



CITY OF ELKO
1751 College Avenue, Elko, NV 89801
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EXHIBIT 8 - DRAWINGS
(PROJECT CONSTRUCTION DRAWINGS)

CITY OF ELKO

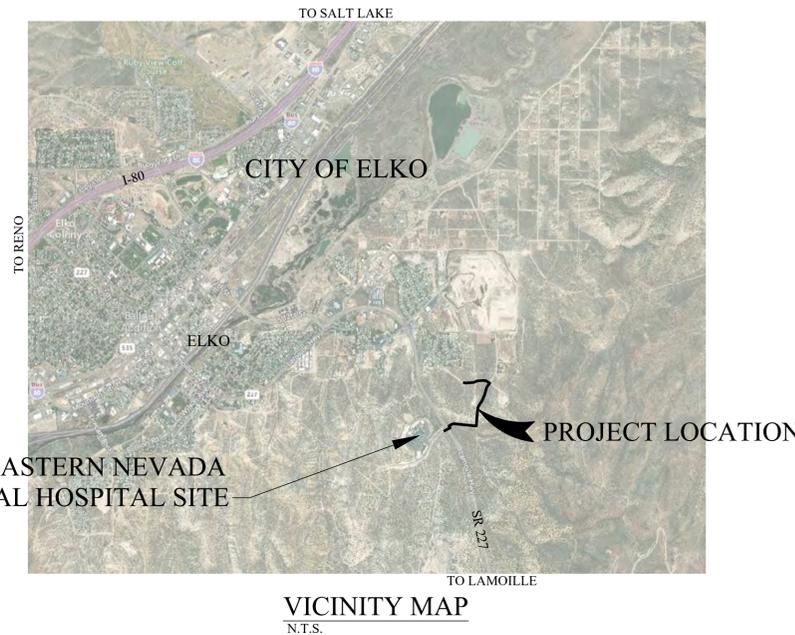
HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT

CITY OF ELKO, NEVADA

PWP NO. EL-2022 -450

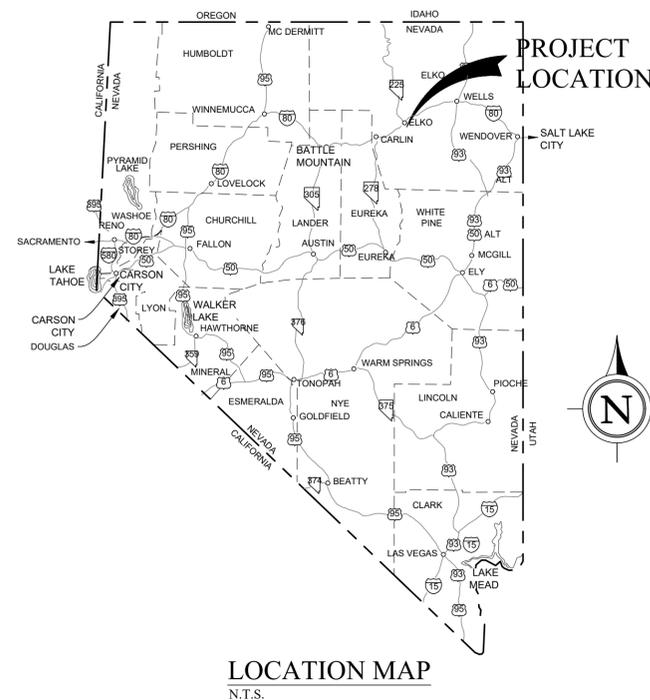
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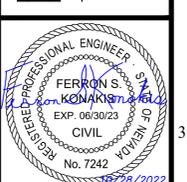
NORTHEASTERN NEVADA
 REGIONAL HOSPITAL SITE

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REVISION	DESCRIPTION	BY	APP	DATE
B	REVISED FOR REVIEW	FSK	FSK	9/14/2022
C	REVISED FOR REVIEW	FSK	FSK	10/10/2022
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HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
 FOR
 CITY OF ELKO
 PWP EL-2022-450
 GENERAL
 COVER SHEET
 NEVADA
 CITY OF ELKO

DRAWING NUMBER
G01
 1 OF 15

BID PLAN SET

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\001 COVER SHEET.dwg
 PLOT DATE: Oct. 28, 2022 - 11:34am



FARR WEST ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.

CITY OF ELKO PUBLIC WORKS GENERAL NOTES

- CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE LATEST EDITIONS OF THE PROJECT SPECIFICATIONS, AND PROJECT PLANS AND CONSTRUCTION DETAILS, NDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (SSRBC) IN NDOT AREAS, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) AS ADOPTED BY THE CITY OF ELKO AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (SDPWC), NEVADA ADMINISTRATIVE CODE, NAC445-A WATER CONTROLS, AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL SPECIFICATIONS REFERENCED HEREIN REFER TO THE PROJECT SPECIFICATION SECTION UNLESS INDICATED OTHERWISE. WHERE CONFLICTS EXIST BETWEEN SPECIFICATIONS, CONTRACTOR SHALL ADHERE TO THE STRICTER SPECIFICATION WITH APPROVAL OF THE OWNER AND INSPECTORS.
- ALL TRAFFIC CONTROL AND BARRICADING WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 130 OF THE STANDARD SPECIFICATIONS, PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK, CURRENT EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF A TRAFFIC CONTROL PLAN BY THE CITY. TRAFFIC CONTROL IN NDOT RIGHT OF WAY MUST ALSO BE APPROVED BY NDOT IN ADVANCE.
- UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THE PLANS. HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY ACTUAL LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CALL UNDERGROUND SERVICES ALERT, USA, AT (1-800-227-2600) AT LEAST TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL CALL THE CITY OF ELKO UTILITIES FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL UTILITY/ROW OWNER FORTY-EIGHT (48) HOURS PRIOR TO REQUIRED INSPECTIONS AND TESTING.
- FINAL INSPECTIONS WILL BE PERFORMED BY THE OWNER ACCORDING TO THE CITY OF ELKO INSPECTIONS AND TESTING PROCEDURES. NOTE: THESE PROCEDURES REQUIRE SUBMITTAL OF RECORD DRAWING PRINTS BY THE CONTRACTOR AND 10 WORKING DAYS FOR THE OWNER TO PREPARE A FINAL PUNCH LIST. ALL CONDITIONS OF THE FINAL INSPECTION MUST BE COMPLETED PRIOR TO FINAL ACCEPTANCE OR APPROVAL OF A CERTIFICATE OF OCCUPANCY BY THE UTILITIES DEPARTMENT.
- MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY THE OWNER & ENGINEER. WORK PERFORMED WITHOUT WRITTEN APPROVAL WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.
- THE APPROVED PLANS, PERMITS AND INSPECTION RECORDS MUST BE ON THE JOB SITE AT ALL TIMES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO POTHOLE EXISTING WATERLINES AND UTILITIES SURROUNDING THE AREA TO DETERMINE THE EXACT LOCATION AND DEPTH. POTHOLING SHALL OCCUR A MINIMUM OF 7 DAYS PRIOR TO THE COMMENCEMENT OF WORK IN ANY AREA. CONTRACTOR SHALL REPORT THE FINDINGS TO THE ENGINEER WITHIN 24 HOURS AFTER COMPLETION.
- OUTSIDE OF AN UNFORESEEN CIRCUMSTANCE WATER MAIN SHUTDOWNS/INTERRUPTION OF SERVICE IS NOT PERMITTED. OWNER APPROVAL IS REQUIRED 48 HOURS PRIOR TO NOTIFICATION OF CUSTOMERS. RESIDENTIAL CUSTOMERS SHALL RECEIVE 48 HOURS WRITTEN NOTICE. THE OWNER IS RESPONSIBLE FOR THE NOTIFICATION WHEN WORK IS PERFORMED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE IN ALL OTHER CASES. A LIST SHALL BE KEPT BY THE RESPONSIBLE PARTY LISTING THE DATE, TIME, AND ADDRESS OF ALL PERSONS NOTIFIED. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES WITHOUT AUTHORIZATION OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- PURSUDE WORK IN A CONTINUOUS AND DILIGENT MANNER TO ENSURE A TIMELY COMPLETION OF THE PROJECT.
- ALL CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE OWNER SO THAT THE QUALITY OF WORK CAN BE CHECKED FOR APPROVAL.
- MAINTAIN THE SITE IN A NEAT AND ORDERLY MANNER THROUGHOUT THE CONSTRUCTION PROCESS. ALL MATERIALS SHALL BE STORED WITHIN APPROVED CONSTRUCTION AREAS ON PAVED SURFACES ONLY. CONTRACTOR SHALL STORE/CONTAIN, HANDLE AND TRANSPORT HAZARDOUS OR FLAMMABLE MATERIALS TO MINIMIZE THE POTENTIAL FOR SPILLS, FIRES OR EXPLOSIONS. STORAGE/CONTAINMENT, HANDLING AND TRANSPORT OF HAZARDOUS OR FLAMMABLE MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE OR FEDERAL REQUIREMENTS.
- CONTRACTOR SHALL MAINTAIN AND OPERATE EQUIPMENT IN A MANNER TO MINIMIZE THE POTENTIAL FOR SPILLS. SPILLS OF HAZARDOUS OR FLAMMABLE MATERIALS SHALL BE IMMEDIATELY REPORTED TO THE OWNER OR OWNER REPRESENTATIVE.
- WASTE FROM CONSTRUCTION ACTIVITIES SHALL BE RECYCLED, REUSED, OR DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE OR FEDERAL REQUIREMENTS.
- CONTRACTOR SHALL OPERATE VEHICLES IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS. VEHICLE AND EQUIPMENT OPERATORS SHALL BE PROPERLY LICENSED AND TRAINED.
- VEHICLE ACCIDENTS, INJURIES, SPILLS OR OTHER INCIDENTS SHALL BE IMMEDIATELY REPORTED TO THE OWNER OR OWNER REPRESENTATIVE.
- CONSTRUCTION STAGING AREA SHALL BE AT DESIGNATED AREAS SHOWN ON THE KEY MAP. ROAD SHOULDERS MAY BE UTILIZED FOR EQUIPMENT STAGING AREAS ONLY. OWNER MAY DESIGNATE WHICH AREAS MAY BE USED WHEN AND FOR HOW LONG. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS. CONTRACTOR MAY OBTAIN PERMISSIONS TO STAGE AT OTHER LOCATIONS ON OWN ACCORD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND SHALL REPLACE ANY MONUMENTS OBLITERATED OR DAMAGED DURING CONSTRUCTION AT HIS EXPENSE, REPLACEMENT SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR.
- THE CONTRACTOR SHALL UTILIZE CONSTRUCTION TECHNIQUES TO MINIMIZE GRADING, VEGETATION REMOVAL, AND SURFACE DISTURBANCE. CONTRACTOR WILL BE RESPONSIBLE FOR THE RESTORATION OF ALL LANDSCAPING, SOD, CURBS, ASPHALT, DRIVEWAY PAVERS, RIP RAP, RETAINING WALLS, IRRIGATION PIPING AND LANDSCAPE LIGHTING TO EQUAL OR BETTER THAN EXISTING CONDITION. ALL COST FOR RESTORATION WILL BE INCLUDED IN THE APPLICABLE BID ITEM.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIALS TO BE USED ON THE SITE TO INCLUDE, BUT NOT BE LIMITED TO, A.C. AND P.C.C. MIX DESIGN, AGGREGATE BASE QUALIFICATIONS, PRECAST CONCRETE, CAST IRON GRATES AND COVERS, PIPING, FENCING, AND SIGNS TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO THE MANUFACTURER OR USE OF SUCH ITEMS.
- ALL QUANTITIES SHOWN HEREIN ARE APPROXIMATE AND USED FOR PERMIT AND BOND PURPOSES ONLY. THEY SHALL NOT BE USED IN ANY WAY FOR BIDDING OR CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONDUCT QUANTITY TAKE-OFFS FOR BIDDING AND CONSTRUCTION PURPOSES.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT AND MAKE HIS OWN INTERPRETATIONS WITH REGARD TO MATERIALS, METHODS AND EQUIPMENT NECESSARY TO PERFORM THE WORK REQUIRED FOR THIS PROJECT.
- EXCAVATION WITHIN 5' OF POLE WILL REQUIRE SUPPORT FROM POWER COMPANY AT NO ADDITIONAL COST TO OWNER.
- FINAL AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE CITY OF ELKO IN BOTH CAD AND PDF FORMATS PRIOR TO FINAL ACCEPTANCE. THE DRAWINGS MUST BE IN THE CITY GRID COORDINATE SYSTEM.

PRIVATE PROPERTY NOTES

- CONTRACTOR TO INVESTIGATE, POTHOLE AND CONFIRM LOCATIONS OF EXISTING UTILITIES AND CONNECTION POINTS PRIOR TO WORK ON PRIVATE PROPERTY.
- CONTRACTOR SHALL PROTECT EXISTING PROPERTY IMPROVEMENTS (I.E. FENCING, TREES, STRUCTURES, ANY LANDSCAPING NOT IDENTIFIED FOR REPLACEMENT, ETC.) AND REPLACE ANY DAMAGED ITEMS TO EQUAL OR BETTER CONDITION, AT CONTRACTORS EXPENSE.
- PROPOSED WATER SERVICE LINE LENGTHS IDENTIFIED SHALL BE USED AS REFERENCE AND FOR BIDDING PURPOSES ONLY. LENGTHS WILL VARY DEPENDING ON FIELD CONDITIONS AND SHALL BE INCLUDED IN THE APPLICABLE BID ITEM AT NO ADDITIONAL COST.

GRADING & EARTHWORK NOTES

- THE CONTRACTOR SHALL UTILIZE TECHNIQUES WHICH MINIMIZE GRADING, VEGETATION REMOVAL, AND TEMPORARY AND PERMANENT DISTURBANCE. ALL AREAS DISTURBED AS A RESULT OF THE WORK SHALL BE REVEGETATED.
- NO ESTIMATE OF EARTHWORK QUANTITIES HAS BEEN MADE FOR THIS PROJECT. EARTHWORK QUANTITIES SHALL BE PREPARED BY THE CONTRACTOR.
- ALL EARTHWORK, CLEARING AND GRUBBING, SUBGRADE PREPARATION, ETC. SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- SOIL TYPES TO BE OMITTED FROM PROJECT INCLUDE:
 - ORGANIC MATERIAL (E.G. ORGANIC SILT, SOD, PEAT, MULCH, ETC.);
 - SOILS CONTAINING EXPANSIVE CLAYS;
 - MATERIAL CONTAINING EXCESSIVE MOISTURE;
 - POORLY GRADED COARSE MATERIAL, AND
 - MATERIAL WHICH WILL NOT ACHIEVE DENSITY AND/OR BEARING REQUIREMENTS.
- ELEVATIONS NOT SHOWN ON PLANS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. OWNER SHALL APPROVE ALL ELEVATIONS.
- THE CONTRACTOR SHALL GRADE ALL AREAS TO DRAIN AND SHALL BE RESPONSIBLE FOR ELIMINATING ALL LOW SPOTS OR PONDING AREAS.
- NO FILL SHALL BE PLACED OR COMPACTED IN UNFAVORABLE WEATHER CONDITIONS. OVERLY WET, DRY OR FROZEN FILL SHALL NOT BE PLACED.
- RIPRAP DESIGNATION AND GRADATION SHALL CONFORM WITH SECTION 200.06 OF THE STANDARD SPECIFICATIONS. RIPRAP SHOULD BE ANGULAR IN SHAPE, FREE FROM CRACKS AND ORGANIC MATTER. RIPRAP SIZE SHALL MAINTAIN:
 - DEPTH AND THICKNESS SHALL BE MINIMUM 2/3 OF ITS LENGTH
 - MINIMUM SPECIFIC GRAVITY = 2.5
 - MINIMUM LAY THICKNESS = 2 x d50
 OWNER SHALL APPROVE ALL RIPRAP FOR PROJECT PRIOR TO STOCKPILING.
- USE CAUTION WITH OVERHEAD POWER LINES. MAINTAIN PROPER CLEARANCE AS REQUIRED BY POWER COMPANY DURING CONSTRUCTION. EXCAVATION WITHIN 5' OF A POLE WILL REQUIRE SUPPORT FROM POWER COMPANY AT NO ADDITIONAL COST TO OWNER.
- DRAINAGE SWALES, DITCHES, BERMS, AND OTHER EXISTING CONDITIONS SHALL BE PROTECTED IN PLACE OR RE-ESTABLISHED TO EQUAL OR BETTER CONDITIONS, INCLUDING BUT NOT LIMITED TO SLOPE PROTECTION (I.E. AGGREGATE ROCK).

DUST CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR PREVENTING CONTROLLABLE FUGITIVE DUST FROM THE PROJECT'S DISTURBED AREAS TO BECOME AIRBORNE ON A 7-DAY/WEEK, 24-HOUR/DAY BASIS FROM COMMENCEMENT OF THE PROJECT TO FINAL COMPLETION.
- REGULAR VACUUM OR SWEEPING OF PAVED SURFACES WHERE CONSTRUCTION IS OCCURRING WILL BE PERFORMED AT LEAST DAILY AND MORE OFTEN IF NECESSARY TO REMOVE DIRT OR WASTE RESULTING FROM THE CONSTRUCTION.
- STOCKPILED EARTHEN MATERIALS SHALL BE STABILIZED BY MAINTAINING A VISIBLE CRUST BY APPLYING ADEQUATE MOISTURE; OR COVERING THE MATERIALS WITH A TARP TO PREVENT VISIBLE FUGITIVE DUST EMISSIONS.
- ALL TRUCKS IMPORTING OR EXPORTING DIRT, ROCK OR OTHER FILL MATERIALS SHALL PREVENT SPILLAGE OR LOSS OF BULK MATERIAL FROM HOLES OR OTHER OPENINGS IN THE CARGO COMPARTMENT FLOOR, SIDES, AND/OR TAILGATE. ALL HAUL TRUCKS MUST BE COVERED WITH A TARP OR OTHER SUITABLE CLOSURE; OR BULK MATERIALS MUST CONTAIN ENOUGH MOISTURE AND/OR DUST SUPPRESSANT TO PREVENT FUGITIVE DUST EMISSIONS DURING TRANSPORT; OR LOAD ALL TRUCKS SUCH THAT THE FREEBOARD IS NOT LESS THAN SIX (6) INCHES. ALL MATERIALS NOT TO BE INCORPORATED INTO THE WORK SHALL BE HAULED OUTSIDE OF THE TAHOE BASIN.
- ALL PROJECT RELATED VEHICLES SHALL PARK ON EXISTING PAVED SURFACES OR EXISTING COMPACTED ROAD SHOULDERS. CONTRACTOR SHALL MINIMIZE CONSTRUCTION RELATED VEHICLE AND EQUIPMENT EMISSIONS DURING CONSTRUCTION BY SHUTTING OFF EQUIPMENT AND VEHICLES NOT IN USE. IDLING OF DIESEL ENGINES SHALL BE KEPT AT A MINIMUM SO FAR AS PRACTICAL.

MATERIAL TESTING:

- CITY OF ELKO WILL PROVIDE THIRD PARTY MATERIAL TESTING FOR THE FOLLOWING (PER PLANS AND SPECIFICATIONS):
 - COMPACTION OF ALL SOILS, HERE, ETC.
 - CONCRETE
 - ASPHALT

DRIVEWAY & ACCESS NOTES:

- ALL DRIVEWAYS AND ACCESS ROADS SHALL BE RE-ESTABLISHED TO EQUAL OR BETTER CONDITIONS.

CONCRETE AND PAVING NOTES

- PORTLAND CEMENT CONCRETE EXPOSED TO FREEZE--THAW ENVIRONMENTS SHALL HAVE A MINIMUM 28--DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND MEET THE SPECIFIC REQUIREMENTS OF SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).
- PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) EXPOSED TO VEHICULAR TRAFFIC LOADING SHALL MEET THE REQUIREMENTS OF SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W), AND:
 - AIR CONTENT 4-1/2 TO 7-1/2%, AND
 - MINIMUM 28 DAY FLEXURAL STRENGTH 650 PSI.
- TEMPORARY PAVEMENT SHALL MEET THE REQUIREMENTS SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W), SECTION 404. THE CONTRACTOR SHALL MAINTAIN PAVEMENT IN A SAFE AND SMOOTH CONDITION UNTIL FINAL PAVEMENT CAN BE PLACED, TO THE SATISFACTION OF THE ENGINEER.
- CONCRETE PAVEMENTS SHALL BE PLACED IN ACCORDANCE WITH THE SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).
- ASPHALT CONCRETE PAVEMENT SHALL MEET THE REQUIREMENTS OF THE SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).
- CURB AND GUTTER SHALL BE PLACED IN ACCORDANCE WITH THE SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).

DEMOLITION NOTES:

- EXISTING IMPROVEMENTS, ADJACENT PROPERTY, UTILITIES AND OTHER FACILITIES, AND TREES AND PLANTS THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED FROM INJURY OR DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS IN ACCORDANCE WITH THE SSRBC AND SSPWC 301.04 AND 300.04.
- THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY BOXES AND FRAME AND COVERS, BOTH HORIZONTALLY AND VERTICALLY, AS REQUIRED TO FIT THE NEW WORK. THE CONTRACTOR SHALL REPLACE ANY APPURTENANCES, PLANTS AND SURFACING DAMAGED DURING RELOCATION. DECORATIVE SURFACING SHALL BE MATCHED AFTER BACKFILL.

ACCESS/TRAFFIC CONTROL NOTES:

- PROVIDE AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL, THROUGHOUT CONSTRUCTION, IN ACCORDANCE WITH APPLICABLE PARTS OF SSPWC SECTION 332, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD, LATEST EDITION) AND THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION, TRAFFIC CONTROL STANDARDS.
- THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL IN STRICT ACCORDANCE WITH PLANS AND SPECIFICATIONS AT ALL TIMES. ROADS WITHIN THE PROJECT MAY HAVE LIMITED SIGHT DISTANCE. ALTERNATIVE ACCESS IS NOT AVAILABLE WITHIN THE PROJECT AREA.
- STREETS SHALL REMAIN OPEN TO LOCAL TRAFFIC AT ALL TIMES.
- RESIDENCES SHALL HAVE ACCESS TO/FROM DRIVEWAY AT ALL TIMES. CONTRACTOR SHALL PROVIDE COORDINATION FOR ACCESS (TRENCH PLATE, MOVE EQUIPMENT, ETC.) WITH RESIDENCE.
- TRAFFIC DELAYS SHALL BE HELD TO 10 MINUTES OR LESS.
- CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND ACCESS TO THE SITE PRIOR TO BID.
- CONTRACTOR SHALL DETERMINE BEST METHODS FOR ACCESS WHEN OFF HAULING WASTE, DELIVERY OF MATERIALS, AND DAY TO DAY ACTIVITIES.
- TRAFFIC CONTROL PLANS TO BE SUBMITTED TO THE CITY FOR REVIEW.
- THE HOURS OF WORK MAY RANGE FROM 7:00 AM TO 6 PM, DAILY, MONDAY THROUGH FRIDAY.
- THE WORK OF SETTING UP AND TEARING DOWN TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE COMPLETED EACH DAY WITHIN THE HOURS SPECIFIED ON THE PERMIT AND/OR ON THE APPROVED TRAFFIC CONTROL PLAN. ALL TRAFFIC CONTROL DEVICES SHALL BE COMPLETELY REMOVED FROM THE ROADWAY AND SIDEWALK AT THE END OF THE WORK PERIOD.

EROSION CONTROL NOTES

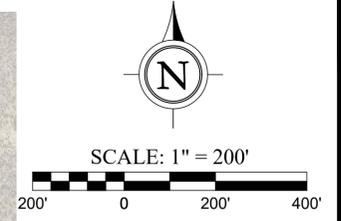
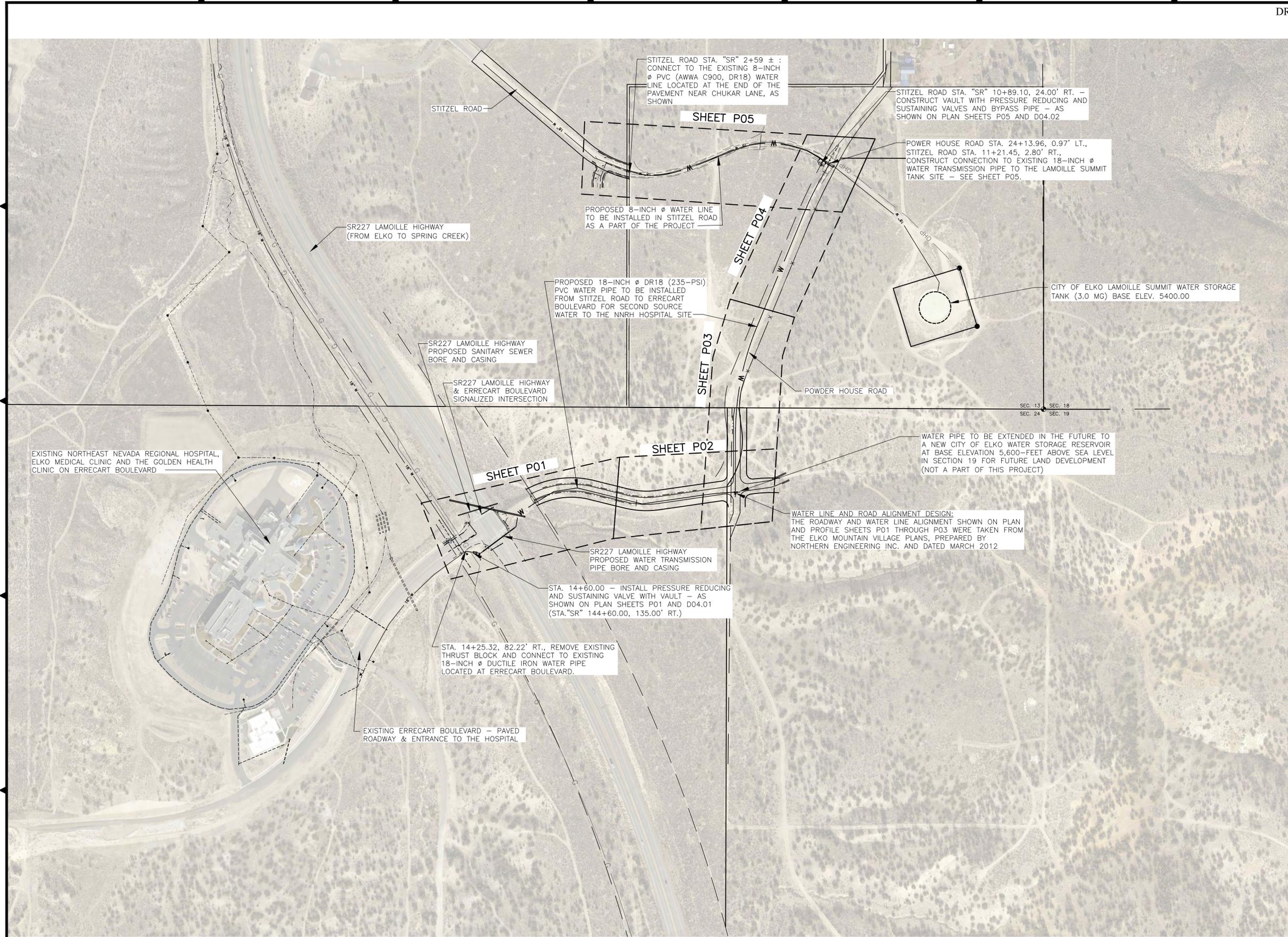
- BEST MANAGEMENT PRACTICES SHALL BE IN PLACE FOR DUST CONTROL AND EROSION CONTROL DURING CONSTRUCTION (COIR LOGS, GRAVEL BAGS, SILT FENCE) PER DETAILS ON SHEET DX.
- THE CONTRACTOR SHALL INCORPORATE ADEQUATE DRAINAGE PROCEDURES DURING THE CONSTRUCTION PROCESS TO ELIMINATE EXCESSIVE EROSION OR PONDING AND TO PROTECT ADJACENT IMPROVEMENTS AND PROPERTIES FROM AN INFUX OF RUNOFF OR SEDIMENT. SEDIMENTATION FENCING IS REQUIRED AT THE LIMITS OF GRADING.
- THE CONTRACTOR SHALL MAINTAIN A DUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS, 7 DAYS A WEEK. NO FUGITIVE SHALL FROM THE SITE SHALL BE ALLOWED.
- IF NECESSARY, CONTRACTOR SHALL ENHANCE EROSION CONTROL MEASURES IN THE FIELD.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL:
 - STABILIZE ENTRANCES AND EQUIPMENT PARKING AREAS;
 - INSTALL SEDIMENT CONTROL DEVICES, AND
 - INSTALL WASH DOWN AREA.
- UPON COMPLETION OF THE PROJECT, WITHIN 15 DAYS OF COMPLETION OF ANY PHASE, THE CONTRACTOR SHALL:
 - REMOVE ALL GRADING AND CONSTRUCTION DEBRIS;
 - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES (AFTER PERMANENT MEASURES ARE ESTABLISHED), AND
 - REVEGETATE DISTURBED AREAS WITH NATIVE SEED.
- EQUIPMENT AND VEHICLES SHALL NOT TRAVEL BEYOND THE LIMITS OF GRADING TO PREVENT DISRUPTION OF NATIVE VEGETATION.
- STOCKPILED TOP SOILS AND VEGETATIVE STRIPPINGS ARE TO BE REAPPLIED TO DISTURBED SLOPE AREAS.
- ALL AREAS DISTURBED AND LEFT UNDEVELOPED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE STABILIZED BY THE APPLICATION OF DUST PALLIATIVE. ALL AREAS LEFT UNDEVELOPED FOR MORE THAN 90 DAYS SHALL BE HYDRO--SEEDED WITH AN APPROVED SEED MIX AND TACKIFIER AND SHALL BE IRRIGATED UNTIL FIRMLY ESTABLISHED.
- CONCENTRATED CONSTRUCTION FLOWS SHALL BE CHANNELIZED TO TEMPORARY OR PERMANENT SEDIMENT TREATMENT FACILITIES. SEDIMENT LADEN WATER SHALL NOT ENTER THE NATURAL DRAINAGE OR PUBLIC STORM DRAIN SYSTEM.
- DEWATERING EFFLUENT SHALL BE TREATED PRIOR TO DISCHARGE BY MEANS OF DEWATERING STRUCTURES (e.g. STRAW BALE FILTER/SILT FENCE PIT, GRAVEL FILTER, ETC.).

NDOT REQUIREMENTS:

- CONTRACTOR SHALL BE BOUND TO ALL NDOT PERMIT REQUIREMENTS.
- SURVEYOR MUST DELINEATE NDOT PROPERTY. WITHIN THE NDOT PROPERTY, CONTRACTOR MUST INSTALL WATER UTILITY MARKERS EVERY 100' AND ON EITHER SIDE OF THE CONNECTION POINT
- THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO NDOT FOR APPROVAL PRIOR TO CONSTRUCTION ALONG ALL NDOT ROADWAYS INCLUDING THE TIE IN LOCATIONS. THE TRAFFIC CONTROL PLAN MUST CONFORM TO ALL REQUIREMENTS ESTABLISHED BY NDOT.
- THE APPROVED PLANS, PERMITS, AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.
- OPEN TRENCHING WITHIN HIGHWAY 227 ROADWAY SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL REFERENCE NDOT APPROVED PLANS FOR ALL WORK WITHIN NDOT RIGHT-OF-WAY. PLANS ARE ATTACHED TO THE BACK OF THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- CONTRACTOR TO NOTIFY NDOT PERMIT OFFICE TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK WITHIN NDOT R/W.

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\GENERAL NOTES.dwg
PLOT DATE: Oct 28, 2022 - 11:38am

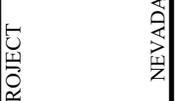
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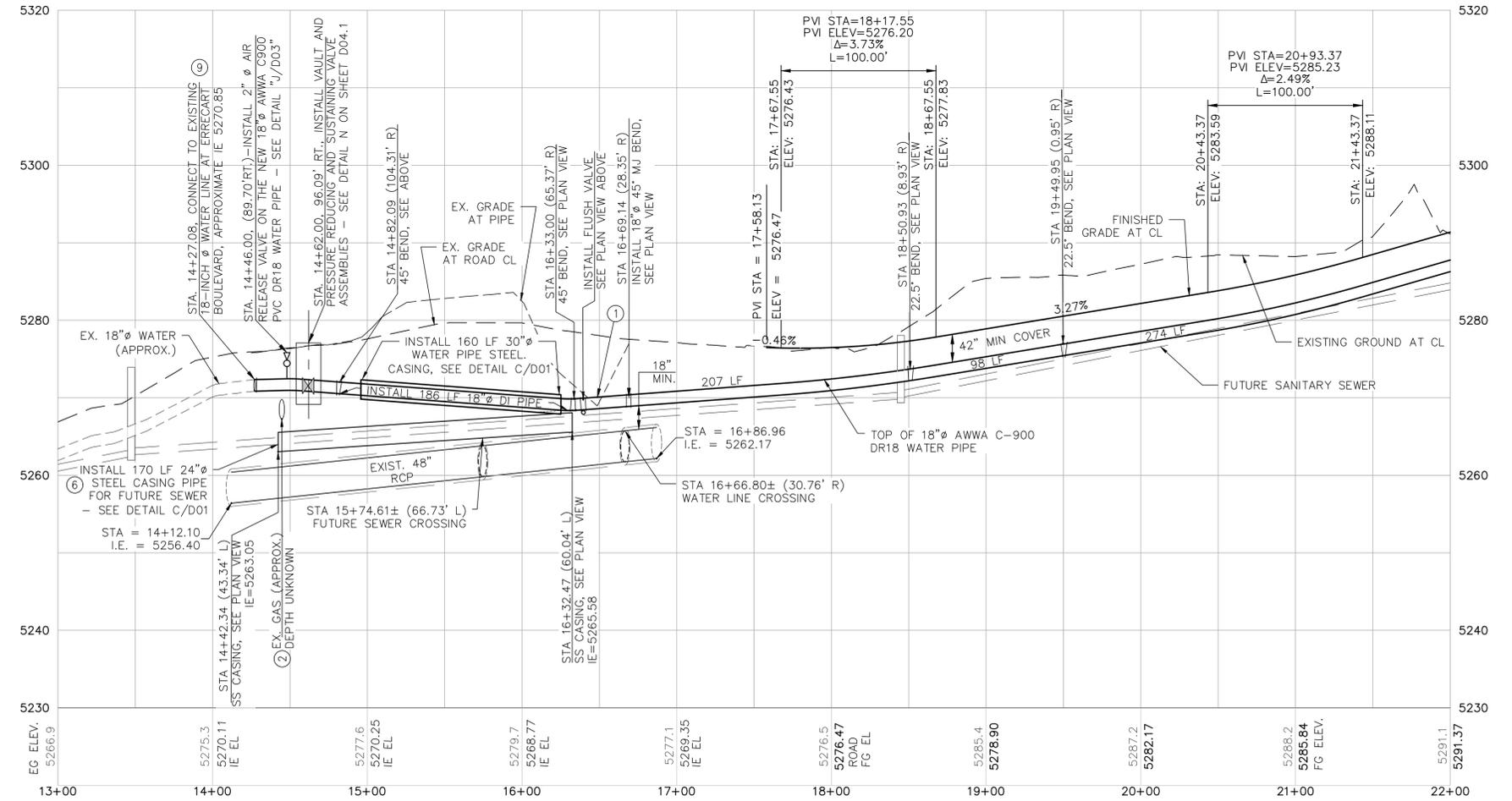
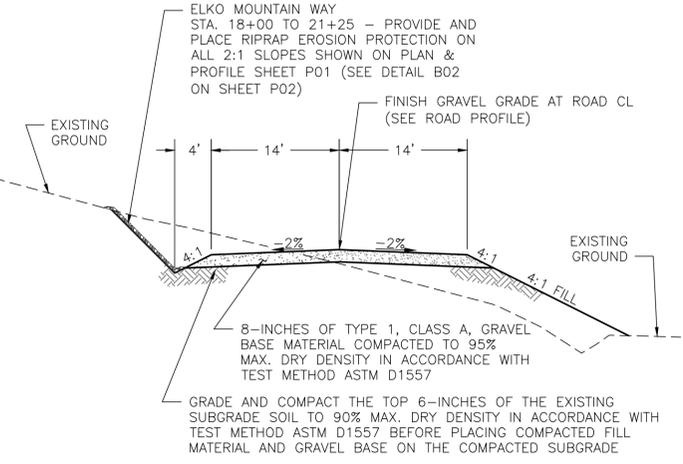
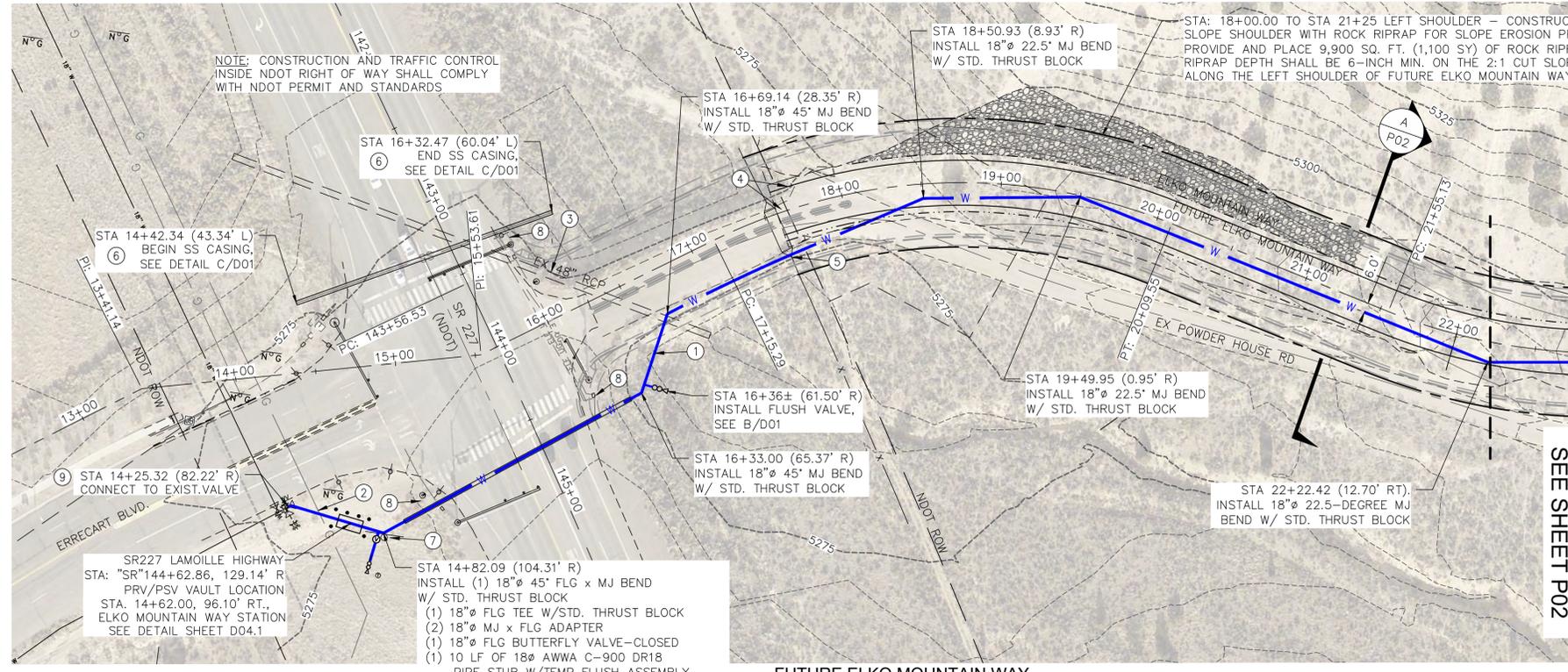
HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
 FOR
 CITY OF ELKO
 PWP EL-2022-450
 GENERAL
 SITE PLAN
 CITY OF ELKO
 NEVADA

DRAWING NUMBER
G04
 4 OF 15

BID PLAN SET

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\G04 SITE PLAN.dwg
 PLOT DATE: Oct 28, 2022 - 11:48am

DRAWING ON 11"x17" IS HALF SCALE



PROFILE VIEW
 HORIZ: 1" = 50'
 VERT: 1" = 10'

ELKO MOUNTAIN WAY REALIGNMENT NOTES:

- ① STA. 17+58.13 TO STA. 26+15.46 – REALIGN, REGRADE AND CONSTRUCT THE ELKO MOUNTAIN WAY GRAVEL ROAD SURFACE, AS SHOWN ON PLAN AND PROFILE SHEETS P01 AND P02.
- ② ON ALL 2:1 CUT AND FILL SLOPES SHOWN THE CONTRACTOR SHALL PROPERLY PREPARE THE SUBGRADE AND PLACE RIPRAP EROSION PROTECTION IN ACCORDANCE WITH CITY OF ELKO REQUIREMENTS.

PLAN & PROFILE CONSTRUCTION NOTES:

- ① CONTRACTOR TO COVER 42" MIN. ABOVE INSTALLED PIPE.
- ② CONTRACTOR TO POTHOLE AND VERIFY LOCATION OF GAS LINE PRIOR TO CONSTRUCTION OF THE PRESSURE REDUCING VALVE (PRV) VAULT. NOTIFY ENGINEER OF CONFLICTS IN THE FIELD.
- ③ CONTRACTOR TO POTHOLE RCP AND VERIFY CULVERT ELEVATION AND SLOPE AT POTHOLE & INVERTS PRIOR TO JACK AND BORE. NOTIFY ENGINEER OF CONFLICTS IN THE FIELD.
- ④ FIELD FIT ROAD TO CONNECT TO EXISTING CATTLE GUARD.
- ⑤ PROTECT OR REMOVE AND REPLACE FENCE AND CATTLE GUARD WING.
- ⑥ JACK & BORE 24-INCH Ø STEEL CASING FOR FUTURE SANITARY SEWER CARRIER PIPE. CARRIER PIPE NOT TO BE INSTALLED AT THIS TIME. CAP THE CASING ENDS AND BACKFILL. MARK BOTH ENDS WITH 2X4 PAINTED GREEN.
- ⑦ EXISTING MEMORIAL (CROSS) TO BE RELOCATED.
- ⑧ CONTRACTOR TO POTHOLE AND VERIFY LOCATION OF ELECTRICAL AND OTHER UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF CONFLICTS IN THE FIELD.
- ⑨ FIELD VERIFY THE EXISTING VALVE TYPE AND DEPTH. CONNECT TO THE EXISTING 18-INCH Ø DUCTILE IRON WATER MAIN IN ERRECART BOULEVARD AND INSTALL AN 18-INCH Ø BY 45-DEGREE BEND. PROVIDE ADAPTERS AS NEEDED. ROLL FITTINGS TO FIELD FIT GAS MAIN CROSSING.

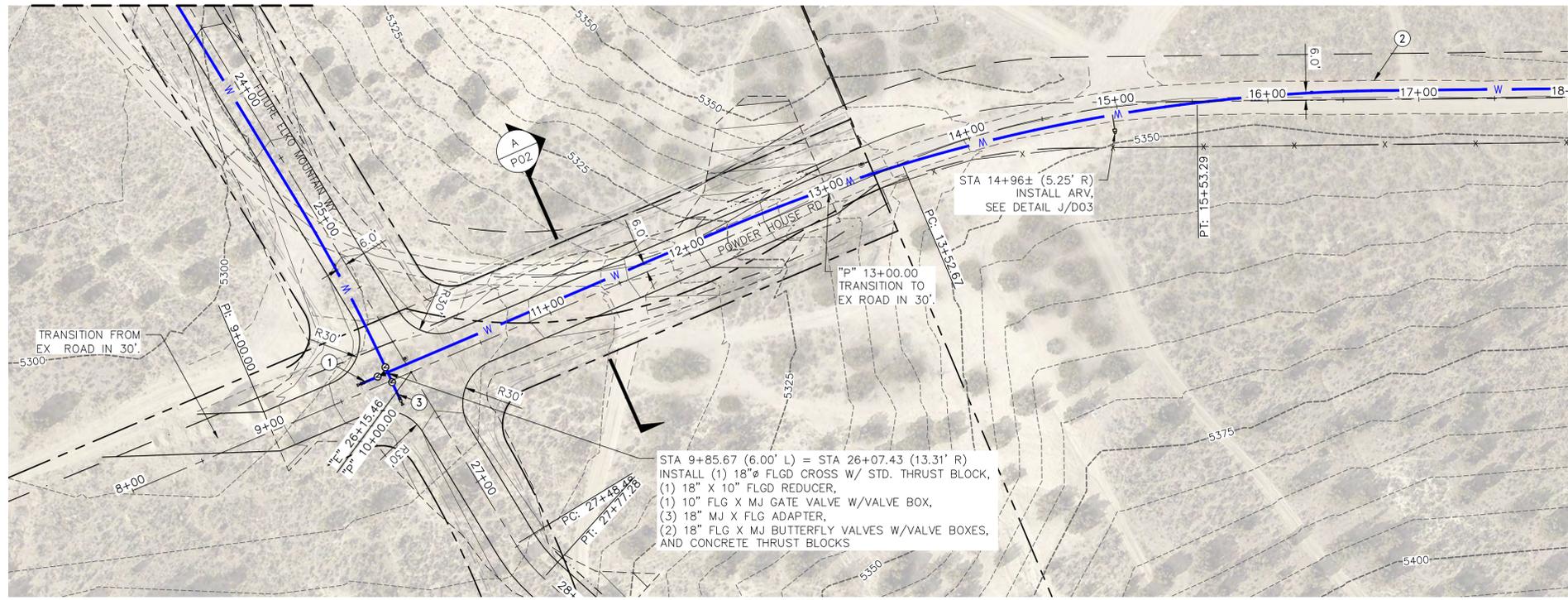
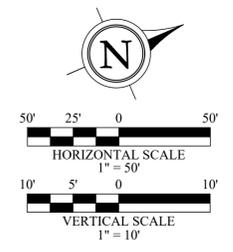
DATE	9/14/2022
APP	FSK
DATE	10/10/2022
APP	FSK
DATE	10/28/2022
APP	FSK
DESCRIPTION	
REVISION FOR REVIEW	
REVISION FOR REVIEW	
BID PLAN REVISION	
REVISION	
4001083	
DATE	OCT. 28, 2022
SCALE	AS SHOWN
DESIGNED	KMF
DRAWN	PJB
CHECKED	FSK
<p>FARR WEST ENGINEERING 421 COURT STREET ELKO, NEVADA 89801 PHONE: (775) 738-2121 FAX: (775) 738-9555 FARRWESTENGINEERING.COM</p>	
<p>HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT FOR CITY OF ELKO PWP EL-2022-450 PLAN & PROFILE FUTURE ELKO MOUNTAIN WAY CITY OF ELKO</p>	
<p>DRAWING NUMBER</p>	
<p>P01</p>	
<p>5 OF 15</p>	

BID PLAN SET

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\P01 ELKO MOUNTAIN WAY.dwg
 PLOT DATE: Oct 28, 2022 - 11:52am

SEE SHEET P02

SEE SHEET P04



PLAN VIEW
POWDER HOUSE ROAD

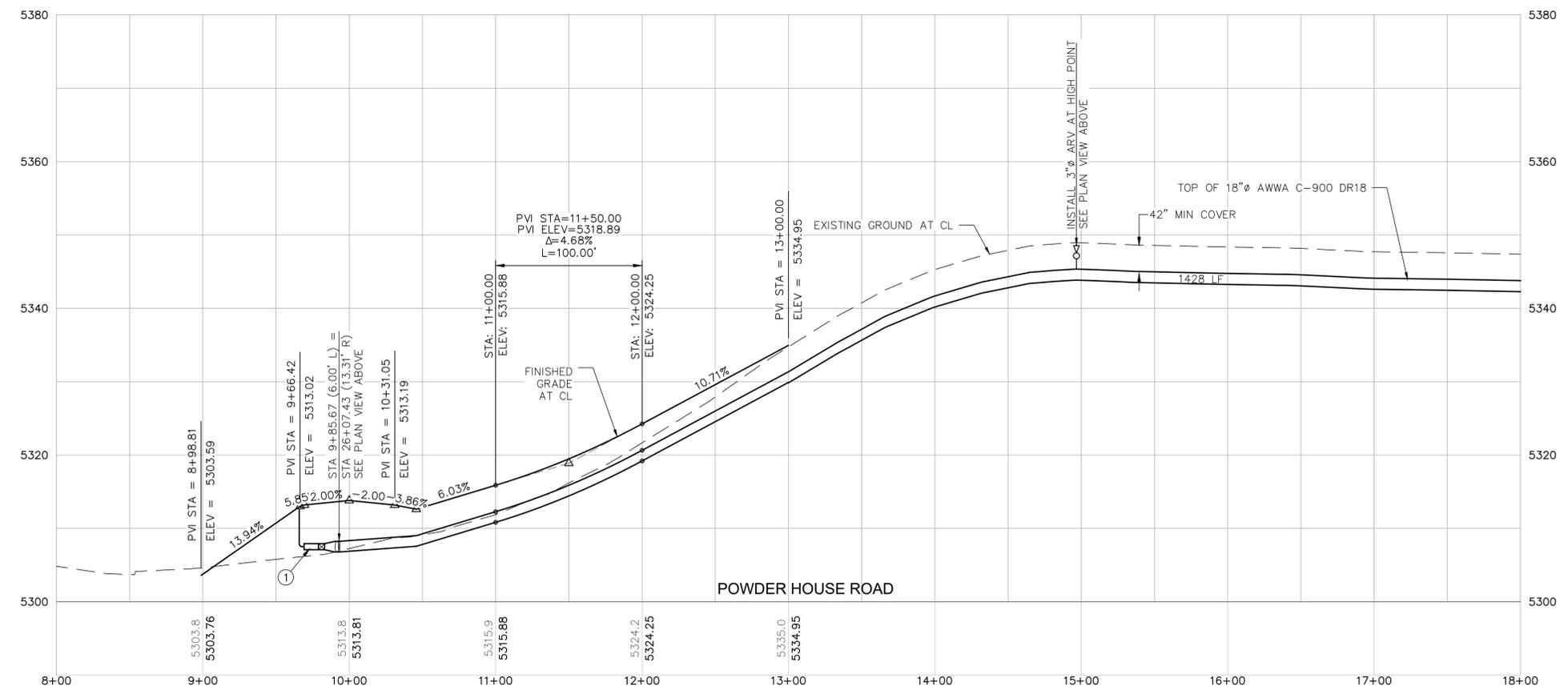
STA 9+85.67 (6.00' L) = STA 26+07.43 (13.31' R)
INSTALL (1) 18" Ø FLGD CROSS W/ STD. THRUST BLOCK,
(1) 18" X 10" FLGD REDUCER,
(1) 10" FLG X MJ GATE VALVE W/ VALVE BOX,
(3) 18" MJ X FLG ADAPTER,
(2) 18" FLG X MJ BUTTERFLY VALVES W/ VALVE BOXES,
AND CONCRETE THRUST BLOCKS

STA 14+96± (5.25' R)
INSTALL ARV,
SEE DETAIL J/D03

"P" 13+00.00
TRANSITION TO
EX ROAD IN 30'

CONSTRUCTION NOTES:

- ① INSTALL 10 LF OF 10" Ø AWWA C-900 DR18 PIPE AND TEMPORARY FLUSH VALVE ASSEMBLY, SEE DETAIL M/D03.
- ② UPON COMPLETION OF WATER MAIN, BACKFILL AND COMPACT TRENCH IN 6" LIFTS WITH 90% COMPACTION. IN TRAVEL WAYS PLACE 10" THICK TYPE II CLASS B AGGREGATE BASE AT ROAD SURFACE, 95% COMPACTION. MOUND 2" ABOVE ADJACENT GRADE.
- ③ INSTALL 10 LF OF 18" Ø AWWA C-900 DR18 PIPE AND TEMPORARY FLUSH VALVE ASSEMBLY, SEE DETAIL M/D03.
- ④ STA. 10+00.00 TO STA. 13+00.00 - REALIGN, REGRADE AND CONSTRUCT THE POWDER HOUSE ROAD GRADED GRAVEL SURFACE TO THE NEW ALIGNMENT SHOWN ON THE PLANS - SEE SHEETS P02 AND P03. SEE TYPICAL GRAVEL ROADWAY SECTION DETAIL "A" ON SHEET P02 FOR THE ROADWAY DESIGN SECTION.



PROFILE VIEW
POWDER HOUSE ROAD

REVISION	DESCRIPTION	DATE	BY	APP
B	REVISED FOR REVIEW	OCT. 28, 2022	FSK	FSK
C	REVISED FOR REVIEW	AS SHOWN	FSK	FSK
D	BID PLAN REVISION	AS SHOWN	FSK	FSK

JOB NO.:	4001083
DATE:	OCT. 28, 2022
SCALE:	AS SHOWN
DESIGNED:	KMP
DRAWN:	PJB
CHECKED:	FSK

FARR WEST ENGINEERING
421 COURT STREET ELKO, NEVADA 89801 PHONE: (775) 738-2121 FAX: (775) 738-7955 FARRWESTENGINEERING.COM

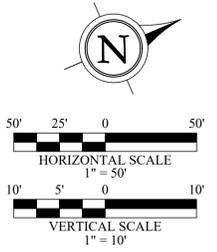
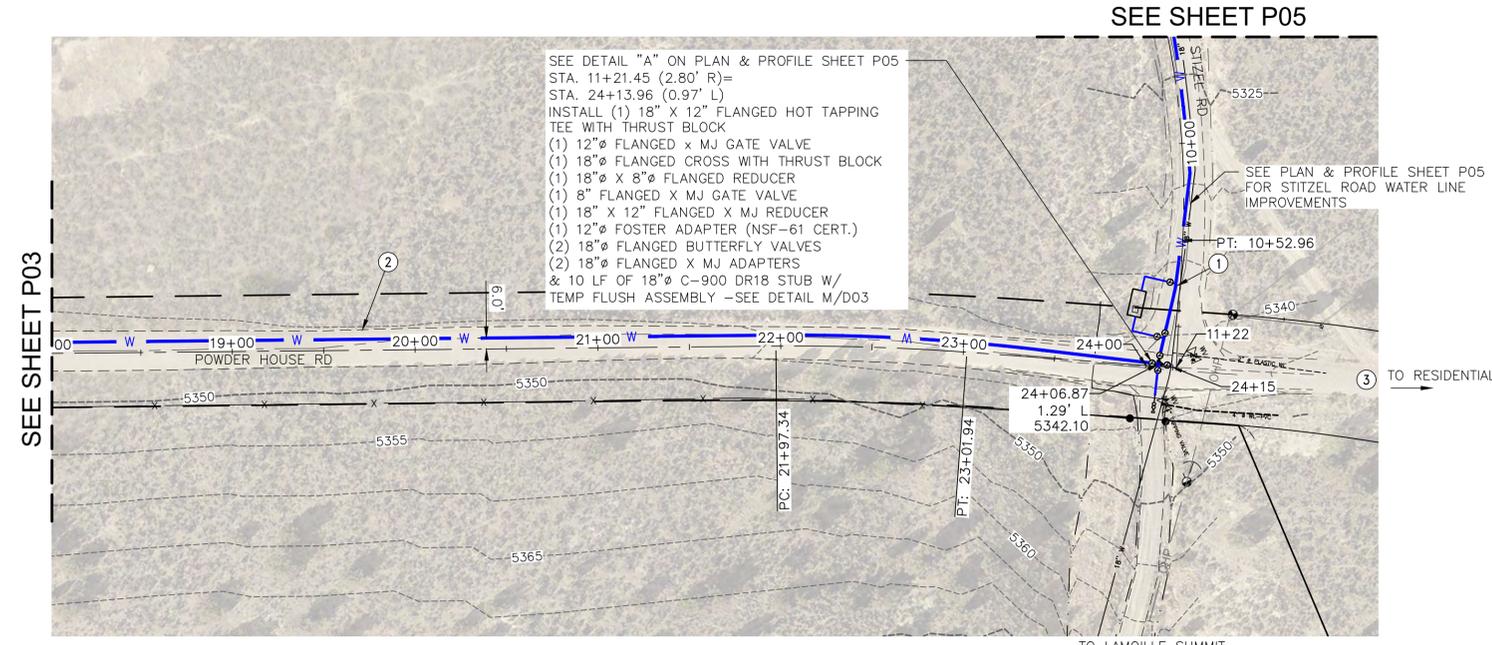
FERRON S. KONAKIS
REGISTERED PROFESSIONAL ENGINEER CIVIL No. 7242 EXPIRES 06/30/23 NVS 78/2022

HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
FOR
CITY OF ELKO
PWP EL-2022-450
PLAN & PROFILE
POWDER HOUSE RD
NEVADA
CITY OF ELKO

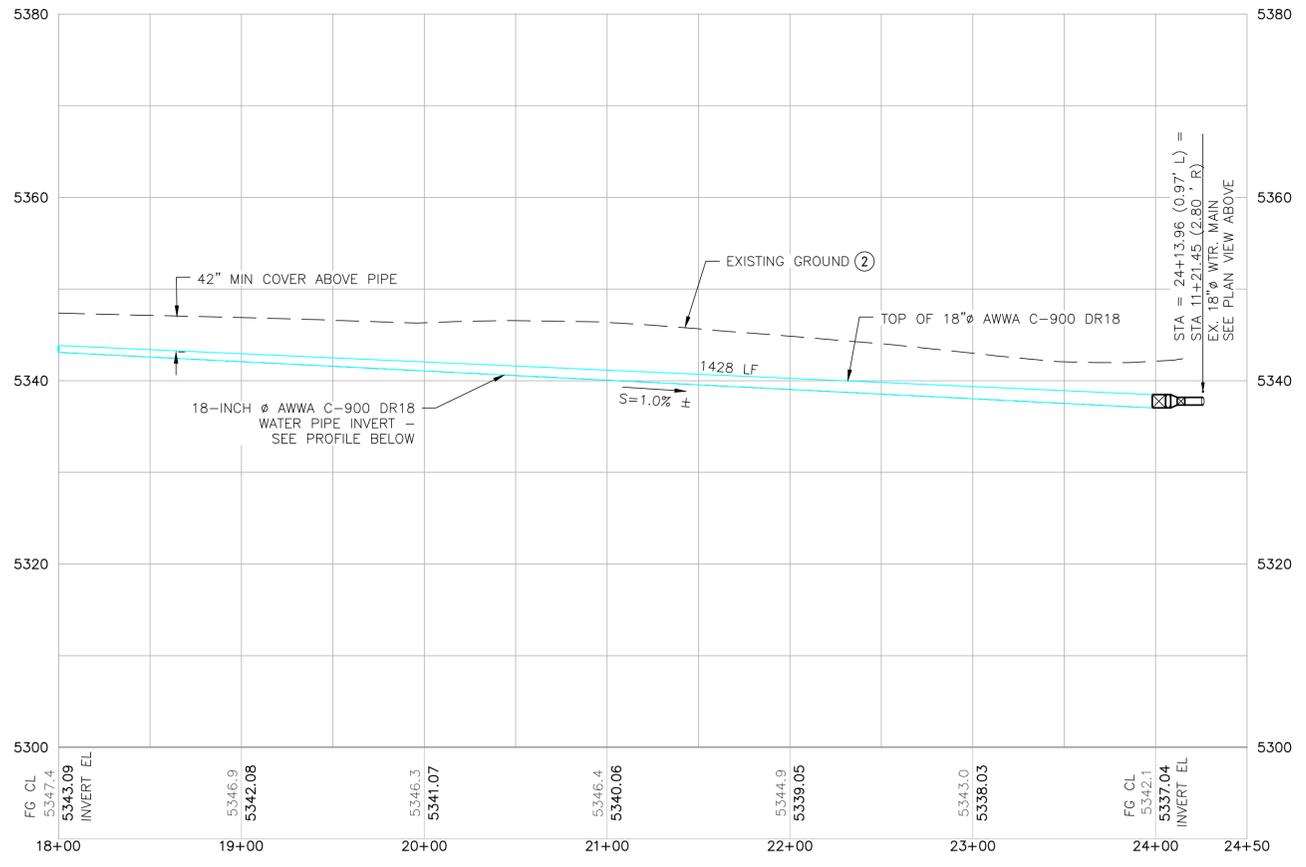
DRAWING NUMBER
P03
7 OF 15

BID PLAN SET

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\P03 POWDER HOUSE RD.dwg
PLOT DATE: Oct. 28, 2022 - 12:41pm



PLAN VIEW
POWDER HOUSE ROAD



PROFILE VIEW
POWDER HOUSE ROAD

HORZ: 1" = 50'
 VERT: 1" = 10'

CONSTRUCTION NOTES:

- ① EXISTING 18" Ø WATER MAIN LOCATION SHOWN IS APPROXIMATE. NEW 8" Ø C-900 DR18 TO BE INSTALLED PARALLEL TO EXISTING 18" Ø MAIN. CONTRACTOR SHALL LOCATE THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION. THE NEW 18-INCH Ø WATER MAIN AND 8-INCH DIAMETER WATER MAIN SHOWN SHALL BE INSTALLED WITH A MINIMUM SOIL COVER OF 42-INCHES MEASURED FROM FINISH GRADE TO THE TOP OF THE WATER MAIN PIPE.
- ② UPON COMPLETION OF WATER MAIN, BACKFILL AND COMPACT TRENCH IN 6" LIFTS WITH 90% COMPACTION. IN TRAVEL WAYS PLACE 10" THICK TYPE II CLASS B AGGREGATE BASE AT ROAD SURFACE, 95% COMPACTION. MOUND 2" ABOVE ADJACENT GRADE.
- ③ CONTRACTOR SHALL MAINTAIN ACCESS TO THE EXISTING RESIDENTIAL HOMES LOCATED ON STITZEL ROAD AND POWDER HOUSE ROAD DURING WATER LINE CONSTRUCTION.
- ④ THE "CONTRACTOR" SHALL PURCHASE AND PROVIDE ALL WATER PIPE MATERIALS, INCLUDING TAPPING VALVES AND TEES. THE CITY OF ELKO WATER DEPARTMENT SHALL PERFORM, OR MAKE, ALL HOT TAPS TO EXISTING LIVE WATER MAINS THAT ARE CURRENTLY IN SERVICE AND OWNED AND OPERATED BY THE CITY OF ELKO WATER DEPARTMENT.

DATE	APP	DATE	APP
9/14/2022	FSK	9/14/2022	FSK
10/10/2022	FSK	10/10/2022	FSK
10/28/2022	FSK	10/28/2022	FSK

REVISION	DESCRIPTION	DATE	BY
B	REVISED FOR REVIEW	OCT. 28, 2022	FSK
C	REVISED FOR REVIEW	AS SHOWN	FSK
D	BID PLAN REVISION		FSK

JOB NO.: 4001083	DESIGNED: KMF	CHECKED: FSK
DATE: OCT. 28, 2022	DRAWN: PJB	
SCALE: AS SHOWN		

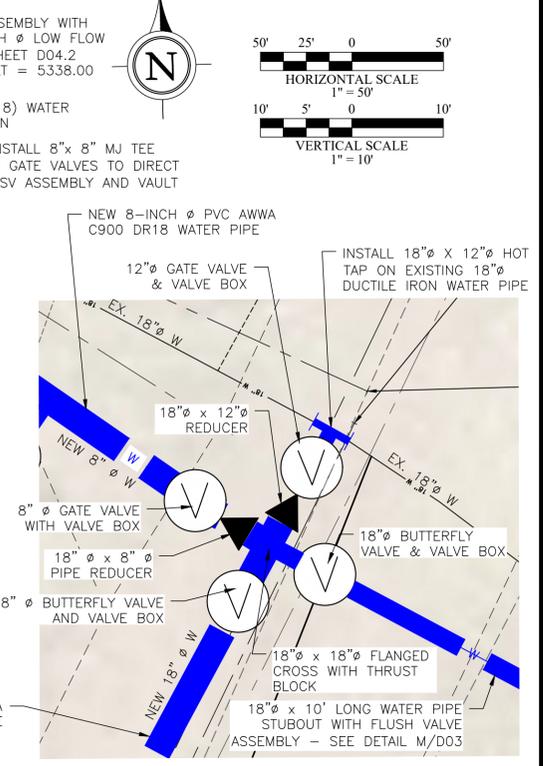
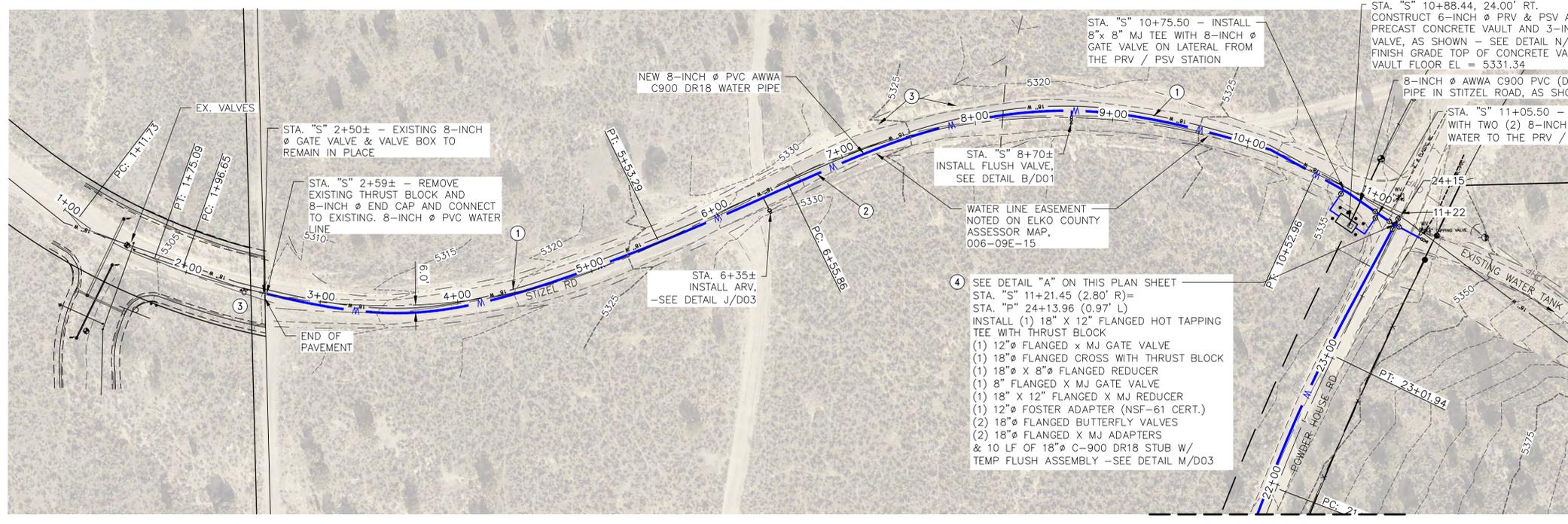
FARR WEST ENGINEERING
421 COURT STREET ELKO, NEVADA 89801 PHONE: (775) 735-2121 FAX: (775) 735-7955 FARRWESTENGINEERING.COM

FERRON S. KONAKIS
REGISTERED PROFESSIONAL ENGINEER EXP. 06/30/23 CIVIL No. 7242 09/28/2022

HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
 FOR
 CITY OF ELKO
 PWP EL-2022-450
 PLAN & PROFILE
 POWDER HOUSE RD
 CITY OF ELKO
 NEVADA

BID PLAN SET

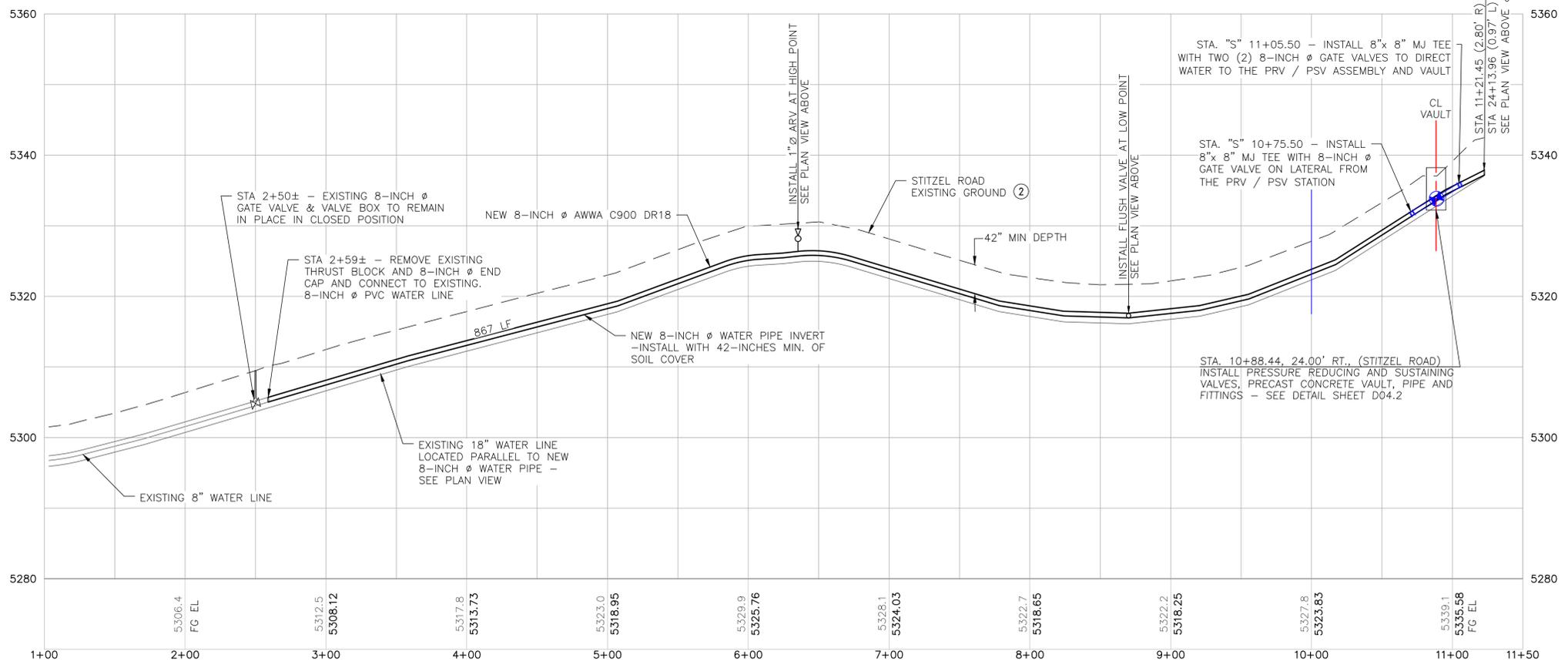
FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\PO4 POWDER HOUSE RD.dwg
 PLOT DATE: Oct. 28, 2022 - 12:43pm



- ④ SEE DETAIL "A" ON THIS PLAN SHEET
 STA. "S" 11+21.45 (2.80' R) =
 STA. "P" 24+13.96 (0.97' L)
 INSTALL (1) 18" X 12" FLANGED HOT TAPPING
 TEE WITH THRUST BLOCK
 (1) 12" FLANGED X MJ GATE VALVE
 (1) 18" FLANGED CROSS WITH THRUST BLOCK
 (1) 18" X 8" FLANGED REDUCER
 (1) 8" FLANGED X MJ GATE VALVE
 (1) 18" X 12" FLANGED X MJ REDUCER
 (1) 12" FOSTER ADAPTER (NSF-61 CERT.)
 (2) 18" FLANGED BUTTERFLY VALVES
 (2) 18" FLANGED X MJ ADAPTERS
 & 10 LF OF 18" C-900 DR18 STUB W/
 TEMP FLUSH ASSEMBLY - SEE DETAIL M/D03

SEE SHEET P04

STITZEL ROAD



PROFILE
 HORZ: 1" = 50'
 VERT: 1" = 10'

WATER LINE STATION: "S" 11+21.45 (2.80' RT.)/"P" 24+13.96 (0.97' LT.)
WATER PIPE CONNECTION DETAIL
 SCALE: N.T.S.

- CONSTRUCTION NOTES:**
- ① EXISTING 18" WATER MAIN LOCATION SHOWN IS APPROXIMATE. THE NEW 8" C-900 DR18 WATER PIPE SHALL BE INSTALLED PARALLEL TO THE EXISTING 18" DUCTILE IRON WATER MAIN. THE CONTRACTOR SHALL LOCATE THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION.
 - ①A SEE DETAIL "E" ON SHEET D02 FOR THE MINIMUM REQUIRED CONCRETE THRUST BLOCK AREAS AND LOCATIONS, AS SHOWN ON THE DETAIL THRUST BLOCK TABLE.
 - ② UPON COMPLETION OF THE WATER MAIN THE CONTRACTOR SHALL BACKFILL AND COMPACT TRENCH BACKFILL IN 6" LIFTS WITH 90% COMPACTION. IN TRAVEL WAYS PLACE 10" THICK TYPE II CLASS B AGGREGATE BASE AT ROAD SURFACE, 95% COMPACTION. MOUND 2" ABOVE ADJACENT GRADE.
 - ③ CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENTIAL HOMES DURING CONSTRUCTION.
 - ④ THE CONTRACTOR SHALL PURCHASE AND PROVIDE ALL PIPELINE MATERIALS, INCLUDING TAPPING SLEEVES AND TAPPING VALVES. THE CITY OF ELKO WATER DEPARTMENT SHALL PERFORM THE HOT TAPS AS REQUIRED BY ELKO CITY CODE.

APP	DATE	DESCRIPTION
FSK	9/14/2022	REVISED FOR REVIEW
FSK	10/10/2022	REVISED FOR REVIEW
FSK	10/28/2022	BID PLAN REVISION

REVISION	DATE	BY	DESCRIPTION
B	OCT. 28, 2022	AS SHOWN	
C		KMF	
D		PJB	
		FSK	

JOB NO.:	4001083
DATE:	OCT. 28, 2022
SCALE:	AS SHOWN
DESIGNED:	KMF
DRAWN:	PJB
CHECKED:	FSK

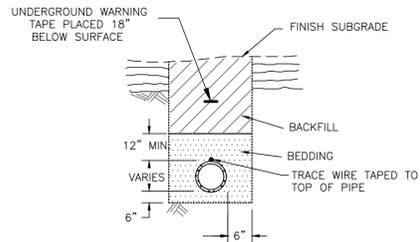
FARR WEST ENGINEERING
 421 COURT STREET
 ELKO, NEVADA 89801
 PHONE: (775) 738-2121
 FAX: (775) 738-7955
 FARRWESTENGINEERING.COM

FERRON S. KONAKIS
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 No. 7242
 EXPIRES 06/30/23
 10/28/2022

HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
 FOR
 CITY OF ELKO
 PWP EL-2022-450
 PLAN & PROFILE
 STITZEL ROAD

DRAWING NUMBER
P05
 9 OF 15

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG Sheet Files\POS STITZEL ROAD.dwg
 PLOT DATE: Oct 28, 2022 - 12:50pm



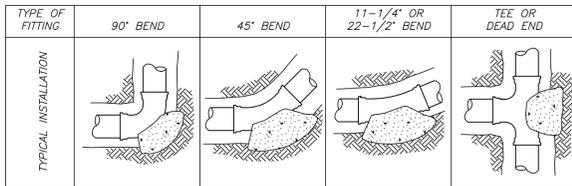
DUCTILE IRON PIPE, PVC, PE & HDPE PIPE

NOTES:

1. WATER DENSIFIED BACKFILL AND TUNNELING SHALL NOT BE ALLOWED.
2. BACKFILL SHALL MEET THE REQUIREMENTS FOR CLASS "E" BACKFILL WITH NO ROCKS SIZED OVER 4", COMPACTED IN 6" (MAX.) LIFTS TO 90% (MIN.) RELATIVE COMPACTION.
3. BEDDING MATERIAL FOR THE FOLLOWING PIPE SHALL MEET THE REQUIREMENTS OF SECTION 200 & 305 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND COMPACTED TO A MINIMUM 90% RELATIVE COMPACTION.
 - A) DUCTILE IRON PIPE - CLASS "C"
 - B) ALL OTHER PIPE - CLASS "A"
4. FOR TRENCHES & EXCAVATIONS LOCATED WITHIN GRAVEL AND PAVED ROADWAY SECTIONS, SEE THE PAVEMENT PATCH DETAIL. ALL BURIED WATER PIPE AND SANITARY SEWER PIPE LOCATED BENEATH GRAVEL ROAD SECTIONS SHALL HAVE THE SAME GRAVEL SURFACE SECTION AS SHOWN ON THE ROADWAY SECTION DETAIL.
5. ALL TRENCHES AND EXCAVATIONS SHALL CONFORM TO THE LATEST EDITION OF O.S.H.A. AND M.U.T.C.D. REQUIREMENTS.
6. NATIVE MATERIAL MUST BE APPROVED BY THE CITY OF ELKO ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO USING THE NATIVE SOIL MATERIAL AS PIPE BACKFILL OR BEDDING.
7. UNDERGROUND WARNING TAPE SHALL BE METALLIC AND APPROPRIATLY LABELED AND COLORED.

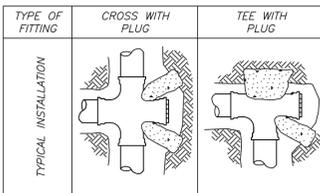
TRENCH EXCAVATION & BACKFILL

SCALE: NONE



THRUST BLOCK BEARING AREA (SQ. FT.)

TYPE OF FITTING	90° BEND	45° BEND	11-1/4" OR 22-1/2" BEND	TEE OR DEAD END	TEE WITH PLUG	CROSS WITH PLUG
4"	2	1	1	2	2	2
6"	4	4	2	4	4	4
8"	7	4	2	5	7	7
10"	12	6	3	8	12	12
12"	16	10	5	12	16	16
14"	20	12	6	14	20	20
16"	27	15	8	18	27	27
18"	45	25	13	32	45	45
24"	65	35	18	46	65	65

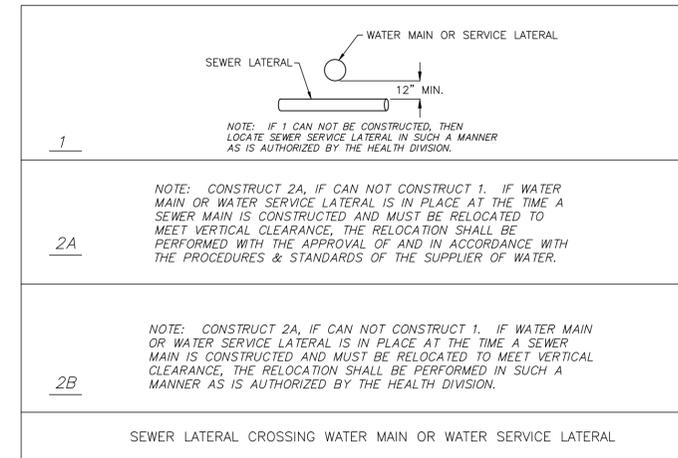


NOTES:

1. CONCRETE FOR THRUST BLOCKS SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI OR GREATER.
2. AREAS GIVEN ARE FOR CLASS 150 PIPE AT A TEST PRESSURE OF 150 PSI, WITH 2000 PSF BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PROCEDURES, AND/OR SOIL TYPES SHOULD ADJUST AREAS ACCORDINGLY, SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. THRUST BLOCKS ARE TO BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS AND FACES OF PLUGS TO BE KEPT CLEAR OF CONCRETE.
5. BOLT ON SADDLE TEES ARE EXEMPT FROM THRUST BLOCK REQUIREMENTS IF STATED IN

THRUST BLOCK BEARING AREAS

SCALE: NONE

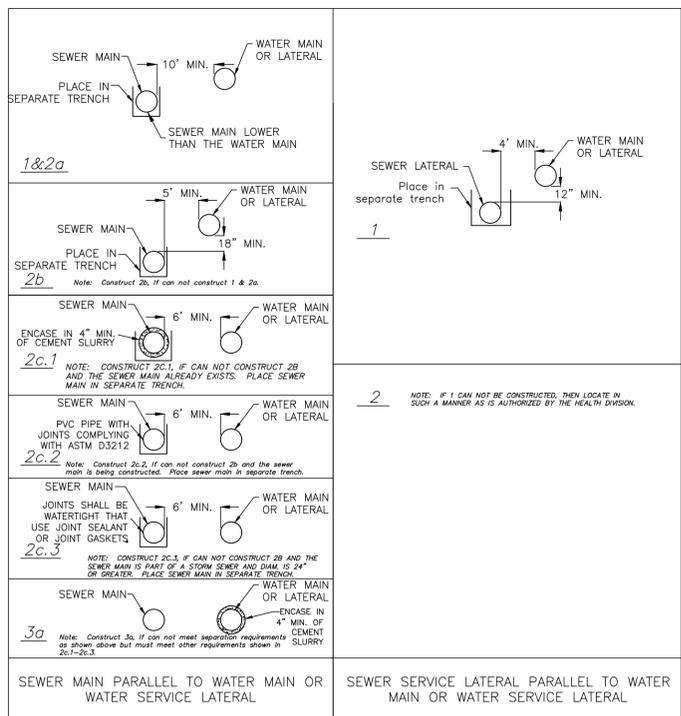


NOTES:

1. SEWER SERVICE LATERAL CROSSING WATER MAIN OR WATER SERVICE LATERAL SHALL MEET THE REQUIREMENTS OF NAC 445A.67175.

CROSSING LINE SEPERATION
SEWER LATERAL CROSSING WATER MAIN/LATERAL

SCALE: NONE

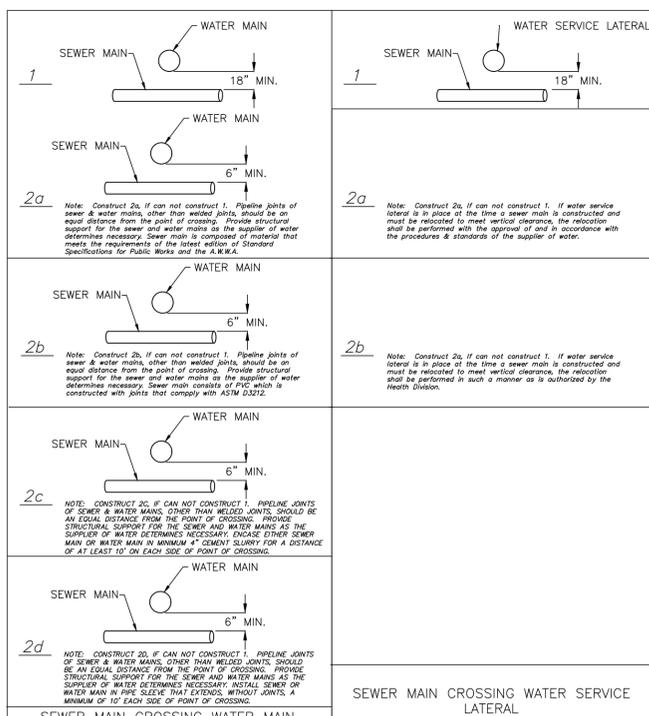


NOTES:

1. SEWER MAIN/LATERAL PARALLEL TO WATER MAIN OR WATER SERVICE LATERAL SHALL MEET THE REQUIREMENTS OF NAC 445A.67155 & NAC 445A.6716.

PARALLEL LINE SEPERATION
SEWER LINE PARALLEL TO WATER MAIN/LATERAL

SCALE: NONE

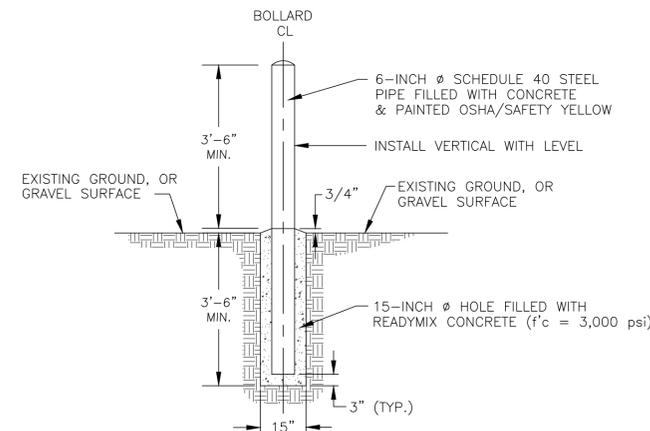


NOTES:

1. SEWER MAIN CROSSING WATER MAIN OR WATER SERVICE LATERAL SHALL MEET THE REQUIREMENTS OF NAC 445A.67165 & NAC 445A.6717.

CROSSING LINE SEPERATION
SEWER MAIN CROSSING WATER MAIN/LATERAL

SCALE: NONE



BOLLARD CONSTRUCTION NOTES:

1. INSTALL BOLLARDS AT THE LOCATIONS AND/OR SPACINGS SHOWN ON THE CONSTRUCTION DRAWINGS.
2. 6-INCH Ø BOLLARDS SHALL MEET THE MINIMUM REQUIREMENTS OF SECTION 312 - VEHICLE IMPACT PROTECTION OF THE MOST CURRENT ADOPTED EDITION OF THE INTERNATIONAL FIRE CODE (IFC).
3. STEEL BOLLARDS FOR THIS PROJECT SHALL BE AT THE LOCATIONS SHOWN ON THE PLAN SHEETS, OR PLAN DETAILS, BUT SHALL BE PLACED NOT LESS THAN 3- FEET FROM THE IMPROVEMENTS AND/OR OBJECTS TO BE PROTECTED. IMPROVEMENTS TO BE PROTECTED INCLUDE FIRE HYDRANTS, FUEL STORAGE TANKS, LIQUID PROPANE GAS STORAGE TANKS, WATER METER BOXES, AND VALVE VAULTS WITHOUT CONCRETE CURB BARRIER PROTECTION ALONG ROADWAYS AND HIGHWAYS.
4. PAINT BOLLARDS WITH EPOXY, VINYL OR POLYURETHANE INDUSTRIAL BASE PRIMER AND PAINT AFTER REMOVING ALL RUST AND SCALE FROM THE SCHEDULE 40 STEEL PIPE.
5. FOR THIS PROJECT PLACE SIX (6) BOLLARDS AT THE TWO (2) PRESSURE REDUCING AND SUSTAINING VALVE VAULTS SHOWN ON PLAN SHEETS P01 AND P05 (ALSO SEE DETAILS SHEETS D04.1 AND D04.2)

6-INCH Ø STEEL BOLLARD CONSTRUCTION DETAIL

SCALE: AS SHOWN ABOVE



APP	DATE	DESCRIPTION
FSK	9/14/2022	REVISED FOR REVIEW
FSK	10/10/2022	REVISED FOR REVIEW
FSK	10/28/2022	BID PLAN REVISION

FARR WEST ENGINEERING
 421 COURT STREET
 ELKO, NEVADA 89801
 PHONE: (775) 735-2121
 FAX: (775) 735-7955
 FARRWESTENGINEERING.COM

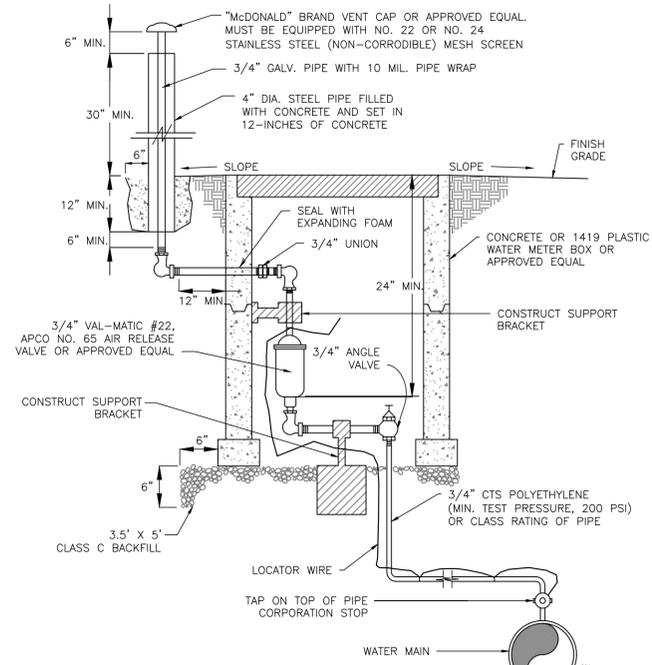
FERRON S. KONAKIS
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 No. 7242
 EXP. 06/30/23

HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
 FOR
 CITY OF ELKO
 PWP EL-2022-450
 DETAIL SHEETS
 UTILITY DETAILS

DRAWING NUMBER
D02
 11 OF 15

BID PLAN SET

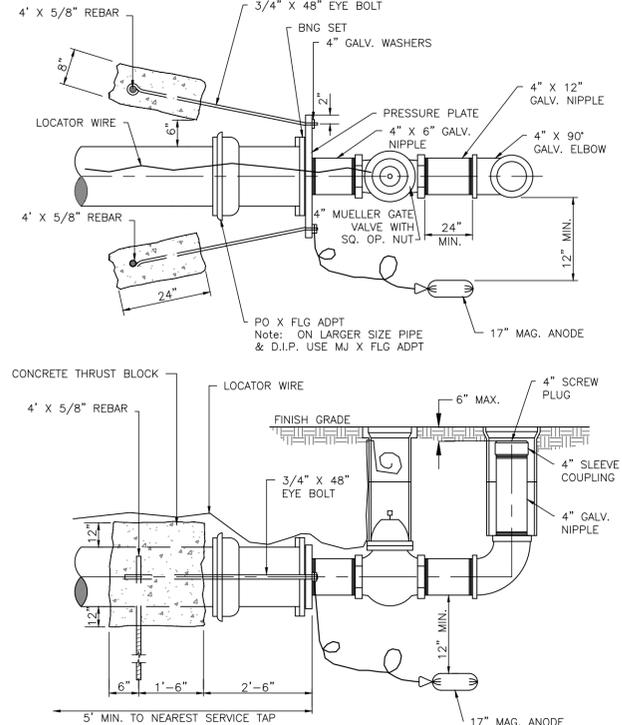
FILE SPEC: P:\Client Projects\Elko City 4001_083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG Sheet Files\ERECART PRESSURE REDUCING SUSTAINING VALVE.dwg PLOT DATE: Oct 28, 2022 - 1:05pm



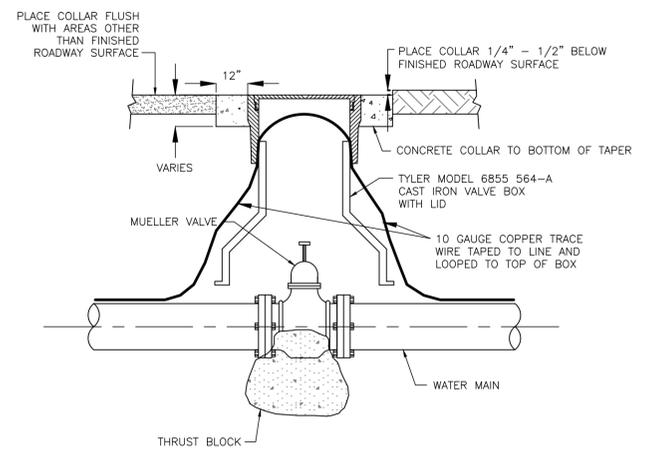
DETAIL NOTES:

- AIR RELEASE VALVES SHALL BE INSTALLED OUTSIDE THE PAVEMENT SECTION. SLOPE THE GROUND AWAY FROM THE AIR RELEASE VALVE BOX OR CONSTRUCT CURBING TO PROTECT THE VALVE BOX FROM FLOODING BY SURFACE WATERS.
- ALL PIPES SHALL HAVE POSITIVE SLOPE FROM MAIN LINE TO AIR RELEASE VALVE.
- THE AIR RELEASE VALVE SHOWN IN THE DETAIL IS A 3/4-INCH Ø ARV ASSEMBLY. BASED ON THE WATER PIPE SIZE, WATER PRESSURE, AND WATER PIPE DESIGN FLOW RATE, THE WATER MAIN ARV MAY BE 3/4", 1", 1-1/2", 2", OR 3" ASSEMBLIES.

POTABLE WATER AIR RELEASE
SCALE: NONE



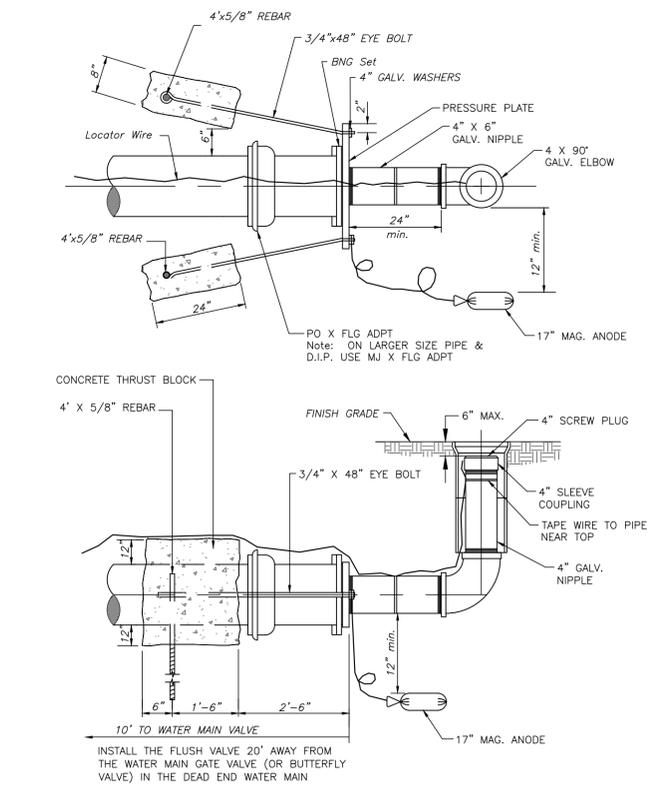
PERMANENT FLUSH ASSEMBLY
SCALE: NONE



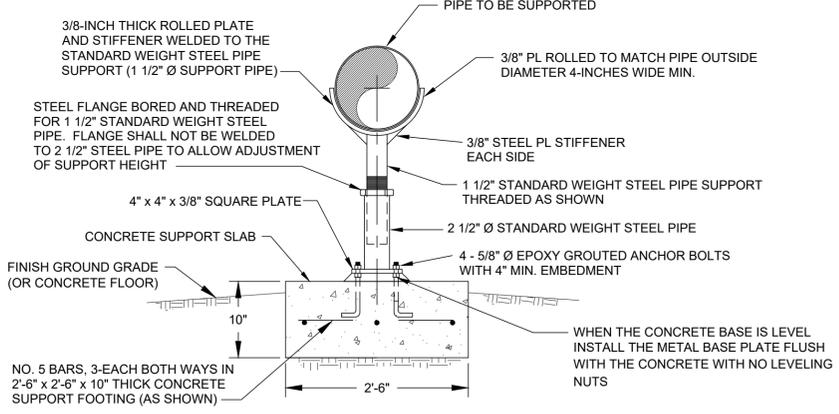
NOTES:

- CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 337.10 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, UNLESS OTHERWISE SPECIFIED.
- VALVE COLLAR SHALL BE SET 1/4" TO 1/2" BELOW FINISHED CONCRETE OR BITUMINOUS SURFACE. VALVE COLLARS IN ALL OTHER AREAS SHALL BE SET FLUSH WITH FINISHED GRADE, UNLESS OTHERWISE SPECIFIED.
- CONCRETE COLLAR REQUIRED WHEN VALVE IS NOT LOCATED IN CONCRETE OR BITUMINOUS SURFACE.

VALVE DETAIL
SCALE: NONE



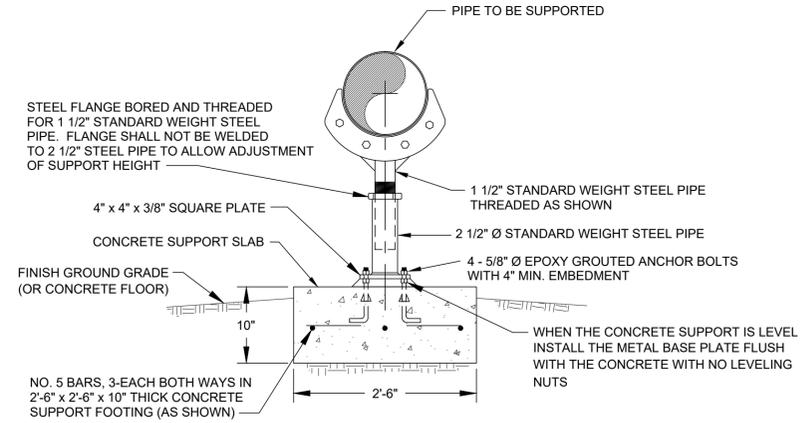
TEMPORARY FLUSH ASSEMBLY
SCALE: NONE



DETAIL NOTES AND REQUIREMENTS:

- CONCRETE FOR PIPE SUPPORTS SHALL BE AIR ENTRAINED (6%, ±1.5%) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI MINIMUM.
- THE MINIMUM SEPARATION BETWEEN REINFORCING STEEL AND THE BOTTOM OF THE FOOTING SHALL BE 3-INCHES. INSTALL REINFORCING STEEL IN THE CENTER OF THE SUPPORT FOOTING, AS SHOWN.
- ALL CONCRETE REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS (F_s = 60,000 PSI).
- ALL FILL SOIL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D 1557.
- GRADED GRAVEL BASE MATERIAL AND SELECT GRAVEL BASE MATERIAL SHALL BE PLACED, MOISTURE CONDITIONED, AND COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D 1557.
- WHEN INSTALLED INSIDE A PUMP HOUSE, WELL HOUSE, PRV STATION, OR LIFT STATION THE PIPE SUPPORT CONCRETE FOOTING SHALL BE POURED FLUSH WITH THE CONCRETE FLOOR.
- WHERE PIPE SUPPORTS ARE REQUIRED INSIDE PRECAST CONCRETE VAULTS, OR MANHOLES, THE PIPE SUPPORTS CAN BE MOUNTED ON 1/2-INCH THICK EMBEDDED SQUARE STEEL ANCHOR PLATES (16" SQUARE WITH STEEL F_y = 60,000 PSI) MOUNTED ON THE VAULT FLOOR AND CENTERED BELOW THE VERTICAL PIPE SUPPORT, AS SHOWN IN THE PLAN SHEETS.

WATER PIPE INVERT SUPPORT DETAIL
SCALE: NONE



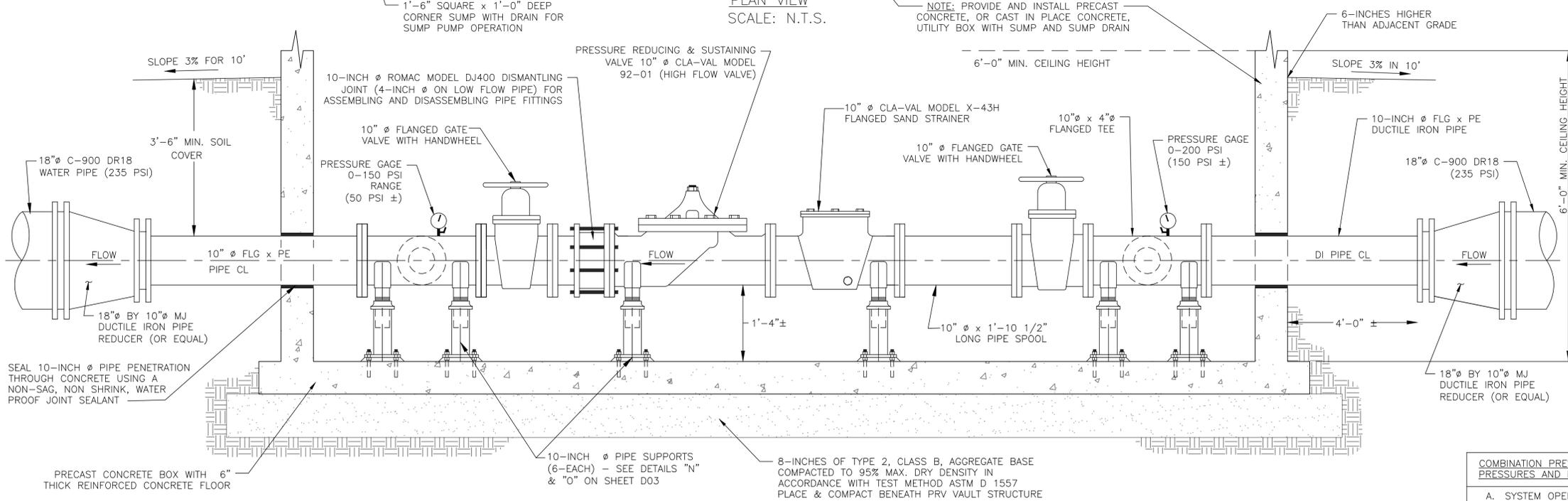
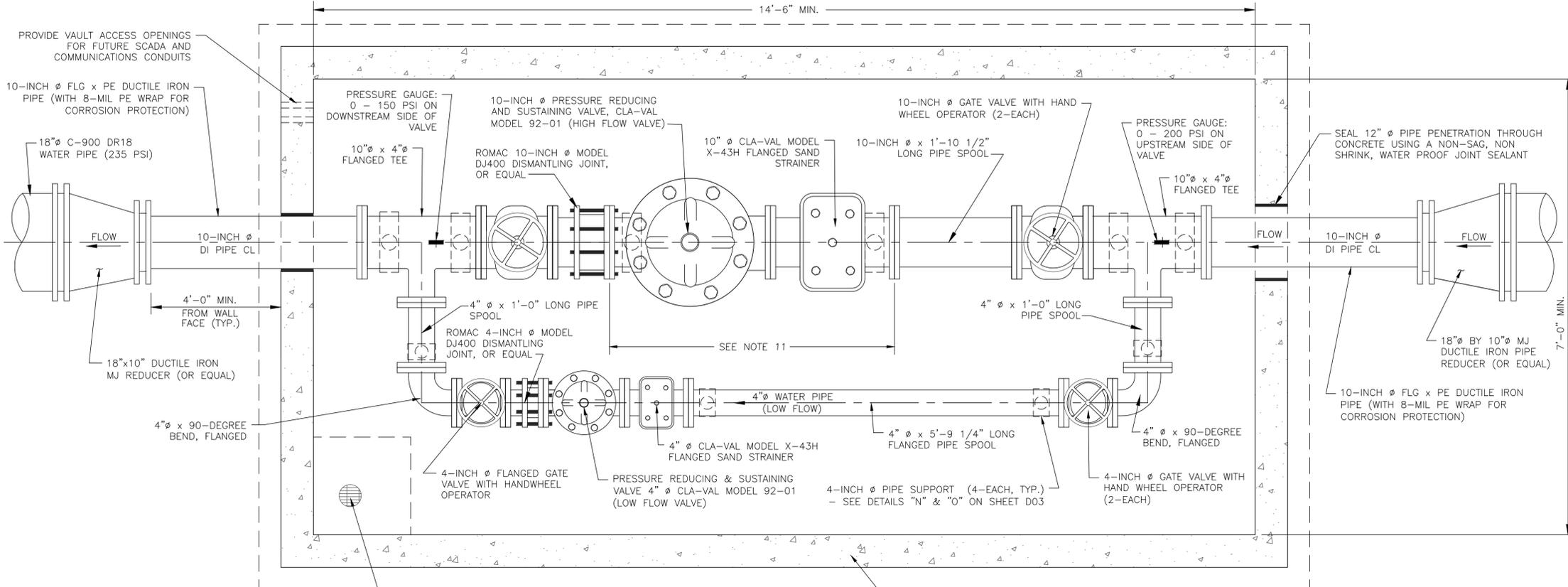
DETAIL NOTES AND REQUIREMENTS:

- CONCRETE FOR PIPE SUPPORTS SHALL BE AIR ENTRAINED (6%, ±1.5%) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI MINIMUM.
- THE MINIMUM SEPARATION BETWEEN REINFORCING STEEL AND THE BOTTOM OF THE FOOTING SHALL BE 3-INCHES. INSTALL REINFORCING STEEL IN THE CENTER OF THE SUPPORT FOOTING, AS SHOWN.
- ALL CONCRETE REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS (F_s = 60,000 PSI).
- ALL FILL SOIL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D 1557.
- GRADED GRAVEL BASE MATERIAL AND SELECT GRAVEL BASE MATERIAL SHALL BE PLACED, MOISTURE CONDITIONED, AND COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D 1557.
- WHEN INSTALLED INSIDE A PUMP HOUSE, WELL HOUSE, PRV STATION, OR LIFT STATION THE PIPE SUPPORT CONCRETE FOOTING SHALL BE POURED FLUSH WITH THE CONCRETE FLOOR.
- WHERE PIPE SUPPORTS ARE REQUIRED INSIDE PRECAST CONCRETE VAULTS, OR MANHOLES, THE PIPE SUPPORTS CAN BE MOUNTED ON 1/2-INCH THICK EMBEDDED SQUARE STEEL ANCHOR PLATES (16" SQUARE WITH STEEL F_y = 60,000 PSI) MOUNTED ON THE VAULT FLOOR AND CENTERED BELOW THE VERTICAL PIPE SUPPORT, AS SHOWN IN THE PLAN SHEETS.

WATER PIPE FLANGE SUPPORT DETAIL
SCALE: NONE

DATE	9/14/2022	DATE	10/10/2022	DATE	10/28/2022
APP	FSK	APP	FSK	APP	FSK
REVISED FOR REVIEW	FSK	REVISED FOR REVIEW	FSK	REVISED FOR REVIEW	FSK
REVISION	B	REVISION	C	REVISION	D
JOB NO.:	4001093	SCALE:	AS SHOWN	DESIGNED:	KMP
DATE:	OCT. 28, 2022	SCALE:	AS SHOWN	DRAWN:	PJB
DESIGNED:	KMP	CHECKED:	FSK		
DRAWN:	PJB				
CHECKED:	FSK				
HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT FOR CITY OF ELKO PWP EL-2022-450 DETAIL SHEETS UTILITY DETAILS CITY OF ELKO NEVADA					
DRAWING NUMBER					
D03 12 OF 15					

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG Sheet Files\VERECART PRESSURE REDUCING SUSTAINING VALVE.dwg PLOT DATE: Oct 28, 2022 - 1:07pm



- PRESSURE REDUCING VALVE STATION CONSTRUCTION NOTES:**
1. THE PRESSURE REDUCING VALVE STATION SHALL BE EQUIPPED WITH A LOW FLOW PRESSURE REDUCING & SUSTAINING VALVE AND A HIGH FLOW PRESSURE REDUCING & SUSTAINING VALVE, AS SHOWN, THE LOW FLOW PRESSURE REDUCING AND SUSTAINING VALVE SHALL BE A 4" Ø CLA-VAL MODEL 92-01 PRV AND PSV. THE HIGH FLOW PRESSURE REDUCING AND SUSTAINING VALVE SHALL BE A 10-INCH Ø CLA-VAL MODEL 92-01 PRV AND PSV (OR APPROVED EQUAL) AS SHOWN ON THE PLAN DETAIL. SEE THE VALVE SPECIFICATIONS AND MANUFACTURER'S VALVE INFORMATION FOR MORE INFORMATION.
 2. INSTALL 18-INCH x 10-INCH Ø MJ REDUCERS UPSTREAM AND DOWNSTREAM FROM THE PRESSURE REDUCING AND SUSTAINING VALVE STATION VAULT TO TRANSITION FROM C-900 DR18 (235 PSI) PIPE TO DUCTILE IRON PIPE. ALL PIPE FLANGES SHALL BE IN ACCORDANCE WITH STANDARD ASME/ANSI B16.5 (FOR PIPE 1/2 -INCH THROUGH 24-INCHES IN Ø) AND ASME/ANSI B16.47 (FOR PIPE 26-INCHES THROUGH 60-INCHES IN Ø). WRAP ALL BURIED DUCTILE IRON AND STEEL PIPE FITTINGS WITH 8-MIL POLYETHYLENE SHEETING PRIOR TO POURING CONCRETE THRUST BLOCKS.
 3. THE PRV & PSV STATION VAULT INSIDE MINIMUM CLEAR DIMENSIONS SHOW ARE 14'-6" LONG BY 7'-0" WIDE. SEE THE DETAIL DIMENSIONS SHOWN. THE PRECAST VAULT SHALL BE MANUFACTURED BY JENSEN PRECAST OF SPARKS, NEVADA; DURACRETE PRECAST OF SALT LAKE CITY, UTAH; OR OLDCASTLE (AMCOR) PRECAST. THE PRECAST CONCRETE VAULT FOR THE PRV STATION SHALL BE MANUFACTURED FOR AN HS-20 VEHICLE LOADING. THE PRV STATION PRECAST ROOF SHALL BE EQUIPPED WITH A 3'-0" BY 5'-0" LOCKING DOUBLE ACCESS DOORS THAT LOCKS IN THE OPEN POSITION FOR EQUIPMENT ACCESS TO THE PRECAST VAULT. PROVIDE OPENINGS FOR CONDUIT ENTRY INTO VAULT.
 4. PROVIDE AND INSTALL A TOTAL OF SIX (6) 6-INCH Ø STEEL BOLLARDS FOR IMPACT PROTECTION OUTSIDE THE VAULT. INSTALL BOLLARDS WITH A MAXIMUM OF 3'-FEET OF CLEARANCE FROM THE FACE OF THE VAULT TO THE BOLLARD. PLACE THE BOLLARDS ALONG THE SIDE AND END OF THE VAULT THAT FACES THE ERRECART BOULEVARD ROADWAY SURFACE. INSTALL A TOTAL OF 6-BOLLARDS AT EACH PRECAST CONCRETE VAULT INSTALLATION. SEE THE BOLLARD DETAIL (DETAIL H1.2 ON SHEET D02).
 5. PIPE BEDDING MATERIAL SHALL BE CLEAN SAND AGGREGATE MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 200.03.02 CLASS A BACKFILL OF THE PROJECT "STANDARD SPECIFICATIONS".
 6. THE SERVICE PIPE TRENCH BACKFILL MATERIAL SHALL BE NATIVE SOIL MATERIAL MEETING THE GENERAL REQUIREMENTS OF SUBSECTION 200.03.06 CLASS E BACKFILL OF THE PROJECT "STANDARD SPECIFICATIONS".
 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A DRY TRENCH AT ALL TIMES. WHERE PIPE MUST BE PLACED IN HIGH GROUNDWATER CONDITIONS THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRENCH DEWATERING METHODS IN THE CONSTRUCTION TO ENSURE PROPER INSTALLATION OF ALL FRESH WATER AND DRAINAGE PIPES.
 8. 3-INCH WIDE X 5-MIL DETECTABLE WARNING TAPE SHALL BE PLACED 12-INCHES ABOVE ALL WATER SERVICE PIPES, FIRE SERVICE PIPES, FRESH WATER PIPES AND DRAINAGE PIPES. THE WARNING TAPE FOR ALL WATER LINES SHALL BE BLUE IN COLOR AND SHALL BE MARKED "WATER PIPE BELOW". DETECTABLE WARNING TAPE FOR DRAINAGE PIPE INSTALLATIONS SHALL BE GREEN AND MARKED "SEWER PIPE BELOW".
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRENCH IN COMPLIANCE WITH THE NDOT ENCROACHMENT PERMIT, OSHA TRENCH REQUIREMENTS, AND CURRENT STATE AND CITY OF ELKO REQUIREMENTS FOR TRENCHING AND EXCAVATION.
 10. PIPE BEDDING MATERIAL AND PIPE BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED TO A MINIMUM COMPACTION OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D1557.
 11. THE CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY 4-INCH Ø AND 10-INCH Ø DUCTILE IRON PIPE SPOOLS IN PLACE OF THE PRESSURE REDUCING AND SUSTAINING VALVES AND STRAINER ASSEMBLIES. THE PIPE SPOOLS SHALL BE INSTALLED AT THIS TIME AND THE PRV/PSV ASSEMBLIES AND STRAINERS SHALL BE INSTALLED IN THE FUTURE BY THE CITY OF ELKO WHEN THE CITY'S FUTURE ELEVATION 5600 PRESSURE ZONE IS PERMITTED, CONSTRUCTED, AND PLACED IN OPERATION. THE PROJECT CONTRACTOR SHALL PURCHASE AND PROVIDE THE HIGH FLOW AND LOW FLOW PRESSURE REDUCING AND SUSTAINING VALVE ASSEMBLIES ALONG WITH ALL THE VALVES AND FITTINGS SHOWN ON THIS DETAIL SHEET.

COMBINATION PRESSURE REDUCING AND SUSTAINING VALVE STATION SYSTEM OPERATING PRESSURES AND MAXIMUM RATED FLOWS:

A. SYSTEM OPERATING PRESSURE UPSTREAM FROM PRV	= 150 PSI
B. PRESSURE REDUCING VALVE DOWNSTREAM SET PRESSURE	= 62 PSI
C. VALVE UPSTREAM SUSTAINING PRESSURE SET PRESSURE	= 100 PSI
D. 10-INCH Ø PR & PS VALVE FLOW RATING:	35 GPM MIN. - 4,900 GPM MAX.
E. 4-INCH Ø PR & PS VALVE FLOW RATING:	4 GPM MIN. - 800 GPM MAX.

**ERRECART BOULEVARD / SR227
PRESSURE REDUCING VALVE STATION**
SCALE: NONE

DATE	9/14/2022
APP	FSK
DATE	10/10/2022
REVISED FOR REVIEW	FSK
DATE	10/28/2022
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DATE	
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REVISED FOR REVIEW	

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FERRON S. KENKINS
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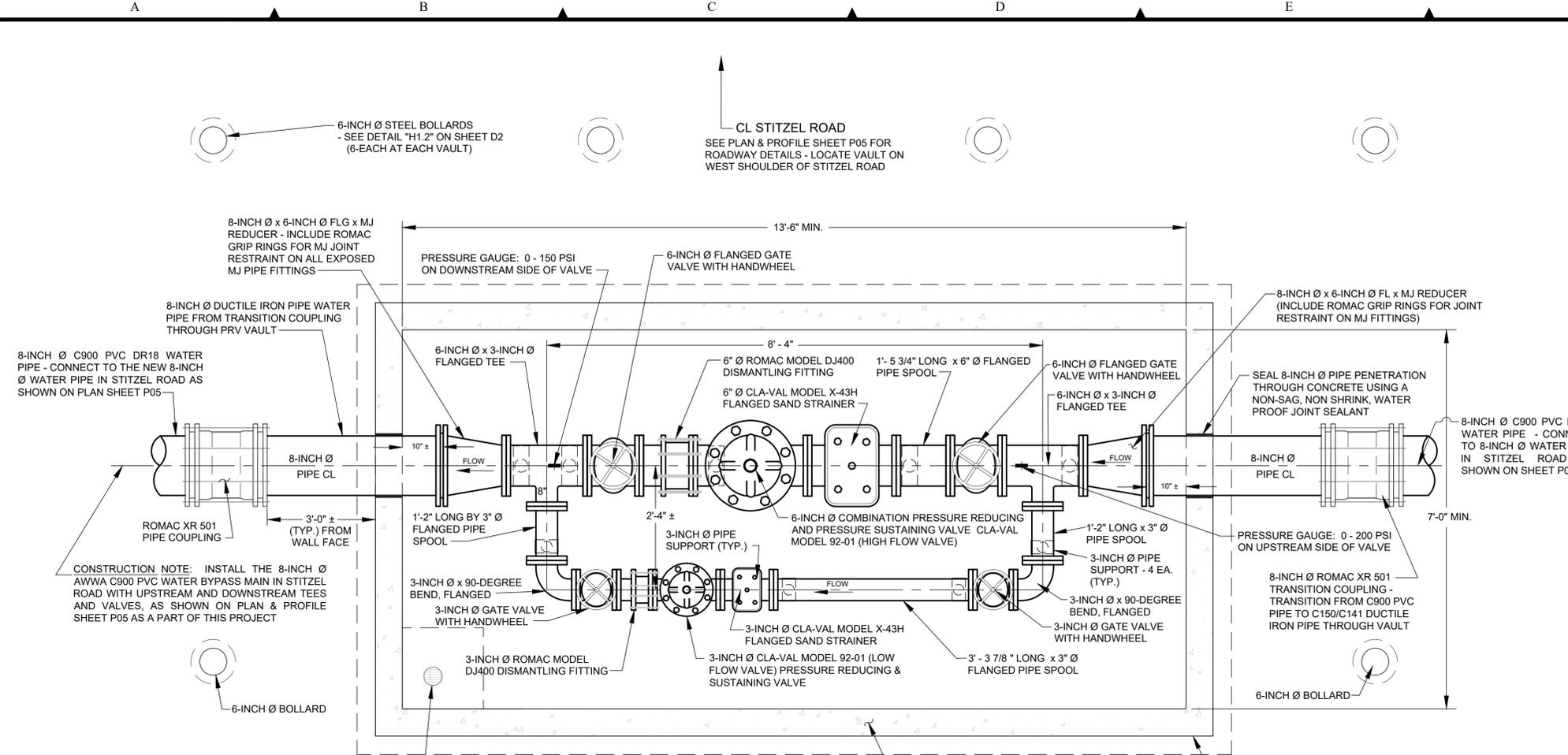
HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
CITY OF ELKO
PWP EL-2022-450
DETAIL SHEETS
ERRECART PRESSURE REDUCING VALVE STATION
CITY OF ELKO

DRAWING NUMBER

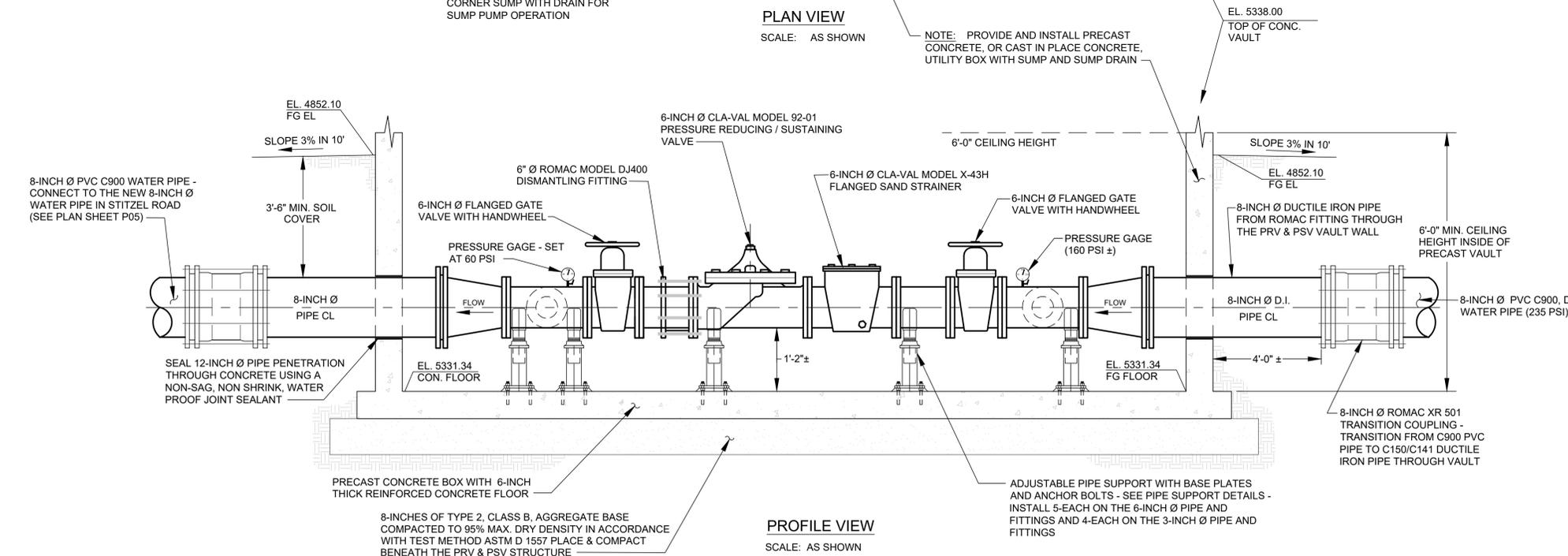
D04.1
13 OF 15

BID PLAN SET

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\ERRECART PRESSURE REDUCING VALVE.dwg
PLOT DATE: Nov 26, 2022 3:44pm



PLAN VIEW
SCALE: AS SHOWN



PROFILE VIEW
SCALE: AS SHOWN

STITZEL ROAD PRESSURE REDUCING & SUSTAINING VALVE ASSEMBLY NOTES:

1. THE COMBINATION PRESSURE REDUCING & SUSTAINING VALVE ASSEMBLY SHALL BE PLACED ON THE STITZEL ROAD GRAVEL SHOULDER, AS SHOWN ON PROJECT PLAN AND PROFILE SHEET P05. THE PRECAST VAULT HOUSING THE VALVE ASSEMBLY SHALL BE AS SPECIFIED AND SHALL NOT BE LOCATED WITHIN THE ROADWAY VEHICLE TRAVELED WAY. PLACE THE ASSEMBLY OUTSIDE THE ROADWAY TRAVEL SURFACES ON THE ROADWAY SHOULDER.
2. THE PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE ASSEMBLY SHALL BE CONSTRUCTED PARALLEL TO THE NEW 8-INCH DIAMETER ANSII/AWWA C900 PVC WATER PIPE INSTALLED IN STITZEL ROAD AND SHALL BE EQUIPPED WITH THREE (3) 8-INCH Ø SHUTOFF VALVES WITH VALVE BOXES LOCATED IN SPRUCE ROAD TO DIRECT MUNICIPAL WATER FLOW THROUGH THE PRESSURE REDUCING AND SUSTAINING VALVE ASSEMBLIES OR THROUGH THE 8-INCH Ø PIPE IN STITZEL ROAD THAT WILL BYPASS THE PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE VAULT (AS SHOWN ON PLAN AND PROFILE SHEET P05 OF THE PLANS).
3. THE COMBINATION PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE ASSEMBLY SHALL BE EQUIPPED WITH A LOW FLOW (3-INCH Ø) AND A HIGH FLOW (6-INCH Ø) PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE, AS SHOWN. THE LOW FLOW VALVE SHALL BE A 3-INCH Ø CLA-VAL MODEL 92-01 PRESSURE REDUCING AND SUSTAINING VALVE AND THE HIGH FLOW PRESSURE REDUCING AND SUSTAINING VALVE SHALL BE A 6-INCH Ø CLA-VAL MODEL 92-01 (OR APPROVED EQUAL PRESSURE REDUCING & SUSTAINING VALVE) AS SHOWN.
4. INSTALL 8-INCH Ø ROMAC XR-501 PIPE TRANSITION COUPLINGS UPSTREAM AND DOWNSTREAM FROM THE PRESSURE REDUCING AND SUSTAINING VALVE STATION VAULT TO TRANSITION FROM ANSII/AWWA C900 PVC PIPE TO THE DUCTILE IRON WATER PIPE SHOWN INSIDE THE PRECAST CONCRETE VAULT. INSTALL ROMAC DJ400 DISMANTLING JOINTS AS SHOWN INSIDE THE PRESSURE REDUCING AND SUSTAINING VAULT. ALL DUCTILE IRON AND STEEL PIPE FLANGES SHOWN SHALL BE RATED FOR A MINIMUM 300 PSI WORKING PRESSURE. THE PRESSURE REDUCING VALVE AND STRAINER FLANGES SHALL BE ANSI 300 LB FLANGES. ALL PIPE FLANGES SHALL BE IN ACCORDANCE WITH STANDARD ASME/ANSI B16.5 (FOR PIPE 1/2" - 12" INCH THROUGH 24-INCHES IN DIAMETER) AND ASME/ANSI B16.47 (FOR PIPE 26-INCHES THROUGH 60-INCHES IN Ø). ALL WATER PIPE, VALVES, FITTINGS, VALVE ACCESSORY PORTS AND CONTROL SYSTEM COMPONENTS THAT ARE IN CONTACT WITH THE MUNICIPAL POTABLE WATER SUPPLY SHALL BE ANSII/NSF 61 AND 372 CERTIFIED COMPLIANT.
5. THE PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE VAULT INSIDE MINIMUM CLEAR DIMENSIONS SHALL BE 13'-0" LONG BY 7'-0" WIDE (MINIMUM CLEARANCES) TO PROVIDE 2-FOOT OF CLEARANCE AROUND ALL PIPE FITTINGS AND VALVES. THE PRECAST CONCRETE VAULT SHALL BE AS MANUFACTURED BY JENSEN PRECAST OF SPARKS, NEVADA; DURACRETE PRECAST OF SALT LAKE CITY, UTAH; OR OLDCASTLE (AMCOR) PRECAST. THE PRECAST CONCRETE VAULT FOR THE PRESSURE REDUCING AND SUSTAINING VALVE STATION SHALL BE MANUFACTURED TO SUPPORT AN HS-20 VEHICLE LOADING. THE PRV AND PSV VAULT PRECAST ROOF SHALL BE EQUIPPED WITH A 3'-0" BY 5'-0" LOCKING DOUBLE ACCESS DOOR THAT LOCKS IN THE OPEN POSITION AND IS LOCATED ABOVE THE PRESSURE REDUCING AND SUSTAINING VALVES FOR ACCESS.
6. THE CONTRACTOR SHALL PROVIDE AND INSTALL 6-INCH Ø STEEL BOLLARDS ALONG THE TRAFFIC ACCESS SIDE AND THE ENDS OF THE PRECAST CONCRETE PRESSURE REDUCING AND SUSTAINING VALVE VAULT. A TOTAL OF 6-BOLLARDS SHALL BE INSTALLED AT EACH VAULT TO PROVIDE VEHICLE PROTECTION ON BOTH ENDS OF THE VAULT AND ALONG THE STITZEL ROAD TRAVELED WAY. SEE DETAIL H1.2 ON SHEET D02 FOR THE TYPICAL BOLLARD CONSTRUCTION DETAIL.
7. PIPE BEDDING MATERIAL SHALL BE CLEAN SAND BACKFILL MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 200.03.02 CLASS A BACKFILL OF THE REFERENCED PROJECT "STANDARD SPECIFICATIONS".
8. THE INTERMEDIATE BACKFILL MATERIAL SHALL BE NATIVE SOIL MATERIAL MEETING THE GENERAL REQUIREMENTS OF SUBSECTION 200.03.06 CLASS E BACKFILL OF THE REFERENCED PROJECT "STANDARD SPECIFICATIONS".
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A DRY TRENCH AT ALL TIMES. WHERE PIPE MUST BE PLACED IN HIGH GROUNDWATER CONDITIONS THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRENCH DEWATERING METHODS IN THE CONSTRUCTION TO ENSURE PROPER INSTALLATION OF ALL POTABLE WATER AND VAULT DRAINAGE PIPES.
10. 3-INCH WIDE BY 5-MIL DETECTABLE WARNING TAPE SHALL BE PLACED 12-INCHES ABOVE ALL WATER SERVICE PIPES, FIRE SERVICE PIPES, POTABLE WATER PIPES AND DRAINAGE PIPES. THE WARNING TAPE FOR POTABLE WATER LINES SHALL BE BLUE IN COLOR AND SHALL BE MARKED "WATER PIPE BELOW". DETECTIBLE WARNING TAPE FOR DRAINAGE PIPE INSTALLATIONS SHALL BE GREEN AND MARKED "SEWER (DRAINAGE) PIPE BELOW".
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRENCH IN COMPLIANCE WITH ALL CURRENT CITY OF ELKO, STATE OF NEVADA, AND OSHA REQUIREMENTS FOR TRENCHING AND EXCAVATION.
12. PIPE BEDDING MATERIAL AND PIPE BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED TO A MINIMUM COMPACTION OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHODS ASTM D1556 AND ASTM D1557.
13. ALL WATER PIPE, VALVES, FITTINGS AND WATER SERVICE LINES SHALL BE PROPERLY FLUSHED AND DISINFECTED IN ACCORDANCE WITH THE REQUIREMENTS SHOWN IN NAC 445A AND STANDARD ANSII/AWWA C651-05. SEE THE CURRENT NAC 445A REQUIREMENTS FOR DISINFECTION OF WATER PIPES AND FITTINGS AND SEE THE GENERAL NOTES SHOWN ON PLAN SHEET G03 FOR MORE INFORMATION ON PIPE PRESSURE TESTING AND DISINFECTION.

THE PRESSURE REDUCING & PRESSURE SUSTAINING VALVE STATION SYSTEM OPERATING PRESSURES AND DESIGN FLOW RATES ARE SHOWN BELOW:

A.	FUTURE SYSTEM OPERATING PRESSURE UPSTREAM FROM PRV = 160 PSI ±
B.	PRESSURE REDUCING VALVE DOWNSTREAM SET PRESSURE = 60 PSI
C.	THE PRESSURE SUSTAINING VALVE SET PRESSURE SHALL = 95 PSI ±
D.	THE 6-INCH Ø PRV & PSV VALVE DESIGN FLOW RATES: 10 GPM MIN. - 1,800 GPM MAX.
E.	THE 3-INCH Ø PRV & PSV VALVE DESIGN FLOW RATES: 2 GPM MIN. - 460 GPM MAX.

FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\VERECART PRESSURE REDUCING SUSTAINING VALVE.dwg
PLOT DATE: Nov 26, 2022 - 3:55pm

DATE	9/14/2022	DATE	10/10/2022	DATE	10/28/2022
APP	FSK	REVISED FOR REVIEW	FSK	REVISED FOR REVIEW	FSK
BY	FSK	REVISION	FSK	REVISION	FSK
DESCRIPTION		REVISION		REVISION	
		B		C	
		C		D	
		D			

JOB NO.:	4001.083	DESIGNED:	KMP
DATE:	OCT. 26, 2022	DRAWN:	PJB
SCALE:	AS SHOWN	CHECKED:	FSK

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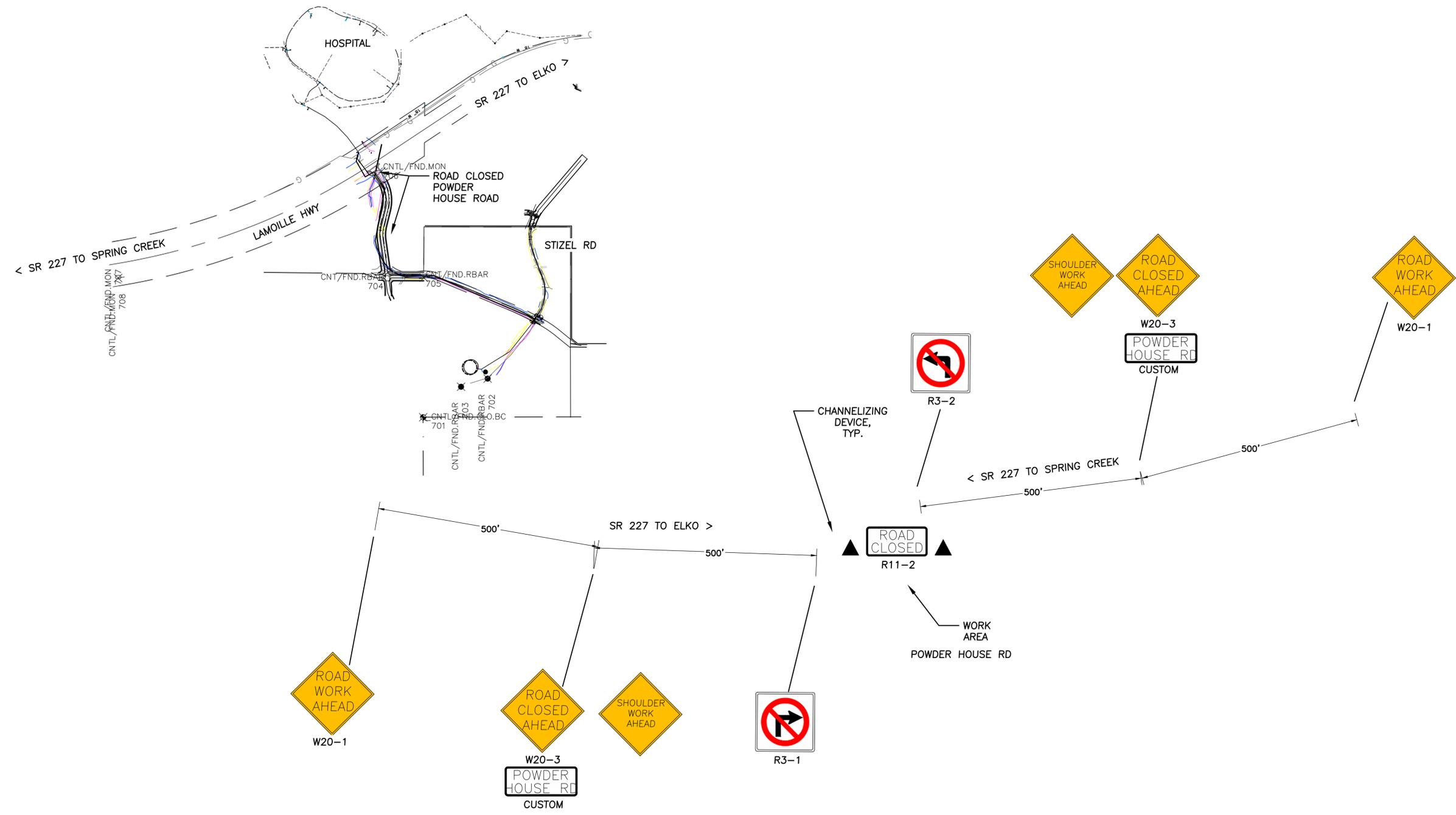
REGISTERED PROFESSIONAL ENGINEER
FERRON S. KONAKIS
EXP. 06/30/23
CIVIL
No. 7242
Nevada State Board of Professional Engineers

HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
FOR CITY OF ELKO
PWP EL-2022-450
DETAIL SHEETS
STITZEL PRESSURE REDUCING SUSTAINING VALVE DETAIL
NEVADA
CITY OF ELKO

STITZEL ROAD 6-INCH DIAM. PRESSURE REDUCING SUSTAINING VALVE
SCALE: AS SHOWN

BID PLAN SET

D04.2
14 OF 15



NDOT TRAFFIC CONTROL

SCALE: NTS



NOTES:

1. TRAFFIC CONTROL DETAIL PER MUTCD AND NDOT STANDARDS.
2. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. PLAN SHALL ADDRESS CONSTRUCTION IMPACTS TO VEHICLES AND PEDESTRIANS.

REVISION	DESCRIPTION	BY	APP	DATE
B	REVISED FOR REVIEW	FSK	FSK	9/14/2022
C	REVISED FOR REVIEW	FSK	FSK	10/10/2022
D	BID PLAN REVISION	FSK	FSK	10/28/2022

JOB NO.:	4001.083
DATE:	OCT. 28, 2022
SCALE:	AS SHOWN
DESIGNED:	KMP
DRAWN:	PJB
CHECKED:	FSK

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REGISTERED PROFESSIONAL ENGINEER
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HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT
 FOR
 CITY OF ELKO
 PWP EL-2022-450
 DETAIL SHEETS
 TRAFFIC CONTROL
 NEVADA
 CITY OF ELKO

DRAWING NUMBER

BID PLAN SET

D05
 15 OF 15