1. ALL ITEMS IN VALVE BOX SHALL BE BLOCKED AND SUPPORTED AS NECESSARY.

2. PUMP STATION SHALL BE MANUFACTURED FROM TYPE V PORTLAND CEMENT. ALL OTHER CONCRETE SHALL BE MANUFACTURED FROM TYPE PORTLAND CEMENT.

3. STEEL REINFORCEMENT SHALL BE ASTM A615 GRADE 60 DEFORMED EXCEPT AT MANHOLE SECTIONS.

4. MANHOLE SECTIONS:

A. MANHOLE MANUFACTURER SHALL DESIGN WALL THICKNESS AND REINFORCEMENT FOR THE SITE CONDITIONS.

B. RISER SECTION SHALL BE PER ASTM C478 (TYPE V PORTLAND CEMENT).

C. GASKETS AT JOINTS SHALL BE ASTM C443 O-RING.

D. CONNECTIONS TO GRAVITY SEWER LINE(S) SHALL CONFORM TO ASTM C923 WITH 316SS CLAMPS.

E. INTERIOR BENCH (FILLET SLOPE) SHALL BE CONSTRUCTED WITH 2000 PSI CONCRETE USING TYPE V PORTLAND CEMENT.

5. BACKFILL AND COMPACTION: BACKFILL SHALL BE CONSTRUCTED OF ON-SITE CLAY SOILS PLACED IN MAXIMUM LIFTS OF 8 INCHES AND COMPACTED TO +5 TO +7% ABOVE OPTIMUM TO 92% OF STANDARD PROCTOR DENSITY. BROWN AND TAN CLAY AND MARLY CLAY SHALL BE COMPACTED AT +5 TO +7% ABOVE OPTIMUM TO 93% ASTM D698. WEATHERED MARL SHALL BE COMPACTED AT +3 TO '+6% OF OPTIMUM TO 94% ASTM D98. DEEPER FILL (OVER 8 FEET BELOW FINISHED GRADE) SHALL BE COMPACTED TO +2 TO +5% ABOVE STANDARD PROCTOR DENSITY REGARDLESS OF SOIL TYPE. IF SOIL CONDITIONS DIFFER FROM THOSE EXPECTED, CONTACT ENGINEER FOR COORDINATION.

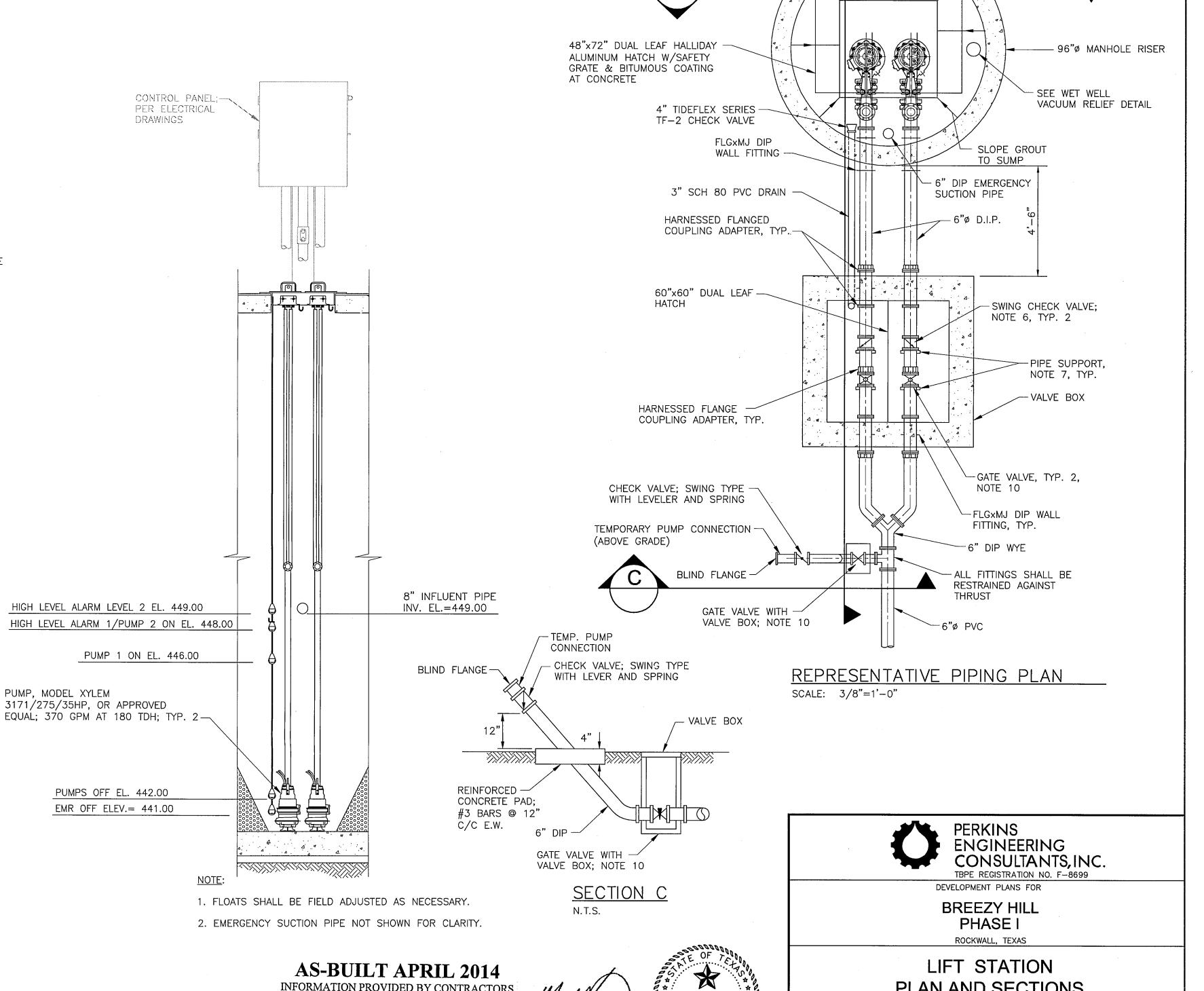
6. CHECK VALVES SHALL BE AMERICAN (ACIPCO) SERIES 600 WITH LEVER AND COUNTERWEIGHT.

7. PIPE SUPPORTS SHALL BE STANDON MODEL S89 OR EQUAL FLANGED PIPE SUPPORT, OR SHALL BE PER FLANGED PIPE SUPPORT

8. AT THE CONTRACTOR'S OPTION, ALL CONCRETE COMPONENTS OF SUMP SHALL EITHER BE CAST USING CON-SHIELD ADDITIVE OR CONTRACTOR MAY COAT ALL INTERIOR EXPOSED CONCRETE AND GROUT SURFACES OF WET WELL PER NOTE ON SHEET LS-3.

9. ALL DIP PIPE WITHIN THE WET WELL AND VALVE VAULT SHALL BE COATED WITH 2 EA. LAYERS OF 6 MIL. OFT DEVOE BAR-RUST 233H HIGH PERFORMANCE EPOXY, OR APPROVED EQUAL. D.I.P. SHALL BE BE EPOXY LINED.

10. INSTALL GATE VALVES WITH SHAFTS HORIZONTAL. PROVIDE HORIZONTAL TO VERTICAL GEARED OPERATOR WITH 2" OPERATOR NUT. 11. ALL BOLTS, NUTS, WASHERS, ANCHOR BOLTS, FASTENERS, AND RELIEF STRAIN GRIPS SHALL BE 316SS. ANCHOR BOLT SYSTEMS SHALL BE EPOXY OR ADHESIVE TYPE BY HILTI, OR APPROVED EQUAL.



8"ø SS INFLUENT

 FLANGE COUPLING ADAPTER USE CONTROL PANEL PER ----48"x72" DUAL LEAF HALLIDAY ALL THREAD BOLTS W/ MEG ELECTRICAL DRAWINGS ALUMINUM HATCH W/SAFETY LUGS. BLOCK AND ANCHOR GRATE & BITUMOUS COATING HALLIDAY ALUMINUM COVER (60"x60" DUAL LEAF) AT CONCRETE ACCESS HATCH WITH BITUMINOUS COATING BLIND -FLEX BASE -FLANGE TENAX TNT TYPE 450 -8'-0" 5'−0" SQ. TOC ELEV. GEOCOMPOSITE LINER, 473.00 OR APPROVED EQUAL 6" THICK 4000 PSI CONCRETE WALL, SINGLE CURTAIN OF #4 BARS @ 12" C/C E.W. HYDROPHILIC WATERSTOP; TYP. - 12" TYP. © ELEV.= 467.33 FLEX_ BASE F.F. ELEV. 465.50 -12" 4000 PSI CAST IN PLACE CONCRETE #6 BARS @ 12" C/C, E.W. T & B 2"- 2000 PSI DRAIN OUTLET F.L. ELEV. 461.00 CONCRETE SEAL SLAB — FLOOR DRAIN (JOSAM 30000-A-SS) 3" SCH 80 PVC DRAIN W/TRAP - FLG×MJ WALL FITTING W/FLANGE RING INFLUENT PIPE -316 SS GUIDE BRACKETS, QTY. AND SPACING BY PUMP MANUFACTURER -6" DIP EMERGENCY SUCTION PIPE WITH OFFSET =449.00 PIPE SUPPORTS SPACED AT 6' O.C. MAX. 316 SS STEEL CHAIN BOTTOM OF PIPE ELEV. 446.00 -NOTE 9 ___6"ø DIP, TYP. 2 (MIN.) - OLD CASTLE SANITARY MANHOLE EXTENSION WITH **INTERIOR** TONGUE AND GROOVE; OR APPROVED EQUAL BENCH MIN. 10% - 2" 316 SS GUIDE RAILS SLOPE -(MIN.) ---12" TYP.

2"- 2000 PSI

BASE ELBOW AND ANCHORS

BY PUMP MANUFACTURER

CONCRETE SEAL SLAB

REPRESENTATIVE SECTION A

PARTIAL SECTION B SCALE: 1/4"=1'-0"

INFORMATION PROVIDED BY CONTRACTORS

(NOT FIELD VERIFIED)

SCALE: 1/4"=1'-0"

ELEV.= 440.00

APPROVED EQUAL

BAR IS ONE INCH IN LENGTH

ON ORIGINAL DRAWING, CHECK

SCALE AND ADJUST ACCORDINGLY

ONE INCH

OLDCASTLE SANITARY MANHOLE

BASE UNIT WITH TONGUE, OR

PLAN AND SECTIONS MARK A. PERKINS 60329 Coister DRAWN BY DESIGNED BY SRG OB NUMBER COR 12-001 JUNE 2013

CHECKED BY SHEET NO. LS-2 NOTED

SCALE

ENDURO LO-FLOW ODOR

CONTROL CANISTER: OR

APPROVED EQUAL

- 4"ø SCH 80 PVC

PEETRATION (W/RING)

4"ø FLGxFLG