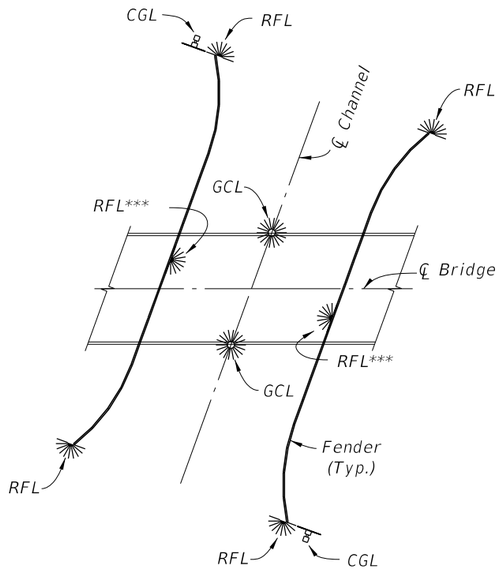
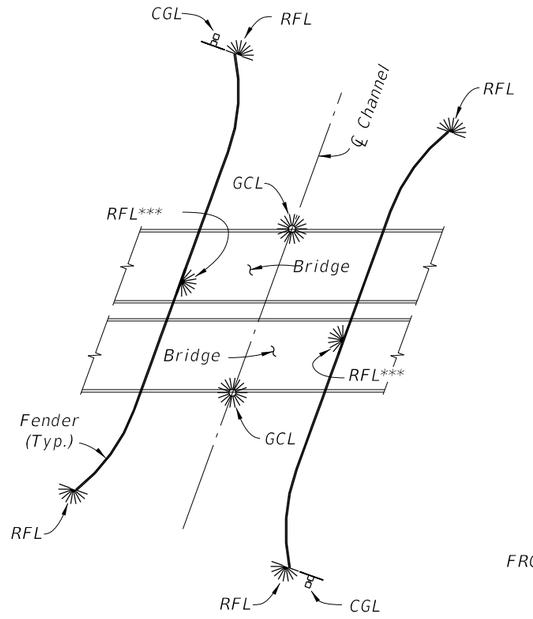


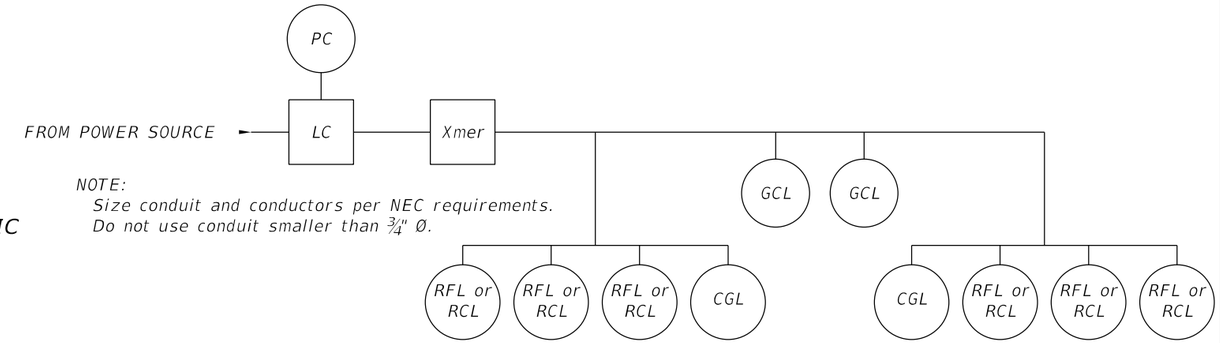

NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR SINGLE BRIDGE WITH FENDERS




NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR DUAL BRIDGES WITH FENDERS

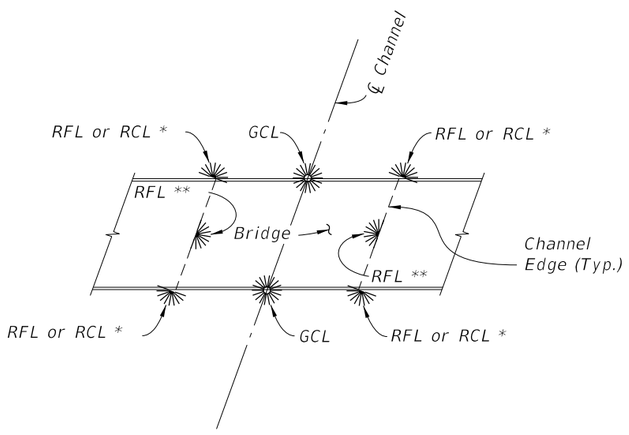
*NAVIGATION LIGHT NOTES:*

1. *Provide Navigation Light System in compliance with Specifications Section 510.*

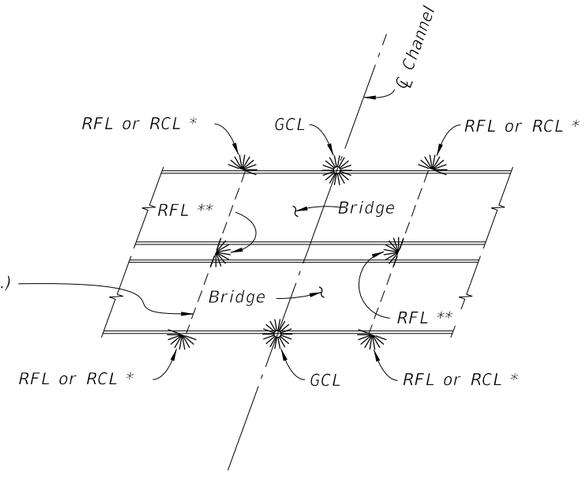



*NOTE:*
*Size conduit and conductors per NEC requirements.*
*Do not use conduit smaller than ¾" Ø.*

TYPICAL ELECTRICAL SCHEMATIC DIAGRAM




NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR SINGLE BRIDGE WITHOUT FENDERS




NAVIGATION LIGHT SYSTEM SCHEMATIC
FOR DUAL BRIDGES WITHOUT FENDERS

| POWER CONDUCTORS | | | |
|---|---|---|---|
| DISTANCE (feet) | VOLTS | CONDUCTOR | TRANSFORMER |
| 0 – 75 | 120 | #12 AWG | N/A |
| 75 – 500 | 120 or 240 | #10 AWG | N/A |
| 500–1000 | 240 | #10 AWG | N/A |
| 1000–2000 | 480 | #10 AWG | 2 KVA |
| 2000–5000 | 480 | #8 AWG | 2 KVA |
| 5000–10000 | 480 | #6 AWG | 2 KVA |
| over 10000 | 480 | #4 AWG | 2 KVA |

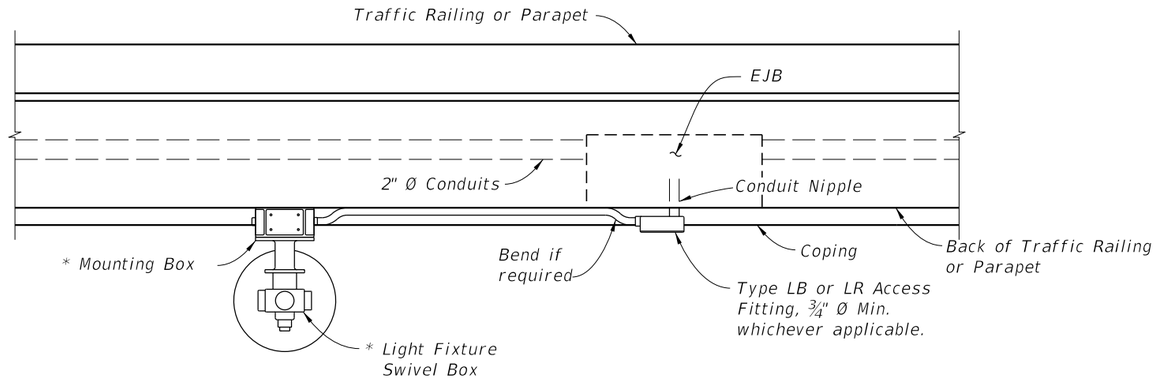
*LEGEND*

| SYMBOL | DESCRIPTION |
|---|---|
| LC | Lighting Contactor |
| PC | Photocell Control |
| Xmer | Transformer (If Required) |
| RFL or RCL | Red Pier/Fender Light (180° visibility) |
| | Red Channel Margin Light (180° visibility) |
| GCL | Green Center Channel Light (360° visibility) |
| CGL | Clearance Gauge Light |
| CM | Channel Margin or Pier inner surface whichever defines Channel Edge. |

* Use RFL when Pier is at Channel Edge and see CFR, Title 33, part 118 for Mounting Height restrictions. Use RCL otherwise.
** Mounted only on the Pier that defines CM, otherwise does not apply.
*** RFL to be located at mid length of straight portion of fender.

10/6/2022 11:20:09 AM

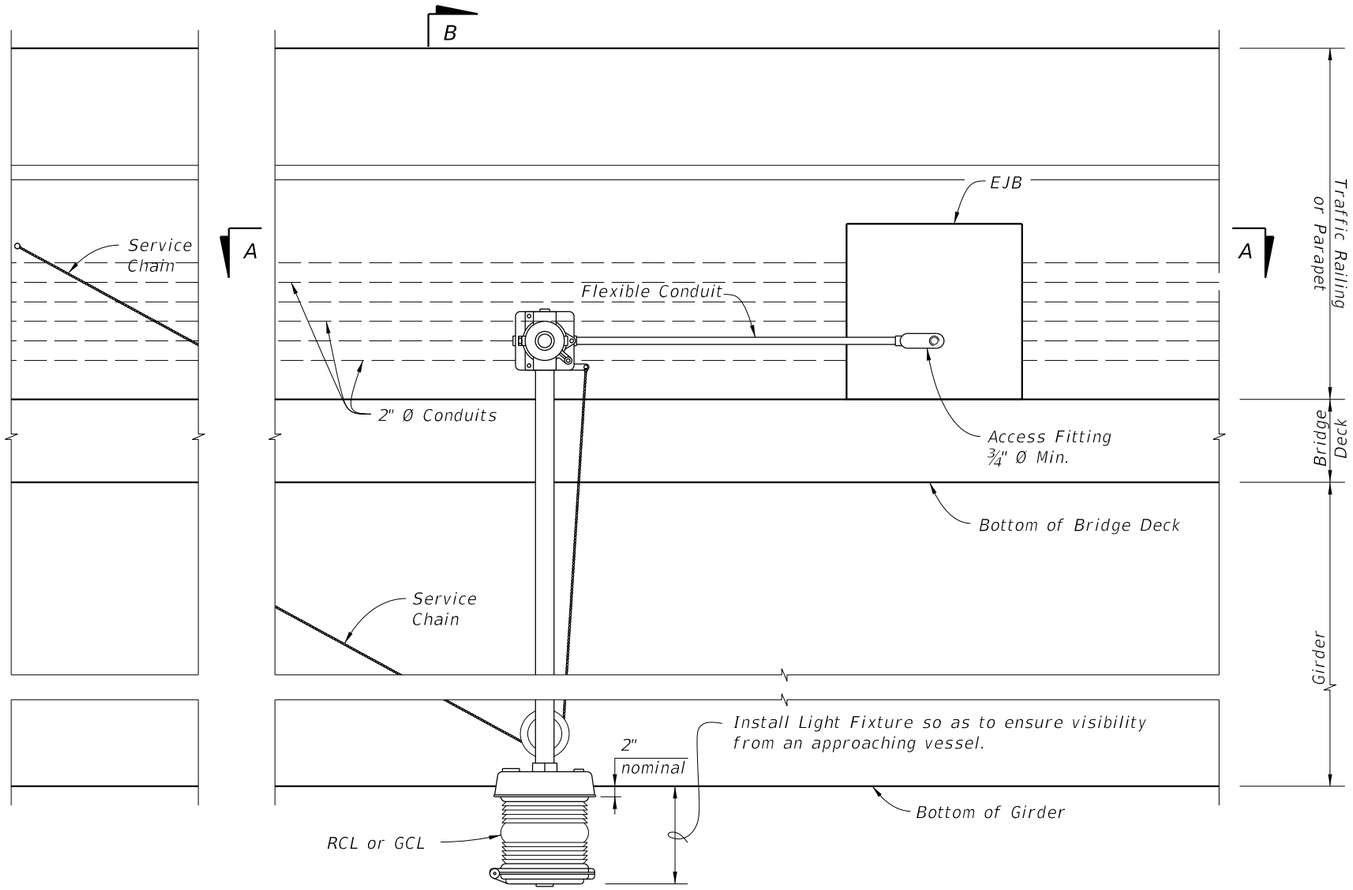
| LAST REVISION | REVISION | DESCRIPTION: | FDOT | FY 2023-24 STANDARD PLANS | NAVIGATION LIGHT SYSTEM DETAILS (FIXED BRIDGES) | INDEX | SHEET |
|---|---|---|---|---|---|---|---|
| 11/01/17 | | | | | | 510-001 | 1 of 2 |



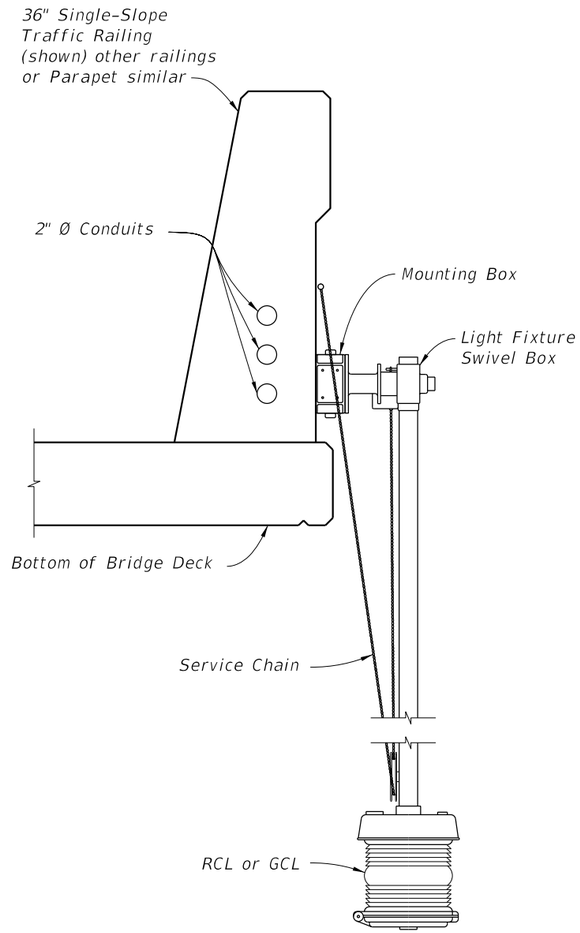

CROSS REFERENCES:
1. For Navigation Light System notes and legend, see Sheet 1.
2. See Utility Conduit Detail sheets for Embedded Junction Box (EJB) dimensions & locations.

* Supplied by Light Fixture Manufacturer

GCL OR RCL MOUNTING DETAILS (SCHEMATIC)
VIEW A-A




GCL OR RCL MOUNTING DETAILS (SCHEMATIC)
ELEVATION VIEW
(Traffic Railing (36" Single-Slope) shown, other railings similar)




SECTION B-B
TYPICAL POSITION OF RCL OR GCL
RELATIVE TO SUPERSTRUCTURES

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| LAST REVISION | REVISION | DESCRIPTION: | FY 2023-24 STANDARD PLANS | NAVIGATION LIGHT SYSTEM DETAILS (FIXED BRIDGES) | INDEX | SHEET |
|---|---|---|---|---|---|---|
| 11/01/17 | | | | | 510-001 | 2 of 2 |