

GENERAL DESCRIPTION

A NEW IRRIGATION PUMP STATION (INCLUDING PUMPS FOR IRRIGATION AND A SEPARATE POND RECIRCULATION PUMP), PIPING FROM THE PUMP STATION, AND AN AERATION SYSTEM WILL BE INSTALLED UNDER THIS CONTRACT.

THE PUMP STATION WILL BE INSTALLED WITHIN A NEW BUILDING. THE PUMP STATION WILL BE PLACED OVER AN EXISTING WET WELL. CONTRACTOR IS RESPONSIBLE FOR CLEANING WET WELL AND JETTING EXISTING INTAKE PIPE AND INTAKE STRUCTURE.

AN AERATION SYSTEM IS TO BE INSTALLED FOR POND WATER QUALITY PURPOSES. AERATION MECHANICAL EQUIPMENT WILL BE PLACED WITHIN THE PUMP BUILDING. AERATION PODS WILL BE INSTALLED IN THE POND.

A SEPARATE RECIRCULATION PUMP AND PIPING SYSTEM WILL RECIRCULATE WATER IN THE PONDS TO FACILITATE IMPROVED WATER QUALITY.

MAINLINE PIPING FROM THE NEW PUMP STATION WILL CONNECT TO EXISTING MAINLINE PIPING.

LEGEND

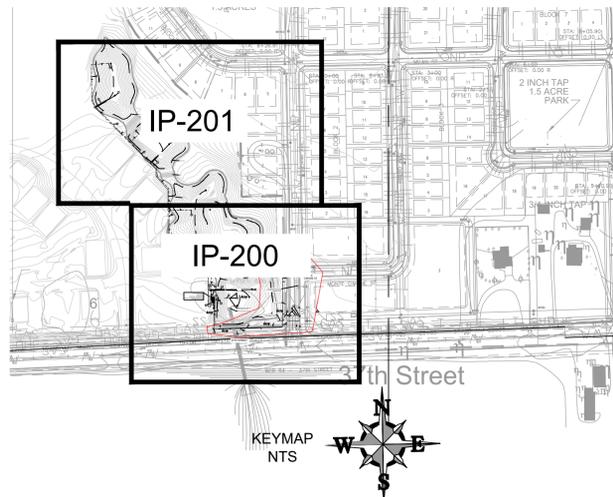
- NP — EXISTING MAINLINE
*TYPE: C900 OR C905 PVC
- ⊗ EXISTING GATE VALVE
- ⊙ EXISTING AIR VACUUM RELIEF VALVE
- ⊞ EXISTING BLOW OFF ASSEMBLY
- EXISTING INTAKE PIPE (18-INCH PVC SDR 32.5)
- ===== NEW INTAKE PIPE EXTENSION (18-INCH PVC SDR 32.5)
- ⊠ INTAKE STRUCTURE
- ⊡ IRRIGATION PUMP STATION
*REFER TO PLANS, DETAILS, AND SPECIFICATIONS
- ===== IRRIGATION MAINLINE
*TYPE: C905 DR18
*SIZE: REFER TO PLAN
- FILTER FLUSH PIPE
*TYPE: SCH. 40 STEEL ABOVE GRADE, CLASS 200 PVC BELOW GRADE
*SIZE: REFER TO PLAN
- RECIRCULATION PIPE
*TYPE: CLASS 200 PVC
*SIZE: PER PLAN
- ⊗ ISOLATION GATE VALVE ASSEMBLY
*MODEL: MATCO 10RT
*SIZE: MATCH PIPE SIZE
- ===== AERATION SLEEVE
*TYPE: CLASS 200 PVC
*SIZE: 6-INCH
- ⊡ AERATION MECHANICAL SYSTEM
*MANUFACTURER: AQUAMASTER OR EQUAL. 20 CFM MINIMUM, 30 PSI DISCHARGE MINIMUM, 240 VAC, 1 PHASE.
*REFER TO PLANS, DETAILS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION
- ⊗ AERATION POD
*MANUFACTURER: AQUAMASTER OR EQUAL
*DISC MODEL: SINGLE MEMBRANE, 12" DIFFUSER
*AIRFLOW: 1.7CFM/POD
- ⊡ RM REMOTE MANIFOLD
*REFER TO DETAIL
- AERATION TUBING
*1 AERATION TUBE PER POD WITH INDIVIDUAL FLOW CONTROL
*REFER TO SPECIFICATIONS
- AERATION SUPPLY PIPE
*1-INCH SCH. 40 PVC (BELOW GRADE)
*1-INCH GALVANIZED STEEL (ABOVE GRADE)

GENERAL NOTES

1. THE PUMP STATION INCLUDES MULTIPLE PUMPS FOR THE IRRIGATION SYSTEM AND A SEPARATE POND RECIRCULATION PUMP. REFER TO THE DETAILS FOR SPECIFIED PUMPING SYSTEM FLOW AND PRESSURE PARAMETERS.
2. VERIFY EXISTING SITE CONDITIONS AND THE LOCATIONS OF EXISTING UTILITIES AND SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. REPAIR OR REPLACE ANY DAMAGE TO EXISTING UTILITIES AND SITE IMPROVEMENTS CAUSED BY OR RESULTING FROM THIS CONSTRUCTION.
3. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
4. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
5. DO NOT PROCEED WITH THE INSTALLATION OF THE SYSTEM IF OBSTRUCTIONS OR GRADE DIFFERENCES ARE DISCOVERED THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE IDENTIFIED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
6. THE DRAWINGS ARE DIAGRAMMATIC. SYSTEM COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR GRAPHIC CLARITY. AVOID CONFLICTS BETWEEN THE SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES. INSTALL SYSTEM COMPONENTS IN LANDSCAPED AREAS WHEREVER POSSIBLE.
7. PROVIDE TWO OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVE TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT.
8. INSTALL ELECTRICAL POWER TO THE SYSTEM IN ACCORDANCE WITH IEC AND OTHER APPLICABLE LOCAL ELECTRIC UTILITY CODES.
9. WITH REGARD TO PIPE SIZING, THE FOLLOWING SHOULD BE NOTED: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
10. STEEL PIPE AND DUCTILE IRON PIPE MUST BE WRAPPED WITH POLYETHYLENE ENCASEMENT (POLY WRAP) BELOW GRADE.

FLAG NOTES

- A** DRAIN IRRIGATION POND SO THE EXISTING INTAKE STRUCTURE, INTAKE PIPE, AND WET WELL CAN BE PROPERLY CLEANED. UTILIZE PORTABLE PUMP(S) AS NEEDED TO DRAIN POND. PUMP POND WATER TO THE EXISTING OVERFLOW STRUCTURE. COORDINATE POND DRAINING WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- B** REMOVE AND PROPERLY DISPOSE OF EXISTING CONCENTRIC REDUCER ON END OF INTAKE PIPE (REFER TO DETAIL). CONNECT NEW INTAKE PIPE (20-FOOT LENGTH) TO EXISTING PIPE. RESTRAIN CONNECTION WITH JOINT RESTRAINT. INSTALL CONCRETE MIX BAGS UNDER CONNECTION AND EVERY 10-FOET ALONG NEW PIPE INTENDED AS VERTICAL SUPPORT. INSTALL NEW INTAKE STRUCTURE ON END OF NEW INTAKE PIPING. COORDINATE INTAKE PIPE EXTENSION AND INTAKE STRUCTURE INSTALLATION WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- C** JET EXISTING INTAKE PIPE TO CLEAN INTAKE PIPE. EMPLOY CAMERA SERVICES TO DOCUMENT INTERIOR CONDITION OF EXISTING INTAKE PIPE. RE-JET INTAKE PIPE AS NEEDED UNTIL OWNER'S REPRESENTATIVE IS SATISFIED WITH INTERIOR CONDITIONS OF INTAKE PIPE. COORDINATE INTAKE PIPE JETTING WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- D** CLEAN OUT EXISTING WET WELL USING VACUUM TRUCK OR OTHER NECESSARY METHODS TO CLEAN ALL MUCK FROM EXISTING WET WELL. COORDINATE WET WELL CLEAN OUT WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- E** INSTALL IRRIGATION PUMPING SYSTEM AND WITHIN BUILDING AT APPROXIMATE LOCATION SHOWN. CONNECT ELECTRICAL POWER TO CONTROL PANEL PER IEC CODE, LOCAL CODES, AND MANUFACTURER'S GUIDELINES. COORDINATE INSTALLATION WITH OWNER'S REPRESENTATIVE ON-SITE PRIOR TO CONSTRUCTION.
- F** INSTALL POND AERATION SYSTEM MECHANICAL EQUIPMENT WITHIN BUILDING AT APPROXIMATE LOCATION SHOWN. CONNECT ELECTRICAL POWER TO MECHANICAL EQUIPMENT CONTROL PANEL PER IEC CODE, LOCAL CODES, AND MANUFACTURER'S GUIDELINES. COORDINATE INSTALLATION WITH OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- G** INSTALL PUMP STATION FILTER DISCHARGE PIPE BELOW GRADE AND EXTEND INTO POND. INVERT OF FILTER DISCHARGE PIPE 2-FOOT MAXIMUM BELOW NORMAL WATER LEVEL. ABOVE GRADE PIPING SCH. 40 STEEL AND BLOW GRADE PIPING IS PVC.
- H** INSTALL AERATION SUPPLY PIPE TO AERATION MANIFOLD ASSEMBLY. ENSURE CONDUIT TERMINATION FOR WEIGHTED AERATION TUBING OUTSIDE OF POND IS ABOVE MAXIMUM WATER SURFACE ELEVATION. COORDINATE SUPPLY PIPE INSTALLATION WITH OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- I** INSTALL AERATION POD IN APPROXIMATE LOCATION SHOWN PER MANUFACTURER'S GUIDELINES (TYPICAL). COORDINATE INSTALLATION WITH OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- J** INSTALL AERATION SLEEVE SO TOP OF SLEEVE IS ABOVE MAXIMUM WATER LEVEL. COORDINATE SLEEVE INSTALLATION WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- K** INSTALL JOINT RESTRAINT ON ALL MAINLINE JOINTS AND FITTINGS.
- L** INSTALL MAINLINE 10-FOET NORTH OF EASEMENT. STAKE MAINLINE ROUTING AND OBTAIN OWNER APPROVAL OF ROUTING PRIOR TO INSTALLING MAINLINE. COORDINATE MAINLINE INSTALLATION WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- M** REMOVE EXISTING SIDEWALK AS NECESSARY TO INSTALL NEW MAINLINE. POUR NEW SIDEWALK SECTIONS AFTER MAINLINE IS INSTALLED PER CITY STANDARD DETAIL S-3. REMOVE AND REPLACE MUST BE A TOOLED JOINT ON EITHER SIDE OF THE DISTURBANCE. ALL NEW SIDEWALK WORK TO BE INSTALLED TO OWNER'S APPROVAL. COORDINATE SIDEWALK WORK WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- N** CUT AND PATCH EXISTING ROAD PER CITY STANDARDS. BACKFILL EXCAVATION WITH FLO-FILL. COORDINATE TRAFFIC CONTROL AND CUT/PATCH ACTIVITIES WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- O** REPAIR LANDSCAPE DAMAGES TO EXISTING MEDIAN. FINISH GRADE TO MATCH EXISTING CONDITIONS. COORDINATE LANDSCAPE REPAIRS WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- P** REPAIR DAMAGES TO EXISTING LANDSCAPING TO MEET OR EXCEED PRE-CONSTRUCTION CONDITIONS. COORDINATE REPAIRS WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- Q** EXCAVATE AND EXPOSE EXISTING MAINLINE IN APPROXIMATE LOCATION. CUT MAINLINE AND INSTALL RESTRAINED DUCTILE IRON TEE. INSTALL NEW MAINLINE FROM TEE. COORDINATE CONNECTION WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.
- R** INSTALL RECIRCULATION PIPE TO BOTTOM OF POND. TERMINATE PIPE END WITH RESTRAINED DUCTILE IRON PIPE POINTING UP.
- S** INSTALL 14-INCH DUCTILE IRON TEE AND PLUG THE WEST OUTLET WITH RESTRAINED DUCTILE IRON PLUG. PLACE STANDARD RECTANGULAR VALVE BOX OVER TEE. COORDINATE TEE INSTALLATION WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.



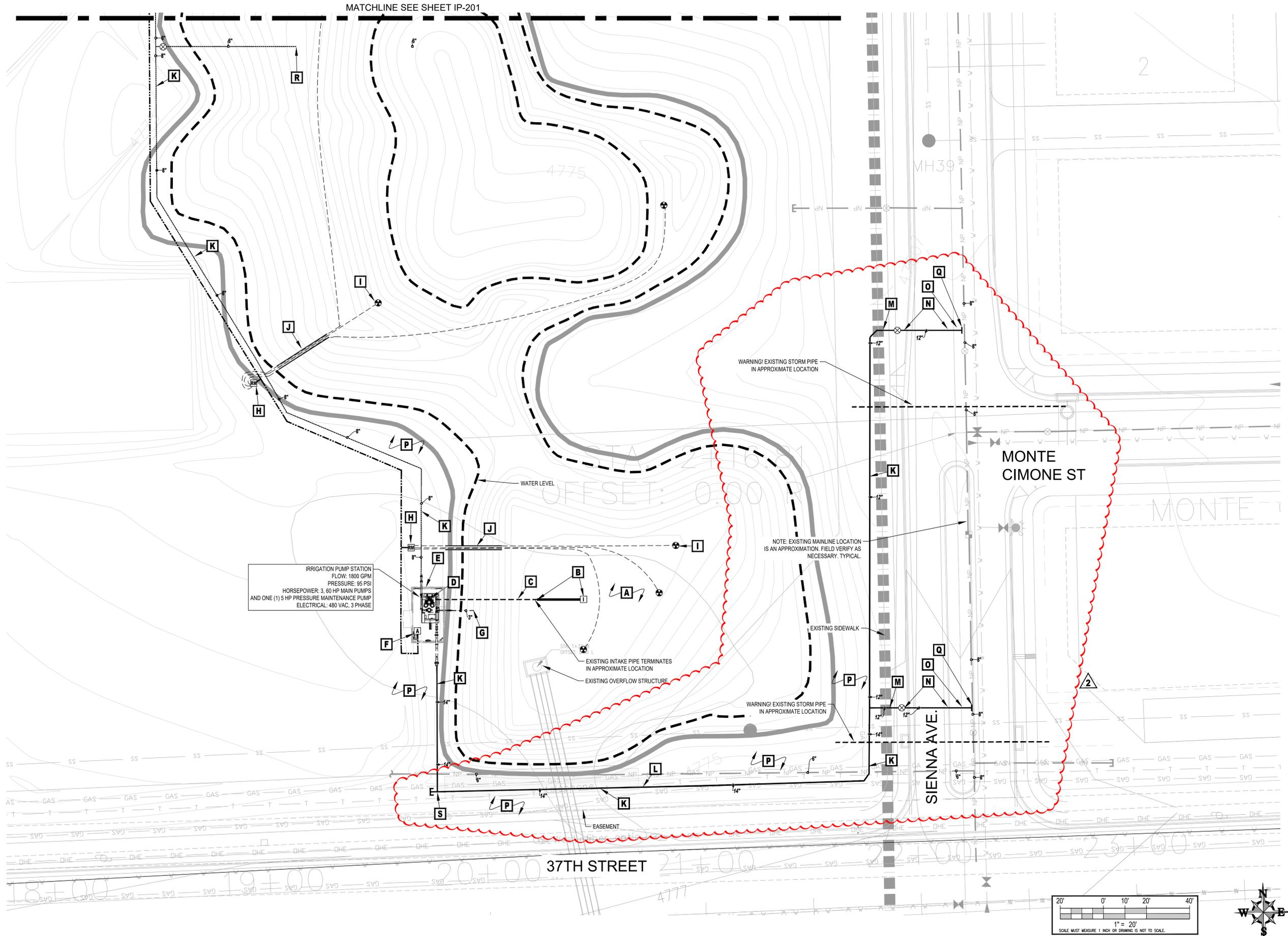
**TUSCANY DEVELOPMENT
IRRIGATION PUMP AND AERATION SYSTEM
EVANS, COLORADO**

DATE	05.22.2020
DESIGNED BY	JHK
DRAWN BY	JHK
CHECKED BY	CBK
REVISIONS	
1	FILTER REVISION 6.22.2020
2	PIPING REVISION 10.12.2020

SHEET NO. PUMP AND AERATION COVER SHEET
IP-100

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TUSCANY DEVELOPMENT
IRRIGATION PUMP AND AERATION SYSTEM
 EVANS, COLORADO



IRRIGATION PUMP STATION
 FLOW: 1800 GPM
 PRESSURE: 95 PSI
 HORSEPOWER: 3, 60 HP MAIN PUMPS
 AND ONE (1) 5 HP PRESSURE MAINTENANCE PUMP
 ELECTRICAL: 480 VAC, 3 PHASE

WARNING! EXISTING STORM PIPE
 IN APPROXIMATE LOCATION

NOTE: EXISTING MAINLINE LOCATION
 IS AN APPROXIMATION. FIELD VERIFY AS
 NECESSARY. TYPICAL.

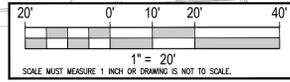
WATER LEVEL
 OFFSET: 0.00

EXISTING INTAKE PIPE TERMINATES
 IN APPROXIMATE LOCATION

EXISTING OVERFLOW STRUCTURE

WARNING! EXISTING STORM PIPE
 IN APPROXIMATE LOCATION

EASEMENT



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REVISIONS
1 FILTER REVISION 6.22.2020
2 PIPING REVISION 10.12.2020

SHEET NO.	PUMP AND AERATION PLAN
	IP-200

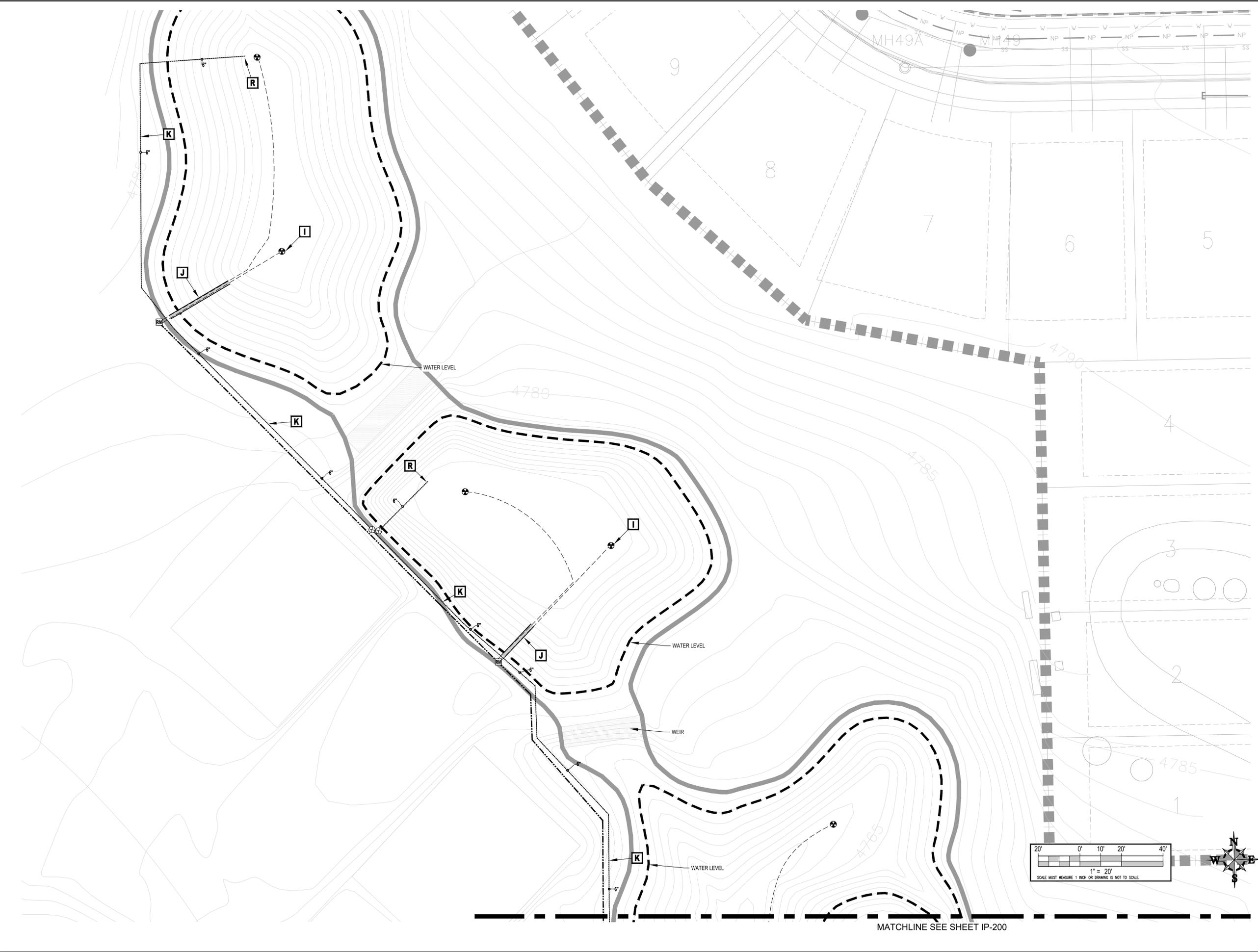
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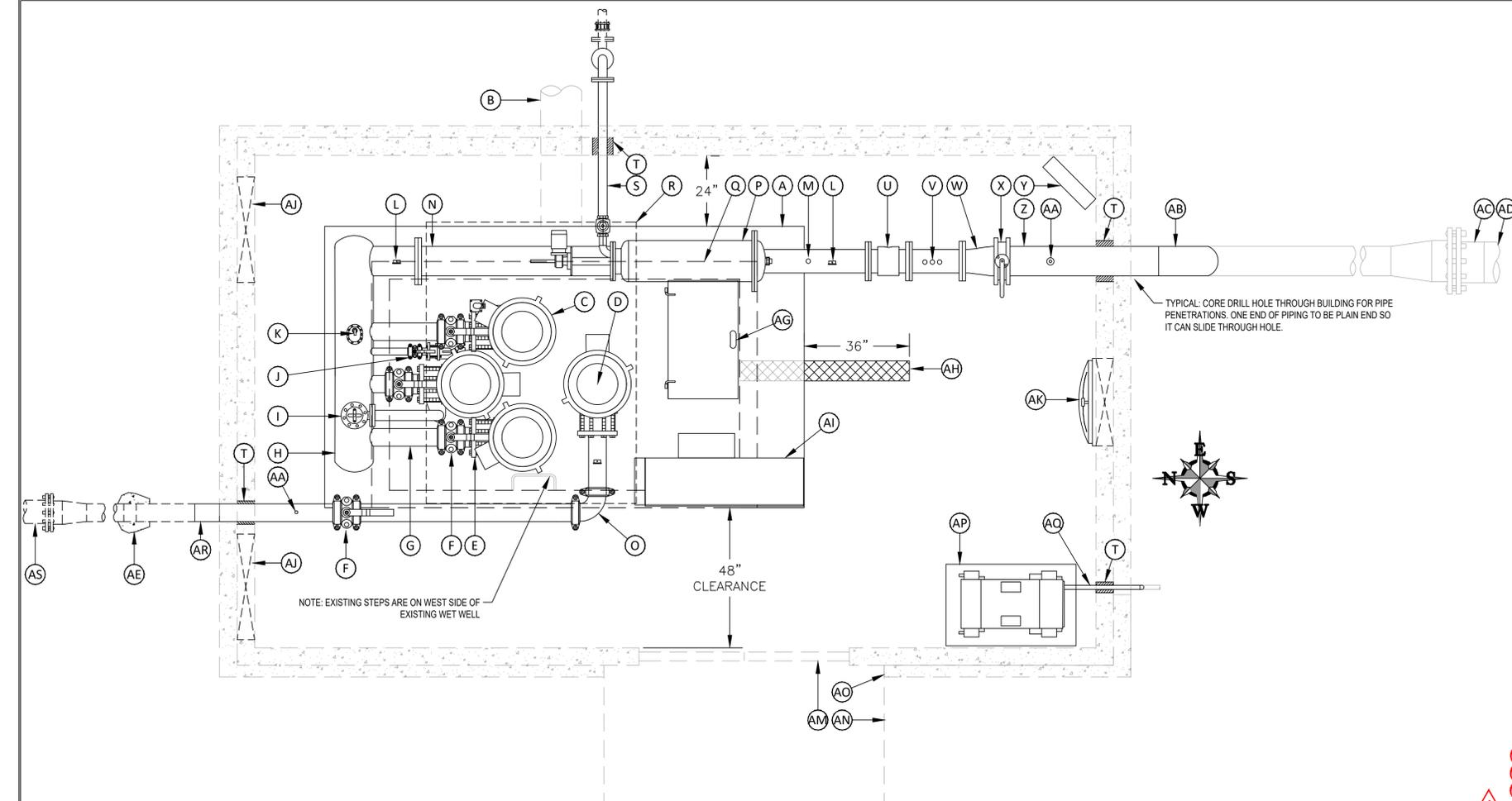
REVISIONS
1 FILTER REVISION 6.22.2020
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SHEET NO. PUMP AND AERATION PLAN
IP-201

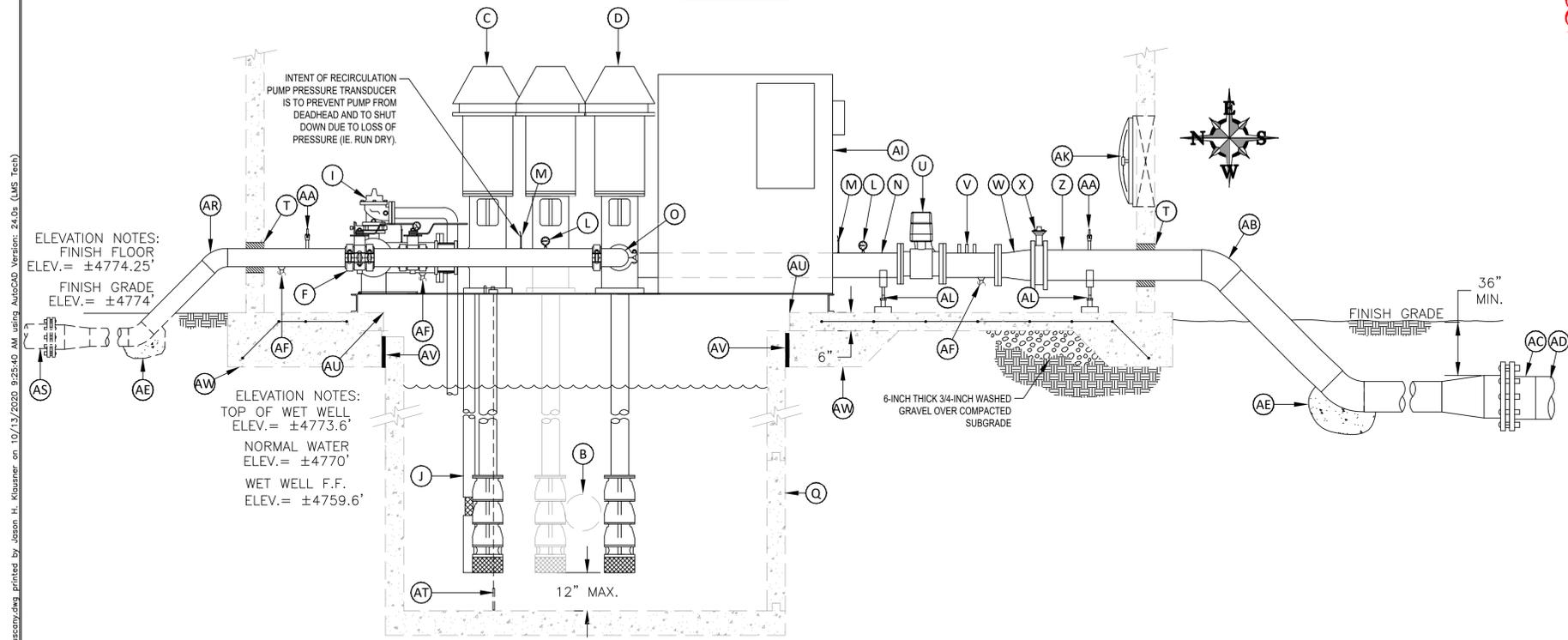
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MATCHLINE SEE SHEET IP-200



PLAN VIEW



SECTION VIEW

EQUIPMENT LIST - THIS SHEET ONLY

- (A) PREFABRICATED SKID MOUNTED VARIABLE SPEED PUMPING SYSTEM
- (B) EXISTING 21-INCH PVC INTAKE PIPE (SDR 32.5)
- (C) 600 GPM, 60 HP, 1800 RPM VERTICAL TURBINE PUMP (1 OF 3)
- (D) 500 GPM, 10 HP, 1800 RPM VERTICAL TURBINE PUMP FOR RECIRCULATION. RATED FOR 500 GPM AT 45 FT TDH. CONSTANT SPEED MOTOR.
- (E) 6-INCH WAFER TYPE CHECK VALVE (1 OF 4)
- (F) 6-INCH BUTTERFLY VALVE (1 OF 4)
- (G) 6-INCH SCH 40 STEEL DISCHARGE PIPE (1 OF 4)
- (H) 12-INCH DISCHARGE MANIFOLD
- (I) PRESSURE RELIEF VALVE - PLUMBED TO WET WELL
- (J) 5HP SUBMERSIBLE PRESSURE MAINTENANCE PUMP - INCLUDE SHUT OFF VALVE, CHECK VALVE, AND PIPING
- (K) 1.5-INCH AIR VACUUM RELIEF VALVE INCLUDING CAST IRON NIPPLE AND CAST IRON BALL VALVE. WRAP AIR VACUUM RELIEF VALVE WITH BUG SCREEN AND SECURE WITH CLAMP.
- (L) GLYCERIN FILLED PRESSURE GAUGE 150 PSI
- (M) PRESSURE TRANSDUCER - STAINLESS STEEL, 4-20 MA OUTPUT, WIRED TO CONTROL PANEL
- (N) 8-INCH SCH. 40 PVC STEEL PIPING
- (O) 6-INCH SCH. 40 PVC STEEL PIPING AND FITTINGS
- (P) FILTER: AMIAD SAF 6000 10-INCH FLANGED, 200 MICRON STAINLESS STEEL SCREEN, FILTER FLUSH CONTROL (INTEGRATE FILTER FLUSH CONTROL INTO PUMP CONTROL PANEL). INSTALL NECESSARY SCH. 40 STEEL CONCENTRIC REDUCERS AT INLET AND OUTLET OF FILTER.
- (Q) EXISTING 6'X10' WET WELL
- (R) ROOF ACCESS HATCH: 6' x 8' BILCO TYPE D-50 INSULATED AND PADLOCK LOCKABLE INSIDE AND OUTSIDE. CENTER OVER PUMPS.
- (S) FILTER FLUSH PIPE AND FITTINGS
- (T) SEAL PENETRATION WITH HYDRAULIC CEMENT
- (U) 8-INCH MAGNETIC FLOW METER, KROHNE OPTIFLUX 2000, 4-20 mA, WIRED TO CONTROL PANEL
- (V) 3, 1-INCH THREAD-0-LETS
- (W) 8"X10" CONCENTRIC SCH. 40 STEEL REDUCER
- (X) 10-INCH BUTTERFLY VALVE
- (Y) WALL HUNG THERMOSTATICALLY CONTROLLED HEATER: 4KW, 480 VAC, 3 PHASE
- (Z) 10-INCH SCH. 40 STEEL PIPE
- (AA) 1-1/2-INCH STAINLESS STEEL BALL VALVE (WINTERIZATION). INSTALL THREAD-0-LET AND NIPPLES AS REQUIRED.
- (AB) 10-INCH DOGLEG WITH 14-INCH FLANGED END
- (AC) 14-INCH DI MJXFL COUPLING
- (AD) 14-INCH PVC MAINLINE (WITH RESTRAINTS)
- (AE) 2'x2'x2' CONCRETE THRUST BLOCK
- (AF) DRAIN VALVE
- (AG) WET WELL ACCESS DOOR
- (AH) TRENCH DRAIN TO WET WELL: NDS MINI "SPEE-D" CHANNEL DRAIN WITH GRATE. (LENGTH AS REQUIRED)
- (AI) PUMP STATION CONTROL PANEL
 - IRRIGATION PUMP CONTROLS: PLC, VFD
 - NEMA 3R ENCLOSURE.
 - AIR CONDITIONED HEAT EXCHANGER
 - CELL MODEM/REMOTE ACCESS
 - 480 VAC, 3 PHASE, 60 HZ POWER
- (AJ) 36" x 36", FABRICATED STEEL, STATIONARY SCREENED LOUVERED VENT: DAYTON MODEL 3C974 OR EQUAL. FURNISH VANDAL PROOF GRATES AND HARDWARE.
- (AK) 30-INCH HIGH VOLUME, SHUTTER MOUNTED, 1/3 HP EXHAUST FAN WITH ENCLOSED BALL BEARING MOTOR: (DAYTON MODEL 5C195) WITH AUTOMATIC THERMOSTATIC CONTROL: (MULTIFAN: MODEL #3C952) OR APPROVED EQUAL.
- (AL) PIPE SUPPORT STAND
- (AM) DOUBLE STEEL INSULATED METAL DOORS WITH FRAME. EACH DOOR 3' x 6'-8". REFER TO BUILDING DETAIL.
- (AN) 4-INCH THICK CONCRETE ENTRY STOOP, 48" X 96" WITH WIRE MESH REINFORCEMENT
- (AO) 6" CONCRETE FLOOR WITH #5 REBAR 12" O.C. BOTH DIRECTIONS. SLAB DIMENSIONS ARE 15'-8" x 25'-8"
- (AP) AERATION MECHANICAL EQUIPMENT - PROVIDE CONDUITS AND CONDUCTORS PER NEC AND LOCAL CODE (RE: ELECTRICAL).
- (AQ) INSTALL 1-INCH GALVANIZED STEEL PIPE AND FITTINGS FROM COMPRESSOR THROUGH WALL THEN TRANSITION TO PVC BELOW GRADE
- (AR) 6-INCH DOGLEG FOR RECIRCULATION PIPE: TERMINATION IS 8-INCH FLANGE
- (AS) TRANSITION TO 8-INCH CL200 PVC PIPE DOWNSTREAM OF 6-INCH Z-PIPE, INSTALL 8-INCH CL200 PVC PIPE FOR RECIRCULATION (REFER TO PLANS). INSTALL RESTRAINTS.
- (AT) STAINLESS STEEL WATER LEVEL TRANSDUCER, 4-20 MA OUTPUT, WIRED TO CONTROL PANEL
- (AU) CAST OUT FLOOR AROUND WET WELL. PROVIDE 1-INCH GAP BETWEEN FLOOR AND WET WELL
- (AV) 1-INCH THICK FIBERBOARD
- (AW) THICKENED EDGE TO SUPPORT FLOOR NEAR WET WELL

CONSTRUCTION NOTES

1. COORDINATE PUMP SKID LAYOUT WITH CAST-IN-PLACE CONCRETE PAD AND PUMP BUILDING CONSTRUCTION.
2. REFER TO IRRIGATION PUMP SYSTEM SPECIFICATIONS FOR ADDITIONAL TECHNICAL REQUIREMENTS.
3. THESE DRAWINGS AND DETAILS REPRESENT A TYPICAL SKID MOUNTED PUMP STATION WITH THE REQUIRED COMPONENTS AND CLEARANCES. ALTERNATE LAYOUTS MAY BE PROPOSED PROVIDING THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR COORDINATION AND REDESIGN OF PIPING, BUILDING, AND CONCRETE PAD.
4. FURNISH SHOP DRAWING FOR APPROVAL PRIOR TO CONSTRUCTION AND INSTALLATION.
5. REFER TO ELECTRICAL DRAWINGS FOR TRANSFORMER, MAIN SERVICE AND METER, AND LOAD CENTER.
6. PROVIDE SHOP DRAWING OF PUMP STATION FOR APPROVAL PRIOR TO CONSTRUCTION.
7. PUMP MANUFACTURER'S REPRESENTATIVE MUST BE PRESENT DURING INSTALLATION AND START UP.
8. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL FIELD CONDITIONS PRIOR TO ORDERING PUMP STATION.
9. PUMP STATION OPERATION: MAINTAIN DISCHARGE PRESSURE



TUSCANY DEVELOPMENT
IRRIGATION PUMP AND AERATION SYSTEM
EVANS, COLORADO

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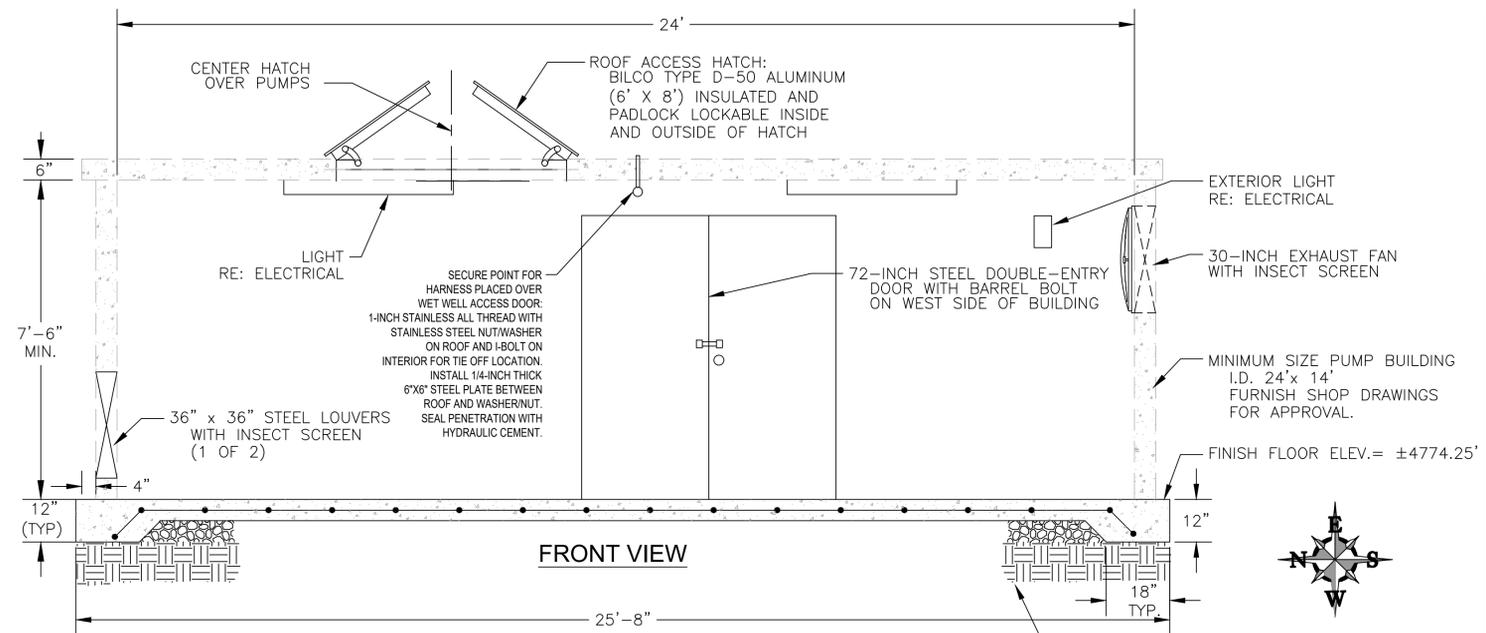
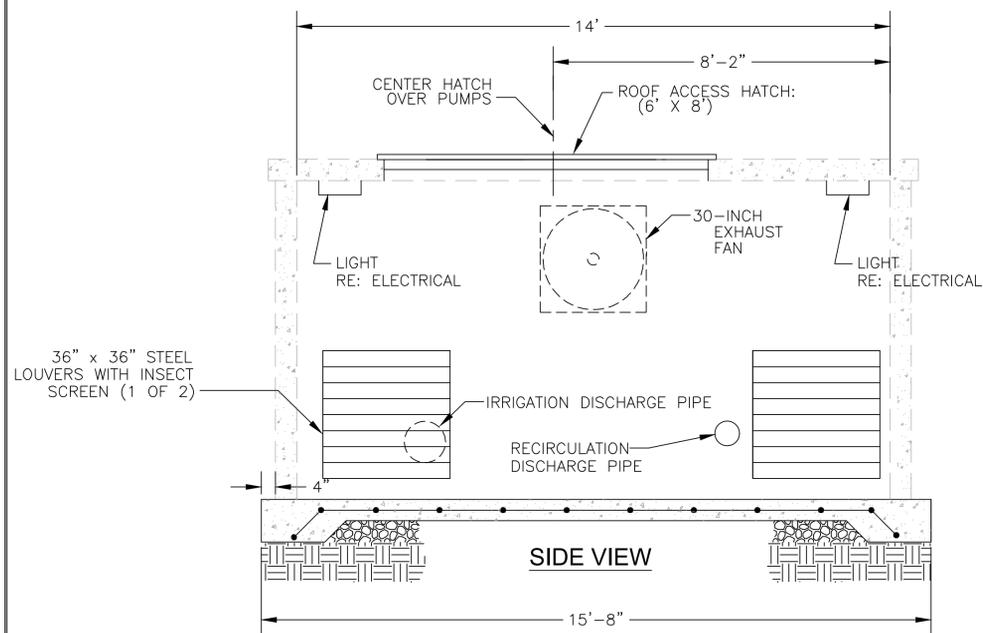
REVISIONS
1 FILTER REVISION 6.22.2020
2 PIPING REVISION 10.12.2020

SHEET NO. PUMP AND AERATION DETAILS
IP-300

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1 PUMP STATION DETAIL

N.T.S.

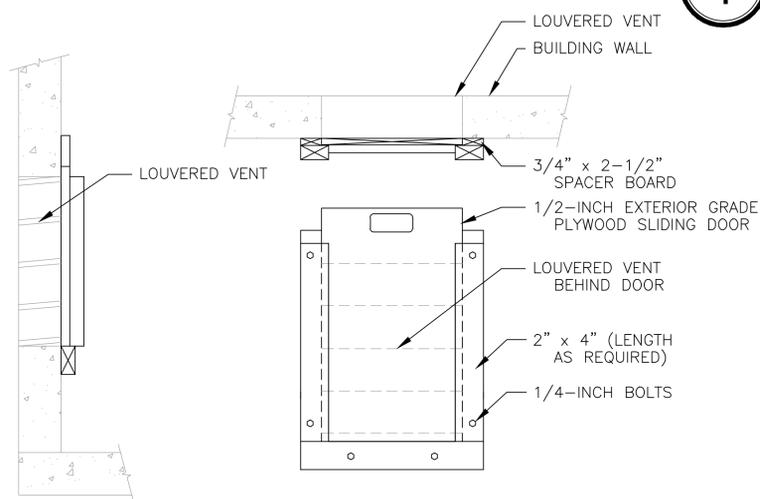


CONSTRUCTION NOTES:

- FURNISH SHOP DRAWINGS FOR APPROVAL SHOWING CONCRETE FLOOR, LOCATION OF PUMP, VALVES, PIPING, FITTINGS, AND WELD PLATES PRIOR TO CONSTRUCTION.
- FURNISH AND INSTALL #5 REBAR, 12" ON CENTER BOTH DIRECTIONS IN CENTER OF 6-INCH THICK CONCRETE SLAB.
- INSTALL CONDUIT AND CONDUCTORS FROM POWER SUPPLY TO PUMP CONTROL PANEL.
- INSTALL ALL REQUIRED SLEEVES IN CONCRETE FLOOR.
- CENTER ROOF ACCESS HATCH OVER VERTICAL TURBINE PUMPS.
- INSTALL TWO OUTDOOR LIGHTS IN SERIES WITH ONE WALL SWITCH.
- PRE-ENGINEERED PUMP BUILDING MUST INCLUDE P.E. STAMP AND SIGNATURE ON SHOP DRAWING SUBMITTAL.
- REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF PANELS ON BUILDING.
- CORE DRILL WALL PENETRATIONS AFTER PUMP SKID HAS BEEN INSTALLED TO ENSURE PROPER LOCATIONS.
- COORDINATE METHOD OF ATTACHING BUILDING TO FLOOR SLAB WITH BUILDING MANUFACTURER'S APPROVED SHOP SUBMITTALS.
- THIS DRAWING SHOWS THE MINIMUM BUILDING SIZE RECOMMENDED.
- THIS DETAIL SHOWS A PRECAST CONCRETE STYLE BUILDING. ALTERNATE BUILDING STYLES MAY BE PROPOSED. OWNER WILL DETERMINE IF SUBMITTED BUILDING IS ACCEPTABLE. BUILDING COMPONENTS SHOWN HERE (ROOF HATCH, DOORS, VENTS ETC.) MUST BE INCLUDED IN FINAL BUILDING. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY COORDINATION, REDESIGN, AND MODIFICATIONS NECESSARY DUE TO BUILDING STYLE ALTERATIONS.

1 PUMP BUILDING DETAIL

N.T.S.

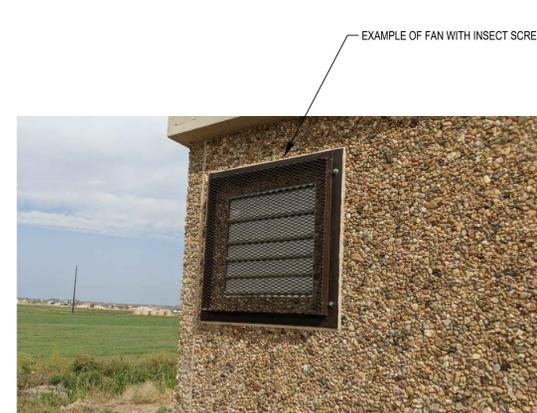


NOTES:

- BOLT VENT COVER FRAME TO BUILDING WALL.
- FABRICATE VENT COVER TO ALLOW DOOR TO SLIDE UP AND DOWN AND BE REMOVED.
- SIZE VENT COVER TO BE 3-INCHES LARGER THAN LOUVER VENT IN ALL DIRECTIONS.

2 LOUVERED VENT DETAIL

N.T.S.



3 EXAMPLE PICTURES OF LOUVER AND FAN

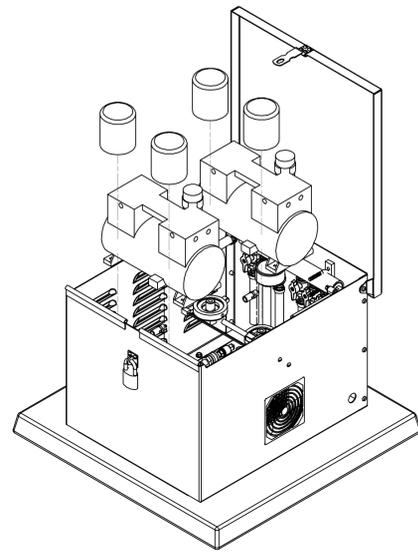
N.T.S.

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REVISIONS
1 FILTER REVISION 6.22.2020
2 PIPING REVISION 10.12.2020

SHEET NO. PUMP AND AERATION DETAILS
IP-301



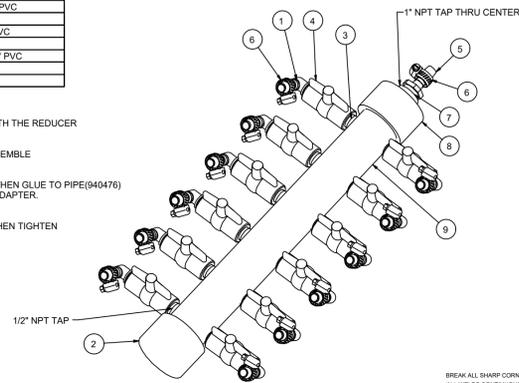
NOTE:
1. REFER TO SPECIFICATIONS FOR MANUFACTURER & MODEL NUMBER.

1 AERATION MECHANICAL DETAIL

N.T.S.

ITEM	QTY	PART NO	REV	DESCRIPTION
1	12	790576	A	ADAPTER - MALE, 1/2" X 1/2" PVC
2	1	900021		CAP - MODIFIED, 2" PIPE
3	12	900298		NIPPLE - CLOSE, 1/2" SCH 80 PVC
4	12	900299		PVC VALVE 1/2" BALL
5	1	940009	A	ADAPTER - MALE, 3/4" X 1/2" PVC
6	13	940085		HOSE CLAMP - SS 5/8"
7	1	940417		REDUCER BUSHING 1" X 3/4" PVC
8	1	940477		CAP - MODIFIED, 2" PIPE
9	1	940516		PIPE - MACHINED, 2" X 20"

- INSTRUCTIONS:
1. START BY ASSEMBLING THE MODIFIED CAP(940477) WITH THE REDUCER BUSHING (940417) AND ADAPTER (940009).
 2. USE PVC PRIMER AND CEMENT ON BOTH CAPS TO ASSEMBLE WITH THE MACHINED PIPE (940516).
 3. GLUE PVC VALVE (900299) WITH PIPE NIPPLE (900298) THEN GLUE TO PIPE(940476) TIGHTEN ADAPTER (790576) INTO VALVE. DO NOT GLUE ADAPTER. REPEAT FOR THE OTHER VALVES.
 4. INSTALL HOSES USING GREASE TO MAKE IT EASIER. THEN TIGHTEN DOWN WITH HOSE CLAMPS.



IF THIS IS A 940472-9, 940472-10, OR 940472-11, THEN PLUG HOLES WITH (790575)

BECAUSE ALL SHARP CORNERS AND REMOVE ALL BURRS
ALL WELDS CONTINUOUS OR FILLET
GRIND ALL FLAT WELDS FLUSH
VENDOR TO ENSURE WITH INSPECTION
DO NOT SCALE DRAWING

TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS TO NEAREST 1/32"
DECIMALS TO NEAREST 0.005"
DIMENSIONS IN PARENTHESIS ARE FOR INFORMATION ONLY
DIMENSIONS IN PARENTHESIS ARE FOR INFORMATION ONLY

DATE: 5/10/2019
SCALE: 1 OF 1
SCALE: 1:3
PART NO: 940472-12

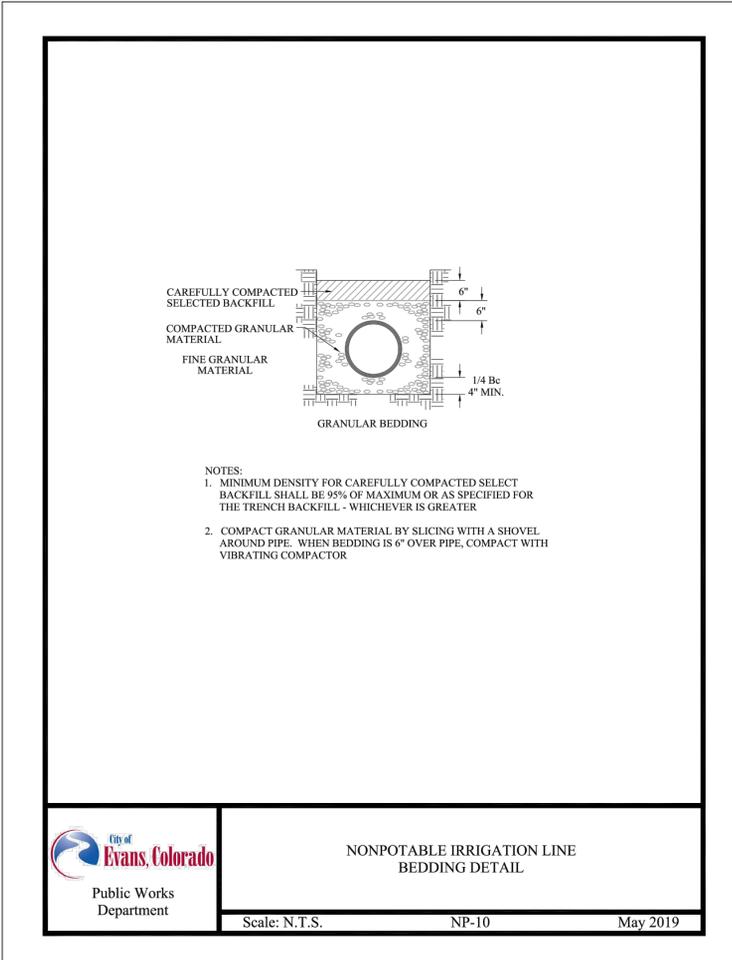
AQUAMASTER
A DIVISION OF
1800 CTR E
KEL, WY 82401 USA

TITLE: REMOTE MANIFOLD ASSY - AIR
12
940472-12

2 AERATION MANIFOLD DETAIL

NOTE: CONTRACTOR TO COORDINATE WITH MANUFACTURER ON SIZE OF MANIFOLDS REQUIRED (IE. 3 OUTLETS). THE DETAIL SHOWN ABOVE IS TO INDICATE INTENT OF MANIFOLD.

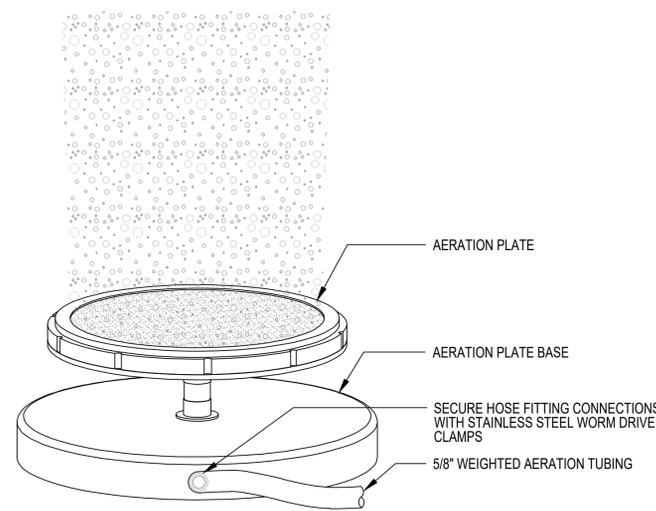
N.T.S.



NOTE: INSTALL COPPER TRACING WIRE ON TOP OF ALL PIPING. TAPE WIRING TO TOP OF PIPE. EVERY 100-FEET INSTALL 10-INCH ROUND VALVE BOX OVER MAINLINE AND COIL 30-INCH LENGTH OF TRACING WIRE WITHIN VALVE BOX. TRACING WIRE TO START AT ALL DOG LEGS AND ROUTED WITH ALL PIPING.

5 TRENCH DETAIL

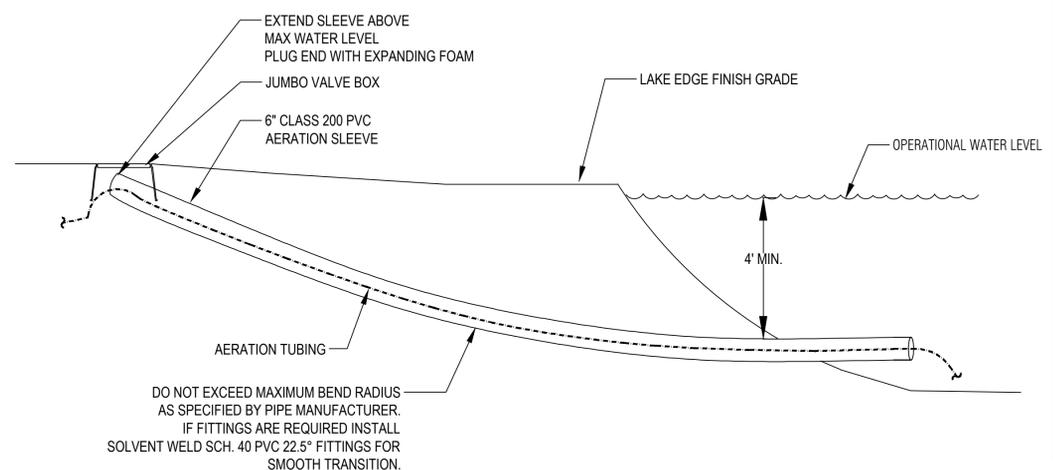
N.T.S.



NOTES:
1. PROVIDE ALL NECESSARY FITTINGS AND MAKE ALL CONNECTIONS.
2. PROVIDE NECESSARY BALLAST TO ANCHOR AERATION POD.

3 AERATION POD DETAIL

N.T.S.



4 AERATION SLEEVE DETAIL

N.T.S.

File: C:\EVANS\TUSCANY-PWP\Tuscanyp.dwg Printed by: Jason H. Klaurer on 10/13/2020 9:25:42 AM using AutoCAD Version: 24.0s (LMS Tech)



TUSCANY DEVELOPMENT
IRRIGATION PUMP AND AERATION SYSTEM
EVANS, COLORADO

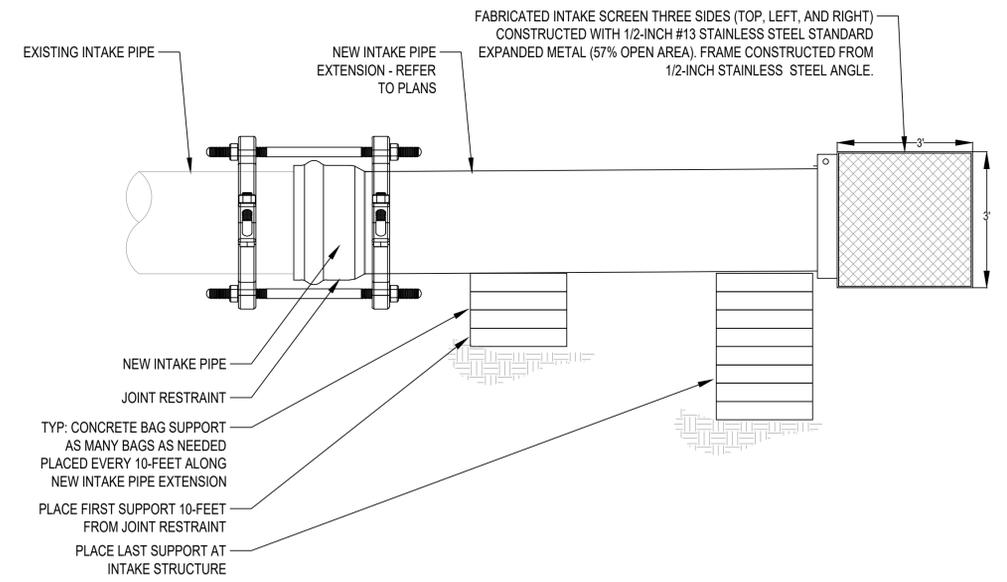
DATE	05.22.2020
DESIGNED BY	JHK
DRAWN BY	JHK
CHECKED BY	CBK

REVISIONS
1 FILTER REVISION 6.22.2020
2 PIPING REVISION 10.12.2020

SHEET NO. PUMP AND AERATION DETAILS
IP-302

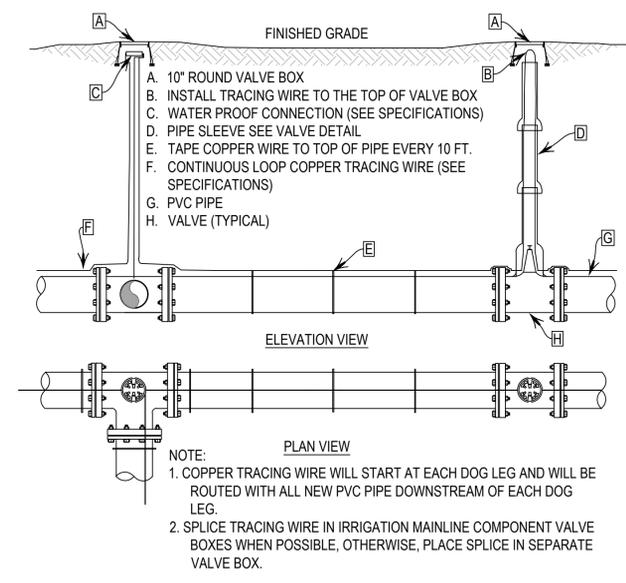


EXISTING INTAKE PIPE
REMOVE CONCENTRIC REDUCER, EXTEND INTAKE PIPE, INSTALL NEW INTAKE STRUCTURE - REFER TO PLANS



N.T.S.

1 INTAKE STRUCTURE
DETAIL



2 TRACER WIRE
DETAIL

N.T.S.

DATE	05.22.2020
DESIGNED BY	JHK
DRAWN BY	JHK
CHECKED BY	CBK

REVISIONS	
1	FILTER REVISION 6.22.2020
2	PIPING REVISION 10.12.2020

SHEET NO. PUMP AND AERATION
DETAILS
IP-303