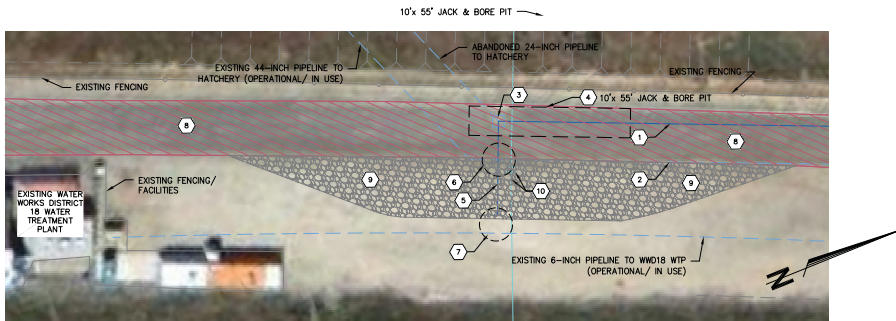

DRAFT ENVIRONMENTAL ASSESSMENT (11-097)

*FRESNO COUNTY WATER WORKS DISTRICT NO. 18 AND LOWER TULE RIVER
IRRIGATION DISTRICT REQUEST FOR APPROVALS PURSUANT TO THE FRIANT
RANCH SPECIFIC PLAN*

Appendix D

90% Preliminary Construction Designs Page 4

May 2013



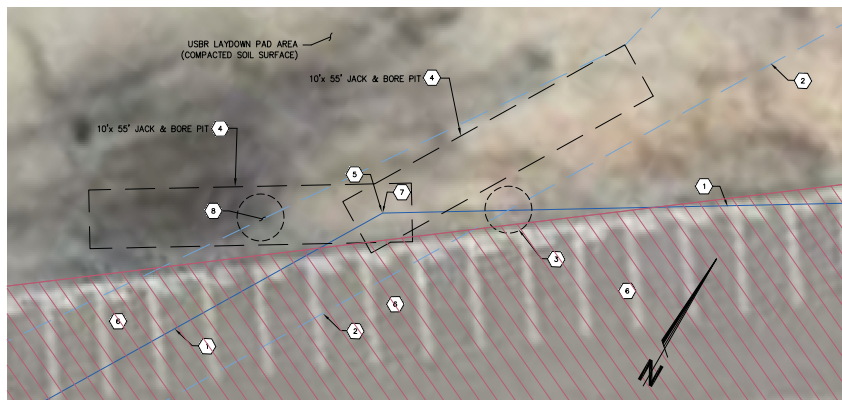
4 SLIPLINER LOCATION AT WATERWORKS DISTRICT 18 CONNECTION

CONSTRUCTION NOTES:

- 1 EXISTING 24-INCH ABANDONED STEEL PIPELINE TO BE SLP-LINED WITH 18-INCH PIPE PER NOTES & SPECIFICATIONS ON SHEET 3. SEAL REMAINING PIPE TO THE SOUTH WITH CONCRETE PLUG 3-FT MINIMUM LENGTH INTO PIPE.
- 2 EXISTING 44-INCH STEEL PIPELINE TO FISH HATCHERY.
- 3 EXISTING ITEMS FOR DEMOLITION & REMOVAL:
 - 45' ELBOW AND THRUST BLOCK
 - 6" AIR RELEASE VALVE
 - 6" GATE VALVE
 - CONCRETE VAULT AND LID
- 4 APPROXIMATE LOCATION OF THE 10-FT X 55-FT JACK AND BORE PIT. BACKFILL AND COMPACT PER TYPICAL PIPE TRENCH DETAIL ON SHEET 5.
- 5 CONSTRUCT 30 LF OF 18-INCH PIPELINE BY NORMAL TRENCH TECHNIQUES. INSTALL NEW 18-INCH HOPE 90° ELBOW (CONTRACTOR TO VERIFY ANGLE). ELBOW TO BE A FIVE SEGMENT FABRICATION. RESTRAINED JOINT CAN BE ACCOMPLISHED BY USE OF BUTT FUSION WELDS, ELECTROFUSION FITTINGS OR USE OF HOPE MJ ADAPTERS TO CREATE FLANGED FITTINGS. GROUT SEAL THE FIRST 20-FT OF ANNUAL SPACE AT THE END OF THE STEEL PIPE OPENING.

CONSTRUCTION NOTES (CONTINUED):

- 6 CROSSING LOCATION - APPROXIMATELY 8-FT OF COVER AT THIS LOCATION PER AS-BUILTS (CONTRACTOR TO VERIFY). SEE TYPICAL PIPE CROSSING DETAIL ON SHEET 5.
- 7 CONSTRUCT 4-INCH BLOW-OFF AND THRUSTBLOCK PER DETAIL ON SHEET 5. PROPOSED PIPELINE TO END 10-FT FROM ADJACENT 6-INCH RAW WATER PIPELINE.
- 8 EXISTING AC PAVEMENT ACCESS ROAD (APPROXIMATELY 18-FT WIDE). REPAIR AND REPLACE ALL DAMAGED/REMOVED PAVEMENT. MATCH EXISTING PAVEMENT THICKNESS. RE-STRIPE YELLOW CENTERLINE STRIPE AND WHITE EDGE LINE STRIPE AS NEEDED.
- 9 CONSTRUCT TEMPORARY ALL-WEATHER ACCESS ROAD PRIOR TO PIPELINE EXCAVATION WITH 6-INCH THICK CLASS # AGGREGATE BASE. CONTRACTOR TO PROVIDE A MINIMUM OF 18-FT CLEAR TRAVELWAY OUTSIDE OF LIMITS OF CONSTRUCTION FOR ACCESS TO USBR FACILITIES.
- 10 EXISTING 8-INCH DIAMETER STEEL DRAIN LINE. CONTRACTOR TO VERIFY DEPTH AND REPLACE WITH SAME PIPE MATERIAL AFTER COMPLETION OF THE JACK AND BORE. PROTECT-IN-PLACE THE EXISTING CONCRETE INLET AND GRATE (IF REMOVED, CONTRACTOR TO REPLACE).



4 SLIPLINER LOCATION AT USBR LAYDOWN PAD

CONSTRUCTION NOTES:

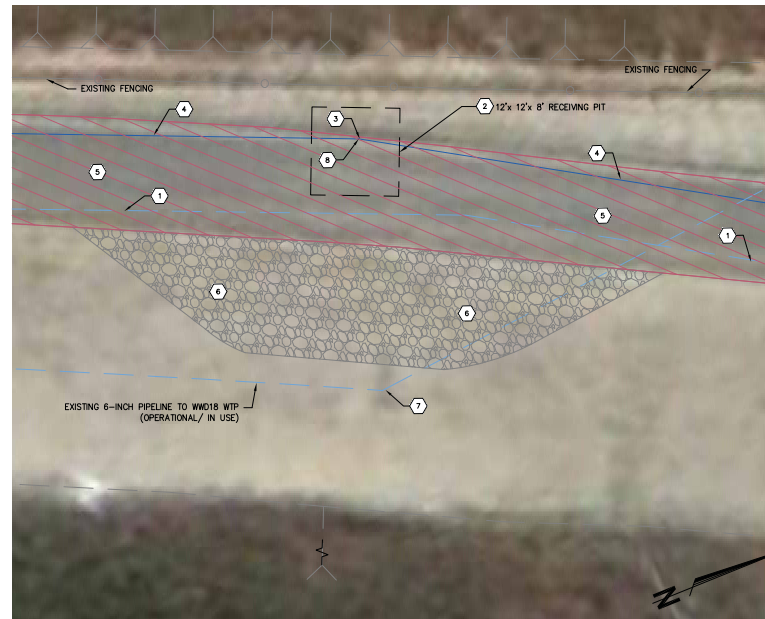
- 1 EXISTING 24-INCH ABANDONED STEEL PIPELINE TO BE SLP-LINED WITH 18-INCH PIPE PER NOTES & SPECIFICATIONS ON SHEET 3.
- 2 EXISTING 44-INCH STEEL PIPELINE TO FISH HATCHERY.
- 3 EXISTING 24-INCH ABANDONED PIPELINE CROSS OVER TOP OF THE EXISTING 44-INCH STEEL PIPELINE TO FISH HATCHERY. CONTRACTOR JACK AND BORE PIT TO BE EXCAVATED A MINIMUM OF 10-FT FROM CROSSING TO AVOID POSSIBLE IMPACTS.
- 4 APPROXIMATE LOCATION OF THE 10-FT X 55-FT JACK AND BORE PITS. BACKFILL AND COMPACT PER TYPICAL PIPE TRENCH DETAIL ON SHEET 5.

CONSTRUCTION NOTES (CONTINUED):

- 5 EXISTING ITEMS FOR DEMOLITION & REMOVAL:
 - 26'40" ELBOW AND THRUST BLOCK
- 6 EXISTING USBR AC PAVEMENT PARKING STRIP ALONG ACCESS ROAD. REPAIR AND REPLACE ALL DAMAGED/REMOVED PAVEMENT. MATCH EXISTING PAVEMENT THICKNESS. RE-STRIPE PARKING SPACES AS NEEDED.
- 7 INSTALL NEW 18-INCH HOPE 26' ELBOW (CONTRACTOR TO VERIFY ANGLE). ELBOW CAN BE FIELD FABRICATED. RESTRAINED JOINT CAN BE ACCOMPLISHED BY USE OF BUTT FUSION WELDS, ELECTROFUSION FITTINGS OR USE OF HOPE MJ ADAPTERS TO CREATE FLANGED FITTINGS. GROUT SEAL THE FIRST 20-FT OF ANNUAL SPACE AT THE ENDS OF THE STEEL PIPE OPENINGS.

CONSTRUCTION NOTES (CONTINUED):

- 8 EXISTING WWD 18 6-INCH CAST-IRON RAW WATER PIPELINE (TO REMAIN IN SERVICE AT ALL TIMES). CONTRACTOR TO VERIFY DEPTH AND HORIZONTAL LOCATION FROM THE 44-INCH FISH HATCHERY PIPELINE. CONTRACTOR TO DETERMINE IF ENOUGH SPACE IS AVAILABLE FOR JACK & BORE PIT. IF NOT, JACK & BORE PIT CAN BE MOVED TO THE VENTURE AND PRIVY VAULT DEMOLITION AREA (SEE PLAN VIEW DETAIL PER SHEET 5), OR CONTRACTOR CAN PROPOSE TEMPORARY ALIGNMENT MODIFICATION TO 6-INCH PIPELINE (MUST RECEIVE APPROVAL FROM WWD 18).



6 RECEIVER PIT AT ANGLE POINT

CONSTRUCTION NOTES:

- 1 EXISTING 44-INCH STEEL PIPELINE TO FISH HATCHERY.
- 2 APPROXIMATE LOCATION OF THE 12-FT X 12-FT RECEIVING PIT. BACKFILL AND COMPACT PER TYPICAL PIPE TRENCH DETAIL ON SHEET 5.
- 3 EXISTING ITEMS FOR DEMOLITION & REMOVAL:
 - 10' ELBOW AND THRUST BLOCK
- 4 EXISTING 24-INCH ABANDONED STEEL PIPELINE TO BE SLP-LINED WITH 18-INCH PIPE PER NOTES & SPECIFICATIONS ON SHEET 3.
- 5 EXISTING AC PAVEMENT ACCESS ROAD (APPROXIMATELY 18-FT WIDE). REPAIR AND REPLACE ALL DAMAGED/REMOVED PAVEMENT. MATCH EXISTING PAVEMENT THICKNESS. RE-STRIPE YELLOW CENTERLINE STRIPE AND WHITE EDGE LINE STRIPE AS NEEDED.
- 6 CONSTRUCT TEMPORARY ALL-WEATHER ACCESS ROAD PRIOR TO PIPELINE EXCAVATION WITH 6-INCH THICK CLASS # AGGREGATE BASE. CONTRACTOR TO PROVIDE A MINIMUM OF 18-FT CLEAR TRAVELWAY OUTSIDE OF LIMITS OF CONSTRUCTION FOR ACCESS TO USBR FACILITIES.
- 7 PROTECT-IN-PLACE EXISTING ABOVE GROUND CONCRETE AND METAL STRUCTURE FOR THE EXISTING 6-INCH RAW WATER LINE USED BY WWD 18.
- 8 INSTALL NEW 18-INCH HOPE 10' ELBOW (CONTRACTOR TO VERIFY ANGLE). ELBOW CAN BE FIELD FABRICATED. RESTRAINED JOINT CAN BE ACCOMPLISHED BY USE OF BUTT FUSION WELDS, ELECTROFUSION FITTINGS OR USE OF HOPE MJ ADAPTERS TO CREATE FLANGED FITTINGS. GROUT SEAL THE FIRST 20-FT OF ANNUAL SPACE AT THE ENDS OF THE STEEL PIPE OPENINGS.

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PRELIMINARY
NOT FOR CONSTRUCTION
90% DRAFT SUBMITTAL

NEW RAW WATER CONNECTION
AT FRIANT DAM
FRESNO COUNTY WATER WORKS DISTRICT NO. 18
FRESNO COUNTY, CA

PRITVOST & PRITCHARD
AN ENGINEERING AND CONSTRUCTION COMPANY
1000 N. MARKET STREET, SUITE 200
FRESNO, CALIFORNIA 93703
509/448-2700 FAX 509/448-2715

DESIGN ENGINEER:

LICENSE NO:

DRAFTED BY:

CHECKED BY:

SCALE: AS SHOWN

DATE: 2011-11-02

JOB NO: 13281106

DWG. NO:

SHEET

4 OF 6

DETAILS

10/1/2012 1:48 PM C:\Users\jpritchard\Desktop\13281106-01\Details.dwg - Adam Lee