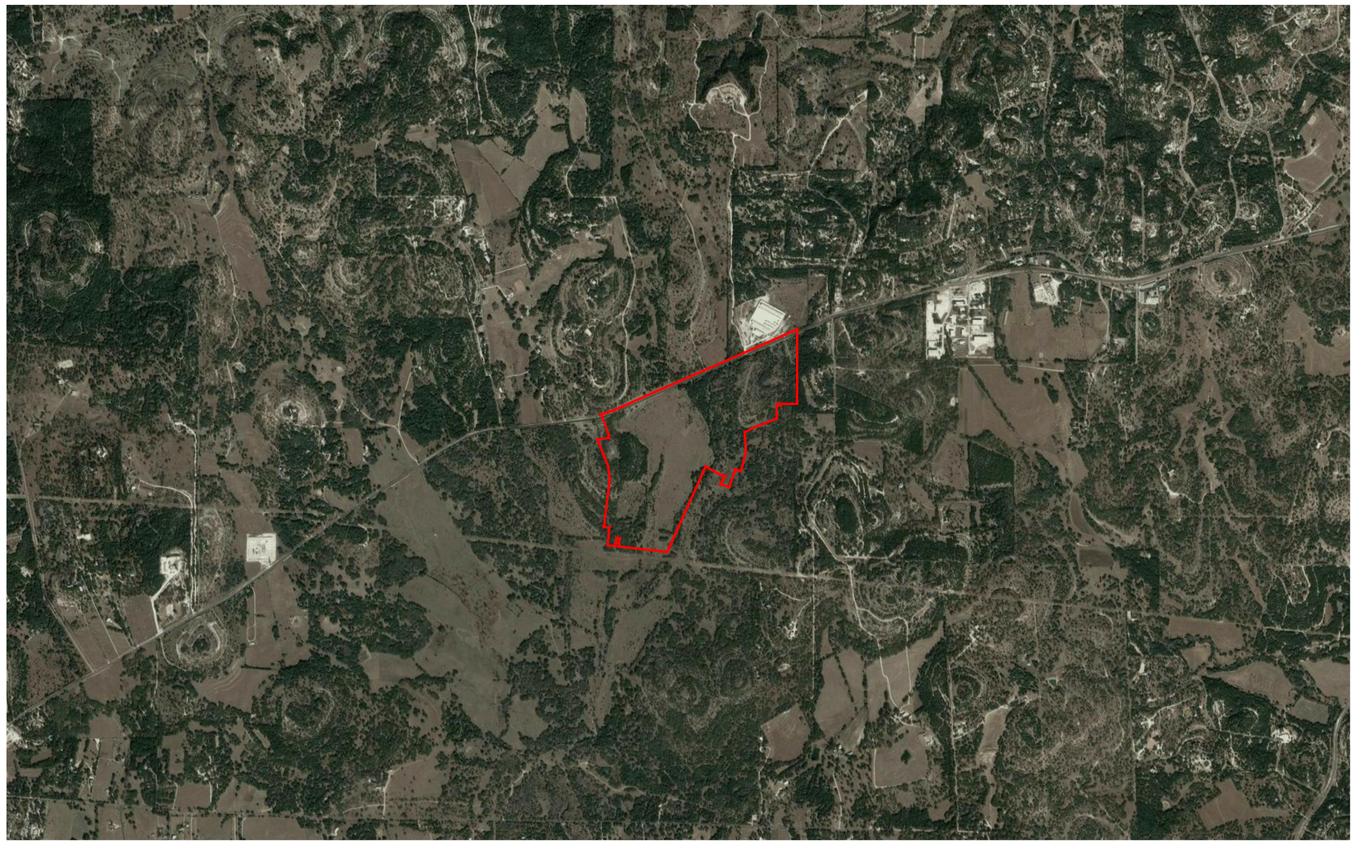
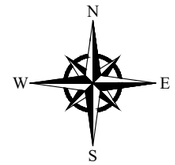
LOOKOUT BOERNE HOLDINGS, L.P.

GEORGE'S RANCH UNIT 1

UNDERGROUND ELECTRICAL PLANS





GENERAL DRAWINGS

E0	PROJECT COVER SHEET AND DRAWING LIST
E1	MASTER PLAN
E2	DRAWING MAP KEY
E3	UNDERGROUND ELECTRICAL LAYOUT (SHEET 1 OF 3)
E4	UNDERGROUND ELECTRICAL LAYOUT (SHEET 2 OF 3)
E5	UNDERGROUND ELECTRICAL LAYOUT (SHEET 3 OF 3)
E6	PEC UNDERGROUND DETAILS (SHEET 1 OF 2)
E7	PEC UNDERGROUND DETAILS (SHEET 2 OF 2)

THIS DRAWING IS CERTIFIED TO BE CORRECT FOR THE NEW FACILITIES SHOWN ONLY. INFORMATION CONCERNING EXISTING FACILITIES PROVIDED BY OTHERS HAS NOT BEEN VERIFIED.

ISSUED: 10-03-22
FOR CONSTRUCTION

STATE OF TEXAS
CHRISTOPHER T. HARPER
106036
LICENSED
PROFESSIONAL ENGINEER

Digitally signed by Chris Harper
DN: cn=Chris Harper, o, ou, email=charper@se-texas.com, c=US
Date: 2022.10.03 17:45:48 -05'00'

NO	DATE	REVISION	BY	CHK	APPD	NO	DATE	REVISION	BY	CHK	APPD

21CUDE3205

	DATE	BY
DRWN	12-14-21	CJB
CHK	10-03-22	CTH
APPD	10-03-22	CTH

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TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS

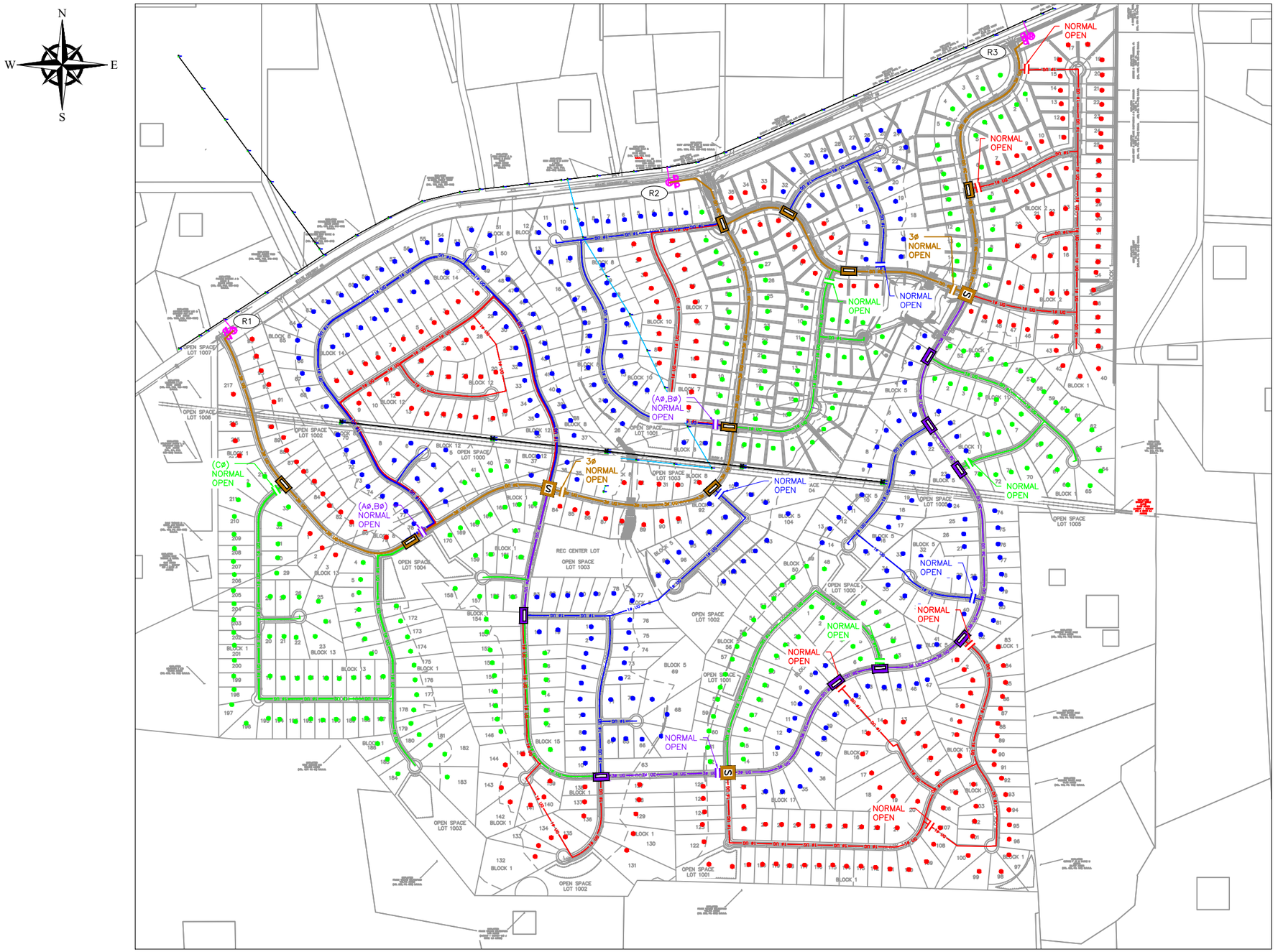
GEORGE'S RANCH UNIT 1

PROJECT COVER SHEET AND DRAWING LIST

SCALE FOR 34 x 22 DWG: N.T.S.

DRAWING NO. E0

09/30/2022 2:27 PM * cbarajas * N:\CUDE\21CUDE3205 George's Ranch Unit 1\Drawings\Plan View\E0 - George's Ranch U1 Cover Sheet.dwg



PHASE DISTRIBUTION

RISER 1:

Aø	Bø	Cø
74	117	108

RISER 2:

Aø	Bø	Cø
50	65	54

RISER 3:

Aø	Bø	Cø
139	77	98

TOTAL:

Aø	Bø	Cø
263	259	260

LEGEND

SERVICE PHASING
Aø SERVICE
Bø SERVICE
Cø SERVICE

UNDERGROUND	OVERHEAD
3ø UG	EXISTING 3ø OH
3ø UG	REMOVAL 3ø OH
3ø UG	PROPOSED 3ø OH
1ø UG	EXISTING 1ø OH
1ø UG	REMOVAL 1ø OH
1ø UG	PROPOSED Aø OH
1ø UG	PROPOSED Bø OH
1ø UG	PROPOSED Cø OH

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NO	DATE	REVISION	BY	CHK	APPD

	DATE	BY
DRWN	12-14-21	CJB
CHK	10-03-22	CTH
APPD	10-03-22	CTH

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TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS

GEORGE'S RANCH UNIT 1

MASTER PLAN

SCALE FOR 34 x 22 DWG
1" = 500'

DRAWING NO. E1

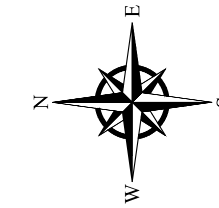
21CUDE3205

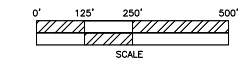
09/30/2022 2:27 PM * cbarajas * N:\CUDE\21CUDE3205 George's Ranch Unit 1\Drawings\Plan View\E1 - George's Ranch U1 Master Plan.dwg

09/30/2022 2:27 PM * cbarajas * N:\CUDE\21CUDE3205 George's Ranch Unit 1\Drawings\Plan View\E2-E5 – George's Ranch U1 Layout.dwg

GENERAL NOTES:

1. ALL SECONDARY CONDUIT SHALL BE SCHEDULE 40 3" PVC.
2. ALL PRIMARY CONDUIT SHALL BE SCHEDULE 40 3" PVC PER LEGEND.
3. CONSTRUCTION SHALL TAG AND CODE CABLE IN THE FIELD TO IDENTIFY PHASES.
4. ALL PRIMARY CABLE SHALL BE #1/0 AL 25 kV.
5. ALL PAD–MOUNTED ENCLOSURES INCLUDING TRANSFORMERS, SHALL BE GROUNDED IN SUCH A MANNER THAT TWO SEPARATE CONNECTIONS EXIST BETWEEN THE ENCLOSURE AND THE GROUND ROD(S). IF METER PEDESTALS, TRANSFORMERS, AND SECTIONALIZING CABINETS ARE WITHIN 10 FEET OF EACH OTHER A #2 CU. SOLID BARE WIRE SHALL TIE ALL GROUND RODS TOGETHER.
6. SECTIONALIZING CABINETS, TRANSFORMERS, EASEMENTS, CABLE, AND WIRE ARE NOT SHOWN TO SCALE IN THIS DRAWING.
7. EASEMENTS TO BE DEDICATED BY DEVELOPER TO COVER ALL ELECTRIC FACILITIES.
8. ALL ELECTRIC STREET CROSSINGS AND SERVICE EXTENSION TRENCHES TO INCLUDE TEL. & CATV.
9. IF ANY ELECTRIC FACILITIES ARE SUSCEPTIBLE TO DAMAGE FROM VEHICULAR TRAFFIC, BOLLARDS SHALL BE PLACED AROUND THE EQUIPMENT TO PREVENT DAMAGE.
10. FOR ANY PAD LOCATED IN DRAINAGE EASEMENT OR EROSION PRONE AREAS, CONTRACTOR SHALL BUILD UP PAD SITE AND REINFORCE WITH CONCRETE TO PREVENT EROSION.
11. TRANSFORMER AND SECONDARY SERVICE SIZE EVALUATION SHOULD BE PERFORMED AT THE TIME OF EACH SERVICE REQUEST.
12. ELECTRICAL FACILITIES SHALL BE INSTALLED A MINIMUM OF 4 FEET FROM FIRE HYDRANTS.
13. CONTRACTOR TO INSTALL SECONDARY CONDUIT FROM TRANSFORMER TO METER PEDESTAL.
14. SECONDARY CONDUIT FROM METER PEDESTAL INTO EACH LOT WILL BE INSTALLED IN THE FUTURE AFTER MEMBER APPLIES FOR ELECTRIC SERVICE.





SYMBOLS

	POLE	RISER	TRANSFORMER
PROPOSED			
EXISTING			
REMOVAL			

- PROPOSED 3ø SWITCHGEAR
- 3ø SMALL SECTIONALIZING BOX
- 3ø LARGE SECTIONALIZING BOX
- 1ø OR 3ø COMBINATION PADS (COLOR BY PHASE AND SIZE)
- NEW 200A 1ø SECTIONALIZING BOX: A PHASE, B PHASE, C PHASE
- NEW 1ø TRANSFORMER (120/240): A PHASE, B PHASE, C PHASE
- NUMBER OF CONDUITS EXITING
- METER PEDESTAL: A PHASE, B PHASE, C PHASE

LABELS

SW#	SWITCHGEAR NO.
S#	SECTIONALIZING BOX NO.
T#	TRANSFORMER NO.
R#	RISER NO.
X	SECONDARY PEDESTAL NO.

LEGEND

Aø Bø Cø	PRIMARY: 1/0 AL W/ FULL CONCENTRIC JACKETED NEUTRAL, 25 kV, XLPE, 260 MIL INSUL. IN 3" MIN. PVC SCH. 40, ELECT. CONDUIT
100'	POINT TO POINT DISTANCE (COLOR BY PHASE)
	350 MCM AL, 600V, TRIPLEX IN 3" MIN. PVC SCH 40, ELECT. CONDUIT
	#10 CU, THHN, 600V IN 3" CONDUITS (3 EA. SERVICE FOR GATE)
	VACANT Aø(EMPTY) 2" CONDUIT OR AS SPECIFIED VACANT Bø(EMPTY) 2" CONDUIT OR AS SPECIFIED VACANT Cø(EMPTY) 2" CONDUIT OR AS SPECIFIED EXISTING VACANT (EMPTY) 2" CONDUIT OR AS SPECIFIED
	EXISTING UNDERGROUND ELECTRIC
-------	ELECTRICAL UTILITY EASEMENT

GENERAL NOTE:

1. CONTRACTOR SHALL REFER TO PEC'S UNDERGROUND DEVELOPERS SPECIFICATIONS DOCUMENT FOUND ON THEIR WEBSITE: WWW.PEC.COOP/HOME/BUILDERSCONTRACTORS.ASPX FOR INSTALLATION OF ELECTRICAL FACILITIES.

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ISSUED: 10-03-22
FOR CONSTRUCTION

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21CUDE3205

STATE OF TEXAS
CHRISTOPHER T. HARPER
106036
LICENSED
PROFESSIONAL ENGINEER

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DN: cn=Chris Harper, o, ou, email=charper@se-texas.com, c=US
Date: 2022.10.03 17:47:33 -05'00'

	DATE	BY
DRWN	12–14–21	CJB
CHK	10–03–22	CTH
APPD	10–03–22	CTH

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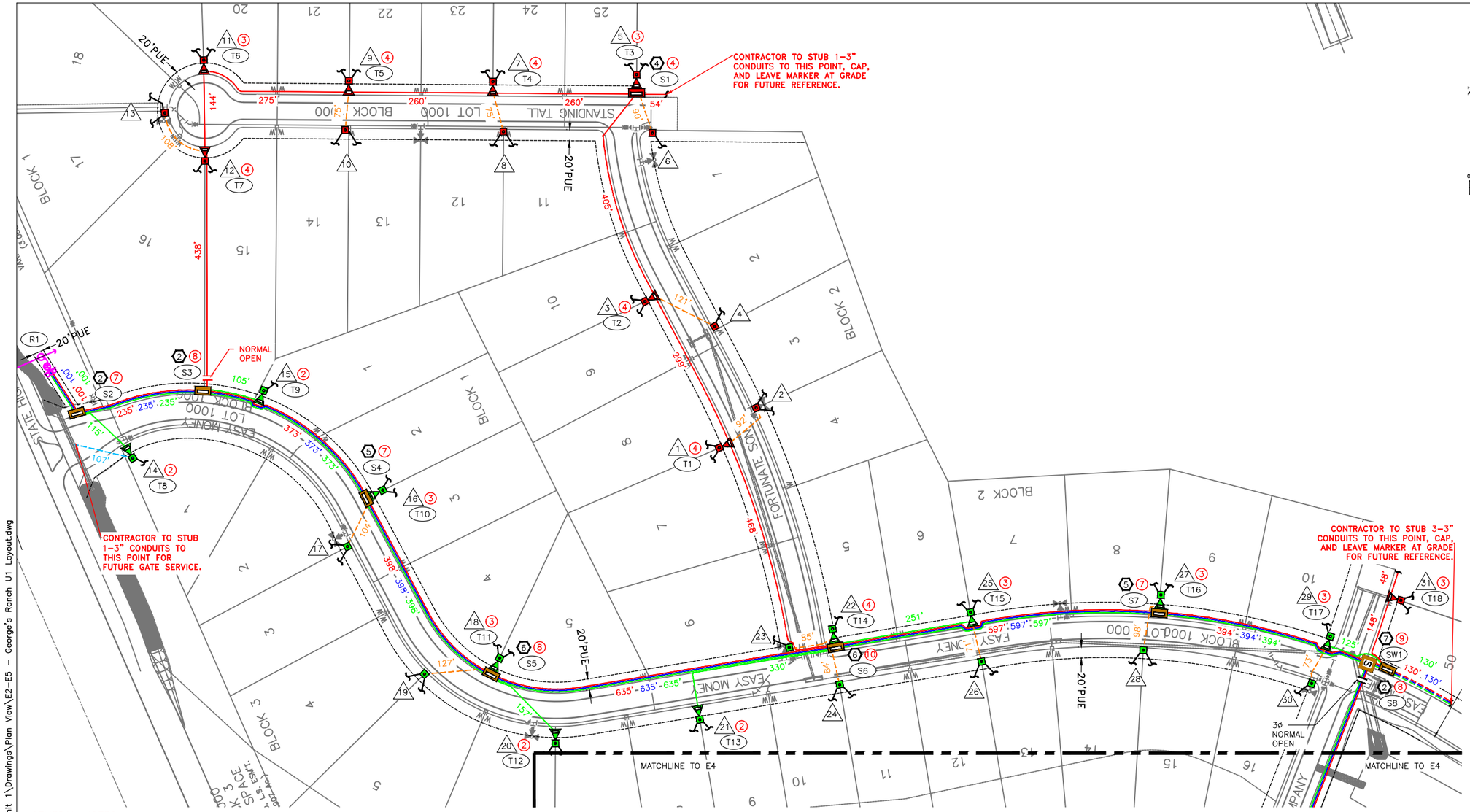
TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS
GEORGE'S RANCH UNIT 1

DRAWING MAP KEY

SCALE FOR 34 x 22 DWG
1" = 250'
DRAWING NO. E2



SYMBOLS

	POLE	RISER	TRANSFORMER
PROPOSED	●	⊛	⋈
EXISTING	●	⊛	⋈
REMOVAL	●	⊛	⋈

- S — PROPOSED 3ø SWITCHGEAR
- 3ø SMALL SECTIONALIZING BOX
- 3ø LARGE SECTIONALIZING BOX
- 1ø OR 3ø COMBINATION PADS (COLOR BY PHASE AND SIZE)
- NEW 200A 1ø SECTIONALIZING BOX — A PHASE / B PHASE / C PHASE
- NEW 1ø TRANSFORMER (120/240) — A PHASE / B PHASE / C PHASE
- (#) NUMBER OF CONDUITS EXITING
- METER PEDESTAL — A PHASE / B PHASE / C PHASE

LABELS

- (SW#) SWITCHGEAR NO.
- (S#) SECTIONALIZING BOX NO.
- (T#) TRANSFORMER NO.
- (R#) RISER NO.
- (X) SECONDARY PEDESTAL NO.

LEGEND

- AØ / BØ / CØ — PRIMARY: 1/0 AL W/ FULL CONCENTRIC JACKETED NEUTRAL, 25 kV, XLPE, 260 MIL INSUL. IN 3" MIN. PVC SCH. 40, ELECT. CONDUIT
- 100' – POINT TO POINT DISTANCE (COLOR BY PHASE)
- 350 MCM AL, 600V, TRIPLEX IN 3" MIN. PVC SCH 40, ELECT. CONDUIT
- #10 CU, THHN, 600V IN 3" CONDUITS (3 EA. SERVICE FOR GATE)
- VACANT AØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
- VACANT BØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
- VACANT CØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
- EXISTING VACANT (EMPTY) 2" CONDUIT OR AS SPECIFIED
- EXISTING UNDERGROUND ELECTRIC
- ELECTRICAL UTILITY EASEMENT

GENERAL NOTES:

1. ALL SECONDARY CONDUIT SHALL BE SCHEDULE 40 3" PVC.
2. ALL PRIMARY CONDUIT SHALL BE SCHEDULE 40 3" PVC PER LEGEND.
3. CONSTRUCTION SHALL TAG AND CODE CABLE IN THE FIELD TO IDENTIFY PHASES.
4. ALL PRIMARY CABLE SHALL BE #1/0 AL 25 kV.
5. ALL PAD-MOUNTED ENCLOSURES INCLUDING TRANSFORMERS, SHALL BE GROUNDED IN SUCH A MANNER THAT TWO SEPARATE CONNECTIONS EXIST BETWEEN THE ENCLOSURE AND THE GROUND ROD(S). IF METER PEDESTALS, TRANSFORMERS, AND SECTIONALIZING CABINETS ARE WITHIN 10 FEET OF EACH OTHER A #2 CU. SOLID BARE WIRE SHALL TIE ALL GROUND RODS TOGETHER.
6. SECTIONALIZING CABINETS, TRANSFORMERS, EASEMENTS, CABLE, AND WIRE ARE NOT SHOWN TO SCALE IN THIS DRAWING.
7. EASEMENTS TO BE DEDICATED BY DEVELOPER TO COVER ALL ELECTRIC FACILITIES.
8. ALL ELECTRIC STREET CROSSINGS AND SERVICE EXTENSION TRENCHES TO INCLUDE TEL. & CATV.
9. IF ANY ELECTRIC FACILITIES ARE SUSCEPTIBLE TO DAMAGE FROM VEHICULAR TRAFFIC, BOLLARDS SHALL BE PLACED AROUND THE EQUIPMENT TO PREVENT DAMAGE.
10. FOR ANY PAD LOCATED IN DRAINAGE EASEMENT OR EROSION PRONE AREAS, CONTRACTOR SHALL BUILD UP PAD SITE AND REINFORCE WITH CONCRETE TO PREVENT EROSION.
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13. CONTRACTOR TO INSTALL SECONDARY CONDUIT FROM TRANSFORMER TO METER PEDESTAL.
14. SECONDARY CONDUIT FROM METER PEDESTAL INTO EACH LOT WILL BE INSTALLED IN THE FUTURE AFTER MEMBER APPLIES FOR ELECTRIC SERVICE.

1. PROPOSED: SMALL PAD FOR 1ø SECTIONALIZING ENCLOSURE (DETAIL 530-010-0911)
2. PROPOSED: SMALL PAD FOR 3ø SECTIONALIZING ENCLOSURE (DETAIL 530-020-0911)
3. PROPOSED: LARGE PAD FOR 3ø SECTIONALIZING ENCLOSURE (DETAIL 530-022-0911)
4. PROPOSED: 1ø COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-023)
5. PROPOSED: 3ø SMALL COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-024)
6. PROPOSED: 3ø LARGE COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-026)
7. PROPOSED: 3ø SWITCHGEAR PAD

GENERAL NOTE:

1. CONTRACTOR SHALL REFER TO PEC'S UNDERGROUND DEVELOPERS SPECIFICATIONS DOCUMENT FOUND ON THEIR WEBSITE: WWW.PEC.COOP/HOME/BUILDERSCONTRACTORS.ASPX FOR INSTALLATION OF ELECTRICAL FACILITIES.

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ISSUED: 10-03-22
FOR CONSTRUCTION

STATE OF TEXAS — CHRISTOPHER T. HARPER — 106036 — LICENSED PROFESSIONAL ENGINEER

Digitally signed by Chris Harper
DN: cn=Chris Harper, o, ou, email=charper@se-texas.com, c=US
Date: 2022.10.03 17:49:01 -05'00'

NO	DATE	REVISION	BY	CHK	APPD

	DATE	BY
DRWN	12-14-21	CJB
CHK	10-03-22	CTH
APPD	10-03-22	CTH

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TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS

GEORGE'S RANCH UNIT 1

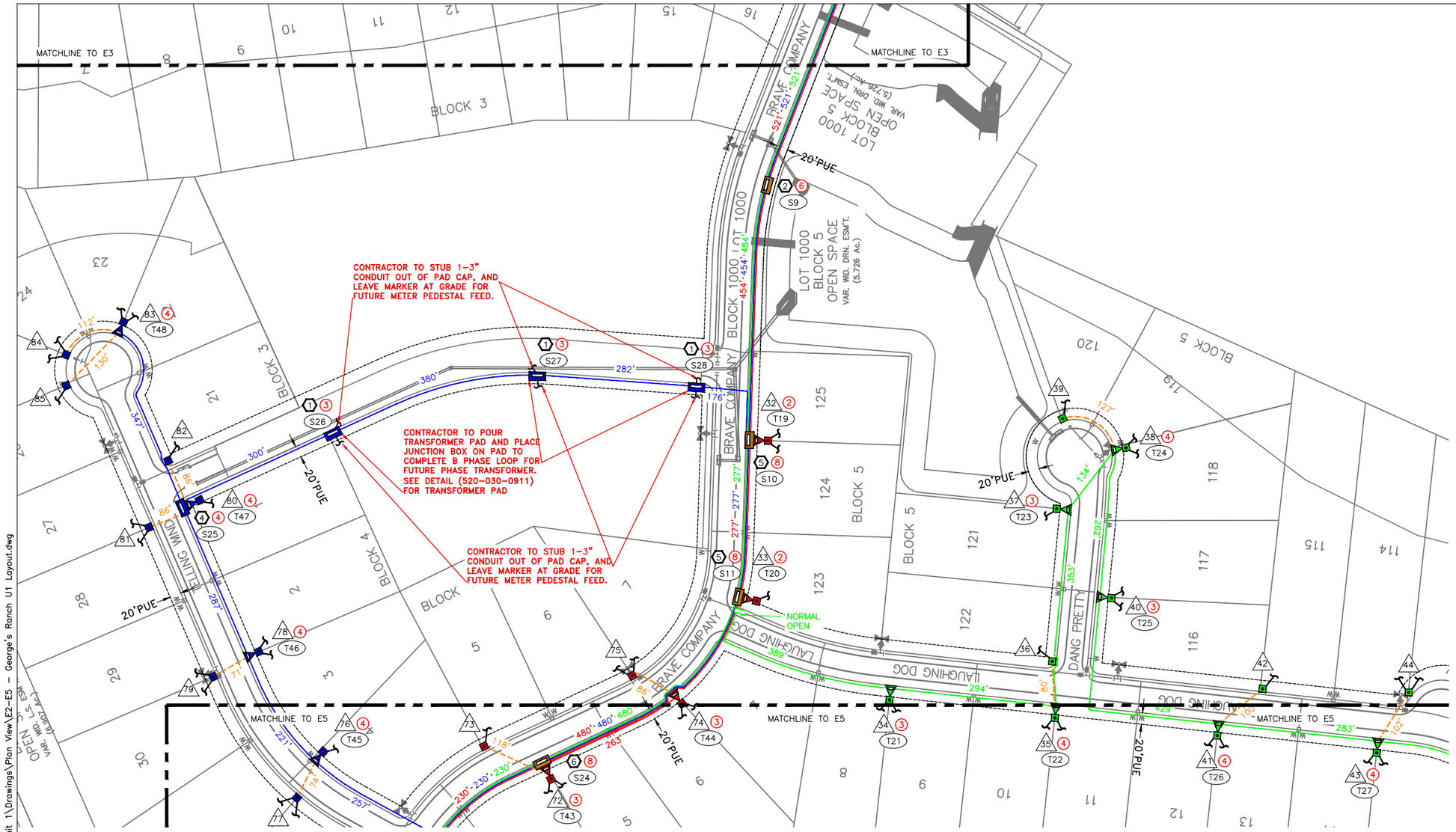
UNDERGROUND ELECTRICAL LAYOUT
(SHEET 1 OF 3)

SCALE FOR 34 x 22 DWG: 1" = 100'

DRAWING NO. E3

09/30/2022 2:27 PM * cbarajas * N:\CUDE\21CUDE3205 George's Ranch Unit 1\Drawings\Plan View\E2-E5 - George's Ranch U1 Layout.dwg

21CUDE3205



SYMBOLS

	POLE	RISER	TRANSFORMER
PROPOSED	●	⊕	⋈
EXISTING	●	⊕	⋈
REMOVAL	●	⊕	⋈

- S — PROPOSED 3ø SWITCHGEAR
- 3ø SMALL SECTIONALIZING BOX
- 3ø LARGE SECTIONALIZING BOX
- 1ø OR 3ø COMBINATION PADS (COLOR BY PHASE AND SIZE)
- NEW 200A 1ø SECTIONALIZING BOX — A PHASE / B PHASE / C PHASE
- NEW 1ø TRANSFORMER (120/240) — A PHASE / B PHASE / C PHASE
- (#) NUMBER OF CONDUITS EXITING
- METER PEDESTAL — A PHASE / B PHASE / C PHASE

LABELS

SW#	SWITCHGEAR NO.
S#	SECTIONALIZING BOX NO.
T#	TRANSFORMER NO.
R#	RISER NO.
X	SECONDARY PEDESTAL NO.

LEGEND

AØ BØ CØ	PRIMARY: 1/0 AL W/ FULL CONCENTRIC JACKETED NEUTRAL, 25 kV, XLPE, 260 MIL INSUL. IN 3" MIN. PVC SCH. 40, ELECT. CONDUIT
100'	POINT TO POINT DISTANCE (COLOR BY PHASE)
	350 MCM AL, 600V, TRIPLEX IN 3" MIN. PVC SCH 40, ELECT. CONDUIT
	#10 CU, THHN, 600V IN 3" CONDUITS (3 EA. SERVICE FOR GATE)
	VACANT AØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
	VACANT BØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
	VACANT CØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
	EXISTING VACANT (EMPTY) 2" CONDUIT OR AS SPECIFIED
	EXISTING UNDERGROUND ELECTRIC
	ELECTRICAL UTILITY EASEMENT

0' 50' 100' 200' SCALE

GENERAL NOTES:

1. ALL SECONDARY CONDUIT SHALL BE SCHEDULE 40 3" PVC.
2. ALL PRIMARY CONDUIT SHALL BE SCHEDULE 40 3" PVC PER LEGEND.
3. CONSTRUCTION SHALL TAG AND CODE CABLE IN THE FIELD TO IDENTIFY PHASES.
4. ALL PRIMARY CABLE SHALL BE #1/0 AL 25 kV.
5. ALL PAD-MOUNTED ENCLOSURES INCLUDING TRANSFORMERS, SHALL BE GROUNDED IN SUCH A MANNER THAT TWO SEPARATE CONNECTIONS EXIST BETWEEN THE ENCLOSURE AND THE GROUND ROD(S). IF METER PEDESTALS, TRANSFORMERS, AND SECTIONALIZING CABINETS ARE WITHIN 10 FEET OF EACH OTHER A #2 CU. SOLID BARE WIRE SHALL TIE ALL GROUND RODS TOGETHER.
6. SECTIONALIZING CABINETS, TRANSFORMERS, EASEMENTS, CABLE, AND WIRE ARE NOT SHOWN TO SCALE IN THIS DRAWING.
7. EASEMENTS TO BE DEDICATED BY DEVELOPER TO COVER ALL ELECTRIC FACILITIES.
8. ALL ELECTRIC STREET CROSSINGS AND SERVICE EXTENSION TRENCHES TO INCLUDE TEL. & CATV.
9. IF ANY ELECTRIC FACILITIES ARE SUSCEPTIBLE TO DAMAGE FROM VEHICULAR TRAFFIC, BOLLARDS SHALL BE PLACED AROUND THE EQUIPMENT TO PREVENT DAMAGE.
10. FOR ANY PAD LOCATED IN DRAINAGE EASEMENT OR EROSION PRONE AREAS, CONTRACTOR SHALL BUILD UP PAD SITE AND REINFORCE WITH CONCRETE TO PREVENT EROSION.
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1. PROPOSED: SMALL PAD FOR 1ø SECTIONALIZING ENCLOSURE (DETAIL 530-010-0911)
2. PROPOSED: SMALL PAD FOR 3ø SECTIONALIZING ENCLOSURE (DETAIL 530-020-0911)
3. PROPOSED: LARGE PAD FOR 3ø SECTIONALIZING ENCLOSURE (DETAIL 530-022-0911)
4. PROPOSED: 1ø COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-023)
5. PROPOSED: 3ø SMALL COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-024)
6. PROPOSED: 3ø LARGE COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-026)
7. PROPOSED: 3ø SWITCHGEAR PAD

GENERAL NOTE:

1. CONTRACTOR SHALL REFER TO PEC'S UNDERGROUND DEVELOPERS SPECIFICATIONS DOCUMENT FOUND ON THEIR WEBSITE: WWW.PEC.COOP/HOME/BUILDERSCONTRACTORS.ASPX FOR INSTALLATION OF ELECTRICAL FACILITIES.

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	DATE	BY
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CHK	10-03-22	CTH
APPD	10-03-22	CTH

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TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS

GEORGE'S RANCH UNIT 1

UNDERGROUND ELECTRICAL LAYOUT
(SHEET 2 OF 3)

SCALE FOR 34 x 22 DWG: 1" = 100'

DRAWING NO. E4

21CUDE3205

09/30/2022 2:27 PM * cbarajas * N:\CUDE\21CUDE3205 George's Ranch Unit 1\Drawings\Plan View\E2-E5 - George's Ranch U1 Layout.dwg

SYMBOLS

	POLE	RISER	TRANSFORMER
PROPOSED	●	⊛	⋈
EXISTING	●	⊛	◁
REMOVAL	●	⊛	◁

- S — PROPOSED 3ø SWITCHGEAR
- 3ø SMALL SECTIONALIZING BOX
- 3ø LARGE SECTIONALIZING BOX
- 1ø OR 3ø COMBINATION PADS (COLOR BY PHASE AND SIZE)
- NEW 200A 1ø SECTIONALIZING BOX — A PHASE / B PHASE / C PHASE
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- (#) NUMBER OF CONDUITS EXITING
- METER PEDESTAL — A PHASE / B PHASE / C PHASE

LABELS

- (SW#) SWITCHGEAR NO.
- (S#) SECTIONALIZING BOX NO.
- (T#) TRANSFORMER NO.
- (R#) RISER NO.
- (X) SECONDARY PEDESTAL NO.

LEGEND

- AØ / BØ / CØ — PRIMARY: 1/0 AL W/ FULL CONCENTRIC JACKETED NEUTRAL, 25 kV, XLPE, 260 MIL INSUL. IN 3" MIN. PVC SCH. 40, ELECT. CONDUIT
- 100' — POINT TO POINT DISTANCE (COLOR BY PHASE)
- 350 MCM AL, 600V, TRIPLEX IN 3" MIN. PVC SCH 40, ELECT. CONDUIT
- #10 CU, THHN, 600V IN 3" CONDUITS (3 EA. SERVICE FOR GATE)
- VACANT AØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
- VACANT BØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
- VACANT CØ(EMPTY) 2" CONDUIT OR AS SPECIFIED
- EXISTING VACANT (EMPTY) 2" CONDUIT OR AS SPECIFIED
- EXISTING UNDERGROUND ELECTRIC
- ELECTRICAL UTILITY EASEMENT

GENERAL NOTES:

1. ALL SECONDARY CONDUIT SHALL BE SCHEDULE 40 3" PVC.
2. ALL PRIMARY CONDUIT SHALL BE SCHEDULE 40 3" PVC PER LEGEND.
3. CONSTRUCTION SHALL TAG AND CODE CABLE IN THE FIELD TO IDENTIFY PHASES.
4. ALL PRIMARY CABLE SHALL BE #1/0 AL 25 kV.
5. ALL PAD-MOUNTED ENCLOSURES INCLUDING TRANSFORMERS, SHALL BE GROUNDED IN SUCH A MANNER THAT TWO SEPARATE CONNECTIONS EXIST BETWEEN THE ENCLOSURE AND THE GROUND ROD(S). IF METER PEDESTALS, TRANSFORMERS, AND SECTIONALIZING CABINETS ARE WITHIN 10 FEET OF EACH OTHER A #2 CU. SOLID BARE WIRE SHALL TIE ALL GROUND RODS TOGETHER.
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8. ALL ELECTRIC STREET CROSSINGS AND SERVICE EXTENSION TRENCHES TO INCLUDE TEL. & CATV.
9. IF ANY ELECTRIC FACILITIES ARE SUSCEPTIBLE TO DAMAGE FROM VEHICULAR TRAFFIC, BOLLARDS SHALL BE PLACED AROUND THE EQUIPMENT TO PREVENT DAMAGE.
10. FOR ANY PAD LOCATED IN DRAINAGE EASEMENT OR EROSION PRONE AREAS, CONTRACTOR SHALL BUILD UP PAD SITE AND REINFORCE WITH CONCRETE TO PREVENT EROSION.
11. TRANSFORMER AND SECONDARY SERVICE SIZE EVALUATION SHOULD BE PERFORMED AT THE TIME OF EACH SERVICE REQUEST.
12. ELECTRICAL FACILITIES SHALL BE INSTALLED A MINIMUM OF 4 FEET FROM FIRE HYDRANTS.
13. CONTRACTOR TO INSTALL SECONDARY CONDUIT FROM TRANSFORMER TO METER PEDESTAL.
14. SECONDARY CONDUIT FROM METER PEDESTAL INTO EACH LOT WILL BE INSTALLED IN THE FUTURE AFTER MEMBER APPLIES FOR ELECTRIC SERVICE.

1. PROPOSED: SMALL PAD FOR 1ø SECTIONALIZING ENCLOSURE (DETAIL 530-010-0911)
2. PROPOSED: SMALL PAD FOR 3ø SECTIONALIZING ENCLOSURE (DETAIL 530-020-0911)
3. PROPOSED: LARGE PAD FOR 3ø SECTIONALIZING ENCLOSURE (DETAIL 530-022-0911)
4. PROPOSED: 1ø COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-023)
5. PROPOSED: 3ø SMALL COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-024)
6. PROPOSED: 3ø LARGE COMBINATION SECTIONALIZING ENCLOSURE AND TRANSFORMER PAD (DETAIL 530-026)
7. PROPOSED: 3ø SWITCHGEAR PAD

GENERAL NOTE:

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THIS DRAWING IS CERTIFIED TO BE CORRECT FOR THE NEW FACILITIES SHOWN ONLY. INFORMATION CONCERNING EXISTING FACILITIES PROVIDED BY OTHERS HAS NOT BEEN VERIFIED.

ISSUED: 10-03-22
FOR CONSTRUCTION

STATE OF TEXAS — CHRISTOPHER T. HARPER — 106036 — LICENSED PROFESSIONAL ENGINEER

Digitally signed by Chris Harper
DN: cn=Chris Harper, o, ou, email=charper@se-texas.com, c=US
Date: 2022.10.03 17:54:44 -05'00'

NO	DATE	REVISION	BY	CHK	APPD

	DATE	BY
DRWN	12-14-21	CJB
CHK	10-03-22	CTH
APPD	10-03-22	CTH

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TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS

GEORGE'S RANCH UNIT 1

UNDERGROUND ELECTRICAL LAYOUT
(SHEET 3 OF 3)

SCALE FOR 34 x 22 DWG: 1" = 100'

DRAWING NO. E5

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21CUDE3205

Typical All Pads

1. Require 3" conduit (unless otherwise specified by PEC) with bell-end fittings to extend 1 1/2" to 2" above pad.
2. Pads must extend a minimum of 4" above final grade and 1 1/2" below final grade. All pads must be placed on a slope less than or equal to 3:1. If greater than 3:1, contractor must bring slope to required grade.
3. All disturbed soil underneath pad must be replaced by concrete.
4. All ground rods shall be 3/4" X 10' copper-clad with clamp and must extend 3" above top of pad.
5. Wood float finish leaving pad square and level with no dips or crown.
6. **Contact PEC before pouring concrete and comply with the following instructions:**
   - Pre-pour inspection: Check framing and layout of pad and conduit components.
   - Final inspection: Overall review of pad and conduits. Ensure bell ends are on conduit.

Typical For Single-Phase Transformer, Combination, Sectionalizer, and Secondary Pads

7. Concrete to have minimum strength of 3,000 PSI.
8. Steel reinforcing shall be 6" X 6" No. 10 wire mesh or 3/8" re-bar on 12" center to stop 1" from the sides.

Typical For Three-Phase Transformer Pads

9. Concrete testing, 4,000 PSI; 4%-6% entrained air, 3/4" maximum-size aggregate.
10. Steel reinforcement shall be 3/8" re-bar on 12" center to stop 1" from sides.
11. Minimum concrete cover over reinforcing steel 2" unless noted.

Typical Trench Details

12. Schedule 40 electrical grade PVC conduit. Schedule 80 electrical-grade conduit can be used in place of sand in secondary-only trenches.
13. Initial backfill shall be manufactured or commercial sand. Minimum 3/8" pea gravel may be used for initial backfill in flood-prone areas.
14. With PEC approval, minimum cover requirements may be reduced by six inches with every two inches of 3,000 PSI concrete poured directly onto conduit. **"Contact PEC before pouring concrete"**
15. If any type of vault or pedestal for the underground electric is planned, then all other utilities should be routed around these facilities.
16. For 2" and **smaller** waterlines, special permission must be granted by PEC. Water lines larger than 2" will not be allowed in PEC trench.
17. Refer to drawings 510-023 and 510-025 for PEC specifications and trench details on gas joint trench installations.

Legend
Typical in all drawings

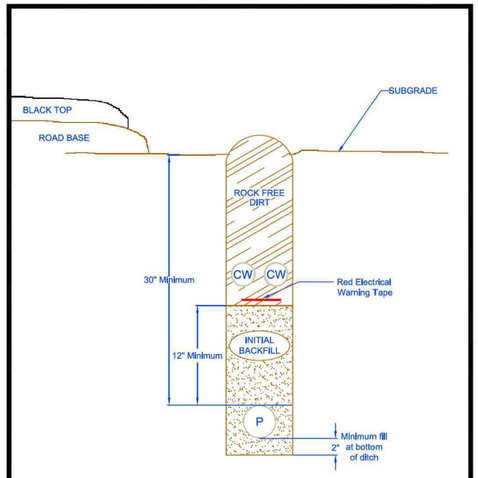
(P) Primary Conduit (S) Secondary Conduit (CW) Communications or Water (G) Gas line (AS) Alternate Secondary Conduit

REV	DATE	REVISION	BY	CHK	SSS	APR	MMC
B	07/23/2020	NOTE 4: 3/4" X 10' GROUND ROD WAS 5/8" X 8'	RWC				

UNDERGROUND INSTALLATION SPECIFICATIONS

TYPICAL NOTES REFERENCE PAGE

drawn:	approved:	date:	
RWC	MMG	07/23/2020	510-009

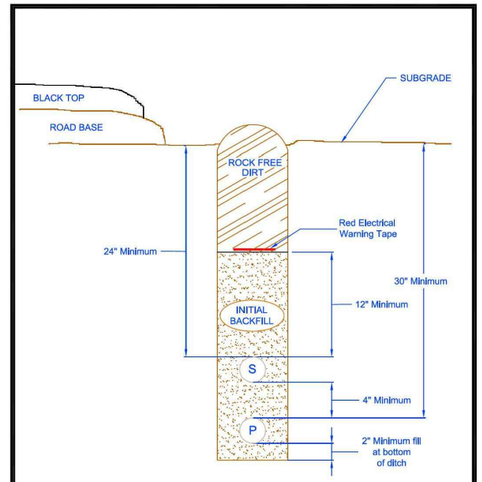


Reference Drawing
510-009-0911 for
Typical Trench Details

PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPER'S SPECIFICATIONS

1Ø Conduit Arrangement for Primary 601 to 50,000 Volts

drawn:	approved	date:	drawing number:
JBS	MJB	December 12, 2011	510-010-0911

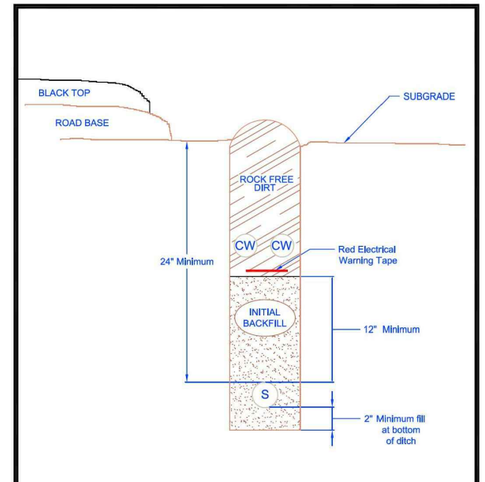


Reference Drawing
510-009-0911 for
Typical Trench Details

PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPERS SPECIFICATIONS

1Ø Conduit Arrangement for Primary and Secondary

drawn:	approved	date:	drawing number:
JBS	MJB	December 12, 2011	510-012-0911

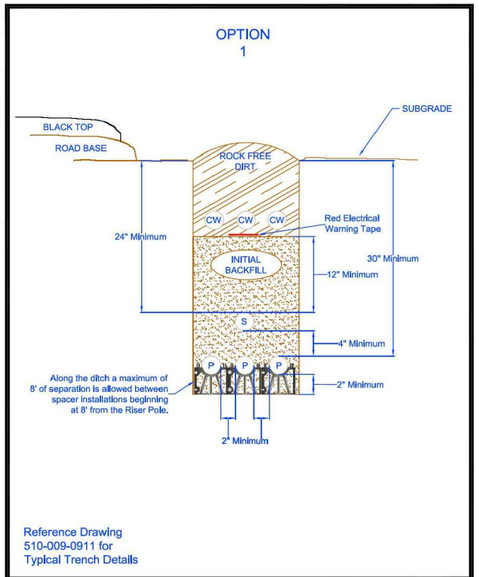


Reference Drawing
510-009-0911 for
Typical Trench Details

PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPER'S SPECIFICATIONS

1Ø Conduit Arrangement for Service 0 to 600 Volts

drawn:	approved	date:	drawing number:
JBS	MJB	December 12, 2011	510-016-0911

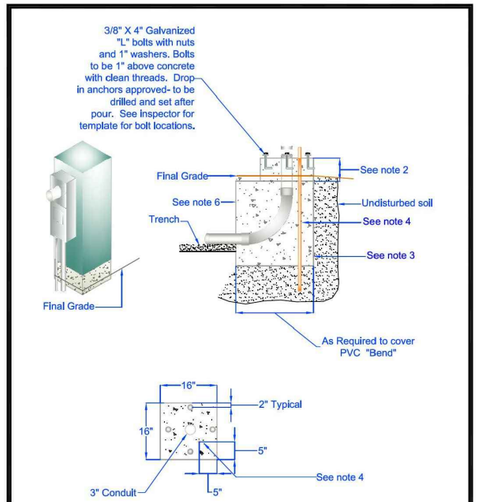


Reference Drawing
510-009-0911 for
Typical Trench Details

PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPER'S SPECIFICATIONS

3Ø Conduit Arrangement Joint with Other Utilities

drawn:	approved	date:	drawing number:
JBS	MJB	December 12, 2011	510-022-0911

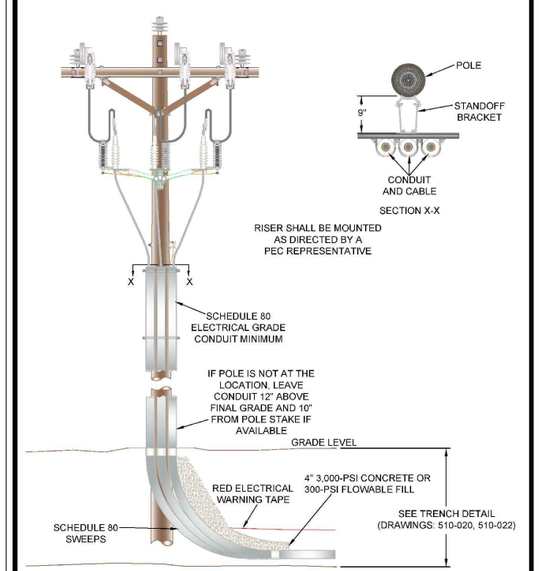


Reference Drawing
510-009-0911 for
Typical Notes

PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPER'S SPECIFICATIONS

Pad for Service Meter Pedestal

drawn:	approved	date:	drawing number:
JBS	MJB	December 12, 2011	520-010-0911

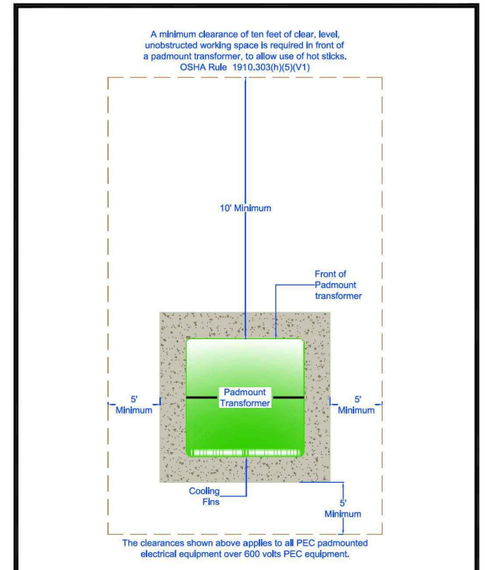


REV	DATE	REVISION	BY	CHK	SSS	APR	MMC
A	07/09/2020	ISSUE FOR CONSTRUCTION	RWC	CHK	SSS	APR	MMC

UNDERGROUND INSTALLATION SPECIFICATIONS

3Ø RISER POLE USING STANDOFF BRACKETS

drawn:	approved:	date:	
RWC	MMG	07/09/2020	560-025



PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPER'S SPECIFICATIONS

Working Clearances around Padmount Transformers

drawn:	approved	date:	drawing number:
JBS	MJB	February 28, 2013	570-015-0911

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ISSUED: 10-03-22
FOR CONSTRUCTION

STATE OF TEXAS
CHRISTOPHER T. HARPER
106036
LICENSED
PROFESSIONAL ENGINEER

Digitally signed by Chris Harper
DN: cn=Chris Harper, o, ou, email=charper@se-texas.com, c=US
Date: 2022.10.03 17:56:45 -05'00'

NO	DATE	REVISION	BY	CHK	APPD
DRWN	12-14-21	CJB			
CHK	10-03-22	CTH			
APPD	10-03-22	CTH			

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TEXAS REGISTRATION NUMBER F-1594

SCHNEIDER ENGINEERING

CUDE ENGINEERS

GEORGE'S RANCH UNIT 1

PEC UNDERGROUND DETAILS
(SHEET 1 OF 2)

SCALE FOR 34 x 22 DWG: N.T.S.

DRAWING NO. E6

GENERAL NOTE:

1. CONTRACTOR SHALL REFER TO PEC'S UNDERGROUND DEVELOPERS SPECIFICATIONS DOCUMENT FOUND ON THEIR WEBSITE: WWW.PEC.COOP/HOME/BUILDERSCONTRACTORS.ASPX FOR INSTALLATION OF ELECTRICAL FACILITIES.

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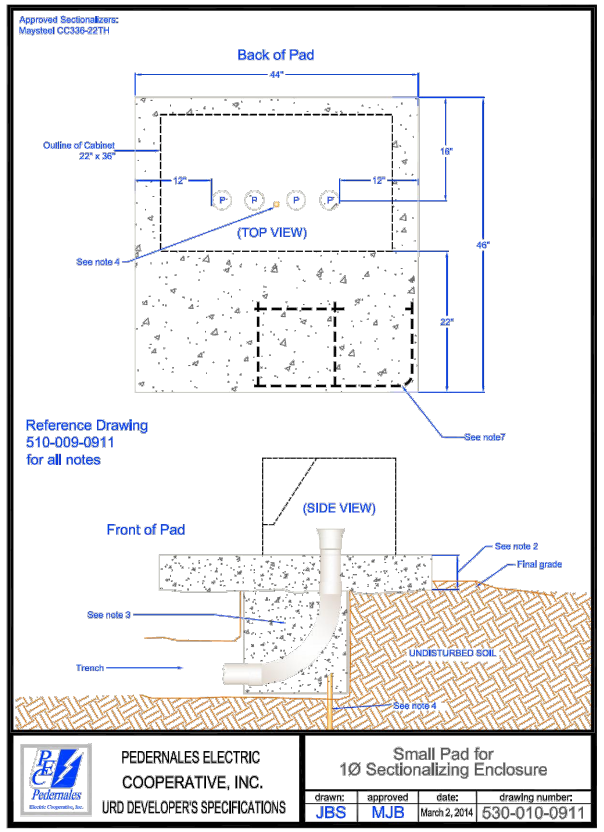
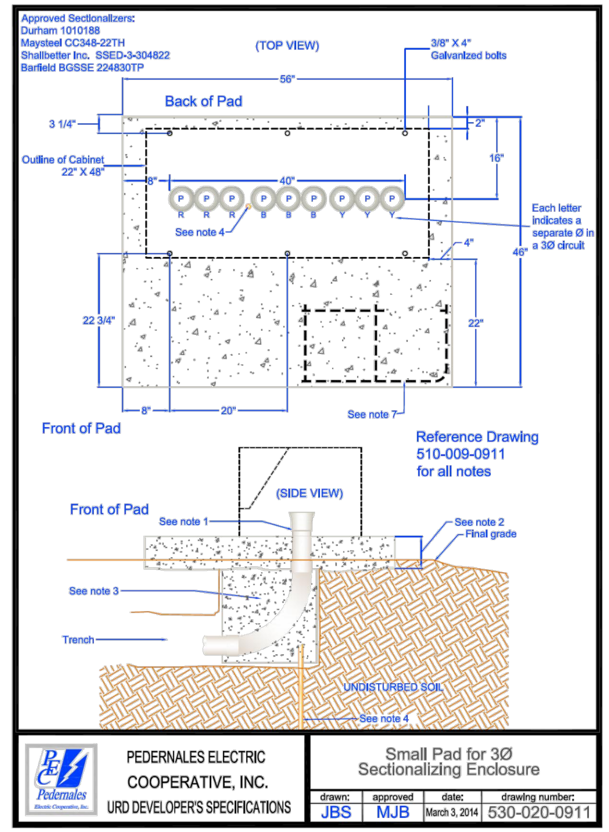
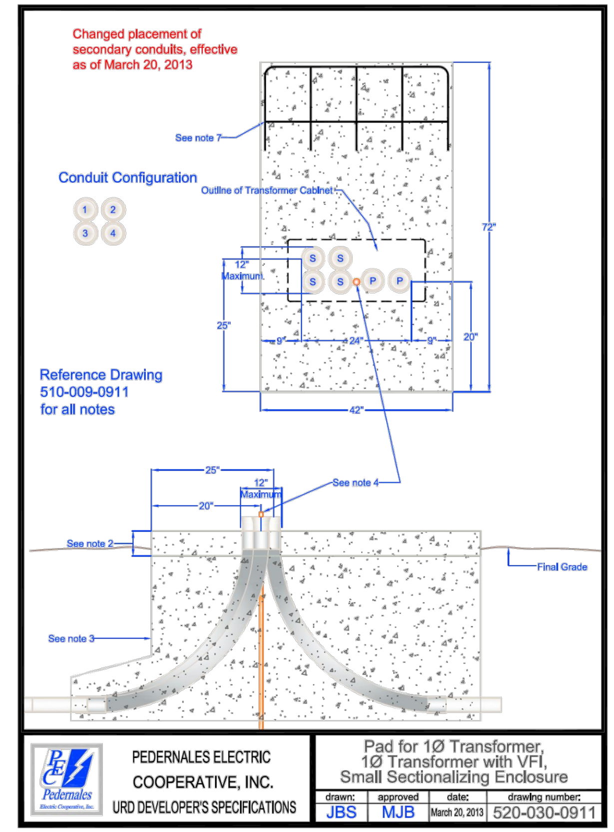
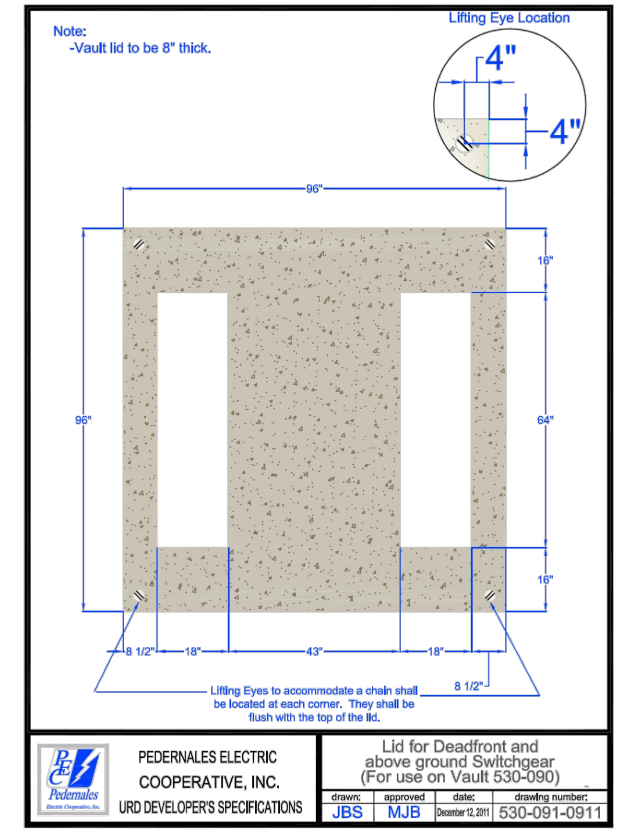
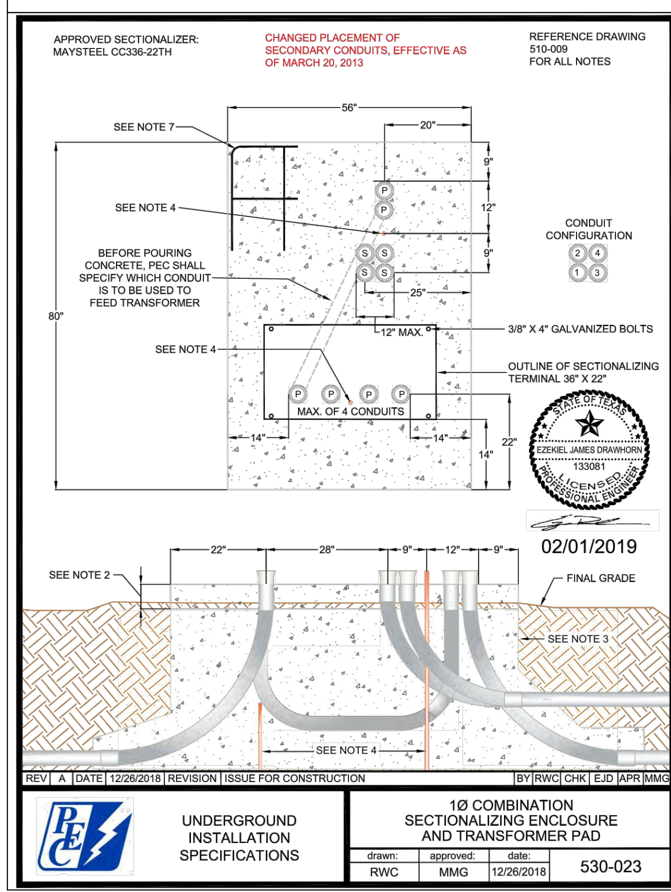
21CUDE3205

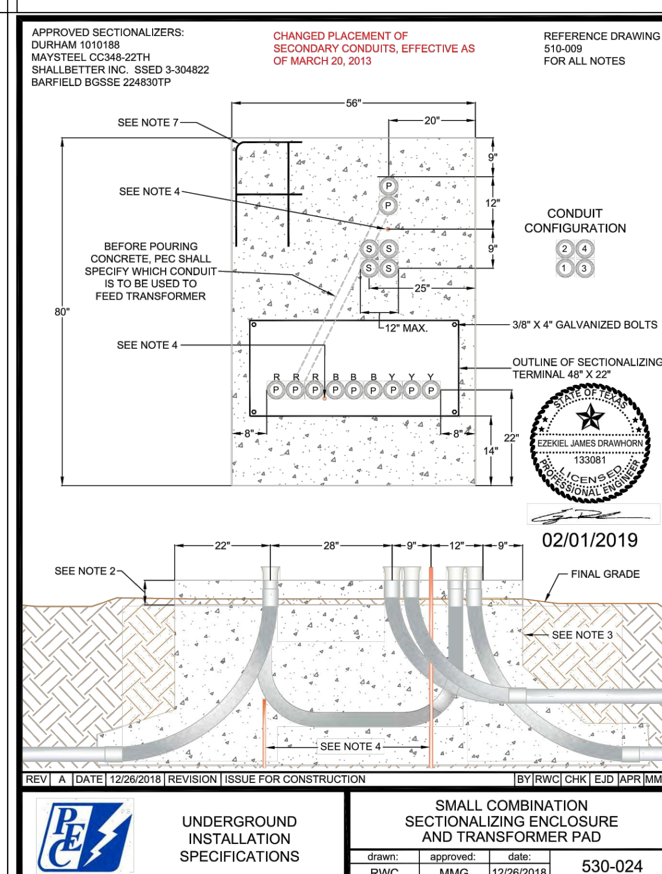


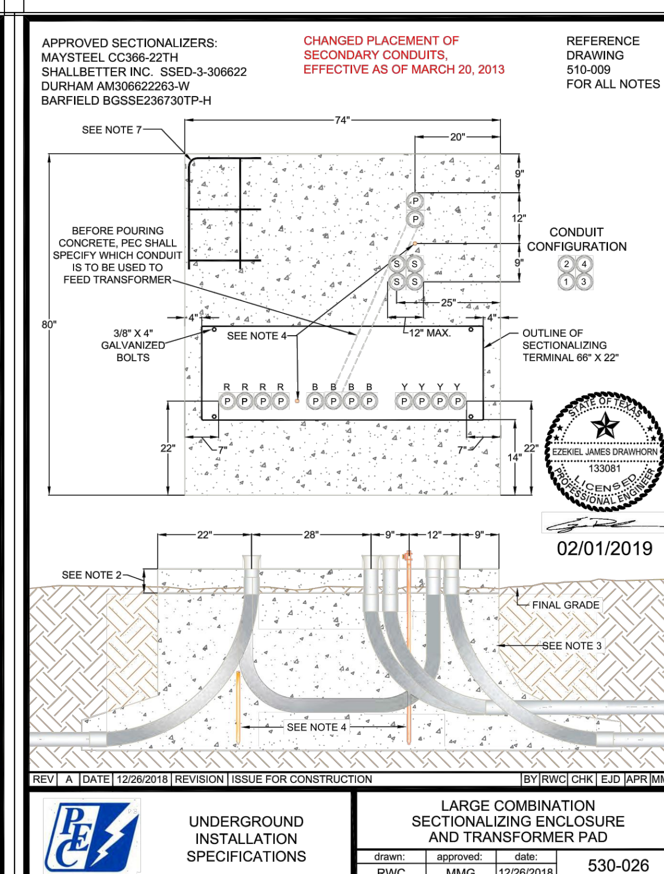




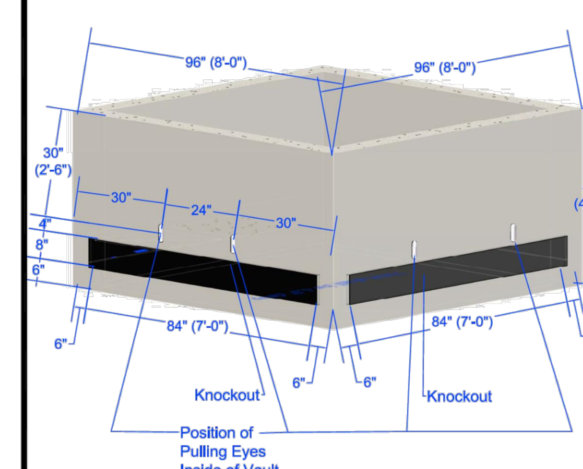








1) Each side wall shall have two pulling eyes located 24" apart, evenly space between inside walls, and 18" from the bottom of the vault.
2) All pulling eyes to be rated for a minimum of 5,000 pounds each.
3) 6" above the bottom of the vault, an 8" knockout shall extend around the entire perimeter of the vault (except for 6" from each corner) for conduit to be brought in. Knockouts should be1" thick and flush with the inside of the vault. The vault shall be 4' deep.
4) The vault shall be installed on a minimum 6" deep bed of ½" to ¾" diameter gravel.
5) Each vault shall be supplied with either a 10' ground rod driven in the vault floor or a minimum 100 feet of #6 bare copper wire buried no less than 18" deep in the earth and meeting the National Electric Safety Code Rule #094B3.



PEDERNALES ELECTRIC COOPERATIVE, INC.
URD DEVELOPER'S SPECIFICATIONS
Vault for Deadfront, above ground Switchgear
JBS | MJB | December 12, 2011 | 530-090-0911

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ISSUED: 10-03-22
FOR CONSTRUCTION

STATE OF TEXAS
CHRISTOPHER T. HARPER
106036
LICENSED
PROFESSIONAL ENGINEER

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Date: 2022.10.03 17:58:07 -05'00'

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DRWN	12-14-21	CJB
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GEORGE'S RANCH UNIT 1

PEC UNDERGROUND DETAILS
(SHEET 2 OF 2)

SCALE FOR 34 x 22 DWG: N.T.S.
DRAWING NO. E7

21CUDE3205

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