

Work Variance Request Form

Groundwater Remedy Phase 2A Construction, PG&E Topock Compressor Station, Needles, California

PG&E TOPOCK GROUNDWATER REMEDIATION PROJECT

Work Variance Request #12 – Proposed addition of pipelines/conduits to connect existing extraction well TWB-3 and deferral of the Operations Building on the Transwestern Bench

Request Prepared By: PG&E

Date Submitted: 9/23/22

Variance Request No.: 12

Location: The new pipeline connects existing well TWB-3 in the low area northeast of the Transwestern Bench, travels up the existing access road (along the west side) to the bench top, and connects to the existing well TWB-1 on the bench.

Request Approval From: DTSC and DOI

Date Approval Required: 10/18/22

Map Area: N/A

Land Manager/Parcel No.: USFWS for HNWR/650-161-12, PG&E for PG&E land/650-161-08

Current Vegetative Cover/Land Use: None/Industrial

Existing Sensitive Resource? ☐ No ☒ Yes, Specify: nearby archaeological resources and one palo verde tree

Variance From: ☐ Mitigation Measure ☐ Work Plan/Procedure ☐ Response to Comments Drawing
☐ Permit Condition ☒ Other – Additional infrastructure not in 2015 Final Design

Detailed Description of Variance and Justification (Attach additional information if necessary):

Attachments: ☐ Photo ☒ Construction Drawing ☐ Aerial Photo Mark-Up ☐ Correspondence ☐ Other

Potential Impacts of Variance:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Hazardous Materials | <input type="checkbox"/> Aesthetic |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Water Resources |
| <input checked="" type="checkbox"/> Soils | <input type="checkbox"/> Paleo Resources | |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Hydrology and Water Quality | |

Work Variance Request Form (Continued)

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Work Variance Request #12 – Proposed addition of pipelines/conduits to connect existing extraction well TWB-3 and deferral of the Operations Building on the Transwestern Bench

Description and Justification:

This Work Variance Request (WVR) adds pipelines and conduits to connect the existing extraction well TWB-3 to the groundwater remedy and defers construction of the Operations Building on the Transwestern Bench. The specifics are described below and included in the attached drawings.

a) Addition of pipelines/conduits to connect existing TWB-3 to the groundwater remedy.

At the April 5, 2022 Cultural and Historic Properties Management Plan (CHPMP) meeting, PG&E presented an update of the drilling at the Transwestern Bench (TWB-1 and TWB-2 results) and informed Tribes and agencies that an additional well (TWB-3) will be necessary to achieve a combined target extraction rate of 25 gallons per minute (gpm). Well TWB-3 was included in the Basis of Design as a provisional well. A site visit to view potential locations for TWB-3 occurred on April 6, 2022 with participation from DOI, Tribes, and PG&E. During the April site visit, PG&E mentioned that provisional well TWB-3, if determined to be a viable well, will need to be connected to the rest of the groundwater remedy via pipelines and conduits which were not in the Final Design. On April 12, 2022, FMIT sent a letter to DOI stating the Tribe's preferred alternate location for TWB-3, which was subsequently concurred by the Quechan Indian Tribe on April 17, 2022. DOI and DTSC provided concurrence with the FMIT's preferred location on April 13 and April 21, 2022, respectively. A pilot borehole was drilled at the approved location the week of May 1, 2022.

At the June 22, 2022 Consultative Work Group (CWG) meeting, PG&E presented the drilling results for TWB-3 which showed that this is a viable extraction well. PG&E also presented to the CWG four potential pipeline/conduit routes to the TWB-3 location. A field meeting occurred on June 23, 2022 to view the routes, with participation from USFWS, DOI, BLM, DTSC, Tribes, and PG&E. The majority of the pipeline routes are located in the Havasu National Wildlife Refuge (HNWR) with a small portion on PG&E land. Of the four options, two were not favored due to the estimated level of disturbance and proximity to cultural resources. Of the remaining two options, the Refuge Manager expressed a preference for the route with only belowground piping/conduits due to maintenance typically required for aboveground piping in the desert. The FMIT evaluated the options and provided feedback to DOI, BLM, and PG&E on July 8, 2022. The FMIT's preference is the route with only belowground piping/conduits. On July 11, 2022, the Refuge Manager reconfirmed the same preferred belowground piping/conduits.

The plan and profile of the new pipeline is shown in the attached drawing C-07-60. The trench sections E3 and E3-Alt are shown in attached drawing C-07-106. Below is a summary of key construction details:

- A trench of approximate dimension of 2 feet wide by 3 to 4 feet deep by 470 feet long will be installed from existing well TWB-3 to existing well TWB-1. The actual dimension of the trench may vary depending on field conditions.
- Within the trench, there will be two High Density Polyethylene (HDPE) pipes (2 or 3 inches in diameter by 470 feet long) and three conduits (2 inches in diameter by 470 feet long). Where the trench crosses over PG&E gas pipeline, one pipe sleeve (approximately 4 inches in diameter by 20 feet long, actual dimension may vary depending on field conditions) will be used to contain the HDPE pipes. Therefore, the total pipe length is $2 \times 470 + 1 \times 20 = 960$ feet and total conduit length is $3 \times 470 = 1,410$ feet.
- The estimated volume of soil to be displaced from pipeline trenching (see dimension above) and excavation to install pull boxes and a well vault is approximately 124 cubic yards

There are no additional impacts to biological and historical resources associated with this new pipeline and related infrastructure. Similarly, cultural resources have also been evaluated with Tribes and no additional impacts are anticipated which are not already evaluated in the 2018 Subsequent Environmental Impact Report (SEIR).

Work Variance Request Form (Continued)

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PG&E TOPOCK GROUNDWATER REMEDIATION PROJECT

Work Variance Request #12 – Proposed addition of pipelines/conduits to connect existing extraction well TWB-3 and deferral of the Operations Building on the Transwestern Bench

- b) Defer construction of the Operations Building at the Transwestern Bench.** The current use of the Carbon Amendment Building to house the electronical hardware (e.g., Programmatic Logic Controller [PLC]), the conex boxes in the CHQ for equipment/spare parts storage, and the offices in the SPY trailer for O&M workers negate the need for the Operations Building on the Transwestern Bench at this time.

Approval Signatures:

 9/23/22

PG&E Project Manager Date

 9/23/22

PG&E QA Manager Date



10/19/2022

Approving Agency

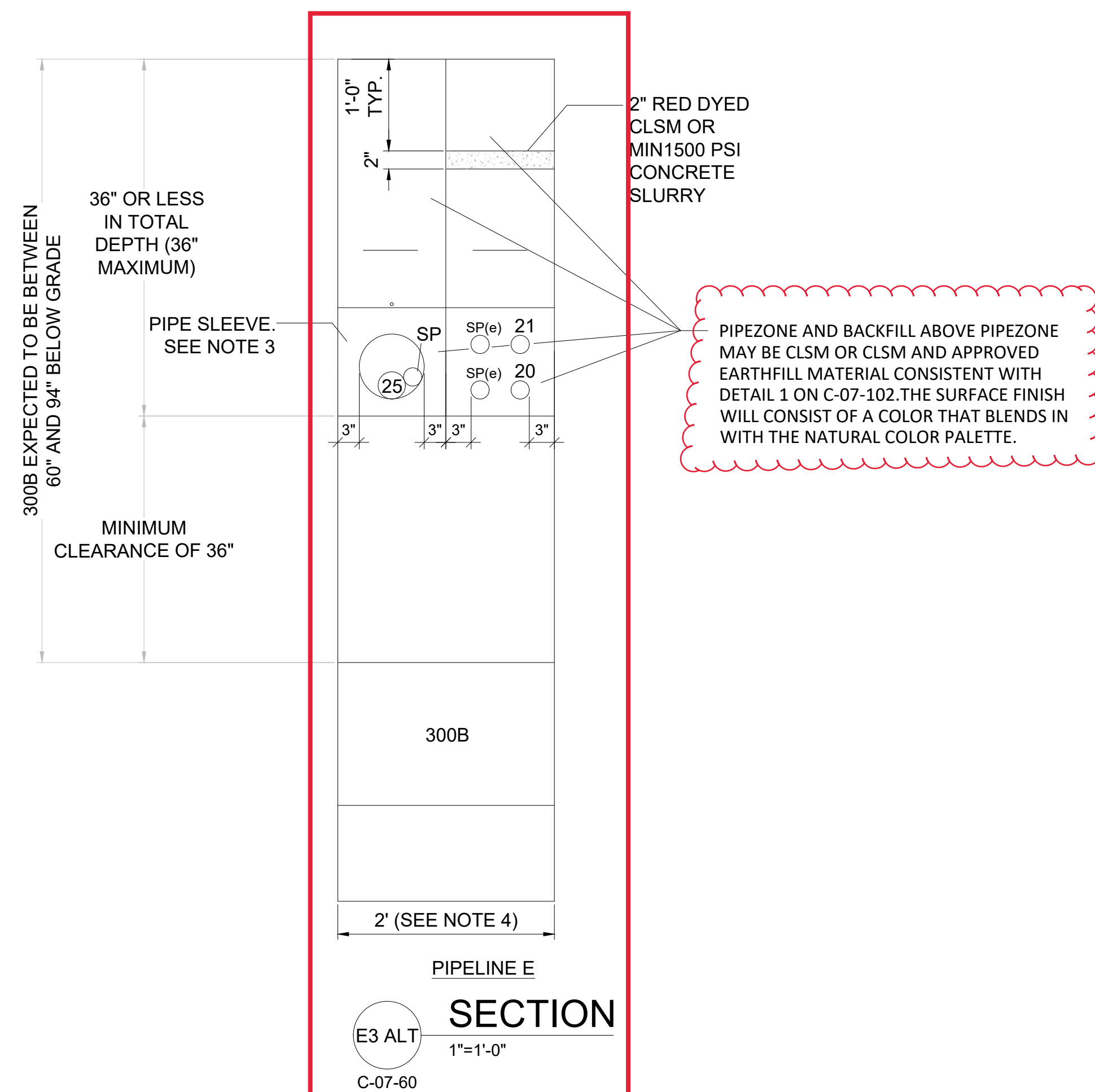
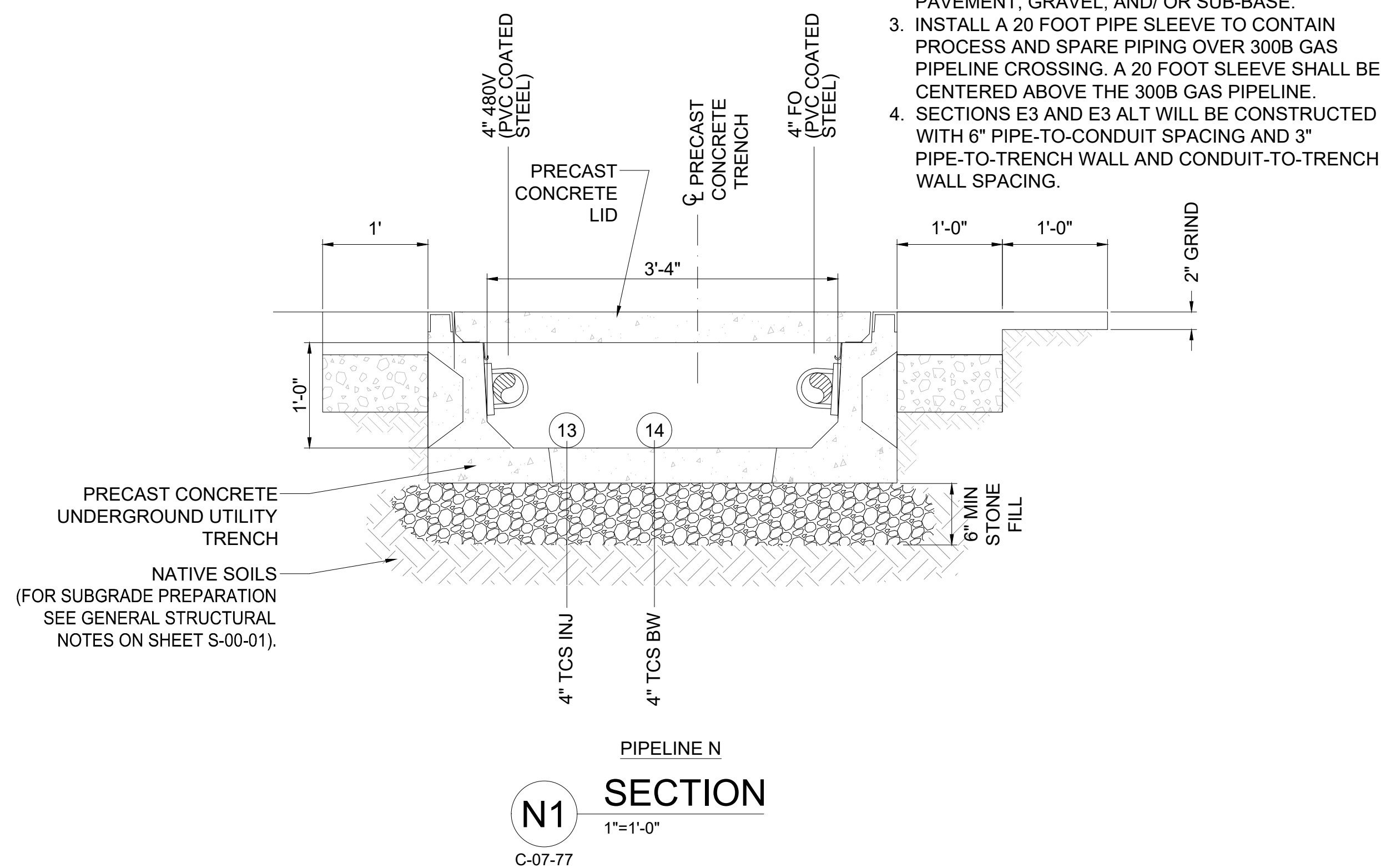
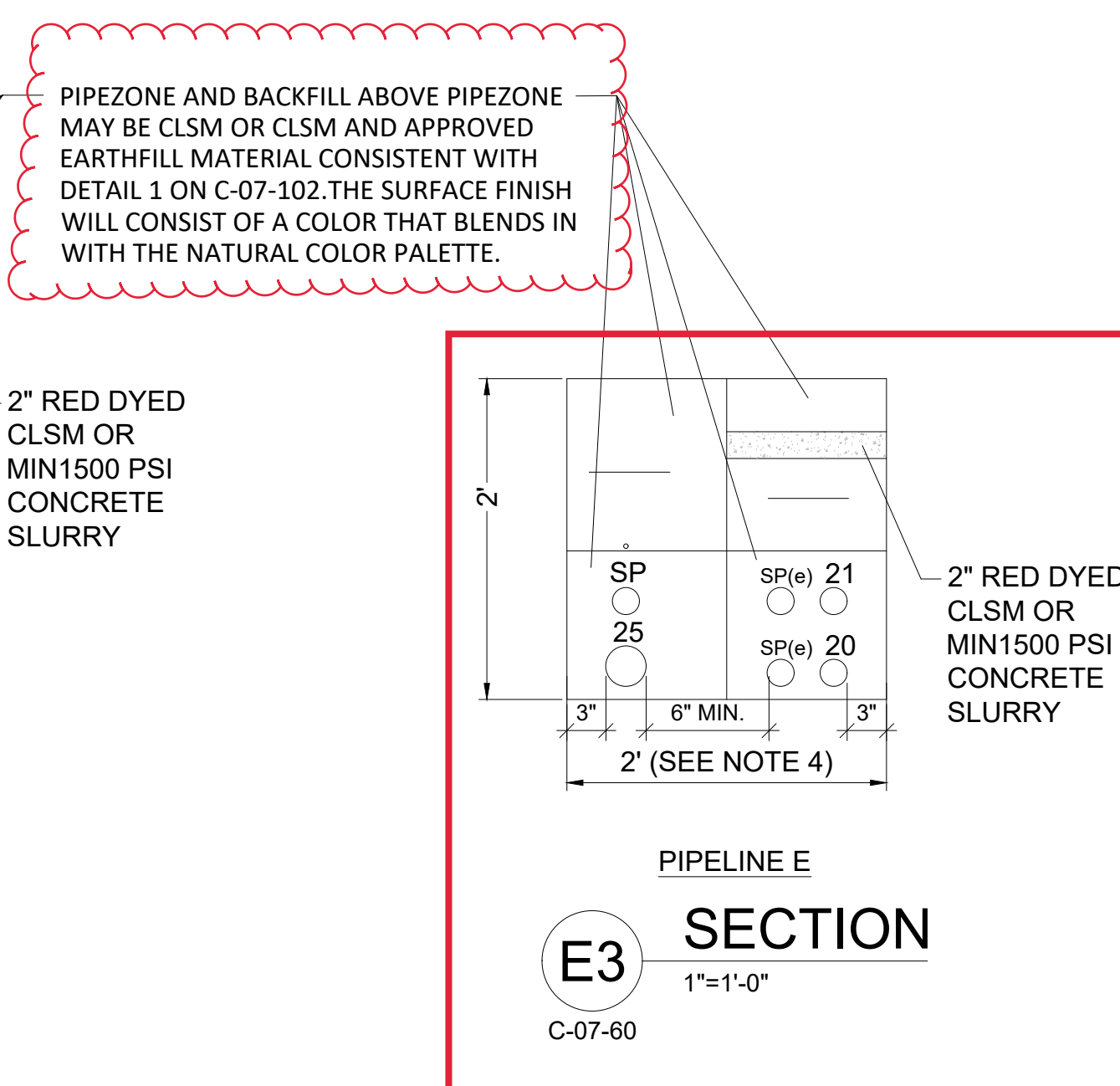
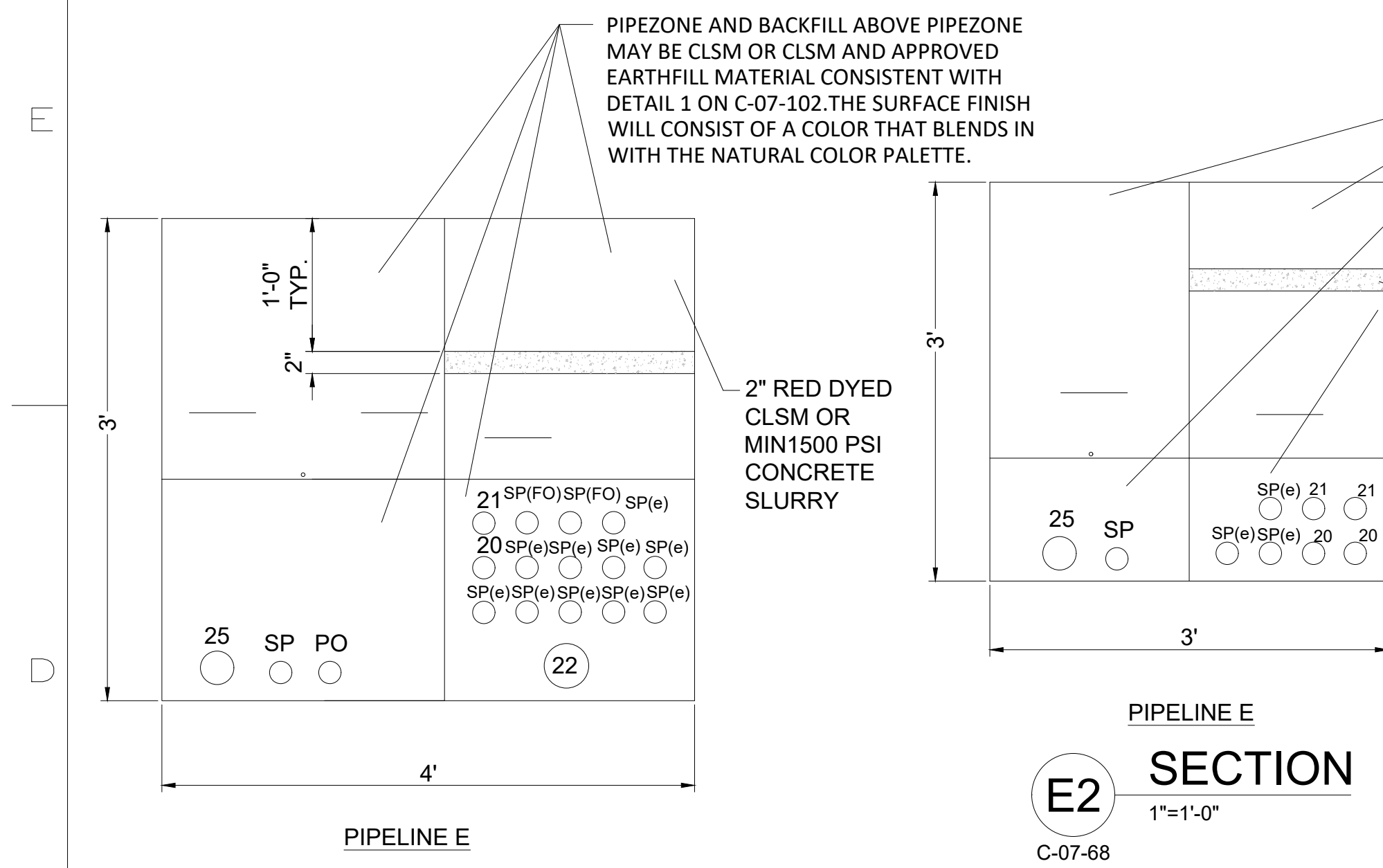
Date

VERONICA DICKERSON

Digitally signed by VERONICA DICKERSON
Date: 2022.10.20 18:00:36 -04'00'

Approving Agency

Date



10	XX/XX/22	PHASE 2A TWB-3 DESIGN PACKAGE				MJS	VJM	BLP	JPB		5	12/09/19	WVR #5 RPW CONSOLIDATION				VJM	JPB	BLP	RAO		APPROVED BY JPB	SO
9	8/30/22	PRE-FINAL (90%) DESIGN				MJS	VJM	BLP	JPB	3	6/16/17	ISSUED FOR CONSTRUCTION					NAK	JPB	MAG				SUPV
8	04/29/22	PHASE 2A DESIGN IFC				TW	JPB	BLP	RAO	2	11/18/15	ISSUED FOR BID					AJW	JPB	BW	RAO			DSGN
7	01/10/22	PHASE 2A DESIGN IFB - FINAL				VJM	JPB	BLP	RAO	1	9/8/14	FINAL DESIGN					AJW	WLM	BW	RAO			DWN
6	08/07/20	STATION COMMUNICATION CONNECTION				VJM	JPB	BLP	RAO	0	4/5/13	PRE-FINAL (90%) DESIGN INTERMEDIATE (60%) DESIGN											CHKD
NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD	BY	NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD	BY					DATE	
R E V I S I O N S											R E V I S I O N S											DATE S C A L E S	

TOPOCK GROUNDWATER REMEDIATION PROJECT

PIPELINE SECTIONS

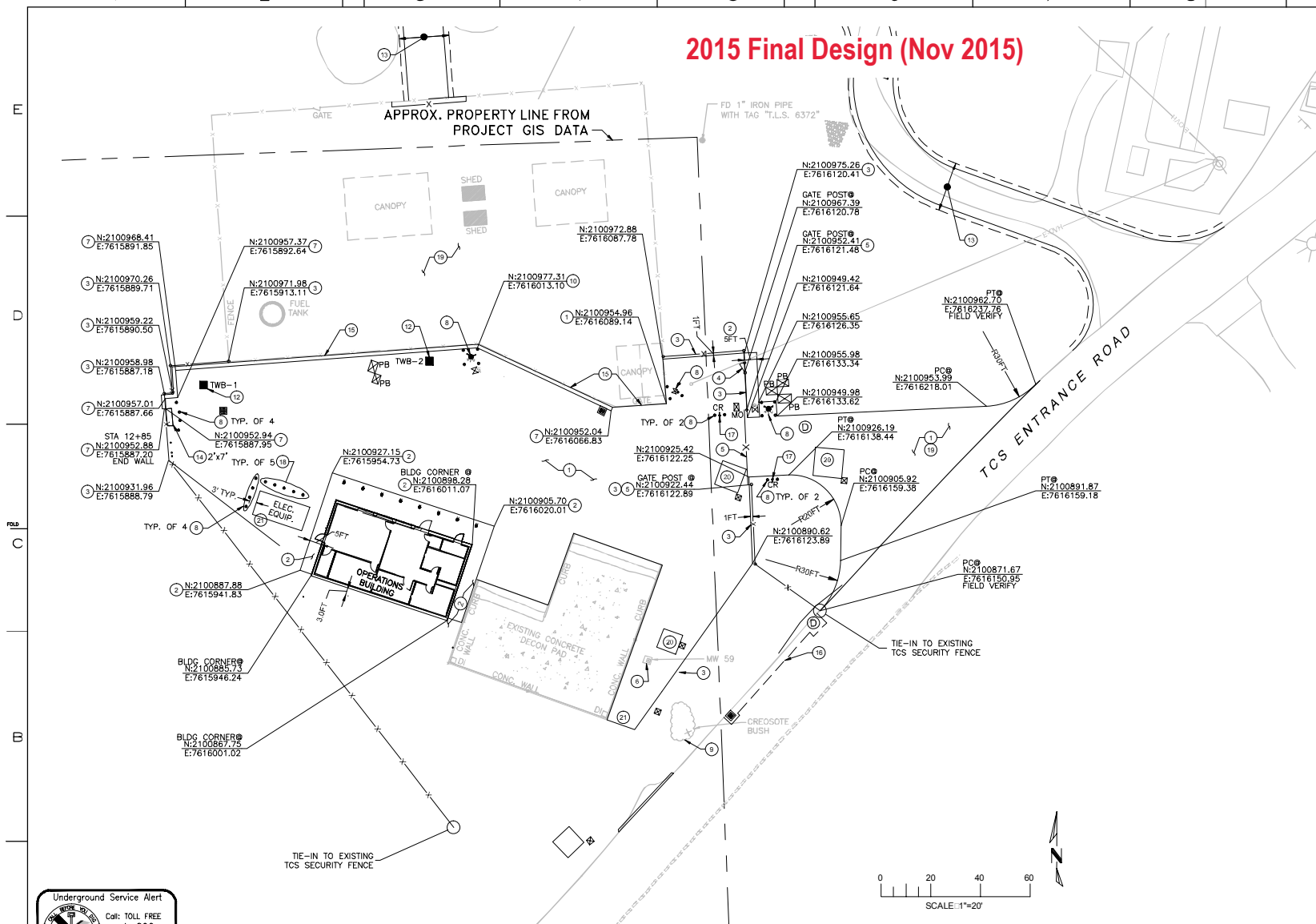
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	of SHEET
C-07-106	REV 10

A SEE LEGEND, NOTES & ABBREVIATIONS C-08-00
FOR COMPLETE GENERAL NOTES.

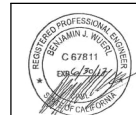
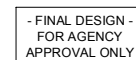
B ALL PERIMETER FENCE AND GATE SHALL MEET PG&E
PROPERTY FENCE AND GATE STANDARD L-50.

1. INSTALL ASPHALT PAVEMENT. SEE DETAIL 1/C-00-09.
2. INSTALL CONCRETE SIDEWALK. SEE DETAIL 1/C-00-09.
3. INSTALL BFT HIGH CHAIN LINK FENCE. SEE DRAWING C-00-06 AND C-00-07.
4. INSTALL PG&E STANDARD PERSONNEL GATE AS MANUFACTURED BY THE BUSBY.
5. INSTALL 30FT SLIDE GATE. SEE DRAWING C-00-06 AND C-00-07.
6. ADJUST, REWELD TO FINISHED GRADE. COORDINATE FINAL CONDITION WITH PG&E.
7. INSTALL THICKEN EDGE. SEE DETAIL 2/C-00-09.
8. INSTALL GUARD POSTS. SEE DETAIL 4/C-00-09.
9. PROTECT EX. GRASS WITH MULCH.
10. INSTALL CURB. SEE DETAIL 3/C-00-04.
11. REFER TO STRUCTURAL DRAWING S-08-09 FOR FOUNDATION AND ANCHORS.
12. CONFIRM WELL LOCATIONS WITH DRAWING C-00-03.
13. FOR NEW ACCESS ROAD LAYOUT, SEE DRAWING C-06-11.
14. AREA RESERVED FOR ELECTRICAL EQUIPMENT. SEE ELECTRICAL DRAWING E-08-01.
15. PROTECT EXISTING FENCE AND GATES.
16. MATCH ASPHALT PAVEMENT AND CURB. MATCH EXISTING CONDITIONS.
17. INSTALL HI-LO CARD READER FOR MAIN GATE AND ASSOCIATED EQUIPMENT. SEE PG&E DRAWINGS S-08-09, S-08-10, S-10-08 FOR COORDINATE ELEC. CONDUITS AND EQUIP. WITH ELEC. DRAWINGS.
18. INSTALL REMOVABLE GUARD POSTS. SEE DETAIL 1/C-00-05.
19. ACCESS TO WESTERNSTERN GAS METERING STATION YARD MUST BE MAINTAINED AT ALL TIMES.
20. MATCH F VAULT LOCATION SEE DWG C-07-52.
21. EDGE OF ASPHALT.

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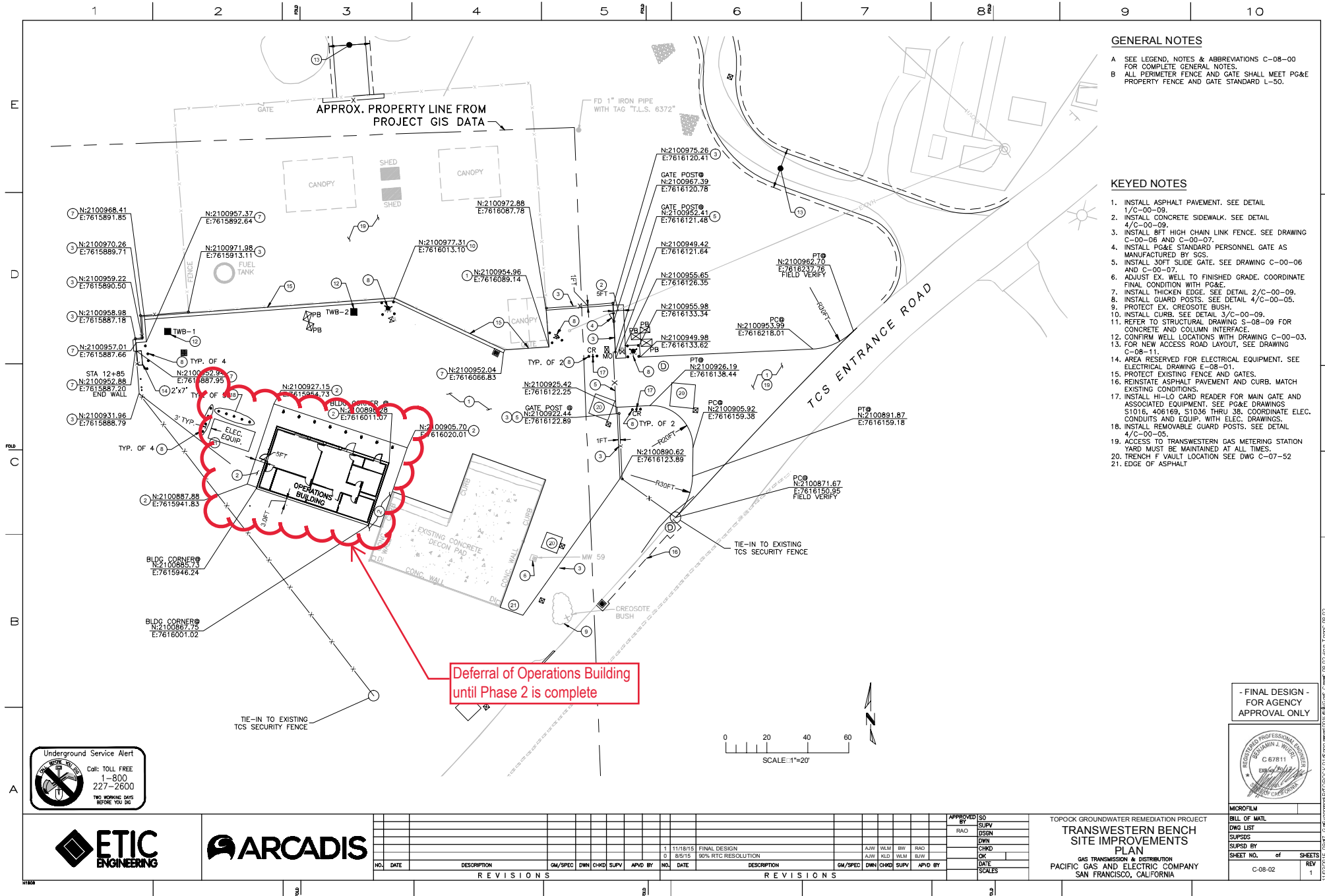
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		DSGN
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TOPOCK GROUNDWATER REMEDIATION PROJECT
TRANSWESTERN BENCH
SITE IMPROVEMENTS
PLAN
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA



MICROFILM	
BILL OF MATL.	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	of SHEET
C-08-02	REVISION

WORK VARIANCE REQUEST #12 - ADDITION OF TWB-3 PIPELINE AND DEFERRAL OF OPERATIONS BUILDING ON THE TRANSWESTERN BENCH (SEPT 2022)



Future Activity Allowance Determination Matrix for Work Variance Request (WVR)

Work Variance Request No. 12

Date: 10/19/2022

Future Activity Allowance is an activity that is not considered in the remedy design but necessary to support the project objectives. Future Activity Allowance is a Material Deviation which is defined in the final groundwater remedy design as: Material Deviation means a change or correction required to prevent a condition that would (1) render the approved design non-compliant with codes, regulations, and /or engineering standard of practices, (2) render planned well locations and/or constructions fail to meet the project objectives, (3) cause significant schedule delay, and/or (4) cause a significant increase in costs. (CH2M Hill, 2015)

According to the SEIR Project Description, "The inclusion of the Future Activity Allowance is not intended to account for minor adjustments (work variances) of the remedy design during construction resulting from field conditions. DTSC's objective for the inclusion of the Future Activity Allowance is to consider the potential impacts of needing to take additional but previously unforeseen activities that were not contemplated as part of the Final Remedy Design but are activities that would improve the performance of the remedy, or are necessary to gather additional information on the remedy performance, and/or aid in the transition of the active remedy to monitored natural attenuation." (ESA, 2017)

1. Are all components of the WVR in the approved final design as reviewed in the SEIR?

☒ Yes ☐ No

2. Are all components of the WVR staying within an infrastructure alignment in the approved final design?

☐ Yes ☒ No

If answers to both 1 and 2 are Yes, STOP – action is not Future Activity Allowance

3. For components not in approved final design, will the WVR require new access not identified for use in the final design and create new ground disturbance beyond those anticipated in final design?

☒ Yes ☐ No

If answer is No, STOP – action is not Future Activity Allowance. If Yes, proceed...

4. For components not in approved final design and require new access or new ground disturbance, will the ground disturbing activity be outside the 2018 SEIR project boundary?

☐ Yes ☒ No

If answer is Yes, STOP – action is subject to additional CEQA evaluation. WVR approval will be considered after DTSC completes CEQA determination.

5. For WVR requiring new access and/or new ground disturbance, but project components are in approved final design and within the 2018 SEIR project boundary, is the variance necessitated by field conditions which are outside the control of the operator (e.g. refusal during drilling, unstable ground, existing design jeopardizes health and safety, modification to avoid archaeological resource, existing design does not conform to engineering standards, etc.)?

☒ Yes ☐ No

Since the answer is Yes, action is a Future Activity Allowance. DTSC notes that BLM consulted with Tribes on the new pipeline route options. A site walk was conducted on June 23, 2022, with four different pipeline route options. The Tribes evaluated the options and FMIT provided feedback to DOI,

BLM, DTSC, and PG&E on July 8, 2022. The Fort Yuma Quechan Tribe concurred with FMIT's recommendation on July 11, 2022. WVR#12 reflects the FMIT and the Fort Yuma Quechan Tribal route preference.

6. Does the addition of WVR cause an exceedance from infrastructure limits specified in the 2018 certified Final SEIR (Table 3-1 for well boreholes; Table 3-2 for pipeline trenches, electrical/communication conduit, roadway improvements, or sizes of buildings and structures; Table 3-4 for volume of soil disturbance and Table 3-5 for water usage)?

☐ Yes ☒ No


If answer is Yes, STOP – action is subject to additional CEQA evaluation. WVR approval will be considered after DTSC completes a CEQA checklist to determine if there are new or substantially more significant environmental impacts than disclosed in the 2018 SEIR.

7. Other extenuating circumstances or information for FAA considerations: ☒ No

☐ Yes – provide information and/or justification

Conclusion: WVR No. 12

☐ is not a FAA ☒ is a FAA

Signature of DTSC reviewer:  _____

Date: 10/19/2022