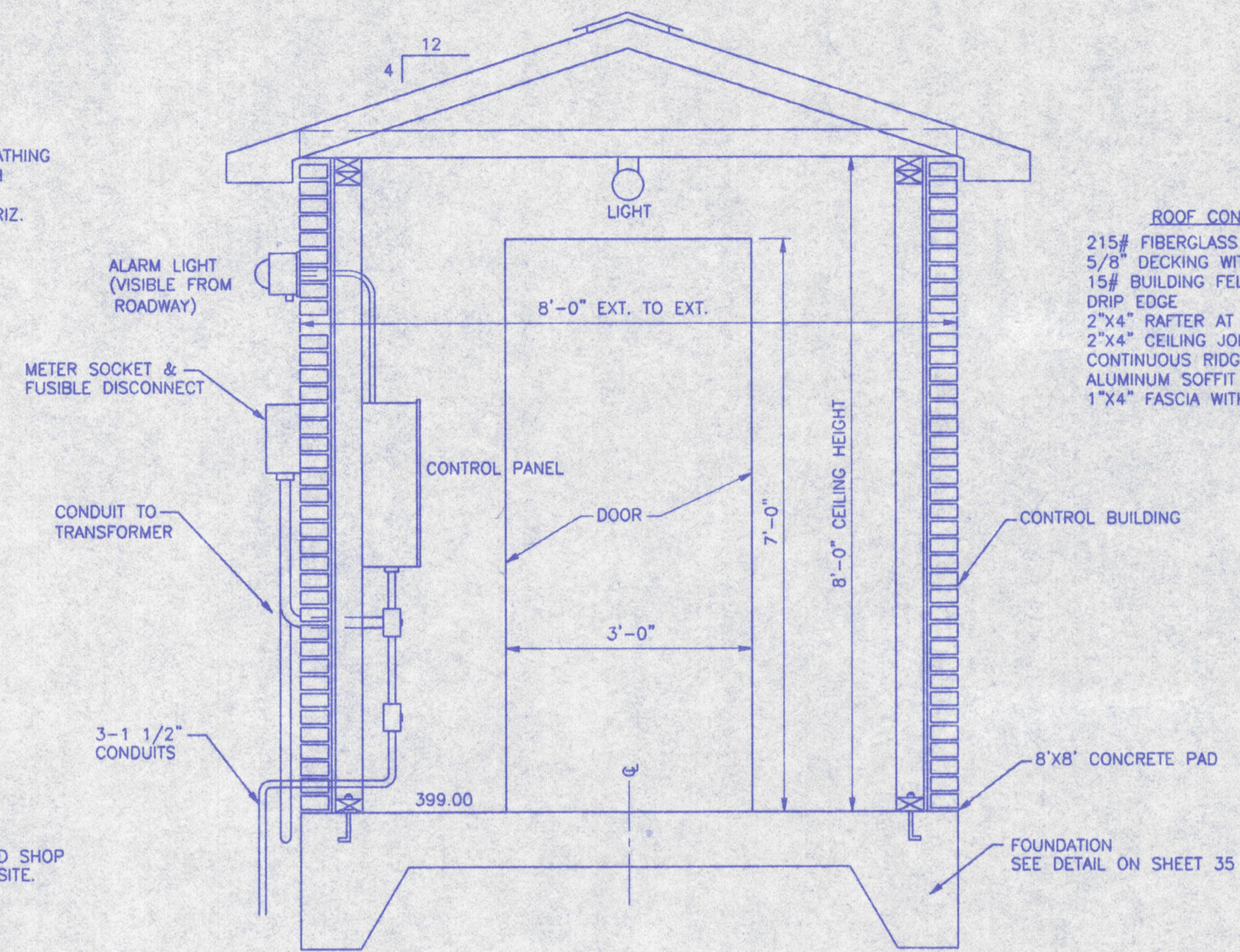


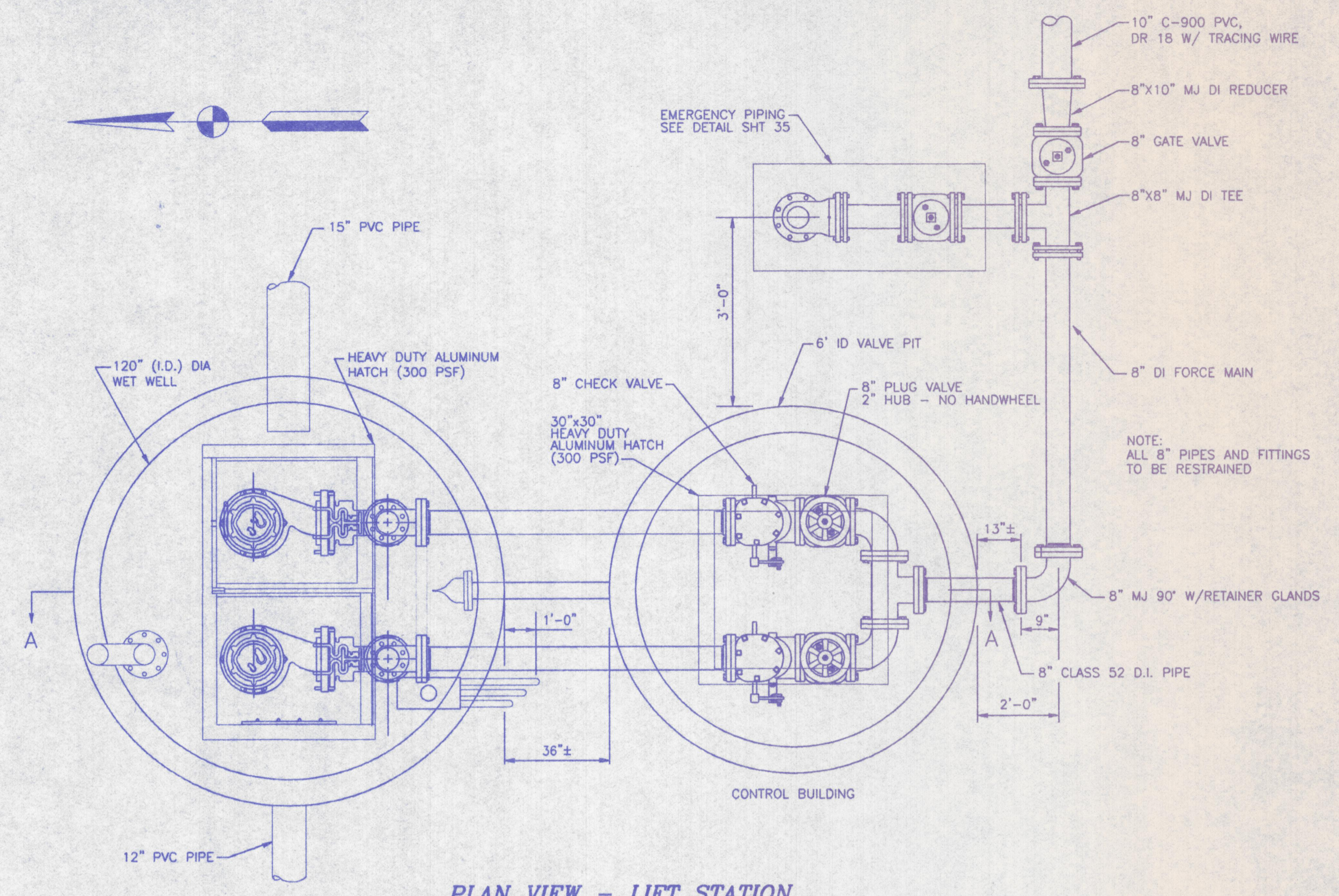
- BUILDING NOTES**
1. MINIMUM DOOR DIMENSIONS SHALL BE 3'-0"X7'-0"X1 3/4"
  2. DOOR SHALL HAVE 3 HINGES WITH HASP FOR PAD LOCK
  3. DOOR SHALL HAVE AN ALUMINUM THRESHOLD.
  4. DOOR SHALL BE FABRICATED OF 16 GAGE STEEL WITH 2'X2' LOUVERED VENT.
  5. BUILDING SHALL MEET ALL BUILDING CODES.
  6. DOOR FRAME SHALL BE STEEL.
  7. SUPPLY AND INSTALL OVERHEAD LIGHT WITH SWITCH AT DOOR.
  8. SUPPLY AND INSTALL ONE (1) OUTLET BOX.
  9. ALL LUMBER IS TO BE #1 GRADE, KILN DRIED, TREATED SOUTHERN PINE.

**WALL CONSTRUCTION**  
 4" BRICK VENEER ON  
 1/2" FIBERGLASS OR PLYWOOD SHEATHING  
 2"X4" WALL STUDS AT 16" O.C. WITH  
 20 GAGE GALVANIZED CORRUGATED  
 WALL TIES AT 16" O.C. VERT. & HORIZ.

**ROOF CONSTRUCTION**  
 215# FIBERGLASS SHINGLES (COLOR/OWNER)  
 5/8" DECKING WITH CLIPS  
 15# BUILDING FELT, 2" LAP  
 DRIP EDGE  
 2"X4" RAFTER AT 16" O.C.  
 2"X4" CEILING JOISTS AT 16" O.C.  
 CONTINUOUS RIDGE VENT  
 ALUMINUM SOFFIT WITH CONTINUOUS VENT  
 1"X4" FASCIA WITH ALUMINUM FACE



**ELEVATION LOOKING SOUTH**



**PLAN VIEW - LIFT STATION**

- NOTES**
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE EVANSVILLE WATER AND SEWER UTILITY (EWSU) RULES AND REGULATIONS. CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS TO THE EWSU FOR APPROVAL PRIOR TO AUTHORIZING SHIPMENT TO SITE.
  2. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL CODES, ORDINANCES, RULES, REGULATIONS, ORDERS AND OTHER LEGAL REQUIREMENTS OF MUNICIPAL AUTHORITIES WHICH BEAR ON THE PERFORMANCE OF THE WORK.
  3. MATERIAL SPECIFICATIONS SHALL BE IN CONFORMANCE WITH APPLICABLE PORTIONS OF THE INDOT STANDARD SPECIFICATIONS, (LATEST EDITION) UNLESS SPECIFICALLY STATED OTHERWISE ON THESE PLANS, CONTRACT DOCUMENTS OR LOCAL CODE.
  4. THE CONTRACTOR IS CAUTIONED THAT THE LOCATION AND /OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON THE RECORDS OF VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE MEASUREMENT TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES INDIANA UNDERGROUND UTILITY LOCATE SERVICE, PHONE 1-800-382-5544
  5. ALL FITTINGS USED FOR BENDS SHALL BE SECURED USING APPROVED DESIGN AND INSTALLATION METHODS.
  6. FOREMAN TRENCH SHALL BE BACKFILLED WITH SAND IN AREAS WITHIN 5' OF A PAVED ROADWAY OR DRIVEWAY. BACKFILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 9" LOOSE MEASUREMENT AND EACH LAYER COMPACTED TO MINIMUM 95% STANDARD PROCTOR IN ACCORDANCE WITH ASHTO T-99. PVC FORCEMAIN IS TO BE SUPPLIED WITH A CONTINUOUS SOLID 12 GAUGE INSULATED COPPER TRACE WIRE. ATTACH ALONG TOP OF PIPE IN AN APPROVED MANNER PRIOR TO BACKFILL. RUN INTO STRUCTURES WITH PIPE AT EITHER END OF FORCEMAIN AND ATTACH TO AN ACCESSIBLE ON INSIDE OF COVER.
  7. THE PUMPS SHALL BE EQUIPPED WITH PULTRUDED FIBERGLASS GUIDE RAIL SYSTEM & STAINLESS STEEL LIFT CHAINS. ALL NUTS & BOLTS MUST BE STAINLESS STEEL.
  8. ALL PIPING WITHIN THE STATION SHALL BE CLASS 52 DUCTILE IRON PIPE.
  9. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT FITTINGS AND SHALL BE FULLY RESTRAINED.
  10. ALL VALVES SHALL BE IN ACCORDANCE WITH EWSU SPECIFICATION.
  11. LIFT STATION INSTRUMENTATION AND CONTROLS SHALL COMPLY WITH REQUIREMENTS OF THE MOST RECENT VERSION OF THE EWSU RULES AND REGULATIONS.
  12. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, USE NO. 4 GAUGE WIRE AT FOUR (4") INCH SPACING EACH WAY UNLESS OTHERWISE INDICATED.
  13. PIPE OPENINGS IN BASE AND RISER SECTIONS SHALL BE FORMED OR CORE DRILL CUT.
  14. PIPE CONNECTIONS TO MANHOLES SHALL BE MADE WITH WATERTIGHT FLEXIBLE RUBBER BOOTS WITH STAINLESS STEEL BANDS OR FLEXIBLE WATERTIGHT GASKETS. ACCEPTABLE PRODUCTS ARE KOR-N-SEAL AS MANUFACTURED BY CORE AND SEAL COMPANY; DURA-SEAL III AS MANUFACTURED BY DURA TECH, INC.; PSX AS MANUFACTURED BY THE PRESS SEAL GASKET CORPORATION; OR EQUAL.
  15. SEAL SUMP JOINTS WITH CON SEAL CS-231 WATER STOP SEALANT ON JOINTS AND WRAP JOINTS WITH RUB'R - NEK EXTERNAL CONCRETE JOINT WRAP.
  16. COAT OUTSIDE OF SUMP WITH BITUMINOUS COATING MATERIAL AND COAT INSIDE OF SUMP WITH WOHL CHEMICAL Co. CC-760 COAL TAR MASTIC. APPLY STRICTLY IN CONFORMANCE WITH MANUFACTURERS' RECOMMENDATIONS INCLUDING SSPC-SP6 COMMERCIAL BLAST CLEANING AND MIL THICKNESSES.
  17. THE CONTRACTOR SHALL BE REQUIRED TO USE A "CAN" OR BOLTED PLATE TYPE SHORING FOR SUMP CONSTRUCTION IN ORDER TO KEEP SOIL FROM BEING DISTURBED, AS FAR AS POSSIBLE UNDER VALVE PIT AND MECHANICAL BUILDING. IF SOIL IS DISTURBED, CONSOLIDATE ALL FILL MATERIAL TO 95%.
  18. BITUMINOUS COAT OUTSIDE OF VALVE PIT WITH APPROVED SEAL COATING.
  19. ALL EXTERIOR HATCHWAYS SHALL BE SUPPLIED WITH LOCKS AND OTHER LOCKING PROVISIONS PER EVANSVILLE WATER, SEWER AND UTILITY REQUIREMENTS.
  20. FLYGT FLOAT LEVEL CONTROLLERS FOR HIGH AND LOW LEVEL ALARM, LEAD PUMP ON, LAG PUMP ON AND PUMP OFF. SEE ELECTRICAL SHEETS.
  21. DUPLEX PUMP SYSTEM. TWO CP-3102 MT PUMPS WITH 5 HP MOTORS. STAINLESS STEEL CHAIN (FLYGT).
  22. CONTROL CABLE FOR POWER TO PUMPS AND LEVEL CONTROLS (FLYGT OR EQUAL).
  23. STAINLESS STEEL ANCHORS. (FLYGT)
  24. ALUMINUM OR STAINLESS STEEL HATCHES. HAYLLWAY S1R, 300 PSF LOAD RATING.
  25. ALL STATION PIPING SHALL BE CEMENT LINED DUCTILE IRON PIPE WITH FLANGED ENDS.

**BOUANCY CALCULATIONS**

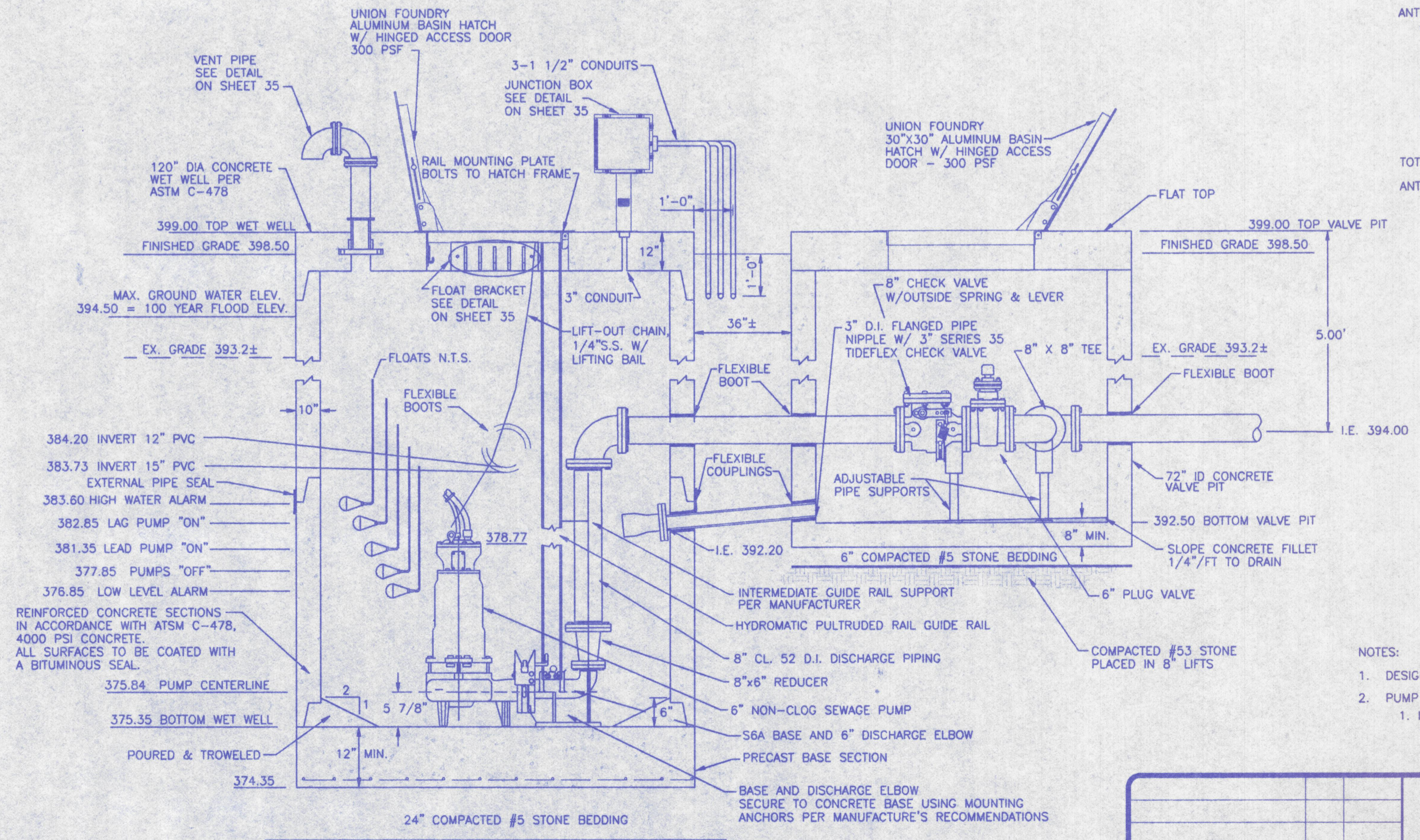
BOUANCY FORCE:  
 $(394.50' - 374.35') \times \pi \left( \frac{11.67'}{2} \right)^2 \text{ SF} \times 62.4 \text{ PCF} = 134,490\#$

ANTI-BOUANCY FORCE:  
 TOP SLAB  $(1.0') \times \left[ \pi \left( \frac{11.67'}{2} \right)^2 \text{ SF} \right] \times (150 \text{ PCF}) = 16,044\#$

BOTTOM SLAB  $(1.0') \times \left[ \pi \left( \frac{11.67'}{2} \right)^2 \text{ SF} \right] \times (150 \text{ PCF}) = 16,044\#$

WALLS  $(398.00' - 375.35') \times \left[ 2 \pi \left( \frac{11.67'}{2} \right) \right] \times (0.83') \times (150 \text{ PCF}) = 103,385\#$

TOTAL BOUANCY FORCE = 135,473#  
 ANTI-BOUANCY MEASURES ARE NOT NEEDED



**SECTION A-A - LIFT STATION**

- NOTES:**
1. DESIGN CONDITIONS - 850 GPM @ 73 TDH
  2. PUMP SPECIFICATIONS - SUPPLY 2 4" NON-CLOG SEWAGE PUMPS  
 1. HYDROMATIC SERIES S6A 1750 RPM 3 PH 30 HP 9.625" DIA. IMPELLER WITH PULTRUDED RAIL SYSTEM.

REVISION	NO.	DATE

9/14/99

**VANDEBURGH INDUSTRIAL PARK**  
**LIFT STATION PLAN/SECTIONS**  
 FOR  
**EVANSVILLE INDUSTRIAL FOUNDATION**  
 VANDERBURGH COUNTY, INDIANA

Prepared By: **BERNARDIN LOCHMUELLER & ASSOC., INC.**  
 Planners · Engineers · Surveyors  
2200 High Street, Columbus, IN 47102-3219-030

DATE: 9/8/99  
 PROJECT NO.: 199-0077 OPD  
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