

F.A.U. R.F.E. 2585 2578	SECTION 10 00059-00-LT	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 63530		

03-09-12 LETTING ITEM 063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**FAU ROUTE 2585 (MEACHAM ROAD) AND
FAU ROUTE 2578 (ROHLWING ROAD)
NORTH OF NERGE ROAD TO TEXAS STREET AND
ELGIN-O'HARE EXPRESSWAY TO HELEN LANE**

LIGHTING IMPROVEMENTS

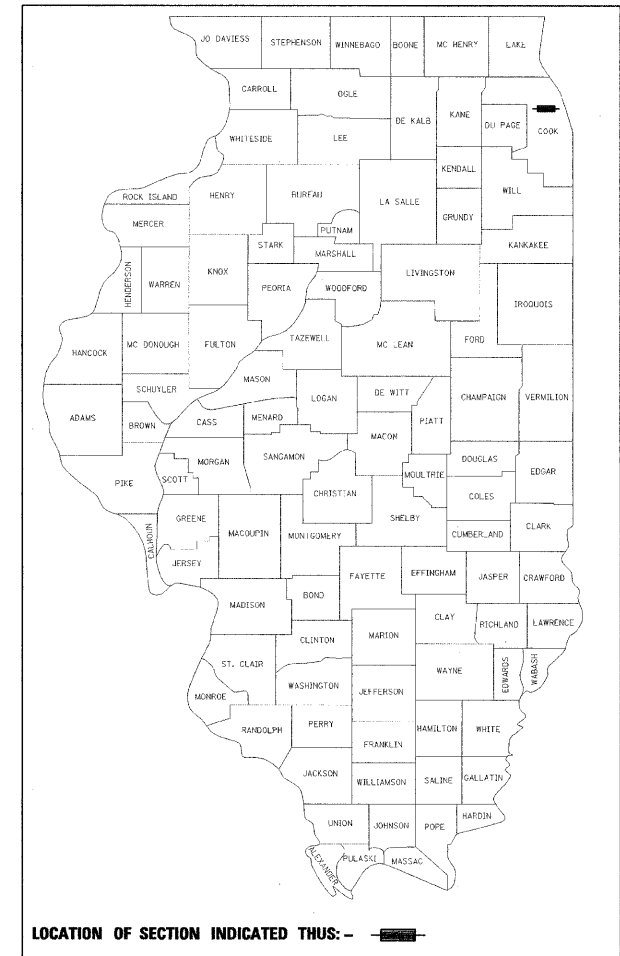
SECTION 10-00059-00-LT

PROJECT M-9003(615)

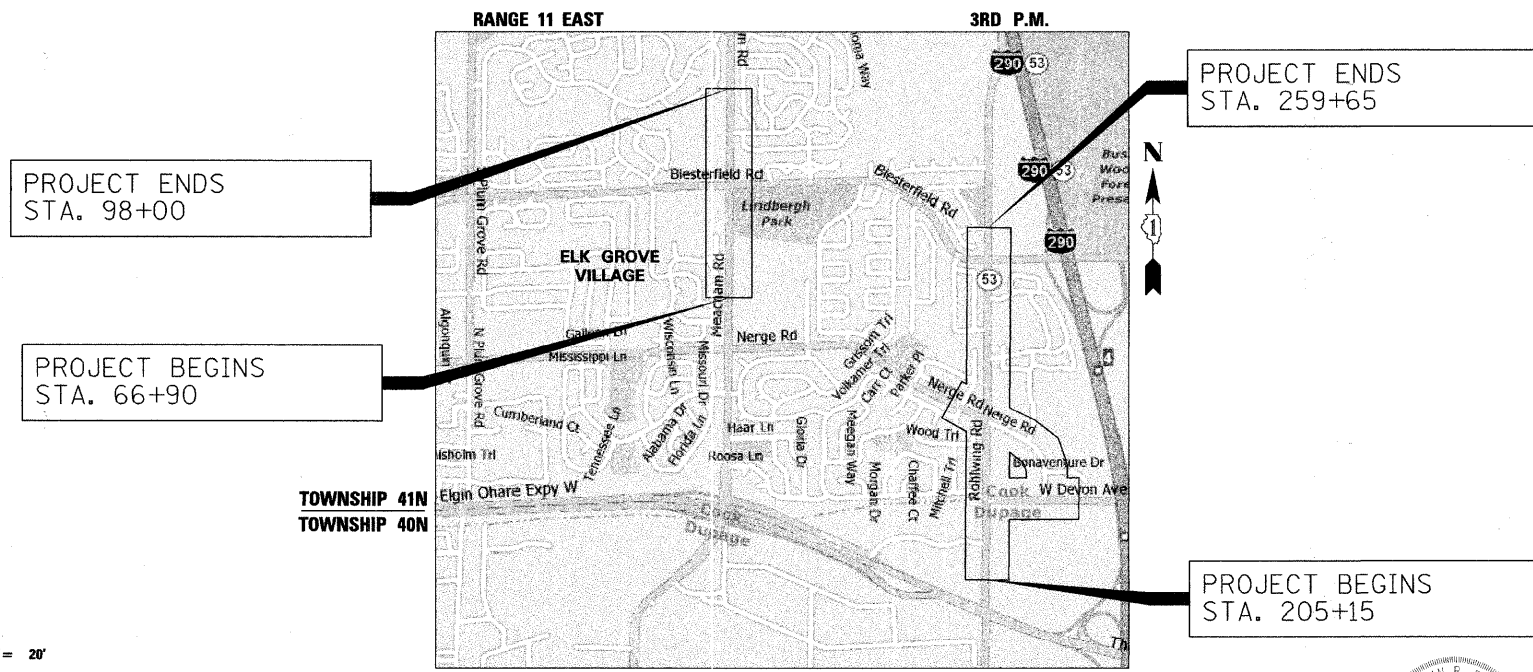
VILLAGE OF ELK GROVE VILLAGE

COOK AND DUPAGE COUNTIES

JOB NO. C-91-460-10



FOR INDEX OF SHEETS, SEE SHEET NO. 2



LOCATION MAP

NOT TO SCALE

PROJECT LENGTH
MEACHAM ROAD = 3,110 FT (0.59 MILES)
ROHLWING ROAD = 5,450 FT (1.03 MILES)
NERGE ROAD = 2,139 FT (0.41 MILES)
DEVON AVENUE = 1,330 FT (0.25 MILES)
TOTAL GROSS AND NET LENGTH = 12,029 FT (2.28 MILES)



STEPHAN R. FEESE
NO. 062-055709
EXP. DATE 11/30/13

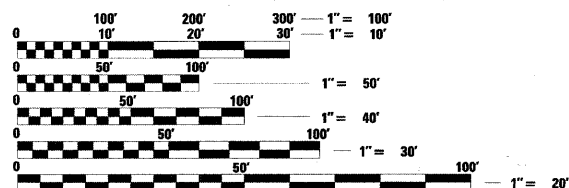
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED December 22 20 11
Mary G. Pyle
VILLAGE OF ELK GROVE VILLAGE, ACTING DIRECTOR
OF ENGINEERING & COMMUNITY DEVELOPMENT

PASSED JAN 4 20 12
C. J. Hill
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW JANUARY 4, 20 12
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

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OF THE STATE OF ILLINOIS**



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CONTRACT NO. 63530

COUNTY: COOK : DUPAGE

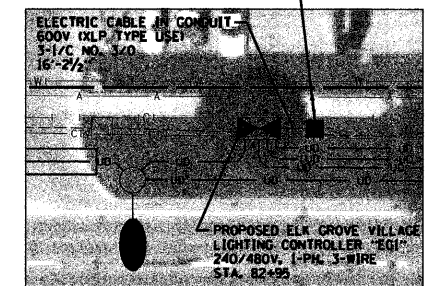
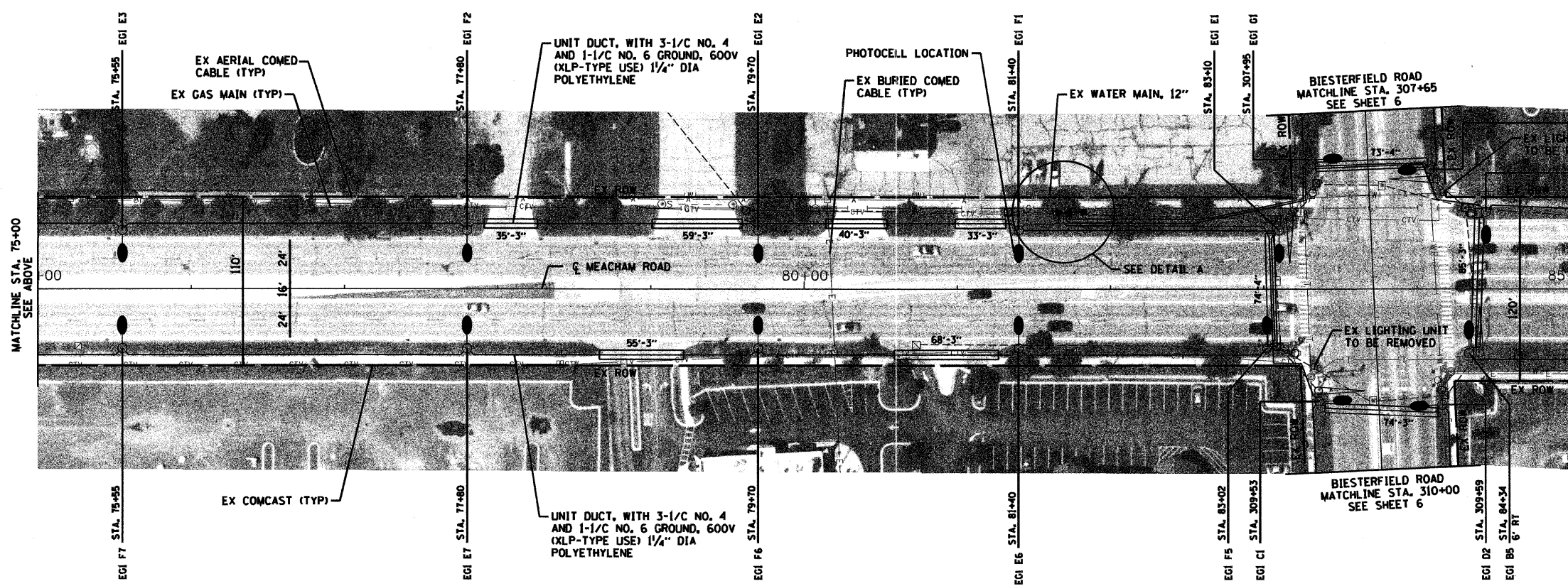
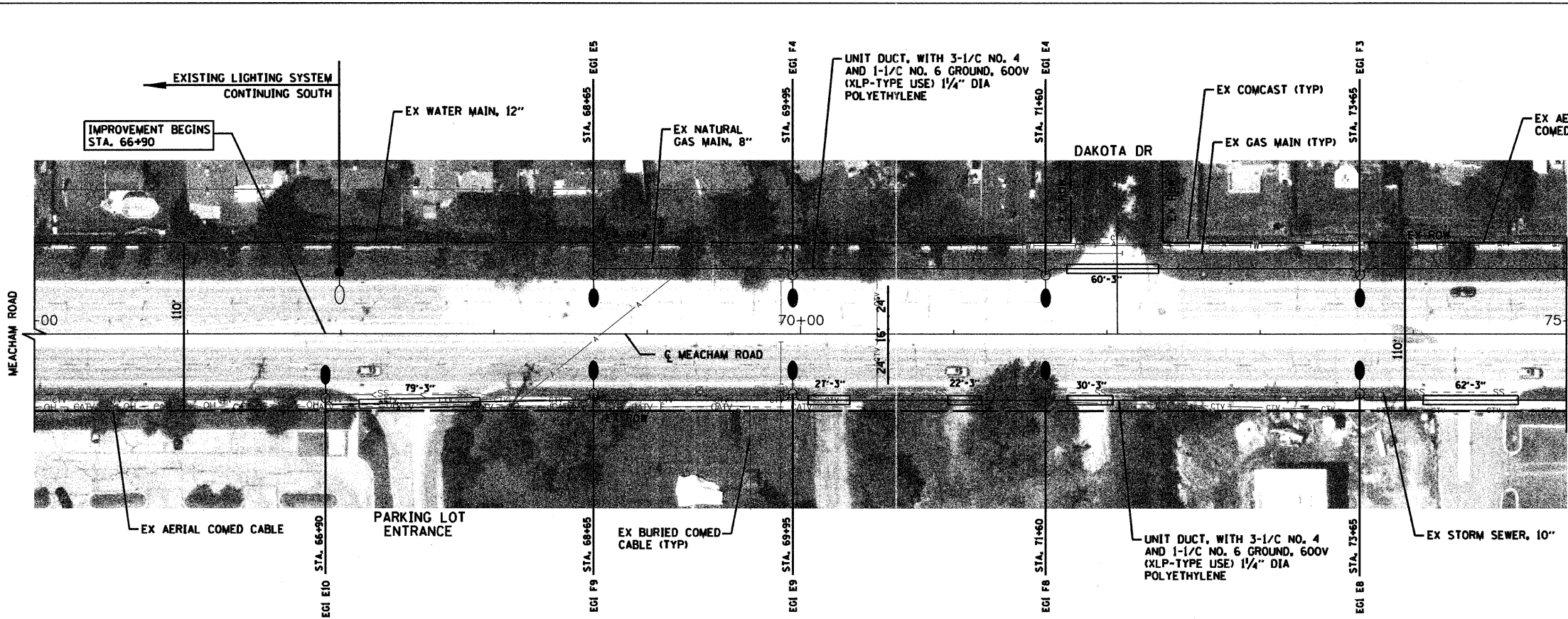
ROUTE: FAU 2585 (MEACHAM ROAD) : FAU 2578 (ROHLWING ROAD)

SECTION: 10-00059-00-LT

222 SOUTH RIVERSIDE PLAZA, SUITE 2320
CHICAGO, ILLINOIS 60608
(312) 865-9801

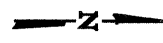
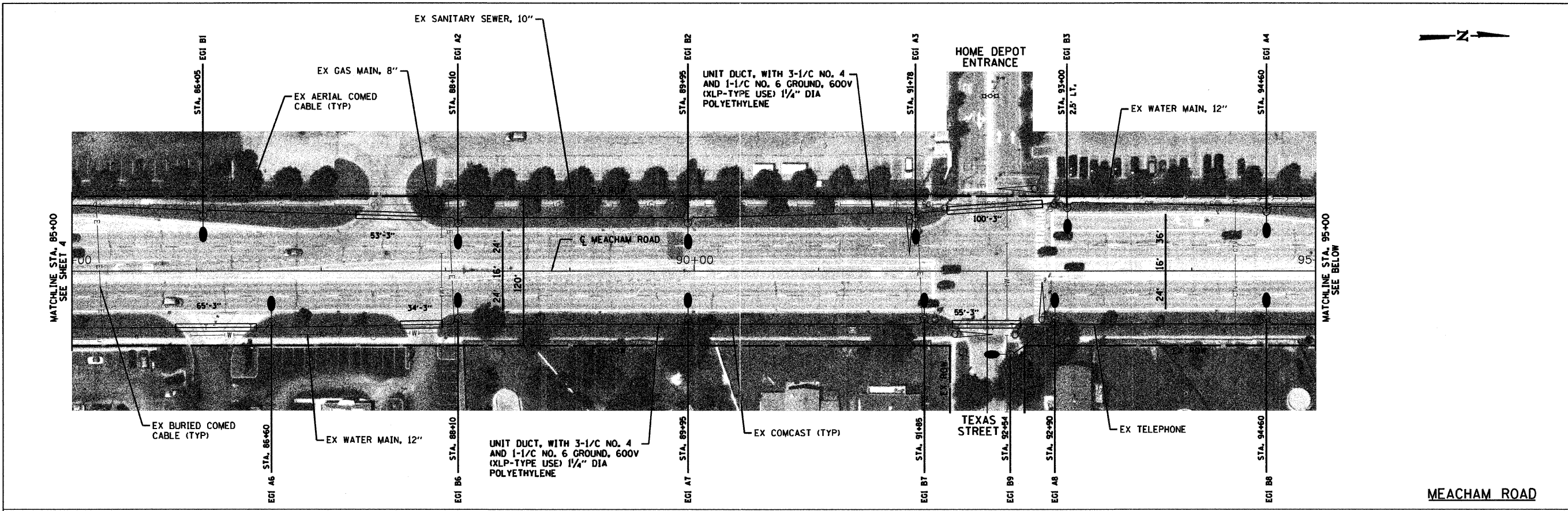


PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. 847-705-4406

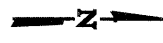
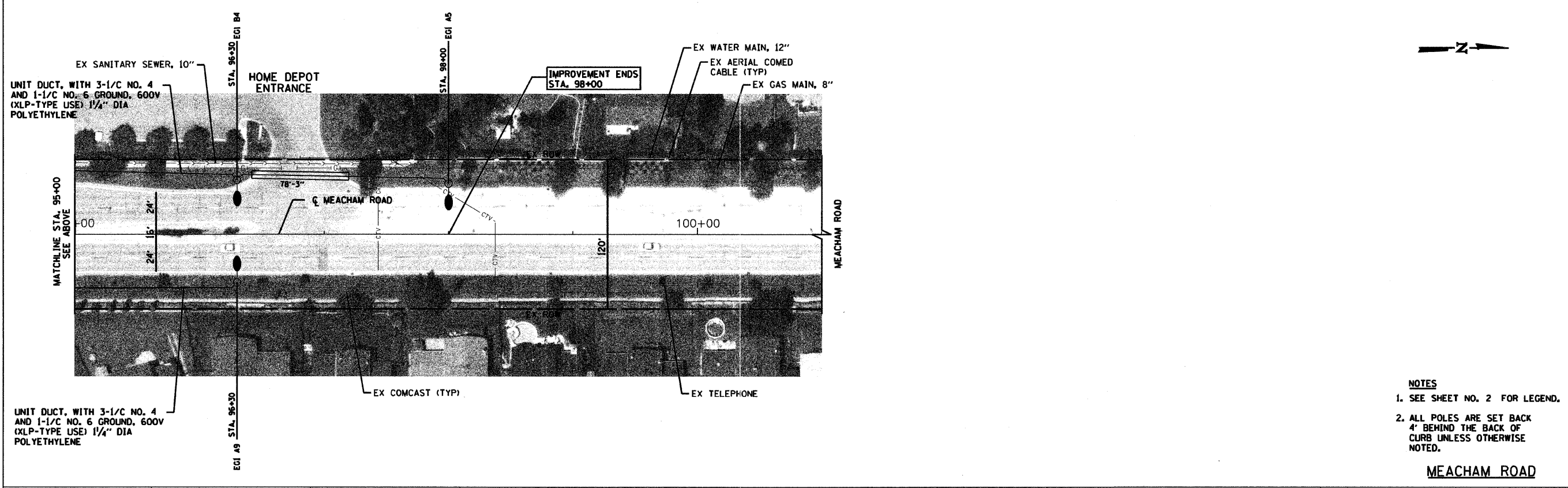


- NOTES**
1. SEE SHEET NO. 2 FOR LEGEND.
 2. ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

FILE NAME = g:\ch09\8132\road\Plan Meacham 1.dgn	USER NAME = ajpondexter	DESIGNED - KB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING PLAN MEACHAM ROAD	F.A.U. RTE. 2578	SECTION 10-00059-00-LT	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 4		
PLOT SCALE = #SCALE#	CHECKED - SRF	DATE - 11/04/2011	REVISED -			SCALE: 1" = 40'	SHEET NO. 4 OF 21 SHEETS	STA. 65+00	TO STA. 85+00	CONTRACT NO. 63530		
PLOT DATE = 12/22/2011	DATE - 11/04/2011	REVISED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						



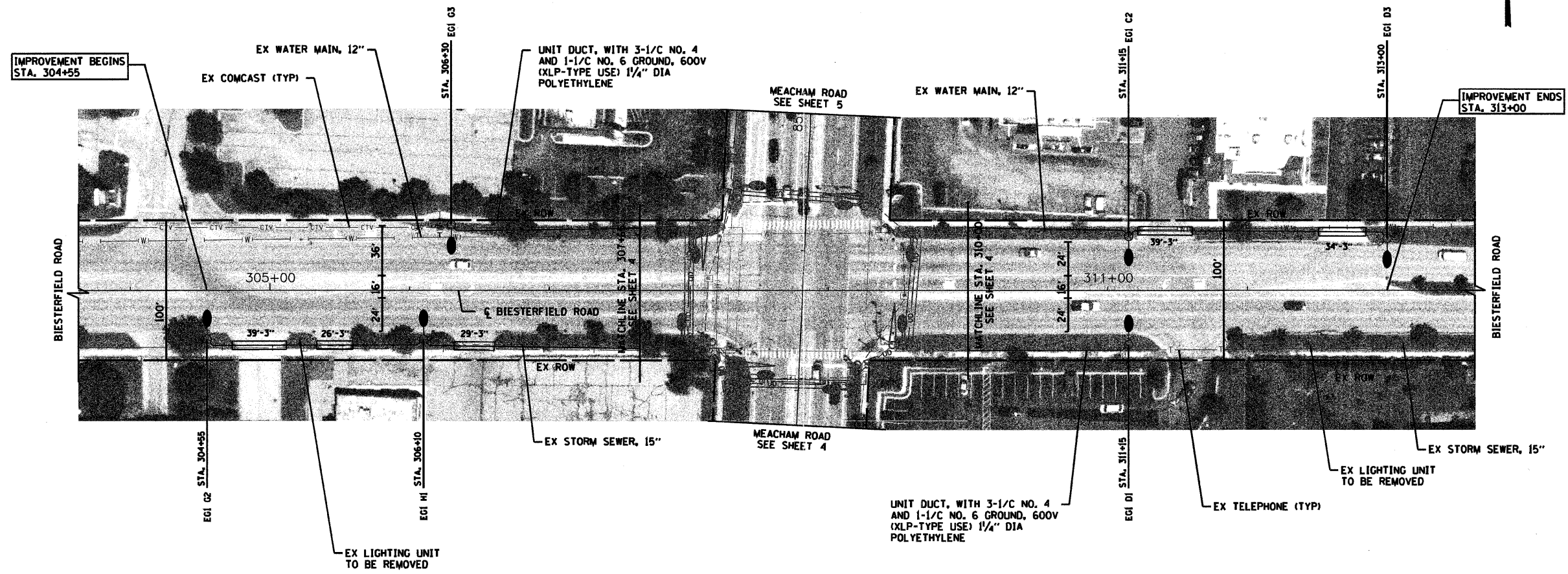
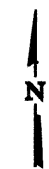
MEACHAM ROAD



MEACHAM ROAD

- NOTES**
- SEE SHEET NO. 2 FOR LEGEND.
 - ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

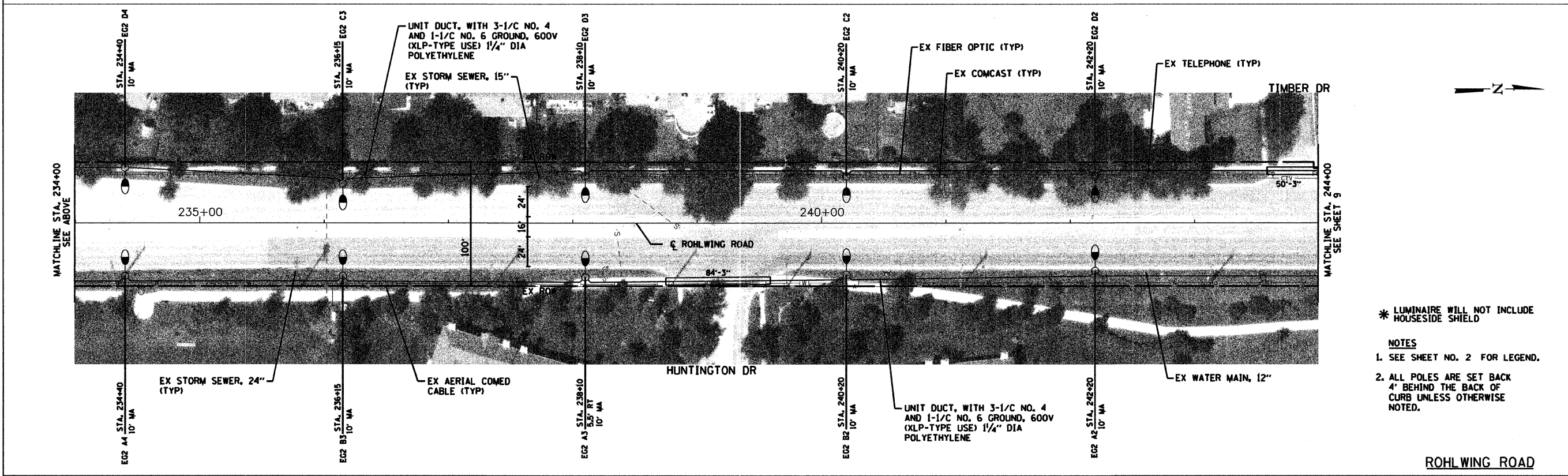
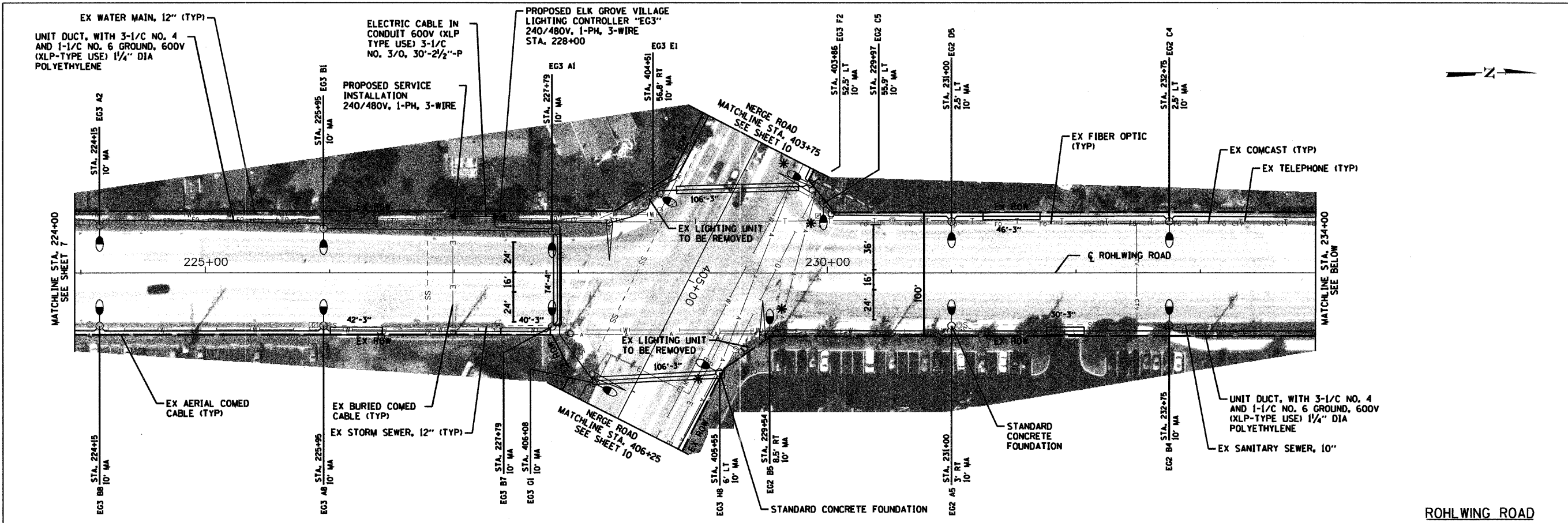
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PLOT SCALE = #SCALE#	CHECKED - SRF	REVISOR -	DATE = 11/04/2011			SCALE: 1" = 40'	SHEET NO. 5 OF 21 SHEETS	STA. 85+00	TO STA. 101+25	CONTRACT NO. = 63530	FED. ROAD DIST. NO. = ILLINOIS FED. AID PROJECT



- NOTES**
1. SEE SHEET NO. 2 FOR LEGEND.
 2. ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

BIESTERFIELD ROAD

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	PLOT SCALE = #SCALE#	DRAWN - AJP	REVISED -		SCALE: 1" = 40'	SHEET NO. 6 OF 21 SHEETS	STA. 304+00 TO STA. 313+63	2578	10-00059-00-LT	COOK	21	6
	PLOT DATE = 12/22/2011	CHECKED - SRF	REVISED -					2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
		DATE - 11/04/2011	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

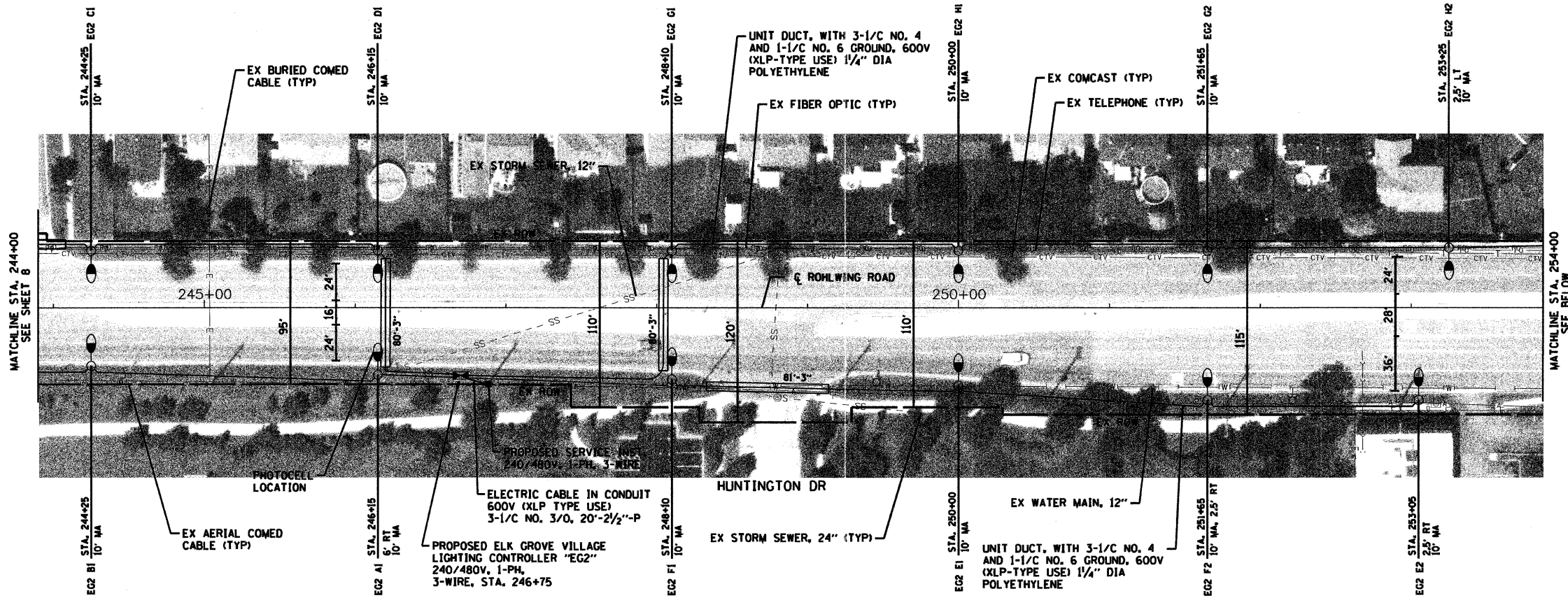


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PLOT SCALE = 8SCALE8	CHECKED - SRF	REVISIED - AJP	REVISED -			2578	10-00059-00-LT	COOK	21	8
PLOT DATE = 12/22/2011	DATE - 11/04/2011	REVISIED -	REVISED -			2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
						SCALE: 1" = 40'		SHEET NO. 8 OF 21 SHEETS		STA. 224+00 TO STA. 244+00

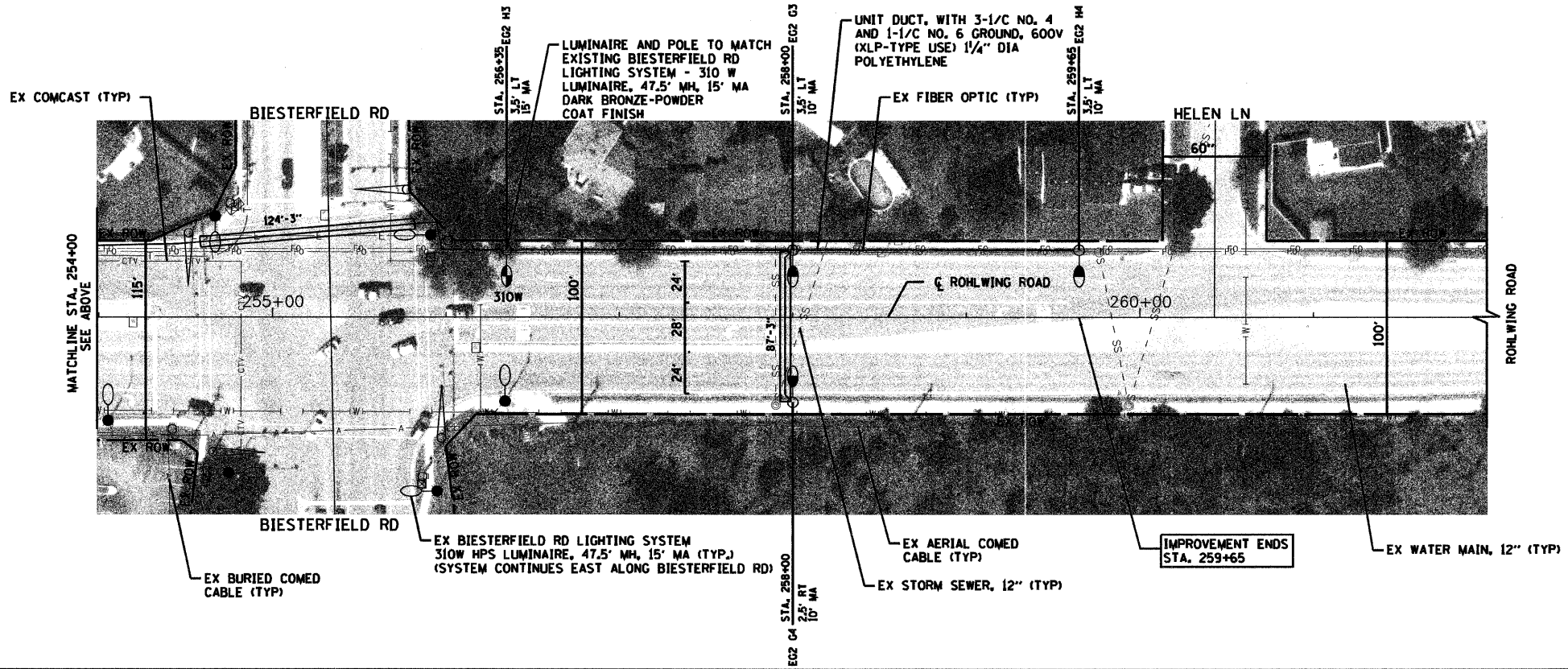
* LUMINAIRE WILL NOT INCLUDE HOUSESIDE SHIELD

NOTES

- SEE SHEET NO. 2 FOR LEGEND.
- ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.



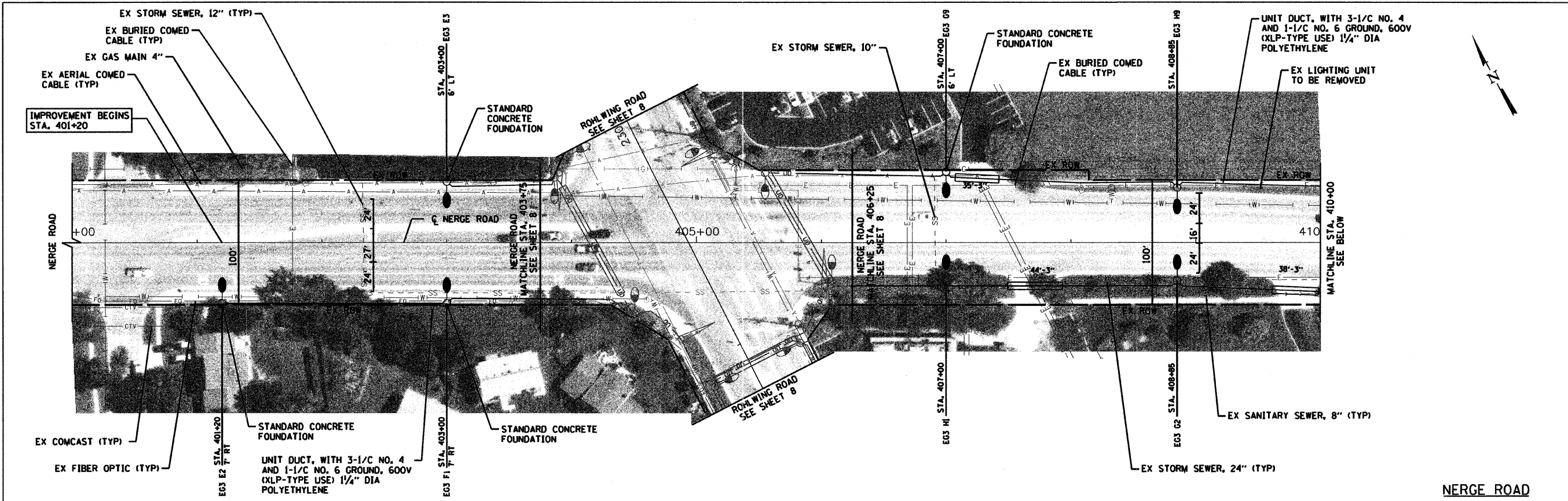
ROHLWING ROAD



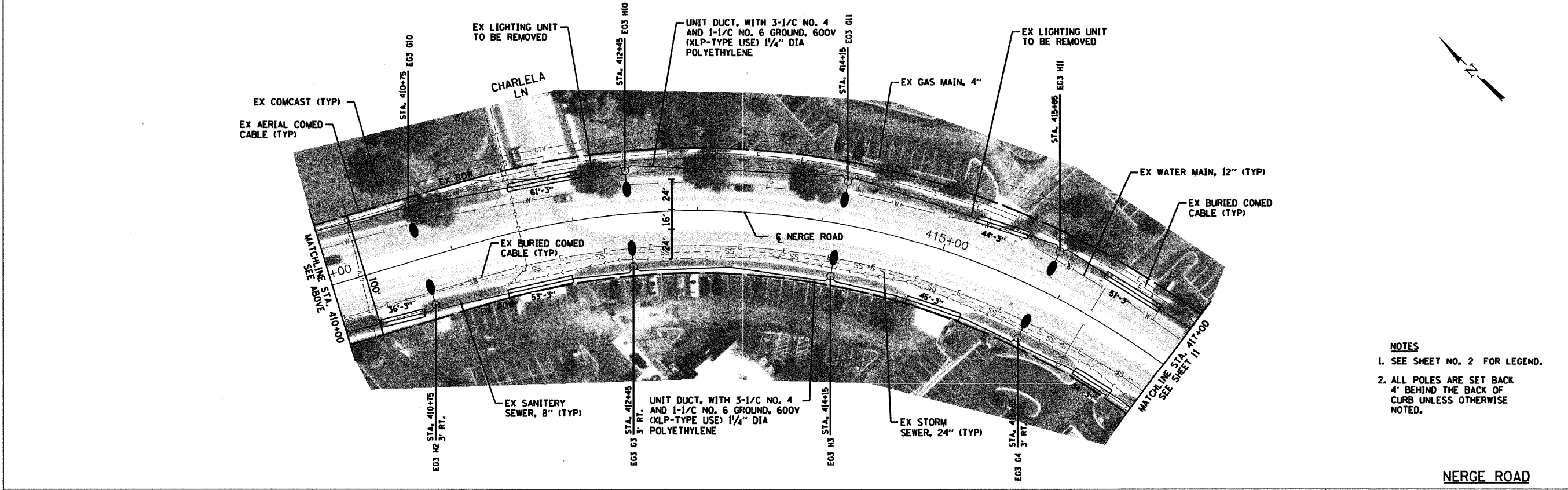
ROHLWING ROAD

- NOTES**
1. SEE SHEET NO. 2 FOR LEGEND.
 2. ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

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PL01 SCALE = #SCALE#	CHECKED - SRF	REVISIED -	REVISIED -			2578	10-00059-00-LT	COOK	21	9	
PL01 DATE = 12/22/2011	DATE - 11/04/2011	REVISIED -	REVISIED -			2585	JOB NO. C-91-460-10	CONTRACT NO. 63530			
						SCALE: 1" = 40'	SHEET NO. 9 OF 21 SHEETS	STA. 244+00	TO STA. 262+00	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



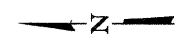
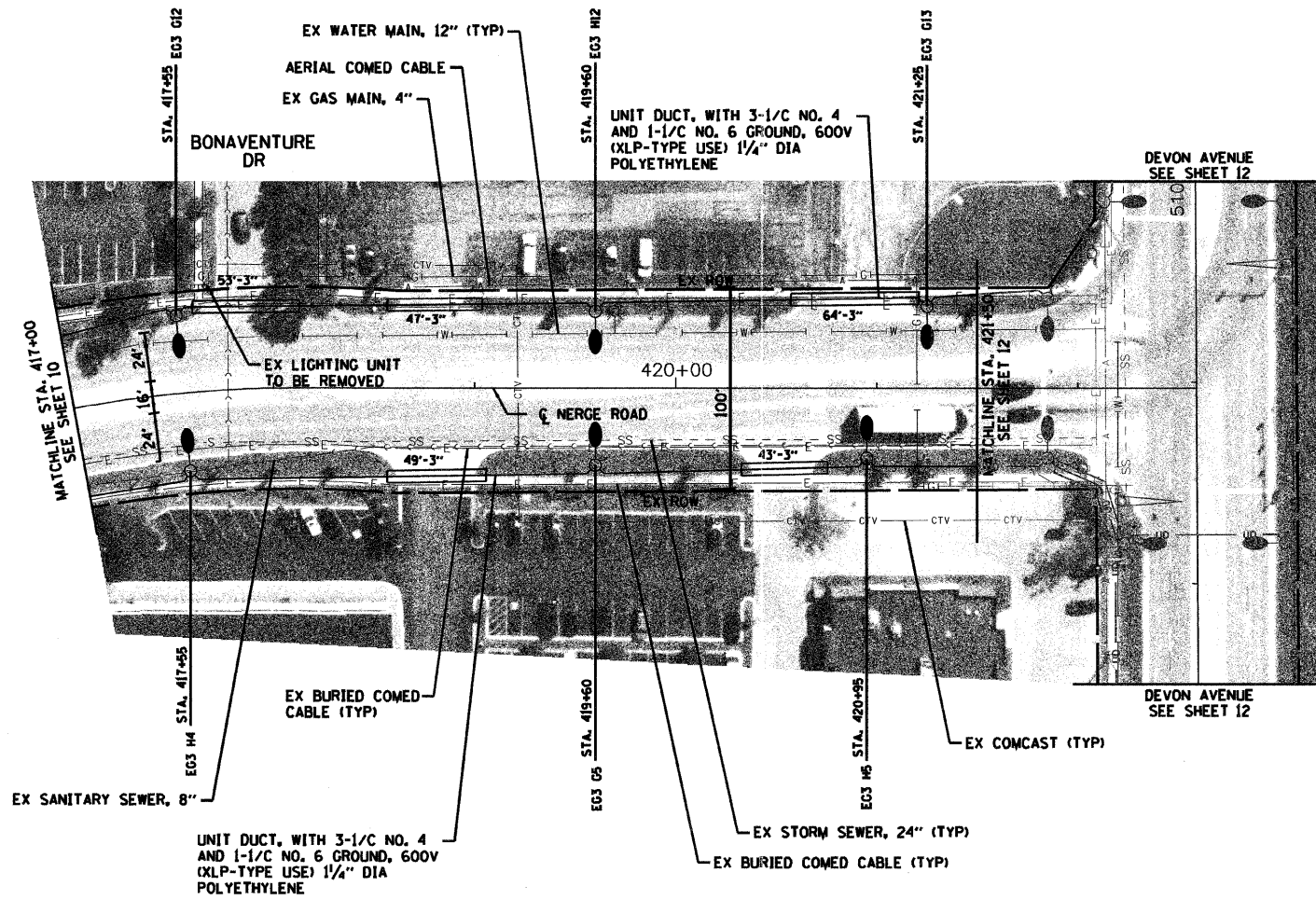
NERGE ROAD



NERGE ROAD

- NOTES**
1. SEE SHEET NO. 2 FOR LEGEND.
 2. ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

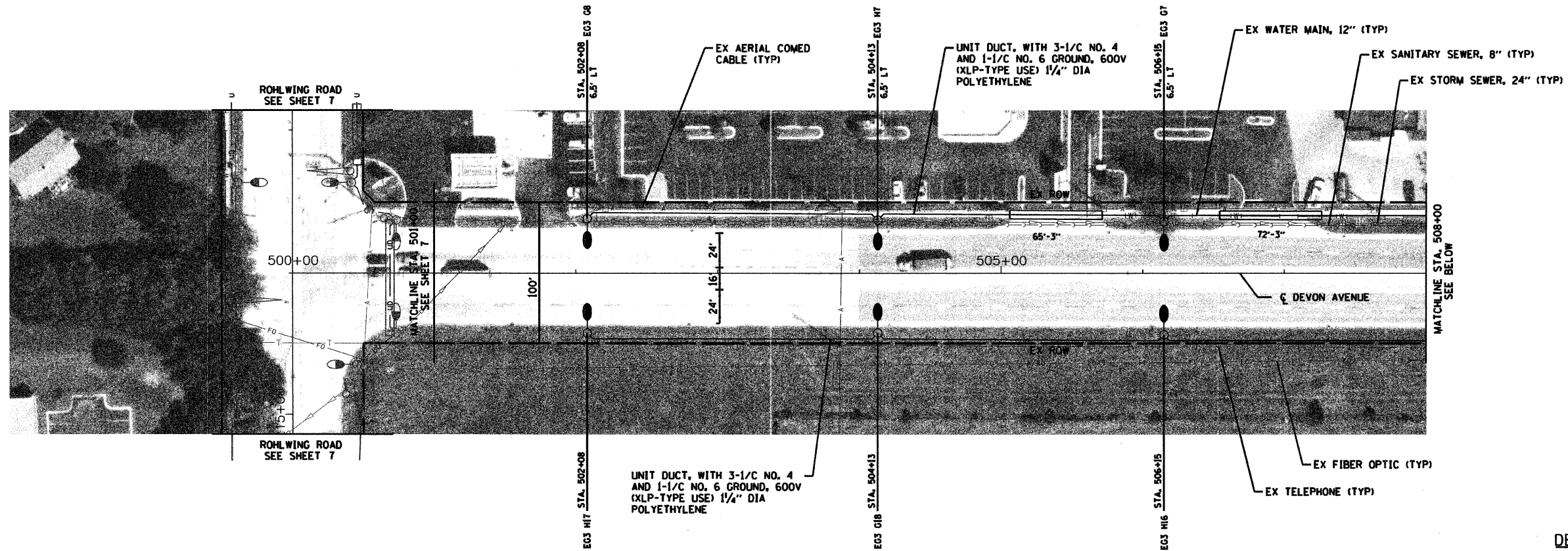
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	PLOT SCALE = #SCALE#	DRAWN - AJP	REVISED -			2578	10-00059-00-LT	COOK	21	10
	PLOT DATE = 12/22/2011	CHECKED - SRF	REVISED -			2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
		DATE - 11/04/2011	REVISED -			SCALE: 1" = 40'		SHEET NO. 10 OF 21 SHEETS		STA. 400+00 TO STA. 417+00



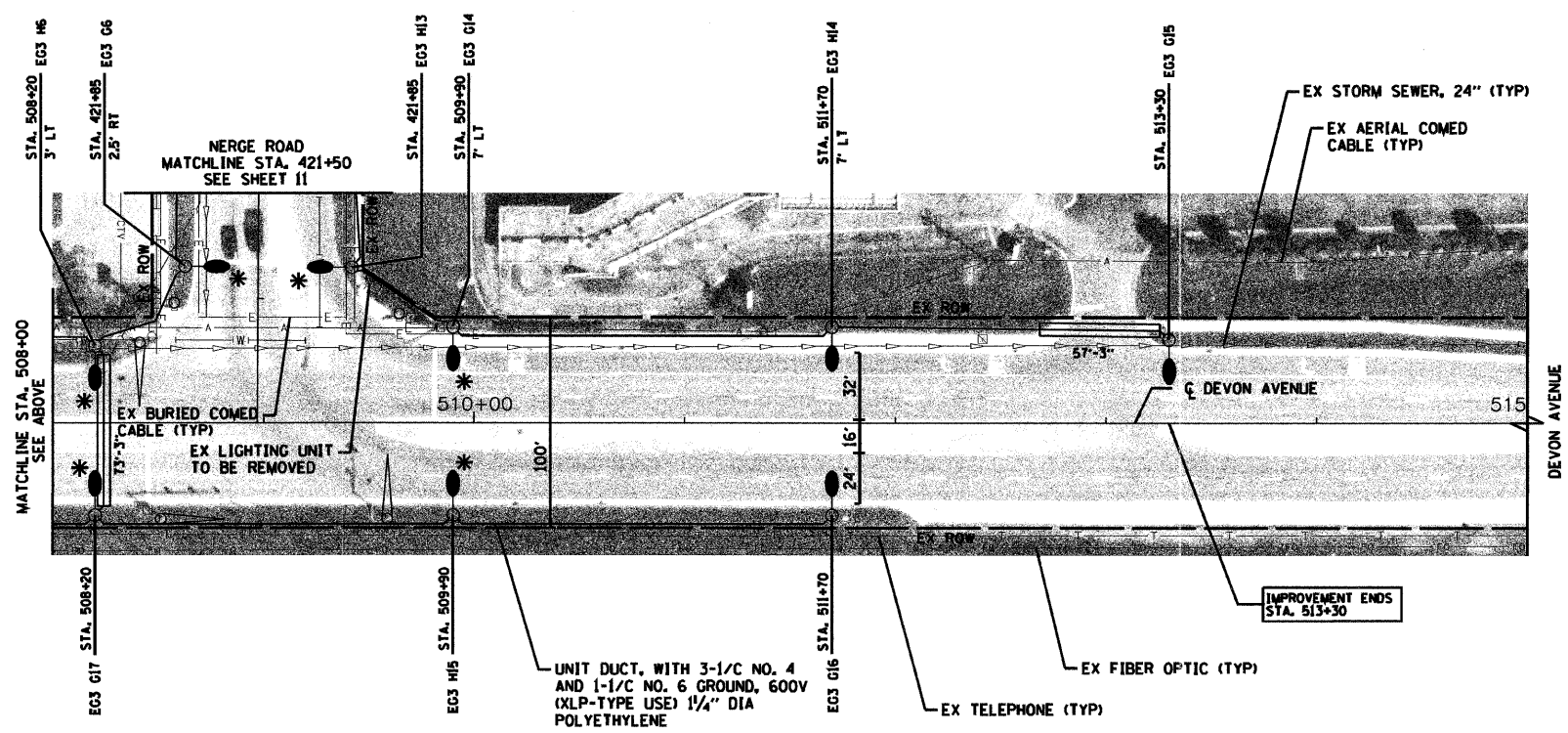
- NOTES**
1. SEE SHEET NO. 2 FOR LEGEND.
 2. ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

NERGE ROAD

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	PLOT SCALE = #SCALE#	CHECKED - SRF	REVISED -			2578	10-00059-00-LT	COOK	21	11
	PLOT DATE = 12/22/2011	DATE - 11/04/2011	REVISED -			2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
							SCALE: 1" = 40'	SHEET NO. 11 OF 21 SHEETS	STA. 417+00	TO STA. 423+59



DEVON AVENUE

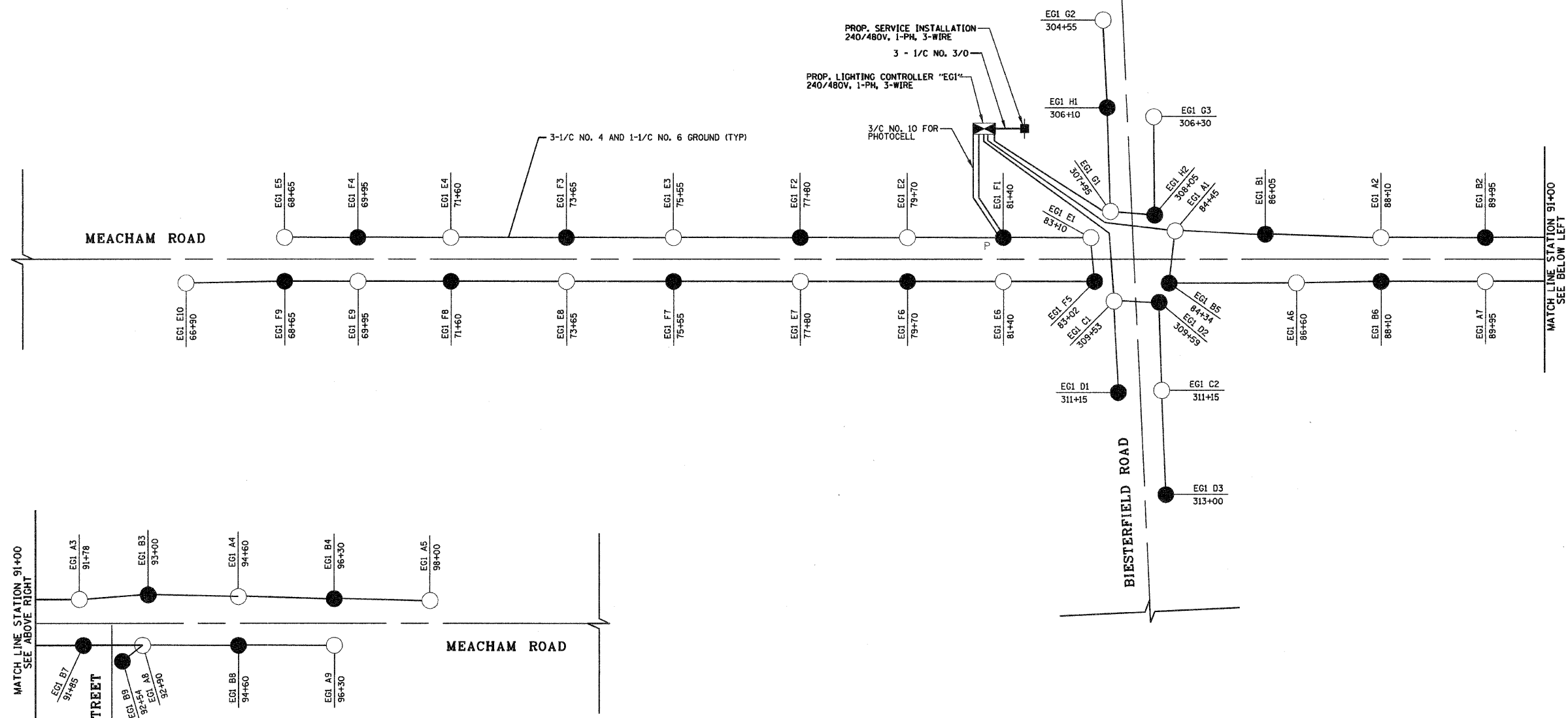
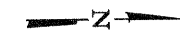


DEVON AVENUE

* LUMINAIRE WILL NOT INCLUDE HOUSESIDE SHIELD

- NOTES**
1. SEE SHEET NO. 2 FOR LEGEND.
 2. ALL POLES ARE SET BACK 4' BEHIND THE BACK OF CURB UNLESS OTHERWISE NOTED.

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	PLOT SCALE = #SCALE#	CHECKED - SRF	REVISED -			SCALE: 1" = 40'	SHEET NO. 12 OF 21 SHEETS	2578	10-00059-00-LT	COOK	21	12
	PLOT DATE = 12/22/2011	DATE - 11/04/2011	REVISED -			STA. 500+00	TO STA. 515+00	2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



LOAD TABULATION			
CONTROLLER EGI			
CIRCUIT	NO. OF LIGHTS	VOLTS	TOTAL AMPS
A	9	240	10.4
B	9	240	10.4
C	2	240	2.3
D	3	240	3.5
E	10	240	11.5
F	9	240	10.4
G	3	240	3.5
H	2	240	2.3
TOTAL	47		54.1

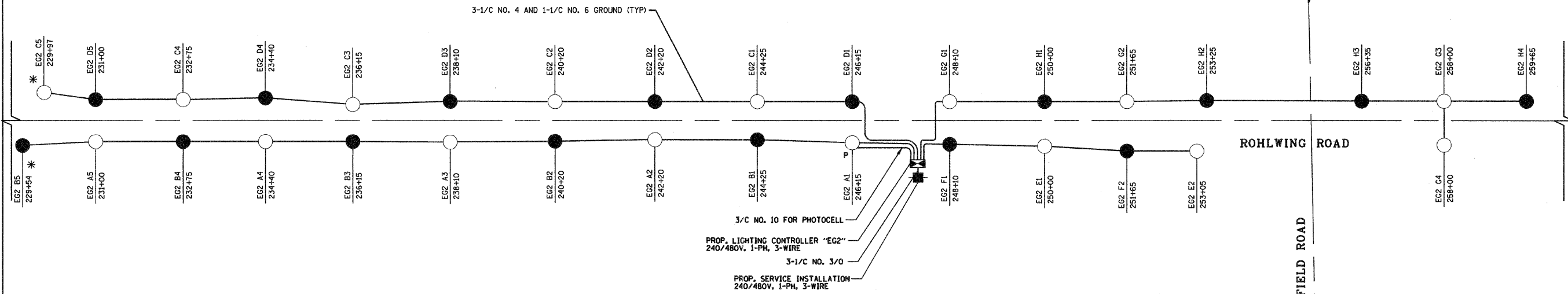
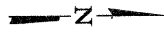
- LEGEND**
- LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT, 250 W, ON RED WIRE
 - LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT, 250 W, ON BLACK WIRE
 - 3-1/C NO. 4 AND 1-1/C NO. 6 GROUND
 - SERVICE INSTALLATION, 240/480V, 1-PH, 3-WIRE
 - ⊠ LIGHTING CONTROLLER, 240/480V, 1-PH, 3-WIRE
 - P PHOTO CELL LOCATION

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		CHECKED - SRF	REVISED -
		DATE - 11/04/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIRING DIAGRAM	
MEACHAM ROAD AT BIESTERFIELD ROAD	
SCALE: 1" = 100'	SHEET NO. 13 OF 21 SHEETS STA. XX+XX TO STA. XX+XX

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2578	10-00059-00-LT	COOK	21	13
2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LOAD TABULATION			
CONTROLLER EG2			
CIRCUIT	NO. OF LIGHTS	VOLTS	TOTAL AMPS
A	5	240	7.1
B	5	240	7.1
C	5	240	7.1
D	5	240	7.1
E	2	240	2.8
F	2	240	2.8
G	4	240	5.7
H	4	240	5.7
TOTAL	32		45.4

- LEGEND**
- LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT, 310 W, ON RED WIRE
 - LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT, 310 W, ON BLACK WIRE
 - 3-1/C NO. 4 AND 1-1/C NO. 6 GROUND
 - SERVICE INSTALLATION, 240/480V, 1-PH, 3-WIRE
 - ⊠ LIGHTING CONTROLLER, 240/480V, 1-PH, 3-WIRE
 - * LUMINAIRE WITHOUT HOUSESIDE SHIELD
 - P PHOTO CELL LOCATION

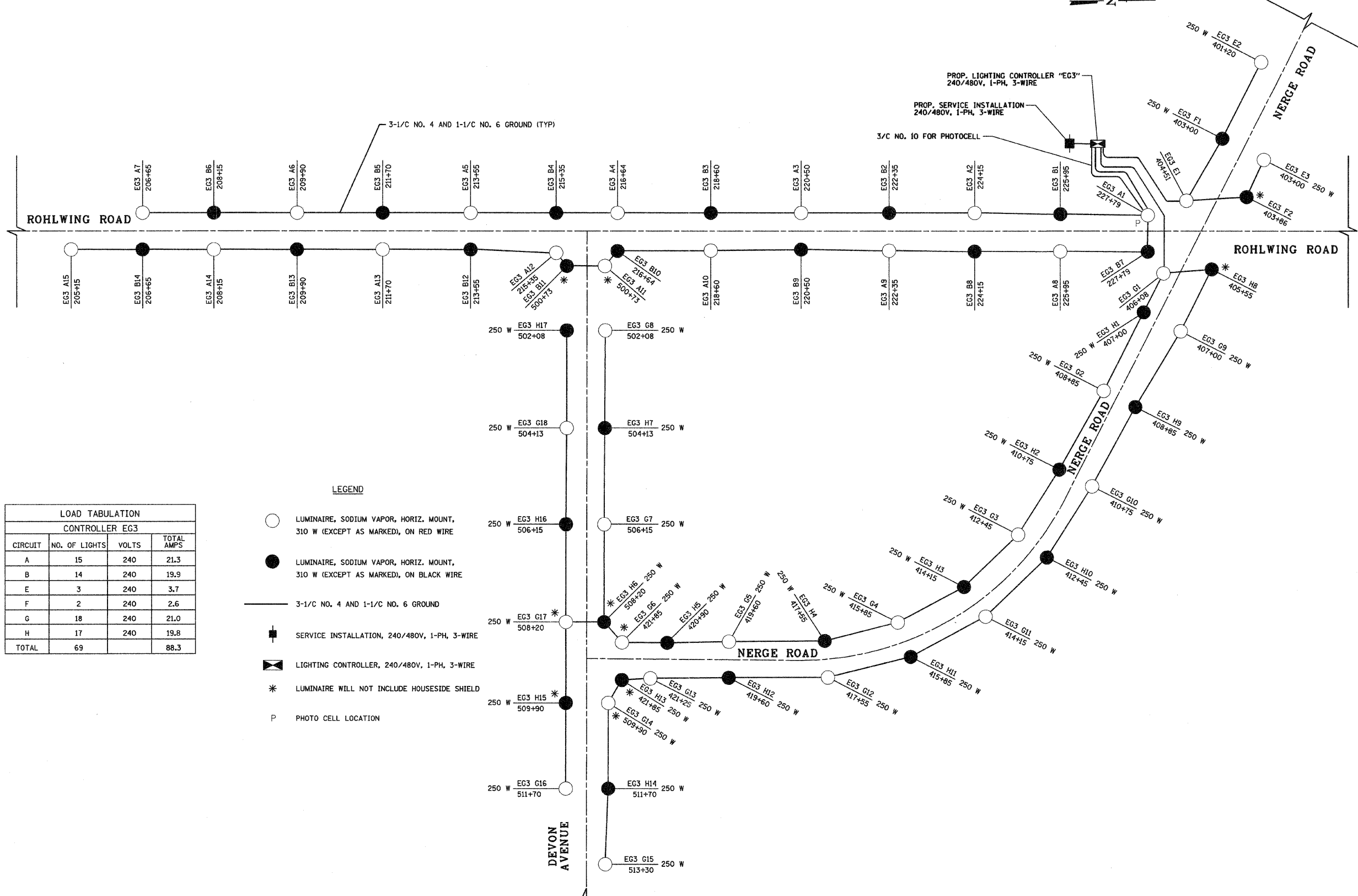
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		CHECKED - SRF	REVISED -
		DATE - 11/04/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WIRING DIAGRAM
ROHLWING ROAD AT BIESTERFIELD ROAD**

SCALE: SHEET NO. OF 21 SHEETS STA. TXXSPK

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2578	10-00059-00-LT	COOK	21	14
2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
PKR-ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



LOAD TABULATION			
CONTROLLER EG3			
CIRCUIT	NO. OF LIGHTS	VOLTS	TOTAL AMPS
A	15	240	21.3
B	14	240	19.9
E	3	240	3.7
F	2	240	2.6
G	18	240	21.0
H	17	240	19.8
TOTAL	69		88.3

- LEGEND**
- LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT, 310 W (EXCEPT AS MARKED), ON RED WIRE
 - LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT, 310 W (EXCEPT AS MARKED), ON BLACK WIRE
 - 3-1/C NO. 4 AND 1-1/C NO. 6 GROUND
 - SERVICE INSTALLATION, 240/480V, 1-PH, 3-WIRE
 - ⊠ LIGHTING CONTROLLER, 240/480V, 1-PH, 3-WIRE
 - * LUMINAIRE WILL NOT INCLUDE HOUSESIDE SHIELD
 - P PHOTO CELL LOCATION

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		CHECKED - SRF	REVISED -
		DATE - 11/04/2011	REVISED -

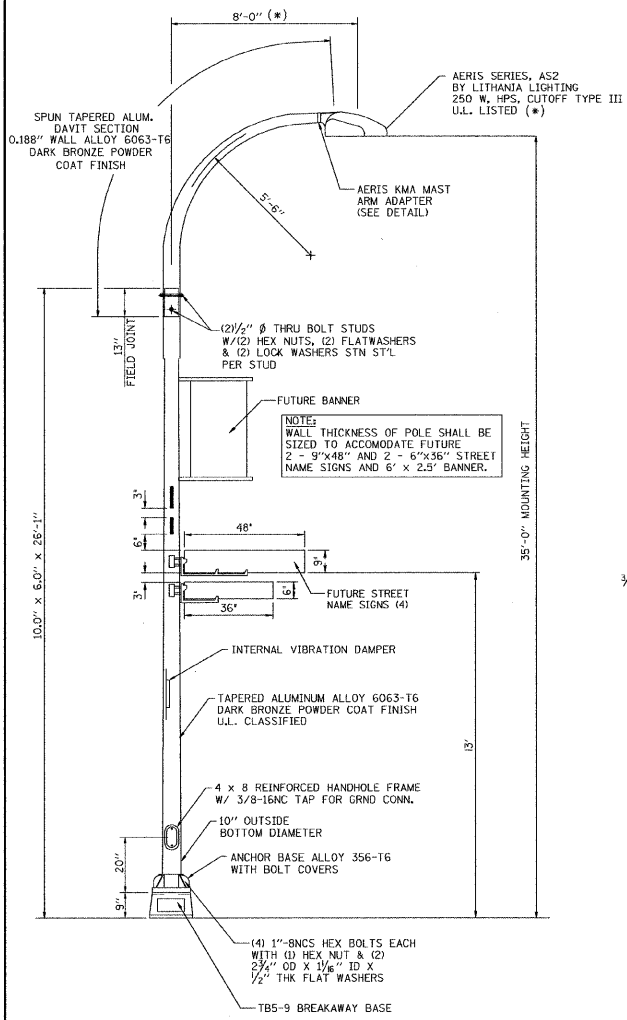
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WIRING DIAGRAM
ROHLWING ROAD AT DEVON AVENUE AND NERGE ROAD**

SCALE: 1" = 100' SHEET NO. 15 OF 21 SHEETS STA. TO STA.

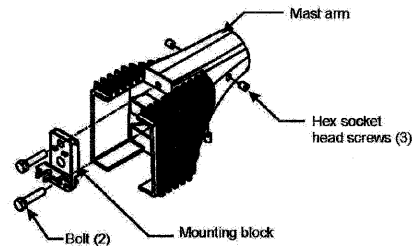
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2578	10-00059-00-LT	COOK	21	15
2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NOTE:
 (*) A 10'-0" MAST ARM AND 310W LUMINAIRE SHALL BE PROVIDED FOR LIGHTING ALONG ROHLWING ROAD, AS INDICATED ON THE PLANS

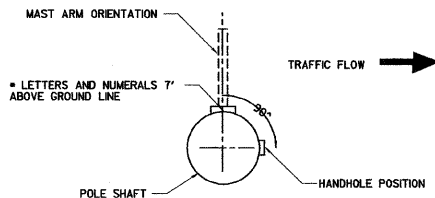


LIGHT POLE DETAIL

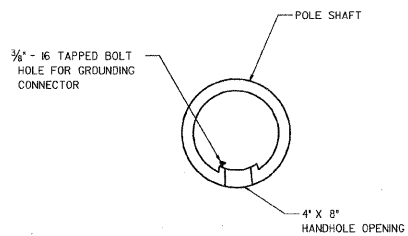
- NOTES:
1. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 2. TWO PIECE SHAFT SHALL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 3. THE LIGHT POLE SHALL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 4. THE INSTALLING CONTRACTOR SHALL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2023, TAB SP40L OR APPROVED EQUAL.
 5. LIGHT POLES SHALL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 6. LIGHT POLES SHALL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



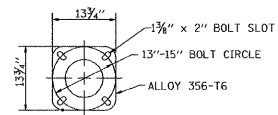
MAST ARM ADAPTER DETAIL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES

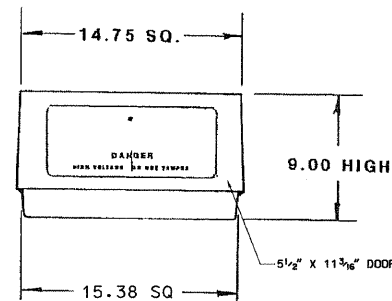


HANDHOLE DETAIL



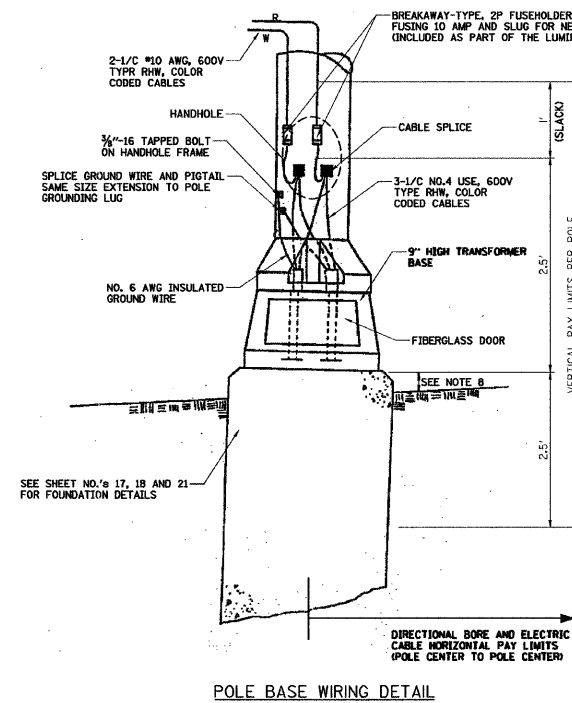
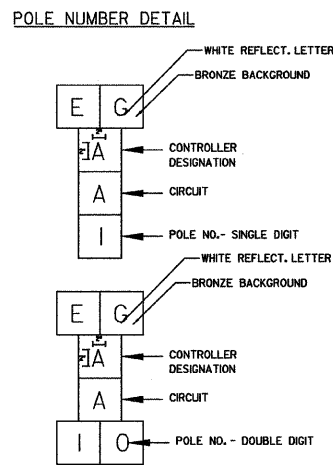
LIGHT POLE BASE PLATE DETAIL
 13"-15" BOLT CIRCLE

NOTE:
 CONTRACTOR SHALL VERIFY BOLT CIRCLE PRIOR TO ORDERING POLES AND FOUNDATIONS.



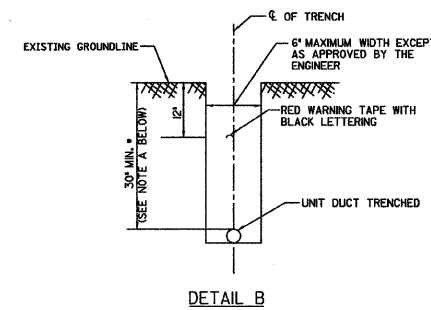
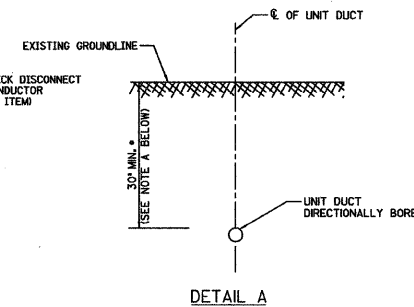
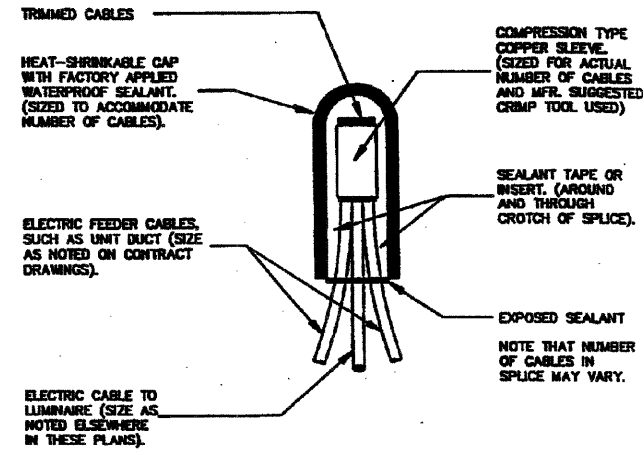
TRANSFORMER BASE DETAIL

	SQ	BC	SLOT
T-BASE TOP	14 3/4"	14 1/2"-15"	1 3/8" X 2"
T-BASE BOTTOM	15 3/8"	14 1/2"-16 1/4"	1 3/8" X 2"
BASE PLATE	13 3/4"	13"-15"	1"



POLE BASE WIRING DETAIL

**SPlicing ELECTRIC CABLES
 BASIC MATERIALS AND METHODS**



NOTE A:
 * DEPTH MAY VARY DUE TO UTILITY AND TRAFFIC SIGNAL CONFLICTS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR ADDITIONAL DEPTH.

NOTE B:
 TRENCH AND BACKFILL SHALL ONLY BE PROVIDED FIVE (5) FEET TO EACH SIDE OF THE LIGHT POLE, POWER POLE PROVIDING ELECTRIC SERVICE, CONTROLLER, AND TRENCHED CONDUIT.

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 PLOT DATE = 12/22/2011

DESIGNED - KB
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

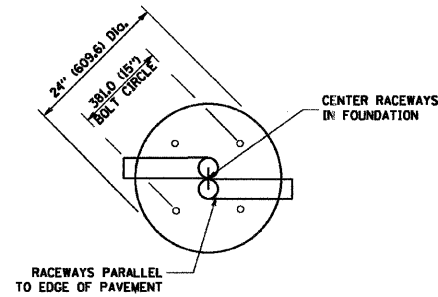
LIGHT POLE DETAILS

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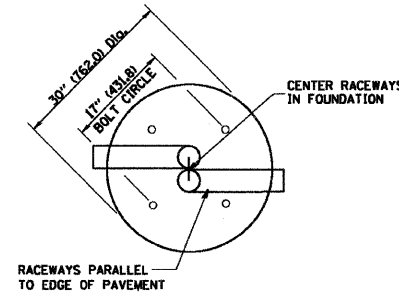
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2578	10-00059-00-LT	COOK	21	16
2585	JOB NO. C-91-460-10	CONTRACT NO. 63530		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

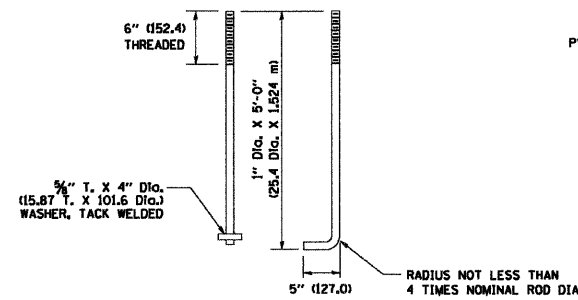
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O _u = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O _u = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O _u = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



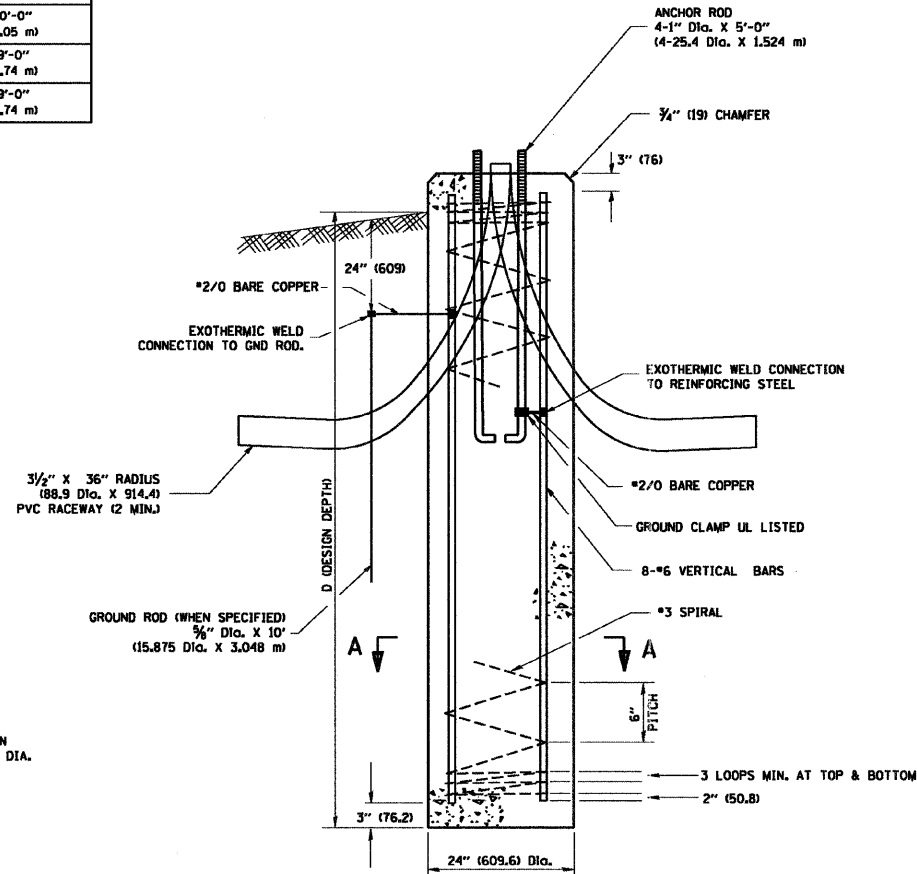
TOP VIEW



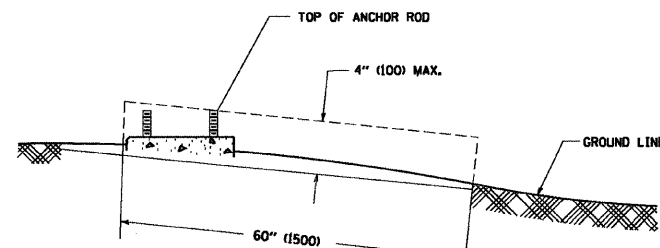
TOP VIEW



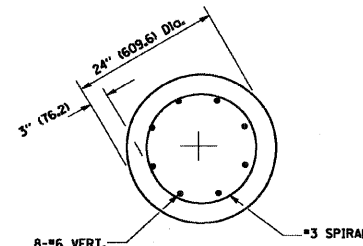
ANCHOR ROD DETAIL



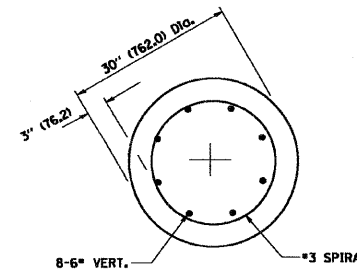
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 238, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG (MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2578 2585	10-00059-00-LT	COOK	21	17
BE-301			CONTRACT NO. 63530	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

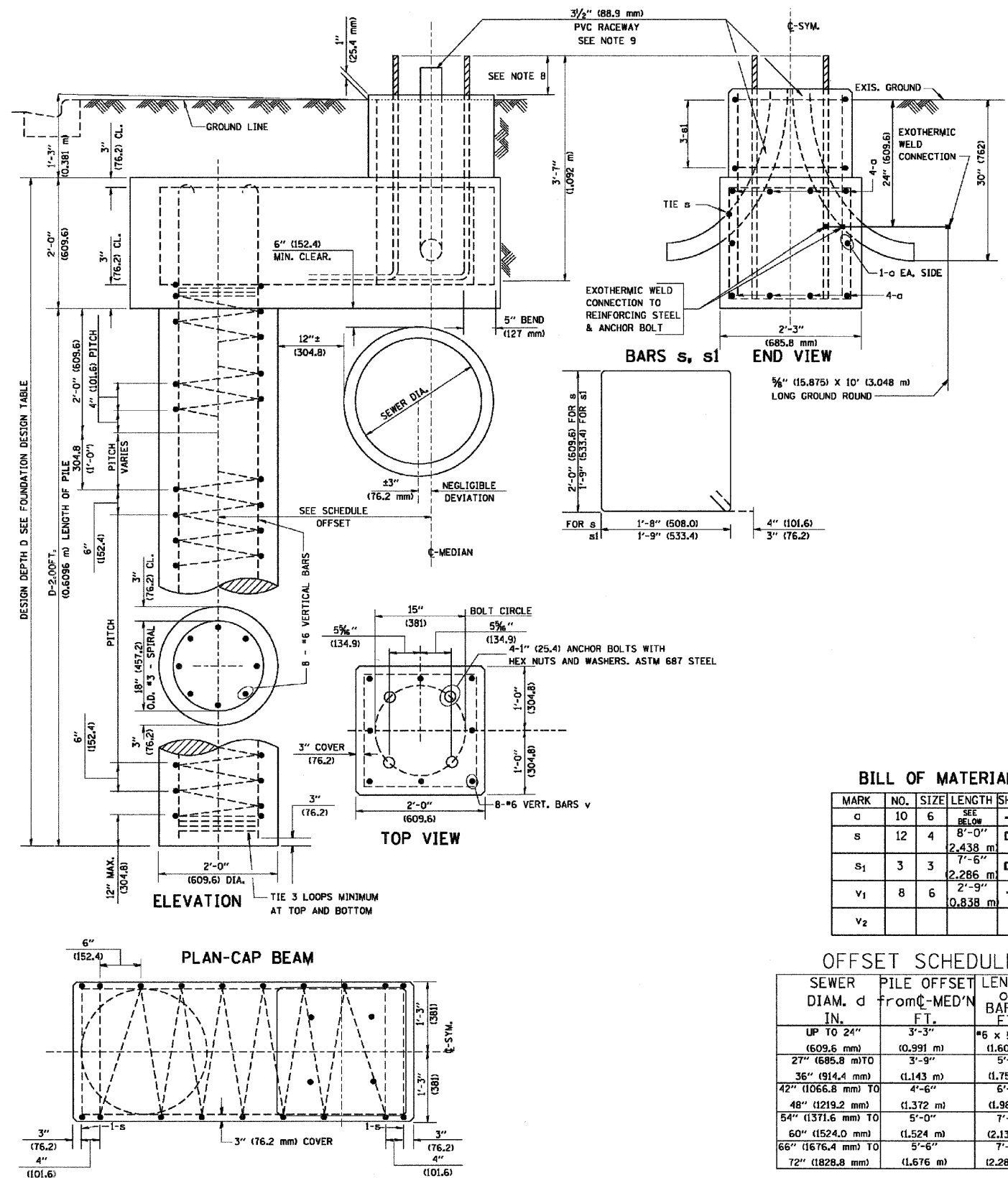
FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	*3X122' (37.186 m)	8-#6X14'-3" (4.343 m)	*3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	*3X90' (27.432 m)	8-#6X10'-0" (3.048 m)	*3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	*3X66' (20.112 m)	8-#6X7'-6" (2.286 m)	*3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	*3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	*3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	*3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	*3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	*3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	*3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	5'-0" (1.524 m)	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

SEE NOTES 3 AND 11 AND FOUNDATION
DETAIL ON SHEET NO. 17 FOR ANCHOR
BOLT EXTENTION REQUIREMENTS

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
c	10	6	SEE BELOW	—
s	12	4	8'-0" (2.438 m)	□
s1	3	3	7'-6" (2.286 m)	□
v1	8	6	2'-9" (0.838 m)	—
v2				

OFFSET SCHEDULE

SEWER DIAM. d	PILE OFFSET from C-MED'N	LENGTH of BAR c
IN.	FT.	FT.
UP TO 24" (609.6 mm)	3'-3" (0.991 m)	*6 x 5'-3" (1.600 m)
27" (685.8 mm) TO	3'-9" (1.143 m)	5'-9"
36" (914.4 mm) TO	4'-6" (1.372 m)	6'-6"
42" (1066.8 mm) TO	5'-0" (1.524 m)	7'-0"
48" (1219.2 mm) TO	5'-6" (1.676 m)	7'-6"
60" (1524.0 mm) TO	6'-0" (1.828 m)	8'-0"
66" (1676.4 mm) TO	6'-6" (1.978 m)	8'-6"
72" (1828.8 mm)	7'-0" (2.134 m)	9'-0"

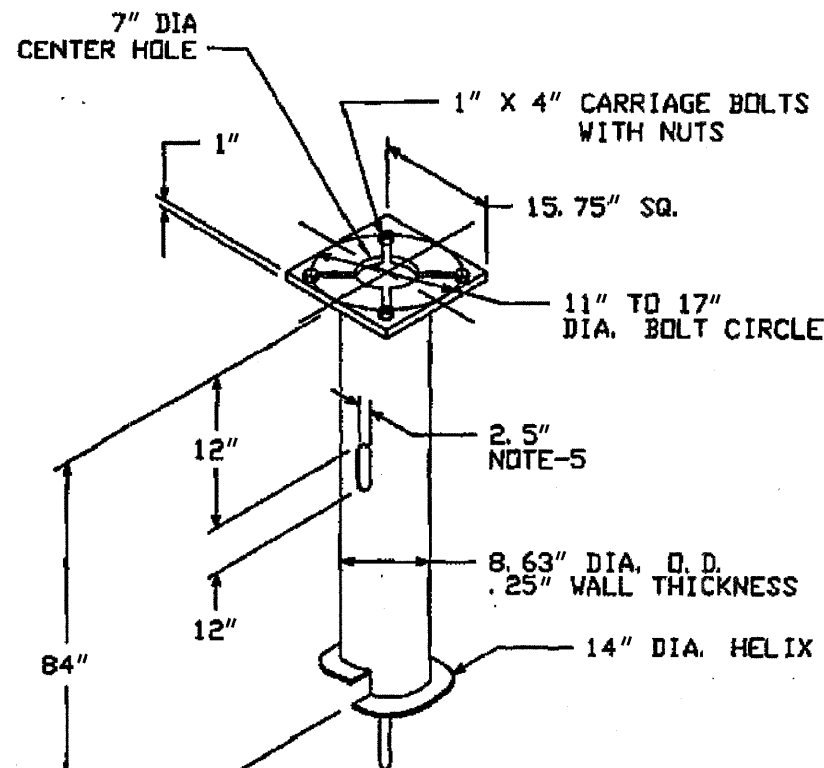
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

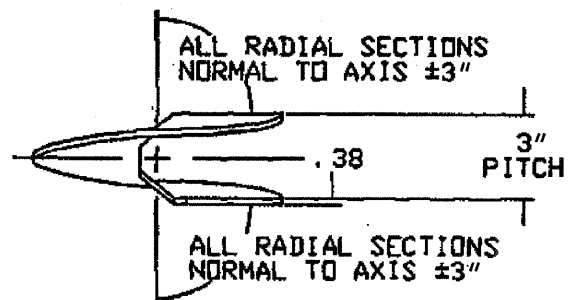
LIGHT POLE FOUNDATION OFFSET 48" (12.192 m) TO 47 1/2" (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE	
SCALE:	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 2578 2585	SECTION 10-00059-00-LT	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 18
BE-310			CONTRACT NO. 63530	
ILLINOIS FED. AID PROJECT				

6/16/2008
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POLE FOUNDATION DETAIL, 35' MOUNT. HEIGHT
(FOR 47.5' MH FOUNDATION DETAILS SEE NOTE 12)



HELIX MUST BE FORMED BY MATCHING METAL DIE
(SIDE VIEW OF TRUE HELICAL FORM)

-NOTES-

1. FINISH: HOT DIP GALVANIZE PER ASTM-A153 (LATEST REVISION).
2. BASEPLATE TO BE PERPENDICULAR TO SHAFT AXIS ($\pm 1^\circ$) AND HOLE CENTERLINE CONCENTRIC ($\pm .188$) TO SHAFT AXIS.
3. STENCIL MIN. 1/2 IN. LETTERS MANUFACTURER'S NUMBER AFTER GALVANIZING.
4. PILOT POINT AND SHAFT AXES TO BE CONCENTRIC ($\pm .125$ FIM) AND IN LINE ($\pm 2^\circ$)
5. FLAME CUT TWO SLOTS IN SHAFT PERPENDICULAR TO THE BASEPLATE.
6. PREHEAT, TUMBLEBLAST, HANDGRIND, AND CLEAN BASEPLATE, HELIX, AND PILOT POINT ON ALL WELDED AREAS.
7. FLAMECUT IRREGULARITIES PERMISSIBLE: (1) VALLEYS NOT TO EXCEED 3/32" BELOW NOMINAL SURFACE LEVEL, (2) PEAKS OR POSITIVE IRREGULARITIES NOT TO EXCEED 1/32 IN. ABOVE NOMINAL SURFACE LEVEL OR INTERSECTIONS OF NOMINAL SURFACES.
8. MANUFACTURER TO HAVE IN EFFECT INDUSTRY RECOGNIZED WRITTEN QUALITY CONTROL FOR ALL MATERIALS AND MANUFACTURING PROCESSES.
9. ALL MATERIAL IS TO BE NEW, UNUSED AND MILL TRACEABLE MEETING THE FOLLOWING SPECIFICATIONS:
 BASEPLATE: ASTM A36-(LATEST REVISION) STRUCTURAL STEEL
 (CONFORM TO AASHTO TECH. BUL. #270)
 SHAFT: ASTM A252-(LATEST REVISION) GRADE 2, STEEL PIPE PILES.
 ALTERNATE MATERIAL: ASTM A53-(LATEST REVISION) TYPE E OR S, GRADE B, STEEL PIPE OR ASTM A500-(LATEST REVISION) GRADE B, STRUCTURAL STEEL TUBING.
 HELIX: ASTM A635-(LATEST REVISION) 3/8" THICK HOT ROLLED STEEL PLATE OR COIL.
 PILOT POINT: ASTM A575-(LATEST REVISION) 1-1/4" DIAMETER HOT ROLLED STEEL BAR.
 BOLTS: CARRIAGE BOLT, 1-8UNC-2A PER ANSI B-18.5, SAE J429 GRADE-5.
 NUTS: HEAVY HEX NUTS PER ASTM A194 GRADE 2H OR ASTM A563 GRADE 1H, MEETING THE SUPPLEMENTARY REQUIREMENTS OF ASTM A563; 1-8UNC-2B PER ANSI B18.2.2.
10. BASEPLATE IS PERMANENTLY STAMPED WITH MANUFACTURER'S IDENTIFICATION 'ABC' IN 1/2" LETTERS AND DATE CODE IN 1/4" LETTERS.
11. BASEPLATE PERMANENTLY MARKED TO INDICATE CABLEWAY OPENING IN SHAFT.
12. THE POLE FOUNDATION FOR THE 47.5' MOUNTING HEIGHT UNIT SHALL BE IN ACCORDANCE WITH THE 35' MOUNTING HEIGHT DETAILS, EXCEPT AS FOLLOWS:
 BOLT CIRCLE: 15"
 SHAFT DIAMETER: 10"
 SHAFT LENGTH: 8'
 BASEPLATE: 15"x15"x1 1/4"
 BOLTS: 1"x7"
13. THE CONTRACTOR SHALL COORDINATE EXTERIOR OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.

145

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