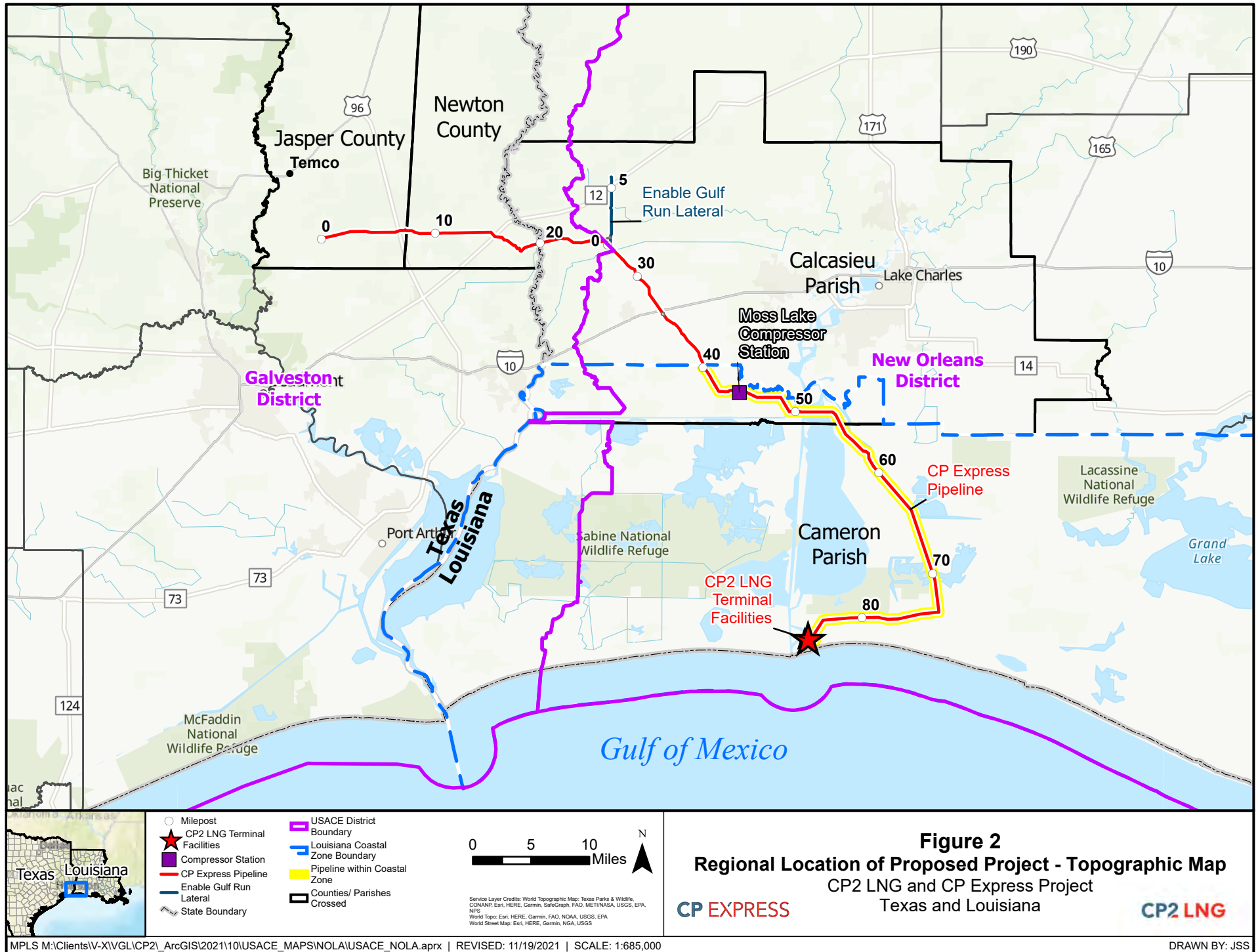
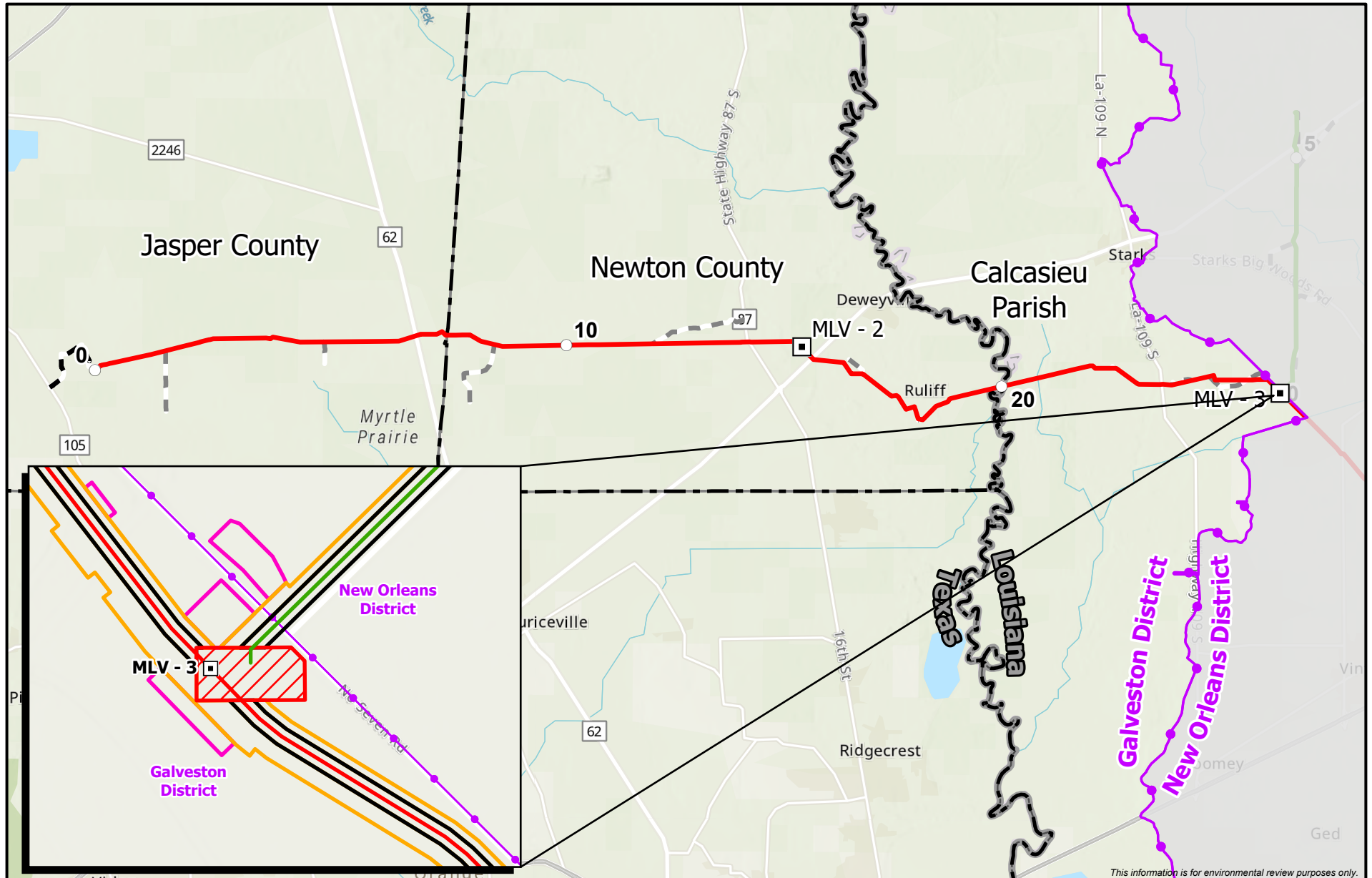


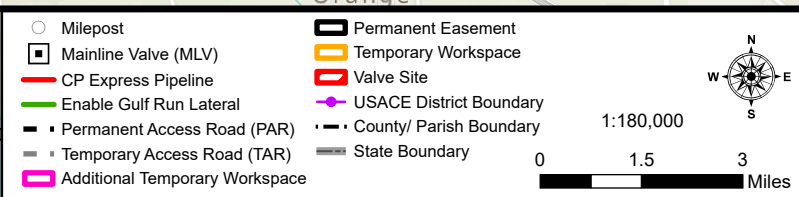
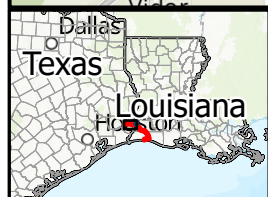
Overview of Entire Pipeline Route (New Orleans and Galveston District Segments)



Pipeline Route - Galveston District Only



This information is for environmental review purposes only.



**USACE-Galveston District**

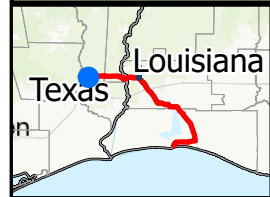
**Vicinity Map**

**CP Express Pipeline System**

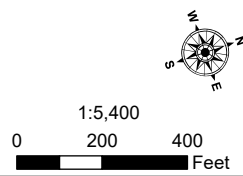
**Texas and Louisiana**



This information is for environmental review purposes only.



- - Permanent Access Road
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



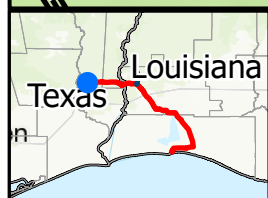
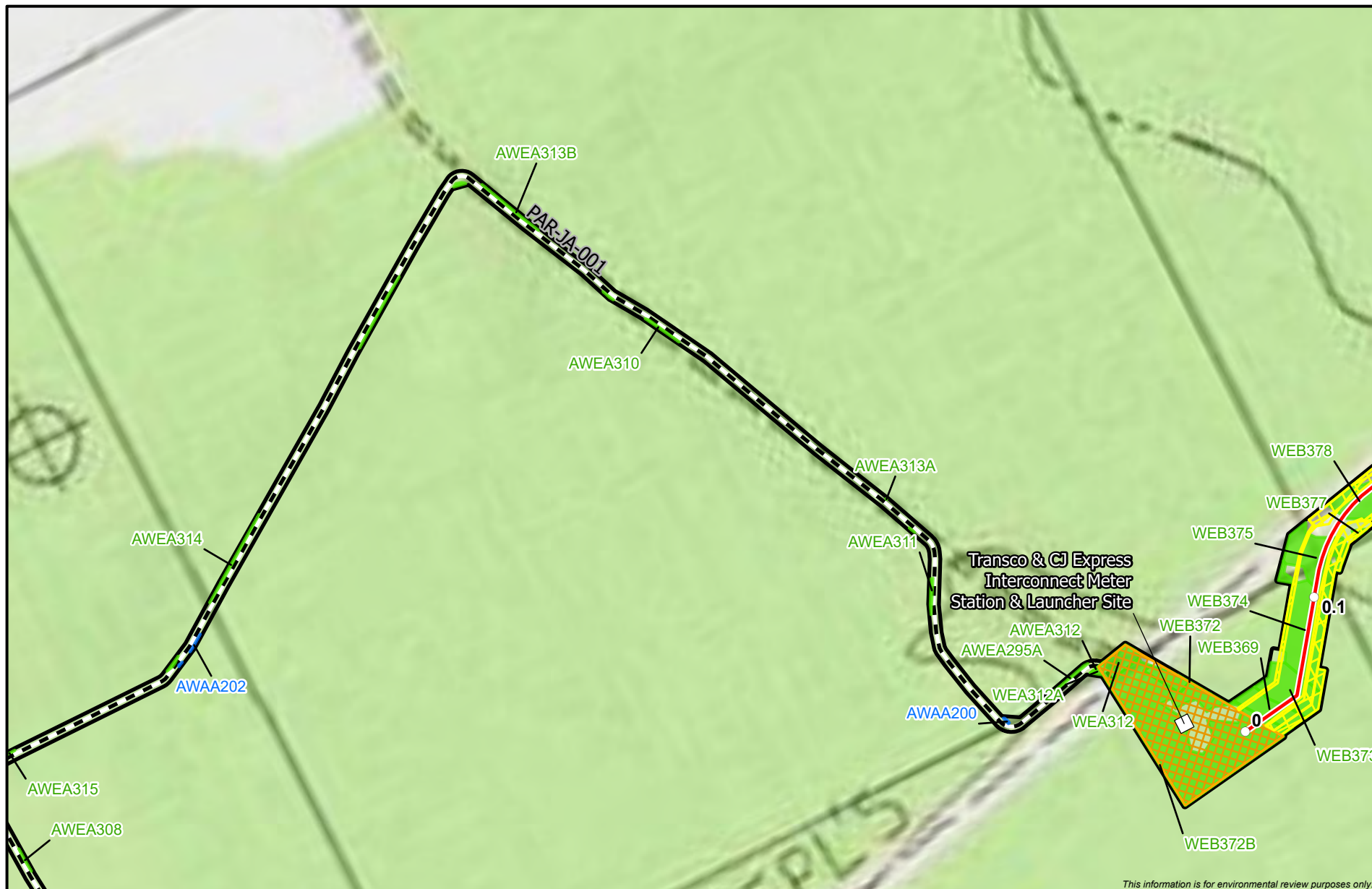
**Proposed Fill Locations within the Pipeline Construction Workspace**











**CP Express Pipeline**  
Jasper County, Texas

**CP2 LNG**

Page 1 of 44





-  Meter Station  
 Mileposts  
 CP Express Pipeline  
 Permanent Access Road  
 Temporary Fill Storage  
 Permanent Fill  
 Surveyed Waterbody  
 Surveyed Wetland  
 Limit of Disturbance  
 County/ Parish Boundary



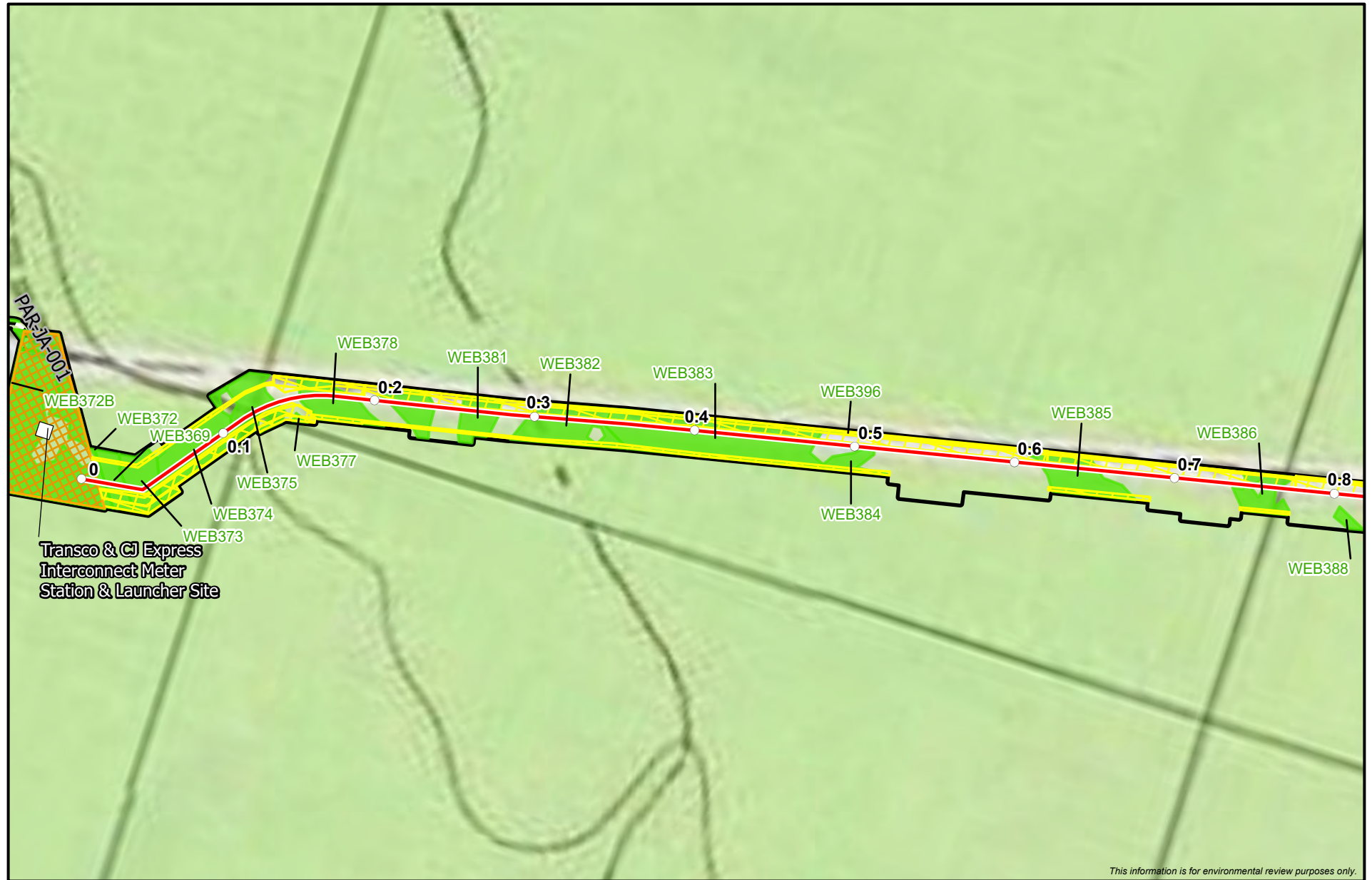
1:5,400  
200 400 Feet

## Proposed Fill Locations within the Pipeline Construction Workspace

## CP Express Pipeline Jasper County, Texas

CP2 LNG





Meter Station

Mileposts

CP Express Pipeline

Permanent Access Road

Temporary Fill Storage

Permanent Fill

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

0

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Feet

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CP EXPRESS

CP2 LNG

Proposed Fill Locations within the Pipeline Construction Workspace

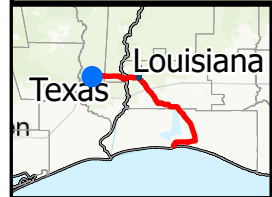
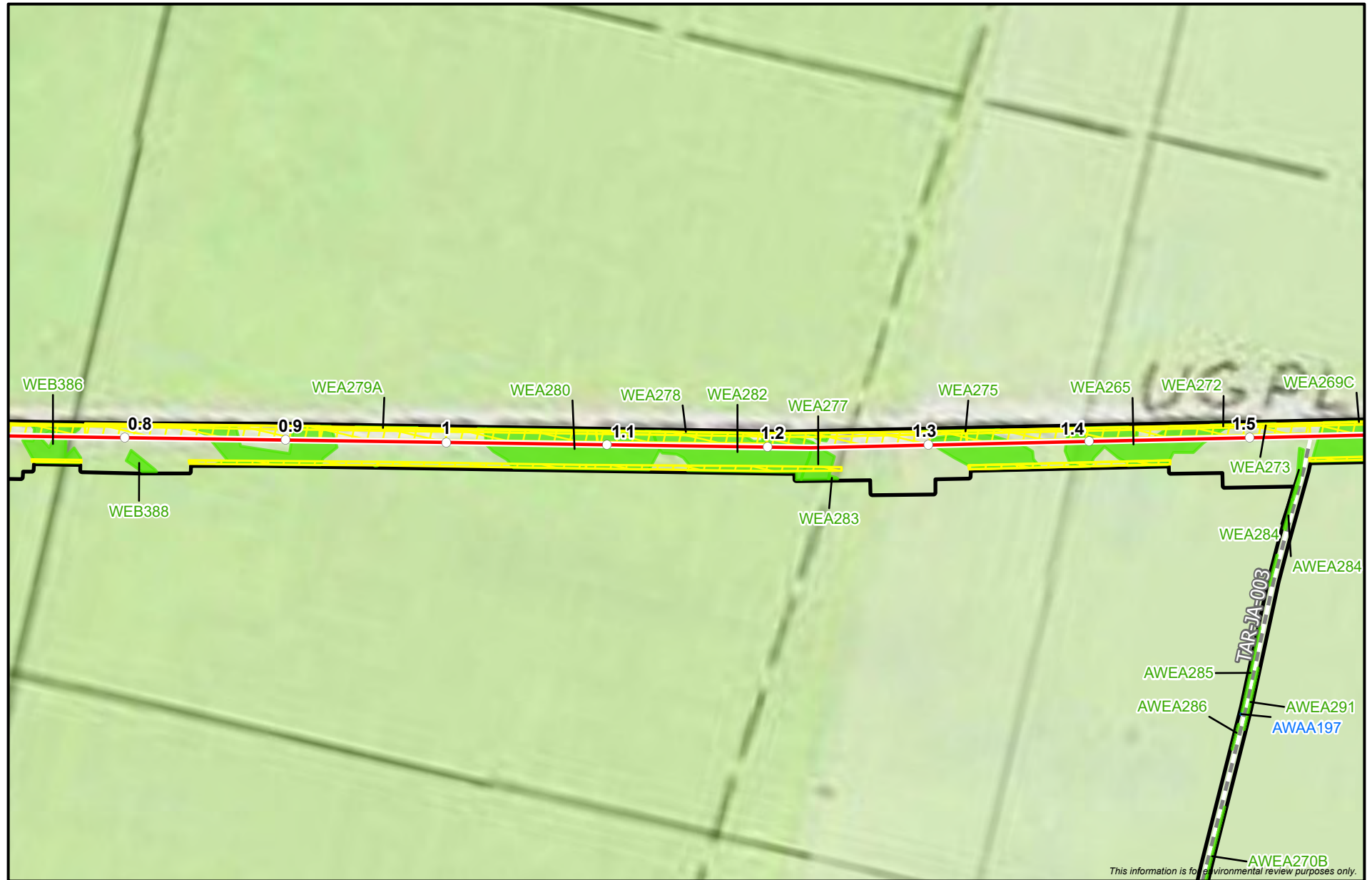
CP Express Pipeline

Jasper County, Texas

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○ Mileposts

— CP Express Pipeline

— Temporary Access Road

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

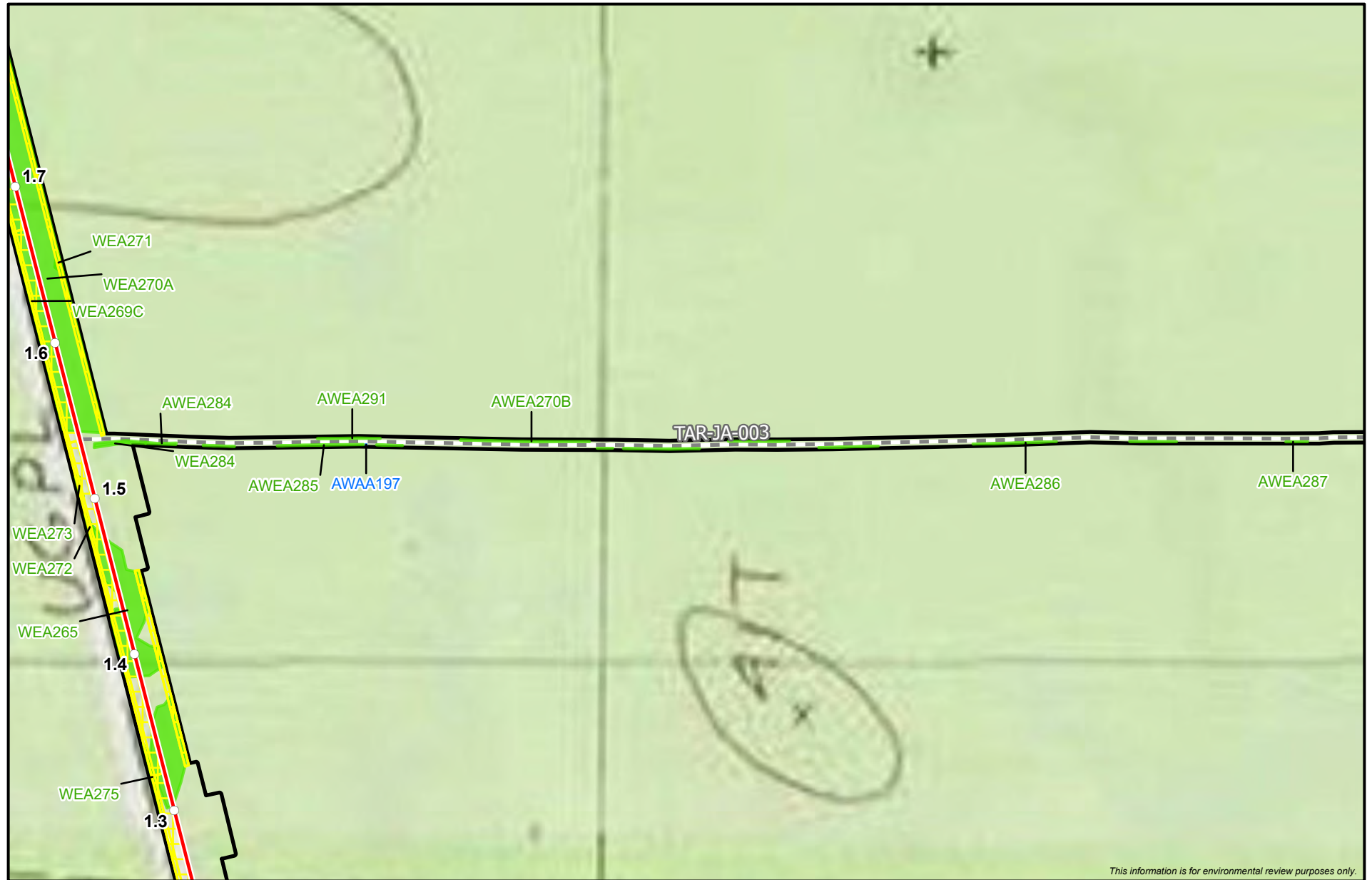
0 200 400 Feet

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Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Jasper County, Texas



This information is for environmental review purposes only.



Mileposts

CP Express Pipeline

Temporary Access Road

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

0

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Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Jasper County, Texas

CP EXPRESS

CP2 LNG

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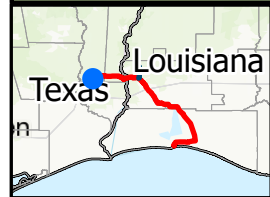
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This information is for environmental review purposes only.



Temporary Access Road

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

0 200 400 Feet

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Proposed Fill Locations within the Pipeline Construction Workspace

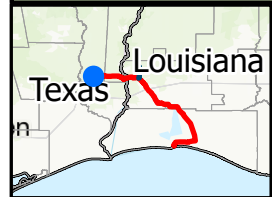
CP Express Pipeline

Jasper County, Texas

CP EXPRESS

CP2 LNG

MPLS M:\US\Projects\I-Z\Venture\_Global\CP2\ArcGIS\2021\10\USACE\_MAPS\GALV\_Public\_Notice\_Series\GALV\_Public\_Notice\_Series\_SoilFill\_Areas.aprx | REVISED: 06/23/2023 | SCALE: 1:5,400 | DRAWN BY: JSS



○ Mileposts

— CP Express Pipeline

— Temporary Access Road

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

0

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Feet

1:5,400

1:5,400

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Compass rose showing North, South, East, and West.

Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Jasper County, Texas

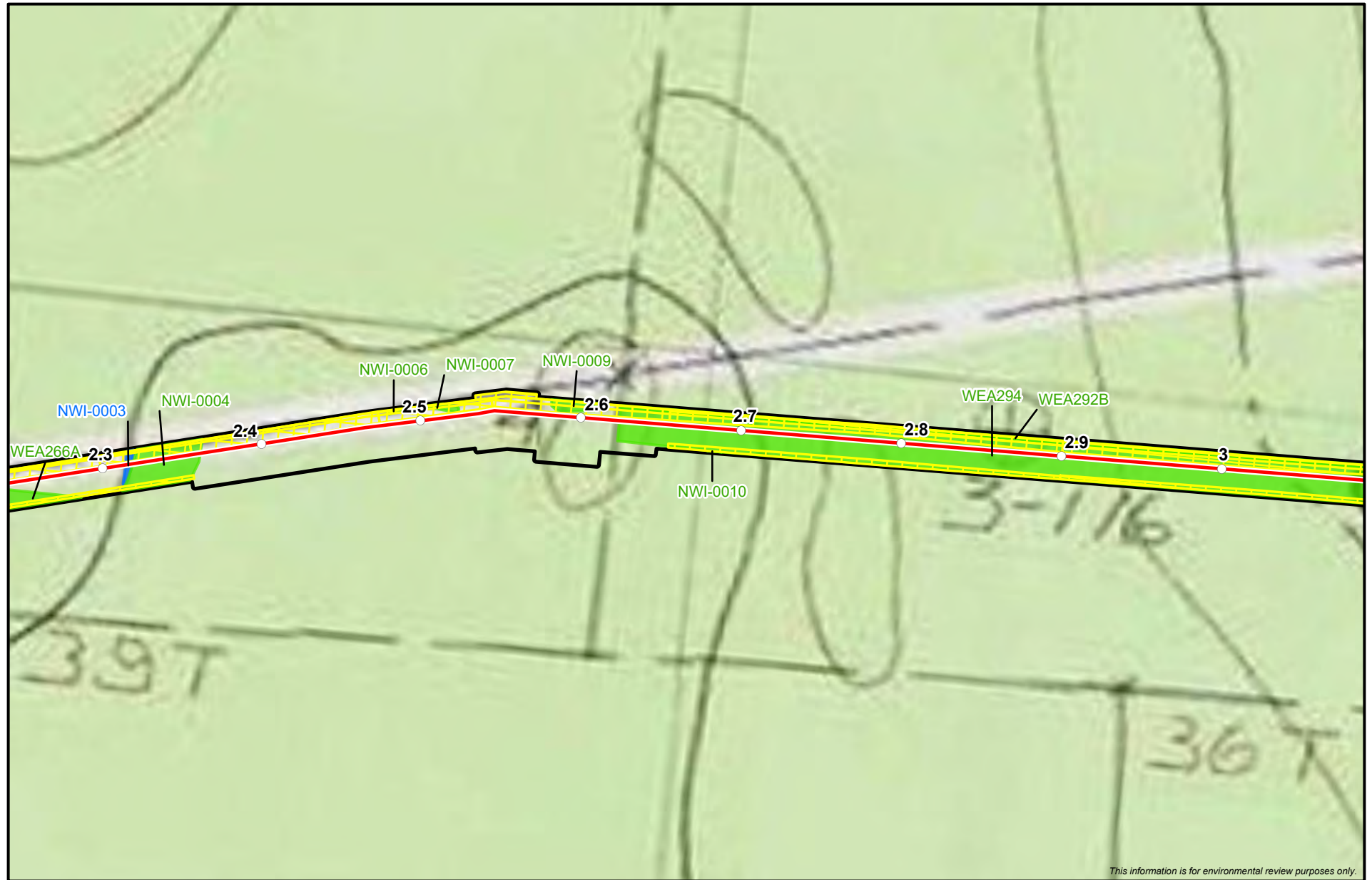
CP EXPRESS


CP2 LNG

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REVISD: 06/23/2023 | SCALE: 1:5,400

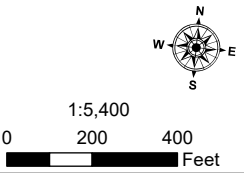
DRAWN BY: JSS





Legend:

- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



1:5,400  
0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Jasper County, Texas**

**CP EXPRESS** **CP2 LNG**

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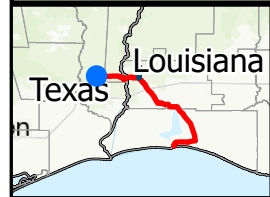
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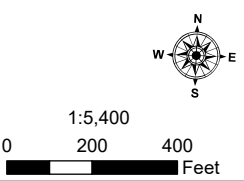




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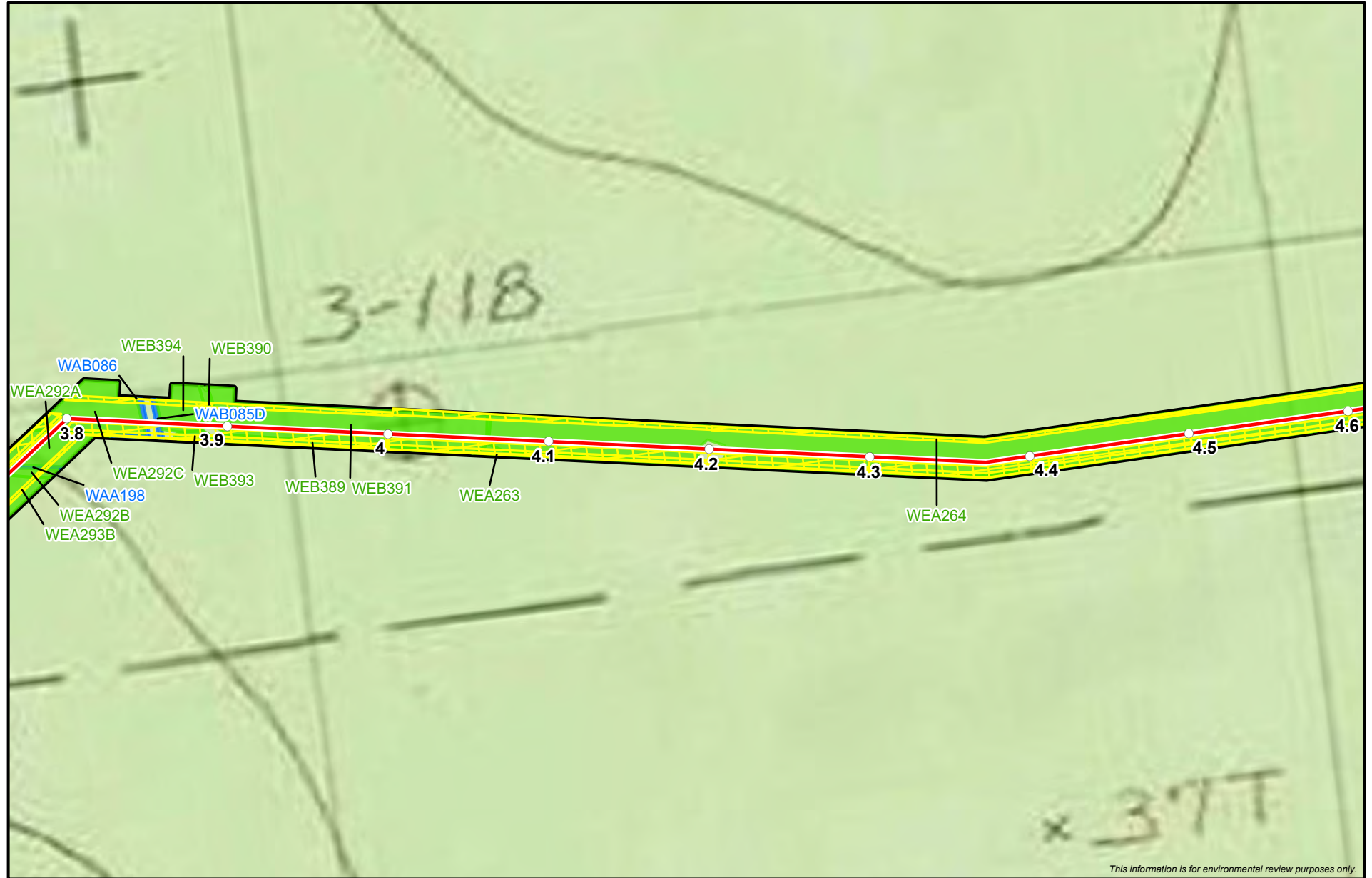


- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary




**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Jasper County, Texas**



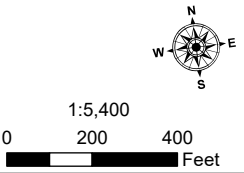


This information is for environmental review purposes only.





Legend:

- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



1:5,400  
0 200 400 Feet

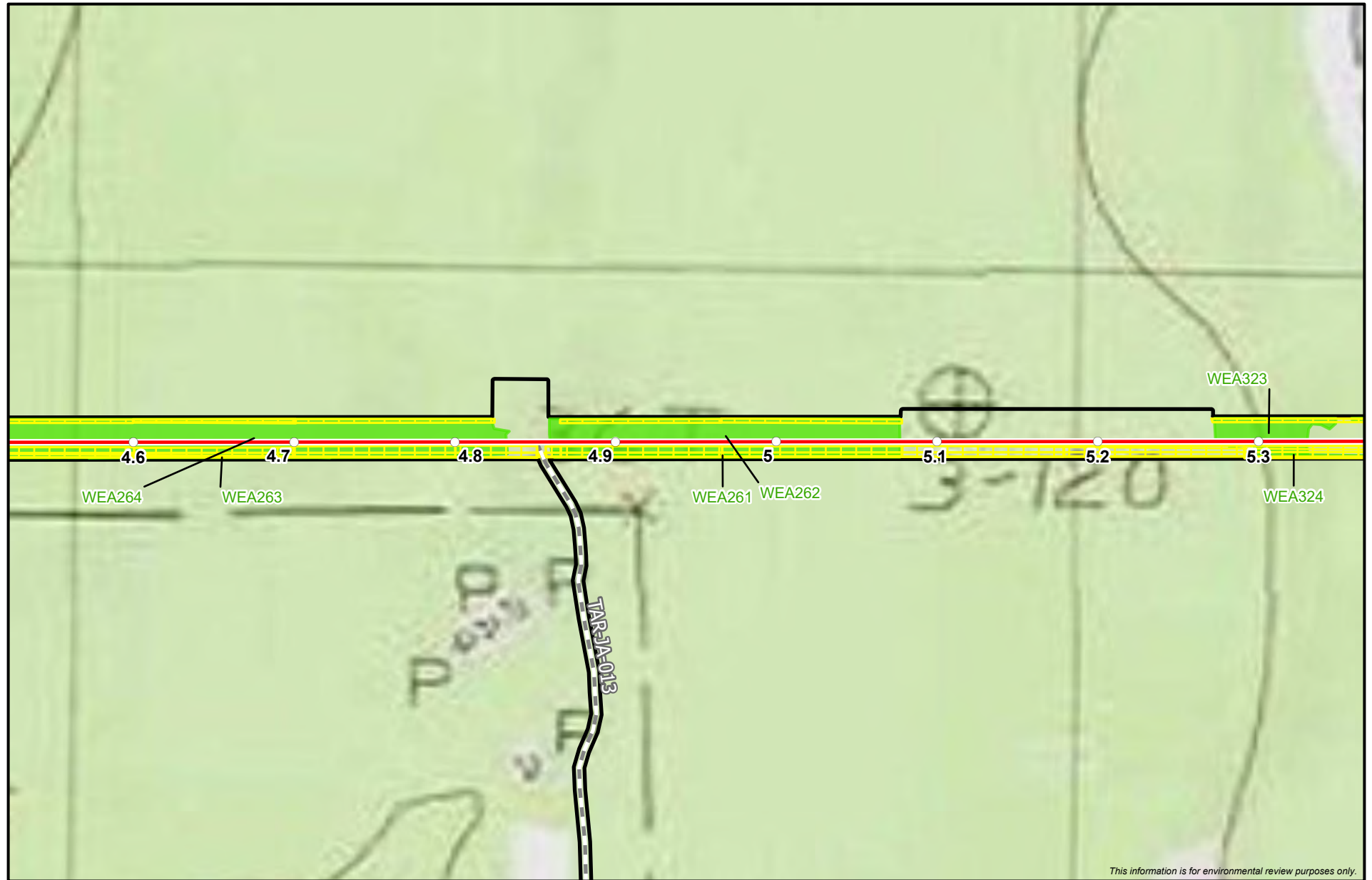
**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Jasper County, Texas**




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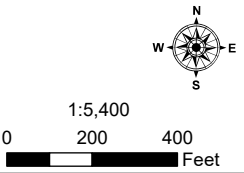


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- Mileposts
- CP Express Pipeline
- Temporary Access Road
- Temporary Fill Storage
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



**Proposed Fill Locations within the Pipeline Construction Workspace**

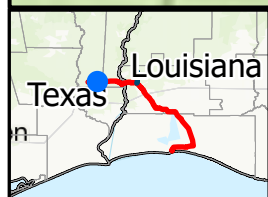
**CP Express Pipeline**  
Jasper County, Texas



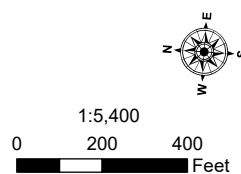
Page 11 of 44

DRAWN BY: JSS





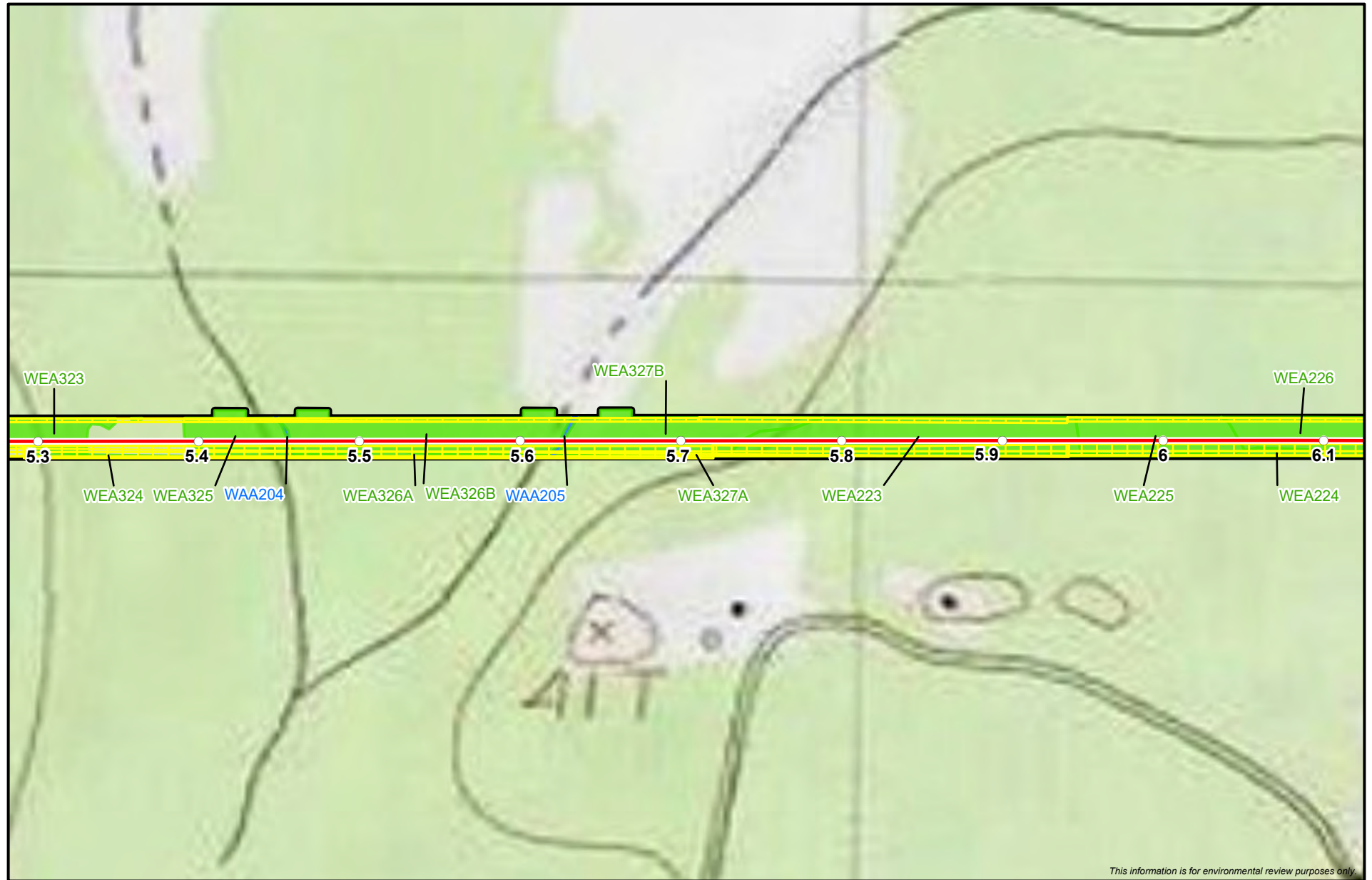
-  Mileposts
  Surveyed Wetland
-  CP Express Pipeline
  Limit of Disturbance
-  Temporary Access Road
  County/ Parish Boundary
-  Temporary Fill Storage




### Proposed Fill Locations within the Pipeline Construction Workspace

## CP Express Pipeline Jasper County, Texas

CP2 LNG

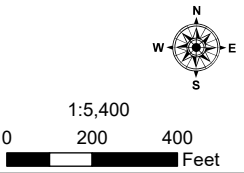


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- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



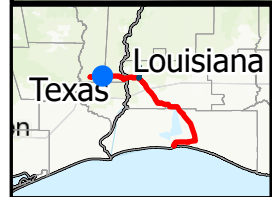
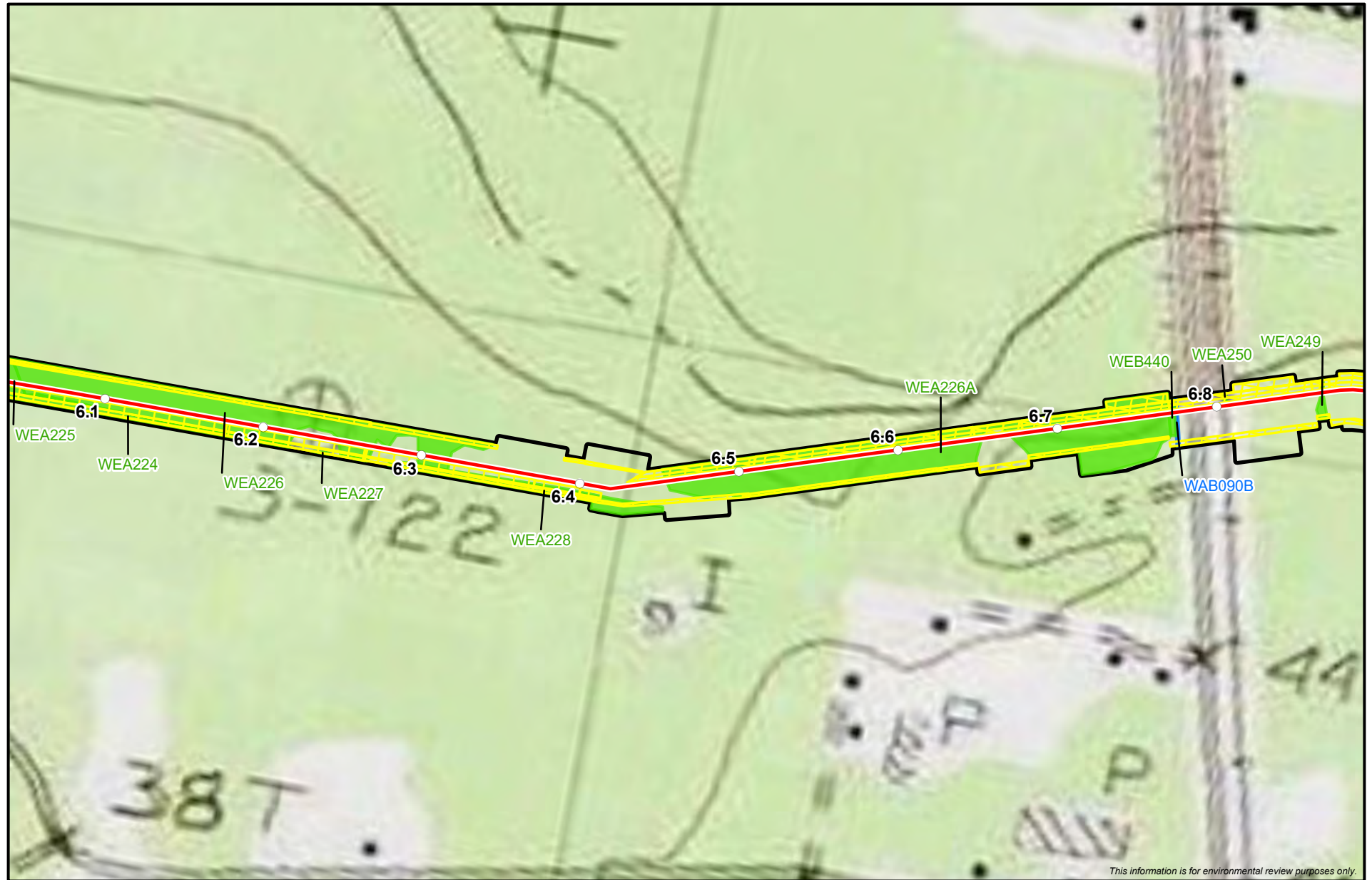
1:5,400  
0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Jasper County, Texas**



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Mileposts

CP Express Pipeline

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

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Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

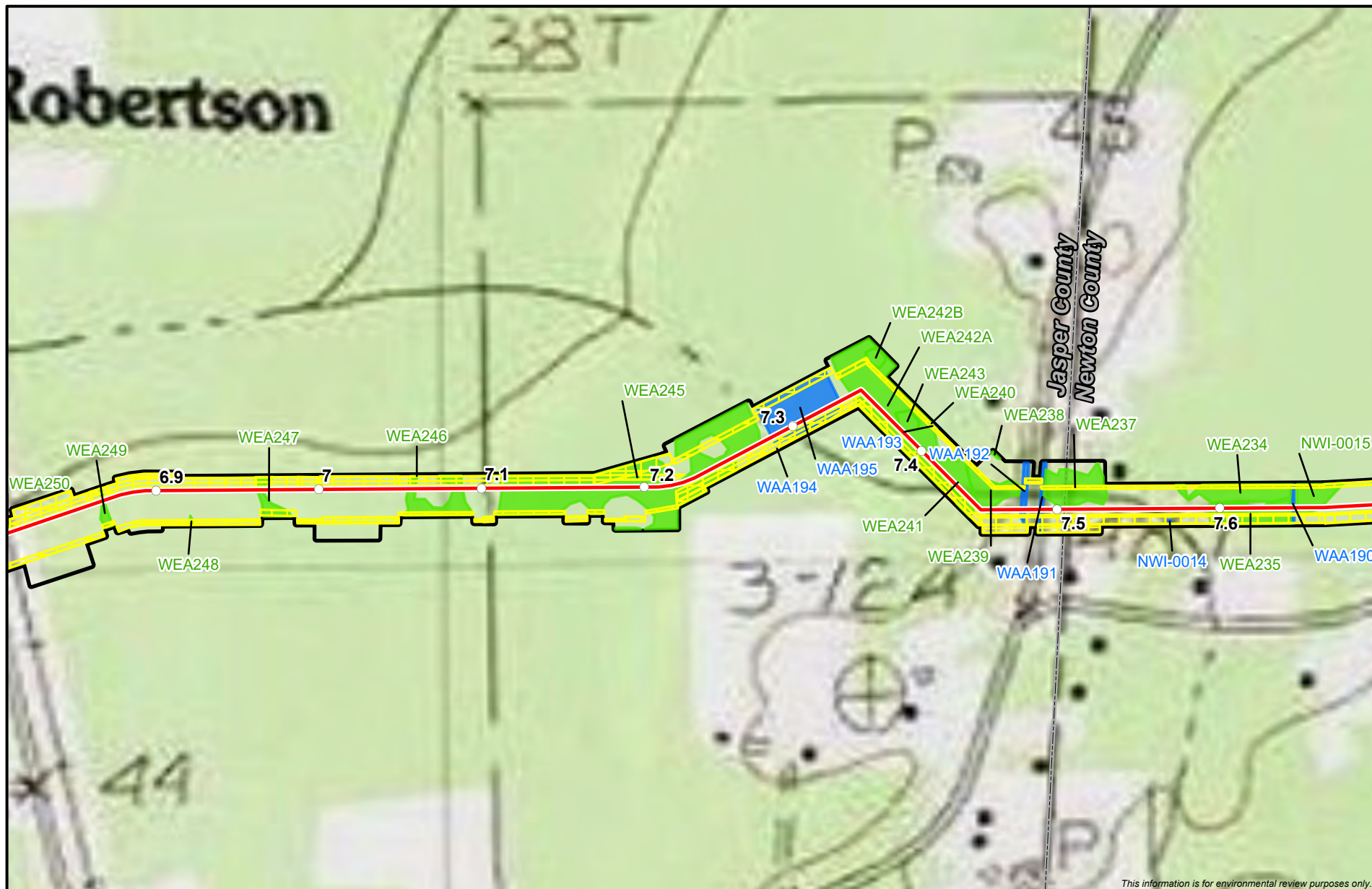
Jasper County, Texas

CP EXPRESS

CP2 LNG

MPLS M:\US\Projects\I-V\Venture\_Global\CP2\_ArcGIS\2021\10\USACE\_MAPS\GALV\_Public\_Notice\_Series\GALV\_Public\_Notice\_Series\_SoilFill\_Areas.aprx | REVISED: 06/23/2023 | SCALE: 1:5,400 | DRAWN BY: JSS

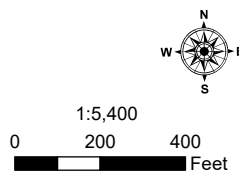




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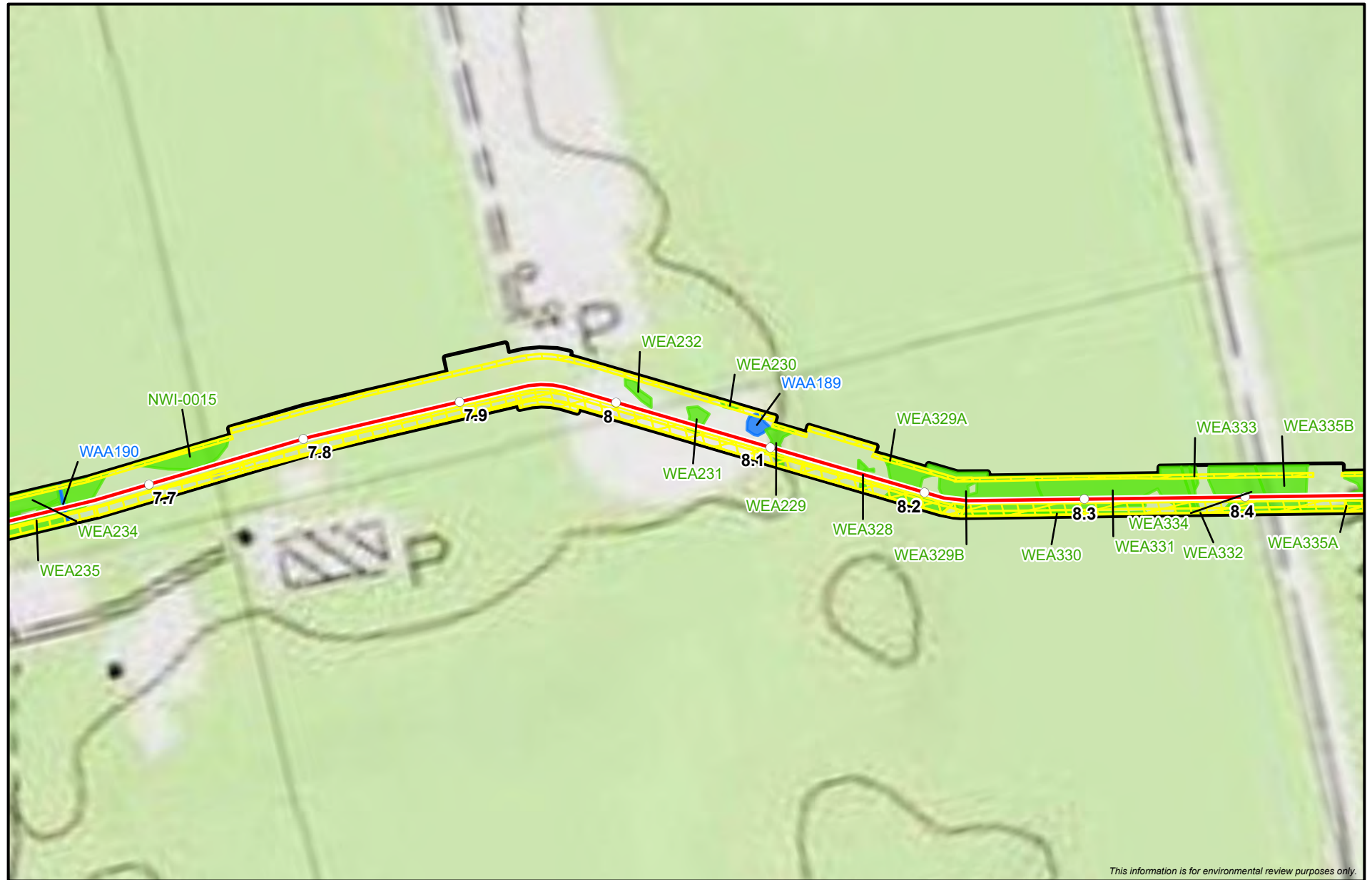
- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary
- Surveyed Waterbody



**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Jasper County, Texas**

**CP EXPRESS**

**CP2 LNG**



Mileposts

CP Express Pipeline

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

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Feet

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Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Newton County, Texas

CP EXPRESS

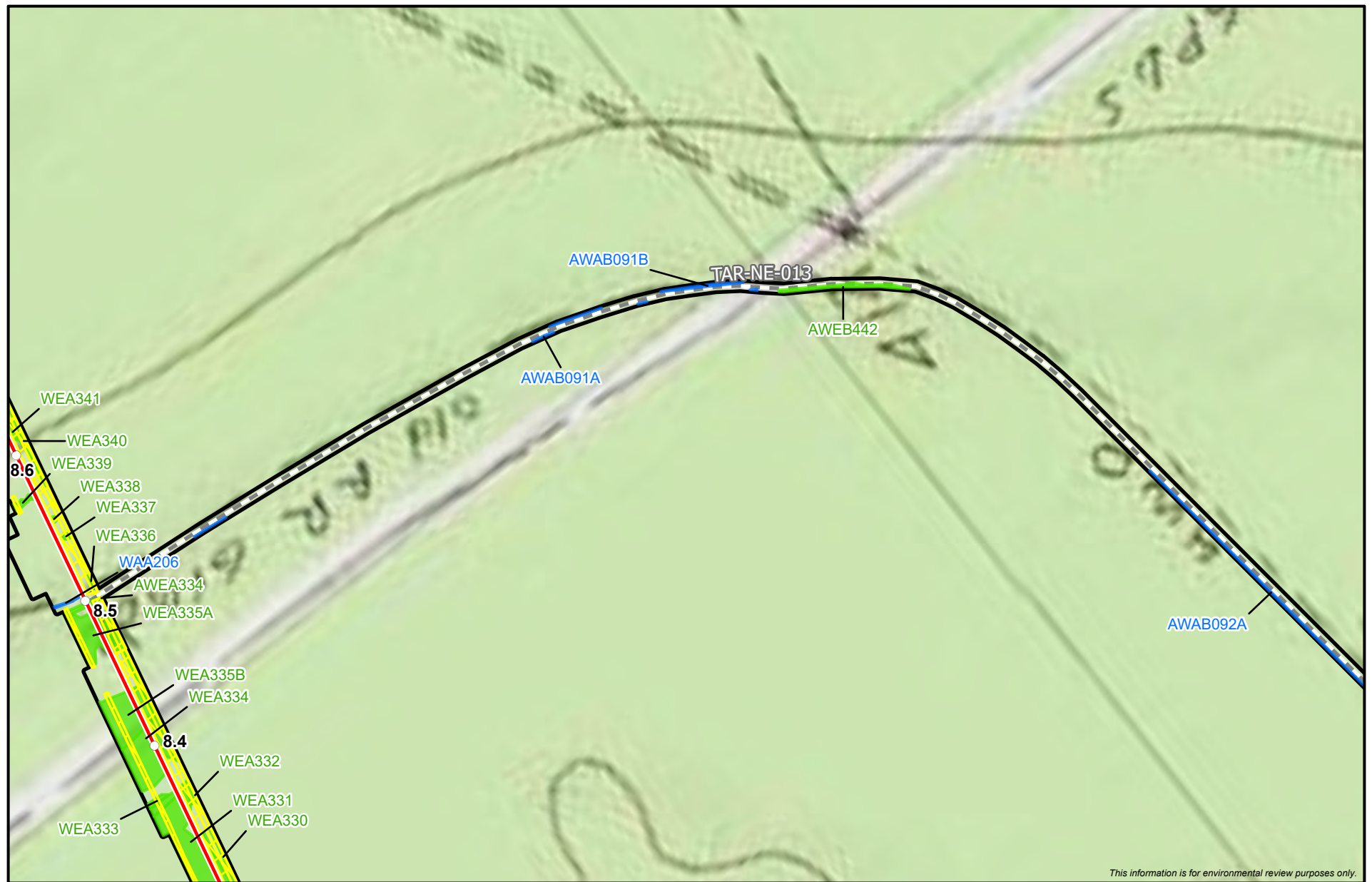
CP2 LNG

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MPLS M:\US\Projects\I-V\Venture\_Global\CP2\ArcGIS\2021\10\USACE\_MAPS\GALV\_Public\_Notice\_Series\GALV\_Public\_Notice\_Series\_SoilFill\_Areas.aprx | REVISED: 06/23/2023 | SCALE: 1:5,400

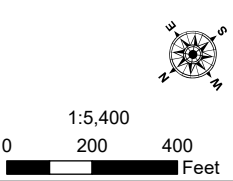




This information is for environmental review purposes only.



- Mileposts
- CP Express Pipeline
- - Temporary Access Road
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



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**Proposed Fill Locations within the Pipeline Construction Workspace**

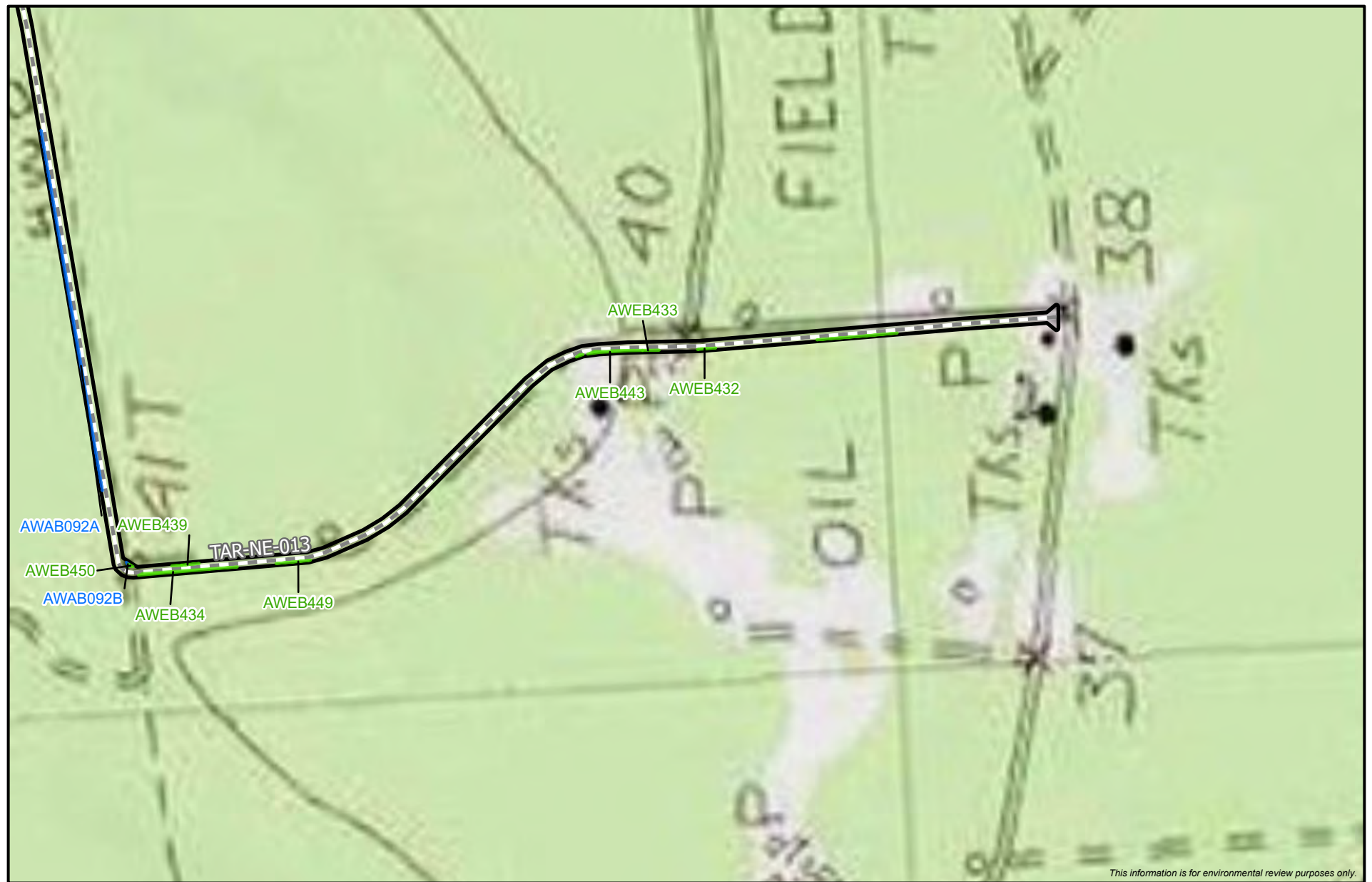
**CP Express Pipeline**

**Newton County, Texas**

**CP EXPRESS**

**CP2 LNG**

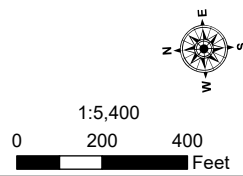




This information is for environmental review purposes only.



- - - Temporary Access Road
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary

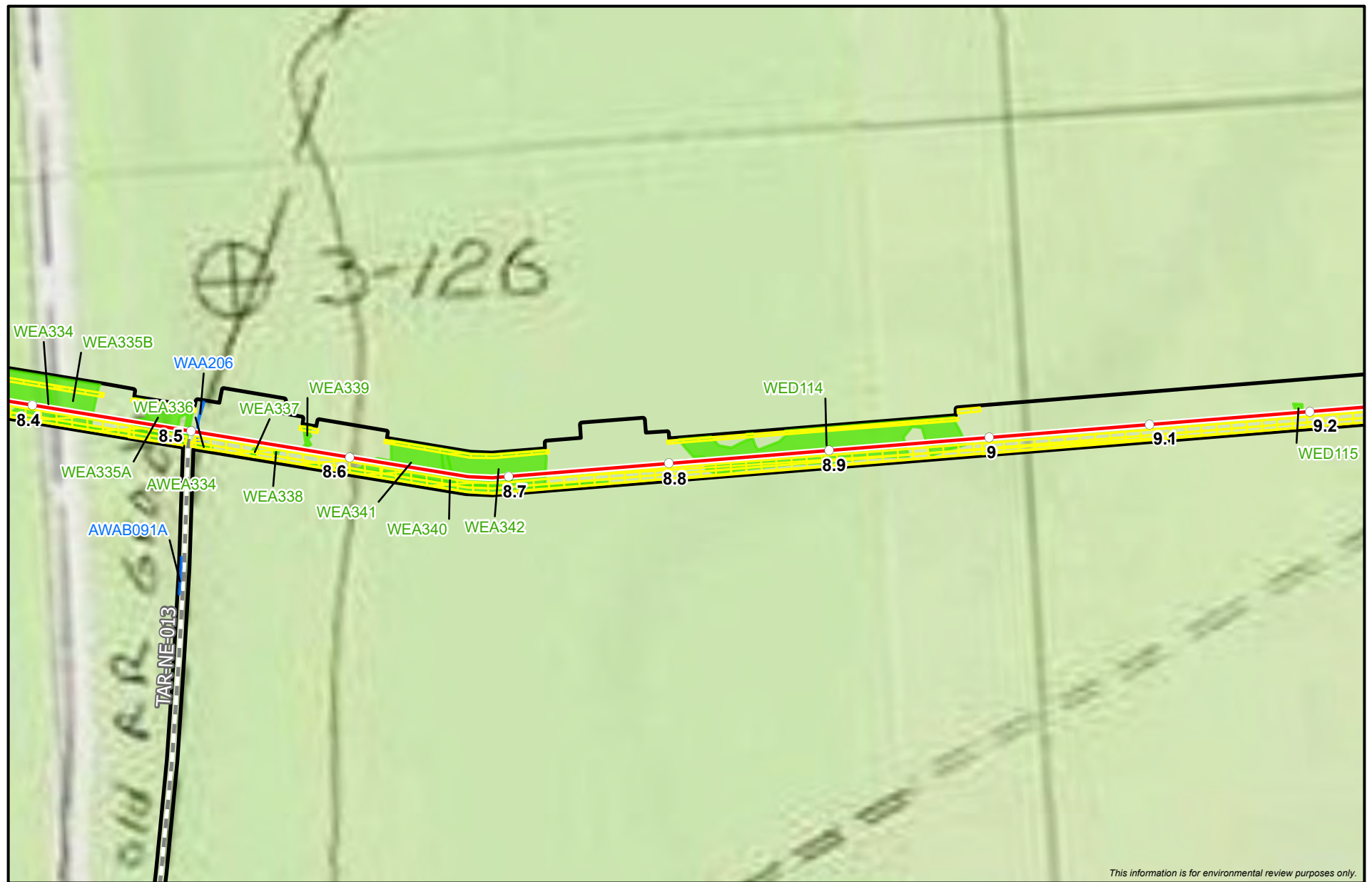


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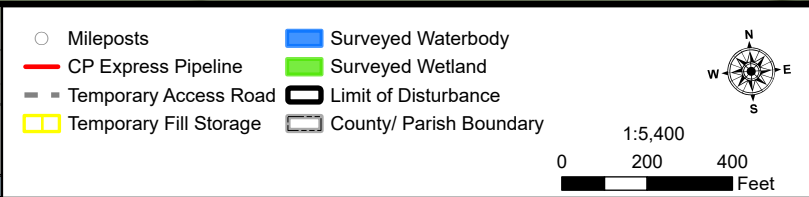
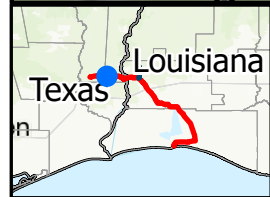
**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**  
Newton County, Texas

**CP2 LNG**



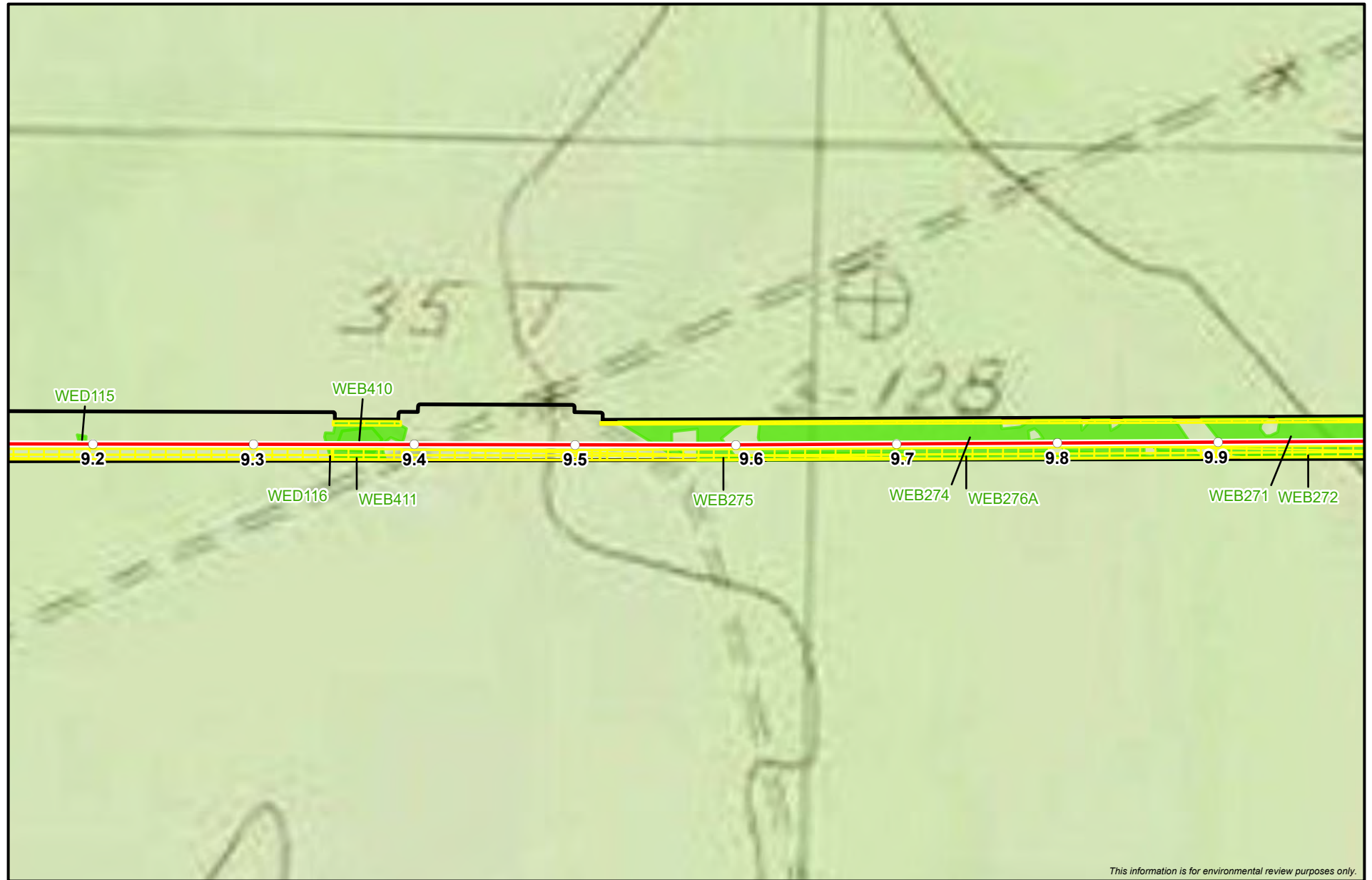
This information is for environmental review purposes only.




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**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Newton County, Texas**

**CP EXPRESS** **CP2 LNG**




*This information is for environmental review purposes only.*



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- Mileposts
- CP Express Pipeline
- ▨ Temporary Fill Storage
- Surveyed Wetland
- ▭ Limit of Disturbance
- ▭ County/ Parish Boundary




1:5,400

0 200 400 Feet


**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**

**Newton County, Texas**




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This information is for environmental review purposes only.



○ Mileposts

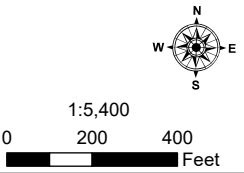
— CP Express Pipeline

Temporary Fill Storage

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary





1:5,400

0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**

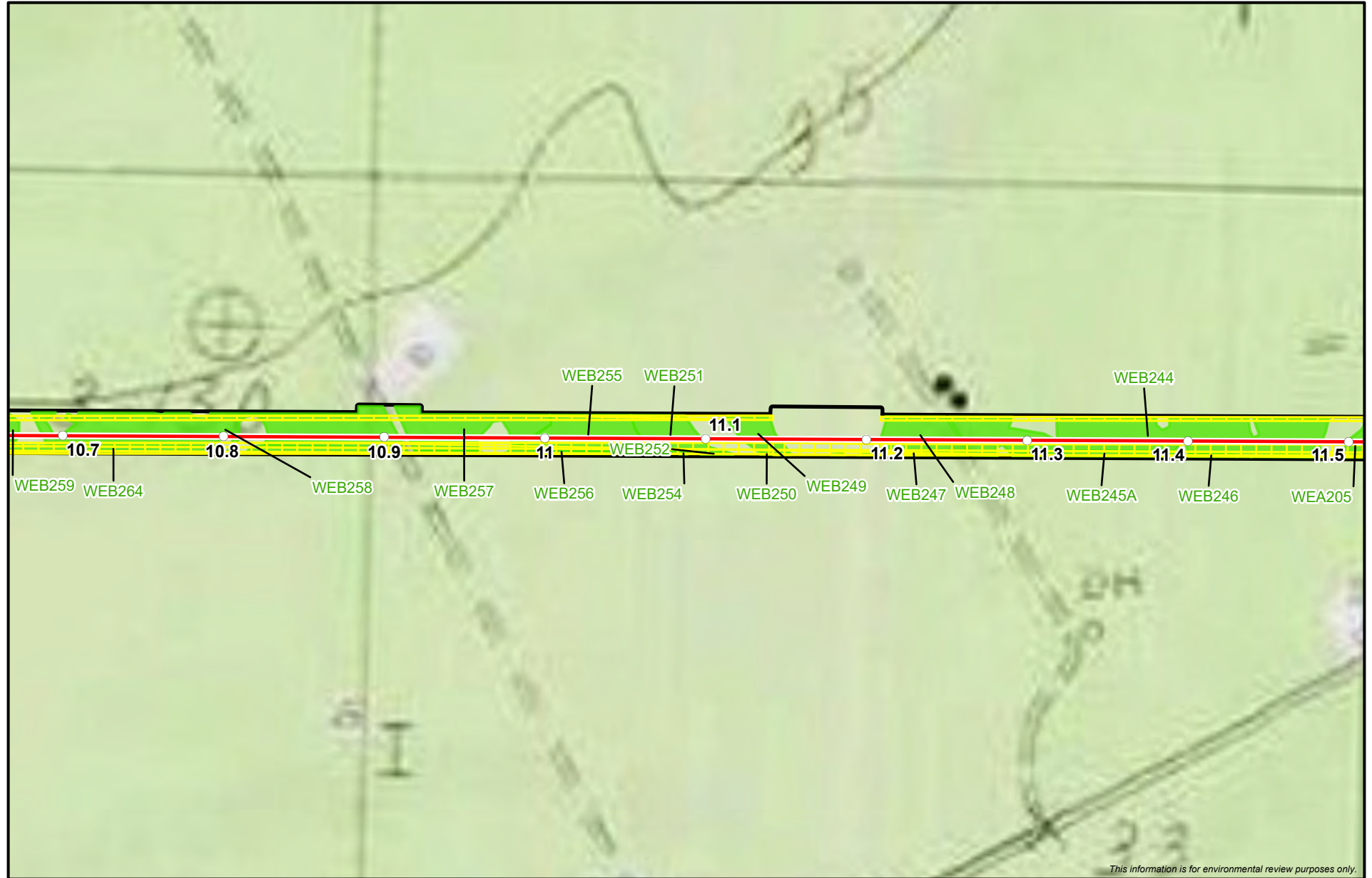
**CP Express Pipeline**

**Newton County, Texas**



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Mileposts

CP Express Pipeline

Temporary Fill Storage

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

0

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Feet

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Proposed Fill Locations within the Pipeline Construction Workspace

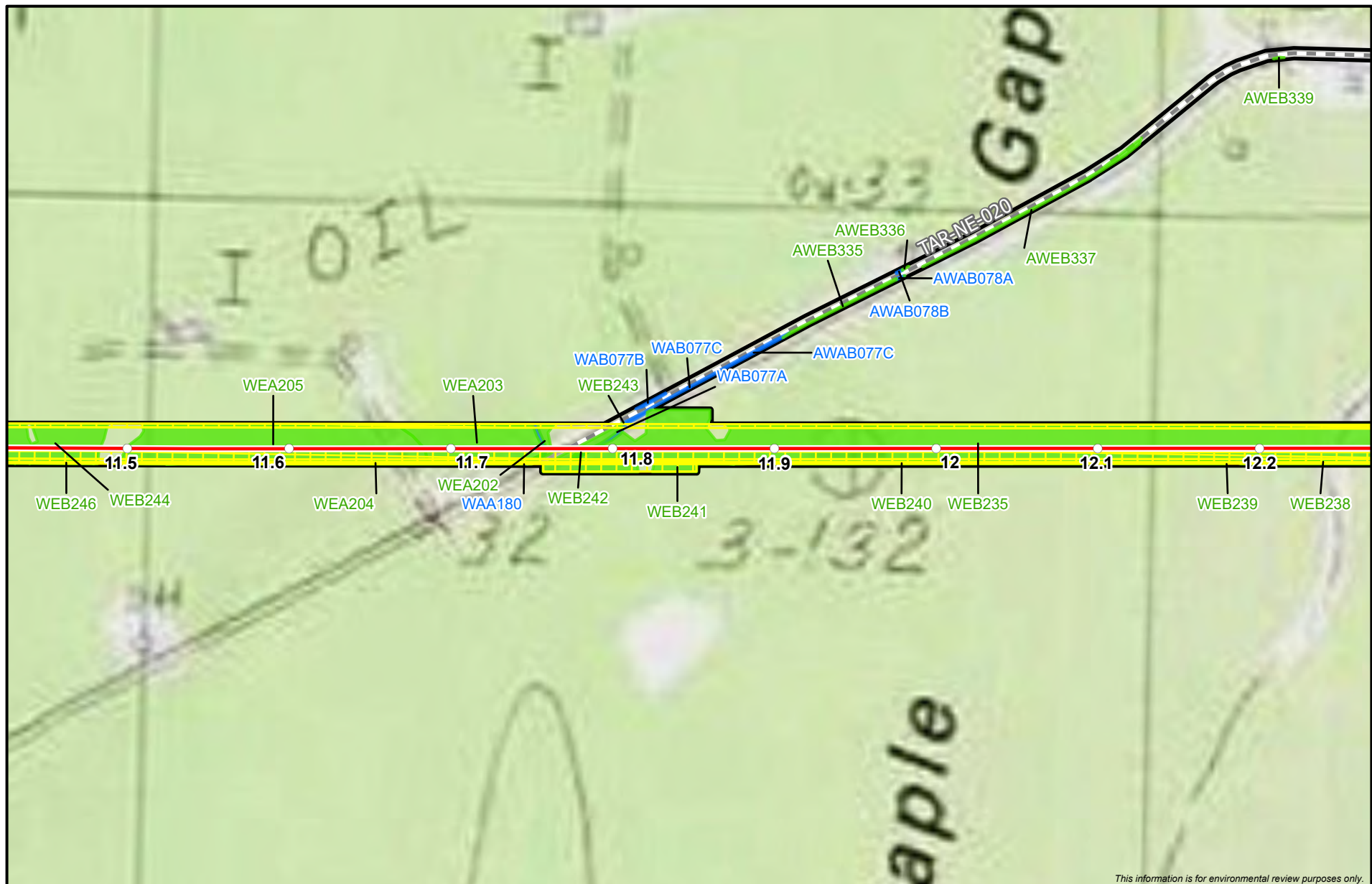
CP Express Pipeline

Newton County, Texas

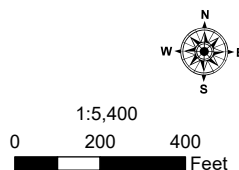
CP EXPRESS

CP2 LNG

MPLS M:\US\Projects\I-Z\Venture\_Global\CP2\_ArcGIS\2021\10\USACE\_MAPS\GALV\_Public\_Notice\_Series\GALV\_Public\_Notice\_Series\_SoilFill\_Areas.aprx | REVISED: 06/23/2023 | SCALE: 1:5,400 | DRAWN BY: JSS



- Mileposts  
 — CP Express Pipeline  
 - - Temporary Access Road  
 □ Temporary Fill Storage  
 ■ Surveyed Waterbody  
 ■ Surveyed Wetland  
 □ Limit of Disturbance  
 □ County/ Parish Boundary



## Proposed Fill Locations within the Pipeline Construction Workspace

**CP Express Pipeline  
Newton County, Texas**

CP2 LNG





This information is for environmental review purposes only.



○ Mileposts

— CP Express Pipeline

— Temporary Access Road

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

0 200 400 Feet

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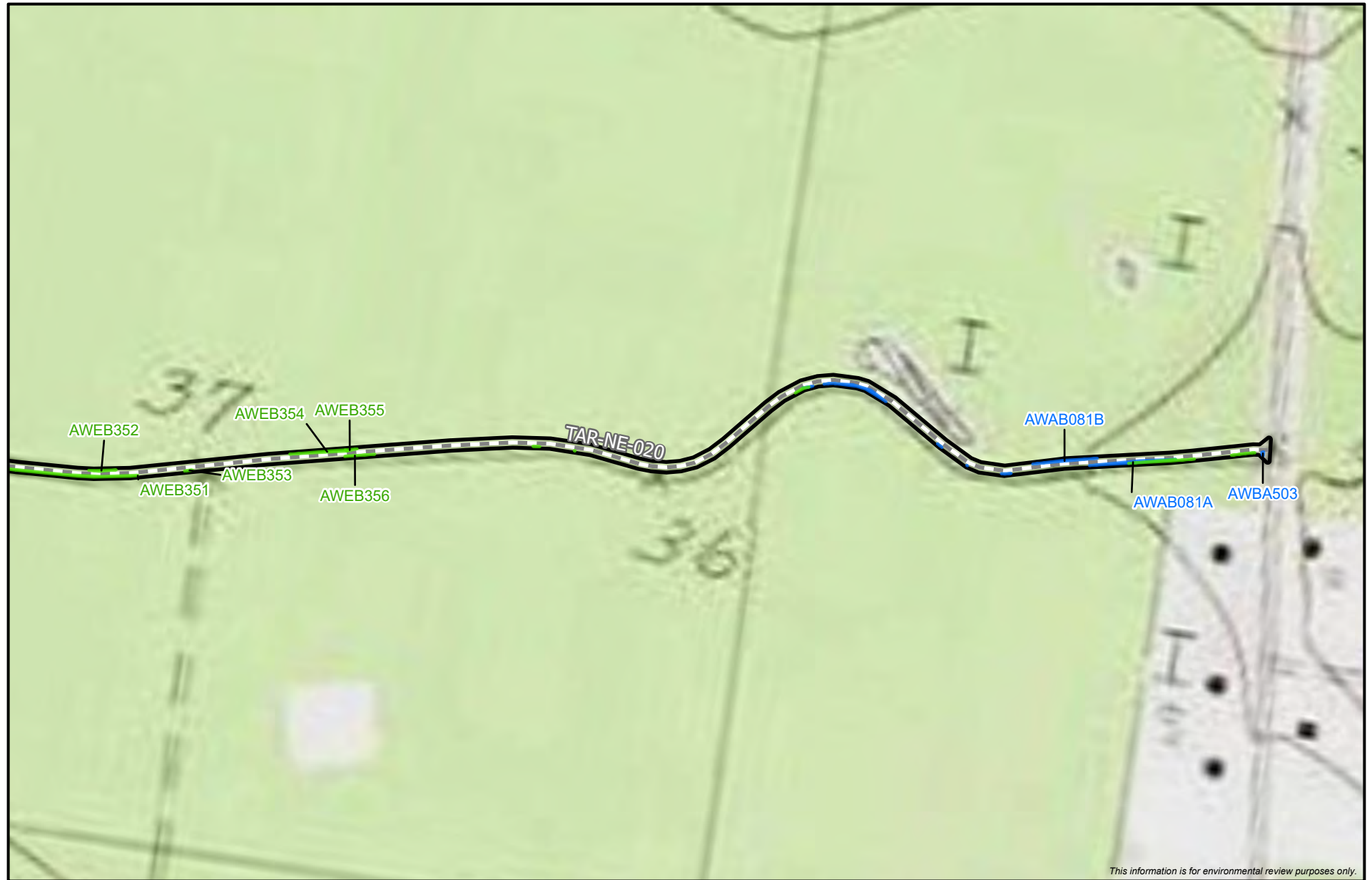
Proposed Fill Locations within the Pipeline Construction Workspace


CP Express Pipeline

Newton County, Texas

CP EXPRESS

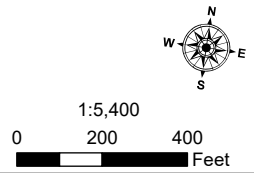
CP2 LNG







Legend:

- Temporary Access Road
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



1:5,400  
0 200 400 Feet

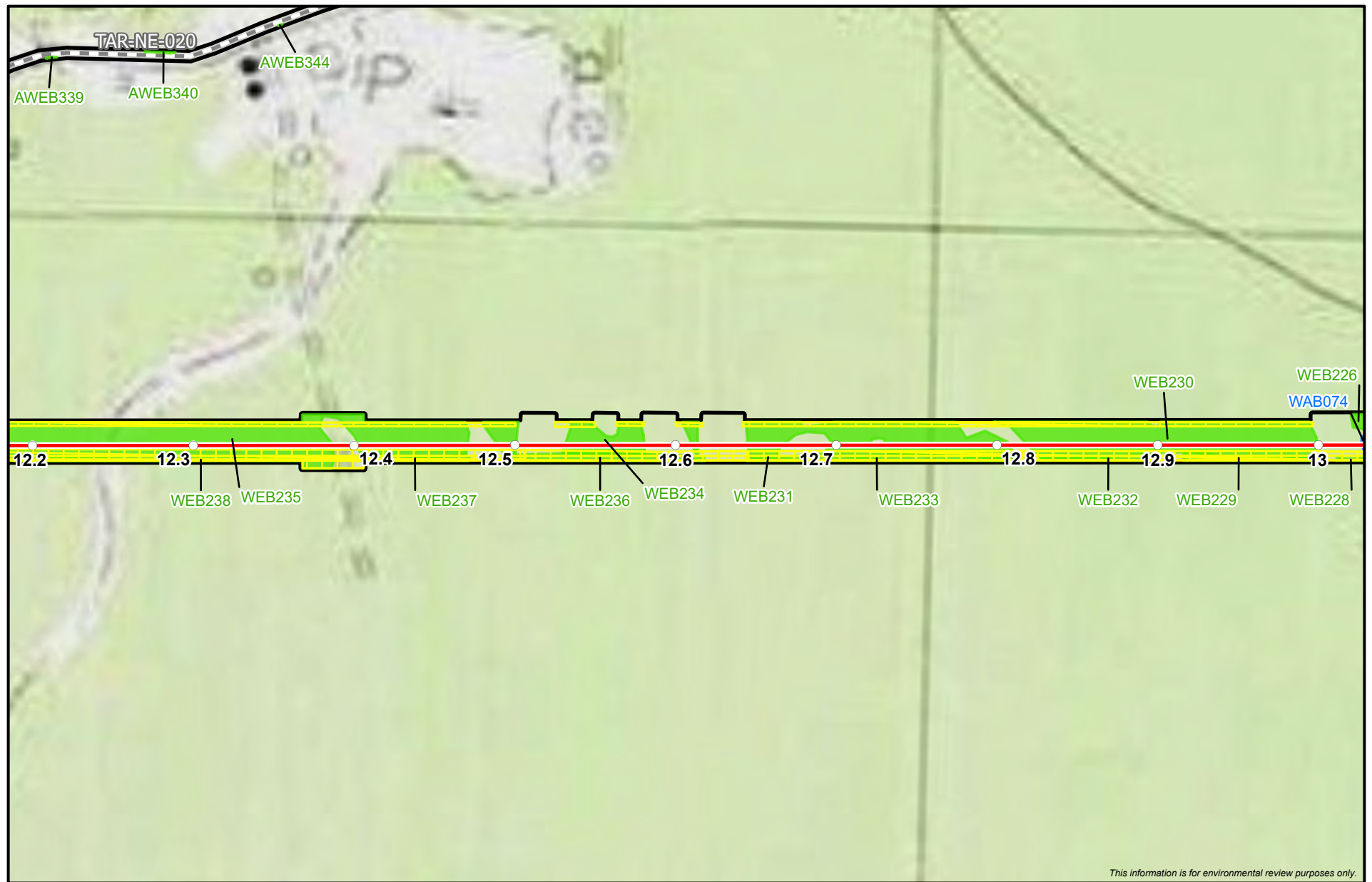
**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Newton County, Texas**




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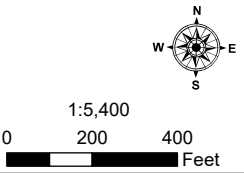
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This information is for environmental review purposes only.



- Mileposts
- CP Express Pipeline
- Temporary Access Road
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary




1:5,400  
0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**

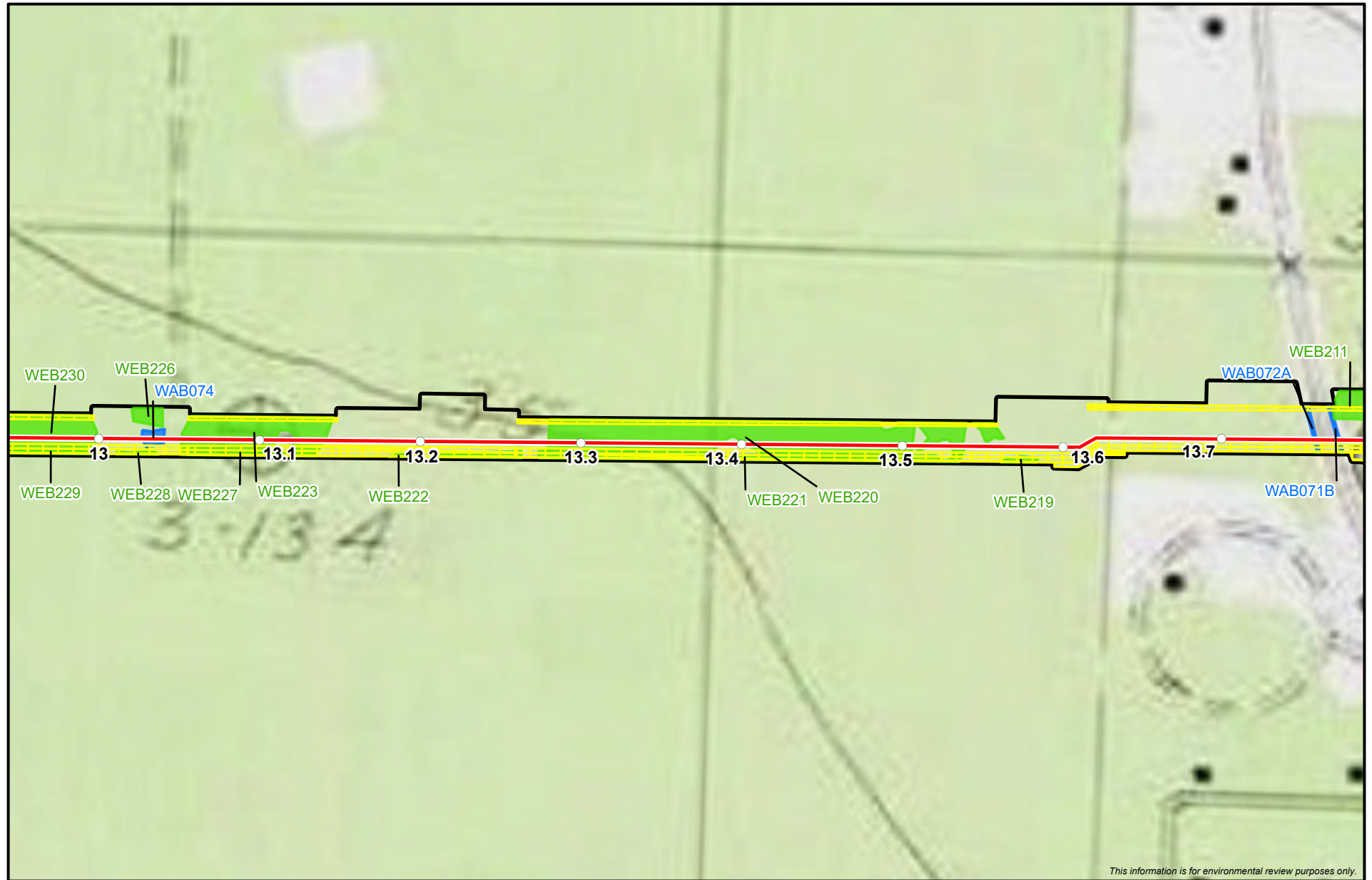
**Newton County, Texas**



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DRAWN BY: JSS





Mileposts

CP Express Pipeline

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

0

200

400

Feet

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W

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Page 27 of 44

Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Newton County, Texas

CP EXPRESS

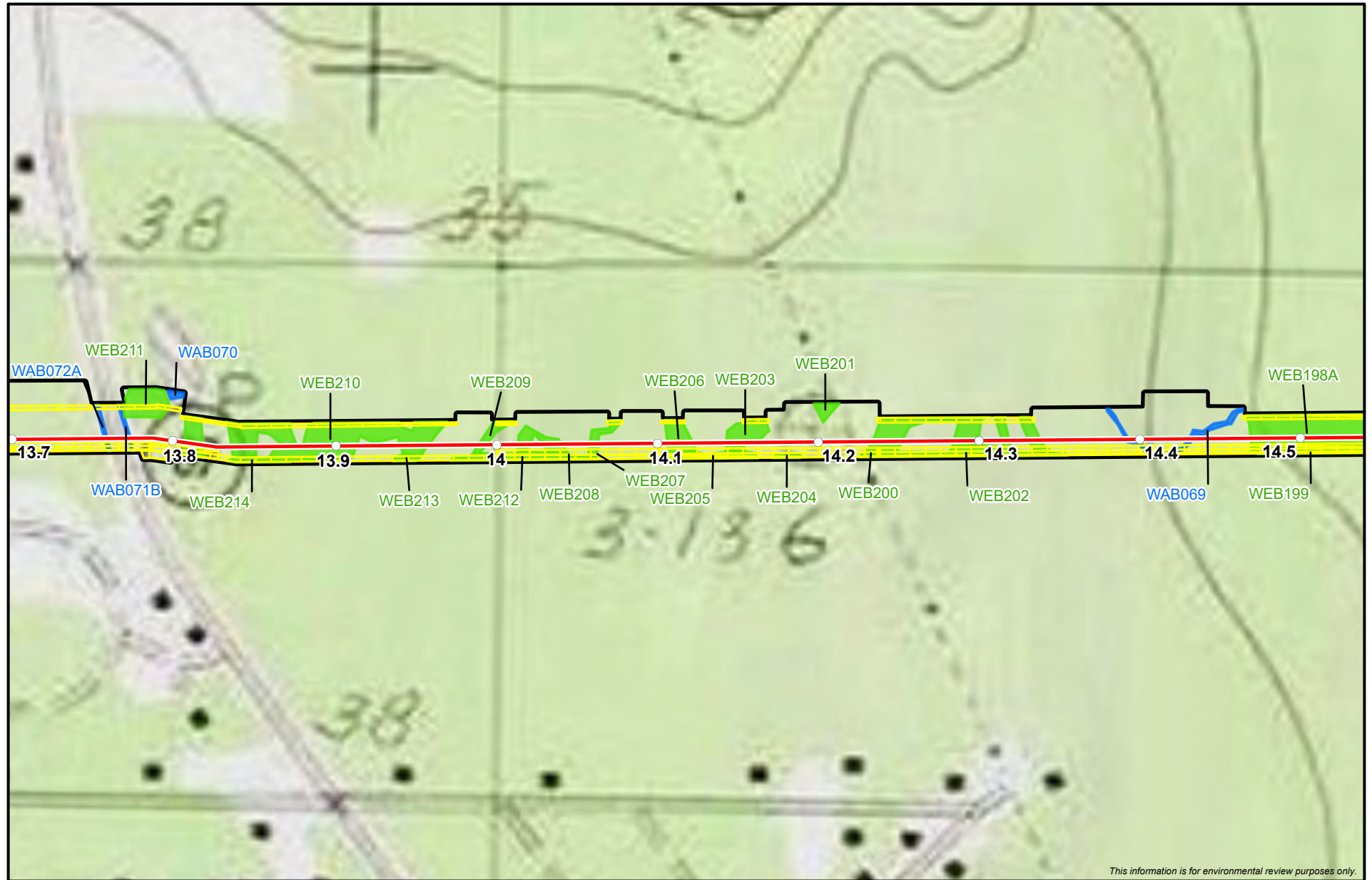
CP2 LNG

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REVISED: 06/23/2023

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DRAWN BY: JSS

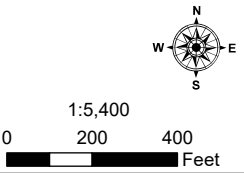


This information is for environmental review purposes only.





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- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



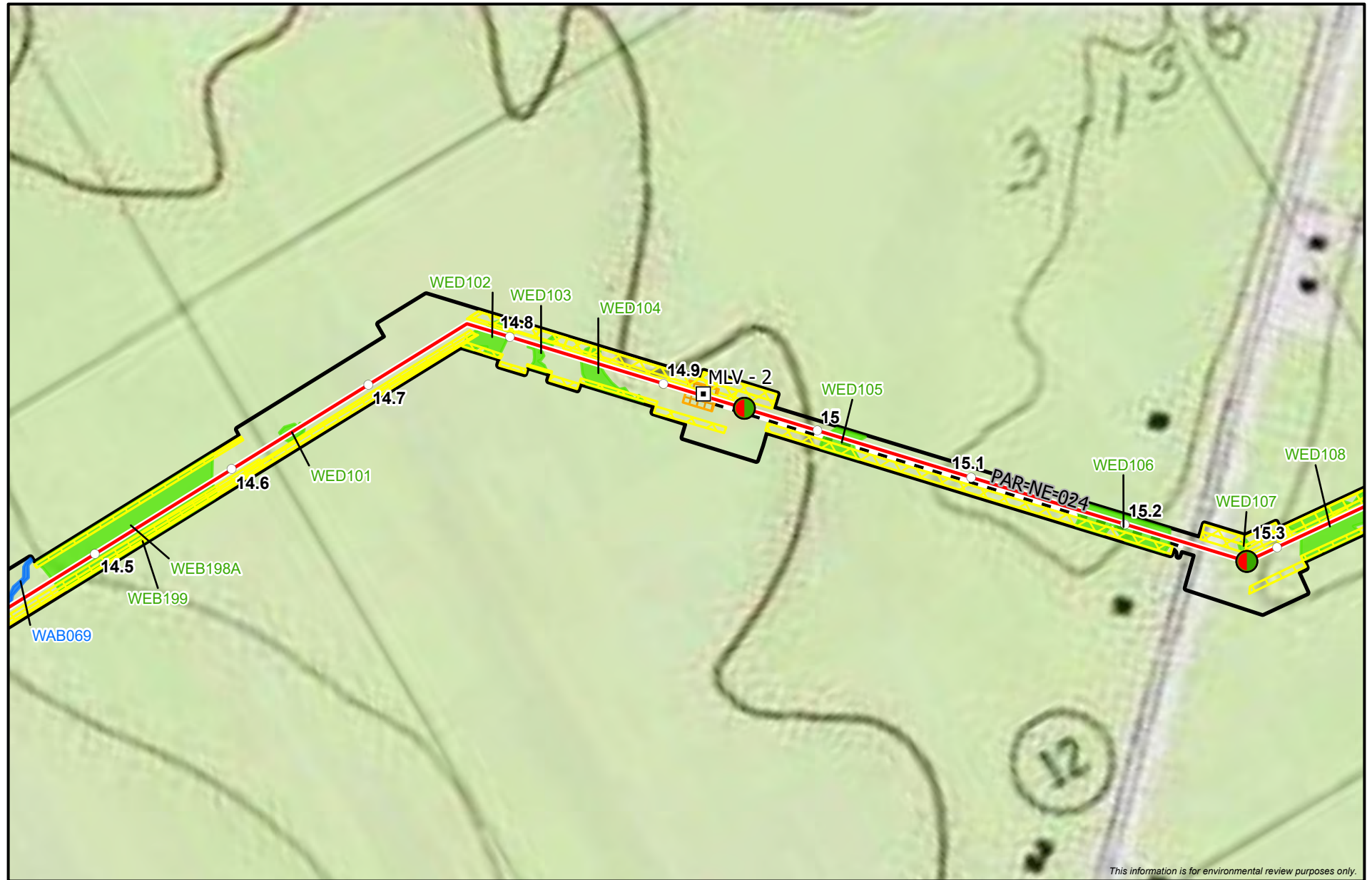
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**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Newton County, Texas**




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DRAWN BY: JSS



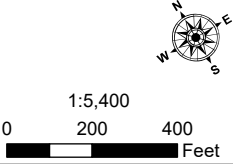
This information is for environmental review purposes only.



Map of Texas and Louisiana showing the project location.

- Valves
- HDD Entry/Exit
- Mileposts
- CP Express Pipeline
- Permanent Access Road

- Temporary Fill Storage
- Permanent Fill
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



1:5,400  
0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Newton County, Texas**

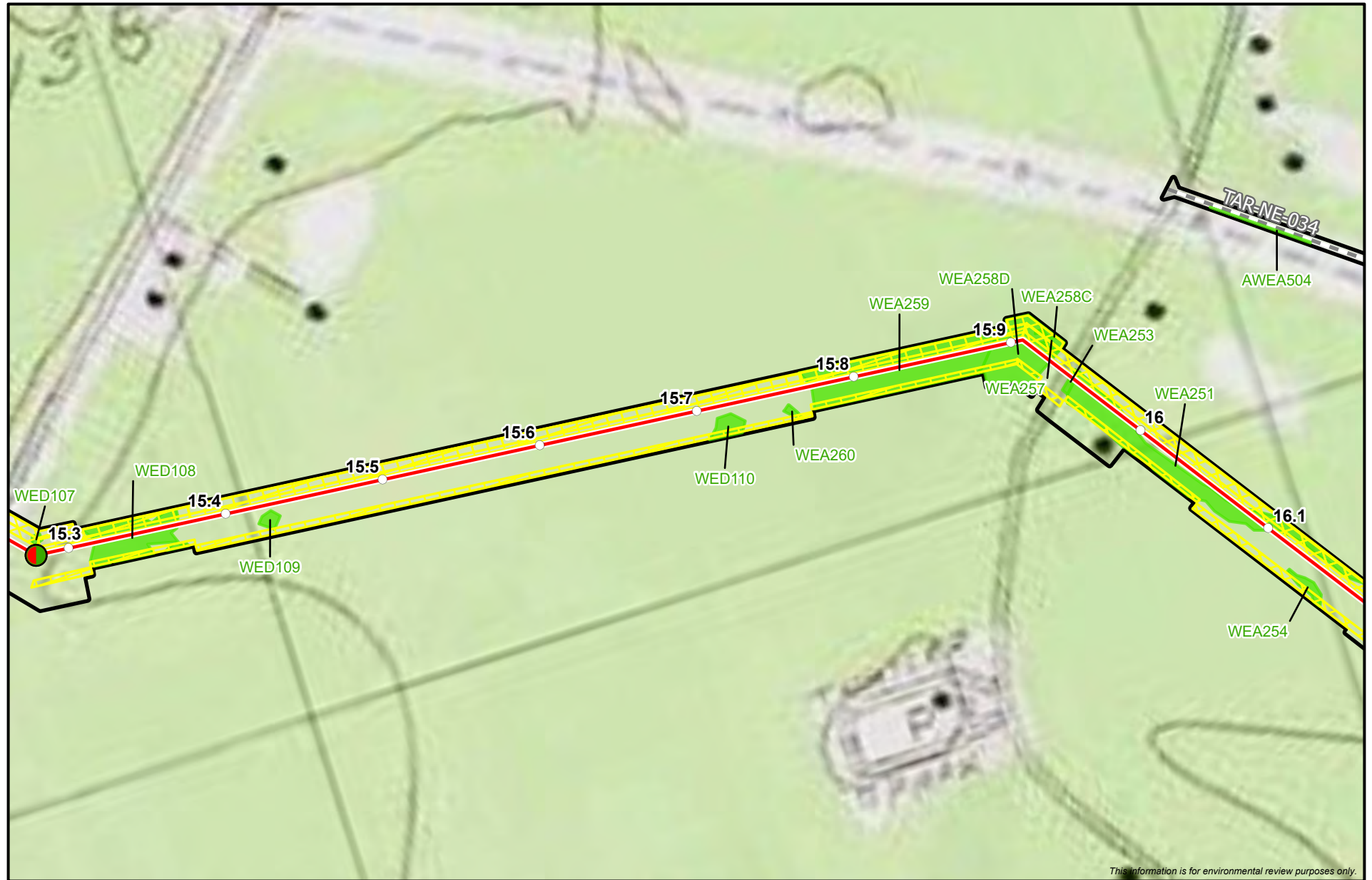
**CP EXPRESS** **CP2 LNG**

Page 29 of 44


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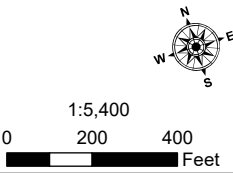


This information is for environmental review purposes only.



Legend:

- HDD Entry/Exit
- Mileposts
- CP Express Pipeline
- Temporary Access Road
- Temporary Fill Storage
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



1:5,400  
0 200 400 Feet

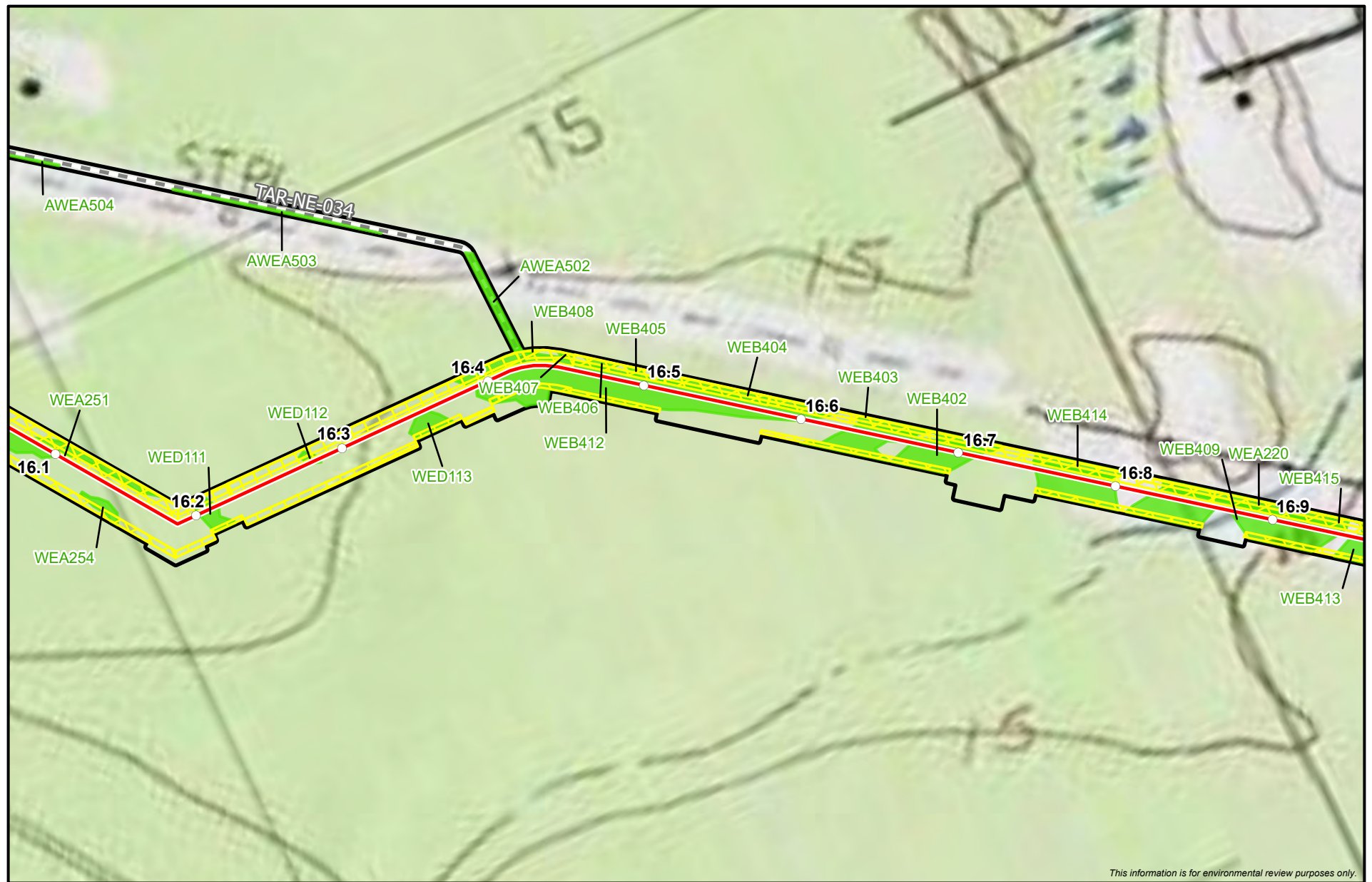
**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
Newton County, Texas

**CP EXPRESS** **CP2 LNG**

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Mileposts

CP Express Pipeline

Temporary Access Road

Temporary Fill Storage

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

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Feet

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Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Newton County, Texas

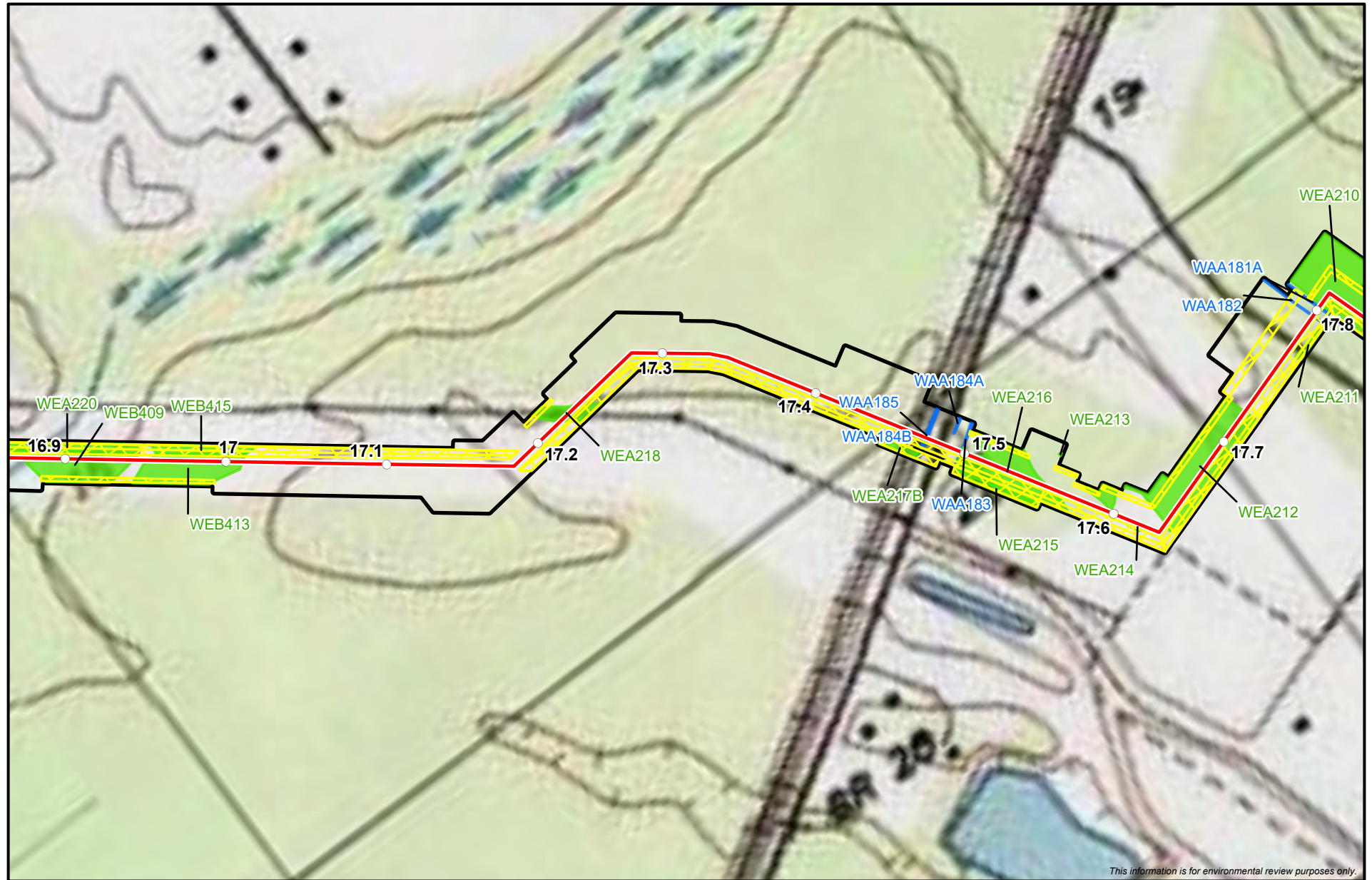
CP EXPRESS

CP2 LNG

Page 31 of 44

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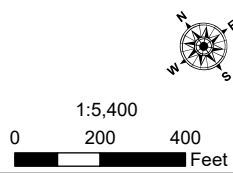




This information is for environmental review purposes only.



- Mileposts
- CP Express Pipeline
- ▨ Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- ▬ Limit of Disturbance
- ▬ County/ Parish Boundary



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**Proposed Fill Locations within the Pipeline Construction Workspace**

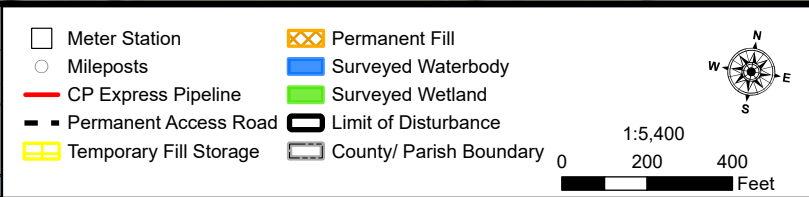
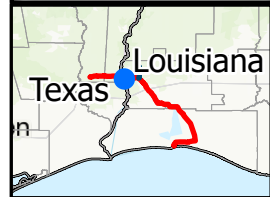
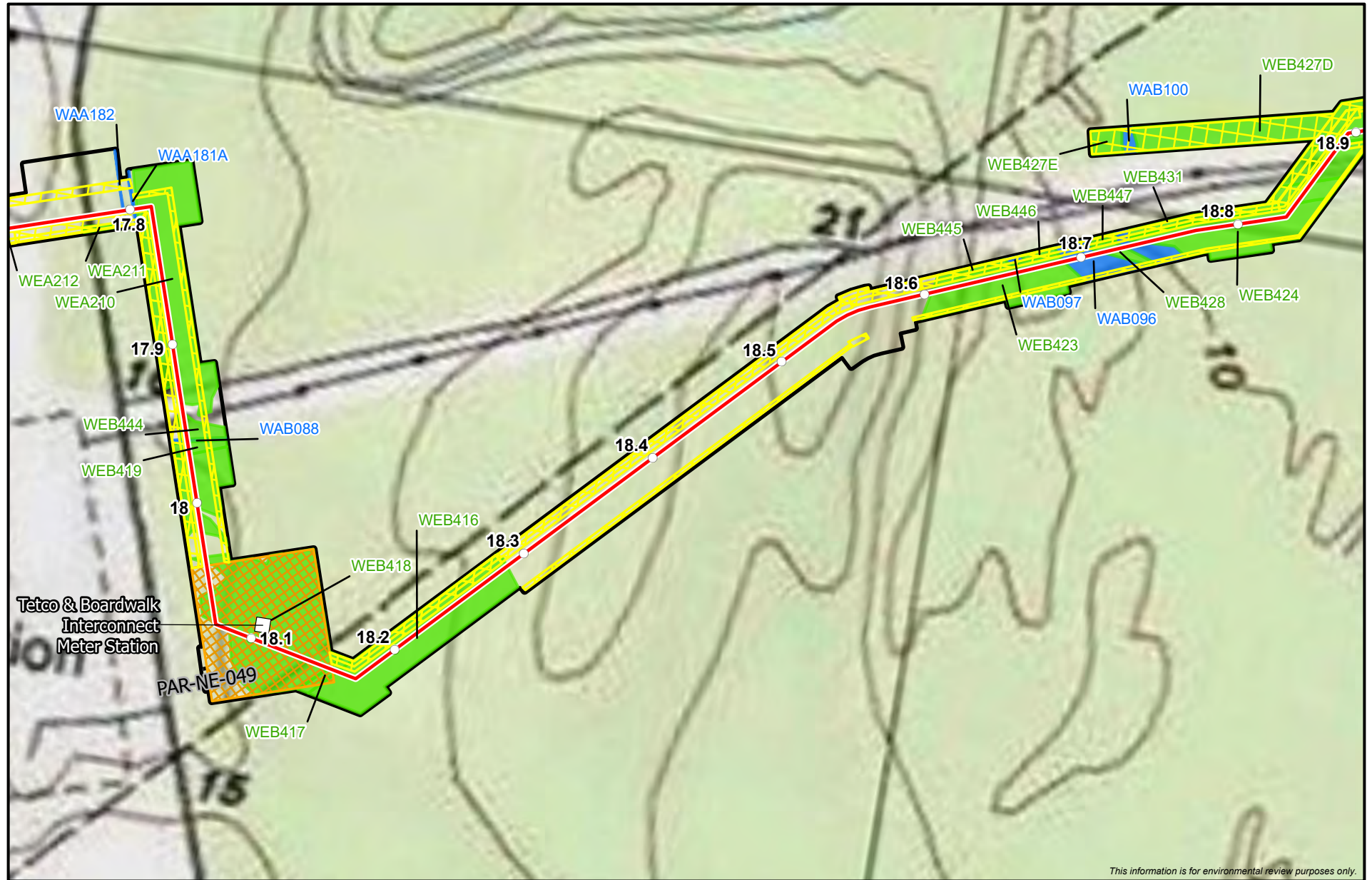
**CP Express Pipeline**

**Newton County, Texas**

**CP EXPRESS**

**CP2 LNG**





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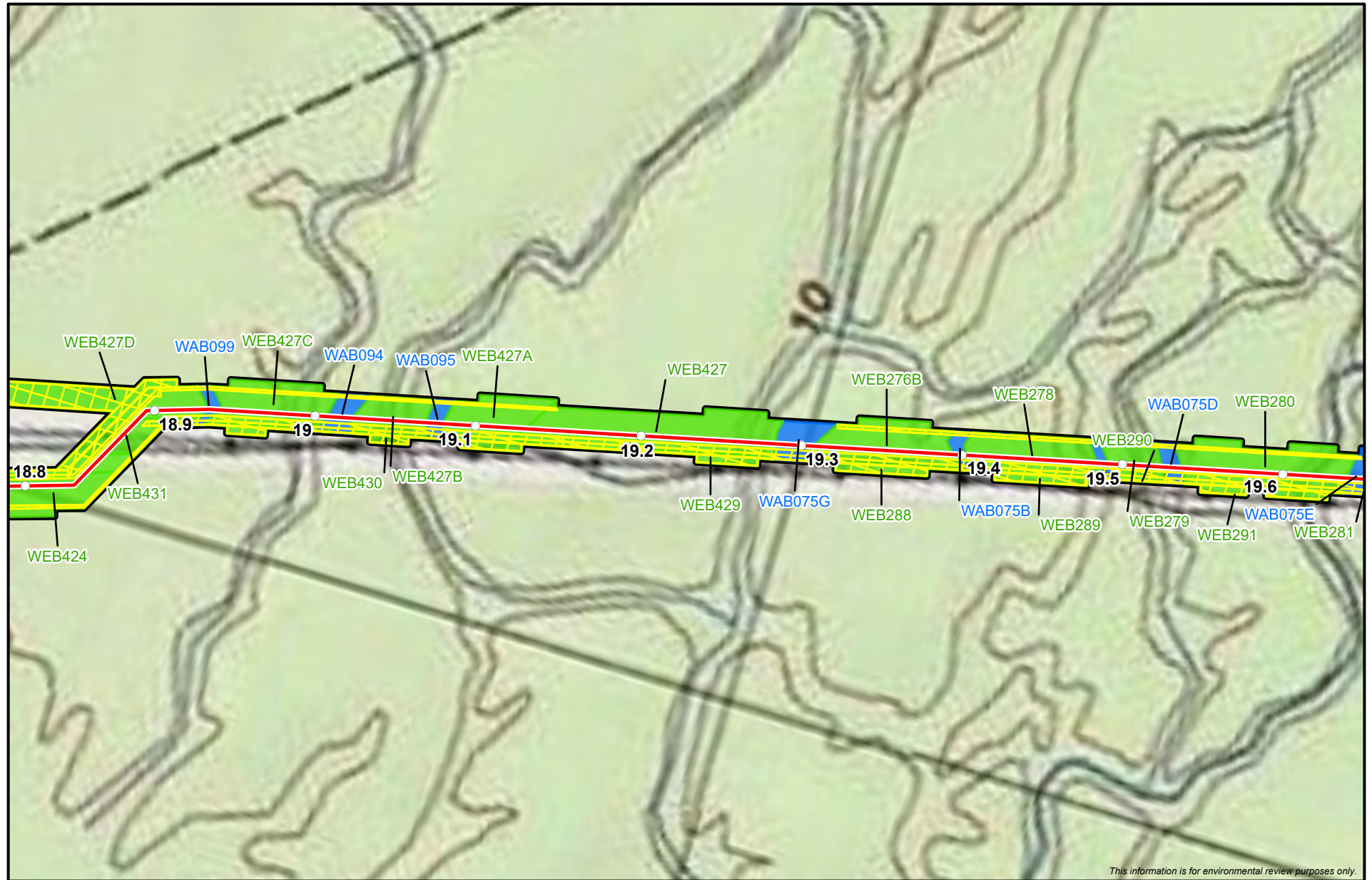
**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**

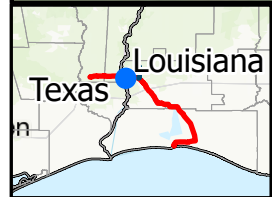
**Newton County, Texas**

**CP EXPRESS**

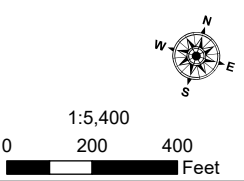
**CP2 LNG**



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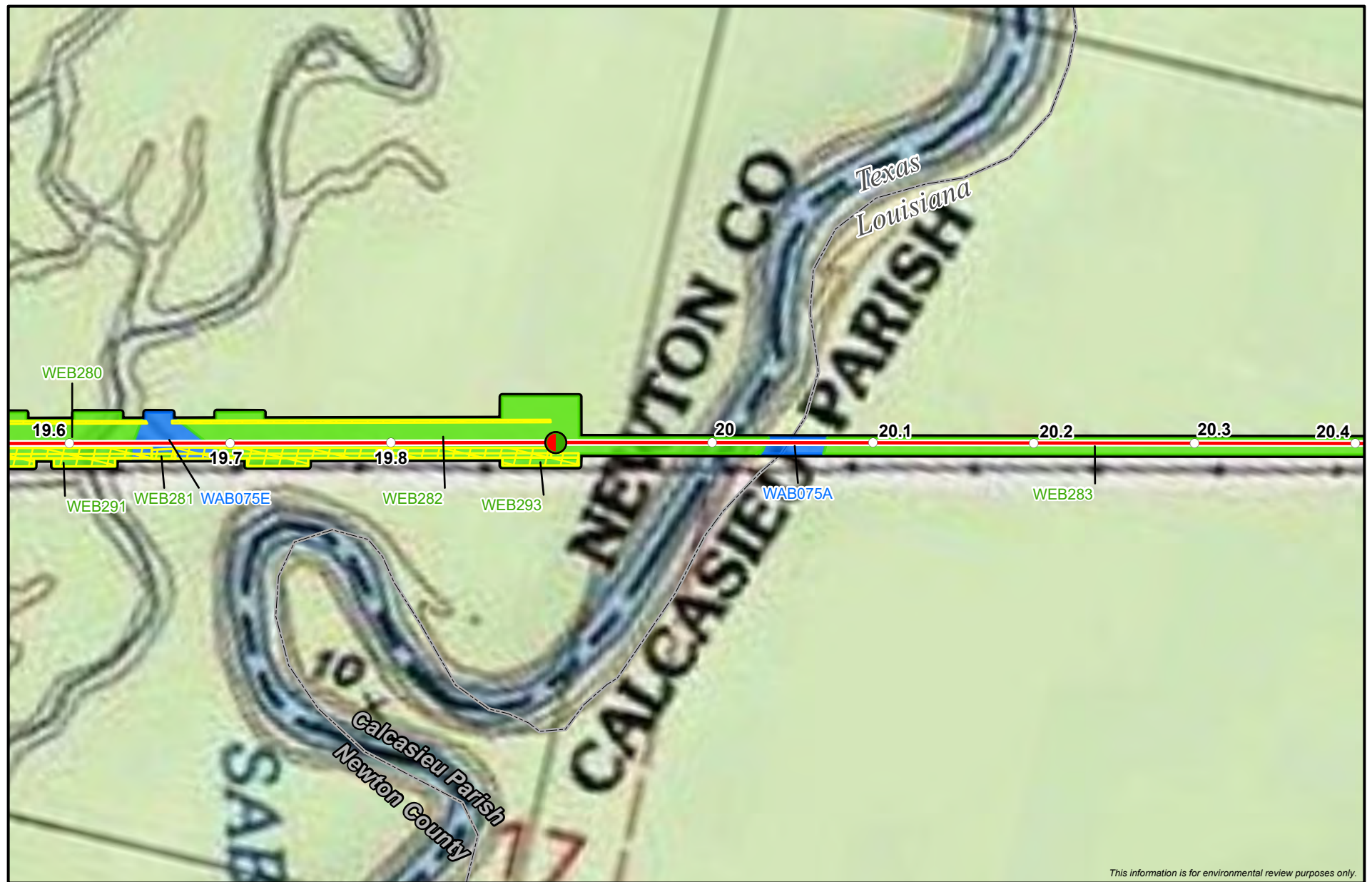
- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



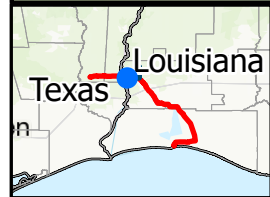
**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
**Newton County, Texas**







This information is for environmental review purposes only.



HDD Entry/Exit

Mileposts

CP Express Pipeline

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

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1:5,400

0 200 400 Feet

Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

Newton County, Texas

CP EXPRESS

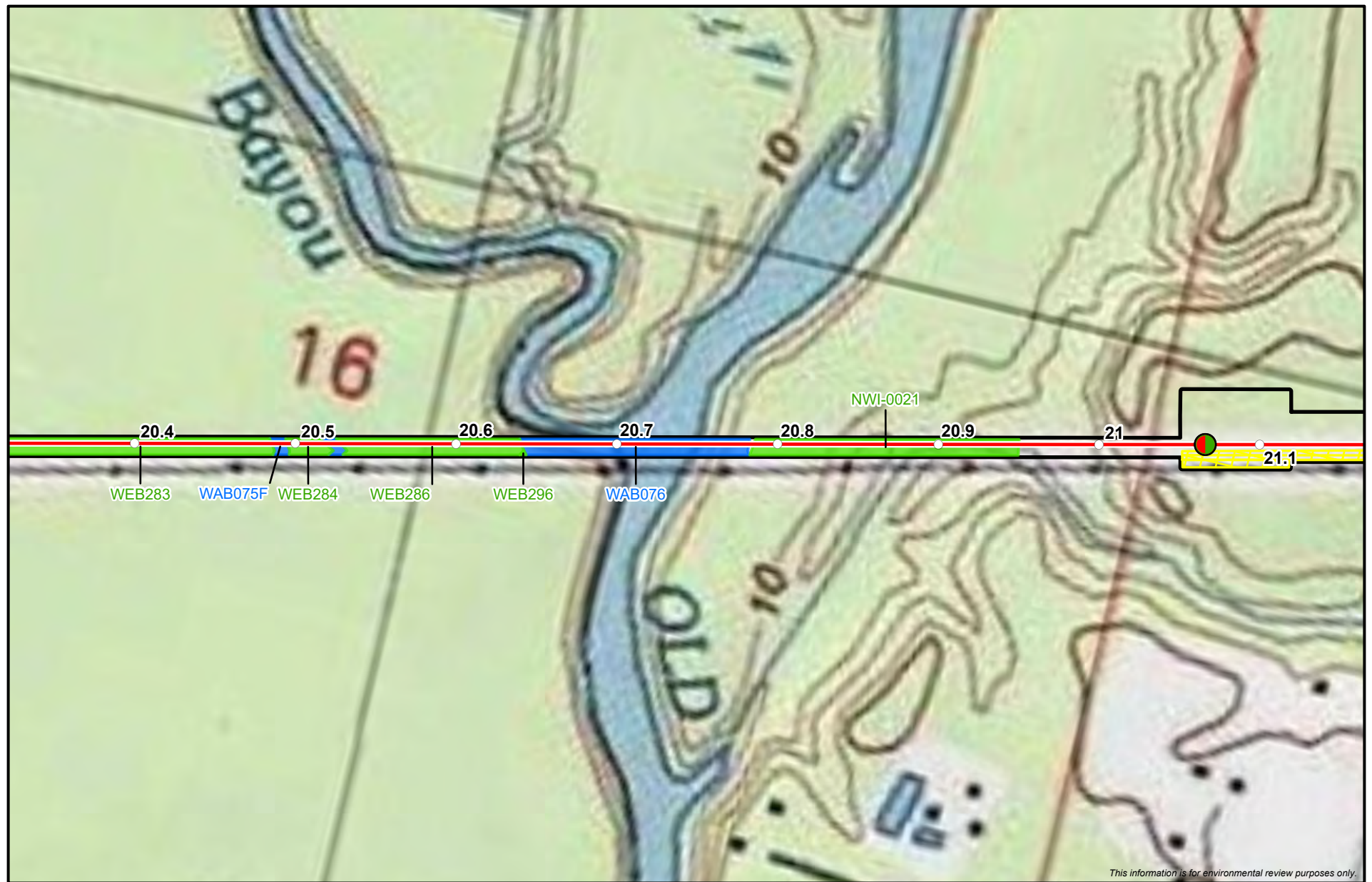
CP2 LNG

Page 35 of 44

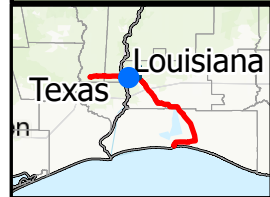
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This information is for environmental review purposes only.





 HDD Entry/Exit


 Mileposts


 CP Express Pipeline


 Temporary Fill Storage

 Surveyed Waterbody

 Surveyed Wetland

 Limit of Disturbance

 County/ Parish Boundary

  
1:5,400  
0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**

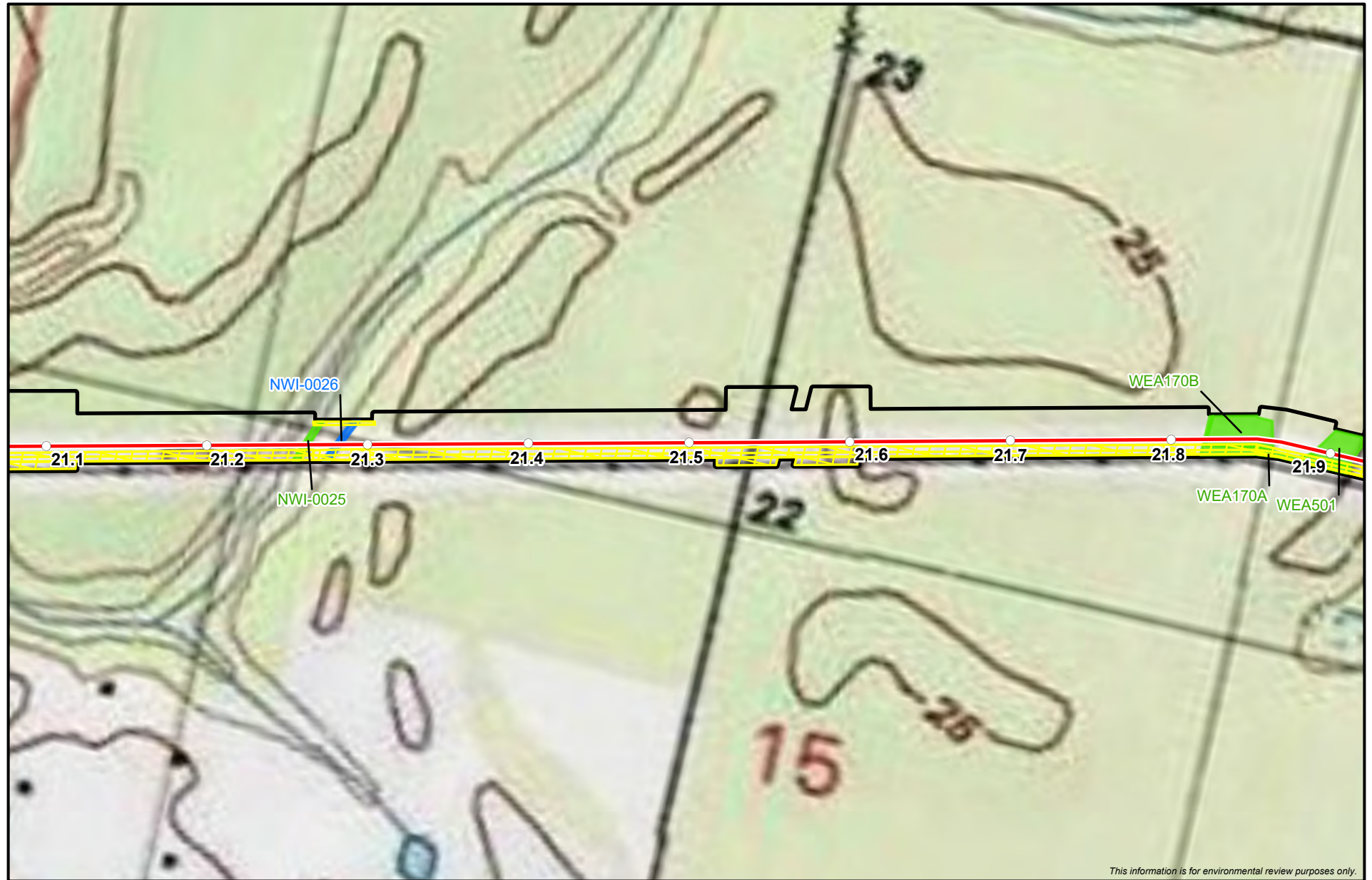
**CP Express Pipeline**

**Calcasieu Parish, Louisiana**

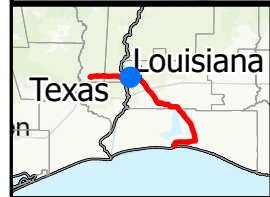


Page 36 of 44

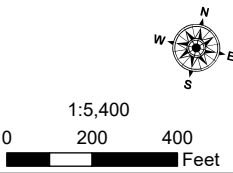
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This information is for environmental review purposes only.



- Mileposts
- CP Express Pipeline
- ▨ Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- ▭ Limit of Disturbance
- ▭ County/ Parish Boundary



Page 37 of 44

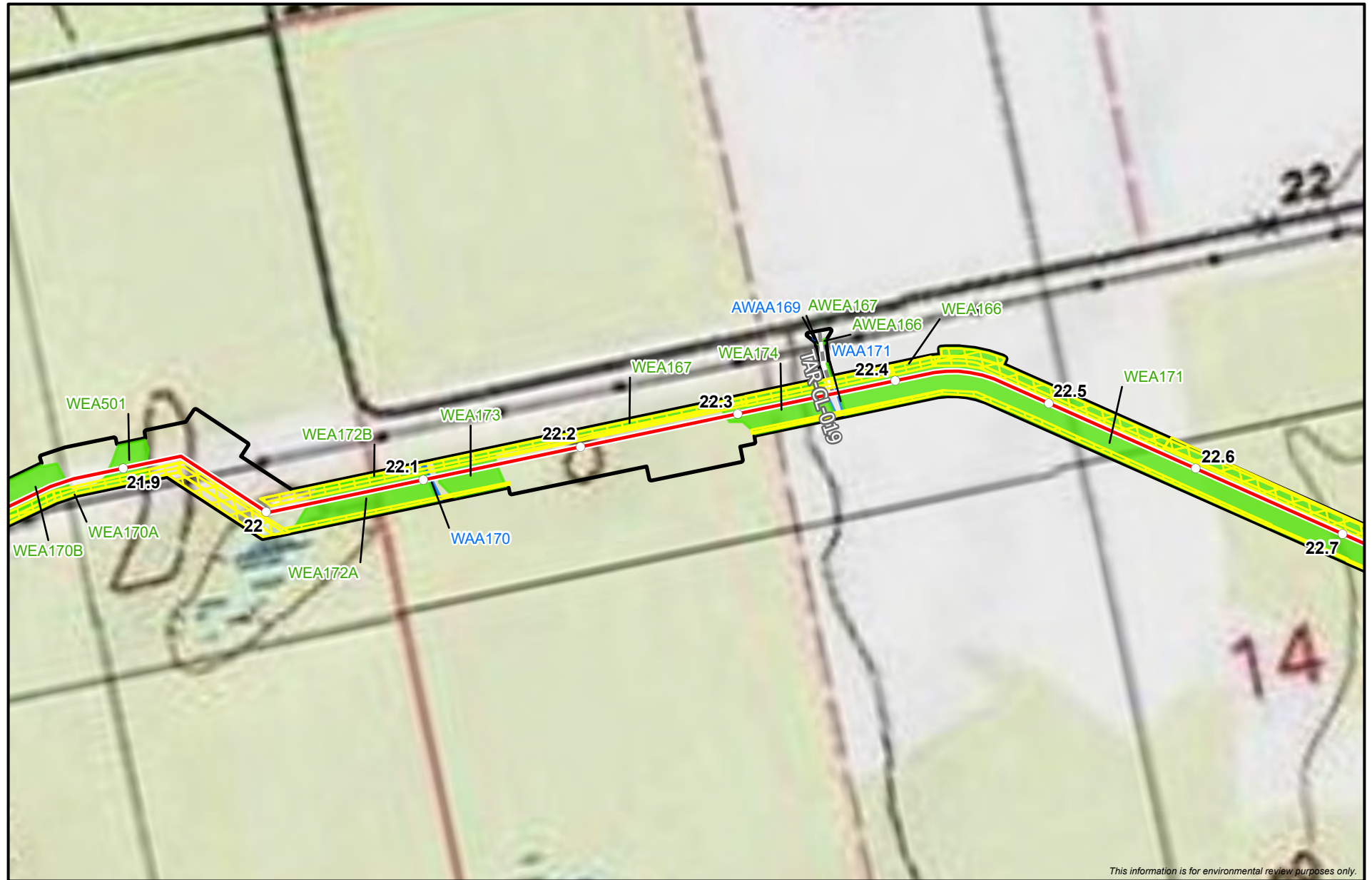
**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**

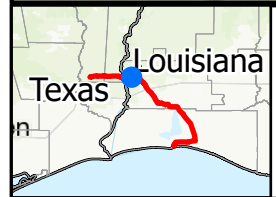
**Calcasieu Parish, Louisiana**

**CP EXPRESS** **CP2 LNG**






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- Mileposts
- CP Express Pipeline
- - Temporary Access Road
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary





1:5,400

0 200 400 Feet

**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**

**Calcasieu Parish, Louisiana**



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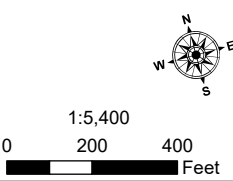




This information is for environmental review purposes only.



- Mileposts
- CP Express Pipeline
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



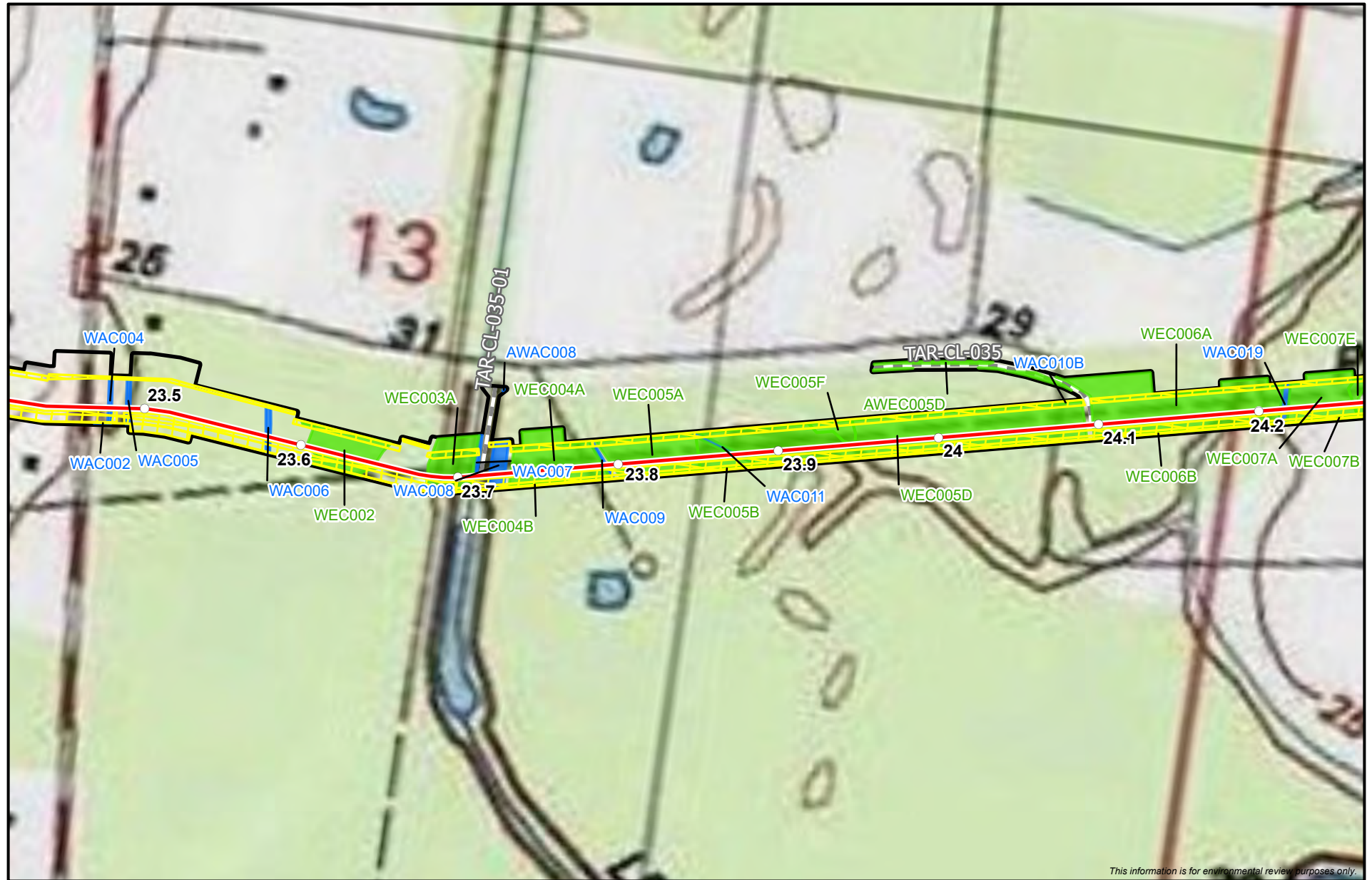
Page 39 of 44

**Proposed Fill Locations within the Pipeline Construction Workspace**

**CP Express Pipeline**

**Calcasieu Parish, Louisiana**

**CP EXPRESS** **CP2 LNG**



This information is for environmental review purposes only.



○ Mileposts

— CP Express Pipeline

— Temporary Access Road

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

1:5,400

0 200 400 Feet

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Page 40 of 44

Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

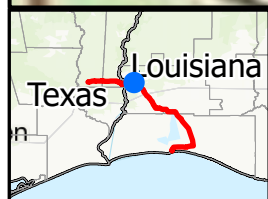
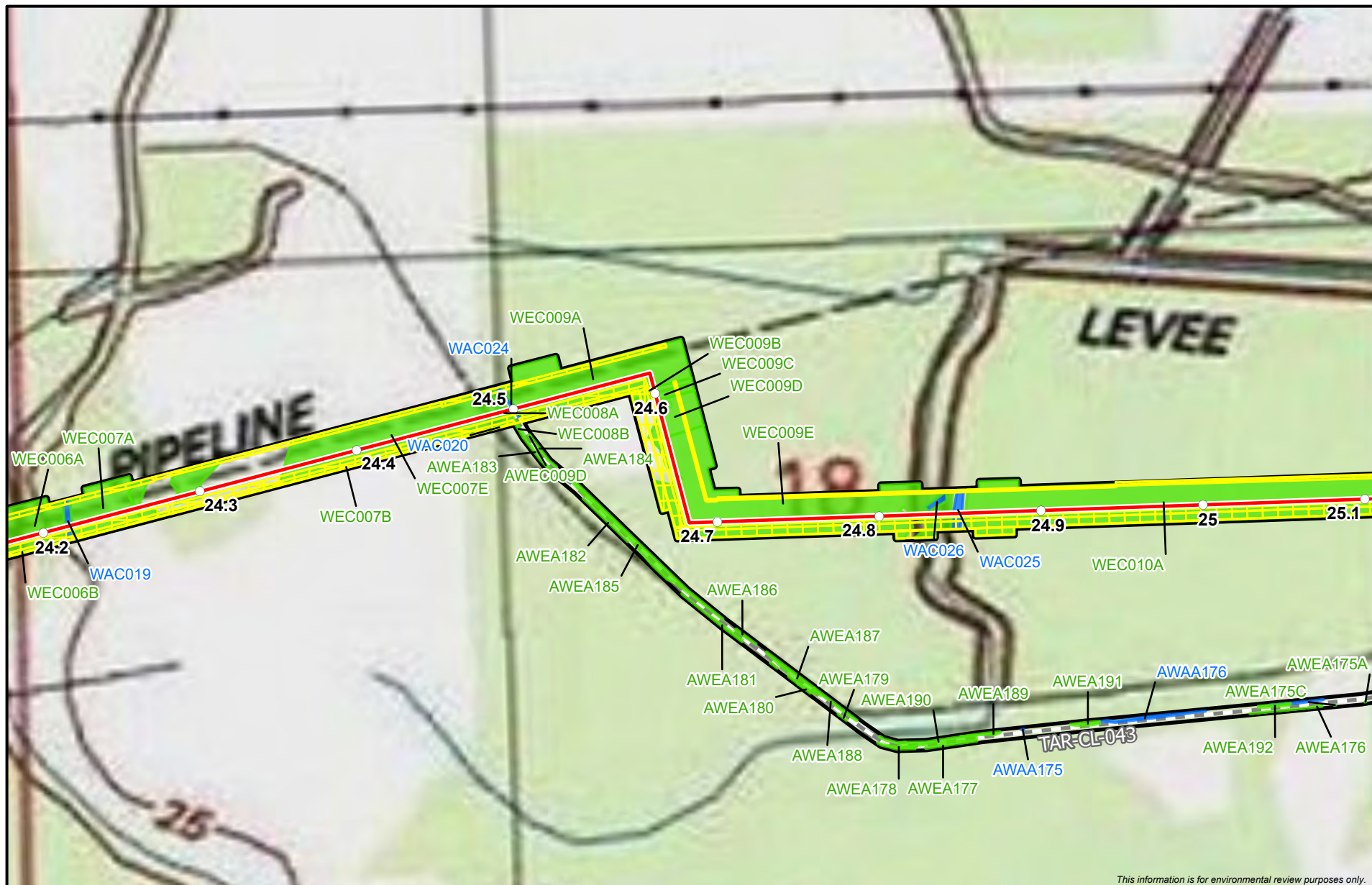
Calcasieu Parish, Louisiana

CP EXPRESS

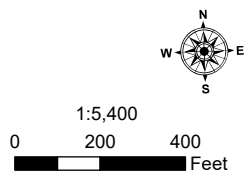
CP2 LNG

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- Mileposts
  Surveyed Waterbody
- CP Express Pipeline
  Surveyed Wetland
- Temporary Access Road
  Limit of Disturbance
- Temporary Fill Storage
  County/ Parish Boundary

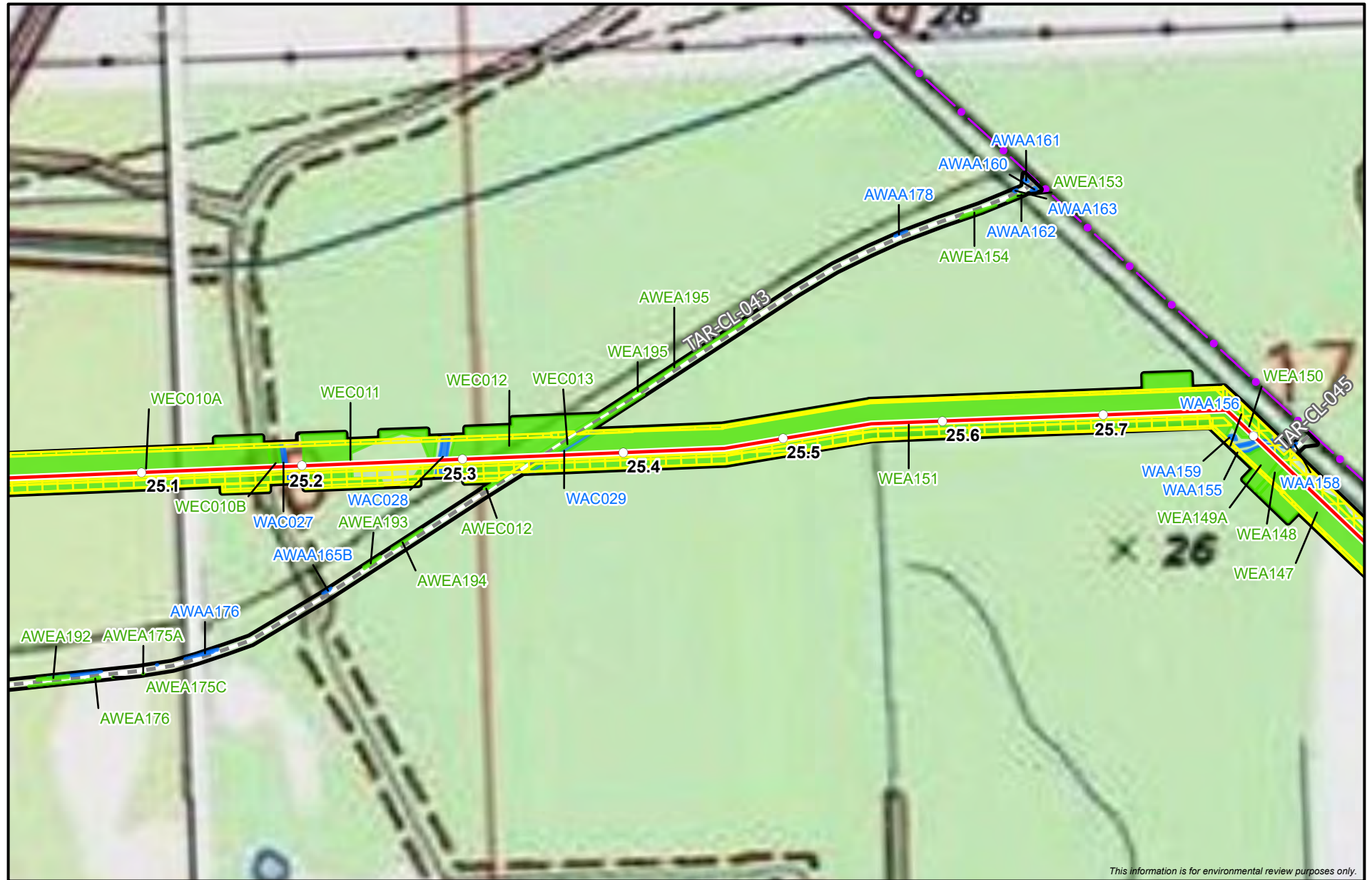


**Proposed Fill Locations within the  
Pipeline Construction Workspace**  
CP Express Pipeline  
Calcasieu Parish, Louisiana

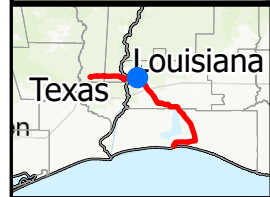
Page 41 of 44

CP2 LNG





This information is for environmental review purposes only.



○ Mileposts

— CP Express Pipeline

— Temporary Access Road

— USACE District Boundary

Temporary Fill Storage

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

0

200

400

1:5,400

Feet

N

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S

W

Compass rose showing North, South, East, and West directions.

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CP EXPRESS

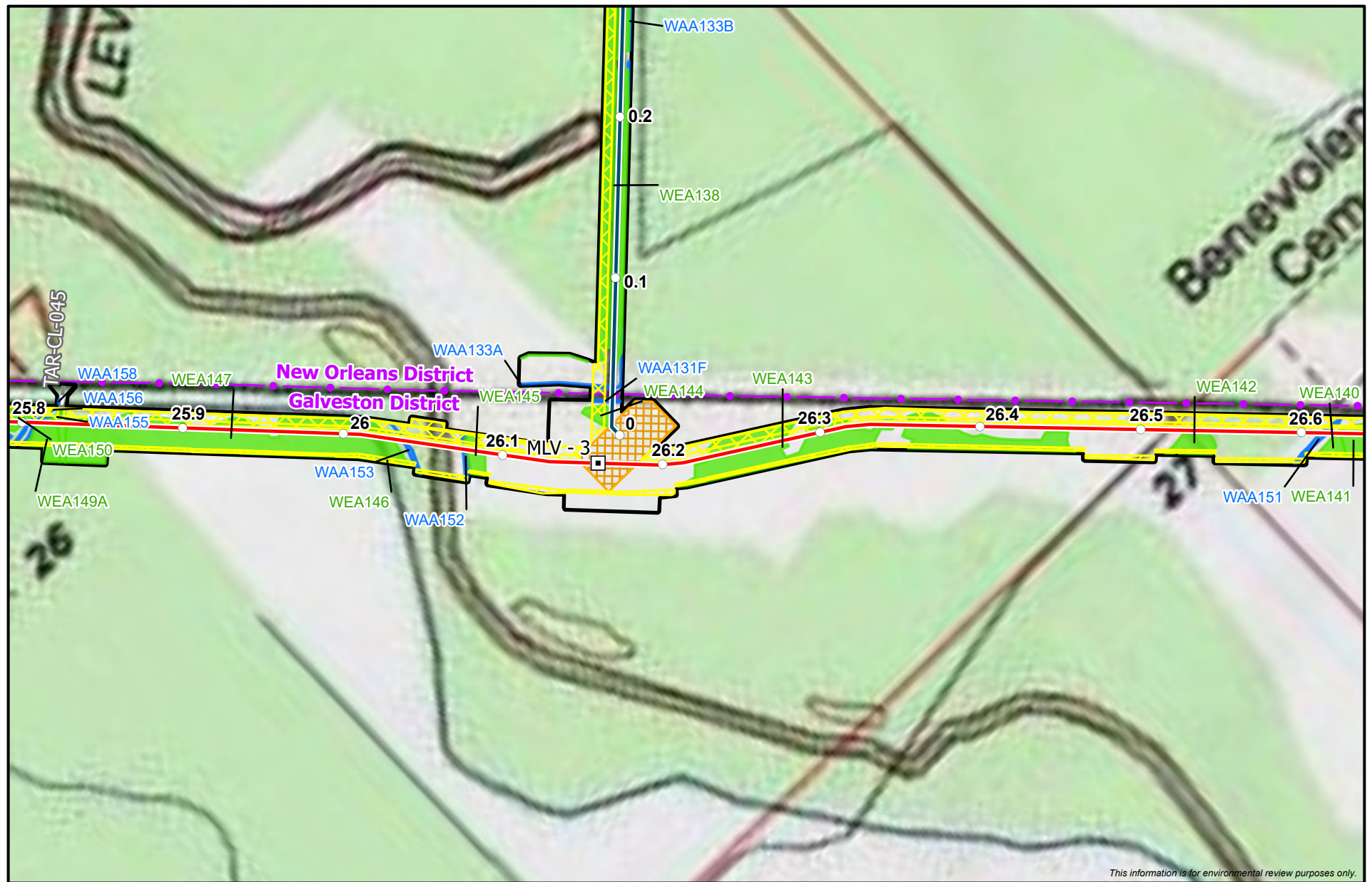
Calcasieu Parish, Louisiana

CP2 LNG

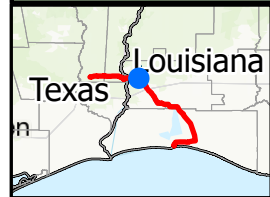
Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

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This information is for environmental review purposes only.



Valves

Mileposts

CP Express Pipeline

Enable Gulf Run Lateral

Temporary Access Road

USACE District Boundary

Temporary Fill Storage

Permanent Fill

Surveyed Waterbody

Surveyed Wetland

Limit of Disturbance

County/ Parish Boundary

0

200

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1:5,400

Feet

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Page 43 of 44

Proposed Fill Locations within the Pipeline Construction Workspace

CP Express Pipeline

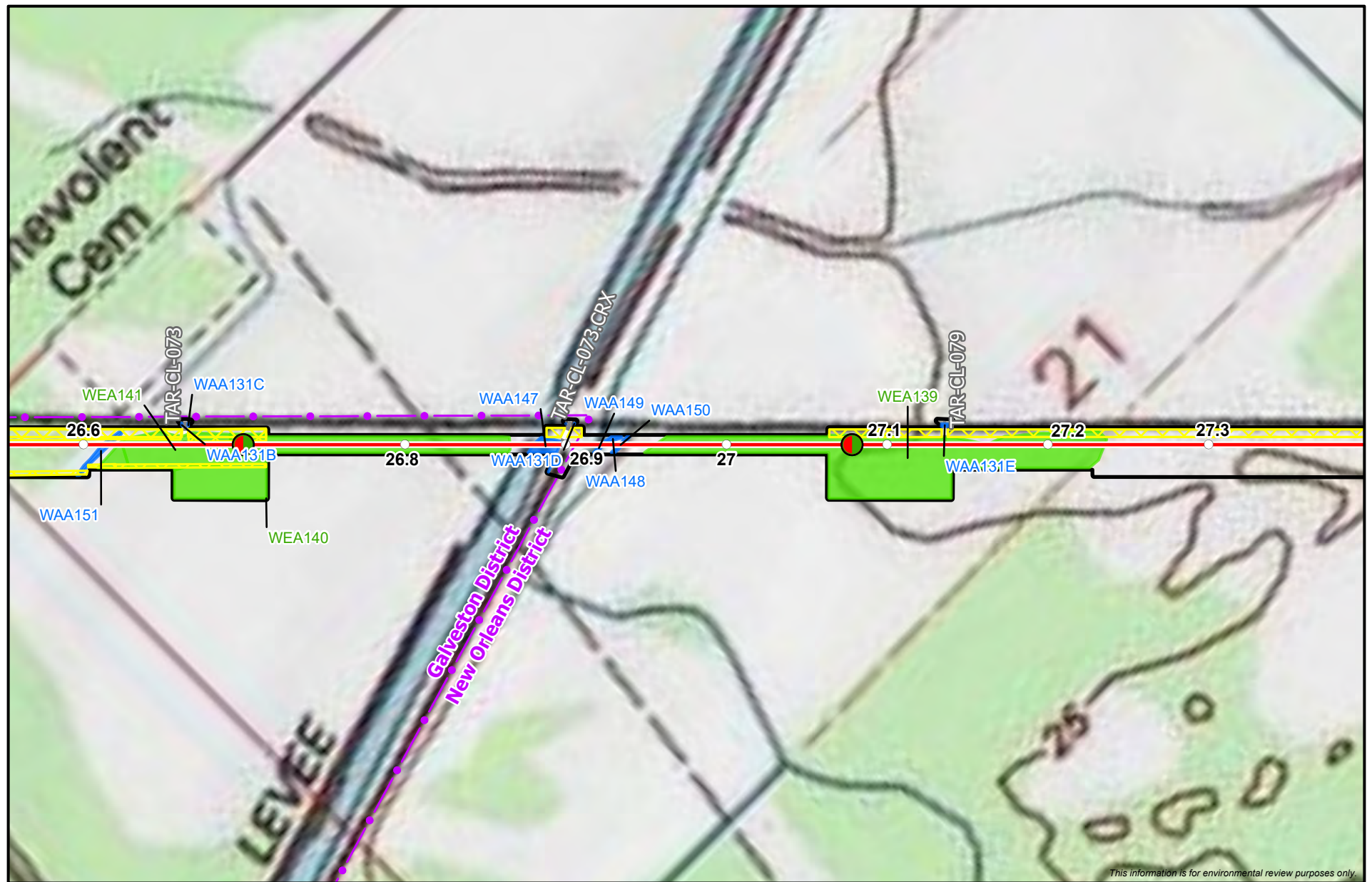
Calcasieu Parish, Louisiana

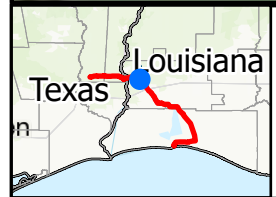
CP EXPRESS

CP2 LNG

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- HDD Entry/Exit
- Mileposts
- CP Express Pipeline
- Temporary Access Road
- USACE District Boundary
- Temporary Fill Storage
- Surveyed Waterbody
- Surveyed Wetland
- Limit of Disturbance
- County/ Parish Boundary



1:5,400

0 200 400 Feet

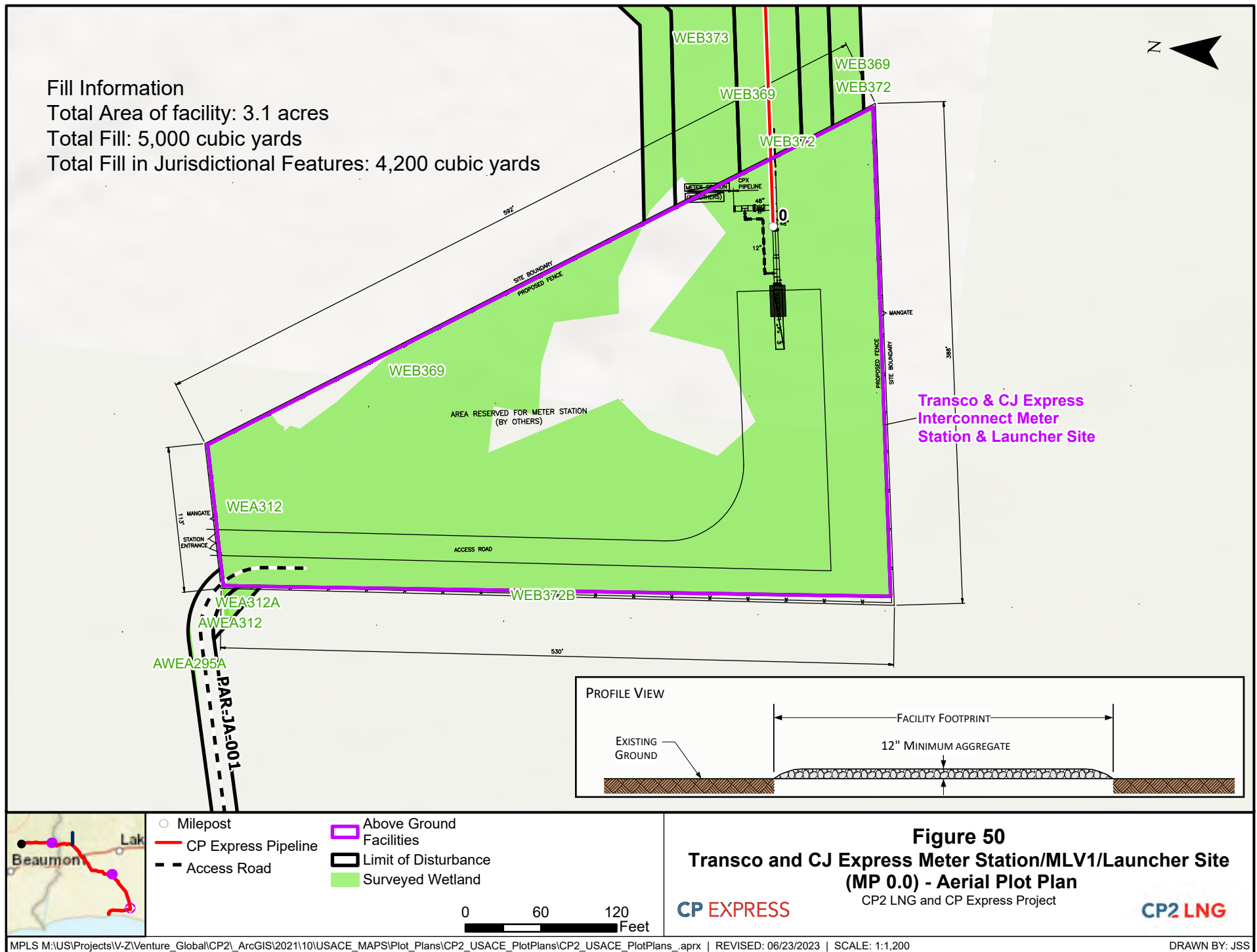
**Proposed Fill Locations within the Pipeline Construction Workspace**  
**CP Express Pipeline**  
Calcasieu Parish, Louisiana

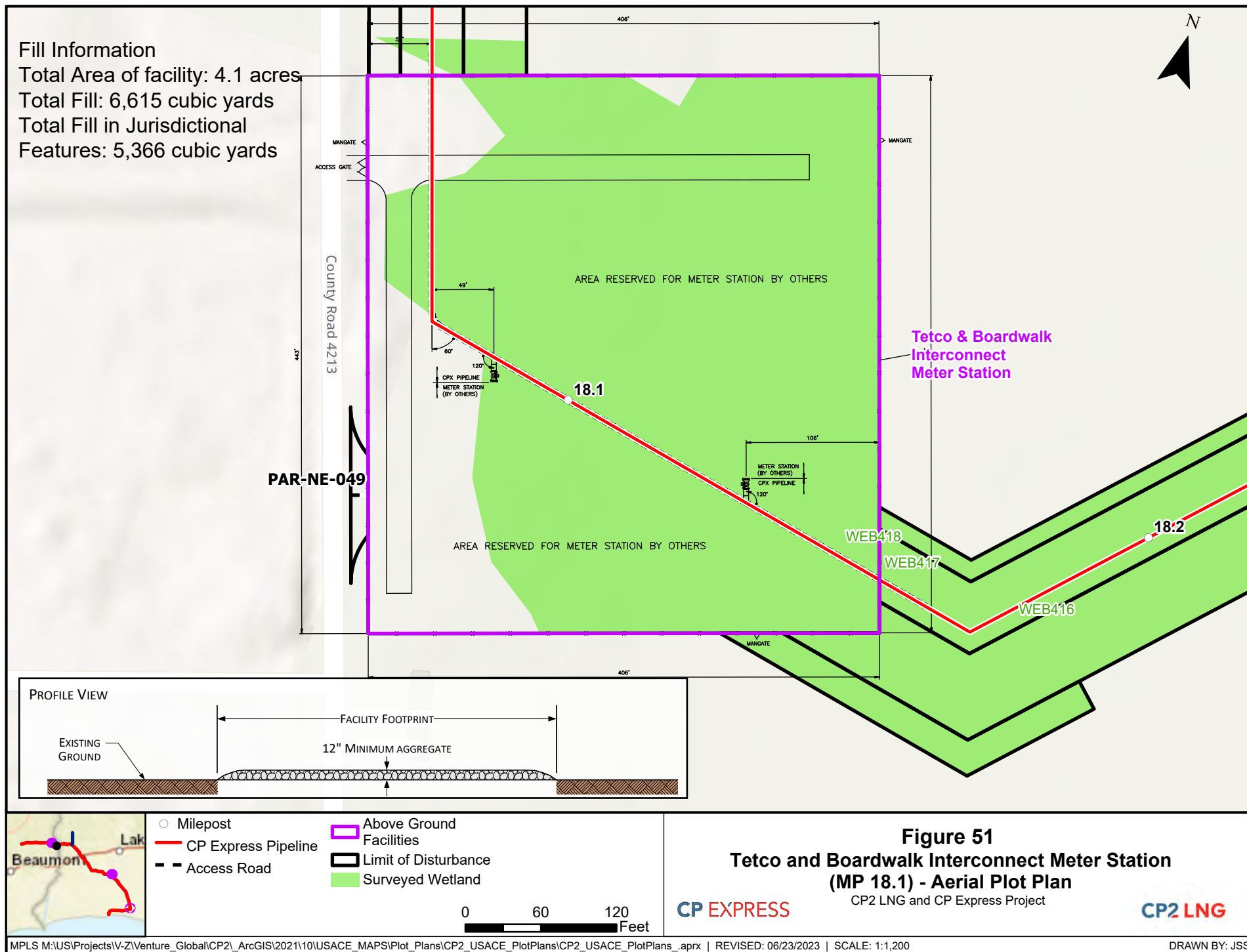


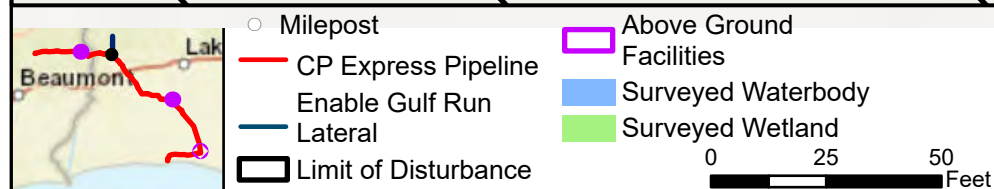
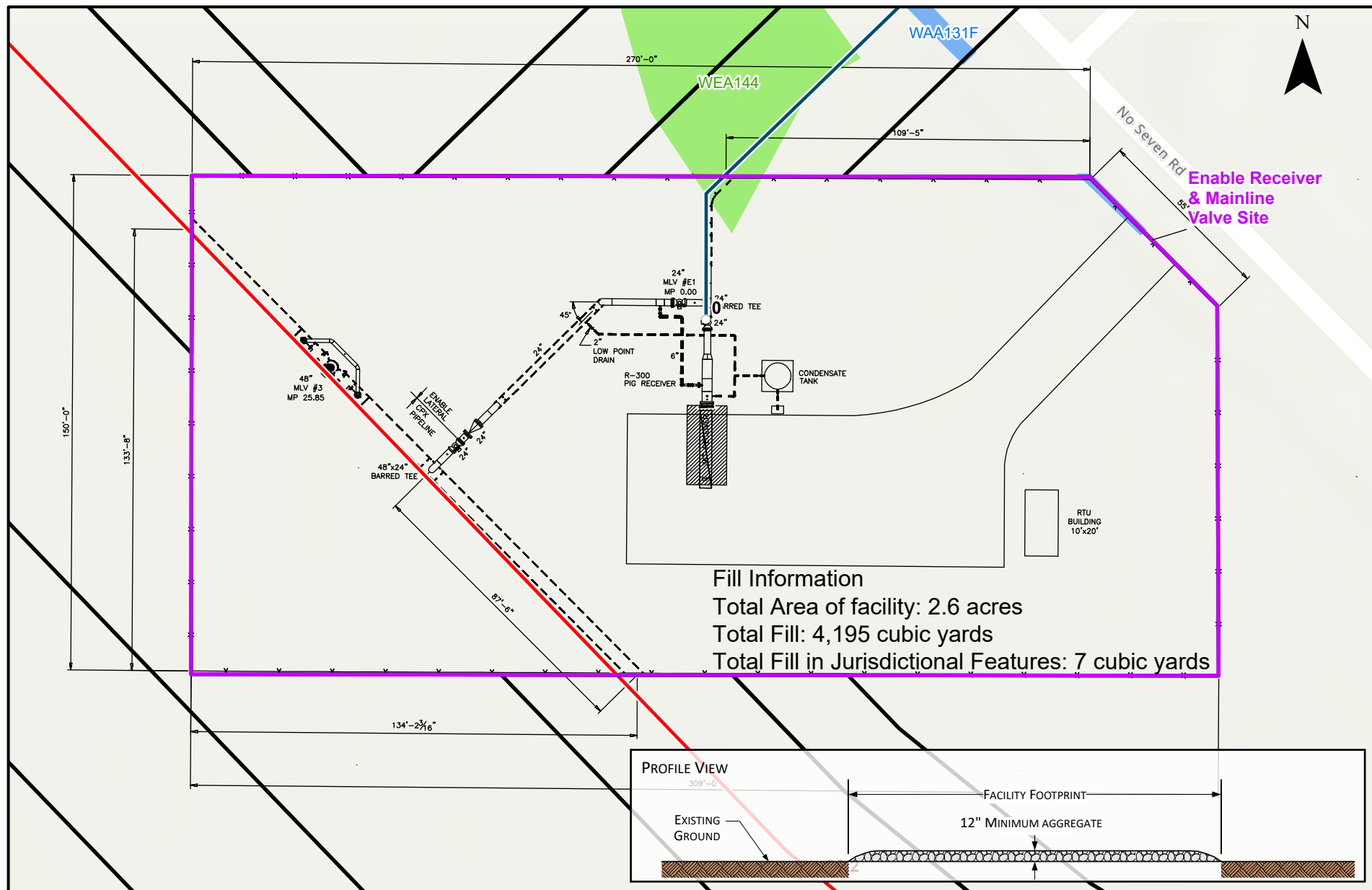
Page 44 of 44

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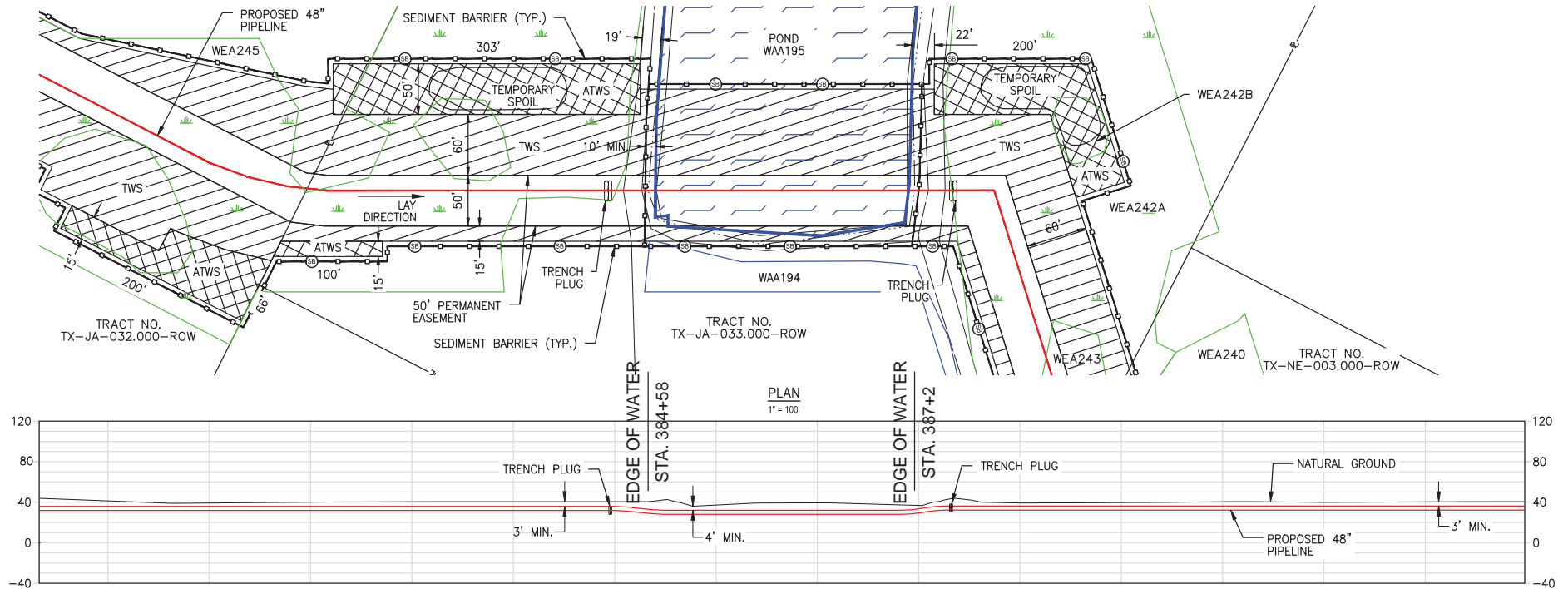


**Figure 52**  
**Enable Receiver and Mainline Valve Site**  
**(Enable MP 0.0) - Aerial Plot Plan**  
 CP2 LNG and CP Express Project

CP EXPRESS CP2 LNG



# Jasper County, Texas



See Sheet 7a-ii for General Notes

## PROFILE

1" = 100' HORIZ.  
1" = 100' VERT.



LEGEND	
	PERMANENT EASEMENT
	TEMPORARY WORKSPACE (TWS) IMPACTS
	ADDITIONAL TEMPORARY WORKSPACE (ATWS) IMPACTS
	CP EXPRESS PIPELINE CENTERLINE
REF. ALIGNMENT :	
1901-100-PL-DWG-7108	
	WATERBODY CROSSED BY PIPELINE
	SURVEYED WETLANDS

GULF Companies		CP EXPRESS	
DWN. BY:	DT	10/5/21	CP EXPRESS PIPELINE, LLC
CHK:	SC	10/13/21	PROPOSED 48" PIPELINE
PROJ. ENGR:	JB	10/13/21	WATERBODY CROSSING
PROJ. MGR:	JC/MR	10/13/21	POND (WAA195) @ M.P. 7.29
CLIENT APP:			JASPER COUNTY, TEXAS
SCALE: 1" = 100'	DWG. NO.	1901-100-PL-DWG-010	SHT. NO. REV.
			1 OF 1 C

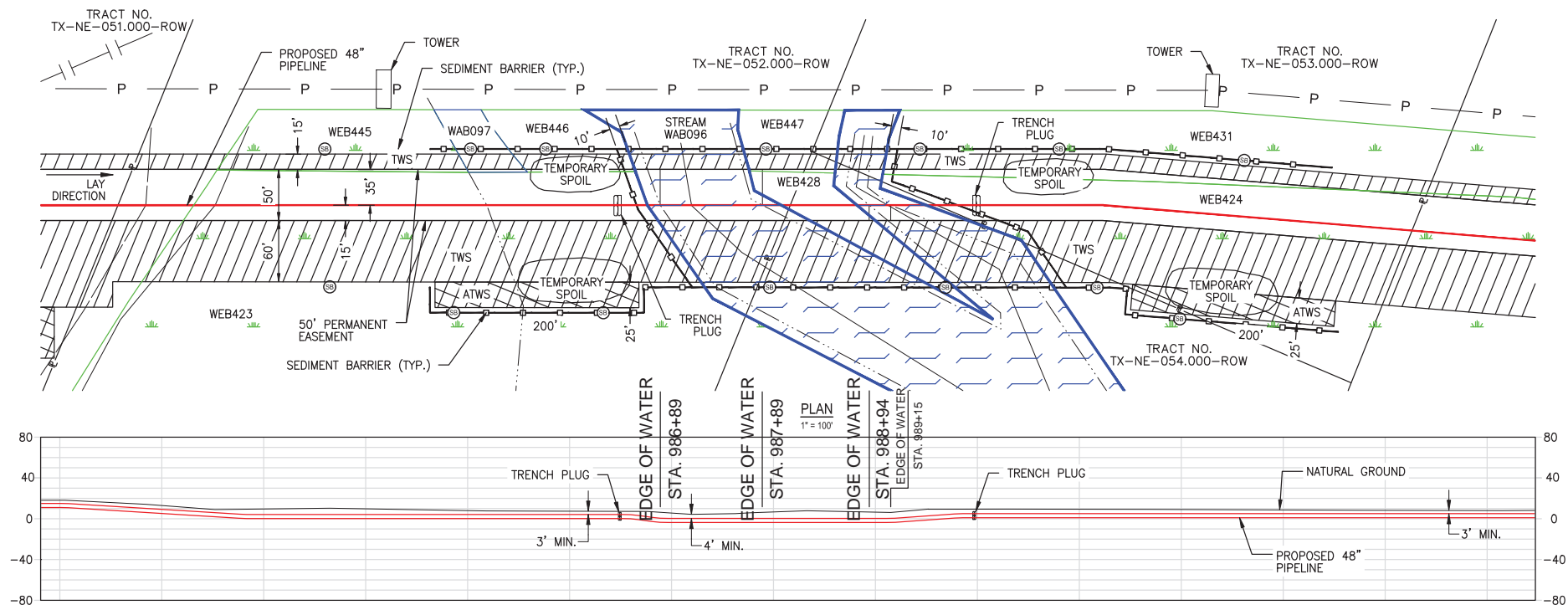
Figure 1: Sheet 7a-i

NOTES:

1. SEDIMENT BARRIERS SHALL BE INSTALLED AS DEPICTED AND ALONG DOWN GRADIENT SIDES OF WORK AREAS AND STAGING AREAS SUCH THAT NO HEAVY SILT LADEN WATER ENTERS THE WATERBODY OR LEAVES THE CONSTRUCTION RIGHT-OF-WAY. FINAL LOCATIONS MAY BE ADJUSTED IN THE FIELD BY THE ENVIRONMENTAL INSPECTOR.
2. HARD DITCH PLUGS MUST REMAIN IN PLACE AT CONVENIENT LOCATIONS TO SEPARATE MAINLINE DITCH FROM THE WATERBODY CROSSING UNTIL THE WATERBODY CROSSING IS INSTALLED AND BACKFILLED.
3. EQUIPMENT OPERATING IN THE WATERBODY SHALL BE LIMITED TO THAT NEEDED TO PERFORM CONSTRUCTION. IF OTHER TYPES OF EQUIPMENT MUST CROSS THE WATERBODY, CONTRACTOR SHALL PROVIDE AND USE A TEMPORARY STREAM CROSSING.
4. ADDITIONAL TEMPORARY WORKSPACE, STAGING AREA(S) FOR WATERBODY CROSSING(S), WHEN REQUIRED, SHALL BE LOCATED AT LEAST 50 FEET FROM WATER'S EDGE (WHERE PRACTICAL).
5. IMPLEMENTATION OF THE DAM-AND-PUMP CROSSING METHOD WHERE REQUIRED MUST MEET THE FOLLOWING PERFORMANCE CRITERIA:
  - A. CONSTRUCT DAMS WITH MATERIALS THAT PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE WATERBODY (E.G., SANDBAGS AND PLASTIC LINER OR EQUIVALENT).
  - B. SCREEN PUMP INTAKE
  - C. PREVENT STREAMBED SCOUR AT PUMP DISCHARGE.
  - D. MONITOR THE DAM AND PUMPS TO ENSURE PROPER OPERATION THROUGHOUT THE WATERBODY CROSSING.
6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MONITORED DAILY AND REPAIRED IF NECESSARY.
7. INSTALL SLOPE BREAKERS AT THE BASE OF ALL SLOPES ADJACENT TO THE WATERBODY.
8. CHEMICALS, FUELS AND LUBRICATING OILS SHALL NOT BE STORED AND EQUIPMENT SHALL NOT BE REFUELED WITHIN 100 FEET OF THE WATERBODY, WITHOUT PRIOR APPROVAL FROM ENVIRONMENTAL INSPECTOR.
9. INSTALL TRENCH PLUGS ON BOTH SIDES OF THE WATERBODY TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WATERBODY.
10. INSTALLATION OF TEMPORARY EQUIPMENT CROSSING IS OPTIONAL AT THE DIRECTION OF THE COMPANY'S REPRESENTATIVE.
11. CONSTRUCT SEDIMENT BARRIERS ACROSS THE ENTIRE CONSTRUCTION R.O.W. (EXCEPTION IS WHEN MARSH PUSH CONSTRUCTION METHOD IS BEING UTILIZED) FOLLOWING CLEARING AND GRADING AND MAINTAIN UNTIL CONSTRUCTION OF THE CROSSING. EROSION CONTROL MEASURES SHALL BE REINSTALLED IMMEDIATELY FOLLOWING BACKFILLING OF TRENCH AND STABILIZATION OF BANKS. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY.
12. WATERBODY SPOIL TO BE STORED OUT OF THE CHANNEL A MINIMUM OF 10 FEET FROM THE BANK AND WITHIN THE CONSTRUCTION R.O.W. UNLESS DEPICTED OTHERWISE IN SITE SPECIFIC CROSSING PLANS. EXCEPT FOR MARSH PUSH AREAS ADDITIONAL TEMPORARY WORKSPACE MUST BE A MINIMUM OF 50 FEET FROM THE WATERS EDGE (WHERE PRACTICAL).
13. BACKFILL WITH NATIVE MATERIAL.
14. RESTORE BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.
15. **ALL SPOIL FROM TRENCH EXCAVATION IN WATERBODY TO BE TEMPORARILY STORED ON LAND IN EAST AND WEST ATWS AS DEPICTED**

**Figure 1: Sheet 7a-ii**

## Newton County, Texas



See Sheet 7b-ii for General Notes

### PROFILE

1" = 100' HORIZ.  
1" = 100' VERT.



LEGEND	
	PERMANENT EASEMENT
	TEMPORARY WORKSPACE (TWS) IMPACTS
	ADDITIONAL TEMPORARY WORKSPACE (ATWS) IMPACTS
	CP EXPRESS PIPELINE CENTERLINE
REF. ALIGNMENT :	
1901-100-PL-DWG-7120	
	WATERBODY CROSSED BY PIPELINE
	SURVEYED WETLANDS

GULF Companies		CP EXPRESS	
DWN. BY:	DT 10/6/21	CP EXPRESS PIPELINE, LLC PROPOSED 48" PIPELINE WATERBODY CROSSING STREAM (WAB096) @ M.P. 18.69 NEWTON COUNTY, TEXAS	
CHK:	SC 10/13/21		
PROJ. ENGR:	JB 10/13/21		
PROJ. MGR:	JC/MR 10/13/21		
CLIENT APP.			
SCALE: 1" = 100'		DWG. NO. 1901-100-PL-DWG-011	SHT. NO. 1 OF 1

Figure 2: Sheet 7b-i



NOTES:

1. SEDIMENT BARRIERS SHALL BE INSTALLED AS DEPICTED AND ALONG DOWN GRADIENT SIDES OF WORK AREAS AND STAGING AREAS SUCH THAT NO HEAVY SILT LADEN WATER ENTERS THE WATERBODY OR LEAVES THE CONSTRUCTION RIGHT-OF-WAY. FINAL LOCATIONS MAY BE ADJUSTED IN THE FIELD BY THE ENVIRONMENTAL INSPECTOR.
2. HARD DITCH PLUGS MUST REMAIN IN PLACE AT CONVENIENT LOCATIONS TO SEPARATE MAINLINE DITCH FROM THE WATERBODY CROSSING UNTIL THE WATERBODY CROSSING IS INSTALLED AND BACKFILLED.
3. EQUIPMENT OPERATING IN THE WATERBODY SHALL BE LIMITED TO THAT NEEDED TO PERFORM CONSTRUCTION. IF OTHER TYPES OF EQUIPMENT MUST CROSS THE WATERBODY, CONTRACTOR SHALL PROVIDE AND USE A TEMPORARY STREAM CROSSING.
4. ADDITIONAL TEMPORARY WORKSPACE, STAGING AREA(S) FOR WATERBODY CROSSING(S), WHEN REQUIRED, SHALL BE LOCATED AT LEAST 50 FEET FROM WATER'S EDGE (WHERE PRACTICAL).
5. IMPLEMENTATION OF THE DAM-AND-PUMP CROSSING METHOD WHERE REQUIRED MUST MEET THE FOLLOWING PERFORMANCE CRITERIA:
  - A. CONSTRUCT DAMS WITH MATERIALS THAT PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE WATERBODY (E.G., SANDBAGS AND PLASTIC LINER OR EQUIVALENT).
  - B. SCREEN PUMP INTAKE
  - C. PREVENT STREAMBED SCOUR AT PUMP DISCHARGE.
  - D. MONITOR THE DAM AND PUMPS TO ENSURE PROPER OPERATION THROUGHOUT THE WATERBODY CROSSING.
6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MONITORED DAILY AND REPAIRED IF NECESSARY.
7. INSTALL SLOPE BREAKERS AT THE BASE OF ALL SLOPES ADJACENT TO THE WATERBODY.
8. CHEMICALS, FUELS AND LUBRICATING OILS SHALL NOT BE STORED AND EQUIPMENT SHALL NOT BE REFUELED WITHIN 100 FEET OF THE WATERBODY, WITHOUT PRIOR APPROVAL FROM ENVIRONMENTAL INSPECTOR.
9. INSTALL TRENCH PLUGS ON BOTH SIDES OF THE WATERBODY TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WATERBODY.
10. INSTALLATION OF TEMPORARY EQUIPMENT CROSSING IS OPTIONAL AT THE DIRECTION OF THE COMPANY'S REPRESENTATIVE.
11. CONSTRUCT SEDIMENT BARRIERS ACROSS THE ENTIRE CONSTRUCTION R.O.W. (EXCEPTION IS WHEN MARSH PUSH CONSTRUCTION METHOD IS BEING UTILIZED) FOLLOWING CLEARING AND GRADING AND MAINTAIN UNTIL CONSTRUCTION OF THE CROSSING. EROSION CONTROL MEASURES SHALL BE REINSTALLED IMMEDIATELY FOLLOWING BACKFILLING OF TRENCH AND STABILIZATION OF BANKS. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY.
12. WATERBODY SPOIL TO BE STORED OUT OF THE CHANNEL A MINIMUM OF 10 FEET FROM THE BANK AND WITHIN THE CONSTRUCTION R.O.W. UNLESS DEPICTED OTHERWISE IN SITE SPECIFIC CROSSING PLANS. EXCEPT FOR MARSH PUSH AREAS ADDITIONAL TEMPORARY WORKSPACE MUST BE A MINIMUM OF 50 FEET FROM THE WATERS EDGE (WHERE PRACTICAL).
13. BACKFILL WITH NATIVE MATERIAL.
14. RESTORE BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.
15. **ALL SPOIL FROM TRENCH EXCAVATION IN WATERBODY TO BE TEMPORARILY STORED ON LAND IN EAST AND WEST ATWS AS DEPICTED**

**Figure 2: Sheet 7b-ii**

# Newton County, Texas

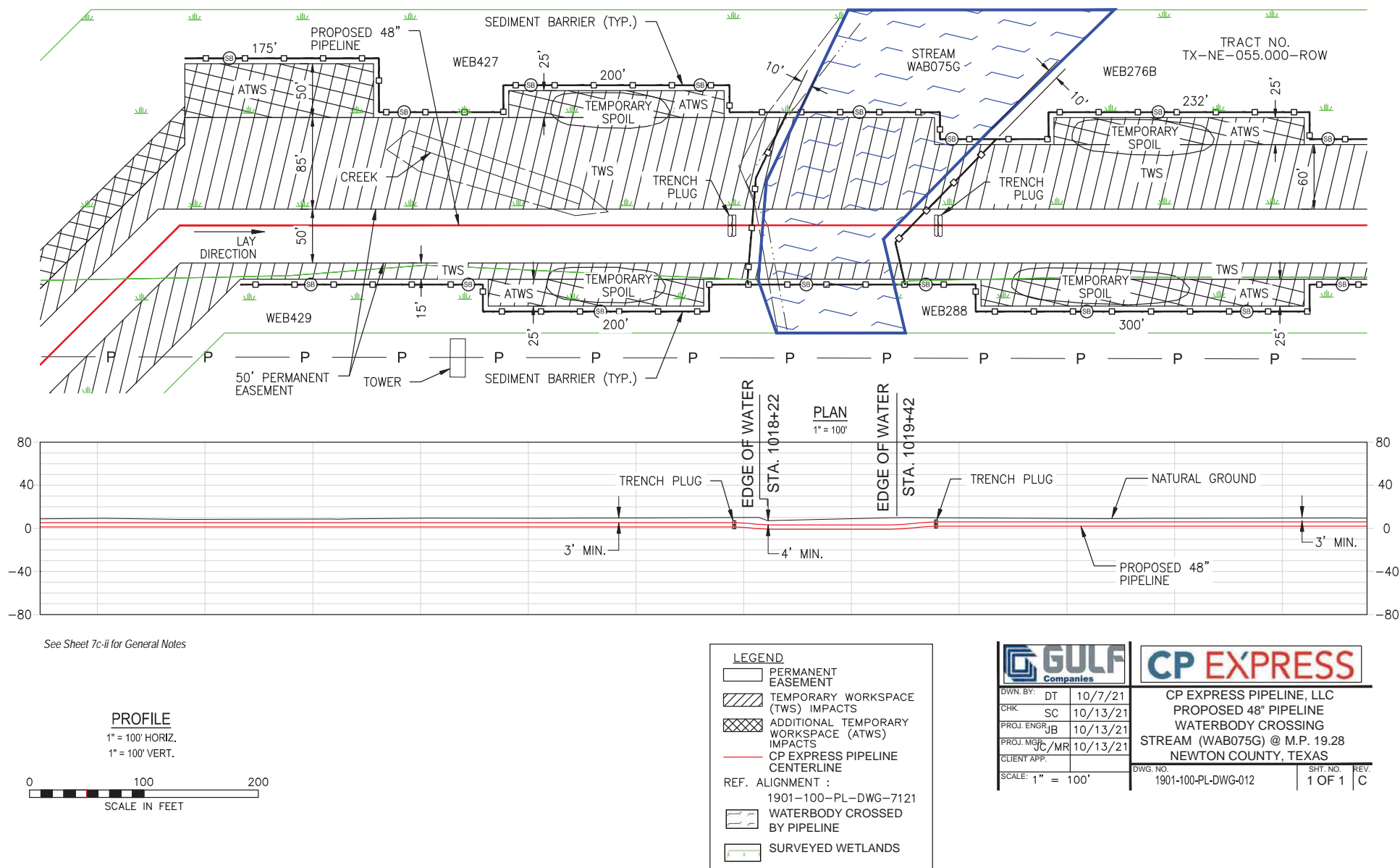


Figure 3: Sheet 7c-i

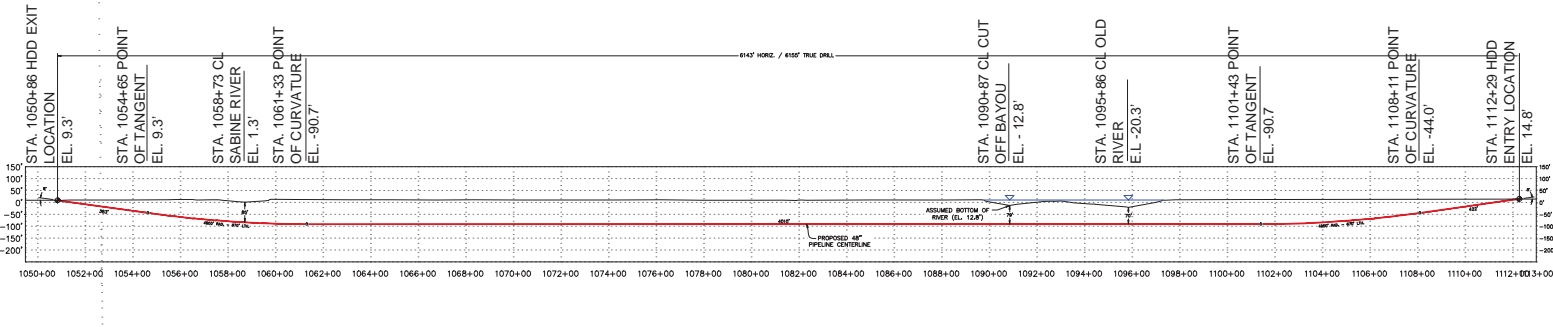
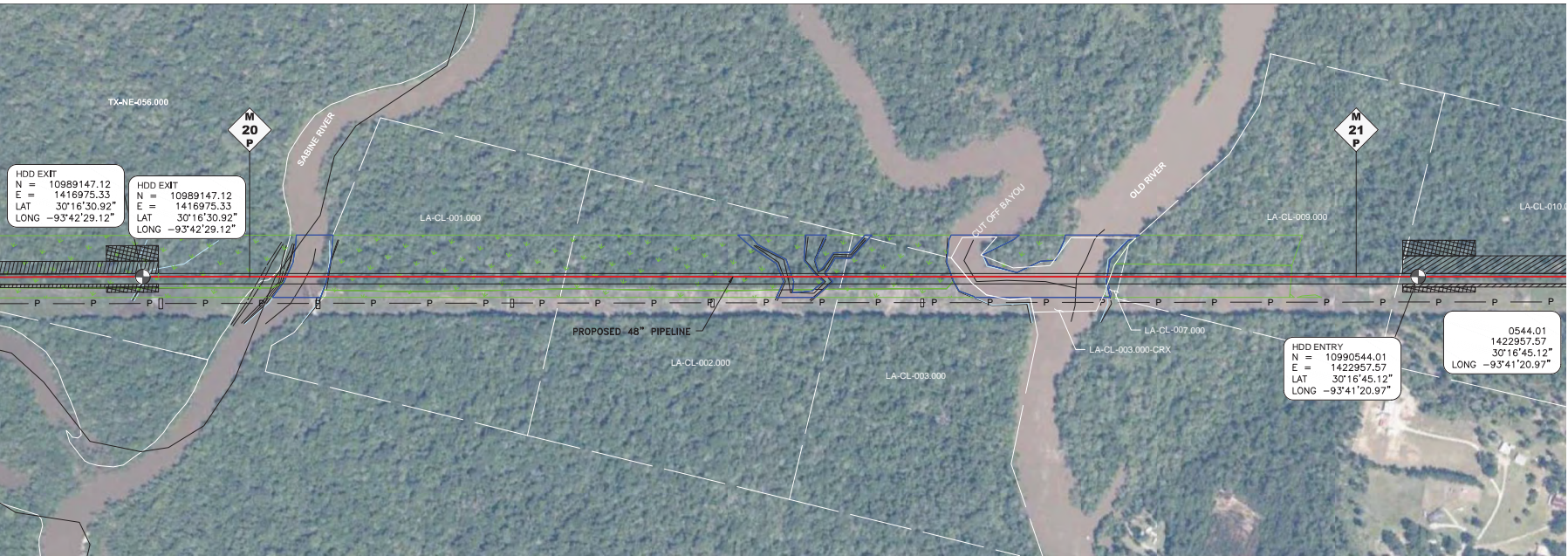
NOTES:

1. SEDIMENT BARRIERS SHALL BE INSTALLED AS DEPICTED AND ALONG DOWN GRADIENT SIDES OF WORK AREAS AND STAGING AREAS SUCH THAT NO HEAVY SILT LADEN WATER ENTERS THE WATERBODY OR LEAVES THE CONSTRUCTION RIGHT-OF-WAY. FINAL LOCATIONS MAY BE ADJUSTED IN THE FIELD BY THE ENVIRONMENTAL INSPECTOR.
2. HARD DITCH PLUGS MUST REMAIN IN PLACE AT CONVENIENT LOCATIONS TO SEPARATE MAINLINE DITCH FROM THE WATERBODY CROSSING UNTIL THE WATERBODY CROSSING IS INSTALLED AND BACKFILLED.
3. EQUIPMENT OPERATING IN THE WATERBODY SHALL BE LIMITED TO THAT NEEDED TO PERFORM CONSTRUCTION. IF OTHER TYPES OF EQUIPMENT MUST CROSS THE WATERBODY, CONTRACTOR SHALL PROVIDE AND USE A TEMPORARY STREAM CROSSING.
4. ADDITIONAL TEMPORARY WORKSPACE, STAGING AREA(S) FOR WATERBODY CROSSING(S), WHEN REQUIRED, SHALL BE LOCATED AT LEAST 50 FEET FROM WATER'S EDGE (WHERE PRACTICAL).
5. IMPLEMENTATION OF THE DAM-AND-PUMP CROSSING METHOD WHERE REQUIRED MUST MEET THE FOLLOWING PERFORMANCE CRITERIA:
  - A. CONSTRUCT DAMS WITH MATERIALS THAT PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE WATERBODY (E.G., SANDBAGS AND PLASTIC LINER OR EQUIVALENT).
  - B. SCREEN PUMP INTAKE
  - C. PREVENT STREAMBED SCOUR AT PUMP DISCHARGE.
  - D. MONITOR THE DAM AND PUMPS TO ENSURE PROPER OPERATION THROUGHOUT THE WATERBODY CROSSING.
6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MONITORED DAILY AND REPAIRED IF NECESSARY.
7. INSTALL SLOPE BREAKERS AT THE BASE OF ALL SLOPES ADJACENT TO THE WATERBODY.
8. CHEMICALS, FUELS AND LUBRICATING OILS SHALL NOT BE STORED AND EQUIPMENT SHALL NOT BE REFUELED WITHIN 100 FEET OF THE WATERBODY, WITHOUT PRIOR APPROVAL FROM ENVIRONMENTAL INSPECTOR.
9. INSTALL TRENCH PLUGS ON BOTH SIDES OF THE WATERBODY TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WATERBODY.
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12. WATERBODY SPOIL TO BE STORED OUT OF THE CHANNEL A MINIMUM OF 10 FEET FROM THE BANK AND WITHIN THE CONSTRUCTION R.O.W. UNLESS DEPICTED OTHERWISE IN SITE SPECIFIC CROSSING PLANS. EXCEPT FOR MARSH PUSH AREAS ADDITIONAL TEMPORARY WORKSPACE MUST BE A MINIMUM OF 50 FEET FROM THE WATERS EDGE (WHERE PRACTICAL).
13. BACKFILL WITH NATIVE MATERIAL.
14. RESTORE BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.
15. ALL SPOIL FROM TRENCH EXCAVATION IN WATERBODY TO BE TEMPORARILY STORED ON LAND IN EAST AND WEST ATWS AS DEPICTED

**Figure 3: Sheet 7c-ii**



Calcasieu Parish, Louisiana



See Sheet 7d-ii for General Notes

LEGEND

CP EXPRESS MAINLINE PIPELINE

PERMANENT EASEMENT

TEMP WORKSPACE

ADD. TEMP. WORKSPACE

SURVEY WETLANDS

SURVEY STREAM/ DRAIN/ WATERBODY

PARCELS

OVERHEAD POWERLINE

DRAWN BY	RD	09/16/2021	CP EXPRESS		
CHK BY	JB	09/16/2021	PROPOSED 48\"/>		
APPR BY	JCMR	09/16/2021	SITE SPECIFIC HORIZONTAL DIRECTIONAL DRILL		
SCALE	1\"/>	2021	DWG NO. 1901-100-PL-DWG-7002-001		
JOB NO.	1901				

Figure 4: Sheet 7d-i

#### DESIGN BASIS

1. CROSSING HORIZONTAL LENGTH: 6143'
2. DIRECTIONAL DRILL LENGTH: 6155'
3. DESIGN RADIUS: 4800' FT
4. CONTRACTOR SHALL PROMPTLY NOTIFY COMPANY IN WRITING OF:
  - a. SURFACE OR SUBSURFACE CONDITIONS AT THE SITE THAT WOULD SIGNIFICANTLY IMPACT THE INSTALLATION OF THE CONDUIT AS DESIGNED; OR
  - b. UNKNOWN OR UNUSUAL PHYSICAL CONDITIONS AT THE SITE THAT DIFFER FROM THOSE ORDINARILY ENCOUNTERED.

#### GENERAL

1. CALL TEXAS/LOUISIANA ONE-CALL AND LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ELEVATIONS AND DEPTHS SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY THOSE PRIOR TO CONSTRUCTION.
2. INSTALL MATS OR OTHER APPROVED PROTECTIVE MEASURES OVER EXISTING FOREIGN LINES.
3. NOTIFY FOREIGN PIPELINE OWNERS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. DO NOT CLEAR ANY TREES BETWEEN THE ENTRY AND EXIT WORKSPACES. MINOR BRUSH CLEARING USING HAND TOOLS IS PERMITTED FOR INSTALLING SURFACE COIL FOR DOWNHOLE SURVEY SYSTEM.
5. PROFILE BASED ON CIVIL SURVEY AND PUBLICLY AVAILABLE DATA.
6. ROAD IDENTIFICATION AND LOCATION IS ESTIMATED AT THIS TIME BASED ON DESKTOP REVIEWS. NO CIVIL SURVEY HAS BEEN CONDUCTED AT THESE LOCATIONS.
7. COORDINATES ARE BASED UPON NAD83, UTM ZONE 15N, U.S. SURVEY FOOT.
8. PHOTOGRAPHY SHOWN IS FROM NAIP AUGUST 2019.

#### PILOT HOLE TOLERANCES

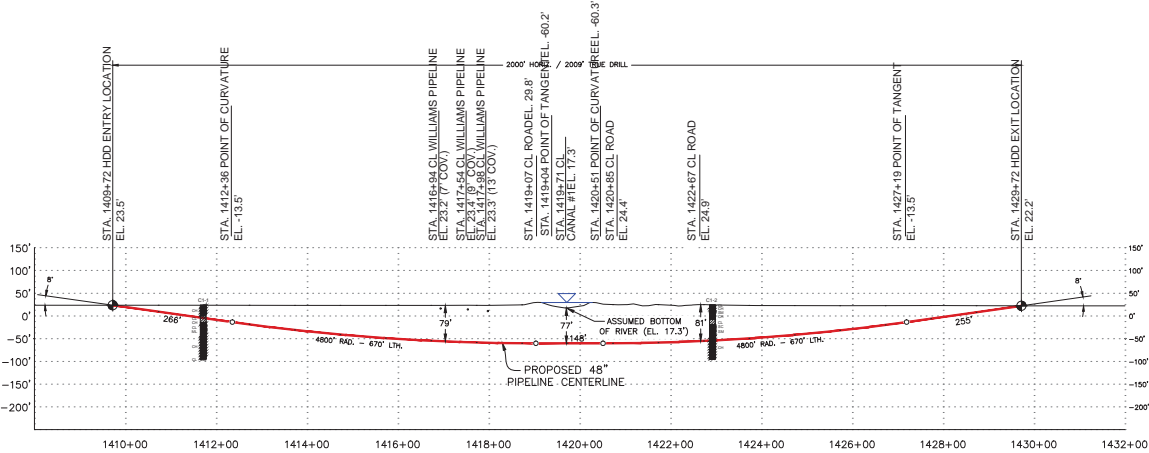
1. ELEVATION: +0 FEET AND -10 FEET.
2. ALIGNMENT: +/-10 FEET.
3. SPUD IN AT EXACT LOCATION SHOWN.
4. PILOT EXIT SHALL OCCUR WITHIN +20 FEET AND -10 FEET OF LOCATION SHOWN.

#### DRILL NOTES

1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY FOREIGN UTILITY WITHIN 10 FEET OF THE PROPOSED DRILL ALIGNMENT THAT MAY BE AFFECTED BY THE HDD OPERATION.
2. HDD CONTRACTOR SHALL NOT MAKE ANY CHANGES TO DRILL DESIGN WITHOUT COMPANY APPROVAL.
3. CONTRACTOR SHALL DISPOSE OF ALL DRILL FLUID AND DRILL SPOILS AT COMPANY APPROVED LOCATIONS.
4. FOR ALL OTHER PERTINENT SPECIFICATIONS, REFER TO CONTRACT DOCUMENTS.

## Figure 4: Sheet 7d-ii

Calcasieu Parish, Louisiana



See Sheet 7e-ii for General Notes

LEGEND

CP EXPRESS MAINLINE PIPELINE

PERMANENT EASEMENT

TEMP WORKSPACE

ADD, TEMP, WORKSPACE

SURVEY WETLANDS

SURVEY STREAM/ DRAIN/ WATERBODY

PARCELS

OVERHEAD POWERLINE

GULF Companies

CP EXPRESS

DRAWN BY	RD	09/16/2021
CHK BY	JB	03/08/2023
APPR BY	JC/MR	03/08/2023
SCALE	1"=200'	YEAR 2023
JOB NO.	1971	

CP EXPRESS

PROPOSED 48" PIPELINE

CANAL #1 HDD

SITE SPECIFIC HORIZONTAL DIRECTIONAL DRILL

DWG NO. 1901-100-PL-DWG-7002-002

Figure 5: Sheet 7e-i



DESIGN BASIS

1. CROSSING HORIZONTAL LENGTH: 2000'
2. DIRECTIONAL DRILL LENGTH: 2009'
3. DESIGN RADIUS: 4800 FT
4. CONTRACTOR SHALL PROMPTLY NOTIFY COMPANY IN WRITING OF:
  - a. SURFACE OR SUBSURFACE CONDITIONS AT THE SITE THAT WOULD SIGNIFICANTLY IMPACT THE INSTALLATION OF THE CONDUIT AS DESIGNED; OR
  - b. UNKNOWN OR UNUSUAL PHYSICAL CONDITIONS AT THE ORDINARILY ENCOUNTERED. SITE THAT DIFFER FROM THOSE

GENERAL

1. CALL LOUISIANA ONE-CALL AND LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ELEVATIONS AND DEPTHS SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY THOSE PRIOR TO CONSTRUCTION.
2. INSTALL MATS OR OTHER APPROVED PROTECTIVE MEASURES OVER EXISTING FOREIGN LINES.
3. NOTIFY FOREIGN PIPELINE OWNERS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. DO NOT CLEAR ANY TREES BETWEEN THE ENTRY AND EXIT WORKSPACES. MINOR BRUSH CLEARING USING HAND TOOLS IS PERMITTED FOR INSTALLING SURFACE COIL FOR DOWNHOLE SURVEY SYSTEM.
5. PROFILE BASED ON CIVIL SURVEY AND PUBLICLY AVAILABLE DATA.

6. ROAD IDENTIFICATION AND LOCATION IS ESTIMATED AT THIS TIME BASED ON DESKTOP REVIEWS. NO CIVIL SURVEY HAS BEEN CONDUCTED AT THESE LOCATIONS.
7. COORDINATES ARE BASED UPON NAD83, UTM ZONE 15N, U.S. SURVEY FOOT.
8. PHOTOGRAPHY SHOWN IS FROM NAIP AUGUST 2019.

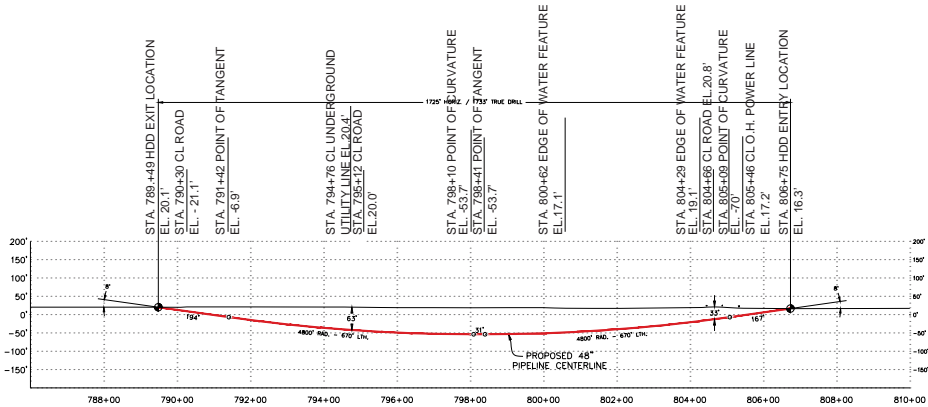
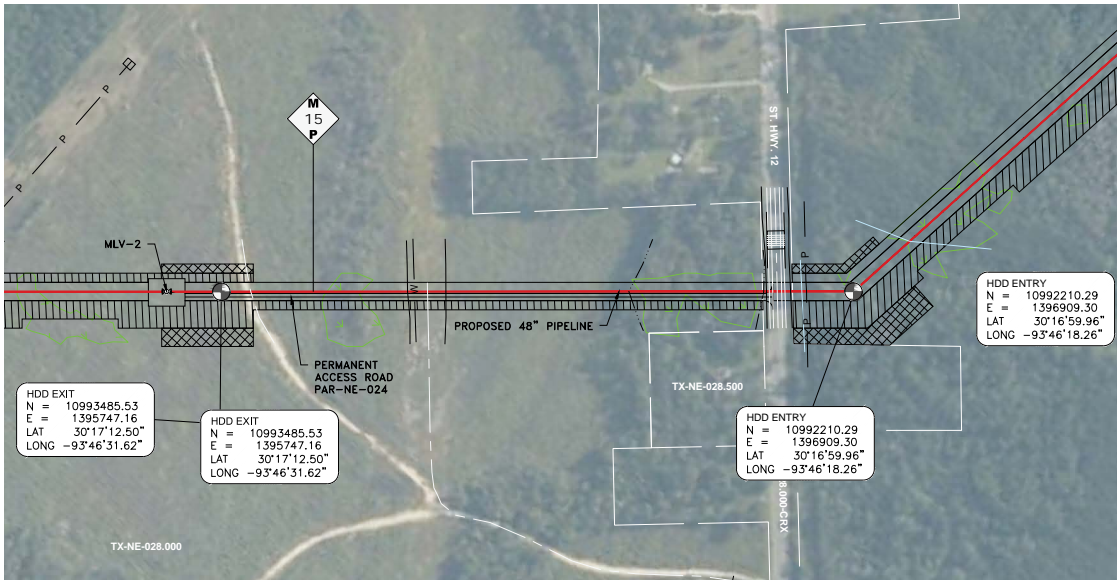
DRILL NOTES

1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY FOREIGN UTILITY WITHIN 10 FEET OF THE PROPOSED DRILL ALIGNMENT THAT MAY BE AFFECTED BY THE HDD OPERATION.
2. HDD CONTRACTOR SHALL NOT MAKE ANY CHANGES TO DRILL DESIGN WITHOUT COMPANY APPROVAL.
3. CONTRACTOR SHALL DISPOSE OF ALL DRILL FLUID AND DRILL SPOILS AT COMPANY APPROVED LOCATIONS.
4. FOR ALL OTHER PERTINENT SPECIFICATIONS, REFER TO CONTRACT DOCUMENTS.

PILOT HOLE TOLERANCES

1. ELEVATION: +0 FEET AND -10 FEET.
  2. ALIGNMENT: +/-10 FEET.
  3. SPUD IN AT EXACT LOCATION SHOWN.
- PILOT EXIT SHALL OCCUR WITHIN +20 FEET AND -10 FEET OF LOCATION SHOWN.

**Figure 5: Sheet 7e-ii**



See Sheet 7f-ii for General Notes

**LEGEND**

- CP EXPRESS MAINLINE PIPELINE
- PERMANENT EASEMENT
- TEMP WORKSPACE
- ADD, TEMP, WORKSPACE
- SURVEY WETLANDS
- SURVEY STREAM/ DRAIN/ WATERBODY

**PARCELS**

OVERHEAD POWERLINE

**BULL INTERSTATE**  
TEXAS REGISTERED ENGINEERING FIRM F-2830  
LOUISIANA EF.0000396

DRAWN BY	RD	05/31/2022
CHK BY	JB	06/01/2022
APPR BY	JC/MR	06/02/2022
SCALE	1"=200'	YEAR 2022
JOB NO.	1901	

**CP EXPRESS**

CP EXPRESS  
PROPOSED 48" PIPELINE  
HIGHWAY 12 HDD  
SITE SPECIFIC HORIZONTAL DIRECTIONAL DRILL

DWG NO. 1901-100-PL-DWG-7002-013

Figure 6: Sheet 7f-i

DESIGN BASIS

1. CROSSING HORIZONTAL LENGTH: 1725'
2. DIRECTIONAL DRILL LENGTH: 1733'
3. DESIGN RADIUS: 4800 FT
4. CONTRACTOR SHALL PROMPTLY NOTIFY COMPANY IN WRITING OF:
  - a. SURFACE OR SUBSURFACE CONDITIONS AT THE SITE THAT WOULD SIGNIFICANTLY IMPACT THE INSTALLATION OF THE CONDUIT AS DESIGNED; OR
  - b. UNKNOWN OR UNUSUAL PHYSICAL CONDITIONS AT THE SITE THAT DIFFER FROM THOSE ORDINARILY ENCOUNTERED.

GENERAL

1. CALL TEXAS / LOUISIANA ONE-CALL AND LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ELEVATIONS AND DEPTHS SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY THOSE PRIOR TO CONSTRUCTION.
2. INSTALL MATS OR OTHER APPROVED PROTECTIVE MEASURES OVER EXISTING FOREIGN LINES.
3. NOTIFY FOREIGN PIPELINE OWNERS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. DO NOT CLEAR ANY TREES BETWEEN THE ENTRY AND EXIT WORKSPACES. MINOR BRUSH CLEARING USING HAND TOOLS IS PERMITTED FOR INSTALLING SURFACE COIL FOR DOWNHOLE SURVEY SYSTEM.
5. PROFILE BASED ON CIVIL SURVEY AND PUBLICLY AVAILABLE DATA.
6. ROAD IDENTIFICATION AND LOCATION IS ESTIMATED AT THIS TIME BASED ON DESKTOP REVIEWS. NO CIVIL SURVEY HAS BEEN CONDUCTED AT THESE LOCATIONS.

7. COORDINATES ARE BASED UPON NAD83, UTM ZONE 15N, U.S. SURVEY FOOT.
8. PHOTOGRAPHY SHOWN IS FROM NAIP AUGUST 2019.

DRILL NOTES

1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY FOREIGN UTILITY WITHIN 10 FEET OF THE PROPOSED DRILL ALIGNMENT THAT MAY BE AFFECTED BY THE HDD OPERATION.
2. HDD CONTRACTOR SHALL NOT MAKE ANY CHANGES TO DRILL DESIGN WITHOUT COMPANY APPROVAL.
3. CONTRACTOR SHALL DISPOSE OF ALL DRILL FLUID AND DRILL SPOILS AT COMPANY APPROVED LOCATIONS.
4. FOR ALL OTHER PERTINENT SPECIFICATIONS, REFER TO CONTRACT DOCUMENTS.

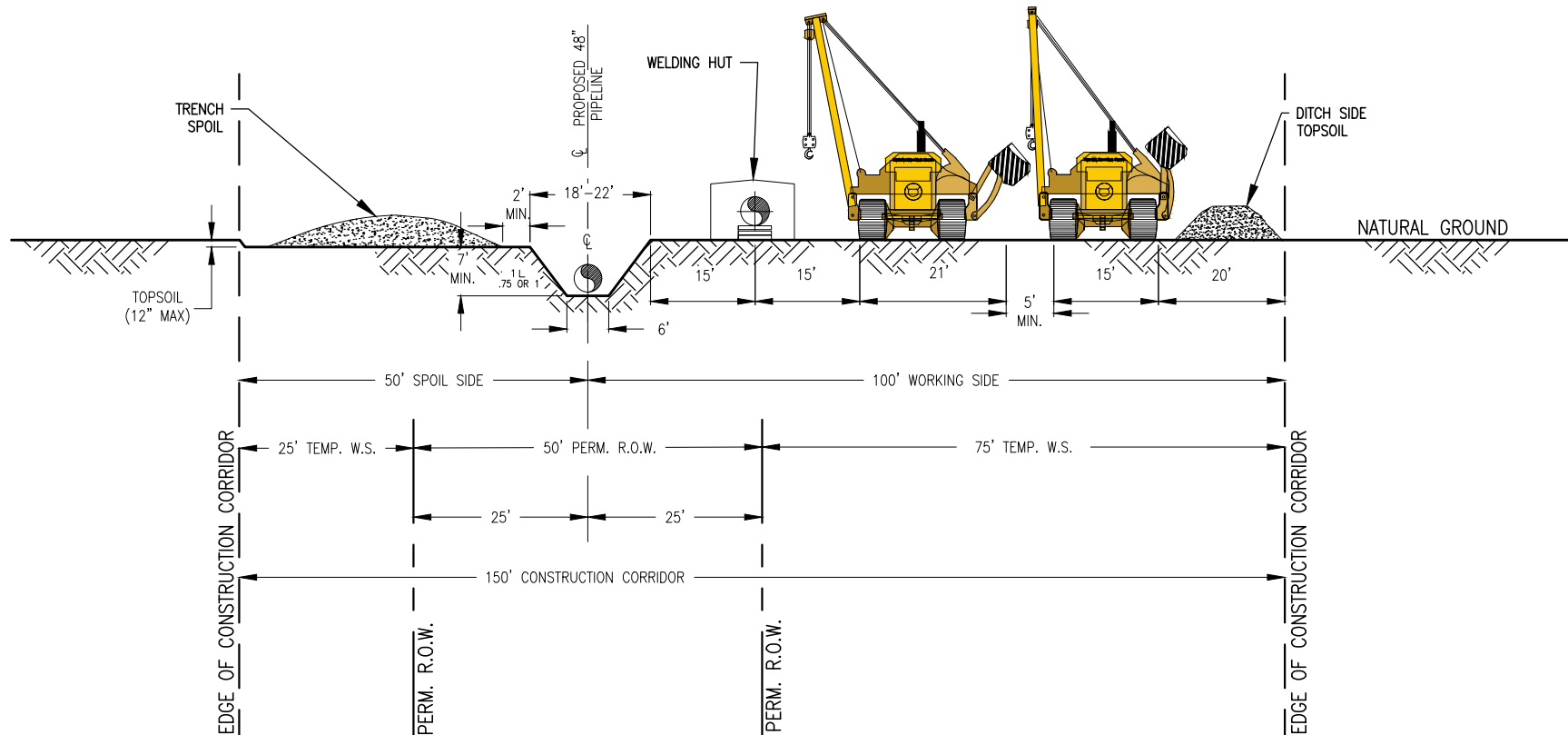
PILOT HOLE TOLERANCES

1. ELEVATION: +0 FEET AND -10 FEET.
  2. ALIGNMENT: +/-10 FEET.
  3. SPUD IN AT EXACT LOCATION SHOWN.
- PILOT EXIT SHALL OCCUR WITHIN +20 FEET AND -10 FEET OF LOCATION SHOWN.

**Figure 6: Sheet 7f-ii**





# TYPICAL UPLAND CONSTRUCTION CORRIDOR FOR TYPE A and TYPE B SOILS

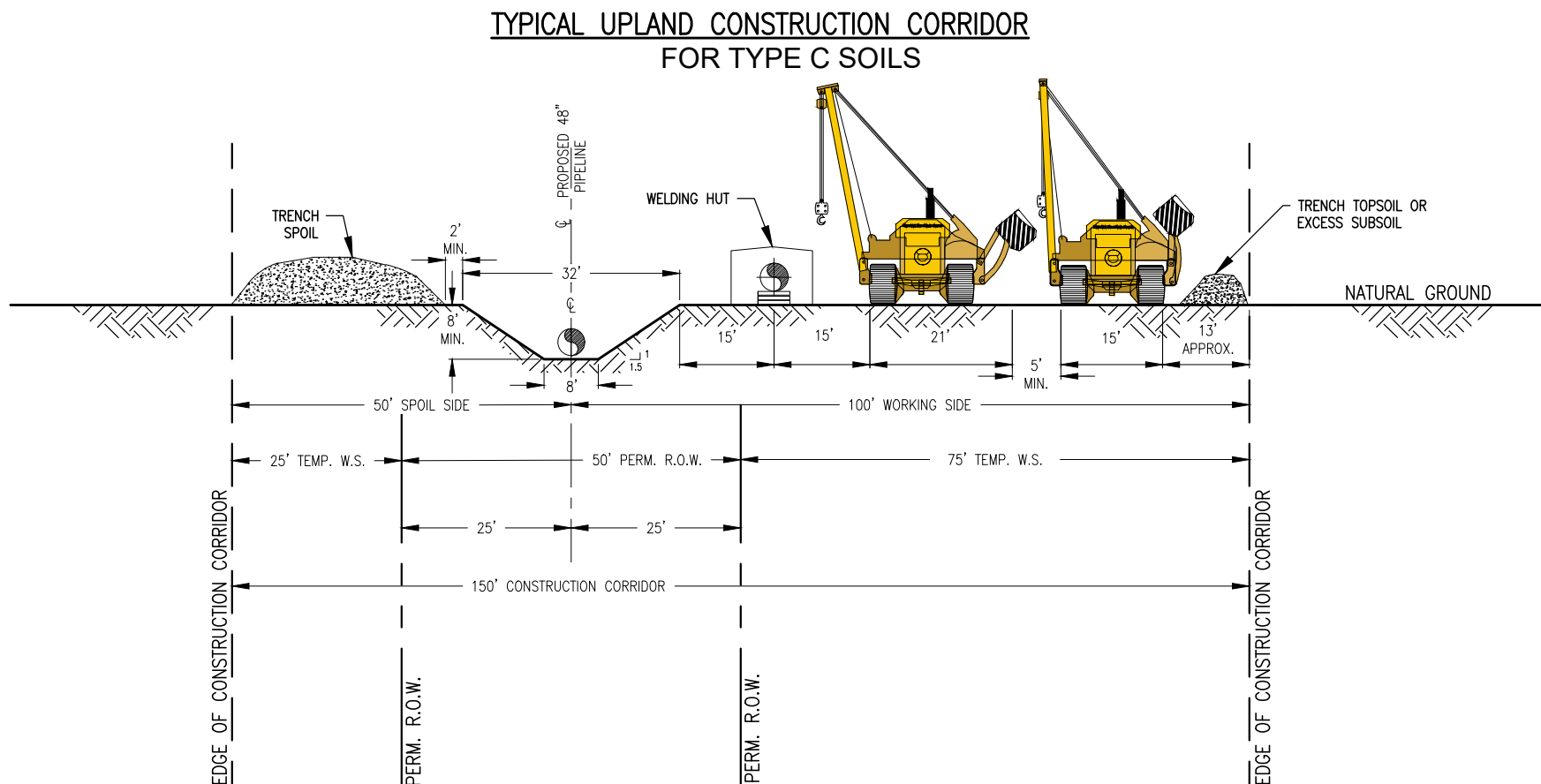


## NOTES:

1. TRENCH DIMENSIONS AND SPOIL PILES BASED ON TYPE A SOILS.
2. MINIMUM TRENCH DEPTH WILL BE AT LEAST 8 FEET.
3. PIPELINE MINIMUM DEPTH OF COVER SHALL BE 3 FEET.
4. DITCH LINE AND SPOIL SIDE WILL BE TOPSOILED OR ONLY DITCH LINE WILL BE TOPSOILED AND A BARRIER WILL BE UTILIZED ON SPOIL SIDE BETWEEN NATURAL GROUND AND SUBSOIL STORAGE AREA.
5. BUOYANCY CONTROL AND/OR AC MITIGATION IS REQUIRED, TRENCH WIDTH AND ASSOCIATED SPOIL WILL INCREASE.
6. DITCH SPOIL, DITCH BOTTOM WIDTH AND EQUIPMENT LAYOUT SUBJECT TO EXISTING CONDITIONS AT TIME OF CONSTRUCTION.
7. SPOIL PILES DEPICTED IS BASED ON TRENCH VOLUME CALCULATED WITH A 1.25 SWELL FACTOR APPLIED.

FIGURE 9a



											
C	ISSUED FOR PERMIT	GIE	10/12/22	SC	JC	DWN. BY: GIE	10/5/22	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL UPLAND CONSTRUCTION CORRIDOR LOUISIANA / TEXAS			
B	ISSUED FOR CLIENT REVIEW	GIE	10/7/22	SC	JC	CHK. SC	10/5/22				
A	ISSUED FOR INTERNAL REVIEW	GIE	10/5/22	SC	JC	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	NTS	DWG. NO. CX-588600-PPL-DTL-GIE-10000-001	SHT. NO. 1 OF 1	REV. C	



**NOTES:**

1. TRENCH DIMENSIONS AND SPOIL PILES BASED ON TYPE C SOILS.
2. MINIMUM TRENCH DEPTH WILL BE AT LEAST 8 FEET.
3. PIPELINE MINIMUM DEPTH OF COVER SHALL BE 3 FEET.
4. DITCH LINE TOPSOIL WILL BE SEGREGATED (IF NOT SATURATED), A BARRIER WILL BE UTILIZED ON SPOIL SIDE BETWEEN NATURAL GROUND AND SUBSOIL STORAGE AREA.
5. ECD'S WILL BE INSTALLED ALONG THE ROW AS REQUIRED TO MAINTAIN SPOIL MATERIAL WITHIN DESIGNATED WORKSPACE DUE TO HIGHLY SATURATED SOILS AND INEFFICIENCY OF STACKING (ANGLE OF REPOSE).
6. BUOYANCY CONTROL AND/OR AC MITIGATION IS REQUIRED, TRENCH WIDTH AND ASSOCIATED SPOIL WILL INCREASE.
7. DITCH SPOIL, DITCH BOTTOM WIDTH AND EQUIPMENT LAYOUT SUBJECT TO EXISTING CONDITIONS AT TIME OF CONSTRUCTION.
8. SPOIL PILES DEPICTED IS BASED ON TRENCH VOLUME CALCULATED WITH A 1.25 SWELL FACTOR APPLIED.

**FIGURE 9b**

							  CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL UPLAND CONSTRUCTION CORRIDOR LOUISIANA / TEXAS					
C	ISSUED FOR PERMIT	GIE	10/12/22	SC	JC	DWN. BY: GIE	10/5/22	DWG. NO. CX-588600-PPL-DTL-GIE-10000-002			SHT. NO. 1 OF 1	REV. C
B	ISSUED FOR CLIENT REVIEW	GIE	10/7/22	SC	JC	CHK. SC	10/5/22					
A	ISSUED FOR INTERNAL REVIEW	GIE	10/5/22	SC	JC	PROJ. ENGR.						
						PROJ. MGR.						
						CLIENT APP.						
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: NTS						

TYPICAL UPLAND CONSTRUCTION CORRIDOR

FOR TYPE C SOILS

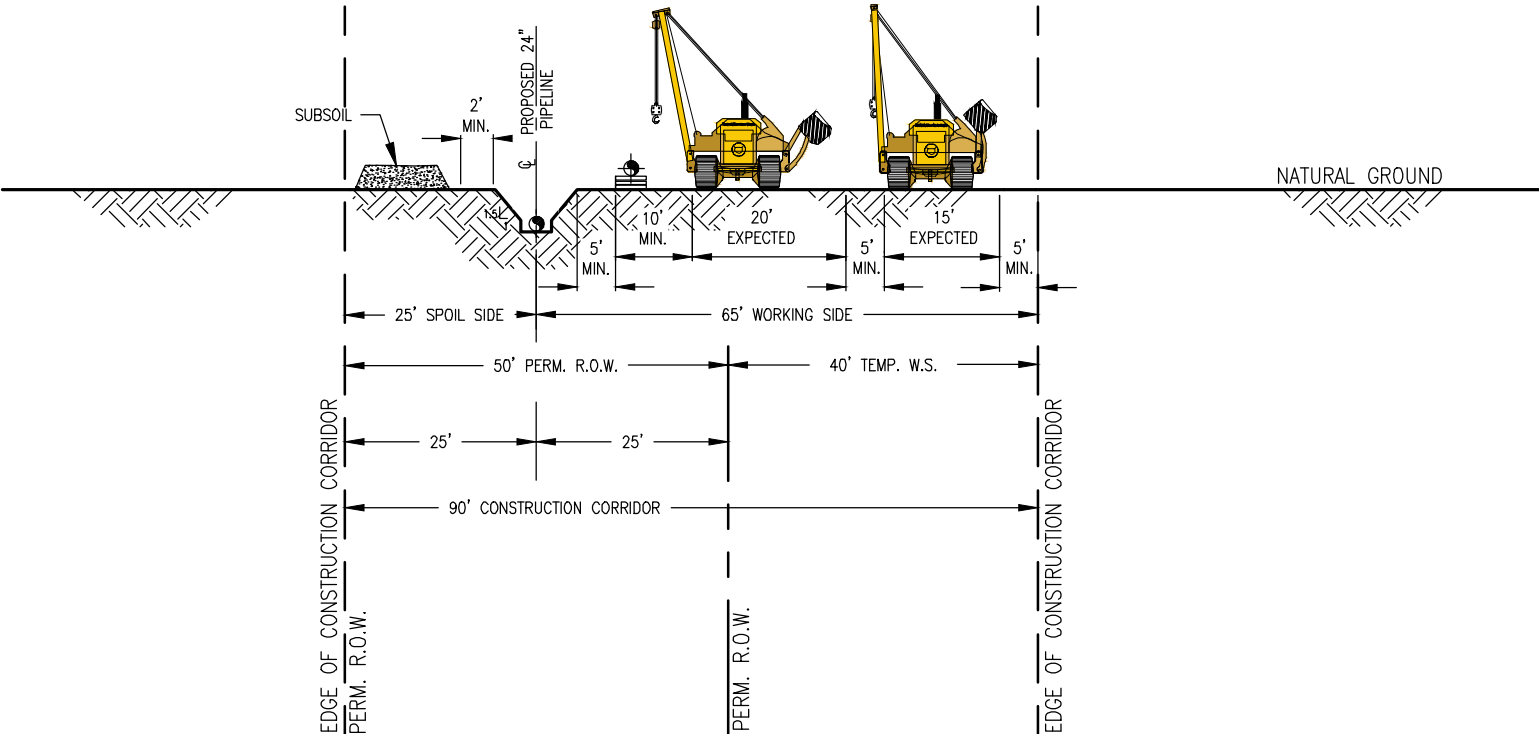




FIGURE 9c

											
E	ISSUED FOR FERC FILING	GIE	9/2/21	JB	JC	DWN. BY:	GIE	3/4/21	CP EXPRESS PIPELINE, LLC. PROPOSED 24" PIPELINE TYPICAL UPLAND CONSTRUCTION CORRIDOR LOUISIANA		
D	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	CHK.	SC	3/4/21			
C	ISSUED FOR FERC FILING	GIE	3/18/21	SC	JC	PROJ. ENGR.					
B	ISSUED FOR CLIENT REVIEW	GIE	3/17/21	SC	JC	PROJ. MGR.					
A	ISSUED FOR INTERNAL REVIEW	GIE	3/15/21	SC	JC	CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	NTS		DWG. NO.	SHT. NO.	REV.
									1901-101-PL-DWG-7007-001	1 OF 1	E



TYPICAL UPLAND CONSTRUCTION CORRIDOR

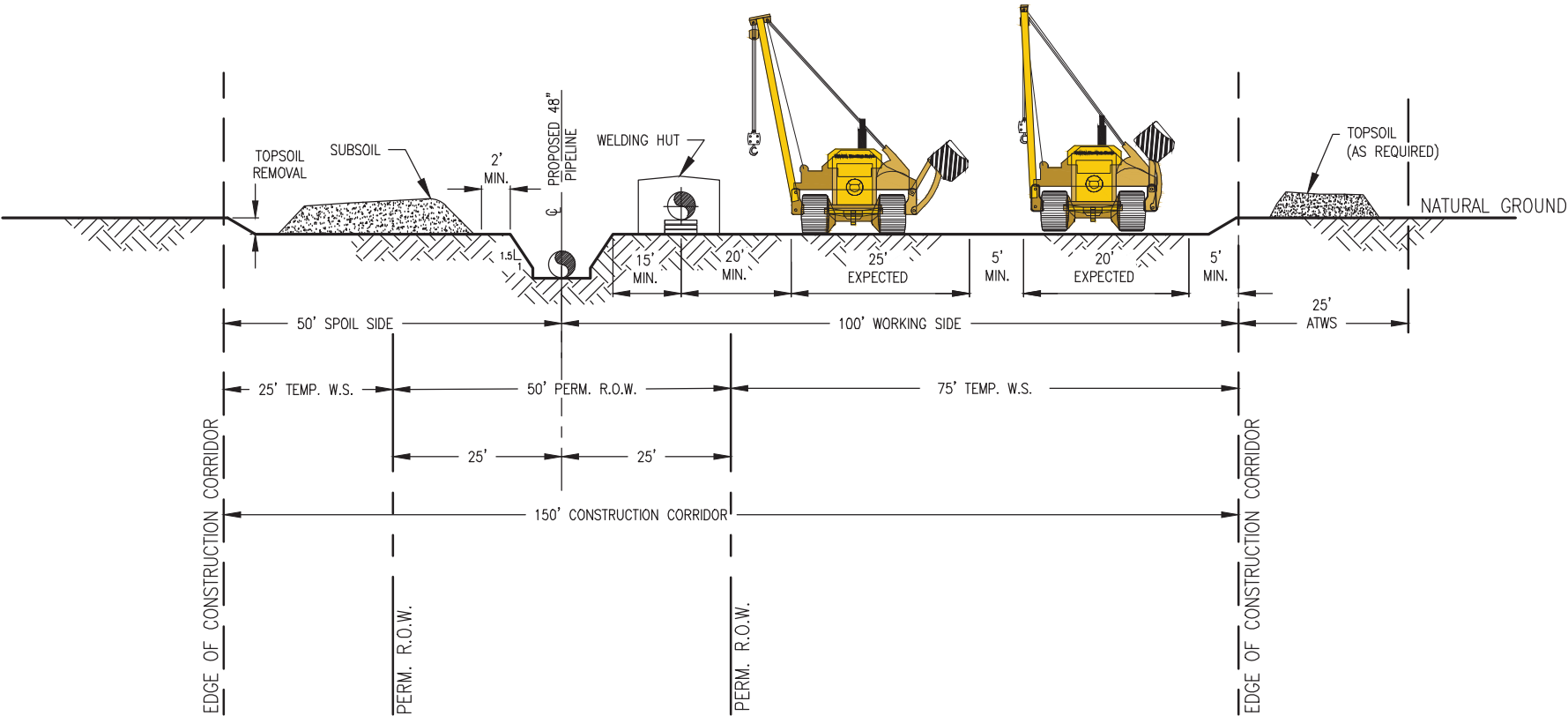


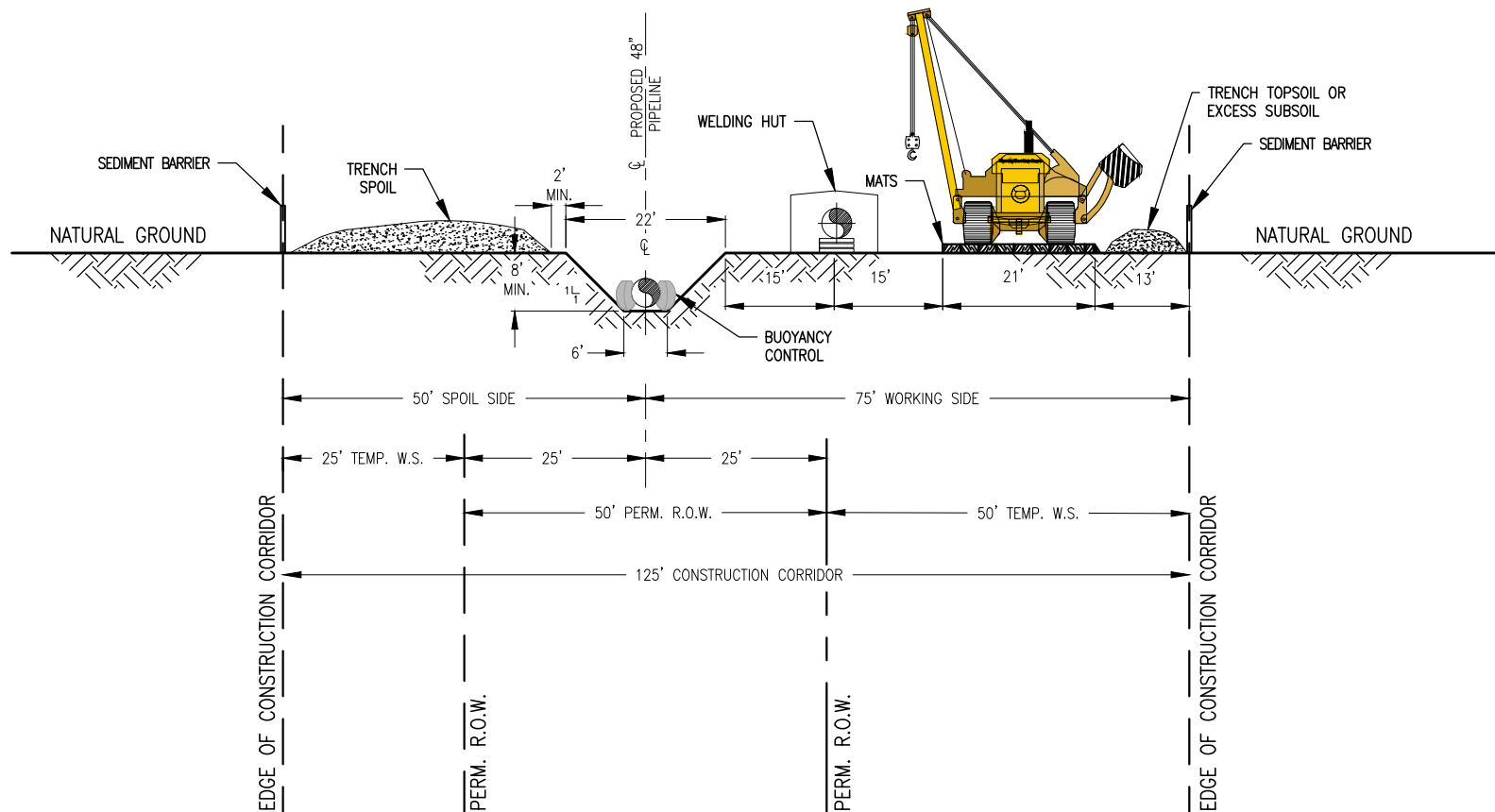


FIGURE 10

										
E	ISSUED FOR FERC FILING	GIE	9/2/21	JB	JC		DWN. BY: GIE	3/4/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL UPLAND SOIL SEGREGATION CONSTRUCTION CORRIDOR LOUISIANA / TEXAS	
D	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	CHK. SC	3/4/21			
C	ISSUED FOR FERC FILING	GIE	3/18/21	SC	JC	PROJ. ENGR.				
B	ISSUED FOR CLIENT REVIEW	GIE	3/17/21	SC	JC	PROJ. MGR.				
A	ISSUED FOR INTERNAL REVIEW	GIE	3/15/21	SC	JC	CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: NTS	DWG. NO. 1901-100-PL-DWG-7007-002	SHT. NO. 1 OF 1	REV. E	

# TYPICAL WETLAND CONSTRUCTION CORRIDOR



FOR TYPE A and B SOILS

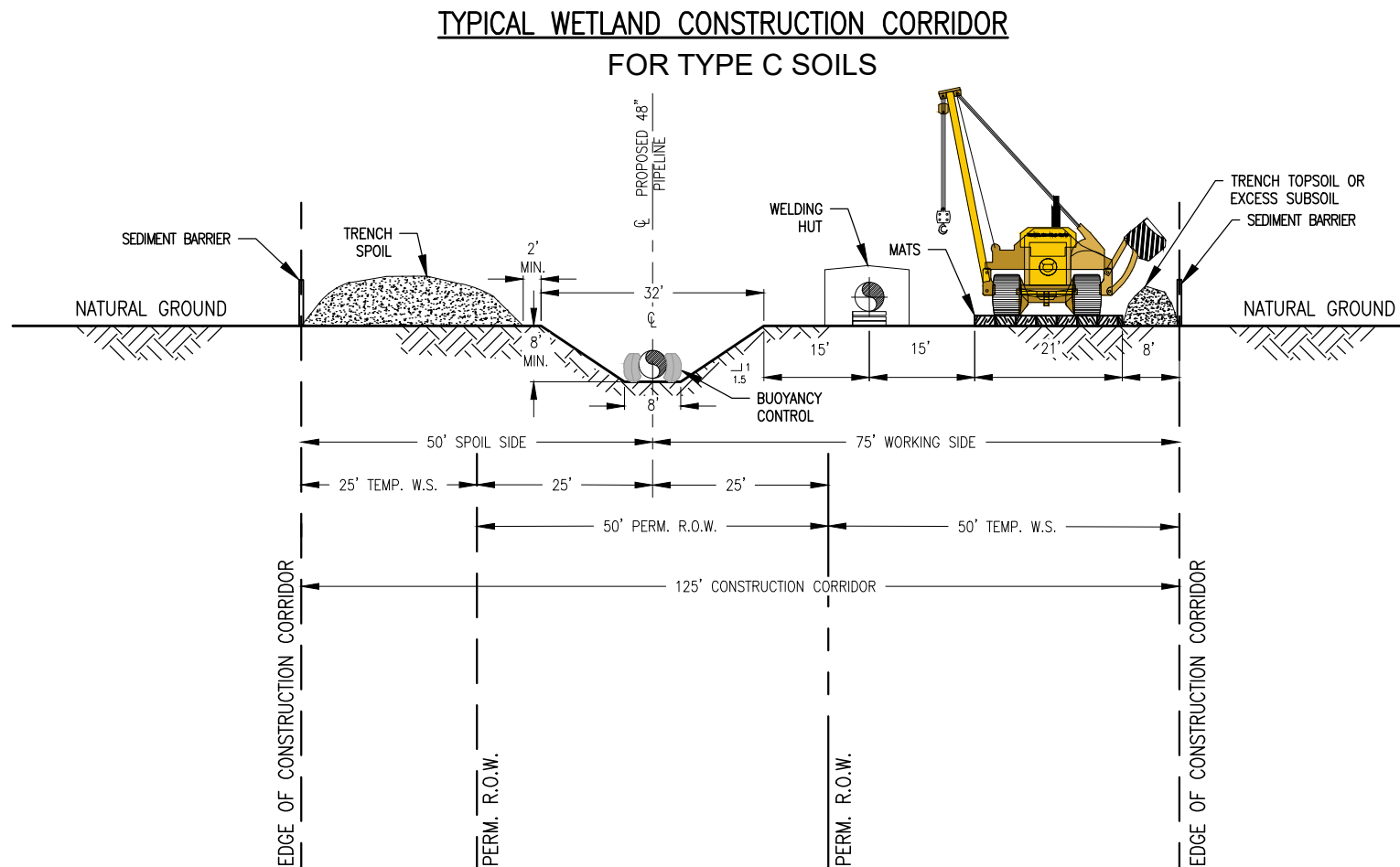


## NOTES:

1. TRENCH DIMENSIONS AND SPOIL PILES BASED ON TYPE B SOILS.
2. MINIMUM TRENCH DEPTH WILL BE AT LEAST 8 FEET.
3. PIPELINE MINIMUM DEPTH OF COVER SHALL BE 3 FEET.
4. DITCH LINE TOPSOIL WILL BE SEGREGATED (IF NOT SATURATED)
5. BUOYANCY CONTROL AND/OR AC MITIGATION IS REQUIRED, TRENCH WIDTH AND ASSOCIATED SPOIL WILL INCREASE.
6. DITCH SPOIL, DITCH BOTTOM WIDTH AND EQUIPMENT LAYOUT SUBJECT TO EXISTING CONDITIONS AT TIME OF CONSTRUCTION.
7. SPOIL PILES DEPICTED IS BASED ON TRENCH VOLUME CALCULATED WITH A 1.25 SWELL FACTOR APPLIED.

FIGURE 11a



														
C	ISSUED FOR PERMIT		GIE	10/12/22	SC	JC	DWN. BY:	GIE	10/5/22	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL WETLAND CONSTRUCTION CORRIDOR LOUISIANA / TEXAS				
B	ISSUED FOR CLIENT REVIEW		GIE	10/7/22	SC	JC	CHK.	SC	10/5/22					
A	ISSUED FOR INTERNAL REVIEW		GIE	10/5/22	SC	JC	PROJ. ENGR.							
							PROJ. MGR.							
							CLIENT APP.							
NO.	REVISION DESCRIPTION		BY	DATE	CHK'D	APP'D	SCALE:	NTS		DWG. NO. CX-588600-PPL-DTL-GIE-10000-003		SHT. NO. 1 OF 1	REV. C	



**NOTES:**

1. TRENCH DIMENSIONS AND SPOIL PILES BASED ON TYPE C SOILS.
2. MINIMUM TRENCH DEPTH WILL BE AT LEAST 8 FEET.
3. PIPELINE MINIMUM DEPTH OF COVER SHALL BE 3 FEET.
4. DITCH LINE TOPSOIL WILL BE SEGREGATED (IF NOT SATURATED), A BARRIER WILL BE UTILIZED ON SPOIL SIDE BETWEEN NATURAL GROUND AND SUBSOIL STORAGE AREA.
5. ECD'S WILL BE INSTALLED ALONG THE ROW AS REQUIRED TO MAINTAIN SPOIL MATERIAL WITHIN DESIGNATED WORKSPACE DUE TO HIGHLY SATURATED SOILS AND INEFFICIENCY OF STACKING (ANGLE OF REPOSE).
6. DITCH SPOIL, DITCH BOTTOM WIDTH AND EQUIPMENT LAYOUT SUBJECT TO EXISTING CONDITIONS AT TIME OF CONSTRUCTION.
7. SPOIL PILES DEPICTED IS BASED ON TRENCH VOLUME CALCULATED WITH A 1.25 SWELL FACTOR APPLIED.

**FIGURE 11b**

						 <div>GULF INTERSTATE ENGINEERING</div>					
						DWN. BY: GIE	10/5/22	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL WETLAND CONSTRUCTION CORRIDOR PIPELINE (50' R.O.W.) LOUISIANA / TEXAS			
						CHK. SC	10/5/22				
C	ISSUED FOR PERMIT	GIE	10/12/22	SC	JC	PROJ. ENGR.					
B	ISSUED FOR CLIENT REVIEW	GIE	10/7/22	SC	JC	PROJ. MGR.					
A	ISSUED FOR INTERNAL REVIEW	GIE	10/5/22	SC	JC	CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	NTS	DWG. NO. CX-588600-PPL-DTL-GIE-10000-004	SHT. NO. 1 OF 1	REV. C	



TYPICAL WETLAND CONSTRUCTION CORRIDOR

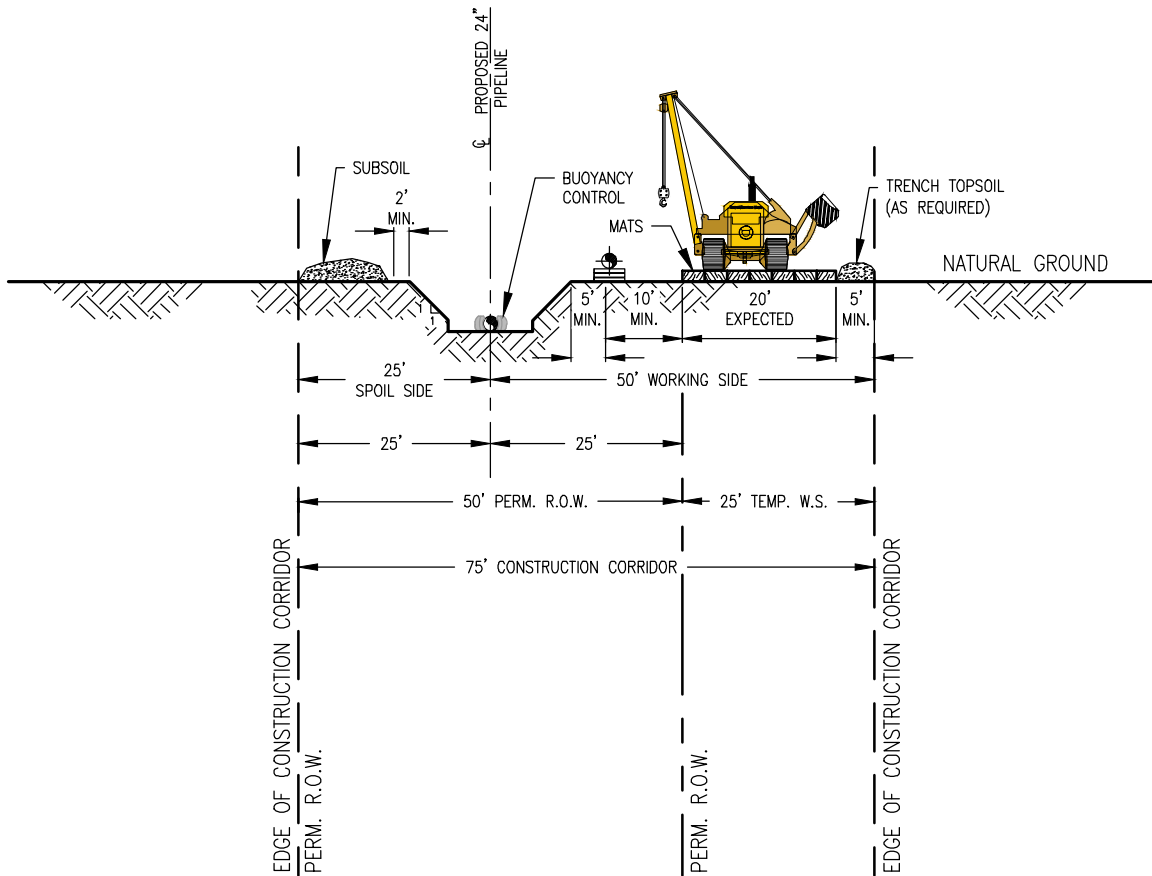


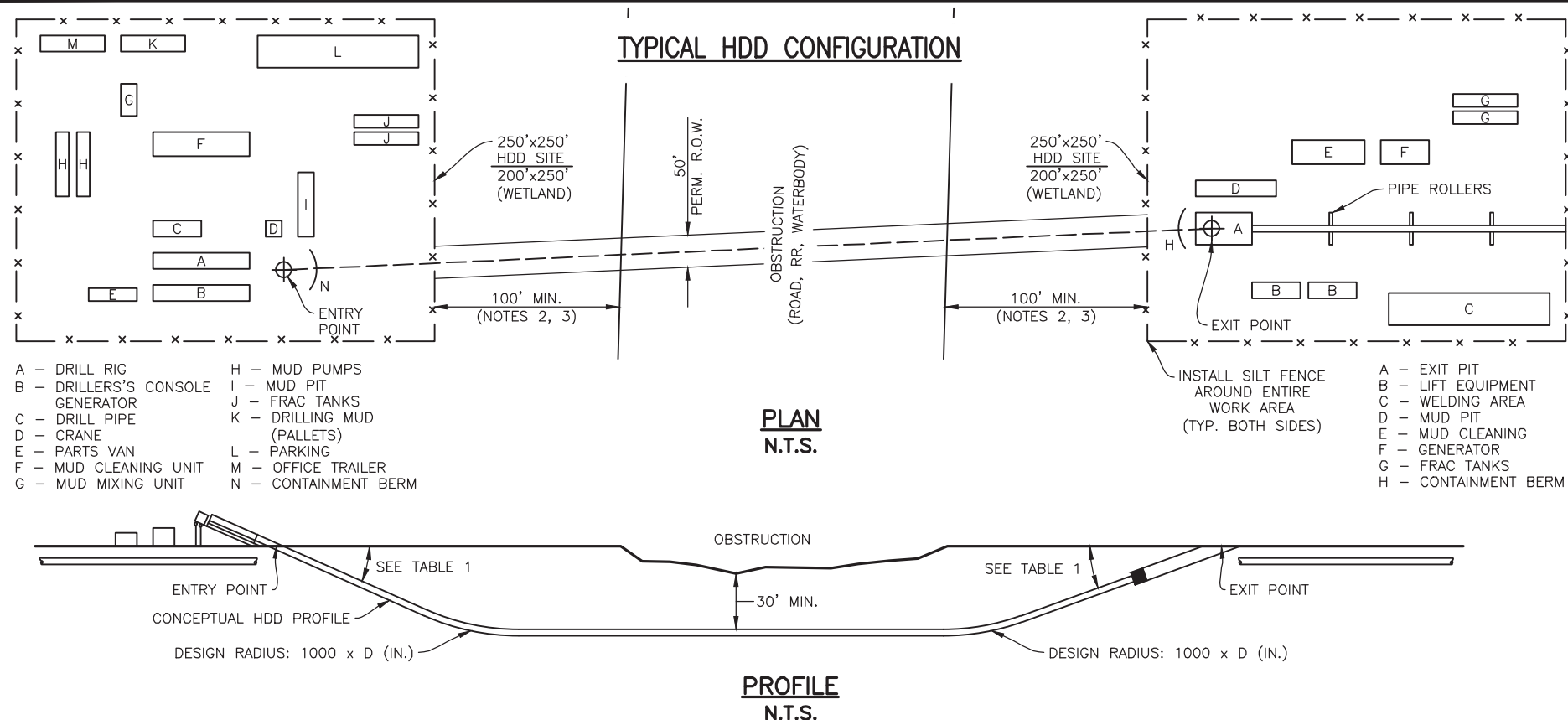


FIGURE 11c

										
E	ISSUED FOR FERC FILING	GIE	9/2/21	JB	JC	DWN. BY: GIE	3/4/21	CP EXPRESS PIPELINE, LLC. PROPOSED 24" PIPELINE TYPICAL WETLAND CONSTRUCTION CORRIDOR LOUISIANA		
D	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	CHK. SC	3/4/21			
C	ISSUED FOR FERC FILING	GIE	3/18/21	SC	JC	PROJ. ENGR.				
B	ISSUED FOR CLIENT REVIEW	GIE	3/17/21	SC	JC	PROJ. MGR.				
A	ISSUED FOR INTERNAL REVIEW	GIE	3/15/21	SC	JC	CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: NTS		DWG. NO. 1901-101-PL-DWG-7007-003	SHT. NO. 1 OF 1	REV. E

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**NOTES:**

1. ANY DEVIATION FROM RECOMMENDED DESIGN IS SUBJECT TO OWNER ENGINEER'S APPROVAL.
2. SETBACK MAY BE ADJUSTED BASED ON GEOTECHNICAL ANALYSIS.
3. DO NOT CLEAR OR GRADE WITHIN THE SETBACK ZONE.
4. DESIGN CURVATURE RADIUS: 1000 X D.
5. ONLY HAND CLEARING WILL OCCUR IN THE HDD CONSTRUCTION R.O.W. WIDTH TO ALLOW FOR THE PLACEMENT OF THE TRU TRACKER GUIDANCE WIRES (APPROX. 5' WIDTH FOR EACH WIRE).
6. ONLY MINOR CLEARING WILL OCCUR IN THE HDD CONSTRUCTION R.O.W. WIDTH FOR THE PLACEMENT OF TEMPORARY WATER PIPELINES FOR HYDROSTATIC TESTING & PUMP AND FILL; AS DETAILED ON SITE SPECIFIC HDD DRAWINGS, ACCESS LOCATIONS.
7. THE EQUIPMENT LAYOUT SHOWN IS TYPICAL AND VARY DUE TO SITE CONDITIONS AND WILL BE FIELD DETERMINED BY THE CONTRACTOR.

TABLE 1	
ENTRY ANGLES	6°-12°
EXIT ANGLES	6°-10°

**FIGURE 12**

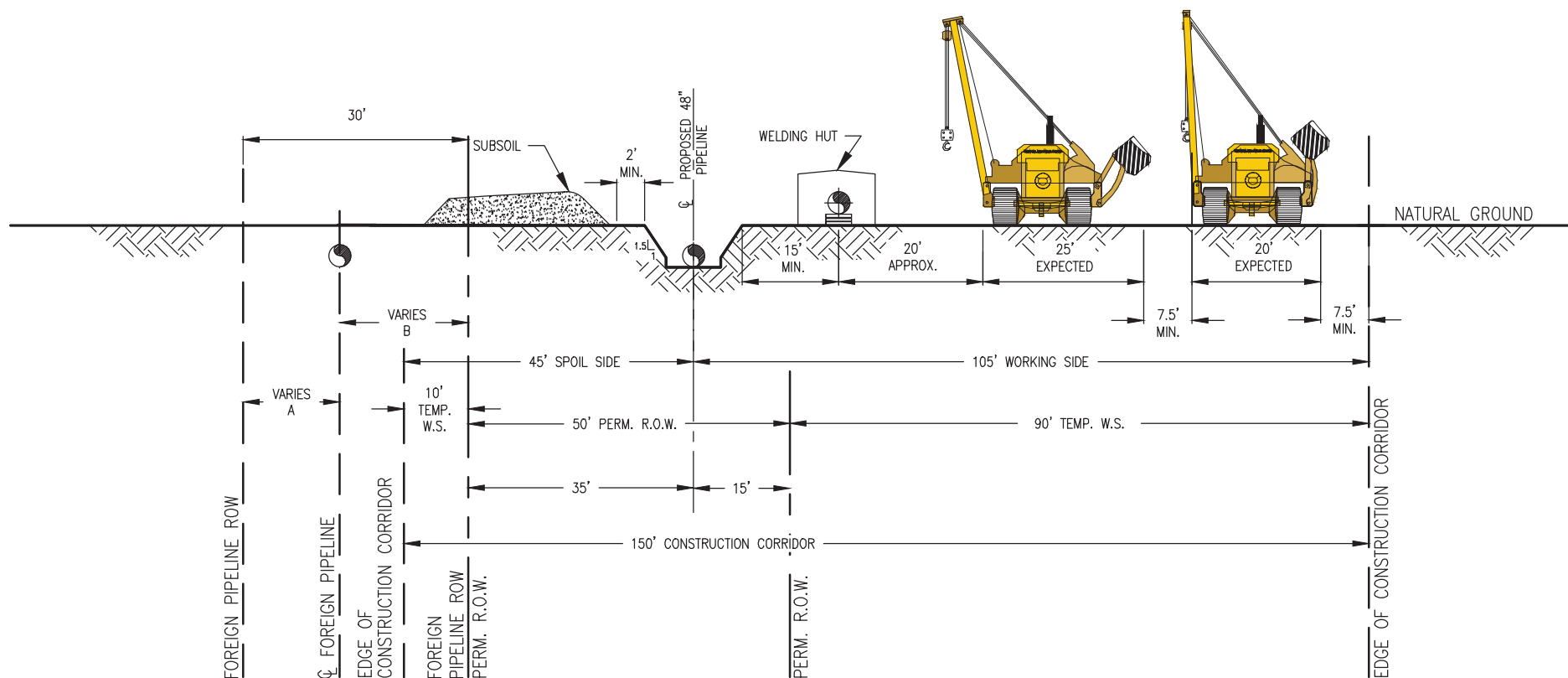
						<b>GULF Companies</b>		<b>CP EXPRESS</b>		
E	ISSUED FOR FERC FILING	GIE	9/2/21	JB	JC	DWN. BY:	GIE	3/4/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL HDD CONFIGURATION LOUISIANA / TEXAS	
D	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	CHK.	SC	3/4/21		
C	ISSUED FOR FERC FILING	GIE	3/18/21	SC	JC	PROJ. ENGR.				
B	ISSUED FOR CLIENT REVIEW	GIE	3/17/21	SC	JC	PROJ. MGR.				
A	ISSUED FOR INTERNAL REVIEW	GIE	3/15/21	SC	JC	CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	NTS		DWG. NO.	1901-100-PL-DWG-7007-005
									SHT. NO.	1 OF 1
									REV.	E

TYPICAL UPLAND CO-LOCATION  
WITH FOREIGN PIPELINE  
CONSTRUCTION CORRIDOR



## PIPELINE CO-LOCATION

COLOCATE UTILITY	BEGIN MP *	END MP *	LENGTH FEET	WIDTH FEET	
				A	B
KMLP	23.70	24.59	4,720	15	15
TARGA	39.38	39.80	2,247	15	15

\* UPLAND CONSTRUCTION LOCATIONS VARY  
IN LENGTH BETWEEN THE LISTED MILEPOST  
RANGES



### FIGURE 13

															
E	ISSUED FOR FERC FILING	GIE	10/13/21	JB	JC	DWN. BY:	GIE	10/13/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL UPLAND CO-LOCATION WITH FOREIGN PIPELINE (30' R.O.W.) LOUISIANA / TEXAS						
D	ISSUED FOR FER FILING	CS	9/2/21	JB	JC	CHK.	SC	10/13/21							
C	ISSUED FOR FER FILING	GIE	5/19/21	JB	JC	PROJ. ENGR.									
B	ISSUED FOR CLIENT REVIEW	GIE	4/14/21	JB	JC	PROJ. MGR.									
A	ISSUED FOR INTERNAL REVIEW	GIE	4/6/21	SC	JC	CLIENT APP.									
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:		NTS		DWG. NO.	1901-100-PL-DWG-7007-006	SHT. NO.	1 OF 1	REV	E



# TYPICAL UPLAND CO-LOCATION WITH FOREIGN PIPELINE CONSTRUCTION CORRIDOR

## PIPELINE CO-LOCATION

COLOCATE UTILITY	BEGIN MP *	END MP *	LENGTH FEET	WIDTH FEET	
				A	B
WILLIAMS	0.17	2.55	12,589	25	25
ENBRIDGE	18.17	18.54	1,967	25	25
KMLP	42.45	42.90	2,325	25	25
KMLP	44.59	44.82	1,176	25	25

\* UPLAND CONSTRUCTION LOCATIONS VARY  
IN LENGTH BETWEEN THE LISTED MILEPOST  
RANGES

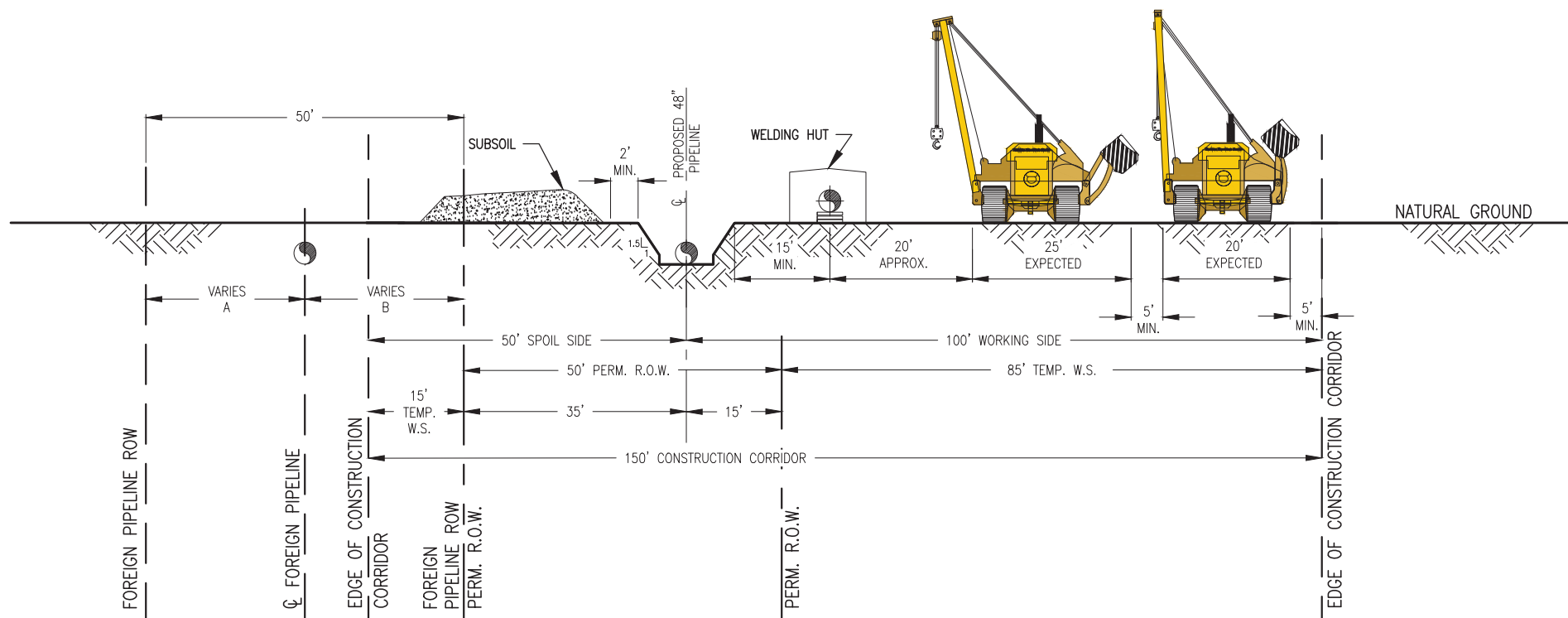




FIGURE 14

										
F	ISSUED FOR FERC FILING	GIE	10/13/21	JB	JC	DWN. BY: GIE 10/13/21		CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL UPLAND CO-LOCATION WITH FOREIGN PIPELINE (50' R.O.W.) LOUISIANA / TEXAS		
E	ISSUED FOR FERC FILING	GIE	9/23/21	JB	JC	CHK. SC 10/13/21				
D	ISSUED FOR FERC FILING	GIE	9/2/21	JB	JC	PROJ. ENGR.				
C	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	PROJ. MGR.				
B	ISSUED FOR CLIENT REVIEW	GIE	4/14/21	JB	JC	CLIENT APP.				
A	ISSUED FOR INTERNAL REVIEW	GIE	4/6/21	SC	JC					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: NTS		DWG. NO.	SHT. NO.	REV.
								1901-100-PL-DWG-7007-007	1 OF 1	F

# TYPICAL UPLAND CO-LOCATION WITH OVERHEAD POWERLINE CONSTRUCTION CORRIDOR

## POWERLINE CO-LOCATION

COLOCATE UTILITY	BEGIN MP *	END MP *	LENGTH FEET	WIDTH FEET		
				A	B	C
ENTERGY	2.55	6.41	20,378	164	82	82
ENTERGY	8.23	14.77	34,555	134	67	67
ENTERGY/CLECO	16.45	17.63	6,258	317	VARIES	VARIES
ENTERGY	18.56	19.90	7,075	170	85	85
ENTERGY	21.07	22.42	7,128	170	85	85
ENTERGY	42.90	43.30	2,134	170	85	85
ENTERGY	43.47	44.25	4,106	170	85	85
ENTERGY	44.82	45.07	1,332	170	85	85

\* UPLAND CONSTRUCTION LOCATIONS VARY IN LENGTH BETWEEN THE LISTED MILEPOST RANGES

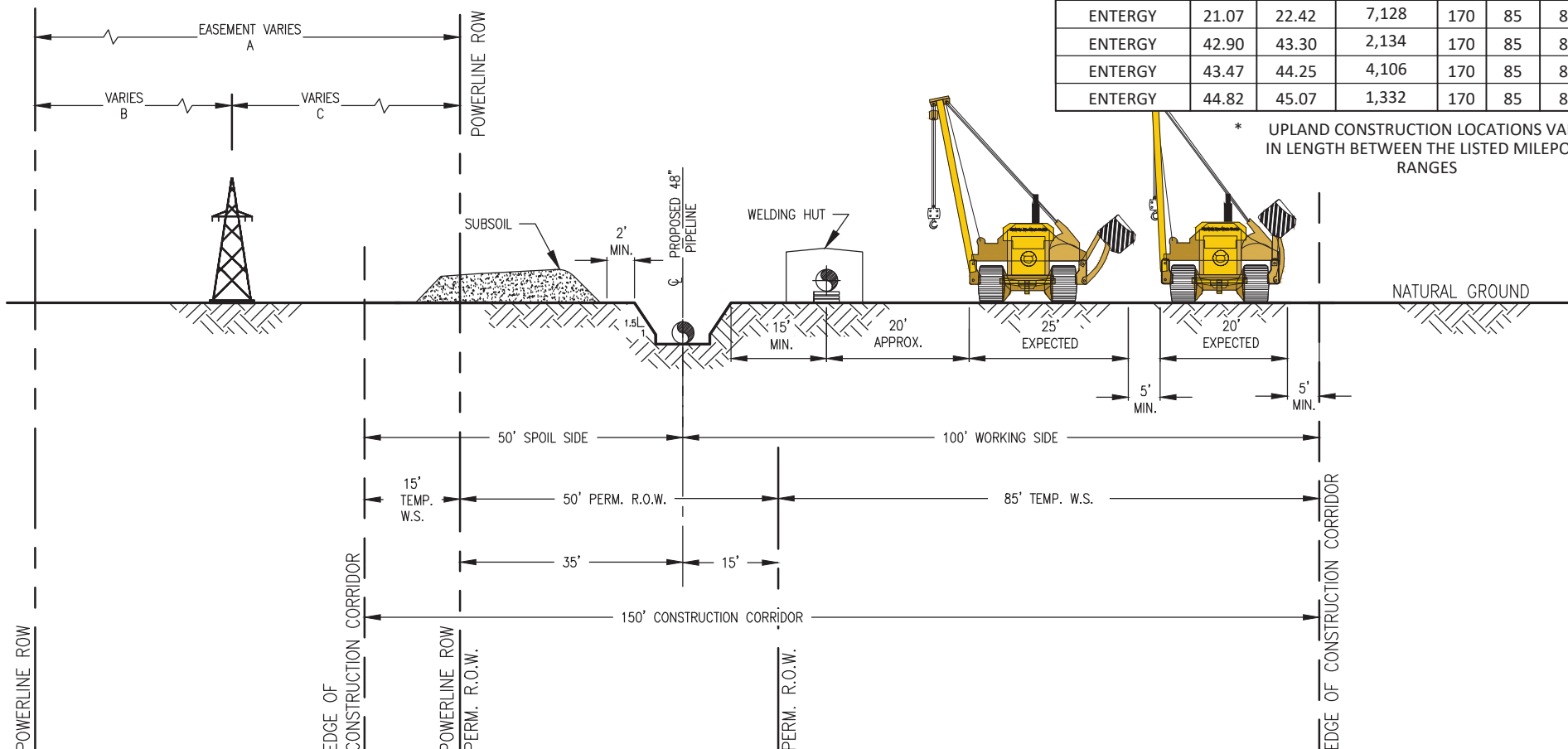




FIGURE 15

														
E	ISSUED FOR FERC FILING	GIE	10/13/21	JB	JC	DWN. BY:	GIE	10/13/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL UPLAND CO-LOCATION WITH OVERHEAD POWERLINE LOUISIANA / TEXAS					
D	ISSUED FOR FERC FILING	CS	9/2/21	JB	JC	CHK.	SC	10/13/21						
C	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	PROJ. ENGR.								
B	ISSUED FOR CLIENT REVIEW	GIE	4/14/21	JB	JC	PROJ. MGR.								
A	ISSUED FOR INTERNAL REVIEW	GIE	4/6/21	SC	JC	CLIENT APP.								
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	NTS		DWG. NO.	1901-100-PL-DWG-7007-008	SHT. NO.	1 OF 1	REV.	E

# TYPICAL WETLAND CO-LOCATION WITH FOREIGN PIPELINE CONSTRUCTION CORRIDOR

## PIPELINE CO-LOCATION

COLOCATE UTILITY	BEGIN MP *	END MP *	LENGTH FEET	WIDTH FEET	
				A	B
KMLP	23.70	24.59	4,720	15	15
TARGA	39.38	39.80	2,247	15	15

\* WETLAND CONSTRUCTION LOCATIONS  
VARY IN LENGTH BETWEEN THE LISTED  
MILEPOST RANGES

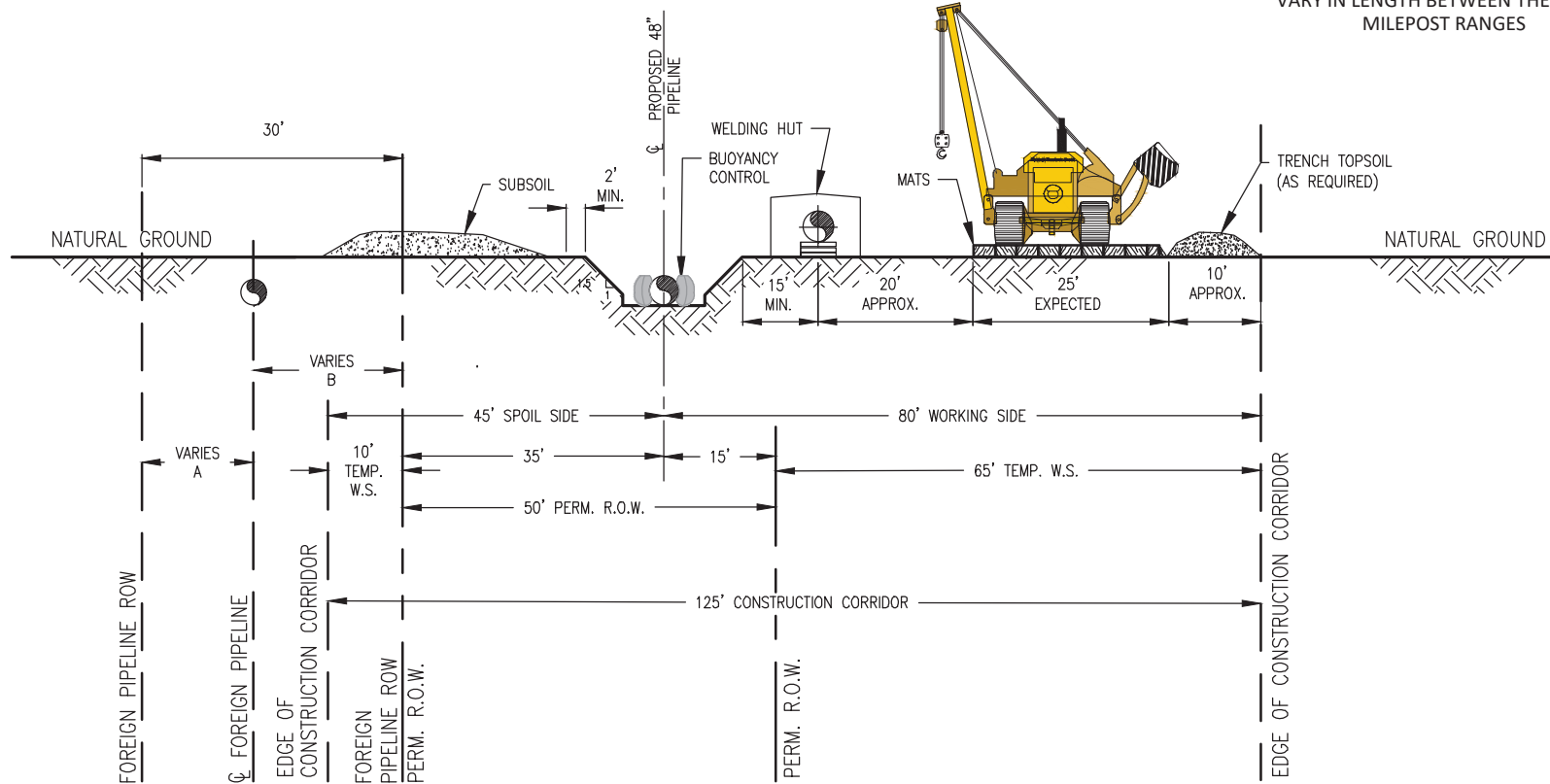




FIGURE 16

												
E	ISSUED FOR FERC FILING	GIE	10/13/21	JB	JC	DWN. BY: GIE		10/13/21		CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL WETLAND CO-LOCATION WITH FOREIGN PIPELINE (30' R.O.W.) LOUISIANA / TEXAS		
D	ISSUED FOR FERC FILING	CS	9/2/21	JB	JC	CHK. SC		10/13/21				
C	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	PROJ. ENGR.						
B	ISSUED FOR CLIENT REVIEW	GIE	5/17/21	JB	JC	PROJ. MGR.						
A	ISSUED FOR INTERNAL REVIEW	GIE	5/13/21	SC	JC	CLIENT APP.						
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:		NTS		DWG. NO.	SHT. NO.	REV
										1901-100-PL-DWG-7007-040	1 OF 1	E



# TYPICAL WETLAND CO-LOCATION WITH FOREIGN PIPELINE CONSTRUCTION CORRIDOR

## PIPELINE CO-LOCATION

COLOCATE UTILITY	BEGIN MP *	END MP *	LENGTH FEET	WIDTH FEET	
				A	B
WILLIAMS	0.17	2.55	12,589	25	25
ENBRIDGE	18.17	18.54	1,967	25	25
KMLP	42.45	42.90	2,325	25	25
KMLP	44.59	44.82	1,176	25	25

\* WETLAND CONSTRUCTION LOCATIONS VARY IN LENGTH BETWEEN THE LISTED MILEPOST RANGES

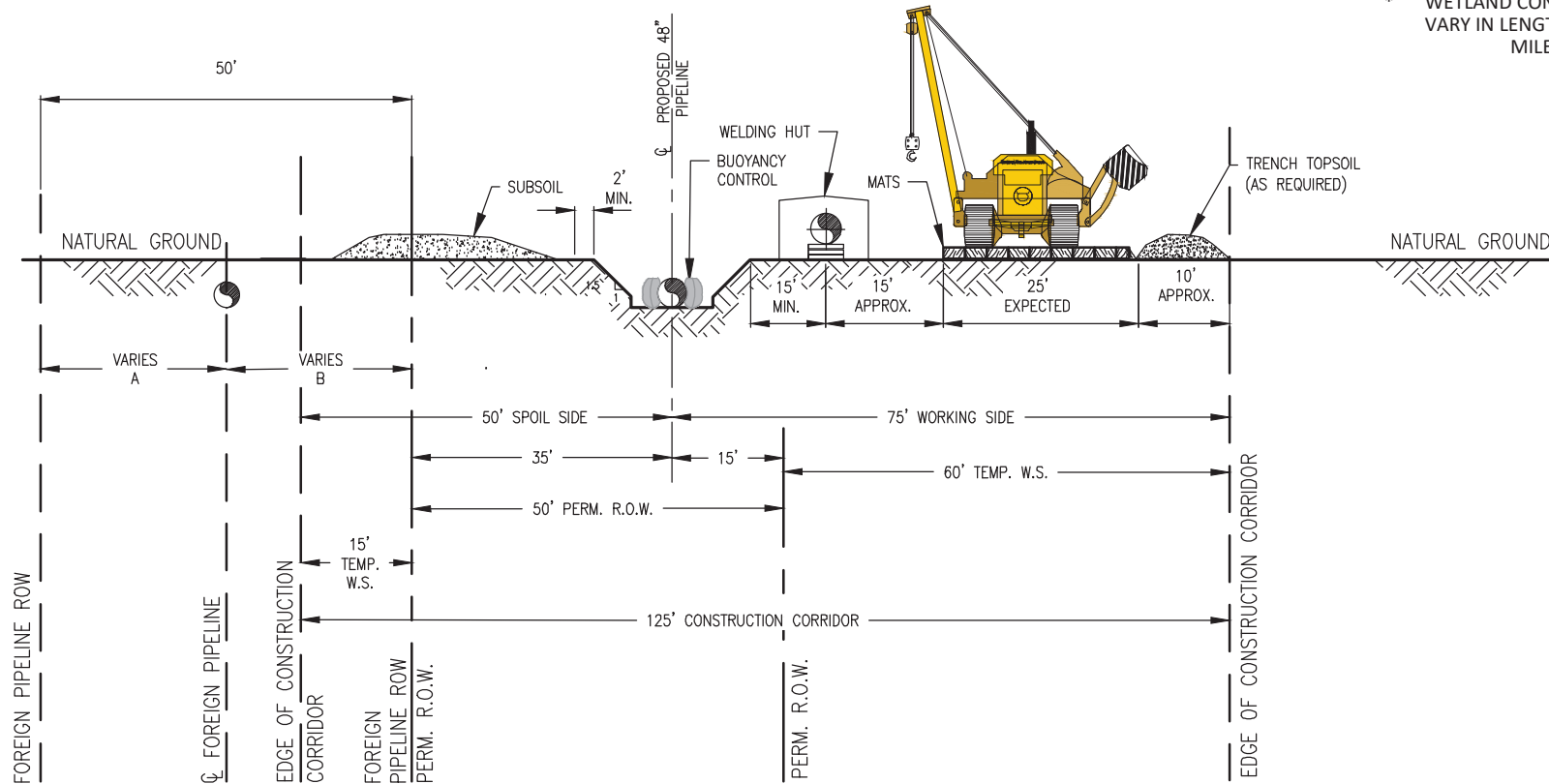




FIGURE 17

										
F	ISSUED FOR FERC FILING	GIE	10/13/21	JB	JC			CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL WETLAND CO-LOCATION WITH FOREIGN PIPELINE (50' R.O.W.) LOUISIANA / TEXAS		
E	ISSUED FOR FERC FILING	GIE	9/23/21	JB	JC	DWN. BY: GIE 10/13/21				
D	ISSUED FOR FERC FILING	GIE	9/2/21	JB	JC	CHK. SC 10/13/21				
C	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	PROJ. ENGR.				
B	ISSUED FOR CLIENT REVIEW	GIE	5/17/21	JB	JC	PROJ. MGR.				
A	ISSUED FOR INTERNAL REVIEW	GIE	5/13/21	SC	JC	CLIENT APP.		DWG. NO. 1901-100-PL-DWG-7007-041 SHT. NO. 1 OF 1 REV. F		
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: NTS				

# TYPICAL WETLAND CO-LOCATION WITH OVERHEAD POWERLINE CONSTRUCTION CORRIDOR

## POWERLINE CO-LOCATION

COLOCATE UTILITY	BEGIN MP *	END MP *	LENGTH FEET	WIDTH FEET		
				A	B	C
ENTERGY	2.55	6.41	20,378	164	82	82
ENTERGY	8.23	14.77	34,555	134	67	67
ENTERGY/CLECO	16.45	17.63	6,258	317	VARIES	VARIES
ENTERGY	18.56	19.90	7,075	170	85	85
ENTERGY	21.07	22.42	7,128	170	85	85
ENTERGY	42.90	43.30	2,134	170	85	85
ENTERGY	43.47	44.25	4,106	170	85	85
ENTERGY	44.82	45.07	1,332	170	85	85

\* UPLAND CONSTRUCTION LOCATIONS VARY IN LENGTH BETWEEN THE LISTED MILEPOST RANGES

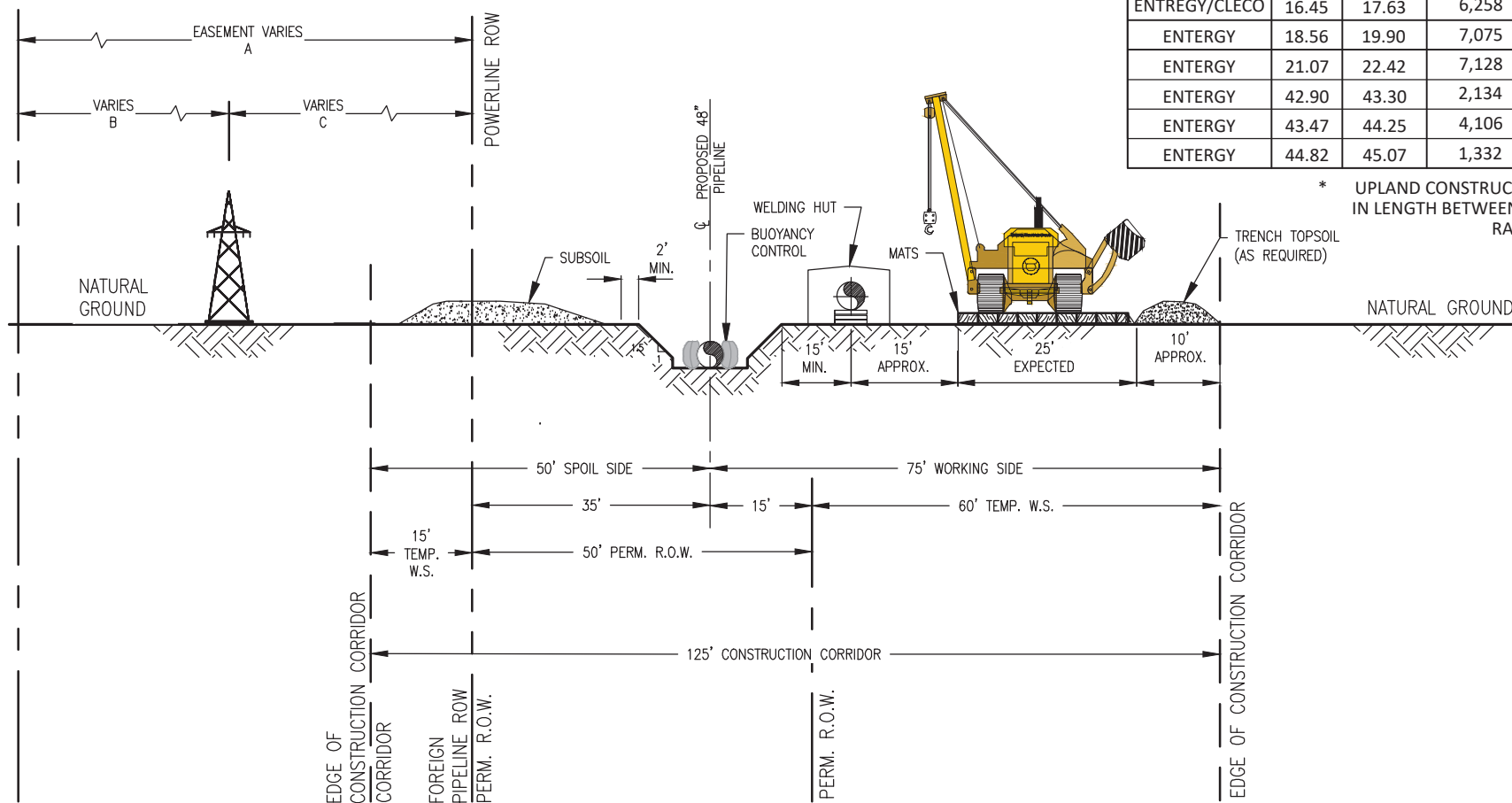


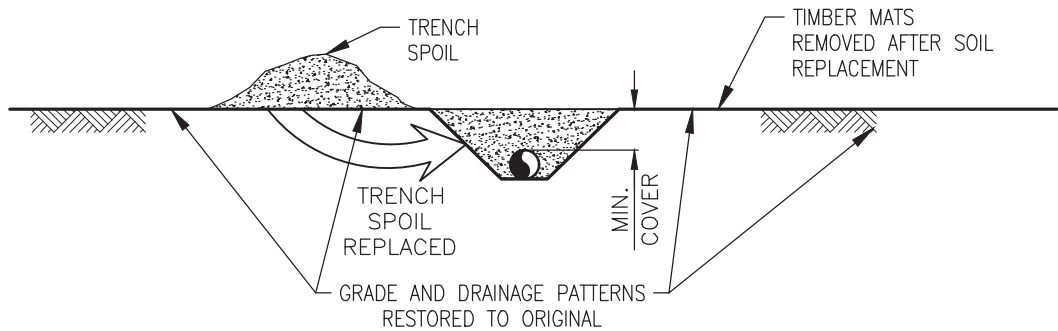
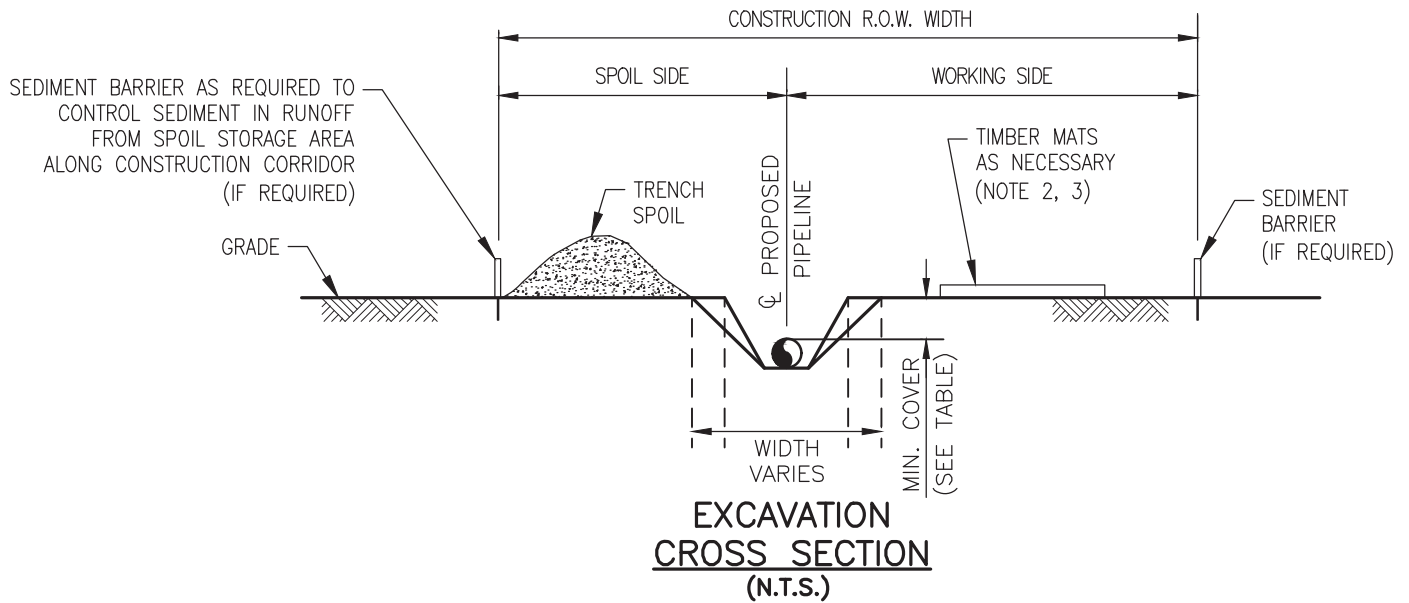


FIGURE 18

										
E	ISSUED FOR FERC FILING	GIE	10/13/21	JB	JC	DWN. BY: GIE	10/13/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" PIPELINE TYPICAL WETLAND CO-LOCATION WITH OVERHEAD POWERLINE LOUISIANA / TEXAS		
D	ISSUED FOR FERC FILING	CS	9/2/21	JB	JC	CHK. SC	10/13/21			
C	ISSUED FOR FERC FILING	GIE	5/19/21	JB	JC	PROJ. ENGR.				
B	ISSUED FOR CLIENT REVIEW	GIE	5/17/21	JB	JC	PROJ. MGR.				
A	ISSUED FOR INTERNAL REVIEW	GIE	5/13/21	SC	JC	CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: NTS		DWG. NO.	SHT. NO.	REV.
								1901-100-PL-DWG-7007-042	1 OF 1	E

## CROSS-SECTION VIEW OF TYPICAL TRENCH PIPELINE INSTALLATION





### TABLE

PIPE MINIMUM DEPTH OF COVER	
LOCATION	NORMAL SOIL
ALL LOCATIONS NOT SPECIFIED	36"
AGRICULTURAL LAND	48" (NOTE 1)
DRAINAGE DITCHES - AGRICULTURAL AND IMPROVED PASTURES	36"
STREAM AND WATERWAY CROSSINGS - NOT IN AGRICULTURAL OR IMPROVED PASTURES	48"
ROADWAYS	60"
RAILROADS	120"

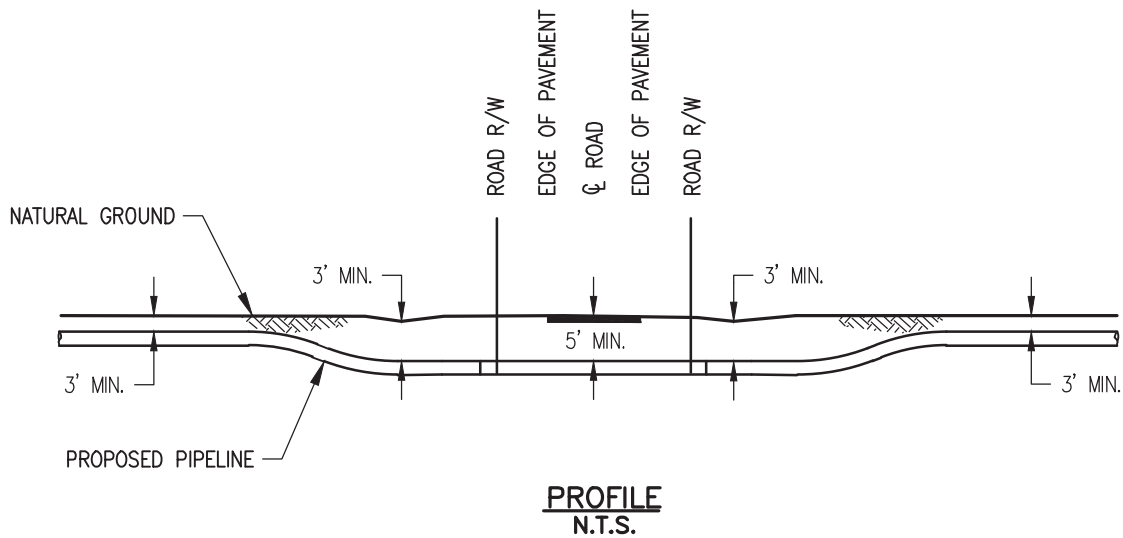
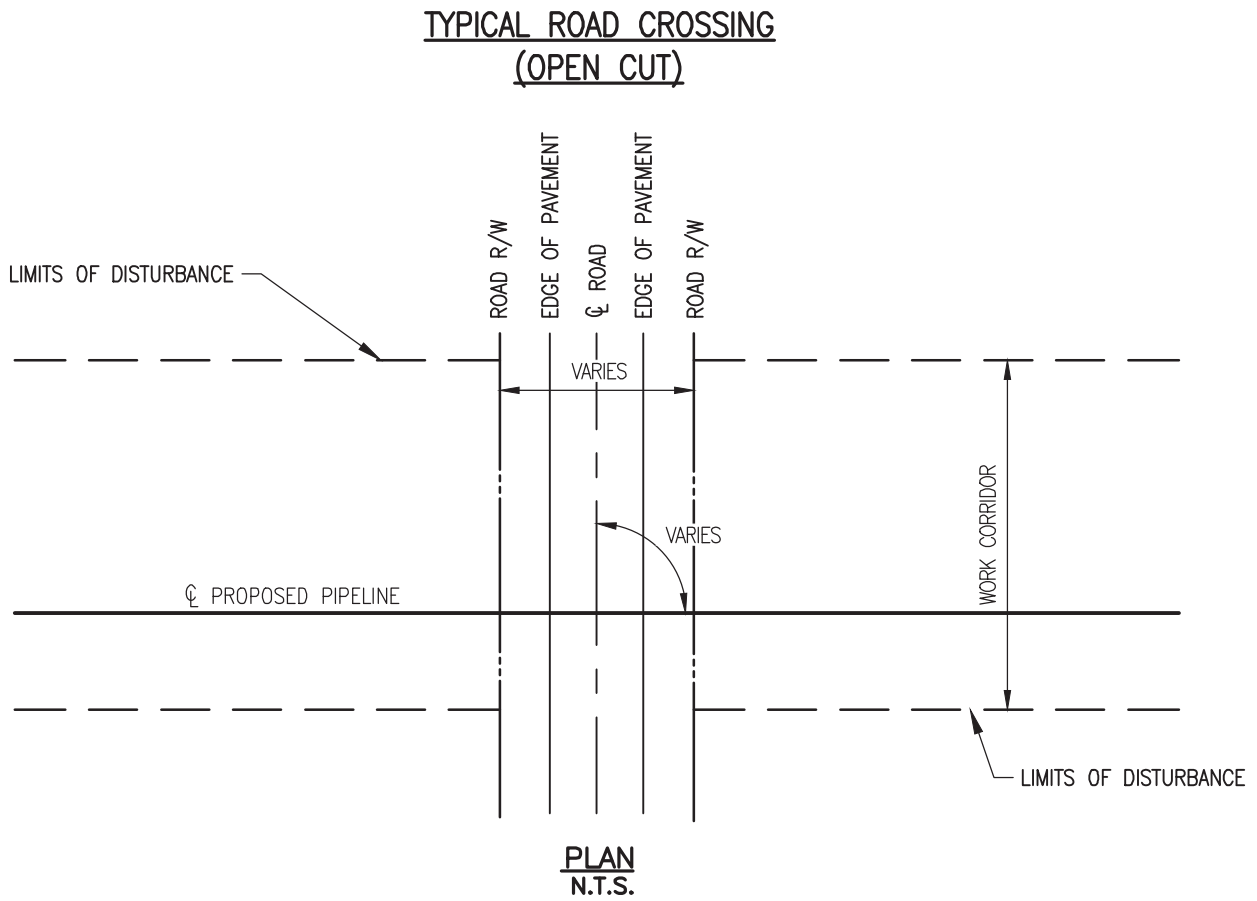
#### NOTES:

1. TO BE DETERMINED BY LANDOWNER AGREEMENT.
2. HEAVY EQUIPMENT WORKING IN WETLANDS WOULD BE PLACED ON MATS OR OTHER MEASURES WOULD BE TAKEN TO MINIMIZE SOIL DISTURBANCE. EXCEPT FOR PUSH SECTIONS.
3. MATS NOT REQUIRED IN PUSH OR MARSH SECTIONS.



FIGURE 19

							  CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES CROSS-SECTION VIEW OF TYPICAL TRENCH PIPELINE INSTALLATION LOUISIANA / TEXAS			
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21			
B	ISSUED FOR CLIENT REVIEW	GIE	04/13/21	JB	JC	CHK. SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.		DWG. NO. 1901-100-PL-DWG-7007-009 SHT. NO. 1 OF 1 REV. C		
						SCALE: N.T.S.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D					

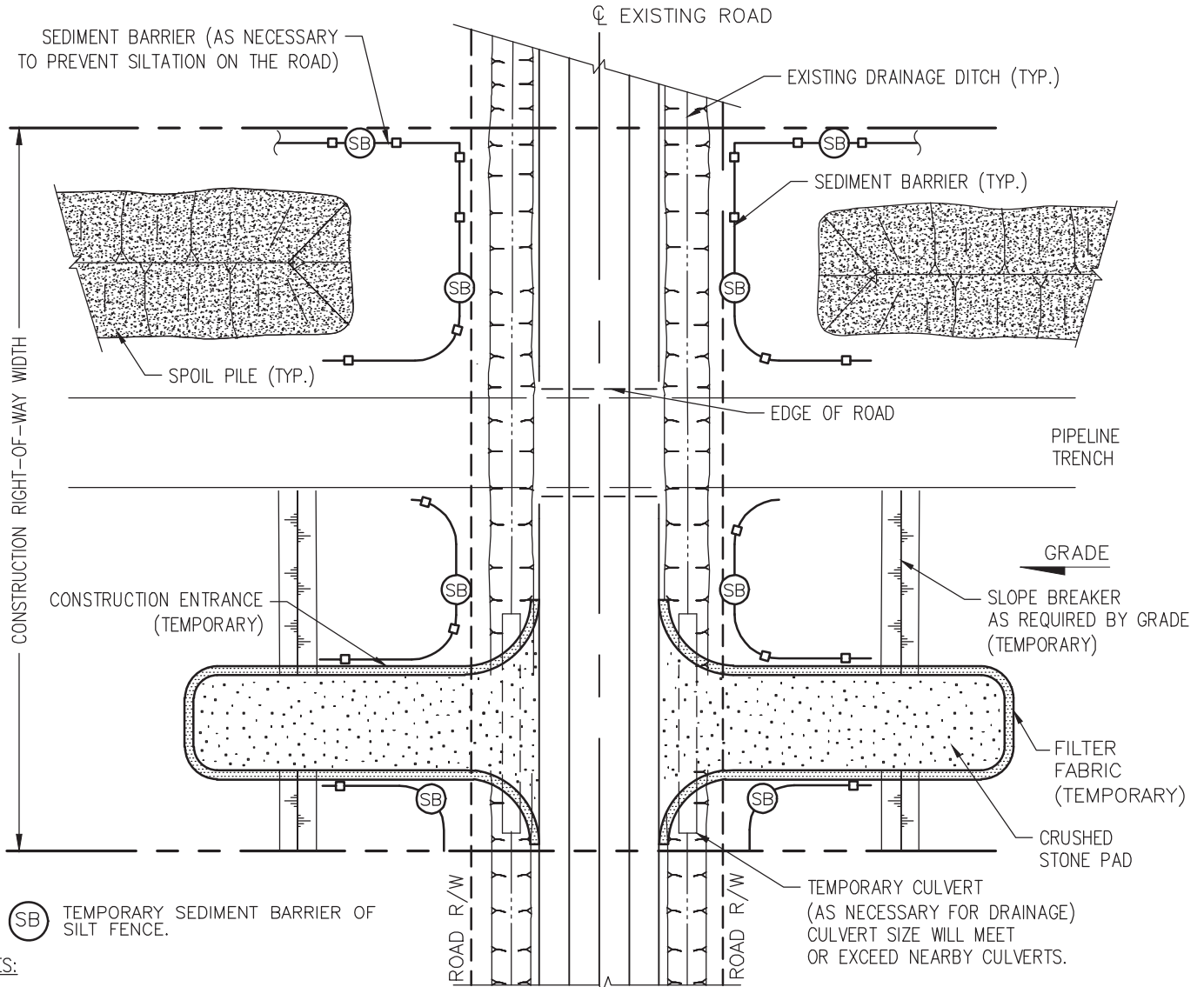






**FIGURE 20**

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL ROAD CROSSING (OPEN CUT) LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/13/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		DWG. NO.	1901-100-PL-DWG-7007-010	SHT. NO.	1 OF 1	REV.	C

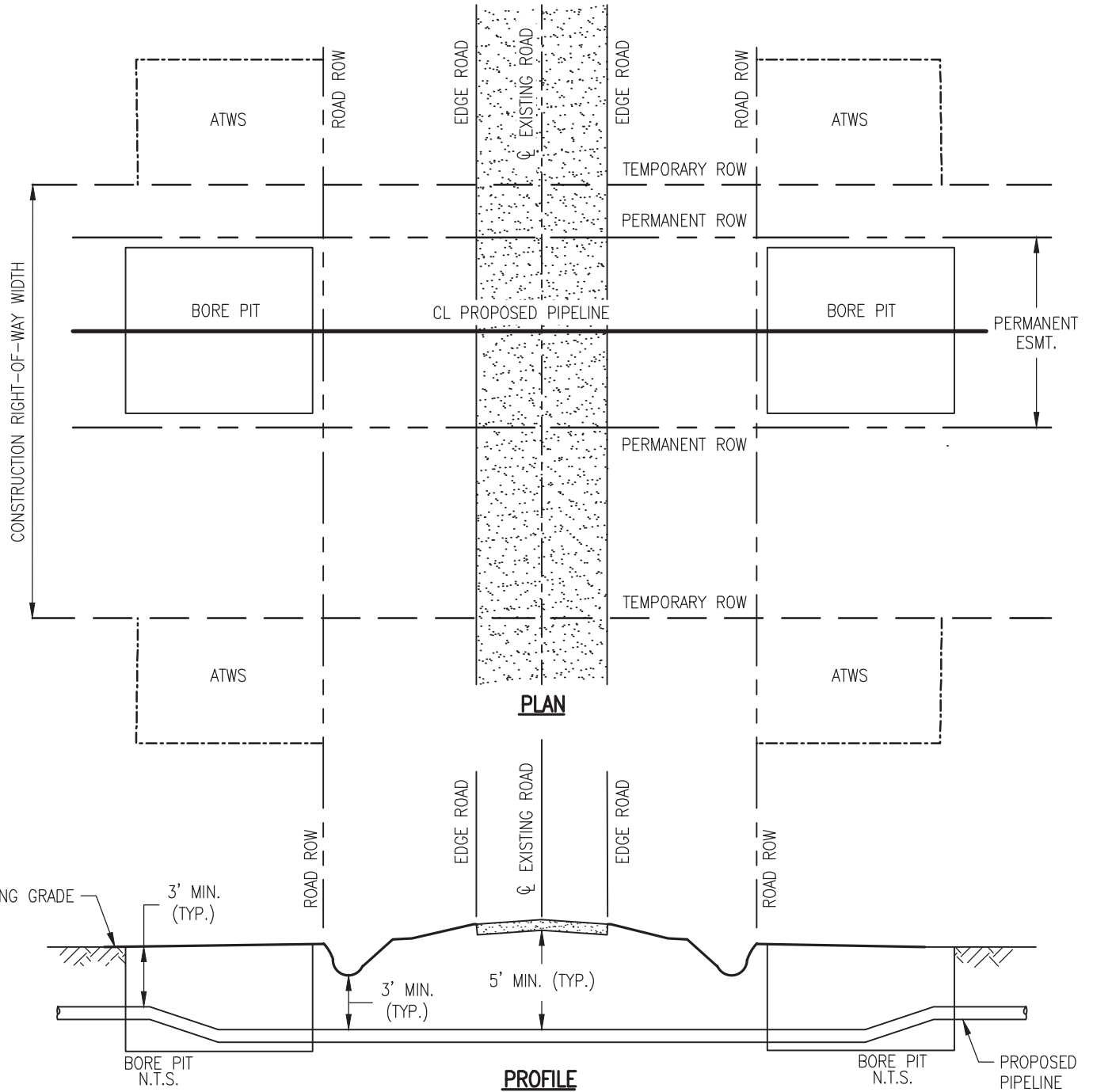
## TYPICAL ROAD CROSSING CONTROL MEASURE (OPEN CUT)



**FIGURE 21**

									
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL ROAD CROSSING CONTROL MEASURE (OPEN CUT) LOUISIANA / TEXAS	
B	ISSUED FOR CLIENT REVIEW	GIE	04/13/21	JB	JC	CHK. SC	04/06/21		
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.			
						PROJ. MGR.			
						CLIENT APP.			
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.	DWG. NO. 1901-100-PL-DWG-7007-011	SHT. NO. 1 OF 1	REV. C



# TYPICAL ROAD BORE CROSSING



## NOTES:

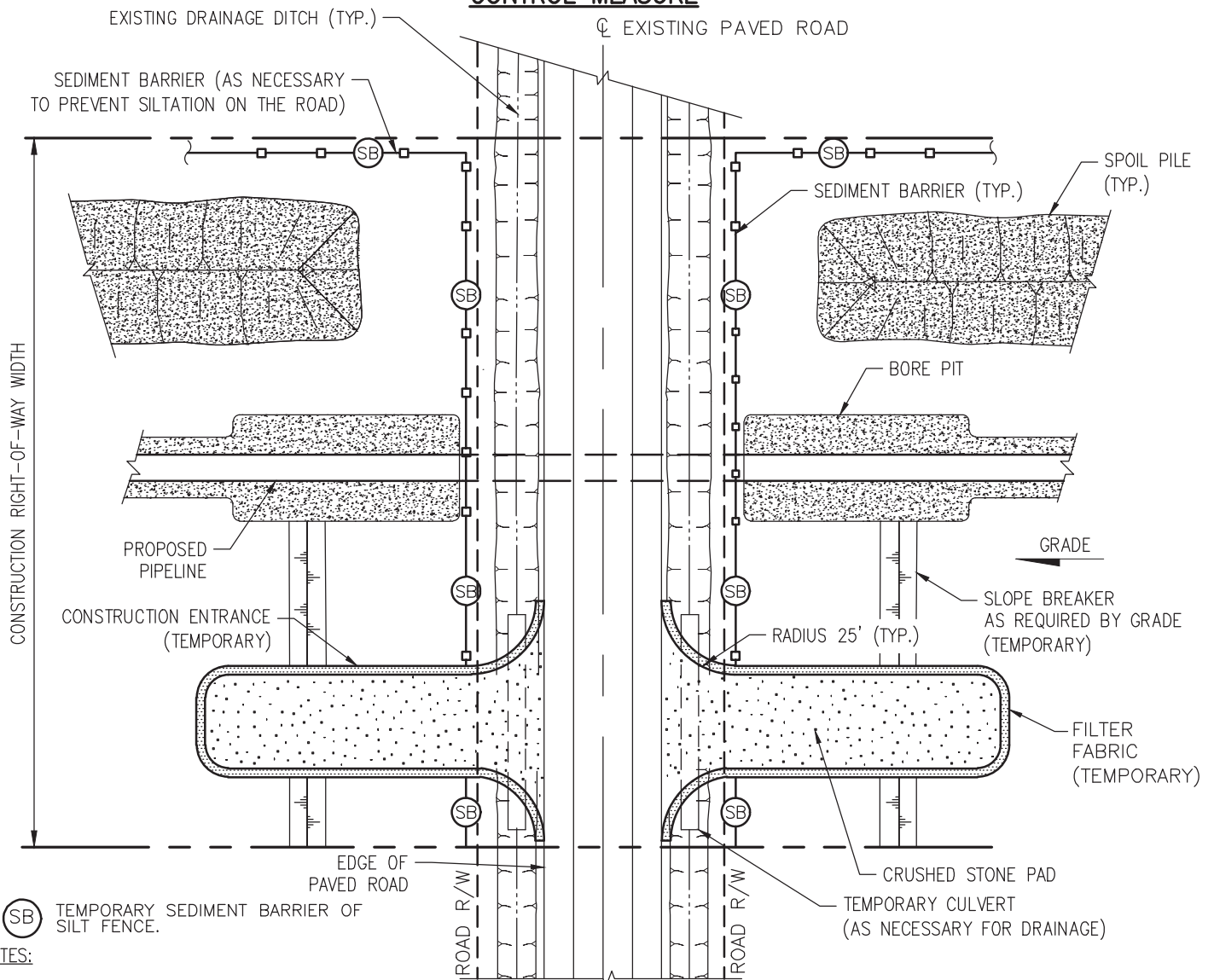
1. NO EXCAVATION WILL OCCUR WITHIN ROAD ROW WITHOUT APPROVAL.
2. TOP OF PIPE WILL BE INSTALLED A MINIMUM OF 5 FEET UNDER ROAD AND 3 FEET BELOW THE BAR DITCH.

**FIGURE 22**

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	SC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL ROAD BORE CROSSING LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/13/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-012	SHT. NO.	1 OF 1	REV.	C



# TYPICAL BORED ROAD CROSSING CONTROL MEASURE



## NOTES:

1. PROVIDE MINIMUM OF 3 FEET OF COVER BETWEEN TOP OF PIPE AND LOWEST POINT IN THE BORROW DITCHES, AND PROVIDE MINIMUM 5 FEET OF COVER BETWEEN PIPE AND TOP OF ROAD SURFACE, OR MINIMUM DEPTH REQUIRED BY PERMIT, WHICHEVER DIMENSION PROVIDES GREATER DEPTH FOR PIPELINE.
2. TRENCH AND BORE PIT SHALL BE EXCAVATED IN ACCORDANCE WITH OSHA REQUIREMENTS.
3. SEDIMENT BARRIERS SHALL BE INSTALLED AT THE BASE OF SLOPES ADJACENT TO ROAD CROSSINGS WHERE VEGETATION IS DISTURBED TO INTERCEPT SURFACE RUNOFF.
4. PROTECTION FOR SPOIL PILES SHALL BE INSTALLED ONLY WHERE SEDIMENT BARRIERS ACROSS THE ENTIRE DISTURBED AREA ARE NOT REQUIRED.
5. SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL PERMANENT REVEGETATION IS ESTABLISHED.
6. WATER REMOVED FROM BORE PIT AND RECEIVING PIT SHALL BE FILTERED THROUGH A DEWATERING STRUCTURE OR FILTER BAG.
7. IF WELL POINT DEWATERING IS REQUIRED PRIOR TO EXCAVATING BORE PITS, CONTRACTOR SHALL CONSULT WITH COMPANY'S ENVIRONMENTAL INSPECTOR PRIOR TO COMMENCEMENT OF WORK IN ORDER TO DETERMINE PROPER DEWATERING DISCHARGE LOCATION.
8. CONTRACTOR SHALL BE REQUIRED TO KEEP THE ROAD CLEAN OF DEBRIS AT ALL TIMES.
9. CONTRACTOR MAY ELECT TO UTILIZE SHEET PILING IN ORDER TO STABILIZE TRENCH.
10. DEPENDING ON TOPOGRAPHY AND STATE REQUIREMENTS, SEDIMENT BARRIERS MAY BE REQUIRED ACROSS THE ENTIRE CONSTRUCTION RIGHT OF WAY AT THE EDGE OF ROAD.

FIGURE 23

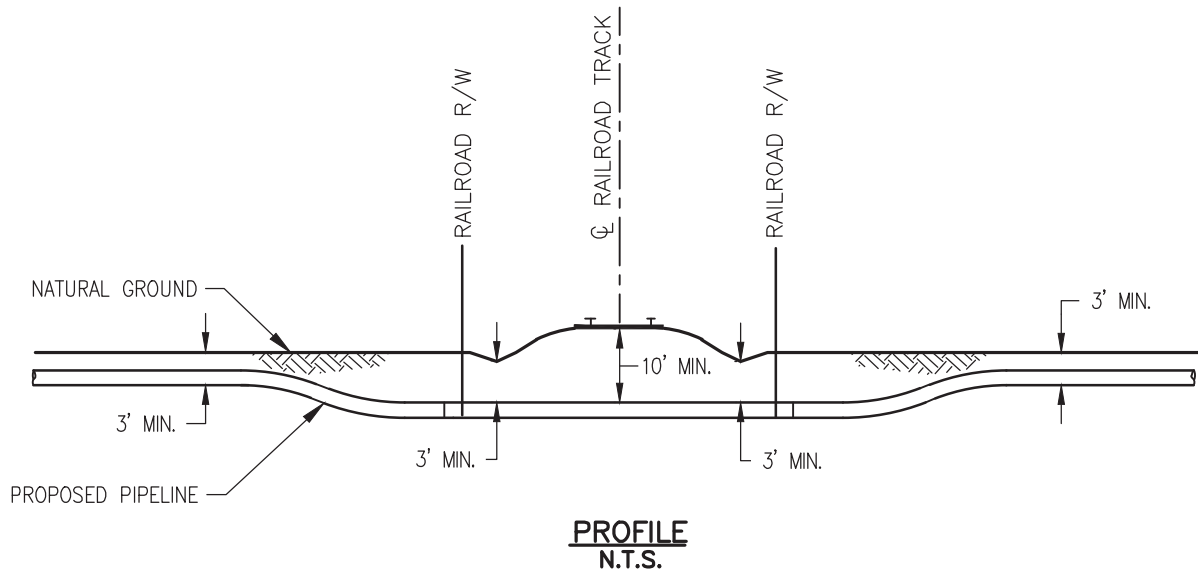
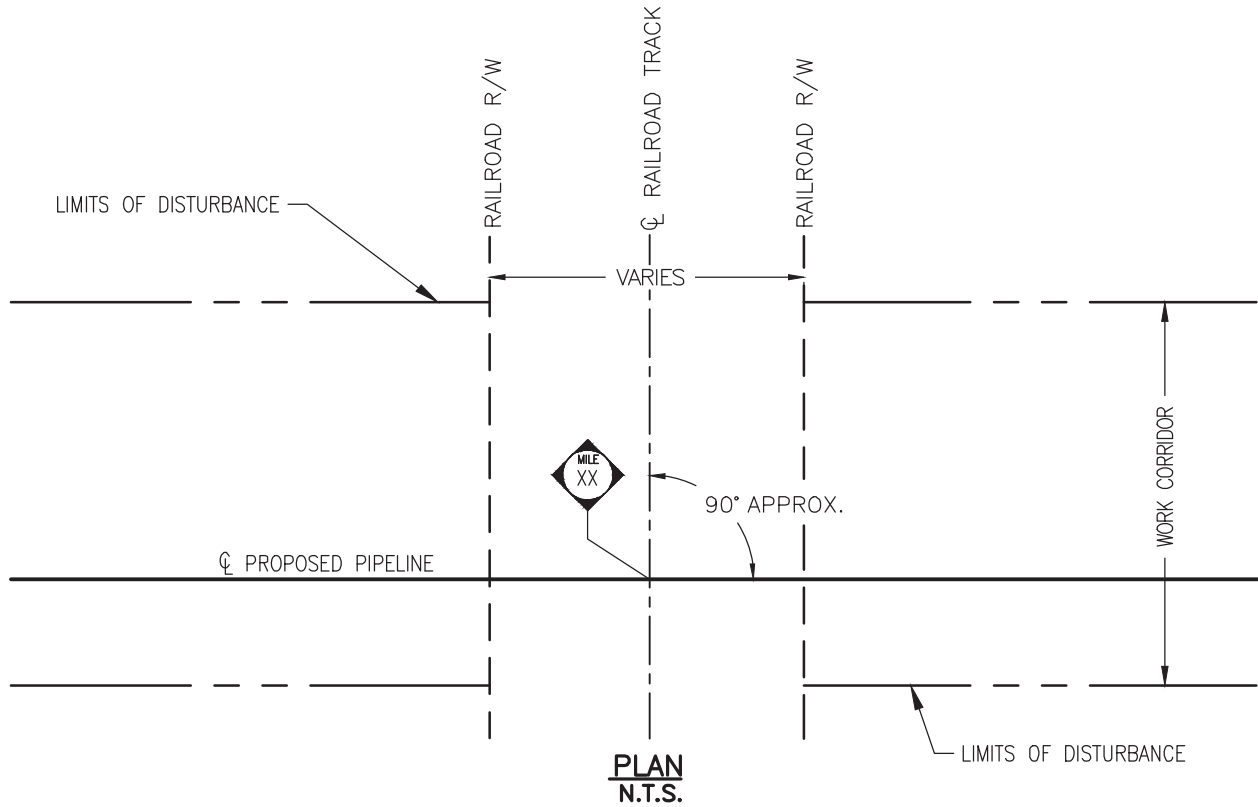


DWN. BY:	GIE	04/06/21
CHK.	SC	04/06/21
PROJ. ENGR.		
PROJ. MGR.		
CLIENT APP.		
SCALE:	N.T.S.	

CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL BORED ROAD CROSSING CONTROL MEASURE LOUISIANA / TEXAS		
DWG. NO.	SHT. NO.	REV.
1901-100-PL-DWG-7007-013	1 OF 1	C

NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB



# TYPICAL RAILROAD CROSSING



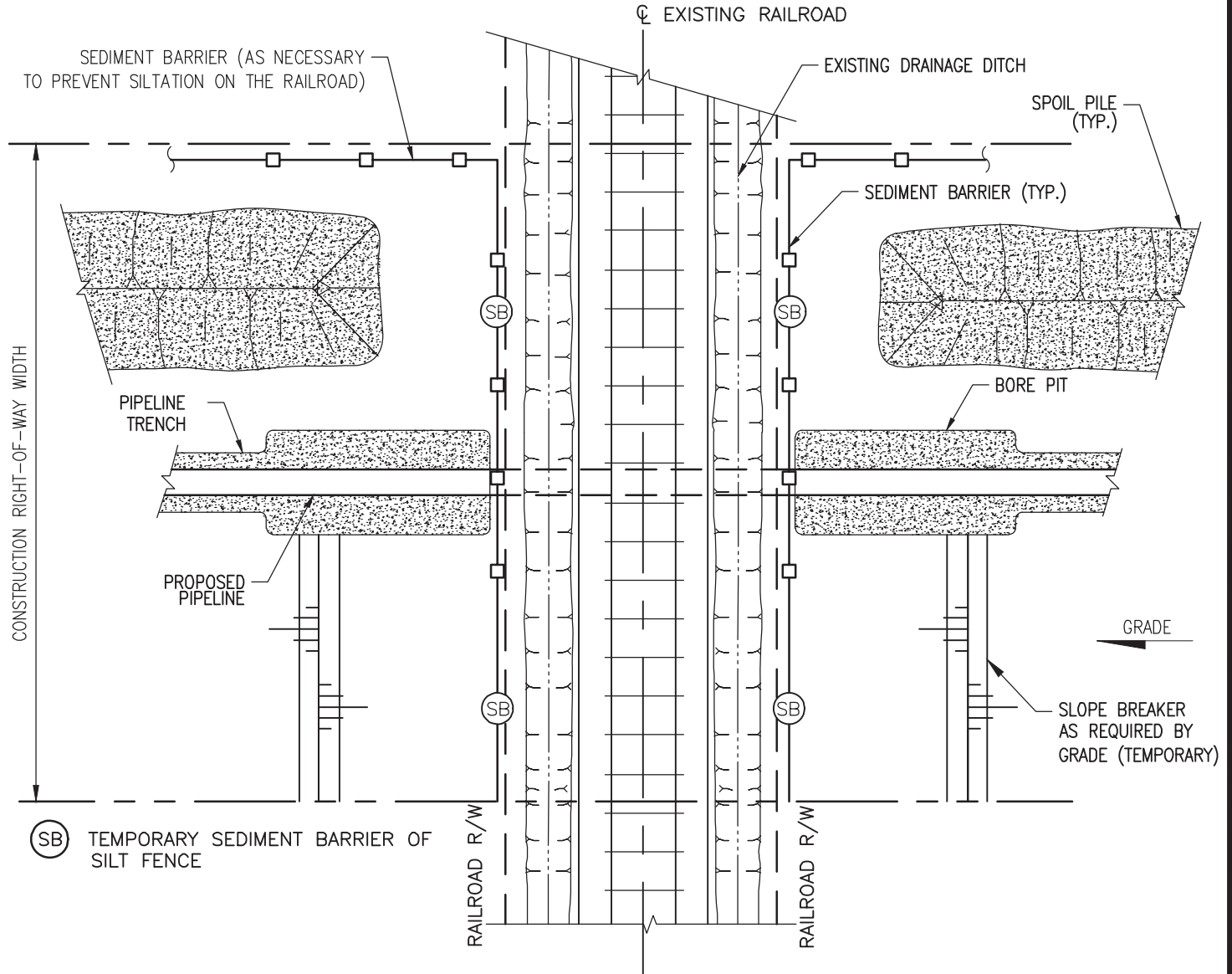
## NOTES:

1. NO EXCAVATION WILL OCCUR WITHIN RAILROAD R.O.W. WITHOUT APPROVAL.
2. TOP OF PIPE WILL BE INSTALLED A MINIMUM OF 10 FEET UNDER RAILROAD.

FIGURE 24

										
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL RAILROAD CROSSING LOUISIANA / TEXAS		
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	SHT. NO.	REV.
								1901-100-PL-DWG-7007-014	1 OF 1	C

# TYPICAL BORED RAILROAD CROSSING CONTROL MEASURE



## NOTES:

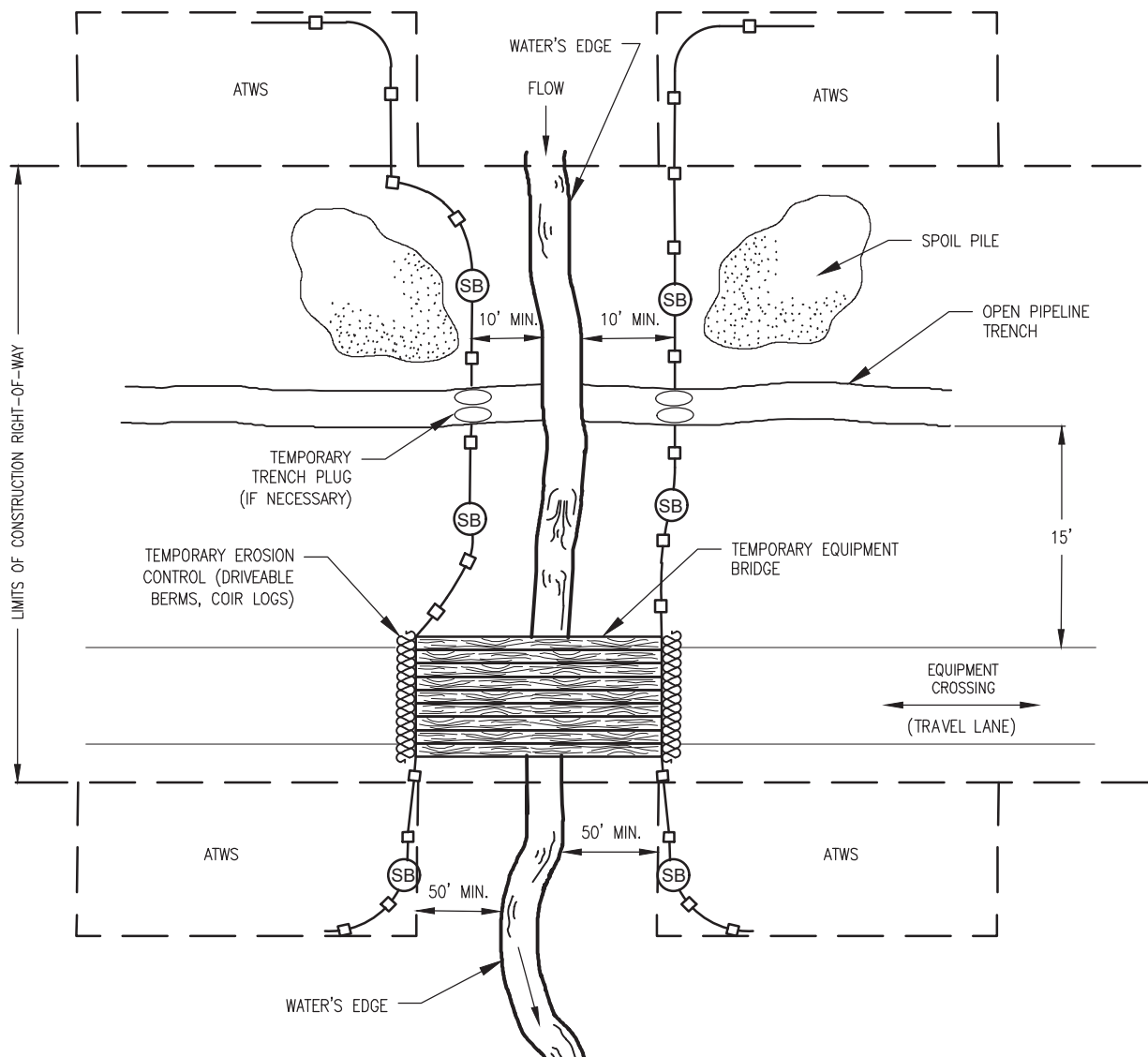
1. PROVIDE MINIMUM OF 3 FEET OF COVER BETWEEN TOP OF PIPE AND LOWEST POINT IN THE BORROW DITCHES, AND PROVIDE MINIMUM 10 FEET OF COVER BETWEEN PIPE AND BOTTOM OF RAILROAD BALLAST, OR MINIMUM DEPTH REQUIRED BY PERMIT, WHICHEVER DIMENSION PROVIDES GREATER DEPTH FOR PIPELINE.
2. TRENCH AND BORE PIT SHALL BE EXCAVATED IN ACCORDANCE WITH OSHA REQUIREMENTS.
3. SEDIMENT BARRIERS FOR SPOIL PILES SHALL BE INSTALLED.
4. SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL PERMANENT REVEGETATION IS ESTABLISHED.
5. WATER REMOVED FROM BORE PIT AND RECEIVING PIT SHALL BE FILTERED THROUGH A DEWATERING DISCHARGE STRUCTURE OR FILTER BAG.
6. IF WELL POINTING IS REQUIRED PRIOR TO EXCAVATING BORE PITS, CONTRACTOR SHALL CONSULT WITH COMPANY'S ENVIRONMENTAL INSPECTOR PRIOR TO COMMENCEMENT OF WORK IN ORDER TO DETERMINE PROPER DEWATERING LOCATION.
7. CONTRACTOR MAY ELECT TO USE SHEET PILING IN ORDER TO STABILIZE BORE PITS.

FIGURE 25

					DWN. BY:	GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL BORED RAILROAD CROSSING CONTROL MEASURE LOUISIANA / TEXAS	
					CHK.	SC	04/06/21		
					PROJ. ENGR.				
					PROJ. MGR.				
					CLIENT APP.				
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	SCALE: N.T.S.			DWG. NO.
B	ISSUED FOR CLIENT REVIEW	GIE	04/13/21	JB	JC				1901-100-PL-DWG-7007-015
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB				SHT. NO.
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D				1 OF 1
									REV.
									C





# TYPICAL WET WATERBODY CROSSING



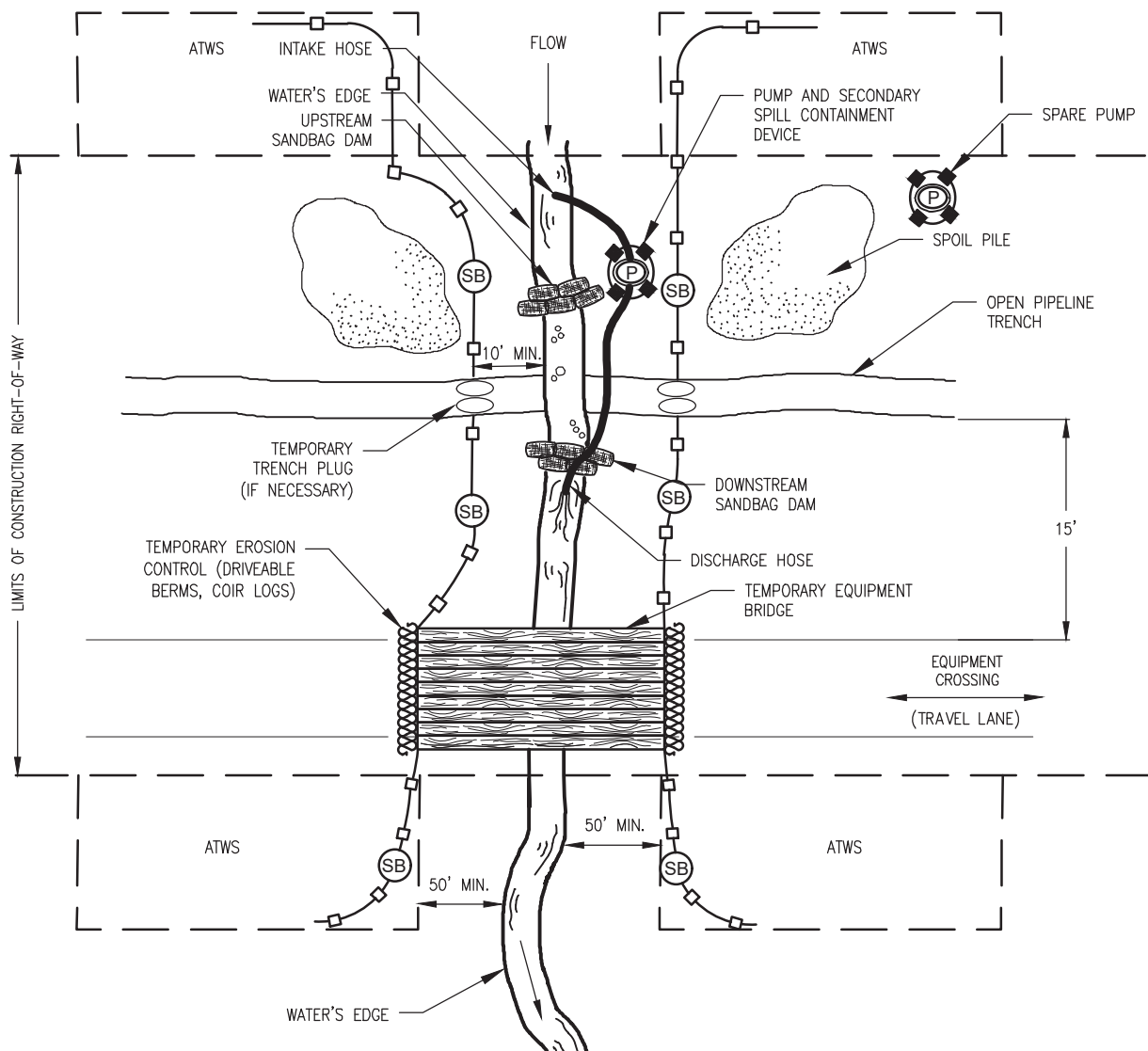
## NOTES:

1. (SB) TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES, OR OTHER APPROPRIATE MATERIALS.
2. FOR MINOR WATERBODIES (<10 FEET WIDE MEASURED WATER'S EDGE TO EDGE), COMPLETE TRENCHING AND BACKFILLING IN THE WATERBODY (NOT INCLUDING BLASTING OR OTHER ROCK BREAKING MEASURES) WITHIN 24 CONTINUOUS HOURS, EXCLUDING PUSH CONSTRUCTION AREAS.
3. FOR INTERMEDIATE WATERBODIES (>10 FEET to 100 FEET WIDE MEASURED WATER'S EDGE TO EDGE), COMPLETE TRENCHING AND BACKFILLING IN THE WATERBODY (NOT INCLUDING BLASTING OR OTHER ROCK BREAKING MEASURES) WITHIN 48 CONTINUOUS HOURS, UNLESS SITE SPECIFIC CONDITIONS MAKE COMPLETION WITHIN 48 HOURS INFEASIBLE, EXCLUDING PUSH CONSTRUCTION AREAS.

FIGURE 26

											
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL WET WATERBODY CROSSING LOUISIANA / TEXAS			
B	ISSUED FOR CLIENT REVIEW	GIE	04/13/21	JB	JC	CHK. SC	04/06/21				
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		DWG. NO.	SHT. NO.	REV.	
								1901-100-PL-DWG-7007-016	1 OF 1	C	



# TYPICAL DAM-AND-PUMP WATERBODY CROSSING



## NOTES:

1. (SB) TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES, OR OTHER APPROPRIATE MATERIALS.
2. INSTALL AND SEAL SANDBAGS UPSTREAM AND DOWNSTREAM OF THE CROSSING
3. CREATE AN UPSTREAM SUMP USING SANDBAGS IF NATURAL SUMP IS UNAVAILABLE FOR THE INTAKE HOSE.
4. EXCAVATE ACROSS WATERBODY CHANNEL FOLLOWING WATER REROUTING.
5. DO NOT REFUEL OR STORE FUEL WITHIN 100 FEET OF THE WATERBODY. IF NOT FEASIBLE, ALTERNATIVE METHODS MUST BE APPROVED BY ENVIRONMENTAL INSPECTOR.
6. MONITOR PUMP(S) AT ALL TIMES DURING WATERBODY CROSSING PROCEDURE.
7. (P) USE SUFFICIENT PUMP(S), INCLUDING ONSITE BACKUP PUMP(S), TO MAINTAIN DOWNSTREAM FLOW.
8. SCREEN AND SUSPEND PUMP INTAKE AND USE AN ENERGY DISSIPATION DEVICE ON THE DISCHARGE HOSE TO PREVENT SCOURING WITHIN WATERBODY.



FIGURE 27

							  CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL DAM-AND-PUMP WATERBODY CROSSING LOUISIANA / TEXAS				
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21				
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21				
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		DWG. NO.		SHT. NO.	REV.
								1901-100-PL-DWG-7007-017		1 OF 1	C



1. **SB** TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES, OR OTHER APPROPRIATE MATERIALS.
2. SANDBAGS MUST BE FILLED WITH SAND FREE OF ORGANICS AND OTHER MATERIAL.
3. ENSURE SANDBAGS ARE INSTALLED BEFORE PLACING FLUME PIPE.
4. ALIGN FLUME(S) TO PREVENT BANK EROSION AND STREAM SCOUR.
5. CONDUCT ALL IN-STREAM ACTIVITY (EXCEPT BLASTING OR OTHER ROCK BREAKING MEASURES) WITH THE FLUME(S) IN PLACE. FLUME PIPE(S) MAY NOT BE REMOVED FOR LOWERING IN PIPE OR INITIAL STREAMED OR RESTORATION EFFORTS.
6. THE ENDS OF THE FLUME AND CULVERT MUST EXTEND TO AN UNDISTURBED AREA.
7. CONTRACTOR TO DETERMINE ACTUAL NUMBER AND SIZE OF FLUMES AND CULVERTS REQUIRED BASED ON WATERBODY WIDTH AND WATERBODY FLOW RATE AT THE TIME OF CROSSING.
8. WATER ACCUMULATING WITHIN THE WORK AREA SHALL BE DEWATERED IN A MANNER THAT DOES NOT CAUSE EROSION AND DOES RESULT IN SILT-LADEN WATER FLOWING INTO ANY WATERBODY.

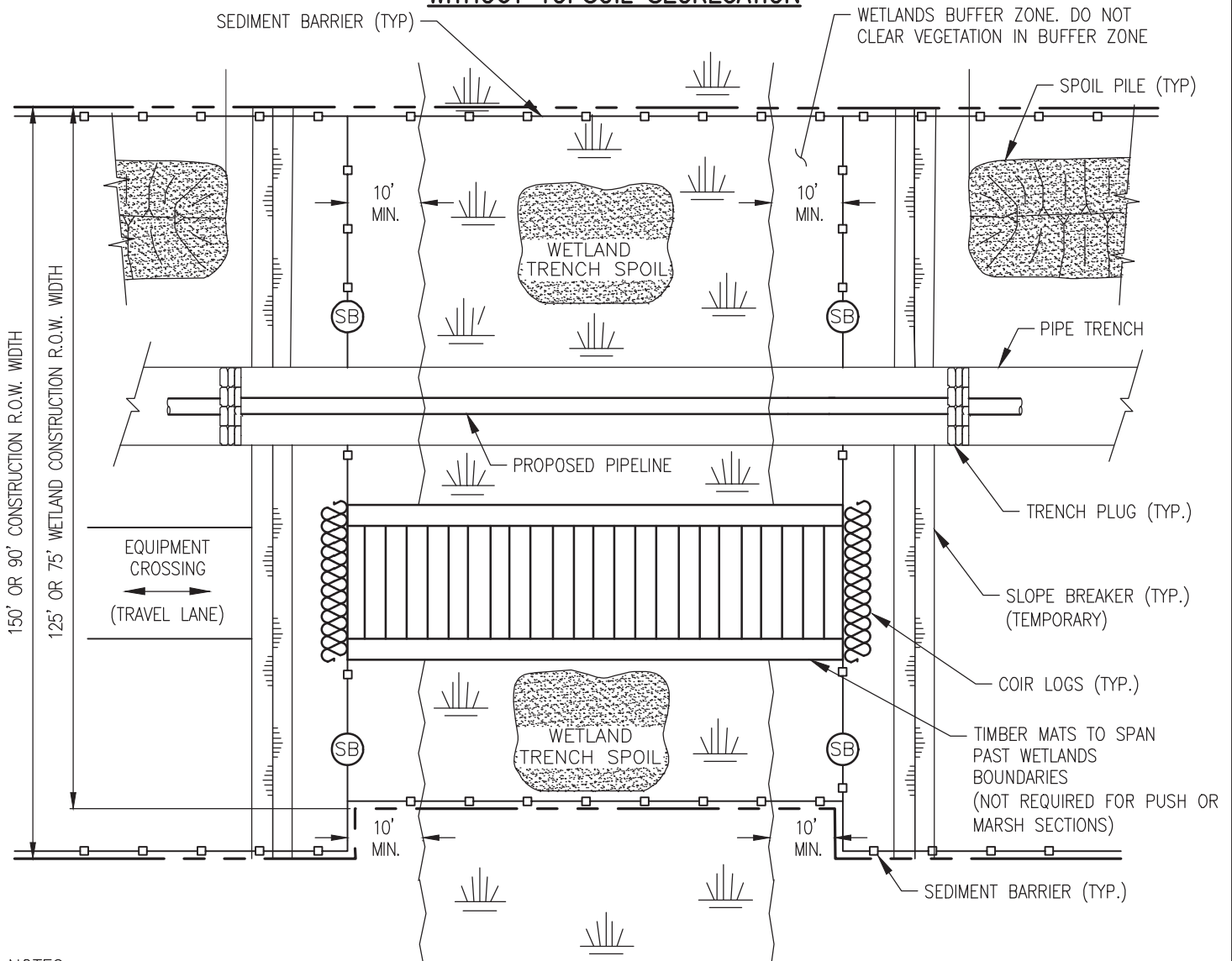
**FIGURE 28**

										
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL FLUME WATERBODY CROSSING LOUISIANA / TEXAS		
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.		DWG. NO. 1901-100-PL-DWG-7007-018 SHT. NO. 1 OF 1 REV. C		
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.				

D:\1901\doc\Engineering & Technical\10\_Pipeline\Mapping\Typicals\1901-100-PL-DWG-7007-018.dwg Plotted on: Sep 02, 2021 - 7:54am by cstovall



# TYPICAL SATURATED WETLAND WITHOUT TOPSOIL SEGREGATION





## NOTES:

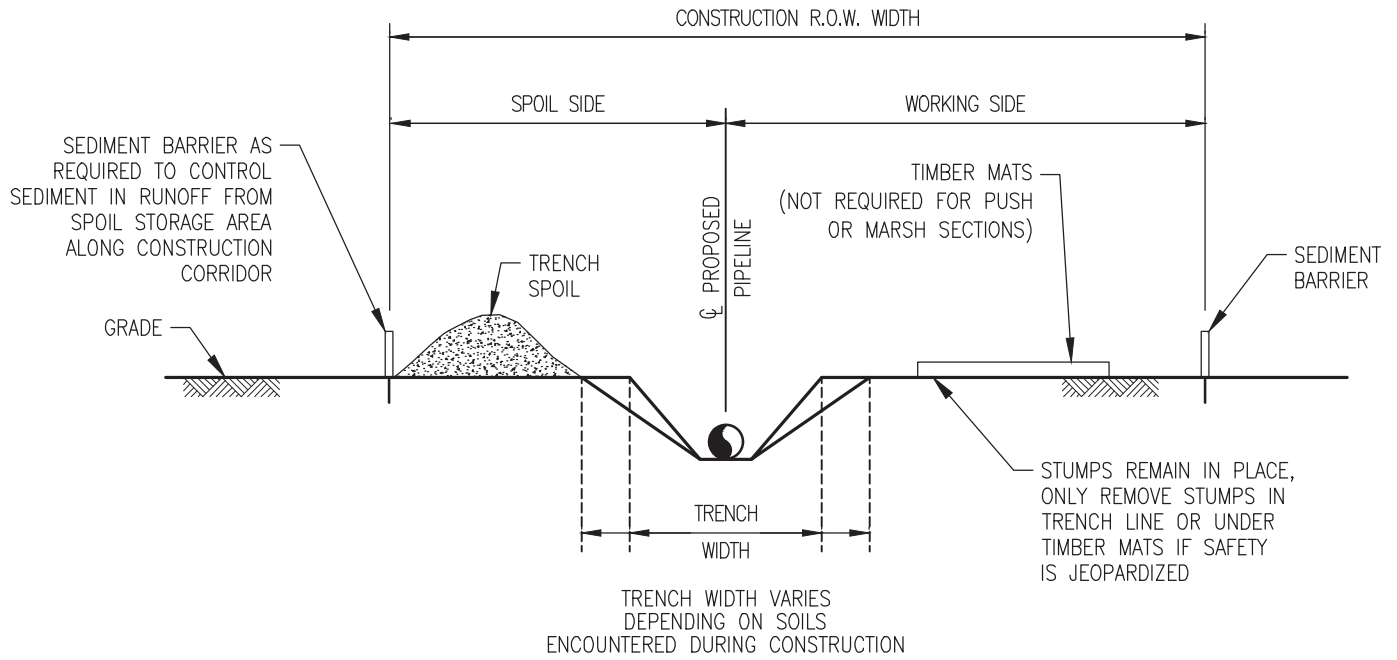
1. TOPSOIL SEGREGATION WILL NOT BE PERFORMED IF STANDING WATER OR SATURATED SOILS ARE PRESENT.
2. INSTALL TEMPORARY SLOPE BREAKERS AT THE BASE OF ALL SLOPES ADJACENT TO THE WETLAND.
3. INSTALL TRENCH PLUGS ON BOTH SIDES OF THE WETLAND TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WETLAND.
4. USE ADDITIONAL TIMBER MAT LAYERS TO RAISE CROSSING ABOVE GRADE WHERE POOR SOIL CONDITIONS EXIST. (NOT REQUIRED FOR PUSH OR MARSH SECTIONS)
5. SEDIMENT BARRIERS AND SLOPE BREAKERS TO BE REMOVED ACROSS PIPE TRENCH AND DURING CONSTRUCTION OF PIPELINE. SEDIMENT BARRIERS AND SLOPE BREAKER TO BE REPLACED AFTER BACKFILL OF TRENCH. (NOT REQUIRED ACROSS DITCH LINE FOR PUSH OR MARSH SECTIONS)
6. MATERIALS PLACED IN WETLANDS SHALL BE COMPLETELY REMOVED DURING FINAL CLEAN UP.
7. HEAVY EQUIPMENT WORKING IN WETLANDS WILL BE PLACED ON MATS OR OTHER MEASURES WILL BE TAKEN TO MINIMIZE SOIL DISTURBANCE. (NOT REQUIRED FOR PUSH OR MARSH SECTIONS)

The Wetland and Waterbody Restoration Plan describes restoration activities for saturated wetlands without topsoil segregation.

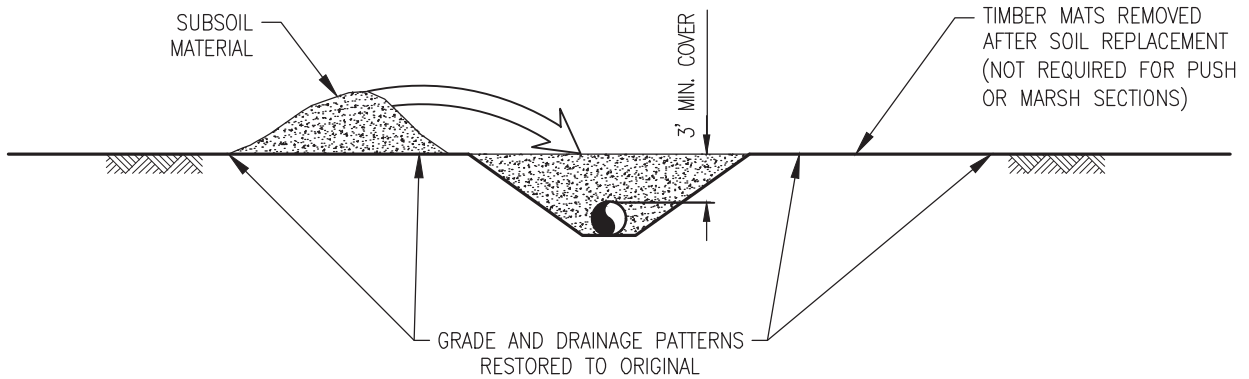
FIGURE 29a

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINE TYPICAL SATURATED WETLAND WITHOUT TOPSOIL SEGREGATION LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-019	SHT. NO.	1 OF 2	REV.	C

# **TYPICAL SATURATED WETLAND WITHOUT TOPSOIL SEGREGATION**





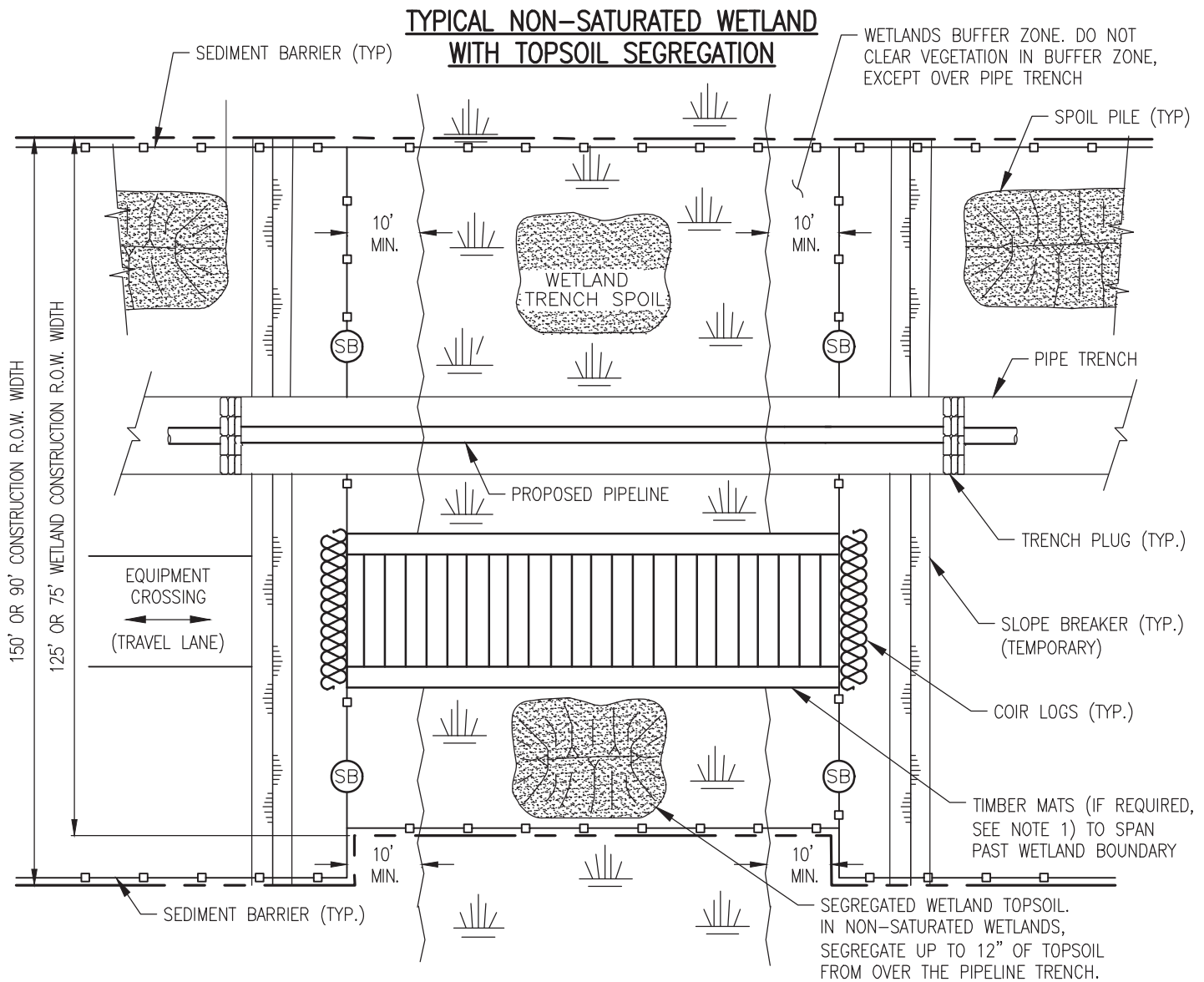
## **CROSS SECTION**



## **WETLAND RESTORATION**

**FIGURE 29b**



									
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL SATURATED WETLAND WITHOUT TOPSOIL SEGREGATION LOUISIANA / TEXAS	
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21		
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.			
						PROJ. MGR.			
						CLIENT APP.			
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.	DWG. NO. 1901-100-PL-DWG-7007-019	SHT. NO. 2 OF 2	REV. C



**NOTES:**

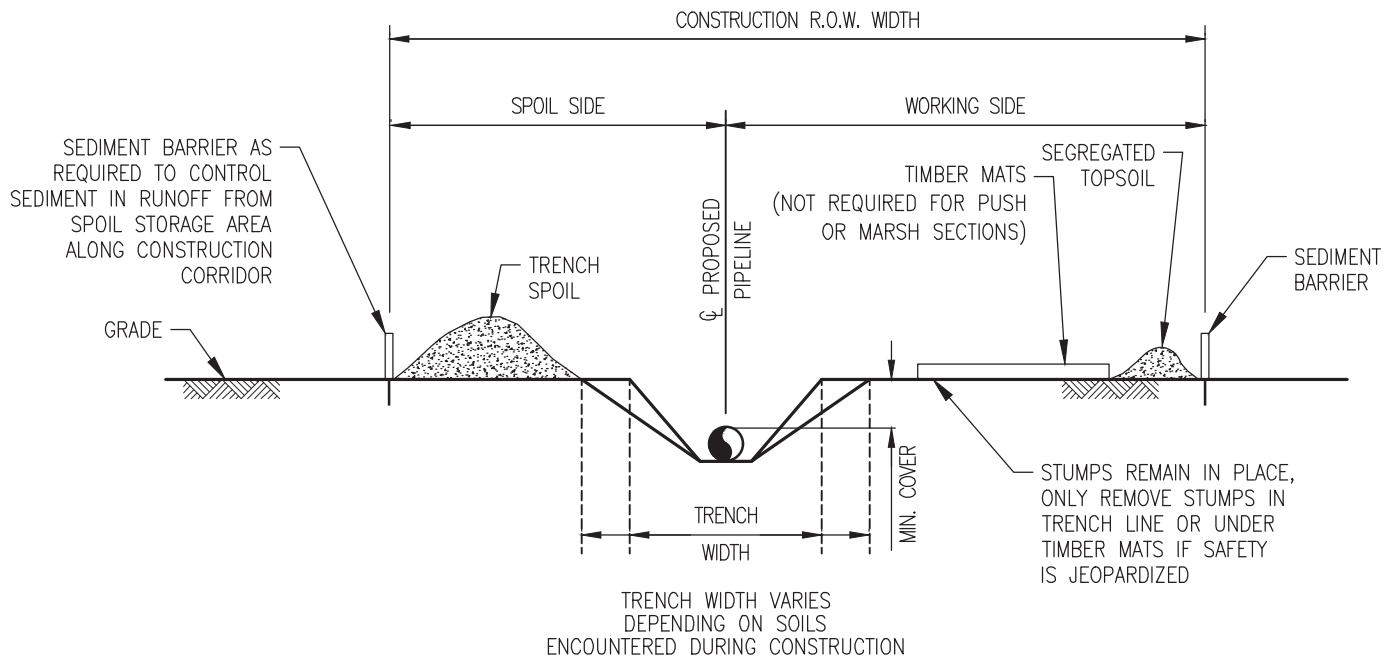
1. THIS METHOD WILL BE USED IN WETLANDS WITHOUT STANDING WATER OR SATURATED SOILS. IF NORMAL CONSTRUCTION EQUIPMENT CAUSES RUTS OR MIXING OF TOPSOIL AND SUBSOIL, LOW-GROUND-PRESSURE EQUIPMENT WILL BE USED OR NORMAL EQUIPMENT WILL BE OPERATED ON TIMBER MATS.
2. INSTALL TEMPORARY SLOPE BREAKERS AT THE BASE OF ALL SLOPES ADJACENT TO THE WETLAND.
3. INSTALL TRENCH PLUGS ON BOTH SIDES OF THE WETLAND TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WETLAND.
4. USE ADDITIONAL TIMBER MAT LAYERS TO RAISE CROSSING ABOVE GRADE WHERE POOR SOIL CONDITIONS EXIST. (NOT REQUIRED IN PUSH AND MARSH SECTIONS)
5. SEDIMENT BARRIERS AND SLOPE BREAKERS TO BE REMOVED ACROSS PIPE TRENCH AND DURING CONSTRUCTION OF PIPELINE. SEDIMENT BARRIERS AND SLOPE BREAKER TO BE REPLACED AFTER BACKFILL OF TRENCH.
6. MATERIALS PLACED IN WETLANDS SHALL BE COMPLETELY REMOVED DURING FINAL CLEAN UP.
7. HEAVY EQUIPMENT WORKING IN WETLANDS WILL BE PLACED ON MATS OR OTHER MEASURES WILL BE TAKEN TO MINIMIZE SOIL DISTURBANCE. (NOT REQUIRED IN PUSH AND MARSH SECTIONS)
8. IN WETLAND, THE TOP 6 TO 12 INCHES OF THE TRENCH SHALL BE BACKFILLED WITH TOPSOIL FROM THE TRENCH.

**FIGURE 30a**

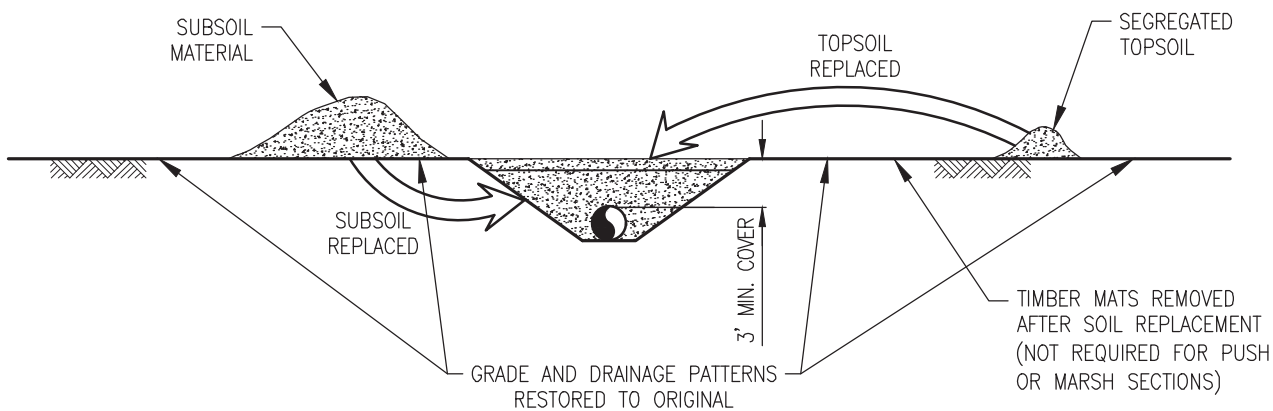
													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL NON-SATURATED WETLAND WITH TOPSOIL SEGREGATION LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		DWG. NO.	1901-100-PL-DWG-7007-020	SHT. NO.	1 OF 2	REV.	C



# **TYPICAL NON-SATURATED WETLAND WITH TOPSOIL SEGREGATION**





## **CROSS SECTION**

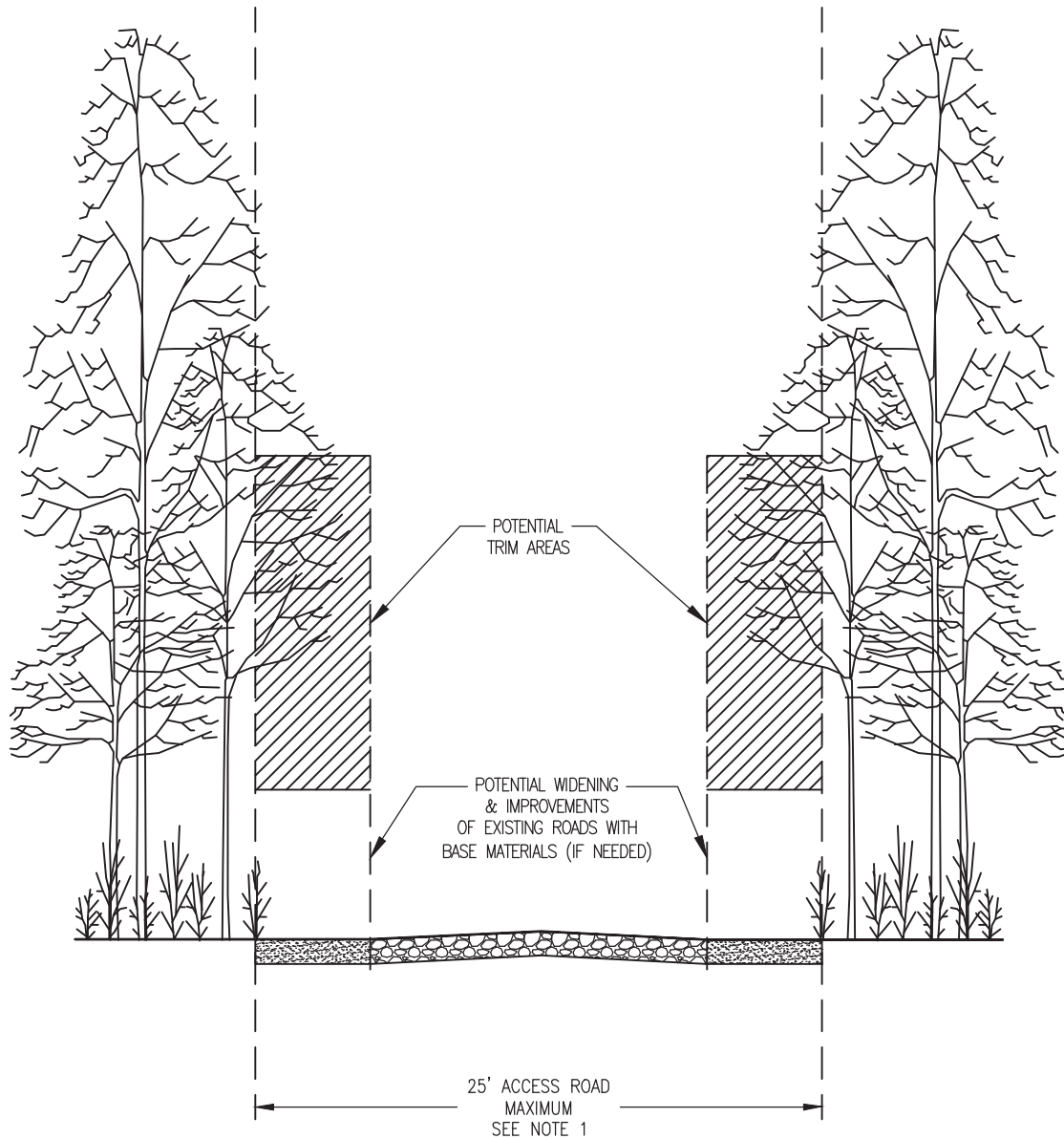


## **WETLAND RESTORATION**

**FIGURE 30b**

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL NON-SATURATED WETLAND WITH TOPSOIL SEGREGATION LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-020	SHT. NO.	2 OF 2	REV.	C



# TEMPORARY ACCESS ROAD CROSS SECTION



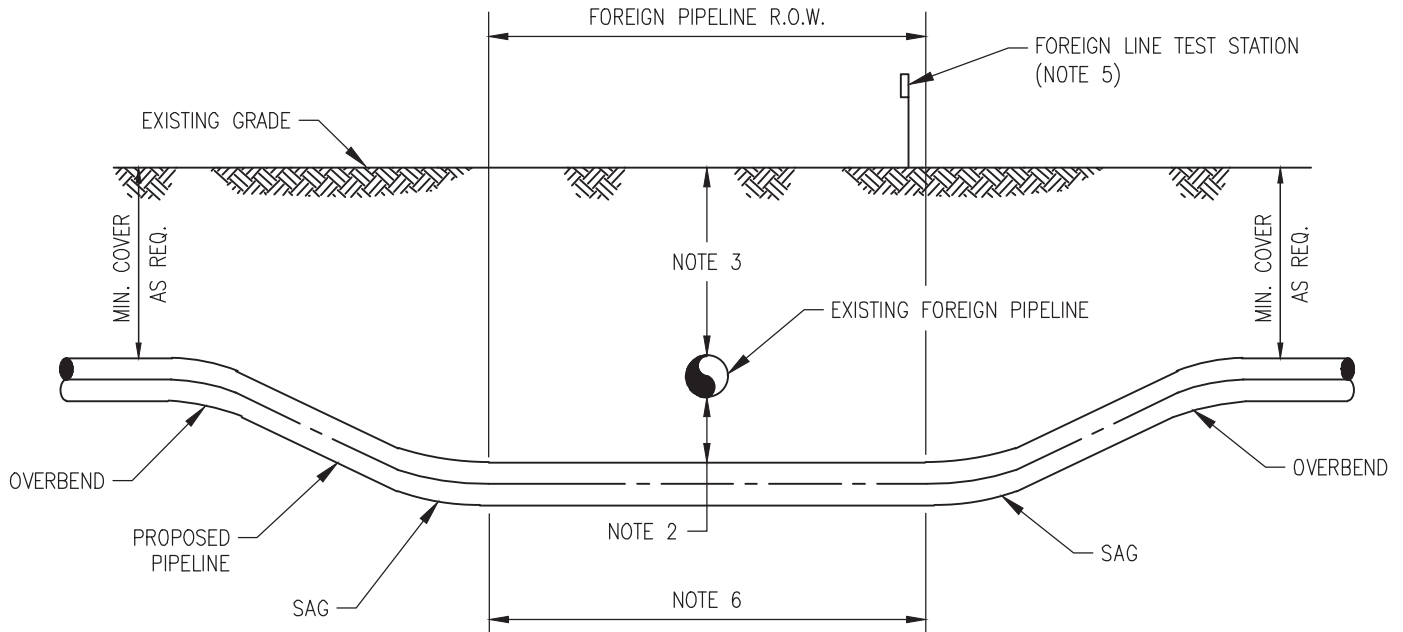
## NOTE:

1. WIDTH MAY VARY BASED ON THE TYPE OF EQUIPMENT THAT WILL ENTER THE SITE.

**FIGURE 31**

										
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TEMPORARY ACCESS ROAD CROSS SECTION LOUISIANA / TEXAS		
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	SHT. NO.	REV.
								1901-100-PL-DWG-7007-022	1 OF 1	C

# TYPICAL FOREIGN PIPELINE CROSSING





## CROSS SECTION OF FOREIGN PIPELINE R.O.W.

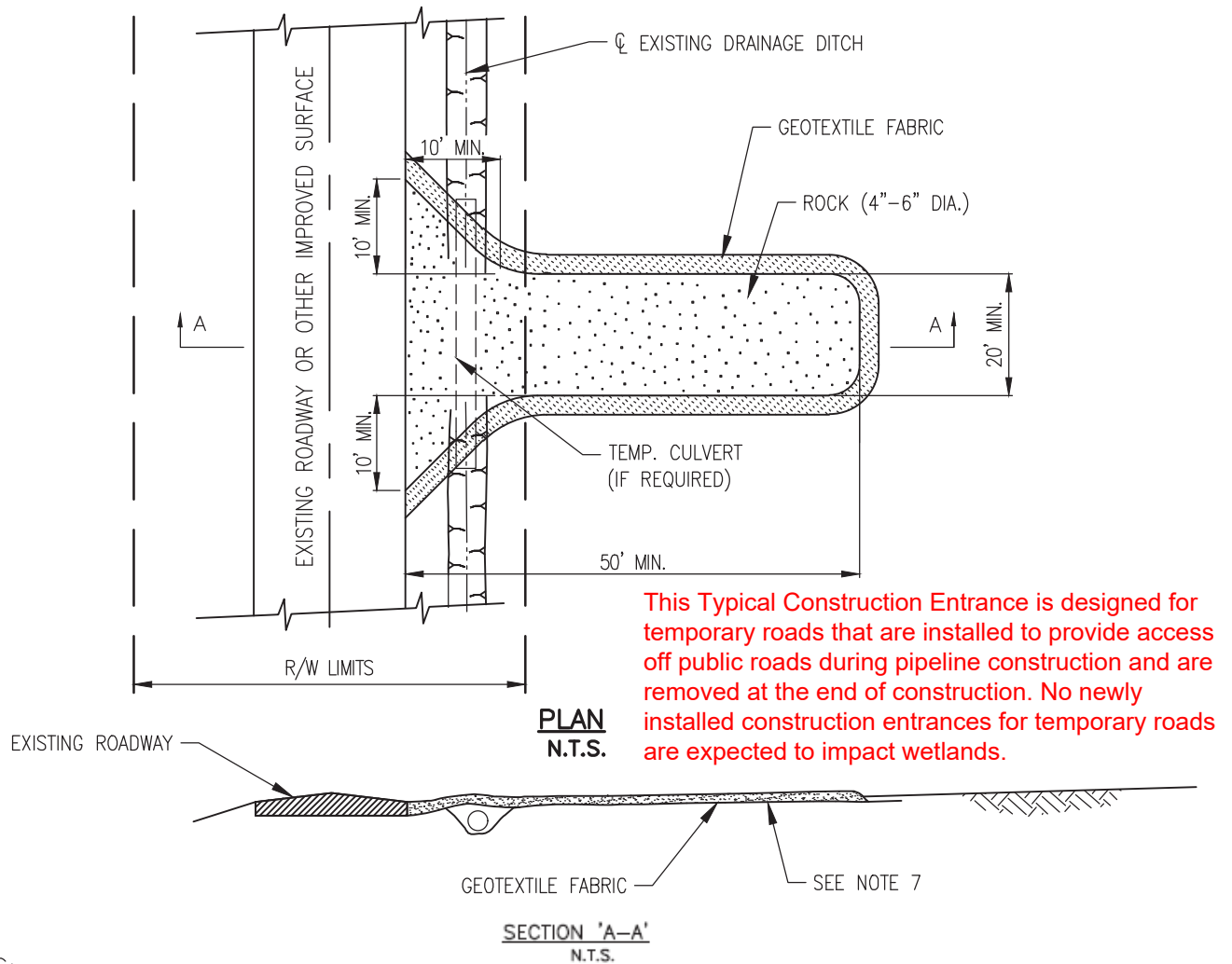
### NOTES:

1. PROPOSED PIPELINE MAY CROSS ABOVE THE FOREIGN PIPELINE(S), WHERE APPROVED BY FOREIGN OWNER IN WRITING, UNLESS REQUIREMENTS FOR MINIMUM DEPTH OF COVER CANNOT BE ACHIEVED, OR THE OWNING AUTHORITY REQUIRES CROSSING UNDER THE EXISTING FOREIGN LINE.
2. A MINIMUM CLEARANCE OF 18" MUST BE MAINTAINED FROM ANY UNDERGROUND STRUCTURE NOT ASSOCIATED WITH THE PIPELINE OR PER THE CROSSING AGREEMENT.
3. FOREIGN PIPELINE LOCATIONS & DEPTHS TO BE DETERMINED BY ELECTRONIC MEANS IN ADVANCE OF PIPELINE CONSTRUCTION AND CONFIRMED BY CAREFULLY EXPOSING FACILITY BY NON-MECHANIZED EQUIPMENT WHEN WITHIN 24" IN ANY DIRECTION FROM THE FACILITY OR PER THE CROSSING AGREEMENT.
4. OWNER OF FOREIGN LINES SHALL BE NOTIFIED 48 HOURS IN ADVANCE OR PER THE CROSSING AGREEMENT OF EXCAVATION OF CROSSING.
5. TEST LEAD STATION TO BE INSTALLED WHERE PRACTICAL AT POINT OF CROSSING OR AT THE NEAREST FENCE, HEDGE ROW OR FIELD EDGE, AND WHERE READILY ACCESSIBLE OR PER THE CROSSING AGREEMENT.
6. CONTRACTOR SHALL NOTIFY THE 811 CALL BEFORE YOU DIG PROGRAM PRIOR TO DIGGING.

FIGURE 32

											
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL FOREIGN PIPELINE CROSSING LOUISIANA / TEXAS			
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21				
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	SHT. NO.	REV.	
								1901-100-PL-DWG-7007-023	1 OF 1	C	

# TYPICAL CONSTRUCTION ENTRANCE

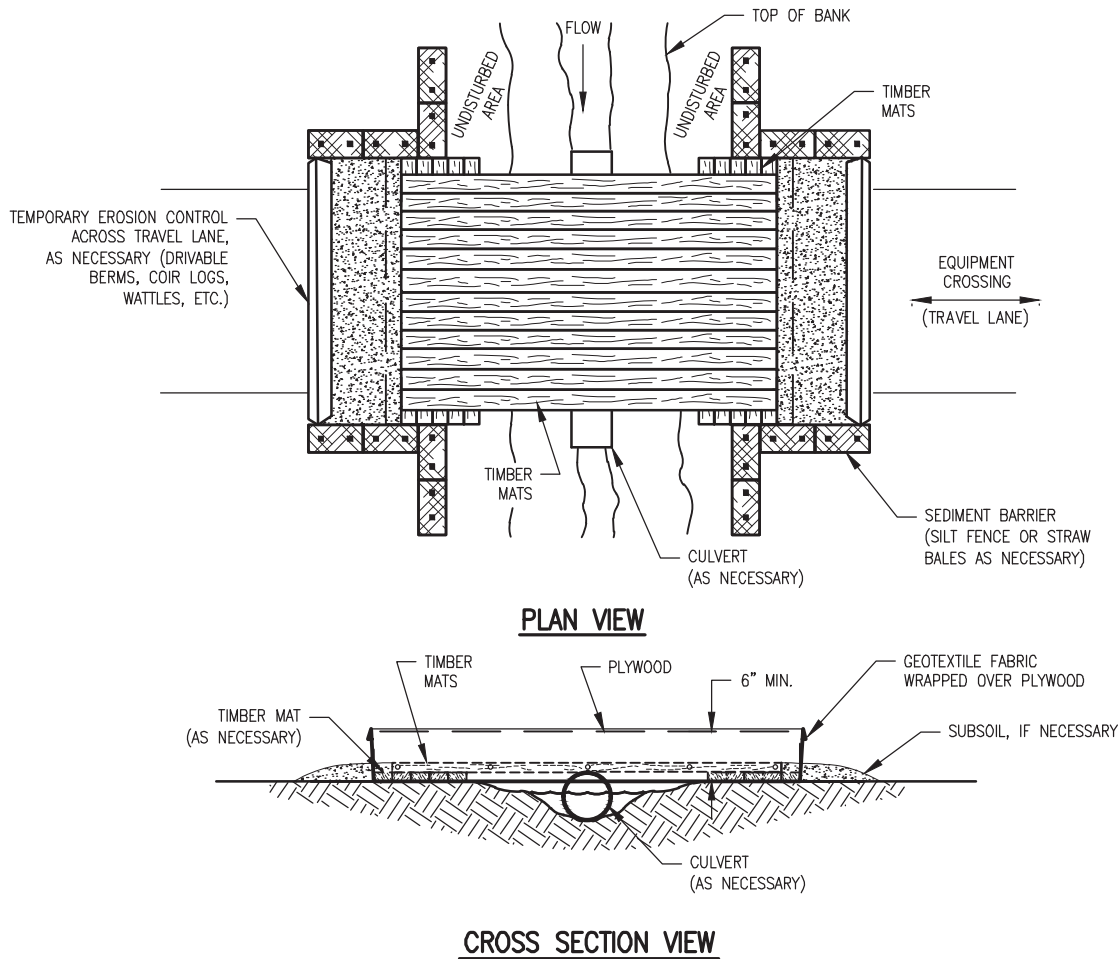


**FIGURE 33**

						<b>GULF</b> Companies		<b>CP EXPRESS</b>		
						DWN. BY:	GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL ROCK ACCESS PAD INSTALLATION AND MAINTENANCE LOUISIANA / TEXAS	
						CHK.	SC	04/06/21		
						PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.			DWG. NO. 1901-100-PL-DWG-7007-024	
						SCALE:	N.T.S.			
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC			SHT. NO.	1 OF 1	REV. C
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC					
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D					





## TEMPORARY EQUIPMENT BRIDGE



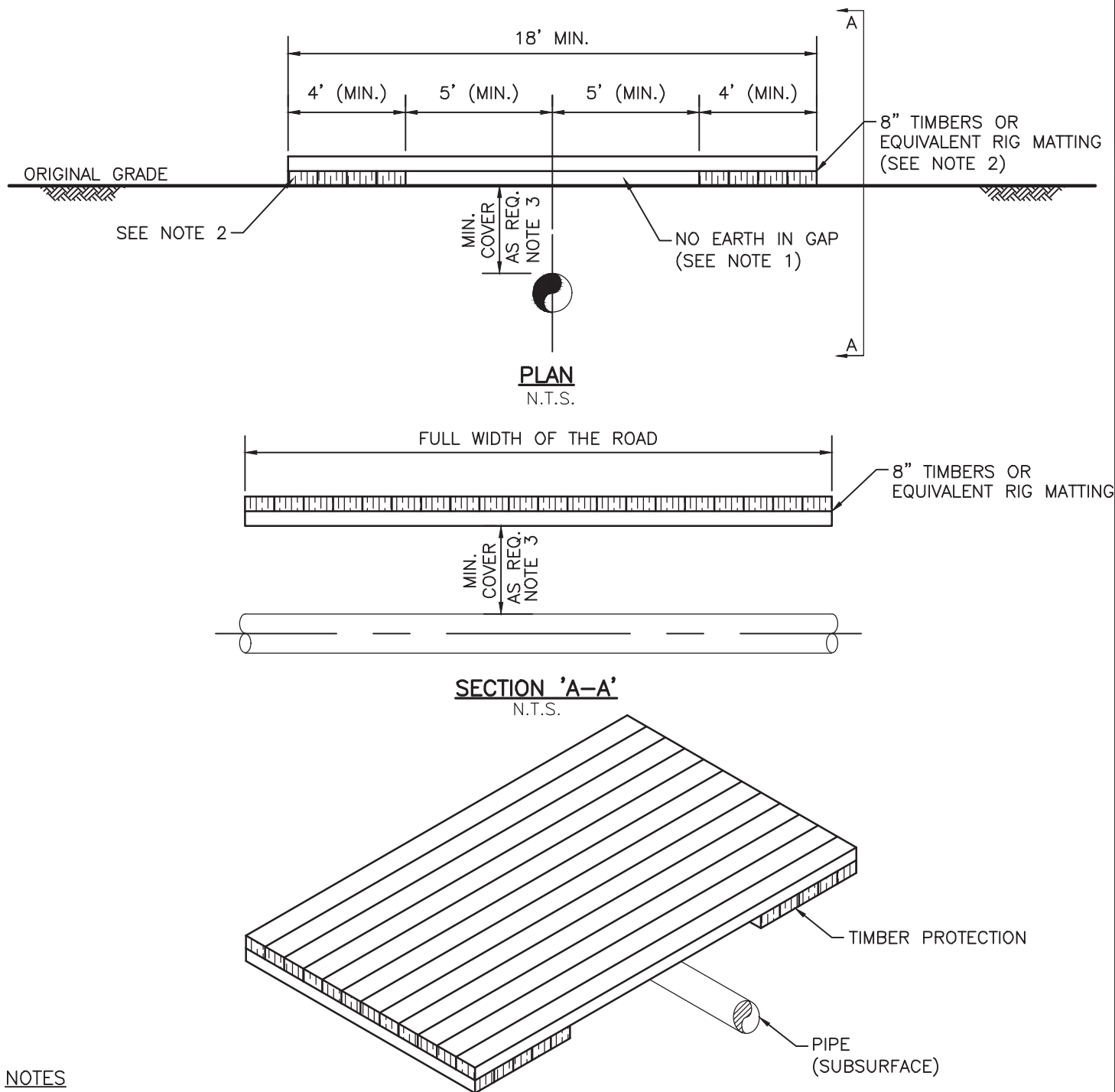
### NOTES:

1. TEMPORARY SEDIMENT BARRIER CONSISTS OF SILT FENCE AND/OR STRAW BALES, OR OTHER APPROPRIATE MATERIAL.
2. NUMBER AND DIAMETER OF CULVERTS, AS WELL AS USE OF CULVERTS, WILL DEPEND ON SITE-SPECIFIC CONDITIONS.
3. SUBSOIL MAY BE USED AS ILLUSTRATED, IF NECESSARY, WITHIN TRAVEL LANE AS RAMP.
4. CONSTRUCT AND MAINTAIN BRIDGE TO WITHSTAND THE HIGHEST EXPECTED FLOW WHILE BRIDGE IS IN USE AND PREVENT SOIL FROM ENTERING WATERBODY. DO NOT USE SOIL TO CONSTRUCT OR STABILIZE BRIDGE.
5. GEOTEXTILE FABRIC TO EXTEND THE LENGTH OF THE TIMBERMAT EQUIPMENT BRIDGE.
6. INSTALL PLYWOOD ON EACH SIDE OF TIMBERMAT EQUIPMENT BRIDGE TO EXTEND, AT A MINIMUM, 6" ABOVE TOP OF TIMBERMATS. GEOTEXTILE FABRIC TO CONTINUE UP AND AROUND PLYWOOD.

FIGURE 34

										
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TEMPORARY EQUIPMENT BRIDGE (EQUIPMENT PADS AND CULVERTS) LOUISIANA / TEXAS		
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	SHT. NO.	REV.
								1901-100-PL-DWG-7007-025	1 OF 1	C



# TYPICAL TEMPORARY TIMBERMAT AIR BRIDGE



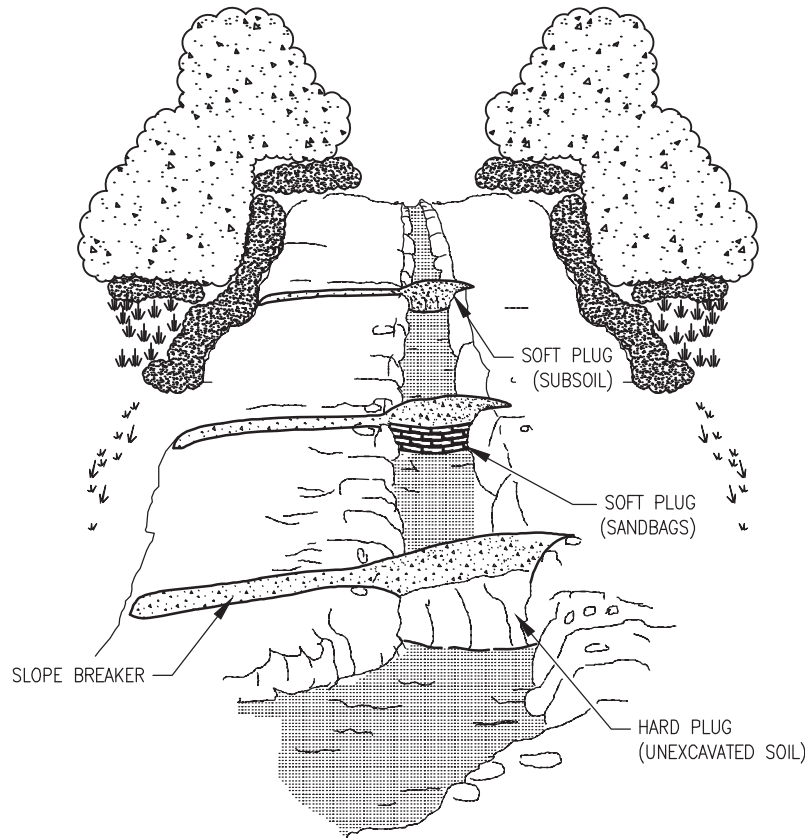
## NOTES

1. ENSURE THAT MINIMUM 10' WIDE x 6" HIGH GAP IS MAINTAINED BETWEEN THE BASE OF THE TIMBER AND THE GRADE DIRECTLY OVER THE CENTERLINE OF THE PIPE.
2. TIMBER TO BE PLACED AT EACH END OF BRIDGE TO SLOPE EQUIPMENT FOR ACCESS.
3. AS REQUIRED AND DICTATED PER THE CROSSING AGREEMENT.

**FIGURE 35**

													
						DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL TEMPORARY TIMBERMAT AIR BRIDGE LOUISIANA / TEXAS					
						CHK. SC	04/06/21						
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	PROJ. ENGR.							
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	PROJ. MGR.							
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-026	SHT. NO.	1 OF 1	REV.	C



# TEMPORARY TRENCH PLUG OPTIONS



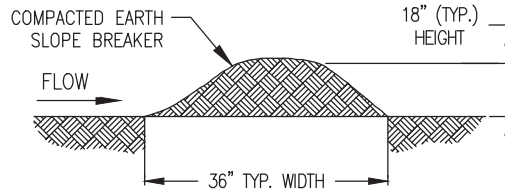
## NOTES:

1. TEMPORARY TRENCH PLUG MATERIALS MAY CONSIST OF UNEXCAVATED PORTIONS OF THE TRENCH (HARD PLUG), COMPACTED SUBSOIL OR SANDBAGS PLACED ACROSS THE DITCH (SOFT PLUG), OR SOME FUNCTIONAL EQUIVALENT. THESE OPTIONS ARE DEPICTED ABOVE. DO NOT USE TOPSOIL FOR TRENCH PLUGS.
2. POSITION TEMPORARY TRENCH PLUGS, AS NECESSARY, TO REDUCE TRENCHLINE EROSION AND MINIMIZE THE VOLUME AND VELOCITY OF TRENCH WATER FLOW AT THE BASE OF SLOPES.
3. TEMPORARY TRENCH PLUGS MAY BE USED IN CONJUNCTION WITH SLOPE BREAKERS TO DIVERT TRENCH WATER OVERFLOW AND PREVENT OVERFLOW INTO SENSITIVE RESOURCE AREAS.
4. DIVERT TRENCH OVERFLOW TO A WELL-VEGETATED OFF-R.O.W. LOCATION OR INSTALL APPROPRIATE ENERGY DISSIPATING DEVICE.
5. USE TEMPORARY TRENCH PLUGS AT WATERBODY CROSSINGS, AS NECESSARY.

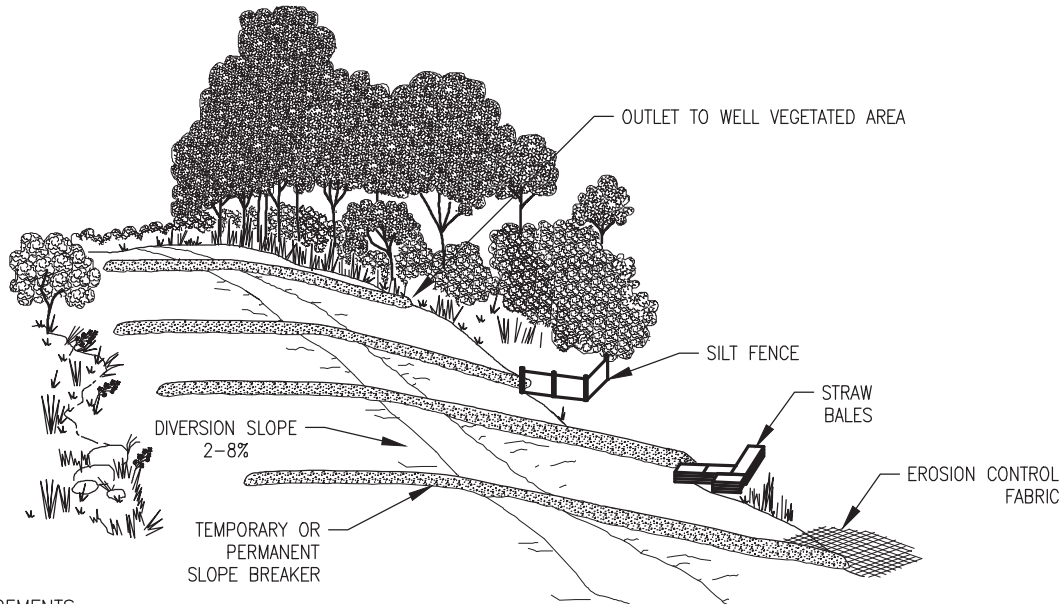
**FIGURE 36**

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TEMPORARY TRENCH PLUG OPTIONS LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		DWG. NO.	1901-100-PL-DWG-7007-027	SHT. NO.	1 OF 1	REV.	C

# **SLOPE BREAKER TYPICAL**



## **CROSS-SECTION**



### **INSTALLATION REQUIREMENTS:**

- INSTALL SLOPE BREAKERS IN ALL DISTURBED AREAS AS NECESSARY TO AVOID EXCESSIVE EROSION AT THE LOCATIONS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
- MUST BE INSTALLED ON SLOPES GREATER THAN 5% WHERE THE BASE OF THE SLOPE IS LESS THAN 50 FEET FROM A WATERBODY, WETLAND OR ROAD CROSSING AT THE FOLLOWING MINIMUM SPACING:



SLOPE (%)	SPACING (FT.)
5 - 15	300
> 15 - 30	200
> 30	100

- DIFFUSE AREA TO BE CONSTRUCTED USING SAND BAGS, STAKED STRAW BALES, SILT FENCE, OR SOIL.
- INSTALL WITH A 2-8% OUTFALL ANGLE.
- POSITION OUTFALL TO PREVENT SEDIMENT DISCHARGE INTO WETLANDS, WATERBODIES, OR OTHER SENSITIVE RESOURCES.
- FILTER RUN-OFF WATER BY CONSTRUCTING THE OUTFALL IN A WELL VEGETATED STABLE AREA, OR BY USING AN ENERGY DISSIPATING DEVICE (SILT FENCE, STRAW BALES, EROSION CONTROL FABRIC). IF NEEDED, THE TYPE OF ENERGY DISSIPATING DEVICE WILL DEPEND ON SITE CONDITIONS (OPTIONS ARE DEPICTED ABOVE).

### **MAINTENANCE REQUIREMENTS:**

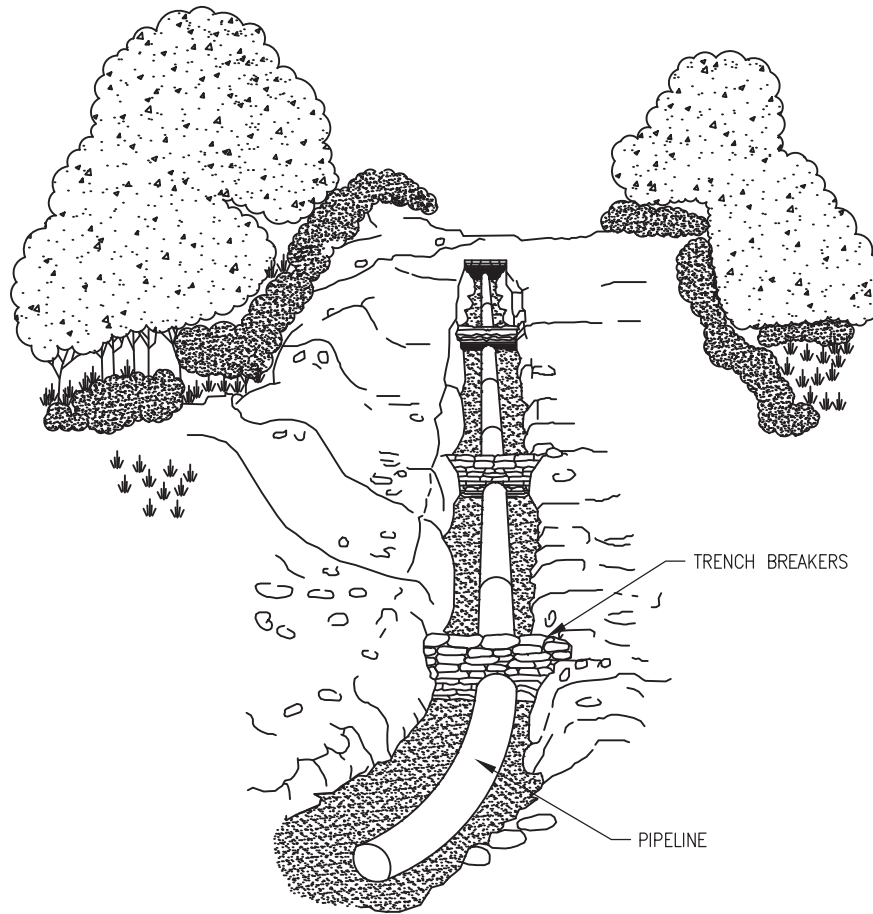
- INSPECT DURING CONSTRUCTION AND MAKE REPAIRS AS NEEDED.
- KEEP THE CHANNEL FREE OF DEBRIS AND OBSTRUCTIONS.

**FIGURE 37**

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES SLOPE BREAKER TYPICAL LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-028	SHT. NO.	1 OF 1	REV.	C



# TYPICAL SANDBAG OR FOAM TRENCH BREAKERS PIPELINE INSTALLATION





## NOTES:

1. TRENCH BREAKERS SHALL BE INSTALLED ON SLOPES GREATER THAN 5 PERCENT WHERE THE BASE OF THE SLOPE IS LESS THAN 50 FT FROM WATERBODY AND WETLAND CROSSINGS AT THE FOLLOWING SPACING (CLOSER SPACING CAN BE USED AS REQUIRED BY COMPANY REPRESENTATIVE):

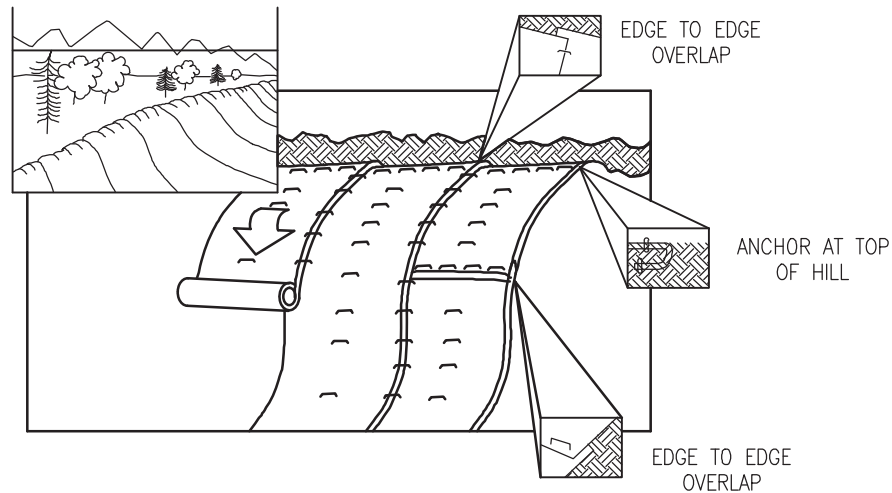
Slope (%)	SPACING (feet)
5-15	300
>15-30	200
>30	100

2. BREAKER SPACING AND CONFIGURATION MAY BE CHANGED BASED ON DIRECTION BY COMPANY. DEPTH OF DITCH MAY VARY WITH SITE CONDITIONS.
3. ALL MATERIALS SHALL BE SUPPLIED BY CONTRACTOR.

**FIGURE 38**

												
							CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL SANDBAG OR FOAM TRENCH BREAKERS PIPELINE INSTALLATION LOUISIANA / TEXAS					
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	DWG. NO. 1901-100-PL-DWG-7007-029			SHT. NO. 1 OF 1	REV. C
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21					
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.						
						PROJ. MGR.						
						CLIENT APP.						
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.					



# **TYPICAL EROSION CONTROL BLANKETS ON SLOPES**



## **NOTES:**

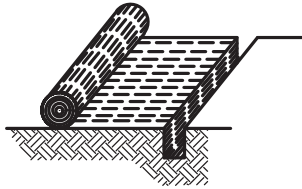
1. EROSION CONTROL BLANKETS (FABRIC) SHALL BE USED AT LOCATIONS IDENTIFIED IN THE E&S PLAN AND/OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
2. EROSION CONTROL BLANKETS SHALL MEET THE REQUIREMENTS SPECIFIED IN THE E&S PLAN AND/OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
3. STAPLES SHALL BE MADE OF WOODEN, U-SHAPED WITH 6" LEGS AND A 1" CROWN. STAPLES SHALL BE DRIVEN INTO THE GROUND FOR THE FULL LENGTH OF THE STAPLE LEGS.
4. BLANKETS SHALL BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS OR AS STATED BELOW:
  - EXTEND TOP OF BLANKET 3 FEET PAST THE UPPER EDGE OF THE SLOPE.
  - ANCHOR ("KEY") THE UPPER EDGE OF THE BLANKET INTO THE SLOPE USING A 6" DEEP TRENCH AND ROLL THE BLANKET DOWN THE HILL. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
  - INSTALL LOOSELY ON SLOPE AND AVOID STRETCHING EROSION CONTROL BLANKETS DURING INSTALLATION.
  - BRING ROLL BACK OVER THE TOP OF THE TRENCH AND CONTINUE TO ROLL DOWN SLOPE. STAPLE EVERY 12" WHERE BLANKETS EXIT THE TRENCH AT THE TOP OF THE SLOPE.
  - WHEN BLANKETS ARE SPLICED DOWN-SLOPE TO ADJOINING BLANKETS (SLOPE OR STREAMBANK MATS), THE UPPER BLANKET SHALL BE PLACED OVER THE LOWER (SHINGLE STYLE) WITH APPROXIMATELY 6" OF OVERLAP. STAPLE THROUGH THE OVERLAPPED AREA EVERY 12".
  - OVERLAP ADJACENT BLANKETS 6". STAPLE EDGES OF BLANKETS AND CENTER EVERY 36".
5. IN LIVESTOCK AREAS WHERE EROSION CONTROL BLANKETS ARE APPLIED TO THE SLOPES, FENCING WILL BE USED IF NECESSARY TO EXCLUDE LIVESTOCK, WITH PERMISSION OF THE LANDOWNER.
6. MONITOR WASHOUTS, STAPLE INTEGRITY OR BLANKET MOVEMENT. REPLACE OR REPAIR AS NECESSARY.
7. DO NOT USE SYNTHETIC MONOFILAMENT MESH/NETTED MATERIALS IN AREAS DESIGNATED AS SENSITIVE WILDLIFE HABITAT, UNLESS THE PRODUCT IS SPECIFICALLY DESIGNED TO MINIMIZE HARM TO WILDLIFE.

**FIGURE 39**

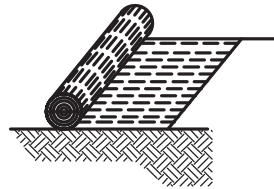
										
						DWN. BY:	GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL EROSION CONTROL BLANKETS ON SLOPES LOUISIANA / TEXAS	
						CHK.	SC	04/06/21		
						PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.				
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	SCALE:		N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-030
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC				SHT. NO.	1 OF 1
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB				REV.	C
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D					

## EROSION CONTROL FABRIC INSTALLATION

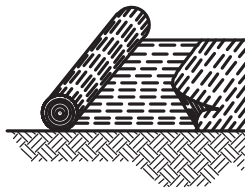
A. BURY THE TOP END OF THE ROLL IN A 6" TRENCH. (TYPICAL)



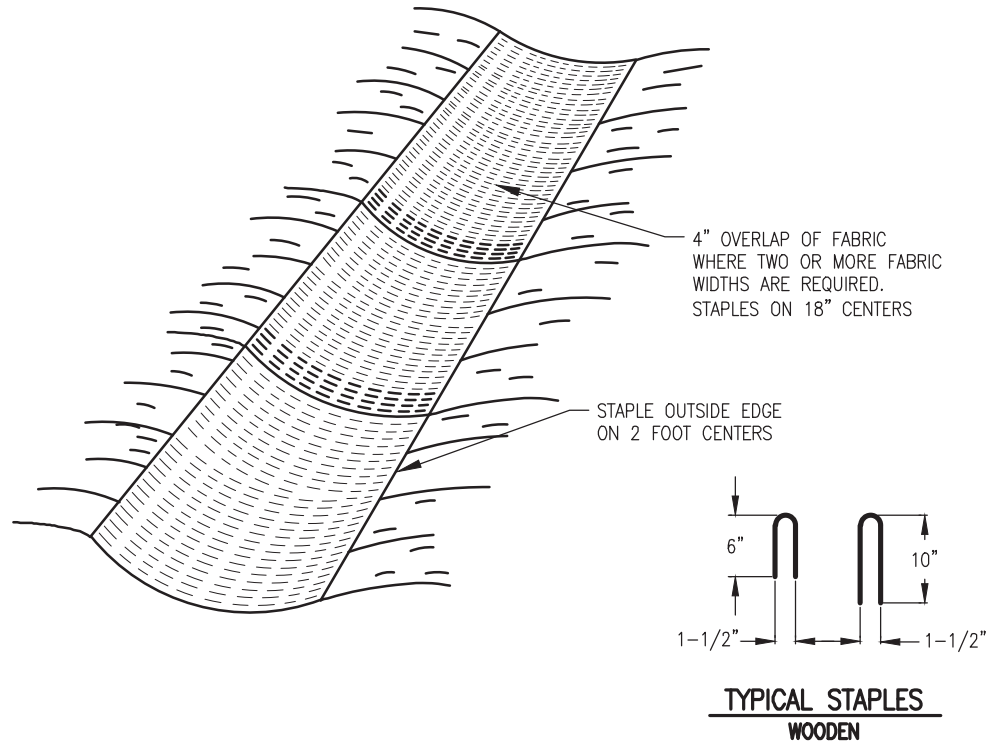
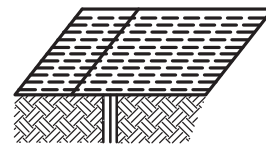
B. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING.





C. BURY AND TAMP UPPER END OF LOWER STRIP AS IN "A" AND "B". OVERLAP END OF TOP STRIP 4" AND STAPLE.



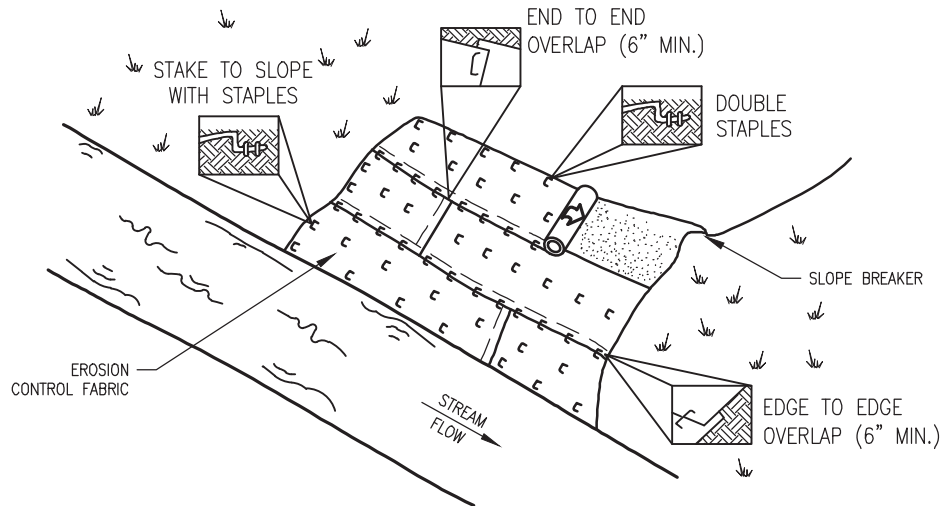
D. WHERE FABRIC STOPS, FOLD, BURY, AND TAMP ROLL IN SLIT TRENCH. PROVIDE DOUBLE ROW OF STAPLES.



**FIGURE 40**

													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES EROSION CONTROL FABRIC INSTALLATION LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	1901-100-PL-DWG-7007-031	SHT. NO.	1 OF 1	REV.	C



## EROSION CONTROL BLANKETS ON STREAMBANKS



**NOTES:**

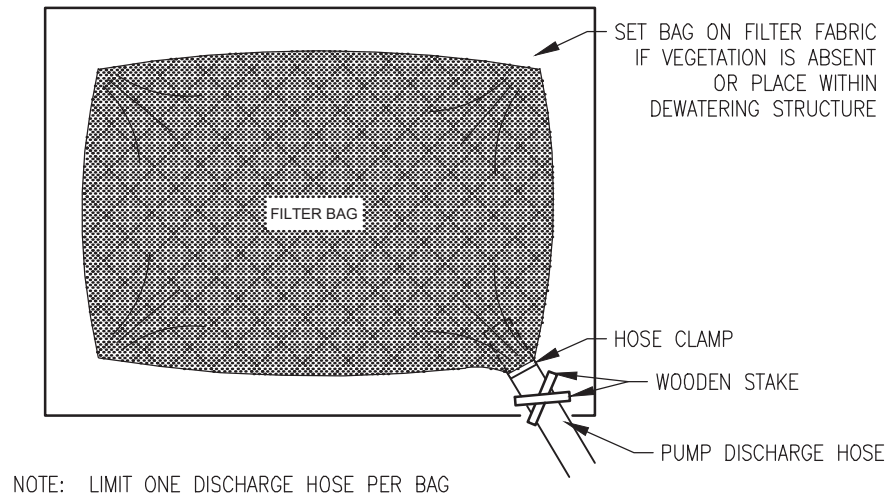
1. EROSION CONTROL BLANKETS (FABRIC) SHALL BE PLACED ON THE BANKS OF FLOWING STREAMS WHERE VEGETATION HAS BEEN REMOVED OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
2. EROSION CONTROL BLANKETS SHALL MEET THE REQUIREMENTS SPECIFIED IN THE E&S PLAN AND/OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
3. STAPLES SHALL BE WOODEN, U-SHAPED WITH 6" LEGS AND A 1" CROWN. STAPLES SHALL BE DRIVEN INTO THE GROUND FOR THE FULL LENGTH OF THE STAPLE LEGS. ALTERNATELY 1" WOODEN PEGS 6" LONG AND BEVELED TO SECURE MATTING.
4. BLANKETS SHALL BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS OR AS STATED BELOW:
  - EXTEND TOP OF BLANKET 2 FEET PAST THE UPPER EDGE OF THE HIGH WATER MARK. IF A SLOPE BREAKER IS PRESENT ON THE APPROACH SLOPE, BEGIN THE BLANKET ON THE UPHILL SIDE OF THE SLOPE BREAKER.
  - INSTALL BLANKET(S) ACROSS THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
  - ANCHOR ("KEY") THE UPSTREAM EDGE OF THE BLANKET(S) INTO THE SLOPE USING A 6" DEEP TRENCH. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
  - OVERLAP THE EDGES OF PARALLEL BLANKETS A MINIMUM OF 6". PLACE THE UPPER BLANKET OVER THE LOWER BLANKET (SHINGLE STYLE) AND STAPLE EVERY 12" ALONG THE LENGTH OF THE EDGE.
  - WHEN BLANKET ENDS ARE ADJOINED, PLACE THE UPSTREAM BLANKET OVER THE DOWNSTREAM BLANKET (SHINGLE STYLE) WITH APPROXIMATELY 6" OF OVERLAP AND STAPLE THROUGH THE OVERLAPPED AREA EVERY 12".
  - STAPLE DOWN THE CENTER OF THE BLANKET(S), THREE STAPLES IN EVERY SQUARE YARD.
5. IN LIVESTOCK AREAS WHERE EROSION CONTROL BLANKETS ARE APPLIED TO THE STREAMBANKS, FENCING MAY BE USED IF NECESSARY TO EXCLUDE LIVESTOCK, WITH PERMISSION OF THE LANDOWNER.
6. MONITOR WASHOUTS, STAPLE INTEGRITY OR BLANKET MOVEMENT. REPLACE OR REPAIR AS NECESSARY.
7. DO NOT USE SYNTHETIC MONOFILAMENT MESH/NETTED MATERIALS IN AREAS DESIGNATED AS SENSITIVE WILDLIFE HABITAT, UNLESS THE PRODUCT IS SPECIFICALLY DESIGNED TO MINIMIZE HARM TO WILDLIFE.

**FIGURE 41**

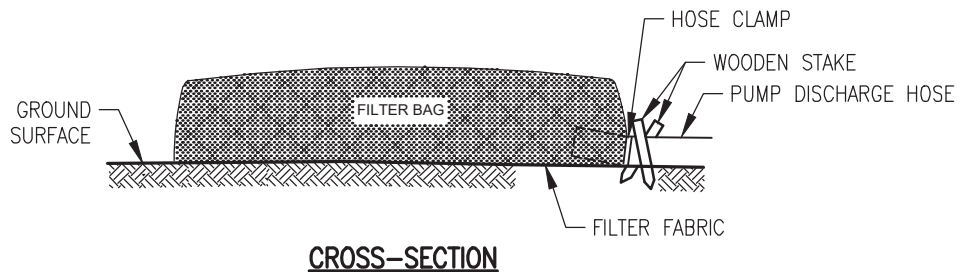
							  CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES EROSION CONTROL BLANKETS ON STREAMBANKS LOUISIANA / TEXAS				
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY:	GIE	04/06/21			
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK.	SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.		DWG. NO.	SHT. NO.	REV.
									1901-100-PL-DWG-7007-032	1 OF 1	C



# FILTER BAG





## PLAN VIEW



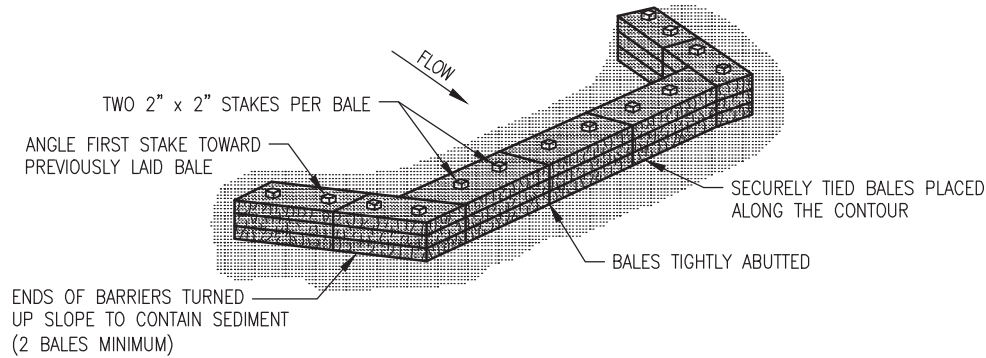
### NOTES:

1. THE FILTER BAG OR STRUCTURE MUST BE MANNED WHEN THE PUMPING IS INITIATED TO ENSURE PROPER OPERATION AND FUNCTIONALITY.
2. REMOVE DEWATERING STRUCTURE AS SOON AS PRACTICABLE AFTER COMPLETION OF DEWATERING ACTIVITIES.
3. PLACEMENT OF FILTER BAGS SHOULD BE IN A MANNER THAT BAG USE DOES NOT CAUSE EROSION. IF SITE CONDITIONS ALLOW, PLACE FILTER BAG IN WELL-VEGETATED AREA, A MINIMUM OF 50 FEET FROM WETLANDS OR WATERBODIES.

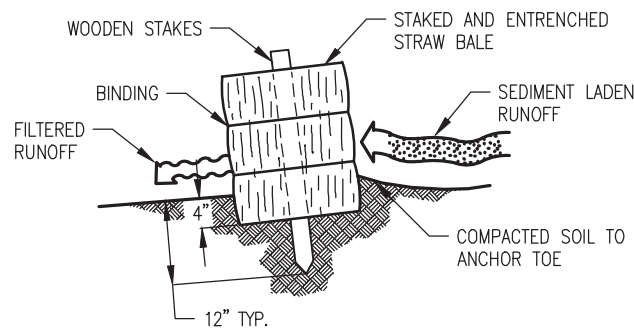
**FIGURE 42**

											
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES FILTER BAG  LOUISIANA / TEXAS			
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21				
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.		DWG. NO. 1901-100-PL-DWG-7007-033 SHT. NO. 1 OF 1 REV. C			
						SCALE: N.T.S.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D						

## STRAW BALE INSTALLATION AND MAINTENANCE DETAIL



PLAN VIEW



CROSS SECTION



### INSTALLATION REQUIREMENTS:

- WHEN USING STRAW BALES, PLACE THEM:
  1. WITH THEIR ENDS TIGHTLY ABUTTING AND EMBEDDED IN THE SOIL A TYPICAL OF 4".
  2. BETWEEN DISTURBED AREAS AND DOWN-SLOPE OF ENVIRONMENTAL RESOURCE AREAS.
  3. AT THE BASE OF ALL SLOPES NEXT TO WETLANDS, WATERBODIES, AND ROAD CROSSINGS.
  4. AT THE INLET AND OUTLET OF OPEN DRAINAGE STRUCTURES.
  5. APPROXIMATELY 6 FEET BEYOND THE TOE OF THE SLOPE TO GIVE THE SEDIMENT ROOM TO COLLECT (IF POSSIBLE).
- KEY IN THE BOTTOM OF THE BALE. IN AREAS WHERE IT IS NOT FEASIBLE TO TRENCH IT IN (LEDGES, ROCKY SOIL, LARGE TREE ROOTS, ETC.), USE NATIVE SOIL AS BACKFILL UP-SLOPE OF THE BALE OR PLACE ONE ROW OF SAND BAGS.
- DO NOT STAKE OR TRENCH IN PLACE STRAW BALES USED ON EQUIPMENT BRIDGES OR ON MATS ACROSS THE TRAVEL LANE.
- IF USED IN CONJUNCTION WITH SILT FENCE, BALES ARE PLACED UPSLOPE OF THE SILT FENCE AND DO NOT NEED TO BE TRENCHED IN.

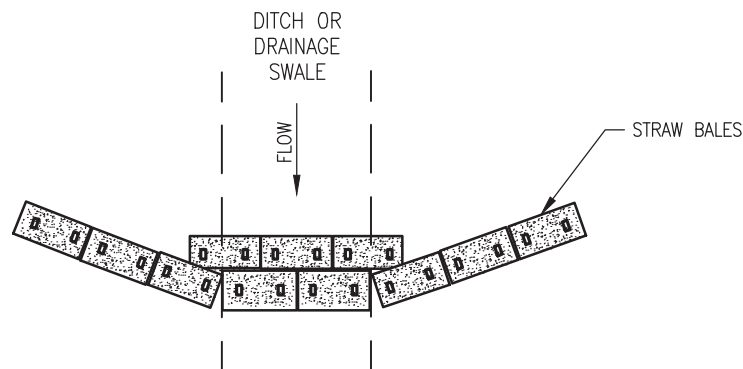
### MAINTENANCE REQUIREMENTS:

- INSPECT BALES:
  1. DAILY IN AREAS OF ACTIVE CONSTRUCTION.
  2. WEEKLY IN AREAS WITH NO CONSTRUCTION.
  3. WITHIN 24 HOURS FOLLOWING EACH MAJOR STORM EVENT,  $\geq 0.5$  INCH.
- REPAIR OR REPLACE BALES AS NEEDED.
- REMOVE ACCUMULATED SEDIMENTS TO AN UPLAND AREA AS NEEDED.

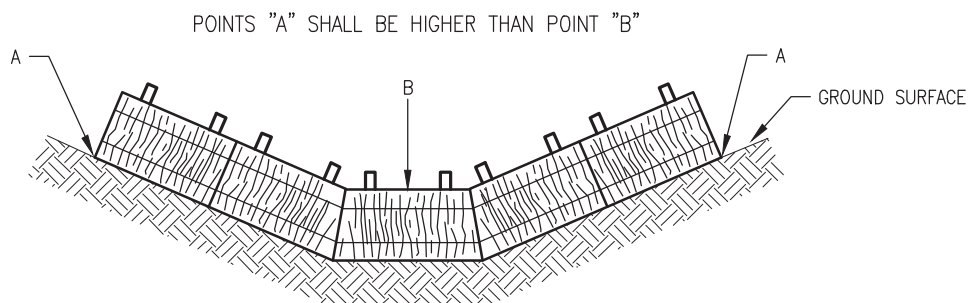
FIGURE 43

									
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES STRAW BALE INSTALLATION AND MAINTENANCE DETAIL LOUISIANA / TEXAS	
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21		
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.			
						PROJ. MGR.			
						CLIENT APP.			
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.	DWG. NO. 1901-100-PL-DWG-7007-034	SHT. NO. 1 OF 1	REV. C

# STRAW BALE INSTALLATION FOR A CHECK DAM IN A DRAINAGE WAY



PLAN VIEW





CROSS SECTION

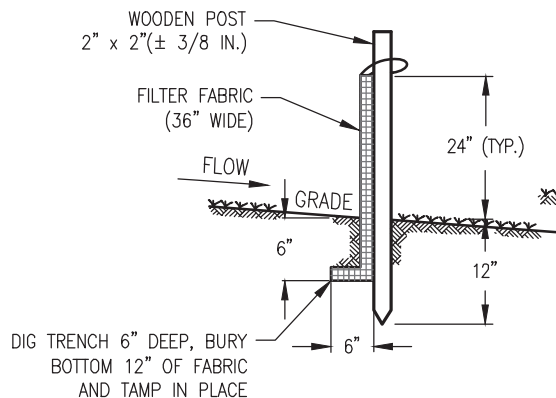
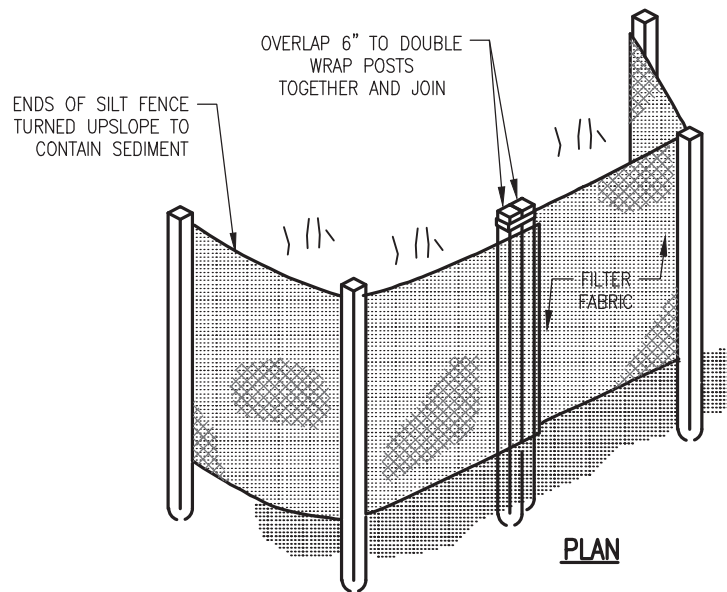
NOTE:

1. THE NUMBER OF BALES IS DETERMINED BASED ON SITE SPECIFIC FACTORS.

**FIGURE 44**

											
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY:	GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES STRAW BALE INSTALLATION FOR A CHECK DAM IN A DRAINAGE WAY LOUISIANA / TEXAS		
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK.	SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.					
						PROJ. MGR.					
						CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.		DWG. NO.	SHT. NO.	REV.
									1901-100-PL-DWG-7007-035	1 OF 1	C



# SILT FENCE INSTALLATION AND MAINTENANCE DETAIL



## INSTALLATION REQUIREMENTS:

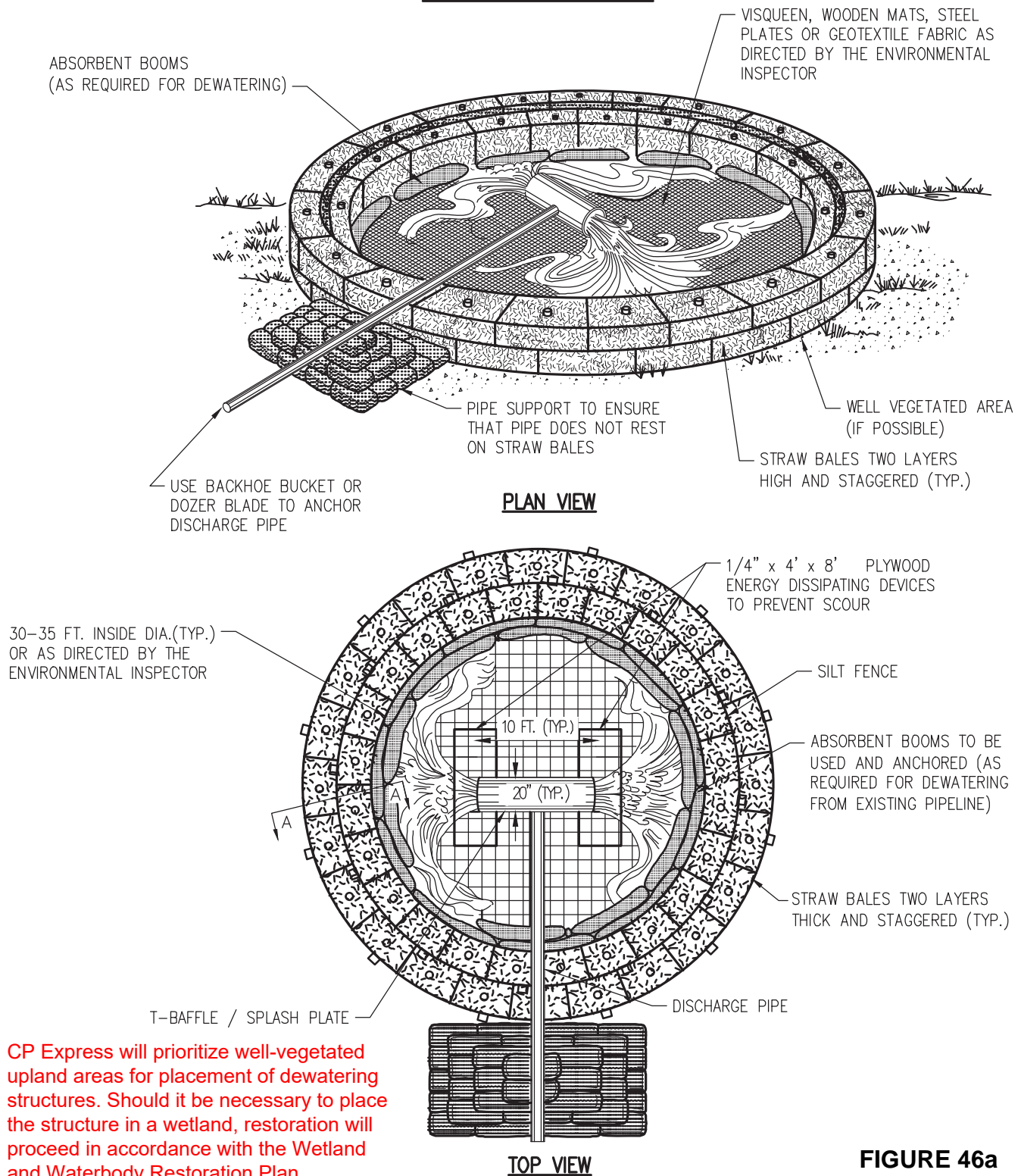
- WHEN USING SILT FENCE, PLACE IT:
  - BETWEEN DISTURBED AREAS AND DOWN-SLOPE ENVIRONMENTAL RESOURCE AREAS.
  - AT THE BASE OF ALL SLOPES NEXT TO WETLANDS, WATERBODIES, AND ROAD CROSSINGS.
  - AT THE INLET AND OUTLET OF OPEN DRAINAGE STRUCTURES.
  - APPROXIMATELY 6 FEET BEYOND THE TOE OF THE SLOPE TO GIVE THE SEDIMENT ROOM TO COLLECT (IF POSSIBLE).
- USE SANDBAGS OR BACKFILLING TO KEY IN THE BOTTOM OF THE FABRIC WHERE IT IS NOT FEASIBLE TO TRENCH IT IN (LEDGES, ROCKY SOIL, LARGE ROOTS, ETC.).

FIGURE 45



													
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES SILT FENCE INSTALLATION AND MAINTENANCE DETAIL LOUISIANA / TEXAS					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21						
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.							
						PROJ. MGR.							
						CLIENT APP.							
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		DWG. NO.	1901-100-PL-DWG-7007-036	SHT. NO.	1 OF 1	REV	C



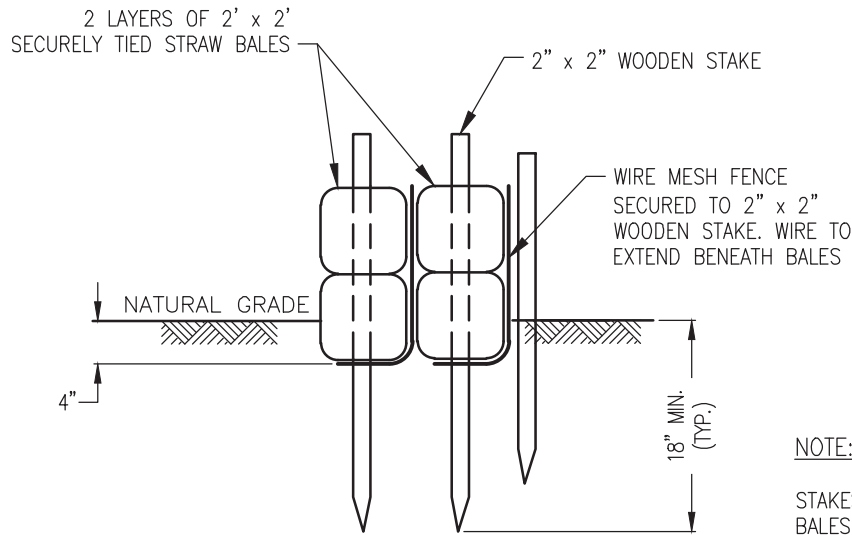
## DEWATERING STRUCTURE FOR HYDROSTATIC TESTING



CP Express will prioritize well-vegetated upland areas for placement of dewatering structures. Should it be necessary to place the structure in a wetland, restoration will proceed in accordance with the Wetland and Waterbody Restoration Plan.

											
						DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES DEWATERING STRUCTURE FOR HYDROSTATIC TESTING LOUISIANA / TEXAS			
						CHK. SC	04/06/21				
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	PROJ. ENGR.					
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	PROJ. MGR.					
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	CLIENT APP.					
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.	DWG. NO. 1901-100-PL-DWG-7007-037	SHT. NO. 1 OF 2	REV. C		

# DEWATERING STRUCTURE FOR HYDROSTATIC TESTING



NOTE:



STAKES SECURING SILT FENCE BETWEEN BALES ARE NOT SHOWN FOR CLARITY.

## SECTION 'A-A' (N.T.S.)

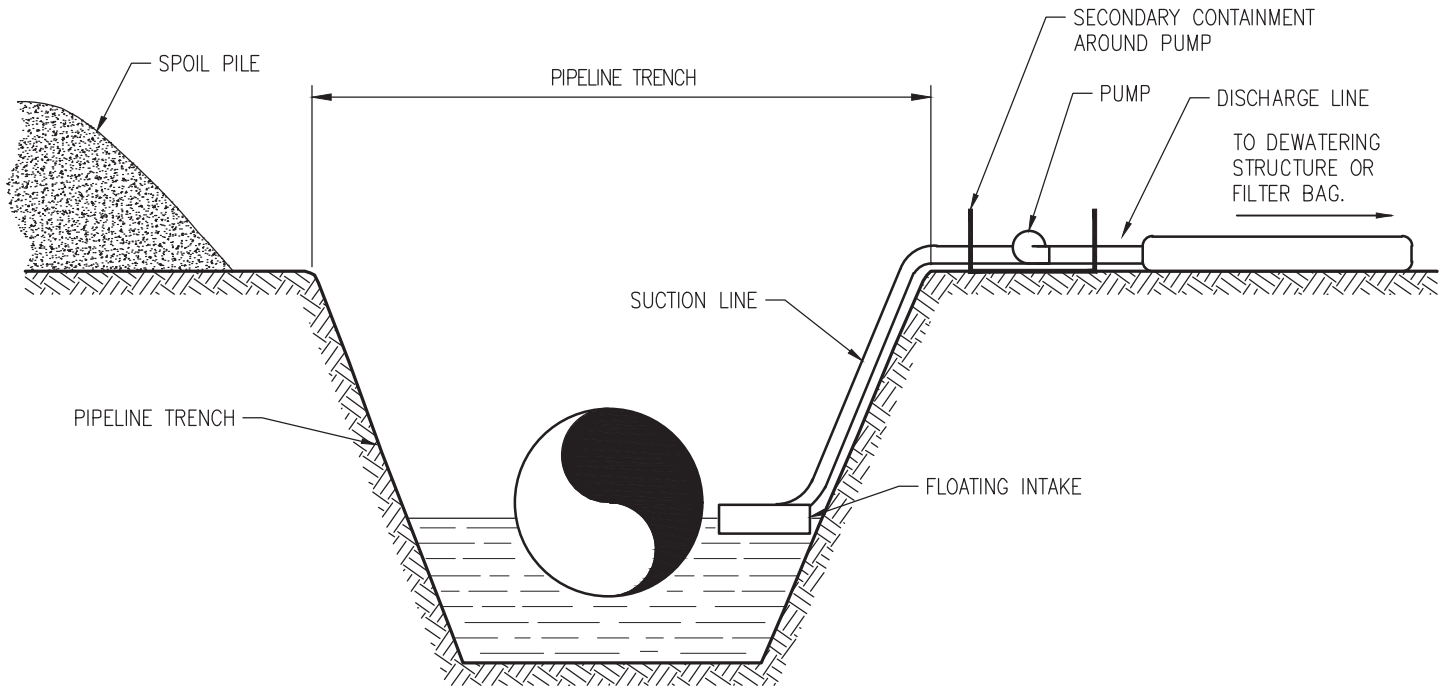
NOTES:

- STRUCTURE SHALL BE PLACED ON A LEVEL WELL VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM STRUCTURE AND ANY WORK AREAS.
- FLOW RATES THROUGH DISCHARGE AND DIVERTOR PIPES SHALL BE SUCH THAT STRUCTURE WILL NOT OVERFLOW.
- A 30' OR 35' RECTANGULAR STRUCTURE MAY BE SUBSTITUTED FOR THE CIRCULAR CONFIGURATION SHOWN.
- DIMENSIONS SHOWN ARE THE MINIMUM ACCEPTABLE AND MAY BE VARIED DEPENDING UPON SPECIFIC LOCATION.

**FIGURE 46b**

										
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	DWN. BY: GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES DEWATERING STRUCTURE FOR HYDROSTATIC TESTING LOUISIANA / TEXAS		
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC	CHK. SC	04/06/21			
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB	PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.	DWG. NO.	SHT. NO.	REV.
								1901-100-PL-DWG-7007-037	2 OF 2	C

# TYPICAL TRENCH DEWATERING





## CROSS SECTION

SCALE: N.T.S.

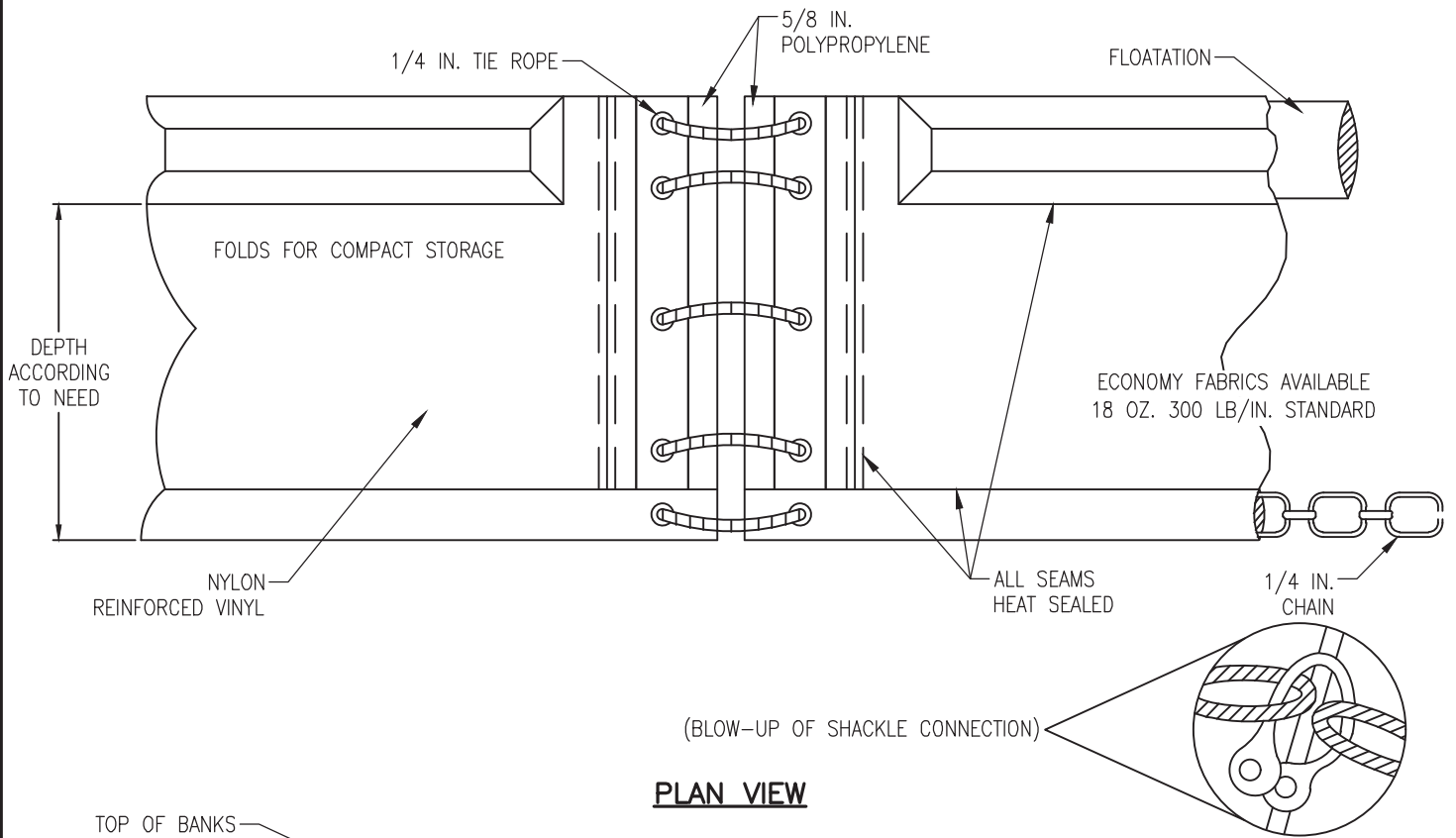
### NOTES:

1. WATER PUMPED OUT OF TRENCH SHALL NOT BE DISCHARGED DIRECTLY INTO WATERWAYS. WATER SHALL BE DISCHARGED INTO A FILTER BAG OR DEWATERING STRUCTURE.
2. PUMP SHALL BE CONTROLLED SO THAT DISCHARGE DOES NOT OVERFLOW DEWATERING STRUCTURE.
3. PUMP SUCTION HOSE MUST NOT BE ALLOWED TO COME IN CONTACT WITH TRENCH BOTTOM. PROVISIONS MUST BE MADE TO ELEVATE THE SUCTION HOSE TO AT LEAST ONE FOOT ABOVE THE BOTTOM OF THE PIPE TRENCH UNTIL BOTTOM DEWATERING IS NECESSARY.
4. DEWATERING SHALL NOT OCCUR DURING TIMES OF HEAVY RAINFALL EXCEPT AS REQUIRED TO PREVENT FLOODING OF CONSTRUCTION EQUIPMENT LOCATED IN BORE PITS AND TRENCHES.
5. PUMPS UTILIZED DURING DEWATERING SHALL BE PLACED WITHIN SECONDARY CONTAINMENT IF POSITIONED WITHIN 100 FEET OF A WETLAND OR WATERBODY.

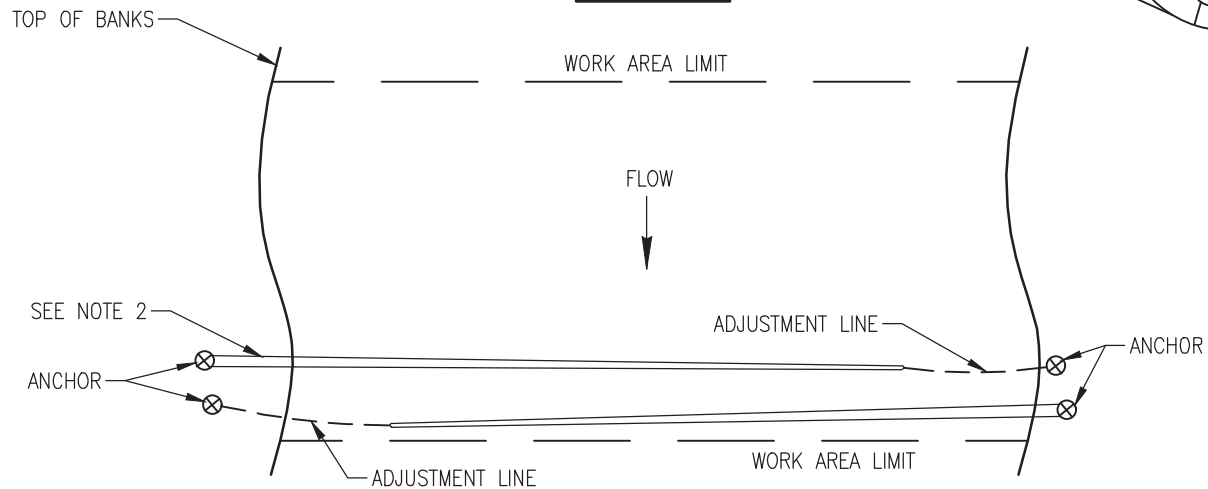
FIGURE 47

										
						DWN. BY:	GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TYPICAL TRENCH DEWATERING LOUISIANA / TEXAS	
						CHK.	SC	04/06/21		
						PROJ. ENGR.				
						PROJ. MGR.				
						CLIENT APP.				
C	ISSUED FOR FERC FILING		GIE	05/19/21	JB	JC	SCALE: N.T.S.		DWG. NO.	1901-100-PL-DWG-7007-038
B	ISSUED FOR CLIENT REVIEW		GIE	04/14/21	JB	JC			SHT. NO.	1 OF 1
A	ISSUED FOR INTERNAL REVIEW		GIE	04/06/21	SC	JB			REV.	C
NO.	REVISION DESCRIPTION		BY	DATE	CHK'D	APP'D				

# **TURBIDITY CURTAIN**



## **PLAN VIEW**



### **NOTES:**

1. TURBIDITY CURTAINS SHALL BE INSTALLED WITHIN THE CONSTRUCTION R.O.W.
2. TURBIDITY CURTAIN ANCHORS TO BE INSTALLED 10 FEET MINIMUM FROM THE STREAM BANKS WHERE PRACTICAL.
3. WATERBODY, STREAM FLOW TO BE MAINTAINED THROUGH INSTALLATION AND THE CONSTRUCTION CROSSING.
4. TURBIDITY CURTAINS TO BE INSTALLED ON THE DOWNSTREAM SIDE OF THE CONSTRUCTION AREA. NUMBER AND PLACEMENT OF TURBIDITY CURTAINS TO BE ESTABLISHED IN FIELD AT TIME OF CROSSING DEPENDING ON SITE CONDITIONS.
5. ADJUSTMENT LINES PLACED TO ALLOW POSITIONING OF TURBIDITY CURTAINS TO ALLOW SEDIMENT TO BE DEPOSITED WITHIN WORK AREA.
6. NON FLOWING WATERBODY, TURBIDITY CURTAINS MAY BE REQUIRED UPSTREAM AND DOWNSTREAM OF CONSTRUCTION WORK AREA.

**FIGURE 48**

						<b>GULF Companies</b>		<b>CP EXPRESS</b>		
						DWN. BY:	GIE	04/06/21	CP EXPRESS PIPELINE, LLC. PROPOSED 48" & 24" PIPELINES TURBIDITY CURTAIN	
						CHK.	SC	04/06/21		
						PROJ. ENGR.				
						PROJ. MGR.				
C	ISSUED FOR FERC FILING	GIE	05/19/21	JB	JC	CLIENT APP.			LOUISIANA / TEXAS	
B	ISSUED FOR CLIENT REVIEW	GIE	04/14/21	JB	JC					
A	ISSUED FOR INTERNAL REVIEW	GIE	04/06/21	SC	JB				DWG. NO. 1901-100-PL-DWG-7007-039	
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE:	N.T.S.			
								SHT. NO. 1 OF 1	REV. C	



