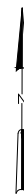


**CONTRACT DOCUMENTS FOR THE
CONSTRUCTION OF THE
ARLINGTON EAST WATER RECLAMATION FACILITY
RAS VALVE REPLACEMENT
JEA PROJECT No. 8005520**



LOCATION MAP
NOT TO SCALE

BID
FEBRUARY 2020

Hazen
HAZEN AND SAWYER
6675 CORPORATE CENTER PARKWAY
SUITE 330
JACKSONVILLE, FLORIDA 32216
CERTIFICATE OF AUTHORIZATION NO.: 2771

INDEX OF DRAWINGS

DRAWING NUMBER	DESCRIPTION
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GENERAL

G000	COVER
G001	INDEX OF DRAWINGS AND ABBREVIATIONS
G002	SYMBOLS
G003	GENERAL NOTES

MECHANICAL

M001	EXISTING RAS PROCESS FLOW DIAGRAM
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SITE

M002	OVERALL YARD PIPING PLAN
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RAS METERING STATION NO. 1

M101	DEMOLITION PLAN AND SECTION
M102	PROPOSED PLAN AND SECTION

RAS METERING STATION NO. 2

M201	DEMOLITION PLAN AND SECTION
M202	PROPOSED PLAN AND SECTION

ELECTRICAL

E001	LEGEND AND SYMBOLS
E002	ABBREVIATIONS AND GENERAL NOTES

SITE

E010	OVERALL PLAN
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RAS METERING STATION NO.1

E101	DEMOLITION PLAN
E102	PLAN

RAS METERING STATION NO.2



























































































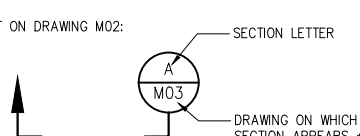
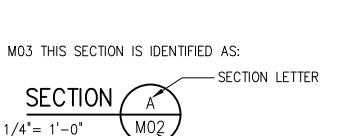
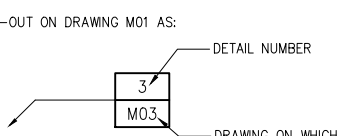
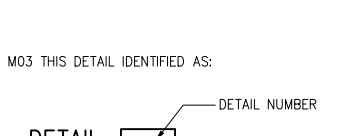
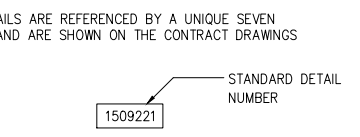
E201	DEMOLITION PLAN
E202	PLAN

BLOCK DIAGRAMS

E301	PROFIBUS NETWORK BLOCK DIAGRAMS
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ABBREVIATIONS									
AB	ANCHOR BOLT	DN	DOWN	I	IRON	PE	PRIMARY EFFLUENT	T	TREAD
AC	ALTERNATING CURRENT/ ASBESTOS CEMENT	DOZ	DOZEN	ID	INSIDE DIAMETER	PE LINING	POLYETHYLENE LINING	T & B	TOP AND BOTTOM
ACT	ACOUSTIC TILE	DR	DOOR	IF	INSIDE FACE	PERF	PERFORATED	T & G	TONGUE AND GROOVE
AD	AREA DRAIN	DWG	DRAWING	IN	INCH	PERP	PERPENDICULAR	TAN	TANGENT
ADJ	ADJUSTABLE	DWL	DOWEL	INCL	INCLUDED	PI	POINT OF INTERSECTION	TBM	TEMPORARY BENCH MARK
AFF	ABOVE FINISHED FLOOR	E	EAST/EASEMENT	INF	INFLUENT	PL	PROPERTY LINE/PLATE	TC	TOP OF CURB
AGGR	AGGREGATE	EA	EACH	INS	INSULATION	PNL	PANEL	TDH	TOP DYNAMIC HEAD
AIR	AIR-LOW PRESSURE	ECC	ECCENTRIC	INT	INTERIOR	PP	POWER POLE	TECH	TECHNICAL
AL	ALUMINUM	EF	EACH FACE	INV	INVERT	PREFAB	PREFABRICATED	TEL	TELEPHONE
ALLOW	ALLOWANCE/ALLOWABLE	EFP	EFFLUENT	J	JOIST	PRV	PRESSURE RELIEF VALVE	TEMP	TEMPERATURE
ALT	ALTERNATE	EXIST IRON PIPE	EXIST IRON PIPE	J	JOIST	PS	PUMPING STATION	TER	TERRAZZO
APPROX	APPROXIMATE	EL OR ELEV	ELEVATION	J	JUNCTION BOX	PSF	POUNDS PER SQUARE FOOT	THERMO	THERMOSTAT
ARCH	ARCHITECTURAL	ELEC	ELECTRIC/ELECTRICAL	JCT	JUNCTION	PSI	POUNDS PER SQUARE INCH	THK	THICK
ASB	ASBESTOS	ELL	ELBOW	JT	JOINT	PT	POINT OF TANGENT/POINT	THRU	THROUGH
ASPH	ASPHALT	ENGR	ENGINEER	L	LENGTH/ANGLE	PTN	PARTITION	TOC	TOP OF CONCRETE
AT	ASPHALT TILE	ENT	ENTRANCE	LA	LINE AHEAD	PV	PLUG VALVE	TOD	TOP OF DECK
B	BORING	EOG	EDGE OF GRAVEL	LAB	LABORATORY	PVC	POLYVINYL CHLORIDE	TOF	TOP OF FOOTING
BD	BOARD	EOP	EDGE OF PAVEMENT	LAM	LAMINATED	PVMT	PAVEMENT	TOM	TOP OF MASONRY
BFE	BOTTOM OF FITTING ELEV	EQ	EQUAL	LAV	LAVATORY	PW	POTABLE WATER	TOS	TOP OF SLAB
BFV	BUTTERFLY VALVE	EQPT	EQUIPMENT	LB	POUND/LINE BACK	QTY	QUANTITY	TOW	TOP OF WALL
BITUM	BITUMINOUS	EW	EACH WAY	LF	LINEAR FEET	R	RADIUS/RISER	TOL	TOLERANCE
B	BASLINE	EX	EXISTING	LG	LONG	RAS	RADIUS/RISER	TPS	TWISTED PAIR SHIELDED
BL	BUILDING LINE	EXC	EXCAVATE	LL	LIVE LOAD	RCP	REINFORCED CONCRETE PIPE	TRANS	TRANSFORMER
BLDG	BUILDING	EXH	EXHAUST	LLH	LONG LEG HORIZONTAL	RD	ROAD/ROOF DRAIN	TYP	TYPICAL
BLK	BLOCK	EXP	EXPANSION	LLV	LONG LEG VERTICAL	RECIR	RECIRCULATION	UG	UNDERGROUND
BM	BENCH MARK	EXT	EXTERIOR	LP	LIGHT POLE	RECP	RECEPTACLE	UH	UNIT HEATER
BOC	BACK OF CURB	FAB	FABRICATE	LPT	LOW POINT	RECT	RECTANGULAR	UNFIN	UNFINISHED
BOT	BOTTOM	F & C	FRAME AND COVER	LT	LIGHT	RED	REDUCER	UNO	UNLESS NOTED OTHERWISE
BRG	BEARING	F & G	FRAME AND GRATE	LTG	LIGHTING	REF	REFERENCE	UR	URINAL
BRK	BRICK	FC	FLUSHING CONNECTION	LVR	LOUVER	REG	REGISTER	UTIL	UTILITY
BRZ	BRONZE	FD	FLOOR DRAIN	LWL	LOW WATER LEVEL	REIN	REINFORCING	VAC	VACUUM
BSMT	BASEMENT	FDN	FOUNDATION	MAG	MAGNETIC	REM	REMOVE	VCT	VINYL COMPOSITE TILE
BT	BOLT	FE	FIRE EXTINGUISHER/ FINAL EFFLUENT	MAG	MAGNETIC	REQD	REQUIRED	VCP	VITRIFIED CLAY PIPE
BUR	BUILT-UP ROOFING	FF	FINISH FLOOR	MAINT	MAINTENANCE	REST	RESTRAINED	VEL	VELOCITY
BV	BALL VALVE	FH	FIRE HYDRANT	MATL	MATERIAL	REV	REVISE	VENT	VENTILATING/VENTILATION
C	CLOSET/CARPET/CHANNEL	FIN	FINISH	MAX	MAXIMUM	RF	ROOF	VERT	VERTICAL
CAB	CABINET	FIX	FIXTURE	MECH	MECHANICAL	RFG	ROOFING	VOL	VOLUME
CB	CATCH BASIN	FL	FLASHING/FLOOR	MEMB	MEMBRANE	RJ	RESTRAINED JOINT	VP	VENT PIPE
C/C	CENTER TO CENTER	FLEX	FLEXIBLE	MET	METAL	RM	ROOM	VWC	VINYL WALL COVERING
CE	CONSTRUCTION EASEMENT	FLG	FLANGE	MFR	MANUFACTURER	RND	ROUND	W	WEST/WIDTH
CEM	CEMENT	FLUOR	FLUORESCENT	MG	MILLION GALLONS	RO	ROUGH OPENING	W/	WITH
CER	CERAMIC	FLXC	FLEXIBLE CONNECTION	MGD	MILLION GALLONS PER DAY	RPM	REVOLUTIONS PER MINUTE	WAS	WASTE ACTIVATED SLUDGE
CF	CUBIC FEET	FOC	FACE OF CURB	MH	MANHOLE	RT	RIGHT	WC	WATER CLOSET
CFM	CUBIC FEET PER MINUTE	FM	FORCE MAIN	MIN	MINIMUM	RTU	REMOTE TERMINAL UNIT	WF	WIDE FLANGE
CI	CAST IRON/CUBIC INCHES	FPR	FIREPROOF	MISC	MISCELLANEOUS	RW	RAW WATER	WH	WALL HYDRANT
CIP	CAST IRON PIPE	FRP	FIBERGLASS REINFORCED	MJ	MECHANICAL JOINT	R/W	RIGHT OF WAY	WI	WROUGHT IRON
CL	CENTER LINE		POLYESTER LAMINATE	ML	MIXED LIQUOR	S	SOUTH/SLOPE	WL	WATER LEVEL
CL2	CHLORINE	FT	FEET	MDG	MOLDING	SAN	SANITARY	W/L	WATER LINE
CLG	CEILING	FTG	FOOTING/FITTING	MO	MASONRY OPENING	SBL	SURVEY BASELINE	WO	WINDOW OPENING
CLKG	CAULKING	FURR	FURRING/FURRED	MOD	MODIFY/MODIFIED	SCE	SECONDARY CLARIFIER EFFLUENT		

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PLOT DATE: 2/14/2020 9:54 AM BY: GDAZ

		SYMBOLS				SECTION AND DETAIL IDENTIFICATION	
GENERAL/CIVIL		MECHANICAL		MECHANICAL CONT.		SECTION IDENTIFICATION	
<div><div>BSMH</div><div></div><div>AERIAL TARGET</div></div> <div><div></div><div>BELLSOUTH MANHOLE</div></div> <div><div></div><div>BENCH MARK</div></div> <div><div></div><div>CATCH BASIN</div></div> <div><div></div><div>CAPPED IRON ROD (AS NOTED)</div></div> <div><div></div><div>CHISEL SQUARE</div></div> <div><div><div>CO</div><div></div></div><div>CLEAN OUT</div></div> <div><div></div><div>CONCRETE MONUMENT (AS NOTED)</div></div> <div><div><div>CUP</div><div></div></div><div>CONCRETE UTILITY POLE</div></div> <div><div></div><div>ELECTRICAL TRANSFORMER PAD</div></div> <div><div></div><div>ELECTRIC BOX</div></div> <div><div></div><div>ELECTRIC MANHOLE</div></div> <div><div></div><div>ELECTRIC METER/SERVICE</div></div> <div><div></div><div>FIRE HYDRANT</div></div> <div><div></div><div>GAS RISER</div></div> <div><div></div><div>GUY ANCHOR AND WIRE</div></div> <div><div><div>GRD</div><div></div></div><div>GROUND ROD</div></div> <div><div></div><div>HOSE BIBB</div></div> <div><div></div><div>IRON PIPE (I.P.)</div></div> <div><div><div>LP</div><div></div></div><div>LIGHT POLE</div></div> <div><div></div><div>MANHOLE</div></div> <div><div></div><div>P.K. NAIL</div></div> <div><div></div><div>SANITARY MANHOLE</div></div> <div><div></div><div>SIGN</div></div> <div><div></div><div>STORM MANHOLE</div></div> <div><div></div><div>SOIL BORING LOCATION</div></div> <div><div></div><div>TEST HOLE LOCATION</div></div> <div><div></div><div>TELEPHONE CABLE RISER</div></div> <div><div></div><div>TELEPHONE MANHOLE</div></div> <div><div></div><div>TELEPHONE RISER</div></div> <div><div></div><div>TRAVERSE POINT</div></div> <div><div><div>YD</div><div></div></div><div>YARD DRAIN</div></div> <div><div></div><div>VALVE BOX</div></div> <div><div><div>VP</div><div></div></div><div>VALVE PIPE</div></div> <div><div></div><div>WATER METER</div></div> <div><div></div><div>WELL</div></div> <div><div><div>WUP</div><div></div></div><div>WOOD UTILITY POLE</div></div> <div><div></div><div>PROPOSED SPOT ELEVATION</div></div> <div><div></div><div>EXISTING SPOT ELEVATION</div></div> <div><div></div><div>CONTOUR LINE ELEVATION</div></div>	<div><div></div><div>MAGNETIC METER (SINGLE LINE)</div></div> <div><div></div><div>MAGNETIC METER (DOUBLE LINE)</div></div> <div><div></div><div>VENTURI METER</div></div> <div><div></div><div>GAUGE</div></div> <div><div></div><div>PNEUMATIC VALVE</div></div> <div><div></div><div>SOLENOID</div></div> <div><div></div><div>MOTOR OPERATED</div></div> <div><div></div><div>BALL VALVE</div></div> <div><div></div><div>BUTTERFLY VALVE / DAMPER</div></div> <div><div></div><div>BALL CHECK VALVE</div></div> <div><div></div><div>CHECK VALVE (SINGLE LINE)</div></div> <div><div></div><div>CHECK VALVE (DOUBLE LINE)</div></div> <div><div></div><div>PUMP CONTROL VALVE</div></div> <div><div></div><div>PLUG VALVE</div></div> <div><div></div><div>GATE VALVE</div></div> <div><div></div><div>DIAPHRAGM VALVE</div></div> <div><div></div><div>THROUGH PLUG VALVE</div></div> <div><div></div><div>THREE WAY VALVE</div></div> <div><div></div><div>PRESSURE REDUCING/RELIEF VALVE</div></div> <div><div></div><div>BACKPRESSURE REGULATOR</div></div> <div><div></div><div>HOSE BIBB (PLAN)</div></div> <div><div></div><div>HOSE BIBB (ELEVATION)</div></div> <div><div></div><div>MECHANICAL COUPLING</div></div> <div><div></div><div>HARNESSED MECHANICAL COUPLING</div></div> <div><div></div><div>GROOVED COUPLING OR ARCHED BAND</div></div> <div><div></div><div>HARNESSED EXPANSION JOINT</div></div> <div><div></div><div>EXPANSION JOINT</div></div> <div><div></div><div>UNION</div></div> <div><div></div><div>WELDED JOINT</div></div> <div><div></div><div>FLANGED JOINT</div></div> <div><div></div><div>MECHANICAL JOINT</div></div> <div><div></div><div>PUSH-ON JOINT</div></div> <div><div></div><div>THREADED JOINT</div></div>	<div><div></div><div>SOCKET WELDED JOINT</div></div> <div><div></div><div>PIPE MATERIAL CHANGE</div></div> <div><div></div><div>REDUCER (SINGLE LINE)</div></div> <div><div></div><div>REDUCER (DOUBLE LINE)</div></div> <div><div></div><div>CONCRETE PIPE SUPPORT</div></div> <div><div></div><div>PRESSURE GAUGE WITH DIAPHRAGM SEAL</div></div> <div><div></div><div>QUICK DISCONNECT COUPLER</div></div> <div><div></div><div>CAPPED END OR PLUGGED END</div></div> <div><div></div><div>STATIC MIXER</div></div> <div><div></div><div>Y- STRAINER</div></div> <div><div></div><div>PULSATION DAMPENER</div></div> <div><div></div><div>PRESSURE RELIEF VALVE</div></div> <div><div></div><div>DIAPHRAGM SEAL</div></div> <div><div></div><div>BACKFLOW PREVENTER</div></div> <div><div></div><div>METERING PUMP</div></div> <div><div></div><div>ROTAMETER</div></div> <div><div></div><div>PUMP</div></div>	<div>(1) SECTION CUT ON DRAWING M02:</div> <div></div> <div>(2) ON DRAWING M03 THIS SECTION IS IDENTIFIED AS:</div> <div></div>				
						DETAIL IDENTIFICATION	
						<div>(1) DETAIL CALL-OUT ON DRAWING M01 AS:</div> <div></div> <div>(2) ON DRAWING M03 THIS DETAIL IDENTIFIED AS:</div> <div></div>	
				GENERAL NOTES		STANDARD DETAIL IDENTIFICATION	
						<div>STANDARD DETAILS ARE REFERENCED BY A UNIQUE SEVEN DIGIT NUMBER AND ARE SHOWN ON THE CONTRACT DRAWINGS AS SHOWN:</div> <div></div> <div>STANDARD DETAILS ARE ARRANGED IN NUMERICAL ORDER ON THE STANDARD DETAIL SHEETS</div> <div>* NOTE: IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACED BY A LINE.</div>	

				PROJECT ENGINEER: P. BENJAMIN	BID SET	<div><div>Hazen</div><div>HAZEN AND SAWYER 6675 CORPORATE CENTER PARKWAY SUITE 330 JACKSONVILLE, FLORIDA 32216 CERTIFICATE OF AUTHORIZATION NO.: 2771</div></div>	<div>ARLINGTON EAST WRF SITE RAS VALVE REPLACEMENT</div> <div><div>JEA</div><div>Building Community</div></div>	SYMBOLS		DATE: FEBRUARY 2020
				DESIGNED BY: P. BENJAMIN						HAZEN NO.: 42000-018
				DRAWN BY: J. JORDAN						CONTRACT NO.: 00
				CHECKED BY: C. KLUG						DRAWING NUMBER:
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE						G002
1	BID	02/2020	PB							
REV	ISSUED FOR	DATE	BY							

NOT APPLICABLE
APPLICABLE

SURVEY & LOCATE DATA:

- ☐ ☒
- 1) ALL ELEVATIONS ARE BASED ON U.S.C.&G.S. DATUM AND SHOWN IN FEET.
- ☐ ☒
- 2) ELEVATIONS ARE BASED ON N.G.V.D. 1929.
- ☒ ☐
- 3) LOCATION OF EXISTING UTILITIES OBTAINED BY SOFT DIG LOCATES WHERE SHOWN ON PLANS, OR INCLUDED WITH BID SPECS.
- ☐ ☒
- 4) EXISTING WATER AND SEWER LINES ARE SHOWN AS PER FIELD LOCATES AND SUBDIVISION AS–BUILT PLANS.
- ☒ ☐
- 5) UNDERGROUND UTILITIES WERE LOCATED UTILIZING GROUND PENETRATING RADAR (GPR) AND A DIGITAL LOCATOR. CONTRACTOR SHALL BE AWARE THAT IN SOME CASES UTILITIES HAVE BEEN LOCATED, AND SURVEY HAS BEEN COMPLETED ONLY ON ONE SIDE OF THE ROAD.
- ☒ ☐
- 6) ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE FROM CENTER TO CENTER OF MANHOLES, CATCH BASINS, INLETS ETC. OR ALONG THE CENTER LINE OF FORCE MAINS AND WATER MAINS.
- ☒ ☐
- 7) INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.
- ☐ ☒
- 8) THE LOCATION OF ALL EXISTING SEWER AND WATER SERVICE LINES MAY NOT BE INDICATED ON THESE PLANS. THE LOCATION OF NEW SERVICES SHALL BE VERIFIED IN THE FIELD.
- ☐ ☒
- 9) BENCHMARK DATA: COORDINATES ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE (0901). ELEVATIONS ARE BASED ON A FOUND X–CUT AT THE NORTHEAST CORNER OF AERATION BASIN NO. 6 AS PER PRIOR SURVEY PREPARED BY L.D. BRADLEY LAND SURVEYORS FILE NO. 99–281 DATED 09/02/99, ELEVATION OF 41.52 AND IS ASSUMED.

PERMIT REQUIREMENTS (NOT ALL INCLUSIVE):

- ☒ ☐
- 1) CONTRACTOR TO OBTAIN ALL REQUIRED RIGHT–OF–WAY PERMITS.
- ☒ ☐
- 2) CONTRACTOR SHALL NOT OPEN CUT STREETS IN THE PROJECT AREA UNLESS SPECIFICALLY SHOWN ON PLANS.
- ☒ ☐
- 3) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CONSUMPTIVE USE PERMIT (C.U.P.) THROUGH THE ST. JOHNS WATER MANAGEMENT DISTRICT SHOULD DEWATERING ACTIVITIES BE REQUIRED.
- ☒ ☐
- 4) THE DEPARTMENT OF TRANSPORTATION, RAILROAD COMPANIES AND C.O.J. ARE TO BE NOTIFIED IN ADVANCE OF CONSTRUCTION PER THEIR RESPECTIVE PERMIT CONDITIONS.
- ☐ ☒
- 5) ALL WORK SHALL BE IN ACCORDANCE WITH BID DOCUMENTS, JEA WATER AND SEWER STANDARDS, DETAILS AND MATERIALS MANUAL, REV. 4/01, AND CITY OF JACKSONVILLE STANDARD SPECIFICATIONS AND DETAILS AND ALL APPLICABLE STATE AND LOCAL REGULATIONS.
- ☒ ☐
- 6) IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.
- ☐ ☒
- 7) THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.
- ☒ ☐
- 8) TREE PROTECTION SHALL BE IN ACCORDANCE WITH JACKSONVILLE ORDINANCE CODE 656 AND/OR AS DETAILED ON SPECIFIC PLAN SHEETS. NO TRIMMING OF OVERHANGING TREE LIMBS WILL BE ALLOWED. USE SMALLER EQUIPMENT IF NECESSARY.
- ☒ ☐
- 9) THE CONTRACTOR SHALL LOCATE THE DRAINAGE INLET STRUCTURES IN THE PROJECT AREA AND ERECT SEDIMENTATION CONTROL DEVICES AS NECESSARY PER THE CITY OF JACKSONVILLE STORMWATER POLLUTION PREVENTION PLAN.
- ☐ ☒
- 10) CONTRACTOR TO COORDINATE WORK WITH OTHER UTILITIES DURING CONSTRUCTION.

INSTALLATION NOTES:

- ☒ ☐
- 1) CONTRACTOR TO REHABILITATE ALL MANHOLES ON PIPE BURST SEWERS VIA COATING/LINING PER JEA SPECIFICATION 446–2, UNLESS OTHERWISE NOTED ON THE PLANS.
- ☒ ☐
- 2) CONTRACTOR TO RENEW, REHABILITATE, REPLACE OR REINSTALL AS APPLICABLE ALL SERVICE LATERALS TO R.O.W. LINE.
- ☒ ☐
- 3) CONTRACTOR TO INSTALL SEWER SERVICE PIPING A MINIMUM OF 60 INCHES BELOW GRADE. WHERE NEW SANITARY SEWER MAIN IS LESS THAN 5 FEET DEEP, THE SEWER SERVICE PIPE SHALL BE INSTALLED AS DEEP AS POSSIBLE.
- ☒ ☐
- 4) WHEN THE DISTANCE BETWEEN A POWER POLE AND THE TRENCH IS LESS THAN THE TRENCH DEPTH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH JEA ELECTRICAL PERSONNEL TO SECURE POWER POLES. THE CONTACTS FOR JEA ARE AS FOLLOWS:
NORTHSIDE~EAST of US–1 MIKE CORBITT @ 665–7991 (mobile 662–0635)
NORTHSIDE~WEST of US–1 ANDY YEAGER @ 665–7998 (mobile 662–0622)
NORTHSIDE~BACKUP ALAN AINSLEY @ 665–7303 (mobile 662–6557)
SOUTHSIDE~SOUTH of BEACH BLVD. TOM KERNS @ 665–6847 (mobile 860–1687)
SOUTHSIDE~NORTH of BEACH BLVD. DERYL BASFORD @ 665–6855 (mobile 662–0616)
SOUTHSIDE~BACKUP EDDIE GALES @ 665–6855 (mobile 662–0616)
A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED FOR AN OUTSIDE MEETING WITH JEA ELECTRICAL TO DISCUSS THE REQUIRED WORK. ADDITIONAL TIME WILL BE REQUIRED BY JEA ELECTRICAL FOR ANY REQUIRED WORK TO BE ACCOMPLISHED.
- ☒ ☐
- 5) ALL NEW STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
- ☒ ☐
- 6) THE DESIGN FOR THE PROJECT IS BASED UPON THE "OPEN–CUT" METHOD OF CONSTRUCTION. IF USING ALTERNATIVE MEANS OR METHODS, THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE STANDARDS FOR THAT MEANS OR METHOD.
- ☒ ☐
- 7) THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AT SERVICE CONNECTIONS. THE MEANS AND METHODS SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. NO EXISTING ACTIVE SERVICE SHALL BE LEFT INTERRUPTED AT THE END OF THE WORK DAY.
- ☒ ☐
- 8) CONTRACTOR SHALL PROVIDE ADDITIONAL CORPORATION STOPS FOR FILLING AND DRAINING PURPOSES DURING CONSTRUCTION AS NEEDED. CORPORATION STOPS ARE TO BE PLUGGED AND LEFT IN PLACE. INDICATE CORPORATION STOP LOCATIONS ON RECORD DRAWINGS. (AS–BUILTS)
- ☒ ☐
- 9) WATER AND SEWER SERVICES SHALL BE TRANSFERRED TO THE NEW MAIN UPON COMPLETION AND F.D.E.P./J.E.A. CERTIFICATION, AND PRIOR TO THE EXISTING MAINS BEING ABANDONED.
- ☒ ☐
- 10) IF EXISTING VALVES ARE IN UNPAVED AREAS AND ARE TO BE TAKEN OUT OF SERVICE, THEY SHALL BE CLOSED AND THE VALVE BOX AND COVER SHALL BE REMOVED. IF THE VALVES ARE UNDER PAVED AREAS, THEY SHALL BE CLOSED, THE VALVE BOX GROUT FILLED AND THE COVER REMOVED.
- ☒ ☐
- 11) CONTRACTOR SHALL REPLACE EXISTING WATER METER BOXES WHEN DEEMED NECESSARY BY THE JEA INSPECTOR.
- ☒ ☐
- 12) CONTRACTOR TO PROVIDE ADDITIONAL DEPTH OF BURY VIA PIPE JOINT DEFLECTION TO ACCOMMODATE VALVE SELECTION PER JEA STANDARDS.
- ☒ ☐
- 13) WATER METERS MAY REQUIRE RELOCATION FOR CONSTRUCTION, CONTRACTOR SHALL CONTACT JEA METER DEPARTMENT AND RELOCATE WATER METERS AS NECESSARY.
- ☒ ☐
- 14) PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL OBTAIN ALL GEOTECHNICAL AND TOPOGRAPHIC SURVEY DATA AND LOCATIONS OF ABOVE GROUND AND UNDERGROUND UTILITIES. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER IN ORDER THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED.
- ☒ ☐
- 15) SHEET PILING WILL BE REQUIRED ON ALL EXCAVATIONS DEEPER THAN 16 FEET.

RESTORATION NOTES:

- 1) THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARKS WHICH MAY BE DISTURBED BY CONSTRUCTION, KNOWN CORNER LOCATIONS ARE AVAILABLE FROM THE CITY OF JACKSONVILLE ENGINEERING DIVISION.
- 2) THE CONTRACTOR SHALL RESTORE/REPLACE ALL CULVERTS, HEADWALLS AND STORM DRAIN INLETS REMOVED OR DISTURBED BY THE CONSTRUCTION OPERATION.
- 3) TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR PRE–CONSTRUCTION CONDITION IN ACCORDANCE WITH CITY OF JACKSONVILLE/FDOT STANDARD SPECIFICATIONS.
- 4) SIDEWALKS, DRIVEWAYS AND CURBING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH JACKSONVILLE STANDARD SPECIFICATIONS. SIDEWALKS REMOVED AND REPLACED IN CURB AND GUTTER AREAS AT INTERSECTIONS SHALL HAVE HANDICAP RAMPS INSTALLED. DRIVEWAYS AND SIDEWALKS SHALL BE SAWCUT ALONG THE RIGHT–OF–WAY LINE OR NEAREST JOINT AND REMOVED AND REPLACED TO THE EDGE OF STREET.
- 5) GRASS SOD SHALL BE FURNISHED AND PLACED IN THE AREAS DISTURBED OR DAMAGED BY THE CONSTRUCTION OPERATION.
- 6) ALL PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH THE CITY OF JACKSONVILLE/FDOT STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
- 7) UNLESS OTHERWISE NOTED, REMOVE AND REPLACE EXISTING PAVEMENT AS PER C.O.J. CASE X (10) PAVEMENT REPLACEMENT DETAIL.
- 8) CONTRACTOR MUST MAINTAIN AND PRESERVE NEWLY GRADED AREAS AND REPAIR AREAS WHERE SETTLING AND EROSION HAVE OCCURRED.

UTILITY CONTACTS

A.	AMERICAN TELEPHONE & TELEGRAPH CO.	-----	904–353–2229
B.	BELLSOUTH TELEPHONE CO. ~ GARRETT RIGBY ~ PM NORTH DISTRICT	-----	904–519–2544
C.	BELLSOUTH TELEPHONE CO. ~ LARRY KEELS ~ PM SOUTH DISTRICT	-----	904–519–2529
D.	CITY OF JACKSONVILLE PUBLIC WORKS DEPT.	-----	904–630–1665
E.	CITY OF JACKSONVILLE STREETS AND DRAINAGE DEPT.	-----	904–630–1341
F.	CITY OF JACKSONVILLE TRAFFIC ENGINEERING DEPT.	-----	904–387–8863
G.	FLORIDA DEPT. OF TRANSPORTATION	-----	904–381–8778
H.	JE A ~ COLLECTION & DISTRIBUTION	-----	904–665–8491
I.	JE A ~ GENERAL INFORMATION	-----	904–665–6000
J.	JE A ~ PROJECT OUTREACH	-----	904–665–7500
K.	JE A ~ POWER OUTAGES	-----	904–665–0300
L.	JE A ~ SEWER PROBLEMS	-----	904–665–4802
M.	JE A ~ WATER PROBLEMS	-----	904–665–4801
N.	JE A–WATER & SEWER LOCATES	-----	904–665–7613
O.	COMCAST	-----	904–380–6423
P.	MOBILE ONE	-----	904–733–9533
Q.	TECO/PEOPLES GAS JOHN CUNNINGHAM ~ ENGINEERING SUPERVISOR	-----	904–739–1211
R.	SUNSHINE ONE CALL	-----	800–432–4770

EXISTING UTILITY PROTECTION:

- 1) IN ORDER TO REDUCE THE DISRUPTION AND COST OF UTILITY DAMAGES OCCURRING IN THE DUVAL COUNTY RIGHT–OF–WAY AND EASEMENTS, THE CONTRACTOR SHALL PREVENT DAMAGES TO EXISTING UTILITIES CAUSED BY HIS WORK THROUGH FIELD VERIFICATION OF THE LOCATION OF THE EXISTING UTILITIES. IN THE CASE OF OPEN EXCAVATION, VERIFICATION MAY BE PERFORMED DURING THE CONTRACTORS WORK. IN THE CASE OF DIRECTIONAL DRILLING, VERIFICATION SHALL TAKE PLACE PRIOR TO MOBILIZATION OF THE DRILLING EQUIPMENT.
- 2) THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AS NEEDED TO AVOID CONTACT. EXISTING UTILITIES SHALL BE EXPOSED USING DETECTION EQUIPMENT OR OTHER ACCEPTABLE MEANS. SUCH METHODS MAY INCLUDE BUT SHALL NOT BE LIMITED TO "SOFT DIG" EQUIPMENT AND GROUND PENETRATING RADAR (GPR). THE EXCAVATOR SHALL BE HELD LIABLE FOR DAMAGES CAUSED TO THE CITY'S/JEA'S INFRASTRUCTURE AND THE EXISTING FACILITIES OF OTHER UTILITY COMPANIES.
- 3) IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW GROUND SURFACE. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	P. BENJAMIN
				DRAWN BY:	J. JORDAN
				CHECKED BY:	C. KLUG
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
1	BID	02/2020	PB		
REV	ISSUED FOR	DATE	BY		

BID SET

Hazen

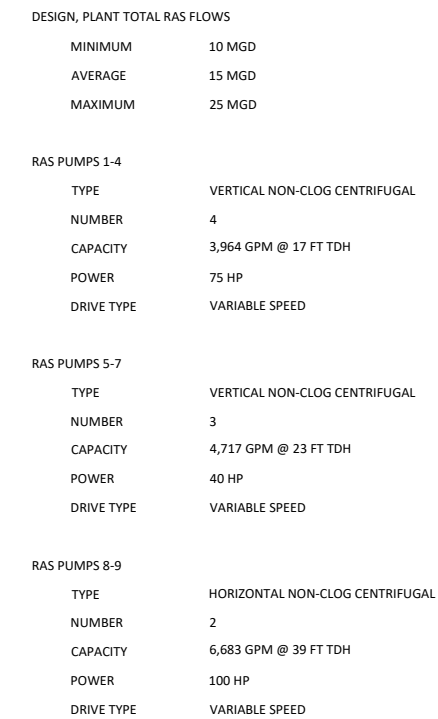
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6675 CORPORATE CENTER PARKWAY
SUITE 330
JACKSONVILLE, FLORIDA 32216
CERTIFICATE OF AUTHORIZATION NO.: 2771

ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT

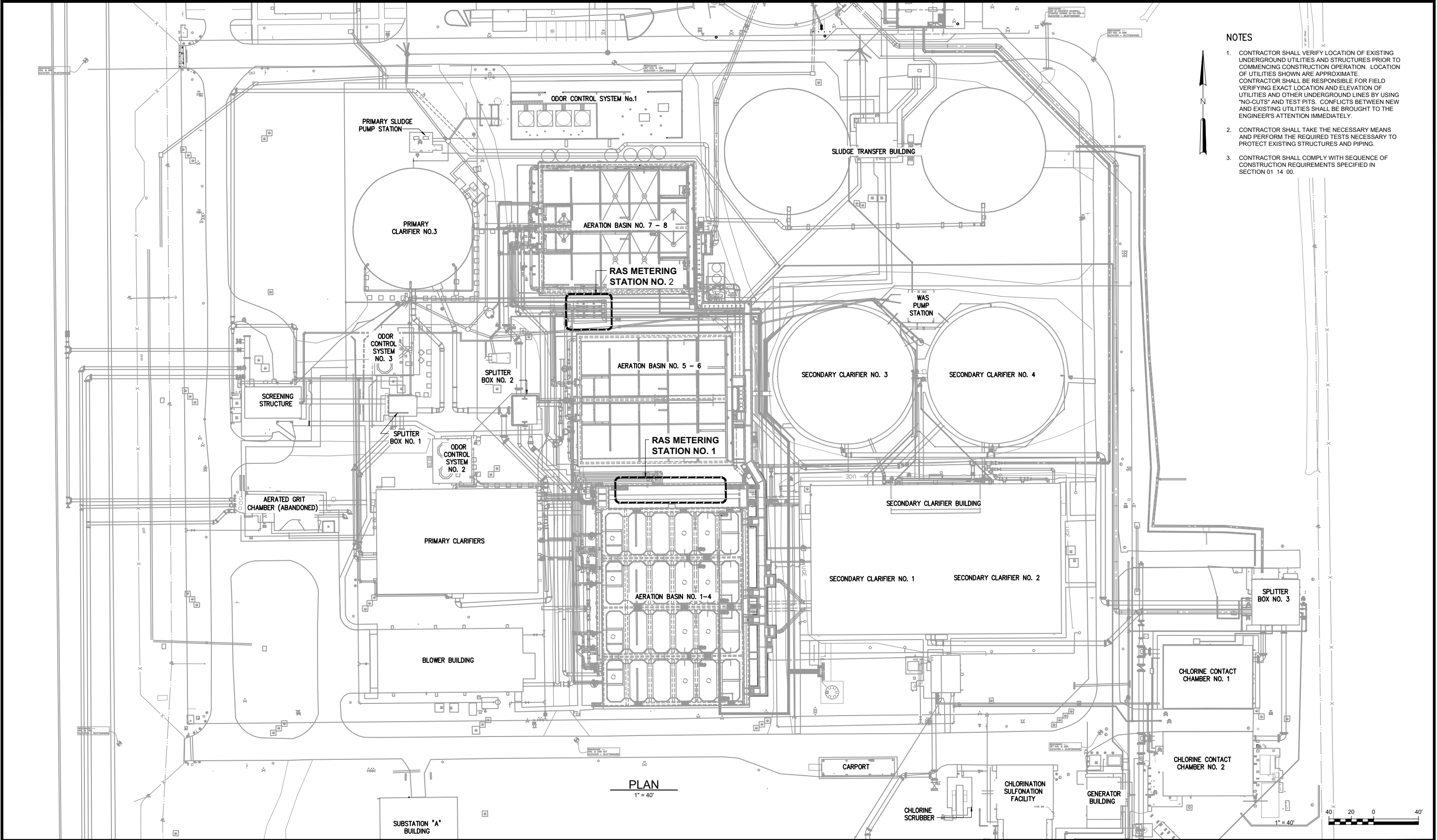


GENERAL NOTES

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	G003



BID SET	 <p>HAZEN AND SAWYER 6675 CORPORATE CENTER PARKWAY SUITE 330 JACKSONVILLE, FLORIDA 32216 CERTIFICATE OF AUTHORIZATION NO.: 2771</p>	<p>ARLINGTON EAST WRF SITE RAS VALVE REPLACEMENT</p> 	<p>EXISTING RAS PROCESS FLOW DIAGRAM</p>	DATE: FEBRUARY 2020
				HAZEN NO.: 42000-018
				CONTRACT NO.: 00
				DRAWING NUMBER: M001



- NOTES
1. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO COMMENCING CONSTRUCTION OPERATION. LOCATION OF UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXACT LOCATION AND ELEVATION OF UTILITIES AND OTHER UNDERGROUND LINES BY USING "NO-CUTS" AND TEST PITS. CONFLICTS BETWEEN NEW AND EXISTING UTILITIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
 2. CONTRACTOR SHALL TAKE THE NECESSARY MEANS AND PERFORM THE REQUIRED TESTS NECESSARY TO PROTECT EXISTING STRUCTURES AND PIPING.
 3. CONTRACTOR SHALL COMPLY WITH SEQUENCE OF CONSTRUCTION REQUIREMENTS SPECIFIED IN SECTION 01 14 00.

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	P. BENJAMIN
				DRAWN BY:	J. JORDAN
				CHECKED BY:	C. KLUG
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
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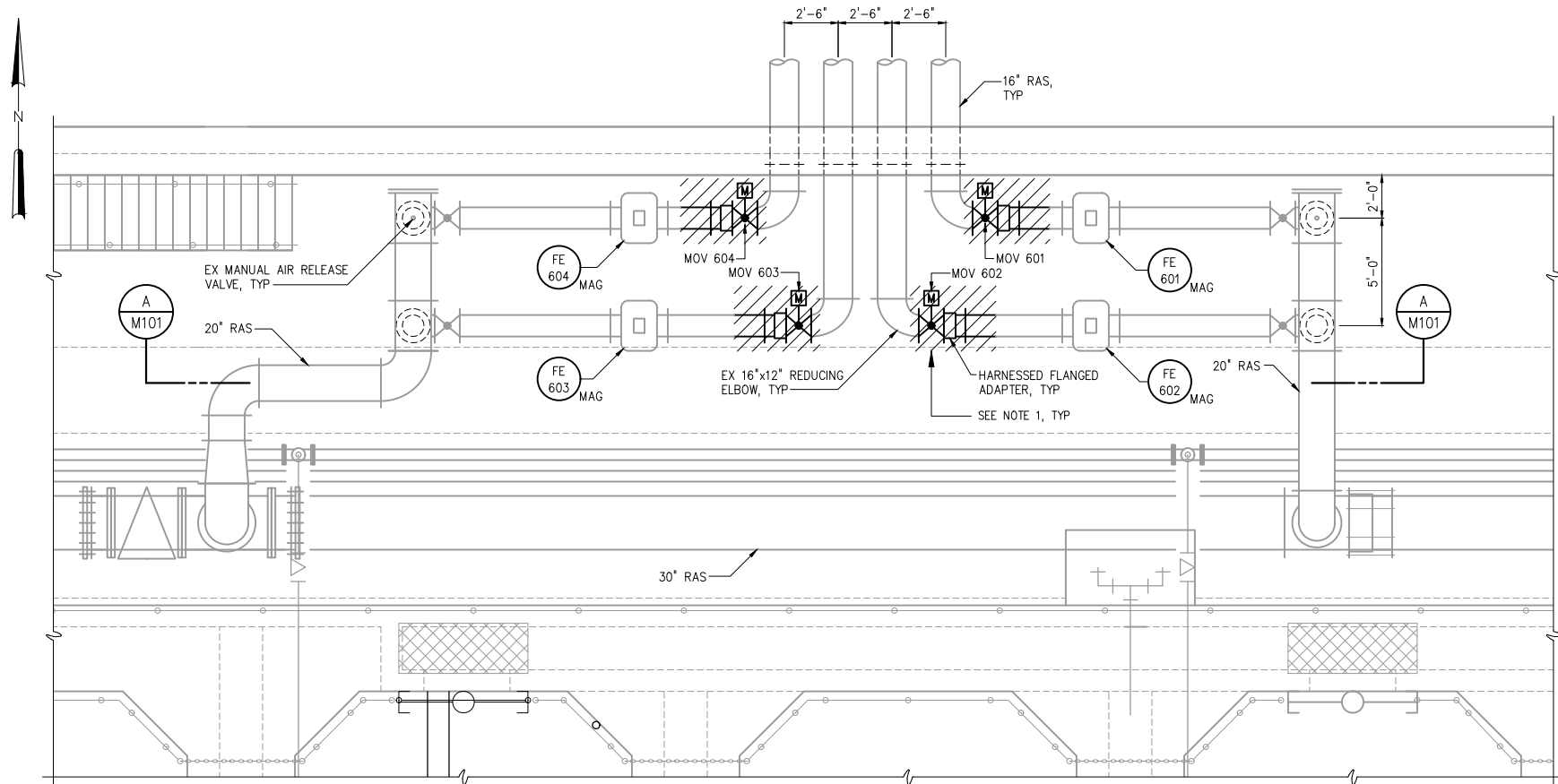
BID SET

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CERTIFICATE OF AUTHORIZATION NO.: 2771

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Building Community

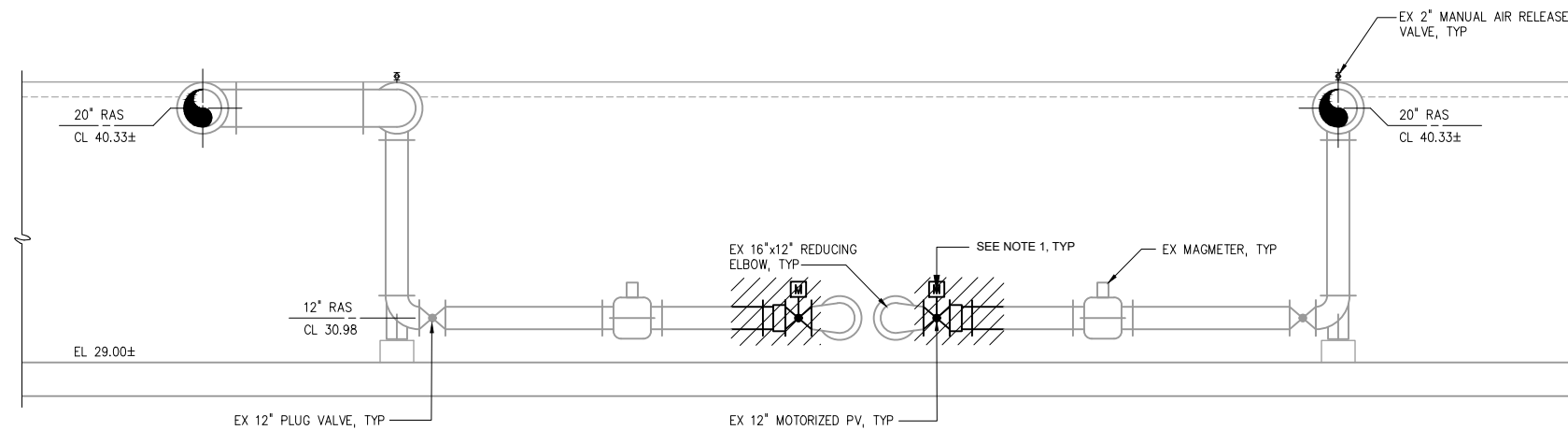
OVERALL YARD PIPING PLAN

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	M002



RAS METERING STATION 1 – PARTIAL PLAN

1/4"=1'-0"



SECTION A
1/4"=1'-0"

NOTES:

1. REMOVE EXISTING VALVE, PIPING AND ELECTRIC ACTUATOR.
2. ONLY ONE VALVE MAY BE OUT OF SERVICE AT A TIME.

1/4"=1'-0"

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PLOT DATE: 2/14/2020 9:55 AM BY: GDNZ

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	P. BENJAMIN
				DRAWN BY:	J. JORDAN
				CHECKED BY:	C. KLUG
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
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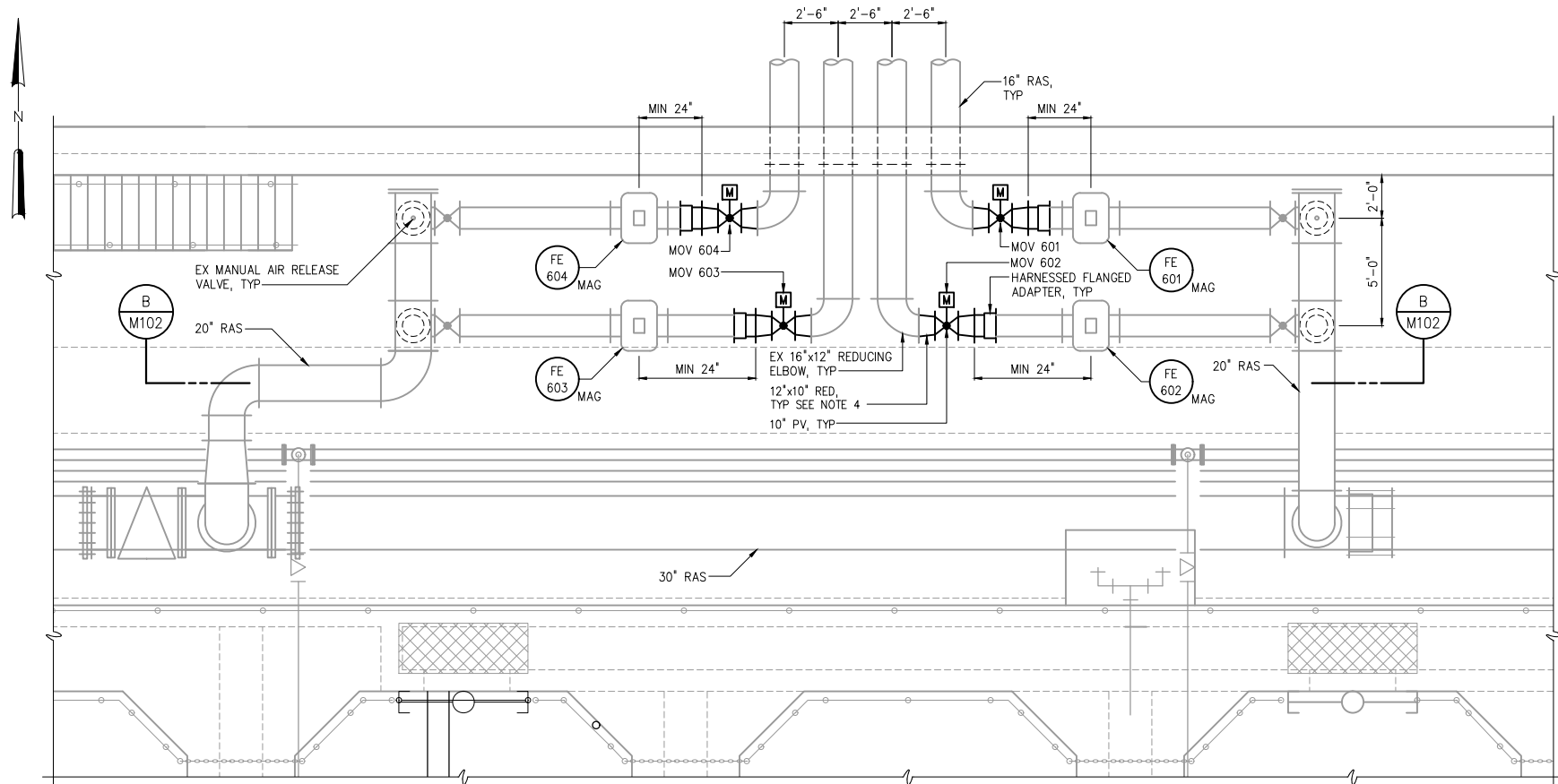
BID SET

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JACKSONVILLE, FLORIDA 32216
CERTIFICATE OF AUTHORIZATION NO.: 2771

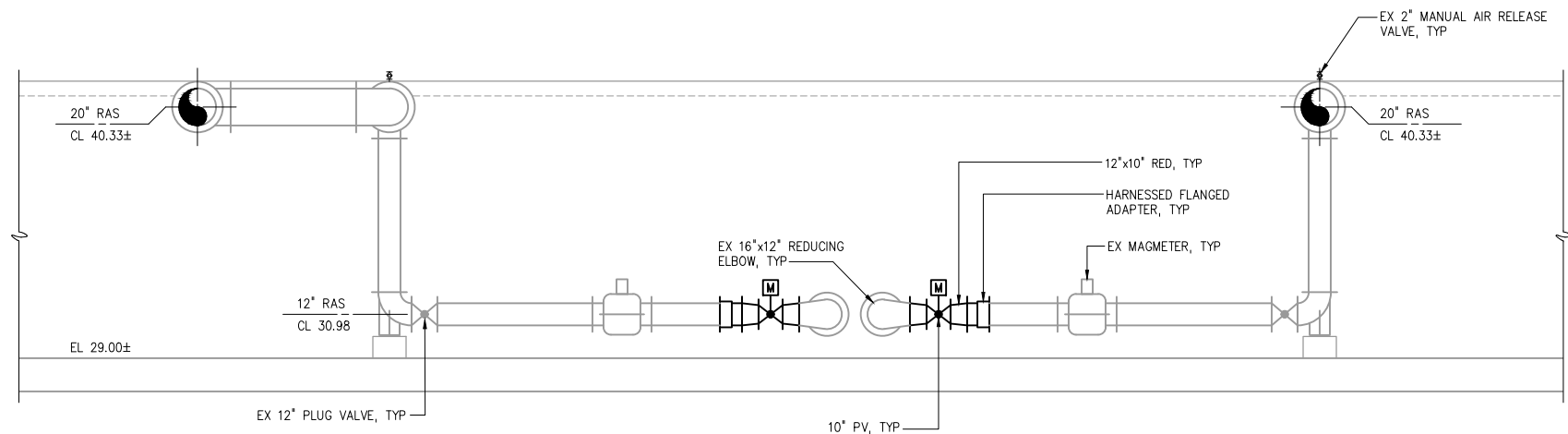
ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT
JEA
Building Community

RAS METERING STATION NO. 1
DEMOLITION PLAN AND SECTION

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	M101



RAS METERING STATION 1 – PARTIAL PLAN
1/4"=1'-0"



SECTION B
1/4"=1'-0"

- NOTES:
1. INSTALL NEW VALVE AND ELECTRIC ACTUATOR.
 2. ONLY ONE VALVE MAY BE OUT OF SERVICE AT A TIME.
 3. CONTRACTOR TO PROVIDE ANY ADDITIONAL PIPE AND/OR FITTINGS FOR VALVE REPLACEMENT.
 4. 12"x10" REDUCERS TO BE CUSTOM FABRICATED WITH 9" LAY-LENGTH.

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PLOT DATE: 2/14/2020 9:55 AM BY: GDNZ

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	P. BENJAMIN
				DRAWN BY:	J. JORDAN
				CHECKED BY:	C. KLUG
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
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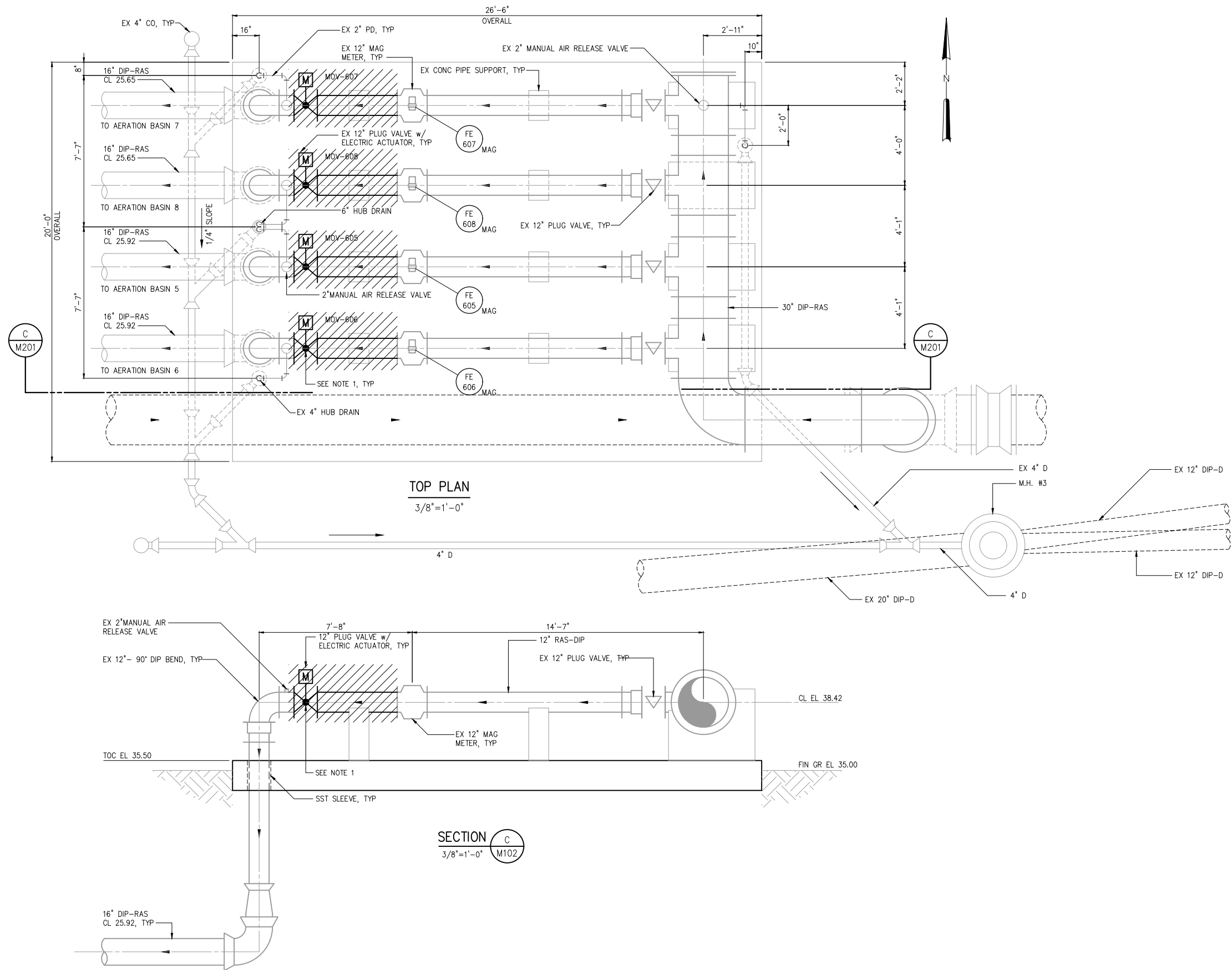
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ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT
JEA
Building Community

RAS METERING STATION NO. 1
PROPOSED PLAN AND SECTION

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	M102



- NOTES:
1. REMOVE EXISTING VALVE, ELECTRIC ACTUATOR AND PIPING.
 2. ONLY ONE VALVE MAY BE OUT OF SERVICE AT A TIME.

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	P. BENJAMIN
				DRAWN BY:	J. JORDAN
				CHECKED BY:	C. KLUG
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
REV	ISSUED FOR	DATE	BY		

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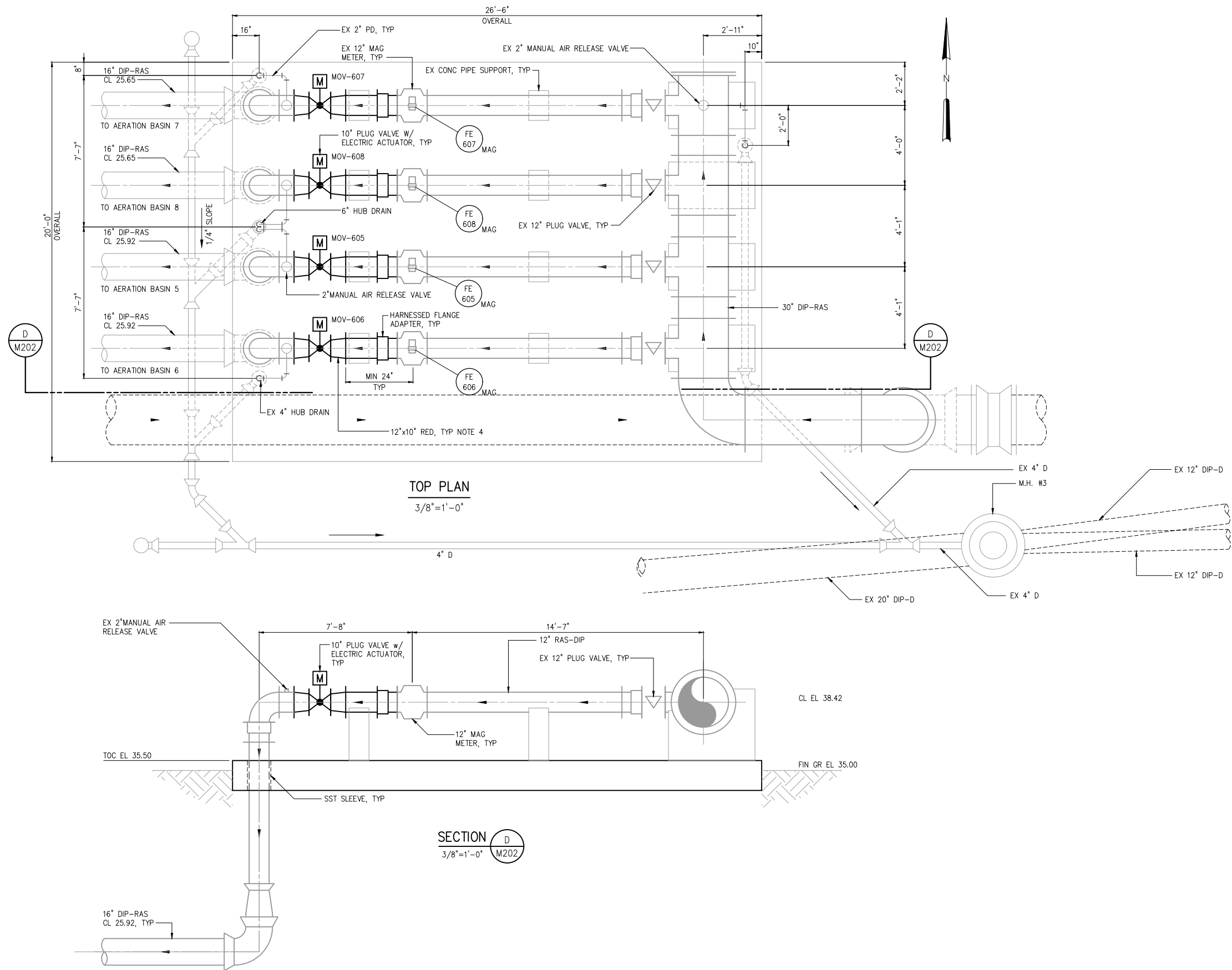
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ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT
JEA
Building Community

RAS METERING STATION NO. 2
DEMOLITION PLAN AND SECTION

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	M201

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PLOT DATE: 2/14/2020 9:55 AM
BY: GDAZ



- NOTES:
1. REPLACE EXISTING VALVE AND ELECTRIC ACTUATOR
 2. ONLY ONE VALVE MAY BE OUT OF SERVICE AT A TIME.
 3. CONTRACTOR TO PROVIDE ANY ADDITIONAL PIPE AND/OR FITTINGS FOR VALVE REPLACEMENT.
 4. 12"x10" RED TO BE CUSTOM FABRICATED WITH 9" LAY-LENGTH.

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PLOT DATE: 2/14/2020 9:55 AM BY: GDNZ

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	P. BENJAMIN
				DRAWN BY:	J. JORDAN
				CHECKED BY:	C. KLUG
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
REV	ISSUED FOR	DATE	BY	0 1/2" 1"	

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Hazen

HAZEN AND SAWYER
6675 CORPORATE CENTER PARKWAY
SUITE 330
JACKSONVILLE, FLORIDA 32216
CERTIFICATE OF AUTHORIZATION NO.: 2771

ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT

JEA

Building Communities

RAS METERING STATION NO. 2
PROPOSED PLAN AND SECTION

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	M202

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ABBREVIATIONS

AE	ANALYSIS ELEMENT
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AIT	ANALYSIS INDICATING TRANSMITTER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AF	AMPERE FRAME
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BC	BYPASS CONTACTOR
BKR	BREAKER
(L/V)CP	(LOCAL/VENDOR) CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DB	DUCTBANK
DSW	DISCONNECT SWITCH
(*JHH	HAND HOLE*
(*JMH	MANHOLE*
EO	ELECTRICALLY OPERATED
ETM	ELAPSED TIME METER
ETU	ELECTRONIC TRIP UNIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FS	FLOW SWITCH
FSL	FLOW SWITCH LOW
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFCT	GROUND FAULT CURRENT TRANSFORMER
GNG	GO-NO GO
GND	GROUND
HOA	HAND-OFF-AUTO
HPU	HYDRAULIC POWER UNIT
IC	INPUT CONTACTOR
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
ISO	INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
(*JB	JUNCTION BOX*
LCS	LOCAL CONTROL STATION
LP	LIGHTING PANEL
LS	LEVEL SWITCH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW-LOW
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH-HIGH
LT	LEVEL TRANSMITTER
MFR	MULTI-FUNCTION RELAY
MH	MANHOLE
MOD	MOTOR OPERATED DAMPER
MOG	MOTOR OPERATED GATE
MOL	MOTOR OPERATED LOUVER
MOV	MOTOR OPERATED VALVE
MPR	MOTOR PROTECTION RELAY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MWTS	MOTOR WINDING TEMPERATURE SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	OUTPUT CONTACTOR
OL	OVERLOAD

ABBREVIATIONS, CONT.

(*JB	PULLBOX*
PC	PHOTOCELL
PCC	POINT OF COMMON COUPLING
PE	PRESSURE ELEMENT
PIT	PRESSURE INDICATING TRANSMITTER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PP	POWER PANEL
PST	PHASE SHIFTING TRANSFORMER
PT	POTENTIAL TRANSFORMER
PTT	PUSH TO TEST
RCS	REMOTE CONTROL STATION
RECP	RECEPTACLE
RIO	REMOTE I/O
RM	ROOM
RTD	RESISTANCE THERMAL DEVICE
RTU	REMOTE TELEMETRY UNIT
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
RVSS	REDUCED VOLTAGE SOLID STATE
SA	SUPPLY AIR
S.E.	SERVICE ENTRANCE
SP. C.	SPARE CONDUIT
SPD	SURGE PROTECTIVE DEVICE
SSOL	SOLID STATE OVERLOAD
SST	STAINLESS STEEL
TB	TEST BLOCK
TC	TIMED CLOSE
TO	TIMED OPEN
TSH	TWISTED SHIELDED
TX	TRANSFORMER
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE
WPCR	WEATHER PROOF CORROSION RESISTANT
WT	WALK THROUGH
XFMR	TRANSFORMER

*DESIGNATED ABBREVIATIONS CAN HAVE THE FOLLOWING PREFIXES:

E	ELECTRIC
P	POWER
C	CONTROL
I	INSTRUMENTATION
F	FIBER

NOTES:

1. UNLESS OTHERWISE SPECIFIED OR NOTED, ALL WALL MOUNTED ELECTRICAL PANELS, ENCLOSURES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED 6'-6" (MAX) FROM THE TOP OF THE PANEL TO FINISHED FLOOR OR GRADE.
2. UNLESS OTHERWISE NOTED, ALL LIGHTING SWITCHES, CONTROL SWITCHES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED WITH THEIR CENTERLINE APPROXIMATELY 4'-0" ABOVE FINISHED FLOOR, SLAB, OR GRADE.
3. A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH CIRCUIT (SEPARATE CONDUCTOR IN THE CONDUIT). THE CONDUCTOR SHALL BE TERMINATED AT THE PROPER DEVICE, TERMINAL, OR LUG AT THE POWER SOURCE (MCC GROUND BUS, PANELBOARD GROUND BUS, ETC.). GROUND CONDUCTOR SIZE SHALL BE PER THE LATEST EDITION OF THE NEC.
4. REFERENCE SECTION 01 14 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
5. CONDUIT HOMERUNS ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL REFER TO CONDUIT AND WIRE SCHEDULES, RISER DIAGRAMS, SINGLE LINE DIAGRAMS, AND OTHER DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS.
6. ALL EXPOSED CONDUIT SHALL BE ALUMINUM UNLESS NOTED OTHERWISE.

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
REV	ISSUED FOR	DATE	BY		

BID SET

Hazen

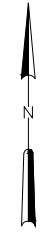
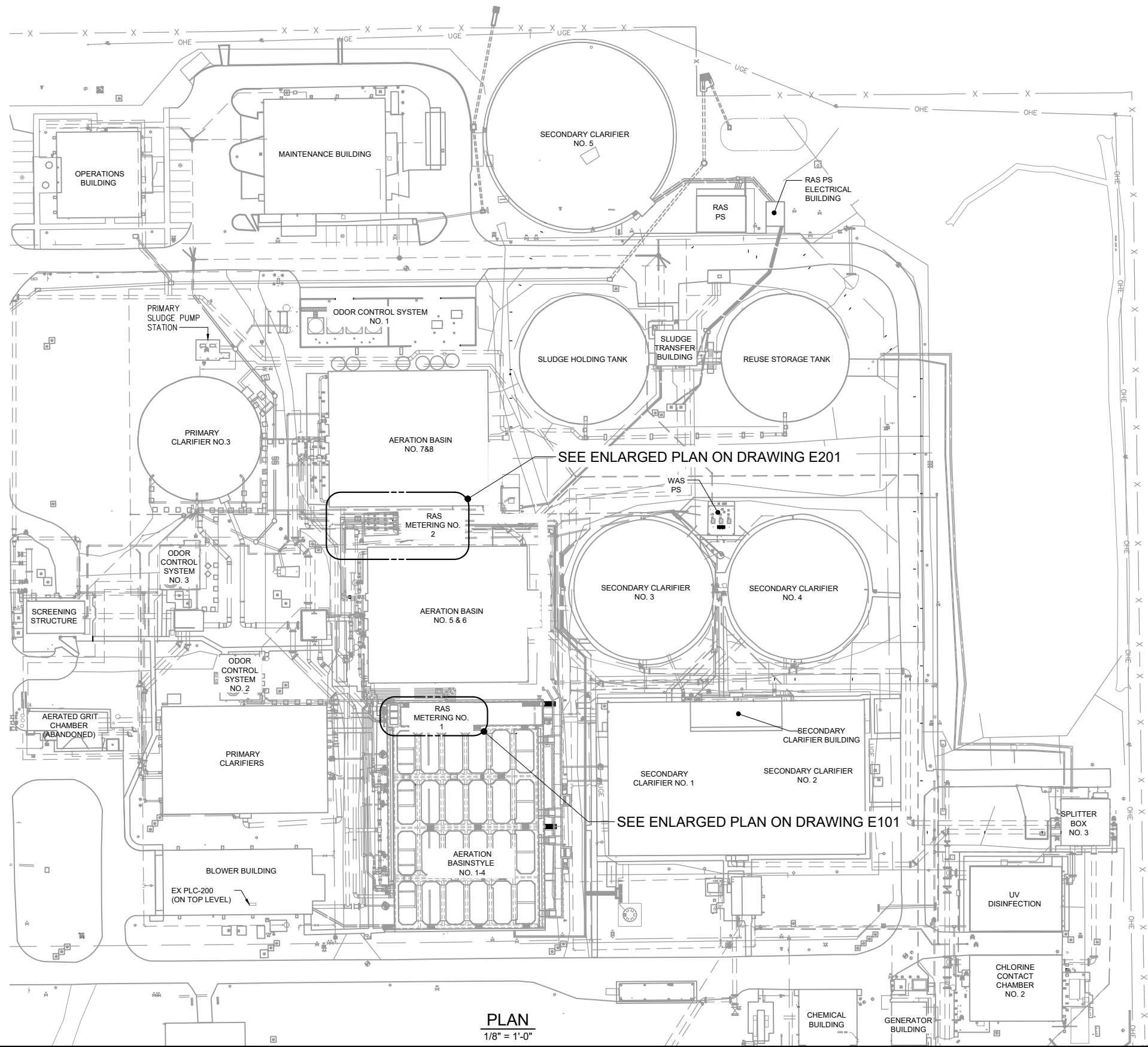
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SUITE 330
JACKSONVILLE, FLORIDA 32216
CERTIFICATE OF AUTHORIZATION NO.: 2771

ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT



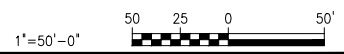
ELECTRICAL
ABBREVIATIONS AND GENERAL NOTES

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	E002



- NOTES:
1. LOCATION OF EXISTING EQUIPMENT SHOWN ON THE DRAWINGS IS BASED ON RECORD DRAWINGS. FIELD VERIFY EXACT LOCATION AS REQUIRED PRIOR TO COMMENCING WORK.
 2. HAND OVER TO THE OWNER REMOVED ELECTRICAL EQUIPMENT FOR SALVAGING OR DISCARD PER OWNER'S INSTRUCTIONS.
 3. COORDINATE WITH THE OWNER TIME AND DURATION OF ANY POWER SHUT DOWNS AS REQUIRED.
 4. ADHERE TO THE SEQUENCE OF CONSTRUCTION REQUIREMENTS IN SPECIFICATION SECTION 01 11 00.

PLAN
1/8" = 1'-0"



				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
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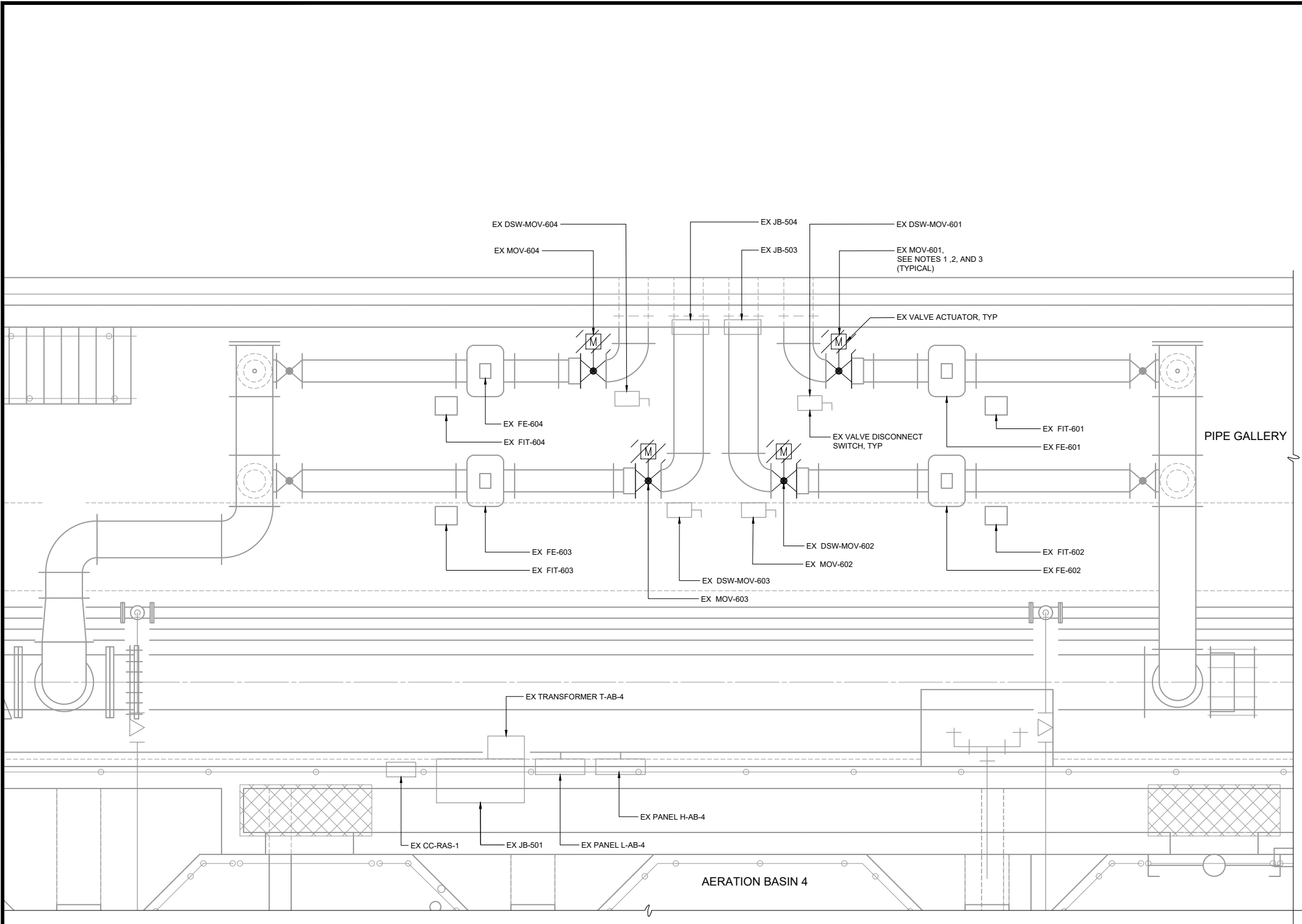
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CERTIFICATE OF AUTHORIZATION NO.: 2771

ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT
JEA
Building Community

SITE
ELECTRICAL
OVERALL PLAN

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	E010

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PLOT DATE: 2/14/2020 9:56 AM BY: GDAZ



- NOTES:
1. THE EXISTING VALVES MOV-601, MOV-602, MOV-603, AND MOV-604, AND CORRESPONDING ELECTRIC ACTUATORS ARE BEING REPLACED (ONE AT A TIME) AS SHOWN ON DRAWING M101. THE ACTUATORS ARE SUPPLIED FROM EXISTING 120/208V PANELBOARD L-AB-4.
 2. DISCONNECT THE VALVE ACTUATORS FROM THE POWER SOURCE. RETAIN IN PLACE THE DISCONNECT SWITCHES, POWER CONDUITS AND CONDUCTORS FOR EXISTING VALVES TO BE REUSED WITH THE NEW VALVES.
 3. DISCONNECT THE VALVE ACTUATORS ALSO FROM THE PROFIBUS LOOP, SHOWN ON DRAWING E301. KEEP IN PLACE THE CONTROL CONDUITS FOR PROFIBUS CABLES TO BE REUSED WITH THE NEW ACTUATORS.

DEMOLITION PLAN
1/8" = 1'-0"

3/8" = 1'-0" 12" 0 1 2 4'

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
REV	ISSUED FOR	DATE	BY		

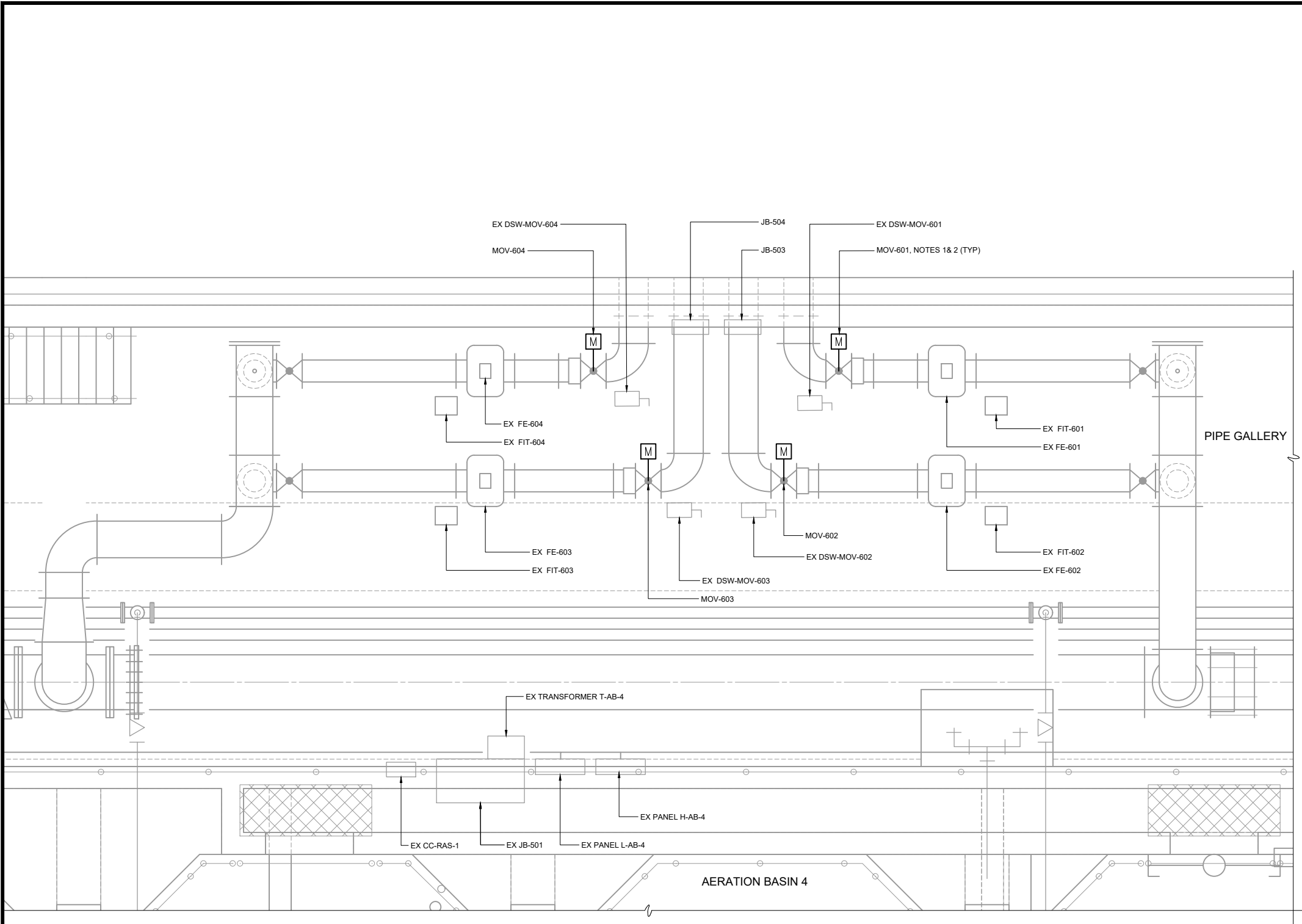
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CERTIFICATE OF AUTHORIZATION NO.: 2771

ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT
JEA
Building Community

RAS METERING STATION NO.1
DEMOLITION PLAN

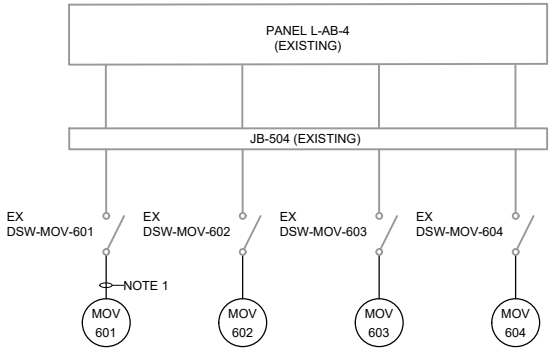
DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	E101



PLAN
1/8" = 1'-0"

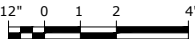
NOTES:

- SUPPLY NEW VALVE ACTUATORS FOR MOV-605, MOV-606, MOV-607, AND MOV-608 UTILIZING THE DISCONNECT SWITCHES, AND POWER CONDUIT AND CONDUCTORS OF REMOVED VALVES. WHERE REQUIRED, EXTEND THE CONDUITS TO THE NEW VALVE ACTUATORS AND PROVIDE NEW [2#10, #10 GND] CONDUCTORS FROM THE DISCONNECT SWITCH TO THE ACTUATOR.
- CONNECT NEW VALVE ACTUATORS TO EXISTING PROFIBUS LOOPS AS SHOWN ON THE BLOCK DIAGRAMS ON DRAWING E301. EXTEND EXISTING CONTROL CONDUIT AS REQUIRED.
- EXISTING EQUIPMENT IS SHOWN WITH LIGHT LINES. NEW EQUIPMENT IS SHOWN WITH HEAVY (BOLD) LINES.



RAS METERING STATION 2 VALVES
POWER BLOCK DIAGRAM

3/8" = 1'-0"



				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
REV	ISSUED FOR	DATE	BY		

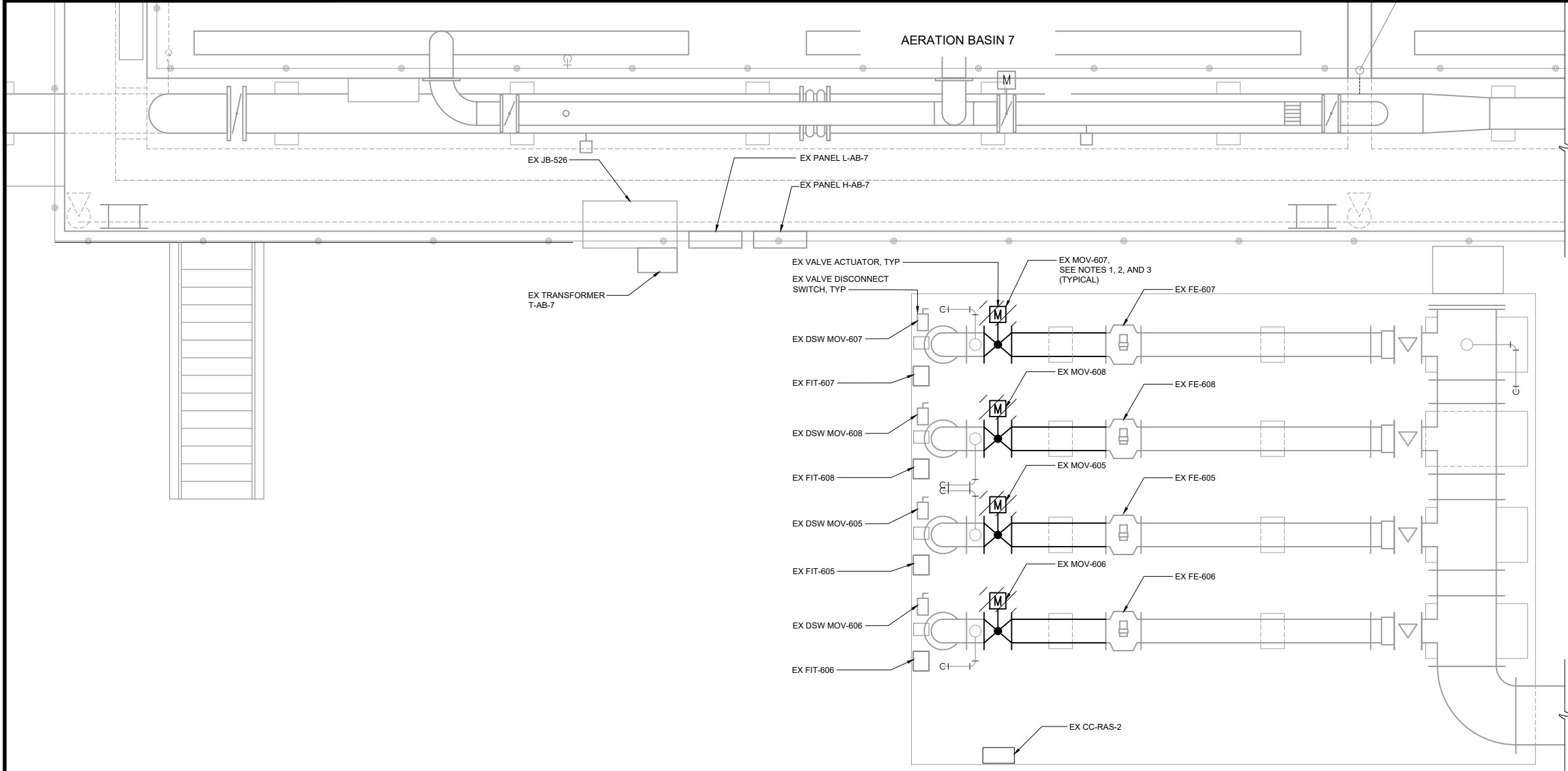
BID SET

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CERTIFICATE OF AUTHORIZATION NO.: 2771

ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT
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Building Community

RAS METERING STATION NO.1
PLAN

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	E102



- NOTES:**
1. THE EXISTING VALVES MOV-605, MOV-606, MOV-607, AND MOV-608, AND CORRESPONDING ELECTRIC ACTUATORS ARE BEING REPLACED (ONE AT A TIME) AS SHOWN ON DRAWING M201. THE ACTUATORS ARE SUPPLIED FROM EXISTING 120/208V PANELBOARD L-AB-7.
 2. DISCONNECT THE VALVE ACTUATORS FROM THE POWER SOURCE. RETAIN IN PLACE THE DISCONNECT SWITCHES, POWER CONDUITS AND CONDUCTORS FOR EXISTING VALVES TO BE REUSED WITH THE NEW VALVES.
 3. DISCONNECT THE VALVE ACTUATORS ALSO FROM THE PROFIBUS LOOP, SHOWN ON DRAWING E301. KEEP IN PLACE THE CONTROL CONDUITS FOR PROFIBUS CABLES TO BE REUSED WITH THE NEW ACTUATORS.

DEMOLITION PLAN
1/8" = 1'-0"

3/8" = 1'-0" 12" 0 1 2 4'

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
REV	ISSUED FOR	DATE	BY		

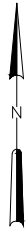
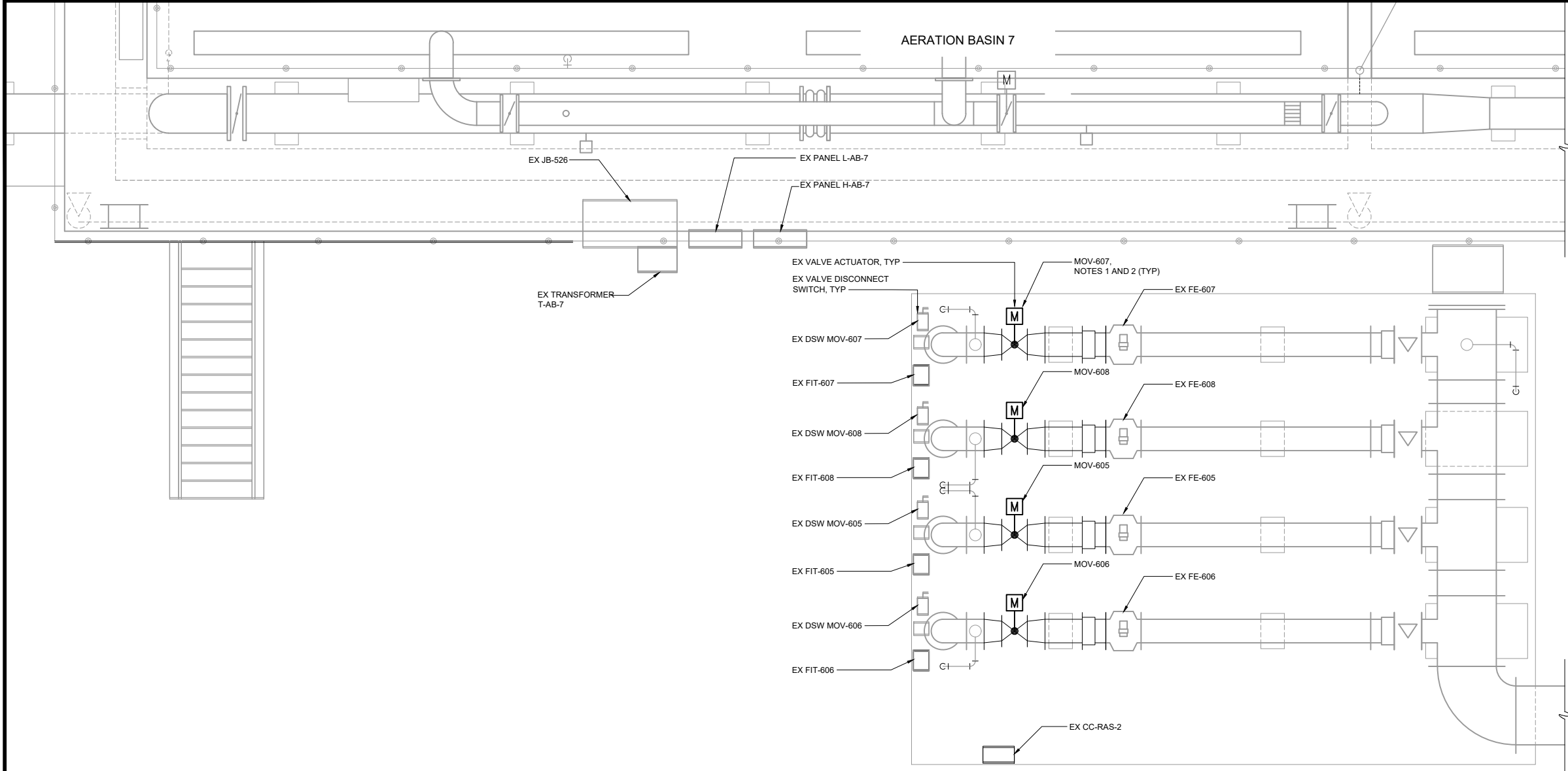
BID SET

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CERTIFICATE OF AUTHORIZATION NO.: 2771

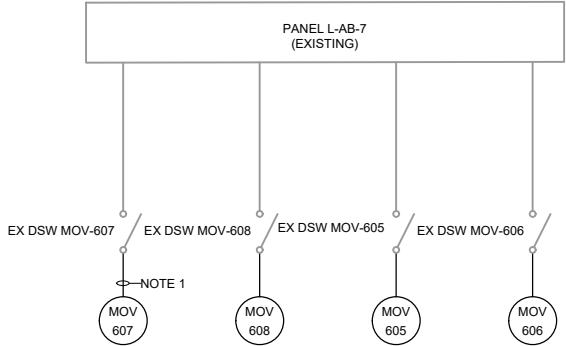
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RAS VALVE REPLACEMENT
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RAS METERING STATION NO.2
DEMOLITION PLAN

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	E201



- NOTES:**
- SUPPLY NEW VALVES MOV-605, MOV-606, MOV-607, AND MOV-608 UTILIZING THE DISCONNECT SWITCHES, AND POWER CONDUIT AND CONDUCTORS FOR REMOVED VALVES. WHERE REQUIRED, EXTEND THE CONDUITS TO THE NEW VALVE ACTUATORS AND PROVIDE NEW [2#10, #10 GND] CONDUCTORS FROM THE DISCONNECT SWITCH.
 - REFER TO BLOCK DIAGRAMS ON DRAWING E301 FOR INTEGRATING OF THE NEW VALVE ACTUATORS IN EXISTING PROFIBUS LOOPS. EXTEND EXISTING CONTROL CONDUIT AS REQUIRED.
 - EXISTING EQUIPMENT IS SHOWN WITH LIGHT LINES. NEW EQUIPMENT IS SHOWN WITH HEAVY (BOLD) LINES.



RAS METERING STATION 2 VALVES
POWER BLOCK DIAGRAM

PLAN
1/8" = 1'-0"



				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
REV	ISSUED FOR	DATE	BY		

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CERTIFICATE OF AUTHORIZATION NO.: 2771

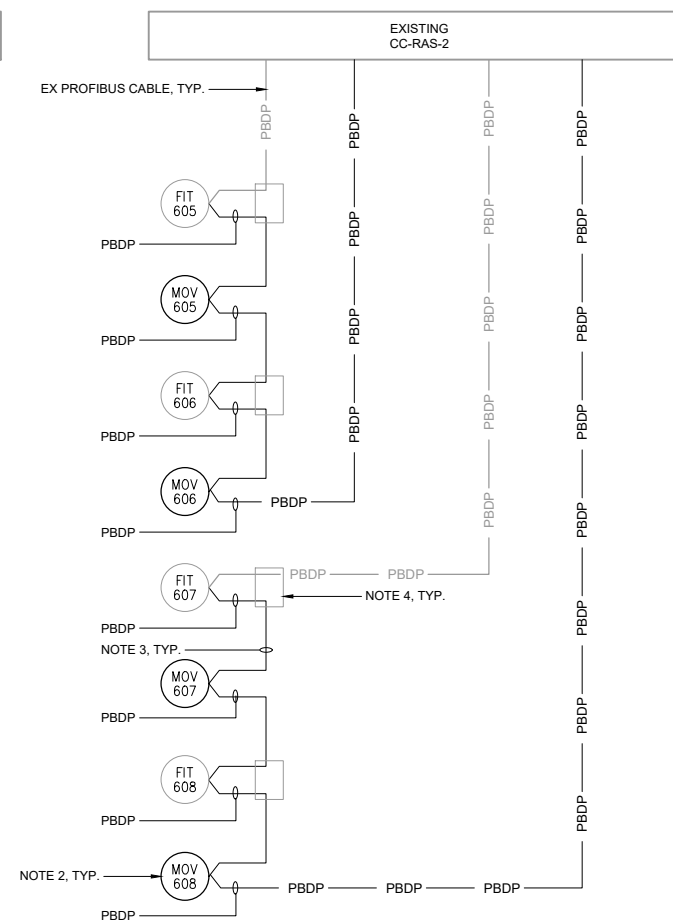
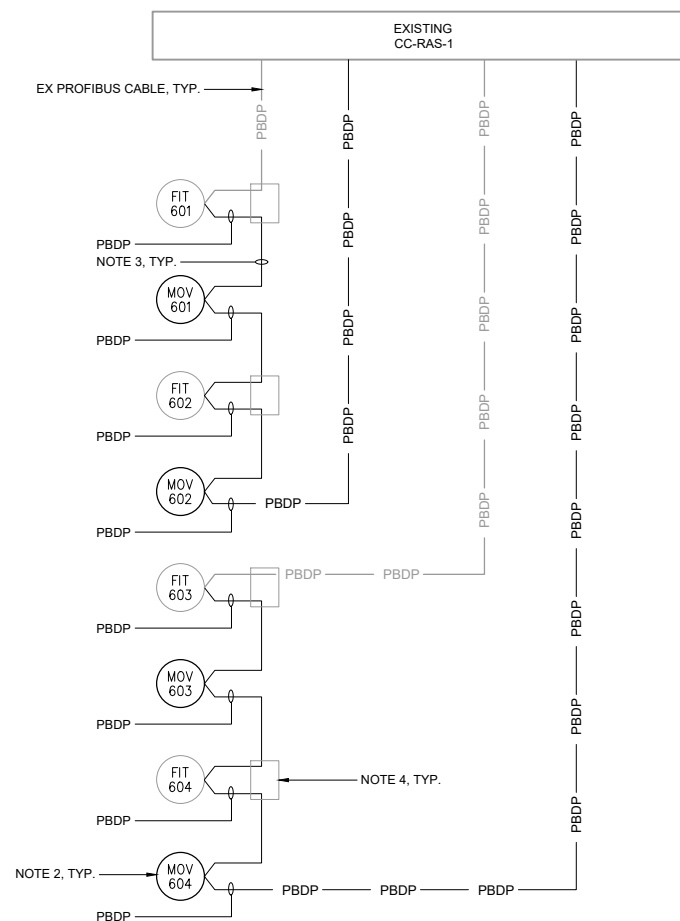
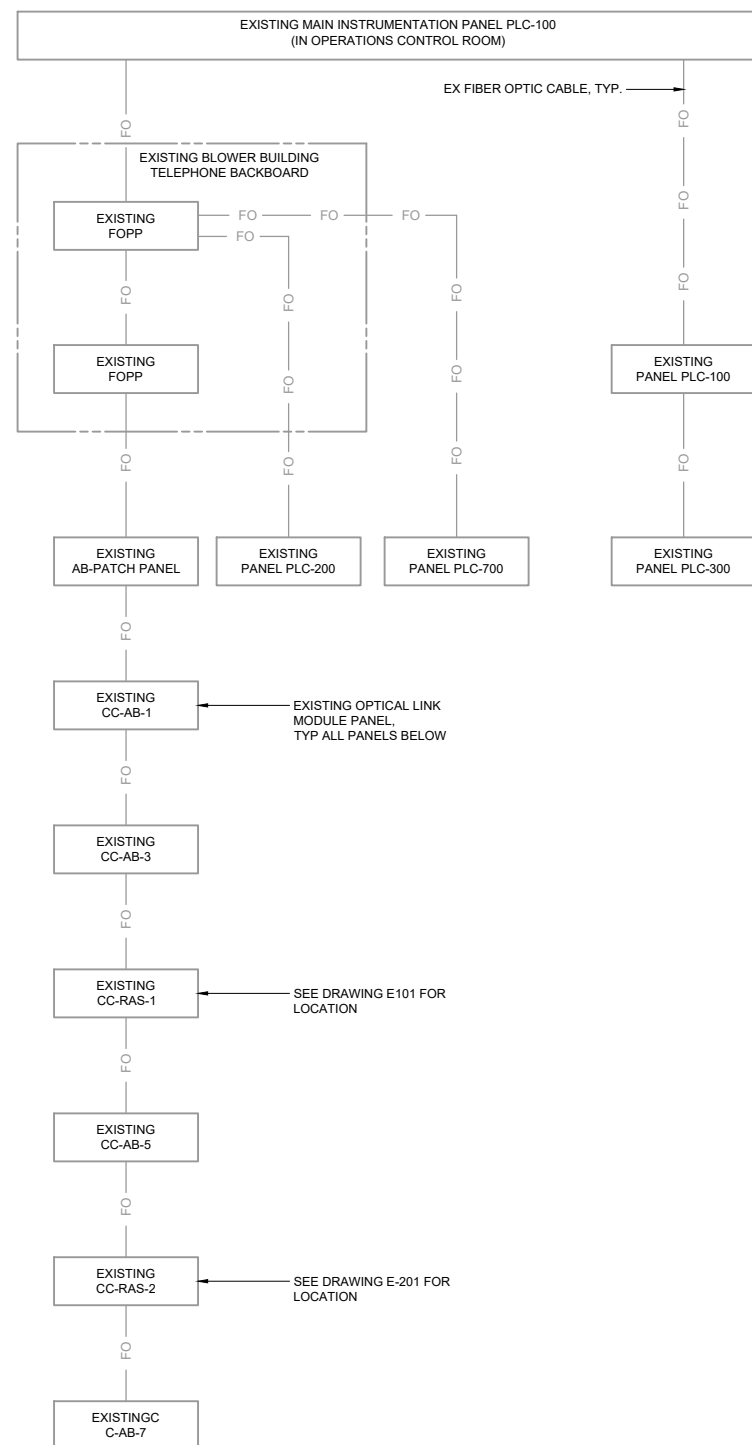
ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT

JEA

Building Community

RAS METERING STATION NO.2
PLAN

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	E202

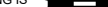


NOTES:

1. EXISTING EQUIPMENT IS SHOWN WITH LIGHT LINES. NEW EQUIPMENT IS SHOWN WITH HEAVY (BOLD) LINES.
2. NEW ELECTRICALLY ACTUATED VALVES, REPLACING EXISTING AT THE SAME LOCATION. SEE DRAWINGS E101 AND E201 FOR EQUIPMENT LOCATION.
3. REPLACE THE PROFIBUS CABLE, AS REQUIRED, BETWEEN THE ACTUATOR AND THE NEXT DEVICE IN THE LOOP AS SHOWN ON THE BLOCK DIAGRAMS AND SPECIFIED IN SECTION 40 66 00. THE NEW CABLE SHALL MATCH THE EXISTING PROFIBUS CABLE. NEW PROFIBUS CABLES SHALL BE FURNISHED UNDER DIVISION 40 (INSTRUMENTATION AND CONTROL) AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
4. EXISTING SURGE PROTECTION DEVICES (SPDs) FOR PROFIBUS COMMUNICATION CIRCUITS TO FLOW METERS AND VALVE ACTUATORS, AND FOR 120V POWER CIRCUIT TO FLOW METERS ARE BEING REPLACED IN EXISTING ENCLOSURES UNDER DIVISION 40 (INSTRUMENTATION AND CONTROL) AS SPECIFIED IN SECTION 40 78 56. THE SPD ENCLOSURES ARE LOCATED NEAR EXISTING FLOW METERS.

CIRCUIT LEGEND:

—— PBDP —— - 1°C [PROFIBUS DP CABLE BY DIVISION 40 (I&C)]

				PROJECT ENGINEER:	P. BENJAMIN
				DESIGNED BY:	V. KANCHEVA
				DRAWN BY:	V. KANCHEVA
				CHECKED BY:	J. BURKE
1	BID	02/2020	PB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
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**ARLINGTON EAST WRF SITE
RAS VALVE REPLACEMENT**



BLOCK DIAGRAMS

PROFIBUS NETWORK BLOCK DIAGRAMS

DATE:	FEBRUARY 2020
HAZEN NO.:	42000-018
CONTRACT NO.:	00
DRAWING NUMBER:	

E301