

PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				URBAN			
				80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE	100% VILLAGE OF GLENVIEW
20200100	EARTH EXCAVATION	CU YD	265	265			
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	266	266			
25200110	SODDING, SALT TOLERANT	SQ YD	266	266			
25200200	SUPPLEMENTAL WATERING	UNIT	13	13			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	75	75			
28000510	INLET FILTERS	EACH	19	19			
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	920	920			
35101400	AGGREGATE BASE COURSE, TYPE B	TON	87	87			
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	886	886			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	41,777	41,777			
40600370	LONGITUDINAL JOINT SEALANT	FOOT	49,504	49,504			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	139	139			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	599	599			
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	403	403			
40603080	HOT-MIX ASPHALT BINDER COURSE, IL- 19.0, N50	TON	16	16			
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	4	4			
40605026	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80	TON	9,103	9,103			
42001300	PROTECTIVE COAT	SQ YD	2,866	2,866			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	8,640 8,667	8,640 8,667			⚠
42400800	DETECTABLE WARNINGS	SQ FT	1,054	1,054			
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	91,247	91,247			
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	35	35			
44000600	SIDEWALK REMOVAL	SQ FT	7,921	7,921			
44002206	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 1 1/2"	SQ YD	4,797	4,797			

* = SPECIALTY ITEM

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⚠ REVISED SHEET 2/14/2023

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USER NAME = APatterson	DESIGNED - MLD	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - MLD	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 12/08/2022	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
WILLOW ROAD (LANDWEHR RD TO WAUKEGAN RD)**

SCALE: NTS

STA.

TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	3
CONTRACT NO. 62N80			ILLINOIS FED. AID PROJECT	

PAY ITEM NUMBER	DESIGNATION	UNIT	CONSTRUCTION CODE					
			URBAN		0005		0021	
			TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE	100% VILLAGE OF GLENVIEW	
44003100	MEDIAN REMOVAL	SQ FT	16,002 14,244	16,002 14,244	1			
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SQ FT	850	850				
44200050	WELDED WIRE REINFORCEMENT	SQ YD	520	520				
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SQ YD	560	560				
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SQ YD	400	400				
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SQ YD	120	120				
44201299	DOWEL BARS 1 1/2"	EACH	1,860	1,860				
44201777	CLASS D PATCHES, TYPE II, 11 INCH	SQ YD	50	50				
44201781	CLASS D PATCHES, TYPE III, 11 INCH	SQ YD	100	100				
44201783	CLASS D PATCHES, TYPE IV, 11 INCH	SQ YD	4,647	4,647				
44213200	SAW CUTS	FOOT	4,968	4,968				
44213204	TIE BARS 3/4"	EACH	45	45				
45200100	JOINT OR CRACK ROUTING (PC CONCRETE PAVEMENT AND SHOULDER)	FOOT	8,356	8,356				
45200300	JOINT OR CRACK FILLING	POUND	2,630	2,630				
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	16	16				
60260100	INLETS TO BE ADJUSTED	EACH	2	2				
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	28	28				
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SQ FT	1,466	1,466				
60622400	CONCRETE MEDIAN, TYPE SM-6.06	SQ FT	1,939 486	1,939 486	1			
60622800	CONCRETE MEDIAN, TYPE SM-6.12	SQ FT	706 67	706 67				
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	50.0	50.0				
63301990	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 1	EACH	3	3				
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	265	265				
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	10	10				
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1				

* = SPECIALTY ITEM

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	CHECKED - ACL	REVISED -
	DATE - 12/08/2022	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
WILLOW ROAD (LANDWEHR RD TO WAUKEGAN RD)**

SCALE: NTS

STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	4
CONTRACT NO. 62N80			ILLINOIS FED. AID PROJECT	

PAY ITEM NUMBER	DESIGNATION	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE			
				0005		0021	
				80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE	100% VILLAGE OF GLENVIEW
* 72400320	REMOVE SIGN PANEL - TYPE 2	SQ FT	315				315
* 72000100	TELESCOPING STEEL SIGN SUPPORT	FOOT	52	52			
* 70000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	2,417	2,417			
* 70000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	35,706	35,706			
* 70000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	5,043	5,043			
* 70000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1,003	1,003			
* 70000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	5,768	5,768			
* 70000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	863	863			
* 70003137	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7"	FOOT	1,256	1,256			
* 70009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	692	692			
* 70009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	5,135	5,135			
* 70009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	2,297	2,297			
* 70009008	MODIFIED URETHANE PAVEMENT MARKING - LINE 8"	FOOT	99	99			
* 70009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	994	994			
* 70009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	260	260			
* 70011040	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	1,256	1,256			
* 700100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1,100	1,100			
700300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1,100	1,100			
700300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	5,549	5,549			
* 01020200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	206 318		206 318		
* 05000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	7		7		
* 05100100	PAINT EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5			5	
* 05100500	PAINT NEW TRAFFIC SIGNAL POST	EACH	5			5	

* = SPECIALTY ITEM

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USER NAME = APatterson	DESIGNED - MLD	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - MLD	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 12/08/2022	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
WILLOW ROAD (LANDWEHR RD TO WAUKEGAN RD)**

SCALE: NTS STA. TO STA.


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305	2021-048-R5	COOK	61	6
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

1 REVISED SHEET 2/14/2023

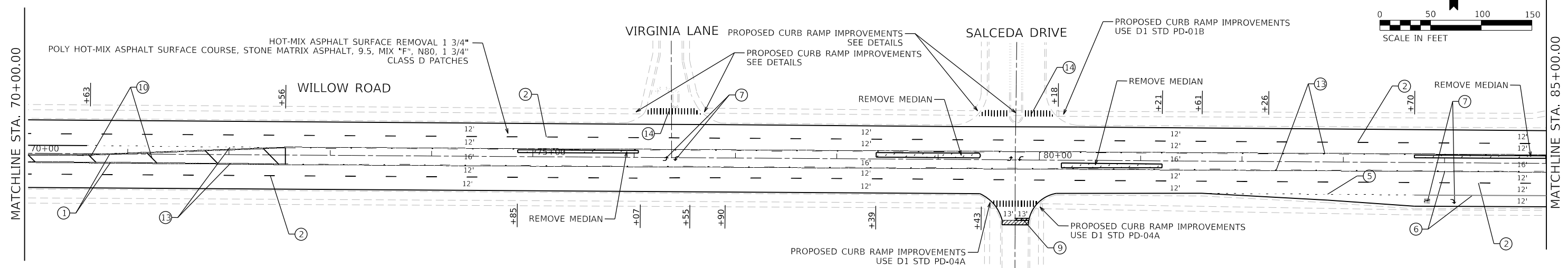
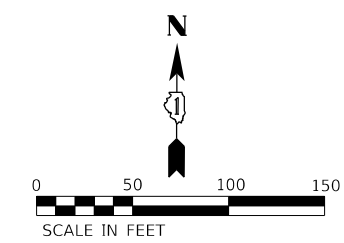
PAY ITEM NUMBER	DESIGNATION	UNIT	CONSTRUCTION CODE					
			URBAN		0005		0021	
			TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE	100% VILLAGE OF GLENVIEW	
* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	5,797 6,331			5,797 6,331		
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,843 2,403			1,843 2,403		
* 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	150			150		
87900200	DRILL EXISTING HANDHOLE	EACH	15			15		
* 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	14 12			14 12		
* 88600100	DETECTOR LOOP, TYPE I	FOOT	4,622			4,622		
* 89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3 5			3 5		
* 89502200	MODIFY EXISTING CONTROLLER	EACH	4			4		
* 9502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	153 320			153 320		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	7			7		
* 9502376	REBUILD EXISTING HANDHOLE	EACH	4			4		
X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1			1		
* X0327698	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	18				18	
* X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	15			15		
* X1400424	ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	3,600 4,953			3,600 4,953		
* X1400450	REBUILD EXISTING HEAVY-DUTY HANDHOLE	EACH	3			3		
X4400501	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT LESS THAN OR EQUAL TO 10 FEET	FOOT	4,435	4,435				
X4400503	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT GREATER THAN 10 FEET	FOOT	3,602	3,602				
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	600		600			
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	27	27				
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12				
* X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	54			54		
* X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	60			60		

* = SPECIALTY ITEM

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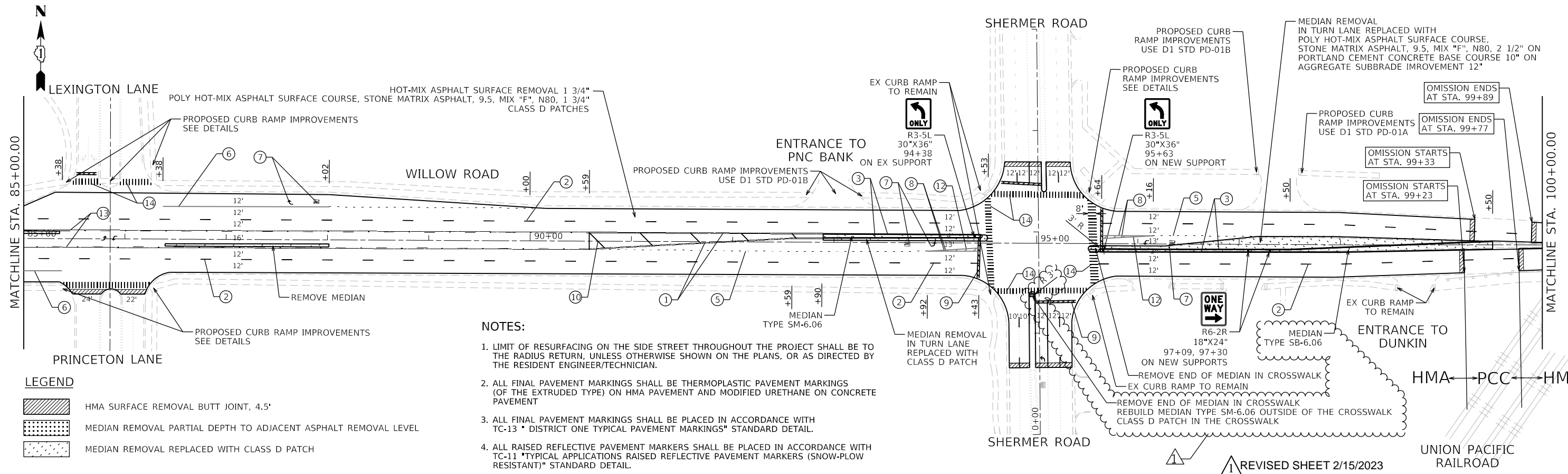
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 INFRASTRUCTURE ENGINEERING 1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9580 F 312.425.9584 www.infrastructure-eng.com	USER NAME = APatterson PLOT SCALE = 20.0000' / in.	DESIGNED - MLD DRAWN - MLD CHECKED - ACL DATE - 12/08/2022	REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES WILLOW ROAD (LANDWEHR RD TO WAUKEGAN RD)	F.A.P. RTE. 305 SECTION 2021-048-RS COUNTY COOK TOTAL SHEETS 61 SHEET NO. 7	CONTRACT NO. 62N80 ILLINOIS FED. AID PROJECT
	SCALE: NTS STA. TO STA.						



PAVEMENT MARKING LEGEND

- ① LINE 2 @ 4" SOLID YELLOW, 11" C-C - CENTERLINE (TYP)
- ② LINE 4", SKIP-DASH, WHITE (10' LINE - 30' SPACE) - LANE LINES (TYP)
- ③ LINE 4", SOLID, YELLOW - EDGE LINE (TYP)
- ④ LINE 4", SOLID WHITE - EDGE LINE (TYP)
- ⑤ LINE 6", SKIP-DASH, WHITE (2' LINE - 6' SPACE) - DOTTED LINES (TYP)
- ⑥ LINE 6", SOLID WHITE - TURN LANE MARKING (TYP)
- ⑦ LETTERS & SYMBOLS, WHITE - TURN LANE MARKINGS (TYP)
- ⑧ LINE 8", SOLID, WHITE - GORE MARKING AND CHANNELIZING LINES (TYP)
- ⑨ LINE 24", SOLID, WHITE - STOP LINES (TYP)
- ⑩ LINE 12", SOLID, YELLOW - PAINTED MEDIANS DIAGONALS (TYP) (SEE DISTRICT DETAIL TC-13 FOR SPACING)
- ⑪ LINE 12", SOLID, WHITE - SHOULDER DIAGONALS @ 45° (TYP) (SEE DISTRICT TC-13 FOR SPACING)
- ⑫ LINE 12", SOLID, WHITE - CHANNELIZATION LINES 45° (TYP) (SEE DISTRICT TC-13 FOR SPACING)
- ⑬ LINE 4", SOLID/SKIP-DASH, YELLOW (10' LINE - 30' SPACE) - PASSING LANE (TYP)
- ⑭ LINE 12", SOLID, WHITE - CONTINENTAL CROSSWALK (TYP)
- ⑮ PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7" (4" WHITE OVER 7" BLACK) ON GROOVING FOR RECESSED PAVEMENT MARKING 8"



NOTES:

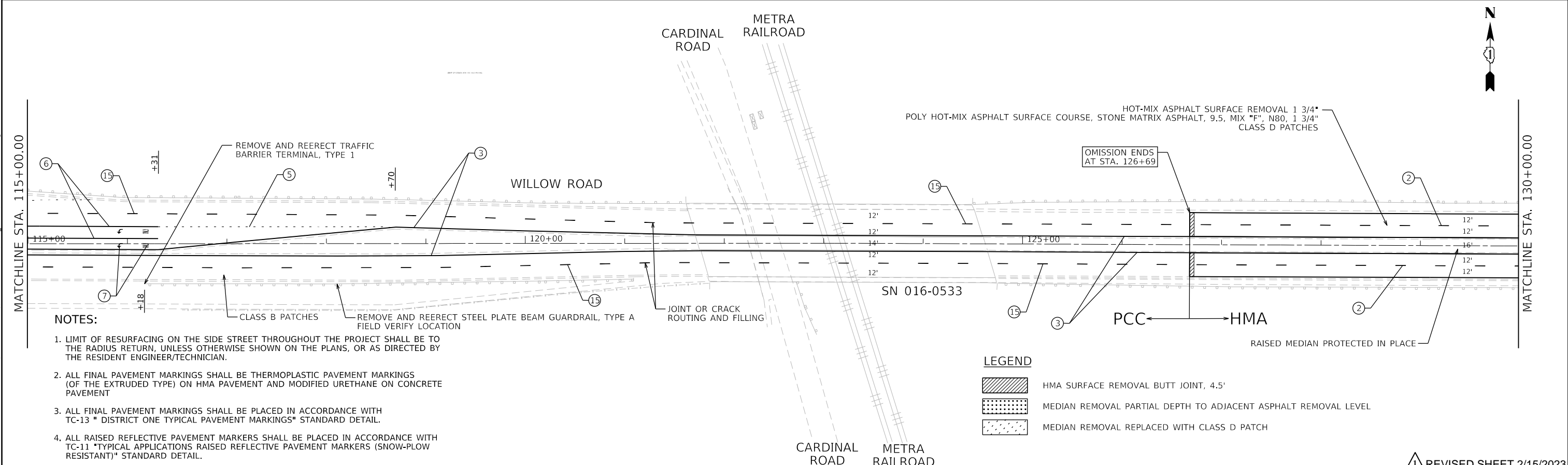
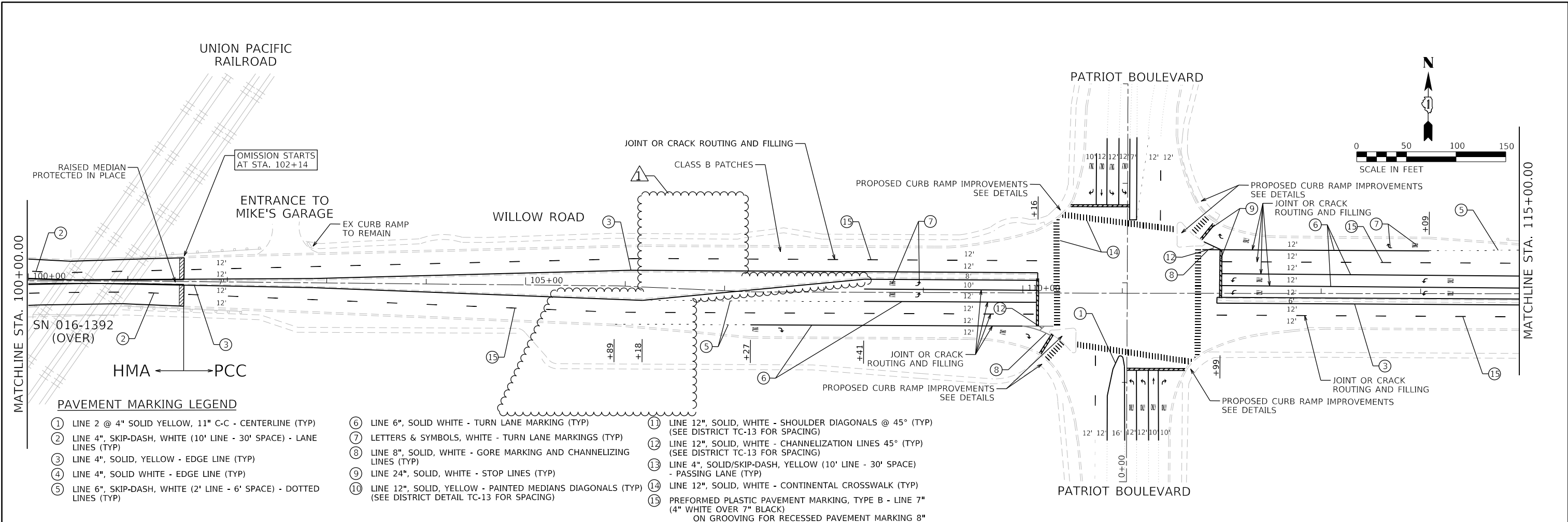
1. LIMIT OF RESURFACING ON THE SIDE STREET THROUGHOUT THE PROJECT SHALL BE TO THE RADIUS RETURN, UNLESS OTHERWISE SHOWN ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
2. ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PAVEMENT MARKINGS (OF THE EXTRUDED TYPE) ON HMA PAVEMENT AND MODIFIED URETHANE ON CONCRETE PAVEMENT
3. ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.
4. ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.

LEGEND

- HMA SURFACE REMOVAL BUTT JOINT, 4.5'
- MEDIAN REMOVAL PARTIAL DEPTH TO ADJACENT ASPHALT REMOVAL LEVEL
- MEDIAN REMOVAL REPLACED WITH CLASS D PATCH

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 INFRASTRUCTURE ENGINEERING 1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9569 F 312.425.9564 www.infrastructure-eng.com	USER NAME = ALane PLOT SCALE = 100,0000' / in.	DESIGNED - MLD DRAWN - MLD CHECKED - ACL DATE - 12/08/2022	REVISED - ACL 2/3/2023 REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLANS WILLOW ROAD (LANDWEHR RD TO WAUKEGAN RD)	SCALE: 1" = 50' STA. TO STA.	F.A.P. RTE. 305 SECTION 2021-048-R5 COUNTY COOK TOTAL SHEETS 61 SHEET NO. 13 CONTRACT NO. 62N80	ILLINOIS FED. AID PROJECT
	REVISIONS: 1 REVISED SHEET 2/15/2023							



- NOTES:**
- LIMIT OF RESURFACING ON THE SIDE STREET THROUGHOUT THE PROJECT SHALL BE TO THE RADIUS RETURN, UNLESS OTHERWISE SHOWN ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
 - ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PAVEMENT MARKINGS (OF THE EXTRUDED TYPE) ON HMA PAVEMENT AND MODIFIED URETHANE ON CONCRETE PAVEMENT
 - ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.
 - ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.

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 DATE: 12/08/2022

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		CHECKED - ACL	REVISED -
		DATE - 12/08/2022	

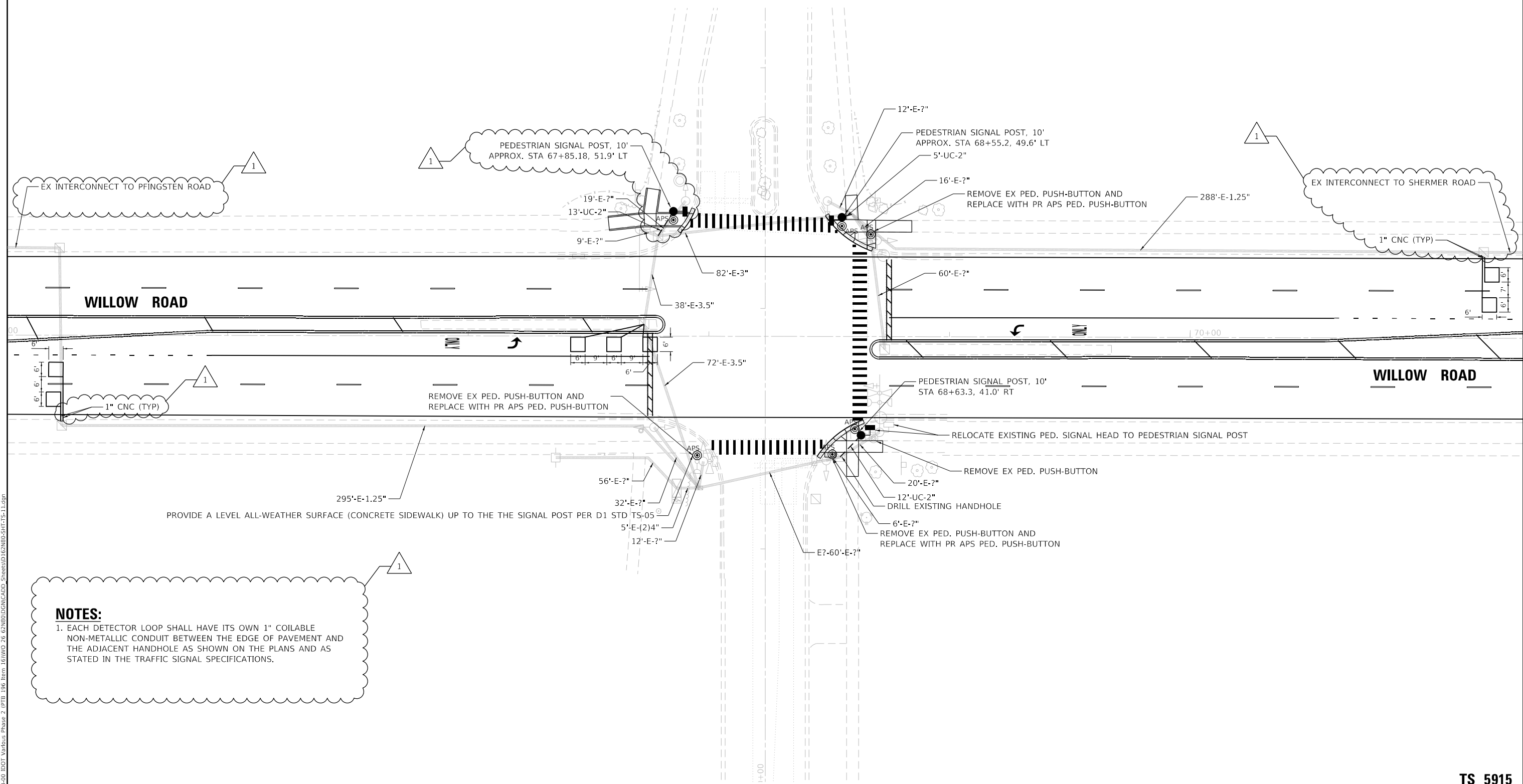
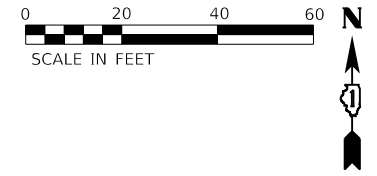
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY AND PAVEMENT MARKING PLANS
WILLOW ROAD (LANDWEHR RD TO WAUKEGAN RD)

F.A.P. RTE. 305	SECTION 2021-048-R5	COUNTY COOK	TOTAL SHEETS 61	SHEET NO. 14
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

SCALE: 1" = 50' STA. TO STA.

REVISED SHEET 2/15/2023



NOTES:
 1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

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**TS 5915
 ECON 83**

1 REVISED SHEET 2/15/2023

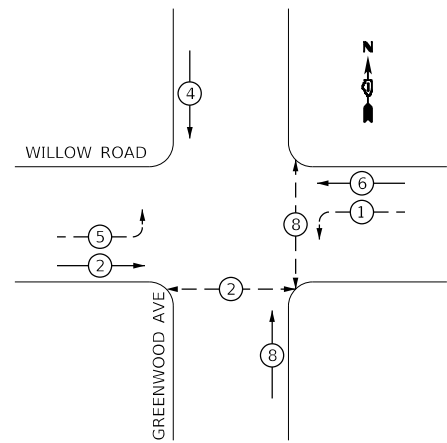
INFRASTRUCTURE ENGINEERING <small>1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9569 F 312.425.9564 www.infrastructure-eng.com</small>	USER NAME = notte	DESIGNED - NFO	REVISED - 1 NFO 2/8/2023
	PLOT SCALE = 40.0000' / in.	DRAWN - NFO	REVISED -
		CHECKED - ACL	REVISED -
		DATE - 12/08/2022	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 WILLOW ROAD AND GREENWOOD ROAD**
 SCALE: 1" = 20' STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	37
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

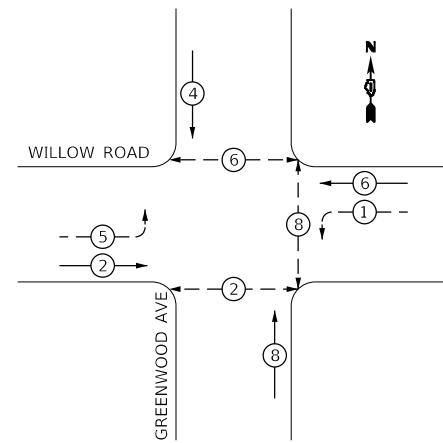
EXISTING CONTROLLER SEQUENCE



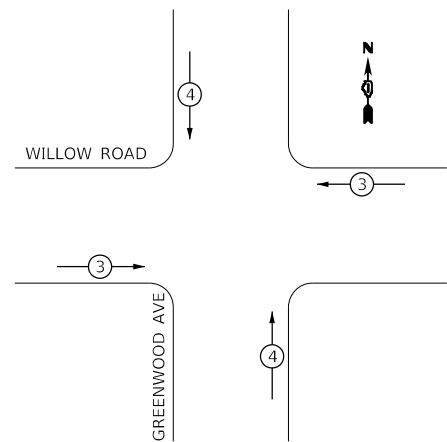
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED CONTROLLER SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	17	0.50	119.0
(YELLOW)	14	25	0.25	87.5
(GREEN)	14	15	0.25	52.5
PERMISSIVE ARROW	8	12	0.10	9.6
PED. SIGNAL	6	25	1.00	150.0
CONTROLLER	1	100	1.00	100.0
UPS	1	25	1.00	25.0
VIDEO SYSTEM		150	1.00	
BLANK-OUT SIGN		25	0.05	
FLASHER			0.50	
STREET NAME SIGN		120	0.50	
LUMINAIRE				
TOTAL =				543.6

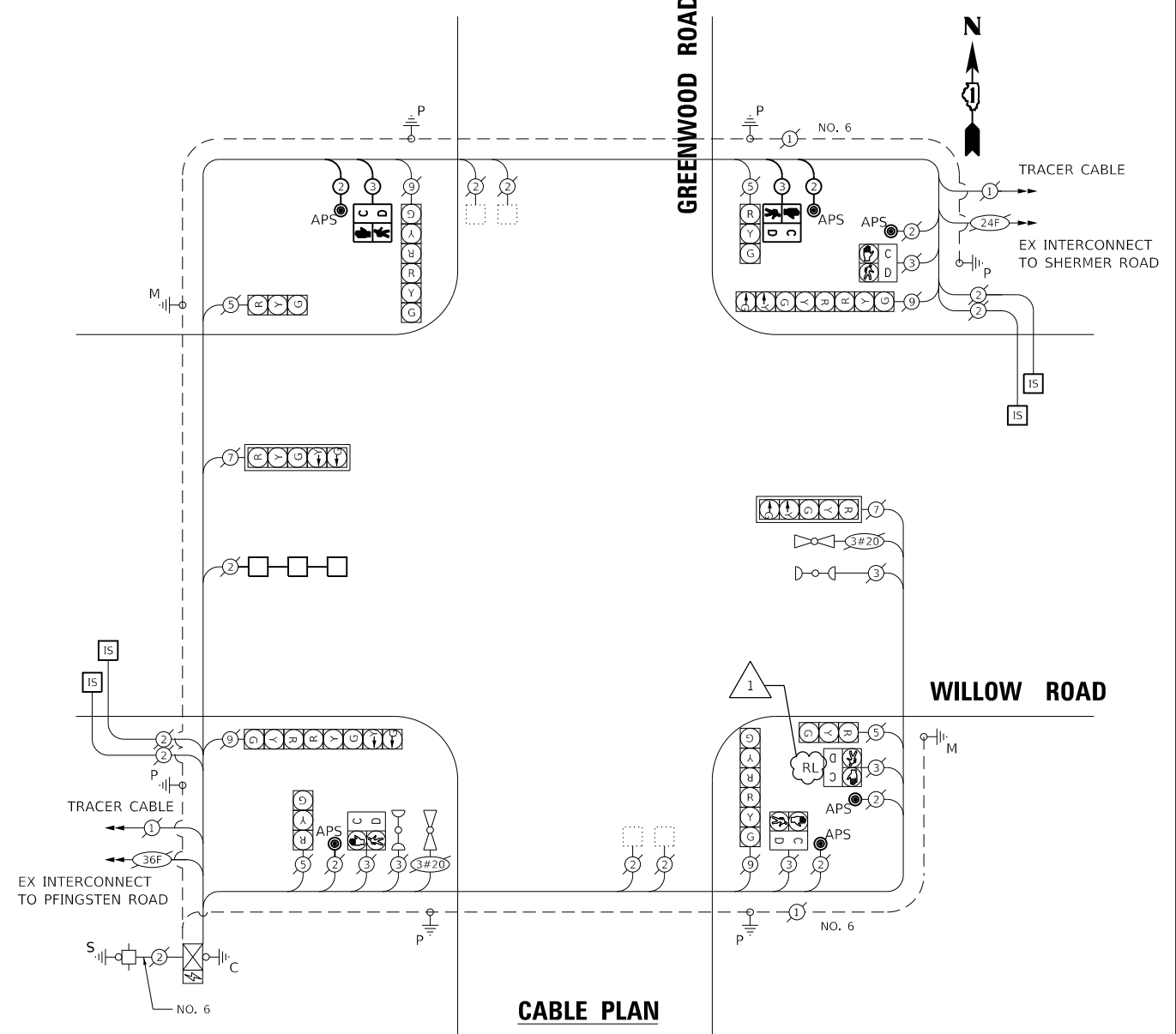
ENERGY COSTS TO:
VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062
 ENERGY SUPPLY: CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY: COMED
 ACCOUNT NUMBER: _____

INFRASTRUCTURE ENGINEERING INCORPORATED
 1 South Wacker | Suite 2650 | Chicago, IL 60606
 P 312.425.9569 | F 312.425.9568 | www.infrastructure-eng.com

USER NAME = notte
 DESIGNED - NFO
 DRAWN - NFO
 CHECKED - ACL
 DATE - 12/08/2022

REVISED - NFO 2/8/2023
 REVISED -
 REVISED -

PLOT SCALE = 2,0000' / in.



SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	3
REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	4
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	31
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	442
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	430
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	30
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	6
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	12
DRILL EXISTING HANDHOLE	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, POST MOUNTED WITH COUNTDOWN TIMER	EACH	2
DETECTOR LOOP, TYPE I	FOOT	252
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	68
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

**TS 5915
 ECON 83**

REVISED SHEET 2/15/2023

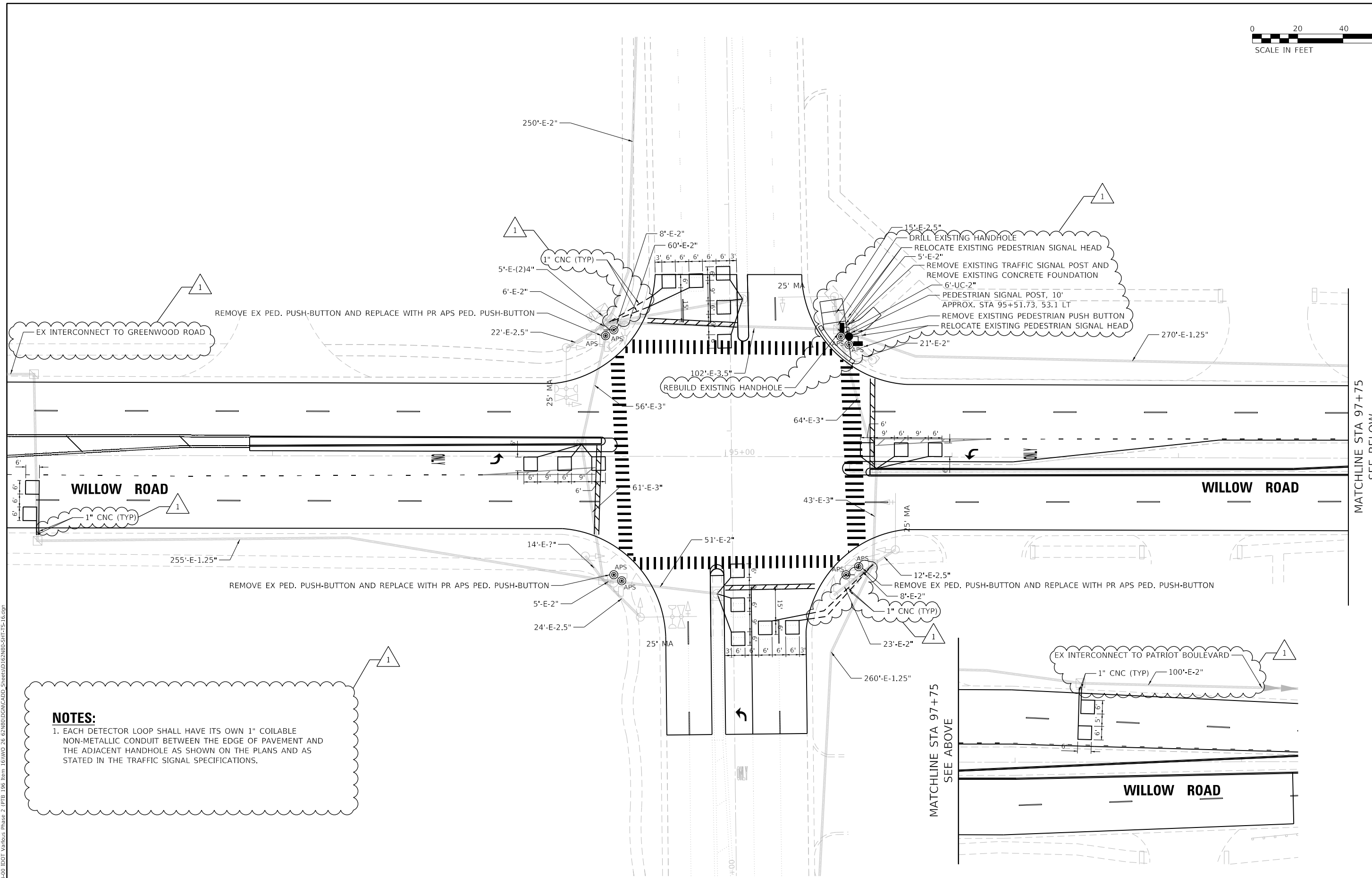
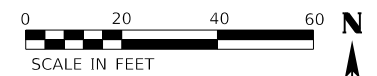
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DIAGRAM, AND
 EVP SEQUENCE | WILLOW ROAD & GREENWOOD ROAD**

SCALE: NTS TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	38
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

MODEL: D:\p4\it...
 FILE NAME: P:\2020\2020-0409-400 IDOT Various Phase 2 (RTE 106 from 161WV0_26 62N80)DCM\CADD Sheets\62N80-SHT-TS-12.dgn



MATCHLINE STA 97+75
SEE BELOW

MATCHLINE STA 97+75
SEE ABOVE

NOTES:
1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

SHERMER ROAD

WILLOW ROAD

**TS 5770
ECON 83**

REVISIED SHEET 2/15/2023

MODEL: D:\dgn\11...
FILE NAME: P:\2020\20-0494-00 IDOT Various Phase 2 (TPEL 106 Item 16)NO.26 62N80\DC\DCADD Streets\1162N80-SHT-TS-16.dgn

<p>INFRASTRUCTURE ENGINEERING 1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9569 F 312.425.9568 www.infrastructure-eng.com</p>	USER NAME = notte	DESIGNED - NFO	REVISED - NFO 2/8/2023
	PLOT SCALE = 40.0000 ' / in.	DRAWN - NFO	REVISED -
		CHECKED - ACL	REVISED -
		DATE - 12/08/2022	

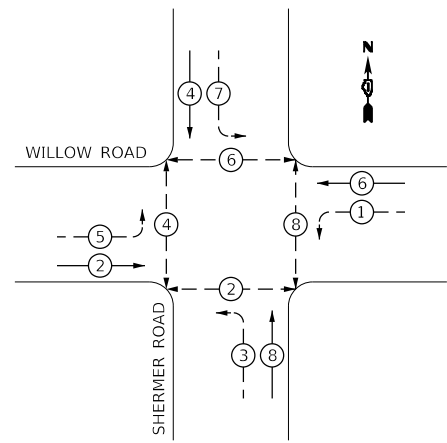
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
WILLOW ROAD AND SHERMER ROAD**

SCALE: 1" = 20' STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	39
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

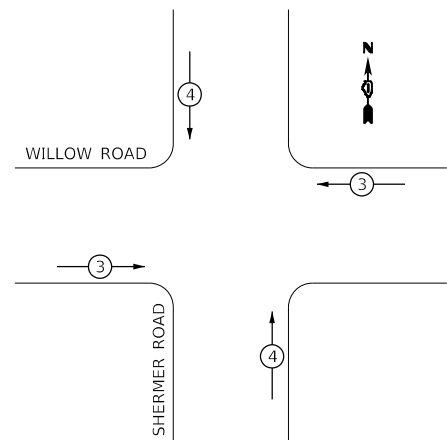
EXISTING CONTROLLER SEQUENCE



LEGEND:

- ← (circle with arrow) PROTECTED PHASE
- ← (circle with arrow and dashed line) PROTECTED/PERMITTED PHASE
- ← (circle with arrow and pedestrian symbol) PEDESTRIAN PHASE
- ← (circle with arrow and OL) OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50	102.0
(YELLOW)	12	25	0.25	75.0
(GREEN)	12	15	0.25	45.0
PERMISSIVE ARROW	16	12	0.10	19.2
PED. SIGNAL	8	25	1.00	200.0
CONTROLLER	1	100	1.00	100.0
UPS	1	25	1.00	25.0
VIDEO SYSTEM		150	1.00	
BLANK-OUT SIGN		25	0.05	
FLASHER			0.50	
STREET NAME SIGN		120	0.50	
LUMINAIRE				
TOTAL =				566.2

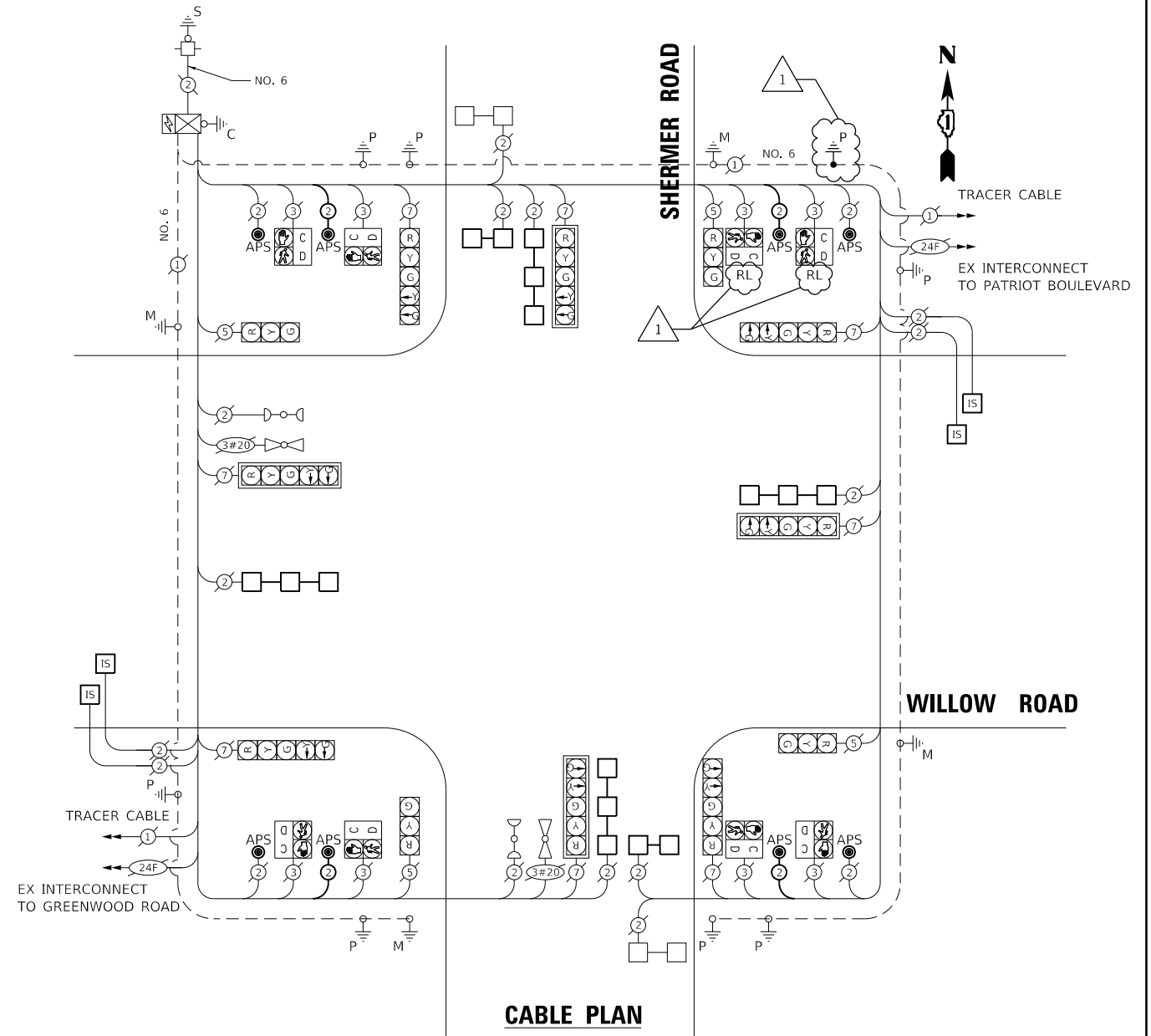
ENERGY COSTS TO:
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: _____
 PHONE: _____
 COMPANY: COMED
 ACCOUNT NUMBER: _____

INFRASTRUCTURE ENGINEERING INCORPORATED
 1 South Wacker | Suite 2650 | Chicago, IL 60606
 P 312.425.9569 | F 312.425.9568 | www.infrastructure-eng.com

DESIGNED - NFO	REVISED - NFO 2/8/2023
DRAWN - NFO	REVISED -
CHECKED - ACL	REVISED -
DATE - 12/08/2022	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DIAGRAM, AND EVP SEQUENCE | WILLOW ROAD & SHERMER ROAD



SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
1 PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
1 REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	4
1 UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	6
1 MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
1 ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	675
1 ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	11
1 ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
1 CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	4
1 DRILL EXISTING HANDHOLE	EACH	1
1 DETECTOR LOOP, TYPE 1	FOOT	715
1 RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
1 REMOVE EXISTING TRAFFIC SIGNAL POST	EACH	1
1 REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	36
1 REBUILD EXISTING HANDHOLE	EACH	1
1 REMOVE EXISTING CONCRETE FOUNDATION	EACH	1

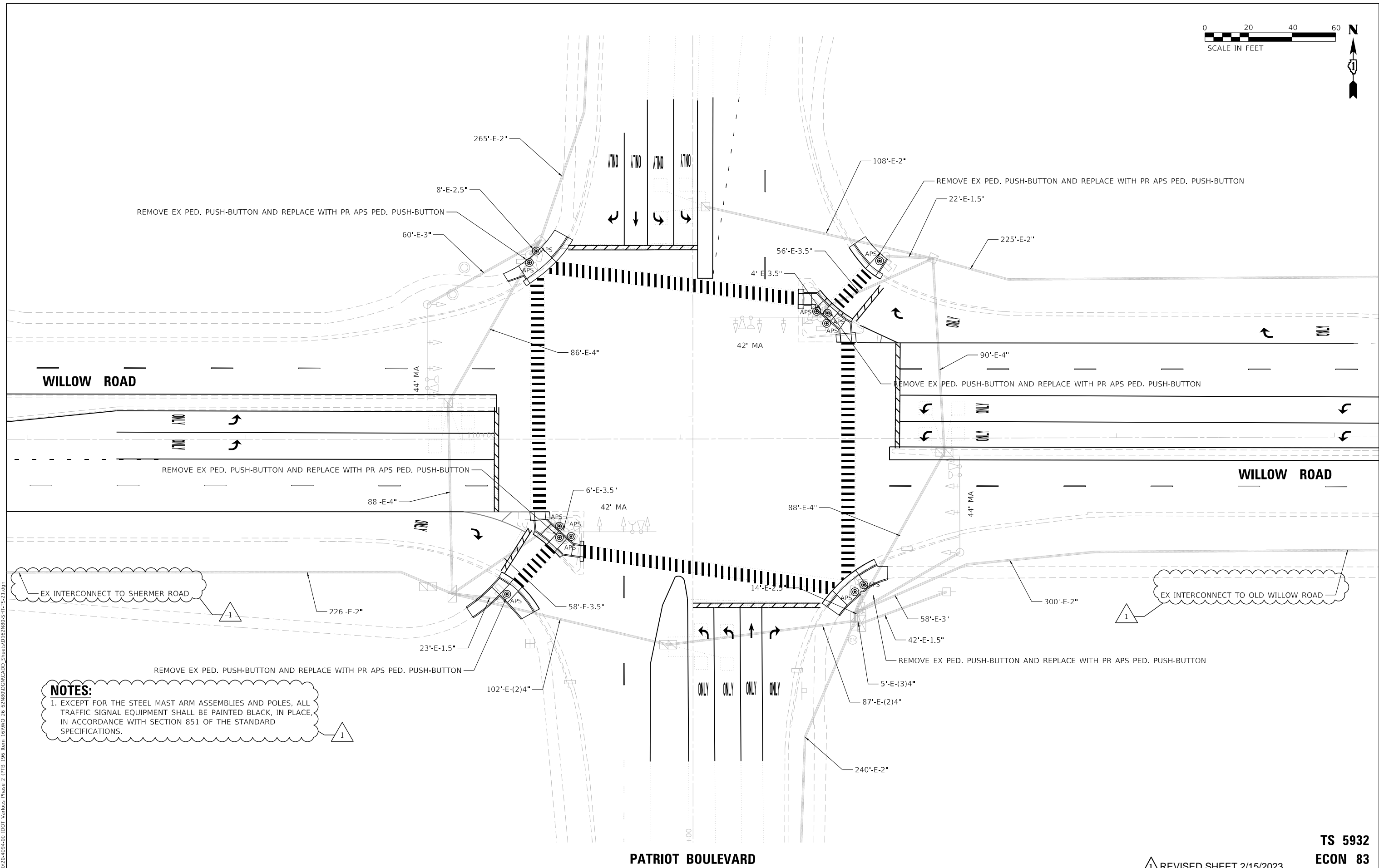
**TS 5770
ECON 83**

1 REVISED SHEET 2/15/2023

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	40
CONTRACT NO. 62N80				
		ILLINOIS	FED. AID PROJECT	

SCALE: NTS

STA. TO STA.



NOTES:
 1. EXCEPT FOR THE STEEL MAST ARM ASSEMBLIES AND POLES, ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE PAINTED BLACK, IN PLACE, IN ACCORDANCE WITH SECTION 851 OF THE STANDARD SPECIFICATIONS.

PATRIOT BOULEVARD

**TS 5932
 ECON 83**

1 REVISED SHEET 2/15/2023

MODEL: D:\dxf\11...
 FILE NAME: P:\2020\2020-04-04-00 IDOT Various Phase 2 (PTB)_106 Item 16\WVO_26_62N80\DC\DCADD Streets\1162\N805\SH175-21.dwg



USER NAME = notte	DESIGNED - NFO	REVISED - 1 NFO 2/8/2023
PLOT SCALE = 40.0000' / in.	DRAWN - NFO	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 12/08/2022	

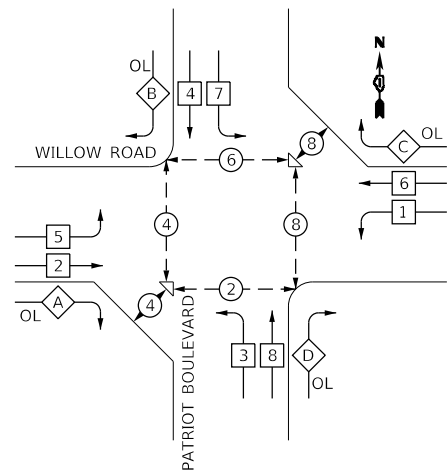
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 WILLOW ROAD AND PATRIOT BOULEVARD**

SCALE: 1" = 20' STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	41
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



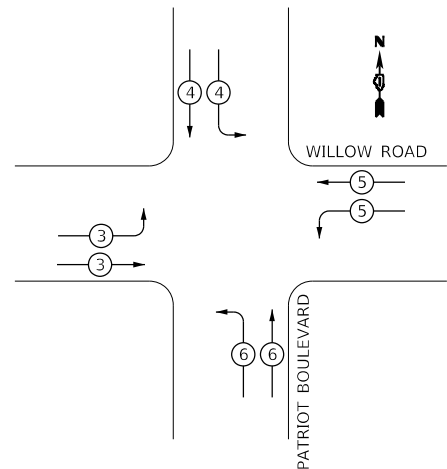
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7
D	= 8	+ 1

LEGEND:

- ← (P) → PROTECTED PHASE
- ← (P) - (P) → PROTECTED/PERMITTED PHASE
- ← (P) → DUAL ENTRY PHASE
- ← (P) → SINGLE ENTRY PHASE
- ← (P) → PEDESTRIAN PHASE
- ← (OL) → OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

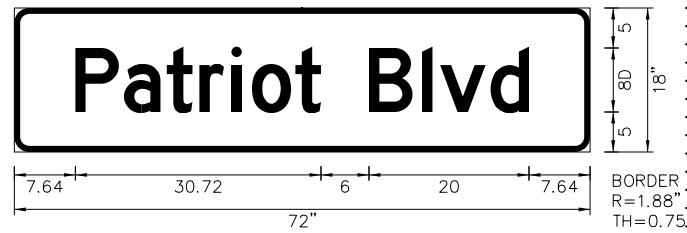
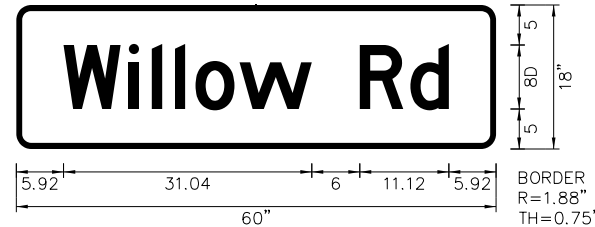
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↶	↷	↶	↷

DETAILS FOR LED INTERNALLY ILLUMINATED SIGNS

NOTE: ALL REMOVED STREET NAME SIGNS SHALL BE REPLACED AT THEIR EXISTING LOCATION.



TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	22	17	0.50	187.0
(YELLOW)	22	25	0.25	137.5
(GREEN)	22	15	0.25	82.5
PERMISSIVE ARROW	16	12	0.10	19.2
PED. SIGNAL	12	25	1.00	300.0
CONTROLLER	1	100	1.00	100.0
UPS	1	25	1.00	25.0
VIDEO SYSTEM		150	1.00	
BLANK-OUT SIGN		25	0.05	
FLASHER			0.50	
STREET NAME SIGN	4	120	0.50	240.0
LUMINAIRE				
TOTAL =				1091.2

ENERGY COSTS TO:
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: COMED
 PHONE: (866) 639-3532
 COMPANY: COMED
 ACCOUNT NUMBER:

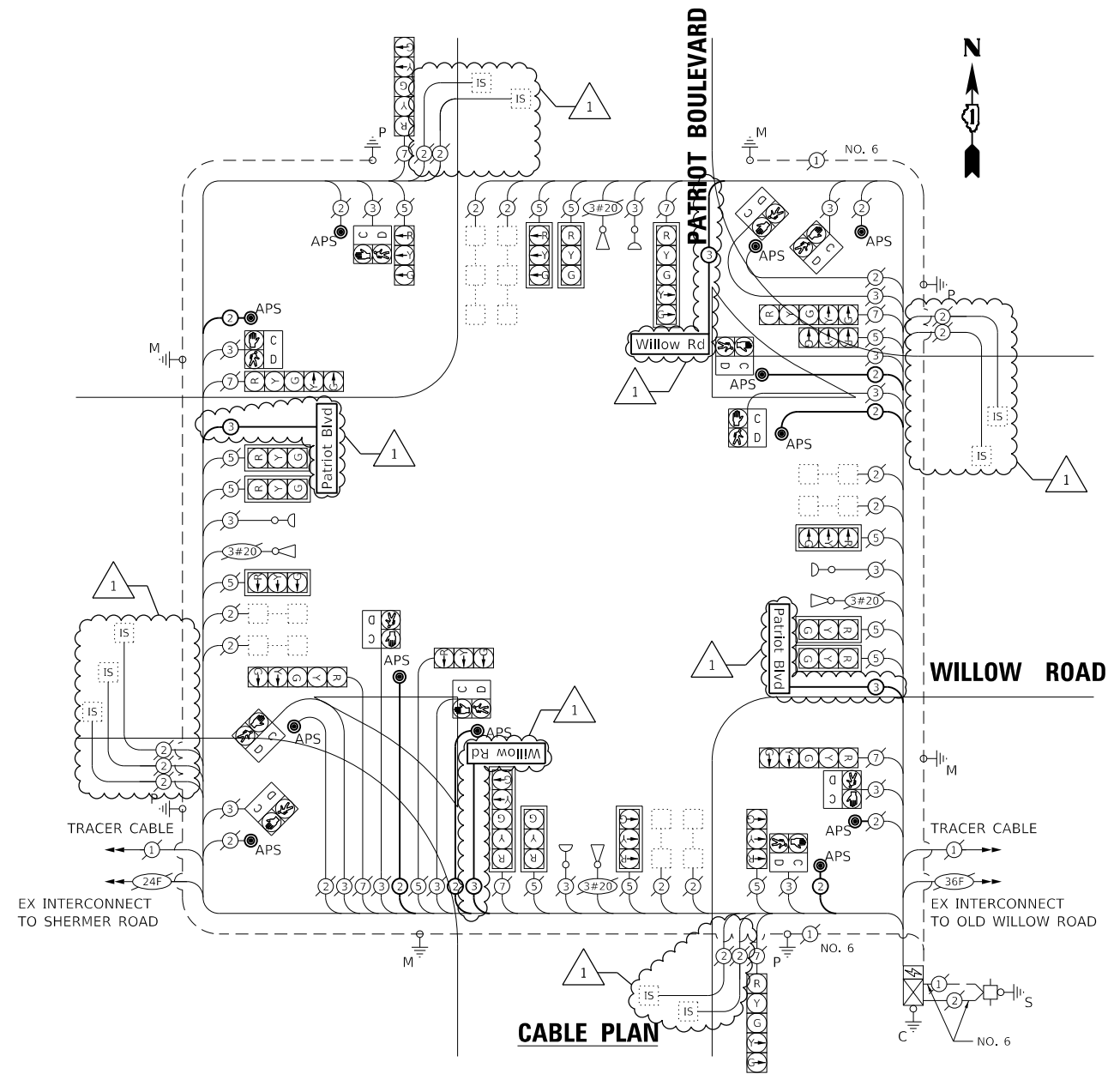
INFRASTRUCTURE ENGINEERING INCORPORATED
 1 South Wacker | Suite 2650 | Chicago, IL 60606
 P 312.425.9569 | F 312.425.9564 | www.infrastructure-eng.com

DESIGNED - NFO	REVISED - NFO 2/8/2023
DRAWN - NFO	REVISED -
CHECKED - ACL	REVISED -
DATE - 12/08/2022	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DIAGRAM, AND EVP SEQUENCE | WILLOW ROAD & PATRIOT BOULEVARD

SCALE: NTS STA. TO STA.



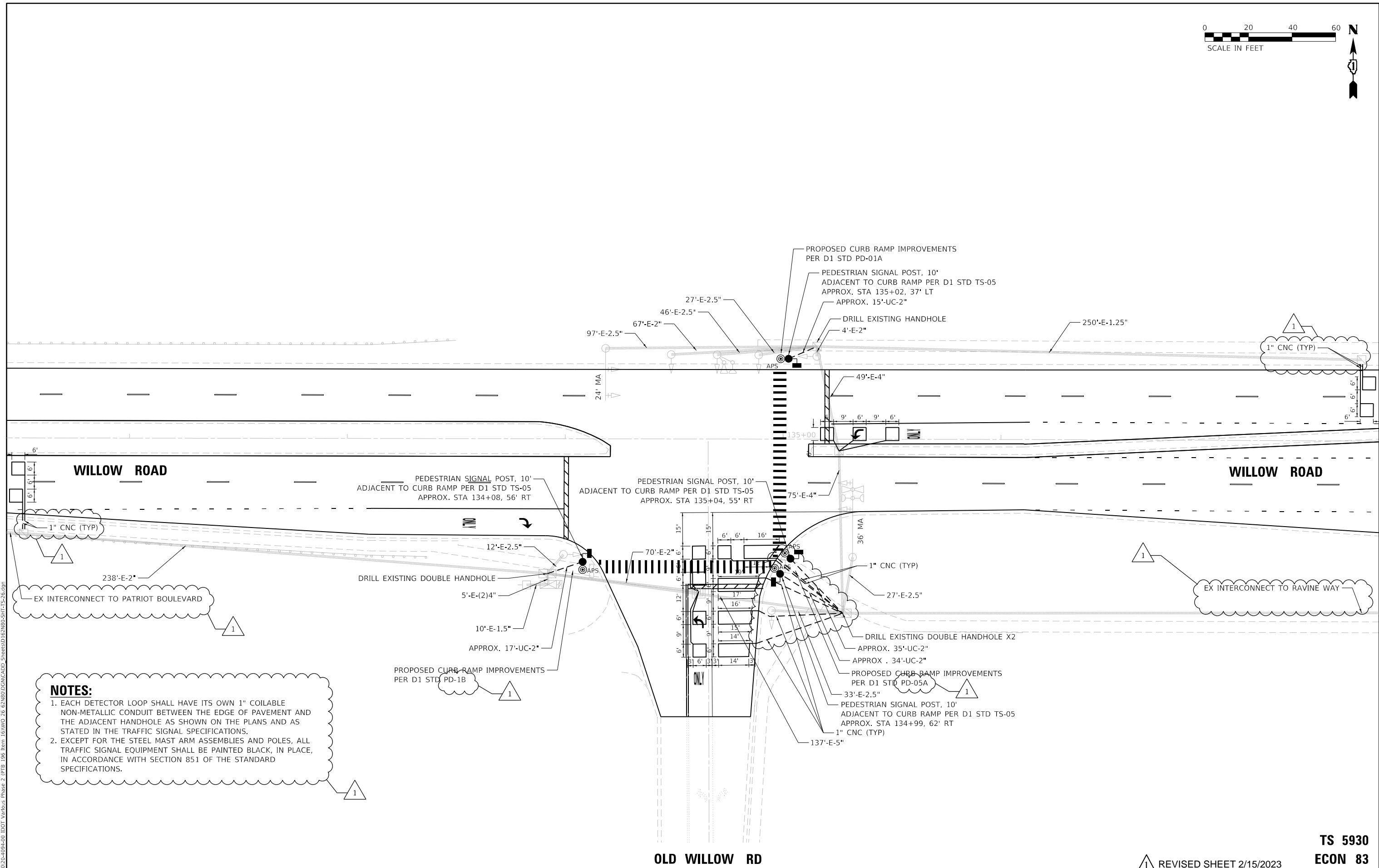
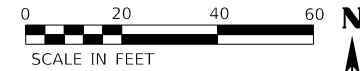
SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	6
ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	1423
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1826
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	12

TS 5932 ECON 83

REVISED SHEET 2/15/2023

F.A.P. RTE. 305	SECTION 2021-048-R5	COUNTY COOK	TOTAL SHEETS 61	SHEET NO. 42
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.
2. EXCEPT FOR THE STEEL MAST ARM ASSEMBLIES AND POLES, ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE PAINTED BLACK, IN PLACE, IN ACCORDANCE WITH SECTION 851 OF THE STANDARD SPECIFICATIONS.

OLD WILLOW RD

**TS 5930
ECON 83**

REVISED SHEET 2/15/2023

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
WILLOW ROAD AND OLD WILLOW ROAD**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	43
CONTRACT NO. 62N80				

SCALE: 1" = 20' STA. TO STA.

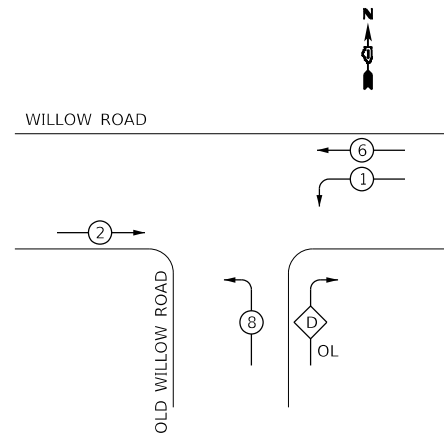
ILLINOIS FED. AID PROJECT

MODEL: D:\dms\it... FILE NAME: P:\2020\2020-0494-00 IDOT Various Phase 2 (PFB) 106 Item 161WV0_26 62N80\DC\DCADD Streets\162N80\SH17-TS-26.dgn

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P 312.425.9569 | F 312.425.9568 | www.infrastructure-eng.com

USER NAME = notte	DESIGNED - NFO	REVISED - NFO 2/8/2023
PLOT SCALE = 40.0000 ' / in.	DRAWN - NFO	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 12/08/2022	

EXISTING CONTROLLER SEQUENCE



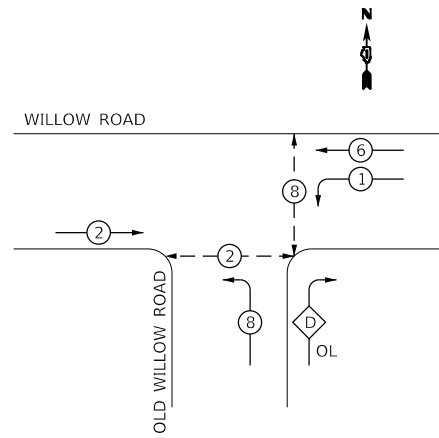
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE
 D = 8 + 1

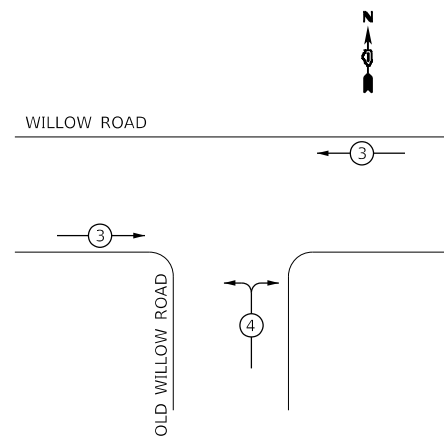
LEGEND:

- ⊖ PROTECTED PHASE
- ⊕ PROTECTED/PERMITTED PHASE
- ⊙ PEDESTRIAN PHASE
- ⊕ OL OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED CONTROLLER SEQUENCE



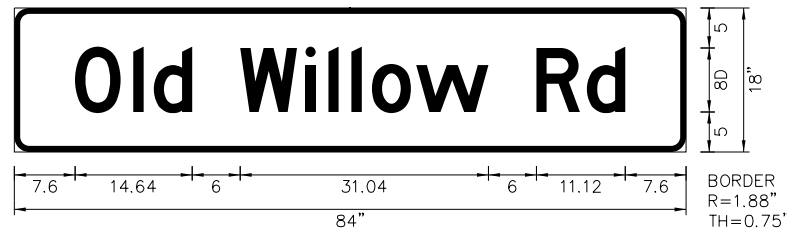
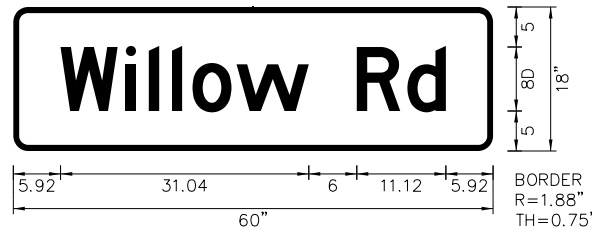
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑

DETAILS FOR LED INTERNALLY ILLUMINATED SIGNS

NOTE: ALL REMOVED STREET NAME SIGNS SHALL BE REPLACED AT THEIR EXISTING MOUNTING POSITION.



TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	17	0.50	85.0
(YELLOW)	10	25	0.25	62.5
(GREEN)	10	15	0.25	37.5
PERMISSIVE ARROW	4	12	0.10	4.8
PED. SIGNAL	4	25	1.00	100.0
CONTROLLER	1	100	1.00	100.0
UPS	1	25	1.00	25.0
VIDEO SYSTEM		150	1.00	
BLANK-OUT SIGN		25	0.05	
FLASHER			0.50	
STREET NAME SIGN	3	120	0.50	180.0
LUMINAIRE				
TOTAL =				594.8

ENERGY COSTS TO:

VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062

ENERGY SUPPLY: CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY: COMED
 ACCOUNT NUMBER: _____

<p>INFRASTRUCTURE ENGINEERING 1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9569 F 312.425.9568 www.infrastructure-eng.com</p>	USER NAME = notte	DESIGNED - NFO	REVISED - NFO 2/8/2023
	PLOT SCALE = 2,000' / in.	DRAWN - NFO	REVISED -
		CHECKED - ACL	REVISED -
		DATE - 12/08/2022	

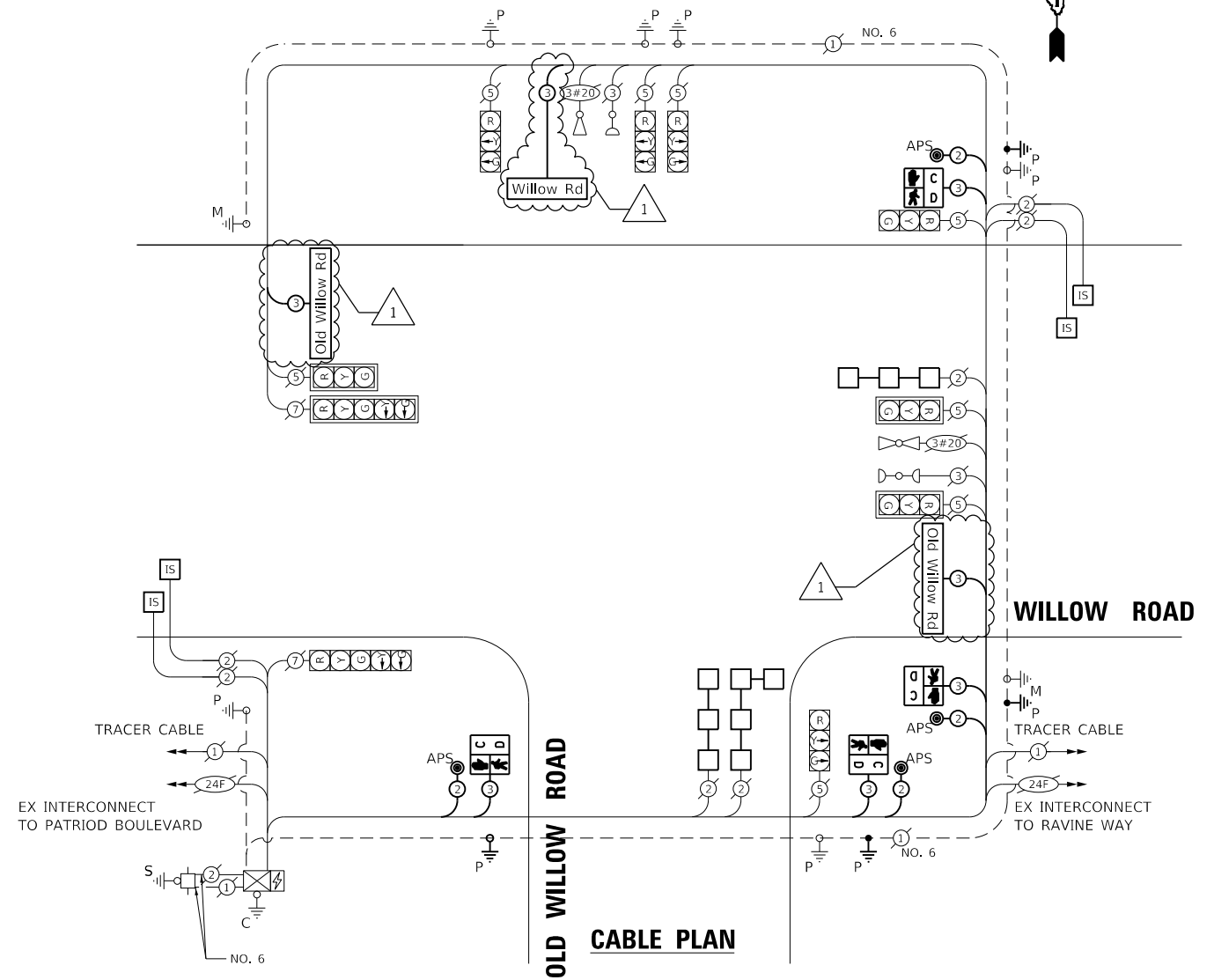
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DIAGRAM, AND EVP SEQUENCE | WILLOW ROAD & OLD WILLOW ROAD

SCALE: NTS TO STA. TO STA.

DESCRIPTION	UNIT	TOTAL
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	3
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	4
ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	1088
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	112
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	847
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	849
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	40
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	16
DRILL EXISTING HANDHOLE	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
DETECTOR LOOP, TYPE I	FOOT	638
MODIFY EXISTING CONTROLLER	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

SCHEDULE OF QUANTITIES

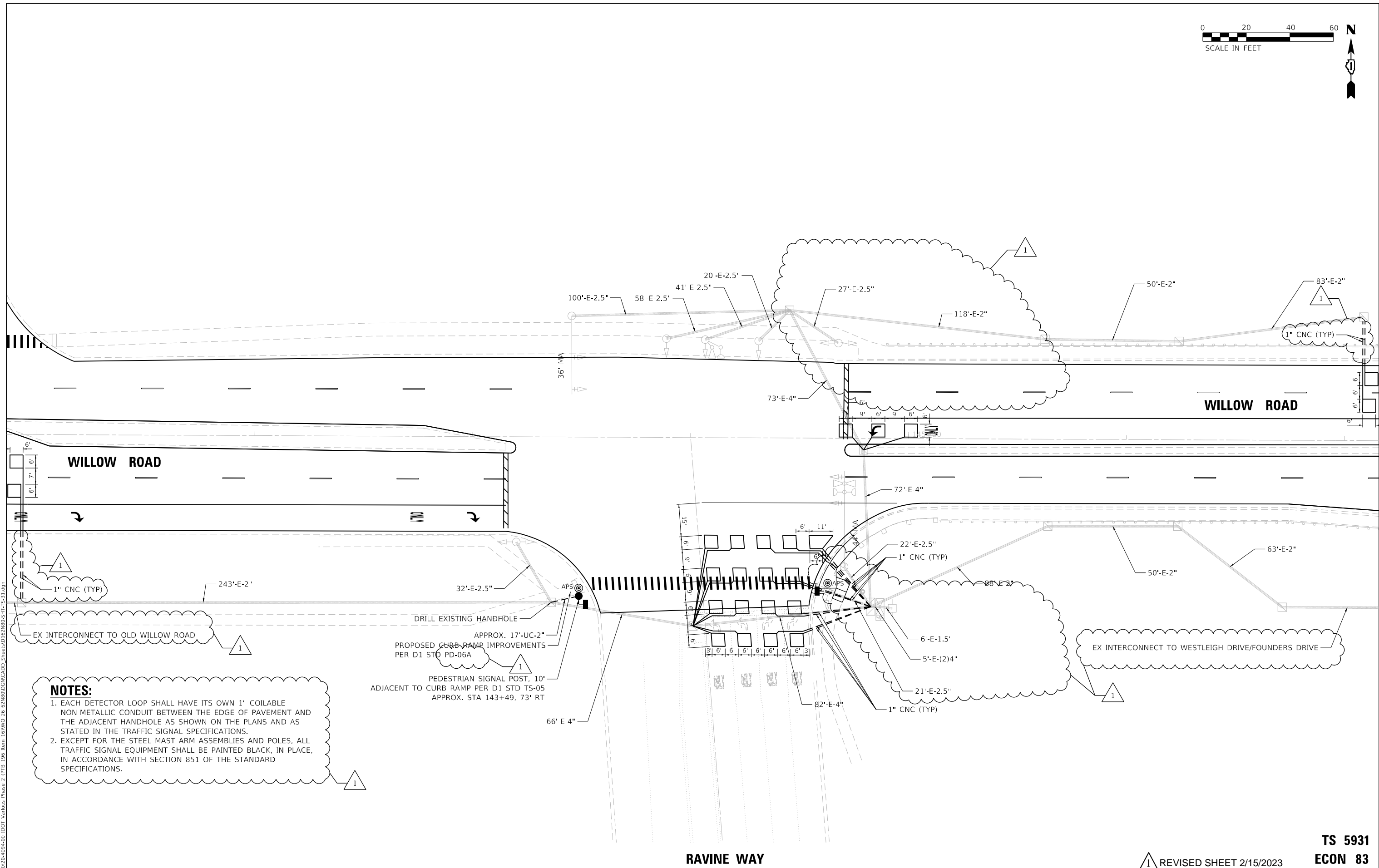


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 PLOT SCALE = 2,000' / in.

**TS 5930
 ECON 83**

REVISION 1 REVISED SHEET 2/15/2023

F.A.P. RTE. 305	SECTION 2021-048-R5	COUNTY COOK	TOTAL SHEETS 61	SHEET NO. 44
CONTRACT NO. 62N80				
		ILLINOIS FED. AID PROJECT		



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.
2. EXCEPT FOR THE STEEL MAST ARM ASSEMBLIES AND POLES, ALL TRAFFIC SIGNAL EQUIPMENT SHALL BE PAINTED BLACK, IN PLACE, IN ACCORDANCE WITH SECTION 851 OF THE STANDARD SPECIFICATIONS.

DRILL EXISTING HANDHOLE
 APPROX. 17'-UC-2"
 PROPOSED CURB RAMP IMPROVEMENTS
 PER D1 STD PD-06A
 PEDESTRIAN SIGNAL POST, 10'
 ADJACENT TO CURB RAMP PER D1 STD TS-05
 APPROX. STA 143+49, 73' RT

MODEL: D:\d4\11
 FILE NAME: P:\2020\2020-04-04-00 IDOT Various Phase 2 (FTE) 106 Item 16\NWD_26_62N80\DC\CAD\DOT Streets\162N80\SH17S-21.dwg
 P 312.425.9569 | F 312.425.9568 | www.infrastructure-eng.com

**TS 5931
 ECON 83**

1 REVISED SHEET 2/15/2023

INFRASTRUCTURE ENGINEERING 1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9569 F 312.425.9568 www.infrastructure-eng.com	USER NAME = notte	DESIGNED - NFO	REVISED - 1 NFO 2/8/2023
	PLOT SCALE = 40.0000 ' / in.	DRAWN - NFO	REVISED -
		CHECKED - ACL	REVISED -
		DATE - 12/08/2022	

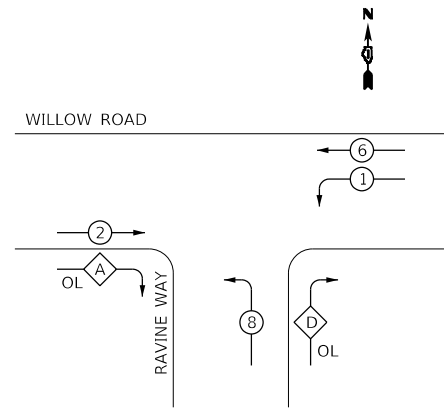
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 WILLOW ROAD AND RAVINE WAY**

SCALE: 1" = 20' STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	45
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



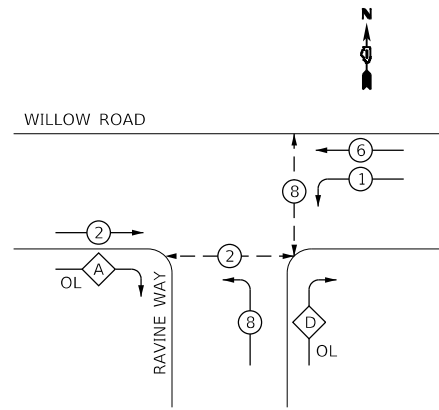
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
A	= 2	+ 8	- 8
D	= 8	+ 1	

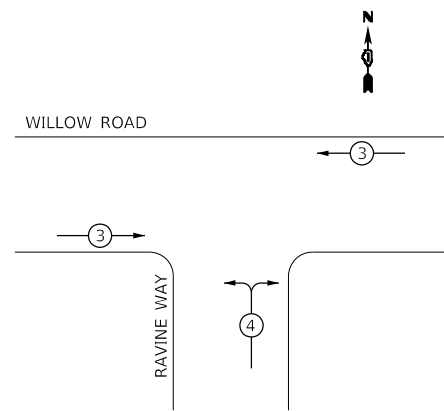
LEGEND:

- ← (P) → PROTECTED PHASE
- ← (P) - (P) → PROTECTED/PERMITTED PHASE
- ← (P) → PEDESTRIAN PHASE
- ← (OL) → OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED CONTROLLER SEQUENCE



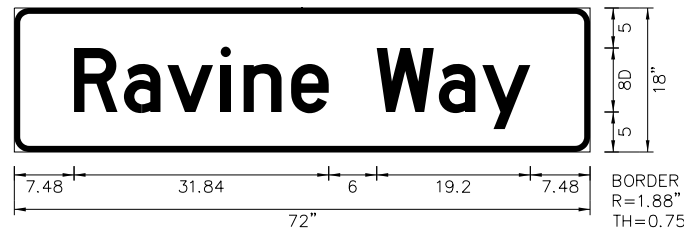
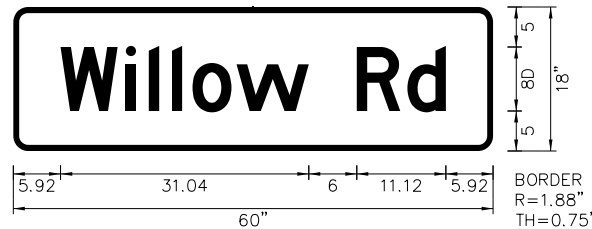
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑

DETAILS FOR LED INTERNALLY ILLUMINATED SIGNS

NOTE: ALL REMOVED STREET NAME SIGNS SHALL BE REPLACED AT THEIR EXISTING LOCATION.



TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50	102.0
(YELLOW)	12	25	0.25	75.0
(GREEN)	12	15	0.25	45.0
PERMISSIVE ARROW	8	12	0.10	9.6
PED. SIGNAL	2	25	1.00	50.0
CONTROLLER	1	100	1.00	100.0
UPS	1	25	1.00	25.0
VIDEO SYSTEM		150	1.00	
BLANK-OUT SIGN		25	0.05	
FLASHER			0.50	
STREET NAME SIGN	3	120	0.50	180.0
LUMINAIRE				
TOTAL =				586.6

ENERGY COSTS TO:
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: COMED
 PHONE: (866) 639-3532
 COMPANY: COMED
 ACCOUNT NUMBER: _____

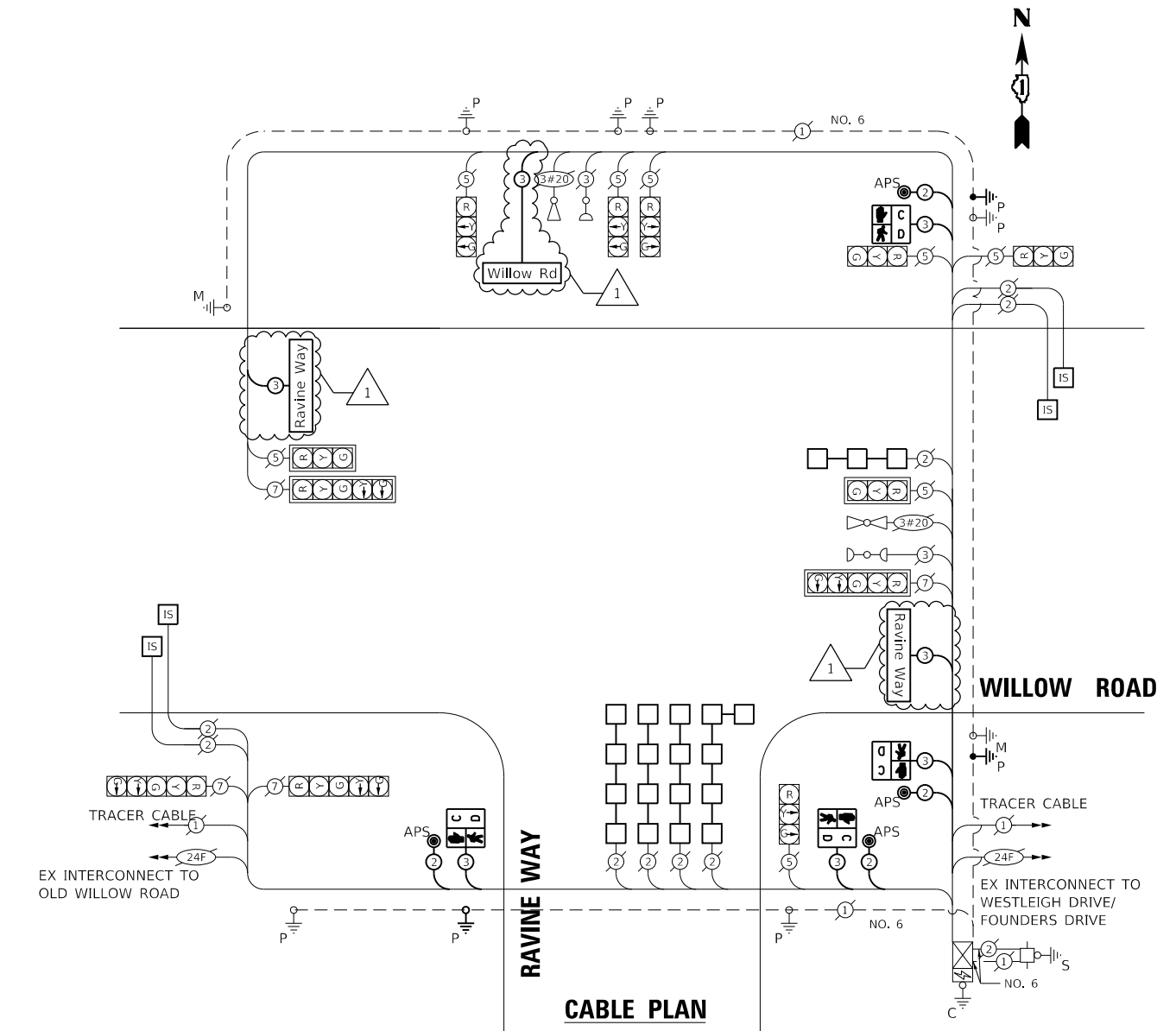
INFRASTRUCTURE ENGINEERING INCORPORATED
 1 South Wacker | Suite 2650 | Chicago, IL 60606
 P 312.425.9568 | F 312.425.9564 | www.infrastructure-eng.com

DESIGNED - NFO	REVISOR - NFO 2/8/2023
DRAWN - NFO	REVISIONS -
CHECKED - ACL	REVISIONS -
DATE - 12/08/2022	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DIAGRAM, AND EVP SEQUENCE | WILLOW ROAD & RAVINE WAY

SCALE: NTS TO STA.



SCHEDULE OF QUANTITIES

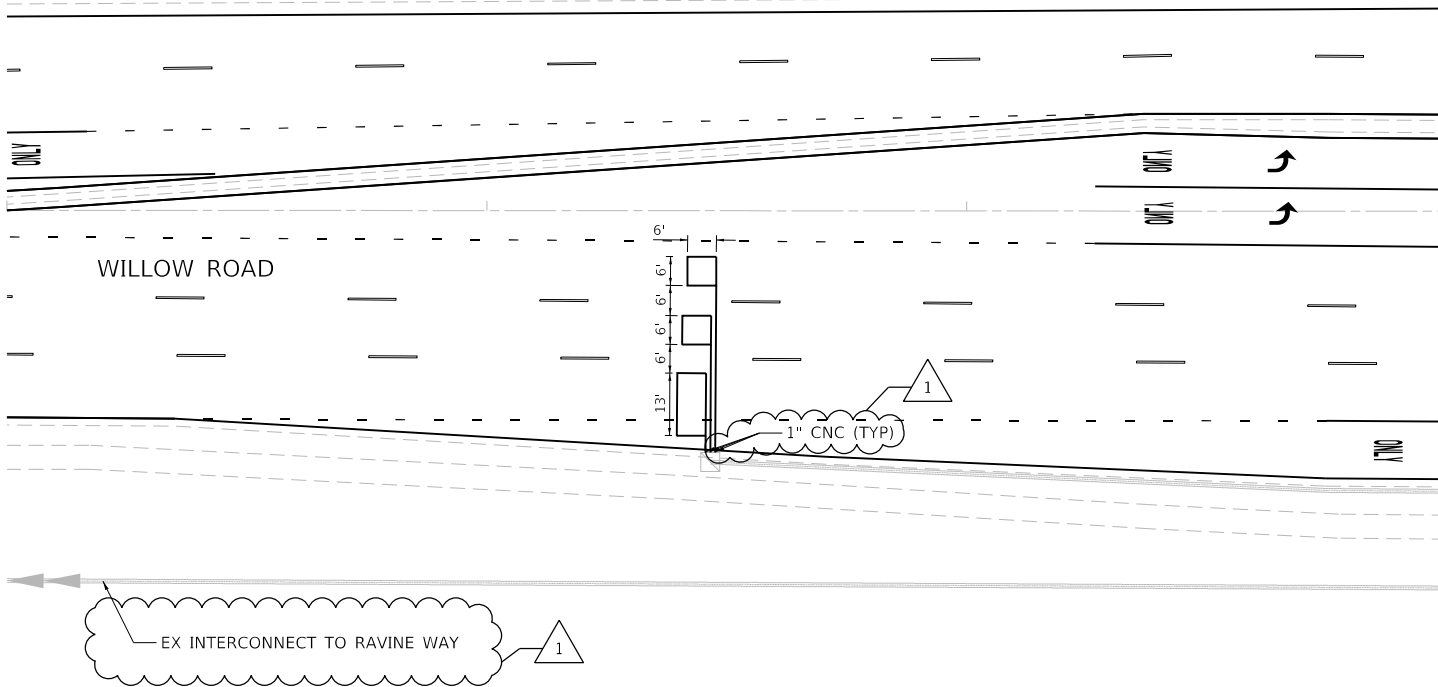
DESCRIPTION	UNIT	TOTAL
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	3
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	696
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	68
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	289
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	277
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	10
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	4
DRILL EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
DETECTOR LOOP, TYPE 1	FOOT	1265
MODIFY EXISTING CONTROLLER	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

**TS 5931
ECON 83**

REVISED SHEET 2/15/2023

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	46
CONTRACT NO. 62N80				
		ILLINOIS	FED. AID PROJECT	

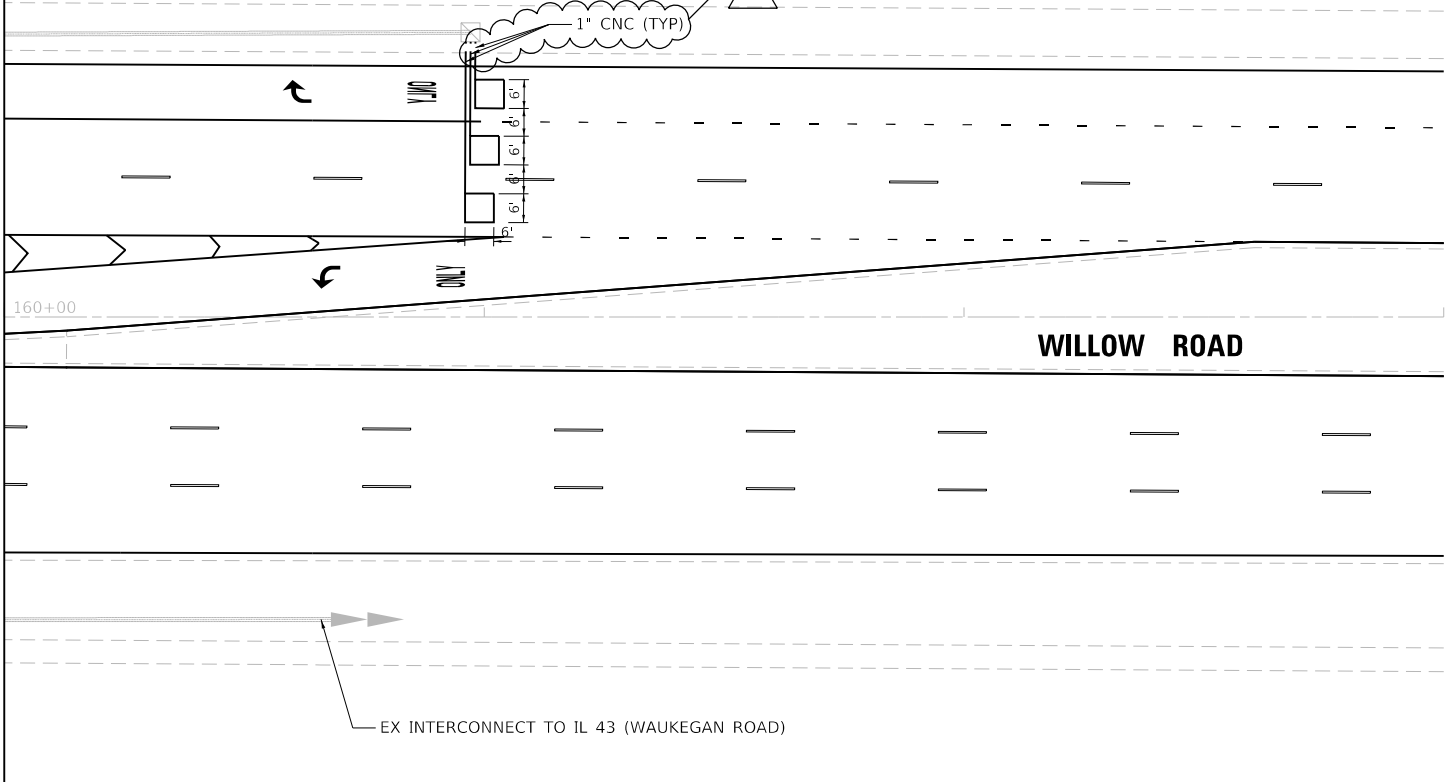
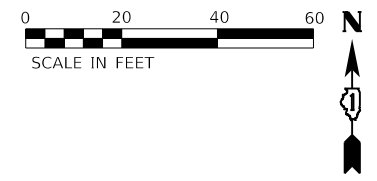
NOTES:
 1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.



MATCHLINE STA 155+00
SEE PREVIOUS SHEET

EX INTERCONNECT TO RAVINE WAY

NOTES:
 1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.



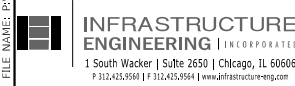
MATCHLINE STA 160+00
SEE PREVIOUS SHEET

EX INTERCONNECT TO IL 43 (WAUKEGAN ROAD)

**TS 5933
ECON 83**

REVISED SHEET 2/15/2023

MODEL: D:\dxf\it...
 FILE NAME: P:\2020\2020-09-14-00 IDOT Various Phase 2 (PFB) 106 Item 161WV0_26 62N80\DC\DCADD_Sheets\162N805-SHT-15-27.dgn



USER NAME = notte	DESIGNED - NFO	REVISED - NFO 2/8/2023
PLOT SCALE = 40.0000 ' / in.	DRAWN - NFO	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 12/08/2022	

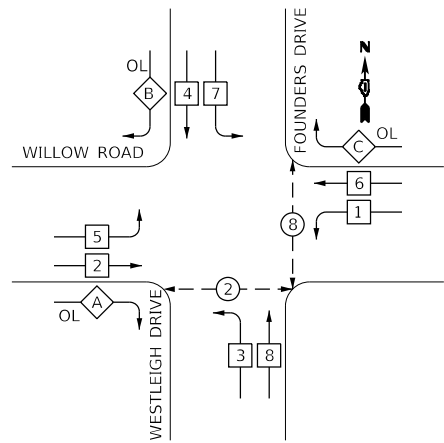
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
WILLOW ROAD AND WESTLEIGHFOUNDERS DRIVE**

SCALE: 1" = 20' STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2021-048-R5	COOK	61	48
CONTRACT NO. 62N80				
ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



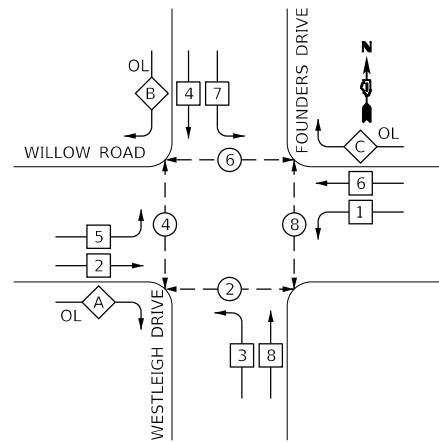
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7

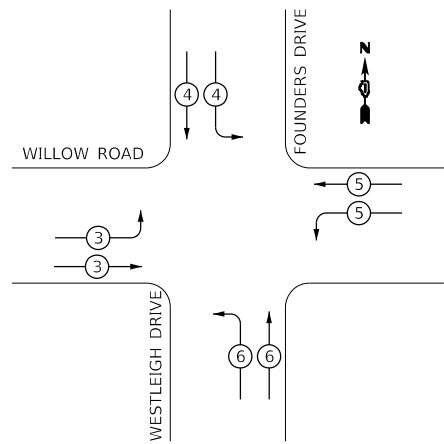
LEGEND:

- ⊖ PROTECTED PHASE
- ⊕ PROTECTED/PERMITTED PHASE
- ⊗ DUAL ENTRY PHASE
- ⊙ SINGLE ENTRY PHASE
- ⊘ PEDESTRIAN PHASE
- ⊕ OL OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED CONTROLLER SEQUENCE



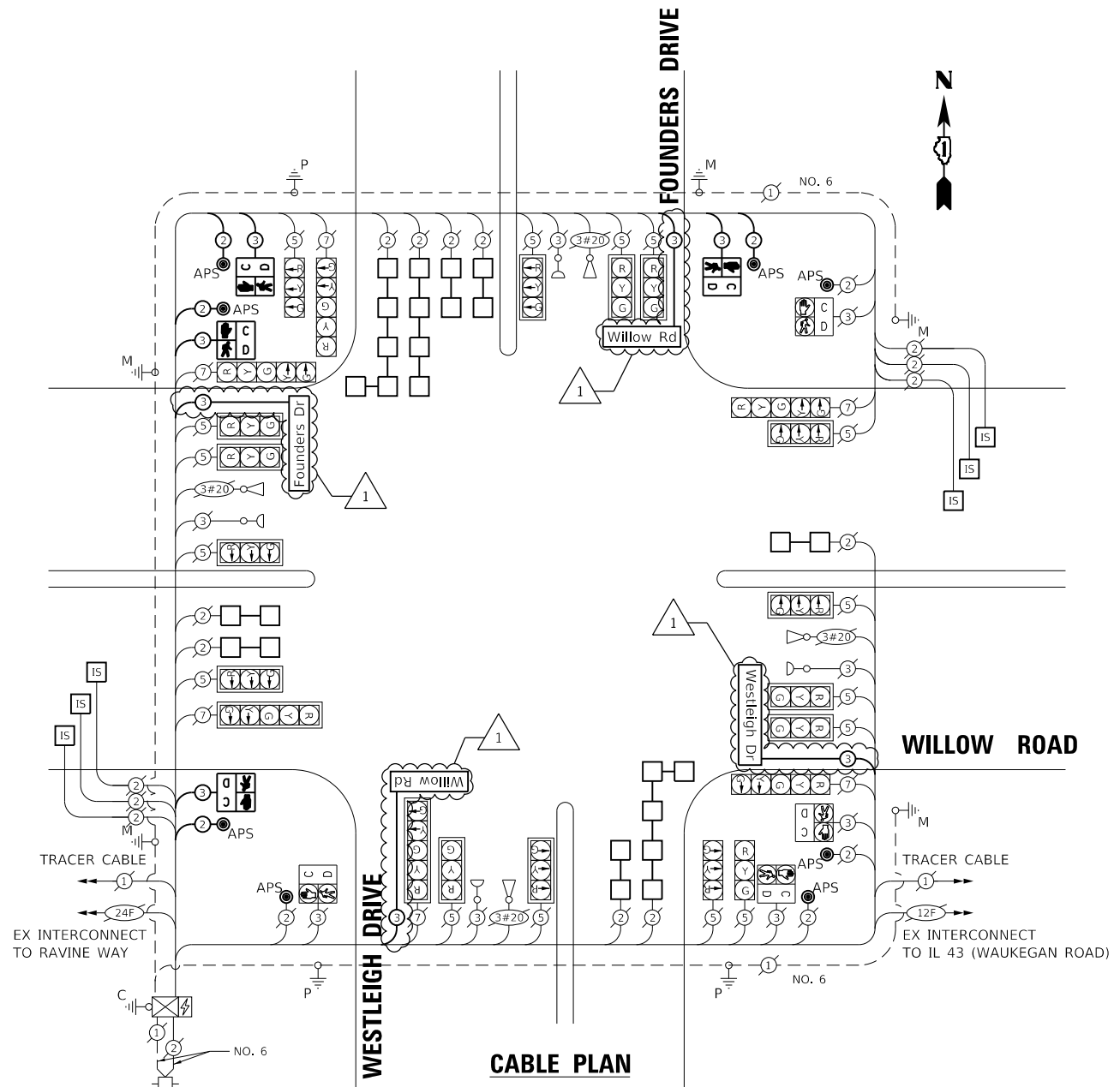
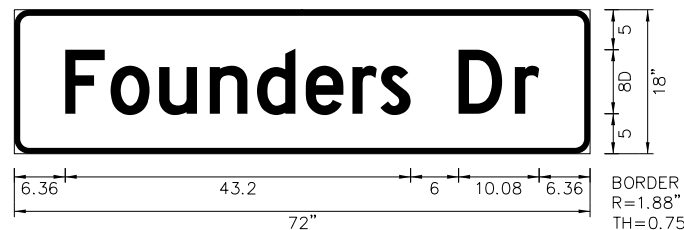
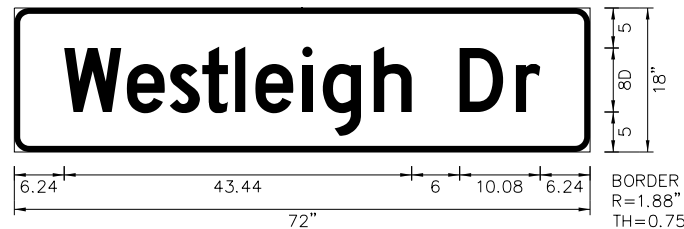
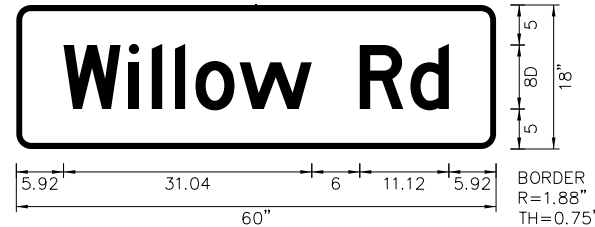
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↶	↷	↵	↶

DETAILS FOR LED INTERNALLY ILLUMINATED SIGNS

NOTE: ALL REMOVED STREET NAME SIGNS SHALL BE REPLACED AT THEIR EXISTING LOCATION.



SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
PEDESTRIAN SIGNAL POST, 10 FT	EACH	4
ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	696
REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	4
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	51
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	871
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	847
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	40
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	16
DRILL EXISTING HANDHOLE	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, POST MOUNTED WITH COUNTDOWN TIMER	EACH	4
DETECTOR LOOP, TYPE I	FOOT	1355
MODIFY EXISTING CONTROLLER	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	22	17	0.50	187.0
(YELLOW)	22	25	0.25	137.5
(GREEN)	22	15	0.25	82.5
PERMISSIVE ARROW	12	12	0.10	14.4
PED. SIGNAL	8	25	1.00	200.0
CONTROLLER	1	100	1.00	100.0
UPS	1	25	1.00	25.0
VIDEO SYSTEM		150	1.00	
BLANK-OUT SIGN		25	0.05	
FLASHER			0.50	
STREET NAME SIGN	4	120	0.50	240.0
LUMINAIRE				
TOTAL =				986.4

ENERGY COSTS TO:

VILLAGE OF NORTHBROOK
1225 CEDAR LANE
NORTHBROOK, IL 60062

ENERGY SUPPLY: CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COMED
ACCOUNT NUMBER:

INFRASTRUCTURE ENGINEERING INCORPORATED
1 South Wacker | Suite 2650 | Chicago, IL 60606
P 312.425.9569 | F 312.425.9568 | www.infrastructure-eng.com

DESIGNED - NFO	REVISED - NFO 2/8/2023
DRAWN - NFO	REVISED -
CHECKED - ACL	REVISED -
DATE - 12/08/2022	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DIAGRAM, AND EVP SEQUENCE | WILLOW ROAD & WESTLEIGH/FOUNDERS DRIVE

SCALE: NTS

STA. TO STA.

F.A.P. RTE. 305	SECTION 2021-048-R5	COUNTY COOK	TOTAL SHEETS 61	SHEET NO. 49
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N80	

**TS 5933
ECON 83**

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