUTURE
GA	GAUGE
GAL.	GALLON
GCB	GENERATOR CIRCUIT BREAKER
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HORIZONTAL, HERTZ
I.C.	INTERRUPTING CAPACITY
I.D.	IDENTIFICATION
IN.	INCHES
JB	JUNCTION BOX
KA	KILOAMPERES
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LN CTR	LANE CONTROLLER
LOC.	LOCATION
LLC	LEAD LAG CONTROLLER
LP	LIGHTNING PROTECTION
LTG	LIGHTING
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MTS	MANUAL TRANSFER SWITCH
MIN.	MINIMUM
ML	MAINLINE
M.L.O.	MAIN LUGS ONLY
MOT	MAINTENANCE OF TRAFFIC
MTD	MOUNTED
N	NEUTRAL
NB	NORTHBOUND
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE

ABBREVIATIONS CONT:

N3R	NEMA 3R
OC	ON CENTER
ORT	OPEN ROAD TOLLING
Ø	PHASE
P	POLE
PCB	POLYCHLORINATED BIPHENYL
PNL	PANEL
PVC	POLYVINYL CHLORIDE
RECEPT.	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
SB	SOUTHBOUND
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCH.	SCHEDULE
SCP	SCADA CONTROL PANEL
SCTE	SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS
SD	SQUARE D
SER	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTIVE DEVICE
SPEC(S)	SPECIFICATION(S)
S.P.S.T.	SINGLE POLE SINGLE THROW
S.S.	STAINLESS STEEL
STP	SHIELDED TWISTED PAIR
SQ.	SQUARE
STFE	STATE TOLL FACILITY ENGINEER
SYMM.	SYMMETRICAL
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T&H	TEMPERATURE AND HUMIDITY SENSOR
T.O.	TOLL OPERATIONS
TSP	TECHNICAL SPECIAL PROVISIONS
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VDAC	VEHICLE DETECTION AND CLASSIFICATION UNIT
VES	VIOLATION ENFORCEMENT SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
W	WIRE; WATT
W/	WITH
WP	WEATHERPROOF (NEMA 3R)
XFMR	TRANSFORMER

SECURITY CARD ACCESS SYSTEM SYMBOL LEGEND:

CR	PROXIMITY CARD READER PROVIDED BY SECURITY CONTRACTOR.
C	DOOR CONTACT CONCEALED TYPE.
DL	ELECTRIFIED LEVER TRIM.
RX	REQUEST TO EXIT CONTACTS (INTEGRAL TO PUSH BAR).
PT	POWER TRANSFER DEVICE.
RXS	REQUEST TO EXIT MOTION SENSOR.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL SYMBOLS, LEGEND AND ABBREVIATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-010**

SHEET NO. **24**

ELECTRICAL GENERAL NOTES:

1. FEED ALL RECEPTACLES AND DEVICES WITH (2) #12, (1) #12 GND IN 3/4" C, UON.
2. PROVIDE (2) #12, (1) #12 GND AND #12 SWITCHLEGS AS REQUIRED IN 3/4" C FOR ALL NEW BUILDING LIGHTING, UON.
3. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.
4. ALL 120V, 20A CIRCUIT HOMERUNS OVER 50FT. SHALL BE #10 CU MINIMUM, UON.
5. ALL 120V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #8 CU MINIMUM, UON.
6. ALL 240V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #10 CU. MINIMUM, UON.
7. ALL 240V, 20A CIRCUIT HOMERUNS OVER 300FT. SHALL BE #8 CU MINIMUM, UON.
8. VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
9. PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT AND RACEWAYS WITH LABELING AT EACH END.
10. THE USE OF ANY PROCESS INVOLVING ASBESTOS OR PCB, AND THE INSTALLATION OF ANY PRODUCT, INSULATION, COMPOUND OF MATERIAL CONTAINING OR INCORPORATING ASBESTOS OR PCB, IS PROHIBITED. PROVIDE A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM WITHOUT THE USE OF ASBESTOS OR PCB.
11. CONTACT THE POWER COMPANY WITHIN 10 DAYS OF THE AWARD OF THE CONTRACT AND SCHEDULE NEW SERVICE INSTALLATION.
12. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID. SUBMISSION OF A BID WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
13. INCLUDE THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
    A) COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS.
    B) TRANSPORT AND DISPOSE OF LAMPS, BALLASTS AND OTHER MATERIALS IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES.
    C) PROVIDE WRITTEN CERTIFICATION THAT ALL MATERIALS WERE RECYCLED OR DISPOSED OF PROPERLY PER THE GUIDELINES NOTED ABOVE.
14. LOCATE EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE.
15. PHASE WORK AS REQUIRED BY MOT PLANS.
16. UNDERGROUND CONDUIT SHALL BE PVC SCH. 80, UON. UNDERGROUND CONDUIT SHALL TRANSITION TO RGS CONDUIT WITH RGS TO PVC CONDUIT FITTINGS. CONDUIT SHALL BE RGS ABOVE GRADE THROUGH AND INCLUDING THE FIRST 90 DEGREE FITTING UNDERGROUND UON.
17. EQUIPMENT BLDG. INTERIOR: CONDUIT WITH A TRADE SIZE OF LESS THAN 2" SHALL BE EMT. CONDUIT WITH A TRADE SIZE OF 2" AND GREATER SHALL BE RGS.
18. TOLL EQUIPMENT AND ALL WIRING/CABLING FOR TOLL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY T.E.C., UON.
19. UNDERGROUND CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE.
20. EXPOSED EXTERIOR CONDUIT SHALL BE RGS THROUGH AND INCLUDING THE FIRST 90° BEND INSTALLED UNDERGROUND. TRANSITIONS BETWEEN RGS AND PVC CONDUIT SHALL BE MADE WITH A RGS TO PVC CONDUIT FITTING.
21. EQUIPMENT SPECIFIED WITH CATALOG NUMBERS OR PART NUMBERS SHALL NOT BE SUBSTITUTED UNLESS "OR EQUAL" IS INDICATED.
22. CONDUIT RESERVED FOR TOLLING LOOPS SHALL BE SCH. 80 PVC.
23. PLASTIC END CAPS SHALL BE INSTALLED ON ENDS OF UNISTRUT.
24. ELECTRICAL INSTALLATION REQUIREMENTS INCLUDING ALL DRAWINGS AND SPECIFICATIONS SHALL BE PROVIDED TO THE BLDG. MANUFACTURER PRIOR TO BLDG. FABRICATION. FLUSH MOUNTED BACK BOXES, CONDUIT ROUTING, LIGHT FIXTURE SUPPORTS ETC. SHALL BE COORDINATED TO ENSURE PROPER INSTALLATION AND PROPER LOCATIONS. RE-WORK DUE TO INSUFFICIENT COORDINATION SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
25. SCALED BLDG. ELEVATION DRAWINGS INDICATING EQUIPMENT LAYOUT SHALL BE SUBMITTED FOR REVIEW PRIOR TO PROCUREMENT OF EQUIPMENT. REFER TO TSP'S FOR ADDITIONAL REQUIREMENTS.
26. MAINLINE GANTRY DATA WIRE TROUGHS SHALL BE MODIFIED BY A UL OR ETL LISTED PANEL SHOP. THE WIREWAYS TERMINATED TO THE TOP OF THE WIRE TROUGH SHALL BE MODIFIED AND ASSEMBLED IN THE PANEL SHOP & NOT IN THE FIELD TO ENSURE PROPER WATERTIGHT SEAL. SHOP DRAWINGS INCLUDING DIMENSIONED SKETCHES & MATERIAL PRODUCT DATA SHALL BE SUBMITTED FOR REVIEW FOR FABRICATION OF DATA WIRE TROUGH. REFER TO MAINLINE GANTRY DETAILS FOR ADDITIONAL REQUIREMENTS.
27. ALL LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE METALLIC.
28. OUTLET AND DEVICE JUNCTION BOXES INSTALLED OUTDOORS SHALL BE MANUFACTURED FROM GALVANIZED CAST IRON WITH THREADED HUBS, UON. REFER TO TSP SECTION 26 05 33 FOR DETAILS.

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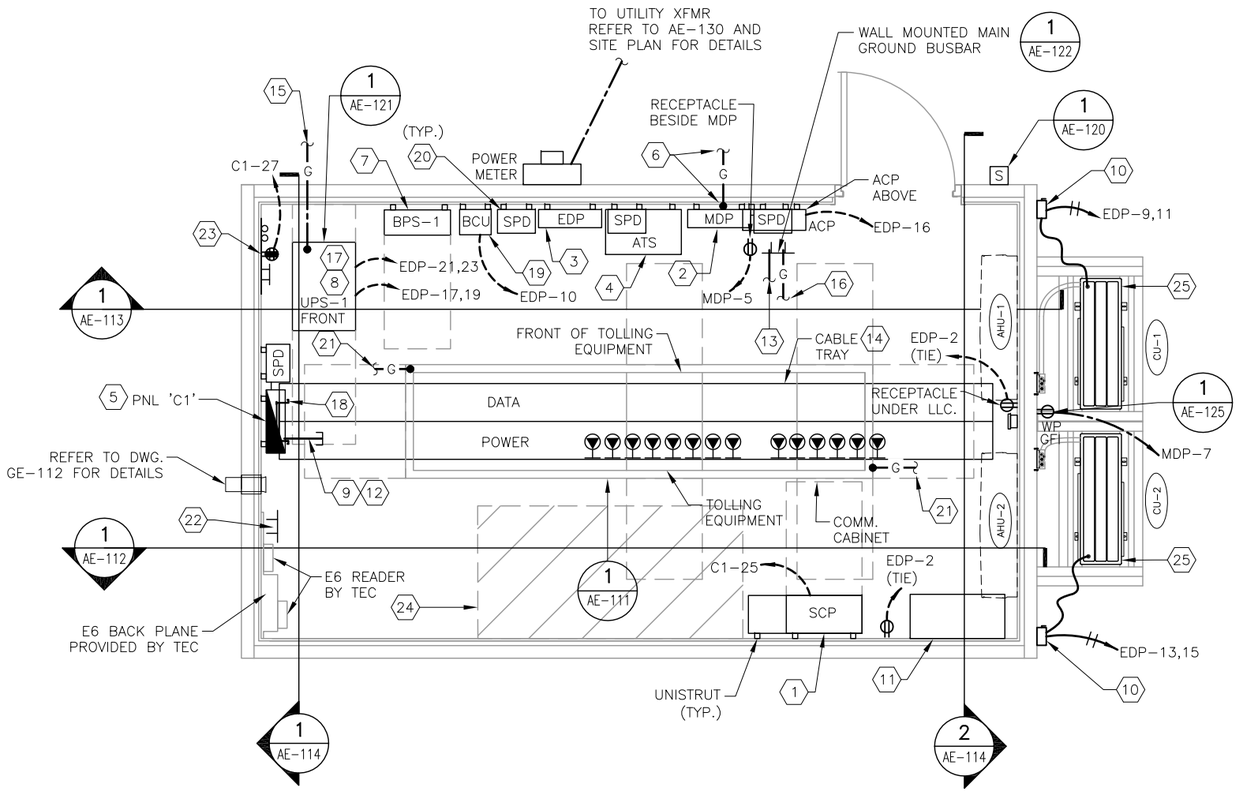
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL GENERAL NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-011**

SHEET NO. **25**



1 AE-101 RAMP E BUILDING – POWER PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO DWG. AE-125 FOR BUILDING RACEWAY INSTALLATION DETAILS.
2. REFER TO DWG. AE-121 AND AE-122 FOR GROUNDING REQUIREMENTS.
3. WALL MOUNTED EQUIPMENT SHALL BE MOUNTED ON UNISTRUT AND NOT DIRECTLY TO WALL. REFER TO TSP'S FOR DETAILS.

REFERENCE NOTES:

1. SCADA PANEL 'SCP' TO BE PROVIDED BY CONTRACTOR. REFER TO TSP SECTION 26 09 13.
2. MAIN DISTRIBUTION PANELBOARD 'MDP': REFER TO POWER RISER DIAGRAM FOR DETAILS.
3. ELECTRICAL DISTRIBUTION PANELBOARD 'EDP': REFER TO PANELBOARD SCHEDULE ON DWG. AE-131 FOR DETAILS.
4. AUTOMATIC TRANSFER SWITCH 'ATS': REFER TO POWER RISER DIAGRAM FOR DETAILS.
5. PANELBOARD (CRITICAL POWER): REFER TO PANELBOARD SCHEDULES ON DWG. AE-131 FOR DETAILS.
6. REFER TO AE-130 AND SITE PLANS FOR GROUNDING ELECTRODE SYSTEM REQUIREMENTS.
7. UPS BYPASS SWITCH: MOUNT BYPASS 4'-6" AFF WITH CONTROLS ON TOP OF THE ENCLOSURE, REFER TO POWER RISER DIAGRAM FOR DETAILS.
8. UPS: PROVIDE A MIN. OF 36" CLEAR SPACE IN FRONT AND 12" BEHIND UPS. REFER TO POWER RISER DIAGRAM FOR CIRCUITING REQUIREMENTS AND DETAILS.
9. PROVIDE A #4 AWG BARE CU GROUNDING CONDUCTOR FROM CRITICAL PANEL GROUND BUS TO THE CABLE TRAY. BOND CONDUCTOR TO CABLE TRAY WITH UL LISTED FITTING FOR AL TO CU BOND.
10. 240V, 30A, 2-POLE, NEMA 3R DISCONNECT FUSED AT 30A PER HVAC MANUFACTURER'S RECOMMENDATIONS.
11. WALL-MOUNTED STORAGE CABINET. MOUNT WITH TOP OF CABINET AT 6'-0" AFF. 30"H X 27"W X 14"D. REFER TO TSP SECTION 26 28 13.
12. ROUTE TC-ER TYPE CABLE (2 #12 AWG, 1 #12 GND) ALONG CABLE TRAYS AND EXTEND TO CABLE TRAY MOUNTED RECEPTACLES. PROVIDE CABLE GLAND SEAL FOR EACH TC-ER CABLE THAT PASS THROUGH TOP OF PANEL. CABLE GLAND SHALL BE COOPER CROUSE-HINDS CGB SERIES OR APPROVED EQUAL. MATCH CABLE GLAND NPT SIZE TO CABLE SIZE.
13. BOND #4, BARE STRANDED-COPPER CONDUCTOR TO MAIN GROUND BUSBAR & EXTEND IN 1" SCH. 80 PVC OVERHEAD TO CABLE TRAY AND TOLLING CABINETS. BOND CONDUCTOR TO CABLE TRAY & EXTEND CONDUCTOR THE FULL LENGTH OF THE CABLE TRAY. BOND CONDUCTOR WITH UL LISTED FITTING FOR AL TO CU BOND EACH SECTION.
14. 24" WIDE x 6" DEEP CABLE TRAY WITH DIVIDER. REFER TO AE-111 AND TSP'S FOR REQUIREMENT.
15. #4 CONTINUOUS, BARE STRANDED-COPPER GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD AND CONCRETE-ENCASED ELECTRODE. REFER TO DWG. AE-121 AND AE-130 FOR DETAILS.
16. BOND #2/0 BARE, STRANDED-COPPER GROUNDING CONDUCTOR TO MAIN GROUND BUS BAR & EXTEND TO CONCRETE-ENCASED ELECTRODE.
17. ROUTE LIQUID TIGHT FLEXIBLE METAL CONDUIT FROM UPS TO BPS.
18. WALL-MOUNTED 12"(WIDE) X 5" MAX RAIL HEIGHT (4" NEMA VE1 LOADING DEPTH) ALUMINUM LADDER TYPE POWER CABLE TRAY (FROM TOP OF PANEL TO THE HEIGHT OF HORIZONTAL CABLE TRAY). PROVIDE AND INSTALL REDI-RAIL MODEL NO. H15AR100K006-06 OR APPROVED EQUAL. PROVIDE A CONTINUOUS #4 GROUND WIRE IN CABLE TRAY. PROVIDE A UL LISTED BONDING JUMPER COOPER B-LINE MODEL NO. 99-30 OR APPROVED EQUAL.
19. BATTERY CHARGER UNIT FOR THE GENERATOR BATTERY.
20. SURGE PROTECTION DEVICE (SPD). FIELD ADJUST THE LOCATIONS OF THE SPD SUCH THAT THE MAXIMUM SPD BRAIDED/TWISTED LEADS DO NOT EXCEED 24 INCHES AND HAVE NO SHARP TURNS. MAINTAIN LEADS AS SHORT & STRAIGHT AS POSSIBLE FROM CB TO SPD.
21. BOND THE RAISED METAL SUPPORT FRAME TO THE CONCRETE-ENCASED ELECTRODE (OR REBAR IN FOOTER) BY #4, BARE, STRANDED-COPPER CONDUCTOR AT EACH END OF THE SUPPORT STAND. BOND CONDUCTOR WITH UL LISTED FITTING FOR AL TO CU BOND (IF ALUMINUM FRAME).
22. WALL MOUNTED GROUND BUSBAR. BOND TO THE CONCRETE-ENCASED ELECTRODE BY #4, BARE, STRANDED-COPPER CONDUCTOR. REFER TO INTERIOR ELEVATION 1 ON DRAWING AE-114 AND AE-121 FOR FURTHER INFORMATION.
23. PROVIDE A QUAD RECEPTACLE (ORANGE NYLON FACE, 125V, 20A) IN SURFACE MOUNTED DOUBLE GANG BACK BOX 48" AFF DEDICATED FOR COMMUNICATION SERVICE EQUIPMENT.
24. DEDICATED SPACE (7'-0" X 3'-6") FOR FUTURE FIRE SUPPRESSION SYSTEM BY OWNER.
25. THE WIRING BETWEEN THE AHU AND CU WILL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - POWER PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-101**

SHEET NO. **26**

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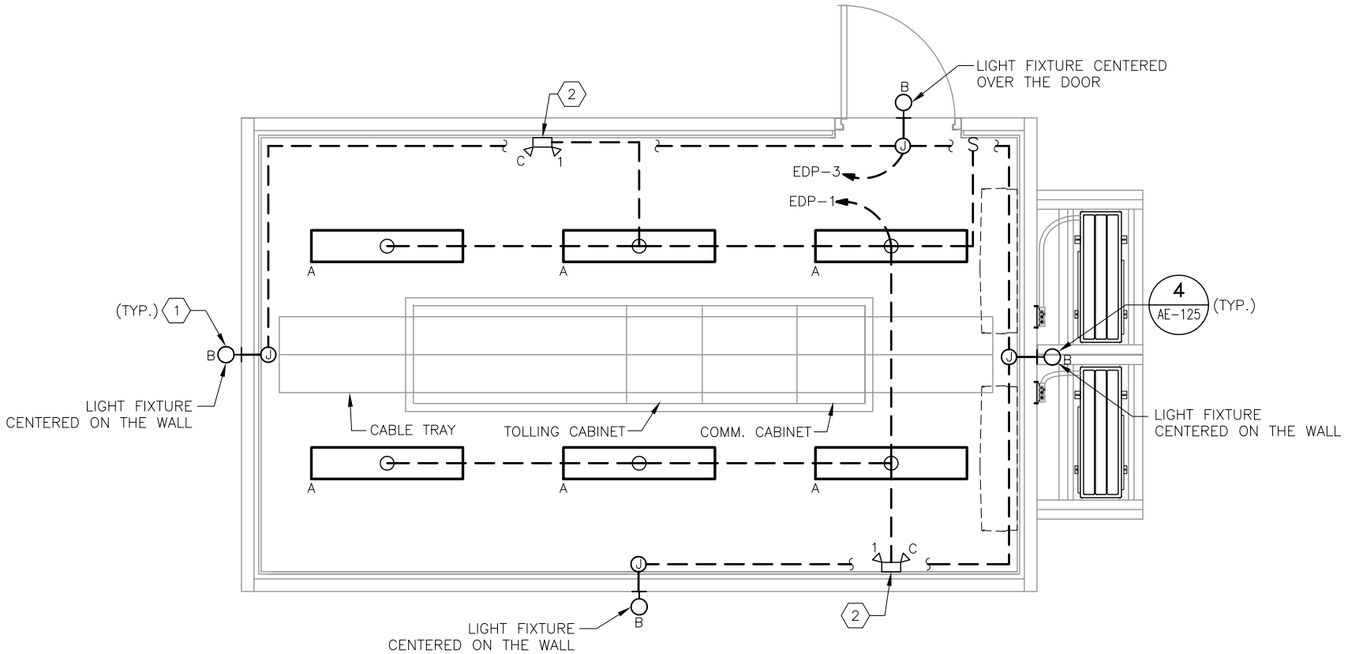

1 / AE-102 RAMP E BUILDING – LIGHTING PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO DWG. AE-125 FOR BUILDING RACEWAY INSTALLATION DETAILS.
2. LIGHT FIXTURE INSTALLATIONS/MOUNTING MUST BE COORDINATED WITH BLDG. MANUFACTURER.

REFERENCE NOTES:

(1) BUILDING MOUNTED LIGHT FIXTURE TYPE 'B' SHALL HAVE AN INTEGRAL PHOTOCELL.

(2) CONNECT EMERGENCY LIGHTS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ALL SWITCHING DEVICES.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	VOLT	LAMPS	MOUNTING	REMARKS
A	1' X 4' FLUORESCENT WRAPAROUND	LITHONIA #LB232A-120-GEB10IS-GLR OR APPROVED EQUAL	120	2-F32-T8CW	PENDANT- BOTTOM 8'-0" AFF SWIVEL STEM	
B	DIECAST ALUMINUM WALL MTD LED FIXTURE, DARK BRONZE FINISH, PHOTOCELL	KENALL #MR13EL-PP-DB-10L35K-1-120-BPC-SA-FS OR APPROVED EQUAL	120	10W LED 3500K W/UNIT	WALL SURFACE MTD. ℄ 9'-0" AFF	FOR WET LOCATION SEE ARCHITECTURAL ELEVATIONS
C	BATTERY PACK EMERGENCY LIGHT	LITHONIA ELM6LED-LP03VS OR APPROVED EQUAL	120	LED W/UNIT	WALL SURFACE MOUNTED	

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - LIGHTING PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-102**

SHEET NO. **27**

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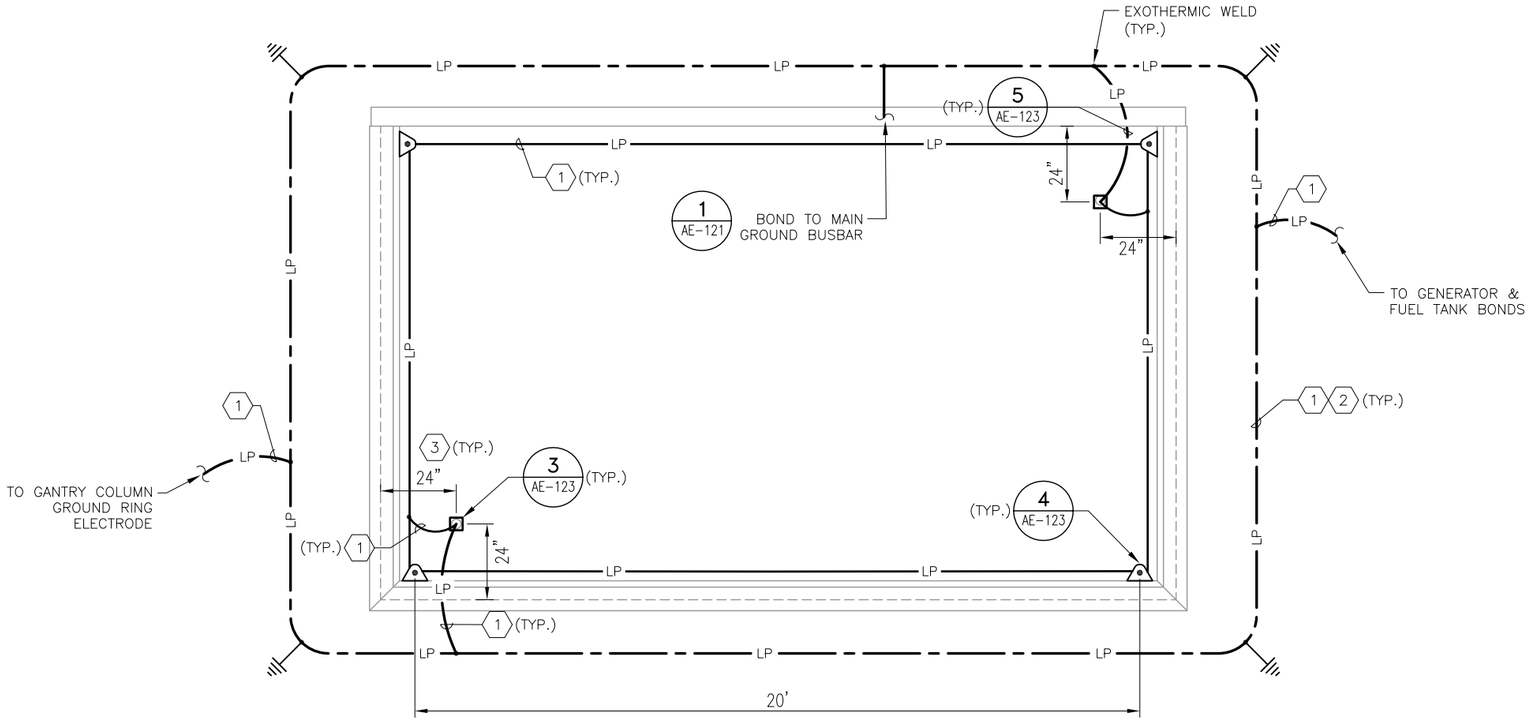

1 AE-103 RAMP E BUILDING – LIGHTNING PROTECTION PLAN
SCALE: 1/4"= 1'–0"

GENERAL NOTES:

1. CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NFPA 780 CLASS I MATERIAL REQUIREMENTS.
2. REFER TO SITE PLANS FOR ADDITIONAL REQUIREMENTS.

REFERENCE NOTES:

1. REFER TO TSP SECTION 26 41 13 FOR CONDUCTOR SIZES.
2. GROUND RING ELECTRODE SHALL BE INSTALLED 36" (MIN.) BELOW GRADE.
3. 24" FROM EXTERIOR OF WALL TO CENTERLINE OF THROUGH–ROOF CONDUCTOR.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'–0"
0 2' 4'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
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Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

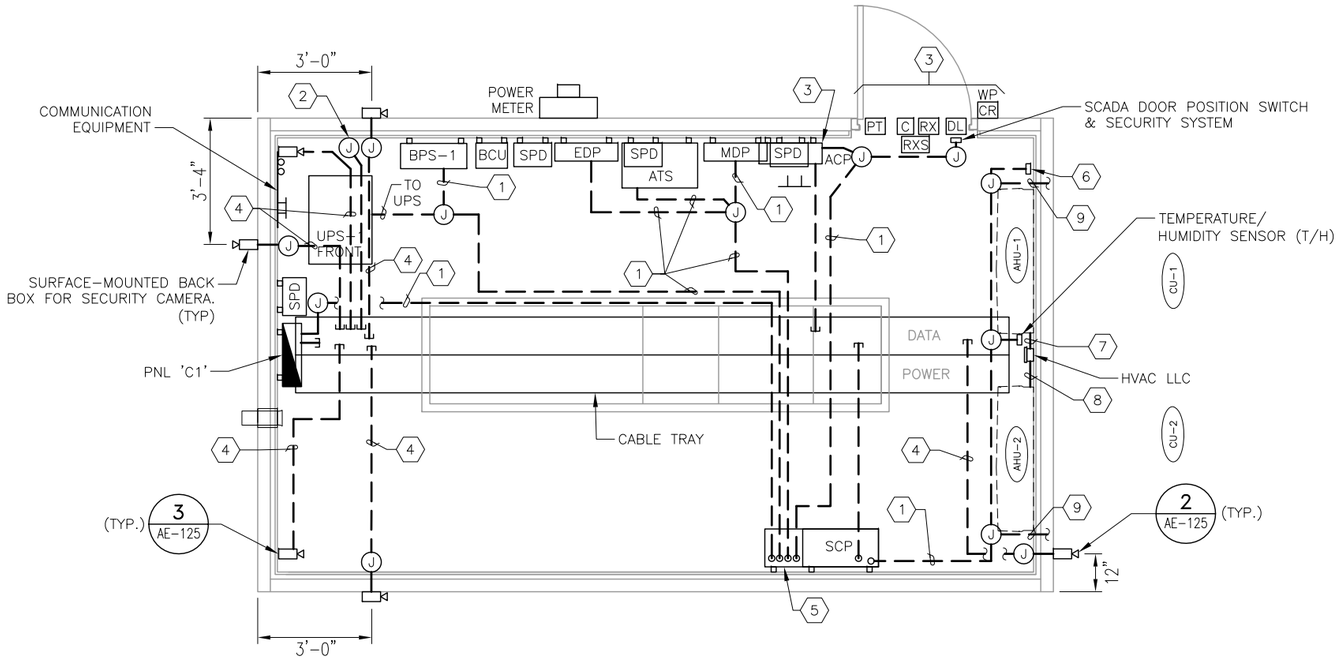
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - LIGHTNING PROTECTION PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-103**

SHEET NO. **28**



1 AE-104 RAMP E BUILDING – SCADA AND SECURITY SYSTEM PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO DWG. AE-125 FOR BUILDING RACEWAY INSTALLATION DETAILS.
2. REFER TO DWG. AE-133 FOR SCADA SYSTEM BLOCK DIAGRAM AND DETAILS.
3. REFER TO DWG. AE-121 AND AE-122 FOR GROUNDING REQUIREMENTS.
4. CONDUIT STUBBED OVER CABLE TRAY SHALL BE PROVIDED WITH AN INSULATED THROAT GROUNDING BUSHING AND BONDED TO THE CABLE TRAY WITH A #4 BARE COPPER CONDUCTOR.
5. WALL-MOUNTED EQUIPMENT SHALL BE SECURED TO WALL VIA UNISTRUT SUPPORTS. SEE TSP'S FOR DETAILS.
6. REFER TO SITE PLANS FOR ADDITIONAL SCADA & SECURITY CONDUIT ROUTING.

REFERENCE NOTES:

1. CONDUIT FOR SCADA CONNECTIONS. REFER TO AE-133 AND BUILDING INTERIOR ELEVATION FOR CONDUIT & CONDUCTOR SIZES.
2. SINGLE GANG BACK BOX & 1"C. ROUTED TO DATA SIDE OF CABLE TRAY FOR UPS NETWORK CONNECTIONS. LOCATE BACK BOX NOT MORE THAN 12" FROM UPS NETWORK TERMINATIONS.
3. SECURITY ACCESS EQUIPMENT. REFER TO AE-010 & AE-124 FOR SYMBOLS AND DETAILS. REFER TO TSP'S FOR ADDITIONAL REQUIREMENTS.
4. 1"C (DATA) FOR CCTV CAMERA. CONDUIT TO BE ROUTED FROM J-BOX TO CABLE TRAY. COORDINATE EXACT LOCATION WITH DEPARTMENT.
5. 12"X12"X36", NEMA 1 PAINTED STEEL WIRING TROUGH. PROVIDE (2) 3" NIPPLES BETWEEN TOP OF WIRING TROUGH AND BOTTOM OF SCADA CONTROL PNL (SCP).
6. MOISTURE DETECTOR. REFER TO DWG. AE-133 FOR DETAILS.
7. (2) #12, 1 #12G, 1"C. (AHU-1/AHU-2 INTERCONNECT)
8. (4) #12, 1 #12G, 1"C. (HVAC LLC WIRING AND AHU-1/AHU-2 INTERCONNECT)
9. SCADA CONDUIT TO CONDENSING UNIT DISCONNECT SWITCH.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - SCADA AND SECURITY SYSTEM PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-104**

SHEET NO. **29**

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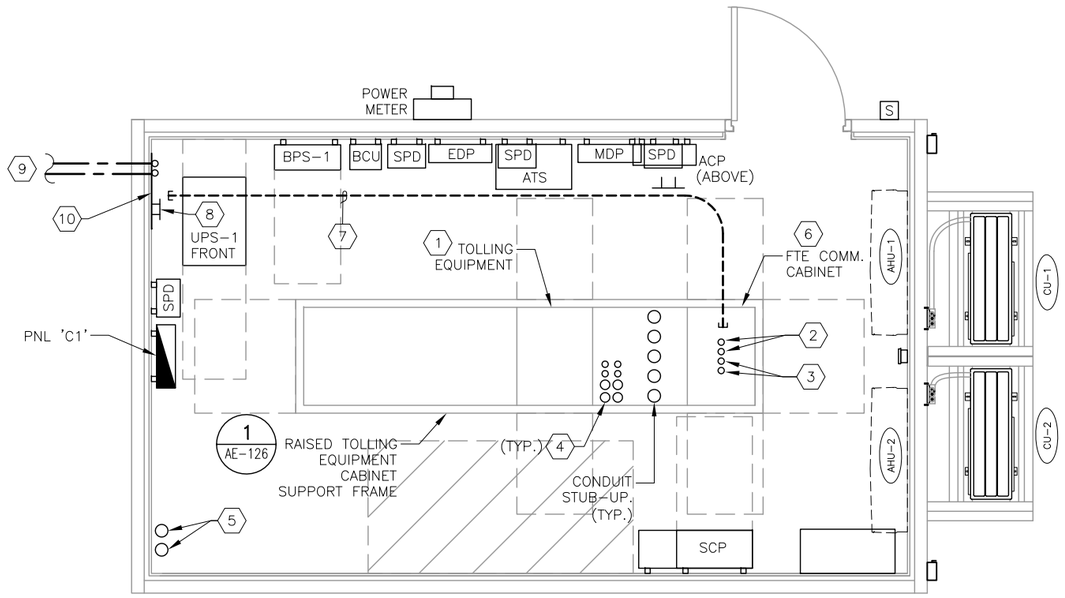

1 AE-105 RAMP E BUILDING – TOLLING SYSTEM PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO SITE PLANS FOR CONDUIT ROUTING OUTSIDE THE BUILDING.
2. REFER TO DWG. AE-126 FOR CONDUIT STUB-UP DETAIL INDICATING CONDUIT SIZE, LOCATION AND QUANTITIES.
3. REFER TO TSP'S FOR COMMUNICATION SERVICE CONNECTION REQUIREMENTS.
4. TOLLING EQUIPMENT CABINETS WILL BE PROVIDED AND INSTALLED BY THE DEPARTMENT'S TOLL EQUIPMENT CONTRACTOR AFTER THE ENTIRE SITE IS COMPLETE.

REFERENCE NOTES:

1. TOLLING EQUIPMENT CABINETS SHALL BE FURNISHED AND INSTALLED BY THE DEPARTMENT'S TOLL EQUIPMENT CONTRACTOR.
2. INSTALL (2) 2" PVC CONDUITS STUBBED UP UNDER THE TOLLING COMMUNICATIONS CABINET AND EXTENDED TO THE ITS PULL BOX SHOWN ON THE ENLARGED SITE PLAN. THE 90 DEGREE ELBOWS SHALL HAVE A 24" MINIMUM BENDING RADIUS. COORDINATE REQUIREMENTS WITH ITS PLANS PRIOR TO ROUGH IN.
3. INSTALL (2) 2" PVC CONDUITS STUBBED UP UNDER THE TOLLING COMMUNICATIONS CABINET FOR GANTRY MOUNTED CCTV CAMERAS. REFER TO SITE PLAN FOR CONDUIT ROUTING.
4. REFER TO AE-126 AND SITE PLAN FOR CONDUIT ROUTINGS.
5. (2) 4" CONDUIT STUB-UP FOR E6 READER. REFER TO SITE PLAN FOR CONDUIT ROUTING.
6. FTE COMMUNICATIONS CABINET. REFER TO TSP SECTION 27 11 16 FOR REQUIREMENTS.
7. 1" C, CAT6 CABLE WITH RJ45 CONNECTORS WITH 6'-0" OF SLACK CABLE ON EACH END. STUB CONDUIT 2" BELOW TOP OF COMMUNICATIONS BACKBOARD. ROUTE CABLE FROM TELCO EQUIPMENT TO NETWORK SWITCH IN THE COMMUNICATIONS CABINET.
8. PROVIDE A 7-POSITION COPPER GROUND BAR WITHOUT PLATING APPROVED BY TELEPHONE COMPANY. BOND TO THE CONCRETE-ENCASED ELECTRODE BY #4, BARE, STRANDED-COPPER CONDUCTOR.
9. PROVIDE (2) 2"C. ROUTED FROM COMMUNICATIONS BACKBOARD TO TELCO PULL BOX. SEE SITE PLAN FOR DETAILS. CONDUIT BEND RADIUS SHALL NOT BE LESS THAN 24". COORDINATE REQUIREMENTS WITH TELEPHONE COMPANY PRIOR TO ROUGH IN.
10. PAINT A 2'X4' AREA ON PLYWOOD WALLS WITH FIRE-RETARDANT PAINT. VERIFY REQUIREMENTS WITH TELECOMMUNICATION COMPANY.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

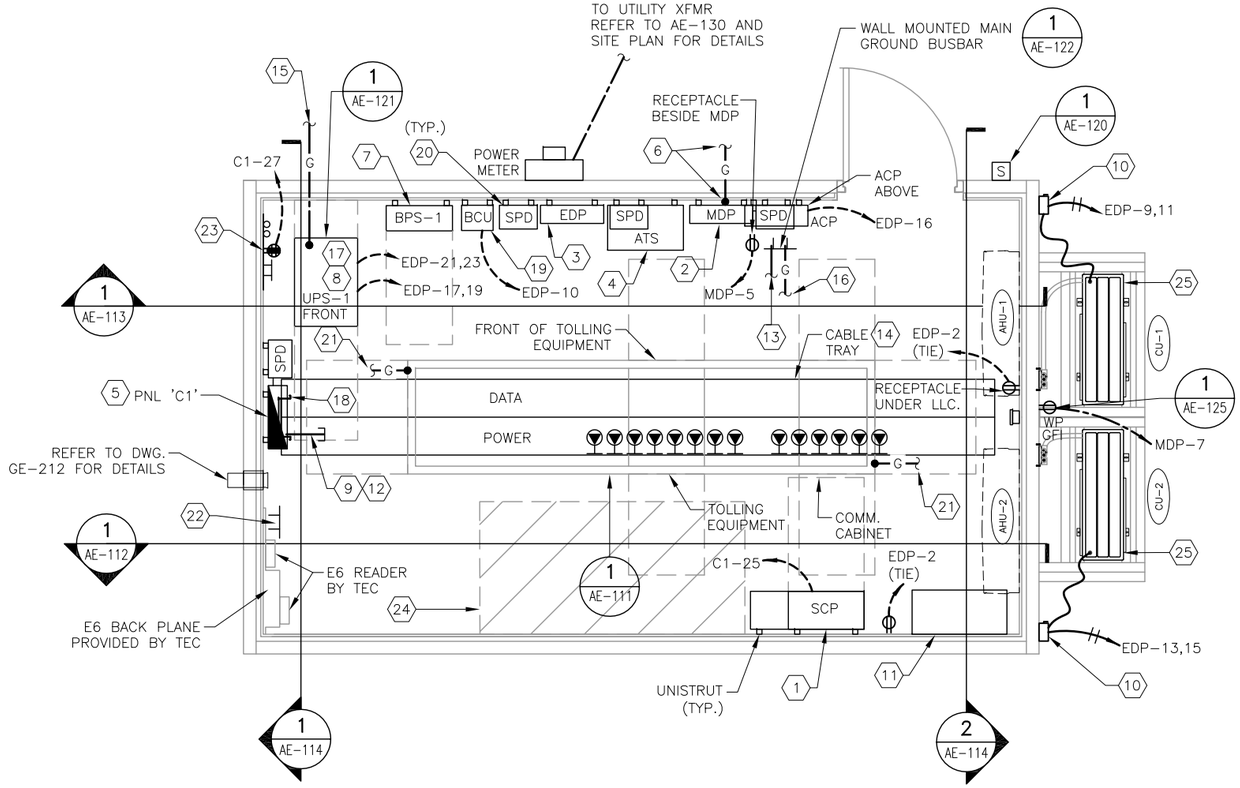
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - TOLLING SYSTEM PLAN AT RAMP E**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-105**

SHEET NO. **30**



1 AE-106 RAMP F BUILDING – POWER PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO DWG. AE-125 FOR BUILDING RACEWAY INSTALLATION DETAILS.
2. REFER TO DWG. AE-121 AND AE-122 FOR GROUNDING REQUIREMENTS.
3. WALL MOUNTED EQUIPMENT SHALL BE MOUNTED ON UNISTRUT AND NOT DIRECTLY TO WALL. REFER TO TSP'S FOR DETAILS.

REFERENCE NOTES:

1. SCADA PANEL 'SCP' TO BE PROVIDED BY CONTRACTOR. REFER TO TSP SECTION 26 09 13.
2. MAIN DISTRIBUTION PANELBOARD 'MDP': REFER TO POWER RISER DIAGRAM FOR DETAILS.
3. ELECTRICAL DISTRIBUTION PANELBOARD 'EDP': REFER TO PANELBOARD SCHEDULE ON DWG. AE-131 FOR DETAILS.
4. AUTOMATIC TRANSFER SWITCH 'ATS': REFER TO POWER RISER DIAGRAM FOR DETAILS.
5. PANELBOARD (CRITICAL POWER): REFER TO PANELBOARD SCHEDULES ON DWG. AE-131 FOR DETAILS.
6. REFER TO AE-130 AND SITE PLANS FOR GROUNDING ELECTRODE SYSTEM REQUIREMENTS.
7. UPS BYPASS SWITCH: MOUNT BYPASS 4'-6" AFF WITH CONTROLS ON TOP OF THE ENCLOSURE, REFER TO POWER RISER DIAGRAM FOR DETAILS.
8. UPS: PROVIDE A MIN. OF 36" CLEAR SPACE IN FRONT AND 12" BEHIND UPS. REFER TO POWER RISER DIAGRAM FOR CIRCUITING REQUIREMENTS AND DETAILS.
9. PROVIDE A #4 AWG BARE CU GROUNDING CONDUCTOR FROM CRITICAL PANEL GROUND BUS TO THE CABLE TRAY. BOND CONDUCTOR TO CABLE TRAY WITH UL LISTED FITTING FOR AL TO CU BOND.
10. 240V, 30A, 2-POLE, NEMA 3R DISCONNECT FUSED AT 30A PER HVAC MANUFACTURER'S RECOMMENDATIONS.
11. WALL-MOUNTED STORAGE CABINET. MOUNT WITH TOP OF CABINET AT 6'-0" AFF. 30"H X 27"W X 14"D. REFER TO TSP SECTION 26 28 13.
12. ROUTE TC-ER TYPE CABLE (2 #12 AWG, 1 #12 GND) ALONG CABLE TRAYS AND EXTEND TO CABLE TRAY MOUNTED RECEPTACLES. PROVIDE CABLE GLAND SEAL FOR EACH TC-ER CABLE THAT PASS THROUGH TOP OF PANEL. CABLE GLAND SHALL BE COOPER CROUSE-HINDS CGB SERIES OR APPROVED EQUAL. MATCH CABLE GLAND NPT SIZE TO CABLE SIZE.
13. BOND #4, BARE STRANDED-COPPER CONDUCTOR TO MAIN GROUND BUSBAR & EXTEND IN 1" SCH. 80 PVC OVERHEAD TO CABLE TRAY AND TOLLING CABINETS. BOND CONDUCTOR TO CABLE TRAY & EXTEND CONDUCTOR THE FULL LENGTH OF THE CABLE TRAY. BOND CONDUCTOR WITH UL LISTED FITTING FOR AL TO CU BOND EACH SECTION.
14. 24" WIDE x 6" DEEP CABLE TRAY WITH DIVIDER. REFER TO AE-111 AND TSP'S FOR REQUIREMENT.
15. #4 CONTINUOUS, BARE STRANDED-COPPER GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD AND CONCRETE-ENCASED ELECTRODE. REFER TO DWG. AE-121 AND AE-130 FOR DETAILS.
16. BOND #2/0 BARE, STRANDED-COPPER GROUNDING CONDUCTOR TO MAIN GROUND BUS BAR & EXTEND TO CONCRETE-ENCASED ELECTRODE.
17. ROUTE LIQUID TIGHT FLEXIBLE METAL CONDUIT FROM UPS TO BPS.
18. WALL-MOUNTED 12"(WIDE) X 5" MAX RAIL HEIGHT (4" NEMA VE1 LOADING DEPTH) ALUMINUM LADDER TYPE POWER CABLE TRAY (FROM TOP OF PANEL TO THE HEIGHT OF HORIZONTAL CABLE TRAY). PROVIDE AND INSTALL REDI-RAIL MODEL NO. H15AR100K006-06 OR APPROVED EQUAL. PROVIDE A CONTINUOUS #4 GROUND WIRE IN CABLE TRAY. PROVIDE A UL LISTED BONDING JUMPER COOPER B-LINE MODEL NO. 99-30 OR APPROVED EQUAL.
19. BATTERY CHARGER UNIT FOR THE GENERATOR BATTERY.
20. SURGE PROTECTION DEVICE (SPD). FIELD ADJUST THE LOCATIONS OF THE SPD SUCH THAT THE MAXIMUM SPD BRAIDED/TWISTED LEADS DO NOT EXCEED 24 INCHES AND HAVE NO SHARP TURNS. MAINTAIN LEADS AS SHORT & STRAIGHT AS POSSIBLE FROM CB TO SPD.
21. BOND THE RAISED METAL SUPPORT FRAME TO THE CONCRETE-ENCASED ELECTRODE (OR REBAR IN FOOTER) BY #4, BARE, STRANDED-COPPER CONDUCTOR AT EACH END OF THE SUPPORT STAND. BOND CONDUCTOR WITH UL LISTED FITTING FOR AL TO CU BOND (IF ALUMINUM FRAME).
22. WALL MOUNTED GROUND BUSBAR. BOND TO THE CONCRETE-ENCASED ELECTRODE BY #4, BARE, STRANDED-COPPER CONDUCTOR. REFER TO INTERIOR ELEVATION 1 ON DRAWING AE-114 AND AE-121 FOR FURTHER INFORMATION.
23. PROVIDE A QUAD RECEPTACLE (ORANGE NYLON FACE, 125V, 20A) IN SURFACE MOUNTED DOUBLE GANG BACK BOX 48" AFF DEDICATED FOR COMMUNICATION SERVICE EQUIPMENT.
24. DEDICATED SPACE (7'-0" X 3'-6") FOR FUTURE FIRE SUPPRESSION SYSTEM BY OWNER.
25. THE WIRING BETWEEN THE AHU AND CU WILL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

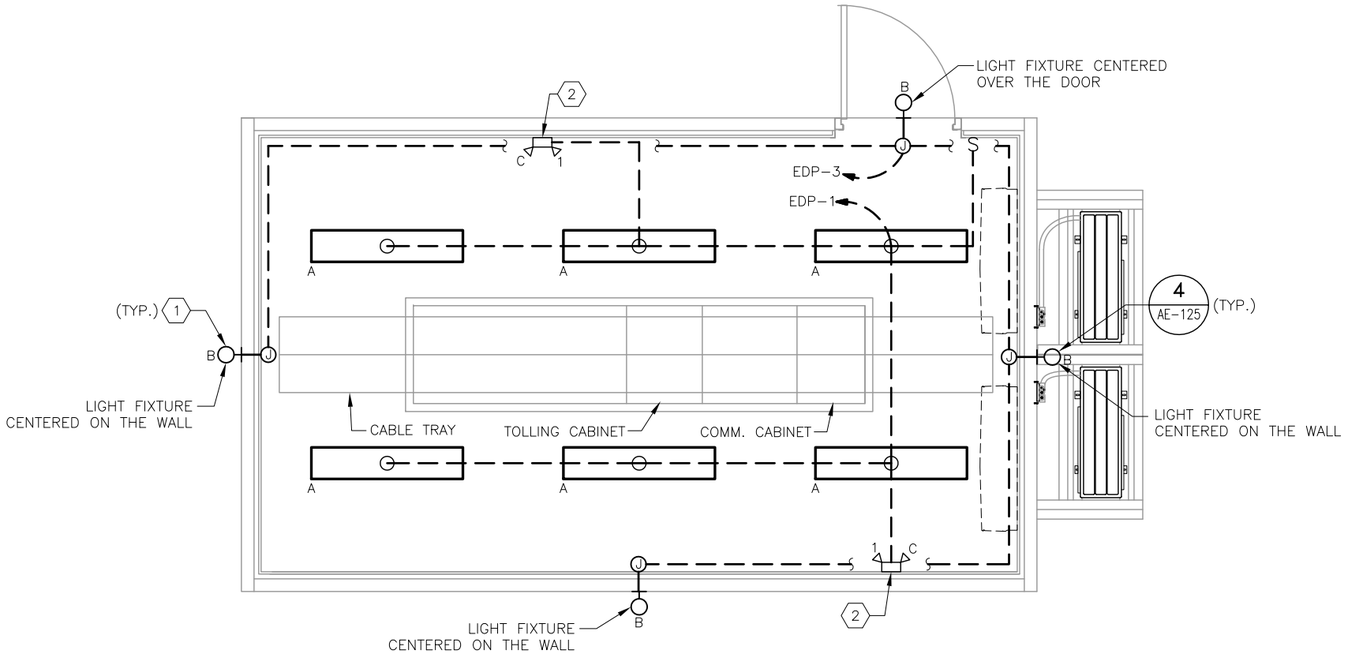
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: BUILDING - POWER PLAN AT RAMP F

PROJECT NAME: SR 429 WEKIVA PARKWAY SECTION 7A

DRAWING NO. AE-106

SHEET NO. 31



1 AE-107 RAMP F BUILDING – LIGHTING PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO DWG. AE-125 FOR BUILDING RACEWAY INSTALLATION DETAILS.
2. LIGHT FIXTURE INSTALLATIONS/MOUNTING MUST BE COORDINATED WITH BLDG. MANUFACTURER.

REFERENCE NOTES:

(1) BUILDING MOUNTED LIGHT FIXTURE TYPE 'B' SHALL HAVE AN INTEGRAL PHOTOCELL.

(2) CONNECT EMERGENCY LIGHTS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ALL SWITCHING DEVICES.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	VOLT	LAMPS	MOUNTING	REMARKS
A	1' X 4' FLUORESCENT WRAPAROUND	LITHONIA #LB232A-120-GEB10IS-GLR OR APPROVED EQUAL	120	2-F32-T8CW	PENDANT- BOTTOM 8'-0" AFF SWIVEL STEM	
B	DIECAST ALUMINUM WALL MTD LED FIXTURE, DARK BRONZE FINISH, PHOTOCELL	KENALL #MR13EL-PP-DB-10L35K-1-120-BPC-SA-FS OR APPROVED EQUAL	120	10W LED 3500K W/UNIT	WALL SURFACE MTD. ℄ 9'-0" AFF	FOR WET LOCATION SEE ARCHITECTURAL ELEVATIONS
C	BATTERY PACK EMERGENCY LIGHT	LITHONIA ELM6LED-LP03VS OR APPROVED EQUAL	120	LED W/UNIT	WALL SURFACE MOUNTED	

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - LIGHTING PLAN AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-107**

SHEET NO. **32**

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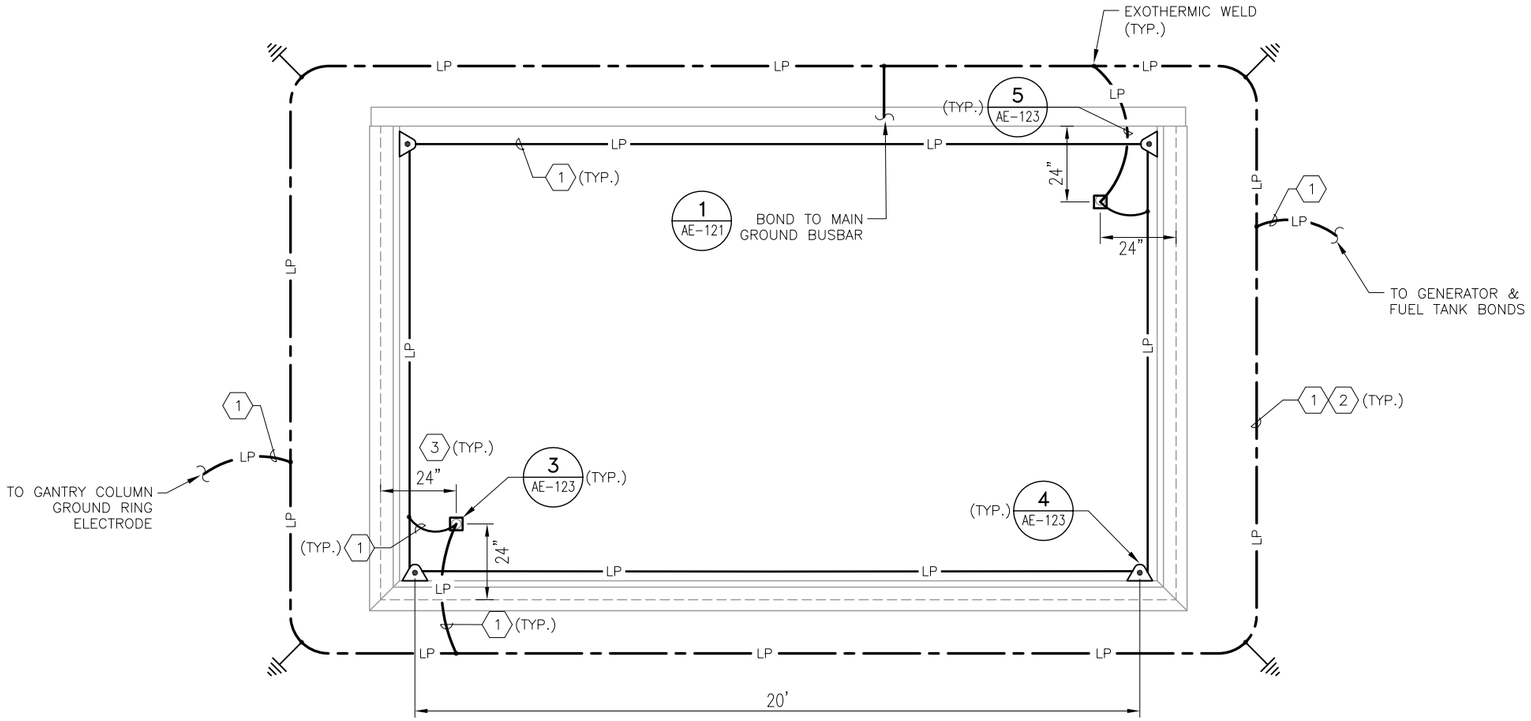

1 AE-108 RAMP F BUILDING – LIGHTNING PROTECTION PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NFPA 780 CLASS I MATERIAL REQUIREMENTS.
2. REFER TO SITE PLANS FOR ADDITIONAL REQUIREMENTS.

REFERENCE NOTES:

1. REFER TO TSP SECTION 26 41 13 FOR CONDUCTOR SIZES.
2. GROUND RING ELECTRODE SHALL BE INSTALLED 36" (MIN.) BELOW GRADE.
3. 24" FROM EXTERIOR OF WALL TO CENTERLINE OF THROUGH-ROOF CONDUCTOR.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - LIGHTNING PROTECTION PLAN AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-108**

SHEET NO. **33**

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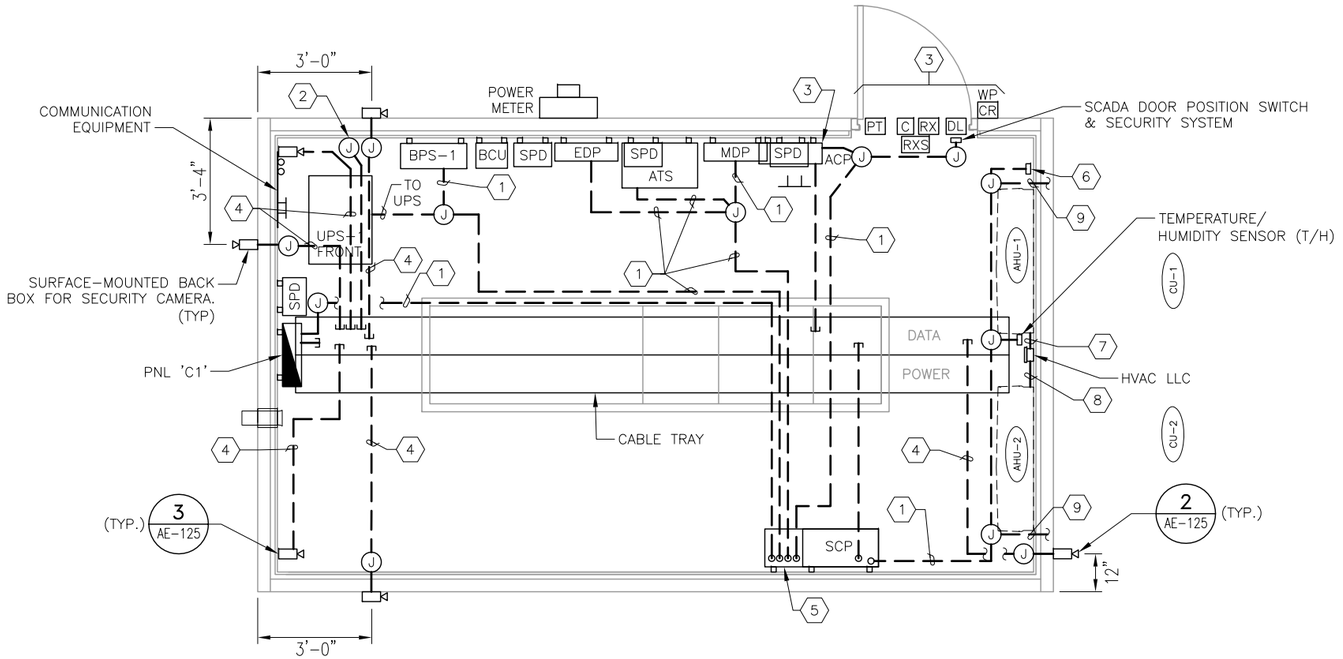


1 AE-109 RAMP F BUILDING – SCADA AND SECURITY SYSTEM PLAN
SCALE: 1/4"= 1'-0"

GENERAL NOTES:

1. REFER TO DWG. AE–125 FOR BUILDING RACEWAY INSTALLATION DETAILS.
2. REFER TO DWG. AE–133 FOR SCADA SYSTEM BLOCK DIAGRAM AND DETAILS.
3. REFER TO DWG. AE–121 AND AE–122 FOR GROUNDING REQUIREMENTS.
4. CONDUIT STUBBED OVER CABLE TRAY SHALL BE PROVIDED WITH AN INSULATED THROAT GROUNDING BUSHING AND BONDED TO THE CABLE TRAY WITH A #4 BARE COPPER CONDUCTOR.
5. WALL–MOUNTED EQUIPMENT SHALL BE SECURED TO WALL VIA UNISTRUT SUPPORTS. SEE TSP'S FOR DETAILS.
6. REFER TO SITE PLANS FOR ADDITIONAL SCADA & SECURITY CONDUIT ROUTING.

REFERENCE NOTES:

1. CONDUIT FOR SCADA CONNECTIONS. REFER TO AE–133 AND BUILDING INTERIOR ELEVATION FOR CONDUIT & CONDUCTOR SIZES.
2. SINGLE GANG BACK BOX & 1"C. ROUTED TO DATA SIDE OF CABLE TRAY FOR UPS NETWORK CONNECTIONS. LOCATE BACK BOX NOT MORE THAN 12" FROM UPS NETWORK TERMINATIONS.
3. SECURITY ACCESS EQUIPMENT. REFER TO AE–010 & AE–124 FOR SYMBOLS AND DETAILS. REFER TO TSP'S FOR ADDITIONAL REQUIREMENTS.
4. 1"C (DATA) FOR CCTV CAMERA. CONDUIT TO BE ROUTED FROM J–BOX TO CABLE TRAY. COORDINATE EXACT LOCATION WITH DEPARTMENT.
5. 12"X12"X36", NEMA 1 PAINTED STEEL WIRING TROUGH. PROVIDE (2) 3" NIPPLES BETWEEN TOP OF WIRING TROUGH AND BOTTOM OF SCADA CONTROL PNL (SCP).
6. MOISTURE DETECTOR. REFER TO DWG. AE–133 FOR DETAILS.
7. (2) #12, 1 #12G, 1"C. (AHU–1/AHU–2 INTERCONNECT)
8. (4) #12, 1 #12G, 1"C. (HVAC LLC WIRING AND AHU–1/AHU–2 INTERCONNECT)
9. SCADA CONDUIT TO CONDENSING UNIT DISCONNECT SWITCH.

NORTH

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

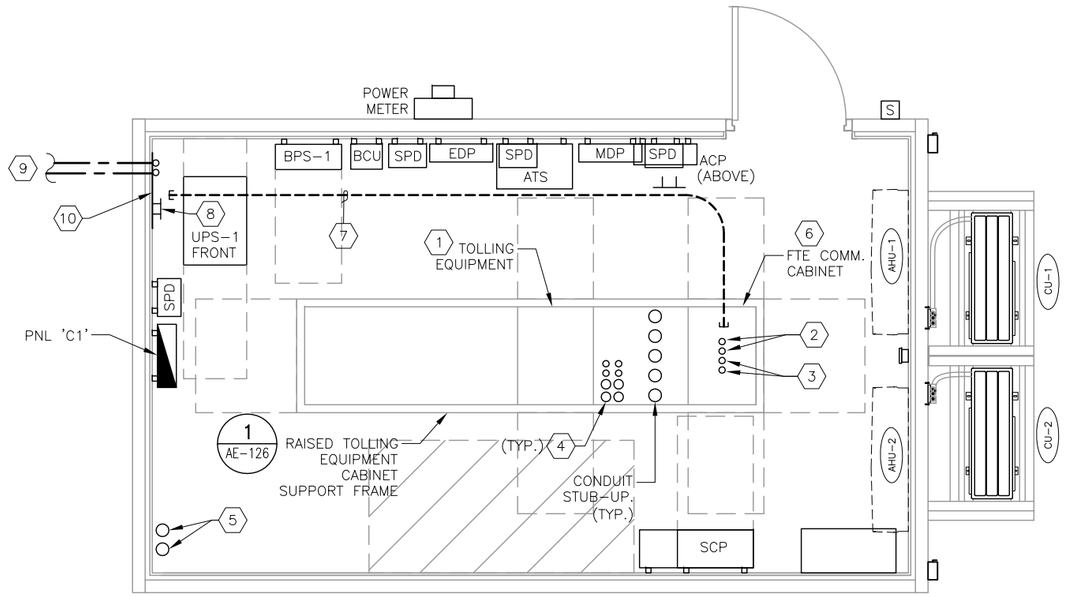
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - SCADA AND SECURITY SYSTEM PLAN AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-109**

SHEET NO. **34**



1 AE-110 RAMP F BUILDING – TOLLING SYSTEM PLAN

SCALE: 1/4"= 1'–0"

GENERAL NOTES:

1. REFER TO SITE PLANS FOR CONDUIT ROUTING OUTSIDE THE BUILDING.
2. REFER TO DWG. AE–126 FOR CONDUIT STUB–UP DETAIL INDICATING CONDUIT SIZE, LOCATION AND QUANTITIES.
3. REFER TO TSP'S FOR COMMUNICATION SERVICE CONNECTION REQUIREMENTS.
4. TOLLING EQUIPMENT CABINETS WILL BE PROVIDED AND INSTALLED BY THE DEPARTMENT'S TOLL EQUIPMENT CONTRACTOR AFTER THE ENTIRE SITE IS COMPLETE.

REFERENCE NOTES:

1. TOLLING EQUIPMENT CABINETS SHALL BE FURNISHED AND INSTALLED BY THE DEPARTMENT'S TOLL EQUIPMENT CONTRACTOR.
2. INSTALL (2) 2" PVC CONDUITS STUBBED UP UNDER THE TOLLING COMMUNICATIONS CABINET AND EXTENDED TO THE ITS PULL BOX SHOWN ON THE ENLARGED SITE PLAN. THE 90 DEGREE ELBOWS SHALL HAVE A 24" MINIMUM BENDING RADIUS. COORDINATE REQUIREMENTS WITH ITS PLANS PRIOR TO ROUGH IN.
3. INSTALL (2) 2" PVC CONDUITS STUBBED UP UNDER THE TOLLING COMMUNICATIONS CABINET FOR GANTRY MOUNTED CCTV CAMERAS. REFER TO SITE PLAN FOR CONDUIT ROUTING.
4. REFER TO AE–126 AND SITE PLAN FOR CONDUIT ROUTINGS.
5. (2) 4" CONDUIT STUB–UP FOR E6 READER. REFER TO SITE PLAN FOR CONDUIT ROUTING.
6. FTE COMMUNICATIONS CABINET. REFER TO TSP SECTION 27 11 16 FOR REQUIREMENTS.
7. 1" C, CAT6 CABLE WITH RJ45 CONNECTORS WITH 6'–0" OF SLACK CABLE ON EACH END. STUB CONDUIT 2" BELOW TOP OF COMMUNICATIONS BACKBOARD. ROUTE CABLE FROM TELCO EQUIPMENT TO NETWORK SWITCH IN THE COMMUNICATIONS CABINET.
8. PROVIDE A 7–POSITION COPPER GROUND BAR WITHOUT PLATING APPROVED BY TELEPHONE COMPANY. BOND TO THE CONCRETE–ENCASED ELECTRODE BY #4, BARE, STRANDED–COPPER CONDUCTOR.
9. PROVIDE (2) 2"C. ROUTED FROM COMMUNICATIONS BACKBOARD TO TELCO PULL BOX. SEE SITE PLAN FOR DETAILS. CONDUIT BEND RADIUS SHALL NOT BE LESS THAN 24". COORDINATE REQUIREMENTS WITH TELEPHONE COMPANY PRIOR TO ROUGH IN.
10. PAINT A 2'X4' AREA ON PLYWOOD WALLS WITH FIRE–RETARDANT PAINT. VERIFY REQUIREMENTS WITH TELECOMMUNICATION COMPANY.

NORTH

GRAPHIC SCALE

SCALE: 1/4"= 1'–0"

0 2' 4'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15–23.004, F.A.C.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - TOLLING SYSTEM PLAN AT RAMP F**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-110**

SHEET NO. **35**

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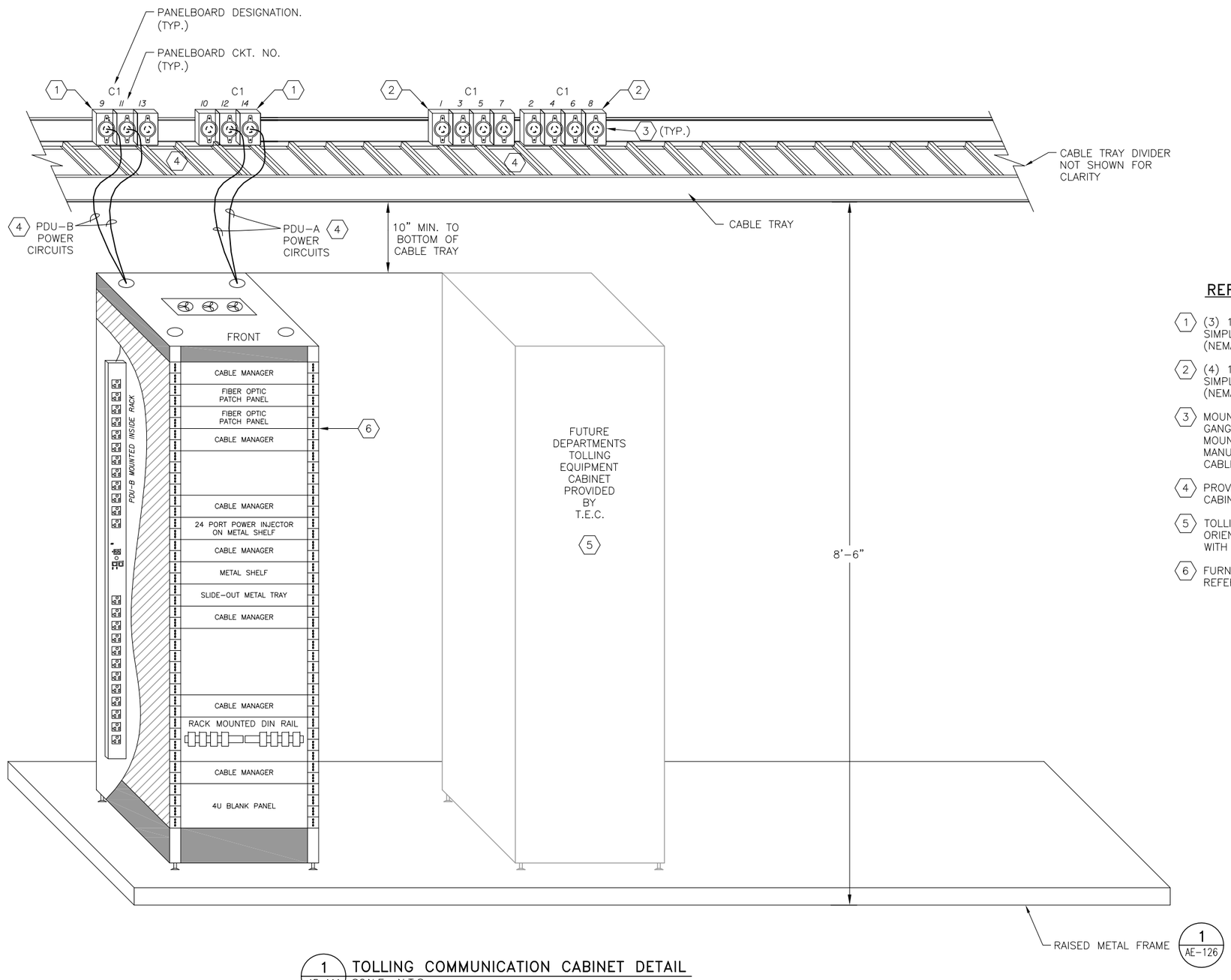

1 / AE–111 TOLLING COMMUNICATION CABINET DETAIL
SCALE: N.T.S.

REFERENCE NOTES:

1. (3) 120VAC 20A DEDICATED CIRCUITS FROM PANEL C1. SIMPLEX RECEPTACLES, COLOR TO BE ORANGE, TWIST LOCK (NEMA L5–20R)
2. (4) 120VAC 20A DEDICATED CIRCUITS FROM PANEL C1. SIMPLEX RECEPTACLES, COLOR TO BE ORANGE, TWIST LOCK (NEMA L5–20R)
3. MOUNT RECEPTACLES TO TOP OF CABLE TRAY IN SINGLE GANG BACK BOX. SECURE BACK BOX TO CABLE TRAY WITH MOUNTING BRACKET MANUFACTURED BY CABLE TRAY MANUFACTURER. PROVIDE STRAIN RELIEF CORD GRIPS FOR CABLES ENTERING BACK BOX KELLEMS OR EQUAL.
4. PROVIDE DROP–OUT FITTINGS WITH 4" RADIUS ABOVE EACH CABINET WHERE CABLES LEAVE CABLE TRAY.
5. TOLLING CABINET ORIENTATION IN BLDG. MAY DIFFER FROM ORIENTATION SHOWN ON THIS DWG. COORDINATE ORIENTATION WITH BLDG AND SITE PLANS.
6. FURNISH AND INSTALL FTE TOLLING COMMUNICATIONS CABINET. REFER TO TSP SECTION 27 11 16 FOR REQUIREMENTS.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

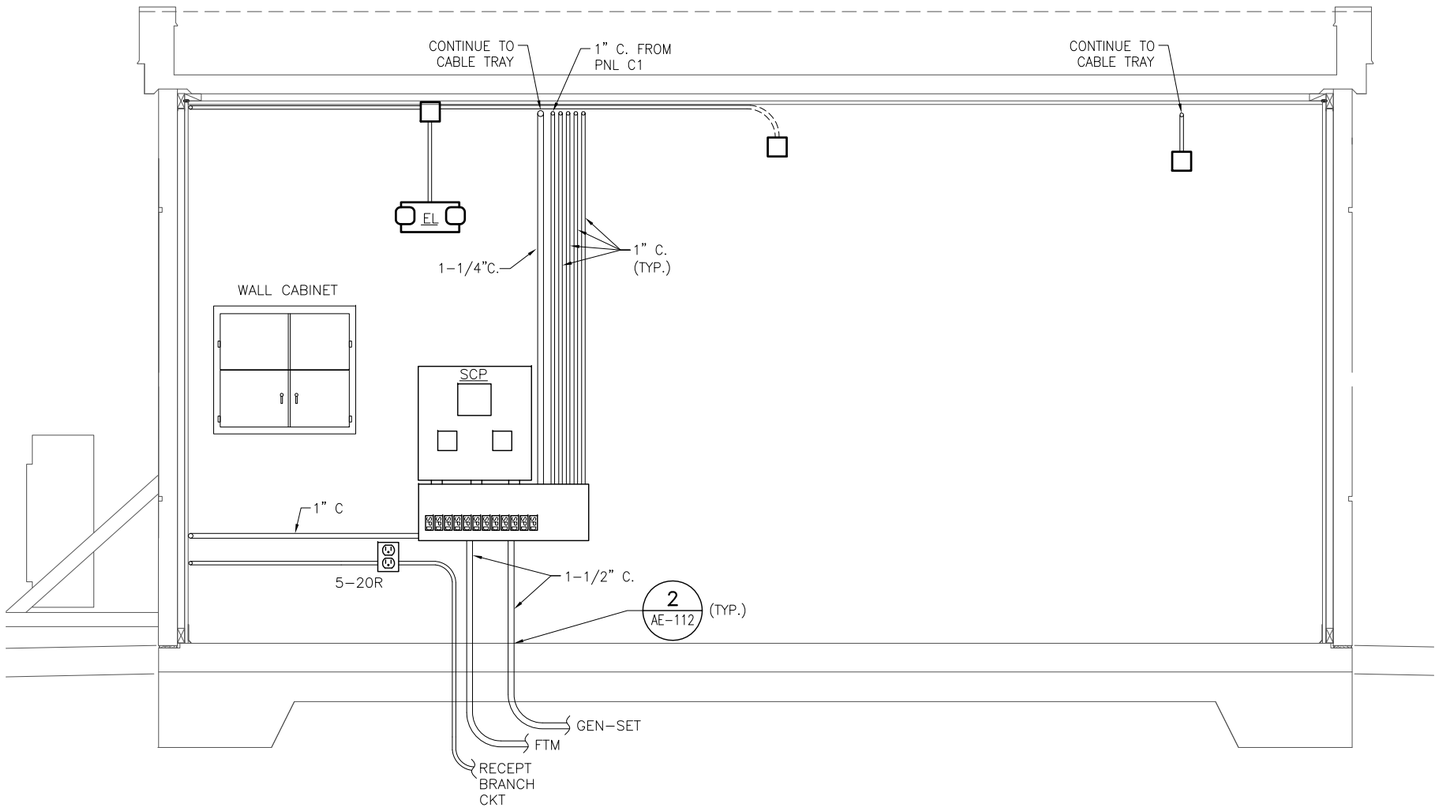
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING TOLLING COMMUNICATION CABINET DETAIL**

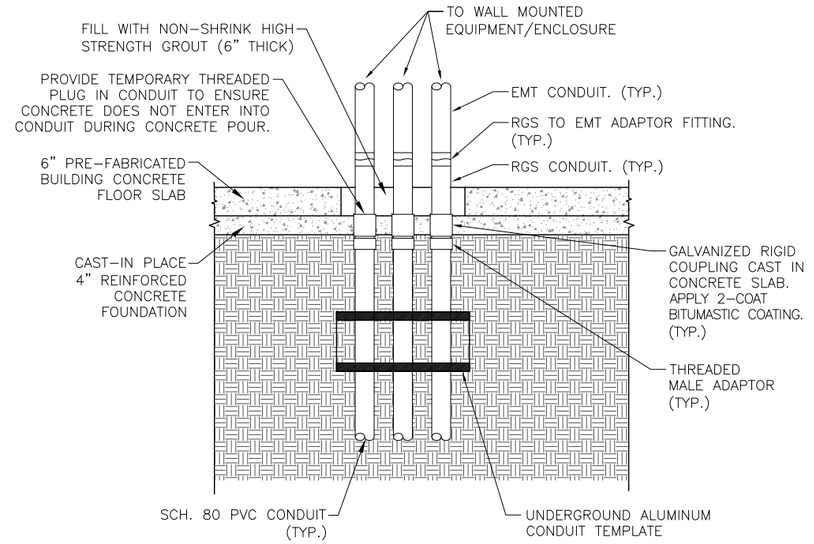
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-111**

SHEET NO. **36**



1 AE-112 INTERIOR ELEVATION
3/8"= 1'-0"



2 AE-112 BUILDING SLAB CONDUIT PENETRATION DETAIL
SCALE: N.T.S

NOTE:
THIS DETAIL APPLES TO WALL MOUNTED EQUIPMENT ONLY. CONDUIT STUBBED-UP UNDER TOLLING CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS SPECIFIED ON DWG. AE-A506. THE FINAL POSITIONING OF ALL CONDUIT STUB-UPS IN THE BUILDING FLOOR SLAB AND WALL PENETRATION POINTS, SHALL BE FIELD VERIFIED AND APPROVED BY THE DEPARTMENT PRIOR TO THE BUILDING FLOOR SLAB BEING POURED.

GRAPHIC SCALE
SCALE: 3/8"= 1'-0"
0 1.5' 3'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

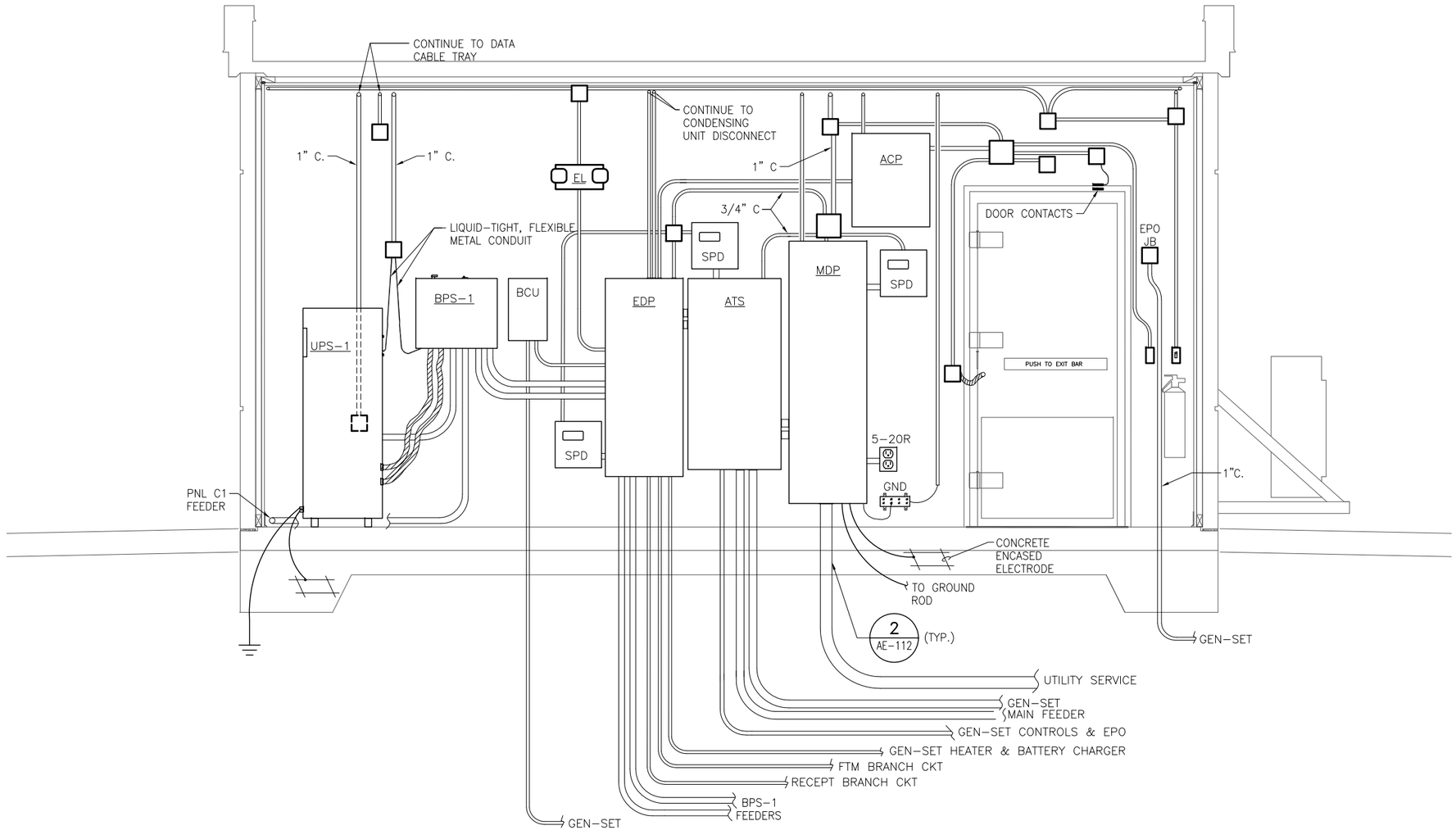
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING INTERIOR ELEVATION (1 OF 3)**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-112**

SHEET NO. **37**



1 AE-113 INTERIOR ELEVATION
SCALE: 3/8"= 1'-0"

GRAPHIC SCALE
SCALE: 3/8"= 1'-0"
0 1.5' 3'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING INTERIOR ELEVATION (2 OF 3)**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-113**

SHEET NO. **38**

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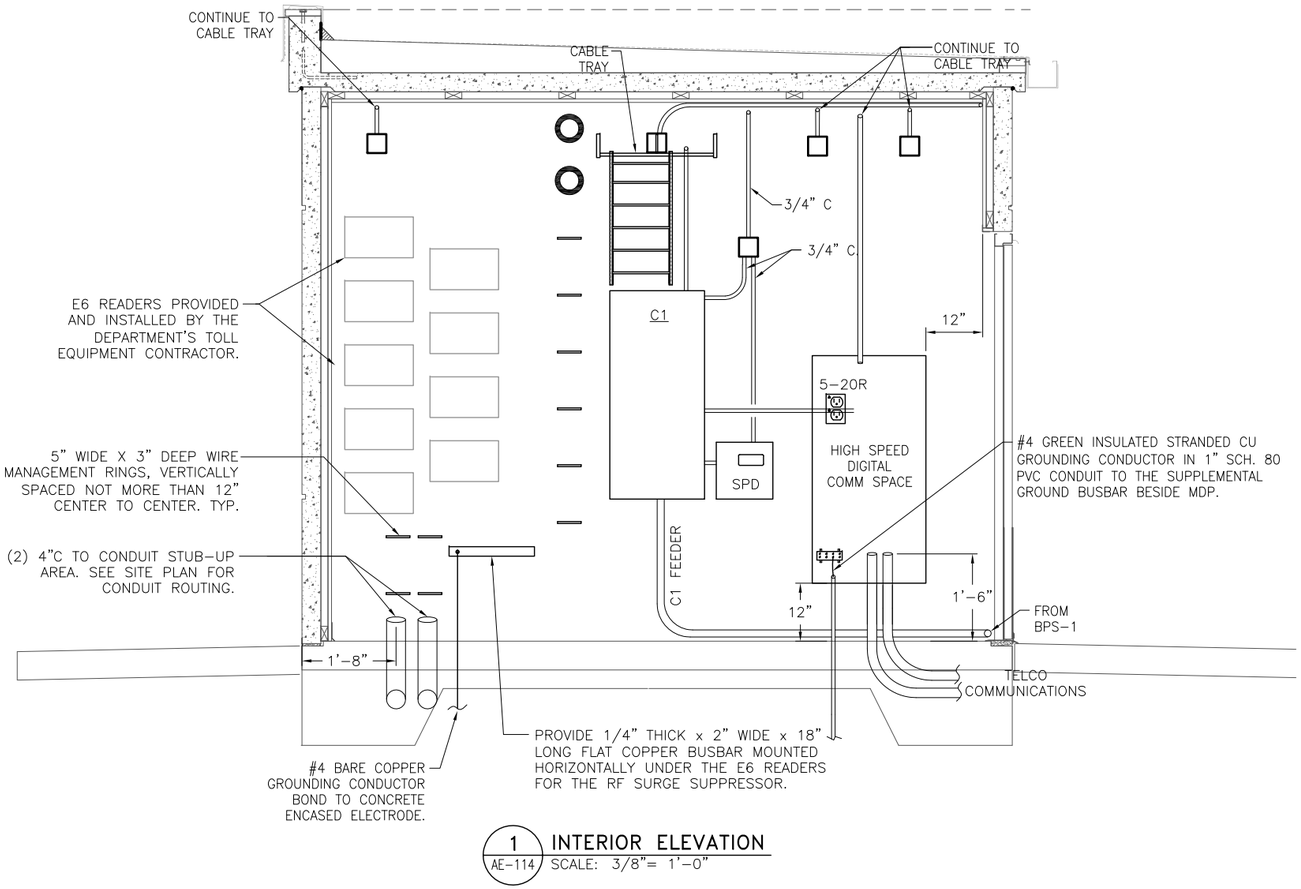
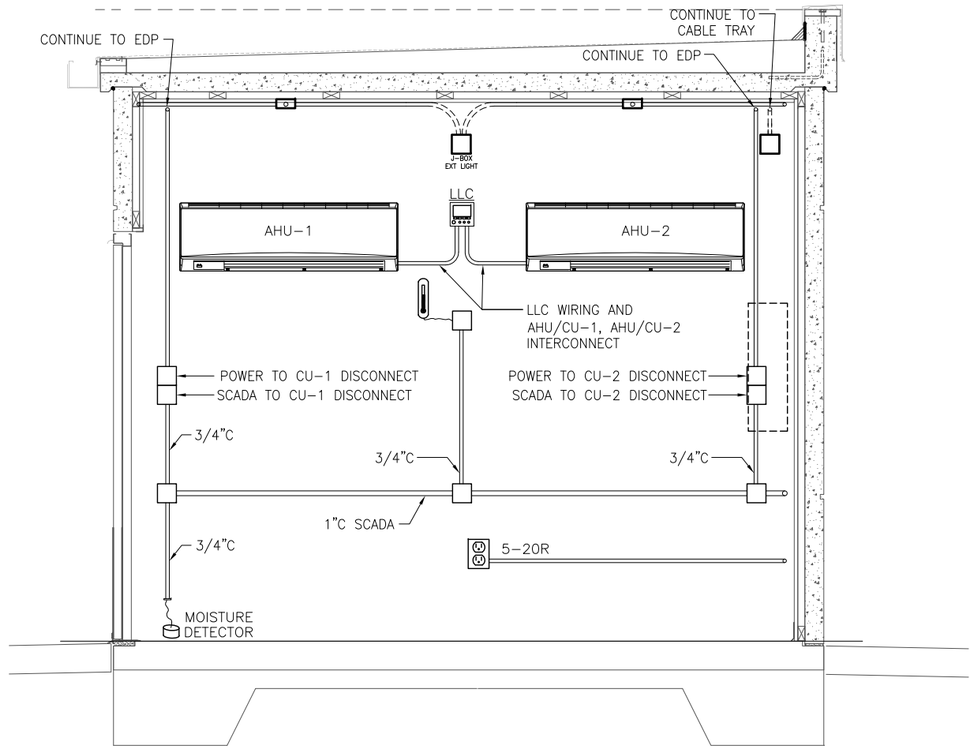


1 AE-114 INTERIOR ELEVATION
SCALE: 3/8"= 1'-0"



2 AE-114 INTERIOR ELEVATION
SCALE: 3/8"= 1'-0"

GRAPHIC SCALE
SCALE: 3/8"= 1'-0"
0 1.5' 3'

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Tampa, FL 33607-1462
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING INTERIOR ELEVATION (3 OF 3)**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-114**

SHEET NO. **39**

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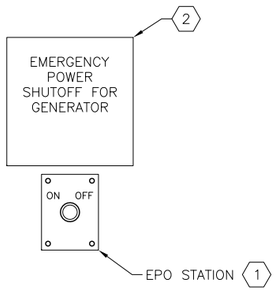


SIGN SPEC:

- PROVIDE ALUMINUM SHEET OF ALLOY AND TEMPER RECOMMENDED BY THE SIGN MANUFACTURER FOR THE TYPE OF USE AND FINISH INDICATED, AND WITH THE STRENGTH AND DURABILITY PROPERTIES NO LESS THAN SPECIFIED IN ASTM B-209 FOR 5005-H15.
- USE FASTENERS FABRICATED FROM METALS THAT ARE NOT CORROSIVE TO THE SIGN MATERIAL AND MOUNTING SURFACE.
- PROVIDE SIGN COPY THAT COMPLIES WITH THE REQUIREMENTS INDICATED FOR SIZE, STYLE, SPACING, CONTENT, POSITION, MATERIAL, FINISHES AND COLOR OF LETTERS, NUMBERS, AND OTHER GRAPHIC DEVICES.
- PROVIDE BAKED-ENAMEL FINISH: AA-M4XC12C42R1x (MECHANICAL FINISH: MANUFACTURER'S STANDARD, OTHER NONDIRECTIONAL TEXTURED; CHEMICAL FINISH: CHEMICAL CONVERSION COATING, ACID CHROMATE-FLUORIDE-PHOSPHATE PRETREATMENT; ORGANIC COATING: AS SPECIFIED BELOW). APPLY BAKED ENAMEL IN COMPLIANCE WITH PAINT MANUFACTURER'S SPECIFICATIONS FOR CLEANING, CONVERSION COATING, AND PAINTING.

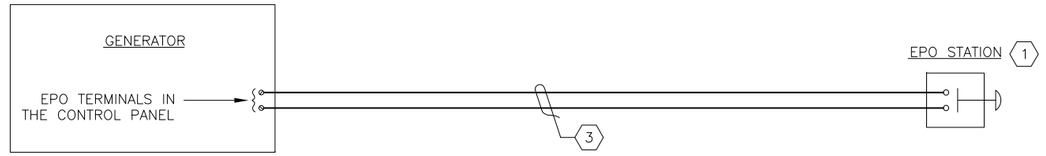
1 / AE-120 EMERGENCY POWER SHUTOFF SWITCH DETAIL
SCALE: N.T.S.

REFERENCE NOTES:

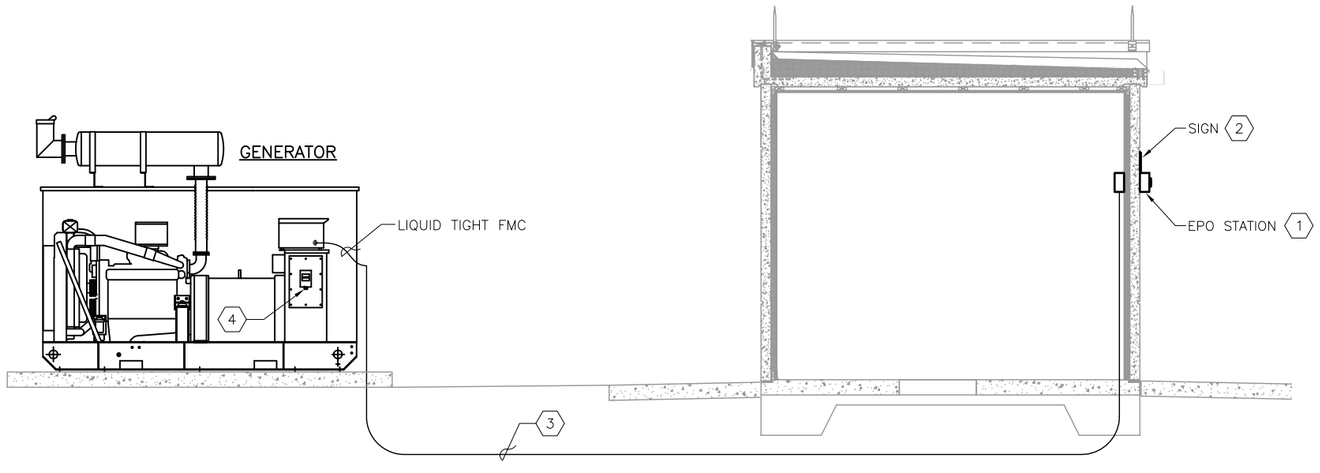
1. EPO STATION MOUNTED 6 FT ABOVE GRADE ON THE OUTSIDE WALL ADJACENT TO THE TOLL EQUIPMENT BUILDING DOOR, REFER TO FLOOR PLANS FOR PLAN LOCATION. 30mm NON-ILLUMINATED, TURN-TO-RELEASE, MUSHROOM PUSH BUTTON OPERATOR (COLOR RED), TRIGGER ACTION, WITH ONE NORMALLY OPEN CONTACT. CLASS 9001, CORROSION RESISTANT, UL TYPE 4 AND NEMA 4 RATED. INSTALLED WITH UL TYPE 4, NEMA 4 RATED, GUARDED ENCLOSURE (COLOR GRAY), TO PROTECT AGAINST INADVERTENT OPERATION OF MUSHROOM PUSH BUTTON. ENCLOSURE MATERIAL TO BE DIE CAST ZINC.

   MUSHROOM PUSH BUTTON (SQ-D CAT #SKR16H13), WITH ONE N.O. CONTACT (SQ-D CAT #KA1), GUARDED ENCLOSURE (SQ-D CAT #KYG1) OR APPROVED EQUAL.

   WHEN THE MUSHROOM PUSH BUTTON IS DEPRESSED, TO THE "OFF" POSITION, THE BACKUP GENERATOR WILL SHUT DOWN IF IT IS RUNNING. ENSURE THE BACKUP GENERATOR WILL NOT START UNTIL THE EPO SWITCH IS RETURNED TO THE "ON" POSITION, TURN-TO-RELEASE, AND THE SHUTDOWN ALARMS ARE CLEARED FROM THE OPERATOR CONTROL PANEL.
2. INSTALL A 10" X 10" ALUMINUM SIGN WITH RED FIELD AND 1/2" HIGH LETTERS DIRECTLY ABOVE THE EPO STATION.
3. (1) BELDEN #5140F1 CABLE WITH TINNED COPPER CONDUCTORS, OR APPROVED EQUAL.
4. EMERGENCY POWER OFF TERMINALS ON THE BACKUP GENERATOR.



2 / AE-120 EMERGENCY POWER SHUTOFF WIRING DIAGRAM
SCALE: N.T.S.



3 / AE-120 EMERGENCY POWER SHUTOFF RISER DIAGRAM
SCALE: N.T.S.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

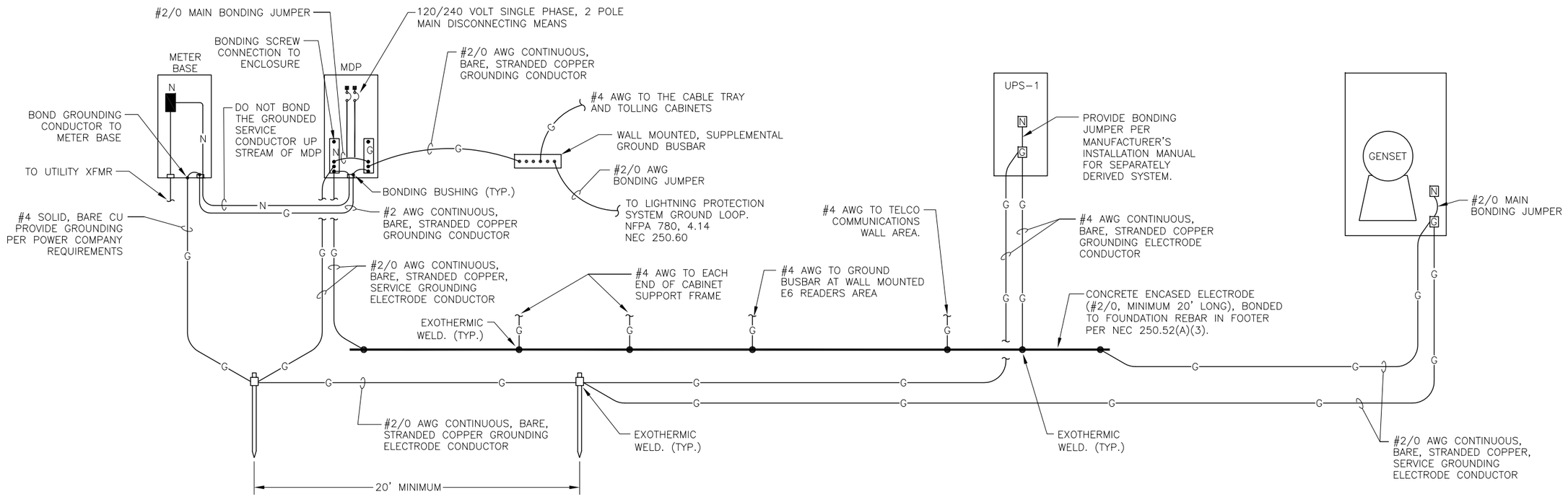
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - ELECTRICAL DETAILS**

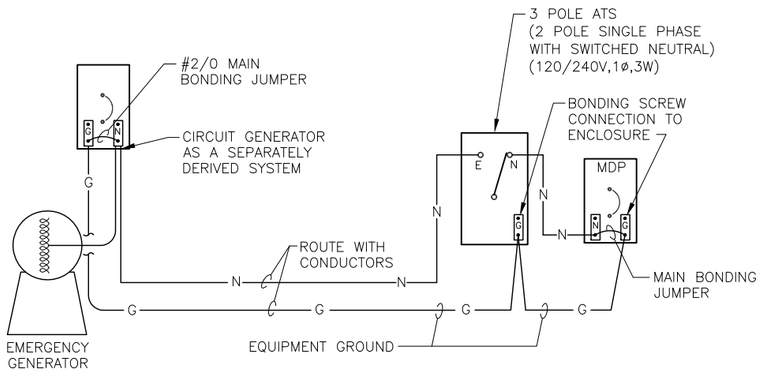
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-120**

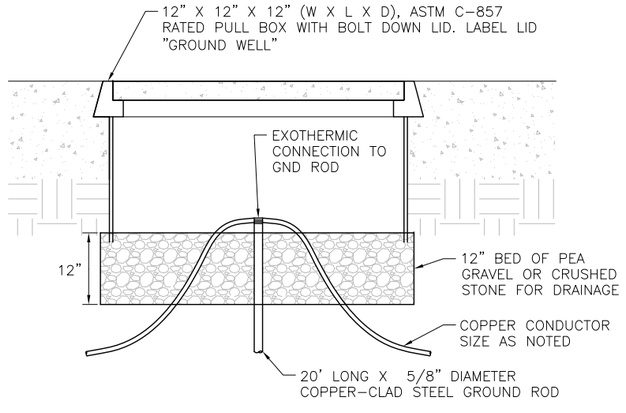
SHEET NO. **40**



1 AE-121 SERVICE ENTRANCE, UPS & GENERATOR GROUND REQUIREMENTS
SCALE: N.T.S.



2 AE-121 GENERATOR GROUND DETAIL
SCALE: N.T.S.



3 AE-121 GROUND INSPECTION WELL DETAIL
SCALE: N.T.S.

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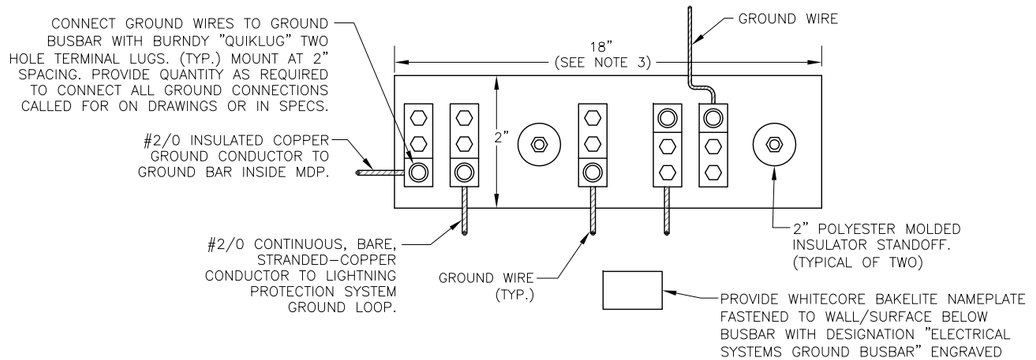
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - GROUNDING DETAILS (1 OF 2)**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-121**

SHEET NO. **41**



NOTES:

1. ALL HARDWARE BOLTS, NUTS, WASHERS, ETC. SHALL BE SOLID COPPER OR BRONZE.
2. COPPERPLATING IS NOT ACCEPTABLE. GROUND BUSBAR SHALL BE 1/4" THICK x 2" WIDE FLAT COPPER.
3. INCREASE LENGTH AS REQUIRED FOR NUMBER OF CONNECTIONS. PROVIDE 2" SPACING BETWEEN LUGS.

1 / AE-122 GROUND BUSBAR DETAIL
SCALE: N.T.S.

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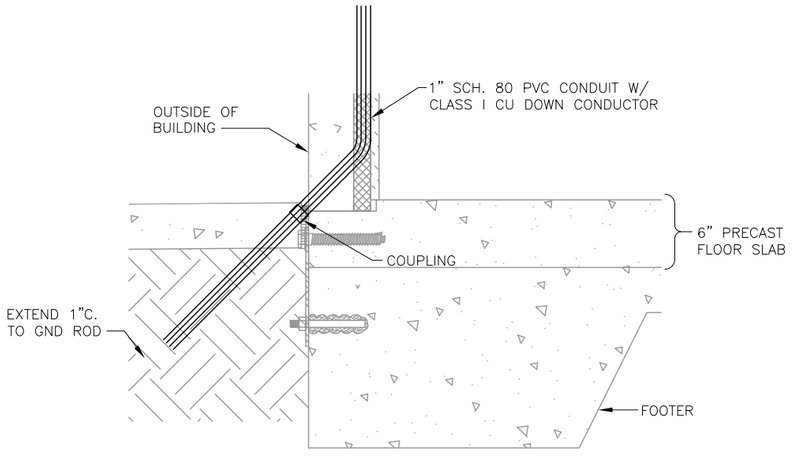
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - GROUNDING DETAILS (2 OF 2)**

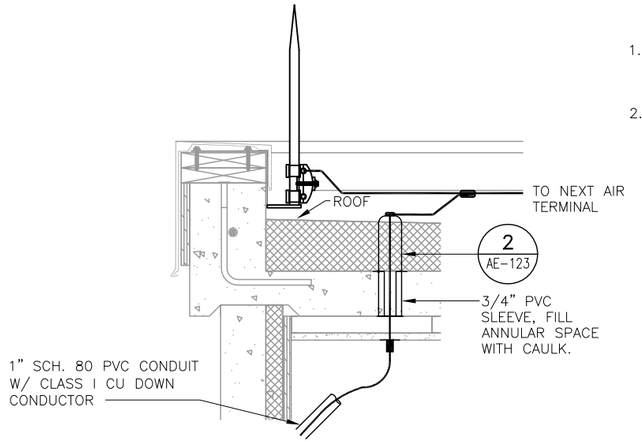
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-122**

SHEET NO. **42**



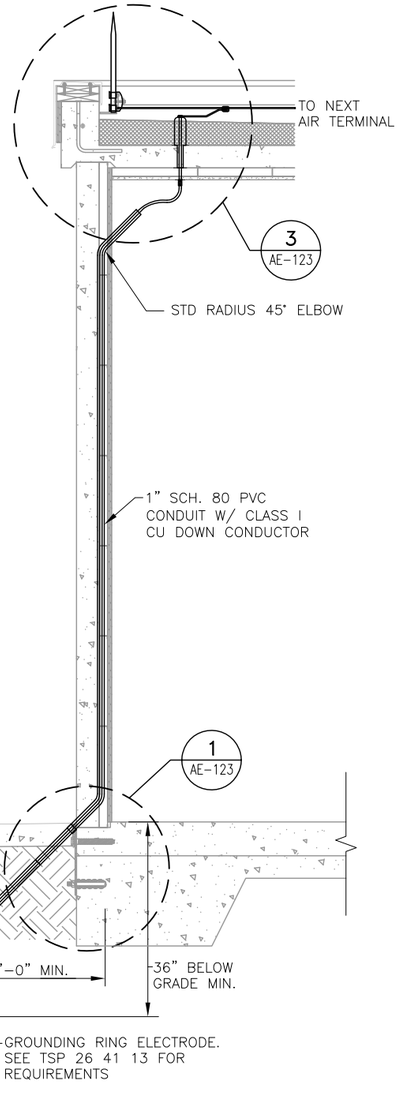
1 AE-123 DOWN CONDUCTOR CONDUIT ENLARGED WALL SECTION
SCALE: N.T.S.



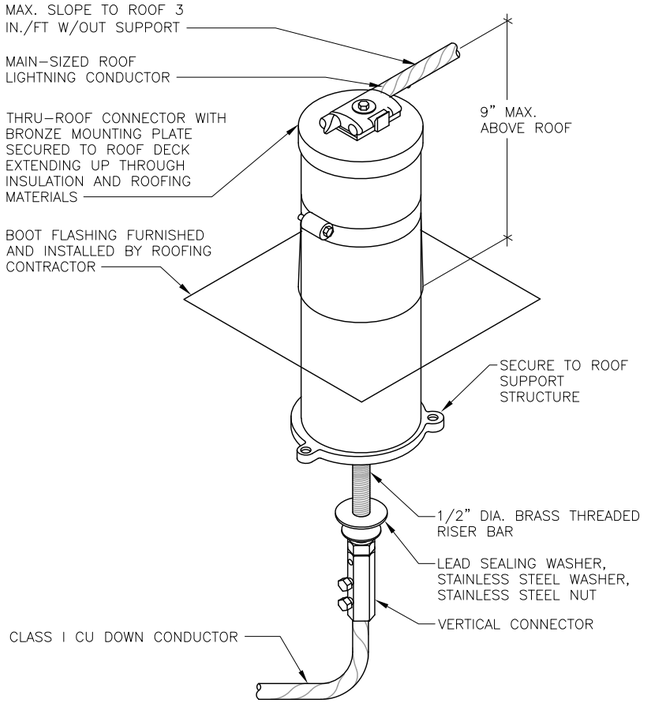
3 AE-123 DOWN CONDUCTOR THRU ROOF ENLARGED WALL SECTION
SCALE: N.T.S.

GENERAL NOTES:

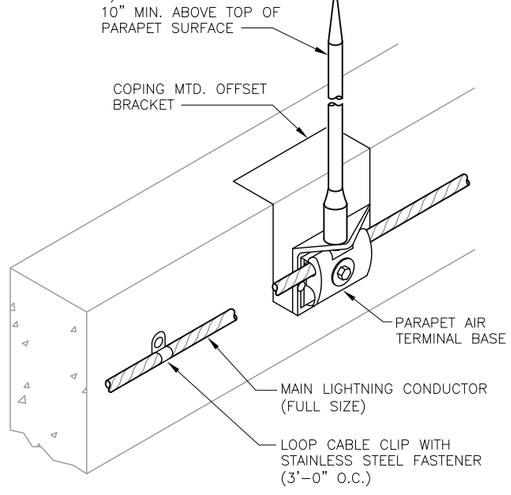
1. REFER TO SPECIFICATIONS FOR MATERIALS AND ADDITIONAL REQUIREMENTS.
2. OBTAIN MASTER LABEL FOR LIGHTNING PROTECTION SYSTEM.



5 AE-123 DOWN CONDUCTOR BUILDING WALL SECTION
SCALE: N.T.S.



2 AE-123 THRU ROOF CONNECTOR WITH FLASHING TUBE AND CABLE BASE
SCALE: N.T.S.



4 AE-123 PARAPET AIR TERMINAL DETAIL
SCALE: N.T.S.

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - LIGHTNING PROTECTION DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-123**

SHEET NO. **43**

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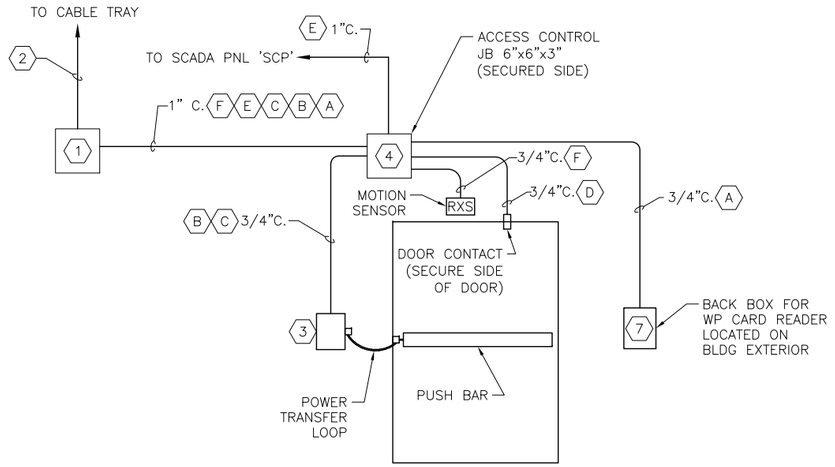
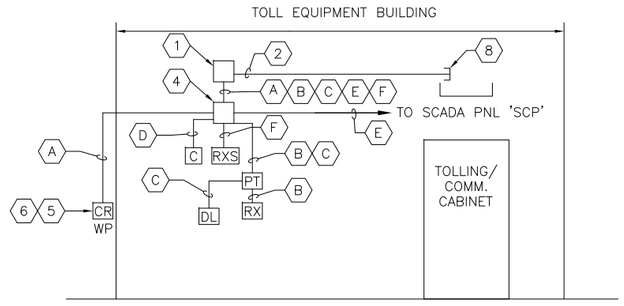


1 / AE-124 SECURITY/ACCESS CONTROL BUILDING DOOR DETAIL
SCALE: N.T.S.



2 / AE-124 SECURITY CARD ACCESS SYSTEM RISER DIAGRAM
SCALE: N.T.S.

GENERAL NOTES:

1. PROVIDE DOOR-MOUNTED SECURITY/ACCESS CONTROL DEVICE, OUTLET BOXES, WIRING, ELECTRIC LEVER TRIM, ENCLOSURES & ALL REQUIRED CABLING, REFER TO TSP 28 05 14 & 08 71 00.
2. SEE AE-104, AE-109 & AE-125 FOR DETAILS.
3. SEE AE-010 FOR SECURITY CARD ACCESS SYSTEM SYMBOL LEGEND.

REFERENCE NOTES:

1. ACCESS CONTROL PANEL ENCLOSURE 20"Wx24"H, HINGED DOOR AND BACK PANEL.
2. 1"C.
3. 4" SQUARE, SURFACE MOUNTED BOX WITH BLANK PLATE.
4. 6" X 6" X 3" METAL JUNCTION BOX. MOUNT ON SECURE SIDE ABOVE DOOR.
5. BACK BOXES FOR CARD READERS SHALL BE MOUNTED 48" AFF.
6. BACK BOXES FOR CARD ACCESS DEVICES SHALL BE FLUSH MOUNTED.
7. SINGLE GANG BACK BOX FOR PROXIMITY CARD READER.
8. STUB CONDUIT OVER CABLE TRAY. PROVIDE INSULATED THROAT GROUNDING BUSHING ON END OF CONDUIT AND BOND CONDUIT TO CABLE TRAY WITH #6 AWG BARE COPPER GROUNDING CONDUCTOR.

SECURITY/ACCESS CONTROL WIRING NOTES:

NOTE: CONDUCTORS SHALL BE SHIELDED, STRANDED UON.

A	CARD READER:	18AWG-6 CONDUCTOR SHIELDED.
B	REQUEST TO EXIT:	18AWG-2 CONDUCTOR.
C	ELECTRIFIED LEVER TRIM:	18AWG-2 CONDUCTOR.
D	DOOR CONTACT:	18AWG-4 CONDUCTOR. (PROVIDED WITH DOOR CONTACT)
E	DOOR CONTACT:	18AWG-2 CONDUCTOR.
F	REQUEST TO EXIT INFRARED SENSOR:	18AWG-2 CONDUCTOR.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
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Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

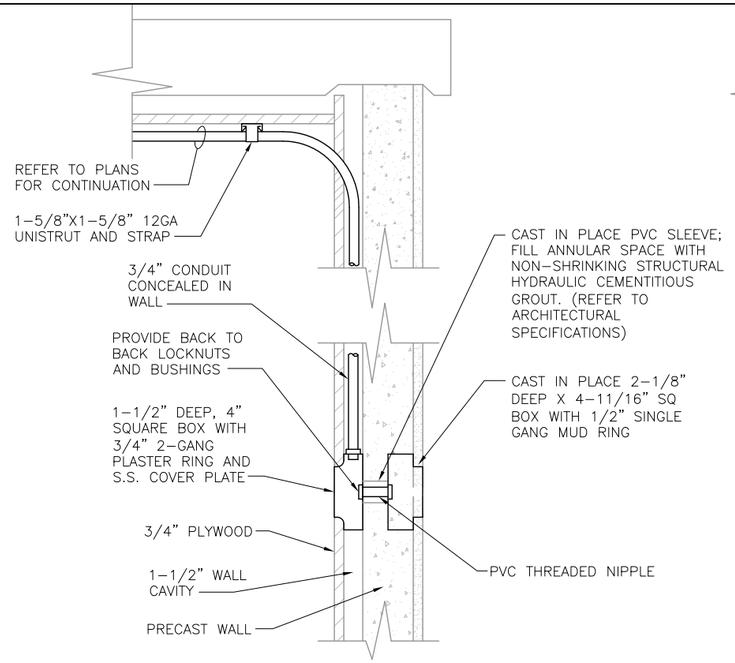
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - SECURITY AND ACCESS CONTROL SYSTEM DETAILS**

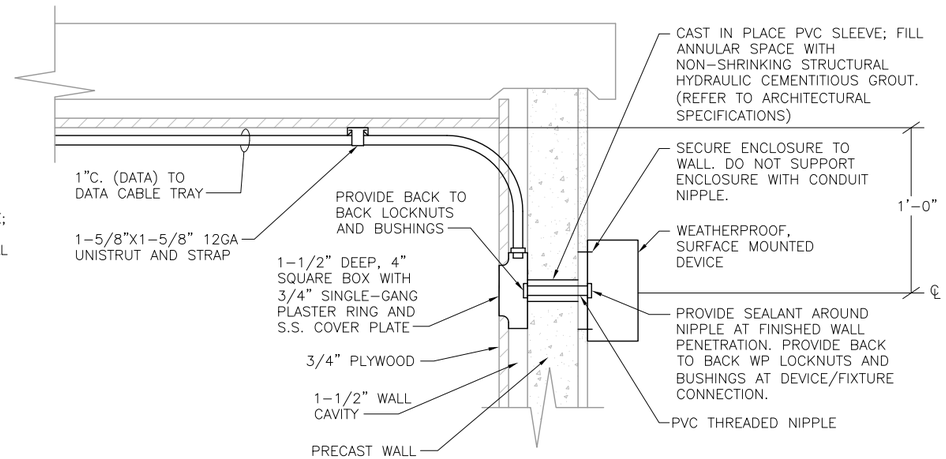
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-124**

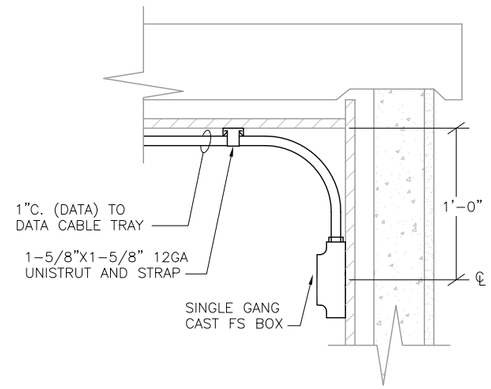
SHEET NO. **44**



1 AE–125 FLUSH MOUNTED EXTERIOR DEVICE
SCALE: N.T.S.



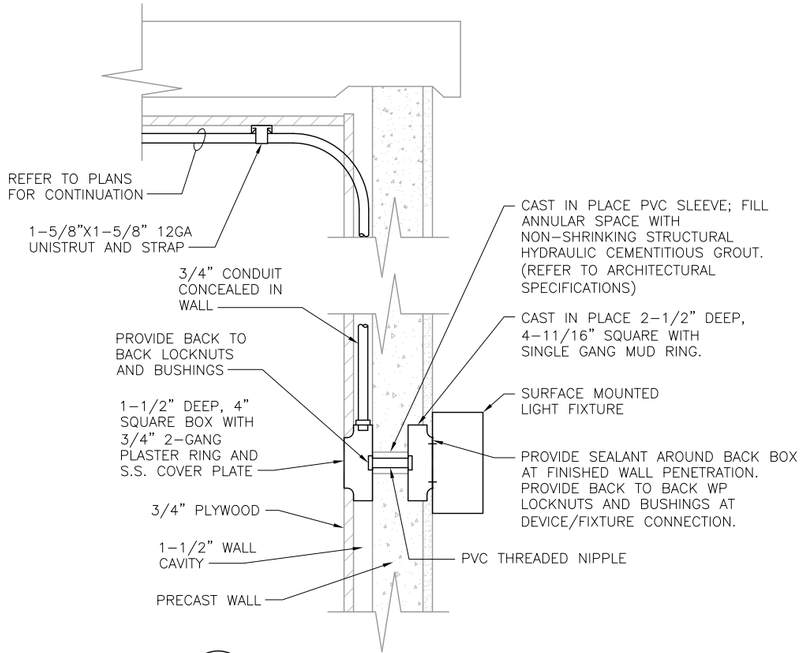
2 AE–125 SURFACE MOUNTED EXTERIOR CCTV OUTLET
SCALE: N.T.S.



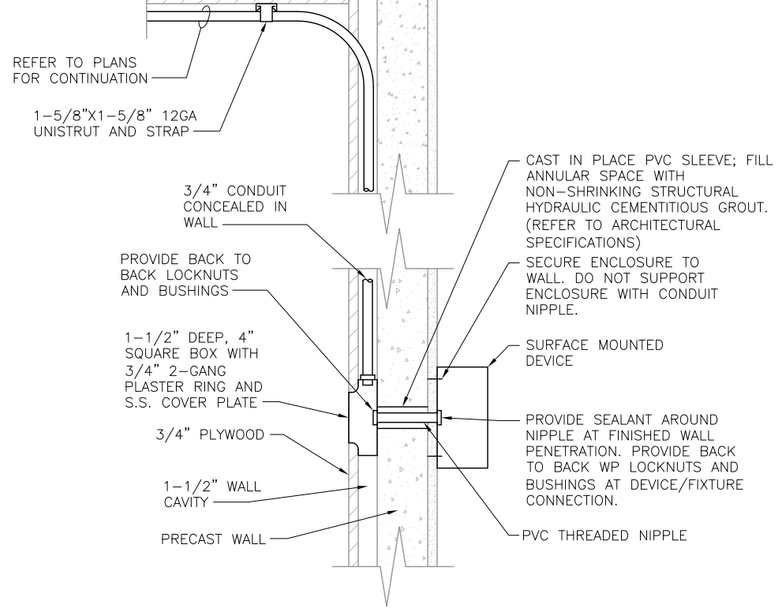
3 AE–125 INTERIOR CCTV OUTLET BOX
SCALE: N.T.S.

GENERAL NOTES:

1. THE CONTRACTOR TO MAKE NECESSARY PROVISIONS FOR PROVIDING CONDUIT OPENINGS AND AVOID DISTURBANCE OF BUILDING REINFORCING MATERIAL.



4 AE–125 SURFACE MOUNTED LIGHT FIXTURE
SCALE: N.T.S.



5 AE–125 SURFACE MOUNTED EXTERIOR DEVICE
SCALE: N.T.S.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15–23.004, F.A.C.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

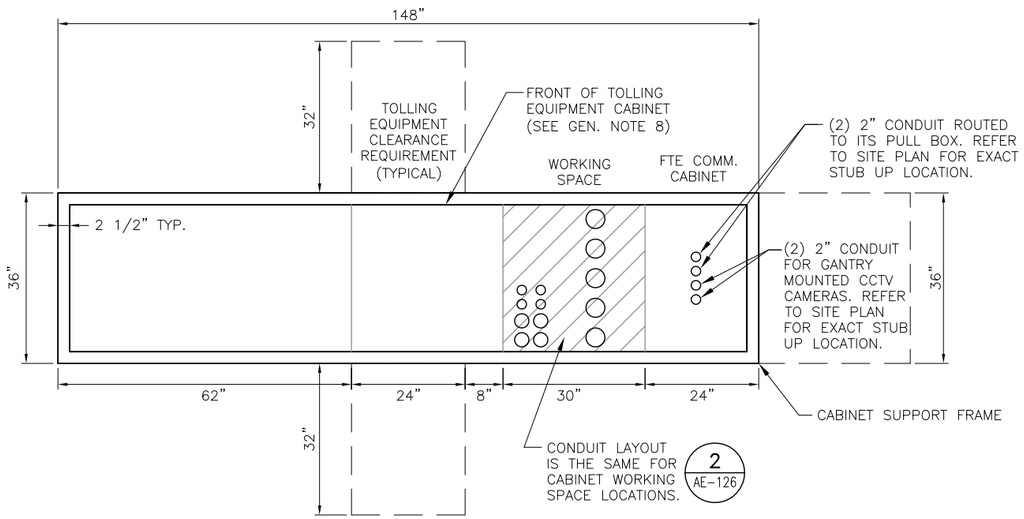
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - RACEWAY INSTALLATION DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-125**

SHEET NO. **45**



1 AE-126 **TOLLING CABINETS–CONDUIT STUB–UP LAYOUT**
SCALE: N.T.S.

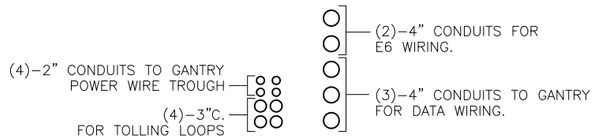
CABINET SUPPORT FRAME NOTES:

ALL CABINETS (TOLLING EQUIPMENT AND TOLLING COMMUNICATIONS) THAT ARE TO BE INSTALLED IN TOLL EQUIPMENT BUILDINGS SHALL BE INSTALLED ON AN ALUMINUM CABINET SUPPORT FRAME FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CABINET FRAME SUPPORT SHALL BE AS FOLLOWS:

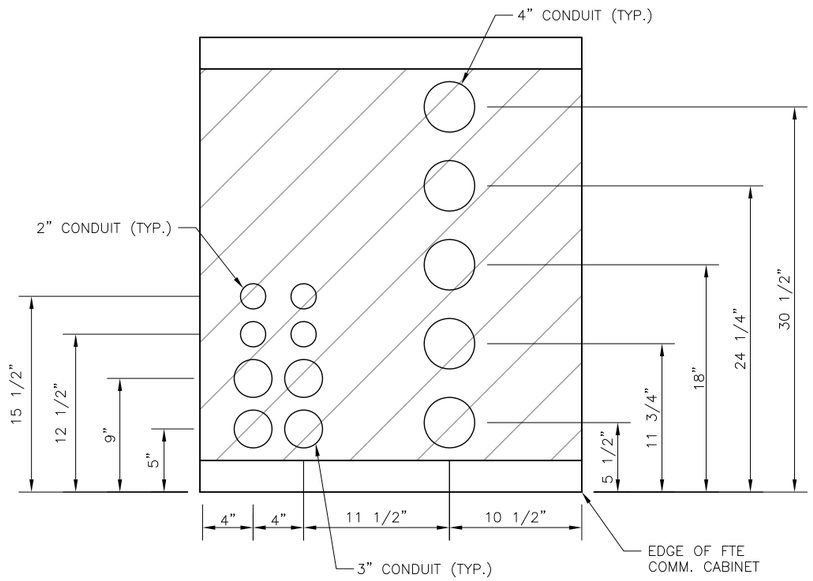
1. SIZE 148" L X 36" W X 8" H.
2. THE FRAME AREA WHERE THE CABINETS SIT SHALL BE 2.5" WIDE AT A MINIMUM OR AS REQUIRED TO ALLOW FOR ALL CABINETS TO BE PROPERLY PLACED OVER THE FRAME. GROUND BOTH ENDS OF FRAME TO CONCRETE ENCASED ELECTRODE. PROVIDE TWO HOLES IN VERTICAL RAIL AT EACH END FOR GROUNDING LUG ATTACHMENT.
3. IT SHALL HAVE TWO CROSS RIBS MADE OF THE SAME MATERIAL. THE CROSS RIBS SHALL BE 4" WIDE. ONE CROSS RIB SHALL BE LOCATED AT 62" FROM ONE END OF THE CABINET SUPPORT FRAME AND THE OTHER CROSS RIB SHALL BE LOCATED 54" FROM THE OPPOSITE END OF THE CABINET SUPPORT FRAME.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE ALUMINUM CABINET SUPPORT FRAME, INCLUDING PLATE THICKNESS, ALUMINUM GRADE, ETC AS REQUIRED TO SUPPORT A LOAD OF UP TO 600 POUNDS PER CABINET. THE CONTRACTOR DESIGN SHALL ALSO ALLOW FOR THE PLACEMENT OF NEW TOLLING EQUIPMENT AND TOLLING COMMUNICATIONS CABINETS WITHIN THE FRAME PER THE CABINET MANUFACTURER'S RECOMMENDATIONS.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE ALUMINUM CABINET SUPPORT FRAME CAN SUPPORT THE TOLLING EQUIPMENT AND TOLLING COMMUNICATIONS CABINET LOADS. PROVIDE 1/2" DIAMETER MOUNTING HOLES AT FOUR PLACES ON BOTTOM RAIL AND BOLT THE FRAME TO THE FLOOR WITH 1/4" X 2" CADMIUM PLATED CONCRETE SCREWS. BOLT THE CABINETS/RACKS TO THE FRAME WITH MANUFACTURER'S STANDARD CLIP ANCHORS.
6. AFTER THE TEC HAS FULLY COMPLETED THEIR ACTIVITIES AT EACH TOLLING POINT, THE CONTRACTOR SHALL FURNISH AND INSTALL ALUMINUM DIAMOND GRATING PLATES TO COVER THE EMPTY SPACES OF THE CABINET SUPPORT FRAMES NOT COVERED BY ALL CABINETS OR SUPPORT FRAMES (TOLLING EQUIPMENT AND COMMUNICATIONS) IN EACH TOLL EQUIPMENT BUILDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE ALUMINUM DIAMOND GRATING PLATES, INCLUDING PLATE THICKNESS, ALUMINUM GRADE, ETC. AS REQUIRED TO SUPPORT A SINGLE POINT LOAD OF UP TO 350 POUNDS PER PLATE. THE DESIGN SHALL TAKE INTO ACCOUNT THAT NO PERMANENT DEFORMATIONS OCCUR TO THE PLATE AFTER THE 350–POUND SINGLE POINT LOAD IS APPLIED. THE PLATES SHALL BE SCREWED IN (COUNTER SUNK FASTENERS FLUSH WITH TOP OF PLATING) TO THE CABINET SUPPORT FRAMES AND PROPERLY DESIGNED TO SUPPORT ALL APPLICABLE LOADS. THE DIAMOND GRATING PLATES SHALL BE REMOVABLE TO ALLOW ACCESS TO TOLLING EQUIPMENT, COMMUNICATIONS, ETC. CABLING.

GENERAL NOTES:

1. CONDUIT BELOW CABINETS SHALL BE STUBBED–UP 1" AFF.
2. PROVIDE INSULATED THROAT GROUNDING BUSHINGS ON METALLIC CONDUITS STUBBED UP UNDER TOLLING CABINET SUPPORT FRAME.
3. PROVIDE END BELL FITTINGS ON ALL PVC (LOOP) CONDUITS STUBBED UP UNDER THE TOLLING CABINET SUPPORT FRAME.
4. COORDINATE STUB–UP LOCATIONS AND CABINET ORIENTATION WITH ELECTRICAL PLANS AND ITS CONTRACTOR.
5. RAISED METAL FRAME TO SUPPORT THE TOLLING EQUIPMENT AND TOLLING COMMUNICATIONS CABINET WILL BE FURNISHED AND INSTALLED BY THE TOLLING FACILITY CONTRACTOR. CABINET SUPPORT FRAME DETAILS ARE SHOWN FOR CONDUIT STUB–UP COORDINATION ONLY.
6. COMMUNICATIONS CABINET WILL BE FURNISHED AND INSTALLED BY THE TOLLING FACILITY CONTRACTOR. SEE THE ITS PLANS FOR FURTHER INFORMATION.
7. TOLLING EQUIPMENT CABINETS WILL BE FURNISHED AND INSTALLED BY THE DEPARTMENT'S TOLL EQUIPMENT CONTRACTOR AFTER THE ENTIRE SITE IS COMPLETE.
8. TOLLING CABINET ORIENTATION IN BUILDING MAY DIFFER FROM ORIENTATION SHOWN ON THIS DWG. COORDINATE ORIENTATION WITH BUILDING AND SITE PLANS.
9. BUILDING WILL BE FABRICATED OFF SITE. CONDUIT STUB–UP LOCATIONS MUST BE COORDINATED WITH BUILDING FABRICATOR.



CONDUIT SCHEDULE



2 AE–126 **WORKING SPACE CONDUIT STUB–UP LAYOUT**
SCALE: N.T.S.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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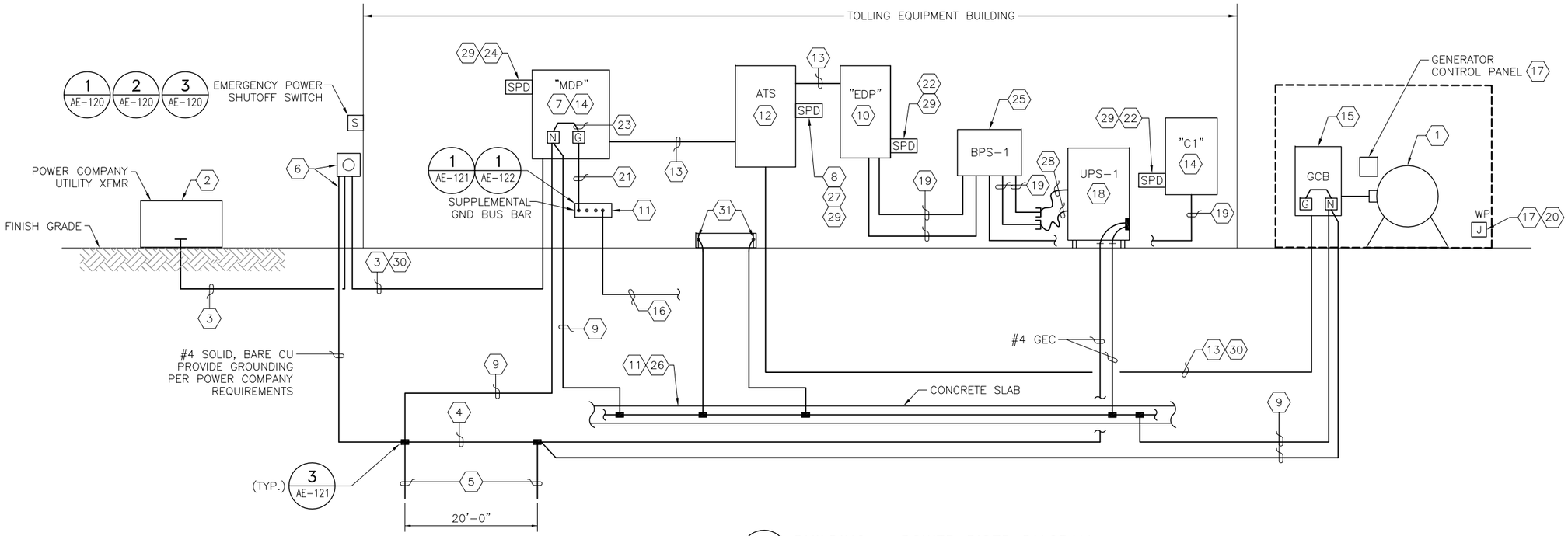
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - CONDUIT STUB-UP DETAILS**
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-126**
SHEET NO. **46**



1 AE-130 BUILDING – POWER RISER DIAGRAM N.T.S.

AVAILABLE FAULT CURRENT AT EQUIPMENT (KA)	
	BUILDING
PANEL 'MDP'	10.7
ATS (NORM)	10.7
ATS (EMERGENCY)	10.7
PANEL 'EDP'	10.2
PANEL C1	7.3
UPS–1	9.5
BYPASS SWITCH BPS–1	9.5

REFERENCE NOTES:

1. PROVIDE 60KW STANDBY GENERATOR SET, 120/240V, 1ø, 3W WITH WEATHERPROOF ENCLOSURE. PROVIDE MODBUS RTU MODULE. GENERATOR SHALL BE CLASSIFIED NFPA 110, LEVEL 2, TYPE 10.
2. PAD–MOUNTED UTILITY TRANSFORMER. 120/240V, 1ø, 3W, 60HZ SECONDARY. COORDINATE REQUIREMENTS WITH LOCAL POWER COMPANY. REFER TO SITE PLAN FOR ADDITIONAL DETAILS.
3. SERVICE LATERAL: 3–500KCMIL IN 3"CONDUIT, 36" MINIMUM BELOW GRADE. RISER SHALL BE RGS CONDUIT. REFER TO AE–121 FOR BONDING REQUIREMENTS.
4. #2/0 BARE, STRANDED–COPPER GROUNDING CONDUCTOR.
5. 20' LONG X 5/8" DIAMETER COPPER–CLAD STEEL GROUND ROD.
6. 400A, FEED–THRU WALL–MOUNTED METER SOCKET, PAINTED ALUMINUM, WITH LEVER BYPASS AND GROUNDING PER POWER CO. REQUIREMENTS, FURNISHED & INSTALLED BY CONTRACTOR. CONTRACTOR SHALL COORDINATE AND PROVIDE A UTILITY COMPANY APPROVED METER SOCKET.
7. PANELBOARD "MDP" – 400A, 2P MCB, 3W, 240V, N.O. AUXILIARY CONTACT WITH GROUND BUS, INSULATED NEUTRAL BUS, NEMA 1 ENCLOSURE. PROVIDE NAMEPLATE "MAIN #1 OF 2. MAIN #2 IS LOCATED INSIDE GENERATOR ENCLOSURE". PANELBOARD MUST BE LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
8. PROVIDE TYPE 1 MODULAR PRIMARY SERVICE (ENTRANCE) SPD WITH INTEGRAL DISCONNECTING MEANS. PROVIDE #6 AWG LEADS IN 3/4"C. NIPPLE. REFER TO NOTE 30 AND TSP 26 43 13 FOR DETAILS.
9. SERVICE GROUNDING ELECTRODE CONDUCTOR, #2/0 BARE, STRANDED–COPPER. 36" MINIMUM BELOW GRADE.
10. ELECTRICAL DISTRIBUTION PANELBOARD "EDP", 120/240V, SINGLE PHASE, 3W. REFER TO PANELBOARD SCHEDULE ON DWG. AE–131.
11. NOT ALL GROUNDING CONDUCTORS ARE SHOWN ON THIS DWG. REFER TO DETAIL 1 ON AE–121 FOR ADDITIONAL BONDING REQUIREMENTS.
12. AUTOMATIC TRANSFER SWITCH, 400A, 120/240V, 3 POLE, 3W (2 POLE SINGLE–PHASE WITH SWITCHED NEUTRAL), NEMA TYPE 1 ENCLOSURE.
13. (2) 2"CONDUIT EACH WITH 3 #3/0 & 1 #2/0 GND.
14. PANELBOARD. REFER TO PANELBOARD SCHEDULES ON DWG. AE–131.
15. GENERATOR CIRCUIT BREAKER "GCB", 400A, 2P, 240V, AUXILIARY CONTACT SOLID NEUTRAL, GROUND BUS IN NEMA 3R ENCLOSURE. PROVIDE NAMEPLATE "MAIN #2 OF 2. MAIN #1 IS LOCATED INSIDE BUILDING".
16. #2/0 BARE STRANDED COPPER GROUNDING CONDUCTOR BETWEEN SUPPLEMENTAL GROUND BUSBAR AND LIGHTNING PROTECTION SYSTEM. INSTALL CONDUCTOR IN 1" SCH. 80 PVC CONDUIT WHERE EXPOSED.
17. REFER TO SITE PLAN FOR CIRCUITING REQUIREMENTS.
18. 15 KVA UPS, 120/240VAC, SINGLE PHASE, 3W WITH REMOTE SHUT OFF CONTACT MODBUS TCP/IP NETWORK MONITOR CARD WITH DB–9 CONNECTION, BATTERY MODULES AND GROUNDING LUG. REFER TO TSP 26 33 53 FOR DETAILS.
19. 3 #1 & 1 #6 GND IN 1 1/2" CONDUIT.
20. ENGINE JACKET HEATER.
21. GROUNDING CONDUCTOR FROM PANELBOARD "MDP" GROUND BUSBAR TO SUPPLEMENTAL GROUND BUSBAR, #2/0 BARE STRANDED COPPER.
22. PROVIDE TYPE 2 SECONDARY SERVICE SPD.
23. MAIN BONDING JUMPER #2/0 BARE STRANDED COPPER.
24. TYPE 1 PRIMARY SERVICE ENTRANCE SPD.
25. PROVIDE 240V, 125A, WALL MOUNTED BYPASS SWITCH. REFER TO TSP 26 33 53 FOR DETAILS.
26. PROVIDE CONCRETE ENCASED ELECTRODE IN ACCORDANCE WITH NEC ARTICLE 250.
27. SPLICE SPD CONDUCTORS TO INCOMING GENERATOR CONDUCTORS INSIDE ATS ENCLOSURE WITH A UL LISTED SPLICE.
28. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT FROM 4" AFF TO UPS.
29. SPD SHALL BE LOCATED SUCH THAT THE MAXIMUM SPD BRAIDED/TWISTED LEADS DO NOT EXCEED 24 INCHES AND HAVE NO SHARP TURNS.
30. UNDERGROUND CONDUIT SHALL BE PVC SCH. 80, UON. UNDERGROUND CONDUIT SHALL TRANSITION TO RGS CONDUIT WITH RGS TO PVC FITTINGS. CONDUIT SHALL BE RGS ABOVE GRADE THROUGH AND INCLUDING THE FIRST 90° FITTING UNDERGROUND, UON. APPLY 2–COAT BITUMASTIC COATING TO DIRECT BURIED PORTION OF RGS CONDUIT, UP TO AND INCLUDING 6" ABOVE FINAL GRADE. REFER TO TSP FOR FURTHER INFORMATION.
31. BOND EACH END OF THE RAISED ALUMINUM TOLLING CABINET FRAME TO THE CONCRETE ENCASED ELECTRODE IN THE BUILDING FOUNDATION. REFER TO BUILDING POWER PLAN AND GROUND REQUIREMENTS ON DWG AE–121.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **BUILDING - POWER RISER DIAGRAM**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-130**

SHEET NO. **47**

120/240V.,1Ø,3W
22 KAIC MIN.
FTL, SER

PANEL "MDP" SCHEDULE

400A, MAIN CKT. BKR
SURFACE MOUNTED
NEMA TYPE 1

CKT. NO.	KVA	BKR	WIRE SIZE	CON DUIT	LOAD	CKT. NO.	KVA	BKR	WIRE SIZE	CON DUIT	LOAD
1	–	–	–	–	–	2	–	60/2	6	3/4	SPD (5)
3	–	–	–	–	–	4					
5	0.2	20/1	12	3/4	RECEPTACLE	6	–	–	–	–	–
7	0.2	20/1	12	3/4	RECEPTACLE	8	–	–	–	–	–
9	–	–	–	–	–	10	–	–	–	–	–
11	–	–	–	–	–	12	–	–	–	–	–
13	–	–	–	–	–	14	–	–	–	–	–
15	–	–	–	–	–	16	–	–	–	–	–
17	–	–	–	–	–	18	–	–	–	–	–
19	–	–	–	–	–	20	–	–	–	–	–

TOTAL CONNECTED LOAD: 27.10 KVA
TOTAL DEMAND LOAD: 27.48 KVA

(1) (2) (7) (8)

120/240V.,1Ø,3W
22 KAIC MIN.

PANEL "EDP" SCHEDULE

400A, M.L.O.
SURFACE MOUNTED
NEMA TYPE 1

CKT. NO.	KVA	BKR	WIRE SIZE	CON DUIT	LOAD	CKT. NO.	KVA	BKR	WIRE SIZE	CON DUIT	LOAD
1	0.4	20/1	12	3/4	LIGHTING (INTERIOR)	2	0.4	20/1	12	3/4	RECEPT.
3	0.1	20/1	12	3/4	LIGHTING (BLDG. EXT.)	4	–	20/1	–	–	SPARE
5	–	20/1	–	–	SPARE	6	–	20/1	–	–	SPARE
7	–	20/1	–	–	SPARE	8	0.2	20/1	10	1	PTZ CAMERA
9	3.30	30/2	10	3/4	AC–1	10	0.5	20/1	10	1	BATTERY CHARGER
11						12	1.5	20/1	10	1	ENG. JACK HEATER
13	3.30	30/2	10	3/4	AC–2	14	0.5	20/1	10	1	FUEL TANK MONITOR
15						16	0.5	20/1	12	3/4	SECURITY SYSTEM
17	16.0	100/2	1	1 1/2	PNL 'C1' VIA UPS–1	18	–	20/1	–	–	SPARE
19						20	–	20/1	–	–	SPARE
21	–	100/2	1	1 1/2	UPS–1 BYPASS	22	–	20/1	–	–	SPARE
23						24	–	20/1	–	–	SPARE
25	–	20/1	–	–	SPARE	26	–	20/1	–	–	SPARE
27	–	20/1	–	–	SPARE	28	–	20/1	–	–	SPARE
29	–	20/1	–	–	SPARE	30	–	20/1	–	–	SPARE
31	–	20/1	–	–	SPARE	32	–	20/1	–	–	SPARE
33	–	20/1	–	–	SPARE	34	–	20/1	–	–	SPARE
35	–	20/1	–	–	SPARE	36	–	20/1	–	–	SPARE
37	–	20/1	–	–	SPARE	38	–	20/1	–	–	SPARE
39	–	30/2	10	3/4	SPD (5)	40	–	20/1	–	–	SPARE
41						42	–	20/1	–	–	SPARE

TOTAL CONNECTED LOAD: 26.70 KVA
TOTAL DEMAND LOAD: 27.08 KVA

SEE NOTES (1) (2) (8)

REFERENCE NOTES:

(1) PANELS SHALL BE PROVIDED WITH GROUND BAR & INSULATED NEUTRAL BAR.

(2) MINIMUM 22,000 AIC FOR ALL CIRCUIT BREAKERS IN THE PANEL.

(3) ALL CIRCUIT BREAKERS FOR PANEL C1 SHALL BE AS PER TSP 26 24 17.

(4) PROVIDE CONTROLLER IN PANEL "C1".

(5) SCH. 80 PVC CONDUIT.

(6) PROVIDE BRANCH CIRCUIT MONITOR FACTORY INSTALLED.

(7) PROVIDE FEED–THRU LUGS.

(8) FOR ALL BRANCH CIRCUITS, SIZE THE EQUIPMENT GROUND PER NEC TABLE 250.122. UPSIZE FOR VOLTAGE DROP IF REQUIRED.

120/240V.,1Ø,3W
22 KAIC MIN.

TYPICAL PANEL "C1" SCHEDULE
(CRITICAL POWER)

100A, MAIN CKT. BKR
SURFACE MOUNTED
NEMA TYPE 1

CKT. NO.	KVA	BKR	WIRE SIZE	CON DUIT	LOAD	CKT. NO.	KVA	BKR	WIRE SIZE	CON DUIT	LOAD
1	0.5	20/1	12	–	TOLL EQUIP.	2	0.5	20/1	12	–	TOLL EQUIP.
3	0.5	20/1	12	–	TOLL EQUIP.	4	0.5	20/1	12	–	TOLL EQUIP.
5	0.5	20/1	12	–	TOLL EQUIP.	6	0.5	20/1	12	–	TOLL EQUIP.
7	0.5	20/1	12	–	TOLL EQUIP.	8	0.5	20/1	12	–	TOLL EQUIP.
9	0.5	20/1	12	–	TOLL COMM. CABINET	10	0.5	20/1	12	–	TOLL COMM. CABINET
11	0.5	20/1	12	–	TOLL COMM. CABINET	12	0.5	20/1	12	–	TOLL COMM. CABINET
13	0.5	20/1	12	–	TOLL COMM. CABINET	14	0.5	20/1	12	–	TOLL COMM. CABINET
15	0.5	20/1	–	–	FUTURE	16	0.5	20/1	–	–	FUTURE
17	0.5	20/1	–	–	FUTURE	18	0.5	20/1	–	–	FUTURE
19	0.5	20/1	–	–	FUTURE	20	0.5	20/1	–	–	FUTURE
21	0.5	20/1	–	–	FUTURE	22	0.5	20/1	–	–	FUTURE
23	0.5	20/1	–	–	FUTURE	24	0.5	20/1	–	–	FUTURE
25	0.5	20/1	12	3/4	SCADA PNL	26	0.5	20/1	–	–	FUTURE
27	0.5	20/1	12	3/4	COMM. REC.	28	0.5	20/1	–	–	FUTURE
29	0.5	20/1	–	–	FUTURE	30	0.5	20/1	–	–	FUTURE
31	–	20/1	–	–	FUTURE	32	–	20/1	–	–	FUTURE
33	–	20/1	–	–	SPARE	34	–	20/1	–	–	SPARE
35	–	20/1	–	–	SPARE	36	–	20/1	–	–	SPARE
37	–	20/1	–	–	SPARE	38	–	20/1	–	–	SPARE
39	–	20/1	–	–	SPARE	40	–	30/2	10	3/4	SPD (5)
41	–	20/1	–	–	SPARE	42					

TOTAL CONNECTED LOAD: 15.0 KVA
TOTAL DEMAND LOAD: 15.0 KVA

SEE NOTES (1) (2) (3) (4) (6) (8)

PANEL "MDP" LOAD SUMMARY

CONTINUOUS LOADS	1.50 KVA
25% OF CONTINUOUS LOADS	0.38 KVA
NON–CONTINUOUS LOADS	25.60 KVA
TOTAL NEC DEMAND LOAD (KVA)	27.48 KVA
TOTAL NEC DEMAND LOAD @ 240V, 1ø (AMPERES)	115 AMPERES

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE:
BUILDING - PANEL SCHEDULES AND LOAD SUMMARY

PROJECT NAME:
SR 429 WEKIVA PARKWAY SECTION 7A

DRAWING NO.: **AE-131**

SHEET NO.: **48**

GENERAL NOTES:

1. FOR ADDITIONAL REQUIREMENTS, SEE TSP 26 09 13 SCADA SYSTEMS.
2. ALL CONDUCTORS SHALL BE COPPER.
3. DATA WIRING AND POWER WIRING SHALL BE RUN IN SEPARATE CONDUITS.
4. THE CONTRACTOR INSTALLED SCADA ROUGH-IN SHALL BE INSPECTED BY THE DEPARTMENT PRIOR TO ACCEPTANCE.

REFERENCE NOTES:

(1) PROVIDE LINE SIDE CURRENT AND VOLTAGE SENSING. ELECTRICAL CONTRACTOR SHALL FIELD INSTALL CLASS B CURRENT TRANSFORMERS WITH 0-5 AMP SECONDARY FOR EACH PHASE WITH CT SHORTING BLOCK CAT # CTSB-10. ELECTRICAL CONTRACTOR SHALL FIELD INSTALL VOLTAGE SENSING FOR EACH PHASE AND NEUTRAL WITH FUSED TERMINAL BLOCK CAT # VTFB-6.

(2) PROVIDE CONTACTS TO MONITOR THE POSITION OF THE CIRCUIT BREAKER. AUXILIARY CONTACTS CLOSE WHEN THE BREAKER IS CLOSED AND OPEN WHEN THE BREAKER IS OPEN.

(3) PROVIDE CURRENT TRANSDUCER TO MEASURE THE CURRENT IN THE BRANCH CIRCUIT OF EACH AIR CONDITIONER. VERIS INDUSTRIES HAWKEYE MODEL# 921 SPLIT-CORE.

(4) PROVIDE POWER LOGIC BRANCH CIRCUIT MONITOR, FACTORY INSTALLED.

(5) PROVIDE CONTROLLER CAPABLE OF REMOTELY OPERATING THE TOLLING SYSTEM BRANCH CIRCUIT BREAKERS IN THE CRITICAL POWER PANEL.

(6) FINAL CONNECTION SHALL BE RUN OVERHEAD UTILIZING THE CABLE TRAY, THEN TO THE COMMUNICATION RACK BY THE DEPARTMENT.

(7) PROVIDE AUXILIARY CONTACTS TO MONITOR THE POSITION OF THE ATS. CONTACTS ARE CLOSED WHEN THE ATS IS IN NORMAL POSITION AND OPEN WHEN ATS IS IN EMERGENCY POSITION.

(8) PROVIDE NETWORK INTERFACE CARD IN THE UPS. CARD COMMUNICATES WITH THE NETWORK ROUTER VIA ETHERNET AND MONITORS THE UPS PARAMETERS, ALARMS, BY-PASS CONDITION AND BATTERY CONDITION.

(9) PROVIDE MONITORING, PER MANUFACTURER'S SPECIFICATIONS, OF THE EXTERNAL UPS MAINTENANCE BYPASS SWITCH POSITION.

(10) SCADA CONTROL PANEL. SEE SPECIFICATIONS SECTION 26 09 13.

(11) PROVIDE SURGE PROTECTION DEVICE - DIN RAIL MOUNTED. TYPICAL OF 24. ALL EXTERIOR SCADA METALLIC WIRING RUNS ENTERING THE BUILDING SHALL BE CONNECTED FIRST TO A SPD, PRIOR TO ANY EQUIPMENT CONNECTION WITHIN THE TOLL EQUIPMENT BUILDING.

(12) PROVIDE MOISTURE DETECTOR - FLOOR MOUNTED.

(13) DOOR POSITION SWITCH. PRE-INSTALLED AS PART OF THE ACCESS CONTROL SYSTEM. MOUNTED ON THE SECURE SIDE OF THE DOOR.

(14) PROVIDE TEMPERATURE AND HUMIDITY SENSOR, WALL MOUNTED AT +6 FT. ADJACENT TO THE HVAC THERMOSTAT.

(15) PROVIDE FUEL TANK MONITOR - THE SCADA SYSTEM MONITORS FUEL TANK LEAK DETECTOR ALARM CONTACTS.

(16) PROVIDE FUEL TANK LEAK ALARM.

(17) PROVIDE ONE HIGH LEVEL FLOAT SWITCH AND ONE LOW LEVEL FLOAT SWITCH. HIGH LEVEL ALARM (90%) LOW LEVEL ALARM (30%).

(18) PROVIDE ANALOG FUEL LEVEL SENSOR, OUTPUT SIGNAL 4-20 mA, +/- 2% ACCURACY, 2" NPT, NEMA 4X ALUMINUM HOUSING AND 12" LEAD LENGTH. THE SCADA SYSTEM MONITORS THE ANALOG FUEL LEVEL SENSOR.

(19) PROVIDE GENERATOR CONTROLLER - COMMUNICATES WITH SCADA SYSTEM BY MODBUS RTU PROTOCOL TO MONITOR EMERGENCY POWER V, A, W, Hz, pf, ALL GENERATOR ALARMS, LOW BATTERY VOLTS, AND LOSS OF BATTERY CHARGER AC POWER. ALSO GENERATOR START/STOP CONTROL AND RUN RELAY.

(20) 240 VAC VOLTAGE MONITOR RELAY CONNECTED TO THE LOAD SIDE OF THE FUSED SAFETY SWITCH FOR EACH AIR CONDITIONER. THE SCADA CONTROLLER WILL MONITOR THE POSITION OF THE RELAY CONTACTS. INSTALL VOLTAGE MONITOR ICM CONTROLS, CAT# ICM491. USE INSULATED TAP CONNECTORS EQUAL TO ILSCO CAT# PCT-4-4 TO TAP THE CONDUCTORS.

(21) SPD WITH N.O. DRY CONTACTS. SEE TSP'S FOR REQUIREMENTS.

REVISIONS			
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AECOM Technical Services, Inc.
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Campbell Causeway
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No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

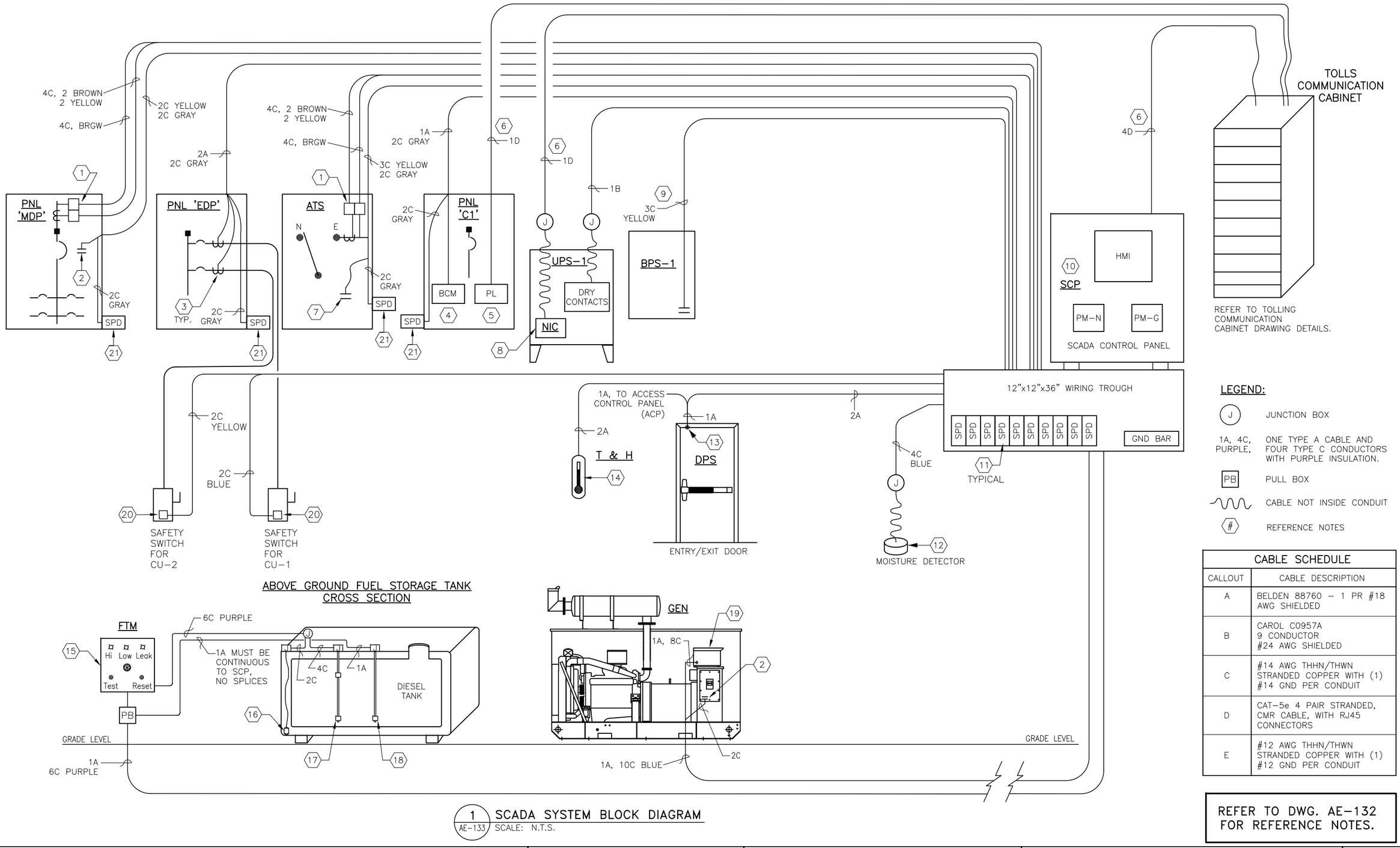
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SCADA SYSTEM BLOCK DIAGRAM NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-132**

SHEET NO. **49**



1 AE–133 SCADA SYSTEM BLOCK DIAGRAM
SCALE: N.T.S.

LEGEND:

(J)	JUNCTION BOX
1A, 4C, PURPLE,	ONE TYPE A CABLE AND FOUR TYPE C CONDUCTORS WITH PURPLE INSULATION.
PB	PULL BOX
~~	CABLE NOT INSIDE CONDUIT
(#)	REFERENCE NOTES

CABLE SCHEDULE	
CALLOUT	CABLE DESCRIPTION
A	BELDEN 88760 – 1 PR #18 AWG SHIELDED
B	CAROL C0957A 9 CONDUCTOR #24 AWG SHIELDED
C	#14 AWG THHN/THWN STRANDED COPPER WITH (1) #14 GND PER CONDUIT
D	CAT–5e 4 PAIR STRANDED, CMR CABLE, WITH RJ45 CONNECTORS
E	#12 AWG THHN/THWN STRANDED COPPER WITH (1) #12 GND PER CONDUIT

REFER TO DWG. AE–132 FOR REFERENCE NOTES.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15–23.004, F.A.C.

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Tampa, FL 33607-1462
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Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **SCADA SYSTEM BLOCK DIAGRAM**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **AE-133**

SHEET NO. **50**

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 240200-2-52-01

(FEDERAL FUNDS)

SEMINOLE COUNTY (77320)

STATE ROAD NO. 429 (WEKIVA PARKWAY SECTION 7A)

TOLL FACILITIES - GANTRY PLANS

INDEX OF TOLL FACILITIES-GANTRY PLANS

TOLL FACILITIES-GANTRY PLANS
ENGINEER OF RECORD:

SCOTT L. MONTGOMERY, P.E.
PE No.: 42006
AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
Phone (813) 286-1711
CONTRACT NO. C-9855
VENDOR NO. F952661922
CERTIFICATE OF AUTHORIZATION NO. 00008115

FDOT PROJECT MANAGER:

KEVIN MOSS, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.	DRAWING NO.
T5626	18	1	GG-001

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SCOTT L. MONTGOMERY
LICENSE
No 42006
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by Scott L Montgomery
Date: 2017.07.31 13:36:05 -04'00'

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TAMPA , FL 33607-1462
CA NO. 00008115
SCOTT L. MONTGOMERY, P.E. NO. 42006

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

TOLL FACILITIES - GANTRY PLANS

DANIEL C. STANFILL
LICENSE
No 42763
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by Daniel C Stanfill
Date: 2017.07.31 13:12:38 -04'00'

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.
919 LAKE BALDWIN LANE
ORLANDO , FL 32814
CA NO. 00008115
DANIEL C. STANFILL, P.E. NO. 42763

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

TOLL FACILITIES - GANTRY PLANS

PETER J. PASTORE
LICENSE
No 77103
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Peter Pastore
Digitally signed by Peter Pastore
Date: 2017.07.31 13:46:38 -04'00'

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CA NO. 00008115
PETER J. PASTORE, P.E. NO. 77103

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TOLL FACILITIES - GANTRY PLANS

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AECOM Technical Services, Inc.
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Scott L. Montgomery, P.E. No. 42006

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SIGNATURE SHEET
(GANTRY PLANS)

DRAWING NO. GG-002
SHEET NO. 2

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GENERAL NOTES

CONSTRUCTION SPECIFICATIONS:
1. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (July 2017 Edition) and as amended by Contract Documents.

DESIGN SPECIFICATIONS:
1. American Association of State Highway and Transportation Officials (AASHTO), Load and Resistance Factor Design (LRFD) Bridge Design Specifications (7th Edition) and subsequent interims.
2. American Association of State Highway and Transportation Officials (AASHTO), "LRFD Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals" (LRFDLTS-1, First Edition 2015) with interims thru 2017.
3. The Aluminum Association Design Manual Specifications and Guidelines for Aluminum Structures (2000 Edition).
4. FDOT "Plans Preparation Manual" (January 2017 Edition).
5. FDOT Structures Manual dated January 2017 (Reference Introduction, Section I.6).
6. AISC Manual of Steel Construction (Fourteenth Edition).
7. Florida's Turnpike Enterprise "General Tolling Requirements" (GTR) dated June 2014.

DESIGN METHOD:
1. Load Resistance Factored Design (LRFD).

DESIGN LOADINGS:
1. Dead Loads:
   - Structural Steel = 490 PCF
   - Aluminum = 175 PCF
   - Concrete = 150 PCF
   - Tolling Equipment = Concentrated load of 55 lbs. at each equipment location.
   - Electrical/Data Conduits/Attachments = 200 PLF distributed to chords.
2. Wind Loads:
   - AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals", Exposure C Category
   - Wind Speed (3-second gust) = 150 mph (700 Interval years)
   - Wind Pressure (Extreme I):
     - Upright = 26 PSF
     - Chords = 39 PSF
     - Mounting Pipes = 52 PSF
     - J-Arm = 62 PSF
     - Web Members = 67 PSF
     - Flat Member = 95 PSF
     - Provisional Sign = 54 PSF applied to 10'x12' Panel in each traffic direction centered over the lanes.

ALUMINUM:
1. All aluminum materials shall meet the requirements of the Aluminum Association's Alloy 6061-T6 for tubes and also the following ASTM Specifications:
   - Sheets = 5052
   - Plates = B209
   - Extruded Tube, Bar, Rod and Shapes = B221
   - Structural Shapes = B308.
2. Welding Rods shall meet the requirements of Aluminum Association Alloy No. 5556 Filler Wire.
3. The proportioning of weld details and the operation of welding shall be in accordance with the Current Edition of the AWS Structural Welding Code D1.2-Aluminum.

REINFORCING STEEL:
1. All Reinforcing Steel shall be ASTM A615, Grade 60.
2. All dimensions pertaining to location of reinforcing steel are to centerline of bars except where clear dimension is noted to face of concrete.
3. Reinforcing Steel detail dimensions are out-to-out of bars.
4. Cover on Reinforcing Steel as follows, unless noted otherwise:
   - Substructure 6 in. Drilled Shafts
   - Substructure 3 in. External Formed Surfaces
   - Substructure 4 in. External Surfaces Cast Against Earth
5. Concrete cover shown in the plans does not include reinforcement placement and fabrication tolerances unless shown as "minimum cover". See FDOT Specifications for Allowable Reinforcement Placement Tolerances.

DIMENSIONS AND ELEVATIONS:
1. All dimensions are measured horizontally and vertically unless noted otherwise.
2. All dimensions are measured at mean temperature of 70° F.
3. Elevations are in feet, and are based on the North American Vertical Datum (NAVD) of 1988.

UTILITIES:
1. For information, refer to the Roadway Utility Plans.
2. Field verify utility locations before commencing with construction.
3. Ensure that any existing utilities that are not to be relocated are not endangered or disturbed during construction. Ensure all active utilities are properly maintained within the construction limits.

MISCELLANEOUS:
1. For electrical details, see Toll Facilities Electrical Drawings.
2. For miscellaneous structures that have been completed and scheduled for acceptance; the CEI, Project Manager or the Project Administrator shall contact District Five Structures Maintenance Office at 386-740-3463 two weeks prior to completion of the project to schedule an inspection of structures including Cable Signs, Cantilever Signs, Truss Signs, High Mast Light Poles, ITS, Toll Gantry, DMS and Traffic Signal Mast Arms.

STAINLESS STEEL:
1. ASTM A555, Type 316 for sheets. ASTM A240, Type 304L for plates. Type 316 for U-bolts. Structural shapes shall conform to ASTM A276, Type 316L.
2. Welding shall comply with the current edition of the AWS Structural Welding Code D1.6-Stainless Steel.

CONCRETE:
1. Concrete (unless noted otherwise):

FDOT CLASS	MINIMUM 28-DAY COMPRESSIVE STRENGTH (PSI)	LOCATION
IV (Drilled Shafts)	F'c = 4,000	Drilled Shafts & Upright In-Fill

2. Provide ¾" chamfers on all exposed edges, unless noted otherwise.
3. Construction joints will be permitted only at locations indicated on plans. Additional construction joints or alterations to those shown shall require written approval of the engineer.

Tri-Chord Truss Ramp Gantry - Structure No's. &

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Scott L. Montgomery, P.E. No. 42006

DRAWN BY: JLS 12-14
CHECKED BY: HSW 3-17
DESIGNED BY: HSW 3-17
CHECKED BY: NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: GENERAL NOTES (1 OF 2)
REF. DWG. NO. GB-001
PROJECT NAME: WEKIVA PARKWAY SECTION 7A
SHEET NO. 3

GENERAL NOTES (CONTINUED)

STRUCTURAL STEEL:

1. Submit shop drawings for all work. Include:
   a. Field verification of all upright heights.
   b. Foundation elevations necessary to insure minimum vertical clearances as per traffic plans.
   c. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
   d. The method to be used to provide the required parabolic camber. (See Camber Diagram).
   e. Equipment support elements.
   f. Layout of the tolling equipment, field splices, W5x16 members, HSS 4.5"diameter pipe, and any other electrical equipment or structural member that could be in conflict with the toll equipment installation and operations.
2. Shop Fabrication, Assembly, Handling and Shipping:
   a. Do not begin fabrication before receiving shop drawing approval.
   b. Welding: Conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1. 1 (current edition).
   c. Shop assemble the entire structure after galvanizing and prior to shipment.
   d. If necessary, disassemble and secure components for shipment.
   e. No field welding shall be permitted.
   f. No shop welded splices of main chords or uprights shall be permitted.
3. Gantry Structure Materials:
   a. Upright and Chords (Steel Pipe): API –5L–X42 (42 ksi yield) or ASTM A500, Grade B (Min).
   b. Steel Angles: ASTM A 709, Grade 36.
   c. Steel Plates: ASTM A 709, Grade 36.
   d. Steel I–Beams: ASTM A36 or ASTM A709, Grade 36.
   e. Weld Metal: E70XX.
   f. Structural Bolts, Nuts and Washers:
      High Strength Bolts: ASTM A325 Type 1.
      Nuts: ASTM A563 heavy hex nut, Grade DH, galvanized and lubricated.
      Washers: ASTM F436 Type 1, one under turned element. Split lock washers are not permitted.
   g. Anchor Bolts, Nuts and Washers:
      Bolts: ASTM F1554, Grade 55, Saddles and other components shall be as noted in the plans.
      Nuts: ASTM A563 Grade A heavy–hex nuts, five per bolt: two above the base plate, one under the base plate and two at the bolt bottom.
      Plate Washers: ASTM A36 (2 per bolt).
   h. Materials for J–Arms, U–Bolts, Saddles and other components shall be as noted in the plans.
4. Install all bolts, including anchor bolts, in accordance with the FDOT Specifications.
5. Bolt hole diameters: Equal to the bolt diameter plus $\frac{1}{16}$".
6. Anchor bolt hole diameters: Equal to the bolt diameter plus $\frac{1}{2}$".
7. Galvanization:
   The anchor bolts, nuts and washers shall be hot–dip galvanized in accordance with ASTM Specifications F2329.
   All other steel components shall be hot–dip galvanized in accordance with Section 962–9 of the Specifications.
8. Prior to erection, record the as–built anchor locations and provide to the Engineer.
9. Provide a parabolic camber with the maximum upward deflection as shown on the Camber Diagram.
10. Locate Chord splices a minimum of 3 truss panel lengths apart. Chord splices shall be an Alternate splice. Upright splices are not allowed.
11. Refer to FDOT Standard Index 11320 for additional Span Gantry Structure Details.

LIST OF FREQUENTLY USED ABBREVIATIONS

For additional abbreviations refer to Design Standards Index No. 001.

ASD	– Allowable Stress Design
B	– Bottom
CJ	– Construction Joint
DJS	– Deck Joint Seal
DVAS	– Digital Video Auditing System
EB	– Eastbound
EF	– Each Face
EOL	– Edge of Lane
ES	– Each Side
EW	– End Wall
FB	– Field Bend
FF	– Far Face
FFAS	– Front Face of Approach Slab
FFBW	– Front Face of Backwall
FFRW	– Front Face of Retaining Wall
GDR	– Girder
IF	– Inside Face
LME	– Low Member Elevation
LVC	– Length of Vertical Curve
MHC	– Minimum Horizontal Clearance
MVC	– Minimum Vertical Clearance
NF	– Near Face
OF	– Outside Face
OFM	– Owner Furnished Material
OPUS	– Optical Profile Unifying System
PMVC	– Point of Actual Minimum Vertical Clearance
SBL	– Slope Break Line
SDG	– Structures Design Guidelines
SH or SHLD	– Shoulder
SS	– Stainless Steel
T	– Top
UNO	– Unless Noted Otherwise
VCAR	– Vehicle Capture and Recognition Equipment
VES	– Violation Enforcement System
VSS	– Video Surveillance System
WB	– Westbound
WL	– Work Line
WP	– Work Point

Tri-Chord Truss Ramp Gantry - Structure No's. &

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
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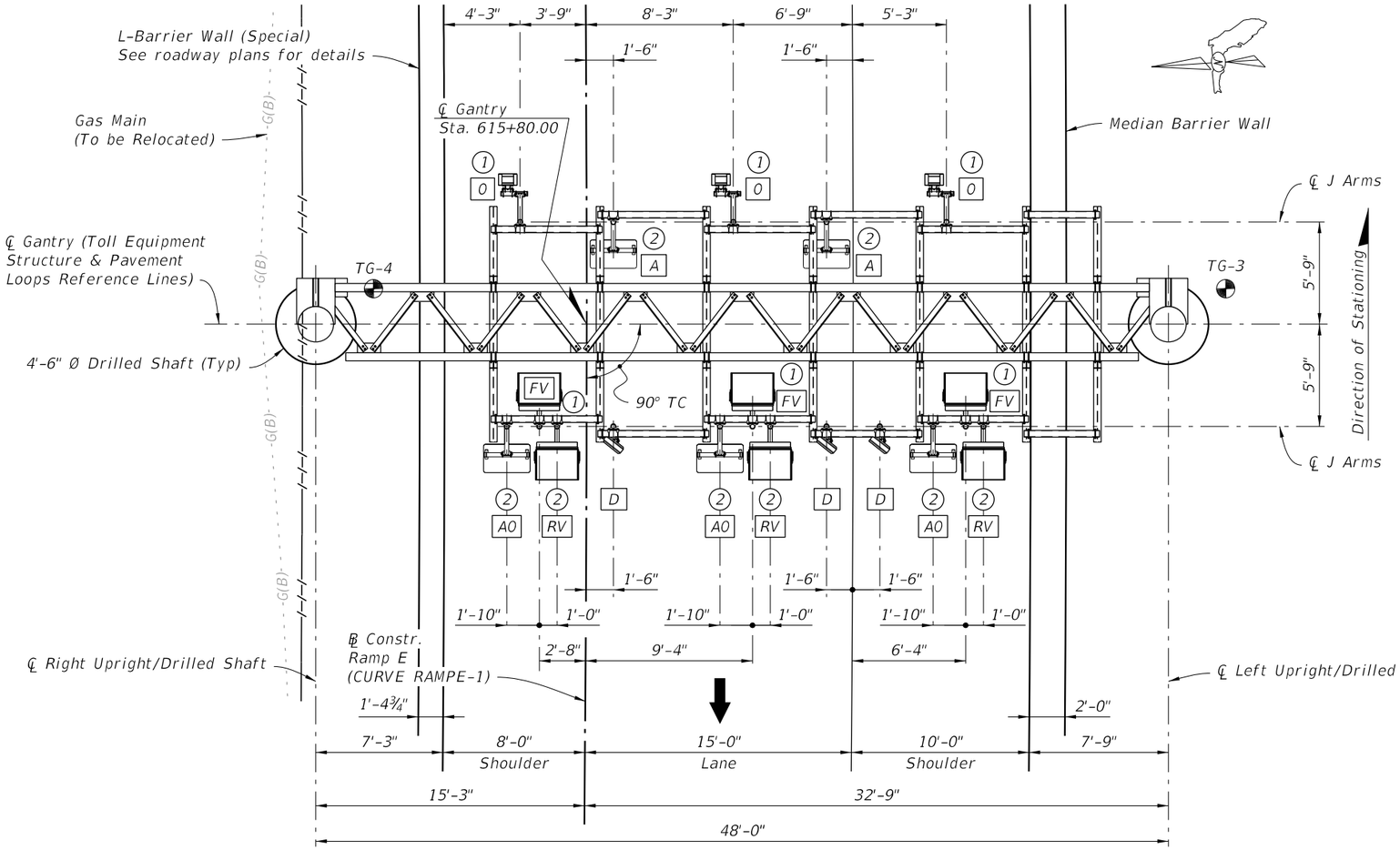
DRAWN BY: JLS 12-14
CHECKED BY: HSW 3-17
DESIGNED BY: HSW 3-17
CHECKED BY: NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: GENERAL NOTES (2 OF 2)
REF. DWG. NO.: GB-001A
PROJECT NAME: WEKIVA PARKWAY SECTION 7A
SHEET NO.: 3A



PLAN
(Wireways not shown for clarity)

CURVE RAMPE-1

PI Sta. = 615+43.76
Δ = 14° 12' 13" (LT)
D = 1° 54' 35"
T = 373.76'
L = 743.70'
R = 3,000.00'
e = 0.039
PC Sta. = 611+70.00
PT Sta. = 619+13.70

HORIZONTAL ALIGNMENT
ALONG ℄ CONSTR. RAMP E

NOTES

1. Legend:
   - (#) = J Arm Number.
   - A = Antenna
   - 0 = Opus
   - A0 = Antenna/Opus
   - FV = Front VCAR
   - RV = Rear VCAR
   - D = DVAS

Denotes approximate Location of Core Boring. See Drawing GB-006.

Tri-Chord Truss Ramp Gantry - Structure No.

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CHECKED BY:	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: PLAN
RAMP E GANTRY

REF. DWG. NO.: GB-002

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 4

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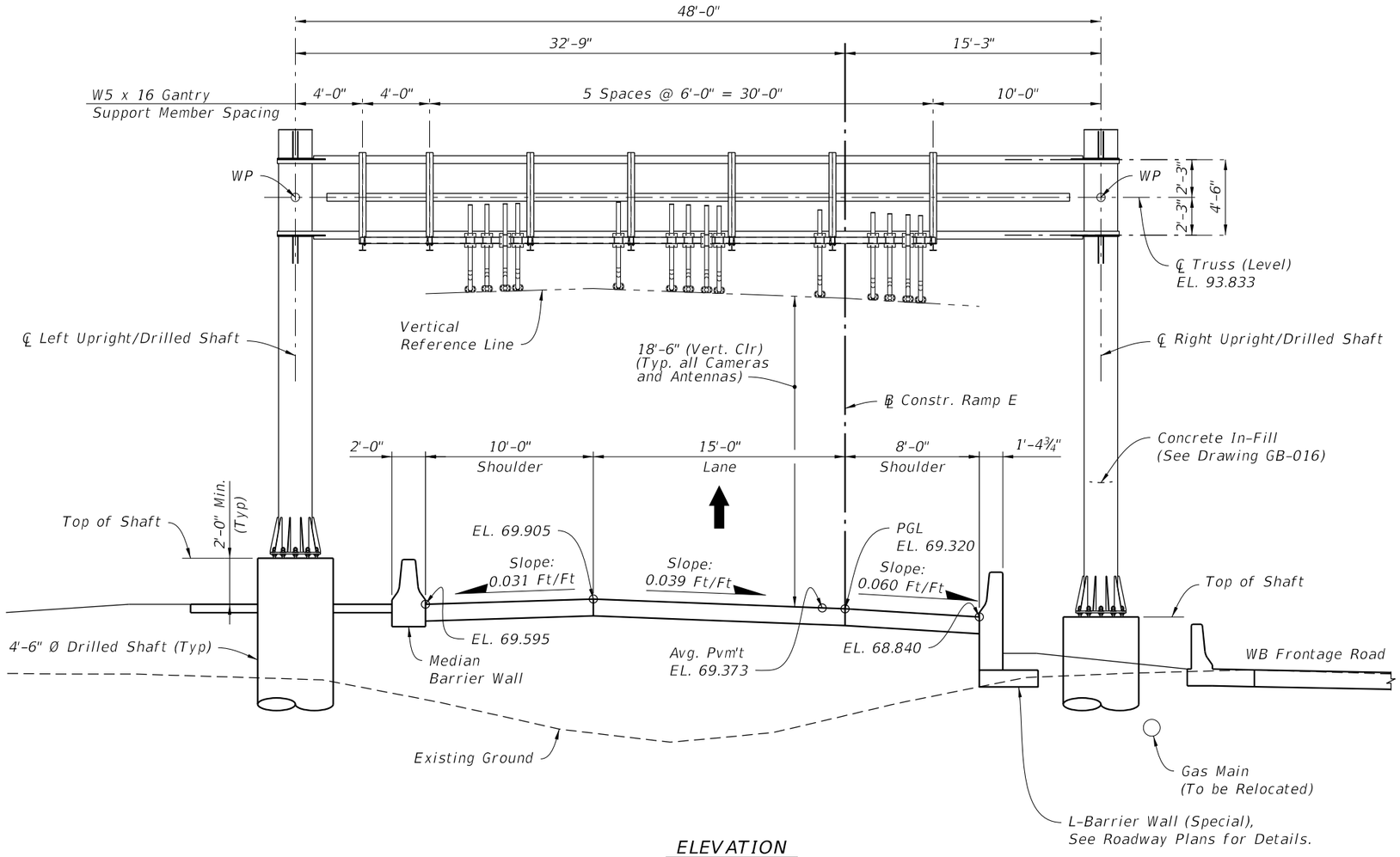

ELEVATION

(Looking in Direction of Travel)
(Truss web members and wireways not shown for clarity)

Tri-Chord Truss Ramp Gantry - Structure No.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

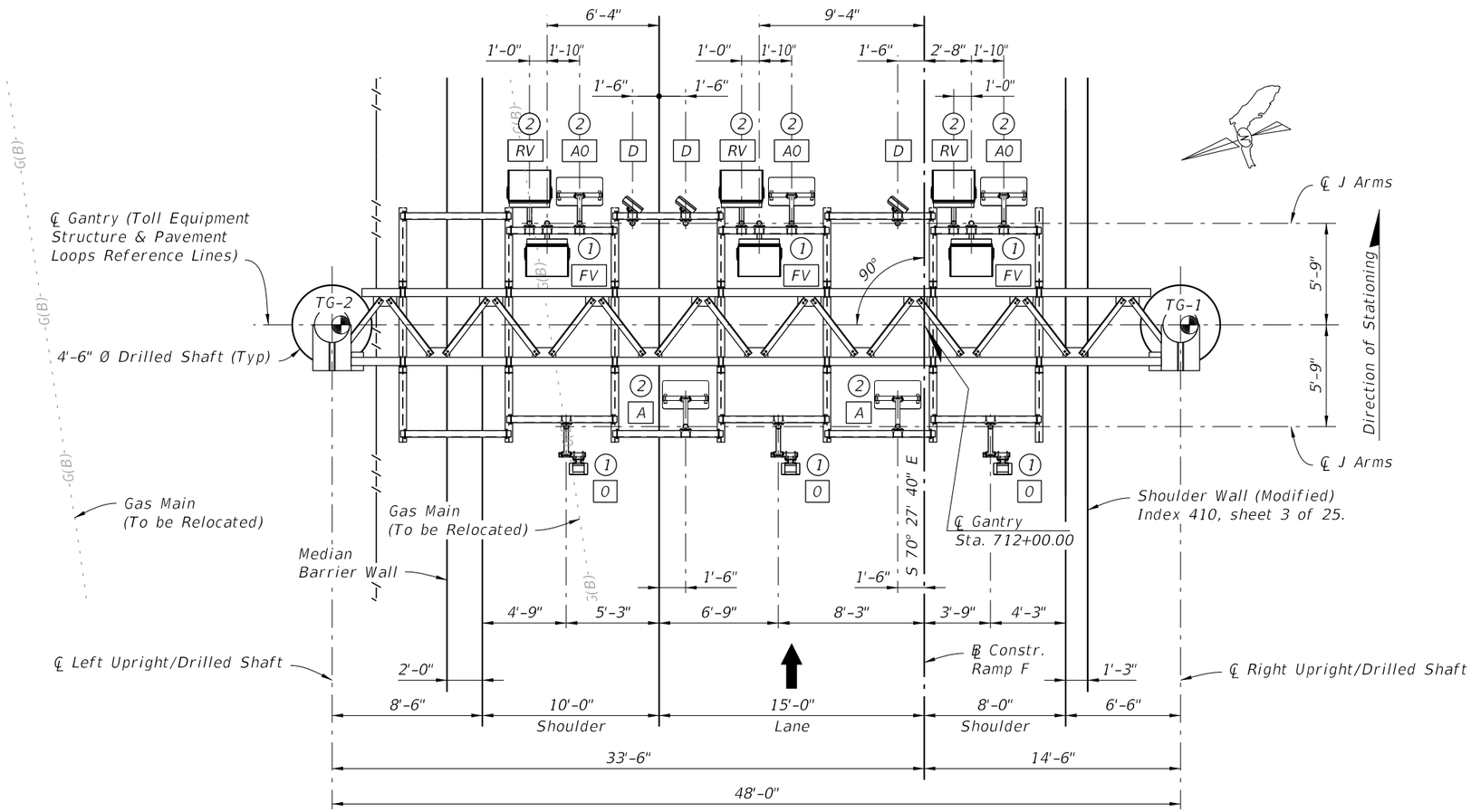
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: ELEVATION
RAMP E GANTRY

REF. DWG. NO.: GB-003

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 5



PLAN

(Wireways not shown for clarity)

NOTES

1. Legend:
   - (#) = J Arm Number.
   - [A] = Antenna
   - [0] = Opus
   - [A0] = Antenna/Opus
   - [FV] = Front VCAR
   - [RV] = Rear VCAR
   - [D] = DVAS

◒ Denotes approximate Location of Core Boring. See Drawing GB-007.

Tri-Chord Truss Ramp Gantry - Structure No.

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Scott L. Montgomery, P.E. No. 42006

DRAWN BY:	JLS 12-14
CHECKED BY:	HSW 3-17
DESIGNED BY:	HSW 3-17
CHECKED BY:	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

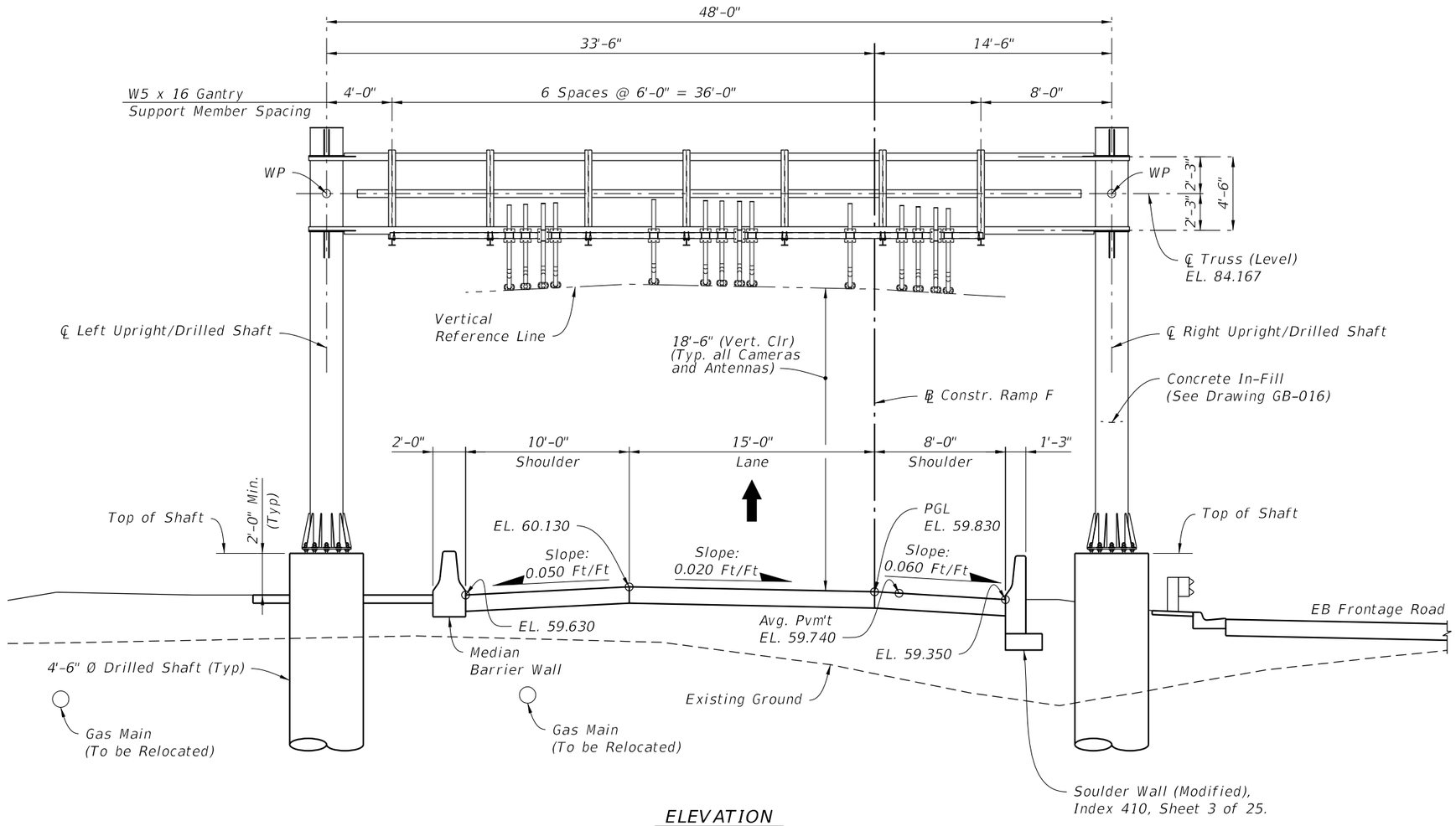
SHEET TITLE: PLAN RAMP F GANTRY

REF. DWG. NO.: GB-004

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 6

kathy.compton 7/26/2017 10:03:04 AM s:\projects_brgstruct\cadd\projects\projfdotv8i\24020025201\struct\AECOM\Gantry\B1PlanElev_RampF01.dgn MODEL= Sheet 1



ELEVATION

(Looking in Direction of Travel)
(Truss web members and wireways not shown for clarity)

Tri-Chord Truss Ramp Gantry - Structure No.

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DESIGNED BY: HSW 3-17
CHECKED BY: NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

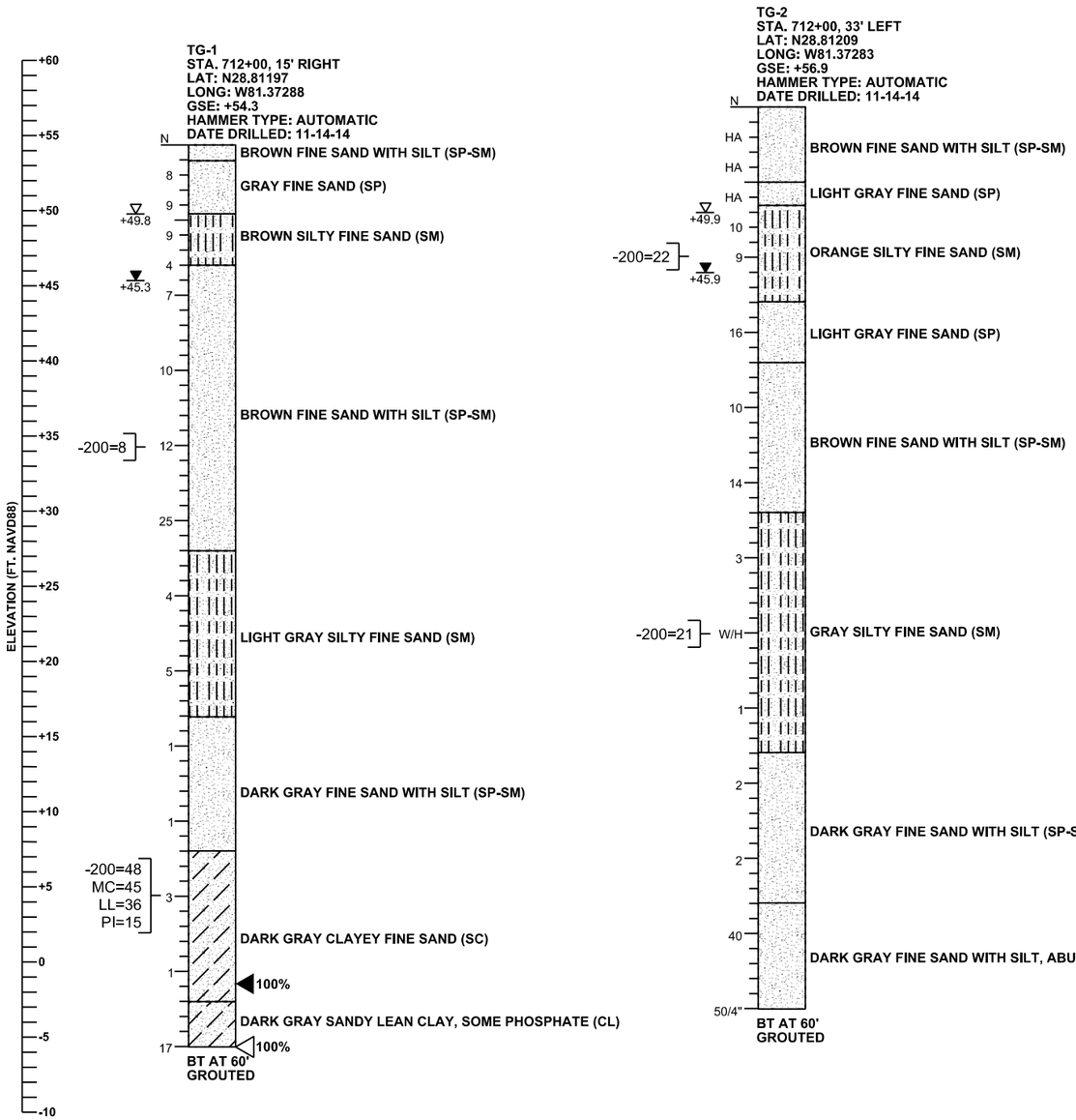
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: ELEVATION
RAMP F GANTRY

REF. DWG. NO.: GB-005

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 7



LEGEND

GSE	GROUND SURFACE ELEVATION (FT. NAVD88)
N	STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
HA	HAND AUGERED FOR UTILITY CLEARANCE
50/4"	NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
W/H	WEIGHT OF HAMMER
+49.9	ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)
+45.9	ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) ON DATE DRILLED
100%	PERCENT LOSS OF DRILLING FLUID
100%	PERCENT RETURN OF DRILLING FLUID
BT	BORING TERMINATED AT DEPTH INDICATED
-200=	PERCENT PASSING NO. 200 U.S. STANDARD SIEVE
MC=	PERCENT NATURAL MOISTURE CONTENT
LL=	LIQUID LIMIT
PI=	PLASTICITY INDEX

SAND — SAND AND CLAY — SAND AND SILT

GENERAL NOTES

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN THE BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

THE BORING LOCATIONS WERE ESTABLISHED IN THE FIELD USING SUB-METER ACCURACY GPS UNIT (TRIMBLE GEO 7X). GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE RAMP F BASELINE.

BASED ON REVIEW OF THE U.S. GEOLOGICAL SURVEY MAP ENTITLED "POTENTIOMETRIC SURFACE OF THE UPPER FLORIDAN AQUIFER IN ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND VICINITY, FLORIDA, SEPTEMBER 2008" FOR THE PROJECT AREA, THE MAXIMUM ELEVATION OF THE ARTESIAN HEAD IS ESTIMATED TO BE +26 FT. NAVD88. THE CONTRACTOR SHALL BE PREPARED TO HANDLE ARTESIAN HEAD LEVELS UP TO +26 FT. NAVD88.

SPLIT SPOON SAMPLER:
INSIDE DIAMETER: 1.375 IN.
OUTSIDE DIAMETER: 2.0 IN.
AVERAGE HAMMER DROP: 30 IN.
HAMMER WEIGHT: 140 LBS.
HAMMER TYPE: AUTOMATIC

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	AUTOMATIC HAMMER N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-3	VERY LOOSE
	3-8	LOOSE
	8-24	MEDIUM DENSE
	24-40	DENSE
	OVER 40	VERY DENSE

NON-GRANULAR SOILS	AUTOMATIC HAMMER N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-1	VERY SOFT
	1-3	SOFT
	3-6	FIRM
	6-12	STIFF
	12-24	VERY STIFF
	OVER 24	HARD

SECTION: 25
TOWNSHIP: 19 SOUTH
RANGE: 29 EAST

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.
919 Lake Baldwin Lane
Orlando, FL 32814
T 407-898-1818 F 407-898-1837
Certificate of Authorization No. 5882
DANIEL C. STANFILL PE NO. 42763

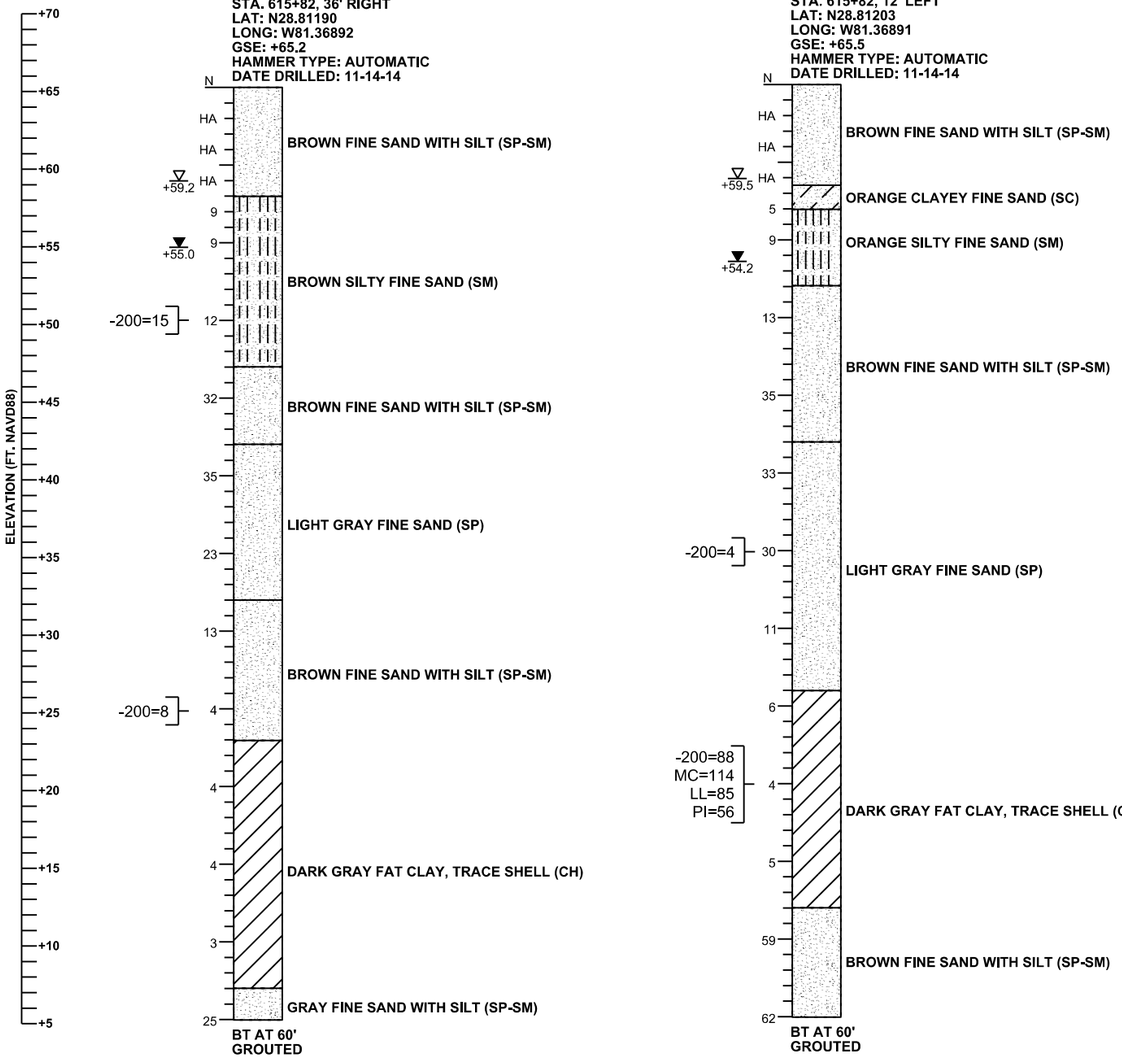
DRAWN BY: SKR
CHECKED BY: CGB 71571
DESIGNED BY: CGB 71571
CHECKED BY: DCS 42763

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: REPORT OF SPT BORINGS RAMP F GANTRY
REF. DWG. NO.: GB-006
PROJECT NAME: WEKIVA PARKWAY (SR 429) SECTION 7A
SHEET NO.: 8

Scott 7/24/2017 9:47:04 AM J:\D109\3520G Wekiva Parkway Section 7A\CADD Files 7-19-17\b1boring14.dgn



LEGEND

GSE	GROUND SURFACE ELEVATION (FT. NAVD88)
N	STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
HA	HAND AUGERED FOR UTILITY CLEARANCE
▽ +59.5	ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)
▼ +54.2	ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) ON DATE DRILLED
BT	BORING TERMINATED AT DEPTH INDICATED
-200=	PERCENT PASSING NO. 200 U.S. STANDARD SIEVE
MC=	PERCENT NATURAL MOISTURE CONTENT
LL=	LIQUID LIMIT
PI=	PLASTICITY INDEX

SAND — SAND AND CLAY

SAND AND SILT — CLAY

GENERAL NOTES

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THE BORING LOCATIONS WERE ESTABLISHED IN THE FIELD USING SUB-METER ACCURACY GPS UNIT (TRIMBLE GEO 7X). GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE RAMP E BASELINE.

BASED ON REVIEW OF THE U.S. GEOLOGICAL SURVEY MAP ENTITLED "POTENTIOMETRIC SURFACE OF THE UPPER FLORIDAN AQUIFER IN ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND VICINITY, FLORIDA, SEPTEMBER 2008" FOR THE PROJECT AREA, THE MAXIMUM ELEVATION OF THE ARTESIAN HEAD IS ESTIMATED TO BE +26 FT. NAVD88. THE CONTRACTOR SHALL BE PREPARED TO HANDLE ARTESIAN HEAD LEVELS UP TO +26 FT. NAVD88.

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	24-40	DENSE
	OVER 40	VERY DENSE

NON-GRANULAR SOILS	AUTOMATIC HAMMER N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-1	VERY SOFT
	1-3	SOFT
	3-6	FIRM
	6-12	STIFF
	12-24	VERY STIFF
	OVER 24	HARD

SECTION: 25
TOWNSHIP: 19 SOUTH
RANGE: 29 EAST

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T 407-898-1818 F 407-898-1837
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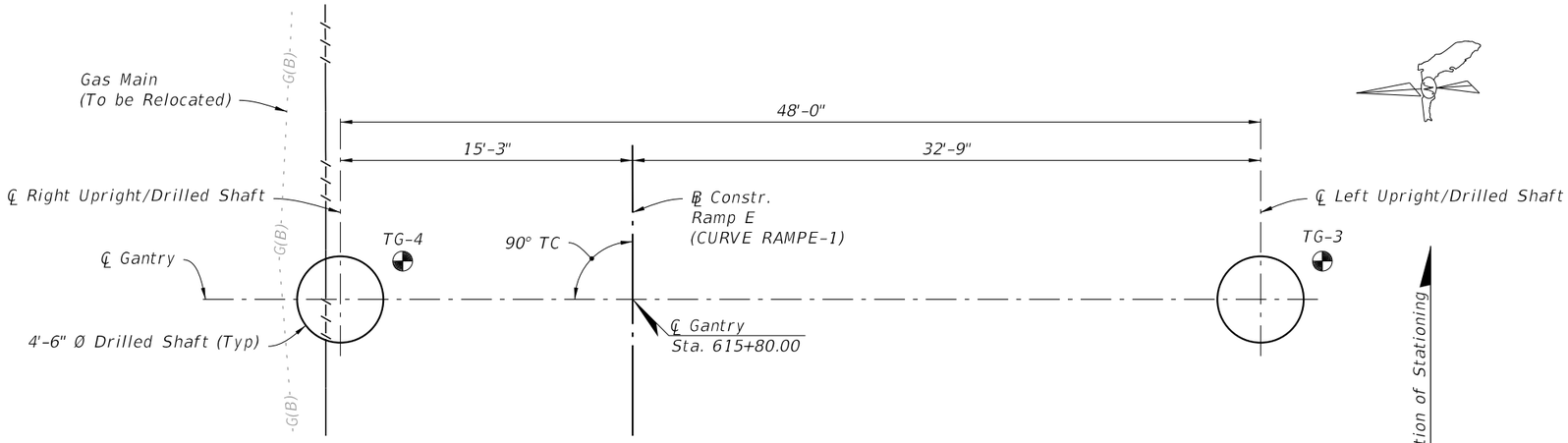
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

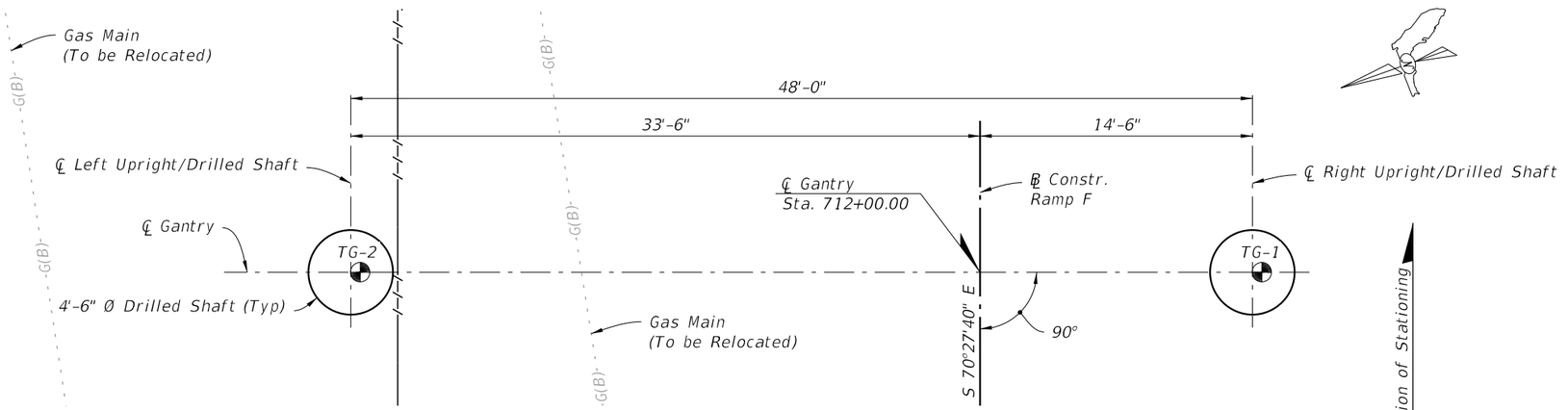
SHEET TITLE: REPORT OF SPT BORINGS RAMP E GANTRY
REF. DWG. NO.: GB-007
PROJECT NAME: WEKIVA PARKWAY (SR 429) SECTION 7A
SHEET NO.: 9

Scott 7/24/2017 9:07:25 AM J:\D109\3520G Wekiva Parkway Section 7A\CADD Files 7-19-17\b1boring14.dgn

DRILLED SHAFT DATA TABLE				
LOCATION		UPRIGHT	TOP OF SHAFT ELEVATION	MINIMUM TIP ELEVATION
STRUCTURE NUMBER	SITE		FT.	FT.
	Ramp E Gantry	Left Upright	73.000	34.000
		Right Upright	69.000	30.000
	Ramp F Gantry	Left Upright	62.500	23.500
		Right Upright	62.500	23.500



FOUNDATION LAYOUT - RAMP E



FOUNDATION LAYOUT - RAMP F

NOTES

1. Drilled shafts shall be installed in accordance with Section 455 of the Specifications.
2. For Additional Notes, see Drawing GB-001.
3. The drilled shafts shall be installed to meet the criteria set forth in the Drilled Shaft Data Table.
4. The minimum tip elevations shown represent the highest tip elevation necessary to satisfy lateral stability loading requirements. Any revisions made to the tip elevation shall be submitted to the Engineer of Record, and concurred with by the Turnpike.
5. For Anchor Bolt size and pattern, see Drawing GB-018.
6. If vertical shaft reinforcement is required to be spliced, reinforcement shall be spliced by mechanical couplers capable of developing 125% of yield strength of the bars being spliced. If couplers are required, a 6" minimum cover shall be maintained within the length of the coupler. Couplers shall be staggered 2'-0" between vertical bars. Proposed couplers shall be submitted for approval by the Engineer. No splices will be allowed in the top 20 feet of the shafts.
7. All gantry drilled shafts shall have Cross-Hole Sonic Logging (CSL) testing performed. The CSL tubes shall be installed and testing shall be performed in accordance with the Specifications.
8. The Contractor shall verify locations of all utilities and notify all involved Utility Companies 2 full business days prior to excavation, shaft drilling or construction and shall be responsible for making its own determination to avoid damage. Any required relocation of existing utilities shall be done by others. The Contractor shall ensure that active utilities are properly maintained during construction.
9. Before the concrete shaft is poured, coordinate with the electrical contractor who is responsible for installing the lighting protection system. For lighting protection conductors and grounding details, see "Electrical Plans".
10. Contractor shall install drilled shafts after grade has been brought to within one foot of final grade.
11. For horizontal alignment along ℄ Ramp E, see Drawing GB-002.
12. For location of Core Borings, see Drawings GB-006 & GB-007.
13. Layers of dense sand may be encountered at this site. Such materials may make shaft excavation and/or temporary casing installation difficult. The Contractor shall expect to encounter these types of materials at all shaft locations and shall use specialized equipment and/or procedures as necessary to facilitate shaft excavation and/or temporary casing installation. When temporary casing is used, the casing tip shall be reinforced and the casing thickness shall be adequate to prevent casing damage/deformation during installation through hard layers.
14. The cost of the drilled shaft and excavation shall be included in Pay Item No. 735-74-1 and 735-74-2.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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REVISIONS					
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AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Scott L. Montgomery, P.E. No. 42006

DRAWN BY:	CHECKED BY:	DESIGNED BY:	CHECKED BY:
JLS 12-14	HSW 3-17	HSW 3-17	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

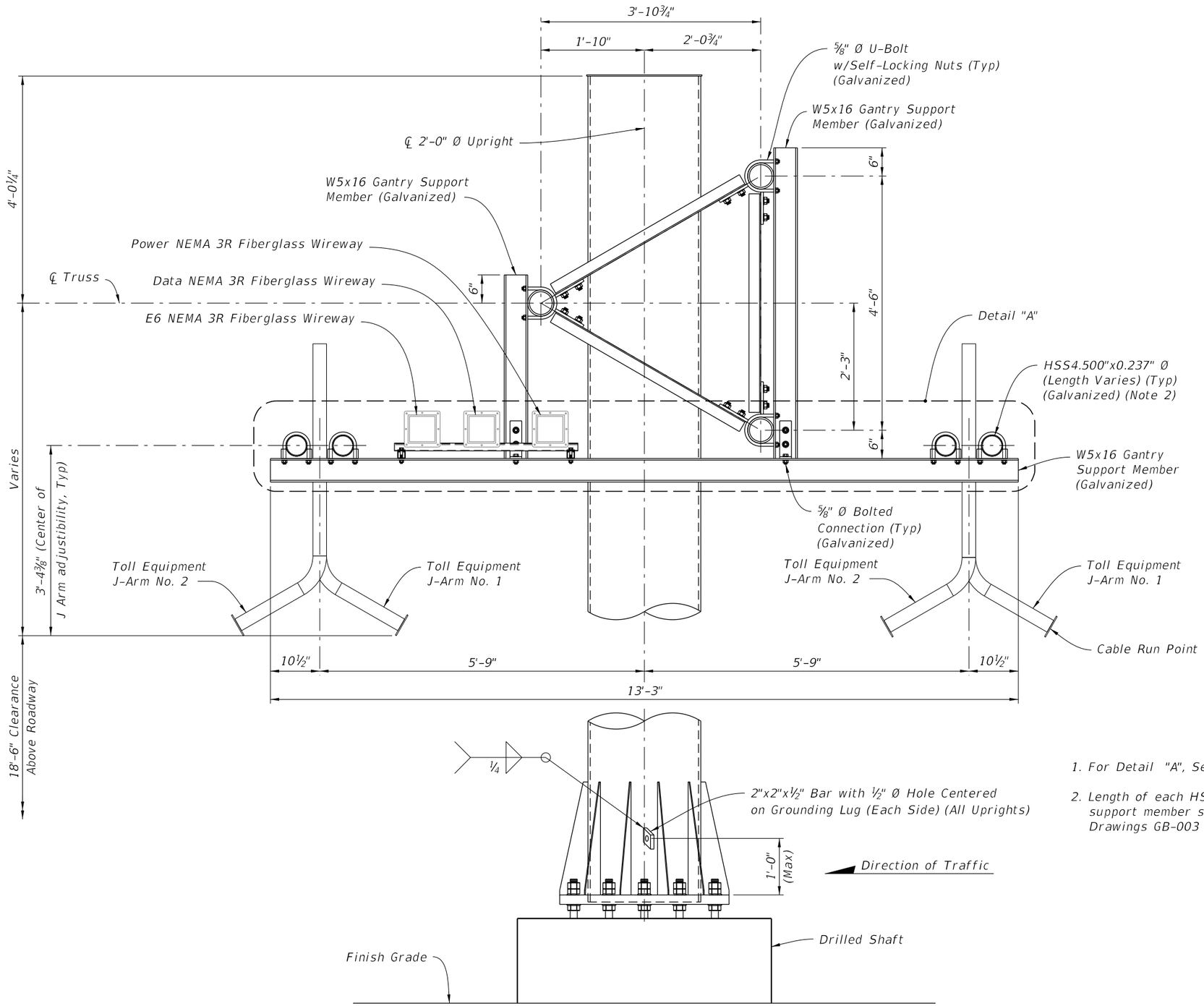
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: DRILLED SHAFT INSTALLATION TABLE AND NOTES

REF. DWG. NO.: GB-008

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 10



TYPICAL SECTION

NOTES

1. For Detail "A", See Drawing GB-010.
2. Length of each HSS4.500 shall be equal to the W5x16 support member spacing plus three inches. See Drawings GB-003 and GB-005.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: TYPICAL SECTION

REF. DWG. NO.: GB-009

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 11

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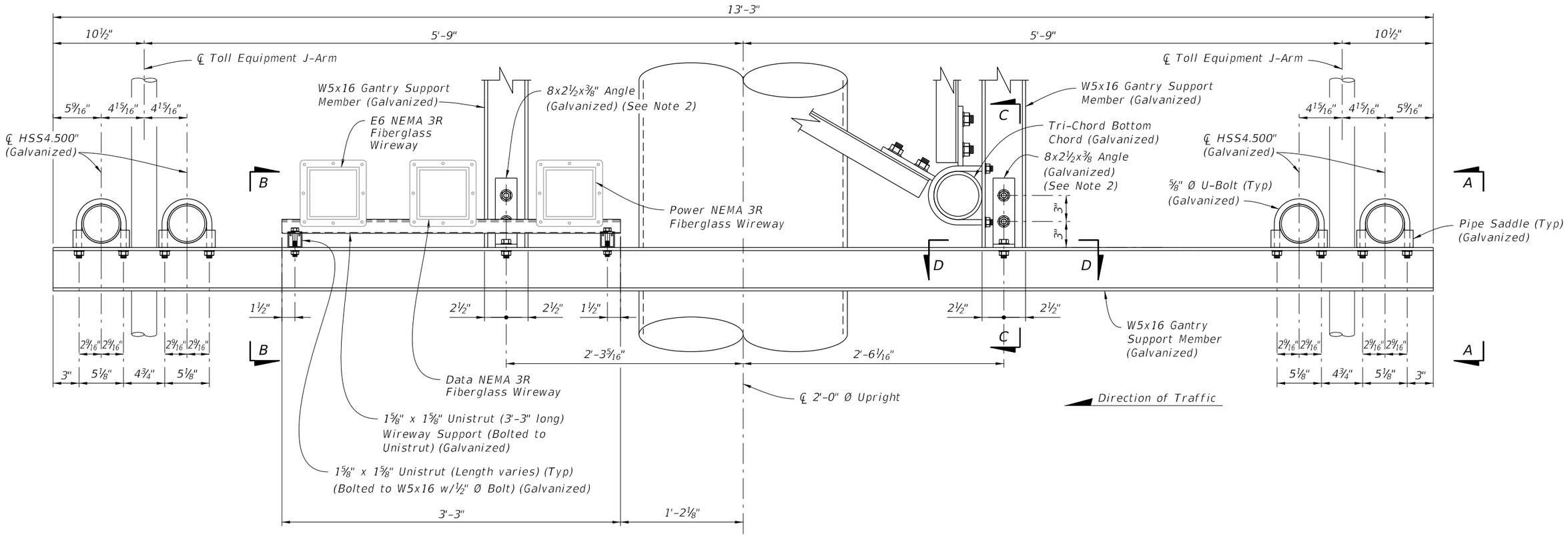

DETAIL "A"

NOTES

1. For View A-A and Sections B-B, C-C & D-D, See Drawing GB-011.
2. Fabricate angle using bent plate or larger angle with legs clipped to plan dimensions.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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STATE OF FLORIDA
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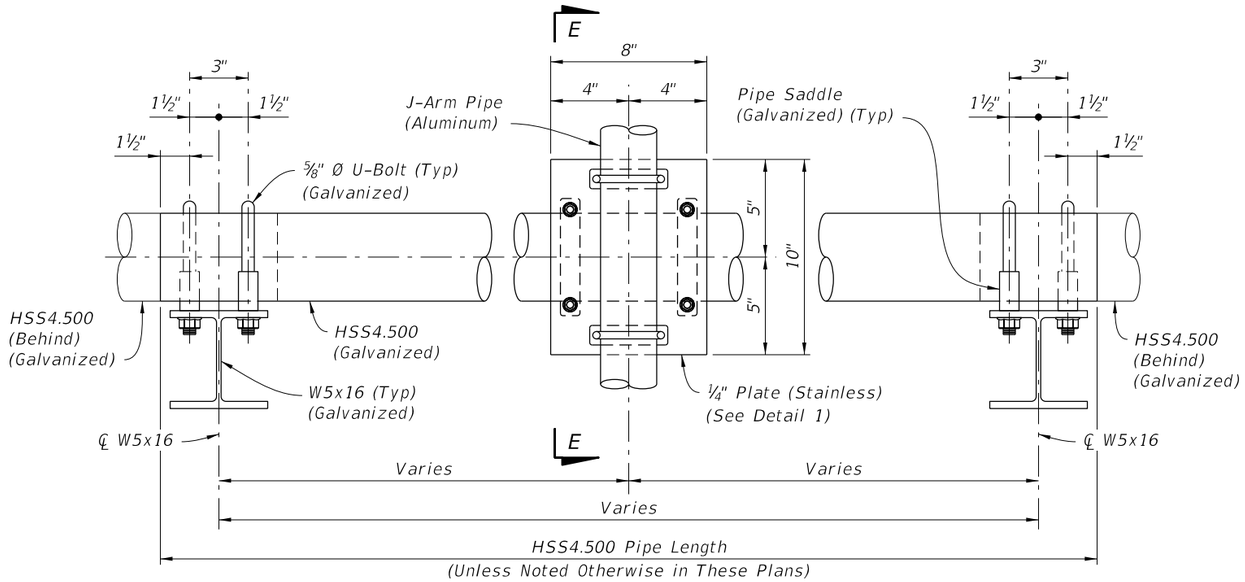
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: GANTRY DETAILS (1 OF 2)

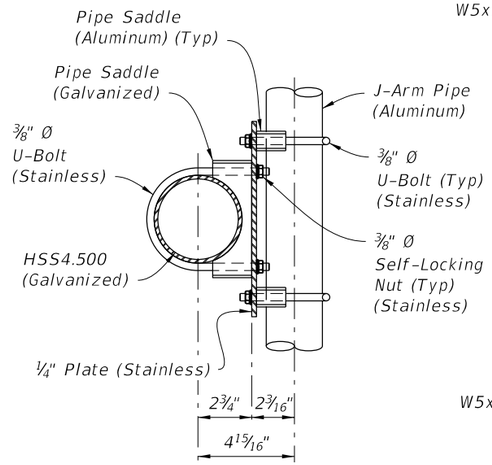
PROJECT NAME: WEKIVA PARKWAY SECTION 7A

REF. DWG. NO. GB-010

SHEET NO. 12

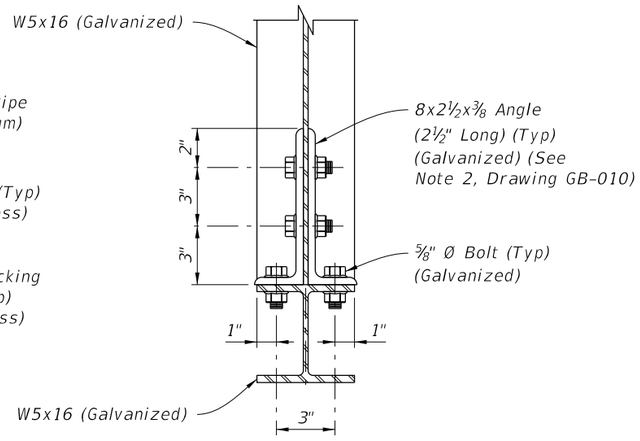


VIEW A-A

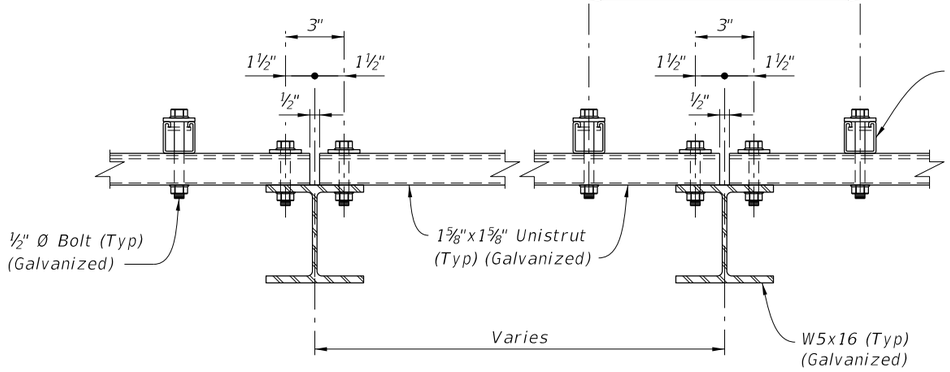


SECTION E-E

(J-Arm Mounting Bracket Assembly)

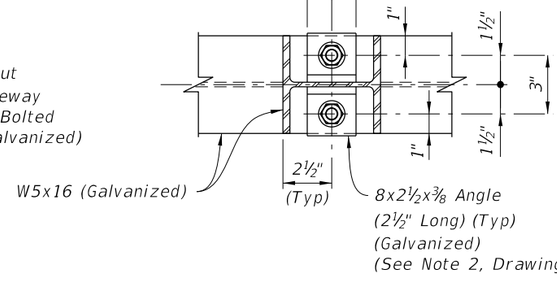


SECTION C-C

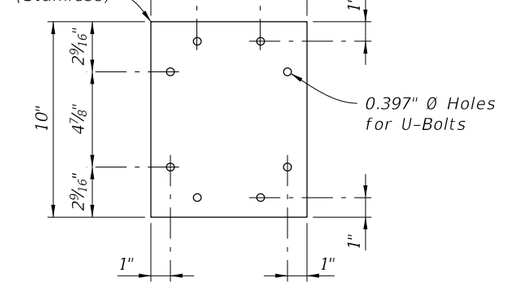


SECTION B-B

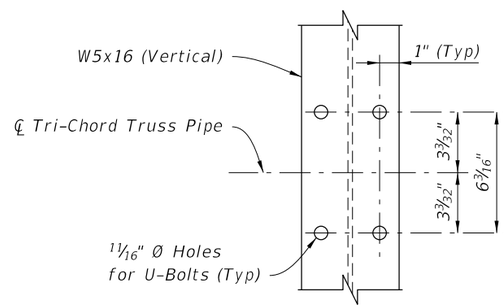
(Wireways not shown for clarity)



SECTION D-D



DETAIL 1



TRI-CHORD PIPE TO W5x16 CONNECTION DETAIL

Tri-Chord Truss Ramp Gantry - Structure No's. &

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7650 West Courtney
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CHECKED BY:	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

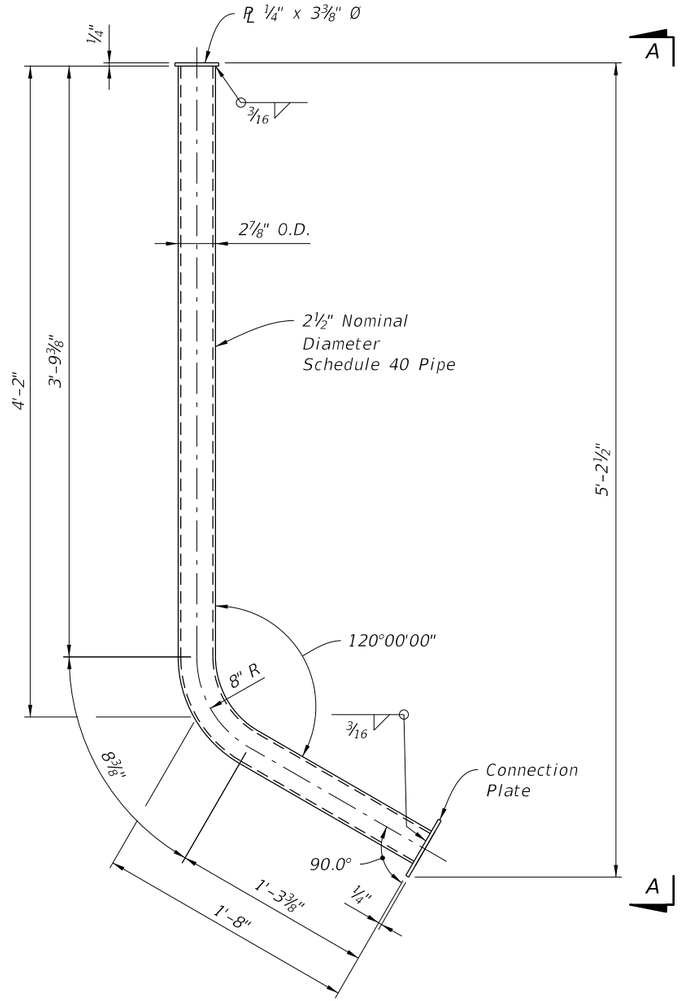
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: GANTRY DETAILS (2 OF 2)

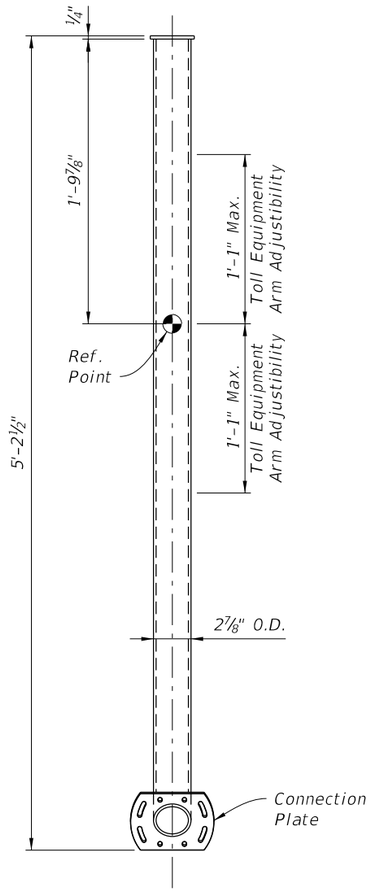
REF. DWG. NO.: GB-011

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

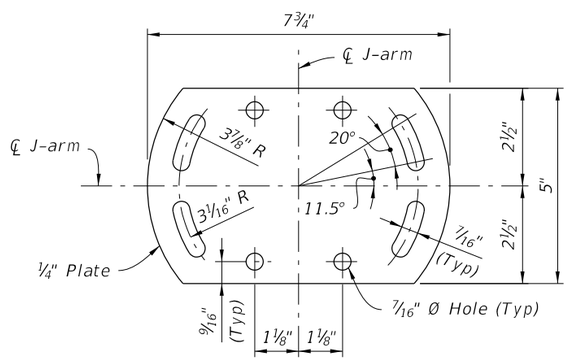
SHEET NO.: 13



TOLL EQUIPMENT J-ARM



VIEW A-A



CONNECTION PLATE DETAIL

Note: For notes, see Drawing GB-015.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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JLS 12-14	HSW 3-17	HSW 3-17	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: EQUIPMENT SUPPORT ARM DETAILS (1 OF 4)

REF. DWG. NO.: GB-012

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 14

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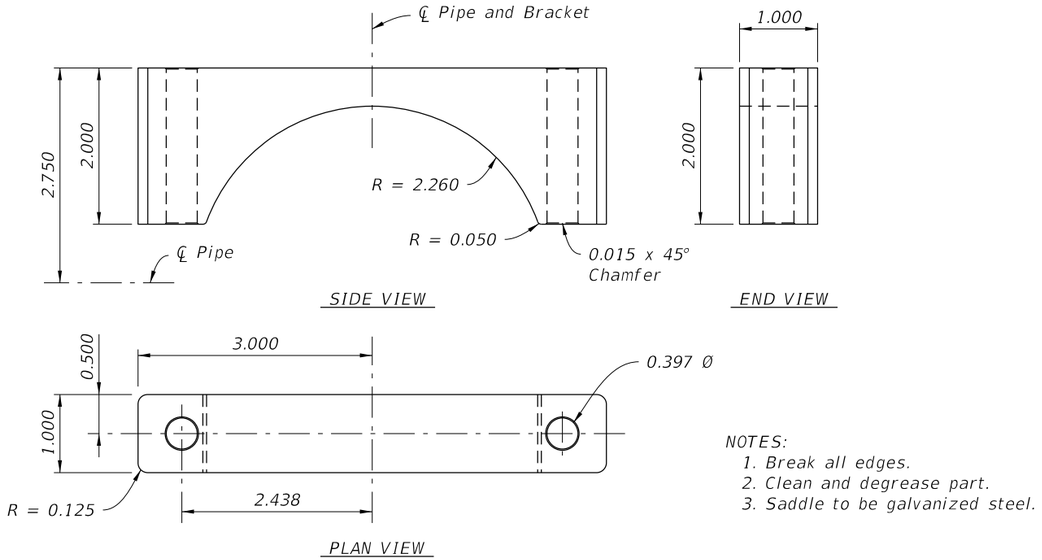
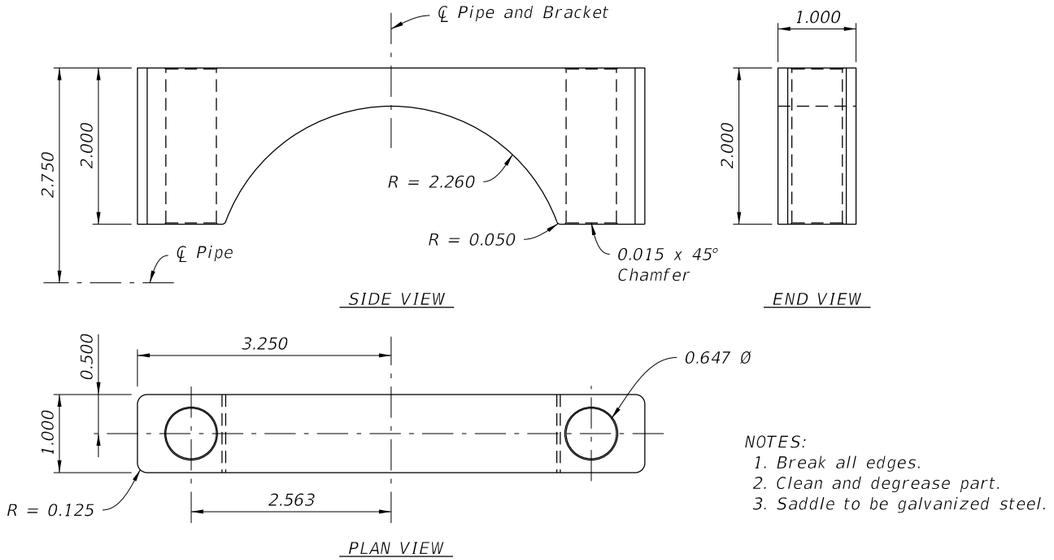


NOTES:
1. Break all edges.
2. Clean and degrease part.
3. Saddle to be galvanized steel.

HSS4.500 PIPE TO J-ARM PLATE SADDLE DETAIL

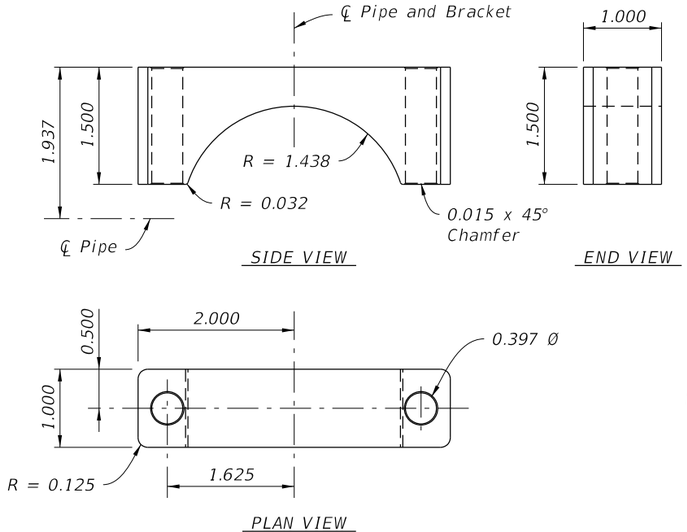
(2 Per J-Arm)



NOTES:
1. Break all edges.
2. Clean and degrease part.
3. Saddle to be galvanized steel.

HSS4.500 PIPE TO W5x16 SADDLE DETAIL

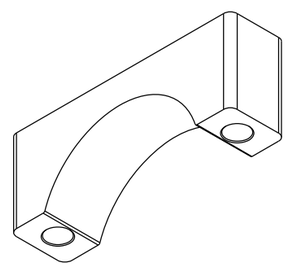
(2 Per Mounting Pipe)



NOTES:
1. Break all edges.
2. Clean and degrease part.
3. Saddle to be Aluminum-6061-T6.

J-ARM PIPE TO J-ARM PLATE SADDLE DETAIL

(2 Per J-Arm)



SADDLE ISOMETRIC VIEW

Note: All dimensions are in inches, unless noted otherwise.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Scott L. Montgomery, P.E. No. 42006

DRAWN BY:	JLS 12-14
CHECKED BY:	HSW 3-17
DESIGNED BY:	HSW 3-17
CHECKED BY:	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: EQUIPMENT SUPPORT ARM DETAILS (2 OF 4)

REF. DWG. NO.: GB-013

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 15

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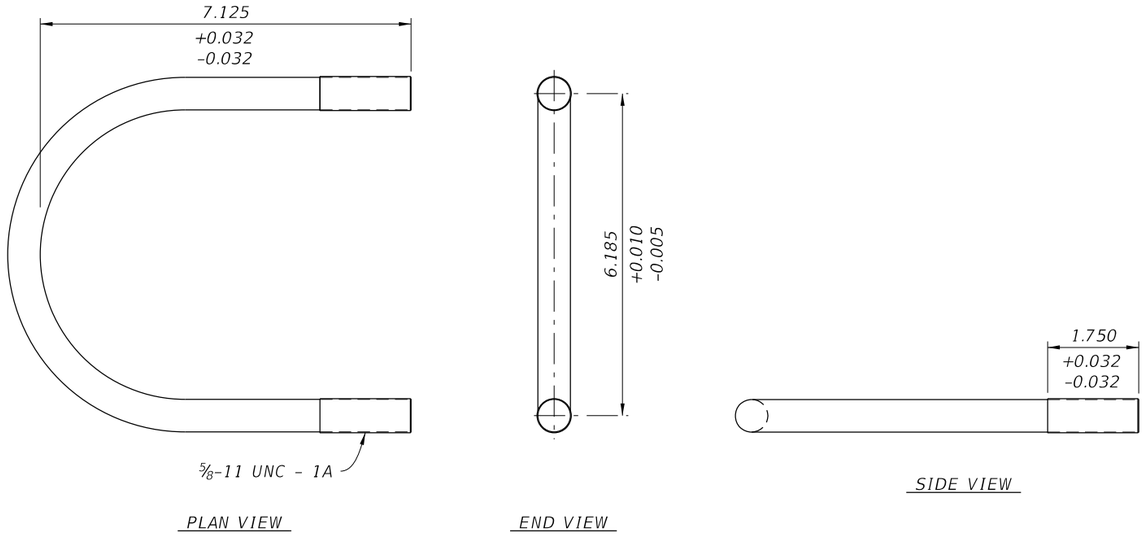
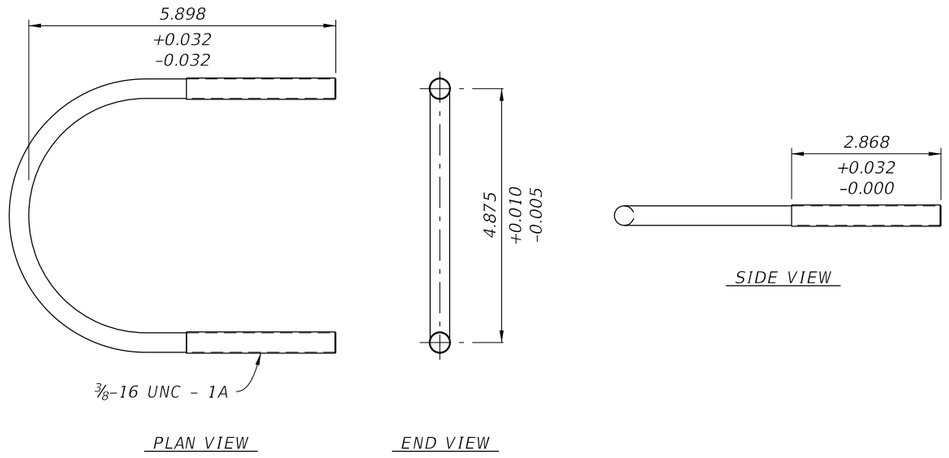


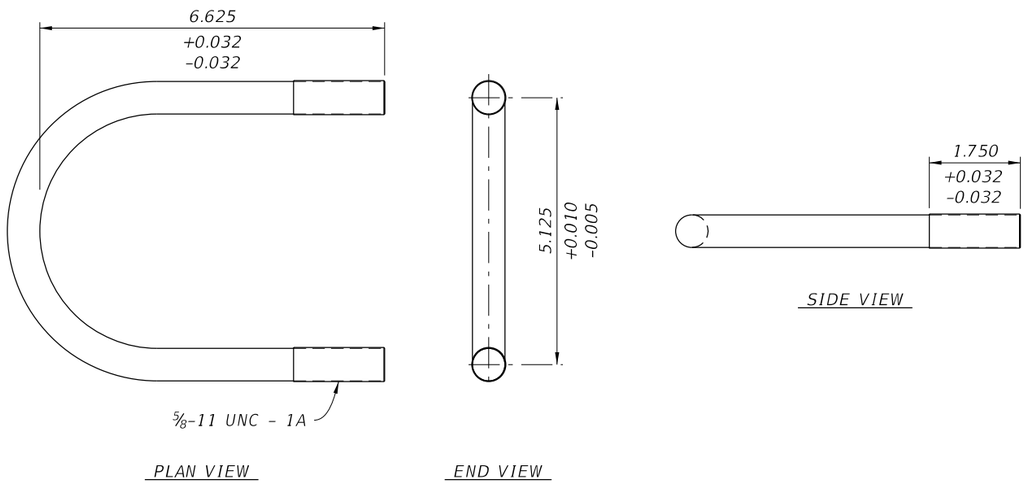
TRI-CHORD PIPE TO W5x16 U-BOLT DETAIL

NOTE: U-Bolts to be galvanized ASTM A307 GRADE A steel.
(2 Per W5x16 Connection)



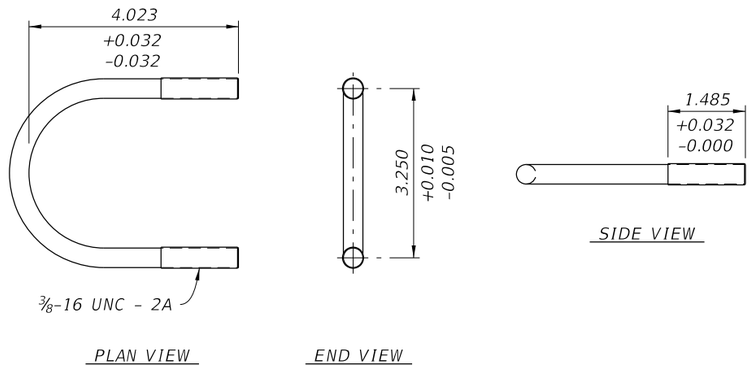
HSS4.500 PIPE TO J-ARM PLATE U-BOLT DETAIL

NOTE: U-Bolts to be 316 Stainless Steel and threads to be coated with a suitable anti-gall compound.
(2 Per J-Arm)



HSS4.500 PIPE TO W5x16 U-BOLT DETAIL

NOTE: U-Bolts to be galvanized steel.
(2 Per Mounting Pipe)



J-ARM PLATE U-BOLT DETAIL

NOTE: U-Bolts to be 316 Stainless Steel and threads to be coated with a suitable anti-gall compound.
(2 Per J-Arm)

Note: All dimensions are in inches, unless noted otherwise.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: EQUIPMENT SUPPORT ARM DETAILS (3 OF 4)

REF. DWG. NO.: GB-014

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 16

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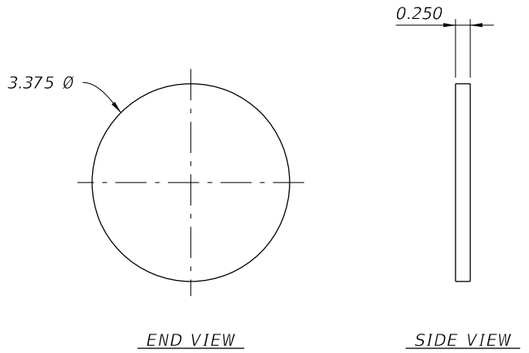
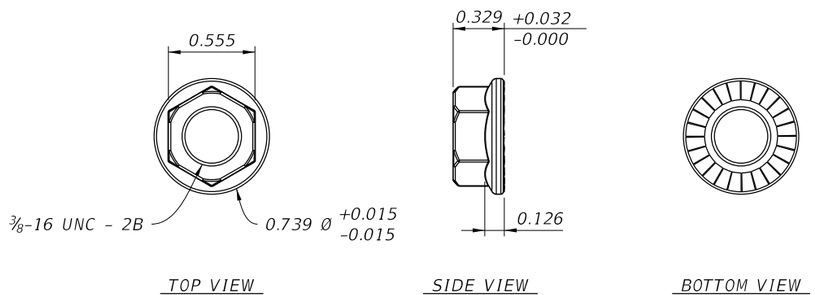


END CAP FOR PIPE 2½", SCHEDULE 40

NOTE: End cap to be Aluminum-6061-T6. Chamfer all edges 1/64" x 1/64".
(1 Per J-Arm)



LOCKING NUTS

NOTE: Locking nuts to be 316 Stainless Steel.
(2 Per U-Bolt)

J-ARM NOTES

1. The J-arm design shall accommodate all of the requirements set forth in these Tri-Chord Truss Ramp Gantry Plans.
2. All J-arm U-Bolts shall be furnished with self-locking nuts and a saddle. U-Bolt nuts shall be torqued to a snug-tight condition.
3. For Toll Equipment mounting locations, see Drawings GB-002 & GB-004.
4. All Toll Equipment J-arms and required hardware shall be Provided by the Contractor. All J-arms shall be identical with exception of the tolerances dictated herein.
5. The proportioning of weld details and the operation of welding shall be in accordance with the American Welding Society Structural Welding Code – Aluminum (AWS D1.2) (Current Edition). Welding Rods shall meet the requirements of Aluminum Association Alloy No. 5556 Filler Wire.
6. Post weld cleaning, remove splash and soot.
7. The J-arm material shall meet ASTM B429, Alloy 6061-T6 and meet Specification Section 965-2 Certification and Mill Analysis. The J-arms shall have an outside diameter of 2.875 inches with an ovality tolerance of +/- 0.015 inches along the straight sections of the arm (ANSI H35.2) and +/- 0.057 inches along the curved arm section (Pipe Fabrication Institute Standard ES-24). The final diameters in the major and minor axes (x and y planes) shall be 2.875 inches ± 0.029 inches in the straight section and ± 0.057 inches in the curved section.
8. J-arm roundness must be checked at the fabrication facility before shipping to the jobsite in accordance with the Producer's Quality Control Plan. The Turnpike may check for J-arm roundness at any time. Provide material testing reports (MTRs) that show the material meets ASTM B429, Alloy 6061-T6 . There must be traceability between the MTRs and the material actually used for the J-arms. The Turnpike may test the J-arms for Yield and Tensile strength at any time per FDOT Specification 6-1.2.4.
9. The J-arm fabricator shall be an approved fabricator of aluminum products per FDOT Specification Sections 105-3.
10. The J-Arm fabricator shall provide a letter to the Turnpike stating that the fabricator is currently equipped/capable of fabricating the J-Arms based on the criteria defined in these plans. This letter shall be provided at least one month in advance of the provisions below for the sample arm. The Turnpike will not accept J-Arms from fabricators that cannot comply with the design and tolerance criteria. The Turnpike reserves the right to visit and inspect the fabrication facility, methods, and materials at any time.
11. Each J-arm fabricator shall provide a sample arm to the Turnpike for review and approval prior to fabricating any J-arms for the project. The entire fabrication process of the sample J-arm shall be observed by the Turnpike and/or its representatives. If the sample J-arm does not meet the contract requirements, the Turnpike will not accept J-arms from the vendor fabricator supplying the sample until the design and tolerance criteria are met for a sample arm. Acceptance of the sample arm by the Turnpike does not constitute acceptance of all J-arms provided subsequently for the project. The Turnpike may measure all J-arms for conformance to design and tolerance criteria and reject any J-arms that do not meet the design and tolerance criteria. Sample J-arm(s) that meet criteria may be used as production J-arms.
12. The above stated requirements for a letter and a sample J-arm are applicable for each J-arm fabricator.
13. Shop drawings from one fabricator shall not be used by another fabricator.
14. The point of attachment of the J-arms to the mounting pipes shall be in the upper straight section of the J-arm and shall meet the criteria defined in these plans.
15. Five spare J-arms and all associated required J-arm attachment hardware (U-bolts, pipe saddles, mounting plates, self-locking nuts, etc.) per gantry shall be provided to the Turnpike and delivered to the Turnpike's Central Repair Depot at Turnpike Milepost 99. The contractor shall provide two weeks advance notice prior to delivering the spare items.
16. Six spare horizontal support pipes and complete set of attachment hardware (U-bolts, pipe saddles, mounting plates, self-locking nuts, etc.) per gantry shall be provided to the Turnpike and delivered to the Turnpike's Central Repair Depot at Turnpike Milepost 99. The contractor shall provide two weeks advance notice prior to delivering the spare items.
17. For specifics concerning J-arms, see Drawings GB-012 thru GB-015.

Note: All dimensions are in inches, unless noted otherwise.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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AECOM Technical Services, Inc.
7650 West Courtney
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Tampa, FL 33607-1462
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Scott L. Montgomery, P.E. No. 42006

DRAWN BY:	CHECKED BY:	DESIGNED BY:	CHECKED BY:
JLS 12-14	HSW 3-17	HSW 3-17	NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: EQUIPMENT SUPPORT ARM DETAILS (4 OF 4)

REF. DWG. NO.: GB-015

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 17

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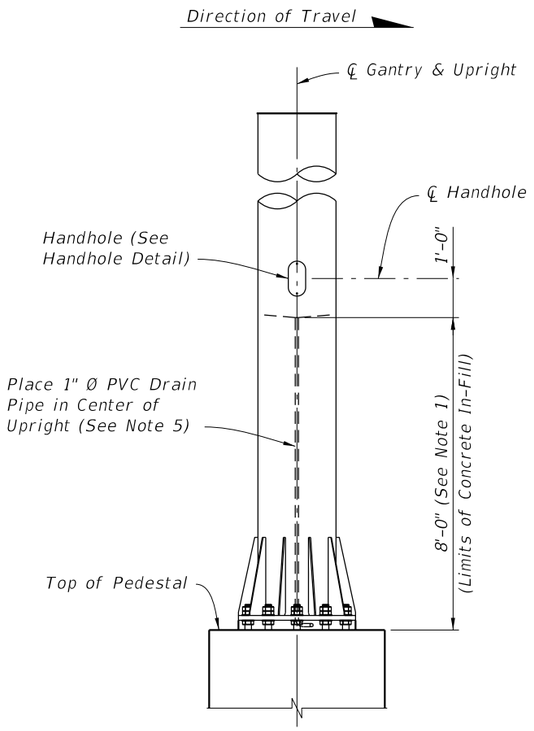
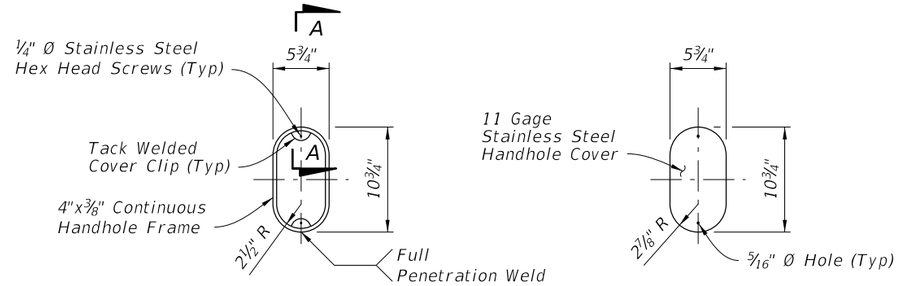
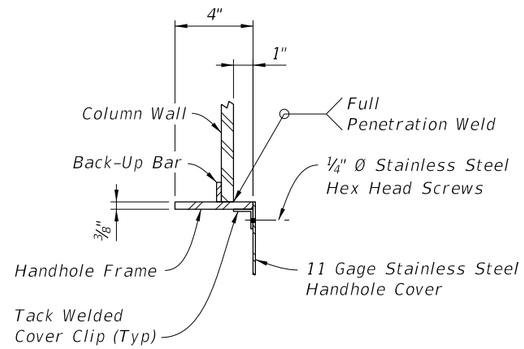


ELEVATION RIGHT UPRIGHT



HANDHOLE DETAIL



SECTION A-A
(Thru Handrail)

NOTES

1. Concrete in-fill shall extend to outside edge of base plate, down to top of pedestal. Top of in-fill shall slope downward to drain pipe.
2. Handhole Frame shall be ASTM A709, Grade 36 min.
3. Handhole Cover shall be ASTM A1011, Grade 50 min.
4. Stainless Steel screws shall be AISI Type 316.
5. Terminate 1" Ø PVC Pipe with 90° elbow that extends beyond the edge of the base plate, positioned between anchor bolts and directed toward the gutter line.

Tri-Chord Truss Ramp Gantry - Structure No's. &

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Campbell Causeway
Tampa, FL 33607-1462
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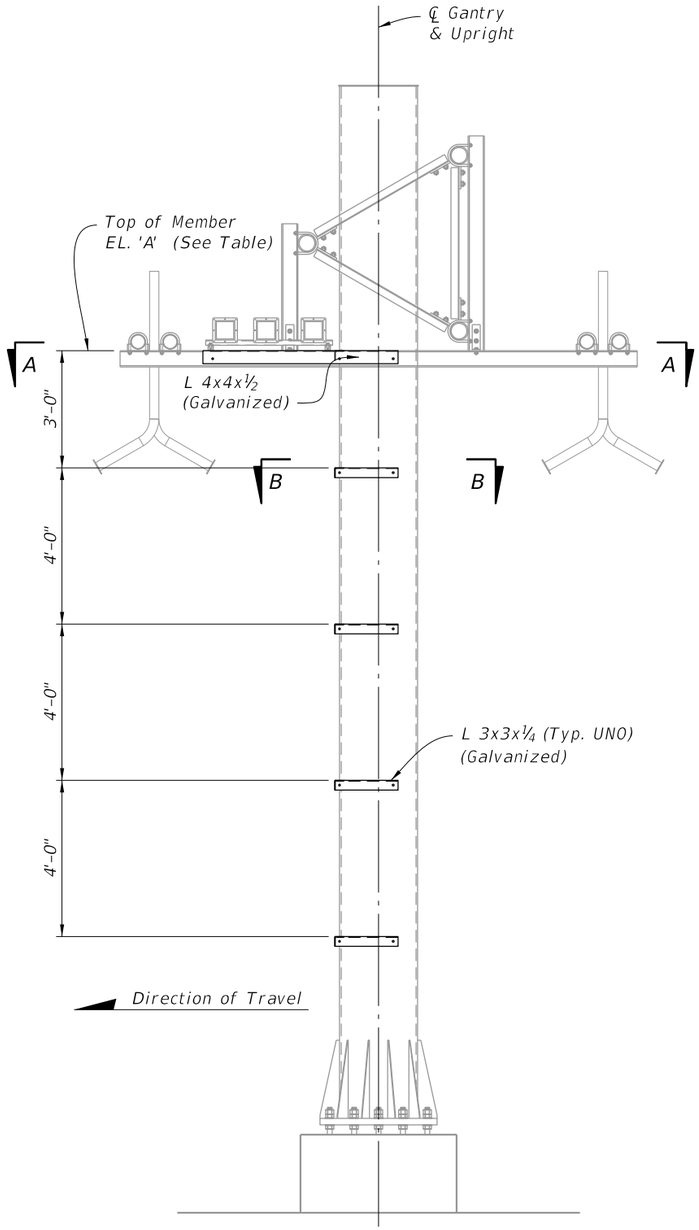
Scott L. Montgomery, P.E. No. 42006

DRAWN BY: JLS 10-15
CHECKED BY: HSW 3-17
DESIGNED BY: HSW 3-17
CHECKED BY: NJG 3-17

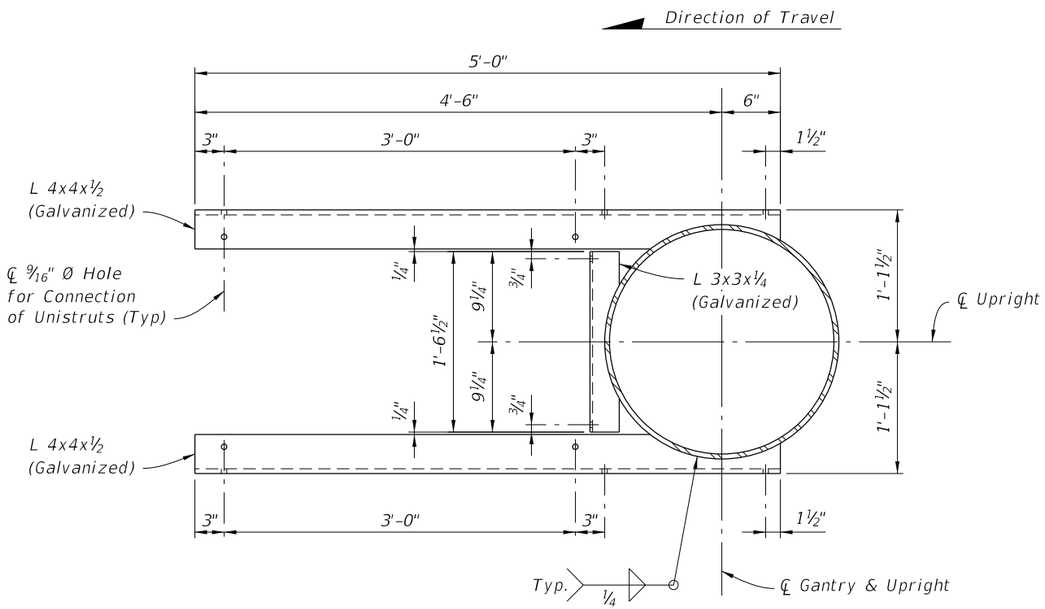
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

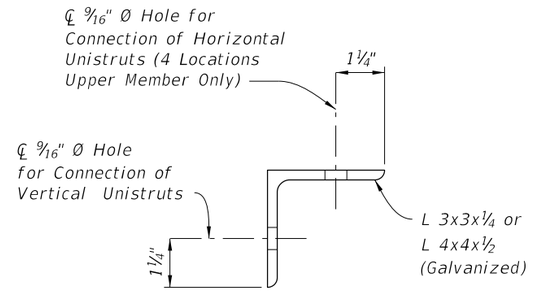
SHEET TITLE: RIGHT UPRIGHT DETAILS
REF. DWG. NO.: GB-016
PROJECT NAME: WEKIVA PARKWAY SECTION 7A
SHEET NO.: 18



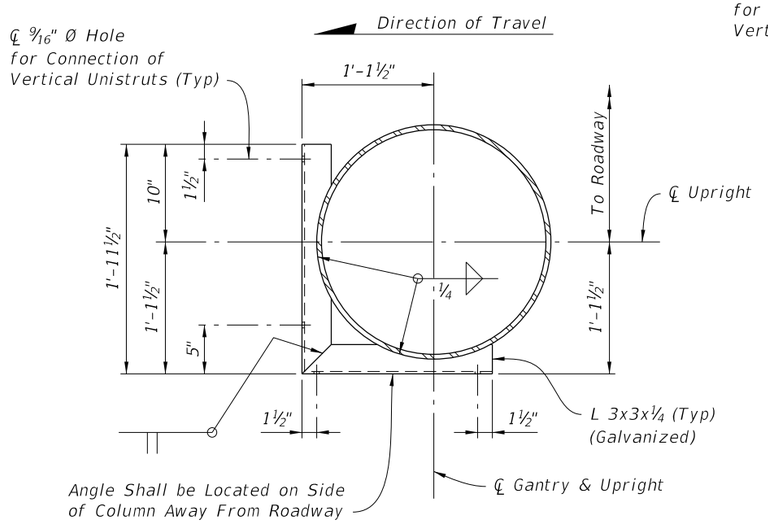
ELEVATION - LEFT UPRIGHT



SECTION A-A



ANGLE DETAIL



SECTION B-B

TABLE OF VARIABLES			
STRUCTURE LOCATION		UPRIGHT	TOP OF MEMBER ELEVATION 'A'
STRUCTURE NUMBER	SITE		
	Ramp E Gantry	Left Upright	91.083
	Ramp F Gantry	Left Upright	81.417

Tri-Chord Truss Ramp Gantry - Structure No's. &

REVISIONS					
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7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Scott L. Montgomery, P.E. No. 42006

DRAWN BY: JLS 12-14
CHECKED BY: HSW 3-17
DESIGNED BY: HSW 3-17
CHECKED BY: NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: UPRIGHT WIREWAY MOUNTING DETAILS
REF. DWG. NO.: GB-017
PROJECT NAME: WEKIVA PARKWAY SECTION 7A
SHEET NO.: 19

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SPAN TOLLING EQUIPMENT STRUCTURE DATA TABLE

Table Date 01-01-11

STRUCTURE LOCATION	STATION	DIMENSIONS			PNLS	MEMBER SIZES						SPLICE		
		A	B	C	D	E	F (CHORD)	G (WEB)	H (LEFT UPRIGHT)	J (RIGHT UPRIGHT)	K (CAMBER)	SA	SB	SC
		ft	ft	ft	#	in	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	O. D. x Wall Thk. (in)	in	Angle (in)	#	in
RAMP E	615+80.00	48.000	20.510	24.510	8	54	5.563 x 0.258	4 x 4 x 1/2	24.000 x 0.562	24.000 x 0.562	1/2	N/A	N/A	N/A
RAMP F	712+00.00	48.000	21.344	21.344	8	54	5.563 x 0.258	4 x 4 x 1/2	24.000 x 0.562	24.000 x 0.562	1/2	N/A	N/A	N/A

SPAN TOLLING EQUIPMENT STRUCTURE DATA TABLE (CONT.)

Table Date 01-01-11

STRUCTURE LOCATION	ALTERNATE SPLICE						GUSSET PLATES																	
	PA	PB	PC	PD	PE	PF	GA	GB	GC		GD		GE		GF		GG		GH		GJ		GK		GL
	in	in	in	in	in	#	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in
RAMP E	1.25	2	1/4	1/4	1	8	1/2	7/8	1	4 1/4	0	7 3/4	1	3 3/4	0	6 1/2	2	2 1/4	1	1 3/4	0	9 1/2	1	3 1/4	1/8
RAMP F	1.25	2	1/4	1/4	1	8	1/2	7/8	1	4 1/4	0	7 3/4	1	3 3/4	0	6 1/2	2	2 1/4	1	1 3/4	0	9 1/2	1	3 1/4	1/8

SPAN TOLLING EQUIPMENT STRUCTURE DATA TABLE (CONT.)

Table Date 01-01-11

STRUCTURE LOCATION	LEFT UPRIGHT CONNECTION								RIGHT UPRIGHT CONNECTION							
	LA	LB	LC	LD	LE	LF	LG	LH	RA	RB	RC	RD	RE	RF	RG	RH
	in	#	in	in	in	in	in	in	in	#	in	in	in	in	in	in
RAMP E	7/8	8	1/2	1/2	3/16	3/16	3/16	3/16	7/8	8	1/2	1/2	3/16	3/16	3/16	3/16
RAMP F	7/8	8	1/2	1/2	3/16	3/16	3/16	3/16	7/8	8	1/2	1/2	3/16	3/16	3/16	3/16

NOTES:
1. Work these Data Tables with Index 11320.
2. Design Wind Speed = 150 mph
3. Upright wall thickness given is a minimum dimension.
4. Erection is the Contractor's responsibility.
   To facilitate erection, the Contractor should consider using two vertical lift points, each located near a panel point approximately 20 to 25% of the truss length from each end.
5. Coordinate Location of Chord splices with Toll Equipment and Supports.

SPAN TOLLING EQUIPMENT STRUCTURE DATA TABLE (CONT.)

Table Date 01-01-11

STRUCTURE LOCATION	LEFT BASE CONNECTION										RIGHT BASE CONNECTION									
	BA	BB	BC	BD	BE		BF	BG	BH	BJ	CA	CB	CC	CD	CE		CF	CG	CH	CJ
	in	#	in	in	ft	in	in	in	in	in	in	#	in	in	ft	in	in	in	in	in
RAMP E	1 3/4	12	2	1/2	1	10	5/16	5/16	5/16	5/16	1 3/4	12	2	1/2	1	10	5/16	5/16	5/16	5/16
RAMP F	1 3/4	12	2	1/2	1	10	5/16	5/16	5/16	5/16	1 3/4	12	2	1/2	1	10	5/16	5/16	5/16	5/16

FOUNDATION NOTES:
1. For soil parameter assumptions and design values, see Drawing GB-019.

SPAN TOLLING EQUIPMENT STRUCTURE DATA TABLE (CONT.)

Table Date 07-01-14

STRUCTURE LOCATION	LEFT DRILLED SHAFT								RIGHT DRILLED SHAFT								
	DA		DB		DC	DD	DE	DF	FA		FB		FC	FD	FE	FF	
	ft	in	ft	in	# / size	#	in	in	ft	in	ft	in	# / size	#	in	in	
RAMP E	34	0	4	6	15 / #11	31	12	48	34	0	4	6	15 / #11	31	12	48	
RAMP F	34	0	4	6	15 / #11	31	12	48	34	0	4	6	15 / #11	31	12	48	

Tri-Chord Truss Ramp Gantry - Structure No's. &

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Scott L. Montgomery, P.E. No. 42006

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CHECKED BY: HSW 3-17
DESIGNED BY: HSW 3-17
CHECKED BY: NJG 3-17

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: TABLE OF TOLLING EQUIPMENT STRUCTURE VARIABLES

REF. DWG. NO.: GB-018

PROJECT NAME: WEKIVA PARKWAY SECTION 7A

SHEET NO.: 20

RAMP E (Sta. 615+80.00)			
Layer No.	FILL	1	2
Soil Type	Cohesionless	Cohesionless	Cohesionless
Layer Top Elevation (ft)	---	+65	+47
Layer Bottom Elevation (ft)	---	+47	+32
Layer Thickness (ft)	---	18	15
Average N-Value, N_{avg} (bpf)	20	12	37
Corrected N-Value, N_{60} (bpf)	20	9	33
Lateral Properties			
Recommended Lateral Soil Model	Sand (Reese)	Sand (Reese)	Sand (Reese)
Total Unit Weight, γ (pcf)	115	102	122
Angle of Internal Friction, Φ (degrees)	32	29	33
Subgrade Modulus, K (pci)	80	30	90
Axial/Torsional Properties			
Recommended Axial Soil Model	Drilled Shaft Sand	Drilled Shaft Sand	Drilled Shaft Sand
Recommended Torsional Soil Model	Hyperbolic	Hyperbolic	Hyperbolic
Shear Modulus, G (ksi)	1.07	0.52	1.70
Poisson's Ratio, ν	0.30	0.20	0.35
Angle of Internal Friction, Φ (degrees)	32	29	33
Youngs Modulus, E (psf)	400,000	180,000	660,000
Concrete — Ultimate Unit Skin Friction, T_f (psf)	760	342	1254
Tip Model			
Recommended Tip Soil Model	Drilled Shaft Sand	Drilled Shaft Sand	Drilled Shaft Sand
Shear Modulus, G (ksi)	1.07	0.52	1.70
Poisson's Ratio, ν	0.30	0.20	0.35
Uncorrected N-value (bpf)	20	12	37

RAMP F (Sta. 712+00.00)			
Layer No.	FILL	1	2
Soil Type	Cohesionless	Cohesionless	Cohesionless
Layer Top Elevation (ft)	---	+57	+30
Layer Bottom Elevation (ft)	---	+30	+4
Layer Thickness (ft)	---	27	26
Average N-Value, N_{avg} (bpf)	20	14	2
Corrected N-Value, N_{60} (bpf)	20	12	2
Lateral Properties			
Recommended Lateral Soil Model	Sand (Reese)	Sand (Reese)	Sand (Reese)
Total Unit Weight, γ (pcf)	115	107	92
Angle of Internal Friction, Φ (degrees)	32	30	26
Subgrade Modulus, K (pci)	80	60	15
Axial/Torsional Properties			
Recommended Axial Soil Model	Drilled Shaft Sand	Drilled Shaft Sand	Drilled Shaft Sand
Recommended Torsional Soil Model	Hyperbolic	Hyperbolic	Hyperbolic
Shear Modulus, G (ksi)	1.07	0.67	0.13
Poisson's Ratio, ν	0.30	0.25	0.10
Angle of Internal Friction, Φ (degrees)	32	30	26
Youngs Modulus, E (psf)	400,000	240,000	40,000
Concrete — Ultimate Unit Skin Friction, T_f (psf)	760	456	76
Tip Model			
Recommended Tip Soil Model	Drilled Shaft Sand	Drilled Shaft Sand	Drilled Shaft Sand
Shear Modulus, G (ksi)	1.07	0.67	0.13
Poisson's Ratio, ν	0.30	0.25	0.10
Uncorrected N-value (bpf)	20	14	2

FOUNDATION NOTES:
1. Foundation design based on soil borings performed by Geotechnical and Environmental Consultants, Inc. See Report of Core Borings, Drawings GB-006 & GB-007.

Tri-Chord Truss Ramp Gantry - Structure No's. &

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
C.A. No. 8115
Scott L. Montgomery, P.E. No. 42006

DRAWN BY: JLS 10-15
CHECKED BY: HSW 3-17
DESIGNED BY: CGB 12-14
CHECKED BY: DCS 12-14

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

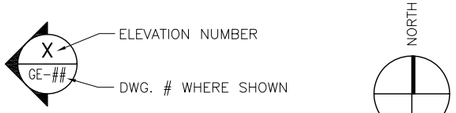
SHEET TITLE: GANTRY DESIGN SOIL PARAMETERS
REF. DWG. NO.: GB-019
PROJECT NAME: WEKIVA PARKWAY SECTION 7A
SHEET NO.: 20A

kathy.compton 7/26/2017 10:03:14 AM s:\projects_brgstruct\cadd\projects\projfdotv8i\24020025201\struct\AECOM\Gantry\B1MiscDetSoil01.dgn MODEL= Sheet 1

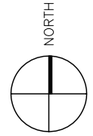
ELECTRICAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION
GFI WP	125V, 20A NEMA L5-20R, DUPLEX RECEPTACLE. 'WP' INDICATES WEATHERPROOF WITH LOCKABLE METAL WHILE-IN-USE COVER. 'GFI' INDICATES GROUND FAULT INTERRUPTER.
PTZ	PAN TILT ZOOM CAMERA.
	WIREWAY, TYPE AND LENGTH AS INDICATED ON PLANS.
	FLEXIBLE WIREWAY FITTINGS.
	90° ELBOW FOR HORIZONTAL AND VERTICAL WIREWAY CONNECTION.
	45° ELBOW.
	90° ELBOW.
	GROUNDING ROD UON.
	DEVICE OR EQUIPMENT AS NOTED.
#	REFERENCE NOTES.
	E6 READER.

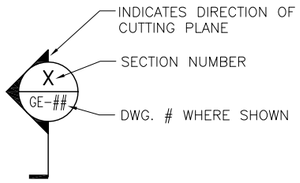
GENERAL SYMBOL LEGEND:



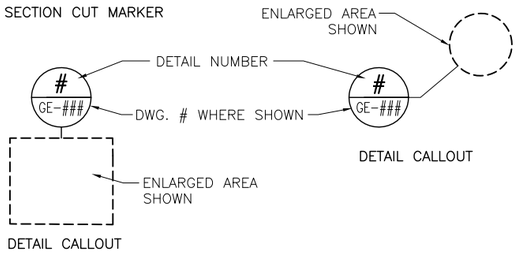
EXTERIOR ELEVATION MARKER



NORTH ARROW



SECTION CUT MARKER



DETAIL CALLOUT

PLAN / DETAIL CALLOUT

ABBREVIATIONS:

A	AMPS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	AIR CONDITIONING [UNIT]
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AL, ALUM.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AVI	AUTOMATIC VEHICLE IDENTIFICATION
AWG	AMERICAN WIRE GAUGE
BCU	BATTERY CHARGER UNIT
BLDG.	BUILDING
BPS	BYPASS SWITCH
C.	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CKT.	CIRCUIT
COMP	COMPUTER
CU	COPPER
COMM.	COMMUNICATION
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIA.	DIAMETER
DN	DOWN
DVAS	DIGITAL VIDEO AUDITING SYSTEM
DWG.	DRAWING
E6	ENCOMPASS 6 MULTIPROTOCOL READER
EC	ELECTRICAL CONTRACTOR
ENG.	ENGINE
ETC	ELECTRONIC TOLL COLLECTION
ETC.	ET CETERA
EQUIP.	EQUIPMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPO	EMERGENCY POWER OFF
EXT.	EXTERIOR
FOC	FIBER OPTIC CABLE
FT	FOOT; FEET
FTE	FLORIDA'S TURNPIKE ENTERPRISE
FTL	FEED THROUGH LUGS
FTM	FUEL TANK MONITOR
FUT	FUTURE
GA	GAUGE
GAL.	GALLON
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HORIZONTAL, HERTZ
I.C.	INTERRUPTING CAPACITY
I.D.	IDENTIFICATION
IN.	INCHES
JB	JUNCTION BOX
KA	KILOAMPERES
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LN CTR	LANE CONTROLLER
LOC.	LOCATION
LLC	LEAD LAG CONTROLLER
LP	LIGHTNING PROTECTION
LTG	LIGHTING
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MTS	MANUAL TRANSFER SWITCH
MIN.	MINIMUM
ML	MAINLINE
M.L.O.	MAIN LUGS ONLY
MOT	MAINTENANCE OF TRAFFIC
MTD	MOUNTED
N	NEUTRAL
NB	NORTHBOUND
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN

ABBREVIATIONS CONT:

N.T.S.	NOT TO SCALE
N3R	NEMA 3R
OC	ON CENTER
OPUS	OPTICAL PROFILE UNIFYING SYSTEM
ORT	OPEN ROAD TOLLING
Ø	PHASE
P	POLE
PCB	POLYCHLORINATED BIPHENYL
PNL	PANEL
PVC	POLYVINYL CHLORIDE
RECEPT.	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARED
SB	SOUTHBOUND
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCH.	SCHEDULE
SCP	SCADA CONTROL PANEL
SCTE	SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS
SD	SQUARE D
SER	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTIVE DEVICE
SPEC(S)	SPECIFICATION(S)
S.P.S.T.	SINGLE POLE SINGLE THROW
S.S.	STAINLESS STEEL
STP	SHIELDED TWISTED PAIR
SQ.	SQUARE
STFE	STATE TOLL FACILITY ENGINEER
SYMM.	SYMMETRICAL
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T&H	TEMPERATURE AND HUMIDITY SENSOR
T.O.	TOLL OPERATIONS
TSP	TECHNICAL SPECIAL PROVISIONS
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VCAR	VEHICLE CAPTURE AND RECOGNITION SYSTEM
VDAC	VEHICLE DETECTION AND CLASSIFICATION UNIT
VES	VIOLATION ENFORCEMENT SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
W	WIRE; WATT
W/	WITH
WP	WEATHERPROOF (NEMA 3R)
XFMR	TRANSFORMER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL SYMBOL LEGEND AND ABBREVIATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-101**

SHEET NO. **21**

ELECTRICAL GENERAL NOTES:

1. FEED ALL RECEPTACLES AND DEVICES WITH (2) #12, (1) #12 GND IN 3/4" C, UON.
2. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.
3. ALL 120V, 20A CIRCUIT HOMERUNS OVER 50FT. SHALL BE #10 CU MINIMUM, UON.
4. ALL 120V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #8 CU MINIMUM, UON.
5. ALL 240V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #10 CU. MINIMUM, UON.
6. ALL 240V, 20A CIRCUIT HOMERUNS OVER 300FT. SHALL BE #8 CU MINIMUM, UON.
7. PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT AND RACEWAYS WITH LABELING AT EACH END.
8. THE USE OF ANY PROCESS INVOLVING ASBESTOS OR PCB, AND THE INSTALLATION OF ANY PRODUCT, INSULATION, COMPOUND OR MATERIAL CONTAINING OR INCORPORATING ASBESTOS OR PCB, IS PROHIBITED. PROVIDE A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM WITHOUT THE USE OF ASBESTOS OR PCB.
9. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID. SUBMISSION OF A BID WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
10. INCLUDE THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
    A) COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS.
    B) TRANSPORT AND DISPOSE OF LAMPS, BALLASTS AND OTHER MATERIALS IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES.
    C) PROVIDE WRITTEN CERTIFICATION THAT ALL MATERIALS WERE RECYCLED OR DISPOSED OF PROPERLY PER THE GUIDELINES NOTED ABOVE.
11. LOCATE EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE.
12. PHASE WORK AS REQUIRED BY MOT PLANS.
13. UNDERGROUND CONDUIT SHALL BE PVC SCH. 80, UON. UNDERGROUND CONDUIT SHALL TRANSITION TO RGS CONDUIT WITH PVC TO RGS CONDUIT FITTINGS. CONDUIT SHALL BE RGS ABOVE GRADE THROUGH AND INCLUDING THE FIRST 90 DEGREE FITTING UNDERGROUND UON. APPLY 2-COAT BITUMASTIC COATING TO DIRECT BURIED PORTION OF RGS CONDUIT, UP TO AND INCLUDING 6" ABOVE FINAL GRADE. REFER TO TSP FOR FURTHER INFORMATION.
14. TOLL EQUIPMENT AND ALL WIRING/CABLING FOR TOLL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY T.E.C., UON.
15. UNDERGROUND CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE.
16. EXPOSED EXTERIOR CONDUIT SHALL BE RGS THROUGH AND INCLUDING THE FIRST 90° BEND INSTALLED UNDERGROUND. TRANSITIONS BETWEEN RGS AND PVC CONDUIT SHALL BE MADE WITH A RGS TO PVC CONDUIT FITTING.
17. EQUIPMENT SPECIFIED WITH CATALOG NUMBERS OR PART NUMBERS SHALL NOT BE SUBSTITUTED UNLESS "OR EQUAL" IS INDICATED.
18. PLASTIC END CAPS SHALL BE INSTALLED ON ENDS OF ALL UNISTRUT.
19. ALL LIQUID-TIGHT, FLEXIBLE CONDUIT SHALL BE METALLIC.
20. AC OR DC ELECTRICAL CIRCUITS OR WIRING THAT OPERATES AT 25 VOLTS OR GREATER SHALL NOT BE INSTALLED AND/OR LOCATED WITHIN 5 FEET OF ANY TRAFFIC DETECTION LOOP OR LOOP PULL BOX.
21. REFER TO TECHNICAL SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
22. OUTLET AND DEVICE JUNCTION BOXES INSTALLED OUTDOORS SHALL BE MANUFACTURED FROM GALVANIZED CAST IRON WITH THREADED HUBS, UON. REFER TO TSP SECTION 26 05 33 FOR DETAILS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

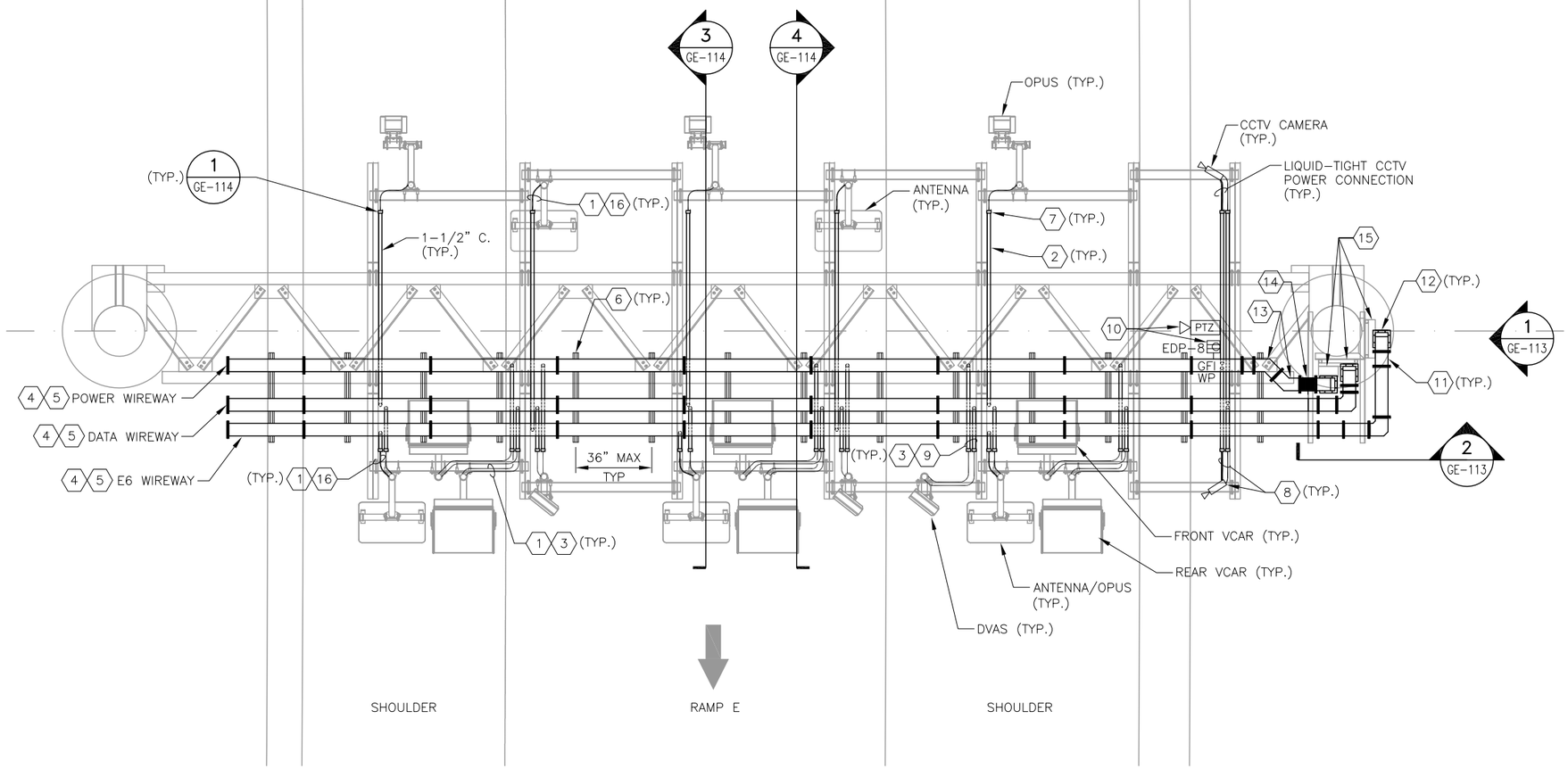
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL GENERAL NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-102**

SHEET NO. **22**



1 GE-111 RAMP E – GANTRY ELECTRICAL PLAN – TRANSCORE (INFINITY) SYSTEM
SCALE: 3/16"= 1'-0"

REFERENCE NOTES:

1. TOLL EQUIPMENT CABLING PROVIDED BY T.E.C.
2. REFER TO DETAILS ON GE-114 FOR CONDUIT MOUNTING.
3. REFER TO TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE ON GE-115 FOR ADDITIONAL INFORMATION.
4. 6"x6" FIBERGLASS WIREWAY (SEE TSP 26 05 34 FOR RATING). MOUNT WIREWAY TO TOLL EQUIPMENT STRUCTURE AND SUPPORTS WITH THE COVER FACING UP. POWER CIRCUITING SHALL BE PROVIDED WITH GROUND WIRES IN THE POWER WIREWAY. SEE TSP FOR DETAILS.
5. PROVIDE 8.25"x8.25" CLOSURE PLATE TO SEAL THE END OF WIREWAY RUN, #10 GAUGE, 316 STAINLESS STEEL.
6. PROVIDE 12GA 1-5/8" x 1-5/8" HOT-DIPPED GALVANIZED UNISTRUT AT 3'-0" MAXIMUM SPACING ALONG THE ENTIRE LENGTH OF WIREWAYS. CONNECT UNISTRUT TO BOTH STRUCTURAL ANGLES THAT PARALLEL THE HORIZONTAL WIREWAY RUNS.
7. PROVIDE COUPLING FROM RGS CONDUIT TO LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8. PROVIDE (1) POWER AND (1) DATA 1-1/2" CONDUIT FROM EACH RESPECTIVE WIREWAY TO THE CCTV CAMERA. CCTV CAMERA AND CAMERA CABLES PROVIDED BY SECURITY CONTRACTOR.
9. CONDUITS ARE ROUTED ONE ON TOP OF EACH OTHER. REFER TO GE-114.
10. PROVIDE RECEPTACLE IN A 4" BOX INSIDE A NEMA 4 ENCLOSURE. ENCLOSURE SHALL BE HOFFMAN #A884PHC WITH ALUMINUM BACKPLANE HOFFMAN #A8P8AL OR APPROVED EQUAL. PROVIDE 120V SPD INSIDE ENCLOSURE. REFER TO TSP SECTION 26 43 13 FOR REQUIREMENTS. MOUNT ENCLOSURE TO A STRUCTURAL MEMBER A MAXIMUM OF 10' FROM PTZ CAMERA. CAMERA WILL BE MOUNTED ON GANTRY STRUCTURE. CAMERA WILL BE PROVIDED AND INSTALLED BY THE SECURITY CONTRACTOR. COORDINATE EXACT LOCATION WITH DEPARTMENT PRIOR TO ROUGH IN.
11. PROVIDE FIBERGLASS CUT-OFF FITTINGS (SEE TSP 26 05 34 FOR RATING), WITH LENGTHS UP TO 24". SHORTEN BODY TO DESIRED LENGTH AND BOND FLANGE TO BODY.
12. PROVIDE 90° FIBERGLASS ELBOW TO CONNECT HORIZONTAL AND VERTICAL WIREWAYS. ELBOW SHALL MAINTAIN NEMA RATING (AS SPECIFIED IN TSP) IN THE ORIENTATION SHOWN.
13. PROVIDE 45° FIBERGLASS ELBOW. SEE TSP 26 05 34 FOR RATING.
14. PROVIDE FLEXIBLE FITTINGS (SEE TSP 26 05 34 FOR RATING) TO COMPENSATE FOR MISALIGNMENT, STRETCH LENGTH RANGE FROM 3 1/2" TO 12", HYPALON BELLOW WITH STAINLESS STEEL FLANGES.
15. PROVIDE 12GA, HOT-DIPPED GALVANIZED, 1-5/8" WIDTH SERIES UNISTRUT, HEIGHT VARIES TO SUPPORT AND CONNECT TO WIREWAYS.
16. E6 ANTENNA CABLES.

NORTH

GRAPHIC SCALE
SCALE: 3/16"= 1'-0"
0 3' 6'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

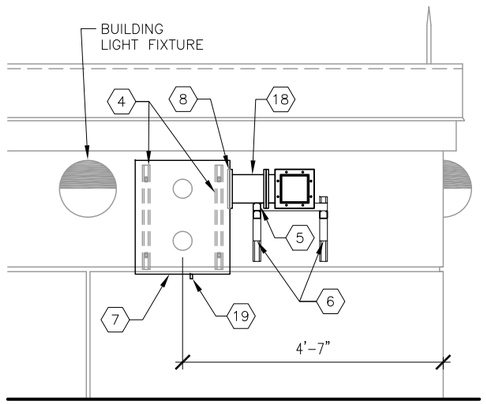
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **RAMP E - GANTRY ELECTRICAL PLAN**

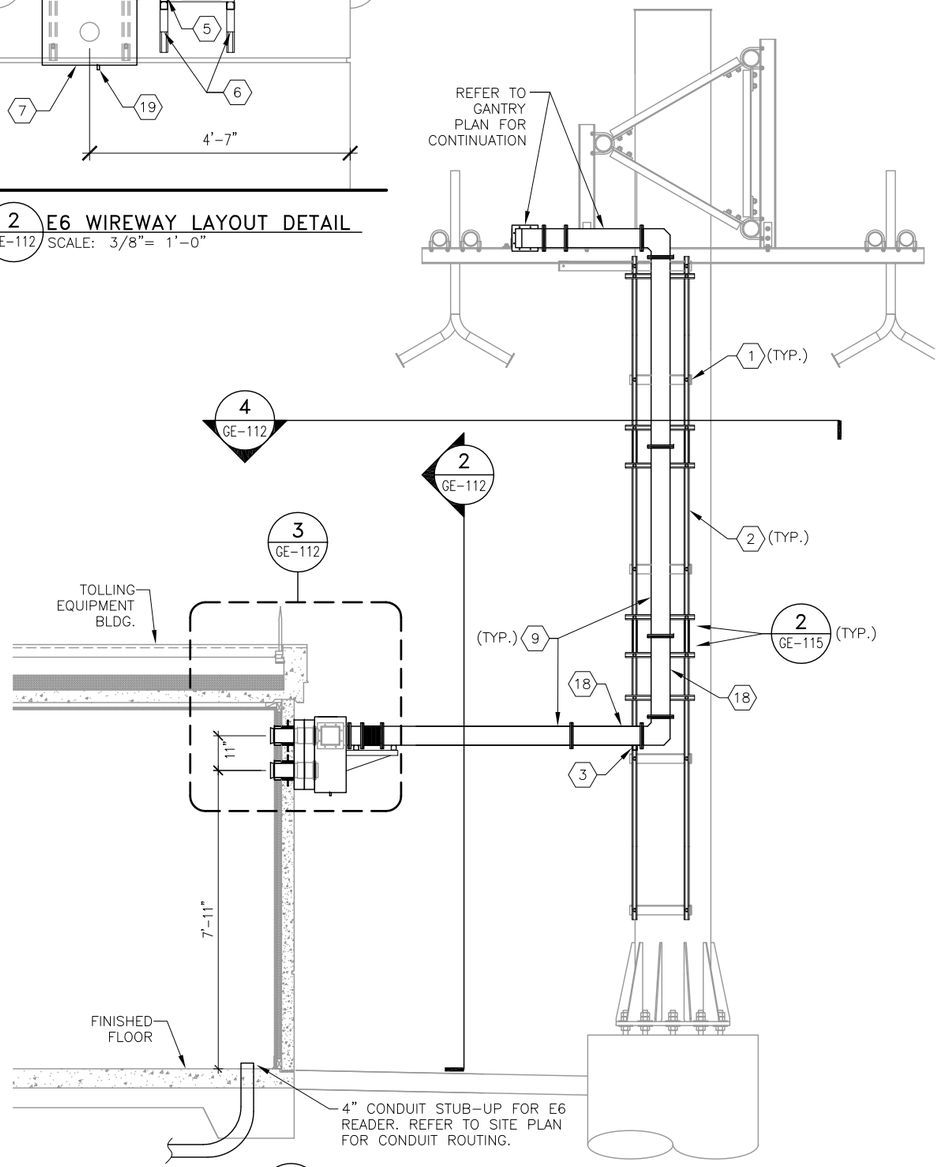
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-111**

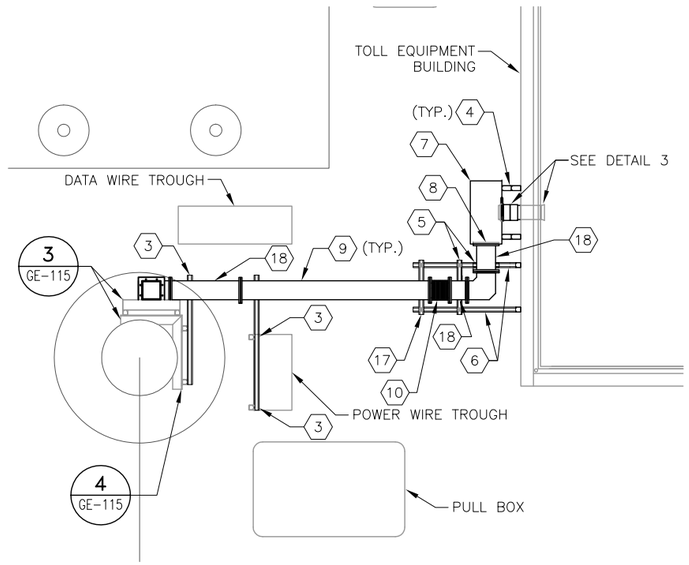
SHEET NO. **23**



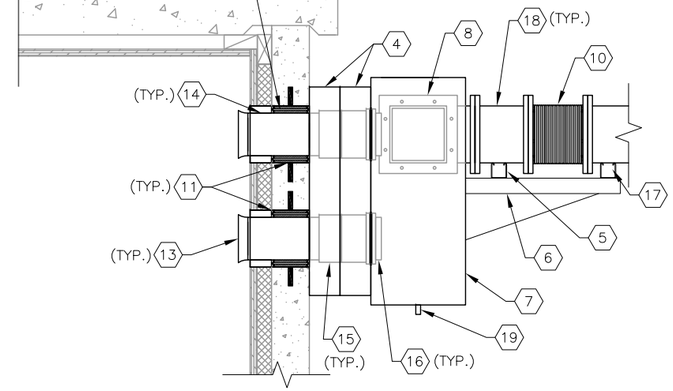
2 GE-112 E6 WIREWAY LAYOUT DETAIL
SCALE: 3/8"= 1'-0"



1 GE-112 E6 WIREWAY LAYOUT DETAIL
SCALE: 1/4"= 1'-0"



4 GE-112 E6 WIREWAY LAYOUT DETAIL – TOP VIEW
SCALE: 1/4"=1'-0"



3 GE-112 E6 WIREWAY LAYOUT DETAIL
SCALE: 3/4"= 1'-0"

GENERAL NOTES:

1. DEBURR & FILE UNISTRUT AND MOUNTING HARDWARE TO ELIMINATE SHARP EDGES.
2. TERMINATE UNISTRUT WITH PLASTIC END CAPS.

REFERENCE NOTES:

1. PRE-DRILLED STRUCTURAL SUPPORT FABRICATED AS PART OF GANTRY COLUMN.
2. VERTICALLY MOUNTED 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT SECURED TO STRUCTURAL MEMBERS VIA PRE-DRILLED HOLES.
3. PROVIDE 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT TO SUPPORT HORIZONTAL WIREWAY. THE UNISTRUT SHALL BE MOUNTED HORIZONTALLY AND SECURED TO VERTICALLY MOUNTED UNISTRUT CHANNEL. PROVIDE 90° UNISTRUT FITTINGS RATED FOR A MINIMUM UNIFORM LOAD OF 500 LBS.
4. PROVIDE 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT BEHIND ENCLOSURE TO SUPPORT ENCLOSURE. PROVIDE A 1-1/2" GAP BETWEEN BUILDING AND ENCLOSURE TO ALLOW WATER TO DRAIN BEHIND ENCLOSURE.
5. PROVIDE 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT TO SUPPORT WIREWAY. UNISTRUT SHALL BE SECURED TO THE BOTTOM OF WIREWAY. REFER TO DETAIL 2 ON DRAWING GE-115.
6. PROVIDE BRACED SINGLE BRACKET RATED FOR A MINIMUM UNIFORM LOAD OF 924 LBS TO SUPPORT WIREWAY. COOPER B-LINE CAT NO. B494-30 OR EQUAL.
7. PROVIDE 24" X 20" X 10" NEMA TYPE 4X, ALUMINUM ENCLOSURE, CONTINUOUS HINGE DOOR WITH CLAMPS AND LOCKABLE HASP. HOFFMAN CATALOG #A24H2010ALLP OR APPROVED EQUIVALENT.
8. PROVIDE BOX CONNECTOR ON THE INSIDE OF THE ENCLOSURE TO ENSURE A WATER TIGHT SEAL BETWEEN WIREWAY AND ENCLOSURE. HOFFMAN CATALOG #F66WBFG OR APPROVED EQUIVALENT.
9. 6" X 6" FIBERGLASS WIREWAY, UL LISTED FOR VERTICAL AND HORIZONTAL INSTALLATION. REFER TO TSP 26 05 34 FOR ADDITIONAL REQUIREMENTS.
10. PROVIDE FLEXIBLE FITTING TO COMPENSATE FOR MISALIGNMENT, STRETCH LENGTH RANGE FROM 3-1/2" TO 12", HYPALON BELLOW WITH STAINLESS STEEL FLANGES.
11. 6" HDPE SLEEVE CAST IN PLACE DURING FABRICATION OF CONCRETE WALL. CONDUIT SLEEVE SHALL HAVE STANDARD 2" HEIGHT, FULL PERIMETER WATER STOP.
12. PROVIDE WALL PENETRATION MECHANICAL PIPE SEAL TO CREATE PERMANENT WATERTIGHT SEAL BETWEEN CONDUIT AND CONDUIT SLEEVE. PIPE SEAL SHALL BE INSTALLED FLUSH WITH EXTERIOR WALL. REFER TO TSP 26 05 33 FOR ADDITIONAL REQUIREMENTS.
13. PROVIDE 4" SCHEDULE 80 PVC END BELL. SOLVENT CEMENT WELD END BELL TO 4" SCHEDULE 80 PVC CONDUIT.
14. PROVIDE 4" SCHEDULE 80 PVC CONDUIT SECURED WITH CONDUIT SEAL.
15. PROVIDE 4" PVC SCHEDULE 80 FITTING FOR ADAPTING PVC CONDUIT TO THREADED METALLIC CONDUIT HUB.
16. PROVIDE 4" WATERTIGHT, THREADED RIGID CONDUIT HUB FOR CONNECTION TO ENCLOSURE.
17. PROVIDE 1-5/8" WIDTH, HOT-DIPPED GALVANIZED UNISTRUT TO SUPPORT WIREWAY. WIREWAY SHALL BE LOOSELY SECURED TO UNISTRUT WITH GALVANIZED STEEL STRAP TO ALLOW APPROXIMATELY 1/4" FREE MOVEMENT OF WIREWAY IN HORIZONTAL AND VERTICAL DIRECTIONS.
18. 6" X 6" FIBERGLASS CUT-OFF FITTING, WITH LENGTH UP TO 24". SHORTEN BODY TO DESIRED LENGTH AND BOND FLANGE TO BODY.
19. PROVIDE CORROSION-RESISTANT, UL LISTED, TYPE 4X RATING VENT DRAIN IN BOTTOM OF ENCLOSURE.

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

GRAPHIC SCALE
SCALE: 3/8"= 1'-0"
0 1.25' 2.5'

GRAPHIC SCALE
SCALE: 3/4"= 1'-0"
0 .75' 1.5'

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **E6 WIREWAY ROUTING DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-112**

SHEET NO. **24**

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GENERAL NOTES:

1. UNISTRUT & MOUNTING HARDWARE SHALL BE DEBURRED & FILED SMOOTH TO REMOVE ROUGH EDGES.
2. PROVIDE PLASTIC END CAPS FOR UNISTRUT SUPPORTS.
3. PROVIDE TELESCOPING FITTINGS, MOUNTING HARDWARE AND ACCESSORIES TO PROVIDE A COMPLETE RACEWAY SYSTEM.
4. UNISTRUT LESS THAN 20' SHALL BE CONTINUOUS WITHOUT SPLICES.
5. PROVIDE UNISTRUT SUPPORTS AS REQUIRED TO SUPPORT THE NONMETALLIC WIREWAYS IN ACCORDANCE WITH NEC ARTICLE 378.

REFERENCE NOTES:

(1) 12"x12", NEMA 3R, UL 870 & UL50 LISTED WIRE TROUGH, 12 GAUGE PLATED STEEL WITH ANSI 61 GRAY POLYESTER POWDER PAINT FINISH INSIDE AND OUT. REFER TO SITE PLAN FOR CONDUIT ROUTING.

(2) 6"x6" FIBERGLASS WIREWAY, UL LISTED FOR VERTICAL INSTALLATION. REFER TO TSP 26 05 34 FOR DETAILS.

(3) 1-5/8" WIDTH, HEIGHT VARIES, VERTICALLY MOUNTED UNISTRUT SECURED TO STRUCTURAL MEMBERS VIA PRE-DRILLED HOLES. EC TO PROVIDE MOUNTING HARDWARE TO SECURE WIREWAY TO UNISTRUT.

(4) PROVIDE 90° ELBOW (REFER TO TSP 26 05 34 FOR RATING) TO CONNECT HORIZONTAL AND VERTICAL WIREWAYS. ELBOW SHALL MAINTAIN NEMA RATING IN THE ORIENTATION SHOWN.

(5) 1-5/8" x 1-5/8" UNISTRUT MOUNTED 6" FROM WIREWAY JOINTS.

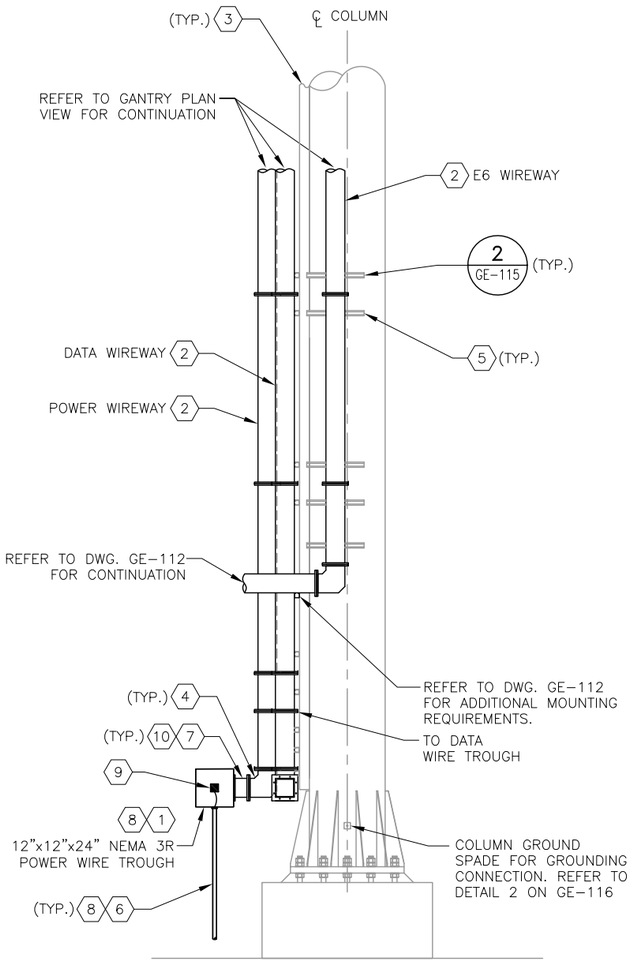
(6) REFER TO SITE PLAN FOR CONDUIT SIZES, QUANTITIES & ROUTING.

(7) PROVIDE SUPPORT (NOT SHOWN) FOR WIREWAY.

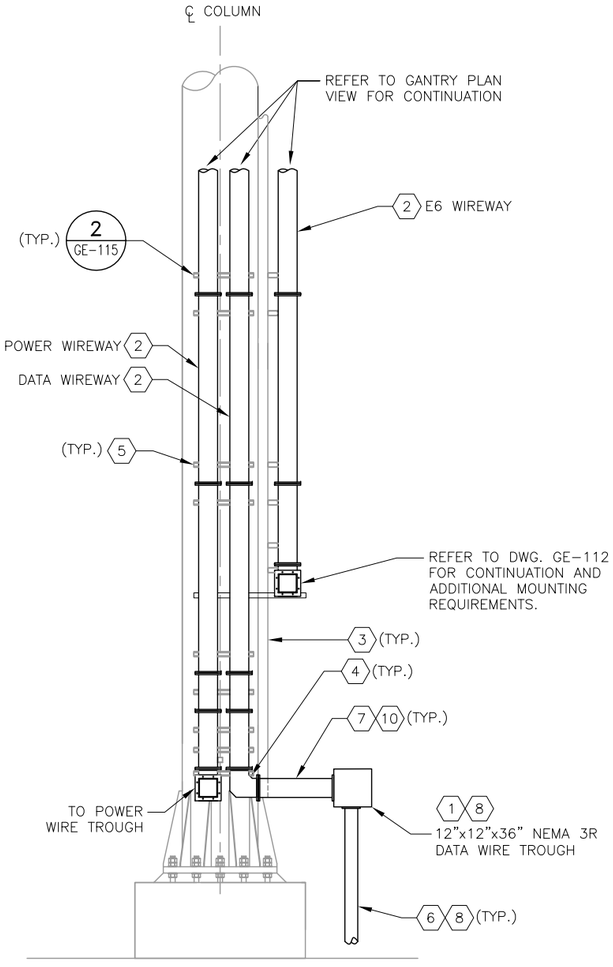
(8) REFER TO DETAIL 3 ON THIS SHEET FOR WIRE TROUGH AND CONDUIT MOUNTING.

(9) PROVIDE TIN PLATED COPPER GROUND BUS. PROVIDE BONDING BUSHINGS ON ALL CONDUIT CONNECTIONS TO THE WIRE TROUGH AND POWER WIREWAY ABOVE. BOND BUSHINGS TO GND BUS WITH STRANDED #8 CU BOND. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED TO THE GND BUS.

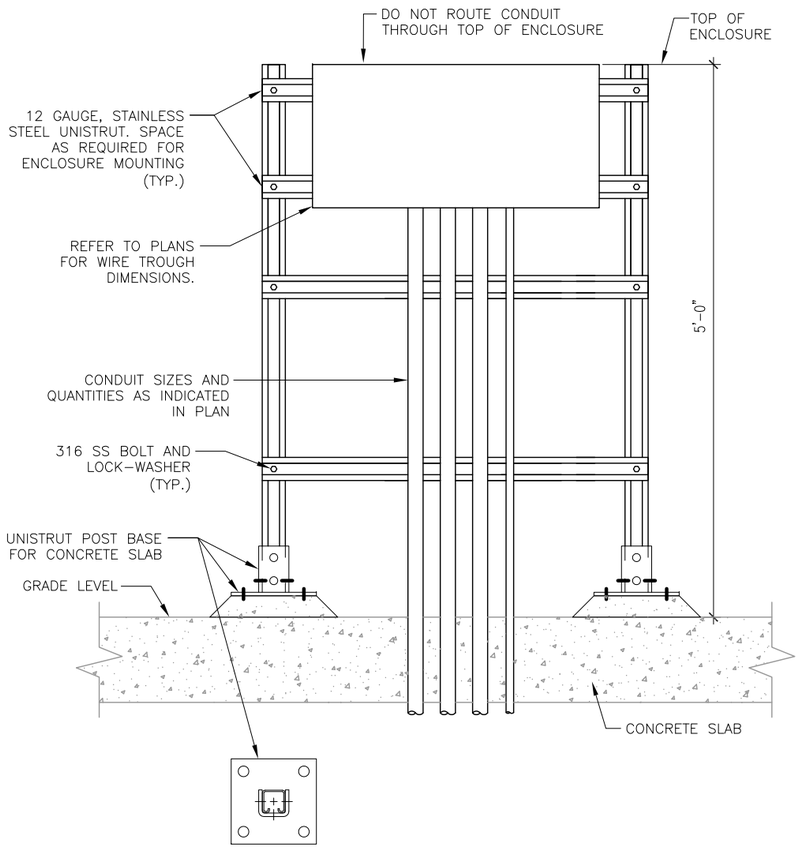
(10) PROVIDE 6"x6" FIBERGLASS CUT-OFF FITTING (REFER TO TSP 26 05 34 FOR RATING), WITH LENGTHS UP TO 24". SHORTEN BODY TO DESIRED LENGTH AND BOND FLANGE TO BODY.



1 GE-113 WIREWAY – SECTION
SCALE: 1/4"= 1'-0"



2 GE-113 WIREWAY – SECTION
SCALE: 1/4"= 1'-0"



3 GE-113 WIRE TROUGH MOUNTING DETAIL
SCALE: N.T.S.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **WIREWAY INSTALLATION DETAILS (1 OF 3)**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-113**

SHEET NO. **25**

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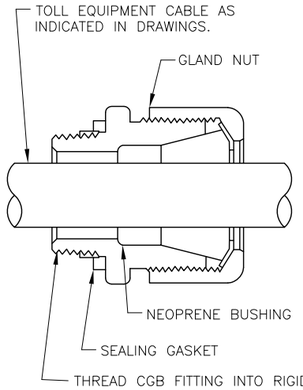
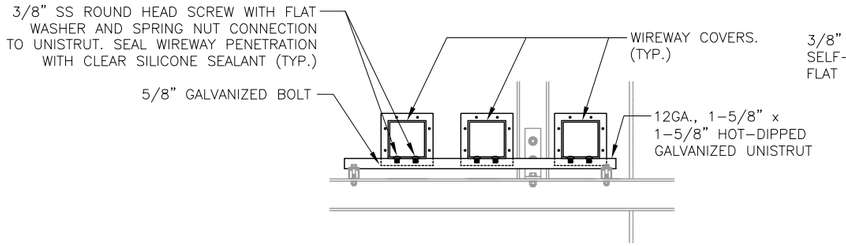


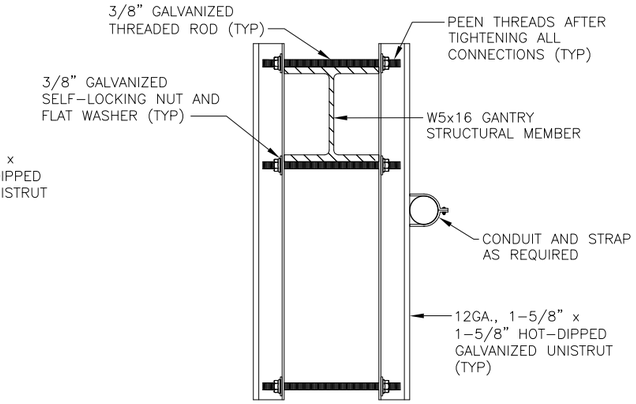
GENERAL NOTES:

1. COORDINATE CGB FITTING WITH CABLE SIZES INDICATED IN TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE.
2. CGB TYPE (WATER TIGHT) CABLE FITTINGS SHALL BE INSTALLED AT THE END OF ALL GANTRY MOUNTED RIGID CONDUIT AND LIQUID TIGHT FLEXIBLE METAL CONDUITS WHERE THE TOLL EQUIPMENT AND CCTV CABLES EMERGE FROM THE CONDUITS. THE CGB TYPE FITTINGS SHALL BE PROPERLY SIZED FOR THE DIAMETER OF THE TOLL EQUIPMENT CABLE INSTALLED IN EACH CONDUIT. THE CGB TYPE FITTING SHALL HAVE MANUAL ADJUSTABLE DIAMETER TO ALLOW THE CABLES TO BE FREELY PULLED THROUGH THE FITTING WITHOUT "GRABBING" THE CABLE DURING INSTALLATION AND PROVIDING A WEATHER TIGHT SEAL AFTER CABLES HAVE BEEN PULLED (BY MANUALLY TIGHTENING THE GLAND NUT). COUPLINGS AND REDUCERS SHALL BE PROVIDED BETWEEN THE CONDUITS AND CGB FITTINGS TO ENABLE THE USE OF CGB FITTINGS THT ALLOW FOR PROPER WATER TIGHT SEALING AROUND CABLES. WATER–TIGHT FITTINGS OTHER THAN CGB TYPE WITH TAPERED NEOPRENE BUSHING AND CABLE CLAMP WILL NOT BE ACCEPTED. THE CGB FITTINGS FOR CONDUITS SERVING THE ANTENNAS SHALL ACCOMMODATE TWO CABLES. SUBMIT SAMPLES OF CGB FITTING FOR SINGLE AND DUAL CABLES TO THE DEPARTMENT FOR APPROVAL PRIOR TO PROCUREMENT.

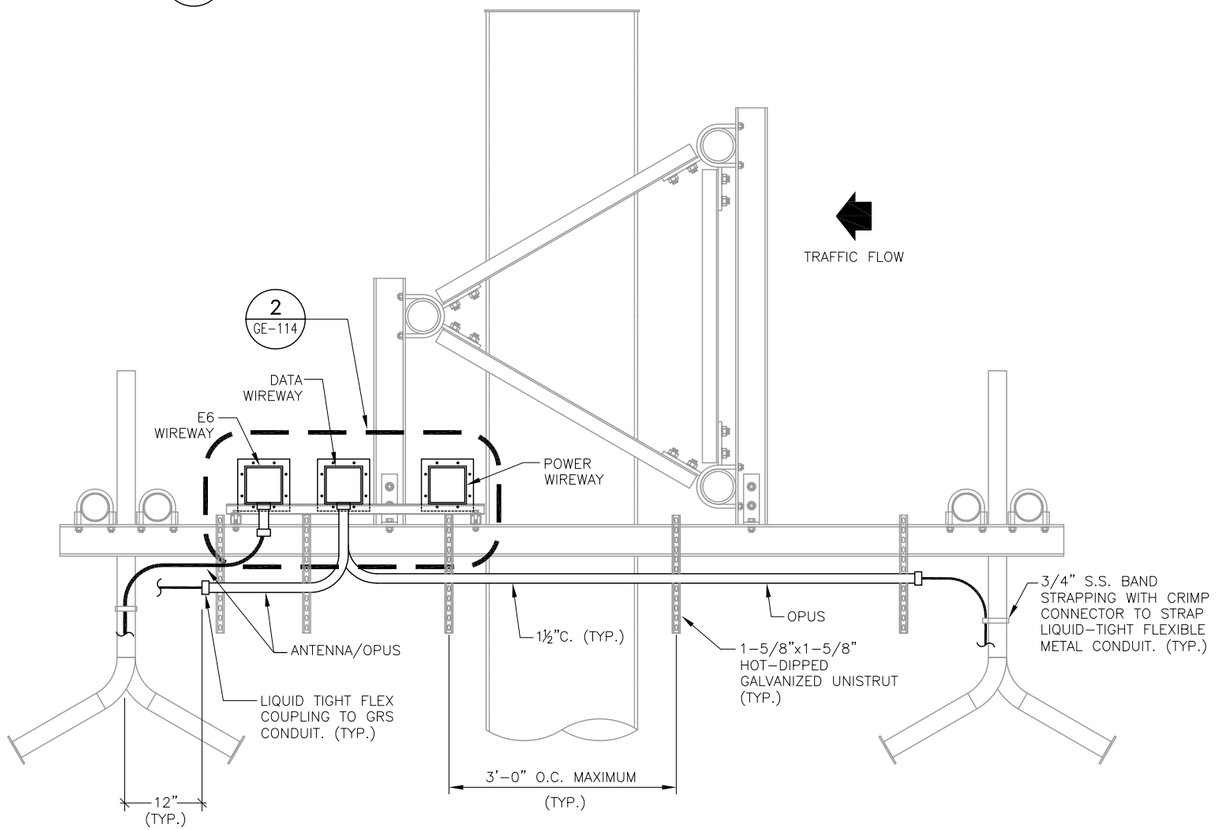
1 GE–114 **CGB CABLE FITTING DETAIL**
SCALE: N.T.S.



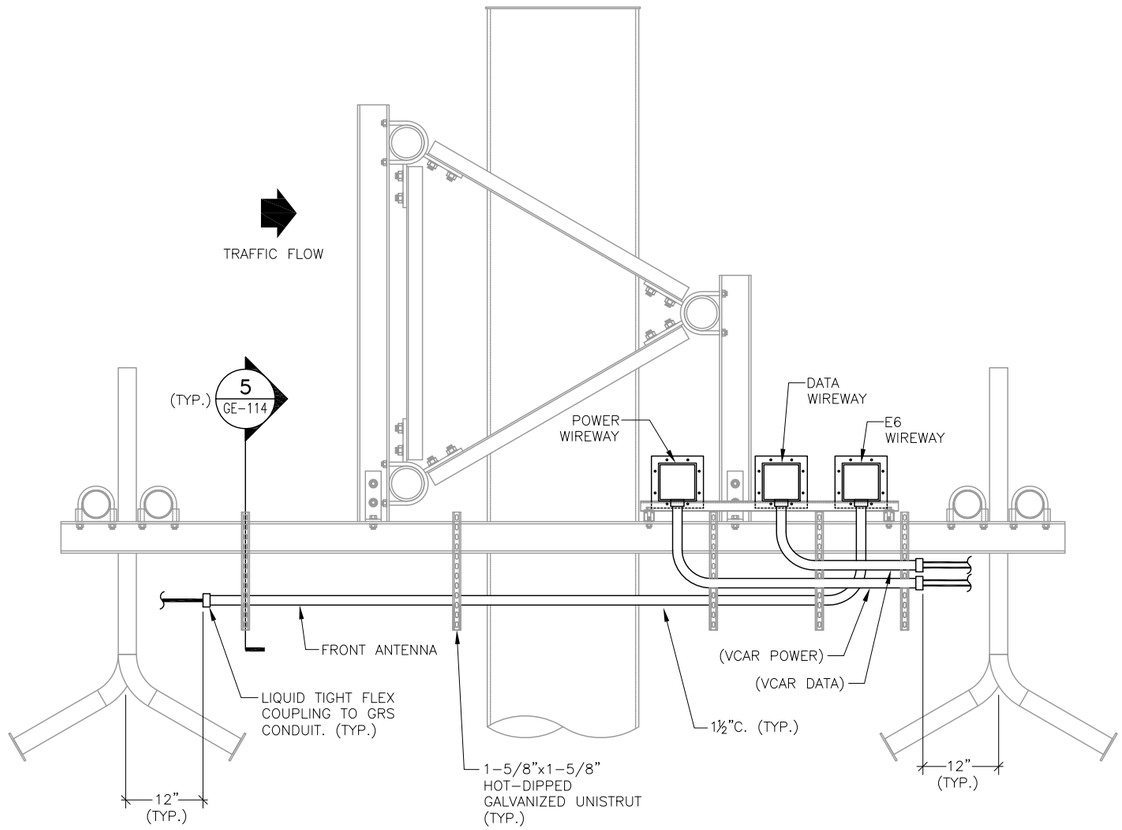
2 GE–114 **WIREWAY MOUNTING DETAIL**
SCALE: N.T.S.



5 GE–114 **UNISTRUT MOUNTING DETAIL**
SCALE: N.T.S.



3 GE–114 **CONDUIT ROUTING DETAIL (TYPICAL U.O.N.)**
SCALE: N.T.S.



4 GE–114 **CONDUIT ROUTING DETAIL (TYPICAL U.O.N.)**
SCALE: N.T.S.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

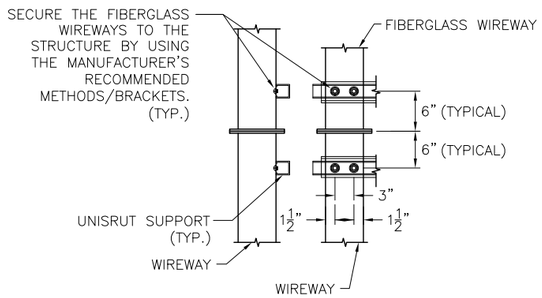
SHEET TITLE: **WIREWAY INSTALLATION DETAILS (2 OF 3)**
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**
DRAWING NO. **GE-114**
SHEET NO. **26**

TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE						
EQUIPMENT/DEVICE		DATA		POWER		CABLE MINIMUM BENDING RADIUS
		CONDUIT DIAMETER	CABLE DIAMETER	CONDUIT DIAMETER	CABLE DIAMETER	
PTZ		1 1/2"	0.30"	1 1/2"	0.30"	4.0"
CCTV		1 1/2"	0.40"	COMBINED WITH DATA		4.0"
OPUS		1 1/2"	0.40"	COMBINED WITH DATA		4.0"
VCAR		1 1/2"	(3) 0.30"	1 1/2"	0.30"	4.0"
DVAS		1 1/2"	0.30"	1 1/2"	0.30"	4.0"
ANTENNA		1 1/2"	0.59"	N/A		6.0"
ANTENNA /OPUS	ANTENNA	1 1/2"	0.59"	N/A		6.0"
	OPUS	1 1/2"	0.40"	COMBINED WITH DATA		4.0"

GENERAL NOTES:

1. CONTRACTOR MUST COORDINATE SIZE AND QUANTITY OF CONDUIT WITH TURNPIKE TOLL OPERATIONS PRIOR TO INSTALLATION TO ENSURE REQUIREMENTS HAVE NOT CHANGED.

1 GE-115 TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE
SCALE: NTS



2 GE-115 WIREWAY SECURING DETAIL
SCALE: N.T.S.

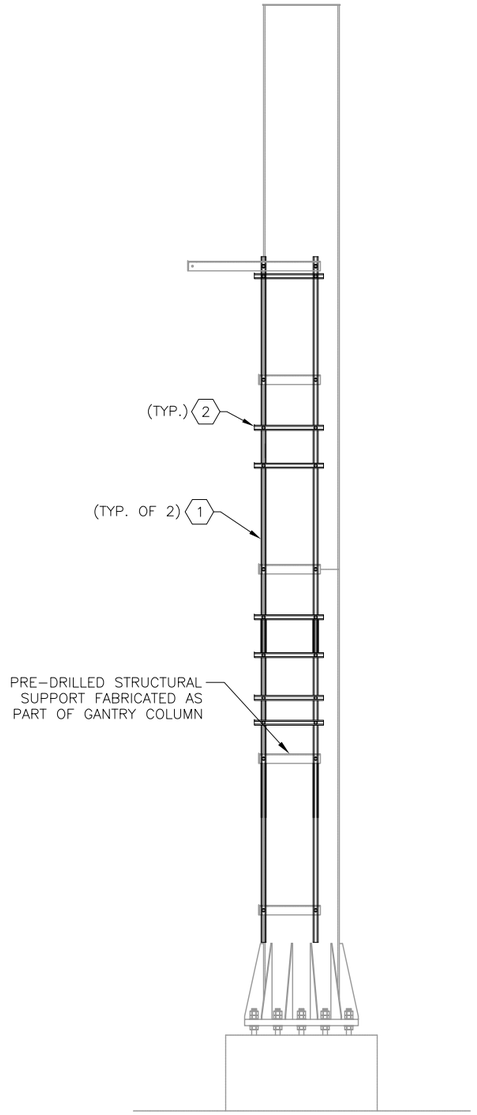
GENERAL NOTES:

1. UNISTRUT & MOUNTING HARDWARE SHALL BE DEBURRED & FILED SMOOTH TO REMOVE ROUGH EDGES.
2. PROVIDE PLASTIC END CAPS FOR UNISTRUT SUPPORTS.

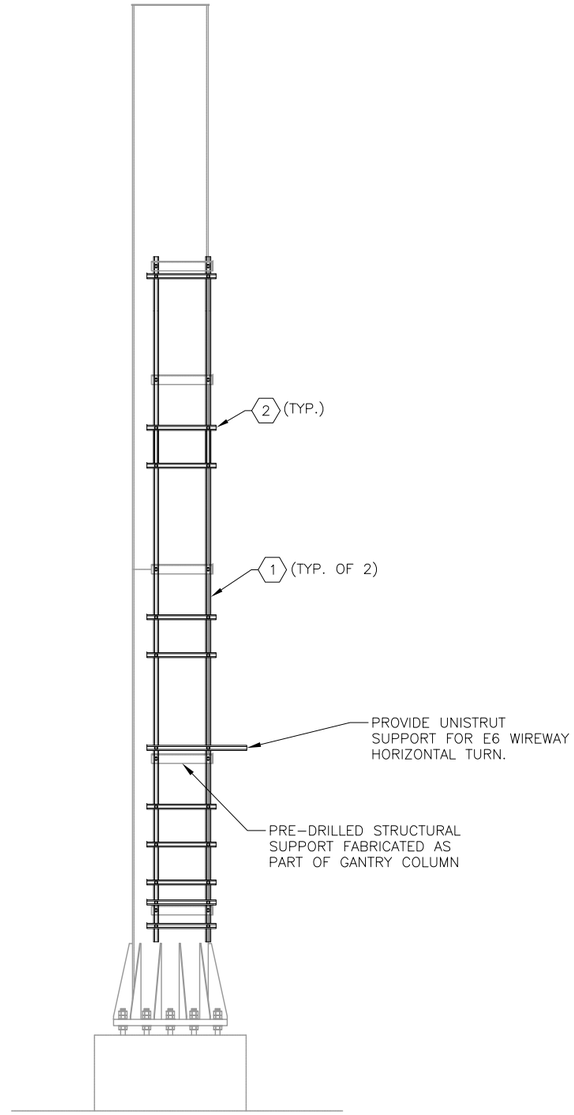
REFERENCE NOTES:

(1) 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT. VERTICALLY MOUNTED AND SECURED TO STRUCTURAL MEMBERS VIA PRE-DRILLED HOLES.

(2) 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT. MOUNTED ON EACH SIDE OF WIREWAY JOINTS. REFER TO DETAIL 2 ON THIS SHEET.



3 GE-115 COLUMN UNISTRUT DETAIL
SCALE: N.T.S.



4 GE-115 COLUMN UNISTRUT DETAIL
SCALE: N.T.S.

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STATE OF FLORIDA
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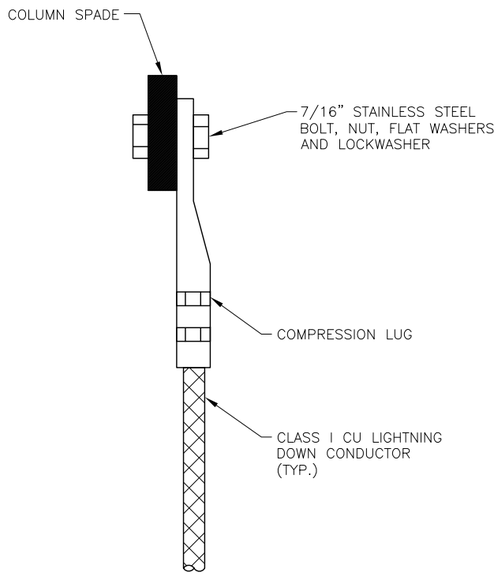
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **WIREWAY INSTALLATION DETAILS (3 OF 3)**

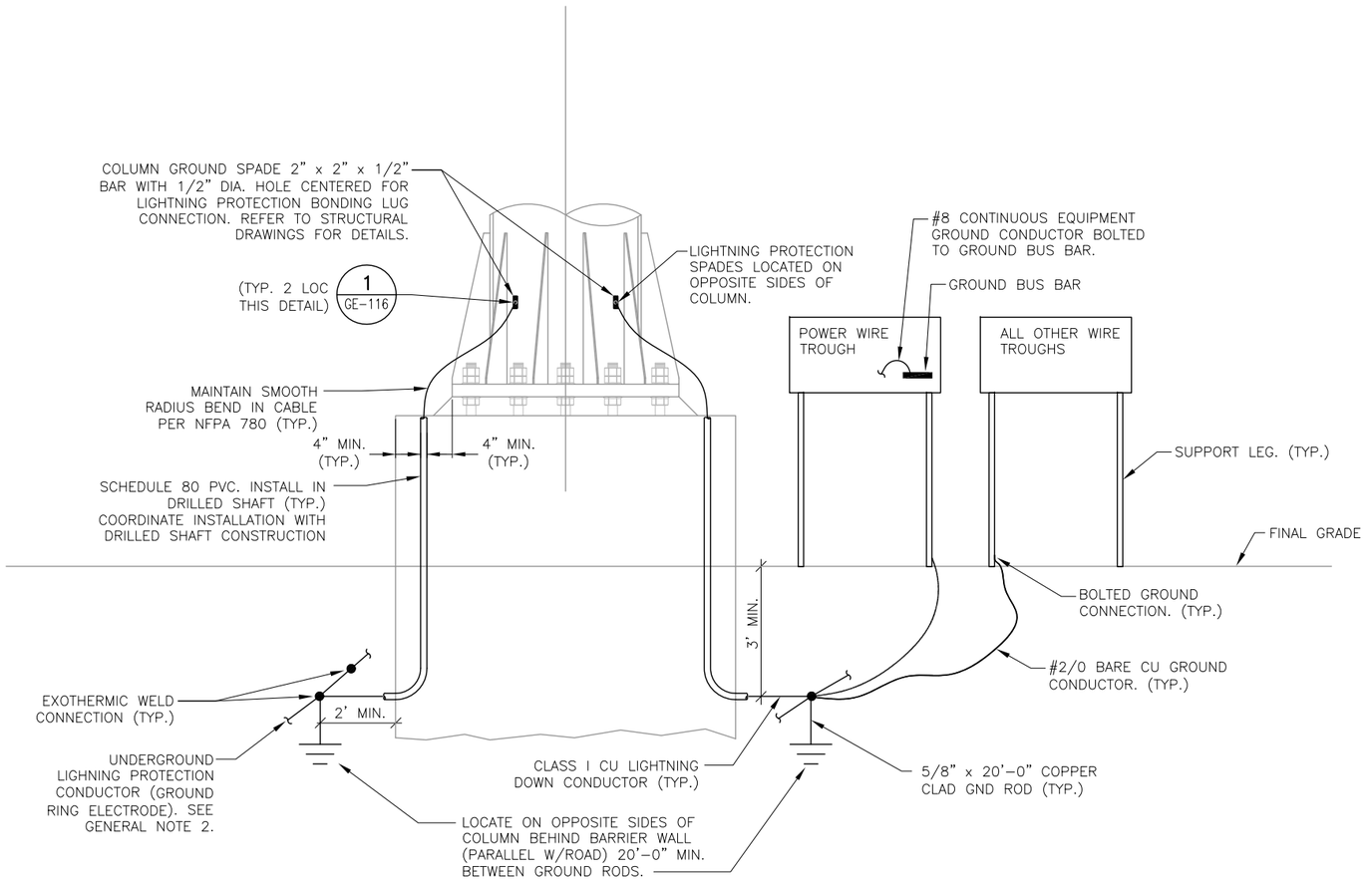
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-115**

SHEET NO. **27**



1 GE-116 GANTRY COLUMN GND SPADE CONNECTION DETAIL
SCALE: N.T.S.



2 GE-116 GANTRY COLUMN GROUNDING DETAIL
SCALE: N.T.S.

GENERAL NOTE:

1. GROUND EACH GANTRY COLUMN.
2. REFER TO TSP SECTION 26 41 13 FOR UNDERGROUND LIGHTNING PROTECTION CONDUCTOR.

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **GANTRY - LIGHTNING PROTECTION DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

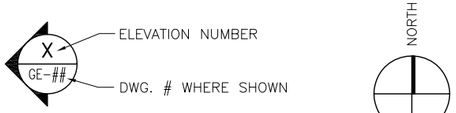
DRAWING NO. **GE-116**

SHEET NO. **28**

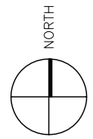
ELECTRICAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION
GFI WP	125V, 20A NEMA L5-20R, DUPLEX RECEPTACLE. 'WP' INDICATES WEATHERPROOF WITH LOCKABLE METAL WHILE-IN-USE COVER. 'GFI' INDICATES GROUND FAULT INTERRUPTER.
PTZ	PAN TILT ZOOM CAMERA.
	WIREWAY, TYPE AND LENGTH AS INDICATED ON PLANS.
	FLEXIBLE WIREWAY FITTINGS.
	90° ELBOW FOR HORIZONTAL AND VERTICAL WIREWAY CONNECTION.
	45° ELBOW.
	90° ELBOW.
	GROUNDING ROD UON.
	DEVICE OR EQUIPMENT AS NOTED.
#	REFERENCE NOTES.
	E6 READER.

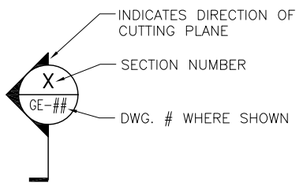
GENERAL SYMBOL LEGEND:



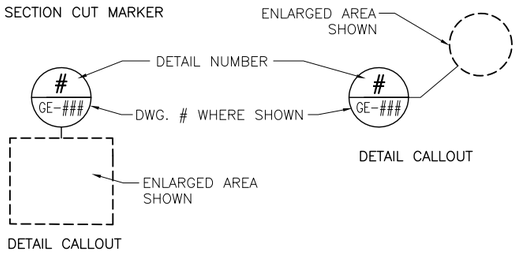
EXTERIOR ELEVATION MARKER



NORTH ARROW



SECTION CUT MARKER



DETAIL CALLOUT

DETAIL CALLOUT

PLAN / DETAIL CALLOUT

ABBREVIATIONS:

A	AMPS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	AIR CONDITIONING [UNIT]
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AL, ALUM.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AVI	AUTOMATIC VEHICLE IDENTIFICATION
AWG	AMERICAN WIRE GAUGE
BCU	BATTERY CHARGER UNIT
BLDG.	BUILDING
BPS	BYPASS SWITCH
C.	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CKT.	CIRCUIT
COMP	COMPUTER
CU	COPPER
COMM.	COMMUNICATION
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIA.	DIAMETER
DN	DOWN
DVAS	DIGITAL VIDEO AUDITING SYSTEM
DWG.	DRAWING
E6	ENCOMPASS 6 MULTIPROTOCOL READER
EC	ELECTRICAL CONTRACTOR
ENG.	ENGINE
ETC	ELECTRONIC TOLL COLLECTION
ETC.	ET CETERA
EQUIP.	EQUIPMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPO	EMERGENCY POWER OFF
EXT.	EXTERIOR
FOC	FIBER OPTIC CABLE
FT	FOOT; FEET
FTE	FLORIDA'S TURNPIKE ENTERPRISE
FTL	FEED THROUGH LUGS
FTM	FUEL TANK MONITOR
FUT	FUTURE
GA	GAUGE
GAL.	GALLON
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HORIZONTAL, HERTZ
I.C.	INTERRUPTING CAPACITY
I.D.	IDENTIFICATION
IN.	INCHES
JB	JUNCTION BOX
KA	KILOAMPERES
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LN CTR	LANE CONTROLLER
LOC.	LOCATION
LLC	LEAD LAG CONTROLLER
LP	LIGHTNING PROTECTION
LTG	LIGHTING
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MTS	MANUAL TRANSFER SWITCH
MIN.	MINIMUM
ML	MAINLINE
M.L.O.	MAIN LUGS ONLY
MOT	MAINTENANCE OF TRAFFIC
MTD	MOUNTED
N	NEUTRAL
NB	NORTHBOUND
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN

ABBREVIATIONS CONT:

N.T.S.	NOT TO SCALE
N3R	NEMA 3R
OC	ON CENTER
OPUS	OPTICAL PROFILE UNIFYING SYSTEM
ORT	OPEN ROAD TOLLING
Ø	PHASE
P	POLE
PCB	POLYCHLORINATED BIPHENYL
PNL	PANEL
PVC	POLYVINYL CHLORIDE
RECEPT.	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARED
SB	SOUTHBOUND
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCH.	SCHEDULE
SCP	SCADA CONTROL PANEL
SCTE	SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS
SD	SQUARE D
SER	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTIVE DEVICE
SPEC(S)	SPECIFICATION(S)
S.P.S.T.	SINGLE POLE SINGLE THROW
S.S.	STAINLESS STEEL
STP	SHIELDED TWISTED PAIR
SQ.	SQUARE
STFE	STATE TOLL FACILITY ENGINEER
SYMM.	SYMMETRICAL
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T&H	TEMPERATURE AND HUMIDITY SENSOR
T.O.	TOLL OPERATIONS
TSP	TECHNICAL SPECIAL PROVISIONS
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VCAR	VEHICLE CAPTURE AND RECOGNITION SYSTEM
VDAC	VEHICLE DETECTION AND CLASSIFICATION UNIT
VES	VIOLATION ENFORCEMENT SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
W	WIRE; WATT
W/	WITH
WP	WEATHERPROOF (NEMA 3R)
XFMR	TRANSFORMER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL SYMBOL LEGEND AND ABBREVIATIONS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-201**

SHEET NO. **29**

ELECTRICAL GENERAL NOTES:

1. FEED ALL RECEPTACLES AND DEVICES WITH (2) #12, (1) #12 GND IN 3/4" C, UON.
2. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.
3. ALL 120V, 20A CIRCUIT HOMERUNS OVER 50FT. SHALL BE #10 CU MINIMUM, UON.
4. ALL 120V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #8 CU MINIMUM, UON.
5. ALL 240V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #10 CU. MINIMUM, UON.
6. ALL 240V, 20A CIRCUIT HOMERUNS OVER 300FT. SHALL BE #8 CU MINIMUM, UON.
7. PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT AND RACEWAYS WITH LABELING AT EACH END.
8. THE USE OF ANY PROCESS INVOLVING ASBESTOS OR PCB, AND THE INSTALLATION OF ANY PRODUCT, INSULATION, COMPOUND OR MATERIAL CONTAINING OR INCORPORATING ASBESTOS OR PCB, IS PROHIBITED. PROVIDE A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM WITHOUT THE USE OF ASBESTOS OR PCB.
9. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID. SUBMISSION OF A BID WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
10. INCLUDE THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
    A) COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS.
    B) TRANSPORT AND DISPOSE OF LAMPS, BALLASTS AND OTHER MATERIALS IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES.
    C) PROVIDE WRITTEN CERTIFICATION THAT ALL MATERIALS WERE RECYCLED OR DISPOSED OF PROPERLY PER THE GUIDELINES NOTED ABOVE.
11. LOCATE EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE.
12. PHASE WORK AS REQUIRED BY MOT PLANS.
13. UNDERGROUND CONDUIT SHALL BE PVC SCH. 80, UON. UNDERGROUND CONDUIT SHALL TRANSITION TO RGS CONDUIT WITH PVC TO RGS CONDUIT FITTINGS. CONDUIT SHALL BE RGS ABOVE GRADE THROUGH AND INCLUDING THE FIRST 90 DEGREE FITTING UNDERGROUND UON. APPLY 2-COAT BITUMASTIC COATING TO DIRECT BURIED PORTION OF RGS CONDUIT, UP TO AND INCLUDING 6" ABOVE FINAL GRADE. REFER TO TSP FOR FURTHER INFORMATION.
14. TOLL EQUIPMENT AND ALL WIRING/CABLING FOR TOLL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY T.E.C., UON.
15. UNDERGROUND CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE.
16. EXPOSED EXTERIOR CONDUIT SHALL BE RGS THROUGH AND INCLUDING THE FIRST 90° BEND INSTALLED UNDERGROUND. TRANSITIONS BETWEEN RGS AND PVC CONDUIT SHALL BE MADE WITH A RGS TO PVC CONDUIT FITTING.
17. EQUIPMENT SPECIFIED WITH CATALOG NUMBERS OR PART NUMBERS SHALL NOT BE SUBSTITUTED UNLESS "OR EQUAL" IS INDICATED.
18. PLASTIC END CAPS SHALL BE INSTALLED ON ENDS OF ALL UNISTRUT.
19. ALL LIQUID-TIGHT, FLEXIBLE CONDUIT SHALL BE METALLIC.
20. AC OR DC ELECTRICAL CIRCUITS OR WIRING THAT OPERATES AT 25 VOLTS OR GREATER SHALL NOT BE INSTALLED AND/OR LOCATED WITHIN 5 FEET OF ANY TRAFFIC DETECTION LOOP OR LOOP PULL BOX.
21. REFER TO TECHNICAL SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
22. OUTLET AND DEVICE JUNCTION BOXES INSTALLED OUTDOORS SHALL BE MANUFACTURED FROM GALVANIZED CAST IRON WITH THREADED HUBS, UON. REFER TO TSP SECTION 26 05 33 FOR DETAILS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 8115
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

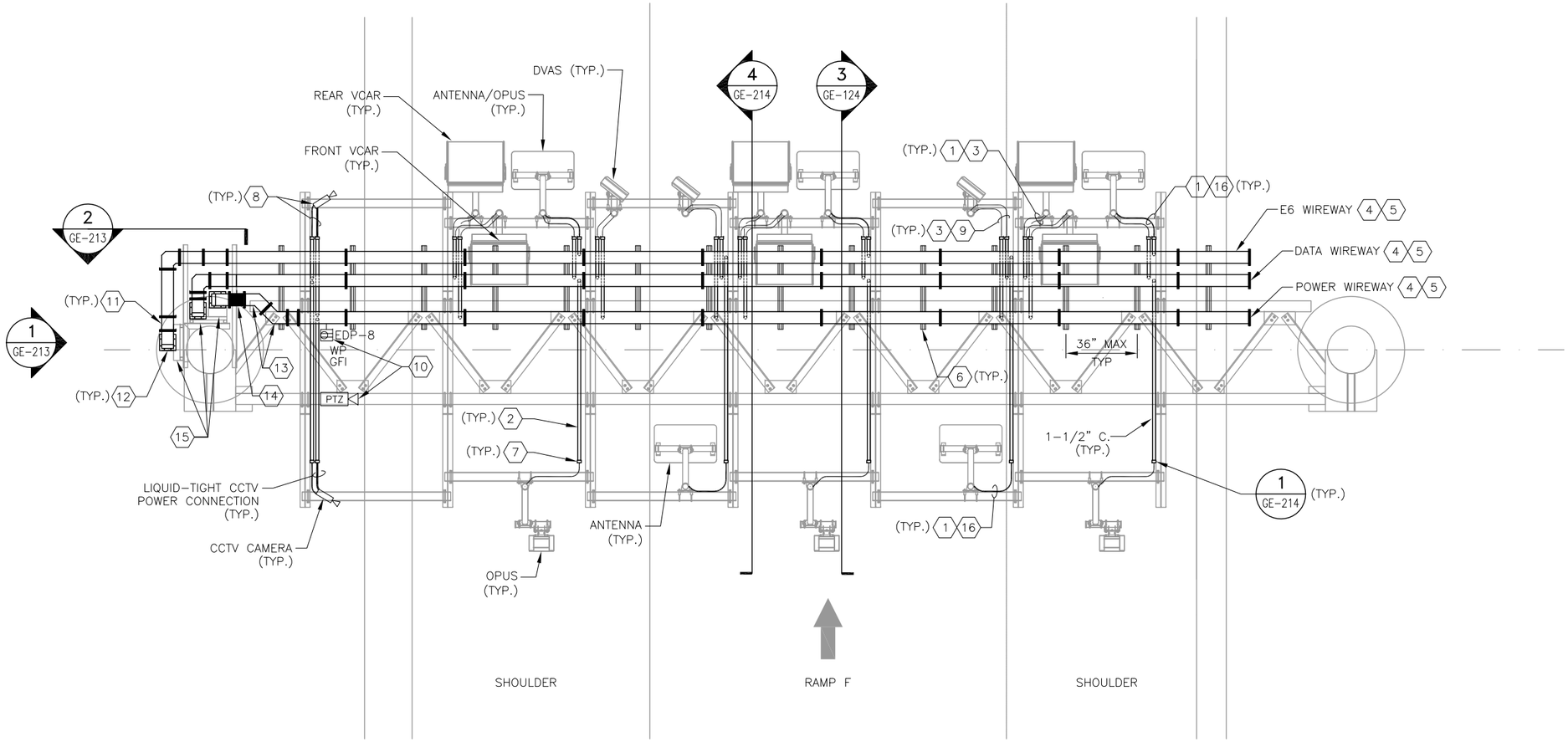
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **ELECTRICAL GENERAL NOTES**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-202**

SHEET NO. **30**



1 GE-211 RAMP F – GANTRY ELECTRICAL PLAN – TRANSCORE (INFINITY) SYSTEM

SCALE: 3/16"= 1'-0"

REFERENCE NOTES:

1. TOLL EQUIPMENT CABLING PROVIDED BY T.E.C.
2. REFER TO DETAILS ON GE-214 FOR CONDUIT MOUNTING.
3. REFER TO TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE ON GE-215 FOR ADDITIONAL INFORMATION.
4. 6"x6" FIBERGLASS WIREWAY (SEE TSP 26 05 34 FOR RATING). MOUNT WIREWAY TO TOLL EQUIPMENT STRUCTURE AND SUPPORTS WITH THE COVER FACING UP. POWER CIRCUITING SHALL BE PROVIDED WITH GROUND WIRES IN THE POWER WIREWAY. SEE TSP FOR DETAILS.
5. PROVIDE 8.25"x8.25" CLOSURE PLATE TO SEAL THE END OF WIREWAY RUN, #10 GAUGE, 316 STAINLESS STEEL.
6. PROVIDE 12GA 1-5/8" x 1-5/8" HOT-DIPPED GALVANIZED UNISTRUT AT 3'-0" MAXIMUM SPACING ALONG THE ENTIRE LENGTH OF WIREWAYS. CONNECT UNISTRUT TO BOTH STRUCTURAL ANGLES THAT PARALLEL THE HORIZONTAL WIREWAY RUNS.
7. PROVIDE COUPLING FROM RGS CONDUIT TO LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8. PROVIDE (1) POWER AND (1) DATA 1-1/2" CONDUIT FROM EACH RESPECTIVE WIREWAY TO THE CCTV CAMERA. CCTV CAMERA AND CAMERA CABLES PROVIDED BY SECURITY CONTRACTOR.
9. CONDUITS ARE ROUTED ONE ON TOP OF EACH OTHER. REFER TO GE-214.
10. PROVIDE RECEPTACLE IN A 4" BOX INSIDE A NEMA 4 ENCLOSURE. ENCLOSURE SHALL BE HOFFMAN #A884PHC WITH ALUMINUM BACKPLANE HOFFMAN #A8P8AL OR APPROVED EQUAL. PROVIDE 120V SPD INSIDE ENCLOSURE. REFER TO TSP SECTION 26 43 13 FOR REQUIREMENTS. MOUNT ENCLOSURE TO A STRUCTURAL MEMBER A MAXIMUM OF 10' FROM PTZ CAMERA. CAMERA WILL BE MOUNTED ON GANTRY STRUCTURE. CAMERA WILL BE PROVIDED AND INSTALLED BY THE SECURITY CONTRACTOR. COORDINATE EXACT LOCATION WITH DEPARTMENT PRIOR TO ROUGH IN.
11. PROVIDE FIBERGLASS CUT-OFF FITTINGS (SEE TSP 26 05 34 FOR RATING), WITH LENGTHS UP TO 24". SHORTEN BODY TO DESIRED LENGTH AND BOND FLANGE TO BODY.
12. PROVIDE 90° FIBERGLASS ELBOW TO CONNECT HORIZONTAL AND VERTICAL WIREWAYS. ELBOW SHALL MAINTAIN NEMA RATING (AS SPECIFIED IN TSP) IN THE ORIENTATION SHOWN.
13. PROVIDE 45° FIBERGLASS ELBOW. SEE TSP 26 05 34 FOR RATING.
14. PROVIDE FLEXIBLE FITTINGS (SEE TSP 26 05 34 FOR RATING) TO COMPENSATE FOR MISALIGNMENT, STRETCH LENGTH RANGE FROM 3 1/2" TO 12", HYPALON BELLOW WITH STAINLESS STEEL FLANGES.
15. PROVIDE 12GA, HOT-DIPPED GALVANIZED, 1-5/8" WIDTH SERIES UNISTRUT, HEIGHT VARIES TO SUPPORT AND CONNECT TO WIREWAYS.
16. E6 ANTENNA CABLES.

NORTH

GRAPHIC SCALE
SCALE: 3/16"= 1'-0"
0 3' 6'

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

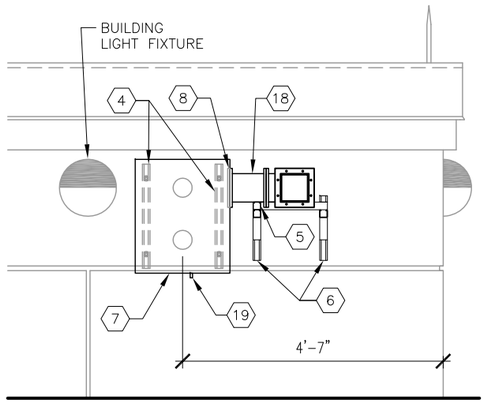
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **RAMP F - GANTRY ELECTRICAL PLAN**

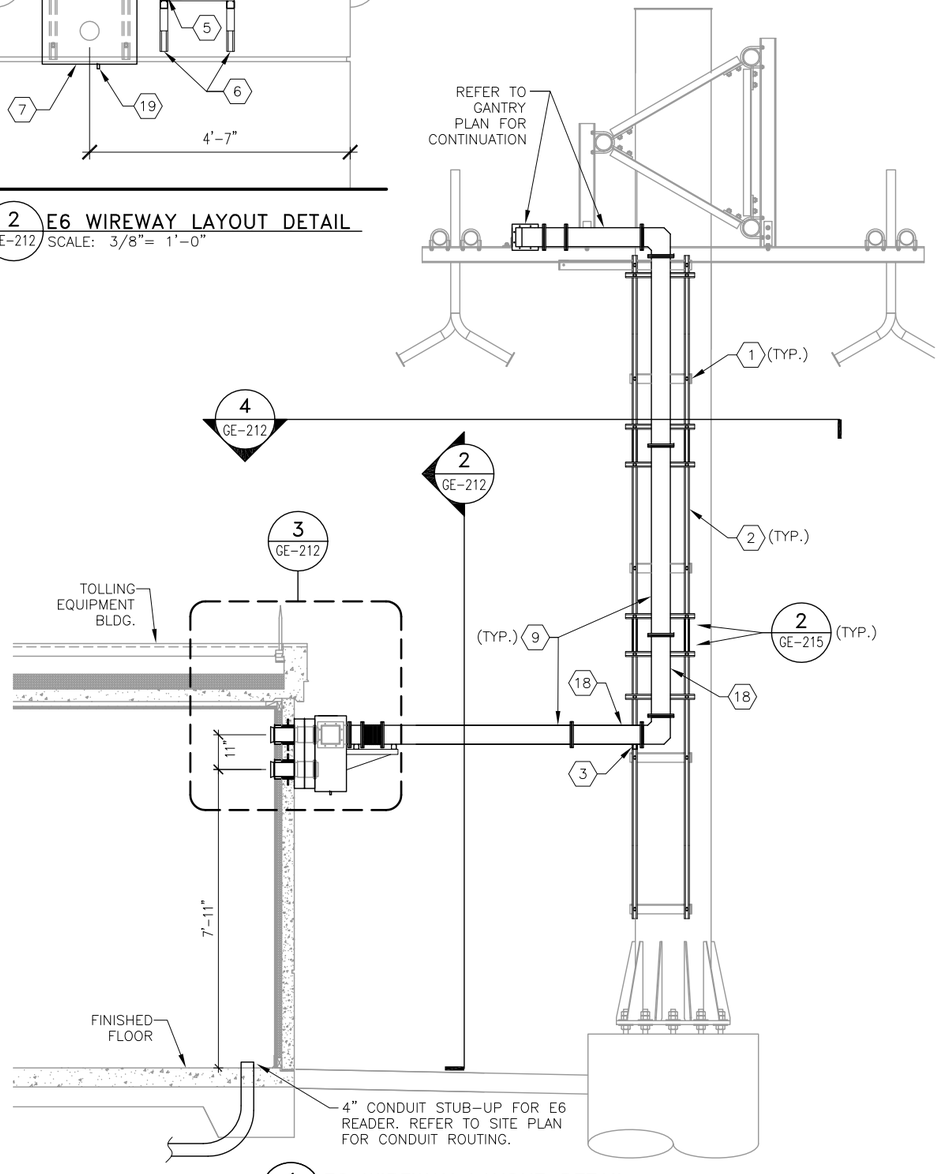
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-211**

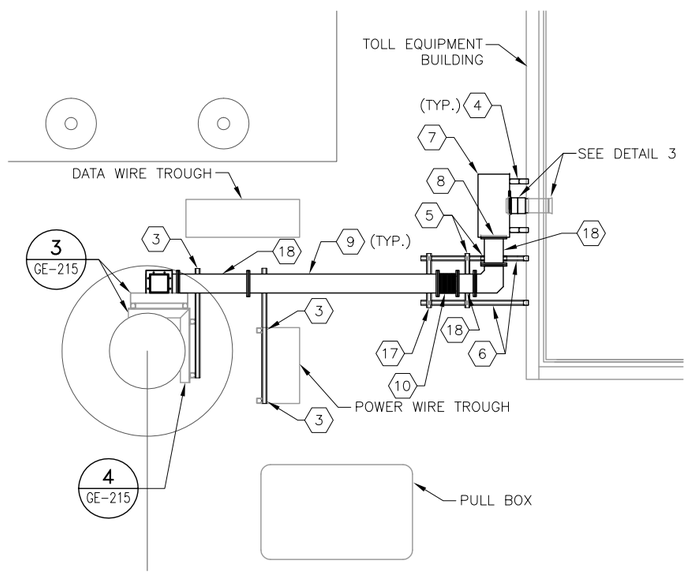
SHEET NO. **31**



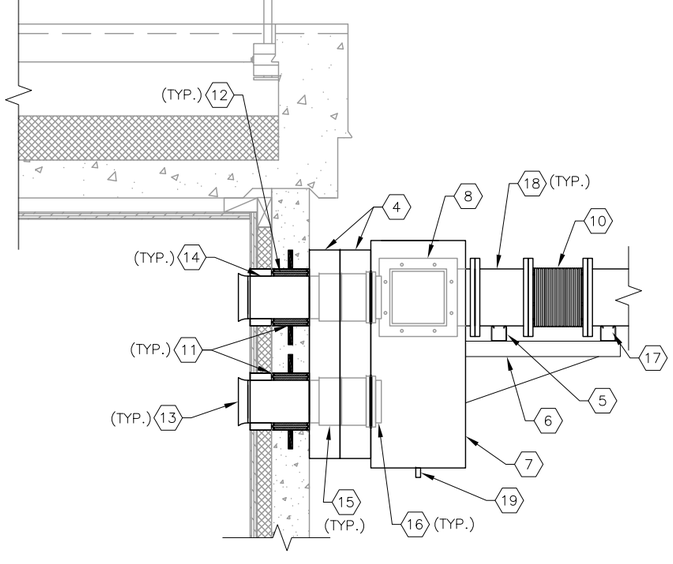
2 GE-212 **E6 WIREWAY LAYOUT DETAIL**
SCALE: 3/8"= 1'-0"



1 GE-212 **E6 WIREWAY LAYOUT DETAIL**
SCALE: 1/4"= 1'-0"



4 GE-212 **E6 WIREWAY LAYOUT DETAIL – TOP VIEW**
SCALE: 1/4"=1'-0"



3 GE-212 **E6 WIREWAY LAYOUT DETAIL**
SCALE: 3/4"= 1'-0"

GENERAL NOTES:

1. DEBURR & FILE UNISTRUT AND MOUNTING HARDWARE TO ELIMINATE SHARP EDGES.
2. TERMINATE UNISTRUT WITH PLASTIC END CAPS.

REFERENCE NOTES:

1. PRE-DRILLED STRUCTURAL SUPPORT FABRICATED AS PART OF GANTRY COLUMN.
2. VERTICALLY MOUNTED 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT SECURED TO STRUCTURAL MEMBERS VIA PRE-DRILLED HOLES.
3. PROVIDE 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT TO SUPPORT HORIZONTAL WIREWAY. THE UNISTRUT SHALL BE MOUNTED HORIZONTALLY AND SECURED TO VERTICALLY MOUNTED UNISTRUT CHANNEL. PROVIDE 90° UNISTRUT FITTINGS RATED FOR A MINIMUM UNIFORM LOAD OF 500 LBS.
4. PROVIDE 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT BEHIND ENCLOSURE TO SUPPORT ENCLOSURE. PROVIDE A 1-1/2" GAP BETWEEN BUILDING AND ENCLOSURE TO ALLOW WATER TO DRAIN BEHIND ENCLOSURE.
5. PROVIDE 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT TO SUPPORT WIREWAY. UNISTRUT SHALL BE SECURED TO THE BOTTOM OF WIREWAY. REFER TO DETAIL 2 ON DRAWING GE-215.
6. PROVIDE BRACED SINGLE BRACKET RATED FOR A MINIMUM UNIFORM LOAD OF 924 LBS TO SUPPORT WIREWAY. COOPER B-LINE CAT NO. B494-30 OR EQUAL.
7. PROVIDE 24" X 20" X 10" NEMA TYPE 4X, ALUMINUM ENCLOSURE, CONTINUOUS HINGE DOOR WITH CLAMPS AND LOCKABLE HASP. HOFFMAN CATALOG #A24H2010ALLP OR APPROVED EQUIVALENT.
8. PROVIDE BOX CONNECTOR ON THE INSIDE OF THE ENCLOSURE TO ENSURE A WATER TIGHT SEAL BETWEEN WIREWAY AND ENCLOSURE. HOFFMAN CATALOG #F66WBFG OR APPROVED EQUIVALENT.
9. 6" X 6" FIBERGLASS WIREWAY, UL LISTED FOR VERTICAL AND HORIZONTAL INSTALLATION. REFER TO TSP 26 05 34 FOR ADDITIONAL REQUIREMENTS.
10. PROVIDE FLEXIBLE FITTING TO COMPENSATE FOR MISALIGNMENT, STRETCH LENGTH RANGE FROM 3-1/2" TO 12", HYPALON BELLOW WITH STAINLESS STEEL FLANGES.
11. 6" HDPE SLEEVE CAST IN PLACE DURING FABRICATION OF CONCRETE WALL. CONDUIT SLEEVE SHALL HAVE STANDARD 2" HEIGHT, FULL PERIMETER WATER STOP.
12. PROVIDE WALL PENETRATION MECHANICAL PIPE SEAL TO CREATE PERMANENT WATERTIGHT SEAL BETWEEN CONDUIT AND CONDUIT SLEEVE. PIPE SEAL SHALL BE INSTALLED FLUSH WITH EXTERIOR WALL. REFER TO TSP 26 05 33 FOR ADDITIONAL REQUIREMENTS.
13. PROVIDE 4" SCHEDULE 80 PVC END BELL. SOLVENT CEMENT WELD END BELL TO 4" SCHEDULE 80 PVC CONDUIT.
14. PROVIDE 4" SCHEDULE 80 PVC CONDUIT SECURED WITH CONDUIT SEAL.
15. PROVIDE 4" PVC SCHEDULE 80 FITTING FOR ADAPTING PVC CONDUIT TO THREADED METALLIC CONDUIT HUB.
16. PROVIDE 4" WATERTIGHT, THREADED RIGID CONDUIT HUB FOR CONNECTION TO ENCLOSURE.
17. PROVIDE 1-5/8" WIDTH, HOT-DIPPED GALVANIZED UNISTRUT TO SUPPORT WIREWAY. WIREWAY SHALL BE LOOSELY SECURED TO UNISTRUT WITH GALVANIZED STEEL STRAP TO ALLOW APPROXIMATELY 1/4" FREE MOVEMENT OF WIREWAY IN HORIZONTAL AND VERTICAL DIRECTIONS.
18. 6" X 6" FIBERGLASS CUT-OFF FITTING, WITH LENGTH UP TO 24". SHORTEN BODY TO DESIRED LENGTH AND BOND FLANGE TO BODY.
19. PROVIDE CORROSION-RESISTANT, UL LISTED, TYPE 4X RATING VENT DRAIN IN BOTTOM OF ENCLOSURE.

GRAPHIC SCALE
SCALE: 1/4"= 1'-0"
0 2' 4'

GRAPHIC SCALE
SCALE: 3/8"= 1'-0"
0 1.25' 2.5'

GRAPHIC SCALE
SCALE: 3/4"= 1'-0"
0 .75' 1.5'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **E6 WIREWAY ROUTING DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-212**

SHEET NO. **32**

GENERAL NOTES:

1. UNISTRUT & MOUNTING HARDWARE SHALL BE DEBURRED & FILED SMOOTH TO REMOVE ROUGH EDGES.
2. PROVIDE PLASTIC END CAPS FOR UNISTRUT SUPPORTS.
3. PROVIDE TELESCOPING FITTINGS, MOUNTING HARDWARE AND ACCESSORIES TO PROVIDE A COMPLETE RACEWAY SYSTEM.
4. UNISTRUT LESS THAN 20' SHALL BE CONTINUOUS WITHOUT SPLICES.
5. PROVIDE UNISTRUT SUPPORTS AS REQUIRED TO SUPPORT THE NONMETALLIC WIREWAYS IN ACCORDANCE WITH NEC ARTICLE 378.

REFERENCE NOTES:

(1) 12"x12", NEMA 3R, UL 870 & UL50 LISTED WIRE TROUGH, 12 GAUGE PLATED STEEL WITH ANSI 61 GRAY POLYESTER POWDER PAINT FINISH INSIDE AND OUT. REFER TO SITE PLAN FOR CONDUIT ROUTING.

(2) 6"x6" FIBERGLASS WIREWAY, UL LISTED FOR VERTICAL INSTALLATION. REFER TO TSP 26 05 34 FOR DETAILS.

(3) 1-5/8" WIDTH, HEIGHT VARIES, VERTICALLY MOUNTED UNISTRUT SECURED TO STRUCTURAL MEMBERS VIA PRE-DRILLED HOLES. EC TO PROVIDE MOUNTING HARDWARE TO SECURE WIREWAY TO UNISTRUT.

(4) PROVIDE 90° ELBOW (REFER TO TSP 26 05 34 FOR RATING) TO CONNECT HORIZONTAL AND VERTICAL WIREWAYS. ELBOW SHALL MAINTAIN NEMA RATING IN THE ORIENTATION SHOWN.

(5) 1-5/8" x 1-5/8" UNISTRUT MOUNTED 6" FROM WIREWAY JOINTS.

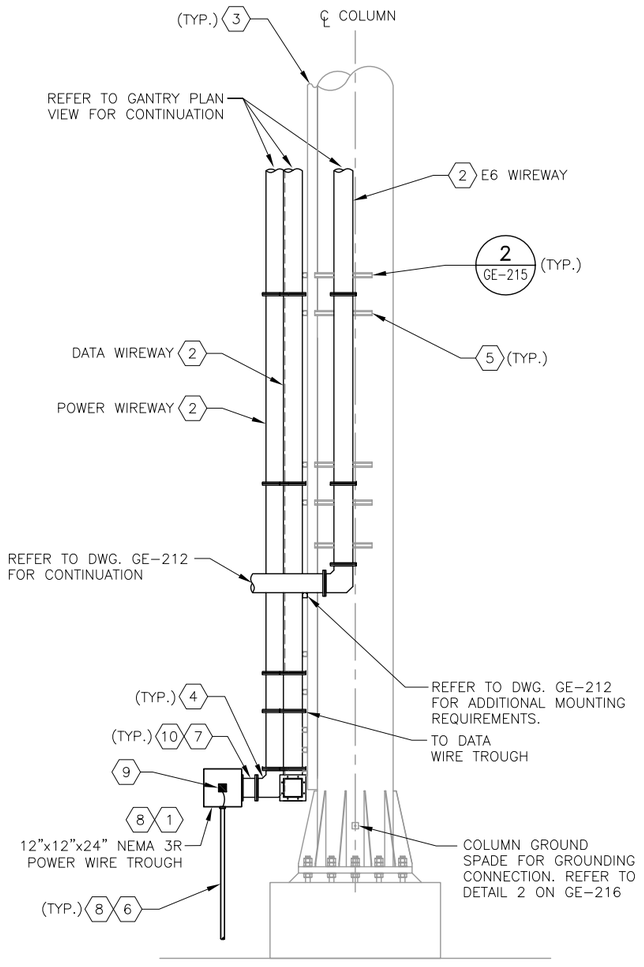
(6) REFER TO SITE PLAN FOR CONDUIT SIZES, QUANTITIES & ROUTING.

(7) PROVIDE SUPPORT (NOT SHOWN) FOR WIREWAY.

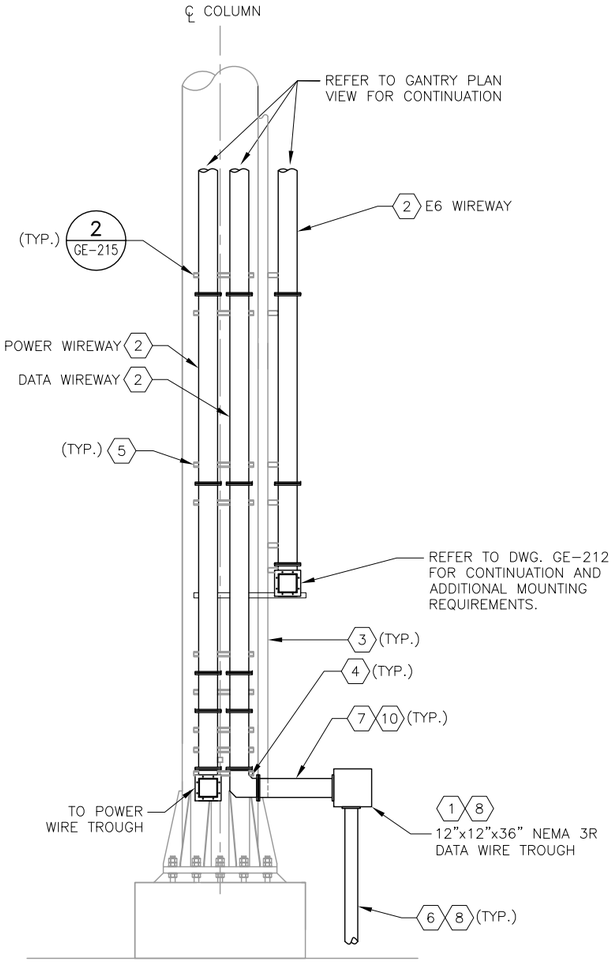
(8) REFER TO DETAIL 3 ON THIS SHEET FOR WIRE TROUGH AND CONDUIT MOUNTING.

(9) PROVIDE TIN PLATED COPPER GROUND BUS. PROVIDE BONDING BUSHINGS ON ALL CONDUIT CONNECTIONS TO THE WIRE TROUGH AND POWER WIREWAY ABOVE. BOND BUSHINGS TO GND BUS WITH STRANDED #8 CU BOND. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED TO THE GND BUS.

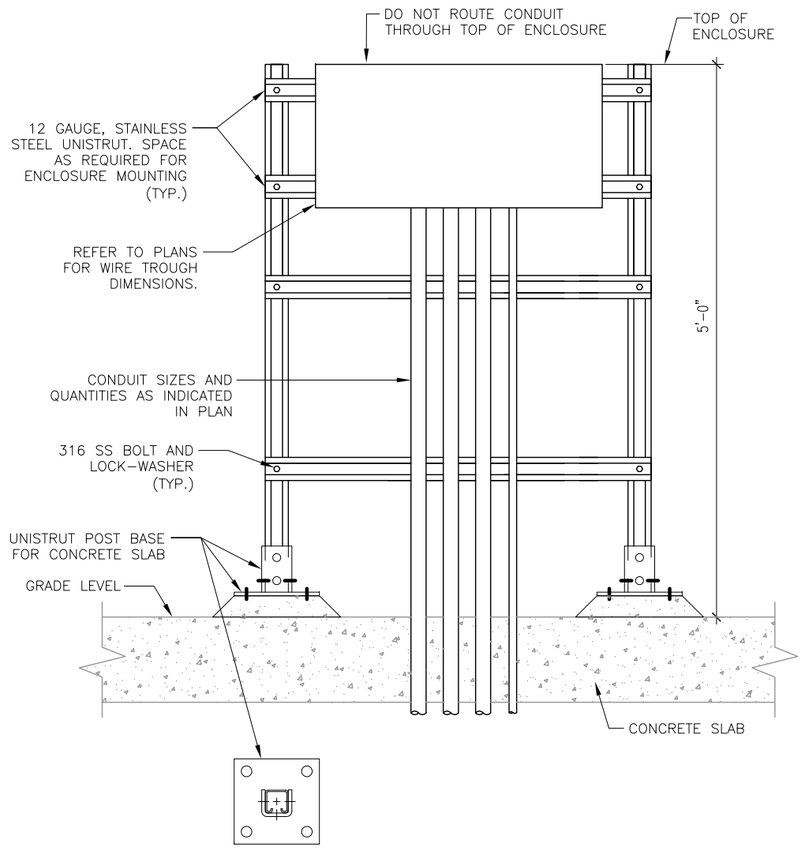
(10) PROVIDE 6"x6" FIBERGLASS CUT-OFF FITTING (REFER TO TSP 26 05 34 FOR RATING), WITH LENGTHS UP TO 24". SHORTEN BODY TO DESIRED LENGTH AND BOND FLANGE TO BODY.



1 GE-213 WIREWAY – SECTION
SCALE: 1/4"= 1'-0"



2 GE-213 WIREWAY – SECTION
SCALE: 1/4"= 1'-0"



3 GE-213 WIRE TROUGH MOUNTING DETAIL
SCALE: N.T.S.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AECOM Technical Services, Inc.
7650 West Courtney
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

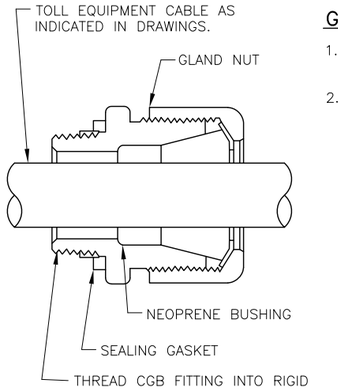
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **WIREWAY INSTALLATION DETAILS (1 OF 3)**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-213**

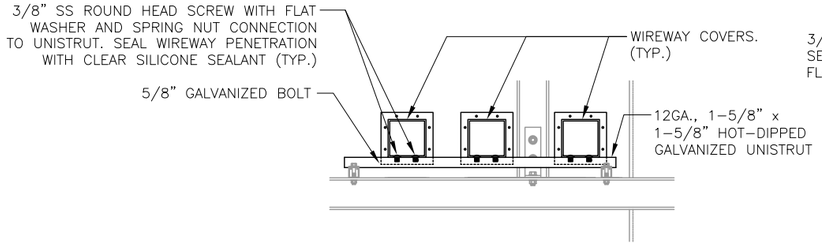
SHEET NO. **33**



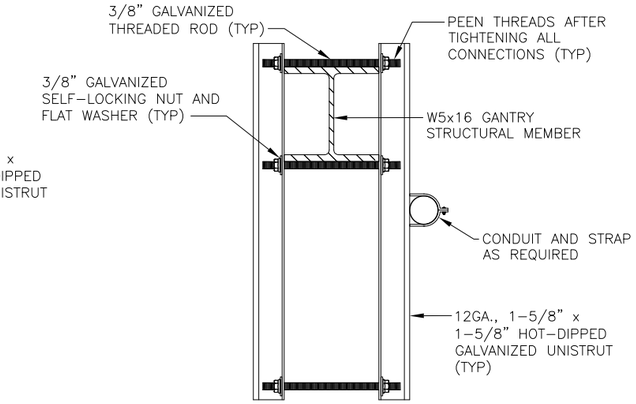
GENERAL NOTES:

1. COORDINATE CGB FITTING WITH CABLE SIZES INDICATED IN TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE.
2. CGB TYPE (WATER TIGHT) CABLE FITTINGS SHALL BE INSTALLED AT THE END OF ALL GANTRY MOUNTED RIGID CONDUIT AND LIQUID TIGHT FLEXIBLE METAL CONDUITS WHERE THE TOLL EQUIPMENT AND CCTV CABLES EMERGE FROM THE CONDUITS. THE CGB TYPE FITTINGS SHALL BE PROPERLY SIZED FOR THE DIAMETER OF THE TOLL EQUIPMENT CABLE INSTALLED IN EACH CONDUIT. THE CGB TYPE FITTING SHALL HAVE MANUAL ADJUSTABLE DIAMETER TO ALLOW THE CABLES TO BE FREELY PULLED THROUGH THE FITTING WITHOUT "GRABBING" THE CABLE DURING INSTALLATION AND PROVIDING A WEATHER TIGHT SEAL AFTER CABLES HAVE BEEN PULLED (BY MANUALLY TIGHTENING THE GLAND NUT). COUPLINGS AND REDUCERS SHALL BE PROVIDED BETWEEN THE CONDUITS AND CGB FITTINGS TO ENABLE THE USE OF CGB FITTINGS THT ALLOW FOR PROPER WATER TIGHT SEALING AROUND CABLES. WATER–TIGHT FITTINGS OTHER THAN CGB TYPE WITH TAPERED NEOPRENE BUSHING AND CABLE CLAMP WILL NOT BE ACCEPTED. THE CGB FITTINGS FOR CONDUITS SERVING THE ANTENNAS SHALL ACCOMMODATE TWO CABLES. SUBMIT SAMPLES OF CGB FITTING FOR SINGLE AND DUAL CABLES TO THE DEPARTMENT FOR APPROVAL PRIOR TO PROCUREMENT.

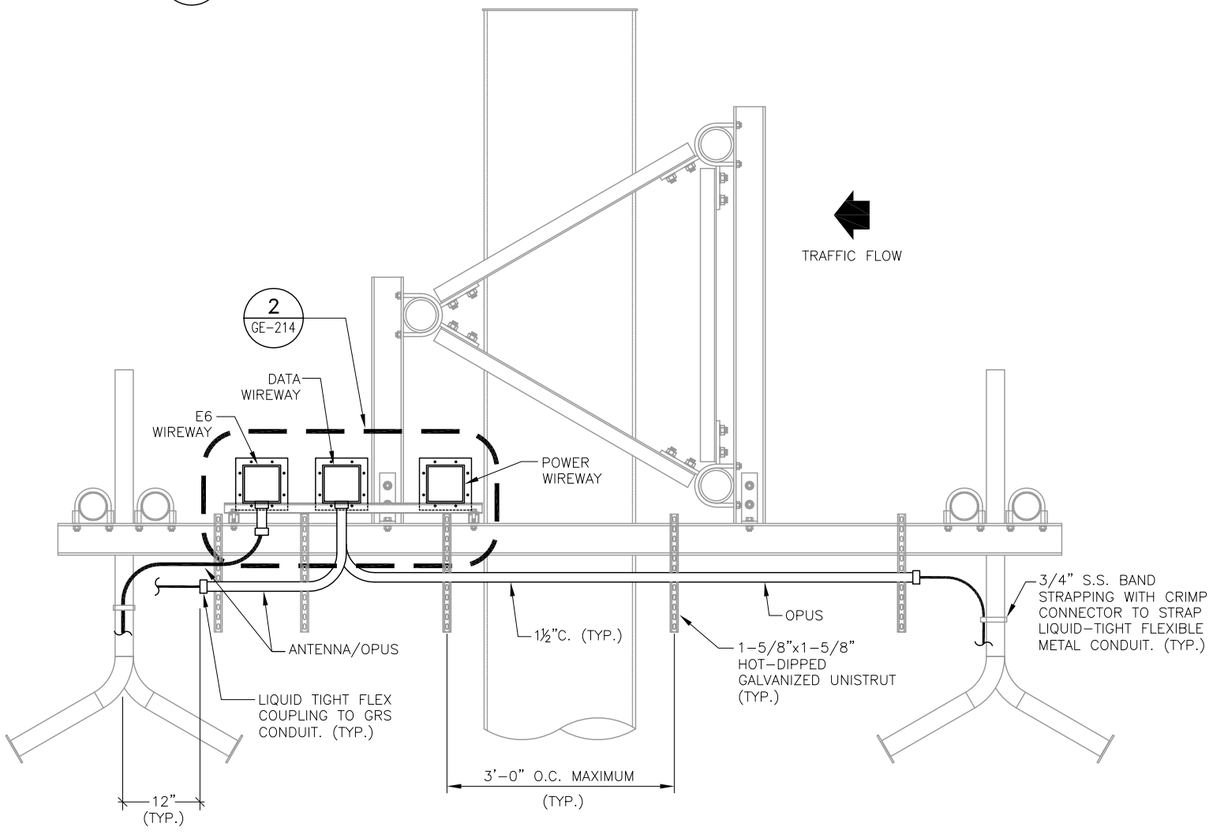
1 GE–214 **CGB CABLE FITTING DETAIL**
SCALE: N.T.S.



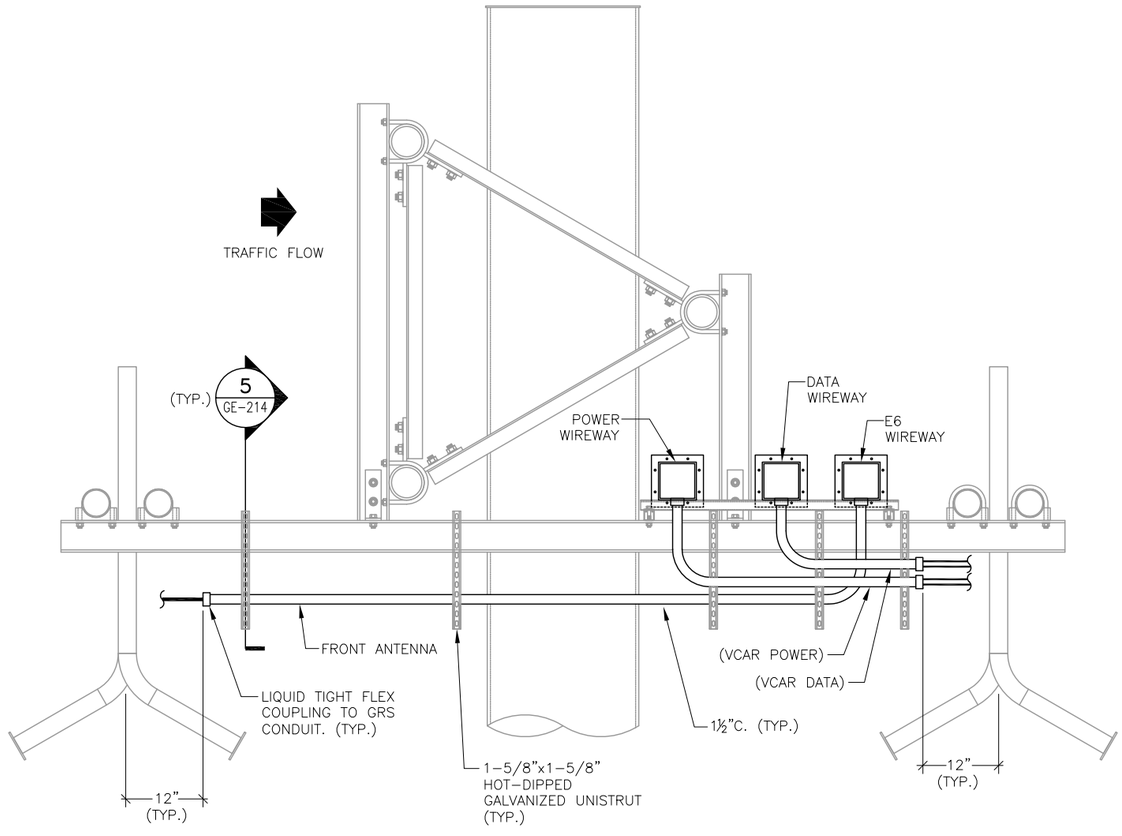
2 GE–214 **WIREWAY MOUNTING DETAIL**
SCALE: N.T.S.



5 GE–214 **UNISTRUT MOUNTING DETAIL**
SCALE: N.T.S.



3 GE–214 **CONDUIT ROUTING DETAIL (TYPICAL U.O.N.)**
SCALE: N.T.S.



4 GE–214 **CONDUIT ROUTING DETAIL (TYPICAL U.O.N.)**
SCALE: N.T.S.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

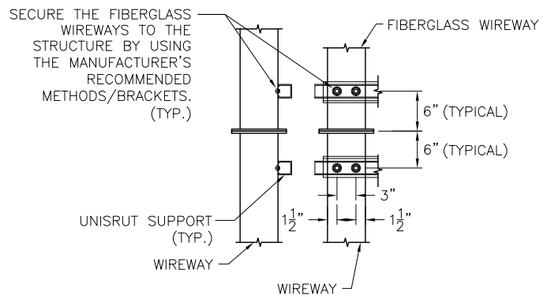
SHEET TITLE: **WIREWAY INSTALLATION DETAILS (2 OF 3)**
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**
DRAWING NO. **GE-214**
SHEET NO. **34**

TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE						
EQUIPMENT/DEVICE		DATA		POWER		CABLE MINIMUM BENDING RADIUS
		CONDUIT DIAMETER	CABLE DIAMETER	CONDUIT DIAMETER	CABLE DIAMETER	
PTZ		1 1/2"	0.30"	1 1/2"	0.30"	4.0"
CCTV		1 1/2"	0.40"	COMBINED WITH DATA		4.0"
OPUS		1 1/2"	0.40"	COMBINED WITH DATA		4.0"
VCAR		1 1/2"	(3) 0.30"	1 1/2"	0.30"	4.0"
DVAS		1 1/2"	0.30"	1 1/2"	0.30"	4.0"
ANTENNA		1 1/2"	0.59"	N/A		6.0"
ANTENNA /OPUS	ANTENNA	1 1/2"	0.59"	N/A		6.0"
	OPUS	1 1/2"	0.40"	COMBINED WITH DATA		4.0"

GENERAL NOTES:

1. CONTRACTOR MUST COORDINATE SIZE AND QUANTITY OF CONDUIT WITH TURNPIKE TOLL OPERATIONS PRIOR TO INSTALLATION TO ENSURE REQUIREMENTS HAVE NOT CHANGED.

1 GE-215 TOLL EQUIPMENT CONDUIT/CABLE SCHEDULE
SCALE: NTS



2 GE-215 WIREWAY SECURING DETAIL
SCALE: N.T.S.

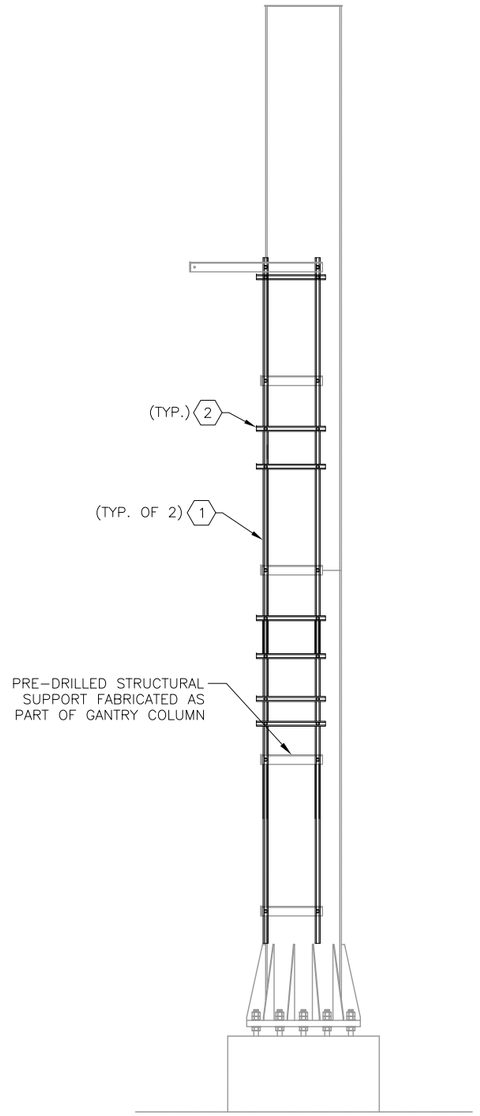
GENERAL NOTES:

1. UNISTRUT & MOUNTING HARDWARE SHALL BE DEBURRED & FILED SMOOTH TO REMOVE ROUGH EDGES.
2. PROVIDE PLASTIC END CAPS FOR UNISTRUT SUPPORTS.

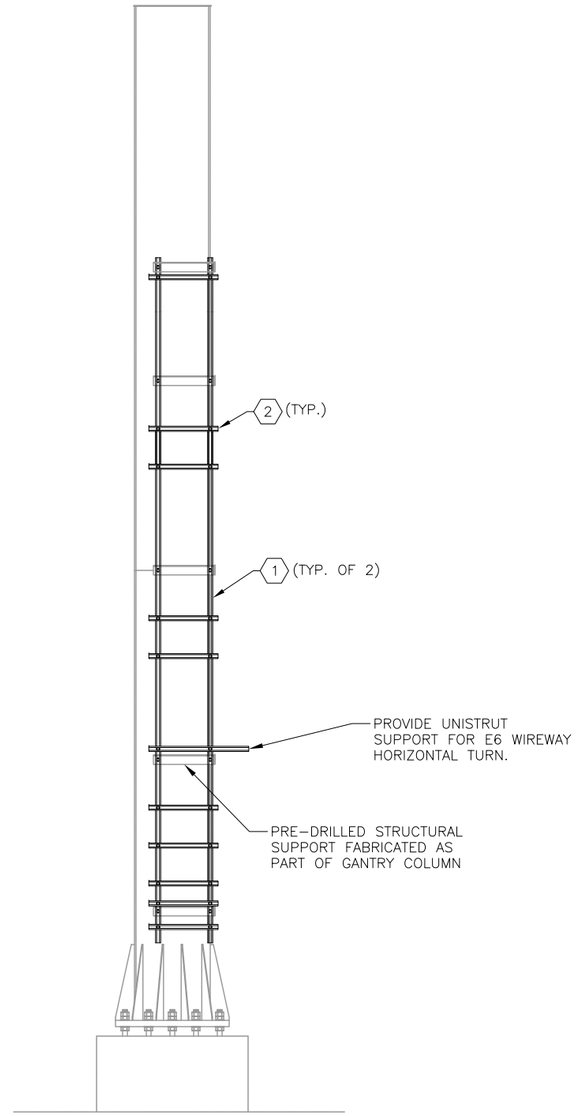
REFERENCE NOTES:

(1) 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT. VERTICALLY MOUNTED AND SECURED TO STRUCTURAL MEMBERS VIA PRE-DRILLED HOLES.

(2) 1-5/8" WIDTH SERIES, HOT-DIPPED GALVANIZED UNISTRUT. MOUNTED ON EACH SIDE OF WIREWAY JOINTS. REFER TO DETAIL 2 ON THIS SHEET.



3 GE-215 COLUMN UNISTRUT DETAIL
SCALE: N.T.S.



4 GE-215 COLUMN UNISTRUT DETAIL
SCALE: N.T.S.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

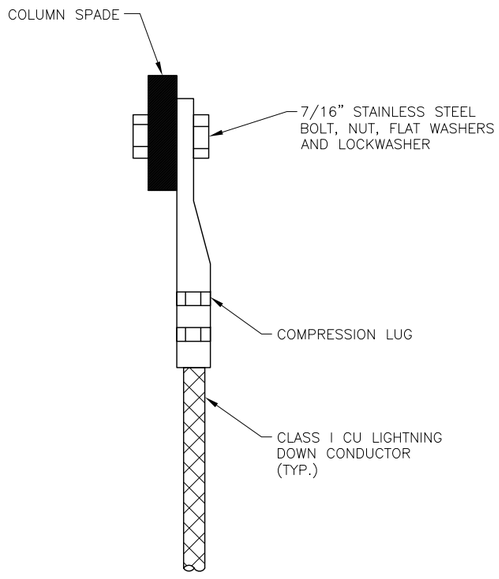
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **WIREWAY INSTALLATION DETAILS (3 OF 3)**

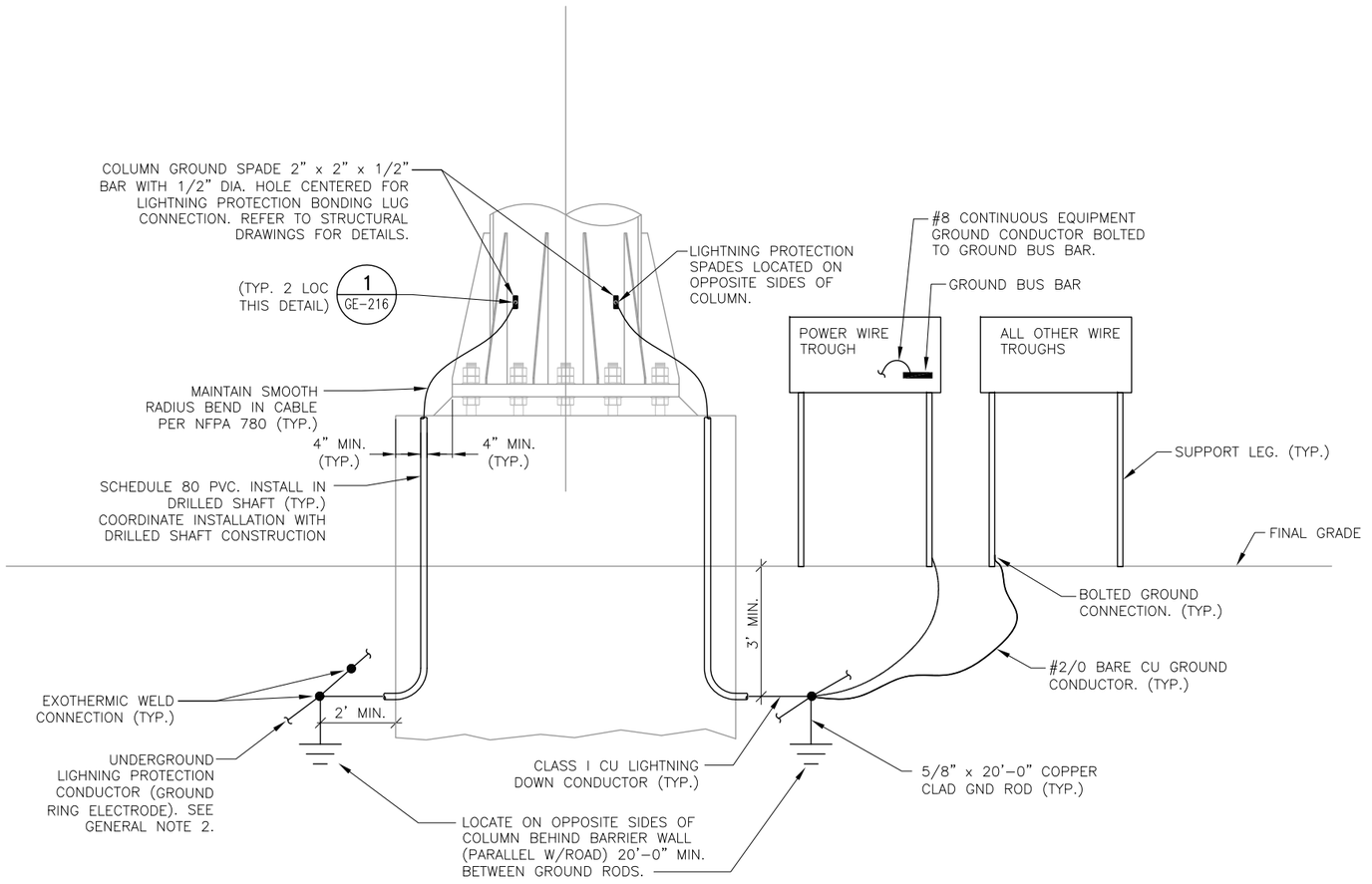
PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-215**

SHEET NO. **35**



1 GE-216 GANTRY COLUMN GND SPADE CONNECTION DETAIL
SCALE: N.T.S.



2 GE-216 GANTRY COLUMN GROUNDING DETAIL
SCALE: N.T.S.

GENERAL NOTE:

1. GROUND EACH GANTRY COLUMN.
2. REFER TO TSP SECTION 26 41 13 FOR UNDERGROUND LIGHTNING PROTECTION CONDUCTOR.

REVISIONS			
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AECOM Technical Services, Inc.
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Campbell Causeway
Tampa, FL 33607-1462
No. 8115
Peter J. Pastore, P.E. No. 77103

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 429	SEMINOLE	240200-2-52-01

SHEET TITLE: **GANTRY - LIGHTNING PROTECTION DETAILS**

PROJECT NAME: **SR 429 WEKIVA PARKWAY SECTION 7A**

DRAWING NO. **GE-216**

SHEET NO. **36**