

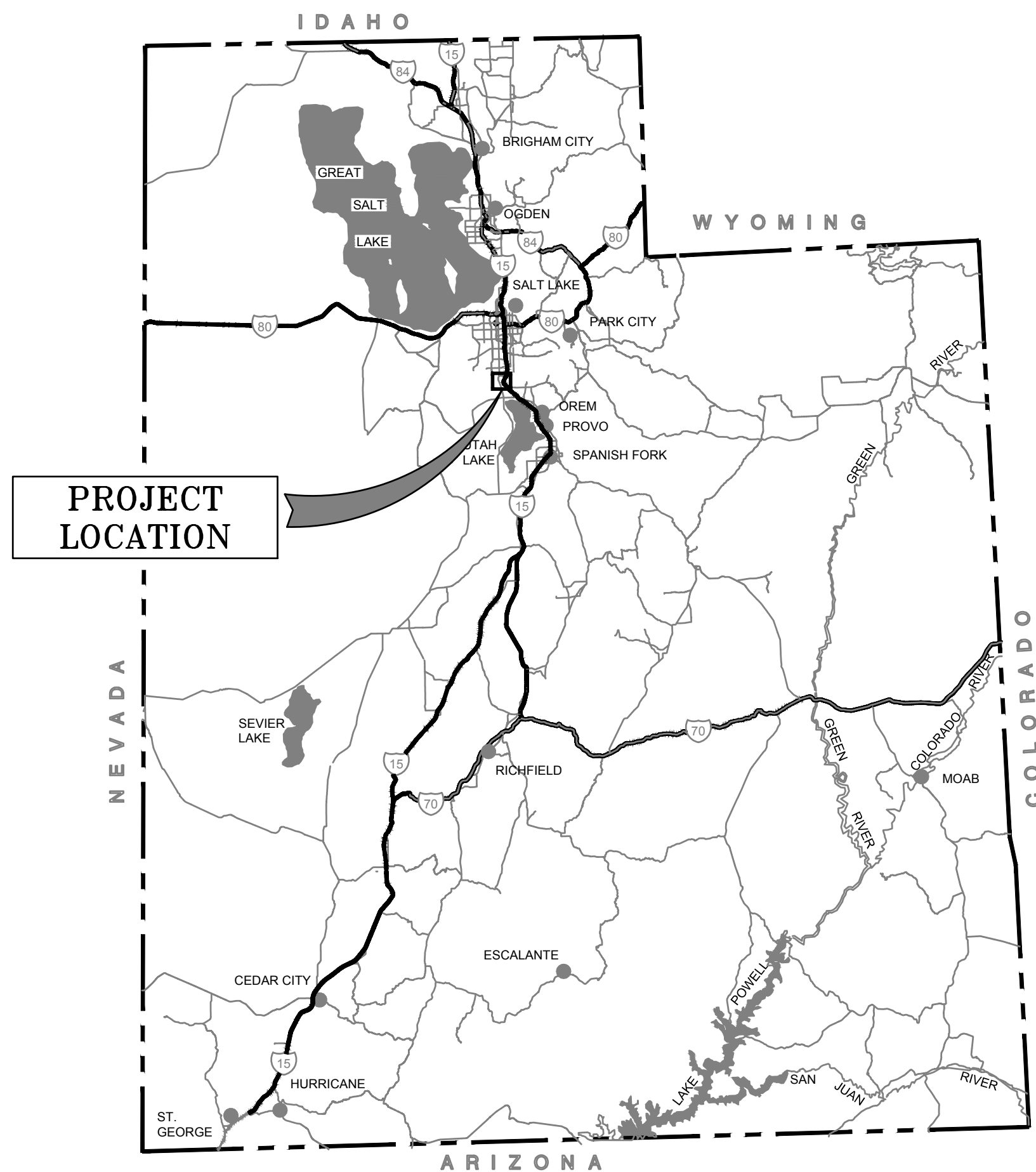


# JORDAN VALLEY WATER TREATMENT PLANT AIR SCOUR PIPE REPLACEMENT

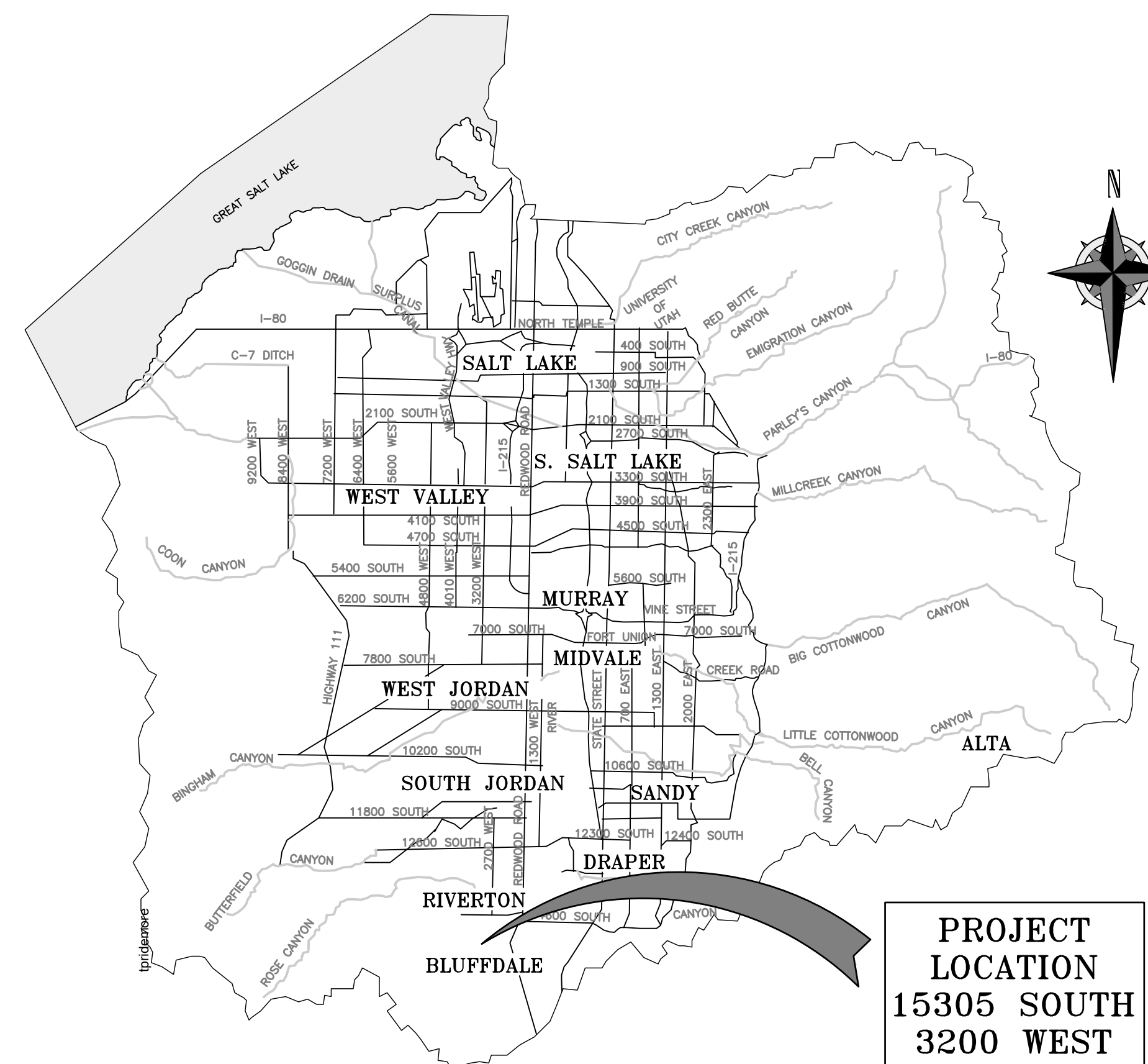
JORDAN VALLEY PROJECT 4070

JORDAN VALLEY WATER  
CONSERVANCY DISTRICT

STATE MAP



PROJECT VICINITY



VOLUME III OF III  
FINAL BID SET  
APRIL 2019



# DRAWING INDEX

## GENERAL

| SHEET NO. | DWG NO. | DWG TITLE   |
|-----------|---------|---|
| 1.        | G-000   | COVER SHEET   |
| 2.        | G-001   | DRAWING INDEX AND EQUIPMENT SCHEDULES                 |
| 3.        | G-002   | STANDARD SYMBOLS AND ABBREVIATIONS, AND GENERAL NOTES |

## CIVIL

| SHEET NO. | DWG NO. | DWG TITLE                   |
|-----------|---------|-----------------------------|
| 4.        | GC-001  | SITE PLAN AND GENERAL NOTES |

## MECHANICAL

| SHEET NO. | DWG NO. | DWG TITLE                                 |
|-----------|---------|---|
| 5.        | GM-001  | FILTER GALLERY OVERVIEW AND GENERAL NOTES |
| 6.        | 2M-101  | WEST FILTER GALLERY                       |
| 7.        | 2M-102  | EAST FILTER GALLERY                       |
| 8.        | 2M-301  | WEST FILTER GALLERY SECTIONS AND DETAILS  |
| 9.        | 2M-302  | EAST FILTER GALLERY SECTIONS AND DETAILS  |
| 10.       | 2M-501  | PIPE DETAILS - 1                          |
| 11.       | 2M-502  | PIPE DETAILS - 2                          |
| 12.       | 3M-101  | CHEMICAL BUILDING                         |
| 13.       | 3M-301  | CHEMICAL BUILDING SECTION                 |
| 14.       | 3M-501  | PIPE DETAILS - 1                          |

## ELECTRICAL

| SHEET NO. | DWG NO. | DWG TITLE          |
|-----------|---------|--------------------|
| 15.       | E-001   | ELECTRICAL LEVEL 1 |
| 16.       | E-002   | ELECTRICAL LEVEL 2 |

# FLUID ABBREVIATIONS

- AW - FILTER AIR WASH (AIR SCOUR)
- AWR = AIR WASH RELIEF
- BW - FILTER BACKWASH
- CF - CUBIC FEET
- FW - FILTERED WATER
- IA - INSTRUMENT AIR
- PW - POTABLE WATER
- UW - UTILITY WATER (NON-POTABLE WATER)

# CHECK AND PRESSURE RELIEF VALVE SCHEDULE

| VALVE SCHEDULE |                         |               |                           |  |
|----------------|-------------------------|---------------|---------------------------|--|
| VALVE NO.      | LOCATION                | SIZE [INCHES] | TYPE                      | REMARKS  |
| CV-112         | BLOWER ROOM EAST BLOWER | 16            | DOUBLE-LEAF FLAPPER CHECK | PROVIDE AND INSTALL                            |
| CV-212         | BLOWER ROOM WEST BLOWER | 16            | DOUBLE-LEAF FLAPPER CHECK | PROVIDE AND INSTALL                            |
| PRF-112        | BLOWER ROOM EAST BLOWER | 8             | PRESSURE RELIEF VALVE     | REMOVE AND INSTALL NEW VALVE PROVIDED BY OWNER |
| PRF-212        | BLOWER ROOM WEST BLOWER | 8             | PRESSURE RELIEF VALVE     | REMOVE AND INSTALL NEW VALVE PROVIDED BY OWNER |

# PIPE SCHEDULE

| FUNCTION             | PIPE MATERIALS <sup>1,2</sup>   |   |   | FIELD TEST REQUIREMENTS    |             |                   |
|----------------------|---|---|---|----------------------------|-------------|-------------------|
|                      | 6" DIAMETER AND SMALLER   | 6-1/2" DIAMETER AND LARGER  | PIPE FITTINGS   | MINIMUM TEST PRESSURE, PSI | TEST MEDIUM | LEAKAGE ALLOWANCE |
| AIR WASH (AIR SCOUR) | 316L STAINLESS STEEL, ASTM A312, SCH 10S (FLANGED) OR SCH 40S (GROOVED)             | 316L STAINLESS STEEL, ASTM A312, SCH 10S (FLANGED) OR SCH 40S (GROOVED) | 316L STAINLESS STEEL, ANSI B16.9, ANSI B16.5, 150 LB FLAT-FACE FLANGE, OR SCH 40 S GROOVED WITH VICTAULIC COUPLING WHERE SHOWN. | 25                         | AIR         | ZERO              |
| AIR WASH RELIEF      | 316L STAINLESS STEEL, ASTM A312, SCH 10S (FLANGED) OR SCH 40S (GROOVED)             | -   | 316L STAINLESS STEEL, ANSI B16.9, ANSI B16.5, 150 LB FLAT-FACE FLANGE, OR SCH 40 S GROOVED WITH VICTAULIC COUPLING WHERE SHOWN. | 25                         | AIR         | ZERO              |
| DRAIN                | 316L STAINLESS STEEL, ASTM A312, SCH 10S (FLANGED) OR SCH 40S (GROOVED OR THREADED) | -   | 316L STAINLESS STEEL, ANSI B16.11, SCREW FITTINGS   | -                          | -           | -                 |

1. FIELD WELDING IS NOT ALLOWED. ALL PIPING SHALL BE FACTORY PICKLED AND PASSIVATED AFTER FABRICATION  
2. PROVIDE SILICONE-BRONZE NUTS FOR ALL STAINLESS STEEL BOLTS

# BUTTERFLY VALVE SCHEDULE

| BUTTERFLY VALVE SCHEDULE |                     |               |          |            |         |
|--------------------------|---------------------|---------------|----------|------------|---------|
| VALVE NO.                | LOCATION            | SIZE [INCHES] | OPERATOR | VOLTAGE/PH | REMARKS |
| FAV-3004                 | FILTER 1            | 16            | ELECTRIC | 480/3      | 2,3     |
| FAV-3024                 | FILTER 2            | 16            | ELECTRIC | 480/3      | 2,3     |
| FAV-3044                 | FILTER 3            | 16            | ELECTRIC | 480/3      | 2,3     |
| FAV-3064                 | FILTER 4            | 16            | ELECTRIC | 480/3      | 2,3     |
| FAV-3084                 | FILTER 5            | 16            | ELECTRIC | 480/3      | 2,3     |
| FAV-3104                 | FILTER 6            | 16            | ELECTRIC | 480/3      | 2,3     |
| FAV-3124                 | FILTER 7            | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3144                 | FILTER 8            | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3164                 | FILTER 9            | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3184                 | FILTER 10           | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3204                 | FILTER 11           | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3224                 | FILTER 12           | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3244                 | FILTER 13           | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3264                 | FILTER 14           | 14            | ELECTRIC | 480/3      | 1,4     |
| FAV-3284                 | FILTER 15           | 14            | ELECTRIC | 480/3      | 1,4,5   |
| FAV-3304                 | FILTER 16           | 14            | ELECTRIC | 480/3      | 1,4     |
| FVV-3003                 | AIR RELIEF FILTER 1 | 6             | ELECTRIC | 120/1      | 2,3     |
| FVV-3023                 | AIR RELIEF FILTER 2 | 6             | ELECTRIC | 120/1      | 2,3     |

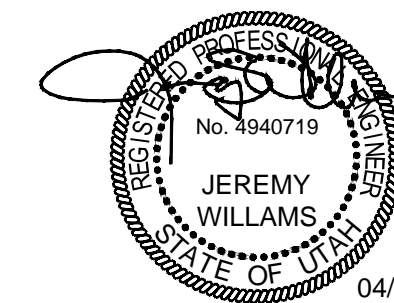
|          |                         |    |             |       |     |
|----------|-------------------------|----|-------------|-------|-----|
| FVV-3043 | AIR RELIEF FILTER 3     | 6  | ELECTRIC    | 120/1 | 2,3 |
| FVV-3063 | AIR RELIEF FILTER 4     | 6  | ELECTRIC    | 120/1 | 2,3 |
| FVV-3083 | AIR RELIEF FILTER 5     | 6  | ELECTRIC    | 120/1 | 2,3 |
| FVV-3103 | AIR RELIEF FILTER 6     | 6  | ELECTRIC    | 120/1 | 2,3 |
| FVV-3123 | AIR RELIEF FILTER 7     | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3143 | AIR RELIEF FILTER 8     | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3163 | AIR RELIEF FILTER 9     | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3183 | AIR RELIEF FILTER 10    | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3203 | AIR RELIEF FILTER 11    | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3223 | AIR RELIEF FILTER 12    | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3243 | AIR RELIEF FILTER 13    | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3263 | AIR RELIEF FILTER 14    | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3283 | AIR RELIEF FILTER 15    | 6  | ELECTRIC    | 480/3 | 1   |
| FVV-3303 | AIR RELIEF FILTER 16    | 6  | ELECTRIC    | 480/3 | 1   |
| BV-112   | BLOWER ROOM EAST BLOWER | 16 | MANUAL GEAR | -     | 1   |
| BV-212   | BLOWER ROOM WEST BLOWER | 16 | MANUAL GEAR | -     | 1   |

- REMARKS:
- PROVIDE AND INSTALL NEW VALVE AND ACTUATOR.
  - REMOVE AND REINSTALL ACTUATOR.
  - PROVIDE AND INSTALL NEW VALVE.
  - PROVIDE CHAIN-WHEEL OPERATOR.
  - SALVAGE VALVE AND ACTUATOR TO OWNER.



SALT LAKE CITY, UTAH

FINAL BID SET



JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP AIR SCOUR PIPE REPLACEMENT

### REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES

DRAWN: T. PRIDEMORE

CHECKED: A. JONES

CHECKED: J. WILLIAMS

APPROVED: J. WILLIAMS

FILENAME G-001.DWG

BC PROJECT NUMBER 151483

CLIENT PROJECT NUMBER 4070

GENERAL

DRAWING INDEX AND EQUIPMENT SCHEDULES

DRAWING NUMBER G-001

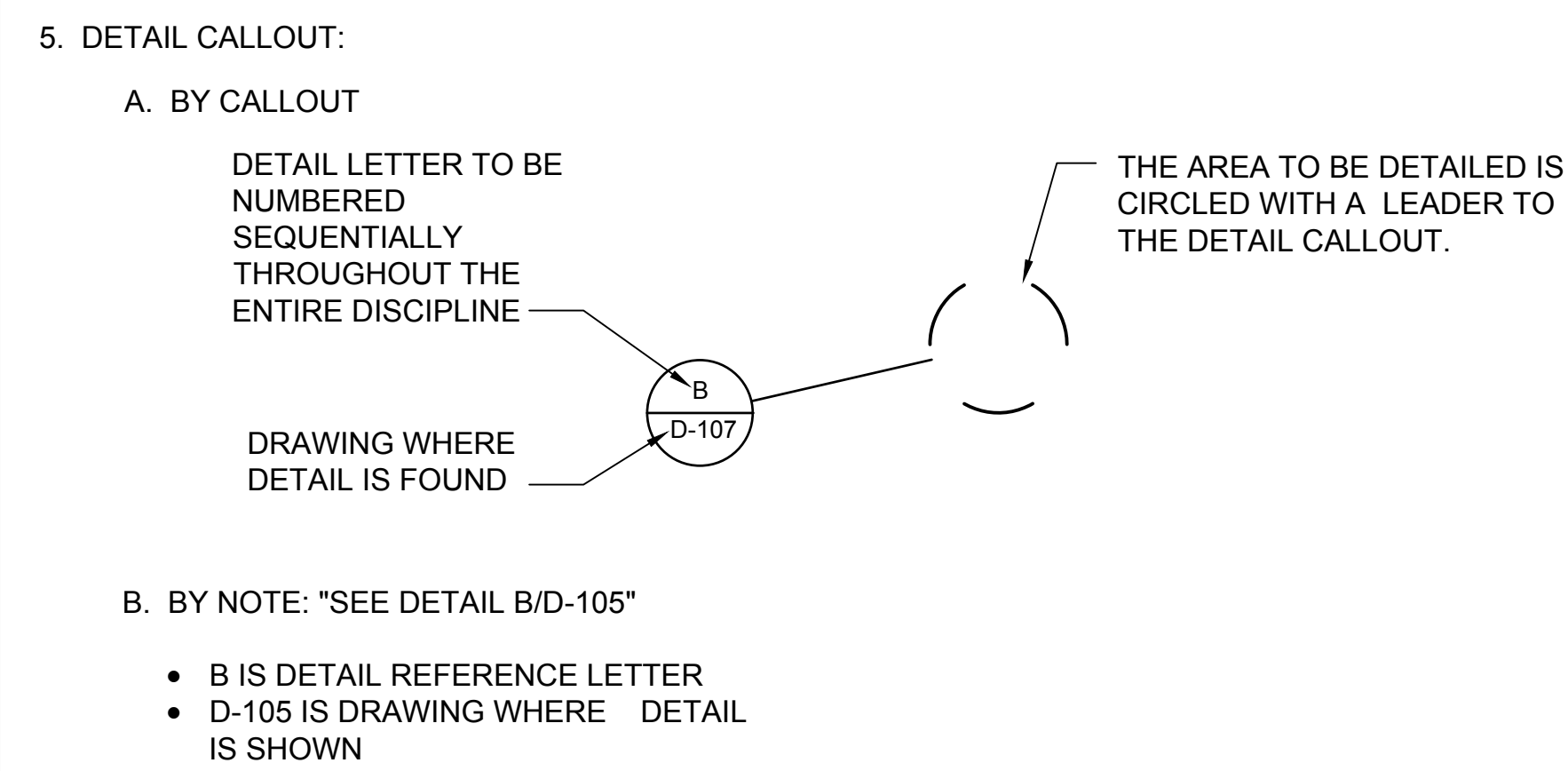
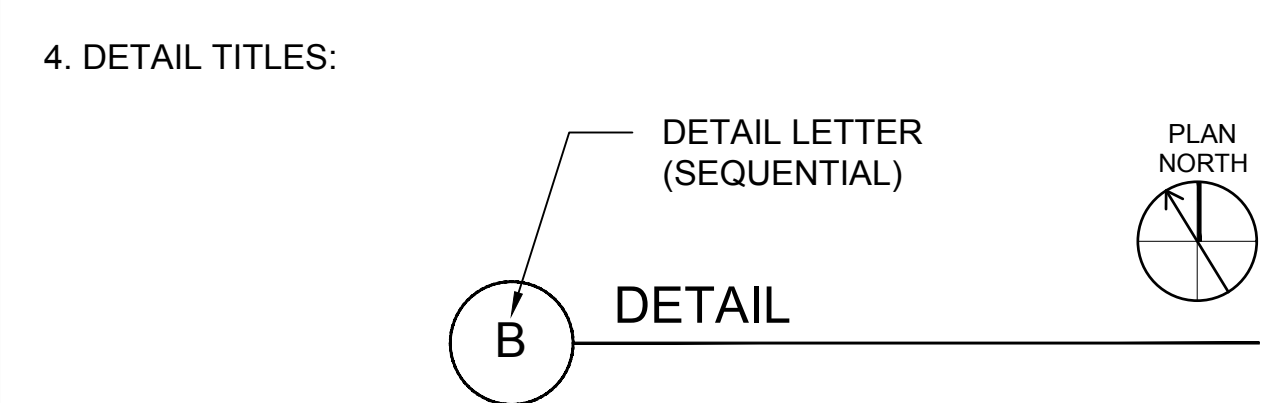
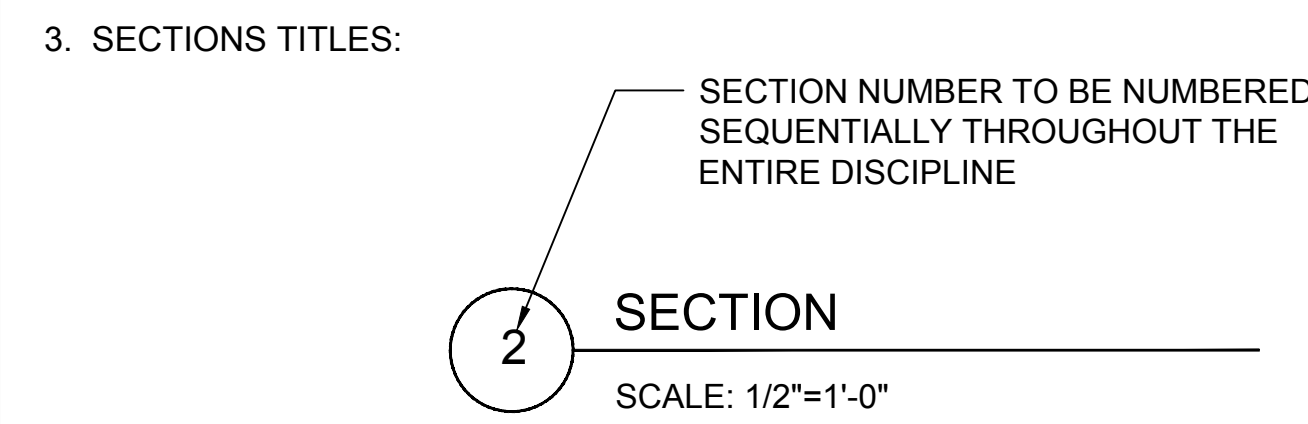
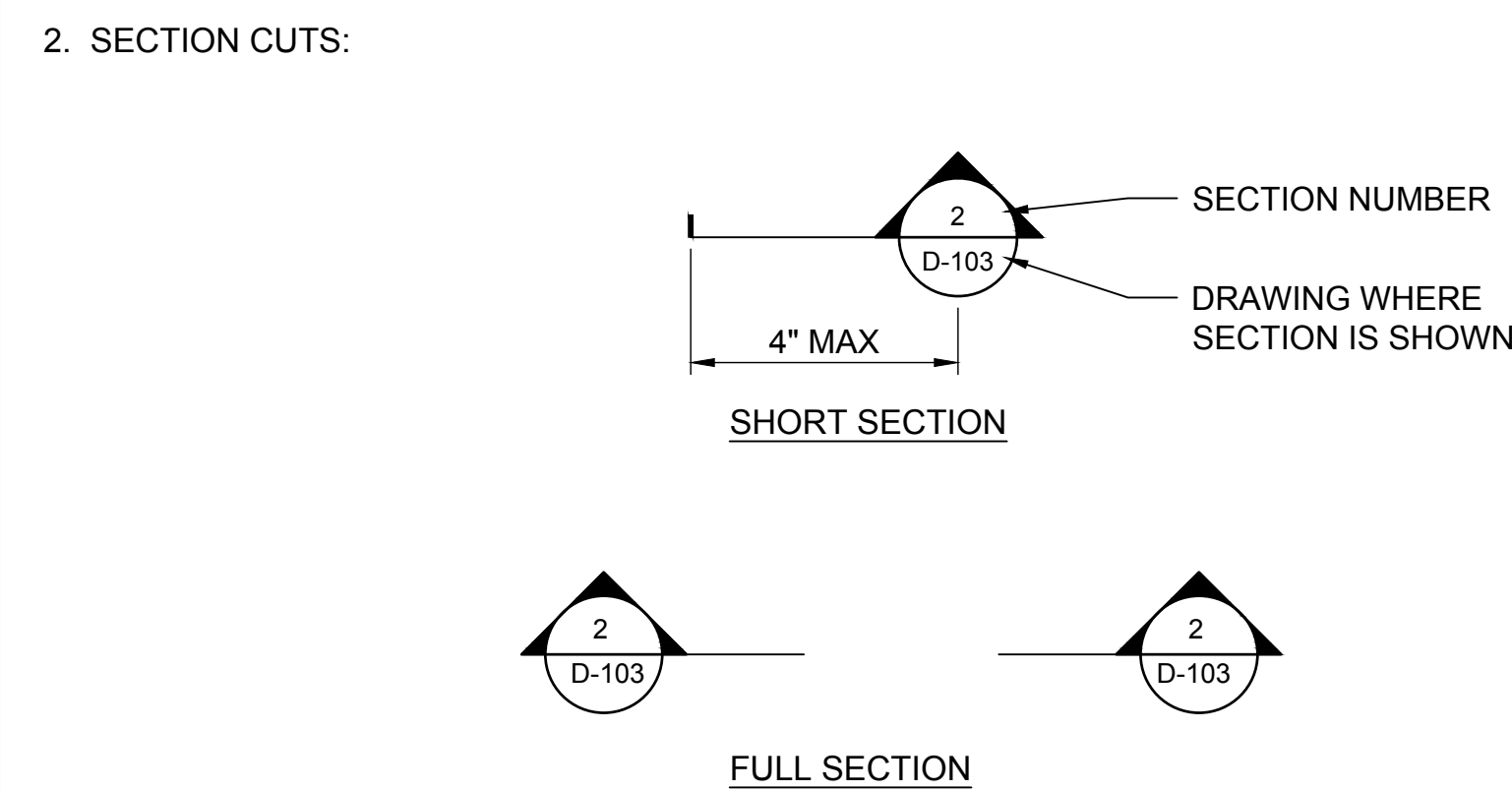
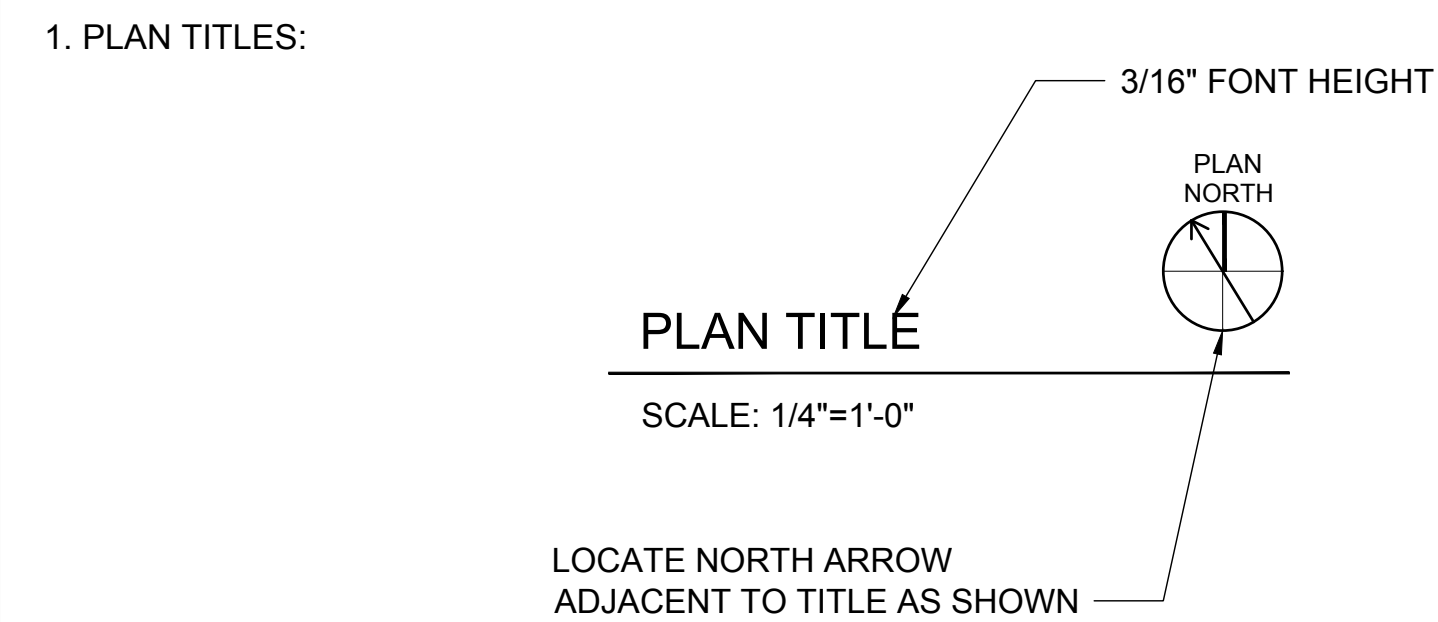
SHEET NUMBER OF 2 OF 16

Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\1-C-GENERAL FILENAME: G-001.DWG PLOT DATE: 4/2/2019 2:23 PM CAD USER: TYLER PRIDEMORE

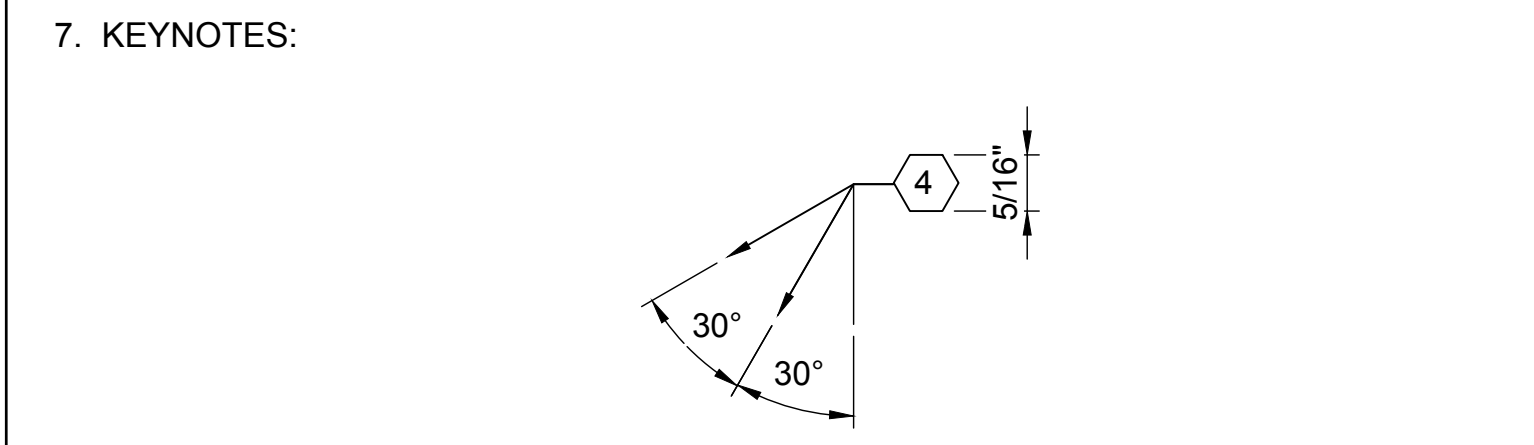
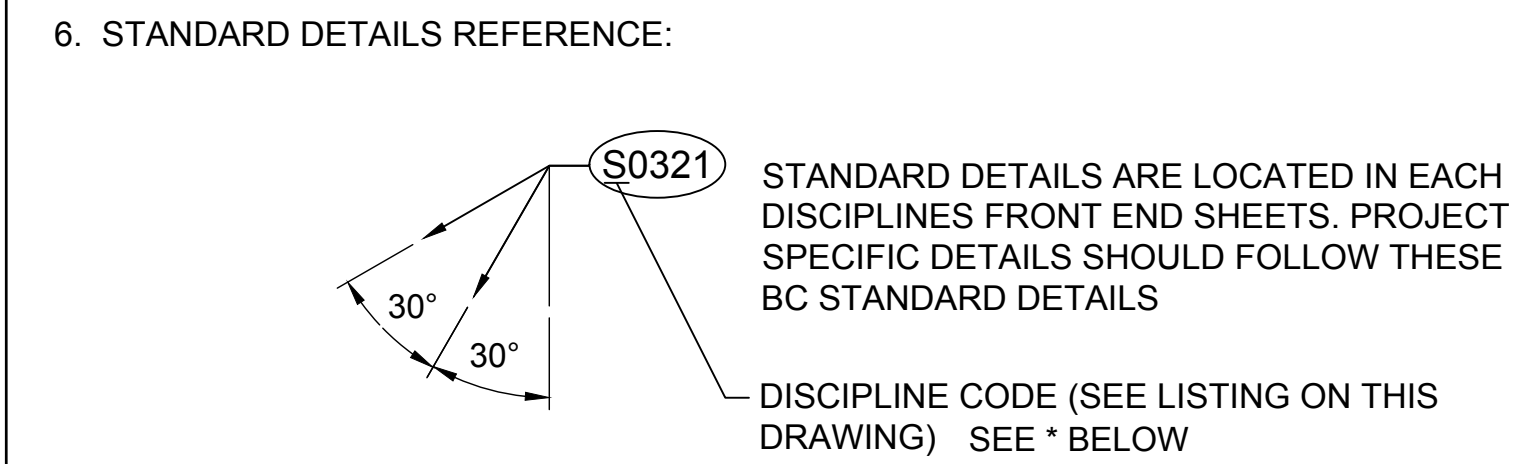


Path: P:\PROJECTS\JORDAN VALLEY\151482\_AIR SCOUR PIPING REPLACEMENT\11\_CADD\2-SHEETS\1-G-GENERAL FILENAME: G-002.DWG PLOT DATE: 4/2/2019 2:23 PM CAD USER: TYLER PRIDEMORE

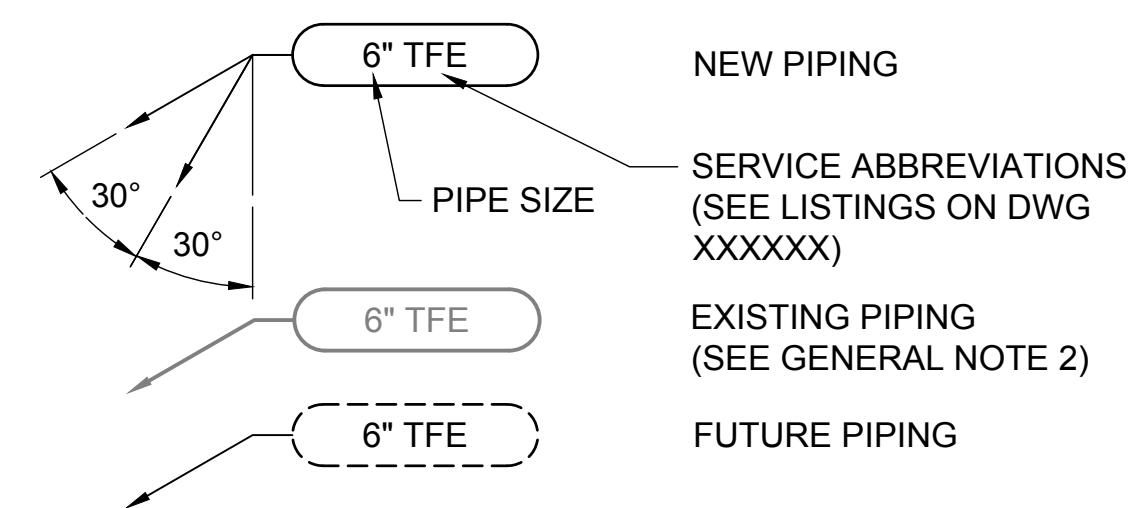
## CROSS REFERENCING SYSTEM



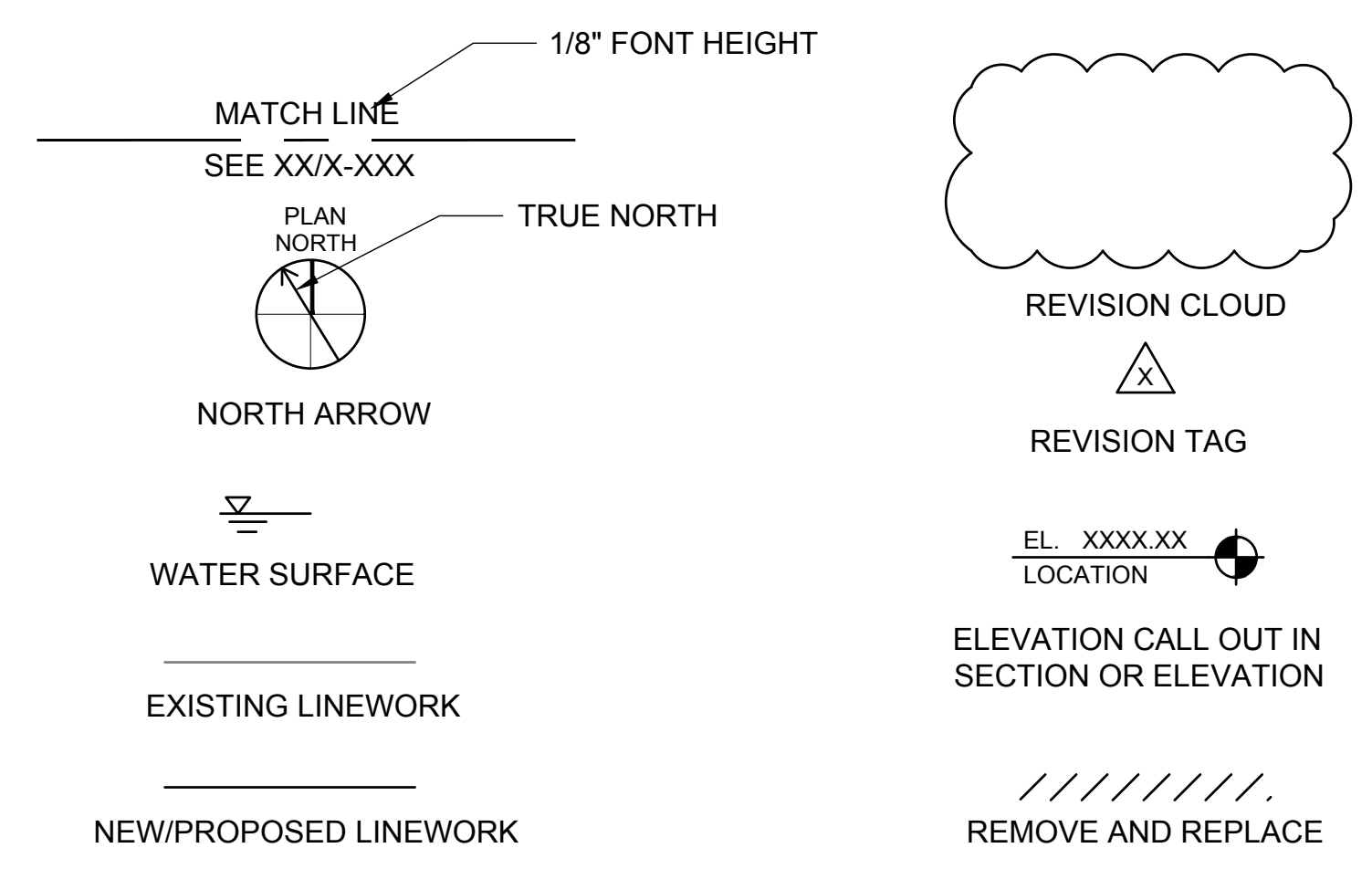
## CROSS REFERENCING SYSTEM (CONTINUED)



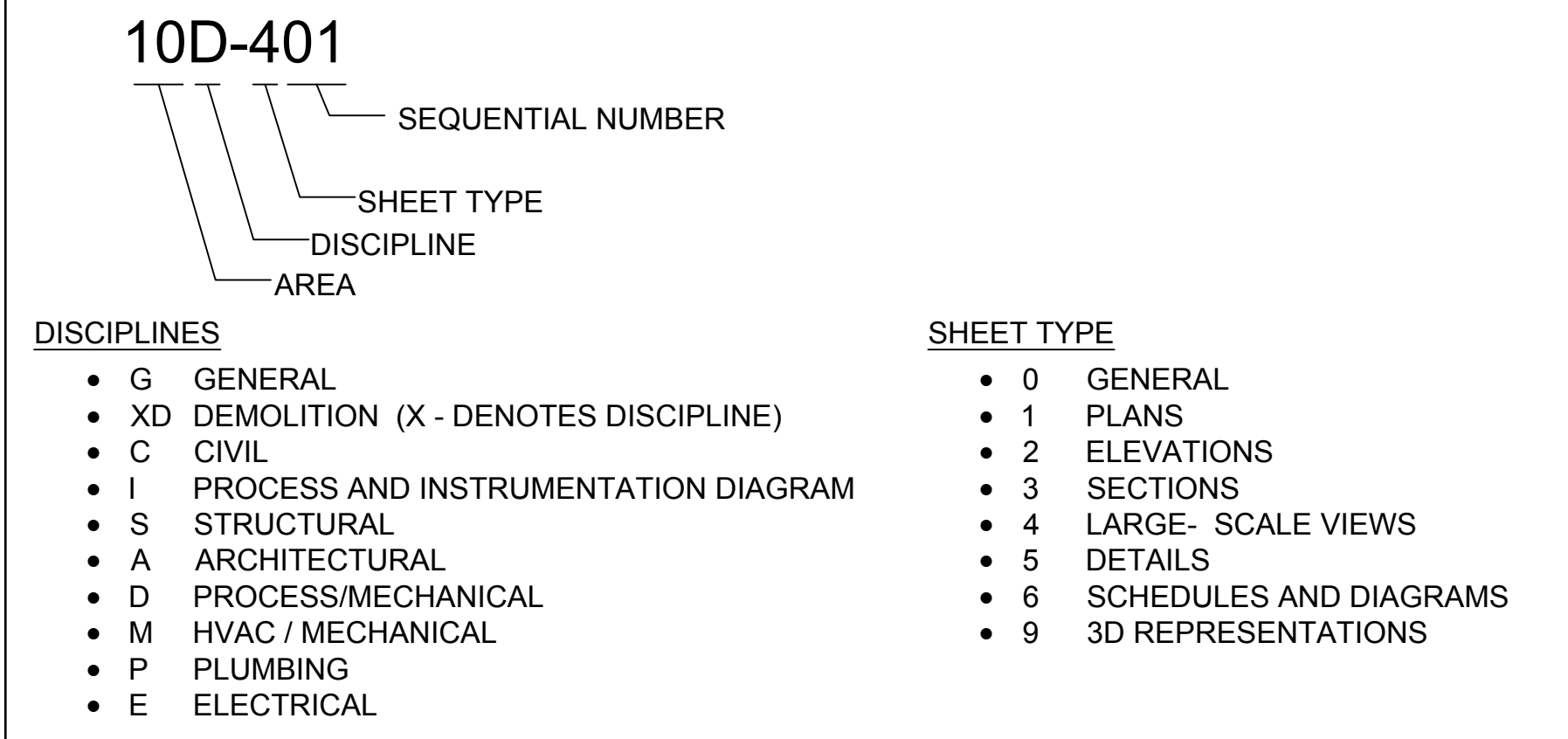
## PIPING IDENTIFICATION SYSTEM



## MISCELLANEOUS



## DRAWING NUMBERING SYSTEM



## GENERAL NOTES

- THE NOTE IN THE TITLE BLOCK OF THIS DRAWING WHICH READS "TWO INCHES AT FULL SCALE" APPEARS ON DRAWINGS FOR IDENTIFICATION OF SCALE DISTORTIONS ON HALF SIZE DRAWINGS AND DRAWING REPRODUCTIONS. IT SHALL MEAN THAT THE DRAWING IS FULL SIZE AND THE DRAWING SCALES ACCURATE WHEN THE LENGTH OF THIS LINE IS TWO INCHES. IF THE LENGTH IS OTHER THAN TWO INCHES, DRAWING SCALES MUST BE ADJUSTED ACCORDINGLY.
- EXISTING PIPING IS DESIGNATED BY SERVICE RATHER THAN MATERIAL TYPE. MATERIAL TYPES, IF KNOWN, APPEAR OUTSIDE THE PIPING CALLOUT BUBBLE, AND MAY NOT BE THE SAME MATERIAL TYPES SPECIFIED FOR NEW PIPING.
- ABBREVIATIONS USED IN THIS CONTRACT DOCUMENT CONFORM TO ANSI Y1.1, UNLESS NOTED OTHERWISE ON DRAWINGS.
- ALL STANDARD DETAILS APPLY TO ALL THE CONTRACTORS WORK WHETHER SPECIFICALLY REFERENCED OR NOT.
- SEE FRONT END SHEETS FOR EACH DISCIPLINES STANDARD SYMBOLS, ETC.
- THE SHADED PORTIONS (EXISTING CONDITIONS) OF THE DRAWINGS WERE TAKEN FROM JWVCD RECORD DRAWINGS BUT HAVE NOT BEEN VERIFIED BY BROWN AND CALDWELL. DIMENSIONS, FEATURES, AND DETAILS MAY VARY FROM FIELD CONDITIONS. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS THAT MAY IMPACT WORK.
- SEE ADDITIONAL GENERAL NOTES THROUGHOUT DRAWING SET.

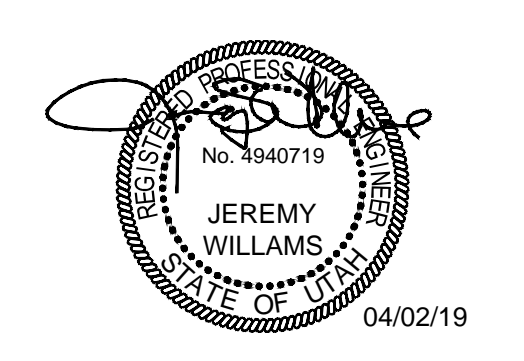
## GENERAL ABBREVIATIONS

|   |                                |
|---|--------------------------------|
| AF - ABOVE FLOOR                        | FAV - FILTER AIR VALVE         |
| AFF - ABOVE FINISHED FLOOR              | FVV - FILTER VENT VALVE        |
| APP - APPROXIMATE                       | FFE - FINISHED FLOOR ELEVATION |
| AWWA - AMERICAN WATER WORKS ASSOCIATION | LF - LINEAR FEET               |
| BV - BUTTERFLY VALVE                    | N - NORTH                      |
| CL - CENTERLINE                         | NPS - NOMINAL PIPE SIZE        |
| CLG - CEILING                           | NTS - NOT TO SCALE             |
| CV - CHECK VALVE                        | OC - ON CENTER                 |
| DIA - DIAMETER                          | SCH - SCHEDULE                 |
| DIM - DIMENSION                         | STD - STANDARD                 |
| DWG - DRAWING                           | TOC - TOP OF CONCRETE          |
| EL - ELEVATION                          | TOS - TOP OF SLAB              |
| ELL - ELBOW                             | TYP - TYPICAL                  |



SALT LAKE CITY, UTAH

FINAL BID SET



JVWTP  
AIR SCOUR PIPE  
REPLACEMENT

| REVISIONS |      |             |
|-----------|------|-------------|
| REV       | DATE | DESCRIPTION |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
DRAWN: T. PRIDEMORE  
CHECKED: A. JONES  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS

FILENAME: G-002.DWG  
BC PROJECT NUMBER: 151483  
CLIENT PROJECT NUMBER: 4070

GENERAL

STANDARD SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

DRAWING NUMBER: G-002  
SHEET NUMBER OF: 3 OF 16



Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\C-CIVIL FILENAME: GC-001.DWG PLOT DATE: 4/2/2019 2:24 PM CAD USER: TYLER PRIDEMORE



**NOTES**

1. THE CONTRACTOR SHALL STAGE AND STORE ALL PIPE AND EQUIPMENT IN THE DESIGNATED STAGING AREA.
2. THE CONTRACTOR SHALL ACCESS THE WORK FROM THE ROLL UP DOOR IN THE NORTH-WEST CORNER OF THE CONTROL BUILDING, OR THE ROLL UP DOOR ON THE NORTH SIDE OF THE FILTER BUILDING. ADDITIONAL ACCESS FOR AIR VENT PIPING AND VENT VALVE REPLACEMENT AT WESTERN-MOST DOCK ON LEVEL 2, SOUTH SIDE OF FILTER BUILDING. WORK BY OTHERS MAY TAKE PLACE IN THIS AREA AT THE SAME TIME AS THIS WORK; COORDINATE WITH OTHERS FOR ACCESS DURING CONSTRUCTION.

**KEY NOTES:**

1. STAGING AND CONTRACTOR PARKING AREA
2. BUILDING ACCESS
3. SITE ACCESS - ALL DELIVERIES SHALL BE VIA THIS ENTRANCE.

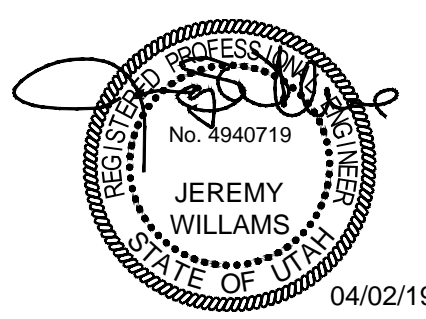
**BUILDING INDEX**

- A. SEDIMENTATION BASINS
- B. FILTER BUILDING
- C. CHEMICAL/CONTROL BUILDING



SALT LAKE CITY, UTAH

FINAL BID SET



JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP AIR SCOUR PIPE REPLACEMENT

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
 DRAWN: T. PRIDEMORE  
 CHECKED: A. JONES  
 CHECKED: ---  
 APPROVED: J. WILLIAMS

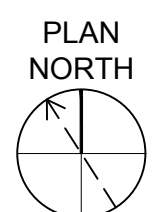
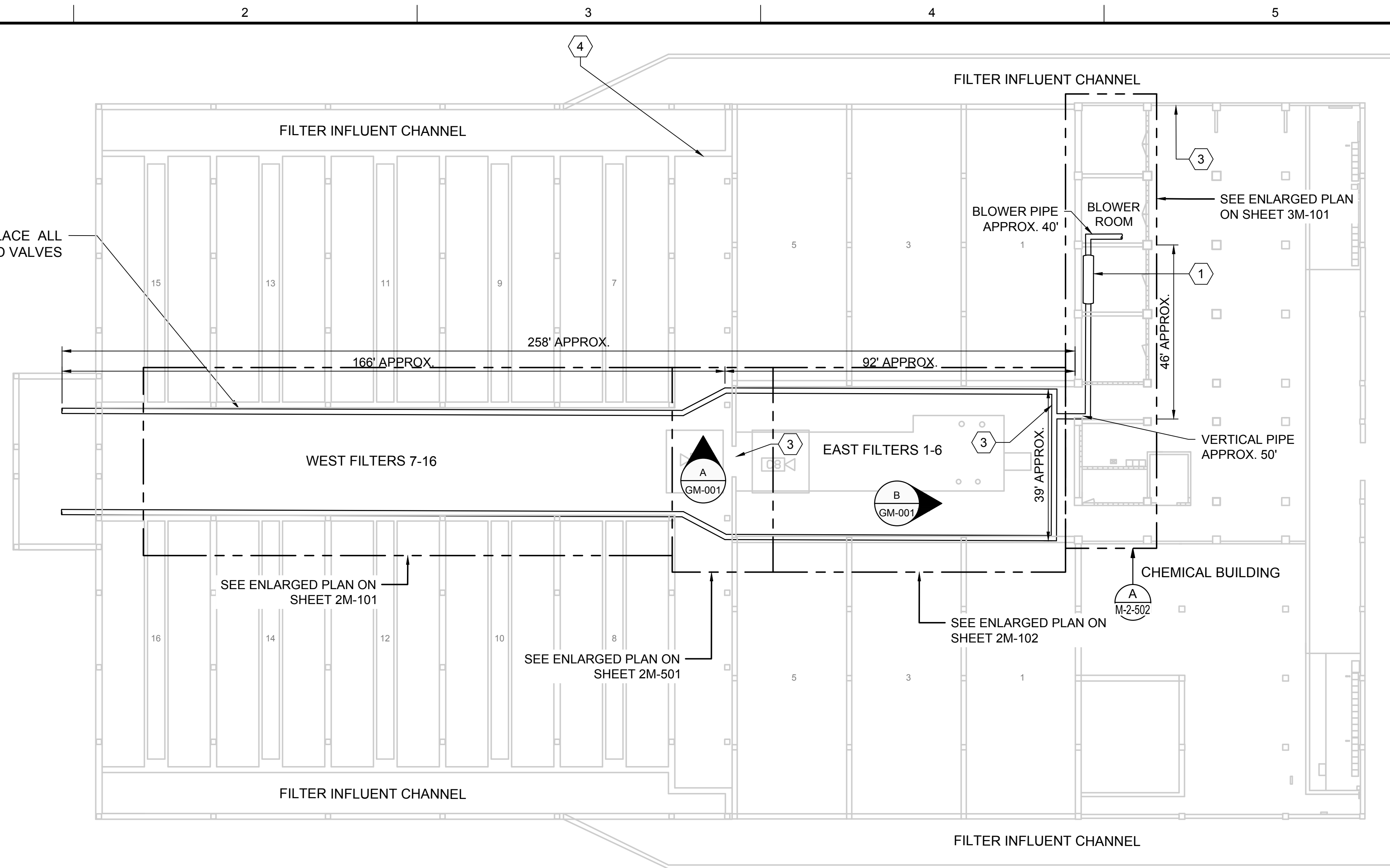
OVERALL SITE PLAN AND STAGING AREA



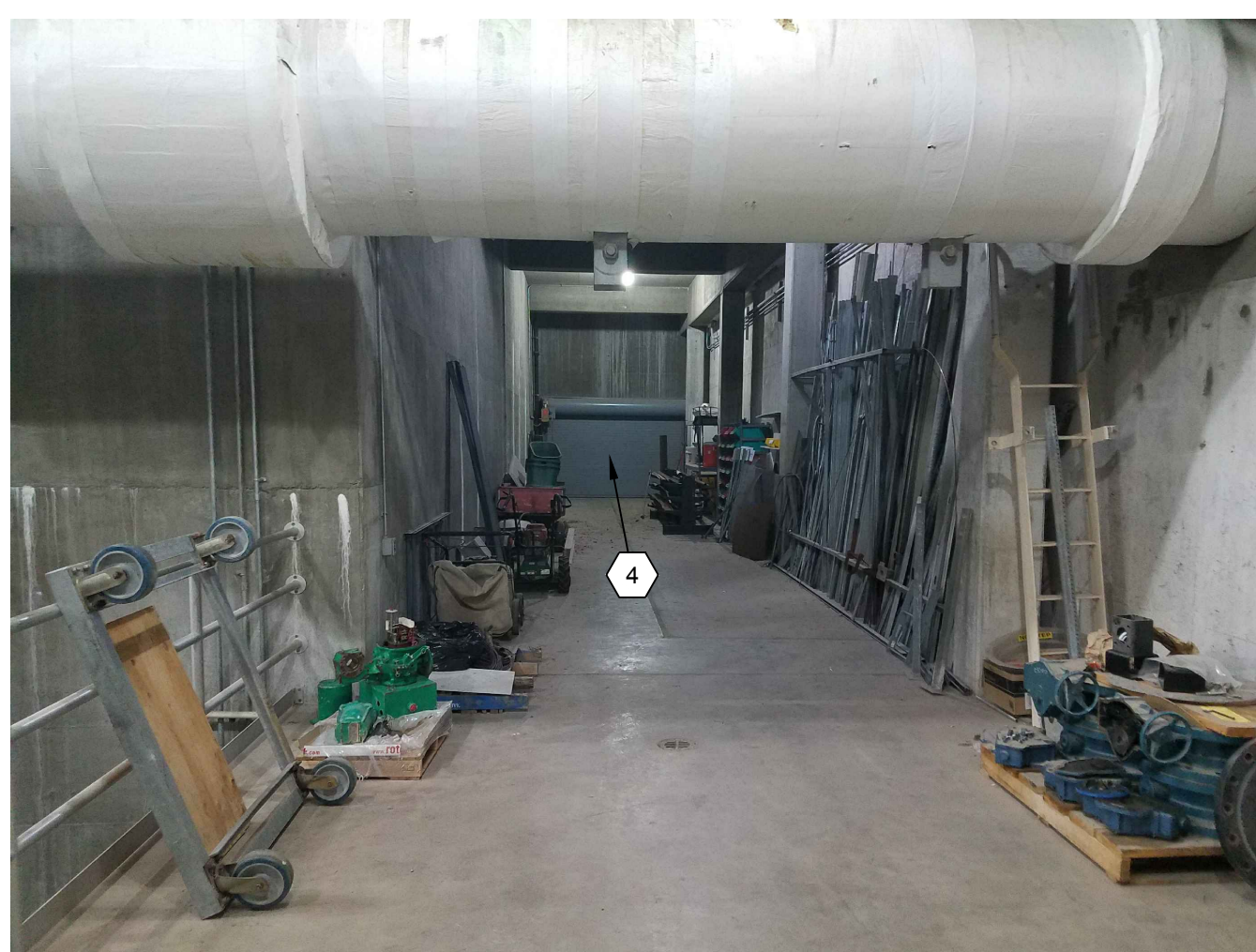
DRAWING NUMBER  
**GC-001**  
 SHEET NUMBER OF 4 OF 16



Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\M-MECHANICAL FILENAME: GM-001.DWG PLOT DATE: 4/2/2019 2:24 PM CAD USER: TYLER PRIDEMORE

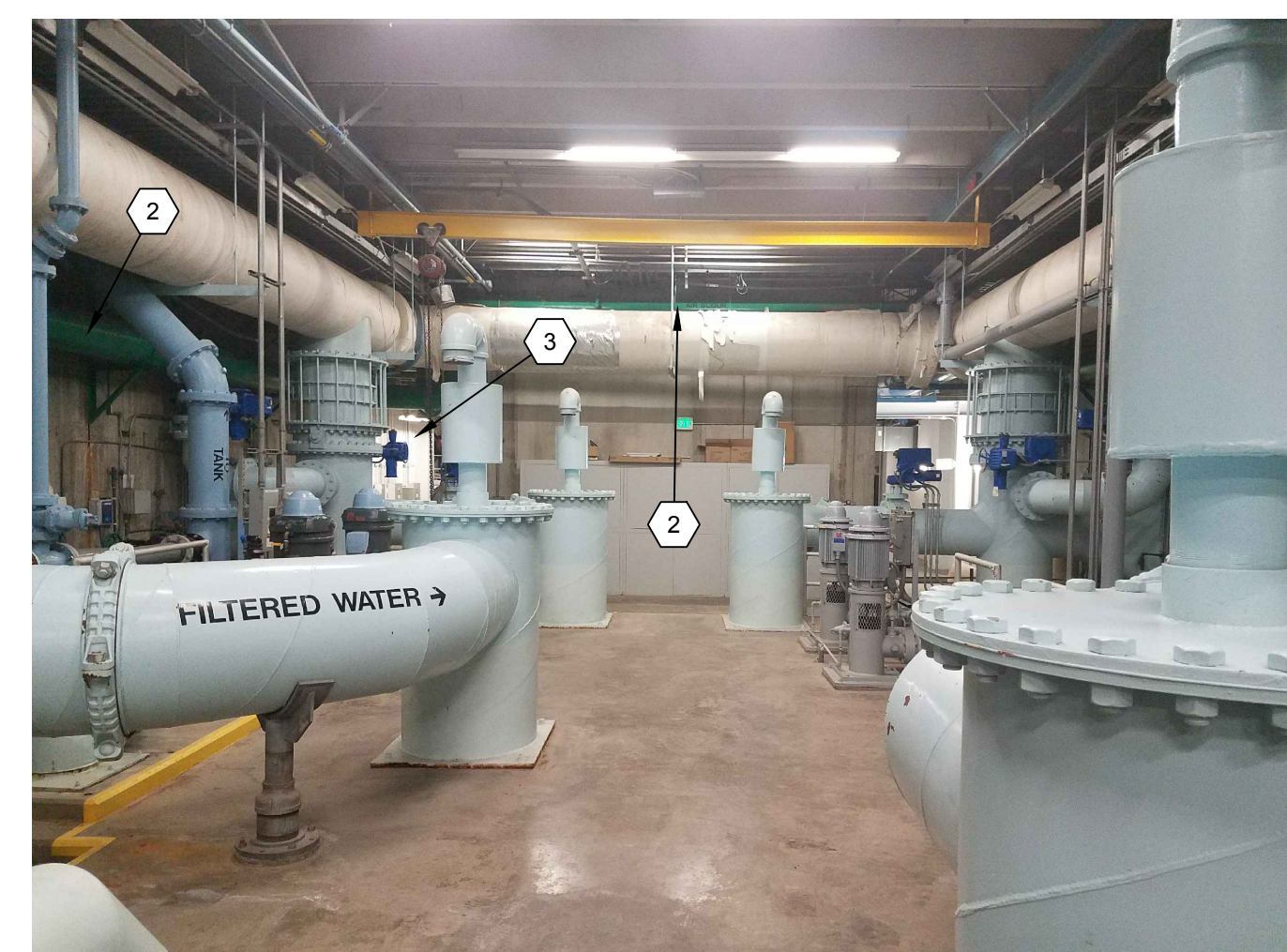


**FILTER GALLERY SCHEMATIC - EL. 4742.00**  
NOT TO SCALE



WEST FILTER GALLERY ACCESS LOOKING NORTH

PHOTO A  
GM-100



EAST FILTER GALLERY ACCESS LOOKING EAST

PHOTO B  
GM-001

**GENERAL NOTES**

1. DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY PIPE LENGTHS BY TAKING FIELD MEASUREMENTS BEFORE PROCURING NEW PIPE. THE FOLLOWING LENGTHS ARE APPROXIMATE:  
16" PIPE - 700 FEET  
14" PIPE - 115 FEET  
6" PIPE - 175 FEET
2. CONTRACTOR SHALL FIELD VERIFY PHYSICAL LOCATION, ELEVATIONS, AND INVERTS. INFORMATION SHOWN IS APPROXIMATE. PROVIDE SHOP DRAWINGS BEFORE FABRICATION OF PIPE.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE, VALVES, COUPLINGS, ADAPTERS, AND FITTINGS REQUIRED TO COMPLETE THE WORK.
4. PROVIDE AN NSF-61 CERTIFIED FULL FACE ISOLATION GASKET WITH ISOLATION SLEEVES AND WASHERS AT ALL FLANGED CONNECTIONS BETWEEN DUCTILE IRON/ CARBON STEEL AND STAINLESS STEEL PIPES. GASKETS MUST BE RATED FOR A MINIMUM 200 DEGREES FAHRENHEIT AT 25 PSI.
5. GASKETS IN THE WEST FILTER GALLERY MAY CONTAIN ASBESTOS; ALL OTHER GASKETS CONTAIN ASBESTOS. USE A CERTIFIED SUBCONTRACTOR TO REMOVE AND DISPOSE OF ALL ASBESTOS CONTAINING GASKETS ACCORDING TO FEDERAL AND LOCAL REGULATIONS
6. FIELD WELDING, CUTTING, AND GROOVING OF STAINLESS STEEL PIPE AND FITTINGS IS NOT ALLOWED.
7. INSTALL NEW PIPING USING EXISTING PIPE HANGERS AND SUPPORTS. PROVIDE 3/4" THICK, 60 DUROMETER EPDM LINER TO ISOLATE NEW PIPE FROM HANGER.
8. FOR ALL REHABILITATION COATING, COORDINATE WITH OWNER TO CHOOSE MANUFACTURER STANDARD COLOR.
9. CLEAN EACH LENGTH OF PIPE AS SPECIFIED BEFORE INSTALLATION. CAP PIPE IMMEDIATELY AFTER INSTALLATION TO MAINTAIN PIPE CLEANLINESS.

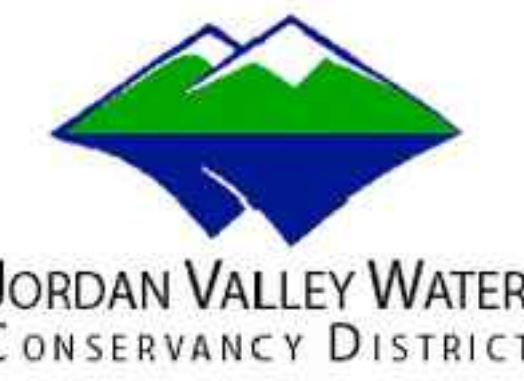
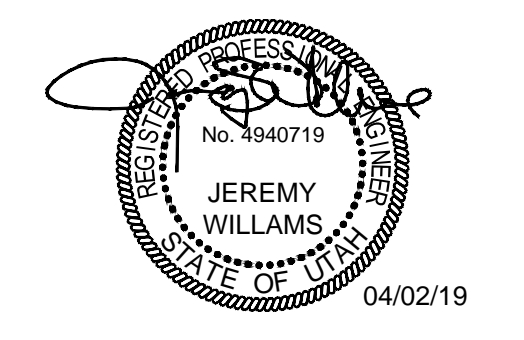
**KEY NOTES:**

1. REPLACE SILENCER WITH NEW SILENCER PROVIDED BY OWNER.
2. AIR SCOUR PIPE.
3. EAST FILTER GALLERY ACCESS.
4. WEST FILTER GALLERY ACCESS.



SALT LAKE CITY, UTAH

**FINAL BID SET**



**JVWTP  
AIR SCOUR PIPE  
REPLACEMENT**

**REVISIONS**

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
DRAWN: T. PRIDEMORE  
CHECKED: A. JONES  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS

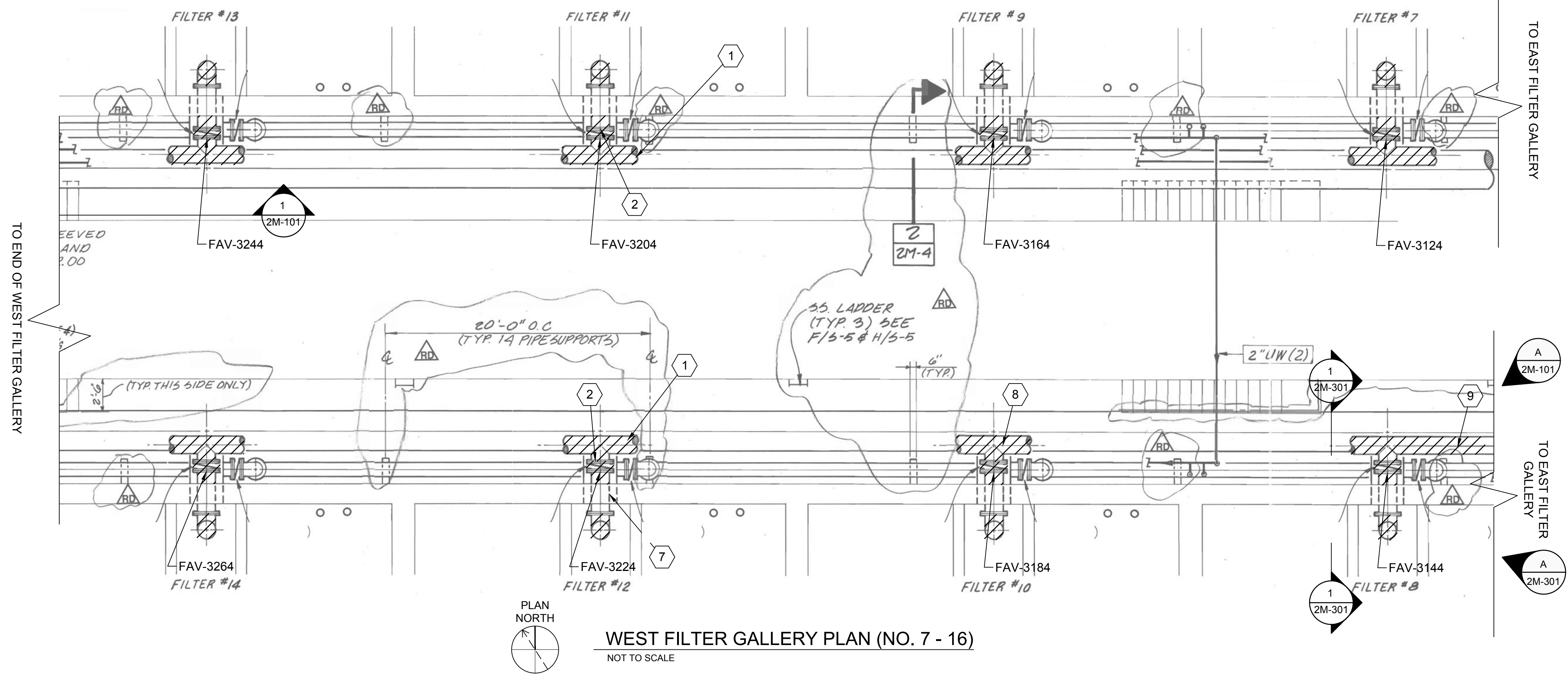
FILENAME: GM-001.DWG  
BC PROJECT NUMBER: 151483  
CLIENT PROJECT NUMBER: 4070  
**MECHANICAL**

**FILTER GALLERY OVERVIEW AND GENERAL NOTES**

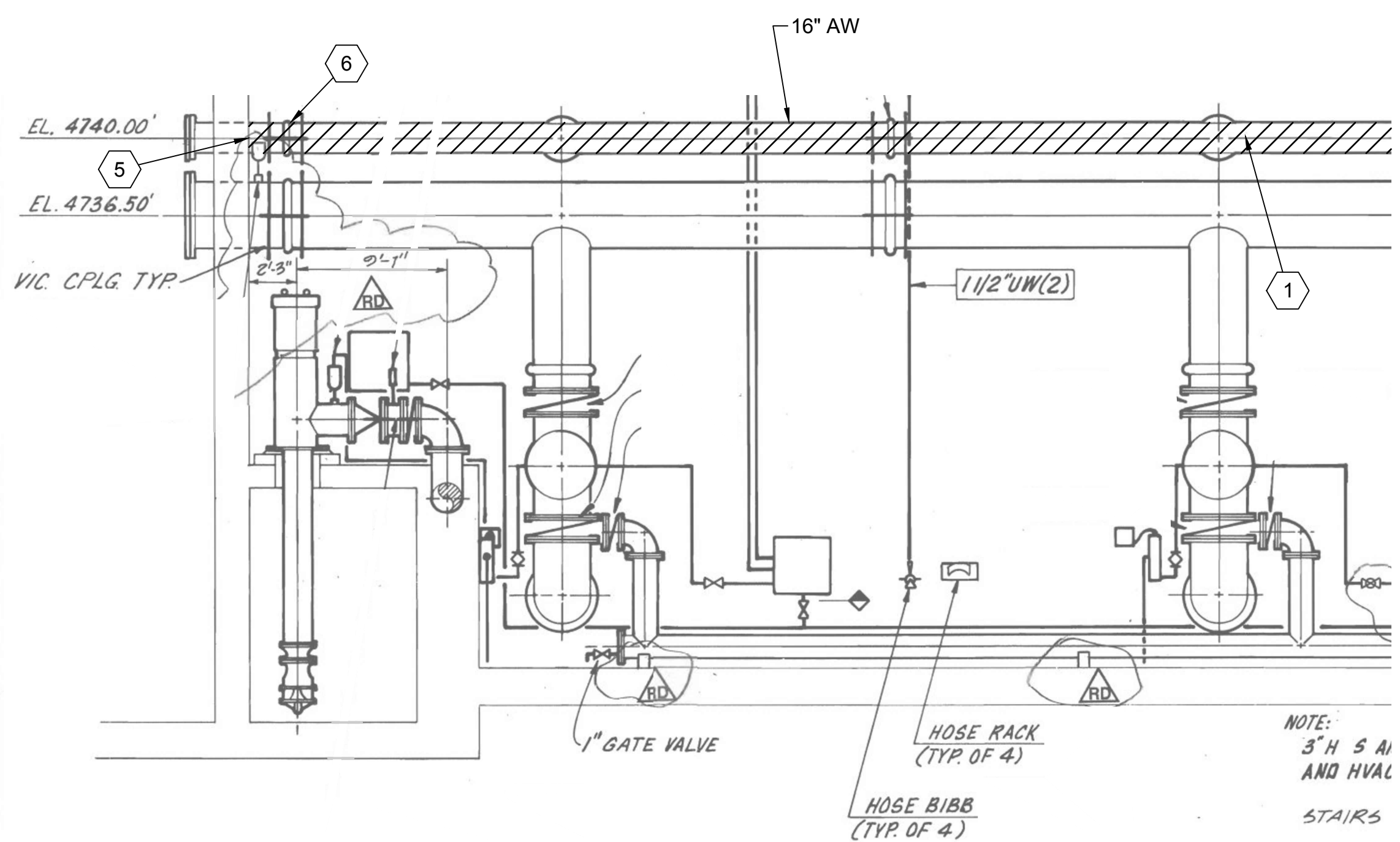
DRAWING NUMBER: **GM-001**  
SHEET NUMBER OF: **5** OF **16**



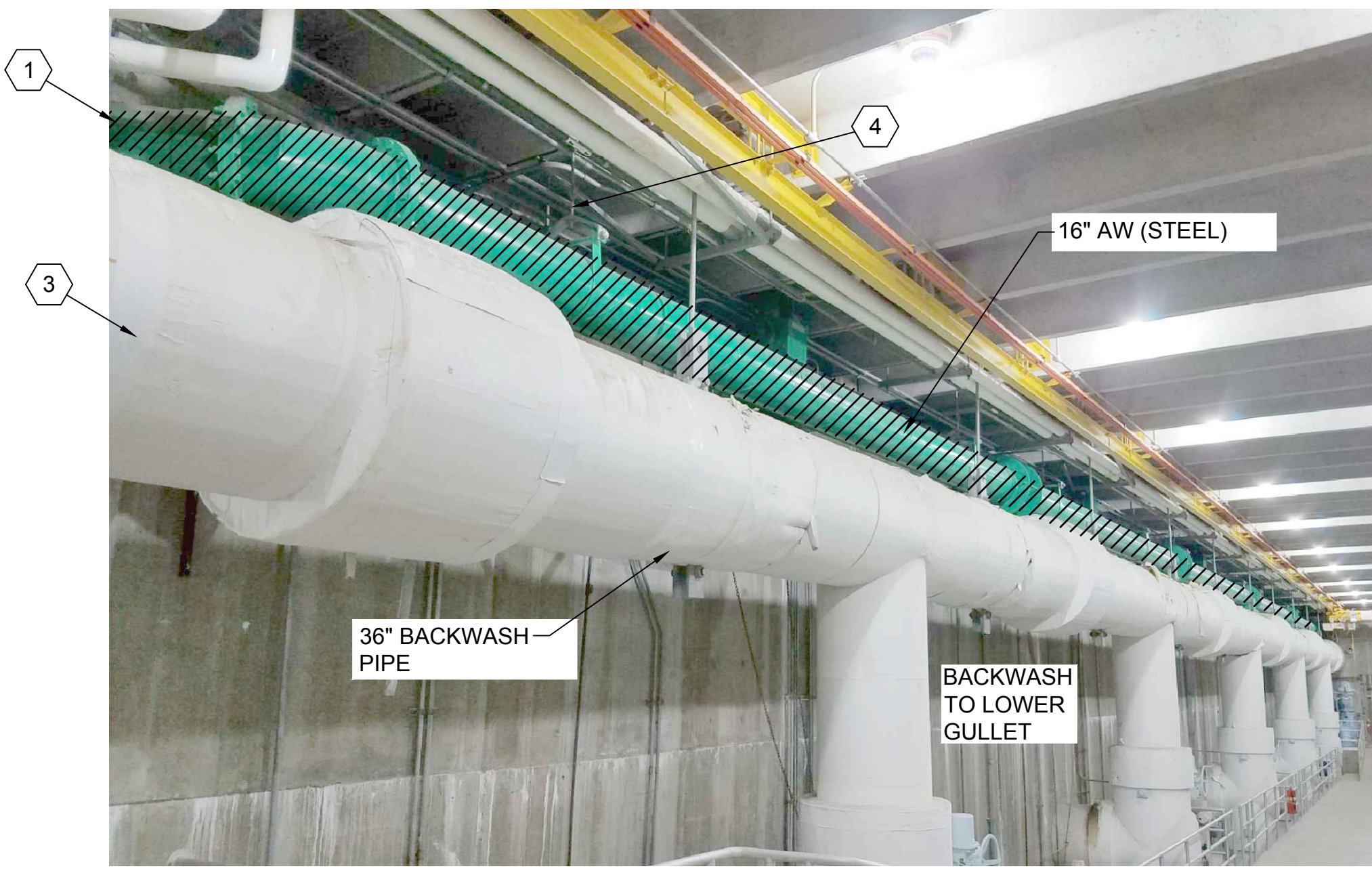
Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\M-MECHANICAL FILENAME: 2M-101.DWG PLOT DATE: 4/2/2019 2:24 PM CAD USER: TYLER PRIDEMORE



**WEST FILTER GALLERY PLAN (NO. 7 - 16)**  
NOT TO SCALE



WEST FILTER GALLERY  
**SECTION 1/2M-101**  
3/16" = 1'-0"



NOTE: PROTECT INSULATION ON THE BW LINE. REPAIR ANY DISTURBED INSULATION.

WEST FILTER GALLERY  
**PHOTO A**  
2M-101

**GENERAL NOTES**

1. PROVIDE 16" RESTRAINED EXPANSION JOINT BETWEEN EACH FILTER, EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101 OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS, AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BARE CONTROL UNIT. TYP 8 PLACES.

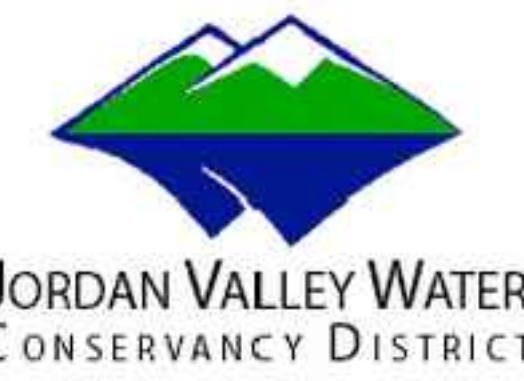
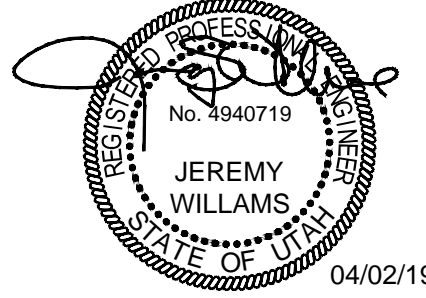
**KEY NOTES:**

1. REMOVE EXISTING AIR SCOUR PIPING AND REPLACE WITH NEW PIPING PER THE PIPE SCHEDULE.
2. REMOVE AND REPLACE, OR REINSTALL, PER VALVE SCHEDULE, TYP 10 PLACES. FOR EACH VALVE REUSE EXISTING CONDUIT AND WIRE. ENSURE ALL CONDUIT AND WIRES ARE PROPERLY DISCONNECTED, LABELED AND PROTECTED DURING CONSTRUCTION. RECONNECT NEW VALVES TO MATCH FUNCTION OF EXISTING VALVES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT VALVE ACTUATOR ELECTRICAL ENCLOSURE IS POSITIONED PROPERLY TO REUSE EXISTING CONDUIT AND WIRE. IN THE EVENT THAT EXISTING CONDUIT AND WIRE DO NOT REACH THE NEW TERMINALS THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND WIRE AS NEEDED. ALL NEW CONDUIT AND WIRE SHALL BE PER SPECIFICATION.
3. CONTRACTOR IS RESPONSIBLE TO PROTECT EQUIPMENT IN CLOSE PROXIMITY TO VALVES DURING REPLACEMENT. IN THE EVENT THAT PIPING, CONDUIT, CABLE TRAY, PIPE INSULATION, OR OTHER ITEMS ARE DAMAGED DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE.
4. INSTALL NEW PIPING USING EXISTING PIPE HANGERS AND SUPPORTS. PROVIDE 3/4" THICK 60 DUROMETER EPDM LINER TO ISOLATE NEW PIPE FROM HANGER.
5. MODIFY EXISTING WALL THIMBLE. CUT PIPE FLUSH WITH THE WALL ON EAST SIDE. PROTECT WEST SIDE THIMBLE AND FLANGE. TYP 2 PLACES REHABILITATE WALL THIMBLE IN PLACE. PREPARE INTERIOR SURFACE TO SSPC-SP5/NACE 1 STANDARDS WITH A MINIMAL ANGULAR ANCHOR PROFILE OF 3.0 MILS. COAT PIPE SURFACES WITH EPOXY COATING TO 20 MILS DFT. EPOXY COATING PER AWWA C210, NSF-61 CERTIFIED, MANUFACTURER'S STANDARD COLOR, TNEMIC SERIES 22, SHERPLATE PW, OR APPROVED EQUAL. INSTALL NEW PIPE PER DETAIL A/2M-101.
6. PROVIDE 16" BY 14" CONCENTRIC REDUCER. TYP 2 PLACES. SEE DETAIL A/2M-101.
7. MODIFY AND REHABILITATE WALL THIMBLE. SEE SECTION 1/2M-301. TYP 10 PLACES.
8. PROVIDE 16" BY 14" TEE. TYP 10 PLACES
9. PROVIDE 16" RESTRAINED EXPANSION JOINT, EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101, OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BARE CONTROL UNIT TYP 2 PLACES.



SALT LAKE CITY, UTAH

FINAL BID SET



**JVWTP  
AIR SCOUR PIPE  
REPLACEMENT**

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
DRAWN: T. PRIDEMORE  
CHECKED: A. JONES  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS

FILENAME: 2M-101.DWG  
BC PROJECT NUMBER: 151483  
CLIENT PROJECT NUMBER: 4070  
MECHANICAL

**WEST FILTER GALLERY**

DRAWING NUMBER: **2M-101**  
SHEET NUMBER OF: 6 OF 16



Path: P:\PROJECTS\JORDAN VALLEY\151482\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\M-MECHANICAL FILENAME: 2M-102.DWG PLOT DATE: 4/20/2019 2:24 PM CAD USER: TYLER PRIDEMORE

FILTERS AND GULLETS NOT SHOWN

FILTERS AND GULLETS NOT SHOWN

**GENERAL NOTES**

1. PROVIDE 16" RESTRAINED EXPANSION JOINT BETWEEN EACH FILTER, EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101, OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS, AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BARE CONTROL UNIT. TYP 4 PLACES.
2. PROVIDE LATERAL AND LONGITUDINAL SEISMIC BRACING IN EAST GALLERY, EVERY 25 FEET AS SPECIFIED. ANCHOR BRACING PER DETAIL B/2M-502, AND AS SPECIFIED.

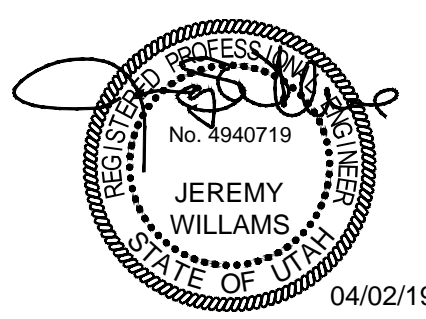
**KEY NOTES:**

1. REMOVE EXISTING AIR SCOUR PIPING AND REPLACE WITH NEW PIPING PER THE PIPE SCHEDULE.
2. REMOVE AND REPLACE, OR REINSTALL, PER VALVE SCHEDULE, TYP 6 PLACES. FOR EACH VALVE REUSE EXISTING CONDUIT AND WIRE. ENSURE ALL CONDUIT AND WIRES ARE PROPERLY DISCONNECTED, LABELED AND PROTECTED DURING CONSTRUCTION. RECONNECT NEW VALVES TO MATCH FUNCTION OF EXISTING VALVES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT VALVE ACTUATOR ELECTRICAL ENCLOSURE IS POSITIONED PROPERLY TO REUSE EXISTING CONDUIT AND WIRE. IN THE EVENT THAT EXISTING CONDUIT AND WIRE DO NOT REACH THE NEW TERMINALS THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND WIRE AS NEEDED. ALL NEW CONDUIT AND WIRE SHALL MATCH BE PER SPECIFICATION.
3. CONTRACTOR IS RESPONSIBLE TO PROTECT EQUIPMENT IN CLOSE PROXIMITY TO VALVES DURING REPLACEMENT. IN THE EVENT THAT PIPING, CONDUIT, CABLE TRAY, PIPE INSULATION, OR OTHER ITEMS ARE DAMAGED DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE.
4. INSTALL NEW PIPING USING EXISTING PIPE HANGERS AND SUPPORTS. PROVIDE  $\frac{1}{4}$ " THICK 60 DUROMETER EPDM LINER TO ISOLATE NEW PIPE FROM HANGER.
5. REMOVE BLIND FLANGE TO ACCESS THE LOWER GULLET; COORDINATE WITH ABATEMENT SUBCONTRACTOR TO REMOVE THE BLIND FLANGE, THE GASKET, AND REMEDIATE THE FLANGE. INSPECT AND CLEAN THE ENTIRE LOWER GULLET OF ALL DEBRIS, TYP 6 PLACES. ALL PERSONNEL SHALL USE A CLEAN TYVEK SUIT AND BOOTS. CLEAN AND DISINFECT WORK SUITS AND EQUIPMENT WITH 200 PPM CHLORINE SOLUTION BEFORE ENTERING THE LOWER GULLET. DISINFECT THE LOWER GULLET AS SPECIFIED.
6. REPLACE TEMPORARY DRAIN LINE WITH NEW STAINLESS STEEL DRAIN LINE. SEE DETAIL A/2M-502.



SALT LAKE CITY, UTAH

FINAL BID SET



**JVWTP  
AIR SCOUR PIPE  
REPLACEMENT**

**REVISIONS**

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
 DRAWN: T. PRIDEMORE  
 CHECKED: A. JONES  
 CHECKED: J. WILLIAMS  
 APPROVED: J. WILLIAMS

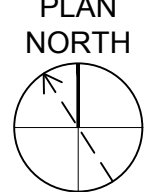
FILENAME: 2M-102.DWG  
 BC PROJECT NUMBER: 151483  
 CLIENT PROJECT NUMBER: 4670

MECHANICAL

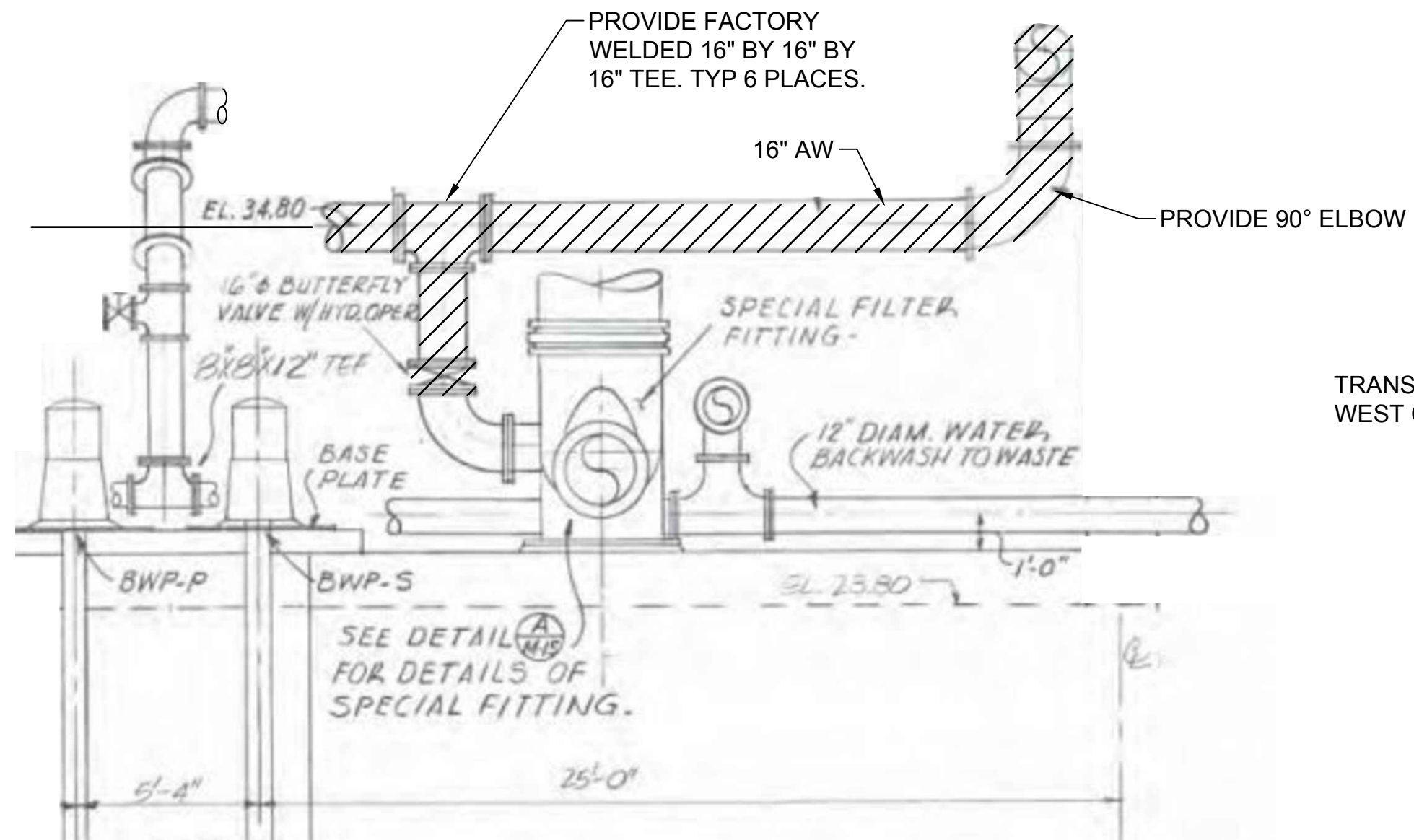
**EAST FILTER GALLERY**

DRAWING NUMBER  
**2M-102**

SHEET NUMBER OF  
**7 OF 16**



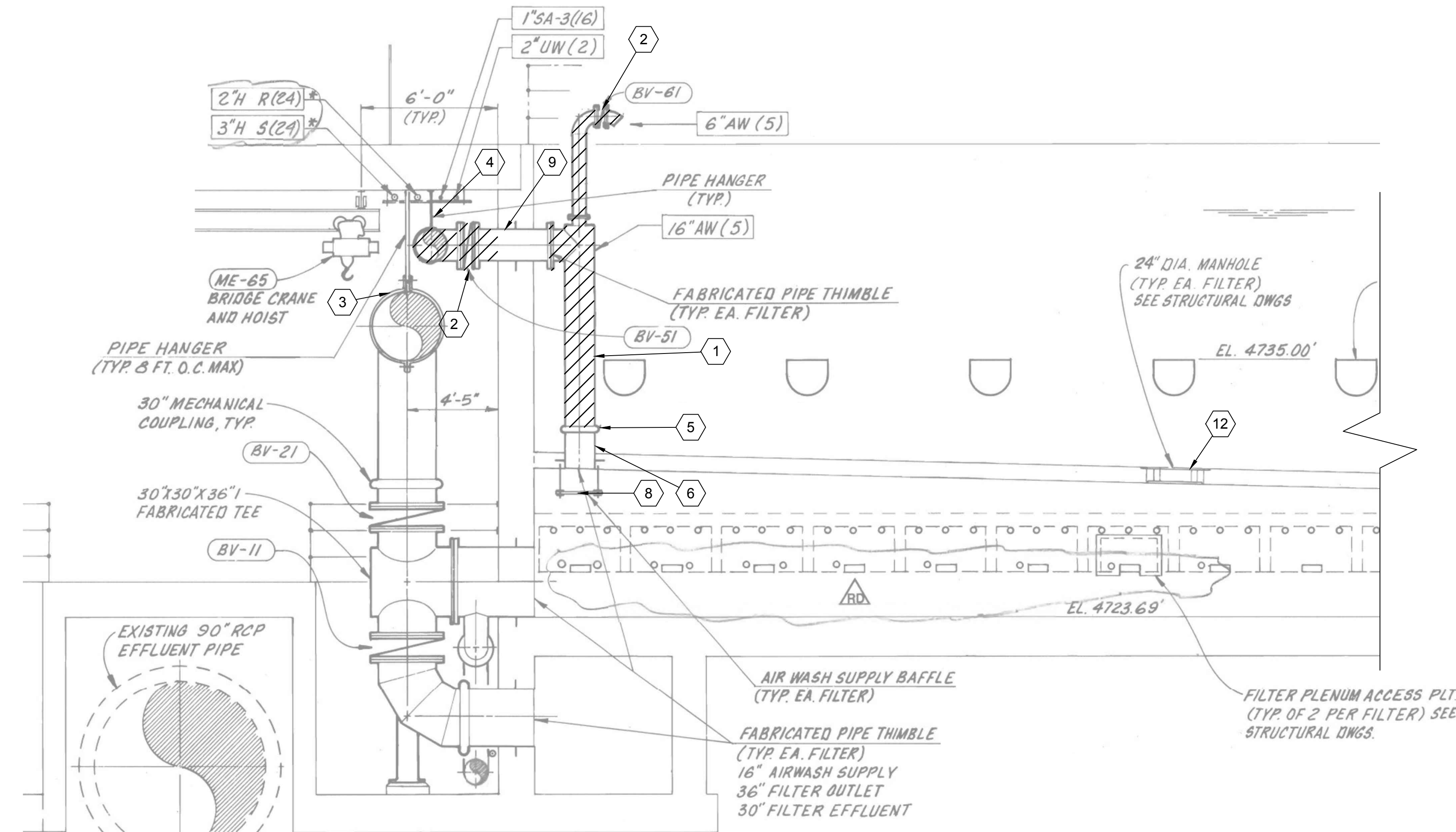
**EAST FILTER GALLERY PLAN (NO. 1 - 6)**  
1/4" = 1'-0"



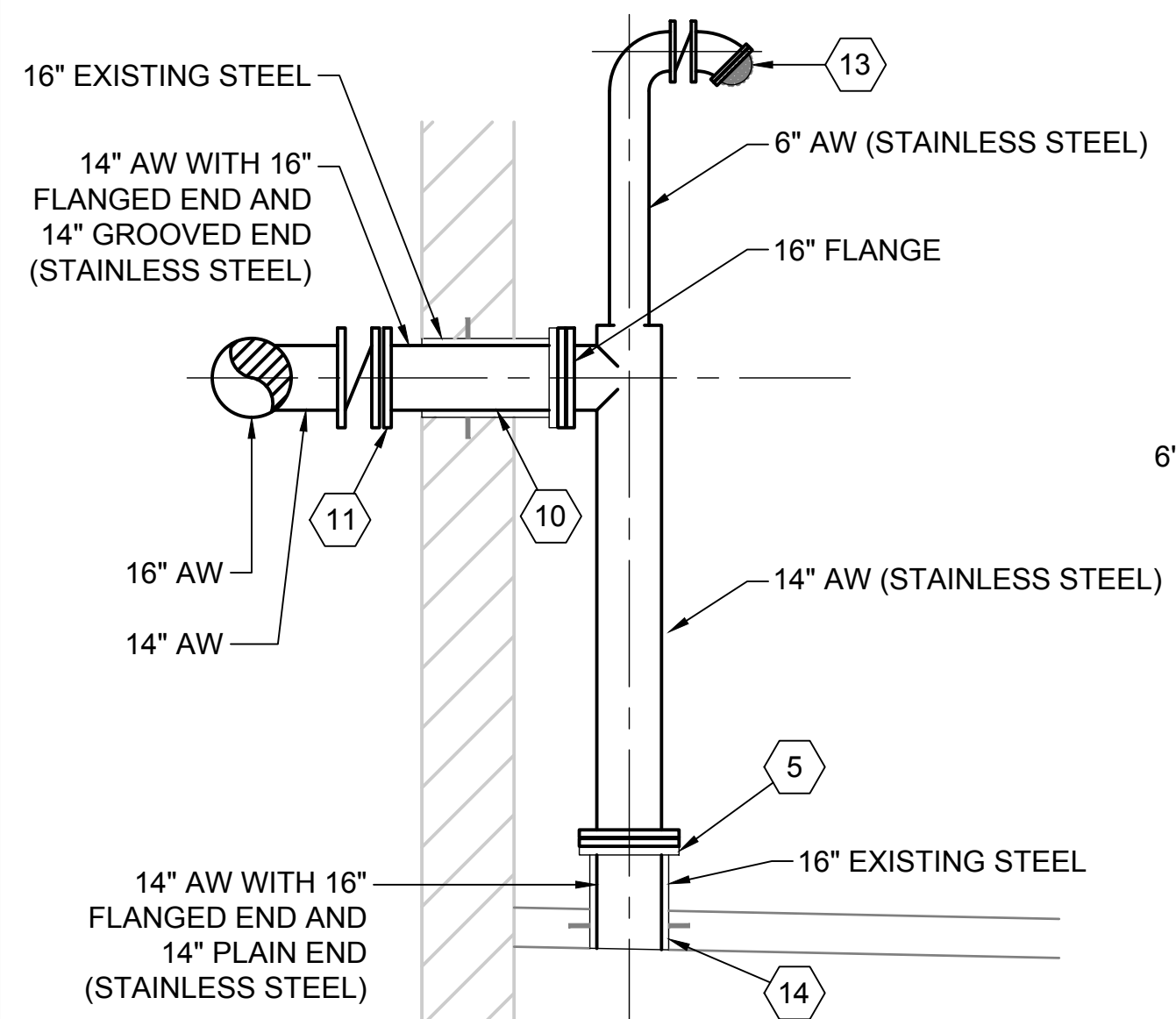
1 2 3 4 5 6



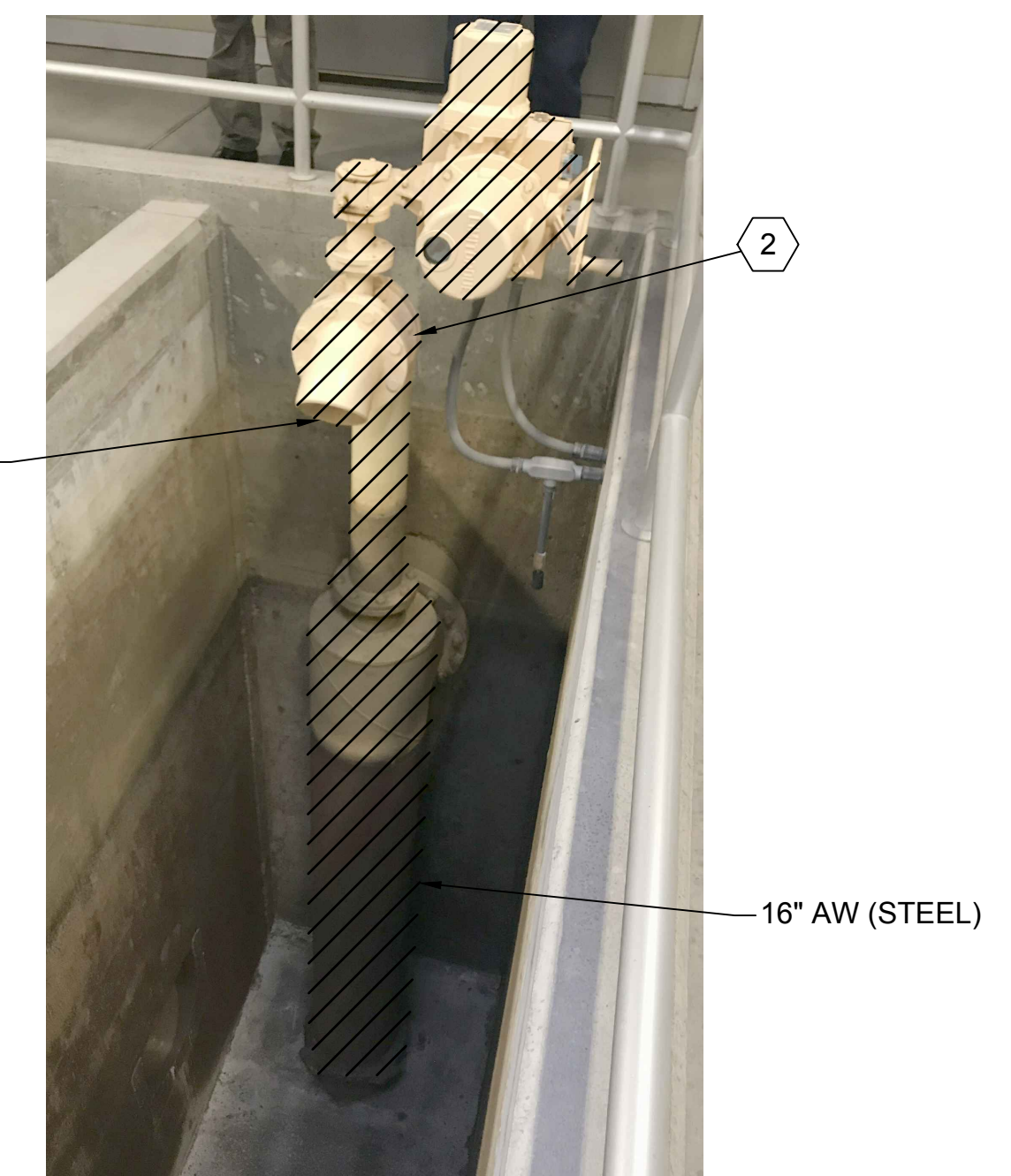
Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\M-MECHANICAL FILENAME: 2M-301.DWG PLOT DATE: 4/2/2019 2:24 PM CAD USER: TYLER PRIDEMORE



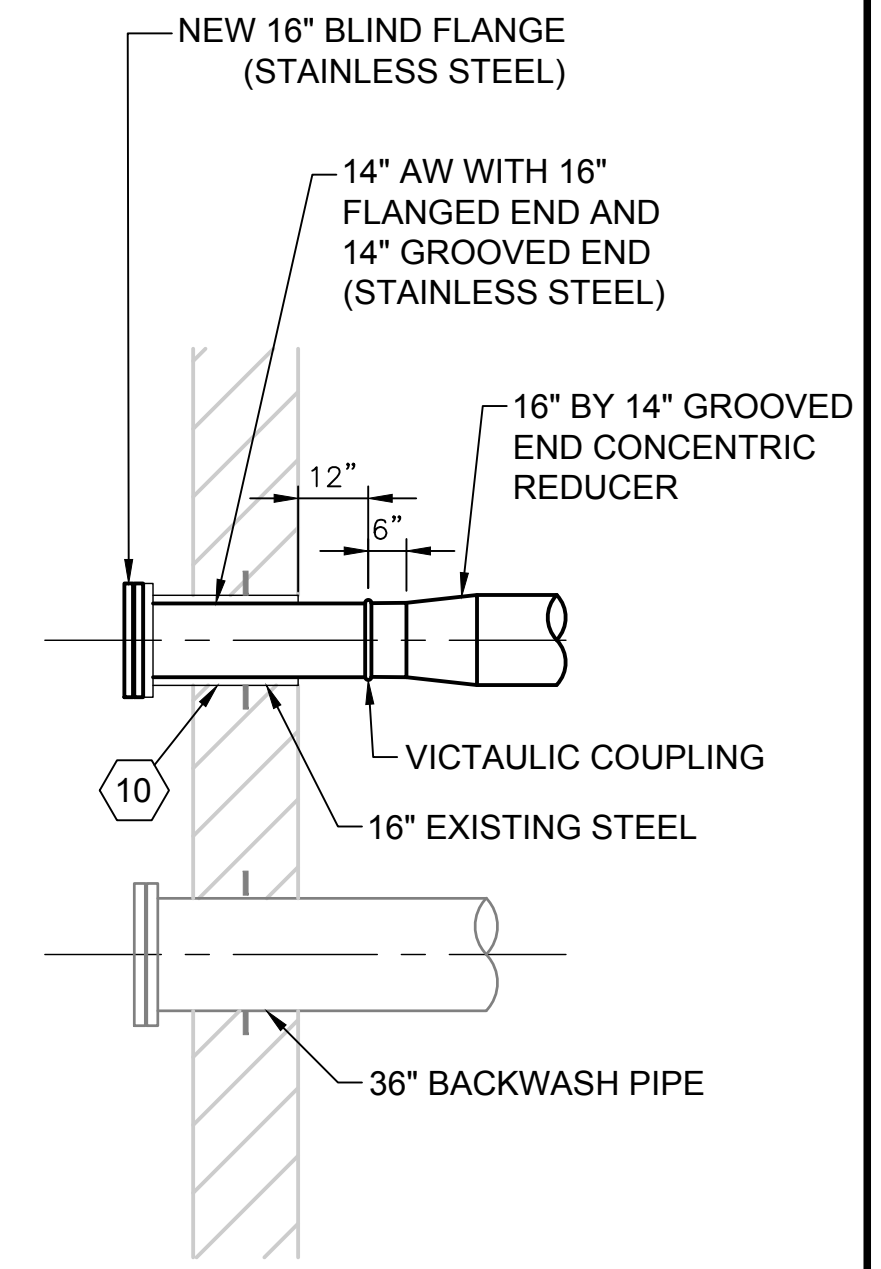
WEST FILTER GALLERY  
SECTION 1  
2M-101  
1/4" = 1'-0"



WEST FILTER GALLERY  
SECTION 1  
2M-101  
NOT TO SCALE



WEST FILTERS AIR RELIEF PIPE  
PHOTO A  
2M-101



WEST FILTER GALLERY PIPE TERMINATION  
DETAIL A  
2M-101

**GENERAL NOTES**

1. PROTECT FILTER MEDIA FROM CONSTRUCTION DEBRIS WITH PLASTIC SHEETS.
2. AIR SCOUR AND VISUALLY INSPECT THE MANHOLE ACCESS TO THE LOWER GULLET AFTER REPAIRS AND CLEANING IS COMPLETE. IF THE MANHOLE LEAKS AIR, RESEAL AND RETEST UNTIL THE MANHOLE DOES NOT LEAK.

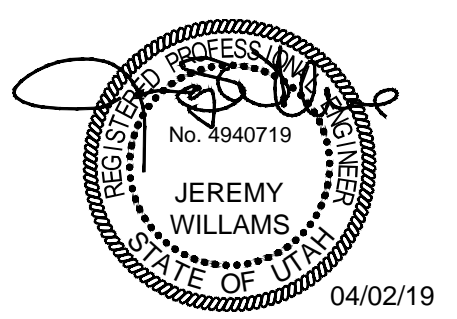
**KEY NOTES:**

1. REMOVE AND REPLACE AIR SCOUR PIPE IN FILTERS WITH 14" STAINLESS STEEL PIPE AND 16" FLANGED ENDS, PER PIPE SCHEDULE.
2. REMOVE AND REPLACE, OR REINSTALL, PER VALVE SCHEDULE, TYP 10 PLACES. FOR EACH VALVE REUSE EXISTING CONDUIT AND WIRE. ENSURE ALL CONDUIT AND WIRES ARE PROPERLY DISCONNECTED, LABELED AND PROTECTED DURING CONSTRUCTION. RECONNECT NEW VALVES TO MATCH FUNCTION OF EXISTING VALVES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT VALVE ACTUATOR ELECTRICAL ENCLOSURE IS POSITIONED PROPERLY TO REUSE EXISTING CONDUIT AND WIRE. IN THE EVENT THAT EXISTING CONDUIT AND WIRE DO NOT REACH THE NEW TERMINALS THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND WIRE AS NEEDED. ALL NEW CONDUIT AND WIRE SHALL BE PER SPECIFICATION.
3. CONTRACTOR IS RESPONSIBLE TO PROTECT EQUIPMENT IN CLOSE PROXIMITY TO VALVES DURING REPLACEMENT. IN THE EVENT THAT PIPING, CONDUIT, CABLE TRAY, PIPE INSULATION, OR OTHER ITEMS ARE DAMAGED DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE.
4. INSTALL NEW PIPING USING EXISTING PIPE HANGERS AND SUPPORTS. PROVIDE 3/4" THICK 60 DUROMETER EPDM LINER TO ISOLATE NEW PIPE FROM HANGER.
5. REMOVE AND REPLACE VICTAULIC COUPLING WITH 16" VICTAULIC W741 COATED DUCTILE IRON FLANGE ADAPTER, TYP 10 PLACES.
6. REHABILITATE PIPE PENETRATION IN PLACE, TYP 10 PLACES. PREPARE EXTERIOR AND INTERIOR SURFACE TO SSPC-SP5/NACE 1 STANDARDS WITH A MINIMUM ANGULAR ANCHOR PROFILE OF 3.0 MILS. COAT PIPE SURFACES WITH EPOXY COATING TO 20 MILS DFT. EPOXY COATING PER AWWA C210, NSF-61 CERTIFIED, MANUFACTURER'S STANDARD COLOR, TNEMIC SERIES 22, SHERPLATE PW, OR APPROVED EQUAL.
7. NOT USED.
8. REMOVE EXISTING BAFFLE PLATE. REPLACE WITH 1/2" 316L STAINLESS STEEL BAFFLE PLATE AND 3/4" 316L ALL THREAD WITH DOUBLE NUTS, TYP 10 PLACES.
9. MODIFY PIPE THIMBLE FLUSH TO PIPE GALLERY WALL. PROTECT THE FILTER SIDE PIPE THIMBLE AND FLANGE. REHABILITATE PIPE PENETRATION IN PLACE, TYP 10 PLACES. PREPARE EXTERIOR AND INTERIOR SURFACE TO SSPC-SP5/NACE 1 STANDARDS WITH A MINIMUM ANGULAR ANCHOR PROFILE OF 3.0 MILS. COAT PIPE SURFACES WITH EPOXY COATING TO 20 MILS DFT. EPOXY COATING PER AWWA C210, NSF-61 CERTIFIED, MANUFACTURER'S STANDARD COLOR, TNEMIC SERIES 22, SHERPLATE PW, OR APPROVED EQUAL. FILL ANNULAR SPACE WITH NON-SHRINK GROUT.
10. PROVIDE 14" FLANGED BY GROOVED END PIPE TO FIT WITHIN REHABILITATED 16" WALL THIMBLE, AS SHOWN, AND PER PIPE SCHEDULE. FILL ANNULAR SPACE WITH NON-SHRINK GROUT. TYP 12 PLACES.
11. PROVIDE CONNECTION USING VICTAULIC W741 FLANGE ADAPTER (COATED DUCTILE IRON), PROVIDE EPDM, FULL FACED ISOLATION GASKET BETWEEN DISSIMILAR METALS. TYP 10 PLACES.
12. REMOVE MANHOLE COVER TO ACCESS THE LOWER GULLET. INSPECT AND CLEAN THE ENTIRE LOWER GULLET OF ALL DEBRIS, TYP 10 PLACES. ALL PERSONNEL SHALL USE A CLEAN TYVEK SUIT AND BOOTS. CLEAN AND DISINFECT WORK SUITS AND EQUIPMENT WITH 200 PPM CHLORINE SOLUTION BEFORE ENTERING THE LOWER GULLET. DISINFECT THE LOWER GULLET AS SPECIFIED.
13. PROVIDE AND INSTALL 6" VENTSAFE® SECURITY CAGE BY VALVEMATIC OR APPROVED EQUAL. INSTALL ON END OF AIR RELIEF PIPE WITH A STAINLESS STEEL FLAT FACE FLANGE. PROVIDE EPDM FULL FACE GASKET ON BOTH SIDES OF SECURITY CAGE. TYP 10 PLACES.
14. PROVIDE 14" FLANGED BY PLAIN END PIPE TO FIT WITHIN REHABILITATED 16" PENETRATION THIMBLE, AS SHOWN, AND PER PIPE SCHEDULE. FILL ANNULAR SPACE WITH NON-SHRINK GROUT. TYP 10 PLACES.



SALT LAKE CITY, UTAH

FINAL BID SET



**JVWTP  
AIR SCOUR PIPE  
REPLACEMENT**

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
DRAWN: T. PRIDEMORE  
CHECKED: A. JONES  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS

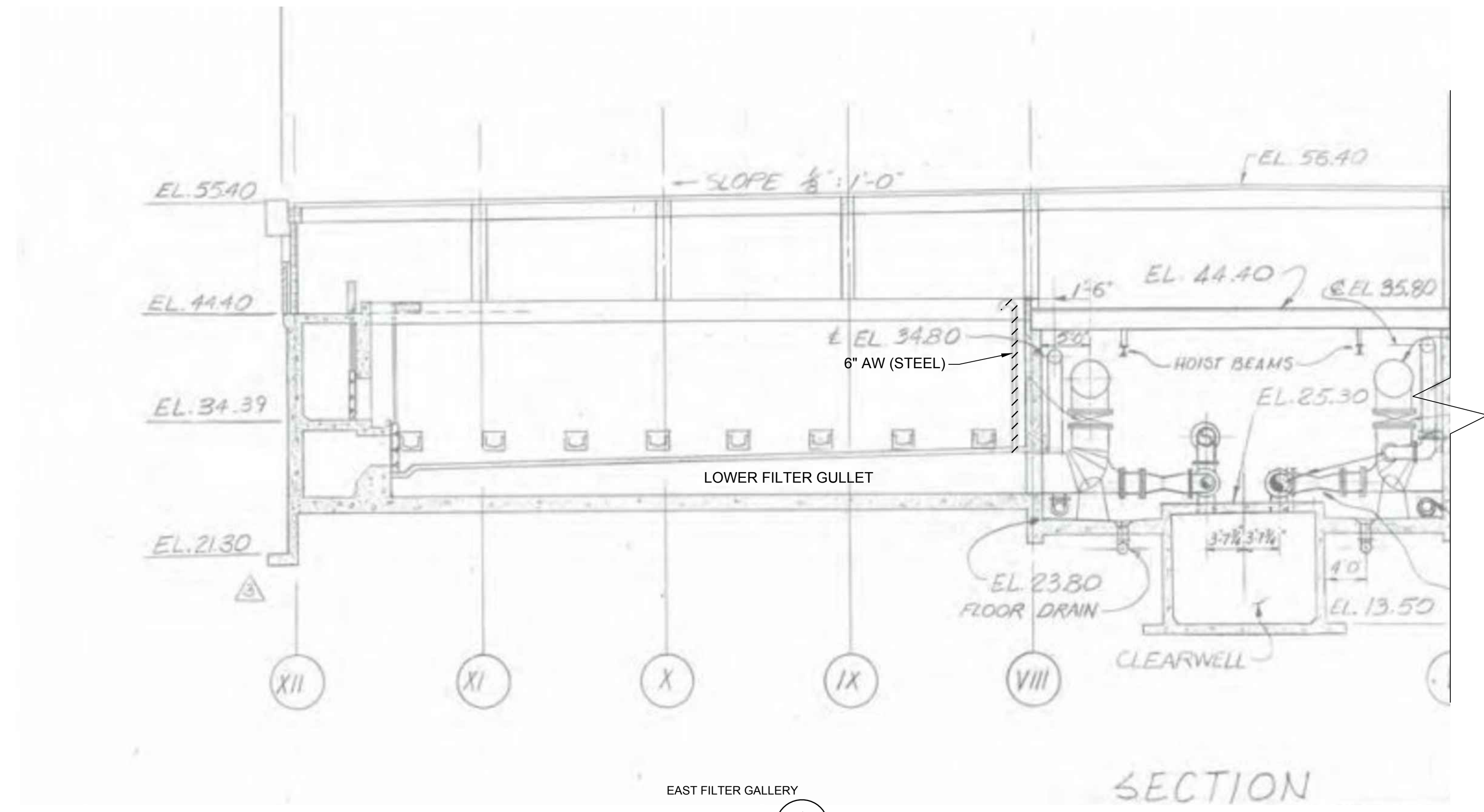
FILENAME: 2M-301.DWG  
BC PROJECT NUMBER: 151483  
CLIENT PROJECT NUMBER: 4070  
MECHANICAL

**WEST FILTER  
GALLERY SECTIONS  
AND DETAILS**

DRAWING NUMBER  
**2M-301**  
SHEET NUMBER OF  
8 OF 16



Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\SHEETS\M-MECHANICAL FILENAME: 2M-302.DWG PLOT DATE: 4/2/2019 2:24 PM CAD USER: TYLER PRIDEMORE



EAST FILTER GALLERY  
SECTION 1  
2M-102  
1/8" = 1'-0"

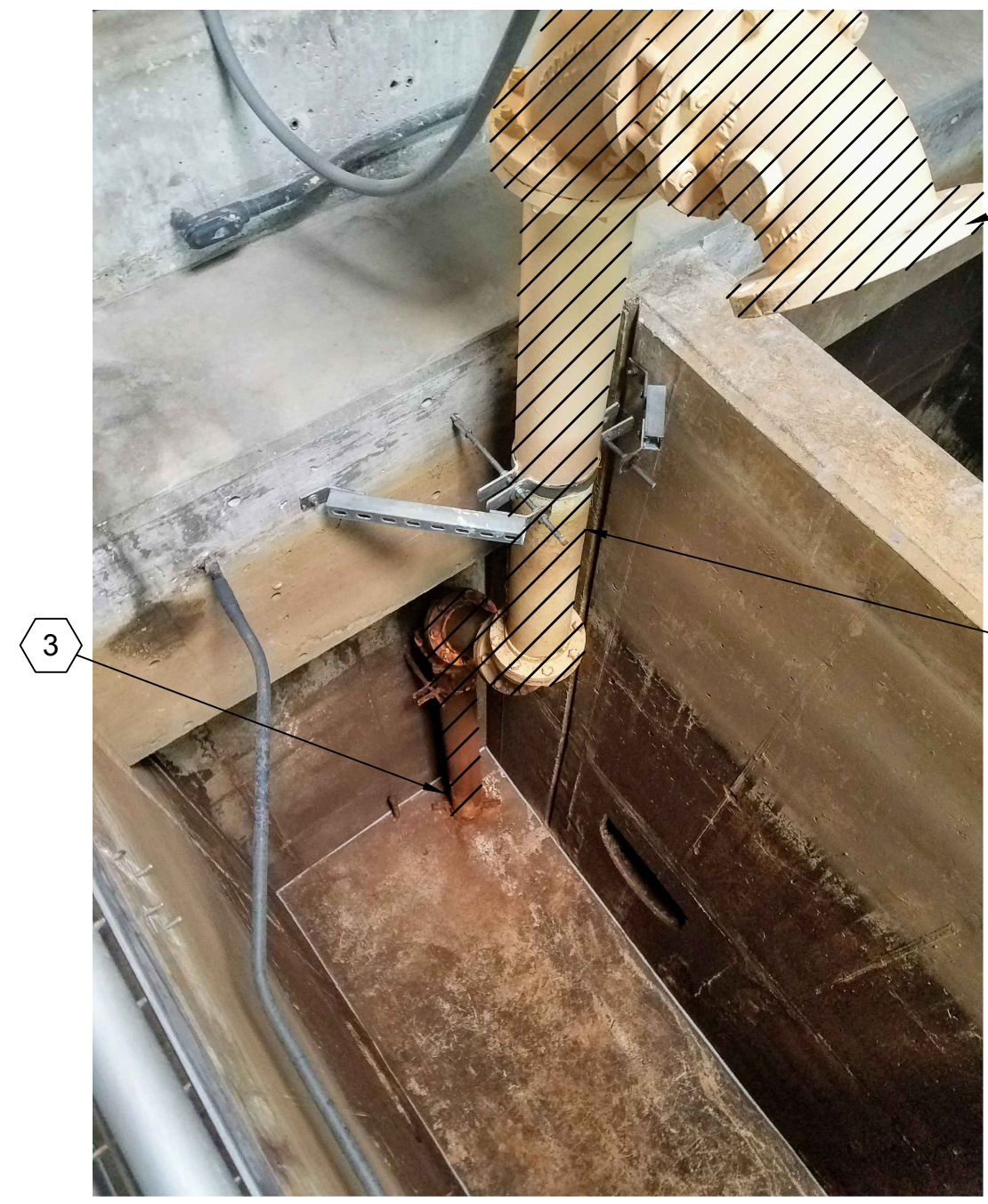


PHOTO A  
2M-102

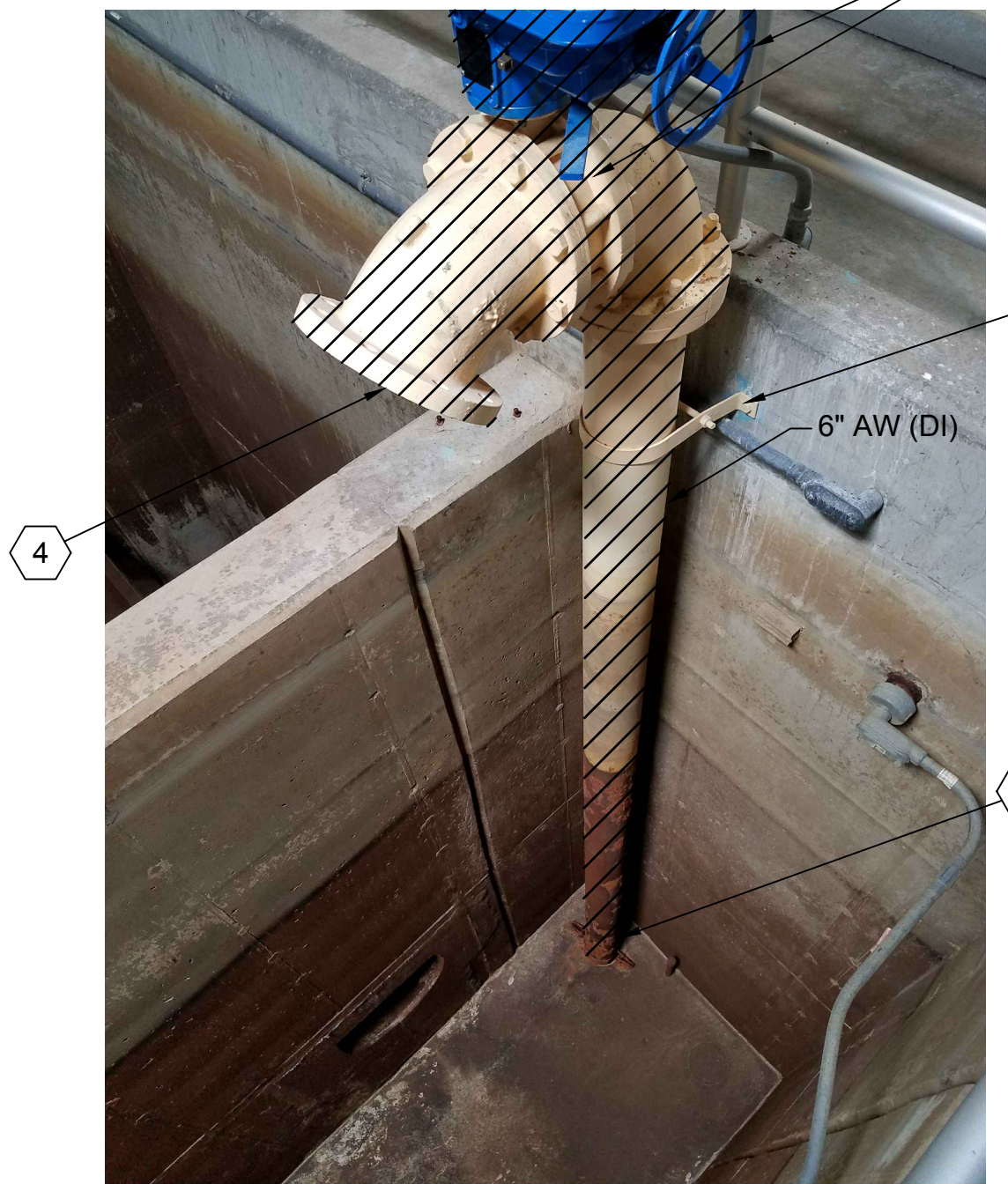
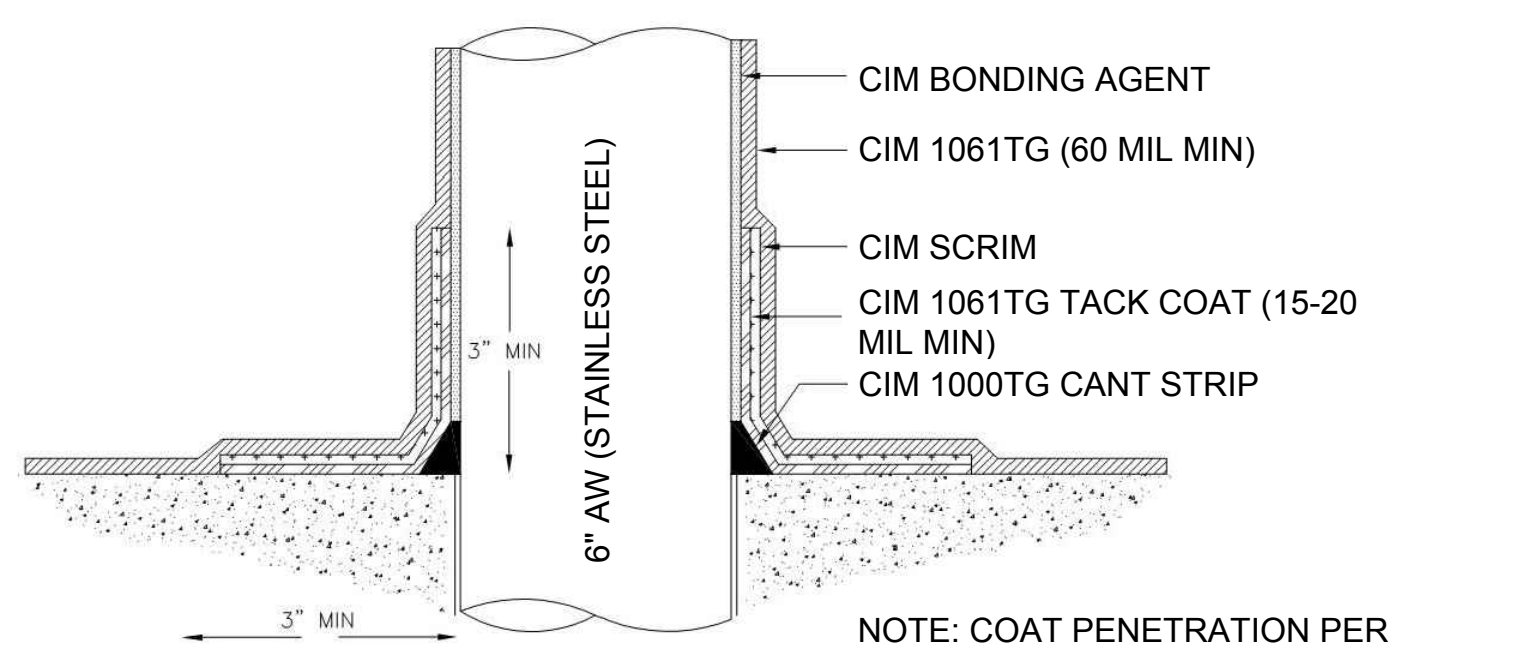


PHOTO B  
2M-102



DETAIL A  
2M-302  
NOT TO SCALE

NOTE: COAT PENETRATION PER DETAIL, AND CIM INDUSTRIES INC INSTRUCTIONS, TYP 6 PLACES. PREPARE CONCRETE SURFACE PER MANUFACTURER SPECIFICATION FOR POTABLE WATER, IN ACCORDANCE WITH ASTM D4258, AND BY ABRASIVE BLASTING. PERFORM ABRASIVE BLASTING IN ACCORDANCE WITH ASTM D4259-88. EXPOSE AGGREGATE TO OBTAIN A PROFILE OF ICRI CSP 4 TO 6 IN ACCORDANCE WITH ICRI 03732. WORK TO BE SUPERVISED BY MANUFACTURER REPRESENTATIVE JOHN HILL (801-836-2042) AT CONTRACTORS EXPENSE.

**GENERAL NOTES**

1. PROTECT FILTER MEDIA FROM CONSTRUCTION DEBRIS WITH PLASTIC SHEETS.
2. INSTALL NEW PIPING USING EXISTING PIPE HANGERS AND SUPPORTS. PROVIDE 1/4" THICK 60 DUROMETER EPDM LINER TO ISOLATE NEW PIPE FROM HANGER.

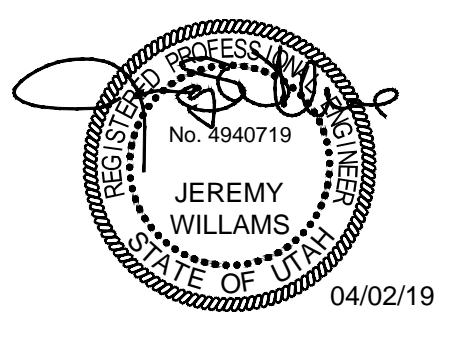
**KEY NOTES:**

1. REMOVE AND REPLACE, OR REINSTALL, PER VALVE SCHEDULE, TYP 6 PLACES. FOR EACH VALVE REUSE EXISTING CONDUIT AND WIRE. ENSURE ALL CONDUIT AND WIRES ARE PROPERLY DISCONNECTED, LABELED AND PROTECTED DURING CONSTRUCTION. RECONNECT NEW VALVES TO MATCH FUNCTION OF EXISTING VALVES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT VALVE ACTUATOR ELECTRICAL ENCLOSURE IS POSITIONED PROPERLY TO REUSE EXISTING CONDUIT AND WIRE. IN THE EVENT THAT EXISTING CONDUIT AND WIRE DO NOT REACH THE NEW TERMINALS THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND WIRE AS NEEDED. ALL NEW CONDUIT AND WIRE SHALL BE PER SPECIFICATION.
2. INSTALL NEW AIR RELIEF PIPE USING NEW 316 STAINLESS PIPE HANGER AND SUPPORTS.
3. REMOVE 6" PIPE AND REPLACE PER PIPE SCHEDULE. CHIP OUT CONCRETE NO MORE THAN 6" FROM EXISTING PIPE. INSTALL NEW PIPE WITH 316 SS PIPE SUPPORT. SEAL HOLE WITH NSF-61 CERTIFIED NON-EXPANDING GROUT. COAT AN 18" SQUARE AROUND PIPE WITH CIM 1000TG. SEE DETAIL A.
4. PROVIDE AND INSTALL 6" VENTSAFE® SECURITY CAGE BY VALVEMATIC OR APPROVED EQUAL. INSTALL ON END OF AIR RELIEF PIPE WITH A STAINLESS STEEL FLAT FACE FLANGE. PROVIDE EPDM FULL FACE GASKET ON BOTH SIDES OF SECURITY CAGE. TYP 6 PLACES.



SALT LAKE CITY, UTAH

FINAL BID SET



**JVWTP AIR SCOUR PIPE REPLACEMENT**

**REVISIONS**

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
DRAWN: T. PRIDEMORE  
CHECKED: A. JONES  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS  
FILENAME: 2M-302.DWG  
BC PROJECT NUMBER: 151483  
CLIENT PROJECT NUMBER: 4070  
MECHANICAL

**EAST FILTER GALLERY SECTIONS AND DETAILS**

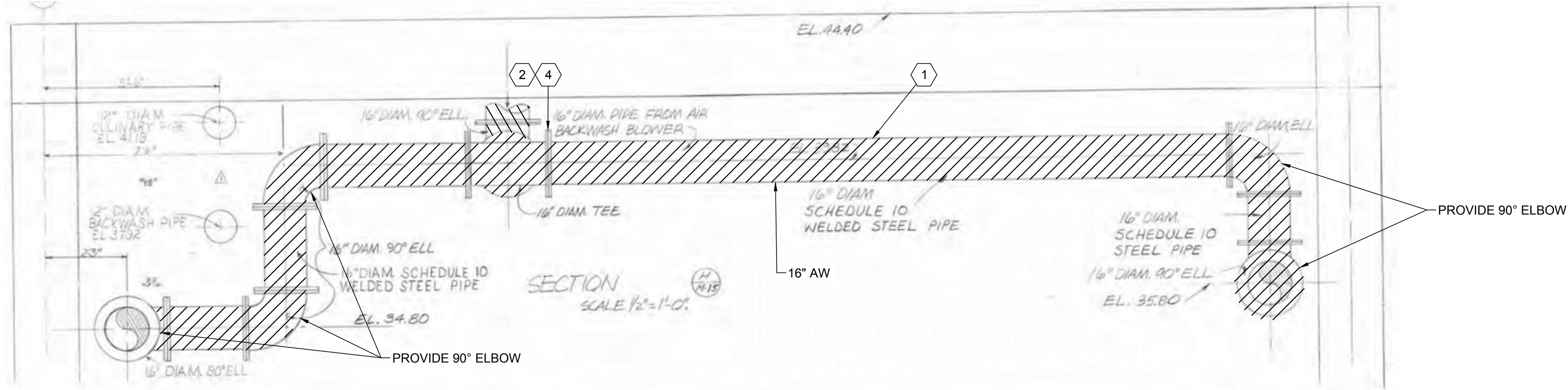
DRAWING NUMBER: 2M-302  
SHEET NUMBER OF: 9 OF 16





TRANSITION TO WEST GALLERY

PHOTO A  
2M-102



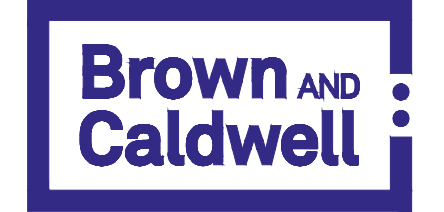
AIR SCOUR HEADER IN EAST FILTER GALLERY FROM BLOWER SECTION

SECTION 1  
2M-102  
1/2" = 1'-0"

GENERAL NOTES

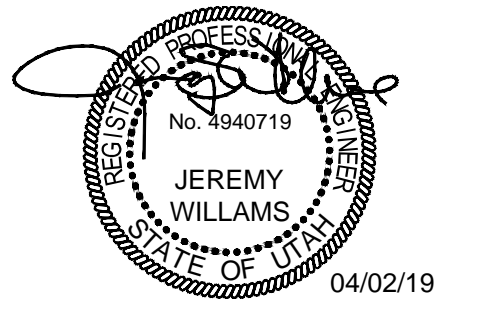
KEY NOTES:

1. REMOVE EXISTING AIR SCOUR PIPING AND REPLACE WITH NEW PIPING PER PIPE SCHEDULE.
2. PROVIDE TEMPORARY BLIND FLANGE IF NEEDED, AS DESCRIBED IN SPECIFICATIONS.
3. NOT USED.
4. PROVIDE 16" RESTRAINED EXPANSION JOINT, EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101 OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BARE CONTROL UNIT



SALT LAKE CITY, UTAH

FINAL BID SET



JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP AIR SCOUR PIPE REPLACEMENT

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
 DRAWN: T. PRIDEMORE  
 CHECKED: A. JONES  
 CHECKED: J. WILLIAMS  
 APPROVED: J. WILLIAMS  
 FILENAME: 2M-501.DWG  
 BC PROJECT NUMBER: 151483  
 CLIENT PROJECT NUMBER: 4070

MECHANICAL  
 PIPE DETAILS - 1

DRAWING NUMBER: 2M-501  
 SHEET NUMBER OF: 10 OF 16



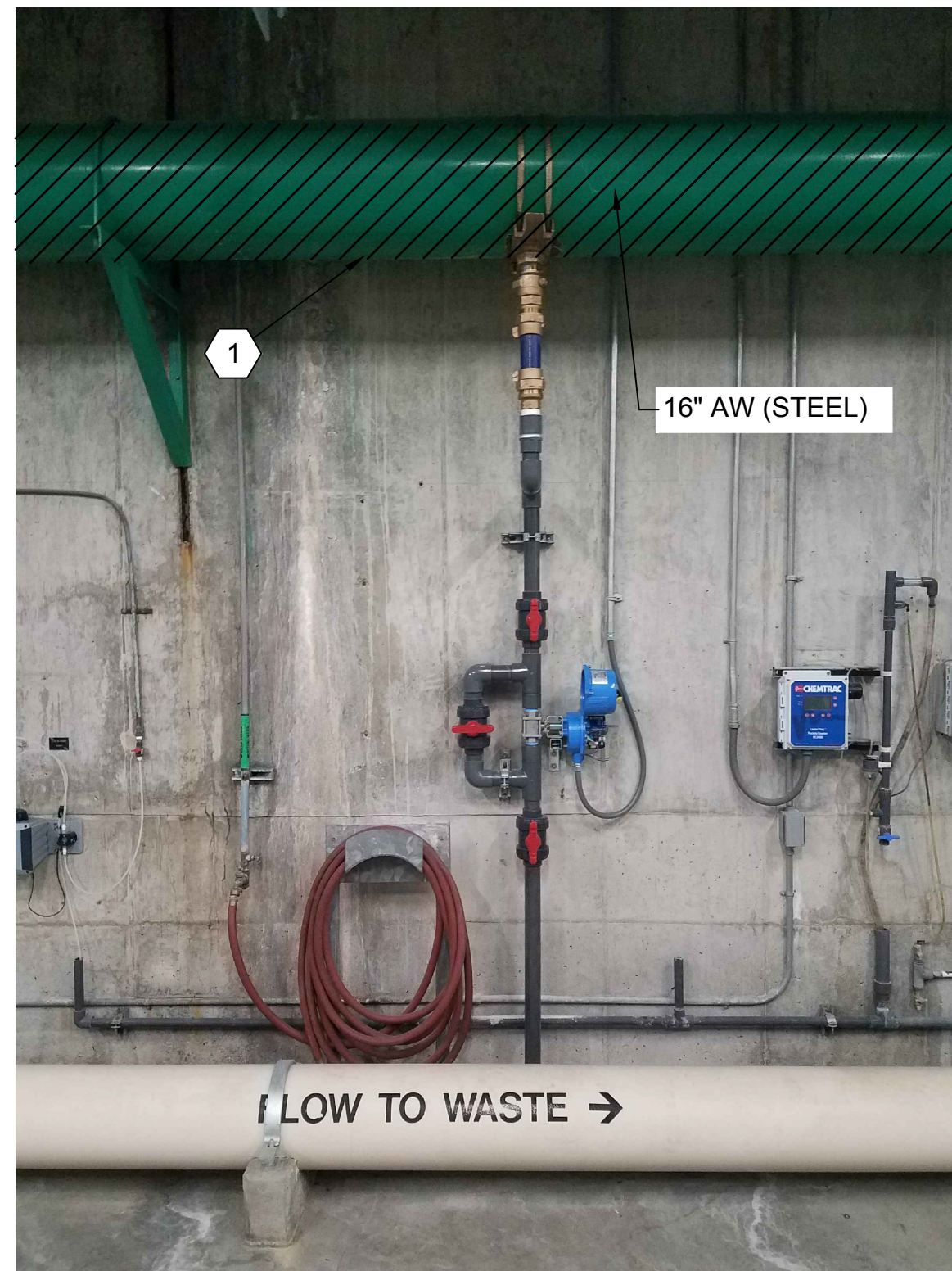
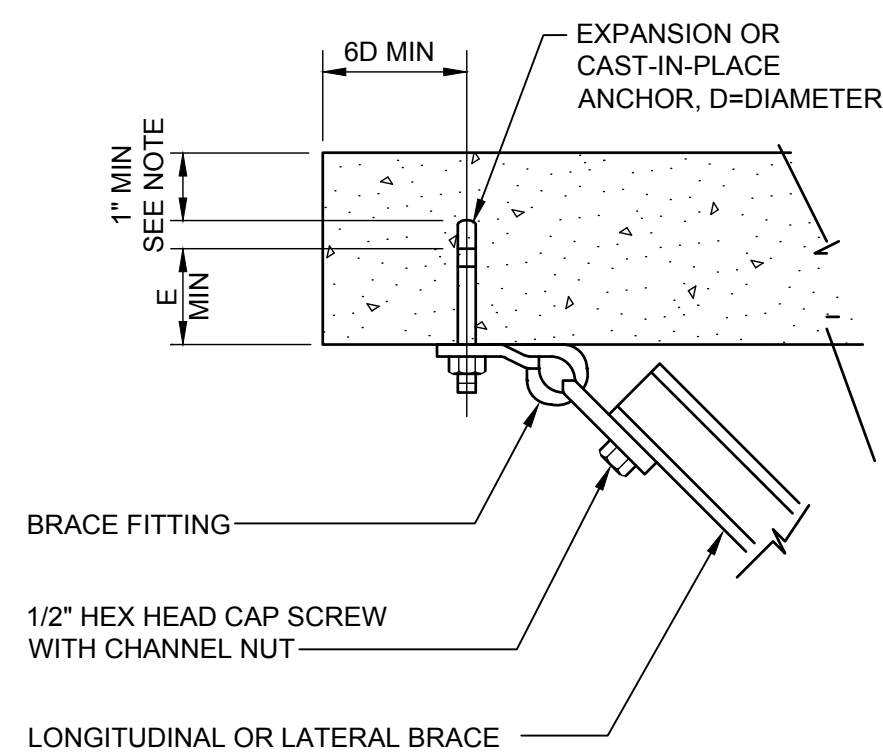


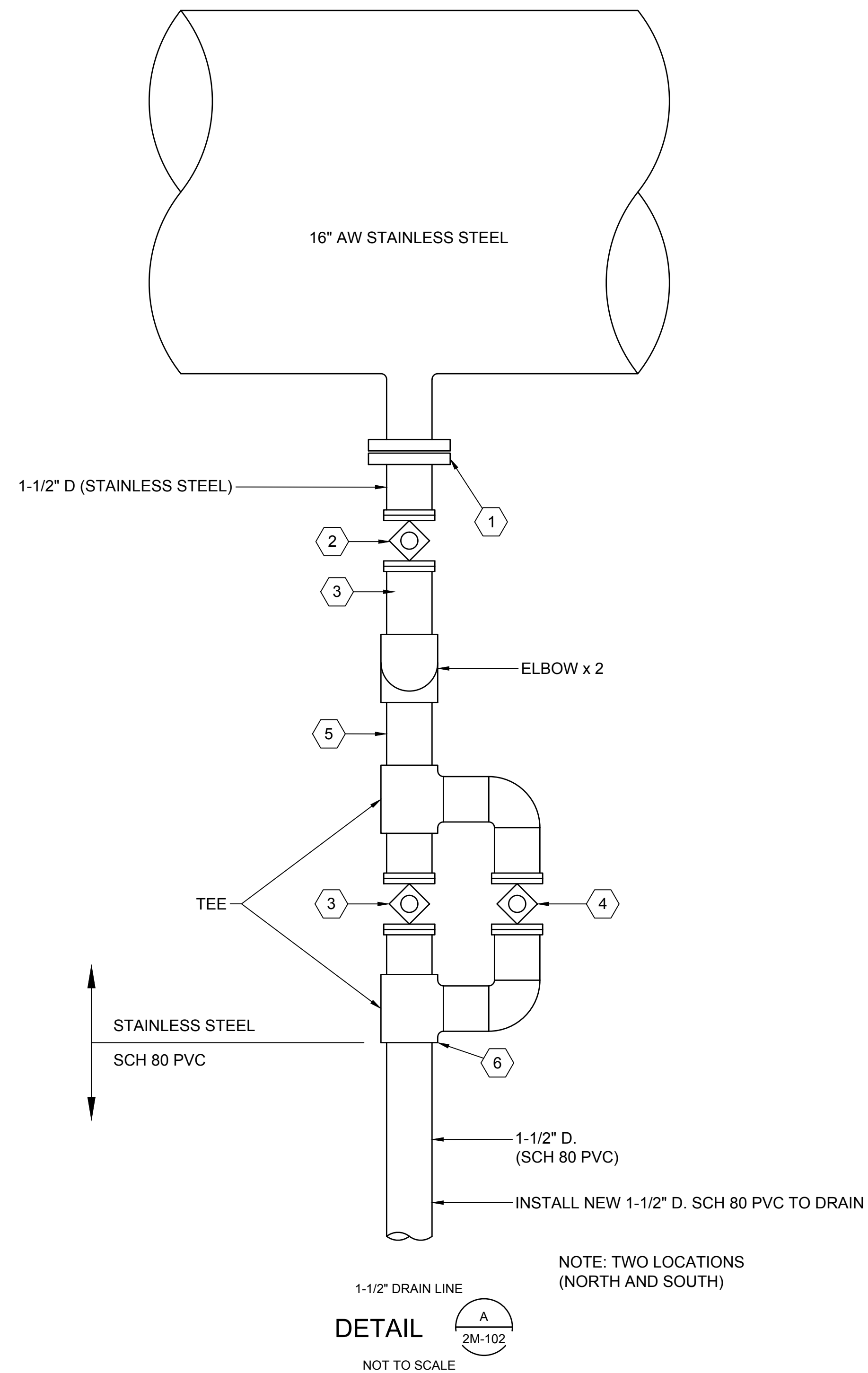
PHOTO  
A  
2M-102

ANCHOR NOTE:  
IF END OF ANCHOR TO SLAB FACE IS LESS THAN 1",  
USE THRU BOLT, WASHER AND NUT.

| LOAD (LBS) | MAXIMUM ALLOWABLE LOADS: |        |                      |    |
|------------|--------------------------|--------|----------------------|----|
|            | EXPANSION ANCHOR         |        | CAST-IN-PLACE ANCHOR |    |
|            | D                        | E      | D                    | E  |
| 336        | 3/8"                     | 3 1/2" | 3/8"                 | 3" |
| 476        | 1/2"                     | 4 1/2" | 3/8"                 | 3" |
| 970        | 5/8"                     | 5 1/2" | 1/2"                 | 4" |
| 1400       | 3/4"                     | 5"     | 5/8"                 | 4" |



TYPE SA-1 ATTACHMENT  
DETAIL  
B  
2M-502  
NOT TO SCALE



NOTE: TWO LOCATIONS (NORTH AND SOUTH)

DETAIL  
A  
2M-102  
NOT TO SCALE

GENERAL NOTES

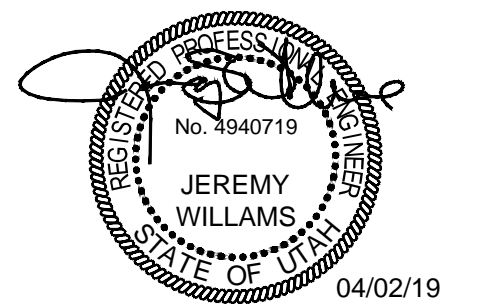
KEY NOTES:

1. PROVIDE 16" x 4" STAINLESS STEEL TEE WITH 1-1/2" TAPPED FLANGE.
2. PROVIDE STAINLESS STEEL ISOLATION BALL VALVE.
3. REMOVE AND REINSTALL STAINLESS STEEL ACTUATED BALL VALVE.
4. PROVIDE MANUAL STAINLESS STEEL BALL VALVE FOR ACTUATED BALL VALVE BYPASS
5. REPLACE TEMPORARY DRAIN LINE WITH NEW STAINLESS STEEL DRAIN LINE PER PIPE SCHEDULE, TYP OF 2 PLACES. FIELD VERIFY LOCATION OF TEMPORARY AW PIPE DRAIN.
6. CONTINUE DRAIN LINE TO NEAREST FLOOR DRAIN.



SALT LAKE CITY, UTAH

FINAL BID SET



JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP AIR SCOUR PIPE REPLACEMENT

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES

DRAWN: T. PRIDEMORE

CHECKED: A. JONES

CHECKED: J. WILLIAMS

APPROVED: J. WILLIAMS

FILENAME

2M-502.DWG

BC PROJECT NUMBER

151483

CLIENT PROJECT NUMBER

4070

MECHANICAL

PIPE DETAILS - 2

DRAWING NUMBER

2M-502

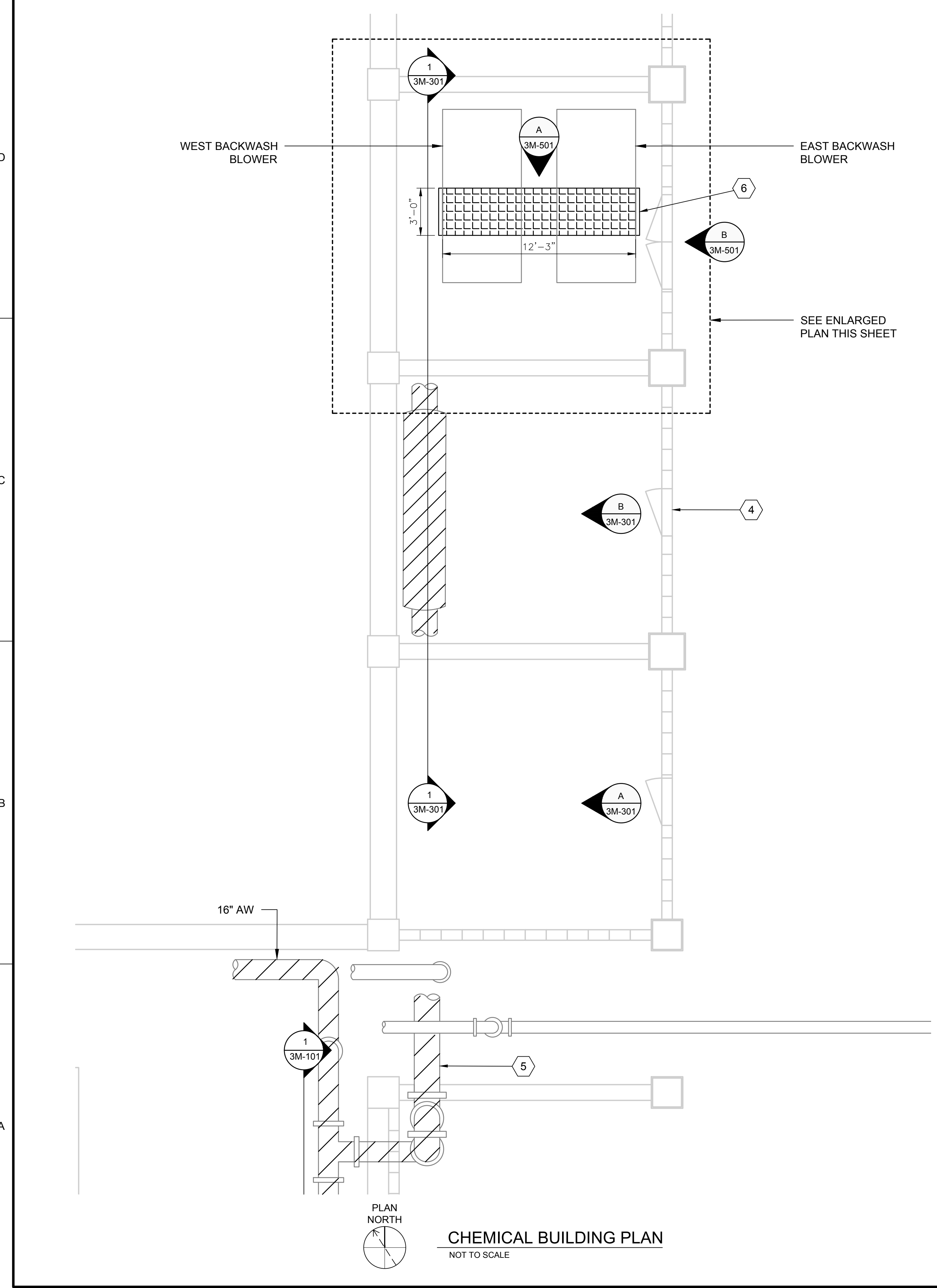
SHEET NUMBER

11 OF 16

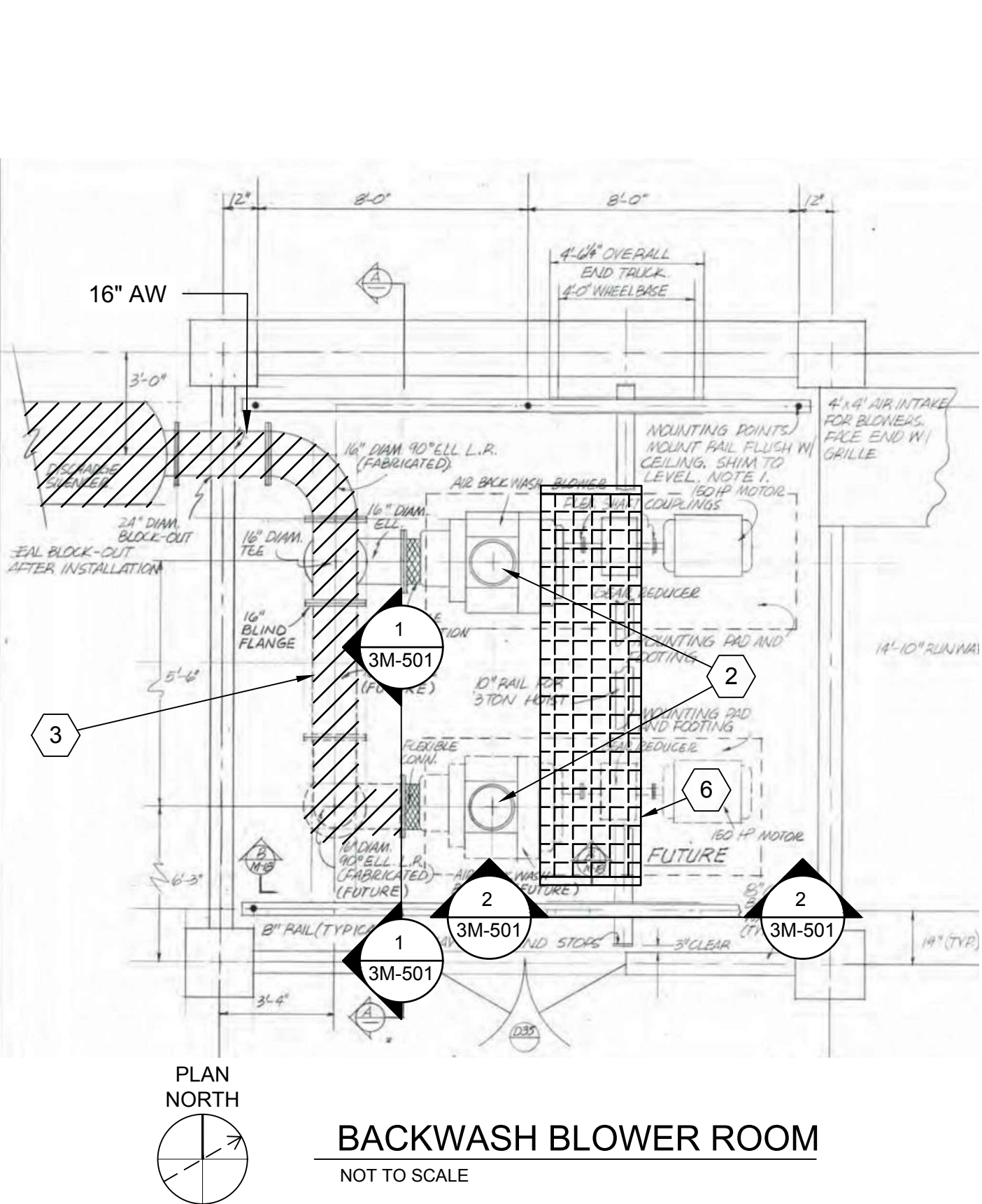
P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\2-SHEETS\M-MECHANICAL FILENAME: 2M-502.DWG PLOT DATE: 4/2/2019 2:25 PM CAD USER: TYLER PRIDEMORE



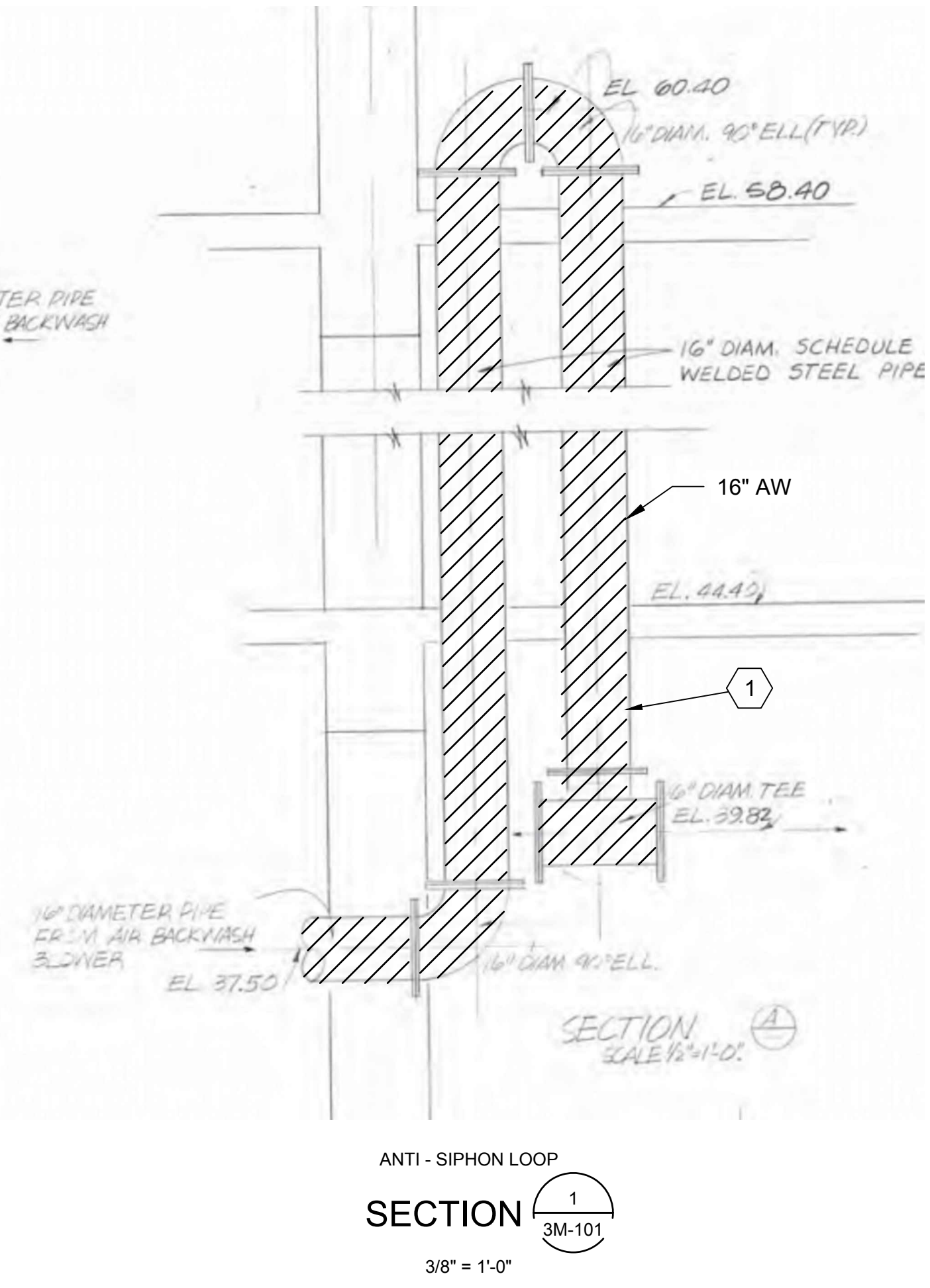
Path: P:\PROJECTS\JORDAN VALLEY\151482\_AIR SCOUR PIPING REPLACEMENT\1\_CAD\2-SHEETS\M-MECHANICAL FILENAME: 3M-101.DWG PLOT DATE: 4/2/2019 2:25 PM CAD USER: TYLER PRIDEMORE



CHEMICAL BUILDING PLAN  
NOT TO SCALE



BACKWASH BLOWER ROOM  
NOT TO SCALE



SECTION 1  
3/8" = 1'-0"

GENERAL NOTES

- FIELD VERIFY ALL DIMENSIONS AND FITTINGS. PROVIDE ALL REQUIRED FITTINGS, WHETHER SHOWN OR NOT.

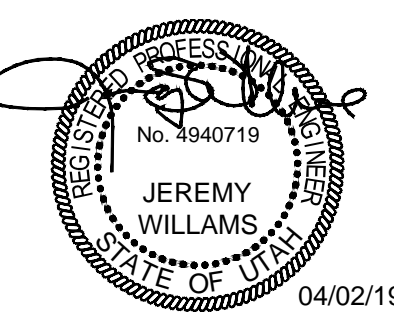
KEY NOTES:

- REMOVE EXISTING AIR SCOUR PIPING AND REPLACE WITH NEW PIPING PER PIPE SCHEDULE.
- PROTECT EXISTING EQUIPMENT AND APPURTENANCES.
- REPLACE ALL PIPING UP TO EACH BLOWER. PROVIDE AND INSTALL CHECK VALVES AND ISOLATION VALVES. INSTALL NEW PRESSURE RELIEF VALVES SUPPLIED BY OWNER; PROVIDE NEW GASKETS, BOLTS, AND NUTS.
- REMOVE DOOR JAMB AND DOOR TO INSTALL OWNER SUPPLIED SILENCER. REPLACE WITH NEW 42" STEEL DOOR AND JAMB. MATCH EXISTING DOOR MATERIAL, STYLE, AND COLOR.
- ON PIPING BETWEEN ANTI-SIPHON AND SILENCER PROVIDE 16" RESTRAINED FLEXIBLE JOINT, EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101, OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS, AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BARE CONTROL UNIT.
- PROVIDED CATWALK MANUFACTURED BY "ERECTASTE", OR APPROVED EQUAL.
  - A) PLATFORM
    - i) SPAN = 12' - 0"
    - WIDTH = 3'-0"
    - HEIGHT ABOVE FLOOR SLAB = 8'-3" (FIELD VERIFY CLEARANCE HEIGHT)
    - ii) PLATFORM COMPRISED OF 4 36"x36" 6063 ALUM. PLATFORMS WITH A STAMPED POSITIVE-TRACTION WALK SURFACE
    - iii) PLATFORM UNITS WILL HAVE COMMON BOLT PATTERNS ON ALL FOUR PLATFORM SIDES
  - B) LADDERS
    - i) LADDERS TO MATCH PLATFORM HEIGHT, PLACED AT EACH END OF THE SPAN
    - ii) LADDERS TO HAVE 10 STEPS PLACED AT 9" INCREMENTS
    - iii) LADDERS ARE 6061 ALUM.
  - C) GUARDRAILS AND KICK PLATES
    - i) 1.9" DIAM. POWDER COATED ALUM. PIPE
    - ii) HANDRAIL - 1.5" SQUARE SCHEDULE 10 6063 ALUM. PIPE
    - MID RAIL - 1" SCHEDULE 40 6063 ALUM. PIPE
    - KICK PLATE - 0.25" SQUARE 5052 ALUM.
  - D) ANCHORAGE
    - i) ANCHORAGE TO BE DESIGNED BY MANUFACTURER IN ACCORDANCE WITH LATEST BUILDING CODE.
    - ii) ANCHORAGE FOR CATWALK SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF UTAH.



SALT LAKE CITY, UTAH

FINAL BID SET



Jordan Valley Water Conservancy District

JVWTP AIR SCOUR PIPE REPLACEMENT

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
 DRAWN: T. PRIDEMORE  
 CHECKED: A. JONES  
 CHECKED: J. WILLIAMS  
 APPROVED: J. WILLIAMS

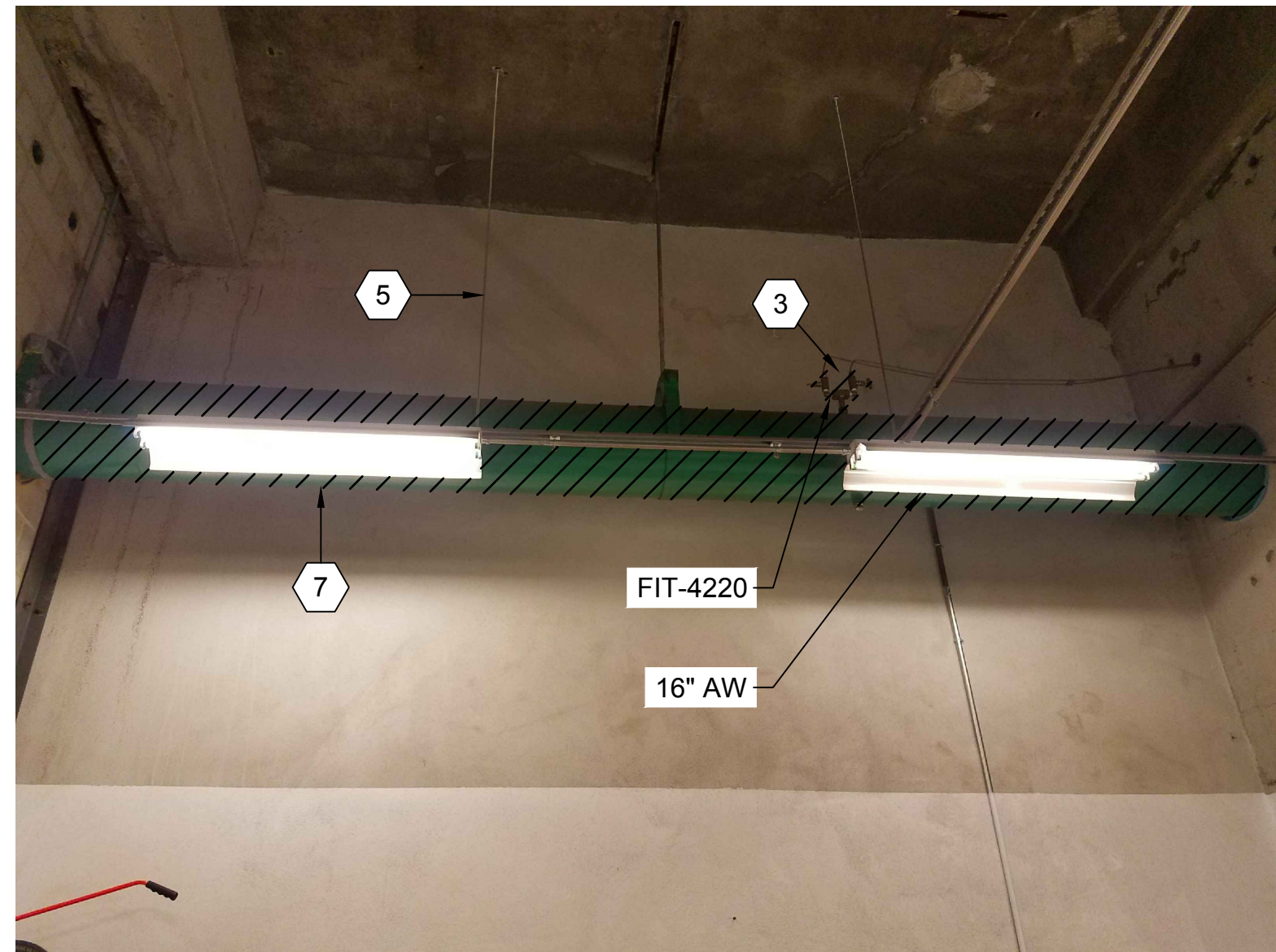
FILENAME: 3M-101.DWG  
 BC PROJECT NUMBER: 151483  
 CLIENT PROJECT NUMBER: 4070

MECHANICAL  
CHEMICAL BUILDING

DRAWING NUMBER: 3M-101

SHEET NUMBER OF: 12 OF 16

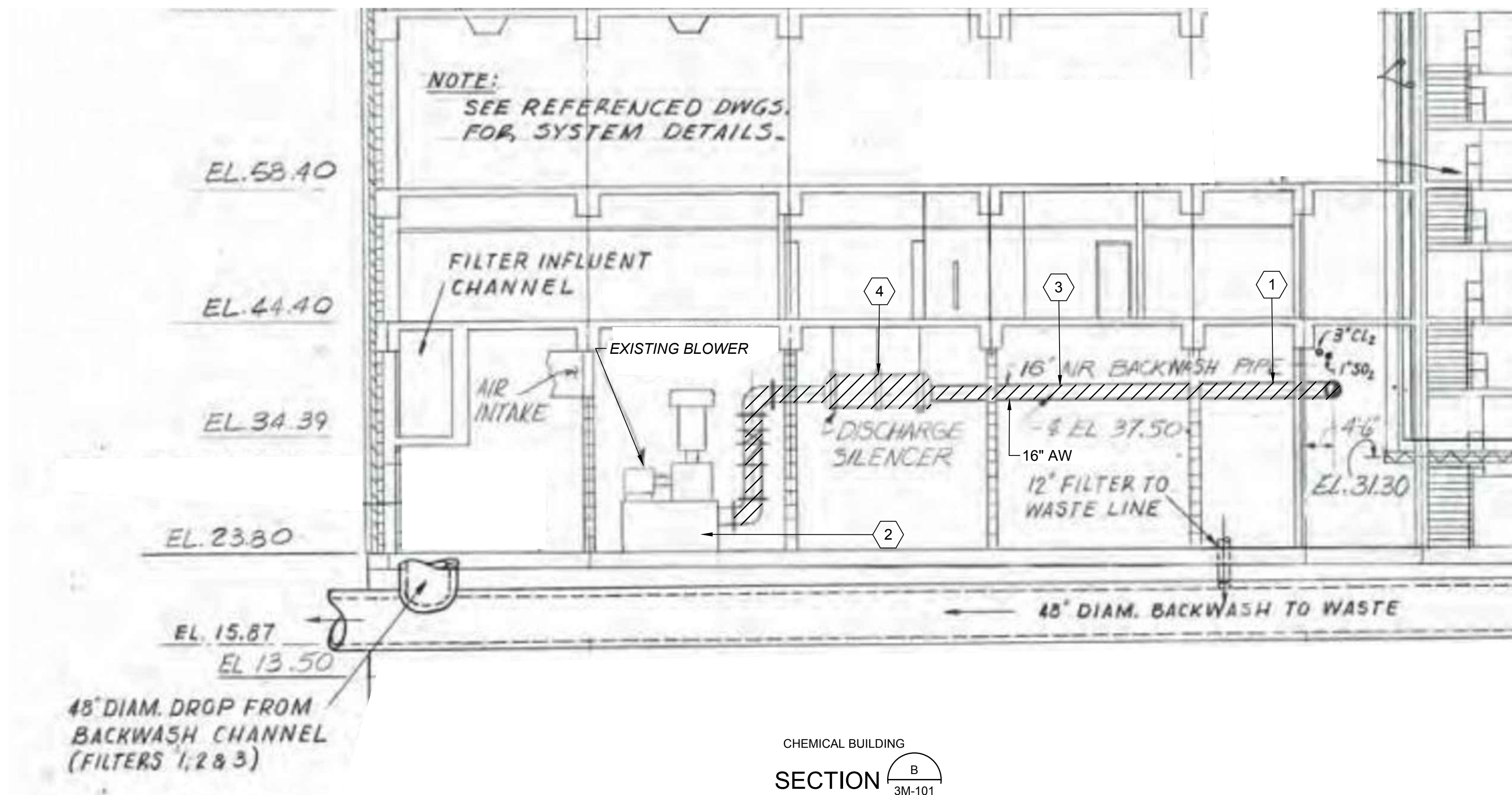




AIR FLOW METER  
PHOTO A  
3M-101



DISCHARGE SILENCER  
PHOTO B  
3M-101



**GENERAL NOTES**

- SEAL ALL WALL PENETRATIONS WITH LINK SEAL.

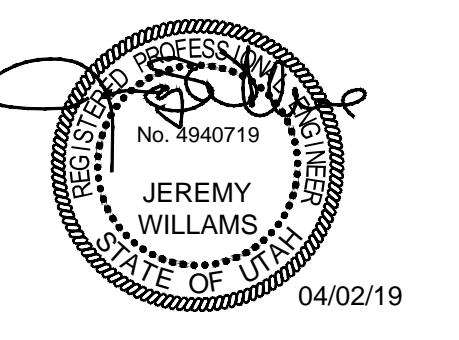
⬡ **KEY NOTES:**

- REMOVE EXISTING AIR SCOUR PIPING AND REPLACE WITH NEW PIPING PER PIPE SCHEDULE.
- PROTECT EXISTING EQUIPMENT AND APPURTANANCES.
- REMOVE EXISTING FLOW METER. PROVIDE AND INSTALL NEW FLOW METER PER SPECIFICATION. REMOVE EXISTING IMPULSE TUBING TO EXISTING FLOW TRANSMITTER. PROVIDE AND INSTALL REMOTE MOUNT TRANSMITTER IN BLOWER ROOM. RUN CONDUIT AND WIRE TO TRANSMITTER AS SPECIFIED. COORDINATE TRANSMITTER MOUNTING LOCATION WITH OWNER.
- REMOVE EXISTING DISCHARGE SILENCER AND INSTALL NEW DISCHARGE SILENCER PROVIDED BY OWNER.
- PROVIDE AND INSTALL NEW PIPING USING EXISTING PIPE HANGERS AND SUPPORTS. PROVIDE EPDM LINER TO ISOLATE NEW PIPE FROM HANGER.
- CONNECT TO SILENCER WITH FLANGED PIPE.
- CONNECT TO GROOVED PIPE WITH VICTAULIC 77S COUPLING.



SALT LAKE CITY, UTAH

FINAL BID SET



**JVWTP  
AIR SCOUR PIPE  
REPLACEMENT**

REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

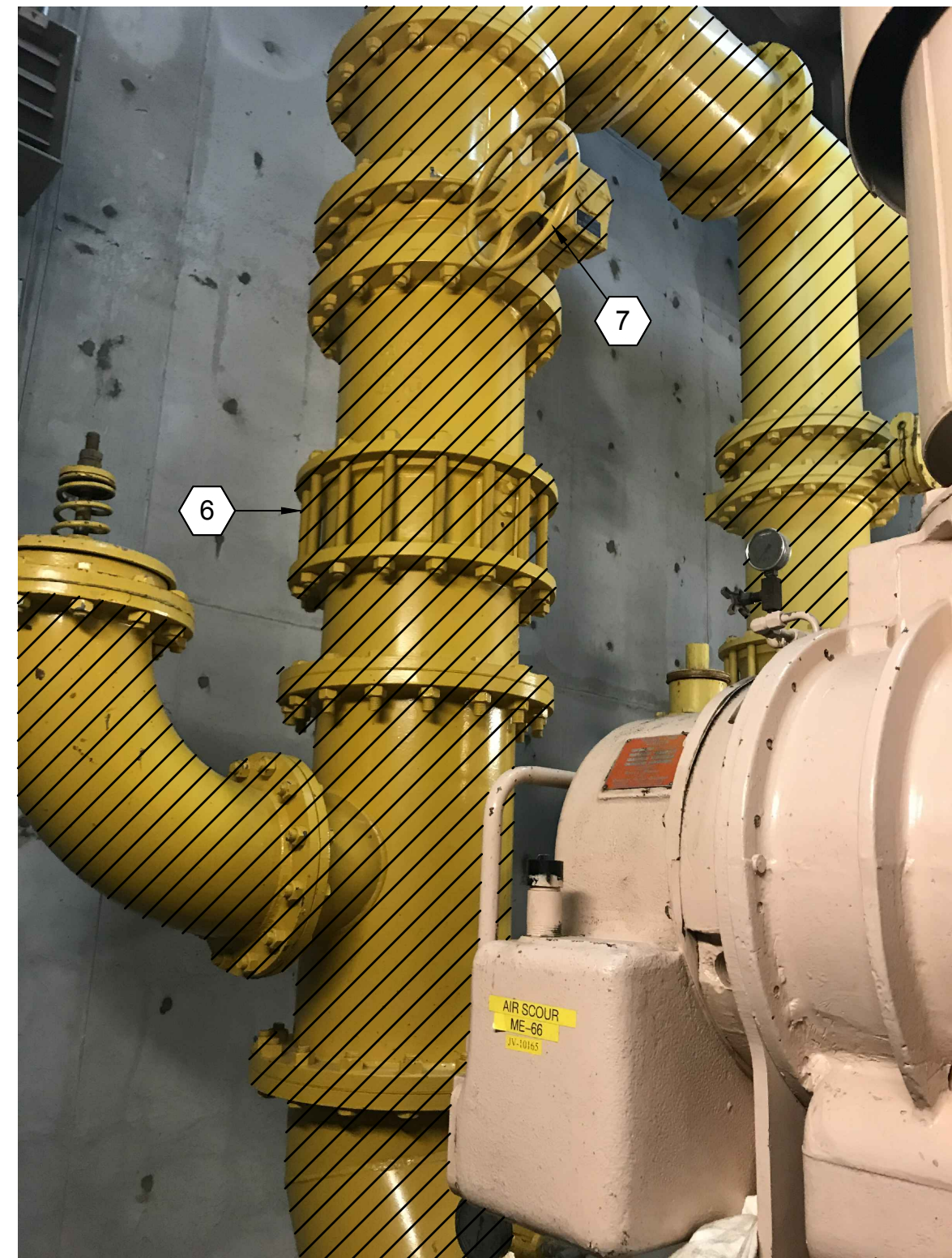
DESIGNED: A. JONES  
DRAWN: T. PRIDEMORE  
CHECKED: A. JONES  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS

FILENAME: 3M-301.DWG  
BC PROJECT NUMBER: 151483  
CLIENT PROJECT NUMBER: 4070  
MECHANICAL  
**CHEMICAL BUILDING SECTION**

DRAWING NUMBER: **3M-301**  
SHEET NUMBER OF: **13** OF **16**

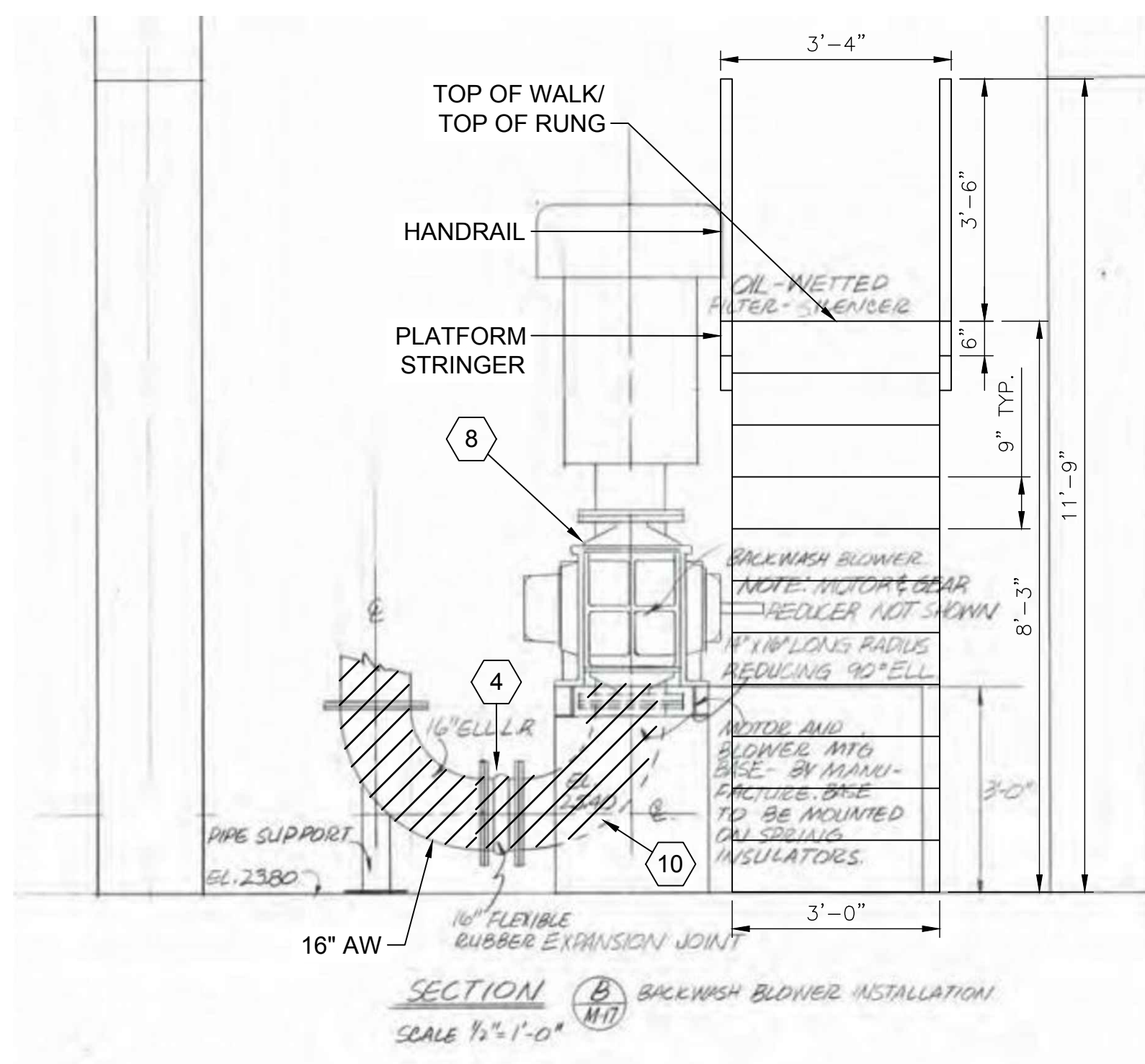
Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CADD\2-SHEETS\M-MECHANICAL FILENAME: 3M-301.DWG PLOT DATE: 4/2/2019 2:25 PM CAD USER: TYLER PRIDEMORE





BLOWER DISCHARGE PIPE

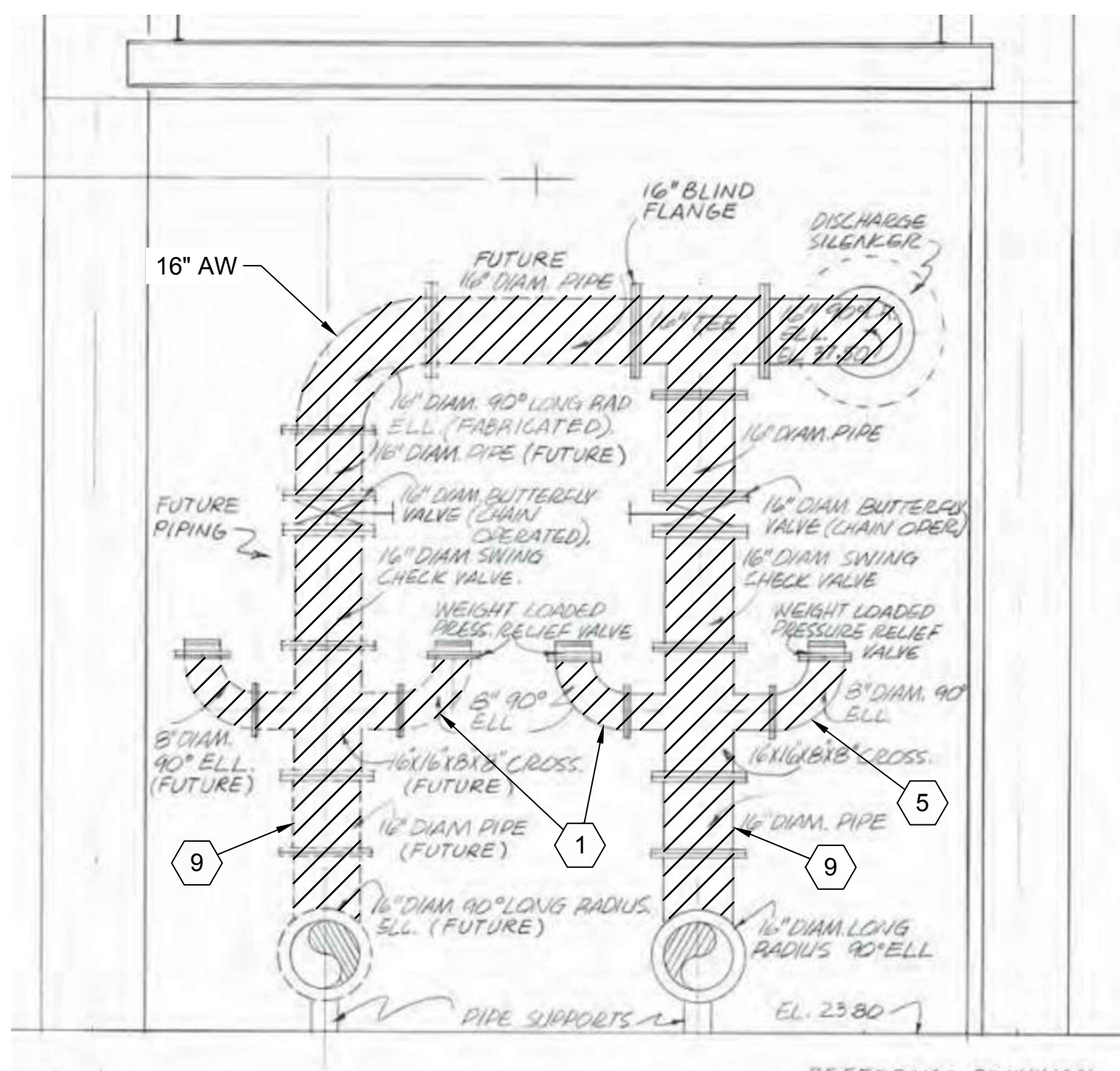
PHOTO A  
3M-101



BLOWER PIPE CONNECTION

SECTION A  
3M-101

1/2" = 1'-0"



BLOWER DISCHARGE PIPE

SECTION A  
3M-101

3/8" = 1'-0"

### GENERAL NOTES

1. FIELD VERIFY ALL DIMENSIONS AND FITTINGS. PROVIDE ALL REQUIRED FITTINGS, WHETHER SHOWN OR NOT SHOWN. REPLACE ALL PIPING UP TO EACH BLOWER.
2. REMOVE EXISTING AIR SCOUR PIPING AND REPLACE WITH NEW PIPING PER PIPE SCHEDULE.
3. PROTECT EXISTING EQUIPMENT AND APPURTENANCES.
4. PROTECT EXISTING BLOWERS.

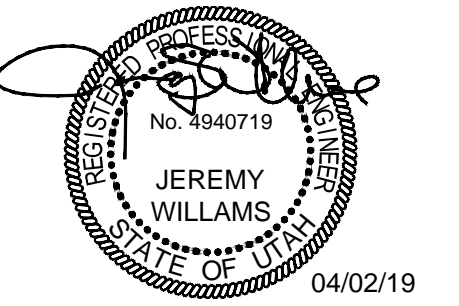
### KEY NOTES:

1. OMIT THIS BRANCH IN NEW PIPING. PROVIDE A TEE FOR ONE AIR RELIEF VALVE, TYPICAL EACH BLOWER.
2. NOT USED.
3. NOT USED.
4. PROVIDE 16" RESTRAINED FLEXIBLE JOINT, EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101, OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BARE CONTROL UNIT TYP 2 PLACES.
5. PROVIDE ONLY ONE AIR RELIEF VALVE CONNECTION FOR THE WEST BLOWER TO MATCH THE EAST BLOWER. POSITION NEW VALVE ON NORTH SIDE OF PIPE. PROVIDE 16" X 10" TEE; COORDINATE FLANGE SIZE WITH AIR RELIEF VALVE.
6. REMOVE AND REPLACE CHECK VALVE PER VALVE SCHEDULE. TYP 2 PLACES.
7. REMOVE AND REPLACE PER BUTTERFLY VALVE SCHEDULE, TYP 2 PLACES.
8. PROVIDE ROSEMOUNT 3051 CG PRESSURE INDICATING TRANSMITTER FOR EACH BLOWER INLET AS SPECIFIED. TYP 2 PLACES. PRESSURE INDICATING TRANSMITTER TO BE INSTALLED USING INSTRUMENTATION PORTS PROVIDED ON BLOWER INLET. CONDUIT AND WIRE TO PLC BY CONTRACTOR. TERMINATIONS AT PLC BY OWNER.
9. PROVIDE ROSEMOUNT 3051 CG PRESSURE INDICATING TRANSMITTER UPSTREAM OF EACH CHECK VALVE AS SPECIFIED. TYP 2 PLACES. CONDUIT AND WIRE TO PLC BY CONTRACTOR. TERMINATIONS AT PLC BY OWNER.
10. PROVIDE 16" BY 14" REDUCING ELBOW. TYP 2 PLACES.



SALT LAKE CITY, UTAH

FINAL BID SET



Jordan Valley Water Conservancy District

### JVWTP AIR SCOUR PIPE REPLACEMENT

#### REVISIONS

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: A. JONES  
 DRAWN: T. PRIDEMORE  
 CHECKED: A. JONES  
 CHECKED: J. WILLIAMS  
 APPROVED: J. WILLIAMS

FILENAME: 3M-501.DWG  
 BC PROJECT NUMBER: 151483  
 CLIENT PROJECT NUMBER: 4070

MECHANICAL

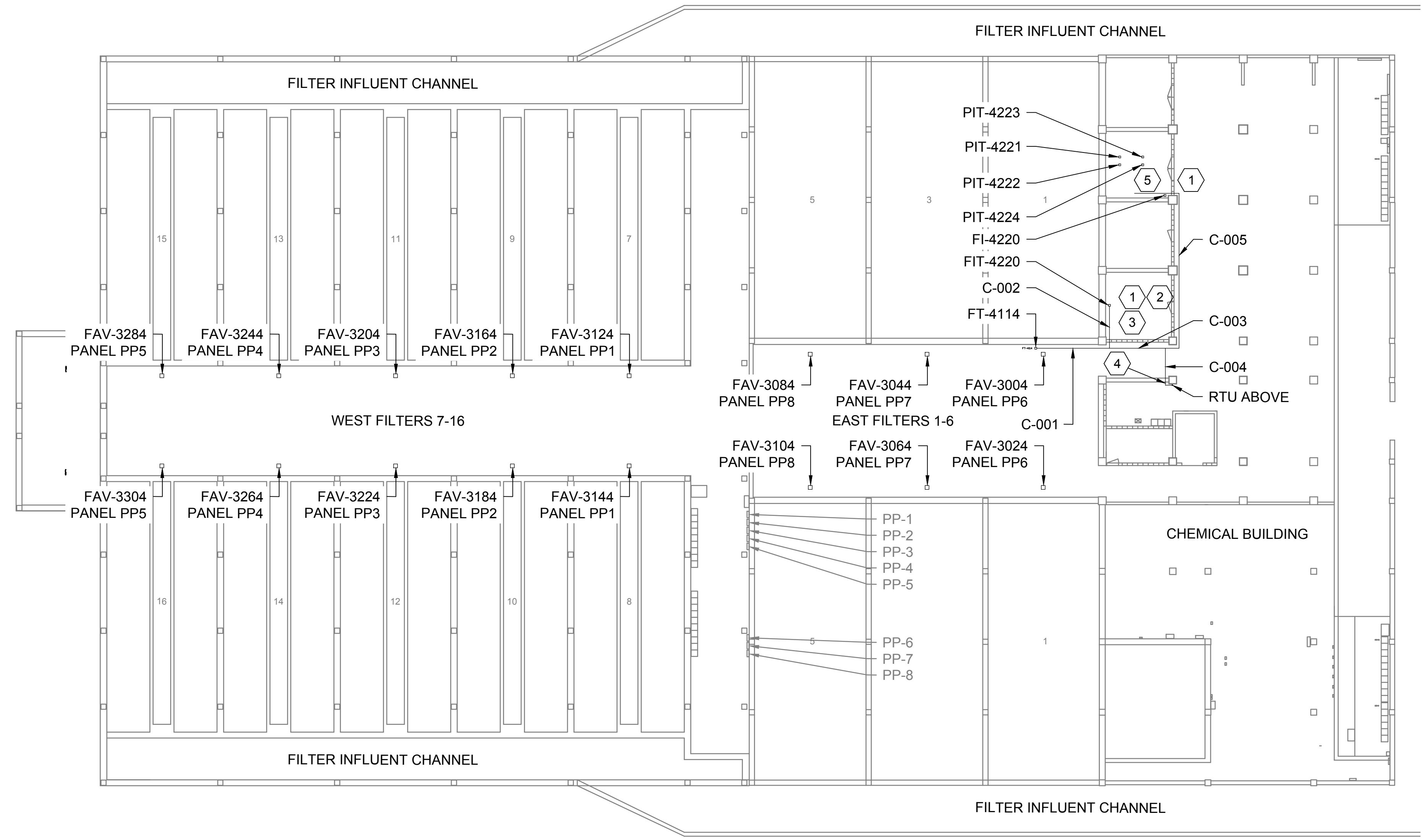
### PIPE DETAILS - 1

DRAWING NUMBER  
**3M-501**

SHEET NUMBER OF  
 14 OF 16



Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\11\_CAD\2-SHEETS\B-E-ELECTRICAL FILENAME: GE-001.DWG PLOT DATE: 4/2/2019 2:34 PM CAD USER: TYLER PRIDEMORE



**FILTER GALLERY SCHEMATIC - FLOOR 1**  
NOT TO SCALE

| CONDUIT SCHEDULE |      |                |   |
|------------------|------|----------------|---|
| CONDUIT          | SIZE | NEW / EXISTING | INSTRUMENT  |
| C-001            | 3/4" | EXISTING       | FT-4114   |
| C-002            | 3/4" | NEW            | FIT-4220  |
| C-003            | 3/4" | EXISTING       | FT-4114, FIT-4220   |
| C-004            | 3/4" | EXISTING       | PIT-4221, PIT-4222, PIT-4223, PIT-4224, FI-4220, FT-4114  |
| C-005            | 3/4" | EXISTING       | PIT-4221, PIT-4222, PIT-4223, PIT-4224, FI-4220, FIT-4220 |

**GENERAL NOTES**

- ELECTRIC POWER PANEL WHICH SUPPLIES EACH VALVE OPERATOR IS NOTED AT EACH VALVE OPERATOR LOCATION.
- 480 VOLT POWER PANELS PP1 THROUGH PP8 ARE LOCATED ON LEVEL 1.
- ELECTRIC POWER CONDUCTORS ARE TRAY CABLE IN TRAYS FOR MOST OF THEIR LENGTH.
- IF POWER CONDUCTORS NEED ADDITIONAL LENGTH, SPLICE CONDUCTORS IN A JUNCTION BOX IN THE LEVEL 1 FILTER GALLERY.
- STATUS AND CONTROL WIRING FOR EACH VALVE OPERATOR TERMINATES IN THE FILTER CONTROL CONSOLE FOR EACH RESPECTIVE FILTER.
- IF STATUS AND CONTROL CONDUCTORS NEED ADDITIONAL LENGTH, REPLACE ENTIRE CONDUCTOR LENGTH WITHOUT SPLICES.
- EXISTING 3/4" CONDUIT CONTAINS TWO LARGE DIAMETER SHIELDED PAIR CABLES FOR EXISTING FT-4114 AND FT-4220. THIS CONDUIT EXTENDS TO THE RTU IN MCC-B ROOM.
- REMOVE EXISTING CABLES, RE-WORK CONDUIT AND INSTALL 6 NEW SMALL DIAMETER SHIELDED PAIR CABLES FOR EXISTING AND NEW TRANSMITTERS.
- NEW SMALL DIAMETER CABLES SHALL BE 1/4" DIAMETER OR LESS.
- CONNECT ONE NEW SHIELDED PAIR CABLE TO EACH TRANSMITTER, (INCLUDING EXISTING FT-4114 WHICH IS OTHERWISE NOT PART OF THIS PROJECT). ISOLATE THE SHIELDS AT THE TRANSMITTERS.
- EXTEND ADEQUATE LENGTH OF CABLE INTO THE EXISTING RTU FOR CONNECTION BY THE OWNER.
- REMOVE AND REPLACE, OR REINSTALL, VALVE ACTUATORS PER VALVE SCHEDULE. FOR EACH VALVE REUSE EXISTING CONDUIT AND WIRES. ENSURE ALL CONDUIT AND WIRES ARE PROPERLY DISCONNECTED, LABELED AND PROTECTED DURING CONSTRUCTION. RECONNECT NEW VALVES TO MATCH FUNCTION OF EXISTING VALVES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT VALVE ACTUATOR ELECTRICAL ENCLOSURE IS POSITIONED PROPERLY TO REUSE EXISTING CONDUIT AND WIRE. IN THE EVENT THAT EXISTING CONDUIT AND WIRE DO NOT REACH THE NEW TERMINALS THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND WIRE AS NEEDED. ALL NEW CONDUIT AND WIRE SHALL BE PER SPECIFICATION.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO REVIEW MECHANICAL DRAWINGS FOR COORDINATION AND ADDITIONAL ELECTRICAL NOTES.

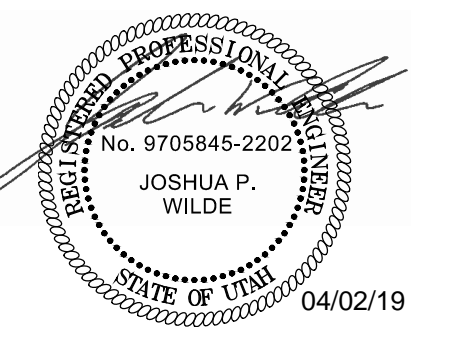
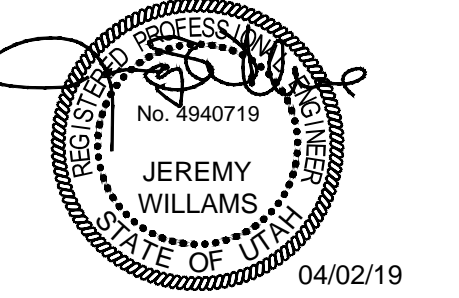
**KEY NOTES:**

- REMOVE EXISTING FE-4220, FT-4220 AND THE STAINLESS STEEL IMPULSE TUBING. REMOVE MECHANICAL FLOW INDICATOR. SALVAGE THESE ITEMS TO OWNER.
- INSTALL NEW FIT-4220 ON TOP OF NEW AIR PIPE IN THE TOOL ROOM.
- INSTALL NEW 3/4" CONDUIT FROM FIT-4220 THROUGH AN EXISTING HOLE IN THE BLOCK WALL AND CONNECT TO EXISTING CONDUIT IN THE PASSAGE WAY WITH A TEE.
- INSTALL SEALTIGHT CONDUIT THROUGH A HOLE IN THE CONCRETE SHEAR WALL TO CONNECT EXISTING CONDUITS ON EITHER SIDE OF THE WALL.
- INSTALL CONDUITS AS REQUIRED IN THE BLOWER ROOM TO CONNECT TO THE 4 NEW PRESSURE TRANSMITTERS AND NEW FLOW INDICATOR.



SALT LAKE CITY, UTAH

**FINAL BID SET**



JORDAN VALLEY WATER CONSERVANCY DISTRICT

**JVWTP AIR SCOUR PIPE REPLACEMENT**

**REVISIONS**

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. WILDE  
DRAWN: T. PRIDEMORE  
CHECKED: J. WILDE  
CHECKED: J. WILLIAMS  
APPROVED: J. WILLIAMS

ELECTRICAL

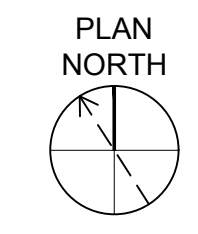
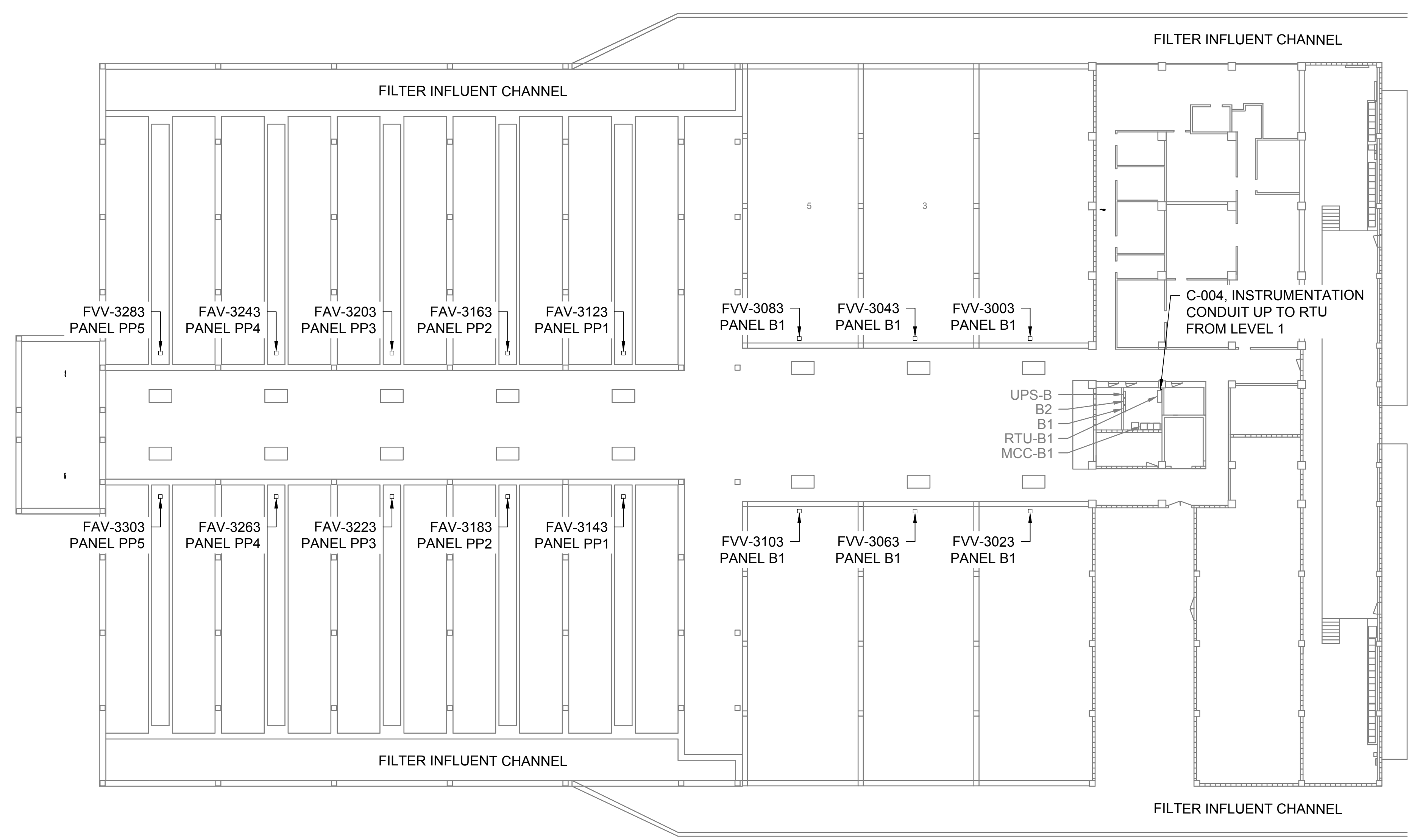
**FILTER GALLERY OVERVIEW - LEVEL 1**

DRAWING NUMBER  
**GE-001**

15 SHEET NUMBER OF 16



Path: P:\PROJECTS\JORDAN VALLEY\151483\_AIR SCOUR PIPING REPLACEMENT\1\_CAD\2-SHEETS\5-E-ELECTRICAL FILENAME: GE-002.DWG PLOT DATE: 4/2/2019 2:35 PM CAD USER: TYLER PRIDEMORE



**FILTER GALLERY SCHEMATIC - FLOOR 2**  
NOT TO SCALE

**GENERAL NOTES**

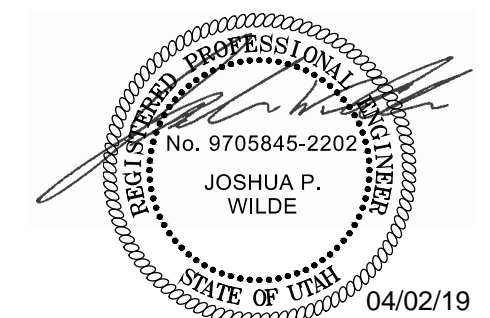
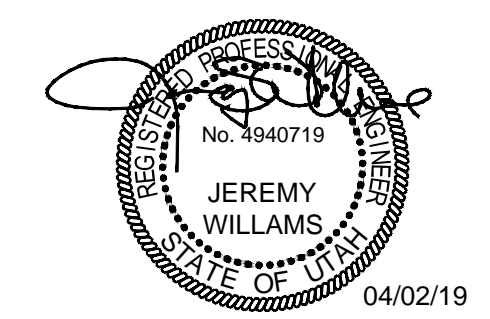
1. ELECTRIC POWER PANEL WHICH SUPPLIES EACH VALVE OPERATOR IS NOTED AT EACH VALVE OPERATOR LOCATION.
2. 480 VOLT POWER PANELS PP1 THROUGH PP8 ARE LOCATED ON LEVEL 1.
3. 120/208 VOLT PANEL B1 IS LOCATED ON LEVEL 2.
4. ELECTRIC POWER CONDUCTORS ARE TRAY CABLE IN TRAYS FOR MOST OF THEIR LENGTH.
5. IF POWER CONDUCTORS NEED ADDITIONAL LENGTH, SPLICE CONDUCTORS IN A JUNCTION BOX IN THE LEVEL 1 FILTER GALLERY.
6. STATUS AND CONTROL WIRING FOR EACH VALVE OPERATOR TERMINATES IN THE FILTER CONTROL CONSOLE FOR EACH RESPECTIVE FILTER.
7. IF STATUS AND CONTROL CONDUCTORS NEED ADDITIONAL LENGTH, REPLACE ENTIRE CONDUCTOR LENGTH WITHOUT SPLICES.
8. REMOVE AND REPLACE, OR REINSTALL, VALVE ACTUATORS PER VALVE SCHEDULE. FOR EACH VALVE REUSE EXISTING CONDUIT AND WIRES. ENSURE ALL CONDUIT AND WIRES ARE PROPERLY DISCONNECTED, LABELED AND PROTECTED DURING CONSTRUCTION. RECONNECT NEW VALVES TO MATCH FUNCTION OF EXISTING VALVES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT VALVE ACTUATOR ELECTRICAL ENCLOSURE IS POSITIONED PROPERLY TO REUSE EXISTING CONDUIT AND WIRE. IN THE EVENT THAT EXISTING CONDUIT AND WIRE DO NOT REACH THE NEW TERMINALS THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND WIRE AS NEEDED. ALL NEW CONDUIT AND WIRE SHALL BE PER SPECIFICATION.
9. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO REVIEW MECHANICAL DRAWINGS FOR COORDINATION AND ADDITIONAL ELECTRICAL NOTES.

**KEY NOTES:**



SALT LAKE CITY, UTAH

**FINAL BID SET**



**JORDAN VALLEY WATER CONSERVANCY DISTRICT**

**JVWTP AIR SCOUR PIPE REPLACEMENT**

| REVISIONS |      |             |
|-----------|------|-------------|
| REV       | DATE | DESCRIPTION |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. WILDE  
 DRAWN: T. PRIDEMORE  
 CHECKED: J. WILDE  
 CHECKED: J. WILLIAMS  
 APPROVED: J. WILLIAMS

FILENAME: GE-002.DWG  
 BC PROJECT NUMBER: 151483  
 CLIENT PROJECT NUMBER: 4070

**ELECTRICAL**  
**FILTER GALLERY OVERVIEW - LEVEL 2**

DRAWING NUMBER: **GE-002**  
 SHEET NUMBER OF: **16 OF 16**