

LEGEND:

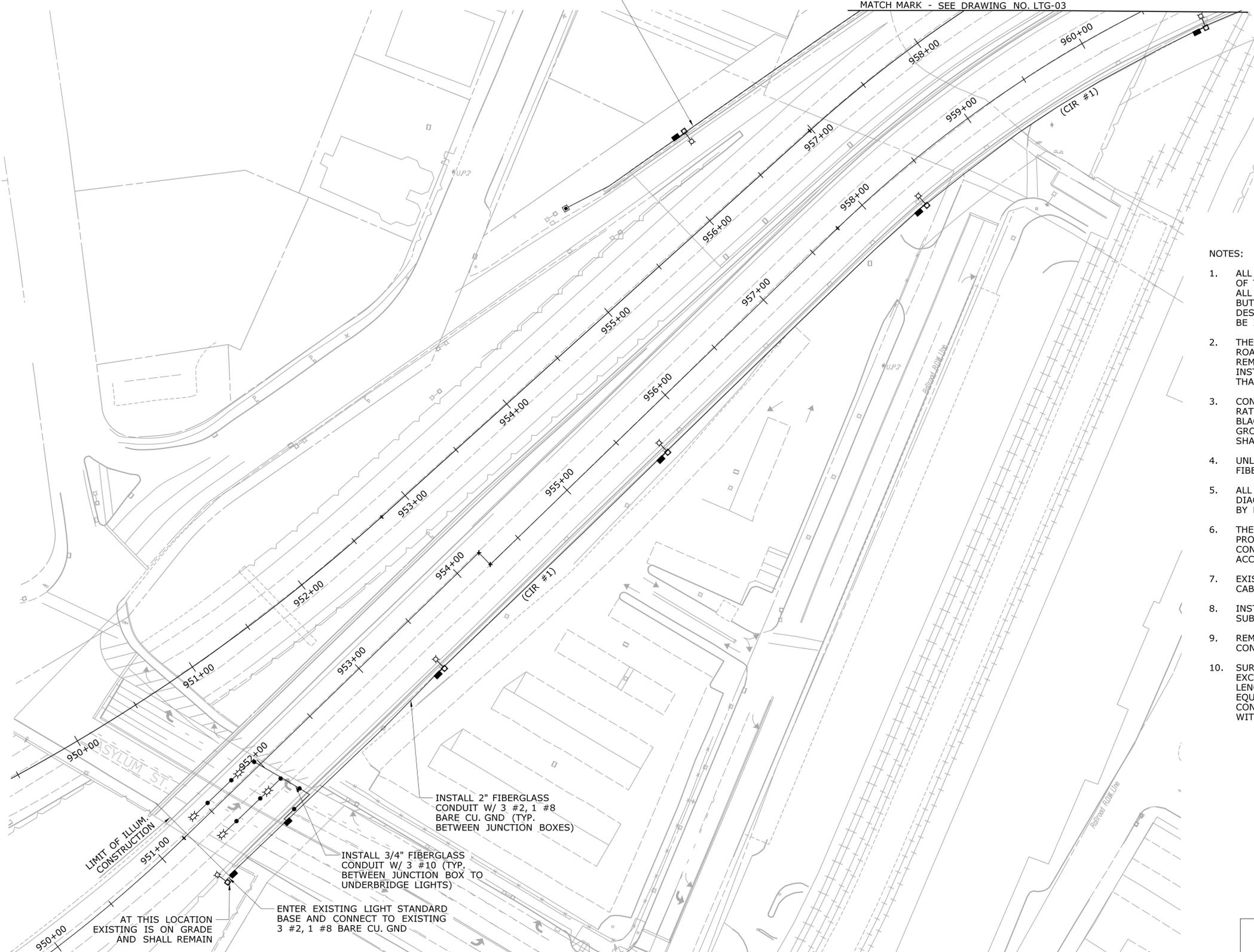
- X EXISTING LIGHT POLE TO BE REMOVED AND MOUNTED ON NEW BRACKET
- 16"X14"X6" FIBERGLASS JUNCTION BOX
- EXISTING JUNCTION BOX TO REMAIN
- EXISTING CONCRETE HANDHOLE TO REMAIN
- ⌘ NEW LED UNDERBRIDGE LUMINAIRE
- 2" FIBERGLASS CONDUIT, 3#2, 1#8 BARE CU GND
- 3/4" FIBERGLASS CONDUIT SURFACE MOUNTED W/3#10

NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRIC CODE, CONNECTICUT STANDARD SPECIFICATIONS. ALL ITEMS OF LABOR, MATERIALS AND EQUIPMENTS NOT SHOWN ON DRAWINGS, BUT NECESSARY FOR COMPLETE INSTALLATION AND PROPER OPERATION OF WORK DESCRIBED, SHALL BE FURNISHED AND INSTALLED. COST OF ALL ITEMS SHALL BE INCLUDED IN THE BID PRICES.
2. THE CONTRACTOR SHALL ORGANIZE HIS WORK SO THAT ANY PORTION OF THE ROADWAY WHICH HAS EXISTING NIGHTTIME ILLUMINATION AND IS OPEN FOR USE REMAINS LIGHTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STAGE THE INSTALLATION OF NEW LIGHTING CONDUITS AND CIRCUITRY IN SUCH A MANNER THAT THE EXISTING NIGHTTIME ILLUMINATION REMAINS OPERATIONAL.
3. CONDUCTORS SHALL BE STRANDED COPPER WITH INSULATION TYPE XHHW AND RATED FOR 600 VOLTS. CONDUCTORS SHALL BE FACTORY COLOR CODED AS RED, BLACK, BLUE. ALL LIGHTING CIRCUITS SHALL HAVE ONE NO. 8 BARE COPPER GROUNDING CONDUCTOR. NO. 10 AWG CONDUCTORS FOR UNDERBRIDGE LIGHTING SHALL BE TYPE THWN.
4. UNLESS OTHERWISE NOTED, ALL CONDUITS AND JUNCTION BOXES SHALL BE FIBERGLASS.
5. ALL WIRING AND CONDUIT LAYOUT ON DRAWINGS IS SHOWN DIAGRAMMATICALLY. ACTUAL CONDUIT ROUTING TO FIXTURE TO BE DETERMINED BY ELECTRICAL CONTRACTOR AND COORDINATED WITH ALL TRADES.
6. THE CONTRACTOR SHALL ABIDE BY THE CONNDOT LOCKOUT/TAGOUT PROCEDURES WHEN ACCESS TO A CIRCUIT IS REQUIRED. THE CONTRACTOR SHALL CONTACT THE DISTRICT ELECTRICAL SUPERVISOR AT 860-566-3156, WHEN ACCESS TO A CIRCUIT IS REQUIRED.
7. EXISTING LIGHTING CIRCUITRY IS 480 VOLT, 3 PHASE. LIGHTING CONTROL CABINET IS LOCATED AT MORGAN STREET IN HARTFORD.
8. INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LOCATIONS SUBJECT TO MOVEMENT OR EXPANSION.
9. REMOVE AND DISPOSE OF EXISTING UNDERBRIDGE LIGHTS, SURFACE CONDUITS AND CONDUCTORS.
10. SURFACE MOUNTED FIBERGLASS CONDUIT SUPPORT SPACING SHALL NOT EXCEED 3'-0" AS PER N.E.C. 352.30(B). WHEN THE FIBERGLASS CONDUIT LENGTH IS BETWEEN 50' AND 200' INSTALL TWO CONDUIT EXPANSION FITTINGS EQUALLY SPACED FROM EACH OTHER AND THE ENDS OF THE CONDUIT RUN. CONDUIT EXPANSION FITTINGS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURERS INSTALLATION GUIDELINES.

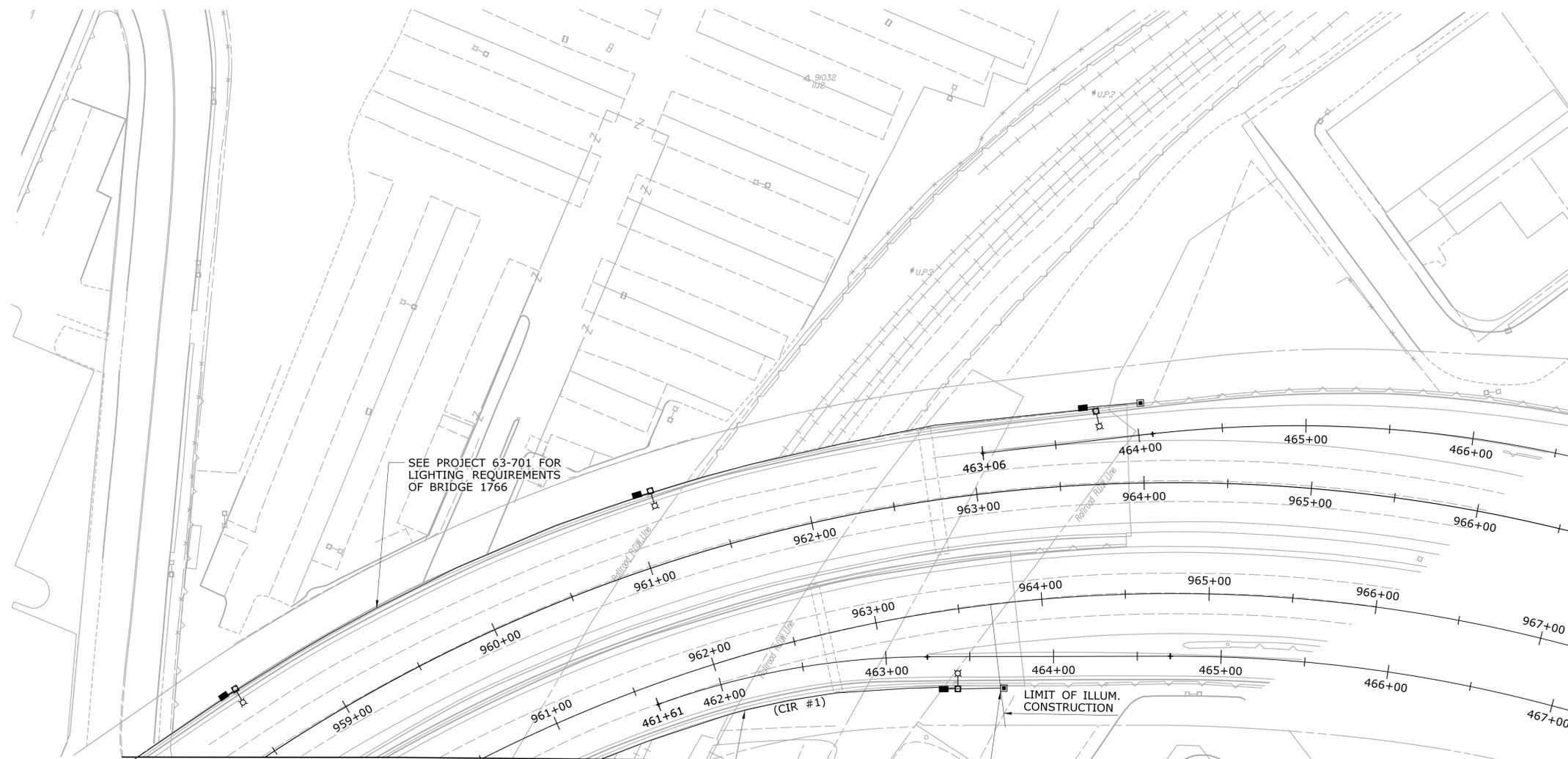
SEE PROJECT 63-701 FOR LIGHTING REQUIREMENTS OF BRIDGE 1766

MATCH MARK - SEE DRAWING NO. LTG-03



SEMI FINAL DESIGN REVIEW

<p>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</p>		<p>DESIGNER/DRAFTER: MD</p> <p>CHECKED BY: SDH</p> <p>SCALE IN FEET 0 40 80 SCALE 1"=40'</p>		<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>		<p>SIGNATURE/BLOCK:</p> <p>Hardesty & Hanover, LLC 59 Elm Street New Haven, CT 06510</p>		<p>PROJECT TITLE: REHABILITATION OF BRIDGE NO. 01765 I-84 EASTBOUND OVER AMTRAK AND LOCAL ROADS</p>		<p>TOWN: HARTFORD</p>		<p>PROJECT NO. 063-700</p>	
								<p>DRAWING NO. LTG-02</p>		<p>SHEET NO. 02.05.02</p>			
<p>REV. DATE REVISION DESCRIPTION SHEET NO. Plotted Date: 7/5/2016</p>								<p>DRAWING TITLE: LIGHTING PLAN - 1</p>					



MATCH MARK - SEE DRAWING NO. LTG-02

INSTALL 2" FIBERGLASS CONDUIT W/ 3 #2, 1 #8 BARE CU. GND (TYP. BETWEEN JUNCTION BOXES)

TAP INTO EXISTING CONC. HANDHOLE "A". CONNECT TO EXISTING 3 #2, 1 #8 BARE CU GND. CIR #1

LEGEND:

- x EXISTING LIGHT POLE TO BE REMOVED AND MOUNTED ON NEW BRACKET
- 16"x14"x6" FIBERGLASS JUNCTION BOX
- EXISTING JUNCTION BOX TO REMAIN
- EXISTING CONCRETE HANDHOLE TO REMAIN
- ⋈ NEW LED UNDERBRIDGE LUMINAIRE
- 2" FIBERGLASS CONDUIT, 3#2, 1#8 BARE CU GND
- 3/4" FIBERGLASS CONDUIT SURFACE MOUNTED W/3#10

NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRIC CODE, CONNECTICUT STANDARD SPECIFICATIONS. ALL ITEMS OF LABOR, MATERIALS AND EQUIPMENTS NOT SHOWN ON DRAWINGS, BUT NECESSARY FOR COMPLETE INSTALLATION AND PROPER OPERATION OF WORK DESCRIBED, SHALL BE FURNISHED AND INSTALLED. COST OF ALL ITEMS SHALL BE INCLUDED IN THE BID PRICES.
2. THE CONTRACTOR SHALL ORGANIZE HIS WORK SO THAT ANY PORTION OF THE ROADWAY WHICH HAS EXISTING NIGHTTIME ILLUMINATION AND IS OPEN FOR USE REMAINS LIGHTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STAGE THE INSTALLATION OF NEW LIGHTING CONDUITS AND CIRCUITRY IN SUCH A MANNER THAT THE EXISTING NIGHTTIME ILLUMINATION REMAINS OPERATIONAL.
3. CONDUCTORS SHALL BE STRANDED COPPER WITH INSULATION TYPE XHHW AND RATED FOR 600 VOLTS. CONDUCTORS SHALL BE FACTORY COLOR CODED AS RED, BLACK, BLUE. ALL LIGHTING CIRCUITS SHALL HAVE ONE NO. 8 BARE COPPER GROUNDING CONDUCTOR. NO. 10 AWG CONDUCTORS FOR UNDERBRIDGE LIGHTING SHALL BE THWN.
4. UNLESS OTHERWISE NOTED, ALL CONDUITS AND JUNCTION BOXES SHALL BE FIBERGLASS.
5. ALL WIRING AND CONDUIT LAYOUT ON DRAWINGS IS SHOWN DIAGRAMMATICALLY. ACTUAL CONDUIT ROUTING TO FIXTURE TO BE DETERMINED BY ELECTRICAL CONTRACTOR AND COORDINATED WITH ALL TRADES.
6. THE CONTRACTOR SHALL ABIDE BY THE CONNDOT LOCKOUT/TAGOUT PROCEDURES WHEN ACCESS TO A CIRCUIT IS REQUIRED. THE CONTRACTOR SHALL CONTACT THE DISTRICT ELECTRICAL SUPERVISOR AT 860-566-3156, WHEN ACCESS TO A CIRCUIT IS REQUIRED.
7. EXISTING LIGHTING CIRCUITRY IS 480 VOLT, 3 PHASE. LIGHTING CONTROL CABINET IS LOCATED AT MORGAN STREET IN HARTFORD.
8. INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LOCATIONS SUBJECT TO MOVEMENT OR EXPANSION.
9. REMOVE AND DISPOSE OF EXISTING UNDERBRIDGE LIGHTS, SURFACE CONDUITS AND CONDUCTORS.
10. SURFACE MOUNTED FIBERGLASS CONDUIT SUPPORT SPACING SHALL NOT EXCEED 3'-0" AS PER N.E.C. 352.30(B). WHEN THE FIBERGLASS CONDUIT LENGTH IS BETWEEN 50' AND 200' INSTALL TWO CONDUIT EXPANSION FITTINGS EQUALLY SPACED FROM EACH OTHER AND THE ENDS OF THE CONDUIT RUN. CONDUIT EXPANSION FITTINGS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURERS INSTALLATION GUIDELINES.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 7/5/2016

DESIGNER/DRAFTER: **MD**
 CHECKED BY: **SDH**
 SCALE IN FEET
 0 40 80
 SCALE 1"=40'



SIGNATURE/BLOCK:
 Hardesty & Hanover, LLC
 59 Elm Street
 New Haven, CT 06510
 Hardesty & Hanover

PROJECT TITLE:
REHABILITATION OF BRIDGE NO. 01765 I-84 EASTBOUND OVER AMTRAK AND LOCAL ROADS

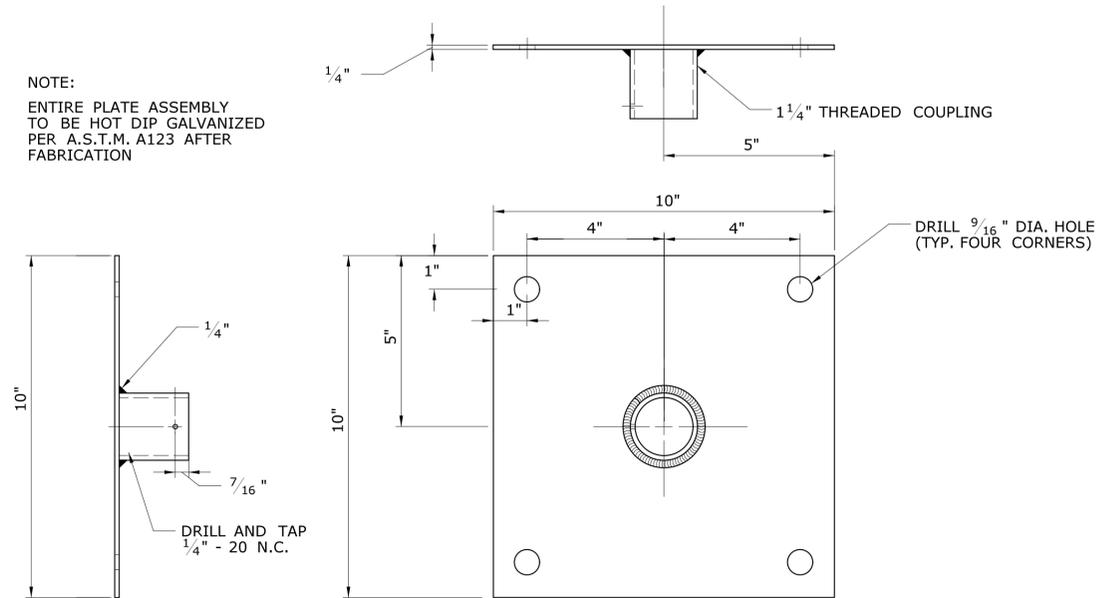
TOWN: **HARTFORD**
 DRAWING TITLE: **LIGHTING PLAN - 2**

PROJECT NO. **063-700**
 DRAWING NO. **LTG-03**
 SHEET NO. **02.05.03**

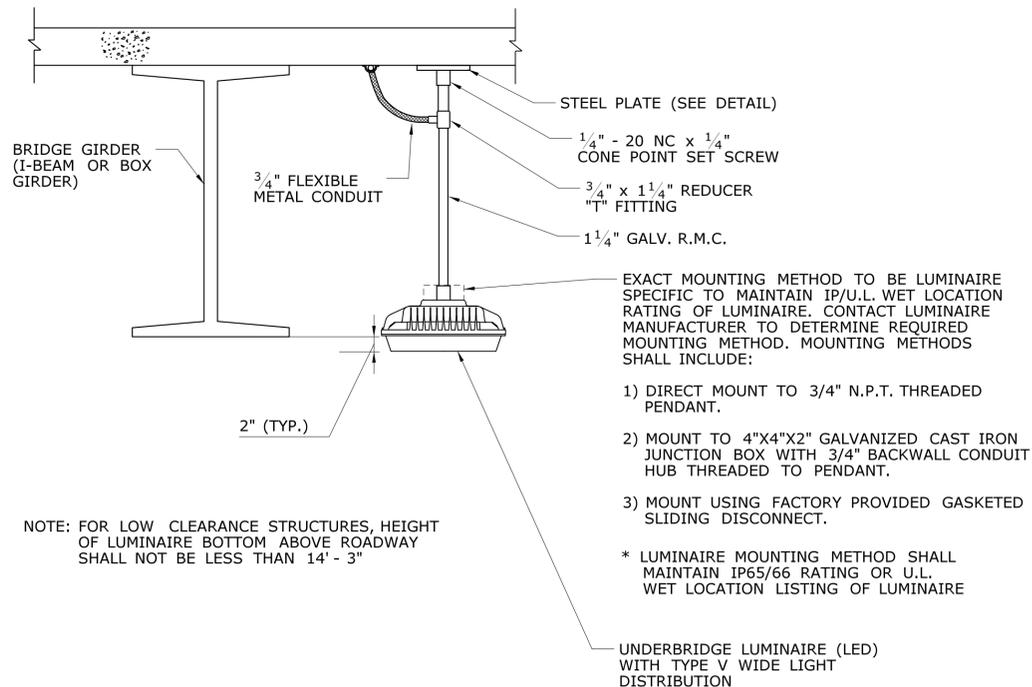
NOTE:

STEEL PLATE TO BE ATTACHED TO BRIDGE DECK USING CONNECTICUT D.O.T. APPROVED MECHANICAL ANCHOR (2). THREADED ROD SHALL BE 1/2" IN DIAMETER, HOT DIP GALVANIZED PER A.S.T.M. - A123. MECHANICAL ANCHOR SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS.

NOTE:
ENTIRE PLATE ASSEMBLY TO BE HOT DIP GALVANIZED PER A.S.T.M. A123 AFTER FABRICATION



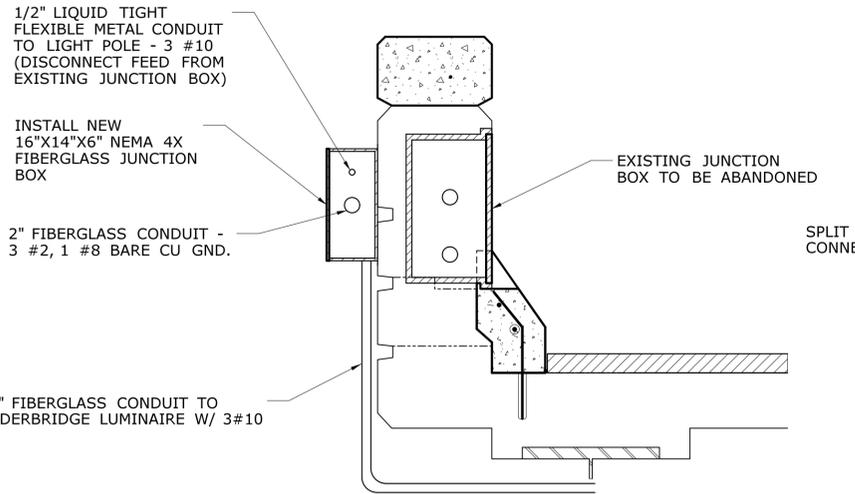
STEEL PLATE FOR PENDANT LUMINAIRE



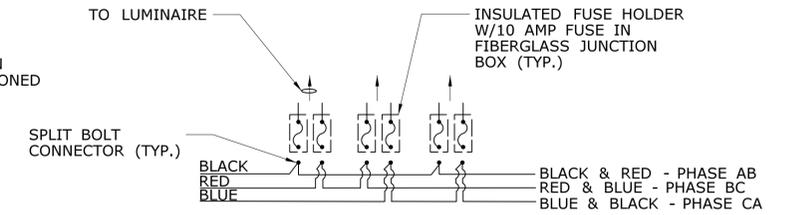
UNDERBRIDGE LUMINAIRE - PENDANT MOUNTING

- EXACT MOUNTING METHOD TO BE LUMINAIRE SPECIFIC TO MAINTAIN IP/U.L. WET LOCATION RATING OF LUMINAIRE. CONTACT LUMINAIRE MANUFACTURER TO DETERMINE REQUIRED MOUNTING METHOD. MOUNTING METHODS SHALL INCLUDE:
- 1) DIRECT MOUNT TO 3/4" N.P.T. THREADED PENDANT.
 - 2) MOUNT TO 4"x4"x2" GALVANIZED CAST IRON JUNCTION BOX WITH 3/4" BACKWALL CONDUIT HUB THREADED TO PENDANT.
 - 3) MOUNT USING FACTORY PROVIDED GASKETED SLIDING DISCONNECT.
- * LUMINAIRE MOUNTING METHOD SHALL MAINTAIN IP65/66 RATING OR U.L. WET LOCATION LISTING OF LUMINAIRE

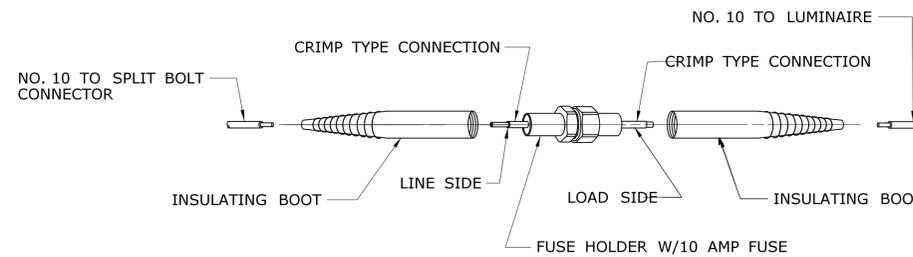
NOTE: FOR LOW CLEARANCE STRUCTURES, HEIGHT OF LUMINAIRE BOTTOM ABOVE ROADWAY SHALL NOT BE LESS THAN 14' - 3"



TYPICAL LAYOUT AND FEED FOR UNDERBRIDGE LUMINAIRE

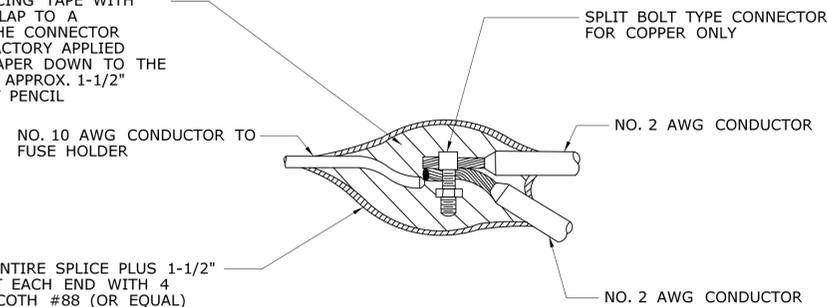


3 PHASE 3 WIRE SYSTEM



INSULATED FUSE CONNECTOR

APPLY RUBBER SPLICING TAPE WITH APPROX. 50% OVERLAP TO A THICKNESS OVER THE CONNECTOR 1-1/2 TIMES THE FACTORY APPLIED INSULATION AND TAPER DOWN TO THE JACKET AT A POINT APPROX. 1-1/2" FROM THE EDGE OF PENCIL

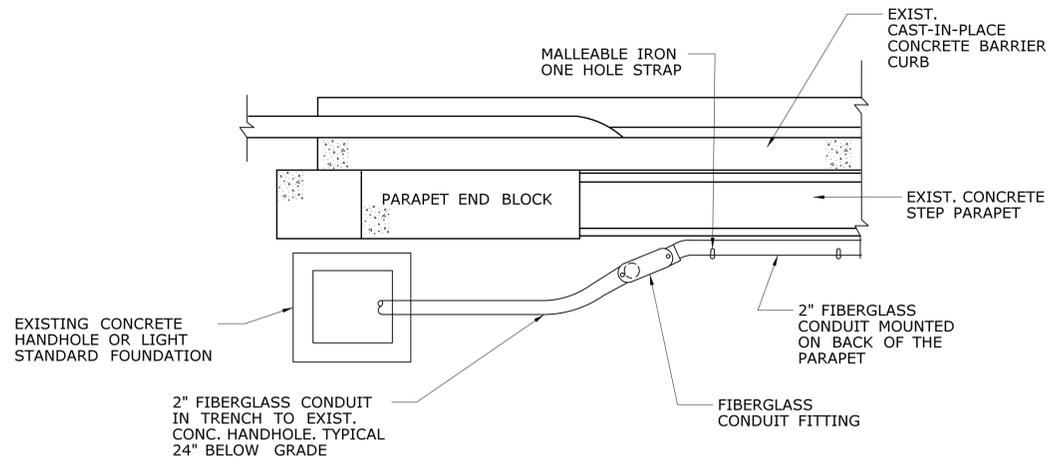


SPLIT BOLT CONNECTOR

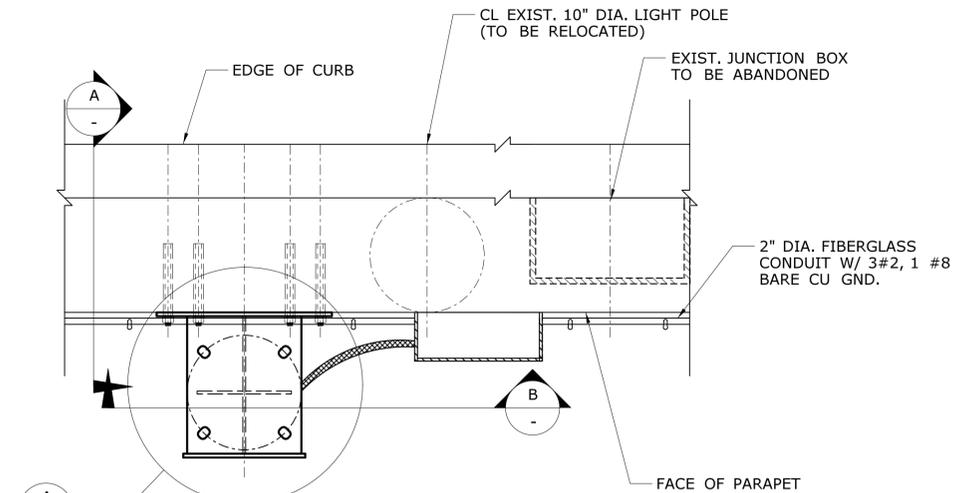
UNDERBRIDGE LIGHTING NOTES:

1. EXISTING LIGHTING CIRCUITRY IS 480 VOLT, 3 PHASE. LIGHTING CONTROL CABINET IS LOCATED AT MORGAN STREET IN HARTFORD.
2. ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, CONNECTICUT STANDARD SPECIFICATIONS, AND WHERE APPLICABLE, UTILITY COMPANY REGULATIONS.
3. CONDUCTORS SHALL BE COPPER, INSULATION TYPE THWN AND RATED FOR 600 VOLTS. INSULATION SHALL BE FULL LENGTH FACTORY COLOR CODED AS FOLLOWS: RED, BLACK, BLUE.
4. THE CONTRACTOR SHALL ABIDE BY THE CONNDOT LOCKOUT/TAGOUT PROCEDURES. THE CONTRACTOR SHALL CONTACT THE DISTRICT ELECTRICAL SUPERVISOR AT TELEPHONE (860) 566-3156, WHEN ACCESS TO A CIRCUIT IS REQUIRED AND TO MARK-OUT EXISTING UNDERGROUND LIGHTING CIRCUITS.
5. REMOVE AND DISPOSE OF EXISTING UNDERBRIDGE LIGHTS, SURFACE CONDUIT AND CONDUCTORS.
6. INSTALL 3/4" LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LOCATIONS SUBJECT TO MOVEMENT OR EXPANSION.

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											DRAWING NO. LTG-04	
											SHEET NO. 02.05.04	

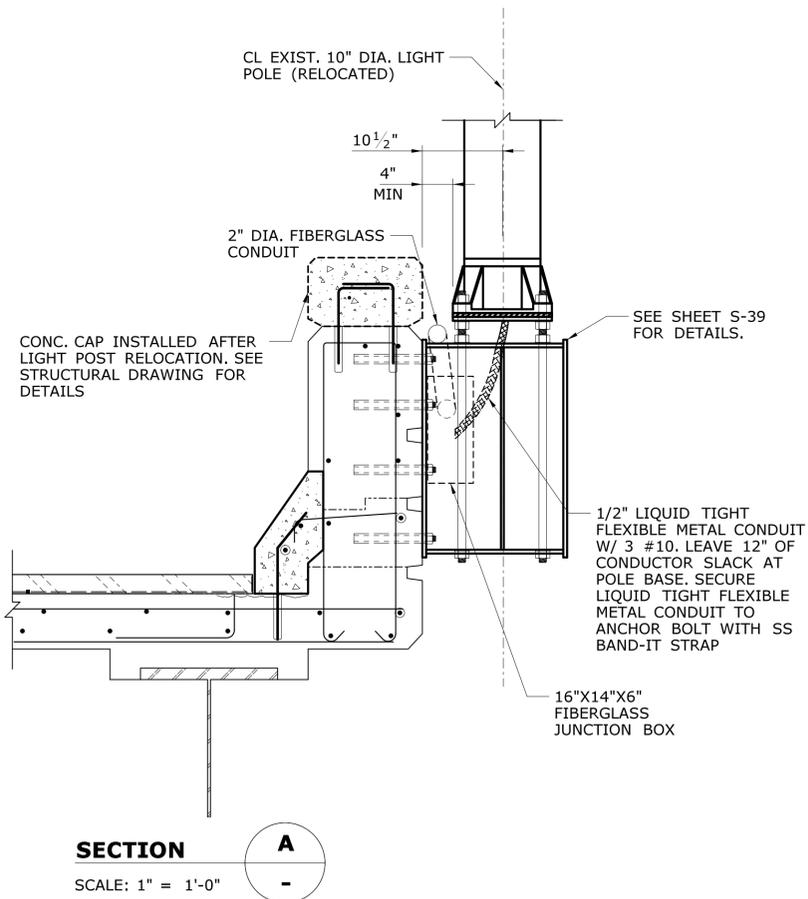


TYPICAL CONDUIT TREATMENT AT EXISTING CONCRETE HANDHOLE OR STANDARD FOUNDATION (TOP VIEW)

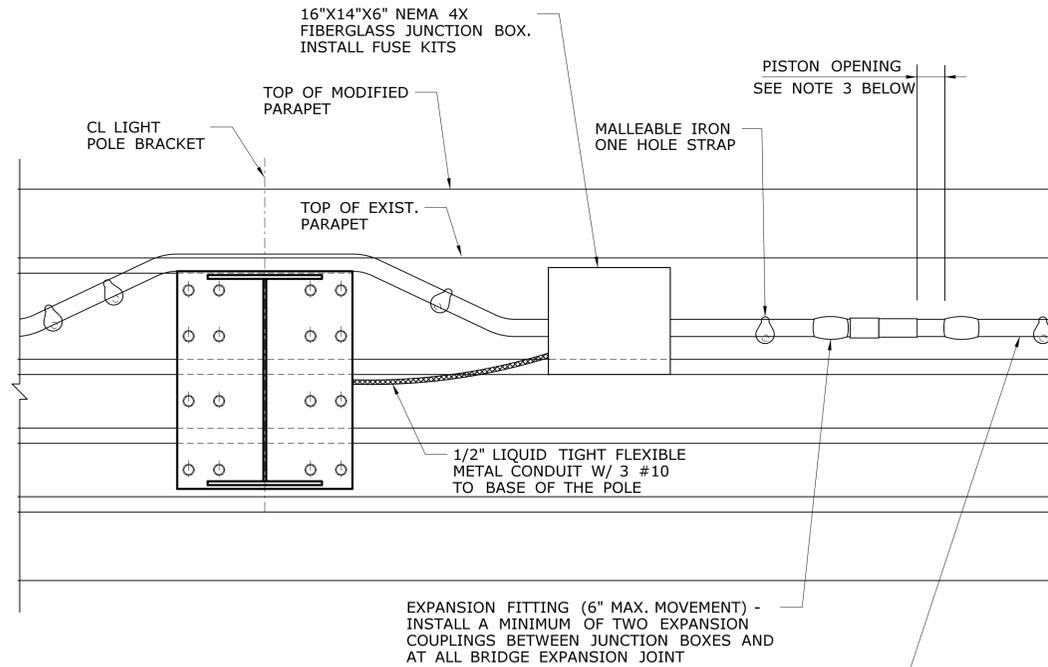


PARAPET PLAN
SCALE: NTS

NOTE:
SEE STRUCTURAL DRAWINGS FOR STRUCTURAL DETAIL.



SECTION A
SCALE: 1" = 1'-0"



SECTION B
SCALE: NTS

CONDUIT ATTACHMENT NOTES:

1. SURFACE MOUNTED FIBERGLASS CONDUIT SUPPORT SPACING SHALL NOT EXCEED 3'-0" AS PER N.E.C. 352.30(B). WHEN THE FIBERGLASS CONDUIT LENGTH IS BETWEEN 50' AND 200' INSTALL TWO CONDUIT EXPANSION FITTINGS EQUALLY SPACED FROM EACH OTHER AND THE ENDS OF THE CONDUIT RUN. CONDUIT EXPANSION FITTINGS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURERS INSTALLATION GUIDELINES.
2. CONDUIT EXPANSION FITTINGS (6" MOVEMENT) SHALL BE INSTALLED AT ALL BRIDGE EXPANSION JOINTS. A MINIMUM OF TWO CONDUIT EXPANSION FITTINGS SHALL BE INSTALLED BETWEEN EACH JUNCTION BOX AS INDICATED IN THE DETAILS. MAXIMUM SPACING BETWEEN ADJACENT EXPANSION FITTINGS SHALL NOT EXCEED 125'. BARREL END OF EXPANSION FITTING SHALL BE SECURELY CLAMPED TO THE PARAPET TO PROHIBIT MOVEMENT OF BARREL.
3. EXPANSION FITTING PISTON OPENING AT THE TIME OF INSTALLATION SHALL BE DETERMINED BASED ON THE FOLLOWING FORMULA

$$= \frac{100 F^{\circ} - \text{AMBIENT TEMP.}}{100 F^{\circ}} \times 6"$$
4. ALL CONDUIT FITTINGS, COUPLINGS, CLAMPS, ATTACHMENT HARDWARE, DRILLING AND ANCHORING SHALL BE INCLUDED IN THE PRICE OF THE CONDUIT.

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				SCALE AS NOTED	FILENAME: ...LTG-05.1765.dgn					DRAWING NO. LTG-05	SHEET NO. 02.05.05