

PIPE SPECIFICATIONS
 CARRIER PIPE: 6.625", W.T. 0.188", GRADE X-5Z
 OUTER COATING: SCOTCHKOTE 6352
 MAX. OPER. PRESSURE: 90 PSIG
 MIN. YIELD STRENGTH: 52,000 PSI

GENERAL NOTES:

- EXISTING CONDITIONS AND PIPELINE LOCATIONS SHOWN AS LOCATED IN THE FIELD BY CLEMENTS SURVEYING, INC.
- VERTICAL DATUM: NAVD83, HORIZONTAL DATUM: UTM WITH NAD83 DATUM, FLORIDA STATE PLANES, WEST ZONE, US FOOT.
- CONTRACTOR TO DETERMINE PILOT BORE AND FINAL REAMED DIAMETER TO ACCOMMODATE THEIR MEANS AND METHODS.
- THE ABSOLUTE MINIMUM ALLOWABLE DRILLING RADIUS SHALL BE 700 FEET AND SHALL BE DETERMINED BASED ON A 3-JOINT AVERAGE.
- THE ENTRY POINT SHALL BE AS SHOWN ON THE DRAWINGS. THE EXIT POINT SHALL BE NO MORE THAN 0 FEET SHORT OR 20 FEET LONG RELATIVE TO THE EXIT POINT SHOWN ON DRAWINGS.
- THE BORE SHALL NOT DEVIATE MORE THAN 5 FEET HORIZONTALLY OF THE ALIGNMENT AS SHOWN ON THE DRAWINGS.
- THE BORE ELEVATION SHALL NOT EXCEED MORE THAN 2 FEET ABOVE AND 15 FEET BELOW THE ELEVATION SHOWN ON THE DRAWINGS.
- HDD OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH ALL PERMIT REQUIREMENTS AND COMPANY SPECIFICATIONS.
- THROUGHOUT THE PILOT BORE DRILLING FLUID PRESSURES SHALL BE MEASURED AT ALL TIMES AND AT A POINT AS CLOSE AS POSSIBLE BEHIND THE DRILL BIT.
- THE PILOT BORE SHALL BE CONTINUOUSLY TRACKED AT ALL TIMES. NO BLIND SECTIONS SHALL BE PERMITTED, EVEN WHEN THE BIT IS UNDER WATER. CONTRACTOR SHALL USE A GYROSCOPIC TOOL TO COMPLETE THE PILOT BORE ALONG THE DESIGN ALIGNMENT.
- IF THE CONTRACTOR ENCOUNTERS AN OBSTRUCTION WHICH PREVENTS THE INSTALLATION ACCORDING TO THE SPECIFICATIONS, THE BORE SHALL BE ABANDONED IN PLACE AND IMMEDIATELY FILLED WITH GROUT. WORK SHALL NOT RESUME UNTIL REVISED PLANS AND PROCEDURES HAVE BEEN SUBMITTED TO AND APPROVED BY THE OWNER.
- GEOTECHNICAL DATA: BORE HOLES ARE OFFSET FROM THE PIPELINE CENTERLINE AS SHOWN ON THE PLAN VIEW. THE GEOTECHNICAL INFORMATION PROVIDED ON THIS DRAWING IS A GENERAL SUMMARY. REFER TO THE APPLICABLE GEOTECHNICAL REPORT IN THE CONTRACT DOCUMENTS FOR MORE DETAILED INFORMATION.
- THE CONTRACTOR SHALL IDENTIFY AND PROTECT ANY FOREIGN UTILITY THAT MAY BE AFFECTED BY THE HDD OPERATIONS. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR CALLING THE APPROPRIATE ONE-CALL AND LOCATING ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. IF ANY UTILITY IS LOCATED

WITHIN 15 FT. OF THE PROPOSED HDD PROFILE AND ALIGNMENT, CONTRACTOR SHALL OBTAIN APPROVAL FROM TECO PRIOR TO BEGINNING HDD OPERATIONS. CONTRACTOR SHALL MONITOR DOWNHOLE ANNULAR DRILLING FLUID PRESSURES AT ALL TIMES DURING THE PILOT BORE. LOCATION OF PRESSURE SENSOR TO BE AS CLOSE TO THE DRILL BIT AS PRACTICAL.

CONTRACTOR TO DETERMINE THE NEED FOR TEMPORARY CONDUCTOR CASING AT THE HDD ENTRY LOCATION.

CONTRACTOR SHALL COMPLETE A SWAB PASS PRIOR TO PIPE PULLBACK.

HDD ENTRY LOCATION AND PIPE STAGING AREA ARE ON THE SAME SIDE OF THE CROSSING. CONTRACTOR SHALL MOVE THE DRILL RIG SOMETIME AFTER COMPLETION OF THE PILOT BORE AND BEFORE COMPLETION OF SWAP PASS AND PIPE PULLBACK OPERATIONS.

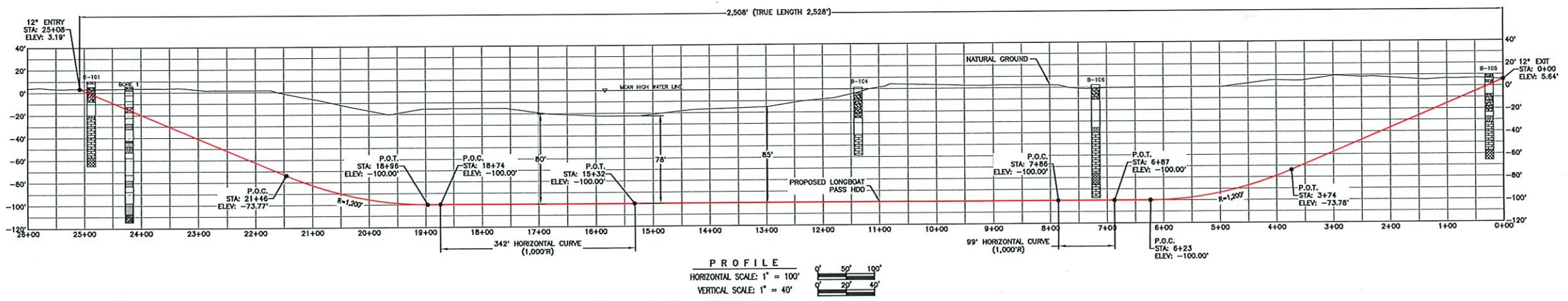
ALL LANDSCAPING, ROADS AND PARKING AREAS SHALL BE RESTORED TO EXISTING OR BETTER CONDITION. SHOULD VEGETATION BE TEMPORARILY REMOVED, THE VEGETATION SHALL BE KEPT IN GOOD HEALTH OR REPLACED WITH SAME TYPE OF PLANT OR TREE.

HDD POINT TABLE			
POINT TYPE	STATION	ELEVATION	NOTE
ENTRY	25+08	3.19'	12"
P.O.C.	21+46	-73.77'	BEGIN VERT. 1,200' CURVE
P.O.T.	18+96	-100.00'	END VERT. 1,200' CURVE
P.O.C.	18+74	-100.00'	BEGIN HORIZONTAL 1,000' CURVE
P.O.T.	15+32	-100.00'	END HORIZONTAL 1,000' CURVE
P.O.C.	7+86	-100.00'	BEGIN HORIZONTAL 1,000' CURVE
P.O.T.	6+87	-100.00'	END HORIZONTAL 1,000' CURVE
P.O.C.	6+23	-100.00'	BEGIN VERT. 1,200' CURVE
P.O.T.	3+74	-73.78'	END VERT. 1,200' CURVE
EXIT	0+00	5.64'	12"

PLAN
 1" = 50'

LEGEND

- BORE LOCATIONS
- BROWN FINE SAND WITH ROOTS
- GRAY FINE SAND WITH CLAY AND SHELL
- LIGHT GRAY FINE SAND
- LIGHT GRAY TO GRAY FINE SAND WITH SHELL
- LIGHT GRAY SHELL WITH GRAY FINE SAND
- LIGHT GRAY TO GRAY SANDY SILT AND CEMENTED SANDY SILT
- LIGHT GRAY TO GRAY CLAY AND PARTIALLY CEMENTED CLAY
- GRAY GREEN CLAYEY SILT TO SILTY CLAY
- GRAY CEMENTED SILT (MUDSTONE)
- DARK GRAY CLAY WITH SHELL
- GRAY FINE SAND WITH SHELL, TRACE CEMENTED FRAGMENTS
- GRAY CONSOLIDATED CLAY
- GRAY FINE SAND TO SLIGHTLY SILTY FINE SAND
- GRAY TO BROWN FINE SAND WITH SHELL FRAGMENTS
- GRAY CLAYEY SAND WITH SHELL
- BROWN AND GRAY GREEN CALCAREOUS CLAY AND GRAY WEATHERED Limestone



PROFILE
 HORIZONTAL SCALE: 1" = 100'
 VERTICAL SCALE: 1" = 40'

EOR
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 650-545-9887



NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D	CHECKED		APPROVED	
						BY	DATE	BY	DATE
A	ISSUED FOR PERMIT	JSD	03/22/18	ACD	CEN				

PL. STA. NO. ACCOUNT NO.
 CONSTRUCTION YEAR 2018
 DESIGN BY DATE
 MM 09/2017
 DRAWN BY DATE
 MM 09/2017
 ASBUILT
 FILE NO.
 SCALE: AS NOTED

TECO PEOPLE'S GAS
 TECO PEOPLE'S GAS
 LONGBOAT PASS HDD PROJECT
 HORIZONTAL DIRECTIONAL DRILL DETAIL

AFE NO. 4500163254
 PREVIOUS DWG. NO.
 SHEET 2 OF 4
 DWG. NO. 2018-H-194-97
 SHEET 3 OF 4