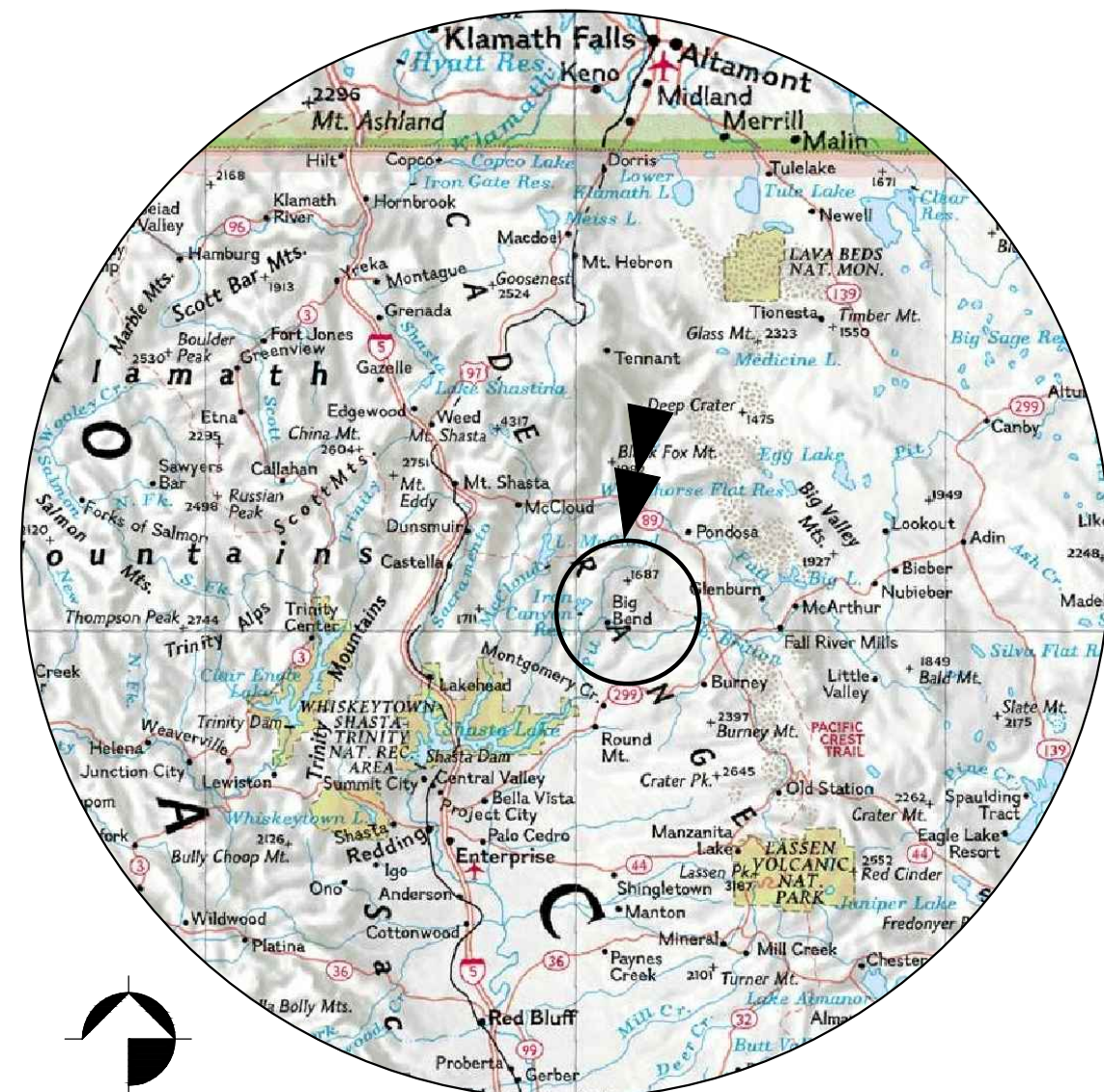
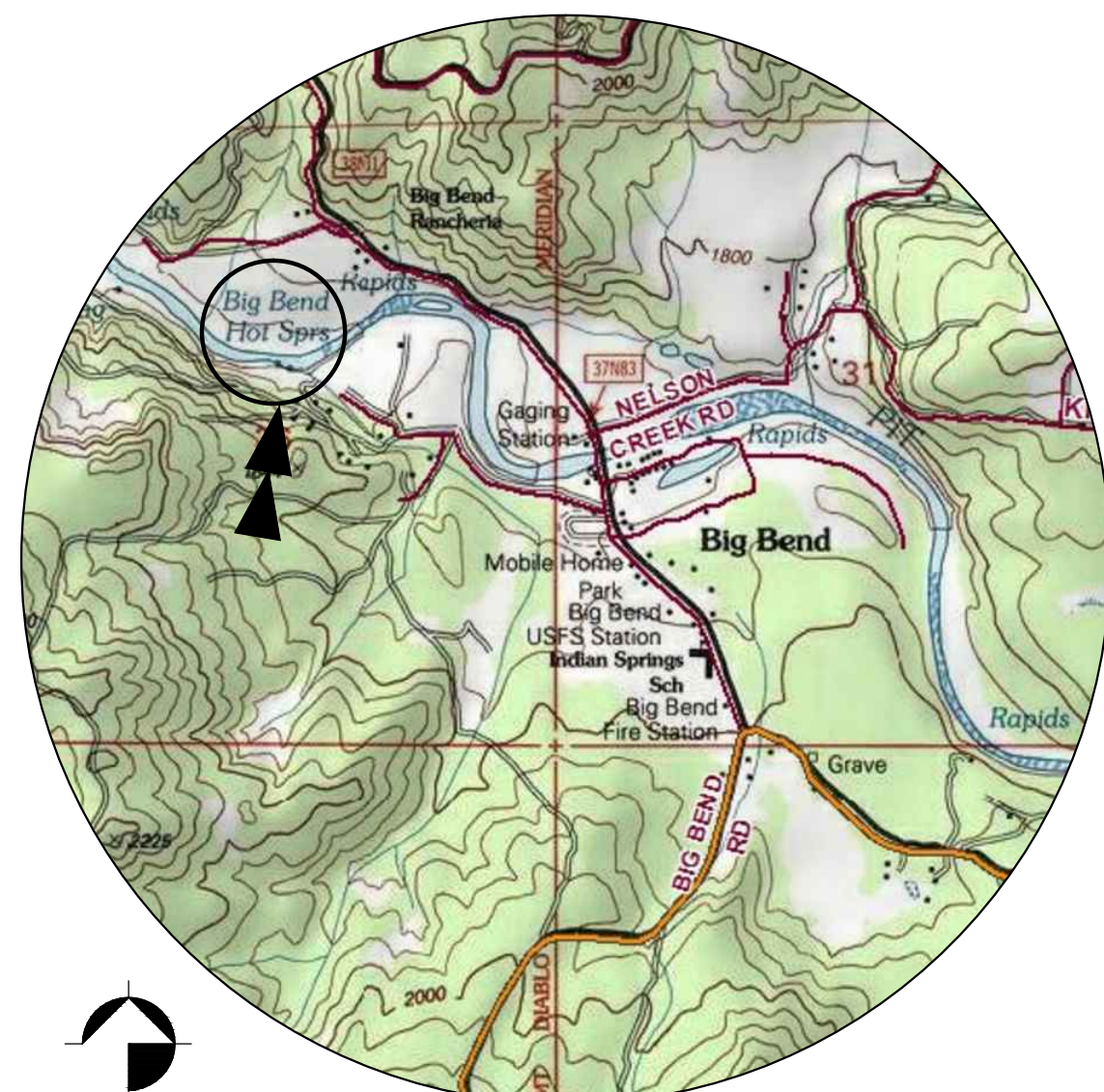


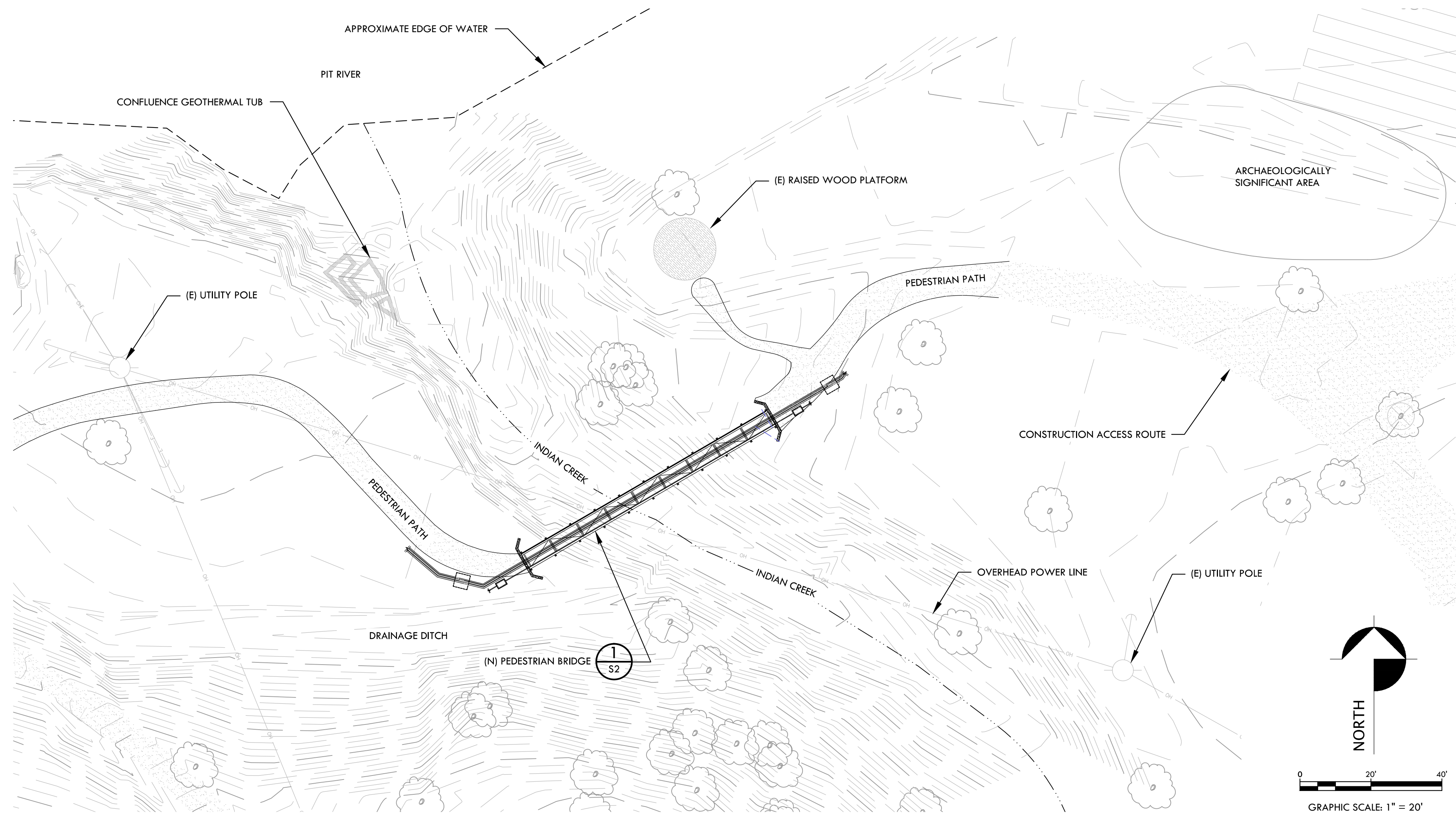
BIG BEND HOT SPRINGS PEDESTRIAN BRIDGE REPLACEMENT PROJECT



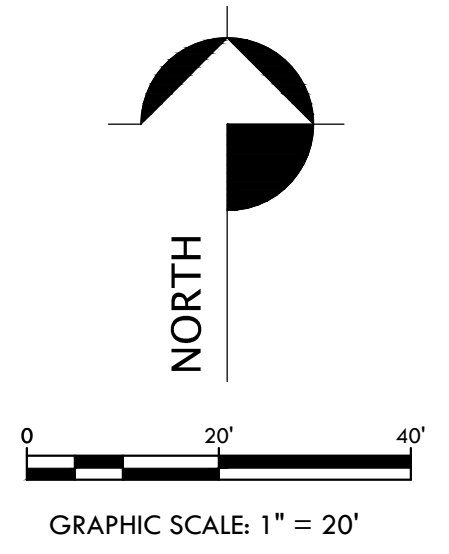
VICINITY MAP
NTS



SITE MAP
NTS



1 SITE IMPROVEMENT PLAN
SCALE: 1" = 20' @ 24" X 36"



1. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH:

- SHASTA COUNTY DEVELOPMENT STANDARDS (CURRENT EDITION)
- 2013 CALIFORNIA BUILDING CODE (BASED ON THE 2012 EDITION OF THE IBC)
- 2013 CALIFORNIA PLUMBING CODE (BASED ON THE 2012 UPC)
- 2013 CALIFORNIA MECHANICAL CODE (BASED ON THE 2012 UMC)
- 2013 CALIFORNIA ELECTRICAL CODE (BASED ON THE 2012 NEC)
- 2013 CALIFORNIA EXISTING BUILDING CODE
- REGULATIONS OF THE STATE FIRE MARSHAL
- 2013 CALIFORNIA FIRE CODE
- STATE OF CALIFORNIA CODE OF REGULATIONS, TITLE 22 DRINKING WATER REGULATIONS, 2013
- AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS
- CALIFORNIA WATER WORKS STANDARDS (CWWWS)

2. NOTHING ON THE DRAWING IS TO BE CONSTRUED AS REQUIRING OR PERMITTING WORK THAT IS CONTRARY TO THE ABOVE LISTED CODES AND REGULATIONS, OR OTHER LOCAL, STATE OR FEDERAL CODES OF REGULATIONS WHICH MAY BE APPLICABLE.

3. ANY CHEMICAL, MATERIAL, LUBRICANT, OR PRODUCT USED IN THE PRODUCTION, TREATMENT, OR DISTRIBUTION OF DRINKING WATER SHALL HAVE BEEN TESTED AND CERTIFIED AS MEETING THE SPECIFICATIONS OF AMERICAN NATIONAL STANDARD INSTITUTE/NSF INTERNATIONAL (ANSI/NSF) 61-2005/ADDENDUM 1.0-2006 (DRINKING WATER SYSTEM COMPONENTS - HEALTH EFFECTS) OR A MORE RECENT VERSION OF ANSI/NSF 61.

- 4. ANY ADDITIVE MUST BE CERTIFIED UNDER ANSI/NSF 60 STANDARD.
- 5. NOTIFY SHASTA COUNTY FOR INSPECTION AT LEAST 24 HOURS BEFORE COVERING ANY EXCAVATION.
- 7. ALL NEW WATER SYSTEM CONSTRUCTION SHALL BE DISINFECTED PER CWWWS.

8. APPROVAL BY STATE MUST BE GRANTED PRIOR TO USE OF WATER FOR DOMESTIC PURPOSES.

PROJECT CONTACTS

<p>CLIENT BIG BEND HOT SPRINGS (BBHS) 25322 HEALTH WAY, BIG BEND, CA 96011 PHONE: 530-337-6155 CONTACT: BROOK LEAF</p>	<p>CIVIL ENGINEER FALL CREEK ENGINEERING, INC. 1525 SEABRIGHT AVENUE SANTA CRUZ, CA 95062 PHONE: 831-426-9054 CONTACT: PETER HAASE, P.E. PRINCIPAL ENGINEER</p>	<p>STRUCTURAL ENGINEER STREETER GROUP, INC. 2571 MAIN STREET, SUITE C SOQUEL, CA 95073 PHONE: 831-477-1781 CONTACT: BRAD STREETER, P.E. PRINCIPAL ENGINEER</p>
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GENERAL NOTES

PROJECT SCOPE

REPLACE EXISTING PEDESTRIAN BRIDGE WITH NEW LARGER STEEL VERSION.

1. GRADE APPROACHES AND PROTECT RIPARIAN ENVIRONMENT DURING CONSTRUCTION.
2. INSTALL NEW BRIDGE AND REMOVE OLD BRIDGE AND MOVE TO A LOCATION SPECIFIED BY BBHS.
3. INSTALL UTILITY CHASE ALONG UNDERSIDE OF BRIDGE AND INSTALL THE FOLLOWING LENGTHS OF PIPE:

- 240' OF 4" Ø INSULATED DRINKING WATER LINES
- 240' OF 3" Ø INSULATED GEOTHERMAL HOT WATER LINES
- 120' OF 3" Ø GEOTHERMAL DISCHARGE LINE
- 400' OF 2" Ø ELECTRICAL/COMMUNICATIONS LINES

SURVEY

CONTOURS BASED ON OCT 2012 SITE SURVEY BY NORTH STAR CIVIL ENGINEERS AND SURVEYORS, CHICO CA.

TECHNICAL REFERENCES

1. GEOTECHNICAL REPORT, BIG BEND HOT SPRINGS PROJECT, BIG BEND, SHASTA COUNTY, CA, BY CGI TECHNICAL SERVICES, INC. OCTOBER 2011.
2. GEOTECHNICAL LETTER, WATER STORAGE SYSTEMS. BIG BEND HOT SPRINGS PROJECT, BIG BEND, SHASTA COUNTY, CA, BY CGI TECHNICAL SERVICES, INC. NOVEMBER 2012.

SHEET INDEX

ID	DESCRIPTION
1.0	COVER AND SITE IMPROVEMENT PLAN
2.0	MATERIALS AND ABBREVIATIONS
3.0	GRADING AND DRAINAGE PLAN
4.0	EROSION CONTROL PLAN
5.0	BRIDGE UTILITY DETAILS
S1	GENERAL NOTES AND TYPICAL DETAILS
S2	BRIDGE PLAN AND ELEVATION
S3	DETAILS
S4	DETAILS

SHEET TITLE
**COVER AND SITE
IMPROVEMENT PLAN**

CLIENT:
BIG BEND HOT SPRINGS
COMMUNITY RETREAT
ATTN: SEABROOK LEAF
25322 HEALTH WAY
BIG BEND, CA

PROJECT TITLE:
BRIDGE REPLACEMENT PROJECT
BIG BEND HOT SPRINGS
25322 HOTSPRINGS ROAD
BIG BEND, CA 96011

FALL CREEK ENGINEERING, INC.

Civil • Environmental • Water Resources

1525 SEABRIGHT AVENUE
SANTA CRUZ, CA 95061
TEL: (831) 426-9054 FAX: (831) 426-4932



DRAWN BY: ASH
CHECKED BY: ACC
DATE: APRIL 12, 2016
JOB NO: 21030
SCALE: AS SHOWN
SHEET:

24" X 36" SHEET. IF SHEET SIZE IS SMALLER, DRAWING HAS BEEN REDUCED.

VALVES AND FITTINGS	SWITCH SYMBOLS	DRAWING NOTATIONS	ABBREVIATIONS						
AIR RELIEF VALVE AIR/VACUUM RELIEF VALVE BALL VALVE BUTTERFLY VALVE BACKFLOW PREVENTION ASSEMBLY (DUAL CHECK) BACKFLOW PREVENTION ASSEMBLY (RPZ) CHECK VALVE CHECK VALVE (BALL) CHECK VALVE (DOUBLE LEAF) CLEANOUT DIAPHRAGM VALVE FIRE HYDRANT FIRE HYDRANT (WHARF STYLE) FLEXIBLE COUPLING FLOAT VALVE FOUR WAY VALVE GATE VALVE/GENERIC VALVE HOSE BIB/SAMPLE PORT FLOW METER NOMINAL PIPE DIAMETER IN INCHES PIPE REDUCER PRESSURE RELIEF VALVE PRESSURE REGULATING VALVE STRAINER THREE WAY VALVE UNION ULTRASONIC LEVEL SENSOR WATER SUPPLY WELL ABANDONED WELL BLOWOFF ASSEMBLY CAPPED PIPE	FLOW SWITCH (N.O.) FLOW SWITCH (N.C.) LEVEL SWITCH (N.O.) LEVEL SWITCH (N.C.) LIMIT SWITCH (N.O.) LIMIT SWITCH (N.C.) NORMALLY OPEN CONTACT NORMALLY CLOSED CONTACT PRESSURE SWITCH (N.O.) PRESSURE SWITCH (N.C.) TEMPERATURE SWITCH (N.O.) TEMPERATURE SWITCH (N.C.) THERMAL OVERLOAD PUSH BUTTON (N.C.) PUSH BUTTON (N.O.)	DETAIL NUMBER SHEET WHERE DETAIL IS SHOWN	ADA AMERICAN DISABILITIES ACT AV ACTUATED VALVE ARV AIR RELIEF VALVE AI ANALOG INPUT AO ANALOG OUTPUT AWG AMERICAN WIRE GAUGE BW BACKWASH BVCE BEGINNING OF VERTICAL CURVE ELEVATION BVCS BEGINNING OF VERTICAL CURVE STATION BOC BOTTOM OF CURB BOW BOTTOM OF WALL BDG BUILDING CV CHECK VALVE CO CLEANOUTS C CONDUIT C.O. CONDUIT ONLY DG DECOMPOSED GRANITE DIA DIAMETER DI DIGITAL INPUT DO DIGITAL OUTPUT EL ELEVATION EMT ELECTRICAL METALLIC TUBING EC END OF VERTICAL CURVE ELEVATION ECS END OF VERTICAL CURVE STATION EOP END OF PAVEMENT (E) EXISTING F FILTER FMC FLEXIBLE METALLIC CONDUIT FM FLOW METER FF FINISHED FLOOR FG FINISHED GRADE GAL GALLONS GPM GALLONS PER MINUTE GLV GALVANIZED HP HORSEPOWER HMI HUMAN MACHINE INTERFACE LEN LENGTH LV LEVEL SENSOR LQ LIQUID SENSOR MV MANUAL VALVE MAX MAXIMUM MIN MINIMUM (N) NEW NTS NOT TO SCALE N.O. NORMALLY OPEN N.C. NORMALLY CLOSED ORP OXIDATION REDUCTION POTENTIAL PROBE O.C. ON CENTER O.D. OUTER DIAMETER P PUMP PT PRESSURE TRANSDUCER/TRANSMITTER PID PROCESS INSTRUMENTATION DIAGRAM PPM PARTS PER MILLION PS PRESSURE SWITCH (P) PROPOSED RMC RIGID METAL CONDUIT R REDUCER SCH SCHEDULE SCFH STANDARD CUBIC FEET PER HOUR S.F. SQUARE FEET SV SOLENOID VALVE SD STORMDRAIN SYSTEM SS STAINLESS STEEL SP SEEPAGE PIT SSD SUBSURFACE DRIP S STATION SWTS SURFACE WATER TREATMENT SYSTEM TOC TOP OF CURB TOW TOP OF WALL TW TWISTED TYP TYPICAL W WATER WW WASTEWATER VC VERTICAL CURVE UG UNDERGROUND	VALVE ACTUATORS SOLENOID VALVE DIAPHRAGM OPERATED VALVE MODULATING VALVE PISTON OPERATED MOTOR OPERATED VALVE	INSTRUMENTS ANALYZER (GENERIC) BUBBLER LEVEL SENSOR FLOW METER WITH INTEGRAL TRANSMITTER ROTAMETER FLOW METER (GENERIC) MAGNETIC FLOWMETER SONIC FLOWMETER (DOPPLER OR TRANSIT TIME) POSITIVE DISPLACEMENT METER THERMAL MASS FLOW ELEMENT PROPELLER, PADDLEWHEEL, OR TURBINE METER FLOAT LEVEL ELEMENT ULTRASONIC/MICROWAVE LEVEL SENSOR LEVEL SENSOR (GENERIC) FLOW SENSOR LIQUID SENSOR PRESSURE TRANSDUCER/TRANSMITTER PRESSURE SWITCH	FUNCTIONAL IDENTIFICATION CODE BASIC INSTRUMENT PROCESS IDENTIFIER	CIVIL LINE TYPES PROPERTY LINE EXISTING CONTOURS PROPOSED CONTOURS LIMIT OF GRADING STORMDRAIN PIPE EXISTING WATER LINE NEW WATER LINE EXISTING ELECTRICAL CONDUIT NEW ELECTRICAL CONDUIT EXISTING OVERHEAD POWER LINE TREE COVER OR DENSE VEG. RIVER, STREAM, GULCH, OR CREEK	CIVIL SYMBOLS VEGETATION REMOVAL AREA STRAW WADDLE GRASS SAND, DG, DIRT (ROAD, PAD, ETC.) UNDISTURBED EARTH CONCRETE GRAVEL PEA GRAVEL SOIL CEMENT SEED AND MULCH	ELECTRICAL SYMBOLS DUPLEX RECEPTACLE FLUORESCENT SURFACE PENDANT JUNCTION BOX SINGLE POLE SWITCH UTILITY POLE
PUMPS AND MOTORS GRINDER BLOWER OR CENTRIFUGAL FAN PUMP (CENTRIFUGAL) PUMP (METERING) PUMP (PERISTALTIC) PUMP (SUBMERSIBLE) BLOWER OR COMPRESSOR (ROTARY LOBE) VARIABLE FREQ DRIVE (AC) VARIABLE SPEED DRIVE (DC) MOTOR	FUNCTIONAL IDENTIFICATION AMP CURRENT CL2 CHLORINE ANALYZER DP DIFFERENTIAL PRESSURE FM FLOW METER HOA HAND OFF AUTO I INDICATOR (LOCAL DISPLAY) LV LEVEL SENSOR ORP OXIDATION REDUCTION POTENTIAL OZ OZONE P PUMP PS PUMP SPEED pH pH PT PRESSURE TRANSDUCER/TRANSMITTER SV SOLENOID VALVE TURB TURBIDITY TEMP TEMPERATURE X UNCLASSIFIED	LINE SYMBOLS INSTRUMENT SUPPLY, PROCESS TAPS PNEUMATIC SIGNAL ELECTRIC SIGNAL CAPILLARY TUBE OR FILLED SYSTEM ELECTROMAGNETIC OR SONIC SIGNAL SOFTWARE OR DATA LINK HYDRAULIC							

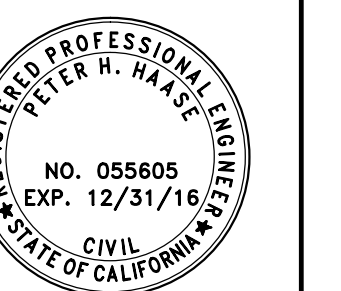
SHEET TITLE
MATERIALS AND
ABBREVIATIONS

CLIENT:
BIG BEND HOT SPRINGS
COMMUNITY RETREAT
ATTN: SEABROOK LEAF
25322 HEALTH WAY
BIG BEND, CA

PROJECT TITLE
BRIDGE REPLACEMENT PROJECT
BIG BEND HOT SPRINGS
25322 HOTSPRINGS ROAD
BIG BEND, CA 96011

FALL CREEK ENGINEERING, INC.
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Civil • Environmental • Water Resources

1525 SEABRIGHT AVENUE
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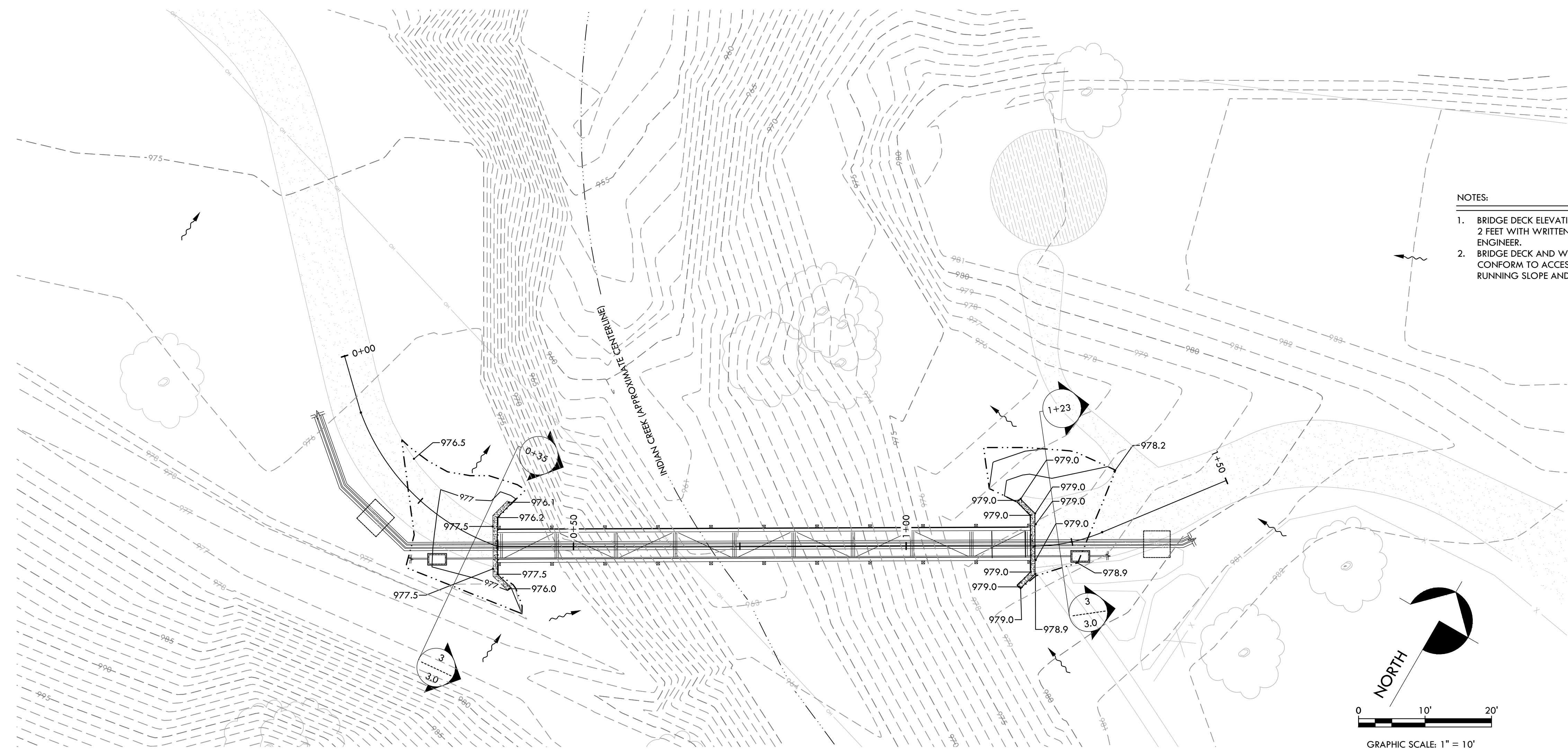


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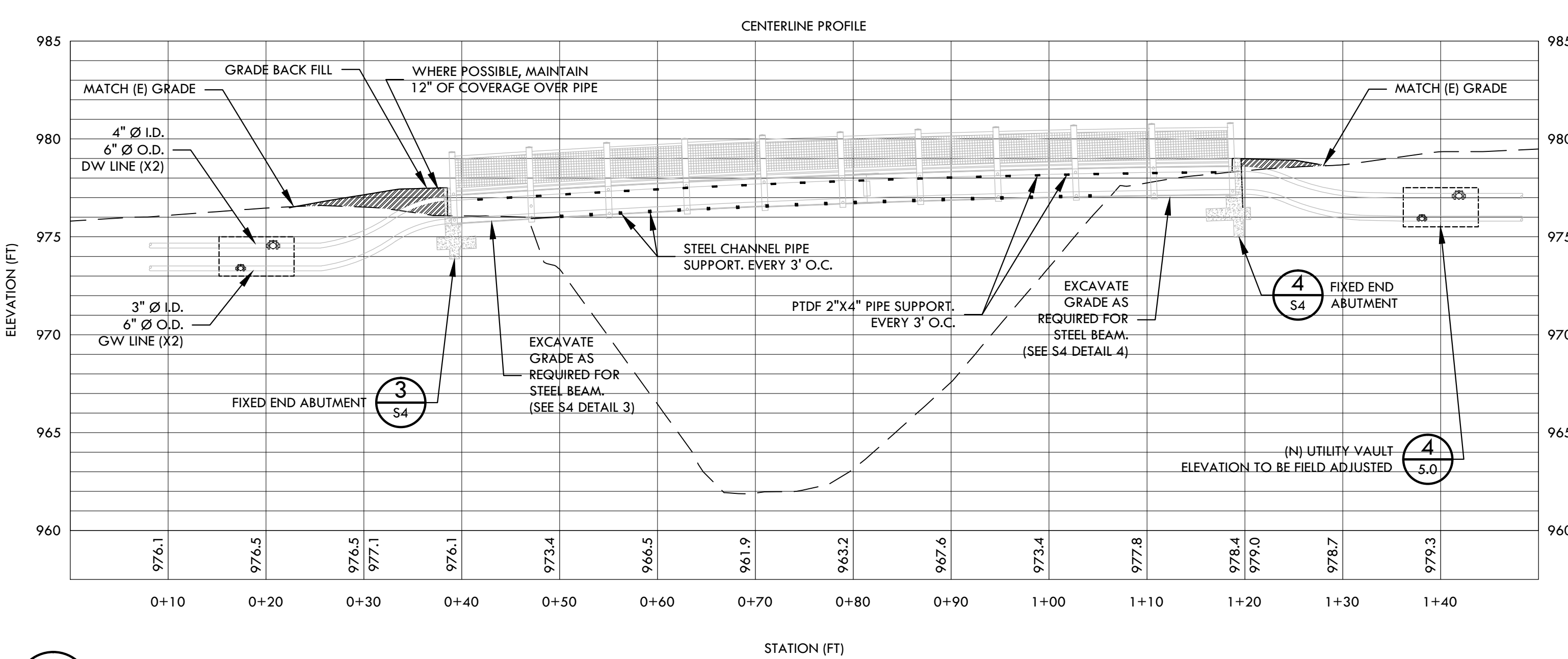
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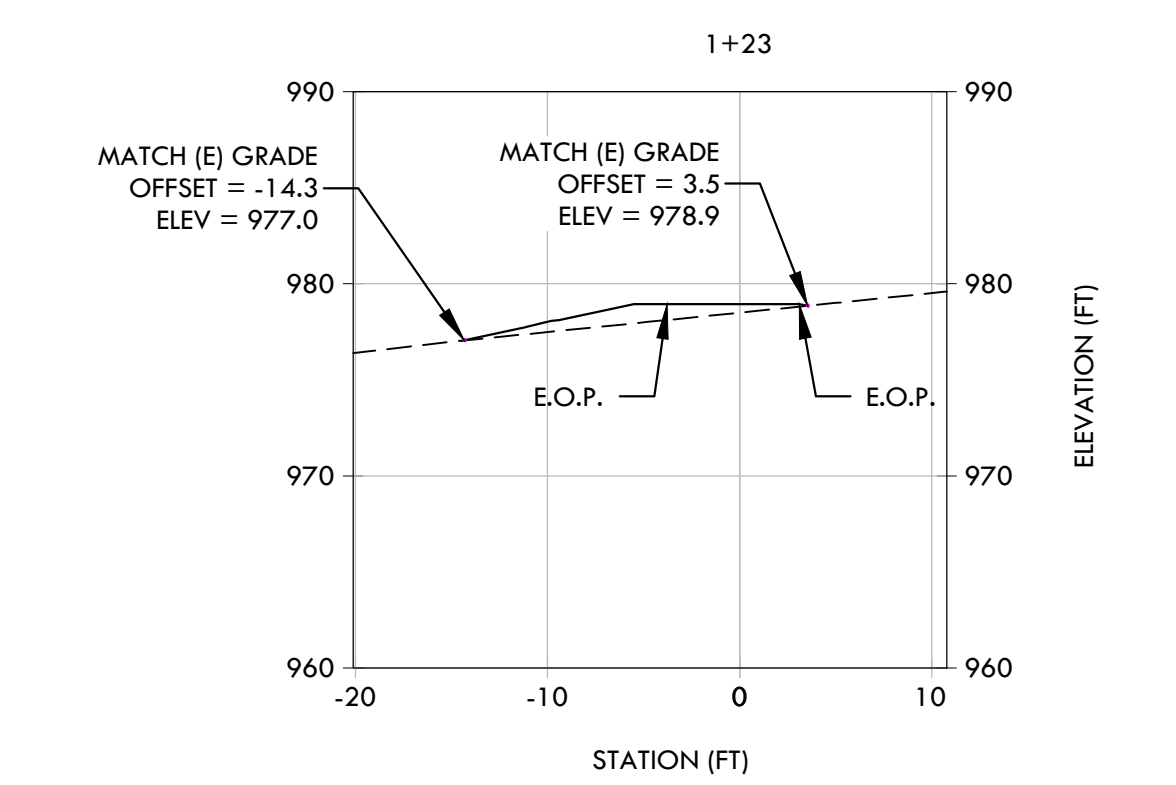
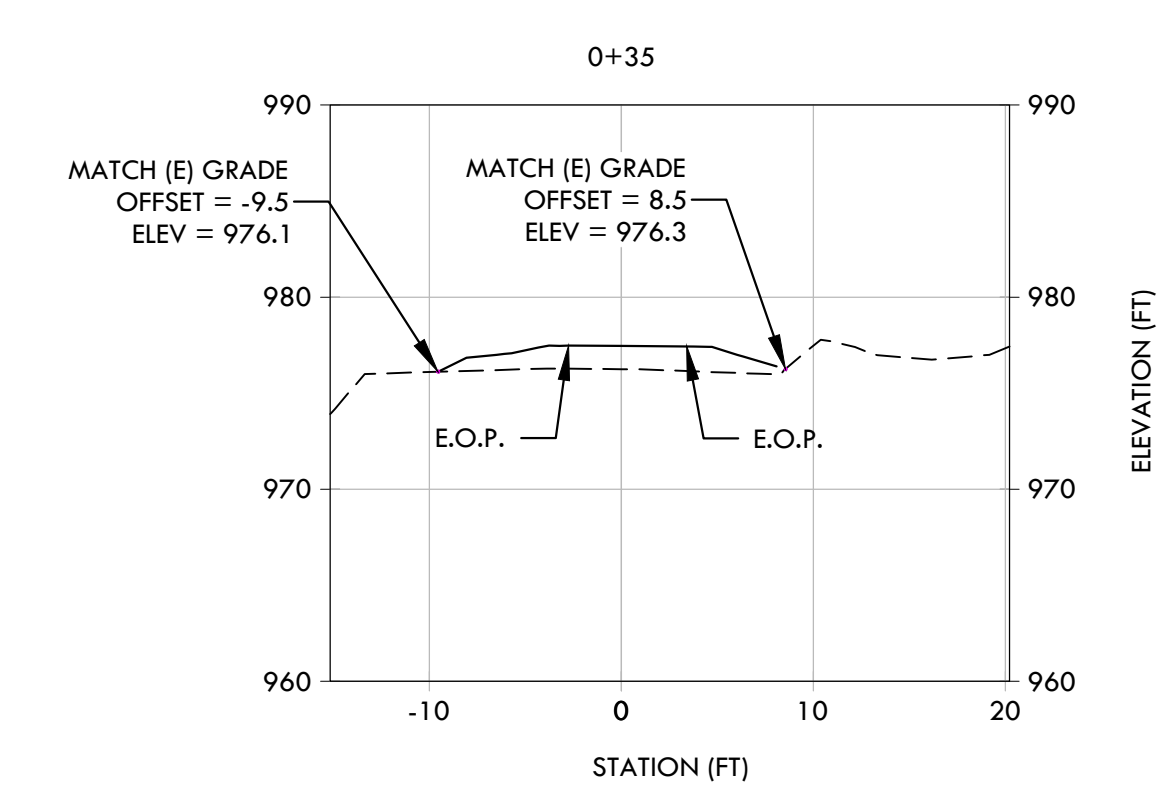
1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 10' @ 24" X 36"



- NOTES:
- BRIDGE DECK ELEVATIONS CAN BE ADJUSTED +/- 2 FEET WITH WRITTEN PERMISSION FROM THE ENGINEER.
 - BRIDGE DECK AND WALKING PATH GRADE SHALL CONFORM TO ACCESSIBILITY GUIDELINES (<5% RUNNING SLOPE AND >2% CROSS SLOPE).



2 GRADING PROFILE
SCALE: 1" = 10' H, 1" = 5' V @ 24" X 36"



3 GRADING CROSS SECTIONS
SCALE: 1" = 10' @ 24" X 36"

SHEET TITLE:
GRADING AND DRAINAGE PLAN

CLIENT:
BIG BEND HOT SPRINGS
COMMUNITY RETREAT
ATTN: SEABROOK LEAF
25322 HEALTH WAY
BIG BEND, CA

PROJECT TITLE:
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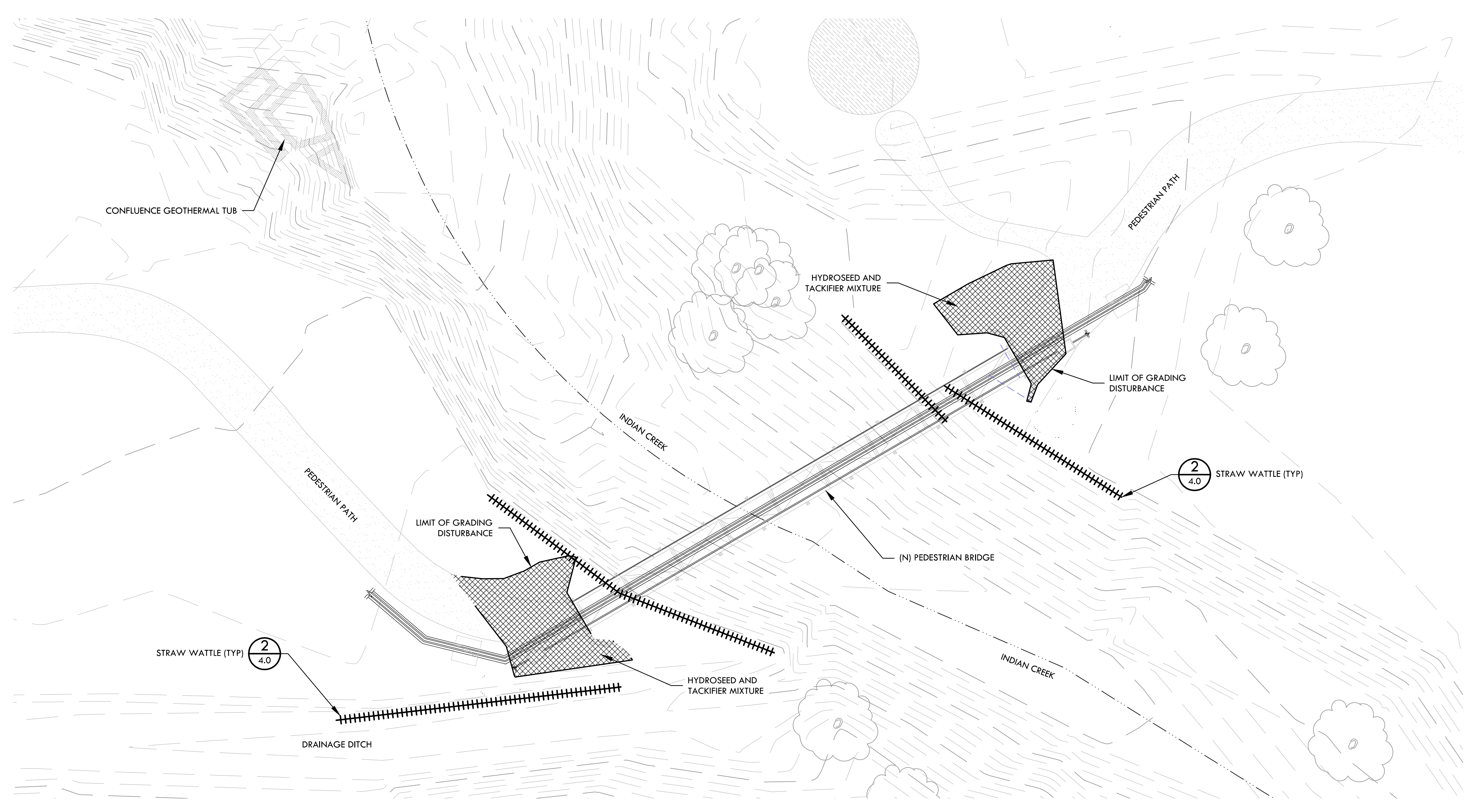


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DATE:	APRIL 12, 2016
JOB NO.:	21030
SCALE:	AS SHOWN
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24" X 36" SHEET - IF SHEET SIZE IS SMALLER, DRAWING HAS BEEN REDUCED.

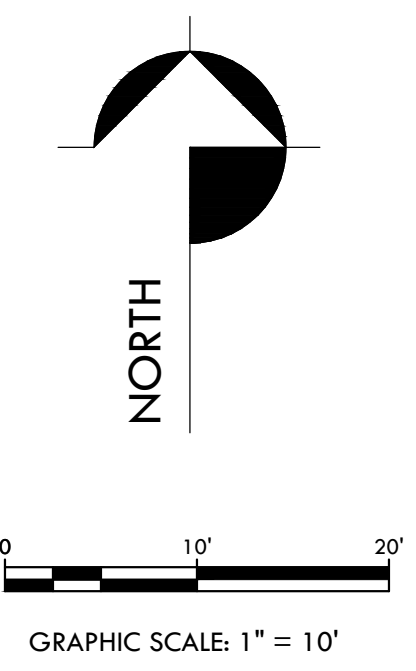
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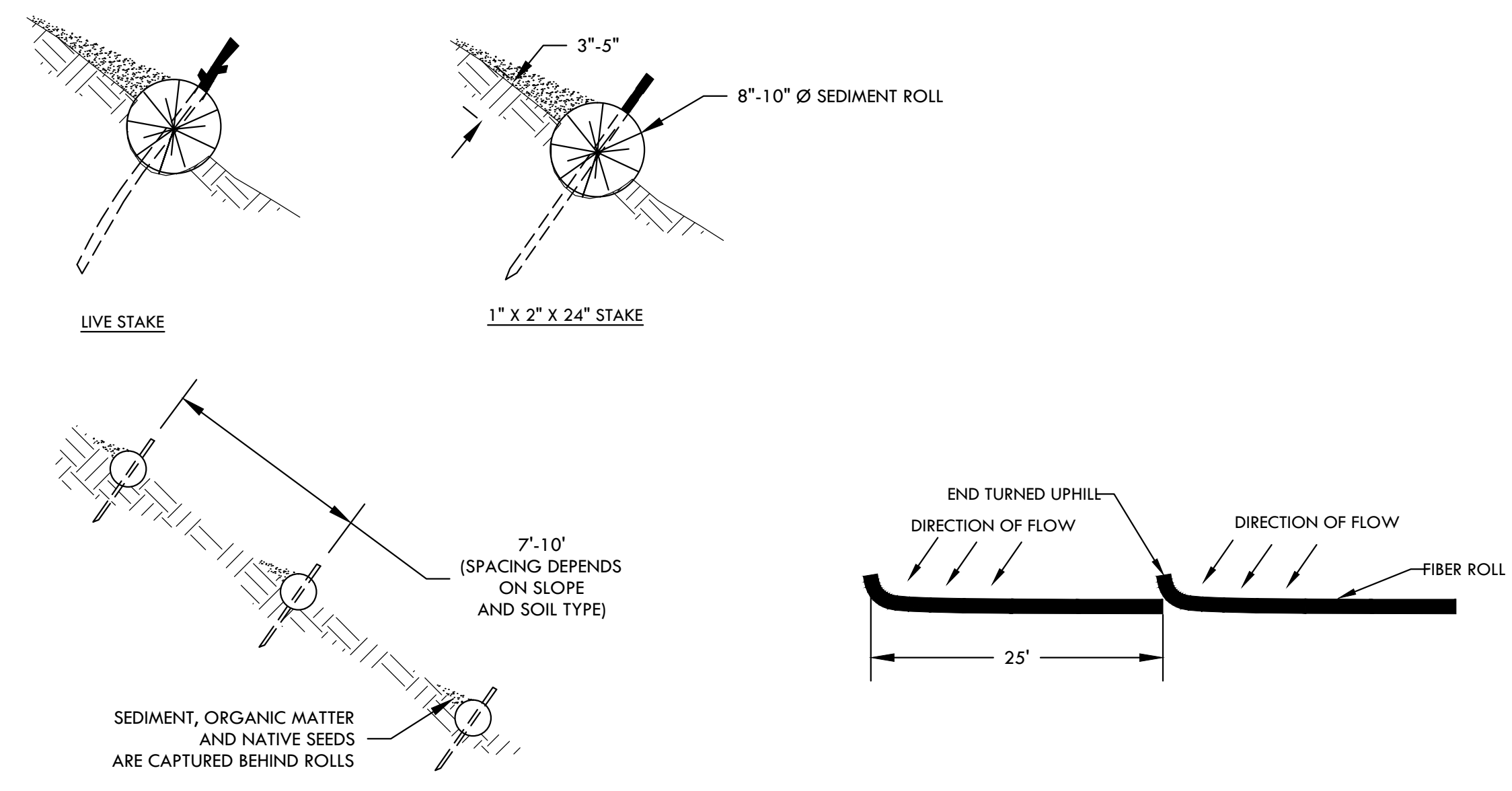


- NOTES:**
- THE CONTRACTOR SHALL INSTALL, MAINTAIN AND INSPECT EROSION CONTROL AND TEMPORARY STORMWATER CONTROL MEASURES TO CONTROL SEDIMENT AND RUNOFF IN ACCORDANCE WITH THESE PLANS.
 - ALL EROSION CONTROL AND SOIL CONSERVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE EROSION CONTROL REQUIREMENTS ESTABLISHED BY SHASTA COUNTY.
 - EROSION IS TO BE CONTROLLED AT ALL TIMES IN ORDER TO MINIMIZE SITE DISTURBANCE AND PREVENT ECOSYSTEM DEGRADATION.
 - STRAW WATTLE. STRAW WATTLES (OR FIBER ROLLS) SHALL BE INSTALLED ALONG THE CONTOUR OF THE SLOPE AND PERPENDICULAR TO THE GRADED WATER COURSE TO SLOW RUNOFF VELOCITY AND TRAP SEDIMENT. STRAW WATTLES SHALL BE INSTALLED WHEREVER THE DISTURBED SLOPE IS ADJACENT TO A STREAM OR DRAINAGE COURSE. TRENCH DEPTH SHALL BE 1/4 TO 1/2 OF THE THICKNESS OF THE WATTLE, AND THE WIDTH SHALL EQUAL THE WATTLE DIAMETER, IN ORDER TO PROVIDE AREA TO BACKFILL THE TRENCH. WOOD STAKES SHALL BE INSTALLED EVERY FOUR FEET THROUGH THE WATTLE AND THE END SHALL BE TURNED UP HILL TO PREVENT RUNOFF FROM GOING AROUND THE WATTLE.
 - ALL GRADED SLOPES WILL BE HYDROSEED WITH A NATIVE SEED MIX, TACKIFIER AND MULCH (SEE NOTE 5.1).
 - SEED MIX
 - THE FOLLOWING SEED MIX SHALL BE HYDROSEED WITH A MULCH AND TACKIFIER TO ALL DISTURBED SLOPES. THE SEED MIX SHALL CONFORM TO SHASTA COUNTY GUIDELINES.

BROMUS CARINATUS (CALIFORNIA BROME)	15# PER ACRE
FESTUCA RUBRA (RED FESCUE)	10# PER ACRE
HORDEUM BRACHYANTHERUM (MEADOW BARLEY)	8# PER ACRE
ELYMUS GLAUCUS (BLUE WILD RYE)	8# PER ACRE
 - MYCHORRHIZAL FUNGI SHALL BE ADDED AT 50 LB / ACRE.
 - THE PEDESTRIAN PATHS WITHIN THE GRADED AREA SHALL BE SEED WITH A SITE SPECIFIC SEED MIX APPROVED BY A QUALIFIED BIOLOGIST.



1 PEDESTRIAN BRIDGE EROSION CONTROL PLAN
SCALE: 1" = 10' @ 24" X 36"



2 TYPICAL STRAW WATTLE INSTALLATION
SCALE: 1" = 20' @ 24" X 36"

- LEGEND:**
- LIMIT OF GRADING
 - - - CENTERLINE OF CREEK
 - ||||| STRAW WATTLE
 - ▨ HYDROSEED AND TACKIFIER MIXTURE

SHEET TITLE:
EROSION CONTROL PLAN

CLIENT:
BIG BEND HOT SPRINGS
COMMUNITY RETREAT
ATTN: SEABROOK LEAF
25322 HEALTH WAY
BIG BEND, CA

PROJECT TITLE:
BRIDGE REPLACEMENT PROJECT
BIG BEND HOT SPRINGS
25322 HOTSPRINGS ROAD
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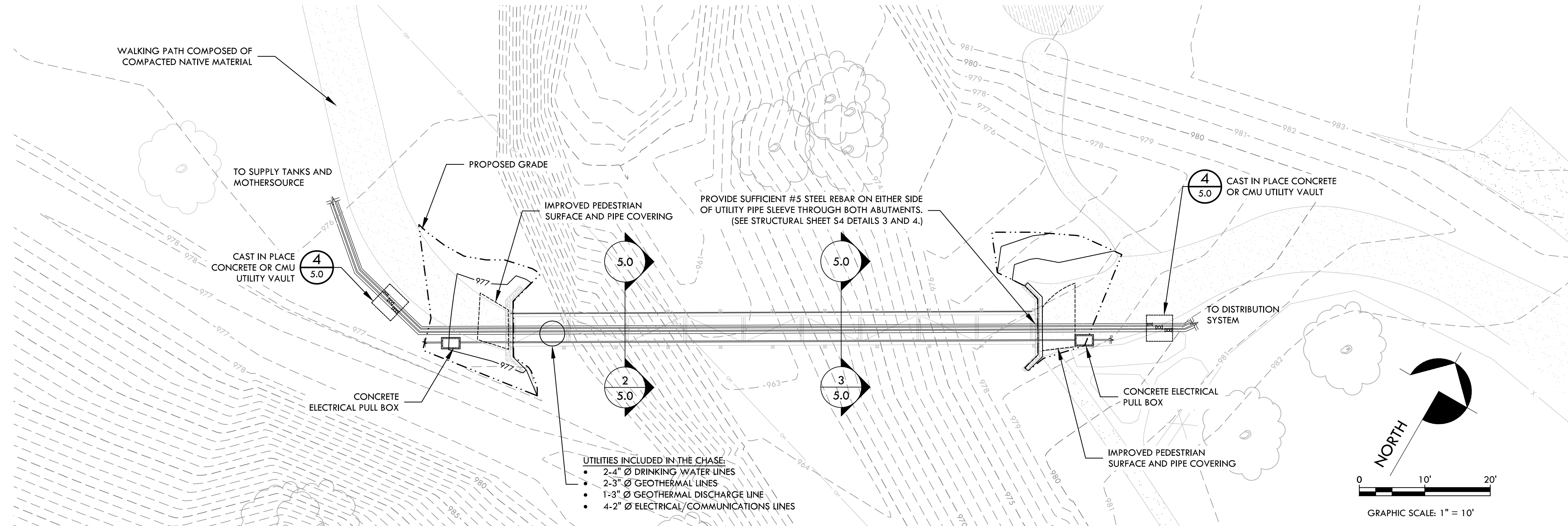


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SHEET:

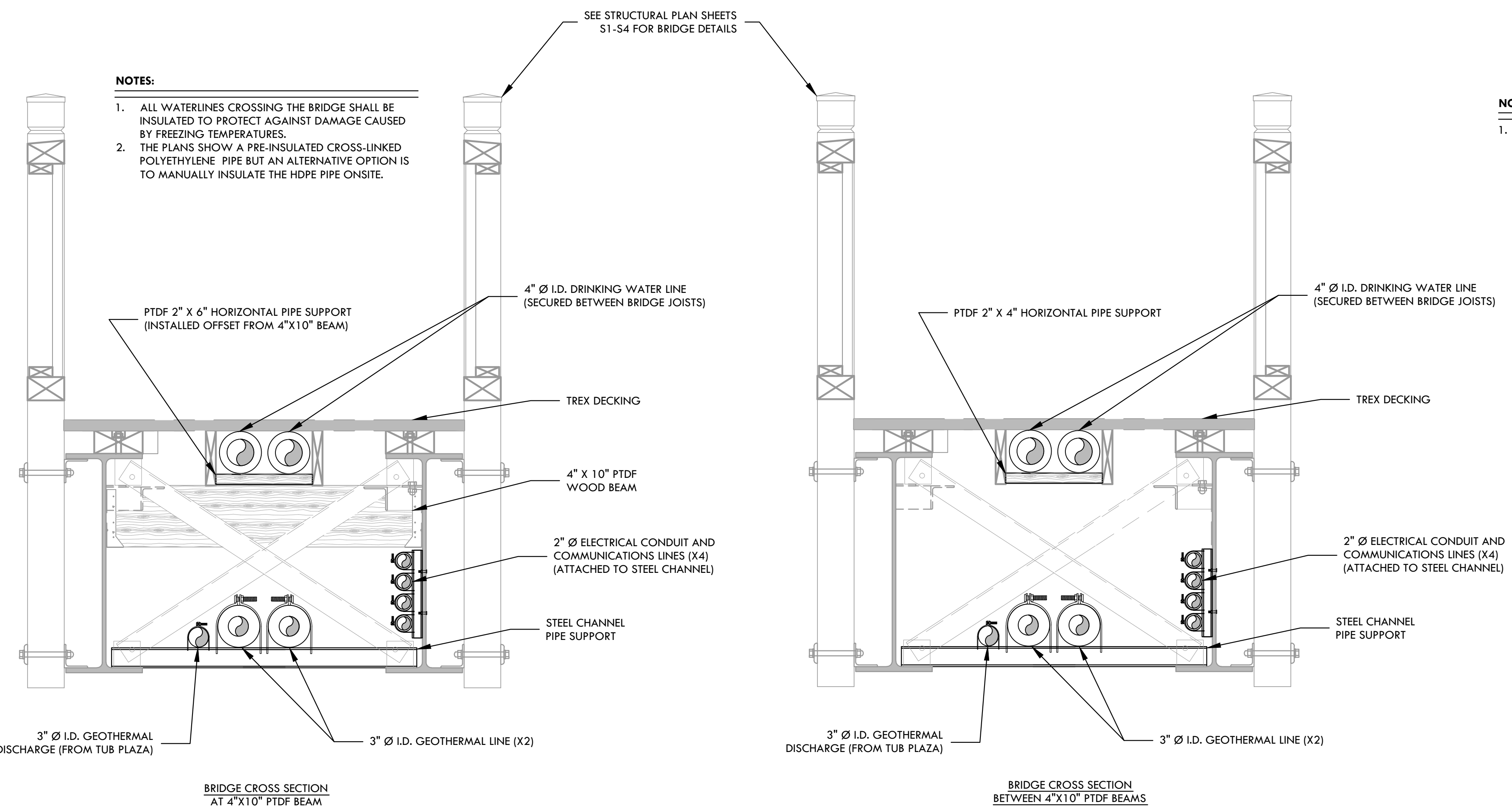
24" X 36" SHEET. IF SHEET SIZE IS SMALLER, DRAWING HAS BEEN REDUCED.

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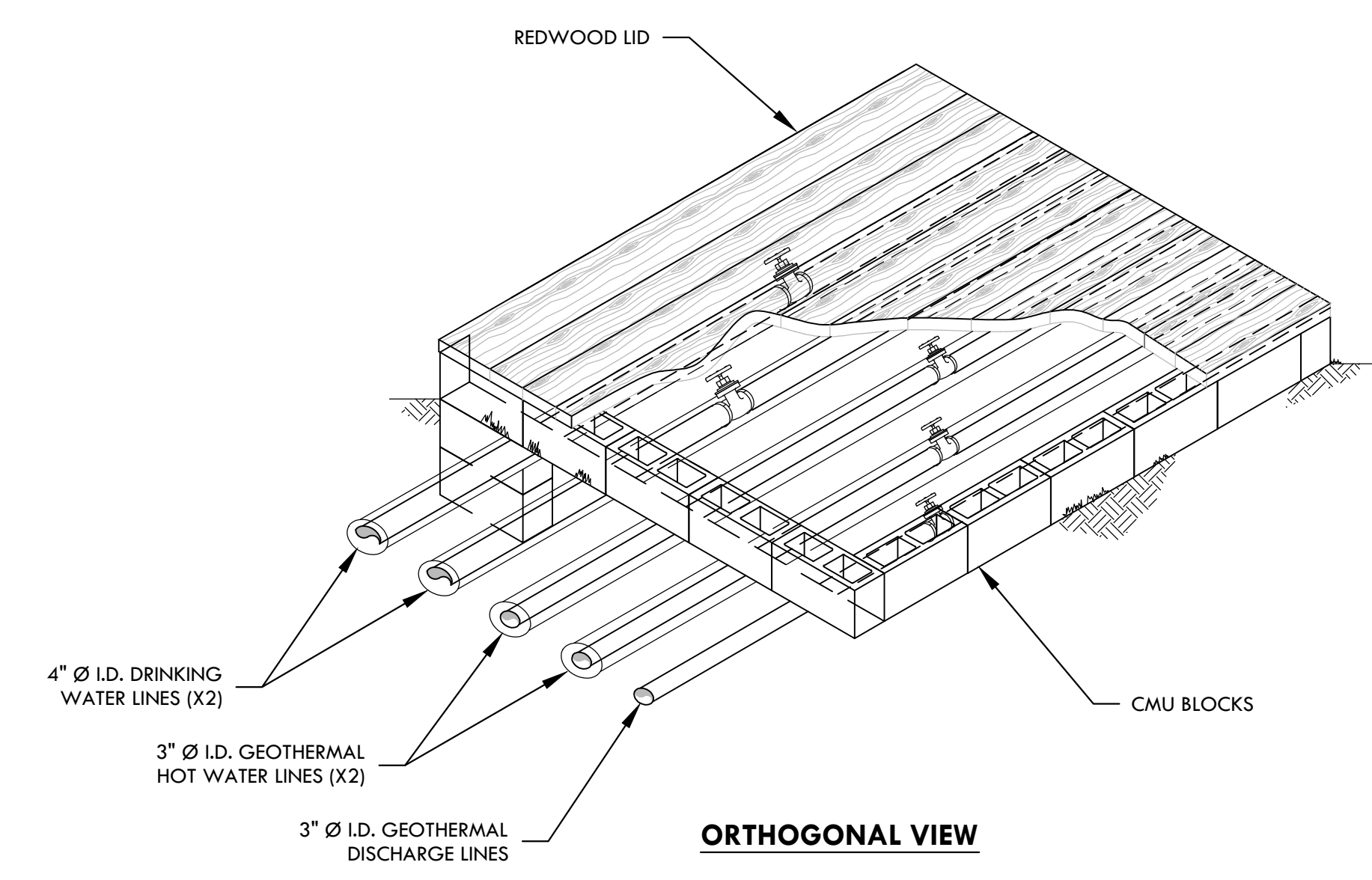
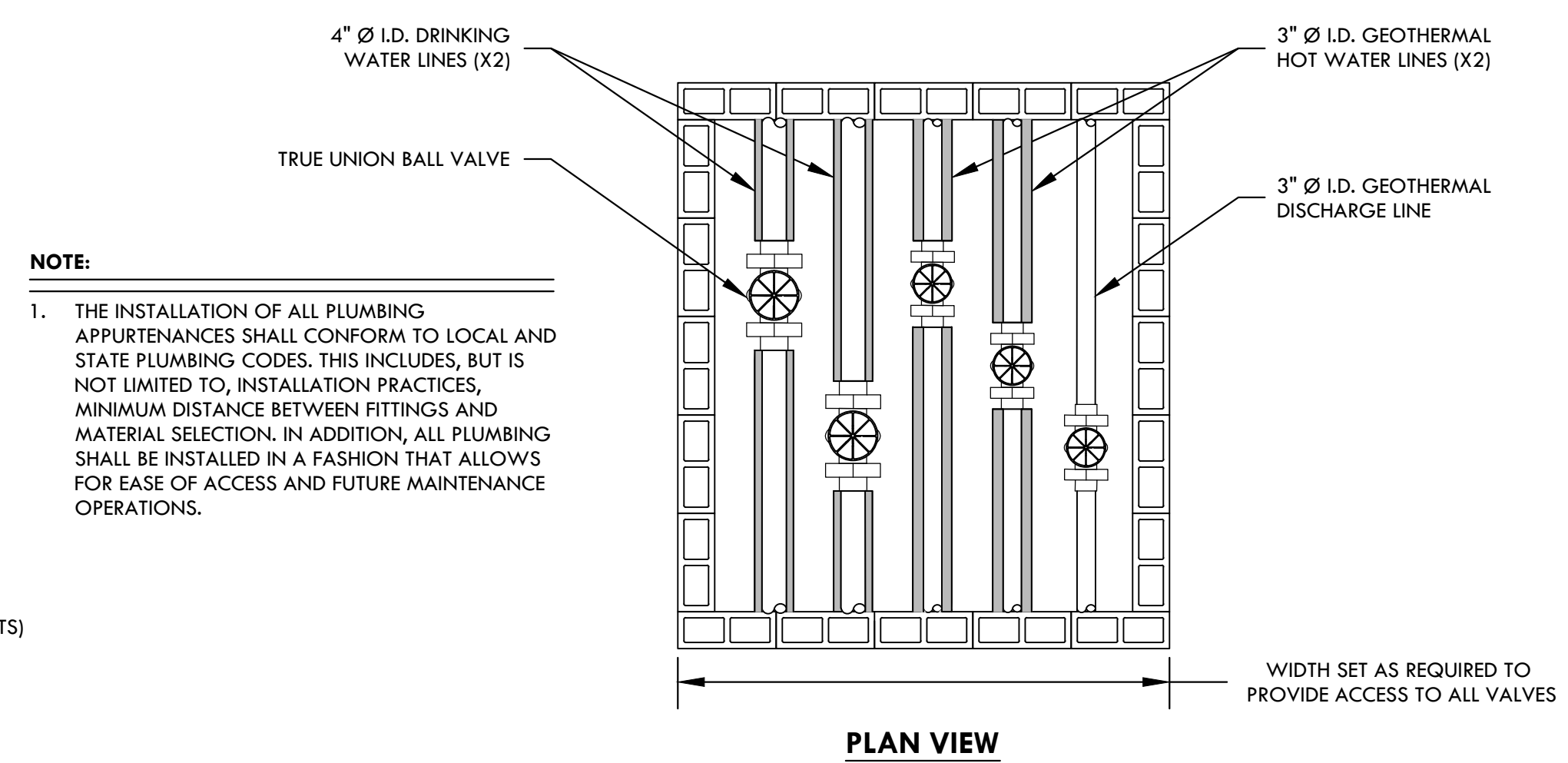


1 PEDESTRIAN BRIDGE UTILITY CROSSING
SCALE: 1" = 10' @ 24" X 36"



2 PEDESTRIAN BRIDGE UTILITY CROSS SECTION
SCALE: 1:1 @ 24" X 36"

3 PEDESTRIAN BRIDGE UTILITY CROSS SECTION
SCALE: 1:1 @ 24" X 36"



4 CAST IN PLACE CONCRETE OR CMU UTILITY VAULT
SCALE: 1:2 @ 24" X 36"

SHEET TITLE:
BRIDGE UTILITY DETAILS

CLIENT:
BIG BEND HOT SPRINGS
COMMUNITY RETREAT
ATTN: SEABROOK LEAF
25322 HEALTH WAY
BIG BEND, CA

PROJECT TITLE:
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SHEET:

5.0

24"x36" SHEET. IF SHEET SIZE IS SMALLER, DRAWING HAS BEEN REDUCED.