

P-579606 LUMEN RELOCATION PROJECT
KILLINGLY - ROUTE 101 HARTFORD PIKE
CT DOT PROJECT 0068-0217 BRIDGE NO.02599 REPLACEMENT
BETWEEN NORTH RD, KILLINGLY, CT
&
PRAY HILL RD, CHEPACHET, RI



CONTACTS

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SCOPE OF WORK

TEMPORARILY RELOCATE LEVEL 3 180ct,
UNICORN 432ct, AND WILTEL 148ct FIBER OPTIC
CABLES TO FACILITATE CT DOT PROPOSED
BRIDGE REPLACEMENT.

SYMBOL CORRESPONDS TO PHOTO LOCATIONS AND
ORIENTATION. SEE SHEET # FOR SITE PHOTOGRAPHS.

3				AS-BUILT
2				REVISION #
1	8/21/25	IG	IG	ORIGINAL
NO.	DATE	ENG	DESIGN	DRAFTING
				COMMENT

Level(3)
COMMUNICATIONS
A CENTURYLINK COMPANY

LEVEL 3 ENGINEER: Stephen Becker
ENGINEERING FIRM: GRECOWOLF ENGINEERING
PROJECT NUMBER: P-579606
LOCATION: KILLINGLY
BRIDGE 02599 ROUTE 101 HARTFORD PIKE
DRAWING NAME: P-579606 Killingly Bridge No.02599 DOT project 0068-0217
LUMEN fiber relocate.dwg
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SHEET: 1 OF 7

REV.	DATE	REVISION DESCRIPTION

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CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:	REPLACEMENT OF BRIDGE NO. 02599 ROUTE 101 OVER ALVIA CHASE RESERVOIR
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TOWN(S):	KILLINGLY
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DRAWING TITLE:	LEVEL 3 COMMUNICATIONS FIO RELOCATION PLAN
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PROJECT NO.:	0068-0217
DRAWING NO.:	LC-02
SHEET NO.:	08.02

TYPICALS



FIBERGLASS CONDUIT ABOVE GROUND SPECIFICATIONS

IV. Dimensions

Conduit shall be manufactured with following nominal dimensions:

		Outside Diameter (inch)	Inside Diameter (inch)	Wall Thickness (inch)
3/4"	SW	1.050	0.910	.070
1"	SW	1.315	1.175	.070
1-1/4"	SW	1.660	1.520	.070
1-1/2"	SW	1.900	1.760	.070
2"	SW	2.375	2.235	.070
2-1/2"	SW	2.875	2.735	.070
3"	SW	3.500	3.360	.070
3-1/2"	SW	4.000	3.860	.070
4"	SW	4.460	4.320	.070
5"	MW	5.572	5.380	.096
6"	MW	6.627	6.435	.096

Conduit shall be manufactured having **non-tapered sections** (except for integral belled ends).

V. Electrical Characteristics

Volume Resistivity	3.8×10^{14} ohm-cm	ASTM D257
Surface Resistivity	1.1×10^{14} ohms	ASTM D257
Dielectric Constant	3.5 (at 10^3 cps)	ASTM D150
Dissipation Factor	0.005 (at 10^3 cps)	ASTM D150
Dielectric strength	500 volts/mil	ASTM D149

VI. Mechanical Characteristics

The conduit shall have following mechanical strength when tested in accordance with referenced test method:

Tensile strength, axial	11,000 psi	ASTM D2105
Compressive strength	12,000 psi	ASTM D695
Ultimate elongation	2% psi	ASTM D2105
Modulus of elasticity (4" conduit)	1.4 x 10 ⁺⁶ psi	ASTM D2105
Thermal conductivity	2.0 BTU/(ft ²)(hr)(°F/in)	ASTM D5930-1



Split Steel Conduit

Osburn

Contact us at 1-800-523-8917

[Write a Review](#)

Weight: 0.00 LBS

OVERVIEW

PRODUCT DESCRIPTION

We manufacture several types of Split Steel Conduit. Split & Hinged (most popular) Split & Flanged and Split with H-strip. Connecting the steel together is accomplished by our flanged coupling. The coupling is available as flanged 2 sides or flanged and hinged. Longer couplings are available for use on bridges where longer spans are required and additional support is needed. When using Split with H-strip, tie straps are a method of reconnecting or joining for temporary applications.

Designed primarily for underbridge applications, split steel conduit allows flexibility and time saving advantages when crossing bridges or timely repairs in underground applications.

Split Steel conduit can also be pre-hung and opened for cable enclosure, placed around existing cable, or be used to replace vandalized conduit and prevent further damage to cable and conduit.

Our in-house production utilizes the latest manufacturing technology and the highest quality materials available to ensure trouble free cable protection and compatibility with other steel, PVC or fiberglass conduit systems. Each system component is tested for smooth opening and closing prior to shipment.

Suitable for use:

- underbridge
- on walls
- on piers
- on poles
- under water
- at road crossings

Split Steel conduit offers:

- vandal protection
- bullet protection
- crush protection
- emergency or routine cable protection

Bends, Expansion joints, Unions, Wye Branches, Enlarging adapters and other fittings are available upon request.

Part #	Size	OD	ID	Wall	Length	Weight
7190SH	2"	2.375"	2.067"	.154"	10'	3.34
7193SH	3"	3.500"	3.068"	.216"	10'	6.79
7192SH	4"	4.500"	4.026"	.237"	10'	8.76
7195SH	5"	5.563"	5.047"	.258"	10'	13.2
7196SH	6"	6.625"	6.065"	.280"	10'	17.16



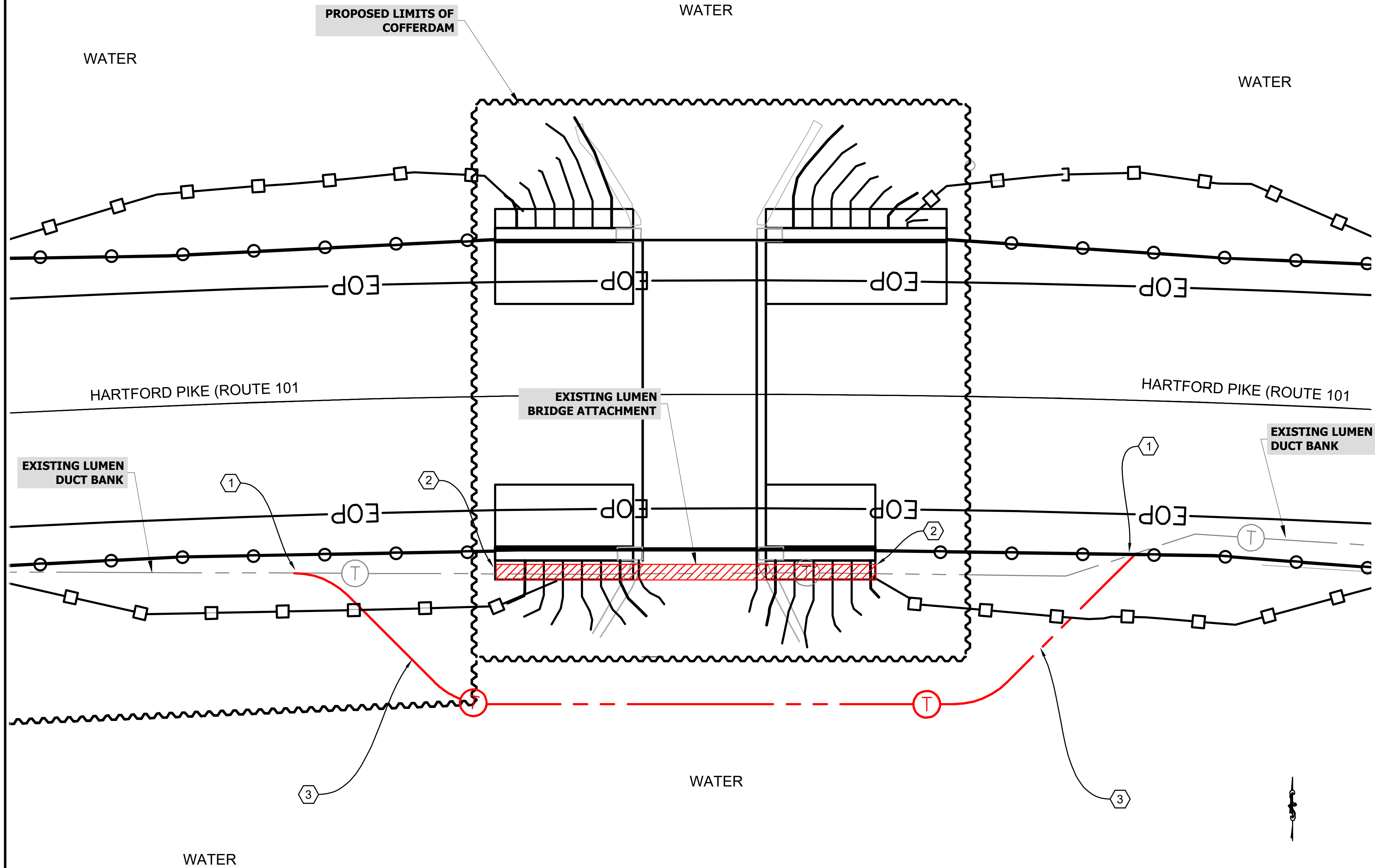
Know what's **below**.
Call before you dig.

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LUMEN fiber relocate dwg				
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SIGNATURE BLOCK:	 CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 02599 ROUTE 101 OVER ALVIA CHASE RESERVOIR	TOWN(S): KILLINGLY	DRAWING TITLE: LEVEL 3 COMMUNICATIONS FIO RELOCATION PLAN	PROJECT NO.: 0068-0217	DRAWING NO.: LC-05
						SHEET NO.: 08.05
DESIGNER/DRAFTER:	CHECKED BY:					

41.849100/ -71.801328 KILLINGLY CT.



CONSTRUCTION NOTES

- PHASE I- RELOCATION
1. REMOVE FLOWFILL AND EXPOSE LUMEN UNDERGROUND DUCTS TO APPROX 25' FROM COFFER DAM ON EACH SIDE OF BRIDGE.
 2. CUT SLOTS IN EXISTING 3x SURFACE MOUNTED 6" FIBERGLASS CONDUITS CROSSING BRIDGE TO REMOVE LUMEN FIBER OPTIC CABLES. (APPROX 40')
432ct UNICORN CABLE
180ct LEVEL 3 CABLE
148ct WILTEL CABLE
 3. RELOCATE ALL LUMEN CABLES TO TEMPORARY ATTACHMENT TO COFFER DAM OR TEMP SUPPORTS OUTSIDE OF COFFERDAM (TO BE INSTALLED BY BRIDGE CONSTRUCTION CONTRACTOR). (APPROX 100' OF SLACK MOVEMENT)
- WRAP ALL EXPOSED FIBER OPTIC CABLES IN ORANGE SPLIT DUCT AND WARNING TAPE FLAGS TO INCREASE VISIBILITY OF EXPOSED FIBER OPTIC CABLES NEAR WORK ZONE
- SLACK FOR CABLE RELOCATION HAS BEEN GATHERED IN ADJACENT MANHOLES



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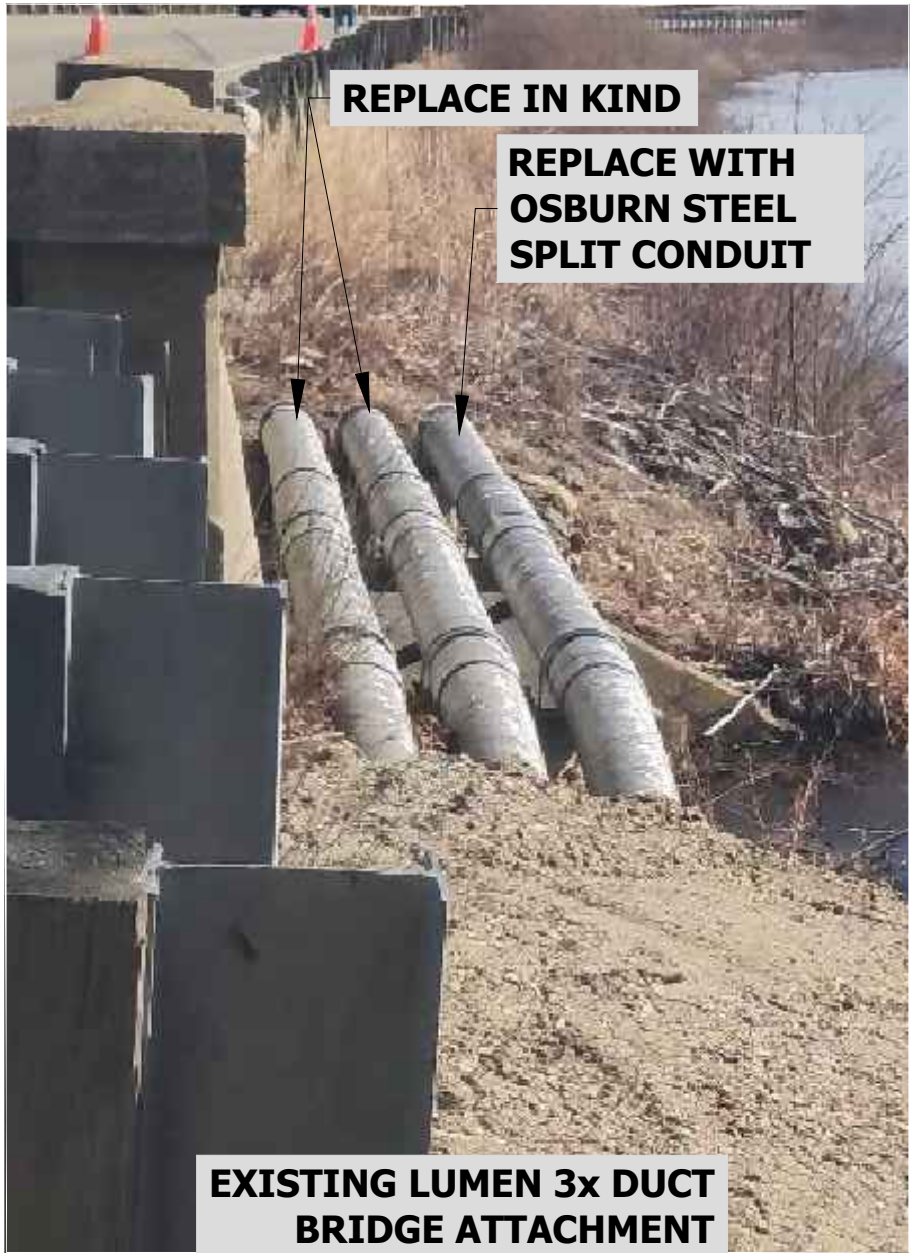
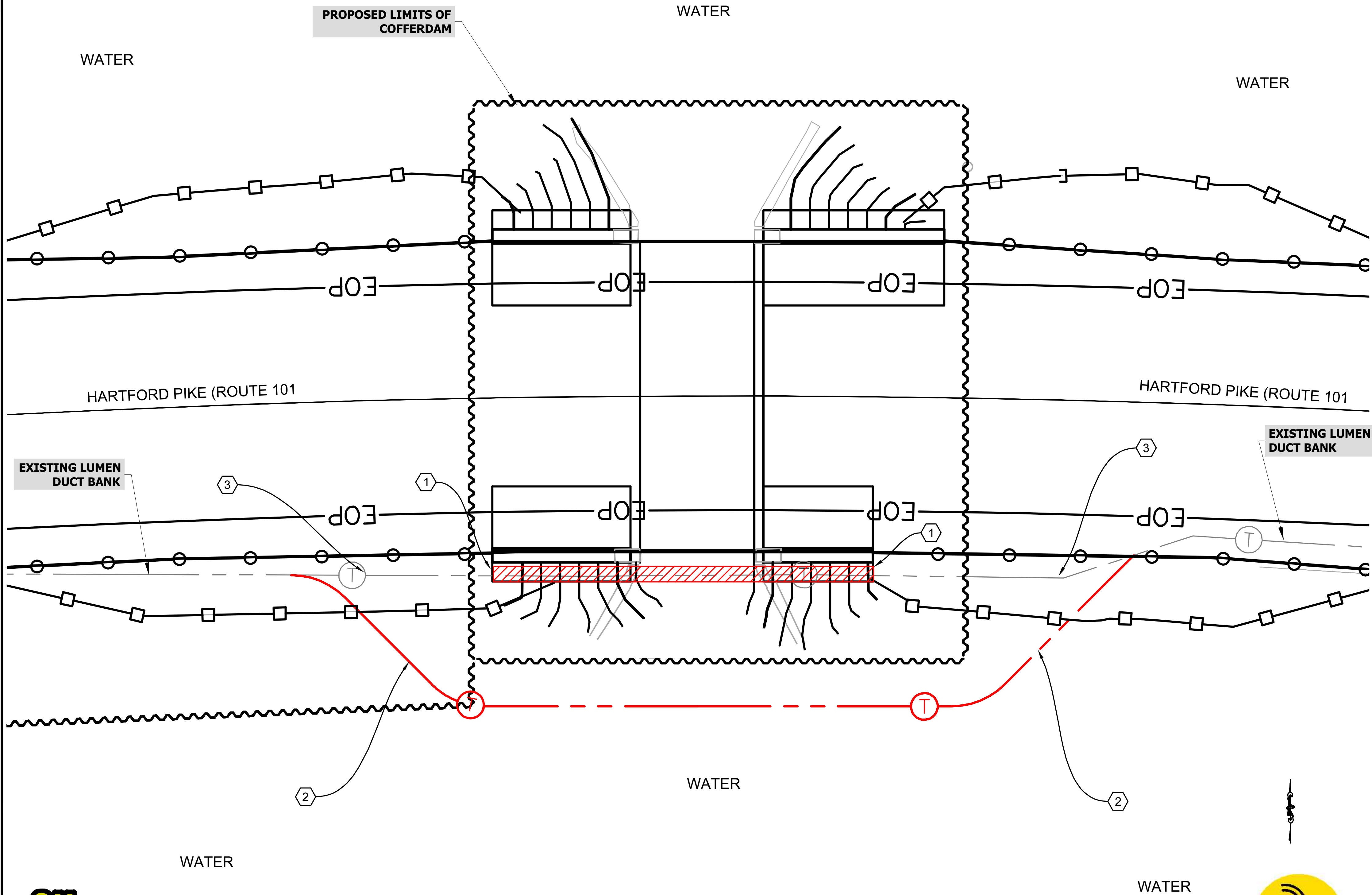
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PROJECT NO.:	0068-0217
DRAWING NO.:	LC-06
SHEET NO.:	08.06

41.849100/ -71.801328 KILLINGLY CT.

CONSTRUCTION NOTES

- PHASE II - RESTORATION
1. ATTACH REPLACEMENT BRIDGE CROSSING DUCTS TO NEW WING WALLS AND SUPPORTS. TIE EMPTY UNDERGROUND HDPE CONDUITS INTO NEW BRIDGE CROSSING DUCTS. (APROX 40')
 2. MOVE TEMPORARIY RELOCATED FIBER OPTIC CABLE FROM COFFER DAM SUPPORTS BACK TO BRIDGE CROSSING IN OSBURN SPLIT STEEL CONDUIT.
 3. ENCASE ALL UNDERGROUND HDPE CONDUITS IN FLOWFILL AND BACKFILL TRENCH
- REPLACEMENT CONDUITS CROSSING BRIDGE ARE TO BE COMPARABLE IN INSIDE DIAMETER TO EXISTING.
- USE CHAMPION FIBERGLASS DUCTS TO REPLACE EMPTY CONDUITS CROSSING BRIDGE
- USE OSBURN SPLIT STEEL CONDUIT TO ENCLOSE ACTIVE FIBERS AT BRIDGE CROSSING.



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Unit Description	Units	Estimated Quantity
MISC- PERMIT ACQUISITION - WORK ORDER	EACH	1
MISC- PERMIT FEE	ACTUAL	1
UGB- VAULT - TEST PURGE & VENTILATE	EACH	4
UGB- DIG & EXPOSE EXIST FACILITY	CUBIC	1
UGB- FACILITY ADJUSTMENT	CUBIC	1
UGB- BRIDGE ATTACHMENT	ACTUAL	1
UGB- STEEL PIPE MATERIAL UGB	ACTUAL	1

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