



186 Moose Lane
Durango, CO 81303
970-259-8644
970-259-8633 fax

Addendum #1

Date: November 19, 2021
Project: **Offsite Waterline Supply**
Lukachukai Community School Replacement
Location: Indian Route 12
Lukachukai, AZ 86507

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This addendum modifies the Bid Documents produced by Dekker/Perich/Sabatini Ltd. dated September 3, 2021. Acknowledge receipt of this addendum on your bid proposals. Failure to do so may subject proposals to disqualification. All other provisions of the Bid Documents shall remain unchanged.

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1. NTUA Comments

- a. NTUA has provided review comments. Please see the attached letter from NTUA and plan sheets G-01, C-01, C-02, C-03, C-04, C-05, C-06, C-07, C-08.
- b. Additional comments from NTUA on plan sheets C-01, C-02, C-03, C-04, C-05, C-06, C-08, D-3, D-4.

2. Wage Rates

- a. Please use the "HEAVY" category of Davis Bacon wages attached to this addendum.

3. Rock Excavation

- a. There will be rock encountered on the waterline project. NEZ/FCI encountered rock on the school site project. We utilized a company for rock trenching. Bidders should contact:
InterMountain West Civil Constructors, Inc.
1564 N Alma School Road - Suite 200
Mesa, Arizona 85201
602-888-0169

4. Water

- a. Bidders should include obtaining their own non-potable water permit. Water for the school project was pulled from Tsaile Lake.

5. Stormwater/Surveying/Testing

- a. FCI will cover final reseeding of disturbed areas. Bidders should include construction BMP's.
- b. FCI will cover surveying for the waterline.
- c. Owner will be covering the costs for 3rd party testing.

6. On-site Concrete Batch Plant

- a. The batch plant on the school site will **NOT** be available for the waterline project. It will be demobilized on January 1, 2022. All remaining concrete to be poured on the school site will come from Chinle. If concrete is needed for the waterline project, it will have to be imported from Chinle.

7. Proposals, please indicate the following:

- a. Bidders are asked to provide their estimated duration.
- b. Bidders should also provide delivery dates for long lead items.
- c. Bidders should also indicate any potential price increases if vendors can provide that information.

End of Addendum

List of Attachments:

Letter from NTUA dated 11-12-2021

Revised plan sheets G-01, C-01, C-02, C-03, C-04, C-05, C-06, C-07, C-08

Additional comments from NTUA C-01, C-02, C-03, C-04, C-05, C-06, C-08, D-3, D-4

Wage Rates



NAVAJO TRIBAL UTILITY AUTHORITY

AN ENTERPRISE OF THE NAVAJO NATION

November 12, 2021

Lukachukai Community Board of Education, Inc.
Lukachukai Community School (LCS)
Attn: Carmen L. Jodie, LCS School Principal
Navajo Route 13, PO Bos 230
Lukachukai, Arizona 86507

RE: LCS & NHA Offsite Waterline, Lukachukai AZ – NTUA-HQ Review @ 'Pre-Final' Submittal

Dear Ms. Jodie:

The Navajo Tribal Utility Authority (NTUA) Headquarters (HQ) received the 'Pre-Final' submittal plan set for the subject projects shown above which includes the joint offsite waterline design for both the Lukachukai Community School (LCS) project and the Navajo Housing Authority (NHA) AZ.12-200 Subdivision project respectively. The review of the pre-final design stage is complete and our review comments are listed below. Please incorporate these comments with corrections per our recommendations for the next submittal.

General Comments:

1. Route N.12 Highway ROW: Show the highway right-of-way lines on each plan sheet (typ).

Sheet G-01 (Cover Sheet):

1. Title: Update the project title to include reference of the NHA project as shown on the cover sheet.

Sheet C-01 (P&P Sta. 10+00 to Sta. 21+00):

Plan:

1. Ex. 6" PVC C900 W/L: Adjust/fix the ex. 6" transmission line alignment as shown on the plan sheet.
2. Show the required PRV data table on this Sheet C-01. The table shall include the PRV name/number, the size(s) which include the bypass, and the inlet and outlet settings.
3. Plan Keyed Notes #4 & #20: Justify the additional pressure relief valve & vault. (Surge Relief Valve Station per Dwg. 2353 on Sheet D-04) See Waterline Connection Detail review comments below.
4. Ex. 2" PVC W/L label: Also callout to be 'abandoned in-place' as shown on the plan sheet.
5. Sta. 20+05.00 (Proposed in-line 6" Gate Valve): Remove this proposed G.V. as it will not be required per IHS design standard for gate valve installations at 5,280-ft (1 mi.) segment increments or a change in design grade elevation of more than >50-ft vertically, or major alignment P.I./bend areas.
6. Keyed Notes: Make corrections to the key note descriptions as shown on the plan sheet.

Home Office:
P.O. BOX 170
FT. DEFIANCE, AZ 86504

KAYENTA
P.O. BOX 37
KAYENTA, AZ 86033

TUBA CITY
P.O. BOX 398
TUBA CITY, AZ 86045

SHIPROCK
P.O. BOX 1749
SHIPROCK, NM 87420

CHINLE
P.O. BOX 549
CHINLE, AZ 86503

FORT DEFIANCE
P.O. BOX 587
FT. DEFIANCE, AZ 86504

DILCON
HC 63 BOX D
WINSLOW, AZ 86047

CROWNPOINT
P.O. BOX 1825
CROWNPOINT, NM 87313

CALL 800-528-5011 OR 928-729-5721 FOR ALL OFFICES.

*This institution is an equal opportunity provider and employer

Waterline Connection Detail:

1. Sta. 10+00 (Tapping Pt.): Tapping saddle not approved. Utilize 6" Tee, DI, MJ, w/ Thrust Block. Hot tap not approved, the ex. 6" high-pressured transmission line must be isolated and depressurized before tapping with the new 6" tee w/ transition piping & couplings as shown on the detail comments.
2. The ex. 6" high-pressured transmission line's current dynamic/static pressures must be checked and verified. Install the appropriate pressure rated PVC C900 pipe. Ductile iron application not approved.
3. Sta. 10+49.96 (Proposed 6" PRV w/in Manhole): Justify the additional pressure relief valve & vault. (Surge Relief Valve Station per Dwg. 2353 on Sheet D-04) These facilities are not required per the planned PRV @ Sta. 10+62.13 which should suffice the high-pressure incoming flow to the new 6" PVC C900 waterline. This is not an NTUA standard. The operating District Office will not operate & maintain (O&M) this facility.
4. Edit/add the additional minor text items/labels on the detail, as shown.

Profile:

1. Proposed 11.25° Bends (Sta's 11+36, 11+56, 11+60, 11+78): Justify why these proposed bends are being installed at these Sta's. These bends are not shown on the plan view. If the bends are per vertical realignments for what looks to be a minor local drainage ditch, also callout on the plan view.

Sheet C-02 (P&P Sta. 21+00 to Sta. 32+00):

Plan:

1. Ex. 2" PVC W/L: Callout the ex. 2" waterline **only** from Sta. 21+00 to Sta. 26+30(+/-). This approximate Sta. area is where the ex. 2" waterline ends. Adjust/fix the ex. 2" waterline alignment to end here, as shown on the plan sheet. Also callout to be 'abandoned in-place' as shown. Delete/erase the shown ex. 2" waterline alignment that is shown from Sta. 26+30(+/-) to Sta. 32+00, which is the matchline for this sheet. This does not exist in the field.
2. EOL for ex. 2" W/L: Blow up the EOL area with a detail bubble as shown on the plan sheet. Show/add the detail bubble review comments as shown per the ex. water facilities near the EOL.
3. Ex. Curb Stop at ex. Homesite: The ex. curb stop to remain, protect in-place. The new 6"x1" saddle tap on the new 6" water main will align directly in-line w/ the ex. curb stop location. Future water service re-connection will utilize the ex. curb stop. Also, label the House No. # and/or Homeowner name (typ).
4. New 6" PVC C900 W/L alignment: At or near Sta. 26+40(+/-), align the new 6" water main into the centerline of the new 30-ft water easement/ROW here. See plan sheet/detail bubble for reference.
5. Planned/future bends on the new 6" water main: The Sta. locations of the bends will change per the shift of the 6" water main into the center of the 30-ft water easement. Adjust the Sta. locations.
6. Sta. 26+38.08 (6"x2" service saddle): Where/who will this 2" water service alignment be routing to?
7. Sta. 30+05.00 (Proposed 6" in-line Gate Valve): Move/revise this gate valve to 3-ft downstream of the revised bend area once the 6" water main alignment shifts to the centerline of the 30-ft water easement, as shown in the requested future detail bubble of the EOL area of the ex. 2" waterline.
8. Ex. Frontier telecommunications/fiber line: Upon visual field verification, there looks to be an underground (UG) telecommunications line field marked w/ orange marking paint and ex. pedestals. Show this ex. Frontier line in relation to the planned 6" water main on the plan. May require coordination with the local Frontier utility office. The line looks to be following the NHA survey stakes going northbound to the next homesite residence. Possible conflict and/or Frontier relocation.
9. Keyed Notes: Make corrections to the keynote descriptions as shown on the plan sheet.

Profile:

1. Planned fitting symbols: Show/label the saddle and bend symbols in the profile, as shown.

Sheet C-03 (P&P Sta. 32+00 to Sta. 43+00):

Plan:

1. Non-existing 2" PVC W/L: Delete/erase the shown ex. 2" waterline alignment that is shown from Sta. 32+00 to Sta. 43+00, which are the matchlines for this sheet. This does not exist in the field.
2. New 6" PVC C900 W/L alignment: From Sta. 32+00 to Sta. 43+00 (matchlines for this sheet), align the new 6" water main at the centerline of the new 30-ft water easement/ROW.
3. Sta. 40+05.00 (Proposed 6" in-line Gate Valve): Move/revise this gate valve to 3-ft downstream of the planned 45° degree bend at Sta. 39+25.67.
4. Future Homesite water service: Label the House No. # and/or Homeowner name (typ).
Note: this residence is not presently served. No current water service or meter. The keyed note callout #9 for the new 6"x1" service saddle is approved.
5. Ex. Frontier telecommunications/fiber line: Upon visual field verification, there looks to be an underground (UG) telecommunications line field marked w/ orange marking paint and ex. pedestals. Show this ex. Frontier line in relation to the planned 6" water main on the plan. May require coordination with the local Frontier utility office. The line looks to be following the NHA survey stakes going northbound to the next homesite residence. Possible conflict and/or Frontier relocation.
6. Keyed Notes: Make corrections to the key note descriptions as shown on the plan sheet.

Profile:

1. Planned fitting symbols: Show/label the saddle and bend symbols in the profile, as shown.

Sheet C-04 (P&P Sta. 43+00 to Sta. 54+00):

Plan:

1. Non-existing 2" PVC W/L: Delete/erase the shown ex. 2" waterline alignment that is shown from Sta. 43+00 to Sta. 47+05(+/-), which is from the left matchline of this sheet to the area where the ex. 2" waterline comes in from the north and bends w/ a 45° degree ell heading southwest towards the EOL of this ex. 2" waterline. This segment does not exist in the field.
2. New 6" PVC C900 W/L alignment:
 - From Sta. 43+00 (left matchline) to Sta. 46+45(+/-): Align the new 6" water main at the centerline of the new 30-ft water easement/ROW.
 - From Sta. 46+45(+/-) to Sta. 54+00 (right matchline for this sheet), align the new 6" water main on the eastern side of the incoming northern ex. 2" waterline (5 to 6-ft offset) within the ex. 30-ft water easement/ROW. This is per initial coordination w/ the NHA and its surveyors to minimize encroachment into the ex. Homesites within this alignment area.
3. Ex. northern 2" PVC W/L label (from Sta. 47+05(+/-) to right matchline Sta. 54+00): Also callout this particular waterline to be 'abandoned in-place' as shown on the plan sheet.
4. The ex. 2" waterline segment after the 45° degree bend to the EOL that serves the ex. Homesite with the maroon roof near Sta. 45+00 is to remain. Show this ex. 2" waterline and the ex. 30-ft water easement/ROW on the plan as shown. Also show the ex. flush valve and ex. curb stop at the EOL.

5. The reconnection of the ex. 2" waterline (Line "B") to the new 6" water main shall be accomplished by installing a new 6"x2" Tee at/near Sta. 47+00 and a new 2" Gate Valve at 3-ft downstream of the new tee as shown on the plan sheet. After the new gate valve, install new 2" PVC SDR-21 pipe as needed to where the new 2" branch intersects with the ex. 2" waterline alignment. At this point, install a new 45° bend w/ a min. 5-ft segment of 2" PVC SDR-21 transition piping w/ appropriate 2" coupling to re-connect back to the ex. 2" waterline serving the Homesite at the EOL.
It is requested to blow up this new P.I. area with a detail bubble as shown on the plan sheet. Show/add the detail bubble review comments as shown per the ex./new water facilities near this P.I.
6. Ex. Shed at/near Sta. 47+10(+/-) right: The ex. shed assembly will be required to be moved/relocated for the installation of the new 6" water main. The input/advice of the Homesite owner will be requested for the relocation of the shed to an alternate site outside the ex. 30-ft water easement/ROW.
7. Sta. 50+05.00 (Proposed 6" in-line Gate Valve): Move/revise this gate valve to 3-ft downstream of the revised reconnection branch of the ex. 2" waterline that is to remain, at/near Sta. 47+00(+/-).
8. Ex. Curb Stops at ex. Homesites: The ex. curb stops are to remain, protect in-place. The new 6"x1" saddle taps on the new 6" water main will align directly in-line w/ the ex. curb stop locations. Future water service re-connections will utilize the ex. curb stops. Also, label the House No's. # and/or Homeowners names (typ).
9. Ex. 2" Gate Valve on the ex. 2" waterline (Line "B") to be abandoned at/near Sta. 53+05(+/-) is to be removed and salvaged back to the NTUA Chinle District Office.
10. Keyed Notes: Make corrections to the key note descriptions as shown on the plan sheet.

Profile:

1. Planned fitting symbols: Show/label the new service saddles and all bend symbols in the profile, as shown.

Sheet C-05 (P&P Sta. 54+00 to Sta. 65+00):

Plan:

1. New 6" PVC C900 W/L alignment: From Sta. 54+00 to Sta. 63+45 (+/-), align the new 6" water main on the eastern side of the incoming northern ex. 2" waterline (5 to 6-ft offset) within the ex. 30-ft water easement/ROW. This is per initial coordination w/ the NHA and its surveyors to minimize encroachment into the ex. Homesites within this alignment area.
Then after the second 45° bend at/near Sta. 63+50(+/-) to Sta. 65+00 (right matchline for this sheet), align the new 6" water main at the centerline of the new 30-ft water easement/ROW. (The shown ex. 2" waterline does not exist after the 45° bends aligning toward the road crossing for Route N12.
2. Non-existing 2" PVC W/L: Delete/erase the shown ex. 2" waterline alignment that is shown from the non-existing 2" x 90° bend to Sta. 65+00, which is from the right matchline of this sheet. This segment does not exist in the field.
3. Also show the existing 2" waterline (Line "TW-B") that continues to run northbound as shown on the plan sheet. It is requested to enlarge the viewport in this area to show the ex. Homesite to the north. (House #H-364A – Caroline Jim) Once the new 6" water main is in-service and operational, this ex. 2" waterline will end at 10-ft past the ex. water service connection point. At this point a new 2" Flush Valve will be installed for the new EOL.
4. Ex. 2" PVC W/L label: Also callout this particular waterline to be 'abandoned in-place' as shown on the plan sheet.

5. Sta. 60+05.00 (Proposed 6" in-line Gate Valve): Move/revise this gate valve to 3-ft upstream of the first 45° degree bend at/near Sta. 63+45 (+/-).
6. Adjust the Sta.'s for the planned 45° bends once the 6" water main alignment shifts to the center of the 30-ft water easement as shown. Also show the fitting symbols in the profile below.
7. Show the future Homesite near Sta. 59+00/60+00 as shown, but label the homesite not to be served w/ new service saddle as it is not currently connected to the ex. 2" waterline.
8. Keyed Notes: Make corrections to the key note descriptions as shown on the plan sheet.

Profile:

1. Planned fitting symbols: Show/label the bend symbols in the profile, as shown.

Sheet C-06 (P&P Sta. 65+00 to Sta. 76+00):

Plan:

1. Non-existing 2" PVC W/L: Delete/erase the shown ex. 2" waterline alignment that is shown from Sta. 65+00 to Sta. 76+00, which are the matchlines for this sheet. This does not exist in the field.
2. New 6" PVC C900 W/L alignment: From Sta. 65+00 to Sta. 76+00 (matchlines for this sheet), align the new 6" water main at the centerline of the new 30-ft water easement/ROW.
2. General Comment: Show the highway right-of-way lines on each plan sheet (typ).
3. Show the requested 100-ft expanded road crossing for boring operations. Coordinate this expanded crossing permit w/ the BIA Chinle Agency DOT.
4. Show and callout the planned steel casing from highway ROW-to-ROW as shown.
5. Planned Gate Valves at End-of-Casing locations: Move/revise the road crossing gate valve locations to 3-ft min. outside highway ROW lines, as shown.
6. Plan Keyed Notes #14 (Bore Pit): On the plan, show/label the bore pit descriptions on the keyed note (Launch Pit/Receiving Pit) as shown.
7. Sta. 70+05.00 (Proposed 6" in-line Gate Valve): Move/revise this gate valve to 3-ft downstream of the second 45° degree bend at/near Sta. 69+14.09 (+/-).

Profile:

1. Planned fitting symbols: Show/label the bend symbols in the profile, as shown.

Sheet C-07 (P&P Sta. 76+00 to Sta. 87+00):

Plan:

1. Non-existing 2" PVC W/L: Delete/erase the shown ex. 2" waterline alignment that is shown from Sta. 76+00 to Sta. 87+00, which are the matchlines for this sheet. This does not exist in the field.
2. New 6" PVC C900 W/L alignment: From Sta. 76+00 to Sta. 87+00 (matchlines for this sheet), align the new 6" water main at the centerline of the new 30-ft water easement/ROW.
3. General Comment: Show the highway right-of-way lines on each plan sheet (typ).
4. Ex. Waterlines not-shown: Show and label the ex. waterlines that exist in the field as shown on the plan sheet.
5. Sta. 80+05.00 (Proposed in-line 6" Gate Valve): Remove this proposed G.V. as it will not be required at this location.

Profile:

1. Ex. 6" waterline crossing: Show/label the ex. waterline in the profile, as shown.

Sheet C-08 (P&P Sta. 87+00 to Sta. 92+60):

Plan:

1. Non-existing 2" PVC W/L: Delete/erase the shown ex. 2" waterline alignment that is shown from Sta. 87+00 to Sta. 92+60. This does not exist in the field.
2. New 6" PVC C900 W/L alignment: From Sta. 87+00 to Sta. 92+60, align the new 6" water main at the centerline of the new 30-ft water easement/ROW.
3. General Comment: Show the highway right-of-way lines on each plan sheet (typ).
4. Show the requested 100-ft expanded road crossing for boring operations. Coordinate this expanded crossing permit w/ the BIA Chinle Agency DOT.
5. Show and callout the planned steel casing from highway ROW-to-ROW as shown.
6. Planned Gate Valves at End-of-Casing locations: Move/revise the road crossing gate valve locations to 3-ft min. outside highway ROW lines, as shown.
7. Plan Keyed Notes #14 (Bore Pit): On the plan, show/label the bore pit descriptions on the keyed note (Launch Pit/Receiving Pit) as shown.
8. Sta. 90+84.19 (Proposed CAV): Remove this CAV as it will not be required at this location.
9. Callout new Hydrant also on plan view at Sta. 90+07.31 LT. Flush valve not approved.
10. Callout the future NHA water main downstream of the 6" cross area. Question: Who will be designing this offsite NHA waterline? Coordination may be required w/ the NHA and its client engineer.
11. Keyed Notes: Make corrections to the key note descriptions as shown on the plan sheet.

Waterline Cross Detail:

1. Edit/add the additional minor text items/labels on the detail, as shown

Profile:

1. Delete/erase the shown ex. 2" waterline, as it does not exist here.

We are requesting a written response to our review and recommendations. Bear in mind that these review comments will ultimately benefit the final construction as-built plan sets that are to be submitted prior to the final inspection and with the transfer package when the project is completed. If any new designs, modifications, or features have been included or added to the design as part of the next submittal, inform the NTUA in your response letter of such additions/revisions so we can make note for the next/final review stage. Please also submit an electronic copy (PDF) of the next submittal package, which includes the written response from your engineer. You may contact us, if you require any additional information and if you have any questions about the Pre-Final design stage review. Thank you for the submittal to NTUA-Headquarters.

Sincerely,

FOA 
Adrian Showalter, NTUA-HQ W/WW
Constr. Quality Assurance Officer

Enclosures: Reviewed plan sheets

CC: Rex Kontz, Deputy General Manager, HQ-NTUA
Rayni Nelson, Associate Deputy General Manager, HQ-NTUA
Garridyn Henderson, NTUA-HQ DGM Office
David Shultz, NTUA-HQ W/WW Dept.
Audrey Nelson, NTUA-HQ W/WW Dept.

Alfred Dugi, NTUA Chinle District Office
Duane Charles, NTUA Chinle District Office
Al Francis, MV PMCM Services, LLC
Marvin Redhorse, Redhorse PM
Cullen Zion, PM, Nez-FCI constructors Inc.

PRE-FINAL PLANS
FOR
LUKACHUKAI COMMUNITY SCHOOL
WATERLINE SUPPLY
LUKACHUKAI, ARIZONA
OCTOBER 2021

& NHA AZ.12-200 SUBDIVISION PROJECTS

INDEX

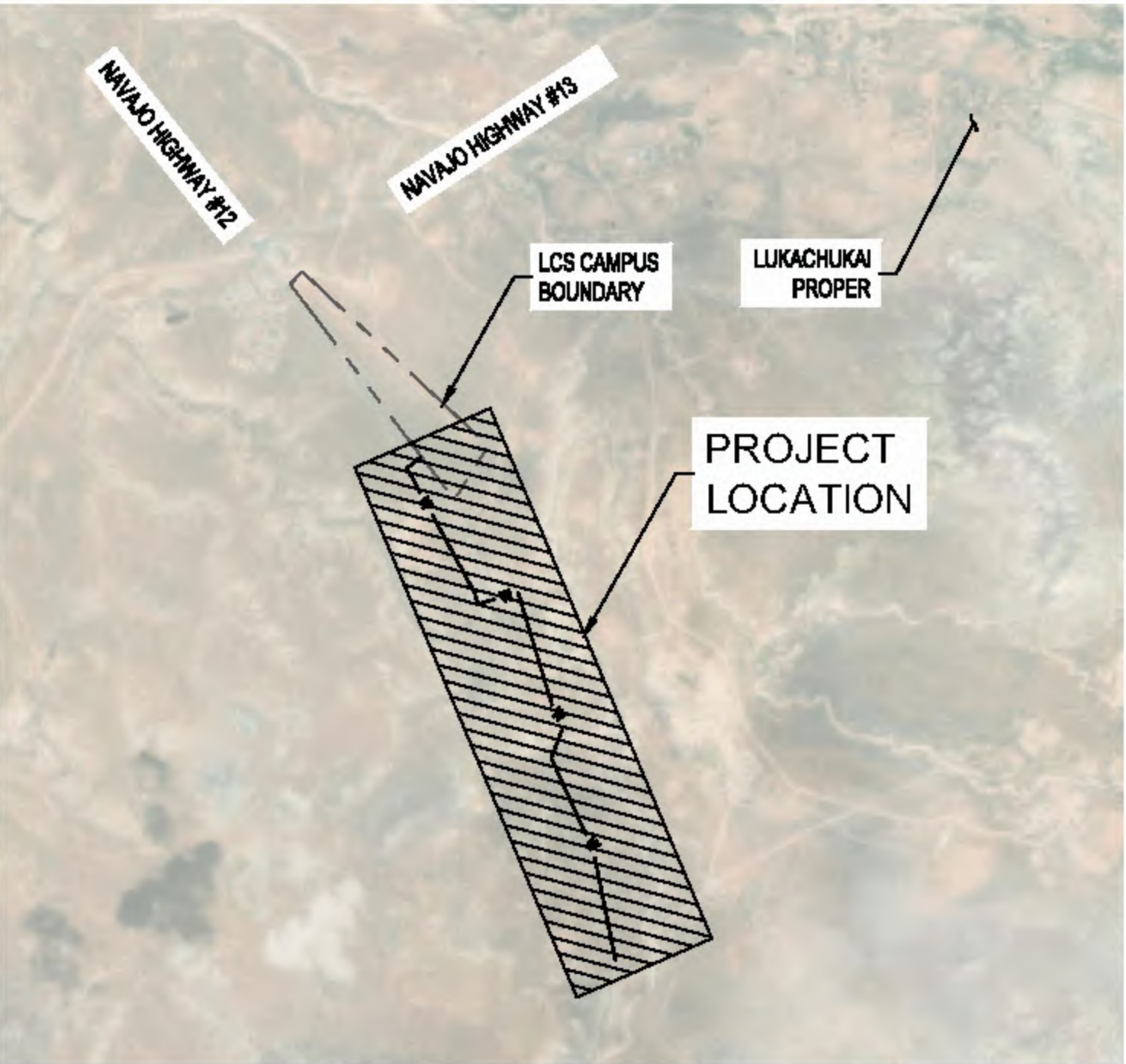
SHEET NUMBER	DWG NUMBER	DESCRIPTION
1	G-01	COVER SHEET
2	G-02	GENERAL NOTES AND LEGEND
3	G-03	SURVEY CONTROL SHEET
4	G-04	HYDRAULIC PROFILE

CIVIL SHEETS

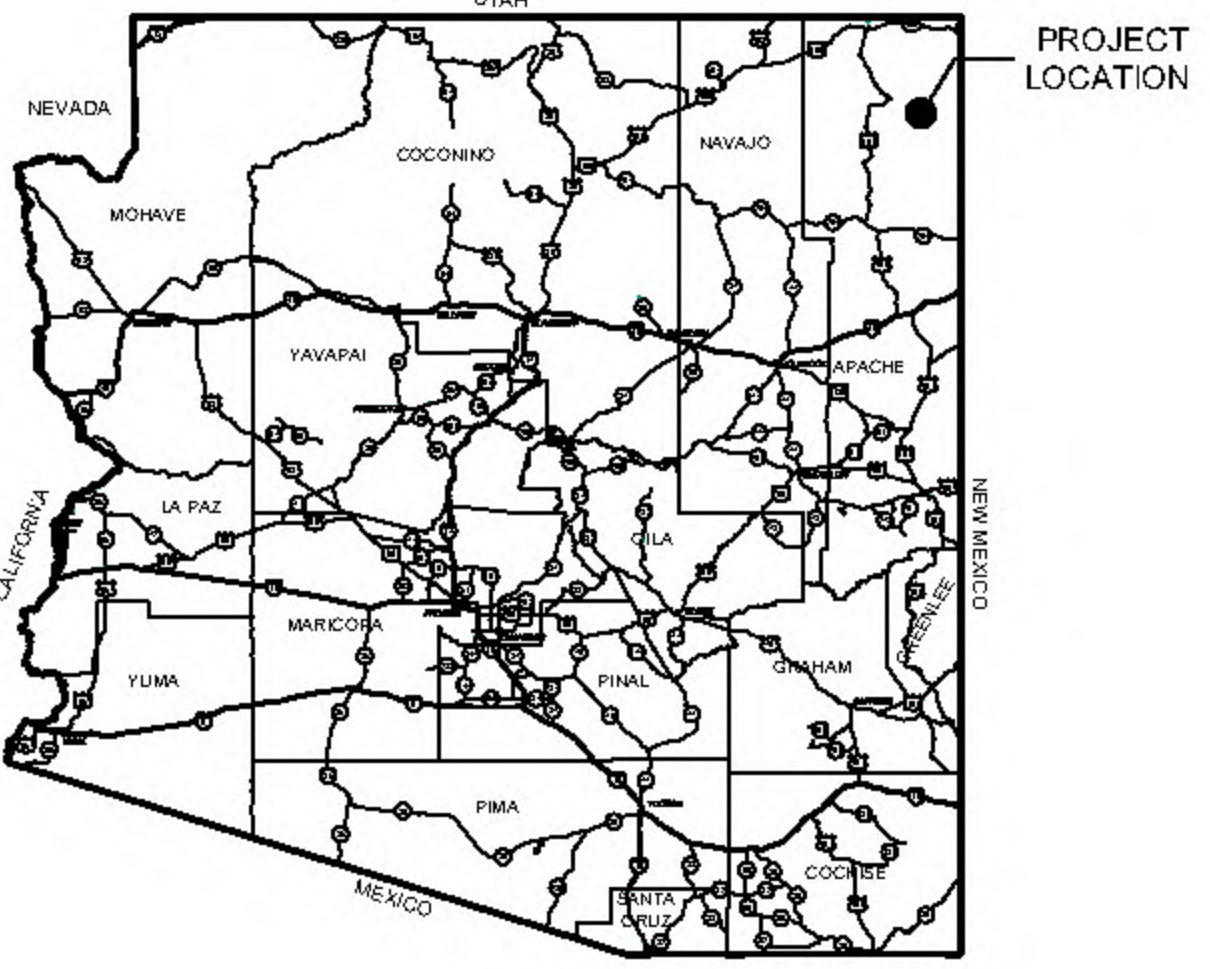
5	C-01	PLAN AND PROFILE STA 10+00 TO STA 21+00
6	C-02	PLAN AND PROFILE STA 21+00 TO STA 32+00
7	C-03	PLAN AND PROFILE STA 32+00 TO STA 43+00
8	C-04	PLAN AND PROFILE STA 43+00 TO STA 54+00
9	C-05	PLAN AND PROFILE STA 54+00 TO STA 65+00
10	C-06	PLAN AND PROFILE STA 65+00 TO STA 76+00
11	C-07	PLAN AND PROFILE STA 76+00 TO STA 87+00
12	C-08	PLAN AND PROFILE STA 87+00 TO STA 92+60

DETAIL SHEETS

13	D-01	NTUA STANDARD DRAWINGS (1)
14	D-02	NTUA STANDARD DRAWINGS (2)
15	D-03	NTUA STANDARD DRAWINGS (3)
16	D-04	APWA STANDARD DRAWINGS



LOCATION MAP
SCALE: 1"=2000'
(ZONE ATLAS MAP NO. D-16)



VICINITY MAP
SCALE: 1"=80 MILES

ARCHITECTURE / ENGINEER / INTERIOR DESIGN

DEKKER
PERICH
SABATINI

7601 JEFFERSON BL. SUITE 100
ALBUQUERQUE, NM 87109
505.761.9700 / 505.761.9701
ARCHITECT

ENGINEER

PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL
SUBMITTAL

REVISIONS
△
△
△
△
△
△

DRAWN BY: JTL
REVIEWED BY: NDR
DATE: 08/03/2021
PROJECT NO.: 20-7002.001
DRAWING NAME:

LCS WATERLINE
SUPPLY
COVER SHEET

SHEET NO.
G-01
OF

REVIEWED
adrians, 11/10/2021 4:37:16 PM
@ NTUA-HQ WWW DEPT.


K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL
SUBMITTAL

VISIONS

DRAWN BY	JTL
VIEWED BY	NDR
DATE	09/03/2021
PROJECT NO.	20-7002.001
DRAWING NAME	

CS WATERLINE
SUPPLY
PLAN & PROFILE
STA 10+00 TO STA
11+00

HEET NO. **C-01**  OF

1. FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. DAMAGE TO UTILITIES OR FACILITIES WITHIN THE PROJECT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS UNLESS OTHERWISE DENOTES IN PLANS.
3. STATIONS SHOWN ARE ALONG CENTERLINE OF PIPE AND ELEVATIONS SHOWN ARE ALONG TOP OF PIPE.
4. JOINTS TO BE RESTRAINED AS SHOWN ON PLANS. IF PIPE CANNOT BE RESTRAINED AT JOINTS, INSTALL THRUST BLOCKS PER NTUA STANDARD DRAWINGS WS-18 & WS-18A, SHEET D-03.
5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

1. TIE IN TO EXISTING HIGH-POWER 6" DR14 C900 PVC TRANSMISSION LINE. SEE DETAIL 1, THIS SHEET.

2. INSTALL 6" DUCTILE IRON WATERLINE. ← A DUCTILE IRON (DI) APPLICATION NOT APPROVED HERE

3. INSTALL 6" DR18 C900 PVC WATERLINE. ← LABEL/SHOW PRESSURE/CLASS (TYP)

4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-02

5. INSTALL 6" PRESSURE REDUCING VALVE AND VAULT INCLUDING FLUSH HYDRANTS UPSTREAM AND DOWNSTREAM OF VAULT PER NTUA STD DWGS WS-6 & WS-6A. SEE SHEET D-01.

6. ← SPELL OUT: COMBINATION AIR VALVE (CAV)

7. INSTALL 1" CAV PER NTUA STD DWG WS-10. SEE SHEET D-02.

10. INSTALL 45° BEND (MJ X MJ). ← WITH THRUST BLOCK PER NTUA STD. DTL. WS-19.

19. INSTALL 45° LATERAL (MJ X MJ).

20. INSTALL 6" PRESSURE RELIEF VALVE AND VAULT PER APWA STD DWG 2353. SEE SHEET D-04.

JUSTIFY THE ADDITIONAL PRV;
SEE DETAIL THIS SHEET FOR
ADDITIONAL COMMENT

LABEL/SHOW PRESSURE/CLASS (TYP ALL

TAPPING SADDLE NOT APPROVED.
USE 6" TEE, DI, MJ, w/ THRUST BLOCK.

LABEL/SHOW PRESSURE/
CLASS (TYP ALL)

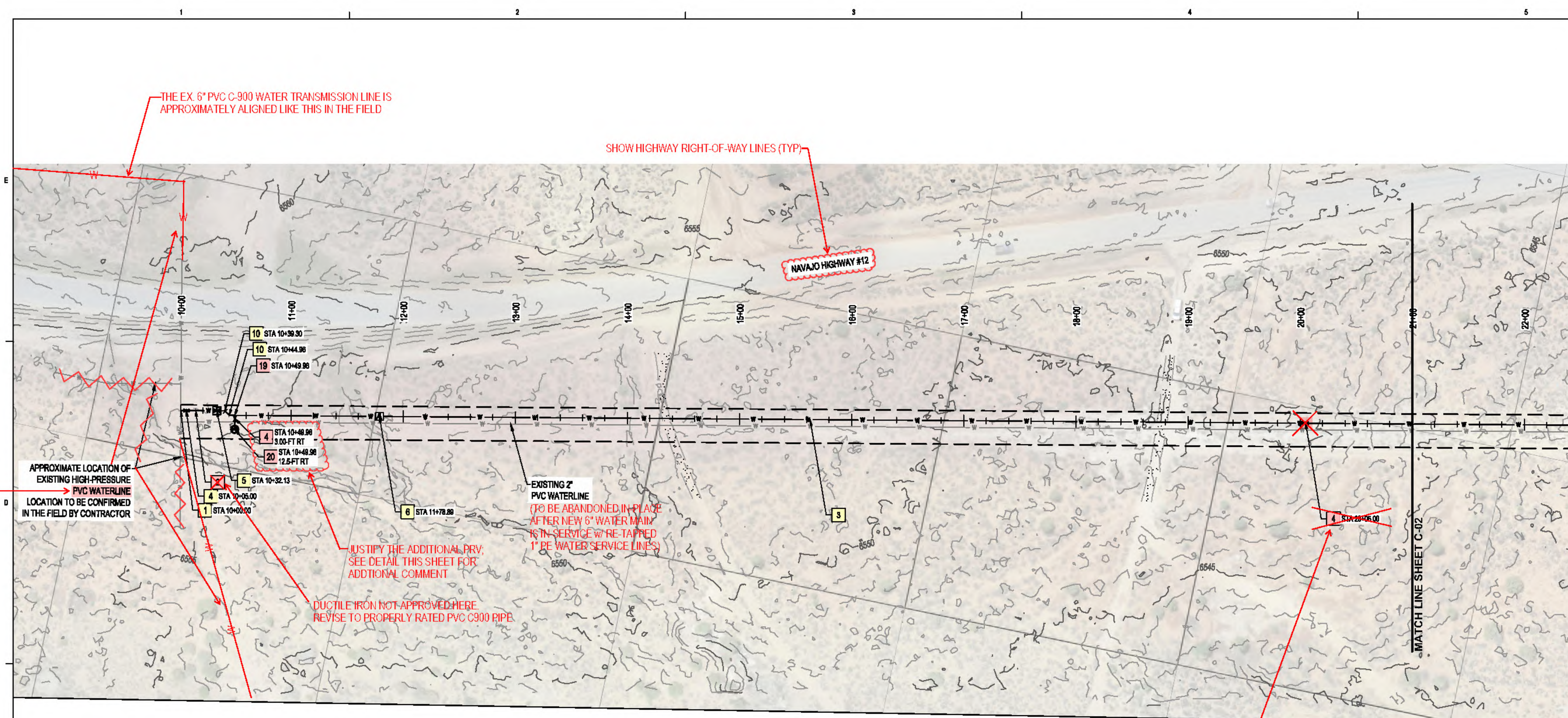
WATERLINE

STA 10+49.96
3.0-FT RIGHT
8" GATE VALVE 5'-6" TYP.

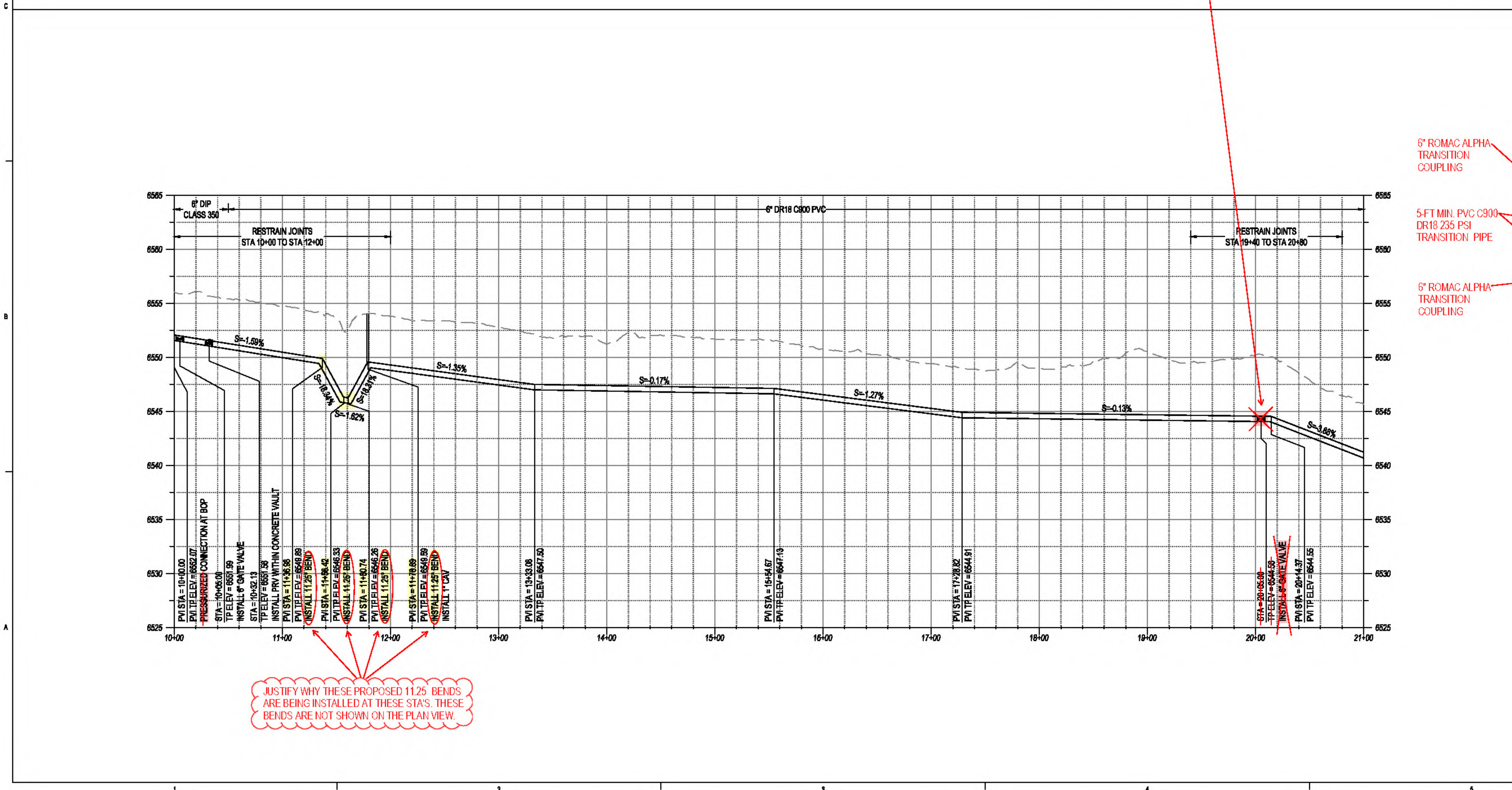
THESE FACILITIES ARE NOT REQUIRED. JUSTIFY THE PROPOSAL FOR THESE ITEMS.

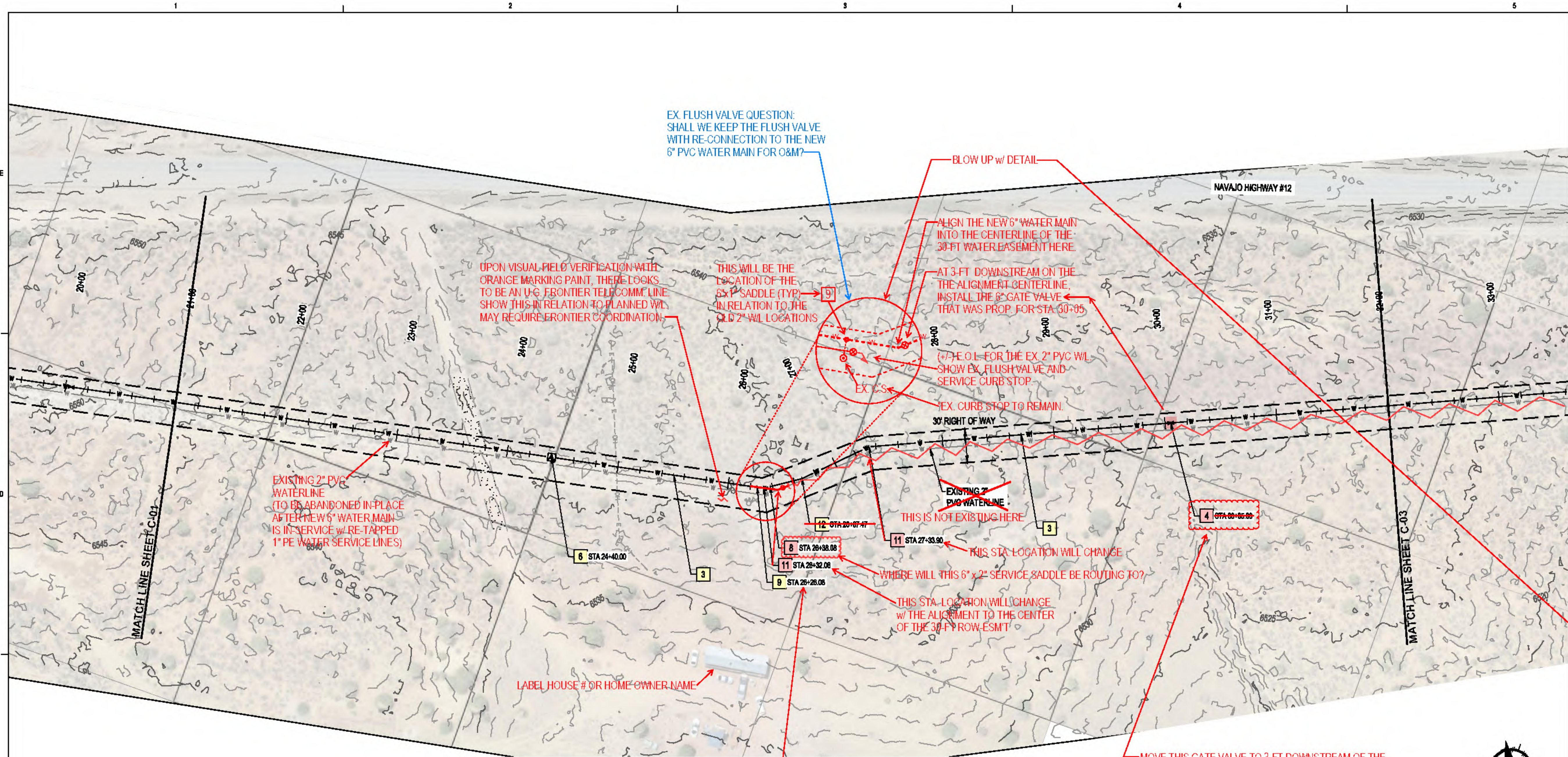
1 WATERLINE CONNECTION DETAIL
SCALE: NOT TO SCALE

A horizontal number line with arrows at both ends. It has tick marks labeled 1 and 6.



REMOVE THIS IN-LINE GATE VALVE:
NOT REQUIRED AT THIS LOCATION.
SEE REVIEW COMMENTS LETTER.





GENERAL NOTES:

- FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- DAMAGE TO UTILITIES OR FACILITIES WITHIN THE PROJECT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS UNLESS OTHERWISE DEVOTES IN PLANS.
- STATIONS SHOWN ARE ALONG CENTERLINE OF PIPE AND ELEVATIONS SHOWN ARE ALONG TOP OF PIPE.
- JOINTS TO BE RESTRAINED AS SHOWN ON PLANS. IF PIPE CANNOT BE RESTRAINED AT JOINTS, INSTALL THRUST BLOCKS PER NTUA STANDARD DRAWINGS WS-19 & WS-19A, SHEET D-03.
- TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

KEYED NOTES:

- 3 INSTALL 6" DR18 CR200 PVC WATERLINE.
- 4 INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-02. **SPELL OUT: COMBINATION AIR VALVE (CAV)**
- 6 INSTALL 1" CAP PER NTUA STD DWG WS-10. SEE SHEET D-02.
- 8 INSTALL SERVICE SADDLE FOR FUTURE SERVICE EXTENSION TO RESIDENT GREATER THAN 200' AWAY PER NTUA STD DWGS WS-3 & WS-3A. SEE SHEET D-01. **6" x 1"**
- 9 INSTALL SERVICE SADDLE FOR CUSTOMER CONNECTION PER NTUA STD DWGS WS-2 & WS-2A. SEE SHEET D-01. **EX RE-**
- 11 INSTALL 22.5° BEND (MJ X MJ). **WITH THRUST BLOCK PER NTUA WS-19.**
- 12 INSTALL 11.25° BEND (MJ X MJ).

ARCHITECTURE / DESIGN / INFORMATION

**DEKKER
PERICH
SABATINI**

7601 JEFFERSON HILL, SUITE 100
ALBUQUERQUE, NM 87109

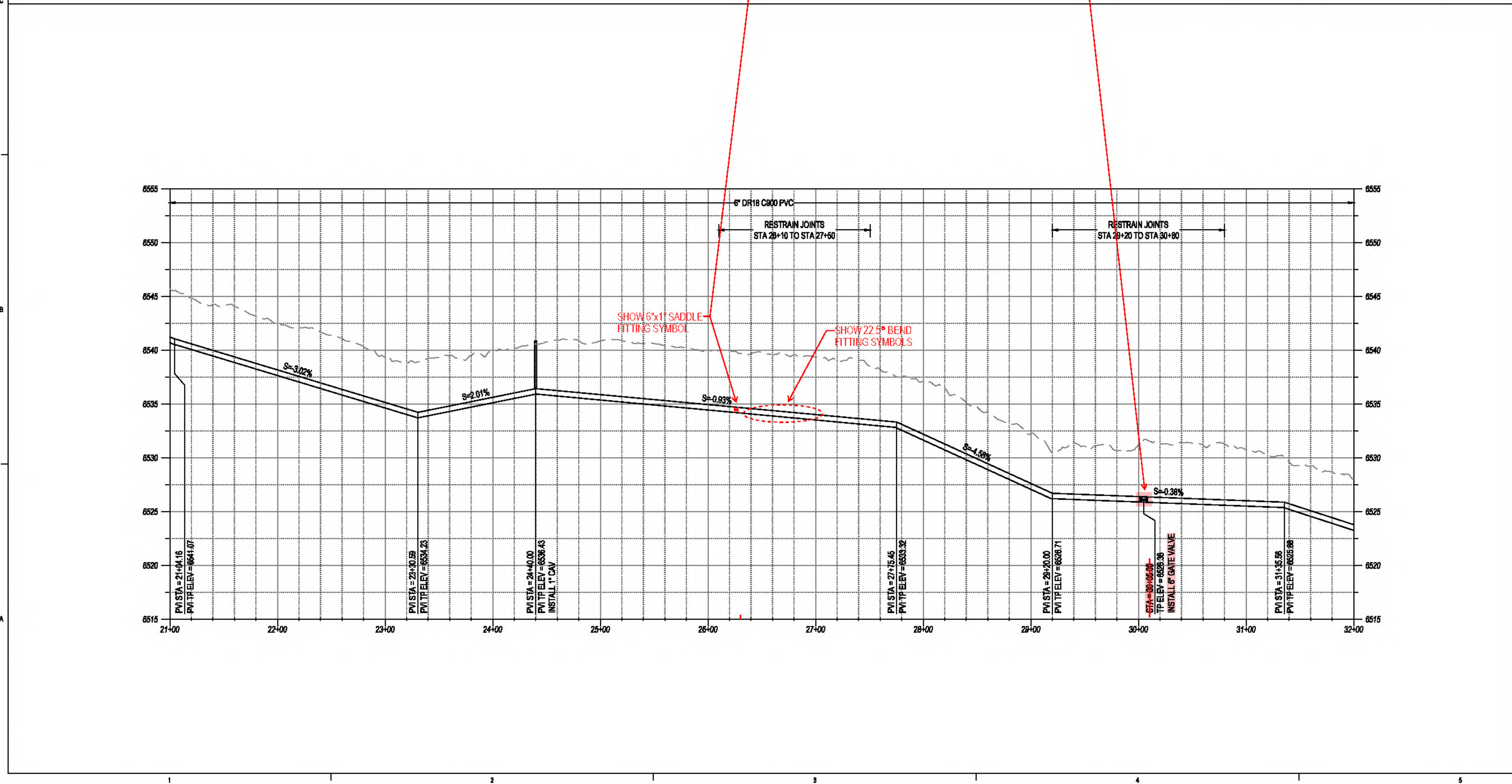
505.761.9700 / info@dekperichsab.com

ARCHITECT

ENGINEER

PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507



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SUBMITTAL**

REVISIONS

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REVIEWED BY: NDR

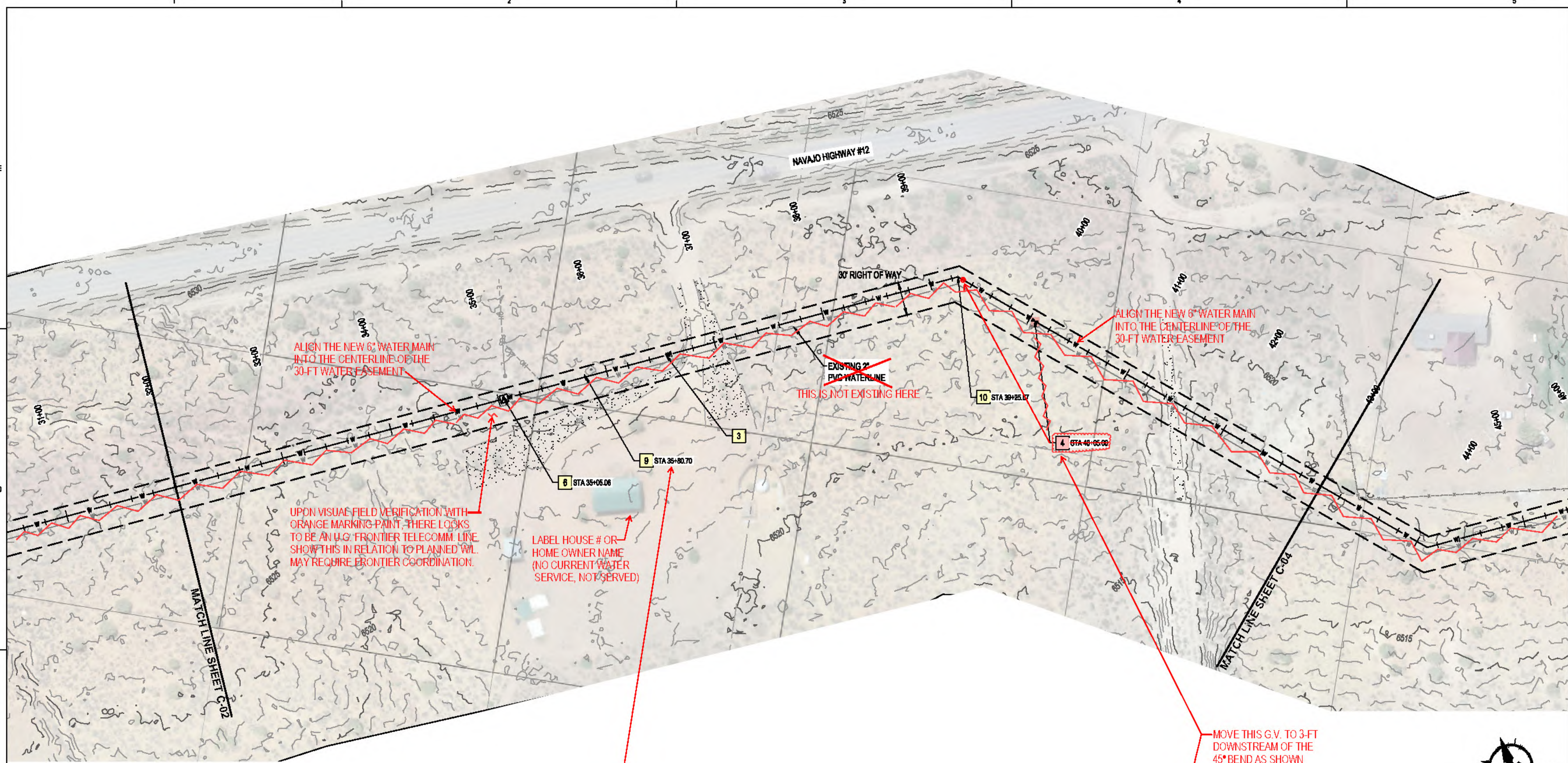
DATE: 09/03/2021

PROJECT NO.: 20-7002.001

DRAWING NAME: LCS WATERLINE SUPPLY

PLAN & PROFILE STA 21+00 TO STA 32+00

SHEET NO. **C-02** OF

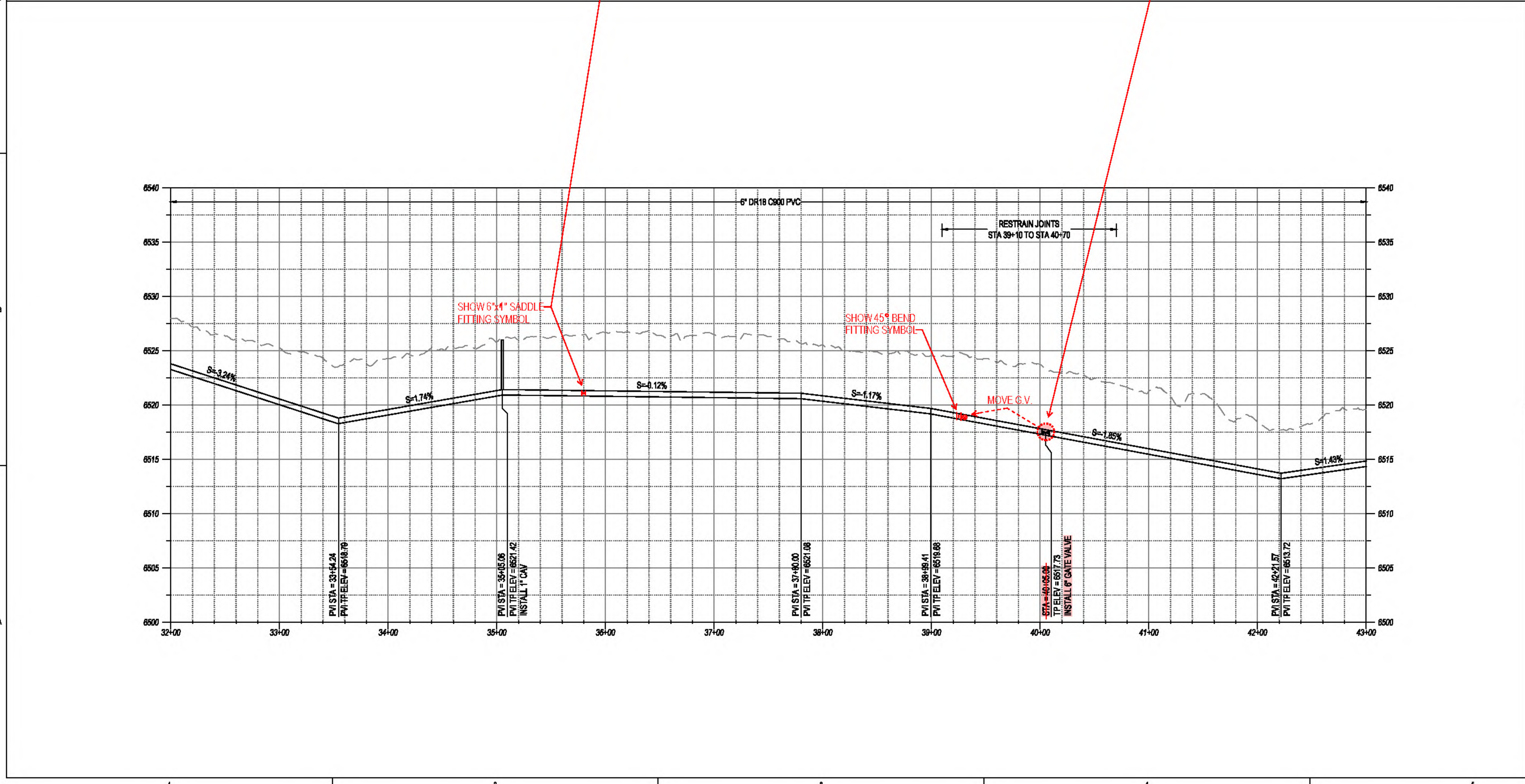


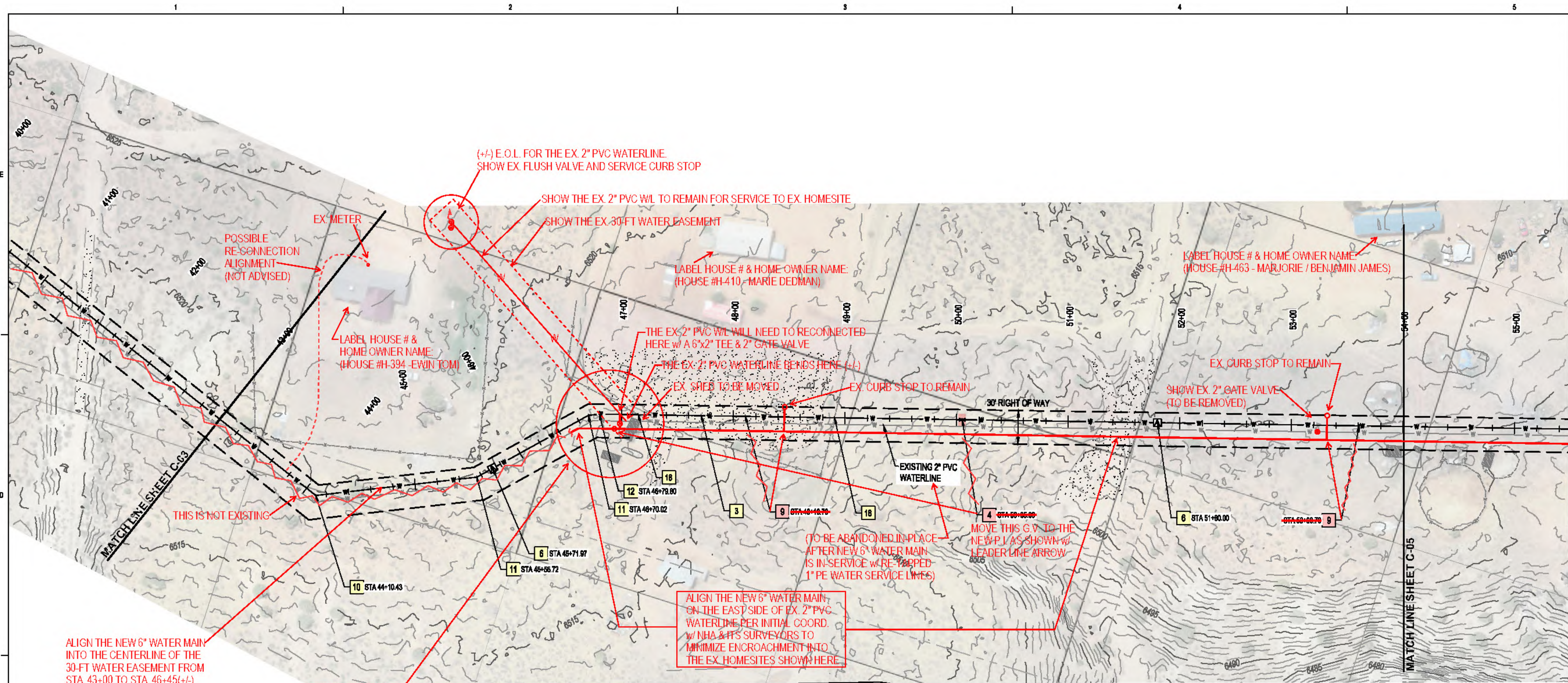
GENERAL NOTES:

1. FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. DAMAGE TO UTILITIES OR FACILITIES WITHIN THE PROJECT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS UNLESS OTHERWISE DENOTES IN PLANS.
3. STATIONS SHOWN ARE ALONG CENTERLINE OF PIPE AND ELEVATIONS SHOWN ARE ALONG TOP OF PIPE.
4. JOINTS TO BE RESTRAINED AS SHOWN ON PLANS. IF PIPE CANNOT BE RESTRAINED AT JOINTS, INSTALL THRUST BLOCKS PER NTUA STANDARD DRAWINGS WS-19 & WS-18A, SHEET D-03.
5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

KEYED NOTES:

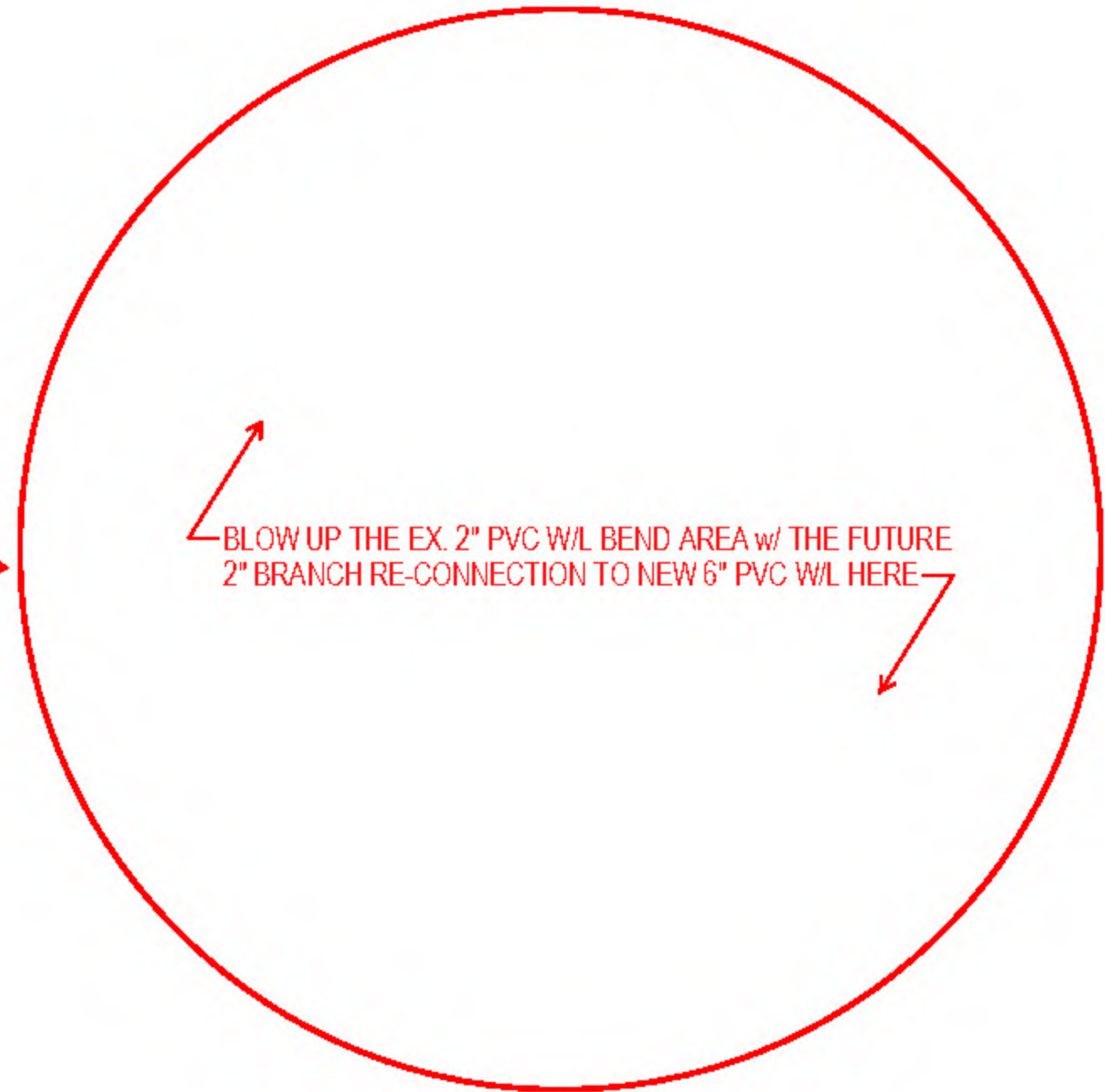
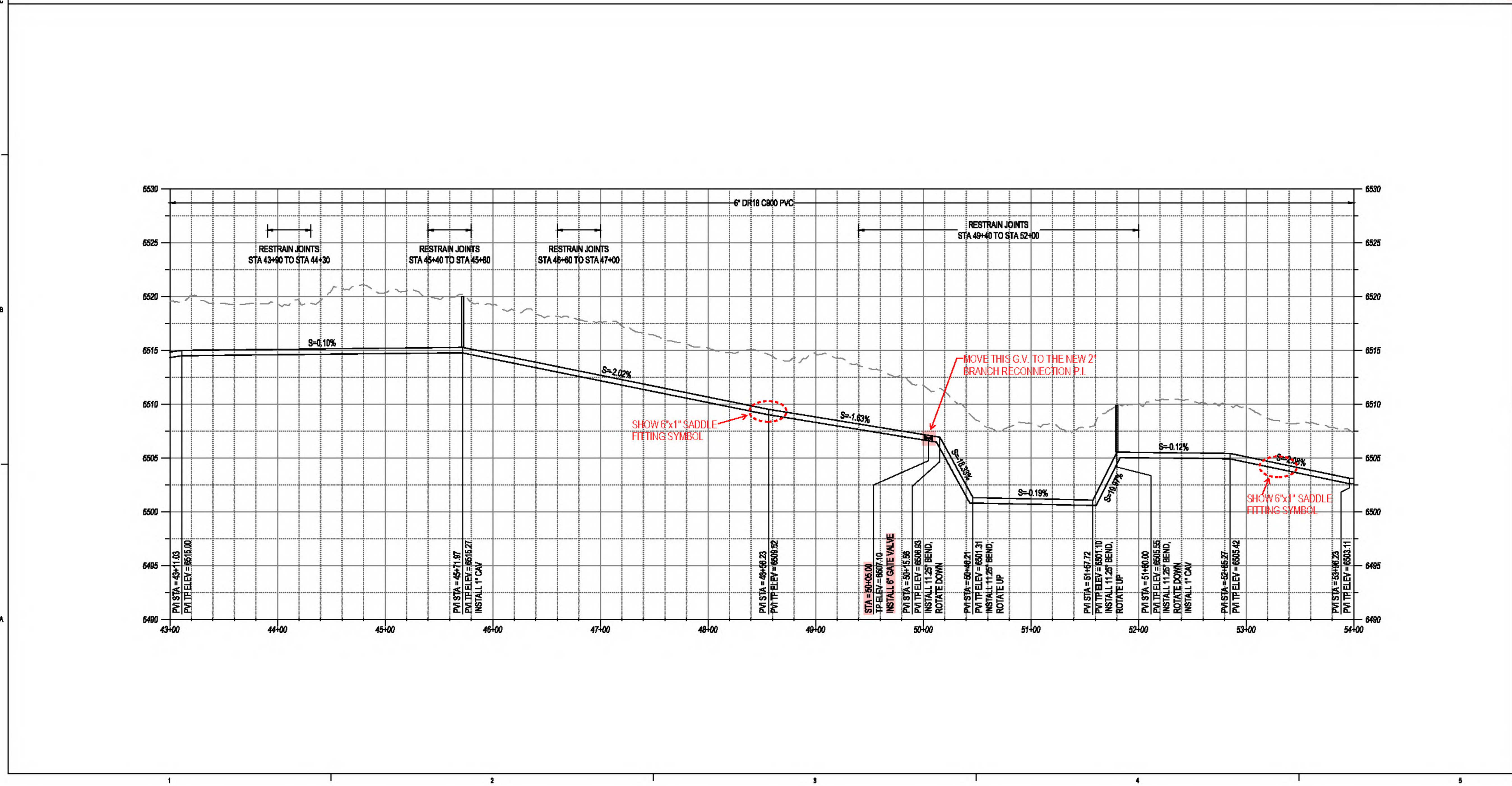
3. INSTALL 6" DR18 C900 PVC WATERLINE.
4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-02.
6. SPELL OUT COMBINATION AIR VALVE (CAV).
9. INSTALL 1" CAV PER NTUA STD DWG WS-10. SEE SHEET D-02.
10. INSTALL 45° BEND (MJ X MJ) WITH THRUST BLOCK PER NTUA WS-19.





- GENERAL NOTES:
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 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

- KEYED NOTES:
3. INSTALL 6" DR18 C900 PVC WATERLINE.
 4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-04.
 6. SPELL OUT COMBINATION AIR VALVE (CAV).
 9. INSTALL 1" CAV PER NTUA STD DWG WS-10. SEE SHEET D-04.
 9. INSTALL SERVICE SADDLE FOR CUSTOMER CONNECTION PER NTUA STD DWGS WS-2 & WS-2A. SEE SHEET D-01.
 10. INSTALL 45° BEND (MJ X MJ).
 11. INSTALL 22.5° BEND (MJ X MJ).
 12. INSTALL 11.25° BEND (MJ X MJ).
 18. REMOVE AND REPLACE EXISTING FENCE IN KIND.
 18. EX. SHED TO BE MOVED OR RELOCATED w/ HOME OWNER'S INPUT/DIRECTION.



ARCHITECTURE / DESIGN / INFORMATION

**DEKKER
PERICH
SABATINI**

7601 JEFFERSON HILL DRIVE
ALABAMA, AL 36801

305.761.9700 / 205.935.1000

ARCHITECT

ENGINEER

PROJECT

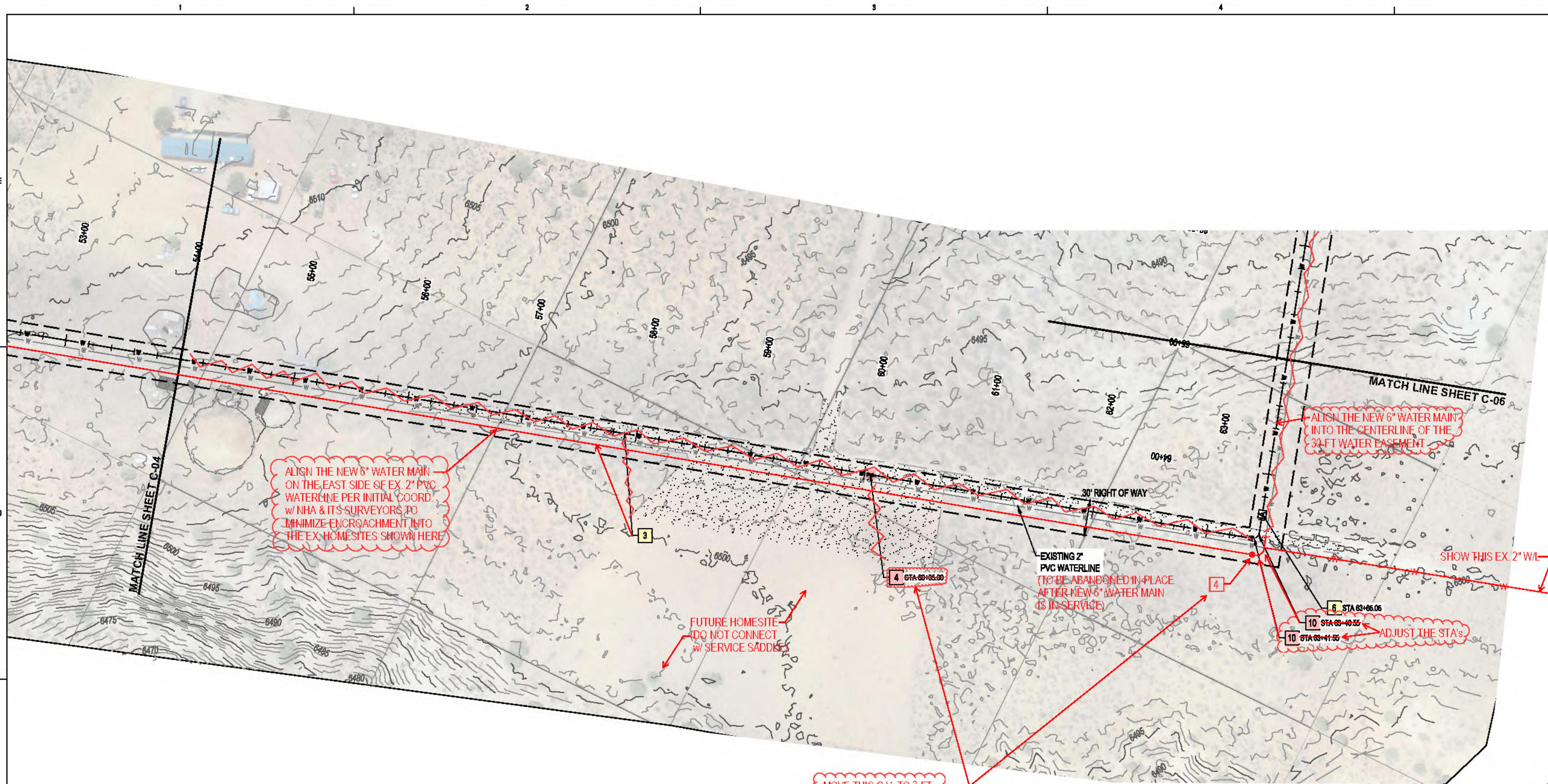
K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

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SUBMITTAL

REVISIONS

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DRAWN BY: JTL
REVIEWED BY: NDR
DATE: 09/03/2021
PROJECT NO.: 20-7002.001
DRAWING NAME: LCS WATERLINE SUPPLY
PLAN & PROFILE
STA 43+00 TO STA 54+00
SHEET NO. C-04

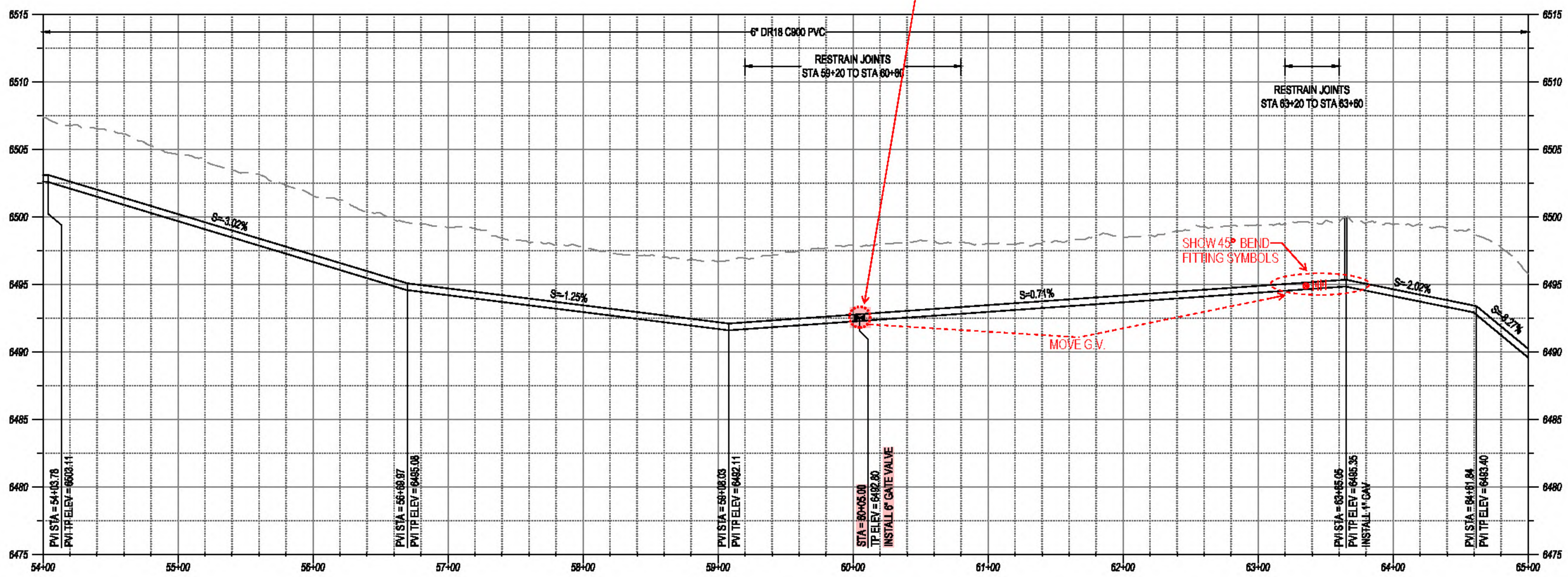


- GENERAL NOTES:
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 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

- KEYED NOTES:
- 3. INSTALL 6" DR18 C900 PVC WATERLINE.
 - 4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14, SEE SHEET D-02.
 - 6. INSTALL 1" CAV PER NTUA STD DWG WS-10. SEE SHEET D-02.
 - 10. INSTALL 45° BEND (MJ X MJ) ← WITH THRUST BLOCK PER NTUA WS-19.

ENLARGE VIEWPORT TO SHOW THE NEXT EX. HOMESITE (HOUSE #H-264A - CAROLINE JIM) TO THE NORTH TO SHOW THE NEW E.O.L. & NEW FLUSH VALVE LOCATION

THIS EX. 2" PVC W/L TO BE ABANDONED IN-PLACE AFTER NEW 6" WATER MAIN IS IN-SERVICE. THE LINE WILL BE ABANDONED @ 10-FT DOWNSTREAM PAST THE NEXT SERVICE LINE TO THE NORTH WITH THE INSTALLATION OF A NEW 2" FLUSH VALVE.



ARCHITECTURE / PLANNING / INTERIOR

**DEKKER
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ARCHITECT

ENGINEER

PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

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DRAWN BY: JTL
REVIEWED BY: NDR
DATE: 09/03/2021
PROJECT NO.: 20-7002.001
DRAWING NAME: LCS WATERLINE SUPPLY
PLAN & PROFILE
STA 54+00 TO STA 65+00
SHEET NO. C-05 OF



GENERAL NOTES:

1. FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
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5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

KEYED NOTES:

- | | | |
|----|---|-------------------------------------|
| 3 | INSTALL 6" DR18 C900 PVC WATERLINE. | |
| 4 | INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-02. | |
| 6 | INSTALL 1" CAV PER NTUA STD DWG WS-10. SEE SHEET D-02. | |
| 10 | INSTALL 45° BEND (MJ X MJ). | ← WITH THRUST BLOCK PER NTUA WS-19. |
| 12 | INSTALL 11.25° BEND (MJ X MJ). | |
| 13 | JACK AND BORE BENEATH ROADWAY PER NTUA STD DWG WS-17A. SEE SHEET D-03. | |
| 14 | BORE PIT. | |

ARCHITECTURE / DESIGN / INSPIRATION

**DEKKER
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SABATINI**

7601 JEFFERSON H.E. SUITE TWO
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05.751.978 / DPTUSSEN.005

ARCHITECT

ENGINEER

PROJECT

K-8 Academics

Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL
SUBMITTAL

REVISIONS

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DRAWN BY JTL

REVIEWED BY NDR

DATE 09/03/2021

PROJECT NO. 20-7002.001

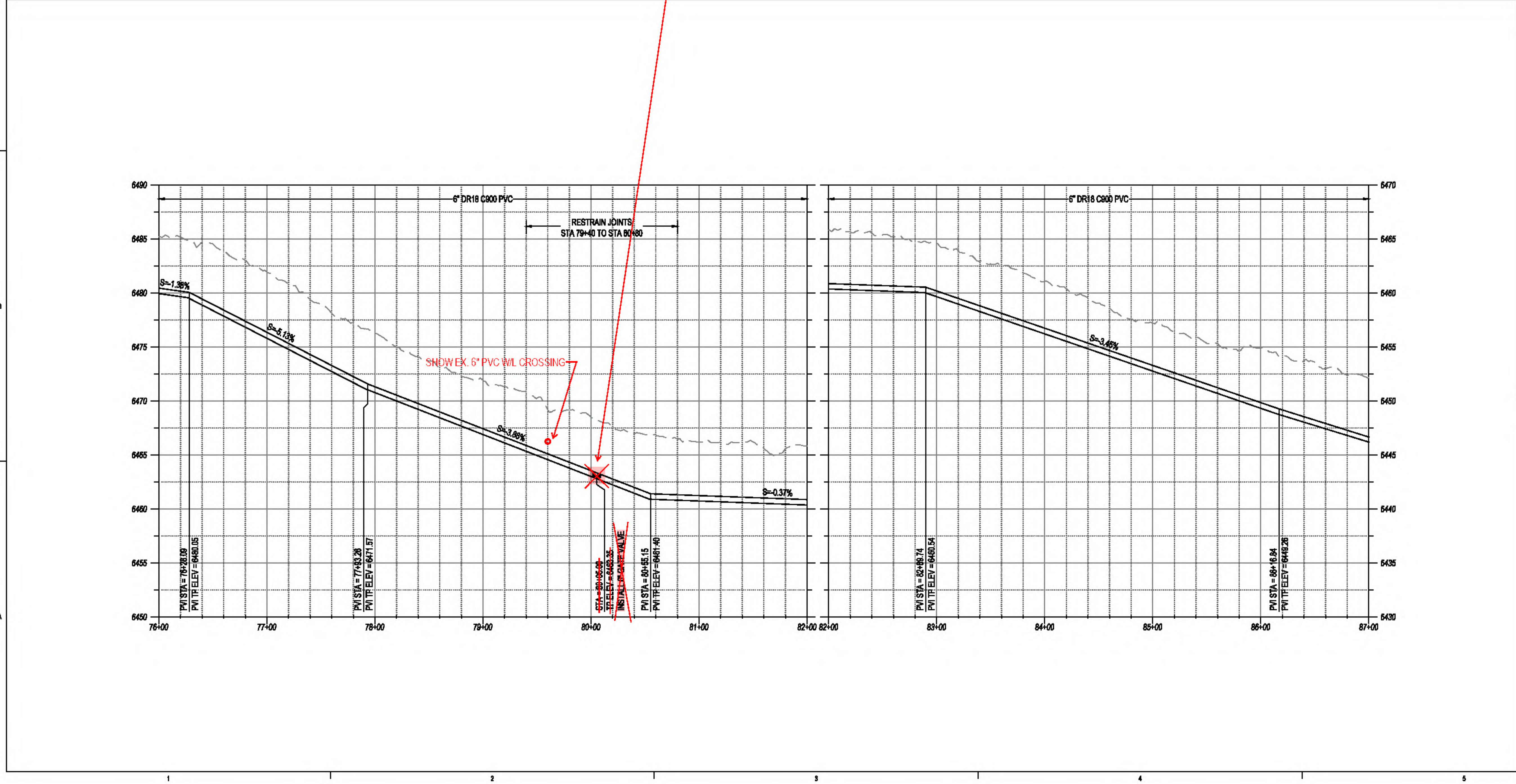
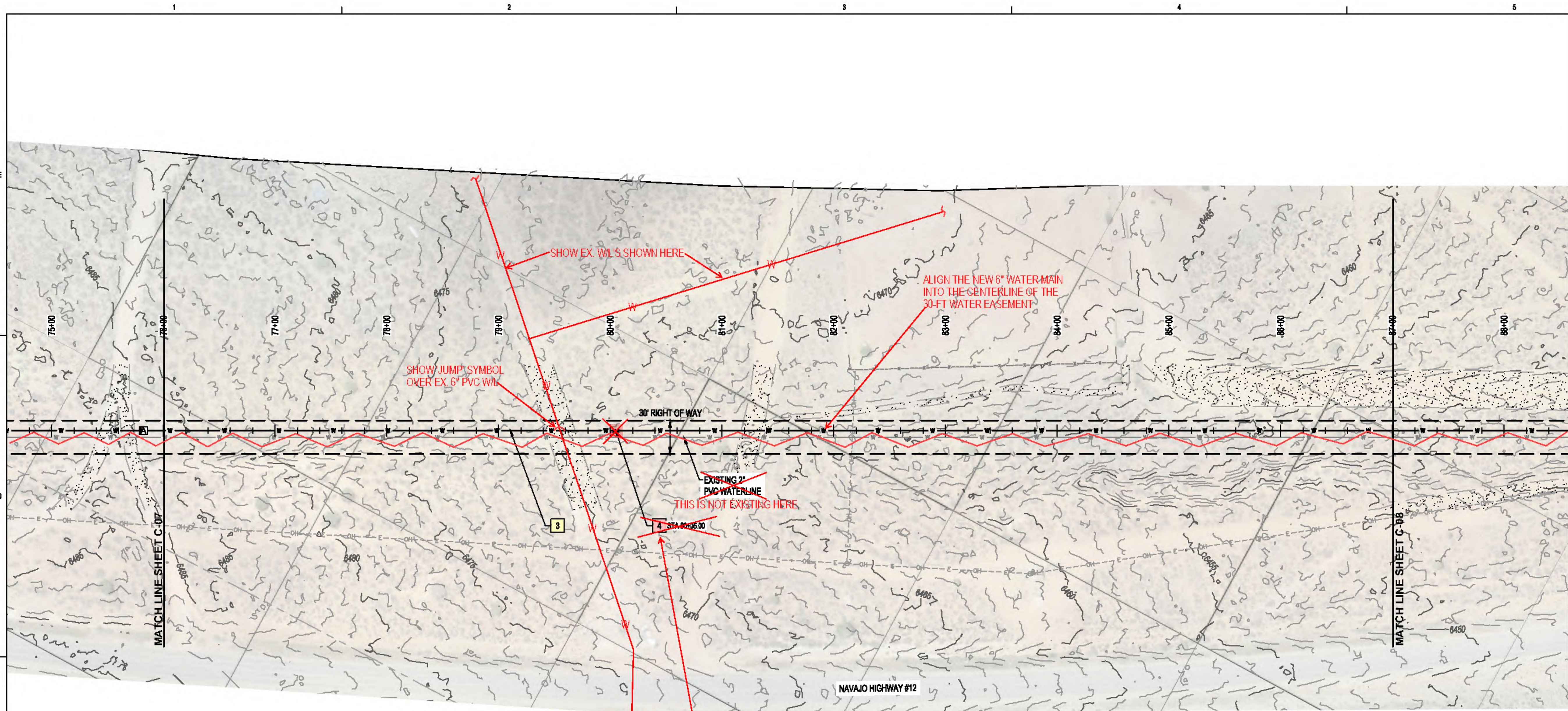
DRAWING NAME

LCS WATERLINE
SUPPLY

PLAN & PROFILE
STA 65+00 TO STA
76+00

SHEET NO.

C-06 ✓ OF



GENERAL NOTES:

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5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

KEYED NOTES:

3. INSTALL 6" DR18 C900 PVC WATERLINE.
4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-02.

ARCHITECTURE / PLUMBING / MECHANICAL

DEKKER
PERICH
SABATINI

7601 JEFFERSON HILL DRIVE
ALBUQUERQUE, NM 87105

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ARCHITECT

ENGINEER

PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

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SUBMITTAL

REVISIONS

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DRAWN BY: JTL

REVIEWED BY: NDR

DATE: 09/03/2021

PROJECT NO.: 20-7002.001

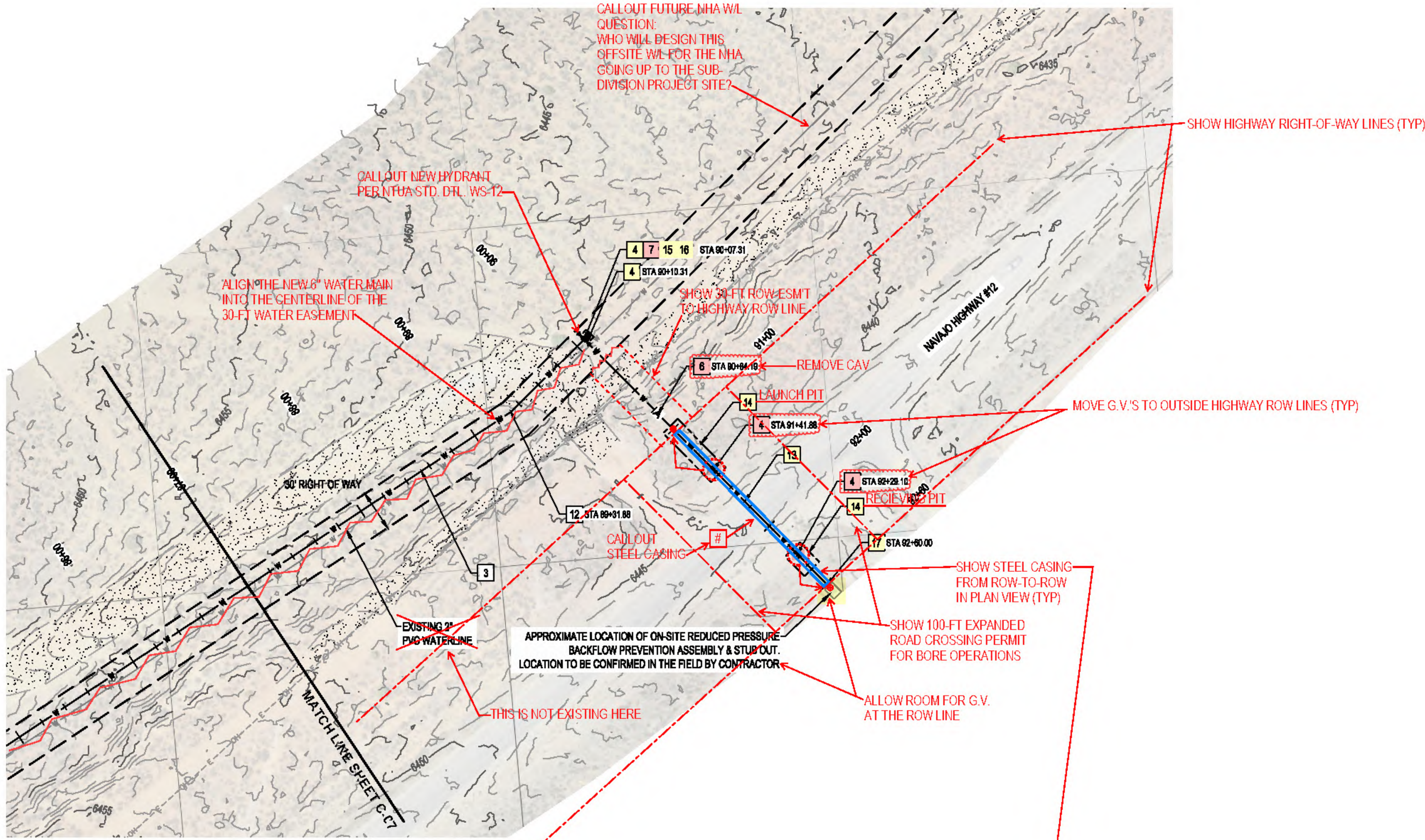
DRAWING NAME

LCS WATERLINE
SUPPLY

PLAN & PROFILE
STA 76+00 TO STA
87+00

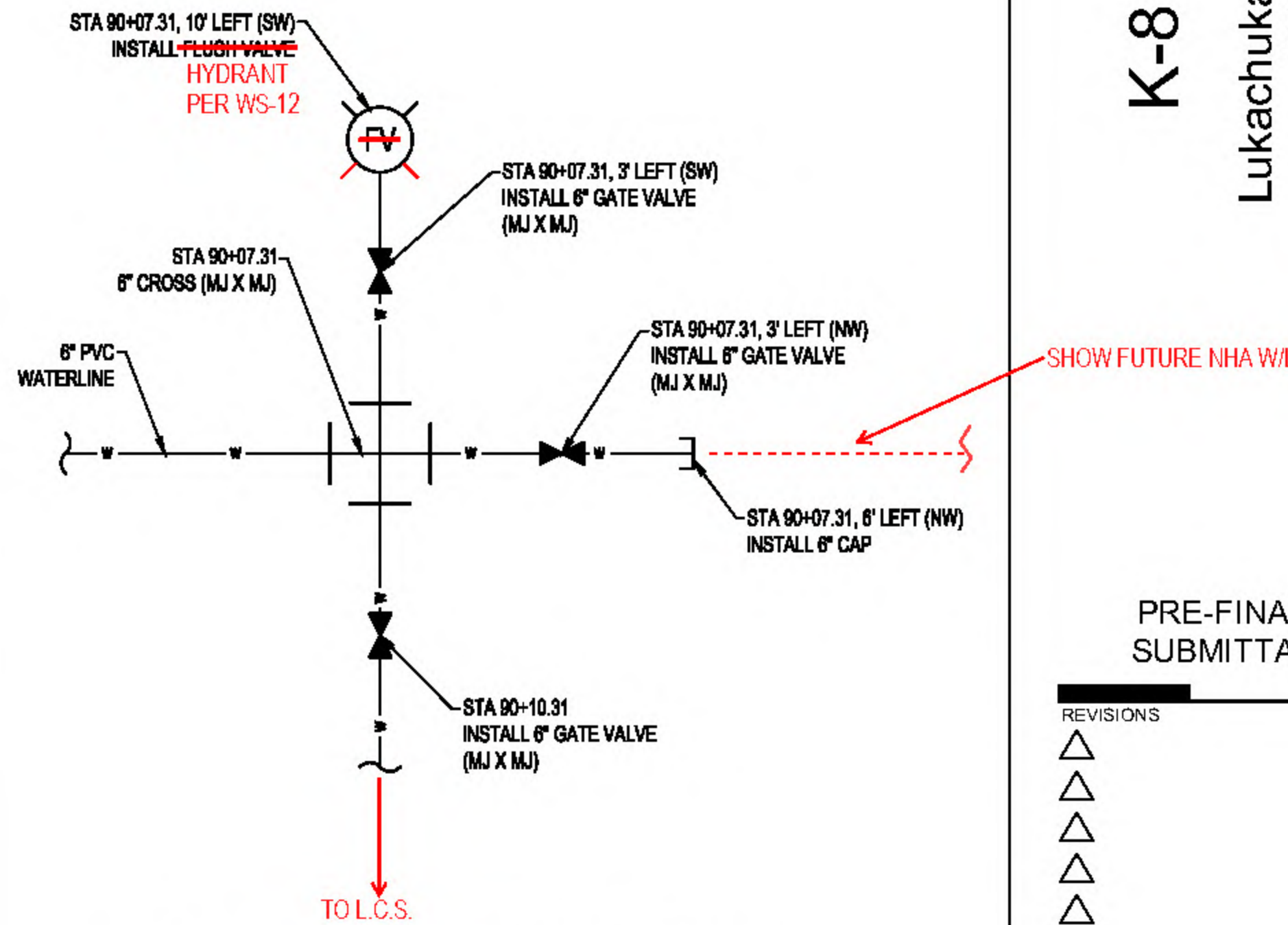
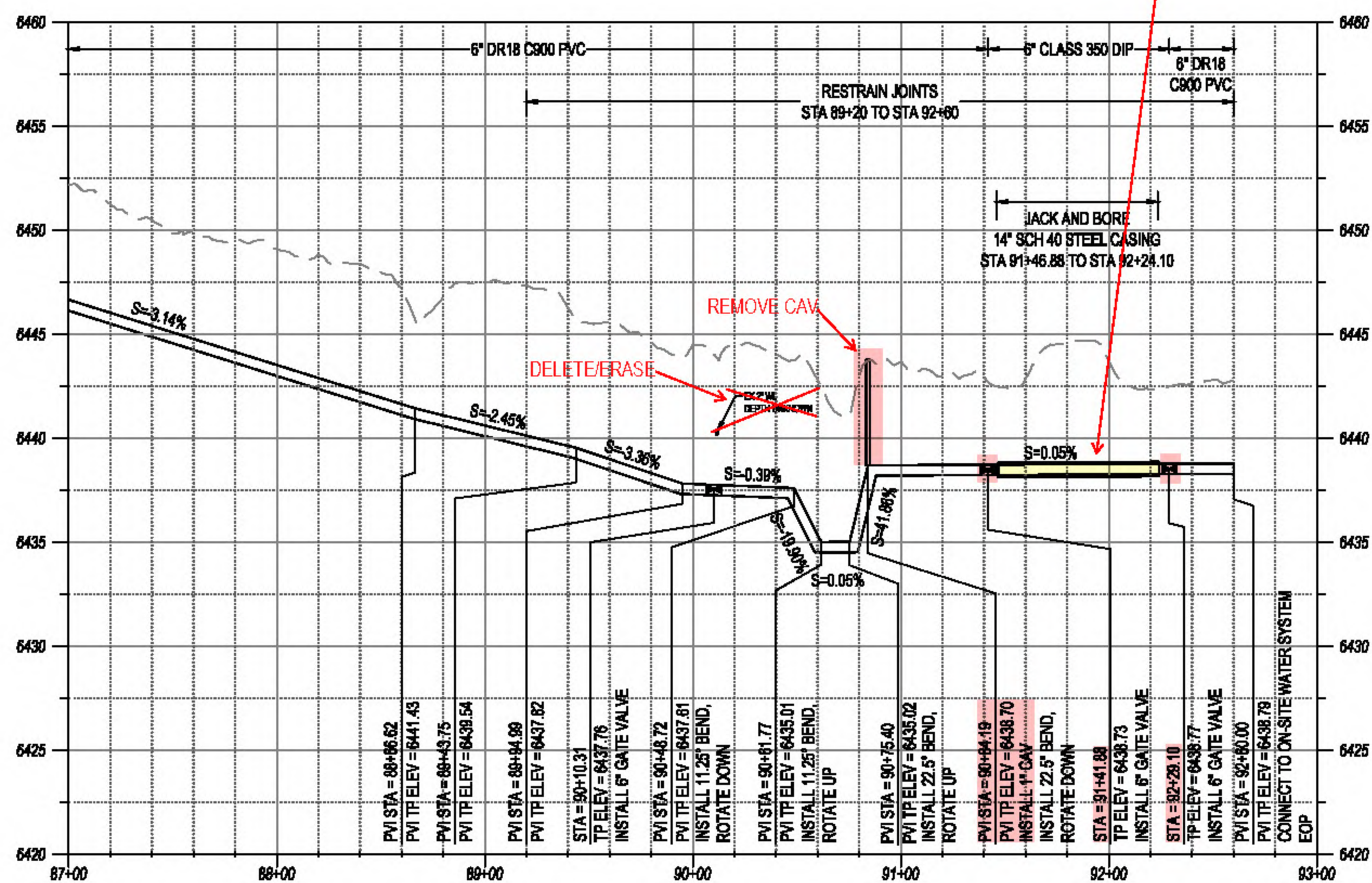
SHEET NO.

C-07 OF



- GENERAL NOTES:
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 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

- KEYED NOTES:
3. INSTALL 6" DR18 C900 PVC WATERLINE.
 4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14. SEE SHEET D-02.
 6. INSTALL 1" CAV PER NTUA STD DWG WS-10. SEE SHEET D-02.
 7. INSTALL 14" SCH 40 STEEL CASING WITH THRUST BLOCK PER NTUA WS-19.
 12. JACK AND BORE BENEATH ROADWAY PER NTUA STD DWG WS-17A. SEE SHEET D-03.
 14. BORE PIT.
 16. INSTALL 6" CROSS (MJ X MJ) REFER TO DETAIL 01, THIS SHEET.
 18. INSTALL 6" CAP (DI, MJ) WITH THRUST BLOCK (NO REBAR) PER NTUA STD. DTL. WS-19.
 17. REMOVE CAP, CONNECT TO 6" ON-SITE WATERLINE.
 7. INSTALL 14" STEEL CASING, SCH. 40 MIN. PER NTUA STD. DTL. WS-17a WITH CASING SPACERS PER NTUA STD. DTL. WS-18.



1 WATERLINE CROSS DETAIL
SCALE: NOT TO SCALE
NOTES:
1. RESTRAIN ALL JOINTS.

ARCHITECTURE / PLUMBING / MECHANICAL

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7601 JEFFERSON HILL, SUITE 100
ALBUQUERQUE, NM 87107

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ARCHITECT

ENGINEER

PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

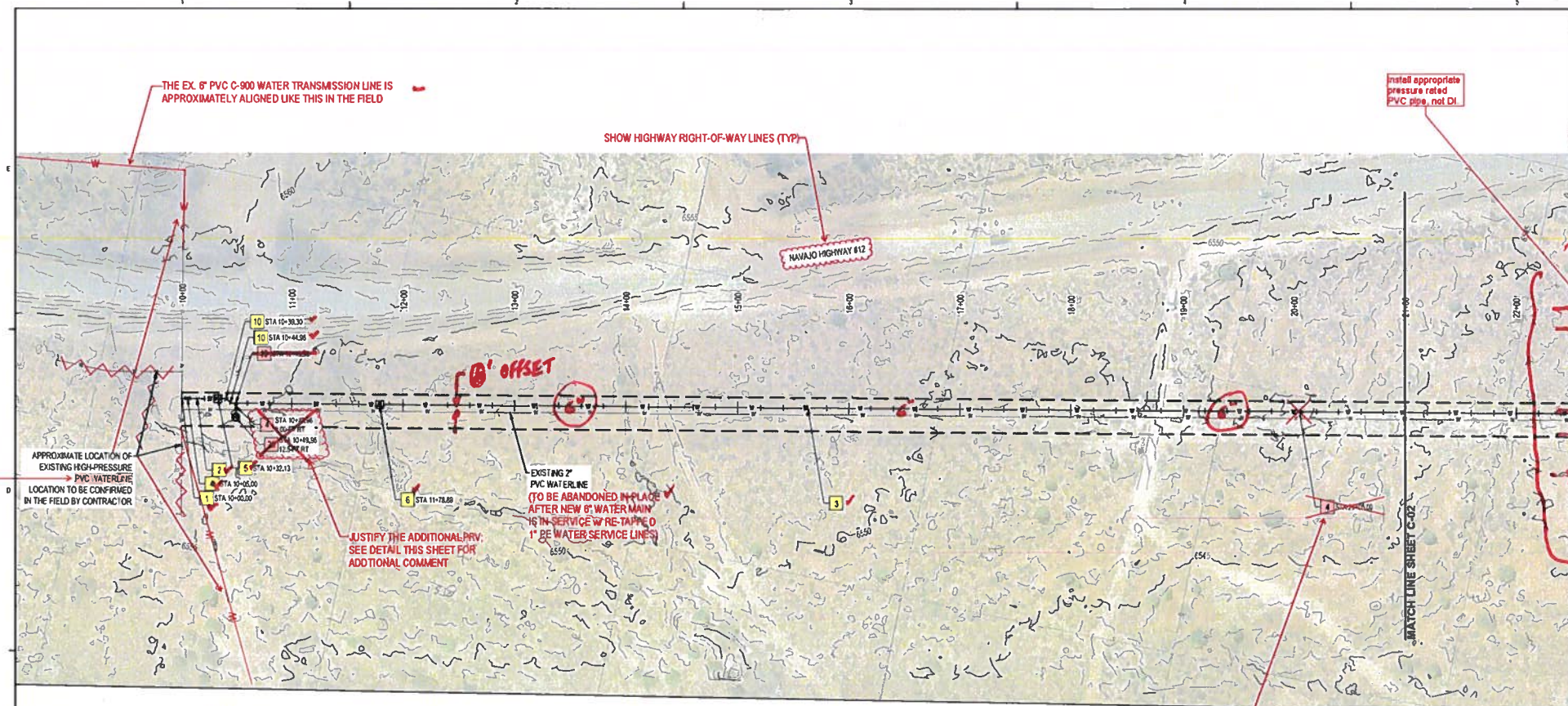
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SUBMITTAL

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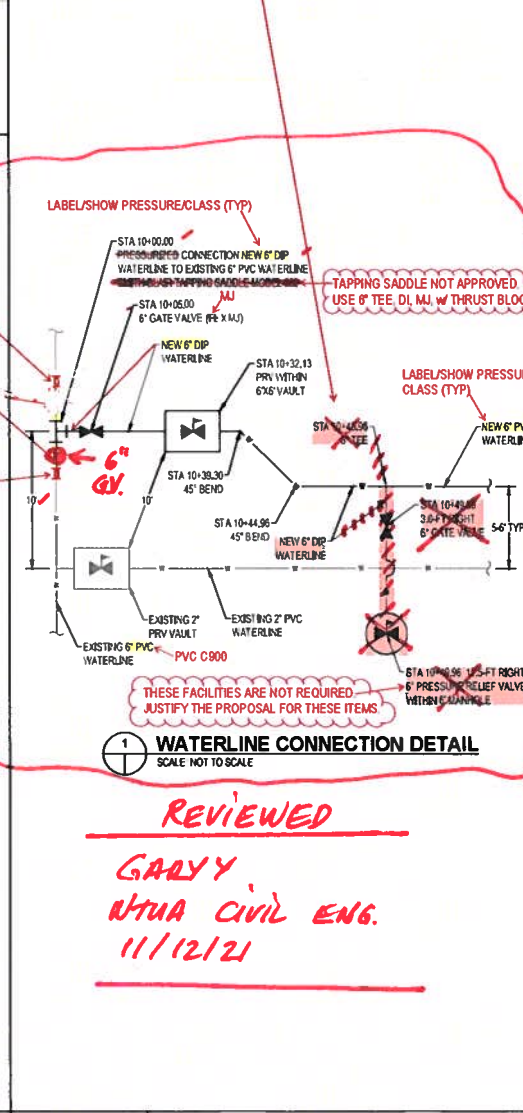
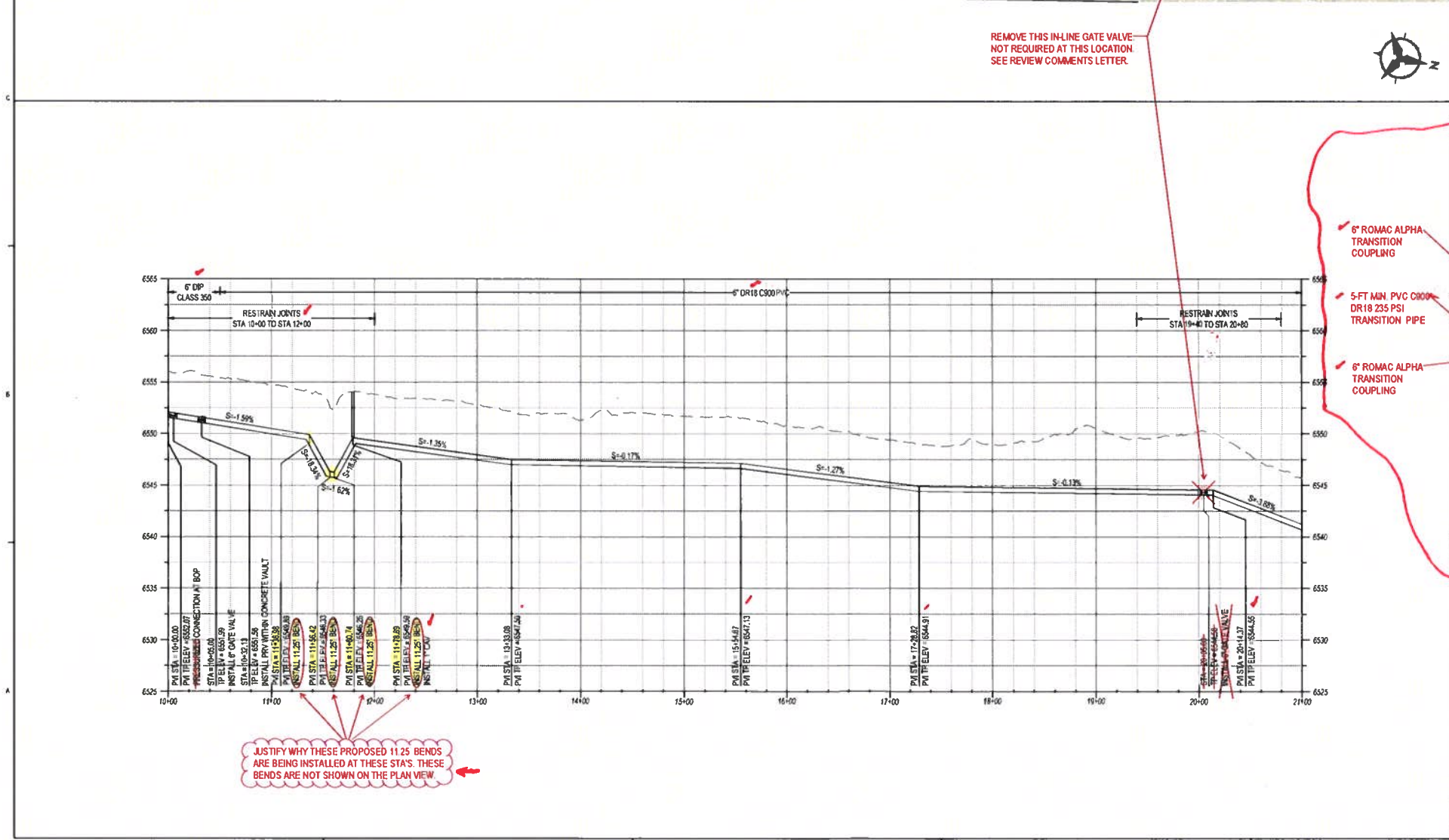
DRAWN BY: JTL
REVIEWED BY: NDR
DATE: 09/03/2021
PROJECT NO.: 20-7002.001
DRAWING NAME:

LCS WATERLINE
SUPPLY
PLAN & PROFILE
STA 87+00 TO STA
92+60

SHEET NO.
C-08



- GENERAL NOTES**
1. FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 2. DAMAGE TO UTILITIES OR FACILITIES WITHIN THE PROJECT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS UNLESS OTHERWISE DENOTES IN PLANS.
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 4. JOINTS TO BE RESTRAINED AS SHOWN ON PLANS. IF PIPE CANNOT BE RESTRAINED AT JOINTS, INSTALL THRUST BLOCKS PER NTUA STANDARD DRAWINGS WS-19 & WS-19A, SHEET D-01.
 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWINGS WS-15 SHEET D-02.
- KEYED NOTES:**
1. TIE IN TO EXISTING HIGH-PRESSURE 6\"/>
 2. INSTALL 6\"/>
 3. INSTALL 6\"/>
 4. INSTALL 6\"/>
 5. INSTALL 6\"/>
 6. INSTALL 1\"/>
 10. INSTALL 45\"/>
 10. INSTALL 45\"/>
 10. INSTALL 45\"/>
- JUSTIFY THE ADDITIONAL PRV. SEE DETAIL THIS SHEET FOR ADDITIONAL COMMENT.**



DEKKER PERICH SABATINI

7601 JEFFERSON NE, SUITE 100
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ARCHITECT

ENGINEER

PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL SUBMITTAL

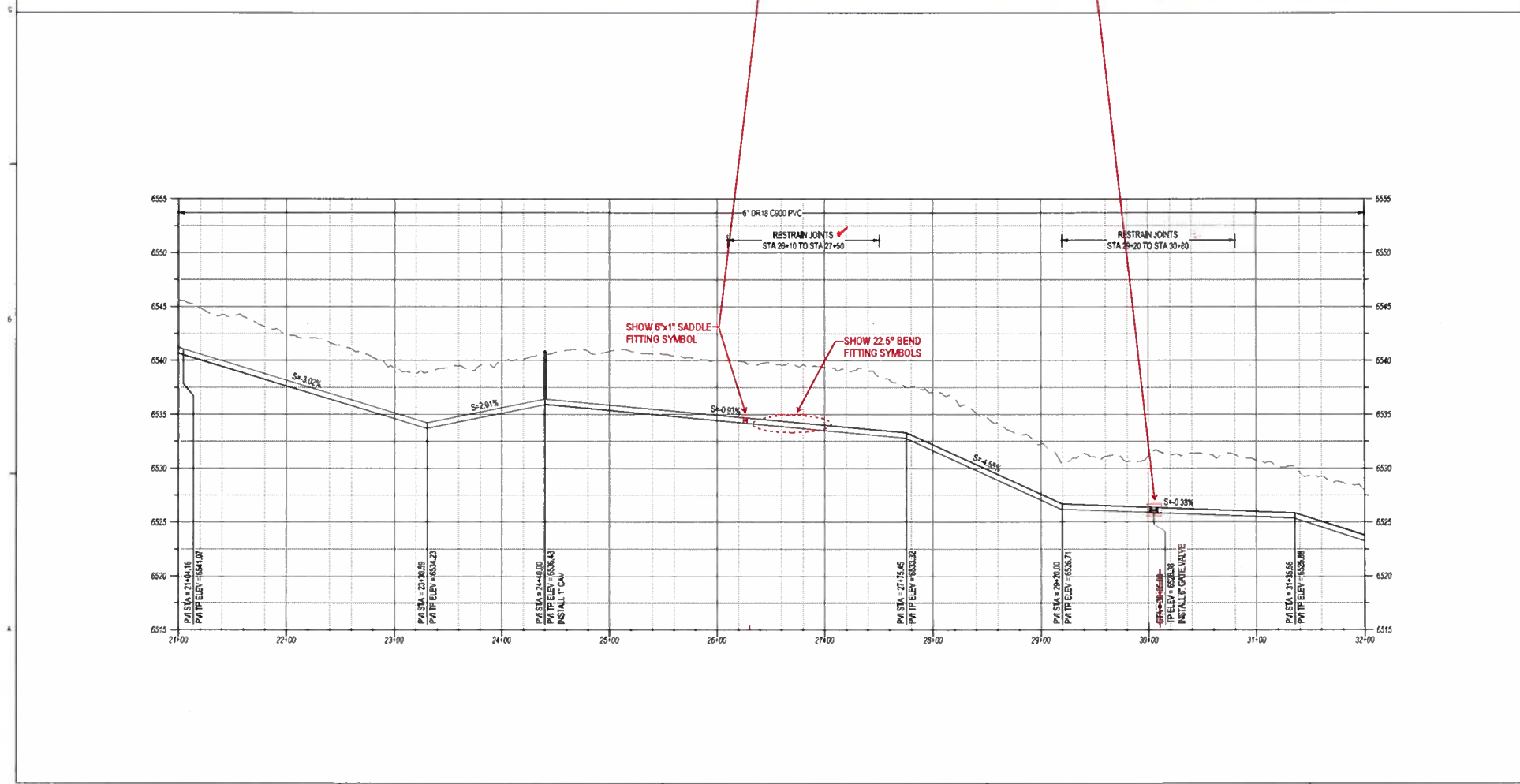
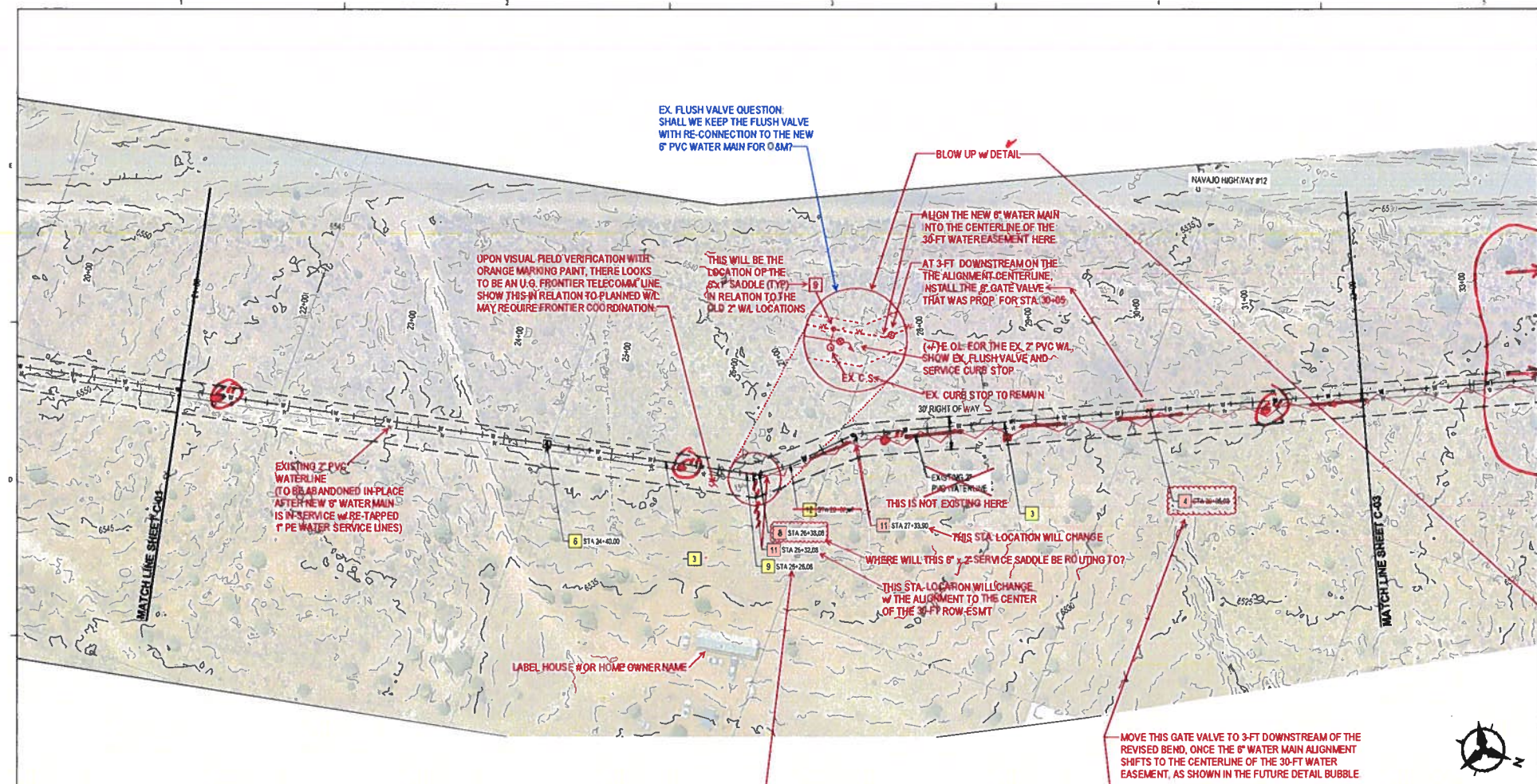
REVISIONS

NO.	DESCRIPTION	DATE
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REVISIONS

NO.	DESCRIPTION	DATE
1	AS SHOWN	
2		
3		
4		
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DRAWN BY: JTL
REVIEWED BY: HDR
DATE: 09/03/2021
PROJECT NO: 20-7002.001
DRAWING NAME: LCS WATERLINE SUPPLY
PLAN & PROFILE
STA 10+00 TO STA 21+00
SHEET NO: C-01



- GENERAL NOTES
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 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

- KEYED NOTES
- 3. INSTALL 6\"/>
 - 4. INSTALL 6\"/>
 - 6. INSTALL 1\"/>
 - 8. INSTALL SERVICE SADDLE FOR FUTURE SERVICE EXTENSION TO RESIDENT GREATER THAN 200' AWAY PER NTUA STD DWGS WS-3 & WS-3A, SEE SHEET D-01, CAP 2\"/>
 - 9. INSTALL SERVICE SADDLE FOR CUSTOMER CONNECTION PER NTUA STD DWGS WS-3 & WS-3A, SEE SHEET D-01.
 - 11. INSTALL 22.5\"/>
 - 12. INSTALL 11.25\"/>

BLOW UP THE E.O.L. OF THE EX. 2\"/>

REVIEWED.
GALVY
NTUA CIVIL ENG
11/12/21

ARCHITECTURE / MECHANICAL / ELECTRICAL
DEKKER PERICH SABATINI

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87119
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ARCHITECT

ENGINEER

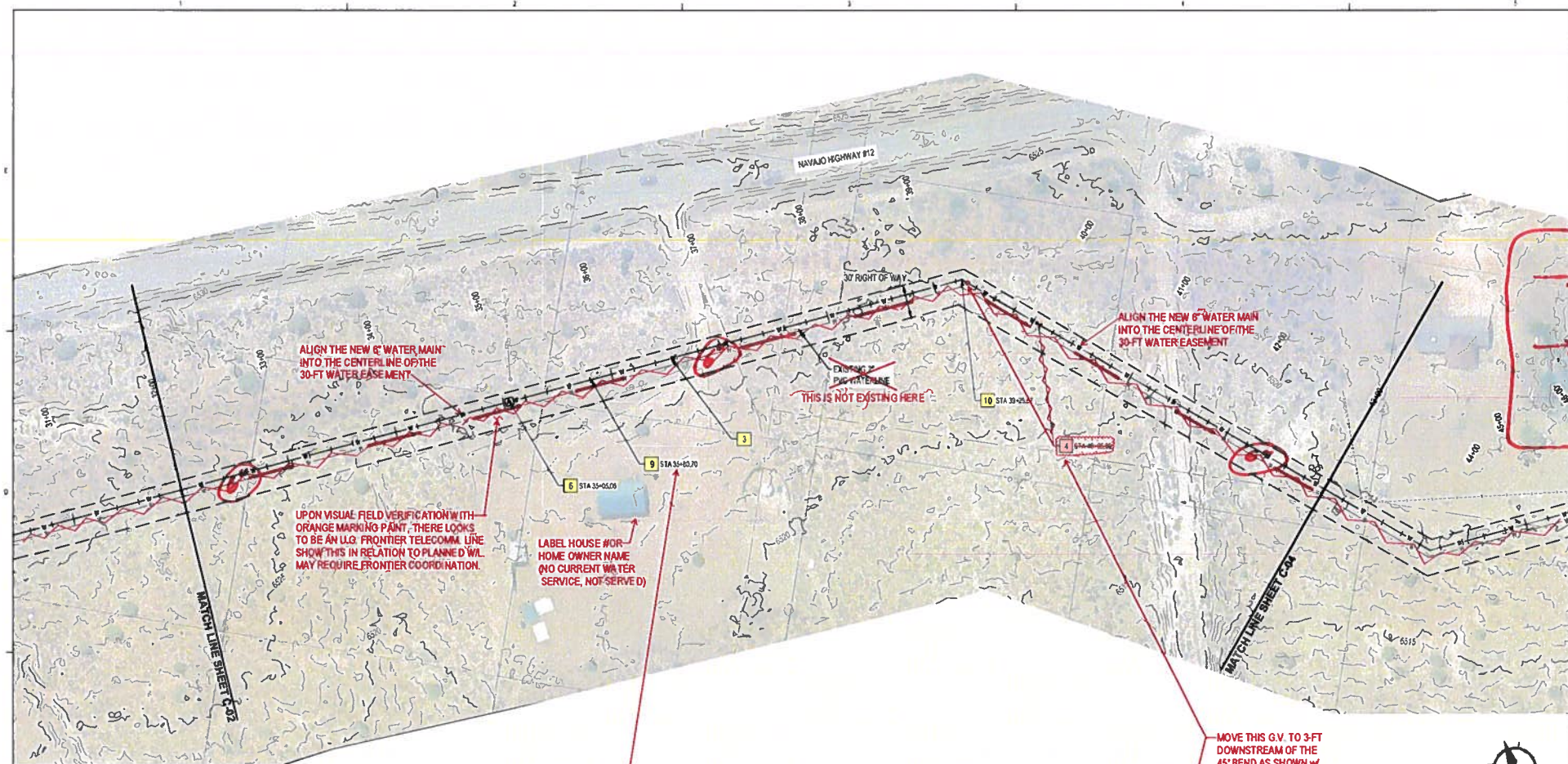
PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

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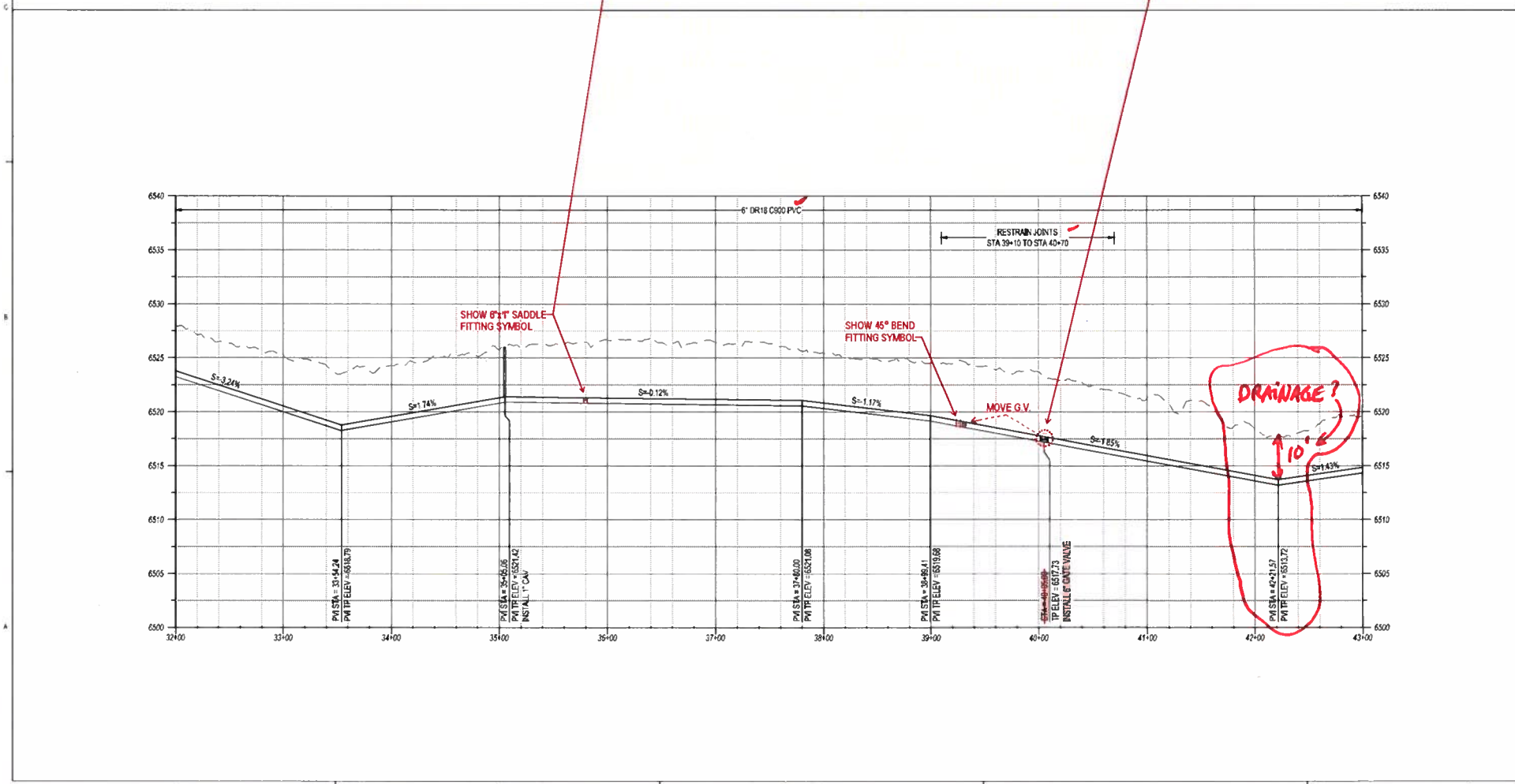
REVISIONS
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DRAWN BY: JTL
REVIEWED BY: JDR
DATE: 09/03/2021
PROJECT NO: 20-7002.001
DRAWING NAME: LCS WATERLINE SUPPLY
PLAN & PROFILE
STA 21+00 TO STA 32+00
SHEET NO: C-02
OF



- GENERAL NOTES
1. FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
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- KEYED NOTES
3. INSTALL 6\"/>
 4. INSTALL 6\"/>
 6. INSTALL 1\"/>
 9. INSTALL SERVICE SADDLE FOR CUSTOMER CONNECTION PER NTUA STD DWGS WS-18 & WS-19A, SEE SHEET D-02.
 10. INSTALL 45° BEND (14\"/>



REVIEWED
GARY Y
NTUA CIVIL ENG.
11/12/21

ARCHITECTURE / DESIGN / CONSTRUCTION

**DEKKER
PERICH
SABATINI**

7601 JEFFERSON BL, SUITE 100
ALBUQUERQUE, NM 87119

505.741.9788 / OPS@DESKN.DEG

ARCHITECT

ENGINEER

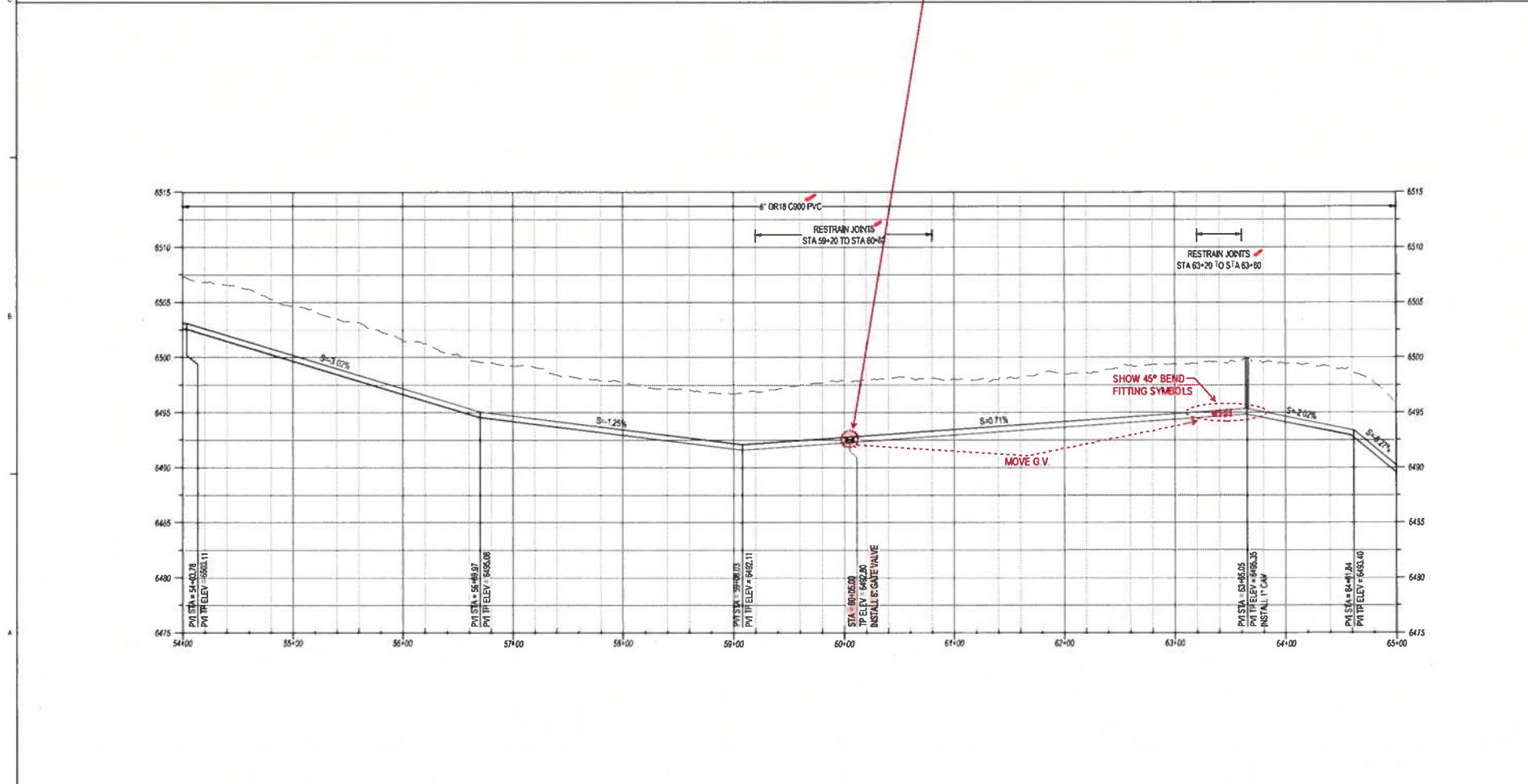
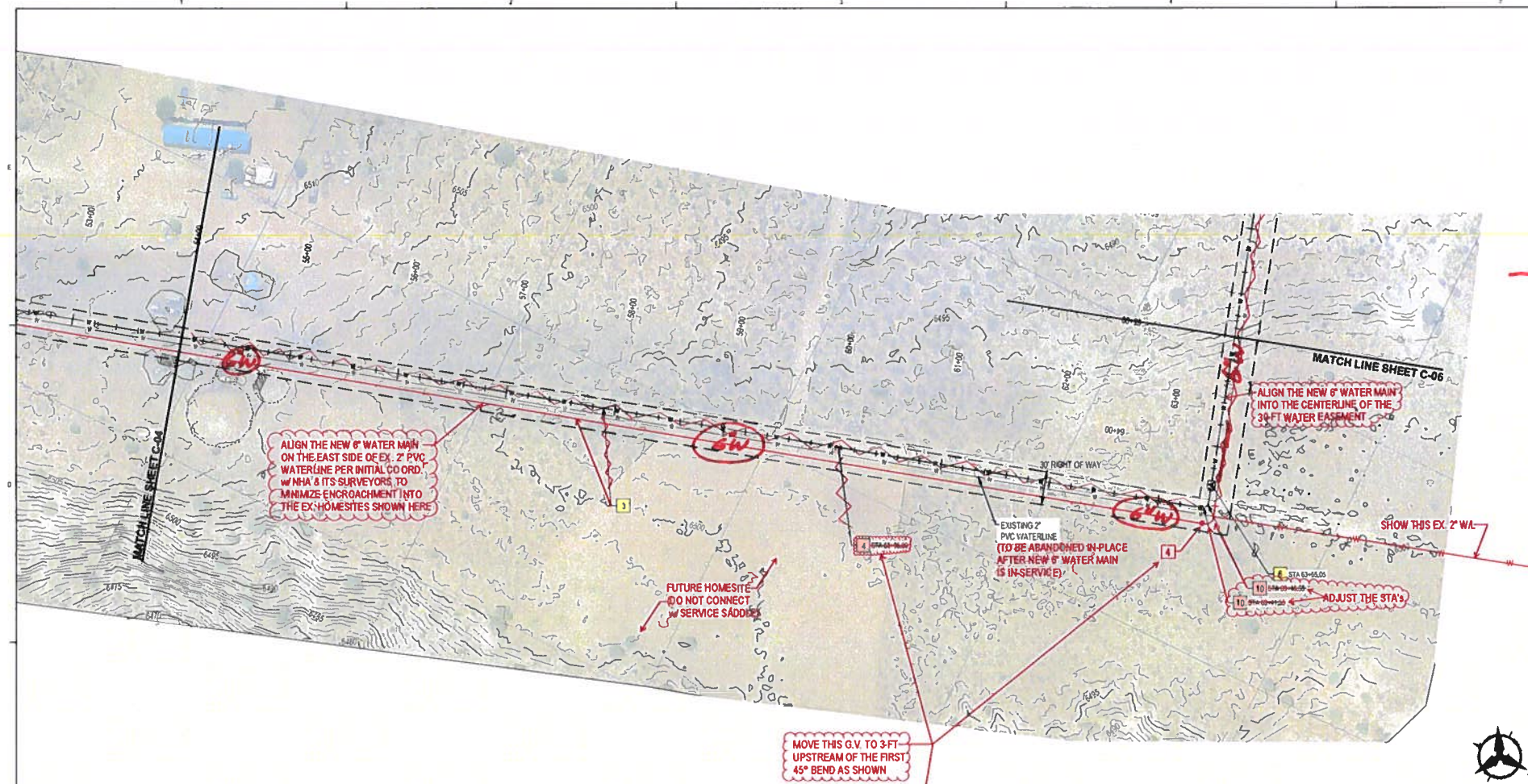
PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL
SUBMITTAL

REVISIONS	
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DRAWN BY	JTL
REVIEWED BY	NDR
DATE	09/03/2021
PROJECT NO	20-7002.001
DRAWING NAME	LCS WATERLINE SUPPLY PLAN & PROFILE STA 32+00 TO STA 43+00
SHEET NO	C-03



- GENERAL NOTES
1. FIELD VERIFY ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 2. DAMAGE TO UTILITIES OR FACILITIES WITHIN THE PROJECT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS UNLESS OTHERWISE DENOTES IN PLANS.
 3. STATIONS SHOWN ARE ALONG CENTERLINE OF PIPE AND ELEVATIONS SHOWN ARE ALONG TOP OF PIPE.
 4. JOINTS TO BE RESTRAINED AS SHOWN ON PLANS. IF PIPE CANNOT BE RESTRAINED AT JOINTS, INSTALL THRUST BLOCKS PER NTUA STANDARD DRAWINGS WS-19 & WS-19A, SHEET D-03.
 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15 SHEET D-02.

- KEYED NOTES
3. INSTALL 6" DR18 C900 PVC WATERLINE, **235 PSI**
 4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14, SEE SHEET D-02.
 6. INSTALL 1" CAV PER NTUA STD DWG WS-10, SEE SHEET D-02. **SPELL OUT, COMBINATION AIR VALVE (CAV)**
 10. INSTALL 45° BEND (MJ X MJ) ← **WITH THRUST BLOCK PER NTUA WS-18**

ENLARGE VIEWPORT TO SHOW THE NEXT EX. HOMESITE (HOUSE #4-284A - CAROLINE JIM) TO THE NORTH TO SHOW THE NEW E.O.L. & NEW FLUSH VALVE LOCATION

THIS EX. 2" PVC WL. TO BE ABANDONED IN-PLACE AFTER NEW 6" WATER MAIN IS IN-SERVICE. THE LINE WILL BE ABANDONED @ 10-FT. DOWNSTREAM PAST THE NEXT SERVICE LINE TO THE NORTH WITH THE INSTALLATION OF A NEW 2" FLUSH VALVE.

ARCHITECTURE / MECHANICAL / ELECTRICAL

**DEKKER
PERICH
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ARCHITECT

ENGINEER

PROJECT

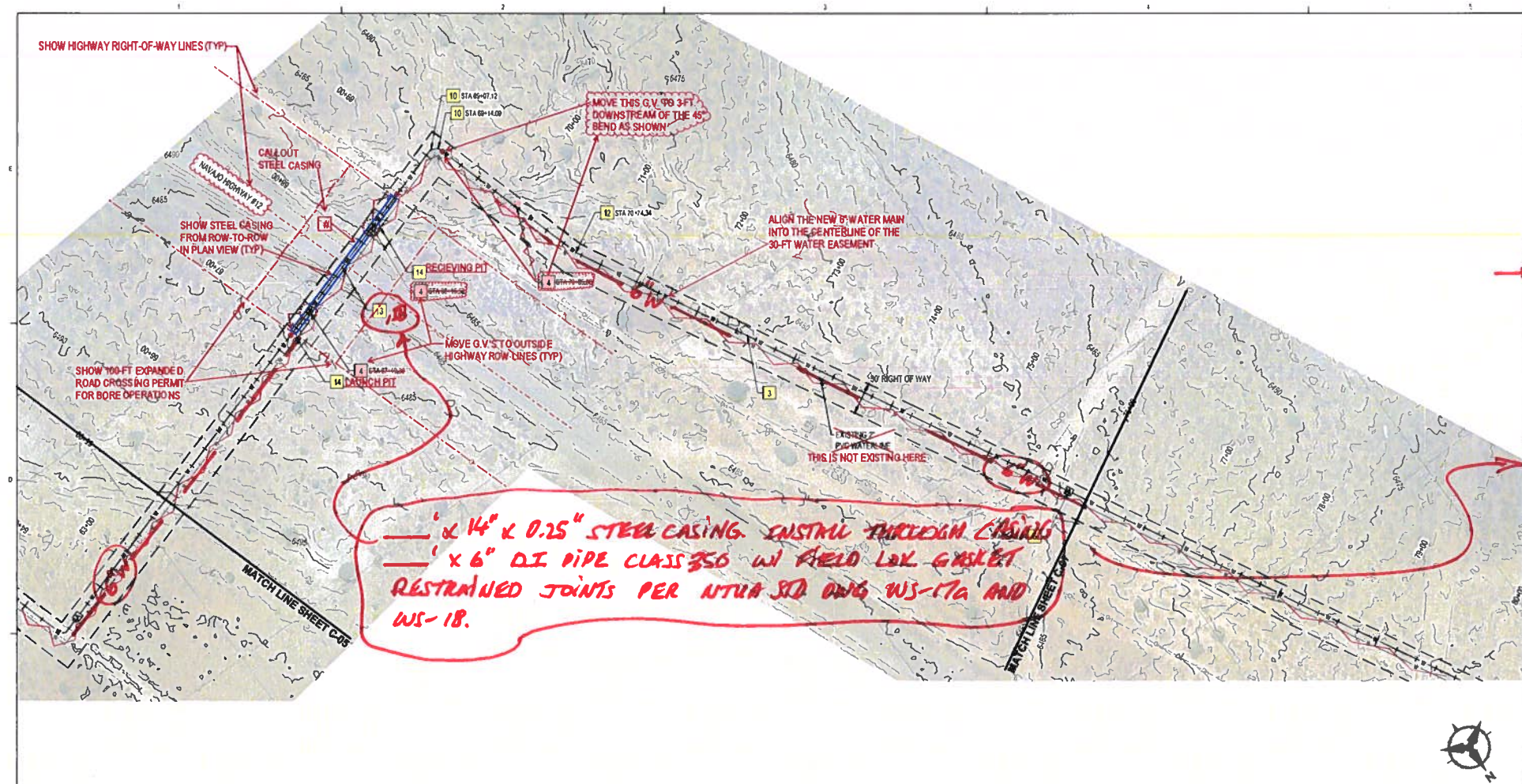
K-8 Academics
Lukachukai Community Schools
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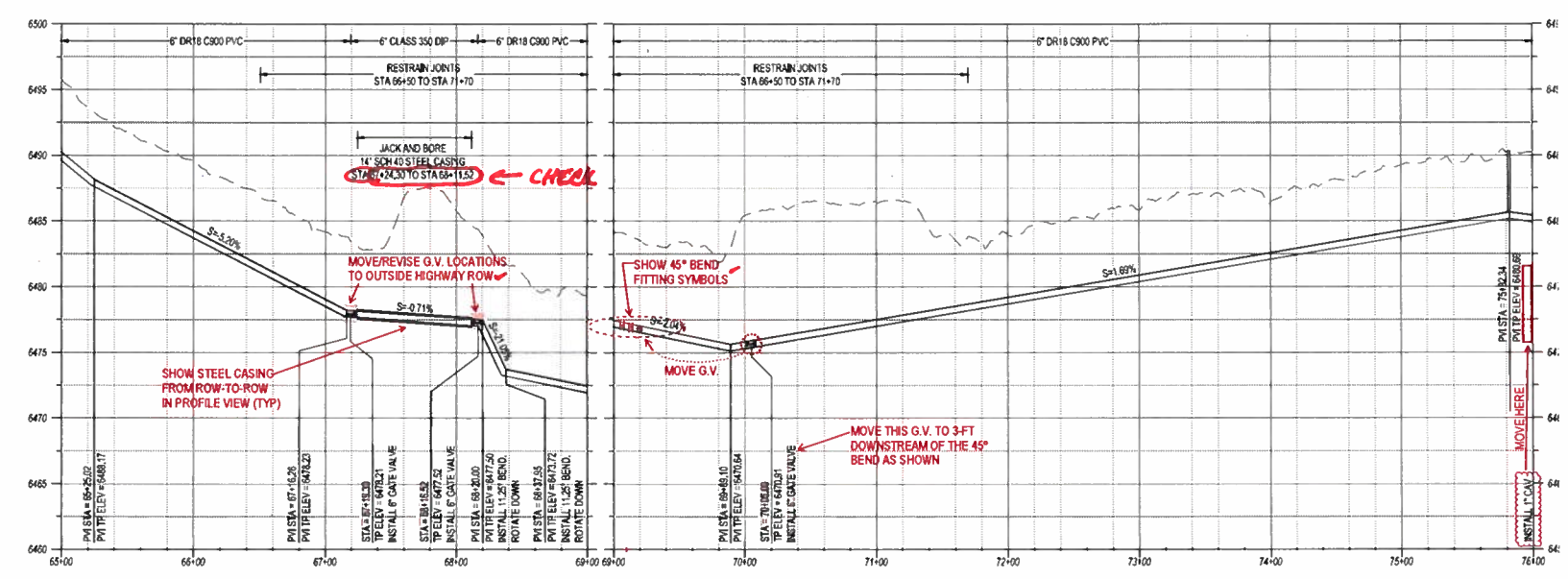
DRAWN BY: JTL
REVIEWED BY: NDR
DATE: 09/03/2021
PROJECT NO: 20-7002.001
DRAWING NAME: LCS WATERLINE SUPPLY
PLAN & PROFILE
STA 54+00 TO STA 65+00
SHEET NO: C-05 OF



- GENERAL NOTES
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 5. TRENCHING SHALL BE DONE IN ACCORDANCE WITH NTUA STANDARD DRAWING WS-15, SHEET D-02.

- KEYED NOTES:
3. INSTALL 6\"/>
 4. INSTALL 6\"/>
 6. INSTALL 1\"/>
 10. INSTALL 45° BEND (AU X AU) WITH THRUST BLOCK PER NTUA WS-19.
 12. INSTALL 11.25° BEND (AU X AU).
 13. JACK AND BORE BENEATH ROADWAY PER NTUA STD DWG WS-17A, SEE SHEET D-03.
 14. BORE PIT.

18.



REVIEWED
GARY
NTUA CIVIL ENG.
11/12/21

ARCHITECTURE / DESIGN / CONSTRUCTION

DEKKER
PERICH
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ARCHITECT

ENGINEER

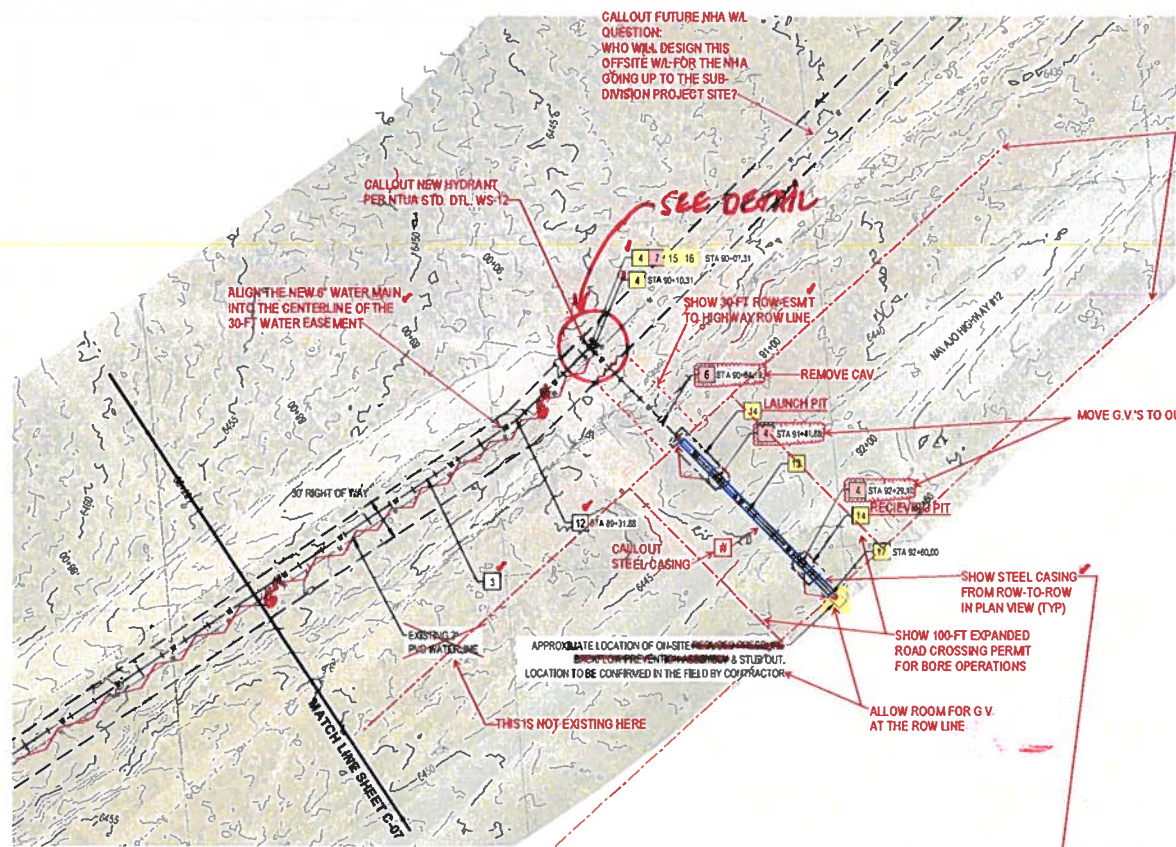
PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL
SUBMITTAL

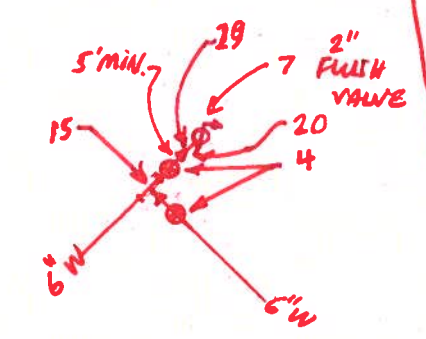
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DRAWN BY JTL
REVIEWED BY NDR
DATE 09/03/2021
PROJECT NO 20-7002.001
DRAWING NAME
LCS WATERLINE
SUPPLY
PLAN & PROFILE
STA 65+00 TO STA
76+00
SHEET NO
C-06

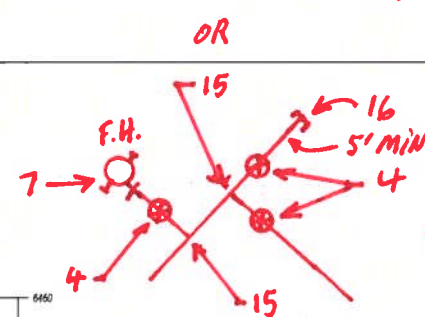


SHOW HIGHWAY RIGHT-OF-WAY LINES (TYP)

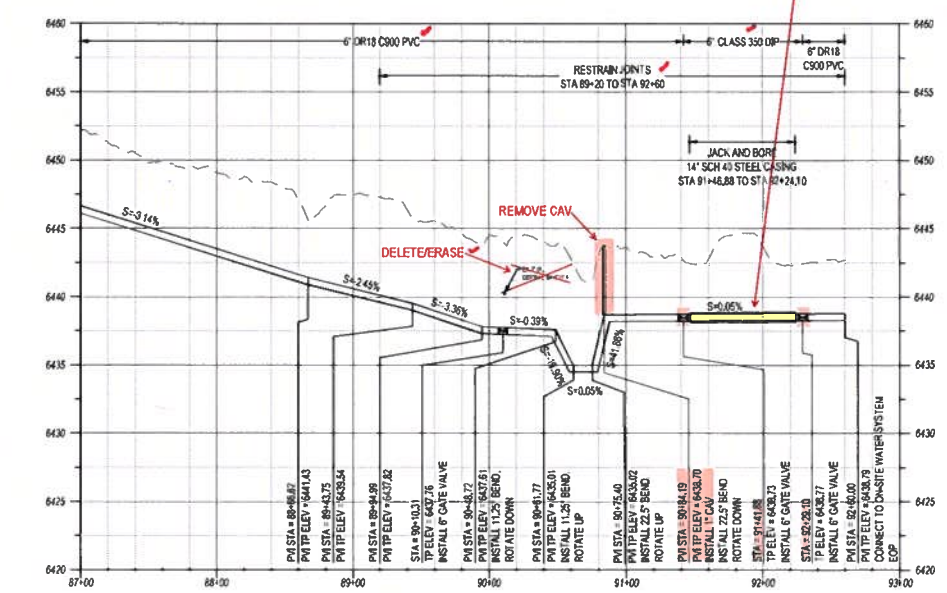
MOVE G.V.'S TO OUTSIDE HIGHWAY ROW LINES (TYP)



DETAIL 1 (PREFERRED BY GARY.)



DETAIL 2

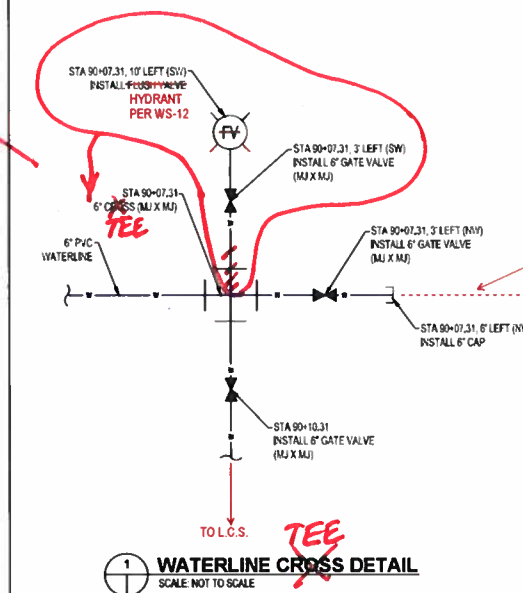


- GENERAL NOTES
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- KEYED NOTES
3. INSTALL 6" DR18 C900 PVC WATERLINE. **235 PSI**
 4. INSTALL 6" GATE VALVE (MJ X MJ) AND VALVE CAN PER NTUA STD DWG WS-14, SEE SHEET D-02.
 6. INSTALL 1" CAP PER NTUA STD DWG WS-10, SEE SHEET D-02.
 7. INSTALL 1" GATE VALVE PER NTUA STD DWG WS-14, SEE SHEET D-02.
 12. INSTALL 11.25" BEND (MJ X MJ) WITH THRUST BLOCK PER NTUA WS-19.
 13. JACK AND BORE BENEATH ROADWAY PER NTUA STD DWG WS-17A, SEE SHEET D-03.
 14. BORE PIT.
 15. INSTALL 6" CROSS (MJ X MJ) REFER TO DETAIL 01, THIS SHEET.
 16. INSTALL 6" CAP (DJ, MJ) WITH THRUST BLOCK (NO REBAR) PER NTUA STD. DTL WS-19.
 17. REMOVE CAP. CONNECT TO 6" ON-SITE WATERLINE.
 19. INSTALL 14" STEEL CASING, SCH. 40 MIN. PER NTUA STD. DTL WS-17a WITH CASING SPACERS PER NTUA STD. DTL WS-18.

19- INSTALL 6" X 2" REDUCER, D.I., MTX THRD. WITH THRUST BLOCK.

20- INSTALL 2" PVC PIPE, SDR-21, 200 PSI.



WATERLINE CROSS DETAIL

NOTES:
1. RESTRAIN ALL JOINTS.

REVIEWED

GARY
NTUA CIVIL ENG.
11/12/21

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ARCHITECT

ENGINEER

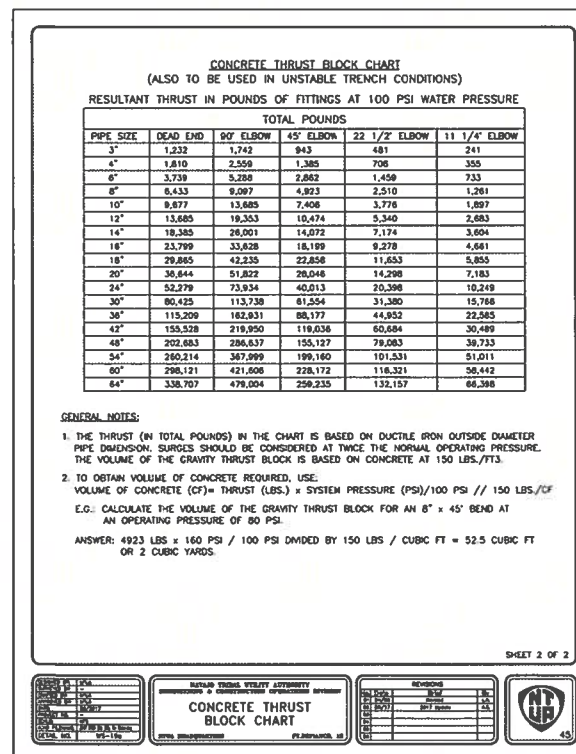
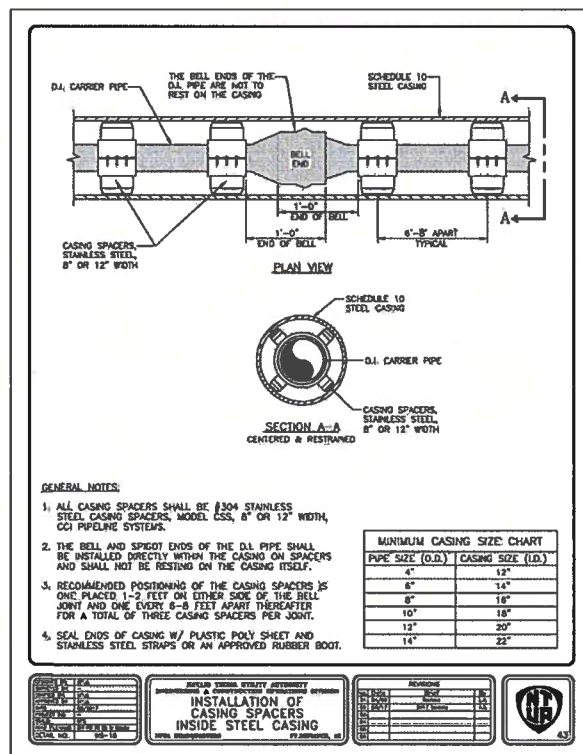
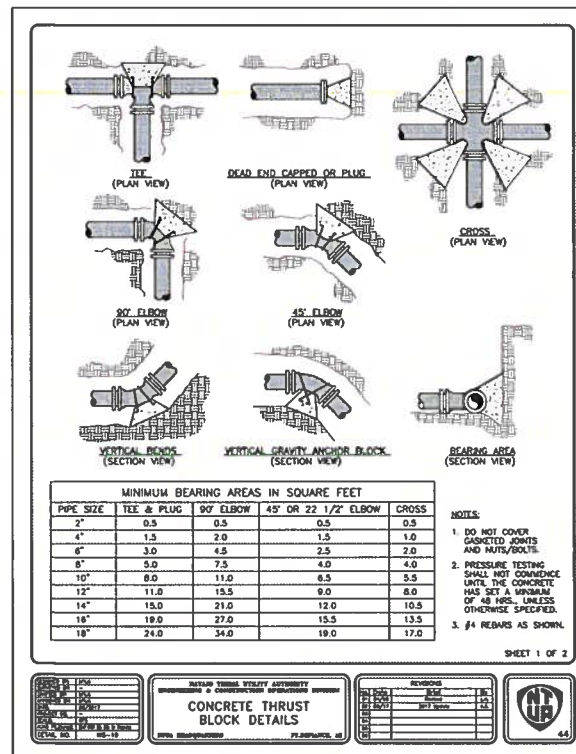
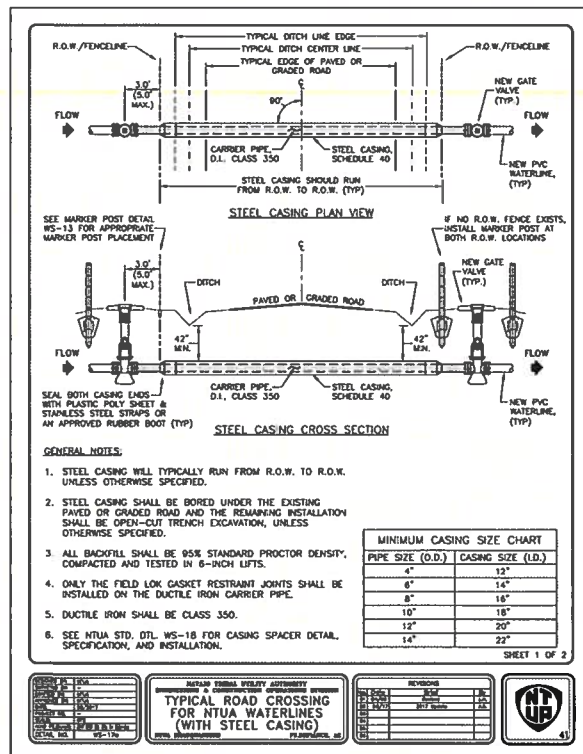
PROJECT

K-8 Academics
Lukachukai Community Schools
Waterline Supply
Lukachukai, AZ 86507

PRE-FINAL
SUBMITTAL

REVISIONS	
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DRAWN BY JTL
REVIEWED BY HDR
DATE 09/03/2021
PROJECT NO 20-7002.001
DRAWING NAME
LCS WATERLINE
SUPPLY
PLAN & PROFILE
STA 87+00 TO STA
92+60
SHEET NO
C-08



INCLUDE STANDARD DNG:

 WS-1
 WS-1a

 GARY Y
 NTUA CIVIL ENG.
 11/12/21

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PERICH
SABATINI

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ALBUQUERQUE, NM 87110

505.741.9700 / OPS@DESIGN.DKK

ARCHITECT

ENGINEER

PROJECT

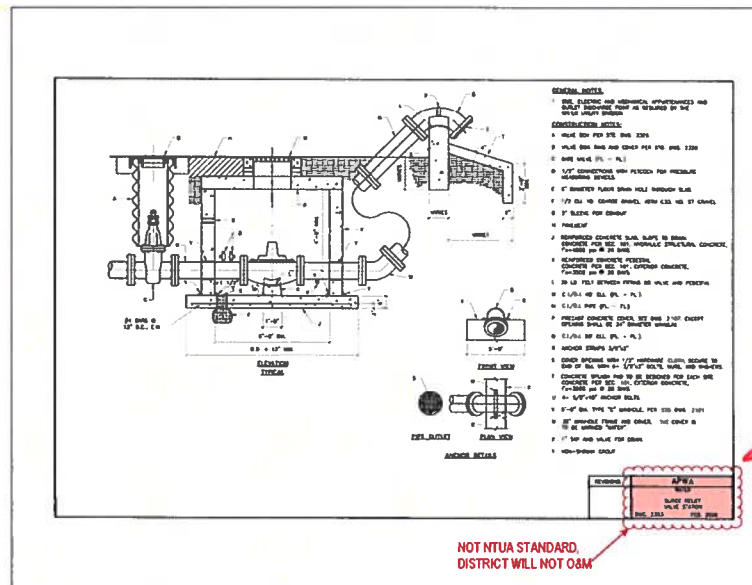
K-8 Academics
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REVISIONS
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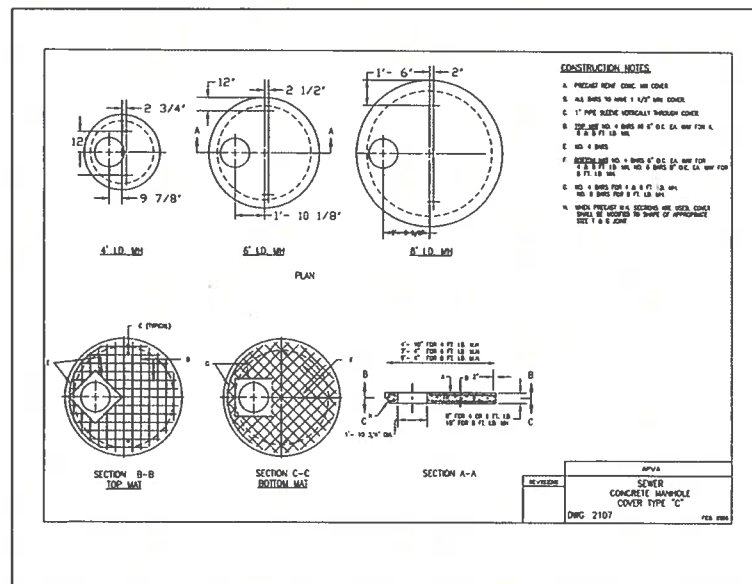
DRAWN BY JTL
REVIEWED BY HDR
DATE 09/03/2021
PROJECT NO 20-7002.001
DRAWING NAME
LCS WATERLINE
SUPPLY
APWA STANDARD
DRAWINGS

SHEET NO
D-04

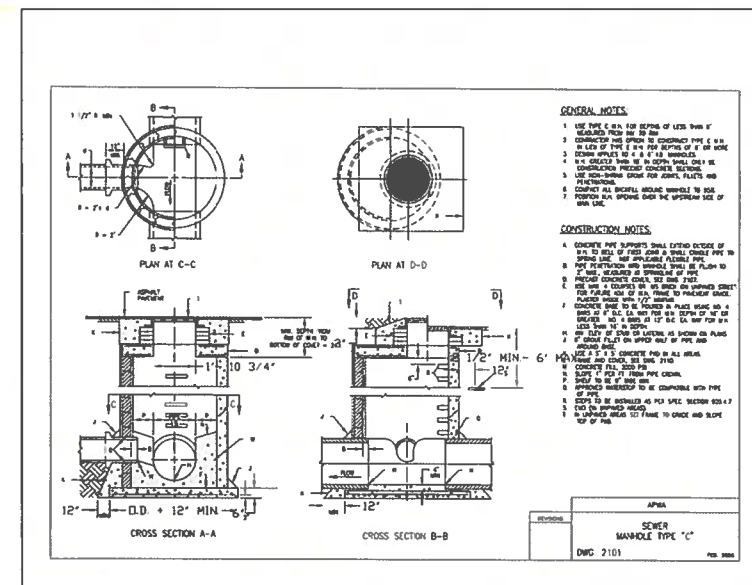


NEED TO SHOW IF SPV IS NEEDED.

- NOTES:**
1. CONSTRUCTION NOTES A AND B DO NOT APPLY TO THIS PROJECT. GATE VALVE, VALVE BOX, AND VALVE BOX COLLAR TO BE INSTALLED IN ACCORDANCE WITH NTUA STANDARD DETAIL V15-14. DO NOT REFERENCE APWA STANDARD DETAILS 2326 OR 2328.
 2. CONSTRUCTION NOTE C DOES NOT APPLY TO THIS PROJECT. GATE VALVE SHALL BE MJ X MJ.
 3. LOCATION OF GATE VALVE SHALL BE CONSISTENT WITH PLACEMENT IDENTIFIED ON SHEET C-01.
 4. PRESSURE RELIEF VALVE SHALL BE GA INDUSTRIES 6" FIGURE 5670 PILOT OPERATED PRESSURE RELIEF / PRESSURE SUSTAINING VALVE, FLANGED, CLASS 150.
 5. INCLUDE EBAA IRON SERIES 2000 MEGALANGE ADAPTER DOWNSTREAM OF THE PRESSURE RELIEF VALVE.



WHERE ARE THE SEWER MANHOLES GOING TO BE USED - NOT TO BE USED ON WATERLINE.



REVIEWED

GARY Y
NTUA CIVIL ENG.
11/12/21

"General Decision Number: AZ20210037 01/01/2021

Superseded General Decision Number: AZ20200037

State: Arizona

Construction Type: Heavy

Counties: Apache, Cochise, Gila, Greenlee and La Paz Counties in Arizona.

HEAVY CONSTRUCTION, Includes Water and Sewer Lines, Heavy Construction on Treatment Plant Sites and Pipeline Construction

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021

BOIL0627-004 10/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 35.30	28.41

* ELEC0570-013 12/01/2020		

	Rates	Fringes
ELECTRICIAN.....	\$ 28.62	18%+6.00

ZONE DEFINITIONS-

Zone A: the area within a twenty-nine (29) mile radius from a basing point at the Tucson Town Hall.

Zone B: 29 to 46 mile radius from the town hall in Tucson- an additional \$ 1.25 per hour

Zone C: 47 mile radius from the town hall in Tucson to the outer limits of the geographic jurisdiction- an additional \$ 3.75 per hour

IRON0433-001 01/01/2014

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 33.50	26.80

LAB01184-011 06/01/2020

	Rates	Fringes
LABORER		
GROUP 4		
Jackhammer.....	\$ 22.57	6.06

SUAZ2012-026 05/17/2012

	Rates	Fringes
LABORER: Common or General.....	\$ 15.65	0.00
LABORER: Pipelayer.....	\$ 20.00	0.00
OPERATOR: Loader (Front End)....	\$ 20.23	6.31
OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 22.70	0.00
TRUCKDRIVER.....	\$ 21.00	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current

negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

