DUST
Pipeline Services

Re: Cost Change Proposal Number 2, 57831683-22 Cathodic Protection Program FY22
Date: Wednesday, August 31, 2022

DUST Pipeline Services is requesting a change order for a cost adjustment, in the form of a mutually acceptable fixed fee, for the project 57831682-22 Cathodic Protection Program FY22. The project has encountered pipe depths exceeding 6ft at 35 locations along Oldham Parkway and Oak Hill Subdivision, requiring more resources to complete. Installation times have more than quadrupled, with clean-up times tripling. The following pages provide supporting information on the impact. We appreciate your time with this review, and we look forward to any questions you may have.

The supporting data is accurate and complete. The cost adjustment is current as of Wednesday, August 31st and includes all additional costs encountered to this date. We look forward to continuing this project and providing exceptional installation services, record-keeping, and performance. Thank you for your time with this review.

Dustin Kerby, President

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Change of Contract Price Proposal No.2

57831683-22

Cathodic Protection Program FY22

25AUG2022

DUST Pipeline Services

Pipe Depth & Rock Impact

Pipe depth and rock have been encountered in Area 2, most notably along Oldham Parkway. These obstacles have more than quadrupled the installation time of a single anode. Pipe depths exceeding five feet have been encountered along Oldham Parkway and in Oak Hill subdivision. These depths require additional excavating to meet OSHA safety standards and require much more clean-up, both of which have cost considerably more labor and equipment resources.

Rock has also been found along Oldham Parkway, delaying crew efforts to safely excavate pipe and prevent damages to third-party utilities. Machine wear, damages, and fuel costs have also increased significantly.

At this time, 35 anode installations have exceeded depths of 6ft *(Table 1),* averaging 7ft4in. Five anode sites have exceeded eight-hour installation times.

ANODE SITE	DEPTH (*ft*)		
ES-27	6.0	OP-88	6.3
ES-41	7.0	OP-91	6.0
ES-44	7.0	OP-93	7.0
ES-45	9.0	OP-95	6.0
OD-1	7.3	OP-96	6.4
OD-2	7.0	OP-97	7.0
OD-12	8.0	OP-98	6.8
GD-13	6.0	OP-99	7.6
ET-2	6.1	OP-100	7.3
OP-61	7.3	OP-101	7.2
OP-62	6.1	OP-102	7.0
OP-63	7.0	OP-103	7.5
OP-64	7.1	OP-104	10.0
OP-66	6.0	OP-105	7.5
OP-77	7.8	OP-106	7.4
OP-79	10.5	OP-107	9.0
OP-80	9.5	OP-115	7.5
OP-82	7.0		

Table 1: Pipe Depth at Anode Locations

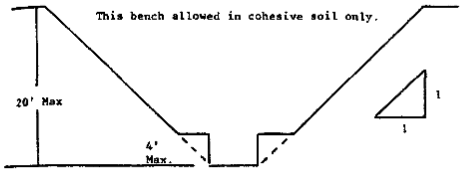
OSHA Excavation Safety Requirements

OSHA standard 1926 Subpart P defines the required methods and procedures to safely excavate at depths of 5ft or greater. In this standard, the use of shoring boxes, sloping, and/or benching requirements are defined.

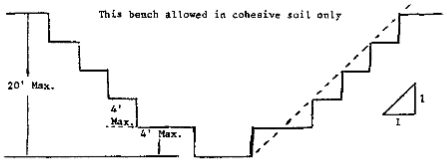
The benching process has been used exclusively as it allows more flexibility around third-party utilities, requires less surface area disturbance, and is more time-efficient when compared to other methods. Sloping disturbs much more surface area, requiring both the room to complete and increases the site restoration. Shore boxes are an option; however, planning, installation, and removal of shore boxes will dramatically increase installation times.

Requirements for benching size and spacing are determined by soil type; these excavations have been in type B soils, requiring a 1:1 height to width ratio (*Figure 1*).

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maximum bench dimensions as follows:



SINGLE BENCH



MULTIPLE BENCH

Fig 1: Benching Requirements per *OSHA 1926 Subpart p App B Sloping and Benching, Excavations made in Type B Soil*

Labor & Equipment

Labor times are significantly increased when excavating deeper than 5ft to meet OSHA requirements. When the pipe is at a 4ft depth, total installation times have taken approximately one hour; depths exceeding 6ft have more than quadrupled installation time, and once depths exceed 8ft, an additional laborer has been necessary to assist with tools and safety.

HOUR TOTALS in RELATION TO DEPTH

DESCRIPTION	4ft	>6ft	>9ft
Operating Engineer	1	4	8
General Laborer	1	4	8
General Laborer	0	1	2
TOTAL LABOR HOURS	2	9	18
Excavator	1	4	8

Table 2: Approximate Installation Resources as a Function of Depth

Rock & Construction Debris

During excavation, large boulders, rock, and construction debris have been encountered. At OP-80, a loose boulder approximately 4ftx7ftx2ft in size was removed to reach the water main. Anodes OP-91 through OP-107 have had rock shelves and large, loose rocks, that have impacted installation times. At OP-79, a discarded piece of water pipe was found. This debris and rock is removed, to limit any negative impact to future excavations and water department work. Clean-up is also effected, with more time needed to rid the surface area of rocks and debris to provide a suitable base for sod.

Image 1: OP-79 Rock

Image 2: OP-80 Loose Rock

Site Restoration

Sod, fertilizer, and labor needs are increased with the greater excavation footprint. The surface area disturbed during an 8ft excavation can be over five times in size compared to a 4ft excavation due to increases in trench lengths and benching requirements. Labor times triple during clean-up, with more time needed to prep and lay sod over a much larger area. Additionally, more resources are needed to water and maintain the sod.

With OP-77 as an example, pipe depth was 7.8ft and the resulting excavation was 16ftx13ft in size, with a dirt spoil pile measuring 18ftx22ft. Where a 4ft excavation typically requires 1.5 rolls of sod, a site of this size can require more than 25 rolls. Preparation and sod installation times have tripled at these sites.

HOUR TOTALS in RELATION TO DEPTH

DESCRIPTION	4ft	>6ft	>9ft
General Laborer & Cultivator	0.5	2	3

Table 3: Approximate Installation Resources as a Function of Depth

Image 3: OP-62 Disturbed Surface Area

Measureables

This change proposal is requesting a mutually acceptable fixed fee to cover labor, machine, and material costs required to meet the depth and rock challenges found in area 2. While the OSHA excavation requirements begin at depths of 5ft, we are asking for additional support only for excavations exceeding 6ft. The request is to supplement an additional 3 hour team average and restoration for each of the 35 anodes identified in this proposal; any overage beyond this three hour average will be covered by DUST Pipeline Services. For restoration, sod materials and labor are requested; DUST Pipeline will cover fuel costs.

Total Labor Hours for 35 Anodes at Depth

DESCRIPTION	1 Anode	39 Anodes
Operating Engineer	3	105
General Laborer	3	105
General Laborer	1	35
General Laborer Clean-Up	1.5	52.5
		297.5 hours

Table 4: Labor Hours Committed

Sod Needed for 16x13 Restoration
28 Rolls

Table 5: Sod Materials

Additional Labor & Materials

DESCRIPTION	QUANTITY	COST
Labor (*hrs*)	297.5	$21,467
Machine (*hrs*)	105	$4,332
Sod (*sqft*)	1,704	$7,011
		$32,810

Table 5: Financial Ask

Thank you for your time and consideration with this request.