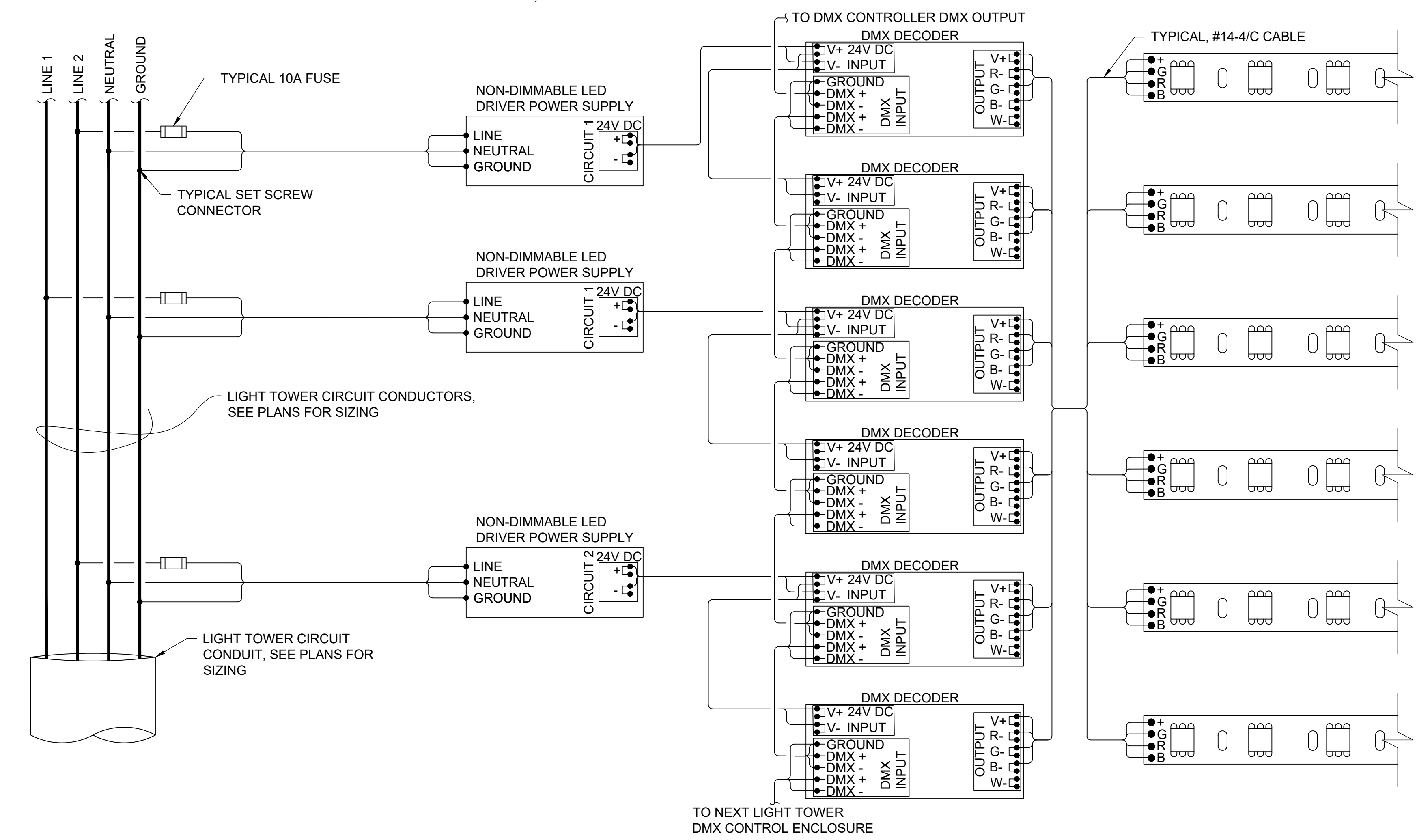
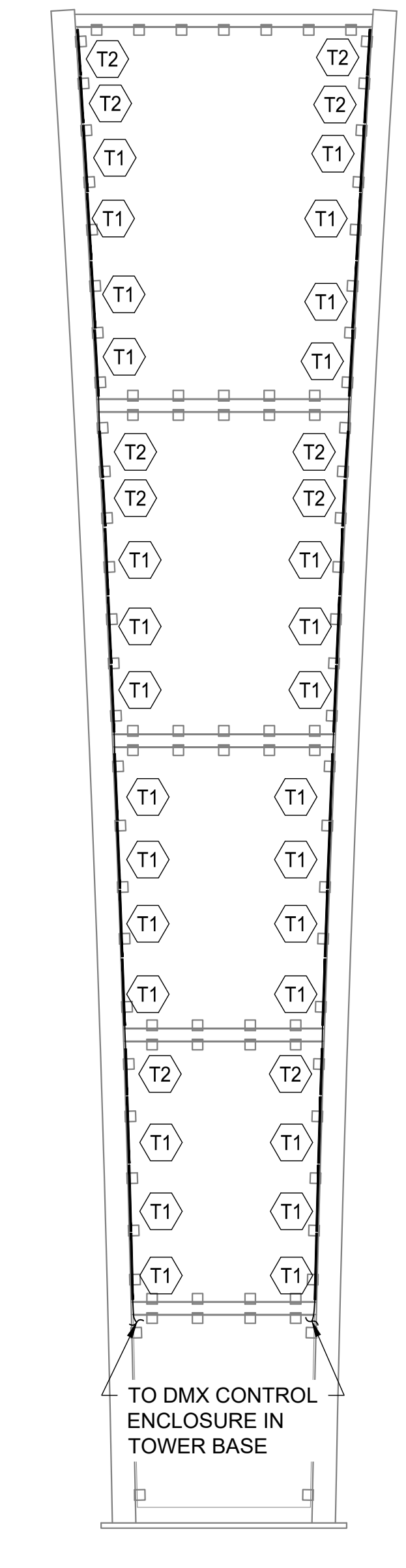
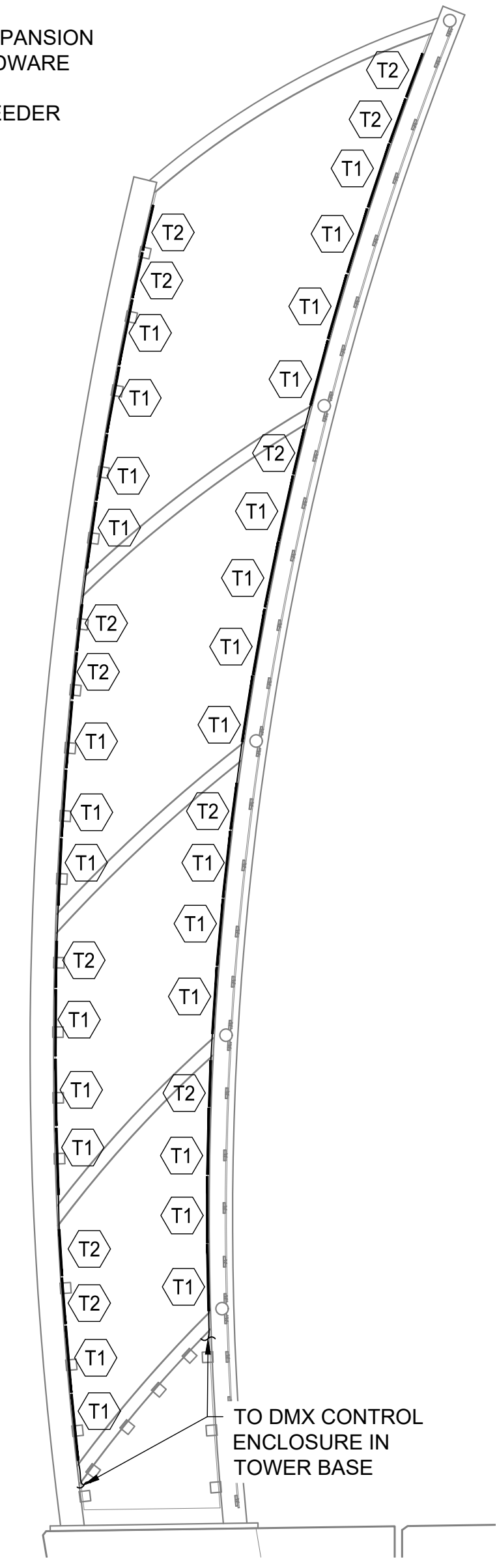
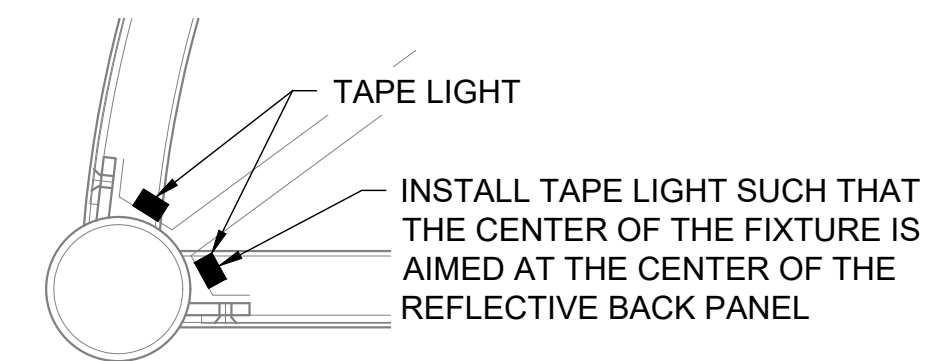


ART LIGHTING ELECTRICAL SPECIFICATIONS:

- PERFORM ALL WORK IN ACCORDANCE WITH NFPA 70-2020 AND NECA 1 AND ALL STATE AND LOCAL CODES AND REGULATIONS.
- SUBMITTALS: CONTRACTOR TO SUBMIT TO ENGINEER, FOR APPROVAL, ELECTRONIC PDF COPIES OF SHOP DRAWINGS FOR MAJOR ITEMS OF EQUIPMENT SUCH AS IN-GRADE PULL BOXES, LIGHTING CONTACTOR PEDESTAL, LUMINAIRES, DMX CONTROLLER, DMX DECODERS, DRIVERS, SURGE PROTECTIVE DEVICES, DMX DRIVER AND DECODER ENCLOSURE, AND THE DMX DRIVER AND DECODER ENCLOSURE PROPOSED INSTALLATION.
- MATERIALS:
 - CONDUCTORS: COPPER, 90°C, XHHW-2 INSULATION. COLOR CODE PER THE FOLOWING.
 - LINE 1: BLACK
 - LINE 2: RED
 - NEUTRAL: WHITE
 - GROUND: GROUND
 - CONDUIT:
 - UNDERGROUND: RNC. PVC-40 FOR NORMAL APPLICATIONS. PVC-80 FOR UNDER ROADWAYS.
 - ABOVE GRADE AND ATTACHED TO BRIDGE: RMC
 - LIGHTING CONTROLLER & METER PEDESTAL: SHALL MEET THE MODIFIED KDOT STANDARD CONTROLLER CABINET AS DETAILED IN THE DRAWINGS.
 - LIGHTING CONTROLLER & METER PEDESTAL CONCRETE FOUNDATION: SHALL MEET THE MODIFIED KDOT STANDARD CONTROLLER CABINET FOUNDATION AS DETAILED IN THE DRAWINGS.
 - ART TOWER DMX CONTROL ENCLOSURE: DIMENSIONS AND MOUNTING EQUIPMENT TO BE DESIGNED BY THE CONTRACTOR AND SHALL BE SENT TO THE ENGINEER AS PART OF THE SHOP DRAWING PROCESS. THE DMX CONTROL ENCLOSURE SHALL BE DESIGNED TO HOUSE THE EQUIPMENT SHOWN IN THE PLAN DETAILS AND SHALL BE LOCATED WITHIN THE BASE OF THE LIGHT TOWER.
 - SURGE PROTECTION DEVICES: PROVIDE SQUARE D HWA SERIES, EATON SPC SERIES, OR APPROVED EQUAL. THE SPD SHALL BE COMPONENT RECOGNIZED WITH UL 1449 4TH EDITION AND UL 1283. SPD SHALL HAVE A MINIMUM SURGE CURRENT RATING OF 100 kA PER PHASE (50 kA PER MODE).
 - JUNCTION BOXES: ALL JUNCTION BOXES INSTALLED ON THE BRIDGE PIERS SHALL BE CAST IRON BOXES, UL 50 LISTED, NEMA 3R & 4, HOT-DIP GALVANIZED WITH RESET GASKETED COVER WITH DIMENSIONS AS STATED ON THE PLANS. HARDWARE SHALL BE HEX HEAD STAINLESS STEEL OR BRASS. SEALING TYPE LOCKNUTS SHALL BE USED AT ALL CONDUIT ENTRANCES.
 - DMX CONTROLLER: SHALL BE LLI ARCHITECTURAL LIGHTING LLI-C-CTRL-DMX-STICK-DE3 OR APPROVED EQUAL. THE CONTROLLER SHALL MEET ANSI E1.11, SHALL HAVE TWO DMX512 OUTPUTS, AND SHALL HAVE AN INTEGRATED CLOCK AND CALENDAR THAT ALLOWS FOR SCHEDULING EVENTS ON SPECIFIC DAYS THROUGHOUT THE YEAR. PROVIDE A 32GB MICRO SD CARD WITH THE CONTROLLER.
 - DMX CABLE: SHALL MEET TIA/EIA-485 AND SHALL BE TWO PAIR TINNED COPPER. THE CABLE SHALL BE ALL WEATHER OUTER JACKET, 4/CONDUCTOR, MINIMUM #24 AWG AND SHALL HAVE AN IMPEDANCE BETWEEN 110Ω TO 120Ω.
 - DMX DECODER: SHALL BE LLI ARCHITECTURAL LIGHTING LLI-C-DEC-DMX12-8A OR APPROVED EQUAL. THE DMX DECODER SHALL BE CAPABLE OF BEING ADDRESSABLE AND SHALL BE CAPABLE OF INTERFACING WITH DMX512 PROTOCOL.
 - LED TAPE LIGHT: THE TAPE LIGHT SHALL BE LLI ARCHITECTURAL LIGHTING LLIDPW-SC-CC4.4W-68-RGB-24V OR APPROVED EQUAL. THE TAPE LIGHT SHALL BE UL 8750 LISTED AND RATED A MINIMUM OF IP67. THE TAPE LIGHT SHALL BE EITHER RGB OR RGBW AND SHALL NOT BE STATIC COLOR. THE TAPE LIGHT SHALL HAVE A MINIMUM USEFUL LIFE OF 50,000 HOURS TESTED IN

- ACCORDANCE WITH IES LM-79 AND IES LM-80. THE LUMINAIRE LEAD CONNECTORS SHALL BE WET LOCATION RATED CONNECTORS. VERIFY THE LEAD CONNECTOR RATING WITH THE MANUFACTURER WHEN ORDERING.
- NON-DIMMABLE DRIVER: SHALL BE LLI ARCHITECTURAL LIGHTING LLI-PS-NDE-300W-XXV-KO OR APPROVED EQUAL. THE DRIVER SHALL BE LISTED TO UL 2749 AND SHALL HAVE A MAXIMUM CIRCUIT WATTAGE OF 300W AT 24V.
 - FUSES: FUSES SHALL BE CLASS CC BUSSMAN INLINE KTK TYPE SIZED AS SHOWN ON THE DRAWINGS. PROVIDE FUSE HOLDERS FOR EACH ENERGIZED PHASE.
 - GROUND ROD: SHALL BE LISTED TO UL 467. GROUND ROD CLAMPS AND CONNECTORS SHALL BE LISTED TO UL 467. THE GROUND ROD CLAMP SHALL BE LISTED FOR DIRECT BURIAL.
- EXECUTION:
 - PERFORM ALL WORK IN ACCORDANCE WITH THE APPROPRIATE NECA STANDARD. INSTALL COMPONENTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE APPROPRIATE NECA & NEMA STANDARD. TEST ALL COMPONENTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE APPROPRIATE NEMA & NECA STANDARD.
 - NECA 101 AND NECA 111 FOR INSTALLATION OF RACEWAY.
 - SUPPORT ALL RACEWAY IN ACCORDANCE WITH NEC. IN ADDITION, STRENGTH OF SUPPORTS SHALL HAVE A SAFETY FACTOR OF 150% OF EXPECTED LOAD.
 - SPLICING:
 - IN JUNCTION BOXES: SUBMERSIBLE SECONDARY SET-SCREW CONNECTORS COMPLYING WITH ANSI C119.1 AND ANSI C119.4. CONNECTOR MANUFACTURING CO. TYPE SSBC350-L OR APPROVED EQUAL.
 - DMX CABLES SHALL BE CONTINUOUS FROM TERMINATION TO TERMINATION WITH NO SPLICES.
 - DMX CABLES SHALL NOT BE RUN IN THE SAME CONDUIT AS POWER CONDUCTORS AND SHALL UTILIZE SEPARATE JUNCTION BOXES EXCEPT AT THE DMX DECODER.
 - BRIDGE JUNCTION BOXES: ALL JUNCTION BOXES INSTALLED ON THE BRIDGE SHALL UTILIZE EXPANSION SHIELDS AND MACHINE SCREWS OR STANDARD PRESETS ON CONCRETE. ALL MOUNTING HARDWARE SHALL BE EITHER STAINLESS STEEL OR GALVANIZED. ELECTROPLATING IS NOT ACCEPTABLE.
 - GROUNDING: PROVIDE INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR IN EACH FEEDER AND BRANCH CIRCUIT WIRED UNDER THIS PROJECT.
 - DMX CONTROL PANEL: INSTALL CONTROL PANEL WITHIN THE LIGHTING CONTROLLER & METER PEDESTAL ENCLOSURE AS RECOMMENDED BY THE MANUFACTURER'S LITERATURE.

- NOTES:**
- EACH DMX DECODER SHALL UTILIZE THE FOLLOWING NUMBERING SCHEME TO FOR ITS ADDRESSING:
 - TOWER NUMBER
 - NORTHEAST = 1
 - NORTHWEST = 2
 - SOUTHEAST = 3
 - SOUTHWEST = 4
 - TOWER FACE NUMBER
 - NORTH FACE = 1
 - SOUTH FACE = 2
 - BRIDGE FACE = 3
 - TOWER SIDE
 - LEFT SIDE OF THE FACE = 1
 - RIGHT SIDE OF THE FACE = 2
 - CONTRACTOR TO ALTERNATE THE PHASES THAT EACH DRIVER IS CONNECTED TO AT EACH TOWER IN ORDER TO BALANCE THE LOADING AS EQUALLY AS POSSIBLE BETWEEN THE TWO PHASES.
 - ALL DRIVERS AND DMX DECODERS ARE TO BE STORED WITHIN A NEMA 3R ENCLOSURE LOCATED IN THE BOTTOM SECTION OF THE LIGHT TOWER. THE ENCLOSURE SIZE, MOUNTING, AND LOCATION IS TO BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER DURING THE SHOP DRAWING PROCESS. REFER TO THE LIGHT TOWER STRUCTURAL SHEETS FOR INFORMATION ON THE ALLOTTED SPACE PROVIDED FOR THE DRIVER AND DECODER ENCLOSURE.



TAPE LIGHT FIXTURE SCHEDULE

POLE NO	MANUFACTURER	LAMP	CATALOG NUMBER	MOUNTING	REMARKS
T1	LLI ARCHITECTURAL LTG	LED	LLI-DPW-SC-CC4.4W-68-RGB-24V-12.8IN	SURFACE	SEE NOTE 1
T2	LLI ARCHITECTURAL LTG	LED	LLI-DPW-SC-CC4.4W-68-RGB-24V-8.9IN	SURFACE	SEE NOTE 1

LIGHTING FIXTURE NOTES

- FIELD VERIFY LENGTHS AGAINST STEEL MANUFACTURER SHOP DRAWINGS PRIOR TO ORDERING TAPE LIGHT AND TAPE LIGHT ENCLOSURES.

PREPARED BY:

CONSULTANTS: **AMIDON AVE BRIDGE REPLACEMENT & ROAD IMPROVEMENTS**
WICHITA, KANSAS

PROJ NO: R210326.00
SCALE:
DATE: 7/13/2022
DESIGNED BY: AJM
DRAWN BY: AJM
CHECKED BY: JTS

SHEET TITLE: **STREET LIGHTING PLAN**

SHEET NO. **82**
SHEET 82 OF 128

ACCORDANCE WITH IES LM-79 AND IES LM-80. THE LUMINAIRE LEAD CONNECTORS SHALL BE WET LOCATION RATED CONNECTORS. VERIFY THE LEAD CONNECTOR RATING WITH THE MANUFACTURER WHEN ORDERING.