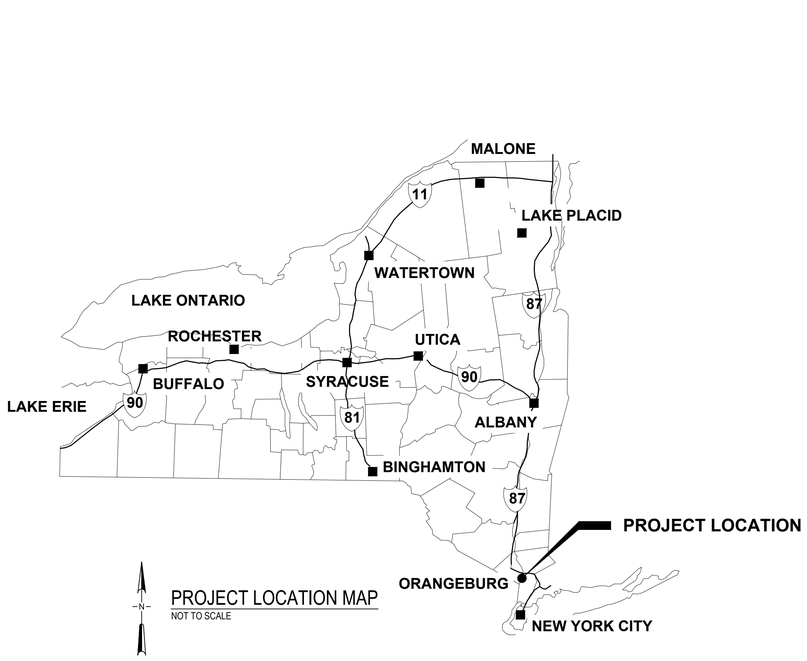
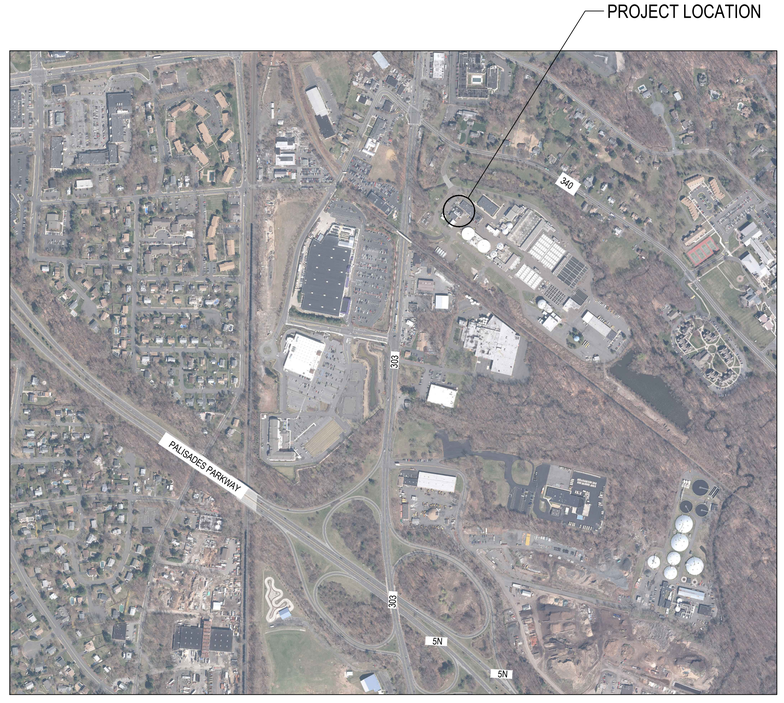
ROCKLAND COUNTY SEWER DISTRICT No 1
ROCKLAND COUNTY, NY
MAIN PUMP STATION UPGRADE
CONTRACT No. RFB-RC-SWR-CIP 2020-02

FOR CONSTRUCTION
JULY 2021



PROJECT LOCATION MAP
NOT TO SCALE



NOT TO SCALE
PROJECT LOCATION MAP

EDWARD J. DAY - COUNTY EXECUTIVE

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DRAWING REVISIONS NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/2021	FOR CONSTRUCTION	MJL	MET
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

ORIGINAL SIZE: ARCH D

PROJECT TITLE: MAIN PUMP STATION UPGRADE

CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO. 1

DRAWING TITLE: LIST OF DRAWING

DATE:	JULY 2021
SCALE:	NONE
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	G-002

ABBREVIATIONS

ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT OR ARCHITECTURAL
ASB	ASBESTOS
ASPH	ASPHALT
ASSY	ASSEMBLY
BJ	BOTTOM OF
B/F	BOTTOM OF FOOTING
BTW	BETWEEN
BF	BLIND FLANGE
BIT	BITUMINOUS
BLDG	BUILDING
BM	BENCH MARK/ BEAM
BMK	BENCH MARK
BV	BUTTERFLY VALVE
C_L	CENTER LINE
CB	CATCH BASIN
CC	CENTER TO CENTER
CF OR CUFF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CIP	CAST IRON PIPE
CIRC	CIRCLE/CIRCULAR
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CL JT	CONTROL JOINT
CLR	CLEAR/COLOR
CL2	CHLORINE
CLF	CHAIN LINK FENCE
CLG	CEILING
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
COND	CONDUIT
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CRF	CHEMICAL RESISTANT FINISH
CS JT	CONSTRUCTION JOINT
CTR	CONTRACT
CU IN	CUBIC INCH
CU	COPPER
CV	CHECK VALVE
CY OR CU YD	CUBIC YARD
D	DISCHARGE
DET	DETAIL
DH	DECK HYDRANT
DIA, OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DO	DISSOLVED OXYGEN
DWG	DRAWING
E	EAST/ELECTRICAL CONDUITS
EA	EACH
ECC	ECCENTRIC
EF	EACH FACE
EFF	EFFLUENT
EFW	EFFLUENT WATER
EJ	EXPANSION JOINT
EL	ELBOW
ELEC	ELECTRIC
EQ	EQUAL
F&C	FRAME AND COVER
F&G	FRAME AND GRATING
FC	FLUSHING CONNECTION
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FG	FIBERGLASS/FINIHSED GRADE
FH	FIRE HYDRANT
FIN	FINISH
FIX	FIXTURE
FL	FLANGE
FL	FLOOR
FM	FORCE MAIN / FLOW METER
FND	FOUNDATION
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PLASTIC
FST	FINAL SETTLING TANK
FT	FEET
FTG	FOOTING
G	GAS
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GI	GALVANIZED IRON
GL	GLASS
GPM	GALLONS PER MINUTE
GR	GRADE / GUARDRAIL
GS	GALVANIZED STEEL
GV	GATE VALVE
H&V	HEATING AND VENTILATING
HB	HOSE BIB
HD	HEAVY DUTY
HDPE	HIGH DENSITY POLYETHYLENE
HOR OR H	HORIZONTAL
HP	HORSEPOWER
HPT	HIGH POINT
HT	HEIGHT
HTR	HEATER
HWL	HIGH WATER LEVEL
HYD	HYDRANT
ID	INSIDE DIAMETER
IF	INSIDE FENCE
INF	INFLUENT
INSUL	INSULATION
INT	INTERIOR
INF	INFLUENT
IPS	INTERNAL PIPE SIZE
JCT	JUNCTION
JT	JOINT
K	1000 POUNDS (1 KIP)
LPT	LOW POINT
LF	LINEAR FEET
LAV	LAVATORY
LG	LENGTH/LONG
LP	LIGHT POLE
LV	LOUVER
LWL	LOW WATER LEVEL
M	MOTOR
MAS	MASONRY
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MTG	MOUNTING
MTL	METAL
MULT	MULTIPLE
N	NORTH
NAT	NATURAL
NC	NORMALLY CLOSED
NF	NEAR FACE
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO OR #	NUMBER
NOM	NOMINAL
NPT	NATIONAL PIPE THREAD
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
OC	ON CENTERS/ODOR CONTROL
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPER	OPERABLE
OPNG	OPENING
OPP	OPPOSITE
ORP	OXIDATION REDUCTION POTENTIAL
P_L	PLATE/PROPERTY LINE
P&ID	PROCESS INSTURMENTATION DIAGRAM
PAR	PARALLEL
PAT	PATTERN
PAVT	PAVEMENT
PCF	POUNDS PER CUBIC FOOT
PERF	PERFORATED
PERP	PERPENDICULAR
PI	PRESSURE INDICATOR
PL	PROPERTY LINE
PLAS	PLASTIC
PLBG	PLUMBING
PNL	PANEL
PO	PLANT OVERVIEW
POLY OR PE	POLYETHYLENE
PRV	PRESSURE RELIEF / REDUCING VALVE
PS	PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PST	PRIMARY SETTLING TANK
PT	POINT
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATER
QTY	QUANTITY
RAD	RADIUS
RAS	RETURN ACTIVATED SLUDGE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN / ROAD
REC	RECORD
REDR	REDUCER
REF	REFERENCE
REIN	REINFORCE
REQD	REQUIRED
REV	REVISE
RFG	ROOFING
RL	ROOF LEADER
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RS	RETURN SLUDGE
RW	RAW WATER
RWI	RAW WATER INTAKE
S	SOUTH / SUCTION / SANITARY SEWER
SAN	SANITARY
SCH	SCHEDULE
SECT	SECTION
SEW	SEWER
SF	SQUARE FOOT OR SILT FENCE
SG	SLIDE GATE
SHT	SHEET
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
SIM	SIMILAR
STA	STATION
STL JST	STEEL JOIST
SG	SLUICE GATE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEELE
ST	STREET
STL	STEEL
STRU	STRUCTURAL/STRUCTURE
SWD	SIDE WATER DEPTH
T & B	TOP AND BOTTOM
T	TILE, TREAD OR TOP
T/D	TOP OF DECK
T/F	TOP OF FOOTING
T/G	TOP OF GRATE / GRATING
T/M	TOP OF MASONRY
T/P	TOP OF PIPE
T/S	TOP OF SLAB/STEEL
T/W	TOP OF WALL
TDH	TOTAL DYNAMIC HEAD
TEL	TELEPHONE
TEMP	TEMPERATURE/TEMPORARY/TEMPERED
TERT	TERTIARY
TOB	TOP OF BANK
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UV	ULTRAVIOLET
V	VERTICAL / VENT
VCT	VITRIFIED CLAY TILE
W	WATER / WEST
W/	WITH
WAS	WASTE ACTIVATED SLUDGE
WG	WEIR GATE
WH	WALL HYDRANT
WL	WATER LEVEL
WS	WATER SURFACE
WS	WATERSTOP
WST	WELDED STEEL PIPE
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
YH	YARD HYDRANT

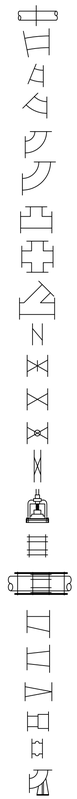
MECHANICAL JOINT FITTING SYMBOLS

MECHANICAL JOINT
11 1/4 DEGREE BEND
22 1/2 DEGREE BEND
45 DEGREE BEND
90 DEGREE BEND
TEE
CROSS
WYE LATERAL
BUTTERFLY VALVE
GATE VALVE
PLUG VALVE
REDUCER

WELD JOINT FITTING SYMBOLS

WELD JOINT
11 1/4 DEGREE BEND
22 1/2 DEGREE BEND
45 DEGREE BEND
90 DEGREE BEND
LONG RADIUS 90 DEGREE BEND
TEE
CROSS
WYE LATERAL
REDUCER

FLANGE JOINT FITTING SYMBOLS

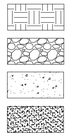


FLANGE JOINT
11 1/4 DEGREE BEND
22 1/2 DEGREE BEND
45 DEGREE BEND
90 DEGREE BEND
LONG RADIUS 90 DEGREE BEND
TEE
CROSS
WYE LATERAL
BUTTERFLY VALVE
BALL VALVE
GATE VALVE
PLUG VALVE
KNIFE GATE VALVE
MUD VALVE
COUPLING (UNRESTRAINED) MJ ALSO
COUPLING (RESTRAINED WITH HARNESS, EAR AND LUG) MJ ALSO
ECCENTRIC REDUCER
CONCENTRIC REDUCER
CHECK VALVE
FLANGE COUPLING ADAPTER OR DISMANTLING COUPLING (BOTH RESTRAINED)
EXPANSION JOINT OR FLEXIBLE COUPLING
90 DEGREE BASE ELBOW

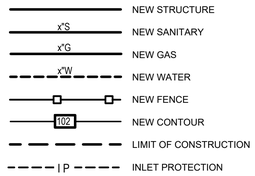
WATER FITTING SYMBOLS (LESS THAN 12" DIAMETER)

11 1/4 DEGREE BEND
22 1/2 DEGREE BEND
45 DEGREE BEND
90 DEGREE BEND
TEE
CAP OR PLUG
REDUCER
VALVE
TAPPING SLEEVE AND VALVE (TS&V)
POST INDICATOR VALVE
FIRE HYDRANT
THRUST BLOCK

MATERIAL SYMBOLS



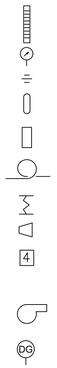
EARTH
COMPACTED GRAVEL BACKFILL
CONCRETE
GROUT



NEW STRUCTURE
NEW SANITARY
NEW GAS
NEW WATER
NEW FENCE
NEW CONTOUR
LIMIT OF CONSTRUCTION
INLET PROTECTION

GENERAL NOTES:

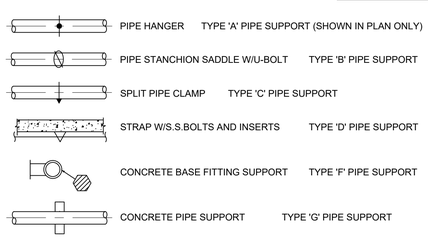
1. EXISTING PIPING AND FACILITIES SHOWN LIGHT. NEW PIPING AND FACILITIES SHOWN DARK. SOME ITEMS TO BE DEMOLISHED ARE SPECIFICALLY LABELED ON THESE DRAWINGS. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL VERIFY ALL EXISTING STRUCTURE AND PIPING ELEVATION, LOCATION, SIZE AND TYPE OF MATERIAL WITH NEW PIPING PRIOR TO CONSTRUCTION. IF DISCREPANCIES ARISE BETWEEN THESE CONTRACT DRAWINGS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN WRITING.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND FURNISH COPIES TO THE OWNER AND ENGINEER PRIOR TO COMMENCING WORK.
4. THE CONTRACTOR'S WORK AREA SHALL BE CONFINED TO THE LIMITS SHOWN ON DRAWINGS. THE CONTRACTOR SHALL OBTAIN ANY ADDITIONAL EASEMENTS OR WORK RELEASES SHOULD THE CONTRACTOR REQUIRE ADDITIONAL AREA TO ACCOMMODATE HIS OPERATIONS.
5. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES AS SHOWN ON THE PLANS AND PROFILES ARE APPROXIMATE. OTHER UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY THE LOCATION AND ELEVATION OF UTILITIES AT INTERCONNECTIONS AND CROSSINGS AS SHOWN, DIRECTED OR REQUIRED. THE CONTRACTOR SHALL EXCAVATE IN ADVANCE OF THE PIPE LAYING OPERATIONS AND EXPOSE ALL EXISTING UNDERGROUND UTILITIES TO PREVENT DAMAGE DURING CONSTRUCTION AND TO DETERMINE REQUIRED CHANGES TO GRADE NECESSARY TO INSTALL THE NEW UTILITY TO AVOID CONFLICT.
6. THE OWNER ONLY SHALL OPERATE EXISTING VALVES. THE CONTRACTOR IS ADVISED THAT WATERTIGHT CONDITIONS MAY NOT EXIST WHEN EXISTING VALVES ARE CLOSED.
7. ALL BELOW GRADE PRESSURIZED DUCTILE IRON PIPE JOINTS, VALVES, FITTINGS AND SPECIALS SHALL BE RESTRAINED MECHANICAL JOINT, CONCRETE THRUST BLOCKS SHALL BE PROVIDED. REFER TO DRAWING C-003 FOR CONCRETE THRUST BLOCK DETAILS.
8. ALL PIPING TO BE INSTALLED SHALL HAVE 5' MINIMUM BURIAL DEPTH, UNLESS OTHERWISE NOTED.
9. CONTRACTOR SHALL PROVIDE ADAPTERS FOR TRANSITIONS BETWEEN DIFFERENT PIPE MATERIALS.
10. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
11. CONTRACTOR SHALL SUPPLY ALL BENDS REQUIRED TO MAINTAIN SMOOTH FLOW LINES, CHANGES IN ELEVATION AND TO MEET ALL TRANSITIONS. USE 45 DEGREE BENDS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
12. CONTRACTOR SHALL PROVIDE POSITIVE SITE DRAINAGE DURING CONSTRUCTION OPERATIONS. ALL FINAL LINES AND GRADES SHALL BE CONSTRUCTED TO MAINTAIN POSITIVE SITE DRAINAGE TO EXISTING DRAINAGE STRUCTURES.
13. ALL PAVEMENT SHALL BE SAW CUT PRIOR TO RESTORATION.
14. LEGEND REPRESENTS STANDARD LINE TYPES AND HATCHING UNLESS INDICATED OTHERWISE.
15. CONTRACTOR SHALL COORDINATE STAGING AREAS WITH OWNER.
16. WHILE EVERY EFFORT HAS BEEN MADE TO IDENTIFY THE ITEMS TO BE DEMOLISHED, IT IS CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SCOPE OF WORK IN THE FIELD, REVIEW THESE CONTRACT DRAWINGS, ALL PREVIOUS CONSTRUCTION DRAWINGS & DOCUMENTS AND THE DEVELOPMENT SPECIFICATIONS, THE EXISTING FACILITY PLANS, AND DEMOLISH ALL ITEMS NECESSARY TO ACCOMMODATE THE PROPOSED WORK. ALSO THE CONTRACTOR SHALL REPAIR ALL SURFACES AND PLUG ABANDONED PENETRATIONS UPON REMOVAL OF THE DEMOLISHED ITEMS.
17. THE ABBREVIATIONS AND SYMBOLS HEREIN ARE STANDARD OF EDR AND APPLY TO A VARIETY OF PROJECTS. ONLY A PORTION OF THEM WILL NECESSARILY APPLY TO ANY GIVEN PROJECT.CONTRACTOR SHALL VISIT AND EXAMINE THE SITE TO FULLY UNDERSTAND ALL EXISTING CONDITIONS PERTAINING TO THE SCOPE OF WORK, UNDERSTAND DIFFICULTIES TO BE ENCOUNTERED AND MATERIALS REQUIRED FOR THE COMPLETE INSTALLATION OF THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED. THE EXACT LOCATION OF THE EXISTING PIPING, EQUIPMENT, SERVICES, CONDITIONS, ETC. SHALL BE FIELD VERIFIED. THE EXISTING SIZE OF PIPING, DUCTWORK, EQUIPMENT, ETC. SHALL BE FIELD VERIFIED. ALL PIPING, DUCTWORK, AND EQUIPMENT ELEVATIONS SHOWN OR SPECIFIED SHALL BE FIELD VERIFIED. CONTRACTOR SHALL MODIFY LAYOUT WITH THE APPROVAL OF THE ENGINEER WHERE NECESSARY AT NO ADDITIONAL COST TO THE OWNER. PROVIDE FIELD INFORMATION SPECIFIC TO THE DISCREPANCY TO EXPEDITE RESOLUTION.
18. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND MAKE ALL NECESSARY PROVISIONS FOR PROTECTION OF THE PUBLIC, THE WORKMEN AND THE WORK, AND FOR MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC AS REQUIRED BY THE AGENCIES OF GOVERNMENT HAVING JURISDICTION.
19. THE CONTRACTOR SHALL ADHERE TO ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), STATE AND LOCAL SAFETY REGULATIONS..
20. TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EROSION AND CONTROL SEDIMENTATION AS REQUIRED BY THE AGENCIES OF GOVERNMENT HAVING JURISDICTION.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND MAINTENANCE OF SURFACE WATER AND/OR GROUNDWATER ENCOUNTERED DURING THE COURSE OF WORK.
22. COMPLY WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS REGARDING MATERIALS, METHODS OF WORK AND DISPOSAL OF EXCESS AND WASTE MATERIALS
23. BURNING OF MATERIALS IS PROHIBITED.
24. PRIOR TO PERFORMING ANY EXCAVATION WITHIN THE CONSTRUCTION AREA, CONFIRM WITH THE OWNER, THAT ALL EXISTING UNDERGROUND UTILITY LOCATIONS ARE CURRENTLY VERIFIED, OR ARRANGE FOR VERIFICATION.
25. PRIOR TO START OF WORK , THE CONTRACTOR SHALL PROVIDE EXPLORATORY EXCAVATIONS AND COORDINATE ALL PIPING LAYOUTS WITH THE OWNER'S REPRESENTATIVE TO ELIMINATE CONFLICTS WITH EXISTING UTILITIES.
26. THE USE OF EXPLOSIVES IS PROHIBITED.
27. CONSTRUCTION DEBRIS AND DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE SITE AT REGULAR INTERVALS AND SHALL NOT BE ALLOWED TO ACCUMULATE. EMPLOY APPROPRIATE MEASURES TO PREVENT LOOSE DEBRIS FROM LEAVING THE CONSTRUCTION AREA.
28. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE CAUSED BY CONSTRUCTION TO EXISTING UTILITIES AND FACILITIES WHICH ARE NOT INCLUDED AS PART OF THE INTENDED WORK. THE CONTRACTOR SHALL REPAIR, RESTORE AND/OR REPLACE ALL DAMAGE TO THE SATISFACTION OF OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
29. THE CONTRACTOR SHALL RESTORE ALL DISTURBED SURFACES TO ORIGINAL OR BETTER CONDITION INCLUDING 6 INCHES OF TOPSOIL, SEED, FERTILIZER, AND MULCH. OTHER SURFACES SHALL BE RESTORED AS SHOWN ON THE DETAILS.
30. PERFORM WORK AND PROVIDE ALL MATERIALS NECESSARY TO DISCONNECT OR RELOCATE EXISTING UTILITIES. COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES FOR SHUTOFF AND RECONNECTION OF ACTIVE SERVICES. RECORD EXISTING UTILITY TERMINATION POINTS BEFORE DISCONNECTION..
31. THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER AND WATER SERVICES AT ALL TIMES, EXCEPT DURING APPROVED AND SCHEDULED INTERRUPTIONS. THE CONTRACTOR SHALL SUBMIT A PROPOSED WORK SCHEDULE AND A DETAILED BY-PASS PROCEDURE TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
32. ALL EXISTING DRAINAGE FACILITIES SHALL BE MAINTAINED FREE OF DEBRIS AND FOREIGN MATTER AND BE IN OPERATION THROUGHOUT CONSTRUCTION.



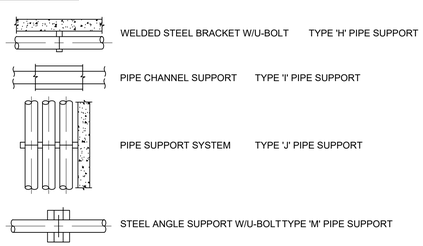
CALIBRATION COLUMN (1)
PRESSURE GUAGE (2)
UNION
PULSATION DAMPENER
SIGHT GLASS
FLEX HOSE
FLEX TUBING
REDUCER
FOUR FUNCTION VALVE (POSITIVE ANTI-SIPHON/BACK PRESSURE/PRESSURE RELIEF/ LINE PRESSURE RELEASE)
PUMP
DEGASSING VALVE

BACK PRESSURE AND ANTI-SIPHON VALVE
ROTAMETER
GATE VALVE
NEEDLE VALVE
PRESSURE REDUCING VALVE
BALL VALVE
GLOBE VALVE
SOLENOID VALVE
PRESSURE RELIEF VALVE (3)
CHECK VALVE
Y STRAINER
AIR RELIEF VALVE
VACUUM BREAKER (ANTI-SIPHON) (4)

PIPE SUPPORT SYMBOLS



PIPE HANGER TYPE 'A' PIPE SUPPORT (SHOWN IN PLAN ONLY)
PIPE STANCHION SADDLE W/U-BOLT TYPE 'B' PIPE SUPPORT
SPLIT PIPE CLAMP TYPE 'C' PIPE SUPPORT
STRAP W/S.S.BOLTS AND INSERTS TYPE 'D' PIPE SUPPORT
CONCRETE BASE FITTING SUPPORT TYPE 'F' PIPE SUPPORT
CONCRETE PIPE SUPPORT TYPE 'G' PIPE SUPPORT



WELDED STEEL BRACKET W/U-BOLT TYPE 'H' PIPE SUPPORT
PIPE CHANNEL SUPPORT TYPE 'I' PIPE SUPPORT
PIPE SUPPORT SYSTEM TYPE 'J' PIPE SUPPORT
STEEL ANGLE SUPPORT W/U-BOLTTYPE 'M' PIPE SUPPORT

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LICENSED PROFESSIONAL ENGINEER
073757

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/2021	FOR CONSTRUCTION	MJL	MET
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

DRAWING REVISIONS

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO. 1**
DRAWING TITLE: **ABBREVIATIONS , LEGEND, SYMBOLS AND NOTES**

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	NONE
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:
G-003

PLAN
SCALE 1" = 30'

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DRAWING REVISIONS

NO	DATE	REVISION	DRAWN	APPROVED
5				
4			MJL	MET
3	07/2021	FOR CONSTRUCTION	MJL	MEC
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

ORIGINAL SIZE: ARCH D

PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO. 1
DRAWING TITLE: EXISTING SITE PLAN

DATE:	JULY 2021
SCALE:	AS SHOWN
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	C-001

PLAN
SCALE 1" = 30'

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DRAWING REVISIONS

NO	DATE	REVISION	DRAWN	APPROVED
5				
4			MJL	MET
3	07/2021	FOR CONSTRUCTION	MJL	MEC
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

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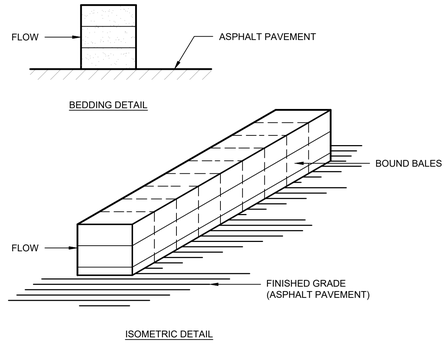
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO. 1**
DRAWING TITLE: EROSION AND SEDIMENTATION CONTROL PLAN
ORIGINAL SIZE: **ARCH D**

DATE:	JULY 2021
SCALE:	AS SHOWN
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	C-002

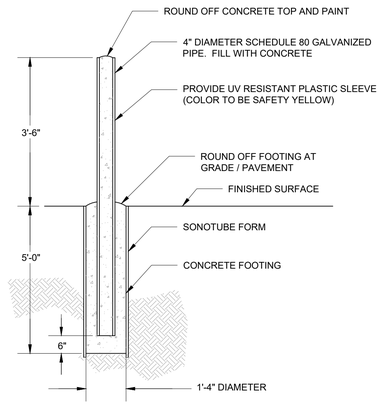


NOTES:

1. HAY BALES ARE ONLY REQUIRED WHEN EXCAVATION FOR BYPASS PIPING TAKES PLACE.
2. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
3. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED..
4. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

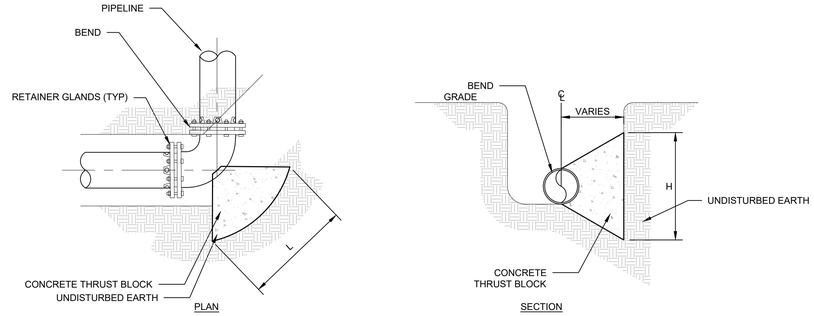
HAY BALE DETAIL

NOT TO SCALE



BOLLARD

NOT TO SCALE



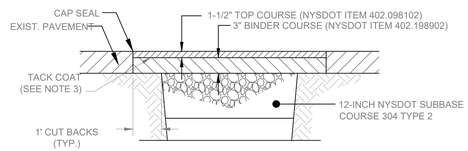
HORIZONTAL ANCHOR DIMENSIONS						
50 P.S.I. TEST PRESSURE						
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND	
	H	L	H	L	H	L
48	10'-6"	10'-5"	NA	NA	NA	NA

NOTES:

1. SIZES BASED ON 60 PSI AND 150 PSI PRESSURE IN PIPELINE AND 2,000 PSF SOIL BEARING STRENGTH.
2. ALL EXPOSED PORTIONS OF ANCHOR STRAPS TO RECEIVE A MINIMUM OF 2 FIELD COATS OF BITUMASTIC MATERIAL.
3. PRIOR TO PLACING CONCRETE, WRAP ANCHORS & ALL FITTINGS IN 8-MIL THICK POLYTHENE.
4. ALL ANCHOR RODS SHALL BE TYPE 304 STAINLESS STEEL.

HORIZONTAL THRUST BLOCKS

NOT TO SCALE



NOTES:

1. MAXIMUM PAYMENT WIDTH FOR BINDER AND TOP COURSE RESTORATION SHALL BE 8-FEET (INCLUDING 1-FOOT CUTBACKS).
2. ALL GRAVEL/STONE DRIVEWAYS SHALL BE REPLACED WITH MATCHING EXISTING MATERIAL TO A DEPTH OF 12-INCHES. MAXIMUM PAYMENT WIDTH SHALL BE 6' WIDE.
3. TACK COAT SHALL BE APPLIED TO ALL EXPOSED EDGES AND BETWEEN EVERY LIFT.

PAVING FOR DRIVEWAYS AND PARKING AREAS

NOT TO SCALE

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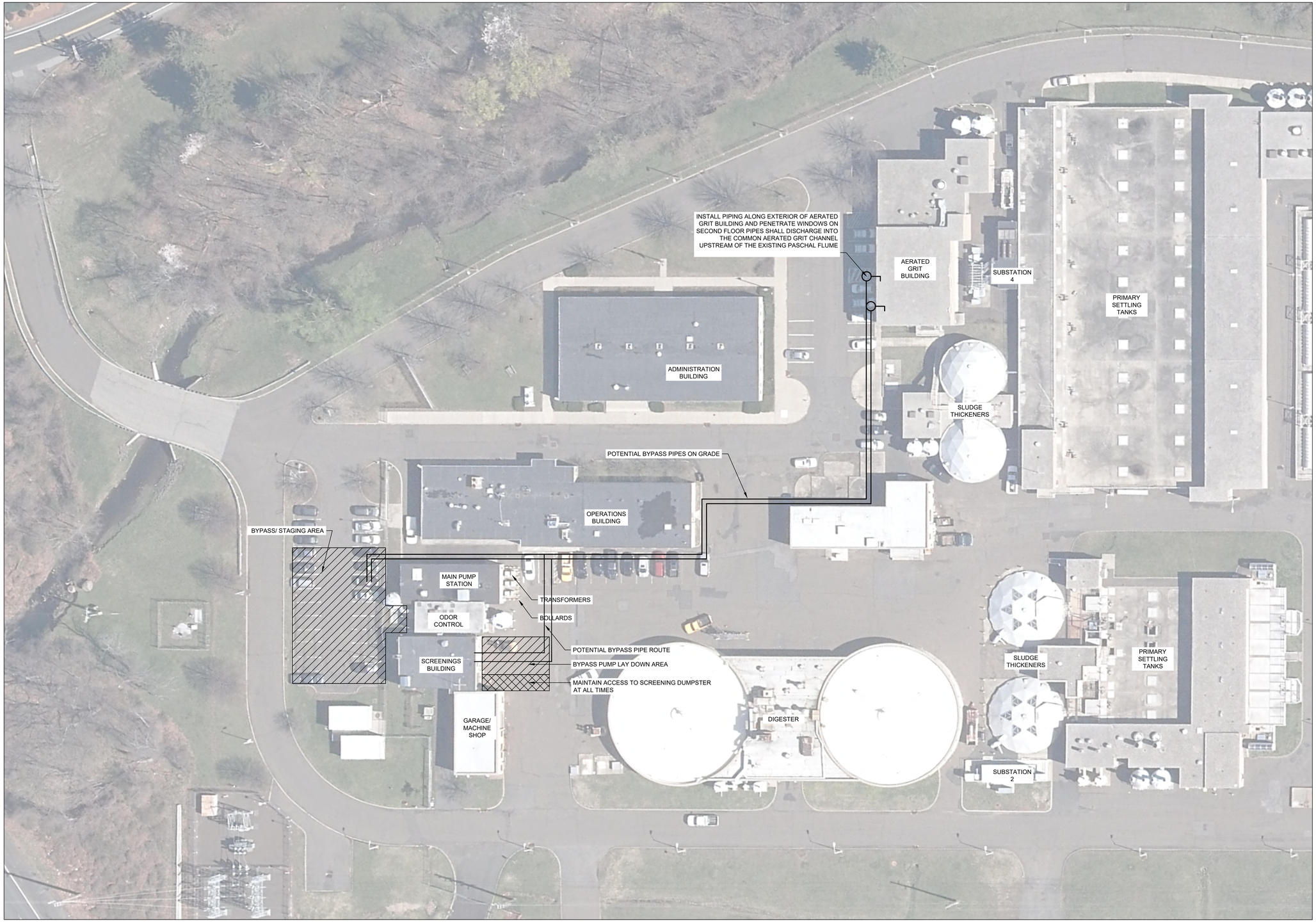
DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/2021	FOR CONSTRUCTION	MJL	MET
3	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
2	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC
1				

ORIGINAL SIZE ARCH D

PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO. 1
DRAWING TITLE: MISCELLANEOUS DETAILS

DATE:	JULY 2021
SCALE:	AS SHOWN
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	C-003



PLAN
SCALE 1" = 30'

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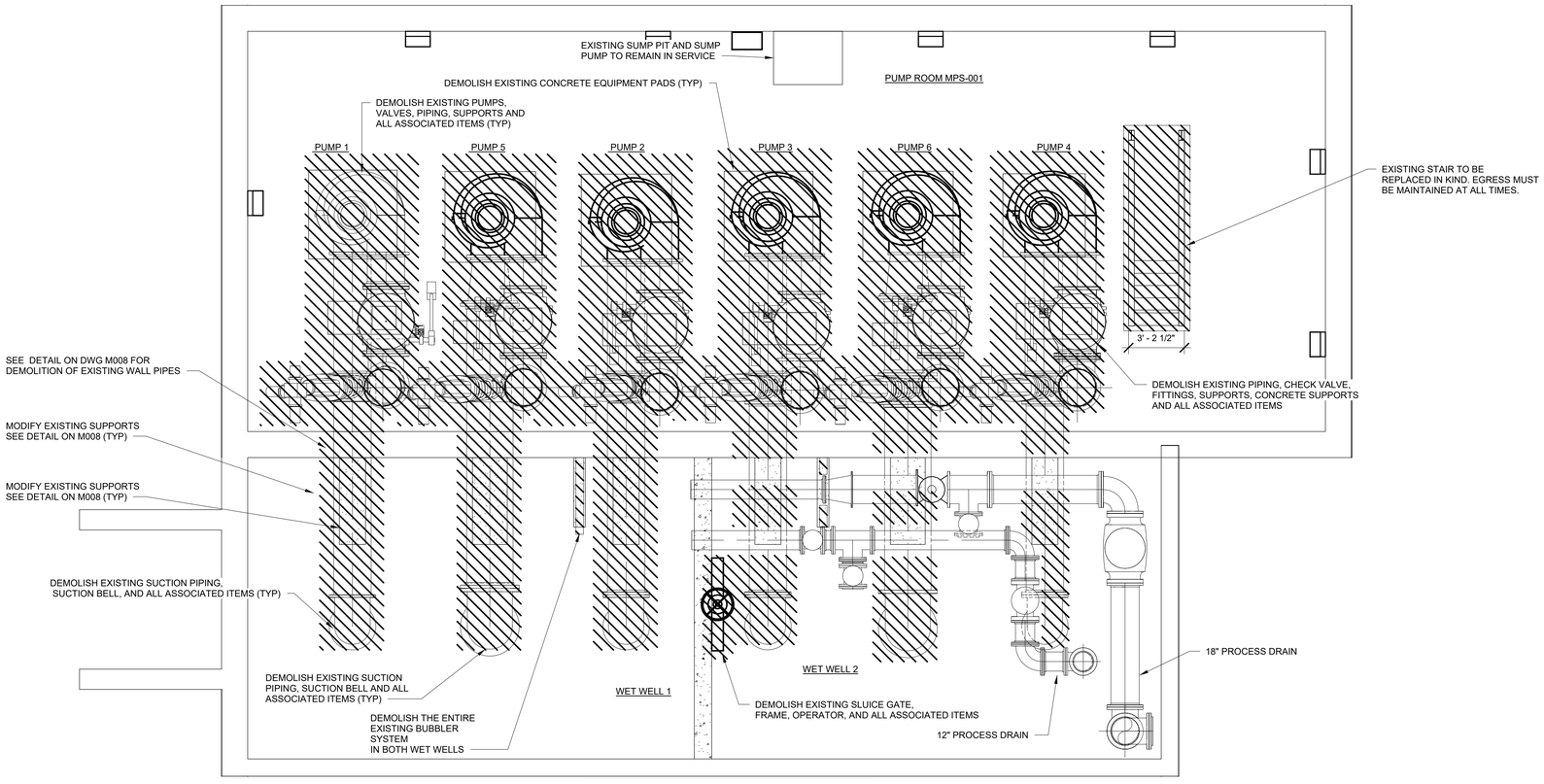
DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/2021	FOR CONSTRUCTION	MJL	MET
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO. 1**
DRAWING TITLE: BYPAS PUMPING PLAN
ORIGINAL SIZE: **ARCH D**

DATE:	JULY 2021
SCALE:	AS SHOWN
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:
C-004



LOWER LEVEL - DEMO
1/4" = 1'-0"

GENERAL DEMOLITION NOTES:

1. LIMITS OF DEMOLITION SHOWN ARE APPROXIMATE. ACTUAL LIMITS SHALL BE THE MINIMUM REQUIRED FOR COMPLETE DEMOLITION OF THE EXISTING STRUCTURE, EQUIPMENT, AND ITEMS DESIGNATED FOR REMOVAL IN THEIR ENTIRETY, AND/OR TO ALLOW FOR THE CONSTRUCTION OF ALL NEW OR REHABILITATED STRUCTURES AND EQUIPMENT. LIMITS OF DEMOLITION SHALL INCLUDE THE REMOVAL OF ALL RELATED AND/OR CONNECTED APPURTENANCES TO ITEMS DESIGNATED FOR DEMOLITION.
2. ITEMS SHOWN AS EXISTING ARE TO REMAIN UNLESS NOTED OTHERWISE.
3. EXISTING PIPE ELEVATIONS ARE SHOWN APPROXIMATE AND FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND CONDITIONS.
4. PROTECT EXISTING STRUCTURES, EQUIPMENT AND PIPING TO REMAIN DURING DEMOLITION. SUCH PROTECTION MAY INCLUDE BUT NOT BE LIMITED TO TEMPORARY ENCLOSURES. FRAMING, SHIELDING, EQUIPMENT AND APPURTENANCES. ACCESS BY PLANT PERSONNEL TO OPERATE FACILITIES, EQUIPMENT AND PIPING SHALL BE MAINTAINED AT ALL TIMES.
5. ALL DEMOLITION DEBRIS SHALL BE REMOVED AND DISPOSED OF AT A PERMITTED SOLID WASTE MANAGEMENT FACILITY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASSOCIATED TIPPING FEES, COSTS FOR REMOVAL AND PROCUREMENT OF ANY REQUIRED PERMITS AND TRANSPORTATION COSTS.
6. UNLESS SHOWN OTHERWISE, REMOVAL OF PIPING, CONVEYORS AND OTHER FACILITIES EXTENDING THOUGH WALLS AND SLABS SHALL INCLUDE THE REMOVAL OF ASSOCIATED WALL/SLAB CASTINGS, SLEEVES AND SHALL INCLUDE THE PATCHING AND SEALING OF THE OPENING AS SPECIFIED, OR AS SHOWN ON DRAWINGS.
7. REMOVAL OF BURIED PIPING, CONTRACTOR SHALL CONFIRM THE TYPE OF MATERIAL PRIOR TO REMOVAL. ASBESTOS CEMENT PIPE SHALL BE REMOVED IN ACCORDANCE WITH STATE AND FEDERAL LAWS AND THE SPECIFICATIONS.
8. PIPING AND EQUIPMENT TO BE REMOVED MAY CONTAIN LIQUIDS AND/OR RESIDUALS. REMOVAL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE REMAINING LIQUIDS AND RESIDUALS. THE RESIDUALS TO BE REMOVED ARE TYPICAL OF MUNICIPAL WASTEWATER AND MAY CONSIST OF GRIT, SCREENINGS, DEBRIS, SOLIDS, SLUDGE, FROM WITHIN THE WET WELLS AND PIPING. THE REMAINING LIQUIDS AND RESIDUALS SHALL BE DISPOSED OF OFFSITE AT A LANDFILL OR OTHER FACILITY PERMITTED FOR THEIR DISPOSAL. ONSITE DISPOSAL WILL NOT BE PERMITTED. THE CONTRACTOR SHALL NOT ALLOW ANY MATERIALS TO ENTER ANY DRAIN, GUTTER OR SUMP.
9. FLOOR DRAINS, GUTTERS, SUMPS AND CATCH BASINS SHALL BE PROTECTED AT ALL TIMES DURING DEMOLITION. FLOOR DRAINS AND GUTTERS SHALL BE MECHANICALLY CLEANED AND PROTECTED AT THE COMPLETION OF OPERATIONS IN A PARTICULAR AREA.
10. ALL EXISTING CONCRETE TO BE DEMOLISHED IS STEEL REINFORCED UNLESS OTHERWISE NOTED.
11. CONTRACTOR SHALL COORDINATE WITH OWNER/ENGINEER FOR ITEMS NOT SPECIFICALLY DESIGNATED FOR DEMOLITION THAT NECESSITATE TEMPORARY REMOVAL OR RELOCATION TO FACILITATE NEW CONSTRUCTION. REFER TO SPECIFICATIONS.
12. OWNER RESERVES THE RIGHT TO SALVAGE DEMOLISHED EQUIPMENT AND MATERIALS. CONTRACTOR SHALL COORDINATE WITH THE OWNER.
13. CONDUCT DEMOLITION IN ACCORDANCE WITH THE REQUIREMENTS OF THE SEQUENCE OF CONSTRUCTION.
14. DEMOLITION SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				MET
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

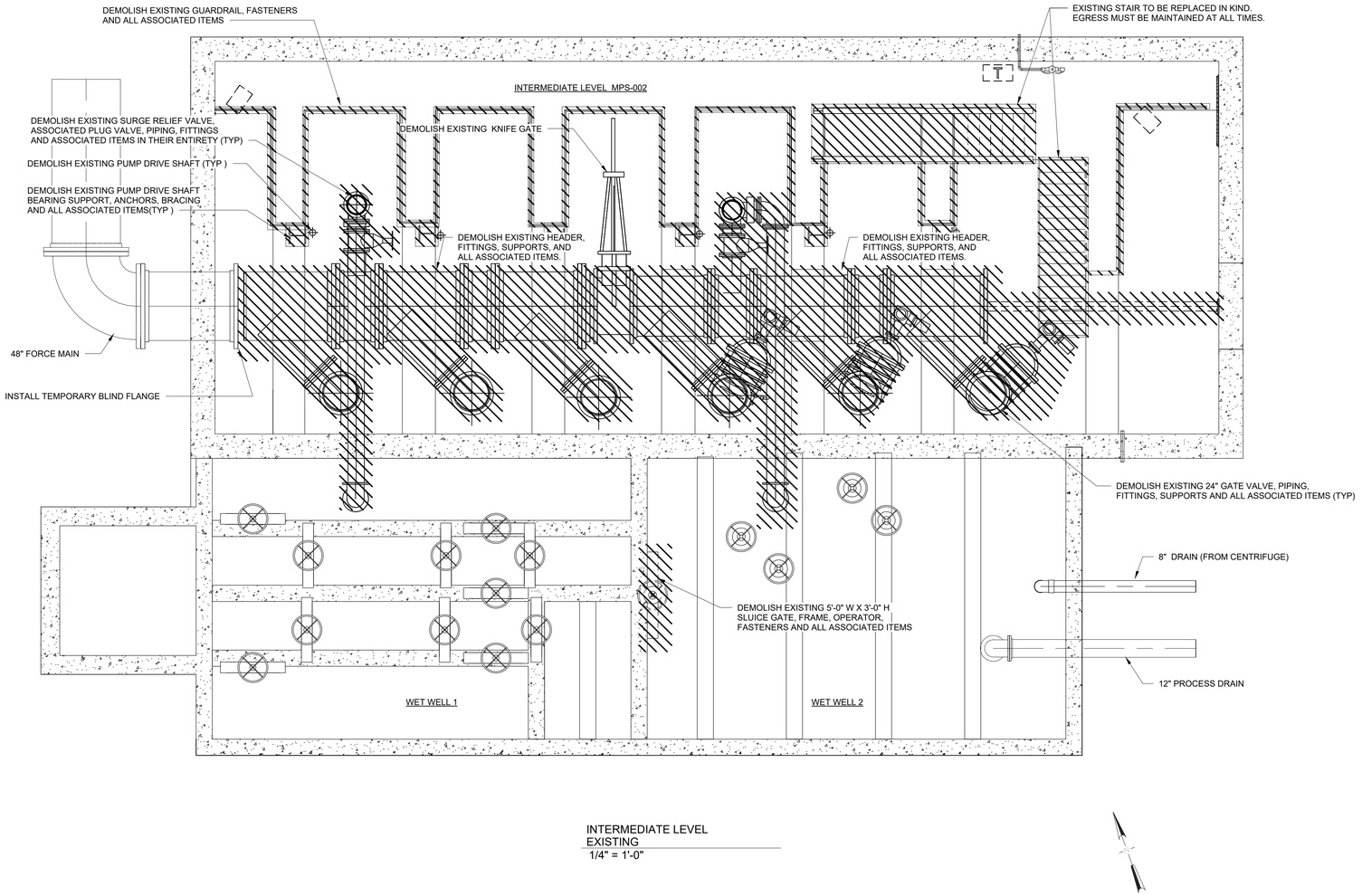
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: EXISTING PUMP STATION- LOWER LEVEL DEMOLITION PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr JobR:	19190
CONTRACT NO.	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**D-001**



INTERMEDIATE LEVEL
EXISTING
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

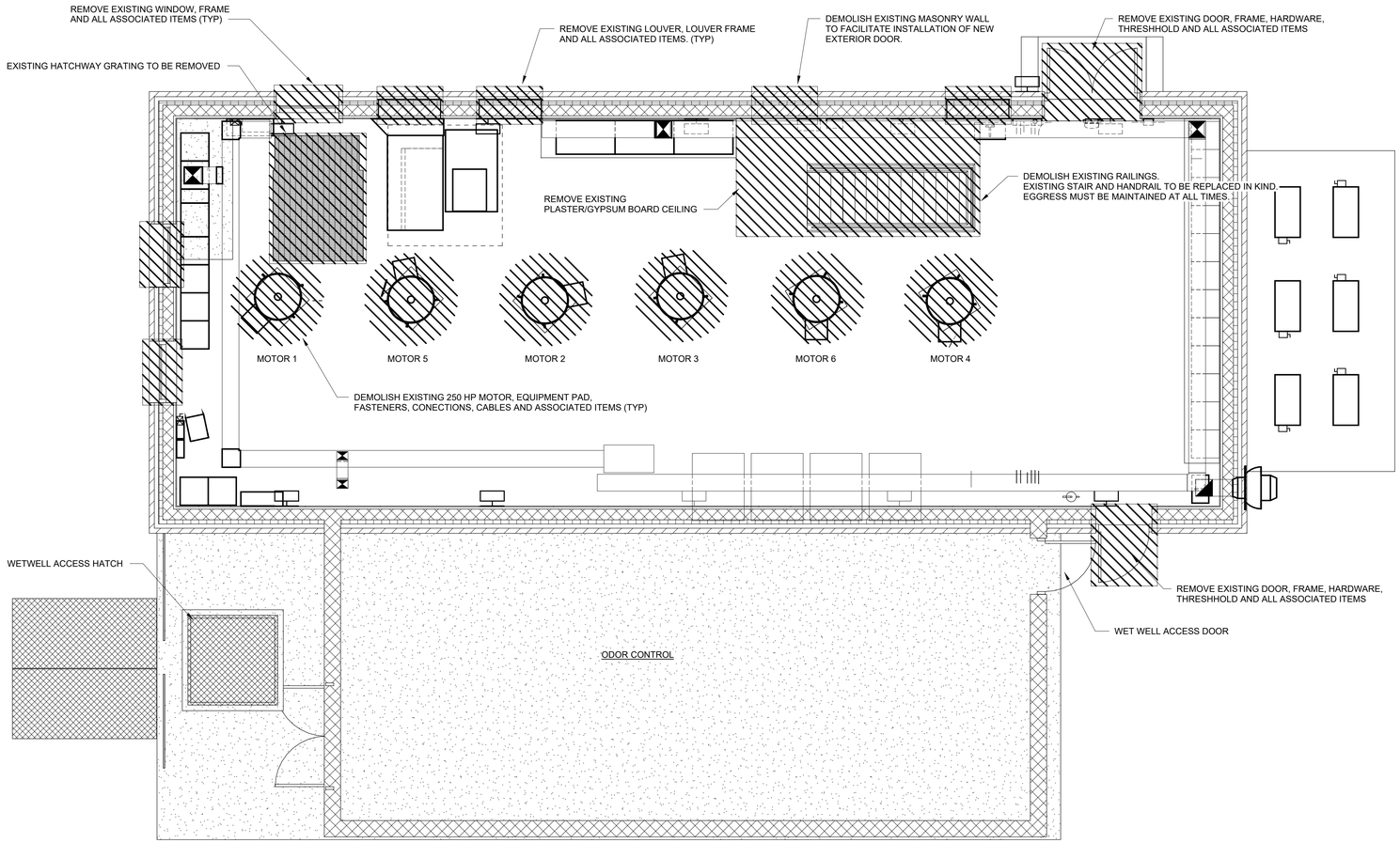
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: EXISTING PUMP STATION- INTERMEDIATE LEVEL DEMOLITION PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr JobR:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**D-002**



GROUND FLOOR PLAN - EXISTING
1/4" = 1'-0"

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Subdivision 2 also states: "Where such licensee is acting under the direction of any such licensee, he shall affix his seal and the notation 'altered by' followed by his signature and the date of such alteration, and a specific description of the alteration."

DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

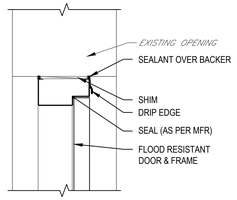
DRAWING TITLE: EXISTING PUMP STATION- GROUND FLOOR DEMOLITION PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

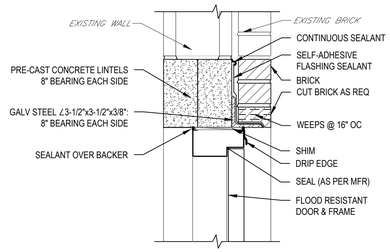
DRAWING NUMBER:

D-003



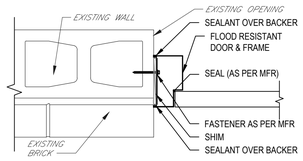
DOOR HEAD DH1

SCALE: 1 1/2" = 1'-0"



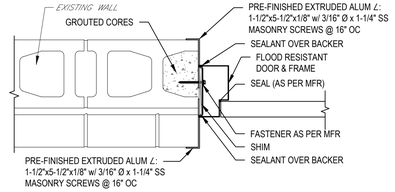
DOOR HEAD DH2

SCALE: 1 1/2" = 1'-0"



DOOR JAMB DJ1

SCALE: 1 1/2" = 1'-0"



DOOR JAMB DJ2

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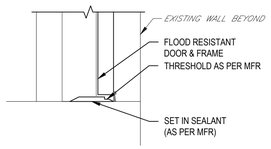
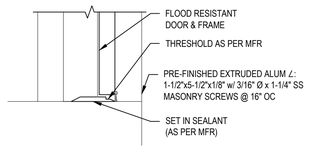


DOOR SILL DS1

SCALE: 1 1/2" = 1'-0"



DOOR SILL DS2

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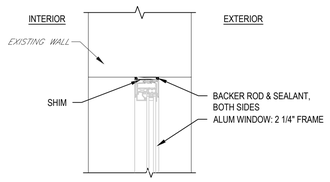
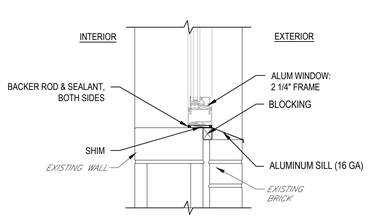


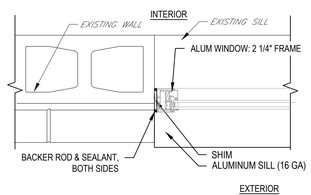
WINDOW HEAD WH1

SCALE: 1 1/2" = 1'-0"



WINDOW SILL WS1

SCALE: 1 1/2" = 1'-0"



WINDOW JAMB WJ1

SCALE: 1 1/2" = 1'-0"

STRUCTURAL DESIGN CRITERIA

(PER NEW YORK STATE BUILDING CODE 2016 IBC)

FLOOR LIVE LOADS:

STAIRWAYS AND LANDINGS	100	(PSF)
ACCESS PLATFORMS	60	(PSF)

ROOF LIVE LOADS:

MINIMUM ROOF LIVE LOAD	20	(PSF)

ROOF SNOW LOAD:

GROUND SNOW LOAD, P_g:	20	(PSF)
FLAT-ROOF SNOW LOAD, Pf:		
- BUILDING (HEATED)	22	(PSF)
SNOW EXPOSURE FACTOR, C_e:	1.0	
SNOW LOAD IMPORTANCE FACTOR, I:	1.1	
THERMAL FACTOR, C_T: (HEATED)	1.0	
(UNHEATED)	1.2	

WIND LOAD:

BASIC WIND SPEED, V_{3s}:	110	MPH
WIND EXPOSURE:	C	
INTERNAL PRESSURE COEFFICIENTS:	+/- 0.18	
DESIGN WIND PRESSURE USED FOR COMPONENTS AND CLADDING:		
@ WALL SURFACES:	+30/-33	(PSF)
@ ROOF SURFACES:	+18/-48	(PSF)

EARTHQUAKE DESIGN DATA:

SEISMIC IMPORTANCE FACTOR, I:	1.25	
RISK CATEGORY:	111	
MAPPED SPECTRAL RESPONSE ACCELERATIONS:		
S_S:	0.275g	
S_1:	0.072g	
SITE CLASS:	D	
DESIGN SPECTRAL RESPONSE ACCELERATIONS:		
S_{DS}:	0.290g	
S_{D1}:	0.116g	
SEISMIC DESIGN CATEGORY:	B	

SOIL DATA:

DESIGN FROST DEPTH	42	INCHES
DESIGN SOIL BEARING PRESSURE:	3,000	(PSF)

KEY TO FINISH ABBREVIATIONS:

ACT = ACOUSTICAL CEILING TILE
CLR = COLOR
FIN = FINISH
HT = HEIGHT
CRF = CHEMICAL RESISTANT FINISH PER SPEC SECTION 09851
PT = COATING SYSTEM PER SPEC SECTION 09900
EP = SLIP RESISTANT EPOXY COATING, SECTION 09920
F = LIQUID HARDENED FINISH ON CONCRETE, SECTION 03350
FCTY = FACTORY FINISH
GWB = GYPSUM WALLBOARD
I = SPRAYED URETHANE INSULATION WITH THERMAL BARRIER
MNFR = MANUFACTURER SUPPLIED
MATL = MATERIAL
NO = NUMBER
RB = RUBBER BASE
S = CONCRETE FLOOR SEALANT, SECTION 03350
VIF = VERIFY IN FIELD
TBD = TO BE DETERMINED
ALUM = ALUMINUM
CMU = CONCRETE MASONRY UNIT
CMUA = ACOUSTICAL CMU
CMUG = GLAZED CMU
CONC = CONCRETE (CAST-IN-PLACE)
CT = CERAMIC TILE
CCT = CERAMIC COVED TILE
EX or EXIST = EXISTING
EXP = EXPOSED UNDERSIDE OF ROOF ASSEMBLY (INCLUDES INSULATION & VAPOR RETARDER)
FRP = FIBERGLASS REINFORCED PLASTIC
FPWD = FIBERGLASS FACED PLYWOOD
GWB = GYPSUM WALL BOARD
EP = EPOXY FLOOR
PLANK = PRECAST CONCRETE PLANK
QT = QUARRY TILE
RSF = RESILIENT SHEET FLOORING
STL = STEEL
STL/C = STEEL W/ CONCRETE FILL

MATERIALS LEGEND:

- CONCRETE MASONRY
- BLOCKING OR FRAMING, CONTINUOUS
- BLOCKING OR SHIM, NOT CONTINUOUS
- PLYWOOD OR LAMINATED VENEER LUMBER
- GYPSUM DRYWALL
- RIGID INSULATION
- FIBERGLASS BATT INSULATION
- EARTH
- COMPACTED BACKFILL
- CONCRETE
- GROUT
- FERROUS OR NON-FERROUS METAL IN SECTION

DRAWING SYMBOLS:

- DB100 — DOOR NUMBER
- BLOWER ROOM / DB-100 — ROOM NAME & NUMBER
- LV-1 — LOUVER NUMBER
- FE — FIRE EXTINGUISHER
- ? / - — SECTION
- PARTIAL PLAN OR DETAIL
- ? / - — DETAIL

PARTITION SCHEDULE

A
- 5/8" FIRE-RATED GYP
- 3-5/8" METAL STUDS @ 16" OC
- 5/8" FIRE-RATED GYP

UL # U419

MAIN PUMPING STATION
BUILDING CODE SUMMERY
2015 INTERNATIONAL EXISTING BUILDING CODE

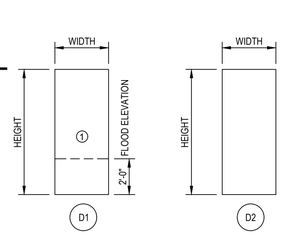
TOPIC	
ALTERATION LEVEL	ALTERATIONS - LEVEL 1 CHAPTER 7
CONFORMANCE	701.2 CONFORMANCE. AN EXISTING BUILDING OR PORTION THEREOF SHALL NOT BE ALTERED SUCH THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITIONS.
OCCUPANCY CLASSIFICATION	NO CHANGE FROM EXISTING
CONSTRUCTION TYPE: HEIGHT AND AREA	NO CHANGE FROM EXISTING

KEY TO DOOR SCHEDULE:

ALUM = ALUMINUM
CIT = CLEAR INSULATED TEMPERED GLASS
CLAM = CLEAR LAMINATED GLASS
CSG = CLEAR SAFETY GLASS
CT = CLEAR TEMPERED
CWG = CLEAR WIRE GLASS
FCTY = FACTORY FINISH
FRP = FIBERGLASS REINFORCED PLASTIC
HM = HOLLOW METAL
PT = COATING SYSTEM PER SPEC SECTION 09900
N/A or - = NOT APPLICABLE
NO. = NUMBER
STL = STEEL
THICK. = THICKNESS
WD = WOOD

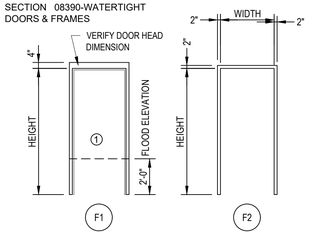
ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR MATL	FLOOR FIN	FLOOR CLR	FLOOR BASE	WALLS NORTH MATL	NORTH FIN	NORTH CLR	WALLS SOUTH MATL	SOUTH FIN	SOUTH CLR	WALLS EAST MATL	EAST FIN	EAST CLR	WALLS WEST MATL	WEST FIN	WEST CLR	CEILING MATL	CEILING FIN	CEILING CLR	CEILING HT	NOTE NO.	NOTES
MPS-001	PUMP ROOM	EXIST	EP	TBD	EP	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	24'-0"± / 11'-0"±		1. RUBBER BASE AT GYP WALLS
MPS-002	INTERMEDIATE LEVEL	EXIST	-	-	-	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	-		2. INFILL CMU TO BE PAINTED
MPS-100	MECHANICAL ROOM	EXIST	EP	TBD	EP/RB	EXIST GWB	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	EXIST	PT	TBD	11'-4"±	1,2	
MPS-101	STAIR ENCLOSURE	EXIST	EP	TBD	EP/RB	EXIST	PT	TBD	GWB	PT	TBD	EXIST	PT	TBD	GWB	PT	TBD	EXIST	PT	TBD	11'-4"±	1,2	

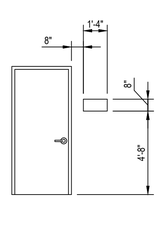


DOOR TYPES
NOT TO SCALE

① FLOOD DOOR SEE SPEC SECTION 08390-WATERTIGHT DOORS & FRAMES



FRAME TYPES
NOT TO SCALE

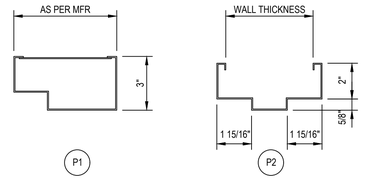


EXTERIOR ROOM ID SIGN LOCATION
NOT TO SCALE

DOOR HARDWARE SCHEDULE

HARDWARE SET No.	THRESHOLD	HINGES	LOCKSET / LATCHSET	EXIT DEVICE PANIC HARDWARE	CLOSER	OVERHEAD DOOR STOP & HOLDER	DOOR COORDINATOR	ASTRAGAL W/ WEATHERSTRIP	WEATHERSTRIPPING (HEAD,JAMB & SILL)	SILL WEATHERSTRIPPING	SMOKE TIGHT SEAL
*1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
*2	✓	✓	✓	✓	✓	✓			✓		
3	✓	✓	✓	✓	✓					✓	✓

- FINAL HARDWARE BY DOOR MANUFACTURER
- GC COORDINATE ALL KEYING AND HARDWARE WITH OWNER



FRAME PROFILES
NOT TO SCALE

DOOR SCHEDULE

DOOR NUMBER	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICK.	DOOR MATERIAL	DOOR TYPE	DOOR GLASS	DOOR FINISH	FRAME MATERIAL	FRAME TYPE	FRAME PROFILE	FRAME FINISH	DETAILS: SEE SHEET A-001 UNLESS NOTED OTHERWISE HEAD	JAMB	SILL	LABEL	HARD-WARE SET	NOTE NO.	NOTES
MPS-100	6'-0"	7'-0"	1-3/4"	HM	D1	-	PT	HM	F1	P1	PT	DH1	DJ1	DS1		1	1-2-3	1. FLOOD DOOR SEE SPEC SECTION 08390-WATERTIGHT DOORS & FRAMES
MPS-101	3'-0"	7'-0"	1-3/4"	HM	D1	-	PT	HM	F1	P1	PT	DH1	DJ1	DS1		2	1-2	2. VERIFY DOOR FRAME HEAD DIMENSION
MPS-102	3'-0"	7'-0"	1-3/4"	HM	D1	-	PT	HM	F1	P1	PT	DH2	DJ2	DS2		2	1-2	
MPS-103	3'-0"	7'-0"	1-3/4"	HM	D2	-	PT	HM	F2	P2	PT	DH3	DJ3	DS3	B	3		3. SEE PLANS FOR ACTIVE DOOR

- FINAL HARDWARE BY DOOR MANUFACTURER
- GC COORDINATE ALL KEYING AND HARDWARE WITH OWNER

edr
Environmental Design & Research,
Landscape Architecture, Engineering & Environmental Services, D.P.C.
217 Montgomery Street, Suite 1000
Syracuse, New York 13202
P. 315.471.0688

STATE OF NEW YORK — MICHELE M. EADDY — 073773 — LICENSED PROFESSIONAL ENGINEER

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The following is paraphrased from the New York Education Law, Article 145, Section 7209, Subdivision 2: "It is a violation of this Section, and applies to this Drawing, for any person, unless acting under the direction of a licensed professional engineer, licensed landscape architect or land surveyor, to alter in any way any item bearing the seal of an engineer, landscape architect or land surveyor. If an item bearing the seal of an engineer, landscape architect or land surveyor is altered, the altering engineer, landscape architect or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration and a specific description of the alteration."

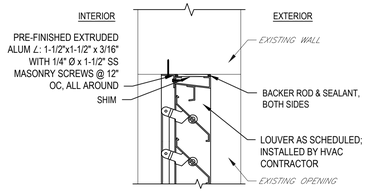
NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/2021	FOR CONSTRUCTION	MJL	MEC
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

DRAWING REVISIONS

ORIGINAL SIZE ARCH D

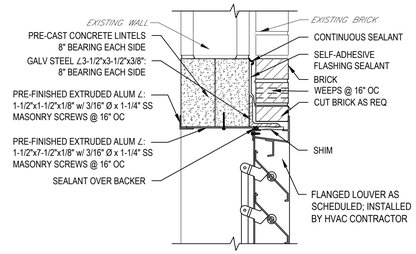
PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO. 1
DRAWING TITLE: ARCHITECURAL NOTES, SCHEDULES, DETAILS

DATE:	JULY 2021
SCALE:	AS NOTED
DRAWN:	MJS
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	A-001



LOUVER HEAD LH1

SCALE: 1 1/2" = 1'-0"



LOUVER HEAD LH2

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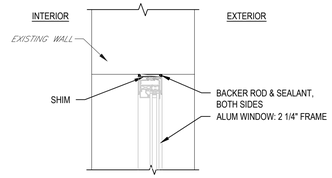
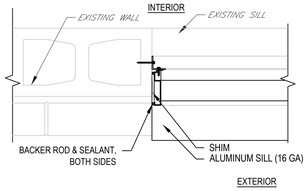


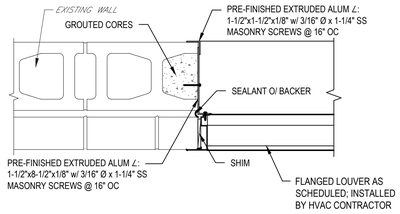
WINDOW HEAD WH1

SCALE: 1 1/2" = 1'-0"



LOUVER JAMB LJ1

SCALE: 1 1/2" = 1'-0"



LOUVER JAMB LJ2

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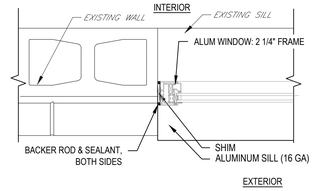
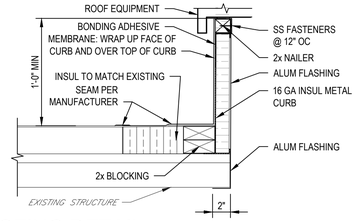


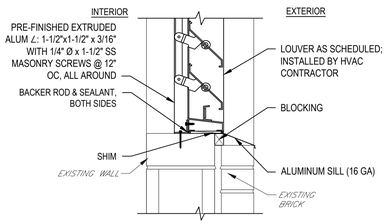
WINDOW JAMB WJ1

SCALE: 1 1/2" = 1'-0"



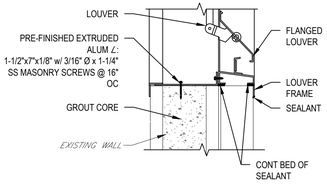
2 ROOFING DETAIL

SCALE: 1 1/2" = 1'-0"



LOUVER SILL LS1

SCALE: 1 1/2" = 1'-0"



LOUVER SILL LS2

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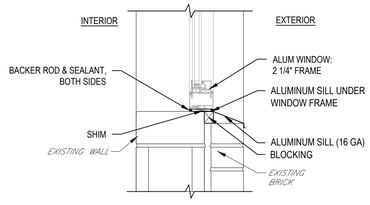
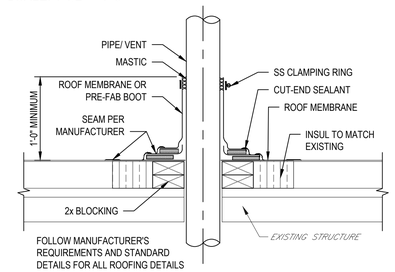


WINDOW SILL WS1

SCALE: 1 1/2" = 1'-0"



3 ROOFING DETAIL

SCALE: 1 1/2" = 1'-0"

LOUVER NOTES:

LOUVER ACCESSORIES, INCLUDING MOUNTING ANGLES & SILL FLASHINGS FOR LOUVERS, ARE TO BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR. FASTENERS, SHIMS & OTHER ACCESSORIES FOR LOUVER INSTALLATION ARE ALSO TO BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR, EXCEPT THAT HEAD FLASHINGS & EXTERIOR CASING TYPE TRIMS ARE TO BE FURNISHED & INSTALLED BY THE GENERAL CONSTRUCTION CONTRACTOR. SEALANTS ARE INSTALLED BY THE DAMPPROOFING, WATERPROOFING AND SEALANT SUBCONTRACTOR.

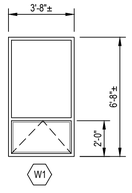
LOUVER FLASHING & MOUNTING ANGLE DIMENSIONS & CONFIGURATIONS, AS WELL AS FINISHES AND FINISH COLORS, ARE TO BE AS SHOWN BY THE DETAILS REFERENCED BY THE LOUVER INSTALLATION SCHEDULE IN THE ARCHITECTURAL DRAWINGS, & AS INDICATED BY THE EXTERIOR FINISH SCHEDULE IN THE ARCHITECTURAL DRAWINGS.

LOUVERS ARE TO BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR IN COMPLIANCE WITH 15940, THE LOUVER & MOTOR OPERATED DAMPER SCHEDULE IN THE HVAC DRAWINGS, & OTHER INFORMATION SHOWN IN THE HVAC DRAWINGS. LOUVER FINISHES & FINISH COLORS ARE TO BE AS INDICATED BY THE EXTERIOR FINISH SCHEDULE IN THE ARCHITECTURAL DRAWINGS.

LOUVER INSTALLATION SCHEDULE

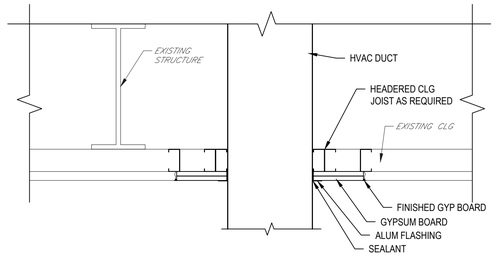
NOTE: COORDINATE WITH SHEET HVAC SHEETS AND SPECIFICATIONS FOR LOUVER REQUIREMENTS

LOUVER NO.	LOCATION (SEE PLAN & ELEVATIONS)	DETAILS: THIS SHEET		
		HEAD DETAIL	SILL DETAIL	JAMB DETAIL
MPS-LV-1	SOUTH ELEVATION	LH1	LS1	LJ1



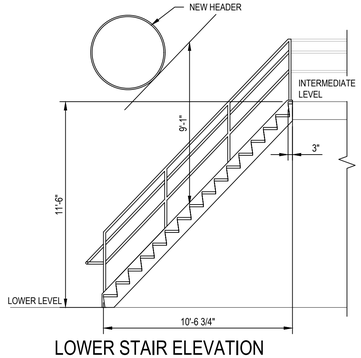
WINDOW TYPES

NOT TO SCALE



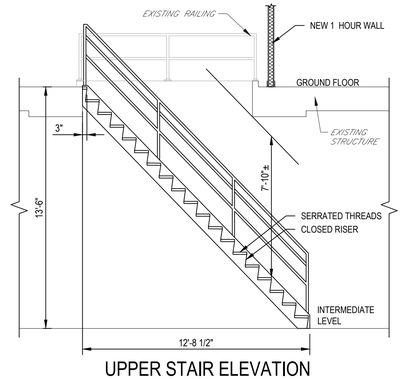
CEILING PENETRATION

SCALE: 1 1/2" = 1'-0"



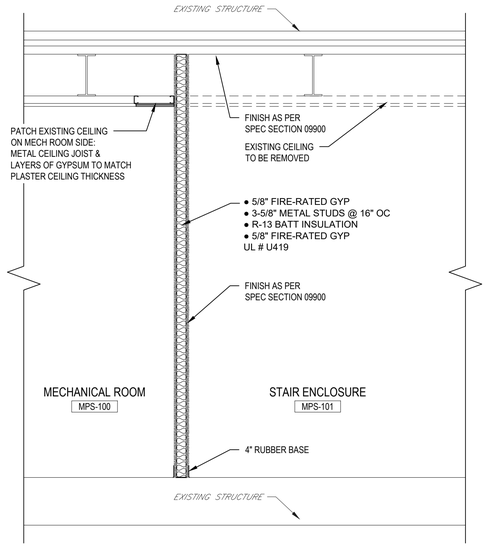
LOWER STAIR ELEVATION

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



UPPER STAIR ELEVATION

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



GYPSUM WALL DETAIL

SCALE: 1/2" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/2021	FOR CONSTRUCTION	MJL	MET
3	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
2	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC
1				

ORIGINAL SIZE ARCH D

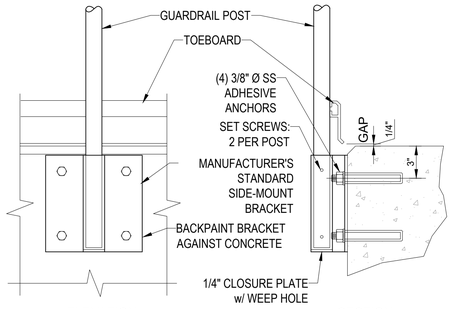
PROJECT TITLE: MAIN PUMP STATION UPGRADE

CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO. 1

DRAWING TITLE: DOOR, WINDOW, AND LOUVER DETAILS

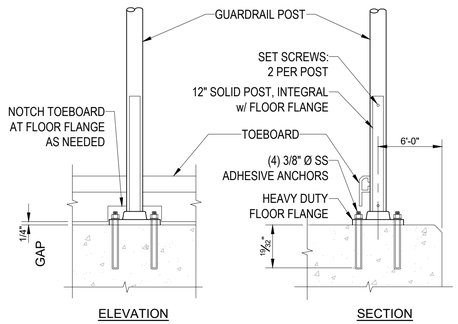
DATE:	JULY 2021
SCALE:	AS NOTED
DRAWN:	MJS
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER: A-002



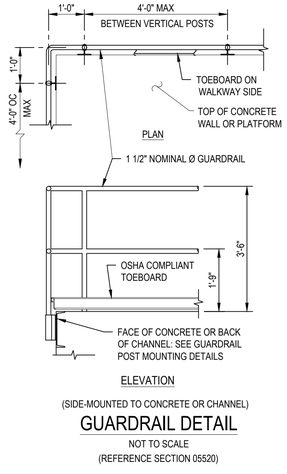
GUARDRAIL SIDE MOUNT TO CONCRETE

NOT TO SCALE



GUARDRAIL TOP MOUNT ON CONCRETE

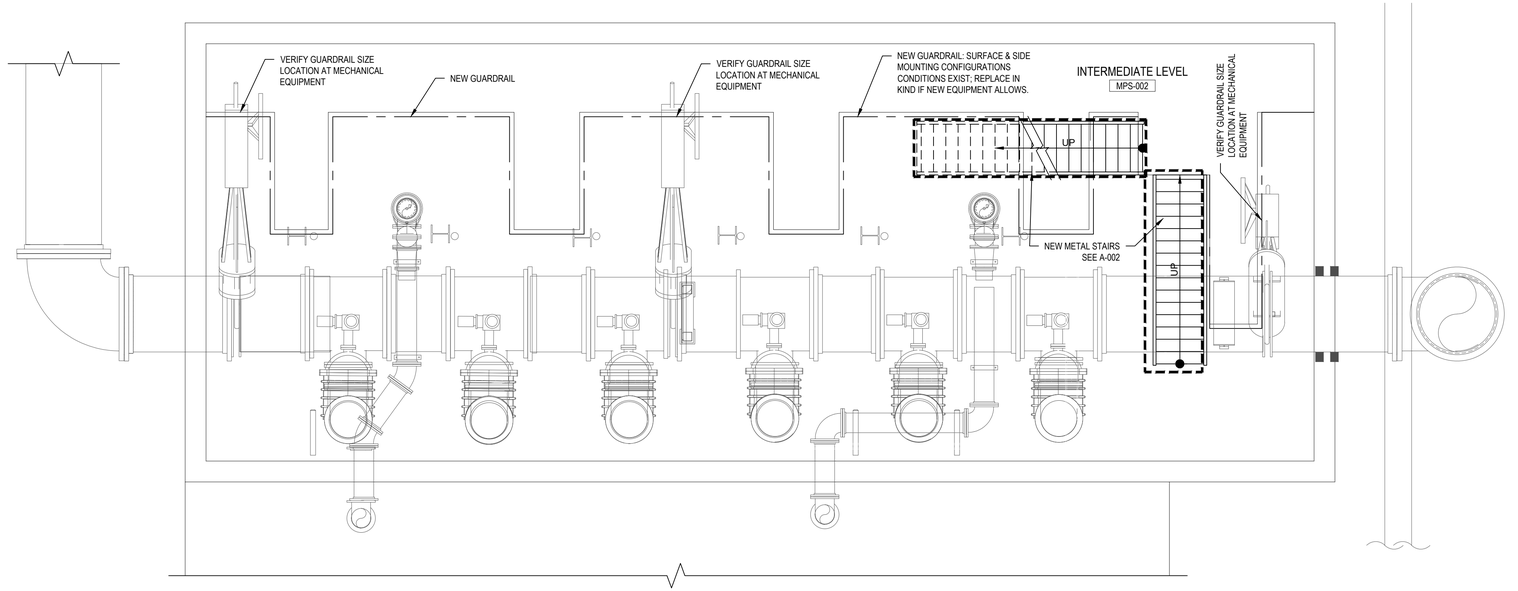
NOT TO SCALE



GUARDRAIL DETAIL

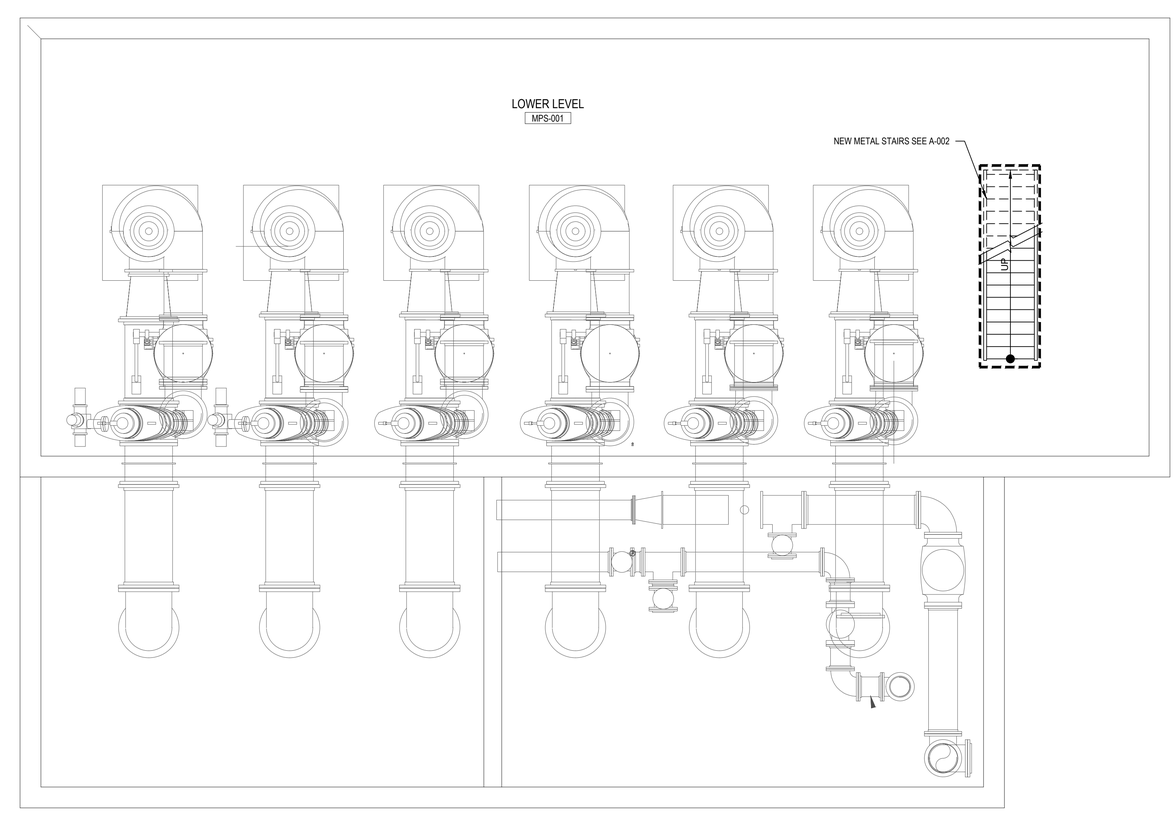
NOT TO SCALE

(REFERENCE SECTION 05520)



INTERMEDIATE LEVEL PLAN

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



LOWER LEVEL PLAN

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

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				MET
3	07/2021	FOR CONSTRUCTION	MJL	MEC
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO. 1**

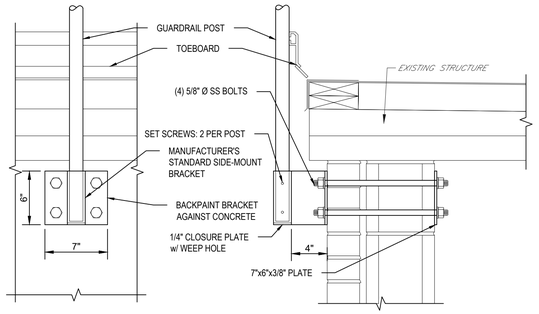
DRAWING TITLE: PUMP STATION - LOWER LEVEL AND INTERMEDIATE LEVEL PLANS

ORIGINAL SIZE: **ARCH D**

DATE:	JULY 2021
SCALE:	AS NOTED
DRAWN:	MJS
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

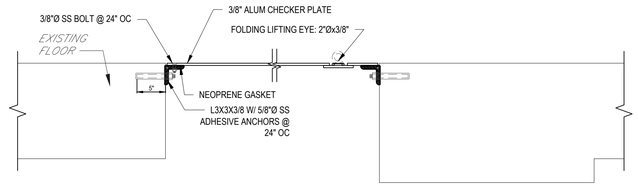
DRAWING NUMBER:

A-003



GUARDRAIL SIDE MOUNT TO STRUCTURE

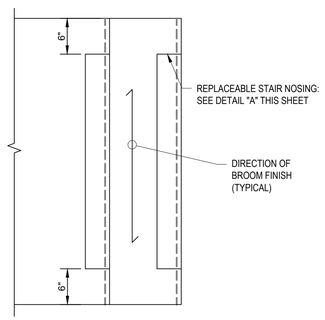
SCALE: 1 1/2" = 1'-0"



3 A-004

FLOOR OPENING DETAIL

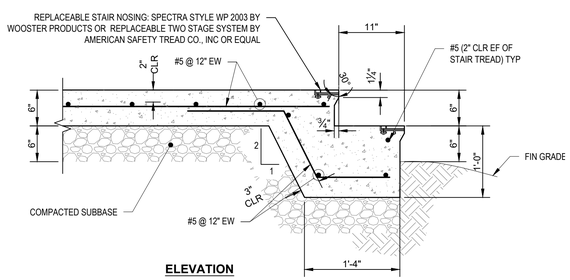
SCALE: NTS



2 A-004

CONCRETE NOSING DETAIL

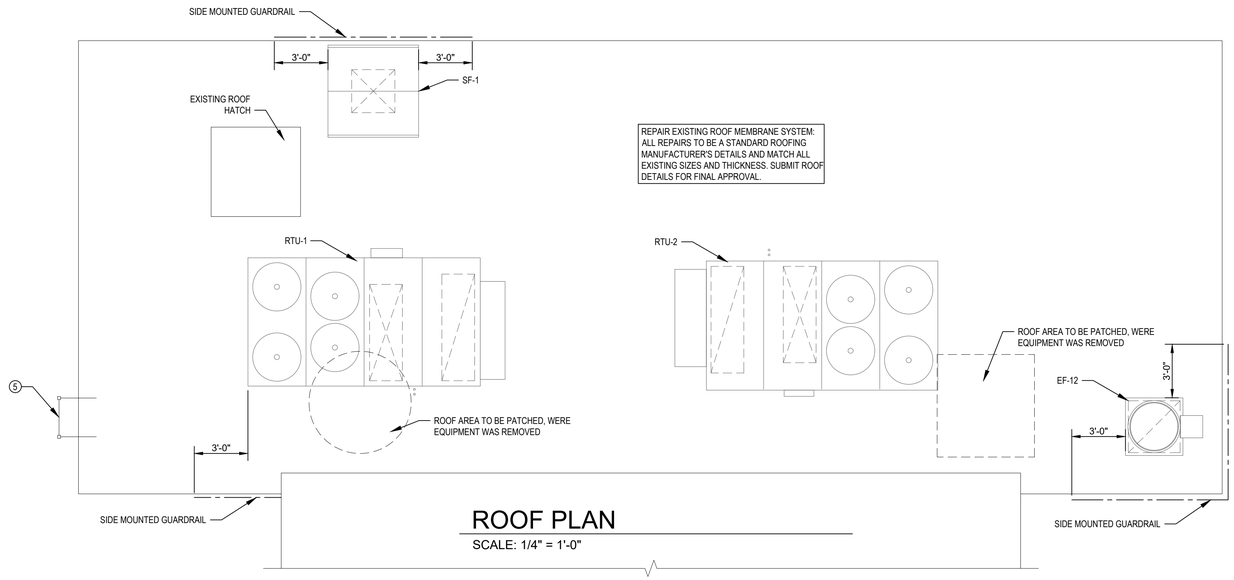
SCALE: NTS



1 A-004

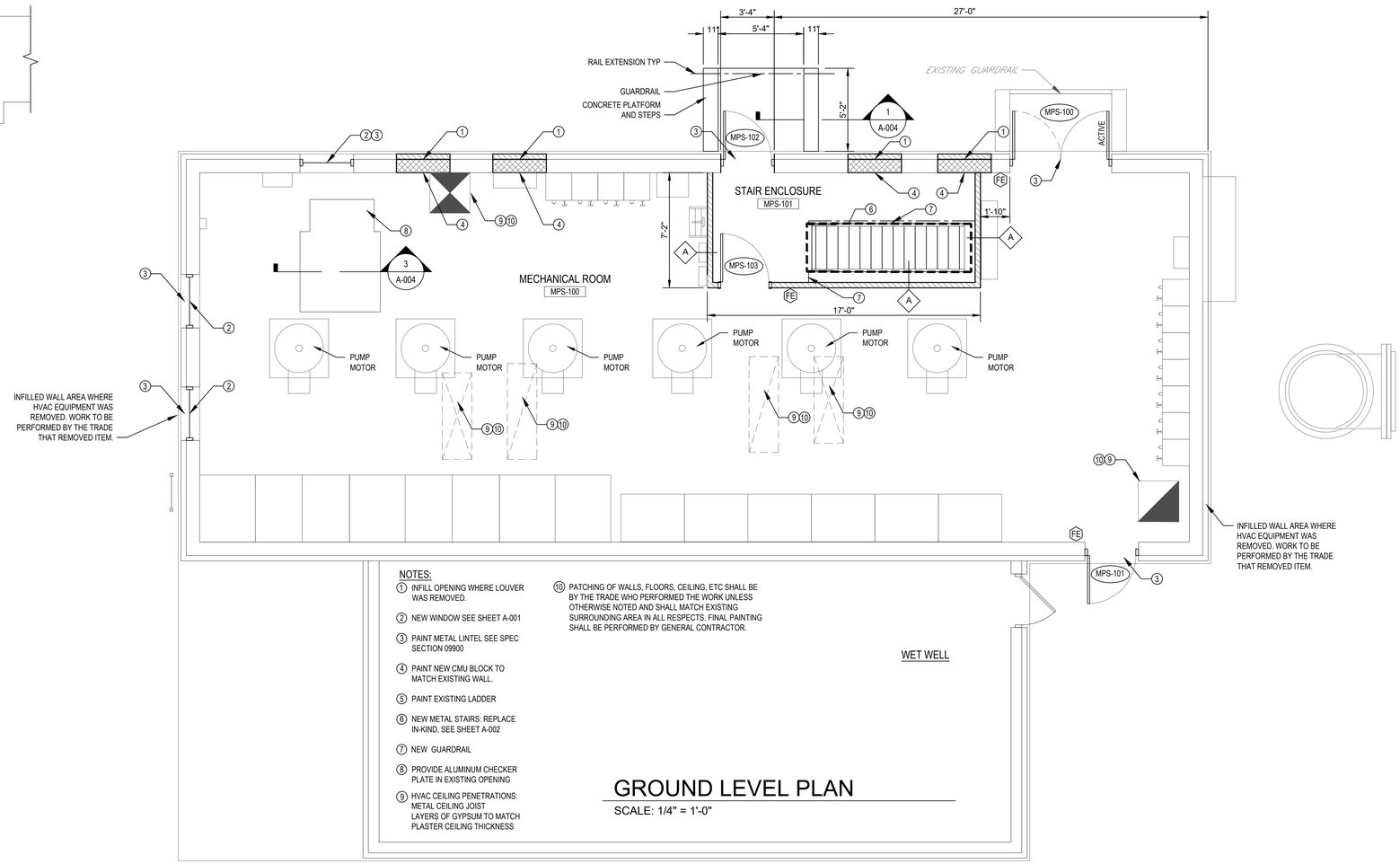
CONCRETE PLATFORM DETAIL

SCALE: 1" = 1'-0"



ROOF PLAN

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



NOTES:

1. INFILL OPENING WHERE LOUVER WAS REMOVED.
2. NEW WINDOW SEE SHEET A-001
3. PAINT METAL LINTEL SEE SPEC SECTION 09900
4. PAINT NEW CMU BLOCK TO MATCH EXISTING WALL.
5. PAINT EXISTING LADDER
6. NEW METAL STAIRS: REPLACE IN-KIND, SEE SHEET A-002
7. NEW GUARDRAIL
8. PROVIDE ALUMINUM CHECKER PLATE IN EXISTING OPENING
9. HVAC CEILING PENETRATIONS: METAL CEILING JOIST LAYERS OF GYPSUM TO MATCH PLASTER CEILING THICKNESS
10. PATCHING OF WALLS, FLOORS, CEILING, ETC SHALL BE BY THE TRADE WHO PERFORMED THE WORK UNLESS OTHERWISE NOTED AND SHALL MATCH EXISTING SURROUNDING AREA IN ALL RESPECTS. FINAL PAINTING SHALL BE PERFORMED BY GENERAL CONTRACTOR.

GROUND LEVEL PLAN

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

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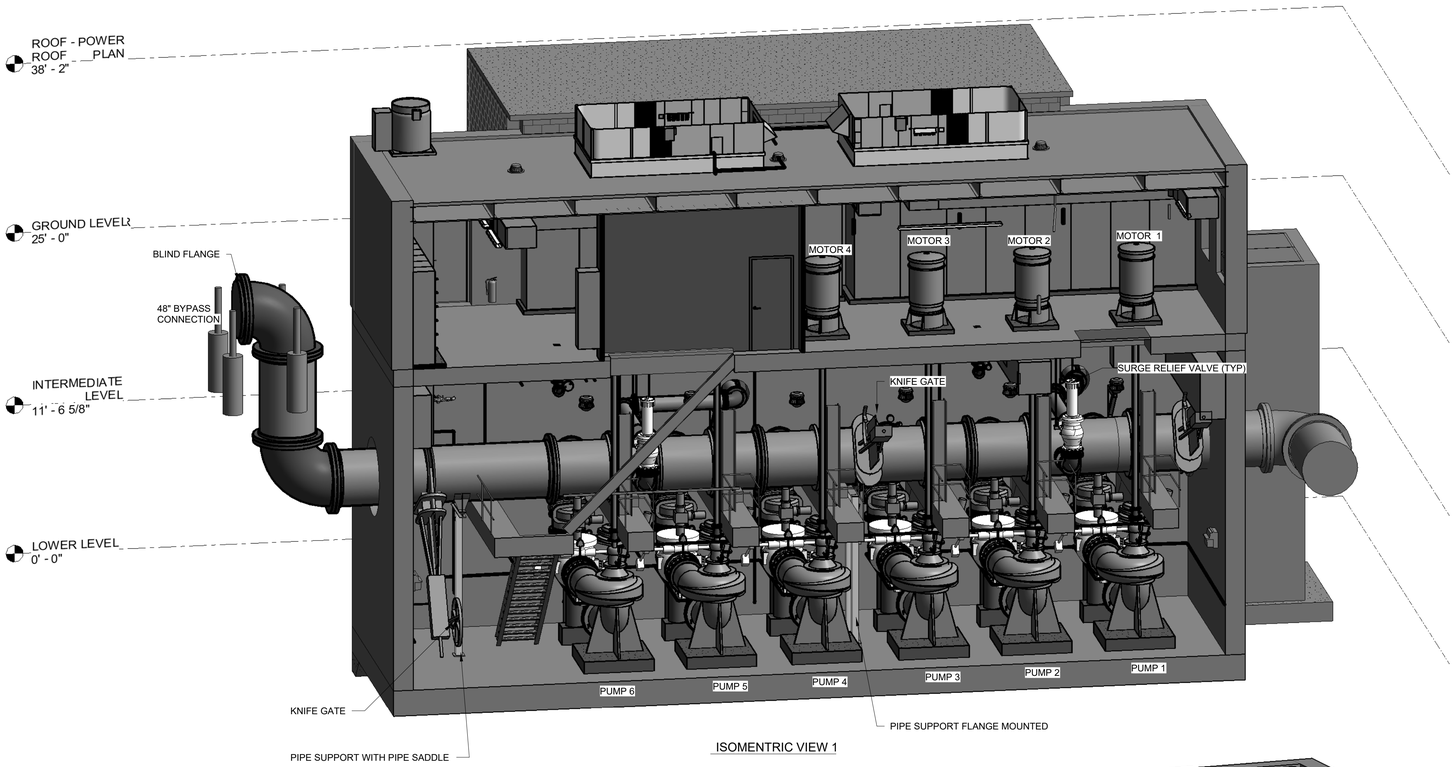
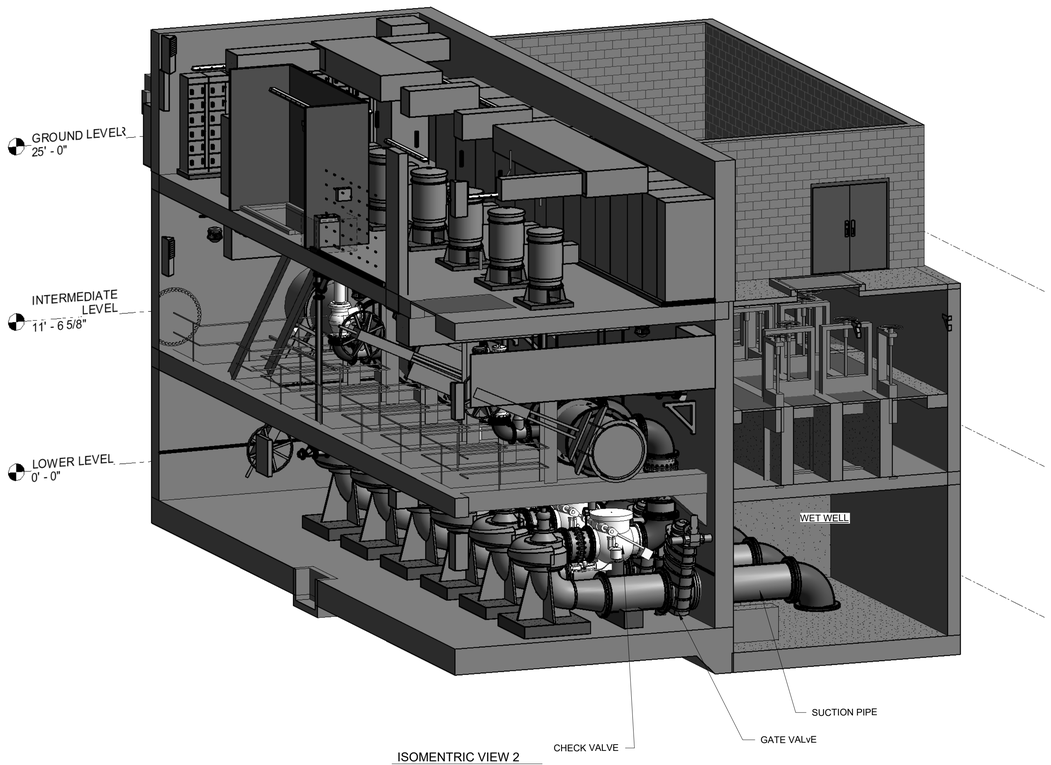
NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			MJL	MEC
3	07/2021	FOR CONSTRUCTION	MJL	MEC
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO. 1**
DRAWING TITLE: PUMP STATION - GROUND FLOOR AND ROOF PLANS
ORIGINAL SIZE: **ARCH D**

DATE:	JULY 2021
SCALE:	AS NOTED
DRAWN:	MJS
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	A-004



ISOMENTRIC VIEW 1



ISOMENTRIC VIEW 2

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

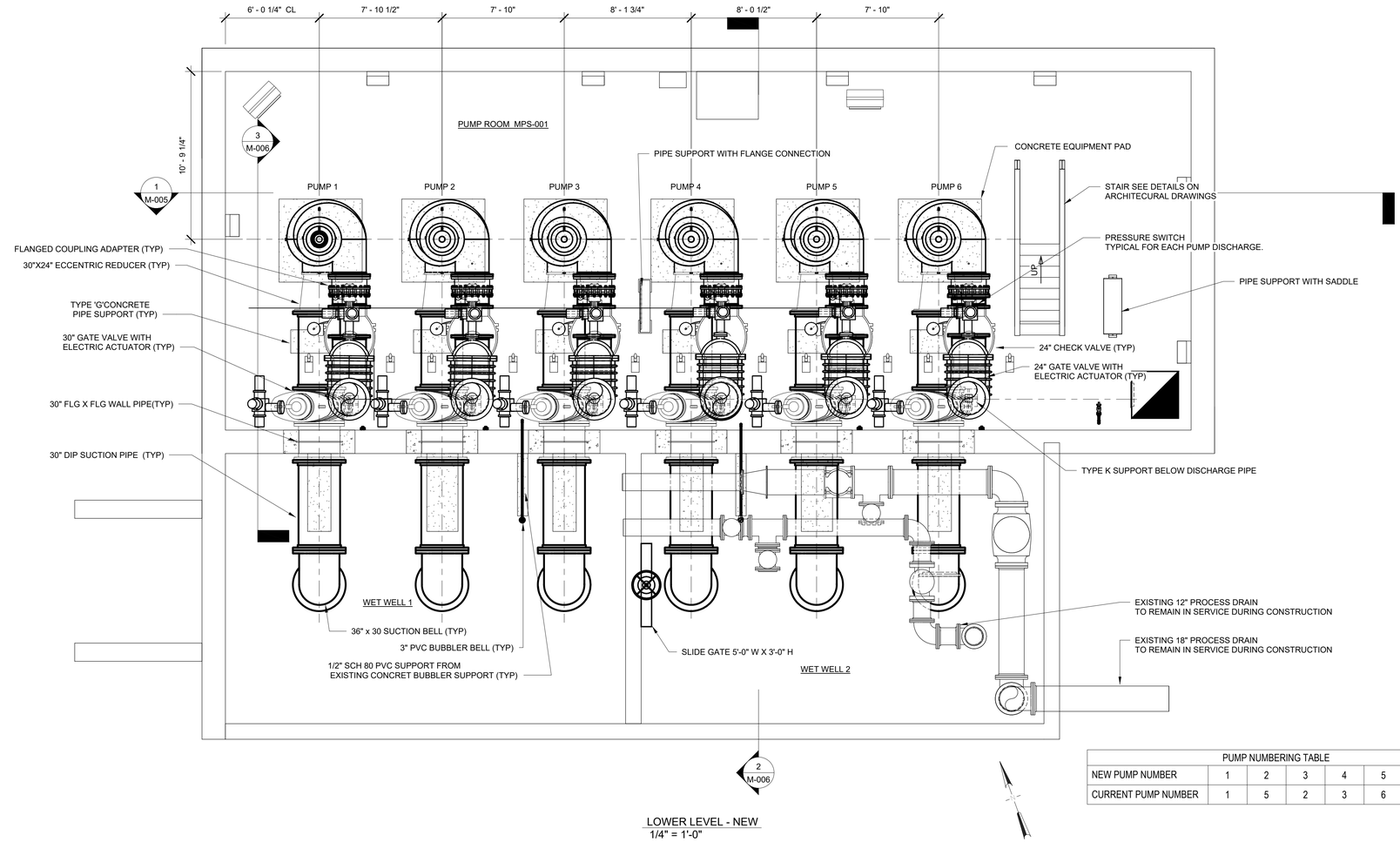
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - ISOMETRIC VIEW

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**M-001**



LOWER LEVEL - NEW
1/4" = 1'-0"

PUMP NUMBERING TABLE						
NEW PUMP NUMBER	1	2	3	4	5	6
CURRENT PUMP NUMBER	1	5	2	3	6	4

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	MJL	MET
3	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
2	04/20	60 PERCENT DESIGN REVIEW	MJL	MET
1				

DRAWING REVISIONS

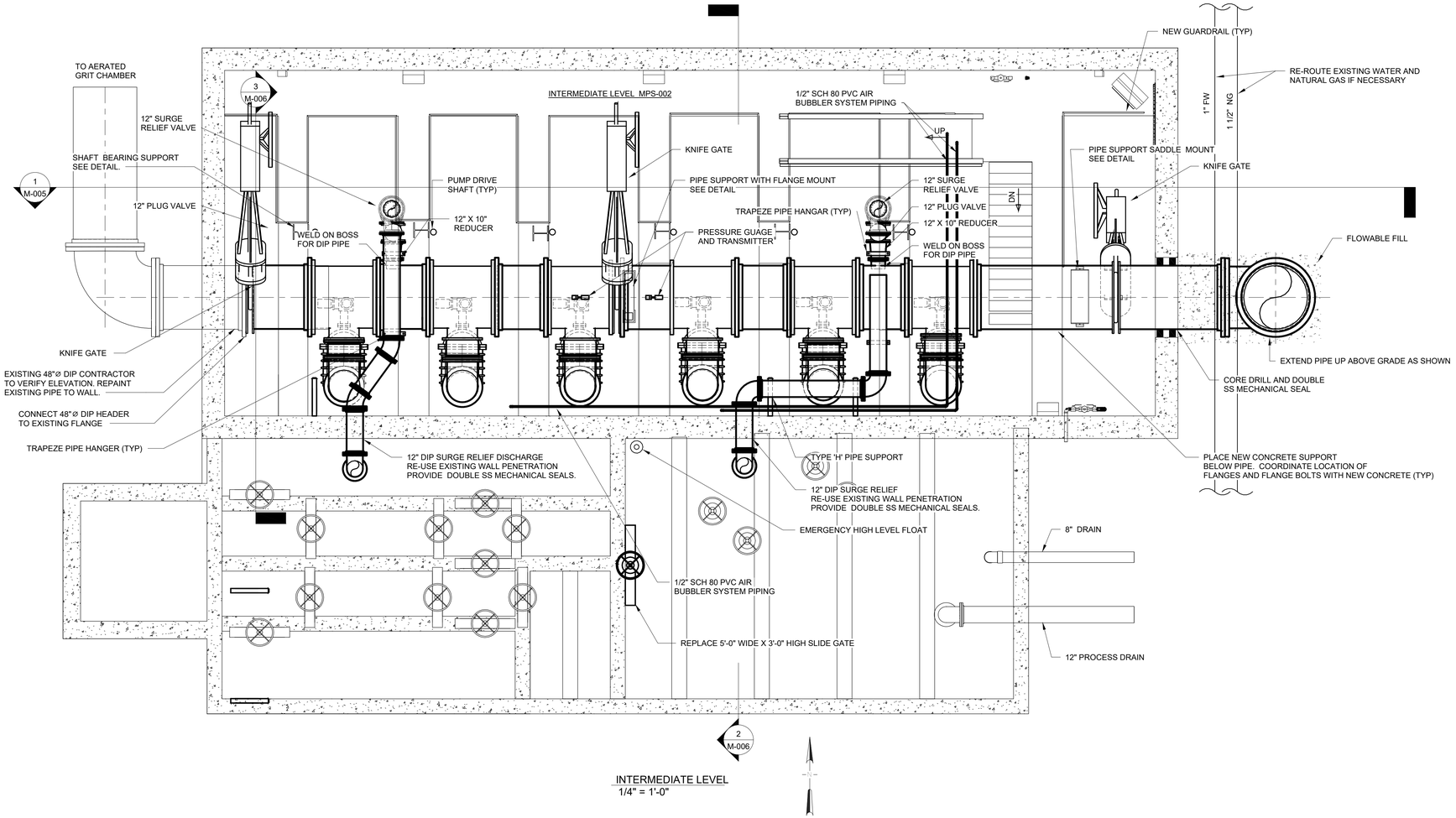
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - LOWER LEVEL - PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**M-002**



INTERMEDIATE LEVEL
1/4" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			MJL	MET
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

DRAWING REVISIONS

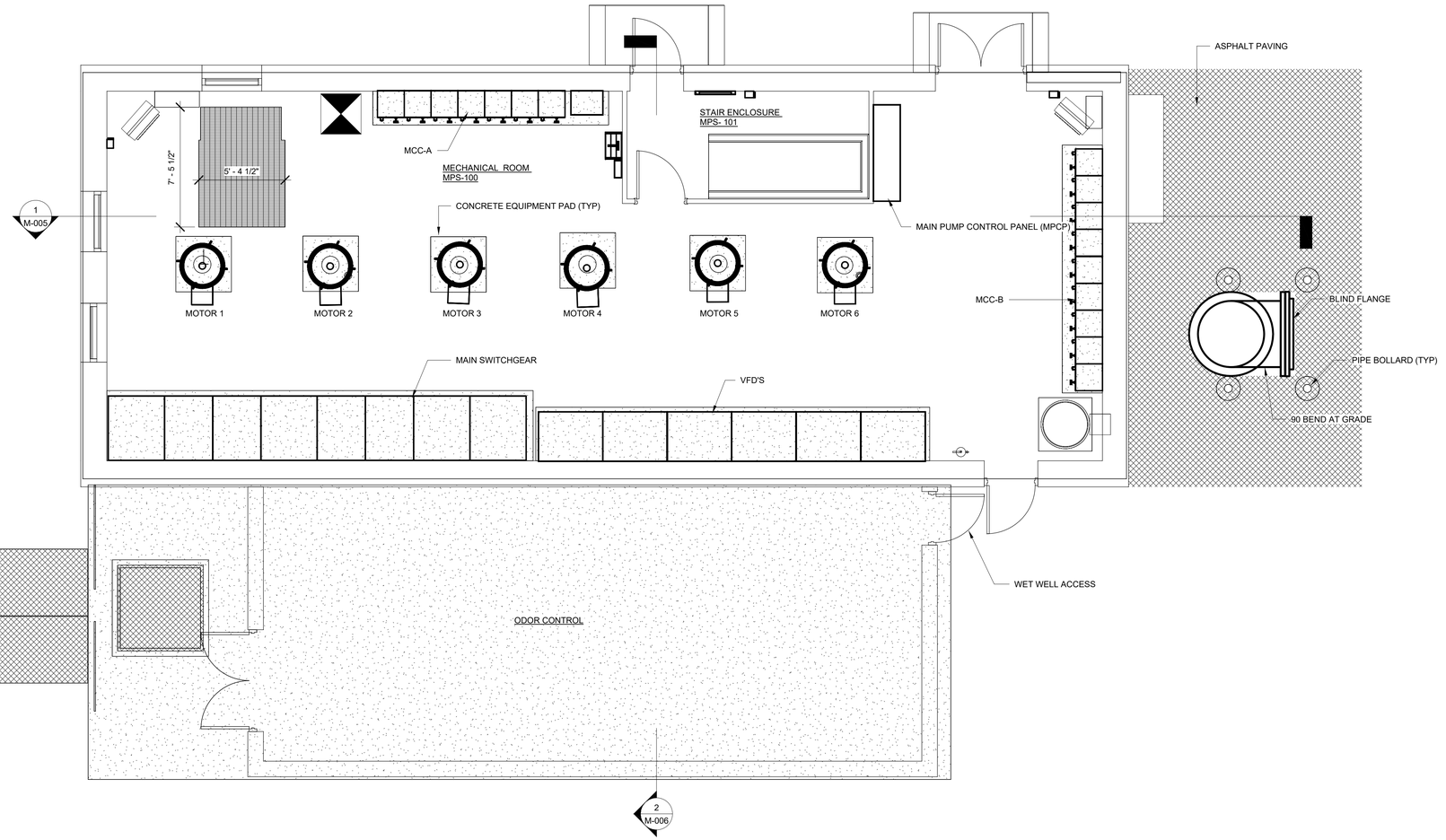
ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION -INTERMEDIATE LEVEL PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**M-003**



GROUND FLOOR PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

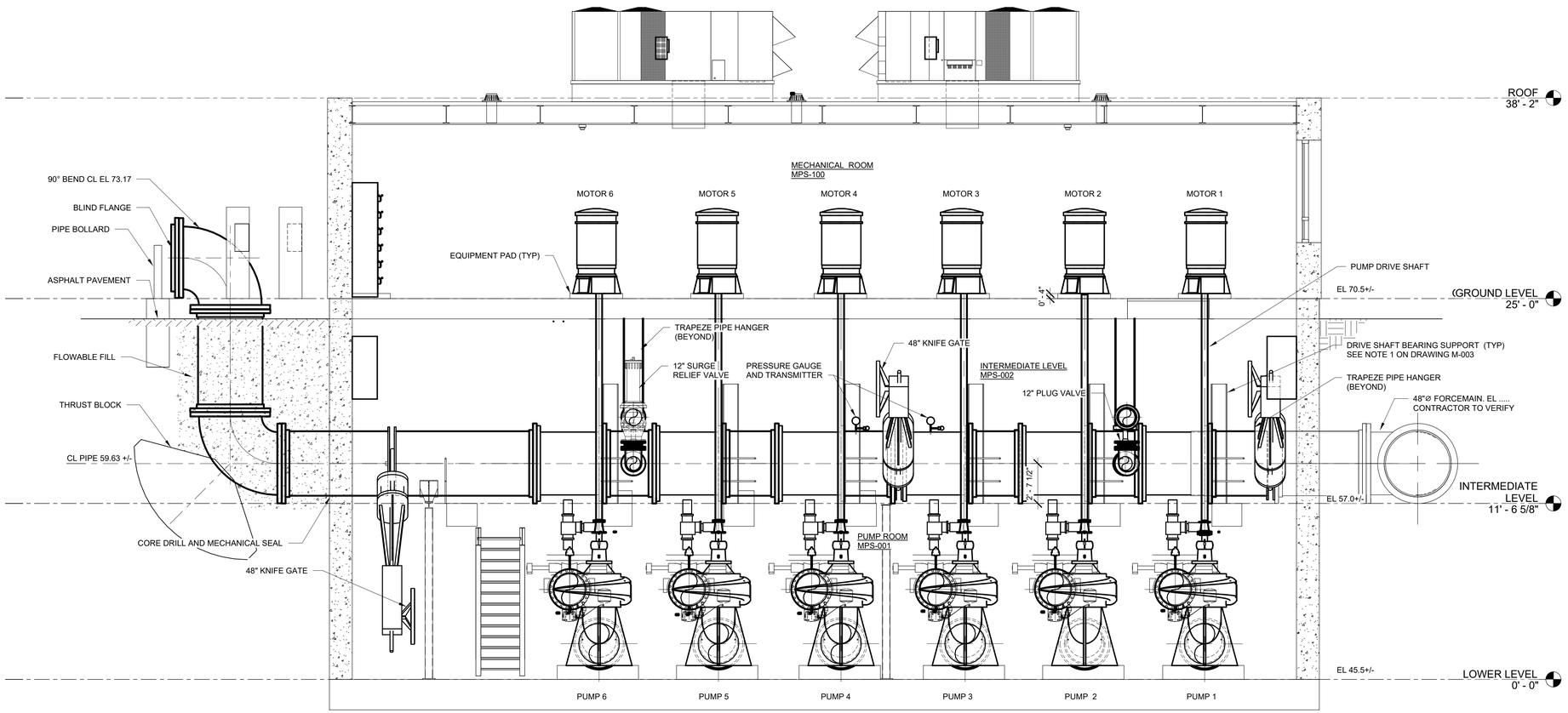
ORIGINAL SIZE
ARCH D

PROJECT TITLE:
MAIN PUMP STATION UPGRADE

CLIENT:
ROCKLAND COUNTY SEWER DISTRICT NO 1

DRAWING TITLE:
PUMP STATION - GROUND FLOOR- PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**M-004**



1 / M-005 SECTION
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

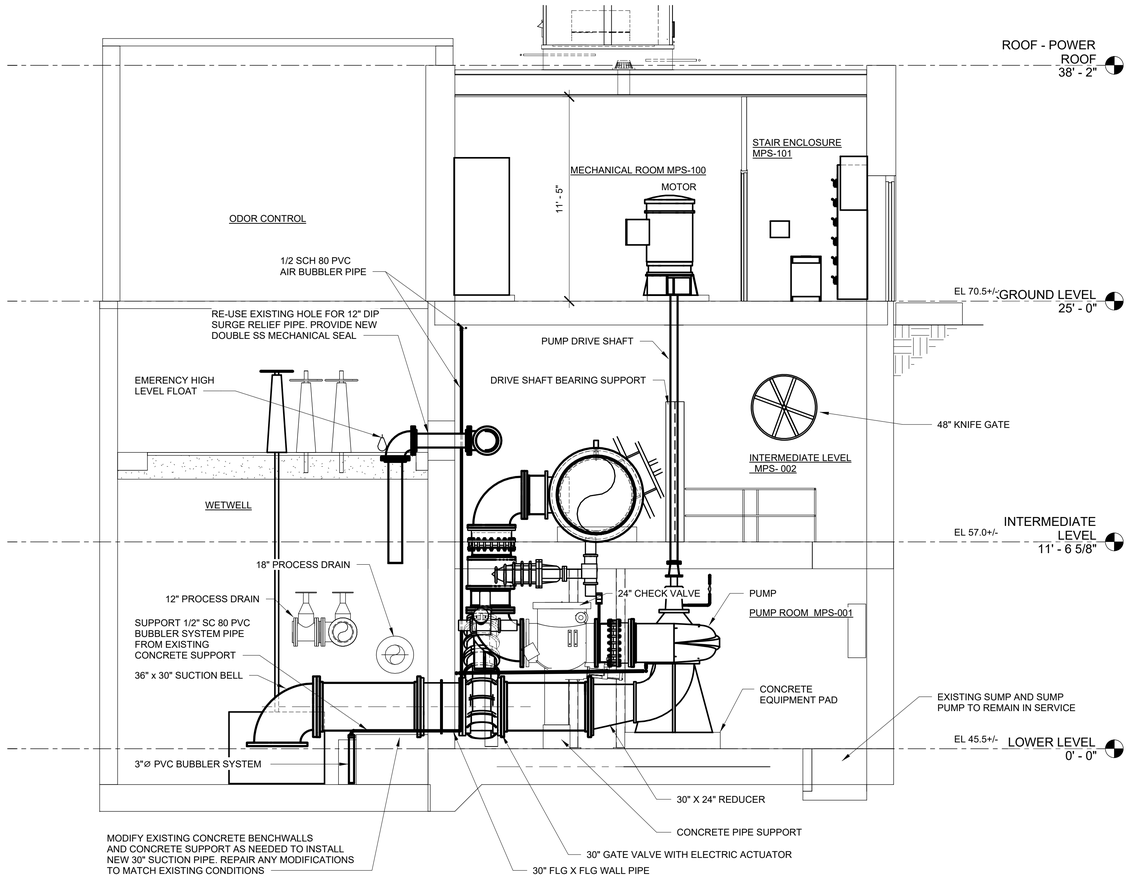
DRAWING TITLE: PUMP STATION - SECTIONS

ORIGINAL SIZE **ARCH D**

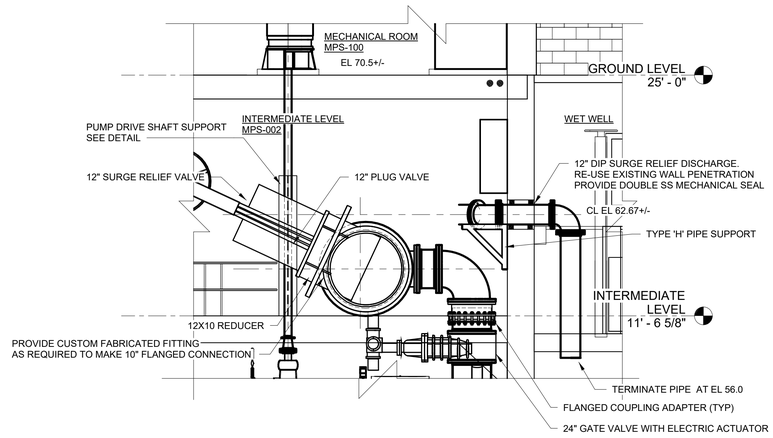
DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

M-005



2 M-006 SECTION 1/4" = 1'-0"



3 M-006 SECTION 1/4" = 1'-0"

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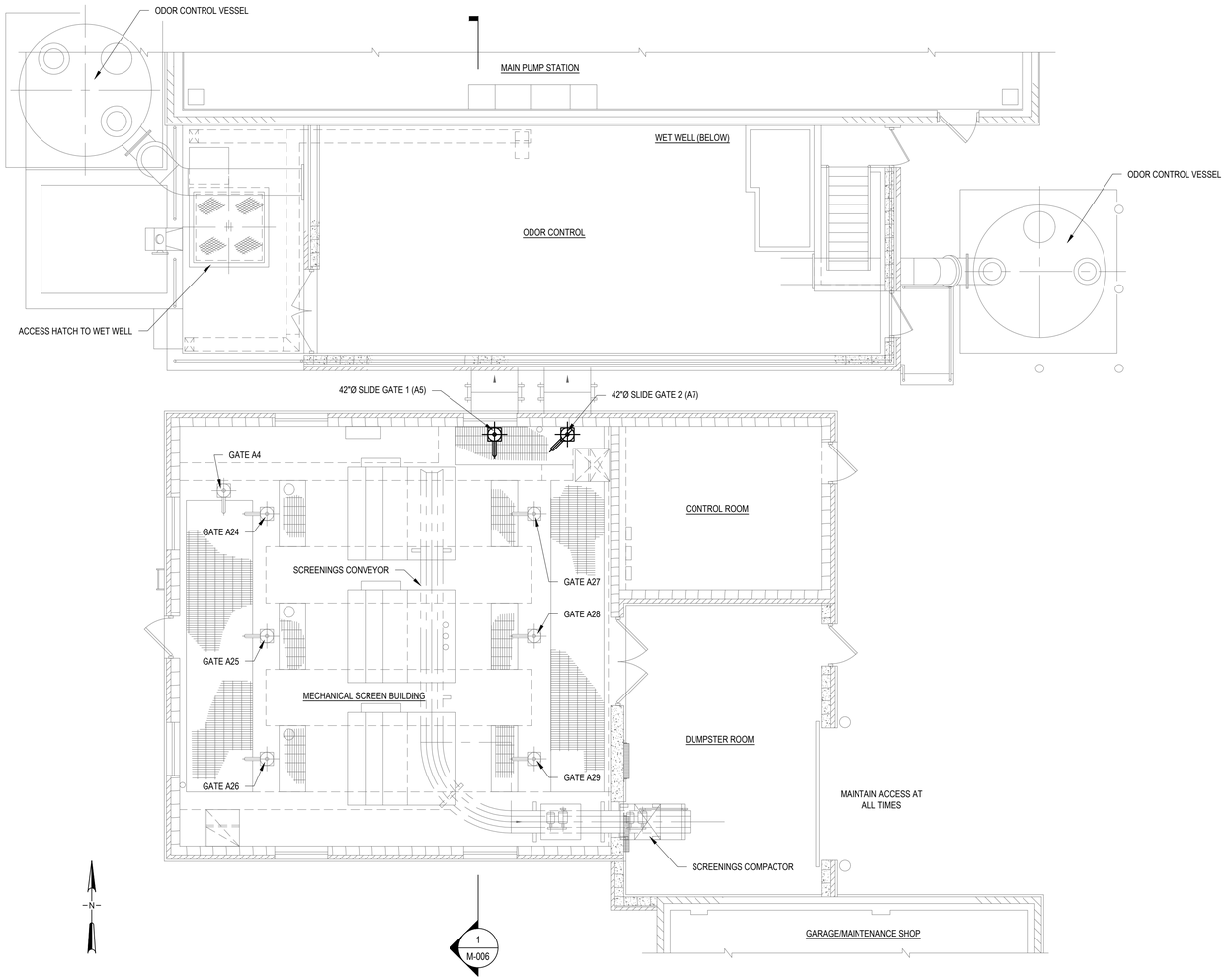
NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	MJL	MET
2	10/20	100 PERCENT DESIGN REVIEW	MJL	MET
1	04/20	60 PERCENT DESIGN REVIEW	MJL	MET

DRAWING REVISIONS

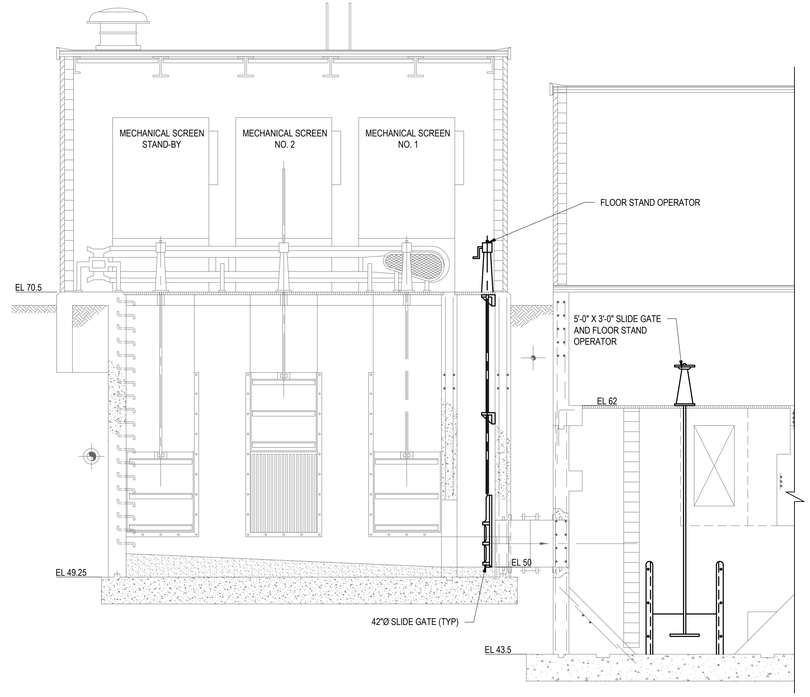
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO 1
DRAWING TITLE: PUMP STATION - SECTIONS
ORIGINAL SIZE **ARCH D**

DATE: JULY 2021
SCALE: 1/4" = 1'-0"
DRAWN: MJL
CHECKED: RRS
edr JobR: 19190
CONTRACT NO. RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:
M-006



PLAN

SCALE: 3/8" = 1'-0"



1 M-006 SECTION

SCALE: 3/8" = 1'-0"

0 2'-0" 4'-0" 6'-0"

SCALE 3/8"=1'-0" AT ORIGINAL SIZE

Environmental Design & Research,
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217 Montgomery Street, Suite 1000
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P. 315.471.0688

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/2021	FOR CONSTRUCTION	MJL	MET
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

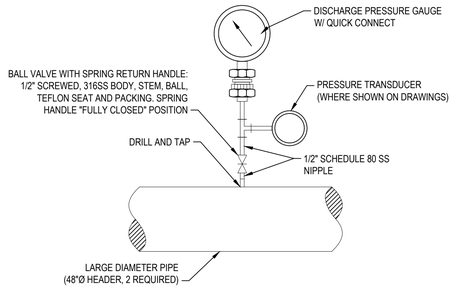
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO. 1**

DRAWING TITLE: SCREENINGS BUILDING GATE REPLACEMENT PLAN AND SECTION

DATE:	JULY 2021
SCALE:	AS NOTES
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

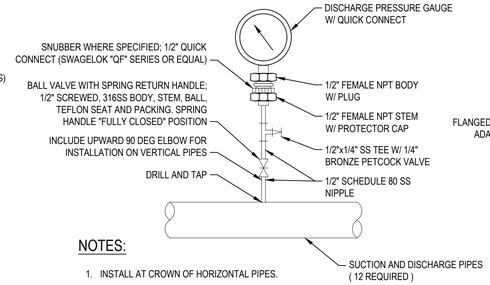
M-007



NOTES:

1. USE LOW VOLUME FITTINGS.
2. FOR USE ON LARGE DIAMETER PIPES

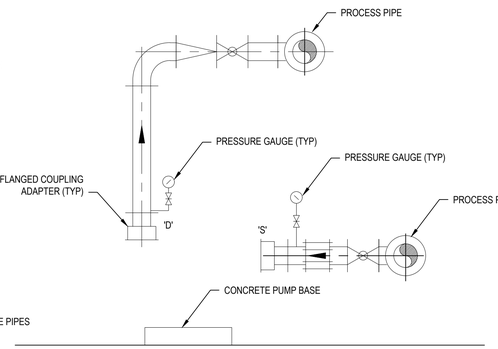
PRESSURE GAUGE - LIQUID SERVICE
NOT TO SCALE



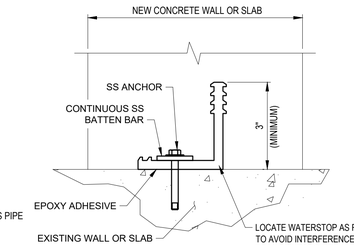
NOTES:

1. INSTALL AT CROWN OF HORIZONTAL PIPES.
2. INSTALLATION OF PRESSURE GAUGE SHOWN APPLIES TO HORIZONTAL OR VERTICAL PIPING ARRANGEMENTS.
3. USE LOW VOLUME FITTINGS.

PRESSURE GAUGE - LIQUID SERVICE
NOT TO SCALE

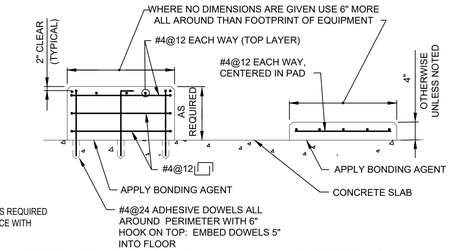


TYPICAL PRESSURE GAUGE LOCATION
NOT TO SCALE



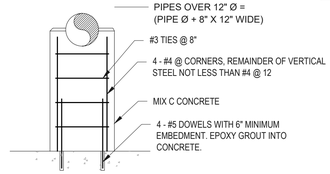
NOTE:
L-SHAPED SHOWN. T-SHAPED SIMILAR. (REFERENCE SECTION 03250)

RETROFIT WATERSTOP SYSTEM
NOT TO SCALE

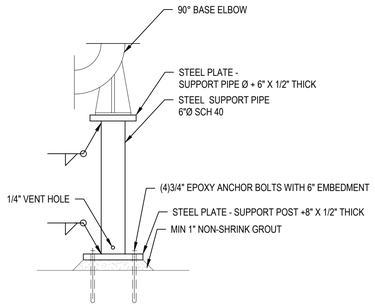


TYPICAL EQUIPMENT/PUMP PAD ▲ HOUSEKEEPING PAD◆

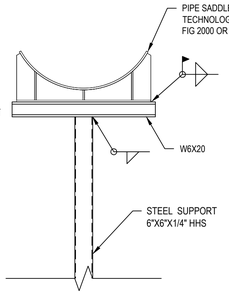
REINFORCEMENT FOR CONCRETE PADS
NOT TO SCALE



TYPE 'G' PIPE SUPPORT
NOT TO SCALE

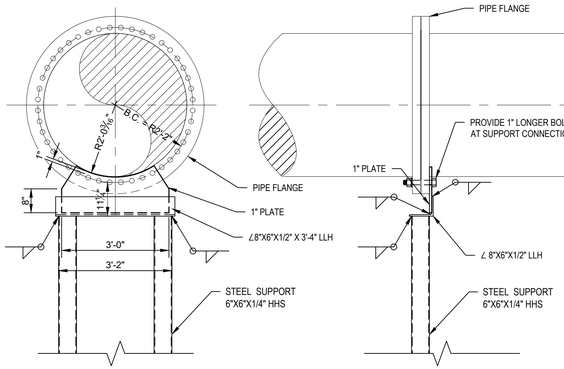


TYPE K PIPE SUPPORT DETAIL
NOT TO SCALE



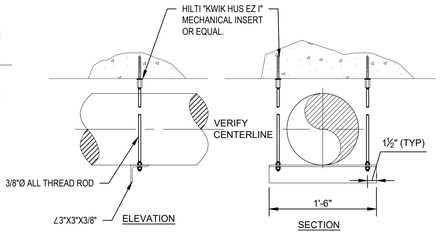
FOR BASE PLATE REFER TO TYPE 'K' SUPPORT DETAIL

PIPE SADDLE
NOT TO SCALE

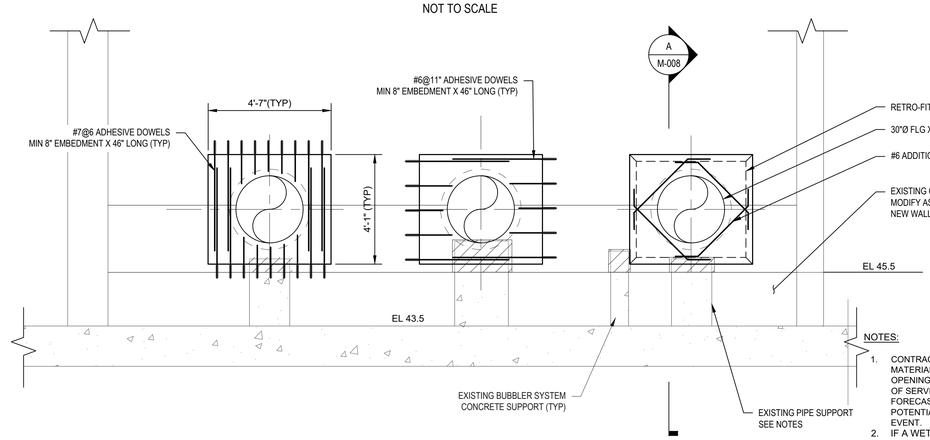


FOR BASE PLATE REFER TO TYPE 'K' SUPPORT DETAIL

FLANGE CONNECTION
NOT TO SCALE



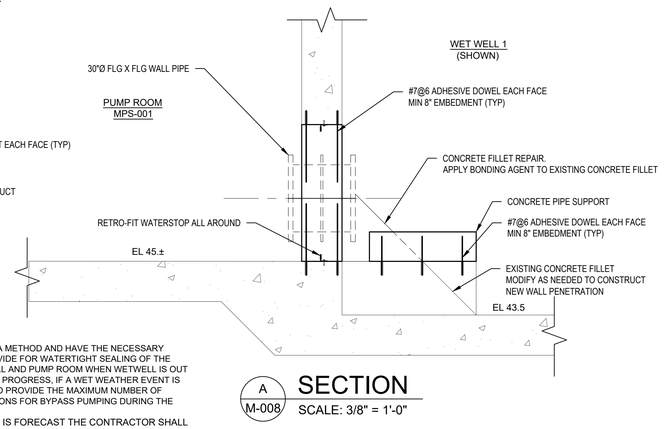
TRAPEZE PIPE HANGER
NOT TO SCALE



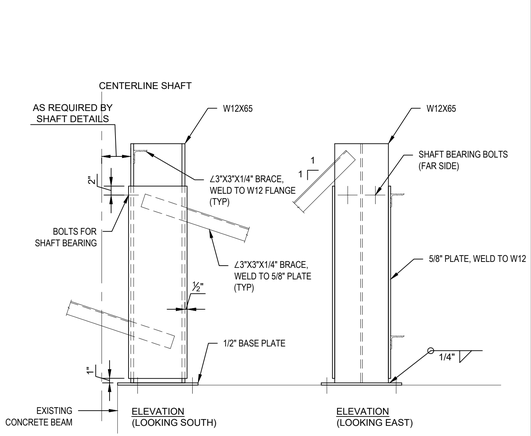
NOTES:

1. CONTRACTOR TO DEVELOP A METHOD AND HAVE THE NECESSARY MATERIALS ON SITE TO PROVIDE FOR WATERTIGHT SEALING OF THE OPENING BETWEEN WETWELL AND PUMP ROOM WHEN WETWELL IS OUT OF SERVICE AND WORK IS IN PROGRESS. IF A WET WEATHER EVENT IS FORECAST FOR THE AREA TO PROVIDE THE MAXIMUM NUMBER OF POTENTIAL SUCTION LOCATIONS FOR BYPASS PUMPING DURING THE EVENT.
2. IF A WET WEATHER EVENT IS FORECAST THE CONTRACTOR SHALL PLUG ANY OPENINGS DUE TO THE INSTALLATION OF NEW WALL PIPES. BLIND FLANGES SHALL BE INSTALLED ON ANY PIPE THAT DOES NOT HAVE THE GATE VALVE INSTALLED.
3. DEMOLISH ONE OPENING AT A TIME. PLACE NEW CONCRETE PRIOR TO CUTTING NEW PENETRATION.
4. DEMOLISH EXISTING PIPE SUPPORTS AND BUBBLER SYSTEM SUPPORT AS REQUIRED TO INSTALL NEW WALL PIPE.
5. WHERE CONCRETE FILLET IS DEMOLISHED OR DAMAGED, REPAIR CONCRETE BACK TO IT'S ORIGINAL PROFILE.

WALL PIPE INSTALLATION DETAIL
SCALE: 3/8"=1'-0"



A M-008 SECTION
SCALE: 3/8" = 1'-0"



NOTES:
1. PROVIDE (4) 1"Ø ANCHOR BOLTS. DRILL NEW HOLES AVOIDING EXISTING BOLT LOCATIONS. PROVIDE MIN 6" EMBEDMENT.

TYPICAL BEARING SUPPORT DETAIL
NOT TO SCALE

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/2021	FOR CONSTRUCTION	MJL	MET
2	10/2020	100 PERCENT DESIGN REVIEW	MJL	MEC
1	04/2020	60 PERCENT DESIGN REVIEW	MJL	MEC

PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO. 1
DRAWING TITLE: MISCELLANEOUS DETAILS
ORIGINAL SIZE: ARCH D

DATE:	JULY 2021
SCALE:	AS NOTED
DRAWN:	MJL
CHECKED:	RRS
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	M-008

ABBREVIATIONS:

A or AMP - AMPERE, AMPS
AC - ALTERNATING CURRENT
AF - AMPERE FRAME SIZE
AFF - ABOVE FINISHED FLOOR
AFG - ABOVE FINISHED GRADE
AIC - AMPS INTERRUPTING CURRENT
ALT - ALTERNATOR
AM - AMMETER
ANN - ANNUNCIATOR
AS - AMMETER SWITCH
ASV - AIR SOLENOID VALVE
AT - AMPERE TRIP RATING
ATS - AUTOMATIC TRANSFER SWITCH
AUX - AUXILIARY
AWG - AMERICAN WIRE GAUGE
BB - CK BOOST
BKR - BREAKER
BTS - BEARING TEMPERATURE SENSOR
C or COND - CONDUIT
C&W - CONDUIT & WIRE
CA - CABLE
CB - CIRCUIT BREAKER
CDRS - CONDUCTORS
CIRC - CIRCUIT
CLF - CURRENT LIMITING FUSE
COMP - COMPARTMENT
COR - CORROSION RESISTANT
CP - CONTROL PANEL
CPT - CONTROL POWER TRANSFORMER
CR - CONTROL RELAY
CT - CURRENT TRANSFORMER
DC - DIRECT CURRENT
DM - DAMPER MOTOR
DPSH - DIFFERENTIAL PRESSURE
DS - DISCONNECT SWITCH
EA - EACH
EF - EXHAUST FAN
EMH - ELECTRICAL MANHOLE
EMT - ELECTRICAL METALLIC TUBING
EMTP - EMBEDDED MOTOR THERMAL PROTECTOR
ES - EMERGENCY SWITCH
ESTOP - EMERGENCY STOP
ETM - ELAPSED TIME METER
EUH - ELECTRIC UNIT HEATER
FA - FIRE ALARM
FIT - FLOW TRANSMITTER
FLEX - FLEXIBLE
FLOA - FLOAT SWITCH
FM - FORCE MAIN
FOSA - FAST-OFF-SLOW-AUTOMATIC
FOS - FAST-OFF-SLOW
FS - FLOW SWITCH
FSW - FUSED SWITCH
FVNR - FULL VOLTAGE NON REVERSING
FVR - FULL VOLTAGE REVERSING
FVTS - FULL VOLTAGE TWO SPEED
GEN - GENERATOR
GENSET - EMERGENCY POWER GENERATOR
GFCI - GROUND FAULT CIRCUIT INTERRUPTER
GFI - GROUND FAULT INTERRUPTER
GRD - GROUND
HOA - HAND-OFF-AUTO SELECTOR SWITCH
HP - HORSE POWER
HV - HEATING AND VENTILATION
HFS - HIGH FLOAT SWITCH
IB/OB - INBOARD/OUTBOARD
IL - INDICATING LIGHT
I/0 - INPUT/OUTPUT
ISR - INTRINSICALLY SAFE RELAY
JB - JUNCTION BOX
JIC - JOINT INDUSTRIAL COUNCIL
KCMIL - THOUSAND CIRCULAR MILS
KSU - KEY SERVICE UNIT
KVA - KILOVOLT AMPERES
KW - KILOWATT
LA - LIGHTNING ARRESTOR
LC - LIGHTING CIRCUIT
LO - LOCKOUT
LS - LIMIT SWITCH
mA - MILLIAMPS
MAG - MAGNETIC
MAX - MAXIMUM
MCB - MAIN CIRCUIT BREAKER

ABBREVIATIONS:

MCC - MOTOR CONTROL CENTER
MCP - MOTOR CIRCUIT PROTECTOR
MCS/ - MOLDED CASE SWITCH
T - THERMAL ONLY
M - MAGNETIC ONLY
AUTO - AUTOMATIC ONLY
MDP - MAIN DISTRIBUTION PANEL
MFR - MANUFACTURER
MIN - MINIMUM
MLO - MAIL LUGS ONLY
MMS - MANUAL MOTOR STARTER
MSS - MOTOR STARTING SWITCH
MTR - MOTOR TIMING RELAY
MWTS - MOTOR WINDING TEMPERATURE SENSOR
MWTP - MOTOR WINDING THERMAL PROTECTION
Mx - MOTOR CONTACTOR AUXILIARY CONTACT
NC - NORMALLY CLOSED
NEC - NATIONAL ELECTRIC CODE
NO - NORMALLY OPEN
NP - NAMEPLATE
OH/E - OVERHEAD ELECTRIC
OH/L - OVERHEAD TELEPHONE
OL - OVERLOAD RELAY
O&R - ORANGE AND ROCKLAND COUNTY UTILITY COMPANY
ø - PHASE
P - POLE
PB - PUSHBUTTON
PBx - PULL BOX
PF - PULLING FITTING
PLC - PROGRAMMABLE LOGIC CONTROLLER
PNL - PANEL
POT - POTENTIOMETER
PR - PAIR
PSH - PRESSURE SWITCH
PT - POTENTIAL TRANSFORMER
R&R - REMOVE & REPLACE
RECP - RECEPTACLE
RGS - RIGID GALVANIZED STEEL CONDUIT
ROS - REMOTE OPERATING STATION
RV-AT - REDUCED VOLTAGE AUTO TRANSFORMER
RTU - REMOTE TERMINAL UNIT
SA - SURGE ARRESTOR
SCR - SILICON CONTROLLED RECTIFIER
SD - DUCT SMOKE DETECTOR
SEC - SECOND
SEL or SEL SW - SELECTOR SWITCH
SF - SUPPLY FAN
SHLD - SHIELDED
S/L - STOP/LOCKOUT SWITCH
SN - SOLID NEUTRAL
SS - STAINLESS STEEL
SSRVS - SOLID STATE REDUCED VOLTAGE STARTER
SSW - SAFETY SWITCH
S/S - STOP/START PUSH BUTTON
STR - STRANDED
SV - SOLENOID VALVE
SW - SWITCH
SWBD - SWITCHBOARD
SWD - SWITCHING DUTY
SWSV - SEALWATER SOLENOID VALVE
TC - TERMINAL CABINET OR TIMED CLOSED
TDR - TIME DELAY RELAY
TERM - TERMINAL
TR - TIMER
TR.SW. - TRANSFER SWITCH
TR24 - 24-HOUR TIMER
TPR - TERTIARY PHOSPHOROUS REMOVAL
TS - TORQUE SWITCH
TSH - TEMPERATURE SWITCH HIGH
TSP - TWISTED SHIELDED PAIR
TST - TWISTED SHIELDED TRIAD
TYP - TYPICAL
UG/E - UNDERGROUND ELECTRIC
UG/T - UNDERGROUND TELEPHONE
UNK. - UNKNOWN
UPS - UNINTERRUPTIBLE POWER SUPPLY
VA - VOLT-AMPERES
VFD - VARIABLE FREQUENCY DRIVE
VM - VOLTMETER
VS - VOLTMETER SWITCH
VSC - VARIABLE SPEED CONTROL
VSH - VIBRATION SWITCH HIGH
W/ - WITH
WP - WEATHER PROOF, WATER PROOF
XP - EXPLOSION PROOF
2S1W - 2 SPEED, 1 WINDING
2S2W - 2 SPEED, 2 WINDING
XFMR - TRANSFORMER

THE ABBREVIATIONS AND SYMBOLS LISTED HEREIN ARE STANDARDS OF THIS OFFICE AND APPLY TO A VARIETY OF PROJECTS. ONLY A PORTION OF THEM WILL NECESSARILY APPLY TO ANY GIVEN PROJECT. SEE THE LISTINGS IN OTHER SECTIONS OF THIS DOCUMENT FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS.

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE SUPPLEMENTAL UNIFORM AND FIRE PREVENTION BUILDING CODE OF NEW YORK AND ALL CODES LOCAL OR OTHERWISE HAVING JURISDICTION OVER THE WORK. CONTRACTOR MUST BE LICENSED AND CERTIFIED TO WORK IN AREAS CONTAINING ASBESTOS.
2. THE WORDS PROVIDE OR INSTALL, SINGLY OR IN COMBINATION SHALL MEAN FURNISH AND INSTALL.
3. CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED OR EXISTING WORK, INCLUDING PROTECTION OF BUILDING OCCUPANTS, PUBLIC, AND PERSONNEL. PROVIDE APPROPRIATE BARRIERS, AND SAFETY GUARD RAILS AS REQUIRED.
5. LIMIT THE SPREAD OF DUST WHEN CUTTING BY INSTALLING POLYETHYLENE BARRIERS OR TARPAULINS TO CONTAIN AIRBORNE MATERIALS.
6. NO SYSTEM SHALL BE SHUT DOWN WITHOUT PERMISSION OF THE OWNER. ADEQUATE NOTICE SHALL BE GIVEN TO THE OWNER. WHEN SYSTEM SHUTDOWN INVOLVES A TEMPORARY DISRUPTION TO BUILDING SERVICES.
7. ANY DISRUPTION IN BUILDING SERVICES SHALL BE KEPT TO A MINIMUM AND SHALL NOT BE IMPLEMENTED WITHOUT RECEIVING PRIOR WRITTEN APPROVAL OF THE OWNER.
8. ALL WORK SHALL BE COORDINATED WITH THE OWNER. AND ALL TRADES RELATED TO THE INSTALLATION OF THIS PROJECT.
9. CONTRACTOR SHALL FILE PLANS WITH GOVERNING AUTHORITIES HAVING JURISDICTION AND SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE INSTALLATION OF HIS WORK.
10. CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORK INSTALLED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, AFTER ACCEPTANCE OF THE INSTALLATION BY THE ENGINEER AND OWNER. CONTRACTOR SHALL SUBMIT IN WRITING TO OWNER STATING SAME.
11. CONTRACTOR SHALL INDEMNIFY THE OWNER, HIS REPRESENTATIVES AND THE ENGINEER FROM ANY CLAIMS OR SUITS RESULTING IN NEGLIGENCE ON THE PART OF CONTRACTOR FOR FAILING TO EXECUTE HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
12. CONTRACTOR SHALL PROVIDE ALL RIGGING, HOISTING AND SCAFFOLDING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
13. ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND WORKMAN EXPERIENCED IN THE TRADE HAVING JURISDICTION. ALL WORK SHALL BE SUPERVISED AT ALL TIMES AND WORKMANSHIP SHALL BE FIRST CLASS IN ALL RESPECTS.
14. ANY DEVIATION OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER OR OWNER. ANY WORK INSTALLED WITHOUT PRIOR APPROVAL OF THE ENGINEER OR OWNER OR FOUND TO BE DEFECTIVE OR OF POOR QUALITY SHALL BE REPLACED BY CONTRACTOR AT HIS OWN EXPENSE.
15. ALL CONSTRUCTION WORK SHALL BE CONFINED TO THE AREA INDICATED ON PLANS AND SHALL NOT BLOCK MEANS OF EGRESS FOR OCCUPANTS OF THE BUILDING.
16. PATCHING OF WALLS, FLOORS, ETC. SHALL BE BY TRADE WHO PERFORMED WORK AND SHALL MATCH EXISTING SURROUNDING AREA IN ALL RESPECTS. WORK AREA SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY. ALL DISCARDED AND DEMOLISHED MATERIAL AND RUBBISH SHALL BE REMOVED FROM PREMISES DAILY IN A LEGAL AND APPROVED MANNER.
17. CONTRACTOR SHALL MAINTAIN ON THE JOB SITE A SET OF SHOP DRAWINGS IN WHICH ANY DEVIATIONS FROM THE ORIGINAL DESIGN SHALL BE NOTED.
18. ALL WORK SHOWN ON ALL DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
19. ALL PENETRATIONS THROUGH PARTITIONS, FLOORS, WALLS AND ROOF FOR ALL PIPING, CONDUIT AND DUCTWORK SHALL BE SEALED AND FIRE SAFED OFF TO MAINTAIN FIRE INTEGRITY OF EXISTING STRUCTURE.
20. ALL DOWNSTREAM DEVICES WHICH BECOME DISCONNECTED DURING THIS CONSTRUCTIONS SHALL BE RECONNECTED AT NO COST TO THE OWNER. PROVIDE ALL CONDUIT AND WIRE AS REQUIRED.
21. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AS WELL AS BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF THE WORK.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING REASONABLE PRECAUTIONS AND SHALL PROVIDE REASONABLE PROTECTION TO PREVENT INJURY OR DAMAGE TO PERSONS, THE WORK AND OTHER PROPERTY.
23. THE OWNER RESERVES THE RIGHT TO RELOCATE ANY PIECE OF EQUIPMENT WITHIN 10 FEET OF THE LOCATION SHOWN ON THE DRAWING AT NO ADDITIONAL COST.

AREA CLASSIFICATIONS		
BUILDING	AREA	CLASSIFICATION
MAIN PUMP STATION	MECHANICAL ROOM	UNCLASSIFIED AREA
PUMP STATION	INTERMEDIATE LEVEL AND PUMP ROOM	UNCLASSIFIED AREA WITH VENTILATION, WET AREA
PUMP STATION	WET WELL	CLASS 1, DIV. 1, GROUP D AREA
ROOF	OUTSIDE	EXTERIOR

GENERAL CLASSIFICATION NOTES

1. PROVIDE SEAL OFFS FOR ANY CONDUIT RUN THAT PASSES OR ENTERS A CLASS 1, DIV. 1 GROUP D CLASSIFIED AREA.
2. PROVIDE EQUIPMENT ENCLOSURE RATINGS SUITABLE FOR THEIR CLASSIFICATION.

SYMBOL	DESCRIPTION
	G - GREEN A - AMBER R-RED INDICATING LIGHT *=COLOR GO NO/GO LIGHT
	R - RED W - WHITE PUSH-TO-TEST INDICATING LIGHT
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	TERMINAL STRIP CONNECTION
	CURRENT LIMITING FUSE
	SWITCH WITH CURRENT-LIMITING FUSE
	MOLDED-CASE CIRCUIT BREAKER
SA MCP	CONTINUOUS RATING MOTOR CIRCUIT PROTECTOR TRIP RANGE SETTING BASED ON ACTUAL MOTOR FULL LOAD AMPS CONTACTOR TYPE AND NEMA SIZE AS REQUIRED FOR MOTOR FULL LOAD AND CHARACTERISTICS OVERLOAD HEATERS OR RELAY
CS	CONTROL STATION
START	MOMENTARY OPEN PUSHBUTTON (NORMALLY OPEN)
STOP	MOMENTARY CLOSED PUSHBUTTON (NORMALLY CLOSED)
H O A XOO OOX	THREE POSITION MAINTAINED CONTACT SELECTOR SWITCH
	NORMALLY OPEN / NORMALLY CLOSED — TIME DELAY AFTER COIL ENERGIZED
	NORMALLY OPEN / NORMALLY CLOSED — TIME DELAY AFTER COIL DE-ENERGIZED
	TEMPERATURE SWITCH
	FLOAT SWITCH
	FLOW SWITCH
CR	CONTROL RELAY
M	MOTOR STARTER CONTACTOR COIL
ETM	ELAPSED TIME METER
NP	NAME PLATE
JB	JUNCTION BOX
OR DS 30/-	DISCONNECT SWITCH, FRAME/FUSE
	MOTOR STARTER
T	THERMOSTAT
10	SQUIRREL CAGE INDUCTION MOTOR HP, VARIES
	MOUNTING STAND
	FLEXIBLE CONDUIT
	WIRES CONNECTED
	WIRES NOT CONNECTED
S_3	SINGLE POLE SWITCH (P) PILOT LIGHT (3) THREE-WAY
XX	DUPLEX RECEPTACLE
OR	SEALOFF
	ITEM TO BE DEMOLISHED
	AUDIBLE HORN

SYMBOL	DESCRIPTION
	EXISTING EQUIPMENT, DEVICE, WIRING, ETC.
	TO BE PROVIDED UNDER THIS CONTRACT
M	UTILITY COMPANY METER.
K 600AF 600AT	UTILITY COMPANY TRANSFORMERS. DRAWOUT CIRCUIT BREAKER, SIZED AS INDICATED. AT=TRIP AMPERE RATING AF=FRAME SIZE AMPERE RATING. K= KEY INTERLOCK
600A SP	MAGNETIC MOLDED CASE CIRCUIT BREAKER, RATED AS INDICATED.
100E CLF	DRAWOUT FUSED SWITCH WITH MOTOR CONTROL CONTACTOR, RATED AS INDICATED.
100E CLF	DRAWOUT FUSED SWITCH, RATED AS INDICATED.
100AS 70AT	FUSED DISCONNECT SWITCH, RATED AS INDICATED.
N.O N.C	N.O. = NORMALLY OPEN. N.C. = NORMALLY CLOSED.
CLF	CURENT LIMITING FUSE.
	TRANSFORMER.
G	GENERATOR.
M 500HP	MOTOR, HORSEPOWER AS INDICATED ON SINGLELINE DIAGRAMS.
N L	AUTOMATIC TRANSFER SWITCH. RATED AS INDICATED.
E LV	ELECTRIC MANHOLE - 600V
E C	ELECTRIC MANHOLE - COMMUNICATIONS
	CIRCUIT HOMERUN (120V) TO PANELBOARD
	CIRCUIT HOMERUN (208, 3Ø V) TO PANELBOARD
	CIRCUIT HOMERUN (480V, 3Ø) TO PANELBOARD
	WIREWAY - CROSSLINES INDICATE NUMBER OF CONDUCTORS WHERE MORE THAN TWO
OH	OVERHEAD POWER LINES
MD	MOTORIZED DAMPER
	120/208V 3Ø 4W PANELBOARD
	EXIT SIGN
X X X	LIGHT FIXTURE. "X" DENOTES TYPE.
R	RED INDICATION LIGHT ALARM
G	GREEN INDICATION LIGHT ALARM
S	SWITCH
S_3	3-WAY SWITCH

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5			BWL	MET
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
2	03/20	60 PERCENT DESIGN REVIEW	BWL	MET
1				

ORIGINAL SIZE: ARCH D

PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO 1
DRAWING TITLE: NOTES, LEGENDS, AND ABBREVIATIONS

DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	BWL
CHECKED:	GRL/JGD
edr JobÆ:	19190
CONTRACT NO:	RFP-RC-SWR-CIP 2020-02

DRAWING NUMBER: E-001

PLAN
SCALE 1" = 30'

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DRAWING REVISIONS

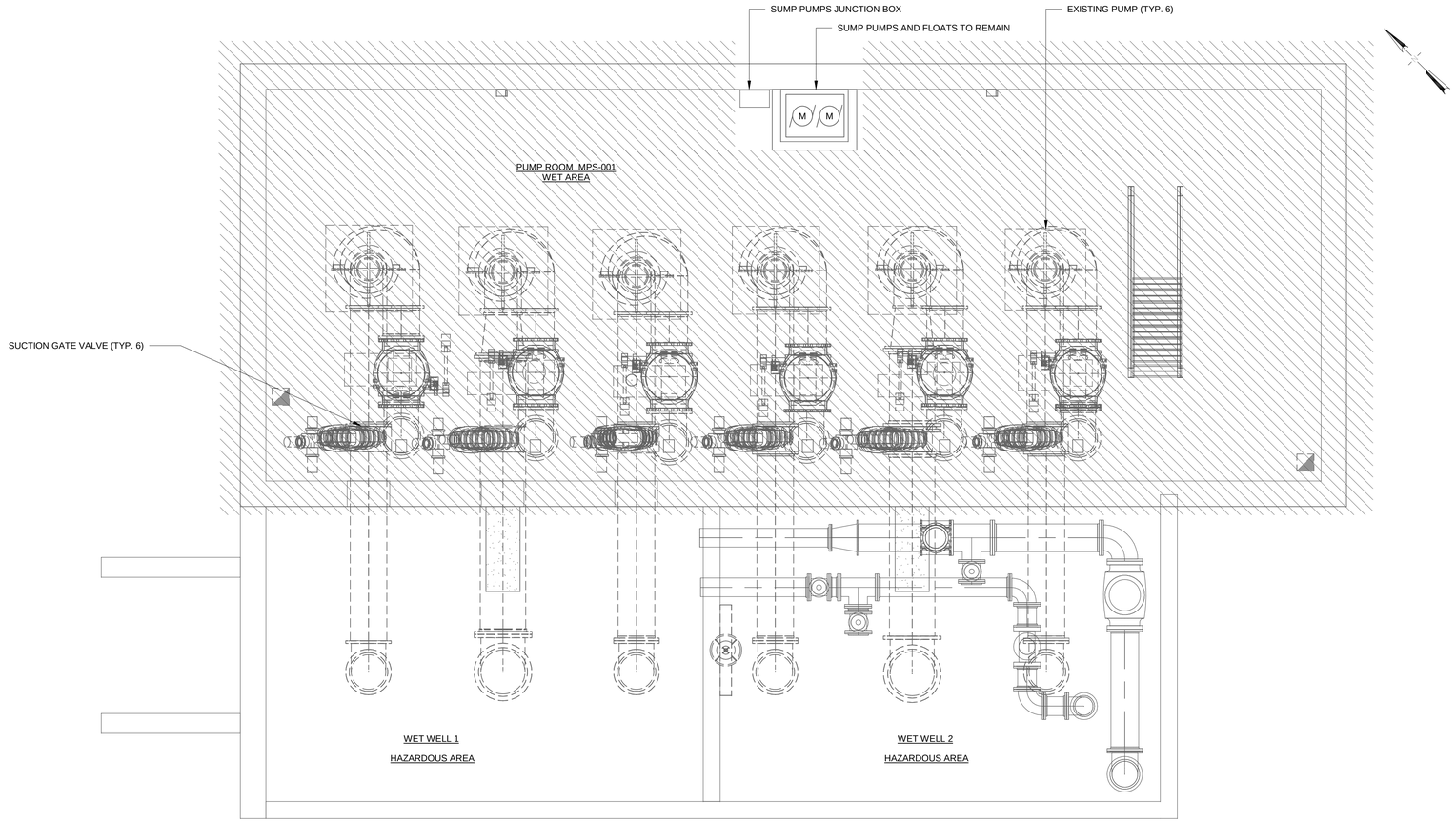
NO.	DATE:	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
2	03/20	60 PERCENT DESIGN REVIEW	BWL	MET
1				

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: ELECTRICAL SITE PLAN
ORIGINAL SIZE: **ARCH D**

DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFP-RC-SWR-CIP 2020-02

DRAWING NUMBER:
E-002

NOTES:
1. ALL CONDUIT AND WIRE, RELATED TO ALL LIGHTING, ELECTRICAL EQUIPMENT, INSTRUMENTATION, MECHANICAL, HV AND PLUMBING EQUIPMENT TO BE DEMOLISHED BACK TO SOURCE, (PANELBOARDS, MCC, CONTROL PANEL, ETC.), UNLESS OTHERWISE NOTED.
2. ALL PANELBOARDS, STARTERS, DISCONNECT SWITCHES, LIGHTING FIXTURES, RECEPTACLES, PULL BOXES, JUNCTION BOXES AND ALL OTHER ELECTRICAL EQUIPMENT TO BE DEMOLISHED, UNLESS OTHERWISE NOTED.
3. NOT ALL EQUIPMENT, DEVICES AND CONDUIT ARE SHOWN. VERIFY AND REMOVE.
4. SUMP PUMPS ARE TO STAY ACTIVE DURING CONSTRUCTION.
5. PATCH ALL FLOOR AND WELL PENETRATIONS FROM CONDUIT AND EQUIPMENT REMOVED.



1 LOWER LEVEL - DEMOLITION PLAN
1/4" = 1'-0"

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The following is paraphrased from the New York Education Law, Article 145, Section 7209, Subdivision 2: "Section 7209, Sub. 2 L and applies to this drawing: "It is violation of this section for any person, unless acting under the direction of a licensed professional engineer, licensed landscape architect or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer, landscape architect or land surveyor is altered, the altering engineer, landscape architect or land surveyor shall affix to the item in addition to his seal the notation "altered by" followed by his signature and the date of such alteration and a specific description of the alteration."

DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	BWL	MET
2	10/20	100 PERCENT DESIGN REVIEW	GD	MET
1	03/20	60 PERCENT DESIGN REVIEW	GD	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

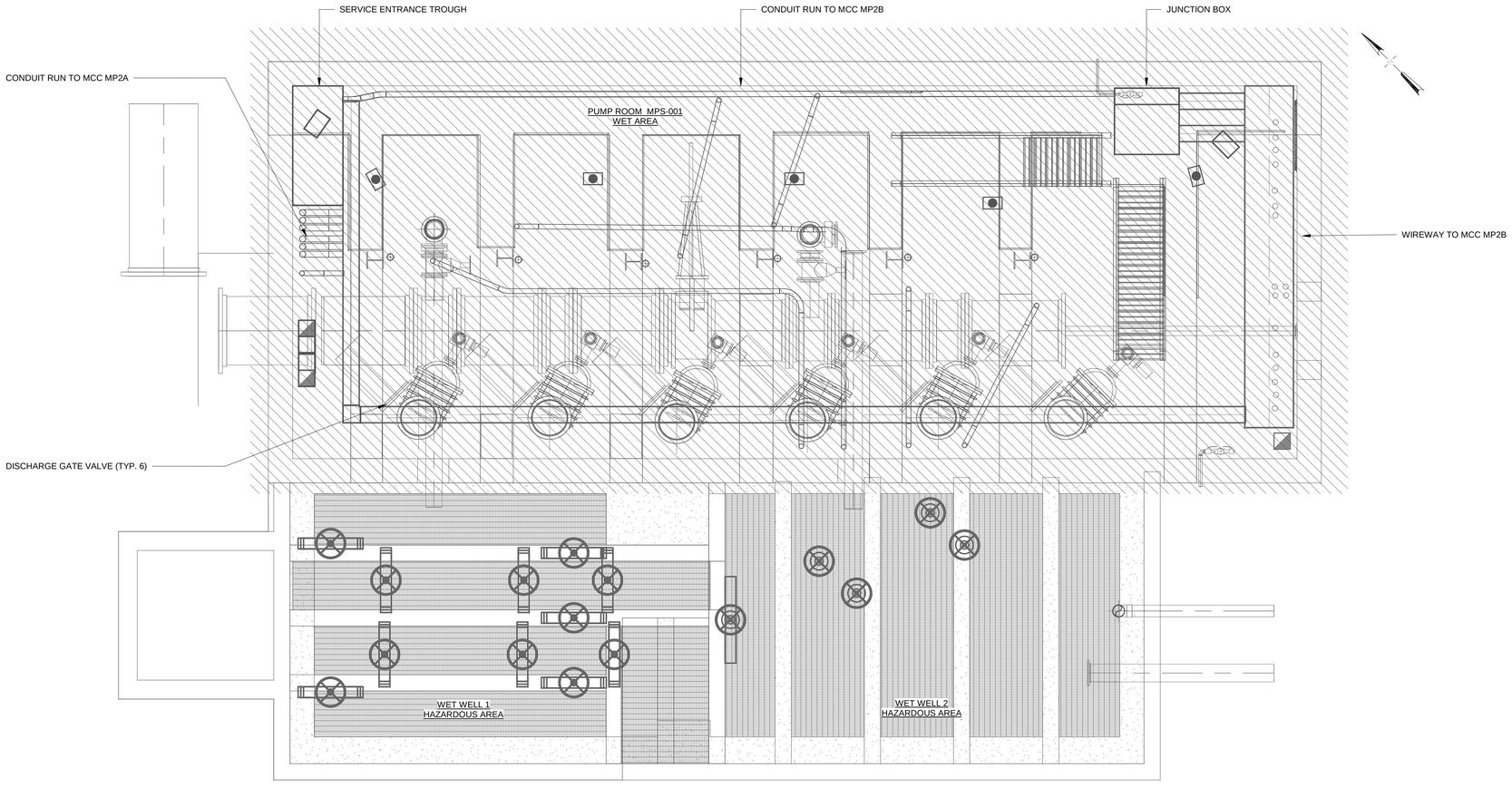
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: EXISTING PUMP STATION DEMOLITION - LOWER LEVEL PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**E-003**

NOTES:
1. ALL CONDUIT AND WIRE, RELATED TO ALL LIGHTING, ELECTRICAL EQUIPMENT, INSTRUMENTATION, MECHANICAL, HV AND PLUMBING EQUIPMENT TO BE DEMOLISHED BACK TO SOURCE (PANELBOARD, MCC, CONTROL PANEL, ETC.), UNLESS OTHERWISE NOTED.
2. ALL PANELBOARDS, STARTERS, DISCONNECT SWITCHES, DRY PIT LIGHTING FIXTURES, RECEPTACLES, PULL BOXES, JUNCTION BOXES AND ALL OTHER ELECTRICAL EQUIPMENT TO BE DEMOLISHED, UNLESS OTHERWISE NOTED.
3. NOT ALL EQUIPMENT, DEVICES AND CONDUIT ARE SHOWN. VERIFY AND REMOVE.
4. REMOVE ALL LEVEL SENSING INSTRUMENTATION IN WET WELL.
5. WET WELL LIGHTING IS TO REMAIN, NOT IN PROJECT SCOPE.
6. SEE DRAWING E-017 FOR ADDITIONAL REQUIREMENTS RELATED TO REPLACEMENT OF MCC'S MP2A, MP2A-1 AND MP2B.
7. PATCH ALL FLOOR AND WALL PENETRATIONS FROM CONDUIT AND EQUIPMENT REMOVED.



1 INTERMEDIATE LEVEL - DEMOLITION PLAN
1/4" = 1'-0"

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The following is a stamp required from the New York Education Law Article 145 Section 7209 and Article 147 Section 7307 Sub Div. 2 and 3, and applies to this drawing: "It is a violation of this law, for any person, unless acting under the direction of a licensed professional engineer, licensed landscape architect or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer, landscape architect or land surveyor is altered, the altering engineer, landscape architect or land surveyor shall affix to the item their seal together with a notation stating "altered by" followed by their signature and the date of such alteration and a specific description of the alteration."

DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	03/20	60 PERCENT DESIGN REVIEW	GD	MET
1				

ORIGINAL SIZE **ARCH D**

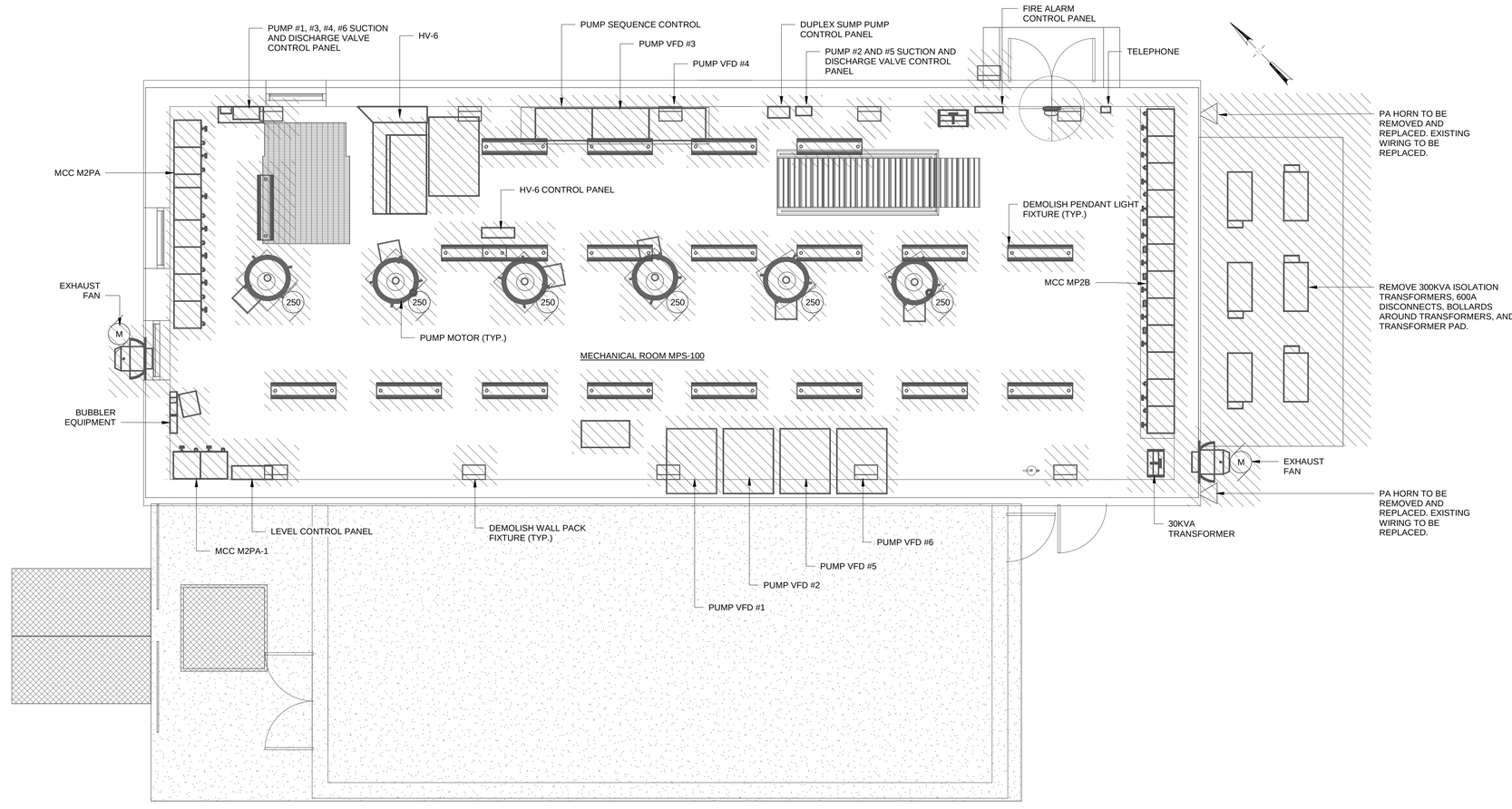
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: EXISTING PUMP STATION DEMOLITION - INTERMEDIATE LEVEL PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**E-004**

NOTES:
1. ALL CONDUIT AND WIRE, RELATED TO ALL LIGHTING, ELECTRICAL EQUIPMENT, INSTRUMENTATION, MECHANICAL, HV AND PLUMBING EQUIPMENT TO BE DEMOLISHED BACK TO SOURCE (PANELBOARD, MCC, CONTROL PANEL, ETC.) , UNLESS OTHERWISE NOTED.
2. ALL PANELBOARDS, STARTERS, DISCONNECT SWITCHES, LIGHTING FIXTURES, RECEPTACLES, PULL BOXES, JUNCTION BOXES AND ALL OTHER ELECTRICAL EQUIPMENT TO BE DEMOLISHED, UNLESS OTHERWISE NOTED.
3. NOT ALL EQUIPMENT, DEVICES AND CONDUIT ARE SHOWN. VERIFY AND REMOVE.
4. SEE DRAWING E-017 FOR ADDITIONAL REQUIREMENTS RELATED TO REPLACEMENT OF MCC'S MP2A, MP2A-1 AND MP2B.
5. PATCH ALL FLOOR AND WALL PENETRATIONS FROM CONDUIT AND EQUIPMENT REMOVED.



1 GROUND FLOOR - DEMOLITION PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			BWL	MET
3	07/21	FOR CONSTRUCTION	GD	MET
2	10/20	100 PERCENT DESIGN REVIEW	GD	MET
1	03/20	60 PERCENT DESIGN REVIEW	GD	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

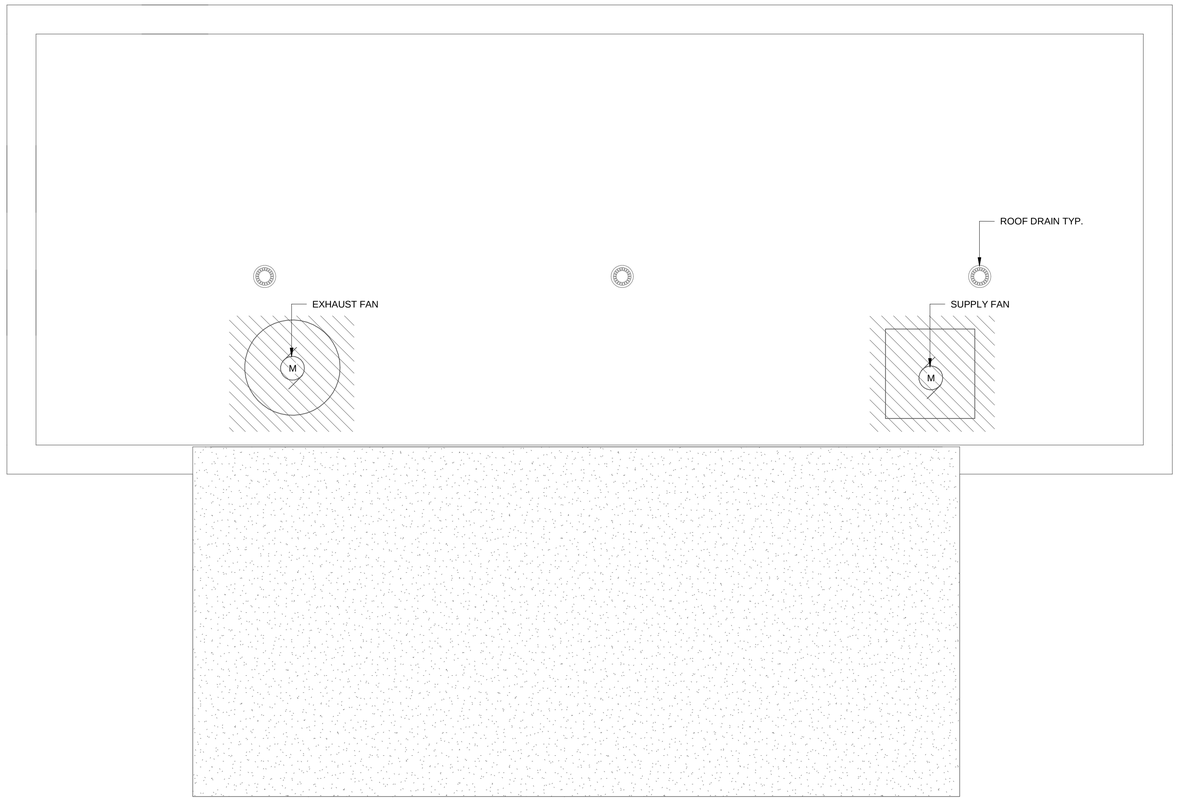
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: EXISTING PUMP STATION DEMOLITION - GROUND FLOOR PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**E-005**

NOTES:
1. ALL CONDUIT AND WIRE, RELATED TO ALL LIGHTING, ELECTRICAL EQUIPMENT, INSTRUMENTATION, MECHANICAL, HV AND PLUMBING EQUIPMENT TO BE DEMOLISHED BACK TO SOURCE (PANELBOARD, MCC, CONTROL PANEL, ETC.), UNLESS OTHERWISE NOTED.
2. ALL PANELBOARDS, STARTERS, DISCONNECT SWITCHES, LIGHTING FIXTURES, RECEPTACLES, PULL BOXES, JUNCTION BOXES AND ALL OTHER ELECTRICAL EQUIPMENT TO BE DEMOLISHED, UNLESS OTHERWISE NOTED.
3. NOT ALL EQUIPMENT, DEVICES AND CONDUIT ARE SHOWN. VERIFY AND REMOVE.
4. PATCH ALL FLOOR AND WALL PENETRATIONS FROM CONDUIT AND EQUIPMENT REMOVED.



1 ROOF - DEMOLITION PLAN
1/4" = 1'-0"

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The following is paraphrased from the New York Education Law, Section 7209, Paragraph 2: "It is a violation of Art. 91-1.4, and applies to this drawing: "It is violation of this law for any person, unless he is acting under the direction of a licensed professional engineer, licensed landscape architect or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer, landscape architect or land surveyor is altered, the altering engineer, landscape architect or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration and a specific description of the alteration."

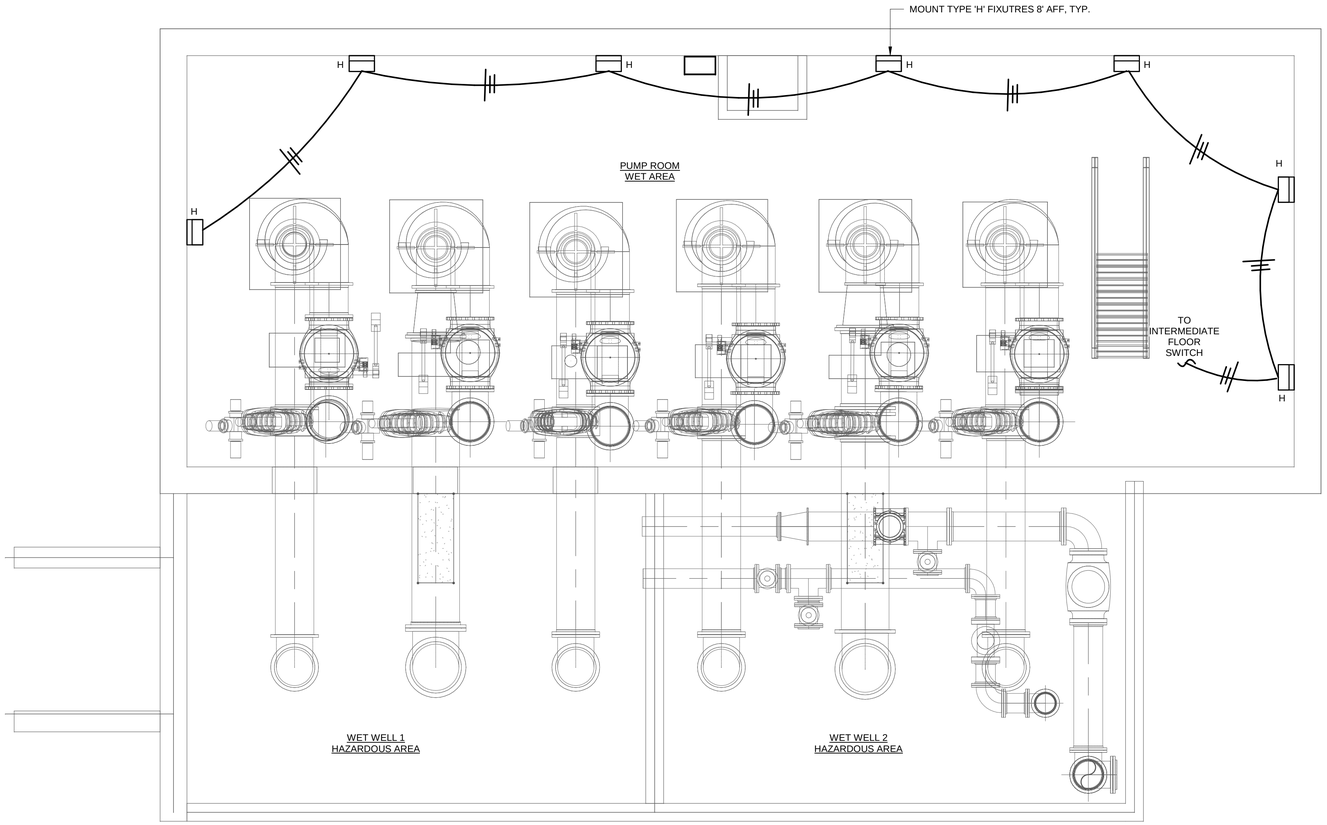
DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	03/20	60 PERCENT DESIGN REVIEW	GD	MET
1				

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: EXISTING PUMP STATION DEMOLITION - ROOF PLAN
ORIGINAL SIZE **ARCH D**

DATE: JULY 2021
SCALE: 1/4" = 1'-0"
DRAWN: BWL
CHECKED: GRL/JGD
edr Job#: 19190
CONTRACT NO: RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:
E-006

NOTES:
1. REFER TO E-016 FOR FIXTURE SCHEDULE.



1 LOWER LEVEL - LIGHTING
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	03/20	60 PERCENT DESIGN REVIEW	GD	MET
1				

ORIGINAL SIZE **ARCH D**

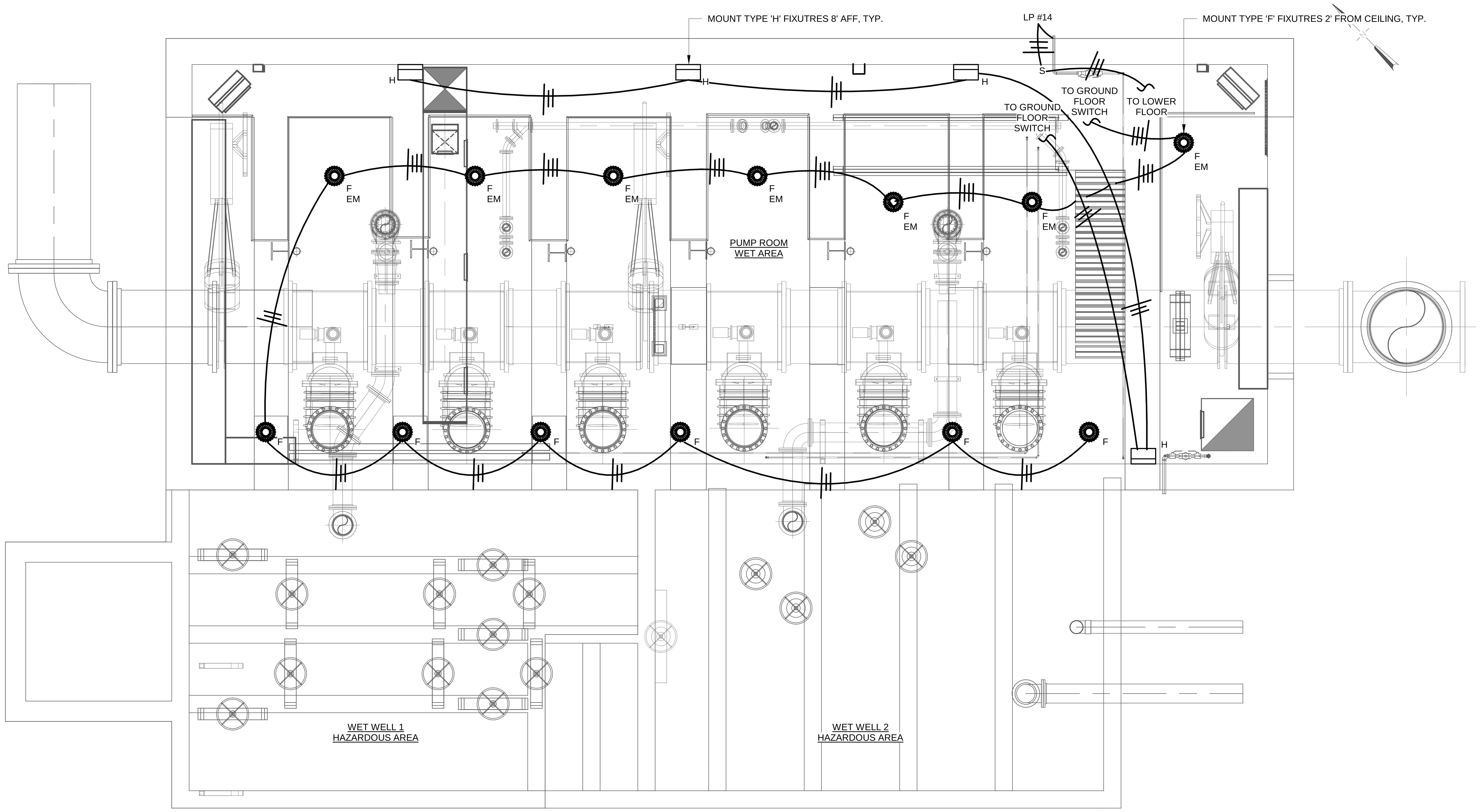
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - LOWER LEVEL LIGHTING PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**E-007**

NOTES:
1. REFER TO E-016 FOR FIXTURE SCHEDULE.



1 INTERMEDIATE LEVEL - LIGHTING
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	BWL	MET
2	10/20	100 PERCENT DESIGN REVIEW	GD	MET
1	03/20	60 PERCENT DESIGN REVIEW	GD	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - INTERMEDIATE LEVEL LIGHTING PLAN

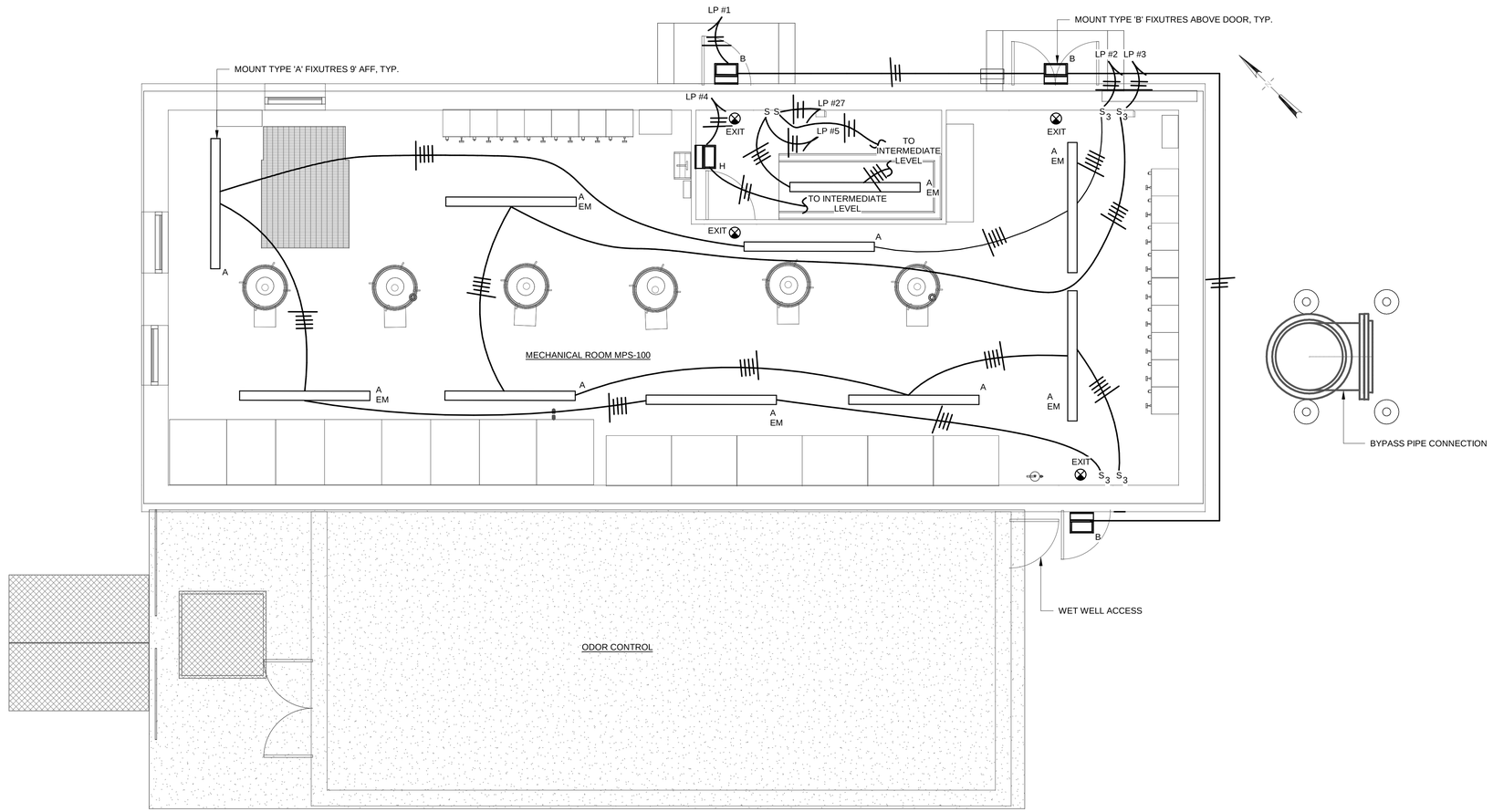
ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

E-008

NOTES:
1. REFER TO E-016 FOR FIXTURE SCHEDULE.
2. EXTERIOR LIGHTING CIRCUITS ARE SHOWN DIAGRAMATICALLY. ALL CONDUIT AND WIRE SHALL BE RUN INTERIOR TO THE BUILDING.
3. MOUNT TYPE A FIXTURES 9' AFF.



1 GROUND FLOOR - LIGHTING
1/4" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	03/20	60 PERCENT DESIGN REVIEW	GD	MET
1				

DRAWING REVISIONS

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

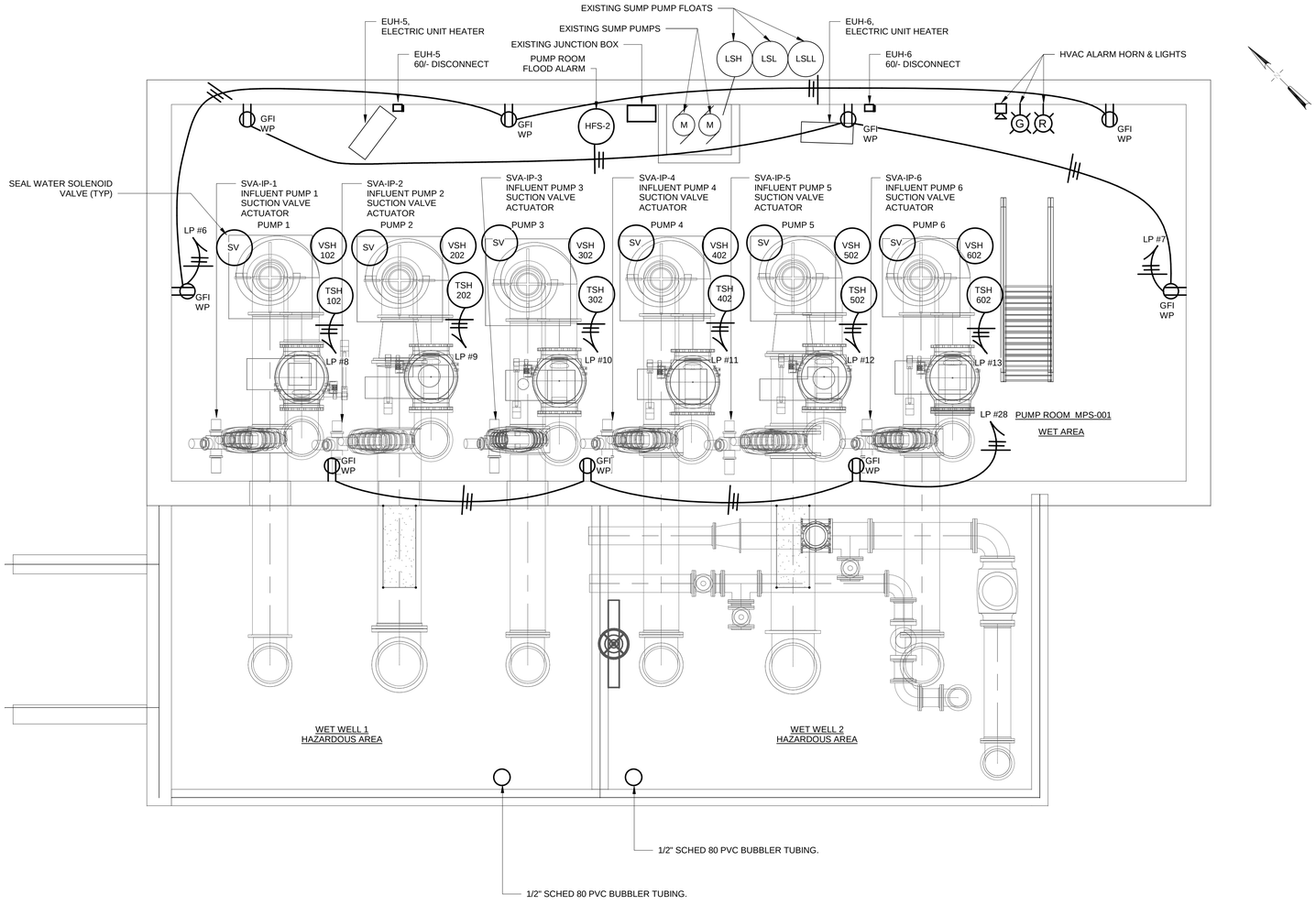
DRAWING TITLE: PUMP STATION - GROUND FLOOR LIGHTING PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

E-009

NOTES:
1. SEE MECHANICAL PLANS FOR BUBBLER TUBE ROUTING AND LOCATIONS.
2. COORDINATE LOCATION OF ALL PUMP INSTRUMENTATION DEVICES.



1 LOWER LEVEL - POWER PLAN
1/4" = 1'-0"

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GARY R. LINDEN
NEW YORK 065625
REGISTERED PROFESSIONAL ENGINEER

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The following is paragraph(s) from the New York Education Law, Article 145, Section 7209, Subdivision 2: "Section 7209, Sub. 2. It is a violation of this section for any person, unless he is acting under the direction of a licensed professional engineer, licensed landscape architect or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer, landscape architect or land surveyor is altered, the altering engineer, landscape architect or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration and a specific description of the alteration."

DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	10/20	100 PERCENT DESIGN REVIEW	GD	MET
1	03/20	60 PERCENT DESIGN REVIEW	GD	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

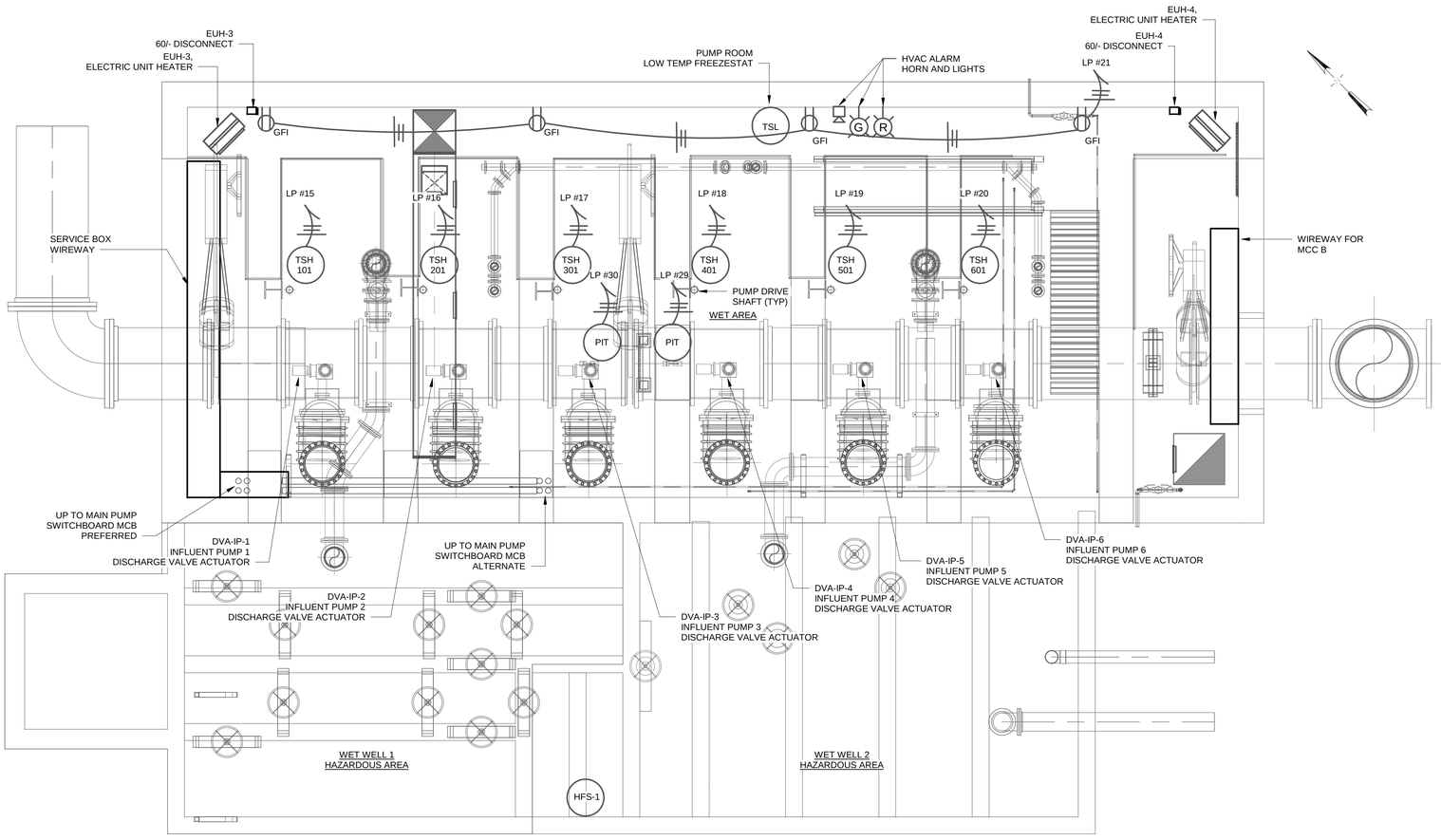
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - LOWER LEVEL POWER PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**E-010**

NOTES:
1. COORDINATE LOCATION OF ALL PUMP INSTRUMENTATION DEVICES.



1 INTERMEDIATE LEVEL - POWER PLAN
1/4" = 1'-0"

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Syracuse, New York 13202
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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	03/20	60 PERCENT DESIGN REVIEW	GD	MET
1				

DRAWING REVISIONS

ORIGINAL SIZE ARCH D

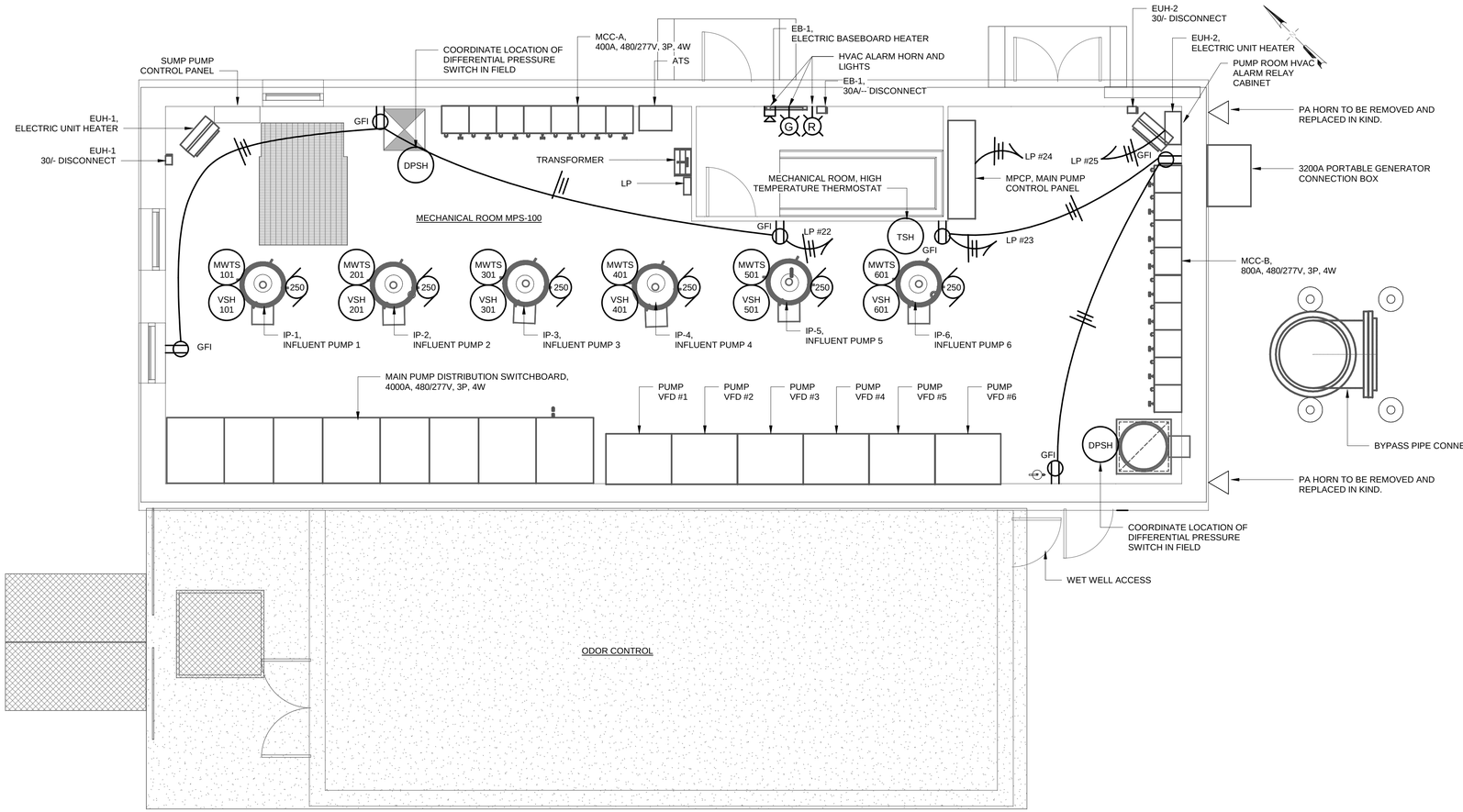
PROJECT TITLE: MAIN PUMP STATION UPGRADE

CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO 1

DRAWING TITLE: PUMP STATION - INTERMEDIATE LEVEL POWER PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	E-011

NOTES:
1. COORDINATE LOCATION OF ALL PUMP INSTRUMENTATION DEVICES.



1 GROUND FLOOR - POWER PLAN
1/4" = 1'-0"

Environmental Design & Research,
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217 Montgomery Street, Suite 1000
Syracuse, New York 13202
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STATE OF NEW YORK — BARRY R. LYNCH — 85625 — LICENSED PROFESSIONAL ENGINEER

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	GD	MET
2	03/20	60 PERCENT DESIGN REVIEW	GD	MET
1				

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

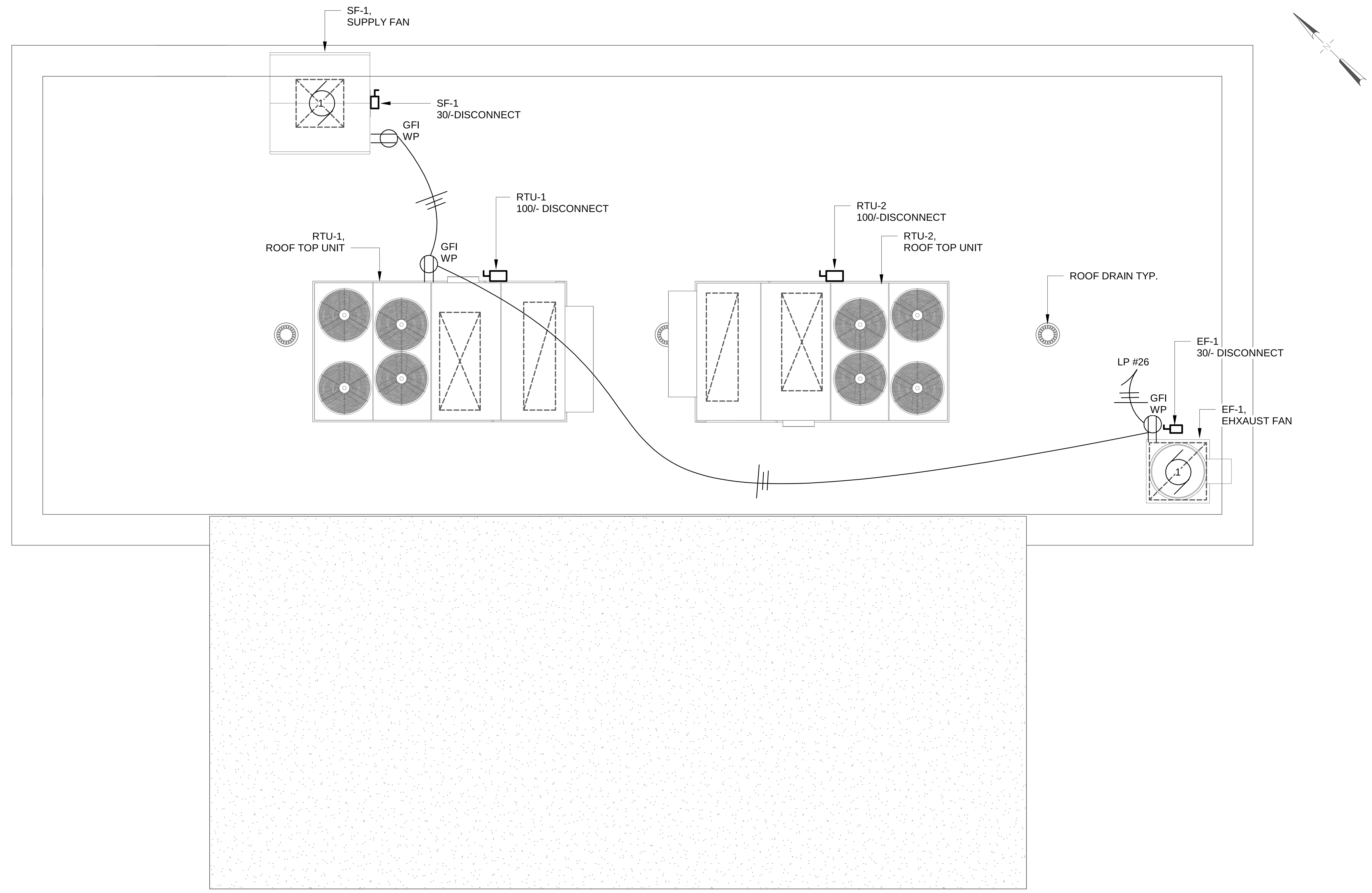
DRAWING TITLE: PUMP STATION - GROUND FLOOR POWER PLAN

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

E-012

NOTE:
1. REFER TO "ROOF MOUNTED DISCONNECT MOUNTING DETAIL" ON E-019.



1 ROOF - POWER PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	BWL	MET
2	10/20	100 PERCENT DESIGN REVIEW	GD	MET
1	03/20	60 PERCENT DESIGN REVIEW	GD	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

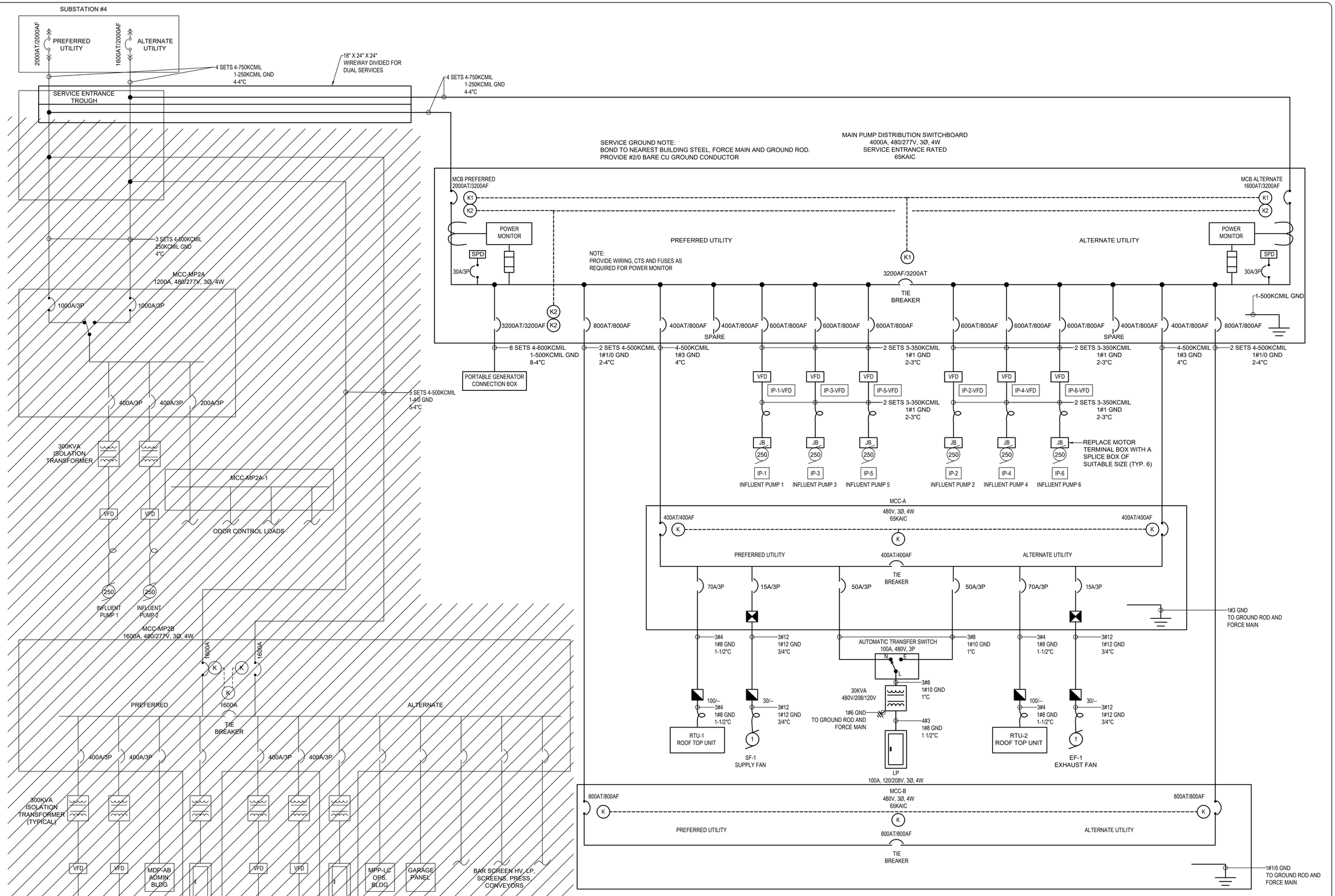
DRAWING TITLE: PUMP STATION - ROOF LEVEL POWER PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

E-013



POWER SINGLE LINE DIAGRAM

SCALE: N.T.S.

NOTE:
1. REFER TO SHEET E-016 AND E-017 FOR MCC A AND MCC B SCHEDULES AND ADDITIONAL CONDUIT AND WIRING REQUIREMENTS.

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			BWL	MET
3	07/21	FOR CONSTRUCTION	BWL	MET
2	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
1	03/20	60 PERCENT DESIGN REVIEW		

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

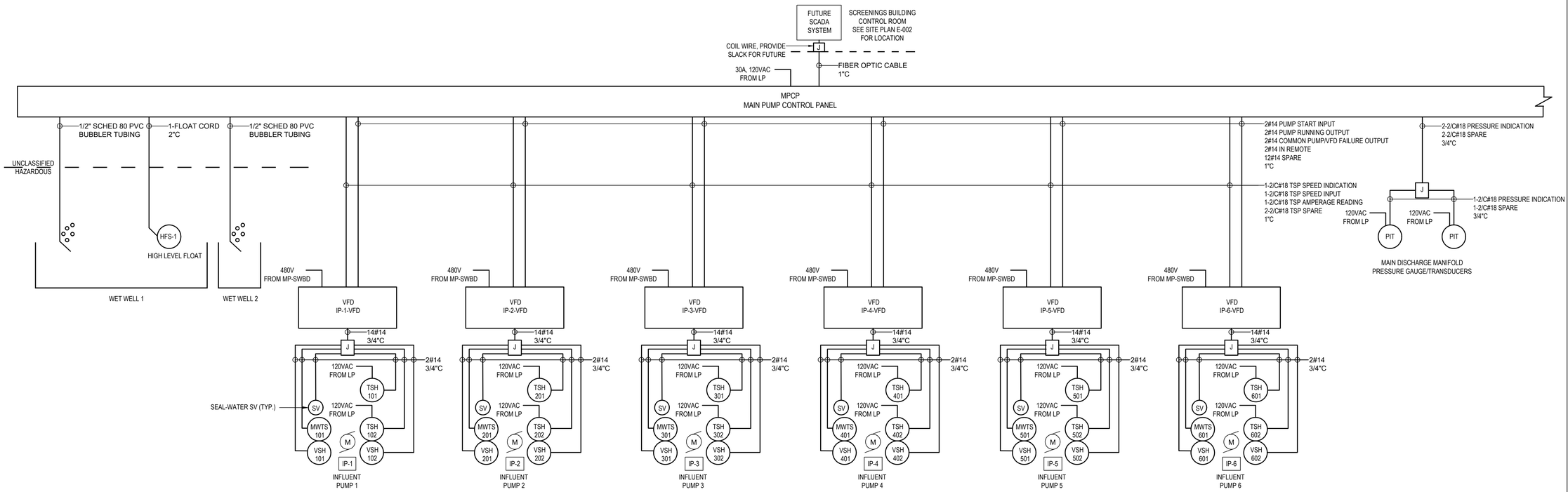
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: **POWER DIAGRAMS**

DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFP-RC-SWR-CIP 2020-02

DRAWING NUMBER:

E-014



AIR DUCT SMOKE DETECTOR SPECIFICATIONS:

- PHOTOELECTRIC TYPE: GAMEWELL DNR WITH ASD-PL2FR OR APPROVED EQUAL
- LISTED FOR THE AIR VELOCITY PRESENT AT EACH AIR DUCT SMOKE SENSOR'S LOCATION.
- SAMPLING TUBE TO SUIT INSTALLATION.
- REMOTE ALARM INDICATOR FOR USE WITH AIR DUCT SMOKE SENSORS: LED TYPE INDICATOR MOUNTED ON SINGLE GANG STEEL FACEPLATE. PROVIDE WIRING AS REQUIRED IN 3/4"C BETWEEN THE REMOTE ALARM INDICATOR AND SMOKE DETECTOR. COORDINATE LOCATTION OF REMOTE ALARM INDICATORS IN FIELD.

CONTROL SINGLE LINE DIAGRAM

SCALE: N.T.S.

NOTES:
1. PROVIDE SEAL-OFFS AS REQUIRED AT HAZARDOUS AREA BOUNDARIES.

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	BWL	MET
2	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
1	03/20	60 PERCENT DESIGN REVIEW	BWL	MET

DRAWING REVISIONS

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: CONTROL DIAGRAMS
ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFP-RC-SWR-CIP 2020-02

DRAWING NUMBER:
E-015

PANELBOARD LP SCHEDULE

MAIN BUS RATINGS: 100 AMP, 120/208 VOLTS, 3 PHASE, 4 WIRE
MINIMUM SHORT CIRCUIT INTERRUPTION RATING: 10,000 AIC
MAIN BREAKER TRIP: 100 AMP
ESTIMATED CONNECTED LOAD: 11.9 KW

FED FROM: MCC-A
INCOMING FEED: 4#3
ENCLOSURE: NEMA 12
* INDICATES GFCI CIRCUIT BREAKER

DESCRIPTION	DIAGRAM/ NOTE	LOAD KW	CB TRIP/POLE	CIR.	A B C	CIR.	CB TRIP/POLE	LOAD KW	DIAGRAM/ NOTE	DESCRIPTION
OUTDOOR LIGHTS	- / -	0.3	20A/1P	1		2	20A/1P	0.5	- / -	MECHANICAL ROOM LIGHTING
MECHANICAL ROOM LIGHTS	- / -	0.4	20A/1P	3		4	20A/1P	0.5	- / -	PUMP ROOM LIGHTING
DRY WELL LIGHTING	- / -	0.8	20A/1P	5		6	20A/1P	0.6	- / -	PUMP ROOM RECEPTACLES
DRY WELL RECEPTACLES	- / -	0.6	20A/1P	7		8	20A/1P	0.1	- / -	TSH-102
TSH-202	- / -	0.1	20A/1P	9		10	20A/1P	0.1	- / -	TSH-302
TSH-402	- / -	0.1	20A/1P	11		12	20A/1P	0.1	- / -	TSH-502
TSH-602	- / -	0.1	20A/1P	13		14	20A/1P	0.3	- / -	PUMP ROOM LIGHTING
TSH-101	- / -	0.1	20A/1P	15		16	20A/1P	0.1	- / -	TSH-201
TSH-301	- / -	0.1	20A/1P	17		18	20A/1P	0.1	- / -	TSH-401
TSH-501	- / -	0.1	20A/1P	19		20	20A/1P	0.1	- / -	TSH-601
PUMP ROOM RECEPTACLES	- / -	0.8	20A/1P	21		22	20A/1P	0.6	- / -	MECHANICAL ROOM RECEPTACLES
ELECTRIC ROOM RECEPTACLES	- / -	0.4	20A/1P	23		24	30A/1P	2.2	- / -	MPCP
HVAC ALARM RELAY CABINET	- / -	0.6	20A/1P	25		26	20A/1P	0.6	- / -	ROOF RECEPTACLES
PUMP ROOM LIGHTING	- / -	1.3	20A/1P	27		28	20A/1P	0.6	- / -	PUMP ROOM RECEPTACLES
PRESSURE TRANSDUCER	- / -	0.1	20A/1P	29		30	20A/1P	0.1	- / -	PRESSURE TRANSDUCER
SPARE	- / -	--	20A/1P	31		32	20A/1P	--	- / -	SPARE
SPARE	- / -	--	20A/1P	33		34	20A/1P	--	- / -	SPARE
SPARE	- / -	--	20A/1P	35		36	20A/1P	--	- / -	SPARE
SPARE	- / -	--	20A/1P	37		38	20A/1P	--	- / -	SPARE
SPARE	- / -	--	20A/1P	39		40	20A/1P	--	- / -	SPARE
SPARE	- / -	--	20A/1P	41		42	20A/1P	--	- / -	SPARE

PANELBOARD GENERAL NOTES:
1. FOR THREE PHASE CIRCUITS - PROVIDE 3/4" C W/ 3#12, 1#12 GRD FOR 20 AMP CIRCUITS SERVING EQUIPMENT WITHIN 60' OF PANELBOARD. UNLESS OTHER WISE NOTED. INCREASE CONDUIT AND WIRE SIZES IN ACCORDANCE WITH SPEC. SECT. 16 THE N.E.C. FOR LONGER CIRCUITS OR CIRCUITS MORE THAN 20 AMPS.
2. FOR SINGLE PHASE CIRCUITS - PROVIDE 3/4" C W/ 2#12, 1#12 GRD FOR 20 AMP CIRCUITS SERVING EQUIPMENT WITHIN 60' OF PANELBOARD. UNLESS OTHER WISE NOTED. INCREASE CONDUIT AND WIRE SIZE IN ACCORDANCE WITH SPEC. SECTION 16 AND THE N.E.C. FOR LONGER CIRCUITS OR CIRCUITS MORE THAN 20 AMPS.
3. CONTRACTOR SHALL BALANCE ALL PANELBOARD LOADS ACROSS PHASES..

MCC NOTE:
SEE SHEET E-017 FOR ADDITIONAL DETAILS FOR MCC-A AND MCC-B.

LIGHTING FIXTURE SCHEDULE

TYPE	LAMP	MOUNTING	VOLTAGE/ LOAD	MANUFACTURER	MODEL	COLOR TEMPERATURE	COMMENTS
A / A EM	LED	CEILING PENDANT	120V/ 65W	LITHONIA LIGHTING	FEM LED	4000K	8' WET LISTED ENCLOSED AND GASKETED LED LUMINAIRE WITH ACRYLIC LINEAL RIBBED FROSTED LENS 4000 LUMEN OUTPUT, 80 CRI AND MEDIUM LIGHTING DISTRIBUTION. FIXTURES WITH 'A8 EM' DESIGNATION PROVIDED WITH LED BATTERY PACK, OR APPROVED EQUAL
B	LED	WALL SURFACE	120V/ 48 W	LITHONIA LIGHTING	OLW LED WALL PACK	5000K	LED WET LISTED, FULL CUTOFF WALL LIGHT WITH 3970 DELIVERED LUMENS, TYPE 3 LIGHTING DISTRIBUTION AND INTEGRAL PHOTOCELL OR APPROVED EQUAL.
EXIT	NONE	WALL SURFACE	0 V/0 W	LITHONIA LIGHTING	D SERIES SELF-LUMINOUS	NONE	TRITTIUM FILLED, EXPLOSION PROOF/HAZARDOUS LOCATION RATED SELF LUMINOUS, SINGLE FACE EXIT SIGN WITH ALUMINUM ANODIZED FRAME AND HOUSING, RED FACEPLATE AND 20 YEAR LUMINOUS LIFE AND RATED FOR WET LOCATIONS, OR APPROVED EQUAL
F	LED	PENDANT	120 V/ 74 W	LITHONIA LIGHTING	PETROLUX PXLW	4000K	WET LISTED, LED LUMINAIRE WITH ALUMINUM HOUSING, PRISMATIC GLASS LENS WITH OPTIC GUARD,TYPE 5 AND 10000 LUMENS LIGHTING LEVEL, 'F EM' DESIGNATION PROVIDED WITH LED BATTERY PACK, OR APPROVED EQUAL
H	LED	WALL SURFACE	120 V/ 9-51W	LITHONIA LIGHTING	TWR LED ALO SERIES	4000K	1,100-6,200 LUMEN FIELD ADJUSTABLE LIGHT OUTPUT, DARK BRONZE FINISH, DIE CAST ALUMINUM HOUSING, WET LOCATION, PRISMATIC GLASS LENS

PREFERRED UTILITY

EQUIPMENT IN MOTOR CONTROL CENTER MCC-A

COMPARTMENT NUMBER	EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	LOAD	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER FRAME	STARTER SIZE	STARTER TYPE	DOOR MOUNTED ACCESSORIES	FIELD MOUNTED DEVICES	SEE ELEMENTARY OR SCHEMATIC DIAGRAM ON SHEET:	MINIMUM FIELD WIRING
1A		POWER MONITOR						NP			
1D		SPD						NP			
1E		MAIN		400AT		--	--	NP			
2A		RTU-1, ROOF TOP UNIT 27.5 TONS	45KW	70AT	100AF			NP	DS		3#4, 1#8GND, 1-1/2"C
2C		EB-1, ELECTRIC BASEBOARD STAIRWELL	1.8KW	15AT	15AF			NP	DS		3#12, 1#12 GND, 3/4"C
2D		SF-1, SUPPLY FAN	1HP	15AT	15AF	0	FVNR	NP, HOA, IL	DS	E018	3#12, 1#12 GND, 3/4"C
2E		SUCTION VALVE NO. 1		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
2F		SUCTION VALVE NO. 3		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
2G		SUCTION VALVE NO. 5		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
2H		EUH-1, ELECTRIC ROOM UNIT HEATER	15KW	25AT	30AF			NP	DS		3#10, 1#10 GND, 3/4"C
2J		SPARE		20AT	30AF			NP			
3A		DISCHARGE VALVE NO. 1		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
3B		DISCHARGE VALVE NO. 3		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
3C		DISCHARGE VALVE NO. 5		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
3D		EUH-3, DRY PIT UNIT HEATER	20KW	35AT	50AF			NP	DS		3#8, 1#10 GND, 1"C
3F		EUH-5, DRY PIT UNIT HEATER	20KW	35AT	50AF			NP	DS		3#8, 1#10 GND, 1"C
3H		DUPLEX SUMP PUMP		20AT	30AF			NP			3#12, 1#12 GND, 3/4"C
3I		LIGHTING PANEL LP		50AT	50AF			NP			3#8, 1#10 GND, 1"C
3J		SPARE		20AT	30AF			NP			
4A		TIE		400AT	400AF			NP			

ALTERNATE UTILITY

COMPARTMENT NUMBER	EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	LOAD	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER FRAME	STARTER SIZE	STARTER TYPE	DOOR MOUNTED ACCESSORIES	FIELD MOUNTED DEVICES	SEE ELEMENTARY OR SCHEMATIC DIAGRAM ON SHEET:	MINIMUM FIELD WIRING
5A		RTU-2, ROOF TOP UNIT 27.5 TONS	45KW	70AT	100AF			NP	DS		3#4, 1#8GND, 1-1/2"C
5C		SUCTION VALVE NO. 2		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
5D		SUCTION VALVE NO. 4		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
5E		SUCTION VALVE NO. 6		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
5F		DISCHARGE VALVE NO. 2		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
5G		DISCHARGE VALVE NO. 4		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
5H		DISCHARGE VALVE NO. 6		15AT	15AF	0		NP			3#12, 1#12 GND, 3/4"C
5I		EF-1, EXHAUST FAN	1HP	15AT	15AF		FVNR	NP, HOA, IL	DS	E018	3#12, 1#12 GND, 3/4"C
5J		SPARE		20AT	30AF			NP			
6A		EUH-2, ELECTRIC ROOM UNIT HEATER	15KW	25AT	30AF			NP	DS		3#10, 1#10 GND, 3/4"C
6C		EUH-4, DRY PIT UNIT HEATER	20KW	35AT	50AF			NP	DS		3#8, 1#10 GND, 1"C
6E		EUH-6, DRY PIT UNIT HEATER	20KW	35AT	50AF			NP	DS		3#8, 1#10 GND, 1"C
6G		LP, LIGHTING PANEL		50AT	50AF			NP			3#8, 1#10 GND, 1"C
6H		LPE-MP, LIGHTING PANEL		50AT	50AF			NP			3#8, 1#10 GND, 1"C
6I		SPARE		50AT	50AF			NP			
7A		POWER MONITOR						NP			
7D		SPD						NP			
7E		MAIN		800AT	800AF			NP			

PREFERRED UTILITY

EQUIPMENT IN MOTOR CONTROL CENTER MCC-B

COMPARTMENT NUMBER	EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	LOAD	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER FRAME	STARTER SIZE	STARTER TYPE	DOOR MOUNTED ACCESSORIES	FIELD MOUNTED DEVICES	SEE ELEMENTARY OR SCHEMATIC DIAGRAM ON SHEET:	MINIMUM FIELD WIRING
1A		POWER MONITOR						NP			
1D		SPD						NP			
1E		MAIN		800AT	800AF	--	--	NP			
2A		MPD-AB (ADMIN BUILDING)		225AT	225AF			NP			3#4/0, 1#4 GND, 3"C
2E		MPP-LC (OPERATIONS BUILDING)		400AT	400AF			NP			3-500KCMIL, 1#3 GND, 4"C
2I		ELECTRIC HEATER BAR SCREEN CONTROL ROOM		20AT	20AF			NP			3#10, 1#10 GND, 3/4"C
2J		BAR SCREEN SUPPLY FAN		3AT MCP		1	FVNR	NP, HOA, IL			3#10, 1#10 GND, 3/4"C
3A		BAR SCREEN CONTROL PANEL #1		20AT	20AF			NP			3#10, 1#10 GND, 3/4"C
3B		SCREENING WASH PRESS #1		30AT	30AF			NP			3#10, 1#10 GND, 3/4"C
3C		BAR SCREEN CONTROL PANEL #3		20AT	20AF			NP			3#10, 1#10 GND, 3/4"C
3D		BAR SCREEN UNIT HEATER (SO. SIDE BACK ROOM)		30AT	30AF			NP			3#10, 1#10 GND, 3/4"C
3E		HV-4		30AT	30AF	1	FVNR	NP, HOA, IL			3#10, 1#10 GND, 3/4"C
3G		WW AND SA CARBON FILTER BLOWER NO. B1-1A		30AT	30AF	2	FVNR	NP			3#10, 1#10 GND, 3/4"C 12#14, 3/4"C
3I		M.O. SLUICE GATE NO. 1 (WET WELL)		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
3J		WW AND SA SCRUBBER BLOWER B1-1		50AT	50AF	2	FVNR	NP			3#8, 1#6GND 1"C 12#14, 3/4"C
4A		WW AND SA SCRUBBER BLOWER B1-1 RECIRCULATION		7AT MCP		1	FVNR	NP			3#12, 1#12 GND, 3/4"C 10#14, 3/4"C
4C		EUH-8, UNIT HEATER (B1 ODOR BLOWER ROOM)		20A	20AF	1	FVNR	NP, HOA			3#12, 1#12 GND, 3/4"C 3#14, 3/4"C
4E		BAR SCREEN UNIT HEATER (OVER CONVEYOR, FRONT ROOM)		20AT	20AF			NP			3#12, 1#12 GND, 3/4"C
4F		SPARE		50AT	50AF			NP			
4H		SPARE		30AT	30AF			NP			
4I		SPARE		20AT	30AF			NP			
5A		TIE		800AT	800AF			NP			

ALTERNATE UTILITY

COMPARTMENT NUMBER	EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	LOAD	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER FRAME	STARTER SIZE	STARTER TYPE	DOOR MOUNTED ACCESSORIES	FIELD MOUNTED DEVICES	SEE ELEMENTARY OR SCHEMATIC DIAGRAM ON SHEET:	MINIMUM FIELD WIRING
6A		HV-6		7AT MCP		1	FVNR	NP, IL			3#12, 1#12 GND, 3/4"C 11#14, 3/4"C
6C		EF-17, EXHAUST FAN		3AT MCP		1	FVNR	NP			3#12, 1#12 GND, 3/4"C 3#14, 3/4"C
6D		WW AND SA SCRUBBER BLOWER B1-2 RECIRCULATION		7AT MCP		1	FVNR	NP			3#12, 1#12 GND, 3/4"C 10#14, 3/4"C
6F		WW AND SA SCRUBBER BLOWER B1-2		50AT	50AF	2	FVNR	NP			3#8, 1#6GND 1"C 12#14, 3/4"C
6H		M.O. SLUICE GATE NO. 2 (BAR SCREEN)		15AT	15AF			NP			3#12, 1#12 GND, 3/4"C
6I		F-23, EXHAUST FAN		7AT MCP		1	FVNR	NP			3#12, 1#12 GND, 3/4"C 4#14, 3/4"C
6J		P-9		30AT	30AF	1	FVNR	NP, HOA, IL			3#10, 1#10 GND, 3/4"C
7A		TRAILERS		50AT	50AF			NP			2#6, 1#8GND 1-1/2"C
7C		CONVEYOR		30AT	30AF	1	FVNR	NP, HOA, IL			3#10, 1#10 GND, 3/4"C 9#14, 3/4"C
7E		SCREENING WASH PRESS #2		30AT	30AF			NP			3#10, 1#10 GND, 3/4"C
7F		BAR SCREEN CONTROL PANEL #2		20AT	20AF			NP			3#10, 1#10 GND, 3/4"C
7G		BAR SCREEN EXHAUST FAN		30AT	30AF	1	FVNR	NP, HOA, IL			3#10, 1#10 GND, 3/4"C
7I		BAR SCREEN LIGHTING PANEL		20AT	20AF			NP			3#10, 1#10 GND, 3/4"C
7J		BAR SCREEN UNIT HEATER (NO. SIDE BACK ROOM)		30AT	30AF			NP			3#10, 1#10 GND, 3/4"C
8A		GARAGE/MACHINE SHOP POWER PANEL		70AT	100AF			NP			3#4, #8GND, 1"C
8C		MPD-MS		175AT	200AT			NP			3#3/0, 1#6GND, 2"C
8G		WW AND SA CARBON FILTER BLOWER NO. B1-2A		30AT	30AF	2	FVNR	NP			3#10, 1#10 GND, 3/4"C 12#14, 3/4"C
8I		SPARE		20AT	30AF			NP			
9A		POWER MONITOR						NP			
9D		SPD						NP			
9E		MAIN		800AT	800AF			NP			

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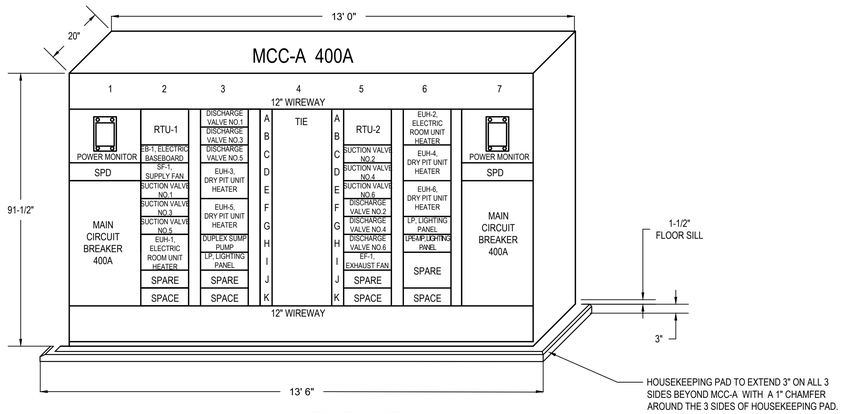
DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	BWL	MET
2	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
1	03/20	60 PERCENT DESIGN REVIEW	BWL	MET

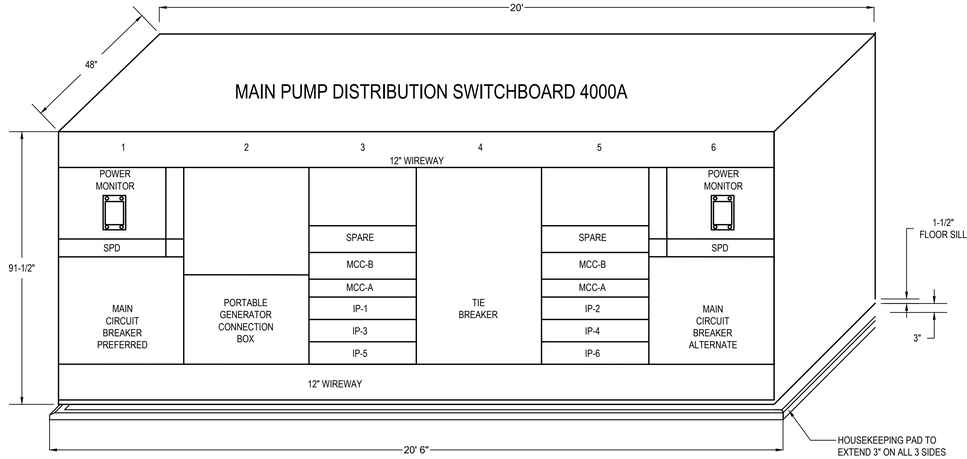
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: SCHEDULES AND DETAILS
ORIGINAL SIZE: **ARCH D**

DATE: **JULY 2021**
SCALE: NO SCALE
DRAWN: BWL
CHECKED: GRL/JGD
edr Job#: **19190**
CONTRACT NO: **RFP-RC-SWR-CIP 2020-02**
DRAWING NUMBER:
E-016



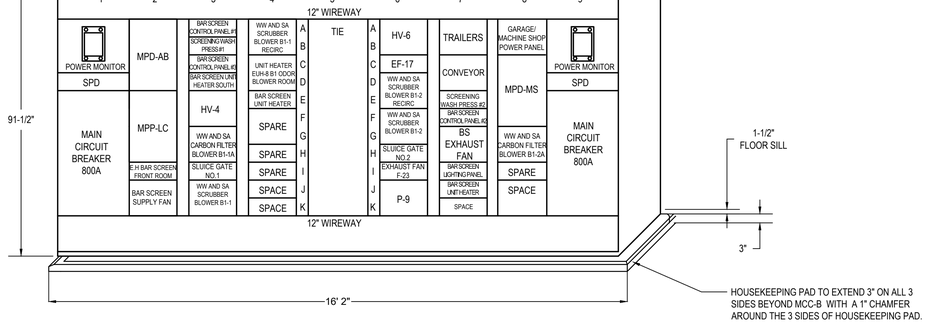
MCC-A ELEVATION

SCALE: 1/2" = 1' 0"



MAIN PUMP SWITCHBOARD ELEVATION

SCALE: 1/2" = 1' 0"



MCC-B ELEVATION

SCALE: 1/2" = 1' 0"

MCC-B NOTES:

1. MCC-B IS TO RE-FEED ALL EXISTING EQUIPMENT TO REMAIN IN OTHER BUILDINGS FROM EXISTING MCCs MP2A, MP2A-1 AND MP2B.
2. CONTRACTOR SHALL FIELD INVESTIGATE AND VERIFY ALL EXISTING BUCKETS AND WIRING IN FIELD. NEW MOTOR STARTER BUCKETS SHALL MATCH EXISTING CONTROLS.
3. CONTRACTOR SHALL FIELD INVESTIGATE AND VERIFY ALL FIELD MOUNTED DEVICES IN OTHER BUILDINGS WHICH MAY AFFECT CONTROLS. EX: CONTROL PANELS, LOCAL DISCONNECTS, LOCAL CONTROL STATIONS, ETC.
4. FIELD INVESTIGATIONS SHALL BE COMPLETED PRIOR TO SUBMISSION OF SHOP DRAWINGS. SHOP DRAWINGS SHALL INCLUDE WIRING DIAGRAMS AS REQUIRED FOR MOTOR STARTER COMPARTMENTS.
5. MCC-B SCHEDULE IS PROVIDED FOR PRELIMINARY INFORMATION AND BIDDING PURPOSES. CONTRACTOR SHALL VERIFY IN FIELD ANY ADDITIONAL INFORMATION REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM TO MATCH THE EXISTING.

MCC-B PHASING NOTES:

1. MCC-B REPLACEMENT SHALL BE COMPLETED DURING STATION BYPASS PUMPING PERIOD.
2. COMPLETE FIELD INVESTIGATIONS OF EXISTING EQUIPMENT TO BE RE-FED FROM MCC-B. CONTRACTOR SHALL ANTICIPATE THAT TRACING WIRING BETWEEN BUILDINGS (EX. MAIN PUMP STATION, BAR SCREEN ROOM, ODOR CONTROL ROOM, ETC.) SHALL BE REQUIRED.
3. LABEL AND TAG ALL EXISTING FIELD WIRING TO REMAIN AND PULL BACK TO WIREWAYS IN INTERMEDIATE LEVEL OF PUMP ROOM.
4. RELOCATE MCC-MP2B TO FLOOR IN FRONT OF EXISTING LOCATION, PROVIDE TEMPORARY WIRING AS REQUIRED FROM INTERMEDIATE LEVEL OF PUMP ROOM TO RELOCATED MCC THROUGH EXISTING STAIR OPENING. PROVIDE A MINIMUM OF 400A, 480V TEMPORARY POWER FROM 1600A FEEDER TO MAIN PUMP STATION. PROVIDE DISCONNECT AND OVERCURRENT PROTECTION AS REQUIRED.
5. CONSOLIDATE BUCKETS FROM MCC'S MP2A AND MP2A-1 TO RELOCATED MCC-MP-2B AS REQUIRED, REMOVE MCC'S MP2A AND MCC2A-1.
6. INSTALL MCC-B AND EXTEND WIRING FROM INTERMEDIATE LEVEL WIREWAYS TO NEW MCC-B. MATCH EXISTING WIRING AND EXTEND AS REQUIRED.
7. MAINTAIN POWER TO OTHER BUILDINGS AT ALL TIMES. PROVIDE PORTABLE GENERATOR(S) AND FUEL AS REQUIRED TO MAINTAIN POWER TO THE GARAGE/MACHINE SHOP, SCREENINGS BUILDING, ODOR CONTROL FACILITY, ADMINISTRATION AND OPERATIONS BUILDINGS.
8. CONTRACTOR SHALL PROVIDE OWN WRITTEN PHASING PLAN FOR REVIEW BY OWNER AND ENGINEER PRIOR TO THE START OF ANY WORK. PROVIDE AT LEAST 2 WEEKS NOTICE.
9. REFER TO SPECIFICATION 01500 - TEMPORARY FACILITIES FOR ADDITIONAL DETAILS AND REQUIREMENTS.
10. ALL PHASING AND TEMPORARY ELECTRICAL FACILITIES SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AS REQUIRED.

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DRAWING REVISIONS

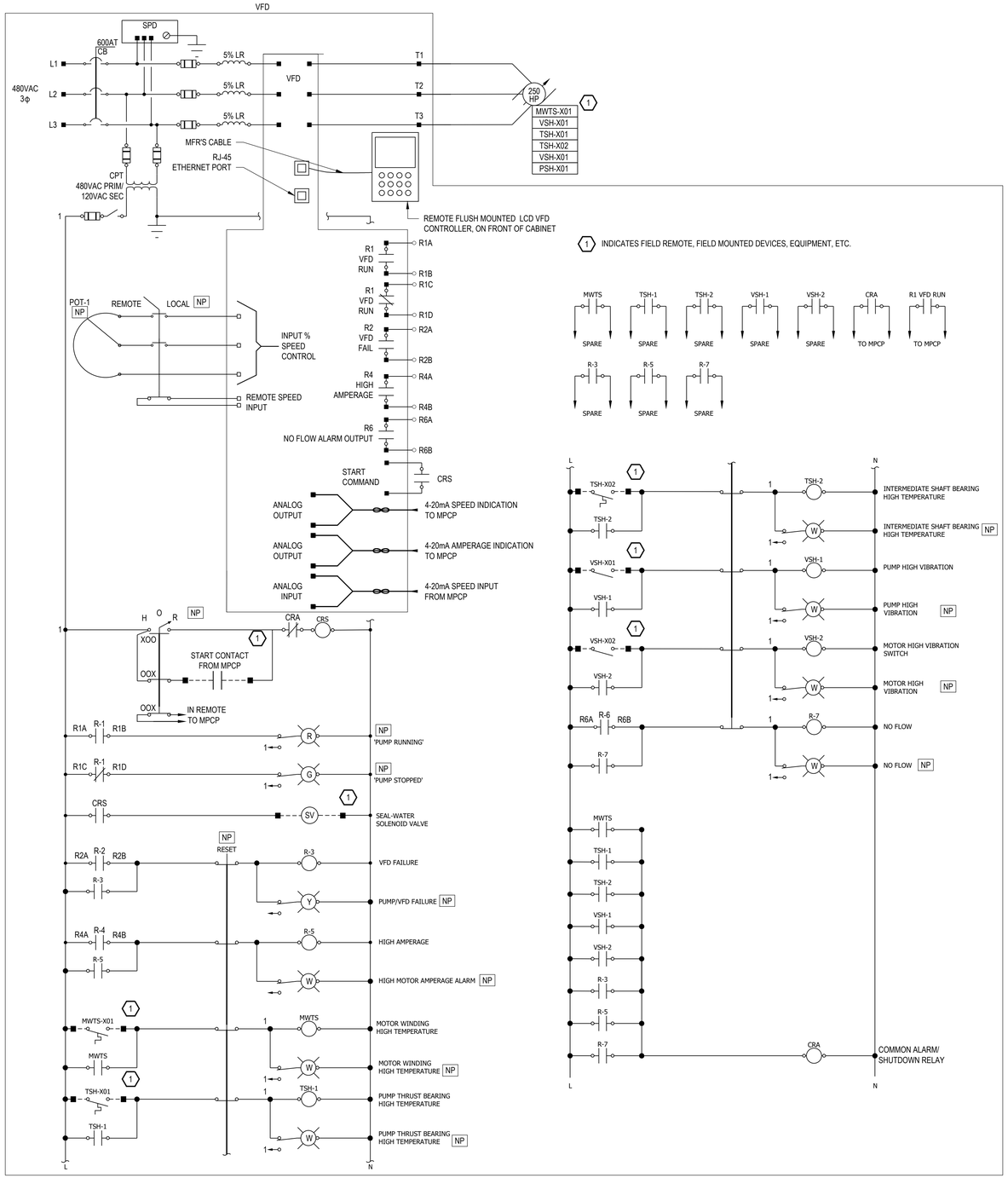
NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
2	03/20	60 PERCENT DESIGN REVIEW	BWL	MET
1				

ORIGINAL SIZE ARCH D

PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO 1
DRAWING TITLE: SCHEDULES AND DETAILS

DATE:	JULY 2021
SCALE:	AS NOTED
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFP-RC-SWR-CIP 2020-02

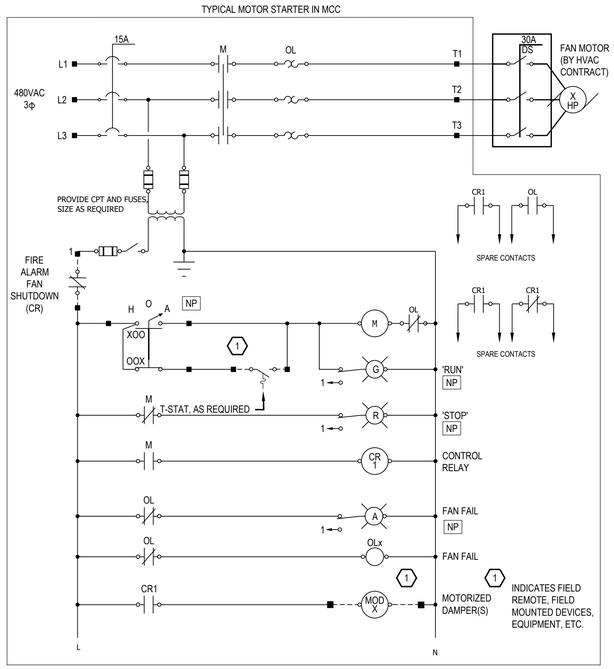
DRAWING NUMBER: E-017



PUMP VFD ELEMENTARY DIAGRAM

NO SCALE

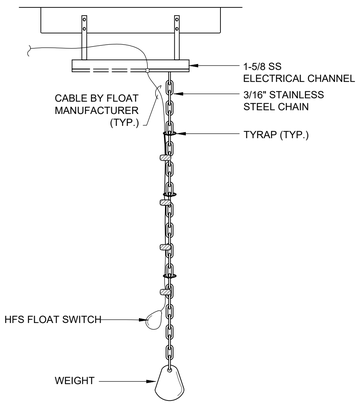
NOTES:
1. THIS ELEMENTARY IS TYPICAL FOR SIX (6) INFLUENT PUMPS.
2. UNLESS NOTED OTHERWISE, ALL DEVICES SHOWN ON THE CONTROL ELEMENTARY ARE LOCATED IN THE VFD ENCLOSURE.
3. REFER TO FLOOR AND SITE PLANS FOR EQUIPMENT AND INSTRUMENTATION LOCATIONS.
4. "NP" INDICATES NAMEPLATE.
5. PROVIDE PUSH-TO-TEST TYPE LED PILOT LIGHTS.



TYPICAL VENTILATION FAN STARTER ELEMENTARY DIAGRAM

NO SCALE

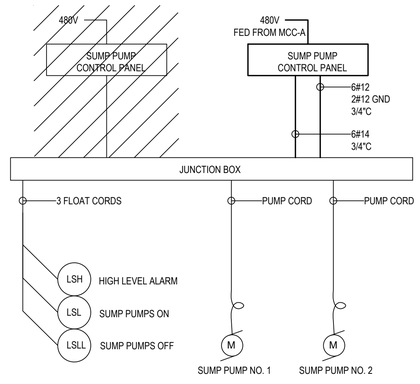
NOTES:
1. COORDINATE STARTER CONFIGURATION WITH HVAC SEQUENCE OF OPERATIONS.
2. FANS ARE TO SHUT DOWN IN THE EVENT OF FIRE/SMOKE DETECTION IN THE SUPPLY DUCT OR EXHAUST DUCT.
3. REFER TO FLOOR AND SITE PLANS FOR EQUIPMENT AND INSTRUMENTATION LOCATIONS.
4. REFER TO SINGLE LINE DIAGRAM FOR FAN HORSEPOWER.
5. "NP" INDICATES NAMEPLATE.
6. PROVIDE PUSH-TO-TEST TYPE LED PILOT LIGHTS.
7. PROVIDE #12 WIRING AND 3/4"C TO ALL REMOTE DEVICES AS REQUIRED.
8. PROVIDE STARTERS FOR SF-1 AND EF-1.



TYPICAL WET WELL FLOAT MOUNTING DETAIL

NO SCALE

NOTES:
1. PROVIDE ALL STAINLESS STEEL HARDWARE.
2. PROVIDE FLOAT CORD SLACK FOR ALL FLOATS TO REACH BOTTOM.
3. FLOAT ELEVATION TO BE DETERMINED IN FIELD.
4. FLOATS TO BE PROVIDED IN THIS CONTRACT.
5. REFER TO CONTROL DIAGRAMS FOR FLOAT QUANTITY.



SUMP PUMP DETAIL

NO SCALE

NOTES:
1. SUMP PUMPS, FLOATS AND JUNCTION BOX TO REMAIN.

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BARRY L. LYNCH
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PROFESSIONAL ENGINEER

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
2	03/20	60 PERCENT DESIGN REVIEW	BWL	MET
1				

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

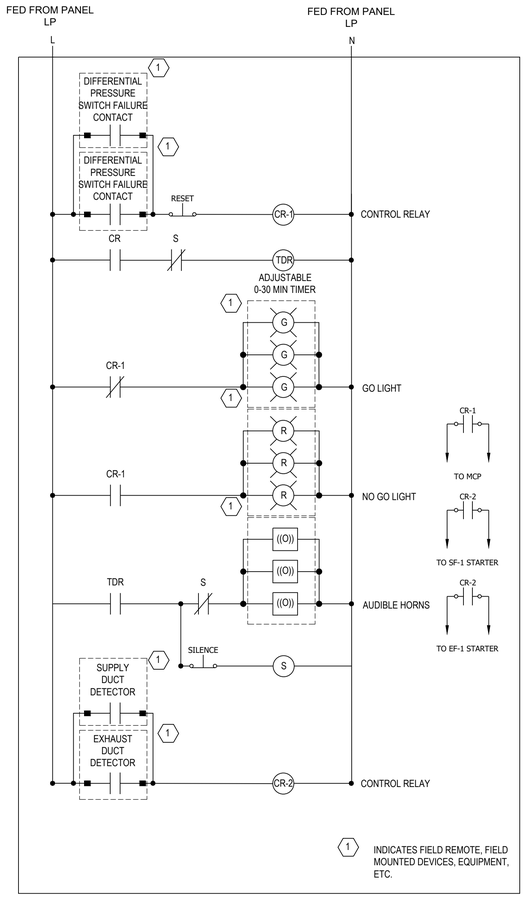
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: **DETAILS I**

DATE:	**JULY 2021**
SCALE:	NO SCALE
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	**19190**
CONTRACT NO:	**RFP-RC-SWR-CIP 2020-02**

DRAWING NUMBER:

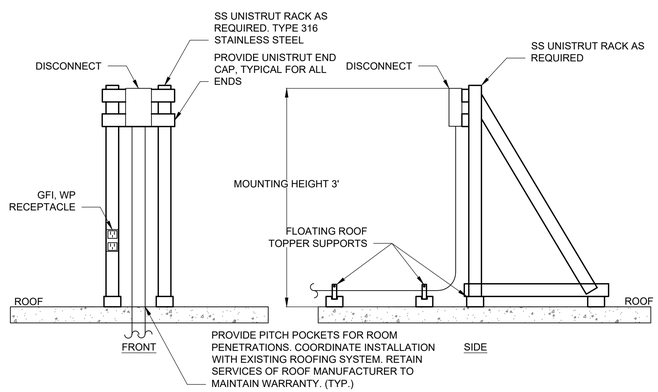
E-018



HVAC ALARM RELAY CABINET CONTROL DETAIL

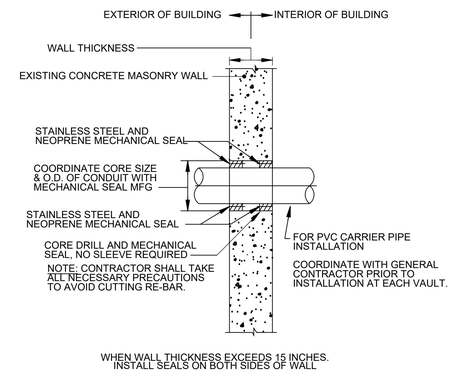
NO SCALE

NOTES:
1. REFER TO FLOOR PLANS FOR ALARM RELAY CABINET LOCATION, GO/NO GO LIGHT AND AUDIBLE HORN QUANTITY, AND THE DIFFERENTIAL PRESSURE SWITCHES LOCATION AND QUANTITY.
2. PROVIDE #12 WIRING AND 3/4"C TO REMOTE MOUNTED EQUIPMENT FROM RELAY CABINET.



ROOF MOUNTED DISCONNECT MOUNTING DETAIL

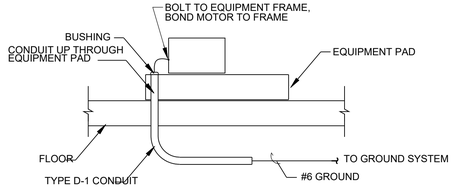
NO SCALE



WHEN WALL THICKNESS EXCEEDS 15 INCHES. INSTALL SEALS ON BOTH SIDES OF WALL

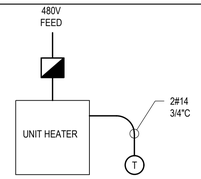
CONDUIT PENETRATION THRU CONCRETE WALL

NO SCALE



EQUIPMENT GROUNDING DETAIL

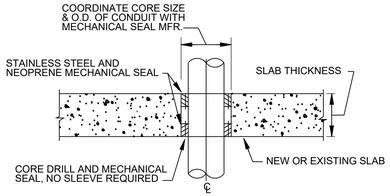
NO SCALE



TYPICAL UNIT HEATER SCHEMATIC DIAGRAM

NO SCALE

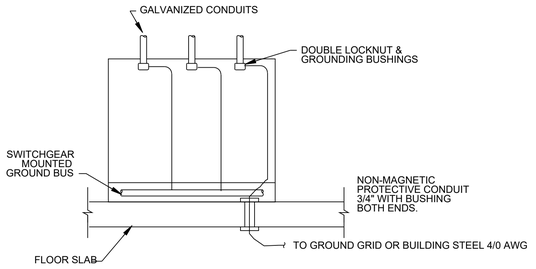
NOTES:
1. SEE FLOOR PLANS AND POWER SINGLE LINE DIAGRAMS FOR POWER WIRING REQUIREMENTS.



WHEN SLAB THICKNESS EXCEEDS 15 INCHES. INSTALL SEALS AT TOP & BOTTOM OF SLAB

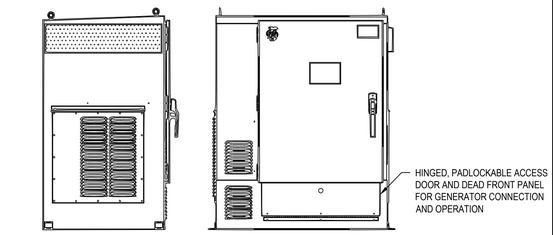
CONDUIT PENETRATION THRU CONCRETE SLAB

NO SCALE



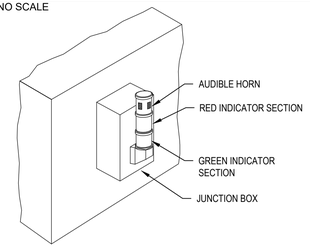
MCC GROUNDING

NO SCALE



PORTABLE GENERATOR CONNECTION BOX

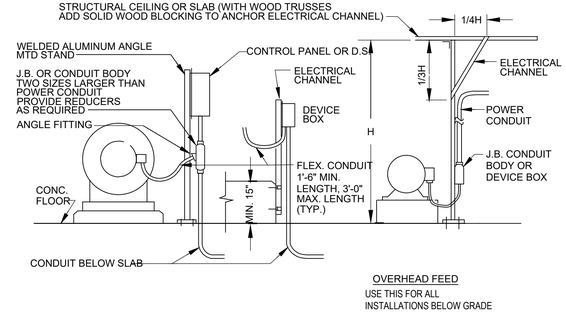
NO SCALE



NOTES:
1. UNDER ALL RED INDICATION LIGHTS, PROVIDE A YELLOW LAMACOID NAME PLATE: ALARM STATUS, RED = VENTILATION ALARM, HORN = VENTILATION ALARM.
2. VENTILATION ON AND FAILURE INDICATION LIGHTS ARE TO BE ALLEN BRADLEY TOWER STACK LIGHTS, LED MODULE, RATED FOR 120VAC. GREEN LIGHT IS TO BE STEADY. RED LIGHT IS IN STROBE WHEN IN ALARM.
3. HORNS TO BE ALLEN BRADLEY, SINGLE CIRCUIT PIEZO-STYLE MODULE WITH CONTINUOUS TONES, VOLUME 107/92 dB AT 1 METER, AND RATED FOR 120VAC.

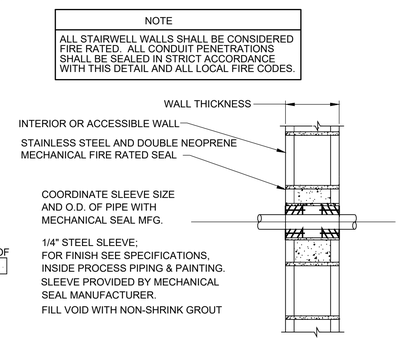
STACKABLE WALL MOUNTED GO/NO-GO TOWER LIGHT DETAIL

NO SCALE



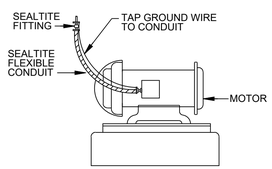
TYPICAL ELECTRICAL FEED

NO SCALE



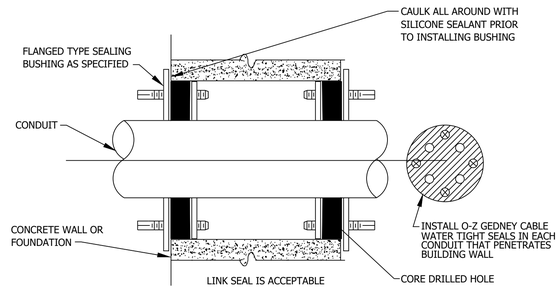
TYPICAL CONDUIT PENETRATION TRHOUGH FIRE RATED BLOCK WALL

NO SCALE



GROUNDING ELECTRIC MOTOR

NO SCALE



TYPICAL SLEEVE DETAIL FOR EXISTING WALL PENETRATION

NO SCALE

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P. 315.471.0688

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	BWL	MET
3	10/20	100 PERCENT DESIGN REVIEW	BWL	MET
2	03/20	60 PERCENT DESIGN REVIEW	BWL	MET
1				

PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO 1
DRAWING TITLE: DETAILS II
ORIGINAL SIZE ARCH D

DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	BWL
CHECKED:	GRL/JGD
edr Job#:	19190
CONTRACT NO:	RFP-RC-SWR-CIP 2020-02

DRAWING NUMBER: E-019

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE SUPPLEMENTAL UNIFORM AND FIRE PREVENTION BUILDING CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND ALL CODES LOCAL OR OTHERWISE HAVING JURISDICTION OVER THE WORK.
2. DUCTWORK & PIPING IS DIAGRAMMATICALLY SHOWN. EXACT ROUTING OF NEW PIPING & DUCTWORK SHALL BE DETERMINED IN FIELD AND COORDINATION DRAWINGS SHALL BE SUBMITTED IN CONJUNCTION WITH THE GENERAL CONTRACOTR FOR ENGINEER APPROVAL. SEE SPECIFICATION 01010.
3. THE WORDS PROVIDE OR INSTALL, SINGLY OR IN COMBINATION SHALL MEAN FURNISH AND INSTALL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING TO MATCH EXISTING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
5. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED WORK, INCLUDING PROTECTION OF BUILDING OCCUPANTS AND OWNERS EQUIPMENT, PUBLIC, AND PERSONNEL. PROVIDE APPROPRIATE BARRIERS, AND SAFETY GUARD RAILS AS REQUIRED.
6. WHERE WELDING OR OPEN FLAME IS USED FOR CUTTING, SOLDERING, ETC., CONTRACTOR SHALL PROVIDE FIRE EXTINGUISHERS AND A FIRE WATCH IN PROXIMITY OF WORK AREA. CONTRACTOR SHALL PROVIDE HOT WORK PERMIT WHERE NECESSARY.
7. ALL WORK SHALL BE COORDINATED WITH ALL TRADES RELATED TO THE COMPLETION OF THIS PROJECT.
8. THE CONTRACTOR SHALL FILE PLANS WITH THE GOVERNING AUTHORITIES HAVING JURISDICTION AND SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE INSTALLATION OF HIS WORK.
9. THE CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORK INSTALLED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, AFTER ACCEPTANCE OF THE INSTALLATION BY THE ENGINEER AND OWNER. THE CONTRACTOR SHALL SUBMIT IN WRITING TO OWNER STATING THE SAME. EQUIPMENT WARRANTEES OF A LONGER DURATION SHALL APPLY.
10. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, HIS REPRESENTATIVES AND THE ENGINEER FROM ANY CLAIMS OR SUITS RESULTING IN NEGLIGENCE ON THE PART OF THE CONTRACTOR AND FOR FAILING TO EXECUTE HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
11. THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HOISTING AND SCAFFOLDING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
12. ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND WORKMEN EXPERIENCED IN THE TRADE HAVING JURISDICTION. ALL WORK SHALL BE SUPERVISED AT ALL TIMES AND WORKMANSHIP SHALL BE FIRST CLASS IN ALL RESPECTS AND IN ACCORDANCE WITH BEST TRADE PRACTICES.
13. ANY DEVIATION OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER AND SIGNED BY THE OWNER. ANY WORK INSTALLED WITHOUT PRIOR APPROVAL OF THE ENGINEER AND OWNER OR FOUND TO BE DEFECTIVE IN ANY WAY SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
14. ALL CONSTRUCTION WORK SHALL BE CONFINED TO THE AREA INDICATED ON PLANS AND SHALL NOT BLOCK MEANS OF EGRESS FOR OCCUPANTS OF THE BUILDING.
15. PATCHING OF WALLS, FLOORS, ETC. SHALL BE BY TRADE WHO PERFORMED WORK UNLESS OTHERWISE NOTED AND SHALL MATCH EXISTING SURROUNDING AREA IN ALL RESPECTS. WORK AREA SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY. ALL DISCARDED AND DEMOLISHED MATERIAL AND RUBBISH SHALL BE REMOVED FROM PREMISES DAILY IN A LEGAL AND APPROVED MANNER. FINAL PATCHING AND PAINTING SHALL BE PERFORMED BY GENERAL CONTRACTOR.
16. THE CONTRACTOR SHALL SUBMIT DIGITAL COPIES OF SHOP DRAWINGS OF ALL EQUIPMENT, PIPING, DUCTWORK, AND MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION OF NEW WORK, WITHIN TWO WEEKS AFTER AWARD OF CONTRACT. SHOP DRAWINGS SHALL INDICATE ALL TECHNICAL DATA, STRUCTURAL MEMBERS, WALLS, FLOORS, DUCTWORK, ETC., WITH ELEVATIONS AT WHICH NEW WORK IS TO BE INSTALLED. ANY DEVIATION IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER AND OWNER. THE ENGINEER SHALL REVIEW AND TURN AROUND SHOP DWGS. WITHIN (7) DAYS OF RECEIPT OF SAME.
17. THE CONTRACTOR SHALL MAINTAIN ON THE JOB SITE A SET OF CONTRACT DRAWINGS.
18. THE CONTRACTOR SHALL MAINTAIN ON THE JOB SITE A SET OF SHOP DRAWINGS IN WHICH ANY DEVIATIONS FROM THE ORIGINAL DESIGN SHALL BE NOTED.
19. ALL WORK SHOWN ON ALL DRAWINGS IS TO BE PROVIDED UNLESS OTHERWISE NOTED.
20. ALL PENETRATIONS THROUGH PARTITIONS, FLOORS, WALLS AND ROOF FOR ALL PIPING, CONDUIT AND DUCTWORK SHALL BE SEALED AND FIRE SAFED OFF TO MAINTAIN FIRE INTEGRITY OF EXISTING STRUCTURE.
21. THE CONTRACTOR SHALL MAINTAIN ON THE JOB SITE A SET OF SHOP DRAWINGS IN WHICH ANY DEVIATIONS FROM THE ORIGINAL DESIGN SHALL BE NOTED. UPON COMPLETION OF THE INSTALLATION OF NEW WORK THE CONTRACTOR SHALL TURN OVER TO THE OWNER AND ENGINEER (1) SET OF AS-BUILT REPRODUCIBLE DRAWINGS AND (1) SET OF PRINTS INCLUDING ALL APPROVED FIELD CHANGES AND DESIGN DEVIATIONS PRIOR TO RECEIPT OF FINAL PAYMENT BY OWNER.

HVAC NOTES

1. PROVIDE VOLUME DAMPERS AS INDICATED ON DRAWINGS AND AT ALL BRANCH DUCT TAKE OFFS FROM DUCT MAINS AND TO DIFFUSERS, REGISTERS AND GRILLES ONLY IN NON-CLASSIFIED SPACES. VOLUME DAMPERS SHALL BE OPPOSED BLADE OR BUTTERFLY TYPE, GALVANIZED STEEL THAT CAN BE MANUALLY ADJUSTED AND LOCKED IN PLACE EXTERNALLY OF THE DUCT. PROVIDE LOCKING QUADRANT. ALL CONCEALED DAMPERS SHALL BE PROVIDED WITH ACCESS DOORS
2. PROVIDE SLEEVES FOR ALL DUCTS PENETRATING AND PASSING THROUGH ALL PARTITIONS, FLOORS, CEILINGS AND WALLS, ALLOW ROOM IN SLEEVE FOR INSULATION. SLEEVES SHALL BE MINIMUM OF 22 GAUGE SHEET METAL. PACK ANNULAR SPACE IN SLEEVE AROUND DUCT WITH FIRE RATED MATERIAL, SIMILAR TO THERMAFIBER. SEAL AND CAULK ALL WALL, FLOOR, CEILING AND SLAB OPENINGS WITH U.L. APPROVED FIRE RATED MATERIAL TO PREVENT TRANSMISSION OF ODORS AND SMOKE TO ADJACENT SPACES. ALL DUCT PENETRATIONS OF FIRE RATED WALLS AND SLABS SHALL BE EQUIPPED WITH FIRE/SMOKE RATED DAMPERS
3. CONTRACTOR SHALL PROVIDE ACCESS DOORS IN ALL CEILINGS, DUCTS, CHASES AND WALLS AS REQUIRED FOR ACCESS TO ALL CONCEALED OPERATING DEVICES INCLUDING BUT NOT LIMITED TO FIRE DAMPERS, VOLUME DAMPERS,CONTROL DAMPERS AND BOXES, ETC.
4. ALL HVAC WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE, STATE AND LOCAL BUILDING CODES, SMACNA AND ASHRAE STANDARDS, NFPA-90A. ALL CODES AND ORDINANCES HAVING JURISDICTION, AND IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
5. UPON COMPLETION OF ALL WORK, ALL EQUIPMENT AND DUCTWORK SHALL BE THOROUGHLY CLEANED AND LEFT IN FIRST CLASS CONDITION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EQUIPMENT UNDER THIS SECTION UNTIL FINAL ACCEPTANCE BY THE ENGINEER.
7. ALL EQUIPMENT SHALL BE TESTED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURER SPECIFICATIONS, AND TO THE SATISFACTION OF THE ENGINEER.
8. BALANCE AND ADJUST AIRFLOW TO REGISTERS AND GRILLES AS INDICATED ON DRAWINGS. ALL SYSTEMS SHALL BE BALANCED TO WITHIN 10% OF DESIGN FLOW WITH REPORT SUBMITTED TO OWNER. BALANCING WORK SHALL BE PERFORMED BY AN INDEPENDENT CERTIFIED BALANCING CONTRACTOR WHO IS CERTIFIED BY AABC OR NEBB. SUBMIT BALANCING REPORT TO ENGINEER FOR APPROVAL.
9. ALL DUCTWORK SHALL BE STAINLESS STEEL SHEET METAL UNLESS OTHERWISE NOTED AND SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA METAL AND FLEXIBLE DUCT CONSTRUCTION STANDARDS LATEST EDITION AND APPLICABLE CODES. ALL DUCTWORK SIZES SHOWN ARE SHEETMETAL SIZES, AND REDUCTIONS IN FREE AREA CREATED BY INTERNAL SOUND-LINING ARE ACCOUNTED FOR IN DESIGN.
10. CONTRACTOR SHALL PROVIDE ALL CONTROLS, AND CONTROL WIRING AS REQUIRED FOR COMPLETE CONTROL OF EQUIPMENT FOR A COMPLETE FUNCTIONING SYSTEM. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
11. INSTALL ALL REQUIRED APPURTENANCES PER CODE WHETHER SPECIFIED OR NOT FOR COMPLETE FUNCTIONING SYSTEMS.
12. HVAC INSULATION (AS MANUFACTURED BY OWENS CORNING, KNAUF, SCHULLER, OR ENGINEERED APPROVED EQUAL)
13. ALL INSULATION TO BE APPLIED IN FULLY ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.
14. INSULATE AIR CONDITIONING CONDENSATE DRAIN PIPING WITH 1" THICK MOLDED FIBER GLASS INSULATION.

DEMOLITION GENERAL NOTES

1. THE DEMOLITION, MODIFICATION OR ALTERATION OF EXISTING BUILDINGS, EQUIPMENT, OR MATERIALS SHALL BE COMPLAINT TO ALL LOCAL REGULATIONS AND STATE CODES.
2. FOR MAINTENANCE OF EXISTING PLANT OPERATION AND FOR DEMOLITION SEQUENCE, REFER TO SPECIFICATIONS. CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES WHERE NECESSARY.
3. INCORPORATE NYPA ENVIRONMENTAL SPECIFICATION AS NECESSARY FOR REMOVAL OF HAZARDOUS MATERIALS, INCLUDING OIL, MERCURY, PCBS, LEAD, ASBESTOS, ETC.

GENERAL ABBREVIATIONS

AFF -	ABOVE FINISHED FLOOR
CD -	CONDENSATE DRAIN
D.P. -	DIFFERENTIAL PRESSURE
EA -	EXHAUST AIR
EAT -	ENTERING AIR TEMPURATURE
EF -	EXHAUST FAN
EG -	EXHAUST GRILLE
EB -	ELECTRIC BASEBOARD HEATER
EUH -	ELECTRIC UNIT HEATER
EL -	ELEVATION
ESP -	EXTERNAL STATIC PRESSURE
FC -	FLEXIBLE CONNECTION
FLA -	FULL LOAD AMPS
LAT -	LEAVING AIR TEMPURATURE
MCA -	MINIMUM CIRCUIT AMPACITY
MD -	MOTORIZED DAMPER
MOCP -	MAXIMUM OVER CURRENT PROTECTION
NTS -	NOT TO SCALE
OA -	OUTSIDE AIR
RA -	RETURN AIR
RAG -	RETURN AIR GRILLE
RS -	REFRIGERANT SUCTION
RL -	REFRIGERANT LIQUID
RTU -	ROOF TOP UNIT
SA -	SUPPLY AIR
SD -	SUPPLY DIFFUSER
SF -	SUPPLY FAN
SG -	SUPPLY GRILLE
STD -	STANDARD
TSP -	TOTAL STATIC PRESSURE
(TYP.) -	TYPICAL

SYMBOLS

- ⊠ - SUPPLY DUCT RISER
- ⧅ - RETURN DUCT RISER
- ⊠ - EXHAUST DUCT RISER
- —— - WORK TO BE PROVIDED
- —— - EXISTING CONDITIONS/WORK BY OTHER TRADES

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	10/20	60 PERCENT DESIGN REVIEW	JSR	MET
1	04/20			

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

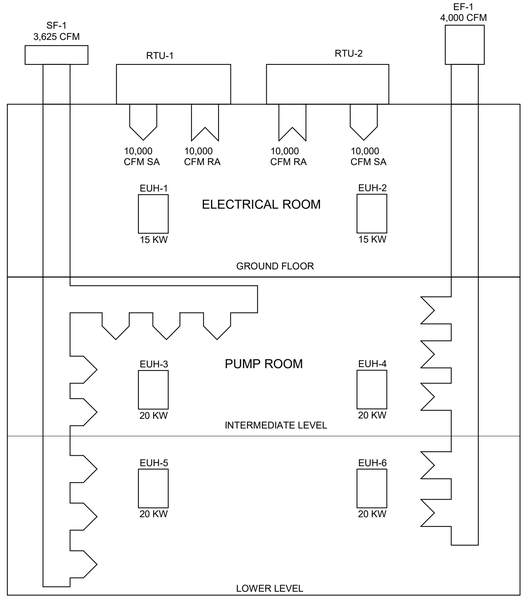
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: NOTES, LEGEND, AND ABBREVIATIONS

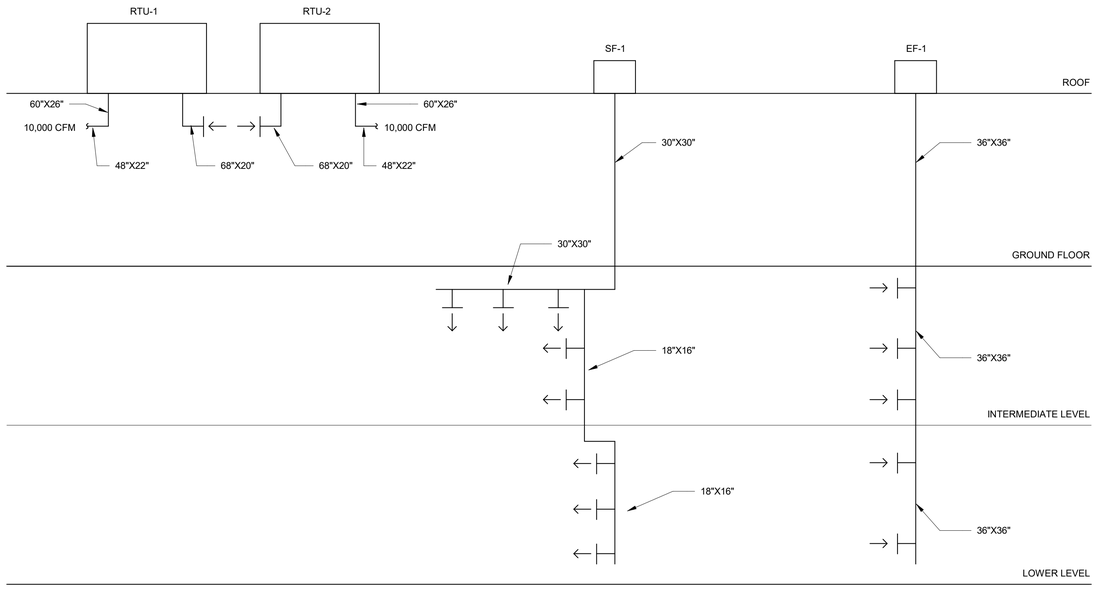
DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

H-001



1 AIRFLOW DIAGRAM
1/2" = 1'-0"



2 Riser Diagram
1/2" = 1'-0"

FAN SCHEDULE										
UNIT NO.	AIRFLOW	RPM	WEIGHT	DRIVE TYPE	ESP	BHP	HP	ELECTRICAL	MANUFACTURER	MODEL
EF-1	4000 CFM	1725	440.00 lb	BELT	0.50 in-wg	.98	1	480/3/60	GREENHECK	TCBRU-1-22-10
SF-1	3625 CFM	1725	495.00 lb	BELT	0.50 in-wg	.98	1	480/3/60	GREENHECK	TCBRS-1-18-10

ROOF TOP UNIT SCHEDULE											
UNIT NO.	AIRFLOW	ESP	TOTAL COOLING	SENSIBLE COOLING	REFRIGERANT	VOLTAGE	FLA	MCA	MOP	WEIGHT	MANUFACTURER & MODEL
RTU-1	10000 CFM	0.69 in-wg	299000.0 Btu/h	229300.0 Btu/h	R-410A	460 V	38 A	56 A	70 A	2175.00 lbf	JOHNSON CONTROLS AD25C0BV4A1CAH11A1
RTU-2	10000 CFM	0.69 in-wg	299000.0 Btu/h	229300.0 Btu/h	R-410A	460 V	38 A	56 A	70 A	2175.00 lbf	JOHNSON CONTROLS AD25C0BV4A1CAH11A1
RTU-7											

ELECTRTIC UNIT HEATER SCHEDULE						
UNIT NO.	INPUT	TEMPERATURE SETPOINT	CFM	OUTPUT (BTU/HR)	ELECTRICAL	MANUFACTURER & MODEL
EUH-1	15 KW	50 F	1450	51,180	480/3/60	Q MARK GUX15004832
EUH-2	15 KW	50 F	1450	51,180	480/3/60	Q MARK GUX15004832
EUH-3	20 KW	50 F	1400	68,240	480/3/60	Q MARK GUX20004832
EUH-4	20 KW	50 F	1400	68,240	480/3/60	Q MARK GUX20004832
EUH-5	20 KW	50 F	1400	68,240	480/3/60	Q MARK GUX20004832
EUH-6	20 KW	50 F	1400	68,240	480/3/60	Q MARK GUX20004832

ELECTRIC BASEBOARD SCHEDULE			
UNIT NO.	CAPACITY	ELECTRICAL	MANUFACTURER AND MODEL
EB-1	1.8 KW	480/3/60	QMARK ICG180483

AIR TERMINAL SCHEDULE			
MARK	SIZE	MANUFACTURER	MODEL
EG-1	18"x12"	TITUS	350FL
RG-1	48"x24"	TITUS	350FL
SG-1	48"x18"	TITUS	300FL
SG-2	18"x10"	TITUS	300FL

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

DRAWING REVISIONS

ORIGINAL SIZE
ARCH D

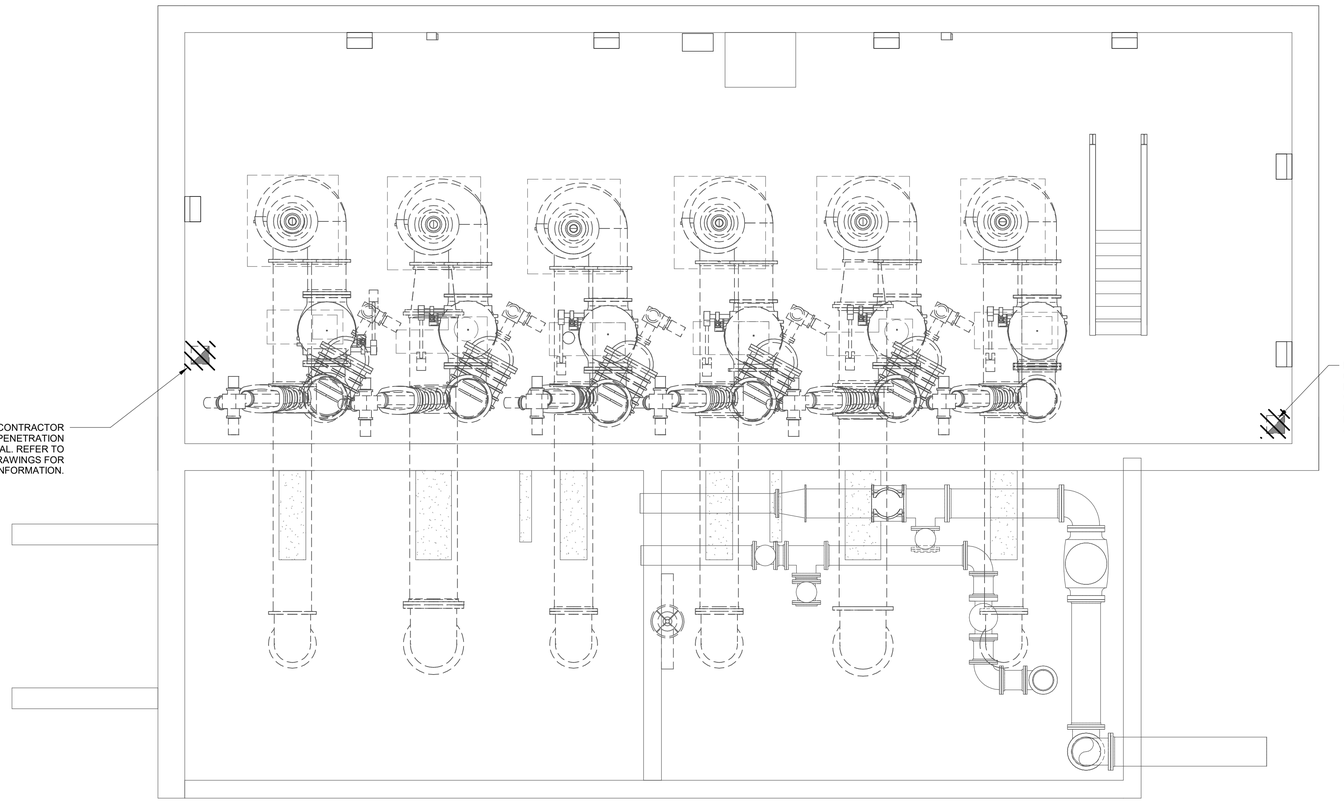
PROJECT TITLE:
MAIN PUMP STATION UPGRADE

CLIENT:
ROCKLAND COUNTY SEWER DISTRICT NO 1

DRAWING TITLE:
AIRFLOW DIAGRAM, RISERS, AND SCHEDULES

DATE: JULY 2021
SCALE: 1/2" = 1'-0"
DRAWN: JSR
CHECKED: GRL
edr Job#: 19190
CONTRACT NO: RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:

H-002



1 LOWER LEVEL DEMOLITION
1/4" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	04/20	60 PERCENT DESIGN REVIEW	JSR	MET
1				

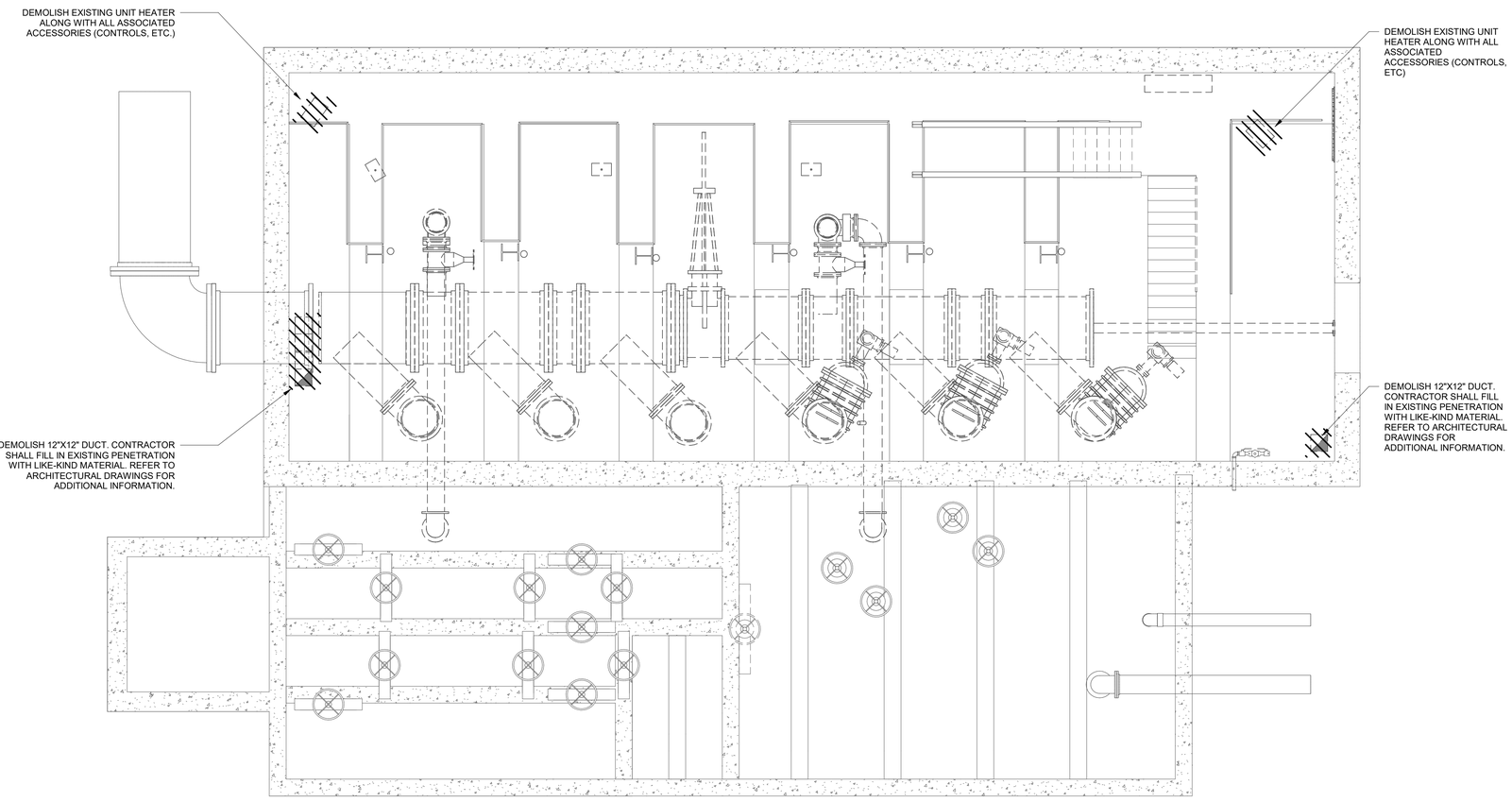
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION DEMOLITION - LOWER LEVEL

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-003**



1 INTERMEDIATE LEVEL DEMOLITION
1/4" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

DRAWING REVISIONS

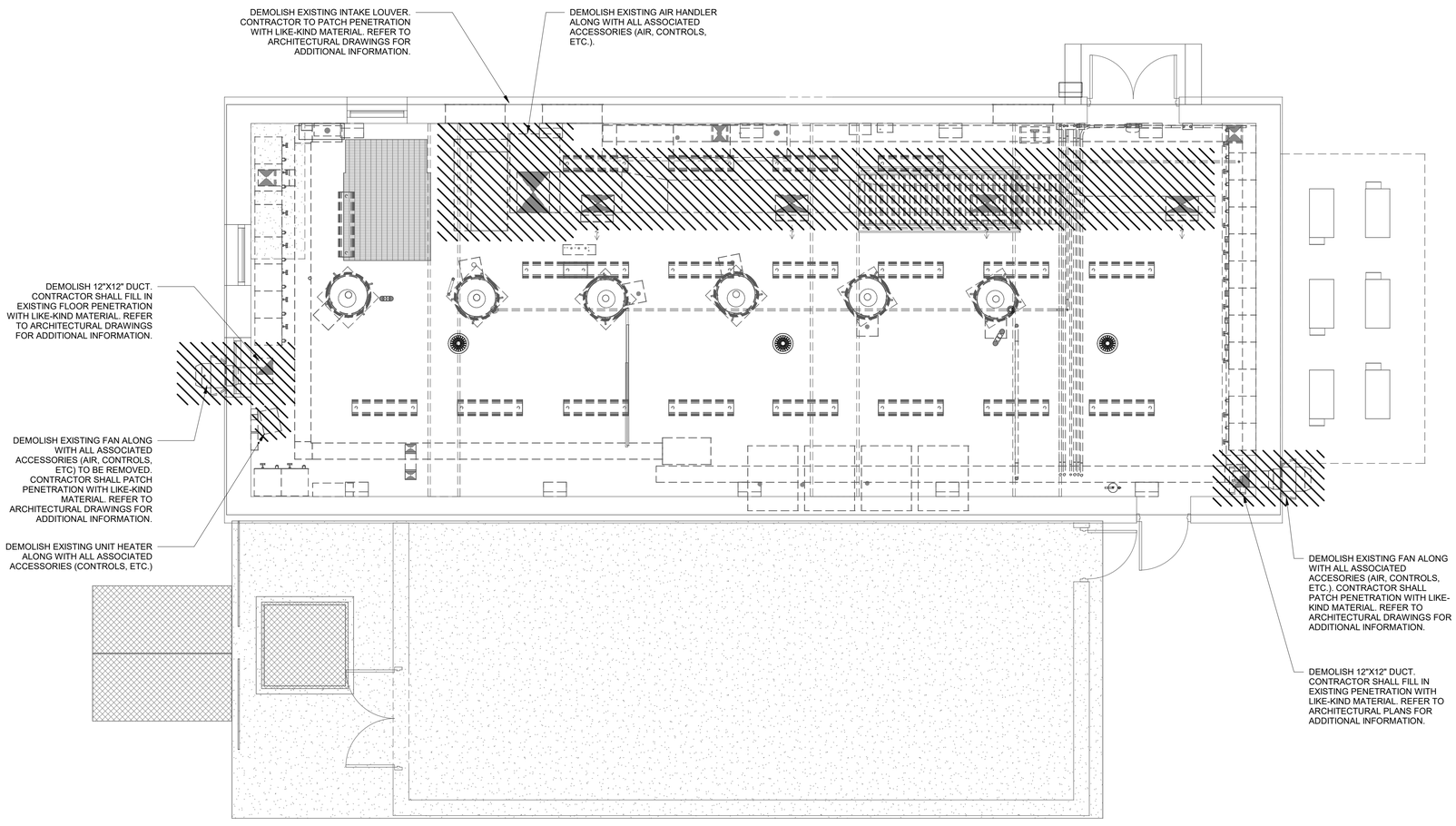
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION DEMOLITION - INTERMEDIATE LEVEL PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-004**



1 GROUND FLOOR PLAN DEMOLITION
1/4" = 1'-0"

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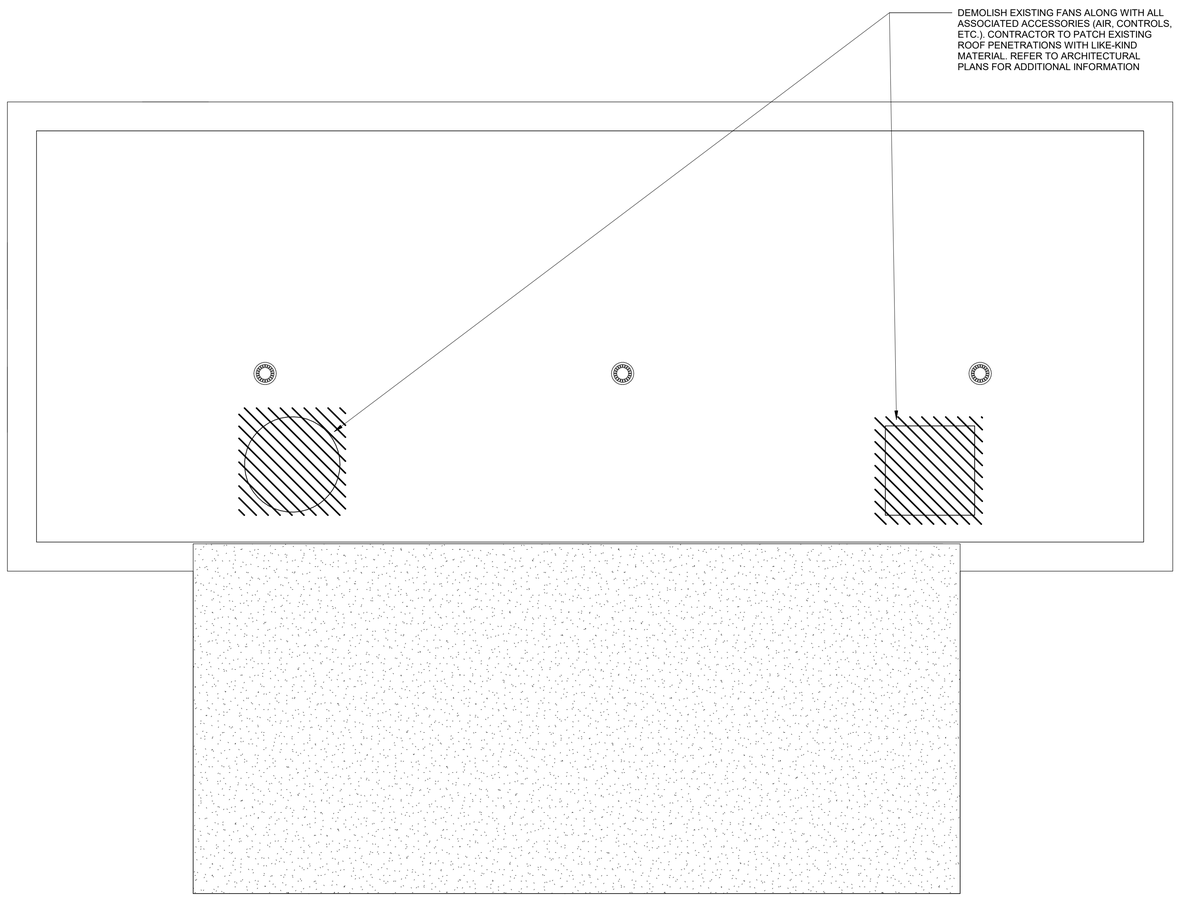
NO:	DATE:	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

DRAWING REVISIONS

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: PUMP STATION DEMOLITION - GROUND FLOOR PLAN
ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-GIP 2020-02
DRAWING NUMBER:	**H-005**



1 ROOF PLAN DEMOLITION
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	04/20	60 PERCENT DESIGN REVIEW	JSR	MET
1				

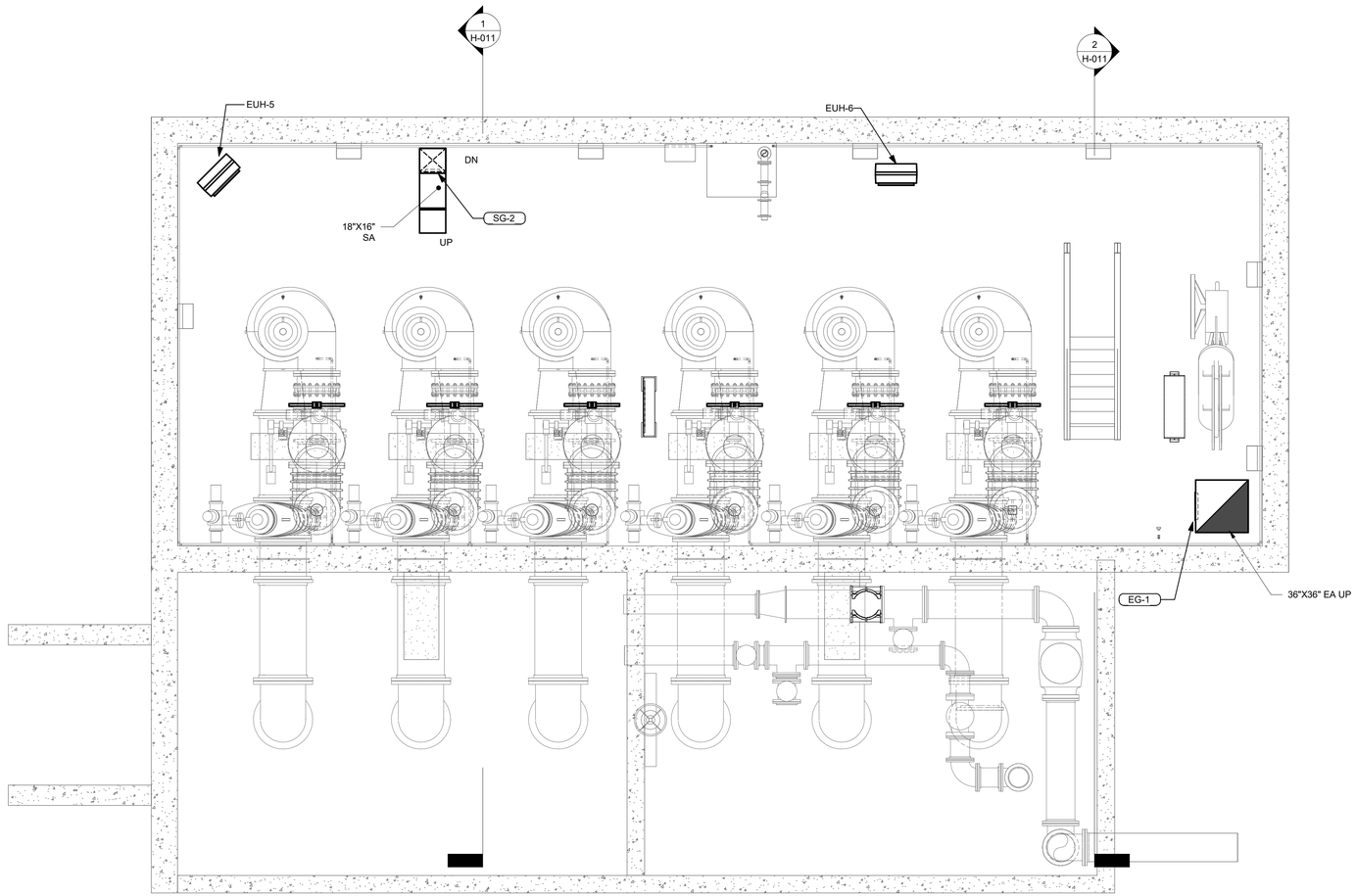
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION DEMOLITION - ROOF PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-006**



1 HVAC LOWER LEVEL PLAN
1/4" = 1'-0"

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LICENSED PROFESSIONAL ENGINEER

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(2). It is applicable to this Drawing: "It is a violation of this
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architect or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer, landscape
architect or land surveyor is altered, the altering engineer,
landscape architect or land surveyor shall affix to the item
a notation bearing his or her name and the words "altered by"
followed by his or her signature and the date of such alteration and a specific
description of the alteration."

DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

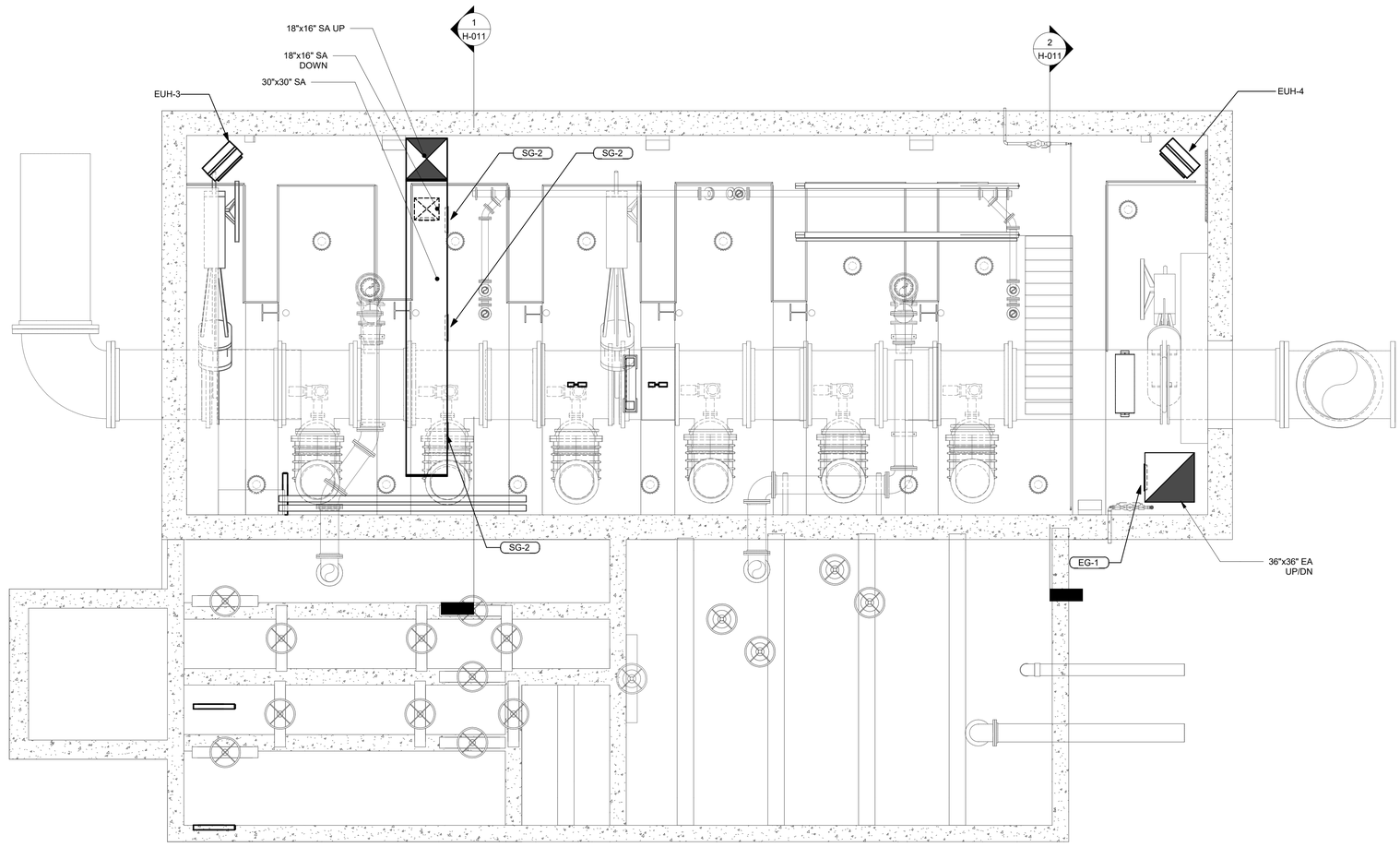
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - LOWER LEVEL PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-007**



1 HVAC INTERMEDIATE LEVEL PLAN
1/4" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

DRAWING REVISIONS

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

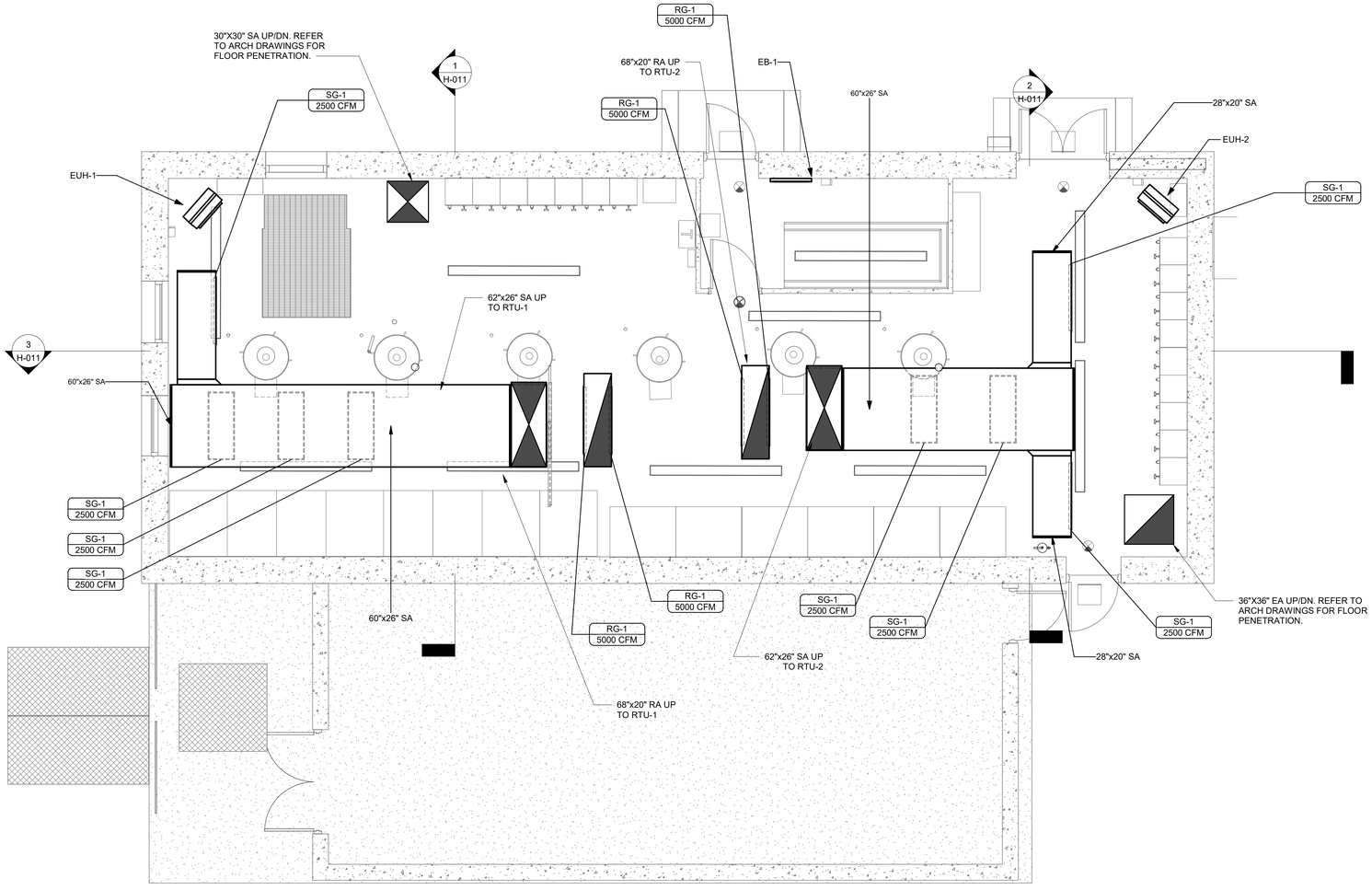
DRAWING TITLE: PUMP STATION - INTERMEDIATE LEVEL PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

DRAWING NUMBER:

H-008



1 HVAC GROUND FLOOR PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

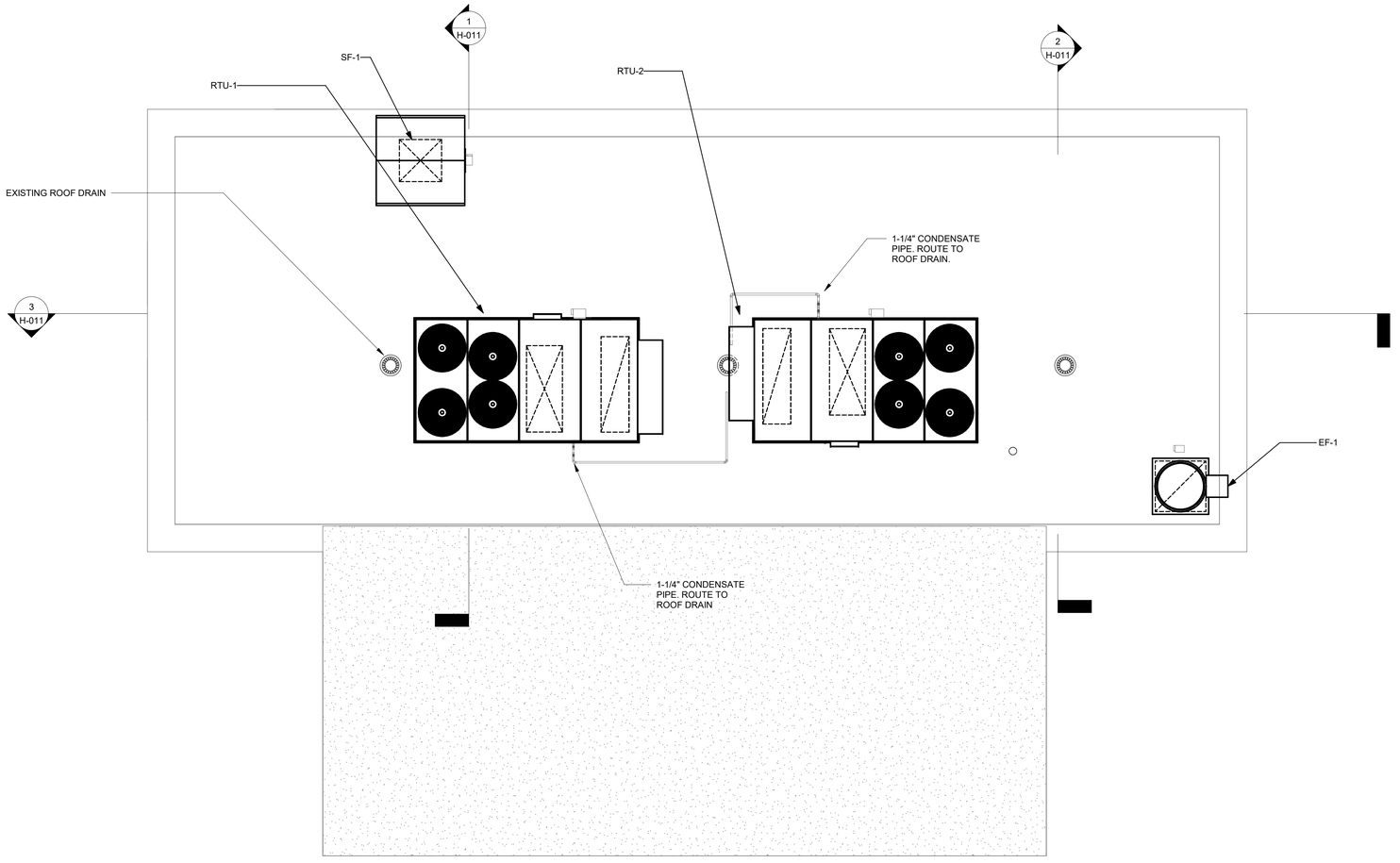
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - GROUND FLOOR PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-009**



1 HVAC ROOF PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	04/20	60 PERCENT DESIGN REVIEW	JSR	MET
1				

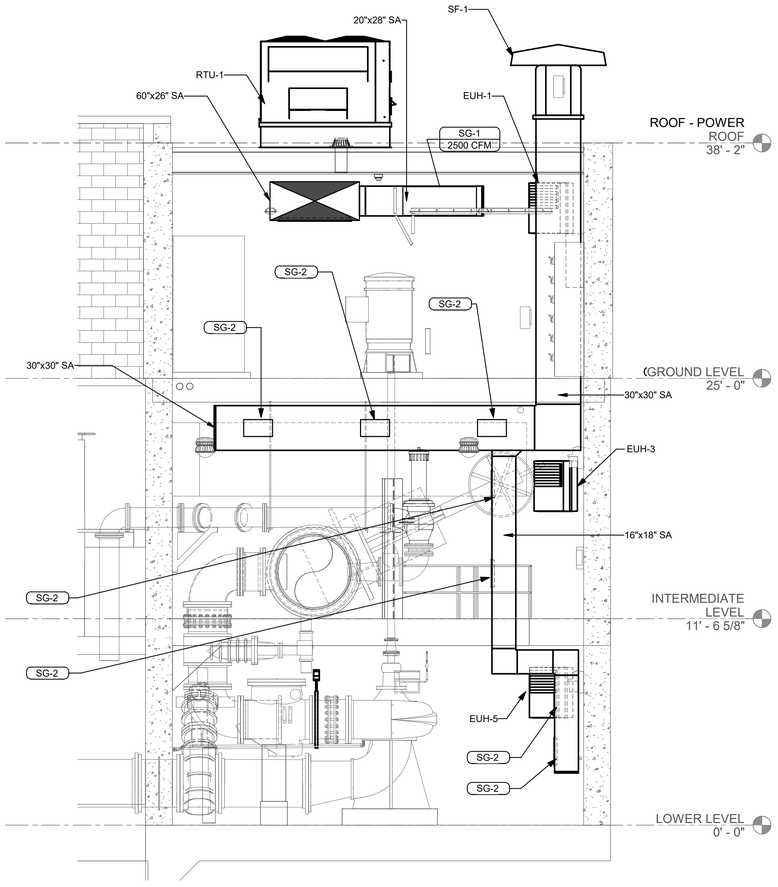
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

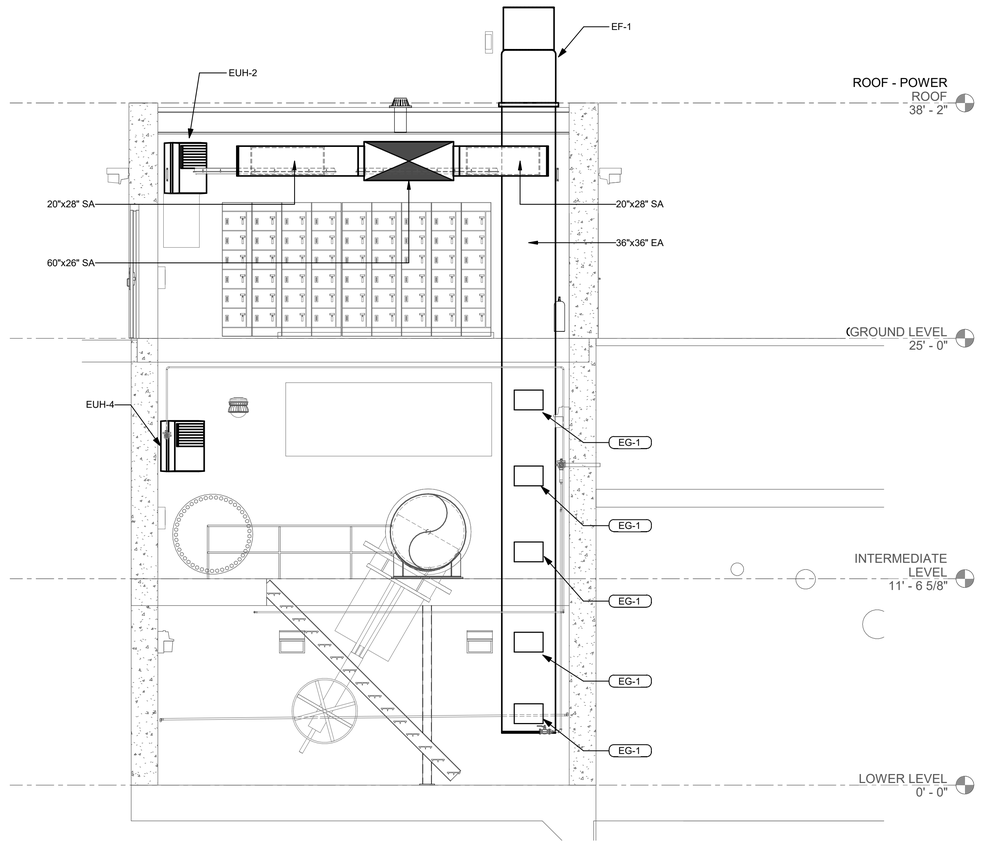
DRAWING TITLE: PUMP STATION - ROOF LEVEL PLAN

ORIGINAL SIZE **ARCH D**

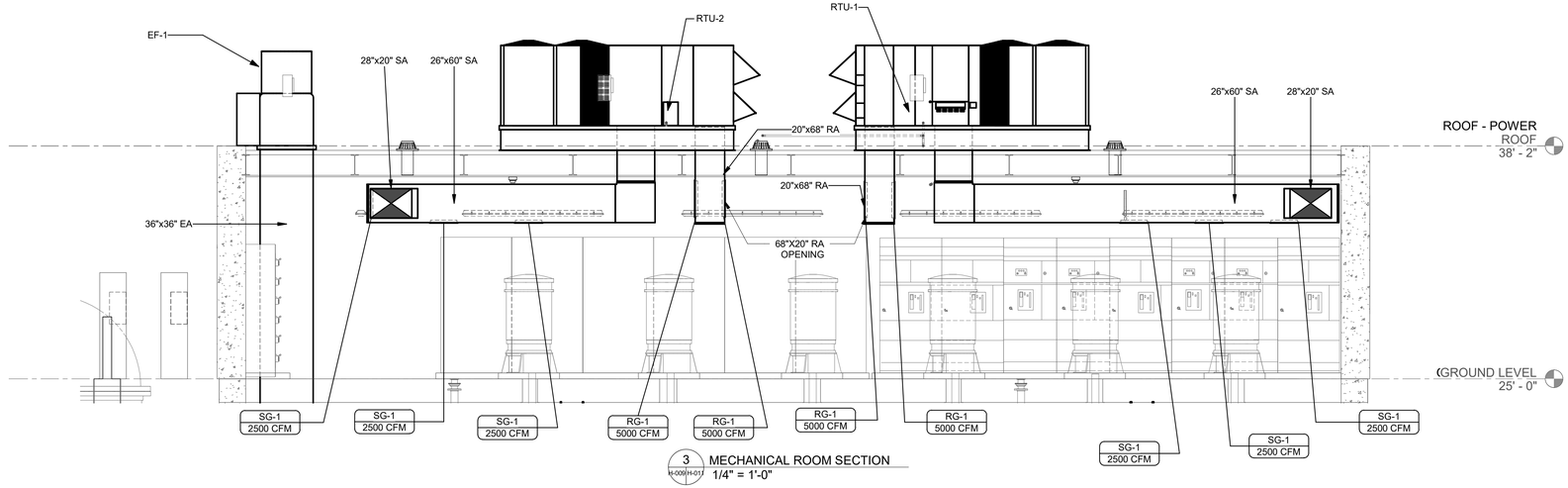
DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-010**



1 LOWER AND INTERMEDIATE LEVEL SUPPLY DUCTWORK SECTION
M-007|H-011
1/4" = 1'-0"



2 LOWER AND INTERMEDIATE LEVEL EXHAUST DUCTWORK SECTION
M-007|H-011
1/4" = 1'-0"



3 MECHANICAL ROOM SECTION
M-009|H-011
1/4" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

DRAWING REVISIONS

ORIGINAL SIZE **ARCH D**

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

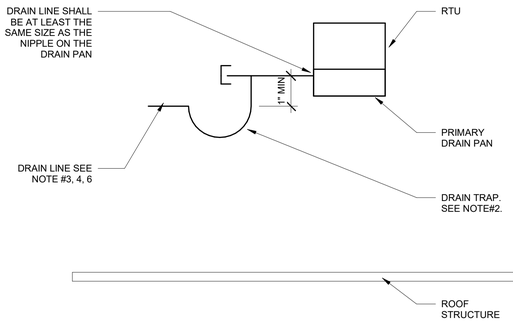
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: **PUMP STATION - SECTIONS**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02

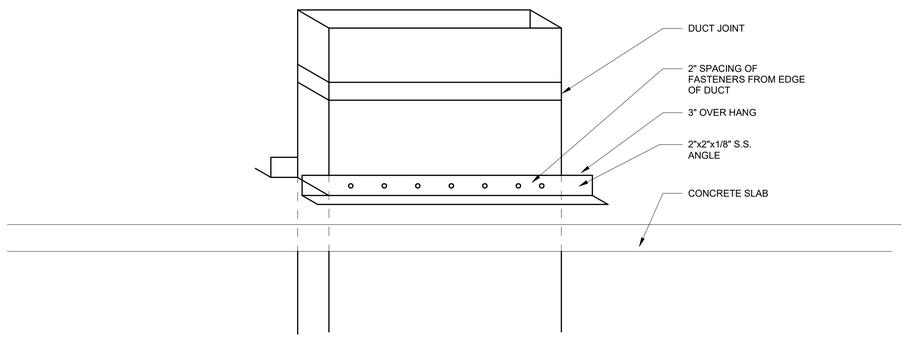
DRAWING NUMBER:

H-011

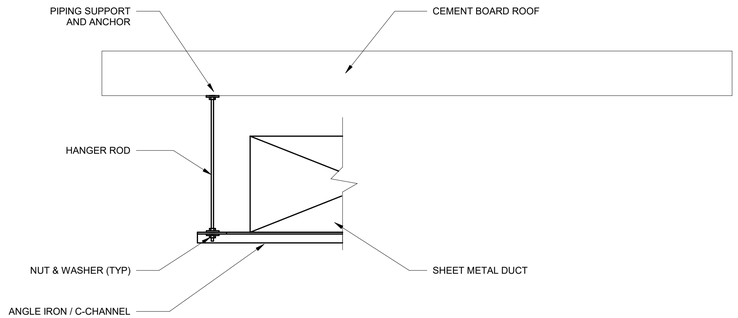


NOTES:
1. THE DEPTH OF THE SEAL SHALL BE A MINIMUM OF THE AIR HANDLING UNITS TOTAL STATIC PRESSURE IN INCHES OF WATER PLUS 1"
2. MANUALLY PRIME FILL TRAP PRIOR TO START-UP OF UNIT.
3. SPILL DRAIN LINE TO ROOF.
4. CONDENSATE LINES FOR SYSTEMS SIZED 5 TONS OR LESS TO BE 1". CONDENSATE LINES FOR SYSTEMS LARGER THEN 5 TONS TO BE 1-1/4". ALL DRAIN LINES TO BE PITCHED.
5. FOR UNITS EQUIPPED WITH SECONDARY DRAIN PANS, PROVIDE A CONDENSATE DRAIN TRAP SIMILAR TO ABOVE.

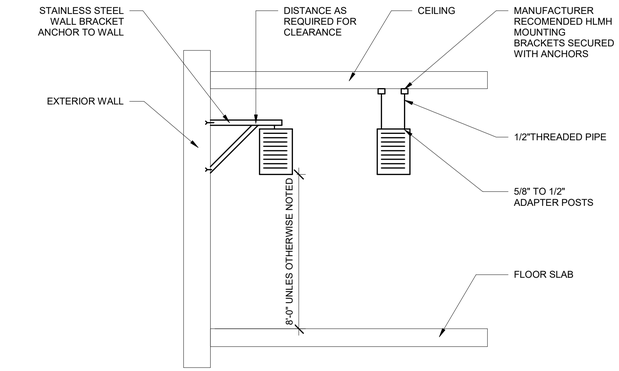
1 H-012 AHU/FAN COIL CONDENSATE DRAIN PIPING
1/8" = 1'-0"



3 H-012 DUCT RISER SUPPORT DETAIL
1/8" = 1'-0"

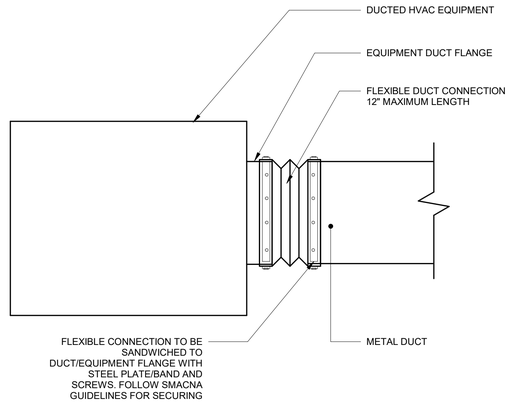


2 H-012 DUCT HANGER DETAIL - CHANEL 2
1/8" = 1'-0"

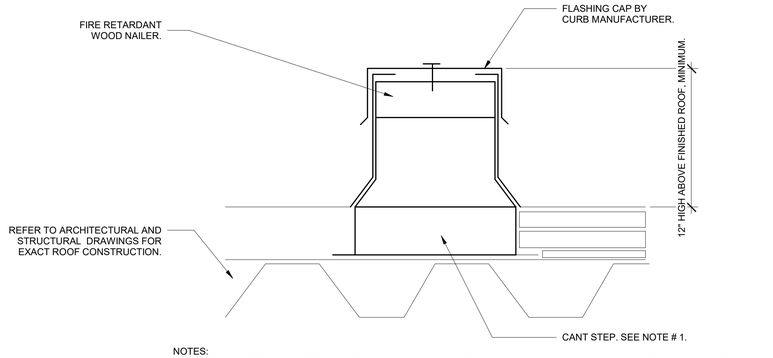


NOTES:
SUPPORT FROM WALL UNLESS OTHERWISE NOTED

4 H-012 ELECTRIC UNIT HEATER MOUNTING DETAIL
1/8" = 1'-0"



5 H-012 FLEXIBLE DUCT CONNECTION TO EQUIPMENT
1/8" = 1'-0"



NOTES:
1. THE RAISED CANT STEP HEIGHT SHALL BE COORDINATED WITH THICKNESS OF ROOF INSULATION ON ARCHITECTURAL DRAWINGS. IN LIEU OF A SUPPORT CURB WITH A RAISED CANT. PROVIDE CONTINUOUS FIRE RETARDANT BLOCKING, UNDER THE RAIL, AND RAISE THE RAIL TO ACCOMMODATE THE THICKNESS OF THE ROOF INSULATION. SECURE BLOCKING TO THE ROOF STRUCTURE AND RAIL TO THE BLOCKING WITH LOAD RATED, RUSTPROOF FASTENERS.
2. THE EQUIPMENT RAIL SHALL BE DESIGNED AND FABRICATED TO THOROUGHLY SUPPORT ITS RESPECTIVE PIECE OF EQUIPMENT. AS A MINIMUM, EQUIPMENT RAILS SHALL BE FABRICATED OF 18 GAUGE GALVANIZED STEEL WITH BUILT-IN CANT, MONOLITHIC CONSTRUCTION WITH INTEGRAL BASE PLATE AND CONTINUOUS MITERED AND WELDED CORNER SEAMS, WITH FACTORY INSTALLED FIRE RETARDANT WOOD NAILER. EACH EQUIPMENT RAIL SHALL INCLUDE A MATCHING 18 GAUGE GALVANIZED STEEL COUNTERFLASHING CAP WITH INTEGRAL DRIP EDGE, ALL CORNERS MITERED AND WELDED, AND SCREWS FOR ATTACHMENT. EQUIPMENT CURBS OVER 3 FEET LONG SHALL INCORPORATE 14 GAUGE INTERNAL GUSSET REINFORCING. SECURELY FASTEN TO ROOF DECK AND INSTALL IN STRICT ACCORDANCE WTIH MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE UNIT/PIPING/DUCTWORK SHALL BE INSTALLED LEVEL AND PLUMB.

6 H-012 PREFAB EQUIPMENT SUPPORT RAIL
1/8" = 1'-0"

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	04/20	60 PERCENT DESIGN REVIEW	JSR	MET
1				

DRAWING REVISIONS

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: DETAILS I

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/8" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**H-012**

DEMOLITION GENERAL NOTES

1. THE DEMOLITION, MODIFICATION OR ALTERATION OF EXISTING BUILDINGS, EQUIPMENT, OR MATERIALS SHALL BE COMPLAINT TO ALL LOCAL REGULATIONS AND STATE CODES.
2. DEMOLISH ALL EXISTING PLUMBING PUMP ROOM EXCEPT FOR EXISTING RPZ DRAIN PIPE AND EFFLUENT CHECK VALVE / RPZ. REMOVE PLUMBING SERVICE BACK TO EXISTING RPZ AND CLOSE VALVE.
3. WHEN CONNECTING TO EXISTING PIPING, REPLACE PIPING BACK TO NEAREST JOINT OR VALVE. SEE NOTE 2.
4. WALLS AND SLABS SHALL BE CORE DRILLED. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT APPROVAL OF THE ENGINEER.
5. FOR MAINTENANCE OF EXISTING PLANT OPERATION AND FOR DEMOLITION SEQUENCE, REFER TO SPECIFICATIONS. CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES WHERE NECESSARY.
6. WHEN DEMOLISHING EXISTING PIPING, REMOVE ALL ASSOCIATED PIPE CASTING, SLEEVES, HANGERS, SUPORTS, ETC. AND PREPARE AND PATCH ALL OPENINGS AS DETAILED ON THE DRAWINGS AND DIVISION 2 SPECIFICATIONS.
7. INCORPORATE NYPA ENVIRONMENTAL SPECIFICATION AND SPECIFICATION 01355 AS NECESSARY FOR REMOVAL OF HAZARDOUS MATERIALS, INCLUDING OIL, MERCURY, PCBS, LEAD, ASBESTOS, ETC.
8. SEE SPECIFICATIONS 02030 AND 02833 FOR ADDITIONAL REQUIREMENTS.

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE SUPPLEMENTAL UNIFORM AND FIRE PREVENTION BUILDING CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL PLUMBING CODE, AND ALL CODES LOCAL OR OTHERWISE HAVING JURISDICTION OVER THE WORK.
2. PIPING IS DIAGRAMMATICALLY SHOWN. EXACT ROUTING OF NEW PIPING & SHALL BE DETERMINED IN FIELD WITH THE APPROVAL OF THE ENGINEER.
3. THE WORDS PROVIDE OR INSTALL, SINGLY OR IN COMBINATION SHALL MEAN FURNISH AND INSTALL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING TO MATCH EXISTING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
5. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED WORK, INCLUDING PROTECTION OF BUILDING OCCUPANTS AND OWNERS EQUIPMENT, PUBLIC, AND PERSONNEL. PROVIDE APPROPRIATE BARRIERS, AND SAFETY GUARD RAILS AS REQUIRED.
6. WHERE WELDING OR OPEN FLAME IS USED FOR CUTTING, SOLDERING, ETC., CONTRACTOR SHALL PROVIDE FIRE EXTINGUISHERS AND A FIRE WATCH IN PROXIMITY OF WORK AREA. CONTRACTOR SHALL PROVIDE HOT WORK PERMIT WHERE NECESSARY.
7. ALL WORK SHALL BE COORDINATED WITH ALL TRADES RELATED TO THE COMPLETION OF THIS PROJECT.
8. THE CONTRACTOR SHALL FILE PLANS WITH THE GOVERNING AUTHORITIES HAVING JURISDICTION AND SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE INSTALLATION OF HIS WORK. SEWER DISTRICT HOT WORKS PERMIT MAY BE REQUIRED.
9. THE CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORK INSTALLED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, AFTER ACCEPTANCE OF THE INSTALLATION BY THE ENGINEER AND OWNER. THE CONTRACTOR SHALL SUBMIT IN WRITING TO OWNER STATING THE SAME. EQUIPMENT WARRANTEES OF A LONGER DURATION SHALL APPLY.
10. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, HIS REPRESENTATIVES AND THE ENGINEER FROM ANY CLAIMS OR SUITS RESULTING IN NEGLIGENCE ON THE PART OF THE CONTRACTOR AND FOR FAILING TO EXECUTE HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
11. THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HOISTING AND SCAFFOLDING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
12. ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND WORKMEN EXPERIENCED IN THE TRADE HAVING JURISDICTION. ALL WORK SHALL BE SUPERVISED AT ALL TIMES AND WORKMANSHIP SHALL BE FIRST CLASS IN ALL RESPECTS AND IN ACCORDANCE WITH BEST TRADE PRACTICES.
13. ANY DEVIATION OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER AND SIGNED BY THE OWNER. ANY WORK INSTALLED WITHOUT PRIOR APPROVAL OF THE ENGINEER AND OWNER OR FOUND TO BE DEFECTIVE IN ANY WAY SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
14. ALL CONSTRUCTION WORK SHALL BE CONFINED TO THE AREA INDICATED ON PLANS AND SHALL NOT BLOCK MEANS OF EGRESS FOR OCCUPANTS OF THE BUILDING.
15. ROUGH PATCHING OF WALLS, FLOORS, ETC. SHALL BE BY TRADE WHO PERFORMED WORK UNLESS OTHERWISE NOTED AND SHALL MATCH EXISTING SURROUNDING AREA IN ALL RESPECTS. WORK AREA SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY. ALL DISCARDED AND DEMOLISHED MATERIAL AND RUBBISH SHALL BE REMOVED FROM PREMISES DAILY IN A LEGAL AND APPROVED MANNER. FINAL PATCHING AND PAINTING SHALL BE PERFORMED BY GENERAL CONTRACTOR.
16. THE CONTRACTOR SHALL SUBMIT DIGITAL COPIES OF SHOP DRAWINGS OF ALL EQUIPMENT, PIPING, AND MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION OF NEW WORK, WITHIN TWO WEEKS AFTER AWARD OF CONTRACT. SHOP DRAWINGS SHALL INDICATE ALL TECHNICAL DATA, STRUCTURAL MEMBERS, WALLS, FLOORS, ETC., WITH ELEVATIONS AT WHICH NEW WORK IS TO BE INSTALLED. ANY DEVIATION IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER AND OWNER. THE ENGINEER SHALL REVIEW AND TURN AROUND SHOP DWGS. WITHIN (7) DAYS OF RECEIPT OF SAME.
17. ALL WORK SHOWN ON ALL DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
18. ALL PENETRATIONS THROUGH PARTITIONS, FLOORS, WALLS AND ROOF FOR ALL PIPING SHALL BE SEALED AND FIRE SAFED OFF TO MAINTAIN FIRE INTEGRITY OF EXISTING STRUCTURE.
19. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AS WELLAS BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF THE WORK.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING REASONABLE PRECAUTIONS AND SHALL PROVIDE REASONABLE PROTECTION TO PREVENT INJURY OR DAMAGE TO PERSONS, THE WORK AND OTHER PROPERTY.

GENERAL ABBREVIATIONS

BFP -	BACKFLOW PREVENTOR
CO -	CLEANOUT
EL -	ELEVATION
TYP -	TYPICAL
RPZ -	REDUCED PRESSURE ZONE VALVE
SAN -	SANITARY
VTR -	VENT THRU ROOF

SYMBOLS

- NEW WORK
- EXISTING CONDITIONS/WORK BY OTHER TRADES
- VENT
- VENT THRU ROOF
- BALL VALVE
- CLEANOUT
- PIPE CAPPED

PIPING SYSTEMS

DCW -	DOMESTIC COLD WATER
SAN -	SANITARY
V -	VENT
EW -	EFFLUENT WATER
SW -	SEALANT WATER

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NO.	DATE	REVISION	DRAWN	APPROVED
5				
4				
3	07/21	FOR CONSTRUCTION	HSM	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

DRAWING REVISIONS

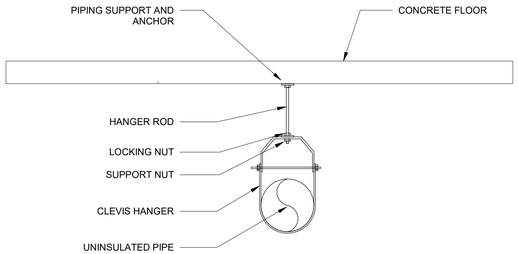
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: NOTES, LEGEND, AND ABBREVIATIONS

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	NO SCALE
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**P-001**

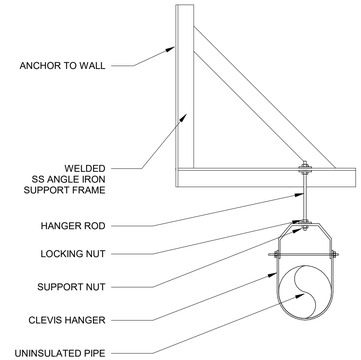


NOMINAL PIPE OR TUBE SIZE- INCHES	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	10	12
HANGER ROD SIZES - INCHES	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	7/8	7/8	7/8	7/8
MAXIMUM SPACING BETWEEN PIPE SUPPORTS- FEET	6	7	9	10	11	12	14	16	17	19	22	23
MAXIMUM SPACING BETWEEN COPPER TUBE SUPPORTS - FEET	6	6	8	9	10	10	12	14	14	16	18	20

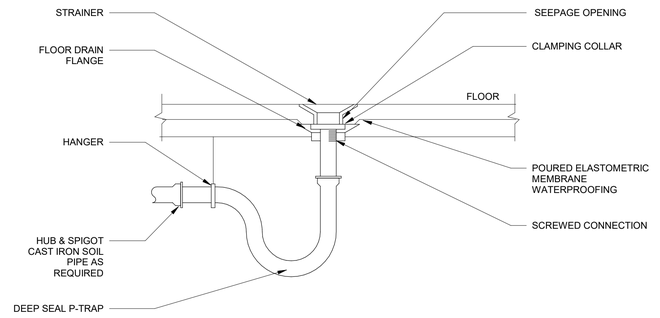
INDIVIDUAL PIPE HANGER ROD & SPACING SCHEDULE

NOTES: TRAPEZE HANGER SPACING SHALL BE BASED ON SPACING OF SMALLEST PIPE ON TRAPEZE. TRAPEZE SHALL BE DESINGED WITH A FACTOR OF SAFETY OF 5 FOR CENTER OF SPAN CONCENTRATED LOAD.

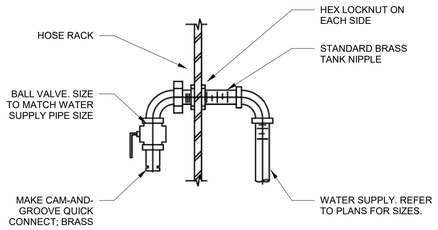
1 P-002 PIPE SUPPORT DETAIL
1/8" = 1'-0"



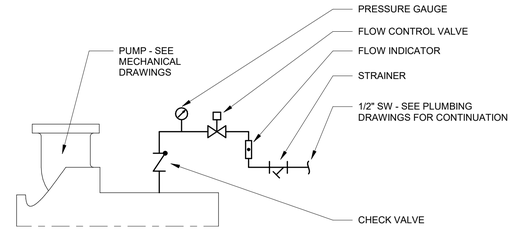
2 P-002 PIPE WALL SUPPORT
1/8" = 1'-0"



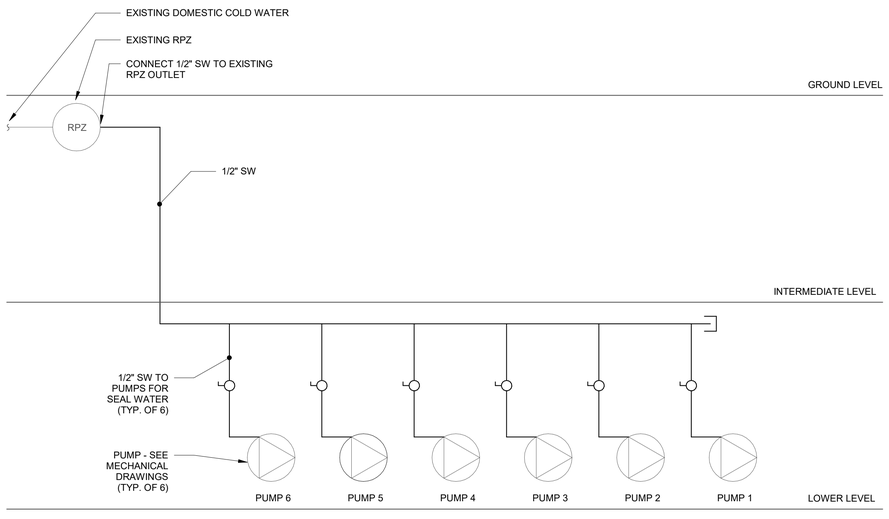
3 P-002 FLOOR DRAIN DETAIL
1/8" = 1'-0"



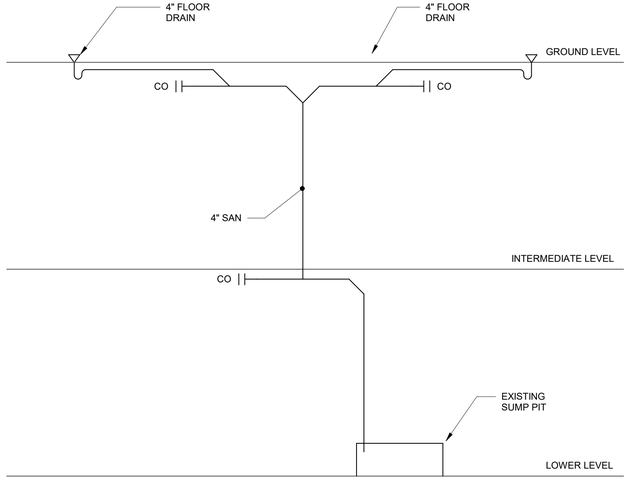
4 P-002 HOSE BIB DETAIL
1/2" = 1'-0"



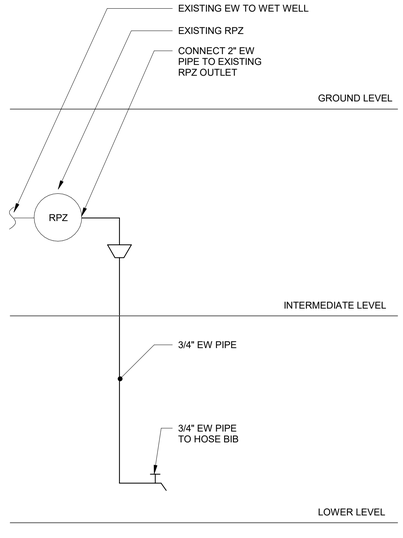
5 P-002 SEAL WATER PIPING DETAIL
1/8" = 1'-0"



SEAL WATER RISER
1/2" = 1'-0"



SANITARY WATER RISER
1/2" = 1'-0"



EFFLUENT WATER RISER
1/2" = 1'-0"

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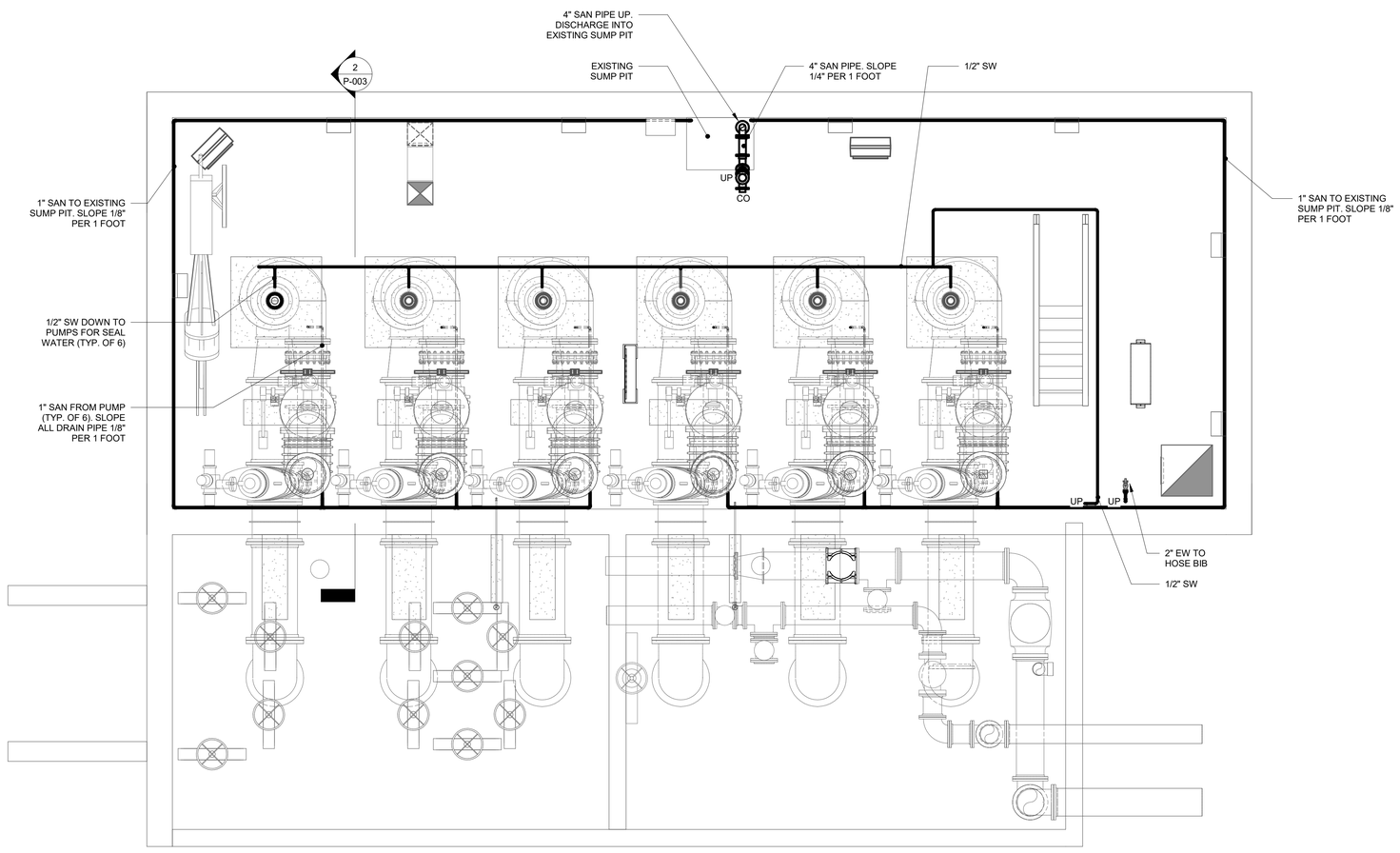
NO.	DATE	REVISION	DRAWN	APPROVED
5				
4	07/21	FOR CONSTRUCTION	HSM	MET
3	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
2	04/20	60 PERCENT DESIGN REVIEW	JSR	MET
1				

DRAWING REVISIONS

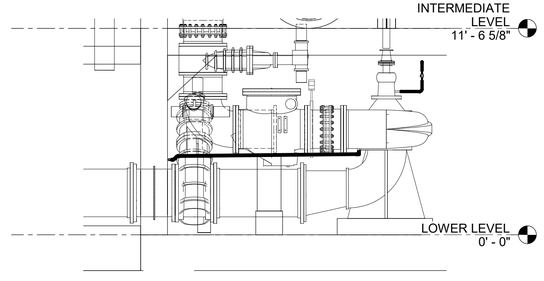
PROJECT TITLE: MAIN PUMP STATION UPGRADE
CLIENT: ROCKLAND COUNTY SEWER DISTRICT NO 1
DRAWING TITLE: DETAILS AND RISERS

ORIGINAL SIZE ARCH D

DATE:	JULY 2021
SCALE:	As indicated
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	P-002



1 PLUMBING LOWER LEVEL PLAN
1/4" = 1'-0"



2 P-003 P-003 PUMP CONNECTION SECTION
1/4" = 1'-0"

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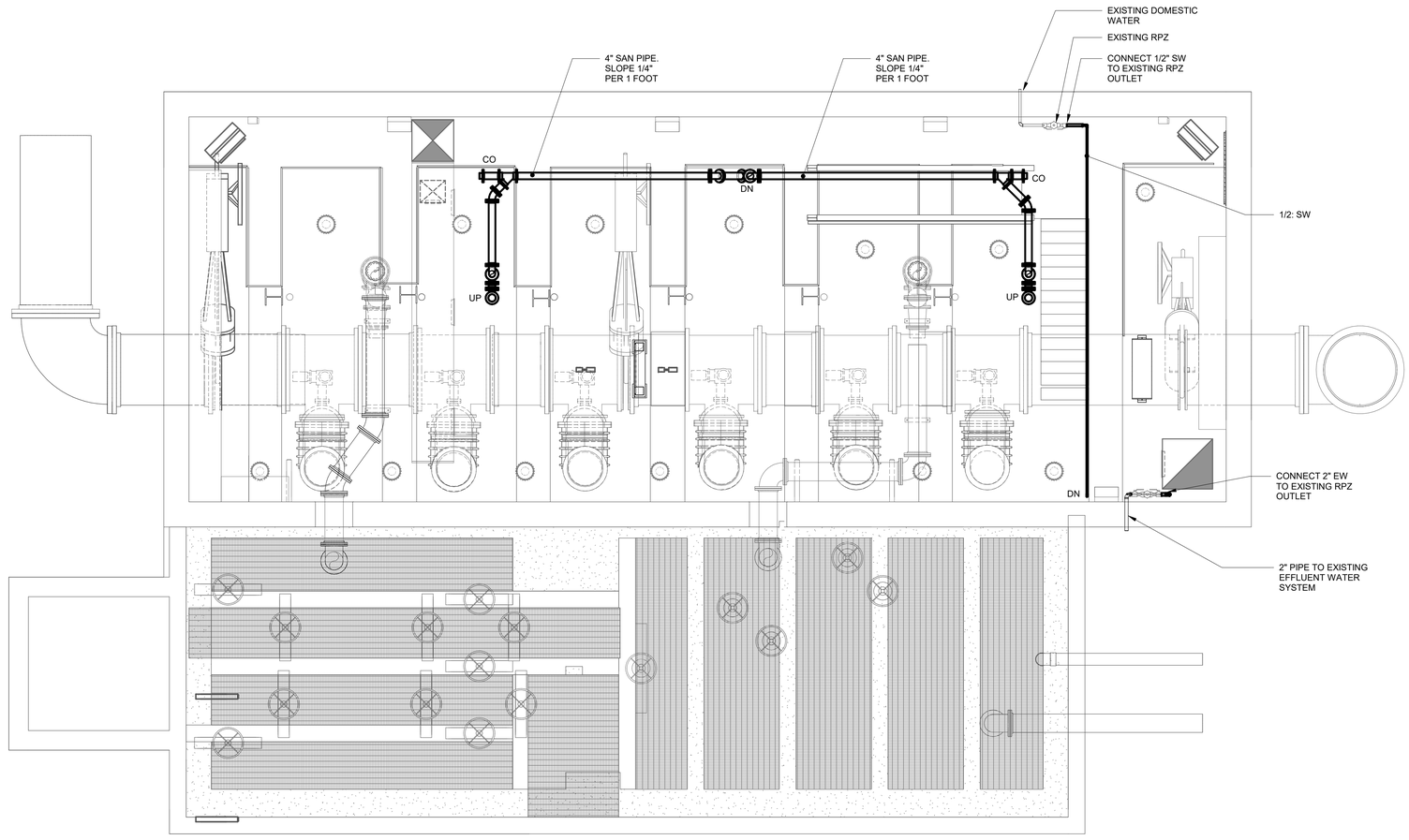
DRAWING REVISIONS			DRAWN	APPROVED
NO:	DATE:	REVISION		
5			HSM	MET
4		FOR CONSTRUCTION	JSR	MET
3	07/21	100 PERCENT DESIGN REVIEW	JSR	MET
2	10/20	90 PERCENT DESIGN REVIEW		
1	04/20	60 PERCENT DESIGN REVIEW		

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: PUMP STATION - LOWER LEVEL PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**P-003**



1 PLUMBING INTERMEDIATE LEVEL PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

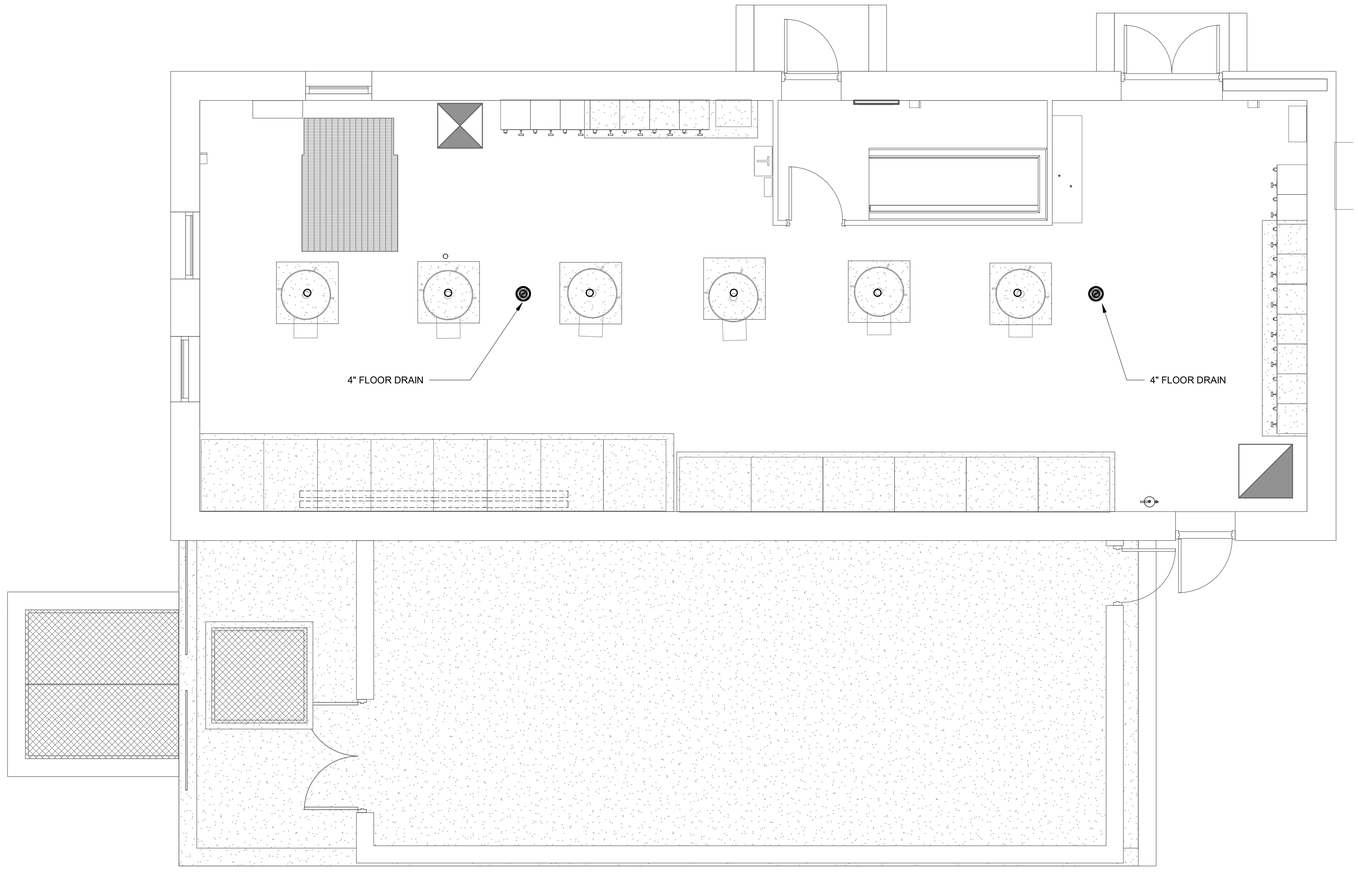
PROJECT TITLE: **MAIN PUMP STATION UPGRADE**

CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**

DRAWING TITLE: PUMP STATION - INTERMEDIATE LEVEL PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**P-004**



1 PLUMBING GROUND FLOOR PLAN
1/4" = 1'-0"

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DRAWING REVISIONS

NO.	DATE	REVISION	DRAWN	APPROVED
5				
4			HSM	MET
3	07/21	FOR CONSTRUCTION	JSR	MET
2	10/20	100 PERCENT DESIGN REVIEW	JSR	MET
1	04/20	60 PERCENT DESIGN REVIEW	JSR	MET

PROJECT TITLE: **MAIN PUMP STATION UPGRADE**
CLIENT: **ROCKLAND COUNTY SEWER DISTRICT NO 1**
DRAWING TITLE: PUMP STATION - GROUND FLOOR PLAN

ORIGINAL SIZE **ARCH D**

DATE:	JULY 2021
SCALE:	1/4" = 1'-0"
DRAWN:	JSR
CHECKED:	GRL
edr Job#:	19190
CONTRACT NO:	RFB-RC-SWR-CIP 2020-02
DRAWING NUMBER:	**P-005**