

CALL BEFORE YOU DIG

FORTY-EIGHT (48) HOURS PRIOR TO ANY SITE WORK THE CONTRACTOR SHALL CALL "CALL-BEFORE-YOU-DIG" 1-800-922-4455 AND REQUEST THAT ALL UNDERGROUND UTILITIES BE TRACKED. SITE WORK SHALL NOT PROCEED UNLESS ALL UTILITIES ARE CLEARLY MARKED. IF MARKINGS ARE DISTURBED BEFORE SITE WORK IS PERFORMED CONTRACTOR SHALL TAKE EVERY MEASURE NECESSARY TO MAINTAIN INFORMATION CONCERNING LOCATION OF EXISTING UTILITIES TO ENSURE THAT THE UTILITIES ARE NOT DAMAGED.

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SCALE:

HORIZ.: 1" = 100'

VERT.: NAVD 88

DATUM:

HORIZ.: NAD 83

VERT.: NAVD 88

GRAPHIC SCALE

FUSS & O'NEILL

146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

MEDIUM VOLTAGE INTERCONNECTION
FROM MIRA PV TO HARTFORD DPW

ELECTRICAL SITE PLAN

LEIBERT AND FISCHER ROAD HARTFORD, CONNECTICUT

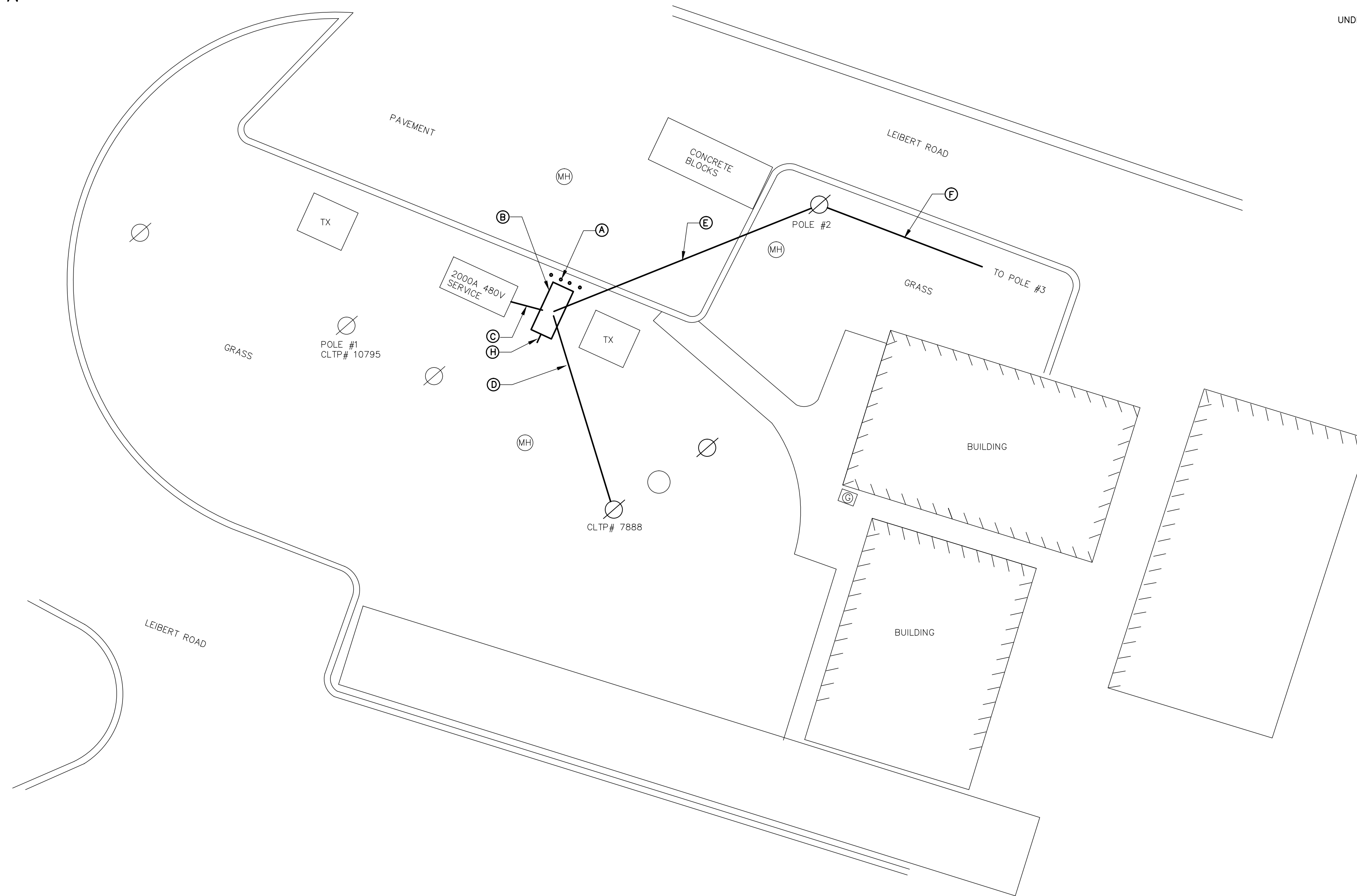
PROJ. No.: 20130187.H20
DATE: 06/12/2015

CU-101

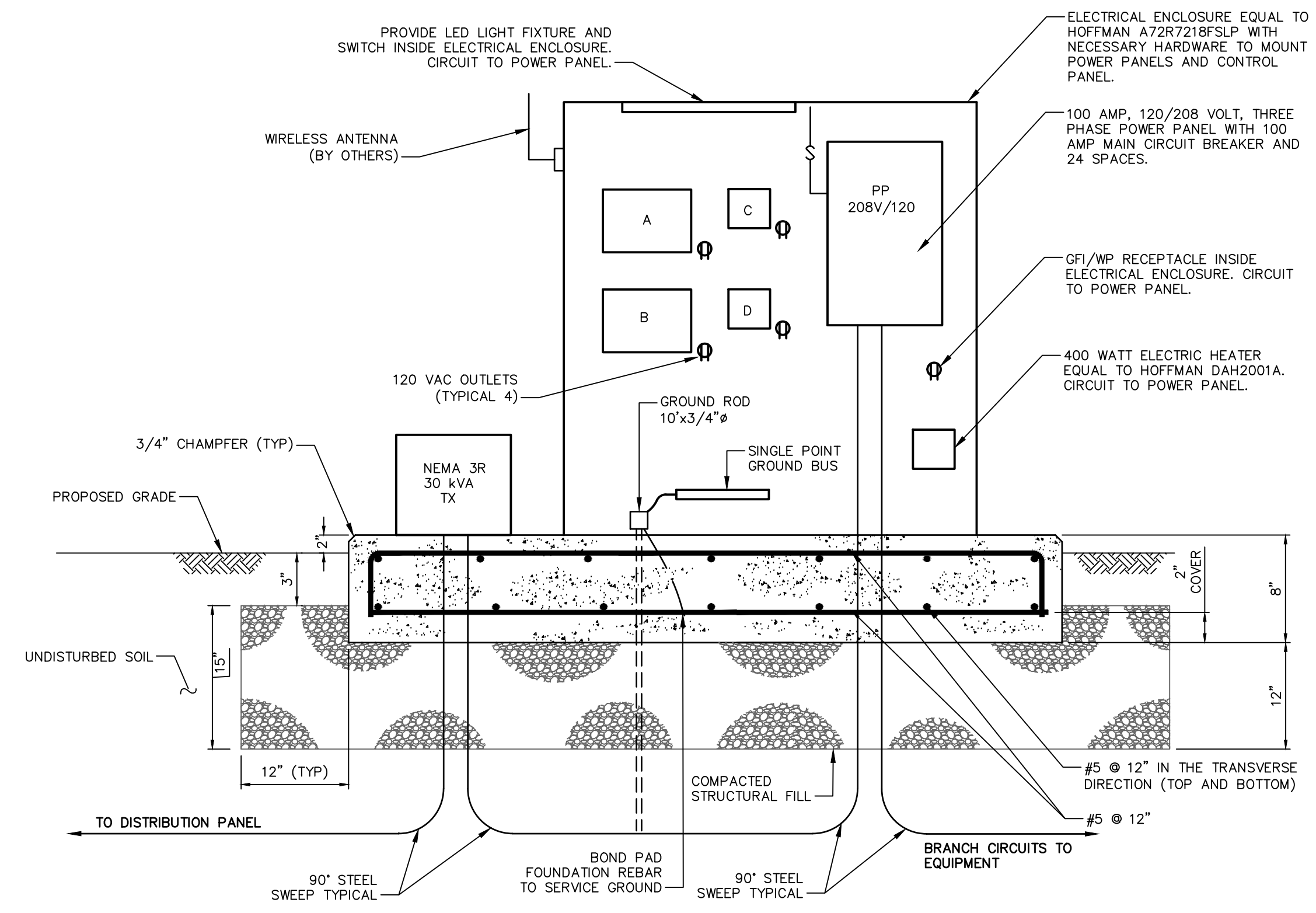


NOTES:

- (A) 4" O.D. X 48" TALL BOLLARD (TYPICAL OF 4). SEE 6/CU-501.
- (B) REINFORCED CONCRETE SLAB WITH SERVICE ENCLOSURE. SEE 5/CU-102.
- (C) UG (1-2" PVC) AND (1-1" PVC) CONDUITS W/ POWER AND COMMUNICATION CABLE.
- (D) UG (1-1" PVC) CONDUIT W/ TELEPHONE SERVICE.
- (E) UG (2-1" PVC) CONDUITS W/ 120VAC POWER AND COMMUNICATION CABLES.
- (F) OH CABLES. 120 VAC POWER (2- ALUMINUM CONDUCTORS ASTM B-232, 600 VAC, BARE MESSENGER WIRES, RUN SECONDARY "GAIN" HEIGHT) AND OH F.O. (4 STRAND MULTI-MODE CABLE W/ STEEL MESSENGER WIRE AND ST CONNECTORS, RUN AT TELECOM "GAIN" HEIGHT).
- (G) LOCATION OF EXISTING DRAKER COMMUNICATION CABINET.
- (H) 2- 2" PVC SPARE CONDUITS. STUB AND CAP 5" FROM PAD.



1 PARTIAL SITE PLAN
SCALE: 1" = 10'



5 SERVICE ENCLOSURE
SCALE: N.T.S.

- NOTES:**
1. CONCRETE SHALL BE 4,000 PSI CONCRETE.
 2. CONCRETE SHALL BE CURED FOR 7 DAYS PRIOR TO BACKFILL.
 3. ALL REINFORCING BARS SHALL BE ASTM A 615, GRADE 60 BARS WITH 2" COVER UNLESS NOTED OTHERWISE.
 4. ALL EXPOSED EDGES SHALL BE BEVELED 3/4" X 3/4" UNLESS DIMENSIONED OTHERWISE.
 5. CONSTRUCTION JOINTS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
 6. COMPACTED STRUCTURAL FILL SHALL BE DEPOSITED AND COMPACTED IN 6" LIFTS.
 7. LENGTH AND WIDTH OF PAD SHALL BE 12" PER SIDE GREATER THAN EQUIPMENT TO BE MOUNTED ON PAD.

- A. DRAKER
- B. ROUTER (BY OTHERS)
- C. FIBER OPTIC TRANSCEIVER
- D. WIRELESS MODEM (BY OTHERS)

SCHEDULE FOR POWER PANEL LOCATED IN ELECTRICAL ENCLOSURE

Panel Designation:	Frame Size				Volts:		REMARKS	
	Surface	M.L.O.M.C.B (Amps):	100 A M.C.B	100 A M.C.B	120/208	Three		
Mounting:	4	A.I.C.:	10KAIC	10KAIC	Phase:	Wire:	#3 AWG	
TVSS Type:	4	A.I.C.:	10KAIC	10KAIC	Phase:	Wire:	#3 AWG	
CKT	DESCRIPTION	VA	VOLTS	PH	WIRE	CONDUIT	AMPS	POLES
1	Cabinet Light and heater	500	120	1	#12 AWG	3/4" EMT	20	1
2	Cabinet Receptacle	180	120	1	#12 AWG	3/4" EMT	20	1
3	Draker	500	120	1	#12 AWG	3/4" EMT	20	1
4	Router	500	120	1	#12 AWG	3/4" EMT	20	1
5	Transceiver	500	120	1	#12 AWG	3/4" EMT	20	1
6	REC Meter	500	120	1	#12 AWG	3/4" EMT	20	1
7	TVSS							
8	Spare Circuit Breakers	208	3	#10 AWG	3/4" EMT		20	4
9	Spare Space							11
10	Wireless Modem	500	120	1	#12 AWG	3/4" EMT	20	1

4 PANELBOARD SCHEDULE
SCALE: N.T.S.

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HORIZ.: NAD 83

VERT.: NAVD 88

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GRAPHIC SCALE

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MEDIUM VOLTAGE INTERCONNECTION

FROM MIRA PV TO HARTFORD DPW

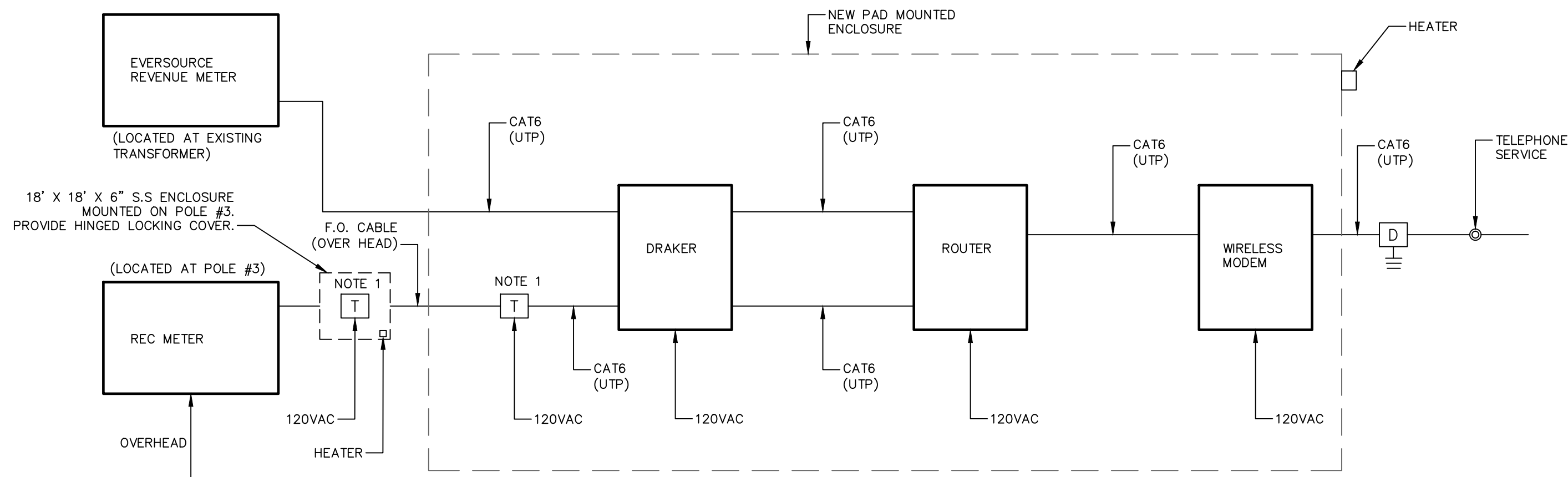
PARTIAL SITE PLAN, SCHEDULE AND DETAIL

LEIBERT AND FISCHER ROAD HARTFORD, CONNECTICUT

PROJ. No.: 20130187.H20

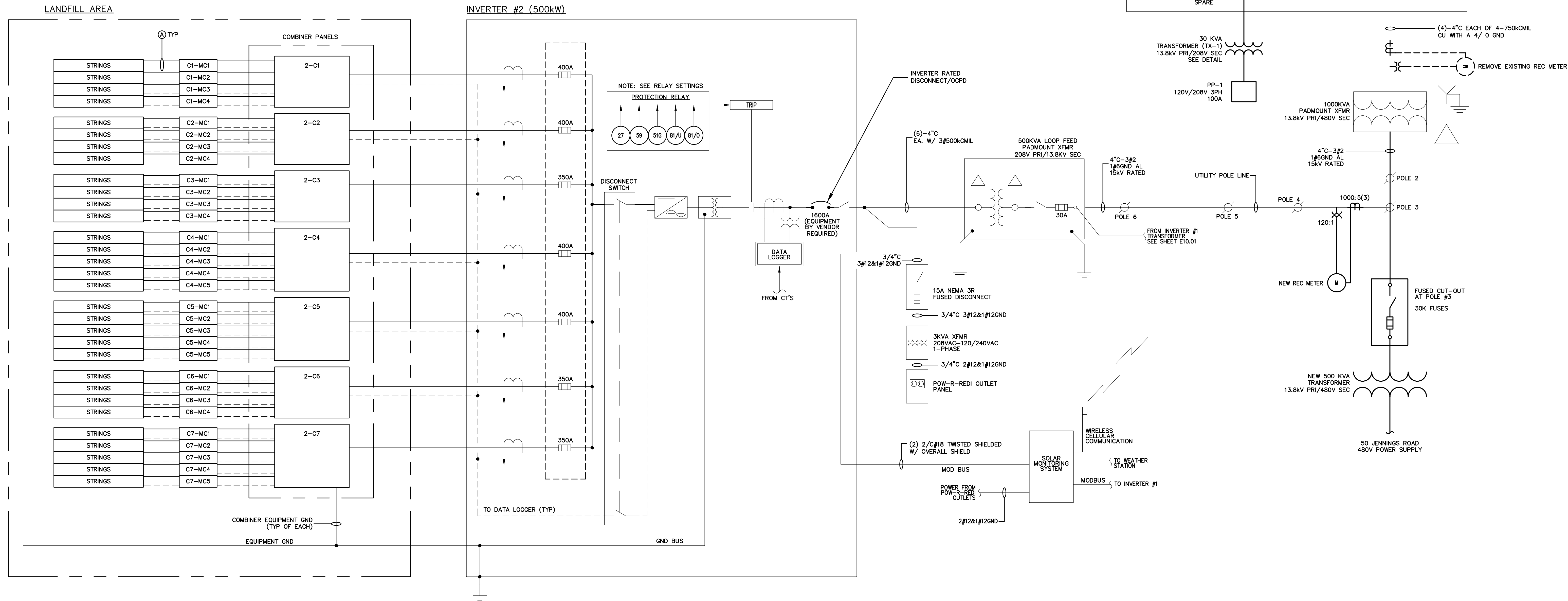
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CU-102



- NOTES:
1. PROVIDE FO TO CAT 6 UTP IEEE802.3UI 100BASE-TX/FX TRANSCEIVER WITH FULL DUPLEX AND HALF DUPLEX MODE. TRANSCEIVER SHALL CONFORM TO IEEE 802.3 10 BASE-T STANDARD AND IEEE 802.3U 100 BASE-TX/FX. 2M BUFFER MEMORY. BACK PRESSURE FLOW CONTROL FOR FULL DUPLEX. IEEE802.3 X AND HALF DUPLEX. AUTOMATIC IDENTIFICATION OF MDI/MDI-X CROSS LINE. IN CONFORMITY TO SAFETY CODE OF FCC AND 15 CLASS A AND CE MARK.
 2. STANDARD PROTOCOL - IEEE 802.3 10BASE-T AND IEEE 802.3U 100BASE-TX/FX
 3. CONNECTOR - ONE UTP RJ45, TWO ST FIBER
 4. OPERATION MODE - FULL DUPLEX OR HALF DUPLEX
 5. POWER SUPPLY - EXTERNAL AC-DC POWER ADAPTER, US STANDARD
 6. FIBER (MICRON) - 50/125, 62.5/125, OR 100/140
 7. OPTICAL WAVELENGTH - 1310 NM, TRANSMISSION DISTANCE - 2KM
 8. OPTICAL OUTPUT POWER - > -18 DBM, RECEIVING SENSITIVITY - < -31 DBM
- T FIBER OPTIC TRANSCEIVER
 D TELCO DEMARCATION POINT

2 COMMUNICATION RISER
SCALE: N.T.S.



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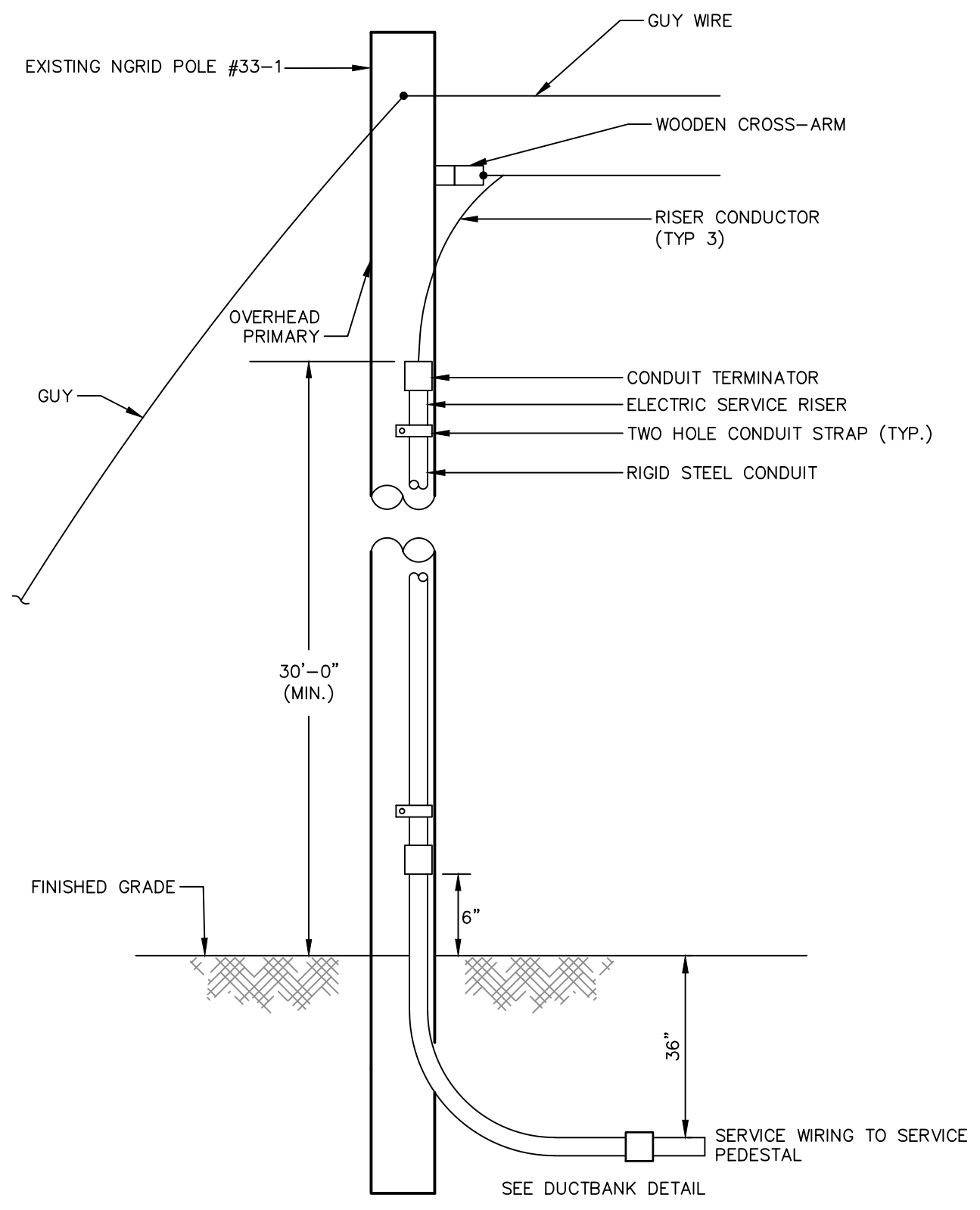
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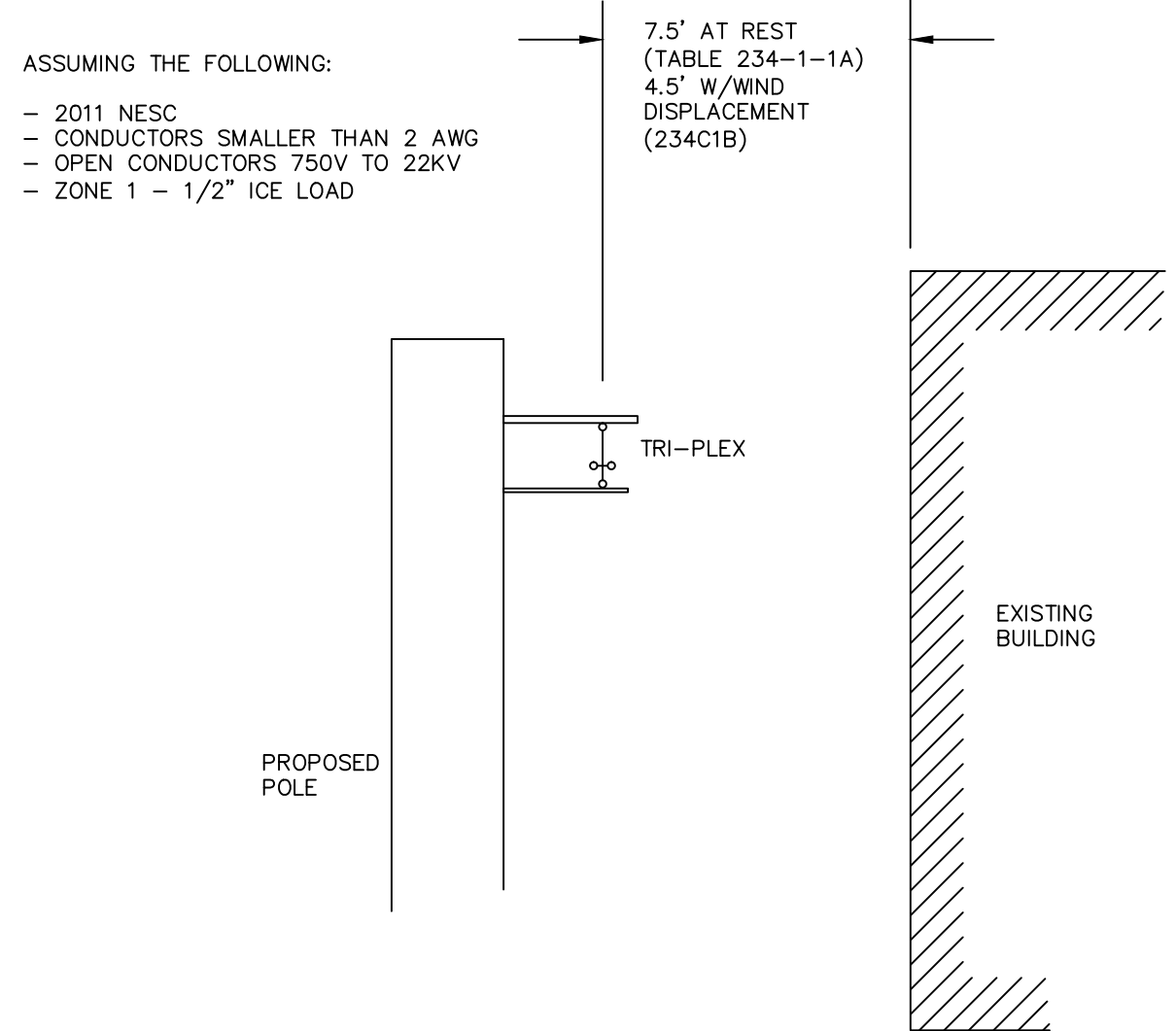
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 860.646.2469
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MEDIUM VOLTAGE INTERCONNECTION
 FROM MIRA PV TO HARTFORD DPW
 ELECTRICAL ONE LINE DIAGRAM
 LEIBERT AND FISCHER ROAD HARTFORD, CONNECTICUT

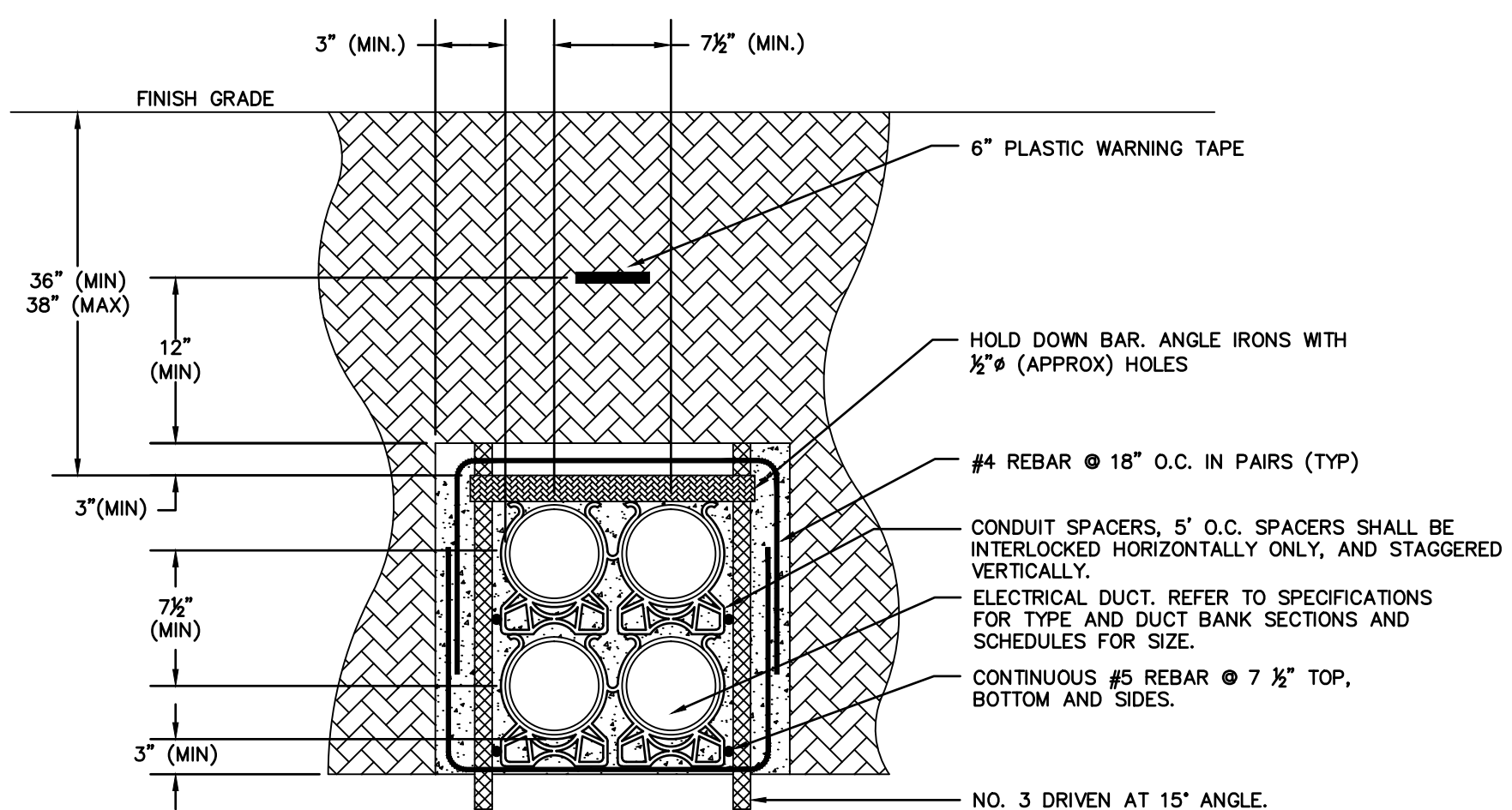
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E-101



2 ELECTRIC SERVICE RISER POLE DETAIL
SCALE: N.T.S.

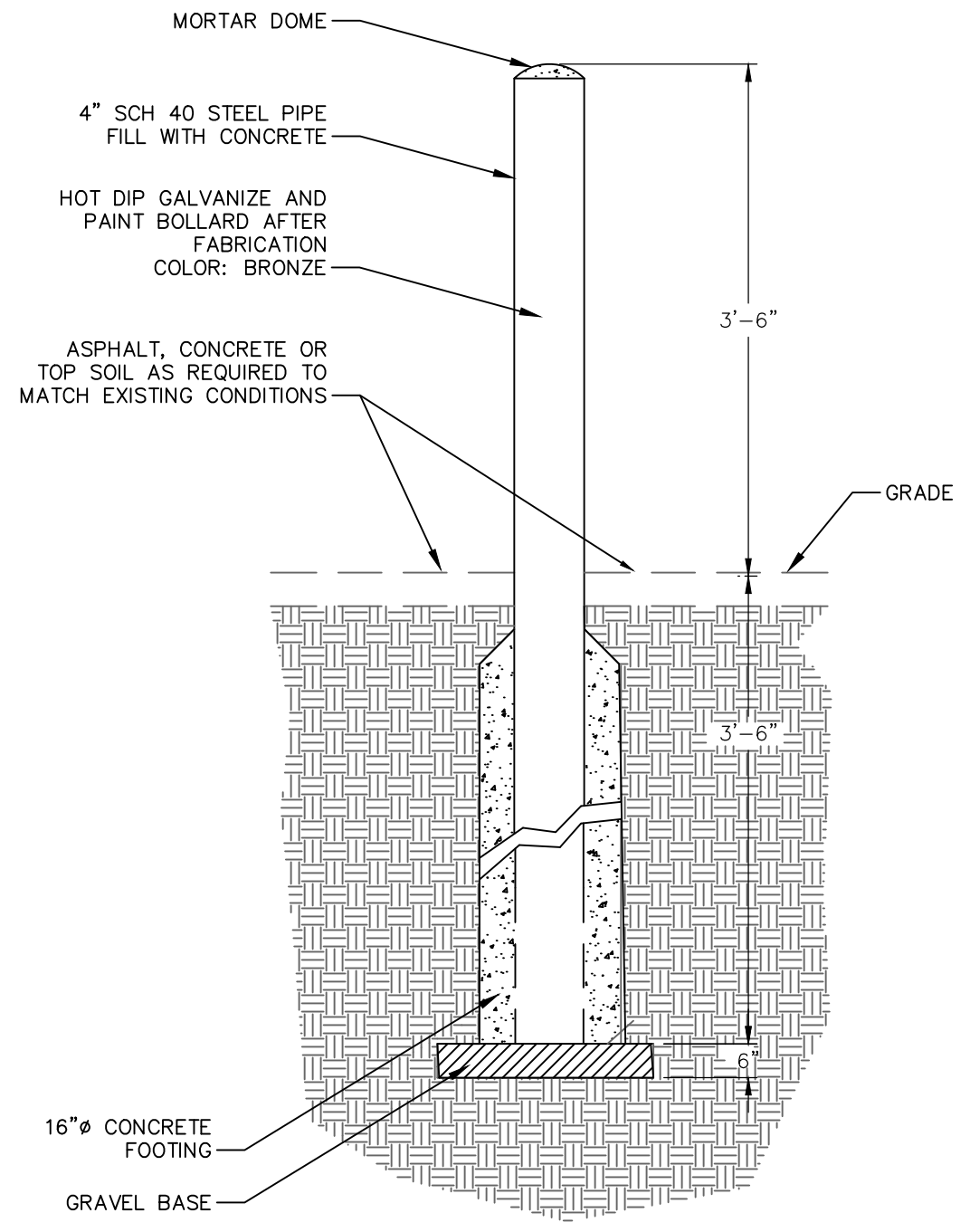


4 BUILDING/POLE SEPARATION DETAIL
SCALE: N.T.S.

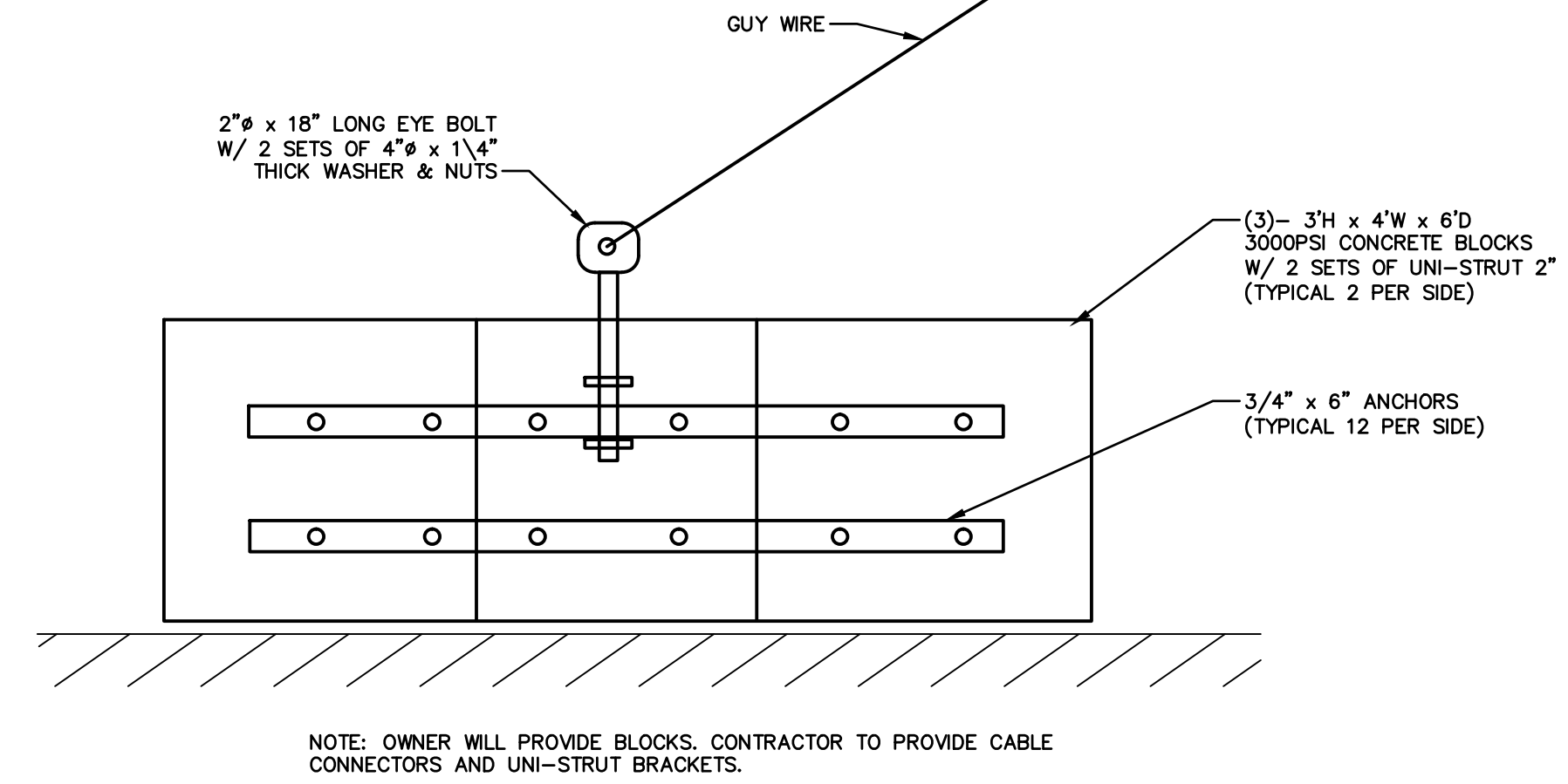


- NOTES**
- DUCT BANK DETAIL SHOWS A TYPICAL 4-CONDUIT DUCTBANK. REFER TO CONDUIT SPACING DETAILS FOR EXACT CONDUIT NUMBERS AND CONFIGURATION WITHIN THE CONCRETE AND TRENCH.
 - DUCT BANK SHALL BE ENCASED IN CONCRETE WITH AT LEAST 4" OF CONCRETE AT THE TOP, BOTTOM AND SIDES.
 - THE CONCRETE SHALL INCLUDE 3/4" AGGREGATE WITH A NOMINAL COMPRESSIVE STRENGTH OF 3,000 LBS. PER SQUARE INCH. THE SLUMP SHALL BE AT THE UPPER END OF THE RANGE, 5 - 6" INCHES. SLUMP SHALL BE JUST ENOUGH TO FLOW TO THE BOTTOM OF THE DUCT BANK YET NOT BE SO WET AS TO CAUSE THE CONDUITS TO FLOAT EXCESSIVELY.
 - ADJUST THE CONCRETE DELIVERY CHUTE SO THE FALL INTO THE FORM IS MINIMAL. POUR THE CONCRETE SLOWLY AND DISTRIBUTE IT EVENLY SO AS NOT TO DISLodge THE SPACERS.
 - FOUR SETS OF REBAR STAKES AND HOLD DOWN BARS ARE REQUIRED PER 20' OF DUCT BANK. THE 3" EXTENSION OF THE REBAR ABOVE THE CONDUITS IS TO BE USED AS A GUIDE FOR CONCRETE DEPTH ON TOP.
 - PROVIDE FORMS FOR CONCRETE POUR. DO NOT USE THE SIDES OF THE TRENCH.
 - BACKFILL TRENCH AFTER CONCRETE HAS SET, AND INSPECTION MADE BY ENGINEER.
 - STEEL REINFORCING RODS SHALL BE INTERFACED WITH EQUIPMENT PADS AND MANHOLES, TO REDUCE SHEAR.
 - CONCRETE CONSTRUCTION JOINTS SHALL NOT BE SPACED LESS THAN 40' O.C.

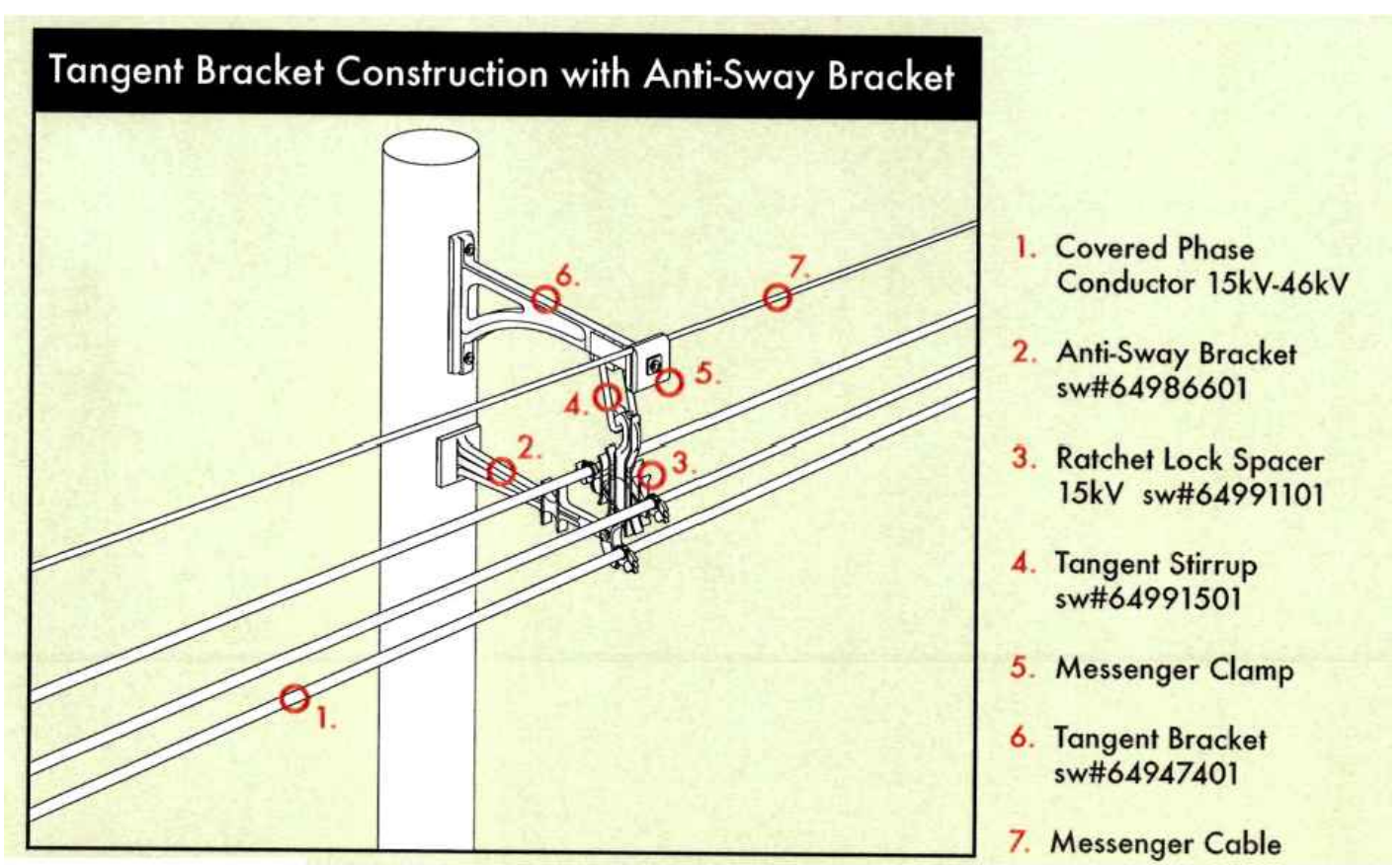
1 DUCTBANK DETAIL
SCALE: N.T.S.



6 BOLLARD
SCALE: N.T.S.



9 GUY ANCHOR DETAIL
SCALE: N.T.S.



3 TRI-PLEX CONSTRUCTION
SCALE: N.T.S.

56 Hardware Pole Extensions > 30"

Construction
The 60" and 75" Pole Top Extensions are manufactured from 4" structural steel channels and 2" angle iron. The extensions are hot dipped galvanized to provide superior corrosion resistance. Holes are drilled on 12" centers to correspond to standard pre-drilled pole hole spacings.

Features

- Manufactured from high-strength structural steel
- Superior corrosion resistance
- Pre-drilled for use on standard utility poles
- Used to provide additional pole height to allow for the installation of Covered Aerial MV circuits to existing pole lines
- The high-strength variations are available where double circuit or higher circuit loadings need to be accommodated. Two straight structural steel channel sections are used (not shown)

Application
The 60" and 75" Pole Top Extensions are designed to support additional Covered Aerial MV circuits on an existing pole footing. They are designed for use on both tangent and angle structures and will provide an additional 45" to 65" of clearance for the line.

Specification
ASTM A 153

Southwire Stock #	Description	Height Cat #	A	B	C	D	E	F	Weight (lbs)
64997501	Pole Top Extension 60"	XPT60	13/16	1.5	8.0	20.5	60.0	8.0	41.5
64997501	Pole Top Extension High Strength 60"	XPT60H	13/16	1.5	8.0	20.5	60.0	8.0	56.0
64997501	Pole Top Extension 75"	XPT75	13/16	1.5	8.0	20.5	75.0	8.0	55.0
64997501	Pole Top Extension High Strength 75"	XPT75H	13/16	1.5	8.0	20.5	75.0	8.0	69.0

Pole Extensions > 30" Southwire 56 Hardware

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5 POLE EXTENDER
SCALE: N.T.S.

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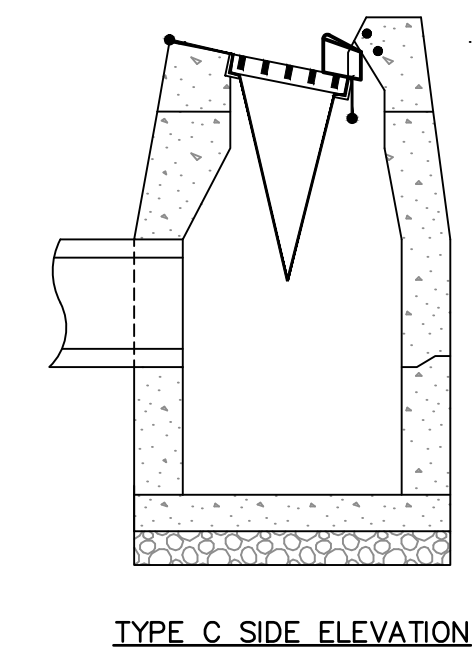
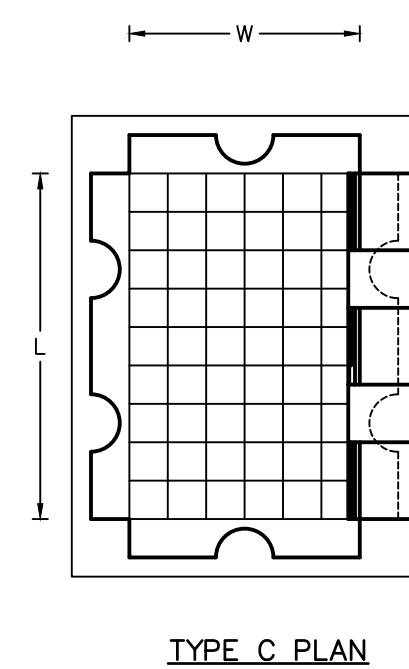
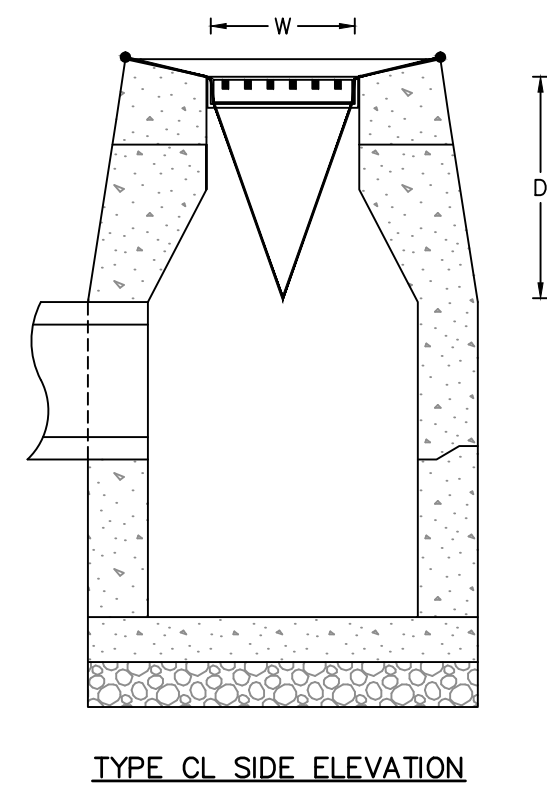
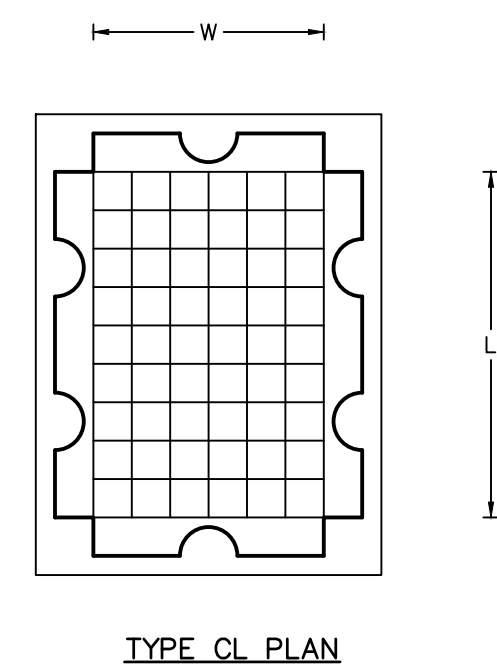
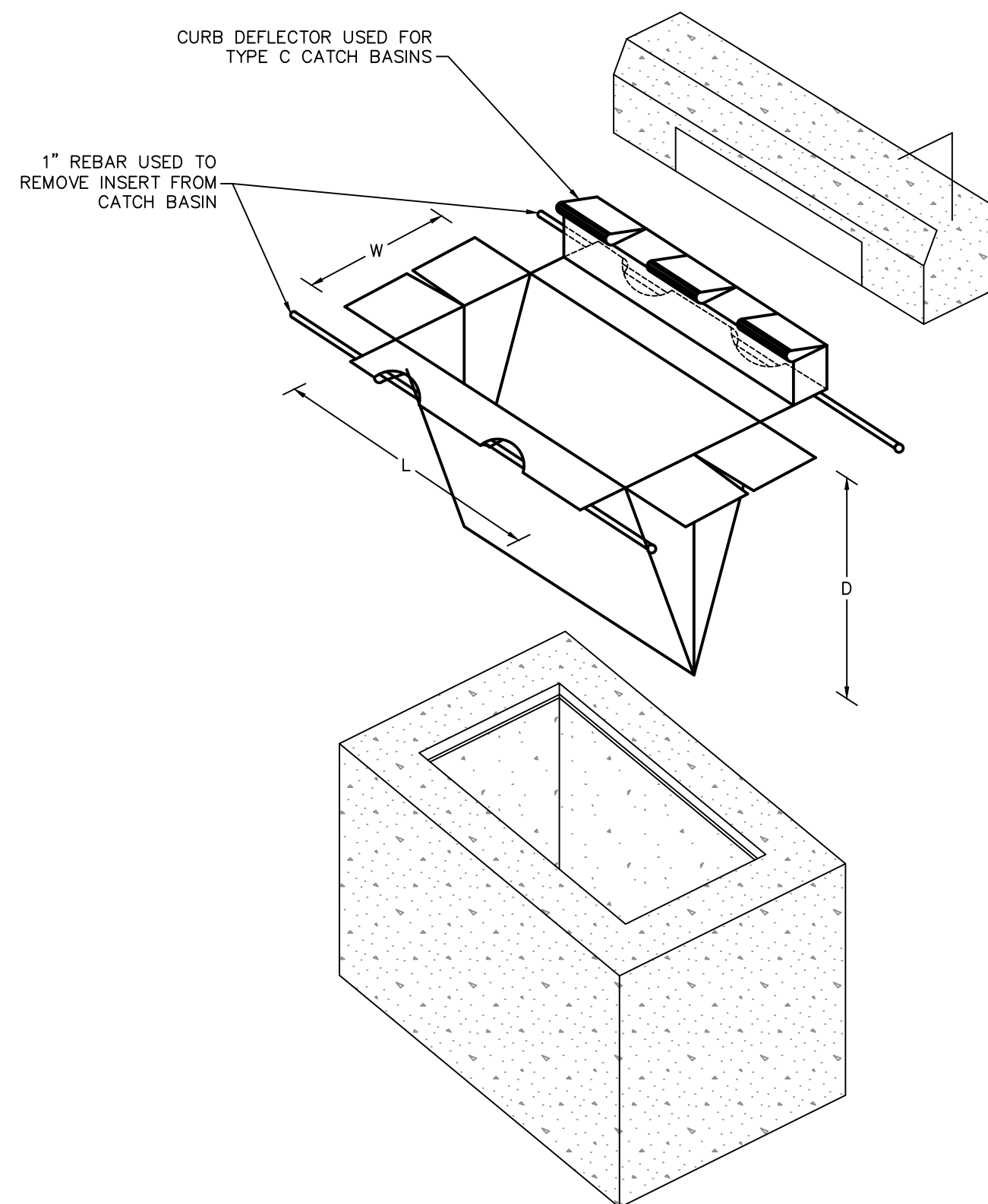
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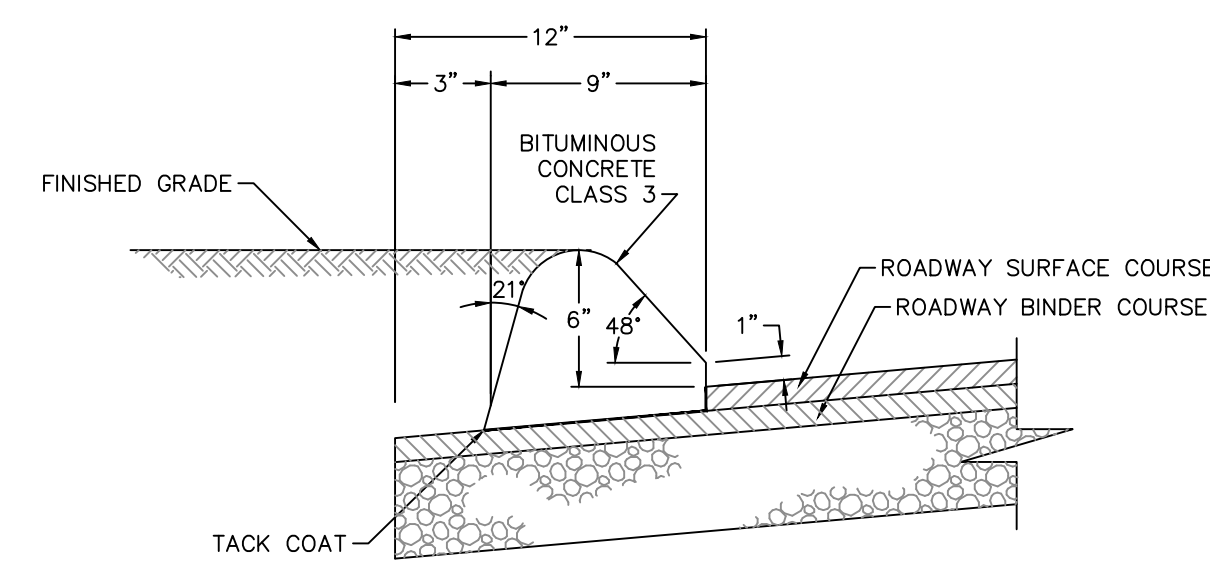
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860.646.2469
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MEDIUM VOLTAGE INTERCONNECTION
FROM MIRA PV TO HARTFORD DPW
SITE DETAILS
LEIBERT AND FISCHER ROAD HARTFORD, CONNECTICUT

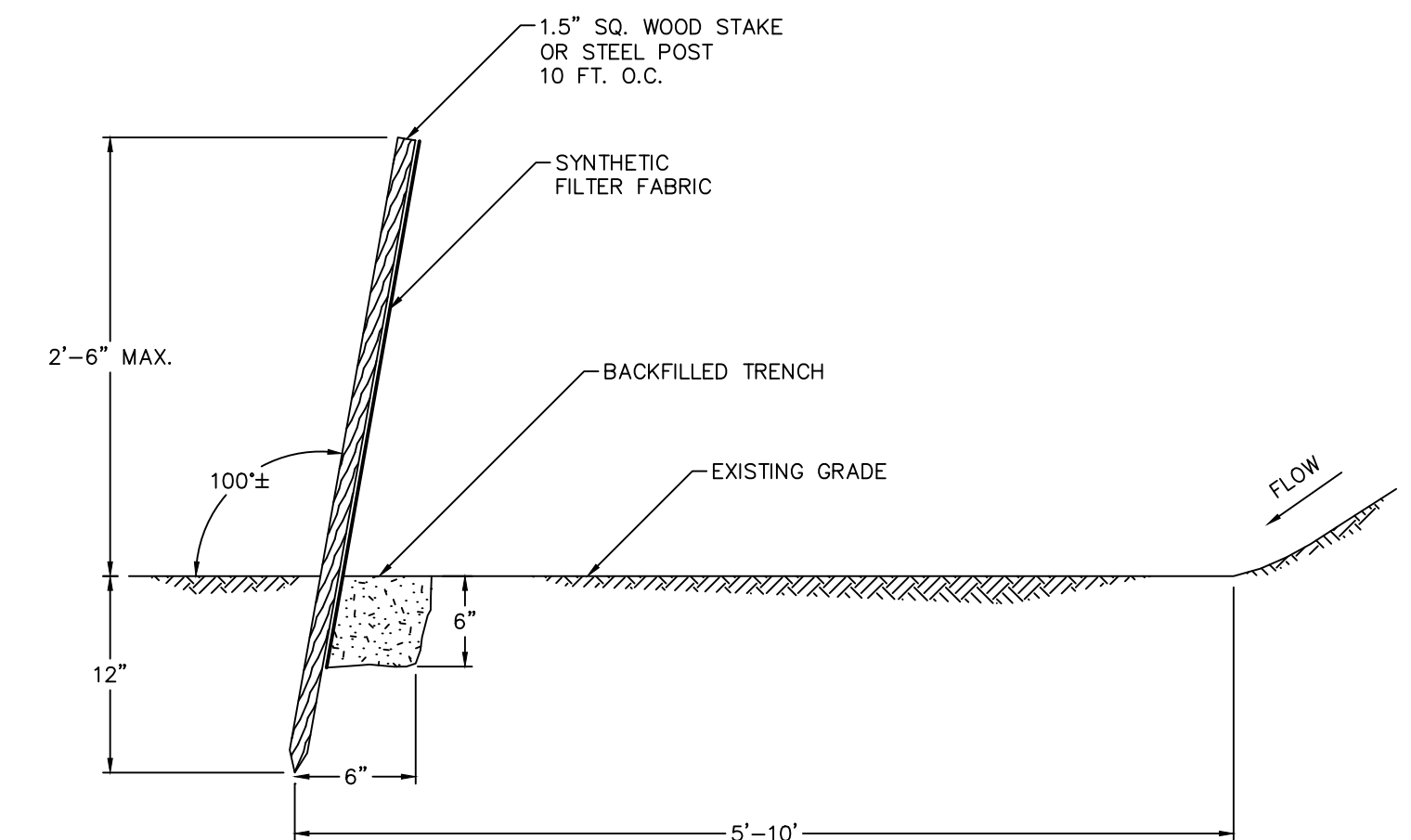
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DATE: 06/12/2015
CU-501



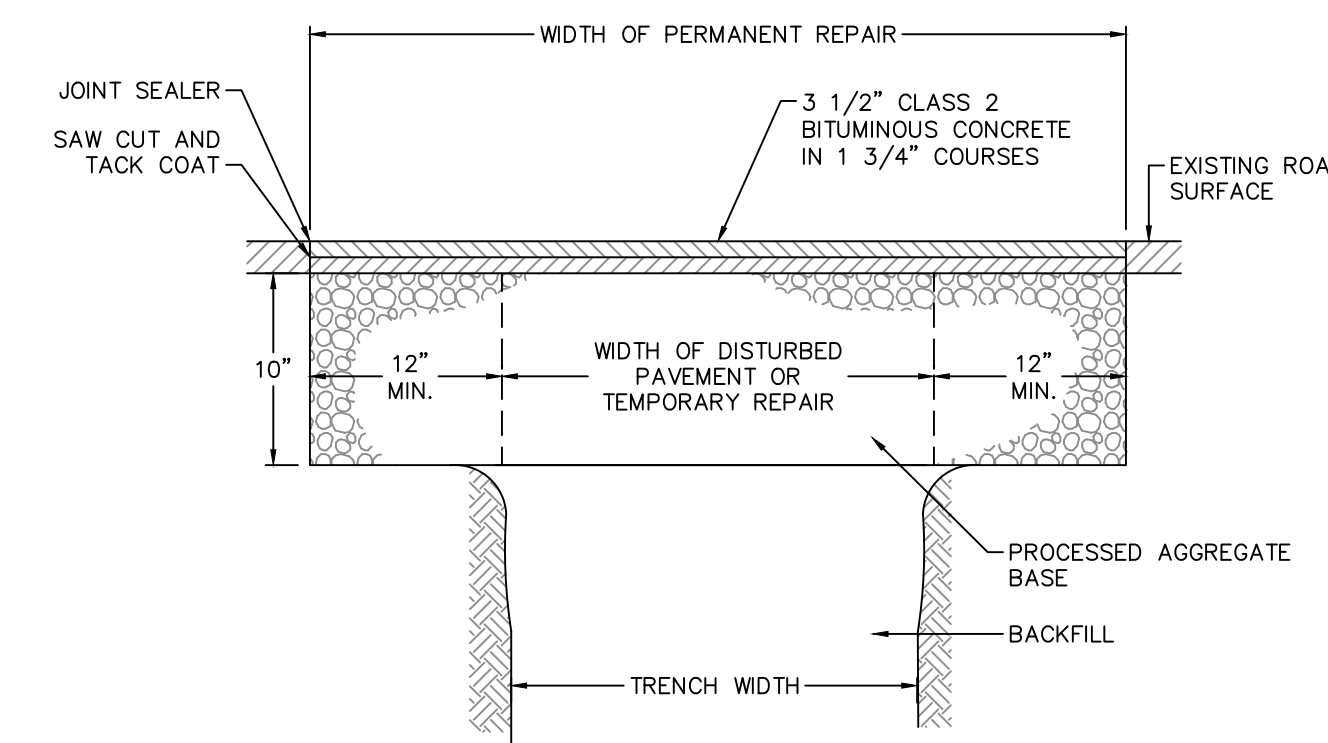
1 CATCH BASIN INSERT
SCALE: N.T.S.



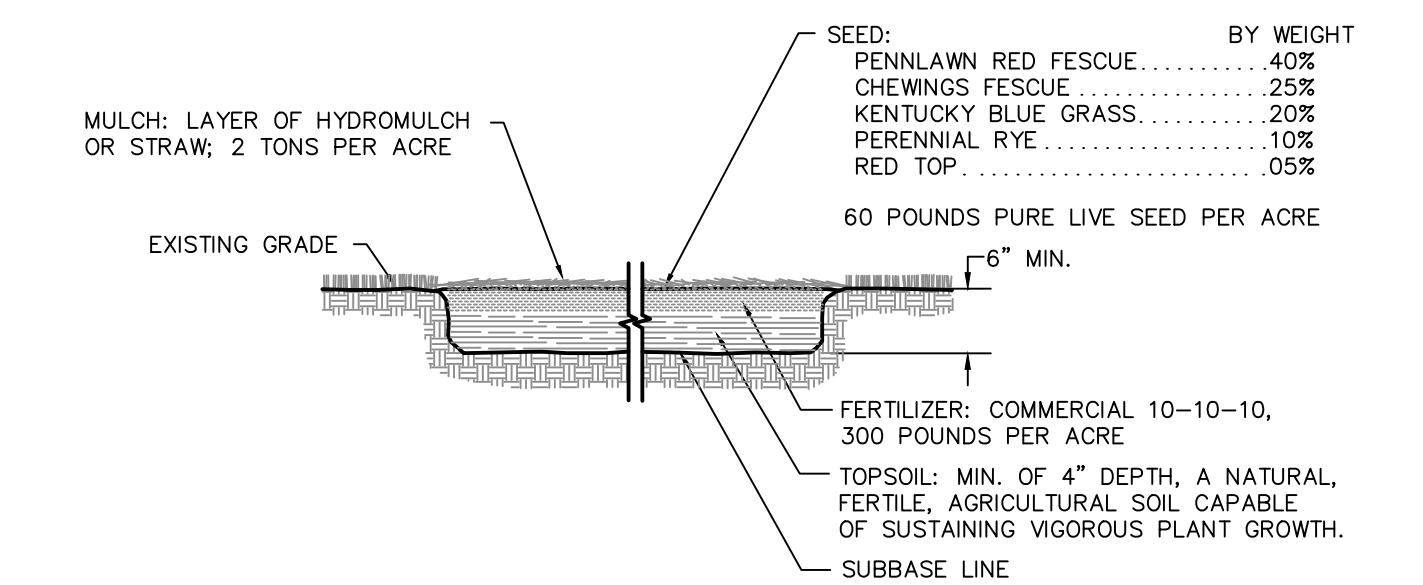
5 BITUMINOUS CONCRETE CURB
SCALE: N.T.S.



8 SILT FENCE
SCALE: N.T.S.



4 PERMANENT PAVEMENT REPAIR
SCALE: N.T.S.



7 TOPSOIL, FERTILIZER, SEED & MULCH
SCALE: N.T.S.

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MEDIUM VOLTAGE INTERCONNECTION
FROM MIRA PV TO HARTFORD DPW
SITE DETAILS
LEIBERT AND FISCHER ROAD HARTFORD, CONNECTICUT

PROJ. No.: 20130187.H20
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CU-502