

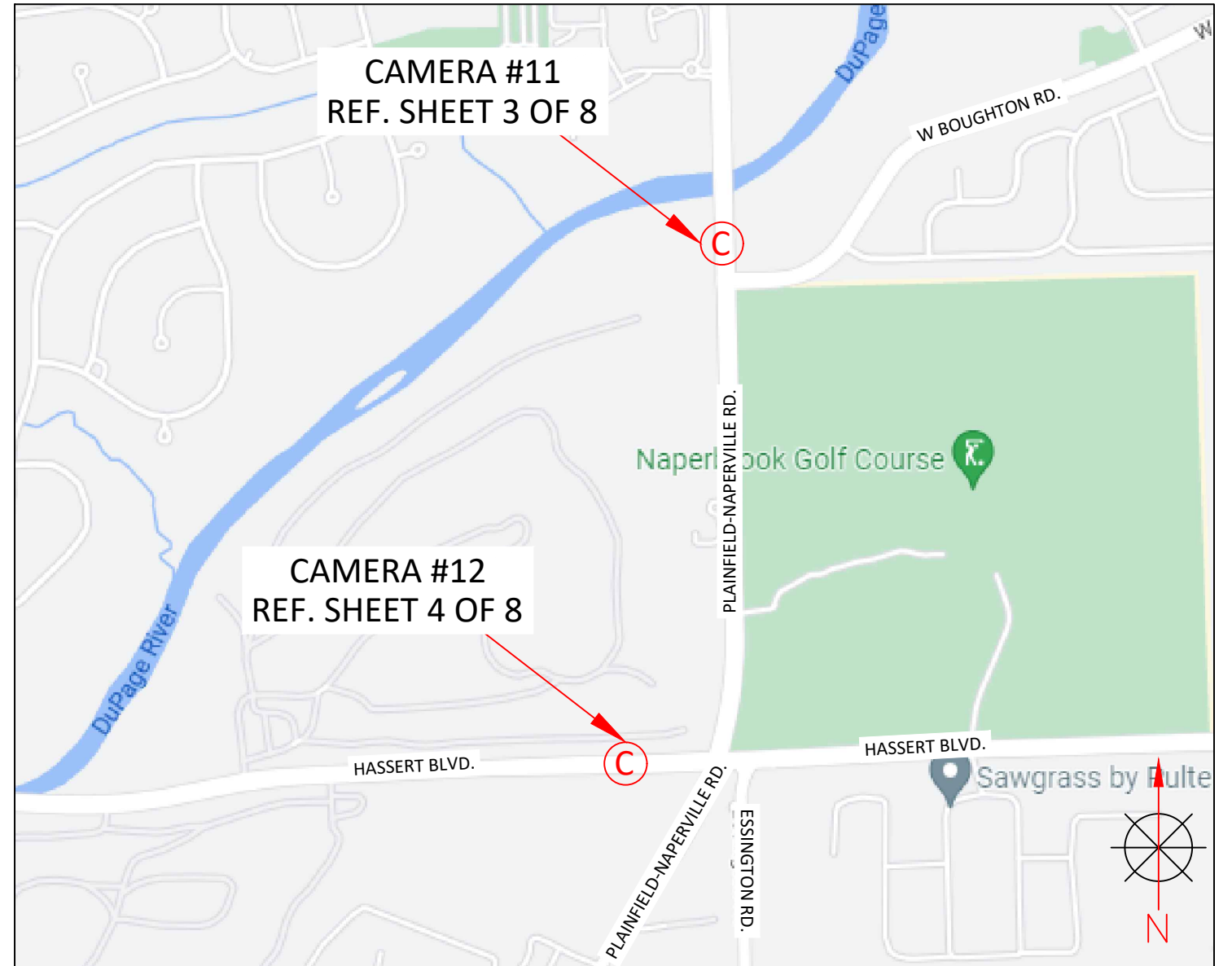
**STATE OF ILLINOIS  
WILL COUNTY  
SUBMITTED BY CITY OF NAPERVILLE  
AUTOMATIC LICENSE PLATE READING  
(ALPR) CAMERAS PERMIT**



LOCATION / VICINITY MAP

INDEX OF DRAWINGS

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- SHEET 2: GENERAL NOTES AND CAMERA LOCATION INFORMATION
- SHEET 3-4: SITE PLAN
- SHEET 5: TRAFFIC CONTROL PLAN
- SHEET 6-8: POLE DETAILS



<b>flock safety</b>	REV	DESCRIPTION	DATE	BY	TITLE: COVER SHEET AND CAMERA LOCATION MAP	PLANS PREPARED BY: <b>CHC</b> <small>A CONGRUEX COMPANY                  9095 Rio San Diego Dr. Ste 165                  San Diego, CA 92108-1694                  (949) 250-0004 / FAX (949) 250-0006</small>	PROJ#: 143279
					SCOPE OF WORK: WILL COUNTY, IL ALPR CAMERA INSTALLATION		DRAWN BY: PRITHPAL SINGH
							CHECKED BY: NARESH CHAND
							APPROVED BY: ERIC KRAVITZ
							DATE: 08/19/2022 SHEET: 1 OF 8

# GENERAL NOTES ,TRAFFIC DESIGN TABLES AND CAMERA LOCATION INFORMATION

1. TRAFFIC CONTROL PLAN SHALL CONFORM TO THE MOST CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (FHWA) AND STATE STANDARD PLANS.
2. NO LANE CLOSURES PERMITTED BEFORE 9:00AM AND AFTER 3:00PM.
3. ALL AFFECTED RESIDENTS, BUSINESSES, AGENCIES, AND SCHOOLS SHALL BE GIVEN A 72 HOURS NOTICE PRIOR TO THE START OF WORK AND THEIR ACCESS SHALL BE MAINTAINED AT ALL TIMES.
4. TEMPORARY NO PARKING SIGNS SHALL BE POSTED 48 HOURS PRIOR TO START OF WORK.

### SUGGESTED WORK ZONE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS **		
	A	B	C
L OR LOW VOLUME WAYS*	350 (100)	350 (100)	350 (100)
OTHER ROADWAYS*	500 (150)	500 (150)	500 (150)
WAYS AND EXPRESSWAYS*	1,000 (300)	1,500 (450)	2,640 (800)

### TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN.(15 m) 100 FT(30 m) MAX.
DOWNSTREAM TAPER	50 FT MIN.(15 m) 100 FT MAX.(30 m) PER LANE

### FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L) FEET	SPEED LIMIT (S)	TAPER LENGTH (L) Meters
0 MPH OR LESS	$L = \frac{WS^2}{60}$	60 KM/H OR LESS	$L = \frac{WS^2}{155}$
			WS

WHERE: L = TAPER LENGTH IN FEET (METERS)  
 W = WIDTH OF OFFSET IN FEET (METERS)  
 S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED IN MPH (KM/H)

CAMERA NO.	LOCATIONS			
	STREET	DIRECTION	LATITUDE LONGITUDE	POLE
11	PLAINFIELD-NAPERVILLE RD.	NORTHBOUND	41.68913650356223, -88.166115185596	NEW FLOCK POLE
12	HASSETT BLVD.	WESTBOUND	41.68153631655029, -88.16705998761424	NEW FLOCK POLE

	REV	DESCRIPTION	DATE	BY	TITLE: GENERAL NOTES AND CAMERA LOCATION INFORMATION	PLANS PREPARED BY:  A CONGRUEX COMPANY 9095 Rio San Diego Dr. Ste 165 San Diego, CA 92108-1694 (949) 250-0004 / FAX (949) 250-0006	PROJ#: 143279
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							DATE: 08/19/2022 SHEET: 2 OF 8

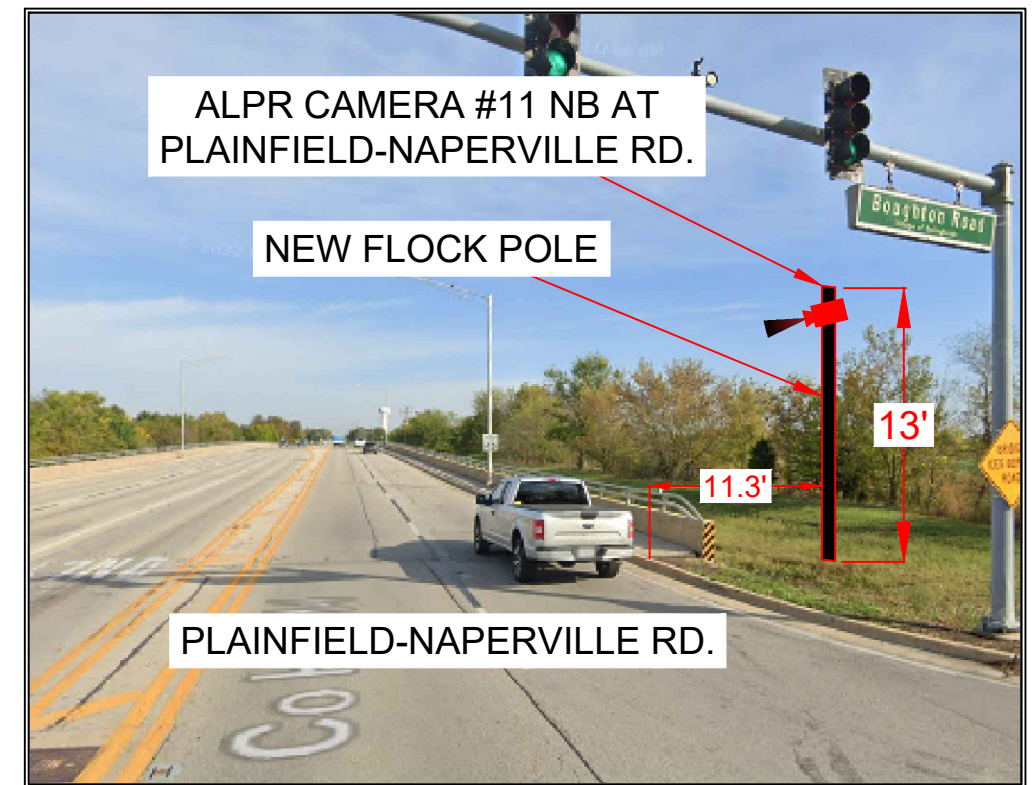
**SITE ADDRESS:**  
2023 BALDWIN WAY

# SITE PLAN

## AERIAL VIEW



## STREET VIEW



REV	DESCRIPTION	DATE	BY

TITLE:	SITE PLAN
SCOPE OF WORK:	WILL COUNTY, IL ALPR CAMERA INSTALLATION

PLANS PREPARED BY:  
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9095 Rio San Diego Dr. Ste 165  
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SHEET:	3 OF 8

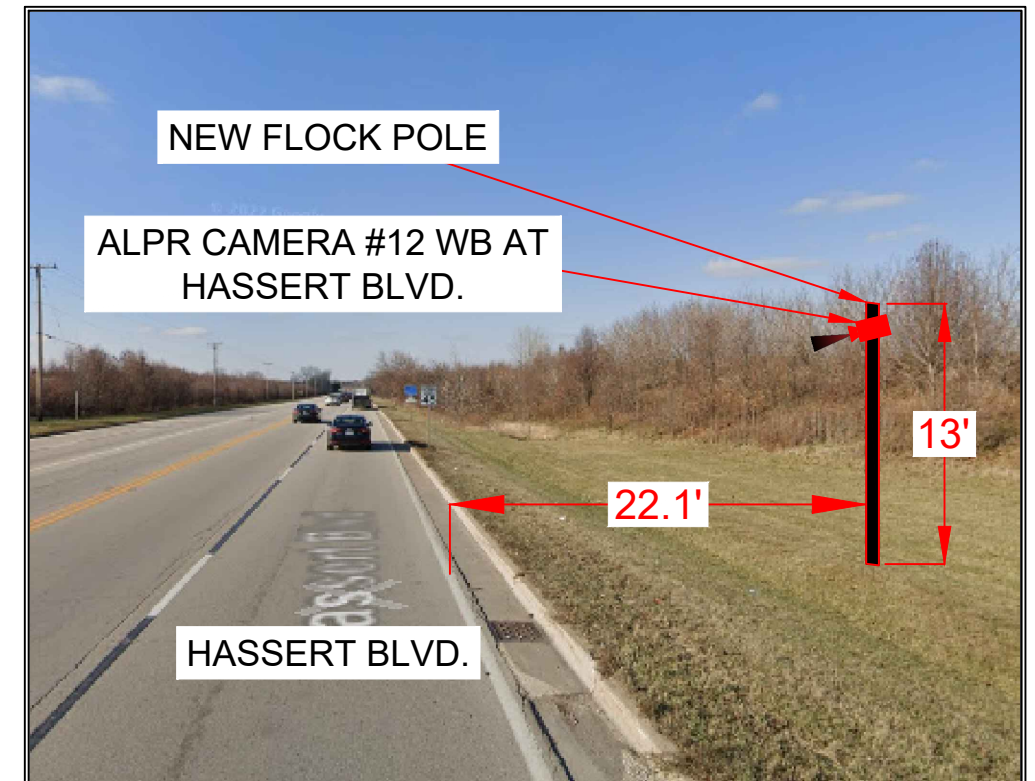
**SITE ADDRESS:**  
11128 ESSINGTON RD.

# SITE PLAN

## AERIAL VIEW



## STREET VIEW



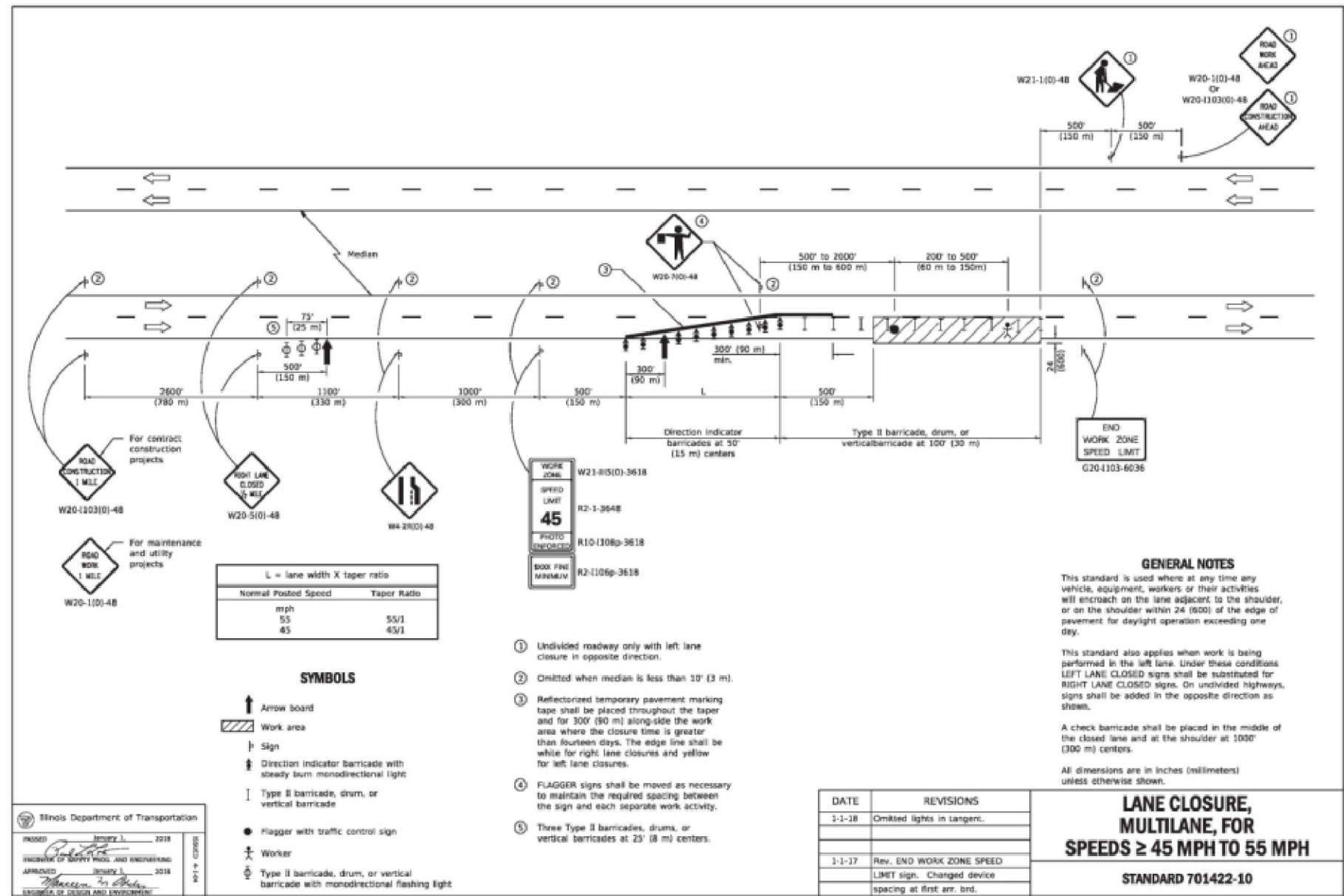
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SHEET:	4 OF 8



**TYPICAL APPLICATION APPLIES TO:**

**CAMERA #11 ON PLAINFIELD-NAPERVILLE RD. (NORTHBOUND) BETWEEN W BOUGHTON RD. AND 104TH ST.**

**CAMERA #12 ON HASSERT BLVD. (WESTBOUND) BETWEEN PLAINFIELD-NAPERVILLE RD. AND BOOK RD.**



REV	DESCRIPTION	DATE	BY

TITLE:	TRAFFIC CONTROL PLAN
SCOPE OF WORK:	WILL COUNTY, IL ALPR CAMERA INSTALLATION

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SHEET:	5 OF 8

**DESIGN NOTES:**

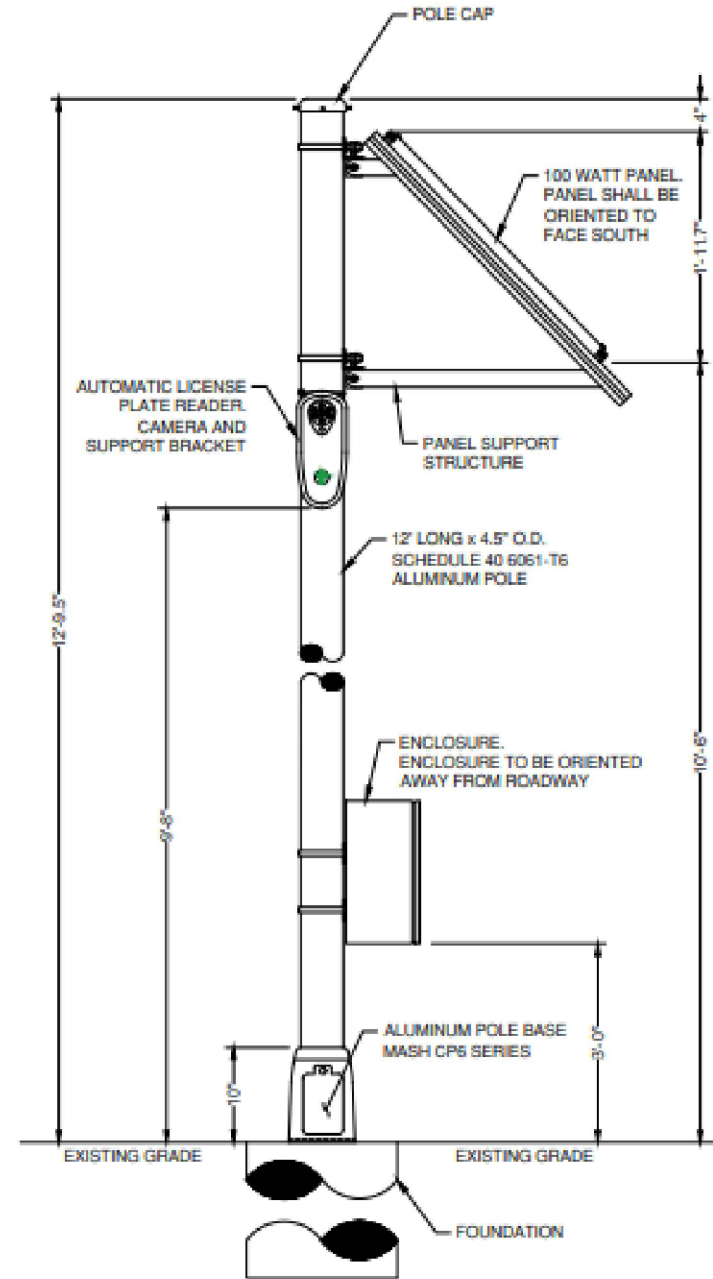
- POLE AND FOUNDATION DESIGNED PER AASTHO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 2015 EDITION WITH 2017, 2018 & 2019 INTERIMS.
- POLE DESIGN WIND SPEED IS 105 MPH BASED ON A 300-YEAR MRL.
- CONCRETE SHALL HAVE A MINIMUM 28-DAY DESIGN STRENGTH OF 3000 PSI, AND HAVE AT LEAST 505 POUNDS OF CEMENTITIOUS MATERIAL PER CUBIC YARD.
- PROVIDE A FLAT BEARING SURFACE ON TOP SURFACE ON TOP SHAFT BELOW THE POLE BASE. SLOPE TOP SURFACE OF CONCRETE SHAFT OUTSIDE OF POLE BASE TO DRAIN AWAY FROM POLE.
- DO NOT USE THIS DETAIL FOR SITES WHERE SOIL CONSISTS OF SOFT CLAY, PEAT OR ANY OTHER SOIL WHERE A SMALL DIAMETER REBAR (#5 OR SMALLER) OR METAL PROBE PENETRATES EASILY TO 6" OR MORE OF DEPTH WHEN THE FULL WEIGHT OF A PERSON IS APPLIED.

**GENERAL & CONSTRUCTION NOTES**

- CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT DESIGNATED AGENCY TO LOCATE ALL UNDERGROUND UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE TO APPLY AND OBTAIN AN APPROVED TRAFFIC CONTROL PLAN IN ACCORDANCE WITH MUTCD AND LOCAL STANDARDS AS REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITION TO STATE DEPARTMENT OF TRANSPORTATION AND LOCAL AGENCY SATISFACTION AT NO ADDITIONAL COMPENSATION.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE ELECTRICAL CODES EXCEPT WHEN STATE DEPARTMENT OF TRANSPORTATION AND LOCAL AGENCY STANDARDS SUPERSEDE.
- CONNECT POLE TO SOLID BARE BOND GROUND & GROUNDING ROD (OR COIL 25' OF NO. 6 BARE COPPER) IN POLE FOUNDATION & TO SYSTEM GROUND BONDED BACK TO FLOCK SAFETY CABINET.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION AND LOCAL AGENCY SPECIFICATIONS UNLESS SPECIFICALLY STATED OR SHOWN OTHERWISE HEREIN.

**ADA COMPLIANCE NOTES:**

- ALL SIDEWALK CONSTRUCTION SHALL BE IN ACCORDANCE WITH ADA TITLE II AND ALL STATE DEPARTMENT OF TRANSPORTATION AND LOCAL STANDARDS.
- USE STATE DEPARTMENT OF TRANSPORTATION CURRENT EDITION STANDARDS FOR PEDESTRIAN CONTROL PLANS FOR CLOSURE OF SIDEWALK.
- MINIMUM SIDEWALK CLEAR PEDESTRIAN ACCESS ROUTE (PAR) IS 48" WIDE.
- NO OBSTRUCTION IS PERMITTED ALONG THE WIDTH OF THE SIDEWALK UP TO 7'-0" IN HEIGHT.



**DETAIL "A"**  
**100 WATT SYSTEM ASSEMBLY**  
 12' LONG x 4.5" O.D. SCHEDULE 40  
 (6061 T6 ALUMINUM)



DATE	DESCRIPTION
10/01/2021	1ST SUBMITTAL

**flock safety**  
 ILLINOIS STANDARD DETAILS  
 AUTOMATIC LICENSE PLATE READER  
 100 WATT SYSTEM

**GENERAL NOTES & POLE ASSEMBLY DETAIL**

SHEET NUMBER  
**2**  
 OF 4 SHEETS



REV	DESCRIPTION	DATE	BY

TITLE: **POLE DETAILS**

SCOPE OF WORK: **WILL COUNTY, IL  
 ALPR CAMERA INSTALLATION**

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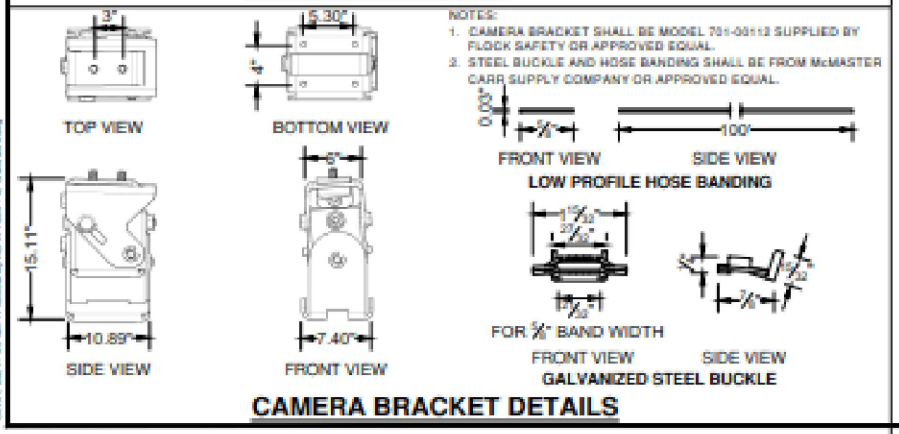
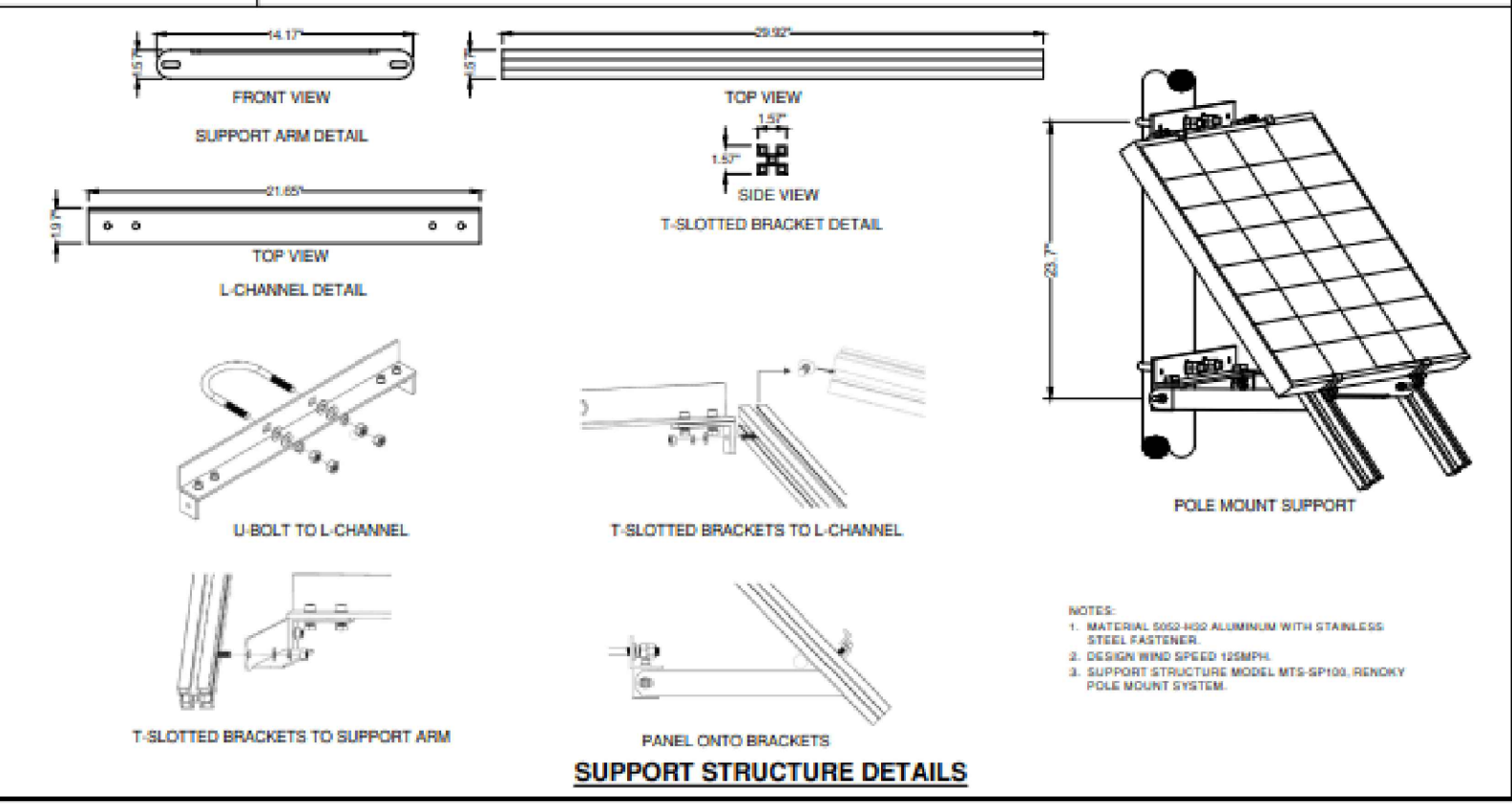
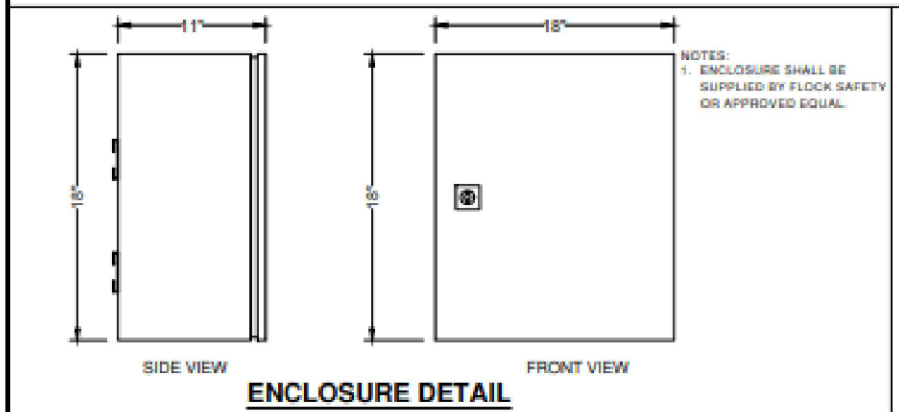
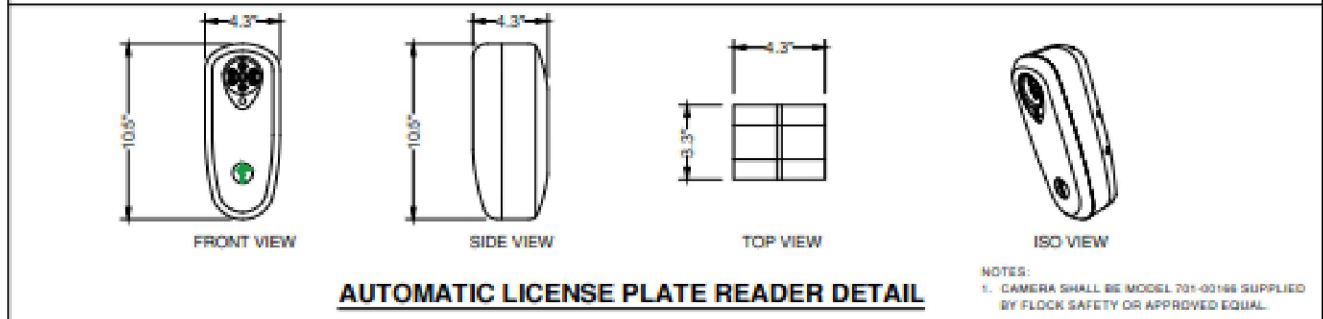
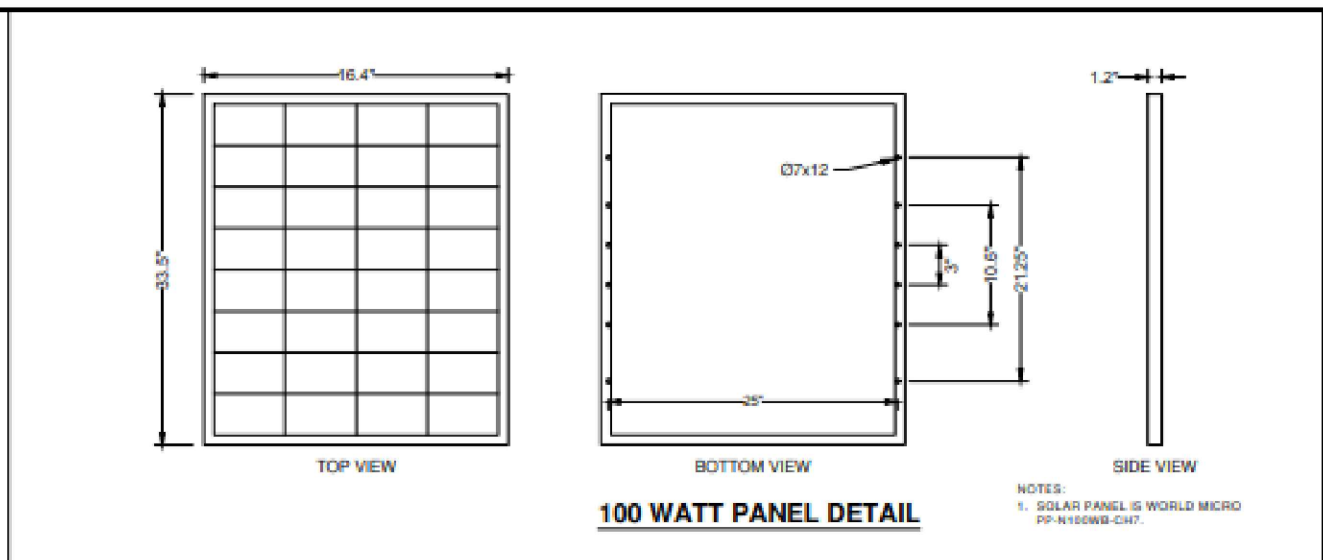
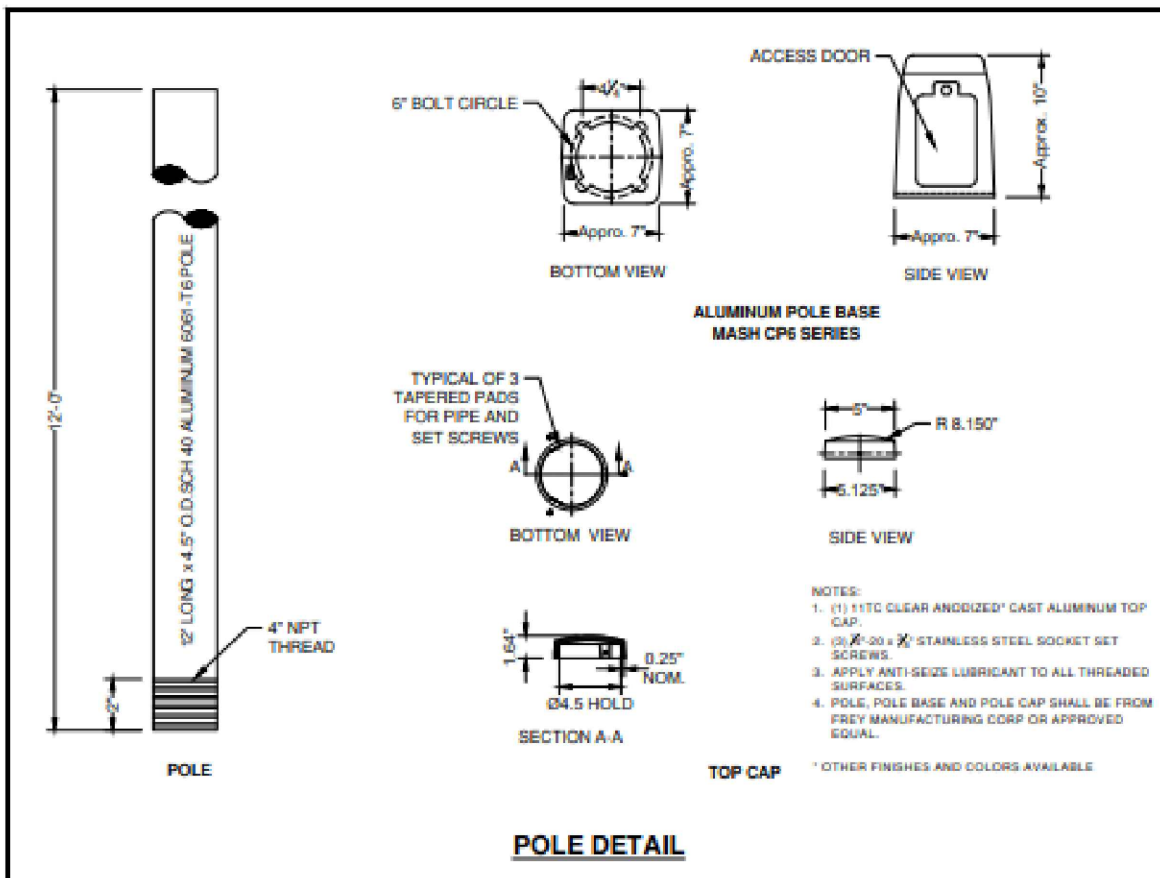
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APPROVED BY: ERIC KRAVITZ

DATE: 08/19/2022 SHEET: 6 OF 8



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**REDS**

COMPACT

ROBERT & ANTONIO

DATE: 10-01-21

DATE: 10-01-2021

DESCRIPTION: BEST SUBMITTAL

DETAIL: A

**flock safety**

ILLINOIS STANDARD DETAILS

AUTOMATIC LICENSE PLATE READER

100 WATT SYSTEM

**EQUIPMENT DETAILS**

SHEET NUMBER: 3

OF 4 SHEETS



REV	DESCRIPTION	DATE	BY	TITLE:
				POLE DETAILS
				SCOPE OF WORK:
				WILL COUNTY, IL
				ALPR CAMERA INSTALLATION

PLANS PREPARED BY:

**CHC**

A CONGRUEX COMPANY

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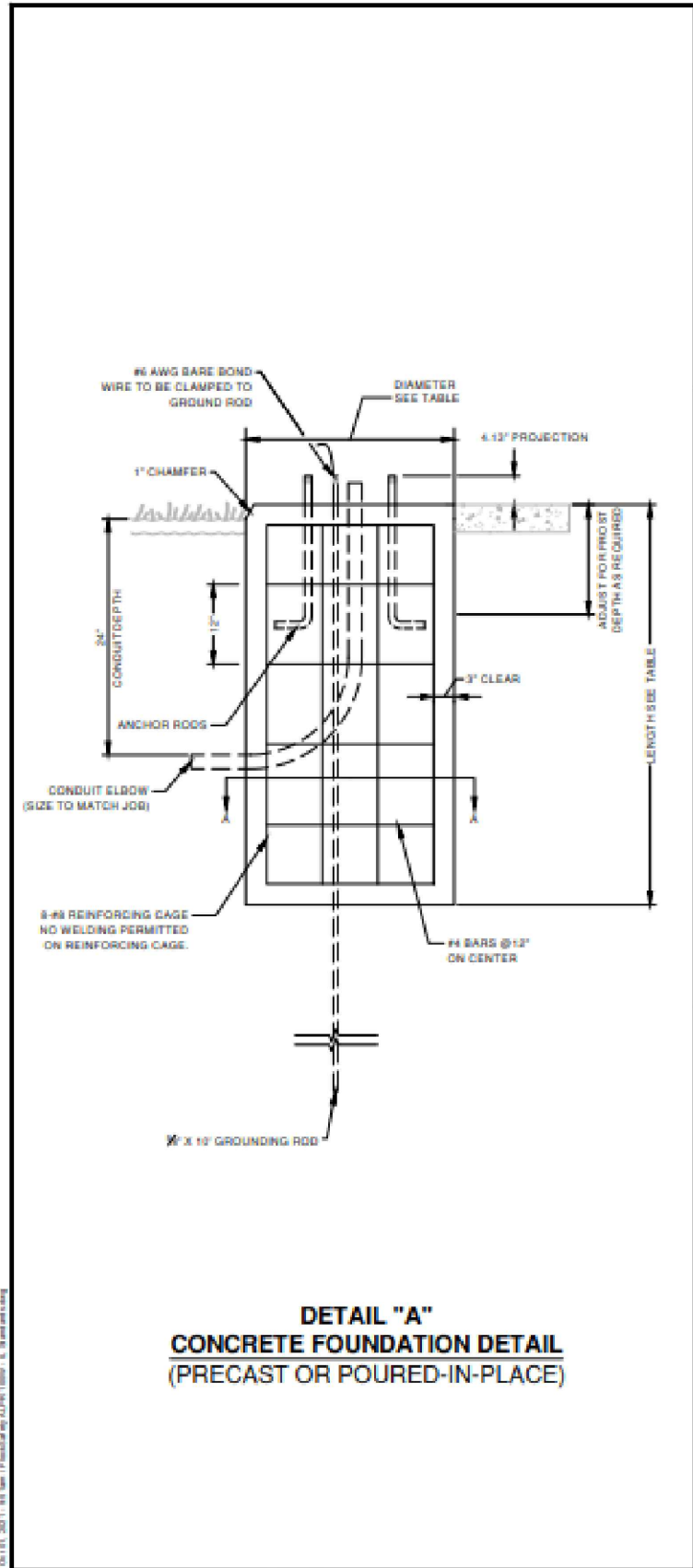
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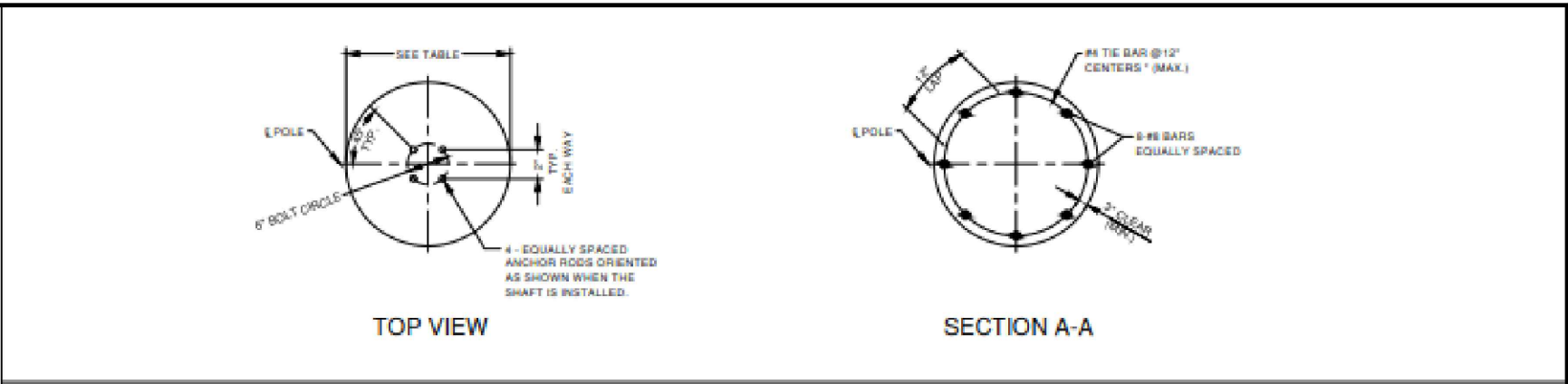
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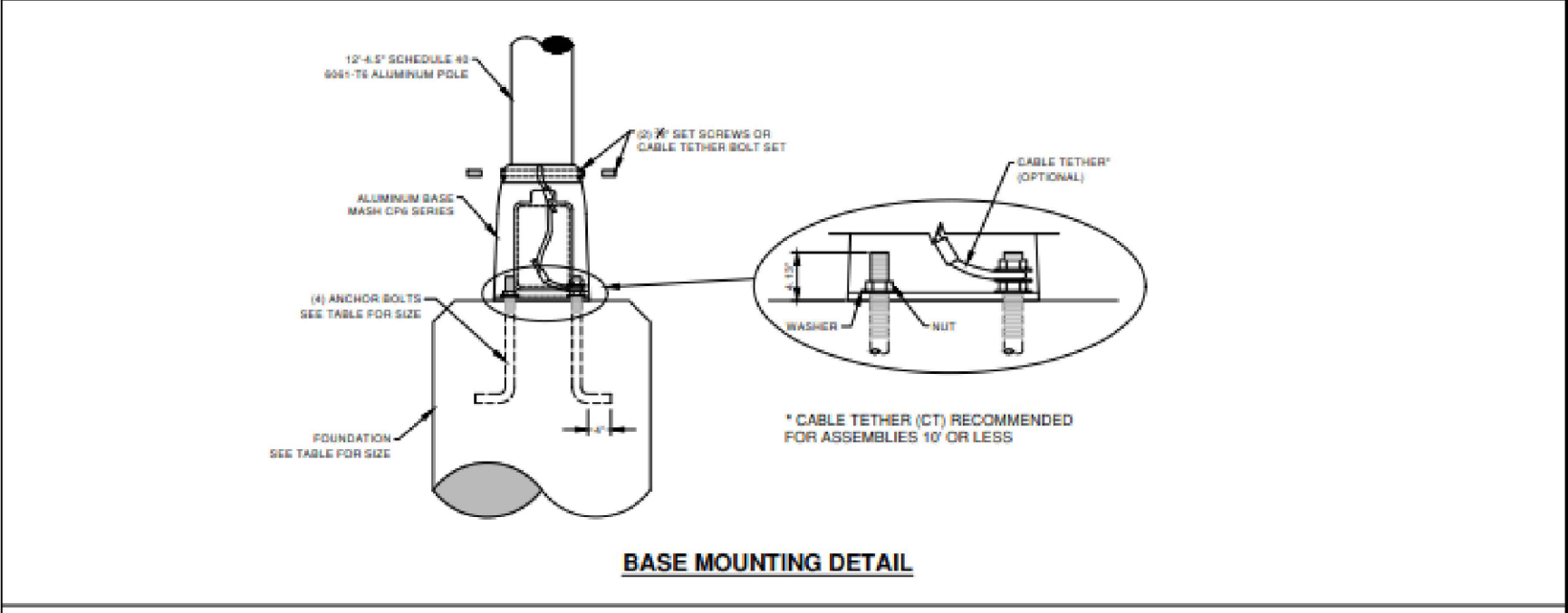


**DETAIL "A"**  
**CONCRETE FOUNDATION DETAIL**  
(PRECAST OR POURED-IN-PLACE)



**TOP VIEW**

**SECTION A-A**



**BASE MOUNTING DETAIL**

**FOUNDATION NOTES:**

1. CONCRETE: CLASS I WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
2. REINFORCING STEEL: ASTM A615, GRADE 60.
3. ANCHOR RODS:
  - A. RODS: ASTM F1554, GRADE 55
  - B. NUTS: ASTM A563
  - C. WASHERS: ASTM F436
  - D. GALVANIZE ALL ITEMS IN ACCORDANCE WITH ASTM F2329.
4. FOR PRECAST CONCRETE FOUNDATIONS, FILL THE VOID AROUND THE FOUNDATION WITH FLOWABLE FILL OR CLEAN SANDS USING HYDRAULIC METHODS TO A LEVEL 6 INCHES BELOW GRADE.
5. AFTER THE POLE IS SET IN FINAL POSITION AND ALIGNMENT, APPLY A COAT OF ZINC-RICH PAINT TO THE ANCHOR ROD THREADS AND NUTS TO SEAL THE JOINT BETWEEN THE NUT AND ANCHOR ROD.
6. WHERE FOUNDATION ABUTS THE SIDEWALK, THE TOP OF THE FOUNDATION SHALL BE LEVEL WITH THE SIDEWALK. FOR ALL OTHER CASES, THE TOP OF THE FOUNDATION SHALL NOT BE MORE THAN 3 INCHES ABOVE GRADE.

**FOUNDATION DESIGN NOTES:**

1. DESIGN CRITERIA:
  - A. AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (LRFDLTS-1) AND STATE DEPARTMENT OF TRANSPORTATION STRUCTURES MANUAL (CURRENT EDITION).
2. DESIGN WIND SPEED: 105 MPH
3. THE FOLLOWING SOIL PROPERTIES WERE ASSUMED FOR THE FOUNDATION DESIGN. IF THE ENCOUNTERED SOIL CONDITIONS DO NOT MEET THESE ASSUMED SOIL PARAMETERS, THEN A SPECIAL FOUNDATION MUST BE DESIGNED.
  - A. SUBMERGED UNIT WEIGHT: 62.5 PCF
  - B. INTERNAL ANGLE OF FRICTION: 32 DEGREES

POLE TYPE	WIND SPEED	POLE HEIGHT	FOUNDATION			FOUNDATION REINFORCEMENT		ANCHOR RODS		
			DIAMETER	DEPTH	BOLT CIRCLE (B.C.)	VERTICAL	HORIZONTAL	DIA.	LENGTH	THREAD LENGTH (TOP)
LPR POLE ASSEMBLY	105 MPH	12'	1'-6"	4'-0"	6"	8 - NO. 8	NO. 4 @ 12" C-C	5/8"	16.00'	6"

\* MUST ALLOW FOR FROST DEPTH AS APPLICABLE BASED ON REGION OR LOCAL REQUIREMENTS.

**flock safety**  
ILLINOIS STANDARD DETAILS  
AUTOMATIC LICENSE PLATE READER  
100 WATT SYSTEM

**FOUNDATION DETAILS**

4  
OF 4 SHEETS



REV	DESCRIPTION	DATE	BY	TITLE:
				POLE DETAILS
				SCOPE OF WORK:
				WILL COUNTY, IL
				ALPR CAMERA INSTALLATION

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