



Martin Drango
Station Manager
Citrus Combined Cycle Station
14385 North Access Road
Crystal River, FL 34428

February 9, 2022

Sent Via Email

Cindy Mulkey
Program Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, Florida 32399

**Subject: Duke Energy Florida (DEF), LLC-Citrus Energy Complex PA77-09A3
Conditions of Certification Amendment Request**

Dear Ms. Mulkey:

As a part of DEF's commitment to providing reliable generation at the Citrus Combined Cycle Station (CCCS), DEF is proposing to install a pre-cast concrete trench adjacent to an existing buried duct bank from the CCCS PB2 Gas Turbine (GT) Power Distribution Center (PDC) to the CCCS waterfront PDC located at the Intake Canal. The proposed new trench will be level with the existing grade. Please see attached aerial diagram.

The new duct bank / trench is approximately 2.0 miles in length. A portion of the duct bank / trench runs through Crystal River North Units 4 & 5 property, adjacent to the existing Mariculture Center, and then south adjacent to the CR 4 & 5 conveyor 31.

DEF engaged engineering consultants Burns and McDonnell to provide design services associated with the Citrus Waterfront Electrical Reliably project.

It is anticipated that construction will commence on the new duct bank system around March 2022 and is anticipated to be placed in service by Dec. 2022.

We appreciate your assistance on this matter. If you have any questions concerning this submittal, please contact William Linton at (727) 560-4803 or via email at William.Linton@duke-energy.com

Sincerely,

A handwritten signature in black ink that reads "Martin J. Drango".

Martin J. Drango, P.E.
Citrus Combined Cycle Station Manager
Citrus Combined Cycle
Enclosures cc: FDEP Southwest District Office

Project Narrative

Duke Energy - Citrus Combined Cycle Plant- Installation of Duct Bank/Trench
Amendment Request for Site Certification PA77-09A3

This project will install a redundant duct bank/trench from the Citrus PB2 Gas Turbine Power Distribution Center to the Citrus Makeup Cooling Tower. The new duct bank/trench will be designated the "B" duct bank and will be installed adjacent to the existing duct bank. The "B" duct bank is approximately 2 miles long and will be a combination of 2-6" direct bore conduits underneath existing roads, railways or water crossings; or a pre-fabricated concrete trench with lid that is rated for traffic crossing.

The existing duct bank will be re-purposed and will contain only the "A" feeder cables from the Citrus PB1 Gas Turbine Power Distribution Center to the Citrus Makeup Cooling Tower. A portion of the existing duct bank adjacent the Mariculture Center will be abandoned in place due to damage to several of the existing conduits in the duct bank. This section of duct bank will be replaced with a new pre-fabricated concrete trench with lid that is rated for traffic crossing adjacent to the existing duct bank and the new "B" duct bank. A portion of the new "A" duct bank/trench will also contain 2-6" direct bore conduits underneath existing roads, railways or water crossings.

Currently the existing duct bank stops at the south end of the Site Admin. Bldg. (SAB) parking lot and the existing power cables and fiber optics are routed on the north - south conveyor 31, where the cables are routed on the conveyor to facilitate crossing the east west access road south of the SAB. The cables, then exit the conveyor structure and re-enter the existing duct bank, where they continue to the Citrus Makeup Cooling Tower. Two (2) parallel trenches will be installed adjacent to existing duct bank hand hole 00EG-HH-0021 south through the west section of the SAB parking lot adjacent to conveyor 31, where new cable bridge will be installed to cross the waterway along the north side of the east west access road, and 5-6" direct bore conduits will be installed under the east west access road. On the south side of east west access road, the parallel trenches will continue south adjacent to conveyor 31 with a combination of direct bore conduits underneath existing roads or railways, or pre-fabricated concrete trenches, where the new "A" duct bank/trench will merge with the existing duct bank. From this point on, a single "B" duct bank/trench will be installed to the Citrus Makeup Cooling Tower PDC. The new "B" feeder cables will be (2) parallel 3/C-750 MCM with 2/0 ground, qualified for submergence. The existing "A" feeder cables will be removed and replaced with (2) parallel 3/C-750 MCM with 2/0 ground, qualified for submergence.



Citrus Combined Cycle Plants

(2) 131', 6" core bores "B"

North Access Road

New pre-cast trench "B"

(2) 60', 6" core bores "B"

Pre-cast trench "B"

Pre-cast trench "B"

(2) 108', 6" core bores "B"

CR Coal Conveyor 31

Existing underground duct bank

Existing underground duct bank

New pre-cast trench "A" side

Crystal River Mariculture Center

(2) 64', 6" core bores "A"

Existing underground duct bank

Existing underground duct bank

Crystal River Site Admin Bldg

Parallel pre-cast trenches "A" & "B"

W Power Line St

W Power Line St

W Power Line St

W Power Line St

W Power Line St

W Power Line St

(5) 90', 6" core bores

Existing underground duct bank

Citrus Makeup Cooling Tower PDC

(5) 198', 6" core bores

(5) 20', 6" core bores

Pre-cast trench "B"

(2) 80', 6" core bores "B"

CR Intake Canal

AERIAL ROUTE OF CITRUS COMBINED CYCLE DUCT BANK



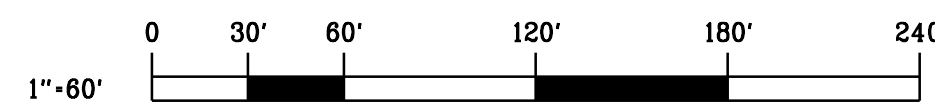
The proposed electric utility duct bank will be installed, at grade and parallel to an existing underground electrical conduit. The corridor for these electric utility duct banks was previously cleared and graded during plant construction. This 2017 aerial, indicates the proposed route of the trench/duct bank within the existing utility corridor.

NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.
- ALL DUCTBANK SHALL HAVE 2-#4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES, BEFORE BACKFILL, AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- FOR DUCTBANK COORDINATES AND MANHOLE INTERFACE SEE DRAWING CCC20-UG-E-UE.00.PL-13.
- SUBCONTRACTOR SHALL PERFORM ALL WORK SOUTH OF HANDHOLE 00EG-HH-0007.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH AND NEW TERMINAL BOX DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- CONTRACTOR TO EXTEND THE EXISTING CONCRETE FOUNDATION AS REQUIRED TO INSTALL THE NEW TERMINATION BOX.
- UG TOPO SURVEY INDICATES THE EXISTING TERMINAL BOX CONCRETE FOUNDATION AT COORDINATES E 19551'-10/4" N 9115'-6/4" AND BOT EL 8'-0/2". CONTRACTOR TO IDENTIFY THE EXACT LOCATION AT FIELD.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

- 02D - ROAD CROSSING (DETAIL U02B)
- PRECAST CONCRETE TRENCH HS-20 RATED

KEY PLAN
N.T.S.**BURNS
MEDONNELL**9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 02A, 02B, 02C, 02D, 02E.

BMCD PROJECT 137458

CONTRACT 5.8300

RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE

DUKE ENERGY FLORIDA
CITRUS COUNTY COMBINED CYCLE PROJECTELECTRICAL
UNDERGROUND DUCTBANK LAYOUT
MAKEUP WATER INTERFACE PLAN AREA 19FOR
CITRUS COUNTY COMBINED CYCLE - UNIT 00SCALE: 1"=60'-0"
DES: JGW
DWG TYPE: UG
DFTR: JGW
JOB NO: C1CC0C
CHKD: ABD
DATE: 04/25/16
ENGR: CA
APPD: JM

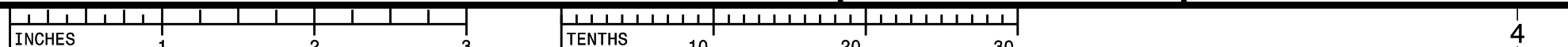
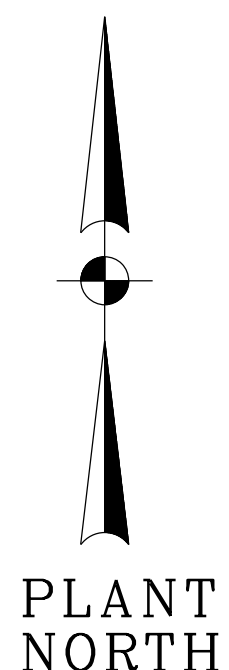
FILENAME: CCC00-UG-E-UE.00.PL-19.dgn

THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS,
TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBER
ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATERDWG SIZE
ARCH D
24.0"x36.0"
DRAWING NO.
CCC00-UG-E-UE.00.PL-19
REVISION
02E**PRELIMINARY - NOT
FOR CONSTRUCTION**

REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD
02E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH	JCH
DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION								
02D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH	JCH
DESC: ISSUED FOR OWNER REVIEW (IFOR)								
02C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH
DESC: ISSUED FOR BID (IFB)								
02B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH
DESC: ISSUED FOR BID (IFB)								
02A	10/18/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH
DESC: ISSUED FOR BID (IFB)								
02	10/19/16	C1CC0C	CONSTRUCTION					
DESC: ISSUED FOR CONSTRUCTION (IFC) ADDED MV CABLE REEL ASSIGNMENTS, NOTE 10, & REVISED SERVICE LEVELS								

MECH	LAYOUT	CSA	ELEC
MECH	LAYOUT	CSA	ELEC
W			
MECH	LAYOUT	CSA	ELEC
W	RT	SAJ	CA
MECH	LAYOUT	CSA	ELEC
W	RT	SAJ	CA
MECH	LAYOUT	CSA	ELEC
W	RT	SAJ	CA

DRAWING NUMBER	REFERENCE DRAWINGS
CCC00-GD-E-UE.00.PL-19	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 19
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION
CCC00-SA-E-08	ELECTRICAL UNDERGROUND STANDARD ASSEMBLY



NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
2. ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
3. FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.
4. ALL DUCTBANK SHALL HAVE 2-4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES; BEFORE BACKFILL; AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
5. ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
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7. DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
8. SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICER BOX AND HANDHOLE INFORMATION.
9. FOR PRECAST CONCRETE TRENCH, DIRECTIONAL BORES AND NEW TERMINAL BOXES DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
10. DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
11. THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

-  - ROAD CROSSING (DETAIL U02B)
 - PRECAST CONCRETE TRENCH HS-20 RATE
 - 6" SLEEVES FOR DIRECTIONAL BORE

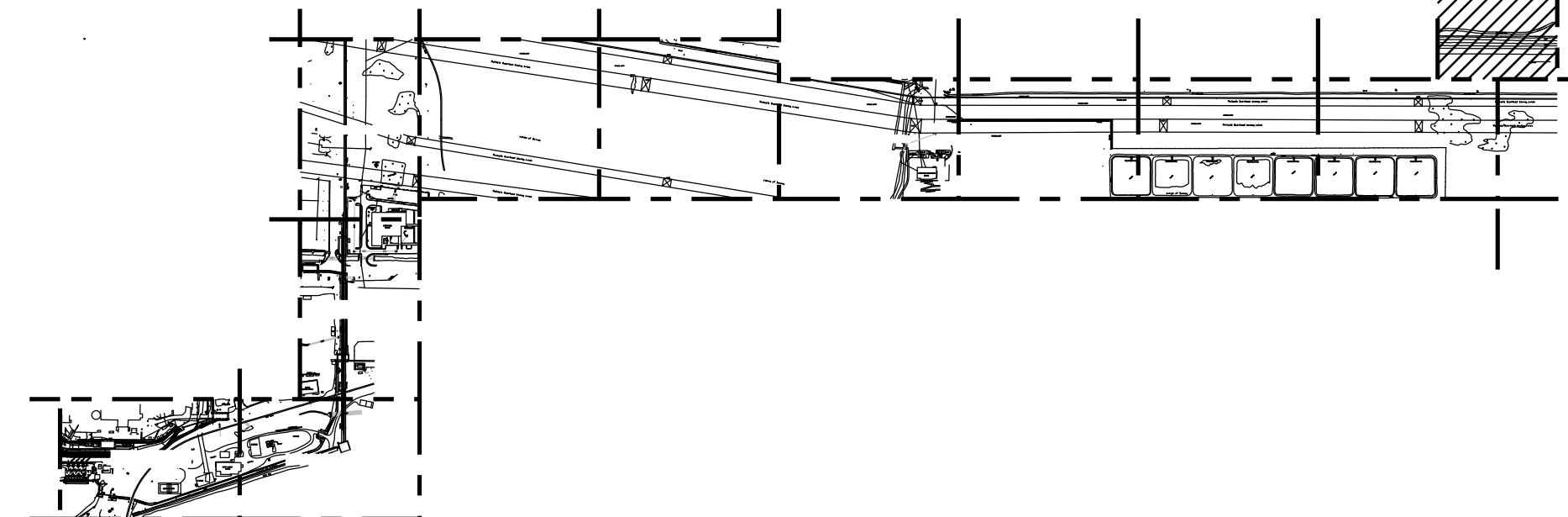
**PRELIMINARY - NOT
FOR CONSTRUCTION**



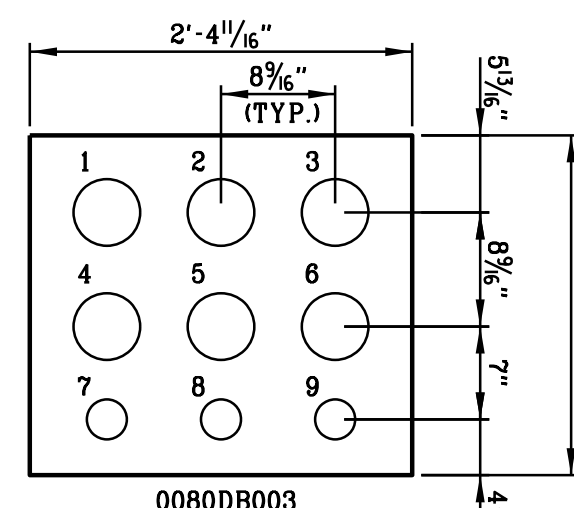
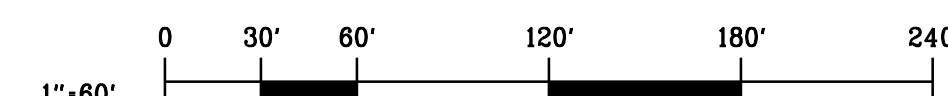
THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 02B, 02C, 02D, 02E .

BMCD PROJECT 137458

CONTRACT 5.8300

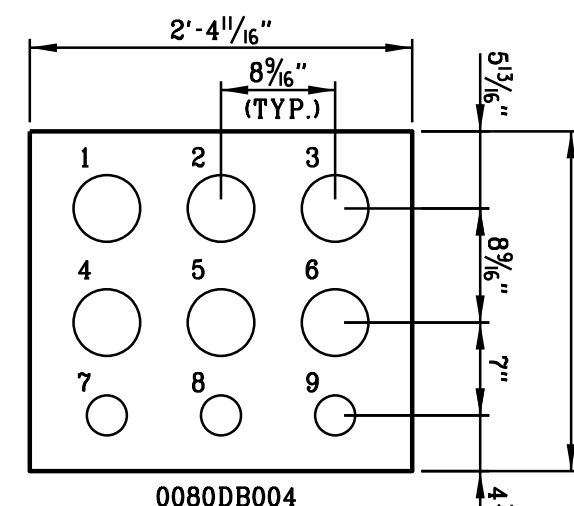


KEY PLAN
N.T.S.



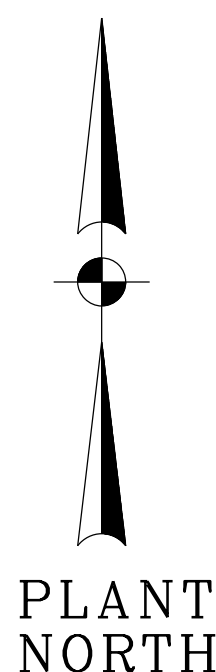
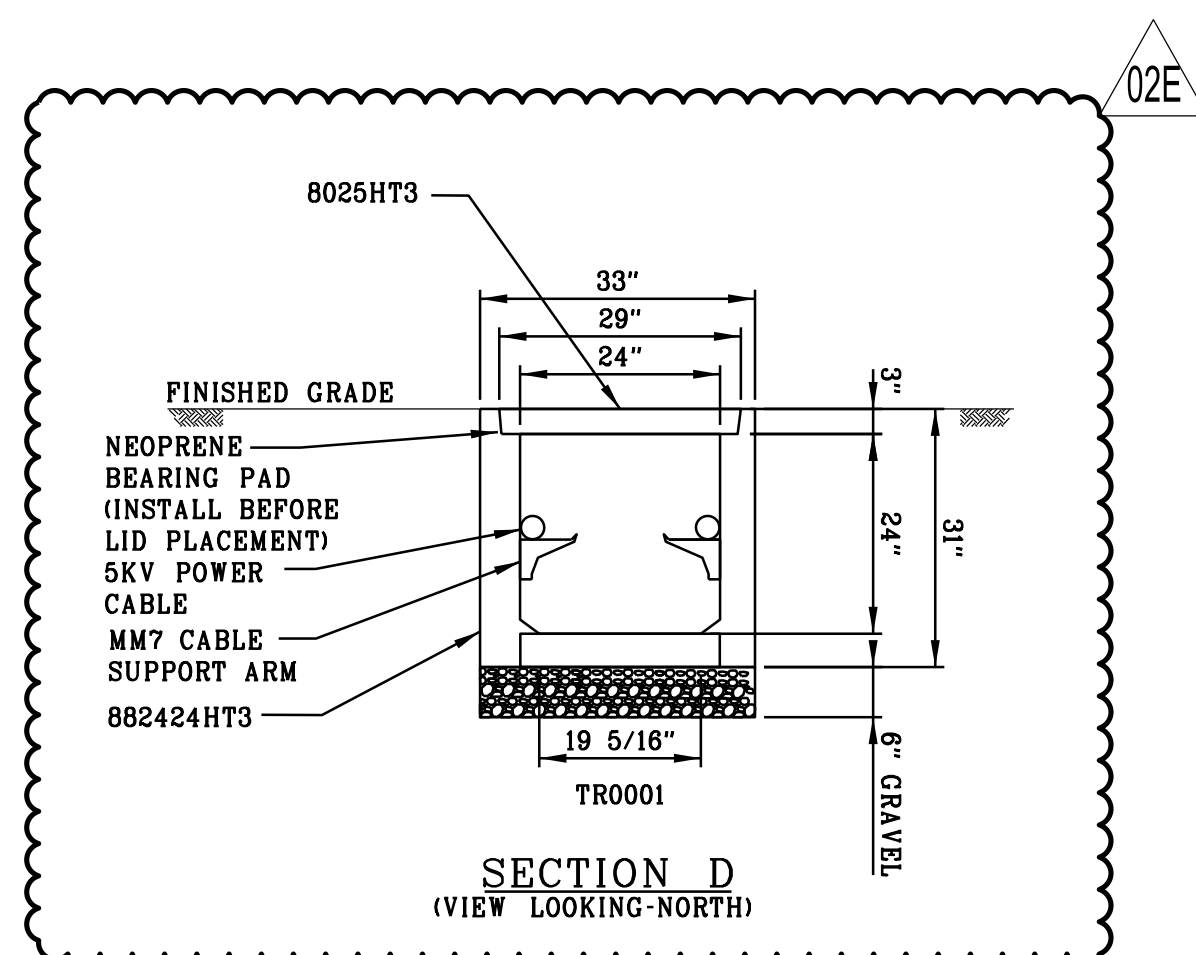
1. 0080DH003C1 (5" PVC C.) 4. 0080DX003C2 (5" PVC C.) 7. 0080DE003C3 (2" PVC C.)
2. 0080DH003B1 (5" PVC C.) 5. 0080DE003B2 (5" PVC C.) 8. 0080DX003B3 (2" PVC C.) (COMM)
3. 0080DH003A1 (5" PVC C.) 6. 0080DH003A2 (5" PVC C.) 9. 0080DX003A3 (2" PVC C.)

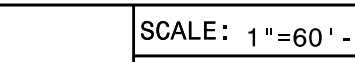
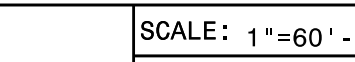
SECTION A
(VIEW LOOKING-NORTH)



1. 0080DH004C1 (5" PVC C.) 4. 0080DX004C2 (5" PVC C.) 7. 0080DE004C3 (2" PVC C.)
2. 0080DH004B1 (5" PVC C.) 5. 0080DE004B2 (5" PVC C.) 8. 0080DX004B3 (2" PVC C.) (COMM
3. 0080DH004A1 (5" PVC C.) 6. 0080DH004A2 (5" PVC C.) 9. 0080DX004A3 (2" PVC C.)

SECTION B
(VIEW LOOKING-NORTH)



		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE	TITLE DUKE ENERGY FLORIDA CITRUS COUNTY COMBINED CYCLE PROJECT					
						02E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH		LCH	JCH				
						DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION													
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253	ELECTRICAL UNDERGROUND DUCTBANK LAYOUT MAKEUP WATER INTERFACE PLAN AREA 20					
						02D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH		LCH	JCH				
						DESC: ISSUED FOR OWNER REVIEW (FOR)													
CCC00-GD-E-UE.00.PL-20	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 20	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253	FOR	CITRUS COUNTY COMBINED CYCLE - UNIT 00				
						02C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH		LCH	JCH				
		W	W	W		DESC: ISSUED FOR BID (IFB)													
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253	 SCALE: 1"=60'-0" DWG TYPE: UG JOB NO: C1CC0C DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-20.dgn	DES	JGW			
		W	RT	SAJ	CA	02B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH			LCH	JCH	DFTR	JGW	
						DESC: ISSUED FOR BID (IFB)									CHKD	ABD			
CCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253	 SCALE: 1"=60'-0" DWG TYPE: UG JOB NO: C1CC0C DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-20.dgn	ENGR	CA			
		W	RT	SAJ	CA	02	11/8/18	C1CC0C	CONSTRUCTION	JKC	JKC						APPD	JM	
						DESC: ISSUED FOR AS-BUILT (AB)													
DRAWING NUMBER	REFERENCE DRAWINGS	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBER ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.	DWG SIZE	DRAWING NO.	REVISION			
		W	RT	SAJ	CA	01	10/19/16	C1CC0C	CONSTRUCTION	JW	JW	AD		CA	SS	24.0"x36.0"	CCC00-UG-E-UE.00.PL-20	02E	
						DESC: ISSUED FOR CONSTRUCTION (IFC)													
						ISSUED MV,CAB E, REEL ASSIGNMENTS, NOTE 8 & REVISED SERVICE LEVELS													

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LEGEND:

- ROAD CROSSING (DETAIL U02B)
- PRECAST CONCRETE TRENCH HS-20 RATED

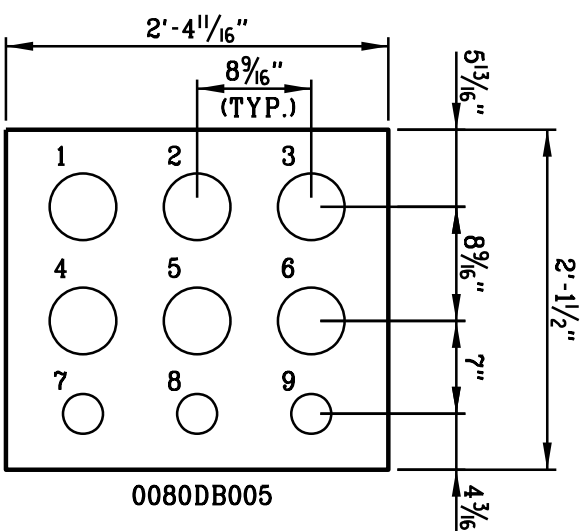
PRELIMINARY - NOT FOR CONSTRUCTION

BURNS & McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

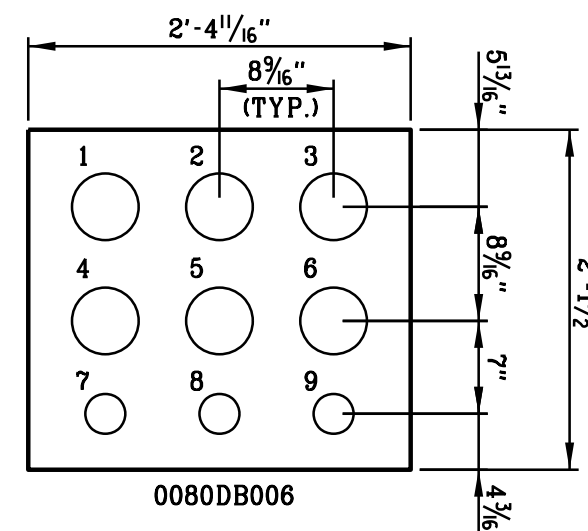
THE REGISTRANT OF THE NEWLY APPLIED SEAL, DATED 02/08/2022, ONLY ASSUMES RESPONSIBILITY FOR THE CHANGES AS INDICATED BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E.

BMCD PROJECT 137458	CONTRACT 5.8300
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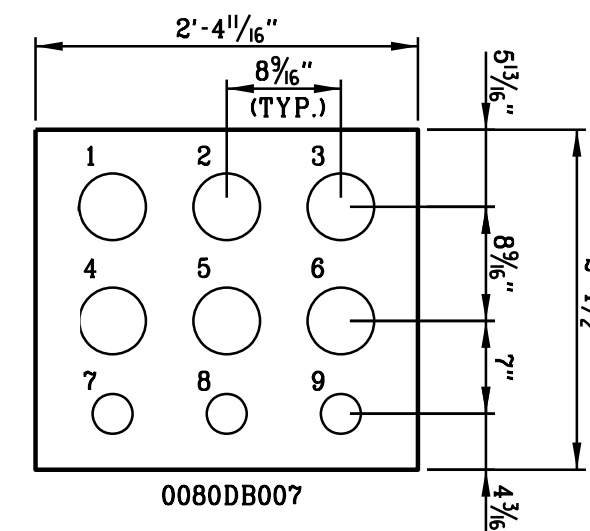
KEY PLAN
N.T.S.



SECTION A
(VIEW LOOKING-NORTH)

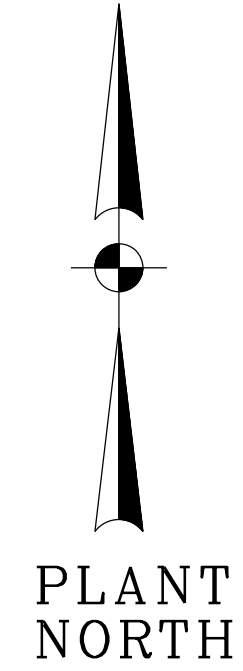


SECTION B
(VIEW LOOKING-EAST)



SECTION C
(VIEW LOOKING-EAST)

- | | | |
|---|---|---|
| 1. 0080DH005C1 (5" PVC C.) 4. 0080DX005C2 (5" PVC C.) 7. 0080DE005C3 (2" PVC C.) | 1. 0080DH006C1 (5" PVC C.) 4. 0080DX006C2 (5" PVC C.) 7. 0080DE006C3 (2" PVC C.) | 1. 0080DH007C1 (5" PVC C.) 4. 0080DX007C2 (5" PVC C.) 7. 0080DE007C3 (2" PVC C.) |
| 2. 0080DH005B1 (5" PVC C.) 5. 0080DE005B2 (5" PVC C.) 8. 0080DX005B3 (2" PVC C.) (COMM) | 2. 0080DH006B1 (5" PVC C.) 5. 0080DE006B2 (5" PVC C.) 8. 0080DX006B3 (2" PVC C.) (COMM) | 2. 0080DH007B1 (5" PVC C.) 5. 0080DX007B2 (5" PVC C.) 8. 0080DX007B3 (2" PVC C.) (COMM) |
| 3. 0080DH005A1 (5" PVC C.) 6. 0080DX005A2 (5" PVC C.) 9. 0080DX005A3 (2" PVC C.) | 3. 0080DH006A1 (5" PVC C.) 6. 0080DX006A2 (5" PVC C.) 9. 0080DX006A3 (2" PVC C.) | 3. 0080DH007A1 (5" PVC C.) 6. 0080DX007A2 (5" PVC C.) 9. 0080DX007A3 (2" PVC C.) |



		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
						03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	JCH
						DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION							
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	W	W		03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	JCH
						DESC: ISSUED FOR OWNER REVIEW (IFOR)							
CCC00-GD-E-UE.00.PL-21	UNDERGROUND GROUNDING LAYOUT MAKEUP WATER INTERFACE PLAN AREA 21	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	03C	11/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	JCH
						DESC: ISSUED FOR BID (IFB)							
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	03B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	JCH
						DESC: ISSUED FOR BID (IFB)							
CCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	03	11/8/18	CICCO	CONSTRUCTION	JKC	JKC	RM	
						DESC: ISSUED FOR AS-BUILT (AB)							
DRAWING NUMBER	REFERENCE DRAWINGS	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA
						DESC: ISSUED FOR CONSTRUCTION (IFC)							
						ADDED MV CABLE REEL ASSIGNMENTS, REVISED NOTE 8, & REVISED SERVICE LVLS							

RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE

BURNS & McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBER. ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.

TITLE: DUKE ENERGY FLORIDA
CITRUS COUNTY COMBINED CYCLE PROJECT
ELECTRICAL
UNDERGROUND DUCTBANK LAYOUT
MAKEUP WATER INTERFACE PLAN AREA 21
FOR: CITRUS COUNTY COMBINED CYCLE - UNIT 00

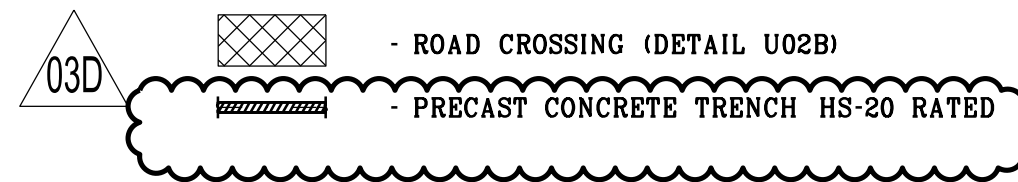
SCALE: 1"=60'-0"	DES: JGW
DWG TYPE: UG	DFTR: JGW
JOB NO: C10000	CHKD: ABD
DATE: 04/25/16	ENGR: CA
FILENAME: CCC00-UG-E-UE.00.PL-21.dgn	APPD: JM

DWG SIZE: 24.0"x36.0"	DRAWING NO: CCC00-UG-E-UE.00.PL-21	REVISION: 03E
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NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT. BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-00-08.
- ALL DUCTBANK SHALL HAVE 2-#4/0 BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK. AFTER CONCRETE DRIES, BEFORE BACKFILL, AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH AND NEW TERMINAL BOX DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

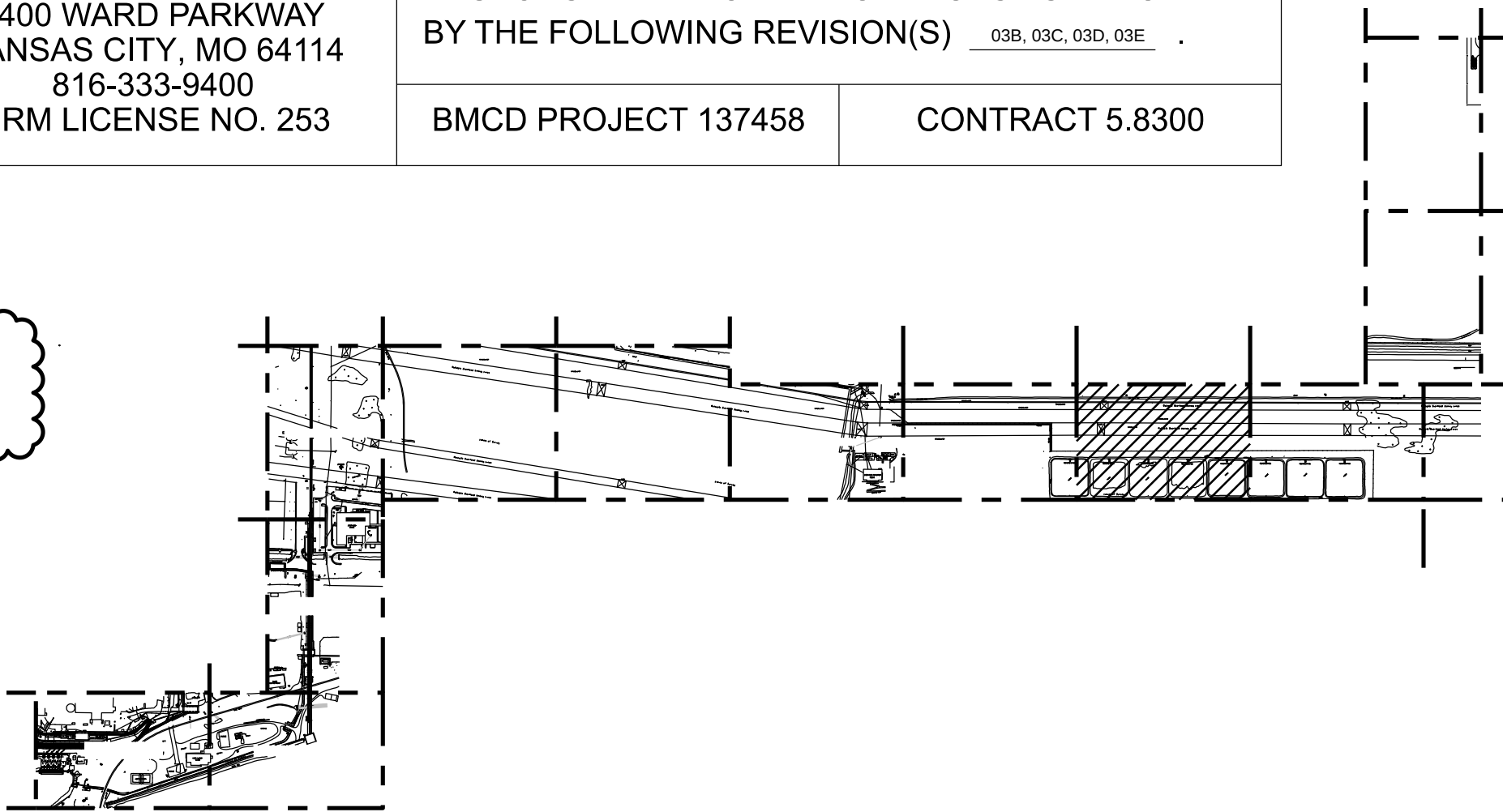
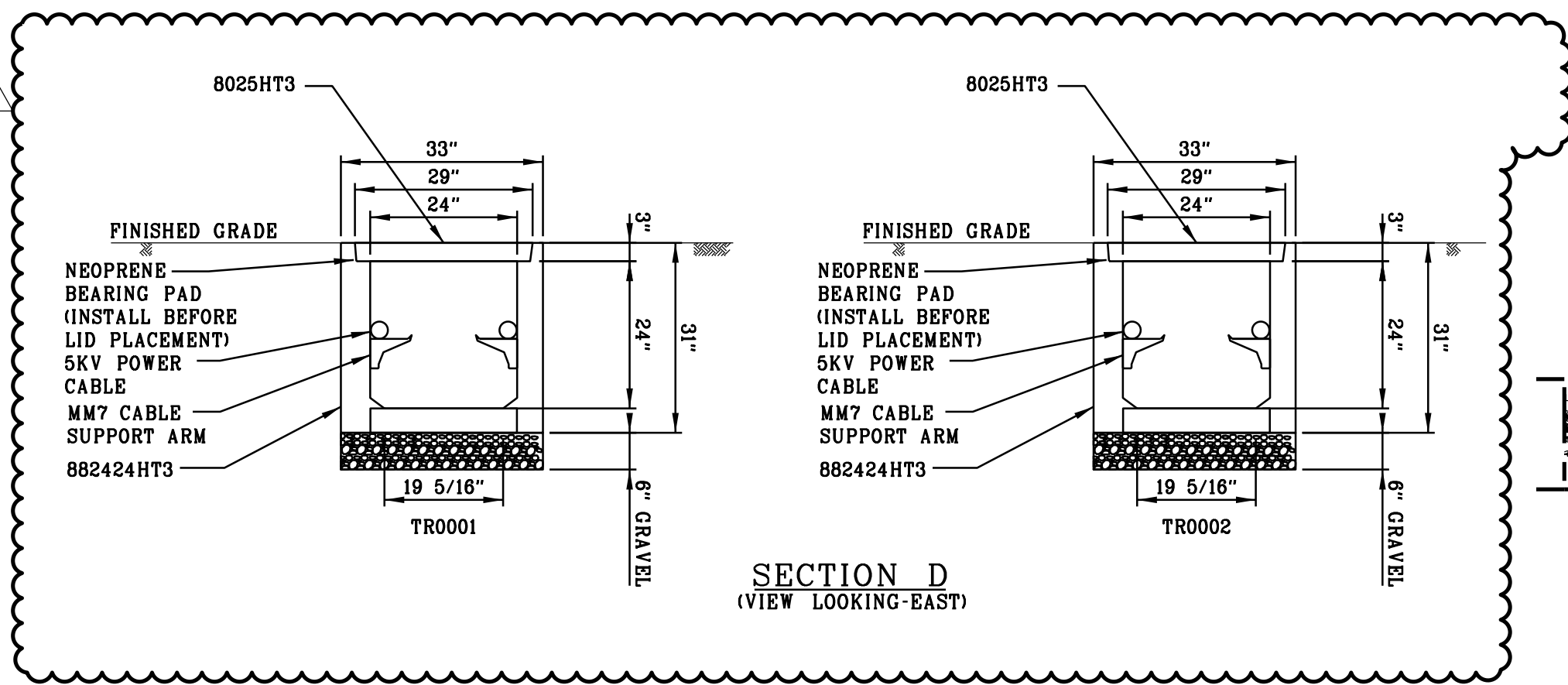
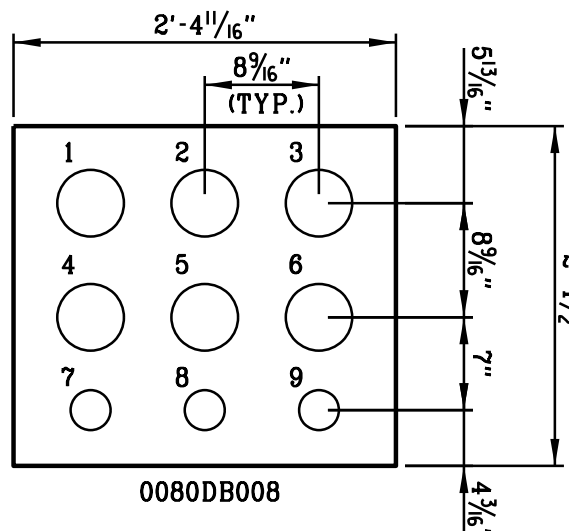
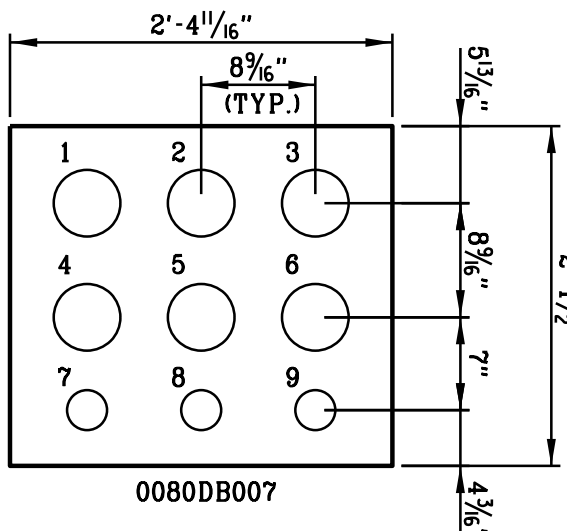
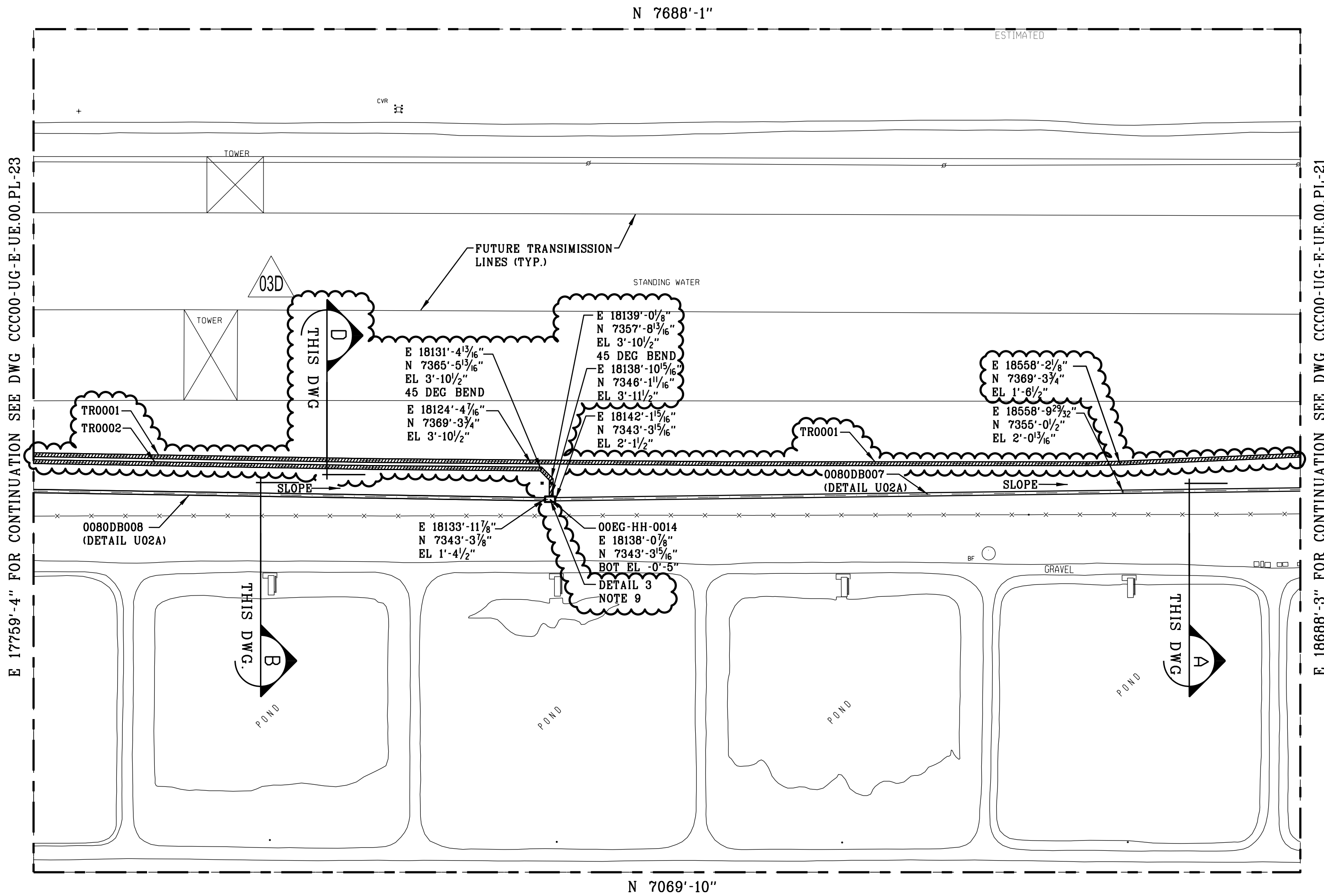
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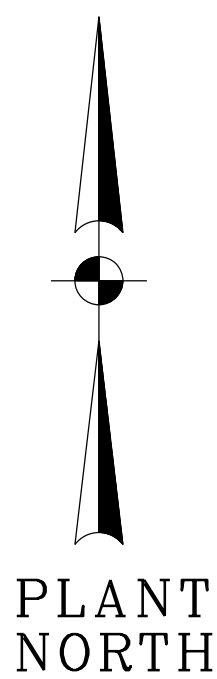
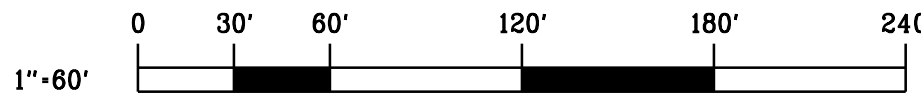
**PRELIMINARY - NOT
FOR CONSTRUCTION**

**BURNS
MEDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E.
BMCD PROJECT 137458 CONTRACT 5.8300



KEY PLAN
N.T.S.



1. 0080DH007C1 (5" PVC C.) 4. 0080DX007C2 (5" PVC C.) 7. 0080DE007C3 (2" PVC C.)
2. 0080DH007B1 (5" PVC C.) 5. 0080DE007B2 (5" PVC C.) 8. 0080DX007B3 (2" PVC C.) (COMM)
3. 0080DH007A1 (5" PVC C.) 6. 0080DH007A2 (5" PVC C.) 9. 0080DX007A3 (2" PVC C.)
1. 0080DH008C1 (5" PVC C.) 4. 0080DX008C2 (5" PVC C.) 7. 0080DE008C3 (2" PVC C.)
2. 0080DH008B1 (5" PVC C.) 5. 0080DE008B2 (5" PVC C.) 8. 0080DX008B3 (2" PVC C.) (COMM)
3. 0080DH008A1 (5" PVC C.) 6. 0080DH008A2 (5" PVC C.) 9. 0080DX008A3 (2" PVC C.)

SECTION A
(VIEW LOOKING-EAST)

SECTION B
(VIEW LOOKING-EAST)

SECTION D
(VIEW LOOKING-EAST)

		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE		TITLE
						03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH	JCH	DUKE ENERGY FLORIDA CITRUS COUNTY COMBINED CYCLE PROJECT
						DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION									
						03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH	JCH	ELECTRICAL
						DESC: ISSUED FOR OWNER REVIEW (IFOR)									
CCC00-GD-E-UE.00.PL-22		UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 22				03C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH	UNDERGROUND DUCTBANK LAYOUT MAKEUP WATER INTERFACE PLAN AREA 22
						DESC: ISSUED FOR BID (IFB)									
CCC00-SP-E-E-00-03		UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION				03B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH	FOR CITRUS COUNTY COMBINED CYCLE - UNIT 00
						DESC: ISSUED FOR BID (IFB)									
CCC00-SA-E-03 THRU -07		ELECTRICAL GROUNDING STANDARD ASSEMBLIES				03	11/8/18	CICCO	CONSTRUCTION	JKC	JKC	RM			DUKE ENERGY
						DESC: ISSUED FOR AS-BUILT (AB)									
DRAWING NUMBER		REFERENCE DRAWINGS				REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.		FILENAME: CCC00-UG-E-UE.00.PL-22.dgn
						02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS	SCALE: 1"=60'-0"
						DESC: ISSUED FOR CONSTRUCTION (IC)									
						ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED SERVICE LEVELS									
						REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	DWG SIZE		SCALE: 1"=60'-0"
						02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS	DWG TYPE: UG
						DESC: ISSUED FOR CONSTRUCTION (IC)									
						ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED SERVICE LEVELS									
						REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	ARCH D		DES: JGW
						02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS	DFTR: JGW
						DESC: ISSUED FOR CONSTRUCTION (IC)									
						ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED SERVICE LEVELS									
						REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	DATE: 04/25/16		CHKD: ABD
						02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS	ENGR: CA
						DESC: ISSUED FOR CONSTRUCTION (IC)									
						ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED SERVICE LEVELS									
						REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	APPD: JM		REVISION
						02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS	CCC00-UG-E-UE.00.PL-22
						DESC: ISSUED FOR CONSTRUCTION (IC)									
						ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED SERVICE LEVELS									
						REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDENG	APPD	24.0"x36.0"		03E
						02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS	

NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-00.
- ALL DUCTBANK SHALL HAVE 2-4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES BEFORE BACKFILL AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH AND NEW TERMINAL BOX DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- FIELD TO BE CAUTIOUS OF EXISTING, ABOVE GROUND, UNPROTECTED TEMPORARY CABLE DURING CONSTRUCTION.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

- 03D - ROAD CROSSING (DETAIL U02B)
- PRECAST CONCRETE TRENCH HS-20 RATED

PRELIMINARY - NOT
FOR CONSTRUCTION

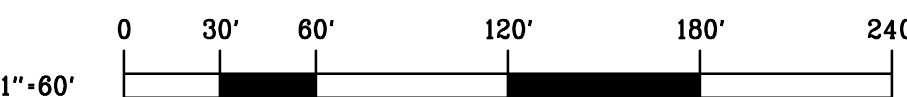
**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E

BMCD PROJECT 137458

CONTRACT 5.8300

KEY PLAN
N.T.S.

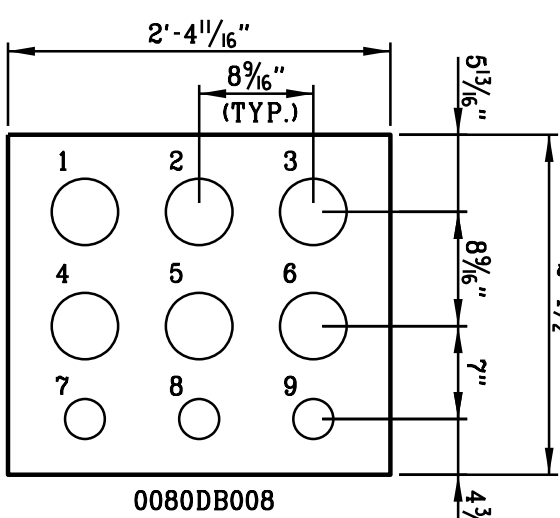
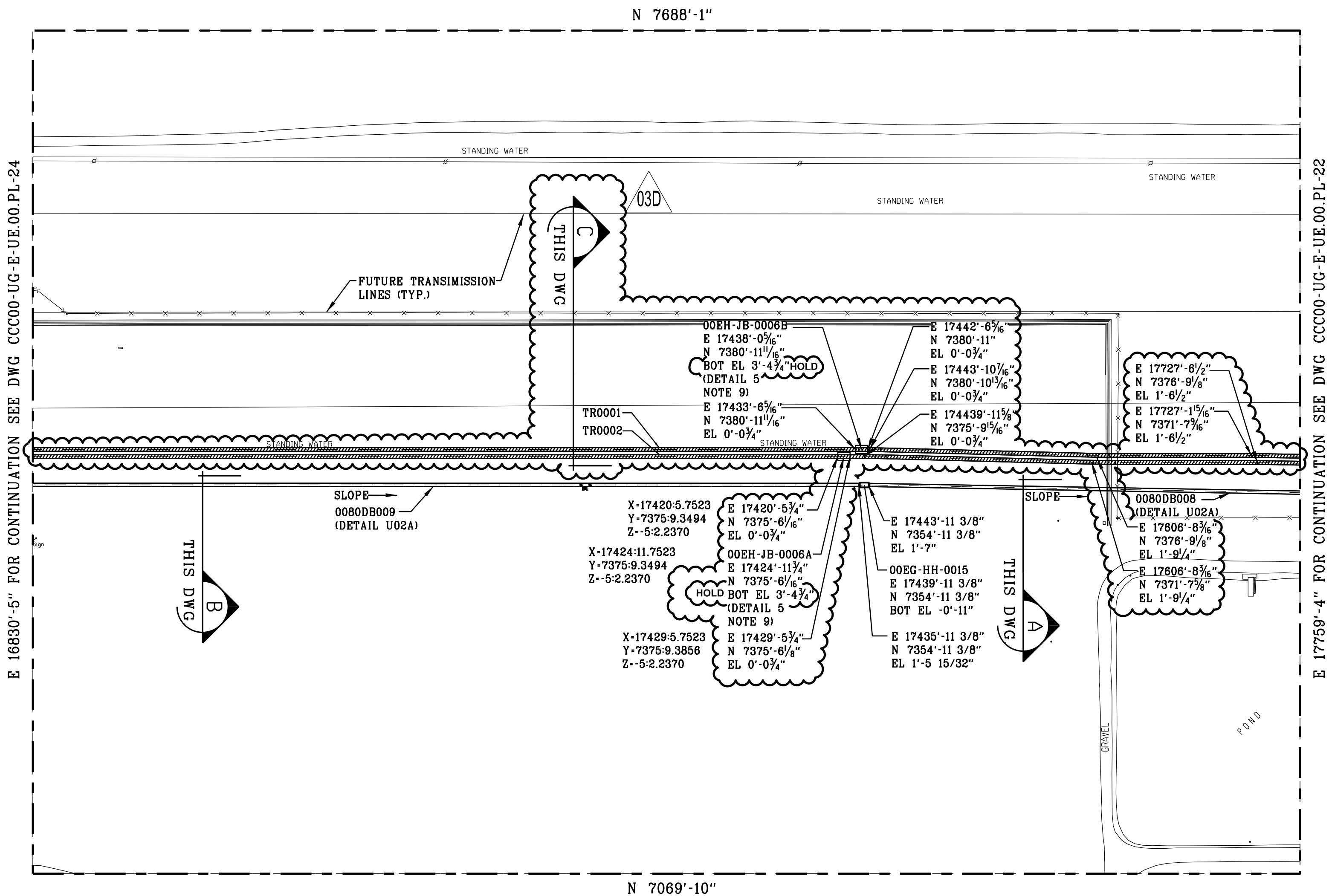


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JOB NO: C1000C
DATE: 03/22/16
DES: JGW
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CHKD: ABD
ENGR: CA
APPD: JM

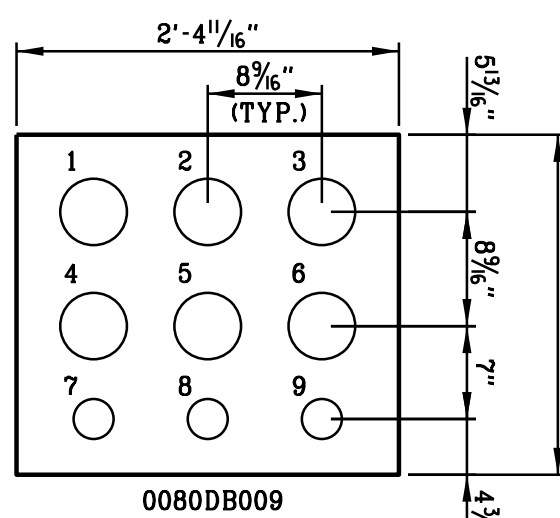
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DRAWING NO. CCC00-UG-E-UE.00.PL-23
REVISION 03E

**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

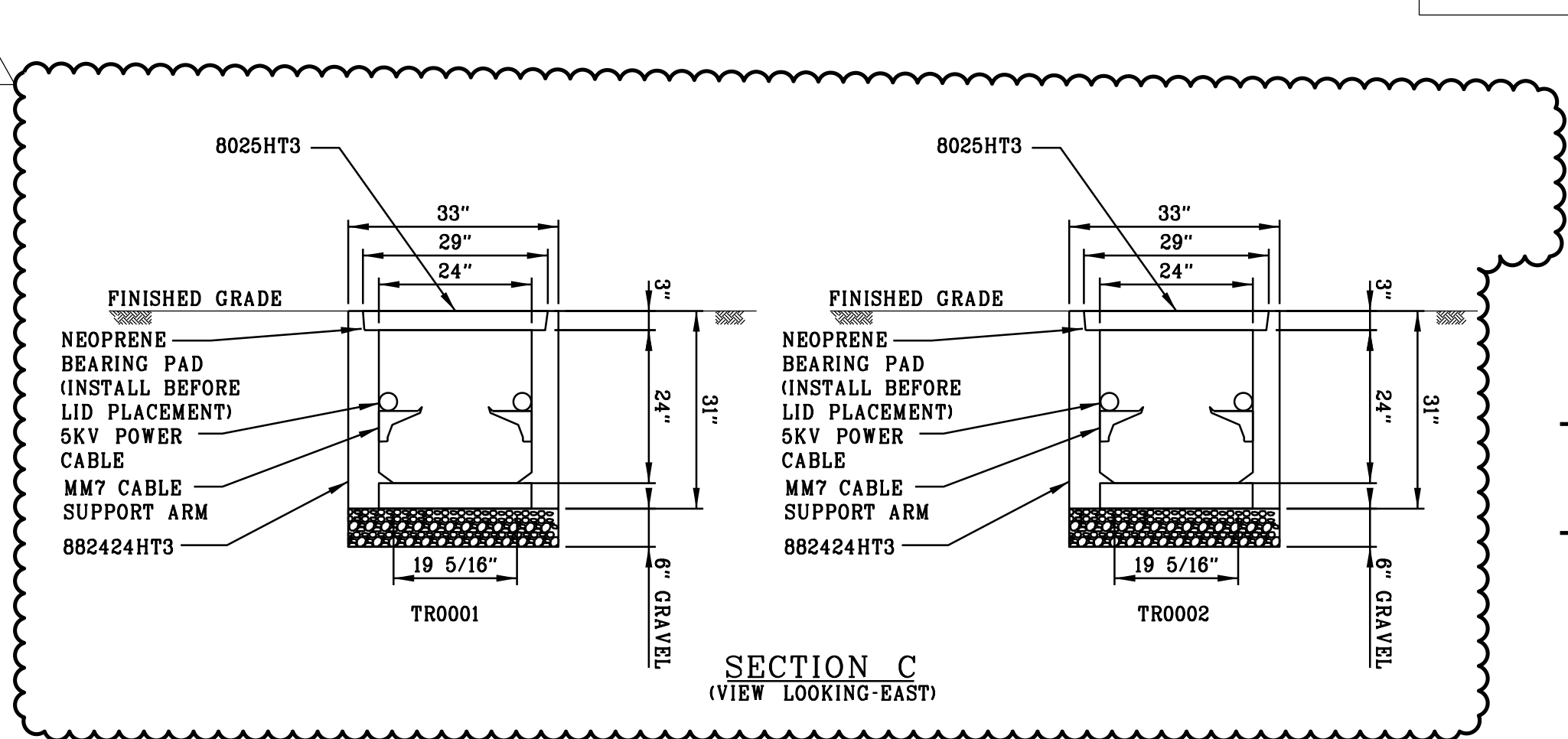
THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS,
TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS.
ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.



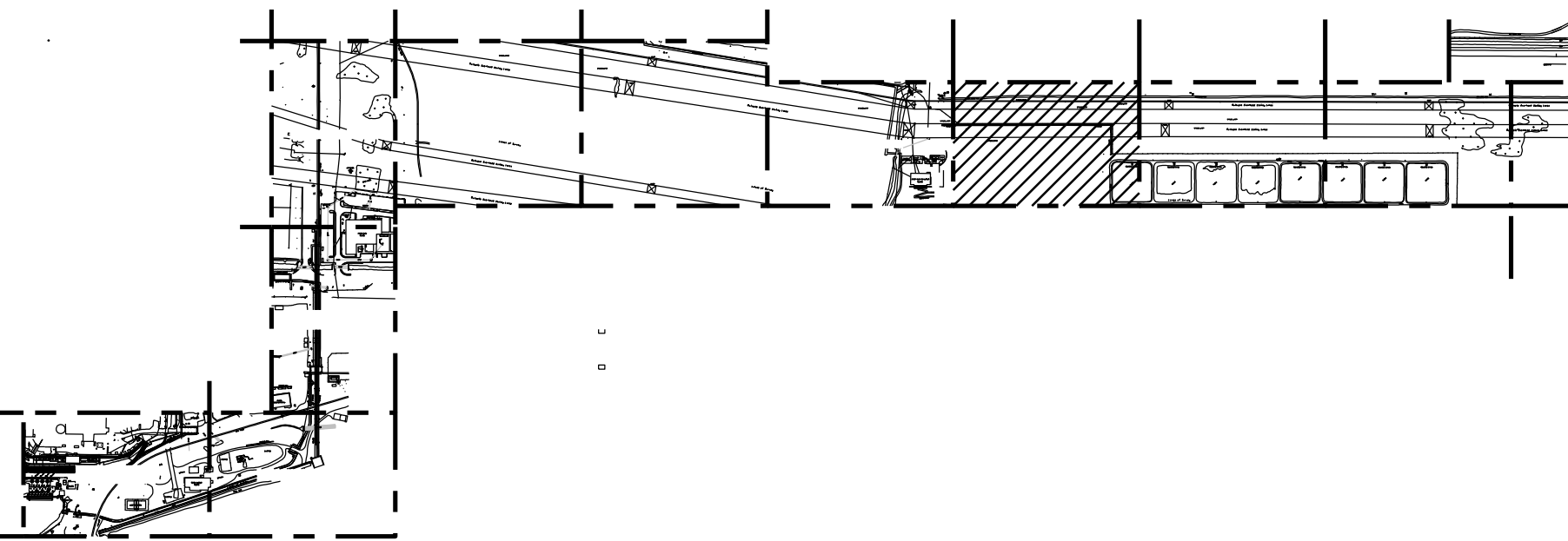
SECTION A
(VIEW LOOKING-EAST)



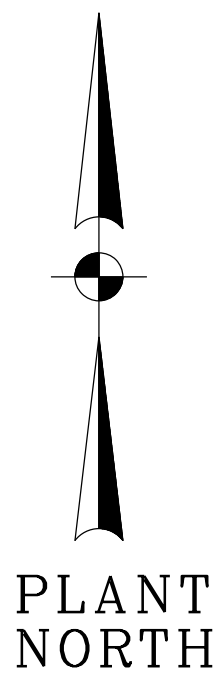
SECTION B
(VIEW LOOKING-EAST)



SECTION C
(VIEW LOOKING-EAST)



1. 0080DH008C1 (5" PVC C.) 4. 0080DX008C2 (5" PVC C.) 7. 0080DE008C3 (2" PVC C.)
2. 0080DH008B1 (5" PVC C.) 5. 0080DE008B2 (5" PVC C.) 8. 0080DX008B3 (2" PVC C.)
3. 0080DH008A1 (5" PVC C.) 6. 0080DE008A2 (5" PVC C.) 9. 0080DX008A3 (2" PVC C.)
1. 0080DH009C1 (5" PVC C.) 4. 0080DX009C2 (5" PVC C.) 7. 0080DE009C3 (2" PVC C.)
2. 0080DH009B1 (5" PVC C.) 5. 0080DX009B2 (5" PVC C.) 8. 0080DX009B3 (2" PVC C.)
3. 0080DH009A1 (5" PVC C.) 6. 0080DX009A2 (5" PVC C.) 9. 0080DX009A3 (2" PVC C.)



DRAWING NUMBER	REFERENCE DRAWINGS	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD
CCC00-GD-E-UE.00.PL-23	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 23	MECH	LAYOUT	CSA	ELEC	03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH	JCH
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION	MECH	LAYOUT	CSA	ELEC	03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH	JCH
CCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES	MECH	LAYOUT	CSA	ELEC	03C	11/29/21	CCC-04998	ISSUED FOR BID (IFB)	ASG	SDM	LCH	LCH	JCH
		MECH	LAYOUT	CSA	ELEC	03B	10/28/21	CCC-04998	ISSUED FOR BID (IFB)	ASG	SDM	LCH	LCH	JCH
		MECH	LAYOUT	CSA	ELEC	03	11/8/18	CIC00C	CONSTRUCTION	JKC	JKC	RM		
		MECH	LAYOUT	CSA	ELEC	02	10/19/16	CIC00C	CONSTRUCTION	JW	JW	AD	CA	SS

NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-00-08.
- ALL DUCTBANK SHALL HAVE 2-#4/0 BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK. AFTER CONCRETE DRIES, BEFORE BACKFILL, AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH, NEW TERMINAL BOX AND DIRECTIONAL BORES DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS FOR NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- REFER STRUCTURAL DRAWINGS FOR CANAL BRIDGE CONSTRUCTION AND DETAIL 10 ON DRAWING CCC00-UG-E-UE.00.SD-XX FOR TRANSITION FROM TRENCH TO CABLE TRAY.
- FIELD TO BE CAUTIOUS OF EXISTING, ABOVE GROUND, UNPROTECTED TEMPORARY CABLE DURING CONSTRUCTION.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

- 03D
- ROAD CROSSING (DETAIL U02B)
 - PRECAST CONCRETE TRENCH HS-20 RATED
 - 6" SLEEVES FOR DIRECTIONAL BORE

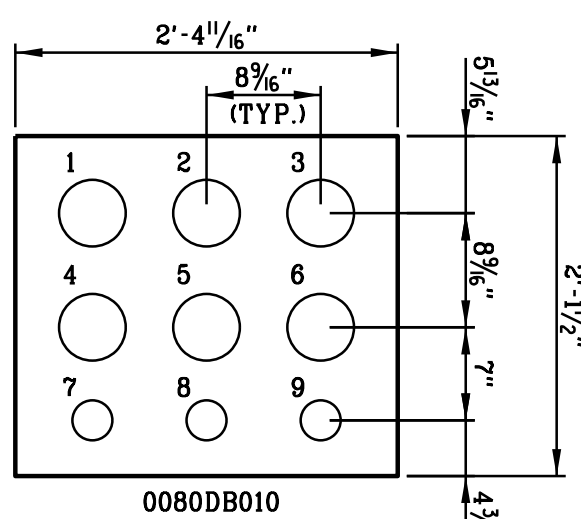
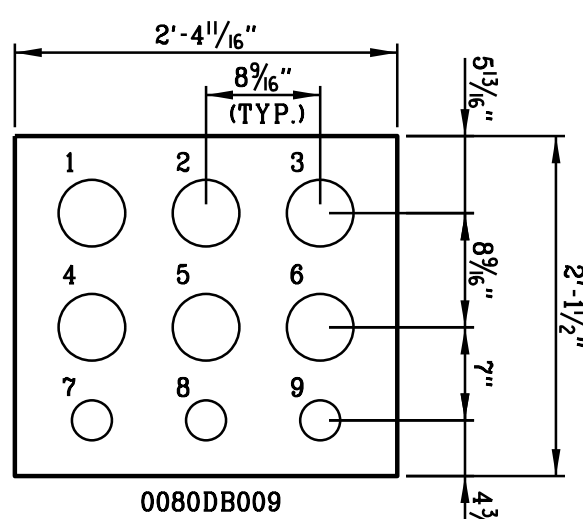
**PRELIMINARY - NOT
FOR CONSTRUCTION**

**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E

BMCD PROJECT 137458

CONTRACT 5.8300

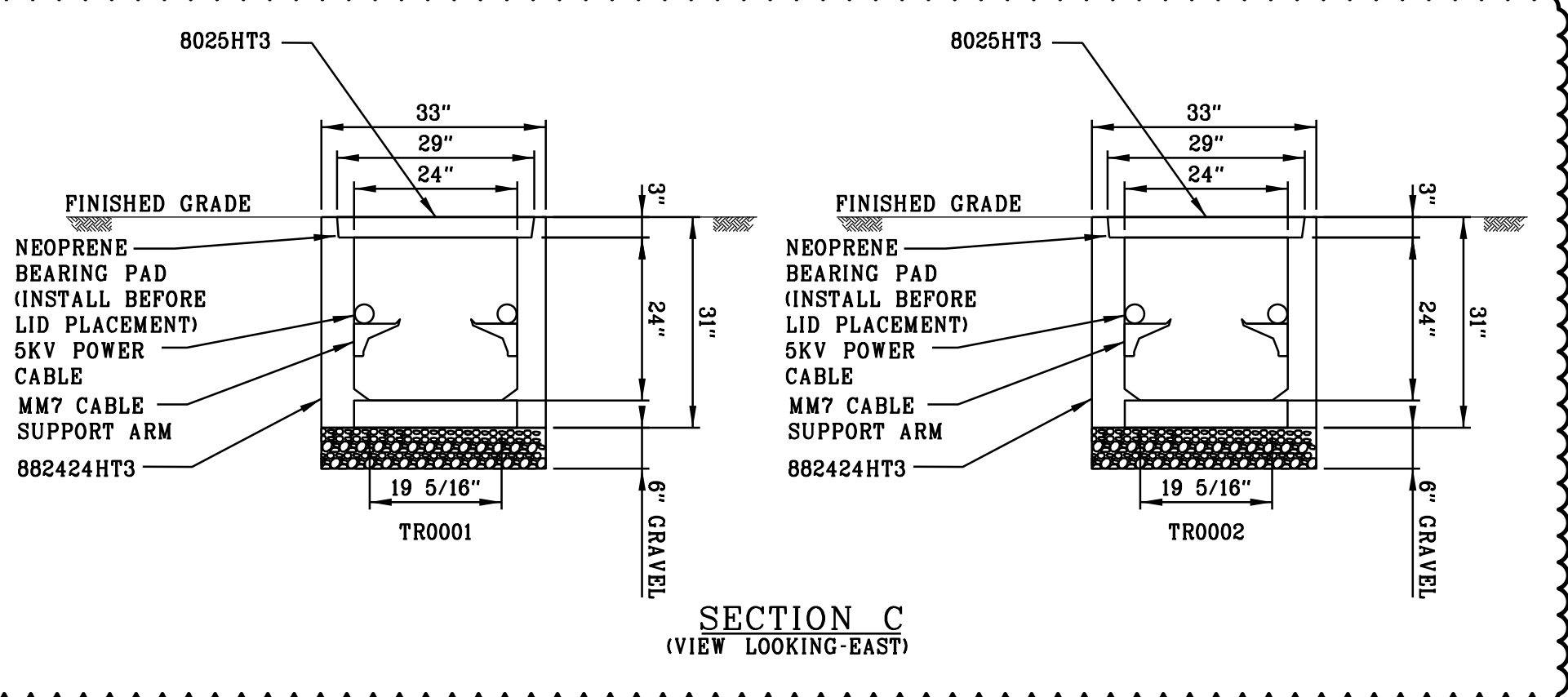


1. 0080DH009C1 (5" PVC C.) 4. 0080DX009C2 (5" PVC C.) 7. 0080DE009C3 (2" PVC C.)
2. 0080DH009B1 (5" PVC C.) 5. 0080DE009B2 (5" PVC C.) 8. 0080DX009B3 (2" PVC C.) COMM
3. 0080DH009A1 (5" PVC C.) 6. 0080DH009A2 (5" PVC C.) 9. 0080DX009A3 (2" PVC C.)

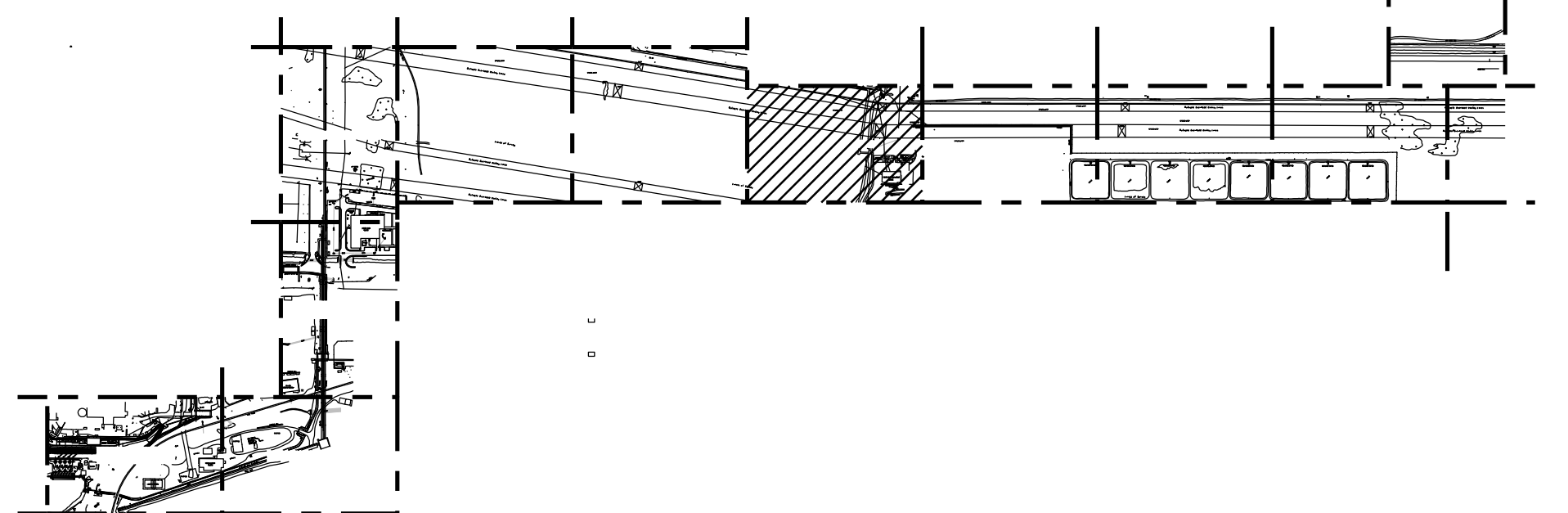
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2. 0080DH010B1 (5" PVC C.) 5. 0080DE010B2 (5" PVC C.) 8. 0080DX010B3 (2" PVC C.) COMM
3. 0080DH010A1 (5" PVC C.) 6. 0080DH010A2 (5" PVC C.) 9. 0080DX010A3 (2" PVC C.)

SECTION A
(VIEW LOOKING-EAST)

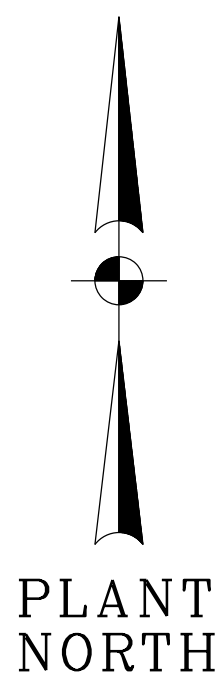
SECTION B
(VIEW LOOKING-EAST)



SECTION C
(VIEW LOOKING-EAST)



KEY PLAN
N.T.S.



DRAWING NUMBER	REFERENCE DRAWINGS	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD
CCC00-GD-E-UE.00.PL-24	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 24	MECH	LAYOUT	CSA	ELEC	03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH	JCH
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION	MECH	LAYOUT	CSA	ELEC	03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH	JCH
CCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES	MECH	LAYOUT	CSA	ELEC	03C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH
		MECH	LAYOUT	CSA	ELEC	03B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH
		MECH	LAYOUT	CSA	ELEC	03	11/8/18	CICCO	CONSTRUCTION	JKC	JKC	RM		
		MECH	LAYOUT	CSA	ELEC	02	10/19/16	CICCO	CONSTRUCTION	JW	JW	AD	CA	SS

RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE

DUKE ENERGY FLORIDA
CITRUS COUNTY COMBINED CYCLE PROJECT

ELECTRICAL
UNDERGROUND DUCTBANK LAYOUT
MAKEUP WATER INTERFACE PLAN AREA 24

FOR
CITRUS COUNTY COMBINED CYCLE - UNIT 00

**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

**DUKE
ENERGY**

SCALE: 1"=60' - 0"
DWG TYPE: UG
JOB NO: C1000C
DATE: 04/25/16
DES: JGW
DFTR: JGW
CHKD: ABD
ENGR: CA
APPD: JM

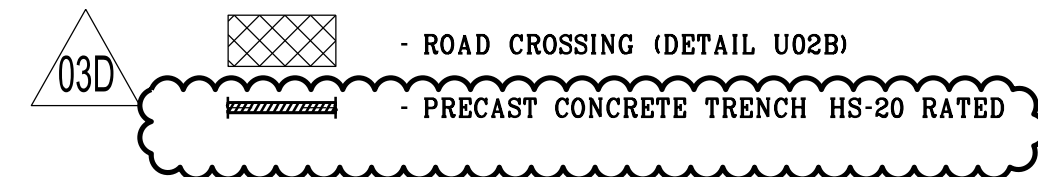
THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS,
TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS.
ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.

FILENAME: CCC00-UG-E-UE.00.PL-24.dgn
DWG SIZE: 24.0"x36.0"
DRAWING NO.: CCC00-UG-E-UE.00.PL-24
REVISION: 03E

NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.
- ALL DUCTBANK SHALL HAVE 2-#4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES, BEFORE BACKFILL AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH AND NEW TERMINAL BOX DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:



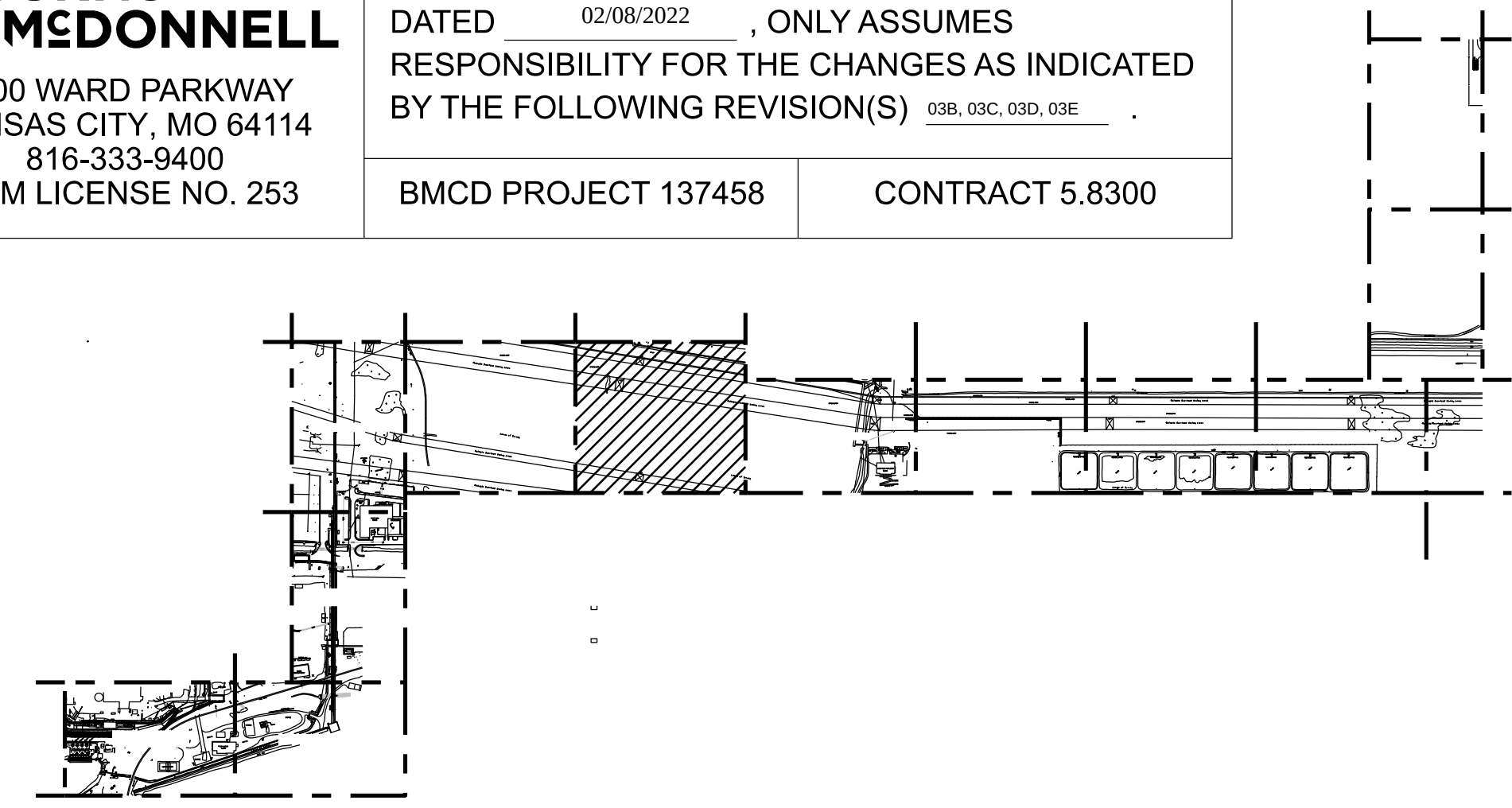
PRELIMINARY - NOT FOR CONSTRUCTION



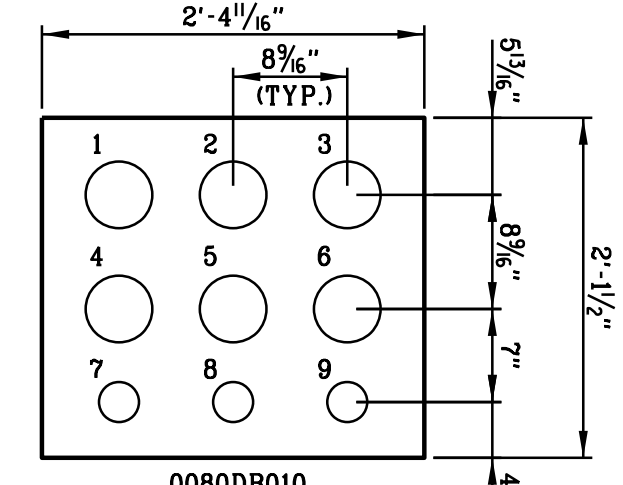
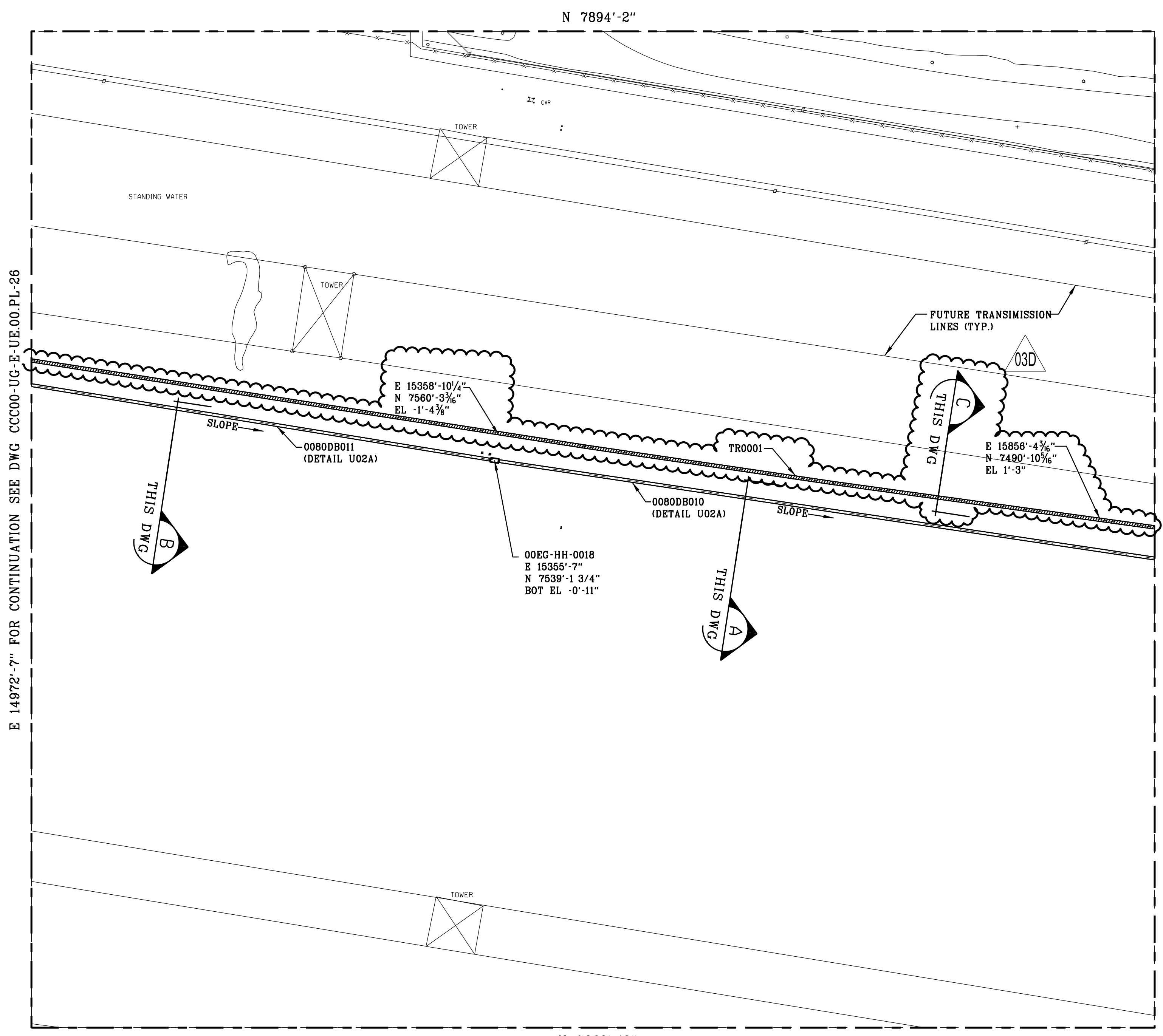
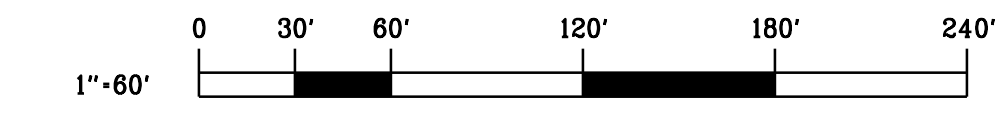
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E

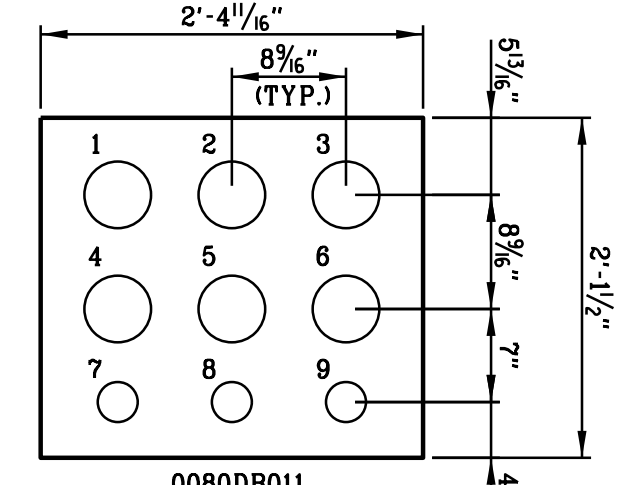
BMCD PROJECT 137458	CONTRACT 5.8300
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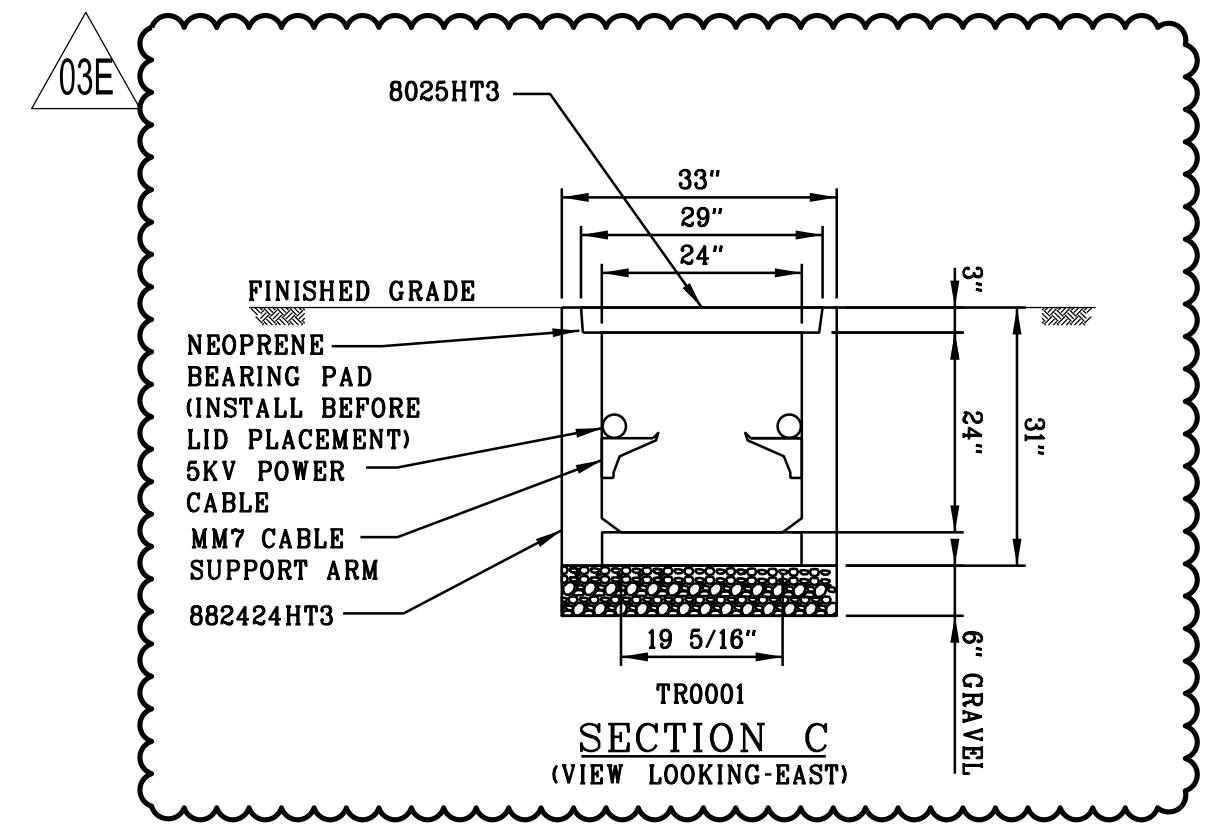
KEY PLAN
N.T.S.



SECTION A
(VIEW LOOKING-EAST)



SECTION B
(VIEW LOOKING-EAST)



SECTION C
(VIEW LOOKING-EAST)

1. 0080DH010C1 (5" PVC C.) 4. 0080DX010C2 (5" PVC C.) 7. 0080DB010C3 (2" PVC C.)
2. 0080DH010B1 (5" PVC C.) 5. 0080DB010B2 (5" PVC C.) 8. 0080DX010B3 (2" PVC C.)
3. 0080DH010A1 (5" PVC C.) 6. 0080DX010A2 (5" PVC C.) 9. 0080DX010A3 (2" PVC C.)

1. 0080DH011C1 (5" PVC C.) 4. 0080DX011C2 (5" PVC C.) 7. 0080DB011C3 (2" PVC C.)
2. 0080DH011B1 (5" PVC C.) 5. 0080DB011B2 (5" PVC C.) 8. 0080DX011B3 (2" PVC C.)
3. 0080DH011A1 (5" PVC C.) 6. 0080DX011A2 (5" PVC C.) 9. 0080DX011A3 (2" PVC C.)

		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
						03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH
						DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION							
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	W	W		03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH
						DESC: ISSUED FOR OWNER REVIEW (IFOR)							
CCC00-GD-E-UE.00.PL-25	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 25	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	03C	11/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH
						DESC: ISSUED FOR BID (IFB)							
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	03B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH
						DESC: ISSUED FOR BID (IFB)							
CCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	03	11/8/18	CICCOG	CONSTRUCTION	JKC	JKC	RM	
						DESC: ISSUED FOR AS-BUILT (AB)							
DRAWING NUMBER	REFERENCE DRAWINGS	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	
		W	RT	SAJ	CA	02	10/19/16	CICCOG	CONSTRUCTION	JGW	JGW	ABD	CA
						DESC: ISSUED FOR CONSTRUCTION (IFC)							
						ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED DUCTBANK TAGS							

RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE



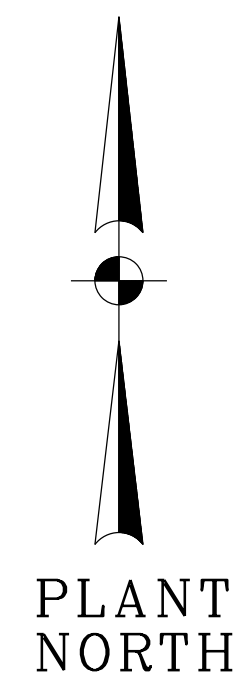
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.

TITLE
DUKE ENERGY FLORIDA
CITRUS COUNTY COMBINED CYCLE PROJECT
ELECTRICAL
UNDERGROUND DUCTBANK LAYOUT
MAKEUP WATER INTERFACE PLAN AREA 25
FOR
CITRUS COUNTY COMBINED CYCLE - UNIT 00

SCALE: 1"=60'-0"	DES: JGW
DWG TYPE: UG	DFTR: JGW
JOB NO: CICCOC	CHKD: ABD
DATE: 04/25/16	ENGR: CA
FILENAME: CCC00-UG-E-UE.00.PL-25.dgn	APPD: JM

DWG SIZE	DRAWING NO.	REVISION
24.0"x36.0"	CCC00-UG-E-UE.00.PL-25	03E



NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.
- ALL DUCTBANK SHALL HAVE 2-#4/0 BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES, BEFORE BACKFILL, AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH, NEW TERMINAL BOX AND DIRECTIONAL BORES DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- CONTRACTOR TO EXTEND THE EXISTING CONCRETE FOUNDATION AS REQUIRED TO INSTALL THE NEW TERMINATION BOX.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

- ROAD CROSSING (DETAIL U02B)
- PRECAST CONCRETE TRENCH HS-20 RATED
- 6" SLEEVES FOR DIRECTIONAL BORE

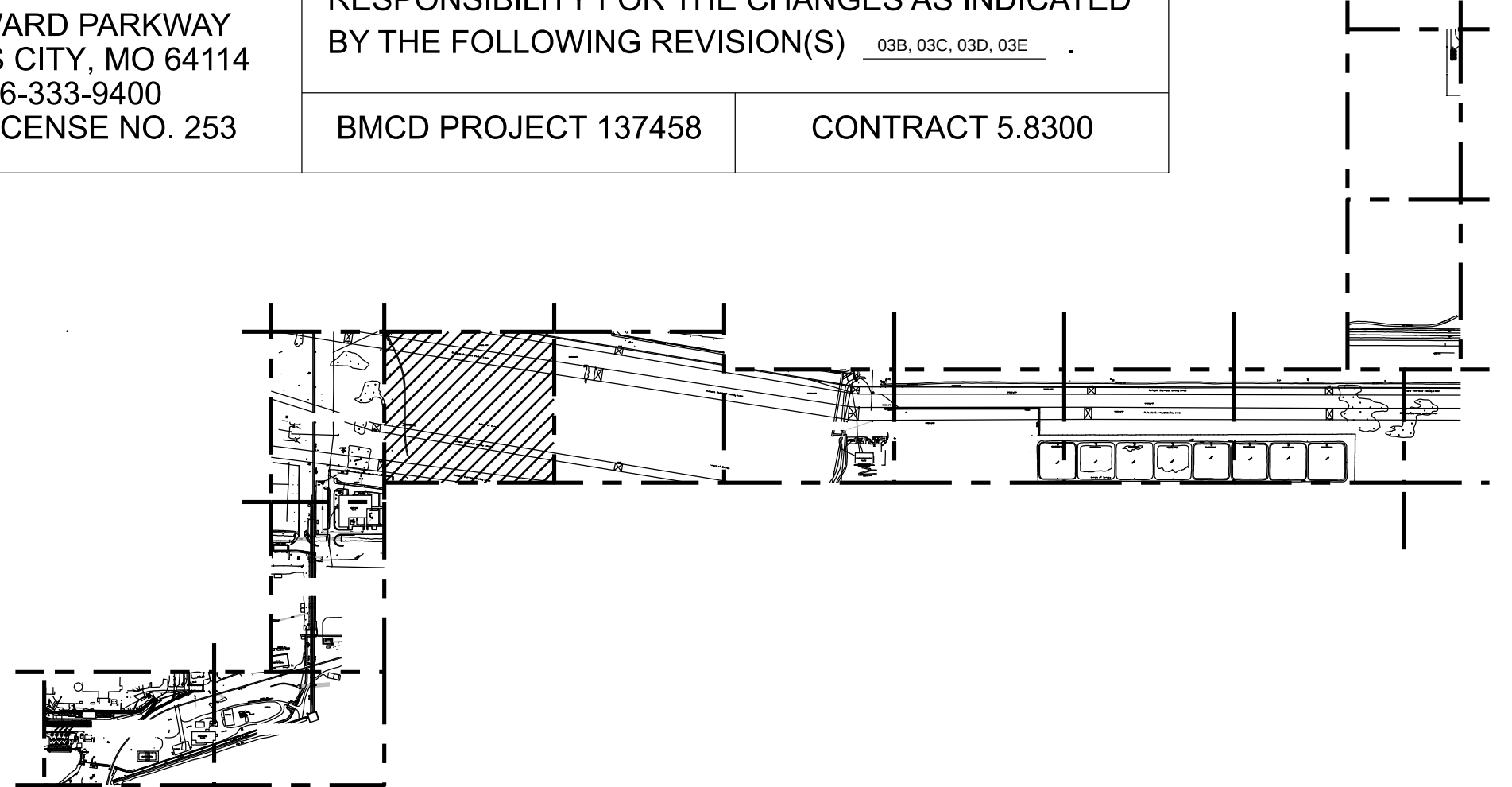
PRELIMINARY - NOT FOR CONSTRUCTION



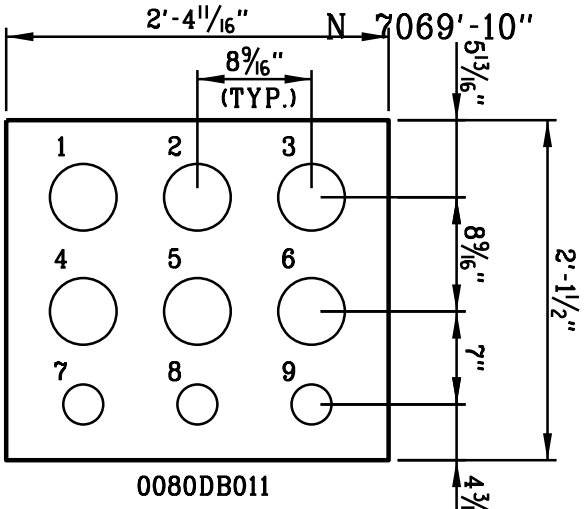
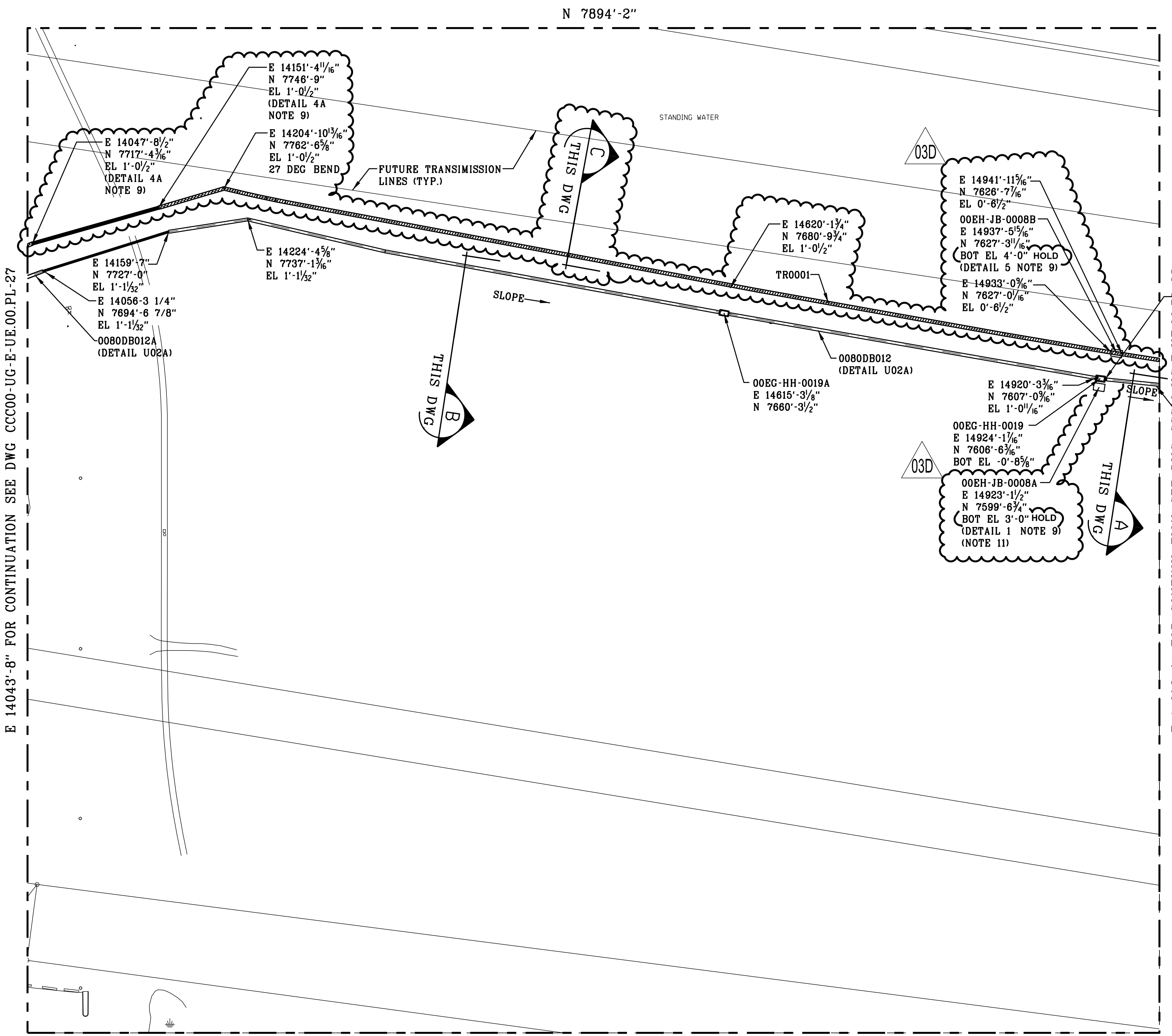
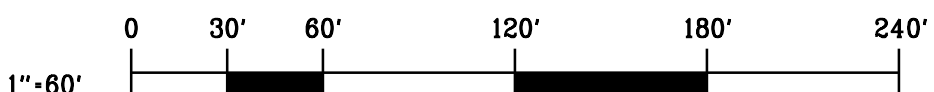
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE REGISTRANT OF THE NEWLY APPLIED SEAL, DATED 02/08/2022, ONLY ASSUMES RESPONSIBILITY FOR THE CHANGES AS INDICATED BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E

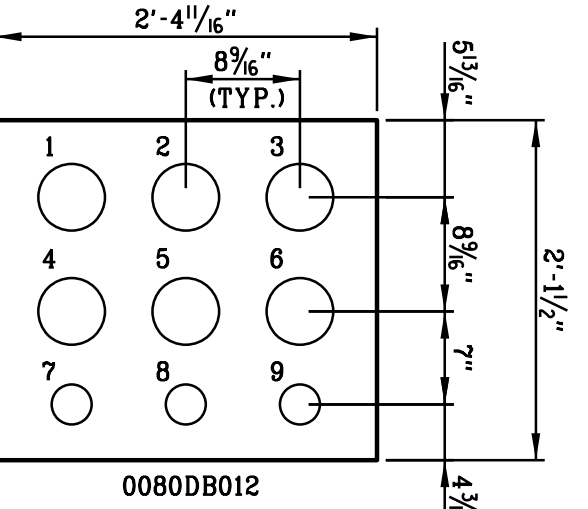
BMCD PROJECT 137458	CONTRACT 5.8300
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KEY PLAN
N.T.S.



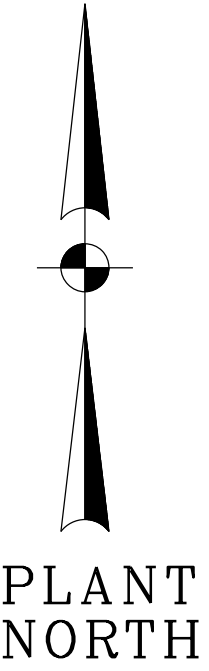
- 1. 0080DH011C1 (5" PVC C.) 4. 0080DX011C2 (5" PVC C.) 7. 0080DE011C3 (2" PVC C.)
- 2. 0080DH011B1 (5" PVC C.) 5. 0080DE011B2 (5" PVC C.) 8. 0080DX011B3 (2" PVC C.) (COMM)
- 3. 0080DH011A1 (5" PVC C.) 6. 0080DH011A2 (5" PVC C.) 9. 0080DX011A3 (2" PVC C.)

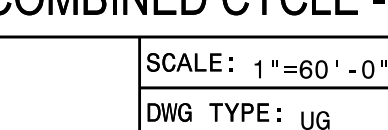


- 1. 0080DH012C1 (5" PVC C.) 4. 0080DX012C2 (5" PVC C.) 7. 0080DE012C3 (2" PVC C.)
- 2. 0080DH012B1 (5" PVC C.) 5. 0080DE012B2 (5" PVC C.) 8. 0080DX012B3 (2" PVC C.) (COMM)
- 3. 0080DH012A1 (5" PVC C.) 6. 0080DH012A2 (5" PVC C.) 9. 0080DX012A3 (2" PVC C.)

SECTION A
(VIEW LOOKING-EAST)

SECTION B
(VIEW LOOKING-EAST)



		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD	RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE	TITLE DUKE ENERGY FLORIDA CITRUS COUNTY COMBINED CYCLE PROJECT		
						03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH	JCH			ELECTRICAL UNDERGROUND DUCTBANK LAYOUT MAKEUP WATER INTERFACE PLAN AREA 26	
		DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION																
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD				
		W	W	W		03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH	JCH				
		DESC: ISSUED FOR OWNER REVIEW (IFOR)													FOR CITRUS COUNTY COMBINED CYCLE - UNIT 00			
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD				
		W	RT	SAJ	CA	03C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH				
		DESC: ISSUED FOR BID (IFB)																
CCC00-GD-E-UE.00.PL-26	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 26	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD	 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253	 SCALE: 1"=60' - 0" DWS TYPE: JG JOB NO: C1CCOC DATE: 04/25/16		
		W	RT	SAJ	CA	03B	11/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH	JCH				
		DESC: ISSUED FOR BID (IFB)																
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD				
		W	RT	SAJ	CA	03	11/8/18	CICCO	CONSTRUCTION	JKC	JKC	RM			THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.	DWG SIZE ARCH D 24.0" x 36.0"	DRAWING NO. CCC00-UG-E-UE.00.PL-26	REVISION 03E
		DESC: ISSUED FOR AS-BUILT (AB)																
		MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD				
		W	RT	SAJ	CA	02	10/19/16	CICCO	CONSTRUCTION	JGW	JGW	ABD	CA	SS				
		DESC: ISSUED FOR CONSTRUCTION (IFC)																
		ADDED MV CABLE REEL ASSIGNMENTS, NOTE 8, & REVISED DUCTBANK TAGS																
DRAWING NUMBER	REFERENCE DRAWINGS	MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTR	CHKD	ENGR	APPD				
		W	RT	SAJ	CA													

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
2. ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
3. FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.
4. ALL DUCTBANK SHALL HAVE 2-4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES BEFORE BACKFILL AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
5. ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
6. ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
7. DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
8. SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
9. FOR PRECAST CONCRETE TRENCH, NEW TERMINAL BOX AND NEW PATCH DETAILS REFER DRAWING NUMBER CCC00-UG-E-UE.00.SD-XX.
10. DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX IN DRAWING CCC00-UG-E-UE.00.SD-XX.
11. CONTRACTOR TO EXTEND THE EXISTING CONCRETE FOUNDATION AS REQUIRED TO INSTALL THE NEW TERMINATION BOX.
12. THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.
13. CONTRACTOR TO REWORK PARKING LOT ASPHALT AND CONCRETE CURBS TO ACCOMMODATE NEW TRENCHES. CONTRACTOR TO COORDINATE WITH SITE PERSONNEL TO RE-PAIN PARKING LOT LINES.
14. THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

03D

 - ROAD CROSSING (DETAIL U02B)

 - PRECAST CONCRETE TRENCH HS-20 RATED

 - 6" SLEEVES FOR DIRECTIONAL BORE

0 30' 60' 120' 180' 240'

1" = 60'

INCHES 1 2 3

TENTHS 10 20 30



THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E.

BMCD PROJECT 137458	CONTRACT 5.8300
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			MECH	LAYOUT	CSA	ELEC	REV 03E	DATE 02/08/22	JOB NO. CCC-04998	PROJECT TYPE FOR PERMIT	DES ASG	DFTRCHKDNGR SDM LCH LCH	APPD JCH
							DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION						
			MECH	LAYOUT	CSA	ELEC	REV 03D	DATE 12/13/21	JOB NO. CCC-04998	PROJECT TYPE OWNER REVIEW	DES ASG	DFTRCHKDNGR SDM LCH LCH	APPD JCH
			W	W	W		DESC: ISSUED FOR OWNER REVIEW (IFOR)						
CCCC00-GD-E-UE.00.PL-27	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 27		MECH	LAYOUT	CSA	ELEC	REV 03C	DATE 11/29/21	JOB NO. CCC-04998	PROJECT TYPE ISSUED FOR BID	DES ASG	DFTRCHKDNGR SDM LCH LCH	APPD JCH
		W		RT	SAJ	CA	DESC: ISSUED FOR BID (IFB)						
CCCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION		MECH	LAYOUT	CSA	ELEC	REV 03B	DATE 10/28/21	JOB NO. CCC-04998	PROJECT TYPE ISSUED FOR BID	DES ASG	DFTRCHKDNGR SDM LCH LCH	APPD JCH
		W		RT	SAJ	CA	DESC: ISSUED FOR BID (IFB)						
CCCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES		MECH	LAYOUT	CSA	ELEC	REV 03	DATE 11/08/19	JOB NO. CICCOO	PROJECT TYPE CONSTRUCTION	DES MHNI	DFTRCHKDNGR MHNI MHNI RM	APPD
		W		RT	SAJ	CA	DESC: ISSUED FOR AS-BUILT (AB)						
DRAWING NUMBER	REFERENCE DRAWINGS		MECH	LAYOUT	CSA	ELEC	REV 02	DATE 10/19/16	JOB NO. CICCOO	PROJECT TYPE CONSTRUCTION	DES JGW	DFTRCHKDNGR JGW JGW ABD CA	APPD SS
		W		RT	SAJ	CA	DESC: ISSUED FOR CONSTRUCTION (IFC) NOTE: SEE REFERENCE ASSIGNMENTS, NOTE B & REVISED DUCTRANK TAGS.						

NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCCC00-SP-E-00-03.
2. ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
3. FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCCC00-SA-E-08.
4. ALL DUCTBANK SHALL HAVE 2-4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIVES, BEFORE BACKFILL AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
5. ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
6. ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
7. DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
8. SEE DETAIL 5 ON DRAWING CCCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
9. FOR PRECAST CONCRETE TRENCH AND DIRECTIONAL BORES DETAILS REFER DRAWING NUMBER CCCC00-UG-E-UE.00.SD-XX.
10. DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS FOR NEW TERMINAL BOX ON DRAWING CCCC00-UG-E-UE.00.SD-XX.
11. REFER STRUCTURAL DRAWINGS FOR CULVERT BRIDGE CONSTRUCTION AND DETAIL 10 ON DRAWING CCCC00-UG-E-UE.00.SD-XX FOR TRANSITION FROM TRENCH TO CABLE TRAY.
12. CONTRACTOR TO COORDINATE WITH SITE PERSONNEL TO REMOVE AND REPLACE FENCES AS REQUIRED FOR INSTALLATION.
13. THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

-  - ROAD CROSSING (DETAIL U02B)
 - PRECAST CONCRETE TRENCH HS-20 RATED
 - 6" SLEEVES FOR DIRECTIONAL BORE

**PRELIMINARY - NOT
FOR CONSTRUCTION**

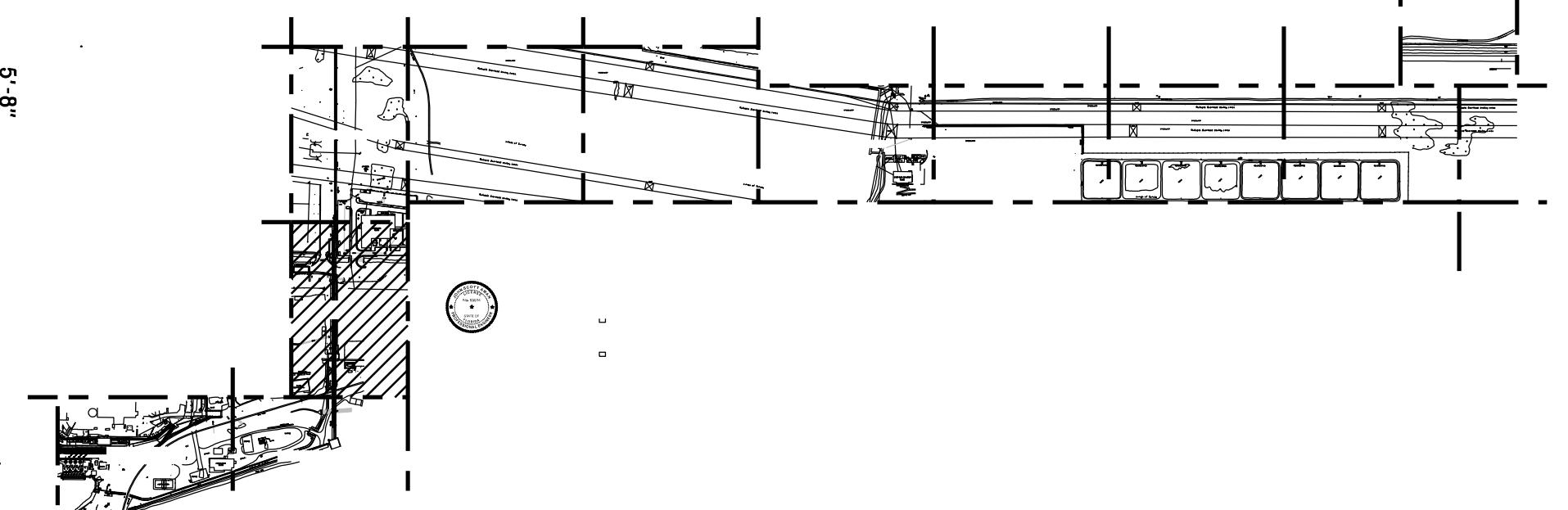
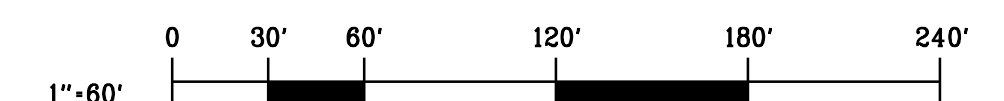
**BURNS
MCDONNELL**

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

THE REGISTRANT OF THE NEWLY APPLIED SEAL,
DATED 02/08/2022, ONLY ASSUMES
RESPONSIBILITY FOR THE CHANGES AS INDICATED
BY THE FOLLOWING REVISION(S) 03B, 03C, 03D, 03E.

BMCD PROJECT 137458	CONTRACT 5.8300
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KEY PLAN
N.T.S.

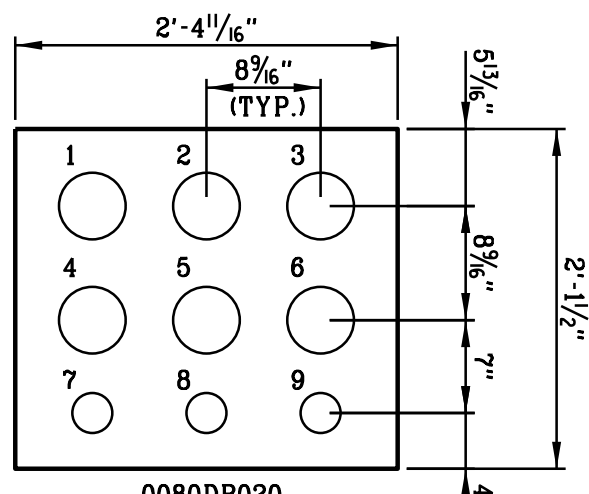


DETAIL 1

DETAIL 1
0080DB014 CONDUIT STUB-UPS
(DETAIL U01B)

NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.
- ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.
- FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.
- ALL DUCTBANK SHALL HAVE 2-#4/0 AWC BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES, BEFORE BACKFILL, AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.
- ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.
- DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.
- SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.
- FOR PRECAST CONCRETE TRENCH, NEW TERMINAL BOX AND NEW PATCH PANEL DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.
- DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX IN DRAWING CCC00-UG-E-UE.00.SD-XX.
- THE EXISTING TERMINAL BOX AND CONCRETE FOUNDATION TO BE RE-WORKED TO ALLOW THE NEW TRENCH TO INTERFACE WITH EXISTING DUCTBANK. REFER DETAIL 8 ON DRAWING CCC00-UG-E-UE.00.SD-XX.
- THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.



- 0080DH020C1 (5" PVC C.)
- 0080DH020B1 (5" PVC C.)
- 0080DH020A1 (5" PVC C.)
- 0080DX020C2 (5" PVC C.)
- 0080DE020B2 (5" PVC C.)
- 0080DH020A2 (5" PVC C.)
- 0080DE020C3 (2" PVC C.)
- 0080DX020B3 (2" PVC C.)
- 0080DX020A3 (2" PVC C.)

SECTION B
(VIEW LOOKING EAST)

LEGEND:

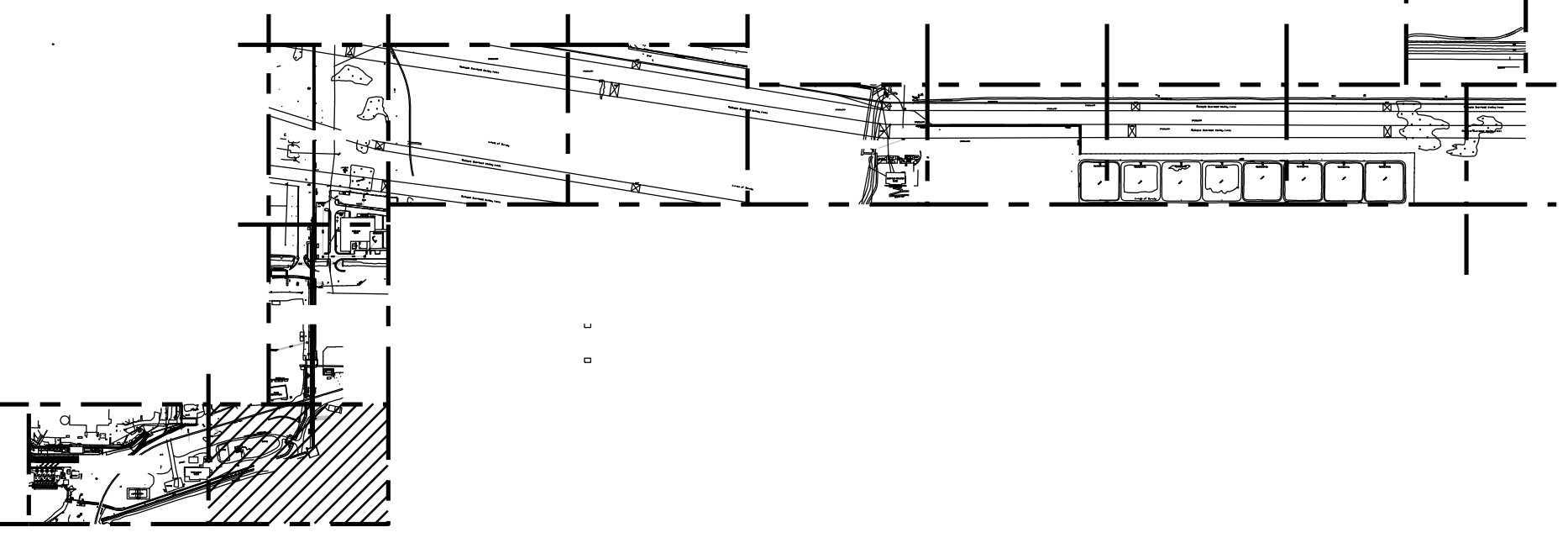
- ROAD CROSSING (DETAIL U02B)
- PRECAST CONCRETE TRENCH HS-20 RATED

**PRELIMINARY - NOT
FOR CONSTRUCTION**

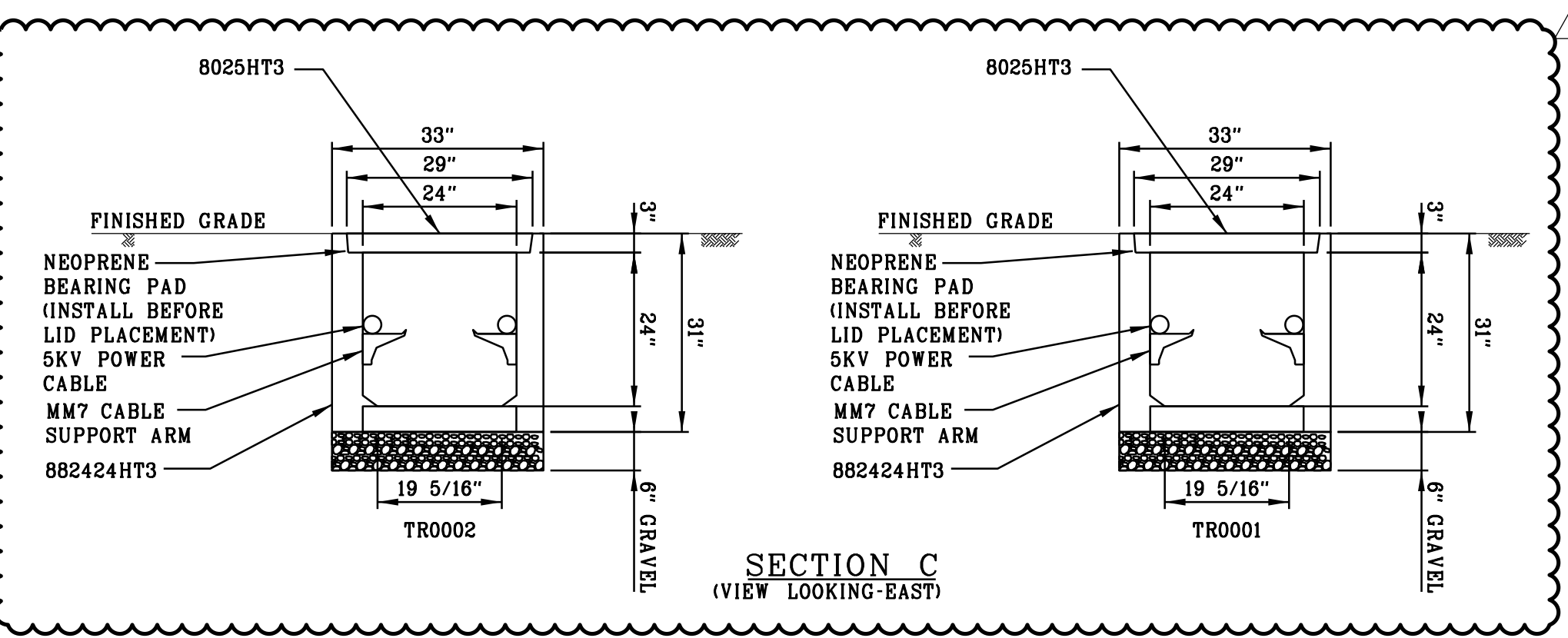
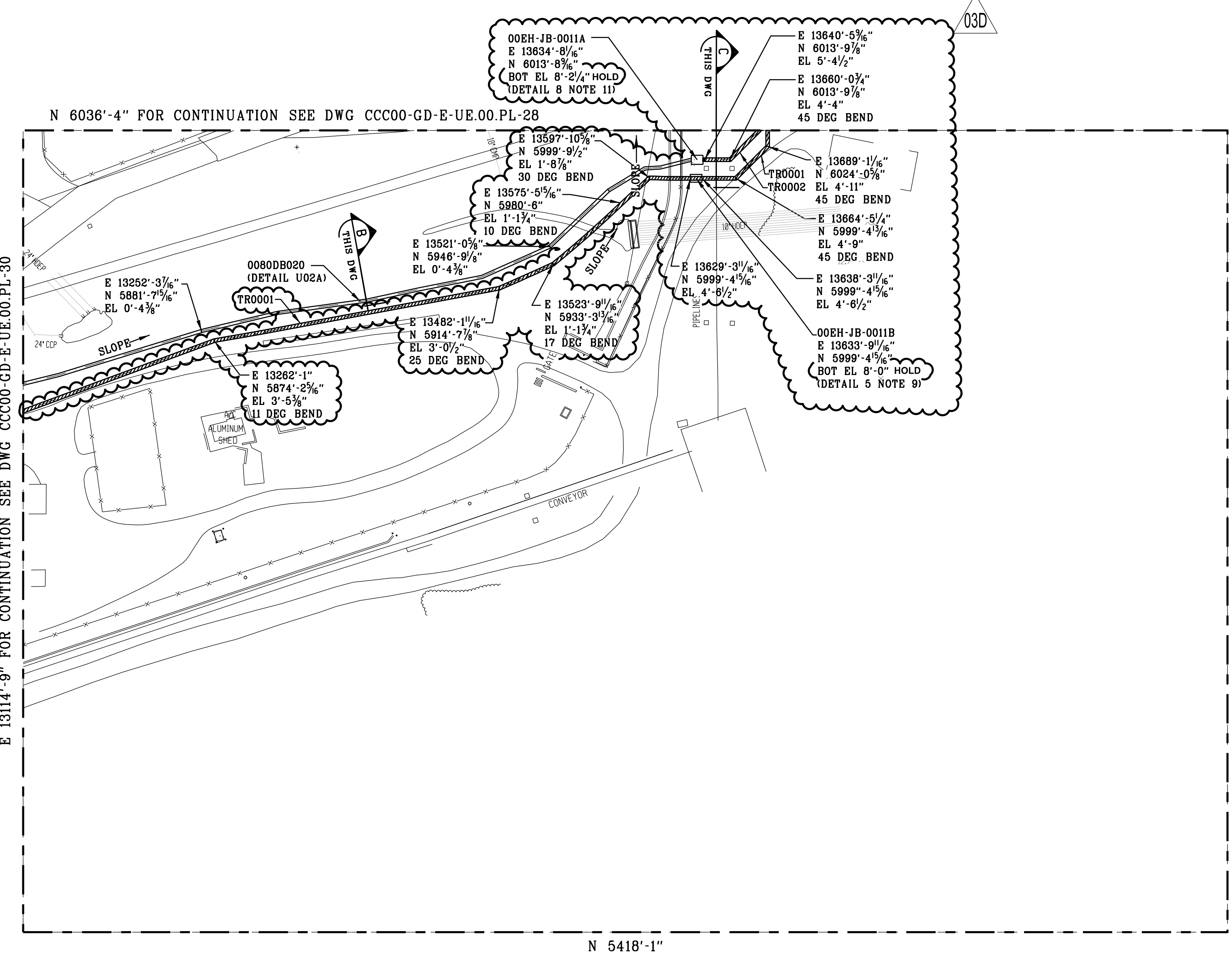
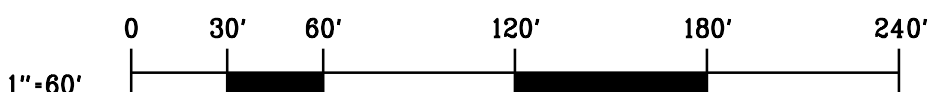
**BURNS
MEDONNELL**
9400 WARD PARKWAY
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816-333-9400
FIRM LICENSE NO. 253

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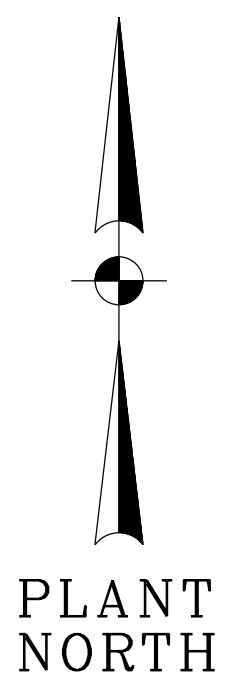
BMCD PROJECT 137458 CONTRACT 5.8300



KEY PLAN
N.T.S.



REFER NOTE 11



						MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE	TITLE DUKE ENERGY FLORIDA CITRUS COUNTY COMBINED CYCLE PROJECT		
										03E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH			LCH	JCH
										DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION										
						MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	FOR CITRUS COUNTY COMBINED CYCLE - UNIT 00	DUKE ENERGY SCALE: 1"=60' - 0" DWG TYPE: UG JOB NO: CICCOC DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-29.dgn DWG SIZE ARCH D 24.0" x 36.0"		
						W	W	W		03D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH			LCH	JCH
										DESC: ISSUED FOR OWNER REVIEW (FOR)										
CCC00-GD-E-UE.00.PL-29	UNDERGROUND GROUNDING MAKEUP WATER INTERFACE PLAN AREA 29					MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	BURNS MEDONNELL 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253 THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED RELEASE 2000 OR LATER.	DUKE ENERGY SCALE: 1"=60' - 0" DWG TYPE: UG JOB NO: CICCOC DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-29.dgn DWG SIZE ARCH D 24.0" x 36.0"		
						W	RT	SAJ	CA	03C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH			LCH	JCH
										DESC: ISSUED FOR BID (IFB)										
CCC00-SP-E-E-00-03	UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION					MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	BURNS MEDONNELL 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253 THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED RELEASE 2000 OR LATER.	DUKE ENERGY SCALE: 1"=60' - 0" DWG TYPE: UG JOB NO: CICCOC DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-29.dgn DWG SIZE ARCH D 24.0" x 36.0"		
						W	RT	SAJ	CA	03B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH			LCH	JCH
										DESC: ISSUED FOR BID (IFB)										
CCC00-SA-E-03 THRU -07	ELECTRICAL GROUNDING STANDARD ASSEMBLIES					MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	BURNS MEDONNELL 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253 THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED RELEASE 2000 OR LATER.	DUKE ENERGY SCALE: 1"=60' - 0" DWG TYPE: UG JOB NO: CICCOC DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-29.dgn DWG SIZE ARCH D 24.0" x 36.0"		
						W	RT	SAJ	CA	03	11/7/18	CICCO	CONSTRUCTION	JKC	JKC					
										DESC: ISSUED FOR AS-BUILT (AB)										
DRAWING NUMBER	REFERENCE DRAWINGS					MECH	LAYOUT	CSA	ELEC	REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHKDNGR	APPD	BURNS MEDONNELL 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 FIRM LICENSE NO. 253 THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED RELEASE 2000 OR LATER.	DUKE ENERGY SCALE: 1"=60' - 0" DWG TYPE: UG JOB NO: CICCOC DATE: 04/25/16 FILENAME: CCC00-UG-E-UE.00.PL-29.dgn DWG SIZE ARCH D 24.0" x 36.0"		
						W	RT	SAJ	CA	02	10/19/16	CICCO	CONSTRUCTION	JGW	JGW	ABD			CA	SS
										DESC: ISSUED FOR CONSTRUCTION (IFC) ADDED MV CABLE REEL ASSIGNMENTS AND NOTE 8										

NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERGROUND ELECTRICAL INSTALLATION SPECIFICATION CCC00-SP-E-00-03.

2. ALL ELEVATIONS DENOTE CENTERLINE OF CONDUIT, BOTTOM OF DUCTBANK AND BOTTOM OF MANHOLE/HANDHOLE UNLESS OTHERWISE NOTED.

3. FOR UNDERGROUND INSTALLATION REFER TO DRAWING CCC00-SA-E-08.

4. ALL DUCTBANK SHALL HAVE 2-#4/0 AWG BARE COPPER GROUND CONDUCTORS INSTALLED ON TOP OF DUCTBANK, AFTER CONCRETE DRIES; BEFORE BACKFILL; AS SHOWN ON UNDERGROUND GROUNDING DRAWINGS.

5. ALL BENDS GREATER THAN 15 DEGREES SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.

6. ALL CONDUIT STUB-UPS SHALL BE PVC COATED RGS OR WRAPPED IN ACCORDANCE WITH THE UNDERGROUND STANDARD ASSEMBLIES AND THE PROJECT ELECTRICAL DESIGN CRITERIA.

7. DUCTBANK REINFORCEMENT SHALL END 5'-0" BEYOND EDGE OF ROAD.

8. NOTED DUCTBANK SHALL BE PERFORMED BY SUBCONTRACTOR AND ARE FOR DESIGN PURPOSES ONLY. SUBCONTRACTOR SHALL VERIFY ROUTING AND ELEVATION PRIOR TO INSTALLATION.

9. FOR SECTIONS AND DETAILS, SEE DRAWING CCC00-UG-E-UE.00.SD-01.

10. SEE DETAIL 5 ON DRAWING CCC00-UG-E-UE.00.SD-01 FOR TERMINATION BOX AND HANDHOLE INTERFACE INFORMATION. SEE DETAIL 6 FOR FIBER SPLICE BOX AND HANDHOLE INFORMATION.

11. FOR PRECAST CONCRETE TRENCH, NEW TERMINAL BOX AND DIRECTIONAL BORE DETAILS REFER DRAWING CCC00-UG-E-UE.00.SD-XX.

12. DETAIL 7 INDICATES THE TYPICAL INSTALLATION DETAILS OF NEW TERMINAL BOX ON DRAWING CCC00-UG-E-UE.00.SD-XX.

13. CONTRACTOR TO EXTEND THE EXISTING CONCRETE FOUNDATION AS REQUIRED TO INSTALL THE NEW TERMINAL BOX.

14. CONTRACTOR TO COORDINATE WITH SITE PERSONNEL TO REMOVE AND REPLACE FENCES AS REQUIRED FOR INSTALLATION.

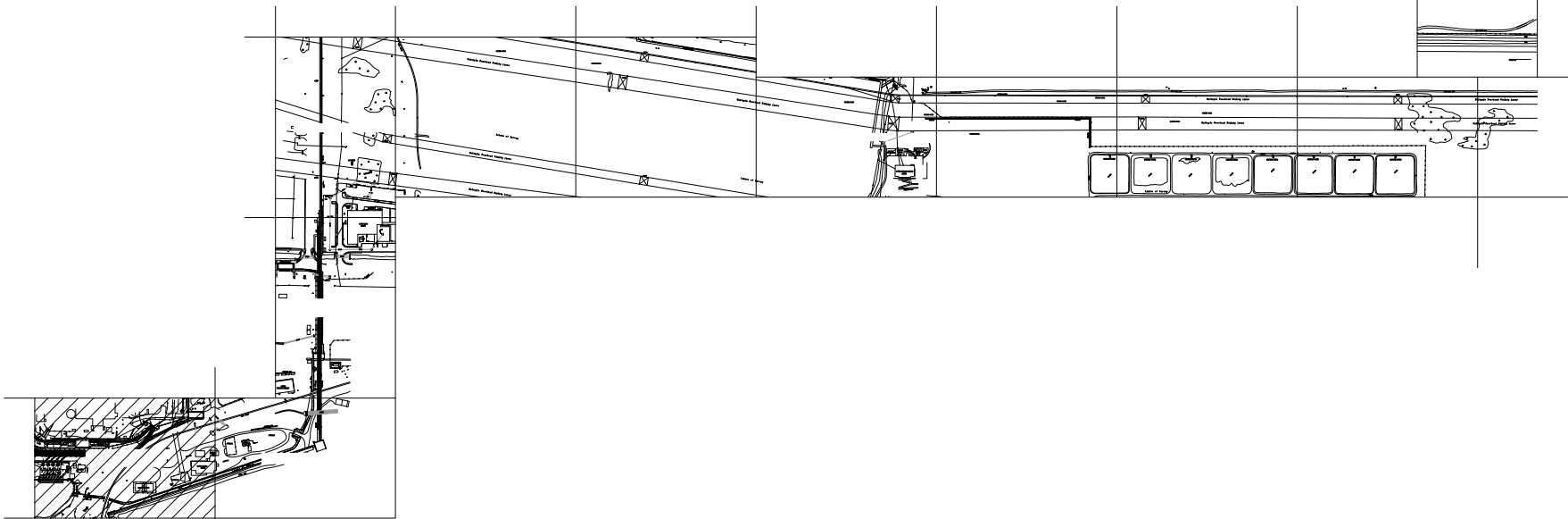
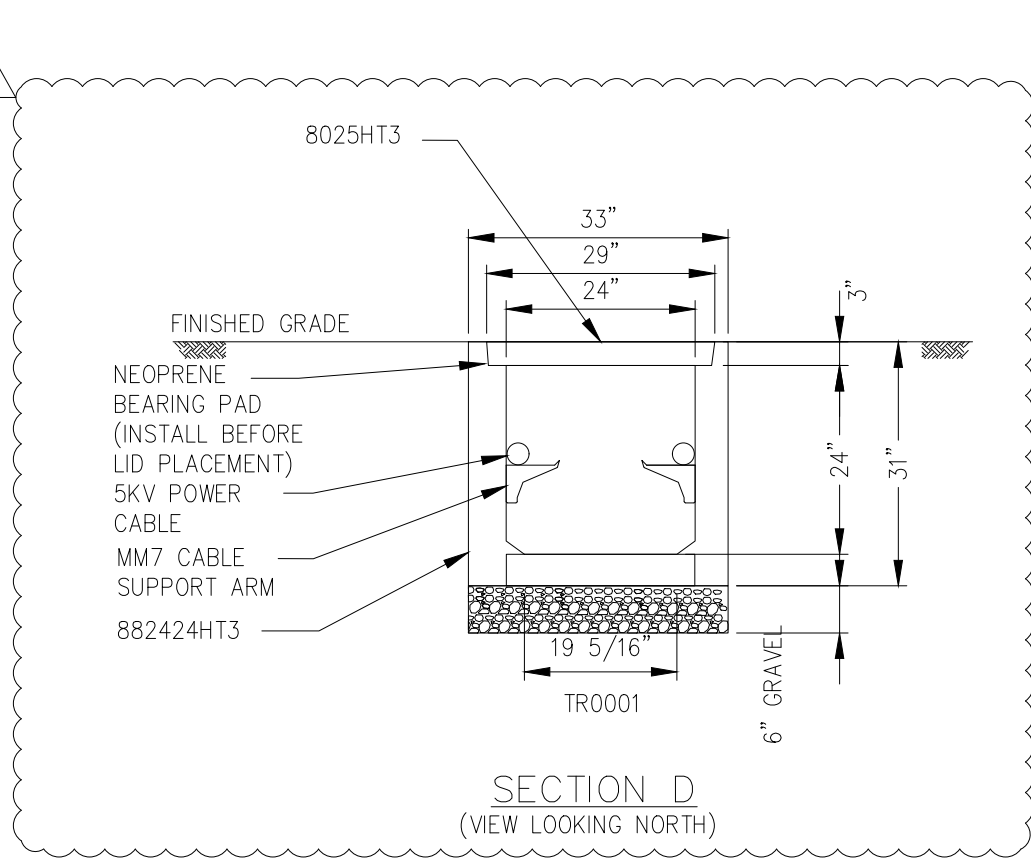
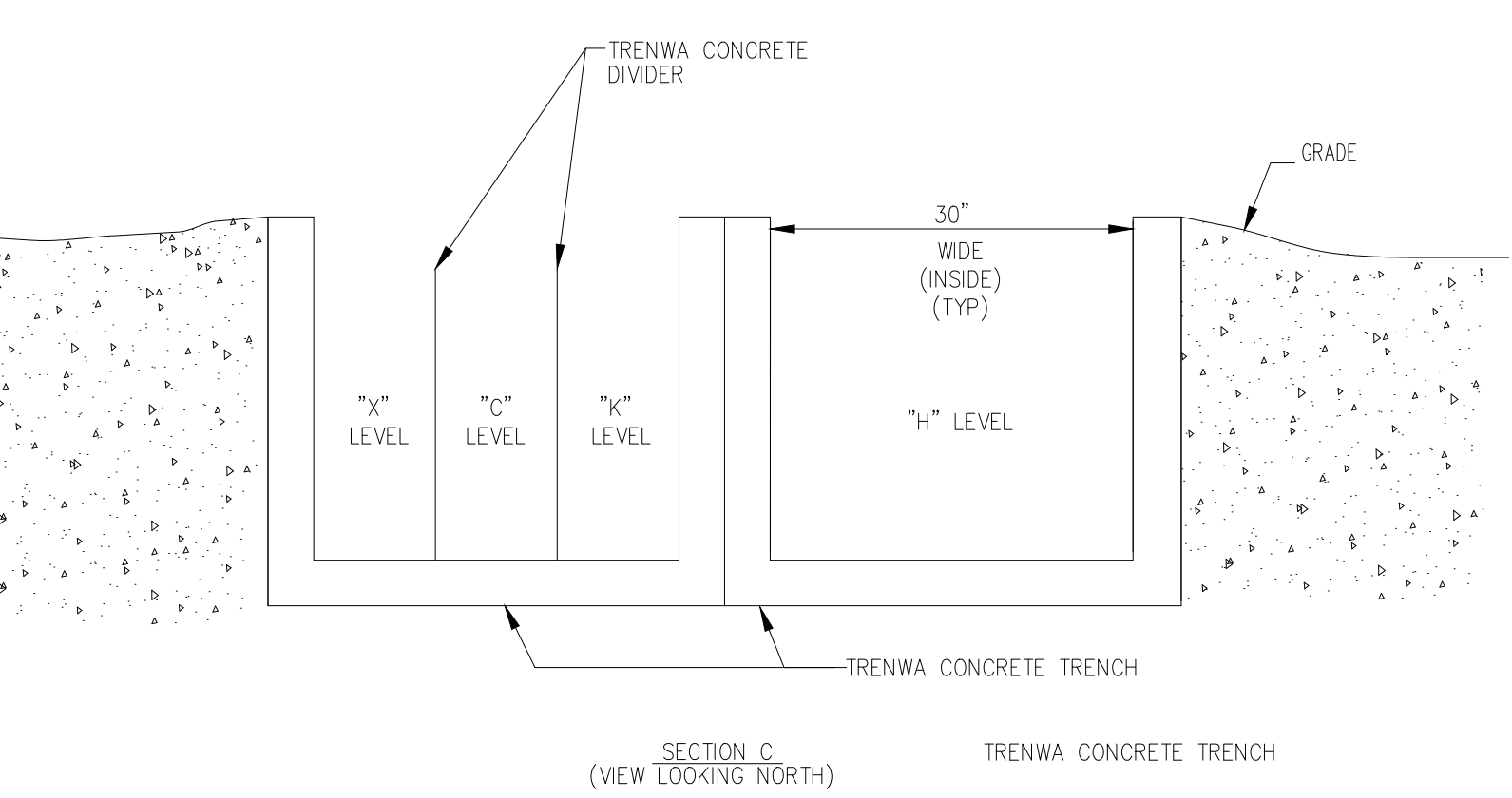
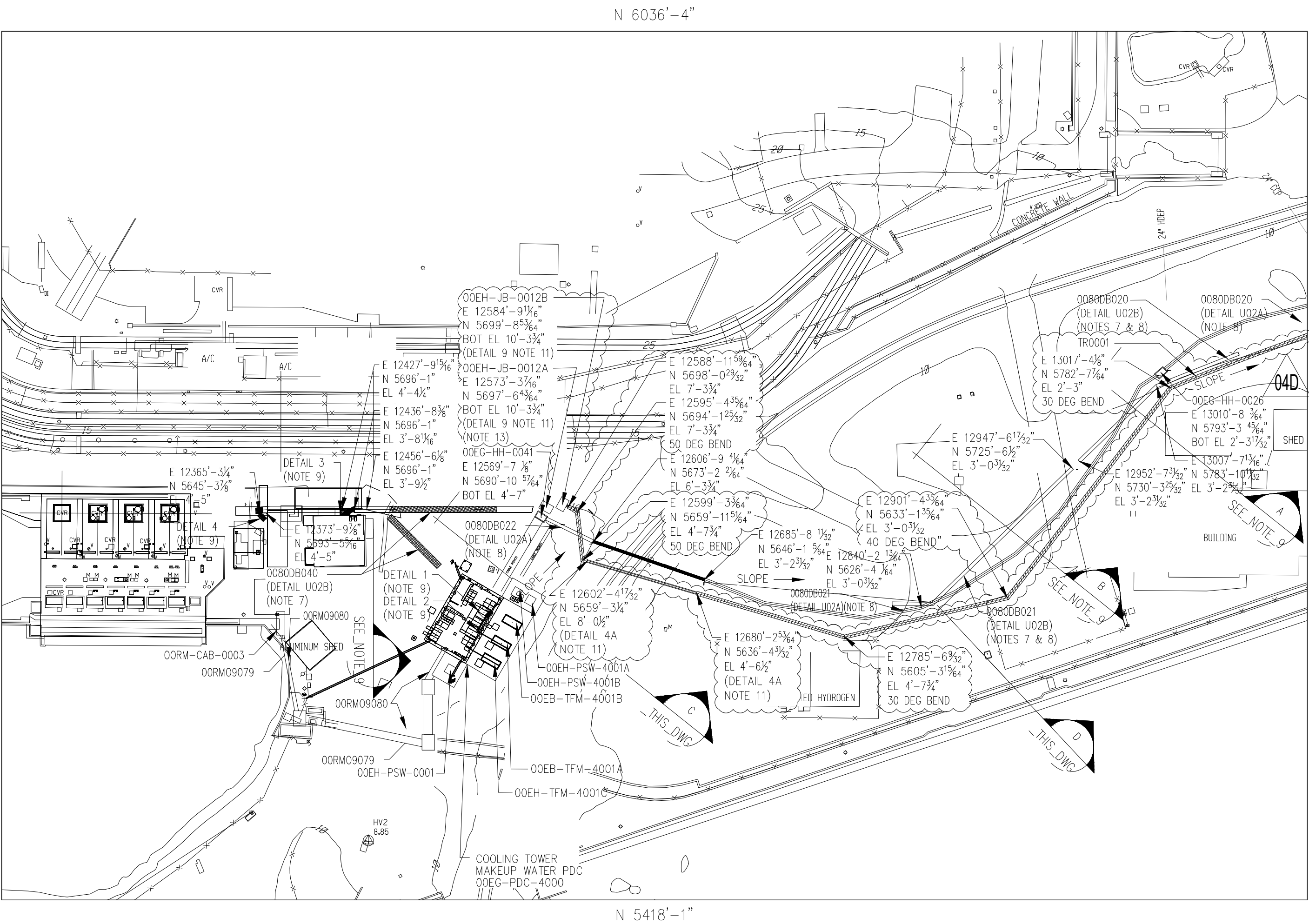
15. THE LOCATION OF EXISTING DUCTBANK, HANDHOLE AND TERMINAL BOX CONCRETE FOUNDATION WAS ADJUSTED BASED ON GPR AND SURVEY DATA.

LEGEND:

- ROAD CROSSING (DETAIL U02B)

PRECAST CONCRETE TRENCH HS-20 RATED

6" SLEEVES FOR DIRECTIONAL BORE



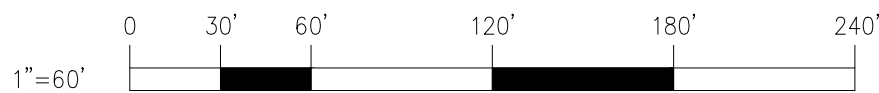
PRELIMINARY - NOT
FOR CONSTRUCTION

**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
FIRM LICENSE NO. 253

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DATED 02/08/2022, ONLY ASSUMES
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BY THE FOLLOWING REVISION(S) 04B, 04C, 04D, 04E.

BMCD PROJECT 137458 CONTRACT 5.8300

KEY PLAN
N.T.S.



REV	DATE	JOB NO.	PROJECT TYPE	DES	DFTRCHK	ENGR	APPD
04E	02/08/22	CCC-04998	FOR PERMIT	ASG	SDM	LCH	LCH
DESC: ISSUED FOR PERMIT - NOT FOR CONSTRUCTION							
04D	12/13/21	CCC-04998	OWNER REVIEW	ASG	SDM	LCH	LCH
DESC: ISSUED FOR OWNER REVIEW (IFOR)							
04C	11/29/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH
DESC: ISSUED FOR BID (IFB)							
04B	10/28/21	CCC-04998	ISSUED FOR BID	ASG	SDM	LCH	LCH
DESC: ISSUED FOR BID (IFB)							
04	08/16/21			GV	IPJR	JRW	JRW
DESC: REVISED PER CC CCC-04672							
03	12/07/20		CONSTRUCTION	MD	IPJR	JRW	JRW
DESC: REVISED PER CC CCC-04166							

MECH	LAYOUT	CSA	ELEC
MECH	LAYOUT	CSA	ELEC
W	W	W	
MECH	LAYOUT	CSA	ELEC
W		SAJ	CA
MECH	LAYOUT	CSA	ELEC
W	RT	SAJ	CA
MECH	LAYOUT	CSA	ELEC
W	RT	SAJ	CA

RESERVED FOR PROFESSIONAL ENGINEER'S SEAL, IF APPLICABLE

DUKE ENERGY FLORIDA
CITRUS COUNTY COMBINED CYCLE PROJECT
ELECTRICAL
UNDERGROUND DUCTBANK LAYOUT
MAKEUP WATER INTERFACE PLAN AREA 30

FOR CITRUS COUNTY UNIT 00

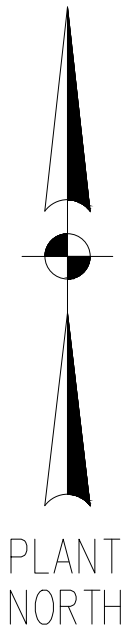


SCALE: 1"=60'-0"
DWG TYPE: UG
JOB NO: CICCOC
DATE: 06/09/16
ENGR: CA
APPD: JM

FILENAME: CCC_00_FLUORC_CCC00-UG-E-UE.00.PL-30.DWG
DRAWING NO. CCC00-UG-E-UE.00.PL-30
REVISION 04E

**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
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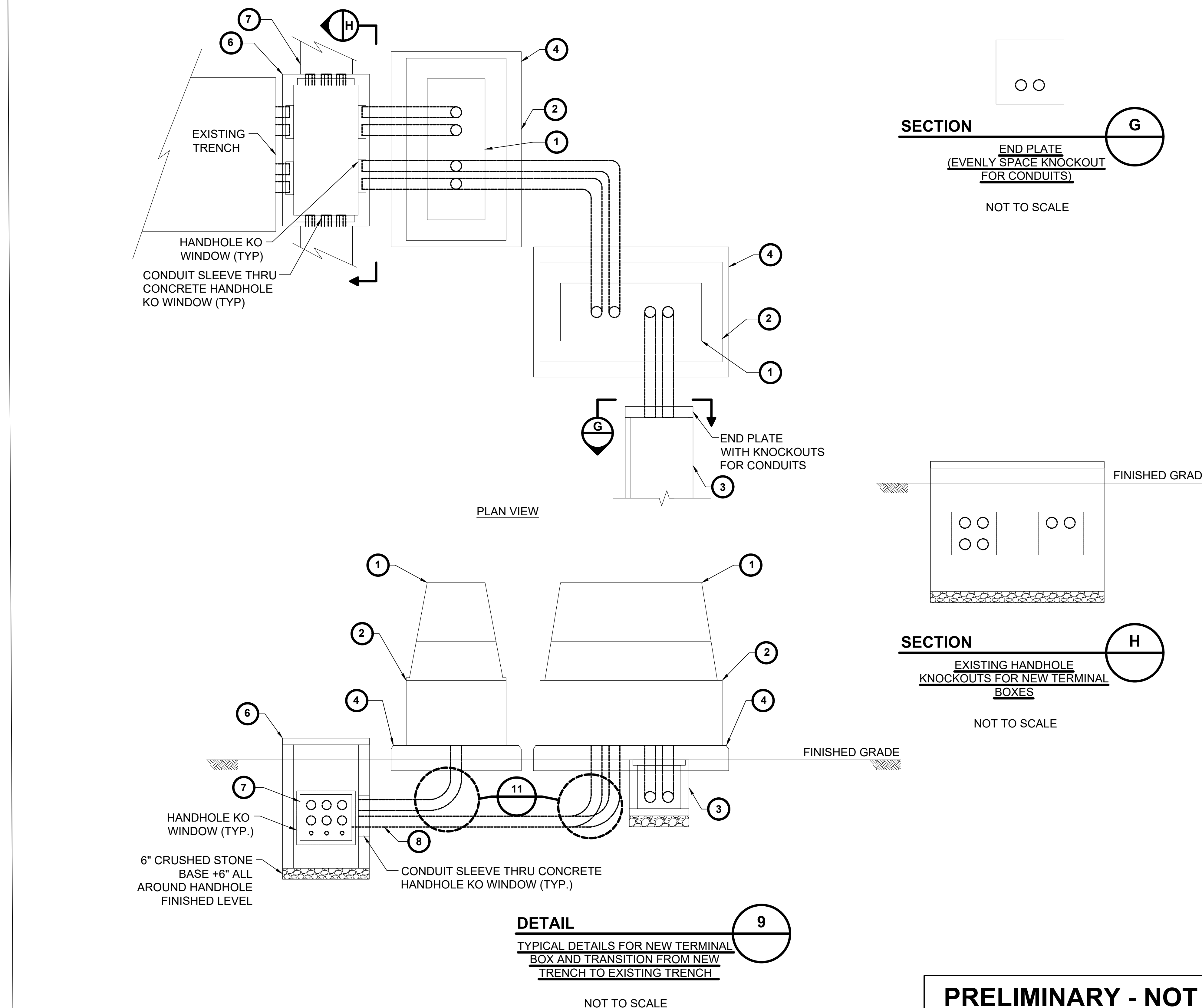
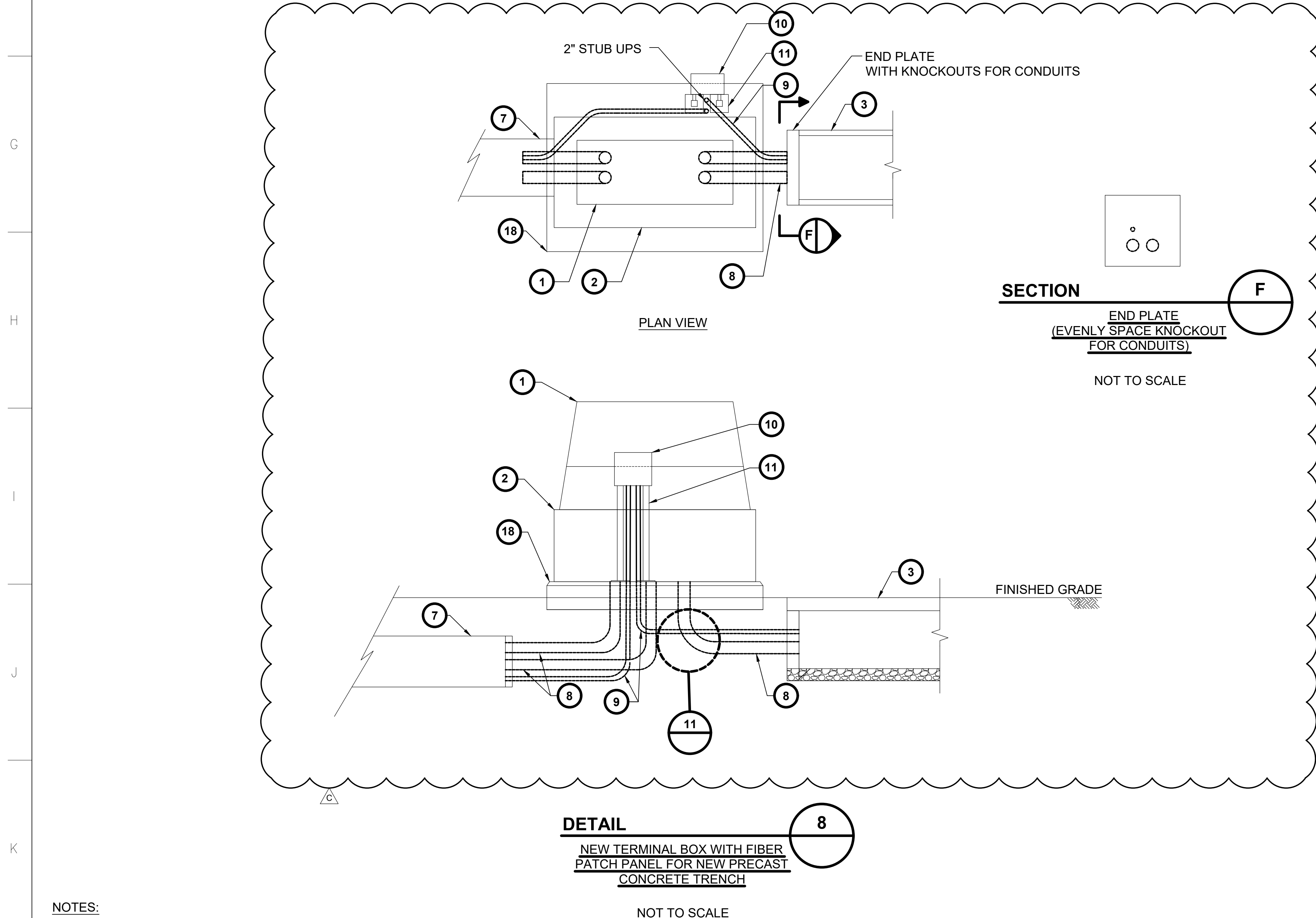
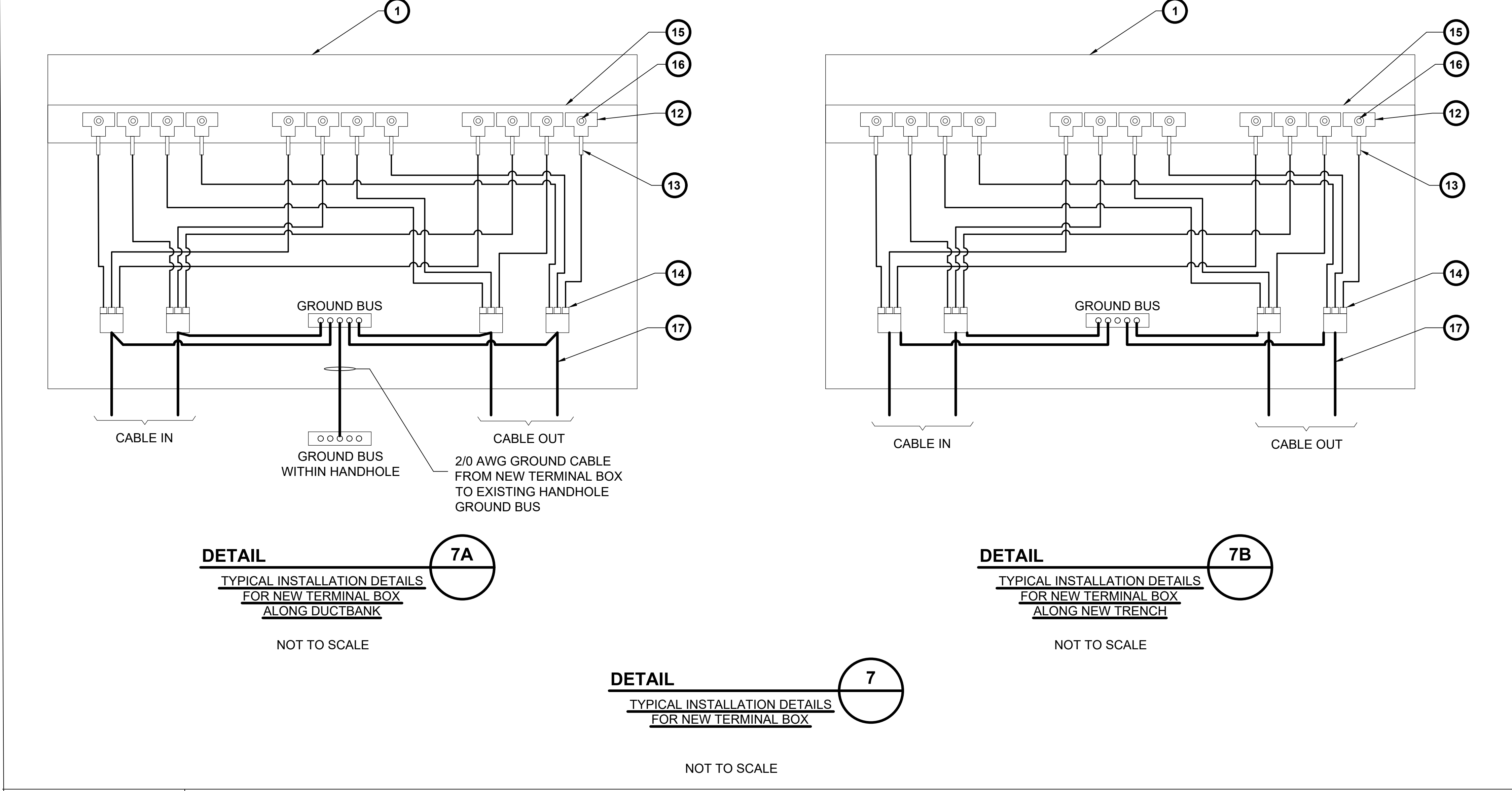
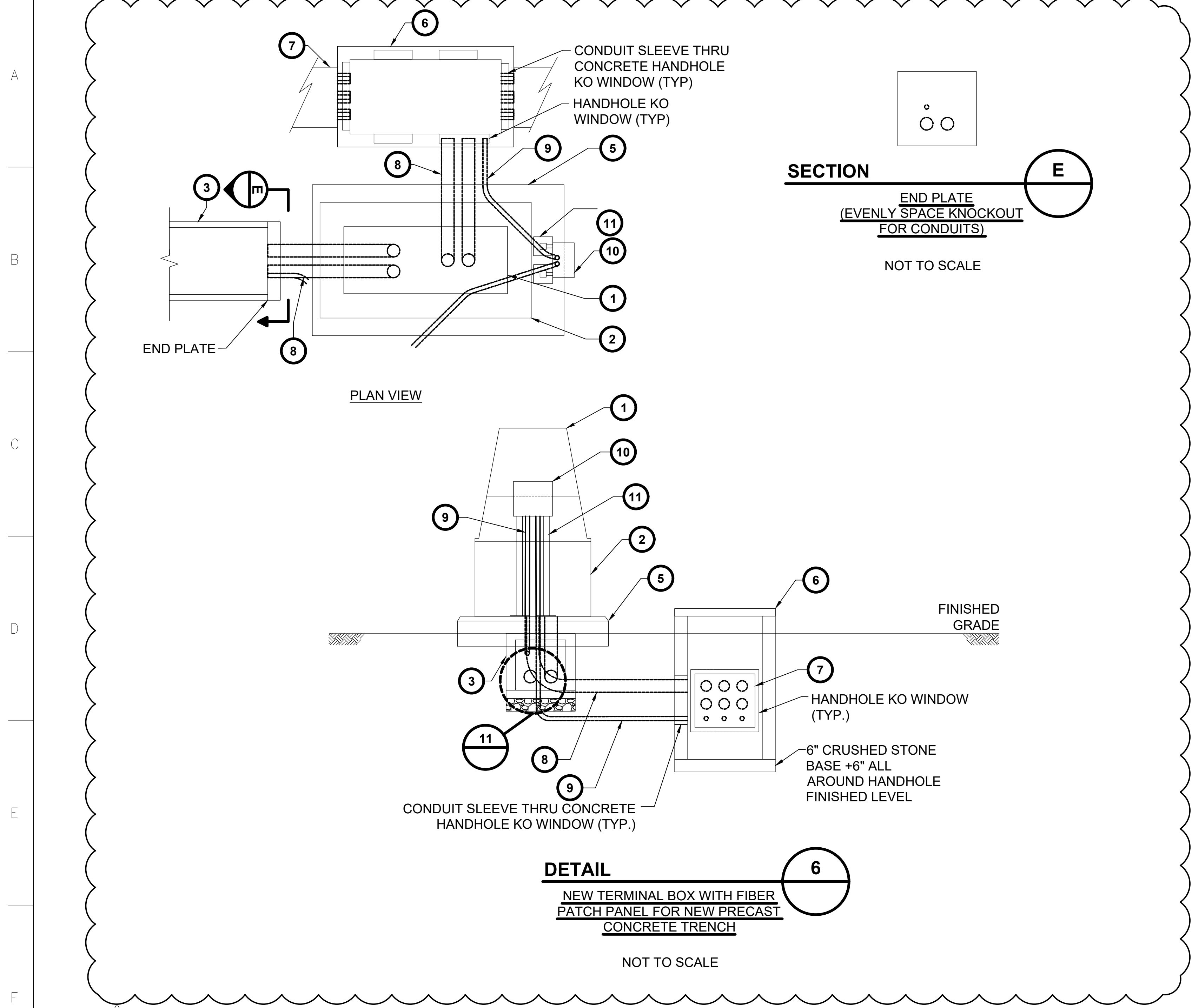
THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME,
ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE
NUMBERS. ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.



REV. 04E

CCC00-UG-E-UE.00.PL-30

FILENAME: CCC_00_FLUORC_CCC00-UG-E-UE.00.PL-30.DWG



- NOTES:
- FOR BILL OF MATERIAL REFER DWG. CCC00-UG-E-UE.00.SD-XX, SHEET 03

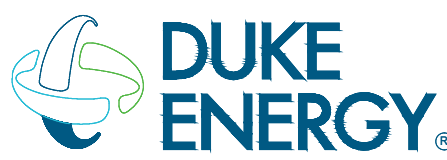
DRAWING REVISIONS				DRAWING REFERENCES			
REV.	DESCRIPTION	DRAWN	CHKD	APPROVD	DATE	WORKBOOK	ACTG
C	ISSUED FOR PERMIT - NOT FOR CONSTRUCTION	ASG	LCH	JCH	02/08/2022		
B	ISSUED FOR OWNER REVIEW	ASG	LCH	JCH	12/13/2021		
A	ISSUED FOR BID	ASG	LCH	JCH	11/29/2021		
DWG NO.	REV.	TITLE					
				DRAWING REFERENCES			

CONTRACTOR/VENDOR INFORMATION				SEAL			
BURNS MCDONNELL 3400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-3400 FIRM LICENSE NO. 253							
THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, TELEPHONE NUMBER AND ANY REQUIRED REFERENCE NUMBERS. ALL DRAWINGS TO BE PRODUCED IN AUTOCAD RELEASE 2000 OR LATER.				THE ABOVE IS RESERVED FOR PROFESSIONAL ENGINEER SEAL AND IS NOT TO BE REPRODUCED OR USED FOR ANY PURPOSE EXCEPT AS SPECIFIED BY DURE ENERGY.			

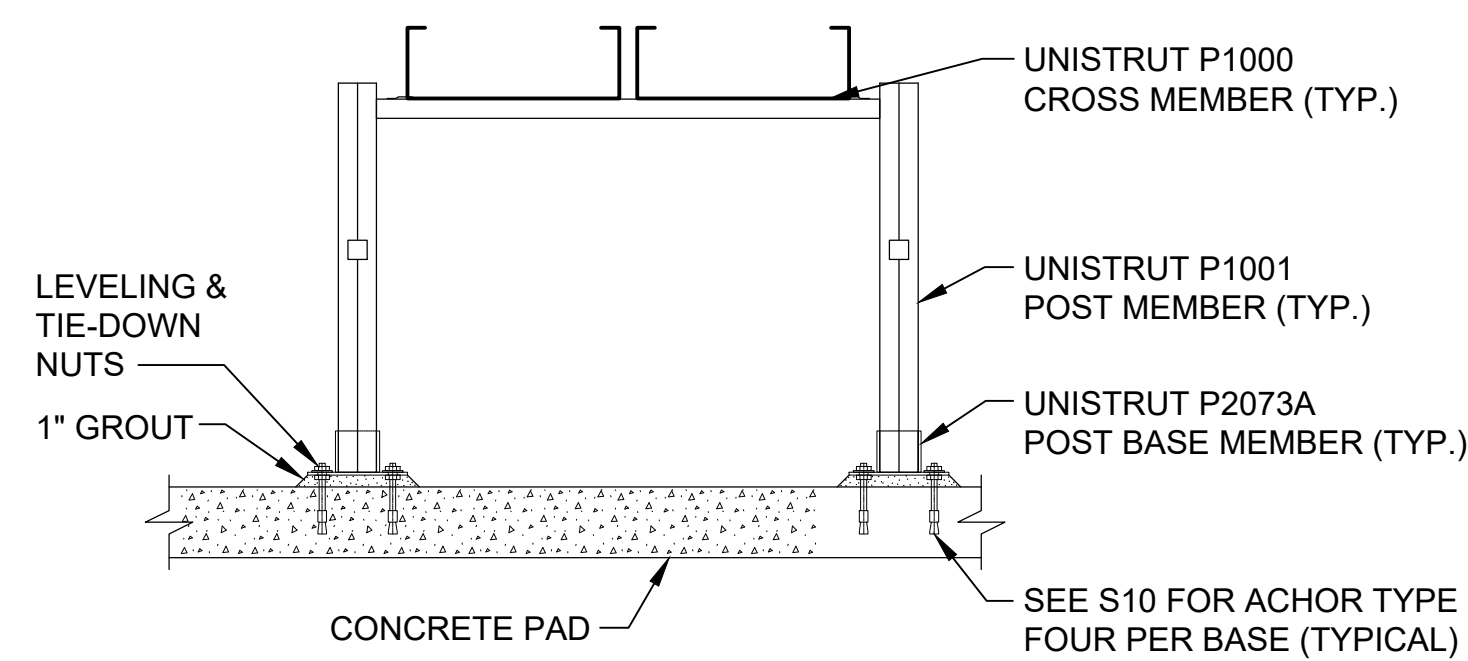
CITRUS COUNTY COMBINED CYCLE MAKEUP WATER INTERFACE AREA				TITLE			
FACILITY:	UNIT:	SYSTEM:	DWG. SUB TYPE:				
CCC	0	-	-				
PROJECT NO:	CC NO:	W.D. NO.:	APPRO BY:				
137458	CCC-04998	-	JCH				
SCALE:	PLOT:	SIZE:	APPRO DATE:				
NONE	1=1	44"x34"	11/29/21				

SHT	DWG NO.	REV.
02	CCC00-UG-E-UE.00.SD-XX	C

PRELIMINARY - NOT
FOR CONSTRUCTION



ELECTRICAL
UNDERGROUND TRENCH
MAKEUP WATER INTERFACE AREA
TYPICAL DETAILS



Whole Route

<u>Description</u>	<u>Qty</u>	<u>Length (ft)</u>	<u>Width (ft)</u>	<u>Depth (ft)</u>	<u>SF Per Disturbance</u>	<u>Total SF Per Type of Disturbance</u>	<u>CF Per Disturbance</u>	<u>Total CF Per Type of Disturbance</u>	<u>Notes</u>
New Trench (A)	1	2691	2.75	3.09	7400.25	7400.25	22866.7725	22866.7725	(a) 33" wide 31" deep trench + 6" depth of stone (b) Length = Length of trench from Concast drawings (a) Concast trench is 33" wide and 31" deep trench + 6" depth of stone (b) Length is based off of single cable from cable schedule ==> (length between all (B) run TBs)/2 -
New Trench (B)	1	10602.5	2.75	3.09	29156.875	29156.875	90094.74375	90094.74375	(Directional Bores and Bridge lengths) Disturbance area is only considered for the area not previous disturbed by the original terminal boxes
TB Foundations (A)	12	10	3.5	3.09	35	420	108.15	1297.8	and handholes, conservatively using a depth equivalent of the new trench
TB Foundations (B)	12	10	3.5	3.09	35	420	108.15	1297.8	Total length and width of terminal box foundation, depth includes depth of trench under TB
Bridge Foundation (#1)	1	9.5	12	3.5	114	114	399	399	Full depth is 4'-0", Depth below existing grade is 3'6"
Bridge Foundation (#2)	1	5	12	3.5	60	60	210	210	Full depth is 4'-0", Depth below existing grade is 3'6"
Directional Bores	1	693	2.5	0.5	Note (b)	Note (b)	866.25	866.25	(a) Width is conservatively 6" x 5 bores, not all sections have 5 bores (b) Directional Bores are completely underground

Total Disturbed	37571.125 SF	117032.3663 CF
Conversion	43560 Square ft/Acre	27 Cubic ft/Cubic Yard
	0.862514348 Acres	4334.532083 CY

**Application for
Individual and Conceptual Approval
Environmental Resource Permit,
State 404 Program Permit,
and Authorization to Use State-Owned
Submerged Lands**

Florida Department of Environmental Protection/

Water Management Districts

Effective December 22, 2020



Instructions for Use of This Form:

This form is designed to assist you in submitting a complete application. All applications must include Section A- General Information for All Activities. Sections B through H list typical information that is needed based on the proposed activities and are only required as applicable. Part 1-C of Section A will guide you to the correct sections needed based on your proposed activities. Applicants are advised to consult Chapter 62-330, F.A.C., and the Environmental Resource Permit Applicant's Handbook Volumes I and II for information regarding the ERP permitting process and requirements while preparing their application. Internet addresses for Chapter 62-330, F.A.C., and the Applicant's Handbook, Agency contact information, and additional instructions for this form can be found in Attachment 1.

What Sections of the Application Must I Fill Out?

Type of Activity	Section A	Section B	Section C	Section D	Section E	Section F	Section G	Section H	Section I
Fill in wetlands or waters for a single family residence?	Y	Y	N	N	N	N	N	N	Y, if in assumed waters
Docks, shoreline stabilization, seawalls associated with a single family residence?	Y	Y	N	N	N	Y, as needed	N	N	Y, if in assumed waters
Wetland impacts (other than association with an individual residence)?	Y	N	Y	N	N	N	N	N	Y, if in assumed waters
Boating facilities, a marina, jetty, reef, or dredging?	Y	N	Y	Y	N	Y, as needed	N	N	Y, if in assumed waters
Any work on state owned submerged land?	Y	N	Y	N	N	Y	N	N	Y, if in assumed waters
Construction of a stormwater management system?	Y	N	Y, as needed	N	Y	N	N	N	N
Constructing a mitigation bank?	Y	N	Y	N	Y, as needed	N	Y	N	Y, if in assumed waters
Creating a mine?	Y	N	Y, as needed	N	N	N	N	Y	Y, if in assumed waters

If you have any questions, or would like assistance completing this form, please contact the staff of the nearest office of either the Florida Department of Environmental Protection (DEP) or a Water Management District (WMD) (see Attachment 2).

Section A: General Information for All Activities

Part 1: Name, Application Type, Location, and Description of Activity

A. Name of project, including phase if applicable: PA77-09A3 Amendment Request - Citrus Combined Cycle Duct Bank/Trench

B. This is for (check all that apply):

- ☐ Construction and operation of **new** works, activities, and/ or a stormwater management system
- ☐ **Conceptual Approval** of proposed works, activities and/ or a stormwater management system
- X Modification or alteration of **existing** works, activities, and/or a stormwater management system. Provide the existing DEP or WMD permit #, if known: **Site Certification PA77-09A3** Note: Minor modifications do not require completion of this form, and may instead be requested by letter in accordance with section 6.2 of Applicant's Handbook Volume I.
- ☐ **Maintenance or repair** of works, activities, and/ or a stormwater management system previously permitted by the DEP or WMD. Provide existing permit #, if known:
- ☐ Abandonment or removal of works, activities, and/ or a stormwater management system.
Provide existing DEP or WMD permit #, if known:
- ☐ Operation of an **existing unpermitted** work, activity, and/or stormwater management system.
- ☐ Construction of additional phases of a permitted work, activity, or system.
Provide the existing DEP or WMD permit #, if known:
- ☐ A State 404 Program authorization:
- ☐ Exemption ☐ General Permit ☐ Individual Permit
- If requesting an Exemption or General Permit provide Rule #, if known:

☐ **By checking this box**, I hereby voluntarily waive, in accordance with Rule 62-330.090(8), F.A.C., the agency action deadlines in section 5.5.3 of Volume I in the event my project also requires a State 404 Program authorization (other than an exemption) under Chapter 62-331, F.A.C., and request that the agency actions for the ERP and State 404 Program authorizations be issued at the same time. (This is strongly recommended to ensure consistency, and to reduce the potential need for project modifications to resolve inconsistencies that may occur when the agency actions are issued at different times.) If this box is checked and the Agency(ies) determines that no State 404 Program authorization is required, the Agency will continue to abide by section 5.5.3 of Volume I.

C. List the type of activities proposed. Check all that apply, and provide the supplemental information requested in each of the referenced application sections. Please also reference Applicant's Handbook Volumes I and II for the type of information that may be needed.

- ☐ Activities associated with one single-family residence, duplex, triplex, or quadruplex that do not qualify for an exemption or a General Permit: **Provide the information requested in Section B. Do not complete Section C.**
- X Activities within wetlands or surface waters, or within 25 feet of a wetland or surface water, (not including the activities associated with an individual single-family residence). Examples include dredging, filling, outfall structures, docks, piers, over-water structures, shoreline stabilization, mitigation, reclamation, and restoration/enhancement. **Provide the information requested in Section C.**
- ☐ Activities within navigable or flowing surface waters such as a multi-slip dock or marina, dry storage facility, dredging, bridge, breakwaters, reefs, or other offshore structures: **In addition to Section C, also provide the information requested in Section D.**
- ☐ Activities that are (or may be) located within, on, or over state-owned submerged lands (See Chapter 18-21, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=18-21>): **In addition to Section B or C, also provide the information requested in Section F.**
- ☐ Construction or alteration of a stormwater management system serving residential, commercial, transportation, industrial, agricultural, or other land uses, or a solid waste facility (excluding mines that are regulated by DEP). **Provide the information requested in Section E.**
- ☐ Creation or modification of a Mitigation Bank (refer to Chapter 62-342, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-342>): **Provide the information requested in Section G.**
- ☐ Mines (as defined in Section 2.0 of Applicant's Handbook Volume I) that are regulated by the DEP: **Provide the information requested in Section H.**
- X Other, describe: **(PA77-09A3 Amendment) Please see the attached project narrative**
Please contact the Agency to determine which additional sections of the application are needed. See Attachment 2 for Agency contacts.

D. Describe in general terms the proposed project, system, works, or other activities. For permit modifications, please briefly describe the changes requested to the permit: **Installation of an at-grade, concrete duct bank/ trench, containing electric utility lines. Please see the attached drawings and project narrative.** The entire project is located within power plant property boundaries.

E. Project/Activity Street/Road Address or other location (if applicable): Duke Energy - Citrus Combined Cycle Plant, 14385 North Access Road
City: Crystal River County(ies): Citrus Zip: 34428

Note: For utility, road, or ditch/canal activities, provide a starting and ending point using street names and nearest house numbers or provide length of project in miles along named streets or highways.

- F. Project location map and Section, Township, and Range information (use additional sheets if needed): **This is a linear project, located within the boundaries of the power plant's site certification (PA77-09A3). Please see the attached project map and aerials depicting the scope of work.**

Please attach a location map showing the location and boundaries of the proposed activity in relation to major intersections or other landmarks. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it.

Section(s): Township: Range: Land Grant name, if applicable:
Section(s): Township: Range:

1. Section(s): Township: Range:

- G. Latitude (DMS) ° ' " Longitude (DMS) ° ' " (Taken from central location of the activity). Explain source for obtaining latitude and longitude (i.e. U.S.G.S. Quadrangle Map, GPS, online resource):

- H. Tax Parcel Identification Number(s):

[Number may be obtained from property tax bill or from the county property appraiser's office; if on multiple parcels, provide multiple Tax Parcel Identification Numbers]

- I. Directions to Site (from major roads; include distances and landmarks as applicable): **Please see attached location map.**

- J. Project area or phase area:

- K. Name of waterbody(ies) (if known) in which activities will occur or into which the system will discharge:

The following questions (M-O) are not applicable to activities related to an individual single-family residence, including a dock, pier, and/or seawall associated with that residence.

- L. Is it part of a larger plan of development or sale? yes no

- M. Impervious or semi-impervious area excluding wetlands and other surface waters (if applicable):

or square feet

- N. Volume of water the system is capable of impounding (if applicable):N/A

Normal Pool: acre-feet. Depth ft.
Maximum Pool: acre-feet. Depth ft.

Part 2: Supplemental Information, and Permit History

- A. Is this an application to modify an existing Environmental Resource Permit or to construct or implement part of a multi-phase project, such as a project with a Conceptual Approval permit? ☐ Yes ☐ No (If you answered "yes", please provide permit numbers below) **Site Certification Amendment**

Agency	Date	Permit/Application No.	Project Name
FDEP Siting Office	5/5/2015	PA77-09A3	Citrus Combined Cycle

- B. Indicate if there have been any **pre-application meeting(s)** with the DEP, WMD, or delegated local government, or other discussions, meetings, or coordination with other stakeholders or agencies about the proposed project, system or activity. If so, please provide the date(s), location(s) of the meeting, and the name(s) of Agency staff that attended the meeting(s):

Agency	Date	Location	Meeting Attendees

- C. **Attach a depiction (plan and section views), which clearly shows the works or other activities proposed to be constructed.** Use multiple sheets, if necessary, a scale sufficient to show the location and type of works and include a north arrow and a key to any symbols used. **Specific information to be included in the plans is based on the activities proposed and is further described in Sections B-H.** However, supplemental information may be required based on the specific circumstances or location of the proposed works or other activities. **Please see the attached project drawings.**
- D. **Processing Fee: Please submit the application processing fee along with this application form and supplemental information.** Processing fees vary based on the size of the activity, the type of permit applied for, and the reviewing Agency. Please reference Appendix D of Applicant's Handbook Volume I to determine the appropriate fee.

Part 3: Applicant and Associated Parties Information

Instructions: Please complete the following sections. For corporations, list a person who is a registered agent or officer of the corporation who has the legal authority to bind the corporation.

A. Applicant (Entity Must Have Sufficient Real Property Interest)

☐ This is a Contact Person for Additional Information

Last Name: Drango	First Name: Martin	Middle Initial: J.
Title: Station Manager, Citrus Combined Cycle	Company: Duke Energy Florida, LLC	
Address: 14385 North Access Road		
City: Crystal River	State: FL	Zip: 34428
Home Telephone:	Work Telephone:	
Cell Phone:	E-mail Address:	

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

B. Land Owner(S) (If Different or in Addition to Applicant)

☐ Check here if land owner is also a co-applicant

Last Name:	First Name:	Middle Initial:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	E-mail Address:	

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

C. Operation and Maintenance Entity(see Applicant's Handbook I, Section 12.3)

Last Name:	First Name:	Middle Initial:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	E-mail Address:	

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

D. Co-Applicant (If Different or In Addition to Applicant and Owner)

Last Name:	First Name:	Middle Initial:
Title:	Company:	
Address)		
City	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:		

E-mail Address:

Correspondence will be sent via email, unless you check here to receive it via US Mail:

E. Registered Professional Consultant

☐ This is a contact person for additional information

Last Name: First Name: Middle Initial:
Title: Company:
Address:
City: State: Zip:
Home Telephone: Work Telephone:
Cell Phone:
E-mail Address:

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

F. Environmental Consultant

☒ This is a contact person for additional information

Last Name: Linton First Name: William Middle Initial: R
Title: Sr. Environmental Specialist, Permitting & Compliance Company: Duke Energy
Florida, LLC
Address: 299 First Avenue N. (FL903)
City: St. Petersburg State: FL Zip: 33701
Home Telephone: Work Telephone: 727 560-4803
Cell Phone:
E-mail Address: william.linton@duke-energy.com

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

G. Agent Authorized to Secure Permit (If Different from Consultant)

Last Name: First Name: Middle Initial:
Title: Company:
Address:
City: State: Zip:
Home Telephone: Work Telephone:
Cell Phone:
E-mail Address:

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

If necessary, please add additional pages for other contacts and property owners related to this project.

H. Real Property Interest

- a. Permits are only issued to entities having sufficient real property interest as described in Section 4.2.3(d) of Applicant's Handbook Volume I. **Please attach evidence of the applicant's real property interest over the land upon which the activities subject to the application will be conducted, including**

mitigation areas (if applicable). Refer to Sections 4.2.3(d)-(e) for sufficient real property interest documentation.

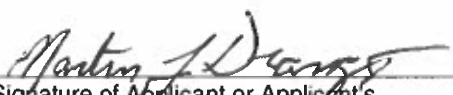
- b. For activities that require a recorded notice in accordance with rule 62-330.090(7), F.A.C., please provide either the complete legal description of the property or a copy of the pages of the document recorded in the public records that contains the complete legal description. If the land upon which the proposed activities are to occur is not owned by the applicant, the applicant must also provide copies of any right-of-way, leases, easements, or other legal agreement which authorizes the applicant to perform the activities on those lands.

Part 4: Signatures and Authorization to Access Property

Instructions: For multiple applicants please provide a separate Part 4 for each applicant. For corporations, the application must be signed by a person authorized to bind the corporation. A person who has sufficient real property interest (see Section 4.2.3(d) of Applicant's Handbook Volume I) is required in (B) to authorize access to the property, except when the applicant has the power of eminent domain.

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto does not relieve me of any obligation for obtaining any other required federal, state, water management district, or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Martin J. Drango, P.E.
Typed/Printed Name of Applicant or
Applicant's Authorized Agent


Signature of Applicant or Applicant's
Authorized Agent

Date 2/10/22

Station Manager
Citrus Combined Cycle
Duke Energy Florida, LLC (Corporate Title if applicable)

B. Certification of Sufficient Real Property Interest And Authorization For Staff To Access The Property:

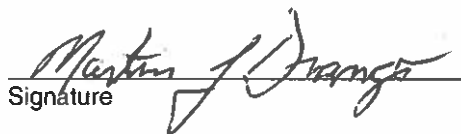
I certify that:

X I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application, upon advance notice. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, if a permit is granted, upon advance notice, I agree to provide entry to the project site for such agents or personnel with proper identification to determine compliance with permit conditions and permitted plans and specifications.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency to legally access, inspect, and sample the property as described above.

Martin J. Drango, P.E.
Typed/Printed Name


Signature

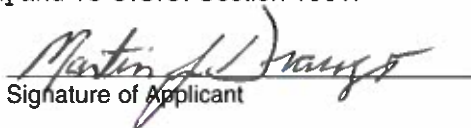
Date 2/10/22

Station Manager
Citrus Combined Cycle
Duke Energy Florida, LLC
(Corporate Title if applicable)

C. Designation of Authorized Agent (If Applicable):

I hereby designate and authorize William Linton to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S., and 18 U.S.C. Section 1001.

Martin J. Drango, P.E.
Typed/Printed Name of Applicant


Signature of Applicant

Date 2/10/22

Station Manager
Citrus Combined Cycle
Duke Energy Florida, LLC