

PROJECT No: 2019-143 ADDRESS: 1215 ARCHIBALD ST. SHEET TITLE: POOL WATER FILTER REPLACEMENT - DEMO, RENO, SPECIFICATIONS & LEGENDS DATE: 2020.02.11 FILE NAME: 2019143M1.dwg

MECHANICAL SPECIFICATION

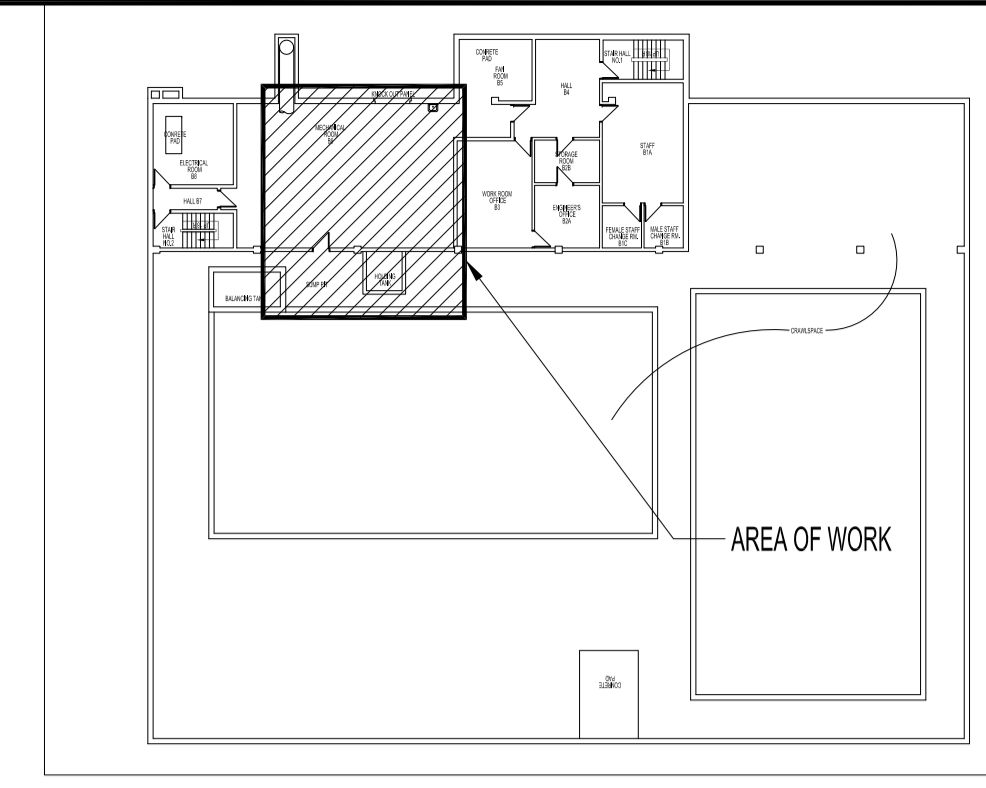
- 1.0 GENERAL**
- VISIT JOBSITE DURING BID. DRAWINGS INDICATE APPROXIMATE LOCATION OF EXISTING MECHANICAL EQUIPMENT AND SERVICES. VERIFY EXACT LOCATIONS OF EXISTING MECHANICAL EQUIPMENT AND SERVICES AND ALLOW FOR NECESSARY RELOCATING OF NOTED SERVICES (OR RECONNECTION TO EXISTING SERVICES) TO SUIT NEW CONSTRUCTION.
 - ALL WORK SHALL CONFORM TO MANITOBA BUILDING CODE AND LOCAL AUTHORITIES. APPLY FOR, OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
 - COORDINATE INSTALLATION WITH ALL RELATED TRADES. VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING EQUIPMENT AND SERVICES PRIOR TO PROCEEDING WITH WORK.
 - SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT TO CONTRACT ADMINISTRATOR.
 - PROVIDE ONE YEAR GUARANTEE FOR ALL EQUIPMENT.
 - ALL CONNECTIONS TO EXISTING BUILDING MECHANICAL SERVICES SHALL BE COORDINATED WITH CONTRACT ADMINISTRATOR.
 - REFER TO INSTRUCTIONS TO BIDDERS FOR REQUIREMENTS REGARDING PROJECT PHASING, WORKING HOURS, SHUT-DOWN PROCEDURES, ACCESS, ETC.
 - PRIOR TO DRILLING HOLES AND/OR OPENINGS IN EXISTING STRUCTURE, CONTRACTOR SHALL RETAIN SERVICES OF NATIONAL TESTING LABORATORIES LIMITED TO LOCATE AND MARK ALL STRUCTURAL REINFORCING STEEL LOCATED IN AREA WHERE CUTTING OR DRILLING IS PROPOSED. AT NO TIME SHALL REINFORCING STEEL BE CUT WITHOUT PRIOR WRITTEN APPROVAL FROM STRUCTURAL ENGINEER QUALIFIED AND LICENSED TO PRACTICE IN PROVINCE OF MANITOBA. NO HOLES OR OPENINGS WILL BE PERMITTED WITHIN AREA OF STRUCTURAL DROP PANELS LOCATED AT COLUMNS.
 - BID QUOTATIONS SHALL BE BASED ON THE USE OF SPECIFIED EQUIPMENT, UNLESS ACCEPTANCE FOR THE USE OF EQUAL MANUFACTURERS IS OBTAINED FROM THE CONTRACT ADMINISTRATOR PRIOR TO SUBMISSION OF BIDS. ALTERNATE MANUFACTURERS MAY BE QUOTED AS AN INCREASE OR DECREASE AMOUNT TO THE BID PRICE, WITHOUT PRIOR ACCEPTANCE OF THE CONTRACT ADMINISTRATOR.
 - PIPE HANGERS SHALL BE GRINNELL FIG. 65 FOR STEEL PIPE AND FIG. C765 FOR COPPER PIPE, ALL WITH FIG. 140 THREADED ROD ATTACHED TO FIG. 117 EXPANSION CASE SET IN HOLES DRILLED IN CONCRETE, OR ATTACHED TO FIG. 225 OR 227 CLAMP ATTACHED TO JOISTS OR BEAMS.

MECHANICAL SPEC'S CONTINUED:

- INSTALLATION OF WORK SHALL BE COORDINATED WITH THE CONTRACT ADMINISTRATOR AND SHALL BE SCHEDULED SO AS NOT TO ENDANGER OR DISTURB THE USERS OF THE BUILDING. SHUTDOWN OF EXISTING BUILDING SYSTEMS SHALL BE COORDINATED WITH THE CONTRACT ADMINISTRATOR.
 - ALL WIRING FOR EQUIPMENT SPECIFIED HEREIN SHALL BE BY THE ELECTRICAL SUBCONTRACTOR, UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL REVIEW ALL EQUIPMENT REQUIRING ELECTRICAL HOOK-UP WITH ELECTRICAL CONTRACTOR AND ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT. ENSURE PROPER ELECTRICAL CHARACTERISTICS ARE DETERMINED FOR ALL AFFECTED AND RELATED WORK.
- 2.0 POOL WATER PIPING MATERIAL**
- USE SCHEDULE 80 PVC PIPE AND FITTINGS TO ASTM D1784.
 - ALL MATERIAL TO BE UV RESISTANT, TYPE 1 GRADE 1 PVC.
 - FITTING LARGER THAN 10" FABRICATED PVC FITTINGS REINFORCED WITH FIBERGLASS.
 - FLANGES-ANSI 150 DRILL PATTERNS.
 - GASKETS-AS NOTED ON THE DESIGN DRAWINGS.
 - FASTENERS FOR FLANGES-USE TYPW 316 STAINLESS STEEL FASTENERS, SIZE AND QUANTITY BASED ON FLANGE DIMENSIONS. FASTENERS TO ANSI B16.2.1 AND B16.2.2.
 - VALVES-TYPE, SIZE, AND QUANTITY AS SHOWN ON THE DESIGN DRAWINGS. ALL BUTTERFLY VALVES ARE TO BE HIGH PERFORMANCE TYPE, ALL STAINLESS STEEL CONSTRUCTION. ALL VALVES PROVIDED ARE TO BE LUG BODY DESIGN.
 - SOLVENT-AS RECOMMENDED BY MANUFACTURER. SOLVENTS TO BE LOW VOC, TO ASTM D2235.
- 3.0 SAND FILTERS: PROVIDE AND INSTALL TEN 36" VERTICAL COMMERCIAL SAND FILTERS, EACH FILTER SHALL HAVE 7.06 SQUARE FOOT FILTER AREA, AND 106 GPM. 3" PLUMBING CONNECTION FOR MAXIMUM FLOW. 2" DRAINS FOR EASY WINTERING. CAN BE COMBINED FOR TANDEM INSTALLATION, NSF LISTED, MAXIMUM OPERATING PRESSURE 75 PSI. ACCEPTABLE PRODUCT: PENTAIR TRITON C3 SERIES COMMERCIAL SAND FILTERS, MODEL TR140C-3. INSTALL MULTIPLE FILTERS WITH PENTAIR TANDEM PIPING KIT. FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATION.**

MECHANICAL SPEC'S CONTINUED:

- 4.0 FLOW METER: PROVIDE AND INSTALL FLOW METER AS INDICATED. ACCEPTABLE PRODUCT, BLUE-WHITE PITOT TUBE INSERTION METERS.**
- 5.0 EXECUTION**
- INSTALL ALL PIPING PERPENDICULAR AND/OR PARALLEL TO BUILDING LINES.
 - PROVIDE ALL NECESSARY PIPE HANGERS IN ACCORDANCE WITH PIPE MANUFACTURER'S REQUIREMENTS FOR PIPE SIZE AND CONTENTS. CONSIDER PUMP/PIPING SYSTEM START-UP WITH HANGER DESIGN.
 - INSTALL PIPING IN ACCORDANCE WITH PIPING MANUFACTURER'S RECOMMENDATIONS AND THE PUMP/FILTER MANUFACTURER'S RECOMMENDATIONS.
 - PRESSURES TEST ALL PIPING FOR MINIMUM TWO HOURS AT 1.5 TIMES OPERATING PRESSURE WITH WATER PRIOR TO ENERGIZING. CONTRACT ADMINISTRATOR OR CITY OF WINNIPEG OPERATION PEOPLE ARE TO WITNESS THE PRESSURE TEST.



KEY PLAN
SCALE: NTS

NOTES:

THESE DRAWINGS SHALL NOT BE SCALED.

THIS DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR TO COORDINATE EXACT LOCATIONS OF AND ROUTING ON SITE WITH ALL NEW AND EXISTING SYSTEM.

THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY ONESELF ALL DIMENSIONS, DATUM, AND DETAILED INFORMATION SHOWN ARE CORRECT.

THE CONTRACTOR IS TO REVIEW AND COORDINATE ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL OPENINGS THROUGH FLOORS, WALLS, AND CEILINGS FOR DUCT, PIPE & ELECTRICAL RISERS AND ALL OPENINGS NOT SHOWN ON DRAWINGS.

ALL PRODUCTS AND MATERIALS TO BE USED AND INSTALLED SHALL CONFORM WITH MANUFACTURER'S SPECIFICATIONS & APPLICABLE CODES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PATCH AND MAKE GOOD ALL EXISTING CONSTRUCTION AFFECTED BY THE REMOVAL OF ALL ITEMS FORMING THE PART OF THE RENOVATION WORK.

CONTRACTOR IS RESPONSIBLE FOR CORING HOLES AND/OR OPENINGS IN EXISTING STRUCTURE IF REQUIRED. CONTRACTOR SHALL RETAIN SERVICES OF INDEPENDENT GPR SCANNING COMPANY TO LOCATE AND MARK ALL STRUCTURAL STEEL LOCATED IN AREA WHERE CORING OR DRILLING IS PROPOSED. AT NO TIME SHALL STEEL BE CUT WITHOUT PRIOR WRITTEN APPROVAL FROM CONTRACT ADMINISTRATOR.

PROVIDE FIRESTOPPING FOR ALL OPENINGS IN FIRE SEPARATIONS FOR PASSAGE OF PIPES TO MAINTAIN INTEGRITY OF FIRE SEPARATIONS AS PER MANUFACTURER'S PUBLISHED RECOMMENDATIONS.

SUBMIT MANUFACTURER'S RECOMMENDED MULTIPLE FILTER INSTALLATION SCHEMATIC TO CONTRACT ADMINISTRATOR.

MECHANICAL LEGEND	
	EXISTING CONSTRUCTION TO REMAIN
	TO BE DEMOLISHED
	NEW CONSTRUCTION
	CONNECTION POINT
	BUTTERFLY VALVE
	BALL VALVE
	REDUCER
	FLOW DIRECTION
	END CAP
	FLOW METER
	EQUIPMENT DESIGNATION

No.	REVISION/DESCRIPTION	BY	DATE
1	ISSUED FOR ADDENDUM #1	EAG	FEB 11 2020
0	ISSUED FOR CONSTRUCTION	EAG	DEC 24 2019

ORIGINAL STAMPED BY: X. WU
DATE: DECEMBER 24, 2019

DRAWN	EAG	CHECKED	XYW	DESIGNED	XYW	APPROVED	XYW
DATE	2020.02.11	USER	APPROVAL				

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

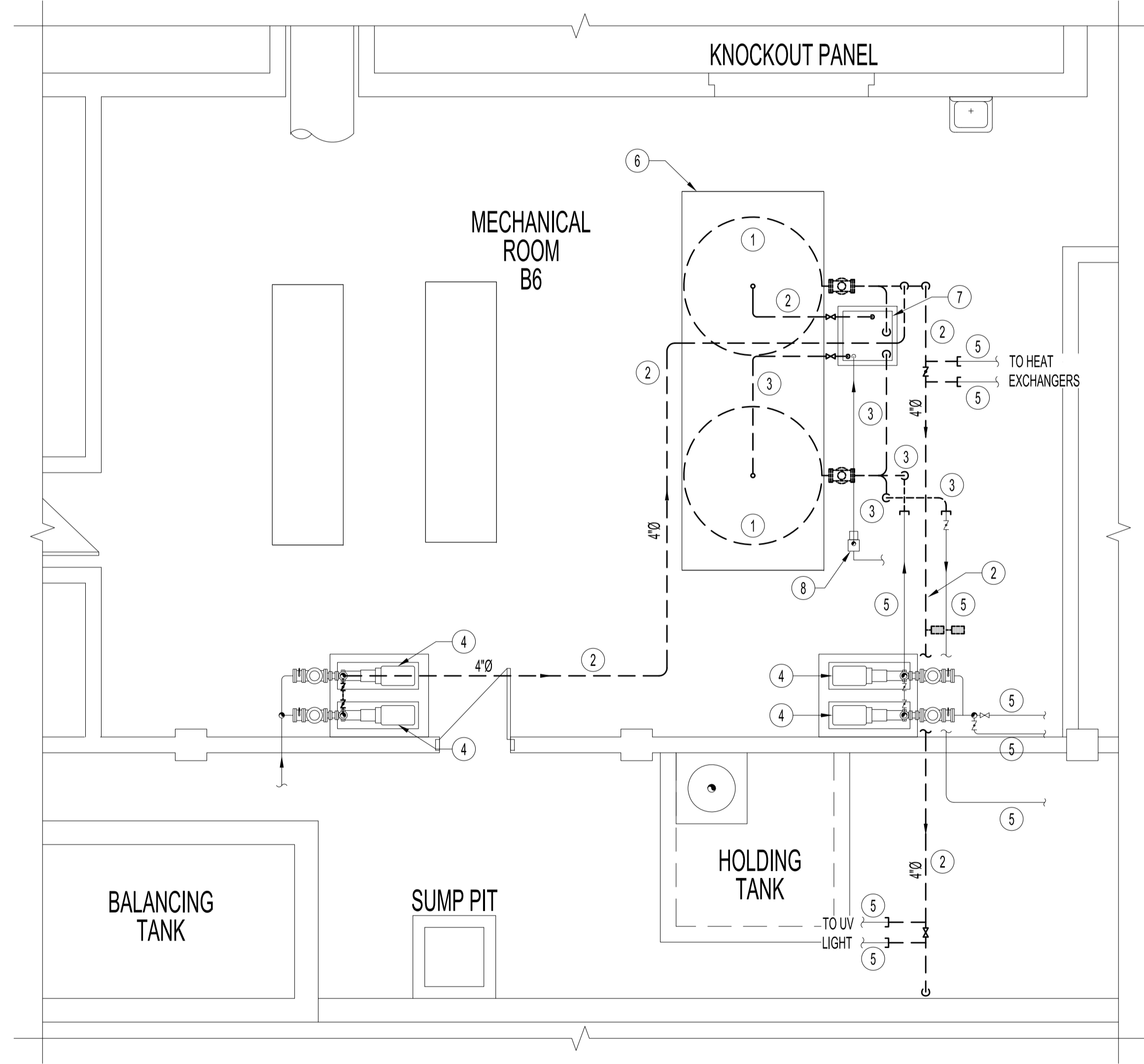
PROJECT
**BONIVITAL INDOOR POOL
POOL WATER FILTER REPLACEMENT**

1215 ARCHIBALD ST.
SHEET TITLE

**POOL WATER FILTER REPLACEMENT
DEMOLITION, RENOVATION, SPECIFICATIONS
AND LEGENDS**

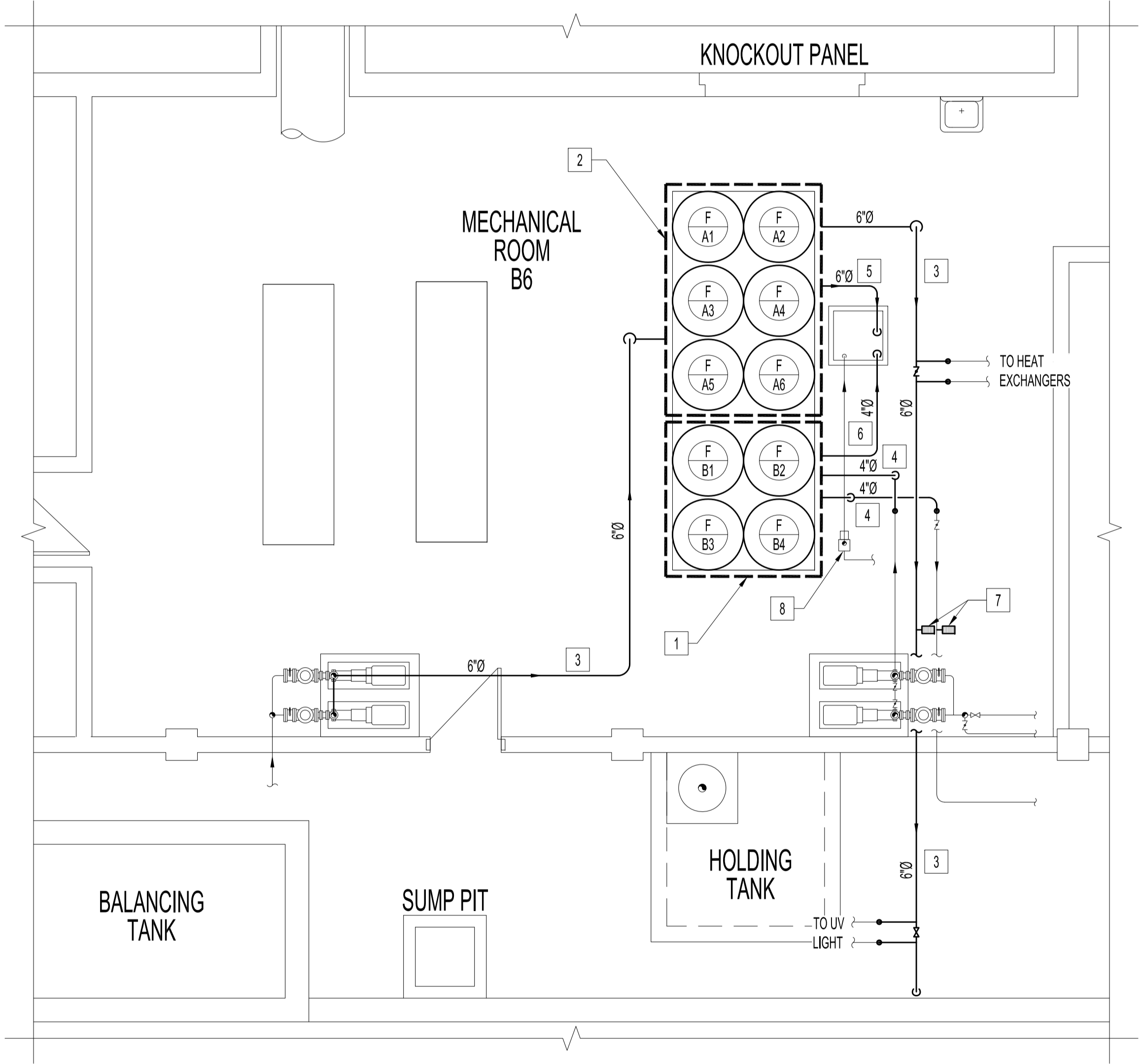
SCALE	PROJECT No:	SHEET No:
AS SHOWN	2019-143	M1-R1

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1



PARTIAL MECHANICAL ROOM PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"

- MECHANICAL DEMOLITION NOTES:**
- DISCONNECT & REMOVE EXISTING SAND FILTERS.
 - REMOVE EXISTING 4" POOL A WATER PIPE AND ASSOCIATED VALVES AS INDICATED.
 - REMOVE EXISTING 4" POOL B WATER PIPE AND ASSOCIATED VALVES AS INDICATED.
 - EXISTING POOL WATER CIRCULATION PUMP TO REMAIN.
 - EXISTING POOL WATER CIRCULATION PIPE TO REMAIN.
 - EXISTING 16" x 6" CONCRETE SERVICE PAD TO REMAIN.
 - EXISTING SUMP PIT TO REMAIN.
 - EXISTING VACUUM PUMP AND ASSOCIATED PIPING TO REMAIN.



PARTIAL MECHANICAL ROOM PLAN - RENOVATION
SCALE: 1/4" = 1'-0"

- MECHANICAL RENOVATION NOTES:**
- 4 NEW SAND FILTERS FOR POOL B. INSTALLATION AND PIPING FOR THE NEW SAND FILTERS SHALL FOLLOW MANUFACTURER'S RECOMMENDATION. PROVIDE AND INSTALL FLOW METERS ON OUTLET LINES OF EACH FILTER TO ENSURE PROPER FLOW IN EACH FILTER.
 - 6 NEW SAND FILTERS FOR POOL A. INSTALLATION AND PIPING FOR THE NEW SAND FILTERS SHALL FOLLOW MANUFACTURER'S RECOMMENDATION. PROVIDE AND INSTALL FLOW METERS ON OUTLET LINES OF EACH FILTER TO ENSURE PROPER FLOW IN EACH FILTER.
 - NEW 6" POOL A WATER LINE.
 - NEW 4" POOL B WATER LINE.
 - NEW 6" POOL A DRAIN LINE.
 - NEW 4" POOL B DRAIN LINE.
 - NEW FLOW METER.
 - IF REQUIRED, RELOCATE THE EXISTING VACUUM PUMP AND ASSOCIATED PIPING TO PROVIDE SPACE FOR NEW FILTER INSTALLATION. CONFIRM ON SITE.