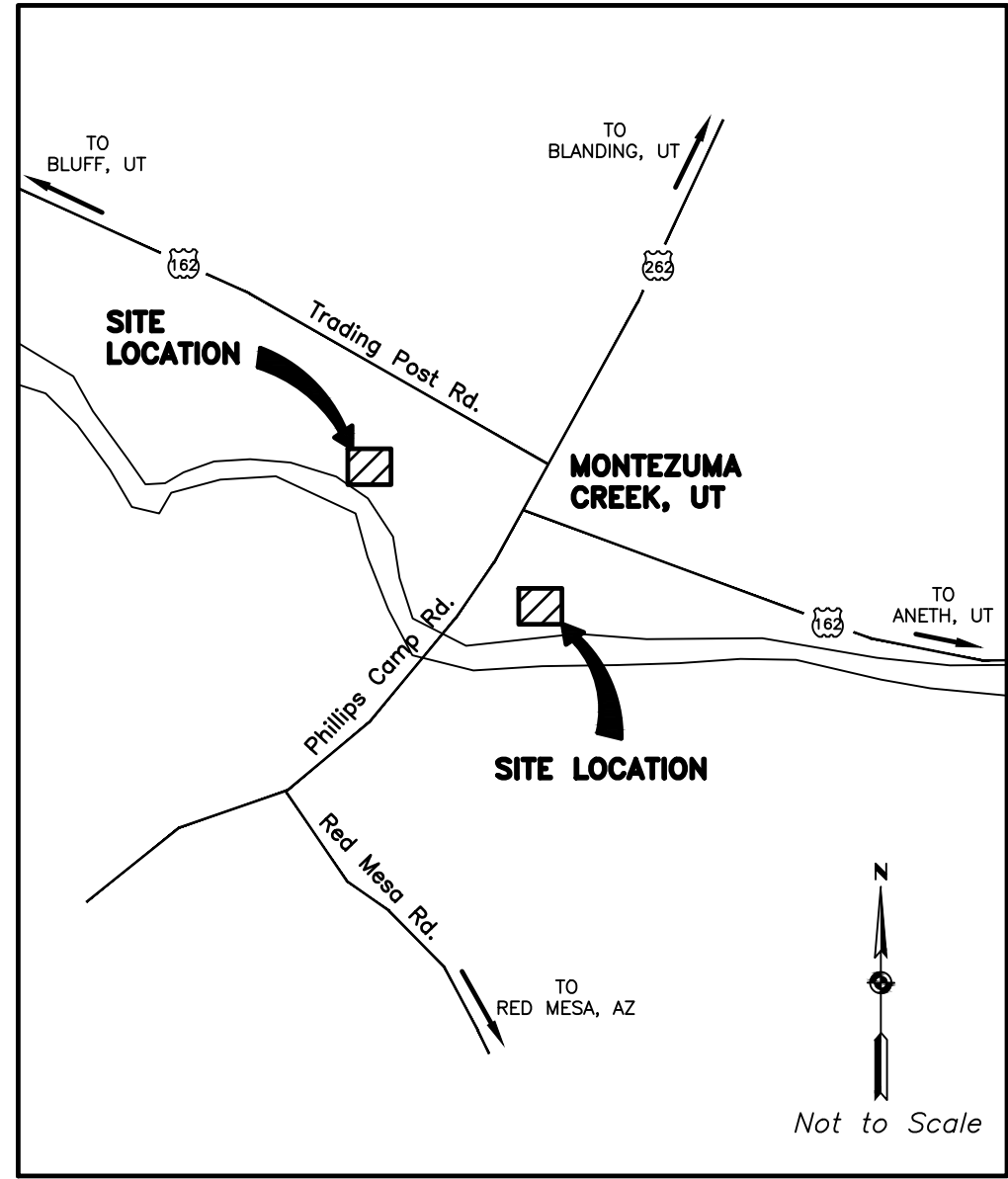
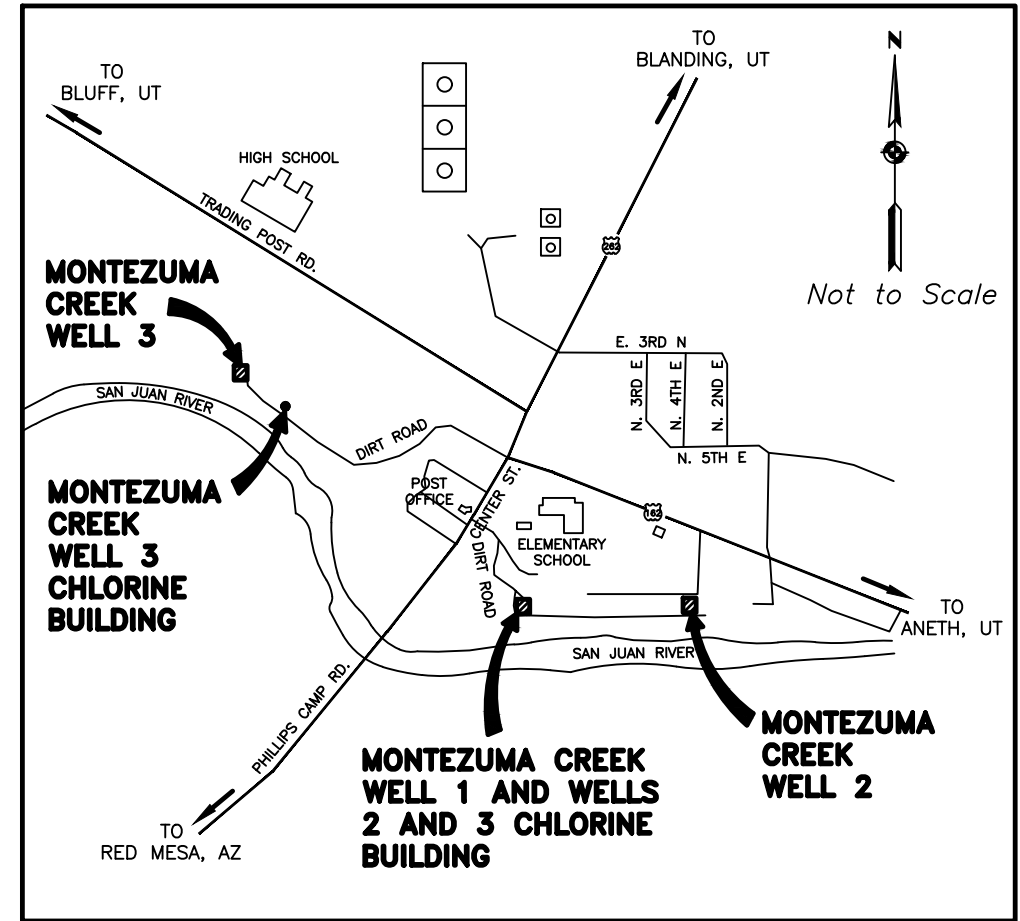




MONTEZUMA CREEK -
WATER SYSTEM LOCATION MAP



MONTEZUMA CREEK WELLS - VICINITY MAP



MONTEZUMA CREEK
ARSENIC TREATMENT FACILITIES
NAVAJO TRIBAL UTILITY AUTHORITY
JUNE 2018

FINAL REVIEW SUBMITTAL

APPROVAL

NTUA WATER/WASTEWATER DEPARTMENT

DATE

No.	Revision	Note	Date	Drawn	Check

NAVAJO TRIBAL UTILITY AUTHORITY
MONTEZUMA CREEK ARSENIC TREATMENT FACILITIES

COVER SHEET



EXPIRATION DATE: 09/30/18

Drawn by:	KJ
Design by:	SA
Approved by:	RN
Date	06/01/18
Project No.	0605
Sheet No.	G-01

Jun 01, 2018 - 5:09pm
Z:\0605 - Aneth-Montezuma Creek Arsenic Removal Systems\CAD\FINAL REVIEW SUBMITTAL - MONTEZUMA CREEK ONLY\G-02.dwg

GENERAL NOTES

- ALL WORK AND MATERIALS SHALL CONFORM TO THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS. ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED UNLESS OTHERWISE INDICATED. CONTRACTOR TO PROVIDE APPROPRIATE DUST CONTROL MEASURES DURING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AND BARRICADING AS PER CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. CONTRACTOR TO COORDINATE ALL DRIVEWAY LOCATIONS, AND REMOVAL OR RESETS OF PRIVATE PROPERTY PINS ON ALL STREETS WITH OWNERS.
- THE CONTRACTOR SHALL COORDINATE WORK SCHEDULES WITH NTUA UTILITY CREWS SO AS TO MINIMIZE THE WORK CONFLICTING WITH SYSTEM OPERATIONS.
- NOT USED.
- EXISTING PIPING, ELECTRICAL, AND UTILITIES ARE BASED ON EXISTING RECORDS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL EXISTING PIPING, ELECTRICAL, AND UTILITIES AND AVOIDING DAMAGE TO THE SAME. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONTACT NTUA, AND BLUE STAKE AT 811 OR 1-800-782-5348. NOTE: BLUE STAKE DOES NOT STAKE SEWER SERVICES. CONTRACTOR SHALL CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND SHALL BE RESPONSIBLE FOR:
 - DAMAGE WORK TO SUCH UTILITIES CAUSED AS A RESULT OF THE WORK.
 - DAMAGES TO EXISTING WALKS, WALLS, CURBS, DRIVES, TREES, LANDSCAPING, AND PAVING.
- CONTRACTOR TO POTHOLE EXISTING UTILITIES AND BURIED PIPING AND ELECTRICAL AHEAD OF CONSTRUCTION, TO ALLOW FOR ANY NECESSARY ADJUSTMENT IN GRADE LINE AND TO VERIFY PIPE TYPES FOR ORDERING PROPER TRANSITION, AND/OR TIE-IN FITTINGS WHICH MAY BE REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL PLANS FOR DEMOLITION ITEMS.
- ALL UTILITIES SHALL BE PROTECTED FROM DAMAGE AS A RESULT OF THE WORK. THE CONTRACTOR SHALL RELOCATE, REPAIR OR REPLACE AT HIS EXPENSE, ANY AFFECTED UTILITIES TO THE SATISFACTION OF THE UTILITIES OR THE NTUA.
- PROVIDE TEMPORARY THRUST RESTRAINT FOR EXISTING PIPING WHENEVER THE WORK REQUIRES. CONTRACTOR TO REPLACE OR RESTORE THE EXISTING RESTRAINT SYSTEM TO LIKE-NEW CONDITION.
- CONTRACTOR SHALL PROTECT THE ADJACENT PROPERTY AND IMPROVEMENTS THERETO FROM ANY DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO ADJACENT PROPERTY OR IMPROVEMENTS MUST BE REPAIRED OR REPLACED TO THE PROPERTY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
- DIMENSIONS AND ELEVATIONS FOR EQUIPMENT INSTALLATION TO BE DETERMINED BASED UPON EQUIPMENT MANUFACTURER SELECTED.
- WHERE INDICATED, DIMENSIONS AND ELEVATIONS SHALL BE FIELD VERIFIED.
- EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED WILL BE MARKED BY ENGINEER PRIOR TO WORK BEGINNING, UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR TO MAINTAIN ACCESS TO EXISTING WELL FACILITIES FOR MAINTAINING OPERATIONS DURING CONSTRUCTION. IF THE WORK REQUIRES INTERRUPTION OF EXISTING ACCESS TO OPERATING FACILITIES, THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS (APPROVED BY NTUA) TO THESE FACILITIES. THE WELLS ARE CRITICAL TO NTUA OPERATIONS AND A SHUT DOWN WILL NOT BE PERMITTED WITHOUT AN APPROVED MAINTENANCE OF PLANT OPERATIONS (MOPO) PLAN.
- THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, VALVE BOXES, CLEANOUTS, BLIND FLANGED PIPING, AND FIRE HYDRANTS WITHIN WORK LIMITS REQUIRED TO MATCH PROPOSED FINAL GRADE.
- GOVERNING BUILDING CODES:
 - 2018 INTERNATIONAL BUILDING CODE
 - 2017 NATIONAL ELECTRICAL CODE
 - 2018 INTERNATIONAL PLUMBING CODE
 - 2018 INTERNATIONAL MECHANICAL CODE
- CONTRACTOR TO MAINTAIN ACCESS FOR EMERGENCY RESPONSE VEHICLES DURING CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WORK SCHEDULES WITH NTUA SO AS TO PREVENT ANY CONFLICTING WORK CONDITIONS. LOCATIONS OF TEMPORARY FACILITIES, PARKING, ETC. SHALL BE COORDINATED WITH THE NTUA.
- CONTRACTOR SHALL PROVIDE TEMPORARY SAFETY FENCING AS NEEDED. THE CONTRACTOR SHALL PROVIDE TEMPORARY SECURITY FENCING AROUND CONSTRUCTION FOR THOSE SITES WHERE CONSTRUCTION EXTENDS OUTSIDE EXISTING SECURITY FENCING.
- CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF AT LEAST WEEKLY BY THE CONTRACTOR. KEEP SITE AREA CLEAN.
- EXCESS EXCAVATED SOIL SHALL BE REMOVED OFF SITE. CONTRACTOR SHALL ESTABLISH A SUITABLE STAGING AREA FOR STORAGE OF EXCAVATED SOIL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY AT THE SITE WHILE CONSTRUCTION IS IN PROGRESS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE PUBLIC FROM ANY HAZARDS ARISING FROM CONSTRUCTION OPERATIONS AND PROTECTING EXISTING AND NEW IMPROVEMENTS FROM DAMAGE DUE TO ACCIDENT OR VANDALISM.
- PROPERTY LINES AND DIMENSIONS SHOWN FOR THE EXISTING WELL AND CHLORINE BUILDING SITES ARE BASED ON NTUA RECORDS.
- ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 60 AND 61.
- PARK CONSTRUCTION VEHICLES A MINIMUM OF 100 FEET FROM WELLS.
- A GEOTECHNICAL INVESTIGATION WAS NOT PERFORMED FOR THIS PROJECT. A SOIL BEARING CAPACITY OF 1,500 PSF WAS UTILIZED FOR FOUNDATION DESIGN. BIDDERS SHALL INCLUDE THE FOLLOWING IN PREPARATION OF BID:
 - CONTRACTORS SHALL VISIT ALL SITES DURING BIDDING PHASE AND ASSESS GEOTECHNICAL CONDITIONS.
 - HARD ROCK EXCAVATION IS NOT ANTICIPATED.
 - SOME COBBLE SIZE MATERIAL EXISTS AT SOME OF THE SITES.

DRAWING INDEX

GENERAL

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- G-02 DRAWING INDEX AND GENERAL NOTES
- G-03 ABBREVIATIONS AND SYMBOLS
- G-04 ANETH WELLS 2 AND 3 VALVE AND EQUIPMENT SCHEDULES - NOT USED
- G-05 MONTEZUMA CREEK WELLS 1 AND 2 VALVE AND EQUIPMENT SCHEDULES
- G-06 MONTEZUMA CREEK WELL 3 VALVE AND EQUIPMENT SCHEDULES

CIVIL

- C-01 CIVIL LEGEND AND GENERAL SITE NOTES
- C-02 ANETH WELL 2 - DEMOLITION SITE PLAN - NOT USED
- C-03 ANETH WELL 2 - NEW FACILITIES SITE PLAN - NOT USED
- C-04 ANETH WELL 3 - DEMOLITION SITE PLAN -

VALVE AND EQUIPMENT SCHEDULE FOR MONTEZUMA CREEK WELL 1 and WELL 2 (MC 1 AND MC 2) ATF													
VALVE SCHEDULE													
TAG NUMBER	LOCATION	SERVICE	DESCRIPTION	VALVE TYPE	SIZE(IN.)	BODY MATERIAL	QUANTITY	PRESSURE RATING	MIN FLOW (GPM)	MAX FLOW (GPM)	ACTUATOR TYPE	NEMA ENCLOSURE	REMARKS
TBV 1	ON TREATMENT BYPASS	TBL	TREATMENT BYPASS LINE	BALL VALVE	3	PVC	1	150 PSI	10	85			
RW1 1	PFS 1	RWI	RAW WATER INFLUENT-FLTR 1	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	85	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 1
BWE 1	PFS 1	BWE	BACKWASH EFFLUENT-FLTR 1	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	106	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 1
REV 1	PFS 1	REL	RINSE EFFLUENT LINE-FLTR 1	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	106	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 1
BW1 1	PFS 1	BWI	BACKWASH INFLUENT-FLTR 1	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	106	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 1
TWE 1	PFS 1	TWE	TREATED WATER EFFLUENT-FLTR 1	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	85	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 1
CV 1	PFS 1	TWE	TREATED WATER EFFLUENT-FLTR 1	CHECK VALVE	3	PVC	1	150 PSI	10	85			SUPPLIED WITH PFS 1
RW1 2	PFS 2	RWI	RAW WATER INFLUENT-FLTR 2	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	85	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 2
BWE 2	PFS 2	BWE	BACKWASH EFFLUENT-FLTR 2	BALL VALVE	3	PVC	1	150 PSI	10	106			SUPPLIED WITH PFS 2
RIV 2	PFS 2	RIL	RINSE INFLUENT LINE-FLTR 2	BALL VALVE	3	PVC	1	150 PSI	10	106			SUPPLIED WITH PFS 2
REV 2	PFS 2	REL	RINSE EFFLUENT LINE-FLTR 2	BALL VALVE	3	PVC	1	150 PSI	10	106			SUPPLIED WITH PFS 2
BW1 2	PFS 2	BWI	BACKWASH INFLUENT-FLTR 2	BALL VALVE	3	PVC	1	150 PSI	10	106			SUPPLIED WITH PFS 2
TWE 2	PFS 2	TWE	TREATED WATER EFFLUENT-FLTR 2	MOTORIZED BALL VALVE	3	PVC	1	150 PSI	10	85	0.34 HP 1/4 TURN ACTUATOR	4X	SUPPLIED WITH PFS 2
CV 2	PFS 2	TWE	TREATED WATER EFFLUENT-FLTR 2	CHECK VALVE	3	PVC	1	150 PSI	10	85			SUPPLIED WITH PFS 2
CV 3	ON TREATMENT BYPASS	TBL	TREATMENT BYPASS LINE	BALL VALVE	3	PVC	1	150 PSI	10	85			
TWE 3	ON TWE LINE	TWE	TREATED WATER EFFLUENT	BALL VALVE	3	PVC	1	150 PSI	10	85			
BW1 3	ON BW1 LINE	BWI	BACKWASH INFLUENT	BALL VALVE	3	PVC	1	150 PSI	10	106			
BW1 4	ON BW1 LINE	BWI	BACKWASH INFLUENT	MOTORIZED BALL VALVE									

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VALVE AND EQUIPMENT SCHEDULE FOR MONTEZUMA WELL 3 (MC 3) ATF											
VALVE SCHEDULE											
TAG NUMBER	LOCATION	SERVICE	DESCRIPTION	VALVE TYPE	SIZE(IN.)	BODY MATERIAL	QUANTITY	PRESSURE RATING	MIN FLOW (GPM)	MAX FLOW (GPM)	REMARKS
TBV 1	ON TREATMENT BYPASS	TBL	TREATMENT BYPASS LINE	BALL VALVE	3	PVC	1	150 PSI	10	53	
CV 2	ON TREATMENT BYPASS	TBL	TREATMENT BYPASS LINE	CHECK VALVE	3	PVC	1	150 PSI	10	53	
IV 1	ON RWI LINE	RWI	RAW WATER INFLUENT	BALL VALVE	3	PVC	1	150 PSI	10	53	
RWI 1	PFS 3	RWI	RAW WATER INFLUENT-FLTR 3	BALL VALVE	3	PVC	1	150 PSI	10	53	SUPPLIED WITH PFS 3
BWE 1	PFS 3	BWE	BACKWASH EFFLUENT-FLTR 3	BALL VALVE	3	PVC	1	150 PSI	10	106	SUPPLIED WITH PFS 3
RIV 1	PFS 3	RIL	RINSE INFLUENT LINE-FLTR 3	BALL VALVE	3	PVC	1	150 PSI	10	106	SUPPLIED WITH PFS 3
REV 1	PFS 3	REL	RINSE EFFLUENT LINE-FLTR 3	BALL VALVE	3	PVC	1	150 PSI	10	106	SUPPLIED WITH PFS 3
BWI 1	PFS 3	BWI	BACKWASH INFLUENT-FLTR 3	BALL VALVE	3	PVC	1	150 PSI	10	106	SUPPLIED WITH PFS 3
TWE 1	PFS 3	TWE	TREATED WATER EFFLUENT-FLTR 3	BALL VALVE	3	PVC	1	150 PSI	10	53	SUPPLIED WITH PFS 3
CV 1	PFS 3	TWE	TREATED WATER EFFLUENT-FLTR 3	CHECK VALVE	3	PVC	1	150 PSI	10	53	SUPPLIED WITH PFS 3
TWE 2	ON TWE LINE	TWE	TREATED WATER EFFLUENT	BALL VALVE	3	PVC	1	150 PSI	10	53	
BWI 2	ON BWI LINE	BWI	BACKWASH INFLUENT	BALL VALVE	3	PVC	1	150 PSI	10	106	
BWI 3	ON BWI LINE	BWI	BACKWASH INFLUENT	BALL VALVE	3	PVC	1	150 PSI	10	106	
BTI 1	ON BWE LINE	BTO	BACKWASH TANK INLET	BALL VALVE	3	PVC	1	150 PSI	10	106	
BTI 2	ON BWE LINE	BTO	BACKWASH TANK INLET	BALL VALVE	3	PVC	1	150 PSI	10	106	
BDL 1	ON BDL LINE	BDL	BACKWASH DRAIN LINE	BALL VALVE	3	PVC	1	150 PSI	10	106	

METER SCHEDULE										
TAG NUMBER	LOCATION	SERVICE	DESCRIPTION	TYPE	SIZE(IN.)	QUANTITY	FLOW RANGE	NEMA ENCLOSURE	REMARKS	
FM 1	PFS 3	TWE	TREATED WATER EFFLUENT	MAGNETIC		1	53 GPM	NEMA 4	INTEGRAL TRANSMITTER	SUPPLIED WITH PFS 3
FM 2	ON BWI LINE	BWI	BACKWASH INFLUENT FROM SYSTEM	MAGNETIC	3	1	106 GPM	NEMA 4		
FM 3	ON BWE LINE	BWE	BACKWASH EFFLUENT	MAGNETIC	3	1	106 GPM	NEMA 4		

GENERAL SITE NOTES

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