

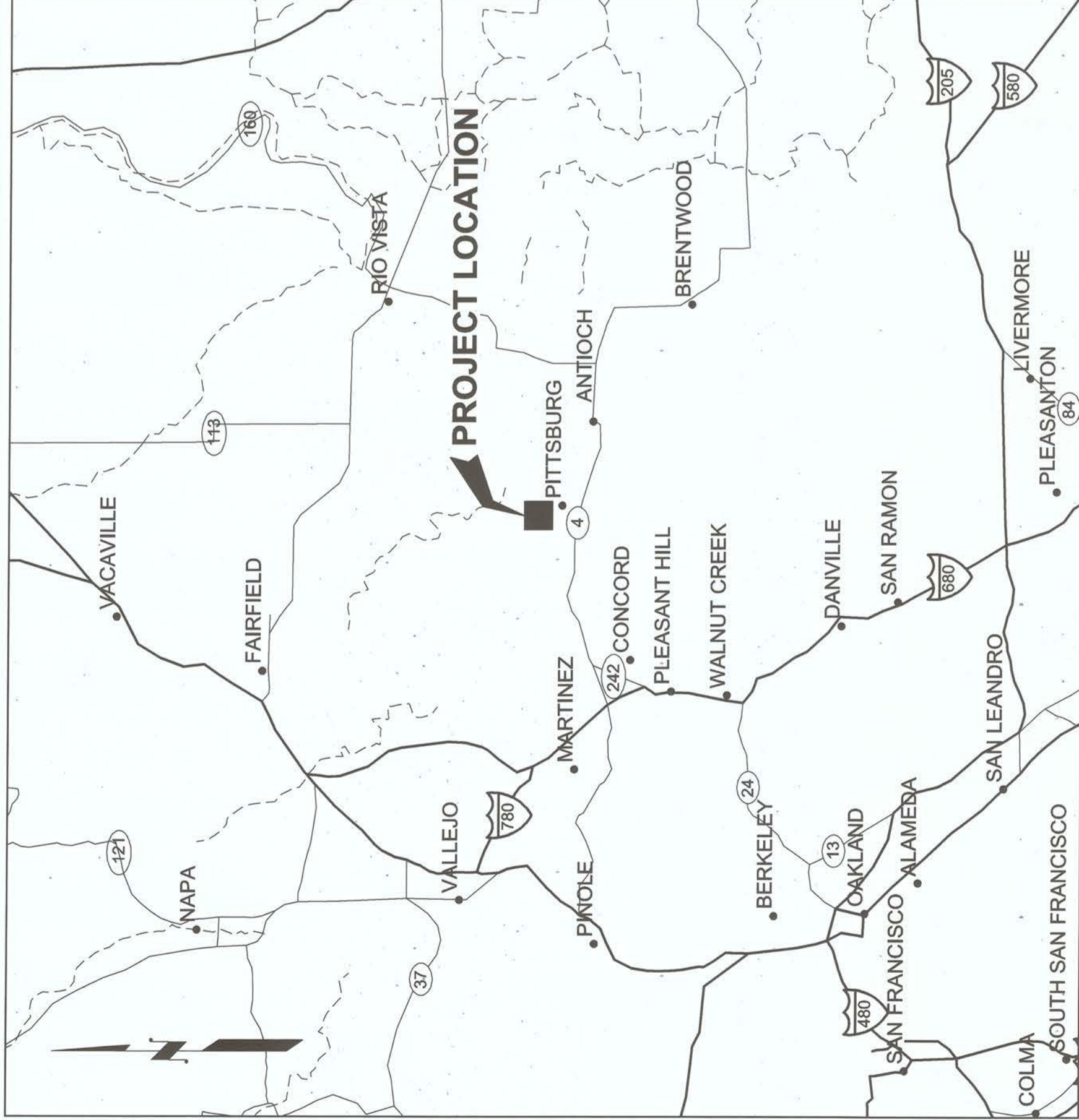
CONTRACT DRAWINGS FOR:

CITY OF PITTSBURG

PROJECT:

PITTSBURG WATER TREATMENT PLANT FILTER GALLERY VALVE REPLACEMENT PROJECT

VICINITY MAP



LOCATION MAP



LIST OF DRAWINGS

Dwg. No	Drawing Title
GENERAL	
T-001	TITLE SHEET, INDEX, LOCATION MAP, VICINITY MAP, AND APPROVALS
G-002	GENERAL NOTES
G-003	GENERAL SYMBOLS AND STANDARDS
G-004	ABBREVIATIONS 1
G-005	ABBREVIATIONS 2
G-006	SITE ACCESS
MECHANICAL	
M-001	EXISTING CONDITIONS
M-002	REPLACED VALVES AND ACTUATORS

PREPARED BY:






James Jettton
JAMES JETTTON, P.E.
PRINCIPAL ENGINEER
RCE: 54237
EXP. 12-31-2021

REVIEWED FOR THE CITY OF PITTSBURG BY:

Richard Abono
RICHARD ABONO
CITY ENGINEER

1. CONFINED SPACE ENTRIES SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF SECTIONS 5156 - 5159, GENERAL INDUSTRY SAFETY ORDERS, TITLE 8, CALIFORNIA CODE OF REGULATIONS, FOR PURPOSES OF SANITARY SEWER WORK. CONFINED SPACES SHALL INCLUDE, BUT NOT BE LIMITED TO TRENCHES AND VAULTS.
2. EXISTING UTILITIES IN THE PROJECT AREA ARE ASSUMED TO BE IN A FRAGILE CONDITION. THE CONTRACTOR SHALL EXERCISE NECESSARY CAUTION WHEN WORKING NEAR EXISTING UTILITIES TO PRESERVE CONDITIONS OF EXISTING INSTALLATIONS.
3. UTILITY SERVICES AND THEIR LOCATION ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO LOCATE AND PROTECT SERVICES DURING CONSTRUCTION. NO INTERRUPTION OF UTILITY SERVICES SHALL BE ALLOWED.
4. THE LOCATION, PIPE DIAMETER, AND MATERIAL INDICATED AND/OR ELEVATIONS OF UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY.
5. DIMENSIONS FOR ALL OTHER STRUCTURES, REFERENCING PIPING, PAVING, AND OTHER NON-STRUCTURAL ITEMS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER NO LESS THAN 14 DAYS IN ADVANCE OF CONSTRUCTION IN THE AREA.
6. THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT DESIGNATED FOR DEMOLITION OR REMOVAL AND REPLACEMENT. ALL DAMAGED EXISTING IMPROVEMENTS AND THOSE IMPROVEMENTS THAT HAVE BEEN REMOVED OR TEMPORARILY RELOCATED SHALL BE RESTORED BY THE CONTRACTOR TO A CONDITION AS CLOSE AS POSSIBLE TO THEIR CONDITION PRIOR TO CONSTRUCTION. IMPROVEMENTS DESIGNATED FOR DEMOLITION SHALL BE DEMOLISHED AND DISPOSED OF BY THE CONTRACTOR.
7. CONSTRUCTION CONSTRAINTS ARE DETAILED IN THE SPECIFICATIONS.
8. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL SURPLUS MATERIALS AND DEBRIS FROM THE SITE AND SHALL MAINTAIN THE SITE IN A NEAT AND ORDERLY CONDITION.
9. FULL TIME INSPECTION WILL BE PROVIDED BY THE OWNER OR ITS DESIGNATED REPRESENTATIVE. ANY WORK PERFORMED WITHOUT INSPECTION WILL BE AUTOMATICALLY REJECTED. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR REQUIRED SPECIAL INSPECTIONS. THE PRESENCE OR ABSENCE OF THE CITY, CITY OR OTHER INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF THE WORK.
10. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES ADJACENT TO THE WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.
11. THE CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY, AND CITY LAWS AND ORDINANCES RELATING TO THE SAFETY AND CHARACTER OF WORK, EQUIPMENT AND LABOR PERSONNEL. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO, THE SHORING OF TRENCHES, VENTILATION OF CONFINED SPACES, CONFORMANCE TO TRAFFIC CONTROL REQUIREMENTS INCLUDING THE PROVISION AND MAINTENANCE OF BARRICADES AND THE PREPARATION AND IMPLEMENTATION OF TRAFFIC CONTROL PLANS AS REQUIRED.
12. THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS PRIOR TO THE START OF WORK.
13. CITY, PROJECT MANAGER OR ENGINEER, AS USED ON THESE PLANS AND NOTES, REFERS TO THE DIRECTOR OF THE CITY OF PITTSBURGH DEPARTMENT OF PUBLIC WORKS OR AN AUTHORIZED AGENT, APPOINTED BY THE ENGINEER.

[Handwritten Signature]
11/20/20

		PREPARED UNDER THE DIRECTION OF: JAMES JETTON PRINCIPAL ENGINEER RCE: 54237, Exp. 12/31/2021 Date: NOVEMBER 20, 2020	ACCEPTED FOR USE BY: RICHARD ABONO City Engineer Date: 11/20/20		GENERAL NOTES PITTSBURGH WATER TREATMENT PLANT FILTER GALLERY VALVE REPLACEMENT PROJECT	DRAWN: MM CHECKED: BV REVIEWED: BF DATE: 11/20/2020 SCALE: AS SHOWN
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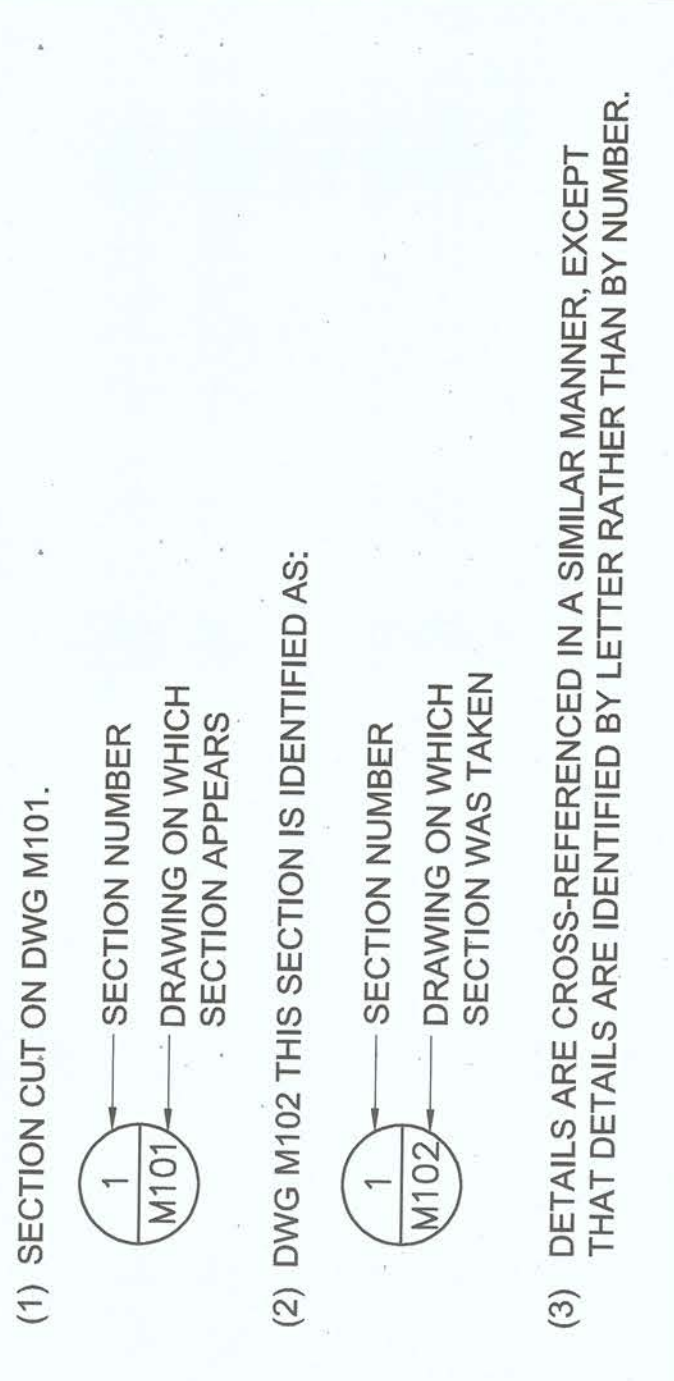
SHEET NO. **2** OF **8**
SHEET: **G-002**

STANDARD SYMBOLS

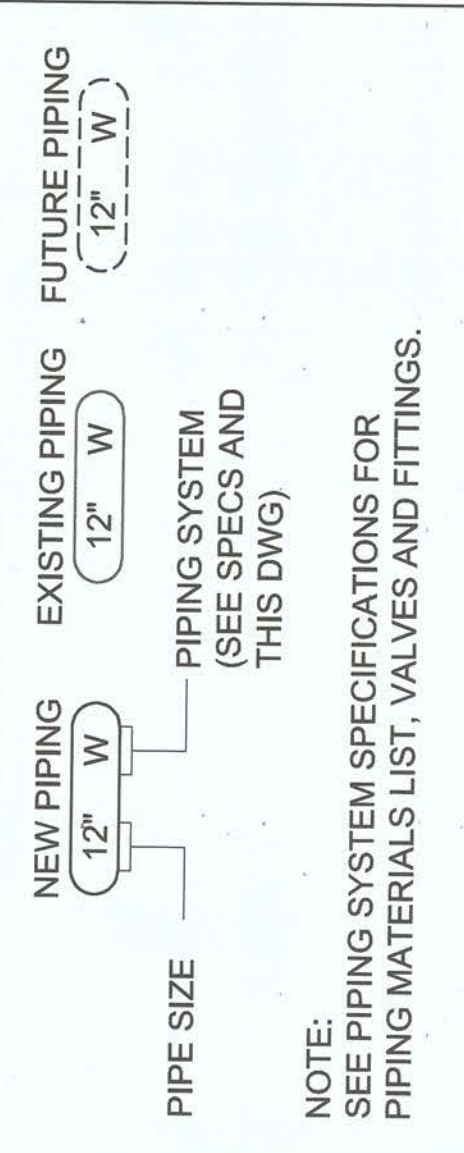
	BUTTERFLY VALVE		AIR RELEASE VALVE
	CHECK VALVE		BLOW OFF VALVE
	GATE VALVE		CLEAN OUT
	BALL VALVE		ELECTRIC PULL BOX
	PRESSURE REGULATING VALVE		FIRE HYDRANT
	BACK PRESSURE REGULATING VALVE		GUY ANCHOR
	PRESSURE RELIEF VALVE		GATE POST
	AUTOMATIC AIR VENT		GAS PAINT MARK
	STRAINER		HOSE BIB
	PIPELINE FLUSHING/SAMPLING COCK CONNECTION		JOINT POLE / LINE DIRECTION
	QUICK CONNECTOR		MAIL BOX
	BLIND FLANGE		METAL SIGN POST
	REDUCER OR INCREASER		STREET LIGHT
	FLEXIBLE COUPLING		SANITARY SEWER PAINT MARK
	RESTRAINED FLEXIBLE PIPE COUPLING		SANITARY SEWER MANHOLE
	FLEXIBLE CONNECTOR		TELEPHONE MANHOLE
	MECHANICAL GROOVE TYPE COUPLING		TELEPHONE POLE / LINE DIRECTION
	FLANGE CONNECTION		TELEPHONE POLE WITH CABINET
	PUSH-ON JOINT		TELEPHONE RISER
	MECHANICAL JOINT		CABLE TV PAINT MARK
	NEW AC PAVEMENT		CABLE PULL BOX
	CLASS II AB OR CRUSHED ROCK		WATER PAINT MARK / PIN FLAG
	CONCRETE		UNDERGROUND UTILITY WARNING SIGN
	REINFORCEMENT IN SECTION		WATER METER
	PRECAST CONCRETE		WOOD SIGN POST
	CONCRETE BLOCK		WATER VALVE
	GRATING SPAN		OPENING WITH GRATING COVER
	STEEL OR STAINLESS STEEL		EXISTING EQUIPMENT OR STRUCTURE TO BE REMOVED
	OPENING OR DEPRESSION IN SLAB OR WALL		STRUCTURE, PIPING EQUIPMENT, PIPING NOT IN CONTRACT

NOTES:
 1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
 2. SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.

TYPICAL SECTION AND DETAIL NUMBERING SYSTEM

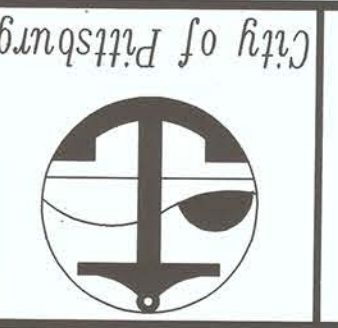


PIPING DESIGNATIONS



PREPARED UNDER THE
 DIRECTION OF:
 JAMES JETTON
 PRINCIPAL ENGINEER
 REG. NO. C64237
 DATE: NOVEMBER 20, 2020

ACCEPTED FOR USE BY:
 RICHARD ABONO
 CIVIL ENGINEER



GENERAL
 PITTSBURGH WATER TREATMENT PLANT
 FILTER GALLERY VALVE REPLACEMENT
 PROJECT
 GENERAL SYMBOLS AND
 STANDARDS

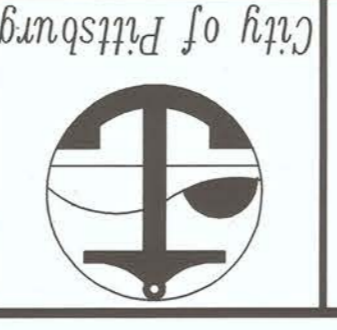
BY:	MM
CHECKED:	BV
REVIEWED:	BF
DATE:	11/20/2020
SCALE:	AS SHOWN

SHEET NO.
 3 OF 8
 SHEET:
 G-003
 G-003.DWG



DATE: NOVEMBER 20, 2020
 RCE: 54237, Exp. 12/31/2021
 JAMES JETTIN
 PRINCIPAL ENGINEER
 PREPARED UNDER THE
 DIRECTION OF:
 James Jettin

ACCEPTED FOR USE BY:
 RICHARD ABONO
 City Engineer



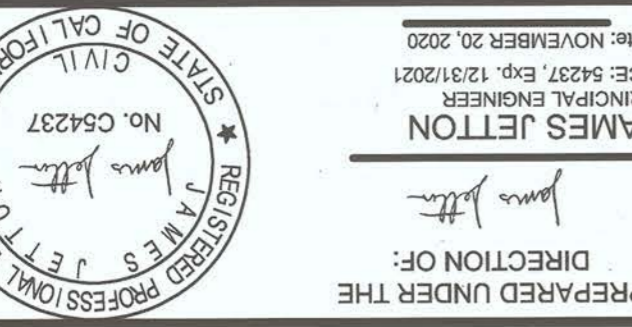
GENERAL
 PITTSBURG WATER TREATMENT PLANT
 FILTER GALLERY VALVE REPLACEMENT
 PROJECT
 ABBREVIATIONS 1

BY	DRAWN: MM
CHECKED: BV	
REVIEWED: BF	
DATE: 11/20/2020	
SCALE: AS SHOWN	

ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION
A	AMPERE	CREJ	CORRUGATED RUBBER EXPANSION JOINT	FMH	FLEXIBLE METAL HOSE	L	LENGTH
A/C	AIR CONDITIONING	CRF	CHEMICAL FEEDER	FO	FAIL OPEN	LAM	LAMINATED
AA	ATOMIC ABSORPTION UNIT	CRN	CRANE	FPC	FLEXIBLE PIPE COUPLING	LAT	LEAVING AIR TEMPERATURE, LATERAL, LATITUDE
AAS	ANCHOR BOLT, AGGREGATE BASE	CSD	CELLING SUPPLY DIFFUSER	FPC-T	FLEXIBLE PIPE COUPLING TO TAKE TENSION	LB	LEAVING AIR TEMPERATURE, LATERAL, LATITUDE
AB	ASPHALT CONCRETE, ALTERNATING CURRENT, AIR	CSP	CORRUGATED STEEL PIPE	FPM	FEET PER MINUTE	LE	LEVEL
AC	ANCHOR BOLT, AGGREGATE BASE	CTF	CENTRIFUGE / CUTTHROAT FLUME	FPS	FEET PER SECOND	LEV	LEVEL
ACC	ANCHOR BOLT, AGGREGATE BASE	CTR	CONTRACTOR CENTER	FRP	FIBERGLASS REINFORCED PIPE	LG	LONG
ACCP	AREA CONTROL CENTER	CTS	CORROSION TEST STATION	FRS	FREEZESTAT	LIT	LOCKOUT STOP
ACPT	ASBESTOS CEMENT PIPE	CU	CONTROL UNIT, COPPER, CUBIC	FS	FLOW SWITCH, FAR SIDE	LOS	LOW PRESSURE, LIGHTING PANEL
ACST	ACOUSTIC	CV	CONTROL VALVE	FSH	FLOW SWITCH HIGH	LS	LEVEL SWITCH HIGH
ADWF	AVERAGE DRY WEATHER FLOW	CXN	CROSS SECTION	FSL	FACULTATIVE SLUDGE LAGOON, FLOW SWITCH LOW	LSH	LEVEL SWITCH HIGH
AE	AIR FILTER			FT	FEET	LTL	LEVEL SWITCH LOW
AF	AIR HANDLING UNIT	D	DRAIN	FTG	FOOTING	LTV	LIGHTING
AHU	AIR HANDLING UNIT	DB	DUCT BANK	FTGS	FITTINGS	LVR	LOUVER
AIT	ANALYZER INDICATING TRANSMITTER	DE	DENSITY METER	FUT	FUTURE		
AL	ALUMINUM	DET	DETAIL	FZT	FREEZESTAT		
ALT	ALTERNATE	DFD	DRINKING FOUNTAIN				
ALUM	ALUMINUM SULPHATE	DG	DUCT FIRE DAMPER	G	POWER ACTUATED GATE		
AMD	AIR MONITORING DEVICE	DI	DUCTILE IRON	GALV	GALVANIZED	MAN	MANUAL (LY)
ANC	ANCHOR	DIAM	DIAMETER	GB	GRADE BREAK	MAX	MAXIMUM
APPROX	APPROXIMATE(LY)	DIFF	DIFFERENTIAL	GBV	GLOBE VALVE	MBH	THOUSAND BTU'S PER HOUR
AR	ALARM RELAY	DIP	DUCTILE IRON PIPE	GD	GRADE	MCC	MOTOR CONTROL CENTER
AS	AIR SUPPLY	DLD	DEDICATED LAND DISPOSAL	GDR	GRINDER	MCM	THOUSAND CIRCULAR MILLS
ASSY	ASSEMBLY	DM	DAMPER MOTOR	GEN	GENERAL, GENERATOR	ME	MOTORIZED DAMPER
ATM	ATMOSPHERE	DN	DOWN	GL	GLASS	MECH	MECHANICAL
AV	ANGLE VALVE	DO	DISSOLVED OXYGEN	GLV	GLOBE VALVE	MEE	MISCELLANEOUS ELECTRICAL EQUIPMENT
AVG	AVERAGE	DPR	DRAIN ROCK, DOOR	GPM	GALLONS PER MINUTE	MFR	MANUFACTURE(R)
B	BLOWER	DR	DRAIN TRAP, DRIP TRAP	GPD	GALLONS PER DAY	MG/L	MILLIGRAMS PER LITER
BAV	BALL VALVE	DWG	DRAWING	GR	GRADE	MGD	MILLION GALLONS PER DAY
BC	BEGINNING OF CURVE	DWLS	DOWELS	GRD	GROUND	MH	MANHOLE
BCOP	BARE COPPER	E	EXHAUST AIR, EACH	GRT	GROUT	MIE	MISCELLANEOUS INSTRUMENTATION EQUIPMENT
BCR	BEGINNING OF CURVE RETURN	EA	ENTERING AIR TEMPERATURE	GRTG	GRATING	MILSPEC	MILITARY SPECIFICATION
BF	BLIND FLANGE	EAT	ENGINE ALTERNATOR UNIT	GSKT	GASKET	MIN	MINIMUM, MINUTE
BFP	BUTTERFLY VALVE	ECC	ECCENTRIC	GSP	GALVANIZED STEEL PLATE	MISC	MISCELLANEOUS
BV	BRAKE HORSEPOWER	ED	EDUCTOR	GV	GATE VALVE	MJ	MECHANICAL JOINT
BLDG	BUILDING	EDU	EQUIPMENT	H	HEATING COIL	ML	MILLILITER
BLK	BLOCK	EE	EACH END	HC	HEATING COIL	MME	MISCELLANEOUS MECHANICAL EQUIPMENT
BOD	BIOCHEMICAL OXYGEN DEMAND	EFF	EFFLUENT	HDG	HOT-DIPPED GALVANIZED	MOP	MOTOR OPERATOR
BOT	BOTTOM	EF	EACH FACE	HDOT	HOT-DIPPED GALVANIZED	MTR, M	MOTOR
BSN	BAR SCREEN	EG	EXPANSION JOINT	HDPE	HIGH DENSITY POLYETHYLENE	MUL/DIV	MULTIPLY/DIVIDE
BTS	BAND TEST STATION	EH	EXHAUST GRILLE	HER	HEADER	MV	MULTIPLY/DIVIDE
BTU	BRITISH THERMAL UNIT	EJ	EXPANSION JOINT	HEX	HEAT EXCHANGER	MVU	MOBILE VENTILATION UNIT
BV/BAV	BALL VALVE	EL	ELEVATION	HH	HANDHOLE	MW	MONITORING WELL
BVC	BEGINNING OF VERTICAL CURVE	ELL	ELECTRICAL	HOA	HAND-OFF-AUTO	MX	MIXER
C	DIRECT BURIAL CABLE	ELC	ELECTRICAL	HOR	HORIZONTAL	N	NEUTRAL, NORTH
CAB	CAPACITY	EMB	EMBEDDED	HP	HIGH PRESSURE, HIGH POINT, HORSEPOWER	NA	NONAUTOMATIC
CAP	CATCH BASIN	EMT	EDGE OF PAVEMENT, ELECTRIC/PNEUMATIC CONVERTER	HST	HOIST	NAOH	SODIUM HYDROXIDE
CB	COOLING COIL	EP	EVAPORATOR	HT	HEIGHT, HIGH	NC	NORMALLY CLOSED
CC	CENTER TO CENTER	EPR	EQUALIZED PEAK WET WEATHER FLOW	HTR	HEATER	NEG	NEGATIVE
C-C	CONCRETE CYLINDER PIPE	EPW/F	EQUALIZED PEAK WET WEATHER FLOW	HTV	HIGH TEMPERATURE VENT	NIC	NOT IN CONTRACT
CCP	CELLING DIFFUSER	EQ	EQUAL	HV	HEATING, HEATING AND VENTILATING UNIT	NO	NORMALLY OPEN NUMBER
CCSP	CONCRETE LINED AND COATED STEEL PIPE	EQUIP	EQUIPMENT	HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	NOX	NITRATES AND NITRITES
CD	CONDENSING UNIT	ES	EXISTING SURFACE, ELECTRICAL SERVICE	HWTR	HIGH WATER	NPBH	NET POSITIVE SUCTION HEAD
CDU	CONDENSING UNIT	EVC	END OF VERTICAL CURVE	HYD	HYDRAULIC	NRS	NONRISING STEM
CED	CEILING EXHAUST DIFFUSER	EW	EACH WAY	HYDT	HYDRANT	NS	NEAR SIDE
CER	CEILING EXHAUST REGISTER	EW T&B	EACH WAY, TOP AND BOTTOM	I	INTEGRAL CONTROL	NTS	NOT TO SCALE
CF	CUBIC FEET	EWF	EACH WAY EACH FACE	IA	INTEGRAL CONTROL	O	OUTSIDE AIR, OVERALL
CFH	CUBIC FEET PER HOUR	EW	EACH WAY	ICN	INCINERATOR	OAI	OUTSIDE AIR INTAKE
CFM	CUBIC FEET PER MINUTE	EX	EXHAUST GRILLE	ID	INSIDE DIAMETER	OC	ON CENTER
CFR	CODE OF FEDERAL REGULATIONS	EXG	EXHAUST GRILLE	IF	INSIDE FACE	OD	OUTSIDE DIAMETER
CFS	CUBIC FEET PER SECOND	EXIST	EXISTING	IJS	INSULATED JOINT TEST STATION	OF	OUTSIDE FACE
CHK	CHILLER	EXP	EXPANSION	IL	INDICATING LAMP	OH	OVERHEAD
CI	CAST IRON	EXT	EXTERIOR	IN	INCH	OL	OVERLOAD
CIP	CAST IRON PIPE	F	FAHRENHEIT, FACE, FUSE(D), FAN	INF	INFLEUNT	OPNG	OPENING
CIRC	CIRCUMFERENCE	FAB	FABRICATED (TION)	INJ	INJECTOR	OPP	OPPOSITE
CJ	CONSTRUCTION JOINT	FAI	FRESH AIR INTAKE	INS	INSULATE(D)(ION)	ORF	ODOR REMOVAL FILTER
CKPL	CHECKER PLATE	FB	FLAT BAR, FLOOR BEAM	INSR	INSTRUMENTATION	ORP	OXIDATION REDUCTION POTENTIAL
CKV	CHECK VALVE / BALL VALVE	FC	FAIL CLOSED	INT	INTERIOR	ORT	ODOR REMOVAL TOWER
CL	CLEARANCE	FCA	FLANGED COUPLING ADAPTER	INTER	INTERMEDIATE	ORU	ODOR REDUCTION UNIT
CL2	CHLORINE DIOXIDE	FCO	FLOOR CLEANOUT	INV	INVERT	OSA	OUTSIDE AIR
CLD	CHLORINE GAS SYSTEM	FCR	FINE CRUSHED ROCK	IT	INSTRUMENT TAP		
CLG	CLEAR, CHLORINATOR	FCV	FLOOR CONTROL VALVE	J	JUNCTION BOX		
CLR	MANUAL CONTROL STATION	FD	FLOOR DRAIN, FIRE DAMPER	JB	JUNCTION BOX		
CM	MANUAL AUTO CONTROL STATION	FE	FLOWMETER	JST	JOIST		
CMA	CEMENT MORTAR COATED	FE/FT	FLOW INDICATING TRANSMITTER	JT	JOINT TRENCH		
CML	CEMENT MORTAR LINED	FF	FAR FACE	K	KIP (1000 POUNDS)		
CMP	CORRUGATED METAL PIPE	FF	FAR FACE	KO	KNOCK OUT		
CMP-AC	CORRUGATED METAL PIPE ASPHALT COATED	FG	FLAP GATE	KV	KILOVOLT		
CNTL	CONTROL	FH	FIRE HYDRANT, FLATHEAD	KVA	KILOVOLT AMPERE		
CO	CLEANOUT	FHD	FLOTHEAD	KW	KILOWATT		
CO2	CARBON DIOXIDE	FI	FINISHED				
COD	CHEMICAL OXYGEN DEMAND	FIN	FINISH				
COF	COOLING AIR	FL	FLOW LINE				
COL	COLUMN	FLG	FLEXIBLE				
COM	COMMINUTOR	FLP	FLUID POWER UNIT				
CONC	CONCRETE	FLR	FLOOR				
COND	CONDUCTIVITY, CONDUCTOR, CONDENSATE	FLT	FILTER				
CONN	CONNECTION	FLM	FORCE MAIN				
CONT	CONTINUED(IOUS)						
CP	COMPRESSOR						
CPLG	COUPLING						
CPVC	CHLORINATED POLYVINYL CHLORIDE						
CR	CONTROL RELAY						

(STANDARD ABBREVIATIONS P-Z ARE LOCATED ON DRAWING G-005).

ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION
<p>(STANDARD ABBREVIATIONS A-O ARE LOCATED ON DRAWING G-004).</p> <p>P PUMP, PHASE, PROCESS PROCESS AND INSTRUMENTATION DIAGRAM PARALLEL P&ID PAR PBU PC PCC PCHV PCP PC-T PCU PE PERC PF PG PI PIT PIVC PL PLYWD PNL POC POL POP PP PRD PRES PRS PRV PS PSF PSH PSIA PSIG PSL PSV PV PVC PVL PVT</p>		<p>Q RATE OF FLOW QUICK COUPLING R RADIUS, RISER REINFORCED CONCRETE RETURN AIR ROLL TYPE AIR FILTER RECORDER REINFORCED CONCRETE PIPE ROOF DRAIN ROADWAY RECEIVER RECEIVED RECEIPT REDUCE(R) REGULATOR REINFORCE, REINFORCING RELAY REMOVE, REMOVABLE REQUIRED RIGID GALVANIZED STEEL REDUCED LEVEL ROOM RP RPM RR RT RTP RTU RWL RWP</p>		<p>S SOUTH, SILENCER SIGNAL BOX SCUPPER DRAIN SCHEDULE SCL SCR SCRUBBER SD SECTION SEPARATOR SET SFT SG SHT SI</p>	
<p>SIMILAR SLOPE SLIDE GATE SCREEN SOLENIUM DIOXIDE SOLENOID VALVE SPACE, SET POINT, STATIC PRESSURE, STOP SPECIFICATION(S) SPACING SPLICE SQUARE SPEED REDUCER SAFETY RELIEF VALVE STAINLESS STEEL STAINLESS STEEL FLAT HEAD SERVICE SINK SETTLED SLUDGE START STATION STA STANDARD, STORM DRAIN STIFFENER STEEL STRUCTURE SUBSTITUTION, SUBSTATION SUPPORT SURFACE SOLENOID VALVE SWITCHBOARD SWITCHGEAR SYMMETRICAL</p>		<p>T TANK, TRAP TOP AND BOTTOM TOP OF BANK TERMINAL BOX TOP OF CURB TOTALLY CLOSED TEMPERATURE CONTROL PANEL TIME DELAY RELAY, TANK DRAIN, TEMPERATURE DIFFERENCE TOTALLY ENCLOSED, THICKENER EFFLUENT TEMPERATURE INDICATOR THICKENED SLUDGE TEST-OFF-AUTO TANGENT POINT TOPPING TRIPLEXED STAIR TREAD TRANSMITTER TRANSDUCER TS TEMPERATURE SWITCH HIGH TEMPERATURE SWITCH LOW THERMOSTAT TOTE TELESCOPING VALVE THERMOSTATIC VALVE TYPICAL</p>		<p>U UTILITY BOX UNDER GROUND UNIT HEADER ULTIMATE LOAD UNION UN UP US USS</p>	
<p>V VALVE, VOLTS, VENT VOLTS ALTERNATING CURRENT VARIES, VARIABLE VALVE BOX VERTICAL CURVE VITRIFIED CLAY PIPE, VENDOR CONTROL PANEL VOLUME DAMPER VOLTS DIRECT CURRENT VERTICAL VARIABLE FREQUENCY CONTROLLER VARIABLE FREQUENCY DRIVE VAPOR PRESSURE, VACUUM PUMP VARIABLE SPEED COUPLING, VARIABLE SPEED CONTROLLER VARIABLE SPEED DRIVE VENT THROUGH ROOF</p>		<p>W WIDTH WITH WITHOUT WATER CLOSET, WATER COLUMN WALL CLEANOUT WOOD WALL EXHAUST GRILLE WALL EXHAUST REGISTER WIDE FLANGE WROUGHT IRON WATER SURFACE WATER SUPPLY REGISTER WATERSTOP WATERTIGHT WELDED WIRE FABRIC</p>		<p>X SPARE CONDUIT TRANSFORMER CROSS LINKED POLYETHYLENE EXPLOSION PROOF TRANSFER SWITCH Y YARD CLEANOUT Z POSITION SWITCH, (LIMIT) SWITCH ZS</p>	



ACCEPTED FOR USE BY:
 RICHARD ABONO
 City Engineer
 Date: 11/20/2020



GENERAL
 PITTSBURG WATER TREATMENT PLANT
 FILTER GALLERY VALVE REPLACEMENT
 PROJECT
 ABBREVIATIONS 2

BY	MM	CHECKED:	BV
DATE:	11/20/2020	REVIEWED:	BF
SCALE:	AS SHOWN		

DATE	REV	DESCRIPTION

BY DRAWN: MM

CHECKED: BV

REVIEWED: BF

DATE: 11/20/2020

SCALE: AS SHOWN

PROCESS
PITTSBURG WATER TREATMENT PLANT
FILTER GALLERY VALVE REPLACEMENT
PROJECT
SITE ACCESS



ACCEPTED FOR USE BY:
RICHARD ABONO
 City Engineer
R. Abono
 Date: 11/20/20

PREPARED UNDER THE
 DIRECTION OF:
JAMES JETTON
 PRINCIPAL ENGINEER
 RCE: 54237 Exp. 12/31/2021
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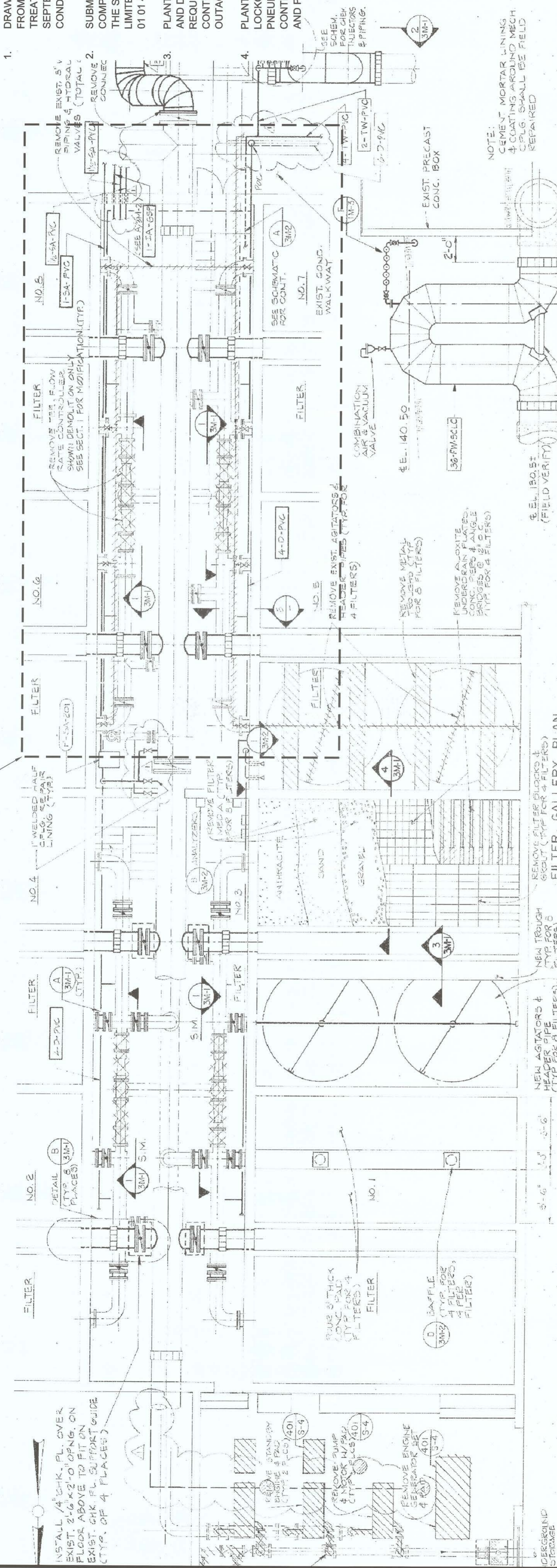
Brown and Caldwell



GENERAL NOTES:

- DRAWINGS, M-001 AND M-002 ARE PDF'S FROM THE CITY OF PITTSBURGH WATER TREATMENT PLANT EXPANSION DATED SEPTEMBER, 1988 AND AS-BUILT CONDITIONS DATED 5/10/91.
- SUBMIT DETAILED OUTAGE PLAN IN COMPLIANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS INCLUDING BUT NOT LIMITED TO THOSE INCLUDED IN SECTION 01 01 40.
- PLANT OPERATIONS STAFF WILL ISOLATE AND DRAIN FILTERS TO THE EXTENT REQUIRED AND IN COMPLIANCE WITH THE CONTRACTOR'S APPROVED DETAILED OUTAGE PLAN.
- PLANT OPERATIONS STAFF WILL EXECUTE LOCKOUT-TAGOUT OF ELECTRICAL AND PNEUMATIC ACTUATORS PER THE CONTRACTOR'S DETAILED OUTAGE PLAN AND PLANT OPERATIONS PROCEDURES.

SEE SHT M-002 FOR VALVE AND ACTUATOR REPLACEMENT IN THIS AREA



NOTE:
CEMENT MORTAR LINING & COATING AROUND MECH. CPUG. SHALL BE FIELD REPAIRED

NOTE:
REMOVE EXIST. 36\"/>

FILTER GALLERY PLAN

REMOVE FILTER BLOCKS & GROUT (TYP FOR 4 FILTERS) 3'-0\"/>

REMOVE EXIST. AGITATORS & HEADERS (TYP FOR 4 FILTERS) 4'-0\"/>

REMOVE METAL TRUSSES (TYP FOR 8 FILTERS)

REMOVE EXIST. UNDERSEAL FLANGES CONC. SEPS & ANGLE BRIDGES @ 3\"/>

REMOVE EXIST. 16\"/>

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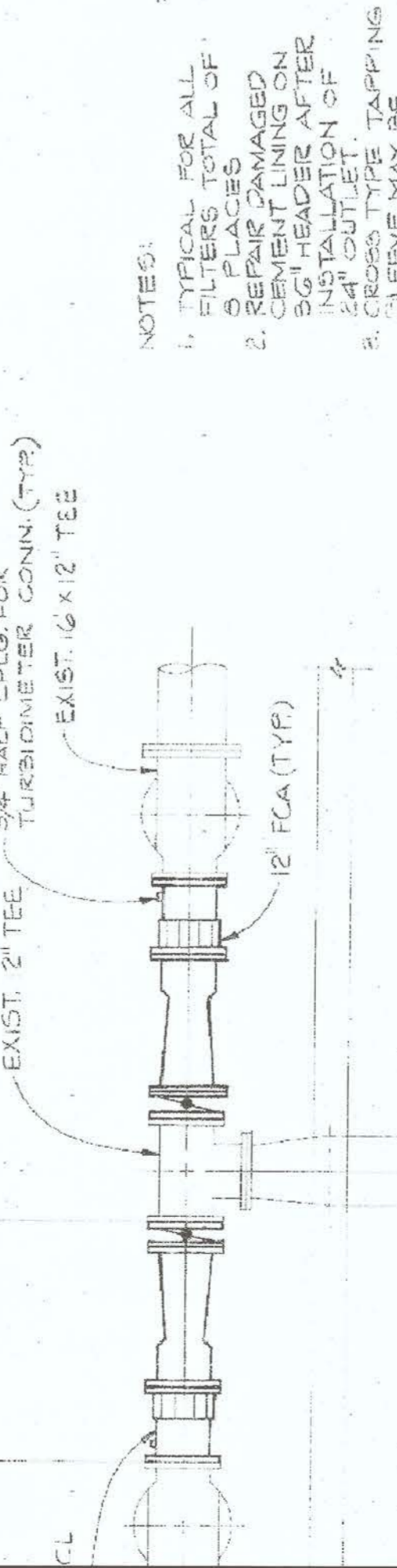
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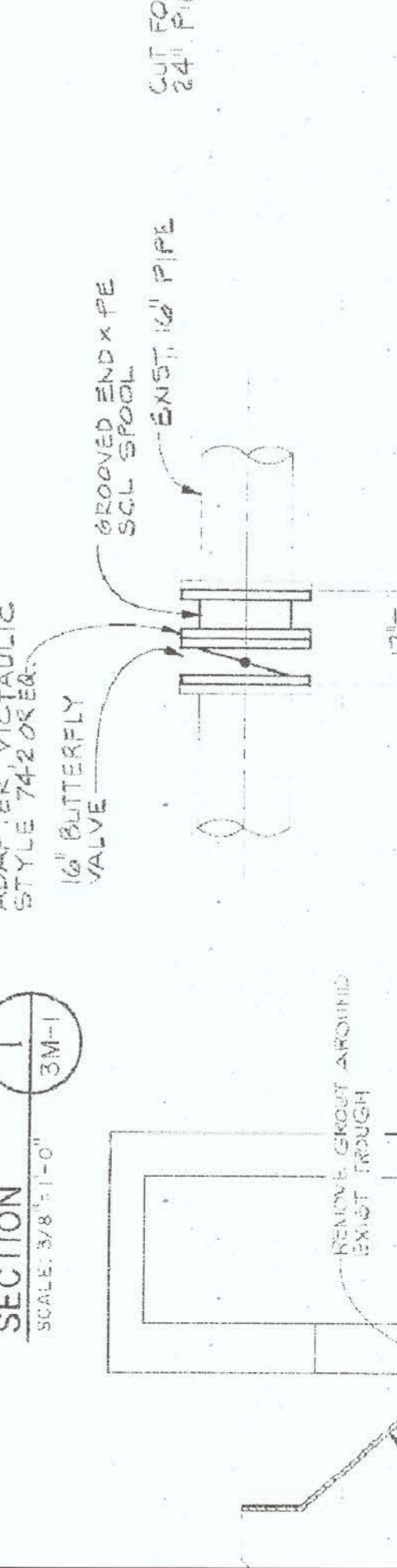
SECTION 1

SCALE: 3/8\"/>



SECTION 2

SCALE: 3/8\"/>



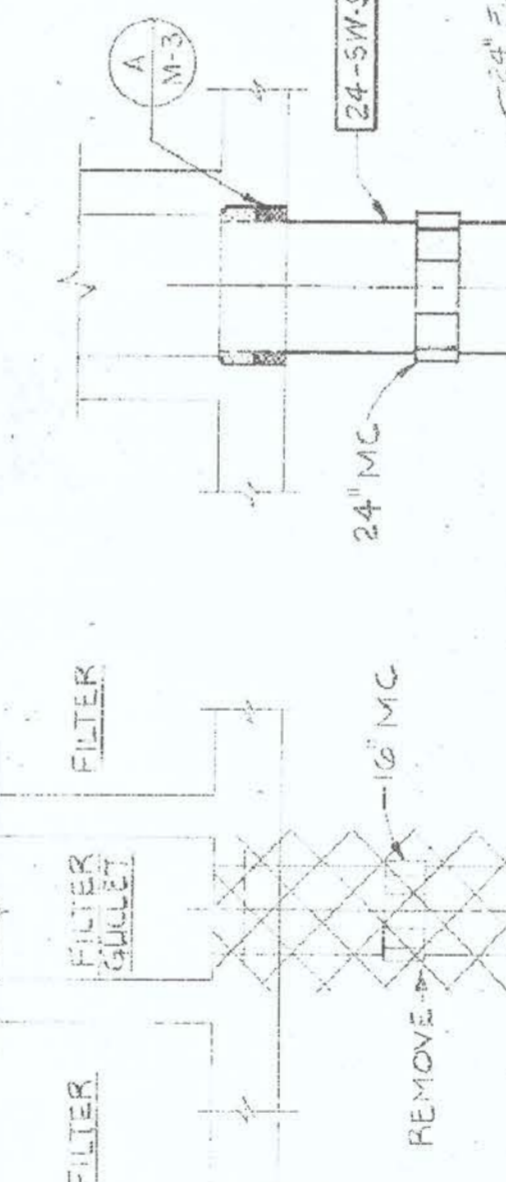
SECTION 3

SCALE: 7/8\"/>



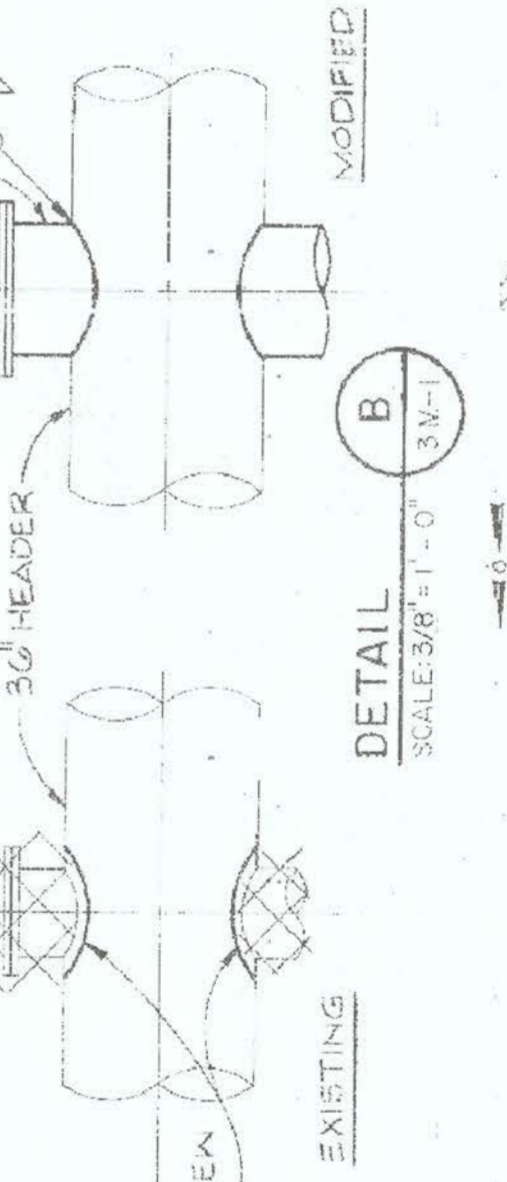
DETAIL A

SCALE: 1/2\"/>

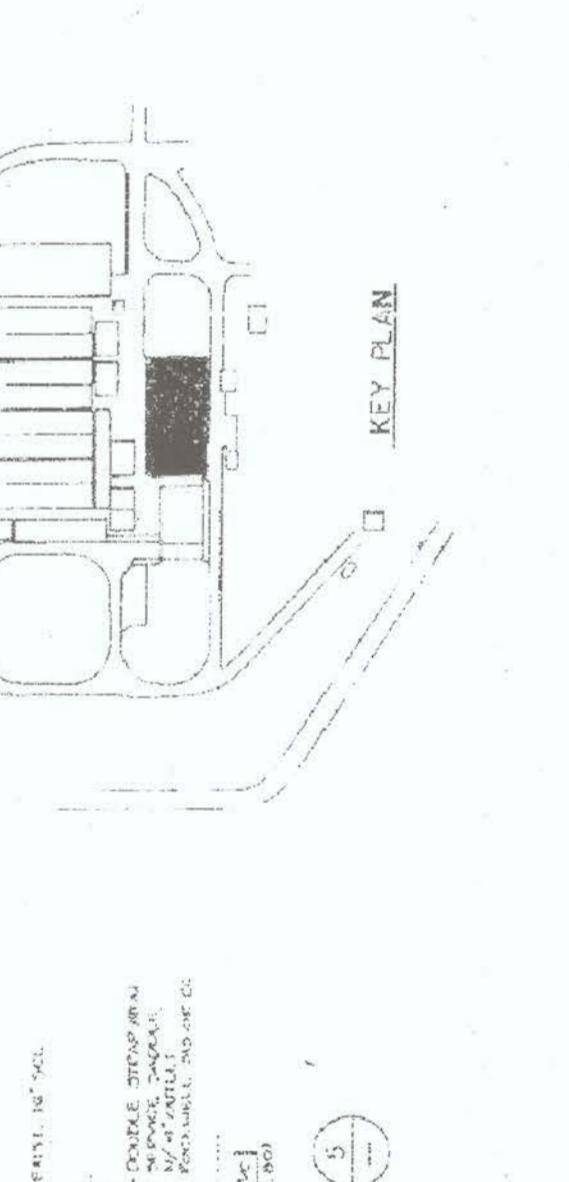


DETAIL B

SCALE: 3/8\"/>



KEY PLAN



DATE REV	DESCRIPTION	BY	DRAWN: MM	CHECKED: BV	REVIEWED: BF	DATE: 11/20/2020	SCALE: AS SHOWN

PROCESS
PITTSBURGH WATER TREATMENT PLANT
FILTER GALLERY VALVE REPLACEMENT PROJECT
EXISTING CONDITIONS

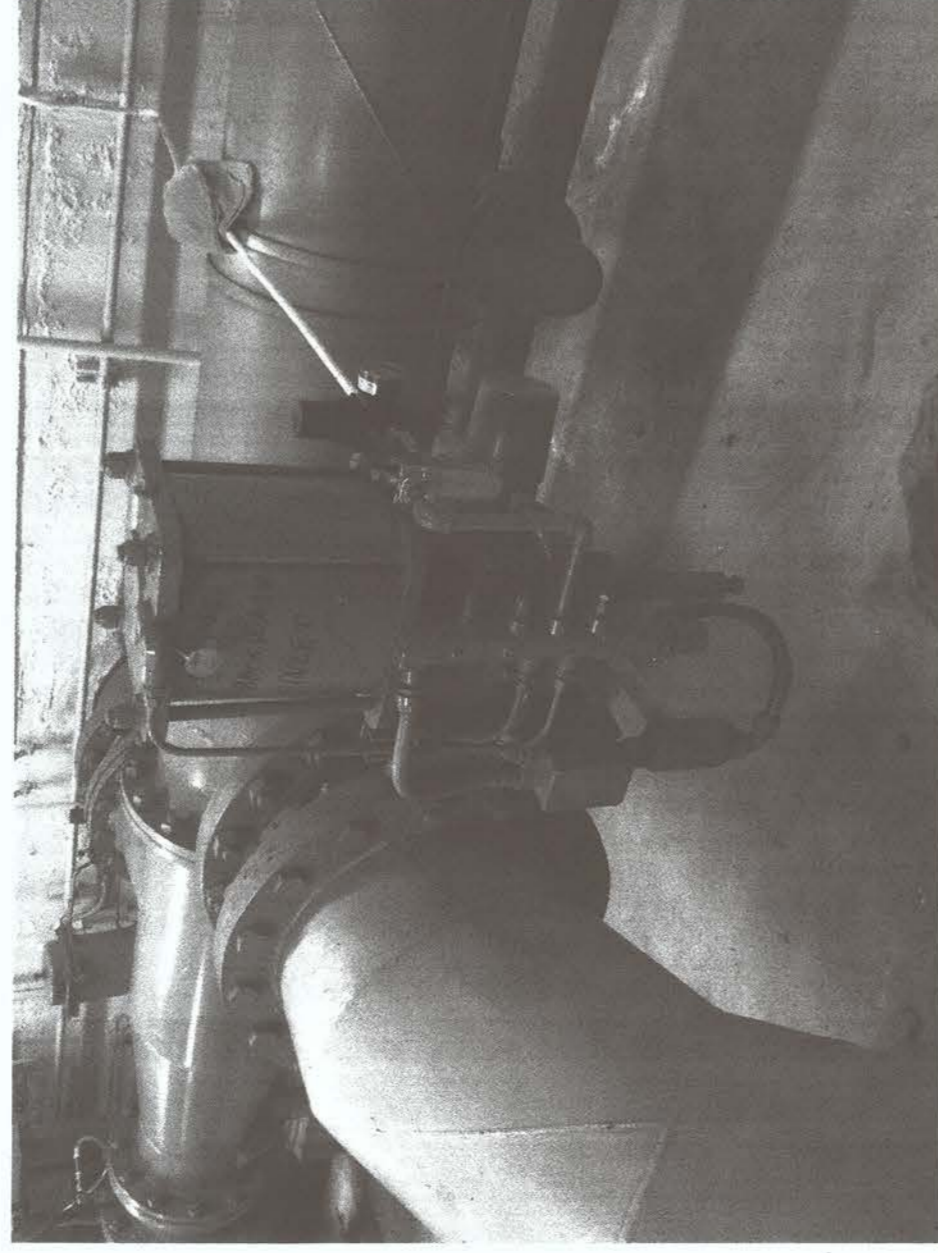
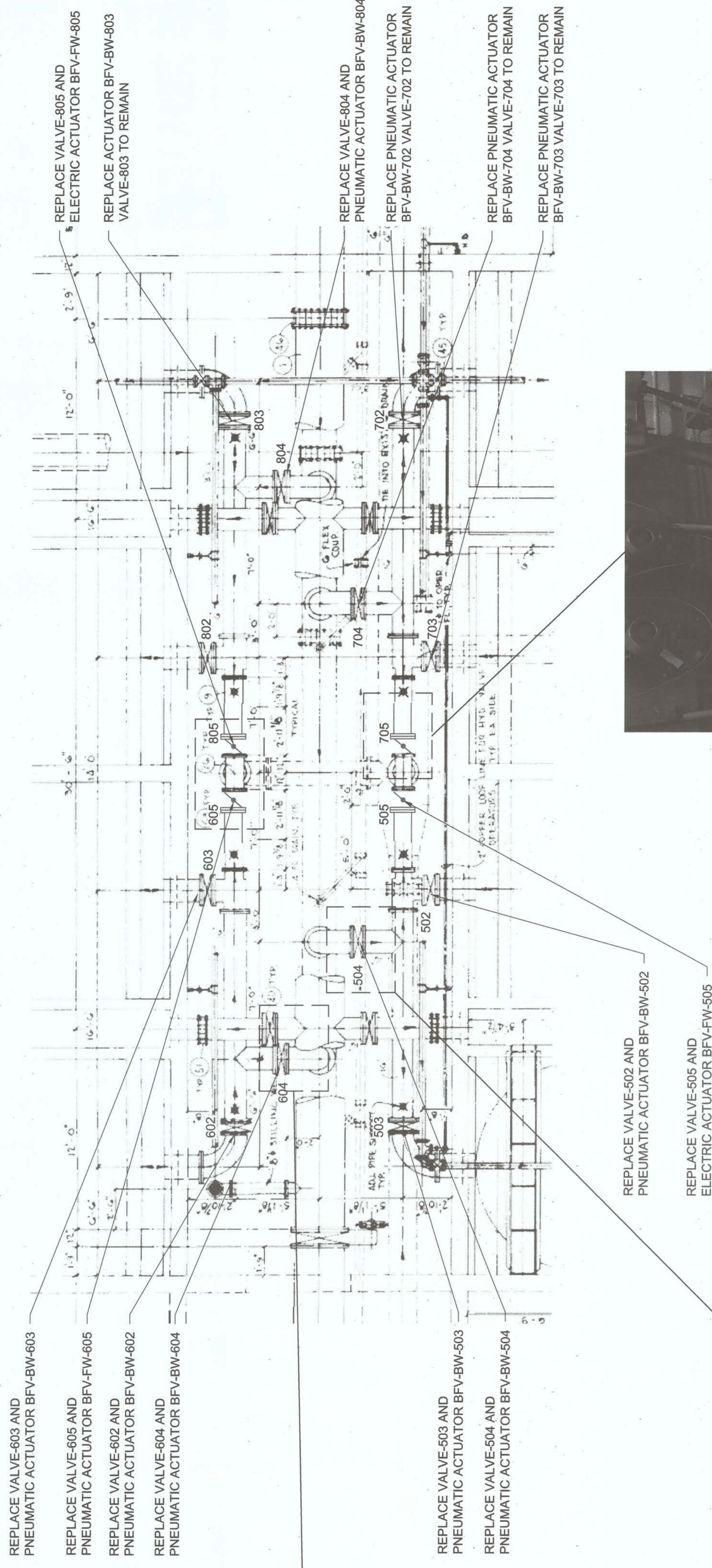
City of Pittsburgh
ACCEPTED FOR USE BY: RICHARD ARONO
DATE: 11/20/2020
JAMES LETTON
DIRECTION OF: JAMES LETTON
DATE: NOVEMBER 20, 2020

Brown and Caldwell
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
No. C64237
11/20/2020

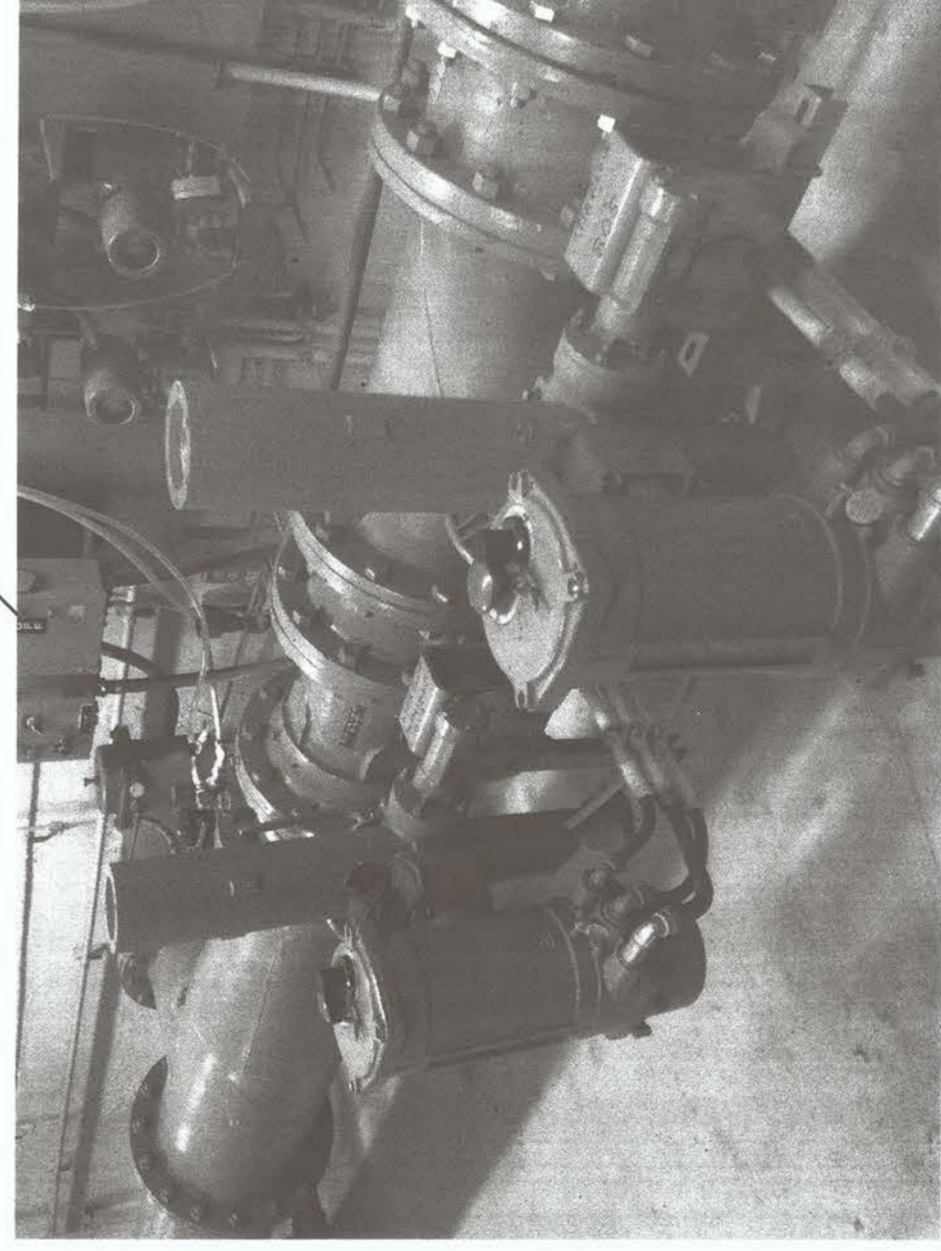
SHEET NO. 7 OF 8
M-001

NOTES:

- 1. SEE GENERAL NOTES ON SHEET M-001.



TYPICAL OF PNEUMATIC ACTUATORS



TYPICAL OF ELECTRIC ACTUATORS
505, 605, AND 805



REPLACE VALVE-705
ELECTRIC ACTUATOR BFV-FW-705 TO REMAIN

DATE	REV	DESCRIPTION

BY	DRAWN: MM
CHECKED: BV	
REVIEWED: BF	
DATE: 11/20/2020	
SCALE: AS SHOWN	

PROCESS
PITTSBURGH WATER TREATMENT PLANT
FILTER GALLERY VALVE REPLACEMENT
PROJECT
REPLACED VALVES AND
ACTUATORS



ACCEPTED FOR USE BY:
RICHARD ABRONO
City Engineer
Date: 11/20/20

PREPARED UNDER THE
DIRECTION OF:
JAMES JETTON
Principal Engineer
RCE: 54237 Exp: 12/31/2021
Date: NOVEMBER 20, 2020



SHEET NO.
8 OF 8
SHEET:
M-002