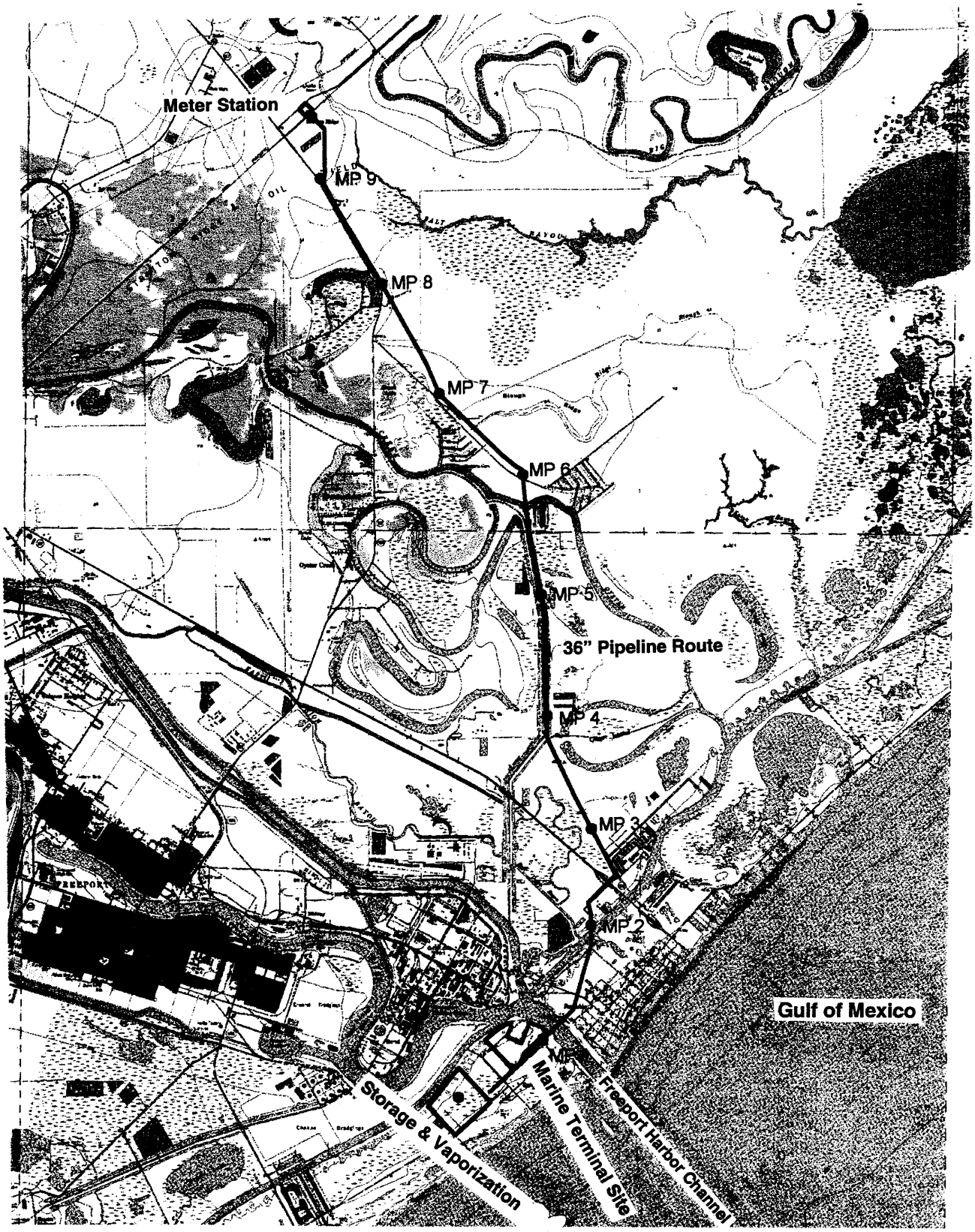


FREEPORT LNG

Legend

- Mileposts
- Pipeline Route
- Component Location

3000 0 3000 6000 9000 Feet

PROJECT AREA

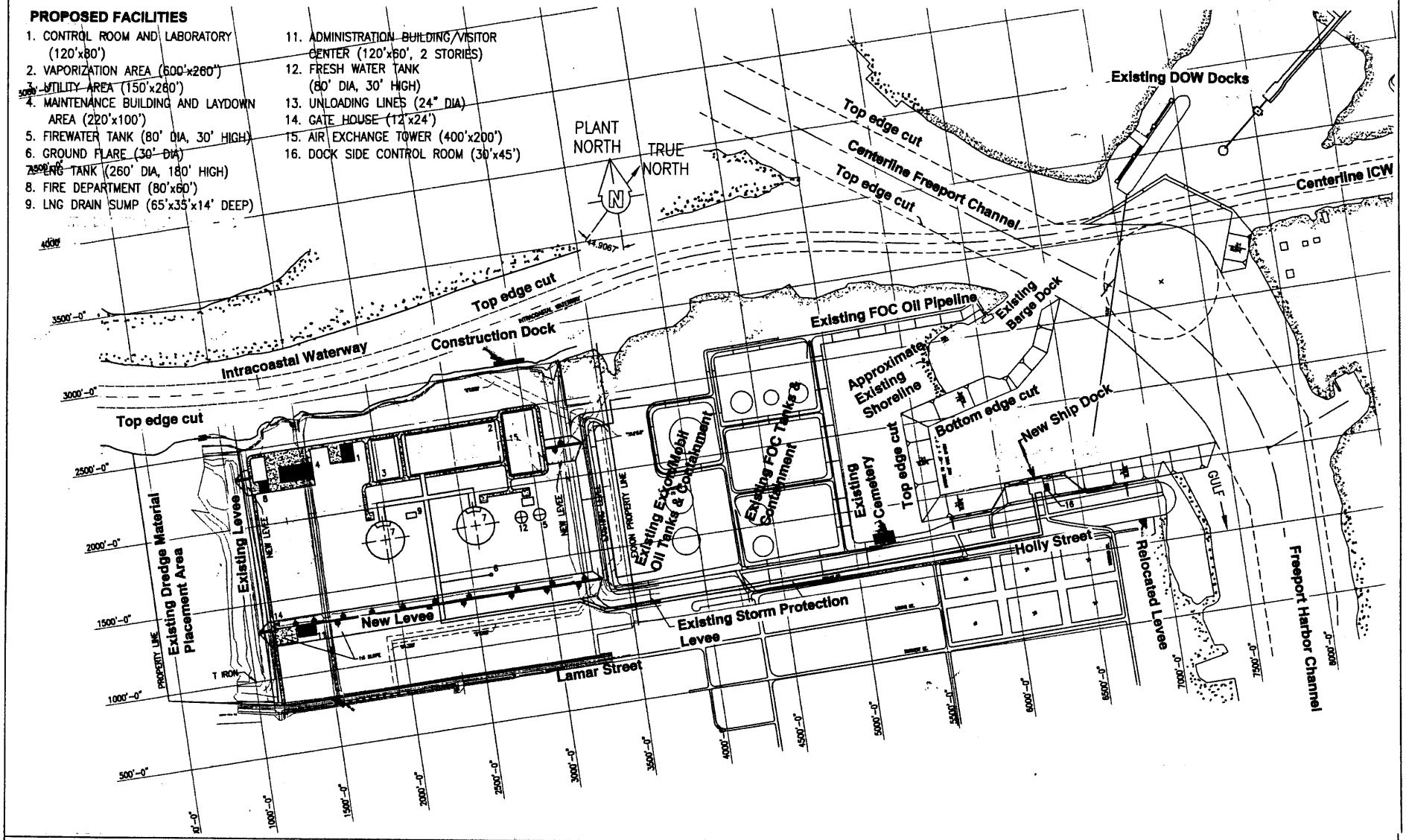
Sheet 1 of 36

Proposed Freeport LNG Facility
Brazoria County, Texas

Permit # 23078

PROPOSED FACILITIES

1. CONTROL ROOM AND LABORATORY (120'x80')
2. VAPORIZATION AREA (600'x260')
3. UTILITY AREA (150'x260')
4. MAINTENANCE BUILDING AND LAYDOWN AREA (220'x100')
5. FIREWATER TANK (80' DIA, 30' HIGH)
6. GROUND FLARE (30' DIA)
7. LNG TANK (260' DIA, 180' HIGH)
8. FIRE DEPARTMENT (80'x60')
9. LNG DRAIN SUMP (65'x35'x14' DEEP)
11. ADMINISTRATION BUILDING/VISITOR CENTER (120'x60', 2 STORIES)
12. FRESH WATER TANK (80' DIA, 30' HIGH)
13. UNLOADING LINES (24" DIA)
14. GATE HOUSE (12'x24')
15. AIR EXCHANGE TOWER (400'x200')
16. DOCK SIDE CONTROL ROOM (30'x45')



FREEPORT LNG

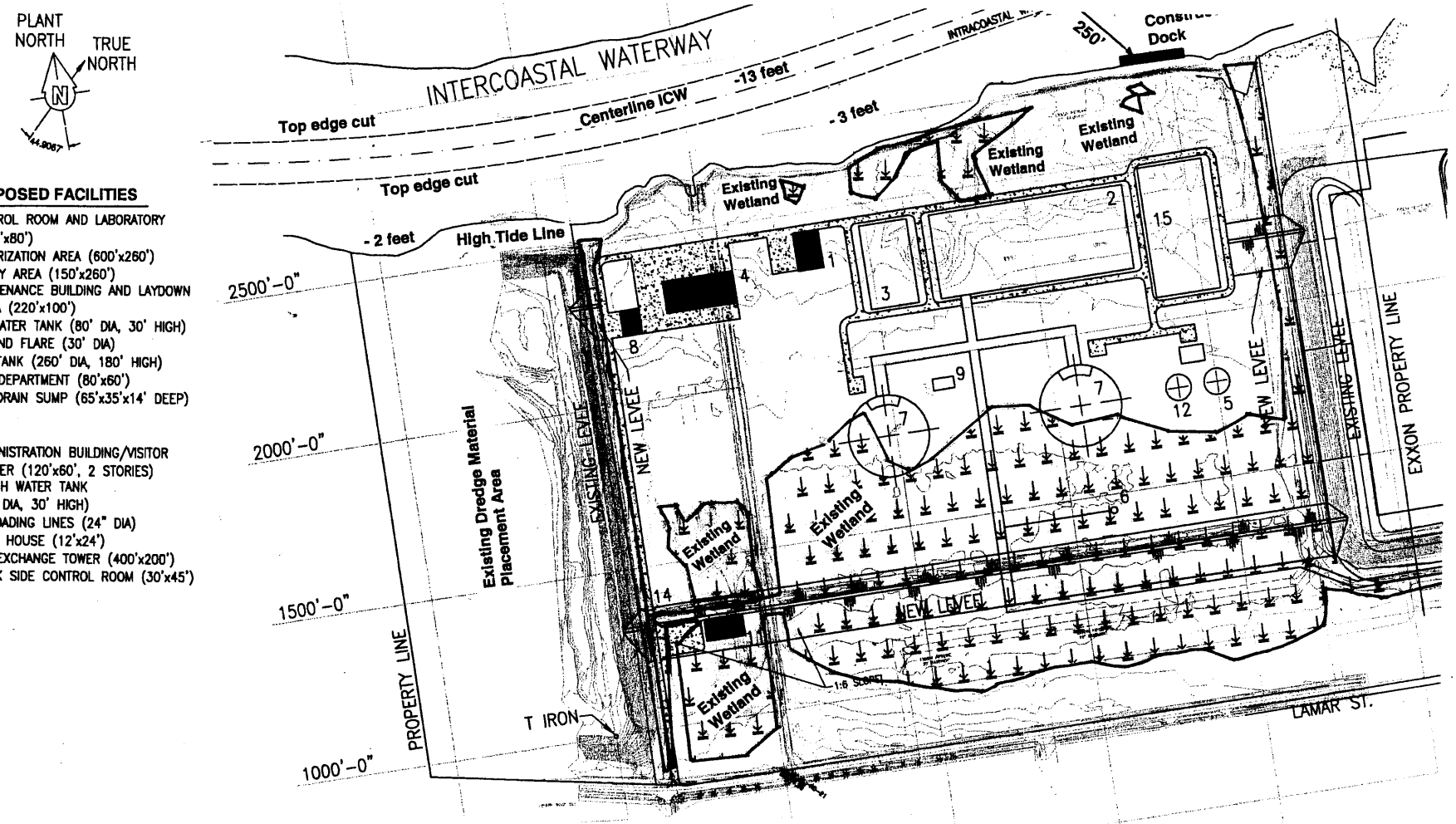
300 0 300 600 900 1200
FEET

Proposed Freeport LNG Facility
Brazoria County, Texas

PROPOSED FACILITES
MARINE TERMINAL AND LNG STORAGE AND VAPORIZATION FACILITY

Sheet 2 of 36

Permit # 23078



PROPOSED FACILITIES

1. CONTROL ROOM AND LABORATORY (120'x80')
2. VAPORIZATION AREA (600'x260')
3. UTILITY AREA (150'x260')
4. MAINTENANCE BUILDING AND LAYDOWN AREA (220'x100')
5. FIREWATER TANK (80' DIA, 30' HIGH)
6. GROUND FLARE (30' DIA)
7. LNG TANK (260' DIA, 180' HIGH)
8. FIRE DEPARTMENT (80'x60')
9. LNG DRAIN SUMP (65'x35'x14' DEEP)
10
11. ADMINISTRATION BUILDING/VISITOR CENTER (120'x60', 2 STORIES)
12. FRESH WATER TANK (80' DIA, 30' HIGH)
13. UNLOADING LINES (24" DIA)
14. GATE HOUSE (12'x24')
15. AIR EXCHANGE TOWER (400'x200')
16. DOCK SIDE CONTROL ROOM (30'x45')

FREEPORT LNG

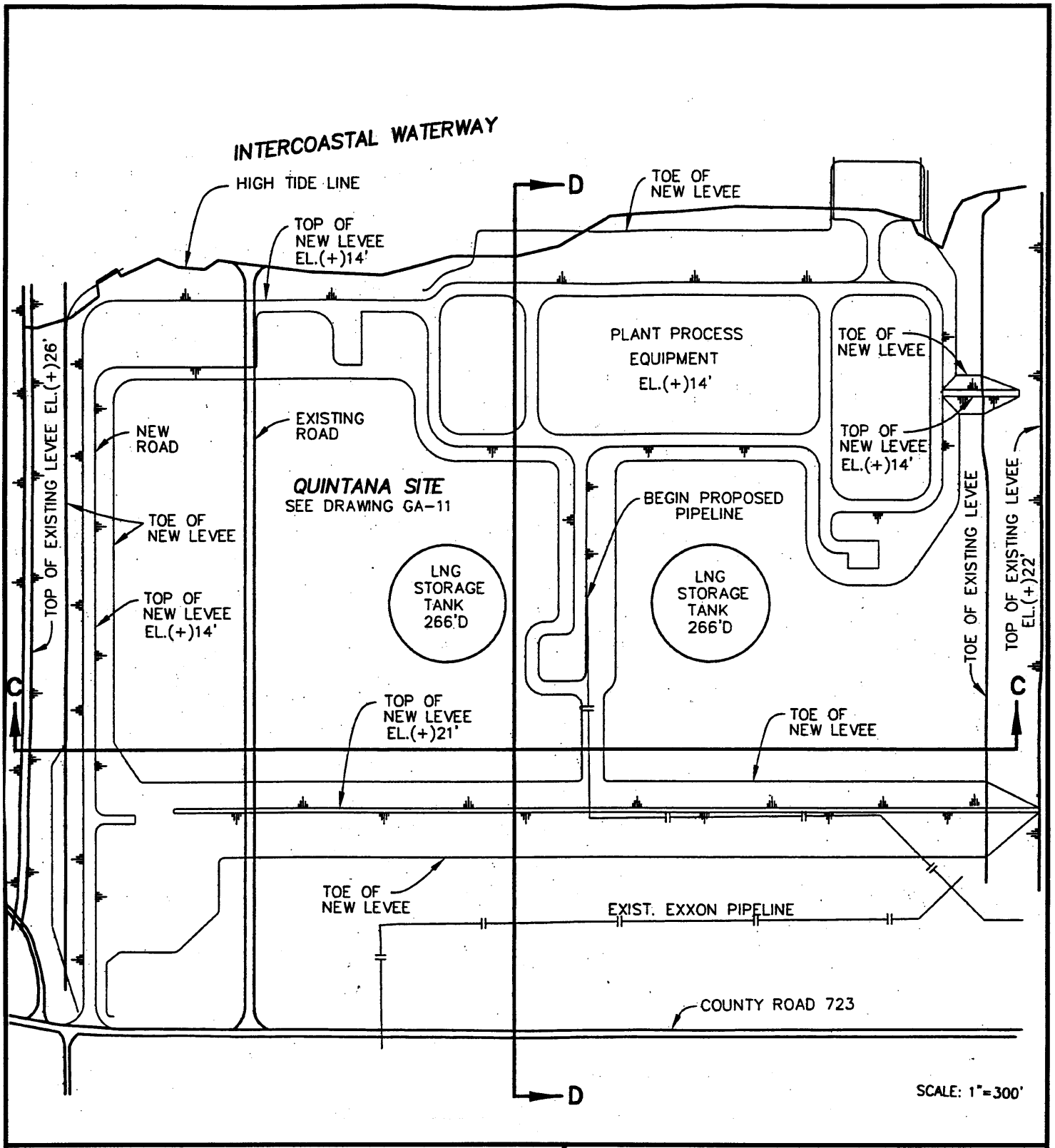
150 0 150 300 450 600
FEET

Proposed Freeport LNG Facility
Brazoria County, Texas

LNG STORAGE & VAPORIZATION AREA AND ON-SITE WETLANDS

Sheet 3 of 36

Permit # 23078



FREEPORT LNG

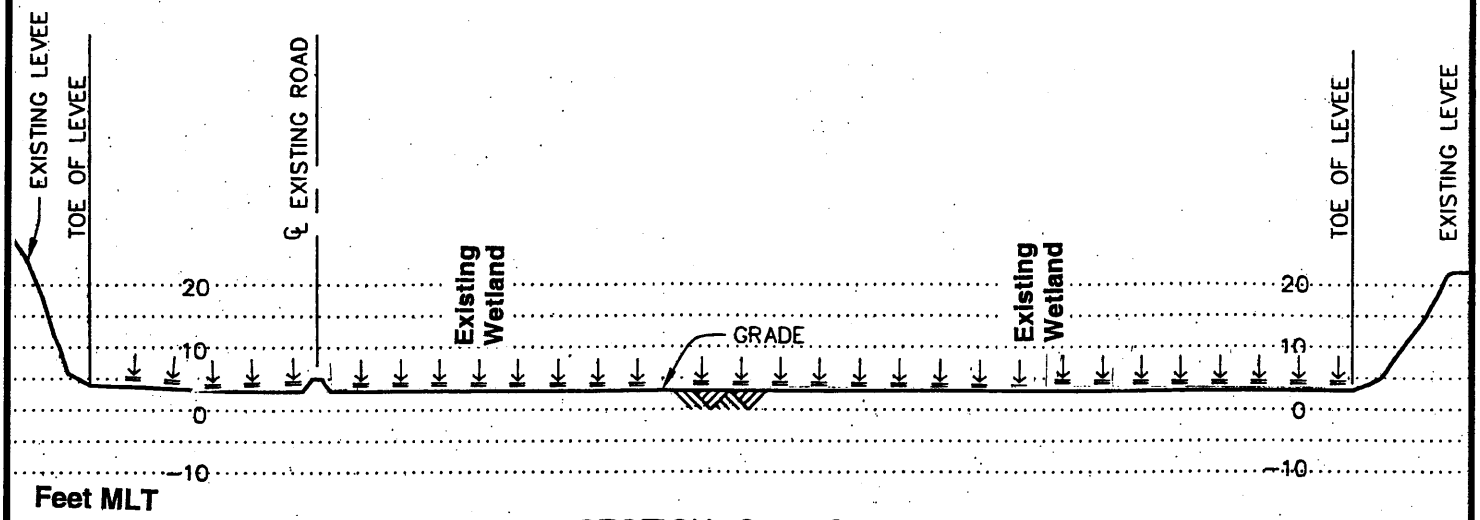
NAD 83 SOUTH CENTRAL ZONE
TEXAS STATE PLANE COORDINATE SYSTEM

LOCATION OF CROSS SECTIONS
STORAGE AND VAPORIZATION FACILITY

Sheet 4 of 36

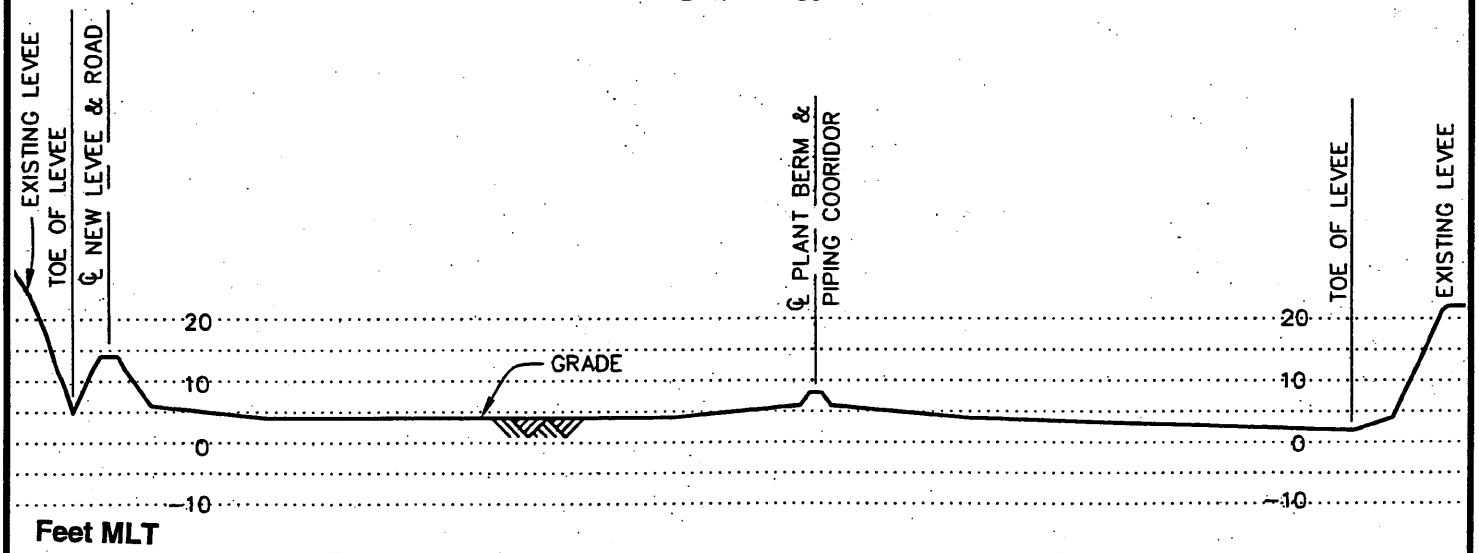
Proposed Freeport LNG Facility
Brazoria County, Texas

Permit # 23078



SECTION C – C
EXISTING PROFILE

SCALE: HORIZ. 1"=300'
VERT. 1"=30'



SECTION C – C
PROPOSED PROFILE

SCALE: HORIZ. 1"=300'
VERT. 1"=30'

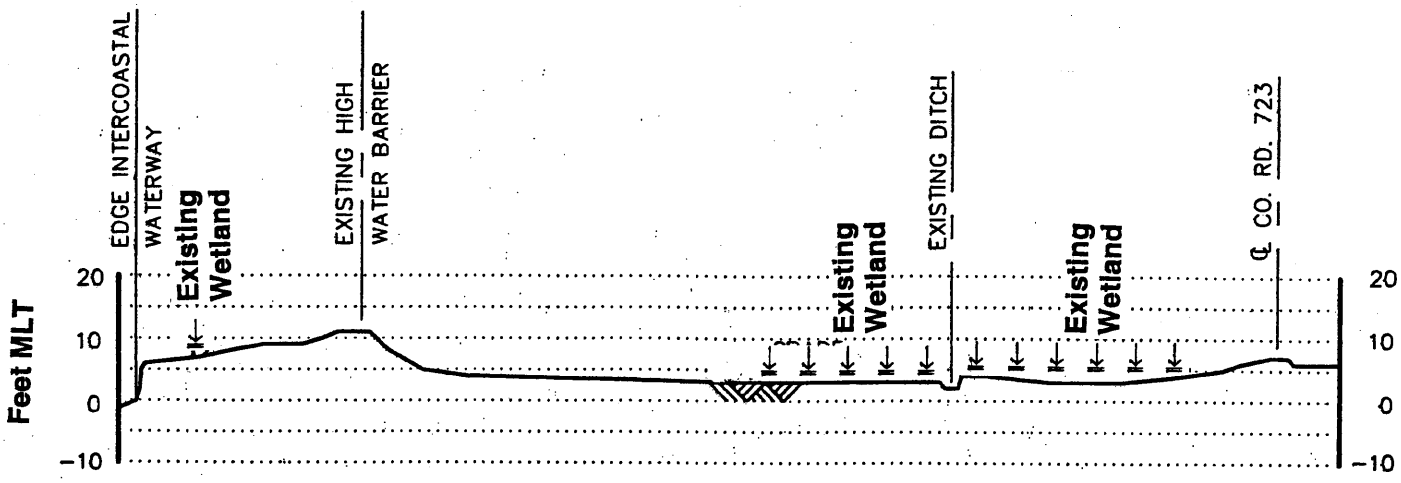
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

CROSS SECTION C
STORAGE AND VAPORIZATION FACILITY

Sheet 5 of 36

Permit # 23078



SECTION D – D

EXISTING PROFILE

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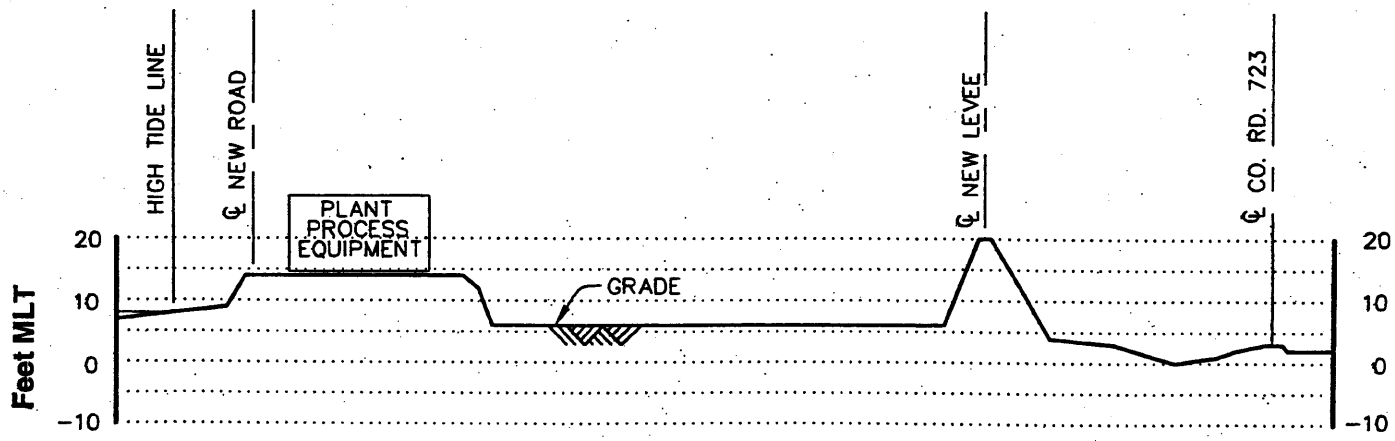


SECTION D – D

PROPOSED PROFILE

SCALE: HORIZ. 1"=300'
VERT. 1"=30'

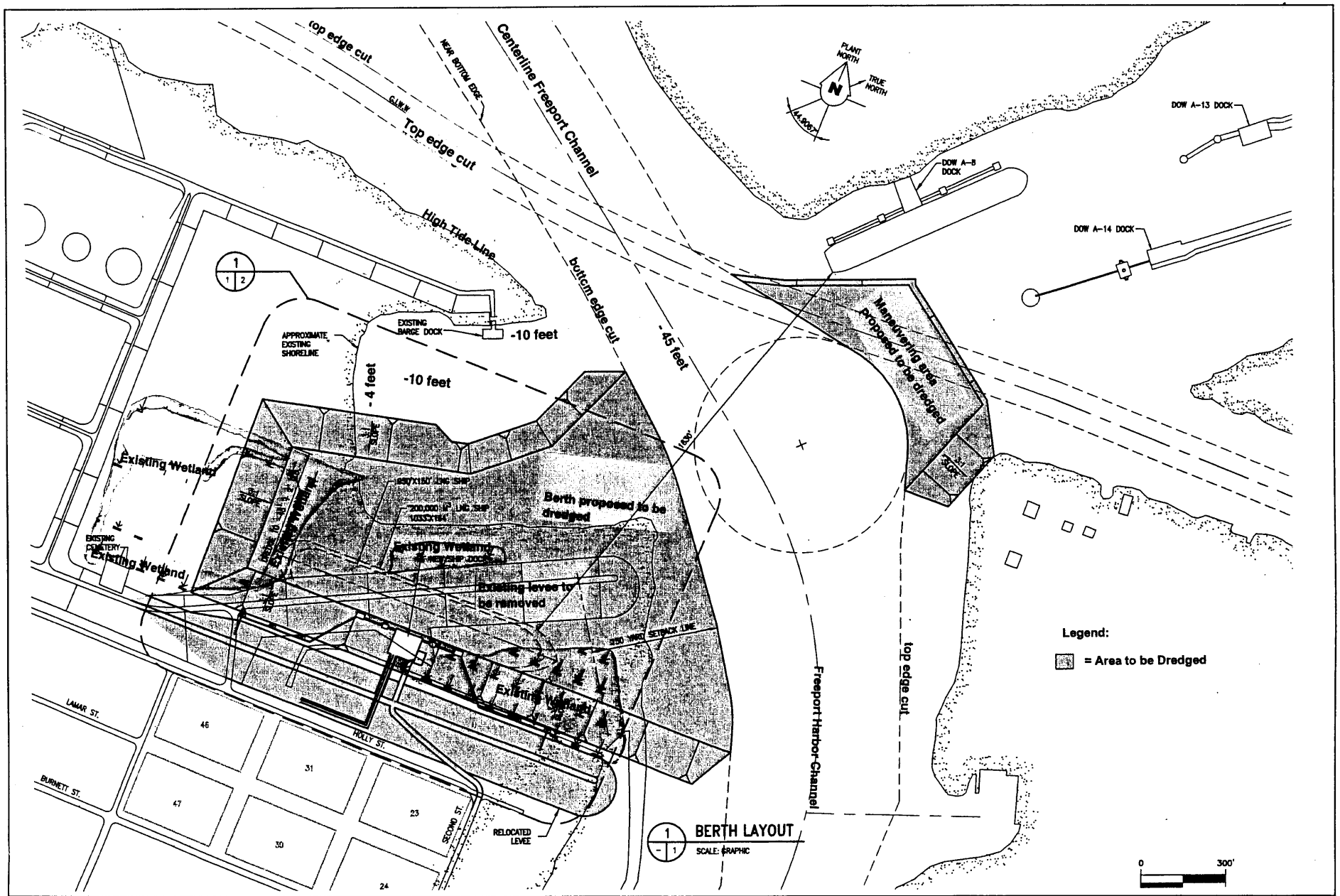
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

CROSS SECTION D
STORAGE AND VAPORIZATION FACILITY

Sheet 6 of 36

Permit # 23078



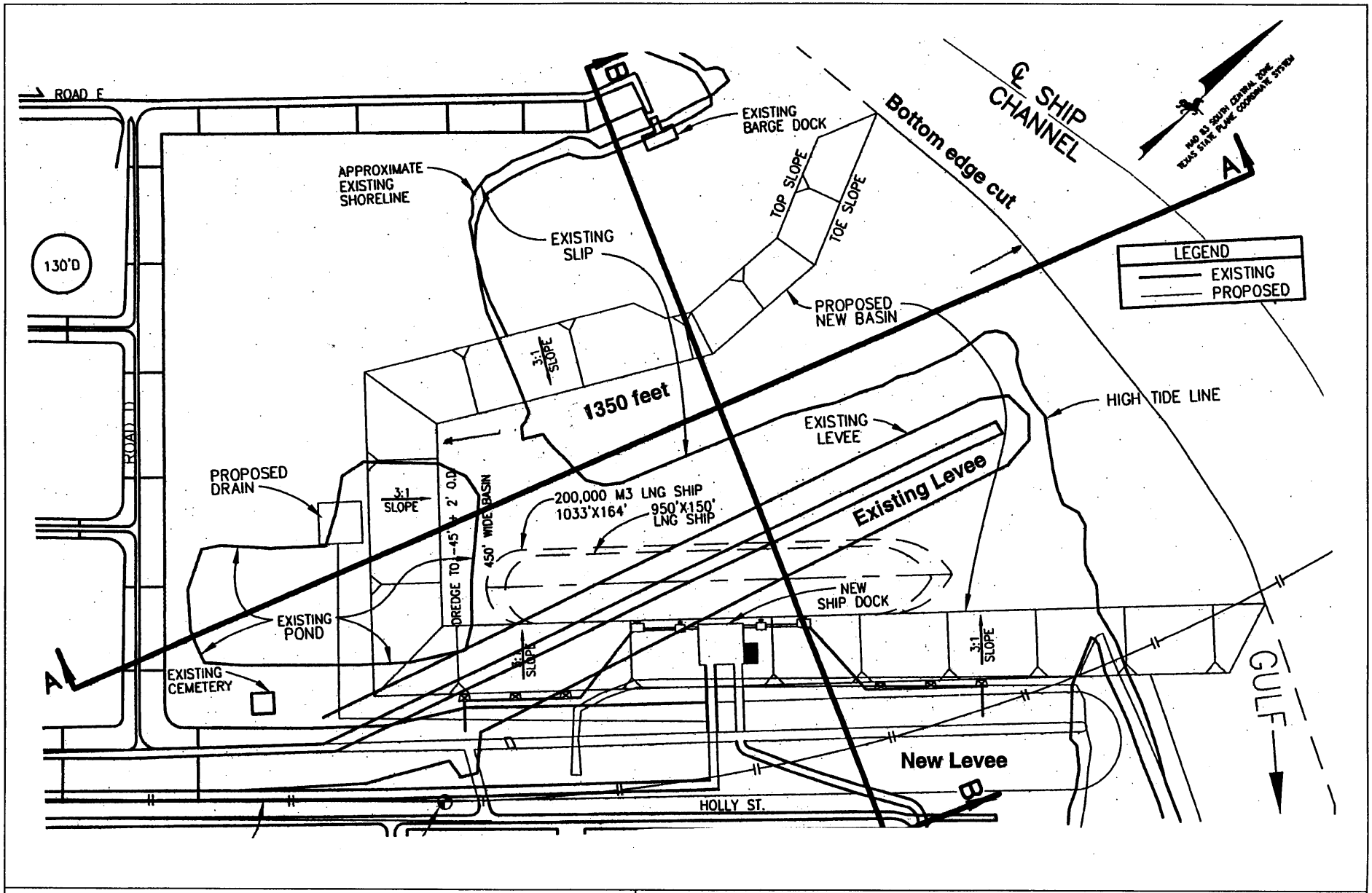
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

BERTH LAYOUT AND AREAS TO BE DREDGED

Sheet 7 of 36

Permit # 23078



FREEPORT LNG

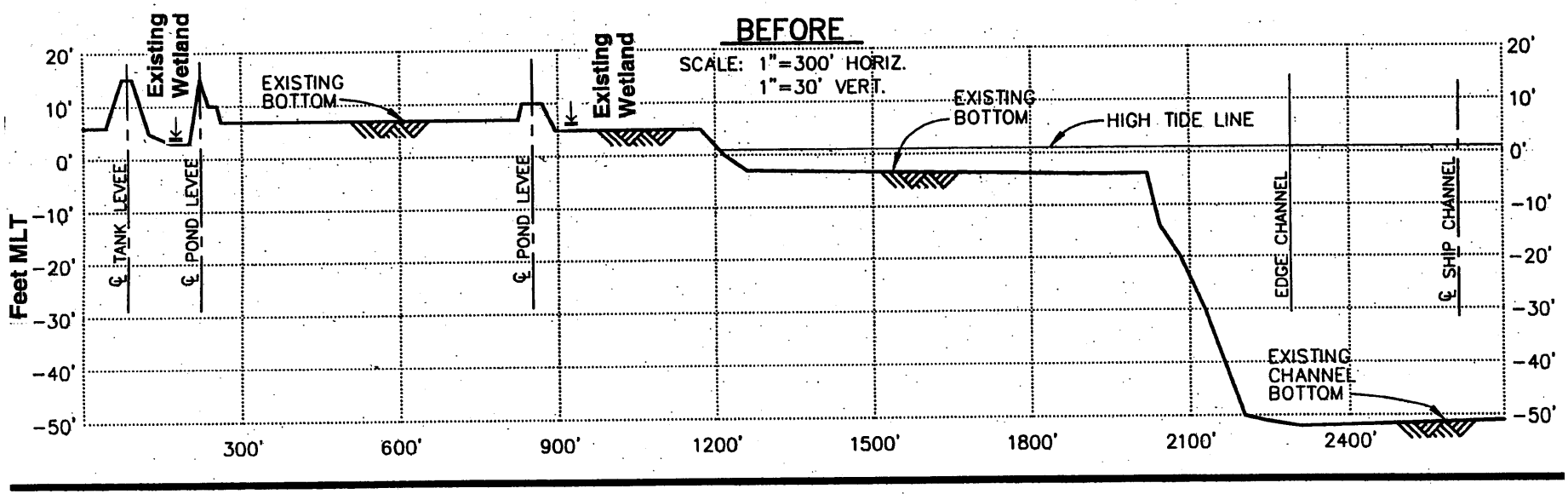
SCALE: 1"=300'

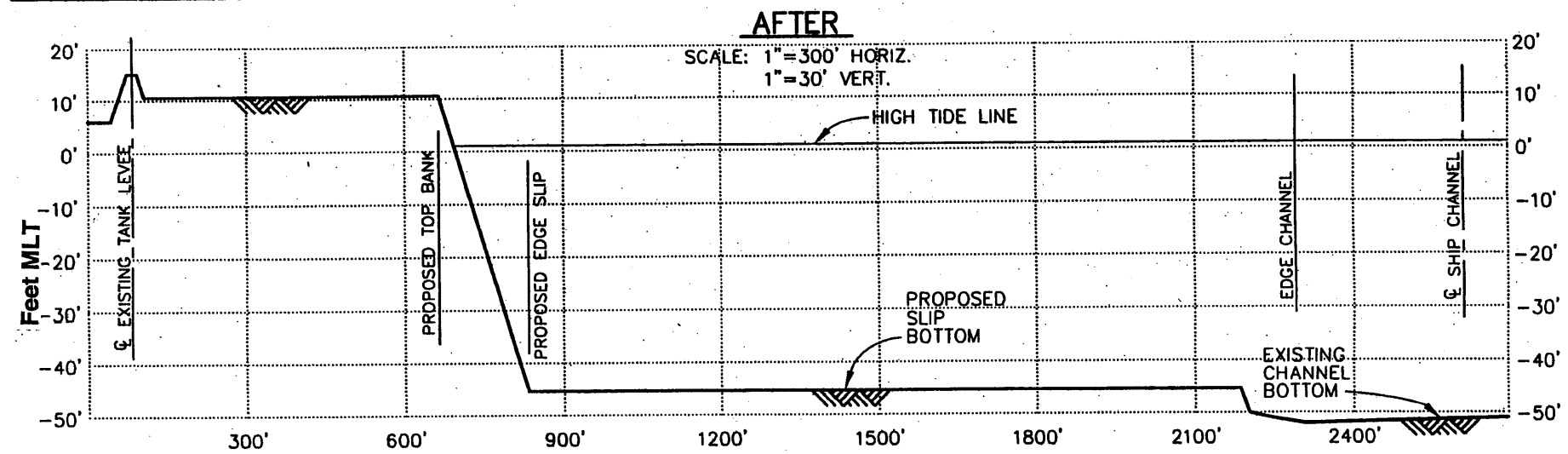
LOCATION OF CROSS SECTIONS FOR HARBOR DREDGING AREAS

Sheet 8 of 36

Proposed Freeport LNG Facility
Brazoria County, Texas

Permit # 23078





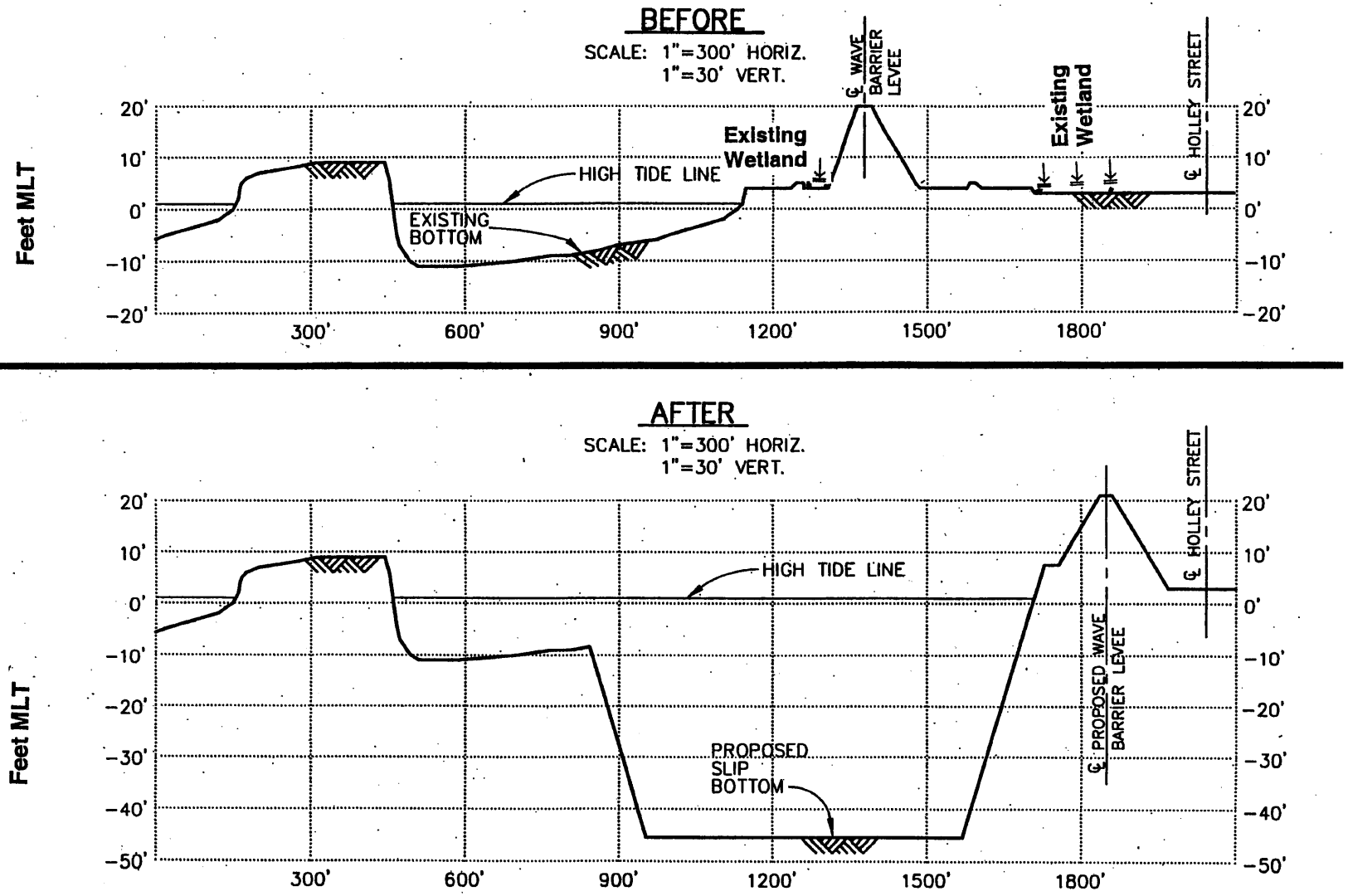
FREEPORT LNG

CROSS SECTION OF DREDGING AREA BEFORE AND AFTER, NORTH–SOUTH PLANE A–A

Sheet 9 of 36

Proposed Freeport LNG Facility
Brazoria County, Texas

Permit # 23078



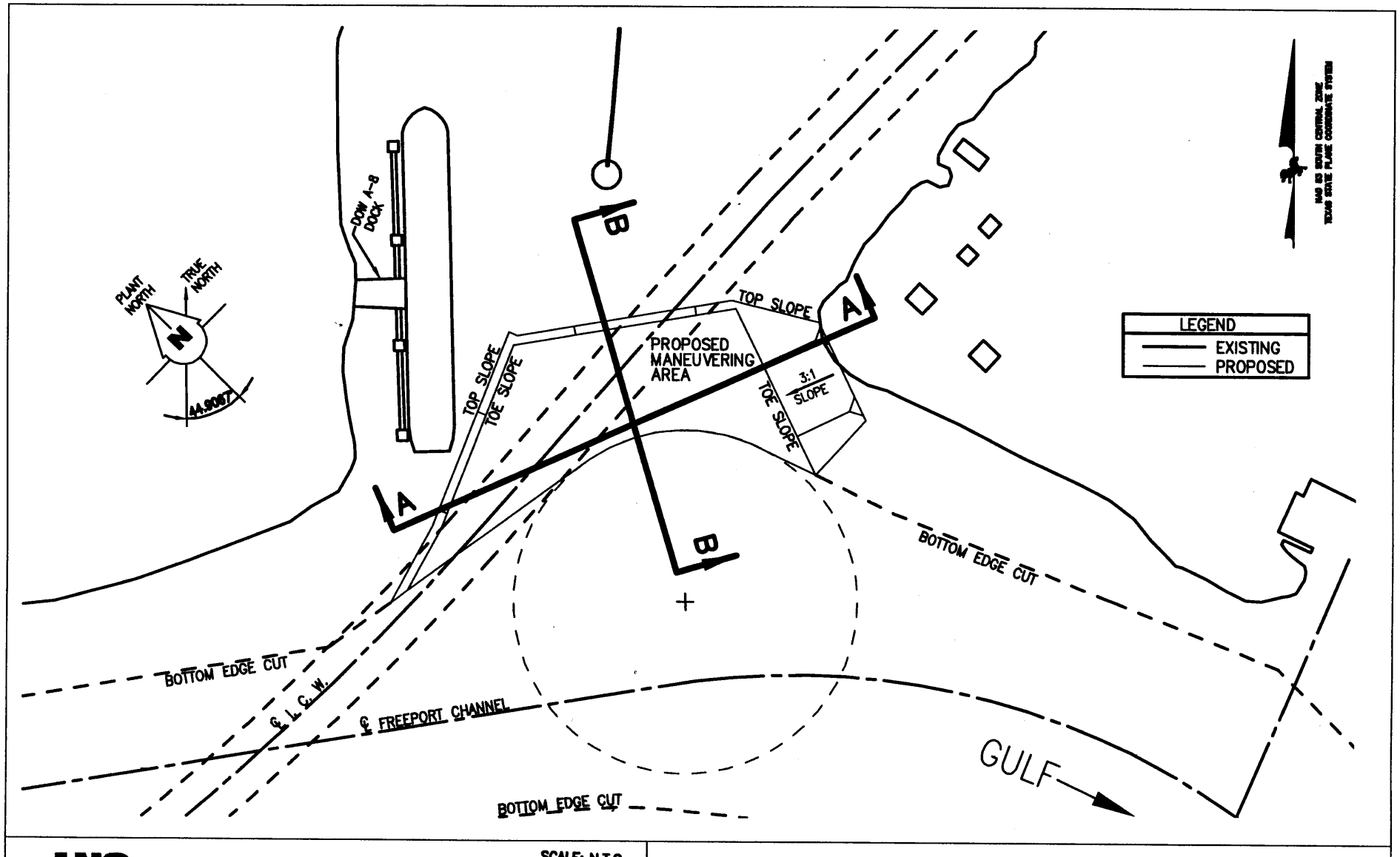
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

CROSS SECTION OF DREDGING AREA BEFORE AND AFTER, EAST–WEST PLANE B–B

Sheet 10 of 36

Permit # 23078



FREEPORT LNG

SCALE: N.T.S.

Proposed Freeport LNG Facility
Brazoria County, Texas

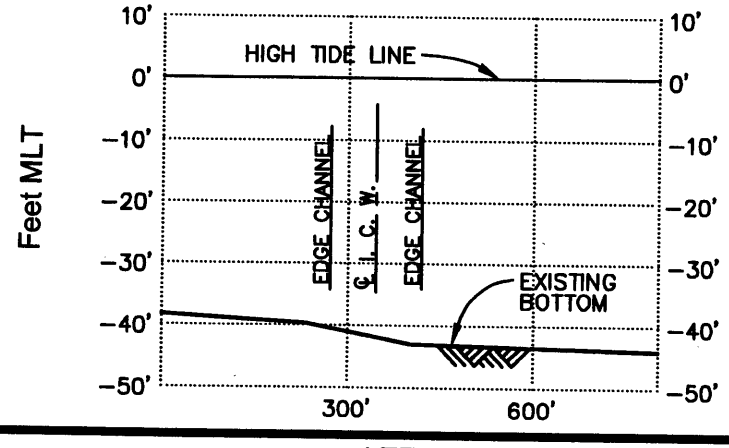
LOCATION OF DREDGING CROSS SECTIONS MANEUVERING AREA

Sheet 11 of 36

Permit # 23078

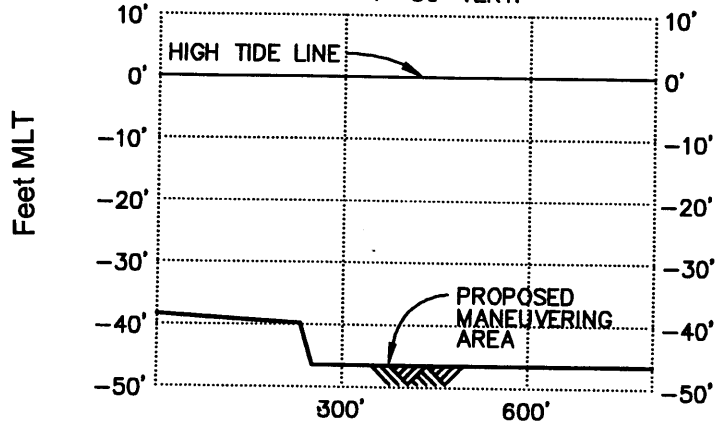
BEFORE

SCALE: 1"=300' HORIZ.
1"=30' VERT.



AFTER

SCALE: 1"=300' HORIZ.
1"=30' VERT.



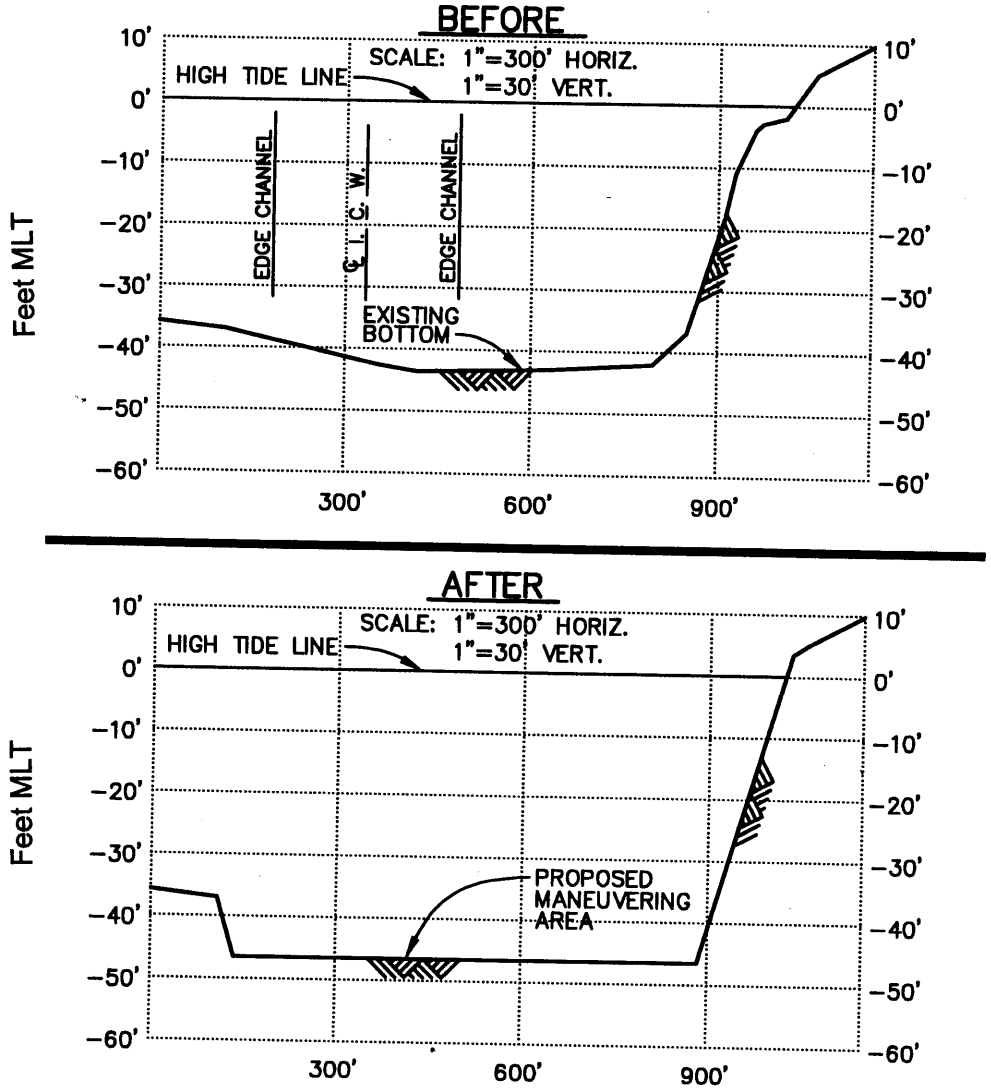
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

DREDGING CROSS SECTION
MANEUVERING AREA
BEFORE AND AFTER, NORTH–SOUTH PLANE B–B

Sheet 12 of 36

Permit # 23078



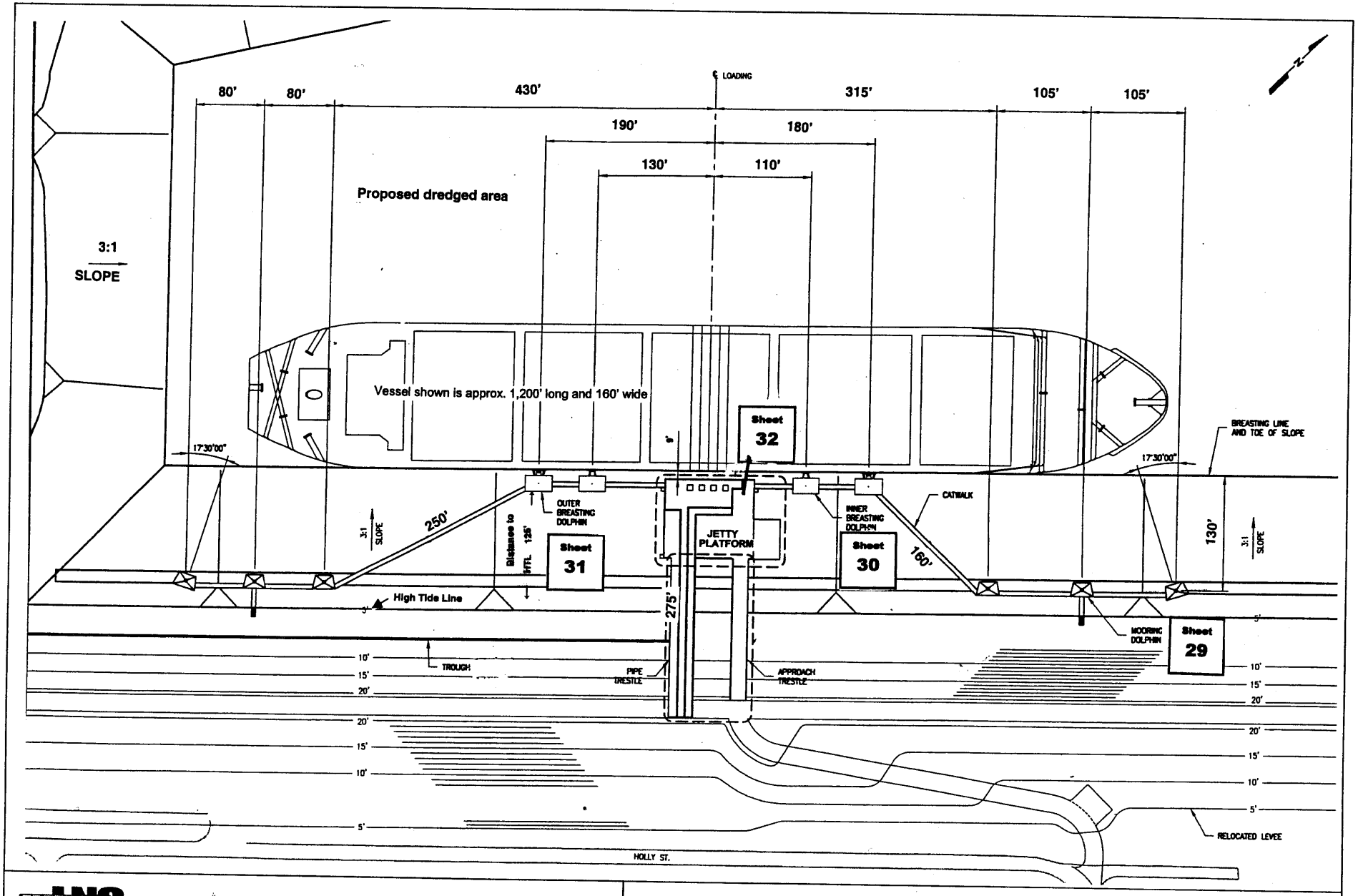
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

DREDGING CROSS SECTION
MANEUVERING AREA
BEFORE AND AFTER, EAST–WEST PLANE A–A

Sheet 13 of 36

Permit # 23078



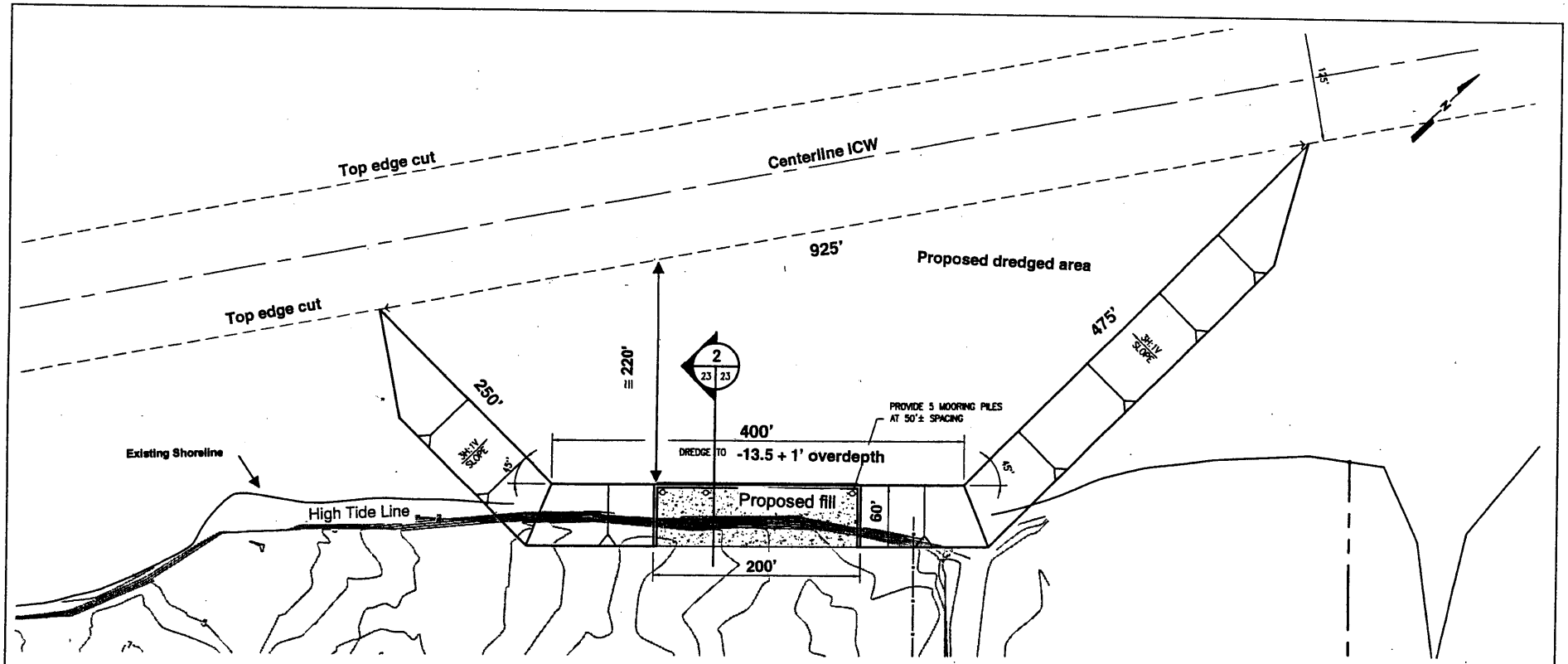
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

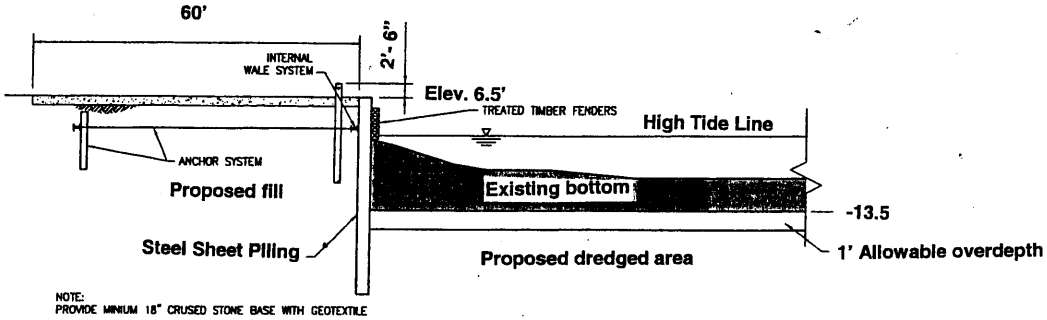
MARINE TERMINAL AND TYPICAL LNG SHIP

Sheet 14 of 36

Permit # 23078



1 CONSTRUCTION DOCK PLAN



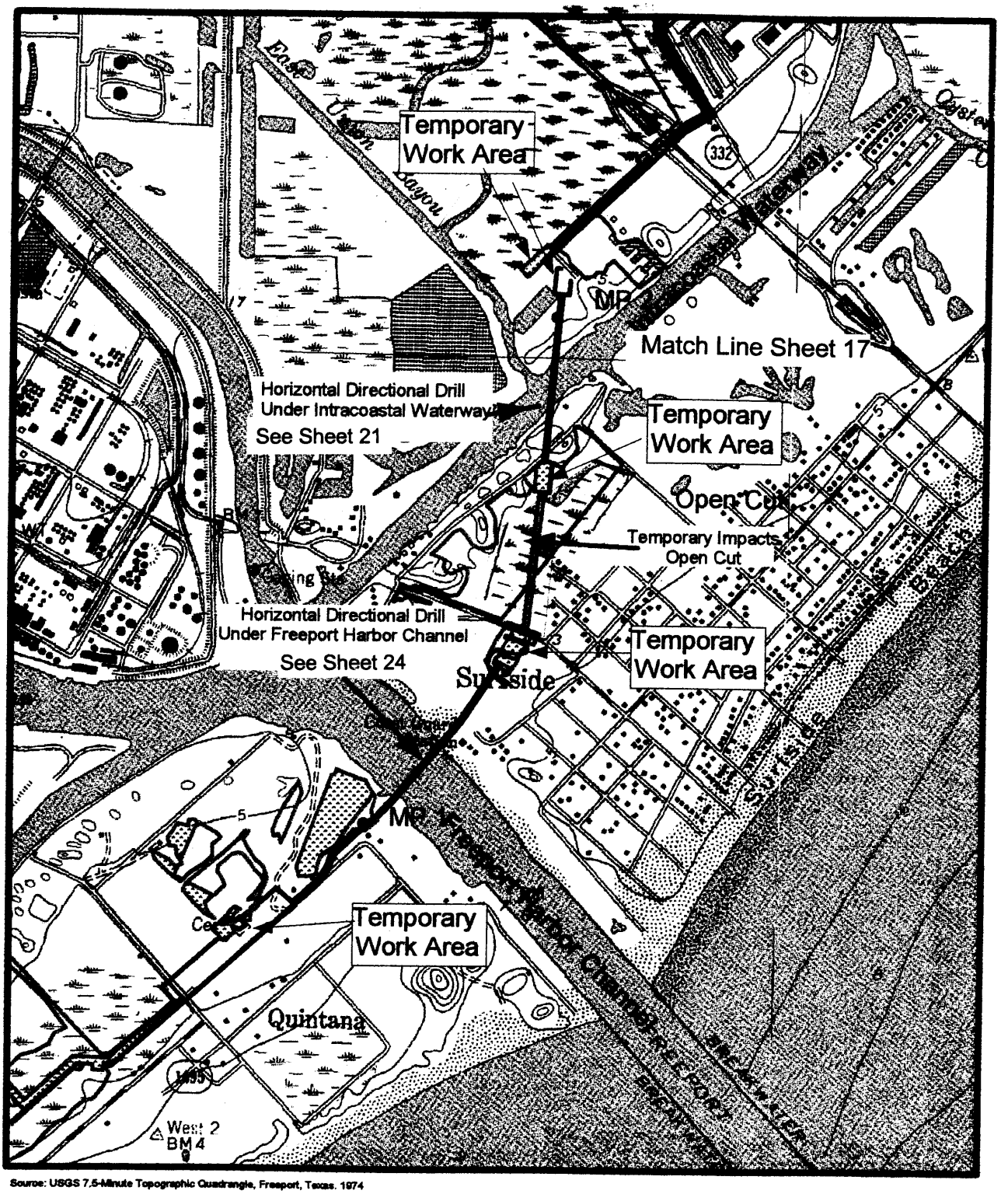
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

CONSTRUCTION DOCK

Sheet 15 of 36

Permit # 23078



Source: USGS 7.5-Minute Topographic Quadrangle, Freeport, Texas. 1974

500 0 500 1000 1500 Feet

FREEPORT LNG

Legend

Pipeline Right-of-Way (ROW)

Pipeline Milepost (MP)

Wetlands within ROW

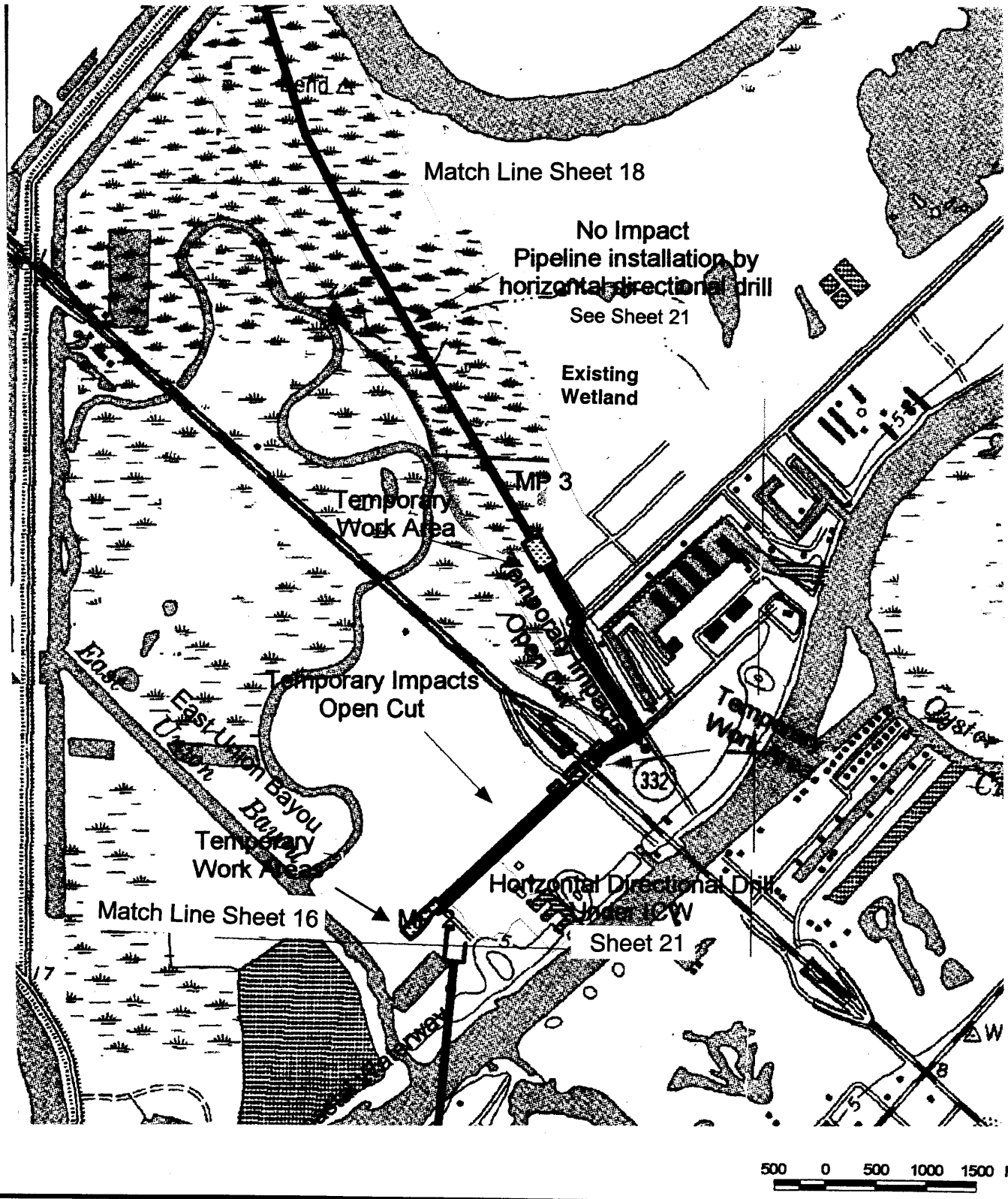
Surveyed Wetland Boundary

Proposed Freeport LNG Facility
Brazoria County, Texas

PIPELINE WETLAND IMPACTS (1 OF 5)

Sheet 16 of 36

Permit # 23078



FREEPORT LNG

Legend

Pipeline Right-of-Way (ROW)

Pipeline Milepost (MP)

Wetlands within ROW

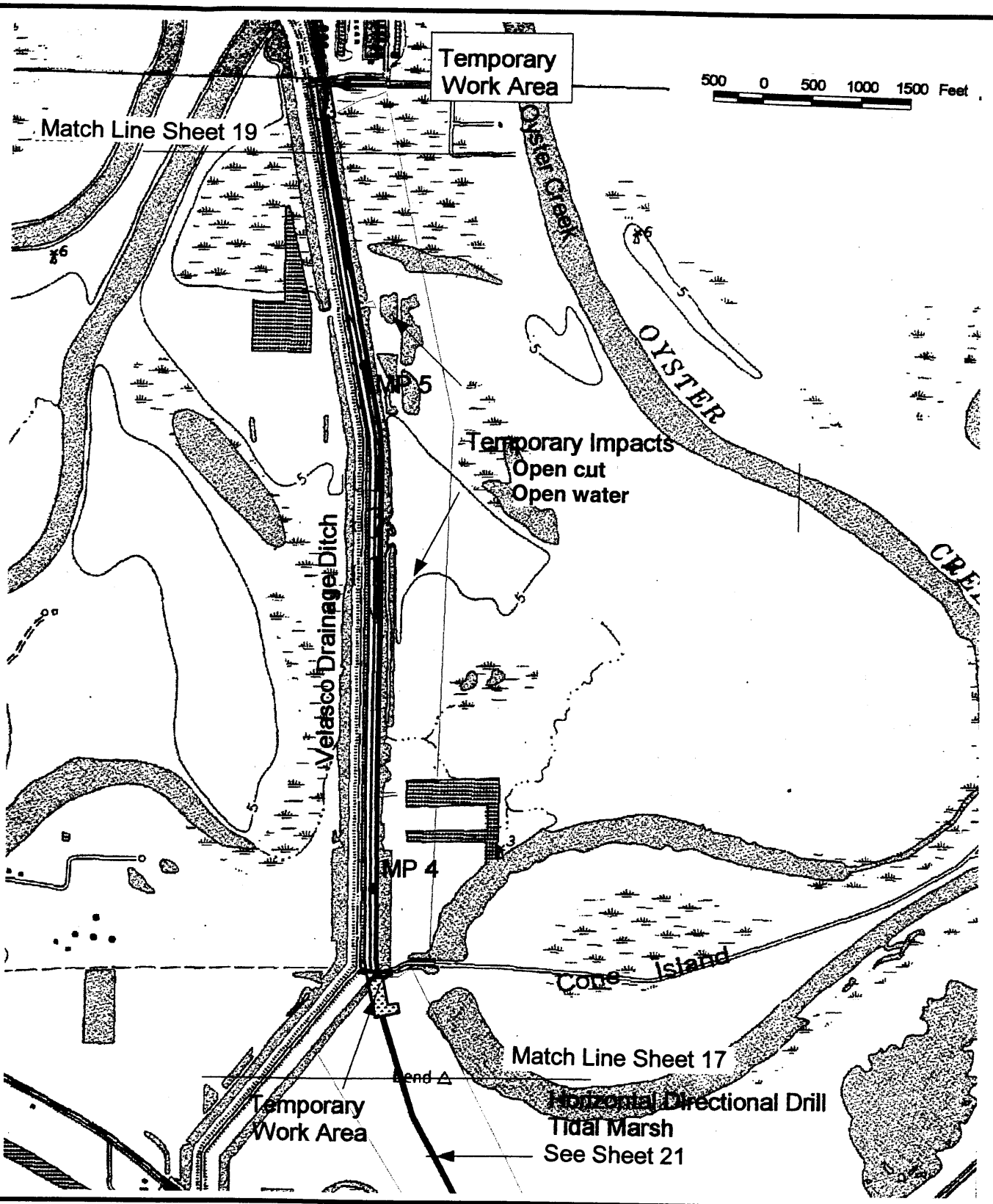
Surveyed Wetland Boundary

Proposed Freeport LNG Facility
Brazoria County, Texas

PIPELINE WETLAND IMPACTS
(2 OF 5)

Sheet 17 of 36

Permit # 23078



FREEPORT LNG

Legend

Pipeline Right-of-Way (ROW)

Pipeline Milepost (MP)

Wetlands within ROW

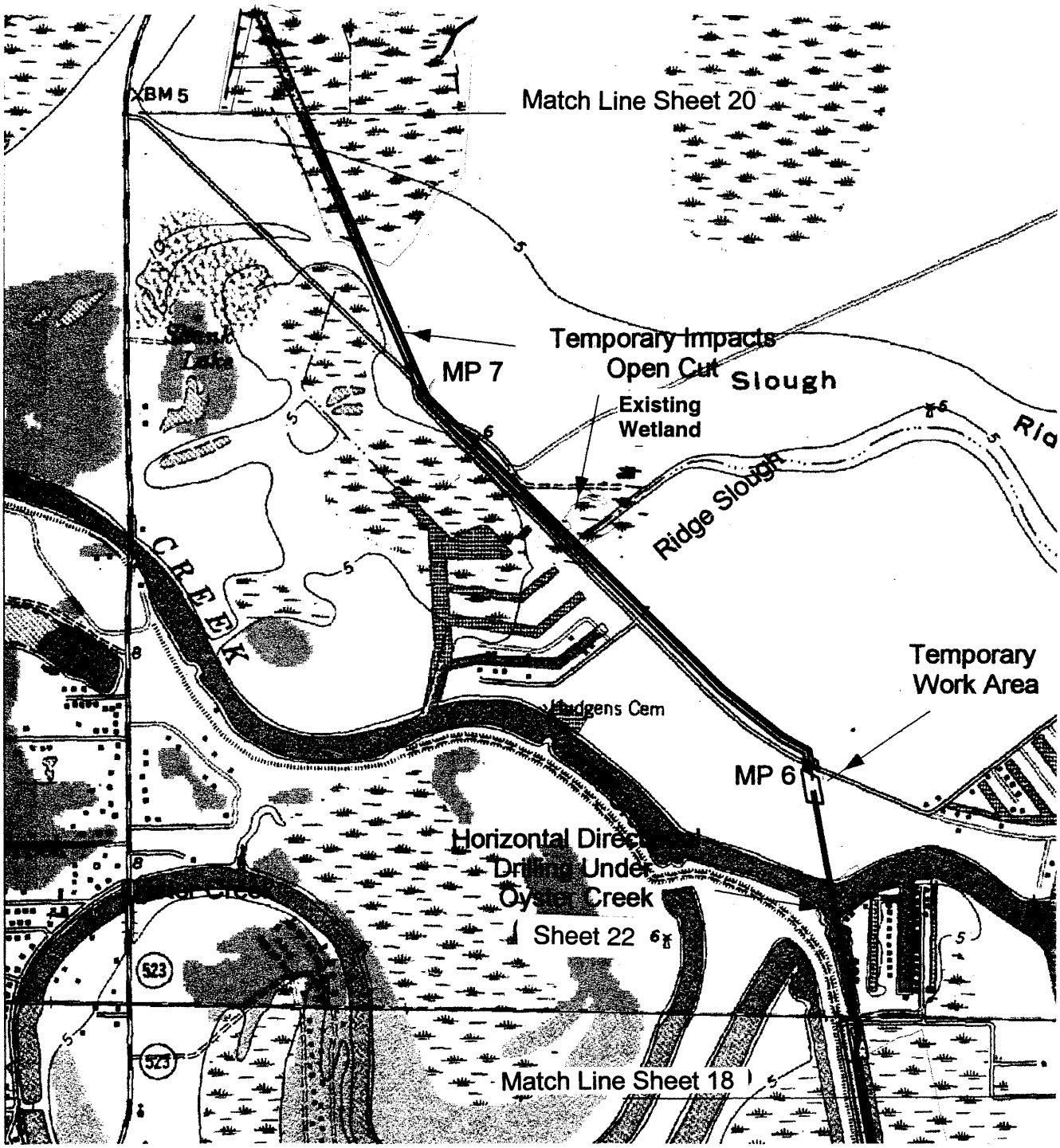
Surveyed Wetland Boundary

Proposed Freeport LNG Facility
Brazoria County, Texas

PIPELINE WETLAND IMPACTS
(3 OF 5)

Sheet 18 of 36

Permit # 23078



FREEPORT LNG

Legend

Pipeline Right-of-Way (ROW)

Pipeline Milepost (MP)

Wetlands within ROW

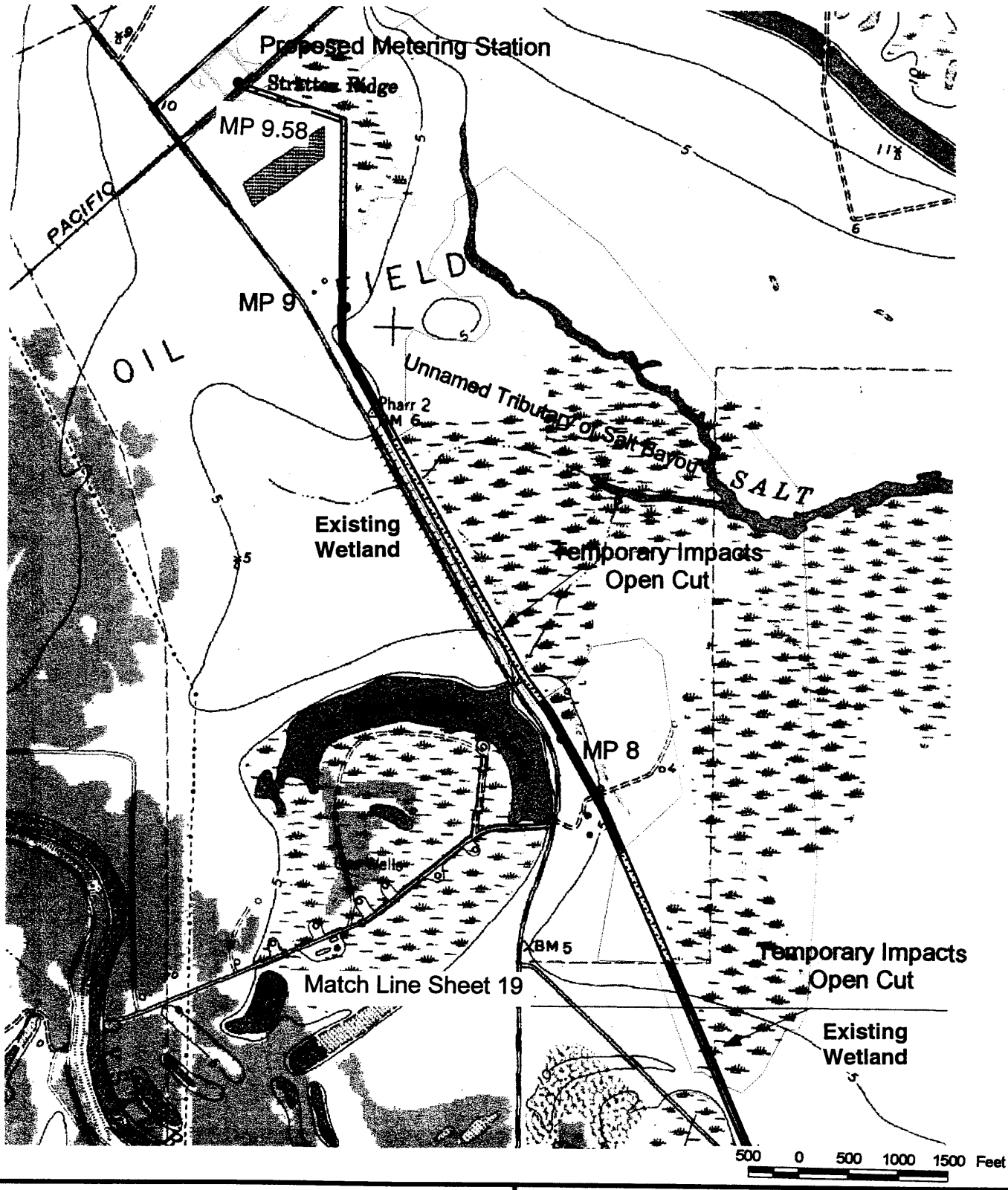
Surveyed Wetland Boundary

Proposed Freeport LNG Facility
Brazoria County, Texas

PIPELINE WETLAND IMPACTS
(4 OF 5)

Sheet 19 of 36

Permit # 23078



FREEPORT LNG

Legend

Pipeline Right-of-Way (ROW)

Pipeline Milepost (MP)

Wetlands within ROW

Surveyed Wetland Boundary

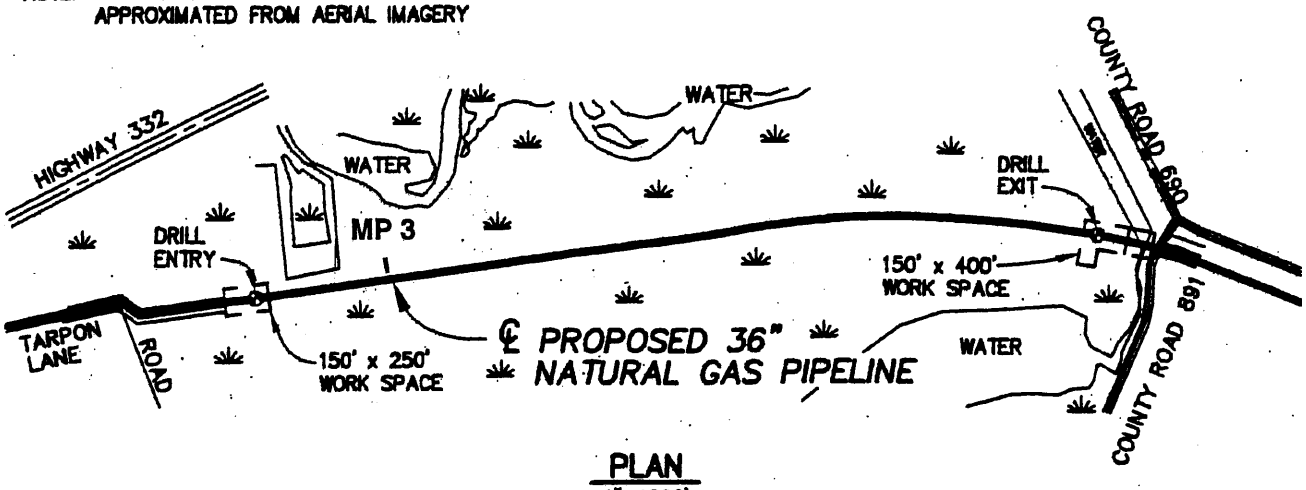
Proposed Freeport LNG Facility
Brazoria County, Texas

PIPELINE WETLAND IMPACTS
(5 OF 5)

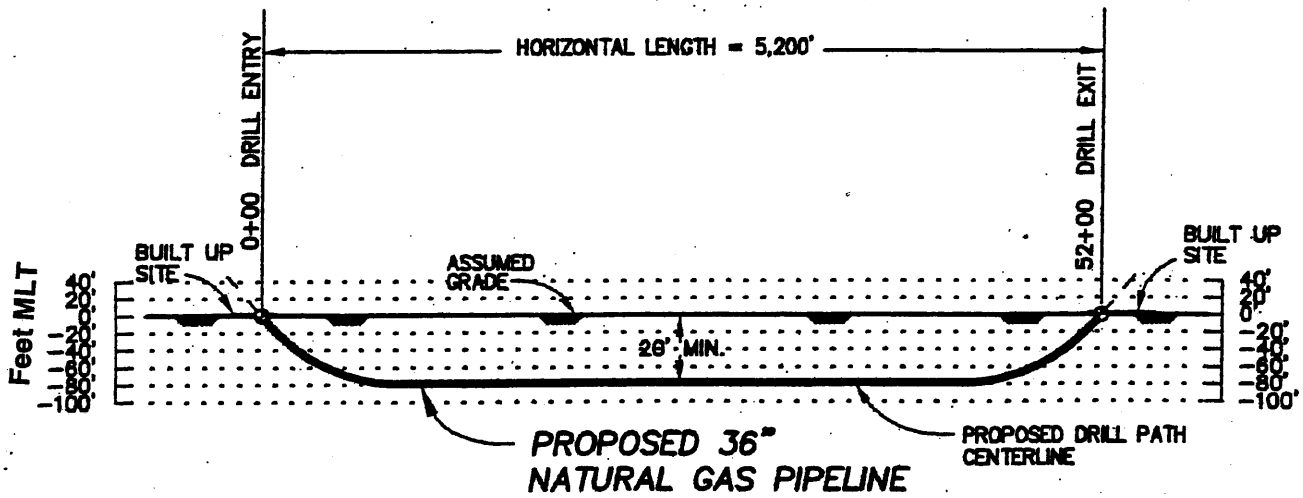
Sheet 20 of 36

Permit # 23078

NOTE: TOPOGRAPHIC FEATURES HAVE BEEN APPROXIMATED FROM AERIAL IMAGERY



PLAN
1"=1000'



PROFILE
1"=1000' HORIZ.
1"=200' VERT.

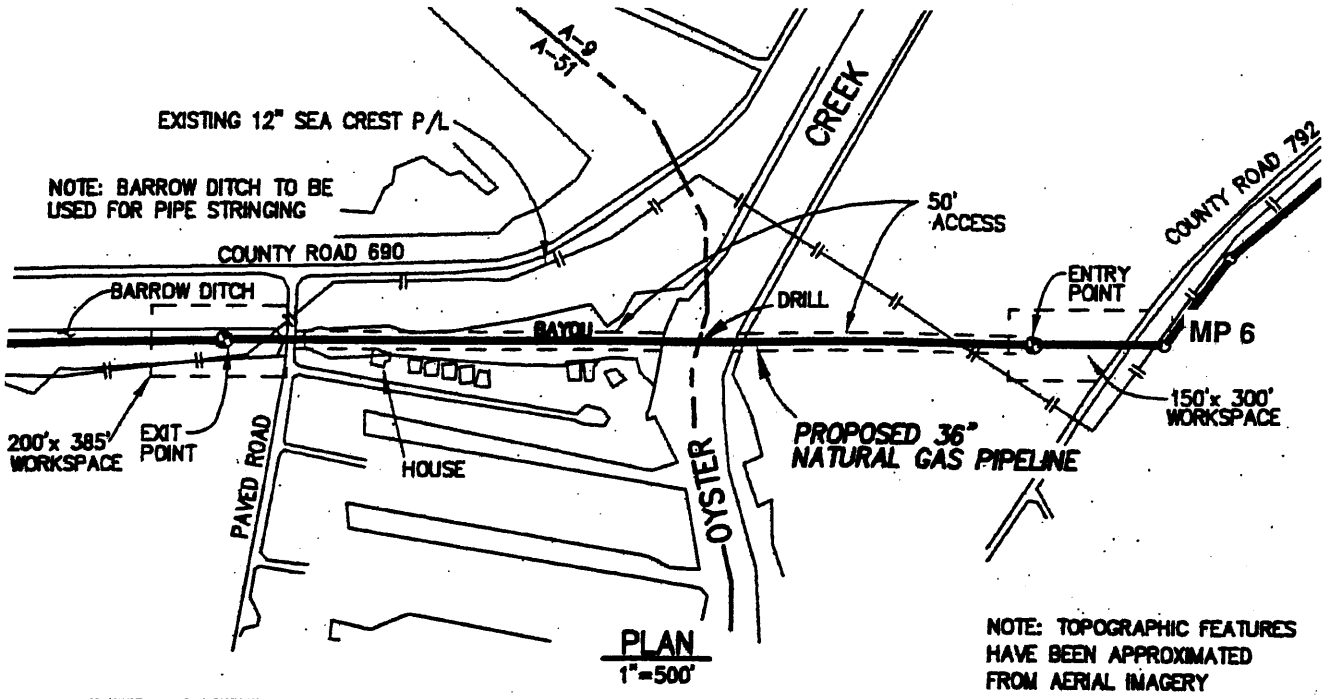
FREEPORT LNG

DIRECTIONAL DRILL UNDER MARSH

Sheet 21 of 36

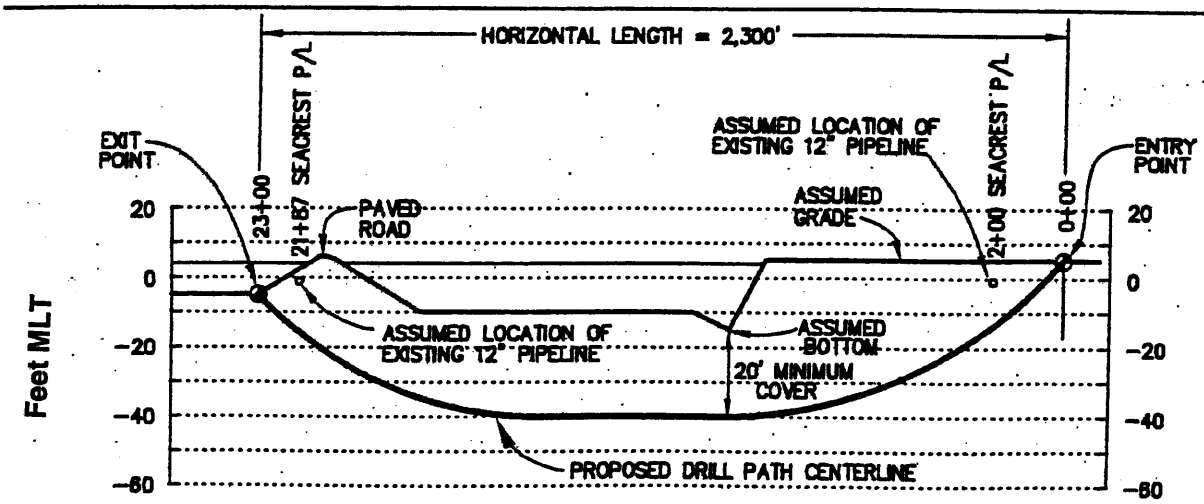
Proposed Freeport LNG Facility
Brazoria County, Texas

Permit # 23078



PLAN
1"=500'

NOTE: TOPOGRAPHIC FEATURES HAVE BEEN APPROXIMATED FROM AERIAL IMAGERY



PROFILE
1"=500' HORIZ.
1"=50' VERT.

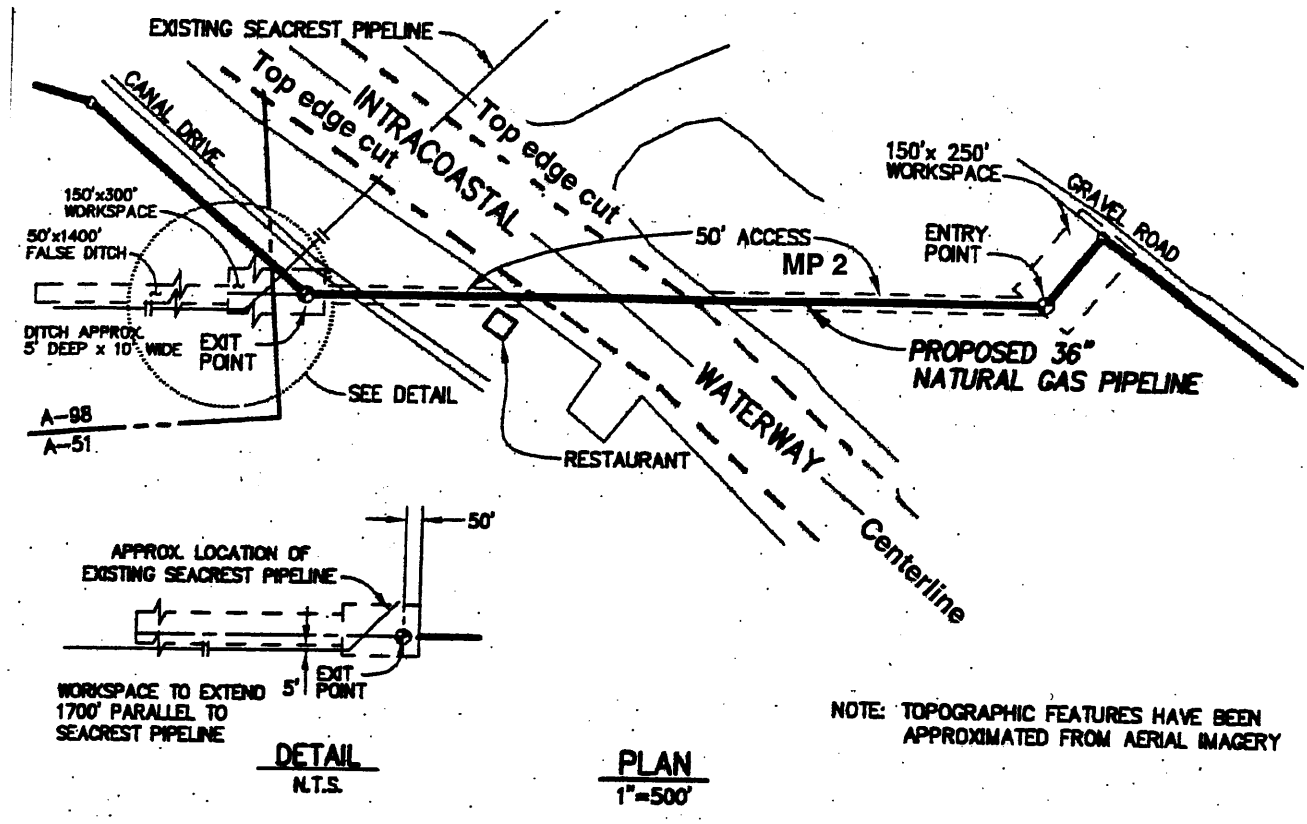
FREEPORT LNG

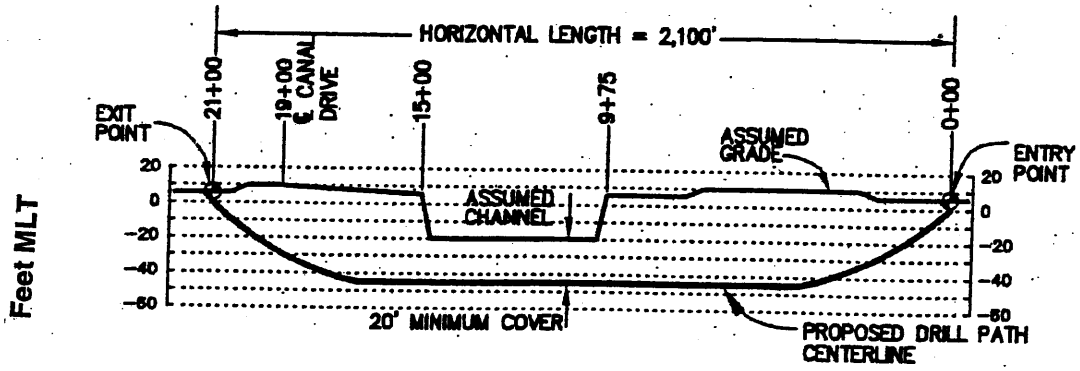
DIRECTIONAL DRILL UNDER OYSTER CREEK

Proposed Freeport LNG Facility
Brazoria County, Texas

Sheet 22 of 36

Permit # 23078





PROFILE
1"=500' HORIZ.
1"=100' VERT.

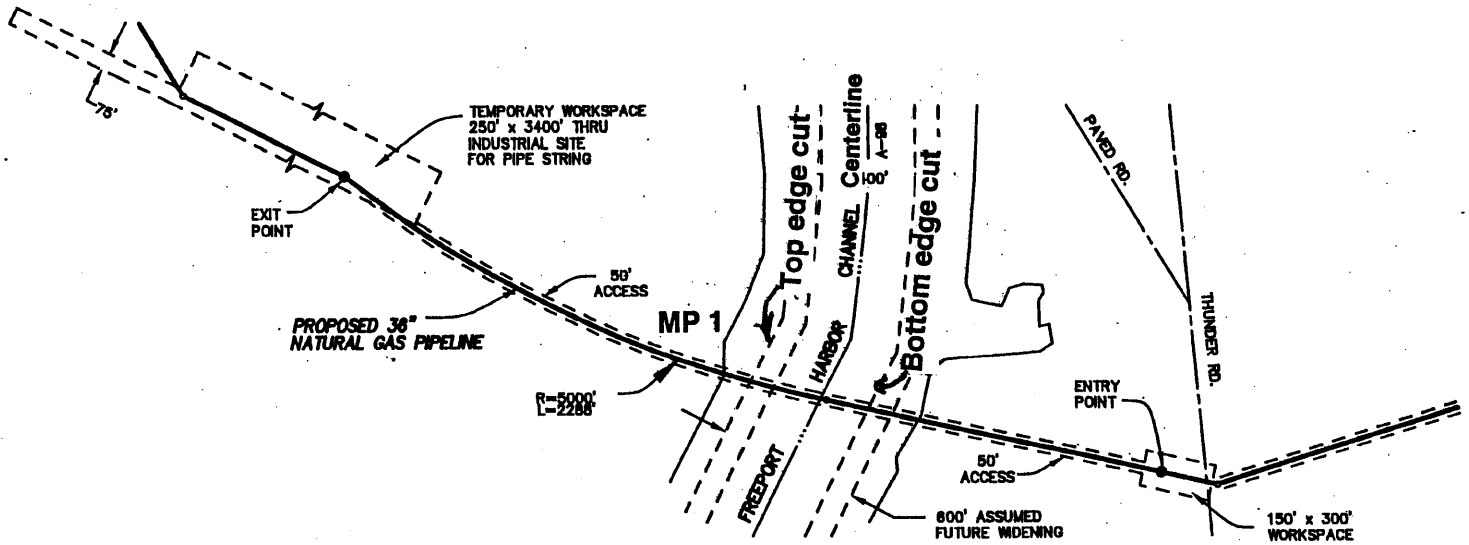
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

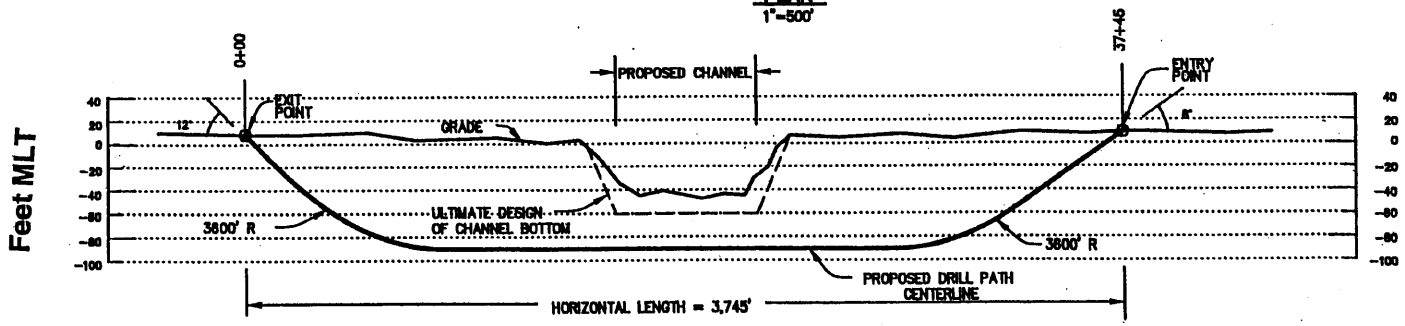
DIRECTIONAL DRILL UNDER INTRACOASTAL WATERWAY

Sheet 23 of 36

Permit # 23078



PLAN
1"=500'



PROFILE
1"=500' HORIZ.
1"=100' VERT.

NAD 83 SOUTH CENTRAL ZONE
TEXAS STATE PLANE COORDINATE SYSTEM

NOTE: TOPOGRAPHIC FEATURES HAVE BEEN APPROXIMATED FROM AERIAL IMAGERY

NOTE : PIPELINE WILL BE AT ELEVATION -90' THRU CHANNEL

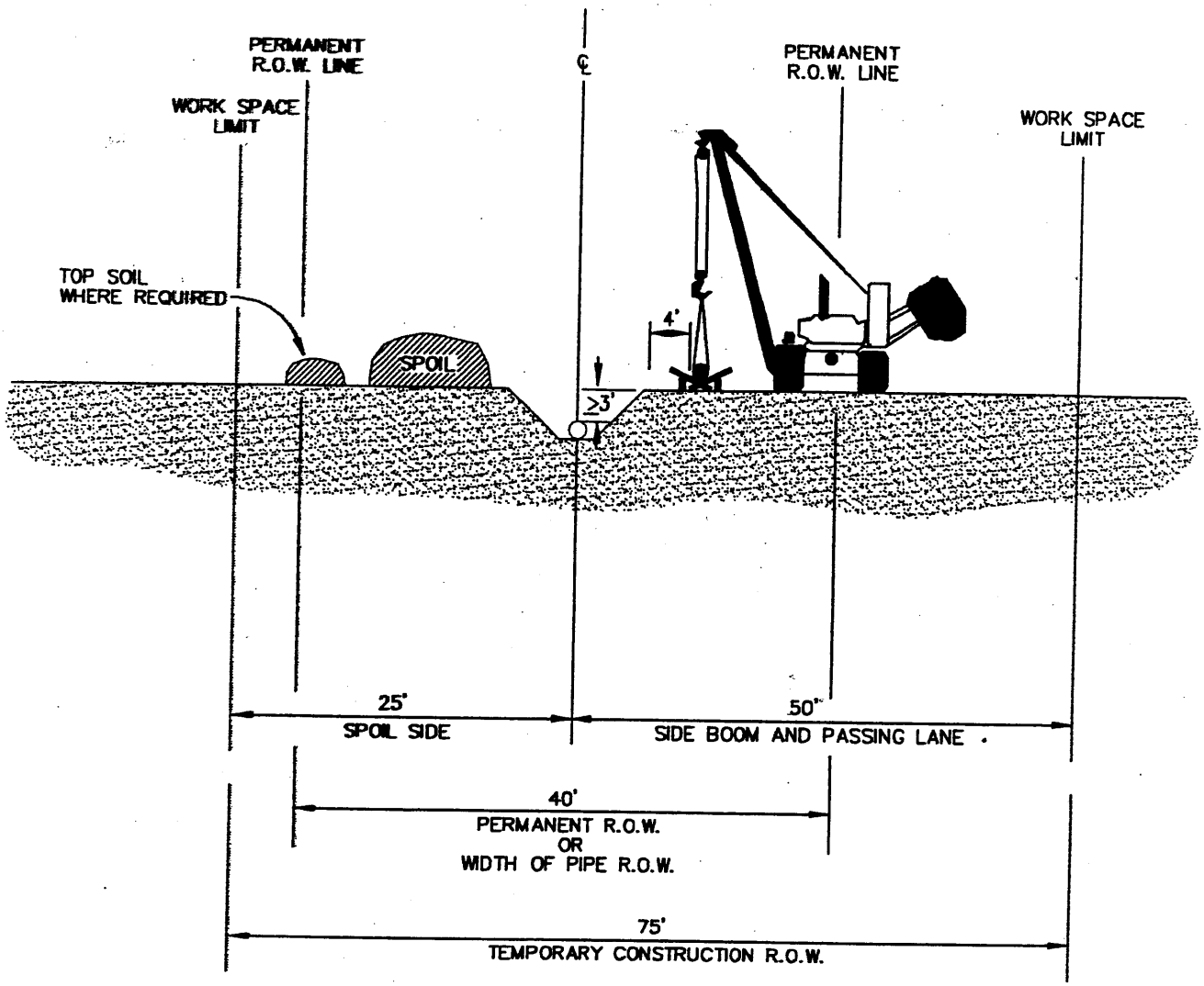
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

DIRECTIONAL DRILL UNDER FREEPORT HARBOR CHANNEL

Sheet 24 of 36

Permit # 23078



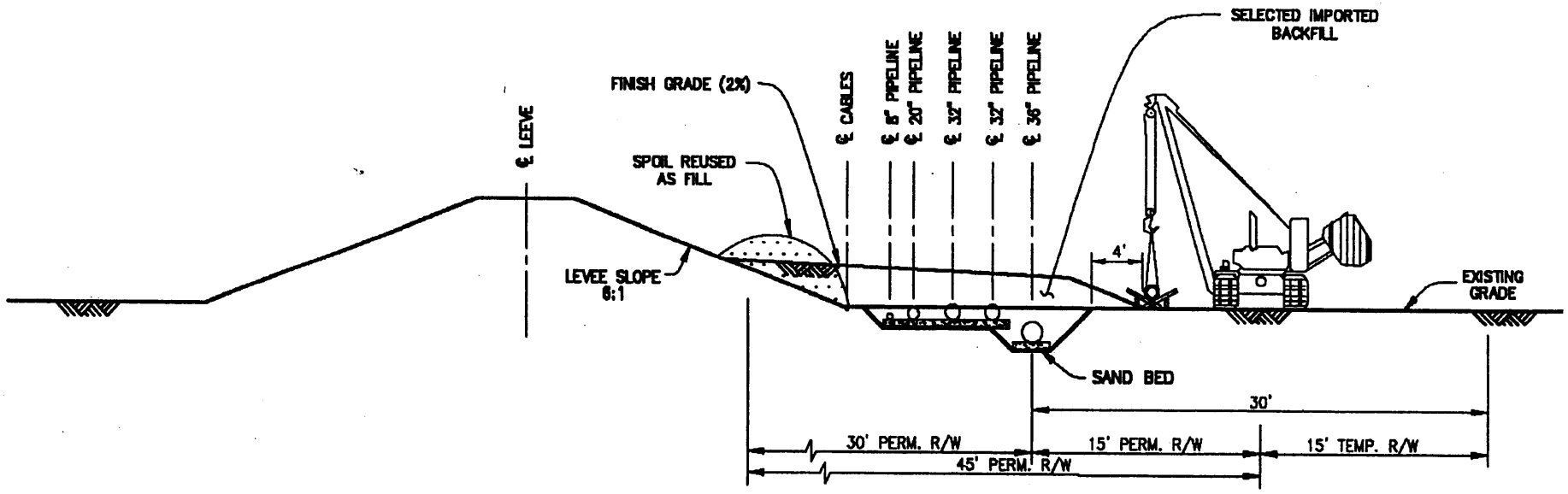
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

CROSS SECTION OF NEW ROW LOCATIONS

Sheet 25 of 36

Permit # 23078



TYPICAL CROSS SECTION - PIPELINES ABUTTING VELASCO SPL

FREEPORT LNG

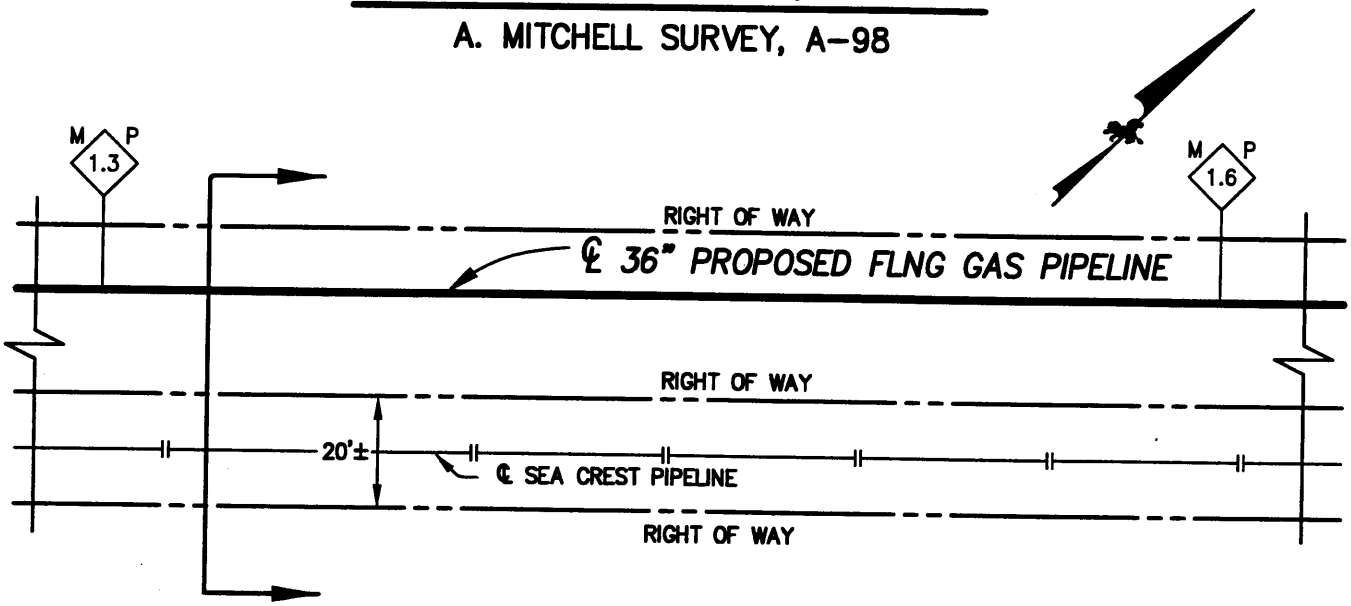
Proposed Freeport LNG Facility
Brazoria County, Texas

LEVEE CONSTRUCTION
TYPICAL CROSS SECTION
Sheet 26 of 36

Permit # 23078

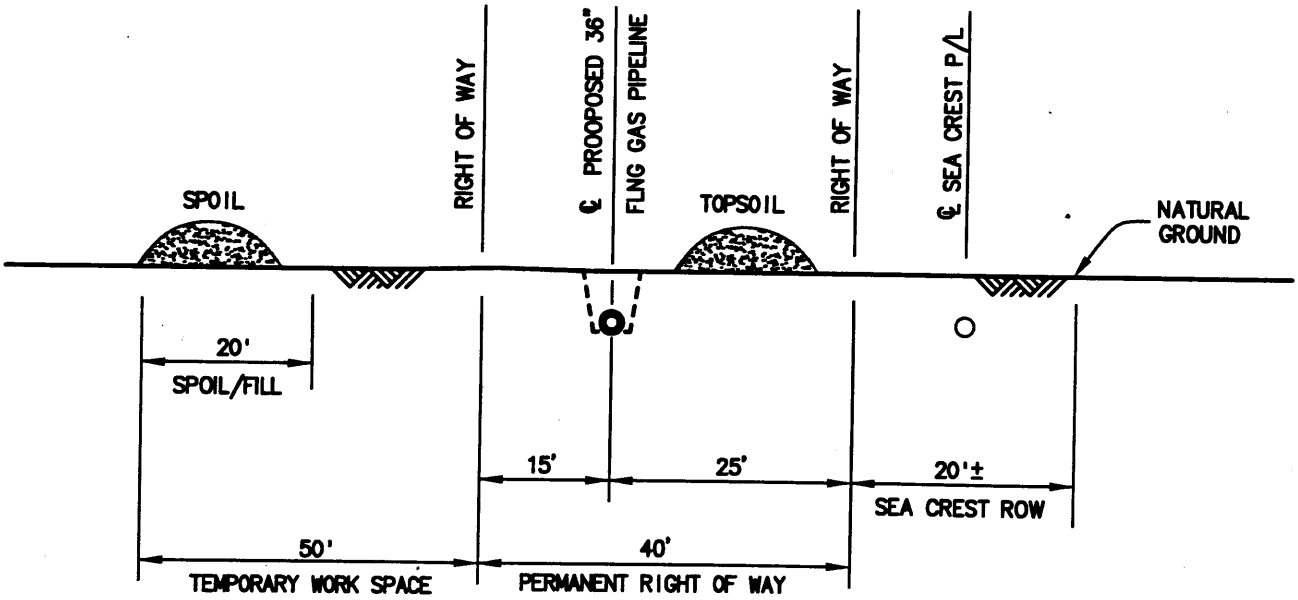
BRAZORIA COUNTY, TEXAS

A. MITCHELL SURVEY, A-98



PLAN

N.T.S.



CROSS SECTION

N.T.S.

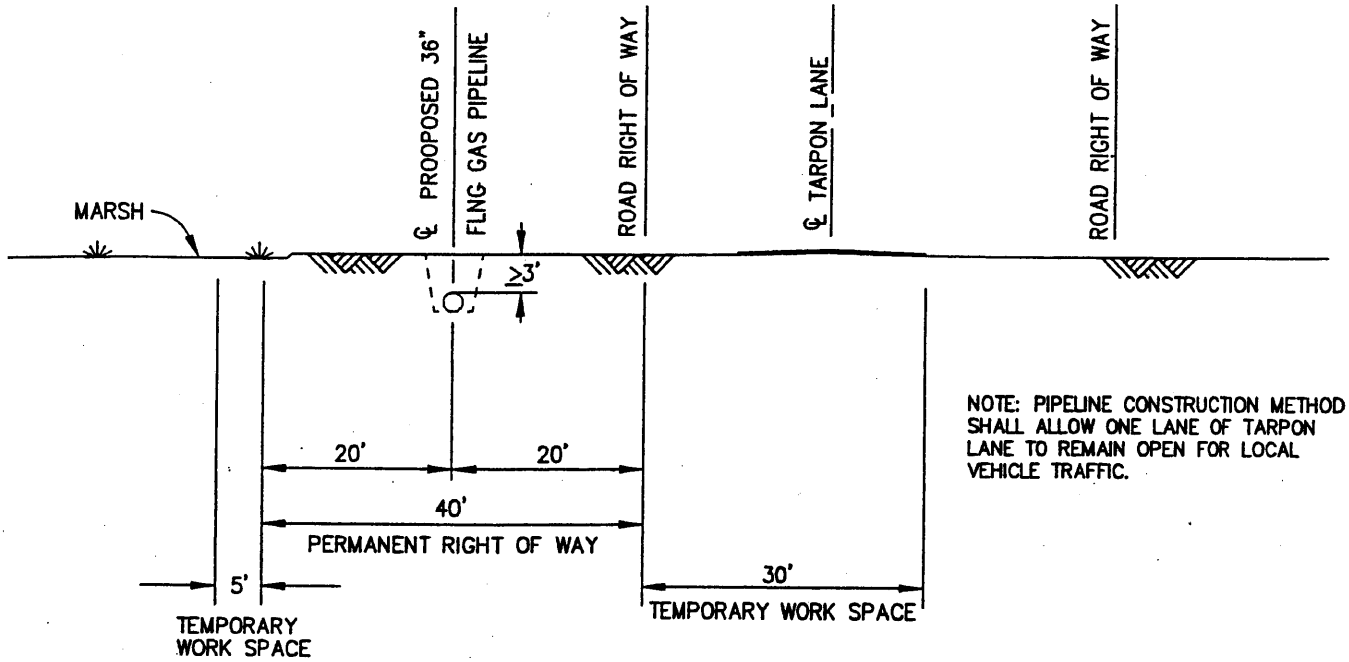
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

CROSS SECTION OF NEW ROW
MP 1.3 TO MP 1.6

Sheet 27 of 36

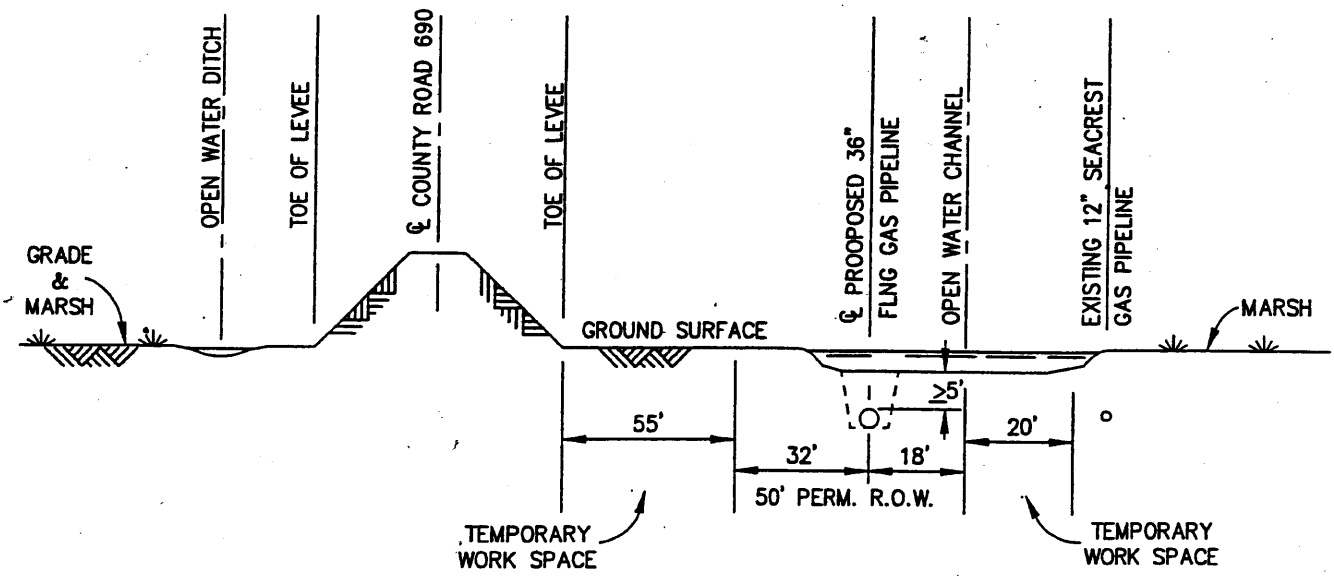
Permit # 23078



TYPICAL CROSS SECTION BETWEEN M.P. 2.1 AND M.P. 2.8

N.T.S.

SOURCE: MUSTANG ENGINEERING, L.P., HOUSTON, TEXAS, APRIL 2003. DRAWING NO. 3605-9210



TYPICAL CROSS SECTION BETWEEN M.P. 3.8 AND M.P. 5.6

N.T.S.

SOURCE: MUSTANG ENGINEERING, L.P., HOUSTON, TEXAS, APRIL 2003. DRAWING NO. 3605-9211

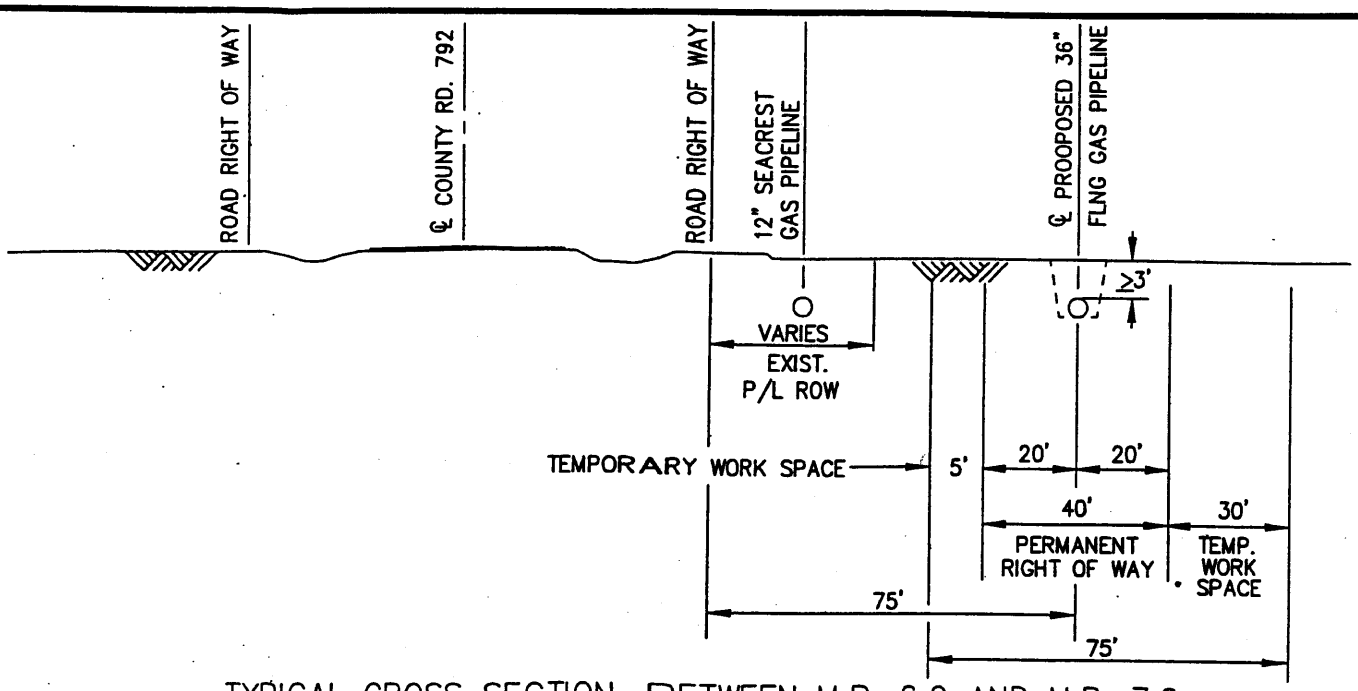
FREEPORT LNG

PIPELINE ROW CROSS SECTIONS

Proposed Freeport LNG Facility
Brazoria County, Texas

Sheet 28 of 36

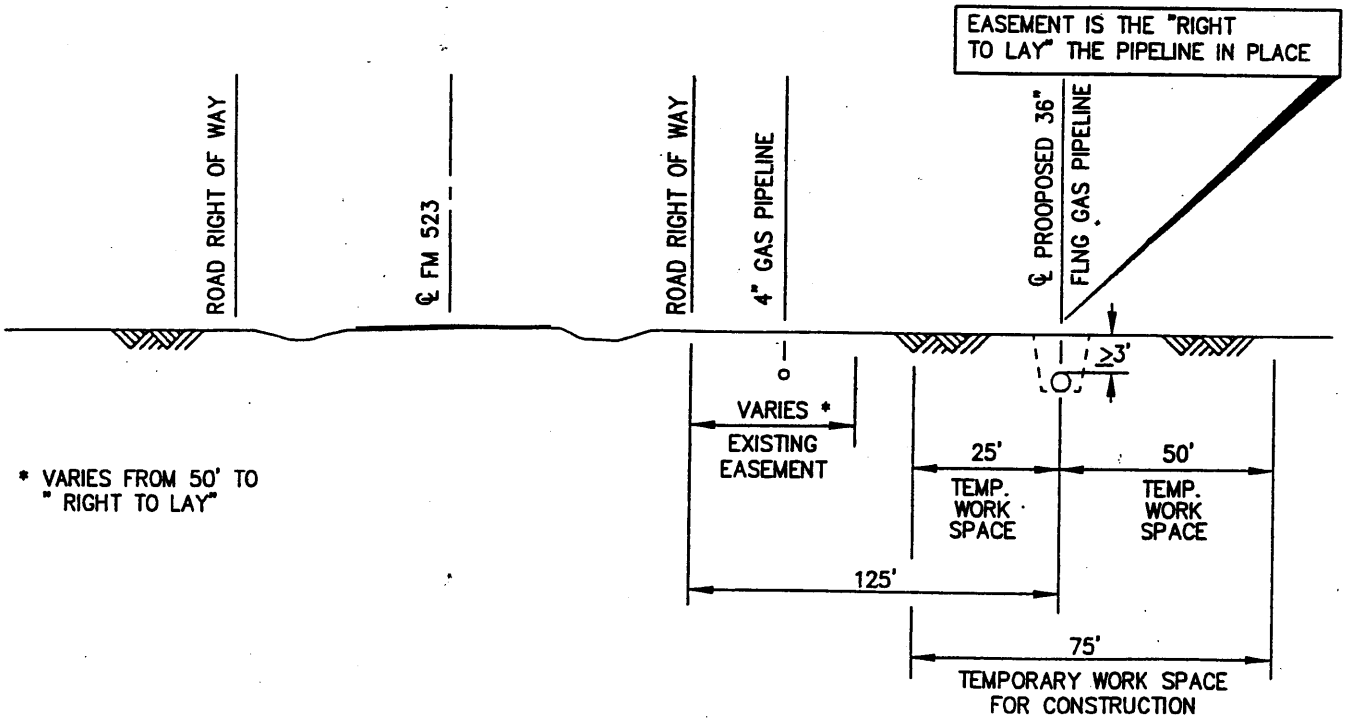
Permit # 23078



TYPICAL CROSS SECTION BETWEEN M.P. 6.0 AND M.P. 7.0

N.T.S.

SOURCE: MUSTANG ENGINEERING, L.P., HOUSTON, TEXAS, APRIL 2003. DRAWING NO. 3605-9212



TYPICAL CROSS SECTION BETWEEN M.P. 8.0 AND M.P. 9.4

N.T.S.

SOURCE: MUSTANG ENGINEERING, L.P., HOUSTON, TEXAS, APRIL 2003. DRAWING NO. 3605-9213

FREEPORT LNG

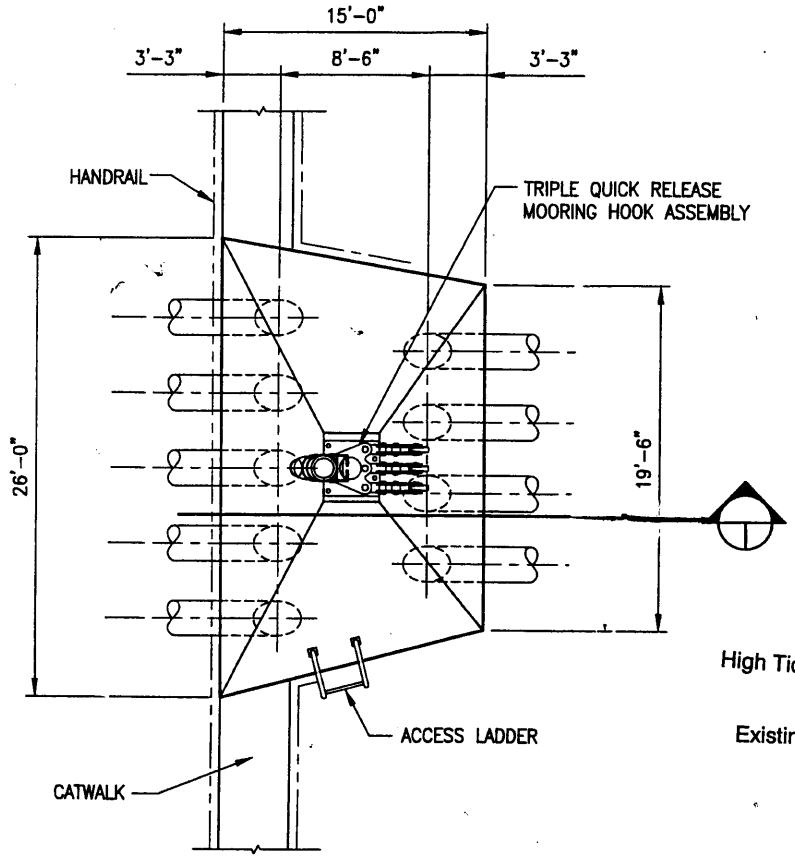
PIPELINE ROW CROSS SECTIONS

Proposed Freeport LNG Facility
Brazoria County, Texas

Sheet 29 of 36

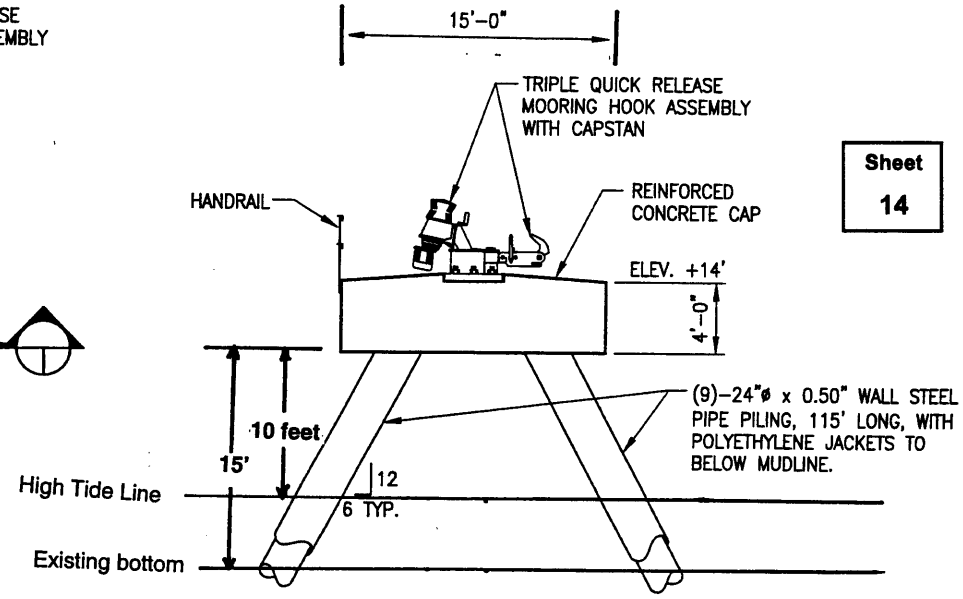
Permit # 23078

Sheet 14



(DETAIL ROTATED FROM PLAN)

PLAN – MOORING STRUCTURE



SECTION – MOORING STRUCTURE

Sheet 14

See Sheet 14

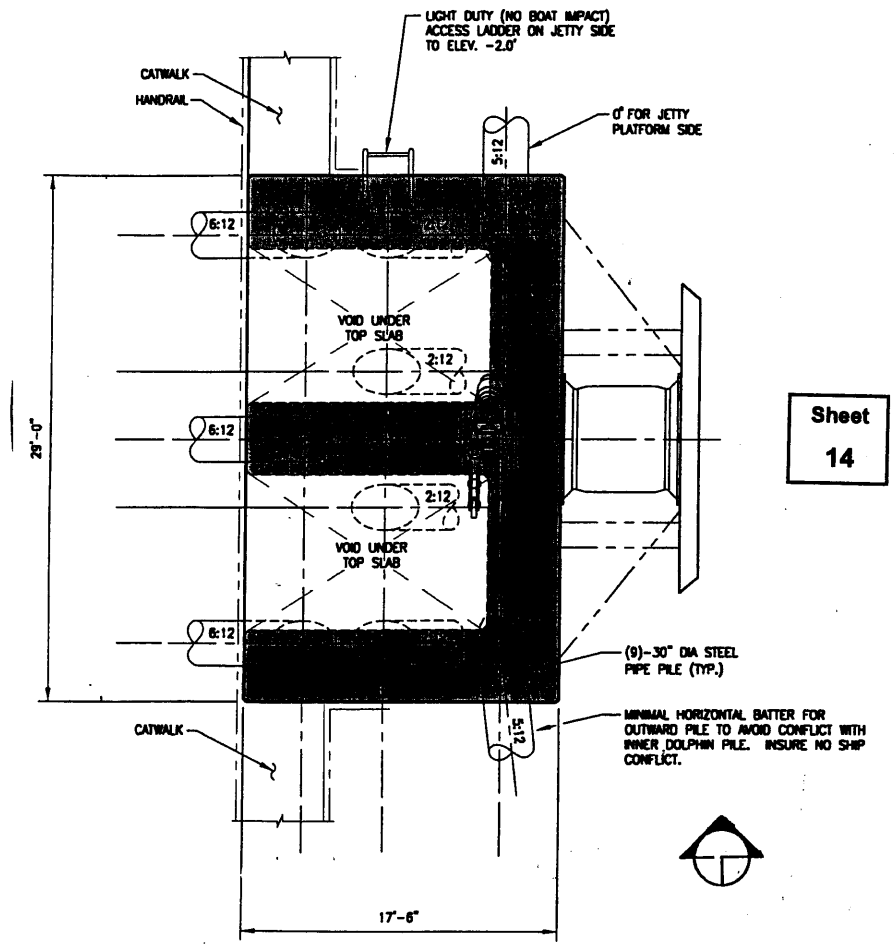
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

MOORING STRUCTURE

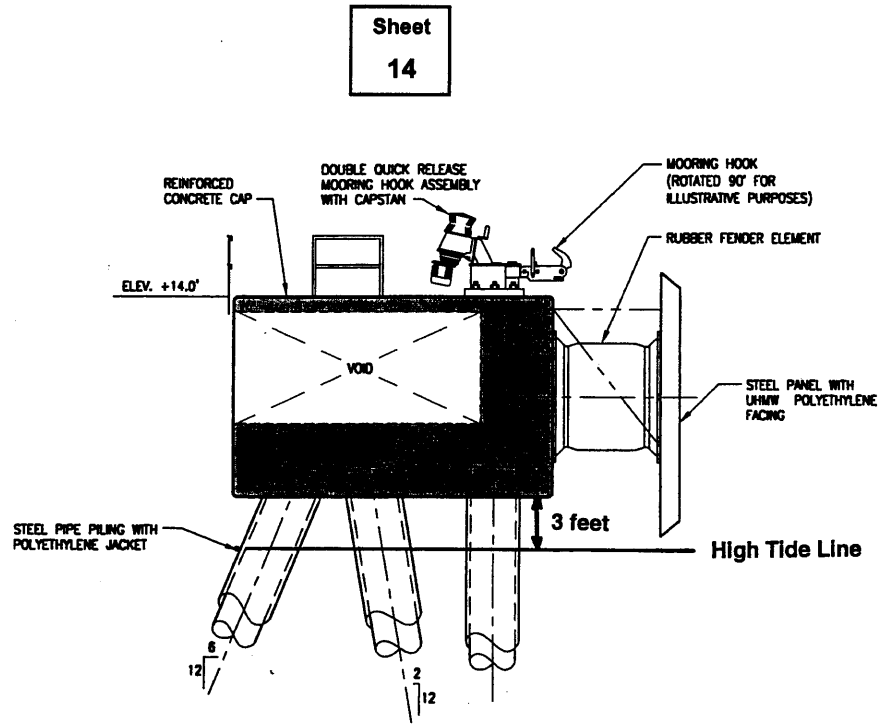
Sheet 30 of 36

Permit # 23078



PLAN – INNER BREASTING DOLPHIN

Sheet 14



ELEVATION – INNER BREASTING DOLPHIN

Sheet 14

See Sheet 14

0 1' 2' 4' 6' 8'

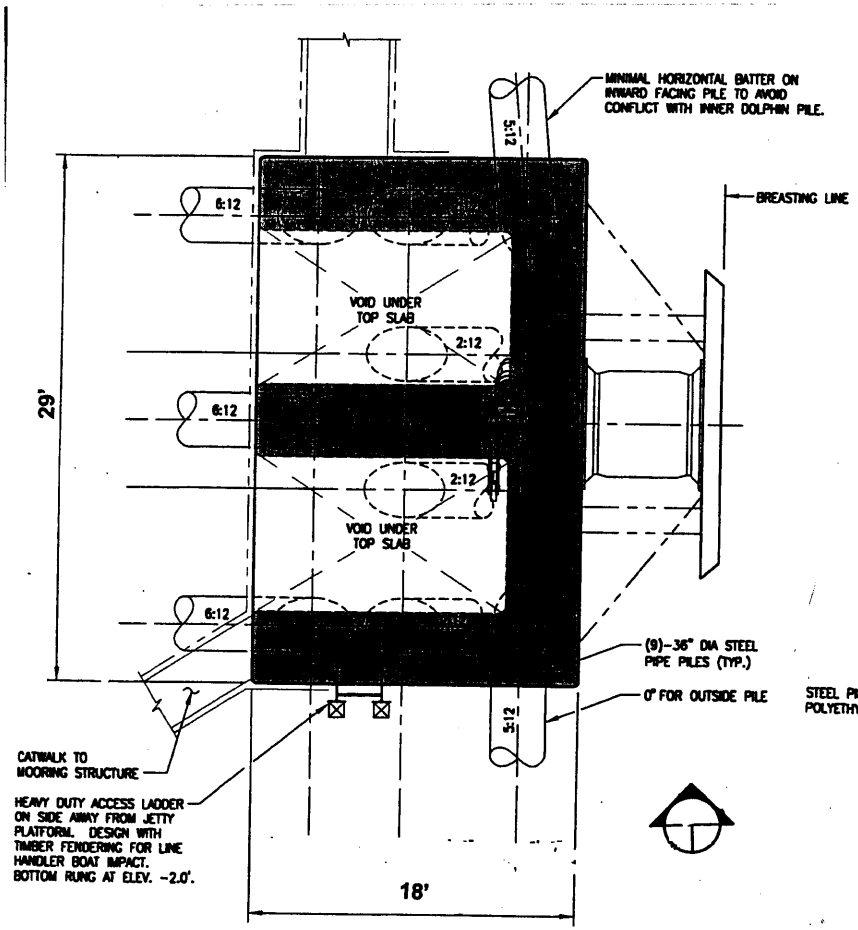
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

INNER BREASTING DOLPHIN

Sheet 31 of 36

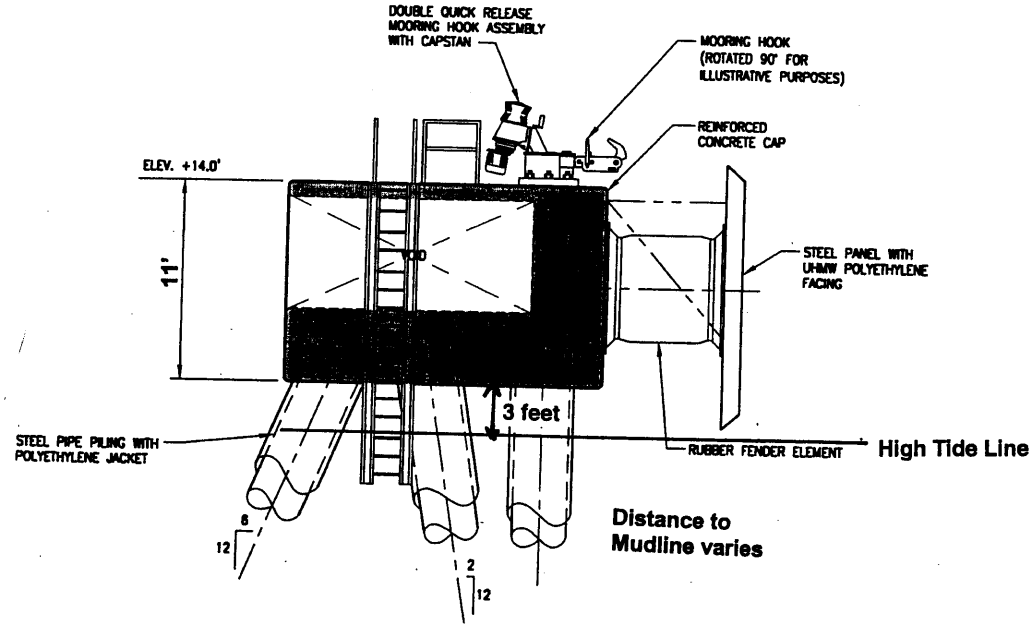
Permit # 23078



Sheet 14

PLAN – OUTER BREASTING DOLPHIN

Sheet 14



ELEVATION – OUTER BREASTING DOLPHIN

See Sheet 14

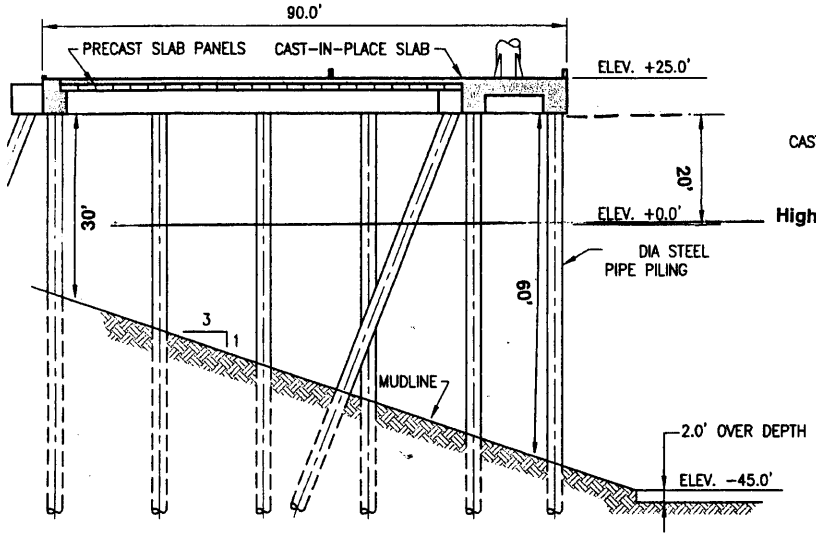
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

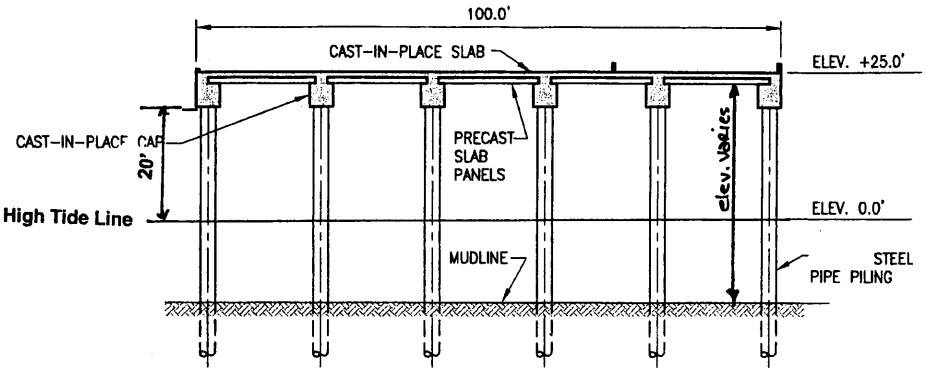
OUTER BREASTING DOLPHIN

Sheet 32 of 36

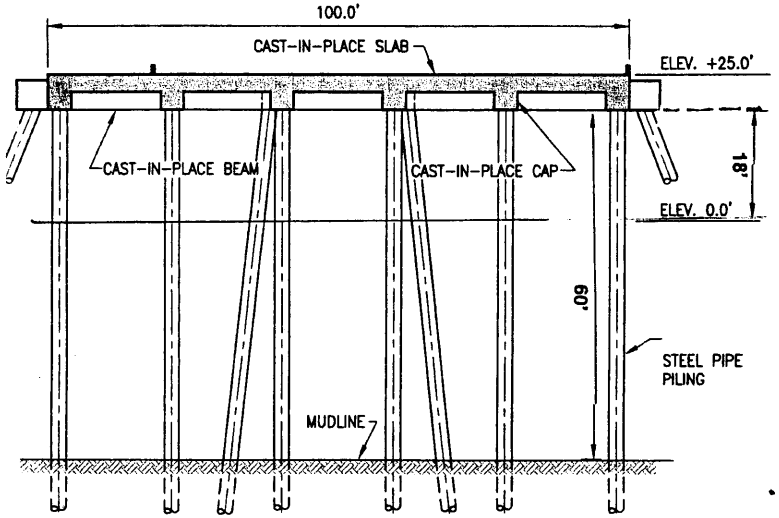
Permit # 23078



SECTION Jetty Platform View along shore
SCALE: NONE

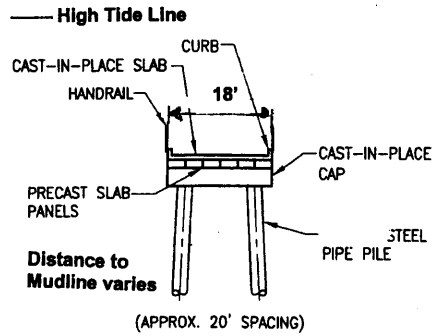


SECTION Jetty Platform View toward shore
SCALE: NONE

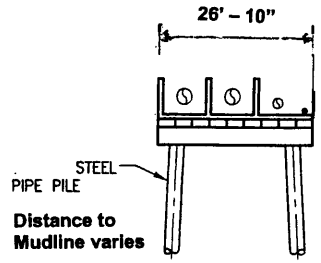


SECTION Jetty Platform View toward shore
SCALE: NONE

Sheet 14



SECTION-APPROACHWAY TRESTLE TYP. BENT
SCALE: NONE



SECTION-PIPEWAY TRESTLE
SCALE: NONE

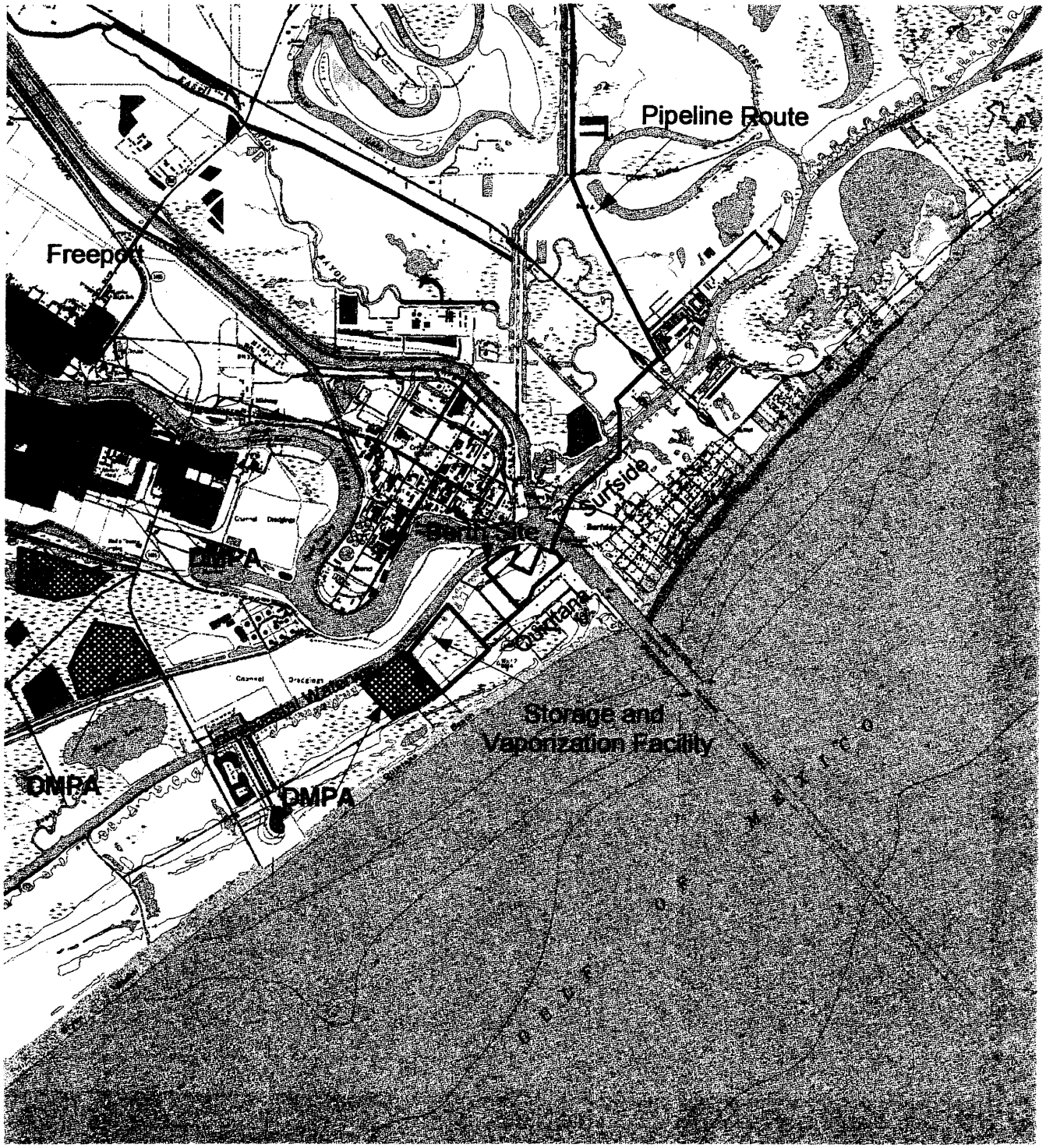
FREEPORT LNG

Proposed Freeport LNG Facility
Brazoria County, Texas

JETTY PLATFORM

Sheet 33 of 36

Permit # 23078



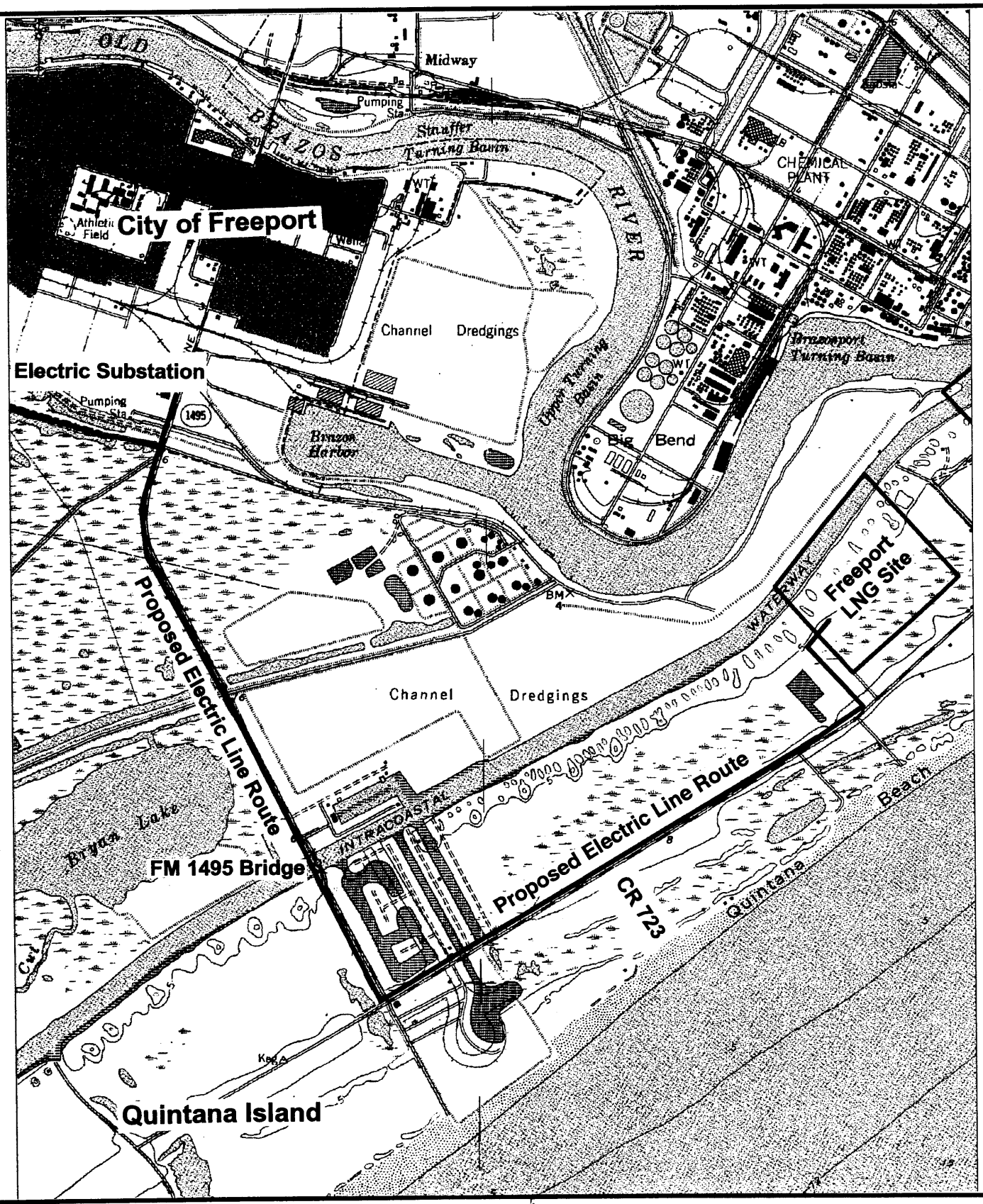
FREEPORT LNG

DREDGE MATERIAL PLACEMENT AREAS (DMPA)

Sheet 34 of 36

Proposed Freeport LNG Facility
Brazoria County, Texas

Permit # 23078



FREEPORT LNG

500 0 500 1000 1500 Feet

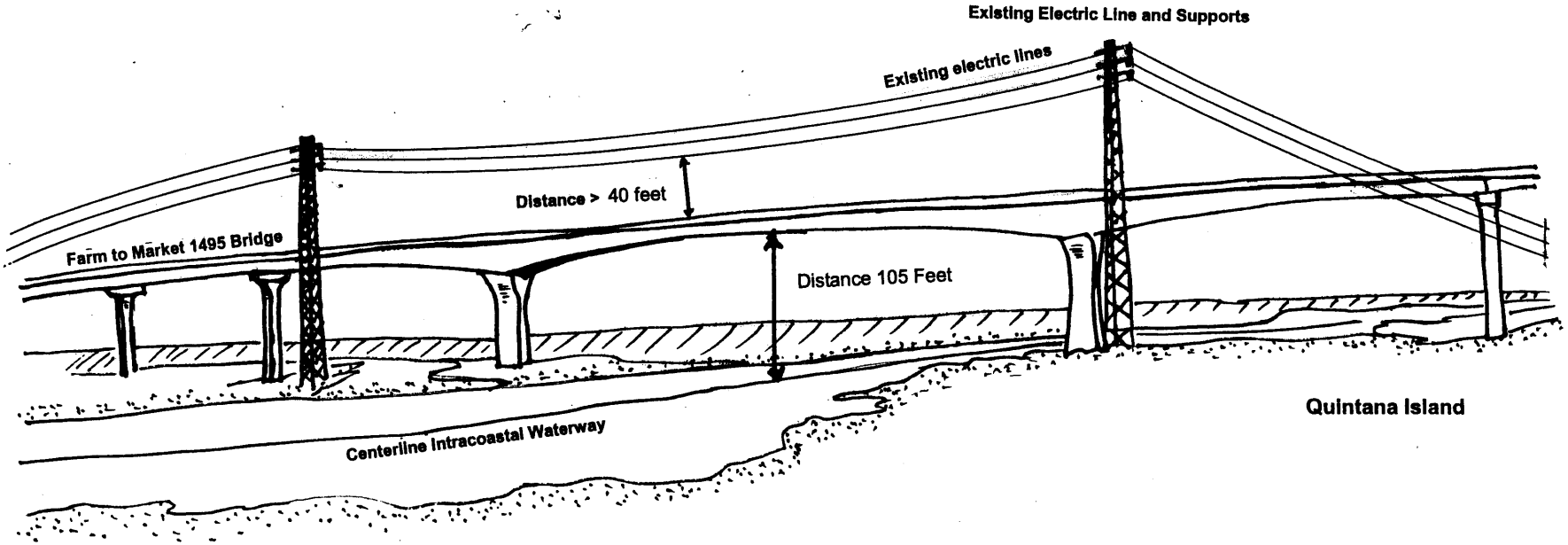
N
S

Proposed Freeport LNG Facility
Brazoria County, Texas

ELECTRIC LINE ROUTE

Sheet 35 of 36

Permit # 23078



FREEPORT LNG

Not to scale

Proposed Freeport LNG Facility
Brazoria County, Texas

N
S

CROSS-SECTION OF EXISTING ELECTRIC LINE AND PROPOSED ICW CROSSING

Sheet 36 of 36

Permit # 23078