



DEPARTMENT OF PLANNING, BUILDING & ZONING

111 West Fox Street • Room 203

Yorkville, IL • 60560

(630) 553-4141

Fax (630) 553-4179

Petition 23-25**Karen Clementi on Behalf of the Fox Metro Water Reclamation
District****Site Plan Approval for Solar Panels
Property is Zoned M-1****INTRODUCTION**

The Fox Metro Water Reclamation District is requesting permission to install approximately nine hundred sixty (960) solar panels, related fencing, and related supporting infrastructure. The solar panels will cover approximately one (1) acre of the property and will be located inside a fence. A new structure will be built to house two (2) substations.

At maximum height, the solar panels will be approximately ten point five feet (10.5') above grade.

The energy generated from the solar panels will be consumed onsite. The Petitioners plan to start construction within sixty days of approval.

The application material is included as Attachment 1. The site plan is included as Attachment 2. The aerial of the property is included as Attachment 3.

The subject property was rezoned to M-1 in the summer of 2018.

Section 13:10 of the Zoning Ordinance requires site plan review for these types of improvements.

SITE INFORMATION

PETITIONER: Karen Clementi on Behalf of the Fox Metro Water Reclamation District

ADDRESS: 682 A Route 31, Oswego

LOCATION: East Side of Route 31 Approximately 0.9 Miles South of Route 30

TOWNSHIP: Oswego

PARCEL #: 03-05-353-011

LOT SIZE: 34.13 Acres (This Parcel Only)

EXISTING LAND USE: Wastewater Treatment Facility

ZONING: M-1

LRMP:	Existing Land Use	Institutional
	Future Land Use	Mixed Use Business
	Roads	Route 31 is a State maintained highway arterial highway
	Trails	None
	Floodplain/ Wetlands	Wetlands and Floodplains are present on the property.

REQUESTED ACTION: Site Plan Approval

APPLICABLE REGULATIONS: Section 4:18 – Solar Energy Systems, Private
Section 13.10 – Site Plan Review

SURROUNDING LAND USE

Location	Adjacent Land Use	Adjacent Zoning	Land Resource Management Plan	Zoning within ½ Mile
North	Institutional (Wastewater Treatment Facility)	M-1	Mixed Use Business	N/A
South	Comed ROW, Single-Family Residential	R-1	Comed ROW and Suburban Residential	N/A
East	Fox River, Park Land, and Single-Family Residential	A-1	Open Space and Suburban Residential	N/A
West	Industrial, Cemetery, and Residential	R-1, R-3, and M-1	Suburban Residential and Mixed Use Business	N/A

The above analysis was based on the subject parcel only and not the entire Fox Metro complex.

PHYSICAL DATA

ENDANGERED SPECIES REPORT

EcoCAT Report is included as Attachment 1, Pages 16-19. The Greater Redhorse and River Redhorse are noted to be in the area, but adverse impacts are unlikely and consultation was terminated.

NATURAL RESOURCES INVENTORY

Not Applicable.

ACTION SUMMARY

OSWEGO TOWNSHIP

Petition information was sent to Oswego Township on June 23, 2023.

OSWEGO FIRE PROTECTION DISTRICT

Petition information was to the Oswego Fire Protection District on June 23, 2023.

VILLAGE OF MONTGOMERY

Petition information was sent to the Village of Montgomery on June 23, 2023.

DESIGN STANDARDS

Pursuant to Section 13:10.D of the Kendall County Zoning Ordinance, the following shall be taken into account when reviewing Site Plans (Staff comments in bold):

Responsive to Site Conditions-Site plans should be based on an analysis of the site. Such site analysis shall examine characteristics such as site context; geology and soils; topography; climate and ecology; existing vegetation, structures and road network; visual features; and current use of the site. In addition to the standards listed below, petitioners must also follow the regulations outlined in this Zoning Ordinance. To the fullest extent possible, improvements shall be located to preserve the natural features of the site, to avoid areas of environmental sensitivity, and to minimize negative effects and alteration of natural features. Fragile

areas such as wetlands shall and flood plains should be preserved as open space. Slopes in excess of 20 percent as measured over a 10-foot interval also should remain as open space, unless appropriate engineering measures concerning slope stability, erosion and safety are taken. **The proposed location of the solar panels and related improvements are not located in any required setbacks, in any floodplains, or in any wetlands.**

Traffic and Parking Layout-Site plans should minimize dangerous traffic movements and congestion, while achieving efficient traffic flow. An appropriate number of parking spaces shall be provided while maintaining County design standards. The number of curb cuts should be minimized and normally be located as far as possible from intersections. Connections shall be provided between parking areas to allow vehicles to travel among adjacent commercial or office uses. Cross-access easements or other recordable mechanisms must be employed. **The proposed solar panels and related improvements will not impact traffic.**

Conflicts between pedestrians and vehicular movements should be minimized. When truck traffic will be present upon the site, the road size and configuration shall be adequate to provide for off-street parking and loading facilities for large vehicles. Barrier curb should be employed for all perimeters of and islands in paved parking lots, as well as for all service drives, loading dock areas, and the equivalent. Parking lots in industrial or commercial areas shall be paved with hot-mix asphalt or concrete surfacing. **Conflicts between pedestrians and vehicular movement should not occur.**

Site Layout-Improvements shall be laid out to avoid adversely affecting ground water and aquifer recharge; minimize cut and fill; avoid unnecessary impervious cover; prevent flooding and pollution; provide adequate access to lots and sites; and mitigate adverse effects of shadow, noise, odor, traffic, drainage and utilities on neighboring properties. **The site will be laid out to avoid the concerns mentioned in this paragraph.**

Consistent with the Land Resource Management Plan-The proposed use and the design of the site should be consistent with the Land Resource Management Plan. **This is true.**

Building Materials-The proposed site plan design shall provide a desirable environment for its occupants and visitors as well as its neighbors through aesthetic use of materials, textures and colors that will remain appealing and will retain a reasonably adequate level of maintenance. Buildings shall be in scale with the ultimate development planned for the area. Monotony of design shall be avoided. Variations in detail, form, and setting shall be used to provide visual interest. Variation shall be balanced by coherence of design elements. **This is not applicable.**

Relationship to Surrounding Development-A site shall be developed in harmony with neighboring street pattern, setbacks and other design elements. **The proposed site development is in harmony with the existing use of the property.**

Open Space and Pedestrian Circulation-Improvements shall be designed to facilitate convenient and safe pedestrian and bicycle movement within and to the property. **This is not applicable.**

Buffering-Measures shall be taken to protect adjacent properties from any undue disturbance caused by excessive noise, smoke, vapors, fumes, dusts, odors, glare or stormwater runoff. Incompatible, unsightly activities are to be screened and buffered from public view. **Staff does not foresee any issues with glare. If the threshold requirements of the Stormwater Management Ordinance are met, a stormwater permit will be required.**

Emergency Vehicle Access-Every structure shall have sufficient access for emergency vehicles. **Staff would like comments from the Kendall County Sheriff's Department and Oswego Fire Protection District on this issue.**

Mechanical Equipment Screening-All heating, ventilation and air conditioning equipment shall be screened on sides where they abut residential districts. **This is not a concern.**

Lighting-The height and shielding of lighting fixtures shall provide proper lighting without hazard to motorists on adjacent roadways or nuisance to adjacent residents by extending onto adjacent property. Cut-off lighting

*should be used in most locations, with fixtures designed so that the bulb/light source is not visible from general side view. **This is not a concern.***

*Refuse Disposal and Recycling Storage Areas-All refuse disposal and recycling storage areas should be located in areas designed to provide adequate accessibility for service vehicles. Locations should be in areas where minimal exposure to public streets or residential districts will exist. Screening shall be required in areas which are adjacent to residential districts or are within public view. Such enclosures should not be located in landscape buffers. Refuse containers and compactor systems shall be placed on smooth surfaces of non-absorbent material such as concrete or machine-laid asphalt. A concrete pad shall be used for storing grease containers. Refuse disposal and recycling storage areas serving food establishments shall be located as far as possible from the building's doors and windows. The use of chain link fences with slats is prohibited. **This is not a concern.***

RECOMMENDATION

Pending comments from ZPAC members, Staff recommends approval of the request subject to the following conditions:

1. The site shall be developed substantially in accordance with the site plan (Attachment 2).
2. The site shall be developed in accordance with all applicable federal, state, and local laws related to site development including, but not limited to, securing applicable permits and the provision contained in Section 4:18.K of the Kendall County Zoning Ordinance pertaining to proof of usage and decommissioning within ninety (90) days, if the solar panels are not in use.

ATTACHMENTS

1. Application Materials
2. Site Plan
3. Aerial



DEPARTMENT OF PLANNING, BUILDING & ZONING

111 West Fox Street • Yorkville, IL • 60560
 (630) 553-4141 Fax (630) 553-4179

APPLICATION

PROJECT NAME Fox Metro Water Reclamation Dist FILE #: _____

NAME OF APPLICANT (Including First, Middle Initial, and Last Name)

Karen K. Clementi

CURRENT LANDOWNER/NAME(s)

Fox Metro Water Reclamation District

SITE INFORMATION

ACRES

SITE ADDRESS OR LOCATION

ASSESSOR'S ID NUMBER (PIN)

94.4

682 Rte 31, Oswego, IL 60543

03-05-353-011

EXISTING LAND USE

CURRENT ZONING

LAND CLASSIFICATION ON LRMP

Sewage Treatment Plant

M1

REQUESTED ACTION (Check All That Apply):

___ SPECIAL USE

___ MAP AMENDMENT (Rezone to ___)

___ VARIANCE

___ ADMINISTRATIVE VARIANCE

___ A-1 CONDITIONAL USE for: _____

☒ SITE PLAN REVIEW

___ TEXT AMENDMENT

___ RPD (___ Concept; ___ Preliminary; ___ Final)

___ ADMINISTRATIVE APPEAL

___ PRELIMINARY PLAT

___ FINAL PLAT

___ OTHER PLAT (Vacation, Dedication, etc.)

___ AMENDMENT TO A SPECIAL USE (___ Major; ___ Minor)

¹PRIMARY CONTACT

PRIMARY CONTACT MAILING ADDRESS

PRIMARY CONTACT EMAIL

Karen K. Clementi

PRIMARY CONTACT PHONE

PRIMARY CONTACT FAX

PRIMARY CONTACT OTHER #(Cell, etc.)

²ENGINEER CONTACT

ENGINEER MAILING ADDRESS

ENGINEER EMAIL

Babatunde Woodard-James

ENGINEER PHONE

ENGINEER FAX

ENGINEER OTHER # (Cell, etc.)

I UNDERSTAND THAT BY SIGNING THIS FORM, THAT THE PROPERTY IN QUESTION MAY BE VISITED BY COUNTY STAFF & BOARD/ COMMISSION MEMBERS THROUGHOUT THE PETITION PROCESS AND THAT THE PRIMARY CONTACT LISTED ABOVE WILL BE SUBJECT TO ALL CORRESPONDANCE ISSUED BY THE COUNTY.

I CERTIFY THAT THE INFORMATION AND EXHIBITS SUBMITTED ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM TO FILE THIS APPLICATION AND ACT ON BEHALF OF THE ABOVE SIGNATURES. **THE APPLICANT ATTESTS THAT THEY ARE FREE OF DEBT OR CURRENT ON ALL DEBTS OWED TO KENDALL COUNTY AS OF THE APPLICATION DATE.**

SIGNATURE OF APPLICANT

DocuSigned by:

DATE

6/20/2023

FEE PAID: \$375

CHECK # _____

¹Primary Contact will receive all correspondence from County

²Engineering Contact will receive all correspondence from the County's Engineering Consultants

Walter E. Deuchler Associates Inc.
Consulting Engineers

230 WOODLAWN AVENUE, AURORA, ILLINOIS 60506

Area Code 312
897-4651

(UNDIVIDED 2/9ths INTEREST)
ELIZABETH HALL
GUARDIAN OF THE ESTATE OF LINDA SUE BRICKERT, A MINOR
TO
THE AURORA SANITARY DISTRICT
GUARDIAN'S DEED DOC. NO. 157621
12-13-67
(14.69 ACRES)

An undivided two ninths (2/9ths) interest in, of and to: That part of the Northwest quarter of Section 5, Township 37 North, Range 8 East of the Third Principal Meridian, described by commencing at the Southwest corner of the Northwest Quarter of Section 6, Township 37 North, Range 8 East of the Third Principal Meridian; thence North 0° 07' 30" West along the West line of the Northwest Quarter of said Section 6, 532.67 feet (8.07 chains); thence South 89° 49' 12" East 4502.1 feet to the Easterly line of the right-of-way of the Chicago Burlington and Quincy Railroad Company's main line for a point of beginning; thence North 31° 17' 48" East along said Easterly line 1007.52 feet to the South line of lands formerly owned by Rufus Gray; thence East along said South line 441.08 feet to the Westerly line of the right-of-way of the Chicago, Burlington & Quincy Railroad Company's branch line; thence Southerly along said Westerly line an arc distance of 833.49 feet to the Northwesterly line of the former Aurora, Elgin and Morris Railroad; thence South 55° 42' 25" West along said Northwesterly line 84.00 feet to a line drawn South 89° 49' 12" East from the point of beginning; thence North 89° 49' 12" West along said line 1025.54 feet to the point of beginning, in the Town of Oswego, Kendall County, Illinois, being 14.6878 acres.



Water Works and Sewerage	•	Buildings and Structures	•	Design and Construction
Streets and Street Lighting	•	Investigations and Reports	•	Project Financing

FOX METRO WATER RECLAMATION DISTRICT
PROPERTY ACQUISITION
PROPERTY LYING NORTH OF EXISTING TREATMENT PLANT SITE

LEGAL DESCRIPTION

THAT PART OF THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN; THENCE NORTH 00° 07' 30" WEST ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF SECTION 6 FOR 532.67 FEET (8.07 CHAINS); THENCE SOUTH 89° 49' 12" EAST, 4502.1 FEET TO THE EASTERLY LINE OF THE RIGHT-OF-WAY OF THE FORMER CHICAGO BURLINGTON AND QUINCY RAILROAD COMPANY MAIN LINE; THENCE NORTH 31° 17' 48" EAST ALONG SAID EASTERLY LINE, 1007.52 FEET TO THE POINT OF BEGINNING ON THE SOUTH LINE OF LANDS FORMERLY OWNED BY RUFUS GRAY; THENCE CONTINUING NORTH 31° 17' 48" EAST ALONG SAID EASTERLY LINE, 1396.03 FEET; THENCE SOUTH 90° 00' 00" EAST, 55.87 FEET TO THE WESTERLY LINE OF THE FORMER OTTAWA, OSWEGO AND FOX RIVER VALLEY RAILROAD; THENCE SOUTH 19° 37' 07" WEST ALONG SAID WESTERLY LINE, 683.22 FEET TO A POINT OF CURVATURE; THENCE SOUTHERLY ALONG SAID WESTERLY LINE, BEING ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 1954.59 FEET FOR 562.28 FEET TO SAID SOUTHERLY LINE OF LANDS FORMERLY OWNED BY RUFUS GRAY; THENCE SOUTH 90° 00' 00" WEST ALONG SAID SOUTHERLY LINE, 441.14 FEET TO THE POINT OF BEGINNING, CONTAINING 6.002 ACRES IN KENDALL COUNTY, ILLINOIS.

LEGAL DESCRIPTION
MARCH 21, 2011

PARCEL ONE:

LOT ONE (1) OF LARSON SUBDIVISION, IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS (EXCEPTING THEREFROM ANY PORTION THEREOF ZONED R-1 SPECIAL USE ON MARCH 18, 2011).

PARCEL TWO:

LOT 2 (EXCEPT THE SOUTHERLY 45 FEET, MEASURED ALONG THE WESTERLY LINE) IN LARSON SUBDIVISION IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

PARCEL THREE:

THAT PART OF LOTS 2 AND 3 OF LARSON'S SUBDIVISION DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID LOT 3 BEING ON THE CENTERLINE OF STATE ROUTE NO. 31; THENCE SOUTH 7° 01' WEST ALONG SAID CENTERLINE, 46.58 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 7° 01' EAST ALONG SAID CENTERLINE, 91.58 FEET; THENCE SOUTH 88° 31' EAST PARALLEL WITH THE NORTH LINE OF SAID LOT 3, 781.87 FEET TO THE EASTERLY LINE OF SAID LOT 2; THENCE SOUTH 19° 40' WEST ALONG THE EASTERLY LINES OF LOTS 2 AND 3, 106.9 FEET; THENCE SOUTH 9° 39' EAST ALONG THE EASTERLY LINE OF SAID LOT 3, 70.83 FEET TO A LINE DRAWN SOUTH 82° 36' EAST, PARALLEL WITH THE SOUTHERLY LINE OF SAID LOT 3, FROM THE PLACE OF BEGINNING; THENCE NORTH 82° 36' WEST ALONG SAID PARALLEL LINE, 775.16 FEET TO THE PLACE OF BEGINNING, IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

**FOX METRO SOUTH PLANT EXPANSION
REQUEST FOR ZONING VARIANCE**

**LEGAL DESCRIPTION
APRIL 28, 2011**

PARCEL ONE:

THAT PART OF LOT 3 OF LARSON SUBDIVISION, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID LOT, BEING ON THE CENTERLINE OF STATE ROUTE NO. 31; THENCE SOUTHERLY ALONG SAID CENTERLINE, 46.58 FEET FOR THE POINT OF BEGINNING; THENCE SOUTH 82° 36' EAST, PARALLEL WITH THE SOUTHERLY LINE OF SAID LOT, 775.16 FEET TO THE EASTERLY LINE OF SAID LOT; THENCE SOUTH 9° 39' EAST ALONG SAID EASTERLY LINE, 229.17 FEET; THENCE SOUTH 37° 16' EAST, 35.20 FEET TO THE SOUTHEAST CORNER OF SAID LOT; THENCE NORTH 82° 36' WEST ALONG THE SOUTHERLY LINE OF SAID LOT, 867.3 FEET TO THE CENTERLINE OF SAID STATE ROUTE NO. 31; THENCE NORTHERLY ALONG SAID CENTERLINE, 250.52 FEET TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

PARCEL TWO:

THAT PART OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST FRACTIONAL QUARTER OF SECTION 6, TOWNSHIP AND RANGE AFORESAID; THENCE SOUTH ALONG THE WEST LINE OF SAID SECTION 6, 1363.34 FEET; THENCE SOUTH 82° 36' EAST, 5298.7 FEET TO THE WESTERLY BANK OF FOX RIVER; THENCE NORTH 18° 46' WEST ALONG SAID WESTERLY BANK, 192.5 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 18° 46' WEST ALONG SAID WESTERLY BANK, 44.35 FEET; THENCE NORTH 37° 16' WEST ALONG SAID WESTERLY BANK, 227.8 FEET; THENCE NORTH 82° 36' WEST, 867.3 FEET TO THE CENTERLINE OF THE ORIGINAL ROAD; THENCE SOUTHERLY ALONG SAID CENTERLINE, 200 FEET TO A LINE DRAWN NORTH 82° 36' WEST FROM THE POINT OF BEGINNING; THENCE SOUTH 82° 36' EAST, 1014.21 FEET TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS (*AKA LOT 4 OF LARSON SUBDIVISION).

PARCEL THREE:

TRACT ONE:

LOT 5 OF LARSON'S SUBDIVISION, TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

TRACT TWO:

THAT PART OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE SOUTH LINE OF SAID SECTION 5 WITH THE CENTERLINE OF ILLINOIS STATE ROUTE NUMBER 31; THENCE NORTH $6^{\circ} 44'$ EAST ALONG SAID CENTERLINE, 745.75 FEET; THENCE SOUTH $82^{\circ} 30'$ EAST, 100 FEET TO THE POINT OF BEGINNING; THENCE SOUTHWESTERLY AT RIGHT ANGLES WITH THE LAST DESCRIBED COURSE, 110 FEET; THENCE SOUTH $82^{\circ} 30'$ EAST TO THE CENTER THREAD OF THE FOX RIVER; THENCE NORTHERLY ALONG SAID CENTER THREAD TO A LINE DRAWN SOUTH $82^{\circ} 30'$ EAST FOR THE POINT OF BEGINNING; THENCE NORTH $82^{\circ} 30'$ WEST TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

PARCEL FOUR:

THAT PART OF THE SOUTH HALF OF THE WEST PART OF SECTION 5, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, WHICH LIES EAST OF THE CENTERLINE OF STATE ROUTE NO. 31 AND SOUTH OF A LINE EXTENDING SOUTH $82^{\circ} 30'$ EAST FROM A POINT IN THE SAID CENTERLINE OF SAID HIGHWAY THAT IS NORTH $6^{\circ} 44'$ EAST, 745.75 FEET FROM THE SOUTH LINE OF SAID SECTION TO THE CENTER THREAD OF THE FOX RIVER (EXCEPT THE RIGHT OF WAY OF THE SAID STATE ROUTE NO. 31 AND A STRIP IN THE NORTHWEST CORNER 67 FEET WIDE AND 325 FEET LONG MEASURED ALONG THE EASTERLY LINE OF SAID HIGHWAY, USED FOR CEMETERY PURPOSES, AND ALSO EXCEPT THAT PART LYING SOUTH OF THE NORTH LINE OF PREMISES CONVEYED TO THE COMMONWEALTH EDISON COMPANY BY WARRANTY DEED RECORDED OCTOBER 9, 1959 AS DOCUMENT 127020 AND ALSO EXCEPT THAT PART DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE SOUTH LINE OF SAID SECTION 5 WITH THE CENTERLINE OF ILLINOIS STATE ROUTE NO. 31; THENCE NORTH 6° 44' EAST ALONG SAID CENTERLINE, 745.75 FEET; THENCE SOUTH 82° 30' EAST 100 FEET FOR THE POINT OF BEGINNING; THENCE SOUTHWESTERLY AT RIGHT ANGLES WITH THE LAST DESCRIBED COURSE, 110 FEET; THENCE SOUTH 82° 30' EAST TO THE CENTER THREAD OF THE FOX RIVER; THENCE NORTHERLY ALONG SAID CENTER THREAD TO A LINE DRAWN SOUTH 82° 30' EAST FROM THE POINT OF BEGINNING; THENCE NORTH 82° 30' WEST TO THE POINT OF BEGINNING, AND ALSO EXCEPTING THEREFROM THAT PART OF THE SOUTH HALF OF SECTION 5, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE CENTERLINE OF STATE ROUTE 31 WHICH IS 165.86 FEET NORTH OF THE INTERSECTION OF SAID CENTERLINE WITH THE SOUTH LINE OF SAID SECTION 5 AS MEASURED ALONG THE CENTERLINE OF SAID ROAD; THENCE NORTH 6° 03' 17" EAST ALONG SAID CENTERLINE, 85.00 FEET; THENCE EASTERLY AT AN ANGLE OF 87° 43' 10" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 99.08 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF 169° 46' 24" MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 87.59 FEET; THENCE NORTHERLY AT AN ANGLE OF 142° 32' 41" MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 69.19 FEET; THENCE NORTHERLY AT AN ANGLE OF 148° 08' 36" MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 52.57 FEET; THENCE EASTERLY AT AN ANGLE OF 106° 13' 20" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 859.60 FEET, MORE OR LESS, TO THE WEST BANK OF THE FOX RIVER; THENCE SOUTHERLY ALONG THE WEST BANK OF SAID FOX RIVER, 302.20 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF COMMONWEALTH EDISON LANDS DESCRIBED IN DOCUMENT NO. 127020 AT THE RECORDER'S OFFICE OF KENDALL COUNTY, ILLINOIS; THENCE WESTERLY ALONG SAID NORTHERLY LINE, 1109.30 FEET, MORE OR LESS, TO THE POINT OF BEGINNING), IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

PARCEL FIVE:

THAT PART OF THE SOUTH HALF OF SECTION 5, TOWNSHIP 37 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE CENTERLINE OF STATE ROUTE 31, WHICH IS 165.86 FEET NORTH OF THE INTERSECTION OF SAID CENTERLINE WITH THE SOUTH LINE OF SAID SECTION 5 AS MEASURED ALONG THE CENTERLINE OF SAID ROAD; THENCE NORTH $06^{\circ} 03' 17''$ EAST ALONG SAID CENTERLINE, 85.00 FEET; THENCE EASTERLY AT AN ANGLE OF $87^{\circ} 43' 10''$ MEASURED COUNTER-CLOCKWISE FROM THE LAST DESCRIBED COURSE, 99.08 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF $169^{\circ} 46' 24''$ MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 87.59 FEET; THENCE NORTHERLY AT AN ANGLE OF $142^{\circ} 32' 41''$ MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 69.19 FEET; THENCE NORTHERLY AT AN ANGLE OF $148^{\circ} 08' 36''$ MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 52.57 FEET; THENCE EASTERLY AT AN ANGLE OF $106^{\circ} 13' 20''$ MEASURED COUNTER-CLOCKWISE FROM THE LAST DESCRIBED COURSE, 1010.40 FEET, MORE OR LESS, TO THE WEST BANK OF THE FOX RIVER; THENCE SOUTHERLY ALONG THE WEST BANK OF SAID FOX RIVER, 320 FEET MORE OR LESS, TO THE NORTHERLY LINE OF THE COMMONWEALTH EDISON COMPANY LANDS DESCRIBED IN DOCUMENT 127020 AT THE RECORDER'S OFFICE OF KENDALL COUNTY, ILLINOIS; THENCE WESTERLY ALONG SAID NORTHERLY LINE, 1109.30 FEET, MORE OR LESS, TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF OSWEGO, KENDALL COUNTY, ILLINOIS.

g:\11\11012-00\2LEGAL-04-19-11

WARRANTY DEED

**INDIVIDUAL TO
CORPORATION**

The Grantor, THOMAS P. PECK, an unmarried man of the Township of Oswego, Kendall Illinois for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00), in hand paid, and other good and valuable consideration CONVEYS and WARRANTS to FOX METRO WATER RECLAMATION DISTRICT, a municipal corporation, of the Township of Oswego, Kendall County a corporation created and existing under and by virtue of the laws of the State of Illinois and duly authorized to transact business in the State of Illinois, the following described Real Estate to wit:

See attached legal description

Permanent Index No: 03-05-353-002
Commonly known as: 736 Route 31, Oswego, IL 60543

situated in the County of Kendall, in the State of Illinois, hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws of the State of Illinois.

Dated this 22 day of February, 1999.

(SEAL)

THOMAS P. PECK

(SEAL)

This document prepared by:
Attorney James R. Edwards

STATE OF ILLINOIS)
) SS.
COUNTY OF KEWEE)

I, the undersigned, a Notary Public, in and for said County and State aforesaid, DO
HEREBY CERTIFY, that Thomas P. Peck personally known to me to be the same person
whose name is subscribed to the foregoing instrument, appeared before me this day in person and
acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary
act, for the uses and purposes therein set forth, including the release and waiver of the right of
homestead.

Given under my hand and notarial seal, this 22-day of FEBRUARY, A.D., 1999.



NOTARY PUBLIC

Grantees Address

FOX METRO WATER RECLAMATION DISTRICT
682A Route 31
Oswego, IL 60543

Mail Tax Bills To:

Fox Metro Water Reclamation District
682A Route 31
Oswego, IL 60543

THIS INSTRUMENT PREPARED BY
Attorney James R. Edwards

AFTER RECORDING RETURN TO:

LAW OFFICES
Dallas C. Ingemunson

That part of Lot 3 of Larson Subdivision, described as follows: Commencing at the Northwest corner of said Lot, being on the center line of State Route No. 31; thence Southerly along said center line 46.58 feet for the point of beginning; thence South $82^{\circ} 36'$ East parallel with the Southerly line of said Lot, 775.16 feet to the Easterly line of said Lot; thence South $9^{\circ} 39'$ East along said Easterly line 229.17 feet; thence South $37^{\circ} 16'$ East thereof; thence North $82^{\circ} 36'$ West along the Southerly line of said Lot, 867.3 feet to the center line of said State Route No. 31; thence Northerly along said center line 250.52 feet to the point of beginning, in the Township of Oswego, Kendall County, Illinois.

Unofficial

EXEMPTIONS

The following deeds shall be except from the provisions of this Act, except as herein-after provided:

Section 4:

- (a) Deeds representing real estate transfers made before January 1, 1968, but recorded after that date.
- (b) Deeds to property acquired by any governmental body or from any governmental body or deeds to property between governmental bodies, or by or from any corporation, society, association, foundation or institution organized and operated exclusively for charitable, religious or educational purposes; except that such deeds, other than those in which the Administrators of Veteran's Affairs of the United States of America is the grantee pursuant to a foreclosure proceeding, shall not be exempt from filing the declaration.
- (c) Deeds which secure debt or other obligation.
- (d) Deeds which, without additional consideration, confirm, correct, modify or supplement a deed previously recorded.
- (e) Deeds where the actual consideration is less than \$100.
- (f) Tax Deeds.
- (g) Deeds of release of property which is security for a debt or other obligation.
- (h) Deeds of partition.
- (i) Deeds made pursuant to mergers, consolidation or transfer or sales of substantially all of the assets of corporations pursuant to plans of reorganization.
- (j) Deeds made by a subsidiary corporation to its parent corporation for no consideration other than the cancellation or surrender of the subsidiary's stock.
- (k) Deeds wherein there is an actual exchange of real estate, except that money difference or money's worth paid from one to the other shall not be exempt from the tax.
- (l) Deeds representing transfers subject to the imposition of a documentary stamp tax imposed by the government of the United States, except that such deeds shall not be exempt from filing the declaration.
- (m) Deeds issued to a holder of a mortgage, as defined in Section 15-103 of the Code of Civil Procedure, pursuant to a mortgage foreclosure proceeding or pursuant to a transfer in lieu of foreclosure.

This form is to be retained by the Recorder of Registrar of Titles.

1/2/91 pm

State of Illinois
DEPARTMENT OF REVENUE
STATEMENT OF EXEMPTION
UNDER
REAL ESTATE TRANSFER TAX ACT

I hereby declare that the attached deed represents a transaction exempt under provisions of Paragraph B Section 4 of the Real Estate Transfer Tax Act As set forth on the reverse side of this form.

Date this 22 day of February, 1999.


Signature of Buyer-Seller or their Representative

(FILE WITH PAUL ANDERSON, RECORDER OF DEEDS OF KENDALL COUNTY)

STATE OF ILLINOIS)
)SS.
COUNTY OF KENDALL)

DOCUMENT # _____

_____ Dallas C. Ingemanson, being, duly sworn on oath,
states that he resides at _____ Yorkville, IL

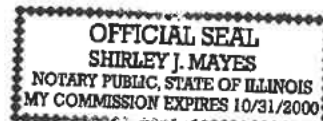
That the attached deed represents:

1. A distinct separate parcel on record prior to July 17, 1959.
2. A distinct separate parcel qualifying for a Kendall County building permit prior to August 10, 1971.
3. The division or subdivision of land is into parcels or tracts of 3 acres or more in size which does not involve any new streets or easements of access.
4. The division is of lots or blocks of less than 1 acre in any recorded subdivision which does not involve any new streets or easements of access.
5. The sale or exchange of parcels of land is between owners of adjoining and contiguous land.
6. The conveyance is of parcels of land or interests therein for use as right-of-way for railroads or other public utility facilities which does not involve any new streets or easements of access.
7. The conveyance is of land owned by a railroad or other public utility which does not involve any new streets or easements of access.
8. The conveyance is of land for highway or other public purpose or grants of conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use.
9. The conveyance is made to correct a description in prior conveyances.
10. The sale or exchange is of parcels or tracts of land following the division into no more than two parts of a particular parcel or tract of land existing on July 17, 1959 and not involving any new streets or easements of access.
11. The sale is of a single lot of less than 5 acres from a larger tract evidenced by a survey made by a registered surveyor which single lot is the first sale from said larger tract as determined by the dimensions and configuration thereof on October 1, 1973 and which sale does not violate any local requirements applicable to the subdivision of land.

CIRCLE NUMBER ABOVE WHICH IS APPLICABLE TO ATTACHED DEED.

AFFIANT further states that he makes this affidavit for the purpose of inducing the Recorder of Deeds of Kendall County, Illinois, to accept the attached deed for recording.

SUBSCRIBED and SWORN TO before me

this 22 day of Feb, 1999_____
Notary Public

Fox Metro Water Reclamation District 682 Rte 31, Oswego, IL 60543

Detailed description of proposed site improvements and/or expansion of operation:

Ground-mount fixed-tilt solar array providing power for on-site energy needs.

Driven-pile, ~7-8 feet high.

Time Table for construction of improvements:

Start date of 60 days after all ministerial approvals. Work to conclude within 90 days after start weather permitting.



Applicant: Fox Metro Water Reclamation District
Contact: Karen K. Clementi
Address: 682 Route 31
 Oswego, IL 60543

IDNR Project Number: 2316297
Date: 06/07/2023

Project: Fox Metro Water Reclamation District Solar Array
Address: 682 State Route 31, Oswego

Description: Ground-mount fixed-tilt solar array providing power for on-site energy needs. Driven-pile, ~7-8 feet high.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Greater Redhorse (*Moxostoma valenciennesi*)
 River Redhorse (*Moxostoma carinatum*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Kendall

Township, Range, Section:
 37N, 8E, 5



IL Department of Natural Resources
Contact
 Kyle Burkwald
 217-785-5500
 Division of Ecosystems & Environment

Government Jurisdiction
 Kendall County
 Matthew H. Asselmeier
 111 West Fox Street
 Yorkville, Illinois 60560 -1498

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

IDNR Project Number: 2316297

**EcoCAT Receipt****Project Code** 2316297**APPLICANT****DATE**

Fox Metro Water Reclamation District
 Karen K. Clementi
 682 Route 31
 Oswego, IL 60543

6/7/2023

DESCRIPTION**FEE****CONVENIENCE FEE****TOTAL PAID**

EcoCAT Consultation

\$ 125.00

\$ 2.81

\$ 127.81

TOTAL PAID**\$ 127.81**

Illinois Department of Natural Resources
 One Natural Resources Way
 Springfield, IL 62702
 217-785-5500
dnr.ecocat@illinois.gov



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

JB Pritzker, Governor

Natalie Phelps Finnie, Director

June 07, 2023

Karen K. Clementi
Fox Metro Water Reclamation District
682 Route 31
Oswego, IL 60543

RE: Fox Metro Water Reclamation District Solar Array
Project Number(s): 2316297
County: Kendall

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

The Department encourages all new and existing solar energy facilities to participate in the Pollinator Scorecard Program. More information can be found here:

<https://www2.illinois.gov/dnr/conservation/pollinatorscorecard/pages/default.aspx>

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.



Kyle Burkwald
Division of Ecosystems and Environment
217-785-5500

FOX METRO WATER RECLAMATION SS-C METER # 230 235 191 – 250 KW FIXED TILT GROUND MOUNT GRID TIED PHOTOVOLTAIC SYSTEM



TEAM

SUMMARY

DESCRIPTION

LOCATION

SHEET INDEX

CONTRACTOR:

Simpleray
800-8080-SUN
2601 West Briggs Avenue
Fairfield, Iowa 52556
<https://www.Simpleray.com>

THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL AND
PROPERTY. ANY REPRODUCTION, DISCLOSURE, OR USE
THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT
OF SIMPLERAY

SYSTEM DESIGN:

ENGINEER:

PROJECT:

Shawn Ajazi
682 State Rte 31,
Oswego, IL 60543
Project Number 104160973

SECTION 16001 – SCOPE OF WORK

1. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES FOR THE PROPER INSTALLATION AND OPERATION OF THE ELECTRICAL WORK AS INDICATED ON THE DRAWINGS.
2. REMOVE OR RELOCATE EXISTING ELECTRICAL EQUIPMENT AS REQUIRED BY THE PROJECT.
3. TEST AND OPERATE ALL SYSTEMS TO DEMONSTRATE TO THE OWNER THAT THE INSTALLATION OF THESE SYSTEMS CONFORM TO DESIGN INTENT.

SECTION 16050- BASIC ELECTRICAL REQUIREMENTS

1. COMPLY WITH ALL RULES AND REGULATIONS OF THE OWNER, ALL LOCAL, STATE AND FEDERAL LAWS, THE RULES OF THE NATIONAL FIRE PROTECTION ASSOCIATION (INCLUDING THE NEC), THE OWNER'S UNDERWRITER, AND ALL PUBLIC UTILITIES HAVING CONNECTION WITH ANY OF THE AFFECTED SYSTEMS. ALL EQUIPMENT SHALL BE UL LABELED.

2. OBTAIN, PAY FOR AND DELIVER ALL PERMITS, CERTIFICATES OF INSPECTION, AND PAY ALL COSTS, REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. DELIVER ALL PERMITS, CERTIFICATES AND APPROVALS TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK.

3. APPLY FOR SERVICE FROM THE ELECTRIC UTILITY COMPANY AND SCHEDULE THEIR WORK IN COORDINATION WITH THE PROJECT.

4. FURNISH INDEPENDENT INSPECTION AGENCY CERTIFICATES FOR ALL ELECTRICAL WORK.

5. IT IS THE INTENTION OF THE DRAWINGS AND SPECIFICATIONS TO CALL FOR CLEAR FINISHED WORK, TESTED AND READY FOR OPERATION. PROVIDE ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE IN ALL RESPECTS AND READY FOR OPERATION. EVEN IF NOT PARTICULARLY SPECIFIED OR SHOWN, WITHOUT ADDITIONAL EXPENSE, MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT MANIFESTLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE VARIOUS SYSTEMS, SHALL BE INCLUDED IN THE WORK.

6. KEEP RECORD DRAWINGS IN THE JOB SITE OFFICE. MAINTAIN RECORD DRAWINGS DAILY AND MAKE THEM AVAILABLE FOR INSPECTION BY THE OWNER OR ENGINEER UPON DEMAND. AT THE COMPLETION OF THE PROJECT, SEND THE PRINTS INTO A SET AND FORWARD THEM TO THE ENGINEER. THE RECORD DRAWINGS SHALL CONSIST OF A SEPARATE SET OF WHITE PRINTS OF THE CONTRACT DRAWINGS ON WHICH SHALL BE RECORDED IN INK OR COLORED PENCIL THE FOLLOWING:

A. DIMENSIONED LOCATIONS OF CONDUITS BURIED BELOW, OR CAST INTO, CONCRETE FLOOR SLABS.

B. LOCATIONS OF ELECTRIC PANELS, AND OTHER WALL MOUNTED EQUIPMENT, IF DIFFERENT FROM CONTRACT DRAWINGS.

C. ALL WORK ADDED TO THE CONTRACT BY FIELD SKETCHES, ADDENDUM OR CHANGE ORDER.

7. BEFORE COMPLETION OF THE INSTALLATION, FURNISH ONE COPY OF MANUALS COVERING IN DETAIL ALL REQUIRED INSTRUCTIONS FOR THE OPERATION OF THE SYSTEMS PROVIDED.

8. FURNISH ALL LABOR REQUIRED BY THE ENGINEER, OR INSPECTION AGENCIES TO EXAMINE THE WORK DURING THE COURSE OF CONSTRUCTION.

9. THE QUANTITY AND SIZE OF WIRES AND CONDUIT SHOWN ON DRAWINGS AND WIRING DIAGRAMS 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 PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS.

10. FURNISH A WRITTEN WARRANTY FOR THE INSTALLATION, STATING THAT ALL MATERIALS AND EQUIPMENT AND THE SYSTEMS WHICH THEY COMPRISE ARE FREE FROM DEFECTS OR FLAWS IN WORKMANSHIP OR OPERATION, AND ARE FUNCTIONING PROPERLY AND CAPABLE OF PROVIDING SATISFACTORY OPERATION IN ACCORDANCE WITH DESIGN INTENT. REPAIR OR REPLACE ANY DEFECTIVE WORKMANSHIP, DEFECTIVE MATERIALS OR EQUIPMENT, OR CORRECT UNSATISFACTORY PERFORMANCE, WITHOUT EXPENSE TO THE OWNER. MAKE REPAIRS OR REPLACEMENTS PROMPTLY AND AT THE CONVENIENCE OF THE OWNER. THE WARRANTY SHALL BE IN EFFECT FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE OF THE SYSTEMS AS A WHOLE.

11. MATERIAL OR EQUIPMENT SPECIFIED BY MANUFACTURER, BRAND NAME, TYPE OR CATALOG NUMBER, ARE DESIGNED TO ESTABLISH STANDARDS OF DESIRED QUALITY, PERFORMANCE, DIMENSIONS AND OTHER CHARACTERISTICS. SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. WHERE ANY SUBSTITUTION REQUIRES REDESIGN OR RELOCATION OF THE STRUCTURES, PIPING, RACEWAYS, WIRING OR ANY OTHER PART OF THE ELECTRICAL, MECHANICAL, OR ARCHITECTURAL WORK, ALL REDESIGN SHALL BE PREPARED BY THE CONTRACTOR AT HIS OWN EXPENSE AND SUBMITTED FOR THE APPROVAL OF THE ENGINEER. ALL ADDITIONAL WORK MADE NECESSARY BY THE SUBSTITUTION SHALL BE PROVIDED WITHOUT EXTRA COST.

12. UPON REQUEST, PROVIDE COPIES OF SAFETY DATA SHEETS (SDS) FOR ANY MATERIALS USED IN THE WORK AND NOT SUPPLIED BY THE OWNER. SDS SHEETS SHALL BE PROVIDED BEFORE DELIVERY OF MATERIALS TO THE JOB SITE.

13. ALL WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE. ALL WORKMANSHIP SHALL PRESENT A NEAT AND FINISHED APPEARANCE. COMPLY WITH NECA RULES WHEREVER POSSIBLE.

14. PROTECT THE BUILDING, ITS CONTENTS AND ALL NEW WORK AGAINST DAMAGE FROM ANY SOURCE UNTIL FINAL COMPLETION AND ACCEPTANCE BY THE OWNER. REPAIR OR REPLACE ANY DAMAGED WORK AT NO COST TO THE OWNER.

15. AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL AND RUBBISH.

16. PROVIDE ALL RIGGING, SCAFFOLDING, LADDERS, AND OTHER EQUIPMENT REQUIRED FOR THE INSTALLATION OF THE WORK.

17. ESTABLISH CLEARANCES REQUIRED TO DELIVER AND INSTALL ALL EQUIPMENT, IF STRUCTURES OR EQUIPMENT MUST BE ALTERED TO PROVIDE PASSAGE, RESTORE STRUCTURES, EQUIPMENT AND SYSTEMS TO THEIR ORIGINAL CONDITION.

18. MAKE A COMPLETE INSPECTION OF ALL THE ELECTRICAL WORK AFTER COMPLETION OF THE PROJECT. PERFORM TESTS IN COMPLIANCE WITH EACH EQUIPMENT MANUFACTURER'S TEST PROCEDURES AND THE ACCEPTANCE TEST STANDARDS OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION (NETA), PROVIDE ALL INSTRUMENTS, METERS, WIRING, PERSONNEL, ETC., REQUIRED FOR TESTING.

SECTION 16101 – CONDUIT SYSTEMS

1. PROVIDE SUITABLE EQUIPMENT GROUNDING CONDUCTOR FOR ALL CONNECTIONS. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE CONSTRUCTED OF SINGLE STRIP, FLEXIBLE, CONTINUOUS, INTERLOCKED AND DOUBLE-WRAPPED STEEL GALVANIZED INSIDE AND OUTSIDE AND COATED WITH LIQUID-TIGHT JACKET OF FLEXIBLE POLYVINYL CHLORIDE (PVC). FITTINGS SHALL BE LIQUID-TIGHT COMPRESSION TYPE.

2. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT SHALL BE CONSTRUCTED OF SMOOTH INNER SURFACE WITH INTEGRAL REINFORCEMENT WITHIN THE CONDUIT WALL AND TO BE DESIGNED AS A TYPE LFN-C-B.

3. METALLIC CONDUIT FITTINGS SHALL BE COMPRESSION OR SET SCREW FOR CONDUIT. FOR CONDUIT SIZES UP TO 4" WHEN INDOOR AND NON-HAZARDOUS ENVIRONMENT. FOR OUTDOOR OR HAZARDOUS ENVIRONMENT, FITTINGS WILL BE COMPRESSION STYLE ONLY. FITTINGS SHALL BE TYPE OF DIE CAST ZINC CONSTRUCTION.

4. USE SCHEDULE 40 PVC CONDUIT FOR ALL GROUNDING CONDUCTORS AND OTHER SPECIFIC USES AS INDICATED BY THE DRAWINGS. HEAVY WALL PVC CONDUIT SHALL BE SCHEDULE 40, 90° C, UL RATED, CONSTRUCTED OF POLYVINYL CHLORIDE AND CONFORMING TO NEMA TC-2 FOR DIRECT BURIAL OR NORMAL ABOVE GROUND USE. FITTING SHALL BE OF THE SOLVENT WELD TYPE. CONDUITS SHALL BE SUPPORTED WITH NON-METALLIC DEVICES.

5. MINIMUM SIZE CONDUIT UNLESS OTHERWISE INDICATED SHALL BE 3/4-INCH TRADE SIZE. ALL CONDUITS WHICH ARE TO REMAIN EMPTY SHALL BE PROVIDED WITH A NYLON PULL LINE. CONDUITS SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT BE ATTACHED TO THE SUPPORT SYSTEMS PROVIDED BY OTHER TRADES UNLESS SPECIFICALLY INDICATED.

SECTION 16120 – WIRE AND CABLES (1000 VOLT AND BELOW)

1. WIRE AND CABLES FOR FEEDER AND BRANCH CIRCUITS SHALL BE SINGLE ANNEALED STRANDED COPPER CONDUCTORS WITH CONDUCTIVITY OF NOT LESS THAN 98 PERCENT AT 20° C. WIRE AND CABLE SHALL BEAR THE UL LABEL AND SHALL MEET OR EXCEED THE REQUIREMENTS OF IPCA-NEMA STANDARDS S-19-B1 AND ASTM D-1592.

2. DC WIRE SHALL BE RATED FOR 600 VOLTS, AC WIRE SHALL BE RATED FOR 600 VOLTS.

3. WIRE SIZES SHALL GENERALLY BE AS FOLLOWS:

A. CONTROL AND INTERLOCK WIRING NO. 14 AWG.

B. BRANCH CIRCUIT AND FEEDER WIRING NO. 12 AWG AND LARGER.

4. WIRE AND CABLE INSULATION SHALL BE AS FOLLOWS:

A. CONDUCTORS SIZE NO. 14 AWG THROUGH NO. 4/0 AWG SHALL BE 600 VOLT TYPE THHN FOR DRY AND WET LOCATIONS WITH A MAXIMUM OPERATING TEMPERATURE OF 90° C.

B. CONDUCTORS SIZE 250 KCMIL AND LARGER SHALL BE 600 VOLT TYPE THHN/THWN OR XHHW FOR DRY AND WET LOCATIONS WITH A MAXIMUM OPERATING TEMPERATURE OF 90° AND 75° C, RESPECTIVELY.

5. FOR CONVENIENCE IN TESTING AND MAINTENANCE ALL SECONDARY CONDUCTORS SHALL BE COLOR-CODED IN ACCORDANCE WITH THE ESTABLISHED BUILDING STANDARD. CONTROL CIRCUIT WIRING SHALL HAVE SEPARATED IDENTIFYING COLORS OR NUMBERS.

6. METAL-CLAD CABLE (TYPE MC) SHALL BE PERMISSIBLE FOR INSTALLATION OF INDOOR BRANCH CIRCUITS NOT MORE THAN 30 AMPERES ABOVE ACCESSIBLE CEILING AND IN HOLLOW DRYWALL PARTITIONS, WITHOUT BEING INSTALLED IN RACEWAYS, IF PERMISSIBLE BY CODE. TYPE MC CABLES SHALL NOT BE INSTALLED EXPOSED, INCLUDING IN ELECTRICAL CLOSETS. TYPE MC CABLE SHALL BE SUPPORTED AND SECURED NOT EXCEEDING EVERY 6'-FEET, AND SHALL BE SECURED WITHIN 12-INCHES OF EVERY BOX, CABINET, OR FITTING FOR CABLES. TYPE MC CABLE SHALL NOT BE USED IN HEALTH CARE FACILITIES. METAL-CLAD CABLE (TYPE MC) SHALL BE COPPER, MULTI CONDUCTOR TYPE, WITH NO MORE THAN EIGHT CONDUCTORS. THE INTERLOCKING SHEATH SHALL BE OF EITHER GALVANIZED STEEL OR ALUMINUM. CONDUCTORS SHALL BE SOFT-ANNEALED COPPER, MEETING ASTM B3, AND STRANDED AS PER ASTM B8. TYPE MC CABLE SHALL BE UL LABELED. THE GROUNDING CONDUCTOR SHALL BE INSULATED AND SHALL BE ROUTED WITH THE CIRCUIT CONDUCTORS.

7. PROVIDE UL LABELED CONNECTORS OF AMPACITY RATINGS AND TYPES FOR APPLICATIONS INDICATED.

A. CONNECTIONS FOR WIRE SIZES NO. 14 AWG THROUGH NO. 10 AWG SHALL BE MADE WITH 3-M "SCOTCHLOCK" SPRING CONNECTORS.

8. CONDUCTORS NO. 8 AWG AND LARGER SHALL BE SPLICED AND TAPPED WITH COLOR-KEYED WROUGHT COPPER COMPRESSION CONNECTORS AS MANUFACTURED BY THOMAS & BETTS. THE MANUFACTURER'S RECOMMENDED TOOLING SHALL BE USED FOR INSTALLATION. LONG BARREL SLEEVES, TWO HOLE LUGS AND "C" TYPE CONNECTORS SHALL BE USED. SPlice AND TAP CONNECTORS SHALL BE COMPATIBLE WITH CONDUCTOR MATERIAL.

9. UNLESS SPECIFICALLY INDICATED OTHERWISE, EACH SINGLE PHASE BRANCH CIRCUIT SHALL CONSIST OF RESPECTIVE PHASE CONDUCTOR AND A DEDICATED NEUTRAL CONDUCTOR.

9. PROVIDE A SEPARATE INSULATED GROUND WIRE IN EACH FEEDER, BRANCH CIRCUIT AND OTHER CONDUITS CONTAINING CURRENT CARRYING CONDUCTORS. EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN-COLORED OR IDENTIFIED WITH GREEN TAPE AT ALL ACCESS POINTS.

SECTION 16170 – DISCONNECT SWITCHES

1. PROVIDE SURFACE-MOUNTED, HEAVY-DUTY TYPE (WHEN NECESSARY), SHEET-STEEL ENCLOSED SAFETY SWITCHES, OF TYPES, SIZES AND ELECTRICAL CHARACTERISTICS INDICATED. SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK TYPE CONSTRUCTED SO THAT SWITCH BLADES ARE VISIBLE IN OFF POSITION WITH DOOR OPEN. EQUIP WITH OPERATING HANDLE WHICH IS INTEGRAL PART OF ENCLOSURE BASE AND WHOSE OPERATING POSITION IS EASILY RECOGNIZABLE, AND IS PADLOCKABLE IN THE ON OR OFF POSITION. CONSTRUCT CURRENT CARRYING PARTS OF HIGH-CONDUCTIVITY COPPER, WITH SILVER-TUNGSTEN TYPE SWITCH CONTACTS AND POSITIVE PRESSURE TYPE REINFORCED FUSE CLIPS. SWITCH ENCLOSURES GENERALLY SHALL BE NEMA TYPE I AND 3R FOR RAIN-TIGHT CONSTRUCTION.

2. PROVIDE FUSES FOR SAFETY SWITCHES, AS RECOMMENDED BY SWITCH MANUFACTURER, OF CLASSES, TYPES AND RATINGS NEEDED TO FULFILL ELECTRICAL REQUIREMENTS FOR SERVICE INDICATED.

SECTION 16180 – SUPPORTING DEVICES

1. PROVIDE SUPPORTING DEVICES OF TYPES, SIZES AND MATERIALS INDICATED, HAVING THE FOLLOWING CONSTRUCTION FEATURES:

A. CLEVIS HANGERS SHALL BE USED FOR SUPPORTING 2" AND LARGER CONDUIT, AND SHALL BE CONSTRUCTED OF GALVANIZED STEEL WITH 1/2" DIAMETER HOLE FOR ROUND STEEL ROD.

B. ONE-HOLE CONDUIT STRAPS SHALL BE USED FOR SUPPORTING 3/4" TO 1-1/2" CONDUIT AND SHALL BE CONSTRUCTED OF GALVANIZED STEEL.

C. TWO-HOLE CONDUIT STRAPS SHALL BE USED FOR SUPPORTING CONDUIT ON STEEL RACKS; OR CRUSH CLAMP STYLE CLAMPS CAN BE USED.

2. PROVIDE STEEL ANCHORS OF TYPES, SIZES AND MATERIALS REQUIRED FOR THE EQUIPMENT BEING SUPPORTED.

3. PROVIDE CABLE SUPPORTS WITH INSULATING WEDGING PLUS FOR NON-ARMORED TYPE ELECTRICAL CABLES IN RISERS.

4. PROVIDE U-CHANNEL, STRUT SYSTEM FOR SUPPORTING ELECTRICAL EQUIPMENT, 12-GAUGE HOT-DIP GALVANIZED STEEL OF TYPES AND SIZES INDICATED AND WITH THE CONDUIT CLAMPS, CONDUIT HANGERS AND OTHER FITTINGS WHICH MATE AND MATCH WITH U-CHANNEL.

5. INSTALL HANGERS, SUPPORTS, CLAMPS AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL CONDUITS TO BE SUPPORTED TOGETHER ON TRAPEZE TYPE HANGERS WHERE POSSIBLE. INSTALL SUPPORTS WITH SPACINGS INDICATED AND IN COMPLIANCE WITH NEC REQUIREMENTS.

6. NO "JIFFY" TYPE CONDUIT SUPPORTS SHALL BE INSTALLED EXPOSED BELOW 8'-0" A.F.F. USE ONE-HOLE STRAPS INSTEAD.

SECTION 16195 – ELECTRICAL IDENTIFICATION

1. PANELBOARDS MOTOR STARTERS AND SIMILAR ELECTRICAL ENCLOSURES SHALL BE IDENTIFIED BY NAMEPLATES SHOWING THE EQUIPMENT IDENTIFICATION NUMBER, VOLTAGE AND FEEDER OR BRANCH CIRCUIT NUMBERS (E.G. PANEL LP-1-208/120 VOLTS - FDR 1-5). NAMEPLATES GENERALLY SHALL BE CUSTOM TWO-TONE PRINTED WEATHER RESISTANT LABELS. NAMEPLATES, UNLESS OTHERWISE INDICATED, SHALL BE BLACK LETTERS ON WHITE BACKGROUND.

2. CONDUITS SHALL BE IDENTIFIED IN EACH ROOM AND 50 FOOT ON CENTERS IN OPEN AREAS BY VOLTAGE AND FEEDER NUMBER (E.G. FDR 1-5 - 208/120 VOLTS). CONDUIT MARKERS SHALL BE STANDARD PRE-PRINTED FLEXIBLE PLASTIC SHEET MATERIAL OR SELF-ADHERING VINYL LABELS.

3. FEEDER CONDUCTORS IN EACH PULL BOX AND IDENTIFIED WITH A PAPER TAG AS TO NUMBER, VOLTAGE AND CABLE SIZE (E.G. FDR 1-5 - 208/120 VOLTS - 4 NO. 250 MCM). BRANCH CIRCUITS SHALL BE IDENTIFIED WITH A PAPER TAG IN EACH JUNCTION AND OUTLET BOX BY PANEL AND CIRCUIT NUMBER (E.G. PNL LP-5 -CIRC. 3).

SECTION 16470 – PANELBOARDS

1. PANELBOARDS SHALL BE NEMA 1 FOR SURFACE OR RECESSED MOUNTING, CIRCUIT BREAKER TYPE, IN A SINGLE WIDTH FACTORY ASSEMBLED ENCLOSURE INCLUDING BOX, INTERIOR, TRIM AND FRONT. PANELBOARDS AND ENCLOSING CABINETS SHALL CONFORM TO STANDARDS ESTABLISHED BY UNDERWRITERS LABORATORIES, INC., AND REQUIREMENTS OF NEC AND SHALL BEAR THE UL LABEL, UNLESS OTHERWISE INDICATED. ALL PANELBOARDS SHALL BE MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE TO THE FLOOR SHALL NOT EXCEED 6'-7".

2. EACH PANELBOARD SHALL BE PROVIDED WITH AN INSULATED NEUTRAL BUS AND A GROUND BUS BONDED TO THE PANEL BACKBOX. NEUTRAL AND GROUND BUS SHALL BE READILY IDENTIFIED AND SHALL BE PROVIDED WITH SCREW TYPE TERMINALS. ALL BUS BARS SHALL BE ELECTRICAL GRADE ALUMINUM. THE MAIN BUS BRACING SHALL BE EQUAL OR GREATER THAN THE INTERRUPTING CURRENT RATING CALLED FOR BY THE DRAWINGS. IF A METER MAIN COMBO IS USED, BUSS BAR SHALL BE ELECTRICAL GRADE ALUMINUM.

3. EACH PANEL SHALL BE EQUIPPED WITH A TYPEWRITTEN DIRECTORY, INDICATING PLAINLY WHAT EACH BRANCH CIRCUIT OF THE PANEL CONTROLS. THE DIRECTORY SHALL BE PLACED IN A CLEAR PLASTIC PROTECTIVE ENVELOPE AND FASTENED TO THE INSIDE OF THE DOOR.

4. SOME PANELBOARDS SHALL BE LOAD CENTERS.

5. CIRCUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. CONDUITS AND CABLES SHALL BE INSTALLED PARALLEL TO BEAMS AND WALLS.

OTHER ITEMS

1. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, COMPLETE SHOP DRAWINGS, LIST OF MATERIALS AND DETAILED DATA OF EQUIPMENT GIVING THE MANUFACTURERS NAME, CATALOG NUMBER, SIZE, CAPACITY AND DIMENSIONS. ALL EQUIPMENT SHALL BE INSTALLED OR FABRICATED WITHOUT OBTAINING APPROVAL.

2. CABLES/CONDUCTORS SHALL BE TERMINATED SO AS TO PERMIT NEAT CONNECTIONS TO MOTORS AND OTHER EQUIPMENT.

3. WHERE CONFLICTS ARE FOUND BETWEEN DRAWINGS, SPECIFICATIONS, & LAWS & ORDINANCES, THE MOST STRINGENT SHALL APPLY.

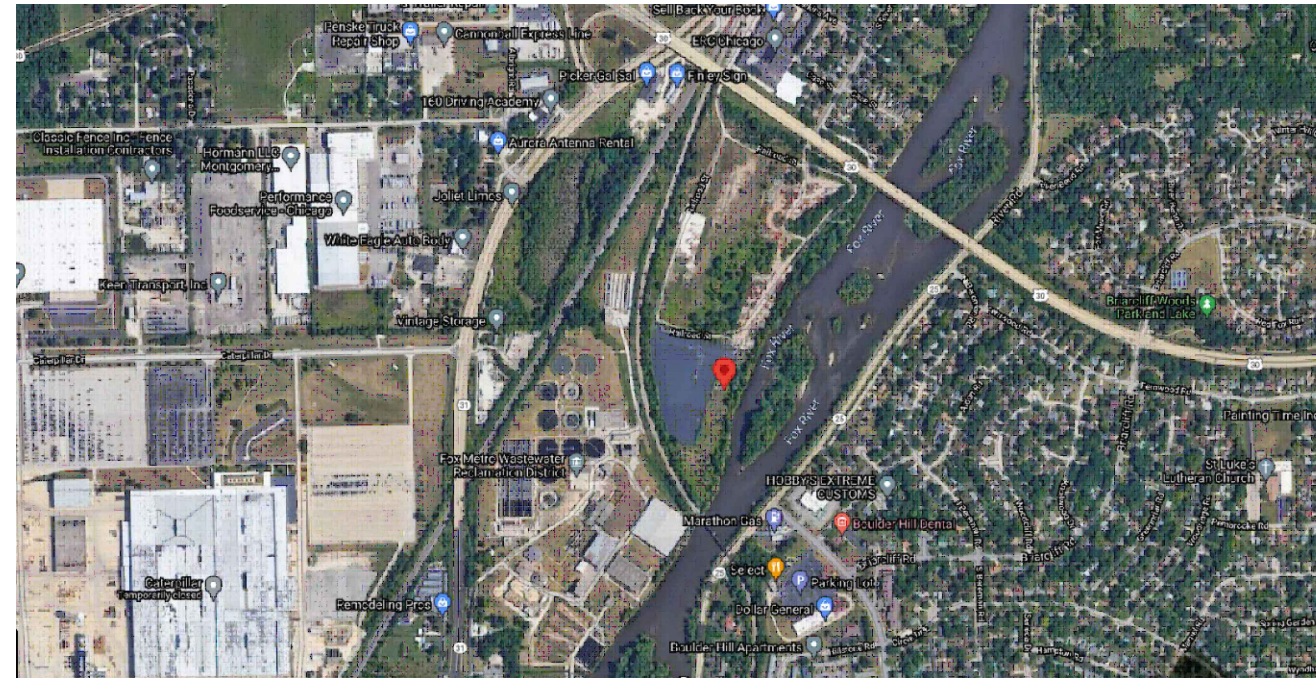
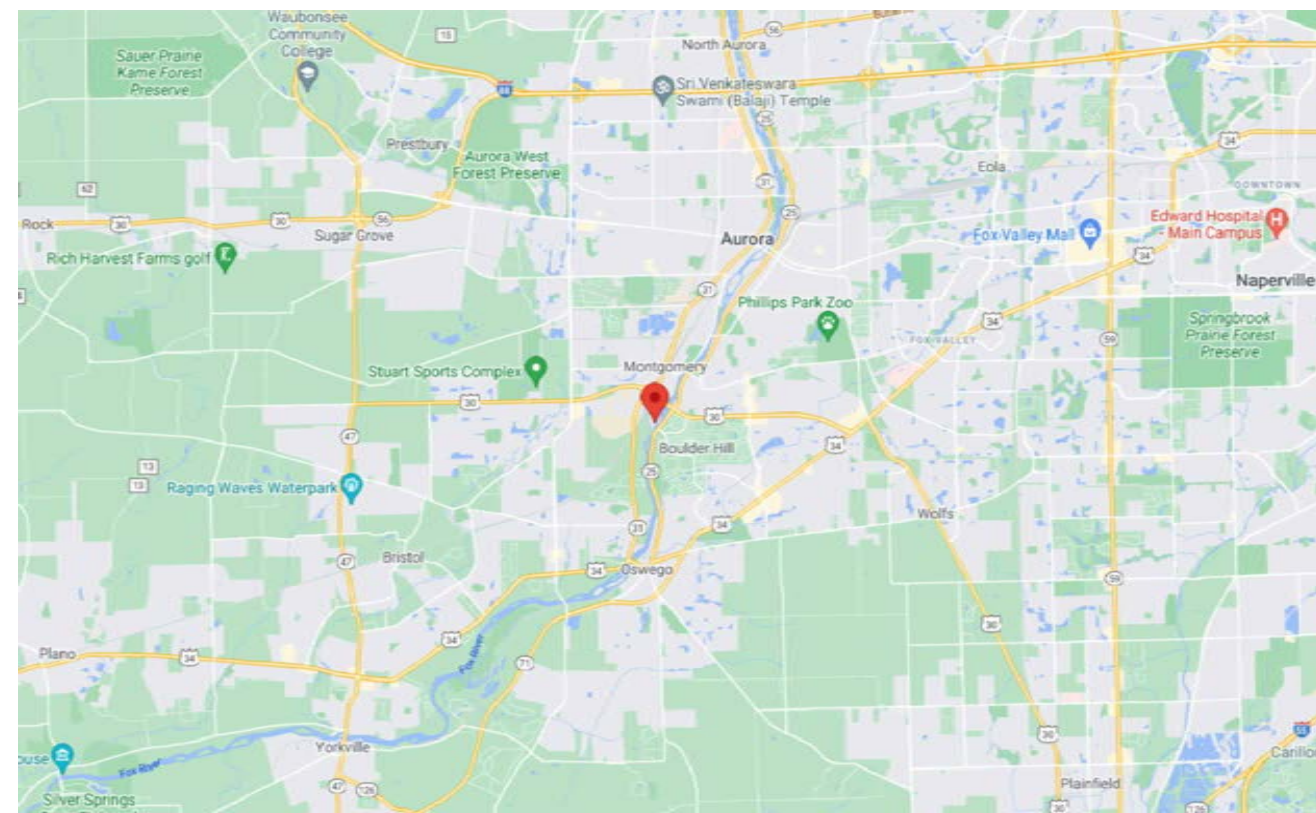
4. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF WORK TO BE PERFORMED PRIOR TO BIDDING AND VERIFY ANY DIMENSIONS OF RELEVANT WORK TO BE BID.

PROPERTY ADDRESS:

682 State Rte 31,
Oswego, IL 60543

GPS Coordinates:

41.711579, -88.354428



P.V. SYSTEM NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE (NEC), LOCAL MUNICIPAL CODE AND LOCAL FIRE DISTRICT REGULATIONS.

2. ALL EQUIPMENT SHALL BE LISTED AND LABELED PER A RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURER'S REQUIREMENTS.

3. ALL INVERTERS SHALL BE IEEE 929 COMPLIANT AND SHALL BE INSPECTED BY LOCAL UTILITY BEFORE COMMISSIONING, TESTING AND OPERATING OF THE SYSTEM.

4. ALL OUTDOOR EQUIPMENT SHALL BE MINIMUM NEMA-3R, INCLUDING OUTDOOR MOUNTED TRANSITION BOXES, CABLE TRAY, COMBINER BOXES AND SWITCHES.

5. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED PER THE REQUIREMENTS OF NEC ART. 250.650.

6. ALL CIRCUITS CONNECTED TO MORE THAN ONE SOURCE SHALL HAVE OVERCURRENT PROTECTION FROM ALL SOURCES.

7. THE PV CONTRACTOR SHALL DISABLE THE ARRAY DURING INSTALLATION AND SERVICE BY SHORT CIRCUITING, OPEN CIRCUITING OR COVERING THE ARRAY WITH OPAQUE COVERING.

8. STICKER LABELING WITH CAUTION AND RATINGS SHALL BE PROVIDED ON EQUIPMENT.

9. ALL CONDUCTORS AND TERMINATIONS SHALL BE RATED FOR 75° MINIMUM.

10. DC DISCONNECT AT THE INVERTER WILL BE READILY ACCESSIBLE AFTER THE INSTALLATION IS COMPLETE PER THE N.E.C. ARTICLE 690 WHERE TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION.

11. FIELD VERIFY EXACT A.I.C. RATING FOR EQUIPMENT TO BE INSTALLED OR EQUIPMENT IN PLACE.

12. ALL COMPONENTS ARE TO BE PROPERLY GROUNDED AND BONDED PER THE NATIONAL ELECTRICAL CODE 2011 AND MANUFACTURER'S RECOMMENDATIONS.

13. SYSTEM MUST COMPLY WITH IEEE 1262 "RECOMMENDED PRACTICE FOR QUALIFICATIONS OF PHOTOVOLTAIC MODULES".

14. POWER PROVIDED MUST BE COMPATIBLE WITH THE ONSITE DISTRIBUTION SYSTEM.

15. THE SYSTEM MUST INCLUDE ALL THE HARDWARE NEEDED FOR THE SOLAR PV.

16. ALL SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF LOCAL ELECTRICAL CODES AND THE NATIONAL ELECTRICAL CODE (NEC), INCLUDING BUT NOT LIMITED TO ARTICLE 690, "SOLAR PHOTOVOLTAIC SYSTEMS" AND ARTICLE 705 - "INTERCONNECTED ELECTRICAL POWER PRODUCTION SOURCES".

17. SYSTEMS MUST BE INSTALLED USING UL OR ETL LISTED COMPONENTS, INCLUDING MOUNTING SYSTEMS.

18. MODULES MUST BE CERTIFIED TO UL 1703 - "FLAT-PLATE PHOTOVOLTAIC MODULES AND PANELS".

19. INVERTERS MUST COMPLY WITH THE FOLLOWING REQUIREMENTS: IEEE 929-2000 - "RECOMMENDED PRACTICE FOR UTILITY INTERFACE OF PHOTOVOLTAIC SYSTEMS"

UL 1741 - "STANDARD FOR STATIC INVERTERS AND CHARGE CONTROLLERS FOR USE IN PHOTOVOLTAIC SYSTEMS"

20. OTHER TECHNICAL CODES THAT WILL APPLY INCLUDE:

AMES PTC 50 (SOLAR PV PERFORMANCE)
ANSI Z39.83 (SOLAR PV PERFORMANCE AND SAFETY) NFPA 853 (SOLAR PV NEAR BUILDINGS)
NFPA 70 (ELECTRICAL COMPONENTS)
IEEE 1547 (INTERCONNECTIONS)
NATIONAL ELECTRICAL SAFETY CODE - ANSI C2 - 1999 ALL APPLICABLE BUILDING CODES AND REQUIREMENTS

INTERCONNECTION MUST COMPLY WITH LOCAL UTILITY POWER REQUIREMENTS.



PV Technical Sales
Professional

Tyler Anderson

TS-102117-010975



PV Installation
Professional

Tyler Anderson

PV-042217-010975



PV Installation
Professional

Justin Charles

PV-041115-011262



PV Technical Sales
Professional

Mark Westbrook

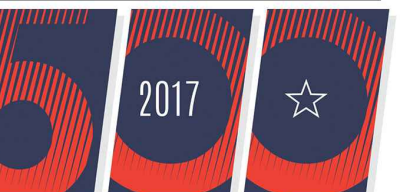
PVTS081112-74



PV Installation
Professional

Mark Westbrook

091308-3



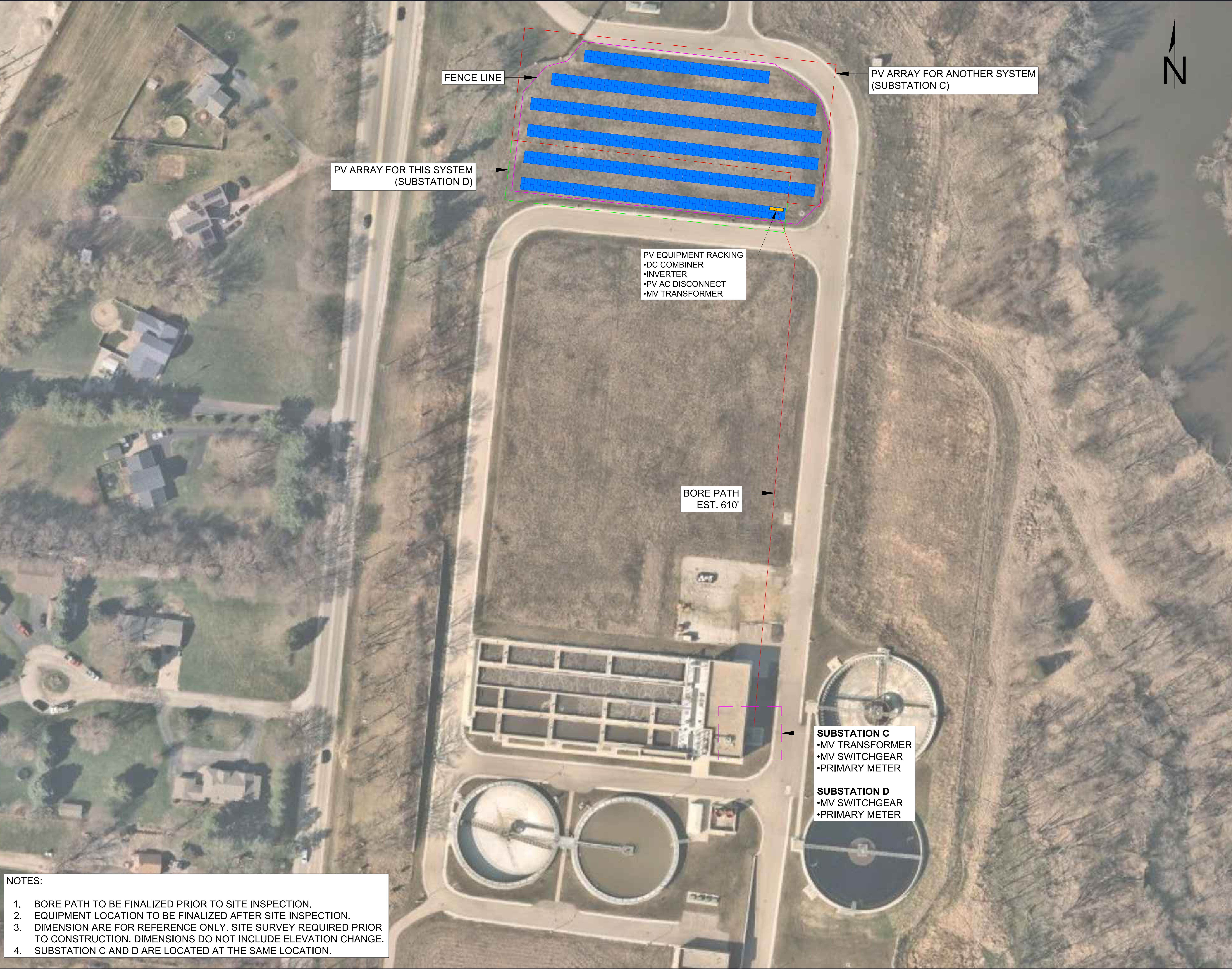
4.0	06/20/2023	Zoning & Fence Layout
3.0	04/20/2023	POCC
2.0	10/07/2021	Sub Station Info
1.0	09/01/2021	ICA / PERMIT
REV	DATE	DESCRIPTION
FILE NAME		Fox Metro Water Reclamation Meter # 230 235 191
DATE		04/20/2023
PAPER SIZE		ARCH E1
SCALE		N/A
REVISION:		
ICA / PERMIT		
SHEET TITLE:		
COVER SHEET		
SHEET NUMBER:		
1.1		

A

B

C

D



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SYSTEM DESIGN:

PV Installation
Professional
Justin Charles
PV-041115-011262

ENGINEER:

PROJECT:
Shawn Ajazi
682 State Rte 31,
Oswego, IL 60543
Project Number 104160973

4.0	06/20/2023	Zoning & Fence Layout
3.0	04/20/2023	POCC
2.0	10/07/2021	Sub Station Info
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REV	DATE	DESCRIPTION
FILE NAME		<i>Fox Metro Water Reclamation Meter # 230 235 191</i>
DATE		04/20/2023
PAPER SIZE		ARCH E1
SCALE		1/8" = 2'

REVISION:
ICA / PERMIT

SHEET TITLE:
ICA PLOT PLAN

SHEET NUMBER:
2.1

- NOTES:
- BORE PATH TO BE FINALIZED PRIOR TO SITE INSPECTION.
 - EQUIPMENT LOCATION TO BE FINALIZED AFTER SITE INSPECTION.
 - DIMENSION ARE FOR REFERENCE ONLY. SITE SURVEY REQUIRED PRIOR TO CONSTRUCTION. DIMENSIONS DO NOT INCLUDE ELEVATION CHANGE.
 - SUBSTATION C AND D ARE LOCATED AT THE SAME LOCATION.



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CERTIFIED**
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FILE NAME Fox Metro Water Reclamation Meter # 230 235 191		
DATE 04/20/2023		
PAPER SIZE ARCH E1		
SCALE 1/8" = 8'		

REVISION:
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SHEET TITLE:
ZONING PLOT PLAN

SHEET NUMBER:
2.2



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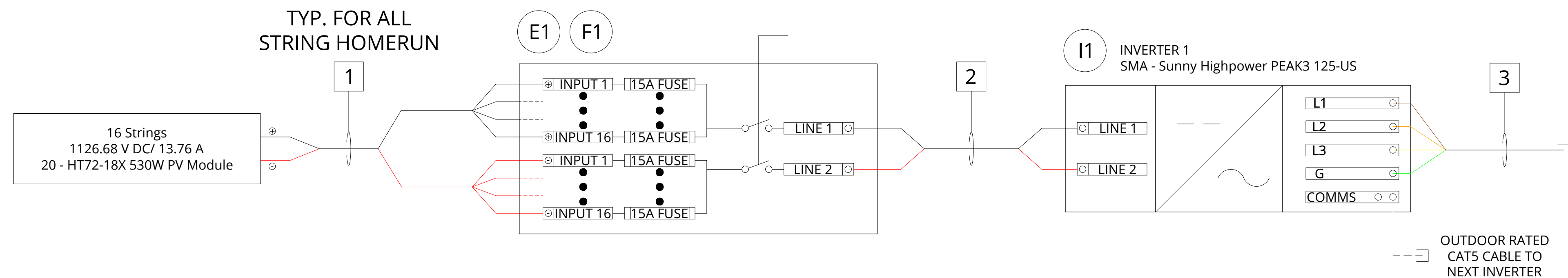
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Fox Metro Water Reclamation Meter # 230 235 191		
FILE NAME	04/20/2023	
DATE	ARCH E1	
PAPER SIZE	1/8" : 2'	
SCALE		

REVISION:
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SHEET TITLE:
FENCE LAYOUT

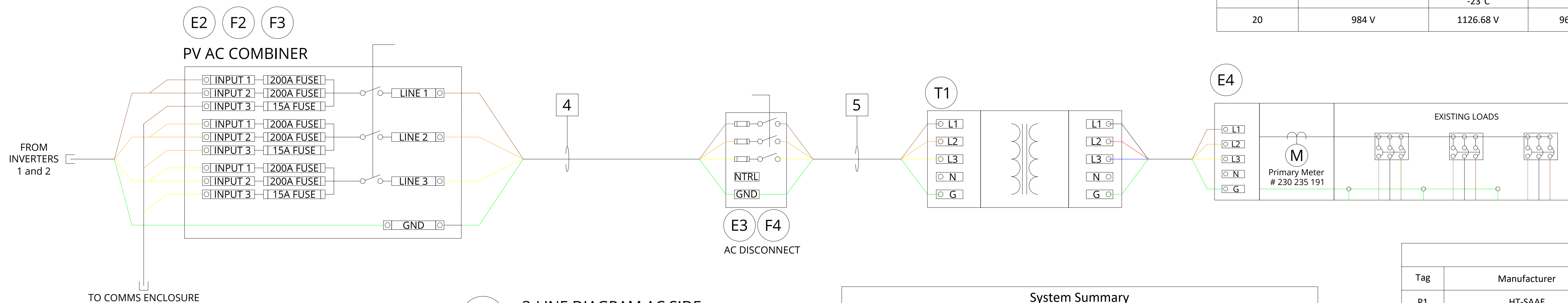
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2.3

A



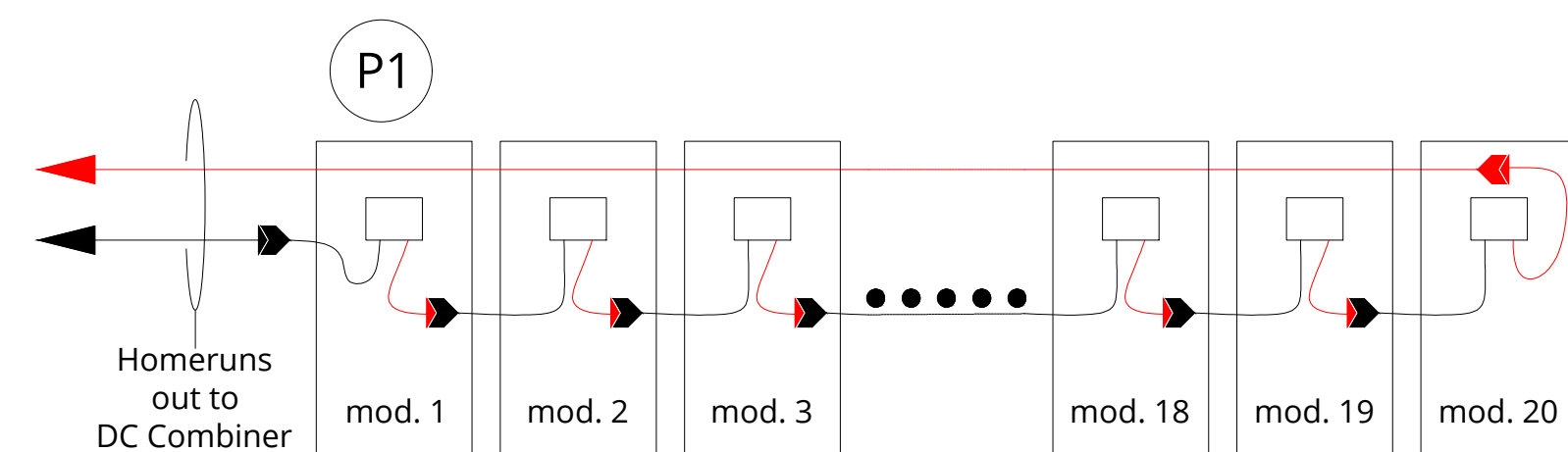
A 3-LINE DIAGRAM DC SIDE
TYP. ALL INVERTERS

B



B 3-LINE DIAGRAM AC SIDE

C



C TYPICAL STRING DETAIL - CONNECTED IN SERIES WIRING

D

INVERTER STRING TABLE		
String #	# of mod	
	INV 1	INV 2
1	20	20
2	20	20
3	20	20
4	20	20
5	20	20
6	20	20
7	20	20
8	20	20
9	20	20
10	20	20
11	20	20
12	20	20
13	20	20
14	20	20
15	20	20
16	20	20
Sub Total	320	320
Total	640	

Weather Data	
Location	AURORA MUNICIPAL
Tmax	32°C
Tmin	-25°C
T STC	25°C
PV Module Characteristics	
Voc @ STC	49.2 V
Isc @ STC	11.54 A
Temp coeff Voc	-0.29 % / °C
Temp coeff Isc	0.049 % / °C

DC VOLTAGE / AMPACITY TABLE							
MODULE COUNT	Voc @ STC	Voc @ min temp -23°C	Voc @ max temp 33°C	Inverter Max Voltage	Isc @ STC	Isc @ min temp -23°C	Isc @ max temp 33°C
20	984 V	1126.68 V	964.02 V	1500	11.54 A	11.26 A	11.58 A

EQUIPMENT SCHEDULE				
Tag	Manufacturer	Equipment Description	Model	QTY
P1	HT-SAAE	PV Module	HT72-18X 530W	640
I1	SMA	Inverter	Sunny Highpower PEAK3 125-US	2
E1	ISU	DC Combiner	ISU DTS 1500V DC Combiner	2
E2	ISU	AC Combiner	ACC1000	1
E3	SquareD	Disconnect Switch	H365NRB	1
E4	TBD	Switch Gear	MV Switch Gear 12,470V (EXISTING)	1
T1	TBD	Transformer	480V to 12470V (EXISTING)	1
F1	TBD	Fuse	15A DC Fuse	64
F2	Littelfuse	Fuse	FLSR200ID	6
F3	Littelfuse	Fuse	FLSR015ID	3
F4	TBD	Fuse	FLSR400ID	3

WIRE & CONDUIT SUMMARY TABLE												
Label	Current Type	Nominal voltage	Max Current	Conductor Size	CU/AL	Insulation Type	Parallel Sets	Neutral	Ground	Conduit Size	Conduit Type	Parallel Conduit
1	DC	1126.68V	13.76	#10 AWG - up to 900' #8 AWG - over 900'	CU	PV Wire UL4703 (2kV Rated)	1	N/A	#6 AWG CU	2-1/2"	PVC	2
2	DC	1126.68V	220.16	350 MCM	AL	PV Wire UL4703 (2kV Rated)	1	N/A	#6 AWG CU	3"	HDPE	1
3	AC	480V	151	3/0 AWG	CU	THHN/THWN	1	N/A	#6 AWG CU	2"	PVC	1
4	AC	480V	302	3/0 AWG	CU	THHN/THWN	2	N/A	#6 AWG CU	2"	PVC	2
5	AC	480V	302	3/0 AWG	CU	THHN/THWN	2	N/A	#6 AWG CU	2"	PVC	2

PV AC COMBINER			400A MLO, 100KAIC, 480/277V 3 Phase						
			NEMA 3R, Main Lugs Only						
CKT NO.	Load Description	Pole	Fuse	Amp	3-Phase Connection (KVA)	Wire Size	Neutral Size	Ground Size	Conduit
1	Inverter 1	3P	200A	151	125	3 - 3/0 AWG CU THHN/TWLN	N/A	#6 AWG CU THHN/TWLN	2" PVC
2	Inverter 2	3P	200A	151	125	3 - 3/0 AWG CU THHN/TWLN	N/A	#6 AWG CU THHN/TWLN	2" PVC
3	Comms	3P	15A	15	-	3 - #14 AWG CU THHN/TWLN	N/A	#14 AWG CU THHN/TWLN	1/2" PVC
TOTAL LOAD			MLO	317 A	250 KVA	2 SETS : 3 - 3/0 AWG CU THHN/TWLN	N/A	#6 AWG CU THHN/TWLN	2 SETS : 2" PVC



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SYSTEM DESIGN:



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Professional
Justin Charles
PV-041115-011262

ENGINEER:

PROJECT:

Shawn Ajazi
682 State Rte 31,
Oswego, IL 60543
Project Number 104160973

4.0 06/20/2023 Zoning & Fence Layout

3.0 04/20/2023 POCC

2.0 10/07/2021 Sub Station Info

1.0 09/01/2021 ICA / PERMIT

REV DATE DESCRIPTION

FILE NAME **Fox Metro Water Reclamation Meter # 230 235 191**

DATE **04/20/2023**

PAPER SIZE **ARCH E1**

SCALE **N/A**

REVISION:

ICA / PERMIT

SHEET TITLE:

LINE DIAGRAM 1

SHEET NUMBER:

3.1

Service C South	Meter 230 235 191	Vista 201	Vista 5 Way	505
FM ASSET				
Catalog/Model #	CDA-848592	852012	945052	
Date	16-Nov	16-Nov	16-Dec	
SN		16V1724	16V1836	
KV Nominal	13.8		Way 1*	400E
KV Max	15.5		Way 2*	400E
Main Buss Amps	600	Main 600	Way 3*	400E
		Ground 400 U1	Way 4*	400E
		W061	Way 5*	200E
Primary Com Ed Feeder W066				
				Feeder J
				Feeder K
				Feeder L
				Feeder M



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SCALE: **N/A**

REVISION: **ICA / PERMIT**

SHEET TITLE: **SUB STATION INFO**

SHEET NUMBER:

3.2

Hammond Power Solutions Inc.

GUELPH, ONT. BARABOO, WI COMPTON, CA MONTERREY, MX

3 PHASE AIR CORE DRY TYPE REACTOR

SYS. VOLTAGE (V) 12470 CUST. REF. []

BIL (KV) 95 SERIAL NO. []

FREQ. (Hz) 60 PART NO. 219225

O CURRENT (A) 600 TYPE ANN O

INDUCTANCE (mH) 0.663 INDOOR/OUTDOOR OUTDOOR

TEMP. RISE (C) 115 CORE & COIL WEIGHT LBS 1800

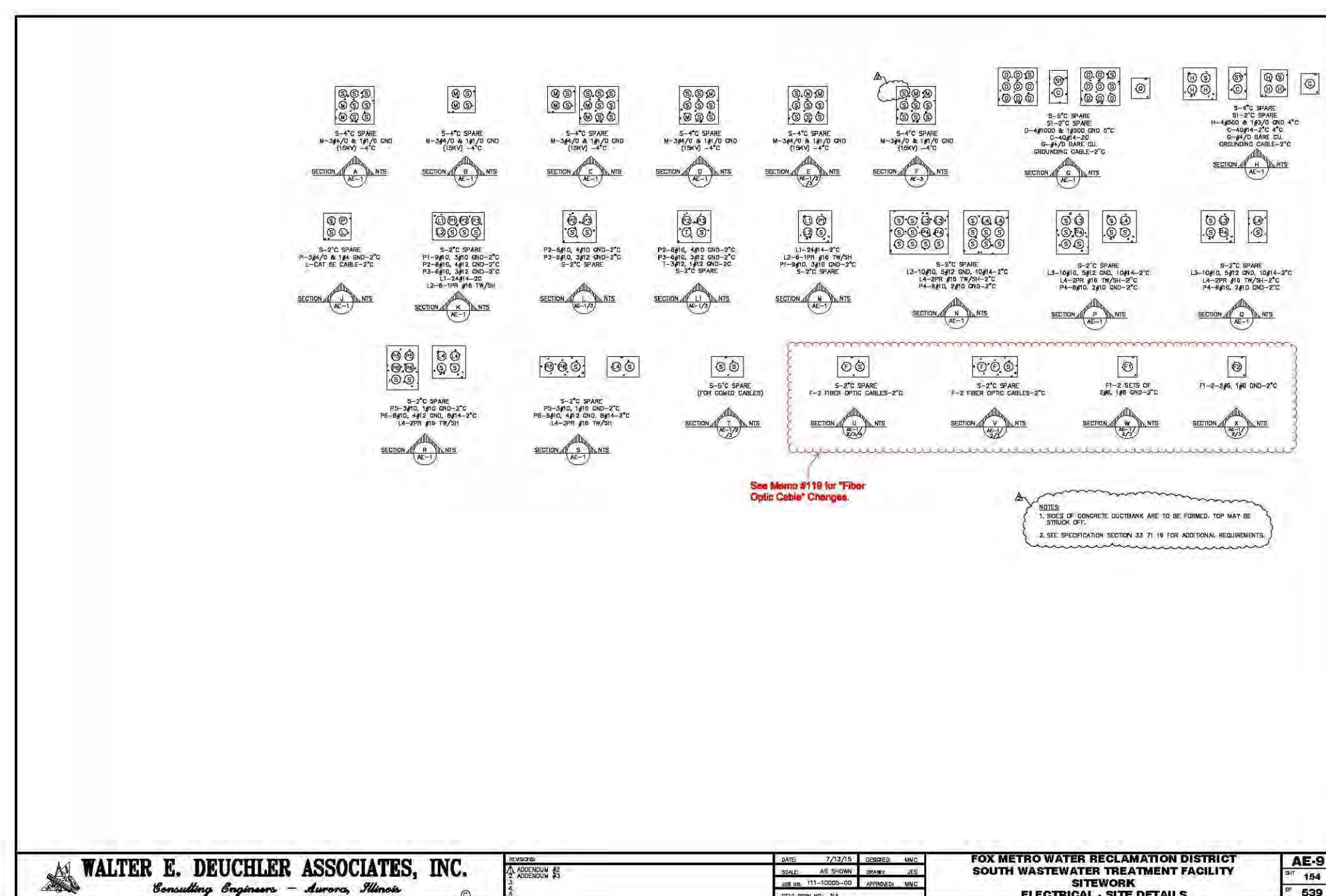
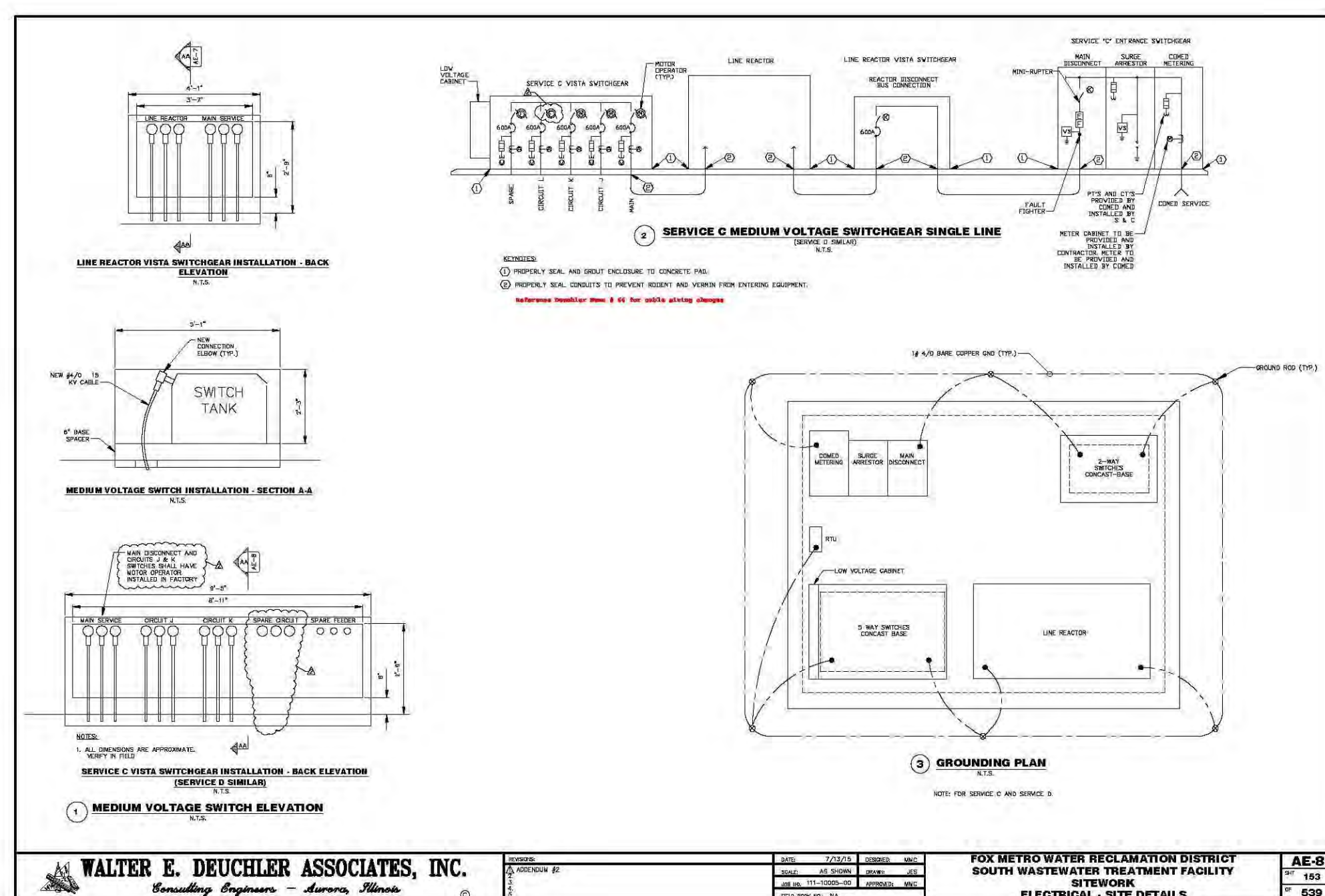
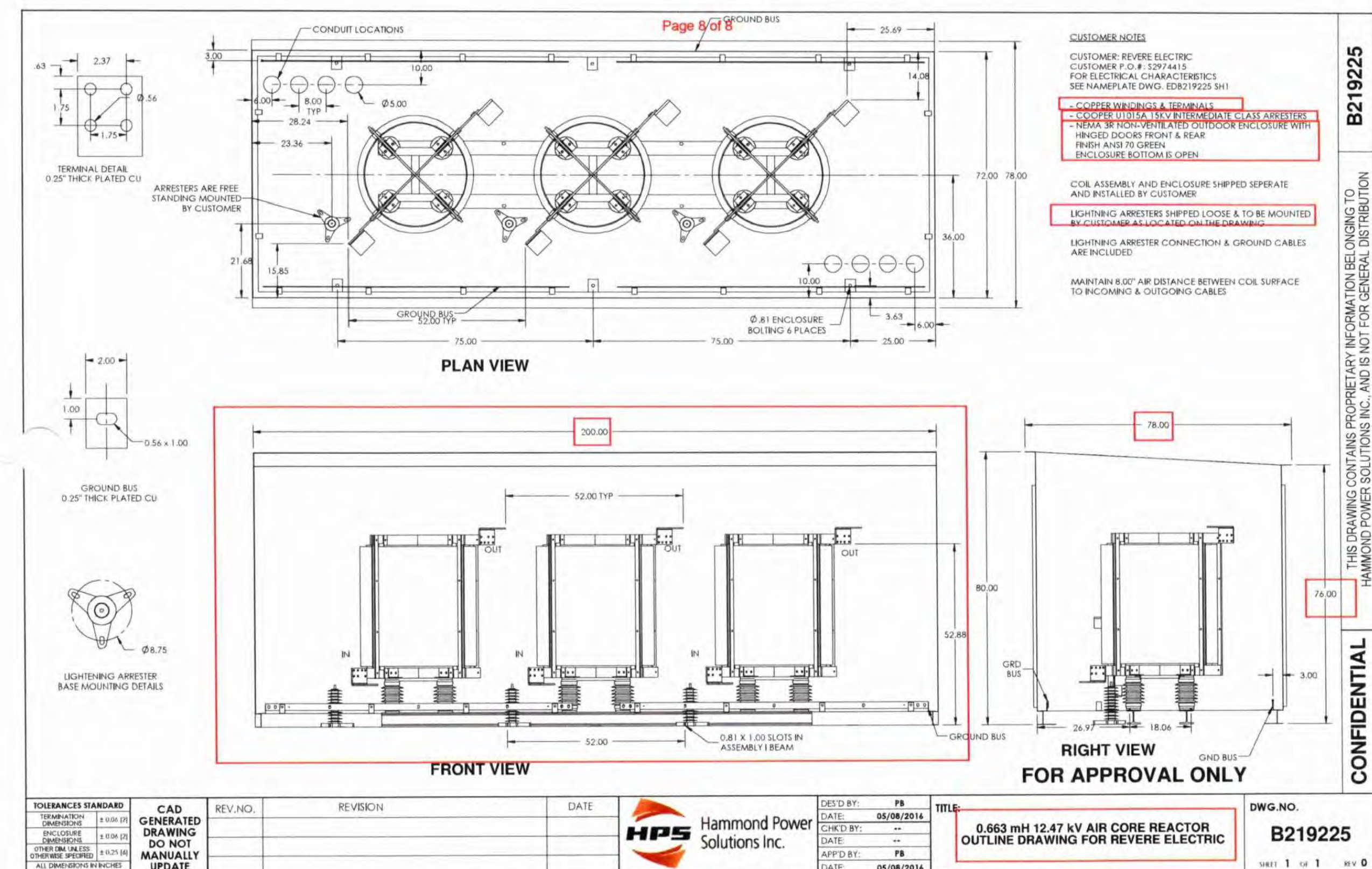
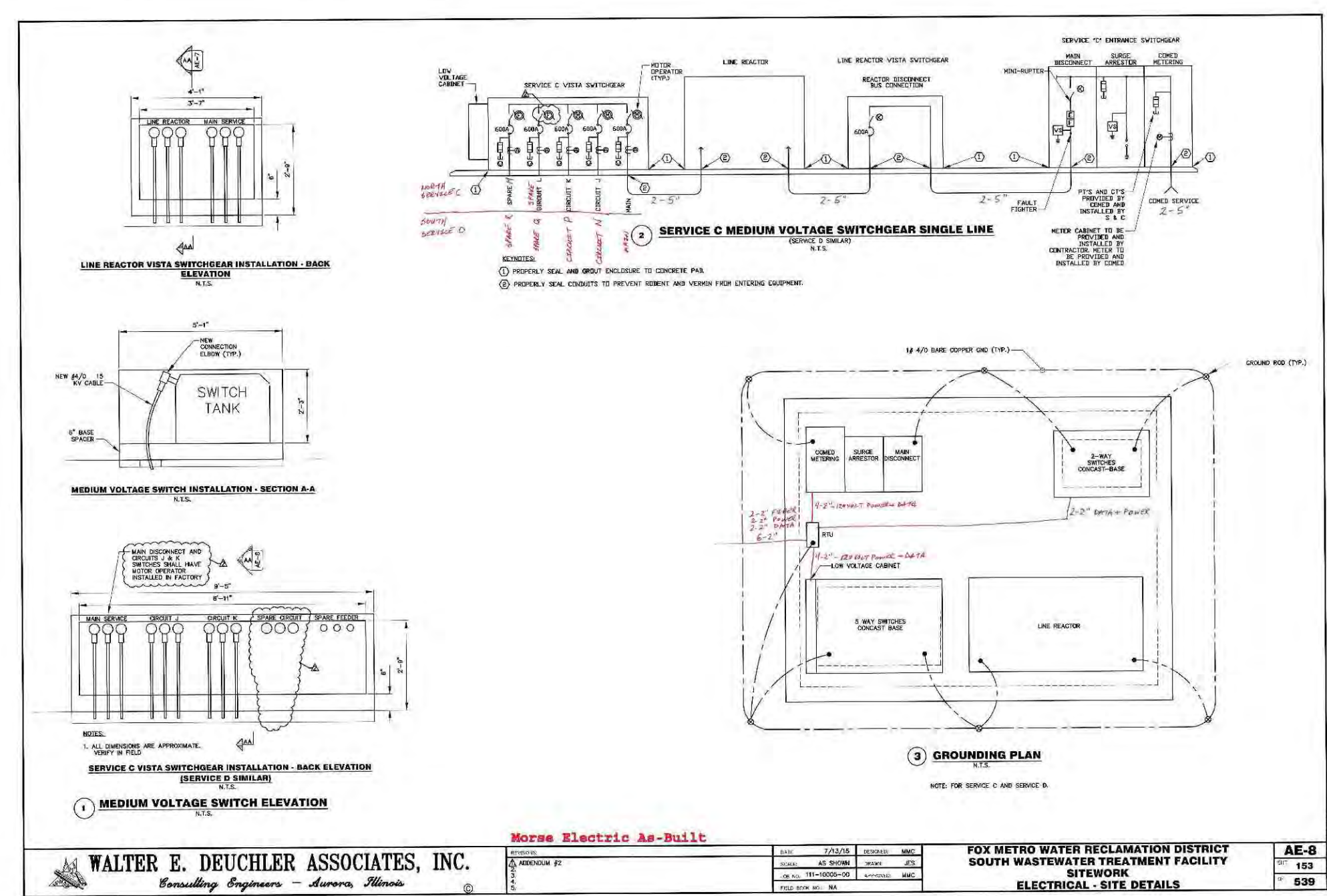
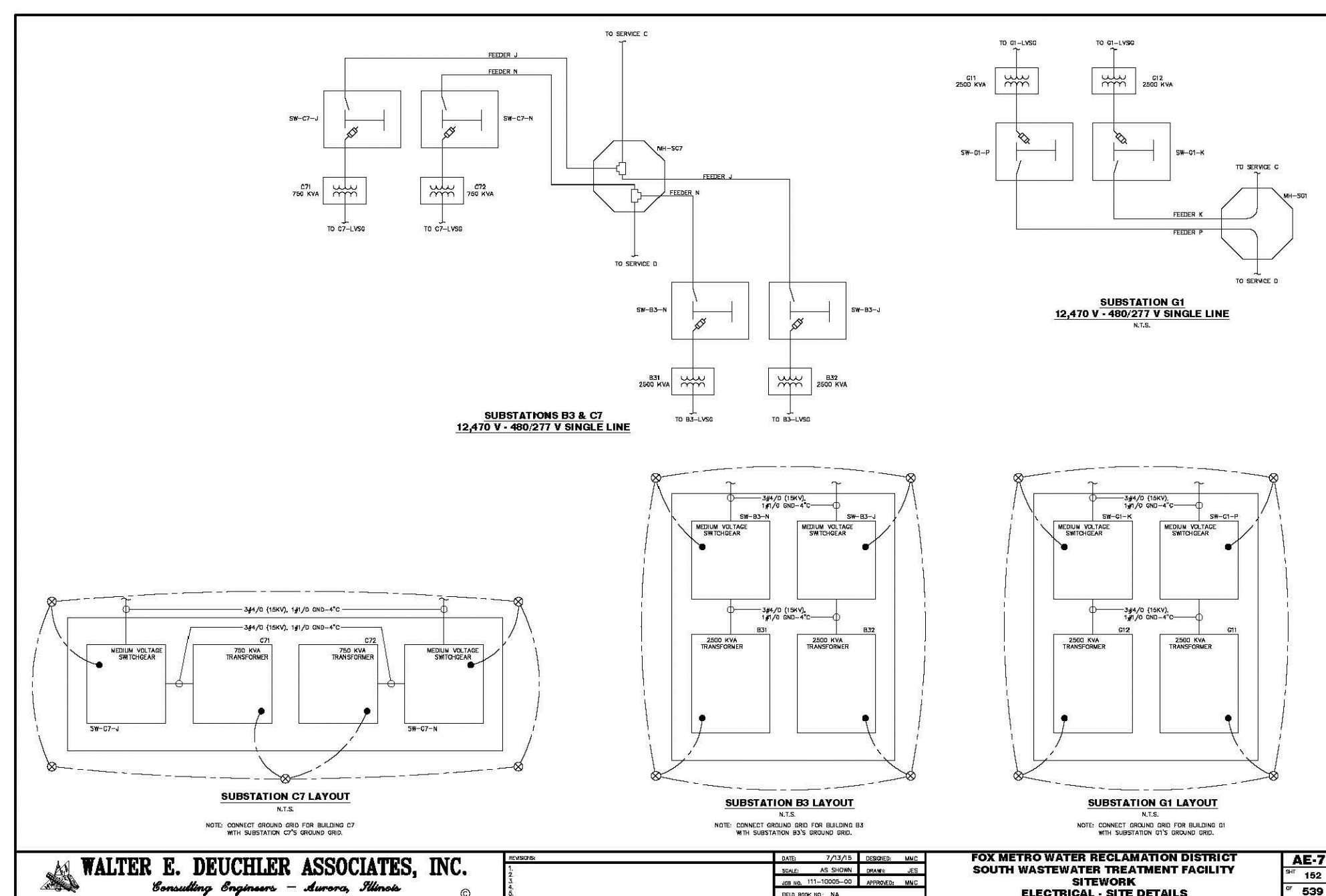
TEMP. CLASS (C) 220 ENCL. WEIGHT LBS 2100

I s.c. (kA) 10 ENCL. TYPE NEMA3R

I s.c. (RMS) (kA) 10 TOTAL WEIGHT LBS 3900

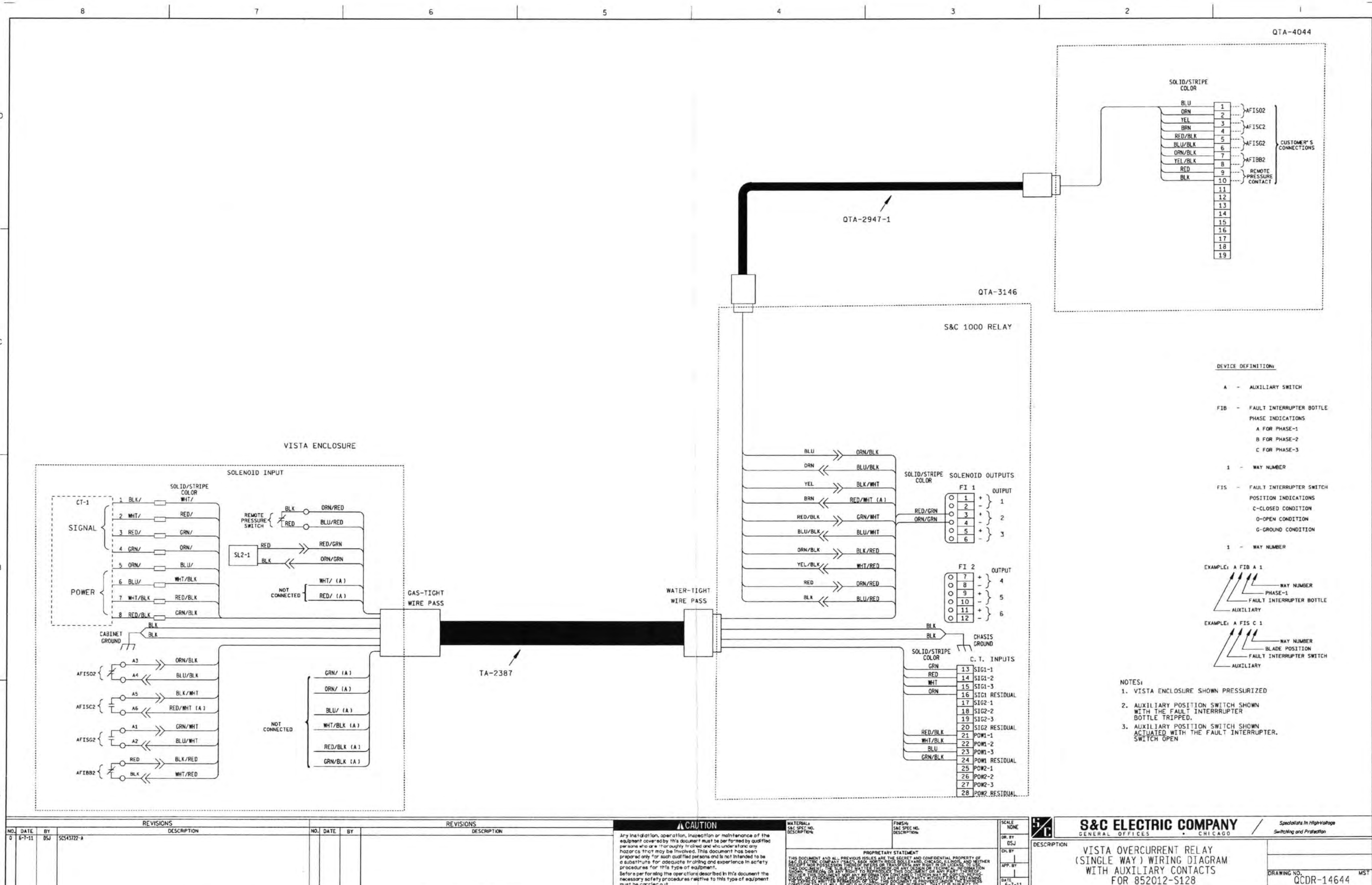
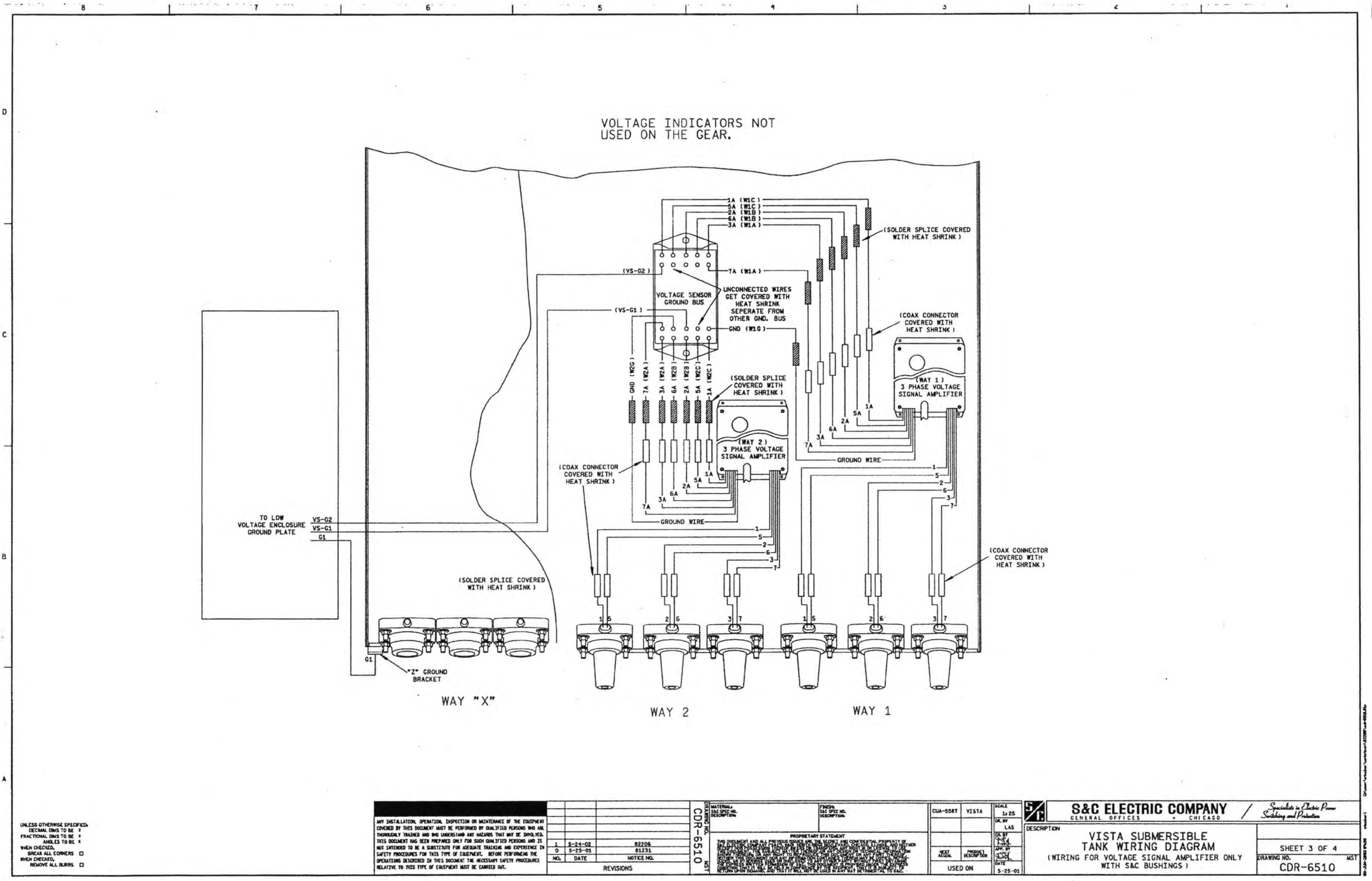
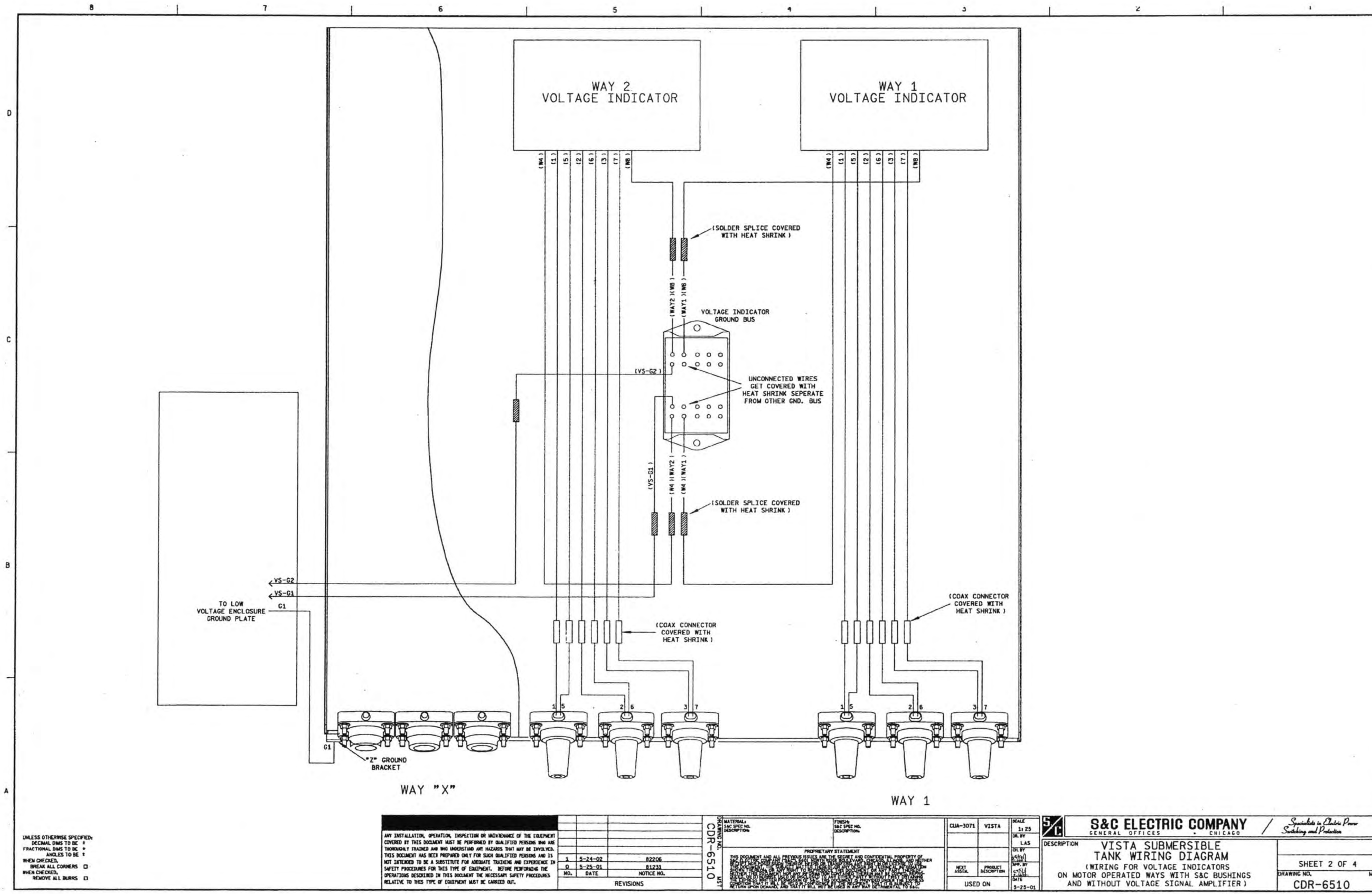
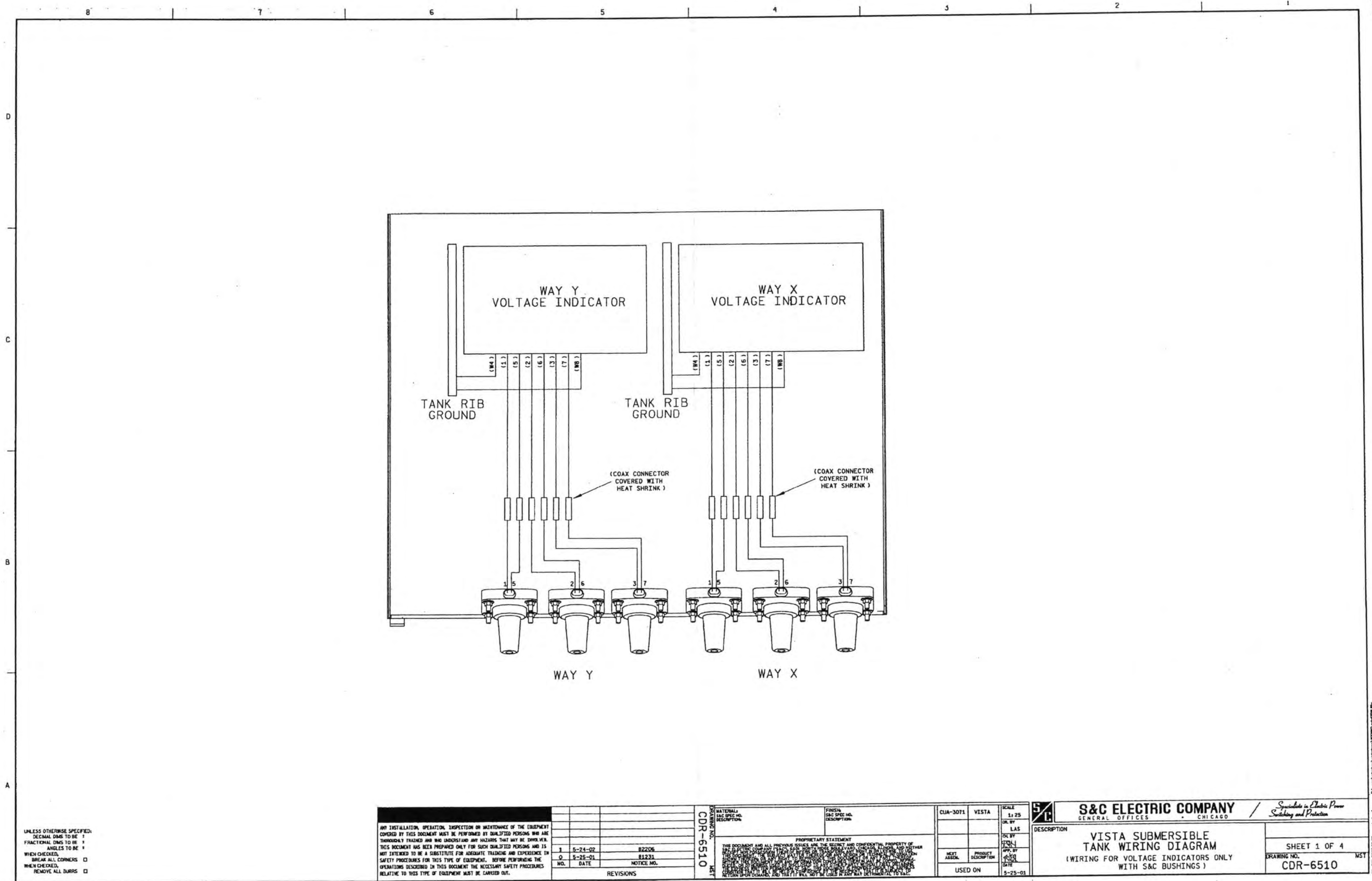
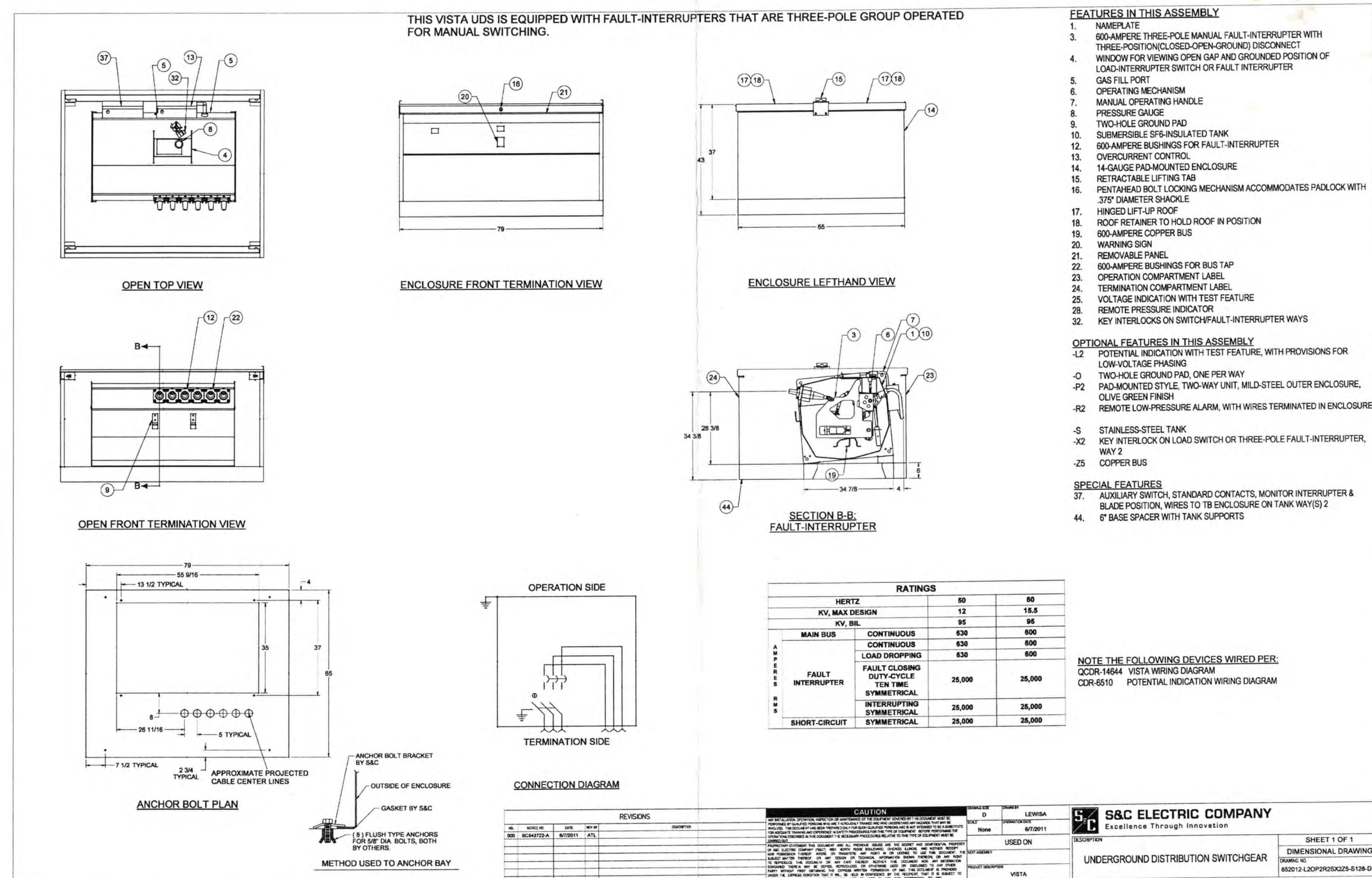
DURATION (S) 1S MADE IN CANADA

Page 7 of 8



AIR REACTOR

SERVICE C D SITE DETAIL



VISTA 201



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Justin Charles
PV-041115-011262

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682 State Rte 31,
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REV DATE DESCRIPTION

FILE NAME **Fox Metro Water
Reclamation
Meter # 230 235 191**

DATE 04/20/2023

PAPER SIZE ARCH E1

SCALE N/A

REVISION:

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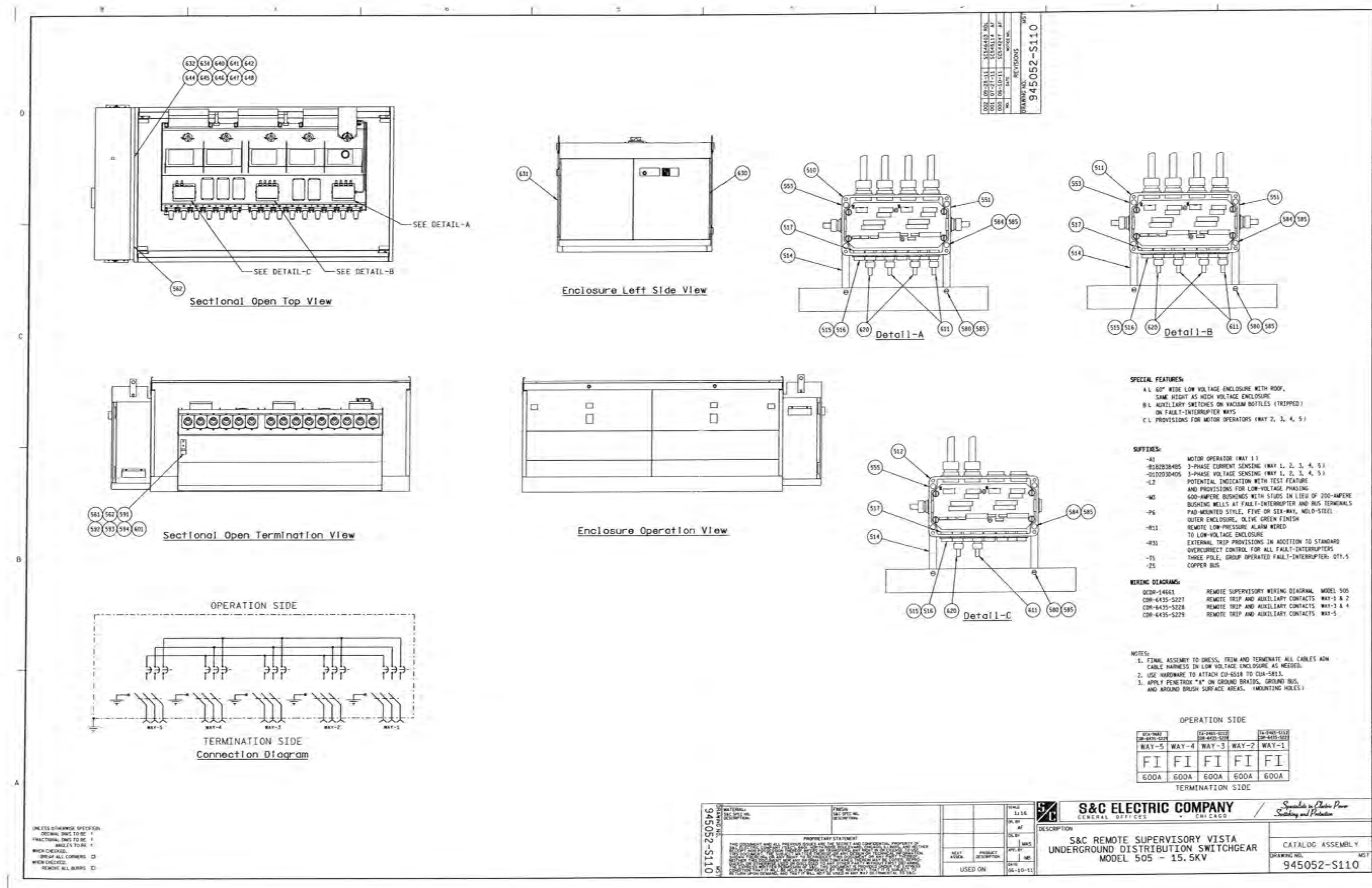
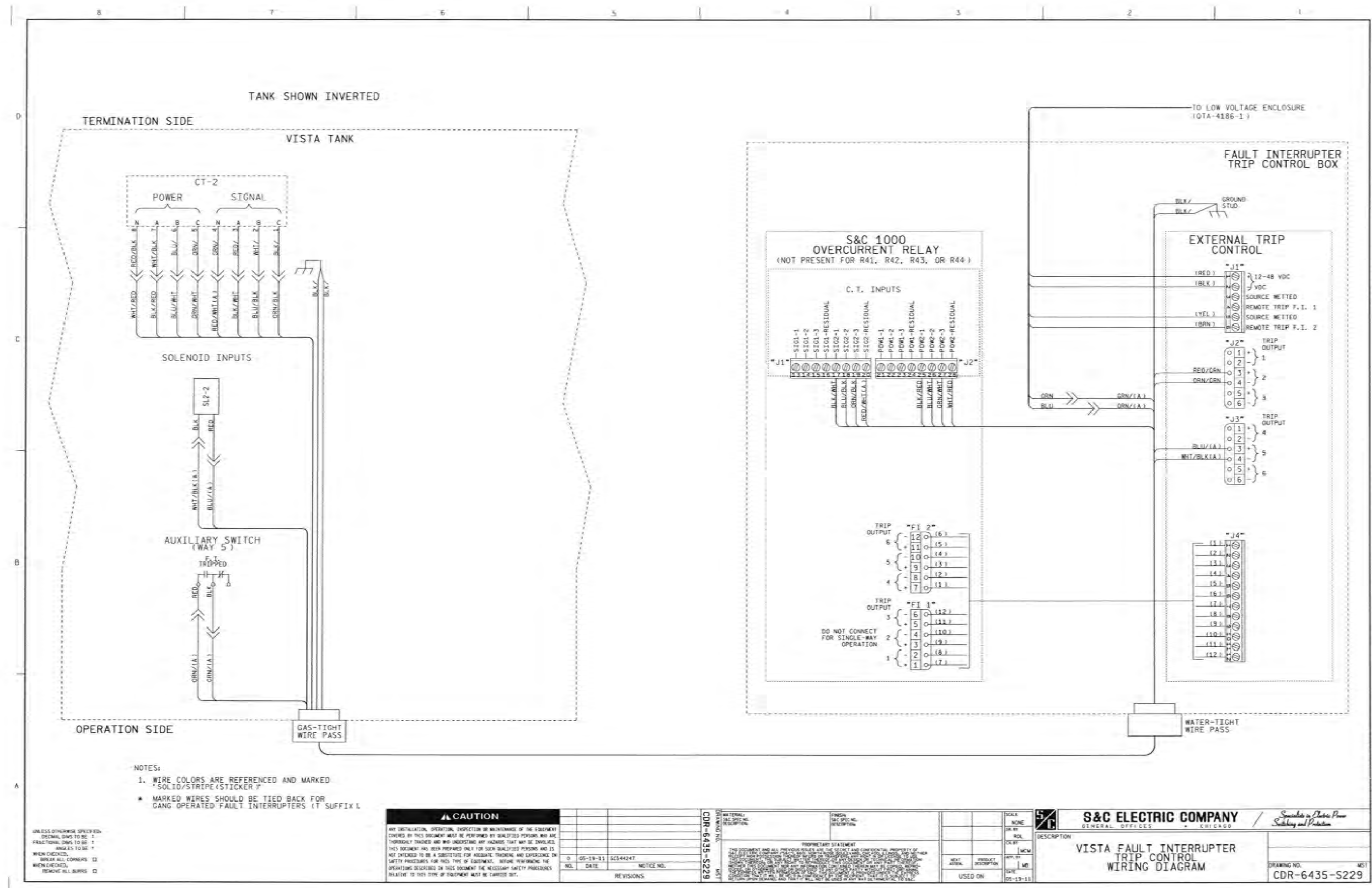
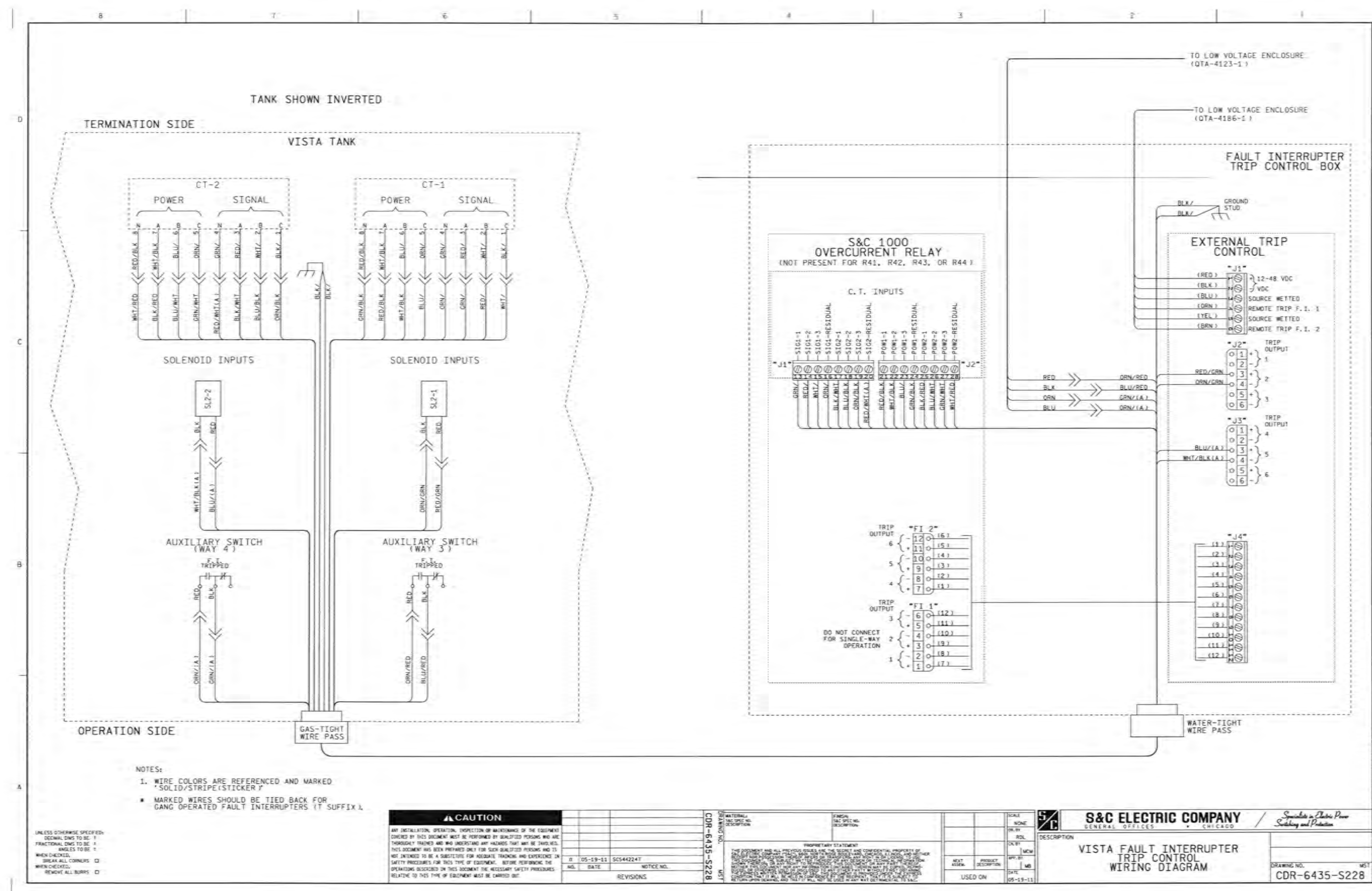
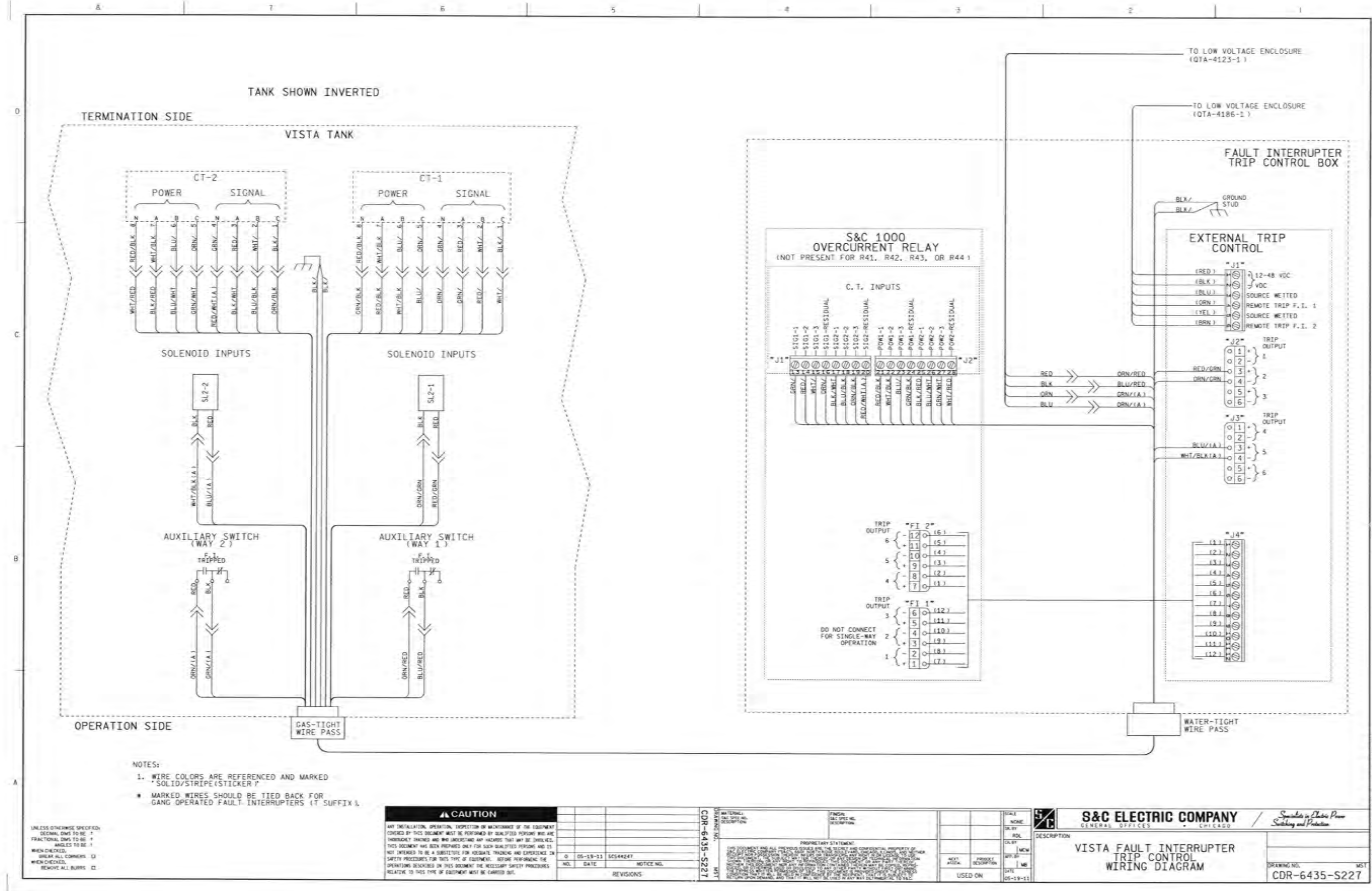
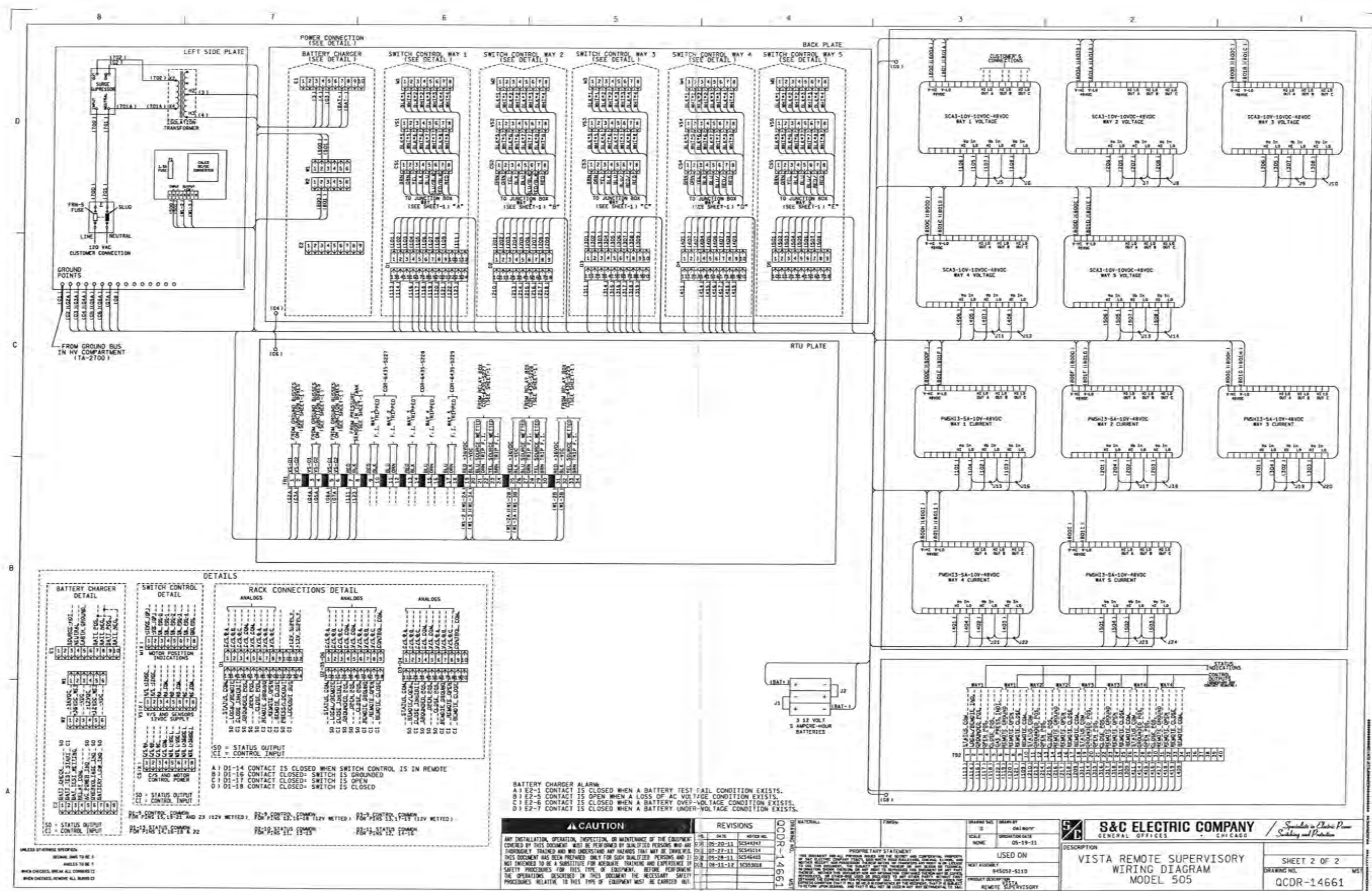
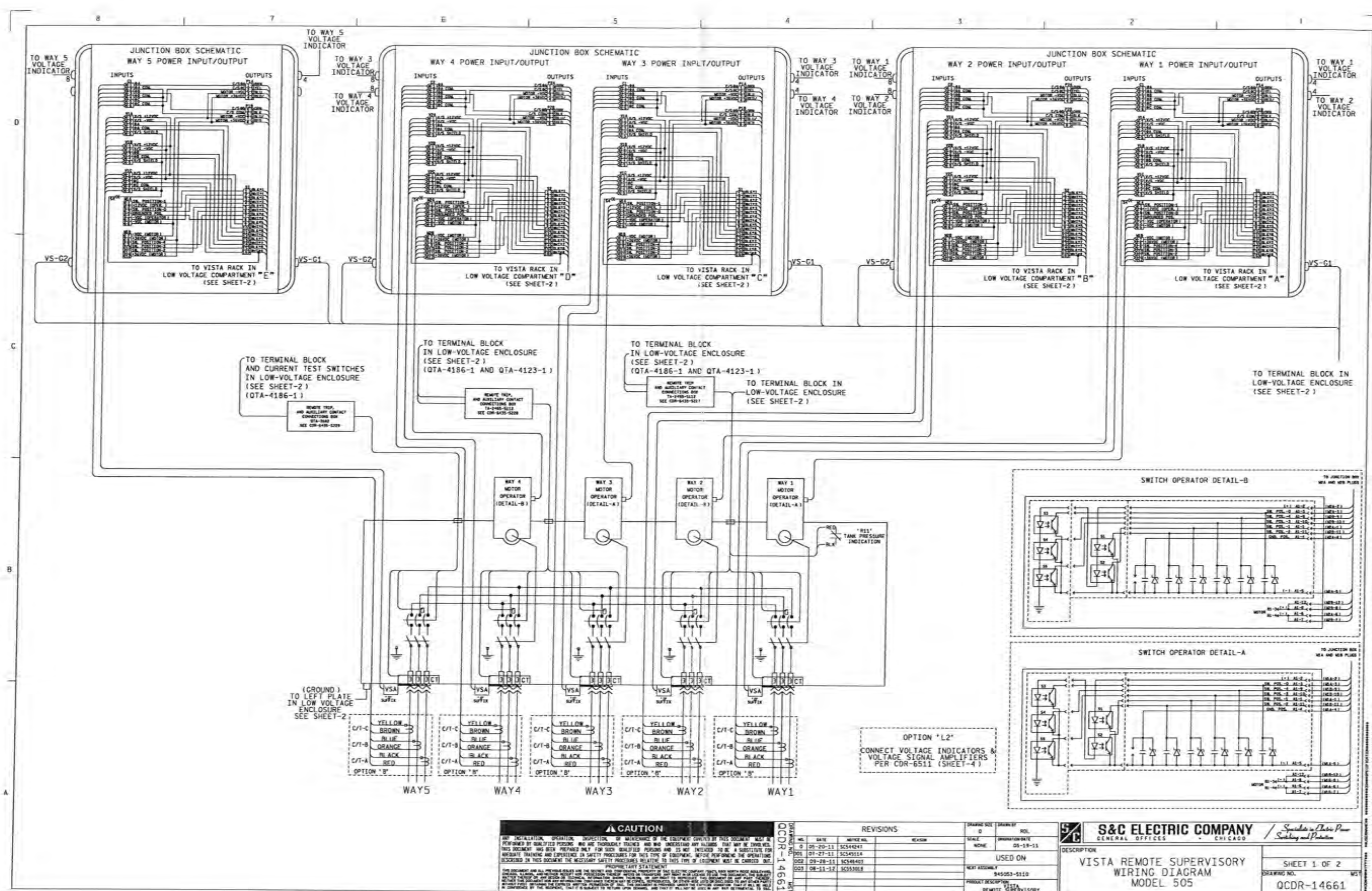
SHEET TITLE:

SUB STATION INFO

SHEET NUMBER:

3.3

VISTA 505



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PAPER SIZE		ARCH E1
SCALE		N/A

REVISION:
ICA / PERMIT

SHEET TITLE:
SUB STATION INFO

SHEET NUMBER:
3.4

A

B

C

D

INVERTERS 1 AND 2

PHOTOVOLTAIC SYSTEM
DC DISCONNECT

OPERATING VOLTAGE 984V
OPERATING CURRENT 205A
MAX SYSTEM VOLTAGE 1126V
SHORT CIRCUIT CURRENT 220A

PV LABEL: 07-611
QTY: 2

⚠ WARNING
ELECTRIC SHOCK HAZARD

THE DC CONDUCTORS OF
THIS PHOTOVOLTAIC SYSTEM
ARE UNGROUNDED AND
MAY BE ENERGIZED

PV LABEL: 07-346
QTY: 2

⚠ WARNING
ELECTRIC SHOCK HAZARD

DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

PHOTOVOLTAIC MODULES PRODUCE DC VOLTAGE
WHENEVER THEY ARE EXPOSED TO SUNLIGHT

PV LABEL: 07-102
QTY: 2

PV AC COMBINER BOX

⚠ WARNING
PHOTOVOLTAIC SYSTEM
COMBINER PANEL

DO NOT ADD LOADS

PV LABEL: 07-355
QTY: 02

⚠ WARNING
TURN OFF PHOTOVOLTAIC
AC DISCONNECT PRIOR TO
WORKING INSIDE PANEL

PV LABEL: 05-372
QTY: 02

⚠ WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID
AND PV SOLAR
ELECTRIC SYSTEM

PV LABEL: 07-411
QTY: 02

DC COMBINER PANEL

⚠ WARNING
ELECTRIC SHOCK HAZARD

DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

PHOTOVOLTAIC MODULES PRODUCE DC VOLTAGE
WHENEVER THEY ARE EXPOSED TO SUNLIGHT

PV LABEL: 07-102
QTY: 10

DIRECT CURRENT
PHOTOVOLTAIC POWER SOURCE

MAXIMUM VOLTAGE 1126 VDC
MAX CIRCUIT CURRENT 220 AMPS

PV LABEL: 07-208
QTY: 10

PV AC DISCONNECT

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT 302 AMPS
OPERATING VOLTAGE 480 VOLTS

PV LABEL: 07-621
QTY: 01

⚠ WARNING
ELECTRIC SHOCK HAZARD

TERMINALS ON THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

PV LABEL: 07-215
QTY: 01

EACH INVERTER
(CHANGE ACCORDING
TO INVERTER NUMBER)

INVERTER 1

PV LABEL: 08-701
QTY: 2

DC CONDUIT RACEWAY

WARNING: PHOTOVOLTAIC
POWER SOURCE

PV LABEL: 02-314
QTY: AS NEEDED

MV TRANSFORMER
(EXISTING)

⚠ WARNING
TURN OFF PHOTOVOLTAIC
AC DISCONNECT PRIOR TO
WORKING INSIDE PANEL

PV LABEL: 05-372
QTY: 01

⚠ WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID
AND PV SOLAR
ELECTRIC SYSTEM

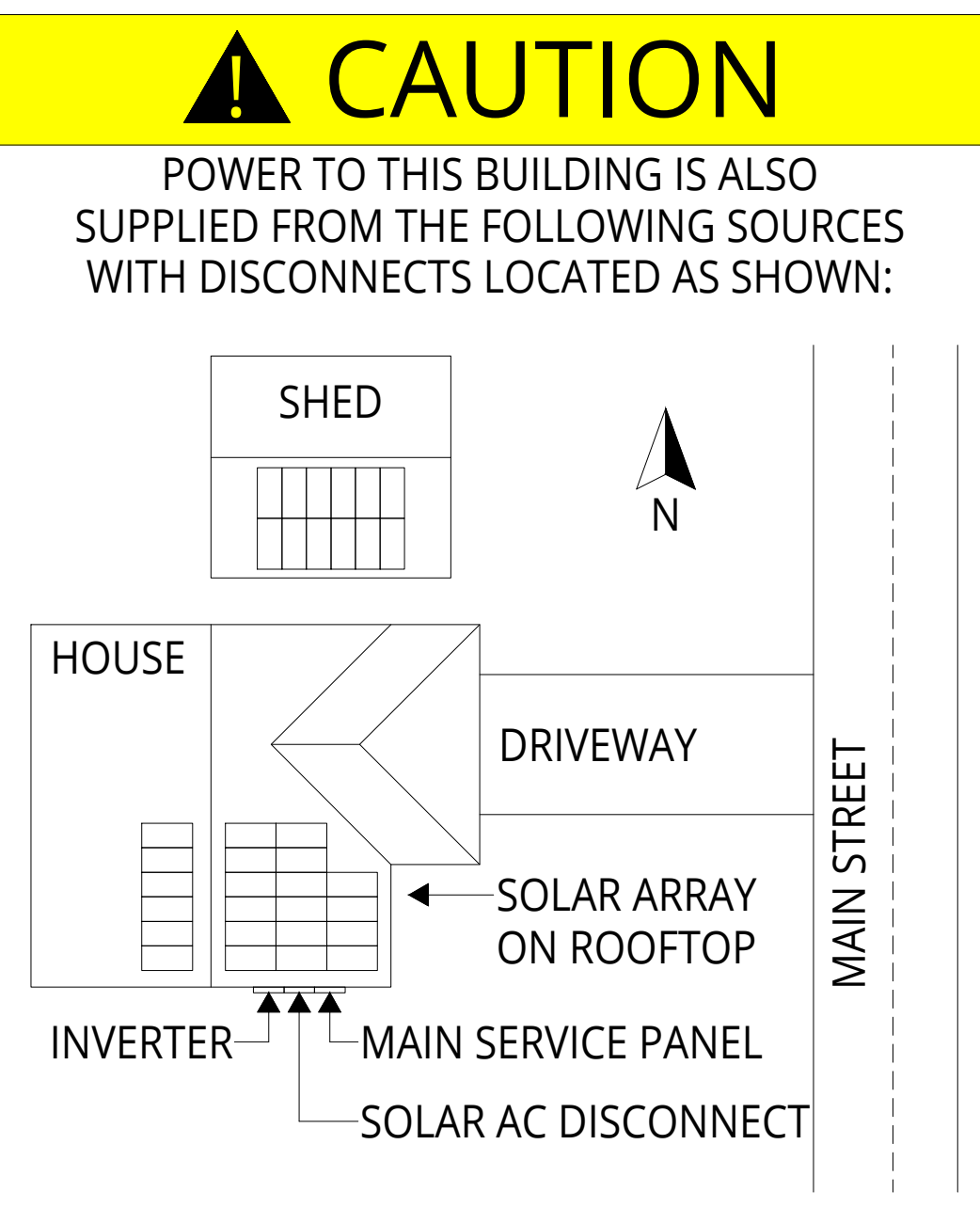
PV LABEL: 07-411
QTY: 01

UTILITY METER

⚠ WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID
AND PV SOLAR
ELECTRIC SYSTEM

PV LABEL: 07-411
QTY: 01

MAP WITH CUSTOM DETAILS OF
LOCATION TO BE INSTALLED
ON POINTS OF DISCONNECT
•PV AC DISCONNECT
•MV TRANSFORMER



PV LABEL: 07-645
QTY: 02



CONTRACTOR:

Simpleray
800-8080-SUN
2601 West Briggs Avenue
Fairfield, Iowa 52556
<https://www.Simpleray.com>

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OF SIMPLERAY.

SYSTEM DESIGN:



ENGINEER:

PROJECT:

Shawn Ajazi
682 State Rte 31,
Oswego, IL 60543
Project Number 104160973

4.0	06/20/2023	Zoning & Fence Layout
3.0	04/20/2023	POCC
2.0	10/07/2021	Sub Station Info
1.0	09/01/2021	ICA / PERMIT

REV	DATE	DESCRIPTION
FILE NAME	Fox Metro Water Reclamation Meter # 230 235 191	
DATE	04/20/2023	
PAPER SIZE	ARCH E1	
SCALE	N/A	

REVISION:
ICA / PERMIT

SHEET TITLE:
PV LABELS

SHEET NUMBER:
4.1

B

E1 ISU DTS 1500V DC Combiner

D

E2 ISU - ACC1000

**CONTRACTOR:**

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800-8080-SUN
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Fairfield, Iowa 52556
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 OF SIMPLERAY

SYSTEM DESIGN



Installation
Professional
Martin Charles

PV-041115-011262

ENGINEER:

Shawn Ajazi
682 State Rte 31,
Oswego, IL 60543
Project Number 104160973

4.0	06/20/2023	Zoning & Fence Layout
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SCALE		<i>N/A</i>

SHEET TITLE:

EQUIPMENT SPECIFICATION 1

7.1

