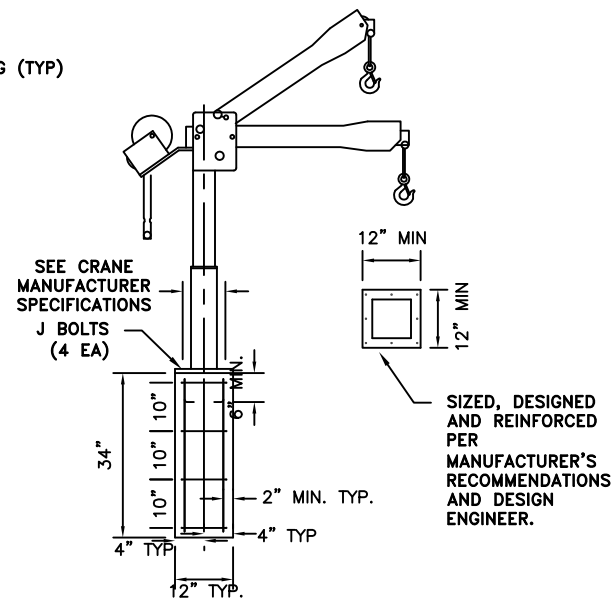


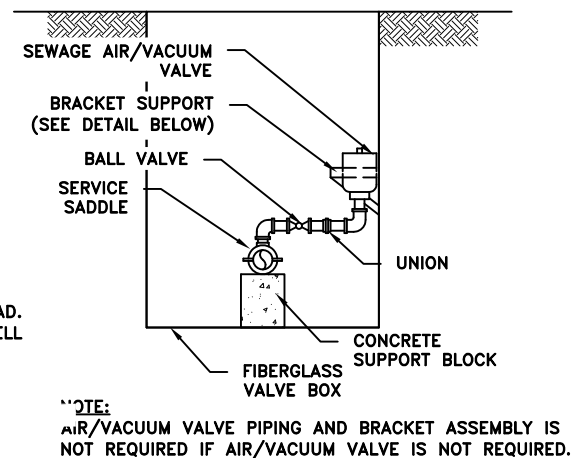
NOTE: THREADED OR FLANGED FITTINGS MAY BE PROVIDED IN THE VALVE VAULT AS DIRECTED BY AW PROJECT MANAGER.



#### CRANE NOTES:

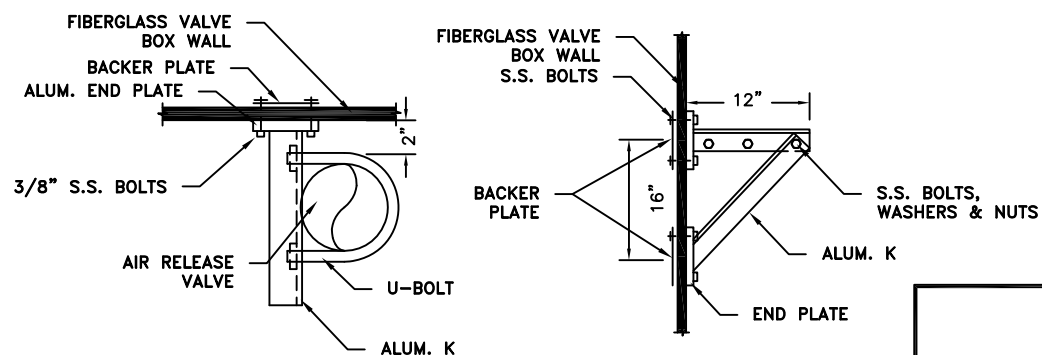
- EXCAVATE HOLE AS NEAR TO COLUMN DIMENSIONS AS POSSIBLE TO PLACE REBAR IN CENTER. FILL ENTIRE HOLE WITH CONCRETE TO CONTACT IN-SITU SOIL ON ALL SIDES.
- PRIOR TO DESIGN, THE CONTRACTOR SHALL CONFIRM WITH THE AW PROJECT MANAGER WHETHER A GANTRY OR PEDESTAL CRANE IS REQUIRED.

#### PEDESTAL DETAIL FOR CRANE



#### SECTION A-A

#### AIR RELEASE VALVE DETAIL



#### SUPPORT BRACKET DETAILS

#### GENERAL NOTES:

- CONTRACTOR SHALL ADVISE ENGINEER IF UNSTABLE SOIL CONDITIONS ARE FOUND.
- CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS AND SEQUENCING OF ALL WORK.
- CONTRACTOR IS RESPONSIBLE FOR SAFETY OF ALL PERSONS ON SITE. PROVIDE NECESSARY SHORING, BRACING AND DEWATERING OF EXCAVATIONS. PROVIDE TEMPORARY PROTECTION OF EXCAVATIONS.
- INSTALLATION OF EQUIPMENT IN PUMP STATION AND VALVE PIT SHALL BE DONE IN ACCORDANCE WITH CONFINED SPACE ENTRY REGULATIONS.
- MOUNTING AND SUPPORT OF ALL EQUIPMENT TO BE DONE PER MANUFACTURER'S REQUIREMENTS. DRAWING SHOW GENERAL ARRANGEMENTS ONLY.
- TWO SETS OF SHOP DRAWINGS OF ALL COMPONENTS ARE REQUIRED. SUBMIT TO ENGINEER FOR APPROVAL BEFORE ORDERING.
- TWO SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT REQUIRED.
- THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS EXPANDED AND AMENDED FROM TIME TO TIME, AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
- A DUPLEX SUBMERSIBLE CENTRIFUGAL GRINDER PUMP SYSTEM SHALL BE USED AS MANUFACTURED BY MYERS OR AN APPROVED EQUAL. MYERS PUMP SPECIFICATIONS AND DETAILS HAVE BEEN SHOWN.
- ALL PIPE, VENTS, CLEANOUTS, ETC SHALL PREVENT INFILTRATION AND INFLOW FROM ENTERING THE SANITARY SEWER SYSTEM. IF REQUIRED AS A RESULT OF THE PRESSURE TEST, MODIFICATIONS TO THE EXISTING SYSTEM WILL BE MADE PRIOR TO DISCHARGE TO SANITARY SYSTEM.
- PLASTIC PIPE (PVC OR HDPE) NOT PERMITTED WITHIN WET WELL OR VALVE VAULT.
- THREADED OR FLANGED FITTINGS MAY BE PROVIDED IN THE VALVE VAULT AS DIRECTED BY AW PROJECT MANAGER.
- PUMPS MUST BE LOCATED FOR EASE OF SERVICE.
- PUMP RATE CAPACITY MUST BE VERIFIED BY FIELD TEST.

#### FIBERGLASS BASIN DESIGN CRITERIA:

MANUFACTURER TO DESIGN BASIN TO WITHSTAND THE FOLLOWING SCENARIOS:

- EMPTY INTERIOR, FULL DEPTH BACKFILL.
- NO BACKFILL, INTERIOR FULL OF WATER.
- BASIN WILL NOT FLOAT WHEN INTERIOR IS EMPTY AND SATURATED SOIL FULL DEPTH.

MANUFACTURER TO PROVIDE CALCULATIONS TO CONFIRM BASIN MEETS THE DESIGN CRITERIA ABOVE.

DESIGN LIFT STATION LEVELS	
TOP OF LID:	-
BOTTOM OF STATION FLOOR:	-
FLOAT LOW ALARM:	-
TRANSDUCER LOW ALARM:	-
LEAD PUMP ON:	-
LEAD PUMP OFF:	-
LAG PUMP OFF:	-
LAG PUMP ON:	-
TRANSDUCER HI ALARM:	-
HIGH FLOAT HI ALARM:	-

ANTI-BUOYANCY CALCULATIONS	
1. PUMP STATION VOLUME:	
ASSUME WATER TABLE AT GROUND SURFACE	
ASSUME NO SOIL FRICTION	
WEIGHT OF WATER = 62.4 LB/CU FT	
WEIGHT OF CONCRETE = 150 LB/CU FT	
ASSUME WEIGHT OF PUMP STATION IS NEGLIGIBLE	
2. CONCRETE WEIGHT REQUIRED = BUOYANT FORCE	
3. CONCRETE VOLUME REQUIRED =	

SEWAGE PUMP SPECIFICATIONS	
MANUFACTURER	-
TYPE	SUBMERSIBLE GRINDER
MODEL NO.	-
NUMBER REQUIRED	2
HORSEPOWER	-
DESIGN FLOW (GPM)	-
DESIGN TDH (FT)	-
VOLTAGE	-
PHASE	-
HERTZ	60
MOTOR SPEED (RPM)	-
IMPELLER DIA. (IN)	-
LEVEL CONTROL SYSTEM	FLOAT CONTROL
PUMP WEIGHT	-
RAIL SYSTEM	S.S. GUIDE RAILS
DISCHARGE SIZE	-

#### REVISIONS

#### MOAWC-WASTE WATER STANDARDS STANDARD SMALL LIFT STATION DETAILS

MISSOURI AMERICAN WATER  
ST. LOUIS, MO. 63141

MISSOURI AMERICAN WATER ENGINEERING  
727 CRAIG ROAD  
ST. LOUIS, MO. 63141

DRAWN BY  
PROJECT ENG'R  
APPROVED

DATE: 11-11-2015  
PROJECT IF

USE DIMENSIONS ONLY  
SCALE: N.T.S.

USE APPROVED DRAWINGS ONLY  
FOR CONSTRUCTION PURPOSES

MOAWC-WW-01