

# Local Public Agency Formal Contract Proposal

COVER	SHEET				
Proposal Submitted By:					
Contractor's Name	1				
Contractor's Address	City			State	Zip Code
STATE OF ILLINOIS					
Local Public Agency		County		Section N	lumber
Village of Carpentersville		Kane			
Route(s) (Street/Road Name)			Type of Fur	nds	
Various Roads			Village Fu	unds	
☐ Proposal Only ☐ Proposal and Plans ☐ Proposal only, plans	are separa	te			
Submitted/Approved For Local Public Agency:  For a County and Road District Project		For a	Municipal Pr	oject	
Submitted/Approved	Submitted/Approved/Passed				
Highway Commissioner Signature & Date	Signature & Date				
Submitted/Approved	Official	Litle			
County Engineer/Superintendent of Highways Signature & Date					
County Engineer/Superintendent of Fighways Signature & Bate					
		Departm	ent of Trans	portation	١
		Released for	bid based on	limited re	view
	Regiona	al Engineer Sign			
	1 -				,

Note: All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed.

ocal Public Agency County Se		Section Number	Route(s) (Stree	t/Road Name)	
Village of Carpentersville	Kane		Various Roa	ds	
	NOTICE TO	BIDDERS			
Sealed proposals for the project described below will be received at the office of Village of Carpentersville Public Works					
			Name of Offic		
1075 Tamarac Drive, Carpenters	ville, IL 60110	until	10:00 AM	on 06/27/24	
	Address		Time	Date	
Sealed proposals will be opened and rea	d publicly at the office of Vill	age of Carpentersville P	ublic Works		
			ne of Office		
1075 Tamarac Drive, Carpenters	ville, IL 60110	at	10:00 AM	on 06/27/24	
	Address		Time	Date	
	DESCRIPTIO	N OF WORK			

Various Locations within the Village of Carpentersville

Project Length

3,096 ft

#### Proposed Improvement

Pavement reconstruction, proposed sidewalk, combination curb and gutter, storm sewer, water main, and sanitary sewer, lighting, and all necessary and collateral work to construct the improvements.

1. Plans and proposal forms will be available in the office of

Electronically via email by contacting Christine Borgerding at Christine.Borgerding@hrgreen.com or at 815.385-1778.

2. Requalification

If checked, the 2 apparent as read low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57) in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and two originals with the IDOT District Office.

- 3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.
- 4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
  - a. Local Public Agency Formal Contract Proposal (BLR 12200)
  - b. Schedule of Prices (BLR 12201)
  - c. Proposal Bid Bond (BLR 12230) (if applicable)
  - d. Apprenticeship or Training Program Certification (BLR 12325) (do not use for project with Federal funds.)
  - e. Affidavit of Illinois Business Office (BLR 12326) (do not use for project with Federal funds)
- 5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.
- 6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case, be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.
- 7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.
- 8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.
- 9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

<u>Lo</u>	ocal Public Agency	County	Section Number	Route(s) (Street/Road N	lame)
Vi	illage of Carpentersville	Kane		Various Roads	
			PROPOSAL	,	
1.	Proposal of				
			Contractor's Name		
		(	Contractor's Address		
2.	The plans for the proposed work a	re those prepared by	HR Green, Inc.		
	and approved by the Department of	of Transportation on _			
3.	The specifications referred to here Specifications for Road and Bridge adopted and in effect on the date	e Construction" and th			
4.	The undersigned agrees to accept Recurring Special Provisions" con			ns indicated on the "Check Sh	eet for
5.	The undersigned agrees to completis granted in accordance with the		working days or by 1	1/08/24 unless a	additional time
6.	The successful bidder at the time of the award. When a contract bond and the undersigned fails to execu- forfeited to the Awarding Authority	is not required, the proute a contract and con	oposal guaranty check will be held		l is accepted
7.	Each pay item should have a unit the unit price multiplied by the qua quantity in order to establish a unit	antity, the unit price sh	all govern. If a unit price is omitted	d, the total price will be divided	d by the
8.	The undersigned submits herewith	n the schedule of price	es on BLR 12201 covering the wor	to be performed under this c	ontract.
9.	The undersigned further agrees the shall be in accordance with the red below.				
10.	. A proposal guaranty in the proper	· amount, as specified	in BLRS Special Provision for Bid	ding Requirements and Condi	tions for
	Contract Proposals, will be require a bid bond, if allowed, on Departm	nent form BLR 12230	or a proposal guaranty check, com	aranty. Accompanying this proplying with the specifications,	
	to: Village		Treasurer of Carpentersville		
	The amount of the check is			(	).
		Attach Cashier	's Check or Certified Check Her	9	
		hich would be require	led to cover two or more bid propo d for each individual bid proposal. ay be found.		
	The proposal guaranty check will	be found in the bid pr	roposal for: Section Number	·	

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
Village of Carpentersville	Kane		Various Roads

#### **CONTRACTOR CERTIFICATIONS**

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

- 1. **Debt Delinquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedure established by the appropriate Revenue Act, its liability for the tax or the amount of the tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.
- 2. **Bid-Rigging or Bid Rotating**. The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

A violation of section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense, or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent on behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State of Local government. No corporation shall be barred from contracting with any unit of State or Local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent on behalf of the corporation.

- 3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that, it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter or record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.
- 4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be canceled.

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)				
Village of Carpentersville	Kane		Various Roads				
		SIGNATURES					
(If an individual)		Bidder Signature & Date					
,							
		Business Address					
		City	State Zip Code				
/If a manta analain		Firm Name					
(If a partnership)							
		Signature & Date					
		Title					
		Business Address					
		City	State Zip Code				
Insert the Names and Addresses	of all Partners						
(If a corporation)		Corporate Name					
(ii a corporation)							
		Signature & Date					
		Title					
		Business Address					
		City	State Zip Code				
	Insert Names of Officers	President					
		L					

	Secretary
Attest:	
	Treasurer
Secretary	



# **Schedule of Prices**



Contractor's Name				
Contractor's Address	City		State	Zip Code
Local Public Agency		County	Section N	umber
Village of Carpentersville		Kane		
Route(s) (Street/Road Name)				
Various Roads				

# **Schedule for Multiple Bids**

Combination Letter	Section Included in Combinations	Total

# Schedule for Single Bid

(For complete information covering these items, see plans and specifications.)

Item Number	Items	Unit	Quantity	Unit Price	Total
1	TREE REMOVAL (6 TO 15 UNI	UNIT	57		
2	TREE REMOVAL (OVER 15 U	UNIT	366		
3	EARTH EXCAVATION	CU YD	612		
4	REMOVAL AND DISPOSAL OF	CU YD	4,170		
5	TRENCH BACKFILL	CU YD	2,756		
6	TOPSOIL FURNISH AND PLA	SQ YD	3,212		
7	SEEDING, CLASS 4	ACRE	0.03		
8	SEEDING, CLASS 5A	ACRE	0.03		
9	EROSION CONTROL BLANKE	SQ YD	3,109		
10	SODDING, SALT TOLERANT	SQ YD	3,099		
11	SUPPLEMENTAL WATERING	UNIT	156		
12	TEMPORARY EROSION CON	POUND	64		
13	PERIMETER EROSION BARRI	FOOT	4,644		
14	INLET FILTERS	EACH	92		
15	STONE RIPRAP, CLASS A1	TON	15		
16	STONE RIPRAP, CLASS A3	TON	21		
17	STONE RIPRAP, CLASS A4	TON	39		
18	FILTER FABRIC	SQ YD	88		
19	AGGREGATE SUBGRADE IM	CU YD	3,787		
20	AGGREGATE SUBGRADE IM	SQ YD	11,637		
21	SUBBASE GRANULAR MATE	SQ YD	4,000		
22	BITUMINOUS MATERIALS (TA	POUND	4,360		
23	HOT-MIX ASPHALT SURFACE	SQ YD	294		
24	HOT-MIX ASPHALT BINDER C	TON	76		

ocal Public Agend illage of Carp					Route(s) (Street/Road Name
Item Number	Items	Unit	Quantity	Unit Price	Total
25	HOT-MIX ASPHALT SURFACE	TON	27		
26	HOT-MIX ASPHALT PAVEMEN	SQ YD	9,946		
27	PORTLAND CEMENT CONCR	SQ YD	490		
28	PORTLAND CEMENT CONCR	SQ FT	29,474		
29	DETECTABLE WARNINGS	SQ FT	215		
30	PAVEMENT REMOVAL	SQ YD	9,046		
31	DRIVEWAY PAVEMENT REM	SQ YD	1,050		
32	COMBINATION CURB AND G	FOOT	2,886		
33	SIDEWALK REMOVAL	SQ FT	13,041		
34	PIPE CULVERT REMOVAL	FOOT	115		
35	PRECAST REINFORCED CON	EACH	4		
36	PRECAST REINFORCED CON	EACH	1		
37	STORM SEWER REMOVAL 8	FOOT	80		
38	STORM SEWER REMOVAL 1	FOOT	88		
39	STORM SEWER REMOVAL 1	FOOT	57		
40	DUCTILE IRON WATER MAIN	FOOT	2,671		
41	WATER VALVES 8"	EACH	14		
42	FIRE HYDRANTS TO BE REM	EACH	5		
43	FIRE HYDRANT WITH AUXILI	EACH	8		
44	CATCH BASINS, TYPE A, 4'-DI	EACH	5		
45	CATCH BASINS, TYPE A, 4'-DI	EACH	39		
46	CATCH BASINS, TYPE C, TYP	EACH	1		
47	CATCH BASINS, TYPE C, TYP	EACH	3		
48	MANHOLES, TYPE A, 4'-DIAM	EACH	7		
49	MANHOLES, TYPE A, 5'-DIAM	EACH	3		
50	MANHOLES, TYPE A, 6'-DIAM	EACH	4		
51	MANHOLES, TYPE A, 6'-DIAM	EACH	1		
52	MANHOLES, TYPE A, 7'-DIAM	EACH	3		
53	INLETS, TYPE A, TYPE 11 FR	EACH	2		
54	INLETS, TYPE A, TYPE 11V F	EACH	3		
55	VALVE VAULTS, TYPE A, 4'-DI	EACH	14		
56	VALVE VAULTS TO BE ADJUS	EACH	8		
57	REMOVING CATCH BASINS	EACH	5		
58	REMOVING INLETS	EACH	7		
59	CONCRETE CURB, TYPE B	FOOT	194		
60	COMBINATION CONCRETE C	FOOT	5,820		
61	GUARDRAIL REMOVAL	FOOT	33		

illage of (	Agency County Carpentersville Kane			Number	Route(s) (Street/Road Name
62	MOBILIZATION	L SUM	1		
63	SIGN PANEL - TYPE 1	SQ FT	19		
64	REMOVE SIGN PANEL ASSE	EACH	14		
65	RELOCATE SIGN PANEL ASS	EACH	14		
66	TELESCOPING STEEL SIGN S	FOOT	154		
67	THERMOPLASTIC PAVEMEN	FOOT	74		
68	THERMOPLASTIC PAVEMEN	FOOT	720		
69	THERMOPLASTIC PAVEMEN	FOOT	52		
70	THERMOPLASTIC PAVEMEN	FOOT	99		
71	STORM SEWERS, RUBBER G	FOOT	1,595		
72	STORM SEWERS, RUBBER G	FOOT	132		
73	STORM SEWERS, RUBBER G	FOOT	117		
74	STORM SEWERS, RUBBER G	FOOT	135		
75	STORM SEWERS, RUBBER G	FOOT	208		
76	ELECTRIC SERVICE INSTALL	EACH	1		
77	ELECTRIC UTILITY SERVICE	L SUM	1		
78	UNDERGROUND CONDUIT, G	FOOT	244		
79	UNIT DUCT, 600V, 4-1C NO.8,	FOOT	2,882		
80	ELECTRIC CABLE IN CONDUI	FOOT	450		
81	LIGHTING CONTROLLER, BA	EACH	1		
82	LIGHT POLE, ALUMINUM, 30	EACH	17		
83	LIGHT POLE FOUNDATION, 2	FOOT	140		
84	BREAKAWAY DEVICE, TRAN	EACH	17		
85	PRESSURE CONNECTION	EACH	1		
86	SANITARY SEWER 8"	FOOT	2,031		
87	SANITARY MANHOLES TO BE	EACH	12		
88	VALVE VAULTS TO BE ABAN	EACH	4		
89	SANITARY SEWER SERVICE,	EACH	48		
90	WASHOUT BASIN	L SUM	1		
91	LUMINAIRE, LED, ROADWAY	EACH	17		
92	EXPLORATION TRENCH (SPE	FOOT	400		
93	TEMPORARY ACCESS (PRIV	EACH	48		
94	TEMPORARY ACCESS (ROAD	EACH	8		
95	SANITARY SEWER REMOVAL	FOOT	748		
96	WATER SERVICE RECONNE	EACH	25		
97	WATER SERVICE RECONNE	EACH	24		
98	CONNECTION TO EXISTING	EACH	1		
99	CONNECTION TO EXISTING	EACH	1		

_ocal Public Age	ency C	County		Section	Number	Route(s) (Street/Road Name)
Village of Car	pentersville	Kane				Various Roads
100	CONNECTION TO EXIST	ING	EACH	1		
101	MANHOLES, SANITARY,	4'-DI	EACH	11		
102	VALVE BOXES TO BE RE	EMOV	EACH	49		
103	TRAFFIC CONTROL AND	) PRO	L SUM	1		
104	REMOVE EXISTING FLA	RED	EACH	3		
105	ABANDON AND FILL EXI	STIN	FOOT	264		
106	SANITARY SEWER REM	OVAL	FOOT	1,736		
107	VIDEO INSPECTION OF	STOR	FOOT	1,646		
108	WATER SERVICE CONN	ECTI	EACH	1		
109	WATER MAIN DIRECTIO	N BO	FOOT	212		
110	INTERIOR DROP MANHO	DLE	EACH	2		
111	STORM SEWERS, RUBB	ER G	FOOT	396		
112	STORM SEWERS, RUBB	ER G	FOOT	550		
113	TIMBER HEADWALL TO	BE R	EACH	1		
114	RESIDENTIAL INLETS		EACH	40		
115	STANDPIPES TO BE ABA	ANDO	EACH	1		
116	WATER MAIN LINE STOP	P 4"	EACH	1		
117	WATER MAIN TO BE ABA	ANDO	FOOT	768		
118	WATER MAIN TO BE ABA	ANDO	FOOT	2,082		
119	CONSTRUCTION LAYOU	JT	L SUM	1		
120	TEMPORARY INFORMAT	ΓΙΟΝ	SQ FT	345		
				Bi	dder's Total Proposal	

- 1. Each pay item should have a unit price and a total price.
- 2. If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern.
- 3. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.
- 4. A bid may be declared unacceptable if neither a unit price or total price is shown.



# Local Public Agency Proposal Bid Bond

Local Public Agency		County	Section Number
Village of Carpentersville		Kane	
WE,			as PRINCIPAL, and
			as SURETY, are held jointly,
severally and firmly bound unto the above Local Public Agency (he price, or for the amount specified in the proposal documents in effe bind ourselves, our heirs, executors, administrators, successors, a instrument.  WHEREAS THE CONDITION OF THE FOREGOING OB proposal to the LPA acting through its awarding authority for the contract and the PRINCIPAL shall within fifteen (15) days after award enter performance of the work, and furnish evidence of the required insu and Bridge Construction" and applicable Supplemental Specification full force and effect.  IN THE EVENT the LPA determines the PRINCIPAL has	ect on the or assigns LIGATION onstruction twarded to into a form rance cover ons, then the	date of invitation for bid s, jointly pay to the LPA IS SUCH that, the sai of the work designate the PRINCIPAL by the nal contract, furnish su erage, all as provided his obligation shall bed	he penal sum of 5% of the total bid ds, whichever is the lesser sum. We have this sum under the conditions of this d PRINCIPAL is submitting a written d as the above section. The LPA for the above designated section arety guaranteeing the faithful in the "Standard Specifications for Road come void; otherwise it shall remain in
requirements set forth in the preceding paragraph, then the LPA ac recover the full penal sum set out above, together with all court cos IN TESTIMONY WHEREOF, the said PRINCIPAL a	sts, all atto	rney fees, and any oth	er expense of recovery.
respective officers this of Month and Year			
P	rincipal		
Company Name	1 [	Company Name	
Signature & Date	1 .	Signature & Date	
Ву:	Ву:		
Title	] [	Title	
(If Principal is a joint venture of two or more contractors, the comparaffixed.)	any names Surety	, and authorized signa	tures of each contractor must be
Name of Surety	1 .	Signature of Attorney-	in-Fact Signature & Date
	Ву:		
STATE OF IL	L		
COUNTY OF  I	, a Notary	Public in and for said o	county do hereby certify that
(Insert names of individuals signi	ng on behal	f of PRINCIPAL & SURF	TY)
who are each personally known to me to be the same persons who PRINCIPAL and SURETY, appeared before me this day in person instruments as their free and voluntary act for the uses and purpos	ose names and ackno es therein	are subscribed to the owledged respectively,	foregoing instrument on behalf of
Given under my hand and notarial seal this Day	/ of	Month and Year	
,			: Signature & Date
		,	
(SEAL, if required by the LPA)			
		Date com	mission expires

Local Public Agency	County	Section Number
Village of Carpentersville	Kane	
ELECTRONIC BID B	OND	
☐ Electronic bid bond is allowed (box must be checked by LPA if electi	onic bid bond is allowed)	
The Principal may submit an electronic bid bond, in lieu of completing the abo electronic bid bond ID code and signing below, the Principal is ensuring the id Principal and Surety are firmly bound unto the LPA under the conditions of the of two or more contractors, an electronic bid bond ID code, company/Bidder n venture.)	entified electronic bid bond has bid bond as shown above. (If F	been executed and the PRINCIPAL is a joint venture
Electronic Bid Bond ID Code C	Company/Bidder Name	
S	Signature & Date	
т Г	itle	



# Apprenticeship and Training Program Certification

Local Public Agency	County	Street Name/Road Na	me S	ection N	lumber
Village of Carpentersville	Kane	Various Streets			
All contractors are required to complete the fol  For this contract proposal or for all bidding groups of the following deliver and install bidding groups.	ups in this deliver	and install proposal.			
Illinois Department of Transportation policy, adopte to be awarded to the lowest responsive and respon to all other responsibility factors, this contract or departicipation in apprenticeship or training programs Bureau of Apprenticeship and Training, and (2) appare required to complete the following certification:	nsible bidder. The eliver and install pr s that are (1) appro plicable to the wor	award decision is subject to oposal requires all bidders ar wed by and registered with the	approval by the nd all bidder's s ne United State	e Depart subcontr s Depar	tment. In addition ractors to disclose tment of Labor's
1. Except as provided in paragraph 4 below, the ur group program, in an approved apprenticeship or t its own employees.					
2. The undersigned bidder further certifies, for work time of such bid, participating in an approved, appl performance of work pursuant to this contract, estawork of the subcontract.	icable apprentices	hip or training program; or (B	) will, prior to c	ommen	cement of
3. The undersigned bidder, by inclusion in the list Certificate of Registration for all of the types of wor employees. Types of work or craft that will be subcany type of work or craft job category for which the	k or crafts in which contracted shall be	n the bidder is a participant a included and listed as subco	nd that will be pontract work. Th	performe ne list sh	ed with the bidder's
4. Except for any work identified above, if any bidd install proposal solely by individual owners, partner would be required, check the following box, and identified above, if any bidd install proposal solely by individual owners, partner would be required, check the following box, and identified above, if any bidd install proposal solely by individual owners, partner would be required.	rs or members and	not by employees to whom	the payment of	f pre <u>va</u> ili	
The requirements of this certification and disclosur provision to be included in all approved subcontract each type of work or craft job category that will be afterward may require the production of a copy of a Labor evidencing such participation by the contract shall not be necessary that any applicable program employment during the performance of the work of	ets. The bidder is utilized on the projects of the project of applicable Cotor and any or all on sponsor be curre	responsible for making a comect is accounted for and liste ertificate of Registration issue of its subcontractors. In orderntly taking or that it will take a	nplete report and.  The Depart  by the United  r to fulfill the pa	nd shall r ment at d States articipation	make certain that any time before or Department of on requirement, it
Bidder		Signature & Date			
Title					
Address		City		State	Zip Code



# **Affidavit of Illinois Business Office**

Local Public Agency	County	Str	eet Name/Road Name	S	ection Number
Village of Carpentersville	Kane	Va	arious Streets		
Name of Affiant	of	O:	h. of Afficia	,	Chaha of Afficiant
being first duly sworn upon oath, state as follows:	:	Ci	ty of Affiant		State of Affiant
1. That I am the	of				
Officer or Position			Bidder		
2. That I have personal knowledge of the facts he	erein stated.				
3. That, if selected under the proposal described	above,			, will main	tain a business office in the
		Bio	dder		
State of Illinois, which will be located in		County, Illi	nois.		
	County	_			
4. That this business office will serve as the prima this proposal.	ary place of empl	oyment for a	iny persons employed ir	n the cons	truction contemplated by
5. That this Affidavit is given as a requirement of	state law as prov	ided in Sect	on 30-22(8) of the Illino	is Procure	ment Code.
		<u>s</u>	ignature & Date		
		L			
		P	rint Name of Affiant		
Notary Public					
State of IL					
County					
Signed (or subscribed or attested) before me on		by			
	(date)				
				, а	uthorized agent(s) of
(nan	ne/s of person/s)				
Bidder					
			Notary Public S	ignature &	Date
			,	<u> </u>	
(SEAL)			My commission	expires	



# Affidavit of Availability

For the Letting of

Bureau of Construction 2300 South Dirksen Parkway/Room 322 Springfield, IL 62764 Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

#### Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

is contracted, show NONE.		1		1		
	1	2	3	4	Awards Pending	Accumulated Totals
Contract Number						
Contract With						
Estimated Completion Date						
Total Contract Price						
Uncompleted Dollar Value if Firm is the Prime Contractor						
Uncompleted Dollar Value if Firm is the Subcontractor						
Total Value of All Work						

#### Part II. Awards Pending and Uncompleted Work to be done with your own forces.

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Part III. Work Subcontracted to Others.

Add pages for additional contracts

Printed 06/05/24 Page 2 of 10 BC 57 (Rev. 02/16/21)



# **Affidavit of Availability**

For the Letting of

Bureau of Construction 2300 South Dirksen Parkway/Room 322 Springfield, IL 62764 Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

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Part III. Work Subcontracted to Others.

Add pages for additional contracts

Printed 06/05/24 Page 4 of 10 BC 57 (Rev. 02/16/21)



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Part III. Work Subcontracted to Others.

Add pages for additional contracts

Printed 06/05/24 Page 8 of 10 BC 57 (Rev. 02/16/21)



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Part III. Work Subcontracted to Others.



# **Check Sheet for Recurring Special Provisions**

ocal Public /	Agency		County	Section Number
illage of C	Carpente	ersville	Kane	
Check th	is box fo	r lettings prior to 01/01/2024.		
ne Following	g Recurrin	ng Special Provisions Indicated By An "X" Are Applicable T	o This Contract And A	re Included By Reference:
		Recurring Special Provision	<u>ons</u>	
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3		EEO		63
4		Specific EEO Responsibilities Non Federal-Aid Contract	ts	73
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Local Public Agency	County	Section Number
Village of Carpentersville	Kane	

The Following Local Roads And Streets Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

# Local Roads And Streets Recurring Special Provisions

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# VILLAGE OF CARPENTERSVILLE OLD TOWN SEGMENT 1A

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#### **STATE OF ILLINOIS**

#### **SPECIAL PROVISIONS**

The following Special Provisions supplement the Illinois Department of Transportation's (IDOT) "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022 and supplemental specifications and recurring special provisions, latest edition, (hereinafter referred to as the "Standard Specifications"); the "Manual on Uniform Traffic Control Devices for Streets and Highways" the "Manual of Test Procedures of Materials", in effect on the date of invitation for bids, Standard Specifications for Water and Sewer Main Construction in Illinois latest edition, and Village of Carpentersville (Village) Standards which apply to and govern the construction of Old Town Segment 1A Street Reconstruction, Village of Carpentersville, Kane County. In case of conflict with any or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

#### **LOCATION OF PROJECT**

The project is located along California Avenue from Maple Avenue north to its terminus, along Charles Street from Lord Avenue to Brook Street, along Brook Street from Maple Avenue north to its terminus, and along Livingston Avenue from Brook Street to its north terminus.

#### **DESCRIPTION OF PROJECT**

The work consists of reconstruction of California Avenue, Charles Street, Brook Street, and Livingston Street with HMA surface and binder course, aggregate base course type B, curb and gutter, sidewalk, driveways, lighting, and various Village utility upgrades for a total project length of 3,096 feet (0.59 miles).

#### MAINTENANCE OF ROADWAYS

Effective: September 30, 1985 Revised: November 1, 1996

Beginning on the date that the Contractor begins work on this project, he shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided for in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

#### PREQUALIFICATION OF BIDDERS

Prequalification of bidders in accordance with Check Sheet LRS6 of the Supplemental Specifications and Recurring Special Provisions will be required of all bidders on this proposal.

#### REDUCTION IN THE SCOPE OF WORK

Due to budgetary constraints the awarding authority reserves the right to reduce the scope of work to be completed under the contract in accordance with Article 104.02 of the Standard Specifications.

No allowance will be made for delay or anticipated profits as the result of a decrease in the quantities of the work to be performed or the reduction in asphalt thickness up to a half inch (1/2").

#### **MOBILIZATION**

The Contract contains no provisions for Mobilization. Therefore, Section 671 of the Standard Specifications is deleted.

#### TRAFFIC CONTROL AND PROTECTION (SPECIAL)

All roads shall be kept open to traffic. The Contractor should take particular note of the applicable portions of Article 107.14 of the Standard Specifications. All signs, except those referring to daily lane closures, shall be post mounted in accordance with Standard 701901 for all projects that exceed four-day duration. Construction signs referring to daytime lane closures during working hours shall be removed, covered or turned away from the view of the motorists during non-working hours.

The Contractor shall furnish, erect, maintain and remove all signs, barricades, flaggers and other traffic control devices as may be necessary for the purpose of regulating, warning or guiding traffic. Placement and maintenance of all traffic control devices shall be in accordance with the applicable parts of Section 701 of the Standard Specifications, the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways and the Highway Standard contained herein.

Special attention is called to Article 107.09 and Section 701 of the Standard Specifications and the following Highways Standards, Supplemental Specifications, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions, and Special Provisions contained herein relating to traffic control. It should be noted that Type I or Type II barricades will be required adjacent to the pavement in areas where a drop off of 3" or more occurs in accordance with Article 701.07.

# <u>Standards</u>

701501, 701801

# Special Provisions

Maintenance of Roadways Supplemental Signage (General Notes) Work Zone Traffic Control (LRS#3) Flaggers in Work Zones (LRS#4)

The Contractor shall contact the Village of Carpentersville at least 72 hours in advance of beginning work. Construction operations shall be conducted in a manner such that streets will be open to traffic at all times, and access to abutting property shall be maintained.

The Contractor shall be responsible for providing a proposed scheduling, phasing and traffic control plan. The Village will review these plans and provide the contractor with any necessary modifications in writing. The Contractor will then be responsible for incorporating these changes into the proposed scheduling, phasing and traffic control plan.

At the preconstruction meeting, the Contractor shall furnish the name and telephone number where he may be reached during non-working hours of the individual in his direct employ that is to be responsible for the installation and maintenance of the traffic control of this project. If the actual installation and maintenance are to be accomplished by a subcontractor, consent shall be requested of the Engineer at the time of the preconstruction meeting in accordance with Article 108.01 of the Standard Specifications. This shall not relieve the Contractor of the requirements to have a responsible individual in his direct employ supervise this work.

This work will be paid for at the LUMP SUM cost for TRAFFIC CONTROL AND PROTECTION (SPECIAL)

STATUS OF UTILITIES (D-1)

Effective: June 1, 2016

Revised: January 1, 2020

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information regarding their facilities and the proposed improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which will require some action on the part of the Village's contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

#### **UTILITIES TO BE ADJUSTED**

Conflicts noted below have been identified by following the suggested staging plan included in the contract. The company has been notified of all conflicts and will be required to obtain the necessary permits to complete their work; in some instances, resolution will be a function of the construction staging. The responsible agency must relocate, or complete new installations as noted in the action column; this work has been deemed necessary to be complete for the Village's contractor to then work in the stage under which the item has been listed.

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME	
N/A - COORDINATION ONGOING WITH UTILITIES					

#### **UTILITY CONTACTS**

The following is a list of utilities and their contact information that may be impacted by construction of this project.

Agency/Company Responsible to Resolve Conflict	Name of contact	Phone	e-mail address
	ATT/Distribution	000-000-0000	G11629@att.com
AT&T	Janet Ahern Kari Martin	630-573-6414 630-573-5757	ja1763@att.com km2618@att.com
ComEd	Design Stage Locate Line	630-576-7094	
Comcast	Martha Gieras Reena Thomas		Martha gieras@comcast.com Reena Thomas@comcast.com
MCI			INVESTIGATIONS@VERIZON.COM
Nicor Gas	Joseph M. Gaca	708-243-5317	jgaca@southernco.com
	Utility Consultant Go3w Bruce Koppang	630-388-2362	gasmaps@aglresources.com
Village of Carpentersville	Ed Szydlowski	224-293-1637	eszydlowski@cville.org
	Kevin Gray	224-293-1613	kgray@cville.org
USIC	Frank Costanzo	630-396-8224	illinoisdamage@usicllc.com

The above represents the best information available to the Village and is included for the convenience of the bidder. The days required for conflict resolution should be taken into account in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided in the action column for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation dates must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Village, the Village's contractor and the utility companies. The Village's contractor is responsible for contacting J.U.L.I.E. prior to any and all excavation work.

# **COMPLETION DATE**

Contractor shall complete all contract items and safely open all roadways to traffic by November 20, 2024.

#### FAILURE TO COMPLETE THE WORK ON TIME

Effective: September 30, 1985 Revised: January 1, 2007

Should the Contractor fail to complete the work on or before the completion date as specified in the Special Provision for "Completion Date", or within such extended time as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of \$1,425, not as a penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Village's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Village's actual loss and fairly take into account the loss of use of the roadway if the project is delayed in completion. The Village shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

#### TEMPORARY ACCESS (PRIVATE ENTRANCE)

Revise Article 402.10 of the Standard Specifications to read:

**"402.10 For Temporary Access.** The Contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

(a) Private Entrance. The minimum width shall be 12 ft. (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03."

Add the following to Article 402.12 of the Standard Specifications:

"Aggregate surface course for temporary access will be measured for payment as each for every private entrance or commercial entrance constructed for the purpose of temporary access. If a residential drive or commercial entrance is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified."

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

"Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE)

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

- (a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.
- (b) Subject to the approval of the ENGINEER for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

#### **CONSTRUCTION LAYOUT**

<u>Description.</u> This work shall consist of providing construction layout of the proposed improvements shown on the plans to provide construction layout for the Contractor. This work shall be performed in accordance with the IDOT Supplemental Specifications and Recurring Special Provisions (SSRSP) – Adopted January 1, 2022, and as directed by the Engineer. This work shall be performed per the Special Provision for Construction Layout Stakes outlined in the SSRSP. This work shall consist of furnishing all materials, equipment and labor required for the Construction Layout.

<u>Method of Measurement</u>: This work shall be measured for payment in lump sum for CONSTRUCTION LAYOUT.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per lump sum for CONSTRUCTION LAYOUT which the price shall include all of items listed in the SSRSP for Construction Layout Stakes.

# **CLEAN CONSTRUCTION DEMOLITION DEBRIS (CCDD)**

A limited environmental screening and sampling of the project was completed for CCDD certification. CCDD certification documentation as well a Letter of Acceptance from Bluff Village Materials, Inc. is included in this Bid Manual for the CONTRACTOR's reference. All removal or excavation items being disposed of at an uncontaminated soil fill operation or CCDD fill site shall meet the requirements of Public Act 96-1416. All costs associated with meeting these requirements shall be included in the unit price for the associated items in the contract that require removal and disposal of CCDD and uncontaminated soil. These costs shall include but not be limited to all required field testing, lab analysis, if required and certification by a licensed professional Engineer, state and local tipping fees.

#### **WASHOUT BASIN**

<u>Description:</u> This work consists of installation, maintenance and subsequent removal and disposal of a concrete washout basin and shall be done in accordance with Sections 280 of the Standard Specifications and as shown on the plans. The washout basin shall be removed after concrete items have been installed. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs, and wetlands with fuels, oils, bitumen, calcium chloride, or other harmful materials according to Article 107.23 of the Standard Specifications.

To prevent pollution by residual concrete and/or the by-product of washing out the concrete trucks, concrete washout facilities shall be constructed and maintained on any project which includes cast-in-place concrete items. The concrete washout shall be constructed, maintained, and removed according to this special provision.

The concrete washout facility shall be constructed on the job site in accordance with Illinois Urban Manual practice standard for Temporary Concrete Washout Facility. The Contractor may elect to use a prefabricated portable concrete washout structure. The working concrete washout facility shall be in place before any delivery of concrete to the site. The Contractor shall ensure that all concrete washout activities are limited to the designated area.

The concrete washout facility shall be located no closer than 50 feet from any environmentally sensitive areas, such as water bodies, wetlands, and/or other areas indicated on the plans.

Adequate signage shall be placed at the washout facility and elsewhere as necessary to clearly indicate the location of the concrete washout facility to the operators of concrete trucks.

The concrete washout facility shall be adequately sized to fully contain the concrete washout needs of the project. The contents of the concrete washout facility shall not exceed 75% of the facility capaVillage. Once the 75% capaVillage is reached, concrete placement shall be discontinued until the facility is cleaned out. Hardened concrete shall be removed and properly disposed of outside the right-of-way. Slurry shall be allowed to evaporate, or shall be removed and properly disposed of outside the right-of-way. The Contractor shall immediately replace damaged basin liners or other washout facility components to prevent leakage of concrete waste from the washout facility. Concrete washout facilities shall be inspected by the Contractor after each use. Any and all spills shall be reported to the Engineer and cleaned up immediately. The Contractor shall remove the concrete washout facility when it is no longer needed.

<u>Measurement and Basis of Payment:</u> This work will be paid for at the contract LUMP SUM price for WASHOUT BASIN, which price shall be payment in full for all of the work as specified above.

### **EXPLORATOIN TRENCH (SPECIAL)**

<u>Description.</u> This item shall consist of excavating a trench at locations designated by the Engineer for the purpose of locating existing underground drainage facilities or existing utility lines within the limits of the proposed improvement. The trench shall be deep enough to expose the line, and the width of the trench shall be sufficient to allow proper investigation to determine if the line needs to be replaced and to determine conflicts with the proposed improvements. The exploration trench shall be backfilled with trench backfill meeting the requirements of the Standard Specifications, the cost of which shall be included in the item of Exploration Trench, Special.

An estimated length of exploration trench has been shown in the Summary of Quantities to establish a unit price, and payment shall be based on the actual length of trench explored without a change in unit price because of adjustment of plan quantity.

<u>Method of Measurement.</u> EXPLORATION TRENCH, SPECIAL will be measured in feet of the actual trench excavated.

<u>Basis of Payment.</u> This work will be paid at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of the depth required, and no extra compensation will be allowed for any delays, inconveniences or damages sustained by the Contractor in performing this work.

#### DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (D-1)

Effective: April 1, 2011 Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

- (j) Temporary Rubber Ramps (Note 2)
  - Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)"

Revise Article 603.07 of the Standard Specifications to read:

"603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

- (a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.
- (b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting ± 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

#### **TEMPORARY INFORMATION SIGNING (D1)**

Effective: November 13, 1996 Revised: January 29, 2020

<u>Description.</u> This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground

mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

#### Materials.

Materials shall be according to the following Articles of Section 1000 - Materials:

	Item	Article/Section
a.)	Sign Base (Note 1)	1090
b.)	Sign Face (Note 2)	1091
c.)	Sign Legends	1091
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 3)	1090.02

- Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
- Note 2. The sign face material shall be in accordance with the Department's Fabrication of Highway Signs Policy.
- Note 3. The overlay panels shall be 0.08 inch (2 mm) thick.

#### **GENERAL CONSTRUCTION REQUIREMENTS**

#### Installation.

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used. The attachment of temporary signs to existing bridges, sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs and/or structures due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Method of Measurement. This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

#### Basis Of Payment.

This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

#### **REMOVALS/GRADING**

#### **GUARDRAIL REMOVAL**

<u>Description:</u> This work shall be performed in accordance to Section 632 of the Standard Specifications except that paragraph 632.01 shall be modified as follows:

This work shall consist of the removal and disposal of existing guardrail, including traffic barrier terminals, HMA or concrete curb, wooden erosion control boards, posts, and cable road guard.

Basis of Payment: This work shall be paid for at the contract unit price per Foot for GUARDRAIL REMOVAL.

## **REMOVING AND RESETTING STREET SIGNS**

<u>Description:</u> This work shall include all labor, material, and equipment necessary to remove, store, and reerect existing regulatory and warning sign panel assembly and posts in accordance with Section 724 of the Standard Specifications and as specified herein.

The Contractor shall store the existing sign panel assembly and post in a location that won't promote vandalism or theft. The Contractor shall replace, at no additional cost to the Owner, any sign panel assembly or post which has been vandalized, stolen or damaged due to neglect, misconduct or poor workmanship. The sign panel assembly and post shall be installed by a method approved by the Engineer and in accordance with application sections of the Manual on Uniform Traffic Control Devices. Construction equipment such as a backhoe or skid steer shall not be used to drive posts into the ground.

<u>Basis of Payment:</u> This work will be measured in place and paid for at the contract unit price per each for REMOVE SIGN PANEL ASSEMBLY-TYPE A OR RELOCATE SIGN PANEL ASSEMBLY-TYPE A, which shall include all labor, material, and equipment required to complete the work as specified herein.

## STORM SEWER

# REMOVE EXISTING FLARED END SECTION

<u>Description:</u> This work shall consist of the removal of existing flared end sections of the size noted on the plans. The excavated areas that are within 2-feet of the proposed paved areas shall be backfilled with granular backfill material. The other excavated areas not within 2-feet of paved areas shall be backfilled with select excavated material.

<u>Method of Measurement:</u> This work will be measured for payment in units of EACH per flared end section removed.

<u>Basis of Payment:</u> This item shall be paid for at the contract unit price, per each, for REMOVE EXISTING FLARED END SECTION. The price shall include all work, equipment, labor and materials to complete the item.

# **STORM SEWER REMOVAL**

<u>Description:</u> This work consists of the removal of storm sewer of the size and type shown on the plans. The excavated areas that are within 2-feet of the proposed paved areas shall be backfilled with granular backfill material. The other excavated areas not within 2-feet of paved areas shall be backfilled with select excavated material.

Storm sewer removal shall be performed in accordance with all applicable articles of Section 551 of the Standard Specifications.

Excavation and backfill for storm sewer removal shall conform to the typical sections shown in the plans and shall conform to the provisions of Sections 20 of the Standard Specifications for Water & Sewer Main Construction in Illinois (latest edition).

Method of Measurement: This work shall be measured per linear foot of storm sewer to be removed.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot for STORM SEWER REMOVAL. The price shall include all labor, tools, plug, mortar, equipment and material including excavation, disposal of waste excavated material, trench backfill and all other material necessary to complete the work as specified.

# TIMBER HEAD WALL TO BE REMOVED

# STORM SEWER, RUBBER GASKET, CLASS A, TYPE 1, EQUIVALENT ROUND SIZE 30"

<u>Description:</u> This item shall consist of the installation of equivalent round size 30" storm sewer of the type specified at locations indicated on the plans. The work shall be performed in accordance with applicable sections of the Standard Specifications for Road and Bridge Construction (latest edition) except as modified here and Village of Carpentersville Engineering Standards.

The storm sewer shall include rubber gasket.

<u>Method of Measurement:</u> This work shall be measured per lineal foot of STORM SEWER, RUBBER GASKET, CLASS A, TYPE 1, EQUIVALENT ROUND SIZE 30" of the type specified in the plans.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot of STORM SEWER, RUBBER GASKET, CLASS A, TYPE 1, EQUIVALENT ROUND SIZE 30" installed of the type specified. The price shall include all labor, tools, equipment, and material including excavation, backfilling, disposal of waste excavated material, pipe, gaskets and all other material necessary to complete the work as specified.

## STORM SEWER, RUBBER GASKET, CLASS B, TYPE 1, 6"

<u>Description:</u> This item shall consist of the installation of 6" storm sewer at locations indicated on the plans to connect proposed residential inlets to proposed storm structures in the street. The work shall be performed in accordance with applicable sections of the Standard Specifications for Road and Bridge Construction (latest edition) and Village of Carpentersville Engineering Standards.

The storm sewer shall be constructed of 6" PVC SDR-26 and fittings conforming to ASTM D3034, and elastomeric gasket joints per ASTM D3212 and complying with F-477.

Method of Measurement: This work shall be measured per lineal foot of STORM SEWER, RUBBER GASKET, CLASS B, TYPE 1, 6".

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot of STORM SEWER, RUBBER GASKET, CLASS B, TYPE 1, 6" installed. The price shall include all labor, tools, equipment and material including excavation, backfilling, disposal of waste excavated material, 6" PVC SDR-26 piping, fittings, any necessary adapters and all other material necessary to complete the work as specified.

#### **RESIDENTIAL INLETS**

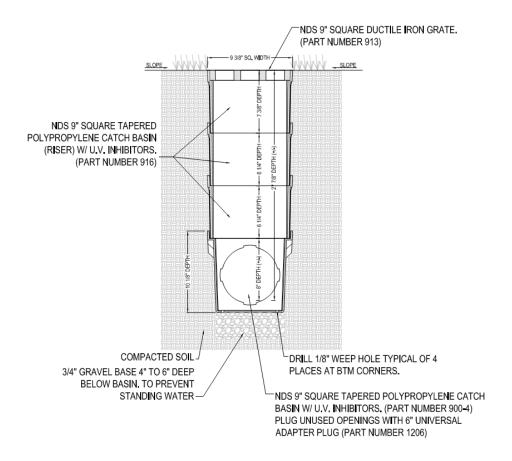
<u>Description:</u> This item shall consist of the installation of an NDS 9" Square Catch Basin at locations indicated on the plans. The work shall be performed in accordance with applicable sections of the Standard Specifications for Road and Bridge Construction (latest edition), Village of Carpentersville Engineering Standards, and NDS installation requirements, and detail provided below.

Installation shall include 9" square catch basin (part number 900-4), three catch basin risers (part number 916), and 9" square ductile iron grate (part number 913). All unused openings shall be plugged with NDS 6" universal adapter plug (part number 120).

The excavated areas that are within 2-feet of the proposed paved areas shall be backfilled with granular backfill material. The other excavated areas not within 2-feet of paved areas shall be backfilled with select excavated material. Trench Backfill needed to complete the installation shall be considered included in the cost of RESIDENTIAL INLETS.

Method of Measurement: This work shall be measured per each RESIDENTAIL INLET.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per each for RESIDENTIAL INLET. The price shall include all labor, tools, plugs, adapters, equipment and material including excavation, disposal of waste excavated material, trench backfill and all other material necessary to complete the work as specified.



# **VIDEO INSPECTION OF STORM SEWER**

<u>Description:</u> This work consists of storm sewer television inspection, videotaping and recording. Subsurface videotaping will be required following completion of the construction (but prior to installation of the bituminous surface course).

<u>Method of Measurement:</u> This work shall be measured per lineal foot of sewer for VIDEO INSPECTION OF STORM SEWER.

<u>Basis of Payment:</u> This work shall be paid for at the Contract unit price per foot of storm sewer for VIDEO INSPECTION OF STORM SEWER of installed storm sewers on streets, and at other locations as directed by Engineer. The Contract unit price shall be payment in full for all materials, labor, and equipment required for: traffic control; cleaning of storm sewers (jetting); internal videotaping existing mainline storm sewers, including reverse set-ups, retrieving stuck televising equipment or repairing of sewers damaged by the televising effort; providing one copy of the videotapes (DVD format) and reports to the Owner and other related work required.

#### **SANITARY SEWER**

# SANITARY SEWER SERVICE, 6" PVC, COMPLETE

<u>Description:</u> This work shall be performed in accordance with Section 33 of the Standard Specifications for Water and Sewer Main Construction (latest edition), except as modified herein. This work shall be performed according to the Village of Carpentersville's Engineering Standards and Standard Details.

House reconnections to the new sanitary sewer shall be made individually and in as short a time period as possible after testing. Customers shall be notified by the Contractor prior to disconnecting service.

Service reconnections shall be made with 6" PVC sewer pipe at the locations indicated on the plans. Service reconnections shall include a new 6" cleanout at the right-of-way utilizing SDR 26 GASKET TWO CLEAN OUT (detail in plans), riser pipe (SDR-26), and threaded cap (Schedule 40) at grade. Service pipe shall be laid at a minimum slope of 1%. 6" – 45 degree (MAX) SDR-26 short radius bend will connect to a SDR-26 WYE TEE. No vertical service connections permitted. Pipe backfill shall be CA-6 and bedding shall be CA-7.

<u>Method of Measurement:</u> This work shall be measured per each sanitary sewer service connection of the type specified.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per each for SANITARY SEWER SERVICE CONNECTION of the type specified. The price shall include all labor, tools, equipment and material including excavation, backfilling, disposal of waste excavated material, 6" PVC SDR-26 piping, tees, plugs, any necessary adapters and all other material necessary to complete the work as specified.

## MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID (0'-12' DEPTH)

<u>Description:</u> This item shall consist of the installation of manholes of the specified size and depth and frame and lid. The work shall be performed in accordance with Section 602 of the Standard Specifications for Road and Bridge Construction (latest edition). This work shall be performed in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois latest edition, per the Village of Carpentersville Sanitary Manhole Detail included in the plans.

Special lid shall be used for Sanitary Manholes with the word "SANITARY" cast into the Lid and shall be the common type of NEENAH R-1713, or equivalent East Jordan product, or approved equal.

## Testing:

Sanitary Manhole shall pass infiltration/vacuum-testing per ASTM C1244. One copy of the written inspection report shall be furnished to the Village.

Method of Measurement: This work shall be measured per each sanitary manhole.

<u>Basis of Payment</u>: This work shall be paid for at the contract unit price per each for MANHOLES, SANITARY, of the specified size, and type. Price shall include all of the work as specified above including heavy duty frame and lid, and internal and external chimney seals as shown in the details. The price shall also include all labor, tools, equipment and material including excavation, backfilling, disposal of waste excavated material and all other material necessary to complete the work as specified.

## INTERIOR DROP MANHOLE

<u>Description:</u> This work consists of installation of a sanitary manhole with an interior drop at the location shown on the plans.

<u>Materials</u>: The sanitary manhole shall be constructed according to the specification MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID. The proposed drop piping shall be SDR-26 PVC pipe and fittings conforming to ASTM D3034. The proposed drop bowl inside shall be the appropriate size as produced by Reliner/Duran Inc. or an approved equivalent product. Pipe brackets to secure the internal piping to the manhole wall shall be 1" wide, 316 stainless steel straps as supplied by Reliner/Duran Inc. or approved equal. Flexible pipe couplings shall be a shear ring type coupling as manufactured by Fernco, Series 1056R or approved equal.

The diameter of the drop pipe shall be 8". Elastomeric boot connector with stainless steel bands shall conform to ASTM C923 and ASTM A167-99 of the latest revisions and shall be the appropriate size as produced by Kor-N-Seal, PSX Direct, or an approved equal. Determination of the correct size boot is the responsibility of the Contractor.

<u>Construction</u>: The pipe shall be secured to the wall using stainless steel straps anchored at 4' intervals (minimum of 2) with 3/8" stainless steel anchor bolts. An inside drop bowl shall be fitted at the top of the PVC pipe using a flexible pipe coupling and secured to the manhole wall with stainless steel fasteners.

Method of Measurement: This work shall be measured for payment as each.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per each for INTERIOR DROP MANHOLE, of the ttype and size specified. Price shall include the materials and installation for the elastomeric boot connector, stainless steel straps, pipe couplings, 8" drop pipe, and all other materials and work required for installation of the sanitary manhole and the internal drop to the invert elevation shown on the plans.

# **SANITARY SEWER REMOVAL, 8"**

<u>Description:</u> This work consists of the removal of 8" sanitary sewer. Excavation and backfill for Sanitary Sewer shall conform to the provisions of Sections 20 of the Standard Specifications for Water & Sewer Main Construction in Illinois.

Method of Measurement: This work shall be measured per linear foot of sanitary sewer to be removed.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot for SANITARY SEWER REMOVAL, 8", of the size and type specified. The price shall include all labor, tools, equipment and material including excavation, backfilling, and disposal of waste excavated material, and all other material necessary to complete the work as specified.

#### **SANITARY SEWER, 8"**

<u>Description:</u> This work consists of the installation of Sanitary Sewer of the size shown on the plans. The Sanitary Sewer shall be constructed with Polyvinyl Chloride (PVC) pipe and fittings conforming to ASTM D3034, and elastomeric gasket joints per ASTM D3212 and complying with F-477. Installation shall be in accordance with applicable information from Standard Specifications, Division III Section 30 of the Standard Specifications for Water and Sewer Main Construction in Illinois.

PVC pipe thickness shall be SDR 26 for 3.5' – 12' burial cover, SDR 21 for 12' – 20' burial cover.

PVC piping shall be protected from sunlight and either covered or stored indoors.

Excavation and backfill for Sanitary Sewer shall conform to the provisions of Sections 20 of the Standard Specifications for Water & Sewer Main Construction in Illinois. Bedding class shall be Type II. Minimum burial cover shall be 42".

When water is encountered in the trench, it shall be removed during pipe laying and jointing operations. Provisions shall be made to prevent floating of the pipe.

Dewatering, if required, shall be considered as included in the cost to the Contract.

# Testing:

Sanitary Sewer shall be pressure tested in accordance with Article 31-1.13C of the Water and Sewer Specifications. Deflection testing shall be in accordance with Article 31-1.13D of the Water and Sewer Specifications. Deflection testing shall be done no sooner than 30 days after the pipe has been backfilled. No sooner than 30 days after sewers have been installed, they shall be inspected by close circuit television to determine if any pipe installation defects have occurred. One copy of the videotape and written inspection report shall be furnished to the Village.

The CONTRACTOR shall furnish to the ENGINEER the required documentation, test results, etc., required by the IEPA for placing the sanitary sewer. This work will not be paid for separately and shall be considered as included in the cost to SANITARY SEWER, 8".

<u>Method of Measurement:</u> This work shall be measured per lineal foot of SANITARY SEWER, of the size and type specified.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot for SANITARY SEWER, of the size and type specified. The price shall include all labor, tools, equipment and material including PVC pipe of size and class specified, excavation, backfilling, and disposal of waste excavated material, any necessary adapters and all other material necessary to complete the work as specified.

## **ABANDON AND FILL EXISTING SANITARY SEWER**

<u>Description:</u> This work shall consist of plugging and abandoning in place 8" sanitary sewer and filling with CLSM.

CLSM shall be provided in accordance with Section 1019 of the Standard Specifications for Road and Bridge Construction (latest edition).

Sanitary sewers (8") shown in the Plans to be abandoned shall be filled with CLSM and the ends plugged to the satisfaction of the ENGINEER.

<u>Method of Measurement:</u> This work shall be measured per linear foot for the specified storm sewer to be abandoned (of the size specified).

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot for ABANDON AND FILL EXISTING SANITARY SEWER (8"). The price shall include all labor, tools, equipment, and material including excavation, backfilling, disposal of waste excavated material, CLSM and all other material necessary to complete the work as specified.

## **REMOVE MANHOLES**

<u>Description:</u> This item shall consist of the removal of existing storm and sanitary manhole as shown on the plans. Removal shall include the excavation and physical removal and disposal of the manhole structure. The work shall be performed in accordance with Section 605 of the Standard Specifications for Road and Bridge Construction (latest edition).

The excavated areas that are within 2-feet of the proposed paved areas shall be backfilled with granular backfill material. The other excavated areas not within 2-feet of paved areas shall be backfilled with select excavated material. Trench Backfill needed to complete the removal shall be considered included in the cost of REMOVE MANHOLES.

Method of Measurement: This work shall be measured per each manhole removed.

Basis of Payment: This work will be paid for at the contract unit price per each for REMOVE MANHOLES.

# **WATER MAIN**

#### WATER DISTRIBUTION SYSTEM

<u>Description:</u> This work shall consist of the installation of new water main pipe and appurtenances in accordance with the plans and details or as directed by the Engineer. All work shall be performed in accordance with the requirements of the Village of Carpentersville, the latest edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and Sections 561, 562, 563, 564, and 565 of the Standard Specifications, except as modified herein. Specifications outlined by the Village of Carpentersville shall take precedence.

The Contractor shall provide all labor, material, and equipment required to furnish and install water mains and appurtenances, and all other improvements shown on the plans as required to perform the work and as specified herein. Construction staking for the installation of water mains and appurtenances shall be

performed by the Contractor. Mobilization activities and construction staking required for the installation of water mains shall be considering incidental to the contract, with no additional compensation to be made. At least 30 days prior to installation of water mains covered in these specifications, the Contractor is required to submit to the Village of Carpentersville and the Engineer shop drawings/catalog descriptions of all items to be installed showing locations, dimensions, and details, including piping sizes, pipe materials, fittings, valves, basins, hydrants, and other appurtenances.

Detailed drawings of any proposed deviation from the Plans due to actual field conditions or other causes shall be included with the foregoing submittal as soon as practical. The shop drawings shall have a schedule of materials on each drawing defining all items mentioned above. All catalog and descriptive data shall note where the specific item is to be installed and a cross reference made on the Plans. The manufacturer shall certify to a minimum of three (3) years of experience specializing in manufacturing of products specified herein.

The Contractor shall establish and maintain quality control of all equipment and construction operations involved under this item. To assure compliance with contract requirements, the Contractor shall maintain records of his quality control for all items listed below.

- 1. Check for damage to and defects in materials.
- 2. Check for proper storage of materials and provide a systematic listing of these items and their location.
- 3. Check to see that shop drawings on all piping systems have been submitted and are approved.
- 4. Check to see that all piping materials conform to approved shop drawings.
- 5. Review requirements of Drawings and specifications and check layouts.

A copy of these records shall be kept at the jobsite and shall be available at all times for the Engineer's review.

The Plans show the general arrangement of the water distribution systems. Whenever the Contractor deems it necessary to deviate from the arrangements shown, the Contractor shall submit to the Engineer in writing a request for the deviation, along with drawings showing the proposed new arrangement. Deviation shall not be made until approval of new arrangements is obtained. Wherever piping arrangements are shown or required to be modified to accommodate the equipment approved for installation, the Contractor shall prepare and submit for approval detailed shop drawings of the new arrangement. Only new and unused materials shall be installed in the work specified herein.

The Plans are not intended to show every fitting, offset, or similar item. Piping systems shall include all unions, fittings, anchors, valves, gaskets, bracing, or other appurtenances necessary for the proper installation of the water distribution systems, but shall include not less than that shown in the Plans.

All water main pipe and appurtenances shall be carefully examined for defects and no piece shall be laid which is known to be defective. If any defective piece should be discovered after having been laid, it shall be removed and replaced with a sound piece, in a satisfactory manner, by the Contractor at no additional cost to the Village. All items shall be thoroughly cleaned before they are placed, shall be kept clean until they are accepted in the completed work, and when laid shall conform accurately to the lines and elevations shown on the Plans, or as specified.

<u>Materials:</u> Specification references made herein for manufactured materials such as pipe, hydrants, valves, fittings, and other appurtenances refer to designation of the American Water Works Association (AWWA), of the American National Standards Institute (ANSI), or of the American Society for Testing and Materials (ASTM).

All manufactured items shall be standard commercial products of reputable manufacturers. Where materials are shown on the Plans or listed but not specifically covered by a standard or specification, the Contractor shall furnish best commercial grades of material or articles subject to the approval of the Engineer. When two or more articles of the same material or equipment are required, similar articles of the same size shall be products of a single manufacturer.

- 1. Water Main Pipe: Provide 8" ductile iron pipe.
  - a. Ductile iron pipe shall be per ANSI 21.51 (AWWA C151).
  - b. Pipe thickness shall be per ANSI A21.50 (AWWA C150), thickness Class 52.
  - c. Pipe lining shall be cement-mortar type per ANSI A21.4 (AWWA C104).
  - d. Joints: Push-On or Mechanical Joint per ANSI A21.11 (AWWA C111).
  - e. Fittings: ANSI 21.10 (AWWA C110) for standard body, or ANSI A21.53 (AWWA C153) for compact body. All fittings shall be compact body type unless otherwise indicated on the Plans. All bends, tees, and fittings must be restrained, mechanical joint type.
  - Bolts, nuts, washers, and threaded rods shall be type A-304 stainless steel, series 300 per ASTM A194
  - g. Coatings: Asphaltic coating in accordance with ANSI A21.51 (AWWA C151) for pipe, ANSI A21.53 (AWWA C153) for compact fittings, and ANSI A21.10 (AWWA C110) for standard fittings.
  - h. Flanges: Flanged joints and fittings will only be used where it is indicated on the plans for installation of specific fittings and appurtenances. Where required, ductile iron pipe with flanged joints shall conform to ANSI A21.15 (AWWA C115). Flanged joints shall meet the requirements of ANSI B16.1, Class 125 drilling pattern.
- 2. Polyethylene Encasement: All buried ductile iron pipe and fittings shall be encased in polyethylene conforming to the requirements of ANSI A21.5 (AWWA C105). The polyethylene encasement shall be provided by the ductile iron pipe manufacturer and installed per the manufacturer's recommendation.
  - a. Thickness: Linear Low-density polyethylene film (minimum 8 mils) or High-density cross laminated polyethylene film (minimum 4 mils).
  - b. Markings: The following information shall be clearly marked on the sheet at minimum increments of 2-feet along its length:
    - i. Manufacturers name or trademark.
    - ii. Year of Manufacture.
    - iii. Min. film thickness and material type (LLDPE or HDCLPE).
    - iv. Applicable range of nominal pipe diameter size(s).
    - v. Warning Corrosion Protection Repair Any Damage.
- 3. Thrust Restraint: All water main pipe shall be restrained at tees, plugged or capped ends, hydrants, and bends greater than 11.25 degrees, or as indicated on the Plans.
  - a. Pipe in sizes 12-inch and smaller shall be restrained with precast concrete thrust blocks as indicated on the Plans. Provide restrained joint pipe and fittings at locations indicated on the Plans.
  - b. Pipe in sizes larger than 16-inch shall be restrained with restrained joint pipe and fittings. Install thrust blocks at fittings connecting to existing water mains, or as indicated on the Plans.
  - c. Restrained joint devices shall be wedge type with locking segments shaped to pipe barrel that do not create stress points on the pipe. Acceptable products shall be Meg-A-Lug type manufactured by EBAA Iron, Inc. as follows:
    - i. Series 1100 for Mechanical Joint pipe.
    - ii. Series 1700 Harness for Push-on pipe.
    - iii. Series 3800 for plain end pipe couplings.
    - iv. No substitutions.
- 4. Conductivity Appurtenances:
  - a. Provide wedges of serrated silicon bronze or #10-copper cable and tapping devices specifically designed for this purpose.
  - b. Use devices provided by the pipe manufacturer.
  - Standard mechanical joints or pipe restraining fittings are not acceptable devices for conductivity.
- 5. Locator Wire: Provide TRACE-SAFE Water Blocking Tracer Wire with TRACE-SAFE Connectors as manufactured by NEPTCO, Pawtucket, Rl. Locater wire shall be installed be the manufacturer's recommendations and as indicated on the Plans.
- 6. Flange Adaptors: Provide a ductile iron flange adapter dual ring system with bolt circles compatible with ANSI B16.1, Class 125 drilling pattern.

- a. Provide restrained adapter with individual actuated gripping wedges that use torque limiting screws to insure proper initial set.
- b. Set screw "only" restraining adaptors are not acceptable.
- c. Provide system that allows joint deflection of up to 5 degrees.
- d. Provide a fluoropolymer coating to the wedge and wedge assembly and powder coating to the restraint body.
- e. Flange adaptors shall be Series 2100 Megaflange by EBAA Iron.
- 7. Transition Couplings: Provide transition couplings for connections into Cast Iron or Asbestos Cement pipe.
  - a. Couplings shall be ductile iron body with stainless streel bolts and fusion-bonded epoxy coating.
  - b. Couplings shall be suitable for the diameter and material of the existing pipe.
  - c. Pipe shall be restrained at coupling connection.
  - d. Acceptable Products:
    - i. Cascade CRCER,
    - ii. Ford Meter Box FC2W.
- 8. Water Main Valves: 8-inch
  - a. Valves shall be in accordance with AWWA C515 ductile iron body, bronze fitted, resilient wedge and seat type, with non-rising stem and O-ring packing.
  - b. Provide 2-inch square operating nut, counter-clockwise opening, and non-rising stem unless otherwise indicated. Provide operator type and configurations as indicated on the drawings.
  - b. End connections shall be restrained mechanical joint type meeting the requirements of AWWA C111 unless otherwise indicated on the Plans.
  - c. The body and bonnet shall be coated with fusion bonded epoxy both interior and exterior, complying with AWWA C550 and be NSF 61 approved.
  - d. Acceptable products:
    - i. Clow Model 2638, or
    - ii. American Flow Control (Waterous) Series 2500.
    - iii. No substitutions.
- 9. Water Main Line Stops and Inserting Valves: Shall provide a means to install line stop or valve into a pressurized pipe with no interruption of flow through the pipe and no reduction of line pressure.
  - a. Ductile iron or stainless steel body and using a resilient wedge to seat against the water main pipe interior surface.
  - b. Rated for a minimum 150 psi working pressure.
  - c. Valves shall have a 2-inch square operating nut, counter-clockwise opening, and non-rising stem
  - d. Installation will require cutting and removing a portion of the water main pipe wall. Pipe cutting and removal of pipe material shall be completed with water main operating under continuous pressure. Install per the instructions of the manufacturer.
  - e. Installer shall be trained by, or accepted by, the insertion device manufacturer as a qualified installer; or installer shall have written proof and references of at least 3 years of experience and/or a minimum of 30 successful installations of the insertion device type to be installed for this Project.
  - f. Acceptable valve manufacturers:
    - i. Hydra-Stop
- 10. Fire Hydrants:
  - a. All hydrants shall include an auxiliary valve, valve box, and valve box stabilizer supplied with the fire hydrant.
  - b. Hydrants shall be in accordance with AWWA C502.
  - c. Hydrants shall be painted as follows:
    - i. Primer Rustoleum High Performance 9100 System DTM Epoxy Mastic
    - ii. Paint Rustoleum High Performance- 9800 System DTM Urethane Mastic.

- iii. Color: Safety Red. One full application per hydrant.
- d. Provide compression type hydrant valve with one a 5-1/4-inch minimum main valve assembly, 0-ring seals, two (2) 2-1/2-inch hose nozzles, and one (1) 4-1/2-inch pumper nozzle with National Standard threads, a National Standard operating nut, and an aboveground breakaway flange.
  - i. Mechanical joint shoe for depths of bury greater than 6 feet, with a minimum 24" long stub and a maximum 36" long stub with Megalug joints. Flange shoe for depths of less than 6 feet.
- e. Provide a 6-inch auxiliary resilient seat type gate valve with restrained type joints between the fire hydrant, the valve, and the tee fitting.
  - i. Provide FL x MJ or MJ x MJ connections; depending on depth of bury.
- f. Fire Hydrants shall be Clow Medallion F-2545. No substitutions will be allowed.
- g. Valve box stabilizers shall be provided on all hydrant auxiliary valves. Stabilizers shall be from Valve Box Stabilizer, Inc., Joliet, IL. No substitutions will be allowed.
- h. Provide valve boxes with the word "WATER" embossed on the lid. Valve boxes shall be Tyler Model 664-S or East Jordan Iron Works 664-S.

#### 11. Service Connections

- a. Service connections shall include saddles, corporation stops, curb stops, service boxes, and water service tubing.
- b. All water service lines of 2-inch diameter and smaller shall be constructed of Type K soft temper seamless copper tubing in accordance to ASTM B88 with compression type fittings. Service connections to water main for services 2-inch in diameter and less shall be with:
  - i. An A.Y. McDonald 4701BT or 4701BQ (Ball Type) corporation stop.
  - ii. Water services of 11/4 to 2 inches shall require a swivel nut, McDonald 4750 ST.
  - iii. No substitutions allowed.
- c. Service connections to ductile iron water main shall be direct tap.
- d. Service connections to existing cast iron or asbestos cement water main shall require a service saddles suitable for the water main that is being connected to. Service saddles shall be Cascade CS22.
- e. Each service 2-inch diameter or less shall have an A.Y. McDonald 6104BT (Ball Type, Minneapolis pattern) curb stop and an A.Y. McDonald 5614 (Minneapolis pattern) curb box. The upper section of the curb box for 1-inch diameter services shall be 1½-inch in diameter.
- f. Service couplings shall be A.Y. McDonald "T" or "Q" series 4758T or 4758Q.
- g. Service connections to the water main for services 3-inch in diameter or larger shall be made with ductile iron pipe and fittings conforming to the water main pipe specification. Services 3-inch diameter and larger shall have gate valves conforming to water main gate valve specification, with valves installed inside of a vault.

<u>General:</u> The Village of Carpentersville Public Works Department employees <u>only</u> shall operate any existing water distribution appurtenances (i.e. water valves, fire hydrants, etc.). A minimum forty-eight (48) hours advance notice to the Village of Carpentersville Public Works Department is required for any water service disruptions.

A representative from the Village of Carpentersville must be present at all connections to existing water mains. All shut downs are to be coordinated with the Village of Carpentersville and will require notification via door hangers to all residences and businesses affected by the shutdown. All alterations are to take place during working hours of the week day and shall not be performed between 4PM to 5AM unless an emergency shutdown is necessary and is directed by the Village.

Connections to existing water mains shall be with non-pressure connections except where pressure connections are shown on the Plans or required by conditions at the time on construction. The maximum time allowable per each connection for water pressure shut off is two (2) hours. Each connection must be made within two (2) hours.

New water main that is to be installed shall be sequenced in such a way so as to maintain the existing main in service until the new main is installed and has passed all required testing. Contractor shall submit a

sequencing plan that shall be reviewed and approved by the Engineer prior to commencing water main work. The Contractor shall make only one connection at a time unless approved by the Engineer.

<u>Excavation and Backfill:</u> Excavation and Backfill shall be in accordance with Section 20 of the Standard Specification for Water and Sewer Main Construction in Illinois, except as modified in the Plans and Special Provisions. Unless otherwise shown or directed, all water mains and water service lines shall be laid to minimum depth of 5'-6" measured from the ground surface or established grade to the top of the pipe. In areas subject to subsequent excavation or fill, the pipes shall be laid to grades as indicated on the Plans.

The trench shall be dug to the depth and alignment required for proper installation of the pipe. The Contractor shall not advance trench excavation more than 50 feet ahead of completed pipe installation except as approved by the Engineer. The Contractor shall proceed with caution in the excavation and preparation of the trench so that the exact location of underground structures and piping, both known and unknown, may be determined.

The maximum trench widths at the top of pipelines shall be as indicated on the Plans. The trench width may vary with and depend upon the depth of the trench and the nature of the excavated material encountered, but in any case shall be of ample width to permit the pipe to be laid and jointed properly and the backfill to be placed and compacted properly.

The trench, unless otherwise specified, shall have a flat bottom conforming to the grade to which the pipe is laid. The pipe shall be laid on sound aggregate bedding of CA-11 material, no less than four (4) inches in depth, true to grade, and shall have a firm bearing for the full length of pipe. Any part of the trench over excavated shall be corrected with trench backfill material and thoroughly compacted.

For water main pipe located under roadway pavement, driveways, sidewalks, curb and gutter, or within 2 feet of any paved areas; crushed CA-6 granular backfill shall be used and shall be mechanically compacted. Care shall be taken during backfilling operations so that any adjacent newly placed concrete will not be disturbed as a result of vibration due to compaction equipment.

Where removal of existing asbestos cement water main is required to allow for replacement of existing water mains with new ductile iron water main pipe, the Contractor shall crush the existing asbestos cement pipe in place and leave the residual crushed pipe in the bottom of the trench. Cover crushed pipe with bedding material as part of bedding and covering of new water main pipe.

<u>Braced and Sheeted Trenches:</u> Whenever necessary to prevent caving, excavations in sand, gravel, sandy soil or other unstable materials shall be adequately sheeted and braced. Provide and maintain sheeting, shoring, and bracing necessary for protection of the Work, adjacent property, and for the safety of personnel. The trench shall be so braced and drained that workmen may work therein safely and efficiently. The Contractor shall note that excavations shall conform to the latest OSHA requirements for excavations.

Where sheeting and bracing are used, the trench width shall be increased accordingly. Trench sheeting shall remain in place until the pipe has been laid, tested for defects, and repaired if necessary, and the backfill around it compacted to a depth of two feet over the top of the pipe.

Remove temporary sheeting and bracing after backfilling to an elevation which will prohibit caving. Fill voids left by the withdrawal of sheeting with compacted sand. No extra payment will be made for the supports left in place without the direction of the Engineer.

The Engineer may direct that supports in trenches be cut off at any specific elevation to protect adjacent facilities or property. Do not leave supports within 4 feet of the ground or pavement surface in place without the permission of the Engineer.

Over Excavation Backfill Requirement: The Contractor shall over excavate unsuitable soils found at or below the bottom of the trench to meet firm subsoil or as determined by the Engineer. In cases where the trench excavation is carried beyond or below the lines and grades as indicated in the Plans or given by the Engineer, the Contractor shall, at no additional cost, backfill all such excavated space with CA-1 granular material in layers not to exceed eight (8) inches in thickness and compact each layer solidly in

place. The backfill material shall then be compacted to a minimum of 95% Standard Proctor density or that necessary to prevent settlement. Compaction of granular materials within three feet of the walls of a structure shall be accomplished by the use of hand operated compaction equipment.

<u>Trenching by Machine or by Hand:</u> The use of trench digging machinery will be permitted except in places where operation of same will cause damage to trees, buildings or existing structures above or below ground, in which case hand methods shall be employed. Use of heavy compaction equipment within three feet of the walls of a structure will not be allowed.

<u>Manner of Handling Pipe and Accessories in the Trench:</u> Proper implements, tools and facilities satisfactory to the Engineer shall be provided and used by the Contractor for the safe and convenient completion of the work. All pipe fittings, valves and hydrants shall be carefully lowered into the trench, piece by piece, by means of derrick, ropes or other suitable tools or equipment in such manner as to prevent damage to pipe or pipe coating. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.

<u>Dewatering:</u> The Contractor shall at times during construction provide pumping, bailing, wellpoints, and construct ditches and dikes required to dewater and drain ground water, sewage, or storm water in order to promptly remove and properly dispose of all water entering the excavations or other parts of the Work until all Work to be performed therein has been completed. No water containing suspended solids shall be discharged into storm sewers. The proposed method for controls of groundwater shall be submitted to the Engineer for approval.

<u>Preventing Trench Water from Entering Pipe:</u> At times when the pipe laying is not in progress, the open ends of the pipe shall be closed by approved means, and no trench water shall be permitted to enter the pipe.

<u>Protection of Pipe:</u> Adequate provision shall be made for the safety, storage and protection of all water pipe prior to actual installation in the trench. Care shall be taken to prevent damage to the pipe castings, both inside and out. Provisions shall be made to keep the inside of the pipe clean throughout its storage period and to keep mud and/or other debris from being deposited therein. All pipe shall be thoroughly cleaned on the inside before laying of the pipe. Proper equipment shall be used for the safe handling, conveying and laying of the pipe. All pipe shall be carefully lowered into the trench, piece by piece, by means of a derrick, ropes, or other suitable tools or equipment, in such manner as to prevent damage to water main materials and protective coatings and linings. Under no circumstances shall water main materials be dropped or dumped into the trench.

<u>Laying of Pipe:</u> Laying of pipe shall be accomplished to line and grade in the trench only after it has been dewatered and the foundation and/or bedding has been prepared. Mud, silt, gravel and other foreign material shall be kept out of the pipe and off the jointing the surface.

Contractor shall verify that excavations are required grade, dry and not over-excavated. Prior to installation ream pipe and tube ends and remove burrs, scale and dirt, on inside and outside before assembly.

All pipe laid shall be retained in position so as to maintain alignment and joint closure until sufficient backfill has been completed to adequately hold the pipe in place. All pipes shall be laid to conform to the prescribed lines and grades shown on the Plans, with the limits that follow.

In making joints, all portions of the joining materials and the socket and spigot ends of the joining pipe shall be wiped clean of all foreign materials. The actual assembly of the jointing shall be in accordance with the manufacturer's installation instructions and/or as directed by the Engineer.

<u>Pipe Restraining Systems:</u> At all dead ends or where a fittings create alignment changes greater than 11 degrees, concrete thrust blocks or restrained joint pipe and/or devices shall be installed as indicated on the Plans.

This work shall be considered incidental to the water main work.

1. Provide protection from movement of water main piping, plugs, caps, tees, valves, hydrants, and bends of 11.25 degrees.

- a. Provide restrained joint fittings and concrete thrust blocks where shown on the Plans and where connections are made to existing water mains. All mechanical joint fittings must be restrained joint type.
- 2. Concrete thrust blocks:
  - a. Provide precast concrete thrust blocking with a compressive strength of 3,000 psi in 28 days.
  - b. Locate thrust blocking between solid ground and the fitting to be anchored.
  - c. Unless otherwise shown or directed by the Engineer, place the base and thrust bearing sides of thrust blocking directly against undisturbed earth.
  - d. Sides of thrust blocking not subject to thrust may be placed against forms.
  - e. Place thrust blocking so the fitting joints will be accessible for repair.
- 3. Restrained type pipe and fittings:
  - a. Provide restrained joint pipe to distance indicated on the Plans, or not less than a minimum of three standard pipe lengths on each side of a bend or fitting to be restrained.

<u>Horizontal and Vertical Separation:</u> Maintain adequate separation between water mains and water service lines from sanitary sewer, storm sewers, combined sewers, building sewer service connections, and drains in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois" and Section 653.119 of the Illinois Environmental Protection Agency Title 35.

- 1. Horizontal Separation: Water mains shall be installed at least ten (10) feet horizontally from any existing or proposed storm or sanitary sewer line. Where it has been indicated on the Plans that horizontal separation is less than ten (10) feet; the water main invert must be at least 18 inches above the crown of the sewer and the water main must be laid in a separate trench, or both the water main and sewer shall be constructed of water main quality materials.
- 2. Vertical Separation: Whenever a water main must cross storm sewers, drain lines, or sanitary sewers, the water main shall be installed at such an elevation that the invert of the water main is eighteen (18) inches above the crown of the drain or sewer. This vertical separation shall be maintained for that portion of the water main located within ten (10) feet horizontally of any sewer or drain crossed. Said ten (10) feet is to be measured at the normal distance from the water main to the drain or sewer.
- 3. At locations indicated on the Plans where the water main is less than 18" above the sewer or passes under the sewer, both the water main and sewer shall be constructed of water main quality pipe materials for a minimum of ten (10) feet on each side of the water main. A vertical separation of at least eighteen (18) inches between the invert of the sewer and crown of the water main must be maintained where the water main crosses under the sewer.

<u>Line Stops</u>: The Contractor shall provide temporary line stops in order to isolate sections of water main to facilitate the installation or testing of new water mains, or to maintain water service. Line stops shall be installed as indicated on the Plans or as directed by the Engineer. Where plugs or caps are not a sufficient means of isolating sections of water main, line inserts shall be installed which are suitable to the size, pipe material, and operating pressure of the existing water mains. All line insert devices and methods shall be approved by the Village of Carpentersville and installed per the manufacturer's instructions.

<u>Permissible Deflections of Joints:</u> Whenever necessary to deflect pipe from a straight line either in a vertical or horizontal plane to avoid obstructions or where long radius curves are permitted; the degree of deflection shall be no greater than recommended by AWWA C600 and the pipe manufacturer and shall be approved by the Engineer.

<u>Temporary Caps and Plugs:</u> Plugs shall be inserted into the joints of all dead-end pipes, valves, tees or crosses. No ends shall be left open during construction activities. This work shall be considered incidental to the water main work requiring the plug or cap.

<u>Testing and disinfection of water mains:</u> Pressure testing of the water mains shall be in accordance with Section 41-2.14 of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and as required by the Section. All water mains shall be disinfected and tested according to the requirements of the "Standards for Disinfecting Water Mains," AWWA C601, and as required by this Section. This work will not be measured or paid for separately but shall be included in the cost of the water main and no additional compensation will be allowed.

- 1. Hydrostatic Testing: All newly laid water main pipe shall be subjected to a hydrostatic pressure of 150 psi.
  - a. Submit for approval a method for disposal of water from hydrostatic tests and from disinfection procedures, as approved in advance by the Engineer.
  - b. Where any section of water main is provided with concrete thrust blocking, do not make hydrostatic tests until at least 5 days after installation of concrete thrust blocking, unless otherwise approved by the Engineer.
  - c. Subject the new water mains and service lines, including valves and fire hydrants, to a hydrostatic pressure of 150 psi.
  - d. Before applying the specified test pressure, all air shall be expelled from the pipe.
  - e. All testing shall be done before the transfer of service lines to the new water main.
  - f. Hold the test pressure for a duration of one (1) hour without pressure loss or further pressure application.
    - i. If a pressure drop is recorded, the test is to be continued the test will continue for a duration of two (2) hours. Allowable makeup water will be determined by the Village representative according to the AWWA standard for allowable leakage per 1,000 feet in gallons per hour (GPH).
    - ii. If makeup water is less than the following allowable amounts, the test is complete with a passing result (Linear footage X GPH X 2 Hours)/1000):

Pipe Size 3" 4" 6" 8" 10" 12" 16" GPH 0.28 0.37 0.55 0.74 0.92 1.10 1.47

- iii. If at any time after the test begins a drop of 5 psi or more is recorded, the test is complete with a failing result regardless of the allowable makeup water.
- g. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of the pressure test shall be removed and replaced. If the pipeline fails to meet the requirements of the hydrostatic testing, the Contractor shall find the cause for the failure and make repairs or replacement, and repeat the test until results are satisfactory. Any replaced items or re-testing shall be at no additional cost to the Village.
- 2. Leakage Testing: The Contractor shall perform a metered leakage test after the pressure testing has been satisfactory completed.
  - a. Duration of each leakage test shall be a minimum of 24 hours.
  - b. During the test, subject water lines to the normal operating water pressure of the Village's water system.
  - c. Install water meter approved by the Engineer. Provide double check valve assembly (DCA) for backflow protection between water meter and existing water main.
  - d. Maximum allowable leakage shall not exceed the number of gallons per hour (gph) as determined by the following formula:

 $L = SD(P^{0.5})/148.000$ 

Where:

L = Allowable leakage, in gallons per hour

S = Length of the pipe section tested, in feet

D = Diameter of water main, in inches

P = Average test pressure, in pounds per square inch (gage)

- e. Should any test of pipe disclose leakage greater than the maximum allowable amount, locate and repair the defective joint or joints and then repeat the 24-hour metered leakage test until the leakage is within the specified allowance, and at no additional cost to the Owner.
- 3. Preliminary Flushing: Prior to disinfection, the main shall be flushed as thoroughly as possible.
  - a. Flush main until water runs clear.
  - b. Provide a minimum flushing veloVillage of 2.5 feet per second in the water main.
  - c. Where no fire hydrant exists on the end of the main, the plug (or cap) on the end of the main must be tapped with opening in the end for flushing purposes. After acceptance, install threaded plug into tap.
    - i. 8"-12" mains: 2-1/2-inch tap.
    - ii. 16" mains: 3-inch tap.

- iii. Larger than 16" use temporary fire hydrants.
- iv. Contractor has the option to use temporary fire hydrants in lieu of taps. Temporary fire hydrants must be removed after testing is complete.
- d. Coordinate time of flushing with Village and Engineer, at least 72 hours in advance of flushing. Flushing without permission of the Village shall not be permitted.

#### 4. Schedule of Testing:

- a. Except for joint material setting, pipelines jointed with rubber gaskets, mechanical, or push-on joints, or couplings may be subjected to hydrostatic pressure, inspected, and tested for leakage any time after partial completion of backfill.
- b. Perform the pressure and leakage tests satisfactorily prior to requesting the Engineer to witness the official tests.
- c. Notify the Engineer at least 48 hours prior to the time of the requested official tests.
- d. Depending on traffic conditions, public hazard, or other reasons, the Engineer may direct when to conduct the tests, and may limit the length of sections to be tested.
- 5. Disinfection: Procedures for disinfecting water mains shall be in accordance with AWWA C651, with at least one set of samples collected from every 1,200 feet of new water main plus one set from each end of the line. Satisfactory disinfection shall be demonstrated in accordance with the requirements of 35 Illinois Administrative Code 652.203.
  - a. Chlorine Gas: Apply chlorine by gas feed or solution feed chlorinator, as approved by the Engineer.
  - b. Chlorine Solution: Apply solution of sodium hypochlorite into one end of the section of main to be disinfected while filling the main with water.
    - i. Initial chlorine solution in pipe: At least 50 mg/1, but not more than 100 mg/1.
    - ii. Retain the disinfecting solutions in the work for at least 24 hours.
    - iii. Chlorine residual after the retention period: At least 25 mg/1.
  - c. Flush and swab the piping, valves, and fittings that must be placed in service immediately and cannot be disinfected by the above specified methods, with 5 percent solution of calcium hypochlorite prior to assembly. The Contractor shall obtain approval from the Engineer prior to applying this method of disinfection.
- 6. Final Flushing and Testing: Following chlorination, all disinfected water shall be thoroughly flushed from the newly laid water mains at its extremities until the replacement water, throughout its length shall, upon test, be approved as safe water by the Engineer.
  - a. Final chlorine concentration in the water flowing from the main shall be no higher than generally prevailing in the Village's system, or less than 1 mg/1.
  - b. After flushing, collect two water samples on successive days at least 24 hours apart in sterile bottles treated with sodium thiosulfate. Notify the Engineer and the Village to witness sample collection.
  - c. Deliver the samples to a State approved laboratory for bacteriological analysis.
  - d. Should the initial disinfection result in an unsatisfactory bacterial test, repeat the chlorination procedure until satisfactory results are obtained.
  - e. The Village will provide the water for initial flushing and testing only. Compensate the Village for water used in subsequent flushing and testing.
  - f. The Contractor shall submit two (2) copies of bacteriological test reports to the Village.

Acceptance of Water Mains: Once the water main has been completed according to the specifications set forth in this Section, the Engineer shall, upon the request of the Contractor, inspect the system and prepare a list of items for repair (punch list). The list shall be given or sent to the Contractor and when repairs have been made, the Engineer shall accept the water main for operational use only. During the time after the acceptance by the Engineer and the Village of Carpentersville for maintenance, the Contractor shall be responsible for any delinquencies incurred within the system, including but not limited to water main leaks, adjustment to manhole frames, and bent curb boxes.

The existing water main shall remain in service until all tests have passed and the new water main has been disinfected. Testing and disinfection are subject to approval by the Engineer and the Village of Carpentersville.

<u>Disposal of Water:</u> The Contractor shall be responsible for properly disposing of flushed water during the pressure testing and disinfection of the water main. This work shall be coordinated with the Village of Carpentersville. Chlorinated water with a concentration greater than 1 mg/L shall not be discharged. When written approval is obtained from the Village of Carpentersville, heavily chlorinated water may be disposed of to the sanitary sewer system.

Where discharge to sanitary sewers is impractical or when approval cannot be obtained from the Village of Carpentersville, the Contractor shall utilize dechlorinating agents to lower residual chlorine levels to below 1 mg/L. Prior to use, dechlorinating agents and proposed dechlorinating methods shall be submitted for review and approval.

<u>Abandonment of Existing Water Mains:</u> Abandon water mains indicated on the Plans as "to be abandoned" only after all requirements for testing and disinfection have been satisfied and all existing services have been connected to new water mains. Abandonment of existing water mains shall be considered incidental to the installation of water mains (except CLSM fill). No additional compensation will be allowed unless otherwise authorized by the Engineer.

- 1. Provide ductile iron plugs, caps, or other necessary fittings, and thrust blocking, on ends of portions of existing water mains to remain in service.
- 2. Water mains to be abandoned that are 16" and larger shall be filled with Controlled Low Strength Material (CLSM).
- 3. Remove fire hydrants in total, including auxiliary box, and backfill excavation with compacted granular backfill material.
- 4. At the discretion of the Village, all valves, valve boxes, fire hydrants, and frames and grates to be removed shall be salvaged and delivered to the Village. Items that are determined not to be salvaged by the Village shall be disposed of offsite by the Contractor in accordance with Article 202.03.
- 5. Removal of existing water mains being replaced by new water mains in the same location is considered incidental to the installation of the new water main and no additional compensation will be allowed.
- 6. Abandonment of water mains shall include abandoning or removing existing valves, valve boxes, water service lines, fittings, and or water main appurtenances.

# **WATER MAIN PIPE**

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM and shall consist of the installation of ductile iron pipe water main complete in place.

<u>Installation of Water Main:</u> Install all ductile iron water main, fittings, and appurtenances in accordance with pipe manufacturer's instructions and in compliance with AWWA C600.

- 1. Protect all pipe, fittings, fire hydrants, auxiliary valve boxes, buried valves, valve boxes, and corporation stops by loose wrapping with polyethylene sheeting or tubing.
  - a. Place polyethylene sheet around the entire circumference of the pipe, tie or tape sheet securely to prevent displacement during backfilling.
  - b. Wrap copper service lines to a point 3 feet from center of water main.
  - c. Do not block fire hydrant weep hole.
- 2. Install conductivity through joints by use of conductivity wedges or copper cable and taps.
  - a. Use two (2) wedges per joint for pipes 12 inches or smaller, and four (4) wedges per joint for pipe sizes larger than 12 inches.
  - b. Use number of copper cable connectors per joint as recommended by the pipe manufacturer.
- 3. Provide and install locator wire for the total length of pipe installed in open cut trenches, plus additional wire/cable to leave a 10 foot loop of cable in the adjacent valve vault and through any casing pipe.
  - a. Hang loop of cable inside valve vaults on a stainless steel eye hook with expansion anchor.

<u>Method of Measurement:</u> This work will be measured for payment at the contract unit price per linear foot for the water main installed, of the size and type specified. Measurement shall be along the centerline of the pipe, and shall extend through fittings, valves, and other water system appurtenances.

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per linear foot for DUCTILE IRON WATER MAIN installed of the size and type indicated, which payment will be full compensation for all materials, labor, tools, equipment and incidentals necessary to install the water main pipe, fittings, and appurtenances. This work shall include excavation (except rock excavation), bedding, backfilling with and compacting of trench backfill material, thrust blocks, restrained joint fittings and devices, tracer wire, testing and disinfection, shut-downs, caps and plugs, dewatering, protection and repair of utilities, locating existing water mains and services, providing temporary water services to residents, removal and disposal of surplus excavated material, sawcutting, removal and disposal of pavements and other surface features, cutting and abandonment of existing water mains (except CLSM fill), and clean-up.

CA-6 granular backfill will be paid separately under TRENCH BACKFILL, per Section 208 of the Standard Specifications.

It is noted that the plans indicate the general vertical and horizontal location of the proposed main. The contractor is required to provide and install all fittings, bolts, gaskets, sleeves, adaptors, and other required materials to make a complete installation for which no additional payment will be made.

## WATER MAIN DIRECTIONAL BORE (HDD)

<u>Description:</u> At locations where water main or water service lines cannot be installed at roadway crossings without the obstruction of traffic, or at locations approved by the Engineer, the Contractor may install water main using horizontal directional drilling (HDD) methods in lieu of open trench installation. This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM, and shall consist of the installation of ductile iron pipe water main or copper water service line by HDD complete in place.

General: Installation of water mains by HDD shall be in accordance with Section 23 of the "Standard Specifications for Water and Sewer Main Construction in Illinois", the Ductile Iron Pipe Research Association (DIPRA), and the manufacturer's requirements. Provide all excavation, pits, installation and removal of tight sheeting, backfilling of pits, and providing and compacting granular backfill materials where necessary. Use an adequate number of workmen who are thoroughly trained and experienced in the necessary crafts, and who are completely familiar with the specified requirements and methods needed for proper installation of ductile iron pipe by means of HDD.

- 1. Provide hydraulically or pneumatically operated, fluid-assisted, remote guided drilling system capable of installing pipe indicated on the Plans by trenchless methods.
- 2. Provide compressors, pumps, apparatus, tools, and all devices certified as suitable by the system manufacturer to install the new pipe without damaging or stressing the pipe.
- 3. Provide recovery system that will recover bentonite slurries or other drilling fluids without releasing the slurry onto the surrounding ground or water surfaces.
- 4. Provide certification from pipe manufacturer that the proposed material and strength classification is appropriate for application.
- 5. All construction activities shall be performed in accordance with the National Pollution Discharge Elimination System (NPDES) and follow the requirements of the IEPA construction activities.

Installation: Water main pipe shall be installed during HDD operations by pulling of the pipe in place.

- 1. Provide winch systems designed to protect structures, provide directional stability, and pull pipe from insertion point to exit point without causing damage to the pipe.
- 2. Install pipe in a continuous operation from pullback point to drilling point.
- 3. Provide silencers, mufflers, or other devices required to reduce noise from compressors and other equipment to meet limits as outlined by local ordinances.
- 4. Excess drilling fluid shall be contained until recycled or removed from the site. Drilling fluids removed from the site must be disposed of at an approved disposal site. All drilling fluids must be removed prior

- to backfill and restoration.
- 5. Drilling fluids shall not be permitted to enter roadways, streams, or municipal storm and sanitary sewers.
- 6. Provide tracer wire at each boring location for the total length of water main pipe, plus additional wire/cable to leave a 10 foot loop of cable in the adjacent valve vault and through any casing pipe. Connect locator wire to locator wire installed with water main in open cut trenches.
- 7. Upheaval of ground shall not be allowed. The contractor shall adjust depth of installations according to a minimum depth required to prevent ground upheaval or release of drilling fluids.
- 8. The contractor shall identify existing utilities so that HDD operations do not cause any unintended damage.
- 9. Install polyethylene wrap per "Horizontal Directional Drilling with Ductile Iron Pipe" published by DIPRA.

<u>Access Pits:</u> Where required, access pits will meet OSHA requirements for type, installation, and removal of sheeting. Shoring and protection shall immediately be installed during the excavation of access pits.

- 1. Provide dewatering as required to allow excavation of pits and installation of pipes, along with protection to environment from erosion or sedimentation resulting from all pumping operations.
- 2. Backfill access pits with CA-6 backfill material and compact. All construction debris shall be removed prior to backfill of pits.

<u>Submittals:</u> The Contractor shall provide a detailed Drilling Plan a minimum of thirty (30) days prior to the start of HDD operations. All cost for additional engineering calculations or subsurface investigations shall be included in the cost of the water main installed by HDD, with no additional compensation allowed. The following information, at minimum, shall be provided for approval by the Engineer:

- 1. Description of all procedures and methods.
- 2. Site layout of HDD operations.
- 3. List of materials.
- 4. List of slurry compounds and Material Safety Data Sheets.
- 5. Schedule of equipment that will be utilized during HDD operations.
- 6. A plan of the proposed alignment, including access pit dimensions and locations, entry and exit angles, and radius of curvature.
- 7. Identification and location of existing utilities that may impact HDD installation.
- 8. Certification that pipe being installed will meet the design criteria in respect to forces being applied and joint deflection.
- 9. Subsurface soil condition data that is obtained by the Contractor in order to further evaluate HDD design requirements.
- 10. A storm water pollution Best Management Practices Plan meeting the requirements of an approved Storm Water Pollution Prevention Plan (SWPPP).
- 11. Monitoring and contingency plans.
- 12. Design calculations signed by a registered Engineer in the State of Illinois, which shall include analysis of pipe thickness design, all hoop and longitudinal stresses, soil conditions, required depth of installation, and loading pressures under multiple loading conditions. Calculations shall demonstrate that the pipe and installation methods presented are sufficient to meet all of the design criteria.

<u>Method of Measurement:</u> This work will be measured for payment at the contract unit price per foot for the water main, of the size and type specified. Measurement shall be along the centerline of the pipe, and shall extend through fittings, valves, and other water system appurtenances.

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per linear foot for WATER MAIN installed, of the size and type indicated, which payment will be full compensation for all materials, labor, tools, equipment, planning, and incidentals necessary to install the water main or service line pipe, fittings, and appurtenances using HDD methods. This work shall include excavation (except rock excavation) of access pits and slurry pits, backfilling with and compacting of backfill material, CA-6 backfill, restrained joint fittings and devices, tracer wire, testing and disinfection, shut-downs, caps and plugs, dewatering, protection and repair of utilities, locating existing water mains and services, removal and disposal of surplus excavated material, removal of existing curb stops and service boxes, sawcutting, removal and disposal of payements and other surface features, cutting and abandonment of existing water

mains (except CLSM fill), clean-up, mobilization and demobilization of HDD related equipment, removal and control of cuttings and HDD byproducts, additional geotechnical investigations, mixing water, drill site preparation and set-up, and development and submittal of the Drilling Plan. No additional compensation shall be allowed for water main or water service line installed by HDD methods in lieu of open-cut methods, including all work associated with HDD operations and set-up, unless otherwise approved by the Engineer.

It is noted that the plans indicate the general vertical and horizontal location of the proposed main. The contractor is required to provide and install all fittings, bolts, gaskets, sleeves, adaptors, and other required materials to make a complete installation for which no additional payment will be made.

## **VALVE VAULTS**

<u>Description:</u> Vaults for water main valves or other water main items shall be provided where indicated on the Plans. Vaults shall be precast and meet the requirements of ASTM C478.

<u>General:</u> Provide eccentric cone section for vaults installed around gate valves unless otherwise indicated on the Plans.

- 1. Provide precast reinforced concrete monolithic or separate base.
- 2. Design flat slab tops for AASHTO HS20-44 wheel loading.
- 3. Provide 4,000 psi concrete using Type I Portland Cement complying with ASTM C150. Mortar shall be non-shrink grout type.
- 4. Install pipe through vault as shown on the Detail.
- 5. Provide flexible rubber gasket collar for connecting pipe to vault in compliance with ASTM C923. For pipe 24 inches and smaller, use PSX gasket system by Press-Seal Gasket Corporation.

## Joints:

- 1. Provide joints of either flexible watertight rubber gaskets or preformed bituminous plastic gaskets consisting of a homogeneous blend of refined hydrocarbon resins and plasticizing compound reinforced with inert mineral filler.
- 2. Trim smooth and free from surplus gasket material.
- 3. Acceptable preformed gasket products:
  - a. KT Snyder Co., RAM-NEK;
  - b. Concrete Sealants, Type CS-203;

# Steps:

- 1. Provide steps with a minimum width of 12 inches and a minimum projection of 5 inches.
- 2. Provide each vault over 3 feet deep with individual wall-mounted steps as shown on the vault detail.
- 3. Use steps consisting of copolymer polypropylene plastic with continuous one-half inch steel reinforcement as manufactured by M.A. Industries, Inc.; Cast iron steps, Neenah R-1980-1.

# Frames and Lids:

- Provide cast iron frames and covers with heavy duty, indented top with solid self-sealing lids and machined bearing surfaces, stamped with the words "VILLAGE OF CARPENTERSVILLE" and "WATER".
- 2. Unless otherwise shown on the Plans or as determined by the Engineer, set frames and covers:
  - a. In payed areas: So that the top of the solid cover will be flush with the finished payement.
  - b. In unpaved areas: To drain away from the valve vault.
  - c. With flexible watertight gaskets.
  - d. With grade rings not exceeding 8 inches in height.
- 3. Acceptable products unless otherwise indicated on the Plans:
  - a. Neenah R-1713; or
  - b. East Jordan 1050 EXHD

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per each for VALVE VAULTS of the type, size and configuration indicated, which payment will be full compensation for all

materials, labor, tools, equipment, and incidentals necessary to install each vault, including the frame and lid, excavation, bedding and backfill.

# WATER VALVES

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM and shall consist of the installation of gate valves, complete in place, installed as a part of the water main installation, at locations indicated on the Plans. Valves shall be of ductile iron body, bronze fitted, modified wedge disc, resilient seat type, with non-rising stem and O-ring packing, and conform to the latest revised requirements of AWWA Specification C515.

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per each for WATER VALVES of the size indicated, which payment will be full compensation for all fittings, materials, labor, tools, equipment and incidentals necessary.

Valve vaults shall not be included for payment under this item, and will be paid separately under VAULTS.

# FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

<u>Description:</u> The work of this pay item shall be in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM and shall consist of furnishing and installing a new fire hydrant with five (5) feet of 6-inch ductile iron hydrant lead pipe, tee, new auxiliary valve, valve box and cover, extension stem, restraining devices and fittings, stabilizer, and concrete thrust block, complete in place at the locations shown on the Plans. Hydrants shall be located as indicated on the Plans.

## Installation Requirements:

- 1. Install fire hydrant plumb with the lowest hose connection at least 18 inches, but not more than 26 inches, above the finished grade ground level. Set fire hydrant base and auxiliary valve on a precast concrete block to provide firm support.
- 2. Brace the bases with solid concrete blocking between the base and undisturbed trench wall to counteract the reaction thrust of water pressure at the base. Provide mechanical joint anchoring fittings or approved restrained joints.
- 3. Brace the fire hydrant barrels during backfilling. Do not block the drain hole in the fire hydrant.
- 4. Place a minimum of 0.5 cubic yards of washed coarse stone at and around the base for proper drainage. Cover stone with plastic before backfilling.
- 5. Place and compact backfill materials in 6-inch layers around the fire hydrant and auxiliary gate valve.
- 6. Cover new fire hydrant with plastic bag until new system is in service.
- 7. Install new hydrants so that pumper nozzles are facing the adjacent roadway.

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX, which price shall be payment in full for all materials, labor, tools, equipment and incidentals necessary to complete this work, including the hydrant, new 6-inch ductile iron hydrant lead pipe, tee, auxiliary valve, valve box and cover, extension stem, restraining devices and fittings, stabilizer, concrete thrust block, and appurtenances. This work shall include saw cutting, removal and disposal of existing pavements, excavation, removal and disposal of waste excavated materials, trench dewatering, bedding, and backfilling with and compacting of trench backfill material around the fire hydrant and auxiliary valve and valve box.

CONNECTION TO EXISTING WATER MAIN 4"
CONNECTION TO EXISTING WATER MAIN 4"
CONNECTION TO EXISTING WATER MAIN 6"
CONNECTION TO EXISTING WATER MAIN 8"

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM and shall consist of the non-pressure connection to existing water mains, complete in place, as a part of the water main installation, at locations indicated on the Plans.

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per each for CONNETION TO EXISTING WATER MAIN of the size indicated, which payment will be full compensation for all materials, labor, tools, equipment and incidentals necessary. This work shall include excavation (except rock excavation), bedding, backfilling with and compacting of trench backfill material, shut-downs, caps and plugs, dewatering, protection and repair of utilities, locating existing water mains, removal and disposal of surplus excavated material, sawcutting, removal and disposal of pavements and other surface features, cutting and abandonment of existing water mains (except CLSM fill), and clean-up.

Pipe and fittings shall not be included for payment under this item and will be paid separately under WATER MAIN PIPE.

## PRESSURE CONNECTION 8"X8"

<u>Description:</u> The CONTRACTOR shall perform pressure connections to the existing water main at locations shown on the drawings. These connections shall be made without taking the existing water main out of service. This work shall be performed in accordance with the details in the plans and in accordance with Section 46 of the Standard Specifications for Water and Sewer Main Construction (Latest Edition), except as revised herein, and Special Provision for WATER DISTRIBUTION SYSTEM.

Tapping Sleeves shall be two-piece bolted sleeve ductile iron or stainless steel type with mechanical joints. Stainless steel bolts and nuts. Ductile iron tapping sleeves shall be Mueller H-615 or ENGINEER approved equivalent. Stainless Steel tapping sleeves shall be Cascade CST extra heavy duty. The tapping valves shall be Mueller A-2370-16. 1" Mueller corporation stops are required on each side of valves.

The CONTRACTOR shall obtain the necessary materials required to make a proper connection. The CONTRACTOR shall not proceed until he has all the required materials on site.

Once the new water mains have been tested, chlorinated and approved for service then the CONTRACTOR shall, under the direction of the ENGINEER, place the new water main in service.

Dewatering, if required, shall be considered included in the cost of PRESSURE CONNECTION of specified size

<u>Method of Measurement:</u> This work shall be measured per each pressure connection made to existing water main.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per each for PRESSURE CONNECTION of specified size, which price shall include all equipment, labor, disposal of abandoned pipe, stone bedding, abandon the existing water main, backfilling the void left, manhole adjustments, and other materials required to properly connect to existing water mains. One pressure connection to existing water main will be paid for each location where a tapping sleeve and valve is used to connect new water main to the existing water main. Ductile Iron Fittings required for these connections will be considered incidental to the contract. Trench backfill used while connecting to the existing water main shall be considered incidental to this line item.

#### **WATER MAIN LINE STOP**

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM and shall consist of the installation of water main line stops for isolation of water main segments, complete in place, at locations indicated on the Plans or as directed by the Engineer. Line stops shall be suitable for use on the existing water main pipe material. Upon approval of new water mains, Line stops shall be removed to allow flow within the water main unless otherwise directed by the Engineer. Tapping sleeves used during the line stopping process shall be plugged and capped with a blind flange without leeks upon completion.

<u>Basis of Payment:</u> This work shall be measured and paid for at the contract unit price per each for WATER MAIN LINE STOP of the size and configuration indicated, which payment will be full compensation for all

fittings, materials, labor, tools, equipment and incidentals necessary, including all components necessary for live insertion into pressurized water mains.

# WATER SERVICE RECONNECTION WATER SERVICE RECONNECTION (SHORT), 2" DIA. OR LESS WATER SERVICE RECONNECTION (LONG), 2" DIA. OR LESS

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM and shall consist of the installation of water service pipe, valves, and appurtenances complete in place by open cut methods or trenchless methods for services 2" in diameter and less. The old curb stop is to be removed and each new service shall have a new curb stop. Unless otherwise directed by Engineer, splices between curb stop and existing service will not be allowed. Service installation is not to occur until the main has passed all required testing and has been connected to the Village system.

The Contractor shall be responsible for identifying the size of the existing service and providing the appropriate fittings for the transition from the proposed curb stop to the existing service line, regardless of the sizes indicated on the Plans or Summary of Quantities. The Contractor shall also be fully responsible for locating and identifying the depth of each service, and providing the necessary service box length to ensure the cap is set at finished grade.

#### Installation of Water Services:

- 1. Make service connections at locations shown on the Plans or determined by the Village or Engineer at the time of construction.
- 2. Install water service pipe (Type K soft copper tubing complying with ASTM B-88), corporation stop (A.Y. McDonald 4701BT or 4701BP Ball Type), curb stop (A.Y. McDonald 6104BT Ball Type, Minneapolis patter, and service box (A.Y. McDonald 5614 Minneapolis Patter) as shown on the water service installation detail and by the method indicated on the Plans.
- 3. Set curb stop on a precast concrete block.
- 4. Do not splice the water service pipe.
- 5. Connect new water service to existing service pipe adjacent to and on building side of water meter or service box.
- 6. Water service lines to be installed shall be 1 inch minimum in diameter, or shall match the size of any existing water services that are larger than 1 inch. Water services that are 3 inches and larger shall not be included.

# Service Boxes:

- 1. Install service box over curb stop in a truly vertical position.
- 2. Set the top of box flush with the surrounding finished grade.

## **Tapping Connections:**

- 1. Wrap two or three layers of polyethylene adhesive tape completely around the pipe to cover the tapping machine and chain mounting area.
- 2. Make the tap and install the corporation stop directly through the tap and polyethylene.
- 3. After making the direct service connection, inspect the entire circumferential area for damage and make any necessary repairs.
- 4. Wrap the corporation stop and a minimum of 3 feet of the copper service pipe with polyethylene.

<u>Method of Measurement:</u> This work will be measured for payment at the contract unit price per each water service connection, of the size and type specified.

<u>Basis Payment:</u> This work will be measured and paid for at the contract unit price per each for WATER SERVICE CONNECTION (SHORT), 2" DIA. OR LESS and WATER SERVICE CONNECTION (LONG), 2" DIA. OR LESS, which payment will be full compensation for all materials, labor, tools, equipment and incidentals necessary to install the water service line, fittings, curbs stops, tapping saddles, corporation stops, service boxes, and all fittings and water service appurtenances. This work shall include excavation (except rock excavation), bedding, backfill and compaction, locating existing water services, removal of

existing curb stops and service boxes, removal and disposal of surplus excavated material, sawcutting, removal and disposal of pavements and other surface features, and clean-up.

Water services that are 3 inches and larger shall not be included and will be paid for under WATER MAIN PIPE. CA-6 granular backfill shall be used per Section 208 of the Standard Specifications to backfill the full width of all trenches made in pavement to a point two feet beyond the existing pavements. Granular backfill used to backfill water services outside of the water main trench will not be measured for payment, but shall be considered included in the cost of WATER SERVICE CONNECTION (SHORT), 2" DIA. OR LESS and WATER SERVICE CONNECTION (LONG), 2" DIA. OR LESS.

# **WATER SERVICE CONNECTION (PRIVATE)**

<u>Description:</u> The Contractor shall perform the following operations as included for the WATER SERVICE CONNECTION (PRIVATE) per locations encountered in the field and in the manner detailed below.

In general, the existing water service size, condition, and type are unknown at this time and adjustments in the field may be necessary to adapt from one size to another. The new private services to be installed are to be 1" per plan and per the Villages's minimum preference and adapters/reducers may be required in the field to adjust/reduce to existing size and per the location agreed upon with the plumbing inspector.

The assumption for existing water service is 1" and could vary from 3/4" up to 1" or as noted on the plans could be expected based on existing field conditions found. If a larger size is found in the field, the Contractor is to notify the Engineer/Village and match the existing size of the service found. In addition, if the licensed state plumber deems it necessary to upsize the service based on existing conditions or existing service demand the contractor is to accommodate the size on a case-by-case basis which may be limited.

#### CONTRACTOR RESIDENT COORDINATION:

<u>Description of Work</u>: The Contractor is responsible for all coordination and scheduling with the property owners to obtain access to their private property. The Contractor shall schedule an initial site assessment to be attended by the Village, Engineer, Contractor, and Homeowner.

The Contractor shall coordinate and schedule work so that the water service replacement can be completed in one day. The Village and Engineer shall be informed of the schedule by 3:00 pm prior to the day of scheduled work.

The Contractor shall provide a written notice to an impacted residence regarding a planned water loss, not associated with the service line replacement, no less than 24 hours prior to the loss of water.

Existing access to residences shall be accessible at all times. If the Contractor anticipates temporarily blocking an access, written notification shall be provided to the resident a minimum of 48 hours prior to access loss. Additionally, the Contractor shall knock on the door of all impacted residences the morning of with the intent of verbally informing the resident of the access restriction.

The Village shall prepare water service flushing guidelines per AWWA/ANSI Standard C810-17 "Replacement and Flushing of Lead Service Lines" which shall be provided to the resident the day their service is replaced. Contractors will be responsible for and required to comply with Section 4.4.1 (flushing from an outside connection).

## **PRIVATE UTILITY LOCATE:**

<u>Description of Work:</u> The Contractor is responsible for locating all existing utilities on private property including but not limited to dry utilities, water services, sewer services, irrigation, and any type of storm drains, where locates have not been provided. Only one (1) PRIVATE UTILITY LOCATE will be eligible per address. Locating of utilities on public property shall be included in the cost of the contract.

If excavation is required, heavy construction equipment or machinery shall not be used on private property. All excavation on private property shall be completed by hydro excavation or by method of

hand digging. Should any damages occur due to the Contractor's negligence, repairs shall be made by the Contractor at their expense in a manner acceptable to the Engineer.

## WATER SERVICE CONNECTION AT B-BOX:

<u>Description of Work:</u> This work shall consist of furnishing and installing all materials necessary to connect the new water service line to the existing b-box or proposed b-box as part of the project scope of work and contract.

All water service connection work shall be performed by an Illinois Licensed Plumber and according to the rules and regulations of the Illinois Plumbing Code and Illinois Plumbing License Law (225 ILCS 320).

The Village standard curb stop is A.Y. McDonald; however, the contractor shall be prepared to connect and accommodate any type of existing curb stop found in the field.

## WATER SERVICE CONNECTION AT MAIN (PUBLIC):

<u>Description of Work:</u> This scope of work the Contractor is to be paid separately for **WATER SERVICE RECONNECTION** (see separate special provision provided above for this scope of work)

# WATER SERVICE INSTALLATION (PRIVATE), TYPE K:

<u>Description of Work:</u> This work shall consist of the method of installation for the water service line. All water service installations shall be completed by a trenchless method (lead extraction or horizontal directional drilling). The Contractor may request to use an open cut method of installation if both other options have been exhausted and deemed as unsuccessful. The contractor shall make the request to the Village or Engineer to review. An open cut method shall not be used without approval from the Village or Engineer. The water service line material from the b-box to the house shall be type "K" copper and immediately transition to type "L" copper inside of the house.

No pavement shall be disturbed as part of the water service installation unless at an emergency repair location and unless approved by the Village or Engineer.

All necessary precautions shall be made to protect the existing curb and gutter from damage. Any curb and gutter that is damaged as a result of the work shall be replaced at the Contractor's expense. All equipment being used shall have rubber tracks.

The Contractor shall make every effort not to damage any retaining walls during construction. If any retaining walls are damaged due by the Contractor they shall be repaired in kind at the contractors expense.

#### WATER SERVICE CONNECTION AT METER:

<u>Description of Work:</u> This work shall consist of furnishing all materials required to make the water service connection at the meter.

The Contractor shall core drill the existing foundation wall or slab on the interior of the home to allow for the penetration of the water service pipe. The Contractor shall completely seal the cored hole with hydraulic cement to prevent water infiltration. The hydraulic cement shall be Quickcrete Quick Setting Cement or approved equal. The Contractor shall completely seal the cored hole in the foundation floor with high strength concrete mix as approved by the Village. The Contractor shall exercise caution to prevent damaging the existing foundation and shall be responsible for repairs caused by the construction.

The Contractor shall be responsible for removing and replacing the existing water meter as necessary or required. New ball valves shall be installed on either side of the meter. A ball valve, matching the size of the incoming water service, shall be installed on the street side of the meter and a ball valve shall be installed on the house side of the meter matching the existing pipe size. The Contractor shall provide all fittings necessary to connect the water service line into the existing house plumbing which shall be installed by the Contractor's licensed plumber. This pay item will include up to ten (10) feet of type L

copper pipe of the sizes necessary to match the existing house plumbing. **Only compression couplings should be used (no flared).** 

The contractor shall be responsible for coordinating the re-location of the meter reader with the Village. The Village will provide, install, and program the meter reader once the Contractor has completed the service installation. The Contractor shall be careful not to damage the existing meter reader line. If the line is damaged, the Contractor shall repair it at their own expense.

The Contractor shall be responsible for removing any debris generated by the work on the interior and exterior of the home and restoring the area around the water service. If it is necessary to move appliances to complete the work, they shall be placed in their original location after the completion of the work.

This work shall also include abandoning and disposing of the lead water service inside of the residence. The lead water service line shall be cut, capped, and abandoned in place at the point of entry.

Any grounds that were attached to the existing water service line shall be preserved and re- attached to the new water service line. If the water service was re-located to a different area a new ground shall be run to the new location and shall be incidental to this pay item. The Contractor shall install a 6-gauge insulated jumper across the meter per 2017 NEC requirements.

<u>Basis of Payment</u>: This work will be paid for at the contract unit price per each completed WATER SERVICE CONNECTION (PRIVATE) of the type/size specified. The price shall include all labor, tools, equipment, and material including excavation, trench backfilling, disposal of waste excavated material, copper type/size as specified, disturbed sidewalk panel required for service installation if applicable, disturbed curb and gutter required for service installation if applicable, and any necessary adapters/fittings and all other material necessary to complete the work as specified.

## FIRE HYDRANTS TO BE REMOVED

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM. Fire hydrants to be removed shall consist of the complete removal of the existing fire hydrants at the location shown on the plans and as directed by the Engineer. The hydrants that are salvageable shall become the property of the Village of Carpentersville. Hydrants determined not to be salvaged by the Engineer shall be disposed of offsite by the Contractor in accordance with Article 202.03.

The excavated areas that are within 2-feet of the proposed paved areas shall be backfilled with granular backfill material. The other excavated areas not within 2-feet of paved areas shall be backfilled with select excavated material. The Contractor will also be responsible for exploring and determining the type, size, and depth of the fire hydrants and valves.

<u>Basis Payment:</u> This work will be measured for payment at the contract unit price each for FIRE HYDRANTS TO BE REMOVED. This work shall include all labor, equipment and material to complete the work, including removal of hydrant, valve boxes, hydrant valves, hydrant lead piping, excavation (except rock excavation), protection and repair of existing utilities, plugging pipes, saw cutting, removal and disposal of existing pavements, excavation, removal and disposal of surplus excavated material; and clean-up. Trench Backfill, per Section 208 of the Standard Specifications, needed to complete the removal shall be considered as included in the cost of FIRE HYDRANTS TO BE REMOVED.

## STANDPIPES TO BE REMOVED

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM. Standpipes to be removed shall consist of the complete removal of the existing standpipes at the location shown on the plans and as directed by the Engineer. Contractor to confirm removal with Engineer and Village prior to performing work.

The excavated areas that are within 2-feet of the proposed paved areas shall be backfilled with granular backfill material. The other excavated areas not within 2-feet of paved areas shall be backfilled with select excavated material. The Contractor will also be responsible for exploring and determining the type, size, and depth of any associated valves.

<u>Basis Payment:</u> This work will be measured for payment at the contract unit price each for STANDPIPES TO BE REMOVED. This work shall include all labor, equipment and material to complete the work, including removal of standpipe, valve boxes, valves, standpipe lead piping withing project limits, excavation (except rock excavation), protection and repair of existing utilities, plugging pipes, saw cutting, removal and disposal of existing pavements, excavation, removal and disposal of surplus excavated material; and clean-up. Trench Backfill, per Section 208 of the Standard Specifications, needed to complete the removal shall be considered as included in the cost of STANDPIPES TO BE REMOVED.

## **VALVE BOXES TO BE REMOVED**

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM. Valve boxes to be removed shall consist of the complete removal of the existing valve boxes at the location shown on the plans and as directed by the Engineer. The valve boxes that are salvageable shall become the property of the Village of Carpentersville. Valve boxes determined not to be salvageable by the Engineer shall be disposed of offsite by the Contractor in accordance with Article 202.03.

<u>Method of Measurement:</u> This work will be measured for payment per each for valve boxes to be removed.

<u>Basis Payment:</u> Valve boxes to be removed shall be paid for at the contract unit price per each for VALVE BOXES TO BE REMOVED. This work shall include all labor, equipment and material to complete the work, including removal of valve boxes boxes, excavation (except rock excavation), protection and repair of existing utilities, plugging pipes, saw cutting, removal and disposal of existing pavements, excavation, removal and disposal of surplus excavated material; and clean-up. Trench Backfill needed to complete the removal shall be considered as included in the cost of VALVE BOXES TO BE REMOVED.

# **VALVE VAULTS TO BE ABANDONED**

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM. This work shall consist of removing the frame and lid, plugging and filling existing valve vaults at the locations indicated in the plans or as directed by the Engineer. In addition to this special provision, this work shall be completed in accordance with applicable portions of Sections 593 and 605 of the Standard Specifications.

The material used to fill the valve vaults shall be Controlled Low Strength Material (CLSM) meeting the requirements of Section 1019 of the Standard Specifications.

The valve vault and void remaining shall be filled. The existing valve located within the valve vault shall be abandoned in place and need not be removed prior to filling the valve vault. The method used for filling the valve vault shall be at the Contractor's option.

The weather and temperature placement requirements of Section 593 of the Standard Specifications shall apply.

<u>Method of Measurement:</u> This work shall be measured per each existing valve vault to be abandoned as shown on the plans.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per each for VALVE VAULTS TO BE ABANDONED. The price shall include all equipment, labor, material, disposal of abandoned material, and trench backfilling of the void left necessary to perform the work as intended for the required abandonment in the plans.

## WATER MAIN TO BE ABANDONED

<u>Description:</u> This work shall be done in accordance with the Special Provision for WATER DISTRIBUTION SYSTEM. Water mains of the specified diameter on the plans shall be abandoned in place.

Excavation and backfill as necessary for water main abandonment shall conform to the typical sections shown in the plans and shall conform to the provisions of Sections 20 of the Standard Specifications for Water & Sewer Main Construction in Illinois.

This work will not be paid for separately and shall be considered included in the cost of WATER MAIN abandonment for specified diameter.

<u>Method of Measurement:</u> This work shall be measured per each for the specified size of water main to be removed.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per each for WATER MAIN TO BE ABANDONED for the specified diameter. This work shall include all labor, equipment and material to complete the work, including removal of water main, excavation (except rock excavation), protection and repair of existing utilities, plugging pipes, saw cutting, removal and disposal of existing pavements, excavation, removal and disposal of surplus excavated material; and clean-up. Trench Backfill, per Section 208 of the Standard Specifications, needed to complete the removal shall be considered as included in the cost of WATER MAIN TO BE ABANDONED.

## **ELECTRICAL**

## **GENERAL ELECTRICAL REQUIREMENTS**

Effective: June 1, 2021

This special provision replaces Articles 801.01 – 801.07, 801.09 – 801-16 of the Standard Specifications.

**Definition.** Codes, standards, and industry specifications cited for electrical work shall be by definition the latest adopted version thereof, unless indicated otherwise.

Materials by definition shall include electrical equipment, fittings, devices, motors, appliances, fixtures, apparatus, all hardware and appurtenances, and the like, used as part of, or in connection with, electrical installation.

**Standards of Installation.** Materials shall be installed according to the manufacturer's recommendations, the NEC, OSHA, the NESC, and AASHTO's Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

All like materials shall be from the same manufacturer. Listed and labeled materials shall be used whenever possible. The listing shall be according to UL or an approved equivalent.

**Safety and Protection.** Safety and protection requirements shall be as follows.

Safety. Electrical systems shall not be left in an exposed or otherwise hazardous condition. All electrical boxes, cabinets, pole handholes, etc. which contain wiring, either energized or non-energized, shall be closed or shall have covers in place and be locked when possible, during nonworking hours.

Protection. Electrical raceway or duct openings shall be capped or otherwise sealed from the entrance of water and dirt. Wiring shall be protected from mechanical injury.

**Equipment Grounding Conductor.** All electrical systems, materials, and appurtenances shall be grounded. Good ground continuity throughout the electrical system shall be assured, even though every detail of the requirements is not specified or shown. Electrical circuits shall have a continuous insulated

Old Town Segment 1A Reconstruction Village of Carpentersville Kane County

equipment grounding conductor. When metallic conduit is used, it shall be bonded to the equipment grounding conductor, but shall not be used as the equipment grounding conductor.

Detector loop lead-in circuits, circuits under 50 volts, and runs of fiber optic cable will not require an equipment grounding conductor.

Where connections are made to painted surfaces, the paint shall be scraped to fully expose metal at the connection point. After the connection is completed, the paint system shall be repaired to the satisfaction of the Engineer.

Bonding of all boxes and other metallic enclosures throughout the wiring system to the equipment grounding conductor shall be made using a splice and pigtail connection. Mechanical connectors shall have a serrated washer at the contact surface.

All connections to structural steel or fencing shall be made with exothermic welds. Care shall be taken not to weaken load carrying members. Where connections are made to epoxy coated reinforcing steel, the epoxy coating shall be sufficiently removed to facilitate a mechanical connection. The epoxy coating shall be repaired to the satisfaction of the Engineer. Where connections are made to insulated conductors, the connection shall be wrapped with at least four layers of electrical tape extended 6 in. (150 mm) onto the conductor insulation.

**Submittals.** At the preconstruction meeting, the Contractor shall submit a written listing of manufacturers for all major electrical and mechanical items. The list of manufacturers shall be binding, except by written request from the Contractor and approval by the Engineer. The request shall include acceptable reasons and documentation for the change.

Within 30 calendar days after contract execution, the Contractor shall submit, for approval, through the Traffic Operations Construction Submittals Application (TOCS) system the manufacturer's product data (for standard products and components) and detailed shop drawings (for fabricated items). Submittals for the materials for each individual pay item shall be complete in every respect. Submittals which include multiple pay items shall have all submittal material for each item or group of items covered by a particular specification, grouped together and the applicable pay item identified. Various submittals shall, when taken together, form a complete coordinated package. A partial submittal will be returned without review unless prior written permission is obtained from the Engineer.

Each PDF document must be a vector format PDF from the originating supplier or program and not scanned images.

The submittal must clearly identify the specific model number or catalog number of the item being proposed.

For further information and requirements regarding the TOCS system, the Contractor should reference the TOCS Contractors User Guide.

The submittal shall be properly identified by route, section, county, and contract number.

The Contractor shall have reviewed the submittal material and affixed his/her stamp of approval, with date and signature, for each individual item.

Illegible print, incompleteness, inaccuracy, or lack of coordination will be grounds for rejection.

Items from multiple disciplines shall not be combined on a single submittal and transmittal. Items for lighting, signals, surveillance and CCTV must be in separate submittals since they may be reviewed by various personnel in various locations.

The Village may provide a list of pay items broken out by discipline upon request for a particular contract.

The Engineer will review the submittals for conformance with the design concept of the project according to Article 105.04 and the following. The Engineer will stamp the drawings indicating their status as "Approved", "Approved as Noted", "Disapproved", or "Information Only". Since the Engineer's review is for conformance with the design concept only, it shall be the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, or layout drawings by the Engineer's approval thereof. The Contractor shall still be in full compliance with contract and specification requirements.

All submitted items reviewed and marked "Disapproved" or "Approved as Noted" shall be resubmitted by the Contractor in their entirety, unless otherwise indicated within the submittal comments.

Work shall not begin until the Engineer has approved the submittal. Material installed prior to approval by the Engineer, will be subject to removal and replacement at no additional cost to the Village.

**Certifications.** When certifications are specified and are available prior to material manufacture, the certification shall be included in the submittal information. When specified and only available after manufacture, the submittal shall include a statement of intent to furnish certification. All certificates shall be complete with all appropriate test dates and data.

Authorized Project Delay. See Article 801.08

## **Maintenance transfer and Preconstruction Inspection:**

<u>General.</u> Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall request a maintenance transfer and preconstruction site inspection, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting and/or traffic control systems which may be affected by the work. The request for the maintenance transfer and preconstruction inspection shall be made no less than fourteen (14) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction inspection shall:

Establish the procedures for formal transfer of maintenance responsibility required for the construction period.

Establish the approximate location and operating condition of lighting and/or traffic control systems which may be affected by the work

Marking of Existing Cable Systems. The party responsible for maintenance of any existing lighting and/or traffic control systems at the project site will, at the Contractor's request, mark and/or stake, once per location, all underground cable routes owned or maintained by the Village. A project may involve multiple "locations" where separated electrical systems are involved (i.e. different controllers). The markings shall be taken to have a horizontal tolerance of at least 1 foot (304.8 mm) to either side. The request for the cable locations and marking shall be made at the same time the request for the maintenance transfer and preconstruction inspection is made. The Contractor shall exercise extreme caution where existing buried cable runs are involved. The markings of existing systems are made strictly for assistance to the Contractor, and this does not relieve the Contractor of responsibility for the repair or replacement of any cable run damaged in the course of his work, as specified elsewhere herein. Note that the contractor shall be entitled to only one request for location marking of existing systems and that multiple requests may only be honored at the contractor's expense. No locates will be made after maintenance is transferred, unless it is at the contractor's expense.

Condition of Existing Systems. The Contractor shall conduct an inventory of all existing electrical system equipment within the project limits, which may be affected by the work, making note of any parts which are found broken or missing, defective or malfunctioning. Megger and load readings shall be taken for all existing circuits which will remain in place or be modified. If a circuit is to be taken out in its entirety, then readings do not have to be taken. The inventory and test data shall be reviewed with and approved by the Engineer and a record of the inventory shall be submitted to the Engineer for the record. Without such a record, all systems transferred to the Contractor for maintenance during construction shall be returned at the end of construction in complete, fully operating condition."

# Maintenance and Responsibility During Construction.

<u>Lighting Operation and Maintenance Responsibility</u>. The scope of work shall include the assumption of responsibility for the continuing operation and maintenance of the existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein. Maintenance of lighting systems is specified elsewhere and will be paid for separately

The proposed lighting system must be operational prior to opening the roadway to traffic unless temporary lighting exists which is designed and installed to properly illuminate the roadway.

<u>Energy and Demand Charges.</u> The payment of basic energy and demand charges by the electric utility for existing lighting which remains in service will continue as a responsibility of the Owner, unless otherwise indicated. Unless otherwise indicated or required by the Engineer duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously at the Owner's expense and lighting systems shall not be kept in operation during long daytime periods at the Owner's expense. Upon written authorization from the Engineer to place a proposed new lighting system in service, whether the system has passed final acceptance or not, (such as to allow temporary lighting to be removed), the Owner will accept responsibility for energy and demand charges for such lighting, effective the date of authorization. All other energy and demand payments to the utility shall be the responsibility of the Contractor until final acceptance.

**Damage to Electrical Systems.** Should damage occur to any existing electrical systems through the Contractor's operations, the Engineer will designate the repairs as emergency or non-emergency in nature.

Emergency repairs shall be made by the Contractor, or as determined by the Engineer, the Village, or its agent. Non-emergency repairs shall be performed by the Contractor within six working days following discovery or notification. All repairs shall be performed in an expeditious manner to assure all electrical systems are operational as soon as possible. The repairs shall be performed at no additional cost to the Village.

Lighting. An outage will be considered an emergency when three or more lights on a circuit or three successive lights are not operational. Knocked down materials, which result in a danger to the motoring public, will be considered an emergency repair.

Temporary aerial multi-conductor cable, with grounded messenger cable, will be permitted if it does not interfere with traffic or other operations, and if the Engineer determines it does not require unacceptable modification to existing installations.

**Marking Proposed Locations for Highway Lighting System.** The Contractor shall mark or stake the proposed locations of all poles, cabinets, junction boxes, pull boxes, handholes, cable routes, pavement crossings, and other items pertinent to the work. A proposed location inspection by the Engineer shall be requested prior to any excavation, construction, or installation work after all proposed installation locations are marked. Any work installed without location approval is subject to corrective action at no additional cost to the Village.

**Inspection of electrical work**. Inspection of electrical work shall be according to Article 105.12 and the following.

Before any splice, tap, or electrical connection is covered in handholes, junction boxes, light poles, or other enclosures, the Contractor shall notify and make available such wiring for the Engineer's inspection.

**Testing.** Before final inspection, the electrical work shall be tested. Tests may be made progressively as parts of the work are completed or may be made when the work is complete. Tests shall be made in the presence of the Engineer. Items which fail to test satisfactorily shall be repaired or replaced. Tests shall include checks of control operation, system voltages, cable insulation, and ground resistance and continuity.

The forms for recording test readings will be available from the Engineer in electronic format. The Contractor shall provide the Engineer with a written report of all test data including the following:

- Voltage Tests
- Amperage Tests
- Insulation Resistance Tests
- Continuity tests
- Detector Loop Tests

Lighting systems. The following tests shall be made.

- (1) Voltage Measurements. Voltages in the cabinet from phase to phase and phase to neutral, at no load and at full load, shall be measured and recorded. Voltage readings at the last termination of each circuit shall be measured and recorded.
- (2) Insulation Resistance. Insulation resistance to ground of each circuit at the cabinet shall be measured and recorded with all loads disconnected. Prior to performance of the insulation resistance test, the Contractor shall remove all fuses within all light pole bases on a circuit to segregate the luminaire loads.

On tests of new cable runs, the readings shall exceed 50 megohms for phase and neutral conductors with a connected load over 20A and shall exceed 100 megohms for conductors with a connected load of 20A or less.

On tests of cable runs which include cables which were existing in service prior to this contract, the resistance readings shall be the same or better than the readings recorded at the maintenance transfer at the beginning of the contract. Measurements shall be taken with a megohm meter approved by the Engineer.

- (3) Loads. The current of each circuit, phase main, and neutral shall be measured and recorded. The Engineer may direct reasonable circuit rearrangement. The current readings shall be within ten percent of the connected load based on material ratings.
- (4) Ground Continuity. Resistance of the system ground as taken from the farthest extension of each circuit run from the controller (i.e. check of equipment ground continuity for each circuit) shall be measured and recorded. Readings shall not exceed 2.0 ohms, regardless of the length of the circuit.
- (5) Resistance of Grounding Electrodes. Resistance to ground of all grounding electrodes shall be measured and recorded. Measurements shall be made with a ground tester during dry soil conditions as approved by the Engineer. Resistance to ground shall not exceed 10 ohms.

**Contract Guarantee.** The Contractor shall provide a written guarantee for all electrical work provided under the contract for a period of six months after the date of acceptance with the following warranties and guarantees.

- (a) The manufacturer's standard written warranty for each piece of electrical material or apparatus furnished under the contract. The warranty for light emitting diode (LED) modules, including the maintained minimum luminance, shall cover a minimum of 120 months from the date of delivery.
- (b) The Contractor's written guarantee that, for a period of six months after the date of final acceptance of the work, all necessary repairs to or replacement of said warranted material or apparatus for reasons not proven to have been caused by negligence on the part of the user or acts of a third party shall be made by the Contractor at no additional cost to the Village.

(c) The Contractor's written guarantee for satisfactory operation of all electrical systems furnished and constructed under the contract for a period of six months after final acceptance of the work.

The warranty for an uninterruptable power supply (UPS) shall cover a minimum of two years from date the equipment is placed in operation; however, the batteries of the UPS shall be warranted for full replacement for a minimum of five years.

**Record Drawings.** Alterations and additions to the electrical installation made during the execution of the work shall be made on the PDF copy of the as-Let documents using a PDF editor. Hand drawn notations or markups and scanned plans are not acceptable. These drawings shall be updated daily and shall be available for inspection by the Engineer during the work. The record drawings shall include the following:

- Cover Sheet
- The Electrical Maintenance Contract Management System (EMCMS) location designation, i.e. "L" number
- · Summary of Quantities, electrical items only
- Legends, Schedules, and Notes
- Plan Sheets
- Pertinent Details
- Single Line Diagrams
- Other useful information useful to locate and maintain the systems.

Any modifications to the details shall be indicated. Final quantities used shall be indicated on the Summary of Quantities. Foundation depths used shall also be listed.

As part of the record drawings, the Contractor shall inventory all materials, new or existing, on the project and record information on inventory sheets provided by the Engineer.

The inventory shall include:

- Location of Equipment, including rack, chassis, slot as applicable.
- Designation of Equipment
- Equipment manufacturer
- Equipment model number
- Equipment Version Number
- Equipment Configuration
  - o Addressing, IP or other
  - o Settings, hardware or programmed
- Equipment Serial Number

The following electronic inventory forms are available from the Engineer:

- Lighting Controller Inventory
- Lighting Inventory
- Light Tower Inspection Checklist
- ITS Location Inventory

The information shall be entered in the forms; handwritten entries will not be acceptable; except for signatures. Electronic file shall also be included in the documentation.

When the work is complete, and seven days before the request for a final inspection, the set of contract drawings, stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or Electrician. The record drawings shall be submitted in PDF format through TOCS, on CD-ROM as well as hardcopies for review and approval.

In addition to the record drawings, PDF copies of the final catalog cuts which have been Approved and Approved as Noted with applicable follow-up shall be submitted along with the record drawings. The PDF files shall clearly indicate either by filename or PDF table of contents the respective pay item number. Specific part or model numbers of items which have been selected shall be clearly visible. Hard copies of the catalog are not required with this submittal.

The Contractor shall provide three sets of electronically produced drawings in a moisture proof pouch to be kept on the inside door of the controller cabinet or other location approved by the Engineer. These drawings shall show the final as-built circuit orientation(s) of the project in the form of a single line diagram with all luminaires numbered and clearly identified for each circuit.

Final documentation shall be submitted as a complete submittal package, i.e. record drawings, test results, inventory, etc. shall be submitted at the same time. Partial piecemeal submittals will be rejected without review.

A total of three hardcopies and two CD-ROMs of the final documentation shall be submitted. The identical material shall also be submitted through the TOCS system utilizing the following final documentation pay item numbers:

Pay Code	Description	Discipline
FDLRD000	Record Drawings - Lighting	Lighting
FDSRD000	Record Drawings - Surveillance	Surveillance
FDTRD000	Record Drawings - Traffic Signal	Traffic Signal
FDIRD000	Record Drawings - ITS	ITS
FDLCC000	Catalog Cuts - Lighting	Lighting
FDSCC000	Catalog Cuts – Surveillance	Surveillance
FDTCC000	Catalog Cuts – Traffic Signal	Traffic Signal
FDICC000	Catalog Cuts - ITS	ITS
FDLWL000	Warranty - Lighting	Lighting
FDSWL000	Warranty - Surveillance	Surveillance
FDTWL000	Warranty - Traffic Signal	Traffic Signal
FDIWL000	Warranty - ITS	ITS
FDLTR000	Test Results - Lighting	Lighting
FDSTR000	Test Results - Surveillance	Surveillance
FDTTR000	Test Results - Traffic Signal	Traffic Signal
FDITR000	Test Results - ITS	ITS
FDLINV00	Inventory - Lighting	Lighting
FDSINV00	Inventory - Surveillance	Surveillance
FDTINV00	Inventory - Traffic Signal	Traffic Signal
FDIINV00	Inventory - ITS	ITS
FDLGPS00	GPS - Lighting	Lighting
FDSGPS00	GPS - Surveillance	Surveillance
FDTGPS00	GPS - Traffic Signal	Traffic Signal
FDIGPS00	GPS - ITS	ITS

Record Drawings shall include Marked up plans, controller info, Service Info, Equipment Settings, Manuals, Wiring Diagrams for each discipline.

Test results shall be all electrical test results, fiber optic OTDR, and Fiber Optic power meter as applicable for each discipline.

GPS Documentation. In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following electrical components being installed, modified or being affected in other ways by this contract:

- All light poles and light towers.
- Handholes and vaults.
- Junction Boxes
- Conduit roadway crossings.
- Controllers.
- Control Buildings.
- Structures with electrical connections, i.e. DMS, lighted signs.
- Electric Service locations.
- CCTV Camera installations.
- Roadway Surveillance installations.
- Fiber Optic Splice Locations.
- Fiber Optic Cables. Coordinates shall be recorded along each fiber optic cable route every 200 feet.
- All fiber optic slack locations shall be identified with quantity of slack cable included. When sequential cable markings are available, those markings shall be documented as cable marking into enclosure and marking out of enclosure.

Datum to be used shall be North American 1983.

Data shall be provided electronically. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

- 1. District
- 2. Description of item
- 3. Designation
- 4. Use
- 5. Approximate station
- 6. Contract Number
- 7. Date
- 8. Owner
- 9. Latitude
- 10. Longitude
- 11. Comments

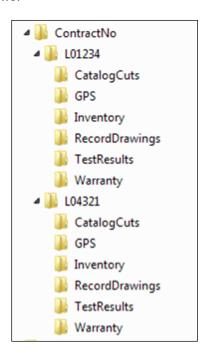
A spreadsheet template will be available from the Engineer for use by the Contractor.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have minimum 5 meters accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years."

The documents on the CD shall be organized by the Electrical Maintenance Contract Management System (EMCMS) location designation. If multiple EMCMS locations are within the contract, separate folders shall be utilized for each location as follows:



Extraneous information not pertaining to the specific EMCMS location shall not be included in that particular folder and sub-folder.

The inspection will not be made until after the delivery of acceptable record drawings, specified certifications, and the required guarantees.

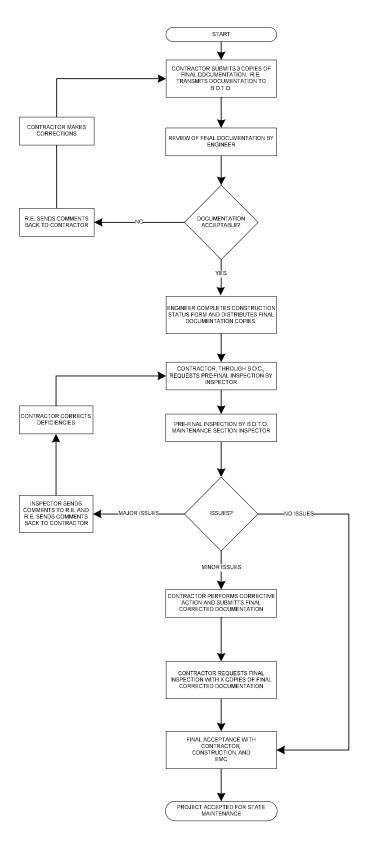
The Final Acceptance Documentation Checklist shall be completed and is contained elsewhere herein.

All CDs shall be labeled as illustrated in the CD Label Template contained herein.

**Acceptance.** Acceptance of electrical work will be given at the time when the Village assumes the responsibility to protect and maintain the work according to Article 107.30 or at the time of final inspection.

When the electrical work is complete, tested, and fully operational, the Contractor shall schedule an inspection for acceptance with the Engineer no less than seven working days prior to the desired inspection date. The Contractor shall furnish the necessary labor and equipment to make the inspection.

A written record of the test readings taken by the Contractor according to Article 801.13 shall be furnished to the Engineer seven working days before the date the inspection is scheduled. Inspection will not be made until after the delivery of acceptable record drawings, specified certifications, and the required guarantees.



# **Final Acceptance Documentation Checklist**

LOCATION					
Route	Common Name				
	Lincolnwood Manor				
Limits	Section				
Rivers View Dr., Southwind Dr., Westwind Dr.					
Contract #	County				
	Kane County				
Controller Designation(s)	EMC Database Location Number(s)				

ITEM	Contractor (Verify)	Resident Engineer (Verify)
Record Drawings		
-Three hardcopies (11" x 17")		
-Scanned to two CD-ROMs		
Field Inspection Tests		
-Voltage		П
-Amperage		
-Cable Insulation Resistance		
-Continuity		
-Controller Ground Rod Resistance		
(Three Hardcopies & scanned to two CD's)		
GPS Coordinates		
-Excel file		
(Check Special Provisions, Excel file scanned to two CD's)		<del>-</del>
Job Warranty Letter		
(Three Hardcopies & scanned to two CD's)		
Catalog Cut Submittals		
-Approved & Approved as Noted		
(Scanned to two CD's)		
Lighting Inventory Form		
(Three Hardcopies & scanned to two CD's)		Ш
Lighting Controller Inventory Form		
(Three Hardcopies & scanned to two CD's)		
Light Tower Inspection Form		
(If applicable, Three Hardcopies & scanned to two CD's)		

Three Hardcopies & scanned to two CD's shall be submitted for all items above. The CD ROM shall be labeled as shown in the example contained herein.

# **General Notes:**

Record Drawings – The record drawings should contain contract cover sheet, summary of quantities showing all lighting pay item sheets, proposed lighting plans and lighting detail sheets. Submit hardcopies shall be 11" x 17" size. Temporary lighting plans and removal lighting plans should not be part of the set.

<u>Field Inspection Tests</u> – Testing should be done for proposed cables. Testing shall be per standard specifications. Forms shall be neatly filled out.

<u>GPS Coordinates</u> – Check special provisions "General Electrical Requirements". Submit electronic "EXCEL" file.

<u>Job Warranty Letter</u> – See standard specifications.

<u>Cutsheet Submittal</u> – See special provisions "General Electrical Requirements". Scan Approved and Approved as Noted cutsheets.

<u>Lighting Inventory Form</u> – Inventory form should include only proposed light poles, proposed light towers, proposed combination (traffic/light pole) lighting and proposed underpass luminaires.

<u>Lighting Controller Inventory Form</u> – Form should be filled out for only proposed lighting controllers.

<u>Light Tower Safety Inspection Form</u> – Form should be filled out for each proposed light tower.

# CD LABEL FORMAT TEMPLATE. (SAMPLE)

Label must be printed; handwritten labels are unacceptable and will be rejected.



# **ELECTRIC UTILITY SERVICE CONNECTION (COMED)**

Effective: January 1, 2012

<u>Description.</u> This item shall consist of payment for work performed by ComEd in providing or modifying electric service as indicated. THIS MAY INVOLVE WORK AT MORE THAN ONE ELECTRIC SERVICE. For summary of the Electrical Service Drop Locations see the schedule contained elsewhere herein.

## **CONSTRUCTION REQUIREMENTS**

<u>General.</u> It shall be the Contractor's responsibility to contact ComEd. The Contractor shall coordinate his work fully with the ComEd both as to the work required and the timing of the installation. No additional compensation will be granted under this or any other item for extra work caused by failure to meet this requirement. Please contact ComEd, New Business Center Call Center, at 866 NEW ELECTRIC (1-866-639-3532) to begin the service connection process. The Call Center Representatives will create a work order for the service connection. The representative will ask the requestor for information specific to the request. The representative will assign the request based upon the location of project.

The Contractor should make particular note of the need for the earliest attention to arrangements with ComEd for service. In the event of delay by ComEd, no extension of time will be considered applicable for the delay unless the Contractor can produce written evidence of a request for electric service within 30 days of execution.

<u>Method Of Payment.</u> The Contractor will be reimbursed to the exact amount of money as billed by ComEd for its services. Work provided by the Contractor for electric service will be paid separately as described under ELECTRIC SERVICE INSTALLATION. No extra compensation shall be paid to the Contractor for any incidental materials and labor required to fulfill the requirements as shown on the plans and specified herein.

For bidding purposes, this item shall be estimated as \$5000.00

<u>Basis Of Payment.</u> This work will be paid for at the contract lump sum price for **ELECTRIC UTILITY SERVICE CONNECTION** which shall be reimbursement in full for electric utility service charges.

# **ELECTRIC SERVICE INSTALLATION**

Effective: January 1, 2012

<u>Description.</u> This item shall consist of all material and labor required to extend, connect or modify the electric services, as indicated or specified, which is over and above the work performed by the utility. Unless otherwise indicated, the cost for the utility work, if any, will be reimbursed to the Contractor separately under ELECTRIC UTILITY SERVICE CONNECTION. This item may apply to the work at more than one service location and each will be paid separately.

**Materials.** Materials shall be in accordance with the Standard Specifications.

# **CONSTRUCTION REQUIREMENTS**

<u>General.</u> The Contractor shall ascertain the work being provided by the electric utility and shall provide all additional material and work not included by other contract pay items required to complete the electric service work in complete compliance with the requirements of the utility.

No additional compensation will be allowed for work required for the electric service, even though not explicitly shown on the Drawings or specified herein

<u>Method Of Measurement.</u> Electric Service Installation shall be counted, each.

<u>Basis Of Payment.</u> This work will be paid for at the contract unit price each for **ELECTRIC SERVICE INSTALLATION** which shall be payment in full for the work specified herein.

# **LUMINAIRE, LED, ROADWAY**

<u>Description.</u> This item shall consist of furnishing a luminaire per the Village of Carpentersville's requirements and installing the luminaire in accordance with the Standard Specifications for Road and Bridge Construction adopted April 1, 2016, Section 821.

## Materials.

The luminaire shall be General Electric ERL1007C330 Gray Cobra head street lighting fixture with photocell, 3000K color temp. 4 bolt slip fitter, internal bubble level, IP66 optical rating.

**Basis of Payment.** The work shall be paid for at the contract unit price per each **LUMINAIRE**, **LED**, **ROADWAY**, which price shall include all labor, materials and equipment necessary to complete the work in place.

# **UNDERGROUND RACEWAYS**

Effective: March 1, 2015

Revise Article 810.04 of the Standard Specifications to read:

"Installation. All underground conduits shall have a minimum depth of 30-inches (700 mm) below the finished grade."

Add the following to Article 810.04 of the Standard Specifications:

"All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans."

Add the following to Article 810.04 of the Standard Specifications:

"All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum or 300 mm (12") or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped.

The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap.

The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125") thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring."

# **UNIT DUCT**

Effective: January 1, 2012

Revise the first paragraph of Article 810.04 to read:

"The unit duct shall be installed at a minimum depth of 30-inches (760 mm) unless otherwise directed by the Engineer."

Revise Article 1088.01(c) to read:

"(c) Coilable Nonmetallic Conduit.

## General:

The duct shall be a plastic duct which is intended for underground use and which can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance. The duct shall be a plastic duct which is intended for underground use and can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance.

The duct shall be made of high-density polyethylene which shall meet the requirements of ASTM D 2447, for schedule 40. The duct shall be composed of black high-density polyethylene meeting the requirements of ASTM D 3350, Class C, Grade P33. The wall thickness shall be in accordance with Table 2 for ASTM D 2447.

The duct shall be UL Listed per 651-B for continuous length HDPE coiled conduit. The duct shall also comply with NEC Article 354.100 and 354.120.

Submittal information shall demonstrate compliance with the details of these requirements.

# Dimensions:

Duct dimensions shall conform to the standards listed in ASTM D2447. Submittal information shall demonstrate compliance with these requirements.

Nominal Size		Nominal I.D.		Nominal O.D.		Minimu	ım Wall
mm	in	mm	in	mm	in	mm	in
31.75	1.25	35.05	1.380	42.16	1.660	3.556 +0.51	0.140 +0.020
38.1	1.50	40.89	1.610	48.26	1.900	3.683 +0.51	0.145 +0.020

Nomir	nal Size	Pulled	d Tensile
mm	in	N	lbs.
31.75	1.25	3322	747
38.1	1.50	3972	893

# Marking:

As specified in NEMA Standard Publication No. TC-7, the duct shall be clearly and durably marked at least every 3.05 meters (10 feet) with the material designation (HDPE for high density polyethylene), nominal size of the duct and the name and/or trademark of the manufacturer.

# Performance Tests:

Polyethylene Duct testing procedures and test results shall meet the requirements of UL 651. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the duct. Duct crush test results shall meet or exceed the following requirements:

	ict neter		required to ample 50%
mm	in	N	lbs
35	1.25	4937	1110
41	1.5	4559	1025

# **WIRE AND CABLE**

Effective: January 1, 2012

Add the following to the first paragraph of Article 1066.02(a):

"The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations and shall be resistant to oils and chemicals."

Revise the Aerial Electric Cable Properties table of Article 1066.03(a)(3) to read:

Aerial Electric Cable Properties:

Pha	se Conduct	or	ľ	vire	
Size	Stranding	Ave	rage	Minimum	Stranding
AWG		Insu	lation	Size	
		Thick	rness	AWG	
		mm	mils		
6	7	1.1	(45)	6	6/1
4	7	1.1	(45)	4	6/1
2	7	1.1	(45)	2	6/1
1/0	19	1.5	(60)	1/0	6/1
2/0	19	1.5	(60)	2/0	6/1
3/0	19	1.5	(60)	3/0	6/1
4/0	19	1.5	(60)	4/0	6/1

Add the following to Article 1066.03(b) of the Standard Specifications:

"Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE."

## Revise Article 1066.04 to read:

"Aerial Cable Assembly. The aerial cable shall be an assembly of insulated aluminum conductors according to Section 1066.02 and 1066.03. Unless otherwise indicated, the cable assembly shall be composed of three insulated conductors and a steel reinforced bare aluminum conductor (ACSR) to be used as the ground conductor. Unless otherwise indicated, the code word designation of this cable assembly is "Palomino". The steel reinforced aluminum conductor shall conform to ASTM B-232. The cable shall be assembled according to ANSI/ICEA S-76-474."

Revise the second paragraph of Article 1066.05 to read:

"The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing."

# REMOVAL OF LIGHT POLE ARM AND FIXTURE (SPECIAL)

<u>Description:</u> This work shall consist of the removal of light pole arm and fixture as identified on the plans or as directed by the Engineer. The light pole arms and fixtures that are salvageable shall become the property of the Village of Carpentersville. Light pole arms and fixtures determined not to be salvaged by the Engineer shall be disposed of offsite by the Contractor in accordance with the Standard Specifications.

<u>Basis Payment:</u> This work will be measured for payment at the contract unit price each for REMOVAL OF LIGHT POLE ARM AND FIXTURE (SPECIAL). This work shall include all labor, equipment and material to complete the work, protection and repair of existing utilities; and clean-up.

# LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET

<u>Description</u>: This work shall consist of excavating, constructing, and backfilling offset light pole foundations in accordance with Section 836 of the Standard Specifications except as specified herein, and the details shown in the plans. Offset foundations shall be installed at locations where the utility conflict can be resolved by laterally offsetting the drilled shaft of the foundation.

The determination of foundation type shall be made in the field by the Engineer, based upon the actual locations of utilities.

Excavation, including shoring, material disposal, and pumping, bailing or otherwise draining the excavated area shall not be paid for separately, but shall be included in the contract unit price for offset foundations. Backfilling and thoroughly compacting material conforming to Article 1004 and shall not be paid for separately, but shall be considered as included in the contract unit price for offset foundations. Concrete shall cure in accordance with Article 1020.13 before being backfilled.

<u>Basis of Payment</u>: Offset foundations will be measured for payment in accordance with Article 836.04 of the Standard Specifications, and paid at the contract unit price per foot for LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET.

# **DETECTABLE WARNINGS**

This work shall consist of the installation of pre-fabricated panel of truncated domes twenty-four inches (24") wide and varying in length on concrete sidewalk accessibility ramps at locations as directed by the Engineer.

Truncated domes shall be in accordance with Article 424.09 of the Standard Specifications. The domes shall parallel the pavement crosswalk in accordance with the latest Highway Standard. The panel shall be Red. The panel shall meet the requirements of ASTM C1028 – Slip Resistance and ASTM G155 – Accelerated Weathering.

The Detectable Warning Panel shall be one of the following products:

 Duratek tile available from Detectile Corporation
 P.O. Box 3513
 Oak Brook, IL 60523
 Phone: (630) 734-0277

OR

 High-Impact Polymer Wet-Set tile available from TufTile, Inc.
 1200 Flex Court Lake Zurich, IL 60047 Phone: (888) 960-8897

OR

 Armor-Tile Replaceable Cast-In Place System available from White Cap Construction Supply 8124 W. 188<sup>th</sup> Street

Mokena, IL 60448 Phone: (815) 464-8828

The product and method used for installing detectable warnings shall come with the following documents which shall be given to the Engineer prior to installation:

- (a) Manufacturer's certification stating the product is fully compliant with ADAAG.
- (b) Manufacturer's five year warranty.
- (c) Manufacturer's specifications stating the required materials, equipment, installation procedures and conformance to ASTM C1028

This work will be paid for at the contract unit price per SQUARE FOOT for DETECTABLE WARNINGS.

# **HOT-MIX ASPHALT BINDER AND SURFACE COURSE (D1)**

Effective: November 1, 2019 Revised: December 1, 2021

Revise Article 1004.03(c) to read:

"(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

Use	Size/Application	Gradation No.
Class A-1, A-2, & A-3	3/8 in. (10 mm) Seal	CA 16 or CA 20
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & A-3	Cover Coat	CA 14
	IL-19.0; Stabilized Subbase IL-19.0	CA 11 <sup>1/</sup>
l	SMA 12.5 <sup>2/</sup>	CA 13 <sup>4</sup> , CA 14, or CA 16
HMA High ESAL	SMA 9.5 <sup>2/</sup>	CA 13 <sup>3/4/</sup> or CA 16 <sup>3/</sup>
	IL-9.5	CA 16, CM 13 <sup>4/</sup>
	IL-9.5FG	CA 16
LIMALOWECAL	IL-19.0L	CA 11 <sup>1/</sup>
HMA Low ESAL	IL-9.5L	CA 16

- 1/ CA 16 or CA 13 may be blended with the CA 11.
- 2/ The coarse aggregates used shall be capable of being combined with the fine aggregates and mineral filler to meet the approved mix design and the mix requirements noted herein.
- 3/ The specified coarse aggregate gradations may be blended.
- 4/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve."

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the "High ESAL" portion of the table in Article 1030.01 to read:

"High ESAL	Binder Courses	IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, Stabilized Subbase IL-19.0
	Surface Courses	IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5"

Revise Note 2. and add Note 6 to Article 1030.02 of the Standard Specifications to read:

"Item Article/Section

(g)Performance Graded Asphalt Binder (Note 6)

1032

(h) Fibers (Note 2)

Note 2. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 6. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be a SBS PG 76-22 for IL-4.75, except where modified herein.."

Revise table in Article 1030.05(a) of the Standard Specifications to read:

	"MIXTURE COMPOSITION (% PASSING) 1/											
Sieve	IL-19.	.0 mm	SMA	12.5	SMA	9.5	IL-9.	5mm	IL-9	.5FG	IL-4.7	'5 mm
Size	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)												
1 in. (25 mm)		100										
3/4 in. (19 mm)	90	100		100								
1/2 in. (12.5 mm)	75	89	80	100		100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	60	75 <sup>6/</sup>	90	100
#8 (2.36 mm)	20	42	16	24 4/	16	324/	34 5/	52 <sup>2/</sup>	45	60 <sup>6/</sup>	70	90
#16 (1.18 mm)	15	30					10	32	25	40	50	65
#30 (600 μm)			12	16	12	18			15	30		
#50 (300 μm)	6	15					4	15	8	15	15	30
#100 (150 μm)	4	9					3	10	6	10	10	18
#200 (75 μm)	3.0	6.0	7.0	9.0 3/	7.5	9.5 <sup>3/</sup>	4.0	6.0	4.0	6.5	7.0	9.0 3/
#635 (20 μm)			≤ 1	3.0	≤ 3	3.0				_		_
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0		1.0

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.
- 6/ When the mixture is used as a binder, the maximum shall be increased by 0.5 percent passing."

Revise Article 1030.05(b) of the Standard Specifications to read:

(b) Volumetric Requirements. The target value for the air voids of the HMA shall be 4.0 percent, for IL-4.75 and SMA mixtures it shall be 3.5 percent and for Stabilized Subbase it shall be 3.0 percent at

the design number of gyrations. The voids in the mineral aggregate (VMA) and voids filled with asphalt binder (VFA) of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the following requirements.

	Voids in the Mineral Aggregate (VMA), % Minimum for Ndesign					
Mix Design	30	50	70	80	90	
IL-19.0		13.5	13.5		13.5	
IL-9.5		15.0	15.0			
IL-9.5FG		15.0	15.0			
IL-4.75 <sup>1/</sup>		18.5				
SMA-12.5 <sup>1/2/5/</sup>				17.03//16.04/		
SMA-9.5 <sup>1/2/5/</sup>				17.03//16.04/		
IL-19.0L	13.5					
IL-9.5L	15.0					

- 1/ Maximum draindown shall be 0.3 percent according to Illinois Modified AASHTO T 305.
- 2/ The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30°F.
- 3/ Applies when specific gravity of coarse aggregate is  $\geq 2.760$ .
- 4/ Applies when specific gravity of coarse aggregate is < 2.760.
- 5/ For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone"

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Add after third sentence of Article 1030.09(b) to read:

"If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure."

Revise Table 1 and Note 4/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

	Breakdown/Intermediate Roller (one of the following)	Final Roller (one or more of the following)	Density Requirement
IL-9.5, IL-9.5FG, IL- 19.0 <sup>1/</sup>	V <sub>D</sub> , P , T <sub>B</sub> , 3W, O <sub>T</sub> , O <sub>B</sub>	Vs, T <sub>B</sub> , T <sub>F</sub> , O <sub>T</sub>	As specified in Section 1030
IL-4.75 and SMA <sup>3/</sup>	T <sub>B</sub> , 3W, O <sub>T</sub>	T <sub>F</sub> , 3W	As specified in Section 1030

Mixtures on Bridge	Тв	T <sub>F</sub>	As specified in Articles 582.05 and 582.06.
Decks <sup>2/</sup>			302.03 and 302.00.

"4/ The Contractor shall provide a minimum of two steel-wheeled tandem rollers (T<sub>B</sub>), and/or three-wheel (3W) rollers for breakdown, except one of the (T<sub>B</sub>) or (3W) rollers shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm) and one of the (T<sub>B</sub>) or (3W) rollers can be substituted for an oscillatory roller (O<sub>T</sub>). T<sub>F</sub> rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W and T<sub>B</sub> rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for T<sub>B</sub> rollers nearest the paver and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver."

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's Gmb."

Revise first paragraph of Article 1030.10 of the Standard Specifications to read:

"A test strip of 300 ton (275 metric tons), except for SMA mixtures it will be 400 ton (363 metric ton), will be required for each mixture on each contract at the beginning of HMA production for each construction year according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures". At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results."

Revise third paragraph of Article 1030.10 of the Standard Specifications to read:

"When a test strip is constructed, the Contractor shall collect and split the mixture according to the document "Hot-Mix Asphalt Test Strip Procedures". The Engineer, or a representative, shall deliver split sample to the District Laboratory for verification testing. The Contractor shall complete mixture tests stated in Article 1030.09(a). Mixture sampled shall include enough material for the Department to conduct mixture tests detailed in Article 1030.09(a) and in the document "Hot-Mix Asphalt Mixture Design Verification Procedure" Section 3.3. The mixture test results shall meet the requirements of Articles 1030.05(b) and 1030.05(d), except Hamburg wheel tests will only be conducted on High ESAL mixtures during production."

# **FRICTION AGGREGATE (D1)**

Effective: January 1, 2011 Revised: December 1, 2021

Revise Article 1004.03(a) of the Standard Specifications to read:

**"1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed	
Class A	Seal or Cover	Allowed Alone or in Combination 5/:	
		Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete	
HMA Low ESAL	Stabilized Subbase or Shoulders	Allowed Alone or in Combination 5/: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag 1/ Crushed Concrete	
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	Allowed Alone or in Combination 5/6/:  Crushed Gravel Carbonate Crushed Stone 2/ Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete 3/	

Use	Mixture	Aggregates Allowed	
HMA High ESAL Low ESAL  HMA High ESAL	C Surface and Binder IL-9.5 IL-9.5FG or IL-9.5L  O Surface and Binder IL-9.5 or IL-9.5FG	Allowed Alone or in Combination 5/:  Crushed Gravel Carbonate Crushed Stone 2/ Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag 4/ Crushed Concrete 3/  Allowed Alone or in Combination 5/:  Crushed Gravel Carbonate Crushed Stone (other than Limestone) 2/ Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag4/	
		Other Combinations Up to 25% Limestone 50% Limestone 75% Limestone	Mith  Dolomite  Any Mixture D aggregate other than Dolomite  Crushed Slag (ACBF) or Crushed Sandstone
HMA High ESAL	E Surface IL-9.5 SMA Ndesign 80 Surface	Allowed Alone or in Combination 5/ 6/:  Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag  No Limestone.  Other Combinations Allowed: Up to With	

Use	Mixture	Aggregates Allowed	
		50% Dolomite <sup>2/</sup>	Any Mixture E aggregate
		75% Dolomite <sup>2/</sup>	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone
		75% Crushed	Crushed Sandstone,
		Gravel <sup>2/</sup>	Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag
HMA	F Surface	Allowed Alone or in Combination 5/ 6/:  Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.  Other Combinations Allowed:	
High ESAL	IL-9.5 SMA Ndesign 80 Surface		
		Upto	With
		50% Crushed Gravel <sup>2/</sup> or Dolomite <sup>2/</sup>	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80.
- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
- 6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

# **GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D1)**

Effective: June 26, 2006 Revised: December 1, 2021

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a), Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO //I 17 may be added, up to a *maximum of* four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

Sieve Size	Percent Passing	
No. 16 (1.18 <i>mm</i> )	100	
No. 30 (600 μm)	95 ± 5	
No. 50 (300 μm)	> 20	

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of  $\pm$  0.40 percent."

# HOT-MIX ASPHALT BINDER, LEVELING BINDER AND SURFACE COURSE

Effective: May 2013 Revised: August 2020

**Description and Materials.** The Hot Mix Asphalt mix design, production, and construction (materials, machinery, and methods) shall conform to the specific requirements of the standard specifications for Road and Bridge Construction adopted by the Illinois Department of Transportation, applicable Special Provisions, and Chapter 44 of the Bureau of Local Roads and Streets Manual and the following:

- 1. All asphalt mix designs shall target 3.5% Air Voids and all production shall trend about 3.5% Air Voids.
- 2. N50, IL-9.5 mm Surface and Level courses shall have a minimum of 40% passing the #8 sieve.
- 3. Use of FRAP or RAS shall be in accordance with IDOT prevailing Specifications and Special Provision.
- 4. Re-proportioning (within SSRBC adjustments allowed) of IDOT verified mix designs may be allowed and the contractor must submit these values for a review by the Engineer at least one week prior to the first day of production.
- 5. One field TSR test by the Contractor will be required to validate changes.
- 6. The AJMF during production shall meet the remaining IDOT volumetric requirements.

# **HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

ITEM	AC TYPE Overlay	AC TYPE Full Depth HMA	VOIDS
Hot Mix Asphalt Surface Course, Mix "D", IL-9.5 N50	PG 58-22/58-28*	PG 58-28/58-34*	3.5% @ 50 GYR
Hot Mix Asphalt Binder Course, IL-9.5, N50	PG 58-22/58-28*	PG 58-28-/58-34*	3.5% @ 50 GYR
Hot Mix Asphalt Binder Course, IL-19, N50	PG 58-22/58-28*	PG 58-28/58-34*	3.5% @ 50 GYR

Note: The unit weight used to calculate all HMA surface mixture quantities is 112 lbs. /sq. yd. /in

## Construction:

- 7. Tack coat all longitudinal joints (hot and cold) and curb faces.
- 8. Oscillating rollers will be allowed in lieu of pneumatic tired roller on all lifts, all mixes and all courses.
- 9. Auger and tunnel extensions are required on all lifts, all mixes.
- 10. Reverse augers must be installed properly.
- 11. Augers shall be installed properly at the bearing point.
- 12. Roll (compact) the confined and curb line longitudinal joint by overlapping by 6" from the hot to cold side of mat and / or curbing.
- 13. Paving of the full roadway width shall be completed at the end of each day. Longitudinal joints shall be closed daily and within one truck load of HMA to prevent cold joints. Any violation shall require saw cutting edge back 3" to expose straight edge, shall be tack coated twice, and will be straight and uniform.
- 14. Asphalt along the curb line shall be compacted such that the asphalt is  $\frac{1}{4}$ " above the curb line.

<sup>\*</sup>When Asphalt Binder Replacement (ABR) exceeds 15%.

# MISCELLANEOUS ADDITIONS TO PROJECT AT VILLAGE'S DISCRETION

<u>Description:</u> This item is to provide for additional budget in the contract for additional scope of work that may be required but not specifically included in the contract plans and specifications and/or work that may be included in the contract plans and specifications but not covered by a contract pay item prior to the bidding process.

**Construction Requirements:** All work shall conform to appropriate articles of the Standard Specifications, Village ordinances, Village Details and specifications that are considered industry standards or standards set forth by a governing body (i.e. IDOT, FRWRD, MUTCD, etc.) for the furnishing, fabrication, installation or removal of the included items.

**Materials:** All furnished material shall conform to appropriate articles of the Standard Specifications, Village ordinances, Village details and specifications that are considered industry standards or standards set forth by a governing body (i.e. IDOT, KDOT, County, Village, MUTCD, etc.) for the furnishing, fabrication, installation or removal of the included items.

**Disposal of Material & Safety:** All materials resulting from this extra work shall be disposed of at the contractor's expense, outside the limits of the job, at locations acceptable to the Engineer and in accordance with Section 107.01 of the Standard Specifications, as amended by Public Act 90-761.

<u>Method of Measurement:</u> This item shall be measured for payment in the appropriate dimensions for the work performed.

<u>Basis of Payment:</u> The Contractor will include in his/her bid a unit bid of lump sum and one (1) quantity at \$50,000 per unit price for a total of \$50,000.00 for miscellaneous additions to the project at the Village's Discretion. Only additional work, as approved in writing by the Village, will be eligible for payment. Additional work may consist of items such as additional connections to an existing water, storm, or sanitary sewer of an odd size, removals or adjustments not identified on the plans, or other construction items that may be deemed necessary by the Village to add to the project and not otherwise identified as an identified bid item or known at the time of preparation of the construction documents.

# State of Illinois Department of Transportation Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007 Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

Village of Carpentersville	
HR Green	

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

# Department of Transportation Bureau of Local Roads and Streets SPECIAL PROVISION FOR CONSTRUCTION AND MAINTENANCE SIGNS

State of Illinois

Effective: January 1, 2004 Revised: June 1, 2007

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

# 701.14. Signs. Add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 1200 mm x 1200 mm (48" x 48") and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, Type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

# State of Illinois DEPARTMENT OF TRANSPORTATION Bureau of Local Roads & Streets SPECIAL PROVISION FOR

LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

"1030.06 Quality Management Program. The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following."

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

"(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document "Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations" at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. (100 mm) diameter core. With the approval of the Engineer, the cores may be cut at a later time."

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

"(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below

Density Verification Method		
	Cores	
X	Nuclear Density Gauge (Correlated when	
	paving ≥ 3,000 tons per mixture)	

Density verification test locations will be determined according to the document "Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations". The density testing interval for paving wider than or equal to 3 ft (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). If a day's paving will be less than the prescribed density testing interval, the length of the day's paving will be the interval for that day. The density testing interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the

density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275.

If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method".

A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID label."

# State of Illinois DEPARTMENT OF TRANSPORTATION Bureau of Local Roads & Streets

# SPECIAL PROVISION FOR EMULSIFIED ASPHALTS

Effective: January 1, 2007 Revised: February 7, 2008

All references to Sections and Articles in this Special Provision shall be construed to mean specific Sections and Articles in the Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation.

Replace the table after Note 2 in Article 403.02 with the following:

	Bituminous Materials Recommended for Weather Conditions Indicated		
Type of Construction	Warm [15 °C to 30 °C]* [(60 °F to 85 °F)]*	Hot [30 °C Plus]* [(85 °F Plus)]*	
Prime	MC-30, PEP	MC-30, PEP	
Cover Coat and Seal Coat	RS-2, CRS-2, RC-800, RC-3000, MC-800, MC-3000, SC-3000, HFE-90, HFE-150, HFE-300, HFRS-2, PEA**	RS-2, CRS-2, RC-800, RC-3000, MC-800, MC-3000, SC-3000, PG46-28, PG52-28, HFE-90, HFE-150, HFE-300, HFRS-2, PEA**	

- \* Temperature of the air in the shade at the time of application.
- \*\* PEA is only allowed on roads with low traffic volumes

Replace the table after Note 2 in Article 406.02 with the following:

Type of Construction	Bituminous Materials Recommended
Prime (tack) on Brick, Concrete, or Bituminous Bases (Note 3)	SS-1, SS-1h, CSS-1, CSS-1h, HFE-90, RC-70
Prime on Aggregate Bases (Note 4)	MC-30, PEP
Mixture for Cracks, Joints, and Flangeways	PG58-22, PG64-22

- Note 3. When emulsified asphalts are used, they shall be diluted with an equal volume of potable water. HFE emulsions shall be diluted by the manufacturer. The diluted material shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion. The diluted material shall not be returned to an approved emulsion storage tank.
- Note 4. Preparation of the bituminous PEP shall be as specified in Article 403.05.

Spraying Application Temperature Ranges			
Type and Crade of	Temperature Ranges		
Type and Grade of Bituminous Material	°F	°C	
Dituillillous Material	min max.	min max.	
PEP	60 - 130	15 - 55	
PEA	140 - 190	60 -88	
MC-30	85 - 190	30 - 90	
MC-70, RC-70, SC-70	120 - 225	50 - 105	
MC-250, SC-250	165 - 270	75 - 130	
MC-800, SC-800	200 - 305	95 - 150	
MC-3000, SC-3000	230 - 345	110 - 175	
PG46-28	275 - 385	135 - 195	
PG52-28	285 - 395	140 - 200	
RS-2, CRS-2	110 - 160	45 - 70	
SS-1, SS-1h, CSS-1, CSS-1h	75 - 130	25 - 55	
SS-1hP, CSS-1hP	75 - 130	25 - 55	
HFE-90, HFE-150, HFE-300	150 - 180	65 - 80	
HFP, CRSP, HFRS-2	150 - 180	65 - 80	
E-2	85 - 190	30 - 90	
E-3	120 - 225	50 - 105	
E-4	165 - 270	75 - 130	

# Add subparagraph (g) to Article 1032.06:

(g) Penetrating Emulsified Asphalt (PEA). The penetrating emulsified asphalt shall meet the following requirements when tested according to AASHTO T59:

Viscosity, Saybolt Fural @ 25°C (77°F),	sec:	20 - 500
Sieve Test, retained on 850 $\mu$ m (No. 20) sieve, maximum,		0.10
Storage Stability Test, 1 day, maximum,	%:	1
Float Test @ 60°C (140°F), minimum,	sec:	150
Stone Coating Test, 3 minutes,	:	Stone Coated Thoroughly
Particle Charge	:	Negative
pH, minimum	:	7.3
Distillation Test:		
Distillation to 260°C (500°F) Residue, minimum	%:	65
Oil Distillate by Volume, maximum	%:	3
Test on residue from distillation:		
Penetration @ 25°C (77°F), 100 g, 5 sec, minimum	dmm:	300

Replace the last sentence and table of Article 1032.06 with the following:

The different grades are, in general, used for the following.

Grade	Use
SS-1, SS-1h, CSS-1, CSS-1h, HFE 90, SS-1hP, CSS-1hP	Tack or fog seal
PEP	Bituminous surface treatment prime
RS-2, HFE 90, HFE 150, HFE 300, CRSP, HFP, CRS-2, HFRS-2, PEA	Bituminous surface treatment
CSS-1h Latex Modified	Microsurfacing

# BDE SPECIAL PROVISIONS For the August 2 and September 20, 2024 Lettings

The following special provisions indicated by a "check mark" are applicable to this contract and will be included by the Project Coordination and Implementation Section of the Bureau of Design & Environment (BDE).

Fil	e Name	#		Special Provision Title	Effective	Revised
<u>,</u>	80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2022
	80274		H	Aggregate Subgrade Improvement	April 1, 2003 April 1, 2012	April 1, 2022
	80192		H			
			H	Automated Flagger Assistance Devices	Jan. 1, 2008	April 1, 2023
	80173		H	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80426		님	Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	Jan. 1, 2022
*	80241		닏	Bridge Demolition Debris	July 1, 2009	
*	50531	7	닏	Building Removal	Sept. 1, 1990	Aug. 1, 2022
*	50261	8	닏	Building Removal with Asbestos Abatement	Sept. 1, 1990	Aug. 1, 2022
	80449		빌	Cement, Type IL	Aug. 1, 2023	
	80384		$\boxtimes$	Compensable Delay Costs	June 2, 2017	April 1, 2019
*	80198	11	$\sqcup$	Completion Date (via calendar days)	April 1, 2008	
*		12	Ш	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80453	13	Ш	Concrete Sealer	Nov. 1, 2023	
	80261	14	$\times$	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80434	15		Corrugated Plastic Pipe (Culvert and Storm Sewer)	Jan. 1, 2021	
*	80029	16		Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Mar. 2, 2019
	80229	17		Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80452	18		Full Lane Sealant Waterproofing System	Nov. 1, 2023	
	80447	19		Grading and Shaping Ditches	Jan. 1, 2023	
	80433	20		Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	Jan. 1, 2022
	80443	21		High Tension Cable Median Barrier Removal	April 1, 2022	
	80456	22		Hot-Mix Asphalt	Jan. 1, 2024	
	80446		П	Hot-Mix Asphalt - Longitudinal Joint Sealant	Nov. 1, 2022	Aug. 1, 2023
	80438		П	Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	April 2, 2024
	80045		П	Material Transfer Device	June 15, 1999	Jan. 1, 2022
	80450		Ħ	Mechanically Stabilized Earth Retaining Walls	Aug. 1, 2023	, -
	80441		$\overline{\times}$	Performance Graded Asphalt Binder	Jan. 1, 2023	
	80451		П	Portland Cement Concrete	Aug. 1, 2023	
	80459		П	Preformed Plastic Pavement Marking	June 2, 2024	
*	34261	30	Н	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
	80455		Ħ	Removal and Disposal of Regulated Substances	Jan. 1, 2024	April 1, 2024
	80445		$\boxtimes$	Seeding	Nov. 1, 2022	7 (2111 1, 2021
	80457			Short Term and Temporary Pavement Markings	April 1, 2024	April 2, 2024
		34	H	Source of Supply and Quality Requirements	Jan. 2, 2023	7 pm 2, 202+
	80340		H	Speed Display Trailer	April 2, 2014	Jan. 1, 2022
	80127		H	Steel Cost Adjustment	April 2, 2004	Jan. 1, 2022
	80397		H	Subcontractor and DBE Payment Reporting	April 2, 2004 April 2, 2018	Jan. 1, 2022
	80391		H	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
	80437		H	Submission of Payroll Records	April 1, 2021	Nov. 2, 2023
	80437		H	Surface Testing of Pavements – IRI		
			H	· · · · · · · · · · · · · · · · · · ·	Jan. 1, 2021	Jan. 1, 2023
*	80410		H	Traffic Spotters	Jan. 1, 2019	C+ 0 0004
	20338		H	Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
	80429			Ultra-Thin Bonded Wearing Course	April 1, 2020	Jan. 1, 2022
	80439		×	Vehicle and Equipment Warning Lights	Nov. 1, 2021	Nov. 1, 2022
	80458		H	Waterproofing Membrane System	Aug. 1, 2024	N 4 0001
	80302		닏	Weekly DBE Trucking Reports	June 2, 2012	Nov. 1, 2021
	80454		닏	Wood Sign Support	Nov. 1, 2023	
, .	80427		닏	Work Zone Traffic Control Devices	Mar. 2, 2020	
*	80071	49	Ш	Working Days	Jan. 1, 2002	

Highlighted items indicate a new or revised special provision for the letting.

							Ove	Overtime								
Trade Title	Rg	Туре	С	Base	Foreman	M-F	Sa	Su	Hol	H/W	Pension	Vac	Trng	Other Ins	Add OT 1.5x owed	Add OT 2.0x owed
ASBESTOS ABT-GEN	All	ALL		48.90	49.90	1.5	1.5	2.0	2.0	15.28	18.00	0.00	0.91		0.00	0.00
ASBESTOS ABT-MEC	All	BLD		40.59	43.84	1.5	1.5	2.0	2.0	15.22	15.16	0.00	0.88		2.80	5.60
BOILERMAKER	All	BLD		54.71	59.63	2.0	2.0	2.0	2.0	6.97	25.06	0.00	2.83		0.00	0.00
BRICK MASON	All	BLD		50.81	55.89	1.5	1.5	2.0	2.0	12.50	23.01	0.00	1.16	0.00	0.00	0.00
CARPENTER	All	ALL		53.51	55.51	1.5	1.5	2.0	2.0	12.29	25.77	1.20	0.81		0.00	0.00
CEMENT MASON	All	ALL		50.70	52.70	2.0	1.5	2.0	2.0	11.89	27.82	0.00	0.80	0.00	0.00	0.00
CERAMIC TILE FINISHER	All	BLD		45.62	45.62	1.5	1.5	2.0	2.0	12.75	15.64	0.00	1.04	0.00	0.00	0.00
CERAMIC TILE LAYER	All	BLD		53.14	58.14	1.5	1.5	2.0	2.0	12.75	19.41	0.00	1.12	0.00	0.00	0.00
COMMUNICATION TECHNICIAN	N	BLD		45.48	47.88	1.5	1.5	2.0	2.0	14.37	18.21	0.00	0.91	0.00	0.00	0.00
COMMUNICATION TECHNICIAN	S	BLD		44.15	46.95	1.5	1.5	2.0	2.0	17.30	16.36	0.00	1.54	0.00	0.00	0.00
ELECTRIC PWR EQMT OP	All	ALL		50.82	69.34	1.5	1.5	2.0	2.0	7.25	14.22	0.00	1.52	1.52	8.63	17.26
ELECTRIC PWR GRNDMAN	All	ALL		39.04	69.34	1.5	1.5	2.0	2.0	7.25	10.93	0.00	1.17	1.17	6.63	13.27
ELECTRIC PWR LINEMAN	All	ALL		61.09	69.34	1.5	1.5	2.0	2.0	7.25	17.10	0.00	1.83	1.83	10.38	20.76
ELECTRIC PWR TRK DRV	All	ALL		40.46	69.34	1.5	1.5	2.0	2.0	7.25	11.33	0.00	1.21	1.21	6.87	13.75
ELECTRICIAN	N	ALL		54.61	59.01	1.5	1.5	2.0	2.0	16.24	21.75	0.00	1.64	0.00	0.00	0.00
ELECTRICIAN	S	BLD		53.32	57.57	1.5	1.5	2.0	2.0	18.05	19.93	0.00	1.87	0.00	0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		65.12	73.26	2.0	2.0	2.0	2.0	16.08	20.56	5.20	0.70		0.00	0.00
FENCE ERECTOR	All	ALL		47.12	52.77	1.5	1.5	1.5	1.5	13.06	25.13	0.00	0.00	0.00	0.00	0.00
GLAZIER	All	BLD		49.75	51.25	1.5	2.0	2.0	2.0	15.44	25.36	0.00	2.07	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		54.12	57.37	1.5	1.5	2.0	2.0	15.22	17.86	0.00	0.88		4.15	8.30
IRON WORKER	All	ALL		51.99	58.23	2.0	2.0	2.0	2.0	13.06	29.22	0.00	1.80	0.00	0.00	0.00
LABORER	All	ALL		48.90	49.65	1.5	1.5	2.0	2.0	15.28	18.00	0.00	0.91		0.00	0.00
LATHER	All	ALL		53.51	55.51	1.5	1.5	2.0	2.0	12.29	25.77	1.20	0.81		0.00	0.00
MACHINIST	All	BLD		55.74	59.74	1.5	1.5	2.0	2.0	9.93	8.95	1.85	1.47		0.00	0.00
MARBLE FINISHER	All	ALL		38.75	52.46	1.5	1.5	2.0	2.0	12.50	20.95	0.00	0.66	0.00	0.00	0.00
MARBLE SETTER	All	BLD		49.96	54.96	1.5	1.5	2.0	2.0	12.50	22.31	0.00	0.85	0.00	0.00	0.00

MATERIAL TESTER I	All	ALL		38.90		1.5	1.5	2.0	2.0	15.28	18.00	0.00	0.91		0.00	0.00
MATERIALS TESTER II	All	ALL		43.90		1.5	1.5	2.0	2.0	15.28	18.00	0.00	0.91		0.00	0.00
MILLWRIGHT	All	ALL		53.51	55.51	1.5	1.5	2.0	2.0	12.29	25.77	1.20	0.81		0.00	0.00
OPERATING ENGINEER	All	BLD	1	56.60	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	BLD	2	55.30	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	BLD	3	52.75	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	BLD	4	51.00	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	BLD	5	60.35	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	BLD	6	57.60	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	BLD	7	59.60	60.60	2.0	2.0	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	FLT		41.00	41.00	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15		0.00	0.00
OPERATING ENGINEER	All	HWY	1	54.80	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	HWY	2	54.25	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	HWY	3	52.20	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	HWY	4	50.80	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	HWY	5	49.60	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	HWY	6	57.80	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
OPERATING ENGINEER	All	HWY	7	55.80	58.80	1.5	1.5	2.0	2.0	22.95	20.05	2.00	2.70		0.00	0.00
ORNAMENTAL IRON WORKER	E	ALL		55.01	57.51	2.0	2.0	2.0	2.0	14.23	26.00	0.00	2.00	0.00	0.00	0.00
PAINTER	All	ALL		51.55	53.55	1.5	1.5	1.5	2.0	17.98	7.15	0.00	1.55	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		45.49	51.09	1.5	1.5	2.0	2.0	8.20	16.81	0.00	0.00	0.00	0.00	0.00
PILEDRIVER	All	ALL		53.51	55.51	1.5	1.5	2.0	2.0	12.29	25.77	1.20	0.81		0.00	0.00
PIPEFITTER	All	BLD		55.00	58.00	1.5	1.5	2.0	2.0	12.65	22.85	0.00	3.12	0.00	0.00	0.00
PLASTERER	All	BLD		48.75	51.68	1.5	1.5	2.0	2.0	17.33	20.33	0.00	1.15	0.00	0.00	0.00
PLUMBER	All	BLD		56.80	60.20	1.5	1.5	2.0	2.0	17.00	17.29	0.00	1.73		0.00	0.00
ROOFER	All	BLD		49.25	54.25	1.5	1.5	2.0	2.0	11.83	16.14	0.00	1.11	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD	П	54.25	56.96	1.5	1.5	2.0	2.0	13.60	19.43	0.00	1.59	2.62	0.00	0.00
SPRINKLER FITTER	All	BLD	П	56.60	59.35	1.5	1.5	2.0	2.0	14.45	18.80	0.00	0.75	0.00	0.00	0.00
STONE MASON	All	BLD	П	50.81	55.89	1.5	1.5	2.0	2.0	12.50	23.01	0.00	1.16	0.00	0.00	0.00

SURVEY WORKER	All	BLD		48.90	49.65	1.5	1.5	2.0	2.0	15.28	18.00	0.00	0.91	0.00	0.00	0.00
SURVEY WORKER	All	HWY		48.90	49.65	1.5	1.5	2.0	2.0	15.28	18.00	0.00	0.91	0.00	0.00	0.00
TERRAZZO FINISHER	All	BLD		46.94	46.94	1.5	1.5	2.0	2.0	12.75	17.73	0.00	1.07	0.00	0.00	0.00
TERRAZZO MECHANIC	All	BLD		50.85	54.35	1.5	1.5	2.0	2.0	12.75	19.12	0.00	1.10	0.00	0.00	0.00
TRAFFIC SAFETY WORKER I	All	HWY		40.10	41.70	1.5	1.5	2.0	2.0	10.60	9.35	0.00	1.00	0.00	0.00	0.00
TRAFFIC SAFETY WORKER II	ALL	HWY		41.10	42.70	1.5	1.5	2.0	2.0	10.60	9.35	0.00	1.00	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	1	42.76	43.31	1.5	1.5	2.0	2.0	11.33	14.75	0.00	0.15	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	2	42.91	43.31	1.5	1.5	2.0	2.0	11.33	14.75	0.00	0.15	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	3	43.11	43.31	1.5	1.5	2.0	2.0	11.33	14.75	0.00	0.15	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	4	43.31	43.31	1.5	1.5	2.0	2.0	11.33	14.75	0.00	0.15	0.00	0.00	0.00
TUCKPOINTER	All	BLD		50.53	51.53	1.5	1.5	2.0	2.0	9.55	21.72	0.00	1.11	0.00	0.00	0.00

# **Legend**

**Rg** Region

**Type** Trade Type - All, Highway, Building, Floating, Oil & Chip, Rivers

**C** Class

**Base** Base Wage Rate

**OT M-F** Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

OT Sa Overtime pay required for every hour worked on Saturdays

OT Su Overtime pay required for every hour worked on Sundays

**OT Hol** Overtime pay required for every hour worked on Holidays

**H/W** Health/Welfare benefit

Vac Vacation

**Trng** Training

**Other Ins** Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

# **Explanations KANE COUNTY**

ELECTRICIANS AND COMMUNICATIONS TECHNICIAN (NORTH) - Townships of Burlington, Campton, Dundee, Elgin, Hampshire, Plato, Rutland, St. Charles (except the West half of Sec. 26, all of Secs. 27, 33, and 34, South half of Sec. 28, West half of Sec. 35), Virgil and Valley View CCC and Elgin Mental Health Center.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain

days of celebration. If in doubt, please check with IDOL.

## **EXPLANATION OF CLASSES**

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

### CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

#### COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security systems, fire alarm systems that are a component of a multiplex system and share a common cable, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

# MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble,

holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

## **OPERATING ENGINEER - BUILDING**

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

### OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

**OPERATING ENGINEERS - FLOATING** 

Diver. Diver Wet Tender, Diver Tender, ROV Pilot, ROV Tender

**SURVEY WORKER** 

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking.

#### SURVEY FOREMAN

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking; oversees survey crew operations; and/or coordinates work of survey crews.

## TRAFFIC SAFETY Worker I

Traffic Safety Worker I - work associated with the delivery, installation, pick-up and servicing of safety devices during periods of roadway construction, including such work as set-up and maintenance of barricades, barrier wall reflectors, drums, cones, delineators, signs, crash attenuators, glare screen and other such items, and the layout and application or removal of conflicting and/or temporary roadway markings utilized to control traffic in construction zones, as well as flagging for these operations.

## TRAFFIC SAFETY WORKER II

Work associated with the installation and removal of permanent pavement markings and/or pavement markers including both installations performed by hand and installations performed by truck.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

## TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

## Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

## LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

# MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

Kane County Prevailing Wage Rates posted on 4/15/2024

FOR INDEX OF SHEETS, SEE SHEET NO. 2 FOR LIST OF HIGHWAY STANDARDS SEE SHEET NO. 2

DESIGN SPEED

25 MPH

25 MPH

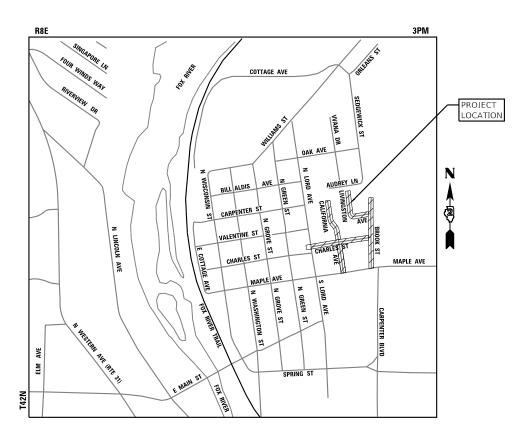
25 MPH

F.A.U. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
			KANE	103	1
FED.	ROAD DIST. NO 1	ILLINOIS	CONTRACT	NO.	

### ROADWAY RECONSTRUCTION

CALIFORNIA AVENUE - CHARLES ST TO NORTH LIMITS LIVINGSTON AVENUE - BROOK ST TO WEST/NORTH LIMITS **BROOK STREET - LIVINGSTON AVE TO MAPLE AVE** 

### VILLAGE OF CARPENTERSVILLE KANE COUNTY

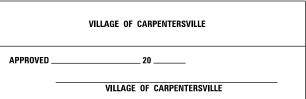


**PROJECT LENGTH** NET AND GROSS LENGTH OF PROJECT = 3.096 FT. = 0.59 MILES

## PLANS FOR PROPOSED

**CHARLES STREET - LORD AVE TO BROOK ST** 

# LOCATION OF SECTION INDICATED THUS: -





1391 CORPORATE DRIVE, SUITE 203 | McHENRY, ILLINOIS 60050 Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 815.385.1781 | HRGreen.com ILLINOIS PROFESSIONAL DESIGN FIRM #184-001322

### **DESIGN DESIGNATION**

CALIFORNIA AVENUE -

LIVINGSTON AVENUE -

BROOK STREET -

CHARLES STREET -

CALIFORNIA AVENUE - LOCAL LIVINGSTON AVENUE - LOCAL
BROOK STREET - LOCAL
CHARLES STREET - LOCAL

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR **EXCAVATION CALL 811** 

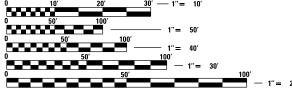


Call before you dig.

SPEED POSTED

25 MPH

25 MPH



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

PROFESSIONAL ENGINEER'S SIGN & SEAL EXCLUDING SHEET(S):



SEAL

JACK R. MELHUISH, P.E. EXPIRES: 11-30-25

### **INDEX OF SHEETS**

1		COVER SHEET
2		INDEX OF SHEETS, STATE STANDARDS AND DISTRICT ONE DETAILS
3		GENERAL NOTES
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### **DISTRICT ONE DETAILS**

99 - 103 DISTRICT ONE DETAILS

BD01	DRIVEWAY DETAILS-DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER ≥TO 15 FT
BD02	DRIVEWAY DETAILS-DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER < TO 15 FT
BD32	BUTT JOINTS AND HMA TAPER
TC10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS

### **STATE STANDARDS**

STANDARD NO.	LIST OF DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-05	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-04	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-05	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-06	DEPRESSED CURB FOR SIDEWALKS
602001-02	CATCH BASIN, TYPE A
602011-02	CATCH BASIN, TYPE C
602301-04	INLET, TYPE A
602401-07	MANHOLE, TYPE A 4' DIAMETER
602402-03	MANHOLE, TYPE A 5' DIAMETER
602406-11	MANHOLE, TYPE A 6' DIAMETER
602411-09	MANHOLE, TYPE A 7' DIAMETER
602501-06	PRECAST VALVE VAULT TYPE A 4' DIAMETER
602601-06	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-05	FRAME AND LIDS, TYPE 1
604036-03	GRATE TYPE 8
604051-04	FRAME AND GRATE, TYPE 11
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15 (4.5M) TO 24 (600 MM) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≤ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS- DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-09	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS, AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATION OF TYPE A AND B METAL POSTS (FOR SIGNS AND MARKERS)
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKINGS
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
836001-03	LIGHT POLE FOUNDATION
878001-11	CONCRETE FOUNDATION DETAILS

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	INDEX OF S	HEETS, ST	ATE S	STANDARD	S &	DISTRICT ONE DETAILS	F.A.U RTE.	SECTION NO.		COUNTY	TOTAL SHEETS	SHEET NO.
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١		OLD TOWN								CONTRACT	NO.	
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### **GENERAL NOTES**

- ALL REFERENCES TO "STANDARD SPECIFICATIONS" IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, JANUARY 1, 2022, ALL WORK TO BE COMPLETED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, THE SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 1, 2024, AND THE WATER MAIN SPECIFICATIONS.
- ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE RESIDENT ENGINEER
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS PRIOR TO BIDDING
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION) AT 8-1-1 IDOT AT (847) 705-4436 AND THE VILLAGE OF CARPENTERSVILLE AT (224) 293-1613 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION IS REQUIRED).
- ALL ELEVATIONS SHOWN ON THE PLANS ARE ON THE NAVD88 DATUM.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.
- ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. CURB AND GUTTER ELEVATIONS SHOWN ALONG RETURNS AND AT POINTS OF CURVATURE, ETC. ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- SAW CUTTING WILL BE REQUIRED FOR ALL REMOVAL ITEMS LISTED IN SECTION 440 OF THE STANDARD SPECIFICATIONS, SHOWN IN THE PLANS, AND AS DIRECTED BY THE ENGINEER.
- DRIVEWAYS ARE TO BE CONSTRUCTED TO THE R.O.W. UNLESS OTHERWISE NOTED.
- ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD
- REMOVAL OF EXISTING COMBINATION CURB AND GUTTER, REGARDLESS OF CURB AND GUTTER TYPE, SHALL BE PAID FOR AS "COMBINATION CURB AND GUTTER REMOVAL".
- THE ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT, UNLESS
- ALL SIGNS TO BE REMOVED ALONG CALIFORNIA AVENUE, BROOK STREET, CHARLES STREET AND LIVINGSTON AVENUE SHALL REMAIN THE PROPERTY OF THE VILLAGE OF CARPENTERSVILLE AND SHALL BE RETURNED TO VILLAGE UPON REMOVAL AT 1075 TAMARAC DRIVE, CARPENTERSVILLE, IL. SIGNS TEMPORARILY RELOCATED OR COVERED SHALL NOT BECOME THE PROPERTY OF THE VILLAGE UNTIL PERMANENTLY REMOVED.
- CURB RAMPS SHALL BE INSTALLED AT ALL INTERSECTING STREETS AND DRIVEWAYS PER CURRENT IDOT STANDARDS AT LOCATIONS WHERE SIDEWALK IS SHOWN ON THE PLAN.
- THE THICKNESSES OF HOT MIX ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASES ON WHICH THE HOT MIX ASPHALT MIXTURES ARE TO BE PLACED.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE PROPERTY WITHOUT WRITTEN CONSENT FROM THE VILLAGE OF CARPENTERSVILLE.
- THE CONTRACTOR WILL BE REQUIRED TO TEMPORARILY RESET ALL EXISTING MAILBOXES WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND AFTER COMPLETION OF ROADWAY CONSTRUCTION TO SET THEM IN THEIR PERMANENT LOCATIONS PER UNITED STATES POST OFFICE REQUIREMENTS. THIS WORK SHALL BE DONE IN CONFORMANCE WITH ARTICLE 107.20 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHOULD CONSIDER THE USE OF THE 51S. GROVE STREET PROPERTY AS A CONSTRUCTION STAGING AREA.
- ALL DRIVEWAY APRONS SHALL BE P.C.C. PAVEMENT

### STORM SEWERS, WATER MAINS, AND UTILITIES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL LITILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.
- THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MIGHT NOT BE SHOWN ON THE PLANS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT
- ALL UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 3 DAYS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE WITH THE VILLAGE OF CARPENTERSVILLE IF ANY UTILITY IMPROVEMENTS ARE REQUIRED BY THE VILLAGE WITHIN THE DURATION OF THE CONTRACT
- OFFSET LOCATIONS GIVEN IN THE PLANS FOR STRUCTURES, EDGE OF PAVEMENT, ETC. ARE FROM THE
- UNLESS OTHERWISE NOTED, OFFSETS FOR DRAINAGE STRUCTURES LOCATED IN CURB AND GUTTER ARE TO THE EDGE OF PAVEMENT AND OFFSETS FOR DRAINAGE STRUCTURES NOT LOCATED IN THE CURB AND GUTTER ARE TO THE CENTER OF THE STRUCTURE.
- FRAME ELEVATIONS GIVEN ON THE PLANS ARE ONLY TO ASSIST THE CONTRACTOR IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL NEW, ADJUSTED OR RECONSTRUCTED STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION OF THE AREA IN WHICH THEY ARE LOCATED AS PART OF THE STRUCTURE, ADJUSTMENT OR RECONSTRUCTION COST
- WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION, NOTIFY ENGINEER IMMEDIATELY OF ANY

- ALL FRAMES GRATES LIDS AND BOXES SCHEDULED TO BE REMOVED FROM EXISTING STRUCTURES SHALL REMAIN THE PROPERTY AND BE DELIVERED TO THE VILLAGE OF CARPENTERSVILLE, AS
- ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES. WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS.
- CONTRACTOR SHALL MAINTAIN THE CONVEYANCE OF ALL FLOWS DURING CONSTRUCTION OF THIS PROJECT. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE AND PUBLIC DRAINS, SEWERS, CULVERTS, AND OTHER DRAINAGE FACILITIES. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL SUCH TIME THAT THE PERMANENT CONNECTIONS WITH SEWERS OR CULVERTS ARE BUILT AND IN SERVICE
- ALL FRAMES WITH CLOSED LIDS TO BE FURNISHED AS PART OF THE CONTRACT FOR CONSTRUCTION, ADJUSTMENT OR RECONSTRUCTION OF ANY MANHOLE, CATCH BASIN, INLET, VALVE VAULT OR METER VAULT SHALL HAVE CAST INTO THE LID ONE OF THE FOLLOWING WORDS: ALL LIDS TO BE USED ON WATER STRUCTURES SHALL BEAR THE WORD "WATER." ALL LIDS TO BE USED ON STORM SEWER STRUCTUR SHALL BEAR THE WORD "STORM" ALL LIDS TO BE USED ON SANITARY SYSTEM STRUCTURES SHALL BEAR THE WORD "SANITARY". REFER TO THE VILLAGE OF CARPENTERSVILLE DETAILS FOR ORDERING INFORMATION OR CONTACT THE DEPARTMENT OF PUBLIC WORKS.
- ONLY PRECAST CONCRETE ADJUSTMENT RINGS, MAXIMUM OF 12" IN HEIGHT, WILL BE ALLOWED IN THE ADJUSTMENT OR RECONSTRUCTION OF CATCH BASIN, MANHOLE, INLET AND VALVE VAULT STRUCTURES. COMMON BRICK WILL NOT BE ALLOWED.
- ALL DRAINAGE STRUCTURES LOCATED IN THE ROADWAY VERTICAL CURVE SAGS (LOW-POINTS) SHALL HAVE 4" SUB-SURFACE PAVEMENT DRAIN OPENINGS BLOCKED OUT (PRECAST) AS SHOWN IN THE PLAN
- THE INDISCRIMINATE USE OF FIRE HYDRANTS OR EXISTING STREAMS, CREEKS, WETLANDS OR PONDS IS STRICTLY PROHIBITED. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK AND DRIVER AS REQUIRED TO OBTAIN AND TRANSPORT THE WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WATER FROM AN APPROVED SOURCE. IF THIS WATER IS FROM A SOURCE OTHER THAN HIS YARD, WRITTEN APPROVAL FROM THE AGENCY HAVING JURISDICTION FOR THE SOURCE OF THE WATER MUST BE RECEIVED BY THE ENGINEER PRIOR TO USE OF THE WATER.

### BACKFILL

- STORM SEWER SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 550.07, METHOD 1 ONLY.
- PROVIDE TRENCH BACKFILL FOR ALL UTILITY LINES WITHIN 2' OF PAVED AREAS. ALL TRENCH BACKFILI QUANTITIES FOR STORM SEWER HAVE BEEN COMPUTED AND SHALL BE PAID FOR IN ACCORDANCE WITH THE STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS BUREAU OF CONSTRUCTION TRENCH BACKFILL TABLE, BASED ON PIPE SIZE AND INVERT DEPTH FROM SUBGRADE

### SIGNING AND STRIPING

- ALL SIGNS SHALL BE INSTALLED IN PERMANENT LOCATIONS AS THE ROADWAY IS COMPLETED
- SEE IDOT STANDARD DETAIL 780001, DISTRICT ONE DETAILS AND PLAN SHEETS FOR PAVEMENT MARKING
- SIGNS SHALL NOT BE MOVED OR COVERED UNTIL PROGRESS OF WORK NECESSITATES IT.
- THE CONTRACTOR WILL BE REQUIRED TO TEMPORARILY RESET ALL SUCH SIGNS THAT INTERFERE WITH HIS CONSTRUCTION OPERATIONS. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND CLEAN FOR THE DURATION OF THE TEMPORARY SETTING AND MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO THE TRAFFIC FOR WHICH IT IS INTENDED.
- LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY OR PERMANENT SIGN LOCATIONS TO MAINTAIN PROPER SIGN ELEVATIONS. THIS WORK SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 729 OF THE STANDARD SPECIFICATIONS.

- SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH ARTICLE 301.04 OF THE STANDARD SPECIFICATIONS BEFORE REMOVAL OF ANY UNSTABLE MATERIAL.
- PRIOR TO ANY EMBANKMENT PLACEMENT, ALL VEGETATION AND UNSTABLE MATERIAL SHOULD BE 2. REMOVED TO DEPTH ENCOUNTERED AND REPLACED WITH SUITABLE EMBANKMENT MATERIAL AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING AN ENVIRONMENTAL FIRM WITH AT LEAST FIVE (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANKS (LUST) CLEANUPS OR THAT IS PRE-QUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR

### SEDIMENTATION AND EROSION CONTROL

SEE EROSION CONTROL PLANS FOR GENERAL NOTES CONCERNING EROSION CONTROL

### TRAFFIC CONTROL

SEE TRAFFIC CONTROL PLANS FOR GENERAL NOTES CONCERNING TRAFFIC CONTROL AND PROTECTION

### REMOVAL AND RESTORATION PLANS

- THE AVERAGE DEPTH OF PAVEMENT REMOVAL IS AS SHOWN ON THE TYPICAL SECTIONS. HOWEVER NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR PAVEMENT REMOVAL FOR VARIANCE IN THICKNESS/MATERIAL TYPES OR EXCAVATION AND DISPOSAL OF EXCESS MATERIALS.
- DECORATIVE ROCKS AND LANSCAPING BRICKS SHALL BE NEATLY PLACED ON THE PROPERTY LINE FOR THE PROPERTY OWNER. THIS WORK SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

### LIGHTING PLANS

SEE LIGHTING PLANS FOR GENERAL NOTES CONCERNING LIGHTING DESIGN

SCALE: N.T.S.

SHEET

GENERAL NOTES		F.A.U RTE.	SECTI	ON NO.	COUNTY	TOTAL SHEETS	SHEE NO.				
		n	ואות חו	NI.					KANE	103	3
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				CALIFORNIA AVENUE	BROOK STREET	CHARLES STREET	LIVINGSTON AVENUE
PAYCODE	TEM DESCRIPTION	LINIT	TOTAL				
	ITEM DESCRIPTION  TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	TOTAL 57			42	15
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	366	32		222	112
20100210	TREE REMOVAL (OVER 13 UNITS DIAMETER)	UNII	300	32		222	112
20200100	EARTH EXCAVATION	CU YD	612	111	105	323	73
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	4,170	1,167	1,208	1,118	677
20800150	TRENCH BACKFILL	CU YD	2,756	621	400	1,251	484
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	3,212	800	1,100	1,050	262
25000310	SEEDING, CLASS 4	ACRE	0.03		0.033		
25000322	SEEDING, CLASS 5A	ACRE	0.03		0.033		
23000322	SEEDING, CLASS JA	ACINE	0.03		0.033		
25100630	EROSION CONTROL BLANKET	SQ YD	3,109	797	1,045	1,019	248
25200110	SODDING, SALT TOLERANT	SQ YD	3,099	837	932	1,070	260
25200200	SUPPLEMENTAL WATERING	UNIT	156	42	47	54	13
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	64	16	22	21	5
28000400	PERIMETER EROSION BARRIER	FOOT	4,644	936	1,823	1,027	858
28000510	INLET FILTERS	EACH	92	20	9	43	20
28100201	STONE RIPRAP, CLASS A1	TON	15		15		
251777		TC::					
28100205	STONE RIPRAP, CLASS A3	TON	21		21		

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				KANE	103	4
				CONTRACT	NO.	
FED. RO	DAD DIST. NO.	ILLINOIS	FED. A	D PROJECT		

				CALIFORNIA	BROOK	CHARLES	LIVINGSTON
				AVENUE	STREET	STREET	AVENUE
PAYCODE IT	ITEM DESCRIPTION	UNIT	TOTAL				
28100207 S	STONE RIPRAP, CLASS A4	TON	39		39		
28200200 FI	FILTER FABRIC	SQ YD	88		88		
30300001 A	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	3,787	1,121	1,012	1,005	649
30300112 A	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	11,637	3,466	3,036	3,189	1,946
31101400 S	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	4,000	1,492	536	1,052	920
40600290 B	BITUMINOUS MATERIALS (TACK COAT)	POUND	4,360	1,346	1,124	1,135	755
40600982 H	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	294			294	
40603080 H	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	76	12	27	11	26
40604060 H	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	27	4	10	4	9
40701841 H	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 8"	SQ YD	9,946	2,991	2,497	2,779	1,679
42300200 P	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	490	167	36	208	79
42400200 P	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	29,474	11,591	3,743	7,297	6,843
42400800 D	DETECTABLE WARNINGS	SQ FT	215	68	78	20	49
44000100 P.	PAVEMENT REMOVAL	SQ YD	9,046	2,441	2,586	2,584	1,435
44000200 D	DRIVEWAY PAVEMENT REMOVAL	SQ YD	1,050	412	107	274	257
44000500 C	COMBINATION CURB AND GUTTER REMOVAL	FOOT	2,886	1,108	765		1,013

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					KANE	103	5
				Т	CONTRACT	NO.	
FED. RO	DAD DIST, NO.	ILLINOIS	FED.	AID	PROJECT		

				CALIFORNIA AVENUE	BROOK STREET	CHARLES STREET	LIVINGSTON AVENUE
PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL				
44000600	SIDEWALK REMOVAL	SQ FT	13,041	4,430	1,276	3,557	3,778
50105220	PIPE CULVERT REMOVAL	FOOT	115		55	60	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	4		4		
54214725	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 30"	EACH	1		1		
55100300	STORM SEWER REMOVAL 8"	FOOT	80	43	37		
55100500	STORM SEWER REMOVAL 12"	FOOT	88		32	56	
55100700	STORM SEWER REMOVAL 15"	FOOT	57		57		
56103100	DUCTILE IRON WATER MAIN 8"	FOOT	2,671	544	914	771	442
56105000	WATER VALVES 8"	EACH	14	2	6	4	2
56400500	FIRE HYDRANTS TO BE REMOVED	EACH	5	1	2	1	1
56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	8	1	3	2	2
60201105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	EACH	5		5		
					_		_
60201110	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11V FRAME AND GRATE	EACH	39	10	2	20	7
		51011					
60207905	CATCH BASINS, TYPE C, TYPE 11 FRAME AND GRATE	EACH	1		1		
60207915	CATCH BASINS, TYPE C, TYPE 11V FRAME AND GRATE	EACH	3			1	2
50207913	CATCA DAGAS, THE C, THE TIV HAME AND GIATE	LACIT	,			1	
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	7				7
50210400	PERMITTEES, THE A, T-DIAPIETER, THE ITRAPIE, CEUSED EID	LACIT	,				,
	Location Division Devices Well-August 1						[FAII]

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Marie					CALIFORNIA AVENUE	BROOK STREET	CHARLES STREET	LIVINGSTON AVENUE
Marie   Mari	PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL				
Maria   Mari						1	3	
Maria   Mari								
Martin   M	60224020	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 11 FRAME AND GRATE	EACH	1		1		
Martin   M								
Maria	60224446	MANHOLES, TYPE A, 7'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3			3	
Maria								
	60236800	INLETS, TYPE A, TYPE 11 FRAME AND GRATE	EACH	2		2		
	60226925	INJETS TYPE A TYPE 11V ERAME AND CRATE	EACH	2		1	2	
Part	60236825	INLETS, TYPE A, TYPE TIV FRAME AND GRATE	EACH	3		1	2	
March   Marc	60248700	VALVE VAULTS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	14	2	6	4	2
March   Marc								
REPORT   R	60265700	VALVE VAULTS TO BE ADJUSTED	EACH	8	2		2	4
REPORT   R								
Concess   Conc	60500050	REMOVING CATCH BASINS	EACH	5	5			
Concess   Conc								
March   Marc	60500060	REMOVING INLETS	EACH	7	1	4	2	
March   Marc	60600605	CONCRETE CHIRD TYPE II	FOOT	104	22	40	00	42
FOOT   33   SUADRALL REMOVAL   FOOT   33   SUADRALL REMOVAL   FOOT		CONCRETE CORB, TIPE B	1001	194	22	40	90	42
No.   No.	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	5,820	1,813	1,849	1,216	942
No.   No.								
T2000100   SIGN PANEL - TYPE 1   SQ FT 19	63200310	GUARDRAIL REMOVAL	FOOT	33		33		
T2000100   SIGN PANEL - TYPE 1   SQ FT 19								
72400100 REMOVE SIGN PANEL ASSEMBLY - TYPE A EACH 14 5 4 2 3	67100100	MOBILIZATION	L SUM	1	0.25	0.25	0.25	0.25
72400100 REMOVE SIGN PANEL ASSEMBLY - TYPE A EACH 14 5 4 2 3								
	72000100	SIGN PANEL - TYPE 1	SQ FT	19			13	6
	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	14	5	4	2	3
72400500 RELOCATE SIGN PANEL ASSEMBLY - TYPE A EACH 14 5 4 2 3	, 2 . 3 0 1 0 0		2.551			7	-	
	72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	14	5	4	2	3

USER NAME = Jhorwit	DESIGNED - JRM	REVISED	-	XX/XX/XXXX
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PLOT DATE = 6/7/2024	DATE -	REVISED	-	XX/XX/XXXX

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SCALE: N.T.S.	SHEET	4	OF	8	SHEETS	STA.	

F.A.U RTE.		SECTIO	ON NO.			COUNTY	TOTAL SHEETS	SHEE NO.
						KANE	103	7
					Т	CONTRACT	NO.	
EED DO	TOTAL OAC	NO	TI I INOIS	FFD	ATI	D PPO IECT		

TO STA.

				CALIFORNIA AVENUE	BROOK STREET	CHARLES STREET	LIVINGSTON AVENUE
PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL				
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	154	55	44	22	33
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	74			74	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	720	149	192	310	69
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	52			52	
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	99	44	13	30	12
550A2320	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 12"	FOOT	1,595	411	201	359	624
550A2380	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 30"	FOOT	132			132	
550A2520	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 12"	FOOT	117			117	
550A2540	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 18"	FOOT	135	128		7	
550A2580	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 30"	FOOT	208			208	
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1		1		
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	0.25	0.25	0.25	0.25
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	244		47	197	
81603096	UNIT DUCT, 600V, 4-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	2,882	681	815	977	409
81702160	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/0	FOOT	450			450	
82500350	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 100AMP	EACH	1		1		

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PLOT SCALE = 2.0000 '/ in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

		SU	MM	ARY	OF QU	ANTITIES
				0LI	TOW!	N
SCALE: N.T.S.	SHEET	5	OF	8	SHEETS	STA.

RTE.			SECTIO	ON NO.			COUNTY	SHEETS	NO.
							KANE	103	8
							CONTRACT	NO.	
FED. R	DAD	DIST.	NO.	ILLINOIS	FED.	AID	PROJECT		

TO STA.

						CALIFORNIA AVENUE	BROOK STREET	CHARLES STREET	LIVINGSTON AVENUE
	-	PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL				
		83006300	LIGHT POLE, ALUMINUM, 30 FT. M.H., 8 FT. MAST ARM	EACH	17	5	5	4	3
		83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	140	40	40	34	26
		83800105	BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5 INCH BOLT CIRCLE	EACH	17	5	5	4	3
	*	70044200	DRESCURE CONNECTION OF A DIF	FACIL	1		1		
	-	Z0044800	PRESSURE CONNECTION 8" X 8"	EACH	1		1		
	*	Z0056900	SANITARY SEWER 8"	FOOT	2,031	536	248	711	536
	*	X6026054	SANITARY MANHOLES TO BE REMOVED	EACH	12	2	2	5	3
	*	X1200015	VALVE VAULTS TO BE ABANDONED	EACH	4	1	2		1
	*	X0323760	SANITARY SEWER SERVICE, 6" PVC, COMPLETE	EACH	48	12		22	14
	*	X0326806	WASHOUT BASIN	EACH	1	0.25	0.25	0.25	0.25
	*	X1400406	LUMINAIRE, LED, ROADWAY	EACH	17	5	5	4	3
	*	X2130010	EXPLORATION TRENCH (SPECIAL)	EACH	400	100	100	100	100
		X2130010	EXILONATION TRENCT (SI ECIAL)	LACIT	400	100	100	100	100
	*	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	48	16	6	14	12
	*	X4023000	TEMPORARY ACCESS (ROAD)	EACH	8	2	2	2	2
	*	X5510308	SANITARY SEWER REMOVAL 8"	FOOT	748			649	99
	_								
	*	X5620116	WATER SERVICE RECONNECTION (SHORT), 2" DIA. OR LESS	EACH	25	6	2	11	6
	*	V5630110	WATER SERVICE RECONNECTION (LONG), 24 DIA, OR LESS	EACH	2.4	6		0	
* SPECIALTY ITEM	-1-	X5620118	WATER SERVICE RECONNECTION (LONG), 2" DIA. OR LESS	EACH	24	6		9	9
	L								

HEG PROJECT NO. 17436
HG PROJ. CONTACT.
FILE NAME: 17436-50+-S00.09
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PRO TRUER. POPTODE/LTD

BARRIE POPTODE/LTD

BARRIE

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USER NAME = Jhorwit	DESIGNED	-	JRM	REVISED	-	XX/XX/XXXX
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PLOT SCALE = 2.0000 '/ in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

VILLAGE OF CARPENTERSVILLE	
	SCALE. N

	ЛMA	ARY	OF QU	F.A.U RTE.			COUNTY	TOTAL SHEETS	SHEET NO.				
	OLD TOWN										KANE	103	9
				ULI	O IOVVI	•					CONTRACT	NO.	
SCALE: N.T.S. SHEET 6 OF 8 SHEETS STA. TO STA.								FED. RO	DAD DIST. NO.	ILLINOIS FED. AI	D PROJECT		

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\* SPECIALTY ITEM

USER NAME = jhorwit	DESIGNED - JRM	REVISED - XX/XX/XXXX
	DRAWN - DMS	REVISED - XX/XX/XXXX
PLOT SCALE = 2.0000 '/ in.	CHECKED -	REVISED - XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXXX

VILLAGE	OF	CARPENTERSVILLE	

SUMMARY OF QUANTITIES									SECTI	ON NO.	COUNTY	SHEETS	16
OLD TOWN											KANE	103	
OLD TOVVIA											CONTRACT	NO.	
SCALE: N.T.S.	SHEET	7	OF	8	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.	ILLINOIS FED. A	D PROJECT		

	PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL				
*	X5630704	CONNECTION TO EXISTING WATER MAIN 4"	EACH	1			1	
*	X5630706	CONNECTION TO EXISTING WATER MAIN 6"	EACH	1		1		
*	X5630708	CONNECTION TO EXISTING WATER MAIN 8"	EACH	1		1		
*	X6022810	MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	11	2	2	2	5
*	X6026632	VALVE BOXES TO BE REMOVED	EACH	4		3	1	
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.25	0.25	0.25	0.25
*	X5427602	REMOVE EXISTING FLARED END SECTION	EACH	3		3		
*	X5509902	ABANDON AND FILL EXISTING SANITARY SEWER	FOOT	264	264			
*	X5510308	SANITARY SEWER REMOVAL 8"	FOOT	1,736	240	248	712	536
*	X0323160	VIDEO INSPECTION OF STORM SEWER	FOOT	1,715	438	79	731	467
*	xxxxxxx	WATER SERVICE CONNECTION (PRIVATE)	EACH	1	0.25	0.25	0.25	0.25
*	XXXXXXX3	WATER MAIN DIRECTION BORE (HDD) - 8"	FOOT	212	106			106
*	xxxxxxx	INTERIOR DROP MANHOLE	EACH	2	1		1	
*	xxxxxxx	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1, EQUIVALENT ROUND SIZE 30"	FOOT	396			396	
*	xxxxxxx	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1, 6"	FOOT	550	139	30	212	169
*	xxxxxxx	TIMBER HEADWALL TO BE REMOVED	EACH	1			1	
			1		L			
		OFFICIAL DELICED WAYNESS						- A II

CALIFORNIA

AVENUE

BROOK

STREET

CHARLES

STREET

LIVINGSTON

AVENUE

					CALIFORNIA AVENUE	BROOK STREET	CHARLES STREET	LIVINGSTON AVENUE
	PAYCODE	ITEM DESCRIPTION	UNIT	TOTAL				
*	xxxxxx	RESIDENTIAL INLETS	EACH	40	10	2	17	11
*	xxxxxxxx	STANDPIPES TO BE ABANDONED	EACH	1		1		
*	X5610744	WATER MAIN LINE STOP 4"	EACH	1	1			
*	X5610654	WATER MAIN TO BE ABANDONED, 4"	FOOT	768			768	
*	X5610656	WATER MAIN TO BE ABANDONED, 6"	FOOT	2,082	621	929		533
*	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.25	0.25	0.25	0.25
*	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	345	126	57	88	75

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PLOT SCALE = 2.0000 '/ in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

VILLAGE	<b>OF</b>	CARPENTERSVILLE

	SUMMARY OF QUANTITIES									ON NO.	COUNTY TOTA		SHEET NO.
OLD TOWN											KANE	103	11
				UL	D IOVVI						CONTRACT	NO.	
SCALE: N.T.S.	SHEET	8	OF	8	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.	ILLINOIS FED. AI	D PROJECT		



**EXISTING TYPICAL SECTION LEGEND** 

COMBINATION CONCRETE CURB AND GUTTER

HOT-MIX ASPHALT PAVEMENT REMOVAL, 1 1/4"

PROPOSED TYPICAL SECTION LEGEND 1 HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 8"

4 PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

SUBBASE GRANULAR MATERIAL, TYPE B 6"

AGGREGATE SUBGRADE IMPROVEMENT 12" (CU YD)

TOPSOIL FURNISH AND PLACE, 4"

SODDING, SALT TOLERANT

AGGREGATE SUBGRADE IMPROVEMENT 12" (SQ YD) COMBINATION CONCRETE CURB AND GUTTER,

(PAID AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERAILS)

PORTLAND CEMENT CONCRETE SIDEWALK

A HOT-MIX ASPHALT PAVEMENT REMOVAL, 8"-14" SUBBASE GRANULAR MATERIAL, 4"-10" (PAID AS EARTH EXCAVATION)

> AGGREGATE SHOULDERS (PAID AS EARTH EXCAVATION)

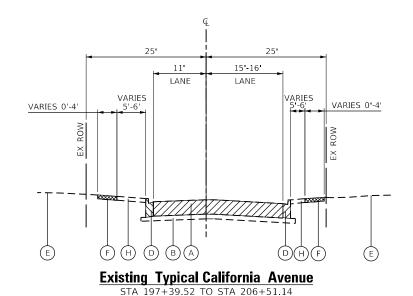
EXISTING GROUND

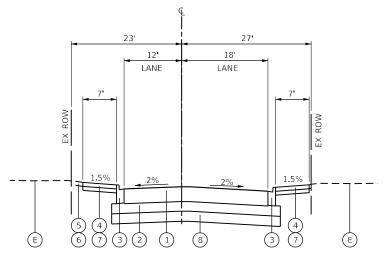
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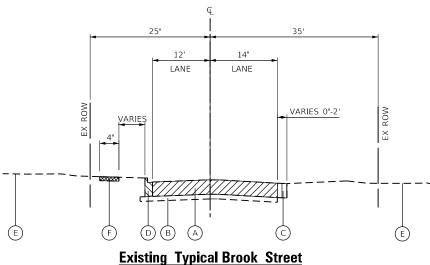
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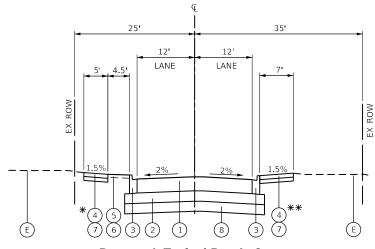




**Proposed Typical California Avenue** 

STA 197+39.52 TO STA 206+51.14





- - $\divideontimes$  5' SIDEWALK FROM STA. 307+38 TO STA. 309+76
  - \*\* 7' SIDEWALK FROM STA. 303+94 TO STA. 306+99

SCALE: N.T.S.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS					
MIXTURE TYPE	AIR VOIDS @ Ndes				
HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 8"					
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm); 1 ½	4% @ 70 GYR.				
HOT-MIX ASPHALT BINDER COURSE, N50 (IL 9.5mm); 2 $\frac{1}{4}$ "					
HOT-MIX ASPHALT BASE COURSE, IL-19.0, N70; 4 $\frac{1}{4}$ "	4% @ 70 GYR.				
DRIVEWAYS					
HMA SURFACE COURSE, MIX "D", N50; (IL 9.5mm); 2"	4% @ 50 GYR.				
HMA BASE COURSE (HMA BINDER IL-19 mm); PE-6"	4% @ 50 GYR.				

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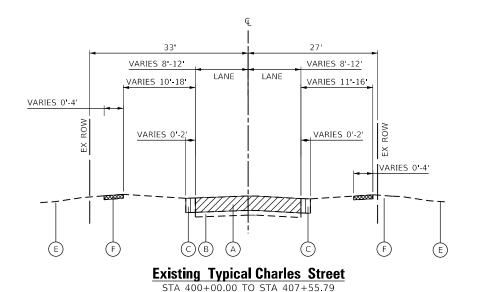


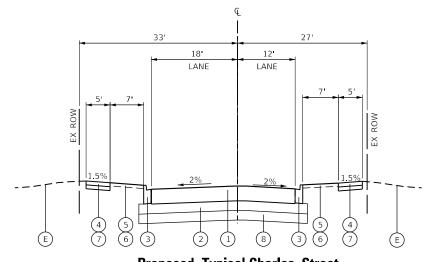
E.	XISTING	ΑN	DΙ	PROI	POSED	TYPICAL	SECTIONS	F.A.U RTE.	SECTI	ON NO.	COUNTY	TOTAL SHEETS	SHEET NO.
	OLD TOWN										KANE	103	12
				ULI	J IOVVI	•					CONTRACT	NO.	
	SHEET 1		OF	2	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.	ILLINOIS FED. A	ID PROJECT		

**Proposed Typical Brook Street** STA 300+50.00 TO STA 309+76.47

STA 300+50.00 TO STA 309+76.47



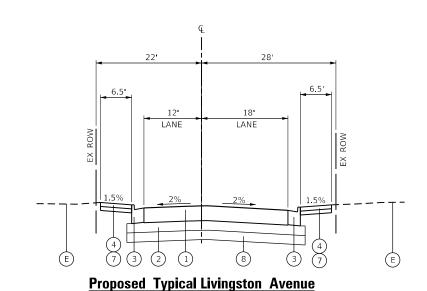




Proposed Typical Charles Street
STA 400+00.00 TO STA 407+55.79

# Existing Typical Livingston Avenue

STA 500+11.87 TO STA 504+97.04



STA 500+11.87 TO STA 504+97.04

SCALE: N.T.S.

### **EXISTING TYPICAL SECTION LEGEND**

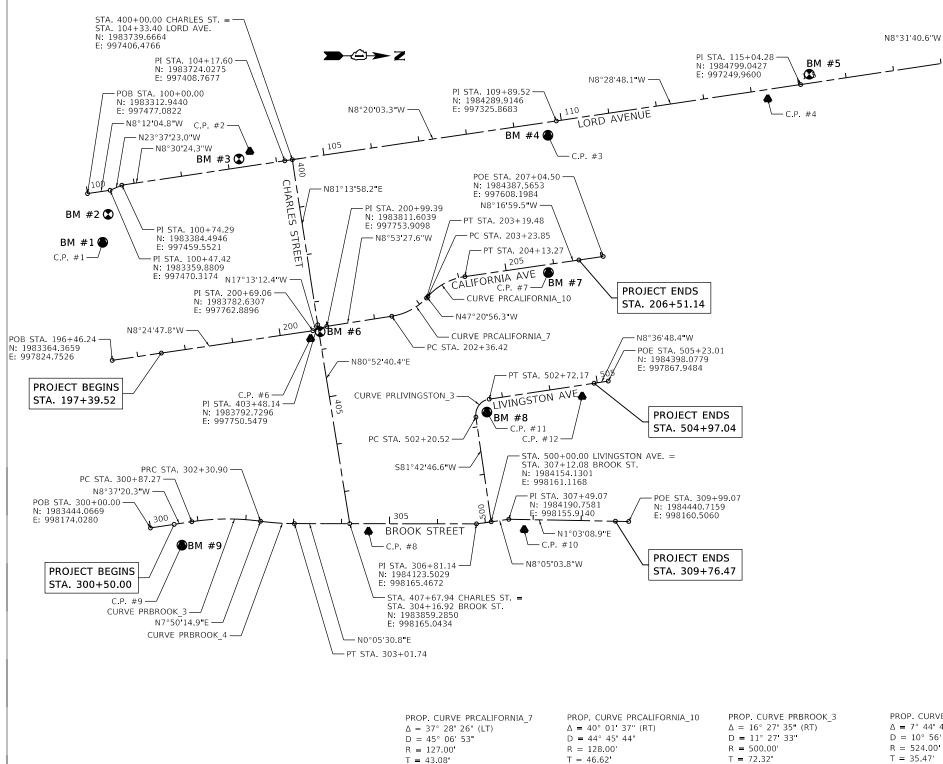
- A HOT-MIX ASPHALT PAVEMENT REMOVAL, 8"-14"
- B SUBBASE GRANULAR MATERIAL, 4"-10" (PAID AS EARTH EXCAVATION)
- (C) AGGREGATE SHOULDERS (PAID AS EARTH EXCAVATION)
- D COMBINATION CONCRETE CURB AND GUTTER
- (E) EXISTING GROUND
- (F) PORTLAND CEMENT CONCRETE SIDEWALK
- G HOT-MIX ASPHALT PAVEMENT REMOVAL, 1 ½"
- H) TOPSOIL STRIPPING, 4"

### PROPOSED TYPICAL SECTION LEGEND

- 1 HOT-MIX FULL DEPTH PAVEMENT 8"
- 2 AGGREGATE SUBGRADE IMPROVEMENT 12" (SQ YD)
- 3 COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- 4) PORTLAND CEMENT CONCRETE SIDEWALK 5"
- 5 TOPSOIL FURNISH AND PLACE, 4"
- 6 SODDING, SALT TOLERANT
- SUBBASE GRANULAR MATERIAL, TYPE B 6"
- 8) AGGREGATE SUBGRADE IMPROVEMENT, 12" (CU YD)

USER NAME = jhorwit	DESIGNED	-	JRM	REVISED	-	XX/XX/XXXX
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PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

E)	EXISTING AND PROPOSED TYPICAL SECTIONS					F.A.U RTE.	SECTIO	ON NO.		COUNTY	TOTAL SHEETS	SHEET NO.		
	OLD TOWN										KANE	103	13	
				UL	-D 10441	u						CONTRACT	NO.	
	SHEET	2	OF	2	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.	ILLINOIS	FED. AI	D PROJECT		



### **BENCHMARKS**

C.P. #5

BENCHMARK 1: SURVEY CONTROL POINT 1: CUT "X" IN BACK OF CURB AT PARKING LOT ENTRANCE TO CARPENTER PARK, EAST OF THE SOUTHEAST CORNER OF MAPLE AND LORD AVENUE. CROSS IS IN MIDPOINT OF CURB RADIUS. ELEVATION = 748.28 (NAVD 88)

BENCHMARK 2: SOUTHWEST ARROW BOLT ON FIRE HYDRANT ALONG THE SOUTH SIDE OF MAPLE AVENUE. ELEVATION = 751.65 (NAVD 88)

- POE STA. 120+55.60 N: 1985344.2705

E: 997168.2033

BENCHMARK 3: ARROW BOLT ON FIRE HYDRANT ALONG THE WEST SIDE OF LORD AVENUE, 34 FEET SOUTH OF THE CENTERLINE OF CHARLES STREET. ELEVATION = 757.12 (NAVD 88)

BENCHMARK 4: SURVEY CONTROL POINT 3: CUT "X" IN WEST EDGE OF CONCRETE SIDEWALK ALONG THE EAST SIDE OF LORD AVENUE, NEAR THE NORTH EDGE OF PAVEMENT LINE OF CARPENTER STREET EXTENDED EAST. ELEVATION = 680.57 (NAVD 88)

BENCHMARK 5: ARROW BOLT ON FIRE HYDRANT AT THE SOUTHWEST CORNER OF LORD AVENUE AND OAK AVENUE. ELEVATION = 770.68 (NAVD 88)

BENCHMARK 6: CENTER OF SANITARY MANHOLE AT THE CENTERLINE-CENTERLINE OF CHARLES STREET AND CALIFORNIA AVENUE. ELEVATION = 745.45 (NAVD 88)

BENCHMARK 7: SURVEY CONTROL POINT 7: CUT "X" IN BACK OF CURB ALONG THE EAST SIDE OF CALIFORNIA AVENUE. 3.5 FEET SOUTH OF LAST DRIVEWAY ON THE STREET FROM THE NORTH. ELEVATION = 749.27 (NAVD 88)

BENCHMARK 8: SURVEY CONTROL POINT 11: CUT "X" IN CURVED SIDEWALK AT THE NORTHEAST CORNER OF 90 DEGREE TURN ON LIVINGSTON AVENUE. ELEVATION = 748.56 (NAVD 88)

BENCHMARK 9: SURVEY CONTROL POINT 9: MAG NAIL IN SOUTH EDGE OF ASPHALT BIKE PATH/SIDEWALK AT THE NORTHEAST CORNER OF MAPLE AVENUE AND BROOK STREET. 4.5 FEET EAST OF CONCRETE AND ASPHALT SIDEWALK TRANSITION AND 12.5 FEET SOUTH OF CONCRETE HEADWALL OF CARPENTER CREEK. ELEVATION = 744.97 (NAVD 88)

T = 43.08L = 83.06E = 7.11'S.E. RUN = P.C. STA. = 202+36.42N: 1983946.9867 E: 997732.7312 PI STA = 202 + 79.50N: 1983989.5476 E: 997726.0732 P.T. STA. = 203+19.48N: 1984019.2745

E: 997694.8951

L = 89.42L = 143.64E = 8.23' E = 5.20T.R. = S.E. RUN = S.E. RUN = P.C. STA. = 203+23.85P.C. STA. = 300+87.27N: 1984022.2301 N: 1983530.3469 E: 997691.6866 E: 998160.9450 PI STA. = 203+70.47 PI STA. = 301+59.58N: 1984053.2384 N: 1983601.8469 E: 997656.8713 E: 998150.1032 P.T. STA. = 204+13.27P.T. STA. = 302+30.90N: 1984099.3743 N: 1983673.4887 E: 997650.1546 E: 998159.9646

PROP. CURVE PRBROOK 4  $\Delta = 7^{\circ} 44' 44'' (LT)$ D = 10° 56' 04" R = 524.00T = 35.47L = 70.84E = 1.20 T.R. = S.E. RUN = P.C. STA. = 302+30.90N: 1983673.4887 E: 998159.9646 PI STA. = 302 + 66.38N: 1983708.6300 E: 998164.8018 P.T. STA. = 303+01.74N: 1983744.1027 E: 998164.8587

PROP. CURVE PRLIVINGSTON 3  $\Delta = 89^{\circ} 40' 25'' (RT)$ D = 173° 37' 25" R = 33.00T = 32.81L = 51.65E = 13.54T.R. = S.F. RUN = P.C. STA. =  $\overline{502+20.52}$ N: 1984122.3463 E: 997942.9014 PI STA. = 502+53.33 N: 1984117.6169 E: 997910.4315 P.T. STA. = 502 + 72.17N: 1984150.0594 E: 997905.5172

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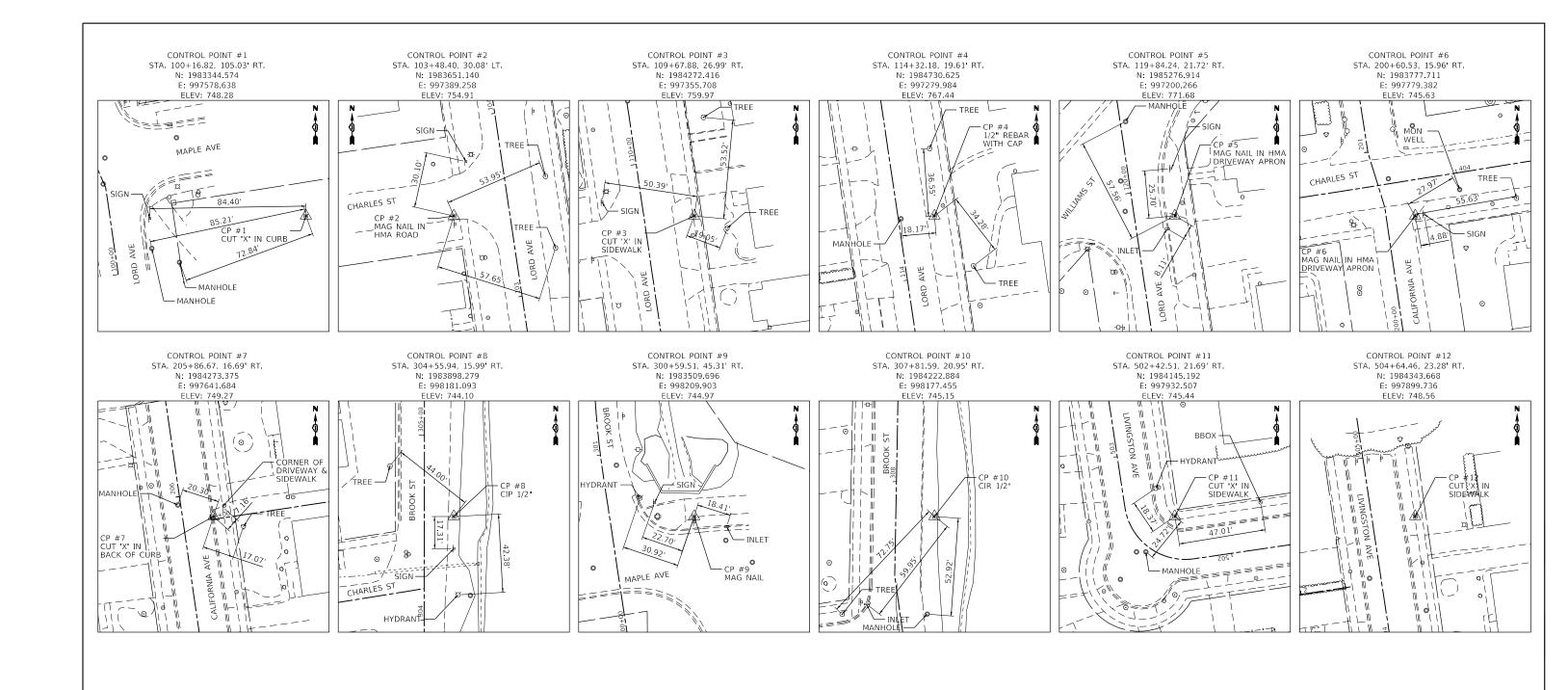
USER NAME = jhorwit	DESIGNED	-	JRM	REVISED	-	XX/XX/XXXX
	DRAWN	-	DMS	REVISED	-	XX/XX/XXXX
PLOT SCALE = 200.0000 ' / in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

COUNTY

KANE

CONTRACT NO.

103 14



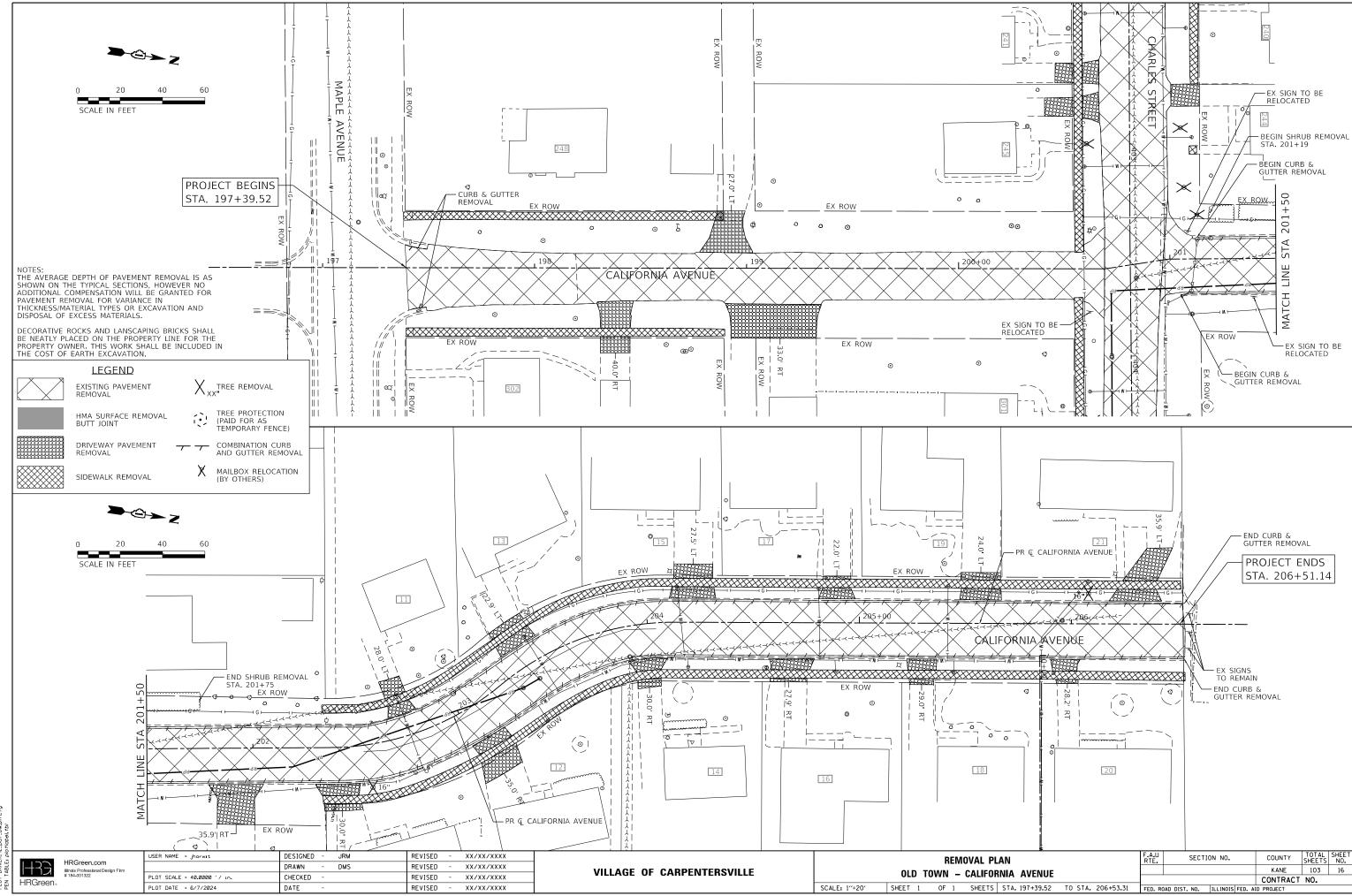
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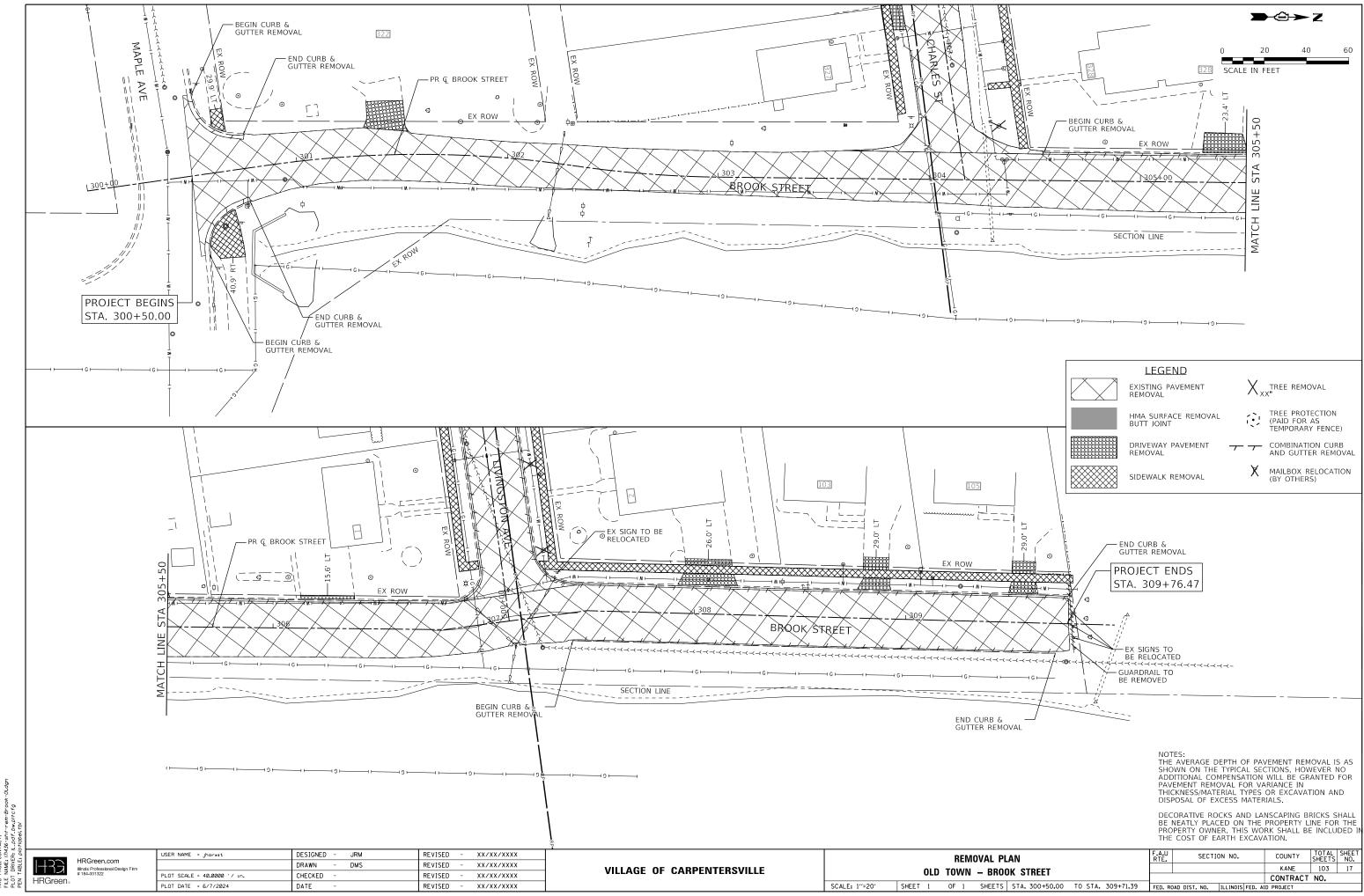
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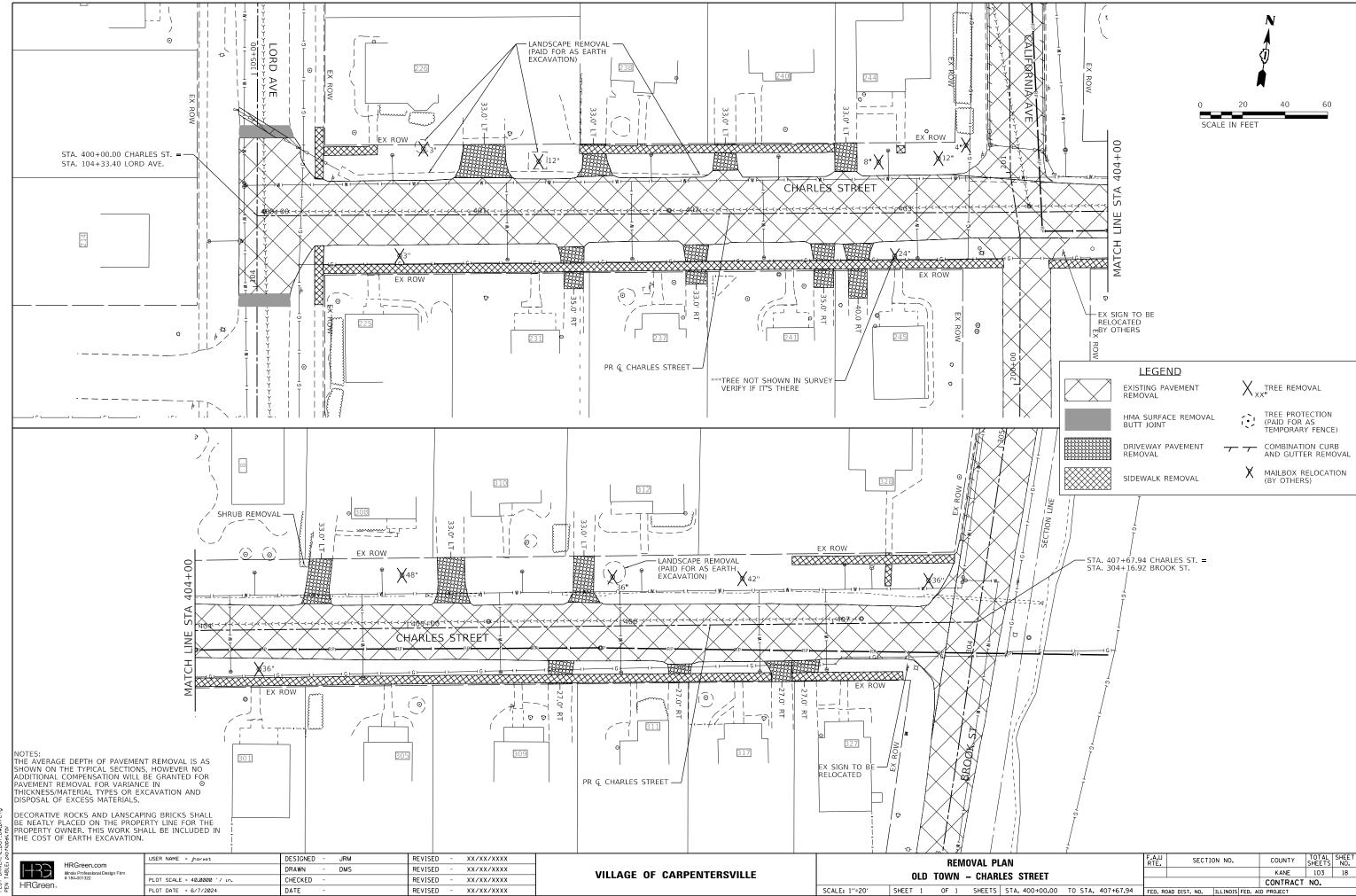
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PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXXX

VILLAGE	0F	CARPENTERSVILLE

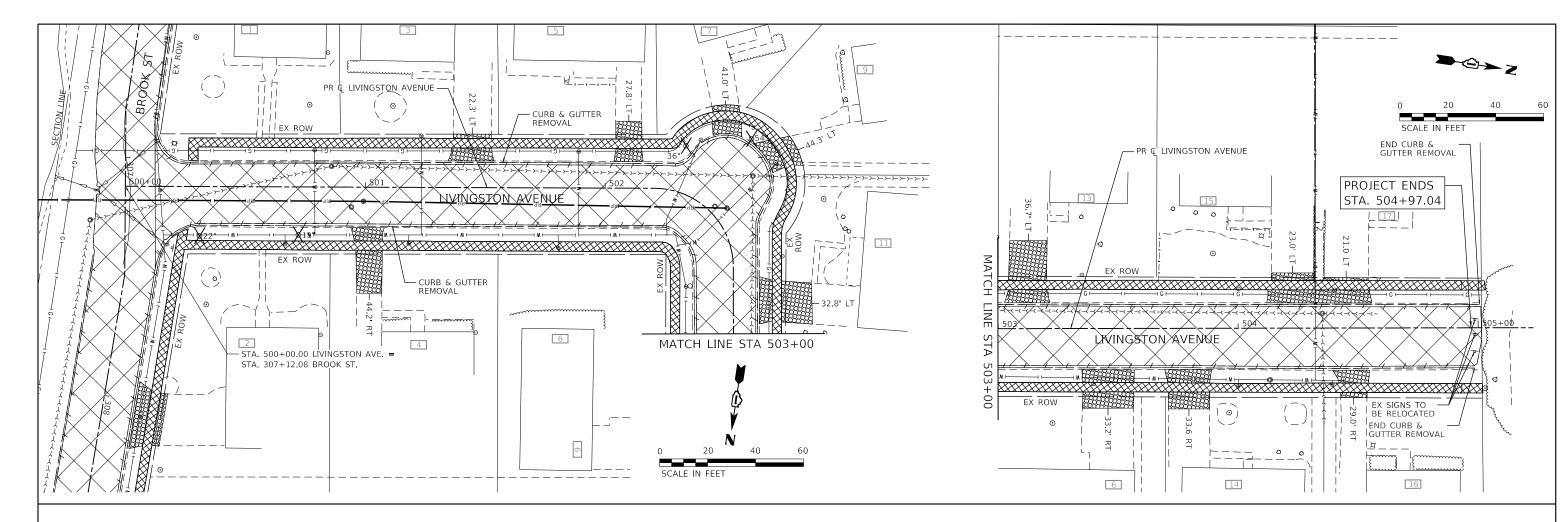
		CC	ITN	ROL POI	F.A.U RTE.	SECTI	ON NO.	COUNTY	TOTAL SHEETS	SHEET NO.		
			OLI	D TOW				KANE	103	15		
			ULI	D IOVVI				CONTRACT NO.				
SCALE: N.T.S.	SHEET 2	OF	2	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AI			D PROJECT	PROJECT	

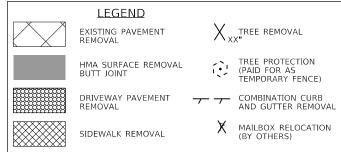






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HIG PROJ. CONTACT:
HIG NAME. 17/436-55h7-rem-Charles-0i.dgn
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PEN TABLE: plotfabei.tbl





NOTES:
THE AVERAGE DEPTH OF PAVEMENT REMOVAL IS AS SHOWN ON THE TYPICAL SECTIONS, HOWEVER NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR PAVEMENT REMOVAL FOR VARIANCE IN THICKNESS/MATERIAL TYPES OR EXCAVATION AND DISPOSAL OF EXCESS MATERIALS.

DECORATIVE ROCKS AND LANSCAPING BRICKS SHALL BE NEATLY PLACED ON THE PROPERTY LINE FOR THE PROPERTY OWNER. THIS WORK SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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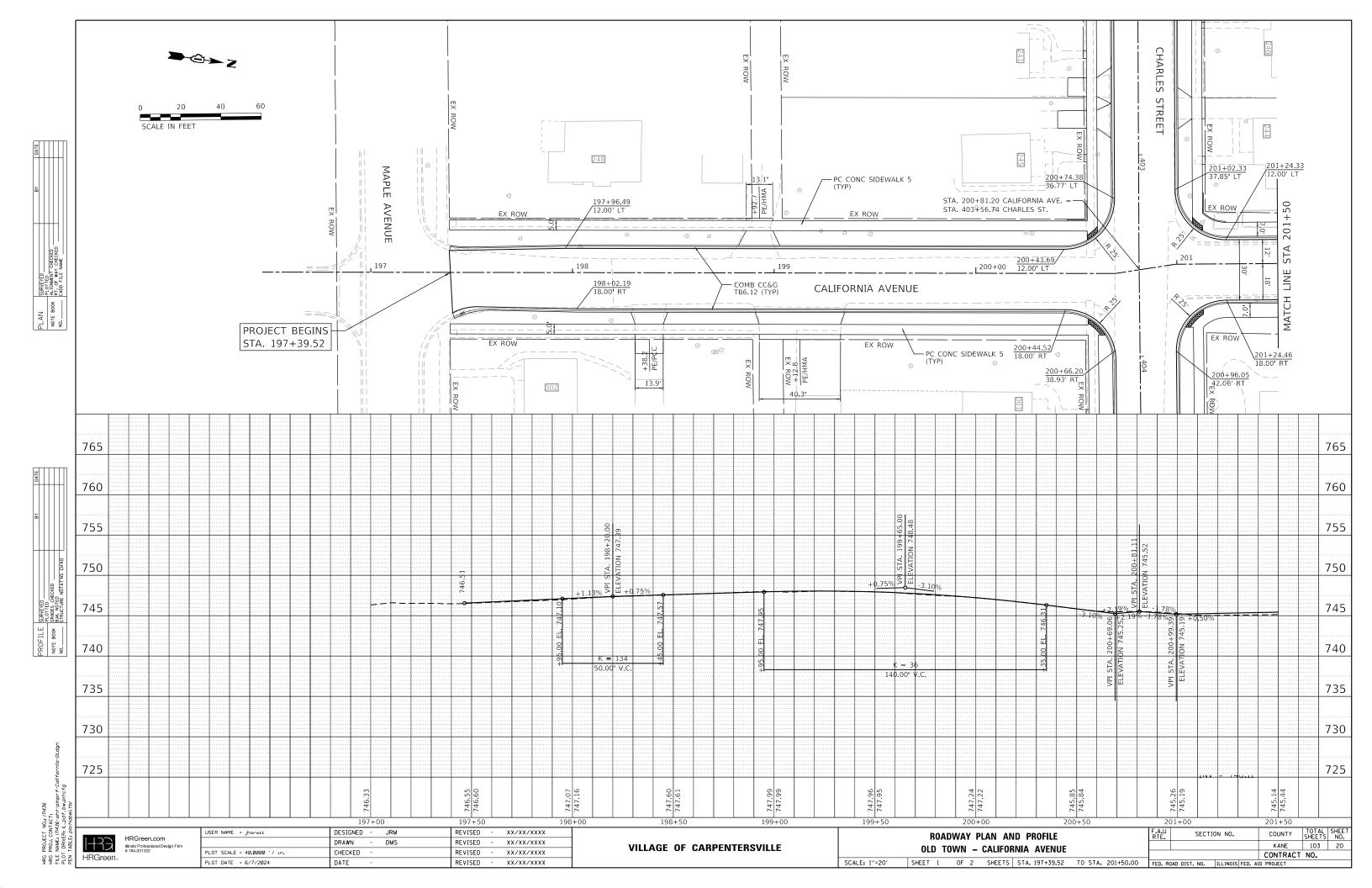
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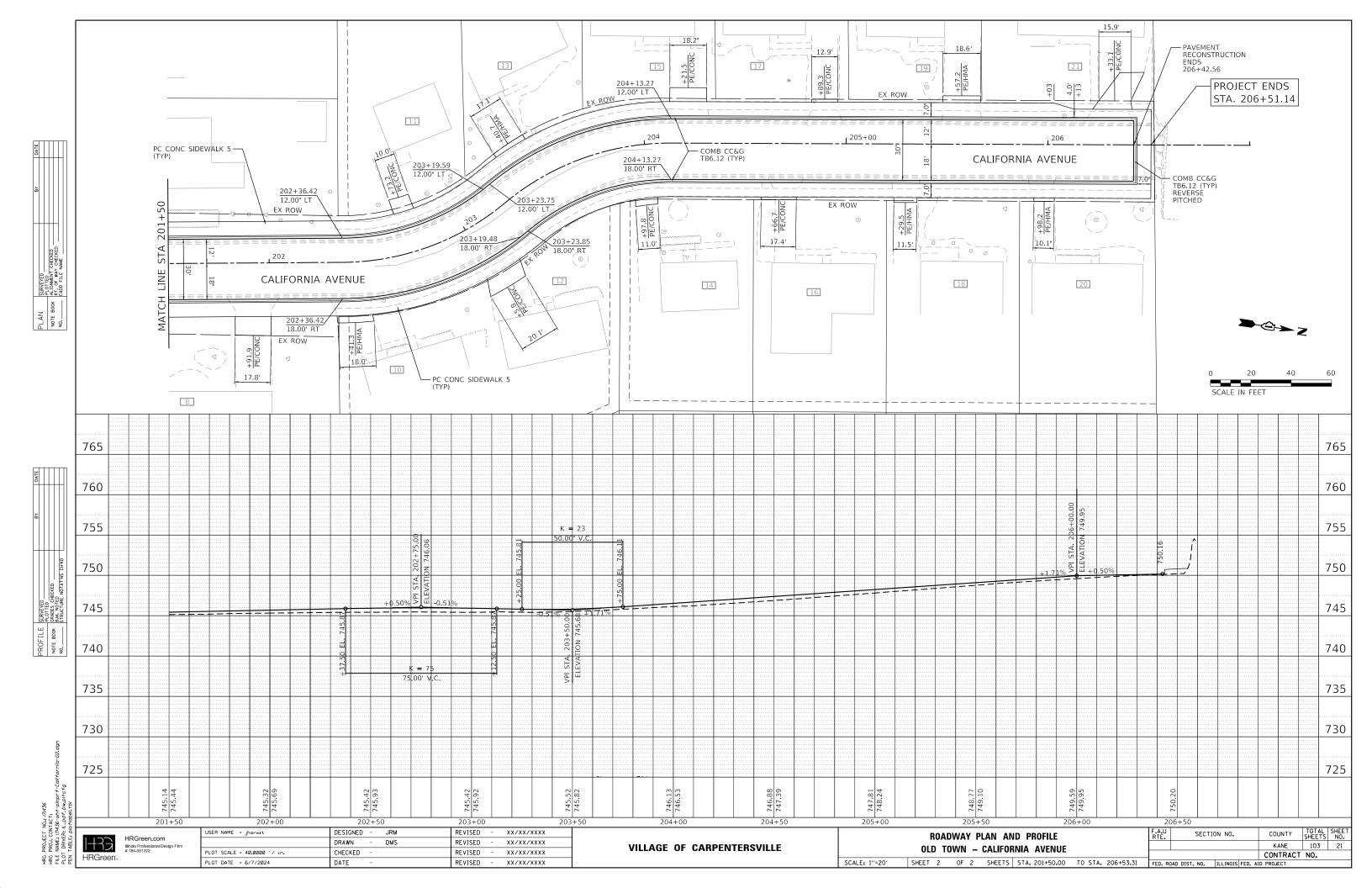
HRGreen.com Illinois Professional Design Firm # 184-001322

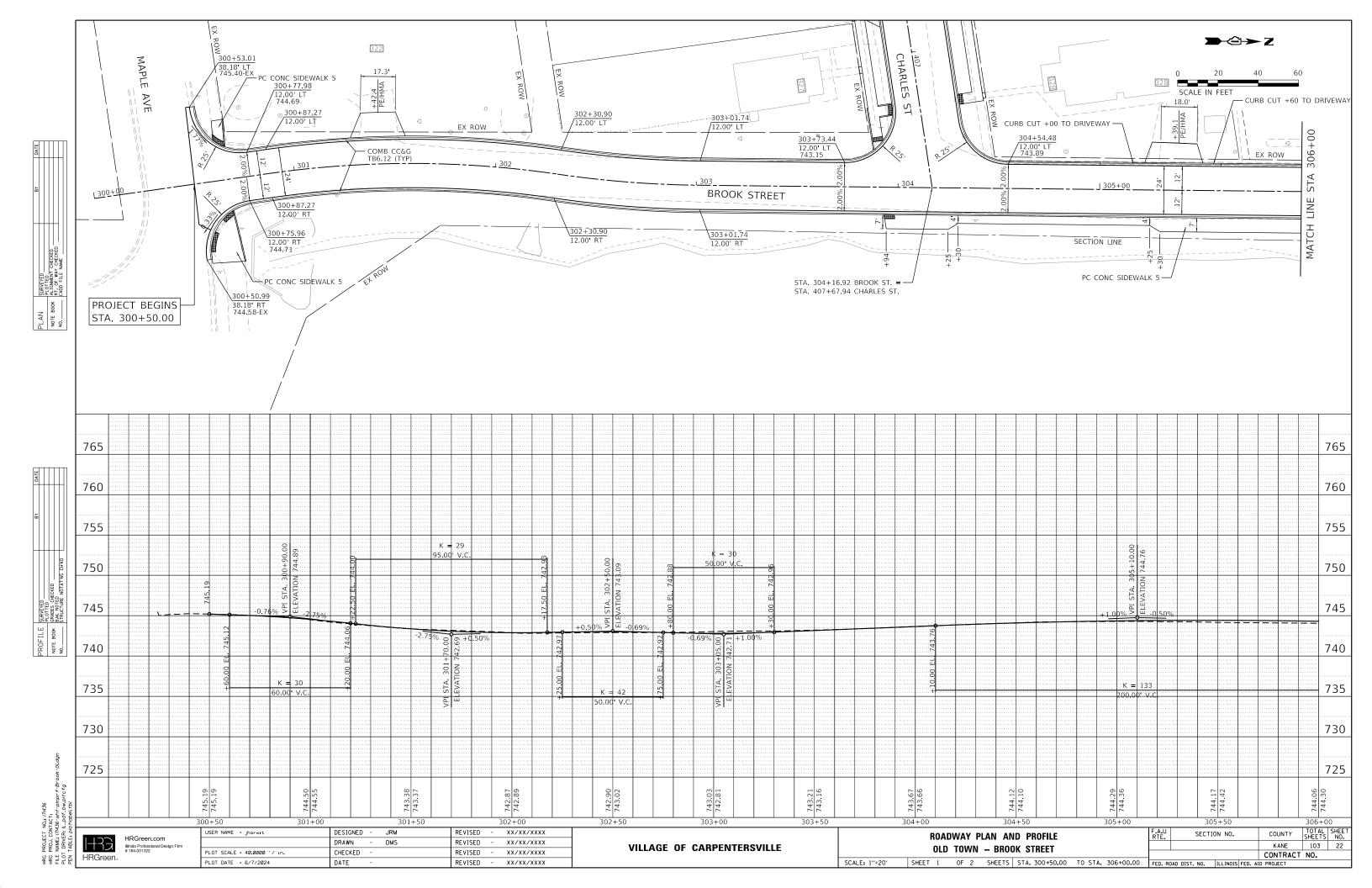
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PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXXX

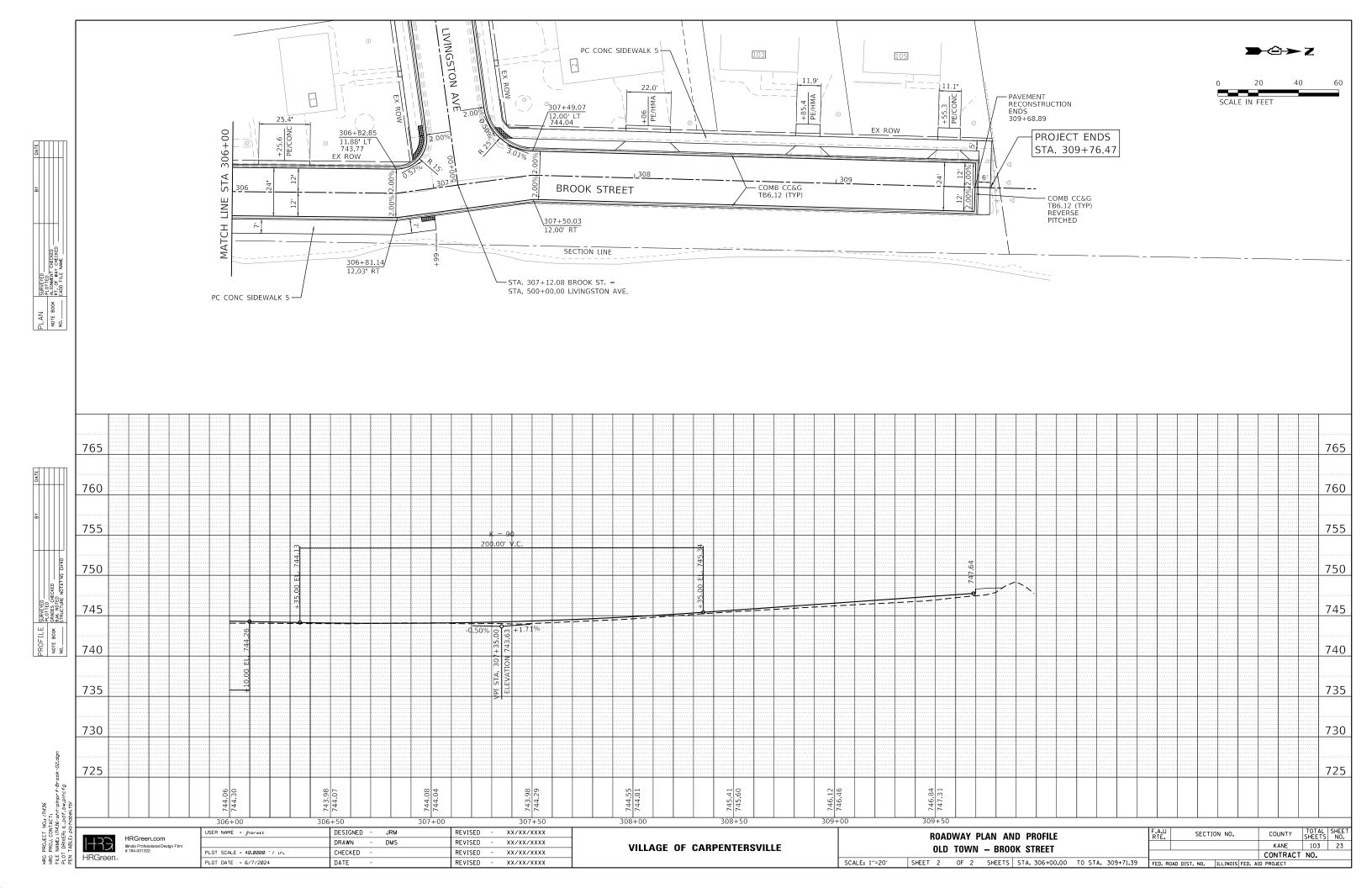
VILLAGE	OF	CARPENTERSVILLE

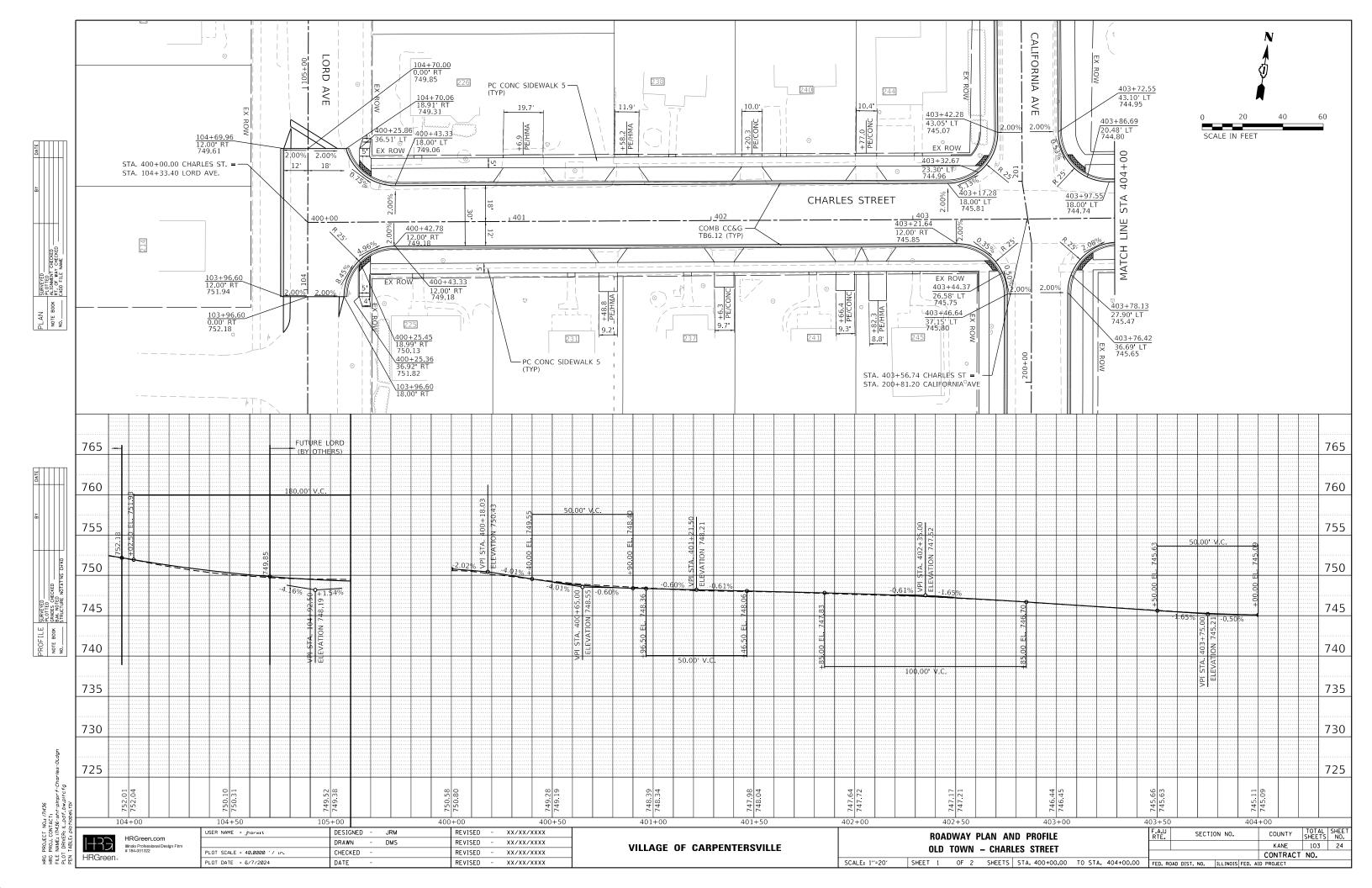
l	REMOVAL PLAN										SECTI	ON NO.	COUNTY	TOTAL SHEETS	SHEET NO.
I		OLD TOWN - LIVINGSTON AVENUE											KANE	103	19
ļ		, ,,	JVVIA	- LIVINGS				CONTRACT	NO.						
l	SCALE: 1"=20"	SHEET	1	OF	1 SHEETS	STA.	500+00.00	TO STA.	504+93.20	FED. R	OAD DIST. NO.	ILLINOIS FED. A	D PROJECT		

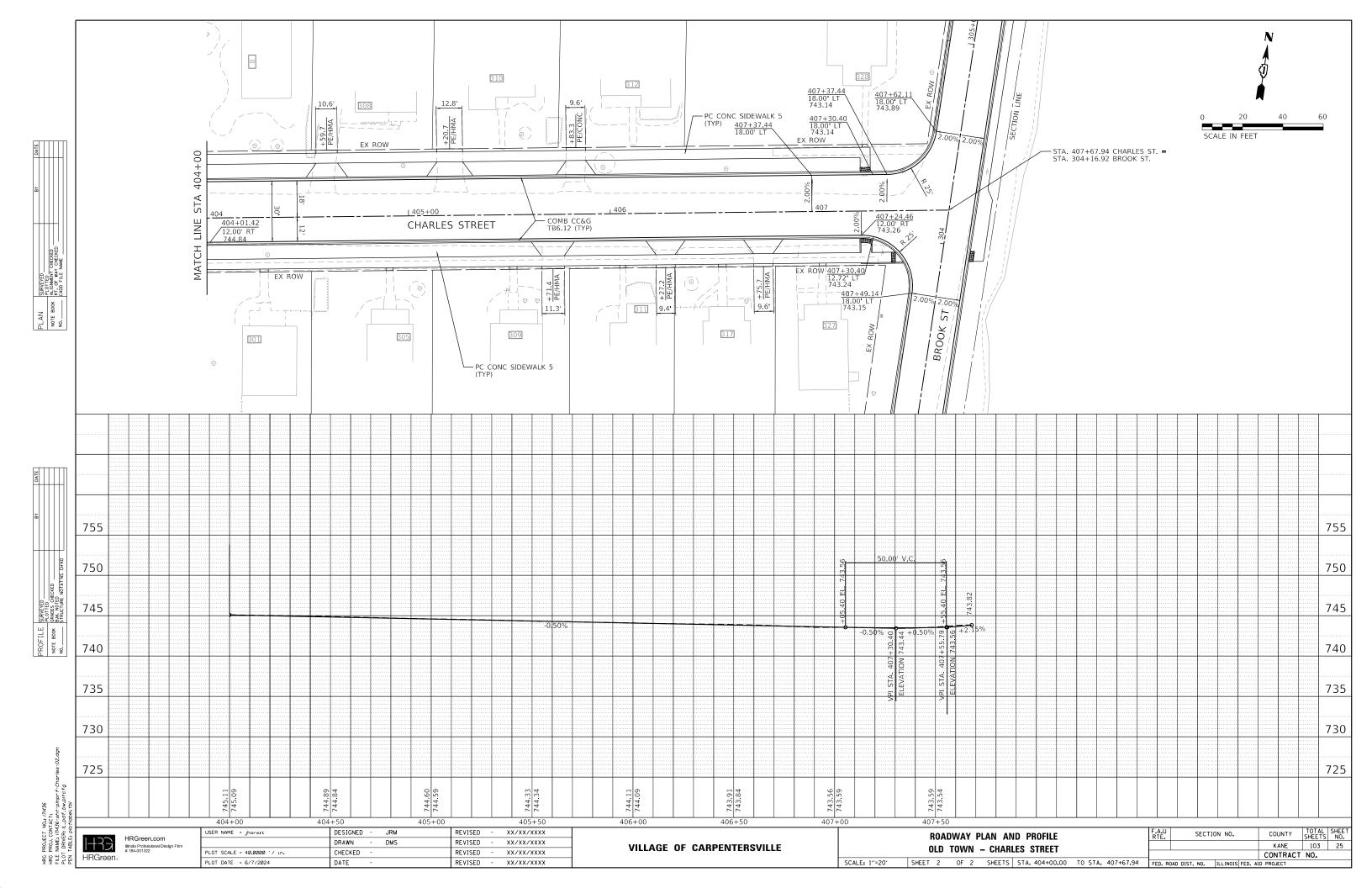


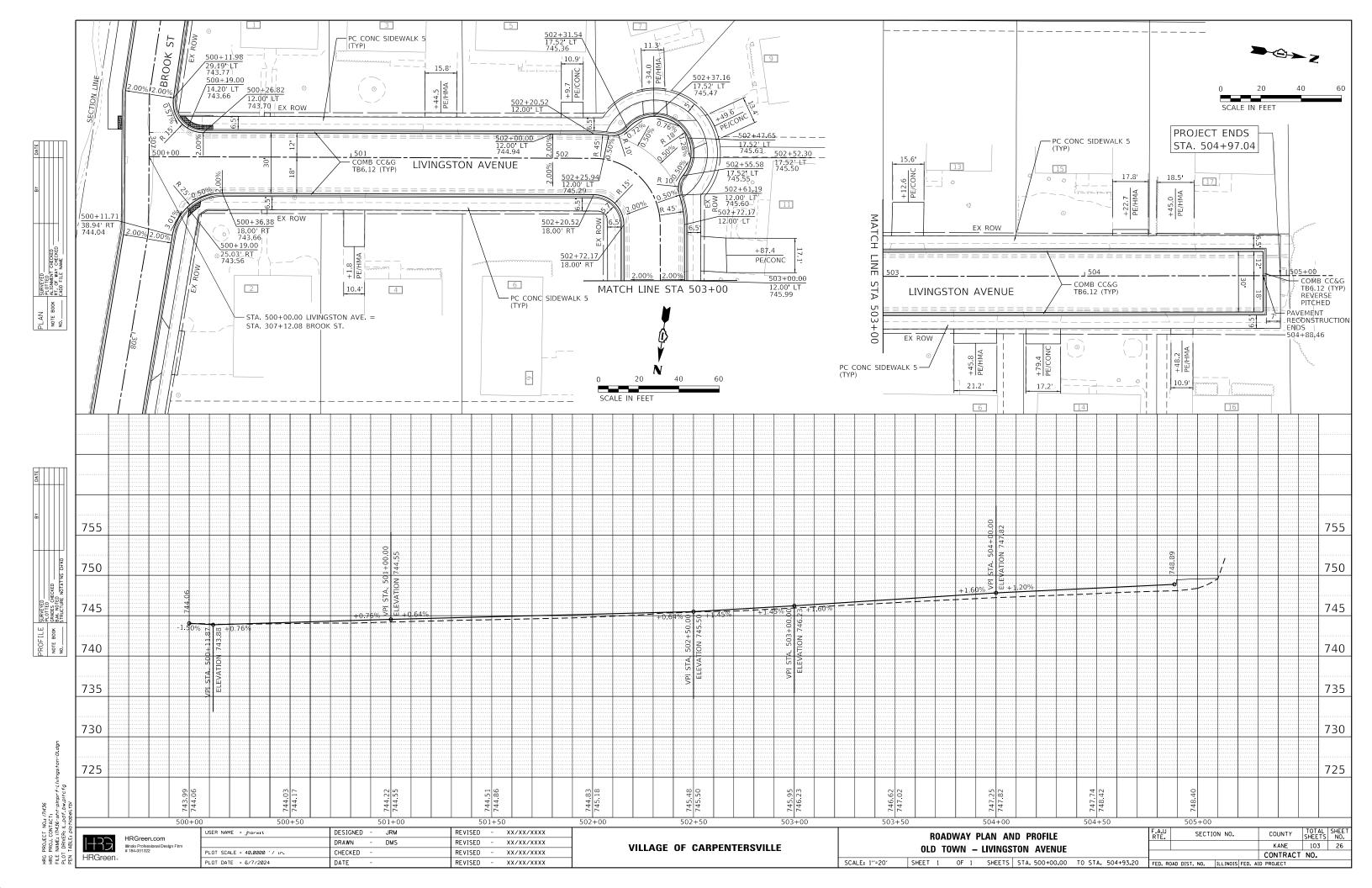


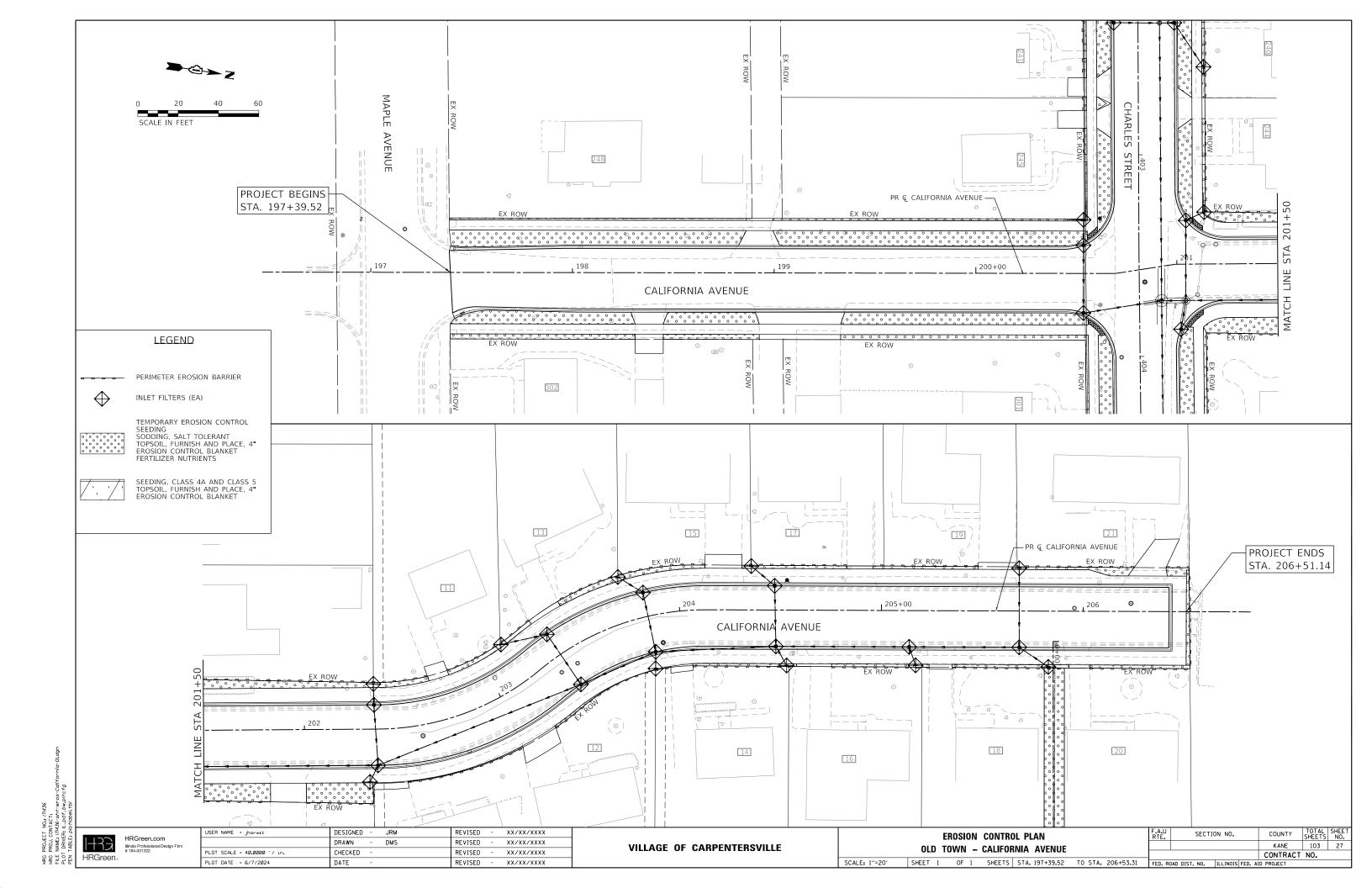


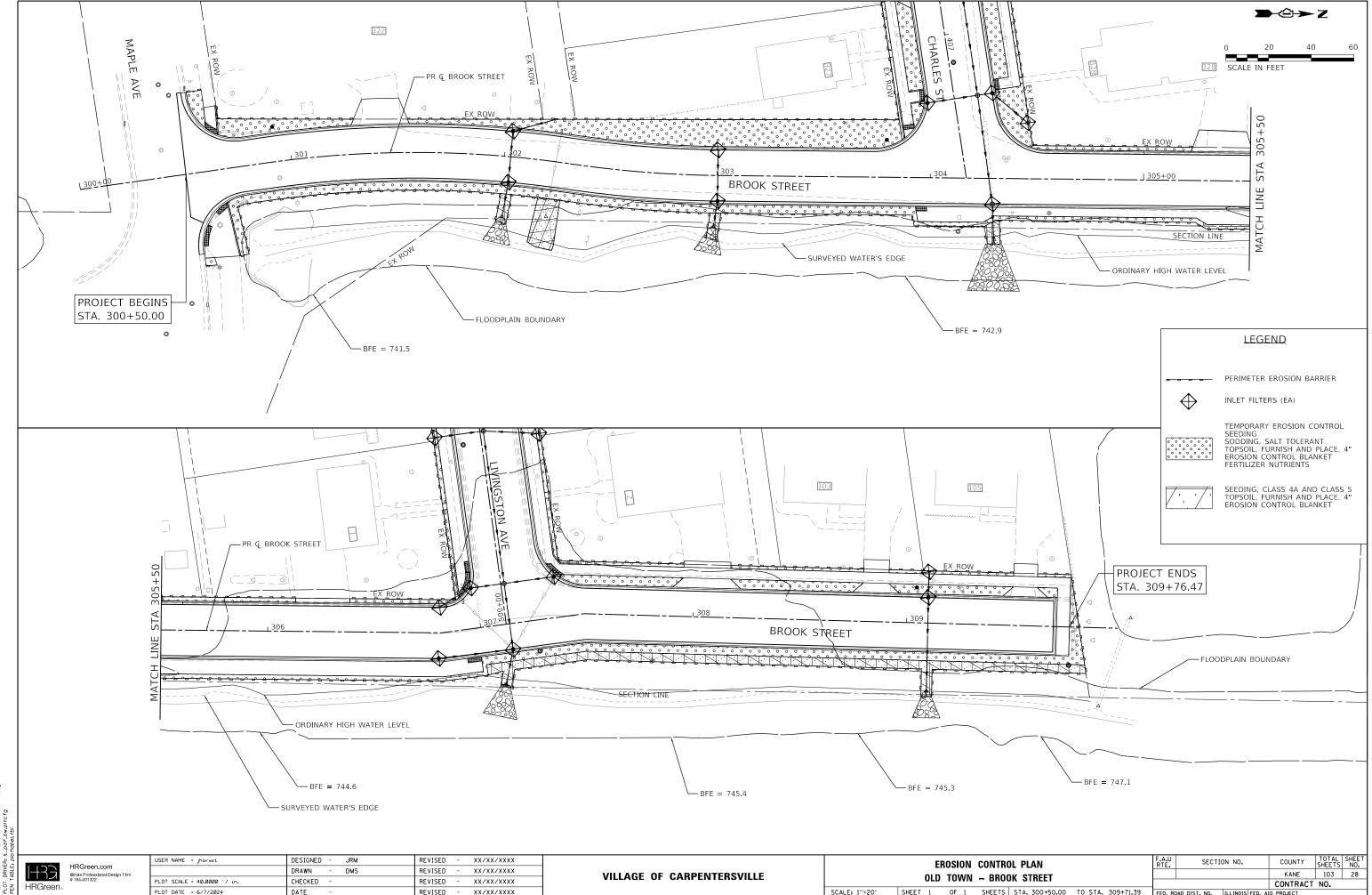






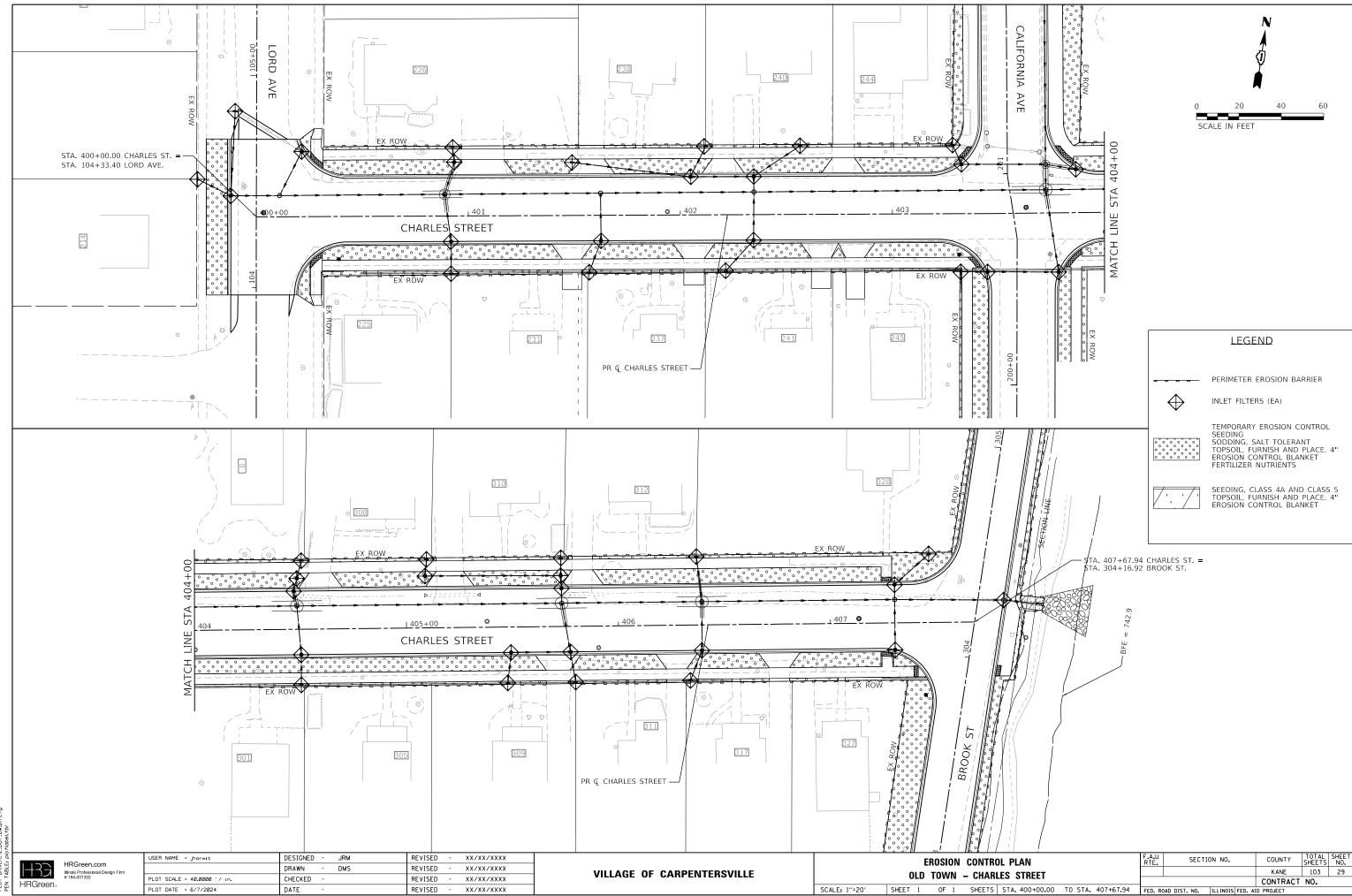




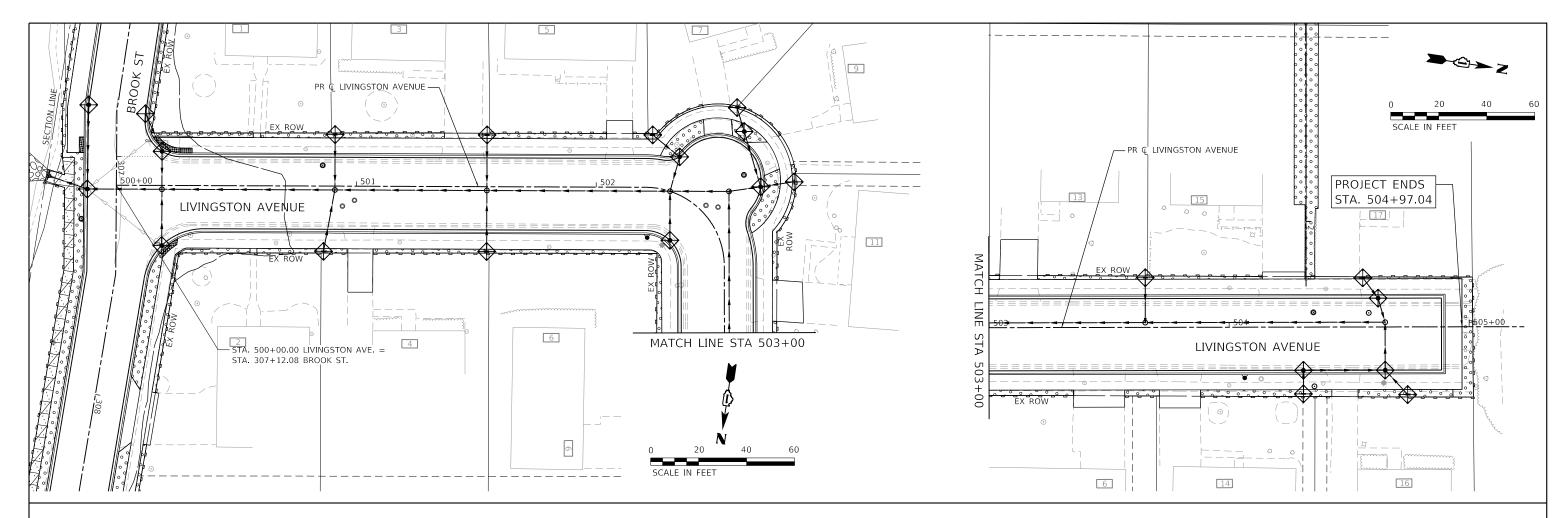


REVISED -

SCALE: 1"=20" SHEET 1 OF 1 SHEETS STA. 300+50.00 TO STA. 309+71.39 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT



HKC PROJECT NO::1/1436 HRC PROJ. CONTACT: FILE NAME: 1/1436-sht-eros-Charles-0i.dgn PLOT DRIVER: 1L.pdf.bw.ptcfg PEN TABLE: plottobel.tbi



### KANE-DUPAGE COUNTY STANDARD NOTES:

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE LATEST VERSION OF THE ILLINOIS URBAN MANUAL.

THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE KDSWCD. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.

DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.

IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA.

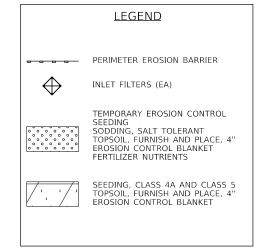
### ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL NOTES:

THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION

THE CONTRACTOR SHALL CHECK ALL ESC MEASURES DAILY AND AFTER EACH RAINFALL, 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIDNIFICANT SNOWMELT.

PERMANENT STABILIZATION SHALL BE INITIATED IMMEDIATELY UPON COMPLETION OF DISTURBANCE OR TEMPORARY STABILIZATION SHALL BE INITIATED IF THE WORK AREA IS TO BE LEFT UNDISTURBED FOR 14 DAYS OR MORE

TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AS DIRECTED BY THE ENGINEER



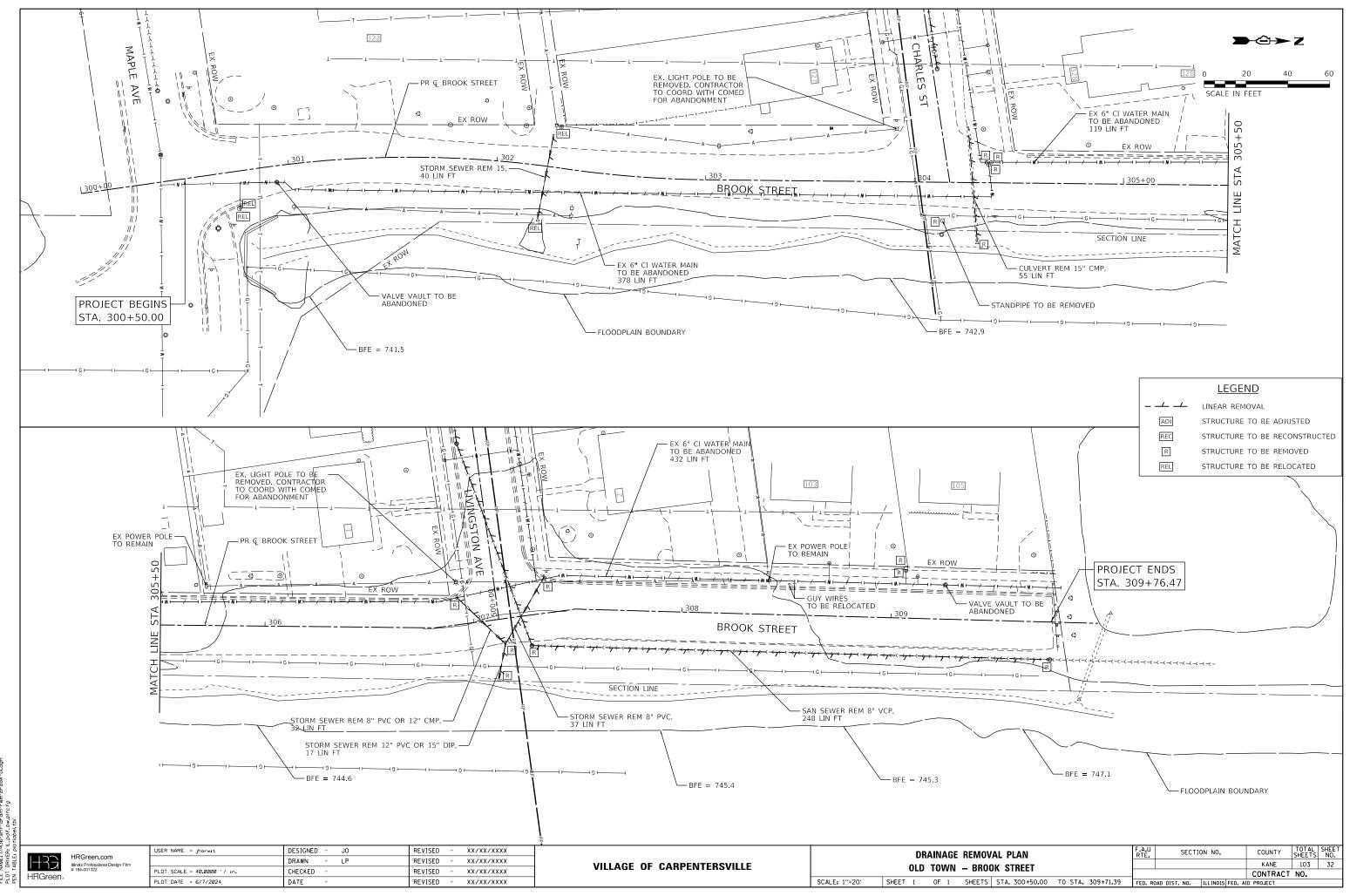
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PLOT DRIVER: / PEN TABLE: p/k	HRGreen

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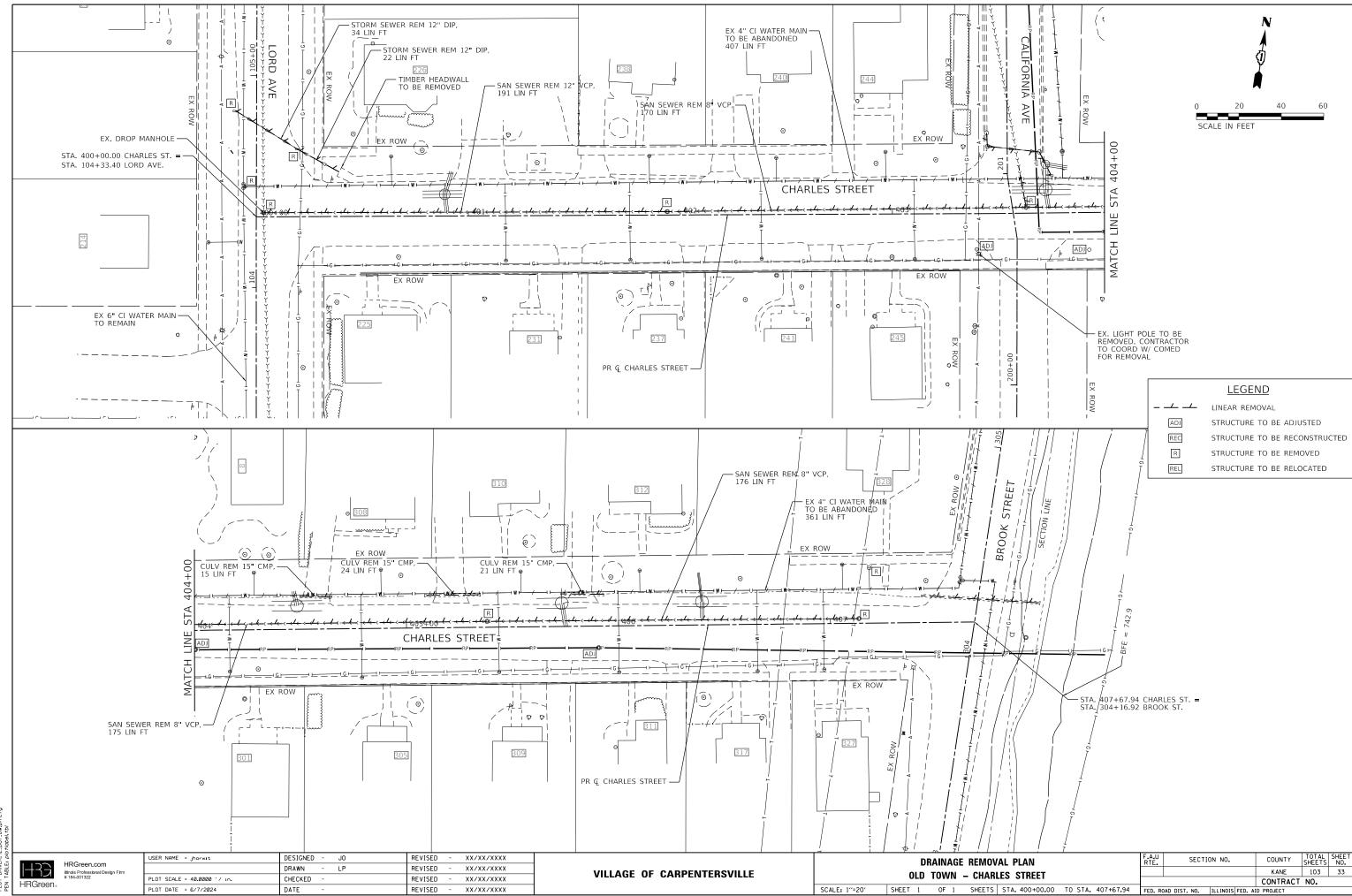
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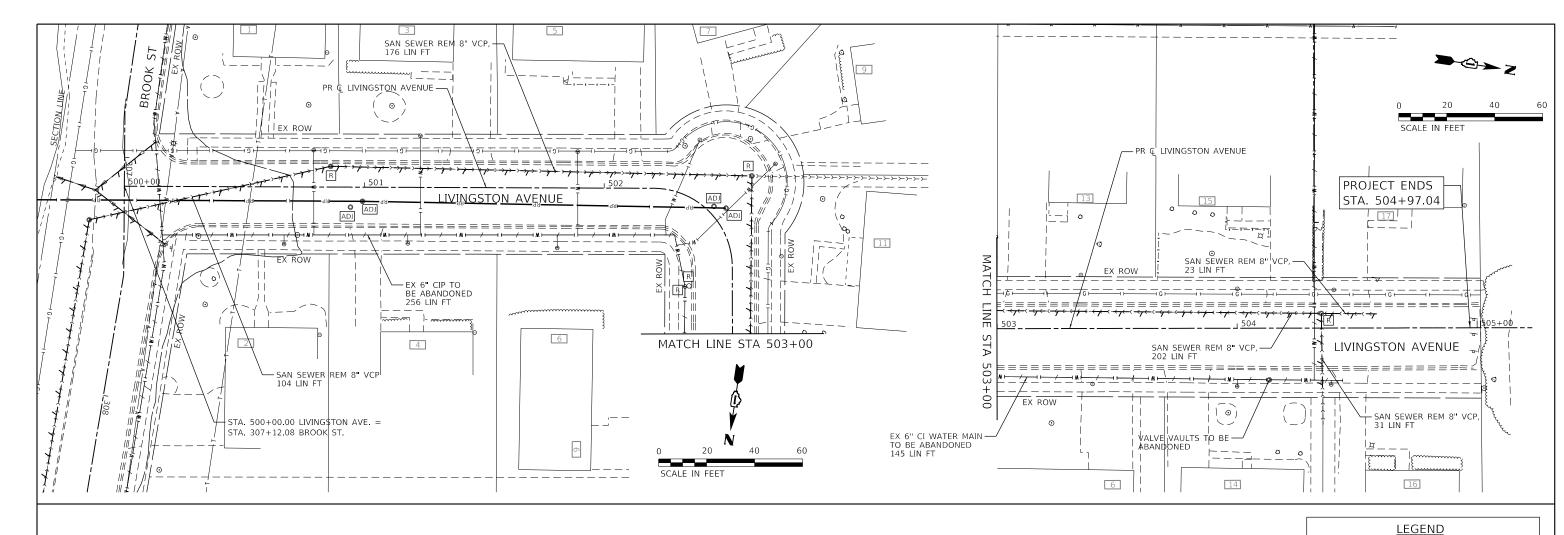
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EROSION CONTROL PLAN										F.A.U RTE.		SECTIO	SECTION NO.		COUNTY	TOTAL SHEETS	SHEET NO.	
OLD TOWN – LIVINGSTON AVENUE										Τ				KANE	103	30		
OLD TOWN - LIVINGSTON AVENUE															CONTRACT NO.			
SHEET	1	OF	1	SHEETS	STA.	500+00.00	TO	STA.	504+93.20	FED. F	ROA	AD DIST. NO.	ILLINOIS	FED. Al	D PROJECT			



HRC PROJECT NO.: 17/436
HRC PROJ. CONTACT:
FILE NAME: 17/436-sht-or-orn-Emook-Oldon
PLOT DRIVER: IL. Lot, Lu, putrefg
PEN TABLE: portobe, tb





LEGEND

LINEAR REMOVAL

ADI STRUCTURE TO BE ADJUSTED

REC STRUCTURE TO BE RECONSTRUCTED

R STRUCTURE TO BE REMOVED

REL STRUCTURE TO BE RELOCATED

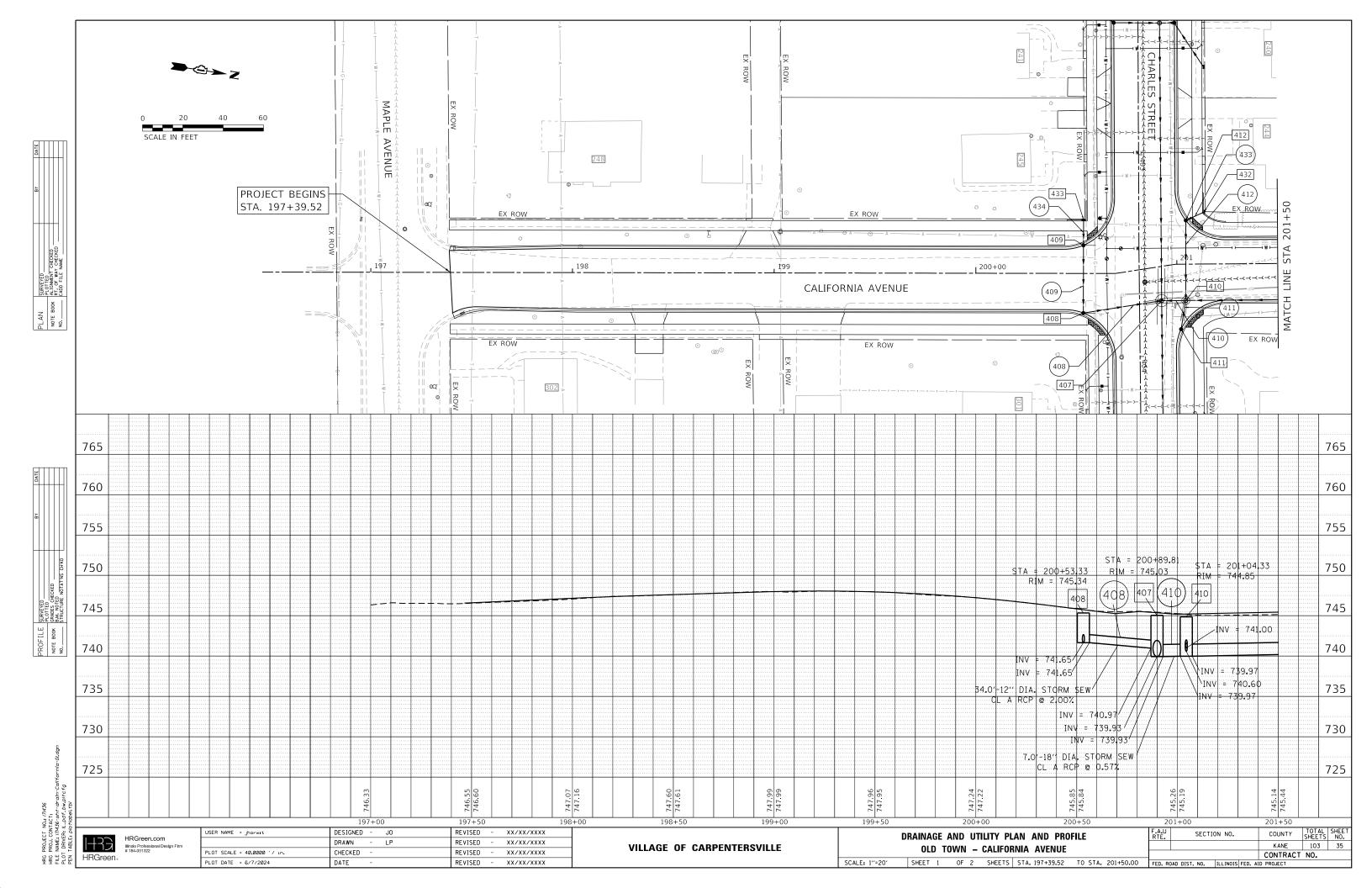
HRGreen.com Illnote Professional Design Firm # 184-001322

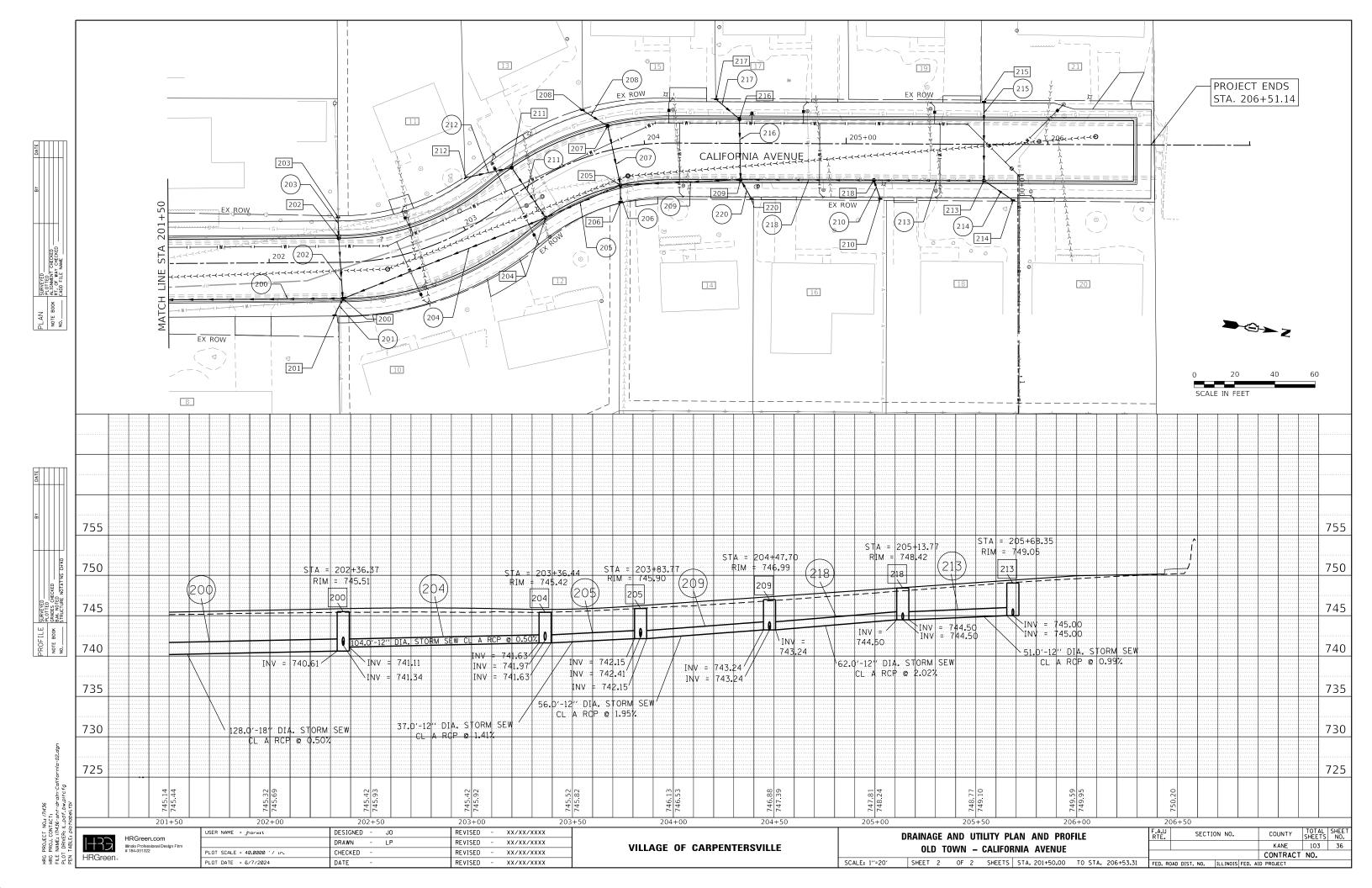
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	DRAWN	-	LP	REVISED	-	XX/XX/XXXX
PLOT SCALE = 40.0000 '/ in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

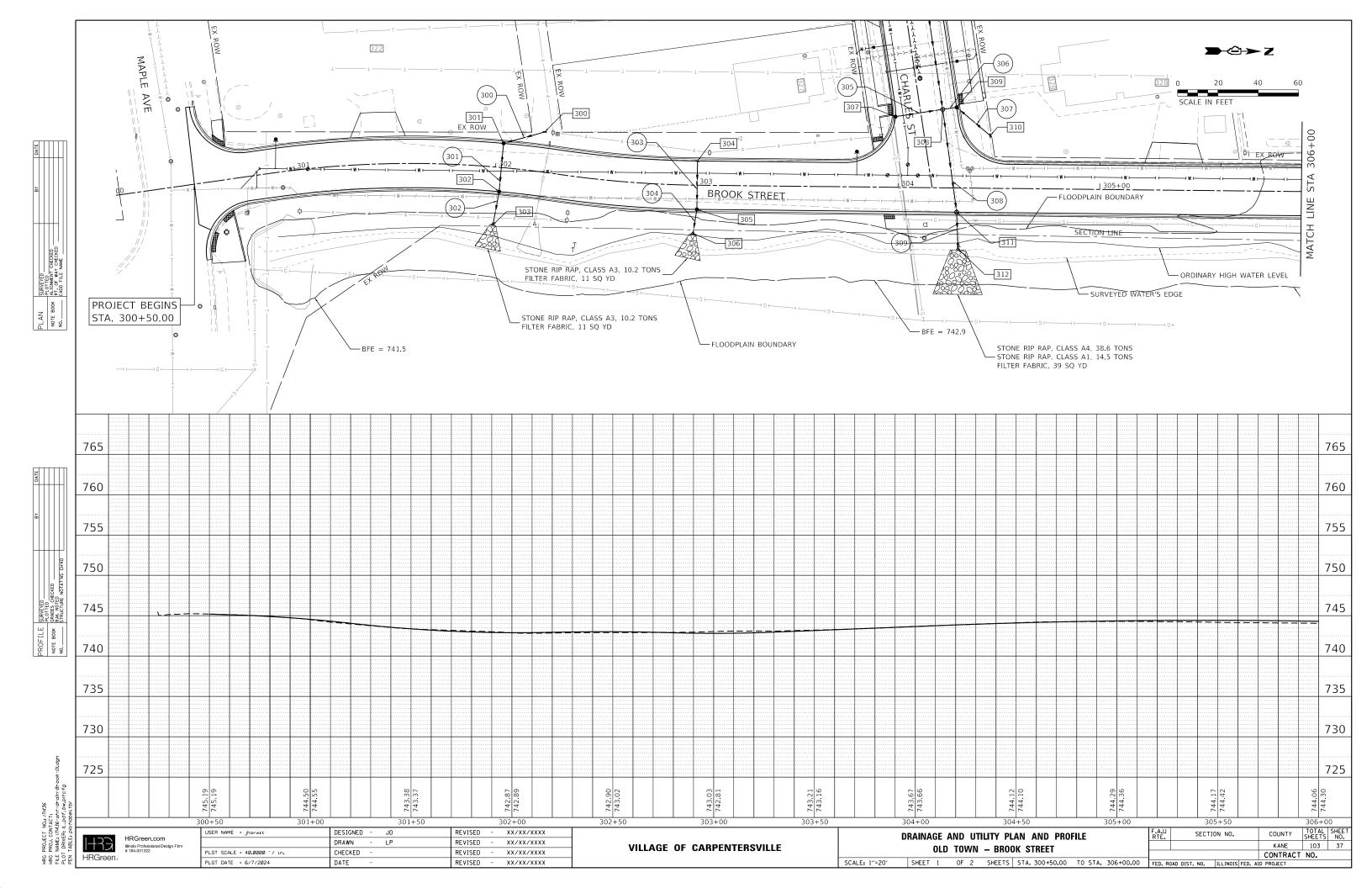
VILLAGE OF CARPENTERSVILLE

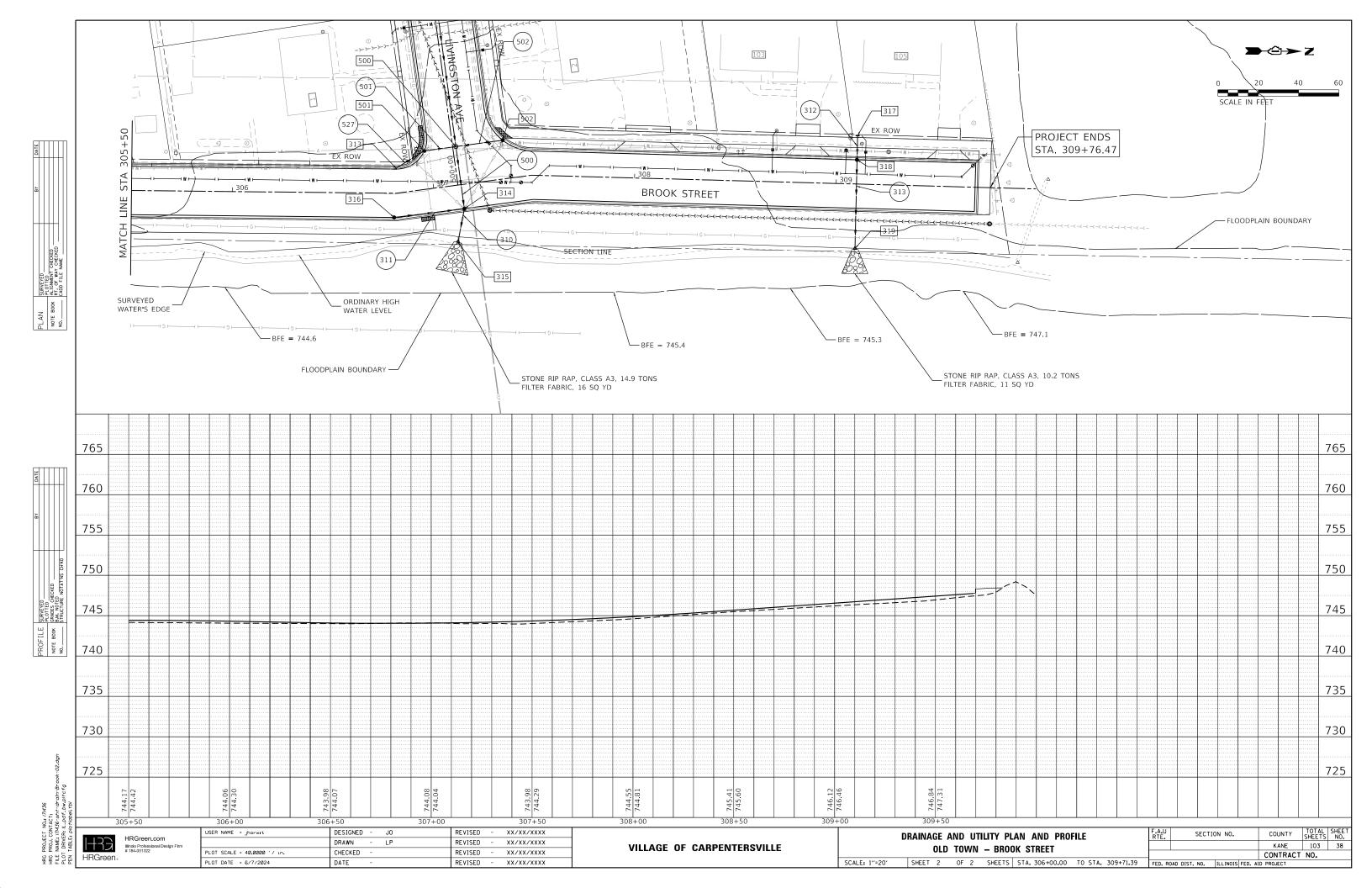
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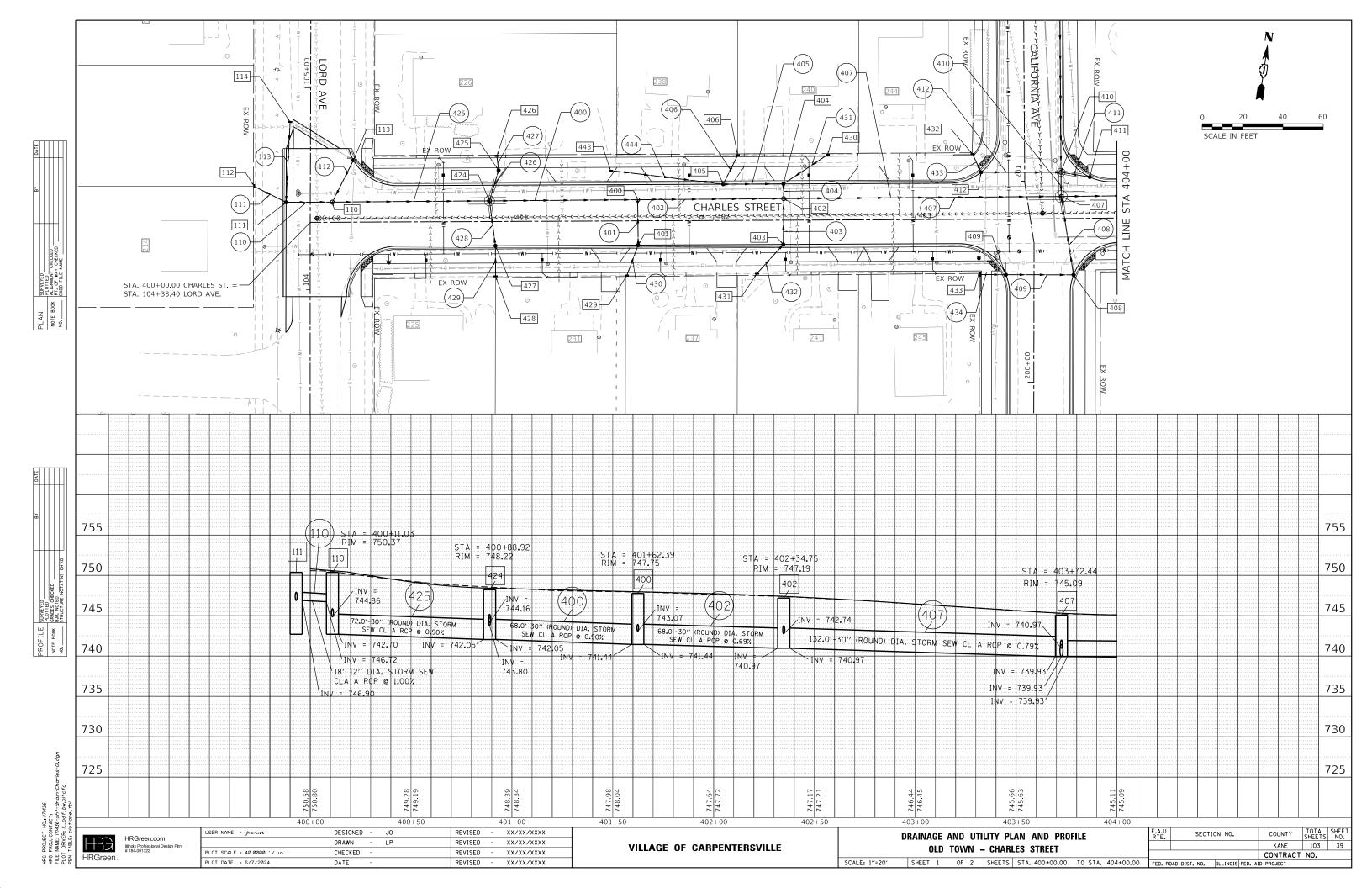
DRAINAGE REMOVAL PLAN									F.A.U RTE.	SECTION NO.		COUNTY TOTA		SHEET NO.	
OLD TOWN - LIVINGSTON AVENUE											KANE	103	34		
OLD TOWN - LIVINGSTON AVENUE												CONTRACT NO.			
SHEET	1	OF		1 SHEETS	STA.	500+00.00	TO STA.	504+93.20	FED. R	DAD DIST. NO.	ILLINOIS FED. A	ID PROJECT			

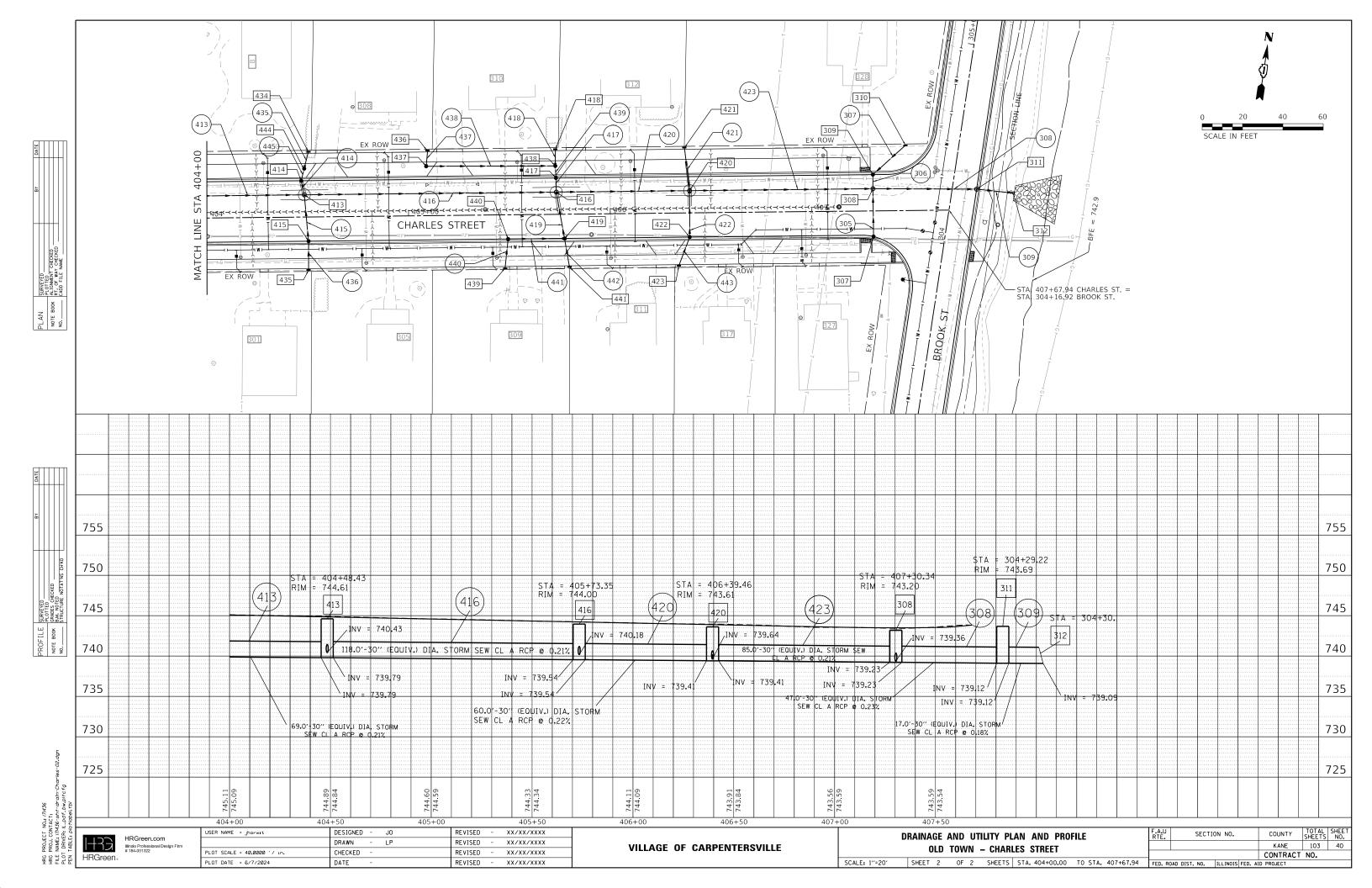


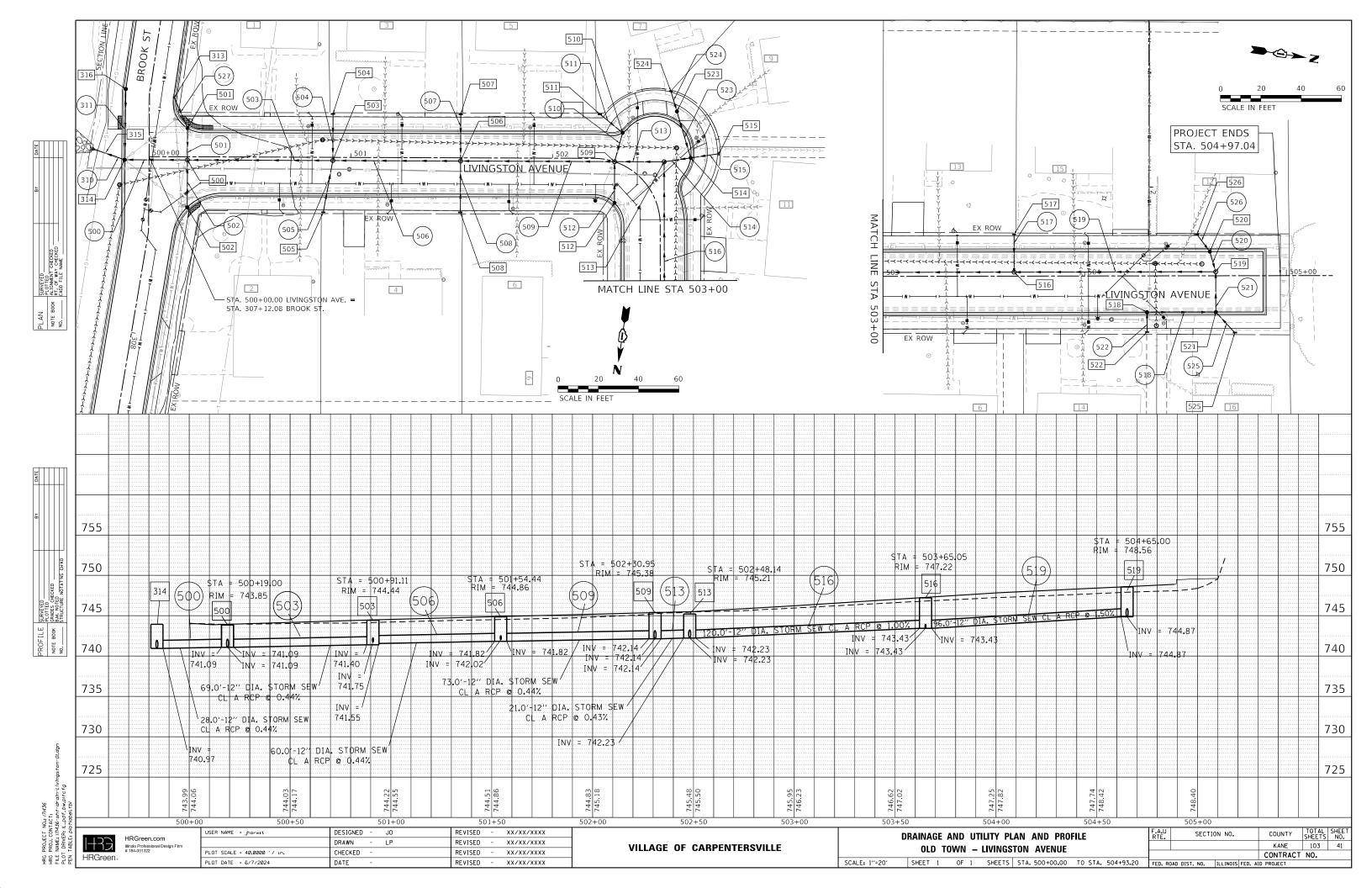












# DRAINAGE STRUCTURE SCHEDULE

STRUCTURE	CTATION	OFFCET (FT)	CTRUCTURE TYRE	EDAME C CRATE	RIM				STORM SEW	ER INVERTS			
NUMBER	STATION	OFFSET (FT)	STRUCTURE TYPE	FRAME & GRATE	ELEVATION	NORTH	NORTHWEST	WEST	SOUTHWEST	SOUTH	SOUTHEAST	EAST	NORTHEAST
LORD	400   11 02	10.17	MANUOLE TYPE A 6' DIAMETER	TYPE 1 CI	750.27			746.72				742.70	746.25
110	400+11.03 104+43.31	10 LT 12.0302 LT	MANHOLE, TYPE A, 6'-DIAMETER  CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 1 CL TYPE 11V	750.37 750.01	746.90	746.90	746.72				742.70 746.90	746.35
111	104+43.31	27.7667 LT	RESIDENTIAL INLET, 9"	9" SOUARE DI GRATE	750.01	740.90	740.90				748.86	740.90	
113	104+51.12	21.33 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	749.54				746.44		740.00		
113	104+04.20	10.1465 LT	INLET, TYPE A, 2 -DIAMETER	TYPE 8	749.34				740.44	747.27			
CALIFORNIA	104+03.2	10.1403 E1	INCET, THE A, 2 -DIAMETER	TITEO	749.40					747.27			
200	202+36.37	18 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	745.51		741.11	741.34		740.61	741.34		
201	202+32.3	26.21 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.50		743.18						
202	202+34.54	12 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	745.62			742.10				741.60	
203	202+34.29	22.4 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.32		741.62		741.07		741.62	743.00	
204	203+36.44 203+83.77	18 RT 18 RT	CATCH BASIN, TYPE A, 4'-DIAMETER CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V TYPE 11V	745.42 745.90	742.15	741.63	742.41	741.97		741.63 742.15	742.41	
206	203+81.36	26.1 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.90	742.13		742.41			742.13	742.41	
207	203+84.17	12 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	746.02			7 10.00	743.08			742.58	
208	203+75.28	22.63 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	746.12								743.80
209	204+47.7	18 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	746.99	743.24		743.24		743.24			743.24
210	205+16.77	27.14 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	748.53				746.21	742.70			742.20
211	203+36.44 203+15.42	12 LT 21.83 LT	CATCH BASIN, TYPE A, 4'-DIAMETER RESIDENTIAL INLET, 9"	TYPE 11V 9" SQUARE DI GRATE	745.54 745.86	743.54				742.70			742.20
213	205+68.35	18 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	749.05	743.54		745.00		745.00			745.00
214	205+82.82	27.67 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	749.65			7 15100	747.33	7 15100			7.13.00
215	205+68.2	21.2 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	749.50							747.18	
216	204+47.02	12 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	747.10				743.91			743.91	
217	204+35.42	27.75 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.01	744.50	-			744.50			744.69
218	205+13.77 204+53.12	18 RT 27.44 RT	CATCH BASIN, TYPE A, 4'-DIAMETER RESIDENTIAL INLET. 9"	9" SQUARE DI GRATE	748.42 747.24	744.50			744.92	744.50			744.50
BROOK	1 204733.12	27.44 NI	RESIDENTIAL INLET, 9	12 DOUBLE DI GUATE	147.24		1	I	144.92	L			1
300	302+22.01	19.8535 LT	INLET, TYPE A, 2'-DIAMETER	TYPE 8	742.44						740.19		
301	302+02.88	12 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11	742.65		740.10					740.10	
302	302+02.88	12 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11	742.65			740.01				740.01	
303	302+01.15	28.7454 RT	FLARED END SECTION, 12"	- TVDE 11	- 742.57			739.94				740.22	
304 305	303+00.43 303+00.43	12 LT 12 RT	INLET, TYPE A, 2'-DIAMETER CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11 TYPE 11	742.57 742.57			740.23				740.32 740.23	
306		23.8846 RT	FLARED END SECTION, 12"	- 1172 11	- 142.31			740.23				740.23	
307	407+30.4	12.7164 RT	CATCH BASIN, TYPE C, 4'-DIAMETER	TYPE 11	743.24	739.60		, , , , , ,					
308	407+30.34	11 LT	MANHOLE, TYPE A, 6'-DIAMETER	TYPE 1 CL	743.28	739.36		739.23		739.36		739.23	
309	407+30.4	18 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11	743.14					739.38			739.88
310	407+46.72	32.3545 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	743.70			720.12	741.38			720.12	
311	304+29.22 304+30.09	12 RT 29.6812 RT	MANHOLE, TYPE A, 6'-DIAMETER FLARED END SECTION, 30" EQRS	TYPE 11V	743.69			739.12 739.09				739.12	
313	306+80.33	12 LT	INLET, TYPE A, 2'-DIAMETER	TYPE 11	743.78		741.21	739.09					
314	307+13.67	12.0989 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	743.84		, , , , , ,	740.97		740.97	740.97		
315	307+10.51	27.7459 RT	FLARED END SECTION, 12"	-	-		740.89						
316	306+80.33	12 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11	743.78	741.11							
317	309+10.	24.0123 LT	RESIDENTIAL INLET, 9"	TYPE 11V	746.90			744.40				744.58	
318 319	309+10.	12 LT 31.8982 RT	CATCH BASIN, TYPE A, 4'-DIAMETER FLARED END SECTION, 12"	TYPE 11V	746.39			744.48 743.56				743.98	
CHARLES	309+09.99	31.0902 KT	TEARED END SECTION, 12	-	<u>-</u>			/43.30					
400	401+62.39	10.4741 LT	MANHOLE, TYPE A, 5'-DIAMETER	TYPE 1 CL	747.75			741.44		743.07		741.44	
401	401+62.54		CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	747.72	743.24				744.51			
402		10.7008 LT	MANHOLE, TYPE A, 5'-DIAMETER	TYPE 1 CL	747.19	742.74		740.97		742.74		740.97	
403	402+34.5	12 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	747.16	742.97	-	740 77	743.97	742.77			742.44
404	402+34.69 402+04.86	18 LT 18 LT	CATCH BASIN, TYPE A, 4'-DIAMETER CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V TYPE 11V	747.04 747.33		742.93	742.77		742.77		742.93	743.44 744.09
405		32.3145 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.33		/42.93		744.65			144.93	744.09
407		10.9815 LT	MANHOLE, TYPE A, 7'-DIAMETER	TYPE 1 CL	745.09	739.93		739.93	1	740.97		739.93	
408		27.896 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	744.70	741.65		741.65					
409		27.4958 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	745.17			742.45				741.95	
410	201+04.33	18 RT	MANHOLE, TYPE A, 5 -DIAMETER	TYPE 1 CL	744.85	739.97		741.00		739.97		740.60	
411	403+86.69	20.4814 LT	CATCH BASIN, TYPE C, 4'-DIAMETER CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V TYPE 11V	744.77 745.45		742.61	740.77				741.61	
412	403+32.67	23.2965 LT 11 LT	MANHOLE, TYPE A, 7'-DIAMETER	TYPE 11V	745.45	740.43	/42.01	739.79		740.43	+	739.79	
414	404+46.43	18 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	744.49	740.45		, , , , , , ,		740.45		, ,,,,,,	
415	404+50.27	12 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	744.60	740.61	<u></u> _			741.11			
416	405+73.35	11 LT	MANHOLE, TYPE A, 7'-DIAMETER	TYPE 1 CL	744.00	740.18		739.54		740.18		739.54	
417	405+73.29	18 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	743.86	740.20				740.20			
418	405+73.14		RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE		740 25	-	740.35		741.76	-		
419	405+77.3 406+39.46	12 RT 11 LT	CATCH BASIN, TYPE A, 4'-DIAMETER MANHOLE, TYPE A, 6'-DIAMETER	TYPE 11V TYPE 1 CL	743.96 743.67	740.35 739.64	-	740.35 739.41		741.51 739.64	+	739.41	
421		32.2698 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.26	, , , , , , , , , , , , , , , , , , , ,		, 55.41		741.94		, ,,,+1	
422	406+39.24	12 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	743.46	739.76				740.26			
423	406+33.73	26.116 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.21	741.89							
424	400+88.92		MANHOLE, TYPE A, 6'-DIAMETER	TYPE 1 CL	748.22			742.05		744.16		742.05	743.80
425	400+93.5	25.4 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 8	747.79	744.91			743.91				
426		32.3751 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.74	744 27	-			745.41			
427 428	400+91.77 400+91.77		CATCH BASIN, TYPE A, 4'-DIAMETER RESIDENTIAL INLET, 9"	TYPE 11V 9" SQUARE DI GRATE	748.15 747.85	744.37 745.52				744.87			
429		26.9267 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.65	/ 43.32							745.14
430		32.3544 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	746.48				744.16				
											1		

HRG PROJECT NO. 171436
HRG PROJ. CONTACT
FILE NAME: 171436-591-407-507.097
PLOT DRIVER: IL. pdf. Dw.pitcfg
PEN TABLE: plostodositbl

HRGreen.com
Illinois Professional Design Firm
#184-001322

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	DRAWN - LP	REVISED	-	XX/XX/XXXX
PLOT SCALE = 2.0000 '/ in.	CHECKED -	REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE -	REVISED	-	XX/XX/XXXX

Di	RAINAC	ŝΕ	STRU	CTU	RE AND	PIPE	SCHEDULES
				0L	D TOWN	l l	
SCALE.	CHEET	1	ΛE	2	CHEETC	CTA	TO STA

# DRAINAGE STRUCTURE SCHEDULE (CONTINUED)

STRUCTURE		0.55057 (57)		50.115.6.00.175	RIM				STORM SEWI	ER INVERTS			
NUMBER	STATION	OFFSET (FT)	STRUCTURE TYPE	FRAME & GRATE	ELEVATION	NORTH	NORTHWEST	WEST	SOUTHWEST	SOUTH	SOUTHEAST	EAST	NORTHEAST
CHARLES	•			•									
431	402+21.29	26.4 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.01								744.69
432	403+28.55	32.3887 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.33					743.01			
433	403+32.14	27.3669 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.19							744.87	
434	404+50.64	32.3151 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.70					742.38			
435	404+50.15	26.285 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.83	743.51							
436	405+09.8	32.293 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.24					741.92			
437	405+09.	24.5 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 8	743.95	741.32						740.82	
438	405+73.	24 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 8	743.64	741.46		740.22		740.22			
439	405+47.56	26.3536 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.71	742.39							
440	405+49.21	12 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	744.10					741.09		740.59	
441	405+79.55	26.3 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.48	742.16							
443	401+49.	25 LT	INLET, TYPE A, 2'-DIAMETER	TYPE 8	747.46							743.46	
444	404+48.5	24 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 8	744.24	740.98				740.48			
LIVINGSTON													
500	500+19.	1.597 RT	MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	743.90	741.09		741.09		741.09		741.09	
501	500+19.	14.2004 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	743.65	741.14				741.14			
502	500+19.	26.0268 RT	CATCH BASIN, TYPE C, 4'-DIAMETER	TYPE 11V	743.38					741.18			
503	500+91.11		MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	744.44	741.75		741.55		741.75		741.40	
504	500+91.11		RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.70	742.38							
505	500+86.44		RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	744.79					742.47			
506	501+54.44		MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	744.86	742.02		741.82		742.02		741.82	
507	501+54.44		RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.05	742.73							
508	501+54.44	27.022 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.03					742.71			
509	502+30.95	0.04 LT	MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	745.38	742.14		742.14		742.14		742.14	
510	502+30.45		CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	745.08	742.22					742.72		
511			RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	745.64		743.32						
512	502+45.4	18 RT	CATCH BASIN, TYPE C, 4'-DIAMETER	TYPE 11V	745.11					742.23			
513	502+48.14	13.89 LT	MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	745.21	742.23		742.23				742.23	
514	502+52.3		CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	745.02			742.44			742.29	742.29	
515		38.4426 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	746.08							743.76	
516	503+65.05	2 LT	MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	747.22	743.43		743.43		743.43			
517	503+65.05		RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	747.32							745.00	
518	504+30.93	18 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	747.84	745.06						745.56	
519	504+65.	2 LT	MANHOLE, TYPE A, 4'-DIAMETER	TYPE 1 CL	748.56			744.87		744.87		744.87	
520	504+62.07	12 LT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	748.33				745.40			744.90	
521	504+65.	18 RT	CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 11V	748.24			744.94		744.94			745.11
522		27.8138 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	748.10			745.78					
523	502+41.29		CATCH BASIN, TYPE A, 4'-DIAMETER	TYPE 8	746.14		742.60				743.10		
524	502+37.7		RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	746.20		743.88						
525		28.2047 RT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	748.63				746.31				
526	504+55.74	20.5176 LT	RESIDENTIAL INLET, 9"	9" SQUARE DI GRATE	748.38								746.06

## DRAINAGE PIPE SCHEDULE

PIPE NO.	FROM STRUCT	TO STRUCT.	CLASS	TYPE	SIZE DIA. (IN)	LENGTH (FT)	PIPE SLOPE	TBF (CY)
110	111	110	А	2	12	18	1.00%	1
111	112	111	В	1	6	16	12.23%	1
112	113	110	А	1	12	19	0.47%	5
113	114	111	Α	1	12	37	1.00%	6
200	200	410	А	2	18	128	0.50%	36
201	201	200	В	1	6	7	26.30%	2
202	202	200	А	1	12	26	1.00%	6
203	203	202	В	1	6	9	10.00%	2
204	204	200	А	1	12	104	0.50%	21
205	205	204	Α	1	12	37	1.41%	6
206	206	205	В	1	6	6	19.60%	1
207	207	205	Α	1	12	26	0.66%	4
208	208	207	В	1	6	13	5.50%	2
209	209	205	Α	1	12	56	1.95%	9
210	210	218	В	1	6	8	21.40%	2
211	211	204	Α	1	12	26	0.87%	4
212	212	211	В	1	6	21	4.00%	3
213	213	218	Α	1	12	51	0.99%	9
214	214	213	В	1	6	16	14.55%	3
215	215	213	В	1	6	37	5.88%	6
216	216	209	Α	1	12	26	2.55%	4
217	217	216	В	1	6	13	6.00%	2
218	218	209	Α	1	12	62	2.02%	10
220	220	209	В	1	6	9	18.60%	2
300	300	301	Α	1	12	21	0.44%	4
301	301	302	Α	1	12	20	0.44%	3
302	302	303	Α	1	12	15	0.44%	1
303	304	305	Α	1	12	21	0.44%	3
304	305	306	Α	1	12	11	0.45%	1
305	307	308	Α	1	12	19	1.26%	3
306	309	308	Α	1	12	2	1.00%	1
307	310	309	В	1	6	20	7.50%	1
308	308	311	А	1	30 EQRS	47	0.23%	11
309	311	312	Α	1	30 EQRS	17	0.18%	2

## DRAINAGE PIPE SCHEDULE (CONTINUED)

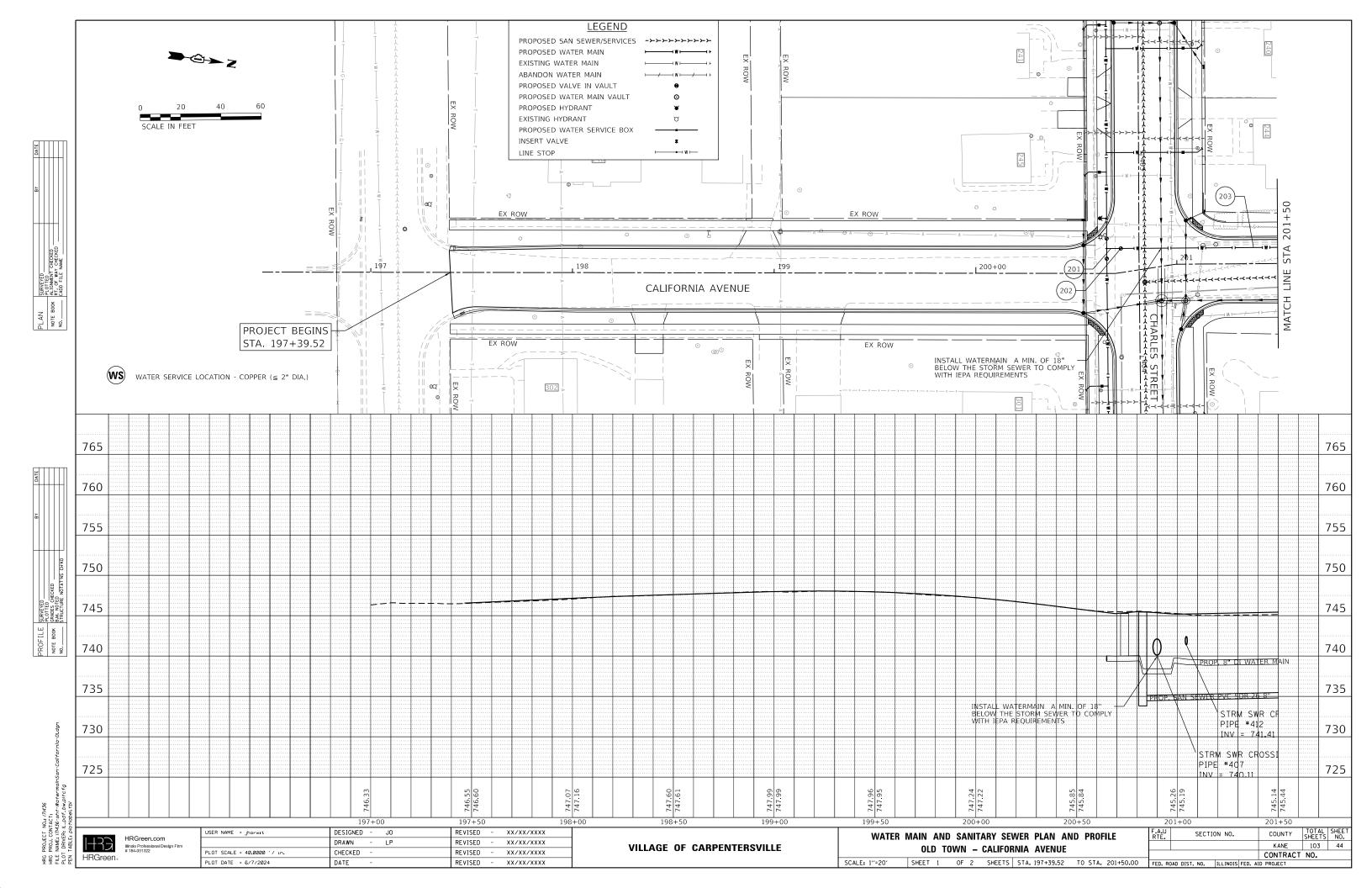
PIPE NO.	FROM STRUCT	TO STRUCT.	CLASS	TYPE	SIZE DIA. (IN)	LENGTH (FT)	PIPE SLOPE	TBF (CY)
310	314	315	Α	1	12	15	0.53%	1
311	316	314	А	1	12	31	0.45%	5
312	317	318	В	1	6	10	1.00%	1
313	318	319	Α	1	12	42	1.00%	4
400	424	400	А	2	30 ROUND	68	0.90%	42
401	401	400	Α	2	12	18	0.94%	5
402	400	402	Α	2	30 ROUND	68	0.69%	42
403	403	402	Α	2	12	19	1.21%	5
404	404	402	A	2	12	4	0.75%	1
405	405	404	A	2	12	26	0.62%	6
406	406	405	В	1	6	14	4.00%	2
407	402	407	A A	1	30 ROUND 12	132	0.79%	48 5
408 409	408 409	407 408	A	1	12	34 30	2.00%	4
410	410	408	A	2	18	30 7	1.00% 0.57%	2
411	411	410	A	1	12	11	1.50%	3
412	411	410	A	2	12	36	1.70%	6
413	407	413	A	1	30 EQRS	69	0.21%	16
414	414	413	A	1	12	2	1.00%	1
415	415	413	A	1	12	18	1.00%	4
416	413	416	A	1	30 EQRS	118	0.21%	31
417	417	416	A	1	12	2	1.00%	1
418	418	438	В	1	6	6	5.00%	1
419	419	416	A	1	12	18	0.95%	3
420	416	420	A	1	30 EQRS	60	0.22%	14
421	421	420	В	1	6	19	12.10%	4
422	422	420	A	1	12	18	0.67%	4
423	420	308	Α	1	30 EQRS	85	0.21%	35
425	110	424	Α	2	30 ROUND	72	0.90%	58
426	425	424	Α	1	12	11	1.03%	4
427	426	425	В	1	6	5	10.00%	1
428	427	424	Α	1	12	18	1.18%	4
429	428	427	В	1	6	13	5.00%	2
430	429	401	В	1	6	14	4.50%	2
431	430	404	В	1	6	24	3.00%	4
432	431	403	В	1	6	18	4.00%	3
433	432	412	В	1	6	8	5.00%	1
434	433	409	В	1	6	11	22.00%	2
435	434	444	В	1	6	7	20.00%	1
436	435	415	В	1	6	12	20.00%	2
437	436	437	В	1	6	6	10.00%	1
438	437	438	A	1	12	60	1.00%	15
439	438	417	A	1	12	2	1.00%	1
440	439	440	B A	1	6 12	13 24	10.00%	2
441	440	419 419	В	1	6	13	1.00% 5.00%	2
443	423	422	В	1	6	13	12.50%	2
444	443	405	A	1	12	53	1.00%	17
445	444	414	A	1	12	3	1.00%	1
500	500	314	A	1	12	28	0.43%	4
501	501	500	A	1	12	12	0.42%	2
502	502	500	A	1	12	20	0.45%	3
503	503	500	A	1	12	69	0.45%	10
504	504	503	В	1	6	21	3.00%	3
505	505	503	В	1	6	24	3.00%	3
506	506	503	А	1	12	60	0.45%	8
507	507	506	В	1	6	21	3.38%	3
508	508	506	В	1	6	24	2.88%	3
509	509	506	Α	1	12	73	0.44%	10
510	510	509	Α	1	12	11	0.73%	2
511	511	510	В	1	6	13	4.60%	2
512	512	509	Α	1	12	18	0.50%	3
513	513	509	A	1	12	21	0.43%	3
514	514	513	A	1	12	10	0.60%	2
515	515	514	В	1	6	12	11.00%	2
516	516	513	A	1	12	120	1.00%	16
517	517	516	В	1	6	17	9.24%	3
518	518	521	A	1	12	27	0.44%	4
519	519	516	A	1	12	96	1.50%	15
520 521	520 521	519 519	Α	1	12 12	7	0.43% 0.44%	1 5
521	521	519	A B	1	6	16 8	2.75%	1
344	عدد	710	U	1	· ·	U	2.13/0	<u> </u>

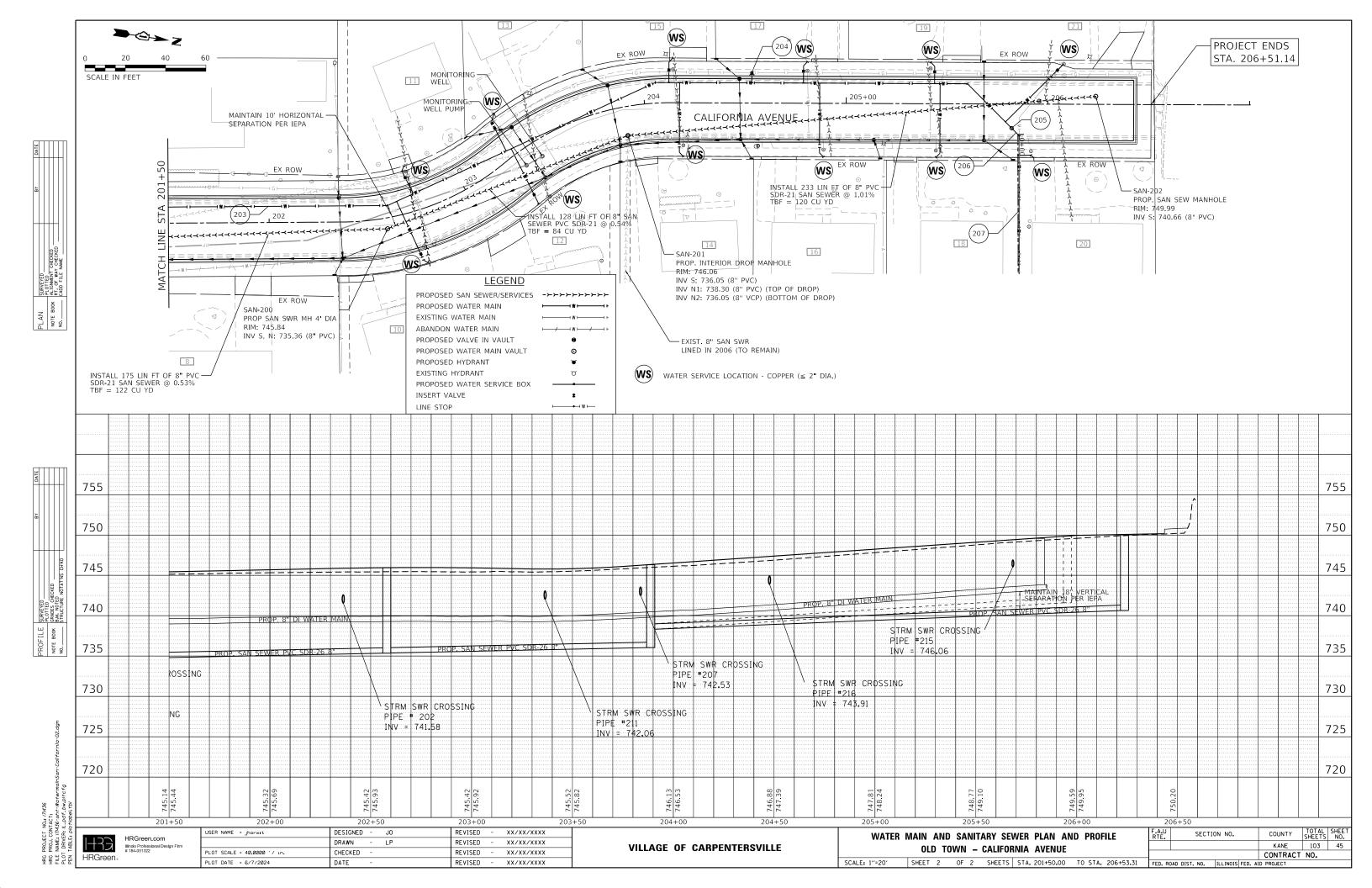
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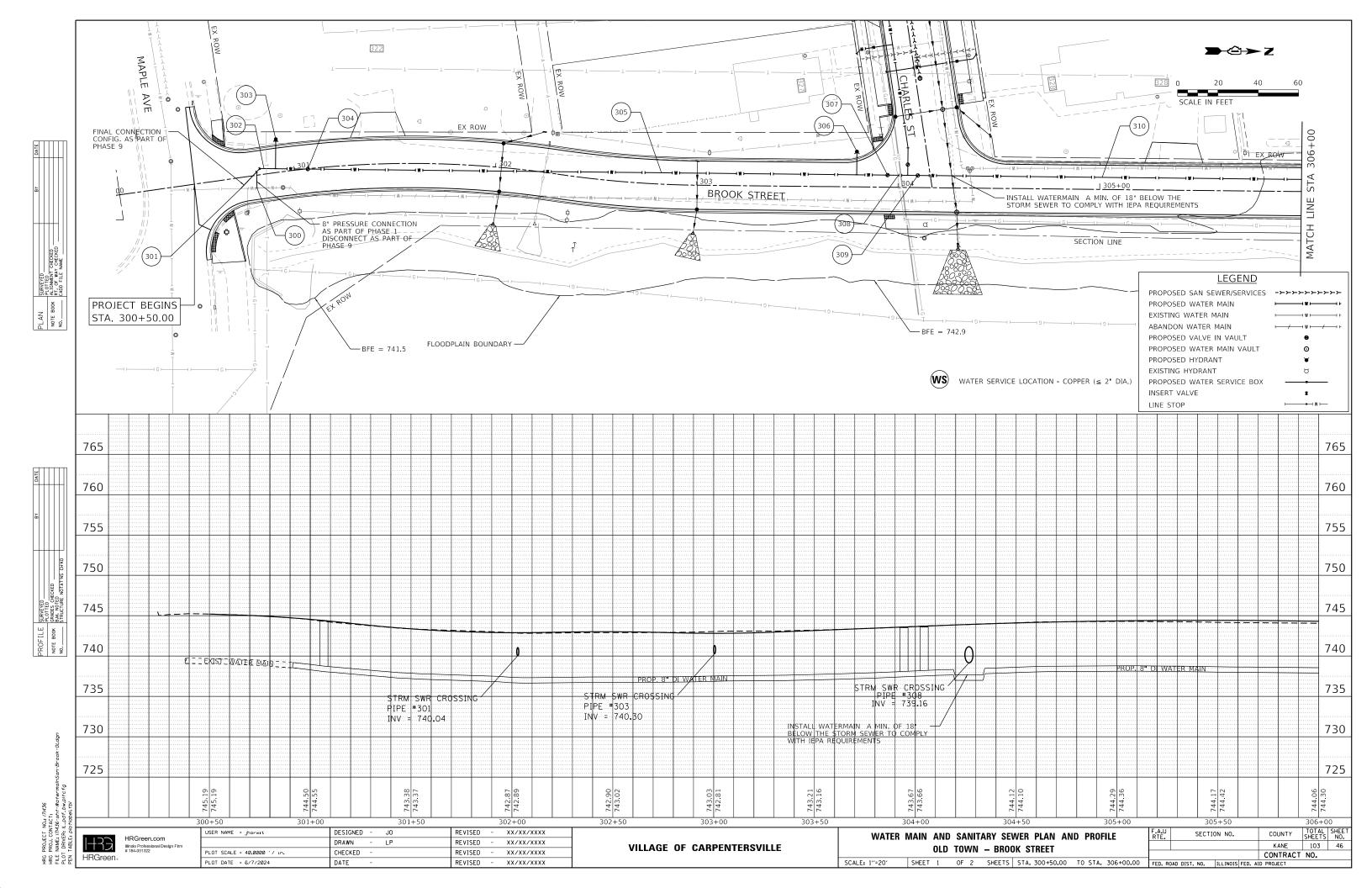
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PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

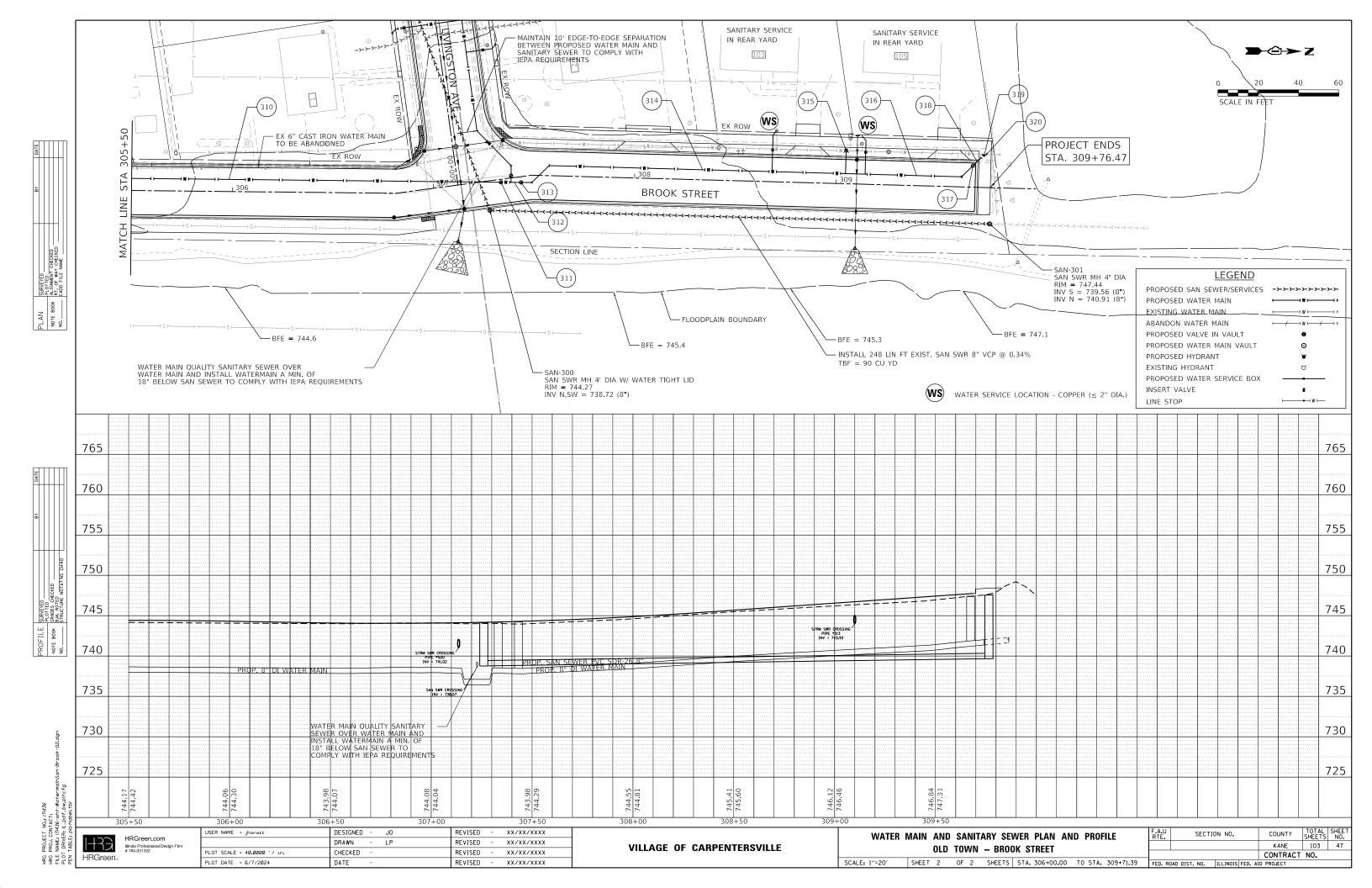
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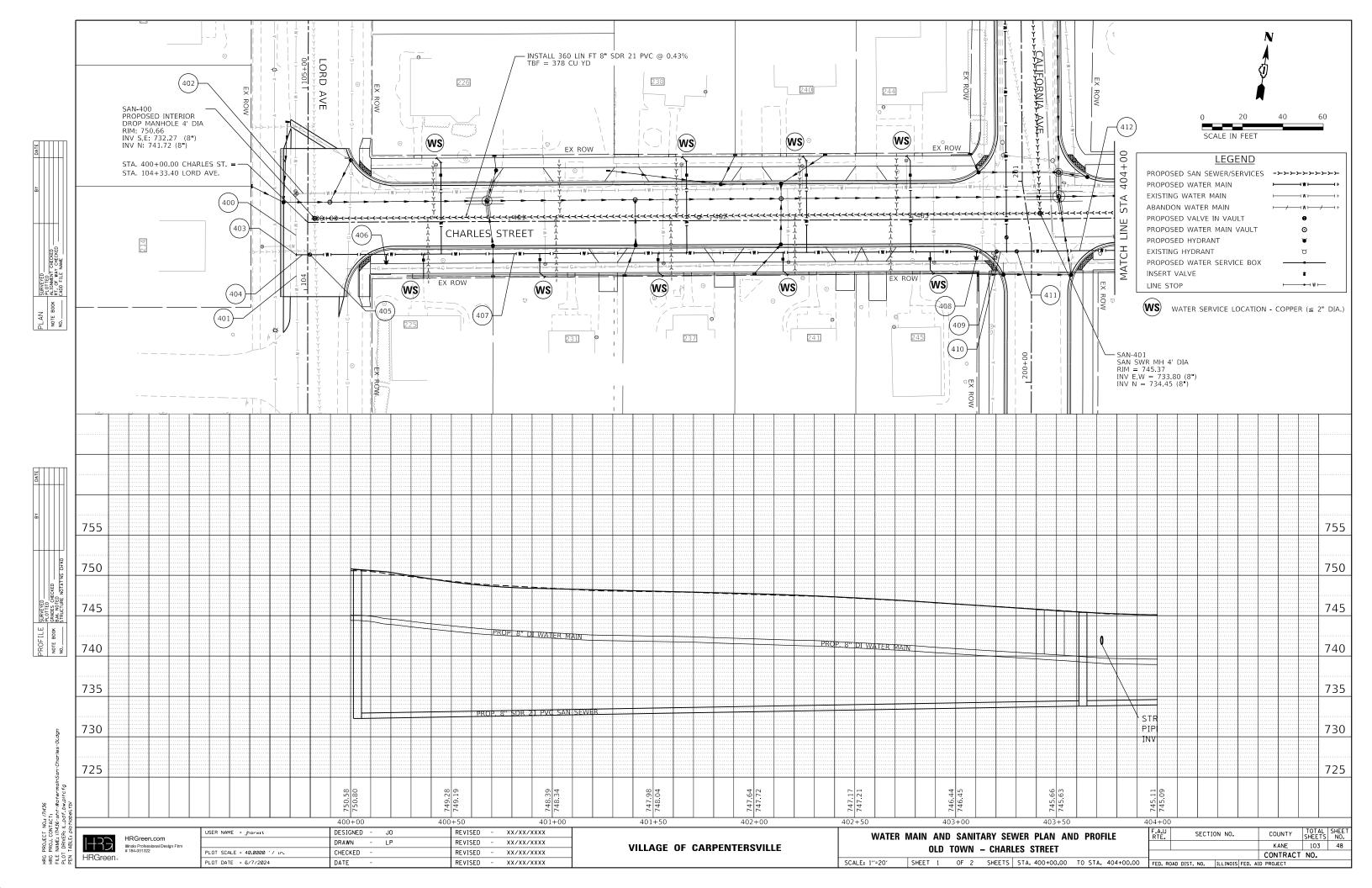
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							CONTRACT	NO.	
FED. R	DAD	DIST.	NO.	ILLINOIS	FED.	AID	PROJECT		

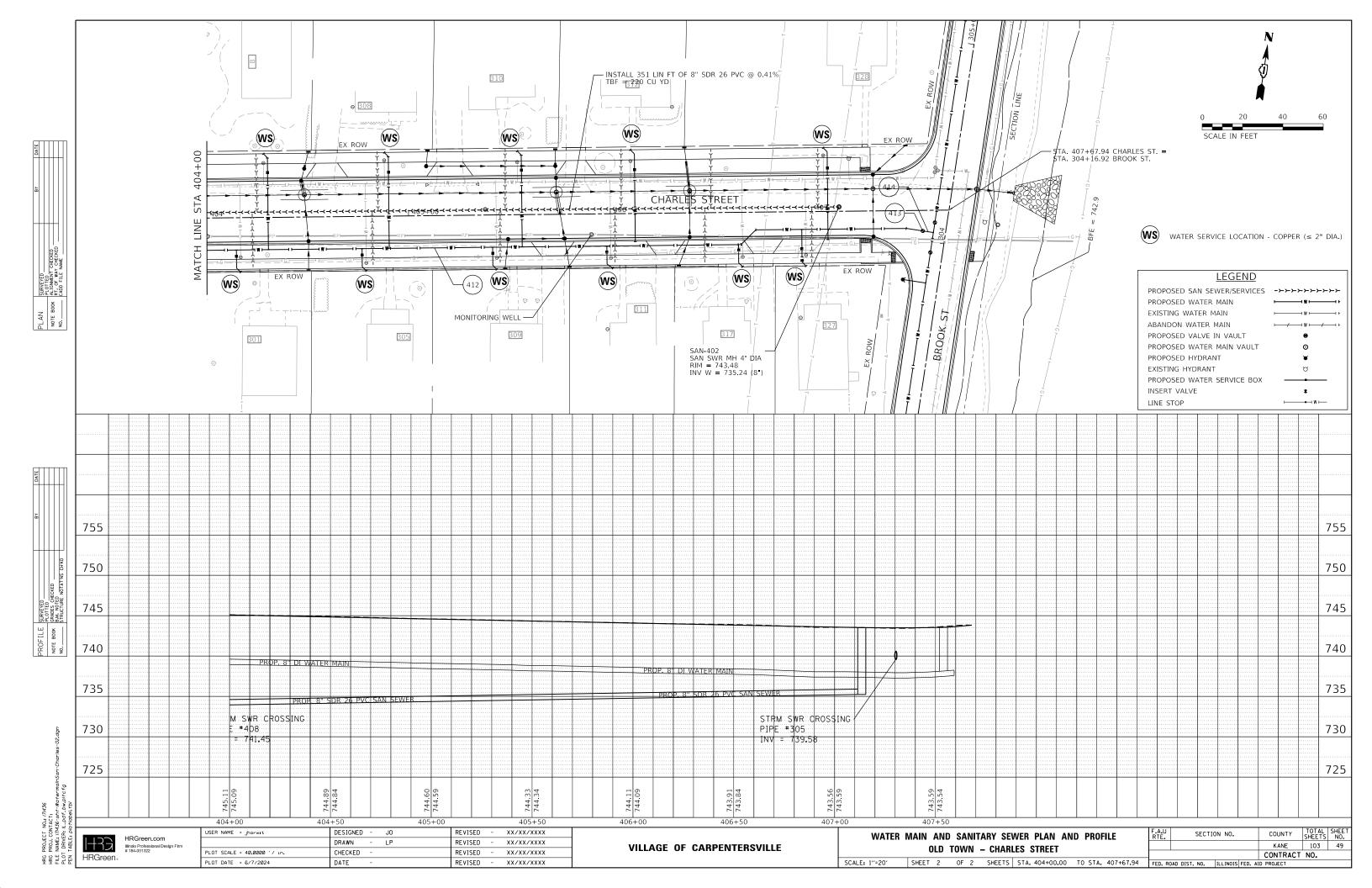


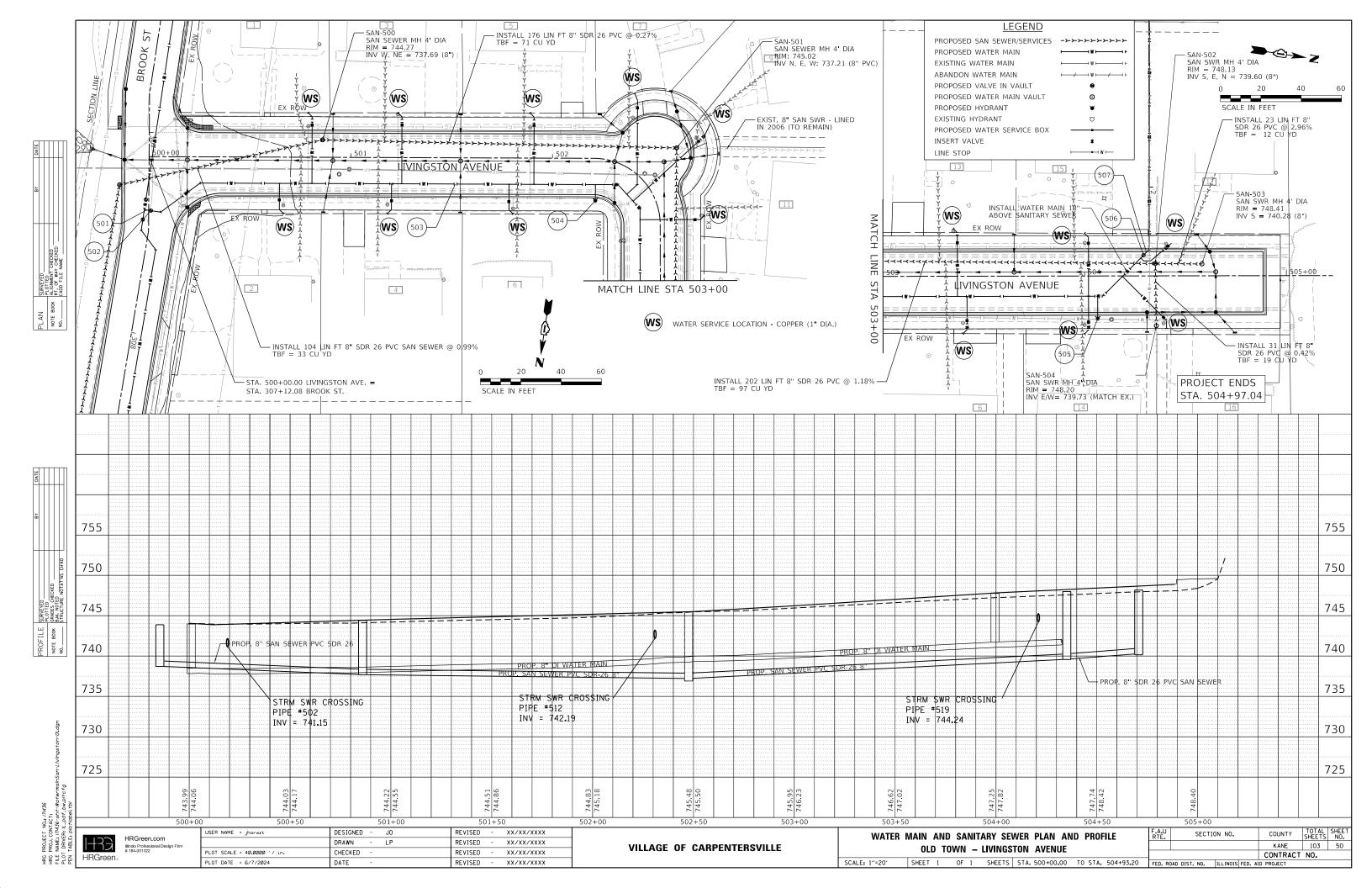


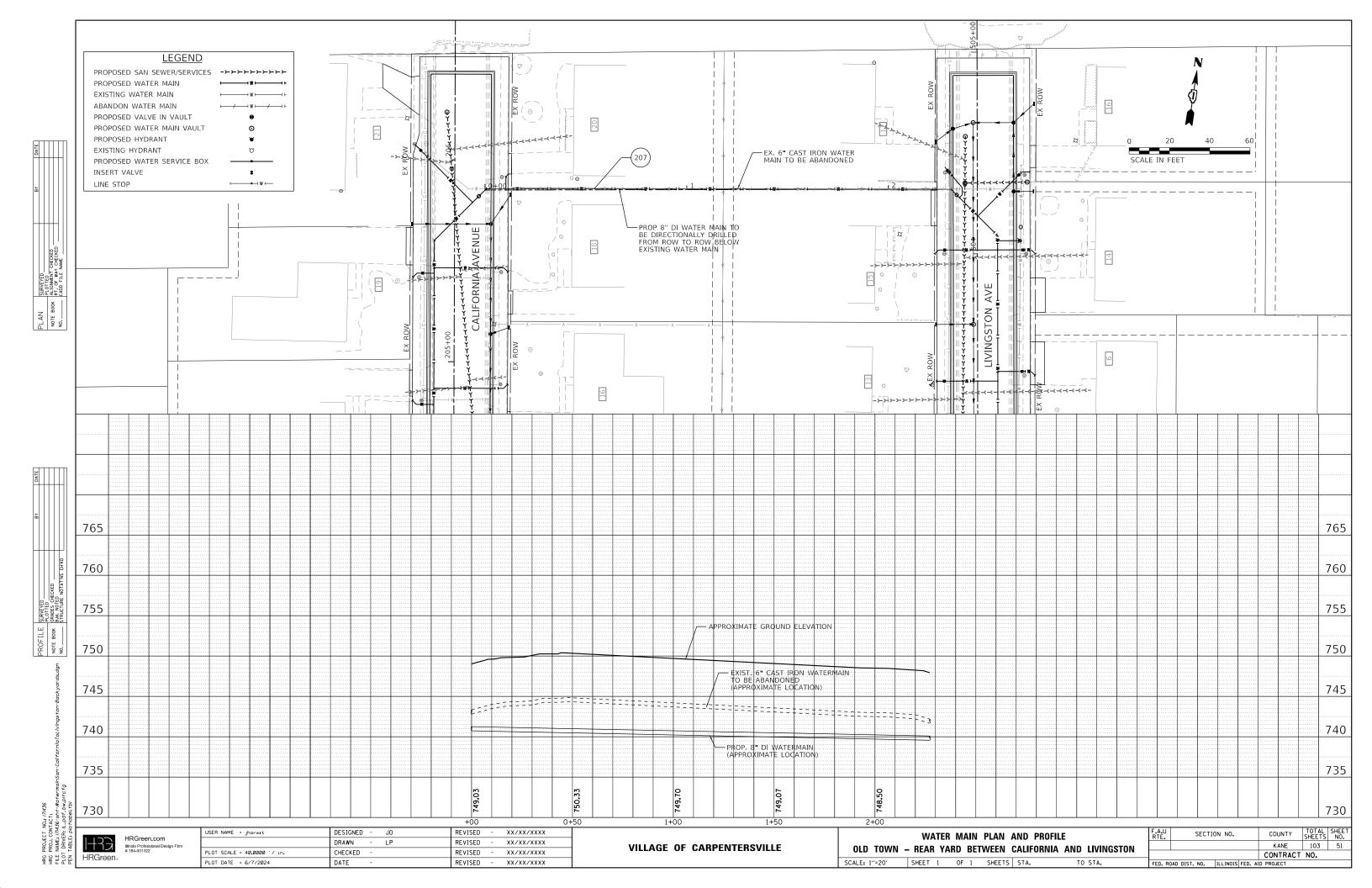












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CALIFORNIA
  7' DI WATER MAIN 8"
 WITH BENDS, TEES, AND FITTINGS
TBF = 2 CU YD
 VV TA 4 DIA T1F CL
WATER VALVE 8
RIM = 745.12
 WITH BENDS, TEES, AND FITTINGS
TBF = 151 CU YD
 204
FIRE HYD W/AUX V & VB
 205
VV TA 4 DIA T1F CL
WATER VALVE 8
 RIM = 749.40
TBF = 6 CU YD
 18' DI WATER MAIN 8"
  WITH BENDS, TEES, AND FITTINGS
207
211' DI WATER MAIN 8"
WITH NECESSARY BENDS AND FITTINGS TO
TRANSITION TO DI WATER MAIN DIRECTIONALLY
DRILLED BETWEEN CALIFORNIA AND LIVINGSTON
  ROW BELOW EXISTING WATER MAIN.
 BROOK
 PRESSURE CONNECTION 8" X 8"
 CUT & CAP EX 8" WATER MAIN TO THE NORTH
  CONNECT TO EX 8" WATER MAIN WITH BENDS, TEES, AND FITTINGS
302
37' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 11 CU YD
 FIRE HYD W/ AUX V & VB
 VV TA 4 DIA T1F CL
WATER VALVE 8
  RIM = 744.40
288" DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 86 CU YD
 FIRE HYD W/AUX V & VB
 VV TA 4 DIA T1F CL
WATER VALVE 8
RIM = 743.48
 15' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 3 CU YD
 VV TA 4 DIA T1F CL
 WATER VALVE 8
RIM = 737.58
 310
324' DI WATER MAIN 8"
 WITH BENDS, TEES, AND FITTINGS
TBF = 95 CU YD
 311
VV TA 4 DIA T1F CL
 WATER VALVE 8
RIM = 744.15
 10' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
 TBF = 3 CU YD
 VV TA 4 DIA T1F CL
WATER VALVE 8
 RIM = 744.18
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BROOK
 FIRE HYD W/AUX V & VB
68' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
317
VV TA 4 DIA T1F CL
 WATER VALVE 8
RIM = 747.40
318
10' DI WATER MAIN 8"
 WITH BENDS, TEES, AND FITTINGS
TBF = 3 CU YD
320
EX CI WATER MAIN 6"
WITH BENDS, TEES, AND FITTINGS TBF = 11 \text{ CU YD}
303
FIRE HYD W/AUX V & VB
 CHARLES
400
EX CI WATER MAIN 4"
 WATER MAIN LINESTOP 4"
7' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 2 CU YD
405
VV TA 4 DIA T1F CL
WATER VALVE 8
RIM = 751.32
406
FIRE HYD W/AUX V & VB
341' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 100 CU YD
408
FIRE HYD W/AUX V & VB
 VV TA 4 DIA T1F CL
 WATER VALVE 8
 RIM = 745.45
410
10' DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 3 CU YD
VV TA 4 DIA T1F CL
WATER VALVE 8
RIM = 745.29
417 DI WATER MAIN 8"
WITH BENDS, TEES, AND FITTINGS
TBF = 119 CU YD
413
VV TA 4 DIA T1F CL
 WATER VALVE 8
RIM = 743.24
 6' DI WATER MAIN 8"
 WITH BENDS, TEES, AND FITTINGS
TBF = 2 CU YD
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319 CUT & CAP EX 6^{\prime\prime} WATER MAIN TO THE SOUTH CONNECT TO EX 6^{\prime\prime} WATER MAIN WITH BENDS, TEES, AND FITTINGS
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402 CUT, CAP AND BRACE EX 4" WATER MAIN AND ABANDON TO THE EAST CONNECT TO EX 4" WATER MAIN WITH BENDS, TEES, FITTINGS, AND 8"X4" REDUCERS LIVINGSTON

501 4' DI WATER MAIN 8" WITH BENDS, TEES, AND FITTINGS TBF = 2 CU YD VV TA 4 DIA T1F CL WATER VALVE 8 RIM = 744.19 503 426' DI WATER MAIN 8" WITH BENDS, TEES, AND FITTINGS TBF = 124 CU YD 504 FIRE HYD W/AUX V & VB 505 FIRE HYD W/AUX V & VB

VV TA 4 DIA T1F CL WATER VALVE 8

507 12' DI WATER MAIN 8" WITH BENDS, TEES, AND FITTINGS TBF = 4 CU YD

WATER MAIN PHASING

#### Phase 1

- 1. Install 8-inch Valve and Vault and associated piping at STA. 300+70 along Brook Street
- 2. Install 8-inch DI Water Main and associated piping and valves along Brook Street from STA. 300+70 to STA. 309+70
- 3. Install 8-inch Valve and Vault and associated piping at STA. 309+70 along Brook Street
- 4. Pressure test and disinfect new 8-inch Water Main in Phase 1

- 1. Install 8-inch DI Water Main and associated piping and valves along Charles Street from STA. 407+40 to STA. 399+90
- 2. Pressure test and disinfect new 8-inch Water Main in Phase 2

1. Transfer existing Water Services from existing 4-inch CI Water Main along Charles Street and 6-inch CI Water Main Brook Street to new 8-DI Water Main

#### Phase 4

- 1. Install 8-inch DI Water Main and associated piping and valves along Livingston Avenue from STA. 500+00 to STA. 504+20
- 2. Pressure test and disinfect new 8-inch Water Main in Phase 4

1. Transfer existing Water Services from existing 6-inch CI Water Main along Livingston Avenue to new 8-inch Ductile Iron Water Main

- 1. Install 8-inch DI Water Main and associated piping and valves along California Avenue from STA. 200+65 to STA.
- 2. Pressure test and disinfect new 8-inch Water Main in Phase 6

1. Transfer existing Water Services from existing 6-inch CI Water Main along California Avenue to new 8-inch Ductile

- 1. Install 8-inch DI Water Main from California Avenue to Livingston Avenue to from STA. 00+00 to STA. 02+25test and disinfect new 8-inch Water Main in Phase 6
- 2. Pressure Test and disinfect new 8-inch Water Main in Phase 7

#### Phase 9

SCALE:

1. Abandon existing Water Main with associated piping per the detail at STA. STA. 300+70 and STA. 309+70 along Brook Street and associated piping at STA. 104+50 along Lord Avenue

BENDS, TEES, AND FITTI 48 Georgom **HRGreen** 

NGER NAME = Jhorwit	DESIGNED	-	J0	REVISED	-	XX/XX/XXXX
	DRAWN	-	LP	REVISED	-	XX/XX/XXXX
PLOT SCALE = 2.0000 '/ in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

VILLAGE OF CARPENTERSVILLE

		WA	ΓER	MAIN	TAGS		F.A.U RTE.	SECTI	ON NO.	COUNTY	TOTAL SHEETS	SHEET NO.
			OL	D TOWI	NI.					KANE	103	52
			UL	D IOWI	<b>.</b>					CONTRACT	NO.	
SHEET 1	1	OF	1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST, NO.	ILLINOIS FED. A	ID PROJECT		

#### **GENERAL NOTES:**

- THIS PROJECT INCLUDES THE INSTALLATION OF A NEW LIGHTING SYSTEM ALONG CALIFORNIA AVE. FROM MAPLE AVE. TO THE END, BROOK ST. FROM MAPLE AVE. TO THE END, CHARLES ST. FROM LORD AVE. TO BROOK ST. AND LIVINGSTON AVE. FROM BROOK ST. TO THE END. PROPOSED LIGHTING SHALL BE OWNED AND MAINTAINED BY THE VILLAGE OF CARPENTERSVILLE.
- THE QUANTITIES OF RACEWAYS WHEREVER INDICATED IN THESE PLANS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
- 3. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
- 4. THE CONTRACTOR SHALL VERIFY LOCATIONS OF UNDERGROUND/OVERHEAD UTILITIES AND TREES PRIOR TO INSTALLATION OF LIGHT POLES AND CONDUITS. IF THERE IS A CONFLICT WITH THE LIGHT POLES/CONDUITS AS SHOWN ON PLANS, THE CONTRACTOR SHALL SUGGEST ALTERNATIVE LOCATIONS AND COORDINATE WITH THE ENGINEER PRIOR TO PERFORMING WORK.
- 5. TRENCHES FOR LIGHTING RACEWAYS SHALL HAVE A MINIMUM DEPTH OF 30".
- LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS, NEC AND VILLAGE OF CARPENTERSVILLE CODES.
- 7. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE U/L LISTED AND LABELED.
- 8. GROUND RODS SHALL BE INSTALLED AT EACH LIGHTING UNIT.
- 9. THE CONTRACTOR SHALL TAKE CARE WHEN INSTALLING UNIT DUCT TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES AND TREES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE AS DETERMINED BY THE ENGINEER
- 10. THE CONTRACTOR SHALL COORDINATE WITH comed REGARDING THE REMOVAL OF EXISTING MAST ARMS AND LUMINAIRES ATTACHED TO comed POLES, WHEN PROPOSED LIGHTING IS FULLY INSTALLED AND OPERATIONAL.

#### **BILL OF MATERIALS**

DESCRIPTION	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	244
UNIT DUCT, 600V, 4-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	2882
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/0	FOOT	450
LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 100AMP	EACH	1
LIGHT POLE, ALUMINUM, 30FT. M.H. 8FT. MAST ARM	EACH	17
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	140
BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5 INCH BOLT CIRCLE	EACH	17
LUMINAIRE, LED, ROADWAY	EACH	17

### **LEGEND**

- >	PROPOSED LIGHTING UNIT 30 FT. MH, 8 FT. MAST ARM, 240V
$\longrightarrow$	(LINE TO LINE), LED LUMINAIRE WITH BREAKAWAY DEVICE

UNIT DUCT, 600V, 4-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE),  $1\frac{1}{4}$ " DIA. POLYETHYLENE

---- ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 1/0

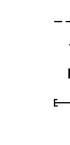
- comed ELECTRIC SERVICE 120/240V, 1  $\odot$ , 3 WIRE

PROPOSED LIGHTING CONTROLLER "LC", 120/240V, 1  $\odot$ , 3 WIRE, 100 AMP, BASE MOUNTED

UNDERGROUND CONDUIT, GALVANIZED STEEL

GROUND ROD 5/8" DIA. X 10 FT.

LEGENL



SCALE: N.T.S.



C Cuaineerina Inc	USER NAME = mdeltche	DESIGNED	-	МН
ES Engineering, Inc.		DRAWN	-	SR
Belmont Road, Sulte 4B	OUEDUS	CHECKED	-	BL
ers Grove, IL 60516	PLOT DATE = 6/5/2024	DATE	-	05-31-2

-	XX/XX/XXXX	
-	XX/XX/XXXX	1
-	XX/XX/XXXX	1
-	XX/XX/XXXX	

**VILLAGE OF CARPENTERSVILLE** 

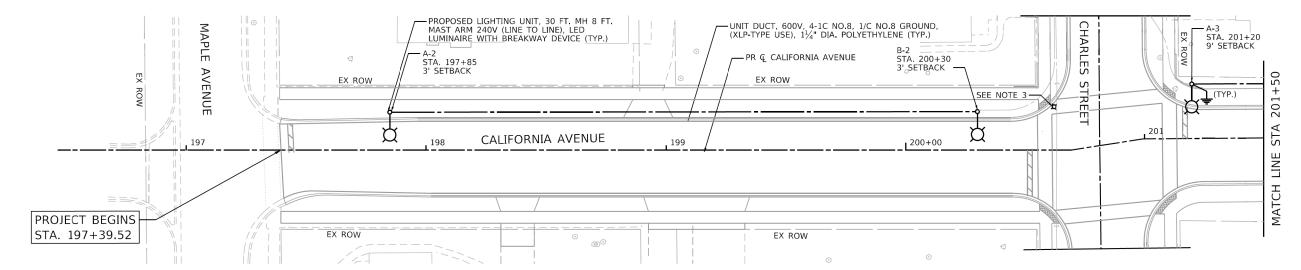
REVISED

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REVISED

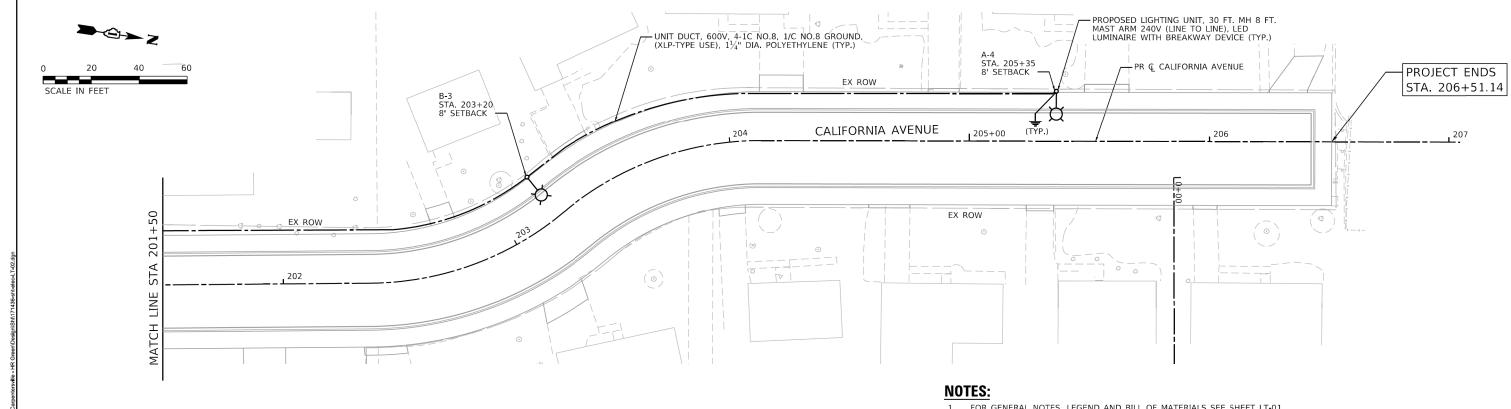
REVISED

GEN	ENERAL NOTES, LEGEND AND BILL OF MATERIALS						F.A.U. RTE.	SECTION		COUNTY	TOTAL SHEETS	
OLD TOWN							KANE	103	53			
			OLL	10441	•					CONTRACT	NO.	
	SHEET 1	OF	1	SHEETS	STA	TO STA		LINOIS	EED AIR	DRO IECT		



## NOTES:

- 1. FOR GENERAL NOTES, LEGEND AND BILL OF MATERIALS SEE SHEET LT-01.
- 2. SETBACK IS FROM FACE OF CURB TO CENTER OF POLE.
- THE CONTRACTOR SHALL COORDINATE WITH comed REGARDING THE REMOVAL OF EXISTING MAST ARMS AND LUMINAIRES ATTACHED TO comed POLES, WHEN PROPOSED LIGHTING IS FULLY INSTALLED AND OPERATIONAL.



- 1. FOR GENERAL NOTES, LEGEND AND BILL OF MATERIALS SEE SHEET LT-01.
- 2. SETBACK IS FROM FACE OF CURB TO CENTER OF POLE.

LT-02

AMES Engineering, Inc. CONSULTING ENGINEERS
6330 Belmont Road, Sulte 4B
Downers Grove, IL 60516

USER NAME = mdeltche REVISED - XX/XX/XXXX DESIGNED - MH DRAWN - SR REVISED - XX/XX/XXXX PLOT SCALE = 40,0000 ' / In. CHECKED - BL REVISED - XX/XX/XXXX PLOT DATE = 6/5/2024 REVISED - XX/XX/XXXX - 05-31-2024

**VILLAGE OF CARPENTERSVILLE** 

PROPOSED LIGHTING PLAN OLD TOWN - CALIFORNIA AVENUE SHEET 1 OF 4 SHEETS STA. 197+39.52 TO STA. 206+51.14

SECTION COUNTY **KANE** 103 54 CONTRACT NO. ILLINOIS FED. AID PROJECT

RG PROJECT NO. 17436
RG PROJ. CONTACT:
LE NAME: 17436-sht-light-c
LOT DRIVER: 1L.pdf.bw.pitc
RAN-FABEE. 1000 1751

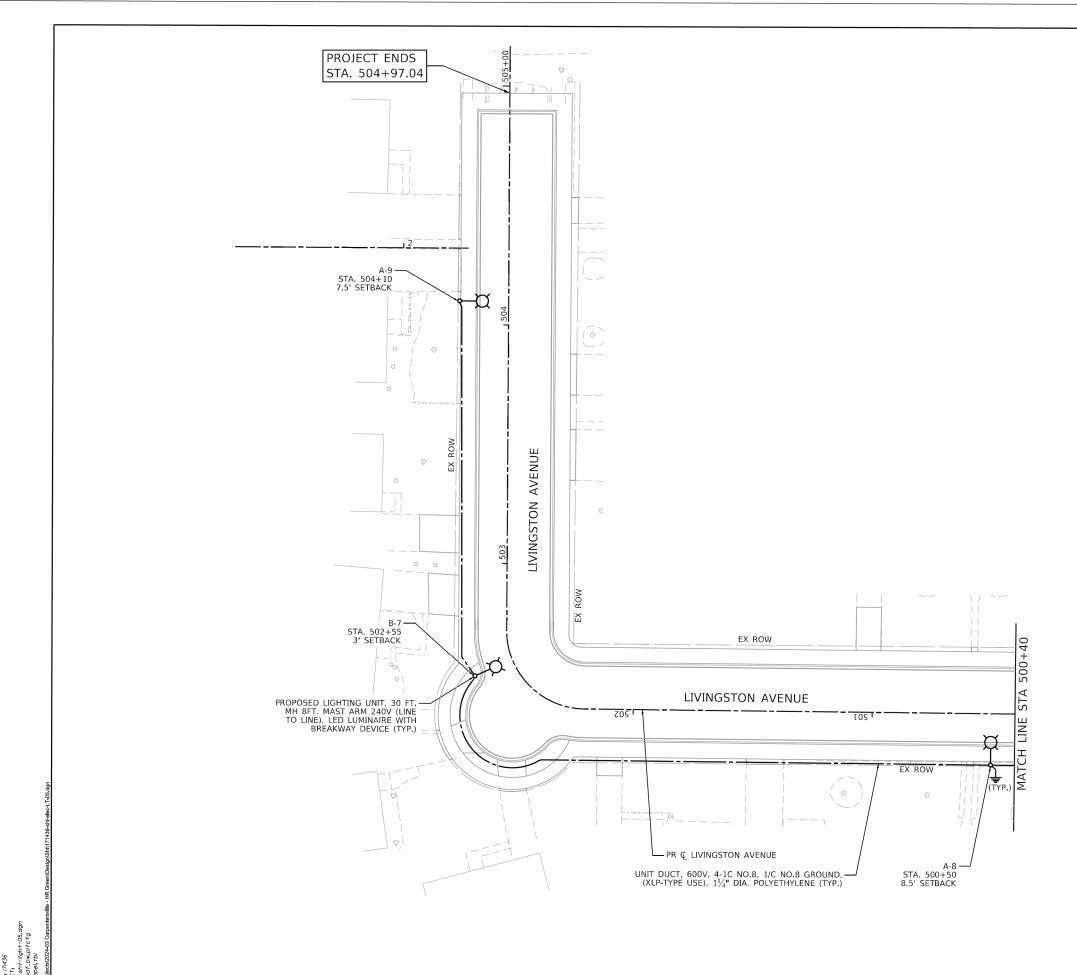
AMES Engineering, In CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516

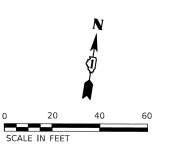
VILLAGE OF CARPENTERSVILLE

PROPOSED LIGHTING PLAN
OLD TOWN - BROOK STREET

SCALE: 1"=20' SHEET 2 OF 4 SHEETS STA. 300+50

TO STA, 309+76,47





## **NOTES:**

- 1. FOR GENERAL NOTES, LEGEND AND BILL OF MATERIALS SEE SHEET LT-01.
- 2. SETBACK IS FROM FACE OF CURB TO CENTER OF POLE.

LT-05

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Bellmont Road, Suite 4B
Downers Grove, IL 60616

	USER NAME = mdetche	DESIGNED -	MH	REVISED -	XX/XX/XXXX
•		DRAWN -	SR	REVISED -	XX/XX/XXXX
-	PLOT SCALE = 40.2091'/in.	CHECKED -	BL	REVISED -	XX/XX/XXXX
	PLOT DATE = 6/5/2024	DATE -	05-31-2024	REVISED -	XX/XX/XXXX

VILLAGE OF CARPENTERSVILLE

	PROPOSED LIGHTING PLAN									
	OLD	TOWN	-	LIVINGS	TON	AVENUE				
יי	SHEET 4	OF	1	CHEETC	CT/	504±07.04	TO STA	E00+40		

AMES Engineering, Inc. CONSULTING ENGINEERS
6330 Belmont Road, Sulte 4B
Downers Grove, IL 60516

DESIGNED - MH USER NAME = mdeltche REVISED - XX/XX/XXXX DRAWN - SR REVISED - XX/XX/XXXX PLOT SCALE = 100,0000'/in. CHECKED - BL REVISED - XX/XX/XXXX PLOT DATE = 6/5/2024 REVISED - XX/XX/XXX DATE - 05-31-2024

CHARLES ST.

**VILLAGE OF CARPENTERSVILLE** 

A-3 D

B-2

CALIFORNIA AVE.

SINGLE LINE WIRING DIAGRAM OLD TOWN SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA.

TO STA

COUNTY TOTAL SHEET NO.

KANE 103 58 SECTION CONTRACT NO.

LOAD TABLE LIGHTING CONTROLLER "LC" 120/240V AC, 1 PHASE, 3 WIRE, 100A

(	ON RE	D WIRE			ON	BLACK WIRE	
CIRCUIT	TOTAL LUM.	TOTAL CURRENT IN AMPS	TOTAL WATTAGE	CIRCUIT TOTAL LUM.		TOTAL CURRENT IN AMPS	TOTAL WATTAGE
А	10	2.7	580	В	7	1.9	406
С	-	-	-	D	-	-	
Е	-	-	-	F	-	-	i
G	-	-	-	Н	-	-	-
TOTAL	10	2.7	580	TOTAL	7	1.9	406

TOTAL LOAD IN WATTS 986 TOTAL LOAD IN AMPS 4,59

A-10 **├─**◯

B-5

<u>LIVINGSTON AVE.</u>

# **LEGEND**

PROPOSED LUMINAIRE, LED, 240V, 0.27A,



PROPOSED LUMINAIRE, LED, 240V, 0.27A, 58W, 1Ø , ON BLACK WIRE



UNIT DUCT, 600V, 4-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE),  $1\frac{1}{4}$ " DIA. POLYETHYLENE



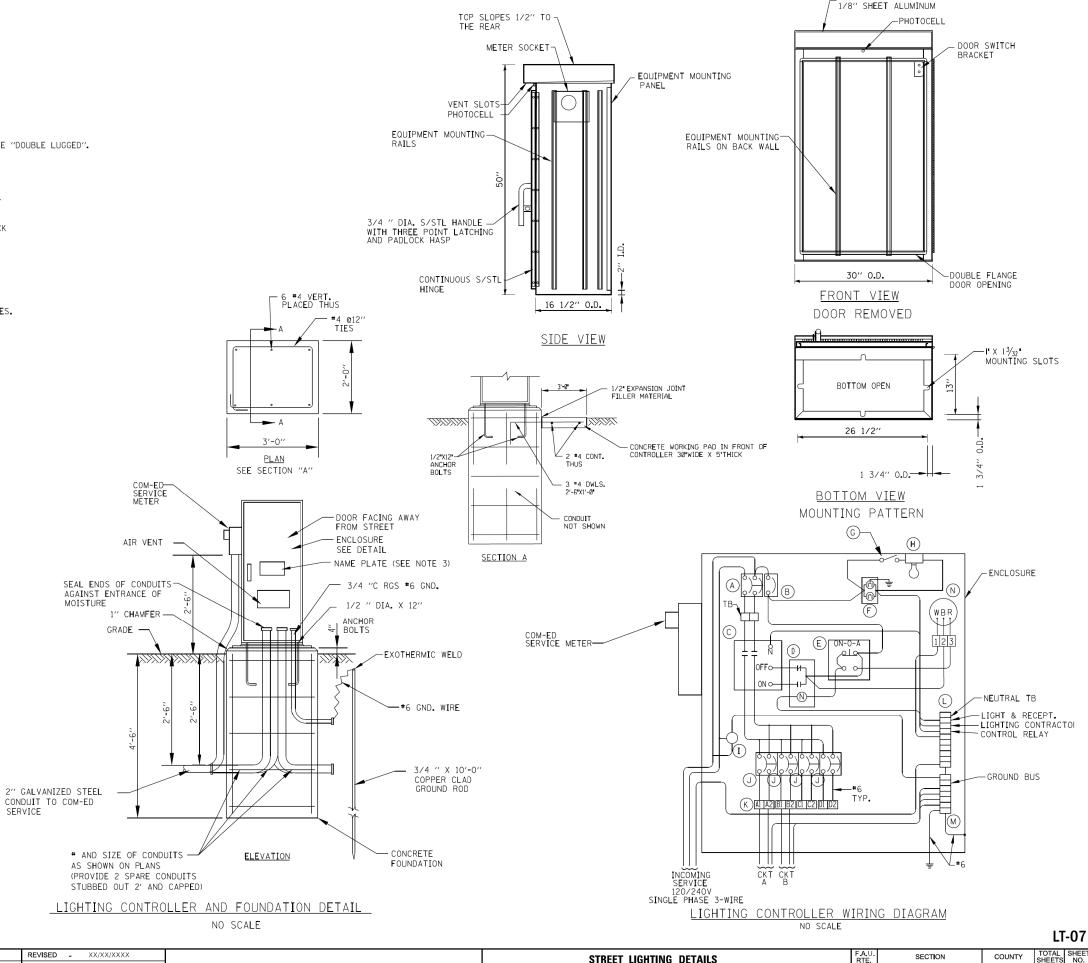
PROPOSED LIGHTING CONTROLLER "LC", 120/240V, 1 Ø, 3 WIRE, 100 AMP, BASE MOUNTED

# LT-06

NOTES

- CABINET SHALL BE FABRICATED FROM 0.125-INCH SHEET ALUMINUM #3003H14, FORMED AND ARC WELDED ASSEMBLY WITH NEMA 3R RATING.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
- 3. NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH HIGH LETTERS FILLED IN BLACK; "STREET LIGHTING".
- 4. CONNECTION OF SURGE ARRESTOR TO LINE SIDE OF MAIN CIRCUIT BREAKER SHALL NOT BE "DOUBLE LUGGED".
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508, AND SHOULD BE SERVICE ENTRANCE RATED.
- METAL MOUNTING PANEL SHALL BE #10 GAUGE GALVANIZED SHEET STEEL FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- 8. CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH THICK GLASTIC INSULATION BACK PANEL.
- 9. ALL DEVICES SHALL BE FRONT REMOVABLE.
- 10. BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. NEUTRAL BUS SHALL BE PAINTED WHITE. GROUND BUS SHALL BE PAINTED GREEN.
- 11. ALL LUGS SHALL BE COPPER SCREWS AND CONNECTORS, SPRING HELD.
- 12. ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- 13. ALL CONTROL WIRING SHALL BE 600V MACHINE TOOL WIRE TYPE MTW.
- 14. ALL POWER WIRING SHALL BE 600V TYPE RHH-/RHW.
- 15. A LAMINATED COPY OF THE CIRCUIT SCHEMATIC DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER.
- 16. ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12 AWG STRANDED UNLESS OTHERWISE INDICATED.
- 17. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ITEM	QTY.	DESCRIPTION
А	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 240 V. SINGLE-PHASE, 100A., BOLT-ON TYPE,TRIP INTERRUPTING RATING OF 22,000 RMS SYMMETRICAL AMPERES AT 240 V.
В	1	BRANCH CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC 1-POLE, 120 V., 20A, BOLT-ON TYPE, TRIP INTERRUPTING RATING OF 10,000 RMS SYMETRICAL AMPERES AT 120 V.
С	1	LIGHTING CONTACTOR MECHANICALLY HELD, CUTLER HAMMER A202K3B*M 100A. 2-POLE, 600 V. WITH 120V COIL.
D	1	CONTROL RELAY CUTLER HAMMER D3PR2 RATED 12 A. AT 120 VAC
E	1	ON-OFF-AUTO 3-POSITION SELECTOR SWITCH GE CRIO4P HEAVY DUTY SWITCH, RATED FOR 10 A. AT 600 VAC.
F	1	GFCI RECEPTACLE, 120 V., 20 A. SPEC. GRADE, NEMA CONFIG. 5-20R.
G	1	SPDT MOMENTARY NORMALLY OPEN, NORMALLY CLOSED PUSH BUTTON SWITCH CUTLER HAMMER 84F1063 RATED 15 A. AT 120 V.
Н	1	60 WATT LIGHT FIXTURE, VAPOR TIGHT, WITH GLOBE, GUARD AND MOUNTING BOX.
I	1	SECONDARY SURGE ARRESTER SQUARE D SDSA1175, 175 VAC PHASE-TO-GROUND MAXIMUM.
J	6	BRANCH CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 240 V. SINGLE-PHASE, 30A. TRIP INTERRUPTING RATING 10,000 RMS SYMMETRICAL AMPERES AT 240 V.
К	8	TERMINAL BLOCK RATED 600 V., 85 A.
L	1	COPPER NEUTRAL BUS.
М	1	COPPER GROUND BUS.
N	1	PHOTOCELL-120V, BUTTON STYLE, DELAY TYPE, SPST



AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Sulte 4B
Downers Grove, IL 60516

VILLAGE OF CARPENTERSVILLE

CABINET CONSTRUCTED FROM

UTILITY POLE, PRIMARY CUT-OUTS TRANSFORMER(S) (AS APPLICABLE) BY THE ELECTRIC UTILITY. THE CONTRACTOR SHALL COORDINATE AS REQUIRED. 0 0 0 PROVIDE ADEQUATE SLACK FOR DRIP LOOP AND CONNECTION ASCERTAIN AND BY THE UTILITY ASSURE CLEARANCE FROM UTILITY SECONDARY SPACE, NON-METALLIC "U" GUARD. AS APPLICABLE. FURNISH FOR INSTALLATION UTILITY GROUND CONNECTION, BY ELECTRIC UTILITY. LENGTH (AS APPLICABLE), BY UTILITY AS REQUIRED UTILITY GROUND, AS APPLICABLE, (BY UTILITY) -CONDUIT/CONDUCTOR SEALING BUSHING, SIZE AND CONDUCTOR CONFIGURATION TO MATCH SERVICE. OZ GEDNEY TYPE CSBG OR APPROVED EQUAL, COMPLETE WITH LOCKING COLLAR (SEE DETAIL) 2-HOLE STRAP FOR RIGID CONDUIT, ZINC PLATED STEEL O.Z. GEDNEY TYPE TH-1800 OR APPROVED EQUAL. ATTACHED WITH LAG SCREWS. (TYPICAL) APPROXIMATELY 10'-6" (3.2 m) RIGID STEEL CONDUIT RISER (CONTINUOUS 10' (3 m) LENGTH). HEAVY DUTY GROUND CLAMP, UNIVERSAL U-CLAMP TYPE, BY O.Z. GEDNEY, T&B OR APPROVED EQUAL. RIGID GALVANIZED THREADED COUPLING. -PVC-COATED RIGID CONDUIT NIPPLE OR CONDUIT EXTENSION, LENGTH AS REQUIRED APPROX. 6" (150 mm) GRADE-EXOTHERMIC WELD CONNECTION PVC COATED RIGID CONDUIT ELBOW 30" MIN - 36" MAX (762.0 mm MIN. - 914.0 mm MAX.) 24" (609.6 mm) RADIUS (MIN.) TO TOP OF CONDUIT SEE NOTE 3. EXTENSION TO SERVICE EQUIPMENT -HORIZONTIAL ELECTRIC SERVICE CONDUCTOR RACEWAY (SEE NOTE 6) THREADED TRANSITION COUPLING, AS APPLICABLE (SEE NOTE 6) GROUNDING ELECTRODE CONDUCTOR, BARE COPPER, #1/O AWG. MINIMUM GROUND ROD SHALL BE INSTALLED NOT LESS THAN 24" (609 mm) FROM POLE UNLESS APPROVED BY THE ENGINEER UTILITY GROUNDING ELECTRODE (AS APPLICABLE), BY UTILITY CUSTOMER SERVICE RISER GROUND ELECTRODE 5%'' X 10' (15.875 mm X 3.048 m) COPPERCLAD GROUND ROD (IN UNDISTURBED SOIL) SEE NOTE 5.

REVISED - XX/XX/XXXX

REVISED - XX/XX/XXX

REVISED - XX/XX/XXXX

REVISED - XX/XX/XXXX

DESIGNED - MH

DRAWN - SR

CHECKED - BL

- 05-31-2024

USER NAME = mdeltche

PLOT SCALE = 0.1667 ' / In

PLOT DATE = 6/5/2024

AMES Engineering, Inc.

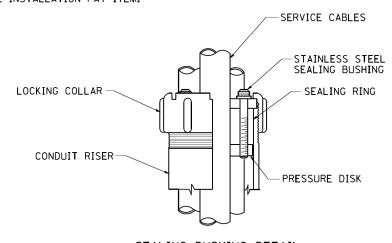
Downers Grove, IL 60516

#### APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

#### NOTES

- 1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- 2. UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
- 3. CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
- 4. PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- 5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- 6. THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- 7. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.



SEALING BUSHING DETAIL

TO STA

LT-08

103 60

COUNTY

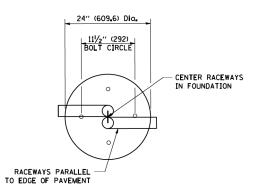
**VILLAGE OF CARPENTERSVILLE** 

**ELECTRIC SERVICE INSTALLATION AERIAL, REMOTE DISCONNECT** SHEETS STA. SCALE:

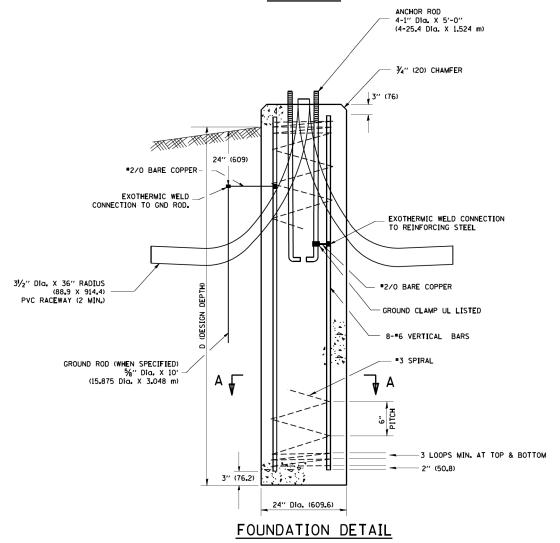
SECTION KANE CONTRACT NO. ILLINOIS FED. AID PROJECT

### LIGHT POLE FOUNDATION DEPTH TABLE 30 FT. (9.144 m) TO 35 FT. (10.668 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "	" OF FOUNDATION
SOIL CONDITIONS	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY	11'-0"	12'-8"
Ou = 0.375 TON/SO. FT.	(3 <b>₄</b> 35 m)	(3 <b>₄</b> 85 <b>m</b> )
MEDIUM CLAY	9'-0"	14'-10''
Ou = 0.75 TON/S0.FT	(2,74 m)	(4 <b>.</b> 52 m)
STIFF CLAY	7′-6″	8'-7"
Ou = 1.50 TON/SQ. FT.	(2 <b>,</b> 29 m)	(2 <b>.</b> 61 m)
LOOSE SAND	9′-6″	10'-7"
Ø = 34°	(2.90 m)	(3 <b>.</b> 22 m)
MEDIUM SAND	9'-0"	9'-10"
Ø = 37.5°	(2.74 m)	(2 <b>.</b> 99 m)
DENSE SAND	8'-3"	9'-7"
Ø = 40°	(2.51 m)	(2.91 m)



## TOP VIEW



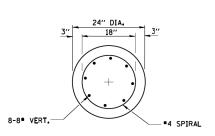
## <u>NOTES</u>

- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- 2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
- 3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. (100 mm) 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.
- 4. 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.
- 5. 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).
- 6. THE CONCRETE SHALL BE CLASS SI. 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.
- 8. 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.
- 9. 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 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC
- 10. 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.
- 11. ANCHOR RODS SHALL PROJECT 23/4" (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.
- 12. 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.
- 13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- 14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

# GROUND LINE

FOUNDATION EXTENSION DETAIL

60" (1500)



SECTION A-A

AMES Engineering, Inc. Downers Grove, IL 60516

6" (152-4)

5%" T. X 4" DIA. WASHER, TACK WELDED

DIA.

5" (127.0)

TOP OF ANCHOR ROD

4" (100) MAX.

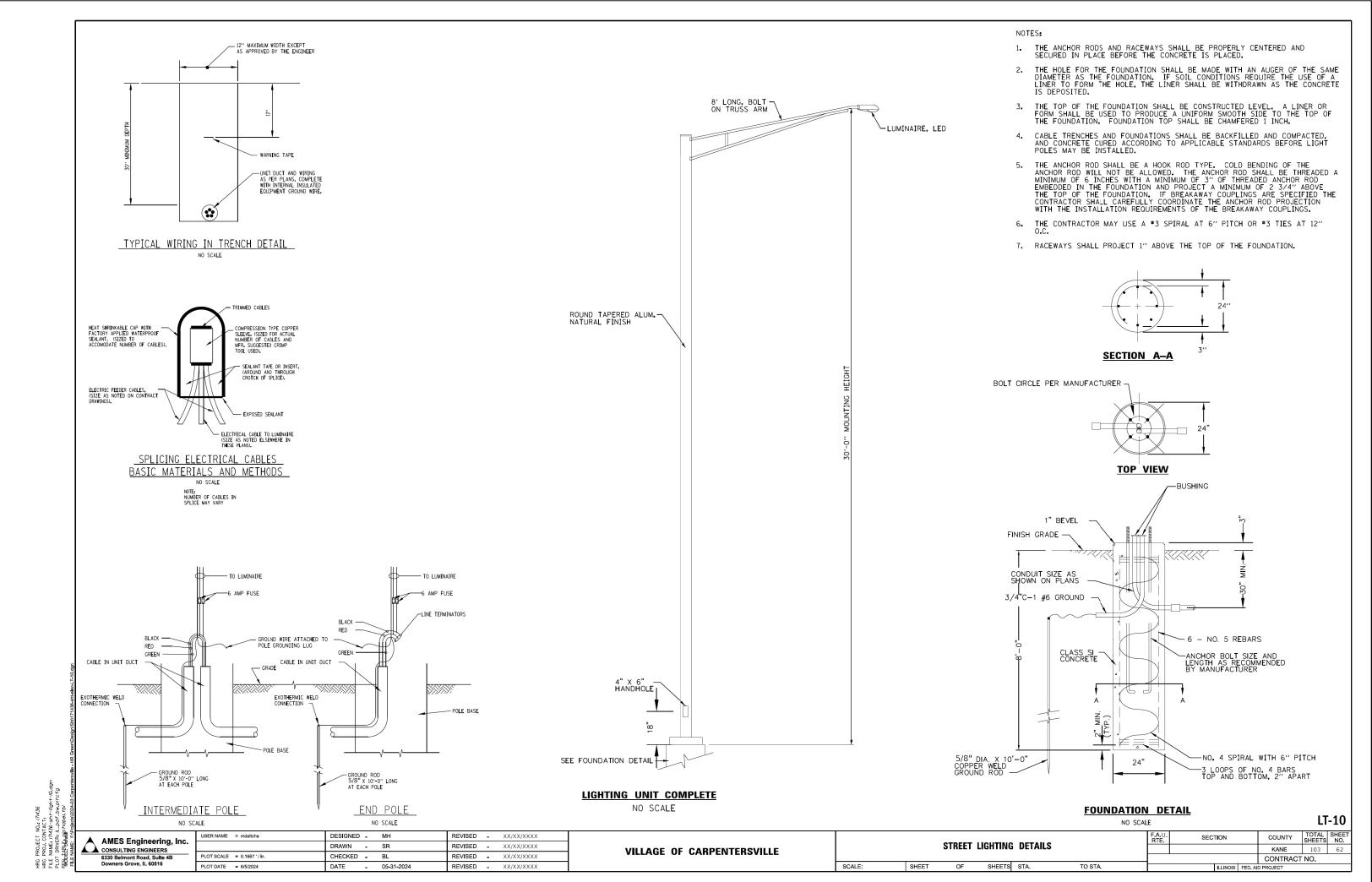
ANCHOR BOLT DETAIL

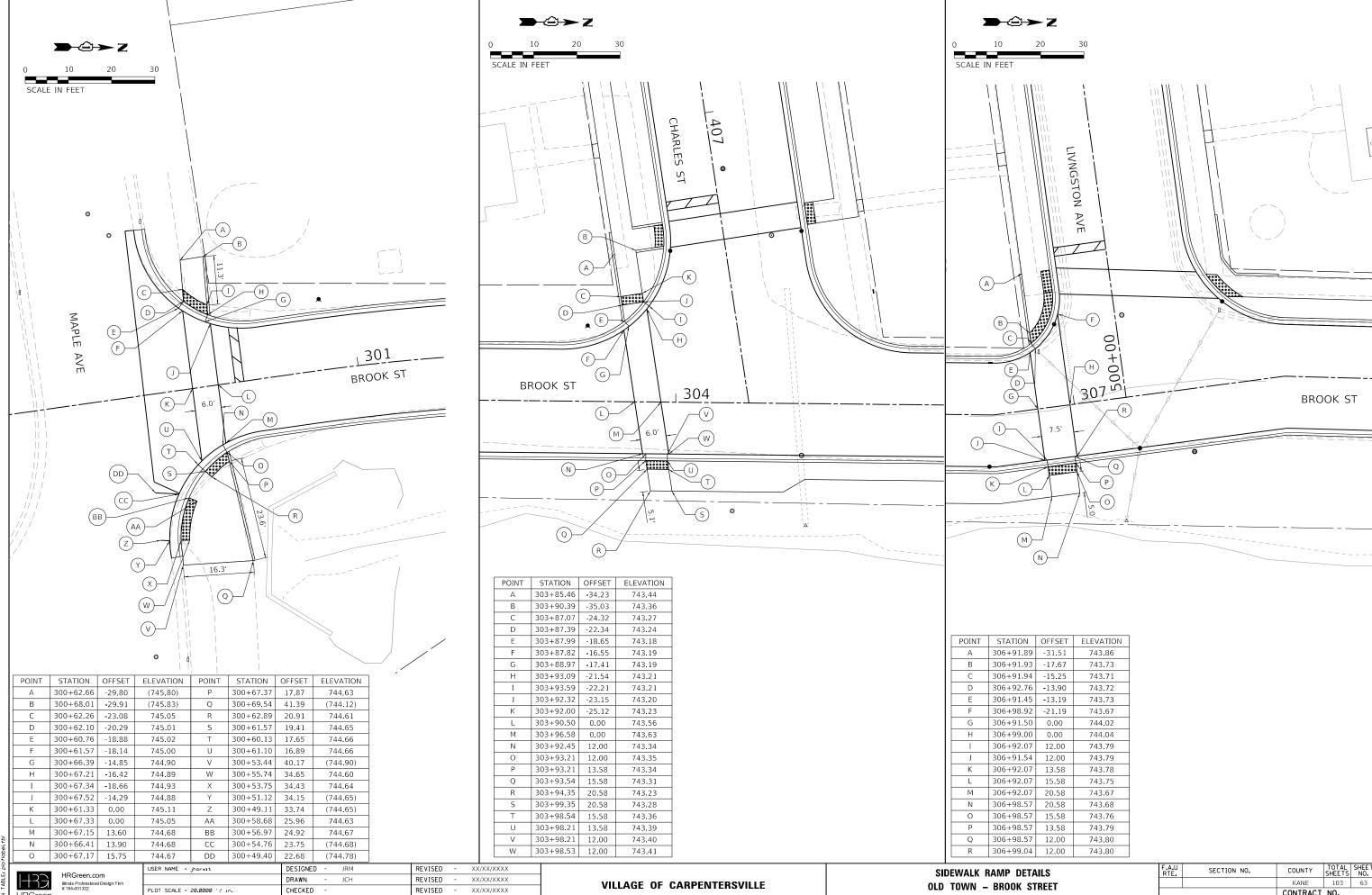
	USER NAME = mdeltche	DESIGNED	-	MH	REVISED	-	XX/XX/XXXX
		DRAWN	-	SR	REVISED	-	XX/XX/XXXX
٠	PLOT SCALE = 0.1669'/ln.	CHECKED	-	BL	REVISED	-	XX/XX/XXXX
	PLOT DATE = 6/5/2024	DATE	-	05-31-2024	REVISED	-	XX/XX/XXXX

		LIGHT I	POLE FOU	NDATIO	N	F.A.U. RTE.	SECTION	T
'n	′ (9 144	m) TO 35'	(10 668 n	n) M H	11½" (292 mm)			T
_	(5.177	, 10 00	(10.000 1	.,	11/2 (232 11111)			Τ
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED	AID

LT-09

COUNTY KANE 103 30' CONTRACT NO. SCALE:

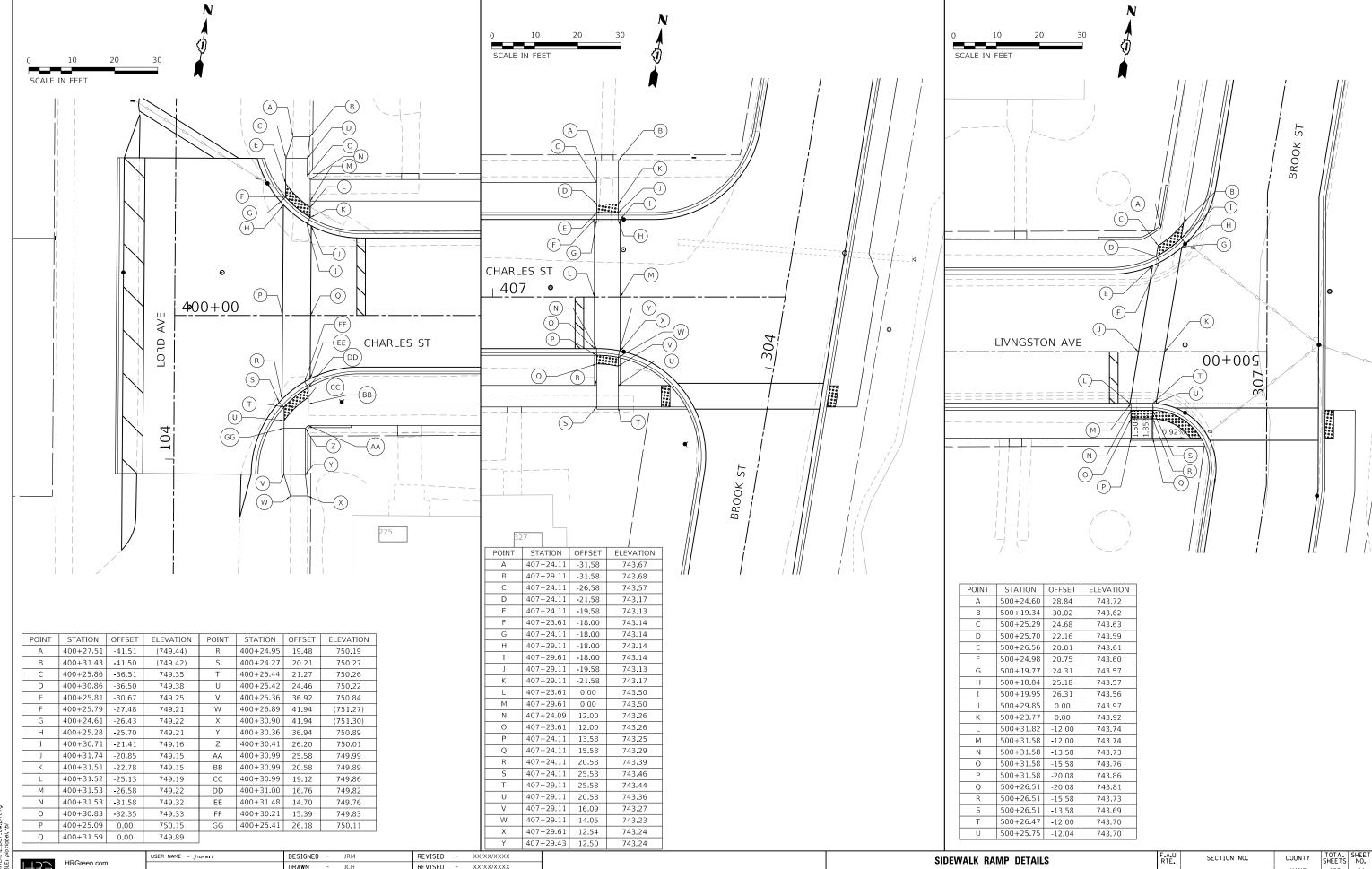




HRGreen.

CHECKED REVISED PLOT DATE = 6/7/2024 DATE REVISED - XX/XX/XXXX

CONTRACT NO. SCALE: 1"=10' SHEET 1 OF 3 SHEETS STA. TO STA.



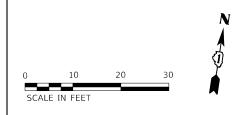
HRGreen

REVISED CHECKED REVISED PLOT DATE = 6/7/2024 DATE REVISED -

**VILLAGE OF CARPENTERSVILLE** 

OLD TOWN - CHARLES STREET AND LIVINGSTON AVENUE SCALE: 1"=10' SHEET 2 OF 3 SHEETS STA.

KANE 103 64 CONTRACT NO.



POINT	STATION	OFFSET	ELEVATION
А	403+33.70	-43.04	745.61
В	403+40.70	-43.05	745.51
С	403+31.62	-34.99	745.14
D	403+29.08	-31.58	745.11
Е	403+21.04	-31.58	745.78
F	403+21.04	-26.58	745.73
G	403+31.04	-26.58	745.01
Н	403+33.98	-26.58	744.97
I	403+35.11	-25.47	744.98
J	403+33.71	-24.15	744.97
K	403+39.55	-26.09	745.10
L	403+39.11	-30.81	745.01
М	403+39.78	-32.09	745.02
N	403+37.73	-31.58	745.00
0	403+37.73	-31.58	745.04
Р	403+54.51	-32.12	745.26
Q	403+54.48	-26.12	745.24

	E H D		AO P (AN)	AB AC AF AF AF AF	
	(CM)—	CN	• AR	404 day	
CHARLES ST	(CL)	CD	ВН	B) BK	
=	CA CB	BP BP	BG	o BM BA	
	(CK)	BO	BO	BC BB	<del></del>
	CI	CF	CALIFORNIA AVE	BD	

POINT	STATION	OFFSET	ELEVATION
AA	403+74.13	-43.09	745.39
AB	403+81.13	<b>-</b> 43.07	745.49
AC	403+83.21	-35.01	744.99
AD	403+85.75	-31.58	744.90
ΑE	403+85.75	-26.58	744.85
AF	403+95.75	-31.58	744.79
AG	403+95.75	-26.58	744.70
АН	403+85.75	-25.12	744.83
ΑI	403+85.75	-22.77	744.81
ΑJ	403+86.44	-20.61	744.81
AK	403+84.96	-21.40	744.82
AL	403+80.03	-25.17	744.85
AM	403+79.13	-26.10	744.85
AN	403+75.71	-30.83	744.89
AO	403+75.05	-32.10	744.89
AP	403+77.09	-31.60	744.88
AQ	403+79.42	-31.59	744.92
AR	403+82.16	0.00	745.21
AS	403+88.18	0.00	745.16

POINT	STATION	OFFSET	ELEVATION
BA	403+99.06	20.58	746.07
ВВ	403+99.06	25.58	746.15
ВС	403+89.12	20.58	745.23
BD	403+89.06	25.58	745.33
BE	403+84.21	25.58	745.44
BF	403+83.29	25.58	745.42
BG	403+79.59	24.81	745.39
ВН	403+80.97	25.58	745.38
BI	403+83.79	19.28	745.25
BJ	403+88.29	15.72	745.13
BK	403+89.45	15.05	745.10
BL	403+89.12	17.07	745.12
ВМ	403+89.12	17.07	745.16
BN	403+83.01	20.08	745.27
ВО	403+78.93	26.08	745.42
BP	403+58.62	20.06	745.52
BQ	403+58.55	26.06	745.70

POINT	STATION	OFFSET	ELEVATION
CA	403+32.71	20.58	745.82
СВ	403+35.40	20.58	745.80
CC	403+38.34	20.58	745.77
CD	403+39.47	19.47	745.78
CE	403+43.82	20.07	745.68
CF	403+43.47	24.81	745.76
CG	403+44.12	26.07	745.75
CH	403+42.09	25.58	745.74
CI	403+39.76	25.58	745.78
Cl	403+37.71	25.58	745.82
CK	403+32.71	25.58	745.92
CL	403+37.58	17.74	745.79
CM	403+35.94	0.00	745.86
CN	403+41.96	0.00	745.76

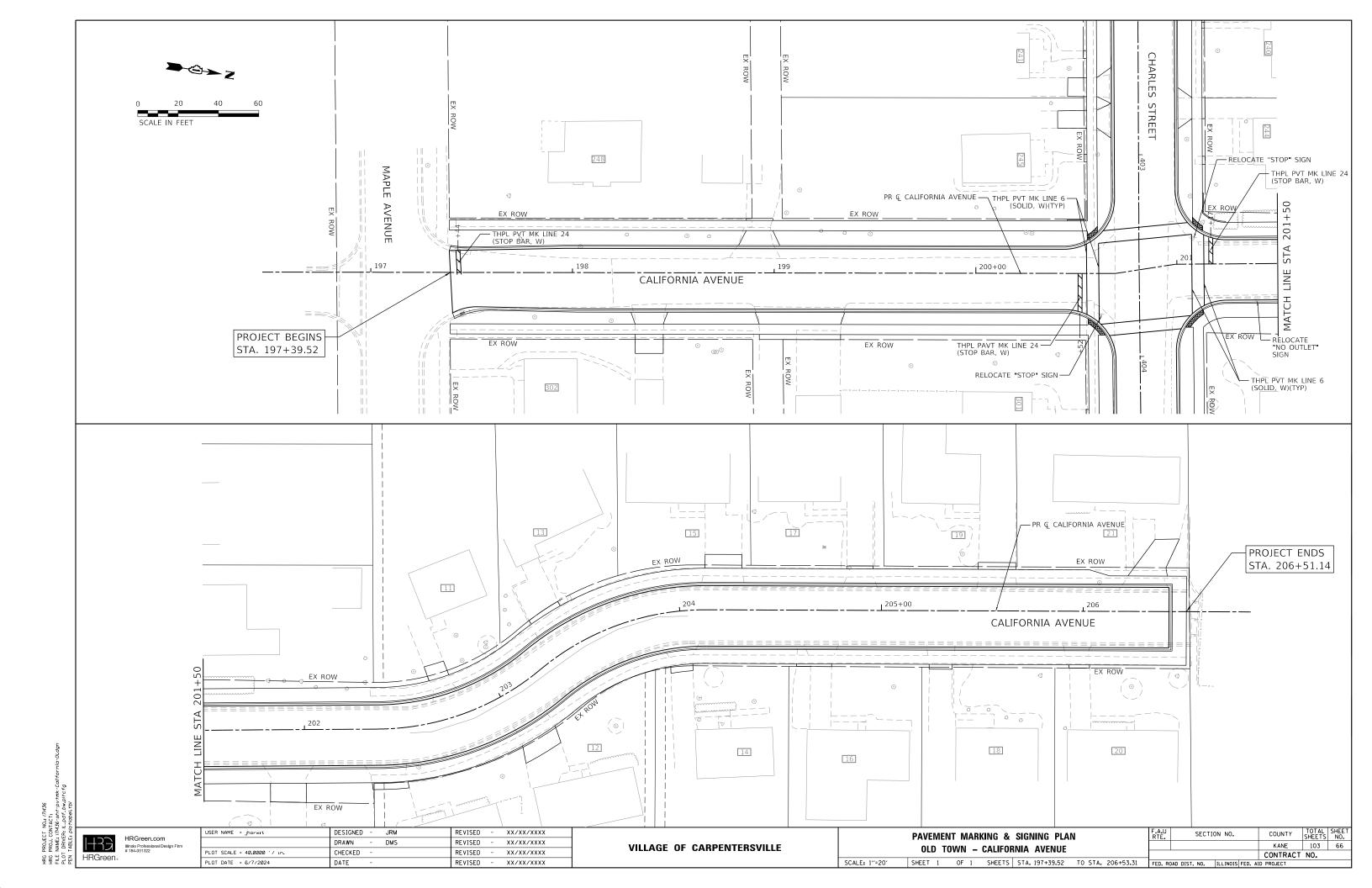
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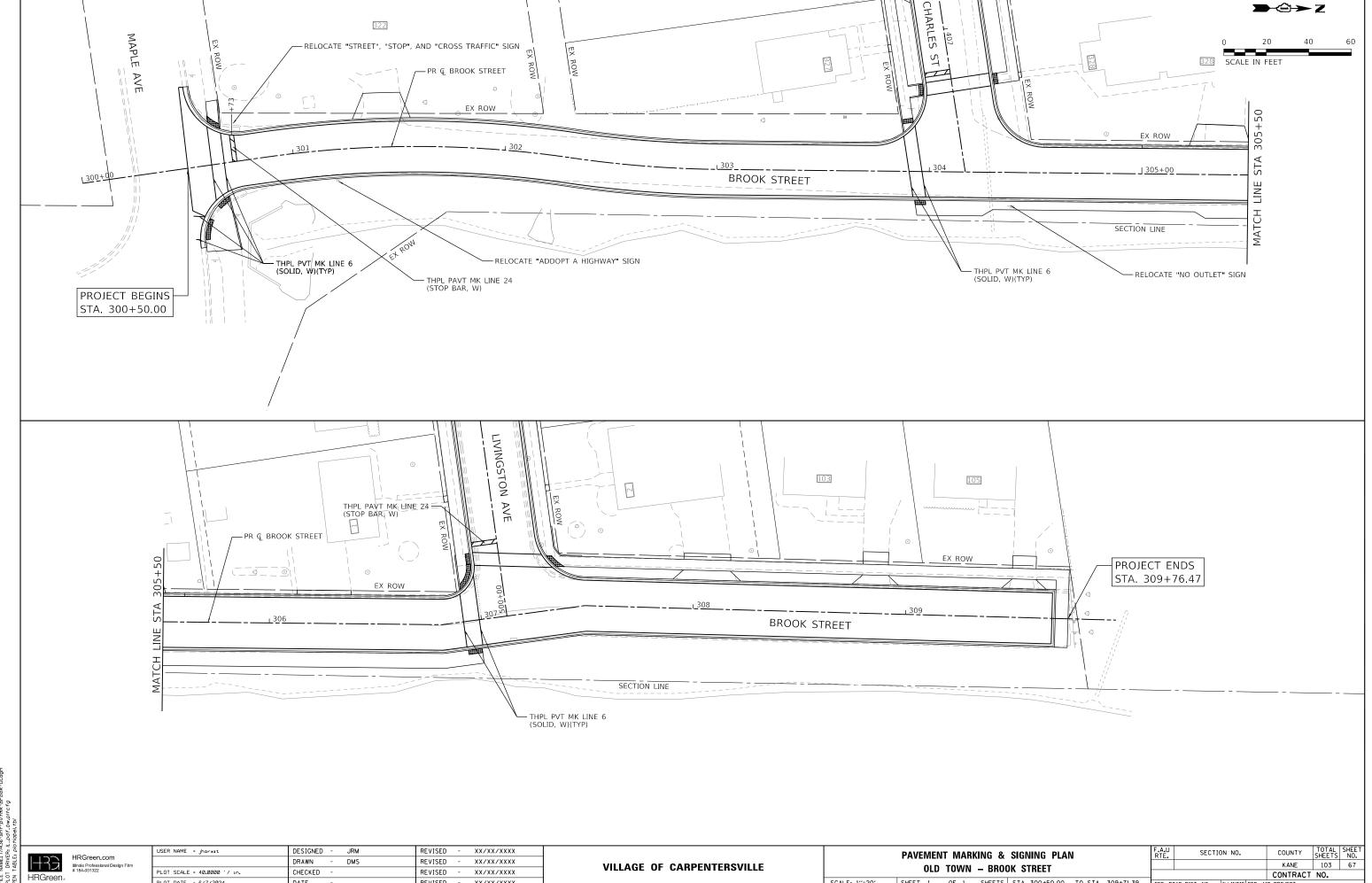
HRGreen.com
Illinois Professional Design Firm
# 184-001322

USER NAME = Jhorwit	DESIGNED - JRM	REVISED - XX/XX/XXXX
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PLOT SCALE = 20.0000 '/ in.	CHECKED -	REVISED - XX/XX/XXX
PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXX

VILLAGE	OF	CARPENTERSVILLE	
			CO.41 F

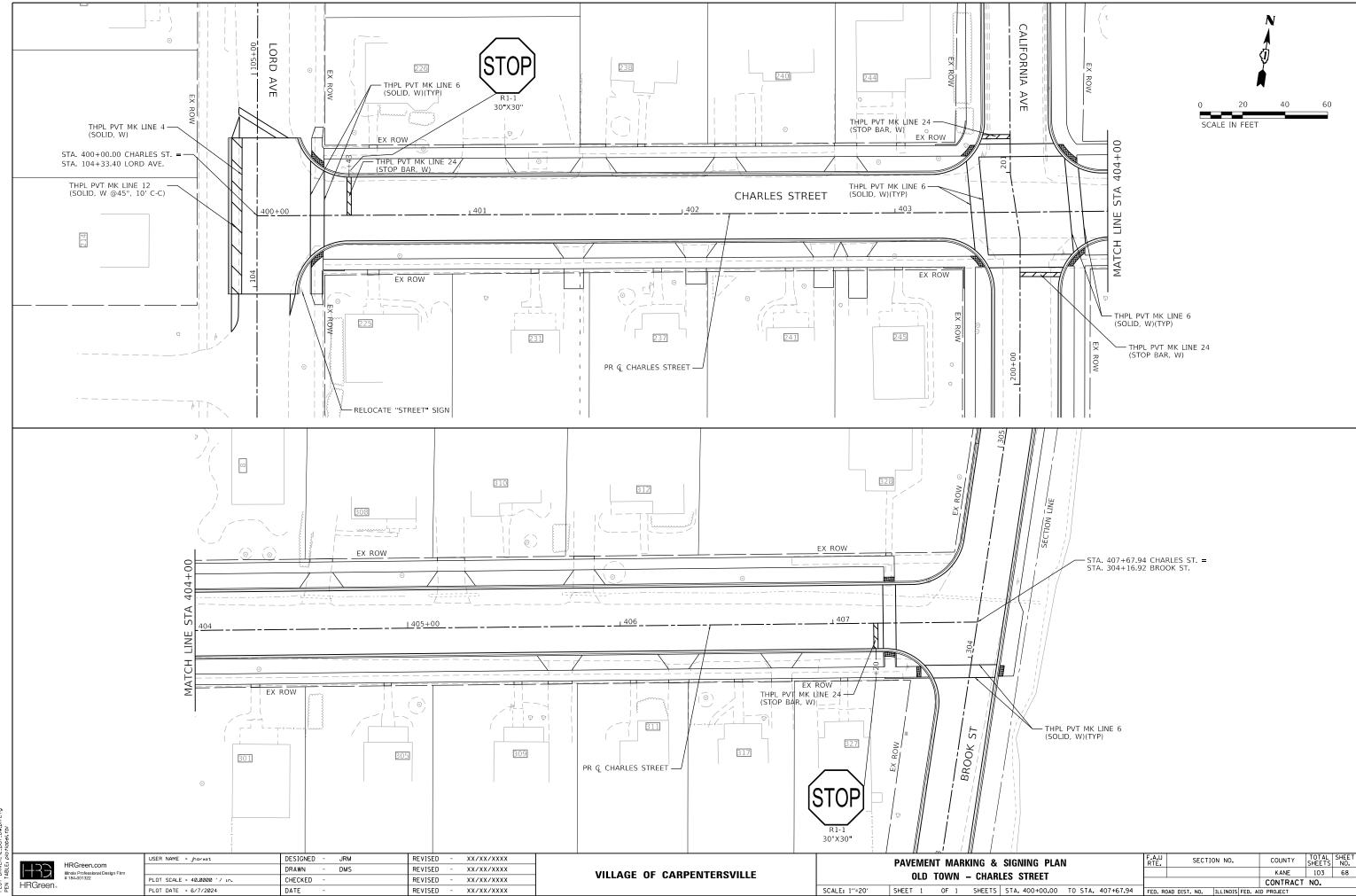
SIDEWALK RAMP DETAILS				SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
OLD TOWN - CHARL	EC CTREET AT CALIEORN	IA AVENIIE			KANE	103	65
OLD TOWN - CHARLES STREET AT CALIFORNIA AVENUE					CONTRACT	NO.	
=10' SHEET 3 OF	3 SHEETS STA.	TO STA.	FED. R	OAD DIST. NO.   ILLINOIS FED. AI	D PROJECT		

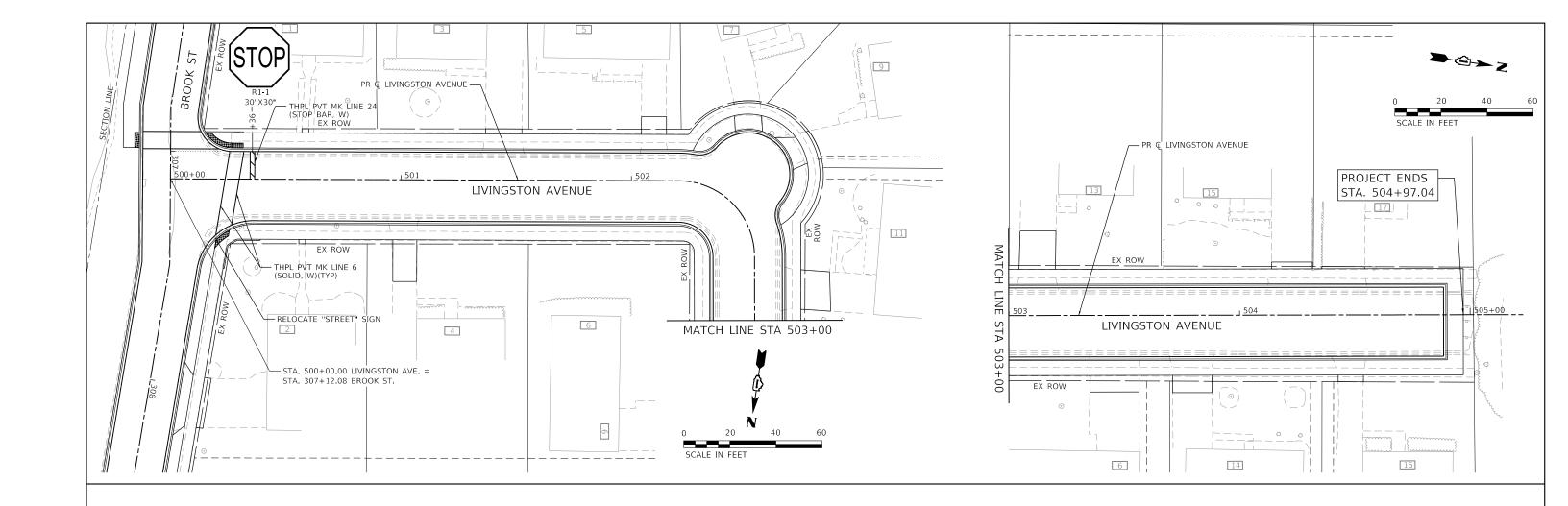




PLOT DATE = 6/7/2024 DATE REVISED -XX/XX/XXXX

SCALE: 1"=20" SHEET 1 OF 1 SHEETS STA. 300+50.00 TO STA. 309+71.39 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT





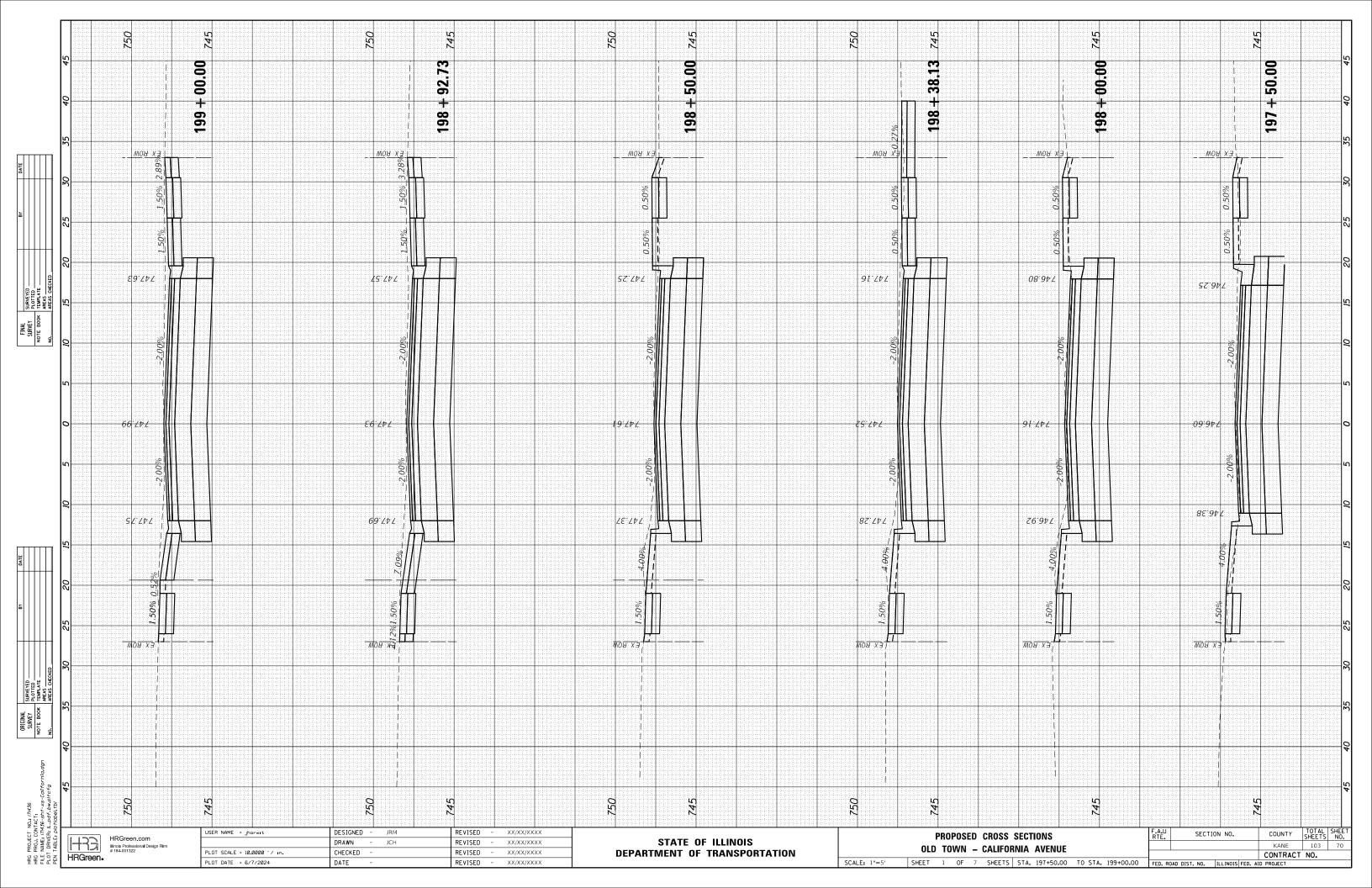
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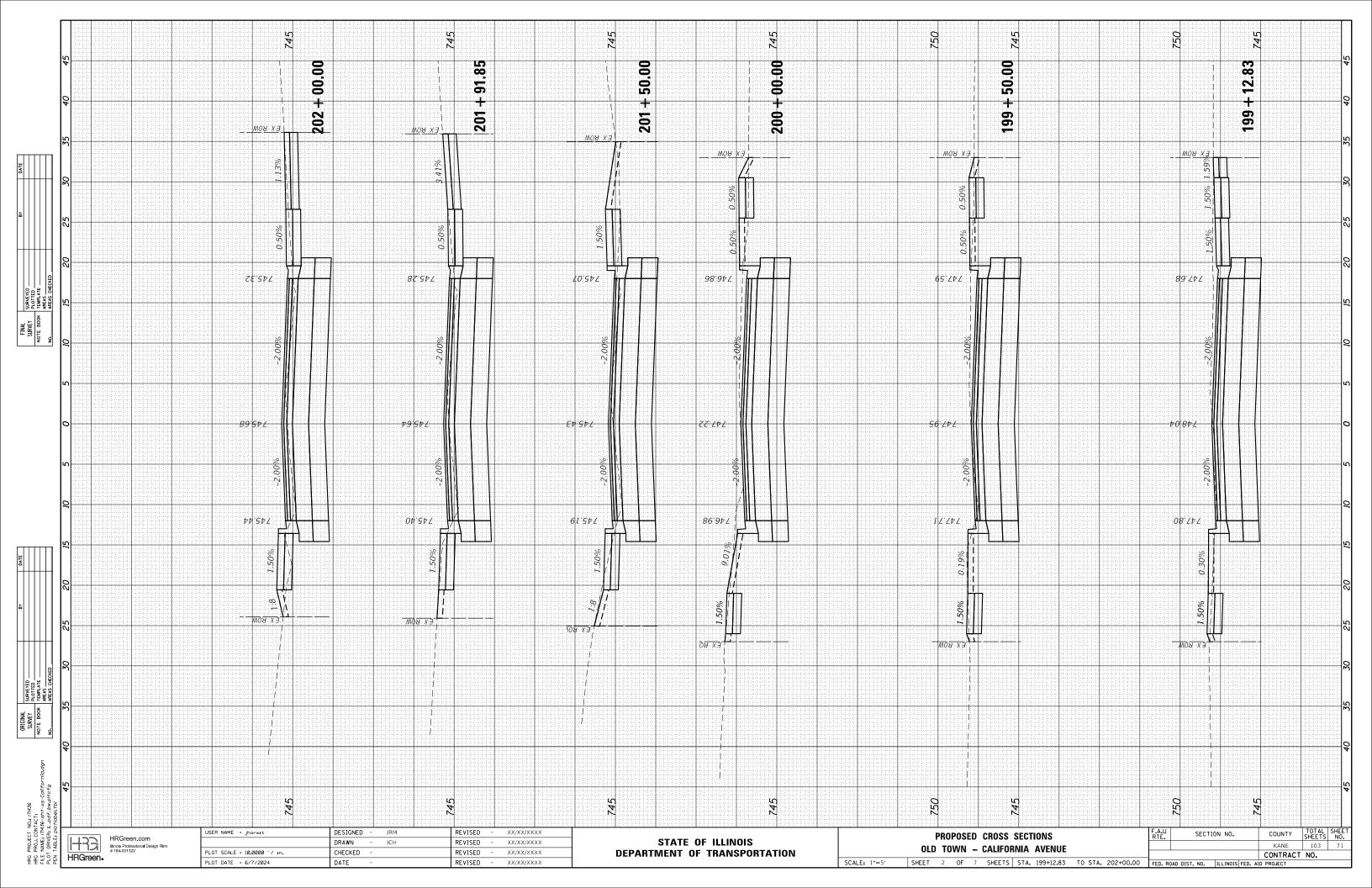
HRGreen.com
#illnots Professional Design Firm
#184-001322

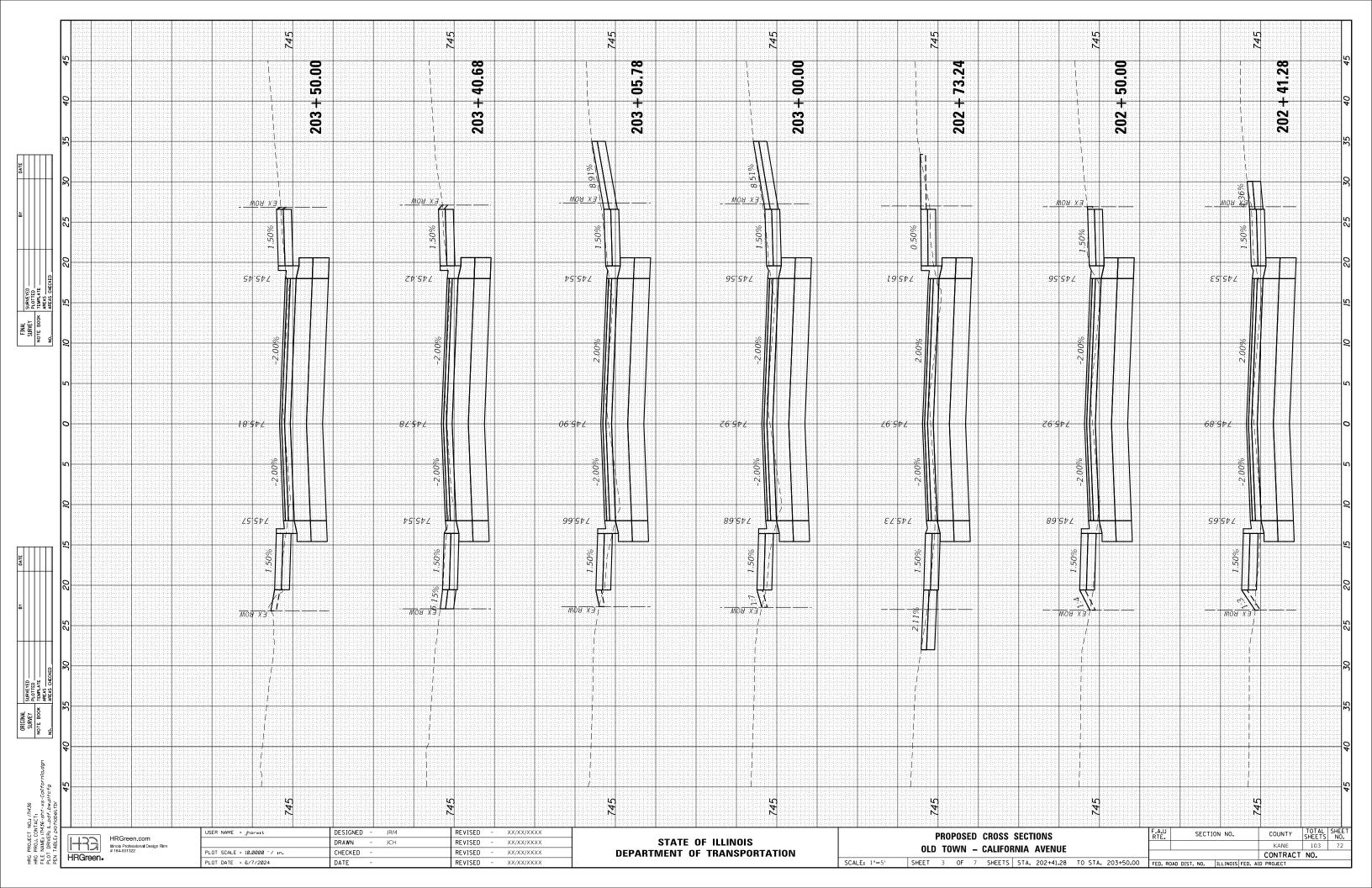
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PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXXX

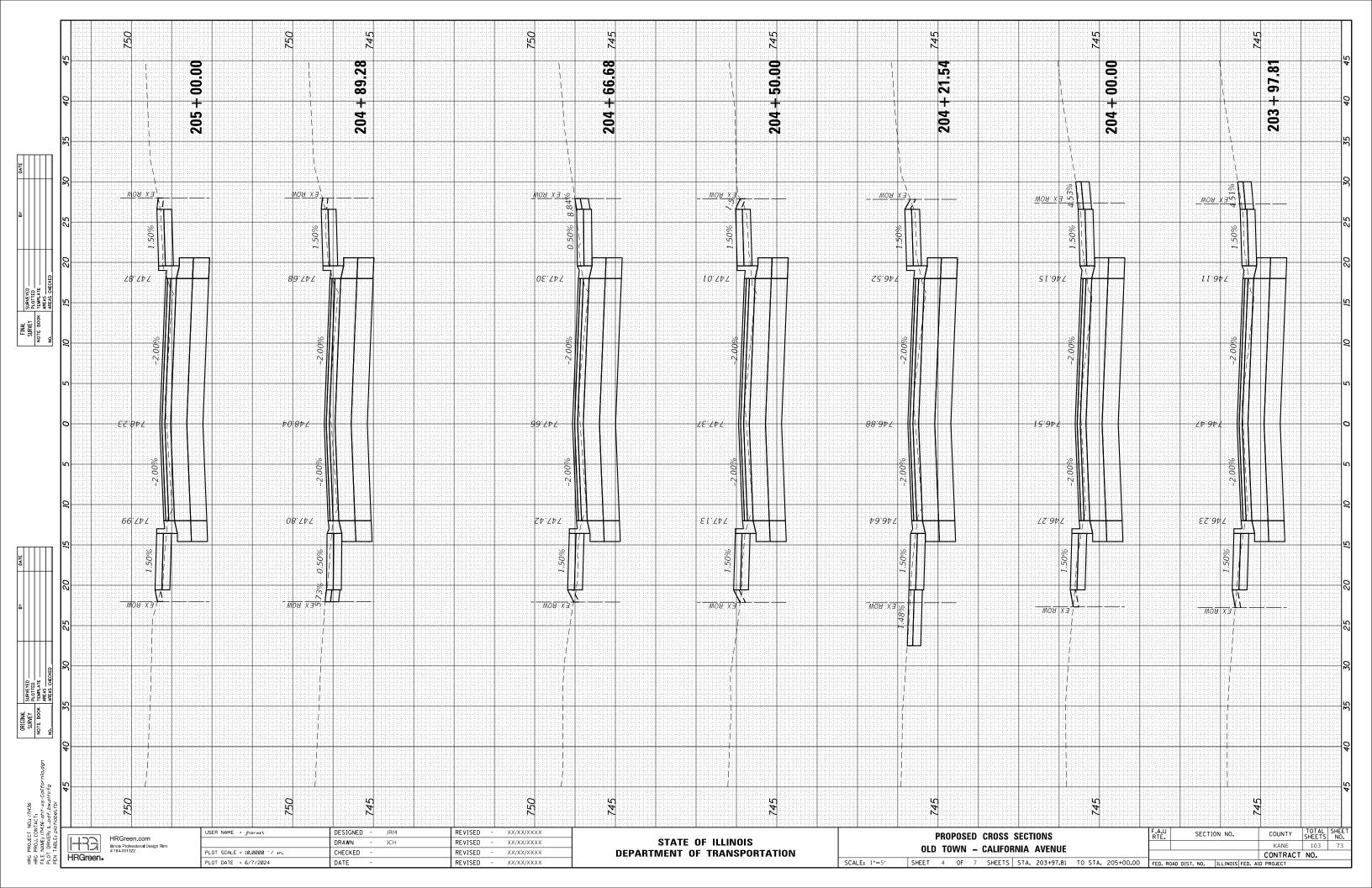
VILLAGE	OF	CARPENTERSVILLE

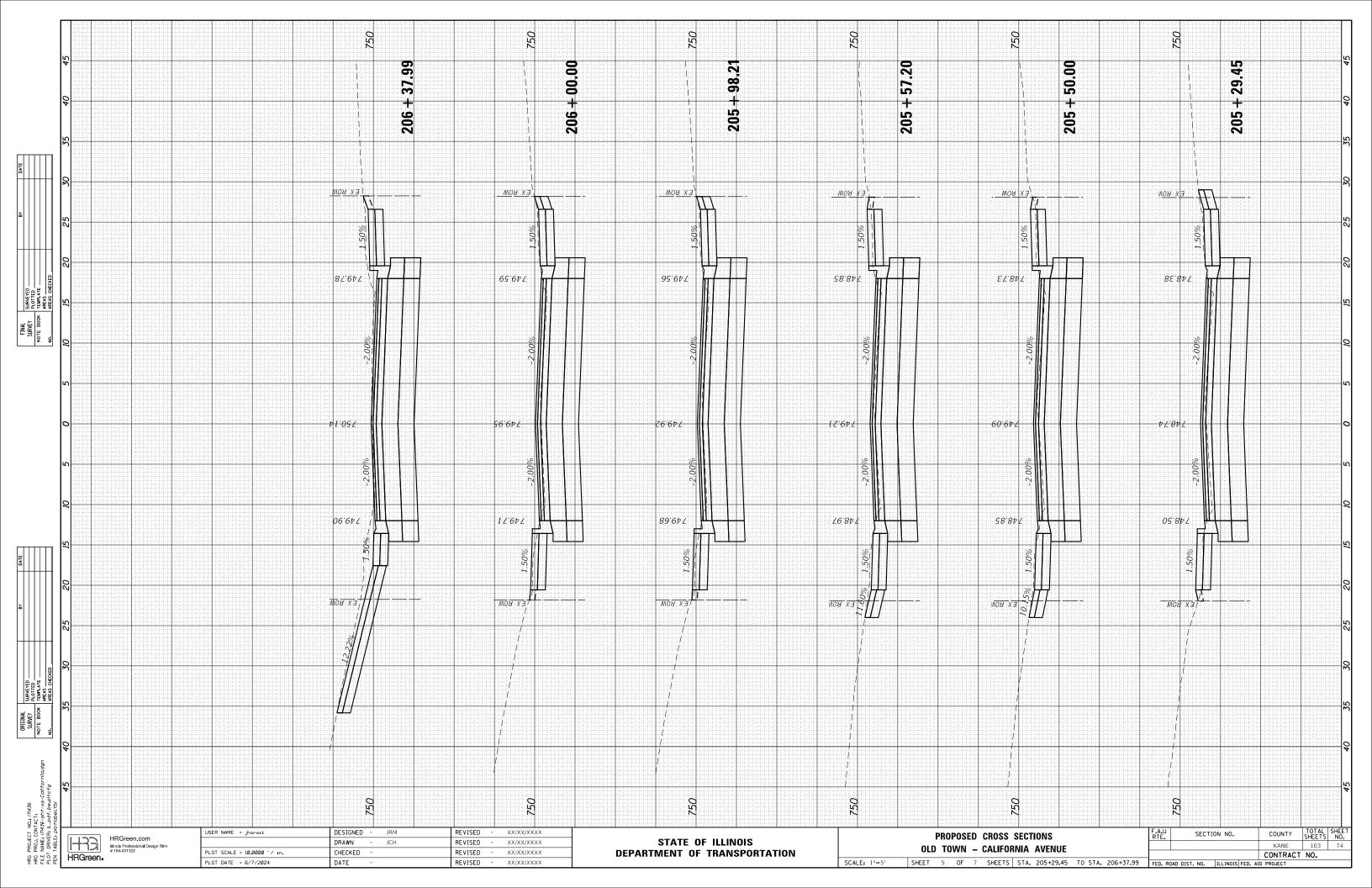
PAVEMENT MARKING & SIGNING PLAN	F.A.U RTE.	SECTIO	ON NO.	COUNTY	TOTAL SHEETS	SHEET NO.
OLD TOWN – LIVINGSTON AVENUE				KANE	103	69
				CONTRACT	NO.	
SCALE: 1"=20"   SHEET 1 OF 1 SHEETS   STA. 500+00.00 TO STA. 504+93.20	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

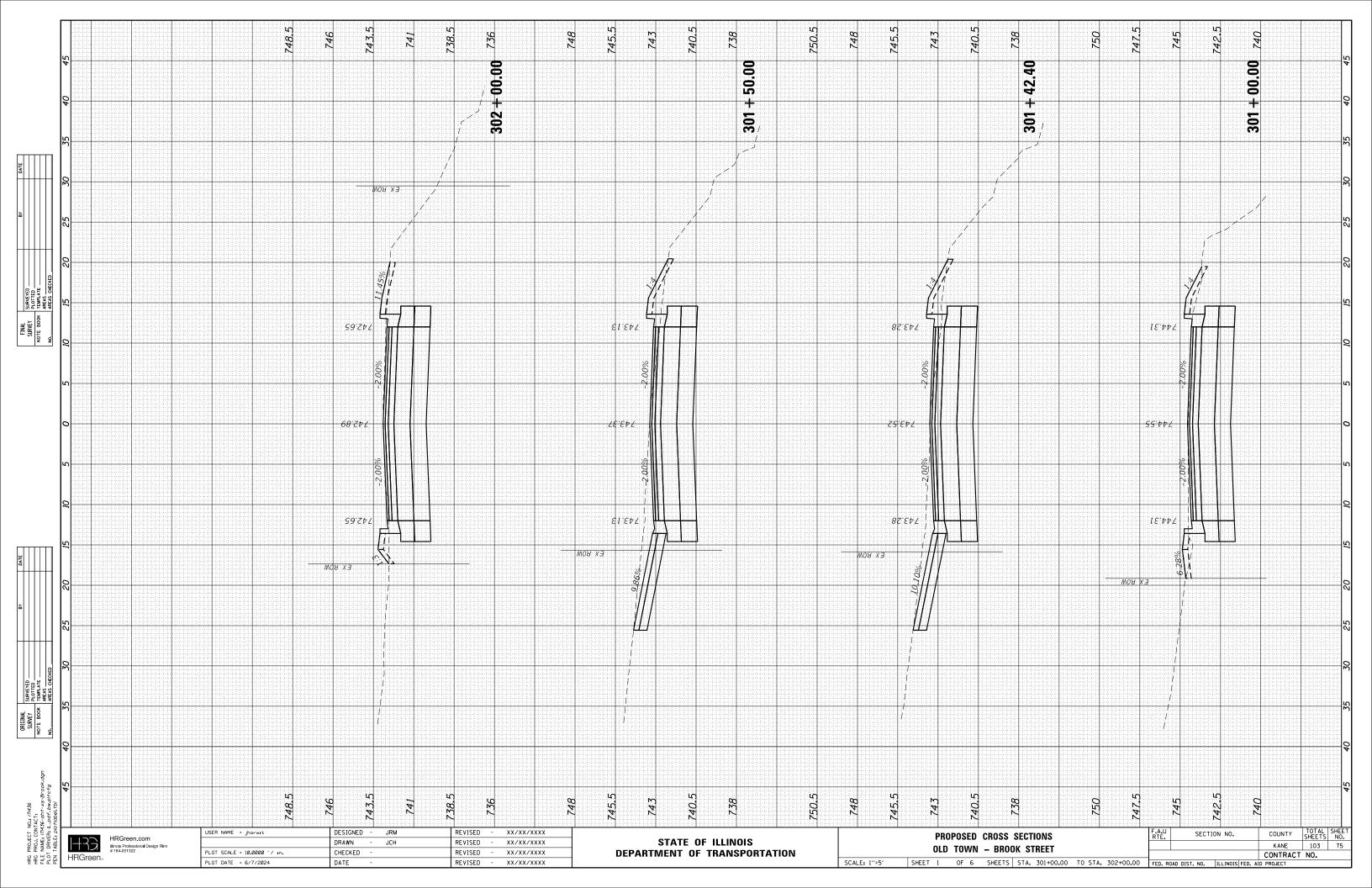


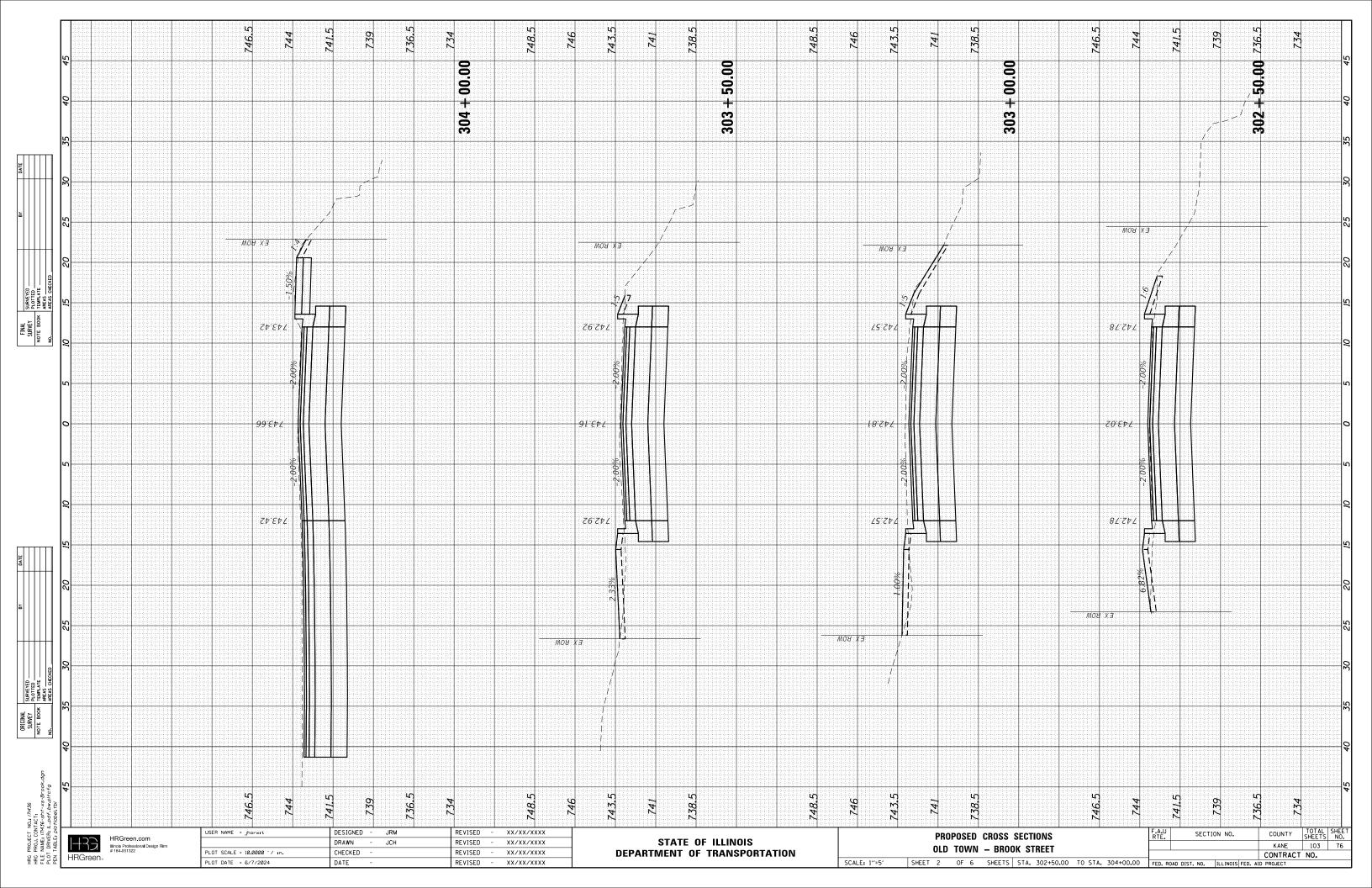


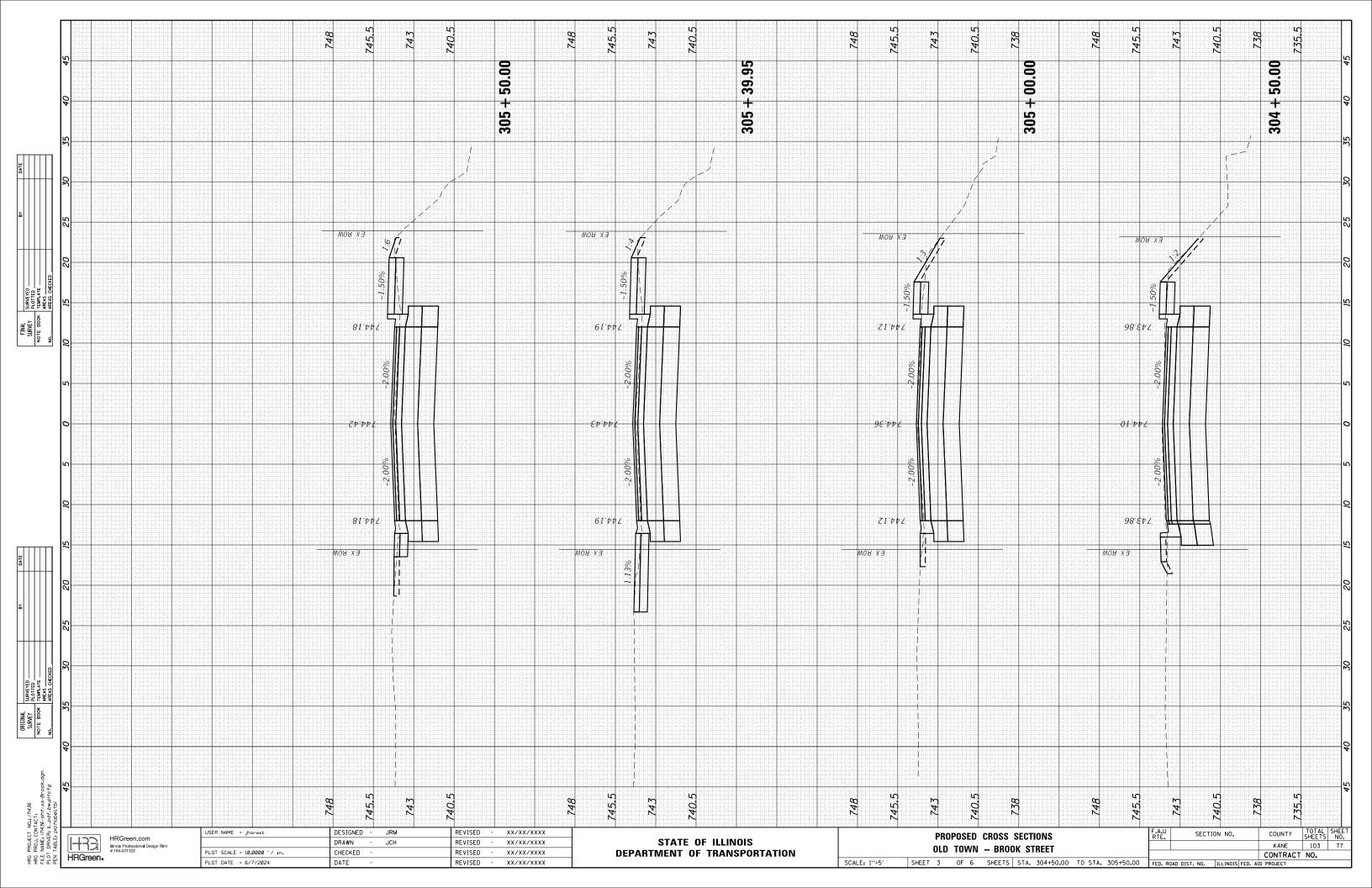


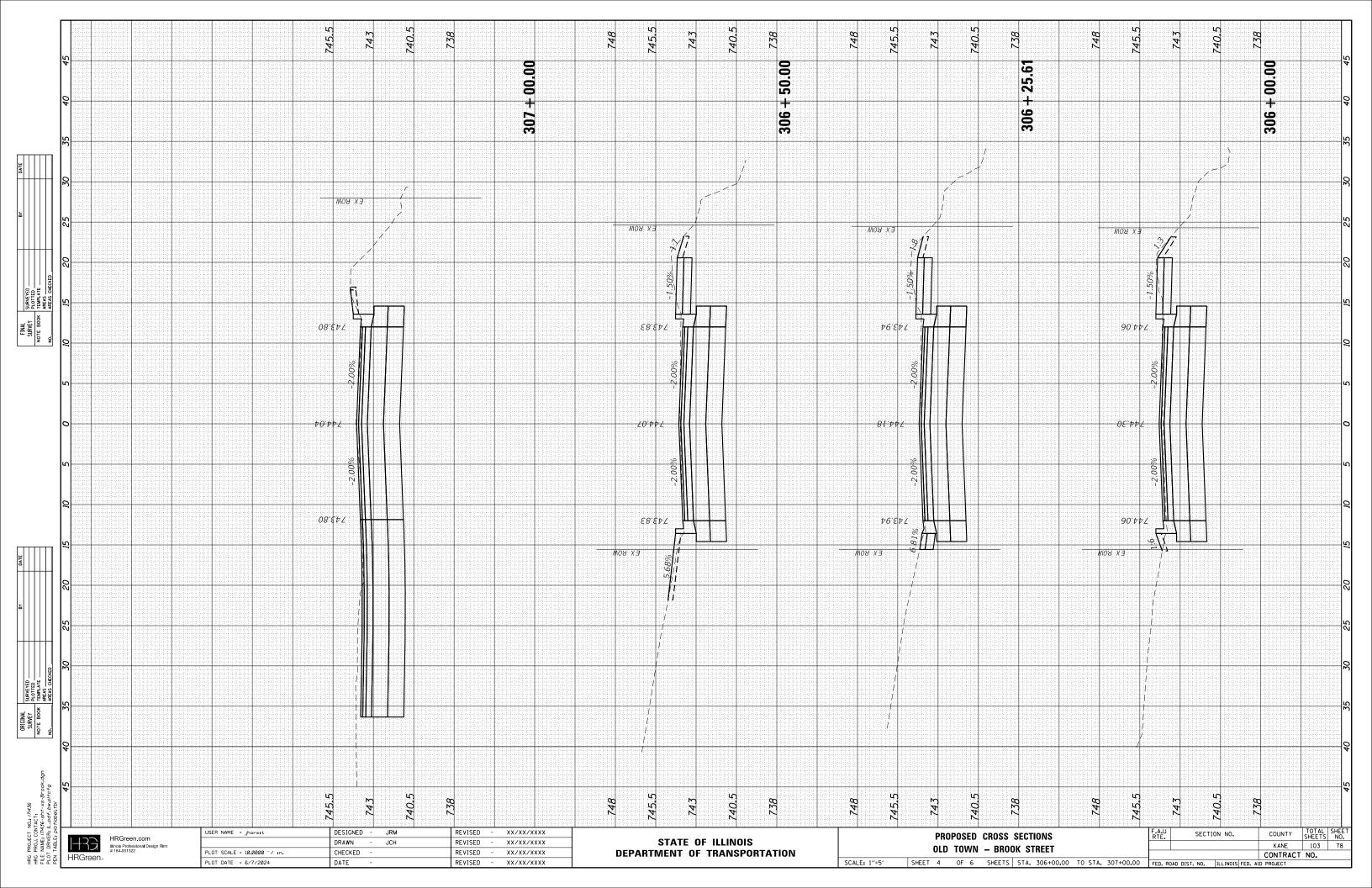


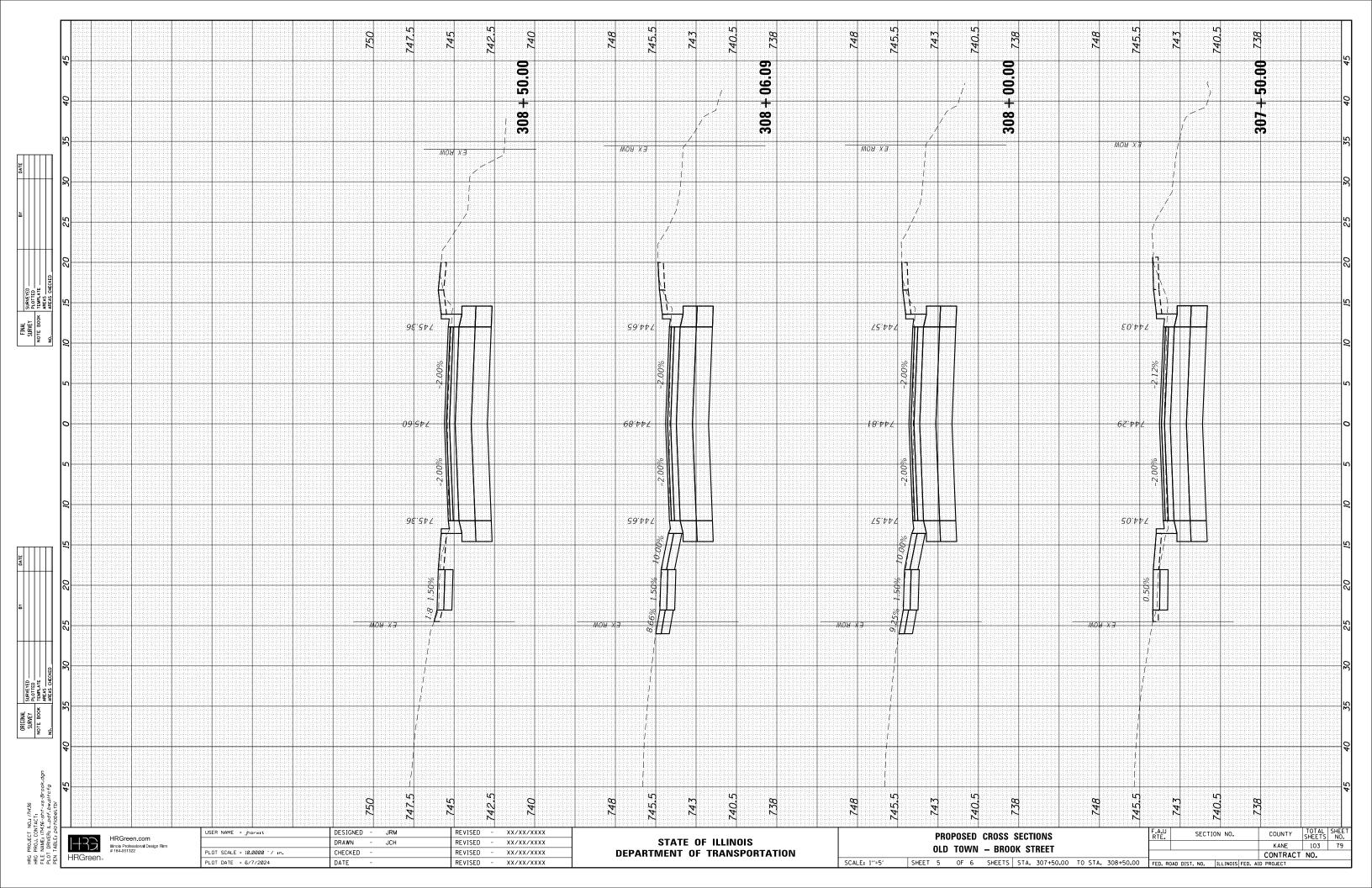


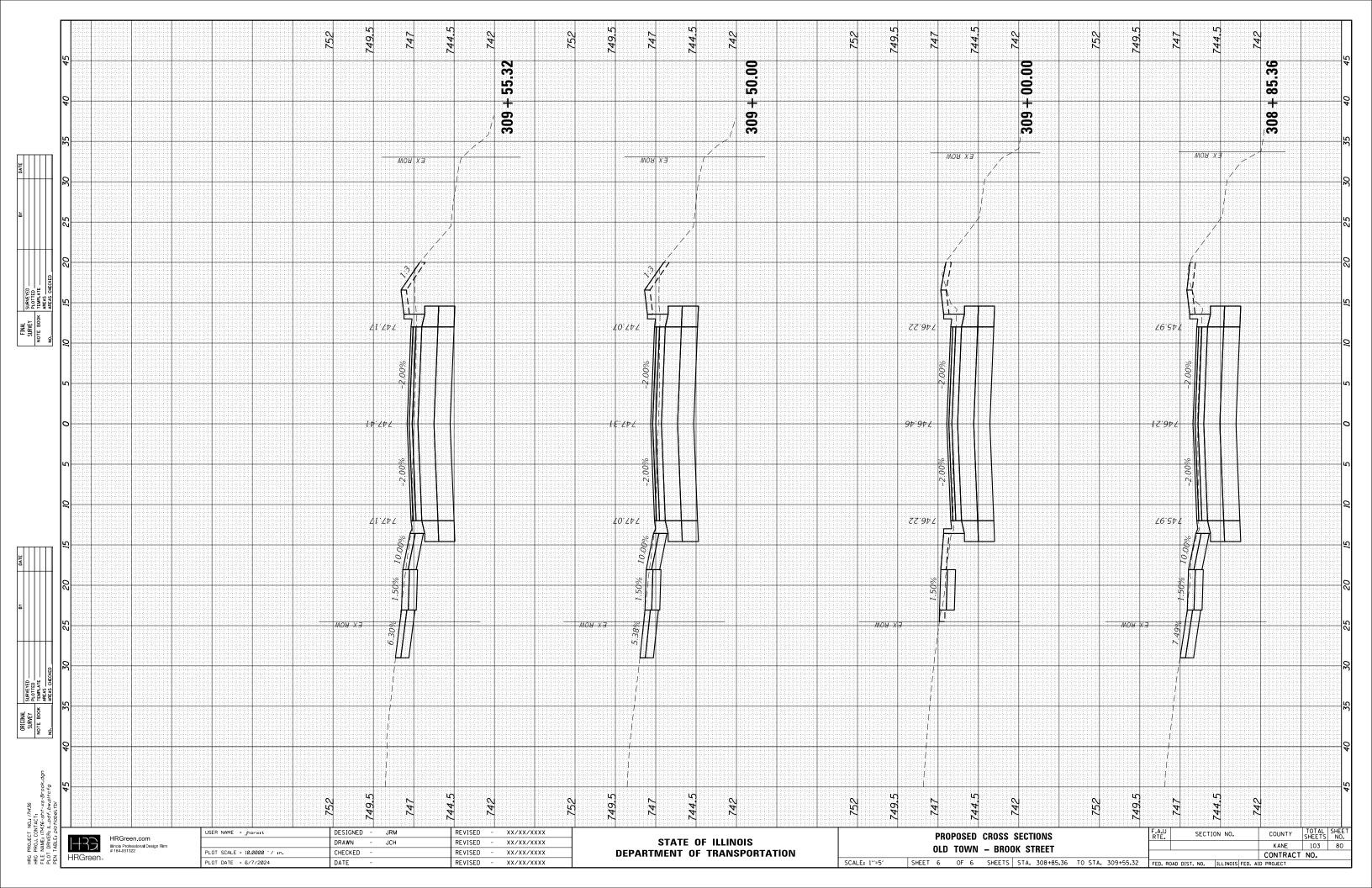


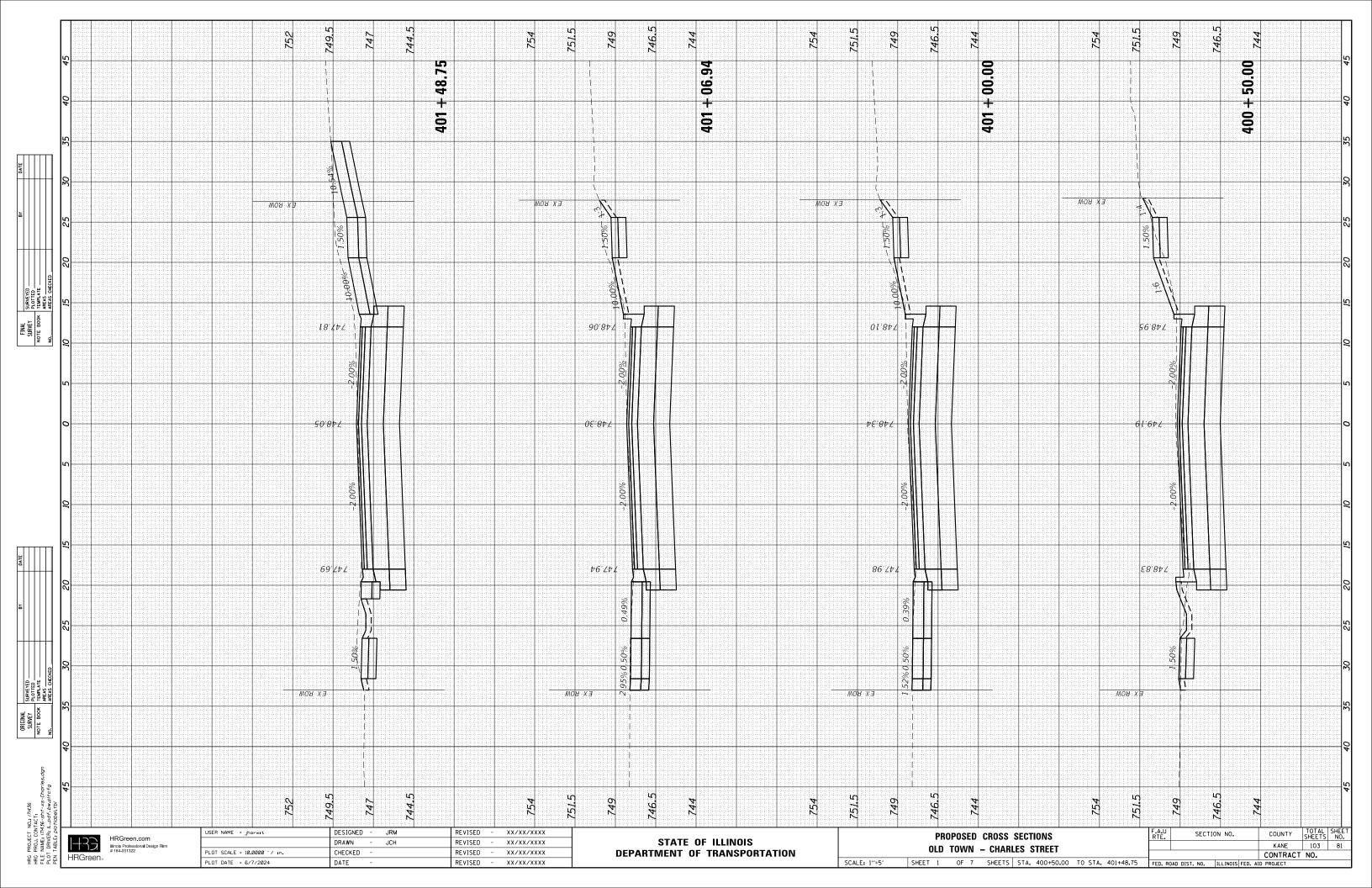


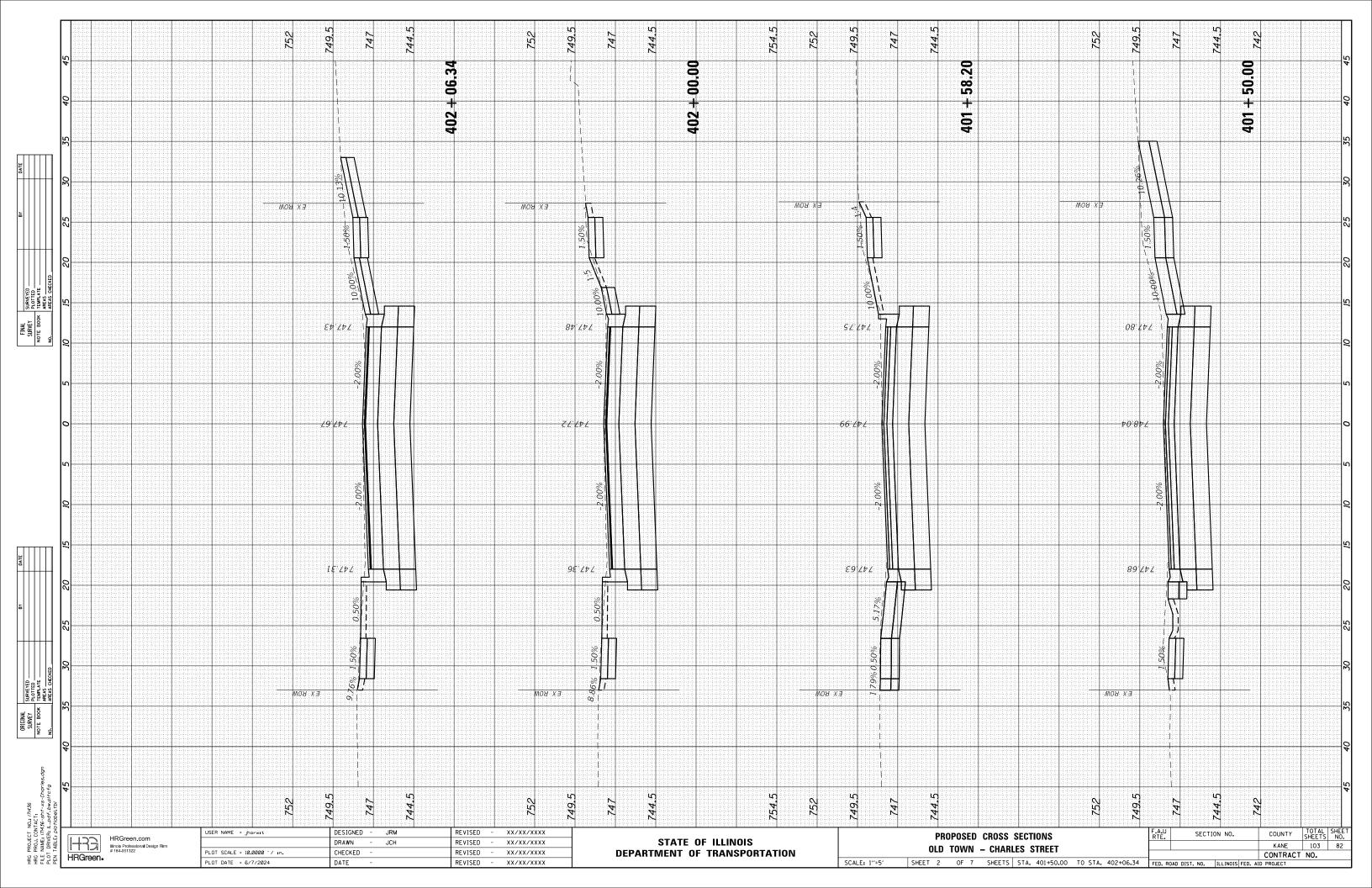


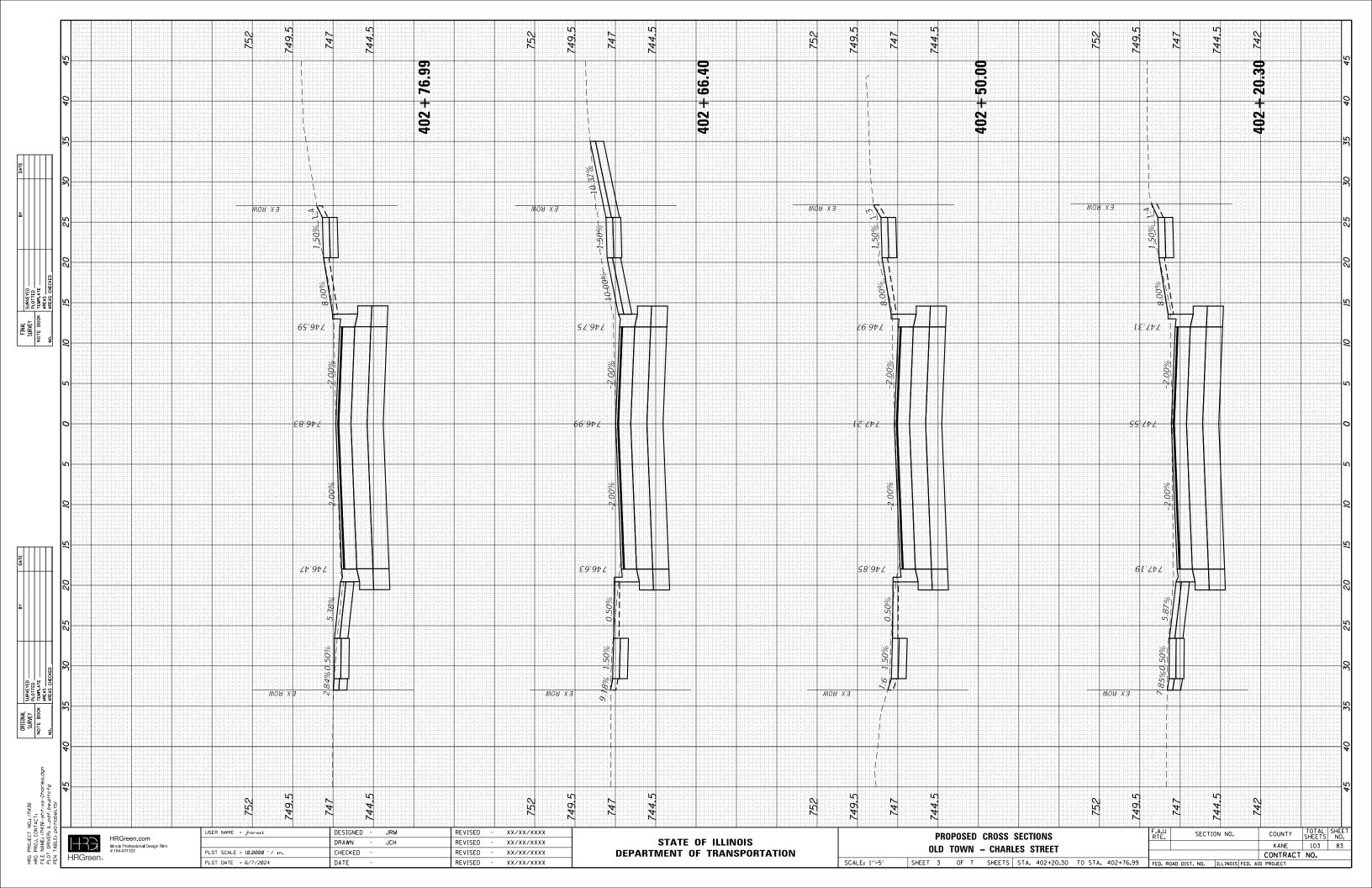


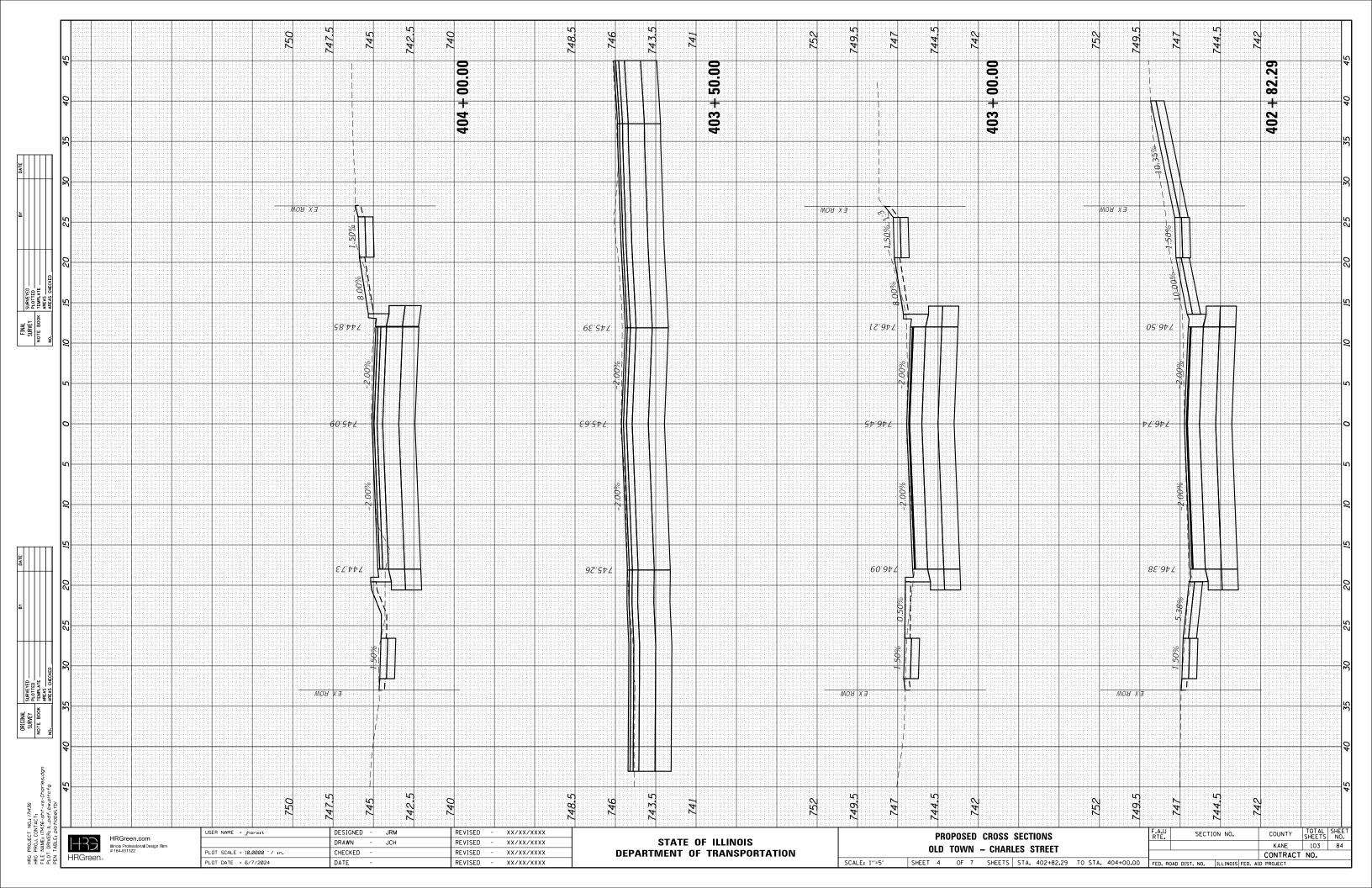


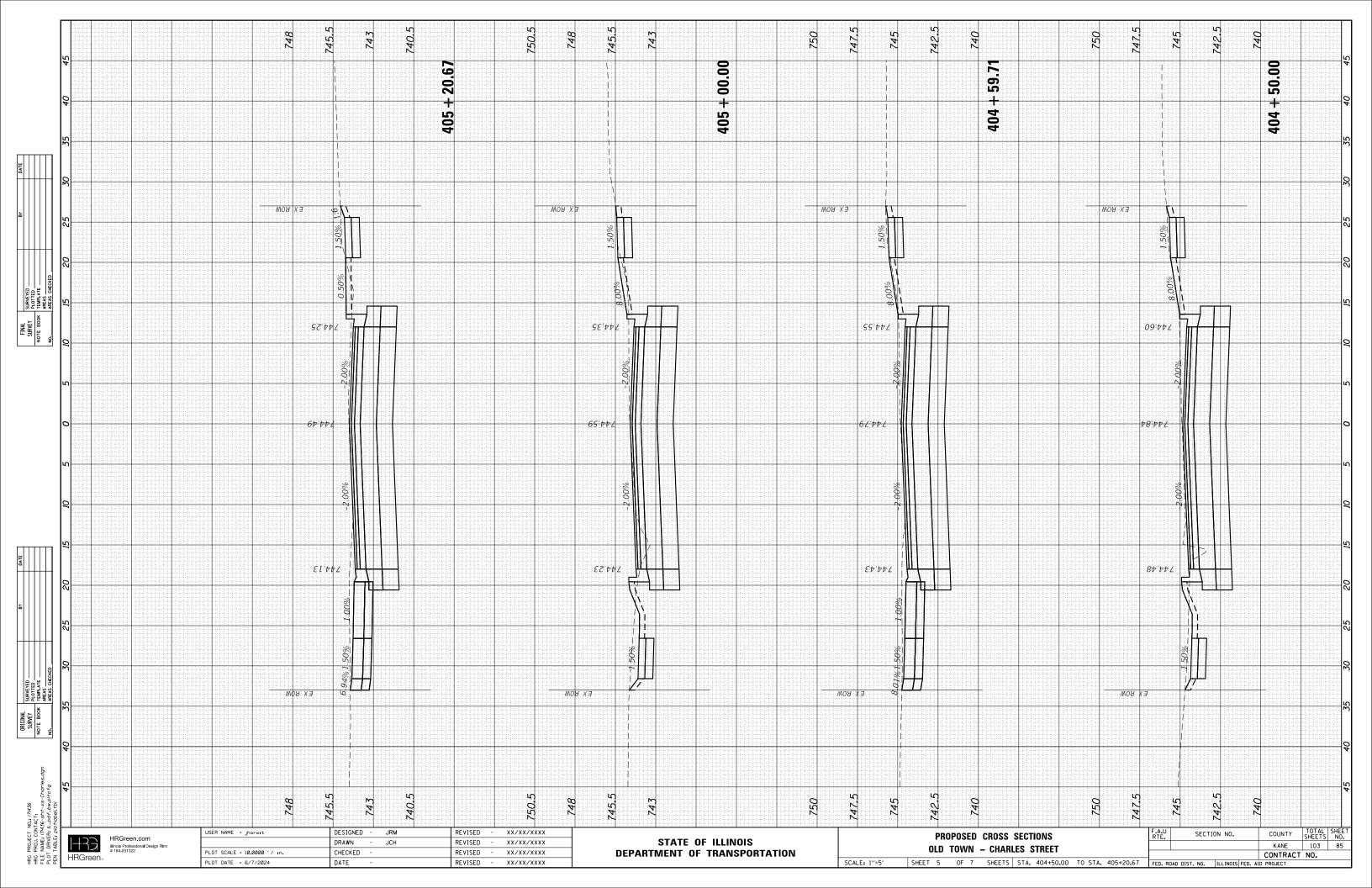


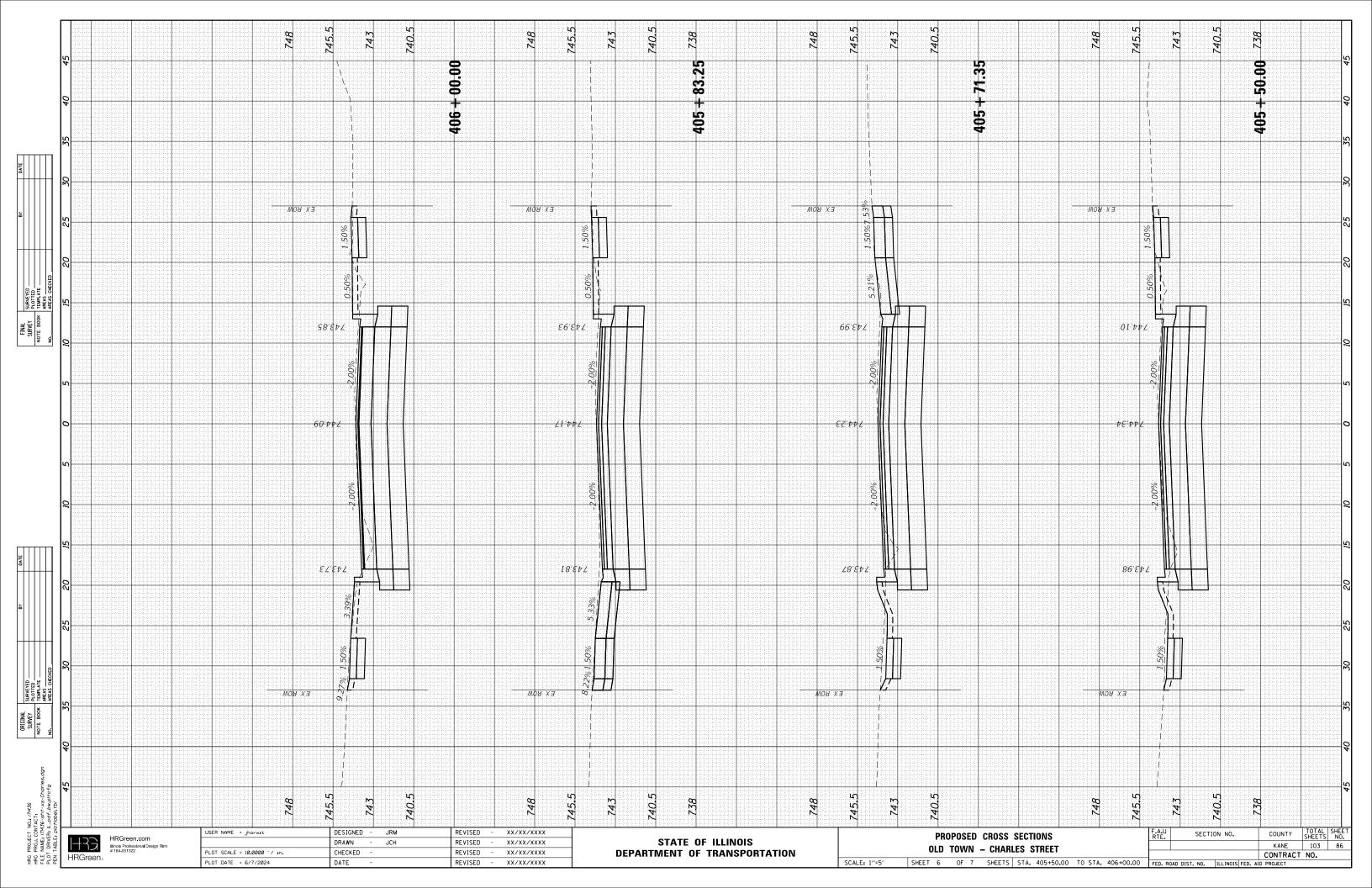


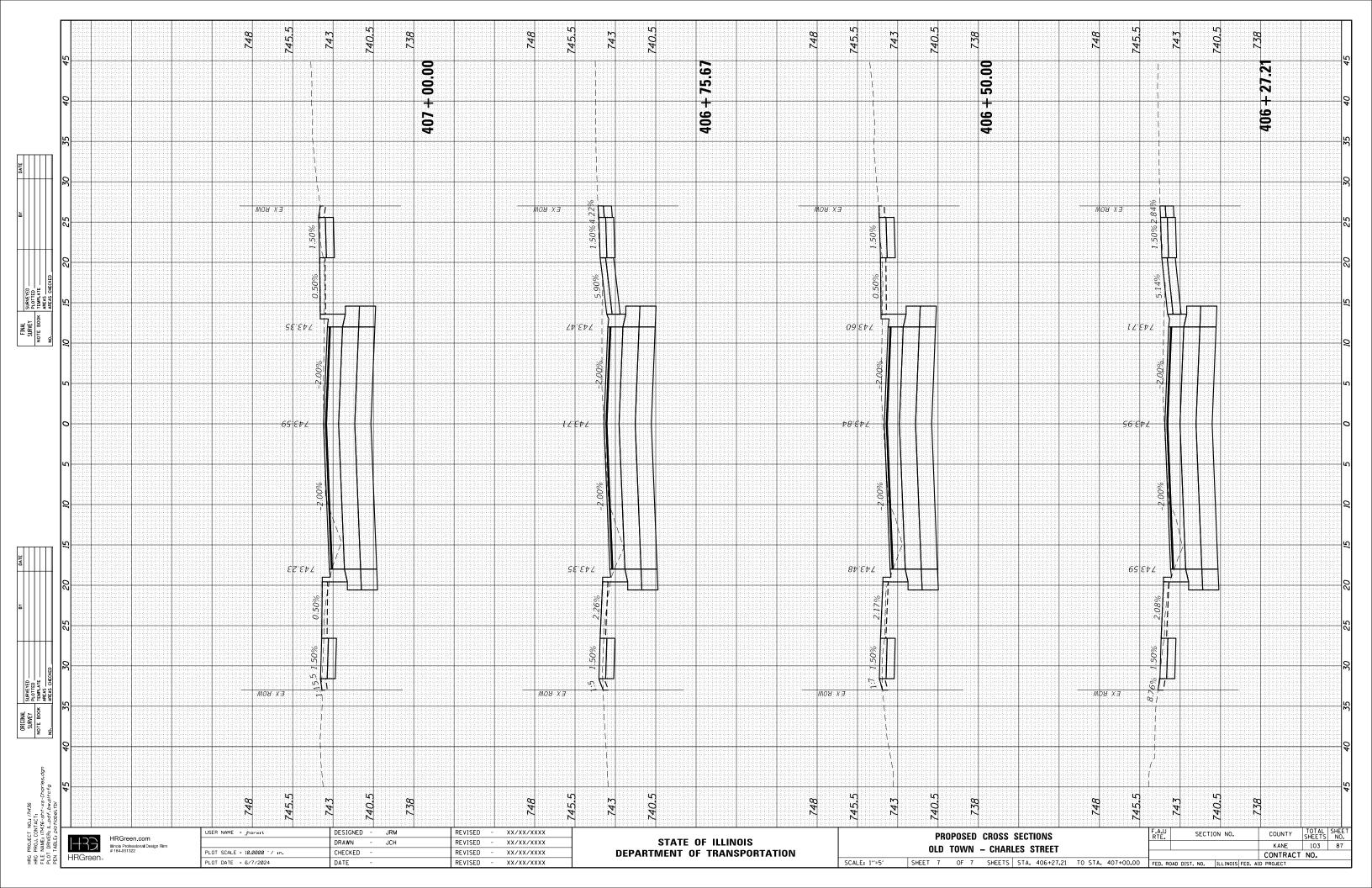


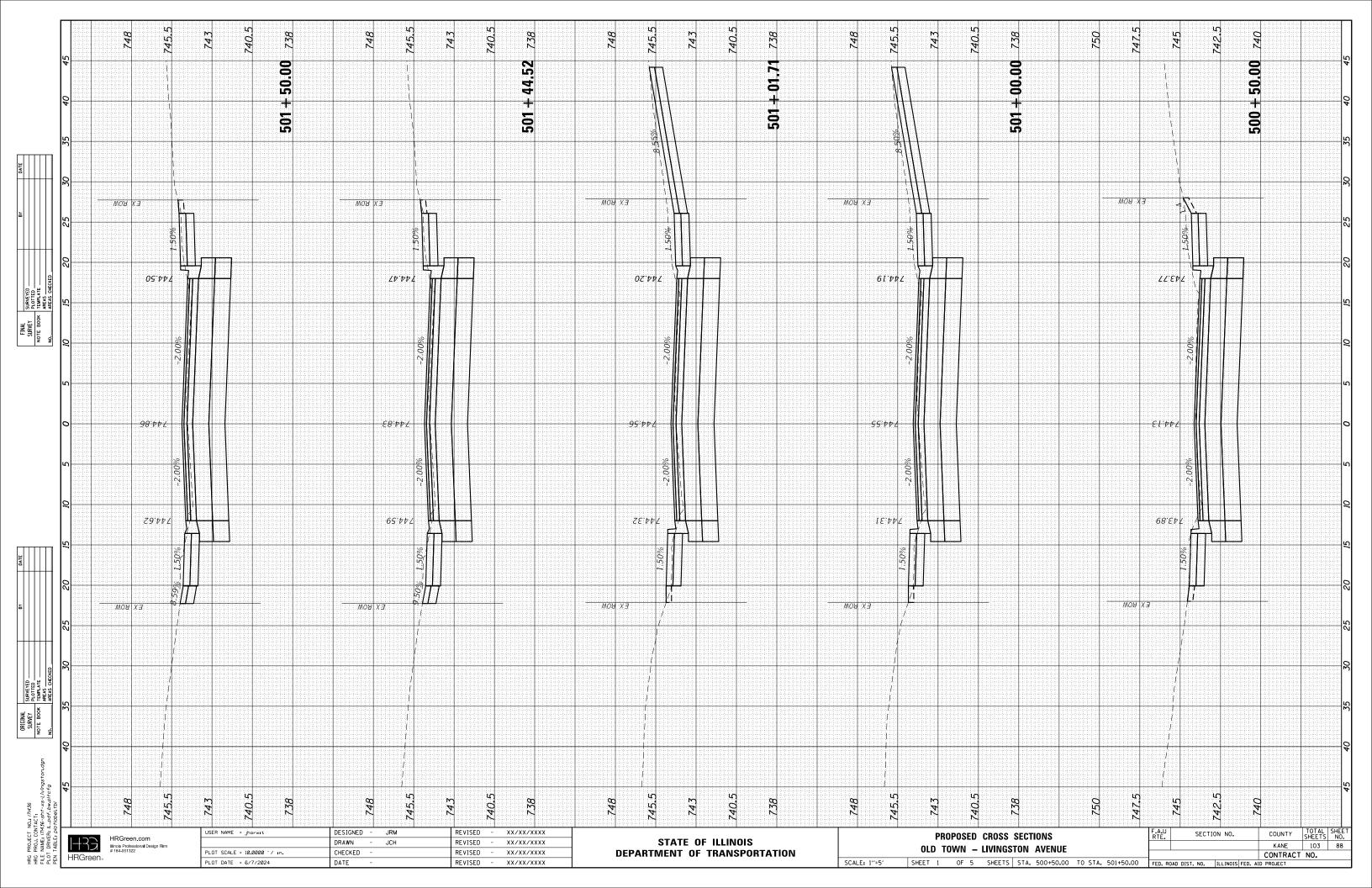


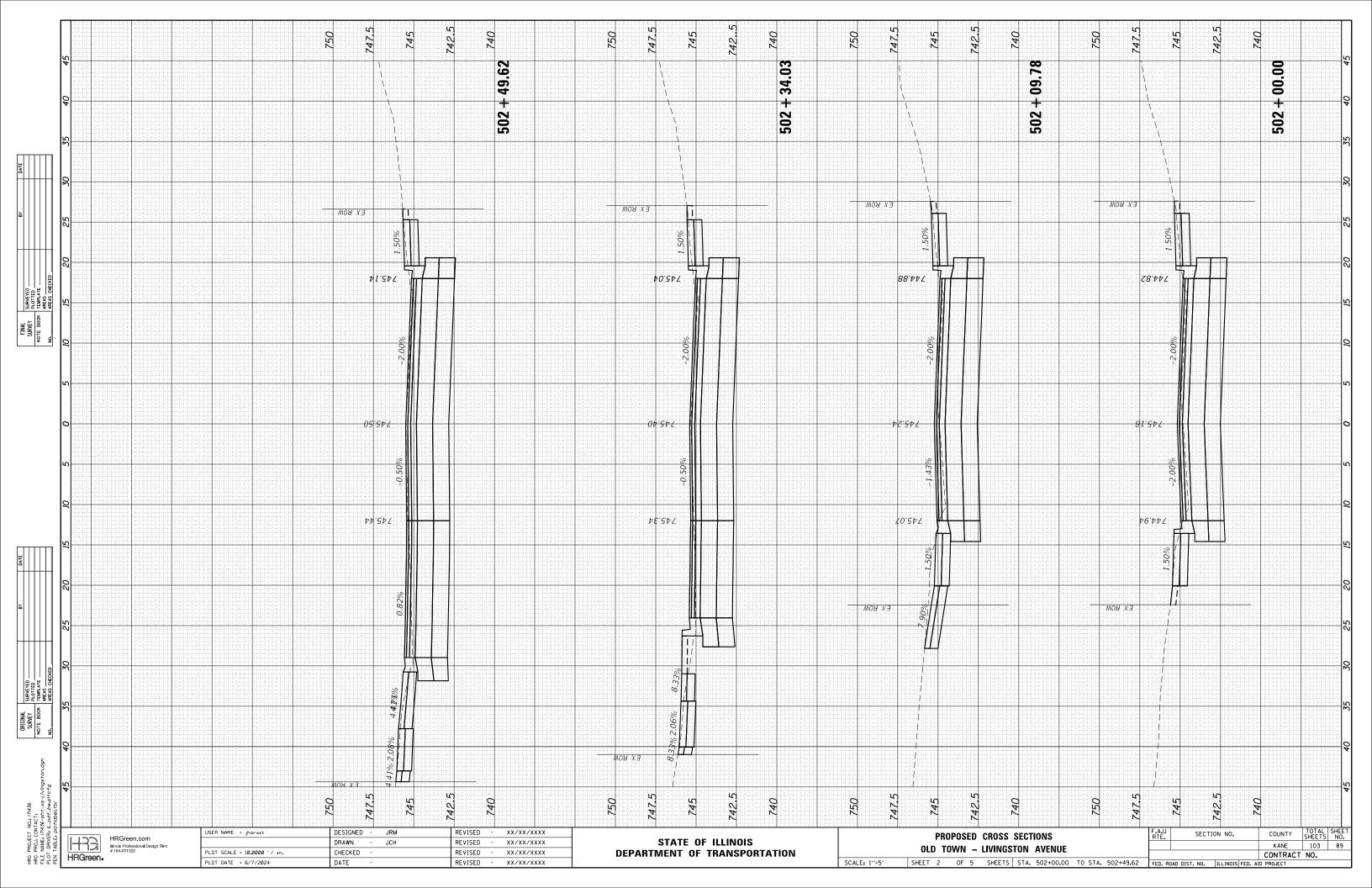


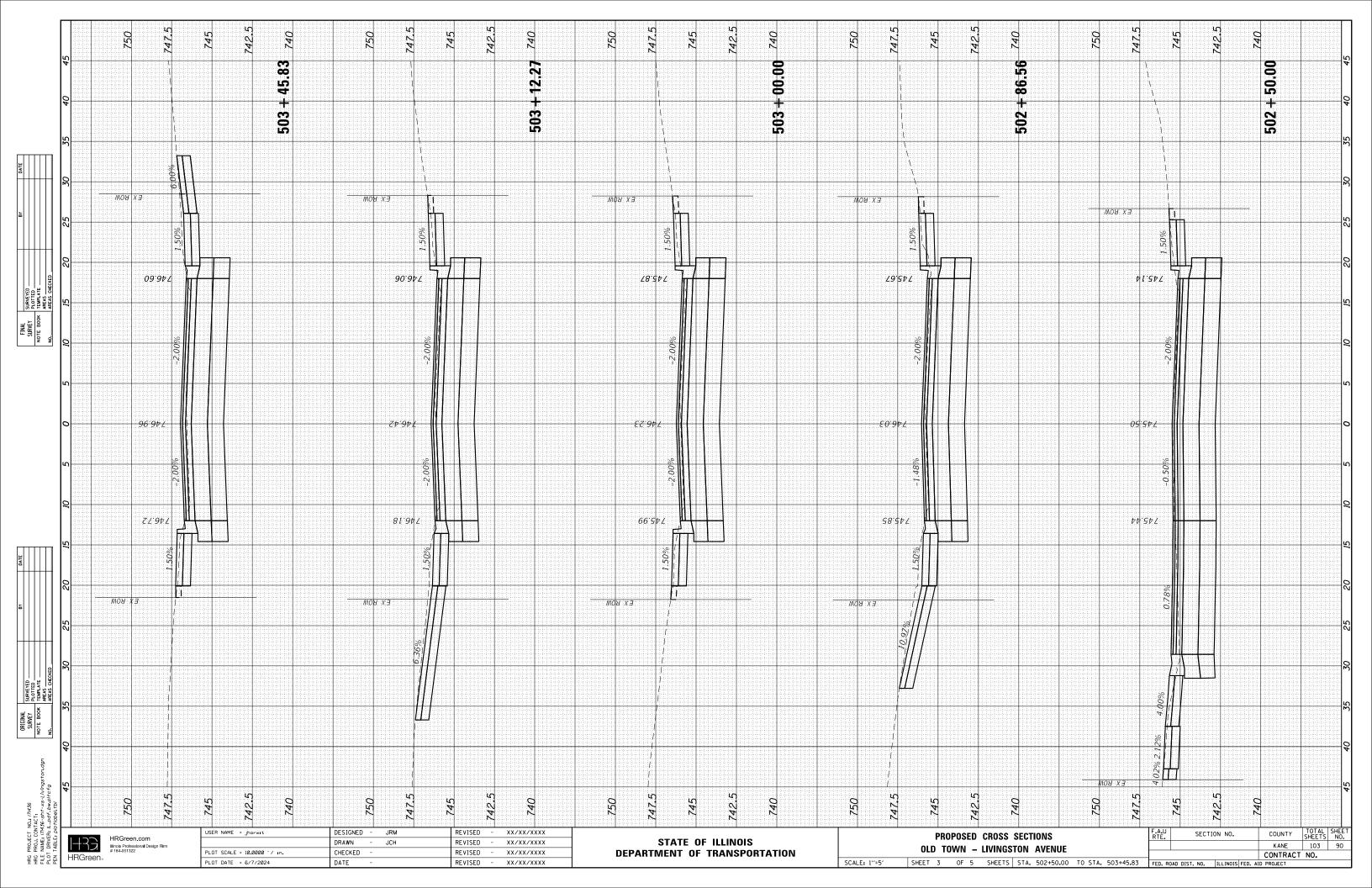


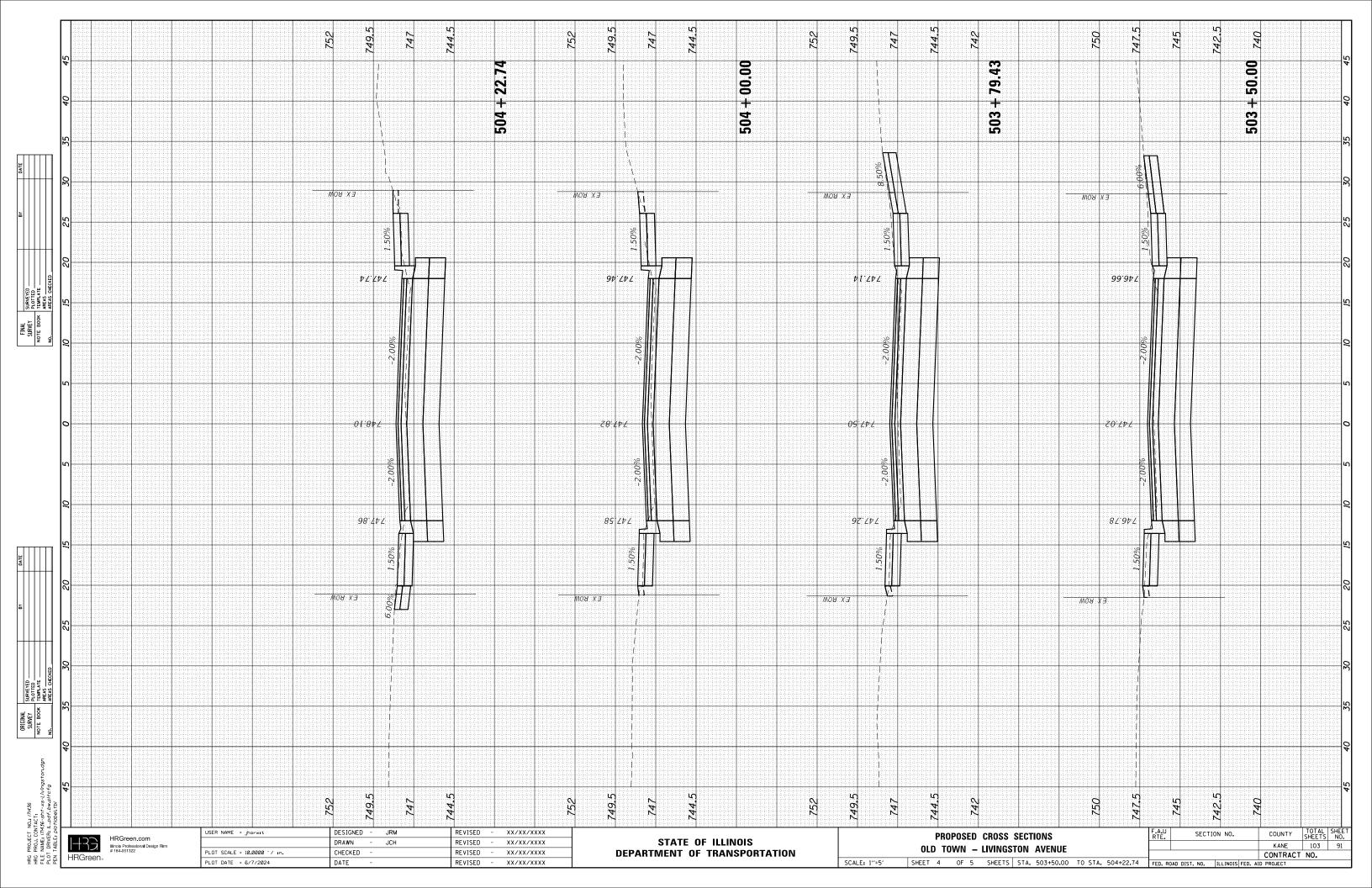


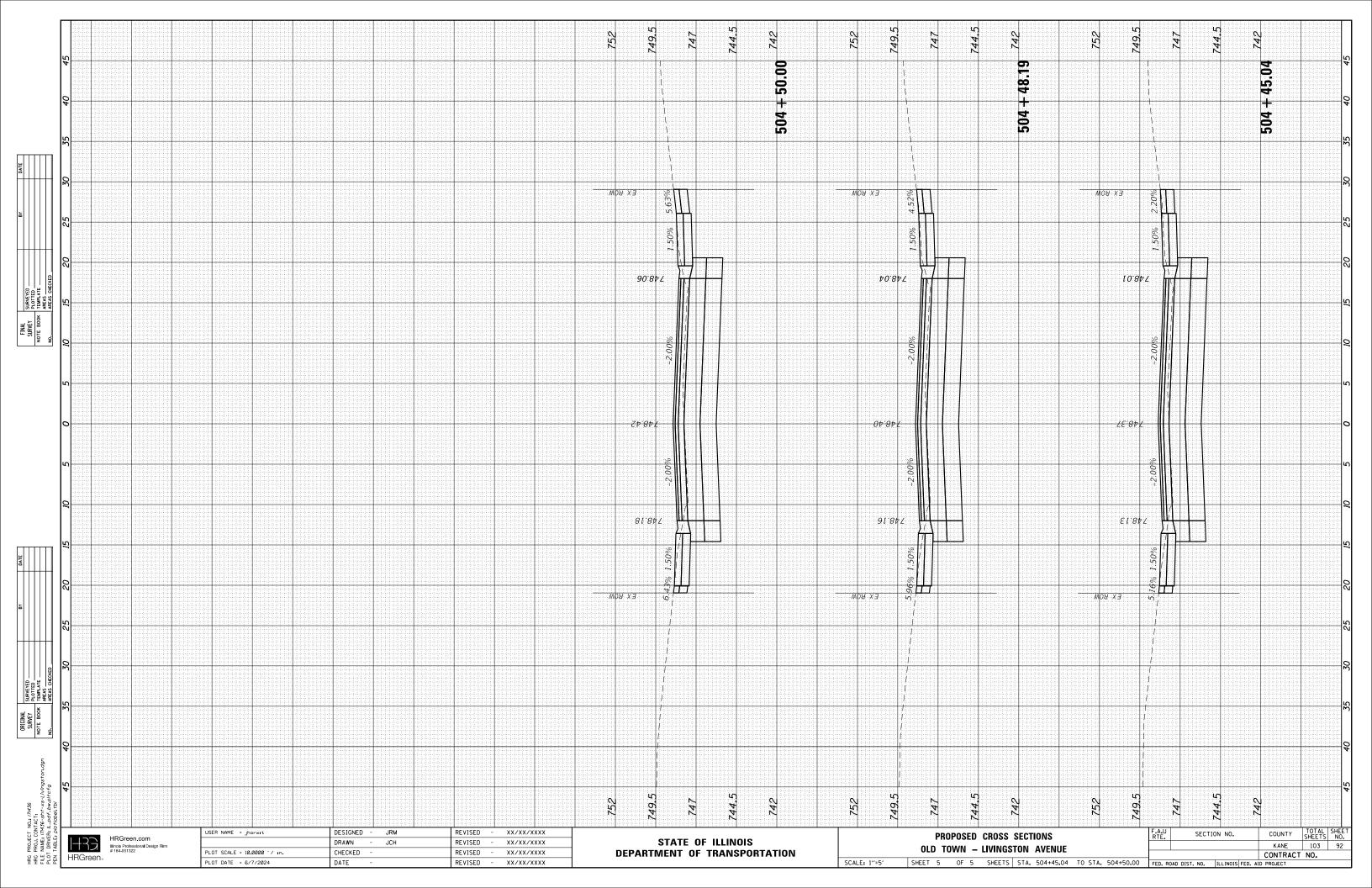


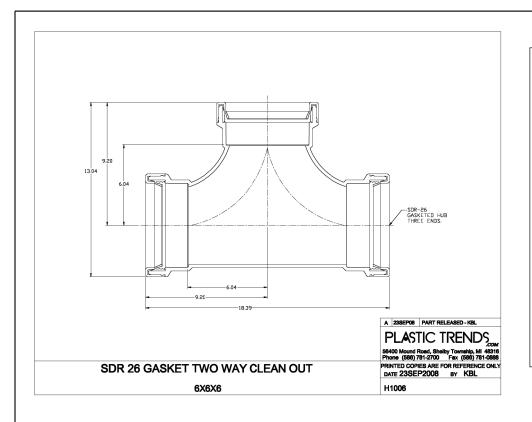


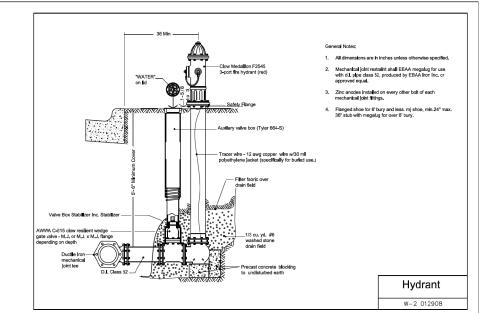


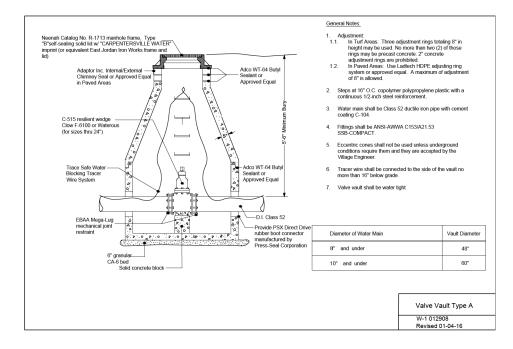


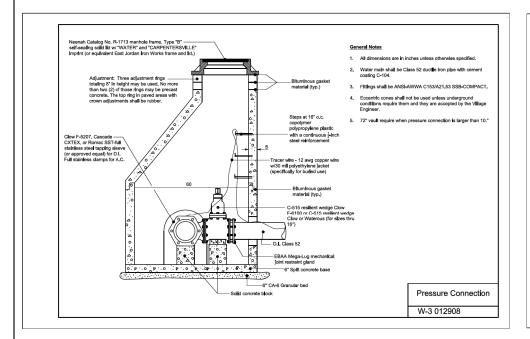


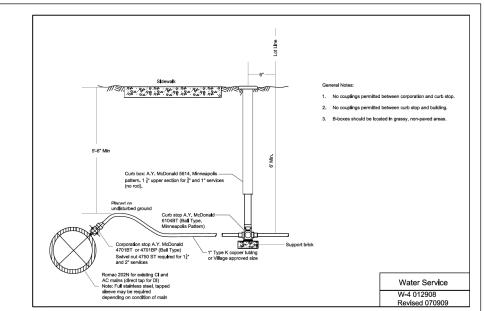


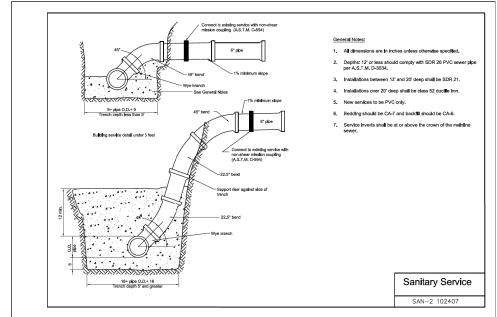












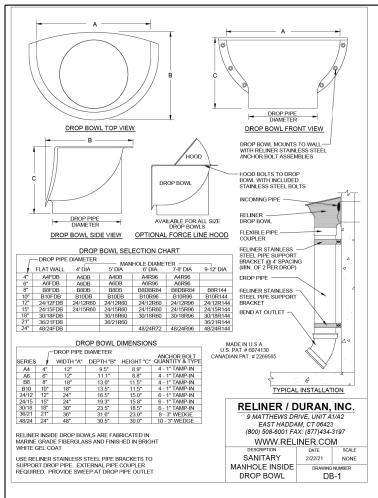
TO STA.

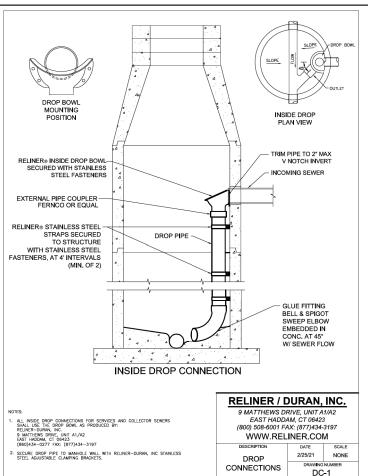
HRGreen.	HRGreen.com Illinois Professional Design Firm # 184-001322
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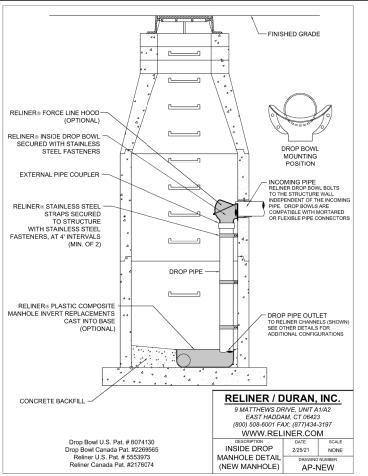
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PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXXX

	VILLAG	ìΕ	WATER	AND	SANIT	ARY	DETAILS	
OLD TOWN								
SCALE: N.T.S.	SHEET	1	OF 1	SHE	ETS ST	Α.	TO	

1116	+					1	KANE	SHEETS 103	NO.
						T	CONTRACT	NO.	
FED.	ROAD	DIST.	NO.	ILLINOIS	FED.	AIC	PROJECT		

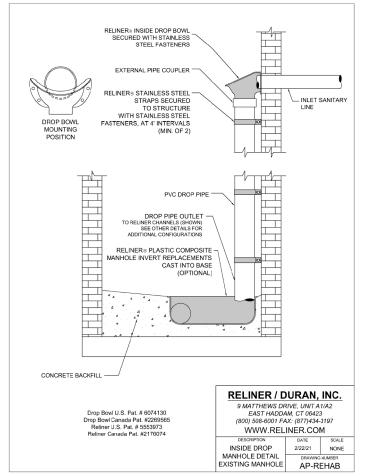


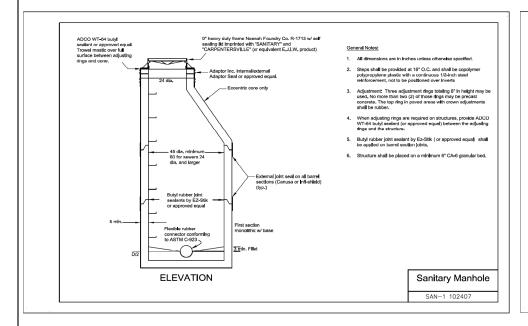


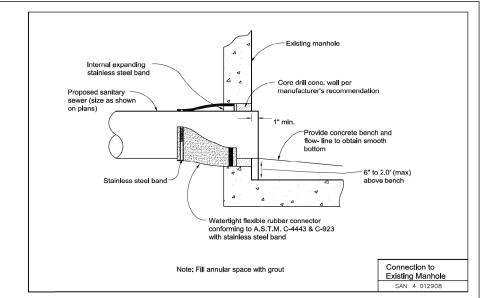


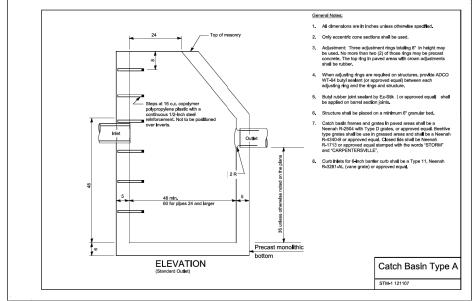
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SHEET









HRC PROJECT NO.: 17/436 HRC PROJ. CONTACT: FILE NAME: 17/436-sht-UtilityDe PLOT DRIVER: (L.pdf.bw.pitcfg PEN TABLE: plotiabel.tbi	
HRG PROJECT NO., 17 HRG PROJ. CONTACT: FILE NAME: 17/436-Sh PLOT DRIVER: 1L.pdf PEN TABLE: plotlabe	
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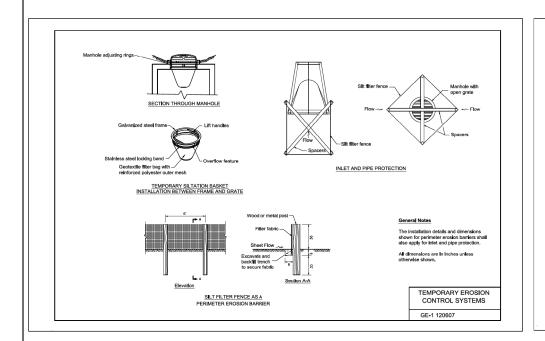
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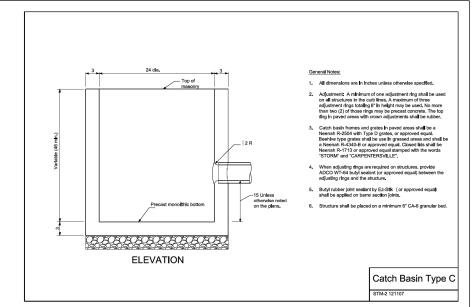
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	# 104-001322
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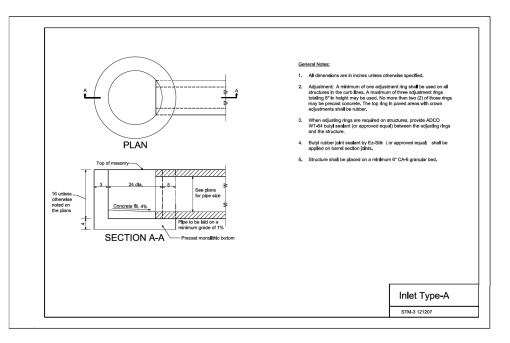
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PLOT DATE = 6/7/2024	DATE -	REVISED - XX/XX/XXXX

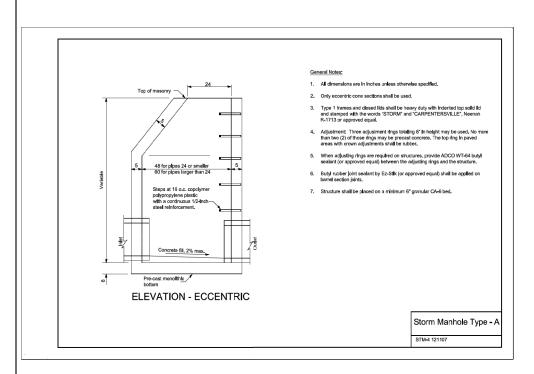
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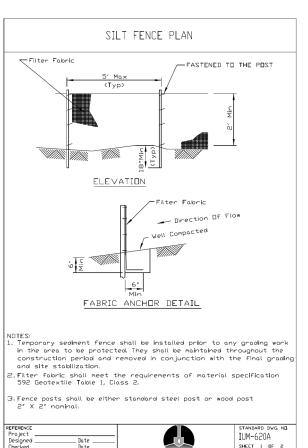
VILLAGE STORM DETAILS						F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
OLD TOWN				KANE	103	94				
OLD TOWN								CONTRACT	NO.	
1	OF	1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.   ILLINOIS FED. A	ID PROJECT		

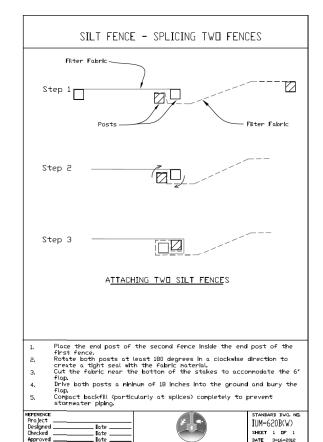


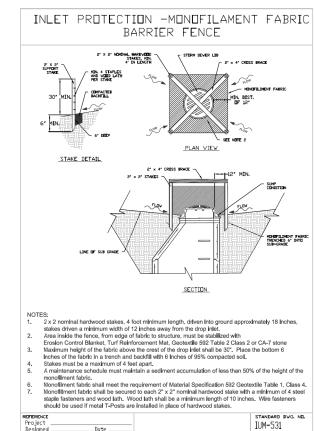






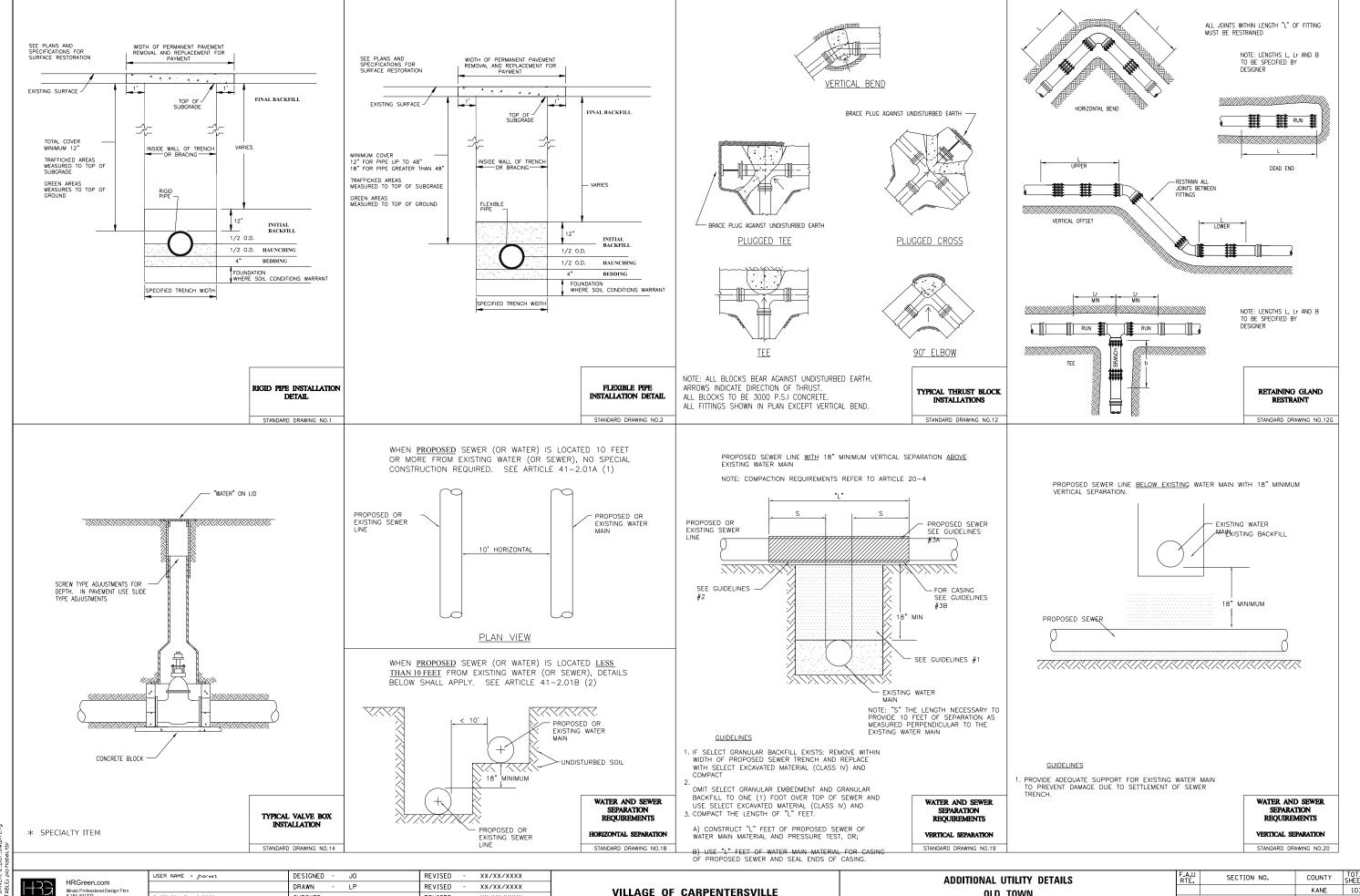








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**HRGreen** 

CHECKED PLOT DATE = 6/7/2024 DATE

REVISED XX/XX/XXXX REVISED XX/XX/XXXX

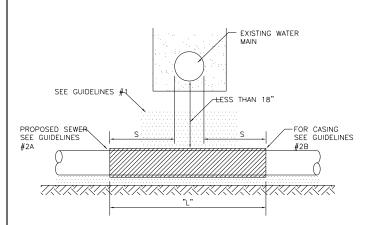
SCALE: N.T.S.

SHEET

ADDITIONAL UTILITY DETAILS OLD TOWN				F.A.U RTE.	SECT	ION NO.	COUNTY	TOTAL SHEETS	SHEE NO.			
							KANE	103	96			
							CONTRACT	NO.				
	1	OF	3	SHEETS	STA.	TO STA.	FFD. R	FED. ROAD DIST. NO.   ILLINOIS FED. AID PROJECT				

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

GUIDELINES

. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR "S" FEET ON EACH SIDE OF WATER MAIN.

2. A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;

B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

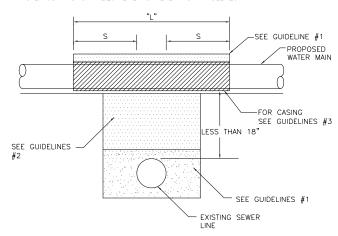
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" VERTICAL SEPARATION

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

GUIDELINES

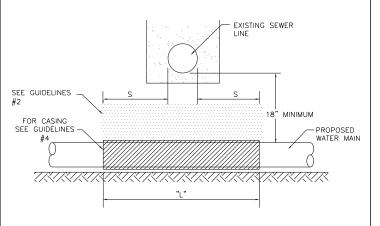
OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".

IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND

USE "L" FEET OF WATER MAIN MATERIAL FOR CASING 4. OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION STANDARD DRAWING NO.22 PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



SCALE: N.T.S.

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE

WATER AND SEWER SEPARATION

REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.23

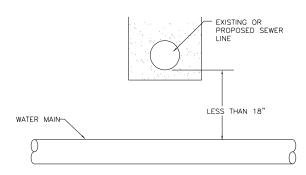
<u>GUIDELINES</u>

OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".

IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE 4. TO PREVENT DAMAGE DUE TO SETTLEMENT.

PLACEMENT OF WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION. NOT ALLOWED.



NOT ALLOWED\* MUST MAINTAIN 18" VERTICAL SEPARATION

> WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.24

STANDARD DRAWING NO.21 STONE RIP RAP DETAIL FOR ANY TAILWATER CONDITION STONE RIP RAP LOCATED ON PLANS) PIPE FLARED END SECTION Approx. stone size based on IDOT Std.

Class	d50 (in.)	dMax (in.)
A3	5	10
A4	9	14
A5	12\*	19
A6	15\*	22\*

cock Class Length Bedding Class Pipe Size in. (Min. Thick

USE "L" FEET OF WATER MAIN MATERIAL FOR CASING MAIN CASING AND SEWER OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

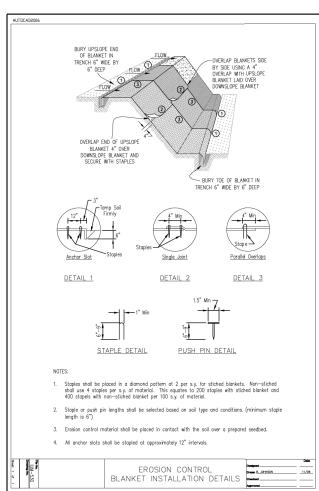
H33 **HRGreen** 

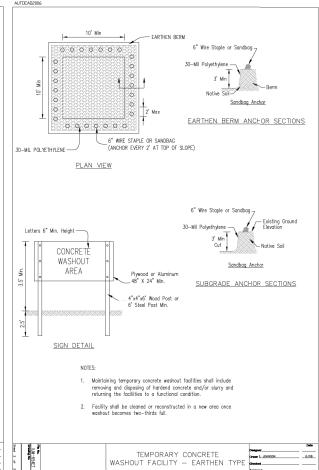
HRGreen.com

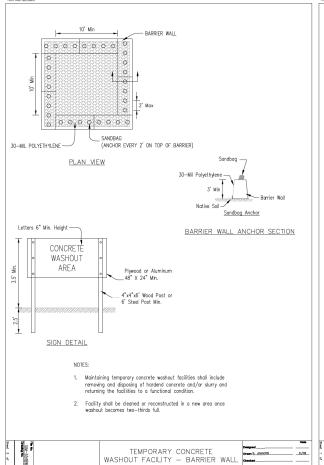
DESIGNED -REVISED XX/XX/XXXX USER NAME = jhorwit ORAWN LP REVISED XX/XX/XXXX CHECKED REVISED XX/XX/XXXX PLOT DATE = 6/7/2024 DATE REVISED XX/XX/XXXX

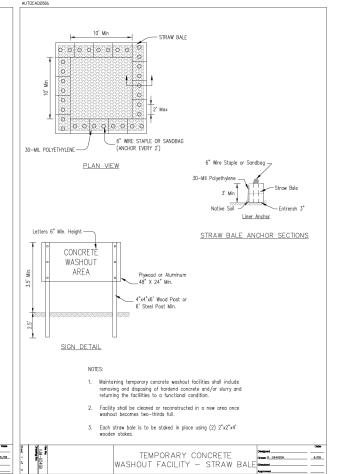
VILLAGE OF CARPENTERSVILLE

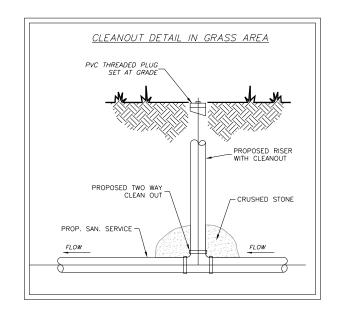
SECTION NO. COUNTY **ADDITIONAL UTILITY DETAILS** KANE 103 97 OLD TOWN CONTRACT NO. SHEET 2 OF 3 SHEETS STA. TO STA. FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT











olo tlat		
PEN TABLE: p/c	HRGreen.	HRGreen.com Illinois Professional De # 184-001322

USER NAME = Jhorwit	DESIGNED	-	J0	REVISED	-	XX/XX/XXXX
	DRAWN	-	LP	REVISED	-	XX/XX/XXXX
PLOT SCALE = 2.0000 '/ in.	CHECKED	-		REVISED	-	XX/XX/XXXX
PLOT DATE = 6/7/2024	DATE	-		REVISED	-	XX/XX/XXXX

FILE NAME: 17436-Sht-UtilityDeto PLOT DRIVER: (L\_pdf\_bw.pltcfg PEN TABLE: plotlabel.tbl

VILLAGE OF CARPENTERSVILLE

ADDITIONAL UTILITY AND IUM DETAILS

OLD TOWN

SCALE: N.T.S. SHEET 3 OF 3 SHEETS STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

F.A.U SECTION NO. COUNTY SHEETS NO. COUNTY SHEETS NO. COUNTY SHEETS NO. COUNTY SHEETS NO. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

RIGID DRIVEWAY

COMMERCIAL ENTRANCE (CE):

MEASURED IN SQ. YD. (m<sup>2</sup> PRIVATE ENTRANCE (PE):

PCC DRIVEWAY PAVEMENT 8 (200)

PCC DRIVEWAY PAVEMENT 6 (150 MEASURED IN SQ. YD. (m<sup>2</sup>)

EXISTING CURB (TYP.) -

CONCRETE CURB TYPE B (TYP.)

COMBINATION CURB & GUTTER

CURB AND GUTTER -

TRANSITION (TYP.)

SIDEWALK

EXISTING DRIVEWAY OR PARKING LOT

WIDTH OF DRIVEWAY (SEE PLANS)

CURB RAMP PER

TYP. TRANSITION 300(12) -

STD. 424001 (TYP.)

12 (300) STUB

— 12 (300) & VAR. - R.O.W. LINE

PCC

SIDEWALK

- R = 15' (4.5 m) MIN.

PARKWAY (TYP.)

PCC

SIDEWALK

25 (1) PREFORMED

**HMA DRIVEWAY** 

IHMA SURFACE COURSE.

MIX "D", IL-9.5, N50, 2 (50)
MEASURED IN TONS (METRIC TONS)

COMMERCIAL ENTRANCE (CE):

HMA BASE COURSE, 8 (200) MEASURED IN SQ. YD. (m<sup>2</sup>).

PRIVATE ENTRANCE (PE): HMA BASE COURSE, 6 (150) MEASURED IN SQ. YD. (m<sup>2</sup>).

EXPANSION JOINT FILLER (TYP.)

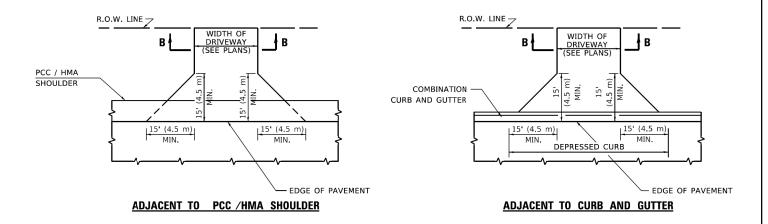
- CONCRETE CURB TYPE B (TYP.)

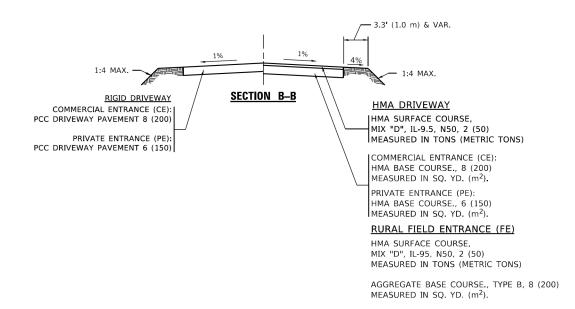
COMBINATION

CURB & GUTTER

-R=15' (4.5 m) (TYP.) MIN.

- CURB & GUTTER TRANSITION (TYP.)





#### **GENERAL NOTES**

- 1. DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.
- 2. COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

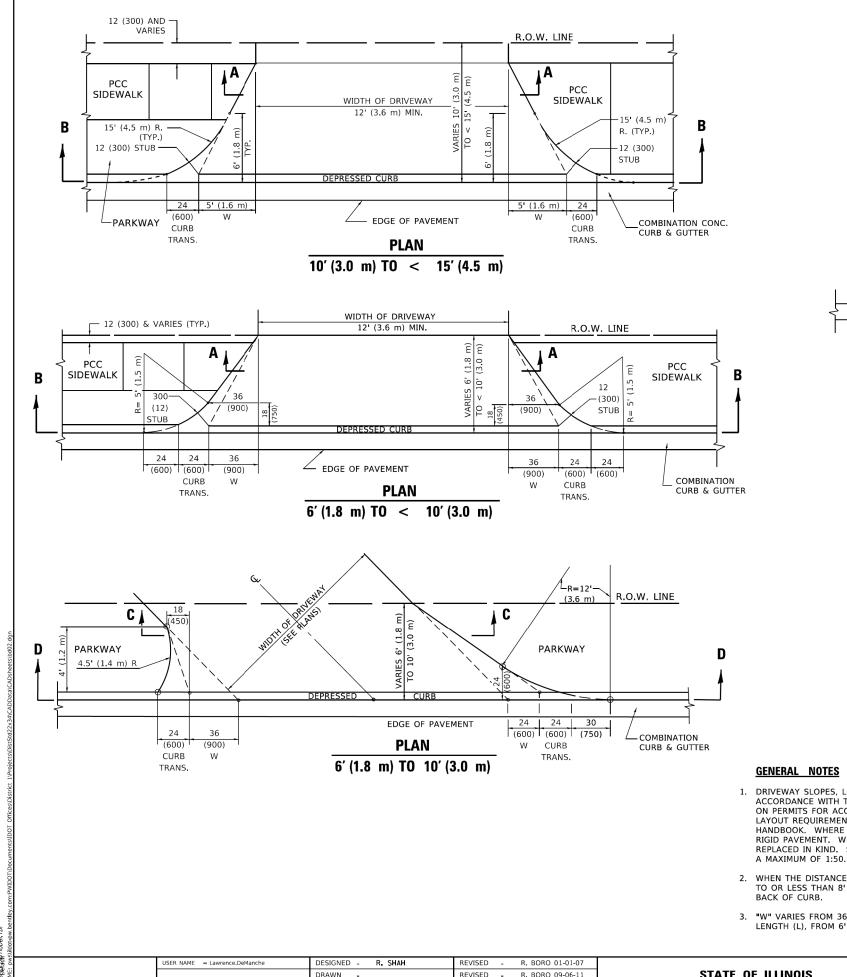
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

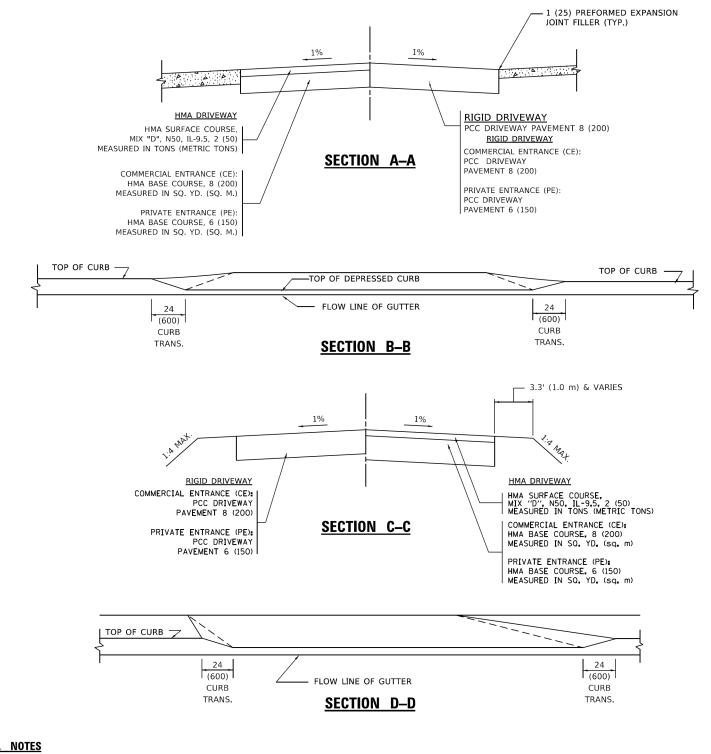
USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED	-	R. BORO 06-11-08
	DRAWN -	REVISED	-	R. BORO 09-06-11
PLOT SCALE = 100,0000 ' / in,	CHECKED -	REVISED	-	K. SMITH 08-28-19
PLOT DATE = 11/18/2022	DATE - 11-04-95	REVISED		K SMITH 11-18-22

SECTION A-A

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DRIN	/EWAY DE	TAILS –	DISTAN	ICE BETWEE	N R.O.W.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SH N
AND F	ACE OF CI	IDR 2.	EDGE OF	E CHUIII DEB	≥ 15′(4.5m)			KANE	103	
AND I	AGE OF CO	טווט ע	LDGL O	SHOOLDEN	≥ 13 (4.3III)		D400-01 (BD-01)	CONTRACT	NO.	
SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED A	ID PROJECT		_



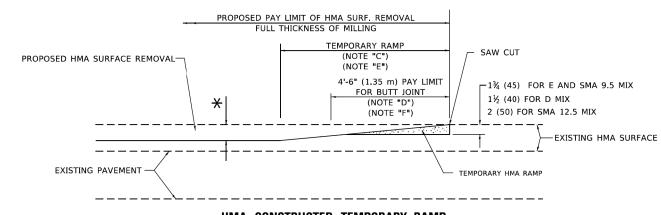


- DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK, WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE
- 2. WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE PCC SIDEWALK SHALL EXTEND TO THE
- 3. "W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

٦	USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07				DRIVE	WAY D	FTAII S		F.A.U.	SECTION	COUNTY	TOTAL	SHEET
ı		DRAWN -	REVISED - R. BORO 09-06-11	STATE OF ILLINOIS	DIOTANO	DETIM/FENI				451/45>			KANE	103	100
	PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - K. SMITH 08-27-19	DEPARTMENT OF TRANSPORTATION	DISTANCI	BETWEEN	ROW	AND F	ACE OF CURB	< 15' (4.5m)		BD400-02 (BD-02)	CONTRACT	T NO.	
	PLOT DATE = 11/18/2022	DATE - 11-06-95	REVISED - K. SMITH 11-18-22		SCALE: NONE	SHEET 1	OF 1	SHEET	S STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

### OPTION 1

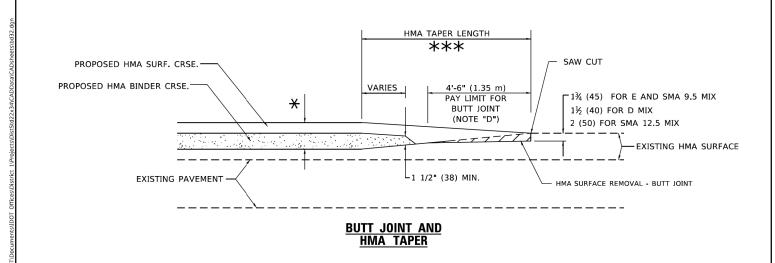


### HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

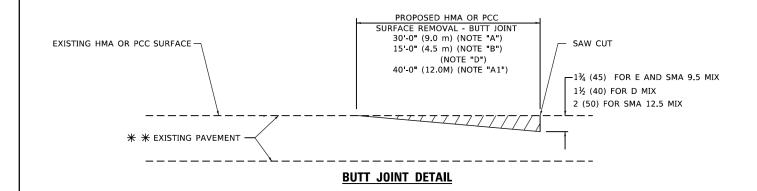
### OPTION 2

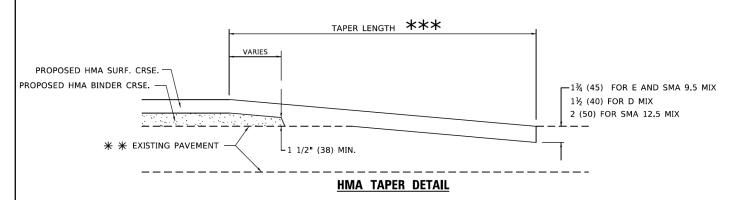
### TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

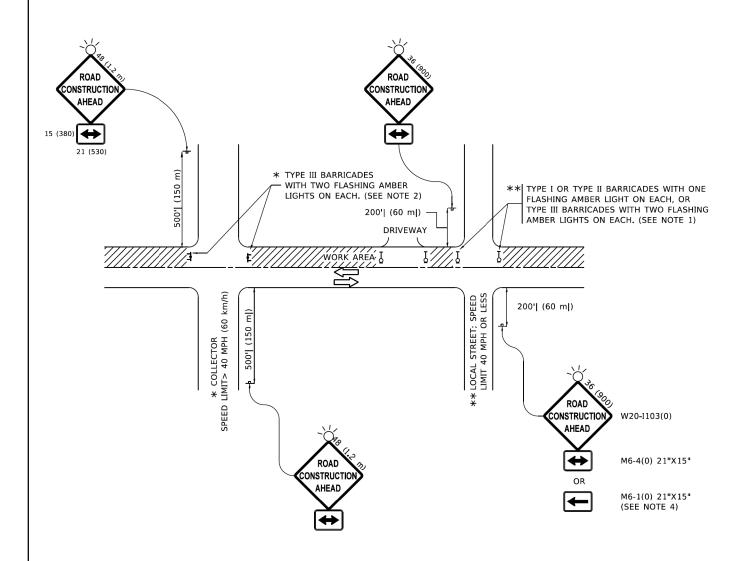
### **GENERAL NOTES**

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - igstar SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

### **BASIS OF PAYMENT**

- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".
- THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



### NOTES:

- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
  b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
  OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
  4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
  BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

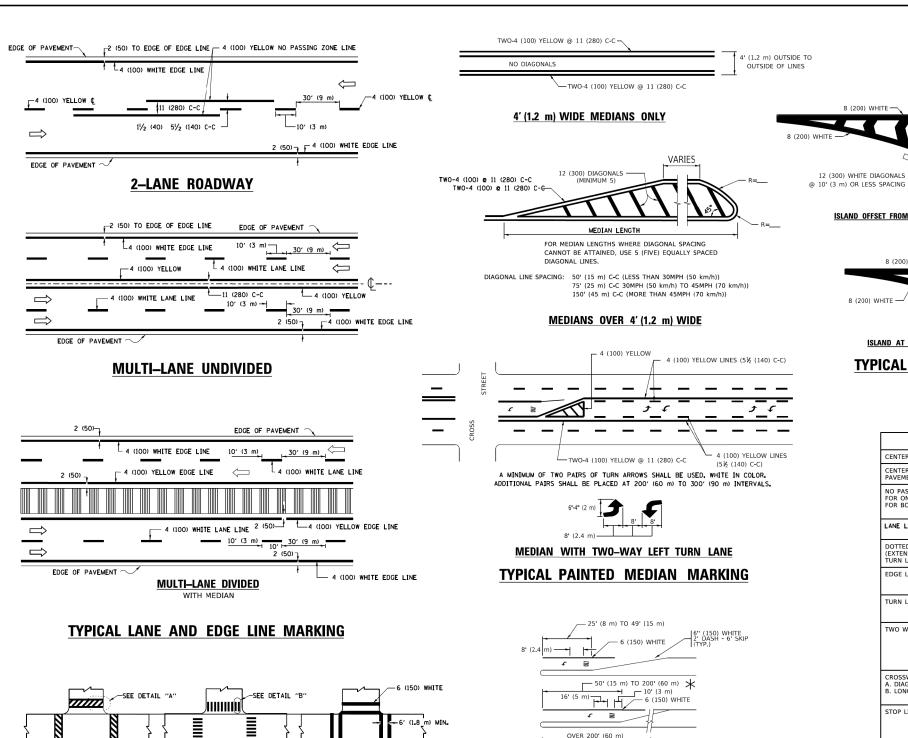
All dimensions are in inches (millimeters) unless otherwise shown.

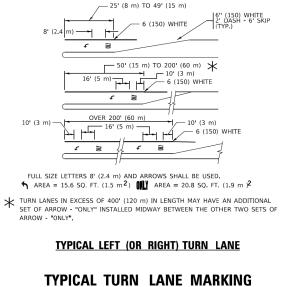
USER NAME = Lawrence.DeManche	DESIGNED - L.H.A.	REVISED - T. RAMMACHER 01-06-00
	DRAWN -	REVISED - A. SCHUETZE 07-01-13
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = 5/3/2024	DATE - 06-89	REVISED - D. SENDERAK 05-03-24

STATE 0	)F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

							F.A.U. RTE.	SEC	TION	
SI	SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS									
	SIDE HOADS, INTERSECTIONS, AND DRIVEWATS						l	TC-10		
	SHEET	1	OF	1	SHEETS	STA.	TO STA.			ILLINOIS

F.A.U. RTE.				COUNTY	TOTAL SHEETS	SHEET NO.
				KANE	103	102
TC-10				CONTRACT	NO.	
		ILLINOIS	FED. Al	ID PROJECT		





SPEED LIMIT **COMBINATION** LEFT AND U-TURN 5'-4" (1620) 

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

LANE REDUCTION TRANSITION

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5'½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ, FT. (0.33 m PEACH "X"=54.0 SQ, FT. (5.0 m P
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

SCALE: NONE

ISLAND OFFSET FROM PAVEMENT EDGE

8 (200) WHITE -

ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

RAISED

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
	DRAWN -	REVISED - C. JUCIUS 07-01-13
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15
PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

2' (600)

DETAIL "B"

-12 (300) WHITE

PEDESTRIAN

- 6 (150) WHITE

TYPICAL CROSSWALK MARKING

 $m{\star}$  MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

DETAIL "A"

BICYCLE & EQUESTRIAN

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

COUNTY DISTRICT ONE KANE 103 103 TYPICAL PAVEMENT MARKINGS TC-13 CONTRACT NO. OF 2 SHEETS STA.