

ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE E.C.U.A. STANDARD SPECIFICATIONS

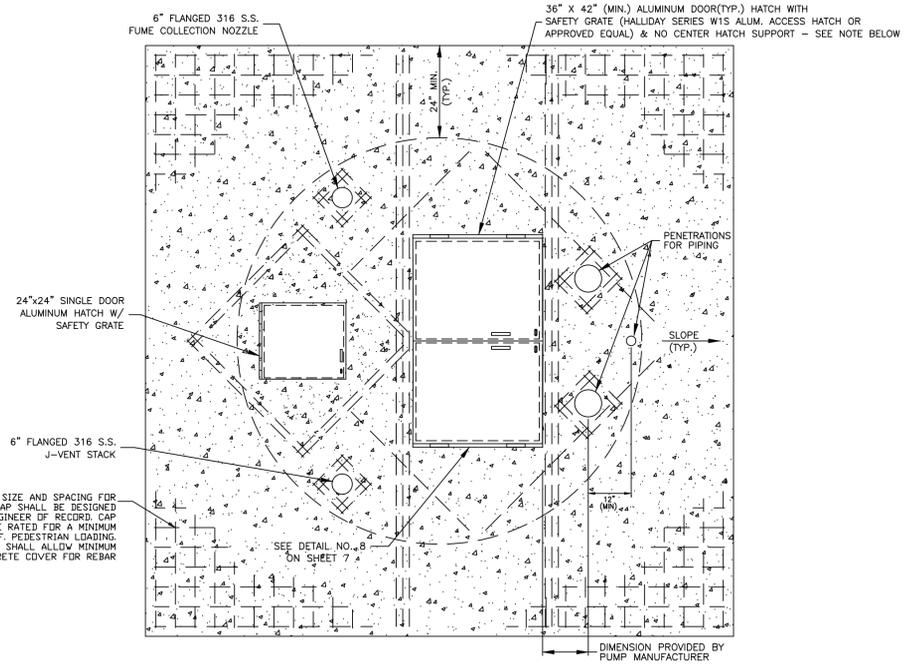
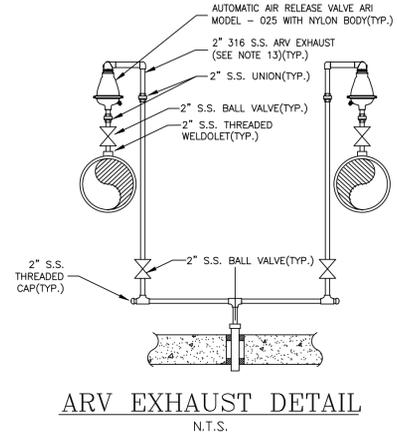
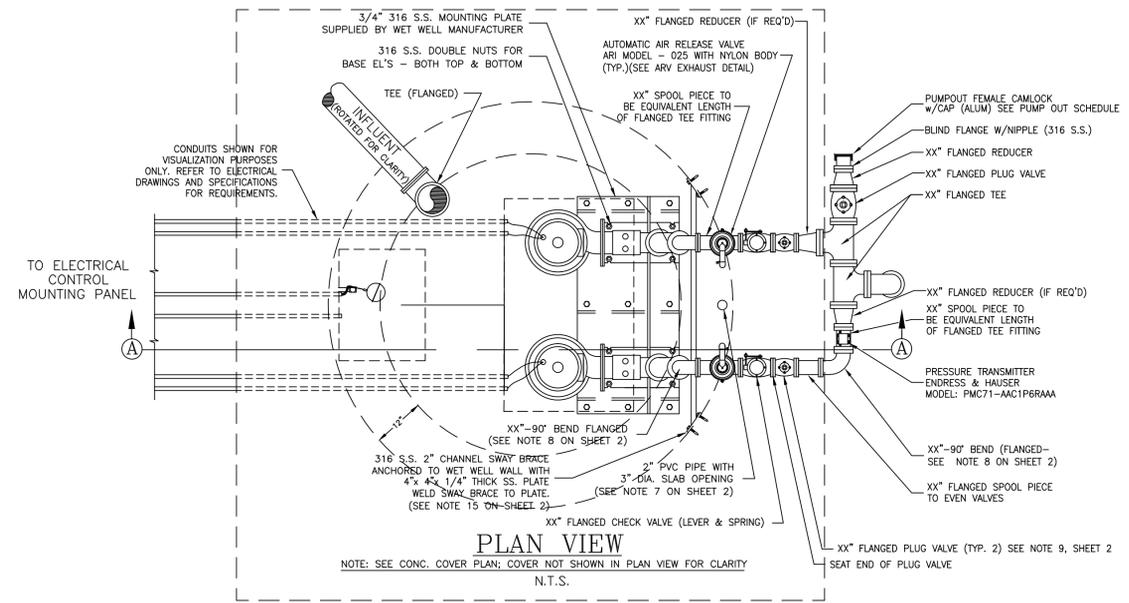
REVISIONS	BY
X	XX
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IMPROVEMENTS TO WASTE WATER COLLECTION SYSTEM
 LIFT STATION XXXXXXXXXXXXX
 PROPOSED LIFT STATION DETAIL SHEET ONE

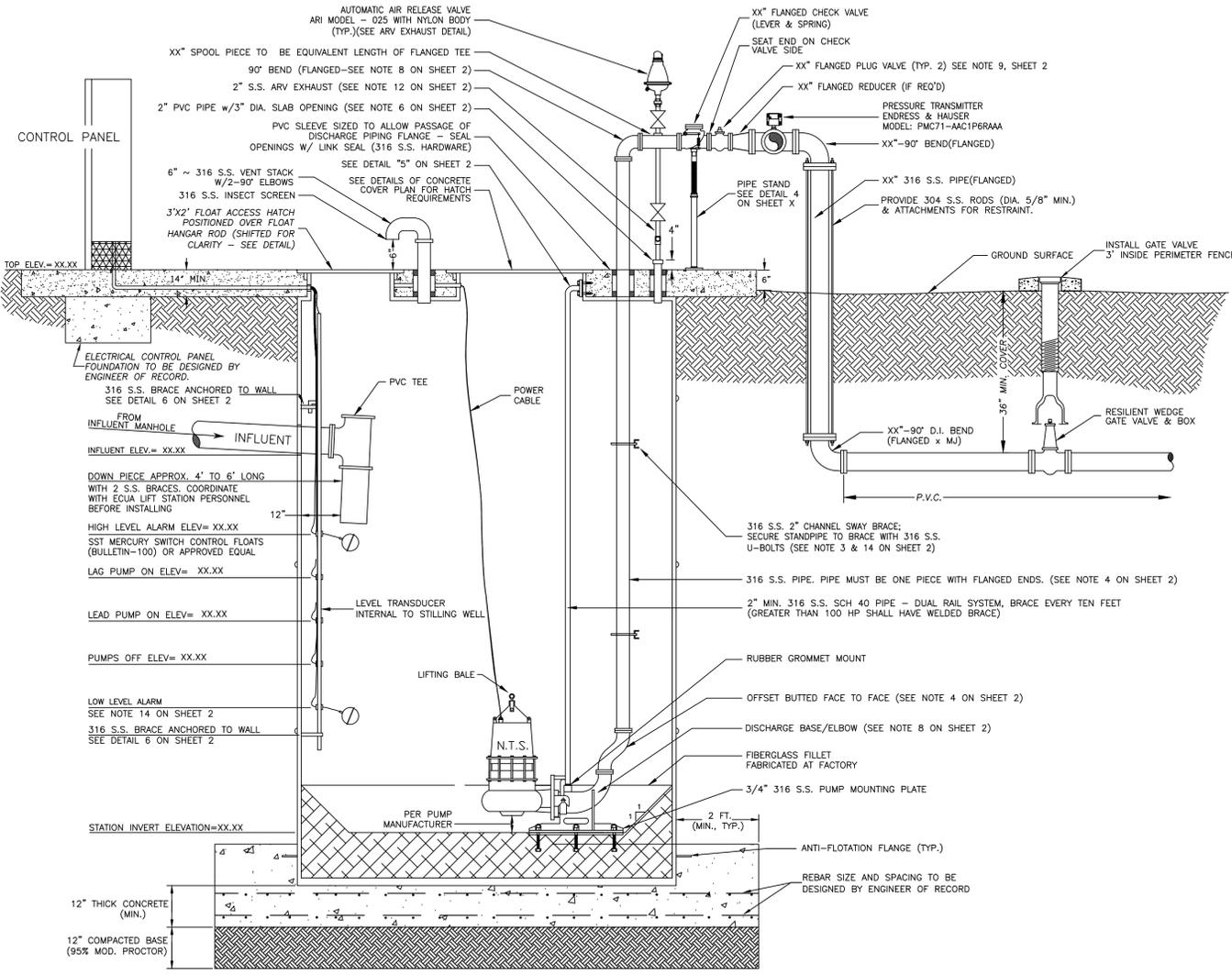


APPROVED BY:

Drawn:	TEJ/RMC
Designed:	SNH
Checked:	SNH
Date:	12/18/2014
Scale:	N.T.S.
Project No:	XXXXX
Sheet No:	1
Of	2 Sheets



NOTES:
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT THE HATCH SIZE THAT WILL ENABLE THE PUMP(S) TO BE EASILY REMOVED FROM THE WET WELL THROUGH THE HATCH. SEE SPECIFICATIONS FOR CLEARANCE REQUIREMENTS.
 - HATCH SHALL BE HALLIDAY TYPE ALUM. WST OR APPROVED EQUAL. FLUSH INSTALLATION, SINGLE COVERS, 300 LB/SF LOADING, AND GASKETED TO BE RAIN TIGHT AND PROMOTE DOOR CONTROL.
 - SAFETY GRATE(S) SHALL BE HINGED ON SAME SIDE AS HATCH.
 - HEAVIER DESIGN LOADS MAY BE REQUIRED.



XX - VALUES TO BE PROVIDED BY ENGINEER

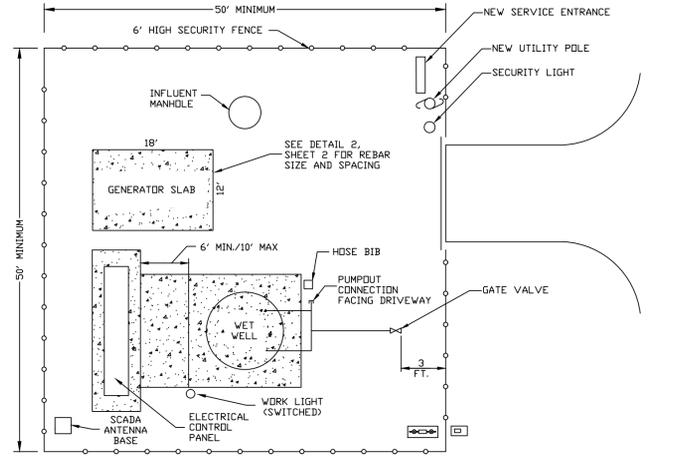
DISCHARGE	
4	4
6	6
8	8
10	8
12 + LARGER	*

*COORDINATE WITH EQUA

MANUFACTURER	TABLE TO BE COMPLETED BY DESIGN ENGINEER AFTER COORDINATION WITH EQUA ENGINEERING DEPARTMENT
TYPE PUMP	
MODEL NO.	
PUMP DESIGN POINT (GPM @ TDH)	
IMPELLER SIZE & NO.	
DISCHARGE PIPE SIZE	
MAX MOTOR H.P.	
MAX SPEED	
MIN. EFF. @ DESIGN POINT	
VOLT/PHASE	

PUMP DISCHARGE SHALL BE CENTERLINE ONLY, NO TANGENTIAL DISCHARGE ALLOWED.

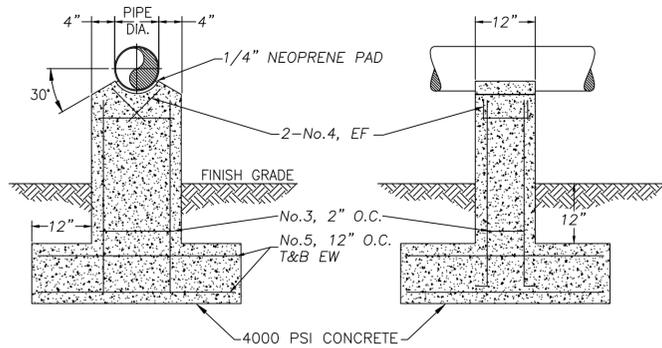
WET WELL DIAMETER	18' MIN.
WET WELL DEPTH	XX'XX'
INFLUENT DIA. - ELEV.	XX'-XX.XX'
FORCE MAIN DIA. - ELEV.	XX'-XX.XX'(T.O.P)
INVERT ELEV. OF STATION	XX.XX'
PUMPS OFF ELEV.	XX.XX'
HIGH LEVEL ALARM ELEV.	XX.XX'
TOP ELEV. OF STATION	XX.XX'



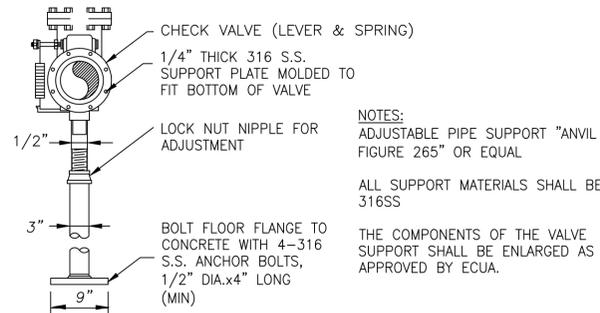
NOTE:
 - 6' HIGH FENCE (TO CONFORM WITH SURROUNDINGS) DIMENSIONS, CONFIGURATION & GATE MAY VARY WITH EACH LOCATION. EQUA L/S PERSONNEL TO VERIFY LOCATION OF GATE PRIOR TO INSTALLATION.
 - STORMWATER FLOW SHALL BE DIRECTED AWAY FROM LIFT STATION SITE.
 - ALL INFLUENT LINES TO LIFT STATION MUST BE ROUTED TO THE INFLUENT MANHOLE TO THE WET WELL, A SINGLE GRAVITY LINE SHALL CONNECT THE INFLUENT MANHOLE TO THE WET WELL, AT A DISTANCE OF NO GREATER THAN 30 FEET.
 - IN-GRADE PULL BOXES SHALL BE LOCATED 10'-0" FROM WET WELL.
 - PUMP OUT CONNECTION SHALL BE ORIENTED TO FACE DRIVEWAY.
 - PROVIDE COMPACTED LIMEROCK BASE WITHIN PERIMETER FENCE PER DETAIL 7, SHEET 2

PIPING SHOWN FOR LAYOUT PURPOSES ONLY

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X	XX

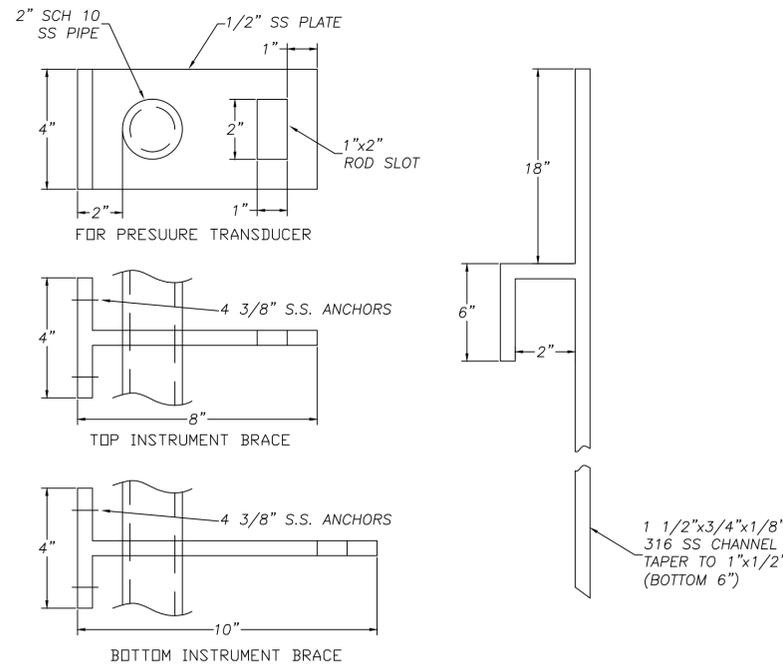


① PIPE SUPPORT DETAIL
N.T.S.

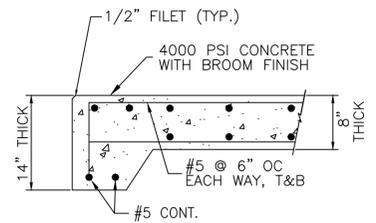


④ ADJUSTABLE PIPE STAND DETAIL
N.T.S.

NOTES:
ADJUSTABLE PIPE SUPPORT "ANVIL" FIGURE 265" OR EQUAL
ALL SUPPORT MATERIALS SHALL BE 316SS
THE COMPONENTS OF THE VALVE SUPPORT SHALL BE ENLARGED AS APPROVED BY ECUA.

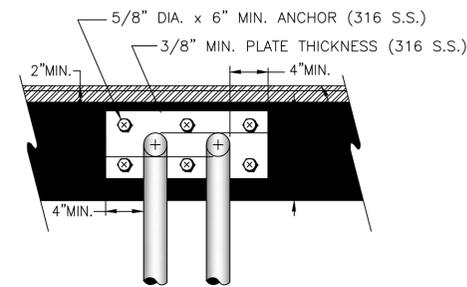


⑥ LEVEL INSTRUMENTATION SUPPORT
N.T.S.



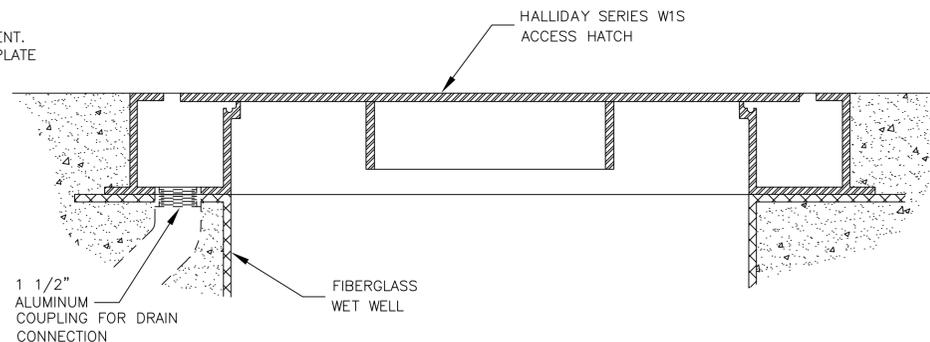
OTHER DIMENSIONS TO BE DETERMINED BY GENERATOR SIZE
MINIMUM OF 1' CLEARANCE AROUND ALL SIDES OF GENERATOR AND/OR TRAILER.

② GENERATOR SLAB DETAIL
N.T.S.



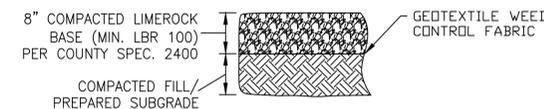
REQUIRE SUBMITTAL FOR "STYLE" OF RAIL ATTACHMENT.
PUMP RAILS TO BE 2" MIN. 316 S.S. WELDED TO PLATE IN A MANNER ACCEPTABLE TO ECUA.

⑤ GUIDE RAIL
N.T.S.



NOTE:
- ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMASTIC PAINT.
- HATCH DRAINS TO BE ROUTED TO OUTER EDGE OF TOP SLAB.

⑧ HATCH DETAIL
N.T.S.



NOTES:
1. ALL DEPTHS ARE COMPACTED DEPTHS.
2. PREPARE SUBGRADE BY CLEANING AND GRUBBING, STRIPPING TOPSOIL AND PLACING GEOTEXTILE FABRIC.
3. FILL FOR LIFT STATION SITE SHALL BE SAND MECHANICALLY COMPACTED TO 95% MODIFIED PROCTOR DENSITY IN MAXIMUM 12-INCH LIFTS LOOSE MEASUREMENT TO ACHIEVE CORRECT GRADE.

⑦ LIFT STATION SITE DETAIL
N.T.S.

GENERAL LIFT STATION NOTES

- THE LOCATION OF INFLUENT LINES, WATER SUPPLY, ETC. ARE DRAWN OUT OF ORIENTATION ON SECTIONAL VIEW. SEE PLAN VIEW FOR ORIENTATION.
- ALL PENETRATIONS IN WET WELL WALL FOR PIPING, ELECTRICAL, ETC. SHALL BE SEALED & SLEEVED.
- TO PROTECT STANDPIPE FROM SWAY BRACE, EITHER WRAP PIPE WITH RUBBER SHEETING OR INSERT ALL U-BOLTS THROUGH RUBBER HOSE.
- PIPING WITHIN THE WET WELL SHALL BE FLANGED SCHEDULE 10 316 STAINLESS STEEL. INTERMEDIATE JOINTS SHALL BE WELDED. FITTINGS WITHIN THE WET WELL SHALL BE FLANGED 316 STAINLESS STEEL. ALL NUTS, BOLTS & ACCESSORIES WITHIN THE WET WELL SHALL BE 316 STAINLESS STEEL.
- PIPE AND FITTINGS OUTSIDE OF THE WET WELL AND ABOVE GROUND SHALL BE 316 STAINLESS STEEL (FLANGED, SCHEDULE 10). ALL WELD-ON FLANGES SHALL BE 125# RF SOCKET-WELD FLANGE OR RF WELD NECK FLANGE (TYPE). ALL BOLTS, WASHERS AND NUTS SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH "NEVER SEIZE" TYPE COATING.
- THE ANNULAR SPACE BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED VIA LINK SEAL.
- PROVIDE 4" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT.
- INTERIOR SURFACES OF FITTINGS INDICATED, INCLUDING THE FLANGE MATING SURFACES, AS WELL AS THE PUMP IMPELLER, VOLUTE, AND BACKPLATE SHALL BE COATED WITH BELZONA 1321 CERAMIC S-METAL. (UNLESS OTHERWISE SPECIFIED BY OWNER)
- PLUG VALVES SHALL HAVE AN ALLOWABLE FLOW CAPACITY EQUAL TO 100% OF THE ADJACENT PIPE AREA, AND SHALL ALLOW "PIGGING".
- THE INTERIOR OF ALL VALVES SHALL BE COATED.

- CONTRACTOR SHALL PROVIDE 2-3/4" CONDUITS (ONE FOR POWER AND ONE FOR SIGNAL) FOR FLOW METER (IF REQUIRED). CONTRACTOR SHALL TERMINATE WIRES IN OWNER PROVIDED ELECTRICAL CONTROL CABINET.
- EXHAUST OF ARV'S TO BE FIELD LOCATED, PROVIDE FITTINGS AS NECESSARY, AND PIPED TO WET WELL USING 2" 316 S.S. PIPE.
- LOW LEVEL ALARM ELEV. TO BE SET IN COORDINATION WITH ECUA AND PUMP MANUFACTURER.
- CONNECTION OF SWAY BRACE MOUNTING PLATE SHALL BE COORDINATED WITH PUMP MANUFACTURER.
- A SECOND BRACE IS TO BE INSTALLED WHEN THE DEPTH OF WET WELL IS GREATER THAN 10' DEEP OR WHEN THE PUMPS ARE GREATER THAN 10 HP.

IMPROVEMENTS TO WASTE WATER COLLECTION SYSTEM
LIFT STATION XXX XXXXXXXXXXXXX
PROPOSED LIFT STATION DETAILS



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Date:	12/18/2014
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