



KMLP TEXAS HEADER PROJECT
Vicinity Map

- KMLP Area
- 2.5 Bcf Area
- Temporary Workspace
- Third Party Area
- Access Road (to be constructed by third party, not associated with this permitting action)
- State Boundary

Figure 1

Jefferson County, TX
USGS 7.5' Quadrangle:
Port Arthur South, TX, 29093-
G8
NAD 1983 UTM Zone 15N
29.7621°N 93.9138°W

0 2,000 4,000
Feet
0 630 1,260
Meters



1:60,000



Base Map: ESRI ArcGIS Online,
accessed July 2025
Updated: 7/24/2025
Project No. 94507
Layout: 1. Vicinity Map
Aprx: 94507_kmlpManifoldStation

SWCA
ENVIRONMENTAL CONSULTANTS

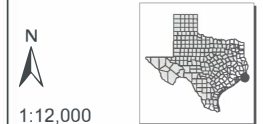


KMLP TEXAS HEADER PROJECT
Index Map

- KMLP Piping
- KMLP Area
- 2.5 Bcf Area
- Map Page
- Third Party Area
- Access Road (to be constructed by third party, not associated with this permitting action)

Figure 2

Jefferson County, TX
USGS 7.5' Quadrangle:
Port Arthur South, TX, 29093-
G8
NAD 1983 UTM Zone 15N
29.758°N 93.9266°W



Base Map: ESRI ArcGIS Online,
accessed July 2025
Updated: 7/24/2025
Project No. 94507
Layout: 2_Index Map
Aprx: 94507_kmlpManifoldStation

1:12,000

SWCA
ENVIRONMENTAL CONSULTANTS

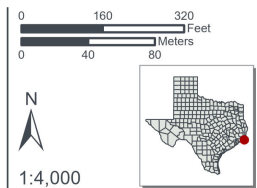


KMLP TEXAS HEADER PROJECT
Permit Map

- Temporary Workspace
- Ditch
- Emergent Wetland
- Access Road (to be constructed by third party, not associated with this permitting action)

Figure 3
Page 1 of 2

Jefferson County, TX
USGS 7.5' Quadrangle:
Port Arthur South, TX, 29093-
G8
NAD 1983 UTM Zone 15N
29.7588°N 93.9317°W



Base Map: ESRI ArcGIS Online,
accessed August 2025
Updated: 8/27/2025
Project No. 94507
Layout: 3_Permit Map
Aprx: 94507_kmlpManifoldStation

SWCA
ENVIRONMENTAL CONSULTANTS



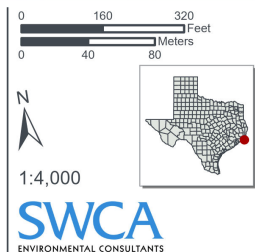
KMLP TEXAS HEADER PROJECT
Permit Map

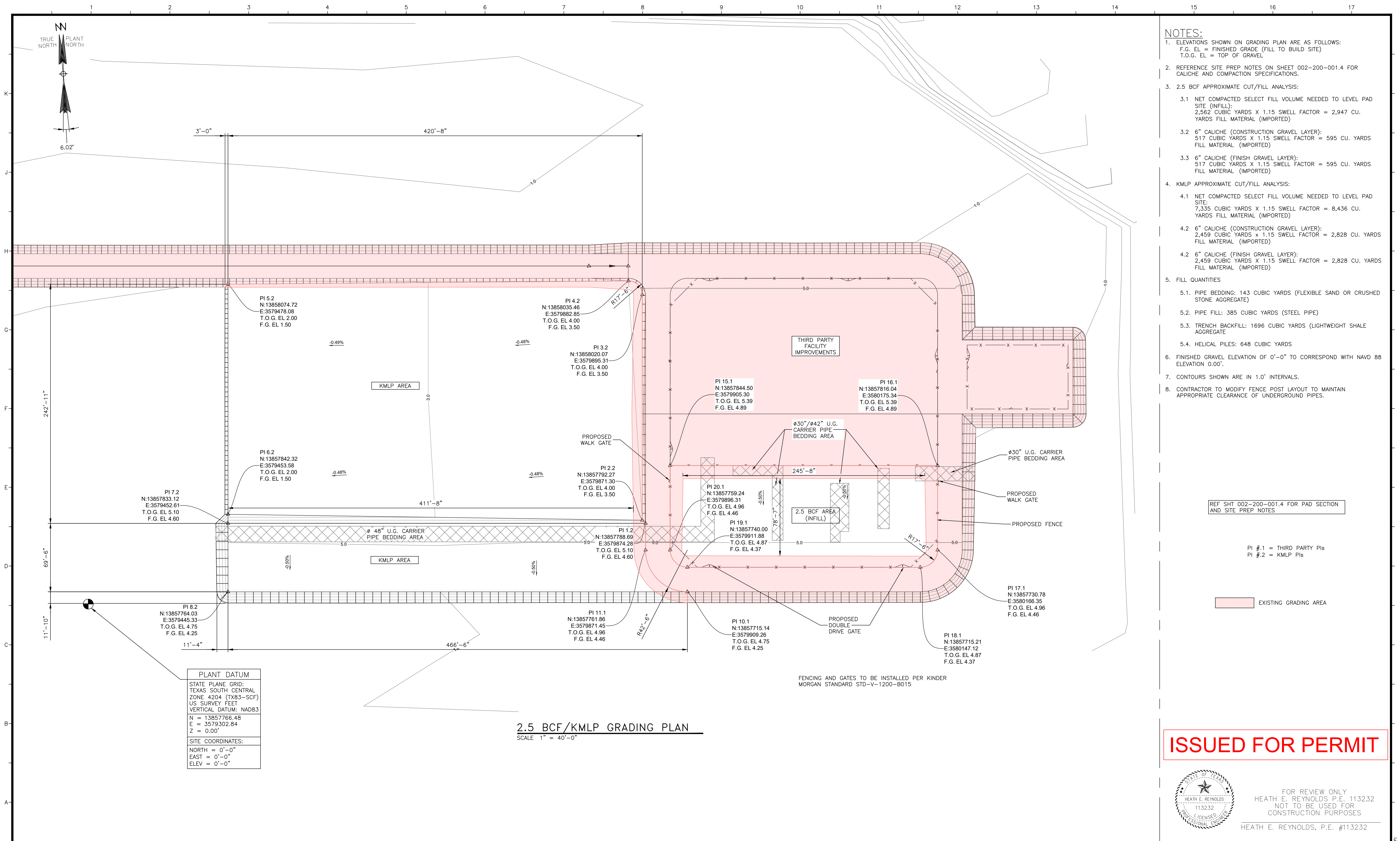
Figure 3
Page 2 of 2

- Helical Pile
- KMLP Piping
- ▭ KMLP Area
- ▭ 2.5 BCF Area
- ▭ Temporary Workspace
- ▨ Emergent Wetland
- ▨ Third Party Area
- ▨ Access Road (to be constructed by third party, not associated with this permitting action)

Jefferson County, TX
USGS 7.5' Quadrangle:
Port Arthur South, TX, 29093-
G8
NAD 1983 UTM Zone 15N
29.7567°N 93.9218°W

Base Map: ESRI ArcGIS Online,
accessed August 2025
Updated: 8/28/2025
Project No. 94507
Layout: 3. Permit Map
Aprx: 94507_kmlpManifoldStation





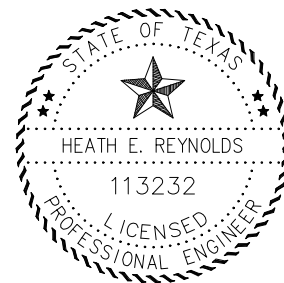
- NOTES:**
- ELEVATIONS SHOWN ON GRADING PLAN ARE AS FOLLOWS:
F.G. EL = FINISHED GRADE (FILL TO BUILD SITE)
T.O.G. EL = TOP OF GRAVEL
 - REFERENCE SITE PREP NOTES ON SHEET 002-200-001.4 FOR CALICHE AND COMPACTION SPECIFICATIONS.
 - 2.5 BCF APPROXIMATE CUT/FILL ANALYSIS:
 - NET COMPACTED SELECT FILL VOLUME NEEDED TO LEVEL PAD SITE (INFILL):
2,562 CUBIC YARDS X 1.15 SWELL FACTOR = 2,947 CU. YARDS FILL MATERIAL (IMPORTED)
 - 6" CALICHE (CONSTRUCTION GRAVEL LAYER):
517 CUBIC YARDS X 1.15 SWELL FACTOR = 595 CU. YARDS FILL MATERIAL (IMPORTED)
 - 6" CALICHE (FINISH GRAVEL LAYER):
517 CUBIC YARDS X 1.15 SWELL FACTOR = 595 CU. YARDS FILL MATERIAL (IMPORTED)
 - KMLP APPROXIMATE CUT/FILL ANALYSIS:
 - NET COMPACTED SELECT FILL VOLUME NEEDED TO LEVEL PAD SITE:
7,335 CUBIC YARDS X 1.15 SWELL FACTOR = 8,436 CU. YARDS FILL MATERIAL (IMPORTED)
 - 6" CALICHE (CONSTRUCTION GRAVEL LAYER):
2,459 CUBIC YARDS X 1.15 SWELL FACTOR = 2,828 CU. YARDS FILL MATERIAL (IMPORTED)
 - 6" CALICHE (FINISH GRAVEL LAYER):
2,459 CUBIC YARDS X 1.15 SWELL FACTOR = 2,828 CU. YARDS FILL MATERIAL (IMPORTED)
 - FILL QUANTITIES:
 - PIPE BEDDING: 143 CUBIC YARDS (FLEXIBLE SAND OR CRUSHED STONE AGGREGATE)
 - PIPE FILL: 385 CUBIC YARDS (STEEL PIPE)
 - TRENCH BACKFILL: 1696 CUBIC YARDS (LIGHTWEIGHT SHALE AGGREGATE)
 - HELICAL PILES: 648 CUBIC YARDS
 - FINISHED GRAVEL ELEVATION OF 0'-0" TO CORRESPOND WITH NAVD 88 ELEVATION 0.00'.
 - CONTOURS SHOWN ARE IN 1.0' INTERVALS.
 - CONTRACTOR TO MODIFY FENCE POST LAYOUT TO MAINTAIN APPROPRIATE CLEARANCE OF UNDERGROUND PIPES.

REF SHT 002-200-001.4 FOR PAD SECTION AND SITE PREP NOTES

PI #.1 = THIRD PARTY PIs
PI #.2 = KMLP PIs

EXISTING GRADING AREA

ISSUED FOR PERMIT



FOR REVIEW ONLY
HEATH E. REYNOLDS P.E. 113232
NOT TO BE USED FOR
CONSTRUCTION PURPOSES

HEATH E. REYNOLDS, P.E. #113232

E	RE-ISSUED FOR PERMIT	AFE-241066	08/28/2025
D	RE-ISSUED FOR PERMIT	AFE-241066	08/15/2025
C	RE-ISSUED FOR PERMIT	AFE-241066	08/01/2025
B	ISSUED FOR PERMIT	AFE-241066	06/27/2025
A	ISSUED FOR APPROVAL	AFE-241066	04/30/2025
Revision Description		Project ID	Date

LJA Energy, Inc.

3600 W Sam Houston Pkwy S
Suite 600
Houston, Texas 77042

Phone 713.953.5200
Fax 713.953.5026
FRN - F-23057



TRIDENT PIPELINE

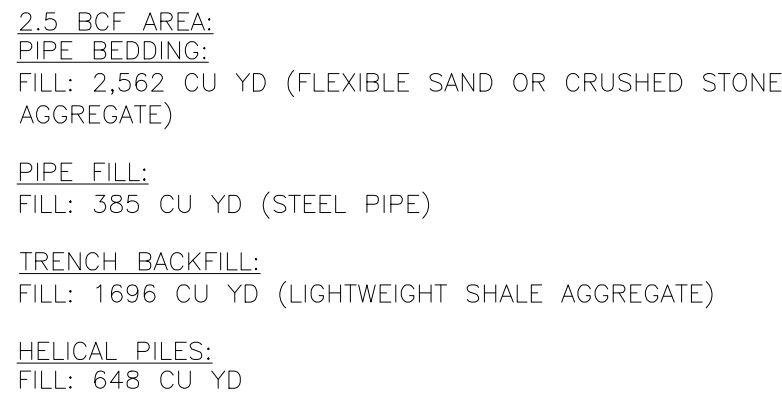
PROJECT
AFE-#####
2.5 BCF/KMLP METER STATION

LJA ENERGY

GRADING PLAN
CIVIL/STRUCTURAL DRAWING
2.5 BCF/KMLP METER STATION

JEFFERSON COUNTY, TX

2.5 BCF/KMLP METER STATION: Facility Name	
Status:	ISSUED FOR PERMIT
State:	TEXAS
County:	JEFFERSON
Category:	CIVIL
File Name:	002-200-001.3.dwg
Drawing No:	002-200-001.3
Rev	E



2.5 BCF AREA:
TOTAL (PAD SITE BALANCE):
AREA: 27,869 SQ FT
CUT: 0 CU YD
FILL: 2,562 CU YD
NET: 2,562 CU YD (FILL)

TOTAL (PAD GRAVEL 6" CALICHE - CONSTRUCTION LAYER)
AREA: 27,869 SQ FT
CUT: N/A
FILL: 517 CU YD

TOTAL (PAD GRAVEL 6" CALICHE - FINISH LAYER)
AREA: 27,869 SQ FT
CUT: N/A
FILL: 517 CU YD

KMLP AREA:
TOTAL (PAD SITE BALANCE):
AREA: 139,712 SQ FT
CUT: 2 CU YD
FILL: 7,333 CU YD
NET: 7,335 CU YD (FILL)

TOTAL (PAD GRAVEL 6" CALICHE - CONSTRUCTION LAYER)
AREA: 132,786 SQ FT
CUT: N/A
FILL: 2,459 CU YD

TOTAL (PAD GRAVEL 6" CALICHE - CONSTRUCTION LAYER)
AREA: 132,786 SQ FT
CUT: N/A
FILL: 2,459 CU YD

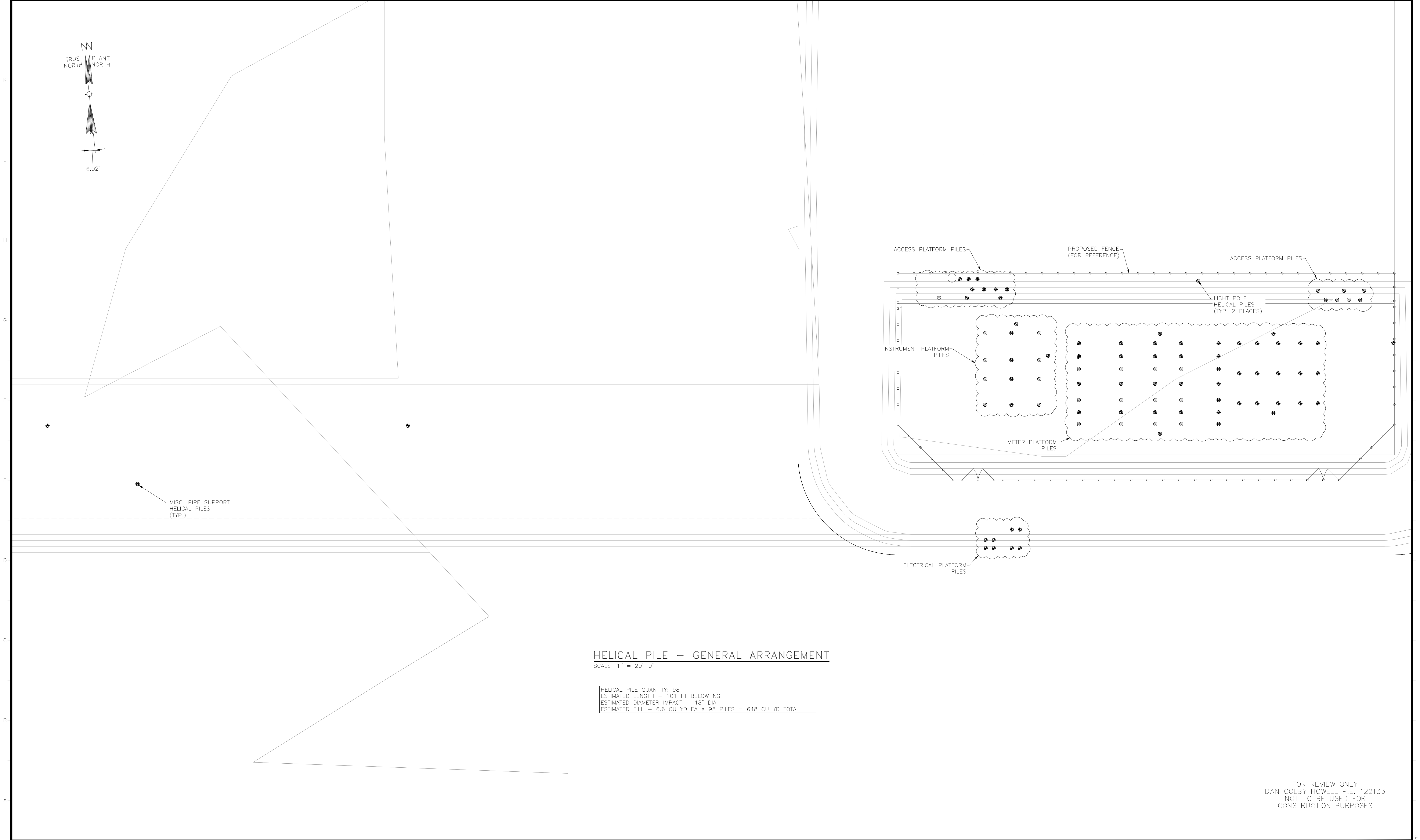
EARTHWORK VOLUMES ARE APPROXIMATE AND DO NOT ACCOUNT FOR CLEARING AND GRUBBING, OR CALICHE SITE DRESSING.

A circular professional engineer seal for the State of Texas. The outer ring contains the text "STATE OF TEXAS" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two small stars. In the center, there is a five-pointed star. Below the star, the name "HEATH E. REYNOLDS" is printed, followed by the license number "113232" and the word "LICENSED" at the bottom.

FOR REVIEW ONLY
HEATH E. REYNOLDS P.E. 113232
NOT TO BE USED FOR
CONSTRUCTION PURPOSES

HEATH E. REYNOLDS, P.E. #113232

Status:		ISSUED FOR PERMIT	
State:	TEXAS	PIN No:	
County:	JEFFERSON	Scale:	NOTED
Category:	CIVIL		
File Name: 002-200-001.4.dwg			
Drawing No:	002-200-001.4		Rev E



				:Reference Drawings		KMLP 2.5 BCF METER STATION:Facility Name	
				PROJECT AFE-##### KMLP 2.5 BCF METER STATION		HELICAL PILE – GENERAL ARRANGEMENT CIVIL/STRUCTURAL KMLP 2.5 BCF METER STATION	
				LJA ENERGY		JEFFERSON COUNTY, TX	
						Status: ISSUED FOR BID	
						State: TEXAS County: JEFFERSON Category: CIVIL	
						PIN No: Scale: 1"=20'-0"	
						File Name: 002-400-001.0.dwg	
						Drawing No: 002-400-001.0	
						Rev A	

ISSUED FOR PERMIT

Revision Description

Project ID

Date

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Suite 600
Houston, Texas 77042

Phone 713.953.5200
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FRN - F-23057

KINDERMORGAN

TRIDENT PIPELINE

FOR REVIEW ONLY
DAN COLBY HOWELL P.E. 122133
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Aug 29, 2025 - 11:01AM Verificus056

