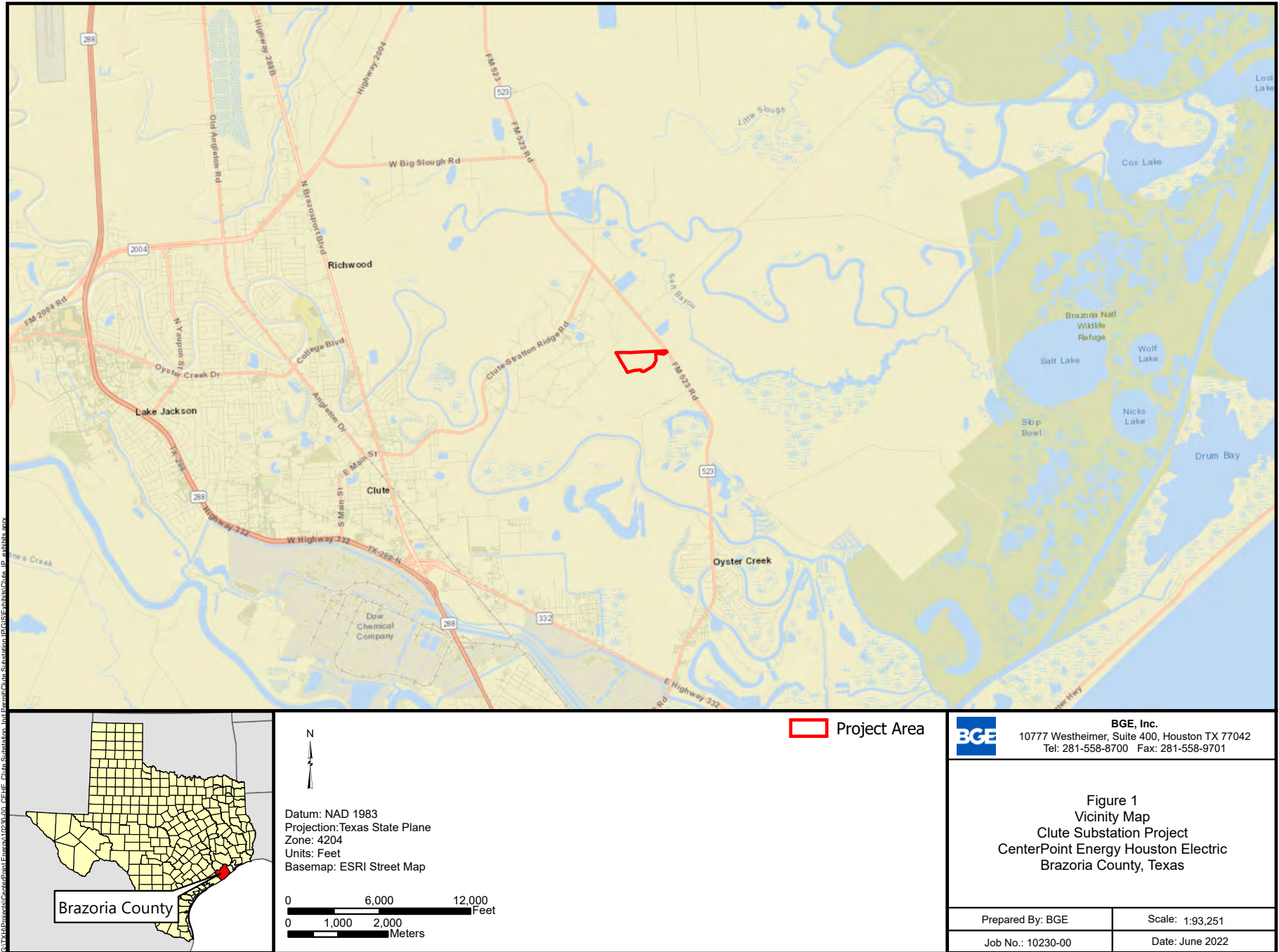
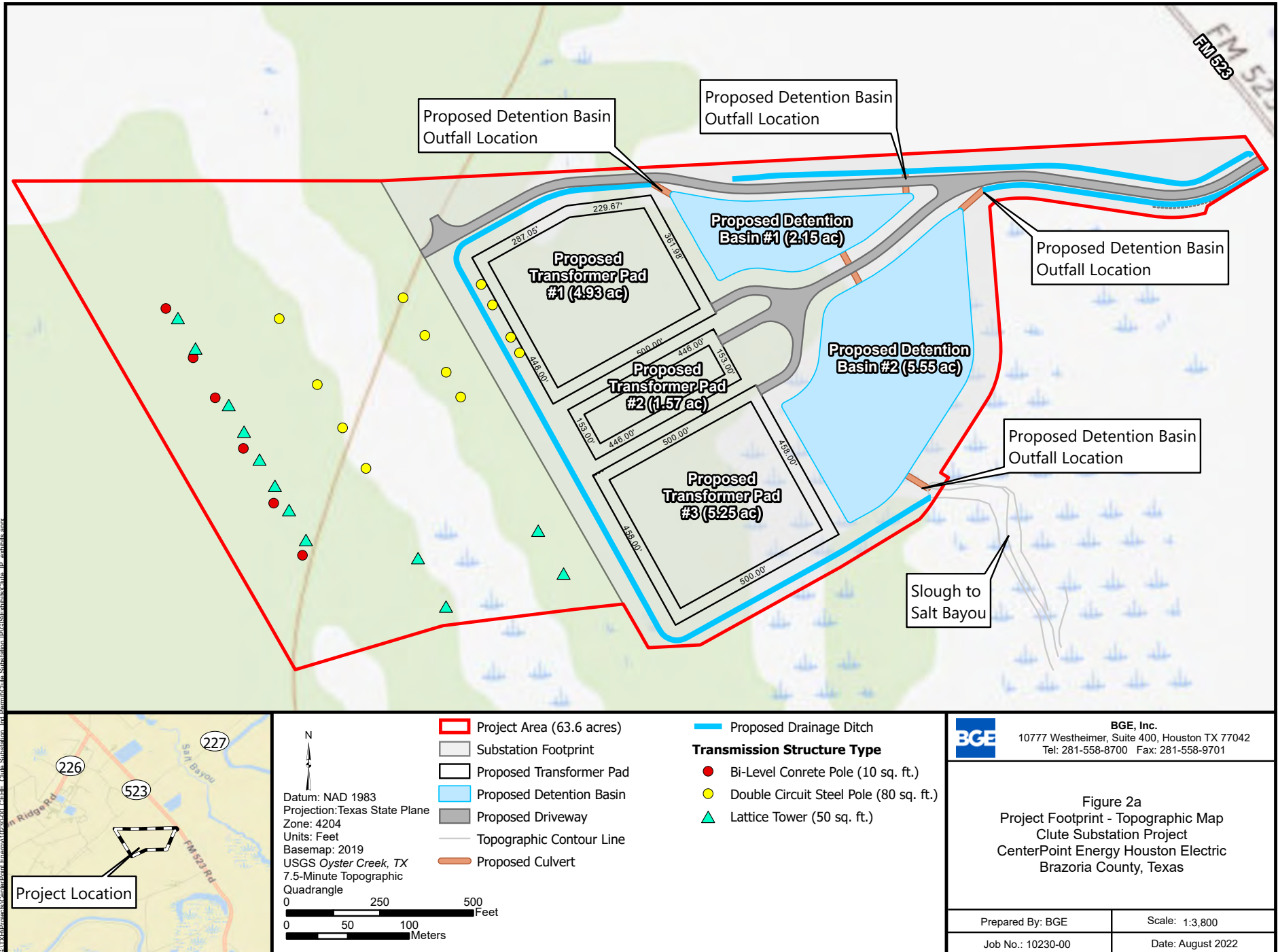
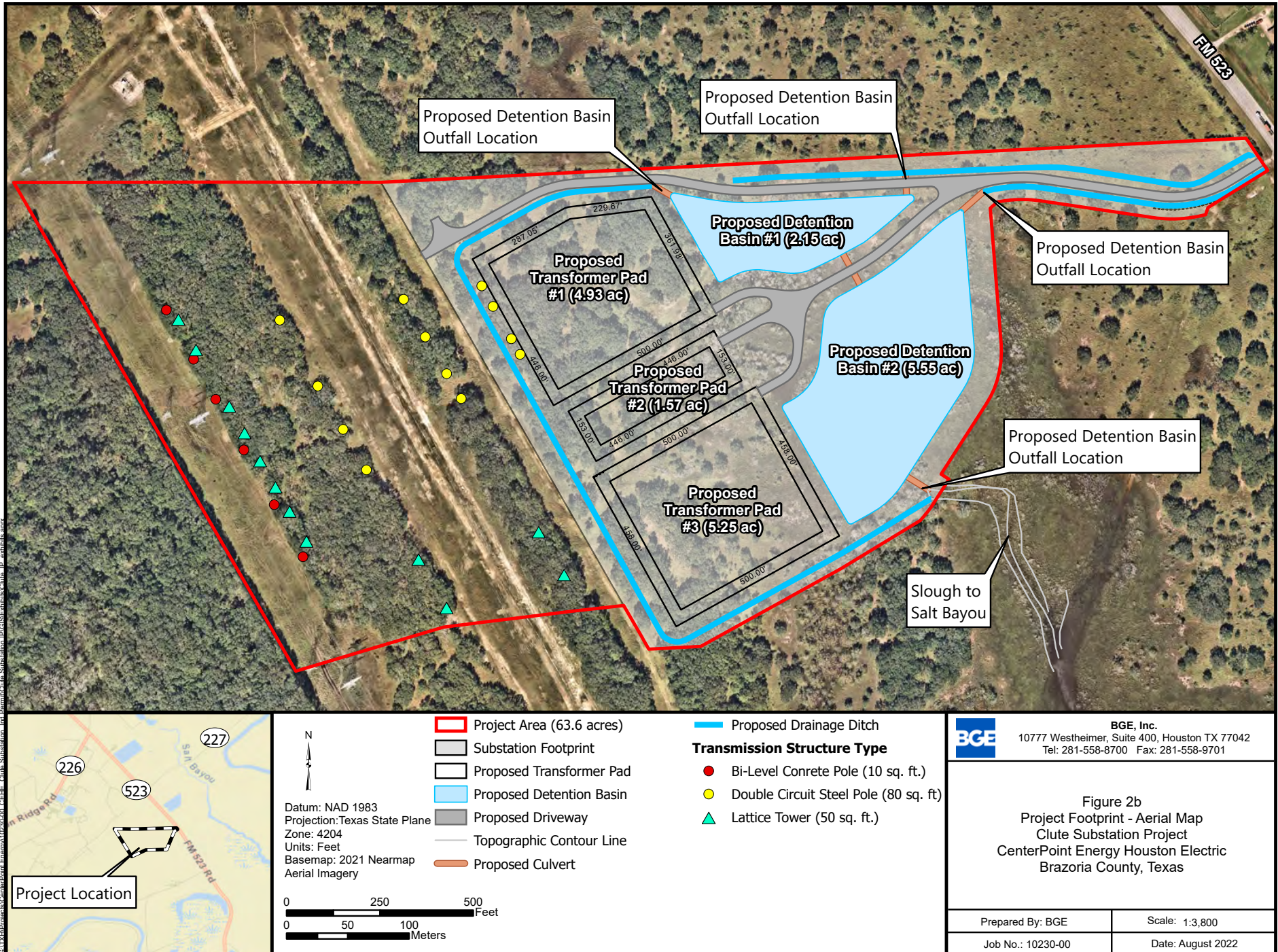
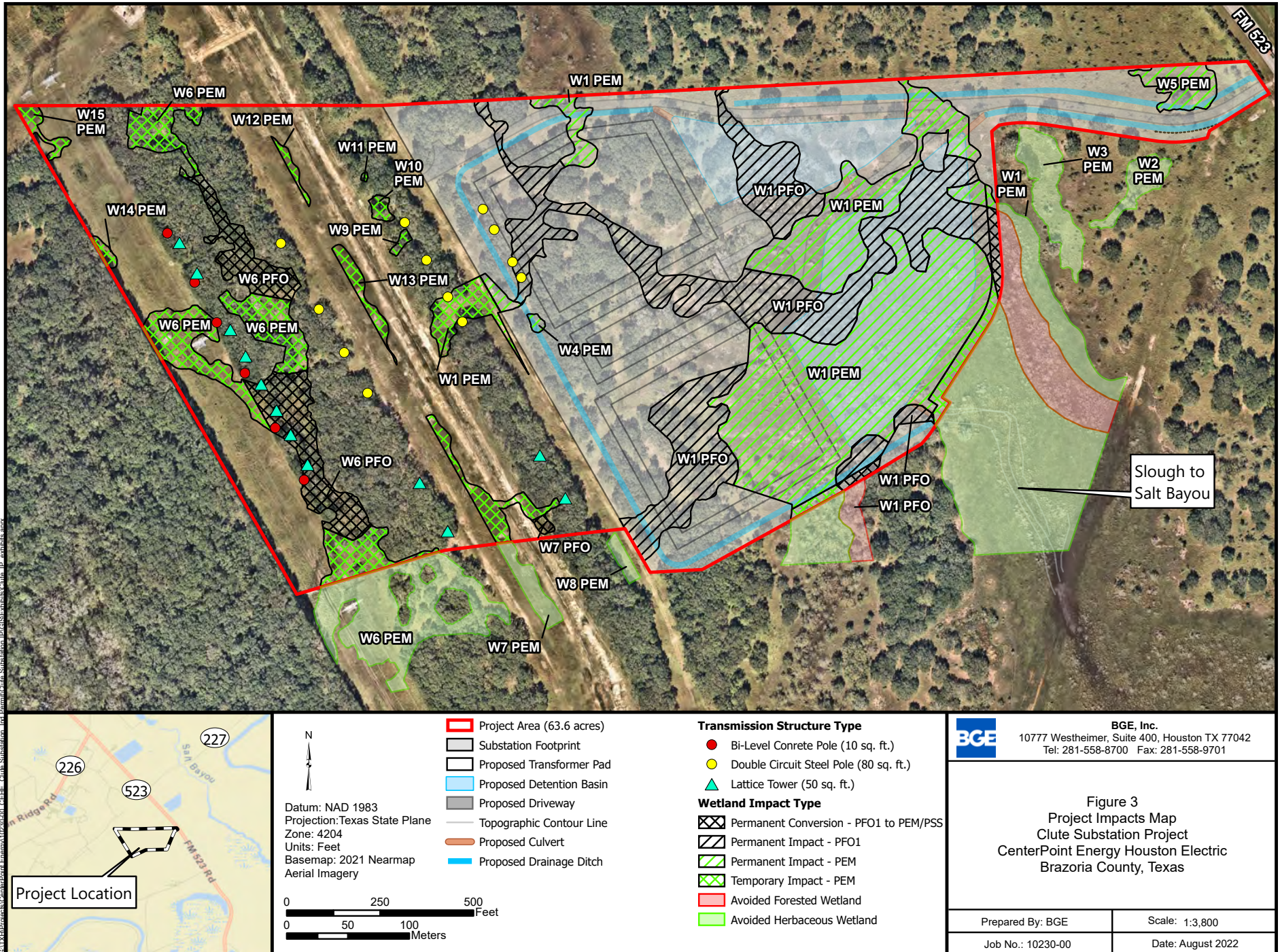
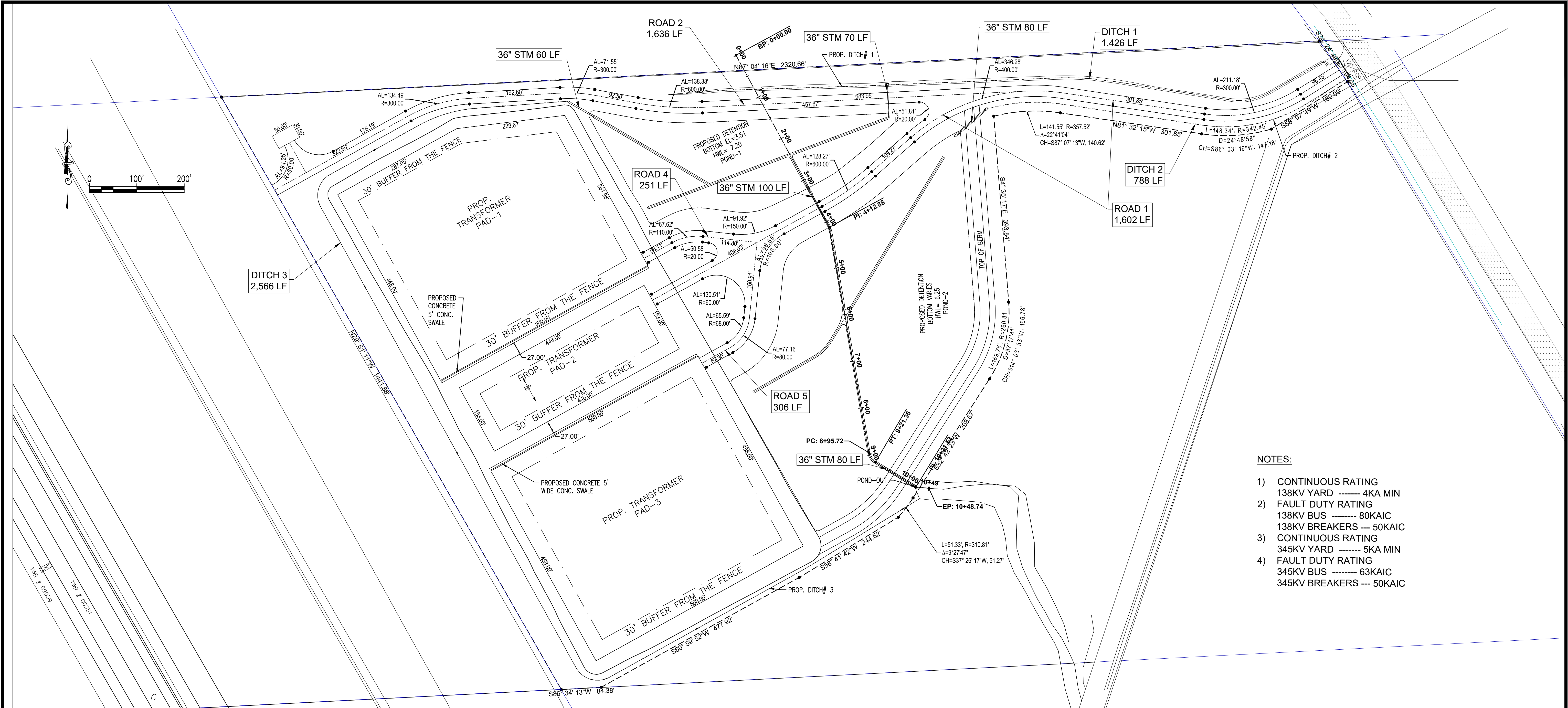








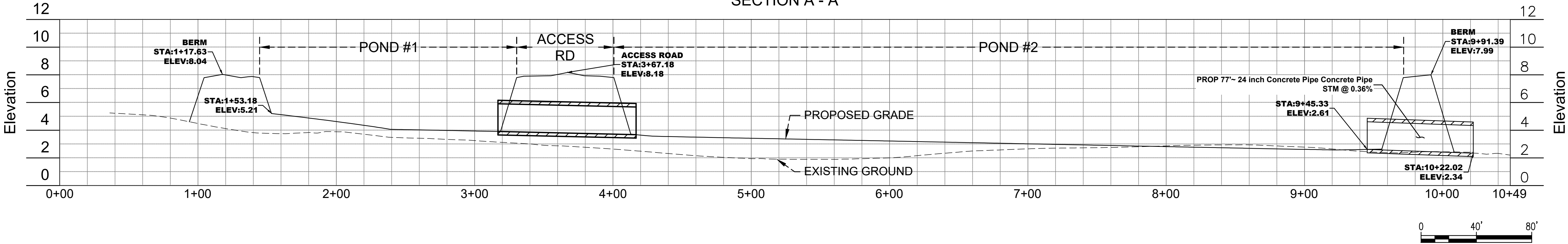




NOTES:

- 1) CONTINUOUS RATING
138KV YARD ----- 4KA MIN
- 2) FAULT DUTY RATING
138KV BUS ----- 80KAIC
138KV BREAKERS --- 50KAIC
- 3) CONTINUOUS RATING
345KV YARD ----- 5KA MIN
- 4) FAULT DUTY RATING
345KV BUS ----- 63KAIC
345KV BREAKERS --- 50KAIC

SECTION A - A



INTERIM REVIEW ONLY
THIS DOCUMENT IS INCOMPLETE.
NOT INTENDED FOR CONSTRUCTION OR PERMITTING
P.E. JERALD M. CROUCH
P.E. #72728
DATE: AUGUST 04, 2022
TBPE FIRM REGISTRATION #F-267

DESIGNED: JC
DRAWN: LR
CHECKED: JIG
SCALE:

HUTCHISON & ASSOCIATES
ENGINEERS LAND PLANNERS SURVEYORS
ENGINEERING FIRM # F-267
SURVEYING FIRM # 100293-00
www.bhainc.com

CenterPoint Energy
1111 Louisiana Steet
Houston, TX 77002

STRATTON RIDGE DISTRIBUTION YARD EXPANSION
SITE PLAN
F.M. 523
F.N. BRAZORIA COUNTY, FREEPORT, TEXAS

Aug. 4, 2022
JOB # **5900**
SHEET: OF

08/04/2022 12:43p → Y:\Eng\OpenProj\5900\CenterPoint\StrattonRidge\Substation\Drawings\Exhibits\ → 5900 WETLANDS EXHIBIT.dwg → SITE PLAN

**Waters of the U.S. Impact Table
Clute Substation Project
Brazoria County, Texas**

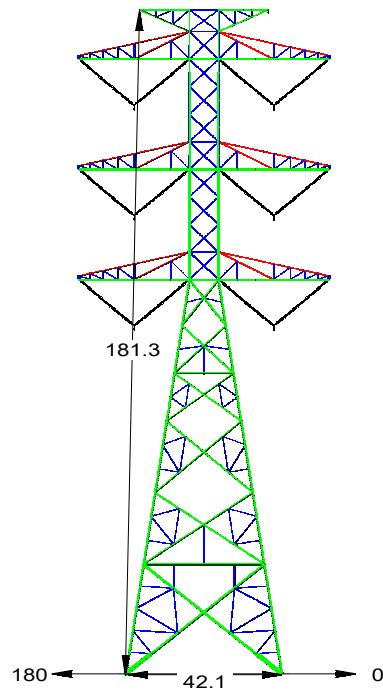
Waterbody ID	Latitude	Longitude	Resource Type	Acres in Project Area*	Impact Type	Acres Impacted	Approximate Cubic Yards of Discharge**
WET 1 PFO	29.039588	-95.339425	PFO	8.54	D/P	6.790	82,157
					CONV	0.215	n/a
WET 1 PEM	29.041208	-95.338878	PEM	14.91	D/P	8.703	105,306
					I/T	0.827	n/a
WET 4 PEM	29.040355	-95.342545	PEM	0.04	D/P	0.036	440
WET 5 PEM	29.041956	-95.337077	PEM	0.45	D/P	0.451	5,459
WET 6 PFO	29.039479	-95.344497	PFO	1.69	CONV	1.673	n/a
					D/P	0.018	216
WET 6 PEM	29.038686	-95.344097	PEM	4.01	I/T	2.147	n/a
WET 7 PFO	29.038864	-95.342536	PFO	0.04	CONV	0.041	n/a
WET 7 PEM	29.039096	-95.342980	PEM	0.66	I/T	0.388	n/a
WET 9 PEM	29.040978	-95.343657	PEM	0.04	I/T	0.040	n/a
WET 10 PEM	29.041233	-95.343817	PEM	0.07	I/T	0.073	n/a
WET 11 PEM	29.041470	-95.343946	PEM	0.01	I/T	0.008	n/a
WET 12 PEM	29.041553	-95.344554	PEM	0.07	I/T	0.069	n/a
WET 13 PEM	29.040630	-95.344000	PEM	0.19	I/T	0.192	n/a
WET 14 PEM	29.040971	-95.346137	PEM	0.06	I/T	0.056	n/a
WET 15 PEM	29.041899	-95.346643	PEM	0.14	I/T	0.136	n/a

D/P – Direct/Permanent; I/T – Indirect/Temporary; CONV – Conversion from PFO to PEM/PSS

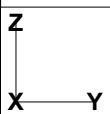
*Acreages derived from the Cardno 83.4-Acre 138kv CenterPoint Substation Parcel Wetland Delineation Report (Dated December 18, 2019)

** Due to a combination of both fill and excavation in individual wetlands, specifically WET 1, cubic yards of fill are calculated as +2.5-feet average above baseline elevation in permanently filled Waters of the U.S.

CenterPoint Energy Houston Electric
Clute Substation Individual Permit Application
Lattice Tower Typical Cross Section

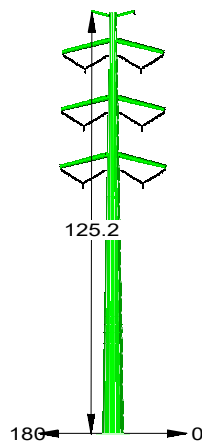


Foundation size estimated to
be 4-6' diameter and 40-60'
deep (4 per tower)

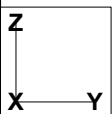


50 (ft)

CenterPoint Energy Houston Electric
Clute Substation Individual Permit Application
Steel Pole Typical Cross Section

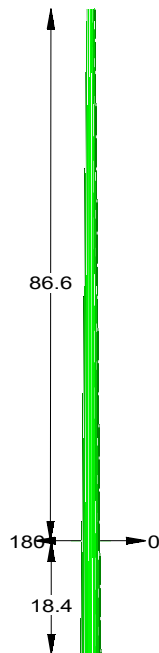


Foundation size estimated to be 8-10'
diameter 40-60' deep.

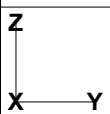


50 (ft)

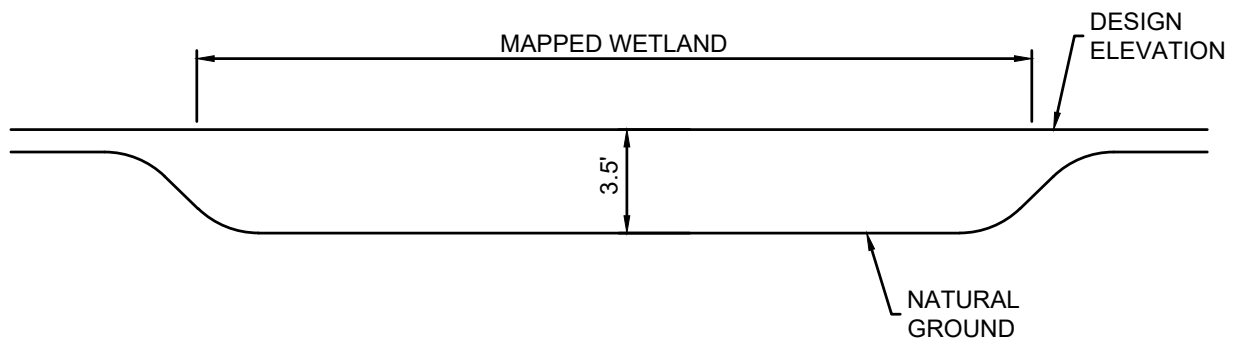
CenterPoint Energy Houston Electric
Clute Substation Individual Permit Application
Concrete Pole Typical Cross Section



Foundation size estimated to
be 4.5-5' diameter 18.5' deep.



20 (ft)



TYPICAL SECTION (PERMANENT FILL)

SCALE: N.T.S.

BGE, Inc.
0:17:19 PM 06/20/2022
C:\Users\jmedina\OneDrive\Documents\CenterPoint Energy\10230-00_CPEH_Electrification\Substation\IP\Exhibit1011C-PL-sec.dwg Apr 26, 2022 12:22pm jmedina

CENTERPOINT ENERGY HOUSTON ELECTRIC



BGE, Inc.
10777 Westheimer, Suite 400, Houston, TX 77042
Tel: 281-558-8700 • www.bgeinc.com
TBPE Registration No. F-1046

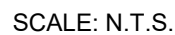
CLUTE SUBSTATION IP

**TYPICAL CROSS SECTION
CLUTE SUBSTATION IP
CENTERPOINT ENERGY HOUSTON ELECTRIC
BRAZORIA COUNTY, TEXAS**

DATE:
June 2022

PROJECT #:
10230-00

EXHIBIT:
1

EXHIBIT: **2**