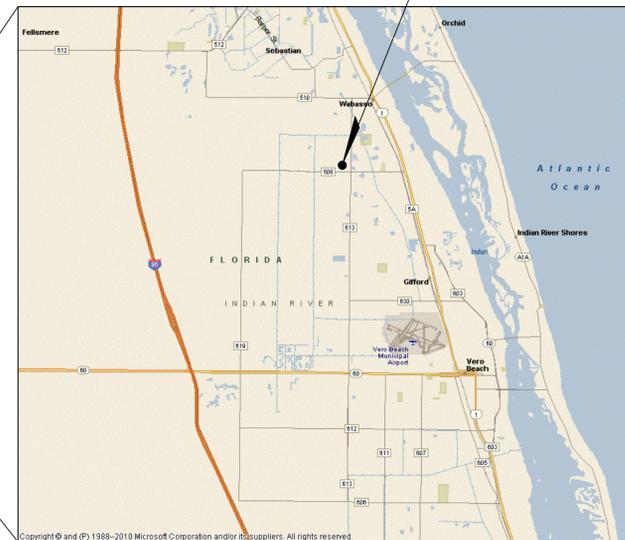


# CONSTRUCTION PLANS FOR HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT

PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
**MAY 2020**



PROJECT SITE  
HOBART ROWTP  
7751 58TH AVE  
VERO BEACH, FL 32967

LOCATION MAP  
N.T.S.

INDEX OF SHEETS	
SHEET #	SHEET TITLE
G-1	COVER SHEET
MC-1	HOBART ROWTP SITE PLAN
MC-2	BULK SULFURIC ACID TANK DEMOLITION PLAN & SECTION
MC-3	SULFURIC ACID DEMOLITION PHOTOS (1)
MC-4	SULFURIC ACID DEMOLITION PHOTOS (2)
MC-5	PROPOSED PLAN & SECTION
MC-6	MECHANICAL DETAILS
MC-7	ZINC ORTHO & CAUSTIC BULK TANK DEMOLITION PLAN
MC-8	ZINC ORTHO & CAUSTIC BULK TANK DEMOLITION PHOTOS (1)
MC-9	CAUSTIC TANK-PROPOSED PLAN & SECTION
D-1	CONSTRUCTION DETAILS (1)

Plotted By: Smith, Lauren Sheet: Set: HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT Layout: G-1 COVER SHEET May 04, 2020 11:28:48am K:\WPB\_Civil\044572049 - Hobart Acid Tank Replacement\CAD\Plotsheets\G-1 COVER SHEET.dwg  
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KHA PROJECT 044572049
DATE MAY 2020
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY LPP
CHECKED BY MDM

**HOBART ROWTP BULK CHEMICAL TANK  
REPLACEMENT**  
PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
NICHOLAS P. O. BLACK  
FLORIDA LICENSE NUMBER  
84908  
DATE: \_\_\_\_\_

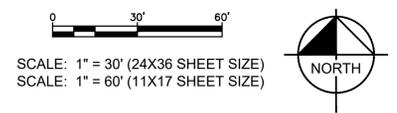
**COVER SHEET**

SHEET NUMBER  
**G-1**

Picked By: Smith, Lauren  
 Sheet: SETH-HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT  
 Layout: MC-1 HOBART ROWTP SITE PLAN  
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- GENERAL NOTES:**
- MC-1.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY CHEMICAL STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-1.2 CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO REPLACING EXISTING TANKS AND APPURTENANCES AS DESCRIBED IN THE PLANS.
  - MC-1.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANKS, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANKS.
  - MC-1.4 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
  - MC-1.5 CONTRACTOR SHALL COORDINATE EQUIPMENT STORAGE AND LAYDOWN AREA W/ OWNER. CONTRACTOR SHALL NOT IMPEDE OPERATIONS OR CHEMICAL DELIVERIES ESSENTIAL TO WTP OPERATION.



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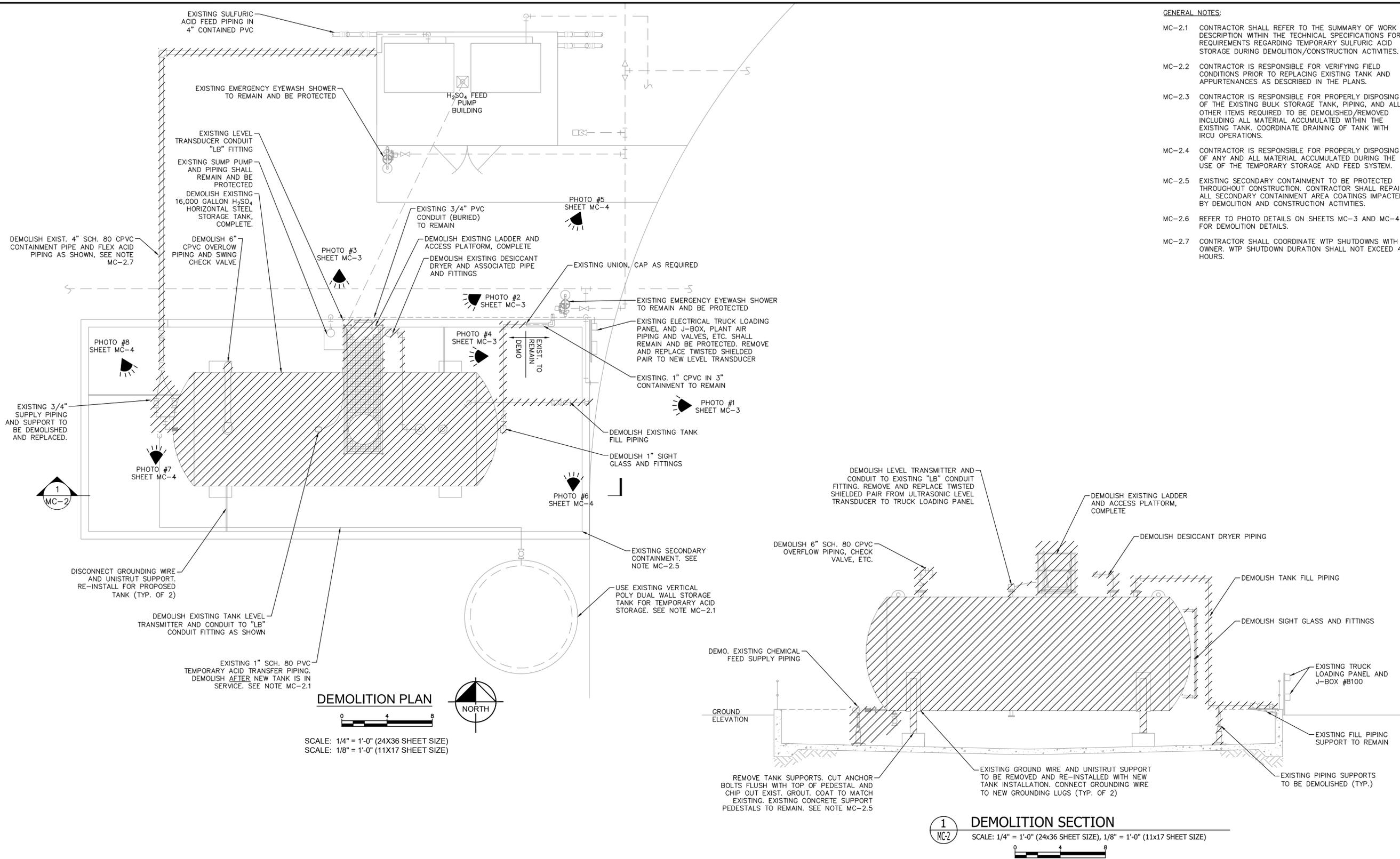
**HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT**  
 PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
 INDIAN RIVER COUNTY FLORIDA

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**HOBART ROWTP SITE PLAN**

SHEET NUMBER  
**MC-1**

Picked By: Smith, Lauren  
 Sheet: SETH-HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT - LAYOUT: MC-2 BULK SULFURIC ACID TANK DEMOLITION PLAN & SECTION - MAY 04, 2020 11:31:40am  
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- GENERAL NOTES:**
- MC-2.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY SULFURIC ACID STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-2.2 CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO REPLACING EXISTING TANK AND APPURTENANCES AS DESCRIBED IN THE PLANS.
  - MC-2.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANK, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANK. COORDINATE DRAINING OF TANK WITH IRCU OPERATIONS.
  - MC-2.4 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
  - MC-2.5 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.
  - MC-2.6 REFER TO PHOTO DETAILS ON SHEETS MC-3 AND MC-4 FOR DEMOLITION DETAILS.
  - MC-2.7 CONTRACTOR SHALL COORDINATE WTP SHUTDOWNS WITH OWNER. WTP SHUTDOWN DURATION SHALL NOT EXCEED 4 HOURS.

**DEMOLITION PLAN**  
 SCALE: 1/4" = 1'-0" (24X36 SHEET SIZE)  
 SCALE: 1/8" = 1'-0" (11X17 SHEET SIZE)

**1 MC-2 DEMOLITION SECTION**  
 SCALE: 1/4" = 1'-0" (24X36 SHEET SIZE), 1/8" = 1'-0" (11X17 SHEET SIZE)

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DATE MAY 2020
SCALE AS SHOWN
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DRAWN BY LPP
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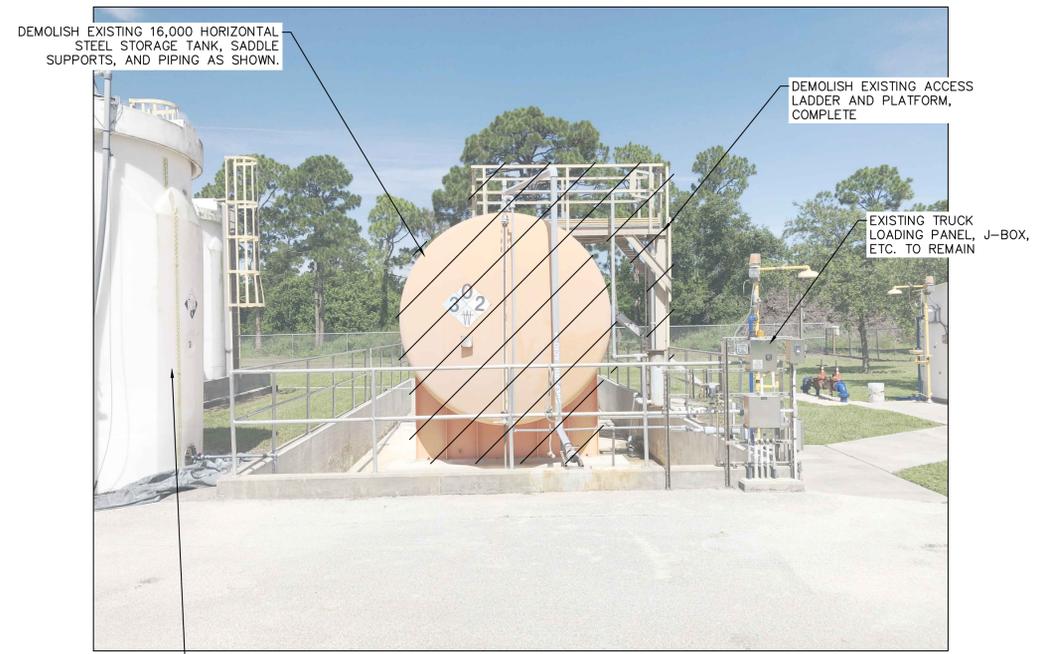
**HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT**  
 PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
 INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
 NICHOLAS P. O. BLACK  
 FLORIDA LICENSE NUMBER  
 84908  
 DATE: \_\_\_\_\_

**BULK SULFURIC ACID TANK DEMOLITION PLAN & SECTION**

SHEET NUMBER  
**MC-2**

Sheet: SETHOBART ROWTP BULK CHEMICAL TANK REPLACEMENT Layout: MC-3 SULFURIC ACID DEMOLITION PHOTOS (1) May 04, 2020 11:33:24am  
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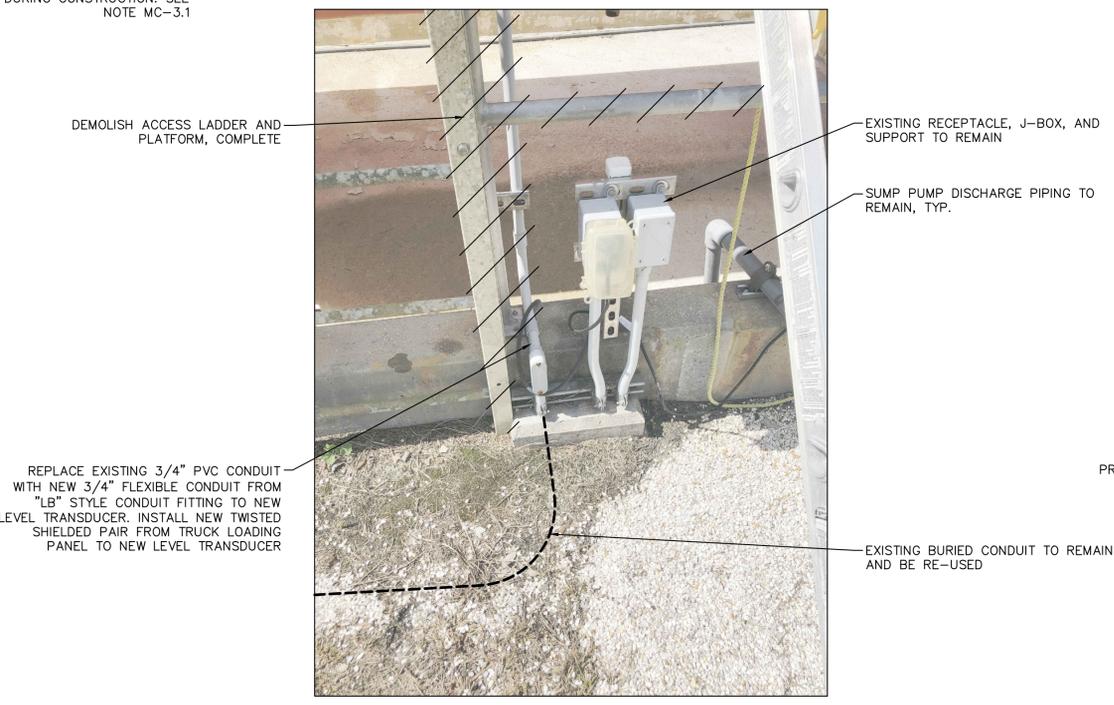
**PHOTO #1**  
N.T.S.

EXISTING TEMPORARY DUAL WALL VERTICAL POLY STORAGE TANK AND SUPPLY PIPING TO BE USED FOR TEMPORARY ACID STORAGE DURING CONSTRUCTION. SEE NOTE MC-3.1



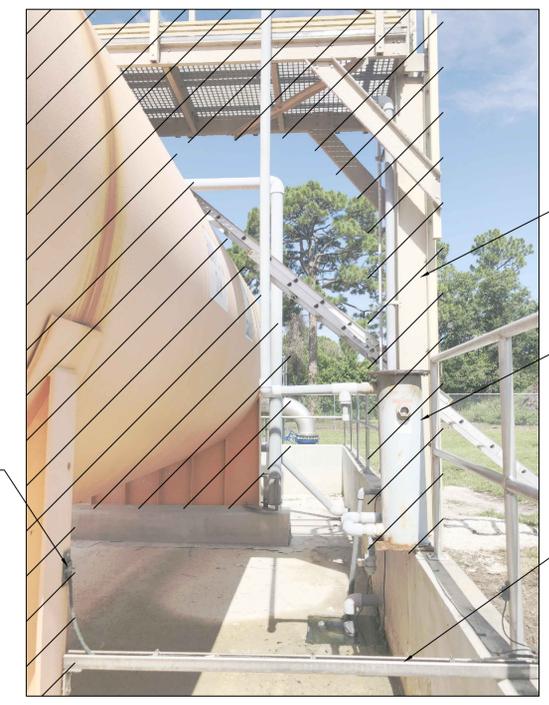
**PHOTO #2**  
N.T.S.

- GENERAL NOTES:**
- MC-3.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY SULFURIC ACID STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-3.2 CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO REPLACING EXISTING TANK AND APPURTENANCES AS DESCRIBED IN THE PLANS.
  - MC-3.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANK, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANK. COORDINATE DRAINING OF TANK WITH IRCU OPERATIONS.
  - MC-3.4 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
  - MC-3.5 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.



**PHOTO #3**  
N.T.S.

PROVIDE/INSTALL NEW GROUNDING LUGS ON NEW TANK (TYP. OF 2)



**PHOTO #4**  
N.T.S.

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DATE  
MAY 2020  
SCALE AS SHOWN  
DESIGNED BY NPOB  
DRAWN BY LPP  
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**HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT**  
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 INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
 NICHOLAS P. O. BLACK  
 FLORIDA LICENSE NUMBER  
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 DATE: \_\_\_\_\_

**SULFURIC ACID DEMOLITION PHOTOS (1)**

SHEET NUMBER  
**MC-3**

Picked By: Smith, Lauren  
 Sheet: SETH-HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT LAYOUT: MC-4 SULFURIC ACID DEMOLITION PHOTOS (2) MAY 04, 2020 11:34:28am  
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DEMOLISH TANK, PIPING, AND APPURTENANCES

EXISTING HANDRAIL TO REMAIN

EXISTING EMERGENCY EYESHOWER TO REMAIN

CONNECT NEW HALAR/PVDF PIPING TO EXIST. SIGHT GLASS OVERFLOW PIPING.

**PHOTO #5**  
N.T.S.



DEMOLISH EXISTING TO REMAIN

EXISTING FILL SUPPORT TO BE MODIFIED. INSTALL 1-5/8" 316 SST UNISTRUT ON EXISTING SUPPORT TO ELEVATE FILL CONNECTION. SEE DETAIL 7A/D-1

DEMOLISH EXISTING FILL PIPING AND SUPPORTS

**PHOTO #6**  
N.T.S.



REMOVE AND REINSTALL PIPE SUPPORT AS NECESSARY

EXISTING 1" SCH. 80 PVC PIPING FROM VERTICAL POLY STORAGE TANK. SEE NOTE MC-4.1

REMOVE AND REINSTALL PIPE SUPPORT AS NECESSARY

EXISTING PIPE, VALVING, AND SHIELD TO BE DEMOLISHED. SEE SHEET MC-5 AND MC-6 FOR REPLACEMENT DETAILS

RE-USE EXISTING SUPPORT FOR NEW 6" OVERFLOW PIPING

**PHOTO #7**  
N.T.S.



DEMOLISH EXISTING 16,000 GAL TANK

REMOVE AND REINSTALL PIPE SUPPORT AS NECESSARY

MODIFY CONTAINMENT PIPE. RE-ROUTE OVER CONTAINMENT WALL. SEE SHEET MC-5 AND MC-6 FOR DETAILS.

**PHOTO #8**  
N.T.S.

**GENERAL NOTES:**

- MC-4.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY SULFURIC ACID STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
- MC-4.2 CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO REPLACING EXISTING TANK AND APPURTENANCES AS DESCRIBED IN THE PLANS.
- MC-4.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANK, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANK. COORDINATE DRAINING OF TANK WITH IRCU OPERATIONS.
- MC-4.4 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
- MC-4.5 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.

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KHA PROJECT 044572049
DATE MAY 2020
SCALE AS SHOWN
DESIGNED BY NPOB
DRAWN BY LPP
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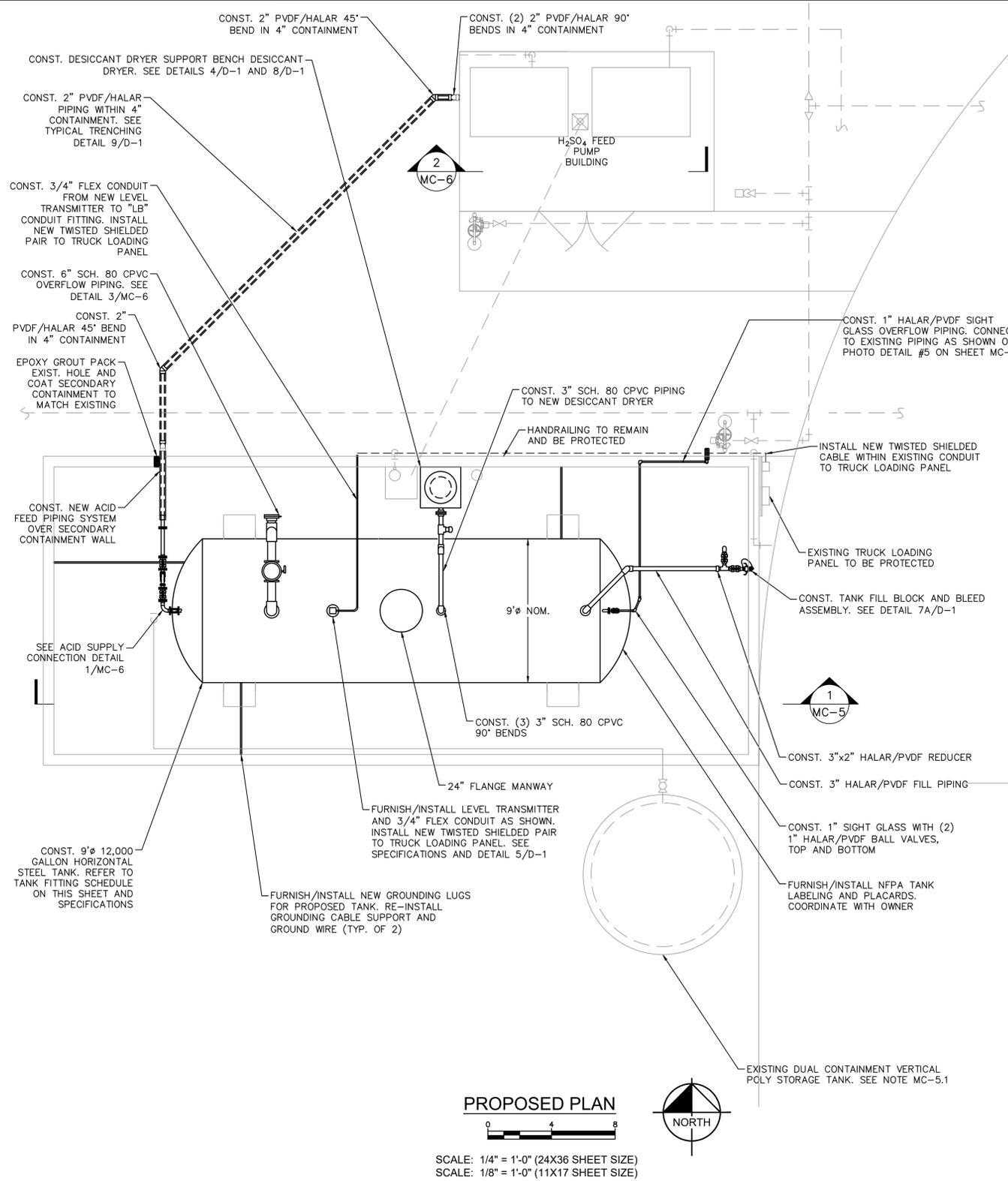
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 PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
 INDIAN RIVER COUNTY  
 FLORIDA

LICENSED PROFESSIONAL  NICHOLAS P. O. BLACK  FLORIDA LICENSE NUMBER 84908
DATE: _____

**SULFURIC ACID DEMOLITION PHOTOS (2)**

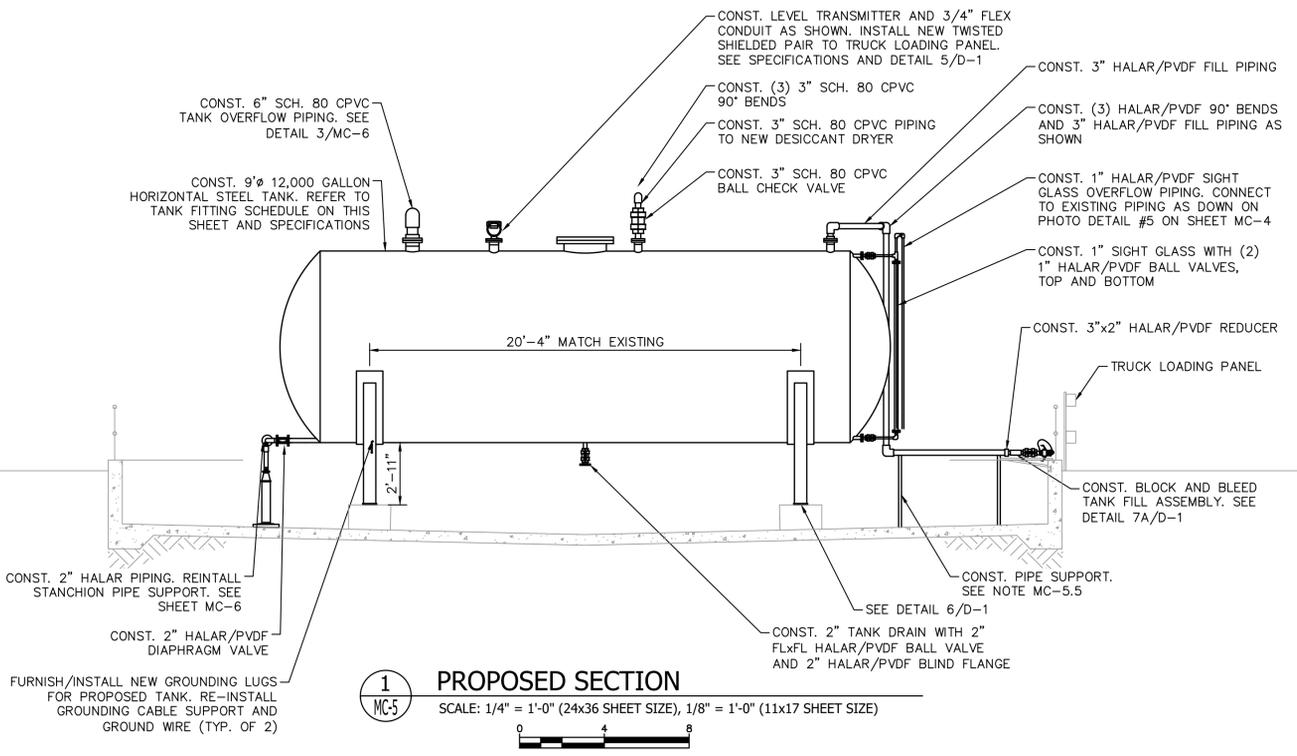
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**MC-4**

Picked By: Smith, Lauren  
 Sheet: SETHOBART ROWTP BULK CHEMICAL TANK REPLACEMENT  
 Layout: MC-5 PROPOSED PLAN & SECTION  
 May 04, 2020 11:36:21am  
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12,000 GALLON HORIZONTAL STEEL 93% SULFURIC ACID STORAGE TANK - FITTING SCHEDULE					
TANK FITTING	QUANTITY	SIZE	PIPE MATERIAL	LOCATION	NOTES
TANK FILL	1	3"	HALAR/PVDF	TOP OF SHELL	BLOCK AND BLEED FILL ASSEMBLY
LEVEL TRANSMITTER	1	4"	N/A	TOP OF SHELL	316 SST BOLT MATERIAL, VITON GASKETS, NEW LEVEL TRANSDUCER AND 3/4" FLEX CONDUIT TO "LB" FITTING
LIQUID LEVEL SIGHT GLASS	2	1"	HALAR/PVDF	TOP AND BOTTOM OF DISHED END	SIGHT INDICATOR WITH ISOLATION VALVES (2) FOR TOP AND BOTTOM TANK CONNECTIONS
VENT	1	3"	SCH. 80 CPVC	TOP OF SHELL	BALL CHECK VALVE, DESICCANT DRIER
OVERFLOW	1	6"	SCH. 80 CPVC	TOP OF SHELL	316 SST BOLT MATERIAL, VITON GASKETS, 6" SWING CHECK VALVE
MANWAY COVER	1	24"	N/A	TOP OF SHELL	BLIND FLANGE WITH 316 SST BOLT MATERIAL AND VITON GASKETS
DRAIN	1	2"	HALAR/PVDF	BOTTOM OF SHELL	FLANGED HALAR/PVDF BALL VALVE AND BLIND FLANGE
FEED PUMP SUPPLY	1	2"	HALAR/PVDF	BOTTOM OF DISHED END, FLUSH WITH BOTTOM OF TANK	HALAR/PVDF ISOLATION VALVES, Y-STRAINER, HASTELLOY C-276 BOLTS, VITON GASKETS, SOCKETED FLANGE, HALAR/PVDF FLANGE MATERIAL

- GENERAL NOTES:**
- MC-5.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY SULFURIC ACID STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-5.2 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANK, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANK.
  - MC-5.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
  - MC-5.4 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.
  - MC-5.5 ALL PROPOSED PIPING SHALL BE SUPPORTED AT 5' O.C. WHERE POSSIBLE, CONTRACTOR SHALL UTILIZE THE SAME SUPPORT FOR MULTIPLE PIPES PER DETAILS 2/D-1 AND 3/D-1.
  - MC-5.6 CONTRACTOR SHALL FURNISH AND INSTALL ALL REDUCERS, BUSHINGS, AND FITTINGS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.
  - MC-5.7 ALL HARDWARE SHALL BE TYPE 316 STAINLESS STEEL, U.O.N.
  - MC-5.8 SULFURIC ACID SECONDARY CONTAINMENT PIPING SHALL BE 4" SDR-32 POLYPROPYLENE. SULFURIC ACID CARRIER PIPING SHALL BE PVDF. SEE SPECIFICATIONS.



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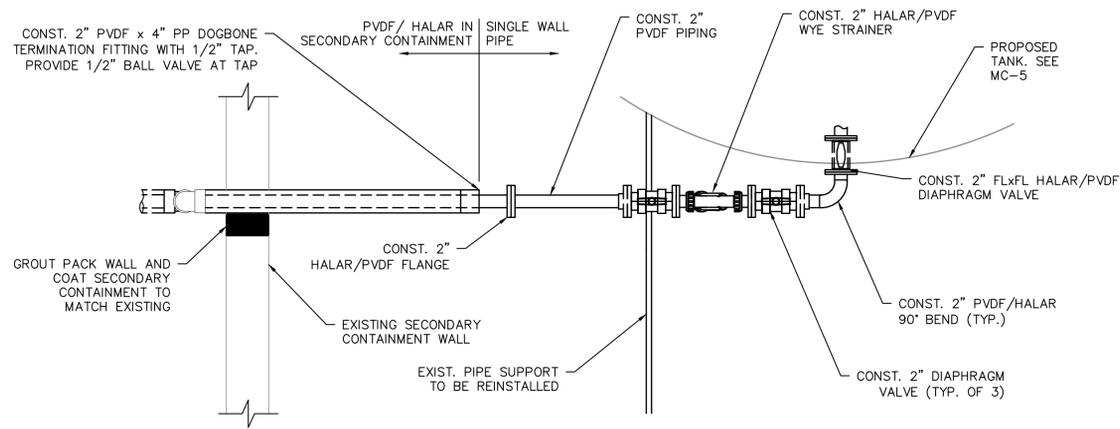
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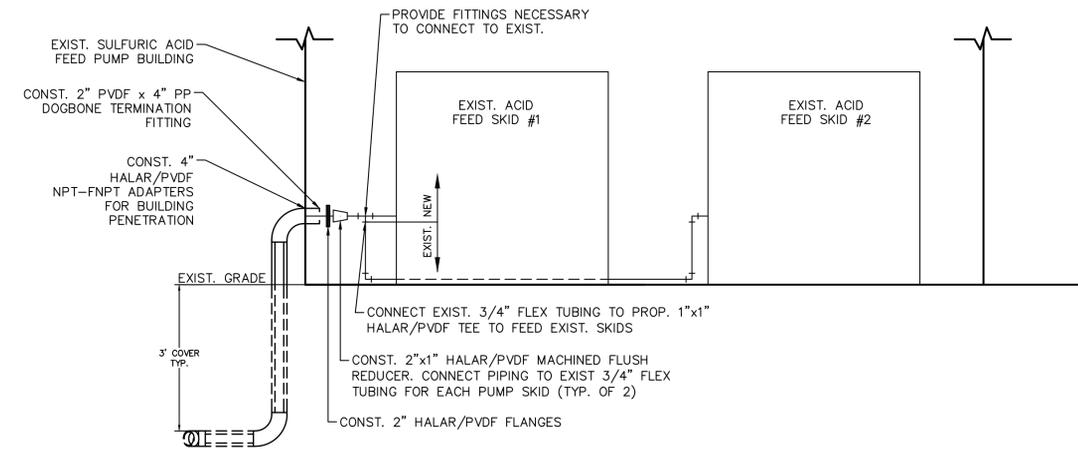
**PROPOSED PLAN & SECTION**

SHEET NUMBER  
**MC-5**

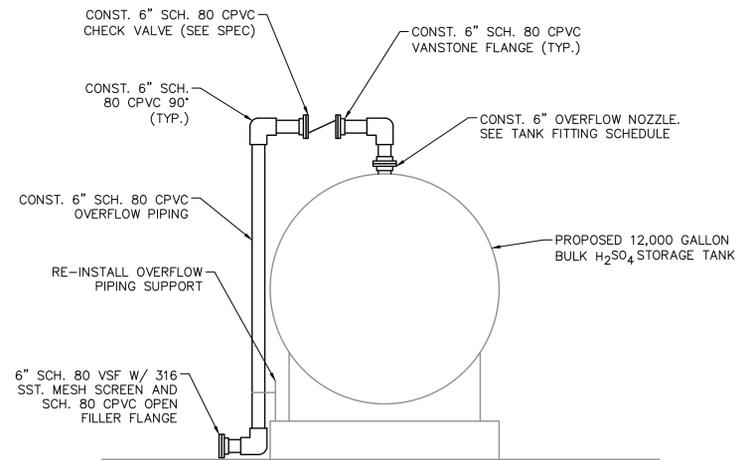
Picked By: Smith, Lauren  
 Sheet: SETHOBART ROWTP BULK CHEMICAL TANK REPLACEMENT  
 Layout: MC-6 MECHANICAL DETAILS  
 May 04, 2020 11:36:59am  
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**1 ACID SUPPLY CONNECTION DETAIL**  
 MC-6 SCALE: N.T.S.



**2 ACID PIPING CONNECTION DETAIL**  
 MC-6 SCALE: N.T.S.



**3 TANK OVERFLOW**  
 MC-6 SCALE: N.T.S.

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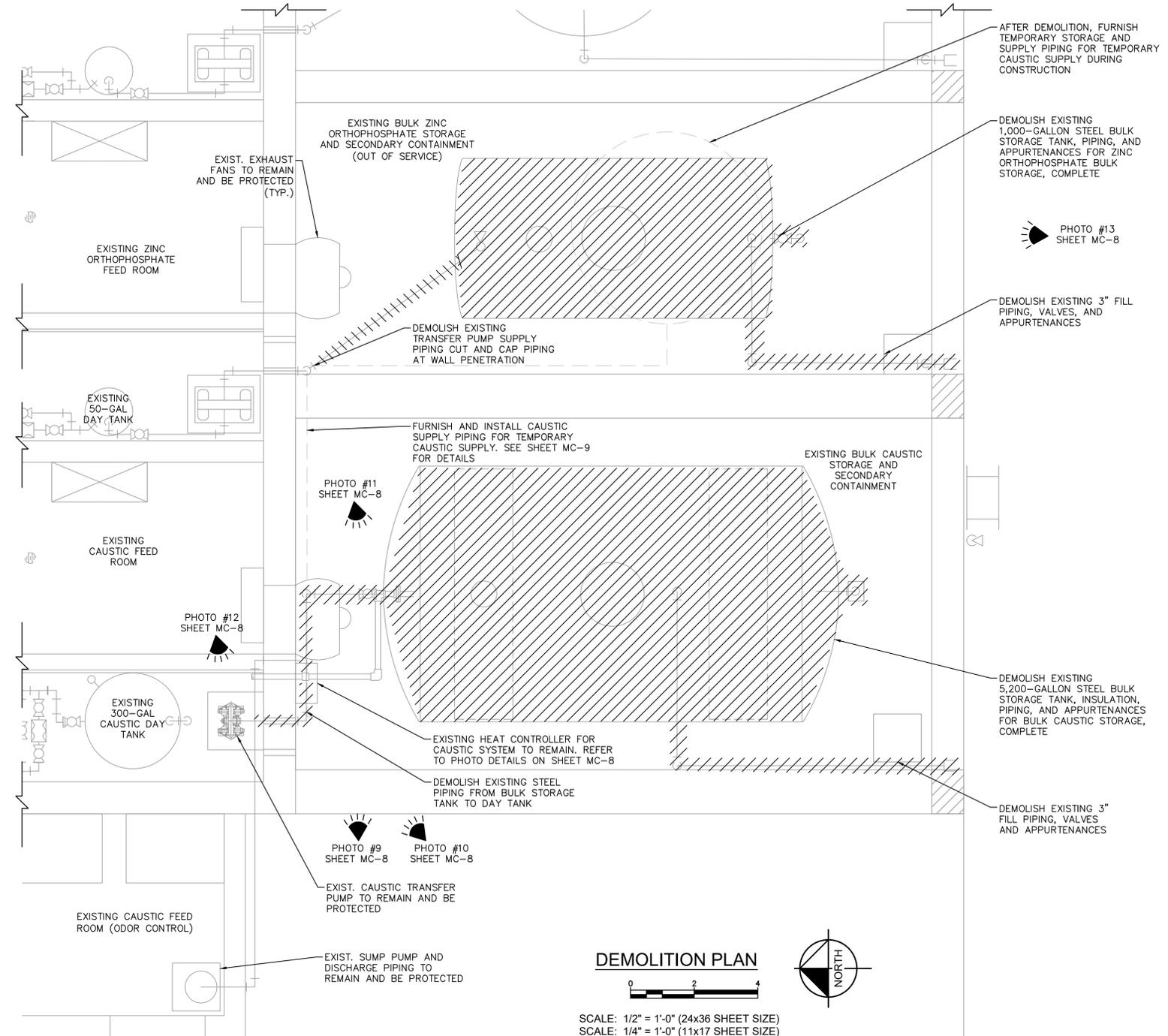
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LICENSED PROFESSIONAL	NICHOLAS P. O. BLACK
FLORIDA LICENSE NUMBER	84908
DATE:	

MECHANICAL DETAILS

SHEET NUMBER  
**MC-6**

Picked By: Smith, Lauren  
 Sheet: SETHOBART ROWTP BULK CHEMICAL TANK REPLACEMENT - LAYOUT: MC-7 ZINC ORTHO & CAUSTIC BULK TANK DEMOLITION PLAN - MAY 04, 2020 11:37:52am  
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**DEMOLITION PLAN**  
 SCALE: 1/2" = 1'-0" (24x36 SHEET SIZE)  
 SCALE: 1/4" = 1'-0" (11x17 SHEET SIZE)

- GENERAL NOTES:**
- MC-7.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY NaOH STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-7.2 CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO REPLACING EXISTING TANK AND APPURTENANCES AS DESCRIBED IN THE PLANS.
  - MC-7.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANK, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANK. COORDINATE DRAINING OF TANK WITH IRCU OPERATIONS.
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  - MC-7.5 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.
  - MC-7.6 REFER TO PHOTO DETAILS ON SHEET MC-8 FOR DEMOLITION DETAILS.
  - MC-7.7 CONTRACTOR SHALL COORDINATE WTP SHUTDOWNS WITH OWNER. WTP SHUTDOWN DURATION SHALL NOT EXCEED 4

No.	REVISIONS	DATE	BY

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KHA PROJECT	044572049
DATE	MAY 2020
SCALE	AS SHOWN
DESIGNED BY	NPOB
DRAWN BY	LPP
CHECKED BY	MDM

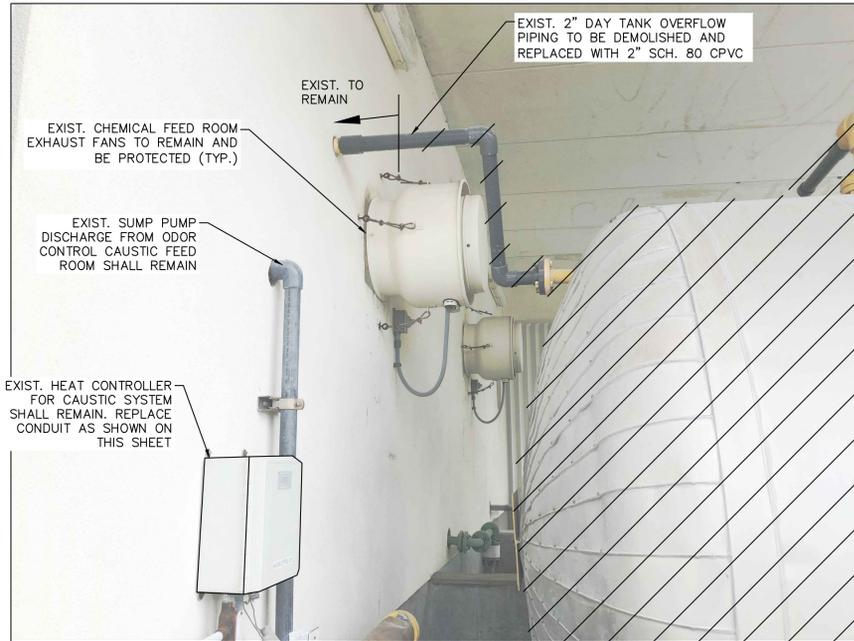
**HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT**  
 PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
 INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
 NICHOLAS P. O. BLACK  
 FLORIDA LICENSE NUMBER  
 84908  
 DATE: \_\_\_\_\_

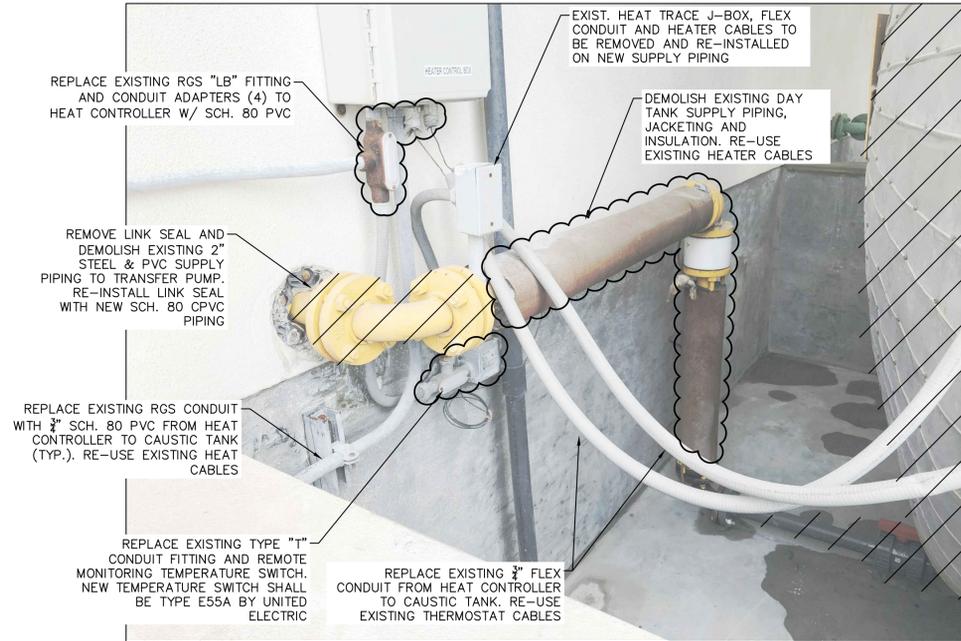
**ZINC ORTHO & CAUSTIC BULK TANK DEMOLITION PLAN**

SHEET NUMBER  
**MC-7**

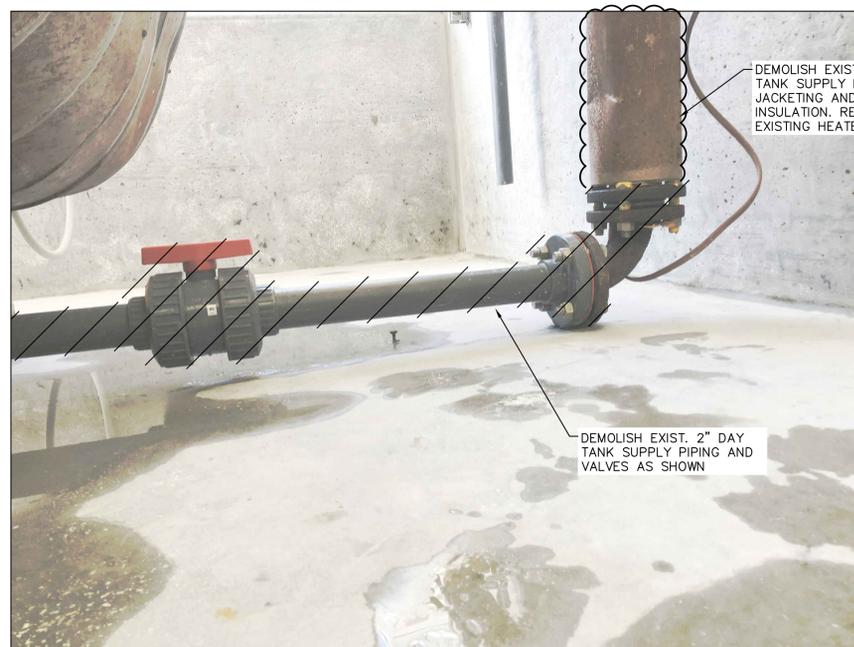
Picked By: Smith, Lauren  
 Sheet: SETH-HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT LAYOUT: MC-8 ZINC ORTHO & CAUSTIC BULK TANK DEMOLITION PHOTOS (1) MAY 04, 2020 11:39:10am K:\WPB\_Civil\044572049 - Hobart Acid Tank Replacement\CAD\Plotsheets\MC-3 SULFURIC ACID DEMOLITION PHOTOS (1).  
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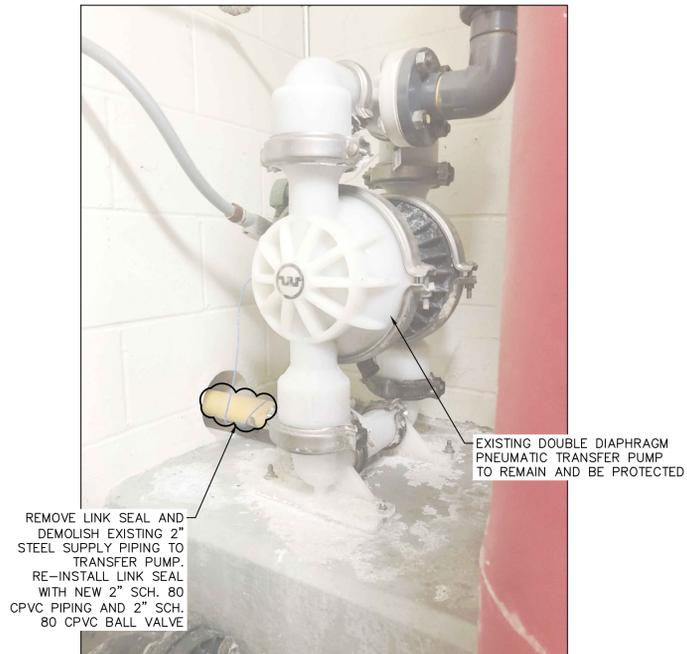
**PHOTO #9**  
N.T.S.



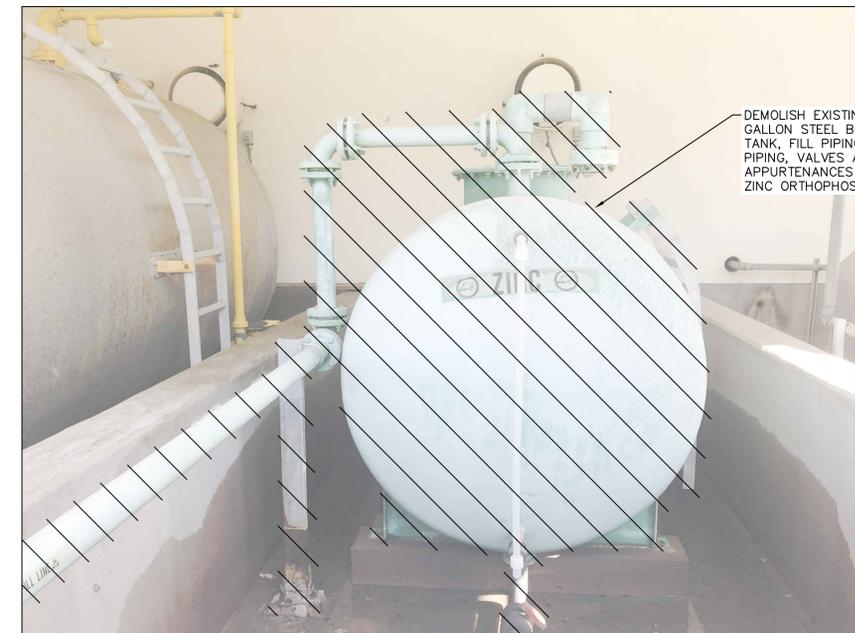
**PHOTO #10**  
N.T.S.



**PHOTO #11**  
N.T.S.



**PHOTO #12**  
N.T.S.



**PHOTO #13**  
N.T.S.

- GENERAL NOTES:**
- MC-8.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY NaOH STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-8.2 CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO REPLACING EXISTING TANKS AND APPURTENANCES AS DESCRIBED IN THE PLANS.
  - MC-8.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANKS, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANKS. COORDINATE DRAINING OF TANKS WITH IRCU OPERATIONS.
  - MC-8.4 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
  - MC-8.5 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.

No.	REVISIONS	DATE	BY

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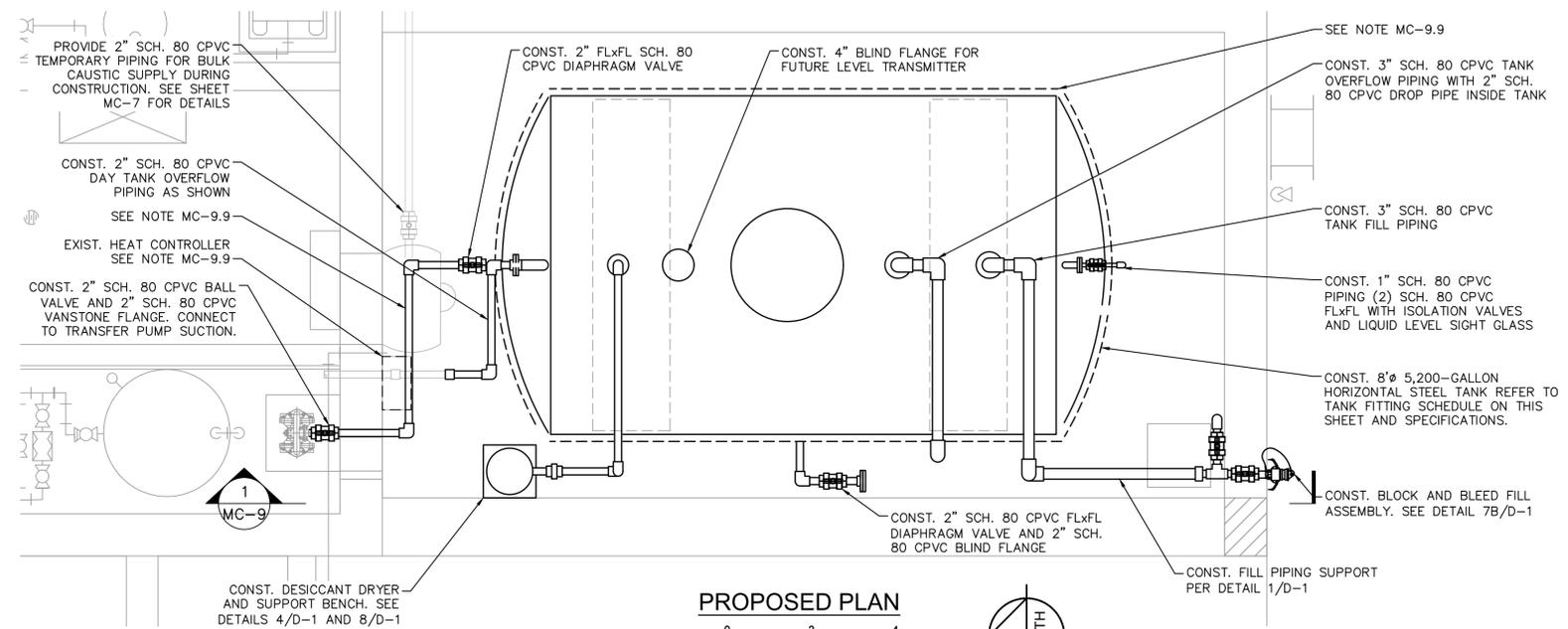
**HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT**  
 PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
 INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
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**ZINC ORTHO & CAUSTIC BULK TANK DEMOLITION PHOTOS (1)**

SHEET NUMBER  
**MC-8**

Plotted By: Smith, Lauren  
 Sheet: SETH-HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT - LAYOUT: MC-9 CAUSTIC TANK-PROPOSED PLAN & SECTION - MAY 04, 2020 11:41:00am - K:\WPB\_Civil\044572049 - Hobart Acid Tank Replacement\CAD\Plansheets\MC-9 Caustic Tank - Proposed Plan and Section.dwg  
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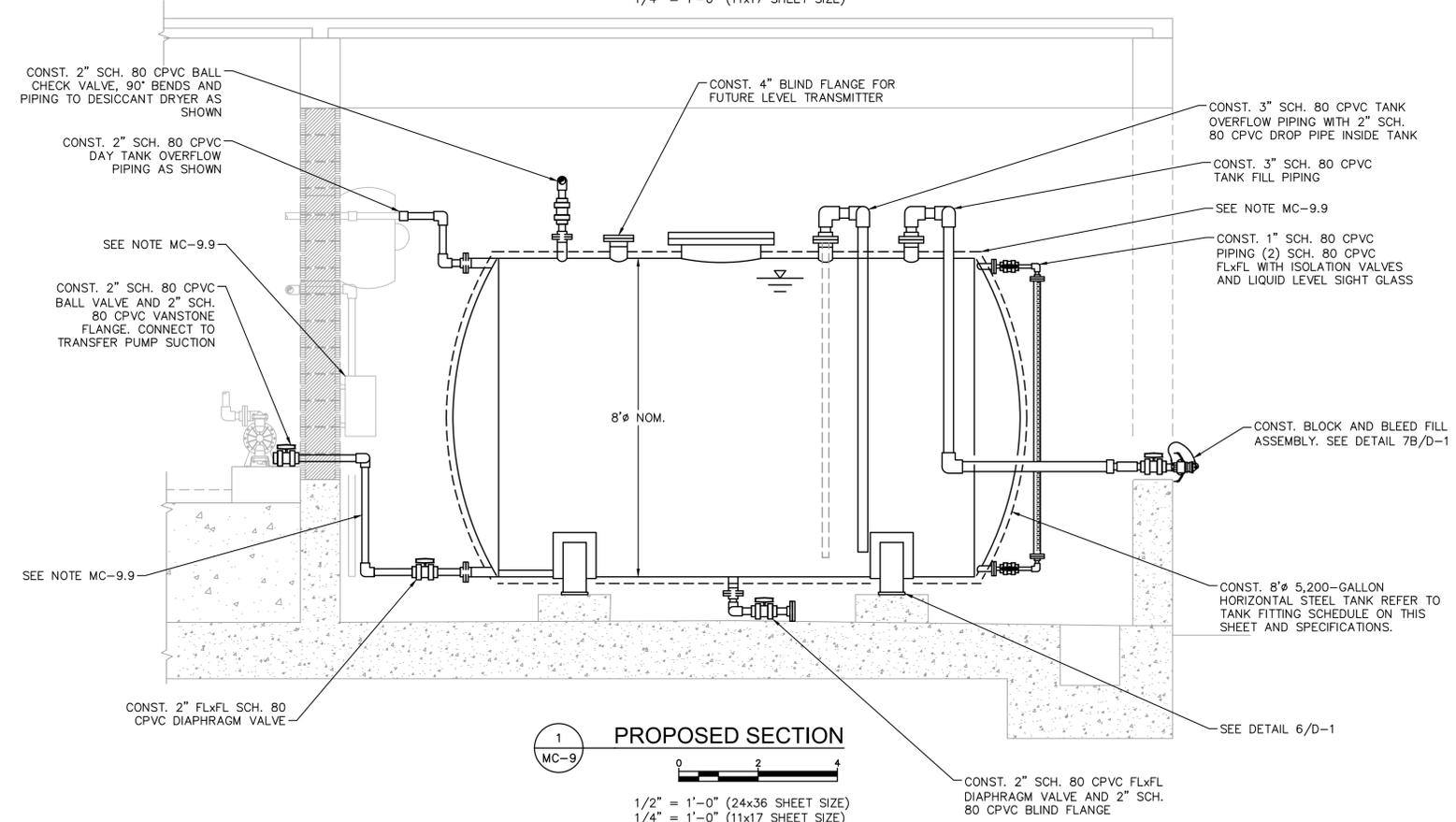


**PROPOSED PLAN**

0 2 4

1/2" = 1'-0" (24x36 SHEET SIZE)  
 1/4" = 1'-0" (11x17 SHEET SIZE)

NORTH



**PROPOSED SECTION**

0 2 4

1/2" = 1'-0" (24x36 SHEET SIZE)  
 1/4" = 1'-0" (11x17 SHEET SIZE)

- GENERAL NOTES:**
- MC-9.1 CONTRACTOR SHALL REFER TO THE SUMMARY OF WORK DESCRIPTION WITHIN THE TECHNICAL SPECIFICATIONS FOR REQUIREMENTS REGARDING TEMPORARY NaOH STORAGE DURING DEMOLITION/CONSTRUCTION ACTIVITIES.
  - MC-9.2 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF THE EXISTING BULK STORAGE TANK, PIPING, AND ALL OTHER ITEMS REQUIRED TO BE DEMOLISHED/REMOVED INCLUDING ALL MATERIAL ACCUMULATED WITHIN THE EXISTING TANK. COORDINATE DRAINING OF TANK WITH IRCU OPERATIONS.
  - MC-9.3 CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ANY AND ALL MATERIAL ACCUMULATED DURING THE USE OF THE TEMPORARY STORAGE AND FEED SYSTEM.
  - MC-9.4 EXISTING SECONDARY CONTAINMENT TO BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL REPAIR ALL SECONDARY CONTAINMENT AREA COATINGS IMPACTED BY DEMOLITION AND CONSTRUCTION ACTIVITIES.
  - MC-9.5 ALL PROPOSED PIPING SHALL BE SUPPORTED AT 5' O.C. WHERE POSSIBLE, CONTRACTOR SHALL UTILIZE THE SAME SUPPORT FOR MULTIPLE PIPES PER DETAIL 2/D-1 AND 3/D-1.
  - MC-9.6 CONTRACTOR SHALL FURNISH AND INSTALL ALL REDUCERS, BUSHINGS, AND FITTINGS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.
  - MC-9.7 ALL HARDWARE SHALL BE TYPE 316 STAINLESS STEEL, U.O.N.
  - MC-9.8 ALL PROPOSED FILL AND SUPPLY PIPING SHALL SOLVENT WELD SCH. 80 CPVC ALL VALVES AND FITTINGS ON FILL AND SUPPLY PIPING SHALL BE FLANGED OR SOLVENT WELD. THREADED CONNECTIONS WILL NOT BE PERMITTED.
  - MC-9.9 PROPOSED TANK AND SUPPLY PIPING SHALL BE HEAT TRACED AND INSULATED. SEE SPECIFICATIONS AND SHEET MC-8 FOR DETAILS.

5,200 GALLON HORIZONTAL STEEL 50% CAUSTIC STORAGE TANK - FITTING SCHEDULE					
TANK FITTING	QUANTITY	SIZE	PIPE MATERIAL	LOCATION	NOTES
TANK FILL	1	3"	SCH. 80 CPVC	TOP OF SHELL	BLOCK AND BLEED FILL ASSEMBLY
LEVEL TRANSMITTER	1	4"	N/A	TOP OF SHELL	316 SST BOLT MATERIAL, EPDM GASKETS, SCH. 80 CPVC BLIND FLANGE FOR FUTURE LEVEL TRANSMITTER
LIQUID LEVEL SIGHT GLASS	2	1"	SCH. 80 CPVC	TOP AND BOTTOM OF DISHED END	SIGHT INDICATOR WITH ISOLATION VALVES (2) FOR TOP AND BOTTOM TANK CONNECTIONS
VENT	1	2"	SCH. 80 CPVC	TOP OF SHELL	BALL CHECK VALVE, DESICCANT DRIER
OVERFLOW	1	3"	SCH. 80 CPVC	TOP OF SHELL	316 SST BOLT MATERIAL, EPDM GASKETS, 2-INCH SCH. 80 CPVC DROP PIPING INSIDE TANK
MANWAY COVER	1	24"	N/A	TOP OF SHELL	BLIND FLANGE WITH 316 SST BOLT MATERIAL AND EPDM GASKETS
DRAIN	1	2"	SCH. 80 CPVC	BOTTOM OF SHELL	SCH. 80 CPVC PIPING W/ FLXFL DIAPHRAGM VALVE, VANSTONE FLANGE AND BLIND FLANGE
FEED PUMP SUPPLY	1	2"	SCH. 80 CPVC	BOTTOM OF DISHED END, FLUSH WITH BOTTOM OF TANK	316 SST BOLT MATERIAL, EPDM GASKETS, SCH. 80 CPVC DIAPHRAGM
DAY TANK OVERFLOW	1	2"	SCH. 80 CPVC	TOP OF DISHED END, FLUSH WITH TOP OF TANK	SOLVENT WELD SCH. 80 CPVC PIPING

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KHA PROJECT  
 044572049  
 DATE  
 MAY 2020  
 SCALE AS SHOWN  
 DESIGNED BY NPOB  
 DRAWN BY LPP  
 CHECKED BY MDM

**HOBART ROWTP BULK  
 CHEMICAL TANK REPLACEMENT**

PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**

INDIAN RIVER COUNTY  
 FLORIDA

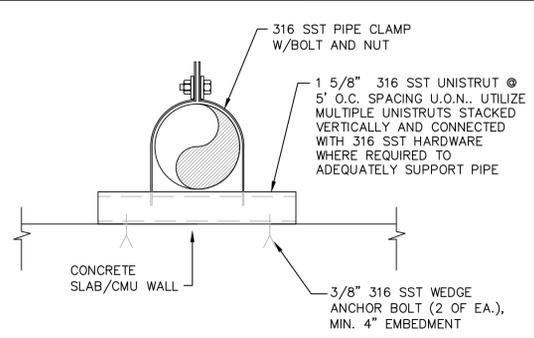
LICENSED PROFESSIONAL  
 NICHOLAS P. O. BLACK  
 FLORIDA LICENSE NUMBER  
 84908  
 DATE: \_\_\_\_\_

**CAUSTIC TANK-PROPOSED PLAN  
 & SECTION**

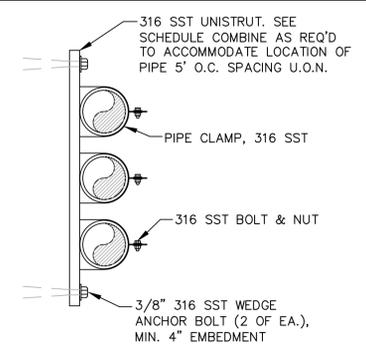
SHEET NUMBER  
**MC-9**

No.	REVISIONS	DATE	BY

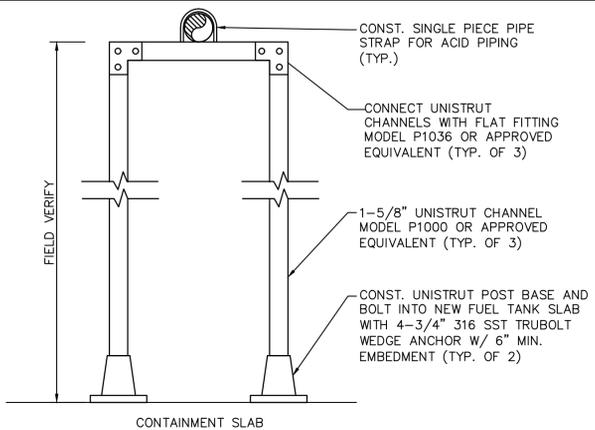
Picked By: Smiths, Lauren  
 Sheet: Set: HOBART ROWTP BULK CHEMICAL TANK REPLACEMENT - Layout: D-1 CONSTRUCTION DETAILS (1) - May 04, 2020 - 11:41:33am  
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**1 PIPE SUPPORT**  
D-1 SCALE: N.T.S.

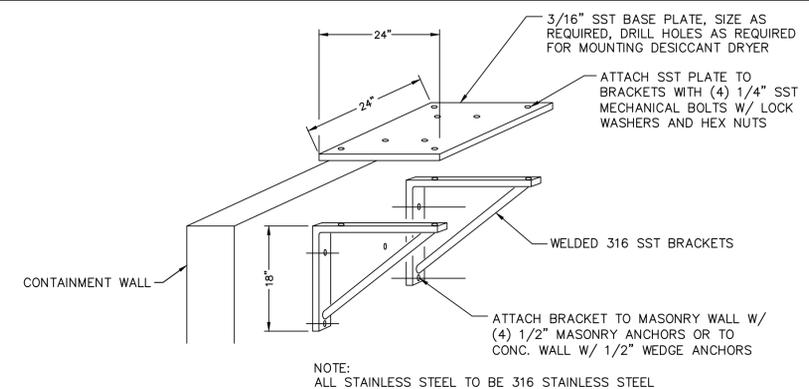


**2 MULTIPLE PIPE SUPPORT**  
D-1 SCALE: N.T.S.

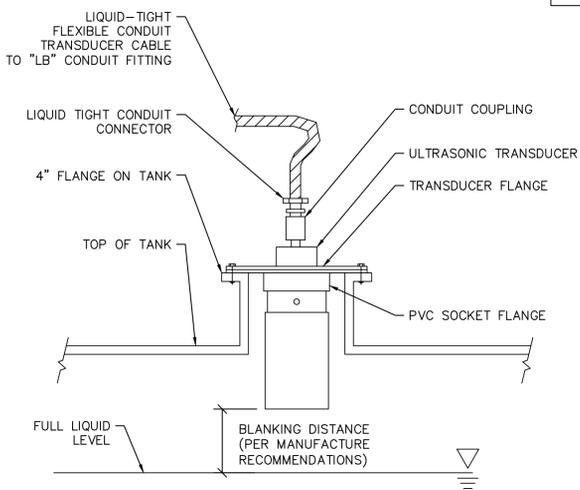


**3 UNISTRUT PIPE/PUMP SUPPORT**  
D-1 SCALE: N.T.S.

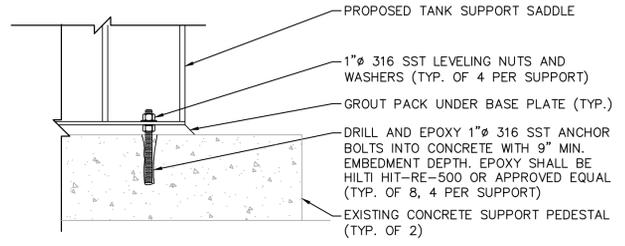
- DETAIL NOTES:**
- CONTRACTOR TO SUBMIT SHOP DRAWINGS ON THIS SUPPORT DETAIL FOR APPROVAL.
  - ALL UNISTRUT AND ACCESSORIES TO BE 316 STAINLESS STEEL.
  - ALL FASTENERS AND HARDWARE TO BE 316 STAINLESS STEEL.



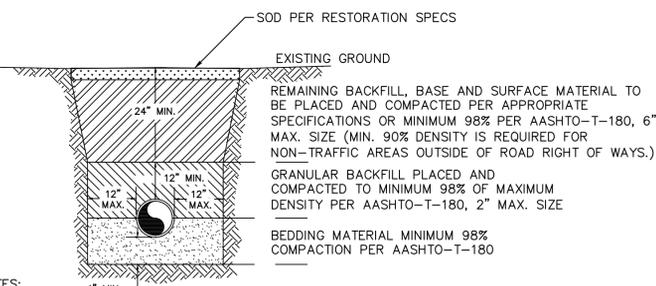
**4 DRYER SUPPORT**  
D-1 SCALE: N.T.S.



**5 ULTRASONIC LEVEL TRANSDUCER**  
D-1 SCALE: N.T.S.

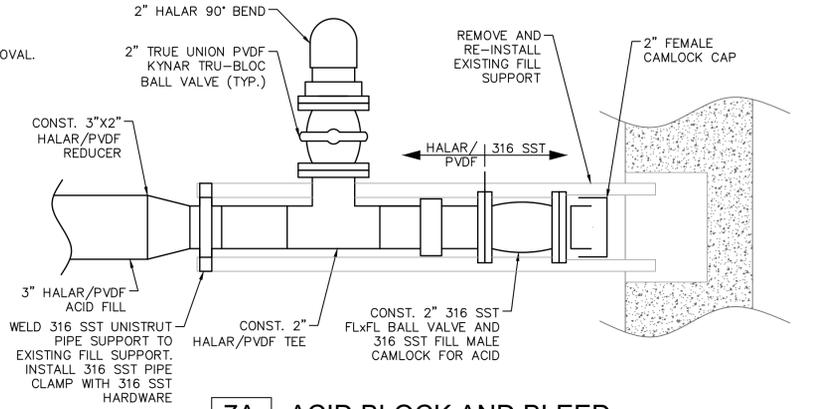


**6 TANK ANCHOR BOLT**  
D-1 SCALE: N.T.S.

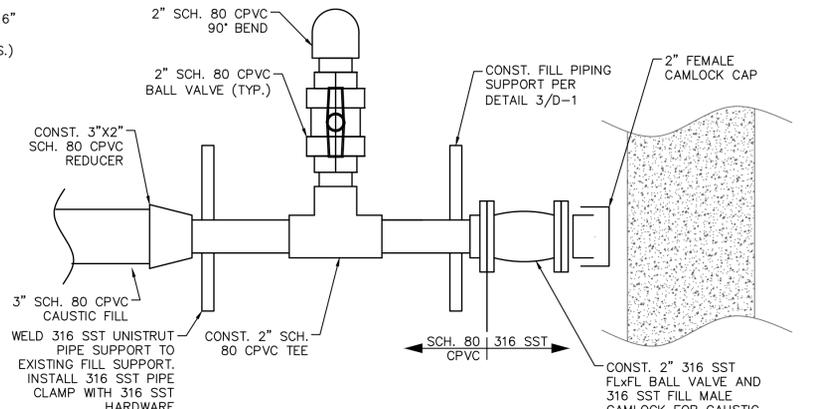


- NOTES:**
- BEDDING MATERIAL SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8"-7/8" SIZING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
  - THE PIPE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
  - THE PIPE SHALL BE PLACED IN A DRY TRENCH.
  - BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGER ROCK, MUCK AND DEBRIS.
  - DENSITY TEST ARE REQUIRED IN ONE (1) FOOT LIFTS ABOVE PIPE AT INTERVALS OF 400 FT. MAXIMUM, OR AS DIRECTED BY S.I.D.
  - THE APPLICANT / CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL APPLICABLE TRENCH-SAFETY LAWS AND REGULATIONS.
  - THE AFFECTED AREA SHALL BE RESTORED TO EQUAL OR BETTER CONDITION OR AS SPECIFIED IN PERMIT / CONTRACT DOCUMENTS.
  - MINIMUM COMPACTION CRITERIA SHALL BE NOTED HEREIN OR PER THE PIPE MANUFACTURERS RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.

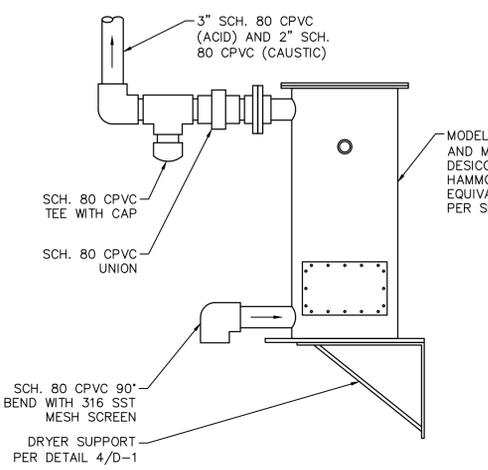
**9 TYPICAL TRENCH DETAIL**  
D-1 SCALE: N.T.S.



**7A ACID BLOCK AND BLEED**  
D-1 SCALE: N.T.S.



**7B CAUSTIC BLOCK AND BLEED**  
D-1 SCALE: N.T.S.



**8 DESICCANT DRYER**  
D-1 SCALE: N.T.S.

No.	REVISIONS	DATE	BY

  
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**CONSTRUCTION DETAILS (1)**

SHEET NUMBER  
**D-1**