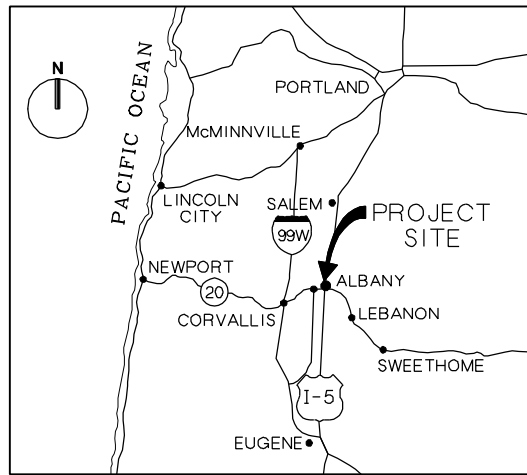


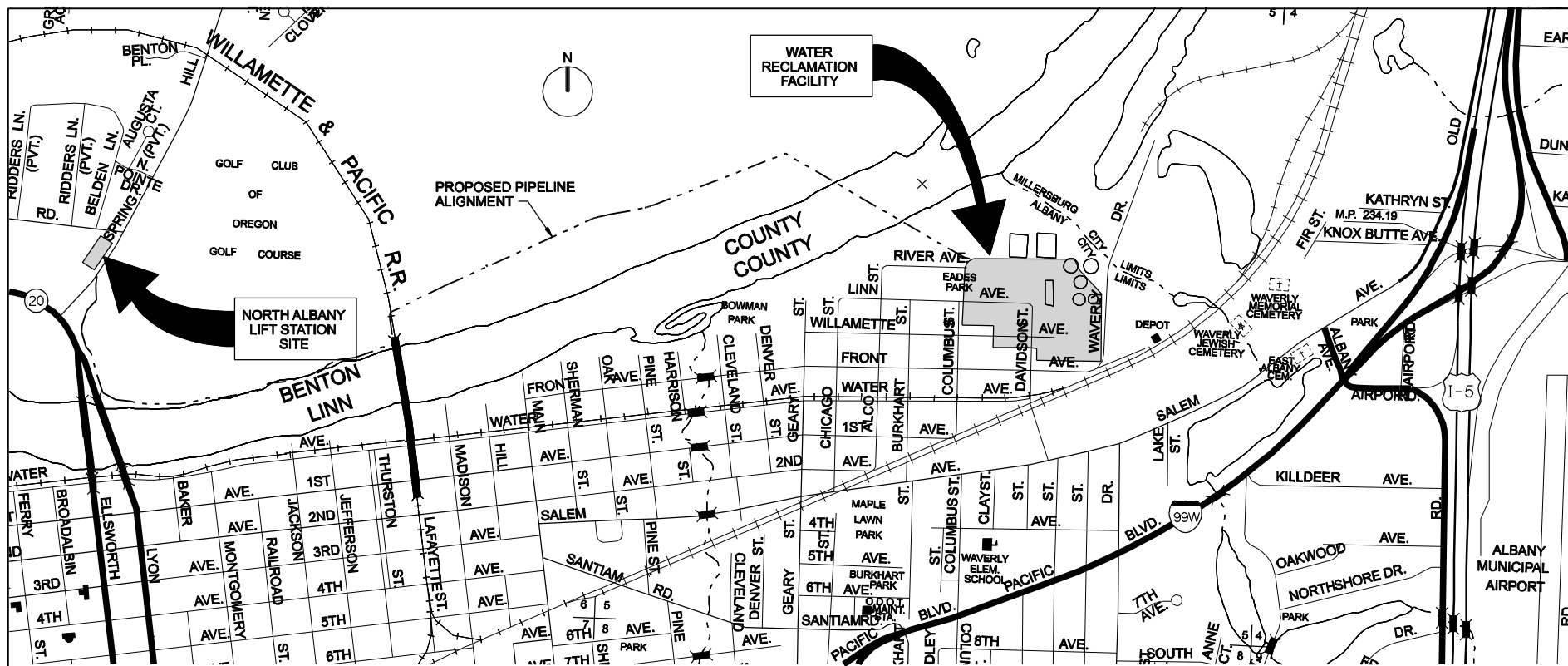
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS

FOR THE CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON



LOCATION MAP

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.



VICINITY MAP

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THE CONTRACT DOCUMENTS, DRAWINGS, AND SPECIFICATIONS WHICH DEFINE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK, AND THE DESIGN AND CONSTRUCTION REQUIREMENTS, SHALL BE THE BASIS FOR THE WORK. THIS DRAWING WAS PREPARED AND SIGNED FEBRUARY 10, 2009 BY KANDIL MAESTRI, STATE OF OREGON, P.E. NO. 53786PE.

RECORD DRAWINGS	REVISION	CHK	APVD	DR	ER BROWN	KL MAESTRI	CW MASSIE
NO. DATE	DSGN	05/2010	05/2010	05/2010	05/2010	05/2010	05/2010

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

GENERAL INDEX TO DRAWINGS AND LOCATION AND VICINITY MAPS

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-01
SHEET	001

A AMMETER, AMPERES, AWNINGS
 AB ANCHOR BOLT, ABOVE
 ABDN ABANDON
 AC ACOUSTICAL, ACOUSTICAL CEILING
 AC ALTERNATING CURRENT
 AC ASPHALTIC CONCRETE
 ACFL ACCESS FLOORING
 ACI AMERICAN CONCRETE INSTITUTE
 ACMU ACOUSTICAL CONCRETE MASONRY UNIT, ACOUSTICAL CMU
 ACP ACOUSTICAL PANELS
 ACST ACOUSTICAL
 ACT ACOUSTICAL TILE
 AD AREA DRAIN
 ADDL ADDITIONAL
 ADJ ADJACENT
 AFD ADJUSTABLE FREQUENCY DRIVE
 AFF ABOVE FINISHED FLOOR
 AFG ABOVE FINISHED GRADE
 AG ACOUSTICAL, ACOUSTICAL GLASS
 AGGR AGGREGATE
 AHR ANCHOR
 AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION
 AJ ADJUSTABLE
 AL ALUMINUM
 ALKY ALKALINITY
 ALTN ALTERNATE
 AM AUTO-MANUAL
 AMRD ACOUSTICAL METAL ROOF DECKING
 ANDZ ANODIZE
 APPROX APPROXIMATE
 APVD APPROVED
 ARCH ARCHITECTURAL
 AR ANALOG RELAY
 AS AS SELECTED
 ATS AUTOMATIC TRANSFER SWITCH
 AUTO AUTOMATIC
 AUX AUXILIARY
 AVG AVERAGE
 @

B BELL
 BAL BALANCE
 BC BOTTOM OF CURB, BOLT CIRCLE
 BDD BACK DRAFT DAMPER
 BETW BETWEEN
 BF BLIND FLANGE
 BFV BUTTERFLY VALVE
 BL BASELINE
 BFP BACKFLOW PREVENTER
 BLDG BUILDING
 BLK BLOCK
 BM BEAM, BENCHMARK
 BO BOTTOM OF
 B.O.B. BOTTOM OF BEAM
 BOD BOTTOM OF DUCT
 BOP BOTTOM OF PIPE
 BOT BOTTOM
 BRG BEARING
 BRK BRICK
 BRKR BREAKER
 BSP BLACK STEEL PIPE
 BV BALL VALVE, BLOCK VENT
 BVC BEGINNING OF VERTICAL CURVE

C CONDUIT, CASEMENT
 °C DEGREE CELSIUS
 C TO C CENTER TO CENTER
 CAB CABINET
 CB CATCH BASIN, CIRCUIT BREAKER
 CC CONTROL CABLE
 CCP CENTRAL CONTROL PANEL
 CCS CENTRAL CONTROL SYSTEM
 CD CARBON DIOXIDE
 CDF CONTROLLED DENSITY FILL
 CE CONSTRUCTION ENTRANCE
 CFM CUBIC FEET PER MINUTE
 CFS CUBIC FEET PER SECOND
 CHEM CHEMICAL
 CHKD CHECKERED
 CI CAST IRON
 CIP CAST IRON PIPE, CAST IN PLACE
 CIP CULVERT INLET PROTECTION
 CISP CAST IRON SOIL PIPE
 CJ CONSTRUCTION JOINT
 CJP COMPLETE JOINT PENETRATION
 CKT CIRCUIT
 CL, C CENTERLINE
 CLDIP CEMENT LINED DUCTILE IRON PIPE
 CLG CEILING
 CMP CENTRAL MONITORING PANEL
 CMP CORRUGATED METAL PIPE
 CMU CONCRETE MASONRY UNIT
 CNTR COUNTER
 CO CLEANOUT, CARBON MONOXIDE
 COL COLUMN, COLOR
 CONC CONCRETE
 COND CONDENSATE
 CONDTN CONDITIONED
 CONN CONNECTION
 CONSTR CONSTRUCTION
 CONT CONTINUED, CONTINUOUS, CONTINUATION
 CONTR CONTRACTOR
 COORD COORDINATE
 COP COPPER
 CP CENTER PIVOT
 CP-X CONTROL PANEL NO. X
 CPLG COUPLING
 CPRSR COMPRESSOR
 CPT CONTROL POWER TRANSFORMER, CARPET
 CPVC CHLORINATED PVC
 CR CONTROL RELAY
 CRS COLD ROLLED STEEL
 CRS CONSTRUCTION ROAD STABILIZATION
 CT CERAMIC TILE
 CT CURRENT TRANSFORMER
 CTC COMPUTER TERMINAL CABINET
 CTR CENTER
 CTRD CENTERED
 CTSK COUNTERSUNK
 CU CUBIC
 CU FT CUBIC FOOT
 CU IN CUBIC INCH
 CUH COPPER TUBING, HARD DRAWN
 CV CHECK VALVE
 CW DOMESTIC COLD WATER
 CWR PROCESS COOLING WATER RETURN, CABINET DOOR MOUNTED WASTE RECEPTACLE
 CWS PROCESS COOLING WATER SUPPLY
 CY, CU YD CUBIC YARD

D DEEP, DRAIN
 d PENNY NAIL SIZE
 DA DUAL ACTION
 DAS DATA ACQUISITION SYSTEM

DBA DEFORMED BAR ANCHOR
 DBL DOUBLE
 DC DIRECT CURRENT
 DEG DEGREE
 DEMO DEMOLITION
 DET DETAIL
 DF DOUGLAS FIR, DRINKING FOUNTAIN
 DDI DROP INLET
 DH DOUBLE HUNG
 DI DUCTILE IRON
 DIA DIAMETER
 DIAG DIAGONAL
 DIP DUCTILE IRON PIPE
 DIR DIRECTION
 DISCH DISCHARGE
 DN DOWN
 DO DISSOLVED OXYGEN
 DOL DIRECT-ON-LINE
 DP, DPNL DISTRIBUTION PANEL
 DR DIMENSION RATIO
 DR DOOR
 DS DOWNSPOUT
 DV DIAPHRAGM VALVE
 DWG DRAWING
 DWL DOWEL
 △ DELTA
 E EAST, EASTING, EMPTY
 EA EACH, EXHAUST AIR
 EB, EBCT EMPTY BED CONTACT TIME
 ECC ECCENTRIC
 EE EMERGENCY EYEWASH
 EF EACH FACE, EXHAUST FAN
 EFF EFFICIENCY, EFFICIENT
 EFL EFFLUENT
 EIFS EXTERIOR INSULATION AND FINISH SYSTEM
 EL ELEVATION
 ELB ELBOW
 ELC ELECTRICAL LOAD CENTER
 ELEC ELECTRIC, ELECTRICAL
 ENGR ENGINEER
 EP EXPLOSION PROOF, EDGE OF PAVING
 EQL EQUAL
 EXP EXPOSED STRUCTURE
 EQL SP EQUALLY SPACED
 EQPT EQUIPMENT
 ESEW EMERGENCY SHOWER / EYE WASH
 ESC EROSION AND SEDIMENTATION CONTROL
 ETM ELAPSED TIME METER
 EVC END OF VERTICAL CURVE
 EW EACH WAY
 EWC ELECTRIC WATER COOLER
 EXH EXHAUST
 EXP EXPANSION, EXPOSED
 EXP AB EXPANSION ANCHOR BOLT
 EXP JT EXPANSION JOINT
 EXST EXISTING
 EXT EXTERIOR
 °F DEGREE FAHRENHEIT
 F, FU FUSE
 F, FX FIXED
 FAP FIRE ALARM PANEL
 FC FLEXIBLE CONDUIT
 FCA FLANGED COUPLING ADAPTER
 FCL2 FREE CHLORINE RESIDUAL
 FCO FLOOR CLEANOUT
 FCTY FACTORY
 FDN FLOOR DRAIN
 FDN FOUNDATION
 FDR FEEDER
 FEXT FIRE EXTINGUISHER
 FF FINISHED FLOOR
 FG FINISH GRADE, FLOAT GLASS
 FH FLAT HEAD

FHY FIRE HYDRANT
 FIG FIGURE
 FL FLOW LINE
 FLG FLANGE
 FL FLOOR
 FLEX FLEXIBLE
 FLH FLAT HEAD
 FLTR FILTER
 FLUOR FLUORESCENT
 FNSH FINISH
 FO FIBEROPTICS
 FOB FLAT ON BOTTOM
 FOT FLAT ON TOP
 FP FIELD PANEL
 FPM FEET PER MINUTE
 FR FORWARD REVERSE
 FRP FIBERGLASS REINFORCED PLASTIC
 FSHS FOLDING SHOWER SEAT
 FT FOOT OR FEET
 FTG FOOTING
 FU FIXTURE UNIT
 FVNR FULL VOLTAGE NON-REVERSING
 FVR FULL VOLTAGE REVERSING
 FWD FORWARD
 G, GND GROUND
 GA GAUGE
 GAL GALLON
 GALV GALVANIZED
 GB GYPSUM BOARD
 GC GROOVED COUPLING
 GCMU GLAZED CONCRETE MASONRY UNITS
 GFI GROUND FAULT INTERRUPTER
 GFR GOUND FAULT RELAY
 GH GREENHOUSE
 GL GLASS
 GPD GALLONS PER DAY
 GPH GALLONS PER HOUR
 GPM GALLONS PER MINUTE
 GPS GLOBAL POSITION SYSTEM
 GRTG GRATING
 GSB GYPSUM SOFFIT BOARD
 GSP GALVANIZED STEEL PIPE
 GV GATE VALVE
 GVL GRAVEL
 GWB GYPSUM WALLBOARD
 GYP GYPSUM
 H HIGH, HORN OR HOWLER
 H₂S HYDROGEN SULFIDE
 H.A.S. HEADED ANCHOR STUD
 HC HOLLOW CORE WOOD
 HCL HYDROCHLORIC ACID
 HDD HORIZONTAL DIRECTIONAL DRILL
 HDNR HARDENER
 HDNS HARDNESS
 HDPE HIGH DENSITY POLYETHYLENE
 HDR HEADER
 HDW HARDWARE
 HGL HYDRAULIC GRADE LINE
 HK HOOK
 HGT HEIGHT
 HH HANDHOLE
 HID HIGH INTENSITY DISCHARGE
 HK HOOK
 HM HOLLOW METAL
 HOA HAND-OFF-AUTO
 HOR HAND-OFF-REMOTE

HORIZ HORIZONTAL
 HP HORSEPOWER, HYDRONIC HEAT PUMP
 HPT HIGH POINT
 HR HOSE RACK, HANDRAIL
 HRC HEAT RECOVERY COIL
 HV HOSE VALVE
 HVAC HEATING, VENTILATING AND AIR CONDITIONING
 HW DOMESTIC HOT WATER
 HWC DOMESTIC HOT WATER CIRCULATION
 HWL HIGH WATER LEVEL
 IC INTERRUPTING CAPACITY
 ID INDUCED DRAFT, INSIDE DIAMETER
 IE INVERT ELEVATION
 I.F. INSIDE FACE
 IG INSULATING, INSULATING GLASS
 IN INCH
 INCAND INCANDESCENT
 INFL INFLUENT
 INJS INJECTIONS
 INST INSTANTANEOUS
 INSTM INSTRUMENT, INSTRUMENTATION
 INSUL INSULATION
 INVT INVERT
 IP INLET PROTECTION, INSTRUMENTATION PANEL
 IPS IRON PIPE SIZE
 IRRIG IRRIGATION
 ITG INSULATED TEMPERED GLASS
 ITX ISOLATION TRANSFORMER
 IU INTAKE UNIT
 IW IRRIGATION WELL
 JA JAL-AWNING
 JB JUNCTION BOX
 JAN JANITOR
 JCT JUNCTION
 JT JOINT
 K KEY GROUP, KEY INTERLOCK
 KIP THOUSAND POUNDS
 KIT KITCHEN
 K-PL KICKPLATE
 KSK KITCHEN SINK
 KV KILOVOLTS
 KVA KILOVOLT AMPERES
 KVAR KILOVOLT AMPERES REACTIVE
 KW KILOWATT

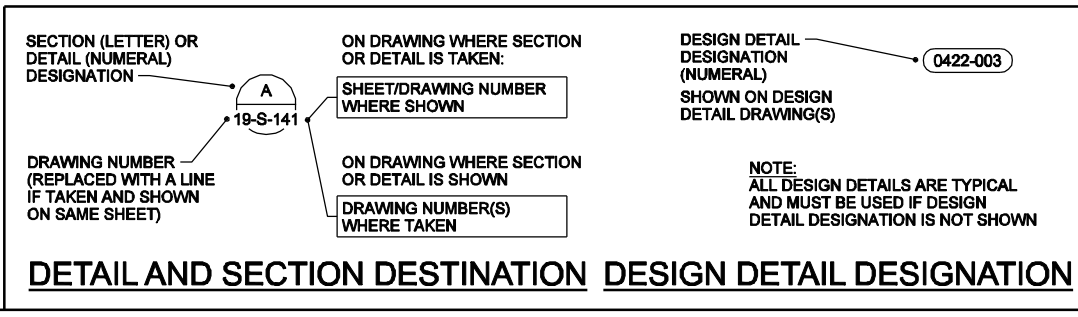
- NOTES:**
1. THIS IS A STANDARD SHEET, THEREFORE SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE USED ON THE PROJECT.
 2. CONTACT CONSULTING ENGINEER FOR ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.
 3. FOR ADDITIONAL ABBREVIATIONS OF OTHER DIVISIONS (PLUMBING, CIVIL, HVAC, ELECTRICAL, INSTRUMENTATION AND CONTROL, MECHANICAL, AND STRUCTURAL/ARCHITECTURAL), SEE OTHER LEGENDS.

THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED FROM THE ORIGINAL DRAWING. THE SCOPE, EXTENT, AND CHARACTER OF THE WORK, AS INDICATED BY THE DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DRAWINGS WERE SEEN AND APPROVED BY MAESTRI, STATE OF OREGON, P.E. NO. 53786PE.

RECORD DRAWINGS	JMD	KLM	BY	APVD
REVISION	CHK	APVD	ER BROWN	KL MAESTRI
NO.	DATE	DR	ER BROWN	CW MASSIE
06/2010				

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

CH2MHILL	
GENERAL	STANDARD ABBREVIATIONS SHEET 1
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-02
SHEET	002



DETAIL AND SECTION DESTINATION DESIGN DETAIL DESIGNATION

L ANGLE, LENGTH
 LA LIGHTNING ARRESTER
 LAB LABORATORY
 LAM LAMINATE
 LAT LATTITUDE
 LB POUND
 LC LIGHTING CONTACTOR
 LD COMBINATION LOUVER/DAMPER
 LDG LOADING DOCK
 LEL LOWER EXPLOSIVE LIMIT
 LF LINEAR FEET
 LG LONG
 LH LEFT HAND
 LHR LEFT HAND REVERSE
 LLH LONG LEG HORIZONTAL
 LLV LONG LEG VERTICAL
 LONG LONGITUDINAL
 LOS LOCK-OUT STOP PUSHBUTTON
 LP LIGHT POLE, LIGHTING PANEL
 LPT LOW POINT
 LR LATCHING RELAY
 LR LOCAL-REMOTE
 LR LONG RADIUS
 LS LABORATORY SINK
 LTG, LTS LIGHTS OR LIGHTING
 LTX LIGHTING TRANSFORMER
 LWL LOW WATER LEVEL

N NORTH, NORTHING, NEUTRAL
 NA NOT APPLICABLE
 NC NORMALLY CLOSED
 NEUT NEUTRAL
 NA NON-AUTOMATIC
 NGVD NATIONAL GEODETIC VERTICAL DATUM
 NIC NOT IN CONTRACT
 N.O. NORMALLY OPEN
 NO, # NUMBER
 NOM NOMINAL
 NP NON-PROTECTED
 NPCW NON-POTABLE COLD WATER
 NPHW NON-POTABLE HOT WATER
 NPT NATIONAL PIPE THREADS
 NS NON-SHRINK
 NTS NOT TO SCALE

PLYWD PLYWOOD
 PNL PANEL
 PP POWER POLE
 P-P PUSH-PULL
 PPL POLYPROPYLENE LINED
 PR PAIR
 PRCST PRECAST
 PREFAB PREFABRICATION
 PRES PRESSURE
 PRI PRIMARY
 PRM PERMANENT REFERENCED MARKER
 PROJ PROJECTION
 PROP PROPERTY
 PS PLASTIC SHEET, POLYCARBONATE SHEET
 PS PAINT SYSTEM
 PSF POUNDS PER SQUARE FOOT
 PSI POUNDS PER SQUARE INCH
 PSIG POUNDS PER SQUARE INCH, GAUGE
 PT POINT OF TANGENCY
 PT POTENTIAL TRANSFORMER
 PT PRESSURE TREATED
 PTD PAPER TOWEL DISPENSER
 PTN PARTITION
 PV PLUG VALVE
 PVC POLYVINYL CHLORIDE
 PVI POINT OF VERTICAL INTERSECTION
 PVMT PAVEMENT
 PVT POINT OF VERTICAL TANGENCY

S I-BEAM
 S SLOPE, SOUTH, SWITCH
 SA SUPPLY AIR
 SATC SUSPENDED ACCUSTICAL TILE CEILING
 SB SEDIMENT BASIN
 SC SHOWER CURTAIN, SOLID CORE WOOD
 SCAV SEWAGE COMBINATION AIR VALVE
 SCC SOLID CORE
 SCFM STANDARD CUBIC FEED PER MINUTE
 SCHED SCHEDULE
 SCU SPEED CONTROL UNIT
 SD STORM DRAIN
 SDP SUB-DISTRIBUTION PANEL
 SDWK SIDEWALK
 SEC SECONDARY
 SECT SECTION
 SED SEDIMENTATION
 SEW SEWAGE
 SG LAMINATED SAFETY GLASS, SAFETY
 SGWB SUSPENDED GYPSUM WALL BOARD
 SH SHEET
 SHA SURFACE HARDENING AGENT
 SHS SOLIDS HANDLING SYSTEM
 SIM SIMILAR
 SK SINK
 SLR SEALER
 SLV SLEEVE
 SMLS SEAMLESS EPOXY
 SOI SPRAY- ON INSULATION
 SOLN SOLUTION
 SP SPACE OR SPACES, SPANDREL PANEL, STORMPROOF SPECIFICATIONS

THK THICKNESS
 THRU THROUGH
 TJB TERMINAL JUNCTION BOX
 TL TEFLON LINED PIPE
 T.O. TIME TO OPEN, TOP OF
 TOAE TIME OPEN AFTER ENERGIZATION
 TOC TOP OF CONCRETE
 TOD TIME ON DELAY, TOP OF DUCT, TOTAL OXYGEN DEMAND
 TOF TOP OF FOOTING
 TOG TOP OF GROUT
 TOS TOP OF STEEL
 T.O.W. TOP OF WALL
 TP TURNING POINT
 TR TRANSOM, TRUSS
 TRANS TRANSFORMER, TRANSITION
 TRANSV TRANSVERSE
 TRD TREAD
 TS TEMPORARY SEEDING, TUBE STEEL
 TSHT THRESHOLD
 TSS TOTAL SUSPENSION SOLIDS
 TST TOP OF STEEL
 TTC TELEPHONE TERMINAL CABINET
 TTD TOILET TISSUE DISPENSER
 TU-X TREATMENT UNIT NO. X
 TURB TURBIDITY
 TWP TRANSLUCENT WALL PANEL
 TX TRANSFORMER
 TYP TYPICAL

MA MANUAL-AUTO
 MAS MASONRY
 MATL MATERIAL
 MAX MAXIMUM
 MB MACHINE BOLT
 MC MASONRY CLEARANCE
 MC MODULATE-CLOSE
 MCC MOTOR CONTROL CENTER
 MDO MEDIUM DENSITY OVERLAY
 MECH MECHANICAL
 MFD MANUFACTURED
 MFR MANUFACTURER
 MGD MILLION GALLONS PER DAY
 MH MANHOLE, MOUNTING HEIGHT
 MIN MINIMUM
 MISC MISCELLANEOUS
 MJ MECHANICAL JOINT
 MLO MAIN LUGS ONLY
 MMP MECHANICAL MOUNTING PANEL
 MO MANUAL OPERABLE, MASONRY OPENING
 MOD MOTOR OPERATED DAMPER
 MP METAL PANEL
 MPU MULTIPURPOSE UNIT
 MS MANUFACTURER'S STANDARD
 MSC MANUFACTURER SUPPLIED CABLE
 MSR GROUPED MOTOR CONTROL
 MT MOUNT
 MTD MOUNTED
 MTG MOUNTING
 MTS MANUAL TRANSFER SWITCH
 MTS MILL TYPE STEEL PIPE
 MU MULCHING
 MV MERCURY VAPOR
 MWS MAXIMUM WATER SURFACE

O₂ OXYGEN
 OA OVERALL, ODEROUS AIR
 OC ON CENTER
 OC OPEN-CLOSE (O)
 OCA OPEN-CLOSE-AUTO
 OCR OPEN-CLOSE-REMOTE
 OD OUTSIDE DIAMETER, OVERFLOW DRAIN
 O.F. OUTSIDE FACE
 OFCI OWNER FURNISHED, CONTRACTOR INSTALLED
 OFOI OWNER FURNISHED, OWNER INSTALLED
 OG OBSCURE
 OL OVERLOAD RELAY
 OO ON-OFF
 OOA ON-OFF-AUTO
 OOR ON-OFF-REMOTE
 OP OPAQUE PANEL, OUTLET PROTECTION
 OPER OPERATOR
 OPNG OPENING
 OPP OPPOSITE
 OSA OUTSIDE AIR
 OSC OPEN-STOP-CLOSE
 OSD OPEN SITE DRAIN
 OWSJ OPEN WEB STEEL JOIST
 OZ OUNCE

QAA AVERAGE FLOW
 QMM MAXIMUM 30 DAY FLOW
 QPI PEAK INSTANTANEOUS FLOW
 QPP PEAK PUMPING FLOW
 QT QUARRY TILE

SPEC, SPECS SPECIFICATIONS
 SPG SPACING
 SPLY SUPPLY
 SQ SQUARE
 SQ FT SQUARE FOOT, FEET
 SQ IN SQUARE INCH
 SR SHORT RADIUS
 SS START-STOP, SANITARY SEWER
 SSL SHORT SLOTTED HOLE
 SST STAINLESS STEEL
 SSC SUPERVISORY SET POINT CONTROL
 ST STRAIGHT
 STA STATUS
 STD STANDARD
 STIF STIFFENER
 STIRR STIRRUP
 STL STEEL
 STRL STRUCTURAL
 STRUCT STRUCTURE
 SUBFL SUBFLOOR
 SUSP SUSPENDED
 SV SOLENOID VALVE
 SVIN SHEET VINYL
 SWBD SWITCHBOARD
 SWGR SWITCHGEAR
 SYMM SYMMETRICAL

V VENT, VALVE
 V VOLTMETER, VOLTS
 VB VAPOR BARRIER (RETARDER)
 VC VERTICAL CURVE
 VCP VITRIFIED CLAY PIPE
 VCT VINYL COMPOSITION TILE
 VEL VELOCITY
 VERT VERTICAL
 VHC VOLATILE HYDROCARBONS
 VIB VIBRATION
 VIN VINYL
 VINT, VT VINYL TILE
 VP VERTICAL PIVOTED
 VPS VENEER PLASTER SYSTEM
 VPC POINT OF VERTICAL CURVATURE
 VPI POINT OF VERTICAL INTERSECTION
 vpt POINT OF VERTICAL TANGENT
 VS VERTICAL SLIDE
 VTR VENT THRU ROOF
 VWC VINYL WALL COVERING

P PROJECTED
 P PILASTER, PIPE
 PAVT PAVER TILE
 PB PUSHBUTTON SWITCH
 PC POINT OF CURVE, PHOTOCCELL
 PC PRECAST CONCRETE PANEL
 PCCP PRECAST CONCRETE CYLINDER PIPE
 PCR POINT OF CURB RETURN
 PCV PRESSURE CONTROL VALVE
 PE PLAIN END
 PED PEDESTAL, PEDESTRIAN
 PEP POLYETHYLENE PIPE
 PEN. PENETRATION
 PFC POUNDS PER CUBIC FOOT
 PH PENTHOUSE
 pH HYDROGEN ION CONCENTRATION
 PHASE PHASE
 PI POINT OF INTERSECTION
 PIT PILOT TUBE TEST STATION
 PJF PREMOULDED JOINT FILLER
 PL PLATE (STEEL)
 PL PROPERTY LINE
 PLAM PLASTIC LAMINATE
 PLAS PLASTER, PLASTIC
 PLC PROGRAMMABLE LOGIC CONTROLLER

R RISER
 R OR RAD RADIUS
 RA RETURN AIR
 RC REINFORCED CONCRETE
 RCP REINFORCED CONCRETE PIPE
 RCPT RECEPTACLE
 RD ROAD, ROOF DRAIN
 RDCR REDUCER
 RDW REDWOOD
 RECIR RECIRCULATION
 REF REFER OR REFERENCE
 REFR REFRIGERATE, REFRIGERANT
 REINF REINFORCED, REINFORCING, REINFORCE
 REQD REQUIRED
 RESIL RESILIENT
 RFS ROLL-UP FIRE SHUTTER
 RG REFLECTIVE
 RH RIGHT HAND
 RH RODHOLE
 RHR RIGHT HAND REVERSE
 RL RAIN LEADER
 RLS RUBBER LINED STEEL
 RM ROOM
 RMJ RESTRAINED MECHANICAL JOINT
 RO ROUGH OPENING
 ROL RAISE-OFF-LOWER
 RP RADIUS POINT
 RPBP REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTER
 RPM REVOLUTIONS PER MINUTE
 RR RIPRAP
 RRUB RADIAL RUBBER
 RS RIGID STEEL
 RST REINFORCING STEEL
 RTN RETURN
 RTO REGENERATIVE THERMAL OXIDIZER
 RUB RUBBER
 RUBC RUBBER CUSHIONED FLOORING
 RUBS RUBBER ESD CONTROL FLOORING
 RW RIGHT OF WAY

R R
 R OR RAD R
 RA R
 RC R
 RCP R
 RCPT R
 RD R
 RDCR R
 RDW R
 RECIR R
 REF R
 REFR R
 REINF R
 REQD R
 RESIL R
 RFS R
 RG R
 RH R
 RH R
 RHR R
 RL R
 RLS R
 RM R
 RMJ R
 RO R
 ROL R
 RP R
 RPBP R
 RPM R
 RR R
 RRUB R
 RS R
 RST R
 RTN R
 RTO R
 RUB R
 RUBC R
 RUBS R
 RW R

T TANGENT
 T THERMOSTAT, TREAD
 T&B TOP AND BOTTOM
 T&G TONGUE AND GROOVE
 TA TRANSFER AIR
 TAN TANGENT
 TB TERMINAL BOARD
 TBG TUBING
 TC TIME TO CLOSE
 TC TOP OF CURB
 TC TURBIDITY CURTAIN
 TCAD TIME CLOSE AFTER DE-ENERGIZATION
 TCAE TIME CLOSE AFTER ENERGIZATION
 TDH TOTAL DYNAMIC HEAD
 TDR TIME DELAY RELAY
 TECH TECHNICAL
 TEL TELEPHONE
 TEMP TEMPORARY, TEMPERATURE
 TFP TOP FACE
 TFG TEMPERED FLOAT GLASS
 TG TEMPERED
 TH TOP-HINGED
 THD THREAD

UON UNLESS OTHERWISE NOTED
 UNO UNLESS NOTED OTHERWISE
 UPS UNINTERRUPTIBLE POWER SUPPLY
 USB UNIT SUBSTATION
 UVR UNDER VOLTAGE RELAY

W WATER
 WITH WITH
 WEASTRIP WEATHERSTRIP
 WG WIRE, WIRE GLASS
 WH WATTHOUR METER
 WHD WATTHOUR DEMAND METER
 WP WATERPROOF, WEATHERPROOF, WORKPOINT
 WR WASTE RECEPTACLE
 WRB WATER RESISTANT GWB
 WS WATER SURFACE, WATERSTOP, WELDED STEEL

W W
 WITH W
 WEASTRIP W
 WG W
 WH W
 WHD W
 WP W
 WR W
 WRB W
 WS W

W W
 WITH W
 WEASTRIP W
 WG W
 WH W
 WHD W
 WP W
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W W
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W W
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 WR W
 WRB W
 WS W

NOTES:
 1. THIS IS A STANDARD SHEET, THEREFORE SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE USED ON THE PROJECT.
 2. CONTACT CONSULTING ENGINEER FOR ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.
 3. FOR ADDITIONAL ABBREVIATIONS OF OTHER DIVISIONS (PLUMBING, CIVIL, HVAC, ELECTRICAL, INSTRUMENTATION AND CONTROL, MECHANICAL, AND STRUCTURAL/ARCHITECTURAL), SEE OTHER LEGENDS.

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THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED DOCUMENTS WHICH DEFINE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK. THE ORIGINAL DRAWINGS AND DOCUMENTS SHALL BE KEPT AND SIGNED FEBRUARY 15, 2002 BY: MARK J. MERKLEIN, STATE OF OREGON, P.E. NO. 58672.

APVD	BY	APVD
CHK	CHK	CHK
DR	DR	DR
NO.	DATE	NO.
DSGN	DSGN	DSGN

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

CH2MHILL

GENERAL STANDARD ABBREVIATIONS SHEET 2

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 0 1'

DATE
 PROJ 326918PL
 DWG 01-G-03
 SHEET 003

GENERAL SITE NOTES:

- SOURCE OF TOPOGRAPHY SHOWN ON THE CIVIL PLANS ARE BASE MAPS PROVIDED BY K & D ENGINEERING. ADDITIONAL MAPPING HAS BEEN ADDED FROM AS-BUILT DATA. EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING CONSTRUCTION.
- EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.
- HORIZONTAL DATUM: BASED ON CITY OF ALBANY GPS POINTS.
- VERTICAL DATUM: NGVD 1929, CITY OF ALBANY GPS POINT #93627, CAP ELEV 192.69.
- MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
- STAGING AREA SHALL BE FOR CONTRACTOR'S EMPLOYEE PARKING, CONTRACTOR'S TRAILERS AND ON-SITE STORAGE OF MATERIALS.
- PROVIDE TEMPORARY FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
- UNLESS SHOWN DIFERENTLY, ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE SEEDED PER SPECIFICATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. EROSION CONTROL DEVICES (3125-140), (3125-155), (3125-165) AND (3125-186) ARE THE MINIMUM REQUIRED.
- CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE. CONTRACTOR TO SUBMIT EROSION CONTROL PLAN, SEE SPECIFICATION SECTION 01 57 13.

GENERAL YARD PIPING AND UTILITIES NOTES:

- EXISTING UNDERGROUND UTILITIES OBTAINED FROM AS-BUILTS AND FROM FIELD SURVEY. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION PRIOR TO EXCAVATION. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- EXISTING PIPING AND EQUIPMENT ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW PIPING AND EQUIPMENT ARE SHOWN HEAVY-LINED.
- UNLESS OTHERWISE SHOWN ALL PIPING SHALL HAVE A MINIMUM OF 3' COVER.
- FOR TRENCHING AND BACKFILL, SEE RD300.
- FOR SURFACE RESTORATION, SEE RD300 AND RD302.
- MINIMUM ALLOWABLE CLEARANCE BETWEEN PIPES AT CROSSINGS SHALL BE 3". CONTROLLED DENSITY FILL SUPPORT IS REQUIRED AS SHOWN ON (3123-120).
- PROVIDE TONING WIRE ACCESS BOX WITH MARKER POST AT MAXIMUM SPACING OF 500 FEET, SEE (05-CP-502) AND (05-CP-502).
- FOR FLOW STREAM ID'S, SEE DWG 01-G-09.
- TREES TO BE TAKEN DOWN FOR CONSTRUCTION ARE TO BE APPROVED BY THE CITY OF ALBANY.

GENERAL NOTE:

- THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

CIVIL LEGEND

EXISTING	THIS CONTRACT	
		SPOT ELEVATION
		CONTOUR LINE
		EMBANKMENT AND SLOPE
		DRAINAGWAY OR DITCH
		CATCH BASIN OR INLET
		TRENCH DRAIN
		SIGN
		MANHOLE
		ELECTRICAL MANHOLE
		ELECTRIC HANDHOLE
		POST OR GUARD POST
		GUY ANCHOR
		FIRE HYDRANT
		UTILITY POLE
		LIGHT POLE
		BENCH MARK
		SURVEY CONTROL POINT OR POINT OF INTERSECTION
		BRUSH/TREE LINE
		TREE
		PROPERTY LINE
		CENTER LINE, BUILDING, ROAD, ETC.
		STAGING OR WORK AREA LIMITS
		STRUCTURE, BUILDING OR FACILITY LOCATION POINT - COORDINATES
		BORING LOCATION AND NUMBER
		TEST PIT LOCATION AND NUMBER
		PIEZOMETER LOCATION AND NUMBER
		DEMOLITION
		STRUCTURE, BUILDING OR FACILITY
		ASPHALT CONCRETE PAVEMENT
		GRAVEL SURFACING
		CONCRETE PAVEMENT
		CURB
		CURB AND GUTTER
		SINGLE SWING GATE
		DOUBLE SWING GATE
		SLIDING GATE
		GUARD RAIL
		CHAIN LINK FENCE
		ARCHITECTURAL FENCE
		WIRE FENCE
		CULVERT

YARD PIPING LEGEND

EXISTING	THIS CONTRACT	
		NOMINAL PIPE DIAMETER PIPE USE IDENTIFICATION
		PIPING < 30" DIAMETER
		PIPING >= 30" DIAMETER
		EXISTING PIPE TO BE ABANDONED
		EXISTING PIPE TO BE REMOVED
		NON-FREEZE HOSE VALVE (V-X) X = NO. IN SPECIFICATIONS
		NON-FREEZE HOSE VALVE WITH HOSE RACK (V-X) X = NO. IN SPECIFICATIONS
		INDICATOR POST VALVE
		GATE VALVE AND VALVE BOX
		BUTTERFLY VALVE AND VALVE BOX
		PLUG VALVE AND VALVE BOX
		FLEXIBLE COUPLING
		90° ELBOW UP
		90° ELBOW DOWN
		BEND < 90° UP
		BEND < 90° DOWN
		CONCENTRIC REDUCER
		CAP OR PLUG
		CLEANOUT
		FIRE HYDRANT

THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED DOCUMENTS WHICH DEFINE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK. THE ORIGINAL CONTRACT DOCUMENTS SHALL BE KEPT AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 137708.

RECORD DRAWINGS	REVISION	CHK	APVD
05/2010	DATE	DR	NO.
JA BOOTH	SR REDDELL	DJ PETERSON	CW MASSIE

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
GENERAL
CIVIL LEGEND
AND GENERAL NOTES

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-04
SHEET	004

DESIGN CRITERIA

1. APPLICABLE CODES:

2006 (INTERNATIONAL BUILDING CODE) IBC, AS AMENDED BY THE STATE OF OREGON AND LOCAL AGENCIES.

2. REFER TO THE DRAWINGS FOR ADDITIONAL AND SPECIFIC STRUCTURE LOADINGS AND REQUIREMENTS.

3. ROOF LOADS:

GROUND SNOW LOAD, P_g	13 PSF
SURFACE ROUGHNESS	B
C_e	1.1
C_t	1.1
I	0.8
FLAT ROOF SNOW LOAD, P_f	9 PSF
MIN FLAT ROOF SNOW LOAD, P_{fmin}	25 PSF
LIVE LOAD	20 PSF

4. WIND LOAD:

ASCE 7-05 METHOD	1
BASIC WIND SPEED (3-SECOND GUST)	94.5 MPH
EXPOSURE	C
OCCUPANCY CATEGORY	II
I	1.0

COMPONENTS AND CLADDING DESIGNED FOR WIND PRESSURE IN ACCORDANCE WITH ASCE 7-05 FIGURE 6-3.

5. SEISMIC LOAD:

MAPPED SPECTRAL RESPONSE ACCELERATIONS	
S_s	0.789g
S_1	0.344g

DESIGN SPECTRAL RESPONSE ACCELERATIONS	
S_{DS}	0.623g
S_{D1}	0.392g

SITE CLASS	D
OCCUPANCY CATEGORY	II
SEISMIC DESIGN CATEGORY	D
I	1.0

6. SOIL DESIGN PARAMETERS:

A. NET ALLOWABLE SOIL BEARING PRESSURES..... 1,500 PSF

7. FROST DEPTH..... 18 INCHES

GENERAL INFORMATION

- FOR ABBREVIATIONS NOT LISTED, SEE ASME Y14.38 "ABBREVIATIONS AND ACRONYMS: PUBLICATION AS DISTRIBUTED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME).
- DESIGN DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS OCCURRING THROUGHOUT THE PROJECT, WHETHER OR NOT THEY ARE INDIVIDUALLY CALLED OUT.
- DETAILING AND DIMENSIONS OF EXISTING STRUCTURES SHOWN ARE BASED ON AS-BUILT DESIGN DRAWINGS, AND DO NOT NECESSARILY REPRESENT THE AS-CONSTRUCTED CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND DETAILING OF THE EXISTING STRUCTURES PRIOR TO FABRICATION OF ADJACENT FRAMING OR CONNECTIONS THAT ARE AFFECTED BY THE EXISTING STRUCTURE.
- VERIFY OPENING DIMENSIONS IN WALLS, SLABS, AND DECKS WITH OTHER DISCIPLINE DRAWINGS.
- FOR NUMBER, TYPE, SIZE, ARRANGEMENT, AND/OR LOCATION OF EQUIPMENT PADS SEE OTHER DISCIPLINE DRAWINGS. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO PLACING SLABS, WALLS AND FOUNDATIONS. COORDINATE PIPING OPENINGS WITH OTHER DISCIPLINE DRAWINGS.
- CUT NO STRUCTURAL MEMBERS FOR PIPES, DUCTS, ETC, UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.
- VISITS TO THE JOB SITE BY THE ENGINEER TO OBSERVE THE CONSTRUCTION DO NOT IN ANY WAY MEAN THAT ENGINEER IS GUARANTOR OF CONSTRUCTOR'S WORK, NOR RESPONSIBLE FOR THE COMPREHENSIVE OR SPECIAL INSPECTIONS, COORDINATION, SUPERVISION, OR SAFETY AT THE JOB SITE.
- SPECIFIED CONCRETE TESTING DURING CONSTRUCTION WILL BE OWNER FURNISHED. SPECIFIED LABORATORY TEST MIXES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

FOUNDATIONS

- EXCAVATIONS SHALL BE SHORED TO PREVENT SUBSIDENCE OR DAMAGE TO ADJACENT EXISTING STRUCTURES, STREETS, UTILITIES, ETC.
- ALL FOUNDATION SLABS, SLABS-ON-GRADE AND WALL AND COLUMN FOUNDATIONS SPECIFICALLY NOTED TO BE ON FILL SHALL BEAR ON COMPACTED GRANULAR FILL AS SPECIFIED.
- ALL FOUNDATION BEARING SURFACES SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.

FORMWORK, SHORING AND BRACING

- STRUCTURES SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED FOR STABILITY UNDER FINAL CONDITIONS ONLY. DESIGN SHOWN DOES NOT INCLUDE NECESSARY COMPONENTS OR EQUIPMENT FOR STABILITY OF THE STRUCTURES DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATING TO CONSTRUCTION ERECTION METHODS, BRACING, SHORING, RIGGING, GUYS, SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS REQUIRED TO SAFELY PERFORM THE WORK SHOWN.

CONCRETE REINFORCING

- CLEARANCE FOR REINFORCEMENT BARS, UNLESS SHOWN OTHERWISE, SHALL BE:
WHEN PLACED ON GROUND.....3"
ALL OTHER CONCRETE SURFACES.....2"
- 90 DEGREE BENDS, UNLESS OTHERWISE SHOWN, SHALL BE ACI 318 STANDARD HOOKS.
- LOCATE SLAB AND BEAM TOP BAR SPLICES AT MIDSPAN AND BOTTOM BAR SPLICES AT SUPPORTS.
- REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:

CONCRETE DESIGN STRENGTH = 4,000 PSI GRADE 60 REINFORCING STEEL										
BAR SIZE		#3	#4	#5	#6	#7	#8	#9	#10	#11
LAP SPLICE LENGTH										
SPACING < 6"	TOP BAR *	1'-4"	2'-0"	3'-0"	4'-0"	5'-10"	6'-8"	7'-7"	8'-6"	9'-5"
	OTHER BAR	1'-4"	1'-7"	2'-4"	3'-1"	4'-6"	5'-2"	5'-10"	6'-7"	7'-3"
SPACING >= 6"	TOP BAR *	1'-4"	1'-6"	2'-0"	2'-5"	3'-6"	4'-0"		6'-2"	7'-5"
	OTHER BAR	1'-4"	1'-4"	1'-7"	1'-10"	2'-9"	3'-1"	3'-10"	4'-8"	5'-8"
EMBEDMENT LENGTH										
SPACING < 6"	TOP BAR *	1'-0"	1'-7"	2'-4"	3'-1"	4'-6"	5'-2"	5'-10"	6'-7"	7'-3"
	OTHER BAR	1'-0"	1'-3"	1'-9"	2'-5"	3'-6"	4'-0"	4'-6"	5'-1"	5'-7"
SPACING >= 6"	TOP BAR *	1'-0"	1'-3"	1'-7"	1'-10"	2'-9"	3'-1"	3'-10"	4'-8"	5'-8"
	OTHER BAR	1'-0"	1'-0"	1'-3"	1'-5"	2'-1"	2'-5"	3'-0"	3'-8"	4'-5"

* TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.

CONCRETE

- 28-DAY CAST-IN-PLACE CONCRETE STRENGTHS:
TYPICAL..... 4000 PSI
- REINFORCING STEEL:
TYPICAL..... ASTM A615, GRADE 60
- FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CRSI MSP-1 "MANUAL OF STANDARD PRACTICE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
- THE CONTRACTOR SHALL COORDINATE PLACEMENT OF OPENINGS, CURBS, DOWELS, SLEEVES, BOLTS AND INSERTS PRIOR TO PLACEMENT OF CONCRETE.
- NO ALUMINUM CONDUIT OR PRODUCTS CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO THE CONCRETE SHALL BE EMBEDDED IN THE CONCRETE.
- CONDUIT SHALL NOT BE PLACED PARALLEL WITH BEAM OR COLUMN REINFORCEMENT UNLESS SPECIFICALLY INDICATED IN DRAWINGS.

WELDING

- WELDS SHALL CONFORM TO AMERICAN WELDING SOCIETY (AWS), LATEST EDITION:
D1.1, STRUCTURAL WELDING CODE - STEEL
- REPAIR WELDS FOUND DEFECTIVE IN ACCORDANCE WITH AWS D1.1 5.26.

STRUCTURAL STEEL & METAL FABRICATIONS

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

W - SHAPES	A992
MISCELLANEOUS SHAPES INCLUDING ANGLES, CHANNELS, PLATES, ETC.	A36
SQUARE OR RECTANGULAR STEEL TUBING	A500, GRADE B

2. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, CURRENT EDITION, AND CURRENT OSHA STANDARDS.

3. BOLTS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:

UNLESS SHOWN OTHERWISE	A325-N
ANCHOR BOLTS (AB):	
STAINLESS STEEL	F593, AISI TYPE 316, CONDITION CW
GALVANIZED STEEL	F1554, GR 36 / A153
MACHINE BOLTS (MB)	A307

4. ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.

5. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. NO CUTTING OR BURNING OF STRUCTURAL STEEL IS PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY: MARK J. MERKLEIN, STATE OF OREGON, P.E. NO. 36937.

RECORD DRAWINGS	JMD	KLM	BY	APVD	CW MASSIE
	REVISION	CHK	APVD	MJ MERKLEIN	
05/2010	NO.	DATE	DR	LA ELKINS	
D5GN				GT MALIN	

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

GENERAL
STRUCTURAL NOTES

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-05
SHEET	005

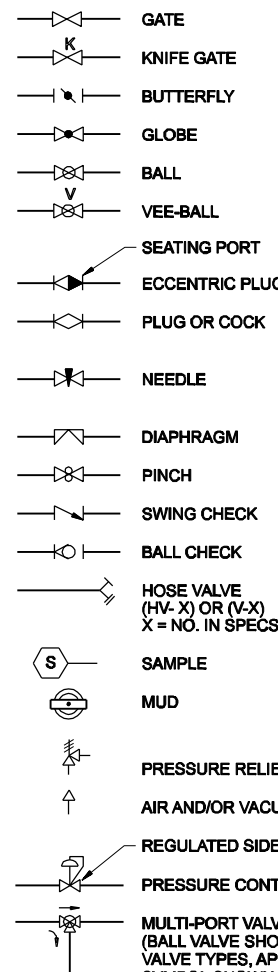
MECHANICAL LEGEND AND NOTES

GENERAL PIPING NOTES

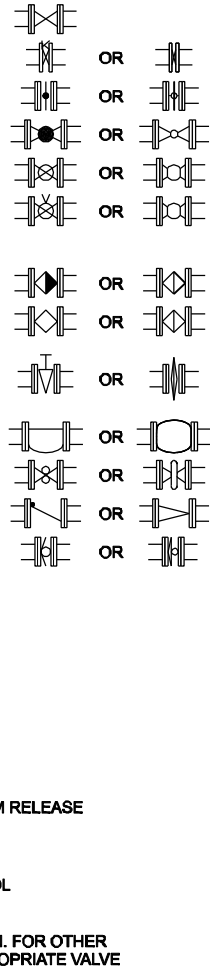
- LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
- SIZE OF FITTINGS SHOWN ON PLANS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
- LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN IS APPROXIMATE. CONTRACTOR SHALL DESIGN SUPPORTS AS SPECIFIED.
- ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL UNLESS OTHERWISE SHOWN.
- ALL FLEXIBLE CONNECTORS OR FLANGED COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST PROTECTION UNLESS OTHERWISE NOTED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
- ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR SCREWED PIPING, SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED, UNLESS OTHERWISE NOTED.
- SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THE PLANS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE NECESSARILY USED IN THE PROJECT.
- NUMBER AND LOCATION OF UNIONS SHOWN ON PLANS IS ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
- WHERE A GROOVED END COUPLING IS SHOWN, IT SHALL BE THE RIGID JOINT TYPE, UNLESS OTHERWISE SPECIFIED. WHERE A FLANGED COUPLING ADAPTER IS SHOWN, A STANDARD FLANGE SHALL BE JOINED TO THE COUPLING ADAPTER.

VALVE SYMBOLS

SINGLE LINE

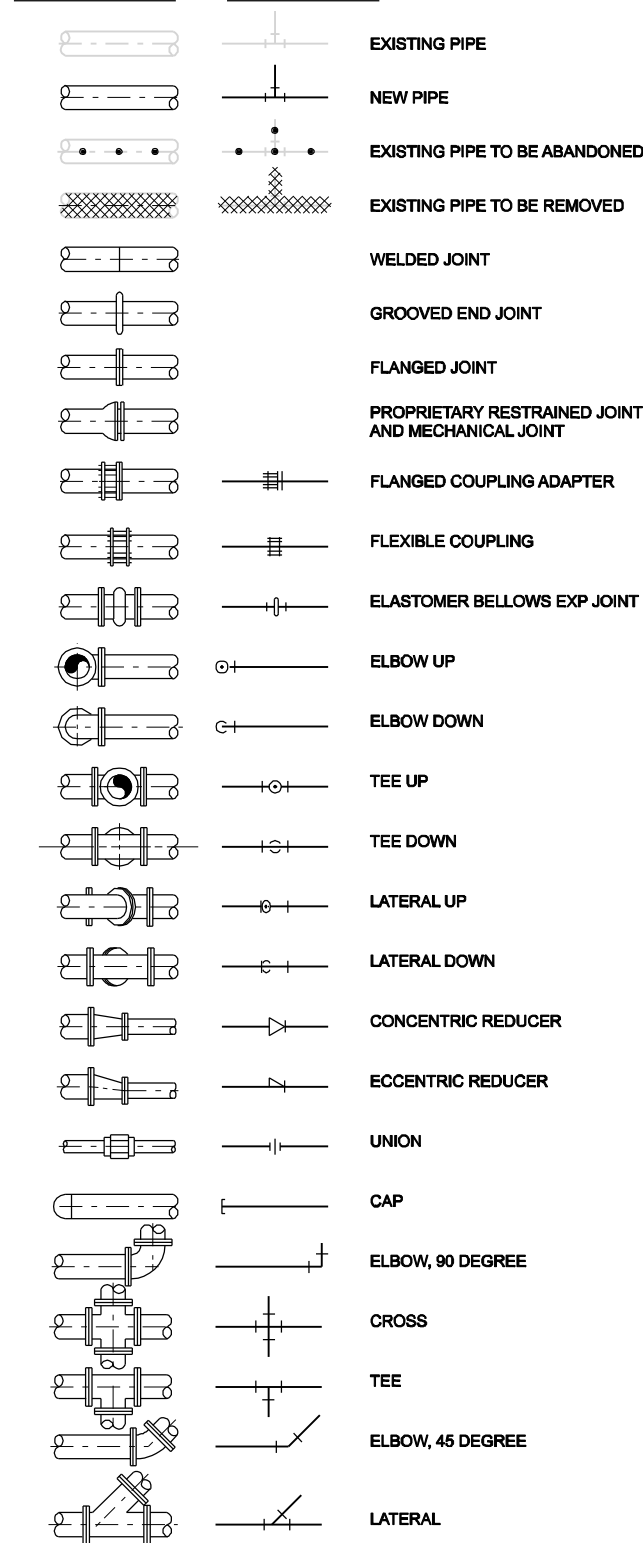


DOUBLE LINE

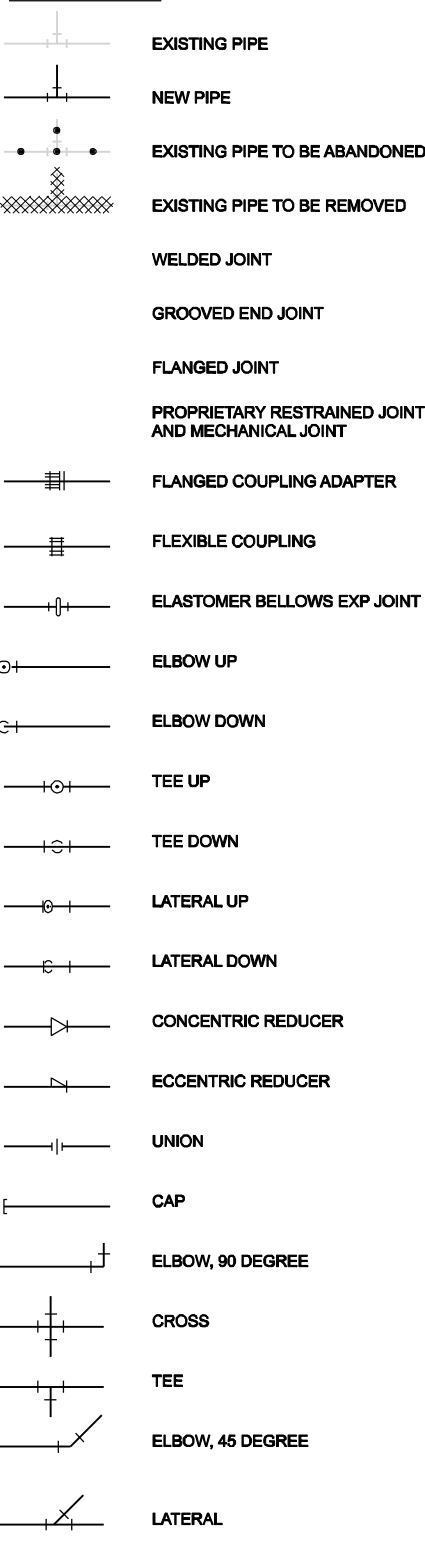


PIPE AND FITTING SYMBOLS

DOUBLE LINE



SINGLE LINE

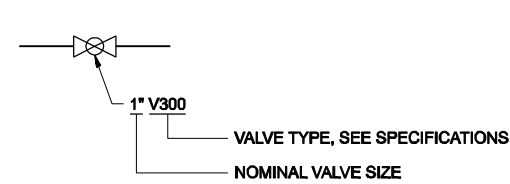


NOTES:

- ONLY FLANGED END CONNECTIONS ARE SHOWN HERE FOR DOUBLELINE FITTINGS. FITTINGS WITH OTHER END PATTERNS ARE SHOWN SIMILARLY ON THE CONSTRUCTION DRAWINGS. ALSO SEE PIPING SPECIFICATIONS.
- SYMBOLS SHOWN HERE FOR SINGLE LINE FITTINGS ARE GENERIC ONLY. REFER TO PIPING SPECIFICATIONS FOR SPECIFIC END CONNECTIONS FOR SINGLE LINE PIPE AND FITTINGS.
- EXISTING PIPE AND EQUIPMENT IS SHOWN LIGHT-LINED AND/OR SCREENED AND IS NOTED AS EXISTING. NEW PIPING AND EQUIPMENT IS SHOWN DARK-LINED.

VALVE DESIGNATIONS

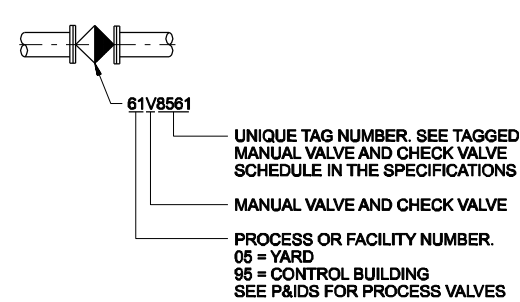
MANUAL VALVES AND CHECK VALVES SMALLER THAN 2 INCH



NOTE:

NOT ALL MANUAL VALVE AND CHECK VALVE TYPES ARE DESIGNATED ON THE DRAWINGS. REFER TO THE MANUAL VALVE AND CHECK VALVE SCHEDULE IN THE SPECIFICATIONS FOR VALVE TYPE APPLICATION TO EACH SERVICE.

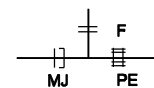
MANUAL VALVES AND CHECK VALVES 2 INCH AND LARGER



PIPE AND FITTING END PATTERNS

B	BELL	PE	PLAIN END
S	SPIGOT	GE	GROOVED END
F	FLANGE	MJ	MECHANICAL JOINT

EXAMPLE:



GENERAL NOTE

THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

DESIGN CRITERIA SUMMARY

NORTH ALBANY FORCE MAIN PUMPS

TYPE	NON-CLOG CENTRIFUGAL
NUMBER OF UNITS	2
RATED CAPACITY/PUMP	2800gpm @ 57ft TDH
HP/PUMP	60
VARIABLE SPEED	YES

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTERISTICS OF THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY MARVIN F. MURRAY, STATE OF OREGON, P.E. NO. 89039E

RECORD DRAWINGS	JMD	KLM	BY	APVD	CW MASSIE
REVISION	CHK	ER BROWN	DR	MF MURRAY	

05/2010	DATE	DJ CHADWICK
	DGN	

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
GENERAL MECHANICAL LEGEND AND DESIGN CRITERIA

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-06
SHEET	006

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	CONNECTION POINT TO EQUIPMENT SPECIFIED. FURNISHED AND INSTALLED UNDER OTHER DIVISIONS. RACEWAY, CONDUCTOR AND CONNECTION SPECIFIED IN DIVISION 16. COORDINATE FINAL CONNECTION WITH EQUIPMENT SUPPLIER.
	MAJOR ELECTRICAL COMPONENT OR DEVICE - NAME OR IDENTIFYING SYMBOL AS SHOWN.
	BRANCH CIRCUIT PANELBOARD
	TELEPHONE TERMINAL CABINET
	COMPUTER TERMINAL CABINET
	TERMINAL JUNCTION BOX
	MOTOR, SQUIRREL CAGE INDUCTION, HORSEPOWER INDICATED ON ONE-LINE DIAGRAM, (M) SHOWN ON PLANS
	LUMINAIRE, SEE SCHEDULE
	LUMINAIRE, UNSWITCHED, SEE SCHEDULE
	LUMINAIRE AND POLE, SEE SCHEDULE
	WALL MOUNTED LUMINAIRE, SEE SCHEDULE
	EMERGENCY LIGHTING UNIT
	EXIT LIGHTS, SEE SCHEDULE
	SMALL LETTER SUBSCRIPT AT SWITCH AND LUMINAIRE INDICATES SWITCHING. SUBSCRIPT NUMBER AT LUMINAIRE INDICATES CIRCUIT IN PANELBOARD.
	OCCUPANCY SENSOR
	HOME RUN - DESTINATION SHOWN
	EXPOSED CONDUIT AND CONDUCTORS*
	CONCEALED CONDUIT AND CONDUCTORS*
NOTE: * ALL UNMARKED CONDUIT RUNS CONSIST OF TWO NO.12 CONDUCTORS IN CONDUIT. RUNS MARKED WITH CROSSHATCHES INDICATE NUMBER OF NO. 12 CONDUCTORS. CROSSHATCH WITH SUBSCRIPT "G" INDICATES GREEN GROUND WIRE. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE.	
	CIRCUIT CALLOUT, [1" C, 3#8, 1#10G] CONDUIT, CONDUCTOR, AND NUMBER INDICATED. 2-13" C, 3-350 KCMIL, 1#1/0G] EA INDICATES TWO CONDUITS, EACH WITH CONDUCTORS INDICATED.
	GROUND TEST WELL
	GROUND ROD
	CONDUIT DOWN
	CONDUIT UP
	CONDUIT, STUBBED AND CAPPED AS SHOWN
	CONCEALED CONDUIT INSIDE BUILDINGS, DIRECT BURIED OUTSIDE BUILDINGS
	HIGH VOLTAGE CONCRETE ENCASED DUCTBANK
	GROUND
	SWITCH:
	DOUBLE POLE
	THREE WAY
	FOUR WAY
	CORROSION RESISTANT
	DIMMER
	KEY OPERATED
	PILOT LIGHT
	WEATHERPROOF
	MOTOR RATED TOGGLE SWITCH WITHOUT OVERLOADS
	MANUAL MOTOR STARTER WITH OVERLOADS
	CONTACT - NORMALLY OPEN WITH NEMA SIZE INDICATED AS APPLICABLE
	CONTACT - NORMALLY CLOSED
	OVERLOADS
	MAGNETIC STARTER WITH NEMA SIZE INDICATED
	CIRCUIT BREAKER, MAGNETIC TRIP ONLY, FRAME SIZE SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	SWITCH - CURRENT RATING INDICATED, 3 POLE UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH WITH PLUG SIZE INDICATED
	FUSE - RATING INDICATED
	DRAWOUT CIRCUIT BREAKER, LOW VOLTAGE
	DRAWOUT CIRCUIT BREAKER, MEDIUM VOLTAGE
	DRAWOUT FUSED SWITCH, MEDIUM VOLTAGE
	SURGE ARRESTER
	CAPACITOR - KVAR INDICATED
	METER WITH SWITCH - SCALE RANGE SHOWN

SYMBOL	DESCRIPTION
	TELEPHONE RECEPTACLE (OUTLET BOX ONLY)
	DATA RECEPTACLE (OUTLET BOX ONLY)
	COMBINATION DATA AND TELCO RECEPTACLE
	GENERAL CONTROL OR WIRING DEVICE. LETTER SYMBOLS OR ABBREVIATIONS INDICATE TYPE OF DEVICE.
	CONTROL STATION, SEE CONTROL DIAGRAMS FOR TYPE.
	CONDUIT FITTING OR JUNCTION BOX
	NONFUSED DISCONNECT SWITCH, 30A, 3 POLE UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH WITH PLUG, SIZE AS INDICATED
	FUSED DISCONNECT SWITCH, SIZE INDICATED (60/40, 80 = SWITCH RATING: 40 = FUSE RATING) 3 POLE UNLESS INDICATED OTHERWISE.
	CONTACTOR, MAGNETIC, NEMA SIZE INDICATED.
	LIGHTING CONTACTOR, CURRENT RATING INDICATED. FOR NUMBER OF POLES, SEE CONTROL DIAGRAM.
	STARTER MAGNETIC NEMA SIZE INDICATED, SEE CONTROL DIAGRAM.
	COMBINATION (FUSE OR CIRCUIT BREAKER AS INDICATED) MAGNETIC STARTER, NEMA SIZE INDICATED, SEE CONTROL DIAGRAM.
	HEAT TRACKING CONNECTION POINT
	METERING FACILITIES
	FIRE ALARM STATION, MANUAL
	FIRE ALARM STROBE
	FIRE ALARM HORN
	FIRE ALARM COMBINATION STROBE/HORN
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM, INTELLIGENT FIRE DETECTOR
	FIRE ALARM HEAT DETECTOR
	EMERGENCY ALARM STATION, MANUAL
	EVACUATION ALARM COMBINATION (FOR GAS AND FAN FAILURE) STROBE/HORN
	EVACUATION ALARM, (FOR GAS AND FAN FAILURE) GO/NO GO LIGHT
	SPRINKLER SYSTEM TAMPER SWITCH
	SPRINKLER SYSTEM FLOW SWITCH
	COMBUSTIBLE GAS DETECTOR
	FAN FAILURE CURRENT SWITCH
	AIR DUCT IONIZATION DETECTOR
	CONTACT - NORMALLY OPEN WITH NEMA SIZE INDICATED AS APPLICABLE
	CONTACT - NORMALLY CLOSED
	OVERLOADS
	MAGNETIC STARTER WITH NEMA SIZE INDICATED
	CIRCUIT BREAKER, MAGNETIC TRIP ONLY, FRAME SIZE SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	SWITCH - CURRENT RATING INDICATED, 3 POLE UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH WITH PLUG SIZE INDICATED
	FUSE - RATING INDICATED
	DRAWOUT CIRCUIT BREAKER, LOW VOLTAGE
	DRAWOUT CIRCUIT BREAKER, MEDIUM VOLTAGE
	DRAWOUT FUSED SWITCH, MEDIUM VOLTAGE
	SURGE ARRESTER
	CAPACITOR - KVAR INDICATED
	METER WITH SWITCH - SCALE RANGE SHOWN

SYMBOL	DESCRIPTION
	GROUND
	TRANSFORMER, SECONDARY VOLTAGES, PHASE AND RATING INDICATED AS APPLICABLE
	PICK-UP SETTING
	TIME CURRENT CHARACTERISTIC
	PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY OPEN
	PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY CLOSED
	NORMALLY CLOSED, TIME DELAY OPENING
	NORMALLY CLOSED, TIME DELAY CLOSING
	NORMALLY OPEN, TIME DELAY CLOSING
	NORMALLY OPEN, TIME DELAY OPEN
	REMOTE DEVICE
	SELECTOR SWITCH - MAINTAINED CONTACT - CHART IDENTIFIES OPERATION:
	CURRENT TRANSFORMER, NUMBER INDICATED
	INDICATING LIGHT, PUSH-TO-TEST, LETTER INDICATES COLOR
	INDICATING LIGHT - LETTER INDICATES COLOR
	GROUND FAULT RELAY WITH CT

CKT	POSITION			X - CLOSED CONTACT O - OPEN CONTACT
	HAND	OFF	AUTO	
1	X	O	O	
2	O	O	X	

ABBREVIATIONS		ABBREVIATIONS	
ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
A	AMMETER, AMPERE, AMBER	M	MAGNETIC CONTACTOR
AF	AMPERE FRAME	COIL	COIL
AFD	ADJUSTABLE FREQUENCY DRIVE	MCC	MOTOR CONTROL CENTER
AFS	ABOVE FINISHED FLOOR	MH	MANHOLE, METAL HALIDE
AG	ABOVE FINISHED GRADE	MO	MOTOR OPERATOR
AS	AMMETER SWITCH, AMPERE SENSOR	MS	MOTOR STARTER
ASU	AIR SUPPLY UNIT	MT	MOUNT
AT	AMPERE TRIP	MTD	MOUNTED
ATC	AUTOMATIC THROWOVER CONTROL	N	NEUTRAL
ATS	AUTOMATIC TRANSFER SWITCH	NA	NON-AUTOMATIC
BC	BARE COPPER	NC	NORMALLY CLOSED
BRKR	BREAKER	NL	NIGHT LIGHT
C	CONDUIT, CONTACTOR	N.O.	NORMALLY OPEN
CB	CIRCUIT BREAKER	NP	NAMEPLATE
CC	CONTROL CABLE	OC	ON CENTER
CKT	CIRCUIT	OL	OVERLOAD RELAY
CPT	CONTROL POWER TRANSFORMER	PB	PUSH BUTTON SWITCH
CR	CONTROL RELAY	PBX	PULLBOX
CRE	CORROSION-RESISTANT	PC	PHOTOCELL
CRS	COATED RIGID STEEL CONDUIT	PH	PHASE
CT	CURRENT TRANSFORMER	PMC	POWER METERING CABINET
DC	DIRECT CURRENT	PMR	PHASE MONITOR RELAY
DIV	DIVISION	PNL	PANEL
E	EMPTY	PS	PRESSURE SWITCH
EO	ELECTRIC OPERATOR	PT	POTENTIAL TRANSFORMER
EQPT	EQUIPMENT	PVC	POLYVINYL CHLORIDE CONDUIT
ESS	EMERGENCY SHUTDOWN SWITCH	R	RED
ETM	ELAPSED TIME METER	RCPT	RECEPTACLE
EXST	EXISTING	REQD	REQUIRED
FDR	FEEDER	RM	REMOTE MULTIPLEXER
F	FUSE	RS	RIGID STEEL CONDUIT
FLR	FLOOR	RT	REMOTE TELEMETRY
FLUOR	FLUORESCENT	RVR	REDUCED VOLTAGE NON-REVERSING
FVNR	FULL VOLTAGE NON-REVERSING	SA	SURGE ARRESTOR
FVR	FULL VOLTAGE REVERSING	SCCR	SHORT CIRCUIT CURRENT RATING
G	GREEN, GROUND	S/N	SOLID NEUTRAL
GALV	GALVANIZED	SPD	SPEED
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SST	STAINLESS STEEL SWITCH
GFR	GROUND FAULT RELAY	SV	SOLENOID VALVE
GND	GROUND	SW	SWITCH
H	HIGH SPEED	SWGR	SWITCHGEAR
HH	HANDHOLE	SYMM	SYMMETRICAL
HID	HIGH INTENSITY DISCHARGE	T	THERMOSTAT
HPS	HIGH PRESSURE SODIUM	TB	TERMINAL BOARD
HS	HAND SWITCH	TC	TIME CLOSE
IC	INTERRUPTING CAPACITY	TD	TEMPERATURE DETECTOR
I & C	INSTRUMENTATION AND CONTROL	TDR	TIME DELAY RELAY
INCAND	INCANDESCENT	TJB	TERMINAL JUNCTION BOX
INST	INSTANTANEOUS	T.O.	TIME OPEN
J, J-BOX	JUNCTION BOX	TS	AUTO TRANSFORMER
K	KEY INTERLOCK	TEMP	TEMPERATURE SWITCH
L	LIGHTING CONTACTOR, LOW SPEED	TSP	TWISTED SHIELDED PAIR
LOS	LOCKOUT STOP PUSH BUTTON	TST	TWISTED SHIELDED TRIAD
LR	LATCHING RELAY	TX	TRANSFORMER
LT FLEX	LIQUID TIGHT FLEX CONDUIT	TYP	TYPICAL
LTS	LIGHTS	UH	UNIT HEATER
		UVR	UNDER VOLTAGE RELAY
		V	VOLTMETER, VOLT
		VS	VOLTMETER SWITCH
		W	WATT
		WHD	WATT HOUR DEMAND METER
		WP	WEATHERPROOF
		XFDR	TRANSPOUNDER
		XFMR	TRANSFORMER

NOTES:

- THIS IS A STANDARD LEGEND SHEET. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS DRAWING AND NOT ON THE PLANS.
- FOR ADDITIONAL ABBREVIATIONS OF OTHER DIVISIONS (CIVIL, HVAC, PLUMBING INSTRUMENTATION AND CONTROL, MECHANICAL, AND STRUCTURAL/ARCHITECTURAL), SEE OTHER LEGENDS.

CH2MHILL

GENERAL ELECTRICAL LEGEND

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS CITY OF ALBANY - PROJ NO. SS-07-04 ALBANY, OREGON

RECORD DRAWINGS

REVISION

NO. DATE

05/2010

BY APVD

JMD KLM

GJ LOVE MS MacROSTIE

DR APVD

KL MAESTRI CW MASSIE

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE FEB 2009

PROJ 326918PL

DWG 01-G-07

SHEET 007

WIRING DIAGRAM LEGEND

ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	RELAY COIL		INDICATING LIGHT, LETTER INDICATES COLOR: A = AMBER R = RED B = BLUE W = WHITE C = CLEAR Y = YELLOW G = GREEN
	CONTACT, NORMALLY OPEN		INDICATING LIGHT, PUSH-TO-TEST LETTER INDICATES COLOR
	CONTACT, NORMALLY CLOSED		SOLENOID VALVE
	PUSHBUTTON SWITCH, MOMENTARY CONTACT, NORMALLY OPEN		HORN, BEEPER
	PUSHBUTTON SWITCH, MOMENTARY CONTACT, NORMALLY CLOSED		BELL
	SELECTOR SWITCH		GROUND
	LIMIT SWITCH		ELAPSED TIME METER
	ANNUNCIATOR RELAY CONTACT FOLLOWS ANNUNCIATOR INPUT		PLC INPUT
	FLOW SWITCH		PLC OUTPUT NORMALLY OPEN
	TEMPERATURE SWITCH		PLC OUTPUT NORMALLY CLOSED
	LEVEL SWITCH		TRANSFORMER, SECONDARY VOLTAGE INDICATED
	PRESSURE SWITCH		CIRCUIT BREAKER
	TIME DELAY SWITCH, NORMALLY CLOSED WITH TIME DELAY CLOSING		FUSE
	TIME DELAY SWITCH, NORMALLY CLOSED WITH TIME DELAY OPENING		FUSE
	TIME DELAY SWITCH, NORMALLY OPEN WITH TIME DELAY CLOSING		LATCHING RELAY
	TIME DELAY SWITCH, NORMALLY OPEN WITH TIME DELAY OPENING		
	TIME DELAY RELAY		

SYMBOL	DESCRIPTION
	TERMINAL BLOCK
	TERMINAL BLOCK, FUSED, SWITCHED
	TERMINAL BLOCK, SWITCHED
	FIELD DEVICE(S)
	DISTRIBUTED CONTROL SYSTEM (DCS)
	CONTROL PANEL DEVICE(S)
	MOTOR CONTROL CENTER DEVICE(S)

ABBREVIATIONS	DESCRIPTION
A	AUTO, AMPS, AMBER
B	BASE
BK	BLACK
BL	BLUE
BR	BROWN
C	CLOSE
CR	CONTROL RELAY
CS	CURRENT SWITCH (4-20mA)
DEC	DECREASE
G	GREEN
H	HAND
INC	INCREASE
L	LOCAL
LOS	LOCKOUT STOP
M	MOTOR RELAY/CONTACT
MAN	MANUAL
N/S/C	NODE / SLOT / CHANNEL
N/S/P	NODE / SLOT / POINT
O	OFF, ON, OPEN
OR	ORANGE
R	RED
REM	REMOTE
S	SLOT
SEC	SECONDS
TDD	TIME DELAY ON DE-ENERGIZATION
TDE	TIME DELAY ON ENERGIZATION
TDR	TIME DELAY RELAY
WH	WHITE
Y	YELLOW
ZS-C	CLOSED END LIMIT SWITCH
ZS-O	OPEN END LIMIT SWITCH

(INSTRUMENT, PANEL, RELAY) TAG NUMBERS

NUMBERS
 FFXLLLLU WHERE
 FF = FACILITY/PROCESS NUMBER
 XX = EQUIPMENT OR ISA TAG
 LLL = LOOP NUMBER
 U = UNIT LETTER

SEE LOOP LIST FOR TAG NUMBERS.

ANALOG SYMBOLS

	2-WIRE TRANSMITTER		DCS ANALOG I/O
	4-WIRE TRANSMITTER		FUSED TERMINAL BLOCK
	SIGNAL CONVERSION		SWITCHING TERMINAL BLOCK
			GROUNDING TERMINAL BLOCK

THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED FROM THE ORIGINAL DRAWING. THE ORIGINAL DOCUMENT DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2002 BY CHRISTOPHER S. BURR, STATE OF OREGON, P.E. NO. 49635PE.

RECORD DRAWINGS	REVISION	CHK	APVD	CW MASSIE
NO. DATE	DSGN	DR	CS BURR	KD BIALEK
05/2010			DS PARKER	
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS CITY OF ALBANY - PROJ NO. SS-07-04 ALBANY, OREGON				
CH2MHILL				
GENERAL INSTRUMENTATION AND CONTROL LEGEND - SHEET 3				
VERIFY SCALE				
BAR IS ONE INCH ON ORIGINAL DRAWING.				
DATE	FEB 2009			
PROJ	326918PL			
DWG	01-G-10			
SHEET	010			

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TAG FORMATS { PROCESS EQUIP, INSTRUMENT & I/O FORMAT: SIT-UP-RTU-ISAX-LOOPa-FUNCTION
 NON-PROCESS EQUIPMENT FORMAT: SIT-UP-RTU-EQU##

SITE (SIT)	
CODE (SIT)	DESCRIPTION
WW	WASTEWATER TREATMENT PLANT (EXISTING)
WT1	WATER TREATMENT PLANT (EXISTING)
WT2	WATER TREATMENT PLANT (NEW)

RTU REFERENCE NO.	
CODE (RTU)	DESCRIPTION
019	NORTH ALBANY PUMP STATION
145	ALBANY-SANTIAM HEADGATE
WST	RAW WATER TRANSMISSION & BACKWASH WASTE PIPELINES

PROCESS EQUIPMENT (ISAX) - NOTE 1	
CODE (ISAX)	DESCRIPTION
AFD	ADJUSTABLE FREQUENCY DRIVE
ASD	ADJUSTABLE SPEED DRIVE (DC-SCR)
BLW	BLOWER
CC	CALIBRATION COLUMN
CLL	CELL
CP	CONTROL PANEL
CPR	COMPRESSOR
CS	CONTROL STATION
CYL	CYLINDER
FCV	FLOW CONTROL VALVE (W/ ACTUATOR, INTEGRAL CONTROLLER)
FTR	FILTER
FV	FLOW VALVE (W/ ACTUATOR)
G	GATE
HV	MANUALLY OPERATED VALVE (W/ ACTUATOR)
LCV	LEVEL CONTROL VALVE (W/ ACTUATOR, INTEGRAL CONTROLLER)
LV	LEVEL VALVE (W/ ACTUATOR)
M	MOTOR
P	PUMP
PCV	PRESSURE CONTROL VALVE (W/ ACTUATOR, INTEGRAL CONTROLLER)
PD	PULSATION DAMPENER
PSV	PRESSURE SAFETY VALVE
PV	PRESSURE VALVE (W/ ACTUATOR)
RCV	RECEIVER
SCR	SCREEN
STR	STRAINER
SV	SOLENOID VALVE
TNK	TANK
V	MANUALLY OPERATED VALVE (NO ACTUATOR)

UNIT PROCESS (UP)	
CODE (UP)	DESCRIPTION
10	RAW WATER SUPPLY
11	RAW WATER PUMPING
12	RAW WATER SAND REMOVAL
20	FILTRATION
21	FILTER PKG: RAW WATER
22	FILTER PKG: FILTER / FILTRATE PUMPING
23	FILTER PKG: FILTER BACKWASH & WASTEWATER
24	FILTER PKG: CHEMICAL SYSTEMS
25	FILTER PKG: AIR SYSTEMS
26	FILTER PKG: MISCELLANEOUS SYSTEMS
27	FILTER PKG: WASTE NEUTRALIZATION
30	CHEMICAL SYSTEMS
31	SODIUM HYPOCHLORITE
32	FLUORIDE
33	ALUMINUM CHLOROHYDRATE
34	CITRIC ACID
35	SODIUM BISULFITE
36	SODIUM HYDROXIDE
40	FILTER WASTEWATER / SUPERNATANT RETURN
41	FILTER WASTEWATER / SUPERNATANT RETURN
50	FINISHED WATER RESERVOIR / PLANT SERVICE WATER
70	METERING VAULTS
71	MILLERSBURG METERING VAULT
72	ALBANY METERING VAULT
75	REMOTE TELEMETRY UNITS
80	WASTEWATER
90	FACILITY SYSTEM
91	ELECTRICAL, FIRE ALARM & SECURITY SYSTEMS
92	HVAC
93	PERSONNEL SAFETY
94	PLANT CONTROL SYSTEM

NON-PROCESS EQUIPMENT (EQU)	
CODE (EQU)	DESCRIPTION
AN	ACCESS NODE
ANL	ACCESS NODE (LAN)
ANW	ACCESS NODE (WAN)
CP	CONTROL PANEL
CS	CONTROL STATION
ES	ETHERNET SWITCH
FP	FIBER PATCH PANEL
GAT	GATE
HMI	HUMAN MACHINE INTERFACE
LP	LIGHTING PANEL
MCC	MOTOR CONTROL CENTER
P	NON-PROCESS PUMP
PC	PERSONAL COMPUTER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PM	POWER MONITOR
PP	POWER PANEL
PPMM	PATCH PANEL, MULTI-MODE FIBER
PPSM	PATCH PANEL, SINGLE-MODE FIBER
SWB	SWITCHBOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TWST	TEMPERED WATER STORAGE TANK
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
WH	WATER HEATER
WKS	WORKSTATION
XCVR	TRANSCEIVER

SOFTWARE FUNCTION (FUNCTION)	
CODE (FUNCTION)	DESCRIPTION
ALARM	ALARM
AUTO	AUTO STATUS
AVAIL	AVAILABLE
AVAILA	SOURCE A AVAILABLE
AVAILB	SOURCE B AVAILABLE
BACKWASH	IN BACKWASH
CALL	CALL TO OPERATE COMMAND
CL2	CHLORINE
CLOSE	CLOSE COMMAND
CLSD	CLOSED STATUS
COND	CONDUCTIVITY
CONNECTA	SOURCE A CONNECTED
CONNECTB	SOURCE B CONNECTED
CURRENT	CURRENT
CURRENTA	PHASE A CURRENT
CURRENTB	PHASE B CURRENT
CURRENTC	PHASE C CURRENT
DO	DISSOLVED OXYGEN
EMERGENCY	EMERGENCY ALARM SYSTEM
ENTRY	ENTRY
ESTOP	EMERGENCY STOP
FAIL	FAILURE
FAULT	FAULT
FL	FLUORIDE
FLOW	FLOWRATE
HIGH	HIGH
HIHI	HIGH-HIGH
INTRUSION	INTRUSION
KW	KILOWATTS
LEVEL	LEVEL
LEVELRTX	LEVEL (RETRANSMITTED)
LOW	LOW
LOLO	LOW-LOW
LOSS	LOSS
MOISTURE	MOISTURE DETECTED
ON	ON STATUS
OPEN	OPEN COMMAND
OPND	OPEN STATUS
ORP	OXYGEN REDUCTION POTENTIAL
OVERTEMP	OVER TEMPERATURE
PART	PARTICLE COUNT
PH	pH
POSFBK	POSITION FEEDBACK
POSCTRL	POSITION CONTROL
POSRTX	POSITION (RE-TRANSMITTED)
PWR FACTR	POWER FACTOR
PRESSURE	PRESSURE
REMOTE	REMOTE STATUS
RESET	RESET
RUN	RUN CONTROL OUTPUT
RUNTIME	RUNTIME
RUNTIME_RST	RUNTIME RESET
SILENCE	SILENCE ALARM
SPDCTRL	SPEED CONTROL OUTPUT
SPDFBK	SPEED FEEDBACK
START	START
STARTFAIL	START FAILURE
STOP	STOP
STOPFAIL	STOP FAILURE
SUPERVISORY	SUPERVISORY
TEMP	TEMPERATURE
TROUBLE	TROUBLE
TURB	TURBIDITY
TVSSFAIL	TRANSIENT VOLTAGE SURGE SUPPRESSOR FAILURE
VOLTAGE	VOLTAGE
VOLTAGEA	PHASE A VOLTAGE
VOLTAGEB	PHASE B VOLTAGE
VOLTAGEC	PHASE C VOLTAGE
WEIGHT	WEIGHT

TAGNAMING SAMPLES

PROCESS EQUIPMENT, INSTRUMENTS, AND PLC I/O													
DESCRIPTION	TAG COMPONENTS					FUNCTION	ANALOG OR DISCRETE	PDB TAG	P&ID TAG	LOOP ID	SOFTWARE TAG	WIRING DIAGRAM	WIRE # SAMPLE (TERMINAL)
	SIT	UP-RTU	ISA	LOOP	UNIQUE IDENTIFIER (a)								
PUMP ON	WT1	75019	P	1101		ON	D	WT1-75019P1101	75019P1101	WT1-75019-1101	WT1_75019_1101_ON	WT1-75019-1101	75019-1101-1
PUMP REMOTE	WT1	75146	P	1101		REMOTE	D	WT1-75019P1101	75019P1101	WT1-75019-1101	WT1_75019_1101_REM	WT1-75019-1101	75019-1101-2
PUMP PRESSURE SWITCH	WT1	75019	PSH	1101	A		D	WT1-75154P1101	75019PSH1101	WT1-75019-1101	WT1_75019_1101_HI	WT1-74145-1101	75019-1101-3

NON-PROCESS EQUIPMENT										
DESCRIPTION	TAG COMPONENTS				PDB TAG	P&ID TAG	LOOP ID	SOFTWARE TAG	WIRING DIAGRAM	WIRE # SAMPLE
	SIT	FAC	EQU	##						
LIGHTING PANELBOARD	WT1	75019	LP	01	WT1-75019-LP01	N/A	N/A	N/A	N/A	N/A
HEADGATE MCC	WT1	75019	MCC	01	WT1-75019-MCC01	N/A	N/A	N/A	N/A	N/A

NOTES:
 1. FOR INSTRUMENTATION, (ISAX) CODES ARE BASED ON THE "INSTRUMENT IDENTIFICATION LETTERS TABLE" (REFERENCE DWG. 01-G-10).

THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED DOCUMENTS WHICH DEFINE SPECIFICATIONS, WORK CHARACTERISTICS, AND THE ORIGINAL DOCUMENT. DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2002 BY CHRISTOPHER S. BURR, STATE OF OREGON, P.E. NO. 49635PE

RECORD DRAWINGS	REVISION	CHK	APVD	DR	CS BURR	DS PARKER	KD BIALEK	CW MASSIE
05/2010	NO.	DATE	BY	APVD	DR	CS BURR	DS PARKER	KD BIALEK

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

GENERAL INSTRUMENTATION AND CONTROL LEGEND - SHEET 4

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-11
SHEET	011

STATEMENT OF SPECIAL INSPECTIONS PLAN

GENERAL NOTES

- THE STATEMENT OF SPECIAL INSPECTION PLAN DRAWINGS PROVIDE PROJECT COMPLIANCE WITH THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE (IBC) CHAPTER 17 FOR SPECIAL INSPECTION, STRUCTURAL OBSERVATION, AND TESTING FOR WIND AND SEISMIC RESISTANCE AS APPLICABLE. THIS INSPECTION AND PROFESSIONAL OBSERVATION ARE OWNER FURNISHED.
- STANDARD SPECIAL INSPECTION REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS ARE CONTAINED IN TABLE 1.
- STANDARD SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL COMPONENTS, REGARDLESS OF WIND OR SEISMIC DESIGN CATEGORIES, ARE CONTAINED IN TABLE 2. STANDARD TESTING REQUIREMENTS FOR STRUCTURAL COMPONENTS ARE CONTAINED IN TABLE 3.
- PROJECT SPECIFIC REQUIREMENTS FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORIES C, D, E, OR F ARE CONTAINED IN TABLE 4. ADDITIONAL TESTING REQUIREMENTS FOR STRUCTURAL RESISTANCE ARE CONTAINED IN TABLE 6.
- PROJECT SPECIFIC REQUIREMENTS FOR STRUCTURES SUBJECT TO BASIC WIND SPEEDS IN EXCESS OF 100 MPH ARE CONTAINED IN TABLE 5.
- FOR ADDITIONAL REQUIREMENTS, REFER TO SPECIFICATION SECTION 01 45 33, SPECIAL INSPECTION, OBSERVATION AND TESTING. THESE INCLUDE:
 - CONTRACTOR'S REQUIREMENTS TO PROVIDE ACCESS TO THE WORK FOR REQUIRED INSPECTIONS AND PROFESSIONAL OBSERVATIONS, AND TO PROVIDE NOTICE OF REQUIRED INSPECTIONS AND STRUCTURAL OBSERVATION.
 - CONTRACTOR'S STATEMENT OF RESPONSIBILITY FOR WORK TO BE PERFORMED ON SYSTEMS DESIGNATED UNDER THE QUALITY ASSURANCE PLAN FOR WIND OR SEISMIC RESISTANCE.
 - DEFINITIONS AND TERMINOLOGY USED IN THIS PLAN.

SPECIAL INSPECTION

- SPECIAL INSPECTION SHALL BE IN ACCORDANCE WITH IBC SECTION 1704 TOGETHER WITH LOCAL AND STATE AMENDMENTS. REFER TO THE TABLES CONTAINED ON THESE GENERAL SHEETS FOR PROJECT SPECIFIC INSPECTION TYPES AND FREQUENCIES.
- SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY. THE OWNER WILL SECURE AND PAY FOR THE SERVICES OF THE AGENCY TO PERFORM ALL SPECIAL INSPECTION AND ASSOCIATED TESTS. INSPECTORS FOR EACH SYSTEM AND MATERIAL SHALL BE INTERNATIONAL CODE COUNCIL (ICC) CERTIFIED OR OTHERWISE APPROVED BY THE BUILDING OFFICIAL.
- THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS AND SUBMIT RECORDS OF INSPECTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- SPECIAL INSPECTION AND ASSOCIATED TESTING REPORTS SHALL BE SUBMITTED TO THE ENGINEER, CONTRACTOR, BUILDING OFFICIAL, AND OWNER WITHIN ONE WEEK OF INSPECTION OR WITHIN ONE WEEK OF TEST COMPLETION. INSPECTIONS FOR WHICH REPORTING SHALL BE REQUIRED ARE NOTED IN THE TABLES CONTAINED ON THIS PLAN.
- AT THE CONCLUSION OF CONSTRUCTION, A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF PREVIOUSLY NOTED DISCREPANCIES SHALL BE SUBMITTED.

SPECIAL INSPECTION FOR WIND RESISTANCE

- STATEMENT OF SPECIAL INSPECTIONS PLAN REQUIREMENTS FOR WIND RESISTANCE IN ACCORDANCE WITH IBC SECTION 1705.4 ARE NOT APPLICABLE TO THIS PROJECT.

SPECIAL INSPECTION FOR SEISMIC RESISTANCE

- STATEMENT OF SPECIAL INSPECTION PLAN REQUIREMENTS FOR SEISMIC RESISTANCE SHALL BE IN ACCORDANCE WITH IBC SECTION 1705.3 TOGETHER WITH LOCAL AND STATE AMENDMENTS.
- STATEMENT OF SPECIAL INSPECTION PLAN REQUIREMENTS SHALL APPLY TO THE FOLLOWING:
 - SEISMIC FORCE-RESISTING SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F.
 - DESIGNATED SEISMIC SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F.
 - HVAC DUCTWORK CONTAINING HAZARDOUS MATERIALS AND ASSOCIATED ANCHORAGE; PIPING SYSTEMS AND MECHANICAL UNITS CONTAINING FLAMMABLE, COMBUSTIBLE OR HIGHLY TOXIC MATERIALS, AND ANCHORAGE OF ELECTRICAL EQUIPMENT USED FOR EMERGENCY OR STANDBY POWER SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F.
- MAIN SYSTEMS REQUIRED TO BE COVERED UNDER PROJECT SPECIAL INSPECTION REQUIREMENTS INCLUDE THE FOLLOWING TOGETHER WITH THEIR CONNECTIONS. REFER TO SPECIFICATION 01 45 33, SPECIAL INSPECTION AND TESTING.
 - HSS FRAME.

TABLE 1 REQUIRED NON-STRUCTURAL SPECIAL INSPECTION REFER TO SPECIFICATION SECTION 01 45 33							
SYSTEM OR MATERIAL	2006 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	REQUIRED REPORTING BY SPECIAL INSPECTOR TO DESIGNATED DISTRIBUTION LIST	COMMENTS	TESTING FOR SPECIAL INSPECTION
GENERAL							
1. INSTALLATION OF MATERIALS THAT REQUIRE ADDITIONAL MANUFACTURER'S INSTRUCTIONS BEYOND CODE REQUIREMENTS	1703.4.2, 1704.13 ITEM 3	ICC-ES EVALUATION REPORTS		X	X	ANCHORS INSTALLED IN HARDENED CONCRETE EXCEPT WHERE INSTALLED FOR COMPONENTS WHERE ANCHORAGE DESIGN IS NOT REQUIRED UNDER SECTION 01 88 15, SEISMIC ANCHORAGE AND BRACING	
STRUCTURAL							
SEE TABLE 2							

NOTES:

- PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING.

TABLE 2 REQUIRED STRUCTURAL SPECIAL INSPECTION REFER TO SPECIFICATION SECTION 01 45 33							
SYSTEM OR MATERIAL	2006 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	REQUIRED REPORTING BY SPECIAL INSPECTOR TO DESIGNATED DISTRIBUTION LIST	COMMENTS	TESTING FOR SPECIAL INSPECTION
STEEL							
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL							
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	1704.3, 1708.4, 2203.1	ASTM A 6 OR ASTM A 568 AISC 360: SEC. M5.5			X		
B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS	1704.3, 1708.4, 2203.1	ASTM A 6 OR ASTM A 568 AISC 360: SEC. A3.1			X		
2. MATERIAL VERIFICATION OF WELD FILLER MATERIALS							
A. IDENTIFICATION MARKINGS CONFORM TO AWS SPECIFICATIONS IN THE APPROVED CONSTRUCTION DOCUMENTS	1704.3	AISC 360: SEC. A3.5 AWS D1.1: SEC. 6			X		
B. MANUFACTURER'S CERTIFICATES OF COMPLIANCE REQUIRED	1704.3	AISC 360: SEC. A3.5 AWS D1.1: SEC. 6			X		
3.A. INSPECTION OF WELDING, STRUCTURAL STEEL							
1. SINGLE PASS FILLET WELDS <= 5/16"	1704.3.1	AWS D1.1	X		X		

NOTES:

- PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING.

THE FOLLOWING TABLES ARE NOT APPLICABLE TO THIS PROJECT:

- TABLE 3: TESTING FOR REQUIRED SPECIAL INSPECTION
- TABLE 4: REQUIRED SPECIAL INSPECTION FOR SEISMIC RESISTANCE FOR STRUCTURAL SYSTEMS
- TABLE 5: REQUIRED SPECIAL INSPECTION FOR WIND RESISTANCE FOR STRUCTURAL SYSTEMS
- TABLE 6: TESTING FOR SEISMIC RESISTANCE

THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED DOCUMENTS WHICH DEFINE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK. THE ORIGINAL OF ANY AND ALL DRAWINGS, SPECIFICATIONS AND SCHEDULES MUST BE SIGNED BY MARK J. MERKLEIN, STATE OF OREGON, P.E. NO. 58357.

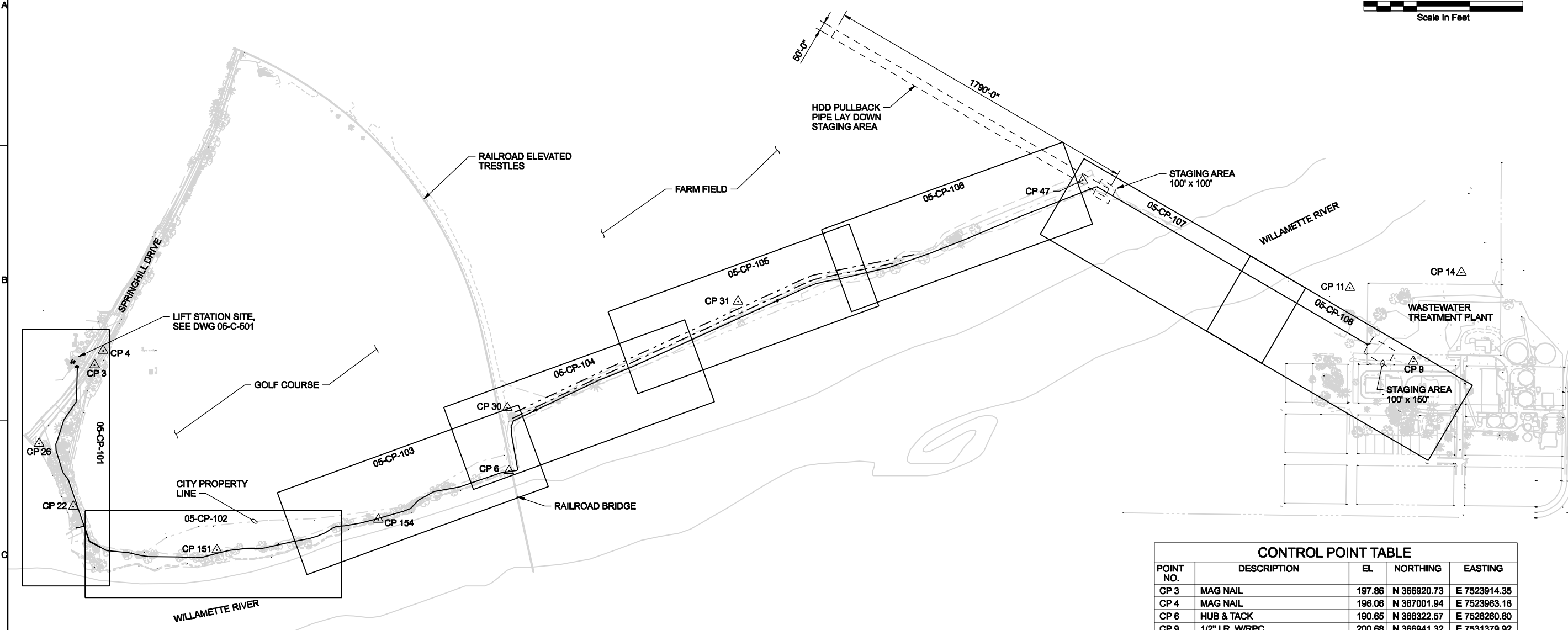
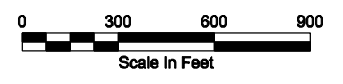
RECORD DRAWINGS	REVISION	CHK	APVD
NO.	DATE	DR	APVD
05/2010		LA ELKINS	
		GT MALIN	
		MJ MERKLEIN	
		CW MASSIE	

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

CH2MHILL
 GENERAL
 SPECIAL INSPECTIONS
 PLAN AND TABLES

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	01-G-12
SHEET	012

1 2 3 4 5 6



CONTROL POINT TABLE				
POINT NO.	DESCRIPTION	EL	NORTHING	EASTING
CP 3	MAG NAIL	197.86	N 366920.73	E 7523914.35
CP 4	MAG NAIL	196.06	N 367001.94	E 7523963.18
CP 6	HUB & TACK	190.65	N 366322.57	E 7526260.60
CP 9	1/2" I.R. W/ RPC	200.68	N 366941.32	E 7531379.92
CP 11	1/2" I.R. W/ RPC	181.94	N 367359.02	E 7531021.43
CP 14	1/2" I.R. W/ RPC	173.58	N 367444.73	E 7531651.92
CP 22	HUB & TACK	199.14	N 366120.98	E 7523794.38
CP 26	MAG NAIL	209.65	N 366477.09	E 7523600.25
CP 30	HUB & TACK	192.75	N 366676.60	E 7526251.45
CP 31	MAG NAIL	191.98	N 367281.15	E 7527558.00
CP 47	1/2" I.R. W/ RPC	187.76	N 367967.22	E 7529508.74
CP 151	HUB & TACK	190.50	N 365873.92	E 7524607.12
CP 154	HUB & TACK	185.23	N 366046.35	E 7525520.62

SITE PLAN

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	REVISION	CHK	APVD	CW MASSIE
NO. DATE	05/2010	DR	JA BOOTH	
BY	SRR	BY	APVD	
	KLM			

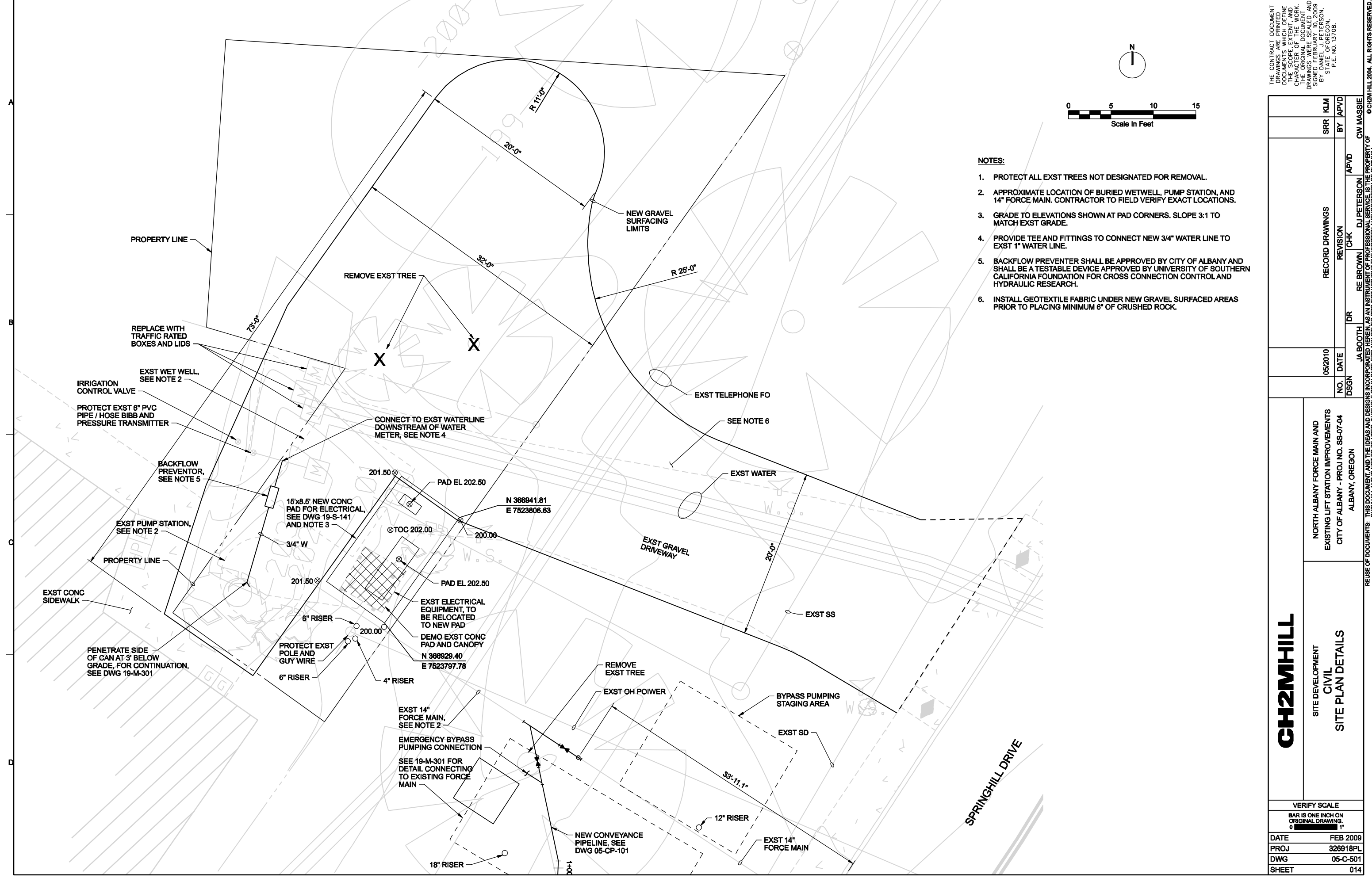
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL

SITE DEVELOPMENT
CIVIL
OVERALL SITE PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1'

DATE	FEB 2009
PROJ	326918PL
DWG	05-C-100
SHEET	013



- NOTES:**
1. PROTECT ALL EXST TREES NOT DESIGNATED FOR REMOVAL.
 2. APPROXIMATE LOCATION OF BURIED WETWELL, PUMP STATION, AND 14" FORCE MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS.
 3. GRADE TO ELEVATIONS SHOWN AT PAD CORNERS. SLOPE 3:1 TO MATCH EXST GRADE.
 4. PROVIDE TEE AND FITTINGS TO CONNECT NEW 3/4" WATER LINE TO EXST 1" WATER LINE.
 5. BACKFLOW PREVENTOR SHALL BE APPROVED BY CITY OF ALBANY AND SHALL BE A TESTABLE DEVICE APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.
 6. INSTALL GEOTEXTILE FABRIC UNDER NEW GRAVEL SURFACED AREAS PRIOR TO PLACING MINIMUM 6" OF CRUSHED ROCK.

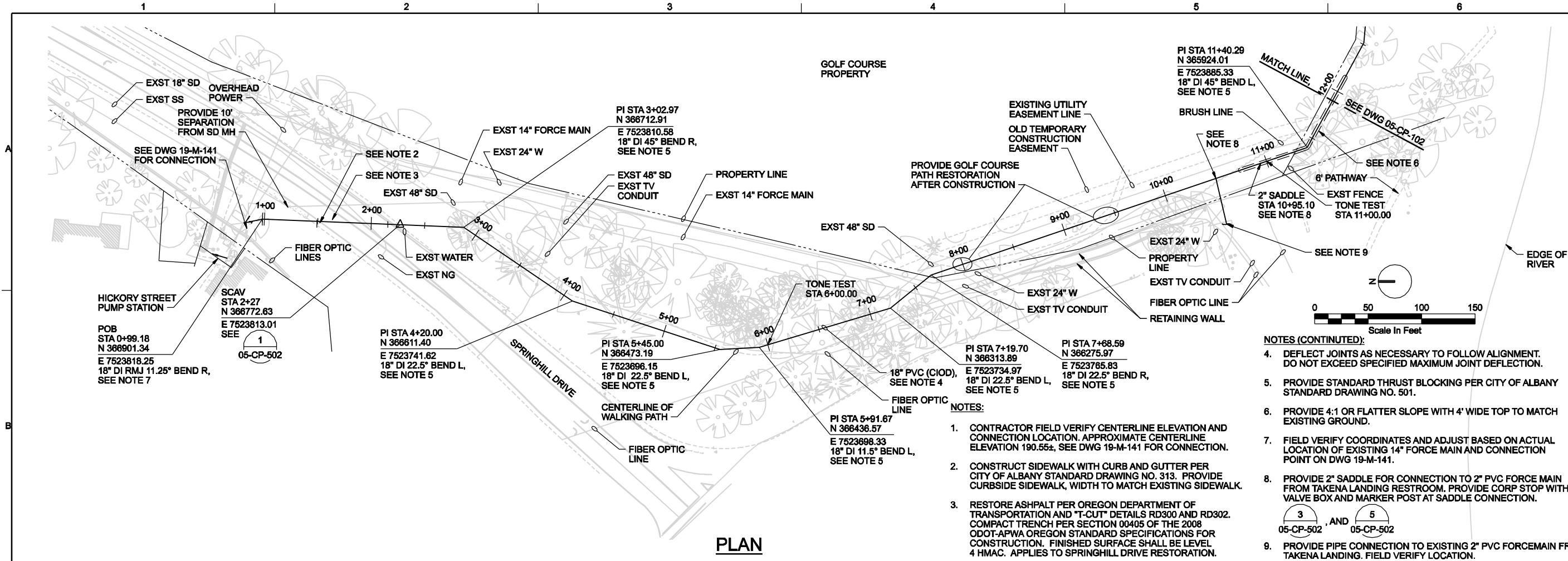
THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	REVISION	CHK	APVD	CW MASSIE
05/2010	NO.	DATE	DR	JA BOOTH
				RE BROWN
				DJ PETERSON

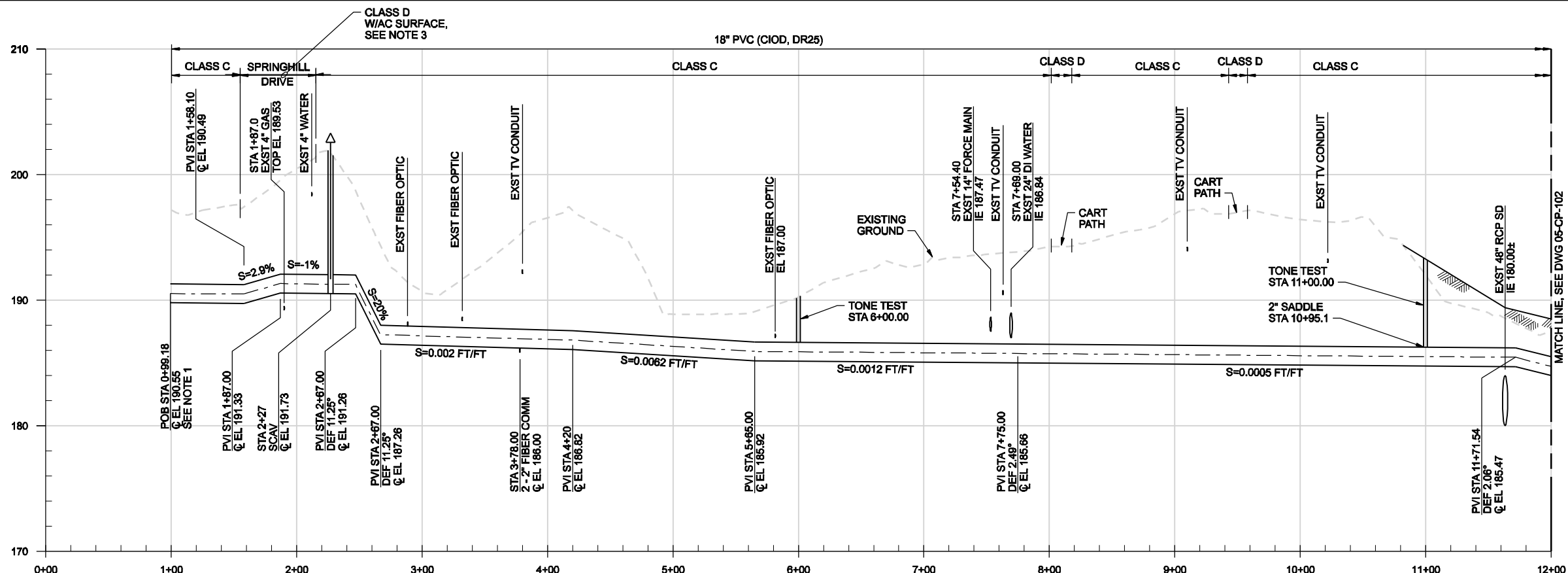
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
SITE DEVELOPMENT
CIVIL
SITE PLAN DETAILS

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	FEB 2009
PROJ	326918PL
DWG	05-C-501
SHEET	014



PLAN



PROFILE

HORIZ: 1"=50'
VERT: 1"=5'

- NOTES (CONTINUED):**
4. DEFLECT JOINTS AS NECESSARY TO FOLLOW ALIGNMENT. DO NOT EXCEED SPECIFIED MAXIMUM JOINT DEFLECTION.
 5. PROVIDE STANDARD THRUST BLOCKING PER CITY OF ALBANY STANDARD DRAWING NO. 501.
 6. PROVIDE 4:1 OR FLATTER SLOPE WITH 4' WIDE TOP TO MATCH EXISTING GROUND.
 7. FIELD VERIFY COORDINATES AND ADJUST BASED ON ACTUAL LOCATION OF EXISTING 14" FORCE MAIN AND CONNECTION POINT ON DWG 19-M-141.
 8. PROVIDE 2" SADDLE FOR CONNECTION TO 2" PVC FORCE MAIN FROM TAKENA LANDING RESTROOM. PROVIDE CORP STOP WITH VALVE BOX AND MARKER POST AT SADDLE CONNECTION.
 9. PROVIDE PIPE CONNECTION TO EXISTING 2" PVC FORCEMAIN FROM TAKENA LANDING. FIELD VERIFY LOCATION.

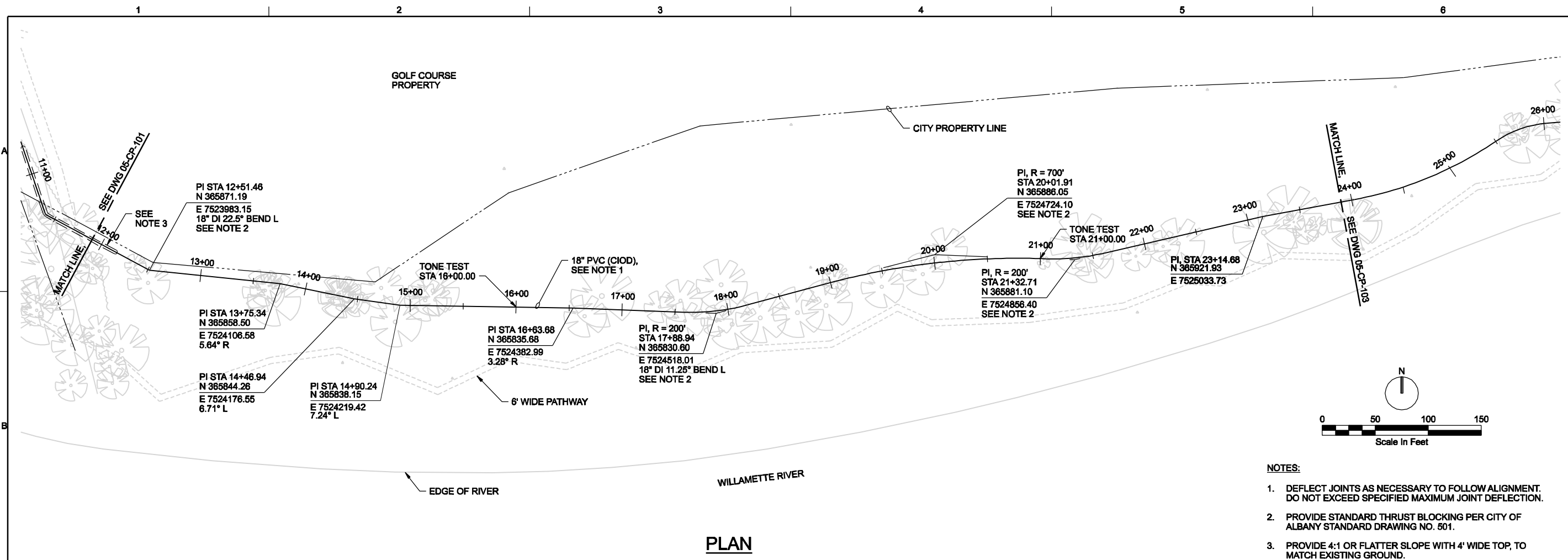
THE CONTRACT DOCUMENTS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	NO. DATE	REVISION	CHK	APVD	BY	KLM
	05/2010		SR REDDELL	DR	SR REDDELL	CW MASSIE
			CD WOLFF		DJ PETERSON	

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

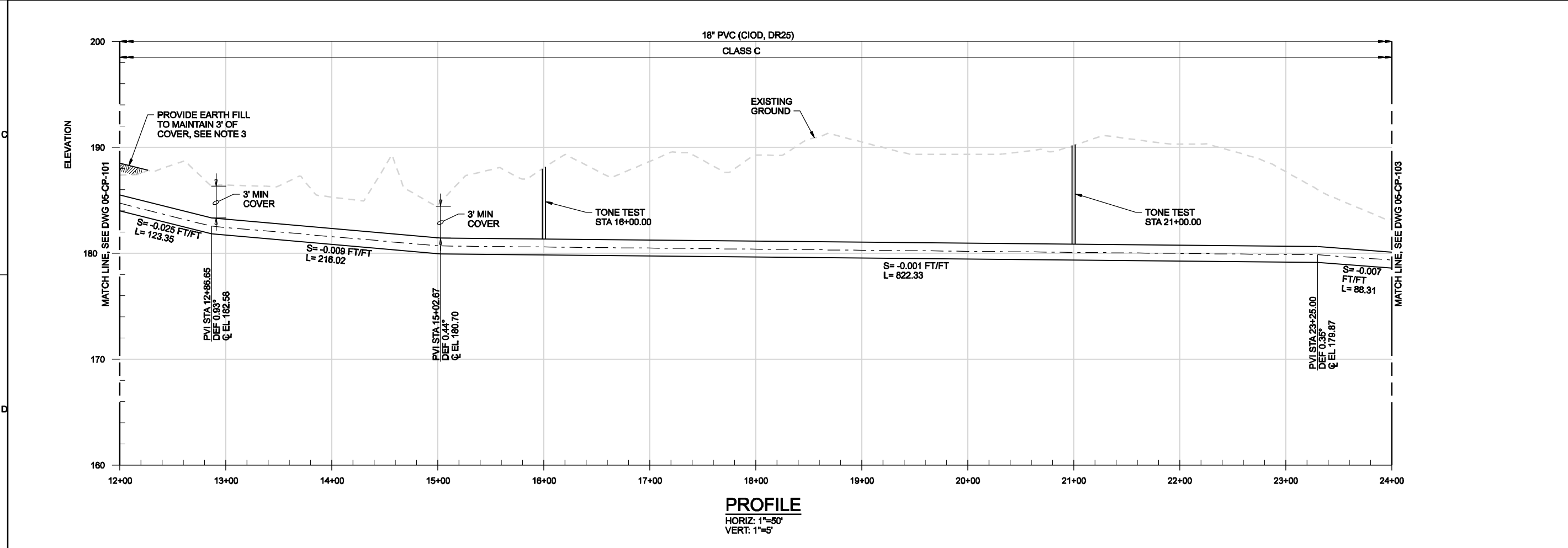
CH2MHILL
SITE DEVELOPMENT
CONVEYANCE PIPELINE
PLAN AND PROFILE
STA 0+00 TO 12+00

VERIFY SCALE	DATE	FEB 2009
BAR IS ONE INCH ON ORIGINAL DRAWING.	PROJ	326918PL
	DWG	05-CP-101
	SHEET	015



PLAN

- NOTES:**
1. DEFLECT JOINTS AS NECESSARY TO FOLLOW ALIGNMENT. DO NOT EXCEED SPECIFIED MAXIMUM JOINT DEFLECTION.
 2. PROVIDE STANDARD THRUST BLOCKING PER CITY OF ALBANY STANDARD DRAWING NO. 501.
 3. PROVIDE 4:1 OR FLATTER SLOPE WITH 4' WIDE TOP, TO MATCH EXISTING GROUND.



PROFILE
HORIZ: 1"=50'
VERT: 1"=5'

THE CONTRACT DOCUMENTS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	REVISION	CHK	APVD	BY	KLM	SRR
05/2010		CD WOLFF	DR	SR REDDELL	DJ PETERSON	CW MASSIE
NO. DATE	DSGN	REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2MHILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2MHILL.				

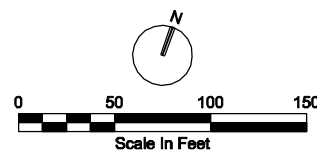
CH2MHILL
SITE DEVELOPMENT
CONVEYANCE PIPELINE
PLAN AND PROFILE
STA 12+00 TO 24+00

NORTH ALBANY FORCE MAIN AND
EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

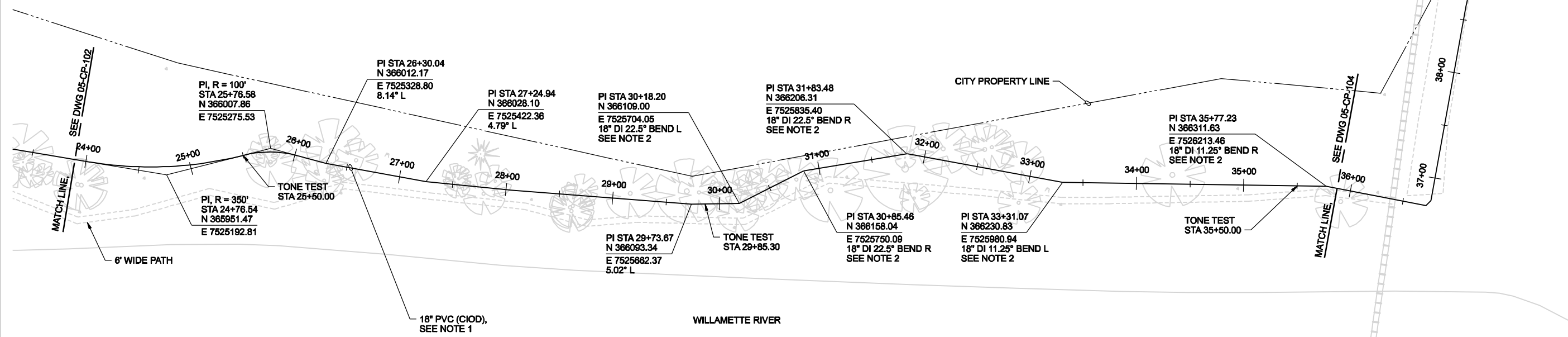
VERIFY SCALE	DATE	FEB 2009
BAR IS ONE INCH ON ORIGINAL DRAWING.	PROJ	326918PL
	DWG	05-CP-102
	SHEET	016

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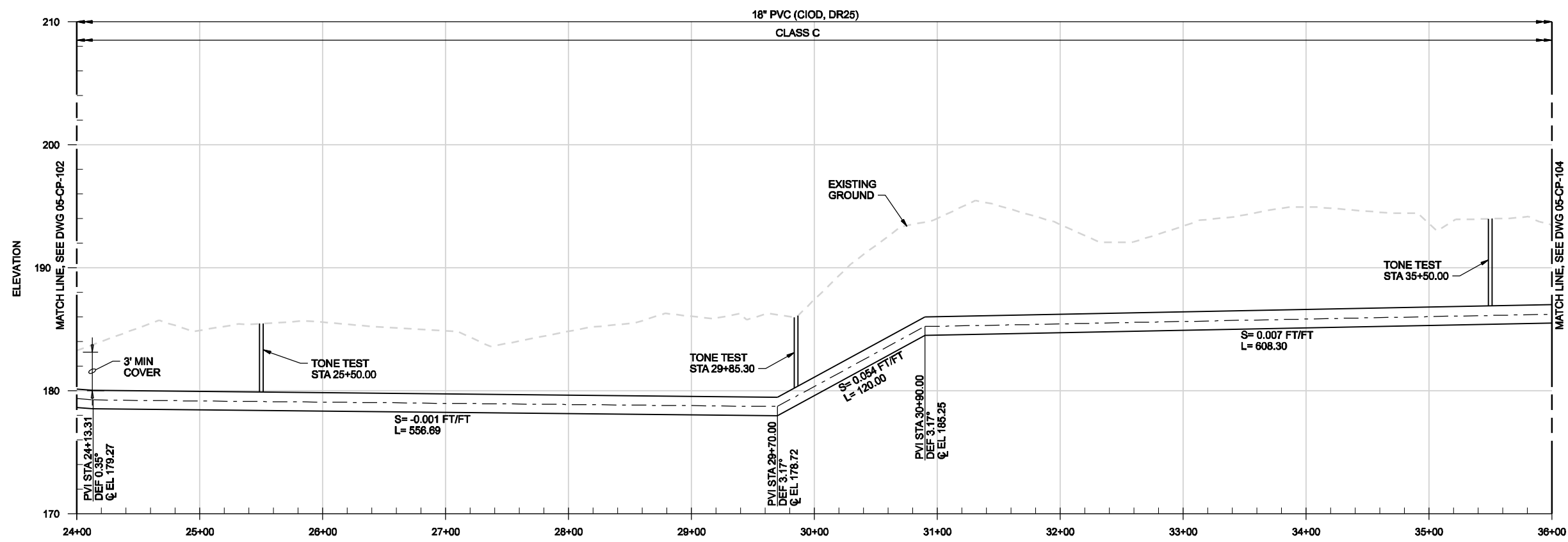
1 2 3 4 5 6



- NOTES:**
- DEFLECT JOINTS AS NECESSARY TO FOLLOW ALIGNMENT. DO NOT EXCEED SPECIFIED MAXIMUM JOINT DEFLECTION.
 - PROVIDE STANDARD THRUST BLOCKING PER CITY OF ALBANY STANDARD DRAWING NO. 501.



PLAN



PROFILE
 HORIZ: 1"=50'
 VERT: 1"=5'

THE CONTRACT DOCUMENTS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	REVISION	CHK	APVD	CW MASSIE
NO. DATE	DGN	DR	BY	APVD
05/2010		SR REDDELL	SRR	KLM

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

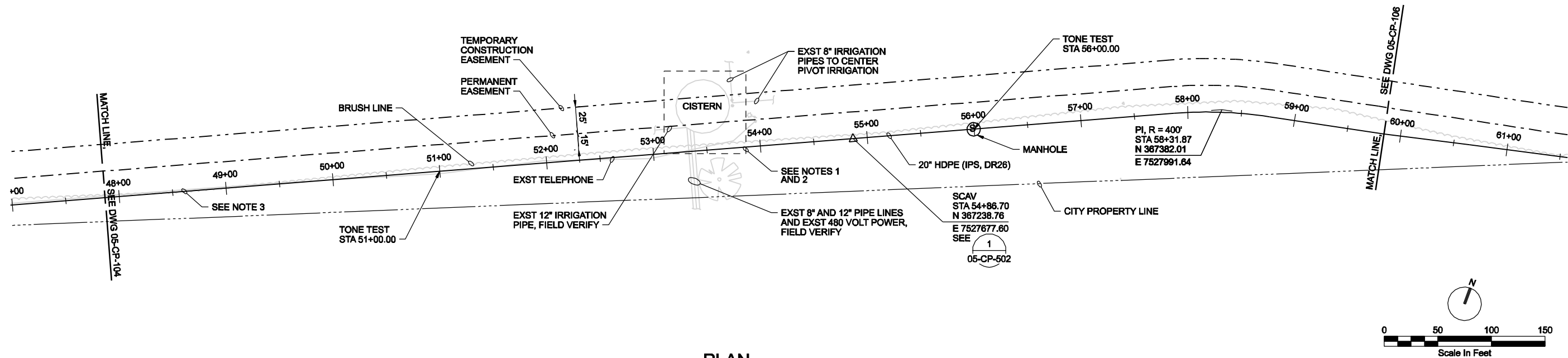
CH2MHILL
 SITE DEVELOPMENT
 CONVEYANCE PIPELINE
 PLAN AND PROFILE
 STA 24+00 TO 36+00

VERIFY SCALE	DATE	FEB 2009
BAR IS ONE INCH ON ORIGINAL DRAWING.	PROJ	326918PL
	DWG	05-CP-103
	SHEET	017

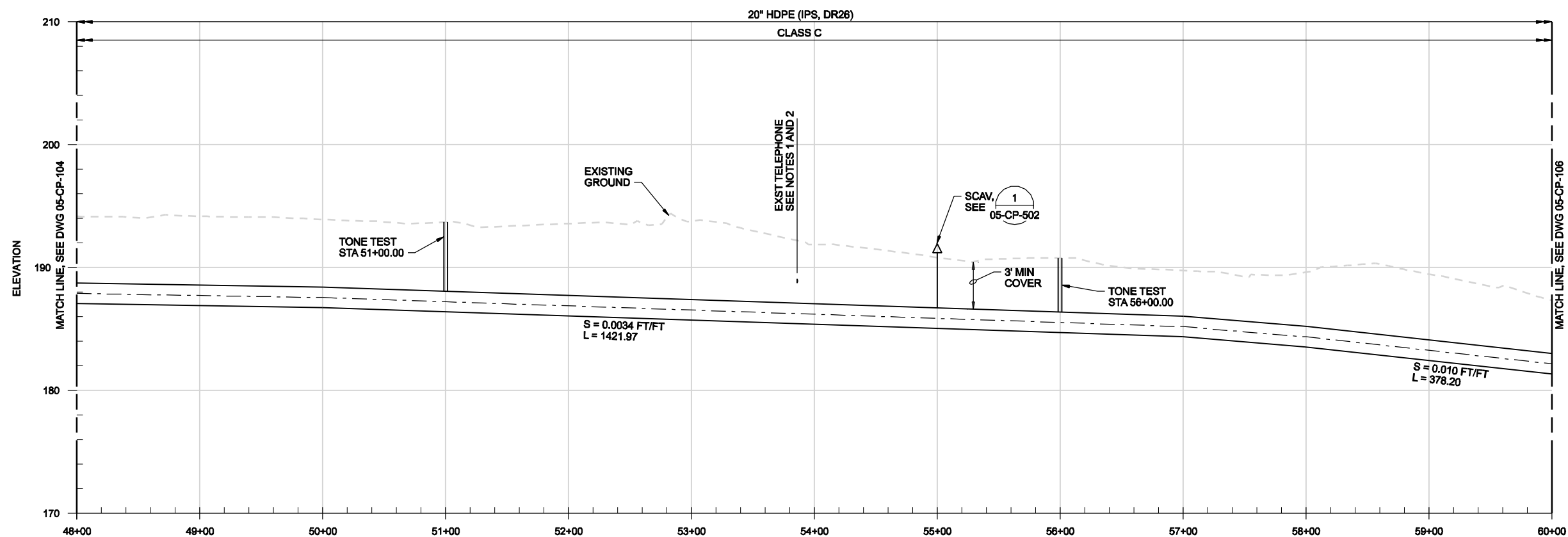
NOTES:

1. POTHOLES WILL BE REQUIRED IN ADVANCE OF CONSTRUCTION NEAR THE CISTERN AND ALONG THE FIELD IN ORDER TO EXPOSE EXISTING UTILITIES AND ANY POTENTIAL CONFLICTS.
2. EXISTING PIPE SIZES AND LOCATIONS ARE APPROXIMATE.
3. CONTRACTOR IS TO PROVIDE 12' WIDE ALL-WEATHER ACCESS ROAD RUNNING PARALLEL TO THE NEW FORCEMAIN FROM STA 39+80 TO STA 75+40. PLACE ACCESS ROAD TO THE NORTH OF THE NEW FORCEMAIN. ACCESS ROAD IS TO HAVE A 6" BASE OF 6" MINUS CRUSHED ROCK AND A 2" SURFACE OF 3/4" MINUS CRUSHED ROCK.

FARM PROPERTY



PLAN



PROFILE

HORIZ: 1"=50'
VERT: 1"=5'

THE CONTRACT DOCUMENTS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	REVISION	CHK	APVD	BY	KLM
05/2010					
DSGN	NO.	DATE	DR	SR REDDELL	DJ PETERSON
				CD WOLFF	CW MASSIE

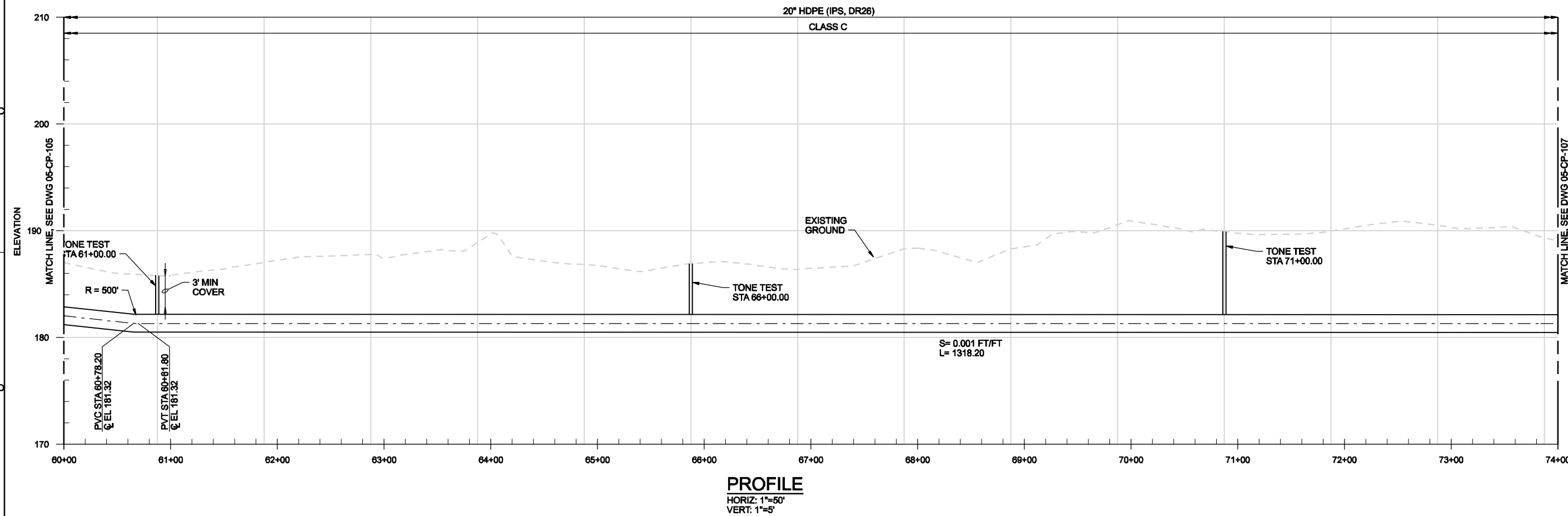
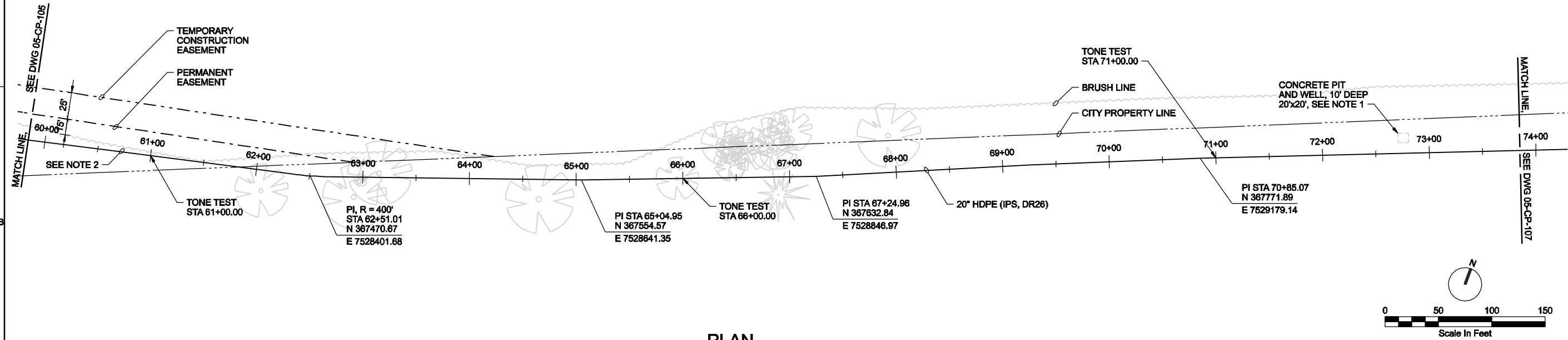
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
SITE DEVELOPMENT
CONVEYANCE PIPELINE
PLAN AND PROFILE
STA 48+00 TO 60+00

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	FEB 2009
PROJ	326918PL
DWG	05-CP-105
SHEET	019

NOTES:

1. POTHOLING WILL BE REQUIRED IN ADVANCE OF CONSTRUCTION IN ORDER TO EXPOSE EXISTING UTILITIES AND ANY POTENTIAL CONFLICTS.
2. CONTRACTOR IS TO PROVIDE 12' WIDE ALL-WEATHER ACCESS ROAD RUNNING PARALLEL TO THE NEW FORCEMAIN FROM STA 39+60 TO STA 75+40. PLACE ACCESS ROAD TO THE NORTH OF THE NEW FORCEMAIN. ACCESS ROAD IS TO HAVE A 6" BASE OF 6" MINUS CRUSHED ROCK AND A 2" SURFACE OF 3/4" MINUS CRUSHED ROCK.



THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

RECORD DRAWINGS	REVISION	CHK	APVD	BY	KLM
NO. DATE	DGN	DR	SR	REDELL	DJ PETERSON
05/2010					

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	FEB 2009
PROJ	326918PL
DWG	05-CP-106
SHEET	020

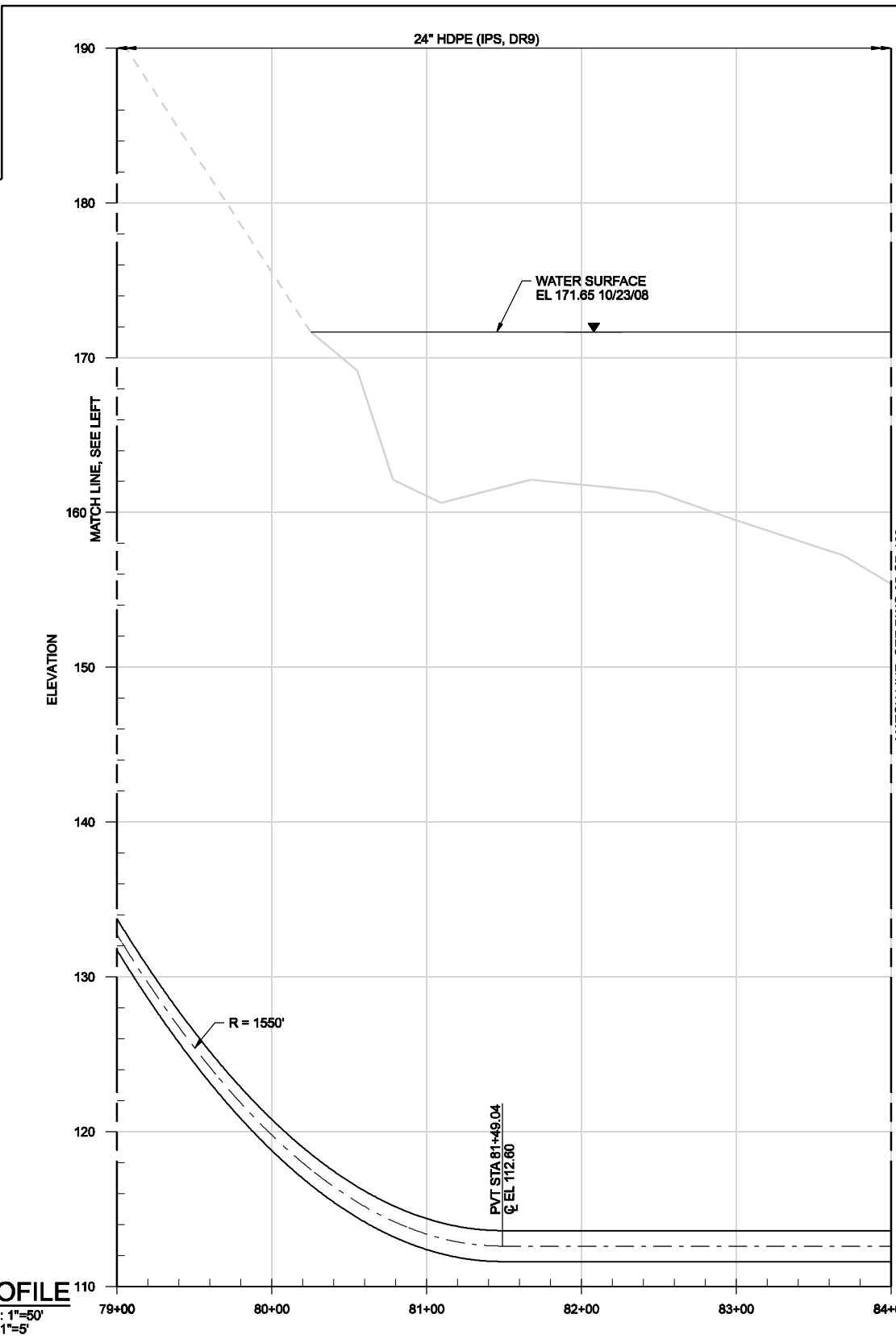
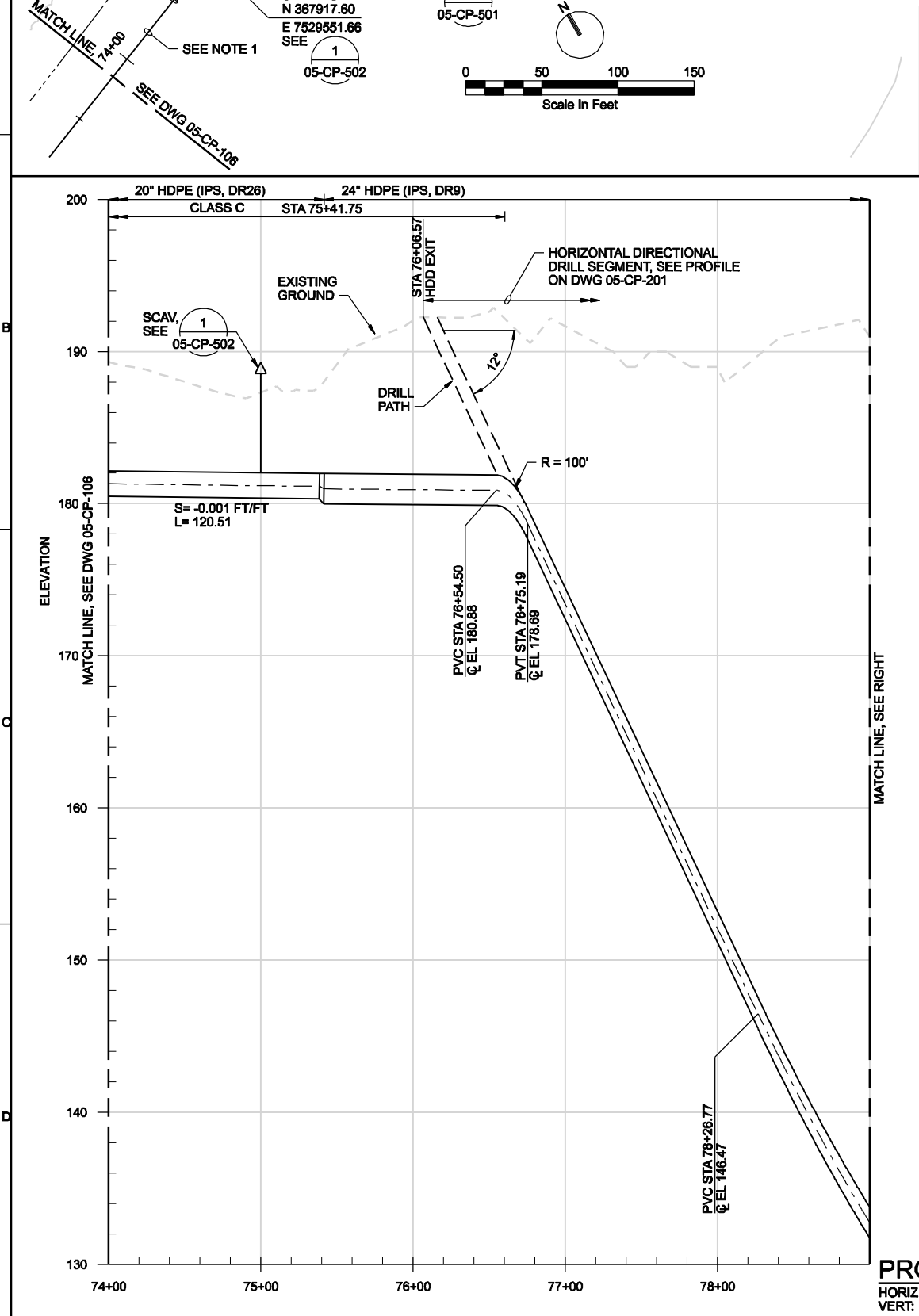
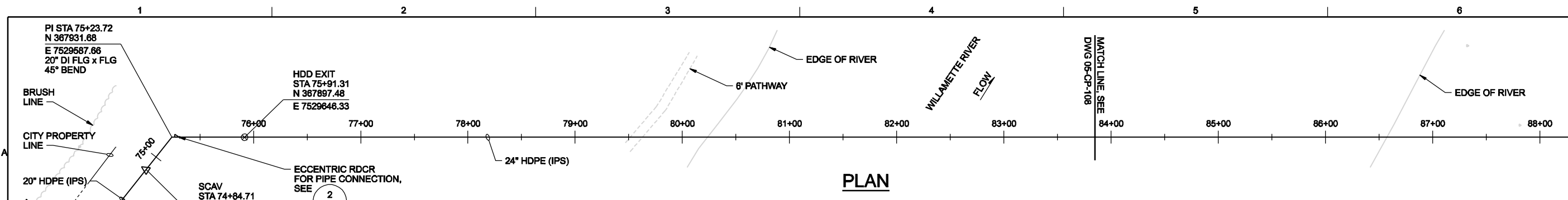
CH2MHILL

SITE DEVELOPMENT
CONVEYANCE PIPELINE
PLAN AND PROFILE
STA 60+00 TO 72+00

NORTH ALBANY FORCE MAIN AND
EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

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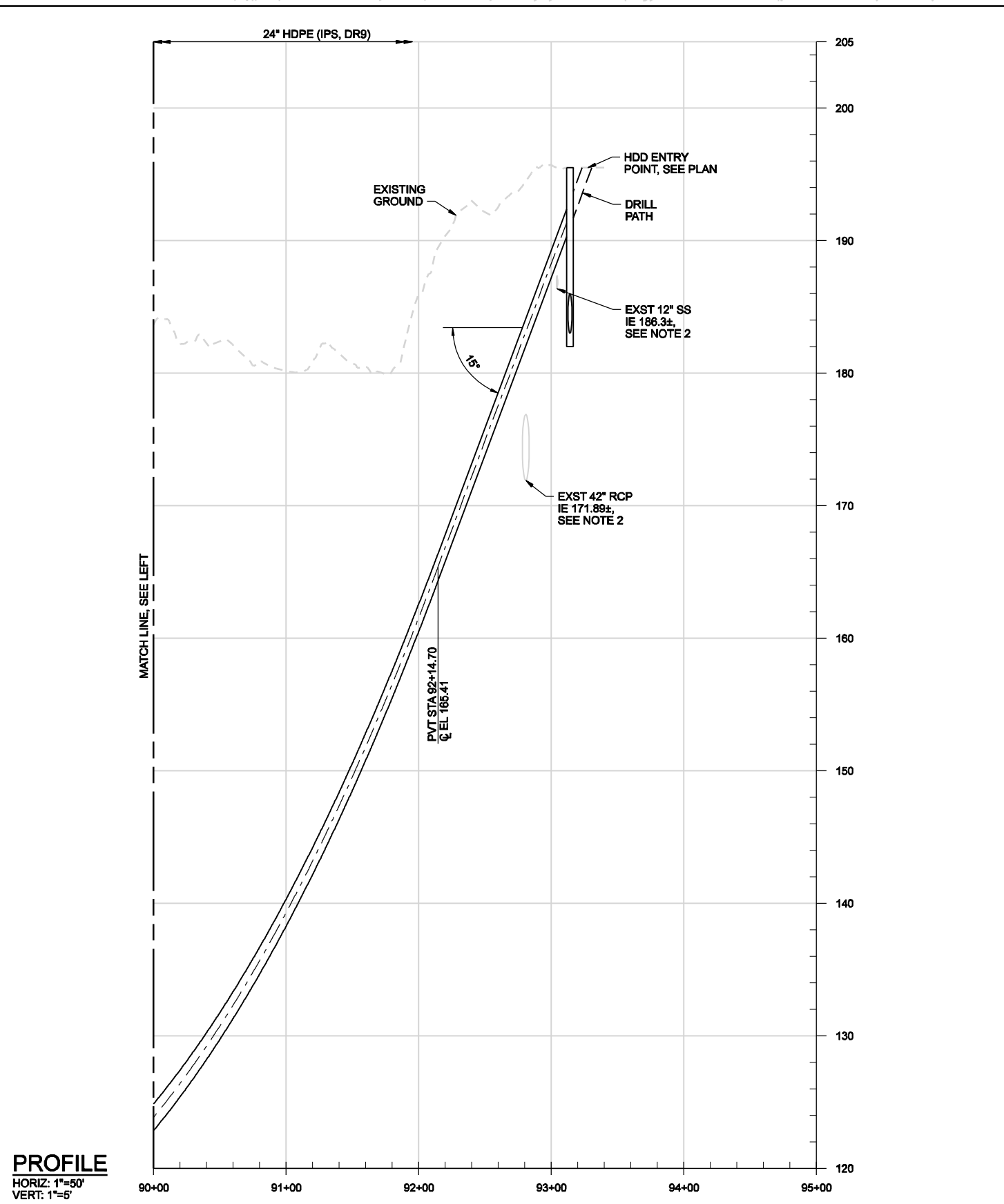
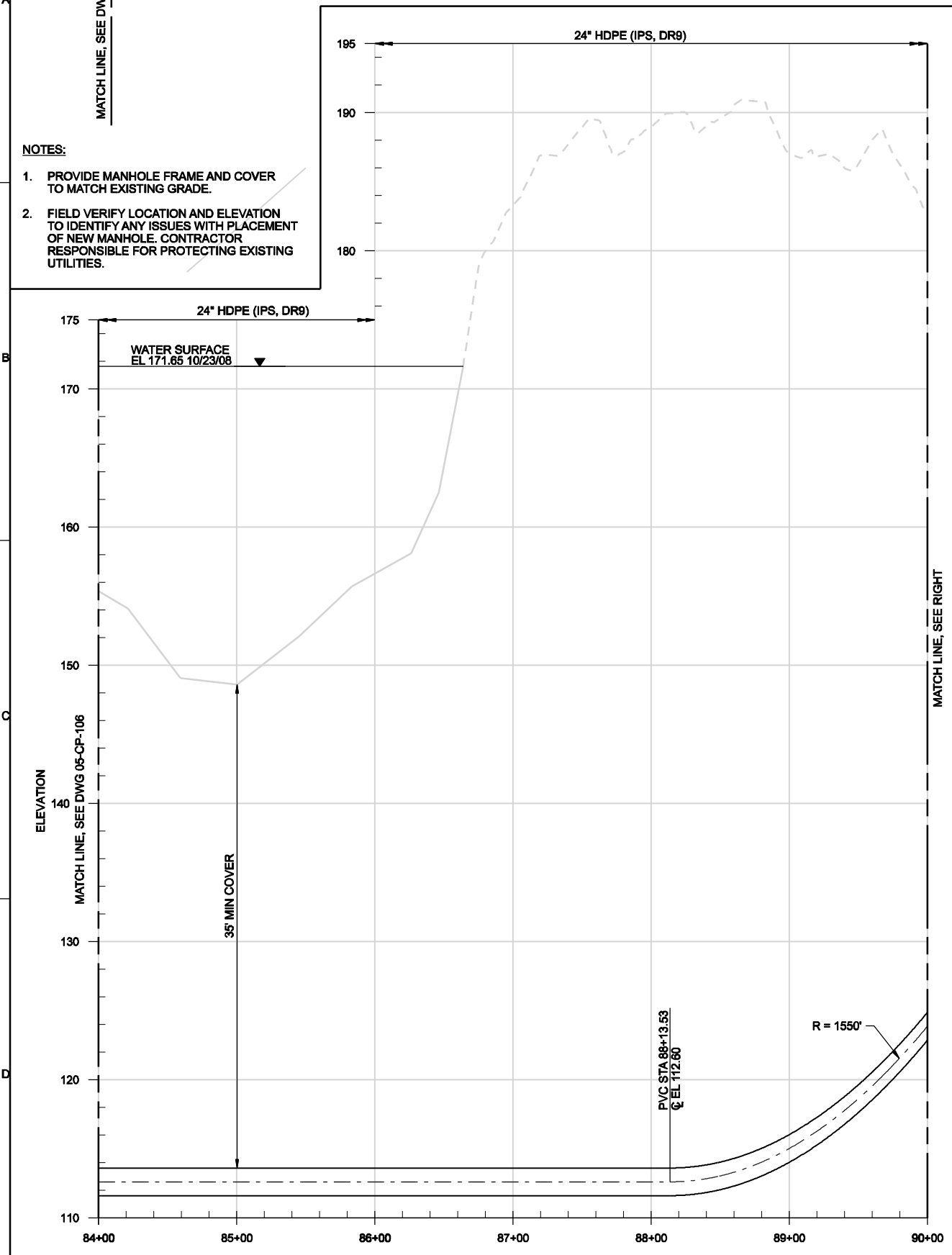
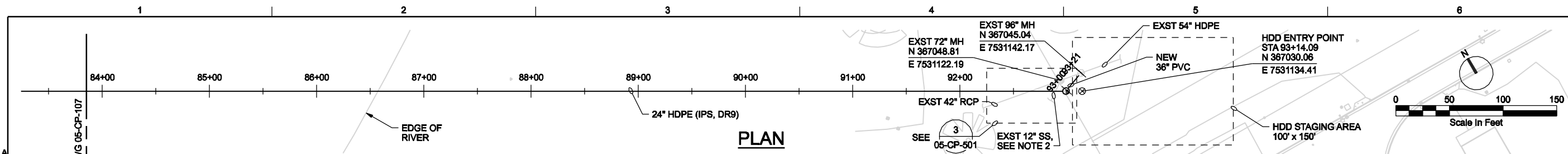


NOTES:

- CONTRACTOR IS TO PROVIDE 12' WIDE ALL-WEATHER ACCESS ROAD RUNNING PARALLEL TO THE NEW FORCEMAIN FROM STA 39+60 TO STA 75+40. PLACE ACCESS ROAD TO THE NORTH OF THE NEW FORCEMAIN. ACCESS ROAD IS TO HAVE A 6\"/>

THE CONTRACT DOCUMENTS WHICH DEFINE THE SCOPE AND CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, SIGNED FEBRUARY 10, 2009, BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 157508.

CH2MHILL	SITE DEVELOPMENT CONVEYANCE PIPELINE PLAN AND PROFILE STA 72+00 TO 84+00	NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS CITY OF ALBANY - PROJ NO. SS-07-04 ALBANY, OREGON	RECORD DRAWINGS	BY: JMD	DATE: 05/2010
			REVISION	CHK: SR REDDELL	DR: CD WOLFF
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.			APVD: CW MASSIE	DATE: FEB 2009	
DATE: FEB 2009			PROJ: 326918PL		PLOT TIME: 10:49:04 AM
DWG: 05-CP-107			SHEET: 021		



- NOTES:**
1. PROVIDE MANHOLE FRAME AND COVER TO MATCH EXISTING GRADE.
 2. FIELD VERIFY LOCATION AND ELEVATION TO IDENTIFY ANY ISSUES WITH PLACEMENT OF NEW MANHOLE. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING UTILITIES.

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15708.

NO.	DATE	DGN	DR	CHK	APVD	BY	KLM
05/2010			CD WOLFF	SR REDDELL	DJ PETERSON		
RECORD DRAWINGS			REVISION	APVD			

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL

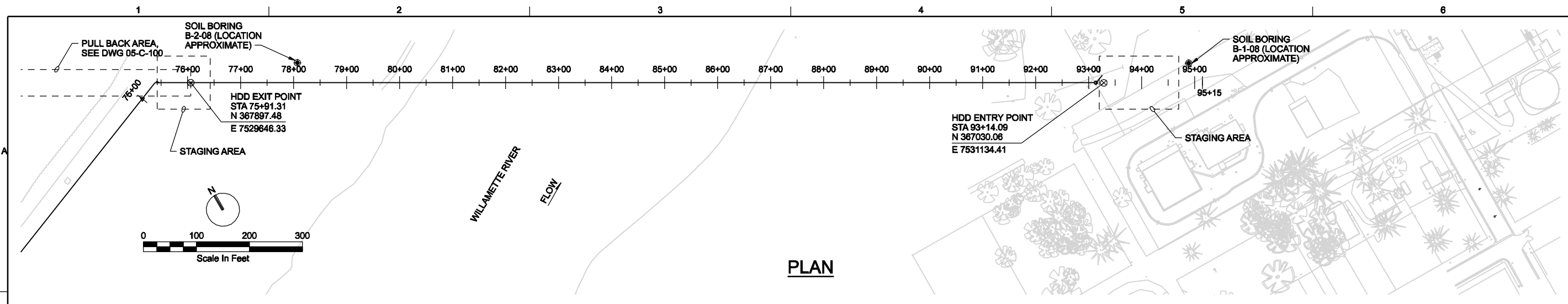
SITE DEVELOPMENT
CONVEYANCE PIPELINE
PLAN AND PROFILE
STA 84+00 TO 95+00

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

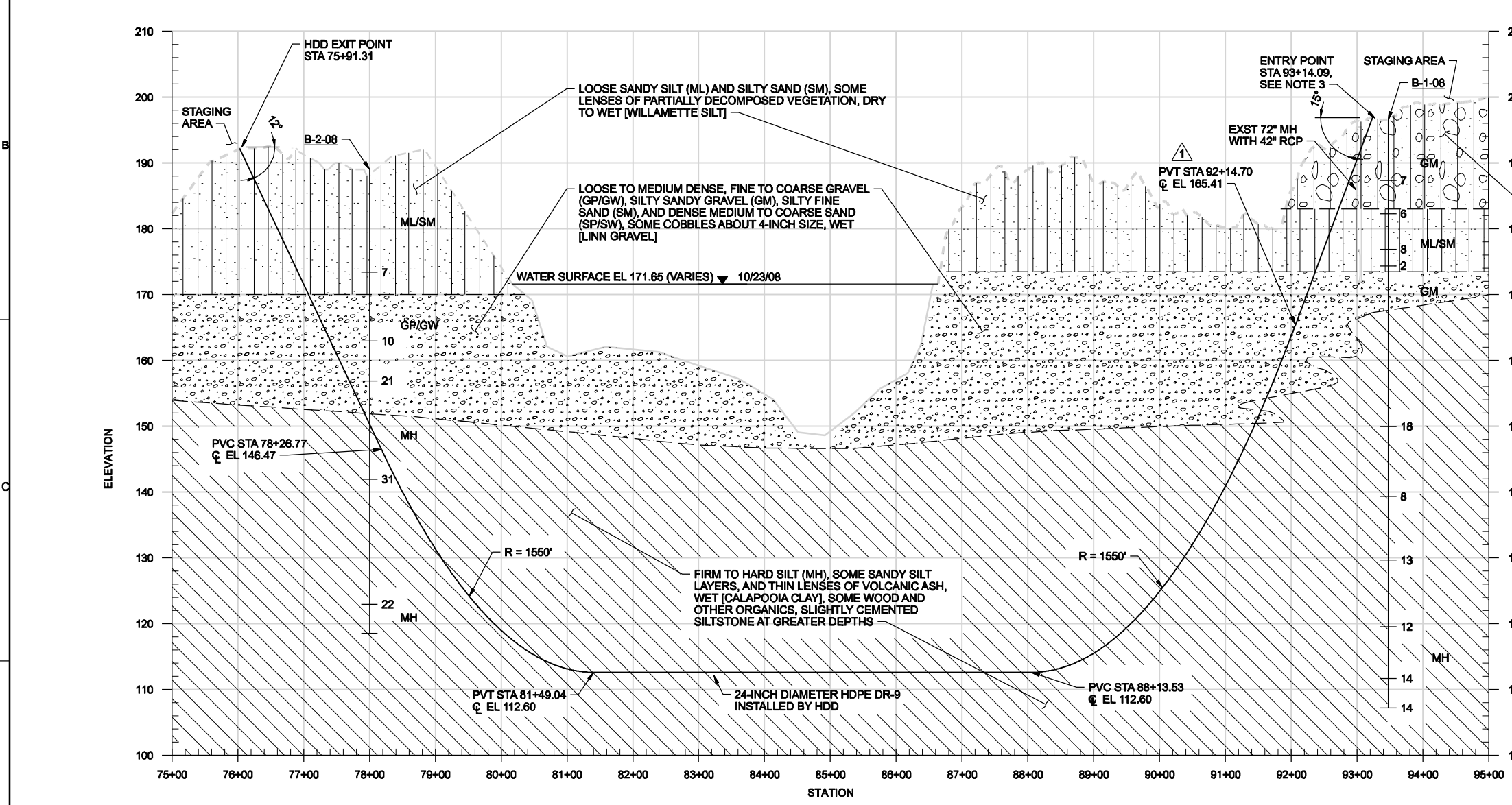
DATE	FEB 2009
PROJ	326918PL
DWG	05-CP-108
SHEET	022

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PLAN



PROFILE
 HORIZ: 1"=100'
 VERT: 1"=10'

NOTES:

1. SEE GEOTECHNICAL REPORT DATED DECEMBER 2008 BY CH2M HILL FOR COMPREHENSIVE GEOTECHNICAL INFORMATION.
 2. THIS GEOLOGIC PROFILE REPRESENTS A HIGHLY SIMPLIFIED PICTURE, AND IS AN INTERPRETATION BASED ON THE 2 TEST HOLES SHOWN PLUS EXPLORATORY DRILLING FROM NEARBY PROJECTS. ACTUAL STRATIFICATIONS ENCOUNTERED ARE LIKELY TO VARY FROM THOSE SHOWN DEPENDING ON LOCATION.
 3. FOR DETAILS OF HDD ENTRY, SEE DWG 05-CP-108 AND 05-CP-501.
 4. FOR STAGING AREAS, SEE DWG 05-C-100.
- LOOSE SILTY FINE TO COARSE GRAVEL (GM), SOME FINE TO COARSE SAND, SOME COBBLES UP TO ABOUT 4-INCH, SOME SILTY SAND LENSES, SOME THIN METAL SCRAPS AND OTHER MAN-MADE DEBRIS, MOIST [FILL]

LEGEND:

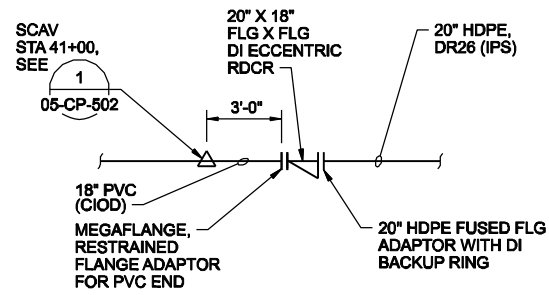
●	GEOTECHNICAL BORING (PLAIN)
⊕	SPT N VALVE (STANDARD PENETRATION TEST) AND UNIFIED SOIL CLASSIFICATION (USCS) FROM BORING LOG (PROFILE)
22	ML/SM

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15760B.

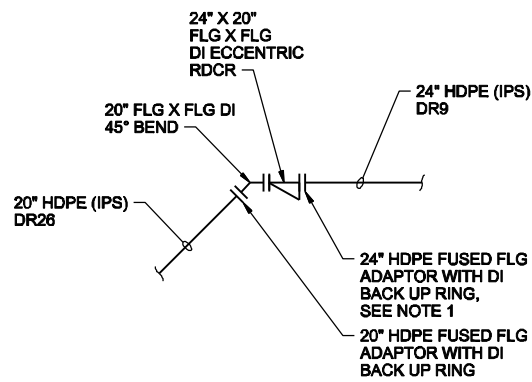
RECORD DRAWINGS	REVISION	CHK	APVD
05/2010	NO. DATE	DR	APVD
		SR REDDELL	DJ PETERSON
		CD WOLFF	CW MASSIE

CH2MHILL
 SITE DEVELOPMENT
 CONVEYANCE PIPELINE
 HDD RIVER CROSSING PROFILE
 NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	05-CP-201
SHEET	Q23

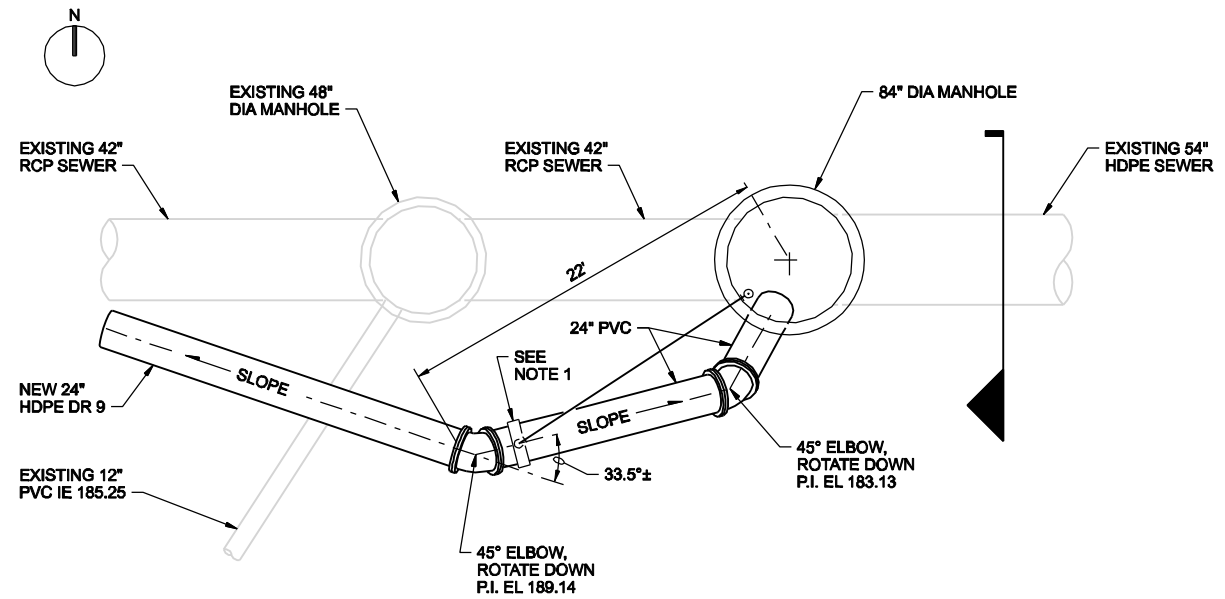


1 PIPE CONNECTION DETAIL
NTS
05-CP-104



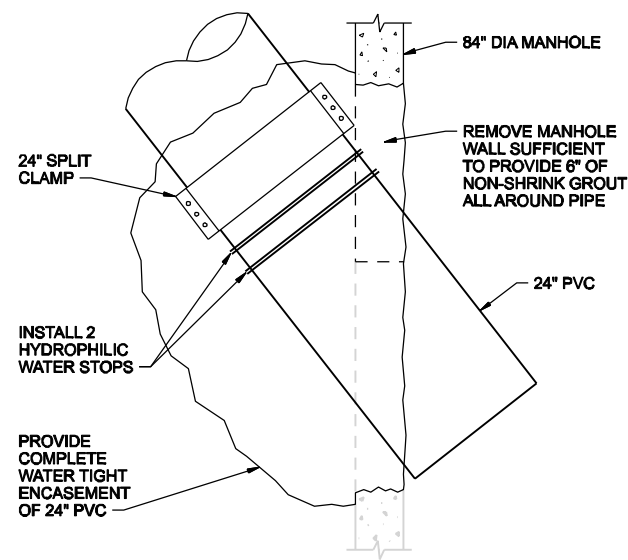
NOTES:
1. THE INSIDE OF 24" HDPE PIPE IS TO BE BEVELLED OUT WITH APPROPRIATE TOOLS TO MATCH THE ID OF 24" SIDE OF REDUCER AT THE CONNECTION PER MANUFACTURER RECOMMENDATION.

2 PIPE CONNECTION DETAIL
NTS
05-CP-107

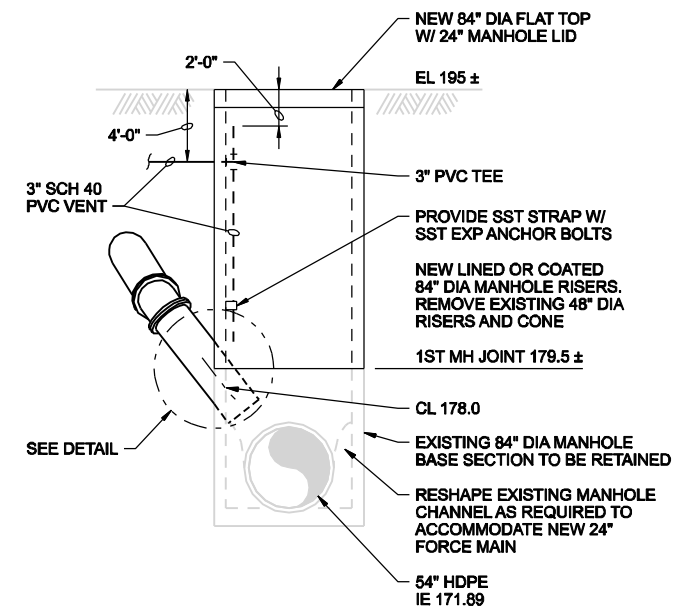


PLAN

NOTES:
1. PROVIDE 3" STRAP-ON SADDLE AND 3" SCH 40 VENT PIPE TO MANHOLE.



DETAIL
NTS



SECTION

3 DISCHARGE MANHOLE
3/16"=1'-0"
05-CP-108

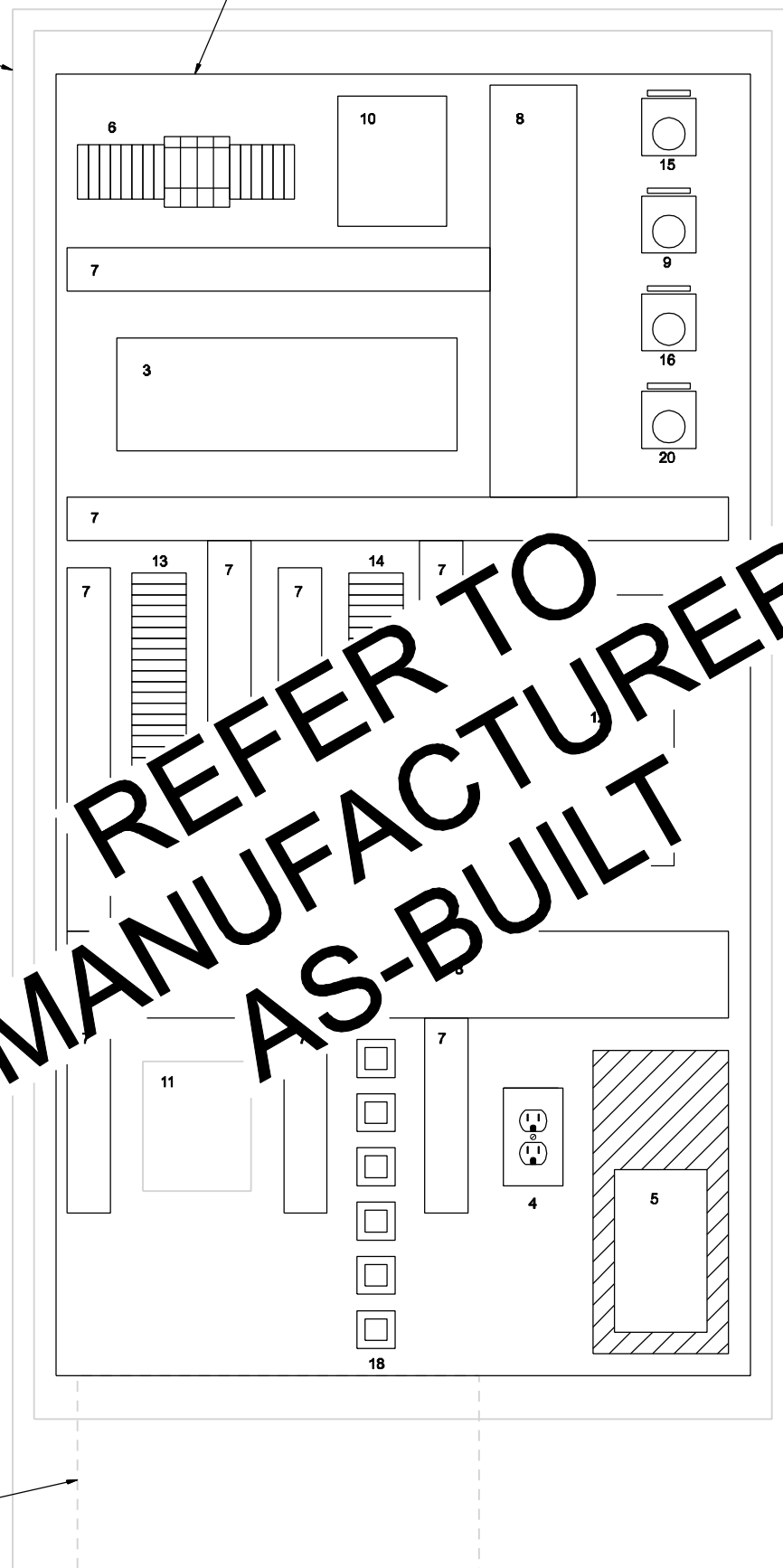
THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT SIGNED FEBRUARY 10, 2009 BY DANIEL J. PETERSON, STATE OF OREGON, P.E. NO. 15706.

RECORD DRAWINGS	REVISION	CHK	APVD	BY	KLM
05/2010	DATE	DGN	NO.	05/2010	DATE
CD WOLFF	DR	SR REDDELL	CHK	DJ PETERSON	APVD
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS			CITY OF ALBANY - PROJ NO. SS-07-04		
ALBANY, OREGON			REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2MHILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2MHILL.		

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	SEP 2009
PROJ	326918PL
DWG	05-CP-501A
SHEET	Q24

CH2MHILL	SITE DEVELOPMENT CONVEYANCE PIPELINE DETAILS
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS CITY OF ALBANY - PROJ NO. SS-07-04 ALBANY, OREGON	
REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2MHILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2MHILL.	
DATE	SEP 2009
PROJ	326918PL
DWG	05-CP-501A
SHEET	Q24

REFER TO
MANUFACTURER
AS-BUILT



RTU-CP19 PANEL COMPONENT SCHEDULE					
ITEM	QTY	ITEM	DESCRIPTION	CATALOG NUMBER	NOTES
1	1	PANEL ENCLOSURE	72" (H) x 36" (W) x 24" (D)	EXISTING ENCLOSURE	1.
2	1	SUB-PANEL	60" (H) x 32" (W)	HOFFMAN A-72P36F1	2.
3	1	CONTROLLER MODULES;	ALLEN-BRADLEY COMPACTLOGIX SYSTEM		
	1	A)	COMPACTLOGIX CONTROLLER	ALLEN-BRADLEY 1769-L35E	
	1	B)	POWER SUPPLY MODULE	ALLEN-BRADLEY 1769-OF4CI	
	1	C)	16-POINT 24VDC DISCRETE INPUT MODULE	ALLEN-BRADLEY 1769-PA4	
	1	D)	16-POINT 24VDC DISCRETE OUTPUT MODULE	ALLEN-BRADLEY 1769-IQ16	
	1	E)	8-POINT ANALOG INPUT MODULE	ALLEN-BRADLEY 1769-IF8	
	1	F)	4-POINT ANALOG OUTPUT MODULE	ALLEN-BRADLEY 1769-OF4CI	
	1	G)	RIGHT SIDE END CAP	ALLEN-BRADLEY 1769-ECR	
	1	H)	LEFT SIDE END CAP	ALLEN-BRADLEY 1769-ECL	
4	1	120VAC RECEPTACLE			
5	1	PANEL HEATER			
6	AS REQD	POWER DISTRIBUTION	TERMINAL BLOCKS, FUSES AND BREAKERS		3.
7	AS REQD	2-INCH PANDUIT	3-INCH DEPTH		
8	AS REQD	4-INCH PANDUIT	3-INCH DEPTH		
9	1	STATION LEVEL HIGH ALARM	INDICATING LIGHT		
10	1	ETHERNET SWITCH	MANAGED ETHERNET/IP NETWORK SWITCH	HIRSCHMANN RS20	
11	1	DATA-RADIO MODEM	EXISTING DATA-RADIO		4.
12	1	EXISTING LEVEL TRANSMITTER	RELOCATED FROM EXISTING LOCATION		
13	AS REQD	DISCRETE FIELD TERMINALS			
14	AS REQD	ANALOG FIELD TERMINALS			
15	1	UPS BYPASS SWITCH	2-POSITION SWITCH		
16	1	TROUBLE BUTTON	MOMENTARY PUSHBUTTON		
17	1	UPS	EXISTING UNINTERRUPTIBLE POWER SUPPLY		5.
18	AS REQD	INTERPOSING RELAYS			
20	1	PLC LEVEL SWITCH	2-POSITION SWITCH		

NOTES:

- REPLACE EXISTING FRONT INSIDE PANEL WITH NEW PANEL AND EQUIPMENT AS SHOWN. RE-USE EXISTING ENCLOSURE. COORDINATE STATION SHUTDOWN WITH BYPASS PUMPING SO THAT OPERATIONS ARE NOT IMPACTED WHILE INSTALLING NEW COMPONENTS.
- MAINTAIN MINIMUM 2-INCH SPACE AROUND ALL SIDES OF PLC EQUIPMENT.
- INSTALL PANEL HEATER WITH ADEQUATE CLEAR SPACE AROUND UNIT PER HEATER MANUFACTURER RECOMMENDATIONS.
- RE-USE EXISTING DATA-RADIO. INSTALL DATA RADIO ON METAL SHELF EXTENDING OUTWARD FROM PANEL SO INDICATORS ON RADIO ARE EASILY VISIBLE FROM FRONT OF PANEL. LOCATE RADIO SO THAT EXISTING ANTENNAE CABLE CAN BE RE-CONNECTED WITHOUT ADDITIONAL CABLE OR SPLICE CONNECTIONS. COORDINATE WITH BYPASS PUMPING SO OPERATION OF STATION IS NOT IMPACTED.
- RE-USE EXISTING UNINTERRUPTIBLE POWER SUPPLY. COORDINATE WITH BYPASS PUMPING SO OPERATION OF STATION IS NOT IMPACTED.
- PANEL IS TO BE RELOCATED. COORDINATE WITH GENERAL CONTRACTOR FOR NEW SUPPORT SLAB. PROVIDE NEW DATA-RADIO ANTENNA CABLE AND MILLTRONICS TRANSDUCER CABLE TO SUIT NEW LOCATION, OR RE-USE EXISTING IF POSSIBLE WITH CREDIT TO OWNER. COORDINATE WITH DIVISION 28 ELECTRICAL FOR REPLACEMENT/ REINSTALLATION OF EXTERNALLY ORIGINATING ELECTRICAL FEED LINES. ALL NEW ELECTRICAL FEED LINES THAT NEED REPLACING ARE TO BE PROVIDED BY DIVISION 26.

NOTE 6

NORTH ALBANY PUMP STATION PANEL RTU-CP19
INTERIOR ELEVATION
SCALE: 3" = 1'-0"

THE CONTRACT DOCUMENT DOCUMENTS WHICH DEFINE THE SCOPE OF THE WORK, CHARACTERIZE THE WORK, THE ORIGINAL DOCUMENT DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2002 BY CHRISTOPHER S. BURR, STATE OF OREGON, P.E. NO. 49635PE

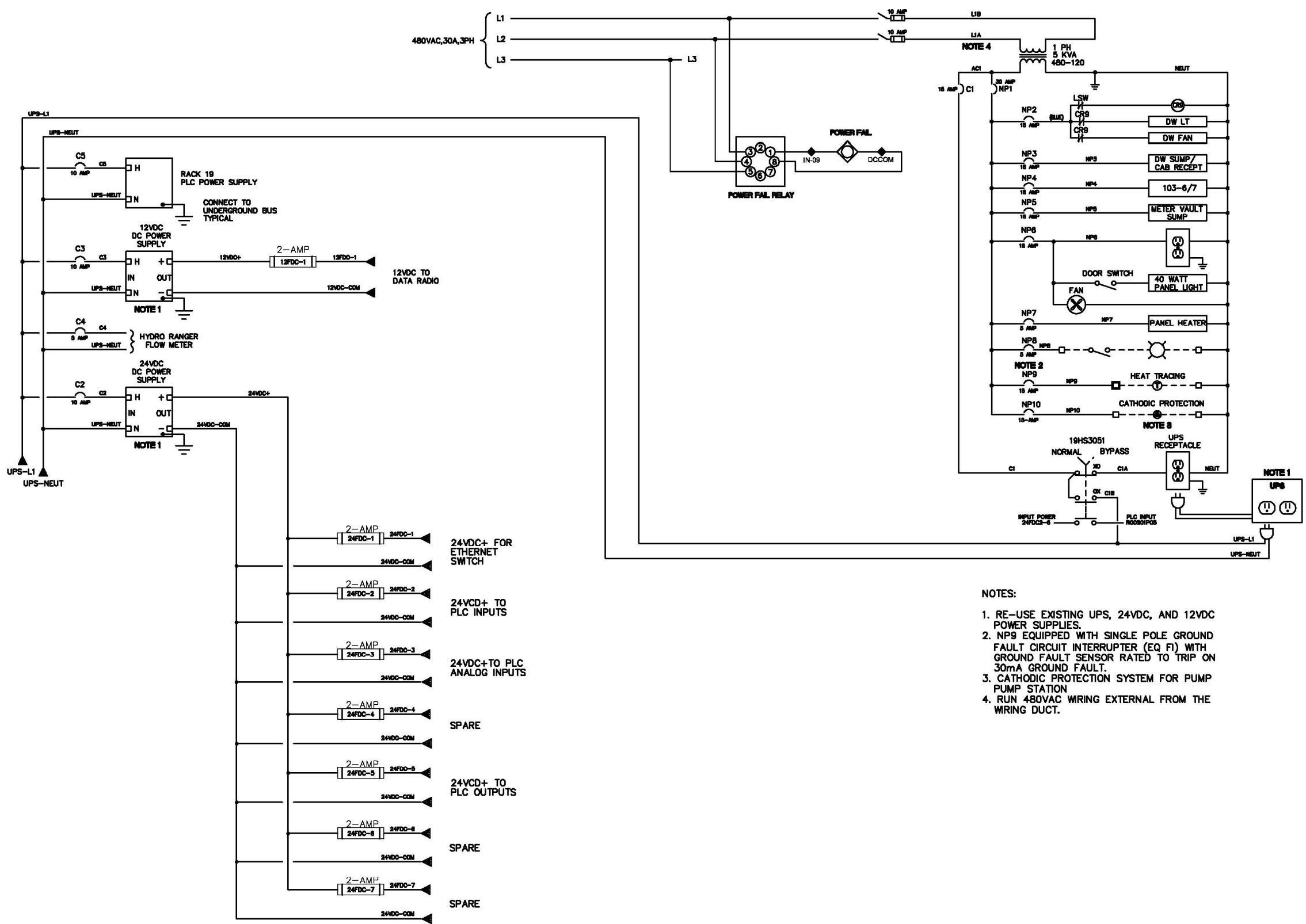
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REVISION	CHK	DR	CS BURR	DS PARKER
NO. DATE	05/2010			
DSGN				

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL

INSTRUMENTATION AND CONTROL
NORTH ALBANY PUMP STATION
RTU-CP19 PANEL LAYOUT

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	08-I-002
SHEET	027



- NOTES:
1. RE-USE EXISTING UPS, 24VDC, AND 12VDC POWER SUPPLIES.
 2. NP9 EQUIPPED WITH SINGLE POLE GROUND FAULT CIRCUIT INTERRUPTER (EQ FI) WITH GROUND FAULT SENSOR RATED TO TRIP ON 30mA GROUND FAULT.
 3. CATHODIC PROTECTION SYSTEM FOR PUMP PUMP STATION
 4. RUN 480VAC WIRING EXTERNAL FROM THE WIRING DUCT.

THE CONTRACT DOCUMENT DRAWINGS ARE PRINTED DOCUMENTS WHICH DEFINE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK. THE ORIGINAL CONTRACT DOCUMENTS ARE TO BE KEPT AND SIGNED FEBRUARY 10, 2009 BY KANDIL, MAESTRI, STATE OF OREGON, P.E. NO. 53786PE.

RECORD DRAWINGS	JMD	KLM	BY	APVD	CW MASSIE
			DR	APVD	BP DEGLANVILLE
			CHK		DS PARKER
			DSGN		CS BURR
05/2010	NO. DATE				

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
RTU-CP19 PANEL POWER
DISTRIBUTION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE	FEB 2009
PROJ	326918PL
DWG	08-I-003
SHEET	028

FIELD

SENSOR: MANUFACTURER: SIEMENS
 MODEL: HYDRORANGER

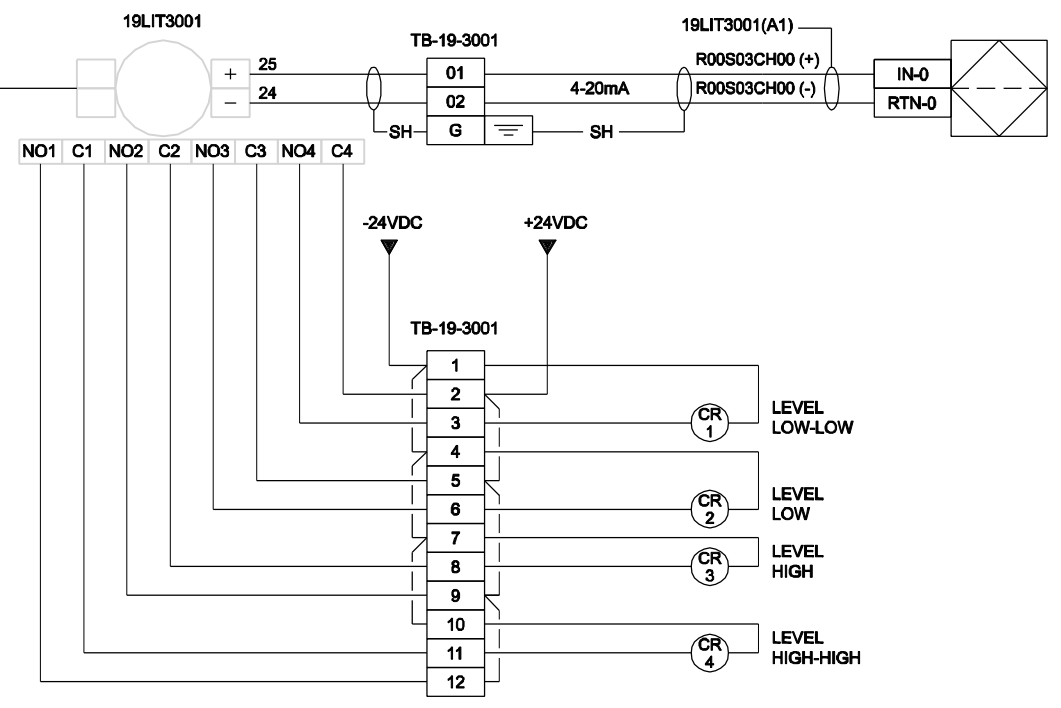
RANGE: 0 - 20 feet



**PANEL
 WW1-RTU-CP19**

MANUFACTURER: SIEMENS
 MODEL: HYDRORANGER

RANGE: 0 - 20 feet



LEVEL PLC: WW1-RTU-CP19
 N/S/C: 00/03/00
 SOFTWARE TAG: WW1_19_3001_LEVEL
 SCALE: 0 - 20 feet

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE SCOPE OF THE WORK, CHARACTER OF THE WORK, THE ORIGINAL DOCUMENT DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2002 BY CHRISTOPHER S. BURR, STATE OF OREGON, P.E. NO. 49633PE

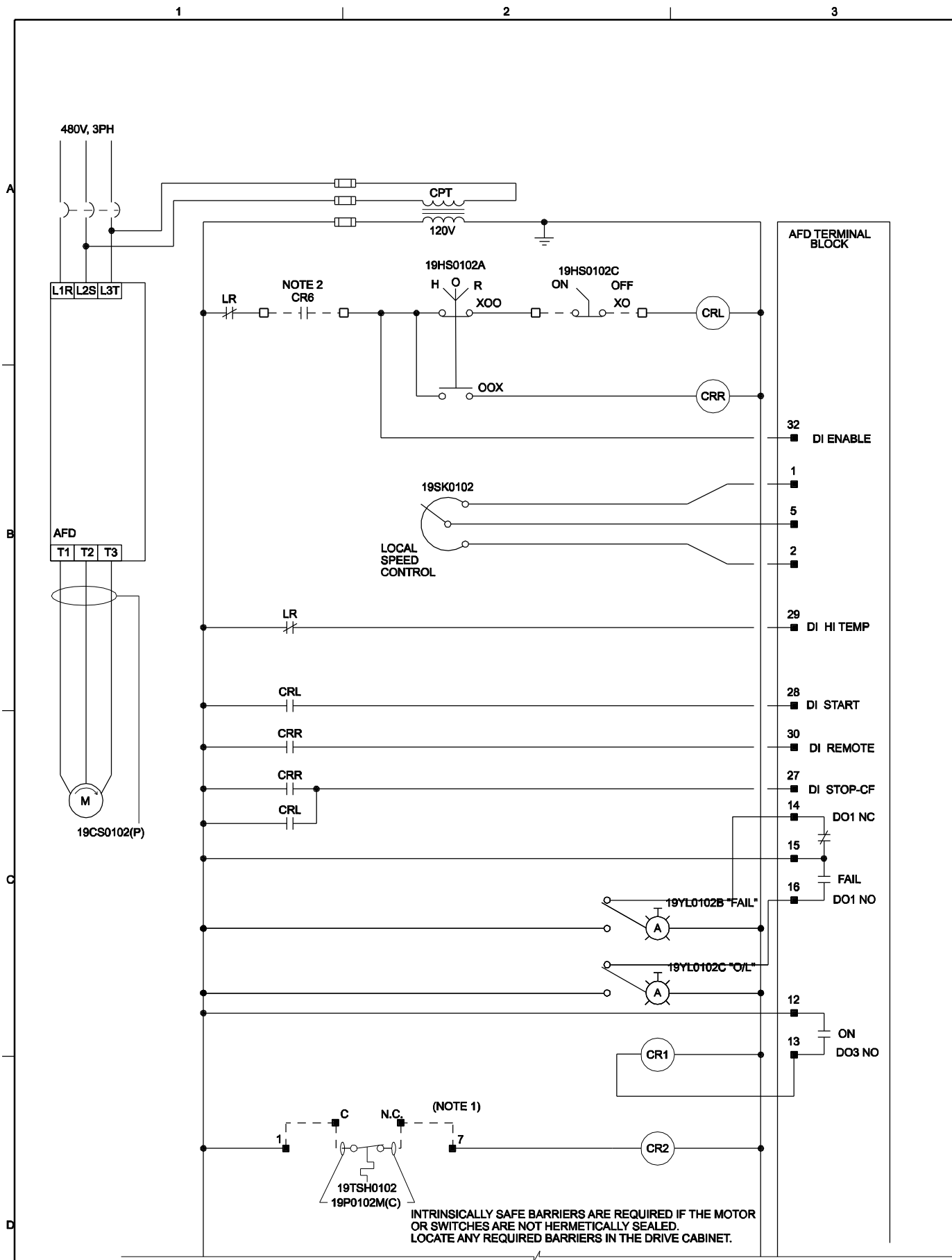
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05/2010	DR	CS BURR	DR	CS BURR
NO. DATE	DR	CS BURR	DR	CS BURR
DSGN	CHK	DS PARKER	BP DEGLANVILLE	CW MASSIE

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

CH2MHILL
 INSTRUMENTATION AND CONTROL
 WIRING DIAGRAM
 NORTH ALBANY FORCE MAIN
 WETWELL LEVEL LOOP 19-3001

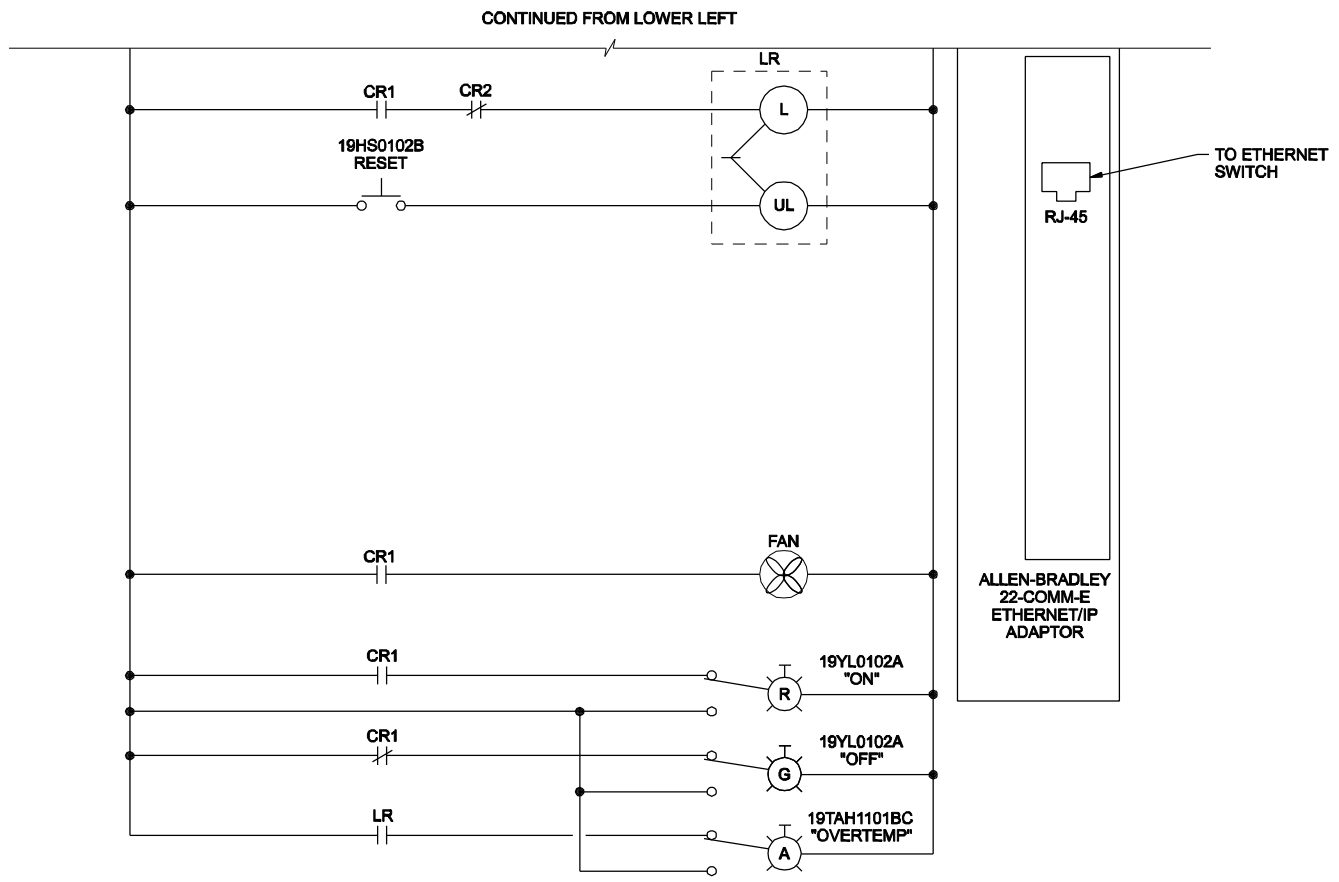
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BAR IS ONE INCH ON ORIGINAL DRAWING.	1"
DATE	FEB 2009
PROJ	326918PL
DWGT	08-I-004
SHEET	029

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INTRINSICALLY SAFE BARRIERS ARE REQUIRED IF THE MOTOR OR SWITCHES ARE NOT HERMETICALLY SEALED. LOCATE ANY REQUIRED BARRIERS IN THE DRIVE CABINET.

CONTINUED UPPER RIGHT



- NOTES:
- CONNECT TEMPERATURE SWITCHES IN SERIES IF MORE THAN ONE EXIST.
 - SEE SHEET 08-I-012 FOR CONTROL RELAY LOGIC.

THE CONTRACT DOCUMENT DRAWINGS WHICH DEFINE THE SCOPE OF THE WORK, CHARACTERIZE THE WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2002 BY CHRISTOPHER S. BURR, STATE OF OREGON, P.E. NO. 49635PE

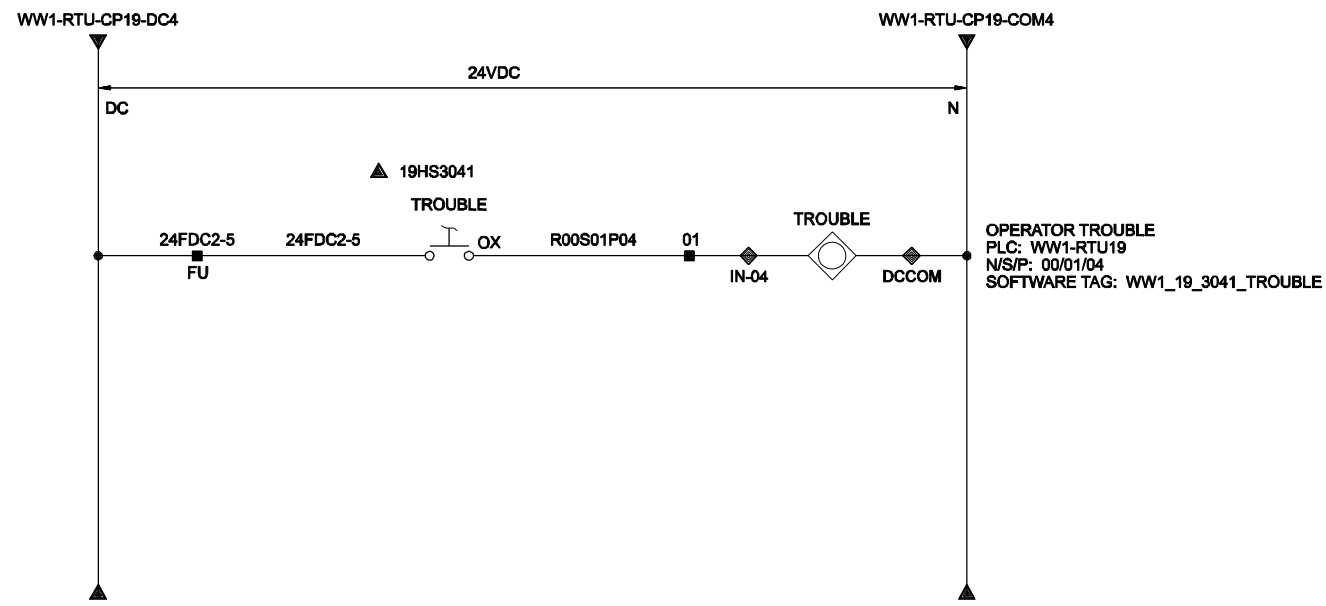
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REVISION	DR	CHK	APVD	CW MASSIE
NO. DATE	05/2010	DS PARKER	BP DEGLANVILLE	
DSGN		CS BURR		

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
NORTH ALBANY FORCE MAIN PUMP 2
LOOP 19-0102

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING
DATE	FEB 2009
PROJ	326918PL
DWG	08-I-006
SHEET	031

PANEL
WW1-RTU-CP19



OPERATOR TROUBLE
PLC: WW1-RTU19
N/S/P: 00/01/04
SOFTWARE TAG: WW1_19_3041_TROUBLE

CH2MHILL

INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
OPERATOR TROUBLE SWITCH
LOOP 19-3041

NORTH ALBANY FORCE MAIN AND
EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

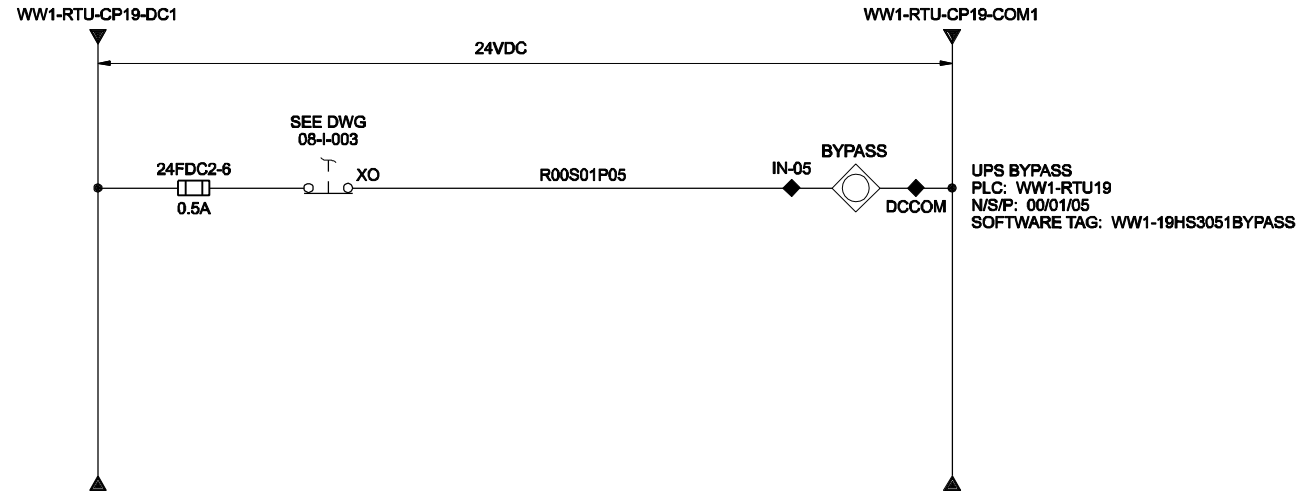
05/2010	RECORD DRAWINGS	CSB	CWM
DGN	NO. DATE	BY	APVD
CS BLURR	DR	CHK	APVD
DS PARKER	BP DEGLANVILLE	BY	APVD
			CW MASSIE

THE CONTRACT DOCUMENT
DRAWINGS ARE PRINTED
DOCUMENTS WHICH DEFINE
SPECIFICALLY THE WORK
CHARACTER OF THE WORK.
THE ORIGINAL DOCUMENT
DRAWINGS WERE SEALED AND
SIGNED FEBRUARY 10, 2002
BY CHRISTOPHER S. BURR,
STATE OF OREGON
P.E. NO. 49635PE

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VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	08-I-007
SHEET	032

WW1-VLR-CP01



CH2MHILL

INSTRUMENTATION AND CONTROL
 WIRING DIAGRAM
 RTU-CP19 UPS BYPASS SELECTOR
 LOOP 19-3051

NORTH ALBANY FORCE MAIN AND
 EXISTING LIFT STATION IMPROVEMENTS
 CITY OF ALBANY - PROJ NO. SS-07-04
 ALBANY, OREGON

NO.	DATE	DR	CHK	APVD
D5GN	05/2010	CS BURR	DS PARKER	BP DEGLANVILLE

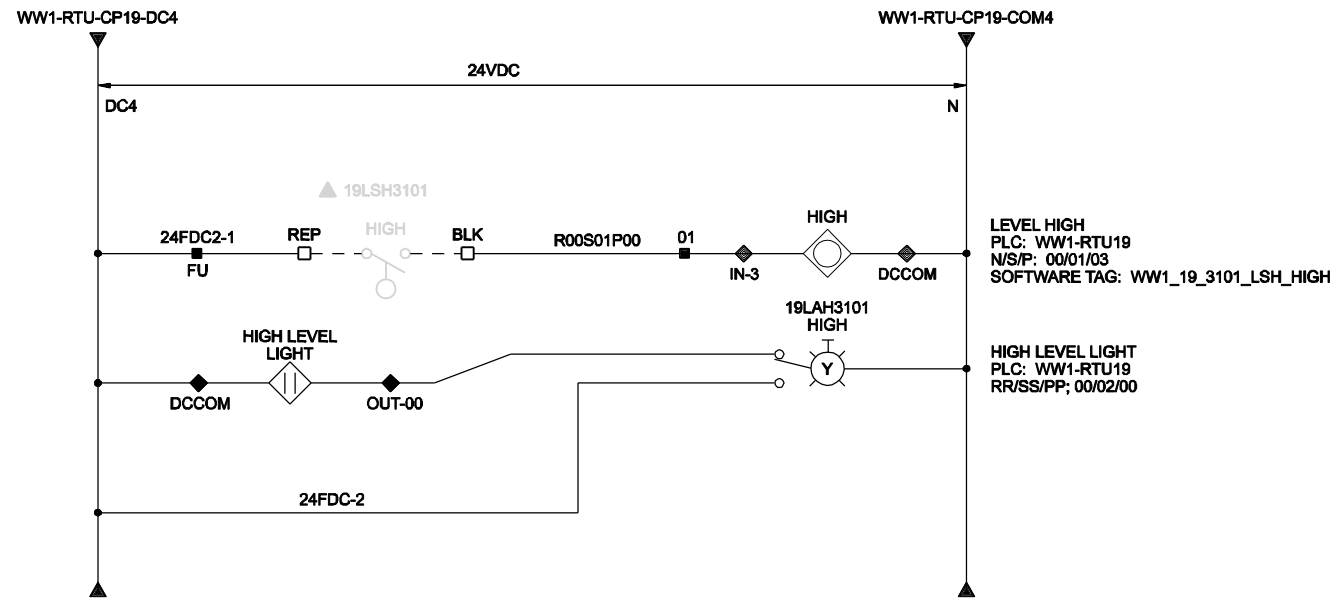
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REVISION	BY	APVD
CS BURR	DS PARKER	BP DEGLANVILLE
DR	DS PARKER	BP DEGLANVILLE
APVD	APVD	CW MASSIE

THE CONTRACT DOCUMENT
 DRAWINGS ARE PRINTED
 DOCUMENTS WHICH DEFINE
 SCOPE OF THE WORK,
 CHARACTER OF THE WORK,
 THE ORIGINAL DOCUMENT
 DRAWINGS WERE SEALED AND
 SIGNED FEBRUARY 10, 2002
 BY CHRISTOPHER S. BURR,
 STATE OF OREGON
 P.E. NO. 49635PE

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	08-I-008
SHEET	033

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PANEL
WW1-RTU-CP19



THE CONTRACT DOCUMENT
DRAWINGS WHICH DEFINE
SPECIFIC WORK SHALL BE
CHARACTERIZED BY THE
THE ORIGINAL DOCUMENT.
DRAWINGS WERE SEALED AND
SIGNED FEBRUARY 10, 2002
BY CHRISTOPHER S. BURR,
STATE OF OREGON,
P.E. NO. 49635PE

RECORD DRAWINGS	CSB	CWM	BY	APVD
REVISION	CHK	DR	CS BURR	APVD
NO.	DATE	DR	CS BURR	APVD
DGN	05/2010	DR	CS BURR	APVD

NORTH ALBANY FORCE MAIN AND
EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL

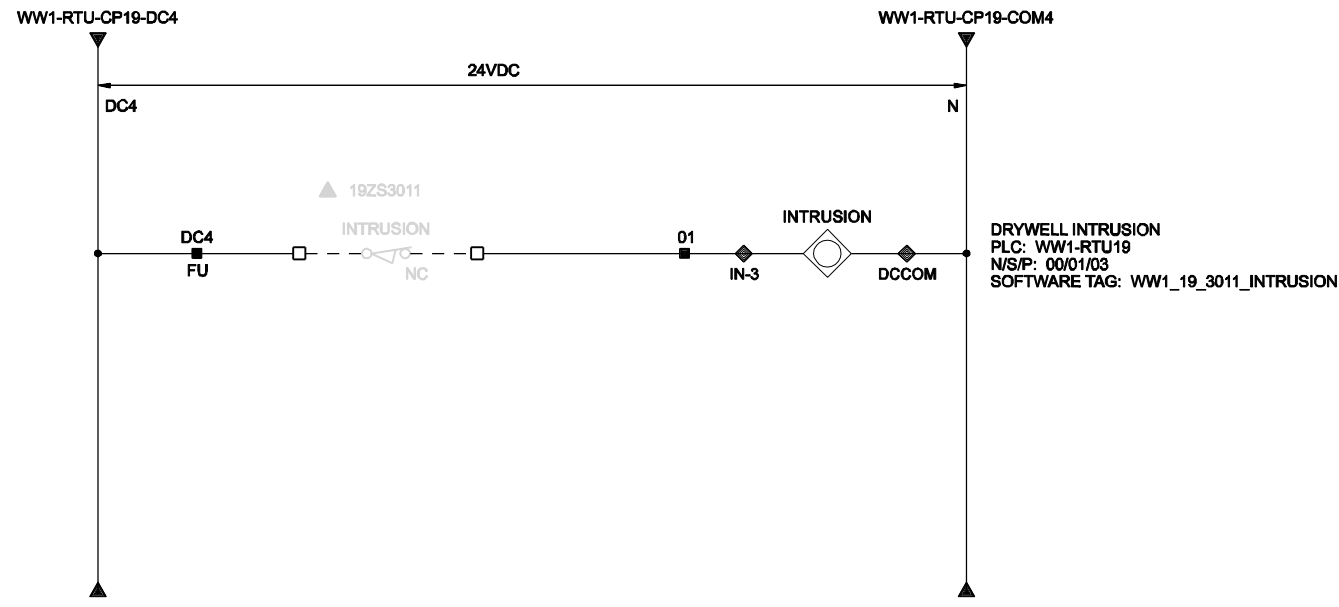
INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
WETWELL HIGH LEVEL ALARM
LOOP 19-3101

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	08-I-009
SHEET	034

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PANEL
WW1-RTU-CP19



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RECORD DRAWINGS	CSB	CWM
REVISION	BY	APVD
05/2010		
DGN	DR	APVD
	CS BURR	CW MASSIE
	DS PARKER	BP DEGLANVILLE

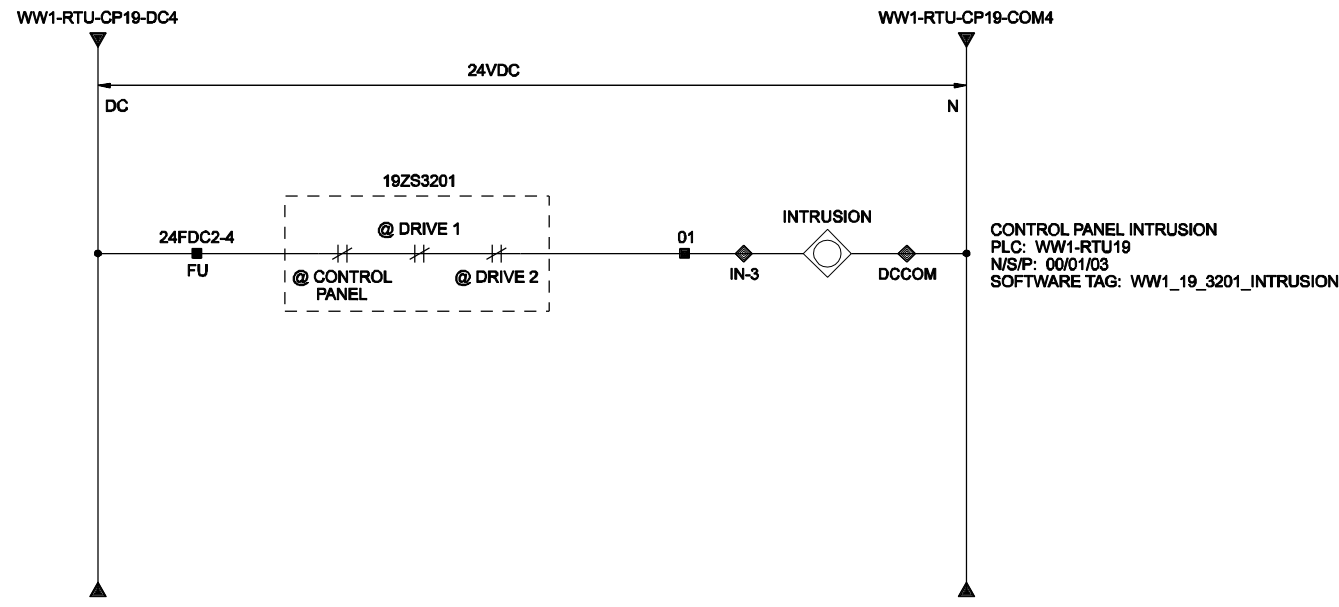
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
DRYWELL INTRUSION SWITCH
LOOP 19-3011

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	08-I-010
SHEET	035

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PANEL
WW1-RTU-CP19



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RECORD DRAWINGS	CSB	CWM
REVISION	BY	APVD
05/2010	DR	APVD
DSGN	CS BURR	BP DEGLANVILLE
	DS PARKER	CW MASSIE

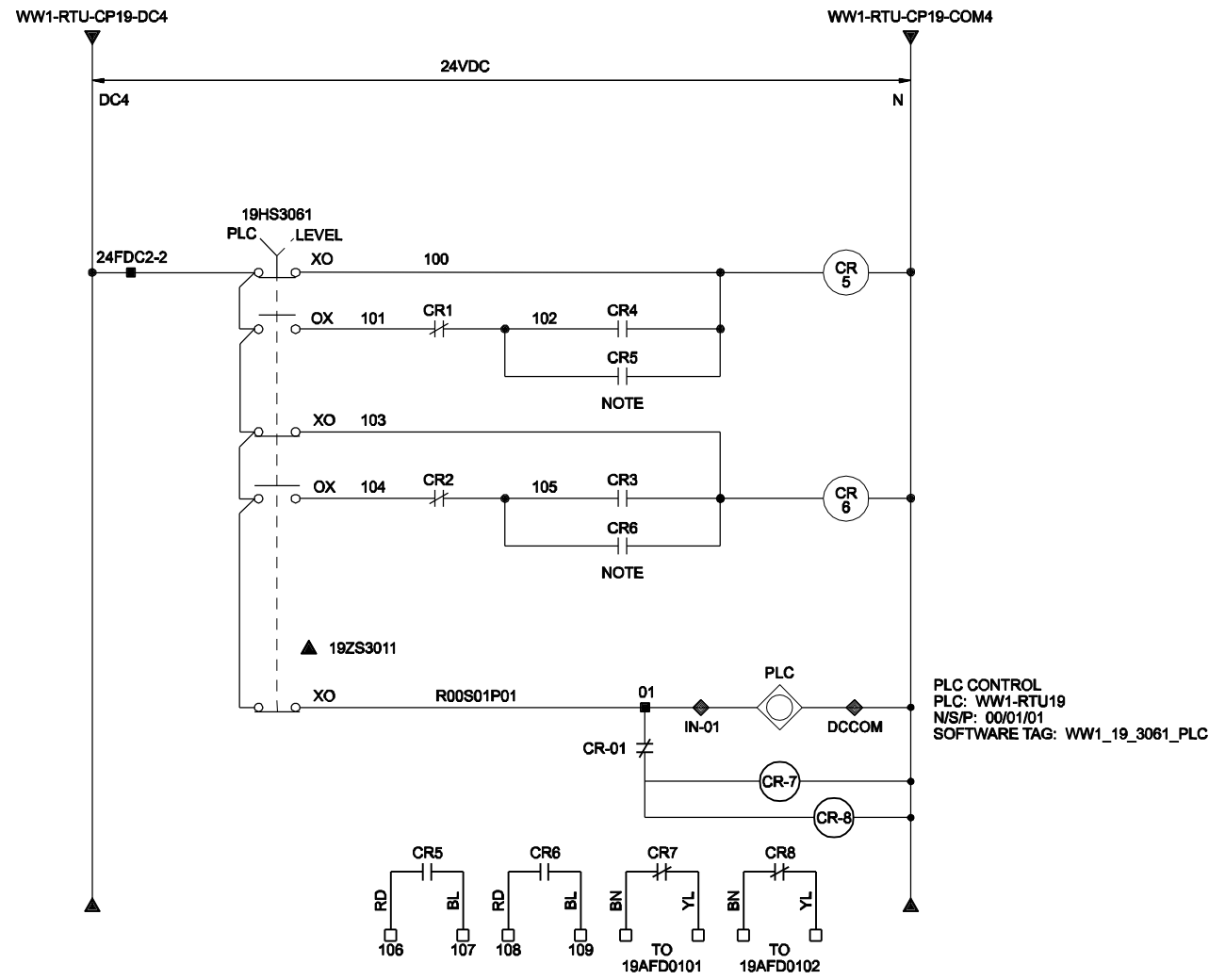
NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
CONTROL PANEL INTRUSION
LOOP 19-3301

VERIFY SCALE	
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SHEET	036

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PANEL
WW1-RTU-CP19



NOTE:
SEE SHEET 08-I-004 FOR CONTROL RELAY LOGIC FOR RELAYS CR1, CR2, CR3 AND CR4.

THE CONTRACT DOCUMENT
DRAWINGS WHICH DEFINE
SPECIFICATIONS, WORK
CHARACTERISTICS, WORK,
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DRAWINGS WERE SEALED AND
SIGNED FEBRUARY 10, 2002
BY CHRISTOPHER S. BURR,
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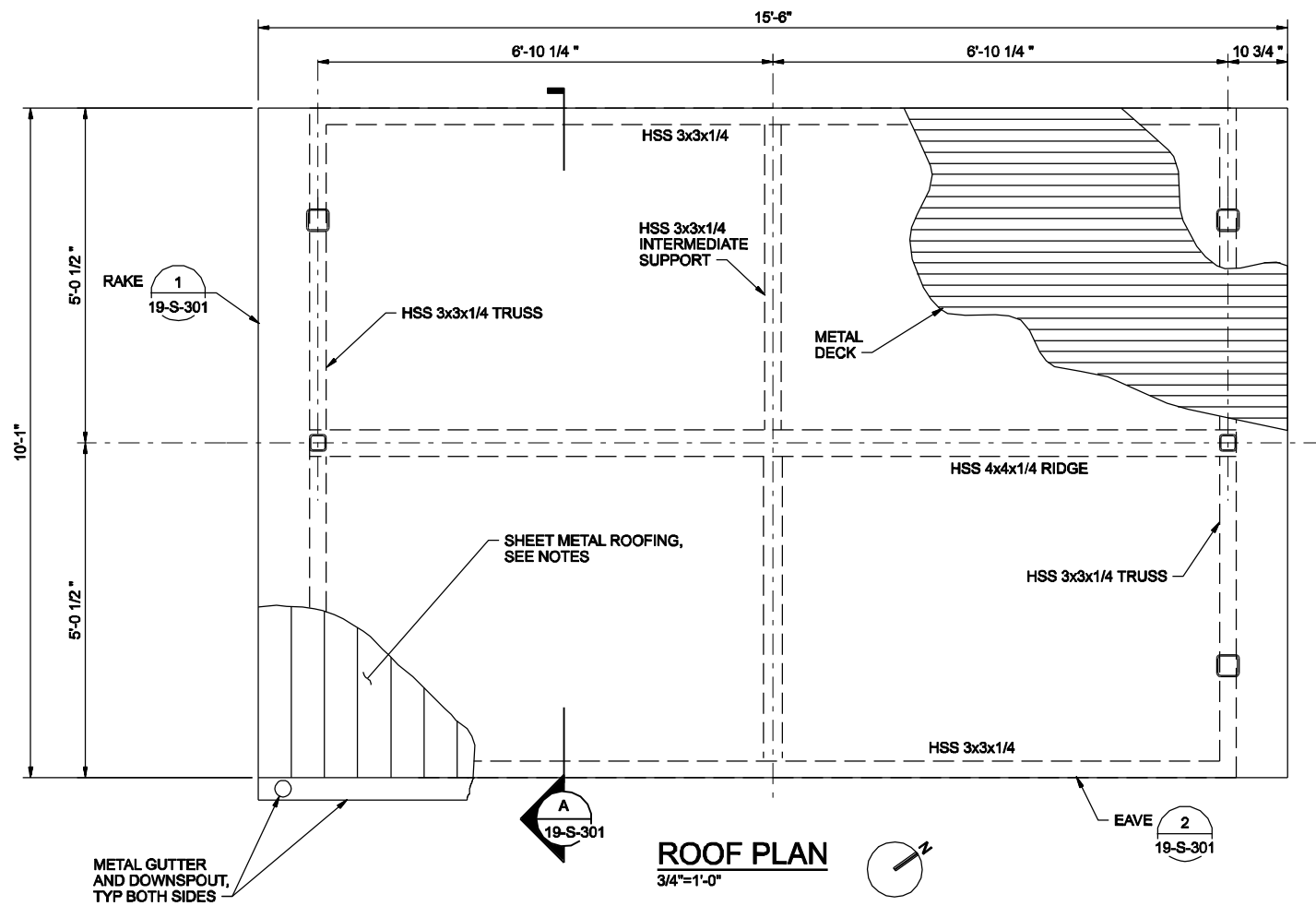
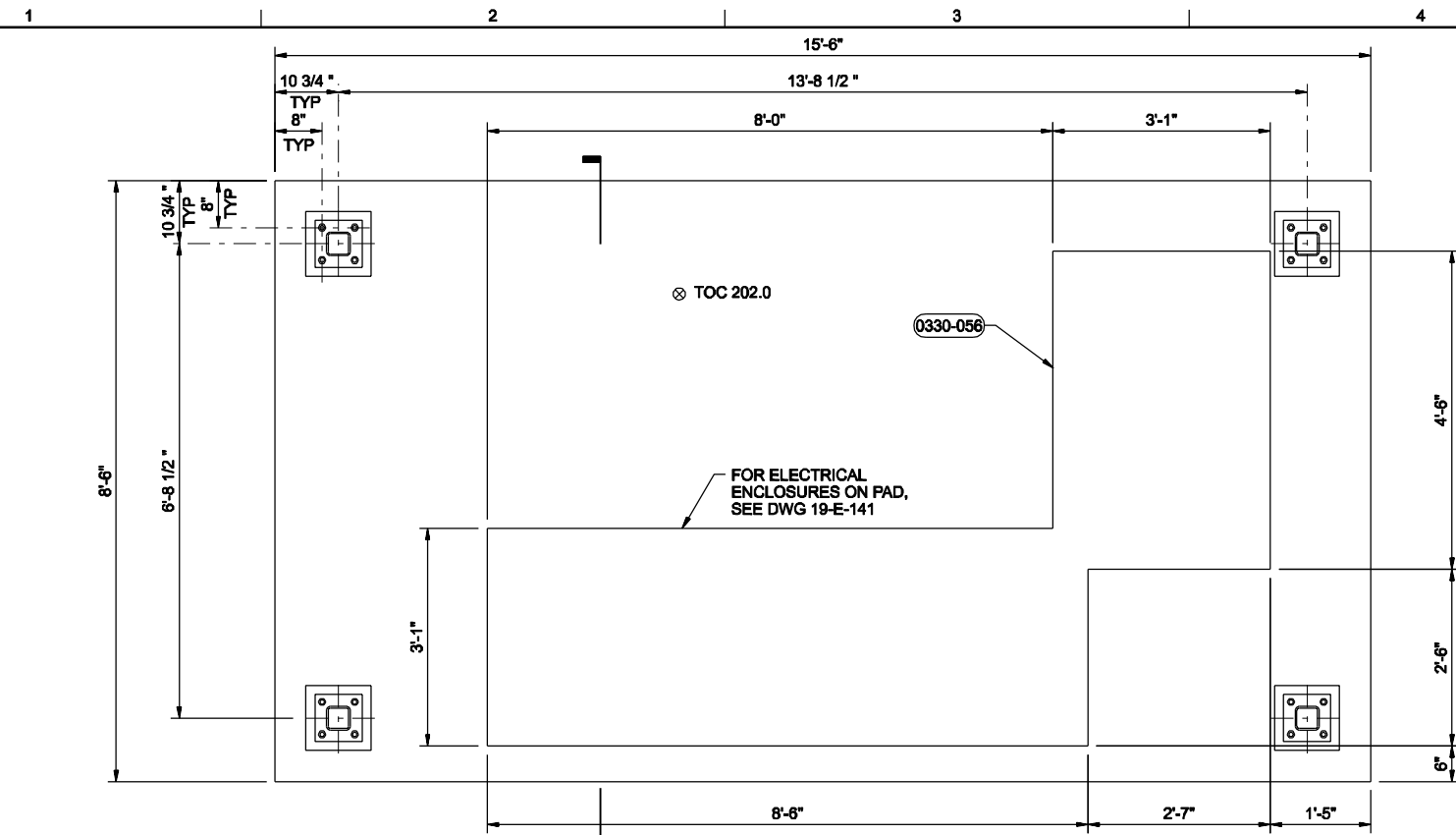
RECORD DRAWINGS	CSB	CWM	BY	APVD
REVISION	CHK	DR	APVD	CW MASSIE
NO. DATE	05/2010	CS BURR	DS PARKER	BP DEGLANVILLE
DSGN				

NORTH ALBANY FORCE MAIN AND
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CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
INSTRUMENTATION AND CONTROL
WIRING DIAGRAM
PUMP PLC / LEVEL CONTROL MODE
LOOP 19-3061

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
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SHEET	037

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METAL DECK NOTES

- UNLESS NOTED OTHERWISE METAL DECK SHALL BE 1 1/2", 22 GAGE, G90 GALVANIZED STEEL PER ASTM A653 WITH THE FOLLOWING MINIMUM PROPERTIES:
 $I = 0.175 \text{ in}^4/\text{FT}$
 $+S = 0.187 \text{ in}^3/\text{FT}$
 $-S = 0.198 \text{ in}^3/\text{FT}$
 $FY = 33 \text{ ksi}$
- METAL DECK SHALL BE ATTACHED TO ALL SUPPORTS AS FOLLOWS:
 PERPENDICULAR TO SPAN: 7 - HILTI X-EDNK 22 FASTENERS PER 36" PANEL WIDTH.
 PARALLEL TO SPAN: 7 - HILTI X-EDNK 22 FASTENERS @ 24" OC.
 SIDE LAP: #10 TEK SCREWS @ 12" OC.
- MANUFACTURER AND PRODUCT: VERCO PLB-36 OR APPROVED EQUAL.

SHEET METAL ROOFING NOTES

- MATERIAL: ASTM A792, ALUMINUM-ZINC COATED STEEL
- FINISH: FACTORY APPLIED KYNAR 500 FLUOROPOLYMER RESIN BASED COATING; TWO COATS MINIMUM.
- COLOR: TO BE SELECTED BY OWNER FROM MANUFACTURER'S STANDARD COLOR RANGE.
- CONFIGURATION: STANDING SEAM; PREFORMED INTERLOCKING PANELS WITH UPTURNED EDGES SHAPED TO OVERLAP AND INTERLOCK AT THE EDGES.
- MANUFACTURER AND PRODUCT: AEP-SPAN; KLIP RIB.
- EXPOSED FASTENERS: STAINLESS STEEL PANHEAD TYPE FINISHED TO MATCH ROOFING.
- FABRICATE AND FINISH FLASHINGS AND TRIM FROM SAME METAL AS ROOFING PANELS.

PAINT NOTES

- PAINT EXPOSED STEEL FRAMING AND METAL DECK WITH PAINT SYSTEM No. 10 IN COLOR TO MATCH ROOF COLOR.

SEALANT NOTES

- POLYURETHANE BASE, SINGLE-COMPONENT, MOISTURE CURING, ASTM C920, TYPE S, GRADE NS, CLASS 25.
- MANUFACTURER AND PRODUCT: SIKA CHEMICAL CORP, SIKAFLEX-1A.

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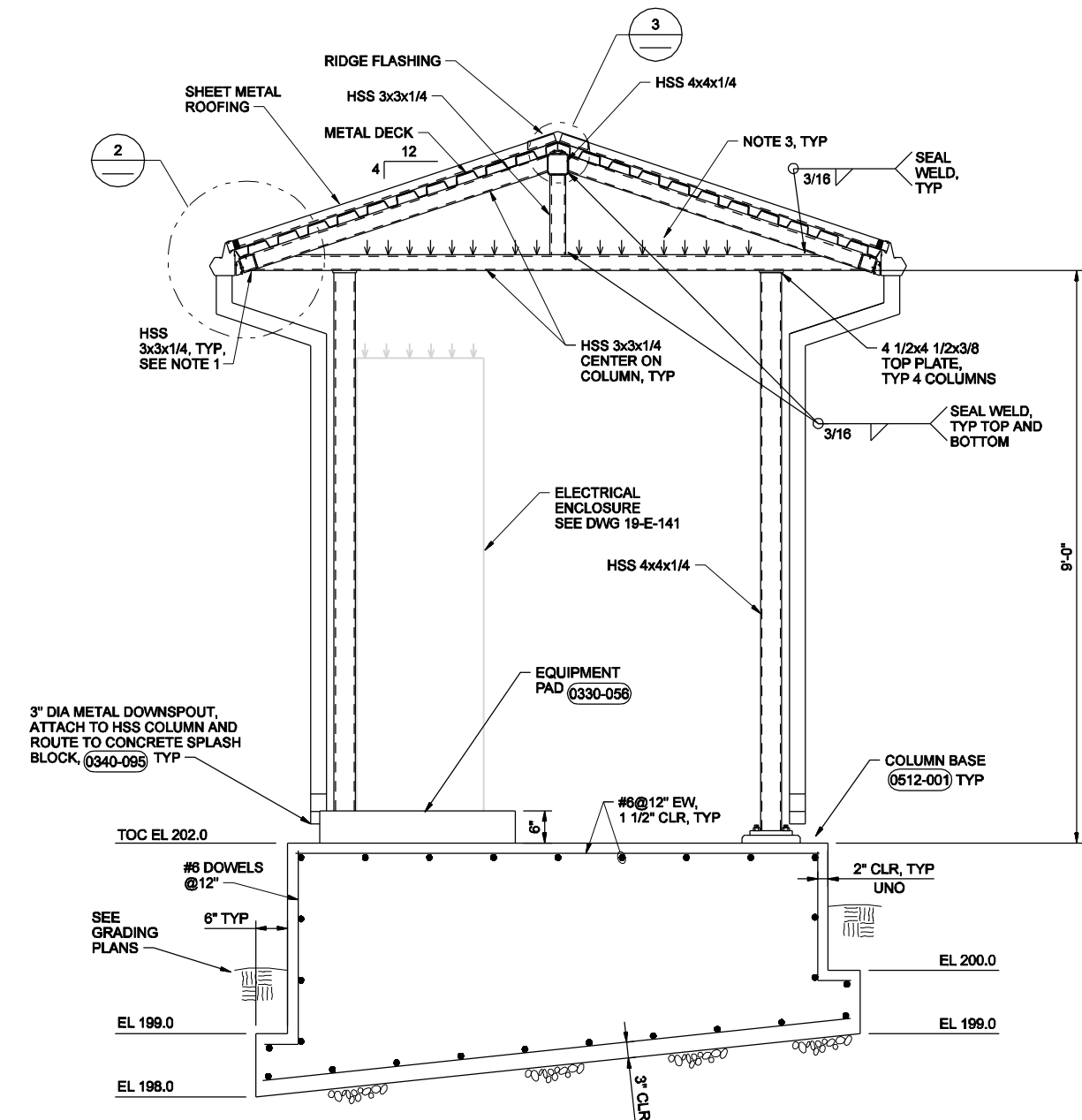
RECORD DRAWINGS	REVISION	CHK	APVD	APVD
05/2010	NO.	DATE	DR	LA ELKINS
				MJ MERKLEIN
				GT MALIN
				CW MASSIE

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
LIFT STATION STRUCTURAL FOUNDATION AND ROOF PLANS

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	19-S-141
SHEET	038

1 2 3 4 5 6

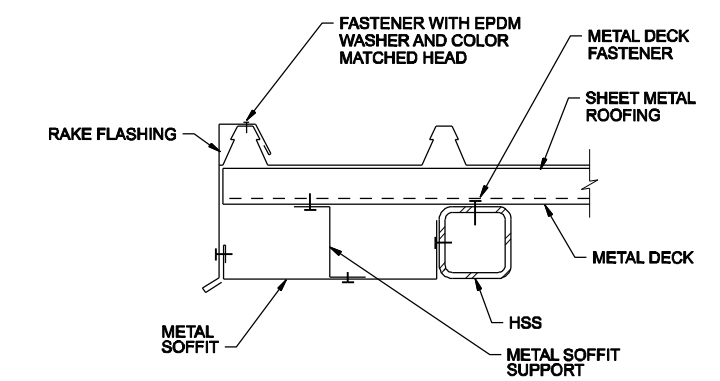


3" DIA METAL DOWNSPOUT, ATTACH TO HSS COLUMN AND ROUTE TO CONCRETE SPLASH BLOCK, (0340-095) TYP

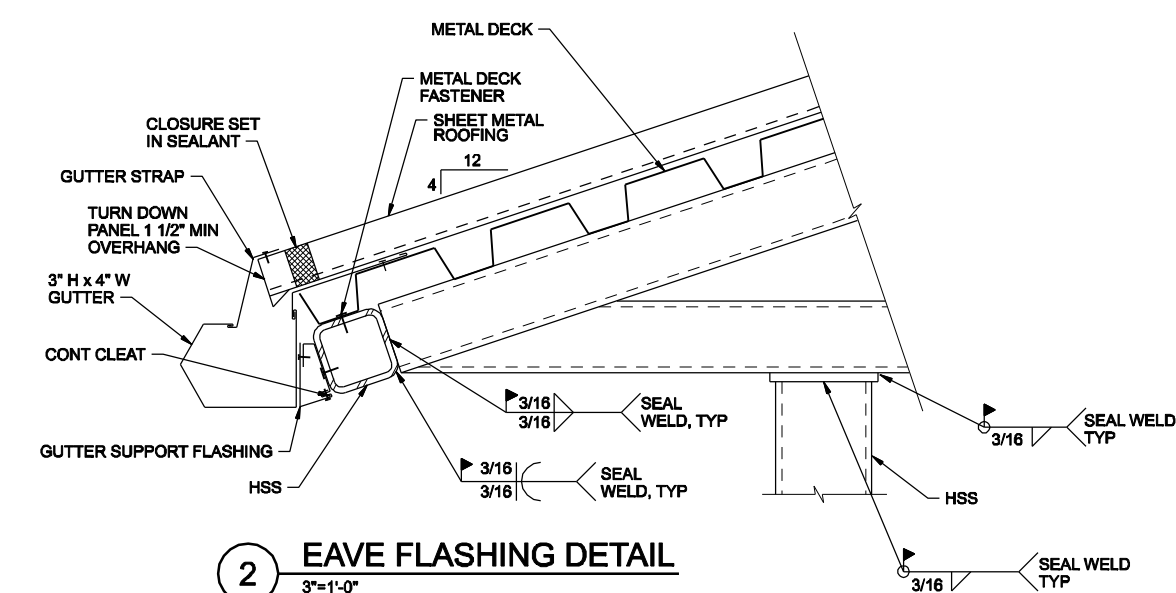
TOC EL 202.0
#6 DOWELS @12" 6" TYP
SEE GRADING PLANS
EL 199.0
EL 198.0

- NOTES:**
1. SEAL WELD 1/4" END PLATE AT EXPOSED OPEN ENDS OF HSS.
 2. HOT DIP GALV G-90, ALL STEEL MEMBERS, TYP.
 3. PROVIDE BIRD PROTECTION ON ALL EXPOSED HORIZONTAL SURFACES BENEATH ROOF. MANUFACTURER AND PRODUCT: WILD LIFE CONTROL, FRESNO, CA; PIGEON BARRIER SPIKES, OR EQUAL.
 4. OVEREXCAVATE 6-INCH MINIMUM AND PREPARE GRADE WITH 6-INCHES COMPACTED GRANULAR FILL.
 5. TOUCH UP GALVANIZING PER SPECIFICATION SECTION 05 50 00 AFTER WELDING.

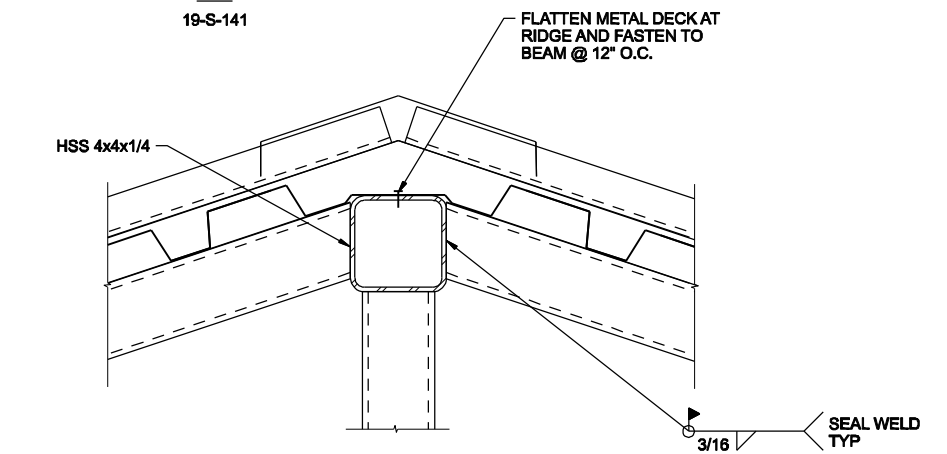
A SECTION
3/4"=1'-0"
19-S-141



1 RAKE FLASHING DETAIL
3"=1'-0"
19-S-141



2 EAVE FLASHING DETAIL
3"=1'-0"
19-S-141



3 RIDGE CLOSURE DETAIL
3"=1'-0"

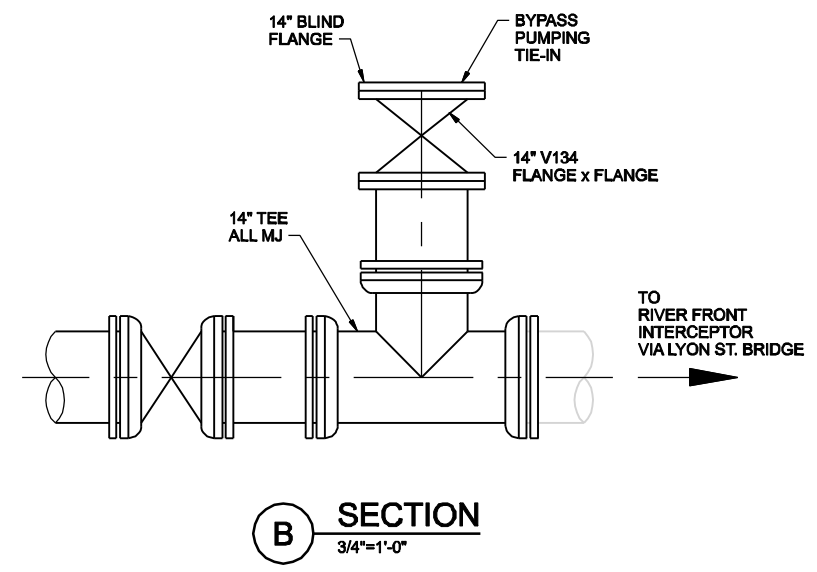
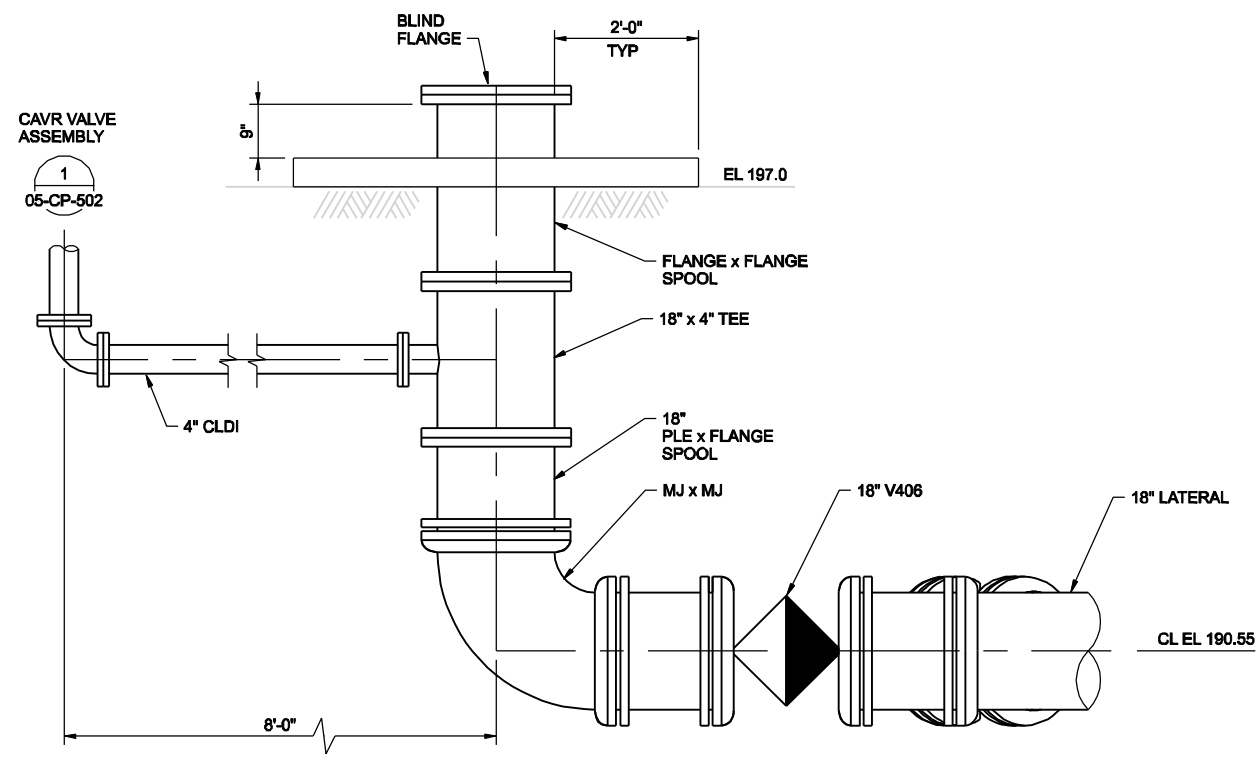
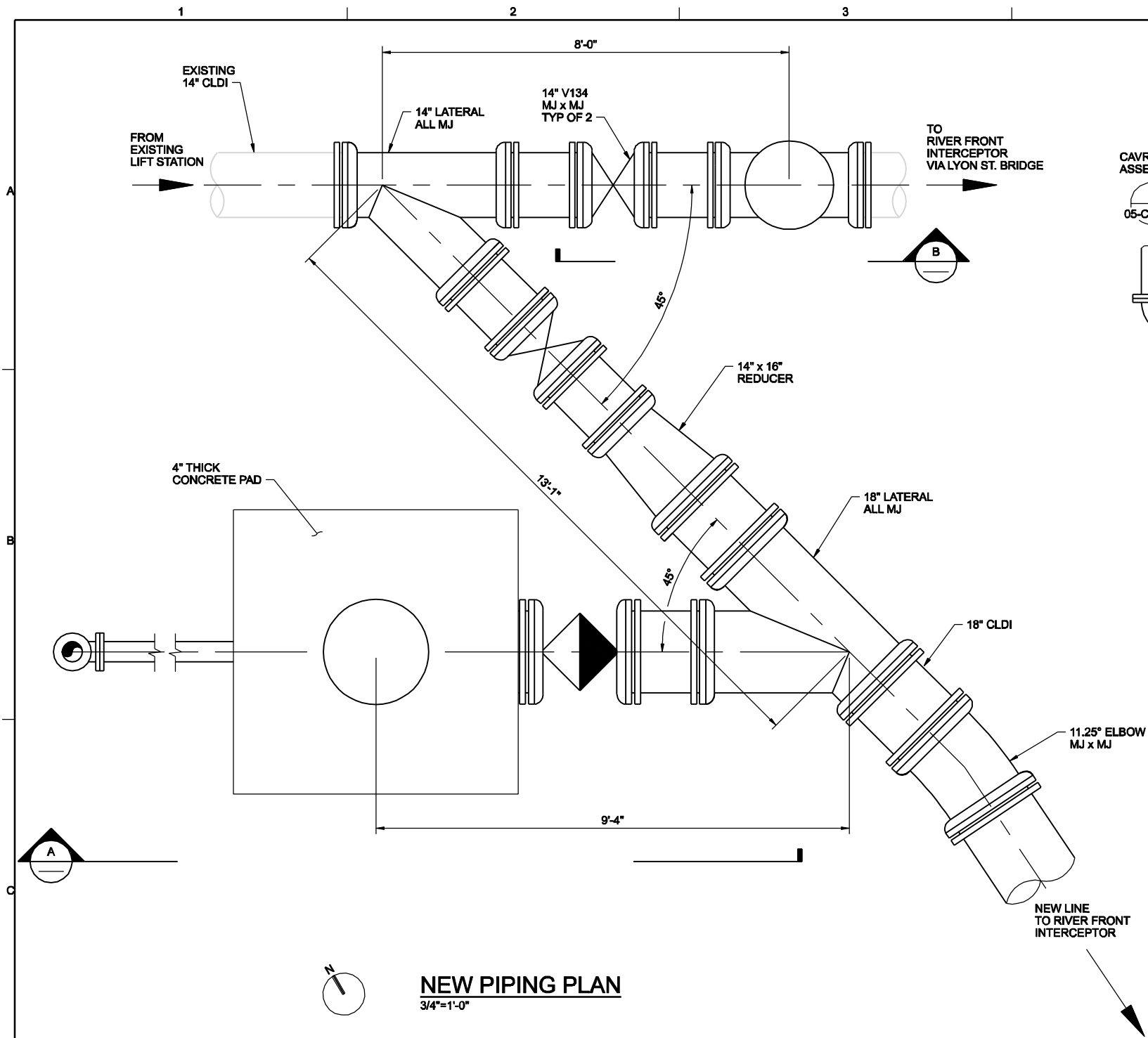
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REVISION	CHK	APVD		
NO.	DATE	DR		
05/2010		LA ELKINS		
		GT MALIN		
		MJ MERKLEIN		
		CW MASSIE		

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
LIFT STATION
STRUCTURAL
SECTIONS AND DETAILS

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	19-S-301
SHEET	039



- NOTES:**
1. ALL MJ JOINTS SHALL BE RESTRAINED JOINT MEGALUG.

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05/2010	NO. DATE	DR	APVD	BY	APVD
DJ CHADWICK	MF MURRAY	JH BAJUM	APVD	BY	APVD
CW MASSIE					

CH2MHILL

LIFT STATION MECHANICAL PLAN AND SECTIONS

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

VERIFY SCALE	DATE	FEB 2009
BAR IS ONE INCH ON ORIGINAL DRAWING.	PROJ	326918PL
	DWG	19-M-141
	SHEET	040

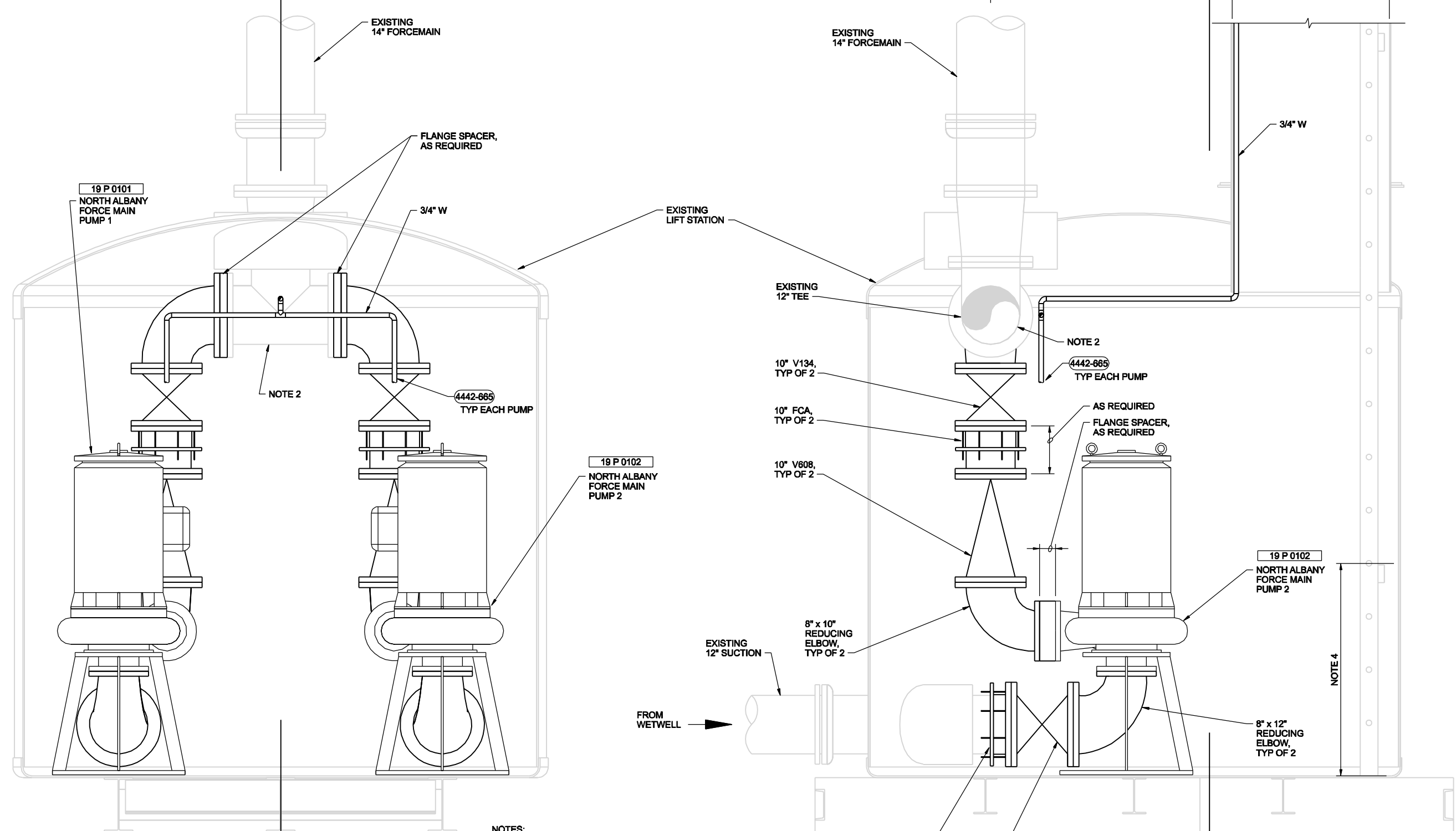
1 2 3 4 5 6

WEST

NORTH

TO RIVER FRONT INTERCEPTOR

NOMINAL MANWAY DIAMETER 36"



A NORTH FACING VIEW
1"=1'-0"

B EAST FACING VIEW
1"=1'-0"

- NOTES:**
1. DIMENSIONAL CONSTRAINTS FOR PUMP SEE SPECIFICATION SECTION 44 42 56, NON-CLOG CENTRIFUGAL PUMPS.
 2. CONTRACTOR TO CONTINUALLY SUPPORT TEE AND PIPE PENETRATION AFTER PUMP AND FITTING REMOVAL.
 3. CONTRACTOR TO INSTALL NEW PIPE SUPPORTS EQUIVALENT TO EXISTING.
 4. CONTRACTOR TO CLEAN, PRIME AND COAT PUMP STATION INTERIOR FLOOR AND WALLS TO AN ELEVATION OF 4'-0" ABOVE FLOOR IN ACCORDANCE WITH 09 90 00, PAINT AND PROTECTIVE COATINGS.

THE CONTRACT DOCUMENTS WHICH DEFINE THE SCOPE, CHARACTER, EXTENT, WORK, THE ORIGINAL DOCUMENT, DRAWINGS WERE SEALED AND SIGNED FEBRUARY 10, 2009 BY MARVIN F. MURRAY, STATE OF OREGON, P.E. NO. 8905PE

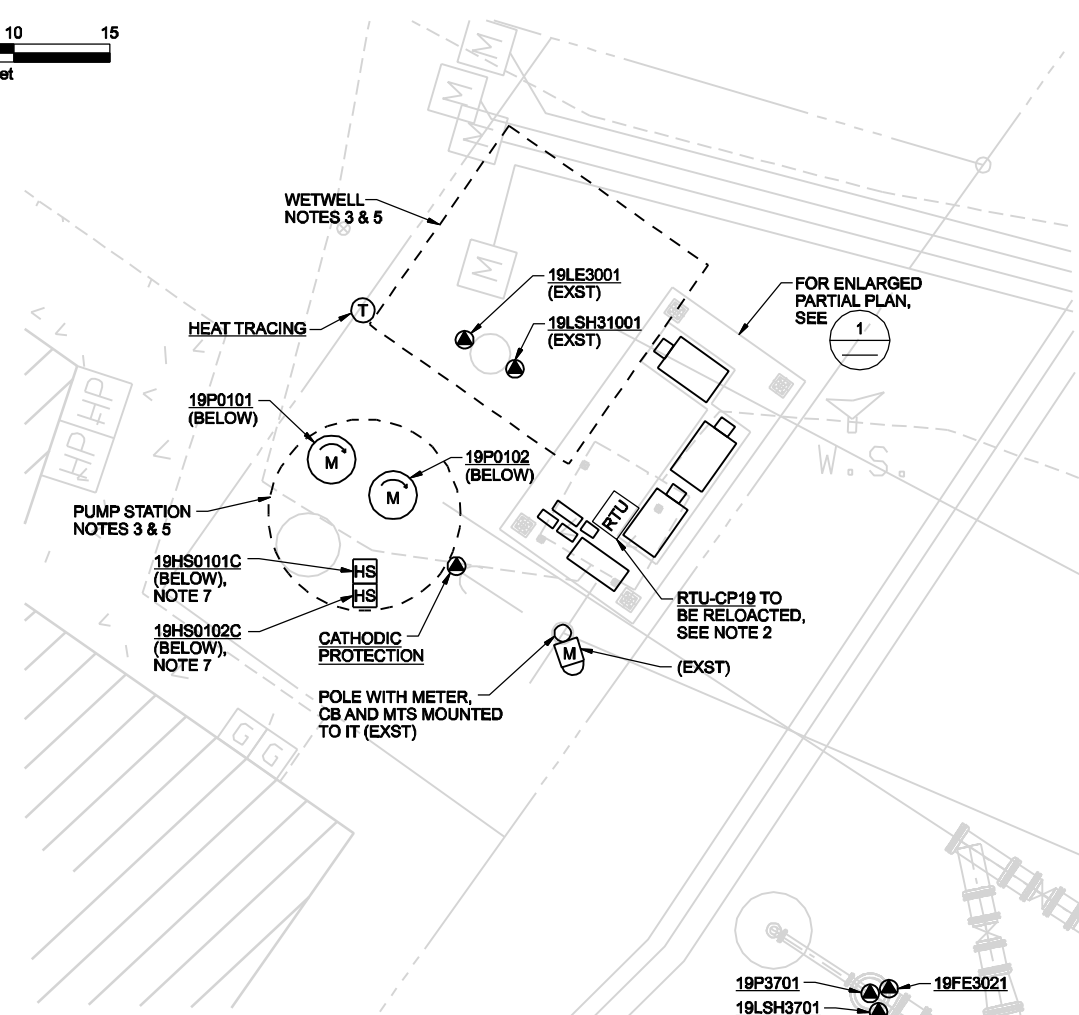
RECORD DRAWINGS	REVISION	CHK	DR	APVD	APVD	APVD
XXX	BY	JH BAJUM	MF MURRAY	CW MASSIE	KLM	
05/2010	DATE	DJ CHADWICK				
	NO.					
	DSGN					

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL

LIFT STATION MECHANICAL SECTIONS

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	FEB 2009
PROJ	326918PL
DWG	19-M-301
SHEET	041



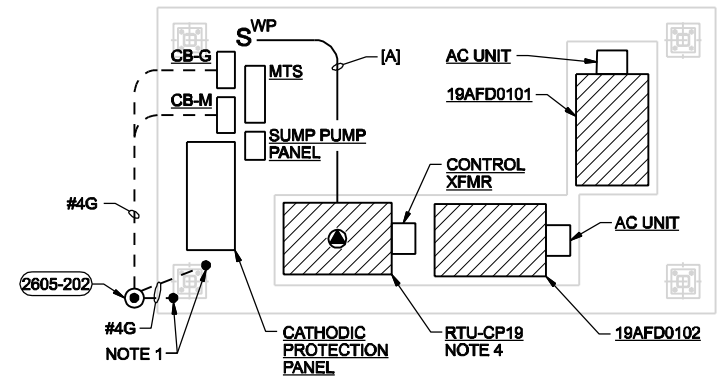
PARTIAL SITE PLAN

NOTES:

- PACIFIC POWER HAS BEEN CONTACTED AND HAS STATED EXISTING SERVICE TRANSFORMERS AND REPLACED METER ARE ACCEPTABLE FOR THE UPGRADES.
- EXISTING RTU-CP19 IS TO BE MODIFIED. SEE INSTRUMENTATION AND CONTROL DRAWINGS FOR NECESSARY CHANGES.
- APPROXIMATE LOCATION OF BURIED WETWELL AND PUMP STATION SHOWN. CONTRACTOR TO VERIFY EXACT LOCATIONS IN THE FIELD.
- EXISTING CONTROL PANEL RTU-CP19 TO BE TEMPORARILY MOVED WHILE NEW PAD IS INSTALLED. NEW LOCATION AS SHOWN ON
- THE WETWELL IS A CLASS I, DIVISION 1 LOCATION AND THE PUMP STATION IS A CLASS I, DIVISION 2 LOCATION.
- INSTALL UNDERGROUND CONDUITS IN ACCORDANCE WITH DETAIL
- INSTALL 19HS0101C AND 19HS0102C IN A SINGLE ENCLOSURE INSIDE THE PUMP STATION. REMOVE EXISTING PUMP CONTROL PANEL AND INSTALL NEW PANEL IN THE SAME LOCATION.
- CONTRACTOR TO VERIFY IF EXISTING CONDUITS ROUTED ALONG PUMP STATION ACCESS HOLE NEED TO BE REMOVED FOR THE INSTALLATION OF THE PUMPS.

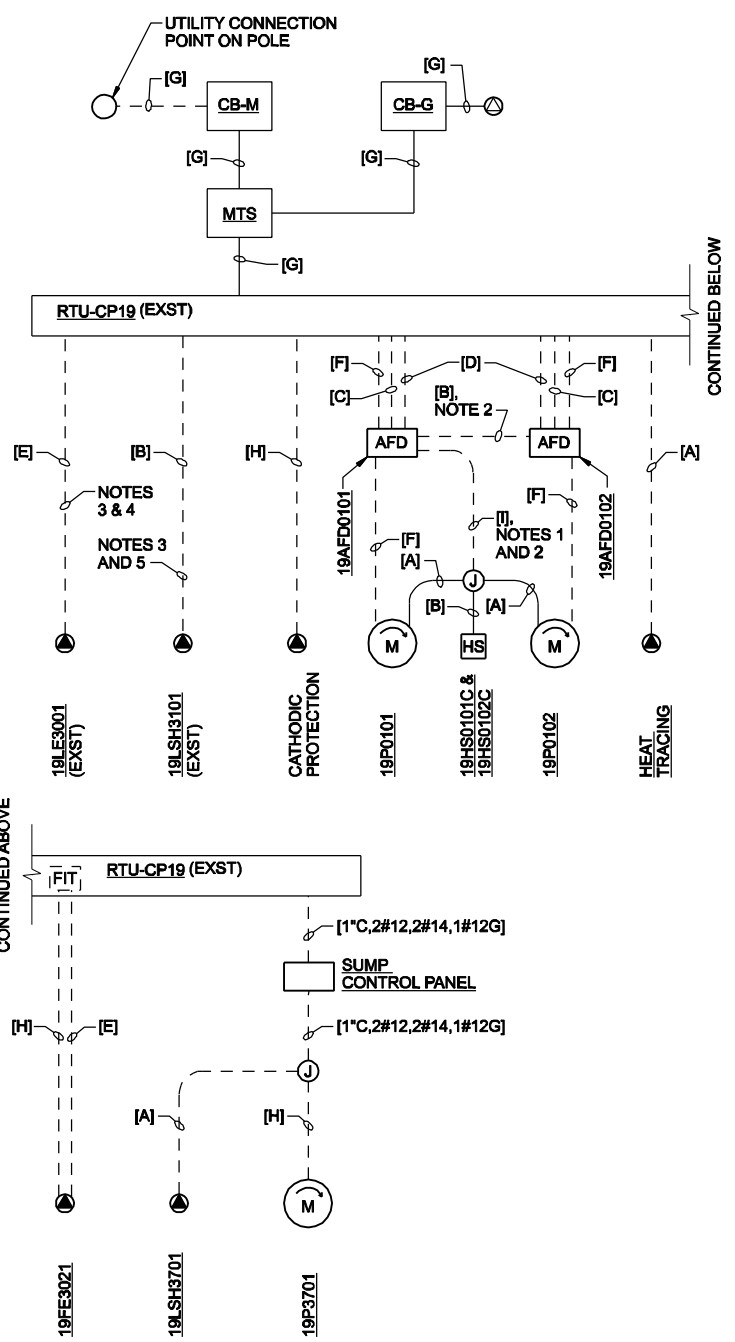
NOTES:

- CONNECT GROUND WIRE TO STEEL REBAR IN CONCRETE SLAB, ELECTRICAL SHELTER AND TO SERVICE ENTRANCE EQUIPMENT CB-M.
- MOUNT MTS, CB-M AND CB-G ON ELECTRICAL EQUIPMENT SUPPORT.
- LIGHT SHALL BE LITHONIA DM SERIES OR EQUAL. UNIT SHALL BE: CORROSION RESISTANT, FIBERGLASS REINFORCED POLYESTER, HOUSING, GASKETED ACRYLIC DIFFUSER, UL LISTED AND SUITABLE FOR DAMP LOCATIONS, 1' X 4' FLOURESENT WITH (2) 32W T8 LAMPS.
- RTU-CP19 IS TO BE RELOCATED. MAKE MODIFICATIONS TO PANEL AS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATIONS, INCLUDING REPLACING THE ANTENNA CABLE IF REQUIRED, REFER TO SPEC SECTION 40 90 01 FOR ADDITIONAL INFORMATION.



1 PLAN
3/8"=1'

[A] = [3/4"C, 2#12, 1#12G]



NOTES:

- EXISTING 3/4"C ROUTED DOWN PUMP STATION MAY BE REUSED FOR THIS CIRCUIT.
- ROUTE #14'S FOR 19P0102 THROUGH 19AFD0101.
- CONTRACTOR TO INTERCEPT EXISTING CONDUITS FOR THE EXISTING INSTRUMENTS AND REUSE THEM TO GREATEST EXTENT POSSIBLE.
- CONTRACTOR TO VERIFY LENGTH OF CABLE REQUIRED. EXISTING CABLE MAY BE REUSED IF IT IS LONG ENOUGH. DO NOT SPLICE MANUFACTURER SUPPLIED CABLE (MSC). IF EXISTING CABLE IS TOO SHORT IT MUST BE REPLACED WITH A NEW CABLE.
- NEW CONDUCTORS ARE TO BE INSTALLED THE ENTIRE LENGTH OF THE CIRCUIT.

- [A] = [3/4"C, 2#14, 1#14G]
- [B] = [3/4"C, 4#14, 1#14G]
- [C] = [3/4"C, 5#14, 1#14G]
- [D] = [3/4"C, ETHERNET CABLE]
- [E] = [3/4"C, MSC]
- [F] = [1 1/2"C, 3#1, 1#6G]
- [G] = [2"C, 3#3/0, 1#4G]
- [H] = [3/4"C, 2#12, 1#12G]
- [I] = [3/4"C, 6#14, 1#14G]

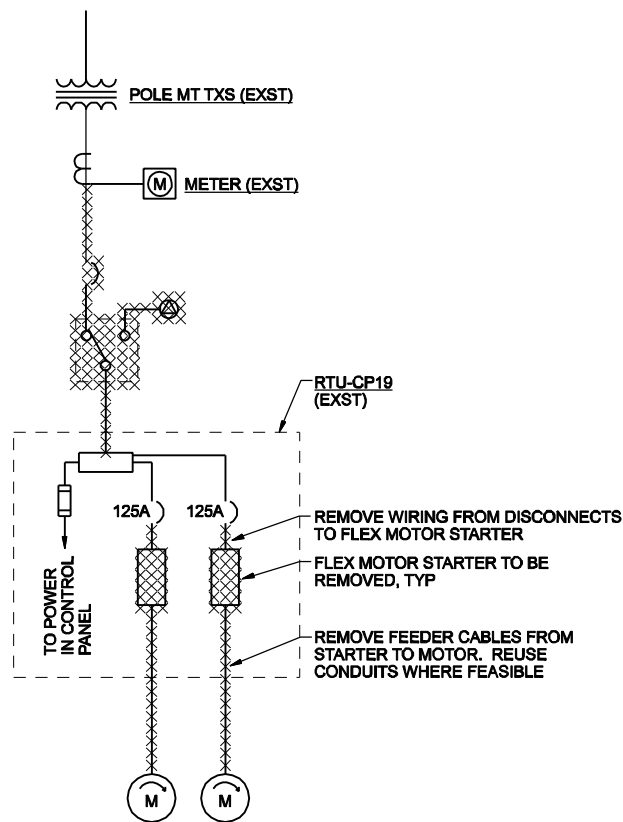
RISER DIAGRAM

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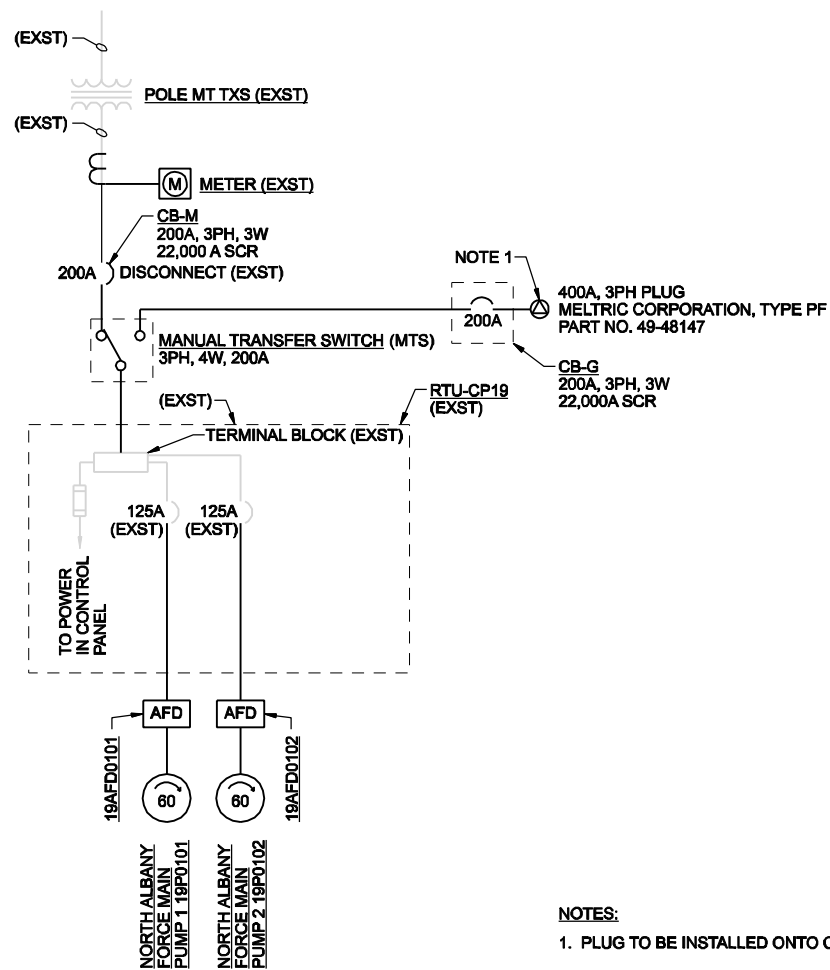
RECORD DRAWINGS	REVISION	CHK	APVD	APVD	APVD
		GJ LOVE	MS MacROSTIE	CW MASSIE	
NO. DATE	DSGN	KL MAESTRI			
05/2010					

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CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL	
LIFT STATION ELECTRICAL PLANS AND RISER DIAGRAM	
VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING. 1"
DATE	FEB 2009
PROJ	326918PL
DWG	19-E-141
SHEET	042



EXISTING ONE-LINE DIAGRAM



NEW ONE-LINE DIAGRAM

NOTE 2

NOTES:

- 1. PLUG TO BE INSTALLED ONTO CIRCUIT BREAKER ENCLOSURE.
- 2. EXISTING EQUIPMENT TO REMAIN IS SCREENED BACK IN THE "NEW ONE-LINE DIAGRAM".

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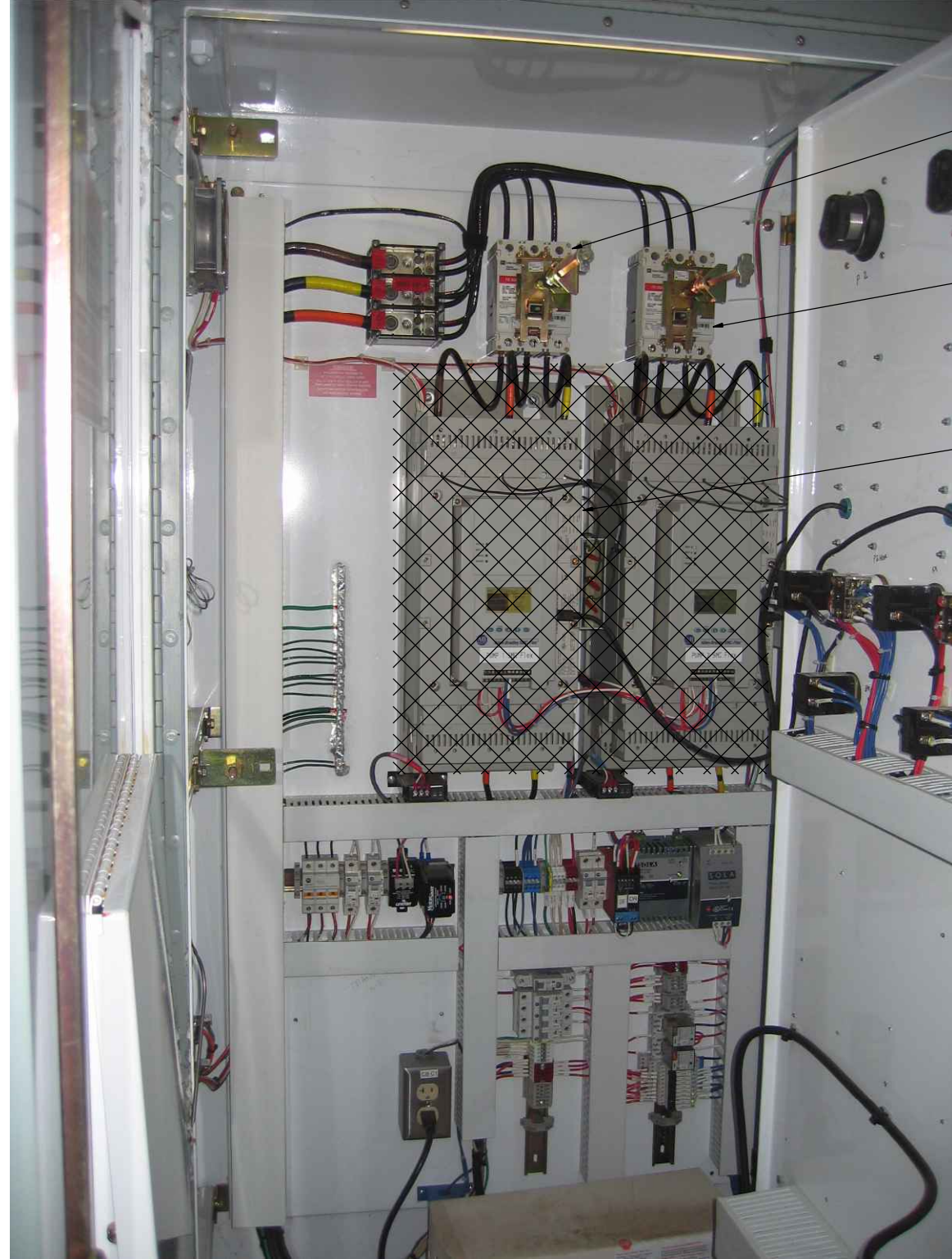
RECORD DRAWINGS	BY	APVD	REVISION	CHK	DR	APVD	MS MacROSTIE	CW MASSIE
05/2010	GJ LOVE	KL MAESTRI						
NO. DATE	DSGN	KL MAESTRI						

NORTH ALBANY FORCE MAIN AND EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

CH2MHILL
ELECTRICAL
ONE-LINE DIAGRAMS

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DATE	FEB 2009
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DWG	90-E-501
SHEET	043

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125A DISCONNECTS
REMOVE REMOTE
OPERATOR HANDLES

125A DISCONNECTS
REMOVE REMOTE
OPERATOR HANDLES

MOTOR STARTERS
TO BE REMOVED

CONTROL PANEL REAR PANEL VIEW

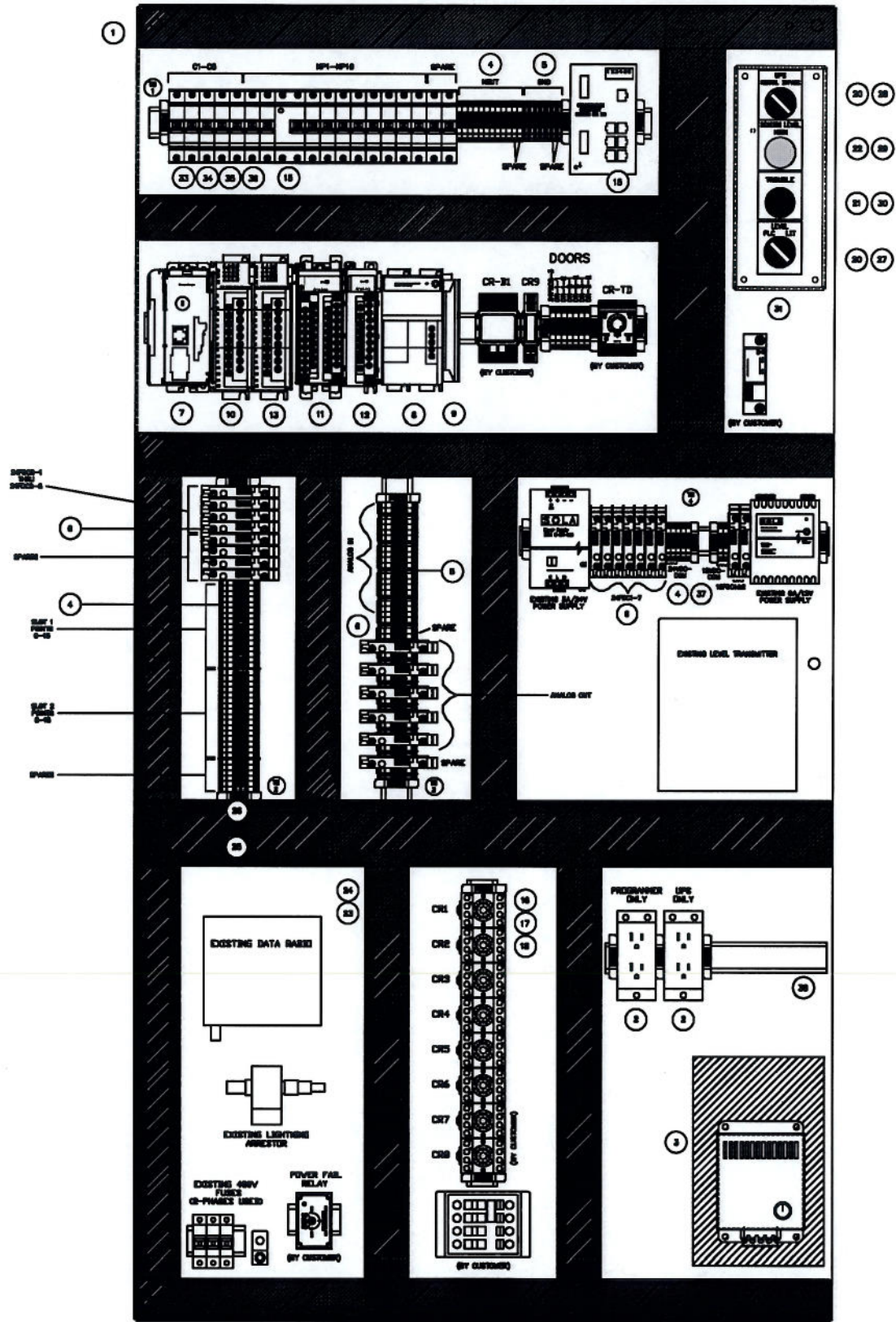
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RECORD DRAWINGS	XXX	KLM	BY	APVD	CW MASSIE
REVISION	CHK	MS MRCROSTIE	DR	APVD	
NO.	05/2010	KL MAESTRI	DR		
DATE					
DGN					

CH2MHILL
ELECTRICAL
DETAIL
NORTH ALBANY FORCE MAIN AND
EXISTING LIFT STATION IMPROVEMENTS
CITY OF ALBANY - PROJ NO. SS-07-04
ALBANY, OREGON

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SHEET	044

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SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					
2	REVISED PER FIELD INSTALLATION	HGB	CB	3/10					



The Automation Group, Inc.
 4678 Isabelle Street, Eugene OR, 97402
 PHONE: (541) 359-3755 FAX: (541) 982-2266

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TAG Controls
 THE ENCLOSURES CONTAINED ON THIS DRAWING ARE MADE WITH THE UNDERSTANDING THAT THEY ARE CONFIDENTIAL AND WILL NOT BE USED IN ANY WAY DETRIMENTAL TO THE COMPANY'S INTEREST.

SCALE:	NTS
DRAWN:	TOB
CHECKED:	GAJ
DATE:	
CHECKED:	
APPROVED:	

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS

TITLE:
BACK PANEL LAYOUT

LAST REV:	11/16/09	DATE:	5/29/09
DRAWN:	1	FILE NO.:	1 of 14
JOB NO.:	9007	FILE NO.:	
DWG NAME:	SYSTEM 04 DWG		

BILL OF MATERIALS

Item	Quan	Manufacturer	Part#	Description
1	1	HOFFMAN	A-7236F1	60"(H) X 32"(W) BACK PANEL
2	1	ABB	1SNA892461R1500	120 VAC RECEPTACLE
3	1	HOFFMAN	DAH4001B	PANEL HEATER
4	87	ENTRELEC	155 116 R0700	GENERAL PURPOSE TERMINAL BLOCK
5	16	ENTRELEC	165 113 R1600	GROUND TERMINAL BLOCK
6	18	ENTRELEC	199 168 R0000	24VDC DIN FUSE HOLDER
7	1	ALLEN BRADLEY	1769-L35E	COMPACT LOGIX PROCESSOR
8	1	ALLEN BRADLEY	1769-PA4	COMPACT LOGIX POWER SUPPLY
9	1	ALLEN BRADLEY	1769-ECR	COMPACT LOGIX RIGHT END CAP
10	1	ALLEN BRADLEY	1769-IQ16	16 POINT 24V DC INPUT MODULE
11	1	ALLEN BRADLEY	1769-IF8	8 POINT INPUT MODULE
12	1	ALLEN BRADLEY	1769-OF4CI	4 POINT ISOLATED OUTPUT MODULE
13	1	ALLEN BRADLEY	1769-OB 16	16 POINT 24V DC DIGITAL OUTPUT MODULE
14	1	HIRSCHMANN	RS20-0800T1T1SDAEHH04.0	ETHERNET/IP NETWORK SWTCH
15	1	ABB	F202AC-25/0.03	25AMP/250VAC CIRCUIT BREAKER GFCI
16	6	ALLEN BRADLEY	700 HA32Z24	SIGNAL SWITCHING RELAY
17	6	ALLEN BRADLEY	700 HN125	RELAY SOCKET
18	6	ALLEN BRADLEY	700 HN157	HOLD DOWN SPRING
19	1	HOFFMAN	AHC10E	CORROSION INHIBITOR
20	2	ALLEN BRADLEY	800H-HR2A	2 POSITION SELECTOR SWITCH
21	1	ALLEN BRADLEY	800T-FDX4	MUSHROOM HEAD PUSH BUTTON
22	1	ALLEN BRADLEY	800T-QTH24A	INDICATING LIGHT AMBER PUSH TO TEST
23	LOT	THOMAS&BETTS	TY2X2NPW6	2"W X 2"H WIRE DUCT
24	LOT	THOMAS&BETTS	TY2CPW6	2" PLASTIC DUCT COVER
25	LOT	THOMAS&BETTS	TY3X2NPW6	3"W X 2"H WIRE DUCT
26	LOT	THOMAS&BETTS	TY3CPW6	3" PLASTIC DUCT COVER
27	1	TAG	LEGAND PLATE	LEVEL NAMEPLATE
28	1	TAG	LEGAND PLATE	UPS NAME PLATE
29	1	TAG	LEGAND PLATE	STATION LEVEL NAME PLATE
30	1	TAG	LEGAND PLATE	TROUBLE NAME PLATE
31	1	HOFFMAN	E4PBX	PUSHBUTTON ENCLOSURE
32	1	HOFFMAN	ALF16D24R	PANEL LIGHT
33	5	ABB	S-201-K-10	CIRCUIT BREAKER
34	4	ABB	S-201-K-15	CIRCUIT BREAKER
35	3	ABB	S-201-K-20	CIRCUIT BREAKER
36	1	ABB	S-201-K-30	CIRCUIT BREAKER
37	14	ENTRELEC	0206-351.16	END ANCHOR
38	LOT	ENTRELEC	PR30	STANDARD DIN RAIL

SPARE PARTS LIST

Quan	Manufacturer	Part#	Description
2	ALLEN BRADLEY	700-HA32Z24	RELAY
2	ALLEN BRADLEY	700-HN125	RELAY SOCKET
20	ENTRELEC	155 116 R0700	GREY TERMINAL BLOCK
10	ENTRELEC	165 113 R1600	GROUND TERMINAL BLOCK
5	FERRAZ	GGC-2	2A FUSE
1	ALLEN BRADLEY	800H-HR2A	2 POSITION MAINTAINED SELECTOR SWITCH
2	ALLEN BRADLEY	800T-N319A	AMBER REPLACEMENT INDICATING LIGHT BULB

SYM	REVISION	BY	APPRVD	DATE	SYM	REVISION	BY	APPRVD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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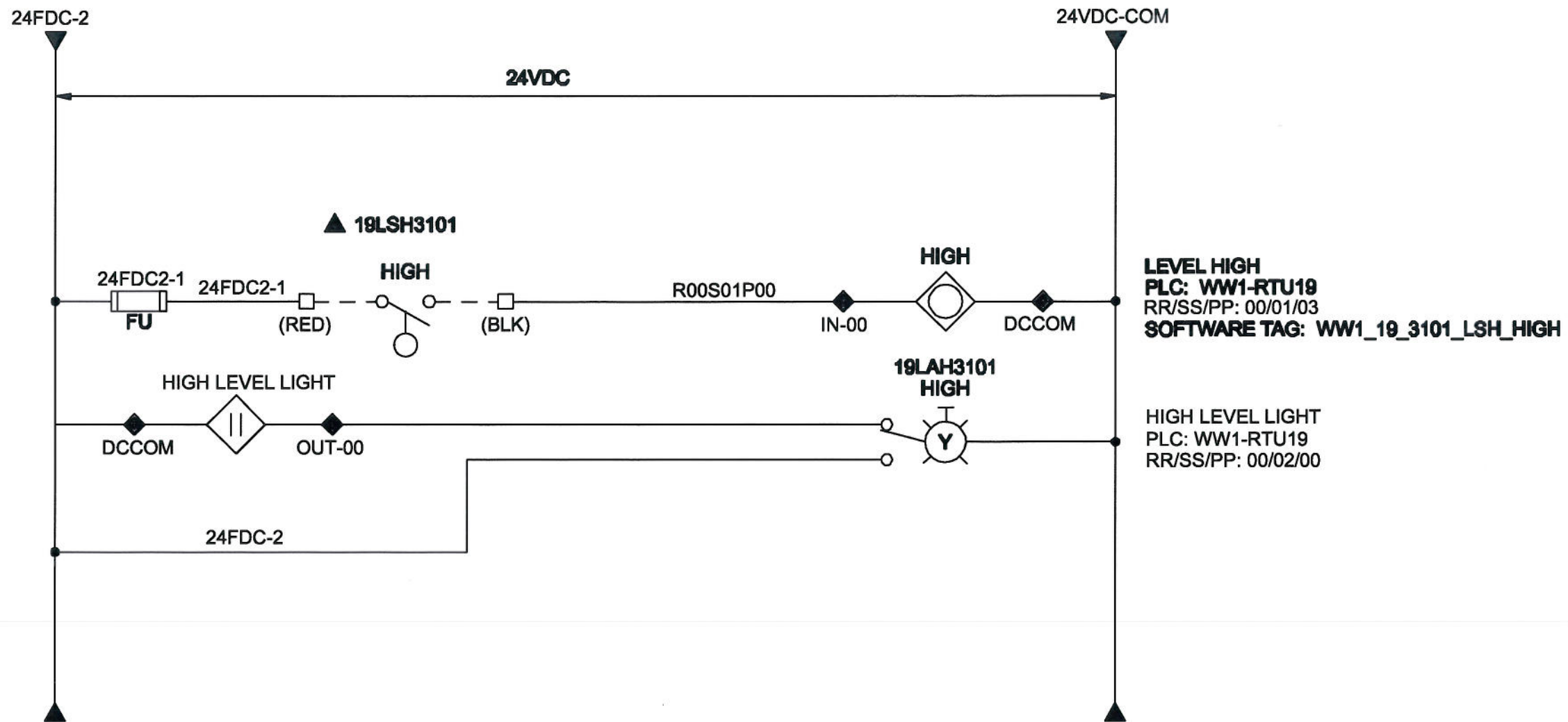
SCALE: NTS

DRAWN: TOB
 CHECKED: GAJ
 ENGR:
 CHECKED:
 APPROVED:
 APPROVED:

PROJECT NAME:
 NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
 MATERIAL LIST

LAST REV: 11/16/09
 DATE: 5/29/09
 SYMBOL: 14 of 14
 JOB NO: 9007
 FILE NO:
 DRG NAME: 0007D01 01 DWG

PANEL WW1-RTU-CP19



LEVEL HIGH
PLC: WW1-RTU19
 RR/SS/PP: 00/01/03
SOFTWARE TAG: WW1_19_3101_LSH_HIGH

HIGH LEVEL LIGHT
 PLC: WW1-RTU19
 RR/SS/PP: 00/02/00

SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	14	11/09					



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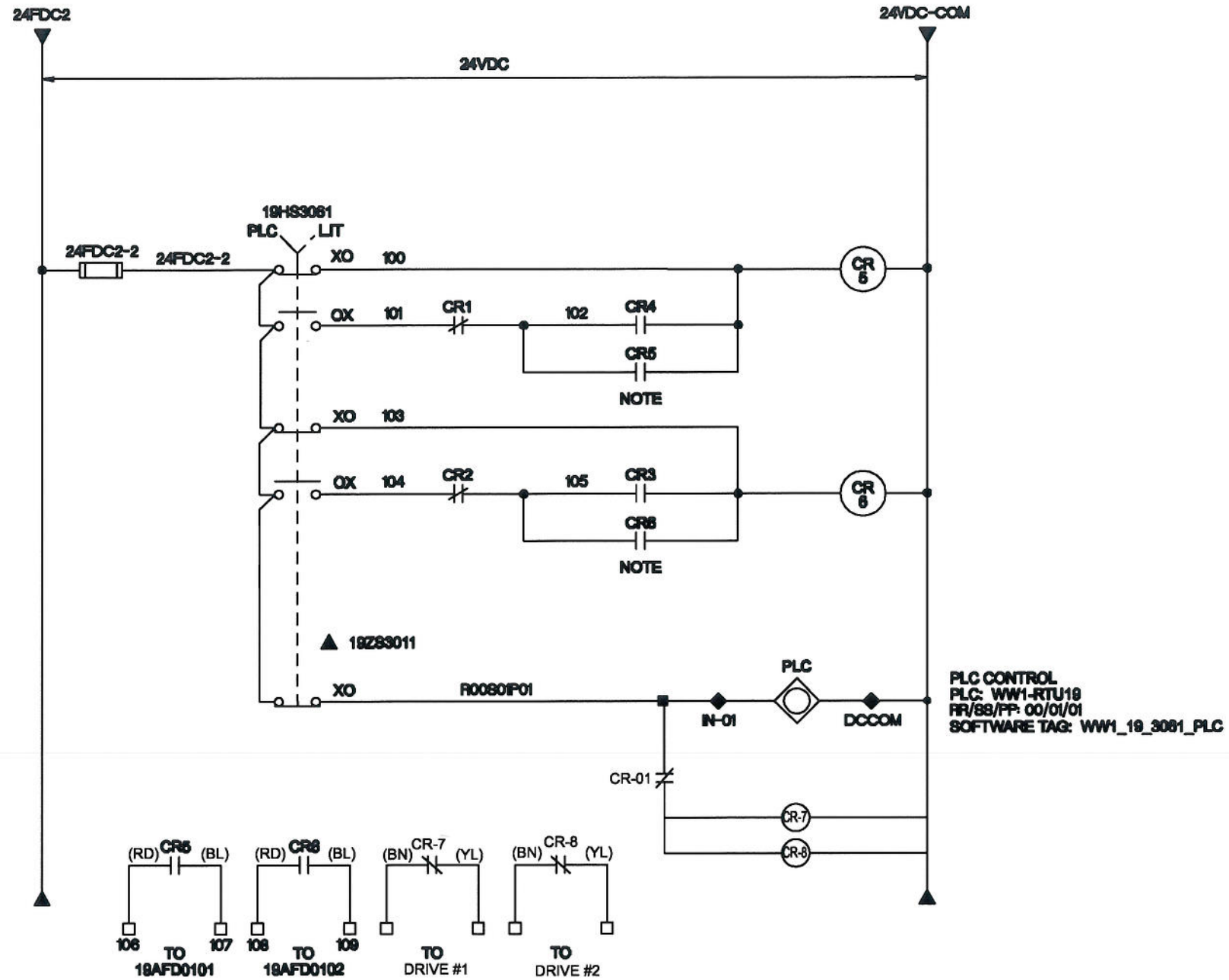
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DRAWN: TOB
 CHECKED: GAJ
 ENGR:
 CHECKED:
 APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
WET WELL HIGH LEVEL

LAST REV: 11/16/09 DATE: 5/29/09
 SHEET: 4 of 14
 JOB NO: 9007 FILE NO:
 DWG NAME: 9007PNL01.DWG

PANEL WW1-RTU-CP19



PLC CONTROL
 PLC: WW1-RTU19
 RR/SS/PP: 00/01/01
 SOFTWARE TAG: WW1_19_3081_PLC

NOTE:
 SEE SHEET 08-004 FOR CONTROL RELAY LOGIC FOR RELAYS CR1, CR2, CR3 AND CR4.

SYM	REVISION	BY	APPRVD	DATE	SYM	REVISION	BY	APPRVD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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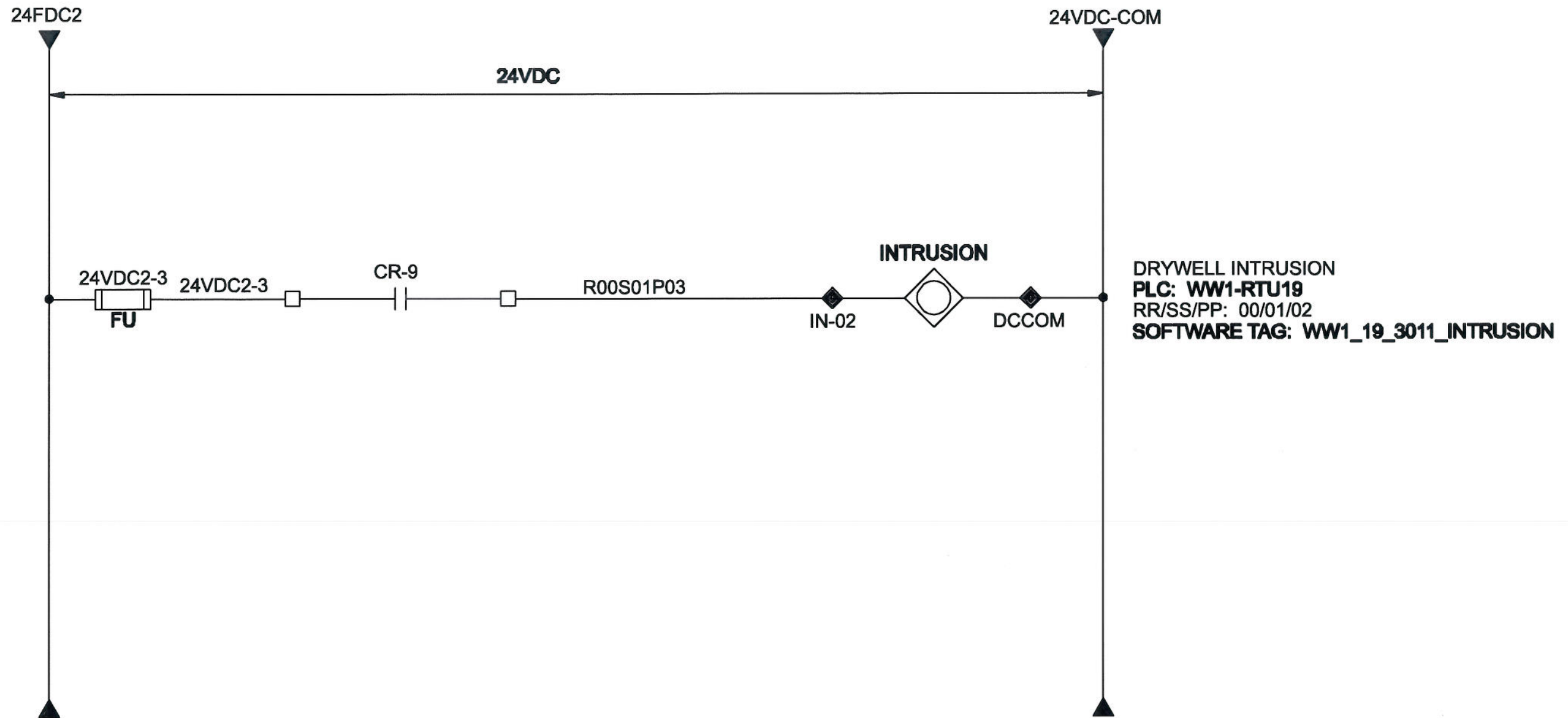
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SCALE: NTS
 DRAWN: TOB
 CHECKED: GAJ
 ENGR:
 APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
PUMP/PLC LEVEL CONTROL

LAST REV: 11/16/09	DATE: 5/29/09
PANEL: 9007	FILE NO: 5 of 14
DWG NAME: 9007PNL01.DWG	

PANEL WW1-RTU-CP19



SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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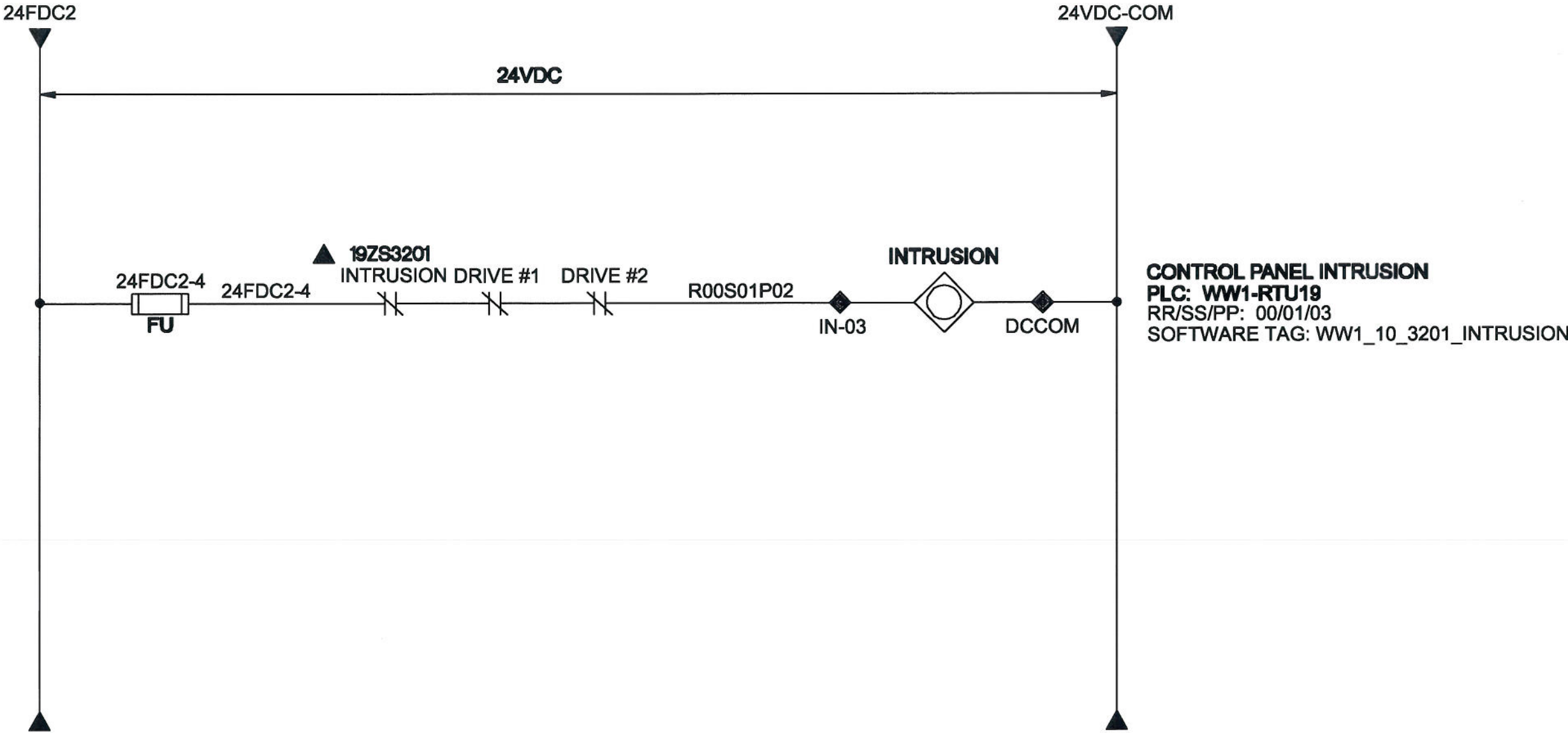
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TAG Controls
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SCALE: NTS
 DRAWN: TOB
 CHECKED: GAJ
 ENGR:
 CHECKED:
 APPROVED:
 APPROVED:

PROJECT NAME:
 NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
 WET WELL INTRUSION

LAST REV	DATE
11/16/09	5/29/09
SHEET NO.	FILE NO.
6 of 14	
JOB NO.	FILE NO.
9007	
DWG NAME:	
9007PNL01.DWG	

PANEL WW1-RTU-CP19



CONTROL PANEL INTRUSION
PLC: WW1-RTU19
 RR/SS/PP: 00/01/03
 SOFTWARE TAG: WW1_10_3201_INTRUSION

SYM	REVISION	BY	APPRVD	DATE	SYM	REVISION	BY	APPRVD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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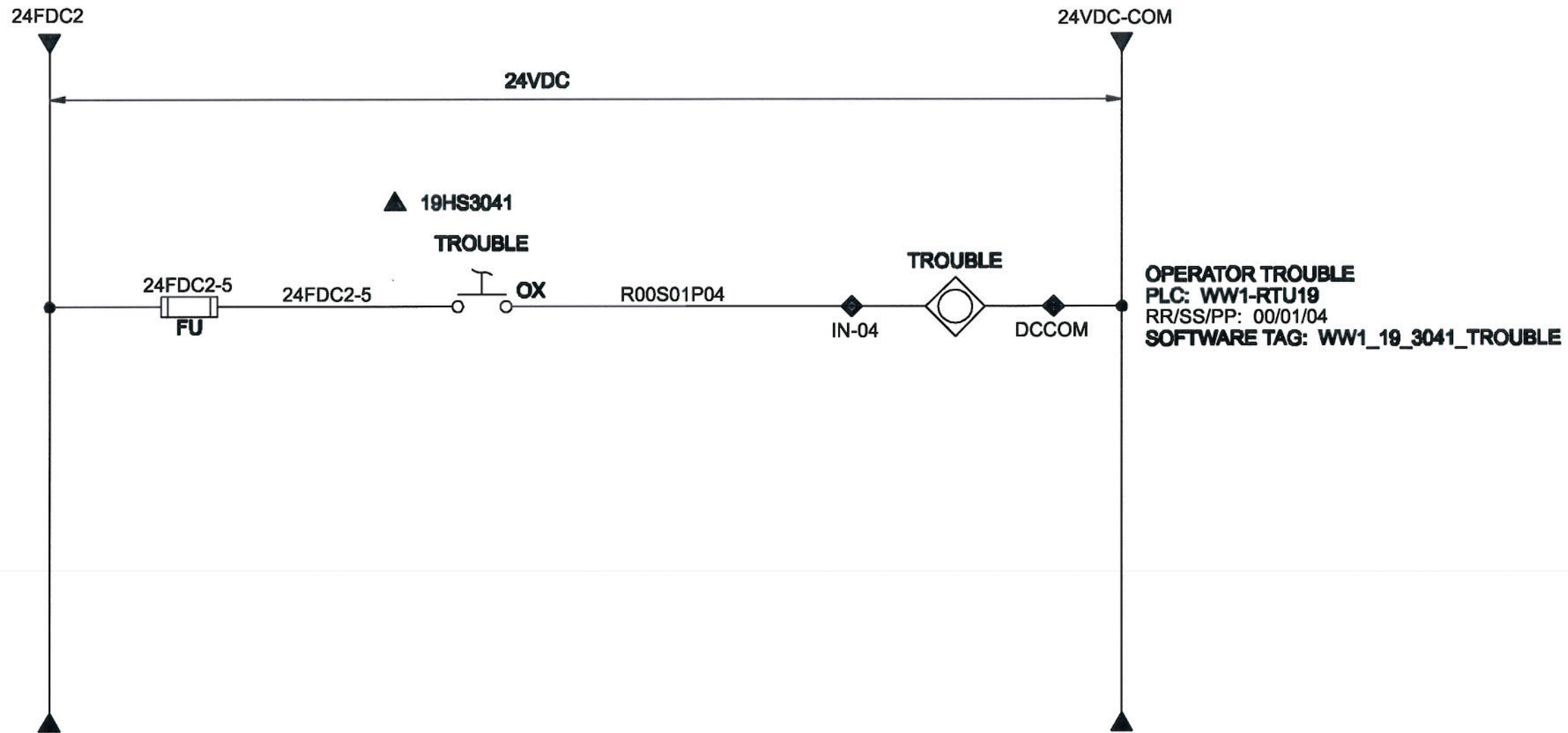
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SCALE: NTS
 DRAWN: TOB
 CHECKED: GAJ
 ENGR:
 CHECKED:
 APPROVED:
 APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
CONTROL PANEL INTRUSION

LAST REV: 11/16/09	DATE: 5/29/09
DRAWN: TOB	FILE NO: 7 of 14
CHECKED: GAJ	JOB NO: 9007
ENGR:	DWG NAME: 9007PNL01.DWG

PANEL WW1-RTU-CP19



OPERATOR TROUBLE
 PLC: WW1-RTU19
 RR/SS/PP: 00/01/04
 SOFTWARE TAG: WW1_19_3041_TROUBLE

SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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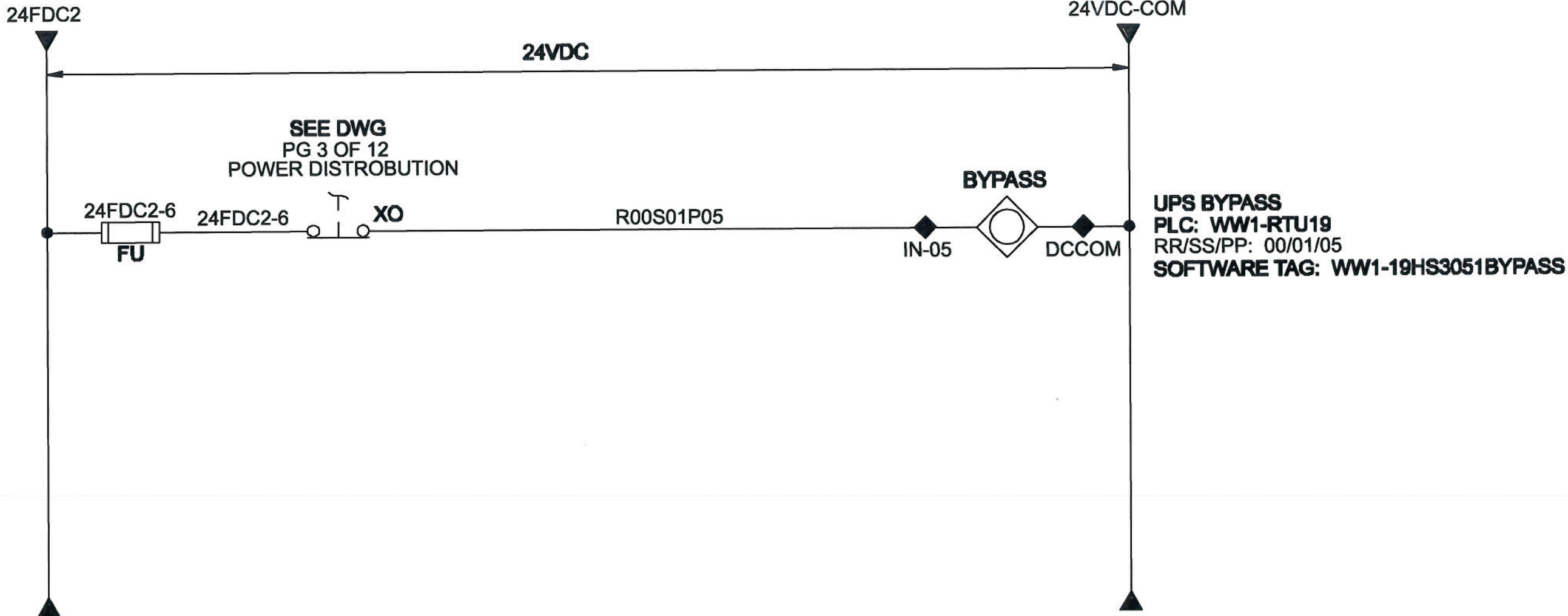
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SCALE: NTS
 DRAWN: TOB
 CHECKED: GAJ
 ENGR:
 CHECKED:
 APPROVED:

PROJECT NAME:
 NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
 OPERATOR IN TROUBLE

LAST REV: 11/16/09	DATE: 5/29/09
SYMBOL: 8	OF 14
JOB NO: 9007	FILE NO:
DWG NAME: 9007PNL01.DWG	

WW1-VLR-CP01



SYM	REVISION	BY	APPRVD	DATE	SYM	REVISION	BY	APPRVD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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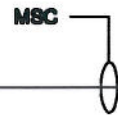
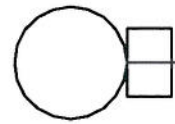
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 CHECKED: GAJ
 ENGR:
 CHECKED:
 APPROVED:
 APPROVED:

PROJECT NAME:
 NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
 UPS BYPASS

LAST REV: 11/16/09 DATE: 5/29/09
 SYMBOL: 9 of 14
 JOB NO: 9007 FILE NO:
 DWG NAME: 9007PNL01.DWG

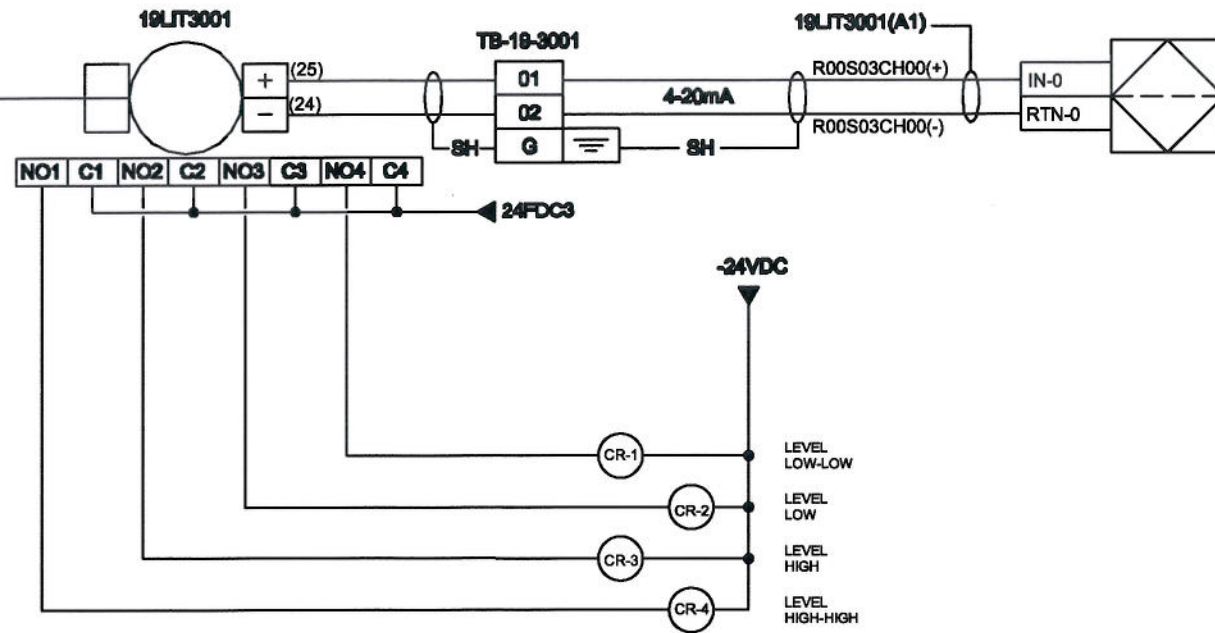
FIELD

SENSOR: MANUFACTURER: SIEMENS
 MODEL: HYDRORANGER
 RANGE: 0 - 20 feet
 19LE3001



**PANEL
 WW1-RTU-CP19**

MANUFACTURER: SIEMENS
 MODEL: HYDRORANGER
 RANGE: 0 - 20 feet



LEVEL PLC: WW1-RTU-CP19
 RR/SS/CC: 00/03/00
 SOFTWARE TAG: WW1_19_3001_LEVEL
 SCALE: 0 - 20 feet

SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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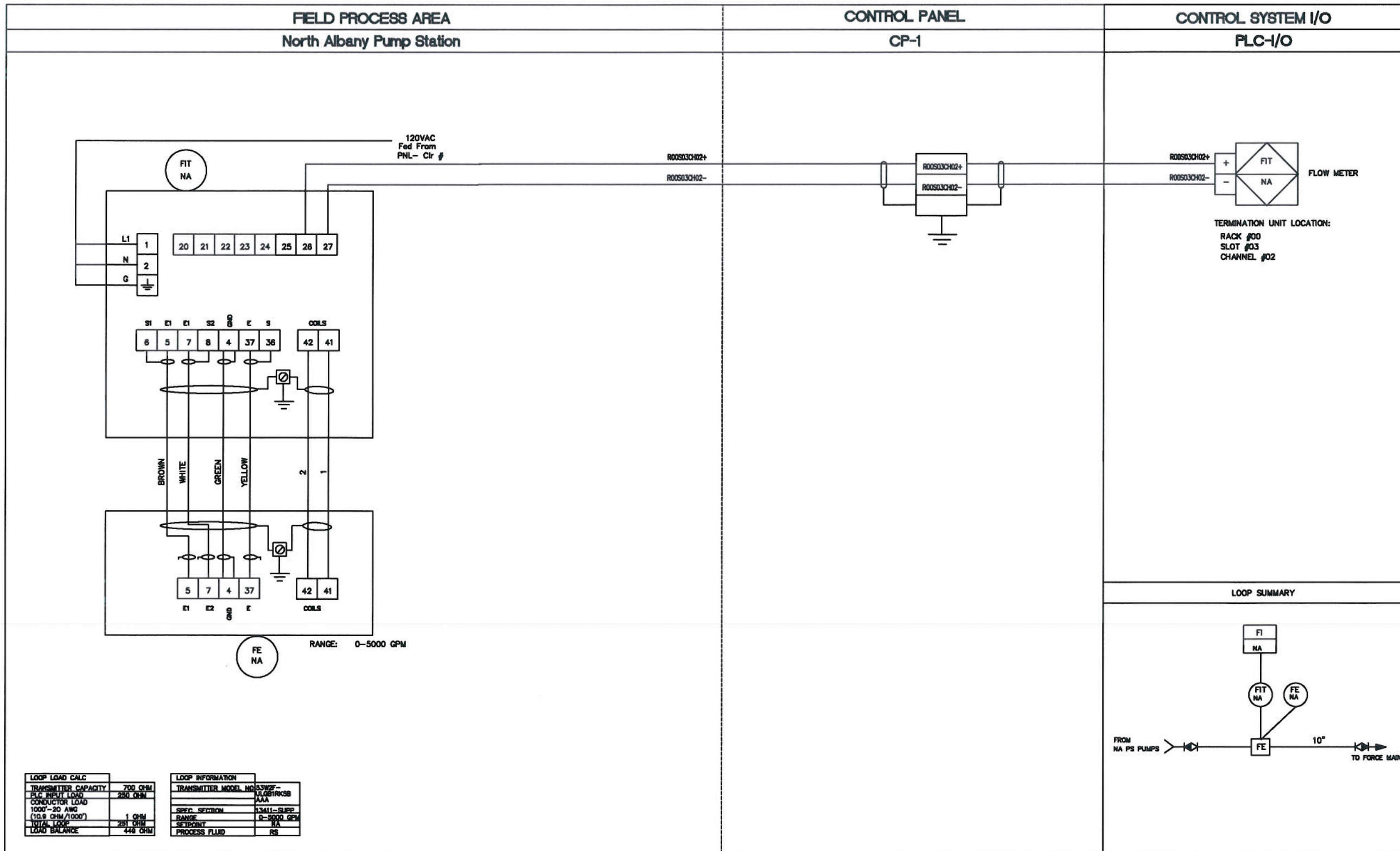
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SCALE: NTS

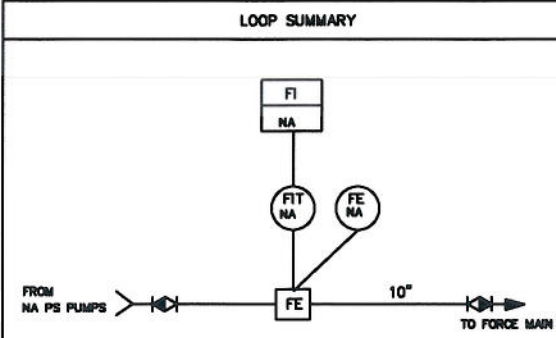
OWNER: TOB
 CHECKED: GAJ
 DESIGNED:
 APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
WET WELL LEVEL

LAST REV: 11/18/09 DATE: 5/28/09
 DRAWING NO: 9007 FILE NO: 10 of 14
 DWG NAME: 9007PNL01.DWG



LOOP LOAD CALC		LOOP INFORMATION	
TRANSMITTER CAPACITY	700 OHM	TRANSMITTER MODEL NO.	537627-
PLC INPUT LOAD	250 OHM		11JG6TRK5B
CONDUCTOR LOAD			AAA
1000' - 20 AWG		SPEC. SECTION	13411-SLEP
(10.8 OHM/1000')	1 OHM	RANGE	0-5000 GPM
TOTAL LOOP	251 OHM	SETPOINT	NA
LOAD BALANCE	448 OHM	PROCESS FLUID	RS



SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE



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SCALE: NTS
 DRAWN: RDS
 CHECKED:
 ENGR:
 CHECKED:
 APPROVED:
 APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
 TITLE:
FLOW METER

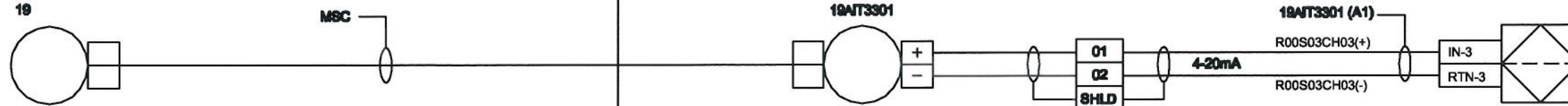
LAST REV: 11/13/09
 SYMBOL: 11 of 14
 JOB NO: 9007
 FILE NO:
 DWG NAME: 9007PNL01.DWG

FIELD

PANEL
WW1-RTU-CP19

SENSOR: MANUFACTURER: RAIN GAUGE
MODEL: FUTURE
RANGE:

MANUFACTURER: RAIN GAUGE
MODEL: FUTURE
RANGE:



RAIN GAUGE
FUTURE
LEVEL PLC: WW1-RTU-CP19
RR/SS/CC: 00/03/03
SOFTWARE TAG: WW1_19_3301_LEVEL
SCALE:

SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



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SCALE: NTS
DRAWN: TOB
CHECKED: GAJ
ENGR:
CHECKED:
APPROVED:
APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
TITLE:
RAIN FALL

LAST REV: 11/16/09 DATE: 5/29/09
PAGE: 12 of 14
JOB NO: 9007 FILE NO:
DWG NAME: 9007PNL01.DWG

FIELD

PANEL
WW1-RTU-CP19

19LIT-3041
RANGE: 0-20FT

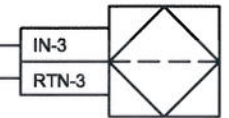
MSC

24+ - LCD TERMINAL
COM - TEMP TERMINAL

3041
01
02
SHLD

4-20mA

19LIT-3041
R19S03CH03(+)
R19S03CH03(-)



PANEL TEMPERATURE
LEVEL PLC: WW1-RTU-CP19
RR/SS/CC: 19/03/03

SYM	REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE
1	REVISED PER PANEL BUILD	HGB	GAJ	11/09					



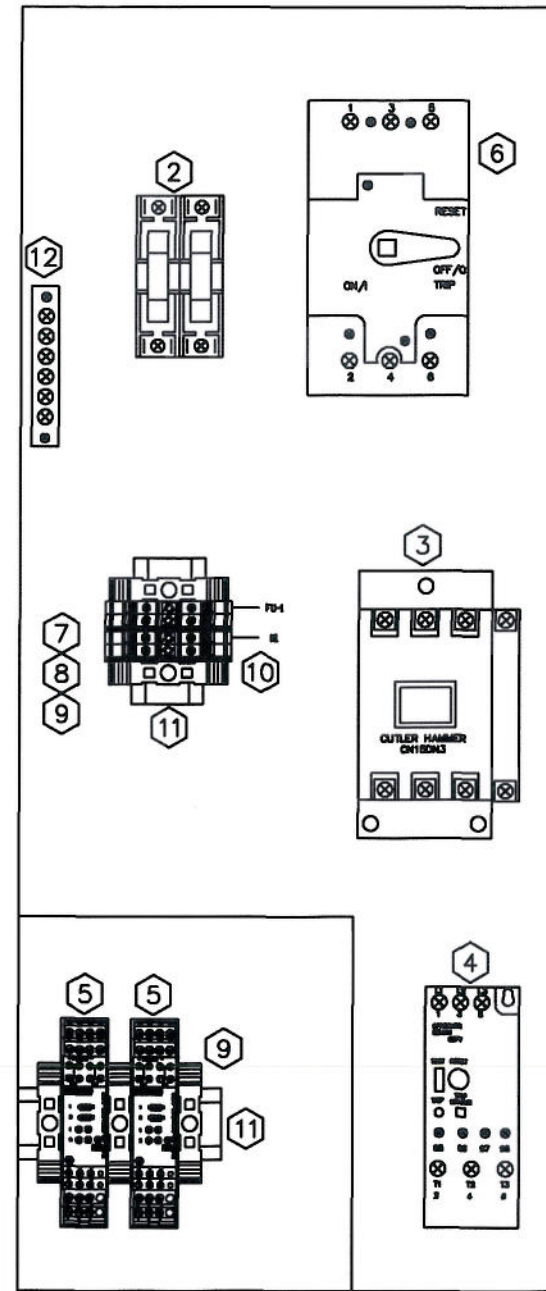
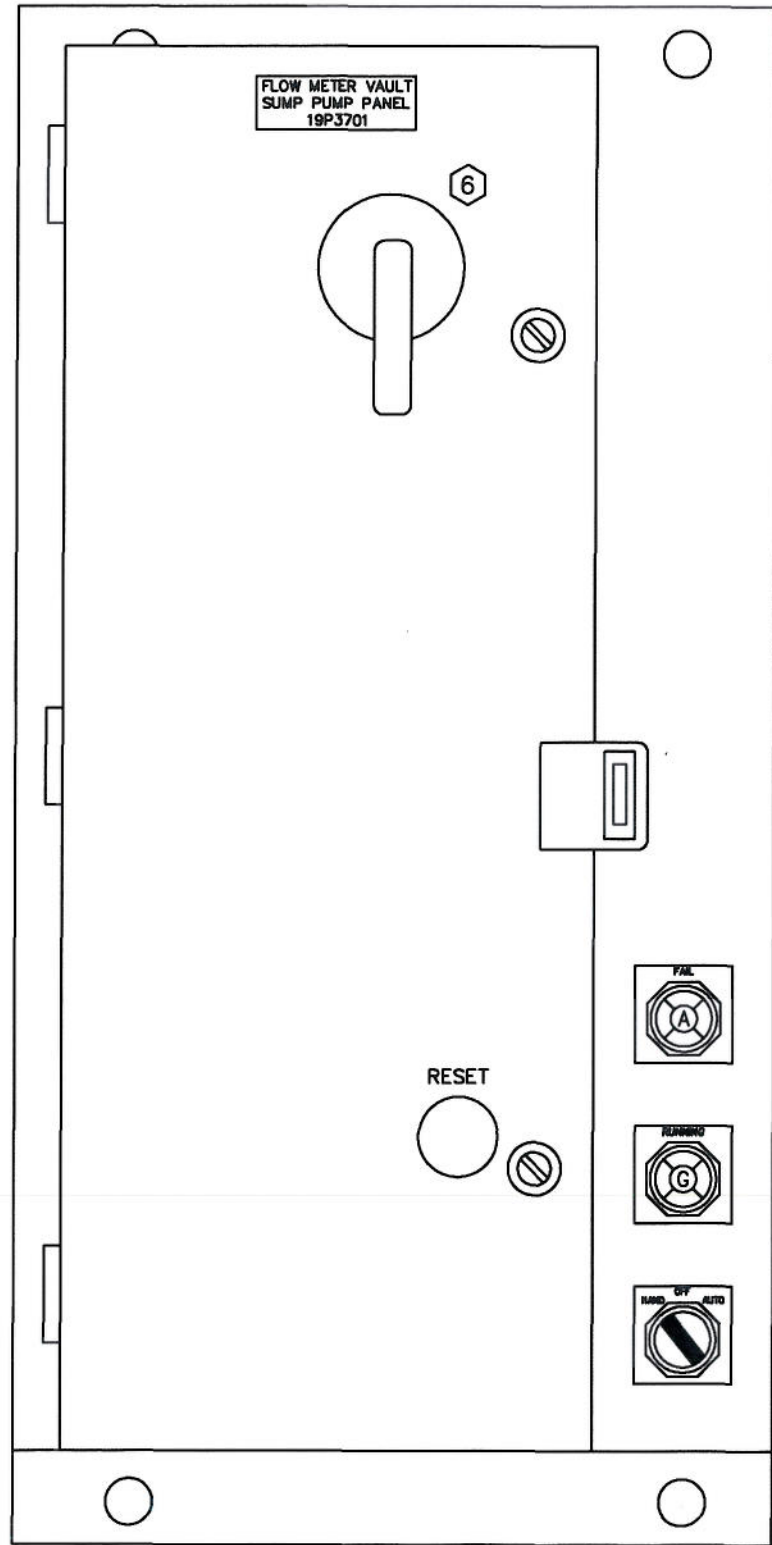
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SCALE: NTS
DRAWN: TOB
CHECKED: GAJ
ENGR:
CHECKED:
APPROVED:
APPROVED:

PROJECT NAME:
NORTH ALBANY EXISTING LIFT STATION IMPROVEMENTS
TITLE:
RAIN FALL

LAST REV	DATE
11/16/09	5/29/09
SHEET NO:	13 of 14
JOB NO:	9007
DWG NAME:	9007PNL01.DWG



REVISION	BY	APPRVD	DATE	SYM	REVISION	BY	APPRVD	DATE



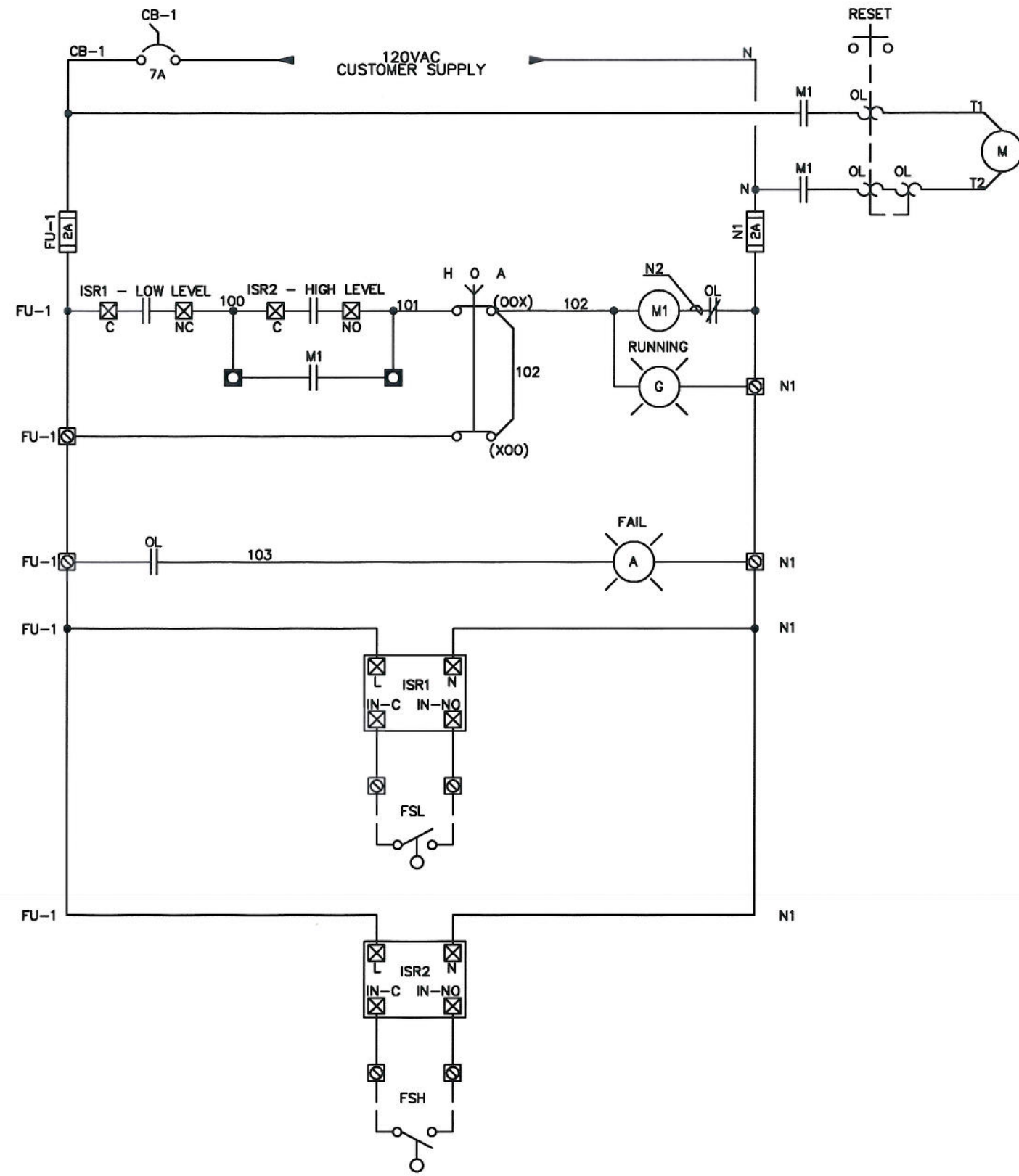
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SCALE: NTS
 DRAWN: CLA
 CHECKED: HGB
 ENGR:
 CHECKED:
 APPROVED:
 APPROVED:

PROJECT NAME:
NORTH ABLANY FORCE MAIN AND PUMP STATION IMPROVEMENTS
 TITLE:
FLOW METER VAULT SUMP PUMP PANEL 19P3701 LAYOUT

LAST REV: 12/22/08
 SYMBOL: 1 of 3
 JOB NO: 9007
 FILE NO: 00000000
 DWG NAME: 9007 PUMP PANEL.DWG



REVISION	BY	APPRD	DATE	SYM	REVISION	BY	APPRD	DATE



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SCALE: NTS
 DRAWN: CLA
 CHECKED: HGB
 DESIGNED:
 APPROVED:

PROJECT NAME:
NORTH ABLANY FORCE MAIN AND PUMP STATION IMPROVEMENTS
 TITLE:
FLOW METER VAULT SUMP PUMP PANEL 19P3701 SCHEMATIC

LAST REV: 12/22/09
 SYMBOL: 2 of 3
 JOB NO: 9007
 FILE NO: 00000000
 DWG NAME: 9007 PUMP PANEL.DWG

Item	Qty	Part Number	Manufacturer	Description
1	1	ECP5512CAC	EATON	PUMP PANEL ENCLOSURE
2	1	C350FBR	EATON	FUSE HOLDER TYPE CC
3	1	CN15DN3	CUTLER HAMMER	CONTACTOR 3P 120VAC COIL
4	1	CEP7-EED8	CUTLER HAMMER	OVERLOAD RELAY
5	2	2835781	PHOENIX CONTACT	IS RELAY
6	1	7A-HMCPE-3	CUTLER HAMMER	BREAKER 7A WITH THROUGH DOOR OPERATOR
7	2	1492-J3	ALLEN BRADLEY	TERMINAL BLOCK GREY
8	5	1492-EBJ3	ALLEN BRADLEY	END BARRIER
9	2	1492-EAHJ35	ALLEN BRADLEY	END ANCHOR
10	2	1492-CJJ5-2	ALLEN BRADLEY	CENTER JUMPER 2P
11	AS REQ'D	199-DR1	ALLEN BRADLEY	STANDARD DIN RAIL
12	1	80-19973	CUTLER HAMMER	GROUND BAR
13	1	PIP701C	PACO	SUMP PUMP

REVISION	BY	APPRVD	DATE	SYM	REVISION	BY	APPRVD	DATE



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SCALE: NTS
 DRAWN: CLA
 CHECKED: HGB
 ENGR:
 CHECKED:
 APPROVED:

PROJECT NAME:
 NORTH ABLANY FORCE MAIN AND PUMP STATION IMPROVEMENTS
 TITLE:
 FLOW METER VAULT SUMP PUMP PANEL 19P3701 BILL OF MATERIALS

LAST REV: 12/22/09
 SYMBOL: 3 of 3
 JOB NO: 9007
 FILE NO: 00000000
 DWG NAME: 9007 PUMP PANEL.DWG



PRESSURE LINE LOCATION
SCALE 1" = 100'

PRESSURE LINE PROFILE
SCALE: HORIZ. 1" = 100'
VERT. 1" = 5'

DETAIL-LOCATION
CLOVERDALE FARMS
PUMPING STATION
N.T.S.

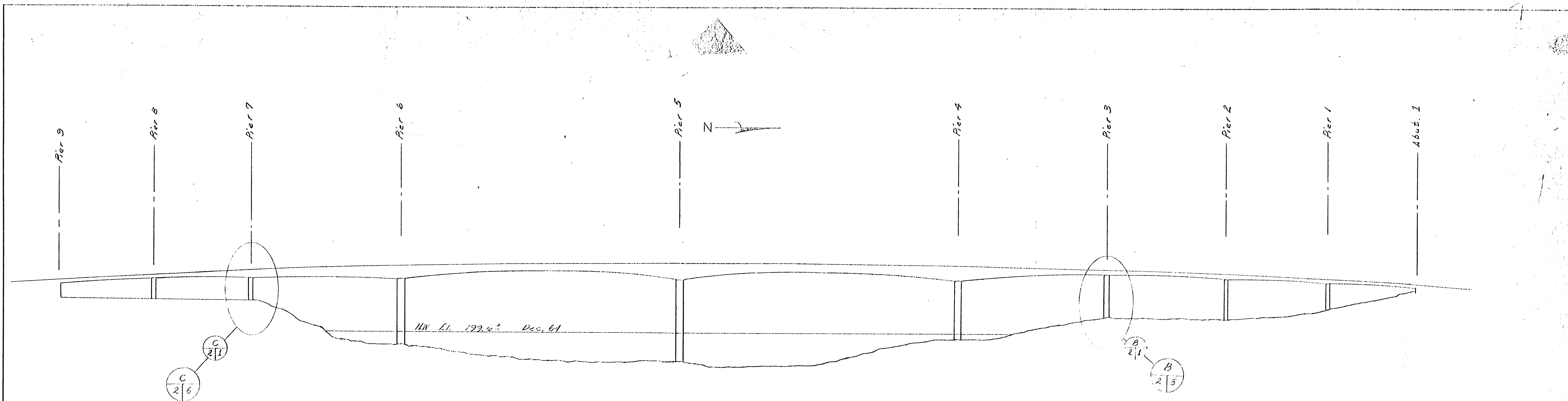
DATE	BY	NO.	REVISION

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PUBLIC WORKS DEPARTMENT -- ENGINEERING
ALBANY OREGON
 P. O. BOX 490 TELEPHONE 926-4261 97321

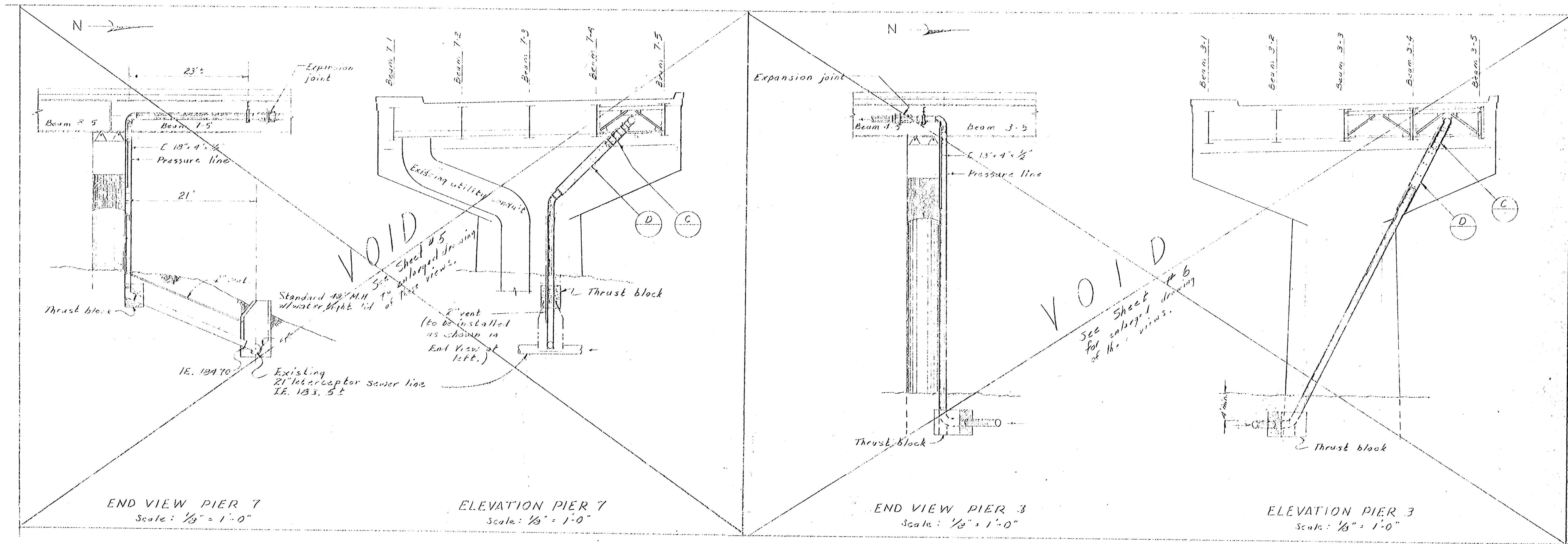
PROJECT
SS 75 4A
CLOVERDALE FARMS
PRESSURE LINE LOCATION
PLAN AND PROFILE

DESIGNED JR	SHEET 1
DRAWN D.L.	
CHECKED	OF 8 SHEETS
APPROVED	SCALE HORIZ. 1" = 100' VERT. 1" = 5'

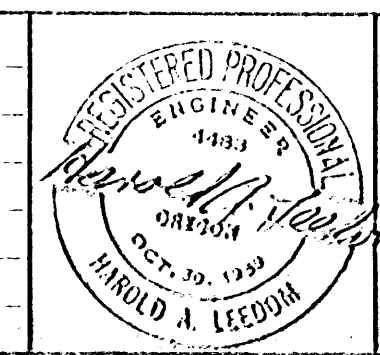
BK 6-21



ELEVATION BRIDGE STRUCTURE
Scale: 1" = 40'



DATE	BY	NO.	REVISION

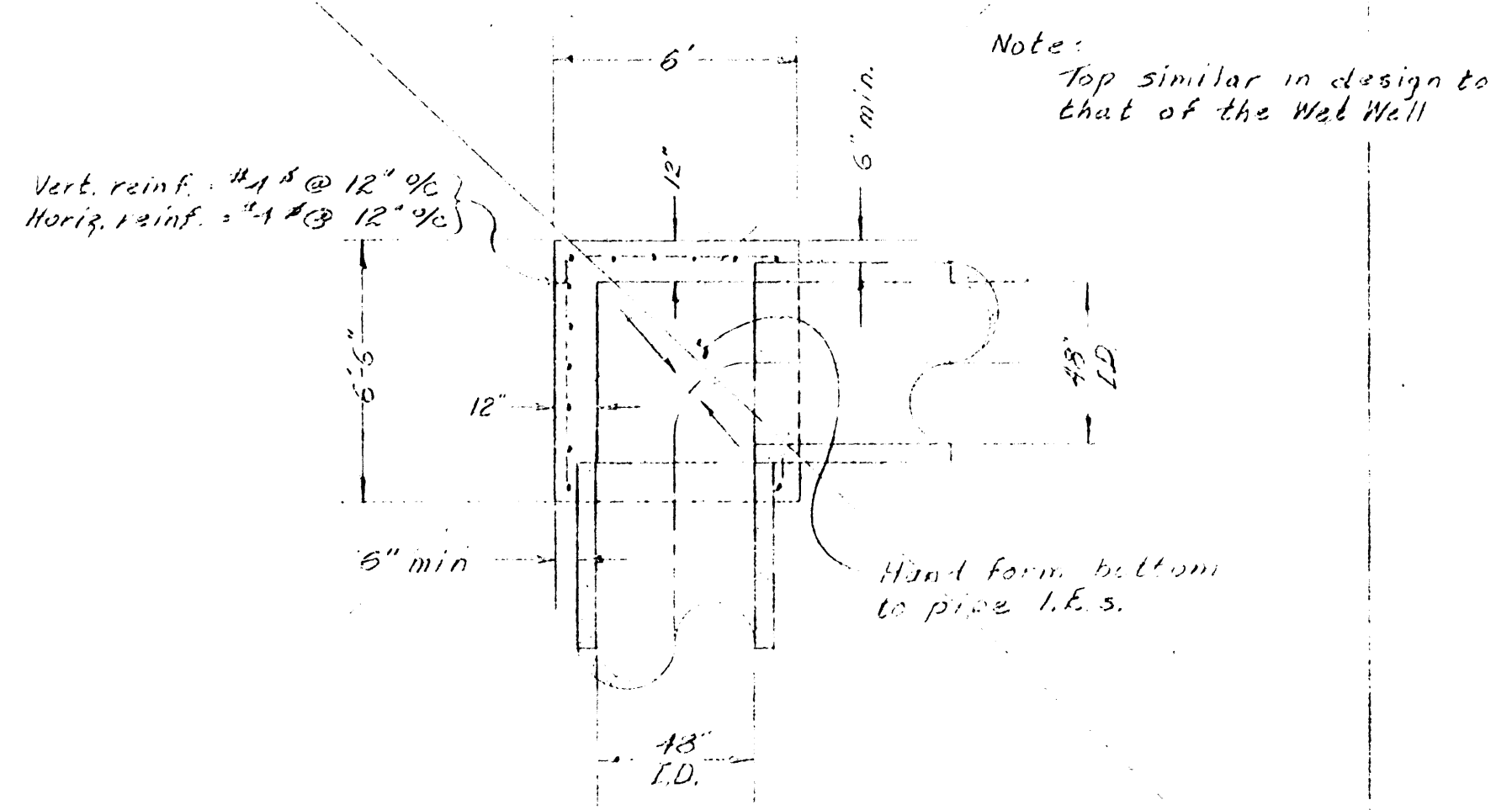


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PUBLIC WORKS DEPARTMENT -- ENGINEERING
ALBANY OREGON
 P. O. BOX 490 TELEPHONE 926-4261 97321

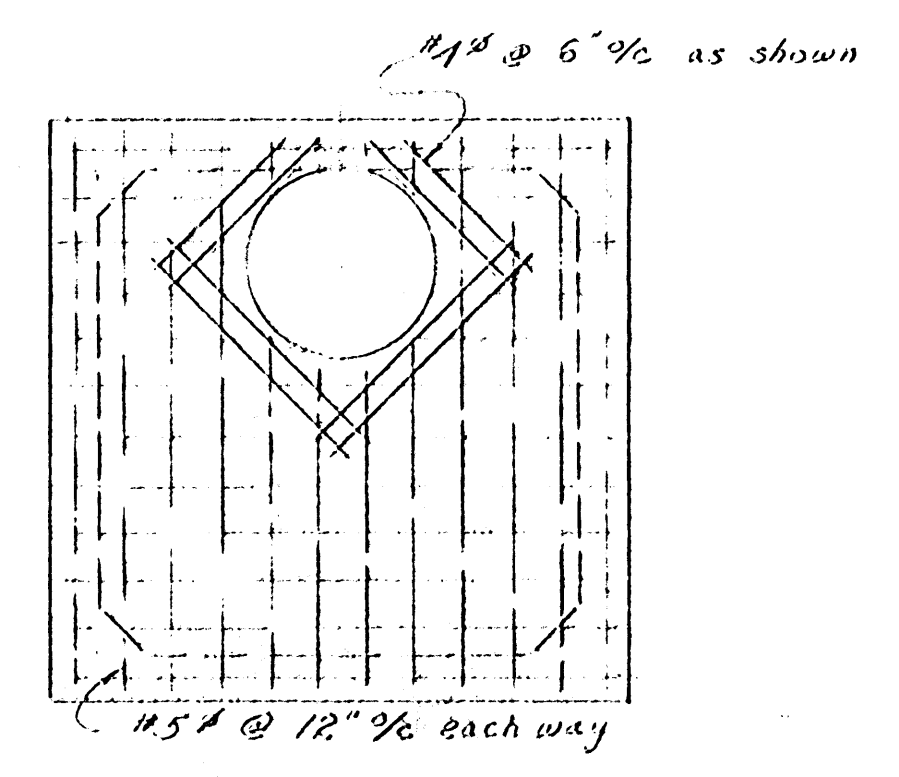
PROJECT
SS 75 4A
CLOVERDALE FARMS
BRIDGE ELEVATION

DESIGNED JR	SHEET 2
DRAWN DLL	
CHECKED	OF 8 SHEETS
APPROVED	SCALE AS SHOWN

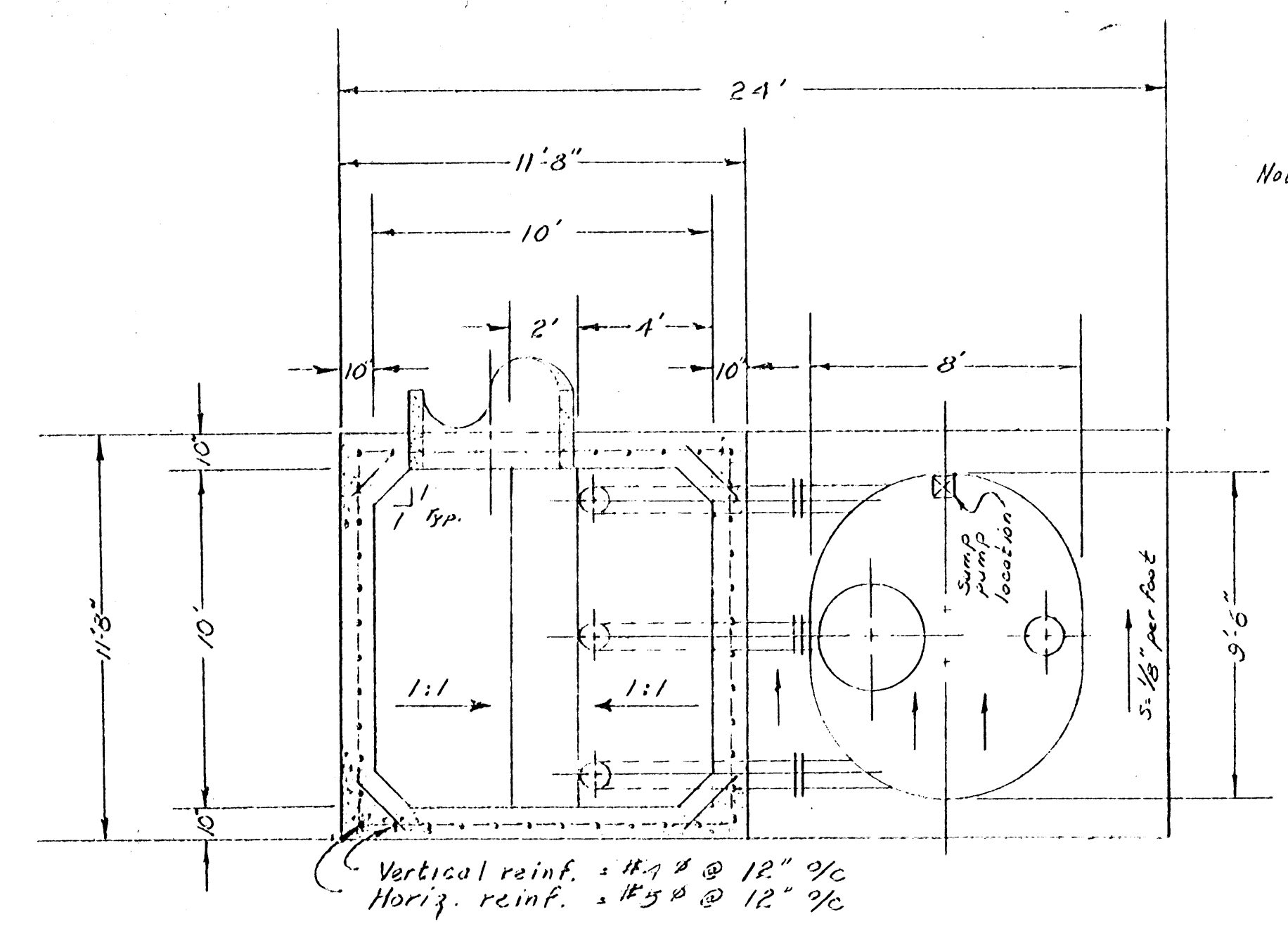
13K 6-14



SPECIAL MANHOLE PLAN
1/4" = 1'-0"
Not part of this project

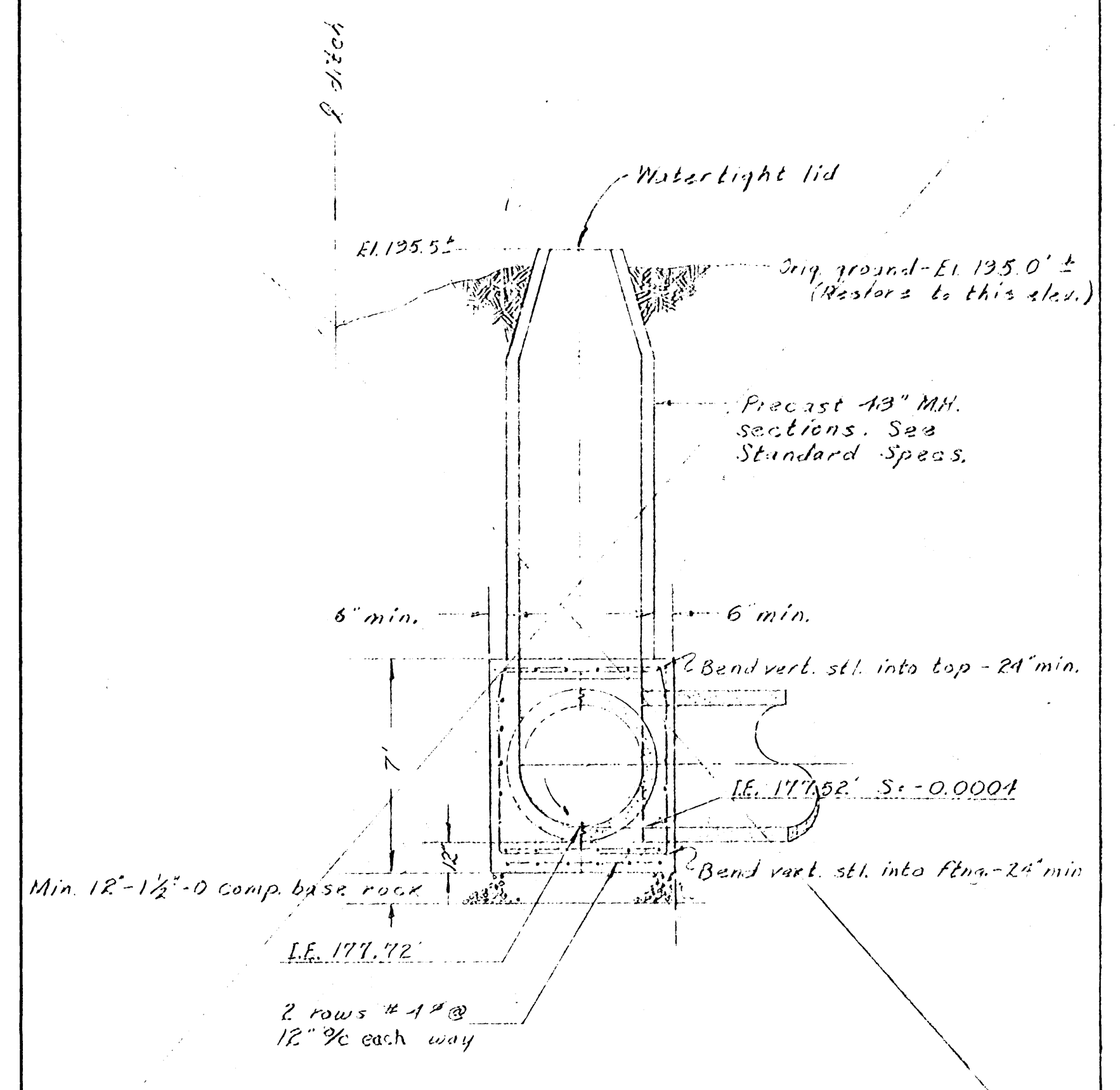


WET WELL TOP STEEL PLACEMENT
1/4" = 1'-0"



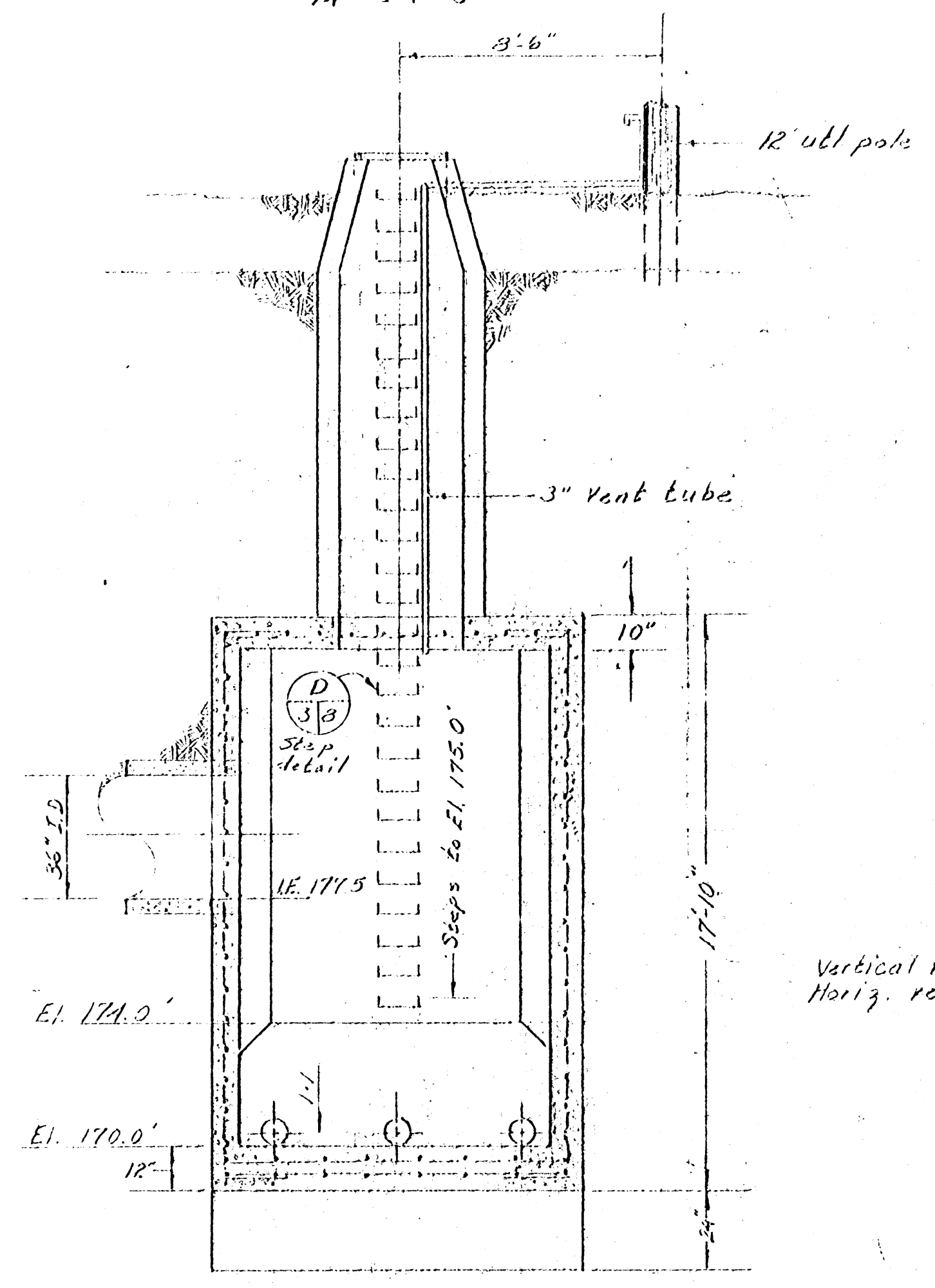
PUMPING STATION PLAN
1/4" = 1'-0"

Note: Slops floor 1/8" per foot to location of sump pump. See Special Provisions.

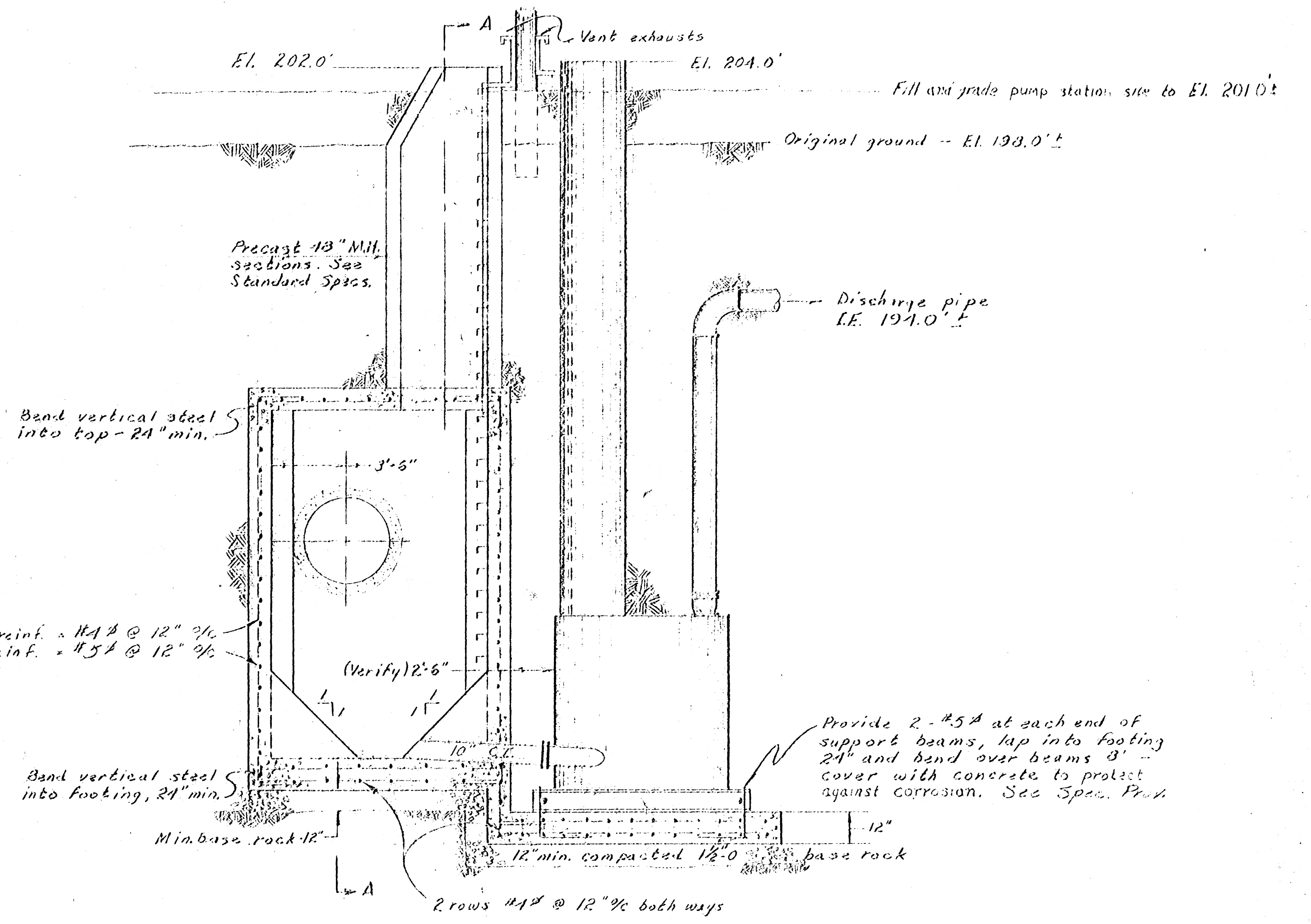


SPECIAL MANHOLE ELEVATION
1/4" = 1'-0"

Not part of this project -
To be constructed on
Project 55 75-AB

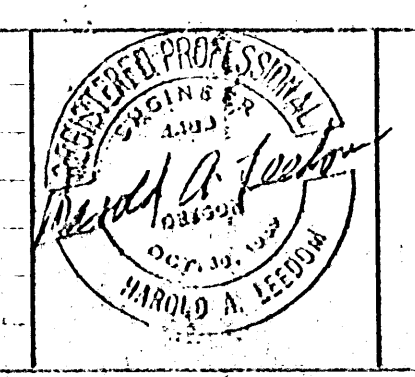


SECTION A-A
1/4" = 1'-0"



PUMPING STATION ELEVATION
1/4" = 1'-0"

DATE	BY	NO.	REVISION

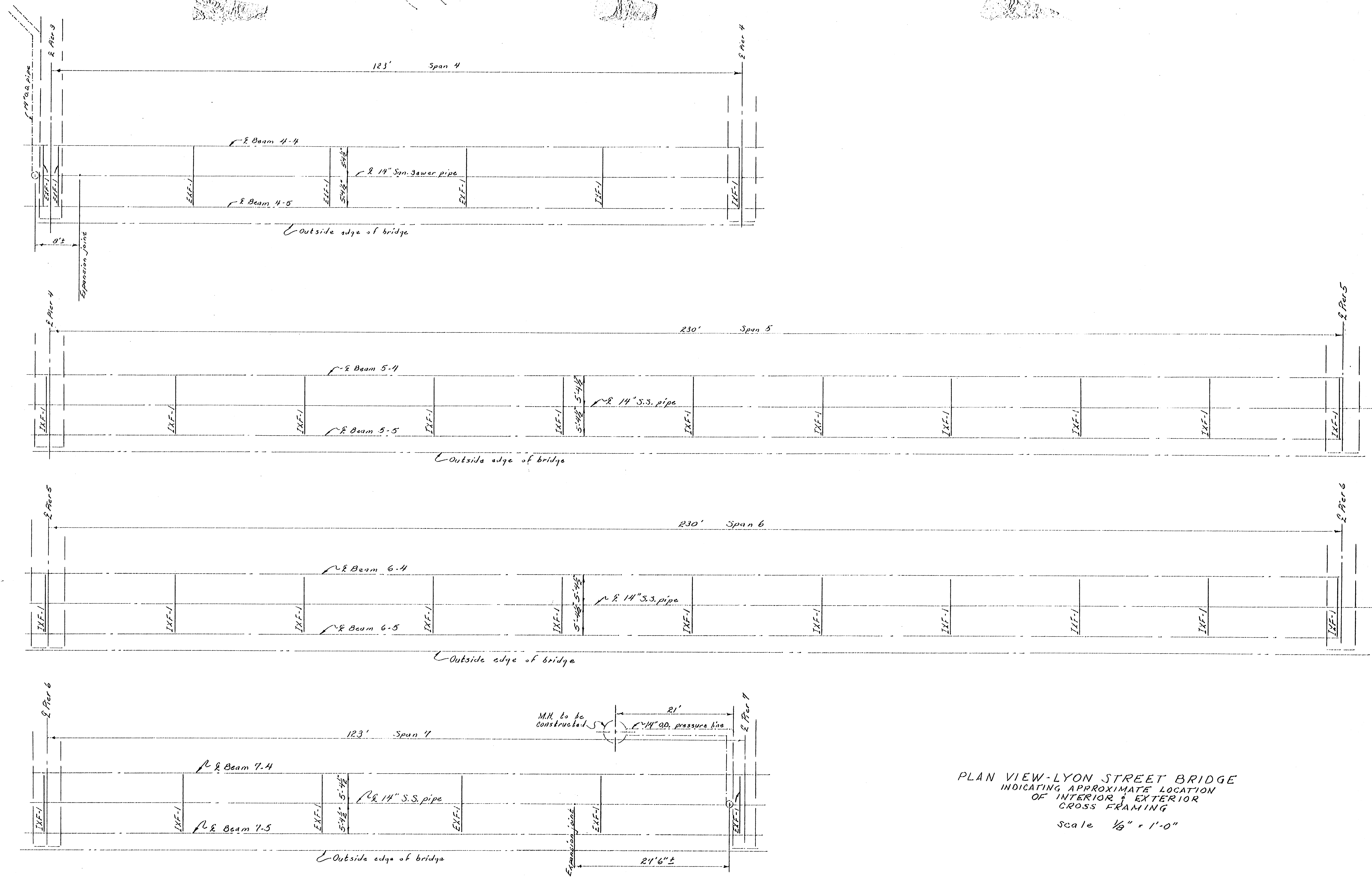


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PROJECT
SS 75 4A
CLOVERDALE FARMS
PUMPING STATION
PLAN - ELEVATION

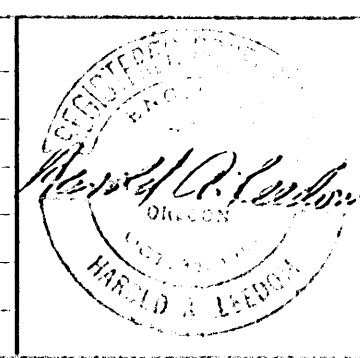
DESIGNED JR	SHEET 3
DRAWN DLL	
CHECKED	
APPROVED	OF 8 SHEETS SCALE AS SHOWN VERT.

BK-6-14



PLAN VIEW-LYON STREET BRIDGE
 INDICATING APPROXIMATE LOCATION
 OF INTERIOR & EXTERIOR
 CROSS FRAMING
 Scale 1/8" = 1'-0"

DATE	BY	NO.	REVISION



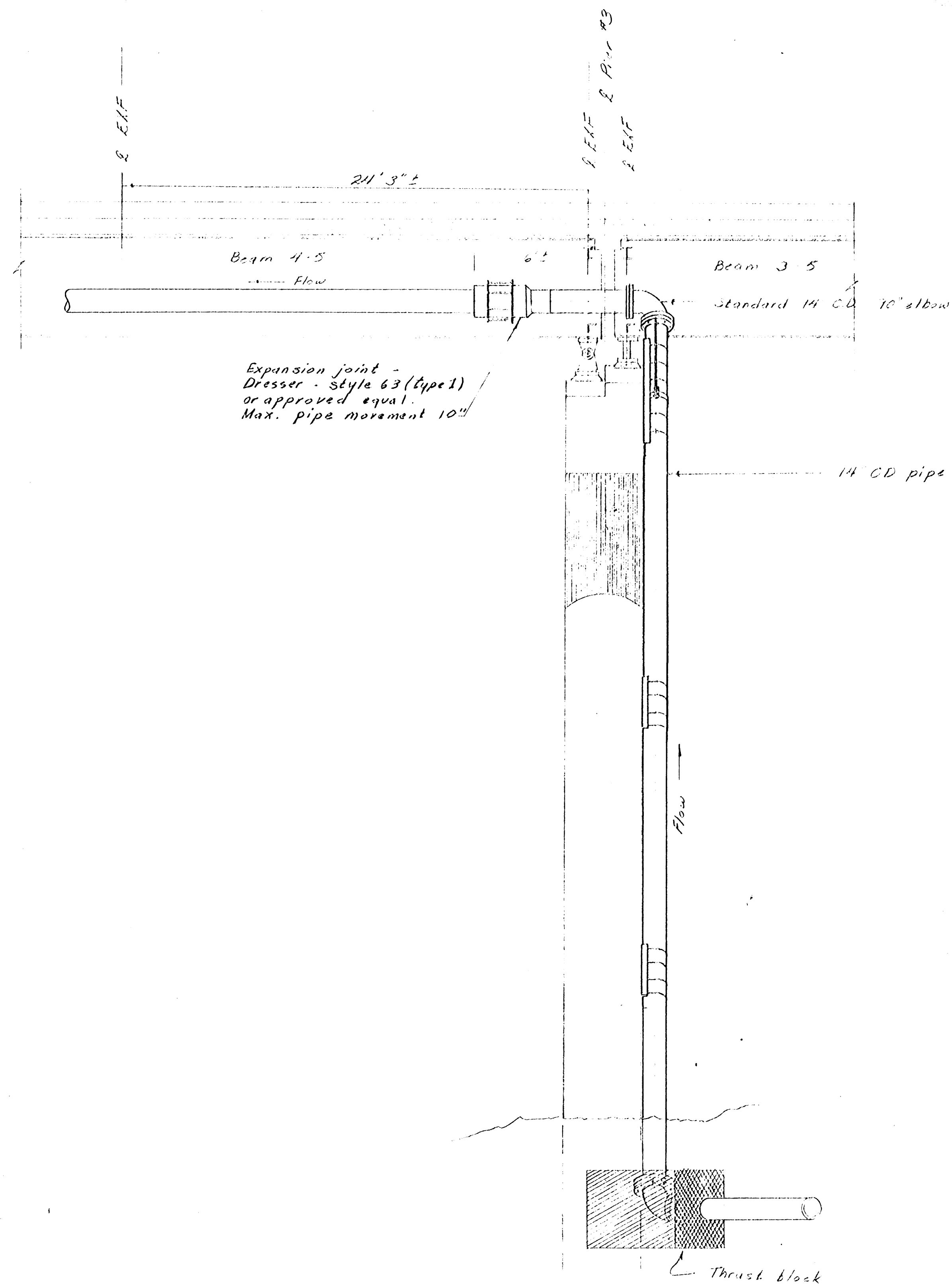
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ALBANY OREGON
 P. O. BOX 490 TELEPHONE 926-4261 97321

PROJECT
SS 75 4A
 CLOVERDALE FARMS
 CROSS FRAMING LAYOUT

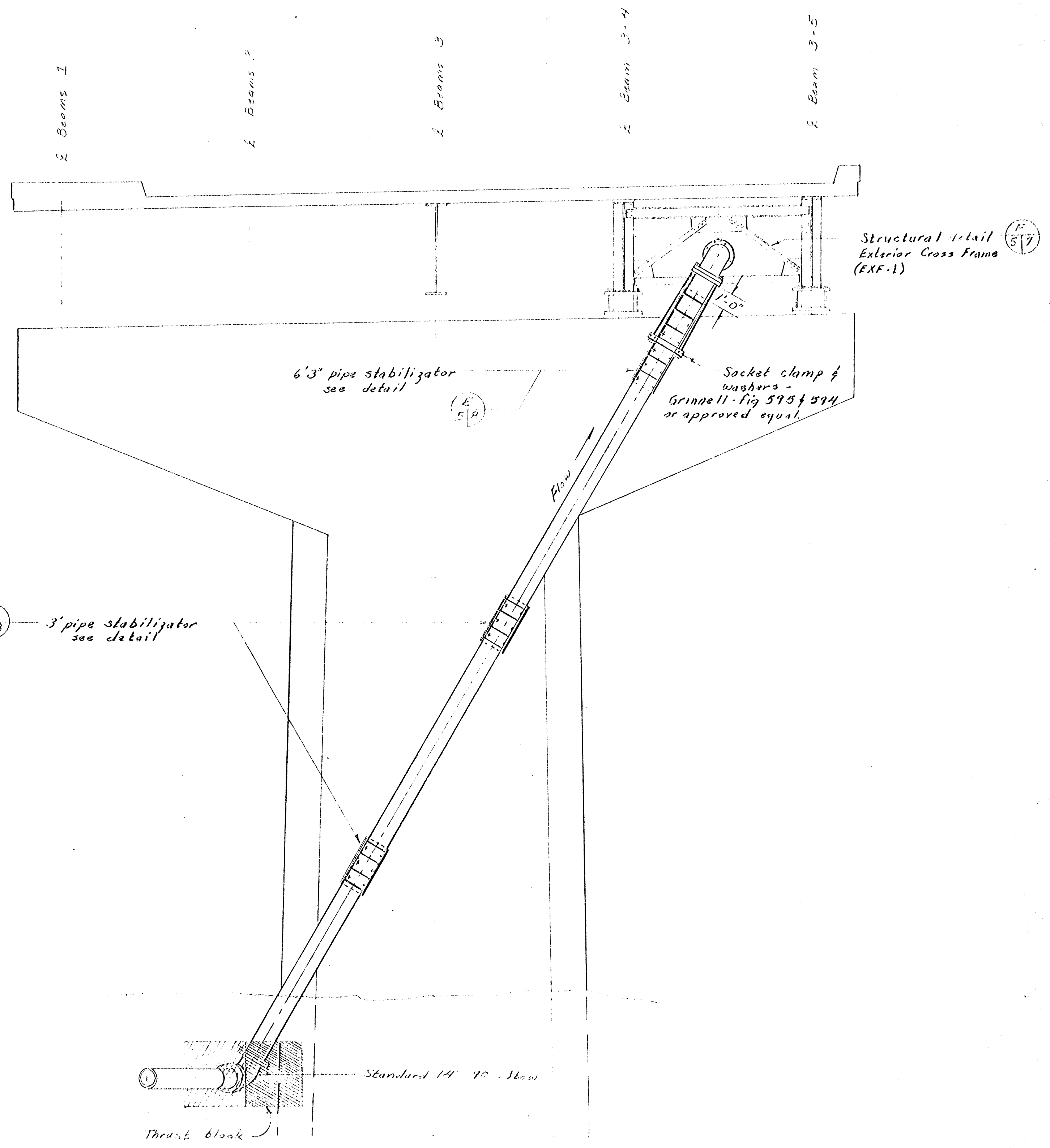
DESIGNED
JR
 DRAWN
DL
 CHECKED
 APPROVED

SHEET **4**
 OF 8 SHEETS
 SCALE AS SHOWN
 VERF.

BK 6 76

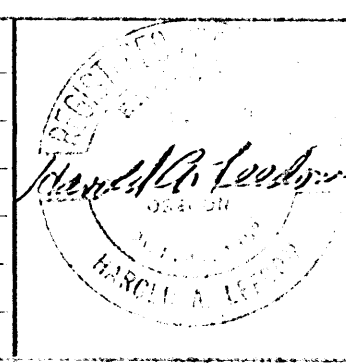


END VIEW
PIER #3
SCALE 1/4" = 1'-0"



ELEVATION
PIER #3
SCALE 1/4" = 1'-0"

DATE	BY	NO.	REVISION

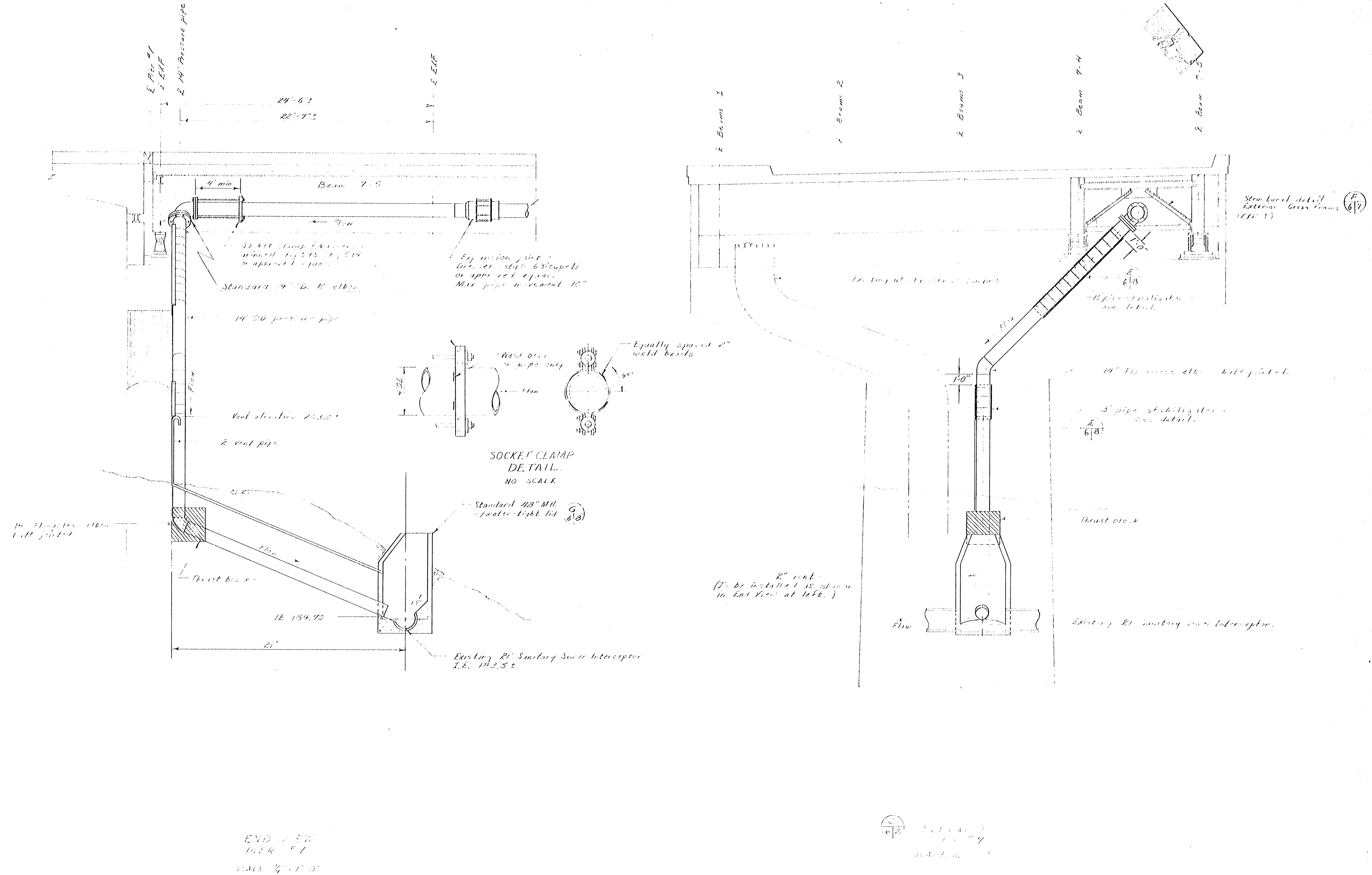


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PROJECT
SS-75-4A
 CLOVERDALE FARMS
 PIPE ARRANGEMENT
 PIER 3

DESIGNED JR	SHEET 5 OF 8 SHEETS SCALE HORIZONTAL AS SHOWN VERT.
DRAWN DLL	
CHECKED	
APPROVED	

BK6-16



END VIEW
PIER 7
SCALE 3/4" = 1'-0"

DATE: 11/14/70
BY: J.R.
SCALE: AS SHOWN

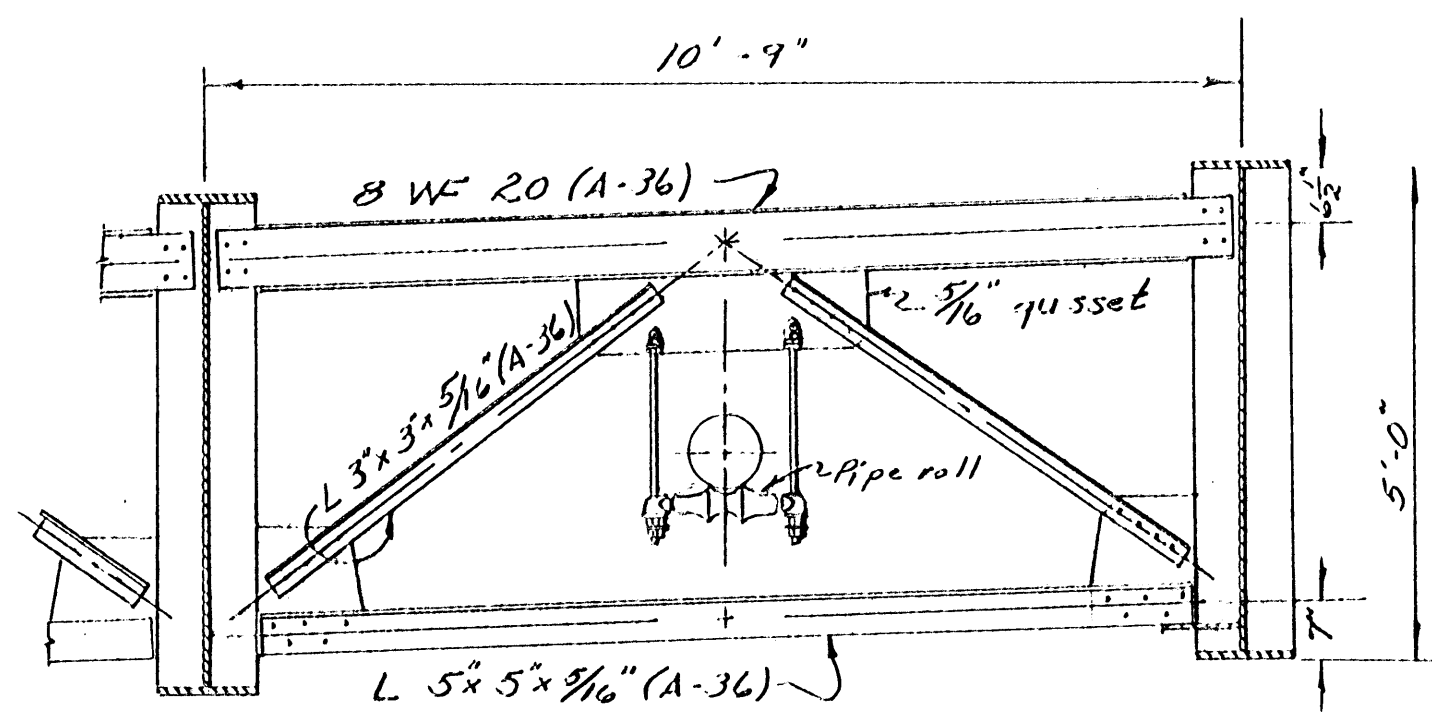
NO.	DATE	BY	REVISION

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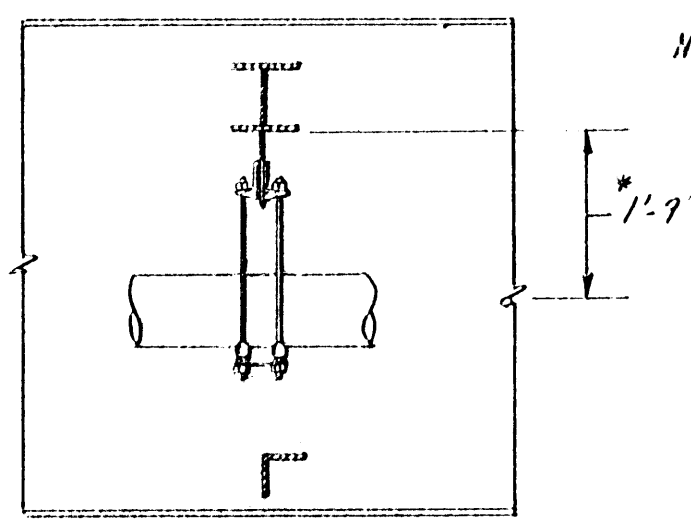
PROJECT
SS-75-4A
CLOVERDALE FARMS
PIPE ARRANGEMENT
PIER 7

DESIGNED JR	SHEET 6
DRAWN DLL	
CHECKED	
APPROVED	

OF 8 SHEETS
 SCALE
 HORIZ. AS SHOWN
 VERT.

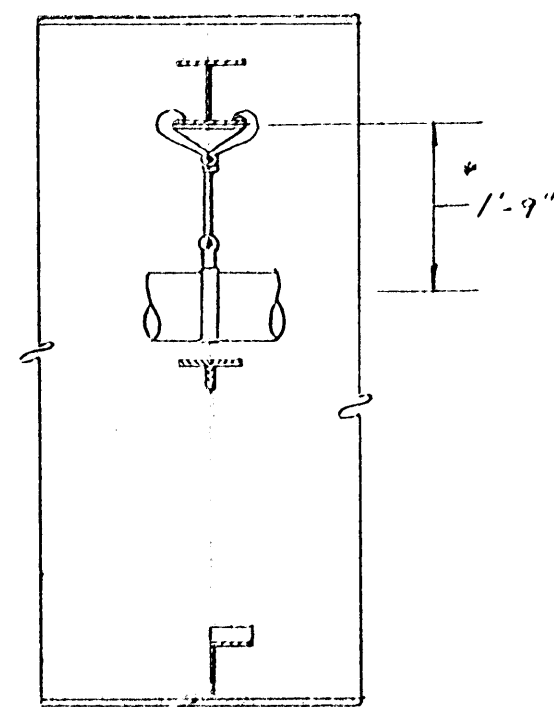


(EXF-1) EXTERIOR CROSS FRAME DETAIL
SHOWING PIPE ROLL LOCATION
(for detail pipe roll - see below)
Scale: $\frac{1}{2}'' = 1'-0''$

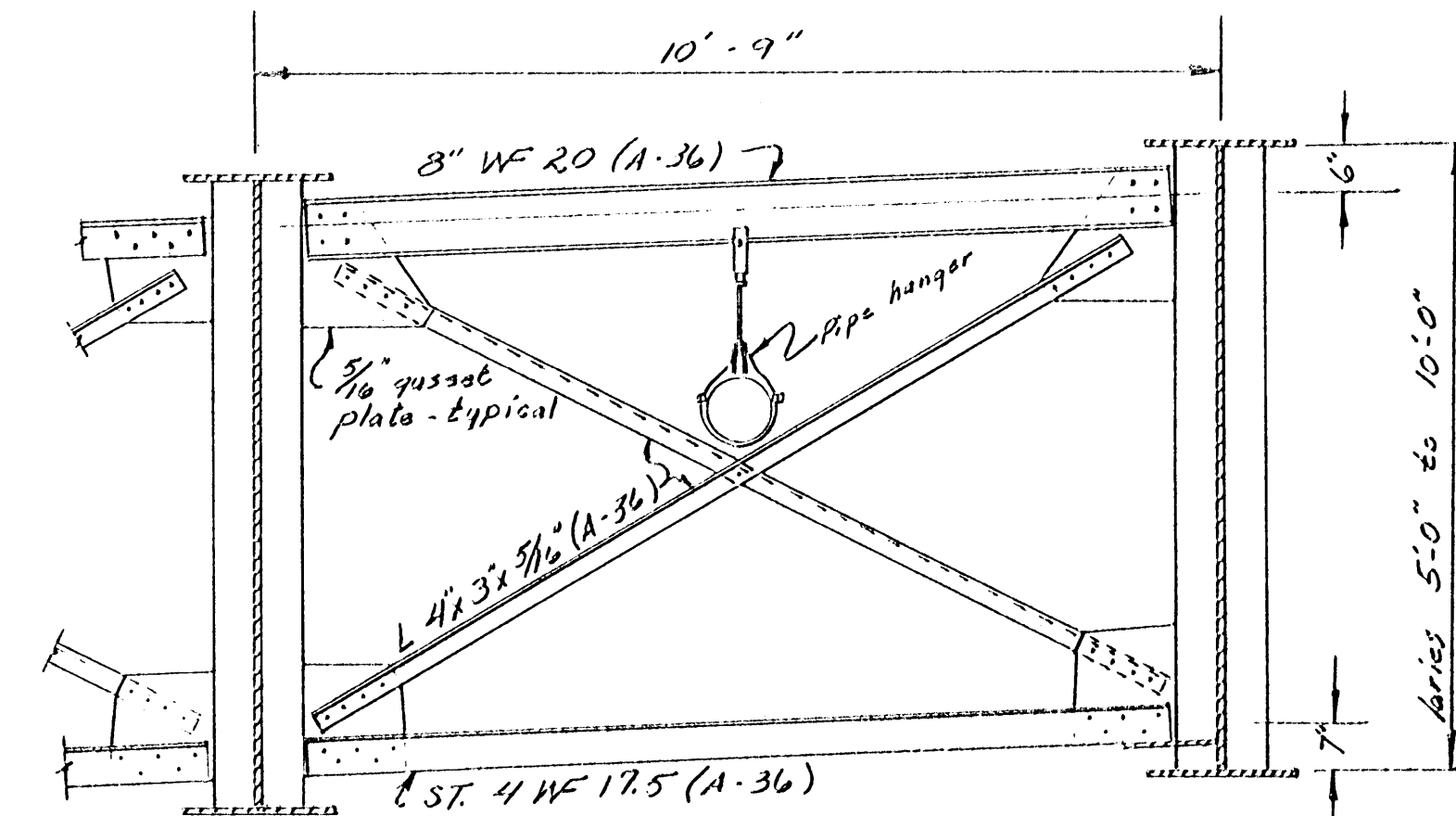


END VIEW
Scale: $\frac{1}{2}'' = 1'-0''$

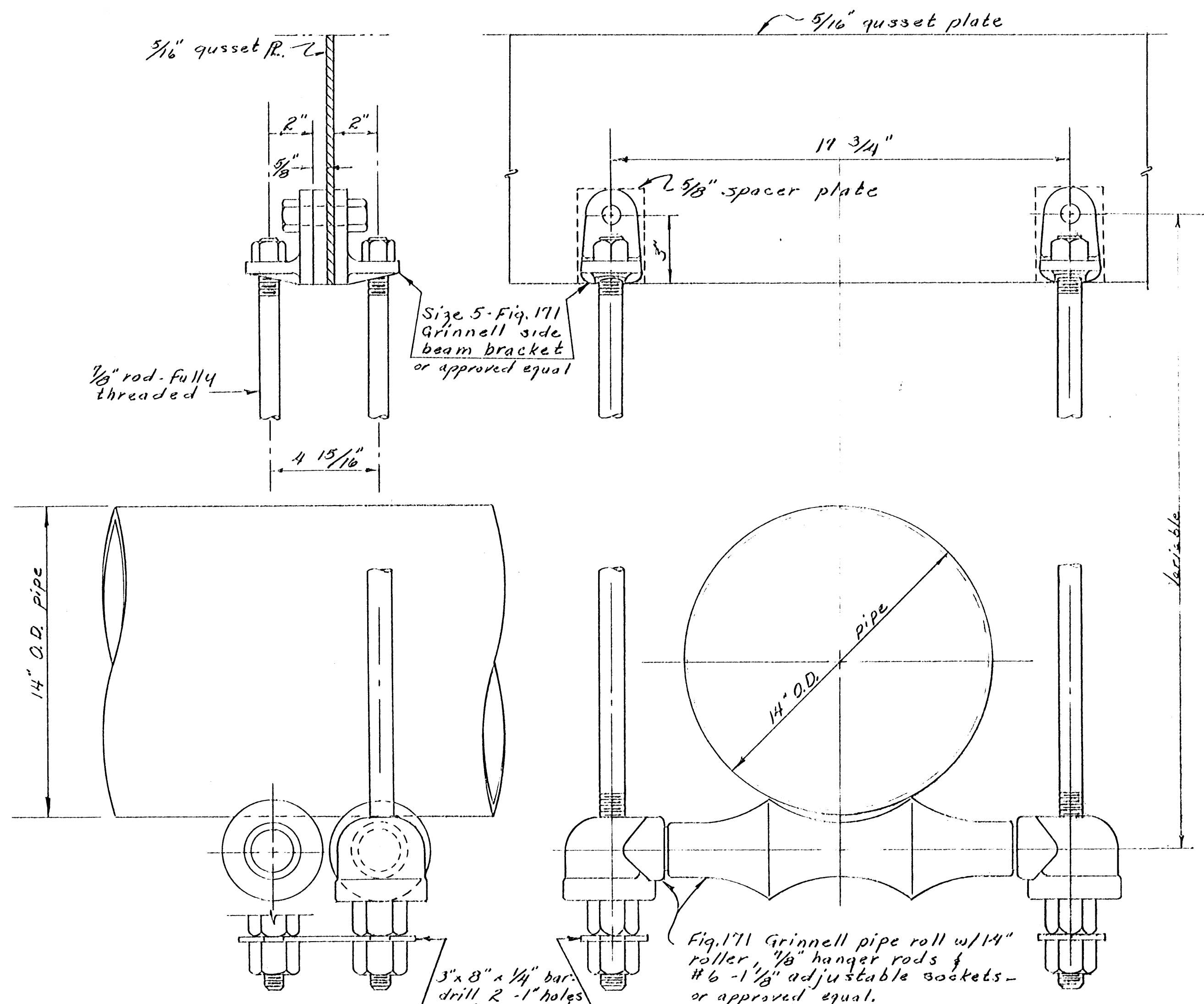
Note: * This dimension is furnished only to aid the Contractor in his estimation of quantities.



END VIEW
Scale: $\frac{1}{2}'' = 1'-0''$

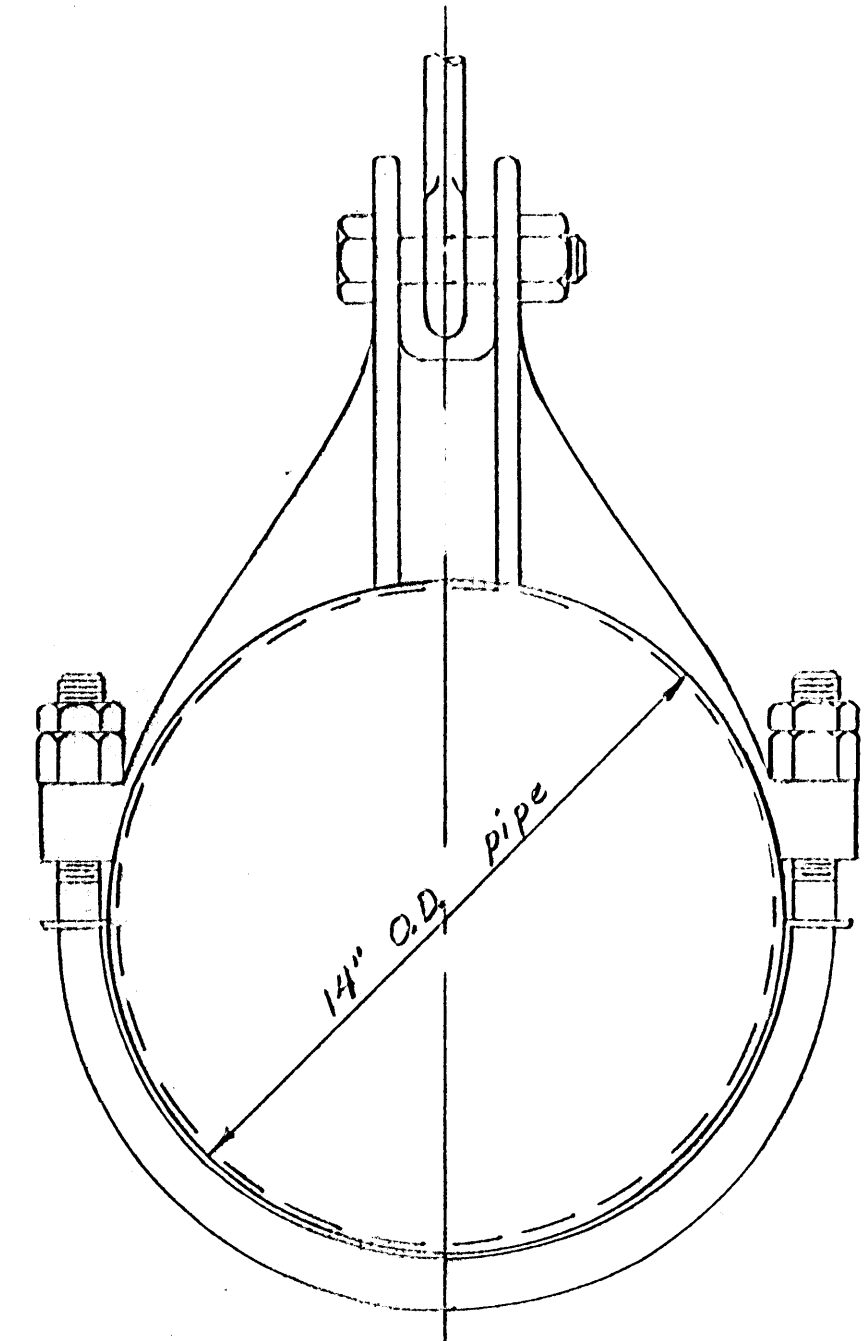


(IXF-1) INTERIOR CROSS FRAME DETAIL
SHOWING PIPE HANGER LOCATION
(for detail pipe hanger - see below)
Scale: $\frac{1}{2}'' = 1'-0''$

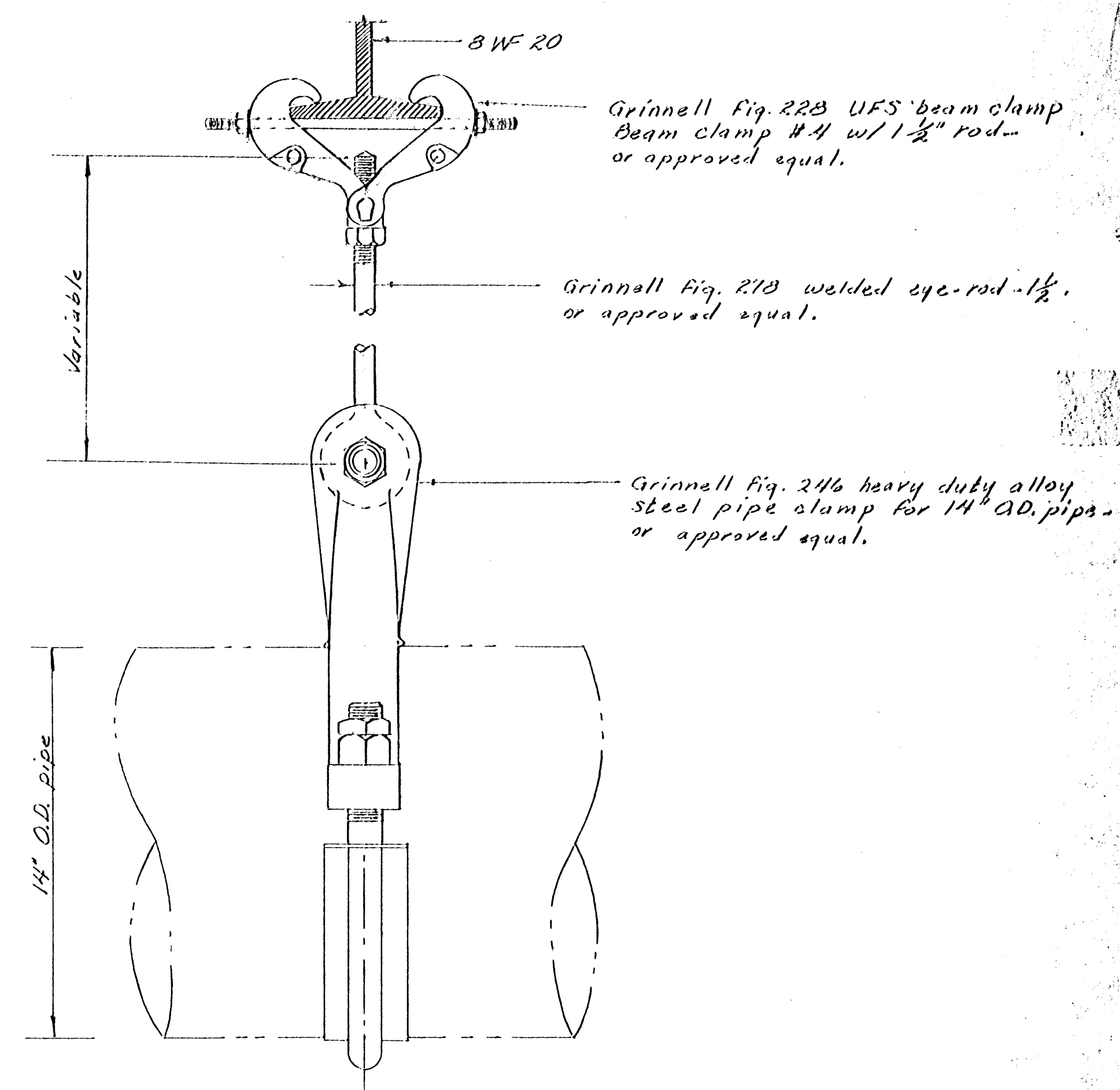


END VIEW
Scale: $3'' = 1'-0''$

ELEVATION PIPE ROLL
Scale: $3'' = 1'-0''$

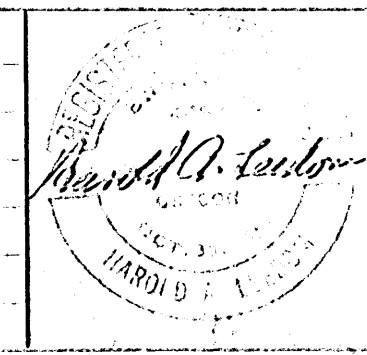


END VIEW
Scale: $3'' = 1'-0''$



ELEVATION PIPE HANGER
Scale: $3'' = 1'-0''$

DATE	BY	NO.	REVISION

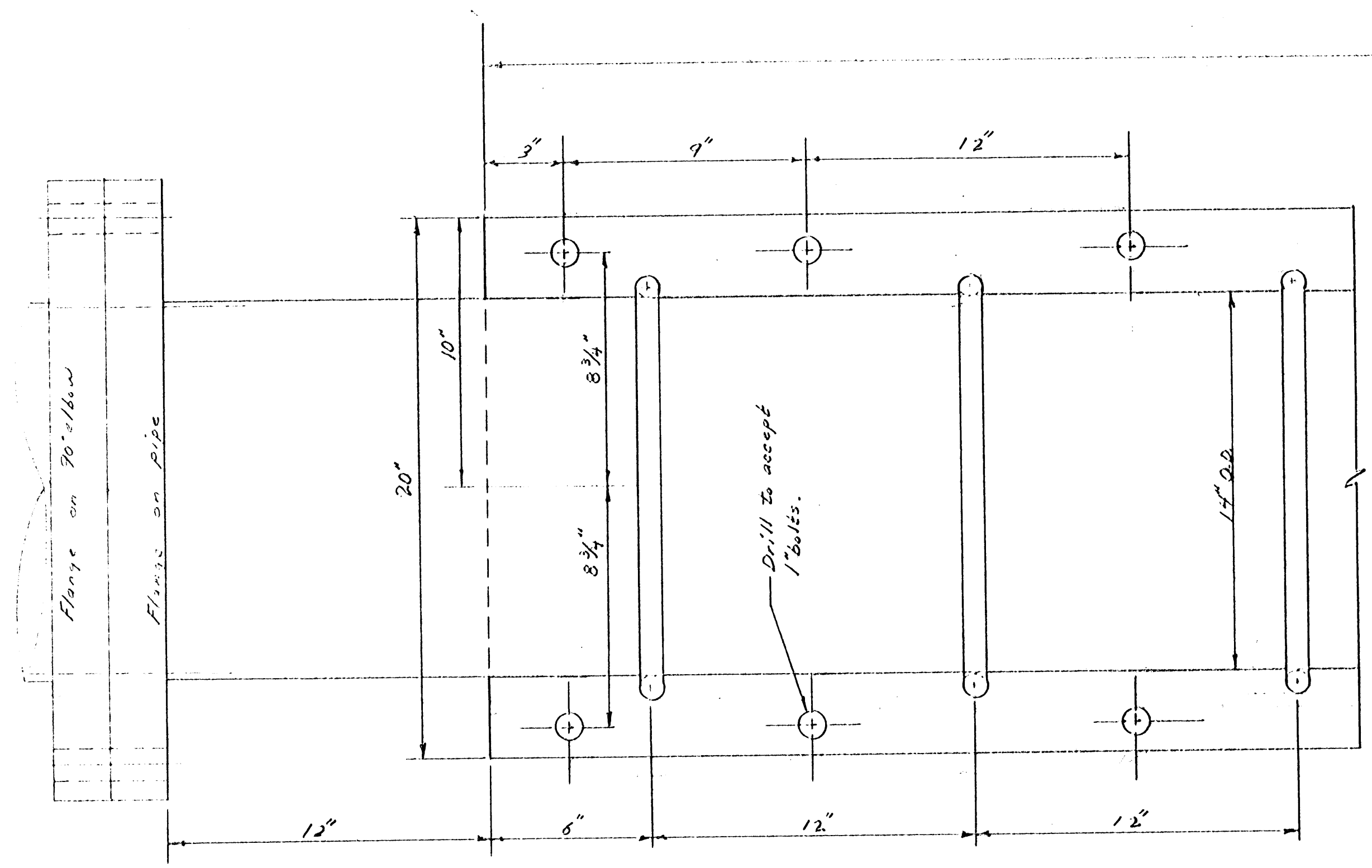


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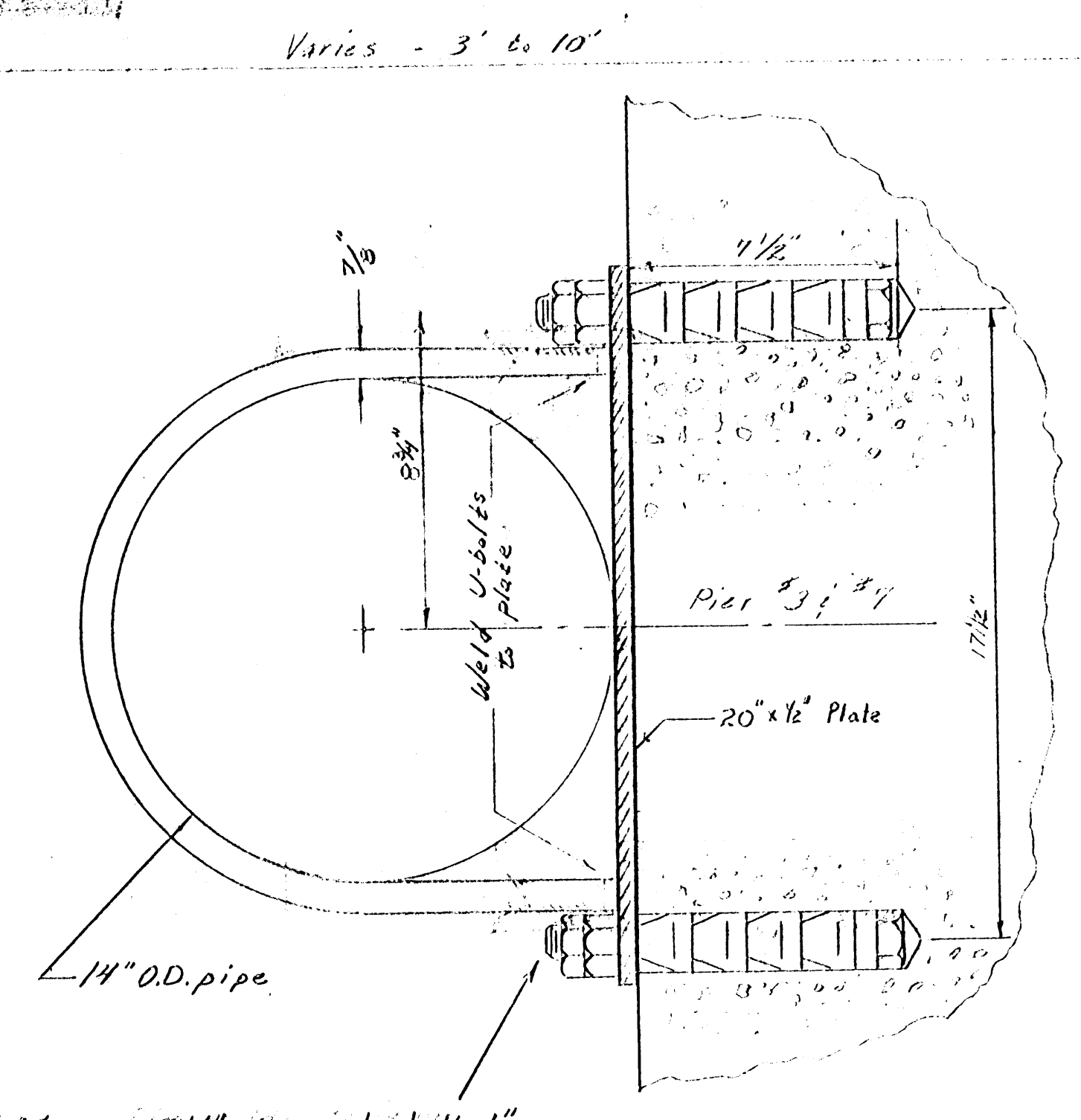
PROJECT
SS-75-4A
CLOVERDALE FARMS
PIPE HANGING DETAILS
CROSS FRAME DETAILS

DESIGNED JR	SHEET 7
DRAWN DLL	
CHECKED	OF 8 SHEETS
APPROVED	
	SCALE AS SHOWN

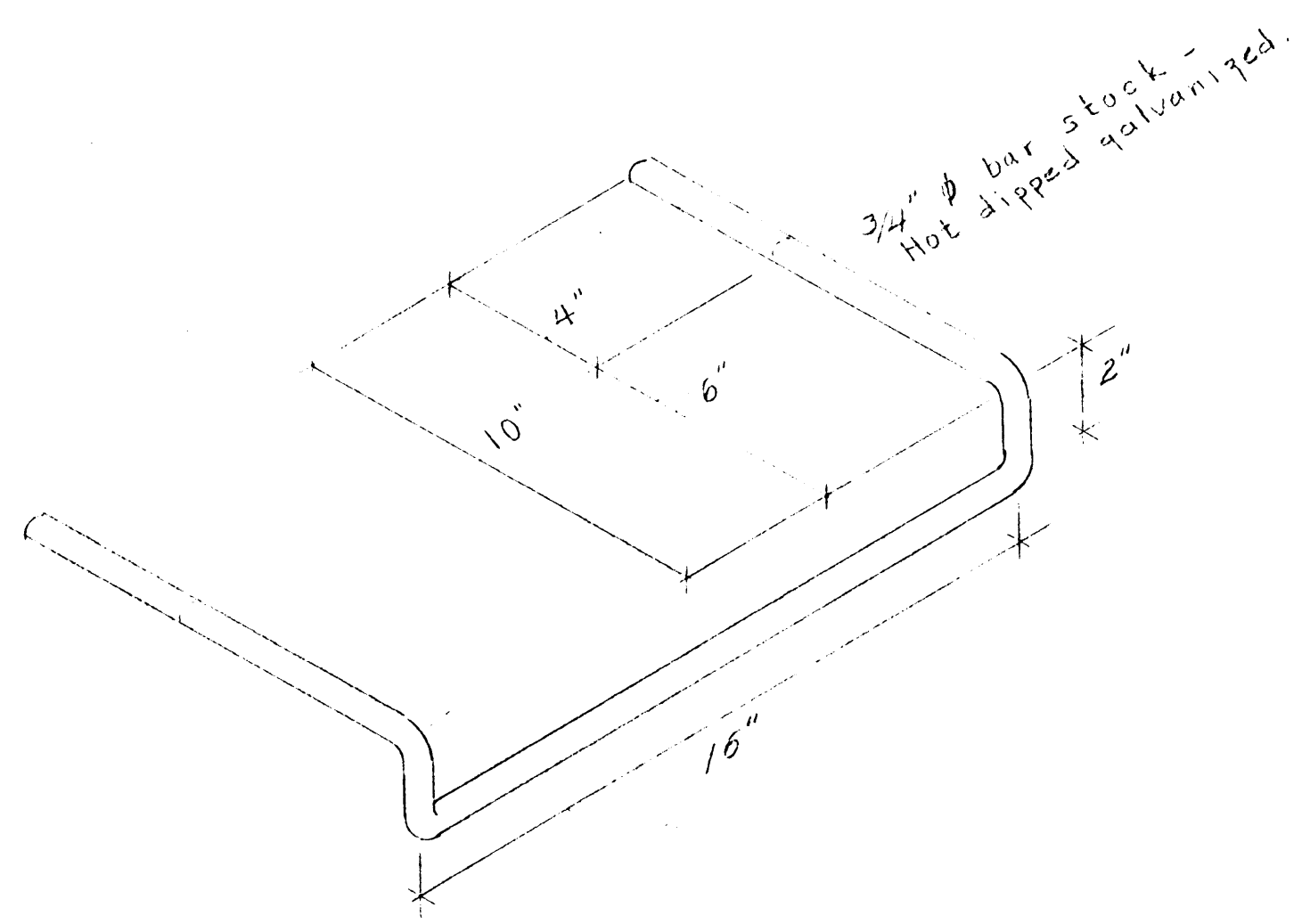
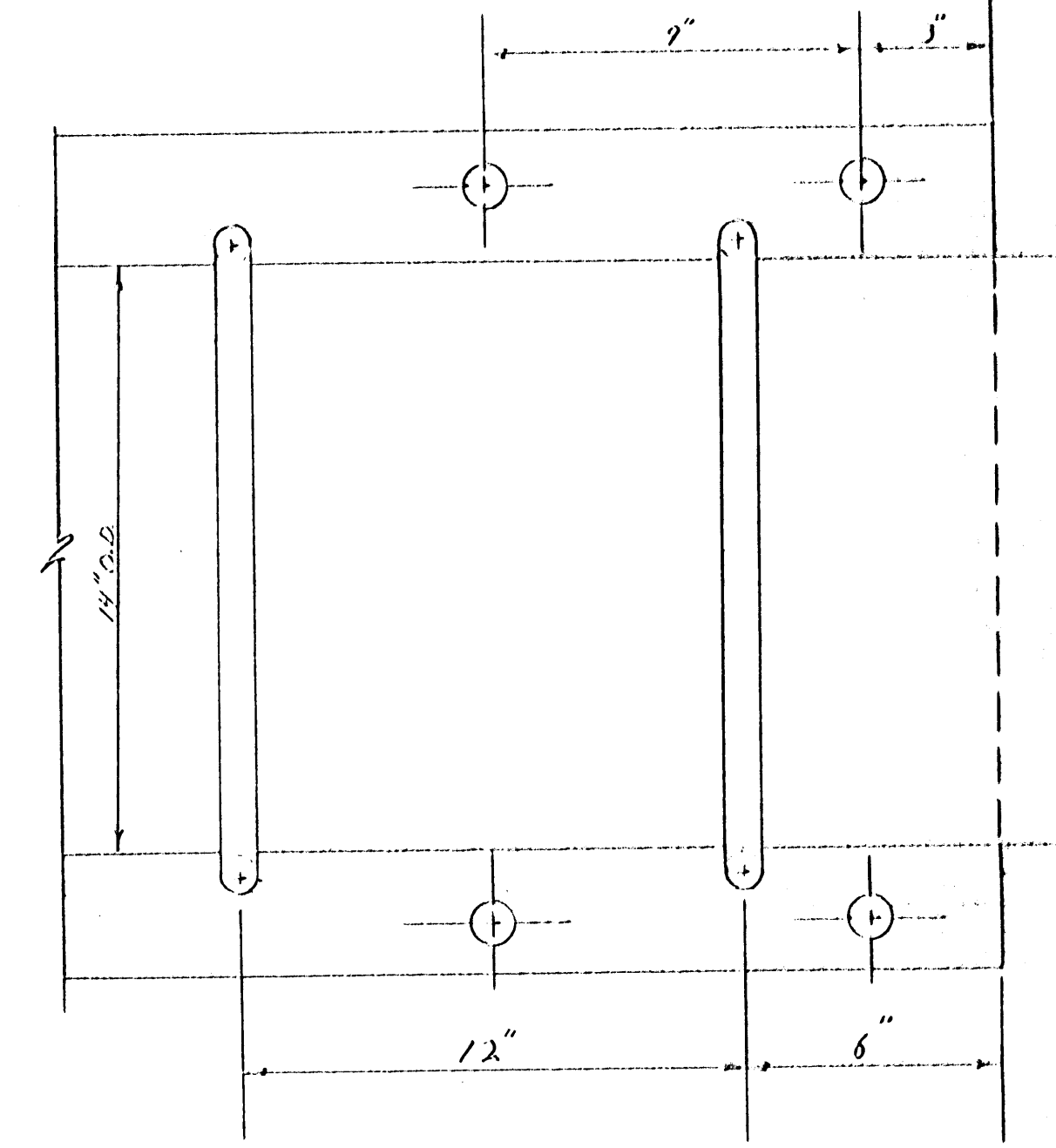
BK6-17



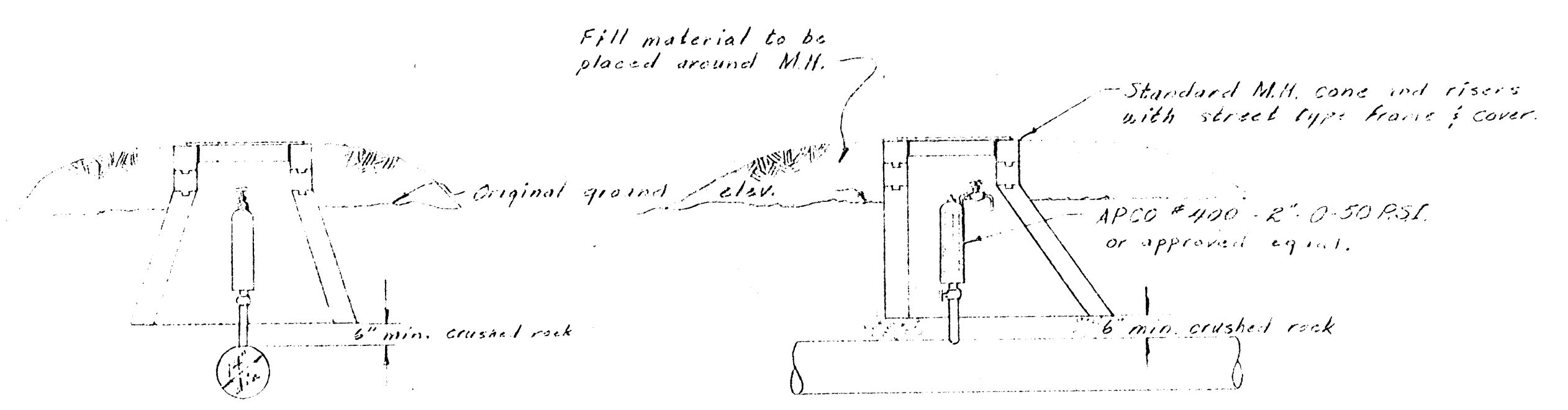
PIPE STABILIZATOR DETAIL
TYPICAL - PIERS 3;7
Scale: 3" = 1'-0"



SECTION DETAIL 'E'
Scale: 3" = 1'-0"

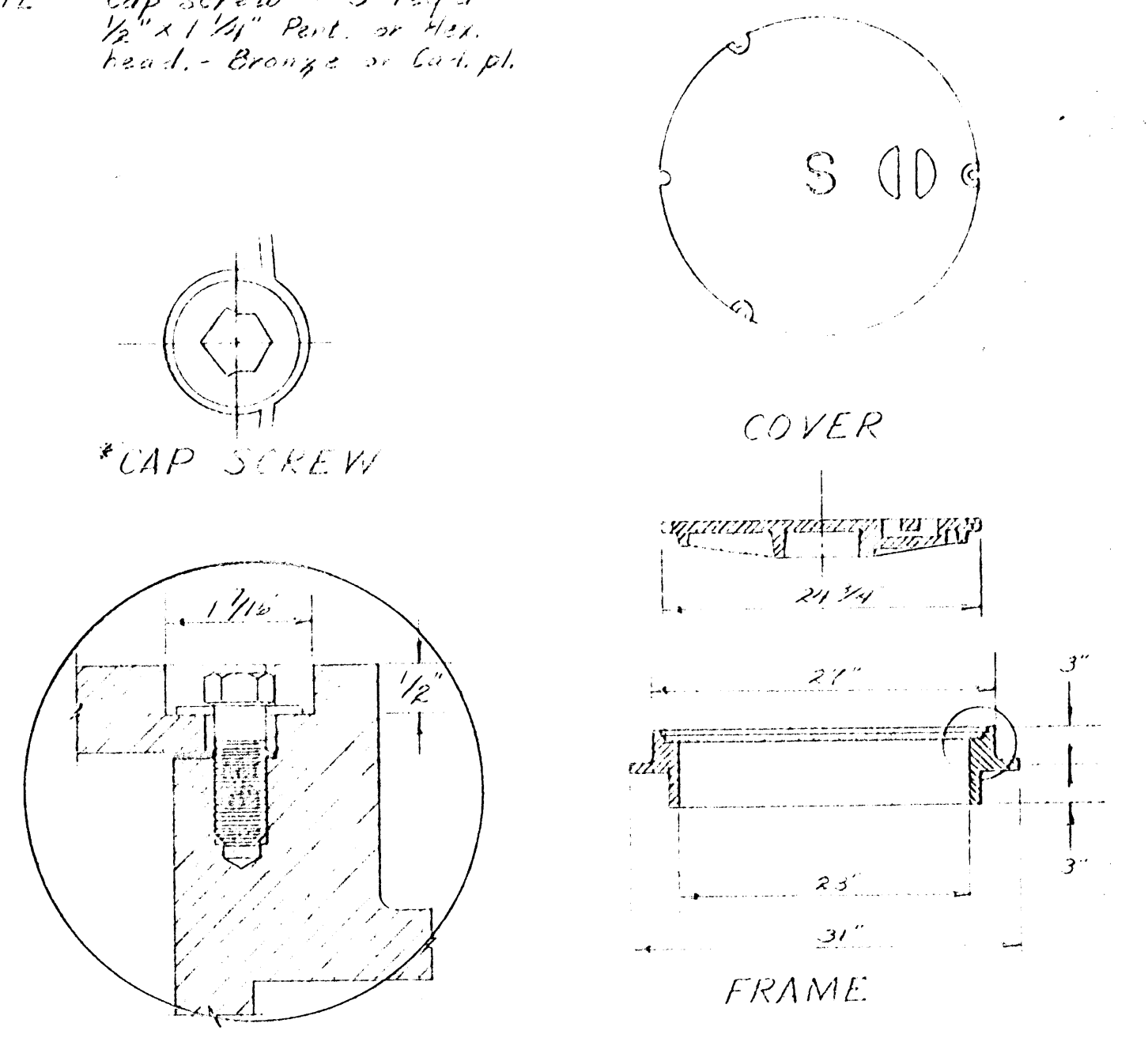


WET WELL STEP DETAIL
Scale: 3" = 1'-0"



AIR RELEASE VALVE AND BOX
@ STATION 7+75.5
Scale: 1/8" = 1'-0"

NOTE * Cap screw - 3 req'd
1/2" x 1 1/4" Post. or H.S.
head. - Bronze or Cu-pl.



WATERTIGHT MANHOLE
Scale: 1" = 1'-0"

DATE	BY	NO.	REVISION

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PROJECT
SS 75 4A
CLOVERDALE FARMS
PIPE STABILIZATOR DETAILS
& OTHER DETAILS

DESIGNED JR	SHEET 8 OF 8 SHEETS SCALE HORIZONTAL AS SHOWN VERT.
DRAWN DLL	
CHECKED	
APPROVED	