### PROJECT DESCRIPTION:

- 1. REMOVE EXISTING UV LAMP SYSTEM 2. INSTALL NEW UV LAMP SYSTEM

PUBLIC WORKS
CITY OF FRANKLIN PUBLIC WORKS

1050 PRETLOW STREET

FRANKLIN, VA 23851 PHONE: 757-562-8564

CONTACT: CHAD EDWARDS

COMMUNITY DEVELOPMENT
CITY OF FRANKLIN COMMUNITY

207 WEST SECOND AVENUE FRANKLIN, VIRGINIA 23851

TEL: (757) 562-8681

FAX: 757-562-7883

- 3. REPLACE GANTRY CRANE
- 4. ADD COVER FOR CONTROL PANELS 5. ADD 37'X29' COVER OVER TANK (BID ALT. NO. 2)

UTILITY AND GOVERNING AGENCIES CONTACT LIST

DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

WATER PERMIT MANAGER

VIRGINIA BEACH, VIRGINIA 23462

ENGINEER KIMLEY—HORN AND ASSOCIATES 4525 MAIN ST, SUITE 1000 VIRGINIA BEACH, VA 23462

CONTACT: JAMES VEEN, P.E.

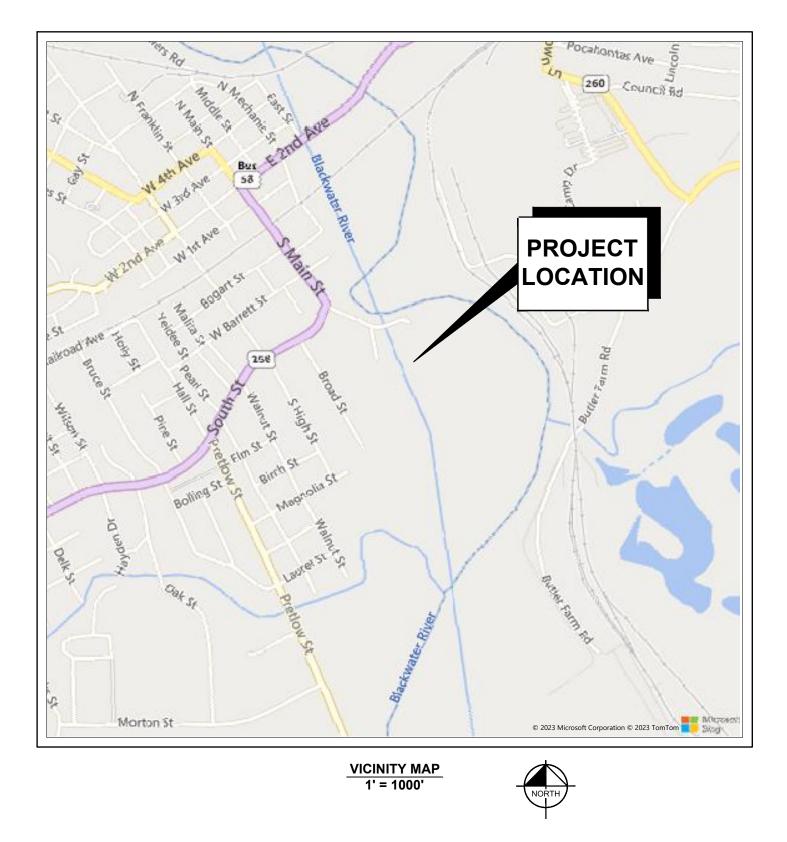
5636 SOUTHERN BLVD.

(757) 799-8000 CONTACT: LOAN PHAM

TEL. (757) 213-8617



# FRANKLIN WASTEWATER TREATMENT PLANT UV DISINFECTION REPLACEMENT DECEMBER 27, 2023



APPROVED BY THE CITY OF FRANKLIN

DATE

CHAD EDWARDS - DIRECTOR, DEPARTMENT OF PUBLIC WORKS

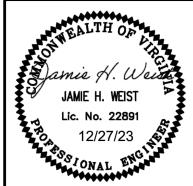
12/27/23

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CALL

"MISS UTILITY" **OF VIRGINIA DIAL - 811** FOR LOCATION OF UNDERGROUND UTILITIES



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SHEET NUMBER G - O1

RESPONSIBLE LAND DISTURBER - CERTIFICATION

THE FOLLOWING PERSON IDENTIFIED AS THE RESPONSIBLE LAND DISTURBER WHO WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY. THIS PERSON MEETS THE APPLICABLE REQUIREMENTS OF VIRGINIA CODE SECTION 10.1-563 AND 10.1-566 BY VIRTUE OF THE FOLLOWING (CHECK THE CATEGORY THAT APPLIES):

\_\_\_\_RESPONSIBLE LAND DISTURBER CERTIFICATE

\_\_\_\_DCR CERTIFICATION FOR COMBINED ADMINISTRATOR, ADMINISTRATOR, LAND REVIEWER, INSPECTOR, OR CONTRACTOR.

UPON AWARD OF THE CONTRACT AND BEFORE ANY LAND DISTURBING

\_\_\_\_VA PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT, OR ARCHITECT.

ACTIVITY CAN BEGIN, THE CONTRACTOR SHALL BE DESIGNATED AS THE "PERMITTEE" OF RECORD AND SHALL EXECUTE THE CERTIFICATE FOR RESPONSIBLE LAND DISTURBER WITH THE DEPARTMENT OF CITY PLANNING, ENVIRONMENTAL SERVICES. THIS EXECUTED FORM IS TO BE SUBMITTED TO THE DEPARTMENT OF UTILITIES AND THE DEPARTMENT OF PLANNING. AWARD OF THE CONTRACT WILL RELIEVE THE ABOVE SIGNER OR ALL RESPONSIBILITY.

### **GENERAL NOTES:**

- WARRANTY/DISCLAMER: THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A CONTINUOUS BASIS AT THE SITE.
- 2. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.
- 3. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE CITY OF FRANKLIN CONSTRUCTION SPECIFICATIONS AND STANDARDS AND HAMPTON ROADS PLANNING DISTRICT COMMISSION REGIONAL CONSTRUCTION STANDARDS.
- 4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY AND THE AFFECTED UTILITY, IN THE EVENT THAT ANY UTILITIES ARE DAMAGED DURING CONSTRUCTION. ANY UTILITIES DAMAGED AS A RESULT OF THE CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE UTILITY OWNER AT NO ADDITIONAL COST TO THE PROJECT.
  - A. CITY OF FRANKLIN PUBLIC WORKS (757-562-8563)
- 5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SHOULD ANY FIELD CONDITIONS BE ENCOUNTERED THAT VARY FROM THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS.
- 6. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION, ELEVATION, ORIENTATION, DIMENSIONS, MATERIALS, ETC. OF EXISTING PIPE PRIOR TO ORDERING MATERIAL AND SHALL USE NECESSARY FITTINGS FOR CONNECTIONS.
- 7. THE CONTRACTOR SHALL RESTORE GRADE TO PRE-CONSTRUCTION CONDITION UNLESS OTHERWISE NOTED ON THE
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EQUIPMENT, MATERIAL AND GENERAL CONSTRUCTION DEBRIS FROM THE SITE, STREET, PUBLIC RIGHT OF WAY OR PROPERTY THEREIN OR ADJACENT THERETO. DUMPING OF SUCH DEBRIS INTO SEWERS, ONTO ADJACENT PROPERTY OR ONTO OTHER LAND IN THE CITY IS PROHIBITED.
- 9. THE CONTRACTOR SHALL NOT PARK EQUIPMENT IN THE RIGHT OF WAY OVERNIGHT OR ON WEEKENDS WITHOUT PRIOR PERMISSION FROM THE CITY OF FRANKLIN.
- 10. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMITS OF THE PUBLIC RIGHT OF WAY AND CITY OF FRANKLIN PROPERTY, UNLESS OTHER AGREEMENTS BETWEEN THE CONTRACTOR AND PRIVATE LAND OWNER(S) ARE ESTABLISHED. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A COPY OF ALL FINAL AGREEMENTS FOR THE USE OF PRIVATE LAND(S).
- 11. VEHICULAR INGRESS AND EGRESS FOR PROPERTIES ALONG THE AFFECTED RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO MAIL AND PARCEL DELIVERY, SCHOOL BUSES, REFUSE COLLECTION, POLICE, FIRE AND OTHER EMERGENCY VEHICLES, ETC., SHALL BE MAINTAINED AT ALL TIMES.
- 12. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE CITY OF FRANKLIN EROSION AND SEDIMENT CONTROL ORDINANCE.
- 13. EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF-SITE. A SOIL AND EROSION CONTROL PLAN SHALL BE SUBMITTED BY THE CONTRACTOR AND APPROVED FOR THE DISPOSAL SITE(S).
- 14. FINAL INSPECTION SHALL BE REQUIRED BY THE CITY OF FRANKLIN PRIOR TO ACCEPTANCE OF THE PROJECT.
- 15. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL PAVED OR GRAVEL DRIVEWAYS, CURB AND GUTTER, AND CONCRETE APRONS DAMAGED DURING CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE CITY OF FRANKLIN CONSTRUCTION SPECIFICATIONS.
- 16. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SHEETING REQUIRED FOR THE PROJECT AND THE SHEETING SHALL BE INSTALLED AS REQUIRED TO PROTECT EXISTING UTILITIES.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL LINES AND GRADES.
- 18. ALL ROADWAYS SHALL BE KEPT FREE OF MUD AND DEBRIS AND SHALL BE CLEANED AT THE END OF EACH WORK DAY.
- 19. DAMAGE TO EXISTING PAVEMENT AREAS OUTSIDE THE LIMITS SHOWN IN THE DETAILS WILL BE RESTORED BY THE CONTRACTOR BY PAVEMENT REPLACEMENT REPAIR FOLLOWED BY MILLING AND OVERLAYING AT NO ADDITIONAL COST TO THE PROJECT.
- 20. THE CONTRACTOR SHALL COMPLY WITH THE TERMS OF THE "UNDERGROUND UTILITY DAMAGE PREVENTION ACT" TITLE 56, CHAPTER 10.3, SECTIONS 56-265.14 THROUGH 56-265.29 OF THE CODE OF VIRGINIA, AS AMENDED, PRIOR TO DOING ANY EXCAVATION TO ENSURE THAT NO DAMAGE WILL BE DONE TO EXISTING UNDERGROUND FACILITIES AND AGREES TO HOLD THE CITY OF FRANKLIN AND THE ENGINEER HARMLESS AGAINST ANY LOSS, DAMAGES, OR CLAIMS OF ANY NATURE WHATSOEVER ARISING OUT OF THE CONTRACTOR'S FAILURE TO SO COMPLY WITH THE REQUIREMENTS OF SAID ACT. WHERE UNDERGROUND FACILITIES ARE ENCOUNTERED, THEY SHALL BE PROTECTED, EVEN TO THE EXTENT THAT HAND EXCAVATION SHALL BE PERFORMED.
- 21. THE WORK IN THIS CONTRACT WILL BE PERFORMED ADJACENT TO OVERHEAD POWER LINES. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR EQUIPMENT AND MATERIALS OR OTHER MEASURES AS REQUIRED FOR PROTECTION FROM INDUCED CURRENTS OR SHOCK HAZARD. CONTRACTOR SHALL COMPLY WITH THE "OVERHEAD HIGH VOLTAGE LINE SAFETY ACT" (SECTION 59.1-406, ET. SEC. OF THE CODE OF VIRGINIA).
- 22. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION SCHEDULE AND ACTIVITIES THROUGH CHAD EDWARDS OF THE CITY OF FRANKLIN'S DEPARTMENT OF PUBLIC UTILITIES (757-562-8564).

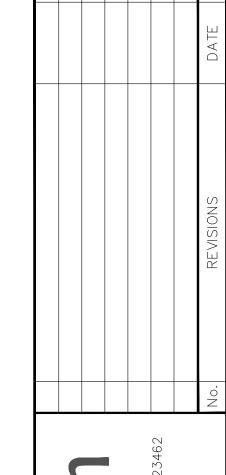
### **DEMO NOTES:**

- 1. THE CONTRACTOR SHALL COORDINATE THE DEMOLITION OF THE ELECTRICAL CONDUIT, WIRE, EQUIPMENT AND DEVICES WITH THE GENERAL DEMOLITION AND SCHEDULE. THE DRAWINGS ARE INTENDED TO CONVEY THE GENERAL NATURE AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM TO BE DEMOLISHED MAY NOT BE SHOWN.FIELD VERIFY WITH OWNER PRIOR TO BID, AND INCLUDE ALL DEMOLITION WORK IN THE CONTRACT PRICE.
- PROVIDE TEMPORARY WIRE AND CONDUIT FOR THE EQUIPMENT WHICH MAY BE AFFECTED BY THE DEMOLITION BUT TO REMAIN IN SERVICE. WHERE NECESSARY TO MAINTAIN PLANT OPERATION, THE CONTRACTOR SHALL PROVIDE A GENERATOR OR GENERATORS TO KEEP THE PROCESS IN OPERATION WHILE SERVICE SWITCHOVER IS BEING PERFORMED.
- 3. RELOCATE AND RECONNECT POWER AND CONTROL RACEWAYS AND CONDUCTORS TO EQUIPMENT AFFECTED BY DEMOLITION WORK.
- ALL CONDUCTORS BEING DEMOLISHED SHALL BE DISCONNECTED AND REMOVED FROM THE LOAD TO THE SURFACE MOUNTED CONDUITS AND MOUNTING HARDWARE SHALL BE REMOVED. UNDERGROUND CONDUITS WHICH ARE NOT BEING REMOVED OR NOT BEING REUSED SHALL BE CAPPED AND TAGGED AS SPARE, WITH INFORMATION CLEARLY INDICATING THE LOCATION OF THE OTHER END, UNLESS NOTED OTHERWISE.
- 5. ALL SURFACES WHERE DEMOLISHED EQUIPMENT OR CONDUIT IS REMOVED SHALL BE CLEANED, PATCHED AND PAINTED TO MATCH THE SURROUNDING SURFACE.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE TO CHECK THE FUNCTION OF EACH CONDUCTOR BEFORE REMOVING OR DISCONNECTING.
- 7. THE CONTRACTOR SHALL FIELD VERIFY PRIOR TO BID TO DETERMINE IF CONDUCTORS WHICH ARE TO STAY IN SERVICE (NOT BEING DEMOLISHED) ARE INSTALLED IN A COMMON CONDUIT WITH CONDUCTORS WHICH ARE BEING DEMOLISHED, THE CONTRACTOR SHALL REMOVE ALL CONDUCTORS FROM THE CONDUIT, PROVIDE NEW CONDUCTORS WHICH ARE REPLACEMENTS FOR THE CONDUCTORS THAT ARE TO REMAIN IN SERVICE AND RE-INSTALL THE NEW CONDUCTORS. AFTER THE CONDUCTORS ARE PULLED, MEGGER OR HIPOT TEST EACH CONDUCTOR. CONNECT BOTH ENDS OF THE NEW CONDUCTORS AND TEST THE SYSTEM FOR PROPER FUNCTION. DO NOT RE-PULL USED CONDUCTORS.
- 8. WHERE EQUIPMENT IS BEING RE-FED FROM A NEW SOURCE, EXISTING CONDUIT MAY BE REUSED ONLY IF THE CONDUIT AND FITTINGS ARE OF THE TYPE SPECIFIED FOR NEW WORK ON THIS CONTRACT. IF NOT, THE CONDUIT AND CONDUCTORS SHALL BE REPLACED WITH NEW MATERIAL MEETING THE SPECIFICATIONS, AT NO ADDITIONAL COST TO THE OWNER.
- 9. THE CONTRACTOR SHALL NOT MAKE ANY MODIFICATIONS UNTIL THE FOLLOWING HAS BEEN DONE:

FUNCTIONS CORRECTLY.

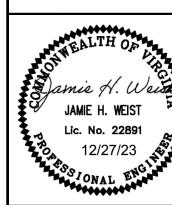
- 9.1. THE OWNER/CONTRACTOR SHALL WITNESS AND RECORD THE CONDITION OF THE EXISTING EQUIPMENT, THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.
- 9.2. THE OWNER SHALL OPERATE THE EQUIPMENT TO DEMONSTRATE THE CURRENT CONDITIONS. THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.
- 9.3. A WRITTEN AND PHOTOGRAPHIC RECORD OF THE OPERATION AND EXISTING CONDITION SHALL BE KEPT IN A THREE RING BINDER IN THE OWNERS ADMINISTRATIVE BUILDING, IN FORM OF PICTURES AND INFORMATION ON A FORM.
- 9.4. A FORM SHALL BE GENERATED BY THE CONTRACTOR TO RECORD THE OBSERVATIONS. BOTH PARTIES SHALL SIGN ON
- 9.5. AFTER THE CHANGES ARE MADE, THE EQUIPMENT SHALL BE INSPECTED AND RE-TESTED TO DEMONSTRATE THAT IT
- 9.6. NO PORTION OF EXISTING CONDUCTORS SHALL BE SPLICED TO NEW CONDUCTORS FOR RE-USE WITHOUT SPECIFIC APPROVAL FROM THE OWNER/ENGINEER ON A CASE-BY-CASE BASIS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL MATERIAL OR EQUIPMENT DAMAGED DURING THE COURSE OF HIS WORK

<u>O NOTES:</u>



DRN AND ASSOCIATES, INC.
1000, VIRGINIA BEACH, VA 234
757-213-8600

© 2023 KIMLEY-HORI 4525 MAIN STREET, SUITE 10 PHONE: 73



DATE
DEC. 2023
SCALE AS SHOWN
DESIGNED BY JDV

KEALMENI PLANI UV DISINFECTION REPI ACEMENT

SHEET NUMBER

- ALL EQUIPMENT WIRING, RACEWAYS, ETC. SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL CODES, AND INDUSTRY STANDARDS (UL, NEMA, IEEE, ANSI, ETC.) THE DRAWING NOTES AND DETAILS SHALL BE COMPLIED WITH IN ADDITION TO THE REQUIREMENTS IN THE SPECIFICATIONS. REFER TO EACH SPECIFICATION SECTION FOR SPECIFIC REQUIREMENTS.
- 2. ALL RACEWAY INSTALLATIONS SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. ALL EXPOSED RACEWAY SHALL BE INSTALLED PARALLEL TO BEAMS, CEILINGS, FLOORS AND
- CONDUITS SHALL BE TERMINATED IN A NEAT MANNER AND STRICTLY IN ACCORDANCE WITH THE SPECIFICATIONS AND
- 4. CONDUITS TERMINATED INTO ENCLOSURES SHALL BE PERPENDICULAR TO THE WALLS OF THE ENCLOSURE. THE USE OF SHORT SEALTIGHT ELBOW FITTINGS FOR SUCH TERMINATIONS WILL NOT BE PERMITTED.
- 5. ALL RACEWAY INSTALLATIONS, CROSSING EXPANSION JOINTS OR TRANSITIONS FROM BELOW GRADE TO EXPOSED ABOVE GRADE, SHALL HAVE EXPANSION OR EXPANSION/DEFLECTION TYPE FITTINGS AS SPECIFIED FOR THE APPLICATION. SEE THE DRAWINGS FOR THE EXACT TYPE OF FITTING TO BE USED.
- 6. NO EXPOSED CONDUIT SMALLER THAN 3/4", NOR WIRE SMALLER THAN NO. 12 AWG, SHALL BE USED UNLESS SPECIFICALLY
- 7. LIQUID TIGHT FLEXIBLE ALUMINUM CONDUIT SHALL BE USED FOR THE PRIMARY AND SECONDARY OF TRANSFORMERS, GENERATOR TERMINATIONS AND OTHER EQUIPMENT WHERE VIBRATION IS PRESENT. USE IN OTHER LOCATIONS IS NOT PERMITTED, EXCEPT FOR CONNECTIONS TO INSTRUMENTATION TRANSMITTERS, WHERE MULTIPLE PENETRATIONS ARE REQUIRED. LIQUID TIGHT FLEXIBLE ALUMINUM CONDUIT SHALL HAVE A MAXIMUM LENGTH NOT GREATER THAN THAT OF A FACTORY MANUFACTURED LONG RADIUS ELBOW OF THE CONDUIT SIZE BEING USED. THE MAXIMUM BENDING RADIUS SHALL NOT BE LESS THAN THAT SHOWN IN THE NEC CHAPTER 9, TABLE 2, "OTHER BENDS". BX OR AC TYPE PREFABRICATED CABLES WILL NOT BE PERMITTED.
- THE WIRING DIAGRAMS, BLOCK DIAGRAMS, QUANTITY, SIZE OF WIRES, AND CONDUIT REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY APPROVED. ALL MODIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFIED.
- FOR ALL JUNCTION BOXES, PULL BOXES AND TERMINATION BOXES IN THE RACEWAY SYSTEM IN NEMA 12 AREAS, BOXES SHALL BE OF ALUMINUM. FOR NEMA 4X AREAS BOXES SHALL BE OF 316 STAINLESS STEEL, UNLESS NOTED OTHERWISE.
- 10. WHERE RACEWAYS ENTER JUNCTION BOXES OR CONTROL PANELS CONTAINING ELECTRICAL OR INSTRUMENTATION EQUIPMENT, ALL ENTRANCES SHALL BE SEALED WITH WATERTIGHT SEALANT.
- 11. ALL EQUIPMENT AND ELECTRICAL EQUIPMENT ENCLOSURE LOCATIONS, OR TERMINAL BOX LOCATIONS, ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER, DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER.
- 12. ALL EQUIPMENT AND ELECTRICAL EQUIPMENT ENCLOSURES DIMENSIONS ARE APPROXIMATE. ALL EQUIPMENT AND ELECTRICAL EQUIPMENT ENCLOSURES OR TERMINAL BOX DIMENSIONS SHALL BE VERIFIED WITH THE EQUIPMENT SUPPLIER. ALLOW FOR LOCATION CHANGES AND INCLUDE IN THE CONTRACT PRICE. THE EXACT LOCATIONS OF ALL ELECTRICAL EQUIPMENT AND ROUTING OF ALL CABLES AND CONDUITS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER DURING CONSTRUCTION.
- 13. CORING OF AN EXISTING STRUCTURE SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER. CORING THROUGH STRUCTURAL BEAMS IS STRICTLY PROHIBITED, WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER/ENGINEER.
- 14. PROVIDE CONDUIT SEALS FOR CONDUIT PENETRATIONS.
- 15. THIS IS AN OPERATING FACILITY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER. NO SHUTDOWN OF ELECTRICAL OR CONTROL EQUIPMENT WILL NOT BE PERMITTED WITHOUT A SHUTDOWN REQUEST IN WRITING BEING SUBMITTED AND APPROVED PER SPECIFICATIONS.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE TO POTHOLE AS REQUIRED IN ORDER TO LOCATE AND DETERMINE DIRECTION OF ALL UNDERGROUND UTILITIES, PIPES, AND DUCTBANKS BEFORE DIGGING AT EVERY NEW POLE, GUY WIRE ANCHORS, DUCTBANK, AND MANHOLE LOCATIONS. CONTRACTOR SHALL COORDINATE THIS PROCEDURE WITH THE OWNER PRIOR TO COMMENCING WORK. CONTRACTOR IS RESPONSIBLE TO REPAIR WITHOUT COST TO THE OWNER ANY DAMAGES THAT OCCURRED TO UNDERGROUND UTILITIES DURING CONSTRUCTION.
- 17. ALL SLOTTED CHANNEL, SLOTTED CHANNEL SUPPORT MATERIAL, WASHERS, SCREWS, NUTS, CONDUIT CLAMPS, ALL THREAD SPRING NUTS AND MISC. MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL.
- 18. ALL CONDUITS AND WIRES SHOWN ON THE INTERFACE DIAGRAM SHALL BE INSTALLED BY THE CONTRACTOR. GROUPING OF CONDUIT AND WIRE MAY BE CHANGED. IF APPROVED BY THE ENGINEER AND OWNER.
- 19. ALL CONDULETS SHALL BE ALUMINUM FORM 7 AND SHALL HAVE 316 SS CLAMP COVERS WITH 316 SS CLAMPS AND SCREWS. SCREW DOWN COVERS ARE UNACCEPTABLE.
- 20. ALL BARE COPPER GROUNDING CONDUCTORS SHALL BE TINNED, ALL GROUND RODS SHALL BE COPPER CLAD STEEL, 3/4" BY 10' LONG. ALL EXPOSED COPPER GROUND CABLES SHALL BE GREEN INSULATED CONDUCTORS. PROVIDE XHHW-2
- 21. WHERE NOTES ON THE DRAWING INDICATE THAT THE CONTRACTOR SHALL FIELD VERIFY, THE INTENT IS FOR THE CONTRACTOR TO INVESTIGATE TO THE EXTENT NECESSARY TO PROVIDE THE WORK AND MATERIALS PRIOR TO BIDDING AND INCLUDE ALL COSTS IN THE BID PRICE. THE CONTRACT PRICE SHALL NOT BE INCREASED WHEN THE CONTRACTOR HAS NOT INVESTIGATED PER THE NOTES DIRECTING THAT TO BE DONE.
- 22. CONDUITS SHALL NOT BE INSTALLED INTO THE TOP OF ANY NEMA ENCLOSURES RATED FOR DAMP, WET OR HOSE DOWN AREAS MOUNTED IN INDOOR PROCESS AREAS, OUTDOOR AREAS, OR ANY AREA NOT RATED TO BE DRY (ELECTRICAL ROOMS, CONTROL ROOMS, OR OFFICE AREAS). ANY ENCLOSURES THAT HAVE BEEN INSTALLED WITH TOP CONDUIT ENTRIES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 23. ALL PORTIONS OF CONDUITS INDICATED FOR REUSE SHALL BE CLEANED BY THE CONTRACTOR BEFORE REUSE. CLEANING PROCEDURES ARE AS FOLLOWS:
  - A. PULL A WIRE BRUSH OF THE APPROPRIATE SIZE THROUGH THE CONDUIT.
  - B. PULL A CONDUIT SWAB OF THE APPROPRIATE SIZE THROUGH THE CONDUIT.
  - C. PULL A MANDREL OF THE APPROPRIATE SIZE THROUGH THE CONDUIT.
  - D. THIS PROCEDURE MAY HAVE TO BE REPEATED SEVERAL TIMES UNTIL THE CONDUIT IS CLEAN.
  - E. LEAVE A PULL STRING IN THE EMPTY CONDUIT AND PLUG BOTH ENDS OF THE CONDUIT AFTER CLEANING.PLUGS ARE TO BE REMOVED ONLY TO INSTALL NEW CONDUCTORS. THE CONTRACTOR IS RESPONSIBLE TO REPLACE ANY CONDUIT DAMAGED DURING THESE CLEANING PROCEDURES AT NO ADDITIONAL COST TO OWNER.
- 29. THE CONTRACTOR SHALL INSTALL ON ALL CONDUITS PROVIDED OR MODIFIED UNDER THE SCOPE OF THIS PROJECT WITH CONDUIT IDENTIFICATION PLATES. MODIFICATIONS TO CONDUITS INCLUDE CHANGES IN CONDUIT ROUTING AND/OR REPLACING EXISTING OR INSTALLING NEW CONDUCTORS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER THE NAMING SYSTEM TO USE IN IDENTIFYING CONDUITS. WHEN MORE THAN TWO CONDUITS ENTER A JUNCTION BOX, PULL BOX,

TERMINAL ENCLOSURE, ETC., ALL CONDUITS SHALL CONTAIN AN IDENTIFICATION PLATE WITH A UNIQUE IDENTIFICATION.

- 30. THE CONTRACTOR SHALL PROVIDE NAMEPLATES ON ALL EQUIPMENT WITH DESIGNATIONS AS REQUIRED BELOW, UNLESS NOTED OTHERWISE BY OWNER.
  - A. SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, SUBSTATIONS, ETC., SHALL HAVE NAMEPLATE DESIGNATIONS AS SHOWN ON THE DRAWINGS. FOR EXAMPLE; P1-35, LCS-2, SWBD-1, ETC.
  - B. JUNCTION BOXES, PULL BOXES, TERMINAL ENCLOSURES, ETC. SHALL HAVE NAMEPLATE DESIGNATIONS THAT ARE UNIQUE AND SEQUENTIAL. FOR EXAMPLE; JB-1, PB-2, ETC.
  - NAMEPLATES SHALL BE ENGRAVED, LAMINATED PLASTIC, NOT LESS THAN 1/16\_IN THICK BY 3/4\_IN HIGH BY 2\_1/2\_IN WIDE (MINIMUM) WITH 3/16\_IN HIGH BLACK LETTERS ON A WHITE BACKGROUND.
  - NAMEPLATES SHALL BE 316 SS SCREW MOUNTED TO ALL ENCLOSURES. SCREWS ON NEMA 4 ENCLOSURES SHALL BE SEALED BY UL LISTED METHOD. CONTRACTOR SHALL PROVIDE SUBMITTAL FOR METHOD OF SEALING SCREWS FOR APPROVAL. EPOXY ADHESIVE OR FOAM TAPE IS NOT ACCEPTABLE. THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS INDICATING ALL EQUIPMENT IDENTIFIED ABOVE WITH THEIR APPROPRIATE NAMEPLATE DESIGNATION.
- 31. REFER TO THE CONDUIT TABLE BELOW FOR APPLICABLE TYPE OF CONDUIT PER LOCATION.

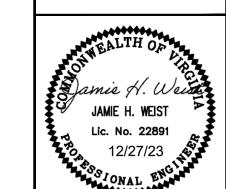
### **DEMO NOTES:**

- 1. THE CONTRACTOR SHALL COORDINATE THE DEMOLITION OF THE ELECTRICAL CONDUIT, WIRE, EQUIPMENT AND DEVICES WITH THE GENERAL DEMOLITION AND SCHEDULE. THE DRAWINGS ARE INTENDED TO CONVEY THE GENERAL NATURE AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM TO BE DEMOLISHED MAY NOT BE SHOWN. FIELD VERIFY WITH OWNER PRIOR TO BID, AND INCLUDE ALL DEMOLITION WORK IN THE CONTRACT PRICE.
- 2. PROVIDE TEMPORARY WIRE AND CONDUIT FOR THE EQUIPMENT WHICH MAY BE AFFECTED BY THE DEMOLITION BUT TO REMAIN IN SERVICE. WHERE NECESSARY TO MAINTAIN PLANT OPERATION. THE CONTRACTOR SHALL PROVIDE A GENERATOR OR GENERATORS TO KEEP THE PROCESS IN OPERATION WHILE SERVICE SWITCHOVER IS BEING PERFORMED.
- 3. RELOCATE AND RECONNECT POWER AND CONTROL RACEWAYS AND CONDUCTORS TO EQUIPMENT AFFECTED BY DEMOLITION WORK.
- 4. ALL CONDUCTORS BEING DEMOLISHED SHALL BE DISCONNECTED AND REMOVED FROM THE LOAD TO THE SOURCE. SURFACE MOUNTED CONDUITS AND MOUNTING HARDWARE SHALL BE REMOVED. UNDERGROUND CONDUITS WHICH ARE NOT BEING REMOVED OR NOT BEING REUSED SHALL BE CAPPED AND TAGGED AS SPARE, WITH INFORMATION CLEARLY INDICATING THE LOCATION OF THE OTHER END, UNLESS NOTED OTHERWISE.
- 5. ALL SURFACES WHERE DEMOLISHED EQUIPMENT OR CONDUIT IS REMOVED SHALL BE CLEANED, PATCHED AND PAINTED TO MATCH THE SURROUNDING SURFACE.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE TO CHECK THE FUNCTION OF EACH CONDUCTOR BEFORE REMOVING OR DISCONNECTING.
- 7. THE CONTRACTOR SHALL FIELD VERIFY PRIOR TO BID TO DETERMINE IF CONDUCTORS WHICH ARE TO STAY IN SERVICE (NOT BEING DEMOLISHED) ARE INSTALLED IN A COMMON CONDUIT WITH CONDUCTORS WHICH ARE BEING DEMOLISHED, THE CONTRACTOR SHALL REMOVE ALL CONDUCTORS FROM THE CONDUIT, PROVIDE NEW CONDUCTORS WHICH ARE REPLACEMENTS FOR THE CONDUCTORS THAT ARE TO REMAIN IN SERVICE AND RE-INSTALL THE NEW CONDUCTORS AFTER THE CONDUCTORS AF CONDUCTORS AND TEST THE
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APPROVAL FROM THE OWNER/ENGINEER ON A CASE-BY-CASE BASIS.

- A. THE OWNER/CONTRACTO CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.
- B. THE OWNER SHALL OPERATE THE EQUIPMENT TO DEMONSTRATE THE CURRENT CONDITIONS. THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.
- C. A WRITTEN AND PHOTOGRAPHIC RECORD OF THE OPERATION AND EXISTING CONDITION SHALL BE KEPT IN A THREE RING BINDER AT THE OWNER/CONTRACTOR TRAILER, IN FORM OF PICTURES AND INFORMATION ON A FORM.
- D. A FORM SHALL BE GENERATED BY THE CONTRACTOR TO RECORD THE OBSERVATIONS. BOTH PARTIES SHALL SIGN ON THE FORM.
- E. AFTER THE CHANGES ARE MADE, THE EQUIPMENT SHALL BE INSPECTED AND RE-TESTED TO DEMONSTRATE THAT IT FUNCTIONS CORRECTLY.
- F. NO PORTION OF EXISTING CONDUCTORS SHALL BE SPLICED TO NEW CONDUCTORS FOR RE-USE WITHOUT SPECIFIC
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL MATERIAL OR EQUIPMENT DAMAGED DURING THE COURSE OF HIS WORK.

CONDUCTORS THAT ARE TO REMAIN IN SERVICE AND RE-INSTALL THE NEW CONDUCTORS.  ARE PULLED, MEGGER OR HIPOT TEST EACH CONDUCTOR. CONNECT BOTH ENDS OF THE NEW  HE SYSTEM FOR PROPER FUNCTION. DO NOT RE-PULL USED CONDUCTORS.	I	SOCIA VIA BE SOO
NG RE-FED FROM A NEW SOURCE, EXISTING CONDUIT MAY BE REUSED ONLY IF THE CONDUIT		ASS ARGIN 3-86
TYPE SPECIFIED FOR NEW WORK ON THIS CONTRACT. IF NOT, THE CONDUIT AND CONDUCTORS NEW MATERIAL MEETING THE SPECIFICATIONS, AT NO ADDITIONAL COST TO THE OWNER.		N ANE 300, V 57-21
IT OF FIRST REFUSAL TO THE EQUIPMENT BEING REMOVED. THE CONTRACTOR SHALL DELIVER IE OWNER WISHES TO KEEP TO A LOCATION DESIGNATED BY THE OWNER. SEE SECTION 26 05 33.	6	/-HOR JITE 10 NE: 7
BE RESPONSIBLE FOR ALL COSTS AND PERMITS REQUIRED TO DISPOSE OFF SITE ALL REFUSED BY OWNER.		KIMLE) ET, SU PHO
NOT MAKE ANY MODIFICATIONS UNTIL THE FOLLOWING HAS BEEN DONE:	E	2023 H STRE
OR SHALL WITNESS AND RECORD THE CONDITION OF THE EXISTING EQUIPMENT, THE		© M N N



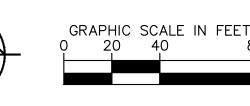
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SHEET NUMBER G - 03

CONDUIT TYPE	LOCATION
1. LIQUID TIGHT FLEXIBLE ALUMINUM CONDUIT	RACEWAY CONNECTION TO VIBRATING EQUIPMENT ONLY, IN ALL AREAS.
2. RIGID ALUMINUM CONDUIT	ALL ABOVE GRADE AREAS, EXCEPT FOR CONCRETE EMBEDDED AND THOSE AREAS DESCRIBED IN LOCATION 2.
3. PVC COATED RIGID ALUMINUM CONDUIT	ALL ELBOWS UNDERGROUND ENCASED IN RED DYE REINFORCED CONCRETE AND USED AS SHOWN ON VARIOUS ELECTRICAL STANDARD DETAILS.
4. PVC SCHEDULE 40 CONDUIT	UNDERGROUND ENCASED IN RED IN RED DYE REINFORCED CONCRETE.

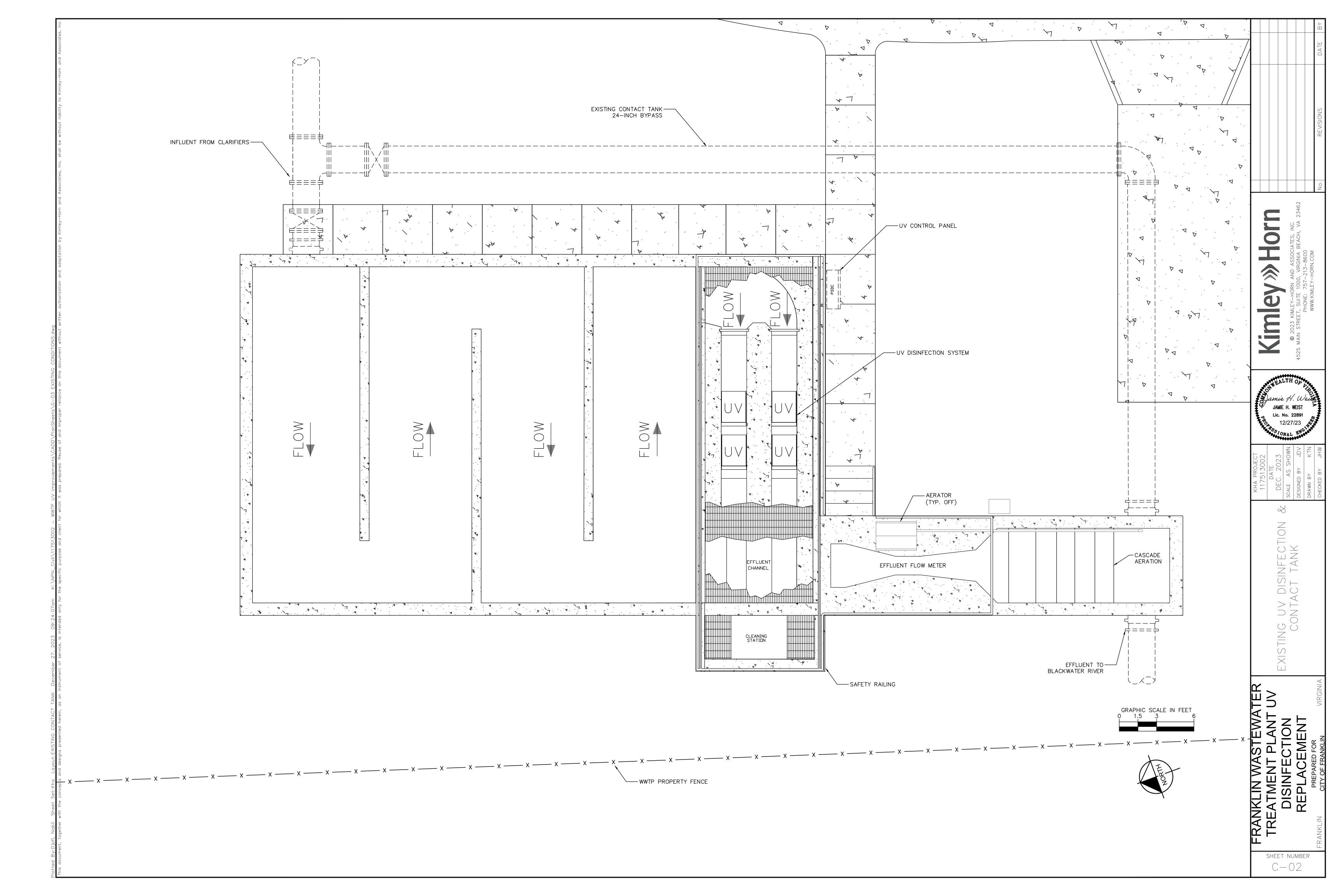


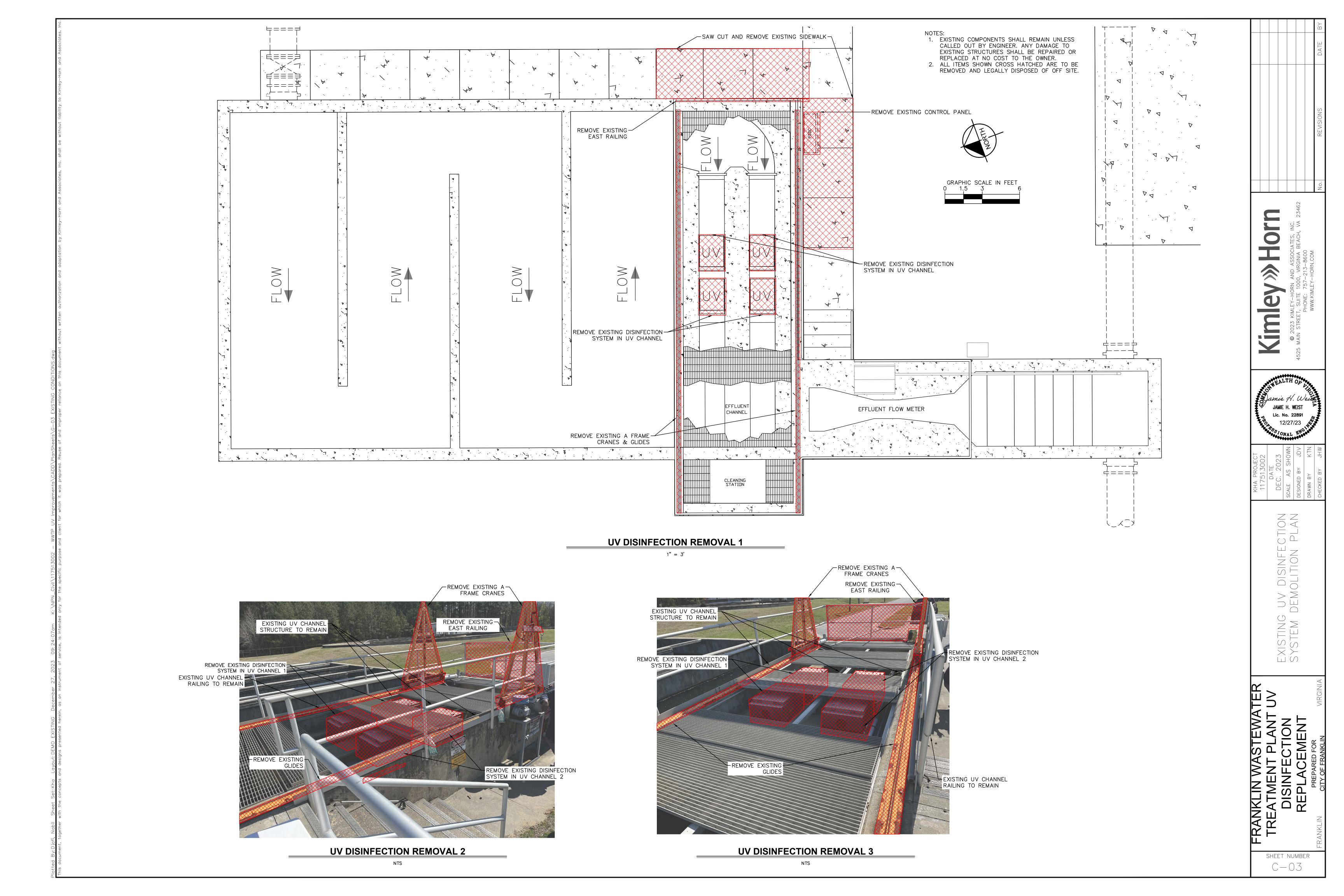


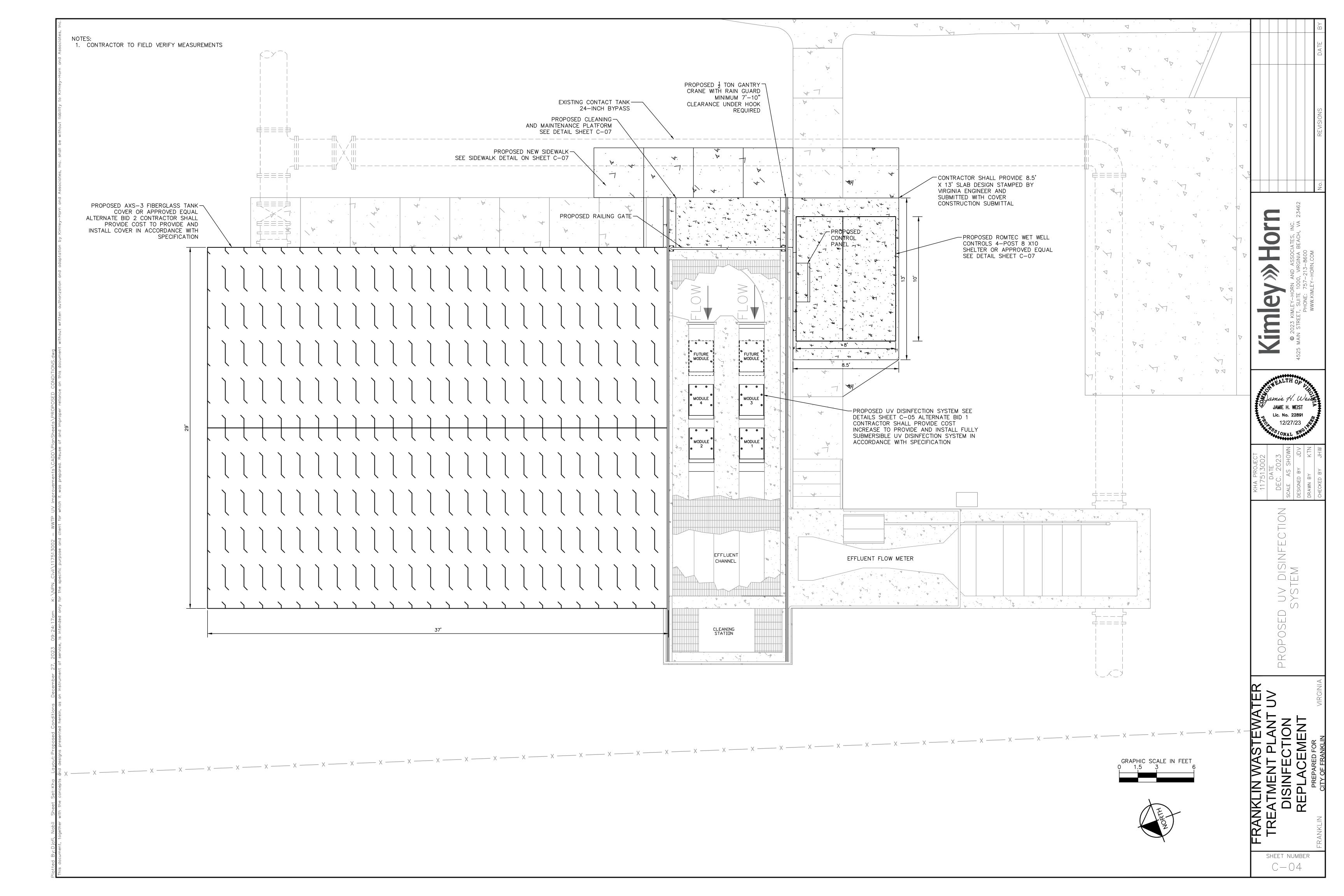


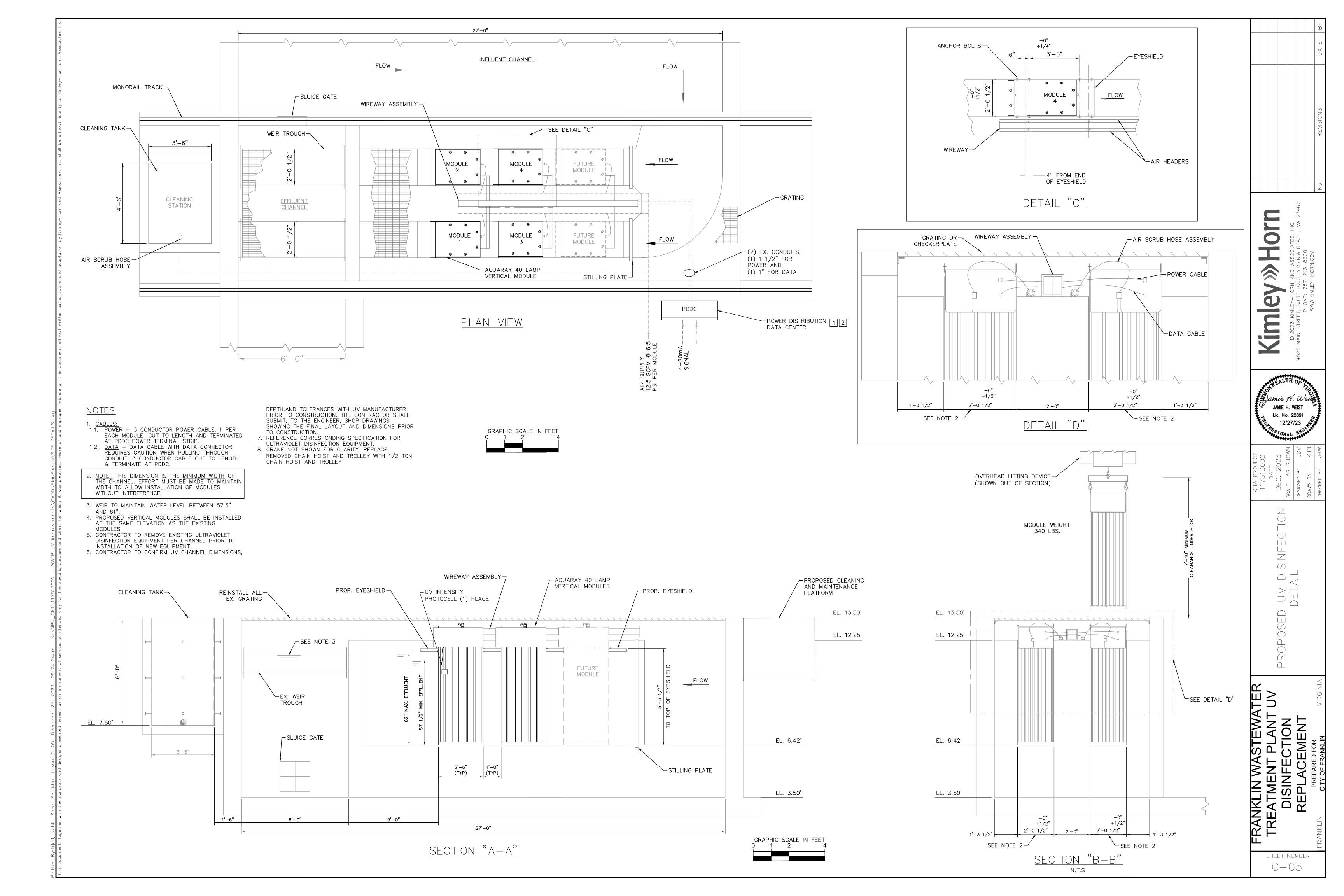
EXISTING

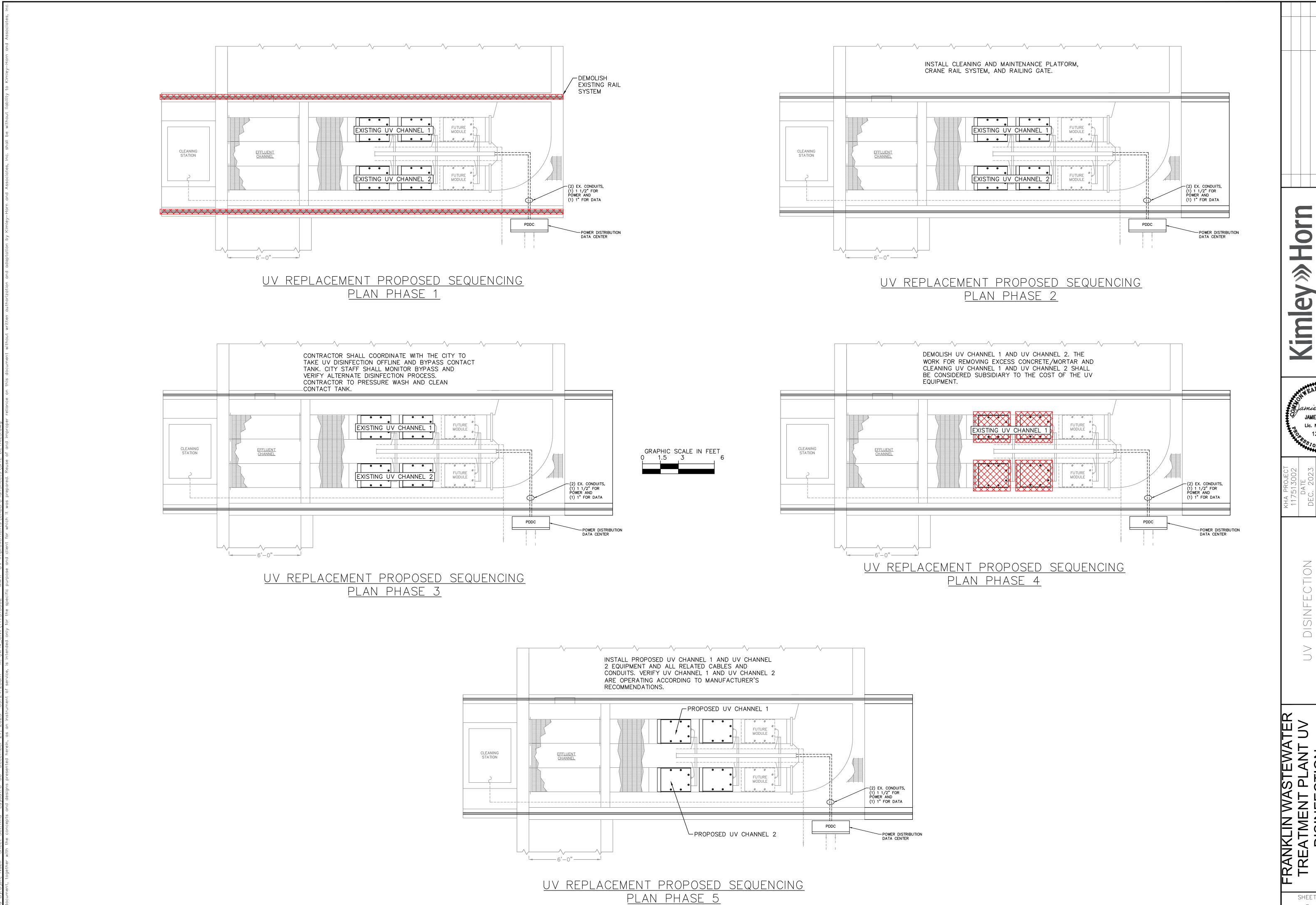
SHEET NUMBER C - O1





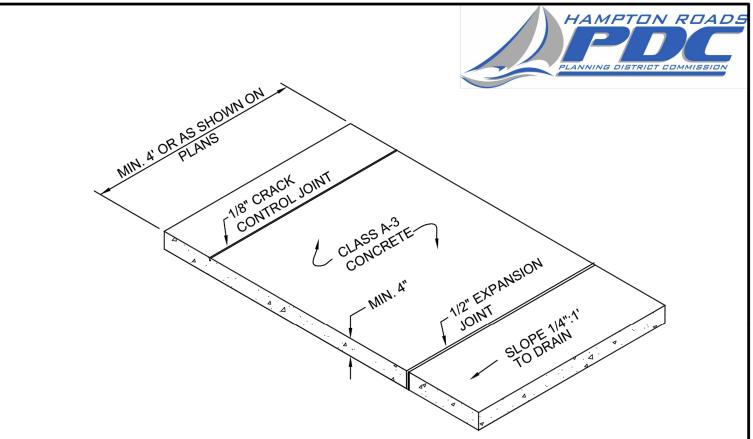






UV DISINFECTION CONSTRUCTION SEQUENCING PLAN

SHEET NUMBER C - 06

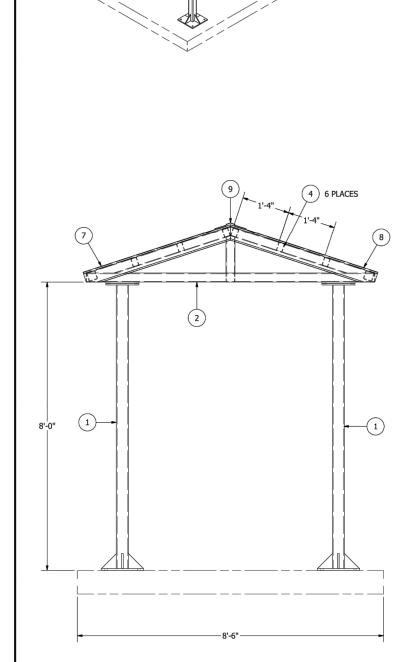


- CRACK CONTROL JOINTS TO BE PROVIDED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK BY SAWING, SCORING, "LEAVE-IN" INSERTS, OR CUTTER PLATES AND SHALL EXTEND INTO THE CONCRETE TO 1/4 OF THE DEPTH.
- EXPANSION JOINTS TO BE INSTALLED AT INTERVALS NOT EXCEEDING 50', AND AT JUNCTION POINTS OF CURBS AND ENTRANCES, AND ON BOTH SIDES OF ALL SIDEWALK SECTIONS CONTAINING UTILITIES. PREMOLDED, 1/2" JOINT FILLER IS TO BE USED EXTENDING FROM BOTTOM OF SLAB TO 1/4" OF ITS TOP SURFACE.
- AS SOON AS CONCRETE WILL NOT SLUMP, FACE FORMS ARE TO BE REMOVED, IRREGULARITIES REMOVED, A LIGHT BROOM FINISH GIVEN, AND A LIQUID MEMBRANE SEAL OR OTHER APPROVED CURING MEDIUM APPLIED.
- SIDEWALKS ACROSS ENTRANCES SHALL HAVE A DEPTH OF SEVEN INCHES (7") WITH A MAXIMUM SLOPE OF 1":12".
- THE CONTRACTOR SHALL PREVENT THE TEMPERATURE AT THE SURFACE OF THE CONCRETE FROM FALLING BELOW 40°F DURING THE FIRST 72 HOURS IMMEDIATELY FOLLOWING CONCRETE PLACEMENT. PROTECTIVE MATERIAL SHALL BE LEFT IN PLACE FOR AN ADDTIONAL 48 HOURS IF FREEZING AIR TEMPERATURES ARE EXPECTED TO CONTINUE.

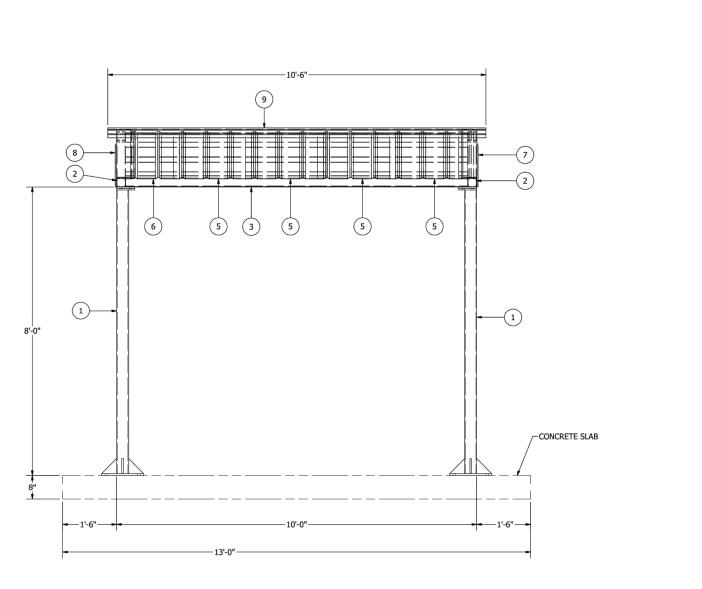
# SIDEWALK DETAIL

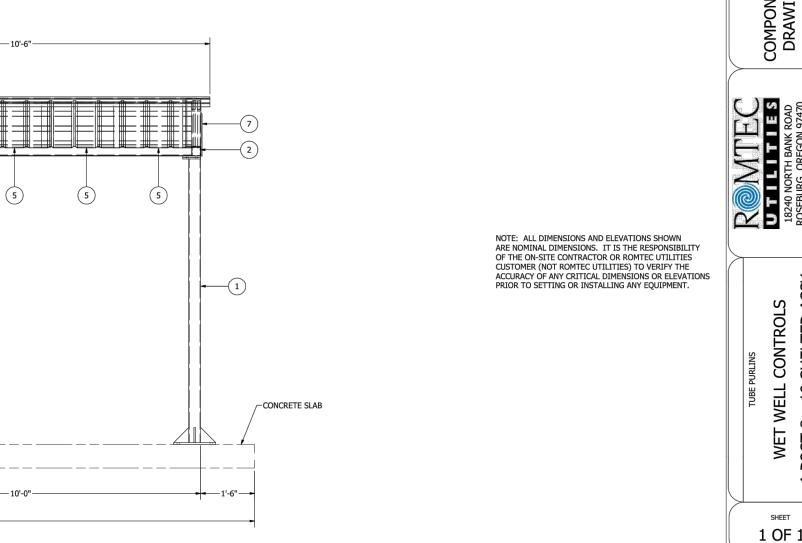
NOT TO SCALE

<i>REFERENCE</i> <b>200,502</b>	CATEGORY CONCRETE ITEMS	DATE <b>6/16</b>	SHEET No. 1 <b>OF</b> 1	DETAIL No. CI_09



PLANS AND DRAWINGS MAY NOT BE REPRODUCED,





4-POST SHELTER - COLUMN ASSEMBLY 4-POST SHELTER - TRUSS ASSEMBLY
4-POST SHELTER - ROOF PANEL - FULL X 50in

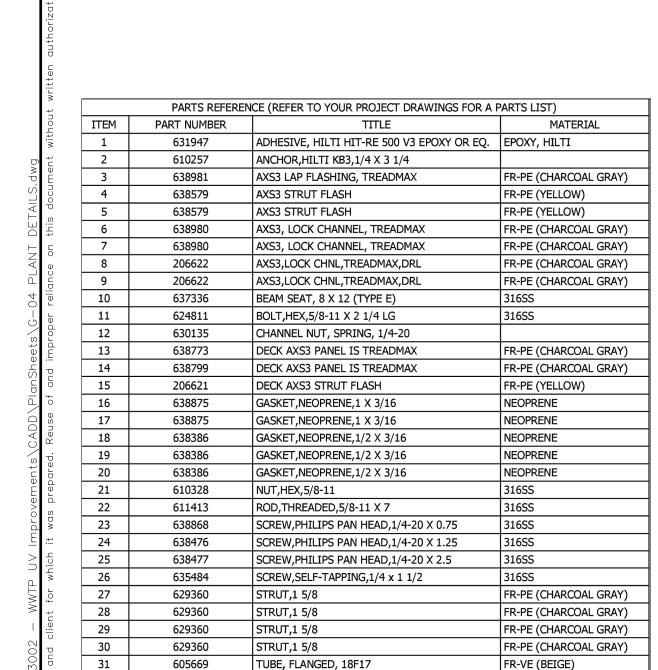
4-POST SHELTER - DRIP CAP - LEFT

5-8-UNC X 1in BOLTS 5-8UNC - HEX NUTS .75 X 6in ANCHOR BOLT

HEX NUT - .75-UNC
NO. 14 GRANDRIB SCREW

4-POST SHELTER - ROOF PANEL CUT - 50in X 24in WIDE

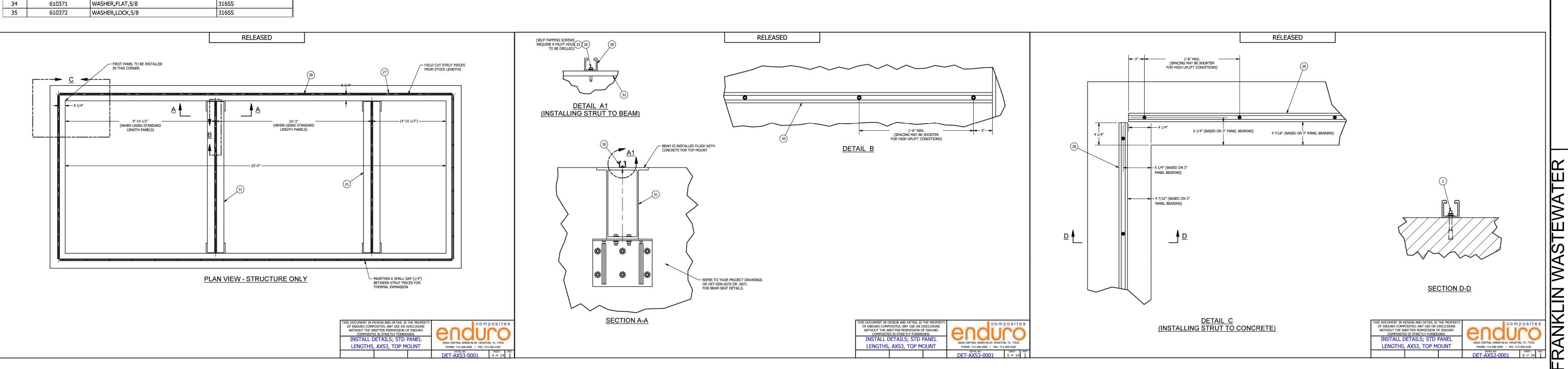
4-POST SHELTER - DRIP CAP - RIGHT
4-POST SHELTER - ROOF FRAME SIDE TUBE - 3 X 3 X 3/16 X 114in
4-POST SHELTER - PERLIN TUBE - 3 X 2 X .120 WALL X 114in



WASHER,CUP,1/4" X 2" DIA.

WASHER,FLAT,1/4

638303

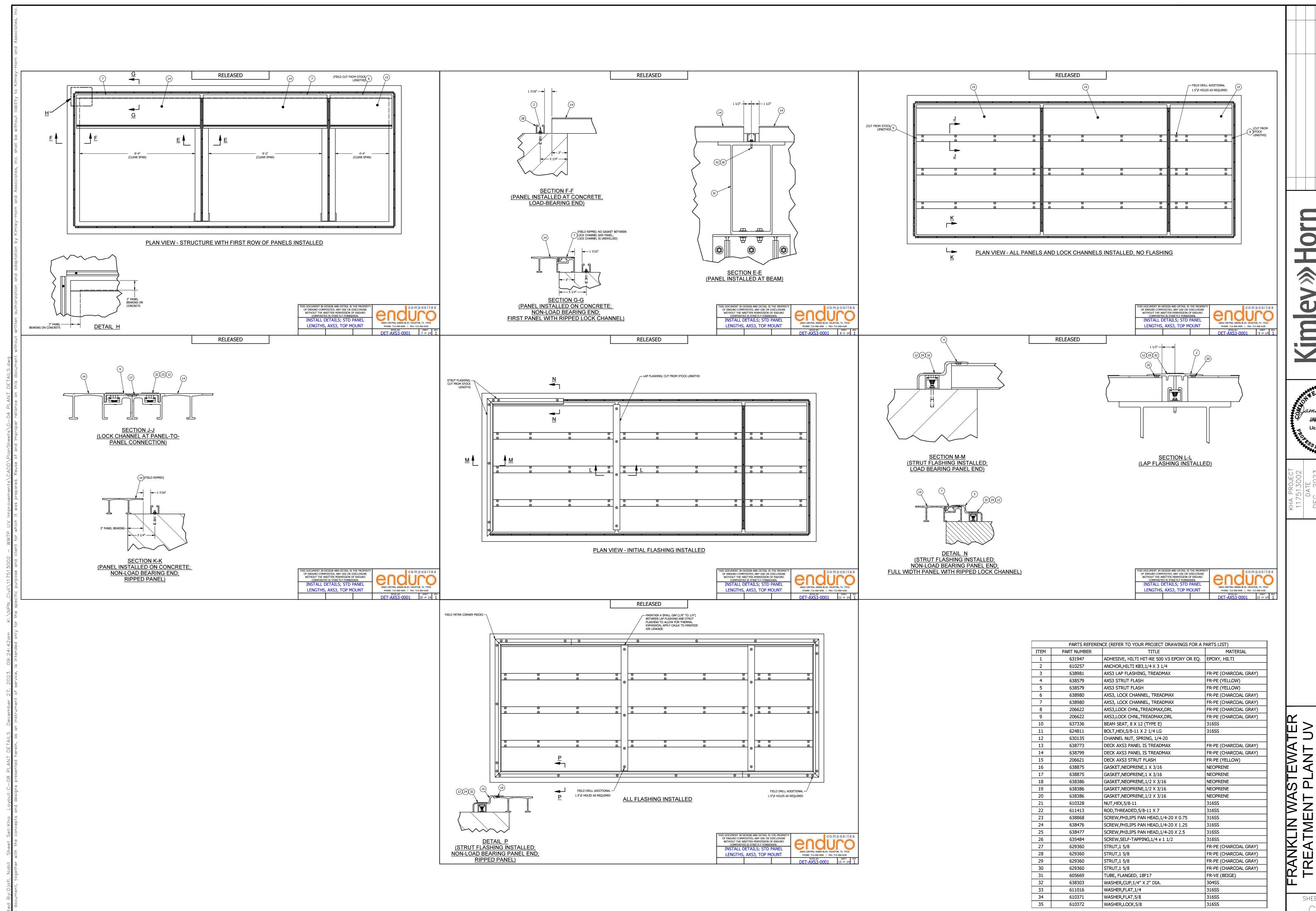


**RMTC** 

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SHEET NUMBER C - 07



© 2023 KIMLEY-HORN AND ASSC 4525 MAIN STREET, SUITE 1000, VIRGINIA PHONE: 757-213-860 WWW.KIMLEY-HORN.COI

JAMIE H. WEIST
Lic. No. 22891
12/27/23
NACH NACH SE

N

DEC. 2C
SCALE AS S
DESIGNED BY
DRAWN BY

LANT DETAILS (2)

D L A N A D E

DISINFECTION
REPLACEMENT
PREPARED FOR

SHEET NUMBER

C-08

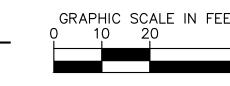
**Kimley** » Horn DETAILS STRUCTURAL FRANKLIN WASTEWATER
TREATMENT PLANT UV
DISINFECTION
REPLACEMENT
PREPARED FOR CITY OF FRANKLIN

SHEET NUMBER

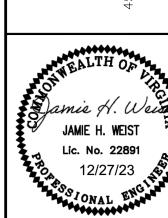
C - 07







2023 KIMLEY-HORN AND ASSOCIATES, INC.
N STREET, SUITE 1000, VIRGINIA BEACH, VA 2346



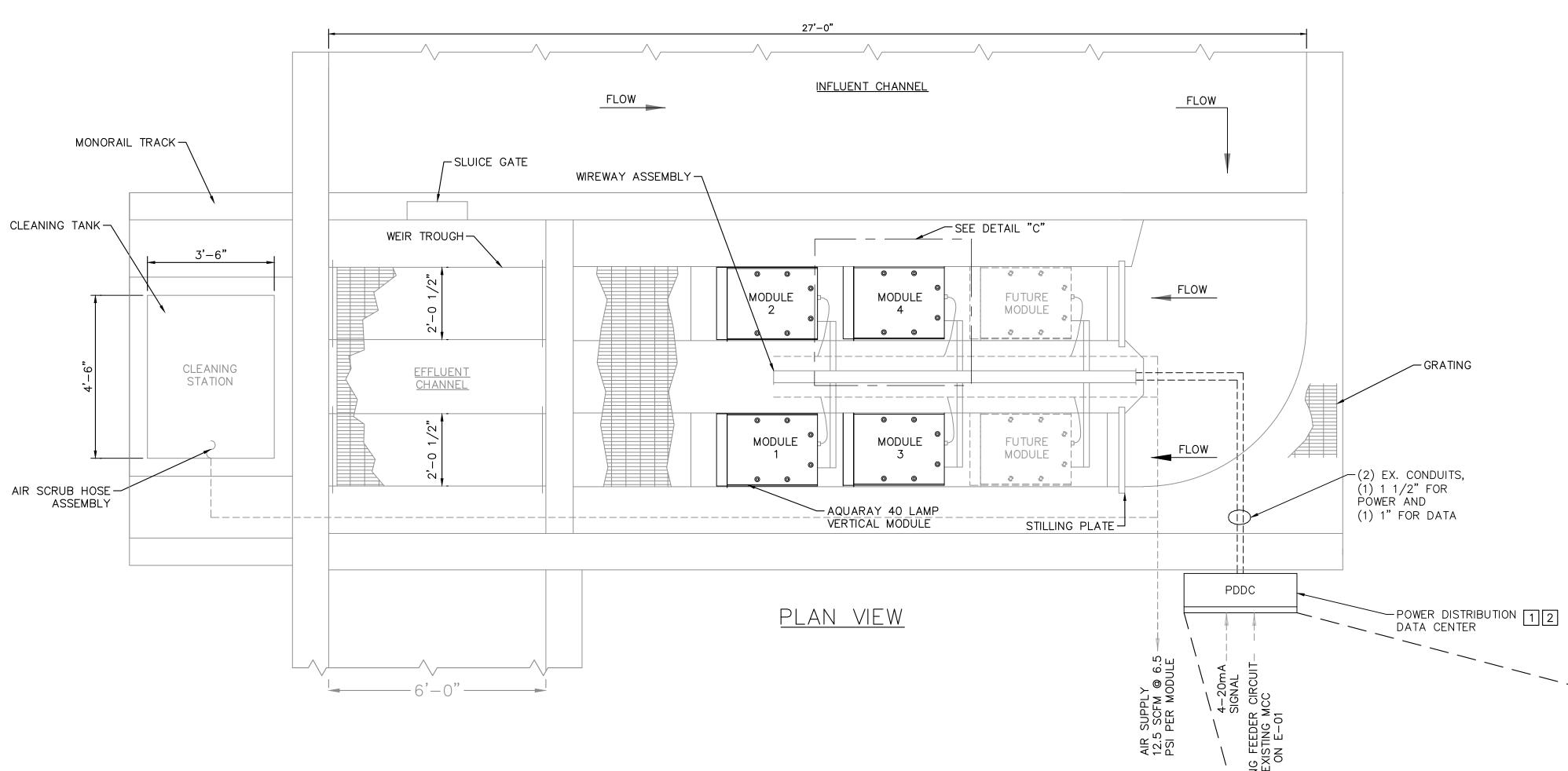
117513002 DATE DEC. 2023 SCALE AS SHOWN

> TING ELECTRICAL SITE PLAN

> > VFECTION ACEMENT

DISINFECT
REPLACEM
PREPARED FOR

SHEET NUMBER
E-01



## SHEET NOTES

- DEMOLISH EXISTING PDDC AND REPLACE WITH NEW PDDC. VERIFY EXISTING CONDUCTORS AND CONDUIT ARE IN GOOD CONDITION FOR REUSE. NOTIFY ENGINEER IF CONDUIT OR CONDUCTORS ARE NEEDING REPLACEMENT.
- DEMOLISH EXISTING CONDUIT AND CONDUCTORS FROM EXISTING PDDC TO UV MODULES.



SEATMENT PLANT UV
DISINFECTION

PTD ACTAINS

SHEET NUMBER
E-02

SHEET NUME

VENDOR CONTROL PANEL	FIELD JUNCTION	SCADA SYSTEM	
		TAG NAME TBD	
VENDOR PLC	FIBER OPTIC TRANSLATOR	FIBER OPTIC TRANSLATOR SCADA SERVER TAG NAME TBD	
	62.5 MICRON MULTI-MODE FIBER (2 PAIR MINIMUM)	TAG NAME TBD	
THE ***FUTURE*** SCADA SYSTEM WILL COMMUNICATE WITH THE FIELD (VENDOR, ETC.) PLCs VIA MODBUS TCP. THIS STANDARD COMMUNICATION PROTOCOL WILL ALLOW THE SCADA SYSTEM TO READ AND WRITE TO THE PLCs PER THE OPERATIONAL REQUIREMENTS OF EACH SYSTEM.		TAG NAME TBD	



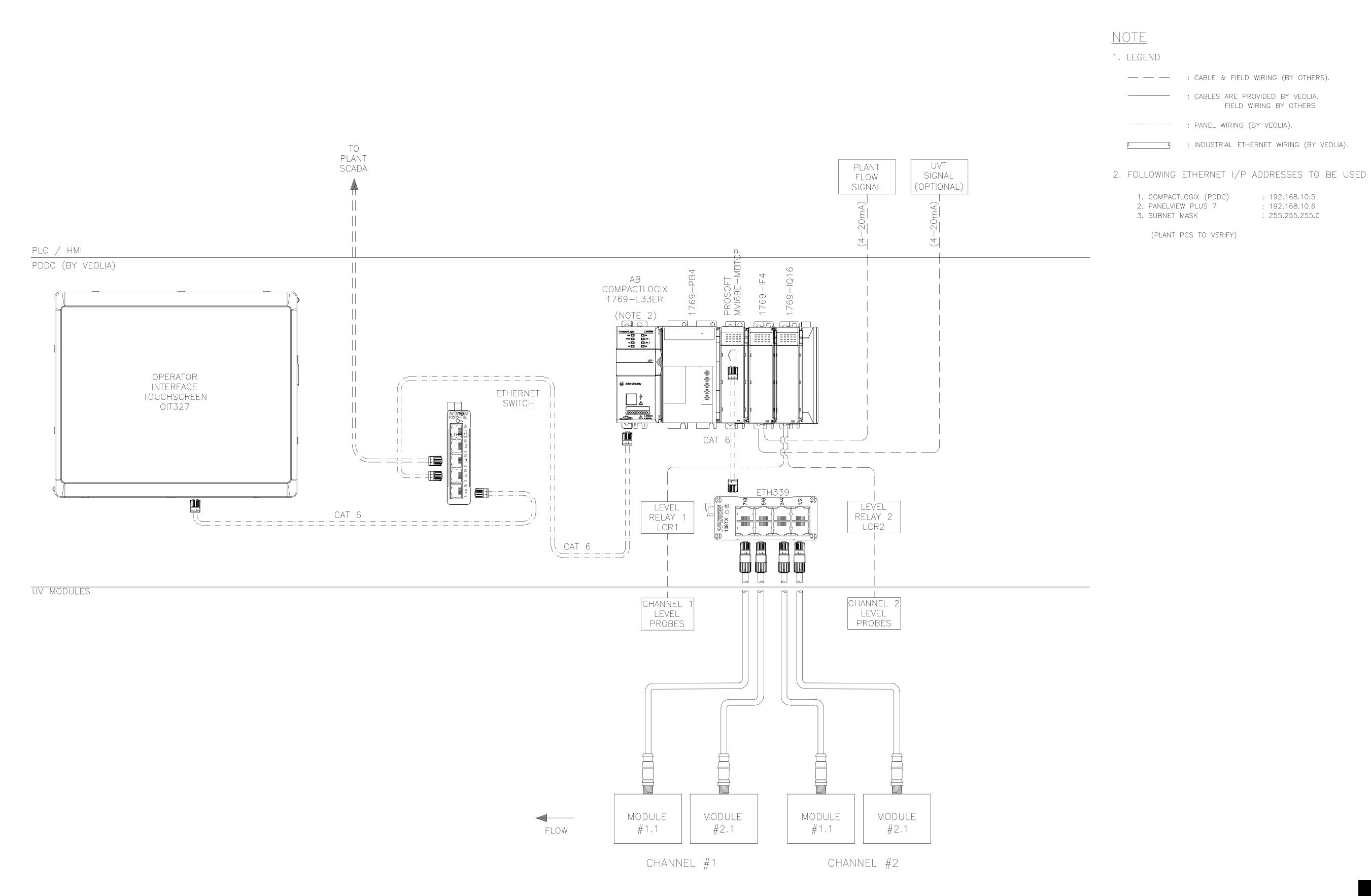
LEGEND

FIBER OPTIC CABLE

ETHERNET CABLE (CAT6)

SHEET NUMBER |-01

INSTRUMENTATION

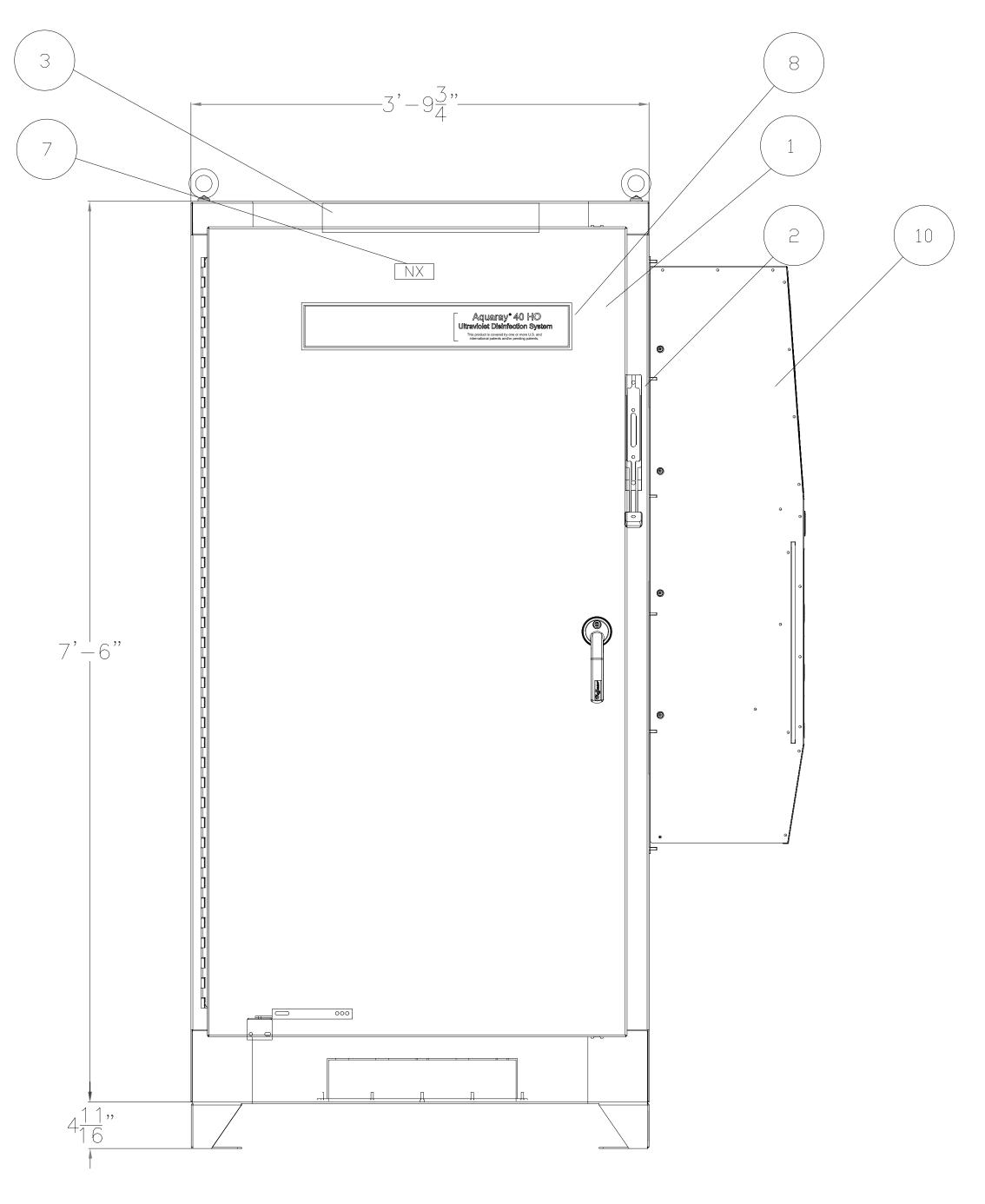


SHEET NUMBER

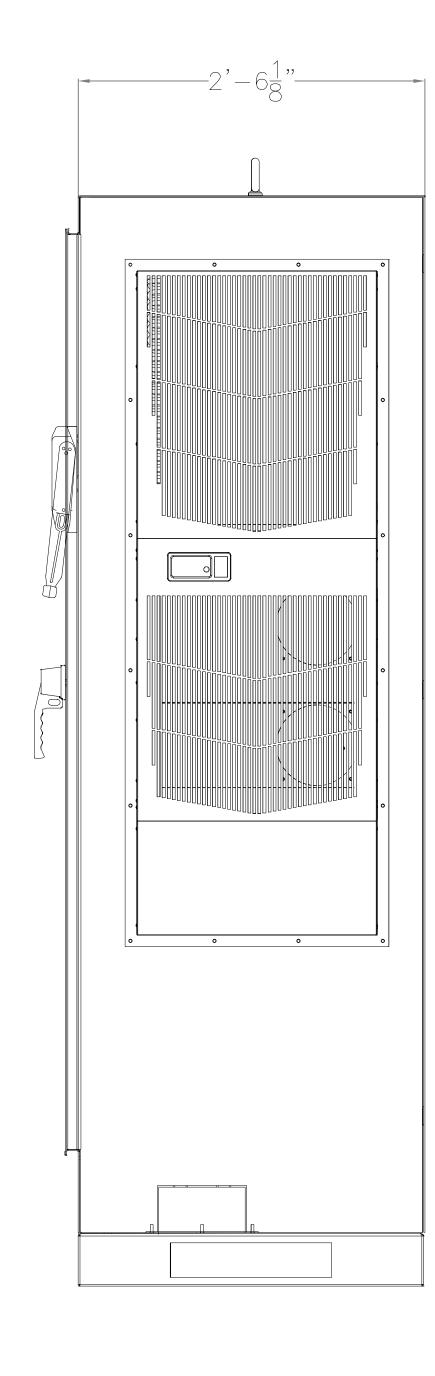
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INSTRUMENTATION

|-02



<u>front view</u> AGORA (90" x 46" x 30") NEMA 4x 304SS



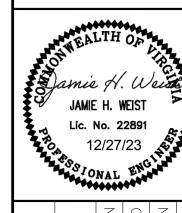
<u>right view</u>

# NOTES:

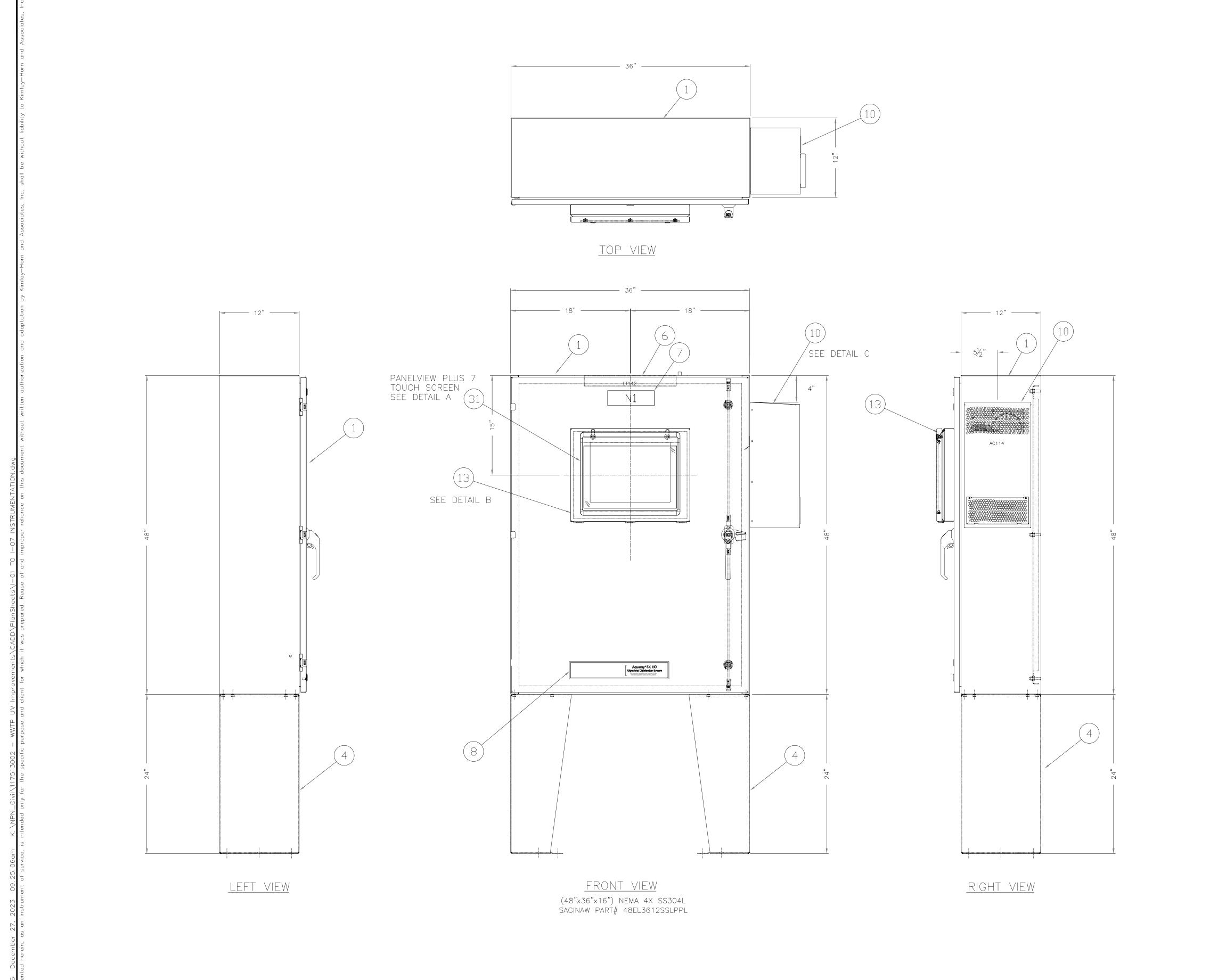
- 1. REFER TO DWG. #00511246-SNA-EL-251-0202-BQ-501 FOR LIST OF MATERIALS.
- 2. RUN DC AND AC CABLES IN SEPARATE WIREWAYS/STACKS.
- 3. DO NOT ROUTE ETHERNET CABLES IN/NEAR THE WIREWAYS THAT WOULD CARRY LAMP POWER CABLES.
- 4. REFER TO DWG. #00511246-SNA-EL-251-0202-LI-505 FOR LIST OF NAMEPLATES.
- 5. REFERENCE PSU FABRICATION DRAWINGS:

H000197-SNA-ME-252-0202-DD-100 H000197-SNA-ME-252-0202-DD-333 H000197-SNA-ME-252-1107-DD-071 H000197-SNA-ME-252-1107-DD-001

6. TYPICAL OF TWO (2) PSUs

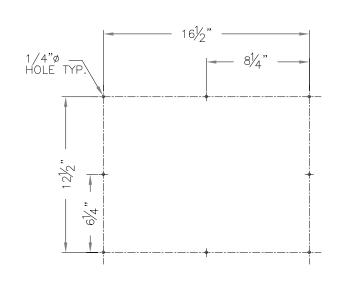


SHEET NUMBER 1 - 03



# NOTES:

- 1. REFER TO DWG #00511246-WTS-EL-251-0202-BQ-601 FOR LIST OF MATERIALS.
- 2. ENCLOSURE TO BE UL508 CERTIFIED.
- 3. REFER TO DWG.
- #00511246-WTS-EL-251-0202-LI-605 FOR LIST OF NAMEPLATES.



10.5"

DETAIL "A" PANEL VEIW

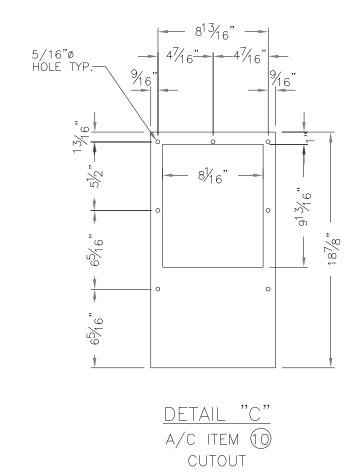
ITEM (31) CUTOUT

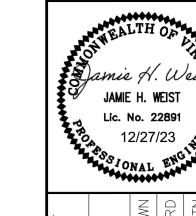
<u>DETAIL "B"</u>

WINDOW KIT

ITEM (3)

BOLT HOLE PATTERN





DATE
DEC. 2023
SCALE AS SHOWN
DESIGNED BY RD
DRAWN BY KTN

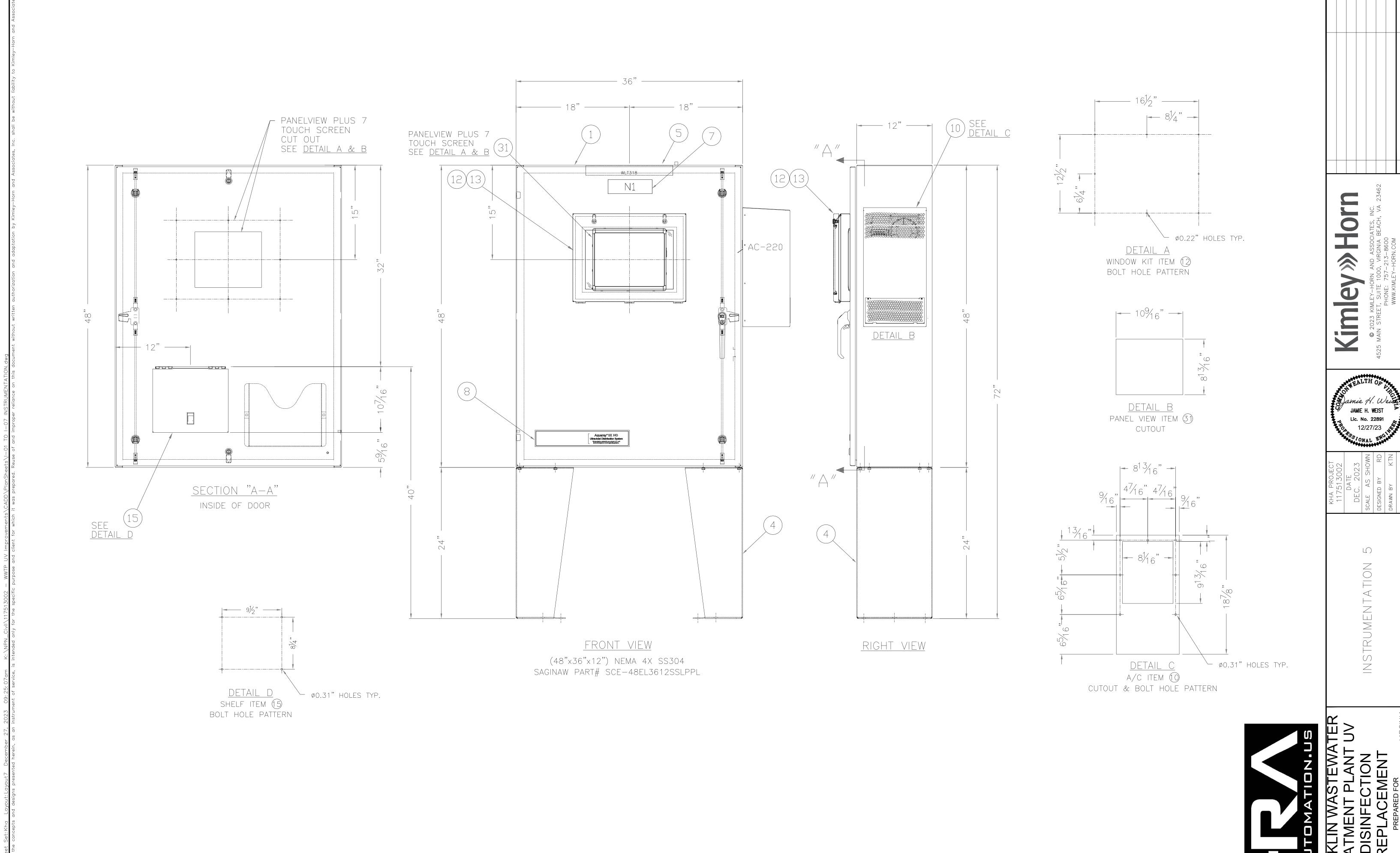
INSTRUMENTATION 4

IMENT PLANT UV ISINFECTION EPLACEMENT

SHEET NUMBER

1 — 0 4

HRAUTOMATION.US
FRANKLIN WASTEWATE



SHEET NUMBER 1 - 05