DUST
Pipeline Services

Re: Cost Change Proposal Number 3, 57831683-22 Cathodic Protection Program FY22
Date: Wednesday, September 28, 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 20 additional locations along Oldham Parkway, 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, September 28th 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.

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Change of Contract Price Proposal No.3

57831683-22

Cathodic Protection Program FY22

23SEP2022

DUST Pipeline Services

Pipe Depth Impact

Pipe depth has continued to demand considerable resource investments along Oldham Parkway. An additional 20 anodes have been installed on pipe depths exceeding 6 feet. To continue meeting OSHA excavation safety requirements, excavation sizes require more labor and machine hours to dig and significantly increase the surface area disturbed, requiring more sod.

At this time, 19% of all anodes installation have exceeded depths of six feet.

ANODE	DEPTH (ft)
OP-1	7
OP-2	8
OP-21	6
OP-23	6
OP-24	6
OP-25	6
OP-26	6
OP-28	7
OP-29	8
OP-30	8
OP-31	8
OP-32	10
OP-34	7
OP-40	8
OP-41	9
OP-42	10
OP-45	7
OP-46	10
OP-47	10
GS-4	7

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*).

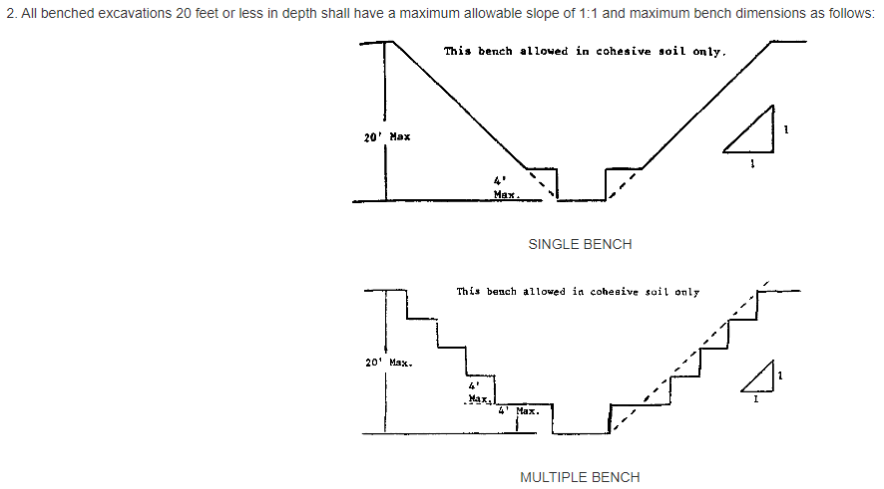

Fig 1: Benching Requirements per *OSHA 1926 Subpart p App B Sloping and Benching, Excavations made in Type B Soil*

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.

To meet OSHA standard 1926 Subpart P, benching has been utilized to safely excavate water main exceeding five feet in depth. An excavation at 5-8ft requires moving more than 9 times more dirt than an excavation at 4ft (*Figure 2*). This has continued to quadruple labor hours to install a single galvanic anode (*Figure 3*).

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

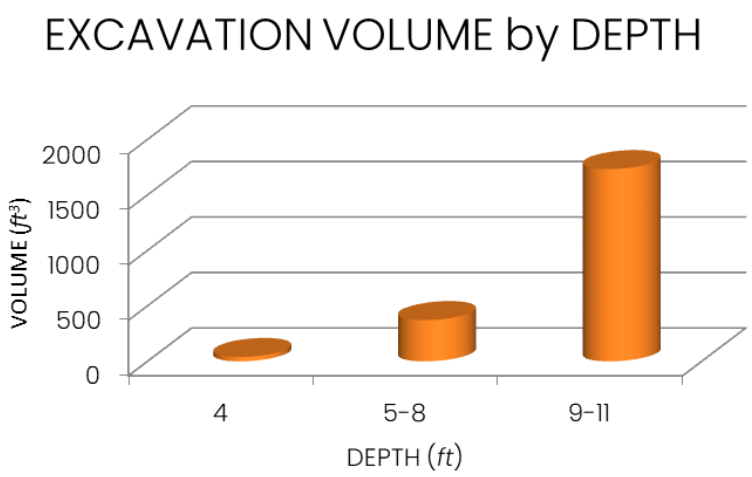

Figure 2: Soil Volumes Removed at Depth

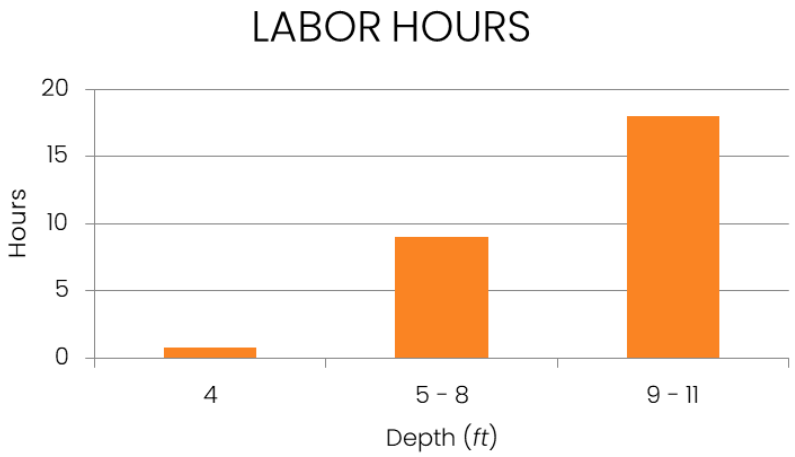

Figure 3: Hours Required in Relation to Pipe Depth

Site Restoration

With increased depths, the size of the impacted surface increases considerably. A single pallet of sod typically covers more than 35 excavations of four feet; whereas, that entire pallet of sod is needed to complete a single excavation of nine feet or deeper (*Figure 4*). A recent clean-up of a seven foot excavation required an entire pallet of sod and 12 labor hours to complete; this site has required over 1,500 gallons of water and four labor hours weekly to maintain.

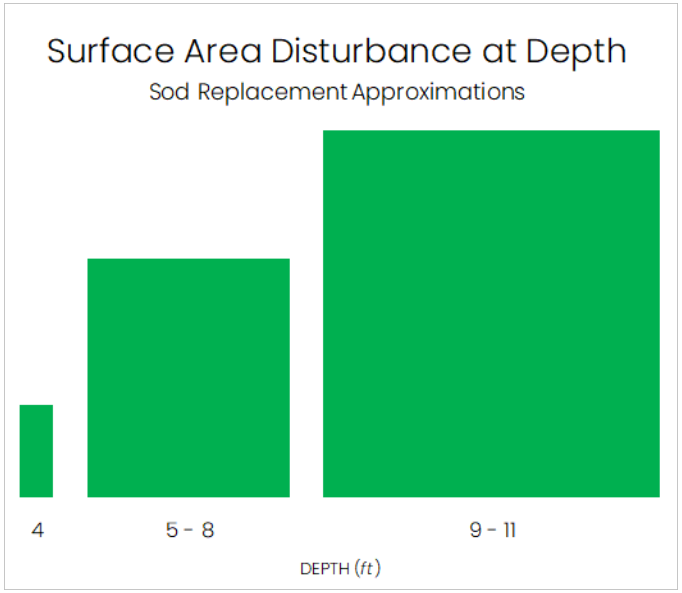

Figure 4: Surface Area Impact Visualization

Locating issues have continued to provide tremendous obstacles. Several sites have been excavated at depths of nine feet or more, only to find that the water main is located ten feet or more from the USIC locate mark, leaving our teams with two large excavations to clean-up. DUST Pipeline is assuming financial responsibility for this issue.

Measureables

This change proposal is requesting a mutually acceptable fixed fee to cover labor, machine, and material costs required to meet the significant depth challenges encountered at numerous locations. We continue to ask for additional support for excavations exceeding six feet. This request is to supplement an additional three hour team labor average and restoration for each of the 20 anodes identified in this proposal; any overage beyond these three hours will be covered by DUST Pipeline.

Total Labor Hours for 20 Anodes at Depth

DESCRIPTION	1 Anode	20 Anodes
Operating Engineer	3	60
General Laborer	3	60
General Laborer	1	20
General Laborer Clean-Up	1.5	30
		170 hours

Table 3: Labor Hours Committed

Additional Labor & Materials

DESCRIPTION	QUANTITY	COST
Labor (*hrs*)	200	$14,170
Machine (*hrs*)	60	$2,475
Sod (*sqft*)	974	$4,006
		$20,651

Table 4: Financial Ask

Thank you for your time and consideration with this request.