

## **City of Bellbrook**

15 East Franklin Street Bellbrook, Ohio 45305 T (937) 848-4666 F (937) 848-5190 www.cityofbellbrook.org

# REQUEST FOR PROPOSALS And INSTRUCTIONS RFP 2023-01

# City of Bellbrook Franklin and Main Street Improvements

The City of Bellbrook, a municipal corporation, is seeking bids from qualified firms for the construction of mid-block crosswalks, repaving, curbing, landscape and all other necessary appurtenances to the Franklin and Main Street area of Downtown Bellbrook.

Attached to this RFP are the listed Instructions for Bidders/Offerors in the first ten (10) pages of this document. All potential bidders must thoroughly review and certify their understanding of the Instructions and this RFP process.

# **GENERAL INSTRUCTIONS TO BIDDERS/OFFERORS**

For the purposes of this Document, the terms "Bid" and Proposal" have the same meaning, and the terms "Bidder, Offeror, Contractor, Vendor" are intended to mean the company or firm who is the respondent Bidder for this RFP.

- The following instructions are to be considered an integral part of this proposal. Unless otherwise requested, three (3) complete copies of the written proposal need be submitted. The person signing the bid/proposal form must initial any changes or corrections made to this proposal.
- No proposal may be withdrawn or modified in any way after the bid/proposalopening deadline. Quotes must remain valid for ninety (90) days after the quote date. Quotes submitted with a less than ninety (90) day validity will be found non-responsive and will not be considered.
- All bids/proposals must be a final cost.
- Bids/Proposals will be received no later than <u>4:00pm September 29, 2023</u> at the City of Bellbrook 15 E. Franklin Street Bellbrook, Ohio 45305 at which time they will be opened and publicly read aloud. Bids/proposals received after the above date and time, or in any other location other than the City of Bellbrook City Hall as noted above will not be considered.
- A Request for Proposal packet may be obtained from the City of Bellbrook 15 E. Franklin Street Bellbrook, Ohio 45305 or from <u>www.cityofbellbrook.org</u>
- A Pre-Bid/Proposal meeting may be scheduled upon request at City Hall for the City of Bellbrook 15 E. Franklin Street Bellbrook, Ohio 45305, and a site visit will be available on request.
- If descriptive literature is attached to the bid/proposal, bidder's name must appear on all sheets.
- A cover letter must be attached in the form of a standard business letter containing the Contractor's name, address and telephone number and must be signed with an original signature, in ink, by an individual authorized to legally bind the Contractor. The letter must contain the following information:
  - A statement describing the Contractor's legal structure (e.g. corporation, partnership) and providing federal tax identification number and principle place of business.
  - A statement that the person signing the quote certifies that he or she is the person in the Contractor's organization who has actual authority to make decisions as to matters relating to this RFP and to bind the Contractor.
  - o A statement that the quote meets the minimum qualifications set forth

in this RFP and accepts all requirements and terms and conditions contained in this RFP.

- A statement that the Contractor does not discriminate in its employment practice with regard to race, color, age, religion, sex, veteran status, sexual preference, national origin, or disability
- A statement that no attempt has been made or will be made by the Contractor to induce any other person or firm to submit or not submit a quote.
- A statement that indicates whether the Contractor or any of its agents has a possible conflict of interest with any city employee involved in the RFP and any ensuing Contract(s) or any other conflict of interest and, if so, an explanation of the conflict must be given.
- Communication: If there is any question whatsoever regarding any portion of the instructions or specifications, it shall be the bidder's responsibility to seek clarification immediately from the City of Bellbrook <u>No later than close of</u> <u>business on September 27, 2023</u> unless otherwise stated in the documents.

All questions shall be submitted in writing or via e-mail to the attention of Rob Schommer at rob@cityofbellbrook.org If mailed, the address is as follows: City of Bellbrook ATTN: RFP 2023-01, 15 E. Franklin Street Bellbrook, Ohio 45305. Answer(s) to all questions will be answered after the deadline for questions has expired, and posted to the City's web site, if applicable and feasible.

It shall be the bidder's responsibility to check the City's website (www.cityofbellbrook.org) for any and all addendums or modifications.

Under no circumstances should respondents contact City personnel or officials outside of the opportunity provided herein.

- Proprietary Information: Any information contained in the RFP response that is proprietary must be clearly designated. Marking of the entire response as proprietary will neither be accepted nor honored. The City cannot guarantee that all such material noted remains proprietary, particularly if it becomes a significant consideration in contract award. Information will be kept confidential only to the extent allowed by Public Records Laws of Ohio.
- Any variation from the specifications must be clearly stated by the bidder in writing and submitted with his/her proposal.
- The apparent silence of any specifications or any supplement specifications to any details or the omission of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail, and that only materials of first quality and correct type, size and design are to be used. All workmanship is to be of first quality. All interpretations of this specification shall be made upon the basis of this statement.

- The following bid shall be awarded to one bidder based on the specifications as provided for in Chapter 240 of the Bellbrook Code of Ordinances so the City can determine the "lowest and/or best bidder". An award shall be made to one vendor for the total bid. Unit prices and extensions will be verified, and total checked. Unit price extension and net total must be shown. Unit price shall prevail unless otherwise stated in the proposal.
- The process and description for opening, tabulating and awarding responses to RFP/bids is as follows:

(a) In the case of sealed competitive bids, the bids shall be opened and tabulated publicly by the City Manager. An investigation of the responsibility of the bidders and the responsiveness of the bid shall be made as the City Manager deems necessary. The City Manager shall determine the lowest and/or best bidder. The City may reject all bids if it determines that it is in the best interest of the City to do so.

(b) In the case of competitive proposals, the responses shall be opened publicly by the City Manager. The City may discuss the responses with the proposers to clarify responses and to obtain information needed by the City to determine the lowest and/or best proposal. An investigation of the responsibility of the proposers and the responsiveness of the proposal shall be made as the City Manager deems necessary. The City Manager shall determine the lowest and/or best proposal. The City may reject all proposals if it determines that it is in the best interest of the City to do so.

(c) In the case of two-step competitive proposals (RFQ/RFP), the technical responses shall be opened publicly by the City Manager. The City may discuss the responses with the proposers to clarify responses and to obtain information needed by the City to determine qualified proposers. An investigation of the responsibility of the proposers and the responsiveness of the proposal shall be made as the City Manager deems necessary.

The City Manager shall determine the qualified proposers. The qualified proposers shall then be invited to submit price proposals which shall be opened publicly by the City Manager. The City may discuss responses with the proposers to clarify responses and to obtain information needed by the City to determine the lowest and/or best proposal. If appropriate, the City may request best and final offers. The City Manager shall then determine the lowest and best proposal. The City may reject all proposals if it determines that is in the best interest of the City to do so.

The City of Bellbrook reserves the right to accept, reject or waive any irregularities in the proposal and/or any and all bids received for the work contemplated herein and to accept or reject any or all proposals and/or bids. The proposal and/or bids will be compared on the basis of the total cost of the project and the award will be made to the lowest and/or best bidder (or bidders), provided the proposal and/or bid is reasonable and is in the best interest of the City (owner) to accept. In determining the lowest and best bid the City (owner), in its sole discretion, may consider factors, including but not limited to, the bidder's work history, (including work done under other names), experience,

conduct and performance on previous contracts, management skills, ability to execute the contract properly, customer satisfaction, work on comparable projects, ability to timely complete the work in accordance with the contract documents, the Bidder's financial condition and facilities, and the Bidder's compliance with federal, state, and local laws, rules, and regulations, (including but not limited to the Prevailing Wage Laws, Occupational Safety and Health Act, and the State of Ohio's Equal Employment Opportunity Commission requirements, as may be applicable).

- The City desires delivery of the material or services specified at the earliest possible time after the date of award. An unreasonable delivery proposal may be cause for disqualifying a bid. Each bidder shall state a definite time and avoid using terms such as "ASAP" or "approximately so many days".
- Insurance: The Contractor will maintain the following insurance from insurer(s) rated A- or better by A.M. Best in amounts sufficient to protect the Contractor and Owner from claims under Workers Compensation Acts and any other claims for property damage and/or bodily injury, including death, which may arise from the performance of the Work under this Subcontract, whether the Work is performed by the Subcontractor, its subcontractor, or anyone directly or indirectly employed by either of them.

Limits of coverage to be as follows:

(a)	Workers' Compensation Employers Liability/Ohio Stop Gap	Statutory \$ 1,000,000
(b)	Commercial General Liability: Bodily injury/property damage per occurrence General Aggregate Products/Completed Operations Aggregate	\$ 1,000,000 \$ 2,000,000 \$ 2,000,000
(c)	Commercial Automobile Liability: Combined Single Limit (including Owned, Hired, and Non-Owned Autos)	\$1,000,000
(d)	Excess/Umbrella Liability (over Employer's Liability, General Liability, and Auto)	\$ 1,000,000

Liability policy requirements. The General Liability policy must be written on the current edition of ISO form CG 00 01 or equivalent. The policy shall have no modifications limiting coverage for contractual liability, damage to work performed by subcontractors, residential construction, earth movement, explosion, collapse, or underground damage. The policy shall be endorsed to provide that the General Aggregate Limit applies separately to each of the insured Contractor's projects. The Owner (including its officers, directors and employees) shall be named as Additional Insured on the General Liability policy on ISO form CG 20 10 11 85 or its equivalent, affording coverage to Additional

Insured(s) for claims arising out of both ongoing and completed operations. Owner shall also receive coverage as an additional insured Contractor's Auto Liability policy. Contractor's policies shall be primary insurance as respects Owner, and any other insurance policy that Owner may have in effect shall be deemed excess and not contributory. The General Liability policy affording coverage to Owner as Additional Insured must be maintained for three (3) years after completion of the project. If any of the Work is performed by subcontractors, Contractor shall be responsible for ensuring subcontractors comply with these insurance requirements, and extend coverage to both Contractor and Owner as additionally insured.

Installation Floater. Contractor shall purchase and maintain an Installation Floater, covering loss or damage to materials and/or equipment suffered during the course of the Work. This insurance shall include the interests of the Owner, Contractor and any Subcontractors. The policy shall be written on special form and shall cover all materials specified for the job, whether onsite, offsite or in transit.

The Contractor will submit to the Owner certificates of insurance (including a certificate of compliance from the Ohio Bureau of Workers' Compensation for Ohio subcontractors) certifying that the insurance policies required by this agreement are in force and shall be maintained for the duration of the Project. Contractor shall also provide copies of additional insured endorsement(s) as required herein. Full copies of policies shall be provided upon Owner's request. Certificates shall reflect Owner's status as an additional insured and shall provide that Owner is to be provided thirty (30) days advance written notice in the case of cancellation or nonrenewal of the required policies (10 days if cancelled due to nonpayment of premium).

Until said certificate of insurance is properly executed and delivered to the City, the Contractor shall not move its equipment or laborers onto the premises or begin performance of the work specified under an awarded agreement. If the Contractor fails to provide the required insurance, the City of Bellbrook shall have the right to disqualify the Contractor. **Proof of insurance should be included in the submitted bid documents.** 

- References: Contractor must provide five (5) references of customers with successful implementations of similar size and scope with work performed within the past five (5) years. Please include name, address, contact and phone number. If sub-contractors or business partners will be used in conjunction with the installation or maintenance of this project, please provide references as stipulated above. References should be included in bid documents
- Inspection: It is understood within this agreement that any problems such as equipment failure, unspecified maintenance, lack of performance and any other conditions outlined in the scope of service not performed by the Contractor will be under immediate review by the City of Bellbrook.

- License and Permits: It shall be the responsibility of the successful bidder to obtain all licenses and permits required to perform this service at no additional cost to the City of Bellbrook.
- Fimeline: Provide an estimated, standard timeline for installation, implementation and creative design services. Timeline should be included in bid documents.
- Configuration and Pricing: Bidder must itemize all charges for individually identifiable components of the proposed system, including all associated installation, programming and training if applicable. Bidder must include charges for all components required to connect any applicable applications.

# **RFP Checklist:**

Please review and check off these 10 most important items to consider when responding to an RFP for the City of Bellbrook:

<b>Read the <u>entire</u> document.</b> Note critical items such as: mandatory requirements; supplies/services required; submittal dates; number of copies required for submittal; contract requirements (i.e., contract performance, insurance requirements, performance and/or reporting requirements, etc.).
Note the procedures for communication with the City during the RFP process. All communication during the RFP process must be in writing. Offerors should not contact City personnel or officials outside of the opportunity provided in the document.
Attend the pre-proposal conference if one is offered. These conferences provide an opportunity to ask clarifying questions, obtain a better understanding of the project, or to notify the City of any ambiguities, inconsistencies, or errors in the RFP.
<b>Take advantage of the "question and answer" period.</b> Submit your questions by the due date listed and view the answers given in the formal "addenda" issued for the RFP. All addenda issued for an RFP are posted on the City's website and will include all questions asked and answered concerning the RFP.
<b>Follow the format required in the RFP</b> when preparing your response. Provide point-by-point responses to all sections in a clear and concise manner.
<b>Provide complete answers/descriptions.</b> Read and answer <b>all</b> questions and requirements. Don't assume the City or the evaluating staff will know what your company capabilities are or what items/services you can provide, even if you have previously contracted with the City of Bellbrook. The proposals are evaluated based solely on the information and materials provided in your response.
Use the forms provided, if any. e.g., bidders submittal page, reference forms, attachment forms, etc.

**Before submitting your response**, check the City's website at: <u>https://www.cityofbellbrook.org/page/Bids</u> to see whether any addenda were issued for the RFP.

**Review and read the RFP document again** to make sure that you have addressed all requirements. Your original response and the requested copies must be identical and be complete. The copies are provided to the evaluating staff members and will be used to score your response.

**Submit your response on time.** Note all the dates and times listed in the RFP and be sure to submit all required items on time. Late proposal responses are *never* accepted.

# Please Note:

All potential contractors are strongly urged to submit supporting documentation as to their qualifications to perform the Scope of Work.

Certificate of Insurance, Reference List and Timeline must be attached.

If additional comments or conditions are desired, please attach a separate sheet providing details.

Include all proposed equipment specifications; showing manufacturer name, model, etc. depicting unit specifications and other pertinent information.

# **Certification:**

The undersigned on the Bid Proposal certifies that the Instructions to Bidder has been carefully examined, is thoroughly familiar with the terms and specifications applicable to and made part of this Request for Proposal, and understands and is capable of meeting the provisions within to the quality, type and grade of work requested. The undersigned further certifies the prices shown in the schedule of items contained within the Proposal/Bid are in accordance with the conditions, terms and specifications of the proposal and that any exception taken thereto may disqualify the bid.

Signature
Date

Print Name
Title

Email Address
Phone

Company Name
City of Bellbrook

Request for Proposal Book

# City of Bellbrook Request for Proposals

# RFP 2023-01

# Advertised as: Franklin and Main Street Improvements

# Release Date: <u>August 29, 2023</u> Closing Date: <u>September 29, 2023</u>

The City of Bellbrook, a municipal corporation, is seeking bids from qualified firms for the construction of mid-block crosswalks, repaving, curbing, landscape and all other necessary appurtenances to the Franklin and Main Street area of Downtown Bellbrook.

# 1. General Information

- 1.1. The City of Bellbrook invites qualified firms to submit proposals for the construction of mid-block crosswalks, repaving, curbing, landscape and all other necessary appurtenances as designated in the attached project construction documents. Proposals shall be submitted in accordance with the Documents and Requirements as set forth in this formal "Request for Proposals." The Contract that will result from this "Request for Proposals" will include what is indicated in Section 4 "Scope of Work" of this RFP.
- 1.2. A City Review and Selection Committee will evaluate the proposals submitted.
- 1.3. During evaluation, the City Review and Selection Committee reserves the right, where it may serve the City's best interest, to request additional information or clarification from the Offeror, or to allow corrections of errors or omissions. Oral interviews may be conducted by the City Review and Selection Committee for the Contractors who submit a Proposal and were short listed.
- 1.4. Submission of a proposal indicates acceptance by the Offeror of the conditions contained in this Request for Proposals, unless clearly and specifically noted in the proposal submitted and confirmed in the resultant contract between the City of Bellbrook and the Contractor selected.
- 1.5. There is no expressed or implied intent or obligation for the City of Bellbrook to reimburse responding firms for any expenses incurred in preparing proposals, as well as travel expenses during interviews in response to this Request for Proposals.
- 1.6. The City of Bellbrook shall reserve the right to terminate any agreement resultant from this solicitation and subsequent action for cause but not limited to inadequacy of performance.

# 2. Contact Person/Communication

2.1. Until the receipt and opening of proposals, the proposers' principal contact with the City of Bellbrook will be as listed below. All questions are to be submitted in writing and potential Bidders will receive copies of all questions and answers

except for the questions that are considered proprietary. Questions will only be received through <u>September 27, 2023</u>

Rob Schommer City of Bellbrook 15 E. Franklin St. Bellbrook, Ohio 45305 Email: rob@cityofbellbrook.org

2.2. All contacts and communication regarding the proposal should be with the above named individual only. Bidders contacting other City Staff or Officials may be disqualified for doing so.

# 3. Background Information

3.1. The City of Bellbrook a municipal corporation, is seeking bids from qualified firms for the construction of mid-block crosswalks, paving, curbing, landscaping and all other necessary appurtenances in the Downtown area of Bellbrook. The City has previously commissioned a study to address the Streetscape of the downtown area including an emphasis on walkability and pedestrian safety. This project is designed to be one phase of several projects to fully implement the design and plans of the Streetscape Study.

# 4. Scope of Work

- 4.1. The following is a list of provisions and requirements falling under the expected Scope of Work:
  - a) Construction of mid-block crosswalks, repaving, curbing, landscaping, hardscaping, and all other necessary appurtenances in accordance to the Construction Documents contained herein as Attachment A

# 5. RFP Requirements:

5.1. Submitting RFP Proposal packages:

a) Offeror will submit a comprehensive and thorough written plan for construction of the crosswalks, repaving, curbing, landscaping, etc as detailed in the Construction Documents as referenced in Attachment A. Pricing must be listed on the proposal, and no sales tax should be included.

# 6. Evaluation of Proposals and Required Information

- 6.1. Proposals submitted will be evaluated by the City Review and Selection Committee.
- 6.2. The Committee may call for oral interviews. The City reserves the right to retain all proposals submitted and use and idea in a proposal regardless of whether or not said proposal is selected.
- 6.3. The evaluation factors considered in the selection process will weigh heavily into the City's decision making process. These evaluation requirements are

considered to be minimum requirements. More points may be awarded for exceeding the minimum requirements.

# 7. Right to Reject Proposals

- 7.1. Submission of proposals indicates acceptance by the Offering Firm of the Conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted and confirmed in the subsequent Agreement between the City of Bellbrook and the selected firm.
- 7.2. The City of Bellbrook reserves the right to reject any or all proposals and to award to the proposer the City determines to be most qualified and whose award of the contract will be in the best interests of the City.
- 7.3. Late proposals will not be accepted. Offerors are held responsible that their proposals arrive at the City of Bellbrook on or before the designated date and time.

# 8. Withdrawal of Proposals

8.1. Requests to withdraw proposals received after the date and time set for bid opening will not be considered. Only requests to withdraw proposals prior to that date and time will be considered.

# 9. Contract Termination

9.1. The City of Bellbrook reserves the right to terminate any subsequent Agreement or Contract as a result of this RFP if the Contractor does not perform as required by the Terms and Conditions therein.

\*\*\* END OF DOCUMENT \*\*\*

# Estimate Franklin & Main

Estimated Cost:\$817,287.41

Contingency: 4.00%

# Estimated Total: \$849,978.91

CONTINGENCY = INFLATION (4%)

# Base Date: 08/11/23

Spec Year: 23

Unit System: E

Work Type:

Highway Type:

Urban/Rural Type: URBAN CLASS

Season: SPRING

County: GREENE

Latitude of Midpoint: 393810

Longitude of Midpoint: -840415

District: 08

Federal/State Project Number:

Prepared by ASN on 07/17/23 Checked by BMG on 07/17/23 Approved by BMG on 07/17/23

Estimate: Franklin & Main				
Line # Item Number Description Supplemental Description	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
Group 0010: Roadway				
0057 204E10000 SUBGRADE COMPACTION	63.00	SY	\$5.66	\$356.58
0058 202E30000 WALK REMOVED	1,309.00	SF	\$9.19	\$12,029.71
0059 608E10000 4" CONCRETE WALK	2,018.00	SF	\$10.14	\$20,462.52
0060 202E32000 CURB REMOVED	204.00	FT	\$22.25	\$4,539.00
0061 202E23000 PAVEMENT REMOVED	228.00	SY	\$23.35	\$5,323.80
0062 608E52000 CURB RAMP	461.00	SF	\$32.31	\$14,894.91
0063 203E10000 EXCAVATION	30.00	CY	\$42.82	\$1,284.60
0064 608E53020 DETECTABLE WARNING	61.00	SF	\$43.31	\$2,641.91
0065 203E20000 EMBANKMENT	15.00	CY	\$44.21	\$663.15
0066 608E53021 DETECTABLE WARNING, AS PER PLAN	127.00	SF	\$65.00	\$8,255.00
0067 608E98000 WALKWAY, MISC.: SIDEWALK PAVER	967.00 S	SF	\$65.00	\$62,855.00
0068 201E11000 CLEARING AND GRUBBING	1.00	LS	\$5,000.00	\$5,000.00
				Total for Group 0010:\$138,306.18
Group 0020: Erosion Control				
0069 832E15000 STORM WATER POLLUTION PREVENTION	1.00 PLAN	LS	\$2,500.00	\$2,500.00
0070 832E30000 EROSION CONTROL	10,000.00	EACH	\$1.00	\$10,000.00
				Total for Group 0020:\$12,500.00
Group 0040: Drainage				
0017 611E99830	146.00	FT	\$105.00	\$15,330.00
2:49:45PM Friday, August 11, 2023				Page 2 of 5

**Extension** 

# <u>Line # Item Number</u> <u>Description</u> <u>Supplemental Description</u>

SPECIAL - TRENCH DRAIN

Group 0050	: Pavement				
0018 254E	01000	24,063.00	SY	\$3.05	\$73,392.15
PAVEMENT	PLANING, ASPHALT CONCRETE	E			
0019 407E	20000	2,054.00	GAI	\$3.93	\$8,072.22
	KING TACK COAT	2,001.00	0,12	¥0.00	\$0,01 <u>_</u>
0020 609E	26000	209.00	FT	\$47.74	\$9,977.66
CURB, TYP	E 6				
0021 304E	20000	14.00	CY	\$104.21	\$1,458.94
AGGREGA	TE BASE				
0022 253E		400.00	SY	\$135.00	\$54,000.00
PAVEMENT	REPAIR				
0023 441E	70000	1,006.00	CY	\$285.00	\$286,710.00
ASPHALT C	ONCRETE SURFACE COURSE, 1	ГҮРЕ 1, (449),	PG64-22		
0024 441E		29.00		\$400.00	\$11,600.00
	CONCRETE, MISC.: TRAFFIC BONE PATTERN (12-101), CC			MPED CROSSWALK DIAGONAL	
	56000	11.00		\$449.44	\$4,943.84
ASPHALT C	ONCRETE BASE, PG64-22, (449)				
0026 441E	70300	5.00	CY	\$500.00	\$2,500.00
ASPHALT C	CONCRETE INTERMEDIATE COUL	RSE, TYPE 2,	(449)		

# Total for Group 0050:\$452,654.81

Total for Group 0040:\$15,330.00

# Group 0120: Traffic Control

0027 644E00400	389.00	FT	\$2.08	\$809.12
CHANNELIZING LINE, 8"				
0028 644E01200	1,014.00	FT	\$2.37	\$2,403.18
PARKING LOT STALL MARKING				
0029 644E00620	924.00	FT	\$3.72	\$3,437.28
CROSSWALK LINE, 12"				
0030 644E00630	70.00	FT	\$5.67	\$396.90
CROSSWALK LINE, 24"				
0031 644E00700	426.00	FT	\$6.01	\$2,560.26
TRANSVERSE/DIAGONAL LINE				
0032 644E00700	216.00	FT	\$6.01	\$1,298.16
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Friday, August 11, 2023				Fage 5 01 5

Estimate: Fran	klin & Main				
Line # Iten Descript Supplem		<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
TRANSVE	ERSE/DIAGONAL LINE				
0033 644 STOP LIN	E00500 IE	128.00	FT	\$7.78	\$995.84
	E03100 MOUNTED SUPPORT, NO. 3 POST	21.00	FT	\$18.36	\$385.56
	E84900 L OF GROUND MOUNTED SIGN AND	2.00 DISPOSAL	EACH	\$22.66	\$45.32
	E80100 AT SHEET	58.00	SF	\$25.25	\$1,464.50
	E08600 ST REFLECTOR	3.00	EACH	\$47.82	\$143.46
	E85100 . OF GROUND MOUNTED SIGN AND		EACH N	\$86.48	\$86.48
0039 644 LANE AR	E01300 ROW	10.00	EACH	\$116.87	\$1,168.70
	E01400 N PAVEMENT, 72"	1.00	EACH	\$124.95	\$124.95
0041 644 EDGE LIN	E00104 NE, 6"	2.13	MILE	\$4,175.67	\$8,894.18
0042 644 CENTER	E00300 LINE	1.23	MILE	\$5,416.29	\$6,662.04

# Total for Group 0120:\$30,875.93

# Group 0130: Traffic Signals

-					
0043 PEI	632E26000 DESTRIAN PUSHBUTTON	2.00	EACH	\$273.73	\$547.46
0044 GR	625E32000 OUND ROD	2.00	EACH	\$364.93	\$729.86
0045 PEI	632E64020 DESTAL FOUNDATION	2.00	EACH	\$1,234.15	\$2,468.30
0046 SIG	630E97700 NING, MISC.: SOLAR-POWERED RECTA			\$8,500.00 D FLASHING BEACON (RRFB) SIGN ASSEMBLY	\$17,000.00
				Total for Group 0130:\$20,7	745.62

\$27,980.00

1.00 LS

Group 0140: Landscaping

0047	661E99000	

2:49:45PM

\$27,980.00

Supplemental Description

**Description** 

Extension

# SPECIAL - LANDSCAPING (SEE SUPPLEMENTAL ESTIMATE FOR ITEMIZED LANDSCAPE QUANTITIES)

				Total for Group 0140:\$27,980.00
Group 0220: Maintenance of Traffic				
0048 614E21000 WORK ZONE CENTER LINE, CLASS I	2.46	MILE	\$1,500.32	\$3,690.79
0049 614E22010 WORK ZONE EDGE LINE, CLASS I, 6"	4.26	MILE	\$1,482.71	\$6,316.34
0050 614E23000 WORK ZONE CHANNELIZING LINE, CLASS I, 8"	778.00	FT	\$0.81	\$630.18
0051 614E26000 WORK ZONE STOP LINE, CLASS I	214.00	FT	\$3.54	\$757.56
				Total for Group 0220:\$11,394.87
Group 0230: Incidentals				
0054 623E10000 CONSTRUCTION LAYOUT STAKES AND SURVE	1.00 YING	LS	\$7,500.00	\$7,500.00
0055 614E11000 MAINTAINING TRAFFIC	1.00	LS	\$50,000.00	\$50,000.00
0056 624E10000 MOBILIZATION	1.00	LS	\$50,000.00	\$50,000.00

Total for Group 0230:\$107,500.00



6305 Centre Park Drive West Chester, OH 45069 phone > 513.779.7851 fax > 513.779.7852 www.kleingers.com

## OPINION OF PROBABLE CONSTRUCTION COST BELLBROOK STREETSCAPE - W. FRANKLIN DATE: June 25, 2023

LANDSCAPE ITEMS					
Turfgrass Seed	150	SF	\$	0.25	\$ 37.50
Topsoil Lawn (6" depth)	3	CY	\$	65.00	\$ 195.00
Topsoil Plant Bed (12" depth)	23	CY	\$	65.00	\$ 1,495.00
Plant Beds (Plant Material)	650	SF	\$	12.00	\$ 7,800.00
Shredded Hardwood Mulch (2" depth)	4	CY	\$	90.00	\$ 360.00
	L	ANDSCA	PE SU	JBTOTAL	\$ 9,887.50
SITE AMENITIES					
Planter	10	EA	\$	1,500.00	\$ 15,000.00
Benches	4	EA	\$	1,975.00	\$ 7,900.00
Litter Receptacles	1	EA	\$	3,000.00	\$ 3,000.00
Bike Rack (installation only)	2	EA	\$	860.00	\$ 1,720.00
	SITE	AMENITIE	ES SL	JBTOTAL	\$ 27,620.00
SUBTOTAL				±	\$ 27,980.00
*Estimated Inflation costs included in full praiset cost					

\*Estimated Inflation costs included in full project cost estimate.

THE LANDSCAPE ARCHITECT HAS USED HIS/HER BEST JUDGEMENT ON COST. THE LANDSCAPE ARCHITECT HAS NO CONTROL OVER THE COST OF LABOR, MATERIALS, OR THE CONTRACTOR'S METHODS OF DETERMINING BID PRICES, OR OVER COMPETITIVE BIDDING OR MARKET CONDITIONS. THEREFORE, THE LANDSCAPE ARCHITECT CANNOT GUARANTEE THAT BIDS OR CONSTRUCTION COST WILL NOT VARY FROM ANY ESTIMATES OF PROBABLE CONSTRUCTION COST PREPARED BY HIM/HER.

# **Estimate WALNUT & MAIN**

Estimated Cost:\$180,034.08

Contingency: 4.00%

# Estimated Total: \$187,235.44

ALTERNATE BID (WALNUT AND MAIN STREET) CONTINGENCY = INFLATION (4%)

# Base Date: 08/11/23

Spec Year: 23

Unit System: E

Work Type:

Highway Type:

Urban/Rural Type: URBAN CLASS

Season: SPRING

County: GREENE

Latitude of Midpoint: 393810

Longitude of Midpoint: -840415

District: 08

Federal/State Project Number:

Prepared by ASN on 08/11/23 Checked by BMG on 08/11/23

Estimate: WALNUT & MAIN				
Line # <u>Item Number</u> Description Supplemental Description	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Extension</u>
Group 0010: Roadway				
0005 201E11000 CLEARING AND GRUBBING	1.00	LS	\$2,500.00	\$2,500.00
0006 202E23000 PAVEMENT REMOVED	213.00	SY	\$23.76	\$5,060.88
0007 202E30000 WALK REMOVED	342.00	SF	\$14.16	\$4,842.72
0008 202E32000 CURB REMOVED	91.00	FT	\$28.14	\$2,560.74
0009 202E35100 PIPE REMOVED, 24" AND UNDER	30.00	FT	\$34.83	\$1,044.90
0010 202E58100 CATCH BASIN REMOVED	1.00	EACH	\$472.16	\$472.16
0011 203E10000 EXCAVATION	15.00	CY	\$48.48	\$727.20
0012 203E20000 EMBANKMENT	5.00	CY	\$12.68	\$63.40
0013 204E10000 SUBGRADE COMPACTION	63.00	SY	\$5.66	\$356.58
0014 608E10000 4" CONCRETE WALK	401.00	SF	\$15.48	\$6,207.48
0015 608E52000 CURB RAMP	394.00	SF	\$33.11	\$13,045.34
0016 608E98000 WALKWAY, MISC.: SIDEWALK PAVER	1,025.00 S	SF	\$45.00	\$46,125.00
				Total for Group 0010:\$83,006.40
Group 0020: Erosion Control				
0017 832E15000 STORM WATER POLLUTION PREVENTION	1.00 PLAN	LS	\$2,500.00	\$2,500.00
0018 832E30000 EROSION CONTROL	10,000.00	EACH	\$1.00	\$10,000.00
				Total for Group 0020:\$12,500.00
Group 0040: Drainage				
0019 611E01100	20.00	FT	\$205.00	\$4,100.00

2:47:37PM Friday, August 11, 2023

Estimate: WALNUT & MAIN <u>Line #</u> <u>Item Number</u>	Quantity	Unite	Unit Price	Extension
<u>Description</u> <u>Supplemental Description</u>	Quantity	<u>omis</u>	<u>Unit Price</u>	Extension
6" CONDUIT, TYPE C				
0020 611E04400 12" CONDUIT, TYPE B	6.00	FT	\$250.00	\$1,500.00
0021 611E98150 CATCH BASIN, NO. 3	1.00	EACH	\$4,268.87	\$4,268.87
				Total for Group 0040:\$9,868.87
Group 0050: Pavement				
0022 301E56000 ASPHALT CONCRETE BASE, PG64-22, (44)	11.00 9)	CY	\$449.44	\$4,943.84
0023 304E20000 AGGREGATE BASE	14.00	CY	\$104.21	\$1,458.94
0024 407E20000 NON-TRACKING TACK COAT	9.00	GAL	\$4.19	\$37.71
0025 441E70000 ASPHALT CONCRETE SURFACE COURSE	3.00 , TYPE 1, (449),		\$550.00	\$1,650.00
0026 441E70300 ASPHALT CONCRETE INTERMEDIATE CO	5.00 URSE, TYPE 2,	•	\$185.84	\$929.20
0027 441E91000 ASPHALT CONCRETE, MISC.: TRAFF HERRINGBONE PATTERN (12-101), C		XD STA	\$400.00 MPED CROS	\$9,200.00 \$9,200.00
0028 609E26000 CURB, TYPE 6	278.00		\$45.52	\$12,654.56
				Total for Group 0050:\$30,874.25
Group 0060: Water Work				
0029 638E10800 VALVE BOX ADJUSTED TO GRADE	3.00	EACH	\$717.02	\$2,151.06
0030 638E10900 SERVICE BOX ADJUSTED TO GRADE	1.00	EACH	\$1,500.00	\$1,500.00
				Total for Group 0060:\$3,651.06
Group 0120: Traffic Control		E A OLI	A70.00	
0031 630E85100 REMOVAL OF GROUND MOUNTED SIGN A	4.00 ND REERECTIO	EACH DN	\$73.22	\$292.88
				Total for Group 0120:\$292.88

Estimate: WALNUT & MAIN	١			
Line # Item Number Description Supplemental Descr	<u>Quantity</u> iption	<u>Units</u>	Unit Price	<u>Extension</u>
Group 0130: Traffic Sign	nals			
0032 625E32000 GROUND ROD	2.00	EACH	\$364.93	\$729.86
0033 630E97700 SIGNING, MISC.: SO	2.00 LAR-POWERED RECTANGUL		\$8,500.00 ID FLASHING BEACON (RRFB) SIGN ASSEMBL	\$17,000.00 Y
0034 632E26000 PEDESTRIAN PUSHBU	2.00 TTON	EACH	\$273.73	\$547.46
0035 632E64020 PEDESTAL FOUNDATIO	2.00 DN	EACH	\$1,234.15	\$2,468.30
			Total for Group 0130:\$20	,745.62

Group 0140: Landscaping

0036 661E99000 1.00 LS \$19,095.00 \$19,095.00 \$19,095.00 \$19,095.00

Total for Group 0140:\$19,095.00

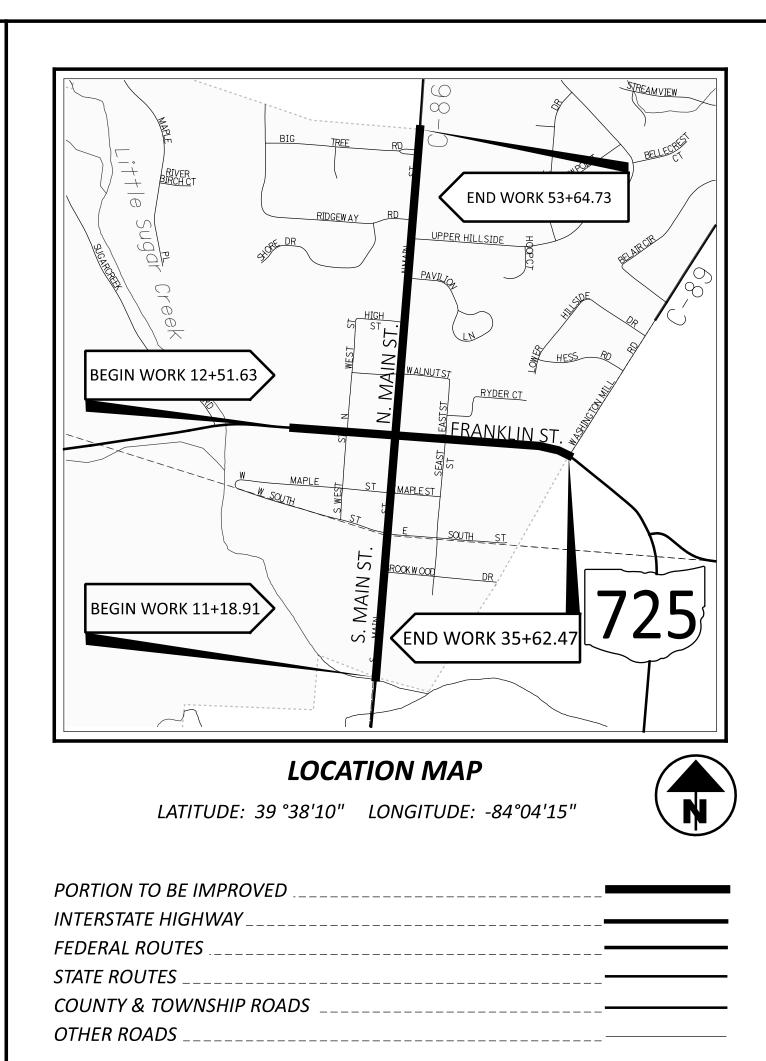


## OPINION OF PROBABLE CONSTRUCTION COST BELLBROOK STREETSCAPE - N. MAIN DATE: June 25, 2023

LANDSCAPE ITEMS						
Turfgrass Seed	620	SF	\$	0.25	\$	155.00
Topsoil Lawn (6" depth)	10	CY	\$	65.00	\$	650.00
Topsoil Plant Bed (12" depth)	13	CY	\$	65.00	\$	845.00
Plant Beds (Plant Material)	445	SF	\$	12.00	\$	5,340.00
Shredded Hardwood Mulch (2" depth)	3	CY	\$	90.00	\$	270.00
	L	ANDSCA	PE SL	IBTOTAL	\$	7,260.00
SITE AMENITIES						
Planter	6	EA	\$	1,500.00	\$	9,000.00
			¢	1 075 00	¢	1,975.00
Benches	1	EA	\$	1,975.00	Ψ	1,975.00
	1	EA EA	ծ \$	,	φ \$	860.00
Benches Bike Racks (installation only)	1 1 SITE	EA	\$	,	\$	,
	1 1 SITE	EA	\$	860.00	\$	860.00

\*Estimated Inflation costs included in full project cost estimate.

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# FRANKLIN AND MAIN STREET **IMPROVEMENTS**

TITLE SH SCHEMA TYPICAL GENERA MAINT GENERA PLAN SH CURB BL INTERSE TRAFFIC LANDSC



defend and hold harmless LJB Inc. from and against any and all claims, liability

and expense, including, but not limited to, reasonable attorney's fees, arising

from such use, reproduction or modification.

	STANDARD CONSTRUCTION DRAWINGS						MENTAL CATIONS	SPECIAL PROVISION
	BP-3.1	1/21/22	TC-71.10	4/21/23		800-2023	7/21/2023	
	BP-5.1	7/15/22	TC-74.10	1/20/23		832	7/15/22	
	BP-7.1	1/20/23	TC-87.10	7/21/23				
ENGINEER'S SEAL								
	CB-3	7/16/21						
SHEETS 1-42								
BRANT GRESSEL E-87761	DM-1.1	7/17/20						
ALLOTOL								
BRANT	MT-95.61	4/19/19						
E★ GRESSEL ★ E	MT-97.11	1/20/17						
E-87761 &	MT-99.20	4/19/19						
REGISTERED CALL								
S/ONAL ENGLY	TC-41.20	10/18/13						
· / / / / / / / / / / / / / / / / / / /	TC-42.20	10/18/13						
	TC-52.10	10/18/13						
	TC-52.20	1/15/21						

**GREENE COUNTY** 

# CITY OF BELLBROOK

# N/A

N/A

# **PROJECT DESCRIPTION**

THIS PROJECT WILL MILL AND OVERLAY APPROXIMATELY 2,400 FT OF FRANKLIN STREET AND 4,500 FT OF MAIN STREET WITHIN THE CITY'S DOWNTOWN CORE. SEVERAL EXISTING CURB RAMPS WITHIN THE LIMITS WILL BE IMPROVED TO MEET ADA REQUIREMENTS. ENHANCED CROSSWALKS WILL ALSO BE CONSTRUCTED AT A CROSSING ON FRANKLIN ST AND THE WALNUT ST AND MAIN ST INTERSECTION.

# EARTH DISTURBED AREAS

# **INDEX OF SHEETS:**

SHEET	1
ΊΑΤΙϹ	2
AL SECTIONS	3 - 4
RAL NOTES	5 - 6
ENANCE OF TRAFFIC	7
RAL SUMMARY	8 - 9
HEETS	10 - 23
SUMP OUT DETAILS	24 - 25
ECTION DETAILS	26 - 27
CCONTROL	28 - 42
CAPE ARCHITECTURE PLANS	43 - 47

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# FEDERAL PROJECT NUMBER

# RAILROAD INVOLVEMENT

**PROJECT EARTH DISTURBED AREA:** ESTIMATED CONTRACTOR EARTH DISTURBED AREA: NOTICE OF INTENT EARTH DISTURBED AREA:

0.25 ACRES ACRES N/A\*

\* NOI NOT REQUIRED - PROJECT EDA < 1 ACRE

# 2023 SPECIFICATIONS

STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF NSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN E PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

SHEET TITLE

ESIGN AGENCY



47

1

APPROVED DATE \_\_\_

ROB SCHOMMER, BELLBROOK CITY MANAGER

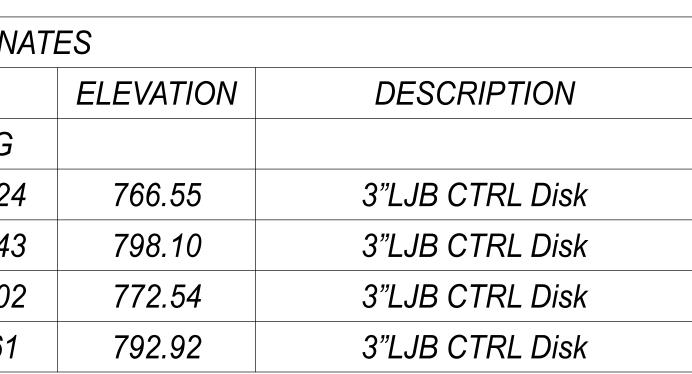
		PF	ROJECT CONTR	OL COORDIN
POINT NO.	G	RID	GRC	OUND
	NORTHING	EASTING	NORTHING	EASTING
CP1	599391.20	1527676.12	599391.16	1527676.24
CP2	600171.20	1526223.43	600171.23	1526223.43
CP3	598128.26	1526056.03	598128.11	1526056.02
CP4	599825.69	1525022.71	599825.69	125022.61

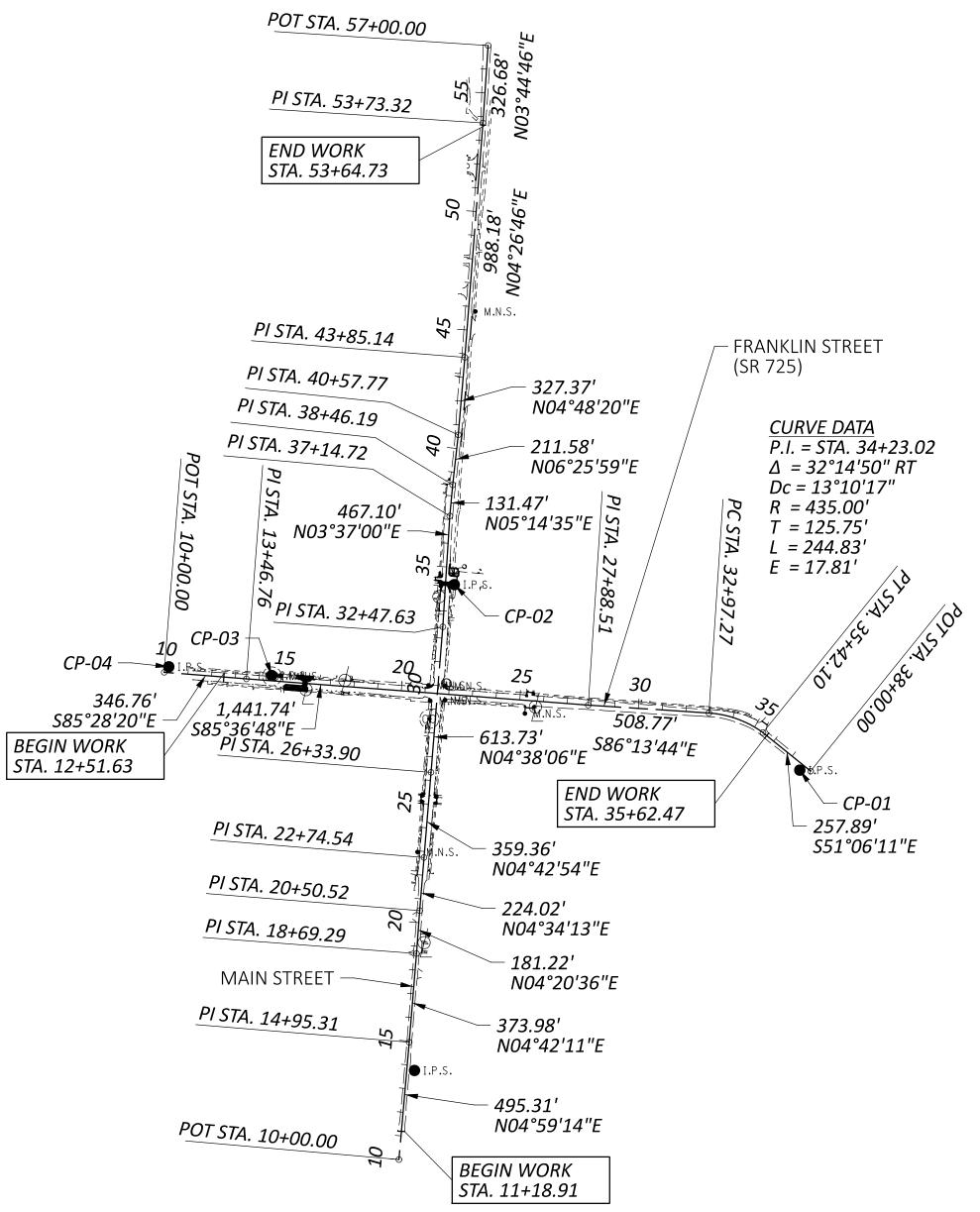
# PROJECT CENTERLINE COORDINATES - GROUND

			er to er te
NORTHING	EASTING	STATION	DESCRIPTION
599802.381	1525003.275	10+00.00	POT
599775.006	1525348.958	13+46.76	PI
599664.732	1526786.477	27+88.51	PI
599631.269	1527294.142	32+97.27	PC
599622.998	1527419.620	34+23.02	PI
599549.051	1527521.331	35+42.10	PT
599387.114	1527722.045	38+00.00	POT

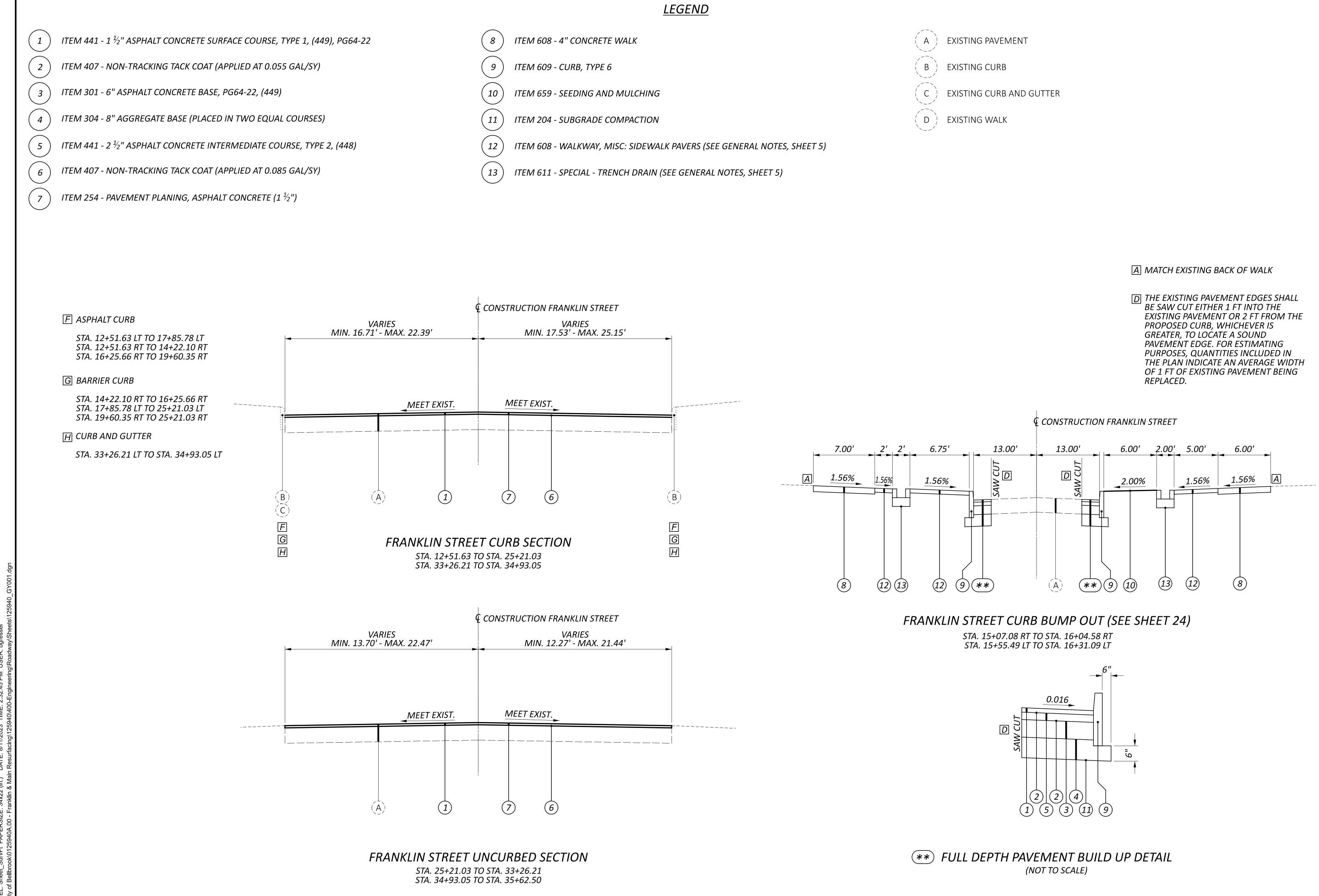
FRANKLIN AND MAIN STREET IMPROVEMENTS :43 PM 32: 8/11/2023 7 Resurfacine/1 DATE Main I (in.) din & 34x22 SIZE: 5 MODEL:

PROJECT CENTERLINE COORDINATES - GROUND						
NORTHING	EASTING	STATION	DESCRIPTION			
597753.572	1525990.491	10+00.00	POT			
598247.006	1526033.550	14+95.31	PI			
598619.73	1526064.214	18+69.29	PI			
598800.432	1526077.938	20+50.52	PI			
599023.743	1526095.789	22+74.54	PI			
599381.89	1526125.328	26+33.90	PI			
599993.609	1526174.922	32+47.63	PI			
600459.775	1526204.386	37+14.72	PI			
600590.694	1526216.4	38+46.19	PI			
600800.943	1526240.106	40+57.77	PI			
601127.16	1526267.53	43+85.14	PI			
602112.368	1526344.137	53+73.32	PI			

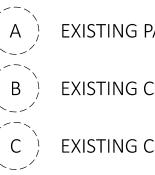




HORIZONTAL SCALE IN FEET 400 200 800
CA SCA 200
ATIC
SCHEMATIC
DESIGN AGENCY
DESIGNER AA REVIEWER BMG 07/19/23 PROJECT ID 125940
125940 SHEET TOTAL 2 47



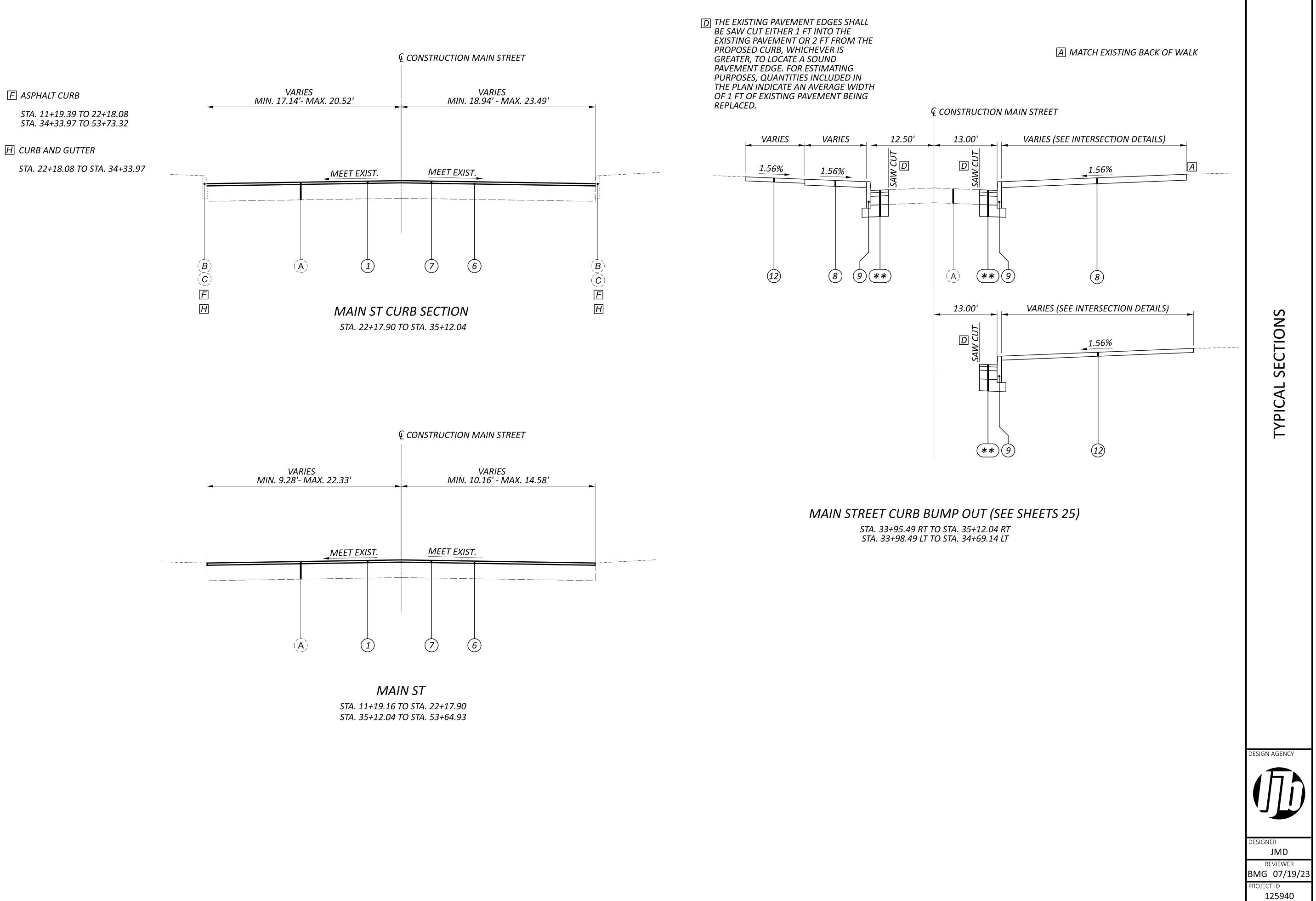
FRANKLIN AND MAIN STREET IMPROVEMENTS

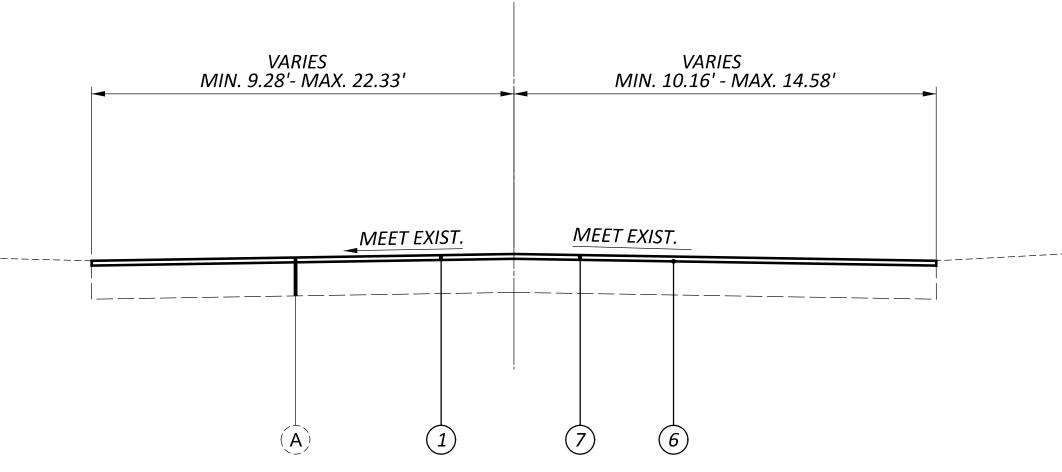


**ECTIONS** 

S TYPICAL ESIGN AGENCY ESIGNER JMD REVIEWER BMG 07/19/23 ROJECT ID 125940 SHEET TOTAL 3 47

FRANKLIN AND MAIN STREET IMPROVEMENTS







SHEET

4

TOTAL 47

# UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE **PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:** 

GAS: CENTERPOINT ENERGY COMPANY (DISTRIBUTION) KELLY SPURLOCK 6500 CLYO RD. CENTERVILLE, OH 45459 937-291-7116 KELLY.SPURLOCK@CENTERPOINTENERGY.COM

CENTERPOINT ENERGY COMPANY (TRANSMISSION) NICK DEARING 6500 CLYO RD. CENTERVILLE, OH 45459 765-648-3246 NICHOLAS.DEARING@CENTERPOINTENERGY.COM

ELECTRIC: AES OHIO WILLIAM WARD 1900 DRYDEN RD. *DAYTON, OH 45439* 937-554-9063 WILLIAM.WARD@AES.COM

WATER: CITY OF BELLBROOK RYAN PASLEY 15 EAST FRANKLIN ST. BELLBROOK, OH 45305 937-296-3588 R.PASLEY@CITYOFBELLBROOK.ORG

**GREENE COUNTY SANITARY ENGINEERS** 667 DAYTON-XENIA RD. XENIA, OH 45385 937-562-7461 SED\_PED@GREENECOUNTYOHIO.GOV

SANITARY: **GREENE COUNTY SANITARY ENGINEERS** 667 DAYTON-XENIA RD. *XENIA, OH 45385* 937-562-7461 SED\_PED@GREENECOUNTYOHIO.GOV

TELECOMM: AT&T - OHIO HOWARD LAUDERMILK 3233 WOODMAN DR. *DAYTON, OH 45420* 937-296-3588 HL1596@ATT.COM

CHARTER COMMUNICATIONS TARA WILLIAMSON 3691 TURNER RD. *DAYTON, OH 45415* 937-425-6854 TARA.WILLIAMSON@CHARTER.COM

LUMEN TERRY SPAW 9490 MERIDIAN WAY WEST CHESTER, OH 45069 513-615-2282 TERRY.SPAW@LUMEN.COM

# SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMEN POSITIONING ON ODOT PROJECTS. SEE SH FOR A TABLE CONTAINING PROJECT CONT

USE THE FOLLOWING PROJECT CONTROL, AND HORIZONTAL POSITIONING PARAME

PROJECT CONTROL

**POSITIONING METHOD:** 

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVI GEIOD 18 (CONUS) GEOID:

HORIZONTAL POSITIONING

ELLIPSOID: 804.5' COMBINED SCALE FACTOR:

USE THE POSITIONING METHODS AND M THE ORIGINAL SURVEY TO RESTORE ALL N TO PRIMARY PROJECT CONTROL THAT AR DESTROYED BY CONSTRUCTION ACTIVITIE DAMAGED OR DESTROYED MONUMENTS CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

# FULL DEPTH PAVEMENT AND SIDEWALK

THE ENGINEER/INSPECTOR SHALL COMPL THE EXISTING ASPHALT PAVEMENT AND ( DETERMINE THE AMOUNT OF FULL DEPT NEEDED. THE PAVEMENT BUILDUP FOR FOR SHALL MATCH THE FULL DEPTH PAVEMEN TYPICAL SECTIONS ON SHEET 2.

THE FOLLOWING QUANITIES SHALL BE US ENGINEER/INSPECTOR, AS REPLACEMENT SIDEWALK IN POOR CONDITION.

ITEM 253 - PAVEMENT REPAIR, AS PER PLAN ITEM 608 - 4" CONCRETE WALK

# **CONSTRUCTION LIMITS**

THE CONSTRUCTION LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND **OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK** ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE CONSTRUCTION LIMITS.

ADDITIONALLY, CONSTRUCTION LIMITS FOR AREAS OUTSIDE OF CURB BUMP OUTS AND CURB RAMP REPLACEMENTS SHALL BE LIMITED TO THE EDGE OF PAVEMENT, FACE OF CURB AND/OR FACE OF GUTTER PLATE. EXACT CONSTRUCTION LIMIT LINES ARE NOT SHOWN WITHIN AREAS OF RESURFACING, FOR CLARITY.

# **CLEARING AND GRUBBING**

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES NO. TREES NO. STUMPS TOTAL

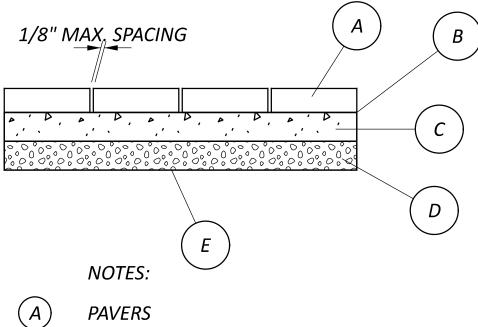
18" 0

	ITEM 608 - DETECTABLE WARNING, AS PER PLAN	ITEM 61.
10NUMENTS GOVERN ALL	REMOVE EXISTING BRICK DETECTABLE WARNING AND REPLACE WITH	FURNISH
CTS. SEE SHEET 2 OF THE PLANS	BRICK RED DETECTABLE WARNING PADS, AS SUPPLIED BY ADA	STORM V
DECT CONTROL INFORMATION.	SOLUTIONS OR APPROVED EQUAL. FOLLOW SPECFICIATIONS OUTLINED	SHEETS 2
	IN ODOT CMS SECTION 608.07. ALL LABOR AND MATERIAL REQUIRED TO	FOUNDR
CONTROL, VERTICAL POSITIONING,	REMOVE EXISTING DETECTABLE WARNINGS AND INSTALL NEW	LABOR A
G PARAMETERS FOR ALL SURVEYING:	DETECTABLE WARNINGS SHALL BE INCLUDED IN THE CONTRACT UNIT	IDENTIFI
	BID PRICE FOR ITEM 608 - DETECTABLE WARNING, AS PER PLAN.	BID PRIC
	ITEM 608 - WALKWAY, MISC: SIDEWALK PAVERS	ITEM 66
ODOT VRS		
	PAVING BRICK PAVER SHALL BE NOMINALLY 4" X 8" X 21/4" BRICK,	LANDSCA
	SOLID (UNCORED) COMPLYING WITH REQUIREMENTS OF ASTM C902,	SHEETS 4
	CLASS SX, TYPE I STANDARD SPECIFICATIONS FOR PEDESTRIAN AND	OUTLINE
1: NAVD88 8 (CONUS)	LIGHT TRAFFIC.	BID PRIC
	FINAL PAVER APPROVAL SHALL BE MADE ON SITE. CONTRACTOR SHALL	WORK SI
	PERFORM MOCKUP WITH A FIELD SAMPLE FOR REVIEW AND APPROVAL	WITH TH
	OF PAVERS PRIOR TO INSTALLATION OF UNIT PAVERS. THE FOLLOWING	
	COLOR SHOULD BE USED IN PAVER INSTALLATION:	AN ITEM
0.999912288		OTHER N
	"LIGHT COLOR" - "CLEAR RED (RUSTIC) #30" PER WG, OR APPROVED	THESE IT
DS AND MONUMENT TYPE USED IN	EQUAL.	PRICE FC
TORE ALL MONUMENTS RELATED		
DL THAT ARE DAMAGED OR	WG = WHITAKER GREER PAVERING BRICK CO., 1400 S. MAHONING AVE.,	ALTERNA
N ACTIVITIES. RESTORE THE	AFFIANCE, OH 44601, 800-947-2837	
NUMENTS IN ACCORDANCE WITH		THE CUR
	BITUMINOUS SETTING-BED MATERIALS	AND MA
		BID PACK
Т.	PRIMER FOR BASE: ASTM D 2028/D 2028M, CUTBACK ASPHALT, GRADE	THE RIGI
	AS RECOMMENDED BY UNIT PAVER MANUFACTURER.	FOR THIS
SIDEWALK REPAIR		
	FINE AGGREGATE FOR SETTING BED: ASTIM D 1073, NO. 2 OR NO. 3	IN THE E
ALL COMPELTE A FIELD VERIFICATION OF		PLACEM
IENT AND CONCRETE SIDEWALK TO	ASPHALT CEMENT: ASTM D 3381/D 3381M, VISCOSITY GRADE AC-10 OR	MAIN PR
FULL DEPTH AND SIDEWALK REPAIR	GRADE AC-20	
DUP FOR FULL DEPTH PAVEMENT REPAIR		
H PAVEMENT BUILDUP SHOWN ON THE	NEOPRENE MODIFIED ASPHALT ADHESIVE: PAVING MANUFACTURER'S	
)	STANDARD ADHESIVE CONSISTING OF OXIDIZED ASPHALT COMBINED	
	WITH 2 PERCENT NEOPRENE AND 10 PERCENT LONG-FIBERED MINERAL	
HALL BE USED, AT THE DISCRETION OF THE	FIBERS CONTAINING NO ASBESTOS	
LACEMENT FOR PAVEMENT AND/OR		

SAND FOR JOINTS: POLYMERIC SAND: FINE, SHARP, WASHED, NATURAL SAND OR CRUSHED STONE WITH 100 PERCENT PASSING NO. 16 SIEVE ADN NO MORE THAN 10 PERCENT PASSING NO. 200 SIEVE, MIXED WITH POLYMERS FOR PAVEMENT JOINT STABILIZATION.

1. PROVIDE SAND OF COLOR NEEDED TO PRODUCE REQUIRED JOINT COLOR.

MIX BITUNIMOUS SETTING-BED MATERIALS AT AN ASPHALT PLANT IN APPROXIMATE PROPORTION, BY WEIGHT, OF 7 PERCENT ASPHALT CEMENT TO 93 PERCENT FINE AGGREGATE UNLESS OTHERWISE INDICATED. HEAT MIXTURE TO 300 DEGREES F.



PAVERS

(B)

(c)

(D)

(E)

- 3/4" BITUMINOUS SETTING-BED
- 4" ITEM 452 NON-REINFORCED CONCRETE
- 4" ITEM 304 AGGREGATE BASE
- COMPACTED SUBGRADE PER 204.03

400 SY

1180 SF

# 1 - SPECIAL - TRENCH DRAIN

H AND CONSTRUCT A TRENCH DRAIN SYSTEM, TO CONVEY WATER THROUGH PROPOSED CURB BUMP OUTS SHOWN ON 24 AND 25. THE TRENCH DRAIN SYSTEM SHALL BE A NEENAH RY 4990-FX, WITH RIVERWALK GRATE, OR APPROVED EQUAL. ALL AND MATERIALS NEEDED TO CONSTRUCT THE TRENCH DRAINS TED IN THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT CE FOR ITEM 611 - SPECIAL - TRENCH DRAIN.

# 51 - SPECIAL - LANDSCAPING

APE ARCHITECTURE AND AESTHETICS PLANS ARE SHOWN ON 43 TO 47. ALL LABOR AND MATERIALS TO PERFORM THE WORK ED IN THESE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT CE FOR THIS ITEM.

HOWN ON SHEET 44 SHALL BE BID SEPARATE AND INCLUDED HE ALTERNATE BID QUANTITIES SHOWN ON SHEET 9.

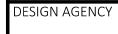
AIZED LIST OF PLANTS, SHRUBS, BOULDERS, BIKE RACKS AND MISCENALLEOUS ITEMS, CAN BE FOUND ON SHEETS 43 AND 44. TEMS SHOULD ALL BE INLCLUDED IN THE CONTRACT UNIT BID OR ITEM 661 - SPECIAL - LANDSCAPING.

# ATE BID - WALNUT AND MAIN STREET CURB BUMP OUT

RB BUMP OUT WORK SHOWN ON SHEET 25, AT THE WALNUT AIN STREET INTERSECTION, SHALL BE INCLUDED IN THE PROJECT KAGE AS AN ALTERNATE BID. THE CITY OF BELLBROOK RESERVES HT TO AWARD THE PROJECT AND REJECT THE ALTERNATE BID S WORK.

EVENT THE ALTERNATE BID IS NOT AWARDED, RESURFACING AND IENT OF PAVEMENT MARKINGS SHALL REMAIN A PART OF THE ROJECT, TO THE LIMITS SHOWN ON THE PLANS.

NOTES ENERAL J





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TOTAL

HEET

# 1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 RELATED SECTIONS 1. SECTION [321216] - "ASPHALT PAVING" FOR NEW ASPHALT PAVEMENT. 2. SECTION {321723 PLASTIC PAVEMENT MARKINGS

1.3 SUMMARY

A. DECORATIVE IMPRESSED ASPHALT SHALL CONSIST OF A DURABLE IMPRESSED AGGREGATE REINFORCED PREFORMED THERMOPLASTIC PAVEMENT MARKING SYSTEM (HEREIN "SYSTEM") THAT PROVIDES A TEXTURED HIGHLY ATTRACTIVE AND DURABLE TOPICAL TREATMENT TO THE SURFACE OF THE ASPHALT PAVEMENT.

B. THE SYSTEM IS INTENDED FOR USE ON ASPHALT PAVEMENTS TO CREATE TRAFFIC CALMING SOLUTIONS FOR DECORATIVE CROSSWALKS, MEDIANS, AND INTERSECTIONS. IT IS APPLIED OVER PAVEMENT TO CREATE FUNCTIONAL AND DECORATIVE CROSSWALKS AND INTERSECTIONS. AS SHOWN ON THE CONTRACT DRAWINGS.

C. ALL SYSTEM MATERIALS SHALL BE PRODUCED UNDER A QUALITY SYSTEM AS SPECIFIED IN THIS SECTION AND DESIGNED TO PROVIDE DURABILITY, LOAD CARRYING CAPACITY AND ARCHITECTURAL COMPATIBILITY WITH THE ENVIRONMENT. ALL RAW MATERIALS SHALL BE CAREFULLY GRADED FOR CONSISTENCY AND QUALITY TO OBTAIN THE HIGHEST STANDARDS.

D. THE SYSTEM SHALL BE INSTALLED TO THE EXISTING SUBSTRATE.

E. ONLY ACCREDITED DECORATIVE IMPRESSED ASPHALT SYSTEM INSTALLERS AUTHORIZED BY THE MANUFACTURERS OF THE DECORATIVE IMPRESSED ASPHALT PRODUCT MAY PERFORM THIS WORK.

1.4 UNIT PRICES A. WORK OF THIS SECTION IS BASED ON LABOR AND MATERIALS PER PROJECT

B. METHOD OF MEASUREMENT: THE WORK WILL BE MEASURED BY THE INSTALLED AREA OF SQUARE FEET. MEASURED AND ACCEPTED IN PLACE. NO DEDUCTION WILL BE MADE FOR THE AREA(S) OCCUPIED BY MANHOLES, INLETS, DRAINAGE STRUCTURES, BOLLARDS OR BY ANY PUBLIĆ UTILITÝ APPURTENANCES WITHIŃ THE AREA.

C. BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "DECORATIVE IMPRESSED ASPHALT PAVEMENT MARKING"AND ACCEPTED IN PLACE. PRICE SHALL INCLUDE ALL MATERIALS, EQUIPMENT, TOOLS AND LABOR INCIDENTAL THERETO. THERE WILL BE NO DIRECT PAYMENT FOR SURFACE PREPARATION: BUT THE COST OF THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE GENERAL COST OF THE WORK.

**1.5 PREINSTALLATION MEETINGS** 

A. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE (INSERT LOCATION). B. CONFERENCE SHALL CONSIST OF OWNER, OWNERS REPRESENTATIVE. ENGINEER. LANDSCAPE ARCHITECT CERTIFIED APPLICATOR. MANUFACTURER'S REPRESENTATIVE.

1.6 DEFINITIONS A. "HMA PAVEMENT" IS HOT MIX ASPHALT PAVEMENT.

B. "PCC PAVEMENT" IS PORTLAND CEMENT CONCRETE PAVEMENT.

C. "OWNER" MEANS THE OWNER AND REFERS TO THE REPRESENTATIVE PERSON OF THE CERTIFIED APPLICATOR WHO HAS DECISION MAKING AUTHORITY FOR THE WORK.

D. "ACCREDITED INSTALLER" REFERS TO A CONTRACTOR AUTHORIZED BY THE SYSTEM MANUFACTURER TO INSTALL THE DECORATIVE IMPRESSED ASPHALT (SYSTEM).

1.7 SUBMITTALS A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT PER MANUFACTURER'S OFFERING.

B. MANUFACTURER DATA: SYSTEM TYPE AND PRODUCT TYPE

C. SAMPLES FOR INITIAL SELECTION: FOR EACH TYPE OF PRODUCT REQUIRING COLOR SELECTION. SAMPLES FOR VERIFICATION: FOR EACH PATTERN AND COLOR IN MANUFACTURER'S STANDARD SIZES.

D. THE ACCREDITED INSTALLER SHALL PROVIDE WRITTEN PROOF OF THEIR ACCREDITATION.

E. THE ACCREDITED INSTALLER SHALL GAIN CONFIRMATION OF CORRECT STAMPING PATTERN(S) AND COLORS FROM THE CITY OF BELLBROOK PRIOR TO STARTING THE WORK.

F. THE ACCREDITED INSTALLER SHALL SUPPLY THREE REFERENCES OF WORK OF A SIMILAR NATURE PROVIDED TO THE CITY OF BELLBROOK WITHIN THE STATE OF OHIO.

G. CONSTRUCTION OF MOCK-UP (SHALL BE A MINIMUM OF A 6'X6' SECTION FOR EACH COLOR AND STAMP PATTERN SPECIFIED).

H. THE SYSTEM MANUFACTURER MUST BE ISO9001:2015 CERTIFIED FOR DESIGN. DEVELOPMENT AND MANUFACTURING OF PREFORMED THERMOPLASTIC, AND PROVIDE PROOF OF CURRENT CERTIFICATION.

I. SHOP DRAWINGS: INDICATE IMPRESSED PATTERNS, COLORS, AND DIMENSIONS TO ADJACENT WORK

**1.8 QUALITY ASSURANCE** A. INSTALLER QUALIFICATIONS: IMPRESSED-ASPHALT MANUFACTURER'S AUTHORIZED INSTALLER WHO IS TRAINED AND APPROVED FOR INSTALLATION OF IMPRESSED ASPHALT REQUIRED FOR THIS PROJECT

B. REGULATORY REQUIREMENTS: COMPLY WITH MATERIALS, WORKMANSHIP, AND OTHER APPLICABLE REQUIREMENTS OF THE ODOT CMS FOR IMPRESSED ASPHALT WORK.

1. MEASUREMENT AND PAYMENT PROVISIONS AND SAFETY PROGRAM SUBMITTALS INCLUDED IN STANDARD SPECIFICATIONS DO NOT APPLY TO THIS SECTION.

1.9 FIELD CONDITIONS A. ENVIRONMENTAL LIMITATIONS: PROCEED WITH IMPRESSED PAVEMENT ONLY WHEN AIR TEMPERATURE IS AT LEAST 45 DEG F (7.2 DEG C) AND RISING. PROCEED ONLY IF NO PRECIPITATION IS EXPECTÉD. ENSURE THERE IS NO MOISTURE IN THE SUBSTRATE PRIOR TO APPLICATION. GROUND SHOULD NOT HAVE ANY FROST OR MOISTURE PRESENT. HIGH WINDS COULD ALSO AFFECT THE INSTALLATION OF THE IMPRESSED MATERIAL

# PART 2 - PRODUCTS

2.1 MATERIALS A. MANUFACTURER - BASIS OF DESIGN ENNIS-FLINT, INC. TRAFFICPATTERNSXD®IMPRESSED SURFACE SYSTEM 1. CONTACT WWW.ENNISFLINTAMERICAS.COM

B. DECORATIVE IMPRESSED ASPHALT MATERIAL

1. PREFORMED THERMOPLASTIC MATERIAL: MUST BE COMPOSED OF AN ESTER MODIFIED ROSIN IMPERVIOUS TO DEGRADATION BY MOTOR FUELS. LUBRICANTS, ETC. IN CONJUNCTION WITH AGGREGATES, PIGMENTS, BINDERS, AND ANTI-SKID/ANTI-SLIP ELEMENTS. PIGMENTS AND ANTI-SKID/ANTI-SLIP ELEMENTS MUST BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL THE MATERIAL CONFORMS TO AASHTO DESIGNATION M249, WITH THE EXCEPTION OF THE RELEVANT DIFFERENCES DUE TO THE MATERIAL BEING SUPPLIED IN A PREFORMED STATE. BEING NON-REFLECTIVE, AND POTENTIALLY BEING OF A COLOR DIFFERENT FROM WHITE OR YELLOW.

2. THE SYSTEM SHALL UTILIZE A RESILIENT, AGGREGATE R EINFORCED PREFORMED THERMOPLASTIC PRODUCT WHICH CONTAINS A MINIMUM OF THIRTY PERCENT (30%) NTERMIXED ANTI-SKID/ANTI-SLIP ELEMENTS AND WHERE T HE TOP SURFACE CONTAINS ANTI- SKID/ANTI-SLIP ELEMENTS. THESE ANTI-SKID/ANTI-SLIP ELEMENTS MUST HAVE A MINIMUM HARDNESS OF 6 (MOHS SCALE).

3. THE SYSTEM MUST BE RESISTANT TO THE DETRIMENTAL EFFECTS OF MOTOR FUELS. ANTIFREEZE. LUBRICANTS, HYDRAULIC FLUIDS, ETC.

4. PIGMENTS:

A. WHITE: THE MATERIAL SHALL BE MANUFACTURED WITH SUFFICIENT TITANIUM DIOXIDE PIGMENT TO MEET FHWA DOCKET NO. FHWA-99-6190 TABLE 5 AND TABLE 6 AS REVISED AND CORRECTED.

B. OTHER COLORS: THE PIGMENT SYSTEM MUST NOT CONTAIN HEAVY METALS NOR ANY CARCINOGEN, AS DEFINED IN 29 CFR 1910.1200 IN AMOUNTS EXCEEDING PERMISSIBLE LIMITS AS SPECIFIED IN RELEVANT FEDERAL REGULATIONS.

5. SKID RESISTANCE: THE SURFACE OF THE MATERIAL SHALL CONTAIN FACTORY APPLIED ANTI-SKID/ANTI-SLIP ELEMENTS WITH A MINIMUM HARDNESS OF 6 (MOHS SCALE). UPON APPLICATION THE MATERIAL SHALL PROVIDE A MINIMUM SKID RESISTANCE VALUE OF 60 BPN WHEN TESTED ACCORDING TO ASTM E 303.

6. SLIP RESISTANCE: THE SURFACE OF THE MATERIAL SHALL CONTAIN FACTORY APPLIED ANTI-SKID/ANTI-SLIP ELEMENTS WITH A MINIMUM HARDNESS OF 6 (MOHS SCALE). UPON APPLICATION THE MATERIAL SHALL PROVIDE A MINIMUM STATIC FRICTION OF COEFFICIENT OF 0.6 WHEN TESTED ACCORDING TO ASTM C 1028 (WET AND DRY), AND A MINIMUM STATIC COEFFICIENT OF FRICTION OF 0.6 WHEN TESTED ACCORDING TO ASTM D 2047.

7. THICKNESS: THE MATERIAL MUST BE SUPPLIED AT A MINIMUM THICKNESS OF 150 MIL (3.8MM).

8. ENVIRONMENTAL RESISTANCE: THE MATERIAL MUST BE RESISTANT TO DETERIORATION DUE TO EXPOSURE TO SUNLIGHT, WATER, SALT OR ADVERSE WEATHER CONDITIONS AND IMPERVIOUS TO OIL AND GASOLINE.

C. DECORATIVE IMPRESSED ASPHALT MATERIAL STAMPING GRID: A WIRE ROPE GRID IS REQUIRED IN THE EXECUTION OF THE SYSTEM. THE GRID IS USED FOR IMPRESSING THE DEFINED PATTERNS ONCE THE PREFORMED THERMOPLASTIC HAS BEEN APPLIED. THE WIRE ROPE DIAMETER FOR THE IMPRESSING TEMPLATE USED FOR THE SPECIFIED PATTERN IS 3/8 IN. (9.5MM). THE STAMPING GRIDS ARE DISTRIBUTED BY THE SYSTEM MANUFACTURER.

D. HEATING EQUIPMENT: SYSTEM-SPECIFIC RECIPROCATING INFRARED HEATING EQUIPMENT IS DESIGNED SPECIFICALLY TO ELEVATE THE TEMPERATURE OF THE PREFORMED THERMOPLASTIC MATERIAL AND ASPHALT PAVEMENT WITHOUT ADVERSELY AFFECTING IT. THE PRIMARY HEATING UNIT MUST EMPLOY A BANK OF PROPANE-FIRED INFRARED HEATERS. MOUNTED ON A TRACK DEVICE THAT ALLOWS THE HEATER BANK TO RECIPROCATE BACK AND FORTH OVER A DESIGNATED AREA, THEREBY ALLOWING THE OPERATOR TO MONITOR THE TEMPERATURE OF THE PREFORMED THERMOPLASTIC AT ALL TIMES DURING THE PAVEMENT HEATING PROCESS. A SMALLER. MOBILE INFRARED HEATER IS DESIGNED SPECIFICALLY TO HEAT AREAS SUCH AS BORDERS AND NARROW AREAS THAT ARE INACCESSIBLE TO THE PRIMARY HEATERS. THIS SECONDARY HEATER ALSO ALLOWS THE OPERATOR TO MONITOR THE TEMPERATURE OF THE PREFORMED THERMOPLASTIC AT ALL TIMES DURING THE HEATING PROCESS.

E. MATERIALS SEALER: A TWO-PART EPOXY SEALER SPECIFIED AND DISTRIBUTED BY THE SYSTEM MANUFACTURER MUST BE APPLIED TO THE SUBSTRATE PRIOR TO MATERIAL APPLICATION TO ENSURE PROPER ADHESION. AND TO PROVIDE REINFORCEMENT FOR LARGER AREAS OF MATERIAL

F. MATERIALS AGGREGATE: SUPPLEMENTAL ANTI-SKID/ANTI-SLIP ELEMENTS TO BE APPLIED TO THE SURFACE OF THE MOLTEN PREFORMED THERMOPLASTIC AS NEEDED, IF THE FACTORY APPLIED ANTI-SKID/ANTI-SLIPELEMENTS EMBED TOO DEEPLY INTO THE SURFACE OF THE MOLTEN PREFORMED THERMOPLASTIC MATERIAL DURING THE HEATING PROCESS. (EMBEDDED AGGREGATE IS EXPOSED UPON WEAR FOR EXTENDED SKID RESISTANCE.) THE AGGREGATE IS DISTRIBUTED BY THE SYSTEM MANUFACTUŔER.

G. PATTERNS & COLORS

1. PATTERNS AND COLORS ARE DESCRIBED BELOW: A. DECORATIVE IMPRESSED ASPHALT - TYPE A DIAGONAL HERRINGBONE PATTERN (12-101) COLONIAL BRICK COLOR LIMITS SHOWN ON SHEET 23

2. CONTRACTOR SHALL VERIFY ALL COLORS AND PATTERNS WITH OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT.

H. SHELF LIFE AND STORAGE THE SHELF LIFE OF DECORATIVE IMPRESSED ASPHALT MATERIALS IS TWO YEARS PROVIDED IT IS PROTECTED FROM THE WEATHER. SPECIFICALLY UV DEGRADATION AND RAIN. THE MATERIALS ARE TO BE STORED IN THEIR ORIGINAL PACKAGING AND KEPT DRY UNDER COVER AND OR AS PER MANUFACTURER'S SPECIFICATIONS

# PART 3- EXECUTION

3.1 EXAMINATION A. VERIFY THAT PAVEMENT IS DRY AND IN SUITABLE CONDITION TO BEGIN THE IMPRESSING PROCESS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

B. PROCEED WITH ASPHALT IMPRESSING ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

C. VERIFY THAT UTILITIES, TRAFFIC LOOP DETECTORS, AND OTHER ITEMS REQUIRING A CUT AND INSTALLATION BENEATH THE ASPHALT SURFACE HAVE BEEN COMPLETED AND THAT ASPHALT SURFACE HAS BEEN REPAIRED FLUSH WITH ADJACENT ASPHALT PRIOR TO BEGINNING INSTALLATION OF IMPRESSED ASPHALT.

3.2 IMPRESSING ASPHALT A. GENERAL: IMPRESS ASPHALT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. USING MANUFACTURER'S RECOMMENDED EQUIPMENT.

B. PRE-CONDITIONS: DECORATIVE IMPRESSED ASPHALT SHALL BE INSTALLED OVER NEW PAVEMENT. THE PAVEMENT MUST BE FIRM, STABLE AND IN EXCELLENT CONDITION; IT MUST BE FREE FROM DEFECTS SUCH AS CRACKS, SETTLEMÉNT, VISIBLE SEAMS, RUTS, BIRD BATHS AND SPALLING.

1. CRACKING, SETTLEMENT AND OTHER DEFICIENCIES OF THE SUBSTRATE WILL LIKELY REFLECT THROUGH THE DECORATIVE PREFORMED THERMOPLASTIC. GOOD AND PROPER CONSTRUCTION PROCEDURES FOR THE INSTALLATION OF THE SUBSTRATE MUST BE FOLLOWED IN ORDER TO MITIGATE CRACKING OF DECORATIVE PREFORMED THERMOPLASTIC.

2. SURFACES WITH A HIGH DEGREE OF POROSITY SHOULD BE AVOIDED DUE TO THE PROBLEMS ASSOCIATED WITH ENTRAPPED WATER.

3. SURFACES THAT MAY BE SUBJECT TO UNCONTROLLED MOVEMENT IN EITHER A HORIZONTAL OR VERTICAL DIRECTION SHALL BE AVOIDED AS THERE MAY BE A RISK OF	
REFLECTIVE CRACKING THROUGH TO THE DECORATIVE PREFORMED THERMOPLASTIC. NOTIFY THE ENGINEER IF THESE CONDITIONS ARE PRESENT BEFORE INSTALLING DECORATIVE PREFORMED THERMOPLASTIC.	
D. PREPARING OF THE SUBSTRATE: ALL PAVEMENT SUBSTRATES MUST BE OF HIGH QUALITY AND STABLE FOR THE INSTALLATION OF DECORATIVE IMPRESSED ASPHALT.	
THIS SECTION IS TO BE USED AS A GUIDE TO ENSURE A HIGH- QUALITY PAVEMENT SUBSTRATE IS PROVIDED AND READY FOR THE INSTALLATION OF THE DECORATIVE SYSTEM. IT DOES NOT SUPERSEDE OTHER SPECIFICATIONS PERTAINING TO THIS WORK, NOR DOES IT REPLACE RECOMMENDATIONS MADE BY THE ENGINEER OF RECORD FOR THIS WORK.	×
1. THE BASE AND SUB-GRADE OVER WHICH NEW PAVEMENT IS INSTALLED MUST BE FIRM AND STABLE.	CROSSWALK
2. THE PAVEMENT MIX MUST BE DESIGNED FOR THE INTENDED USE.	)SS(
3. THE PAVEMENT MUST BE INSTALLED IN ACCORDANCE WITH PROPER PLACEMENT PRACTICES AND THESE SPECIFICATIONS.	
<i>4. THE ASPHALT PAVEMENT MUST BE PERMITTED TO CURE PROPERLY BEFORE INSTALLING DECORATIVE IM-PRESSED ASPHALT.</i>	IPED
E. SURFACE PREPARATION: THE PAVEMENT SURFACE SHALL BE DRY AND CLEAN: FREE OF ALL DIRT, DEBRIS, SALTS, CONCRETE ADMIXTURES AND ANY CHEMICAL RESIDUES.	STAM
1. BITUMINOUS RESIDUE MUST BE REMOVED FROM NEW ASPHALT PAVEMENT SURFACE PRIOR TO INSTALLATION OF DECORATIVE IMPRESSED ASPHALT.	XD
2. REMOVAL OF CONTAMINANTS MAY BE DONE BY BROOMING, COMPRESSED AIR, PRESSURE WASHING (MOISTURE MUST BE REMOVED AND THE SURFACE DRY AS NOTED ABOVE) OR, IF NECESSARY, LIGHT-GRIT BLASTING. WIRE BRUSH MAY BE USED TO REMOVE LOOSE OR POWDERY MATERIALS.	TRAFFICPATTERNS
F. INSTALLATION OF DECORATIVE IMPRESSED ASPHALT: DECORATIVE IMPRESSED ASPHALT SYSTEM IS TO BE INSTALLED ONLY BY AN ACCREDITED INSTALLER.	ICP/
1. THE SYSTEM MUST BE ABLE TO BE APPLIED TO ASPHALT SURFACES WITHOUT PRE-HEATING THE APPLICATION SURFACE TO A SPECIFIC TEMPERATURE.	RAFF
2. THE SYSTEM IS APPLIED TO ASPHALT PAVEMENT PRIMARILY USING RECIPROCATING INFRARED HEATING EQUIPMENT. AN APPROVED HAND-HELD PROPANE HEAT TORCH DISTRIBUTED BY THE SYSTEM MANUFACTURER SHALL BE USED TO HEAT ISOLATED AREAS OF THE PREFORMED THERMOPLASTIC.	NOTES - T
3. A SPECIALIZED SEALER DISPENSING GUN, HANDHELD FINISHING TOOL, AGGREGATE AND VIBRATORY PLATE COMPACTORS ARE USED AS PART OF THE INSTALLATION PROCESS	
4. THE AGGREGATE REINFORCED PREFORMED THERMOPLASTIC IS TYPICALLY SUPPLIED IN PANELS MEASURING 2 FT. X 2 FT. [±[?IN.] (.61M X .61M [±3MM]).	ENERA
5. THE SYSTEM IS AVAILABLE IN A VARIETY OF STANDARD COLORS AND PATTERNS. COLOR CAN BE USED TO CREATE PATTERNS WITHIN THE CROSSWALK AREA TO REFLECT THE TYPICAL WHITE 'CONTINENTAL' CROSSWALK BARS FOR ADDITIONAL VISIBILITY AND AWARENESS.	Ш В
6. THE MATERIAL MUST BE ABLE TO BE APPLIED AT AMBIENT AND ROAD TEMPERATURES WITH A MINIMUM TEMPERATURE OF 45°F (7°C) AND RISING.	
7. A TWO-PART EPOXY SEALER SPECIFIED BY THE MANUFACTURER MUST BE APPLIED TO THE SUBSTRATE PRIOR TO PREFORMED THERMOPLASTIC APPLICATION. IMMEDIATELY FOLLOWING SEALER APPLICATION, THE PANELS OF AGGREGATE REINFORCED PREFORMED THERMOPLASTIC ARE POSITIONED PROPERLY ON THE ASPHALT SUBSTRATE WITH THE AGGREGATE SIDE FACING UP. THE PREFORMED THERMOPLASTIC IS THEN HEATED TO THE REQUIRED MELTING TEMPERATURE. ADDITIONAL AGGREGATE MAY BE APPLIED TO THE PREFORMEDTHERMOPLASTIC SURFACE AS NEEDED FOLLOWING THE MELTING PROCESS.	DESIGN AGENCY
8. AS THE MATERIAL COOLS TO 160 DEGREES FAHRENHEIT, IT IS IMPRESSED WITH A STAMPING GRID MADE FROM 3/8 IN. (9.5 MM) FLEXIBLE WIRE ROPE IN THE REQUIRED DESIGN USING A VIBRATORY PLATE COMPACTOR.	
9. THE PREFORMED THERMOPLASTIC MATERIAL IS THEN ALLOWED TO COOL THOROUGHLY BEFORE BEING OPENED TO VEHICLE OR PEDESTRIAN TRAFFIC. (CONSULT THE MANUFACTURER'S PUBLISHED APPLICATION PROCEDURES FOR COMPLETE INFORMATION.) THE TIMING OF OPENING TRAFFIC WILL BE SUBJECT TO EXTERIOR TEMPERATURE CONDITIONS. MORE TIME MAY BE REQUIRED IN HOT WEATHER. THE ACCREDITED INSTALLER CAN ADVISE WHEN THE WORK IS READY FOR TRAFFIC.	DESIGNER ASN REVIEWER
FOR TRAFFIC. 10. INSTALL PREMARK®WHITE 125MIL PREFORMED THERMOPLASTIC MATERIAL WITH GLASS BEADS AS THE TRANSVERSE LINES ON THE OUTSIDE AREAS OF THE INSTALLED TRAFFICPATTERNSXD®MARKING SYSTEM AS REQUIRED TO MEET MUTCD REQUIREMENTS.	BMG         08/08/23           PROJECT ID         125940           SHEET         TOTAL           6         47
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# ITEM 614, MAINTAINING TRAFFIC (AT ALL TIMES)

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT. TRAFFIC SHALL BE MAINTAINED AT ALL INTERSECTIONS AND DRIVES AT ALL TIMES.

# SEQUENCE OF CONSTRUCTION

# <u>PHASE 1A</u>

USING ODOT SCD MT-95.61 (ADJUSTED FOR SINGLE LANE, 25-MPH SHIFT), MAINTAIN TWO-WAY TRAFFIC AND SHIFT EB AND WB TRAFFIC TO THE NORTH SIDE OF FRANKLIN STREET. MAINTAIN A 1' MINIMUM SHOULDER BETWEEN EXISTING CURBS AND PROPOSED DRUMS AND 10' LANES IN BOTH DIRECTIONS.

CONSTRUCT CURB BUMP OUT ON SOUTH SIDE OF FRANKLIN STREET, INCLUDING SIDEWALK, CURB RAMP AND ENHANCED CROSSWALK, UP TO WITHIN 1' OF PROPOSED DRUMS.

AFTER BUMP OUT HAS BEEN CONSTRUCTED, CLOSE CROSSWALK AND CURB RAMP UNTIL PHASE 1B HAS BEEN COMPLETED.

# <u>PHASE 1B</u>

USING ODOT SCD MT-95.61 (ADJUSTED FOR SINGLE LANE, 25-MPH SHIFT), MAINTAIN TWO-WAY TRAFFIC AND SHIFT EB AND WB TRAFFIC TO THE SOUTH SIDE OF FRANKLIN STREET. MAINTAIN A 1' MINIMUM SHOULDER BETWEEN PROPOSED CURBS AND PROPOSED DRUMS AND 10' LANES IN BOTH DIRECTIONS.

CONSTRUCT CURB BUMP OUT ON NORTH SIDE OF FRANKLIN STREET, INCLUDING SIDEWALK, CURB RAMP AND REMAINING ENHANCED CROSSWALK.

*OPEN CROSSWALK AND CURB RAMP PREVIOUSLY CLOSED IN PHASE 1A.* 

USING ODOT SCD MT-95.61, MILL  $1\frac{1}{2}$ " SURFACE COURSE OFF FOR THE ENTIRETY OF THE RESURFACING AREA, AS SHOWN ON THE PLANS. PLACE WORK ZONE PAVEMENT MARKINGS FOR LONG LINE MARKINGS (INCLUDING STOP BARS) FOR USE WHILE PAVEMENT

# <u>PHASE 2A</u>

USING ODOT SCD MT-97.11, MILL 1<sup>1</sup>/<sub>2</sub>" SURFACE COURSE FOR THE ENTIRETY OF THE RESURFACING AREA ON FRANKLIN STREET, AS SHOWN ON THE PLANS. PLACE WORK ZONE PAVEMENT MARKINGS FOR LONG LINE MARKINGS (INCLUDING STOP BARS) FOR USE WHILE PAVEMENT IS MILLED OFF.

PLACE 1<sup>1</sup>/<sub>2</sub>" SURFACE COURSE OVER RESURFACING AREA ON FRANKLIN STREET. REPLACE LONG LINE PAVEMENT MARKINGS WITH WORK ZONE PAVEMENT MARKINGS, PRIOR TO PERMANENT PAVEMENT MARKING PLACEMENT.

# <u>PHASE 2B</u>

USING ODOT SCD MT-97.11, MILL 1<sup>1</sup>/<sub>2</sub>" SURFACE COURSE FOR THE ENTIRETY OF THE RESURFACING AREA ON MAIN STREET, AS SHOWN ON THE PLANS. PLACE WORK ZONE PAVEMENT MARKINGS FOR LONG LINE MARKINGS (INCLUDING STOP BARS) FOR USE WHILE PAVEMENT IS MILLED OFF.

PLACE 1<sup>1</sup>/<sub>2</sub>" SURFACE COURSE OVER RESURFACING AREA ON FRANKLIN STREET. REPLACE LONG LINE PAVEMENT MARKINGS WITH WORK ZONE PAVEMENT MARKINGS, PRIOR TO PERMANENT PAVEMENT MARKING PLACEMENT.

# <u>PHASE 3</u>

PLACE REMAINING PERMANENT PAVEMENT MARKINGS AND PROPOSED SIGNAGE ALONG BOTH FRANKLIN STREET AND MAIN STREET. MAINTAIN TRAFFIC USING ODOT SCD MT-97.11 AND MT-99.20.

# SEQUENCE OF CONSTRUCTION CONT.

WALNUT AND MAIN STREET IN THE EVENT THE WALNUT AND MAIN STREET BUMP-OUT ALTERNATE IS AWARDED, CONSTRUCT BOTH THE EAST AND WEST SIDE BUMP-OUTS IN A SIMILAR MANNER TO THE BUMP-OUT LOCATIONS ALONG FRANKLIN STREET. THESE BUMP-OUTS SHOULD BE TREATED AS PHASES 1C AND 1D, IF AWARDED.

# MAINTENANCE OF TRAFFIC COORDINATION

THE MAINTENANCE OF TRAFFIC SCHEME DEVELOPED FOR THIS PROJECT ASSUMES THE ADJACENT BRIDGE PROJECT, ODOT PID 110612, IS COMPLETED.

*IF ODOT PID 110612 IS IN CONSTRUCTION PHASE 1 OR 2, AT THE TIME THIS PROJECT BEGINS, COORDINATION WITH ODOT DISTRICT 8 AND THE CONTRACTOR FOR PID 110612 IS NEEDED TO DETERMINE AN UPDATED MAINTENANCE OF TRAFFIC SCHEME.* 

IF ODOT PID 110612 IS IN CONSTRUCTION PHASE 1 OR 2 AND THE ALTERNATE BID FOR THIS PROJECT IS AWARDED, PHASE 1C AND 1D ARE TO BE COMPLETED PRIOR TO PHASE 1A AND 1B.

*IF ODOT PID 110612 IS IN CONSTRUCTION PHASE 3, PHASE 1B AND PHASE 1A OF THIS PROJECT SHALL BE FLIPPED, TO BETTER COORDINATE WITH ODOT PID 110612.* 

# NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE ITEM DURATION OF NOTICE DUE TO CITY CLOSURE

LANE >= 2 WEEKS 14 CALENDAR DAYS CLOSURES & PRIOR TO CLOSURE RESTRICTIONS < 2 WEEKS 5 BUSINESS DAYS

PRIOR TO CLOSURE

START OFN/A14 CALENDAR DAYSCONSTRUCTION &PRIOR TOTRAFFIC PATTERNIMPLEMENTATIONCHANGES

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

INESS DAYS .OSURE

# WORK ZONE PAVEMENT MARKINGS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11. THE FOLLOWING PAVEMENT MARKING ITEMS ARE TO BE PLACED ON MILLED ASPHALT PAVEMENT, IMMEDIATELY FOLLOWING MILLING OPERATIONS. ADDITIONALLY, THESE PAVEMENT MARKINGS ARE TO BE AGAIN PLACED ON THE FINAL SURFACE COURSE, PRIOR TO FINAL, THERMOPLASTIC PAVEMENT MARKINGS BEING PLACED.

ITEM 614 WORK ZONE CENTERLINE, CLASS 1	2.46 MILE
ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 6"	4.26 MILE
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS 1, 8"	778 FT
ITEM 614 WORK ZONE STOP LINE, CLASS 1,	214 FT

MAITENANCE OF TRAFFIC NOTES
DESIGN AGENCY

# FRANKLIN AND MAIN STREET IMPROVEMENTS MODEL: Sheet\_SurvFt PAPERSIZE: 34x22 (in.) DATE: 8/11/2023 TIME: 2:32:57 PM USER: bgressel Q:\City of Bellbrook\0125940A.00 - Franklin & Main Resurfacing\125940\400-Engineering\Roadway\Sheets\125940\_GG0

R: bgressel
M USER
TIME: 2:32:57 PI
DATE: 8/11/2023
PAPERSIZE: 34x22 (in.)
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		PART.		ITEM	GRAND		Г
			ITEM	EXT	TOTAL	UNIT	
			201	11000	LS		CLEARING AND GRUBBING
			201	23000	228	SY	PAVEMENT REMOVED
			202	30000	1,309	SF	WALK REMOVED
			202	32000	204	FT	CURB REMOVED
			203	10000	30	CY	EXCAVATION
			203	20000	15	CY	EMBANKMENT
			204	10000	63	SY	SUBGRADE COMPACTION
			608	10000	2,018	SF SF	4" CONCRETE WALK
			608 608	52000 53020	461 61	SF	CURB RAMP DETECTABLE WARNING
			608	53020	127	SF	DETECTABLE WARNING, AS PER PLAN
			608	98000	967	SF	WALKWAY, MISC.:, SIDEWALK PAVERS
							E
			832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN
			832	30000	10,000	EACH	EROSION CONTROL
			SPECIAL	61199830	146	FT	TRENCH DRAIN
			253	01001	400	SY	PAVEMENT REPAIR, AS PER PLAN
_			254	01000	24,063	SY	PAVEMENT PLANING, ASPHALT CONCRETE T = 1.5"
			301	56000	11	CY	ASPHALT CONCRETE BASE, PG64-22, (449)
			304	20000	14	CAL	AGGREGATE BASE
			407 441	20000 70000	2,054 1,006	GAL CY	NON-TRACKING TACK COAT ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG
			441	70000	5	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (44
			441	91000	29	SY	ASPHALT CONCRETE, MISC.:TRAFFICPATTERNSXD STAMPE HERRINGBONE PATTERN (12-101), COLONIAL BRICK
			609	26000	209	FT	CURB, TYPE 6
			620	00100	24		
			630 630	03100 08600	21	FT EACH	GROUND MOUNTED SUPPORT, NO. 3 POST SIGN POST REFLECTOR
			630	80100	58	SF	SIGN, FLAT SHEET
			630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
			630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTIO
			644	00104	2.13	MILE	EDGE LINE, 6"
			644	00300	1.23	MILE	CENTER LINE
			644	00400	389	FT	CHANNELIZING LINE, 8"
			644	00500	128	FT	STOP LINE
_	_		644	00620	924	FT	CROSSWALK LINE, 12"
			644	00630	70	FT	CROSSWALK LINE, 24"
			644 644	00700 00700	426 216	FT FT	TRANSVERSE/DIAGONAL LINE, WHITE TRANSVERSE/DIAGONAL LINE, YELLOW
			644	01200	1,014	FT	PARKING LOT STALL MARKING
			644	01200	10	EACH	LANE ARROW
			644	01400	1	EACH	WORD ON PAVEMENT, 72"
							· · · · · · · · · · · · · · · · · · ·
			625	32000	2	EACH	GROUND ROD
			630	97700	2	EACH	SIGNING, MISC.:SOLAR-POWERED RECTANGULAR RAPID
			632 632	26000 64020	2 2	EACH EACH	PEDESTRIAN PUSHBUTTON PEDESTAL FOUNDATION
			SPECIAL	66199000	LS		LANDSCAPING (SEE SHEET 43 FOR ITEMIZED QUANTITIES
							MAIN
			614	21000	2.46	MILE	WORK ZONE CENTER LINE, CLASS I
	1		614	22010	4.26	MILE	WORK ZONE EDGE LINE, CLASS I, 6"
			614	23000	778	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8"
			614	26000	214	FT	WORK ZONE STOP LINE, CLASS I
			C11	11000	10		
-			614 623	11000 10000	LS		MAINTAINING TRAFFIC CONSTRUCTION LAYOUT STAKES AND SURVEYING
			623	10000	LS		MOBILIZATION
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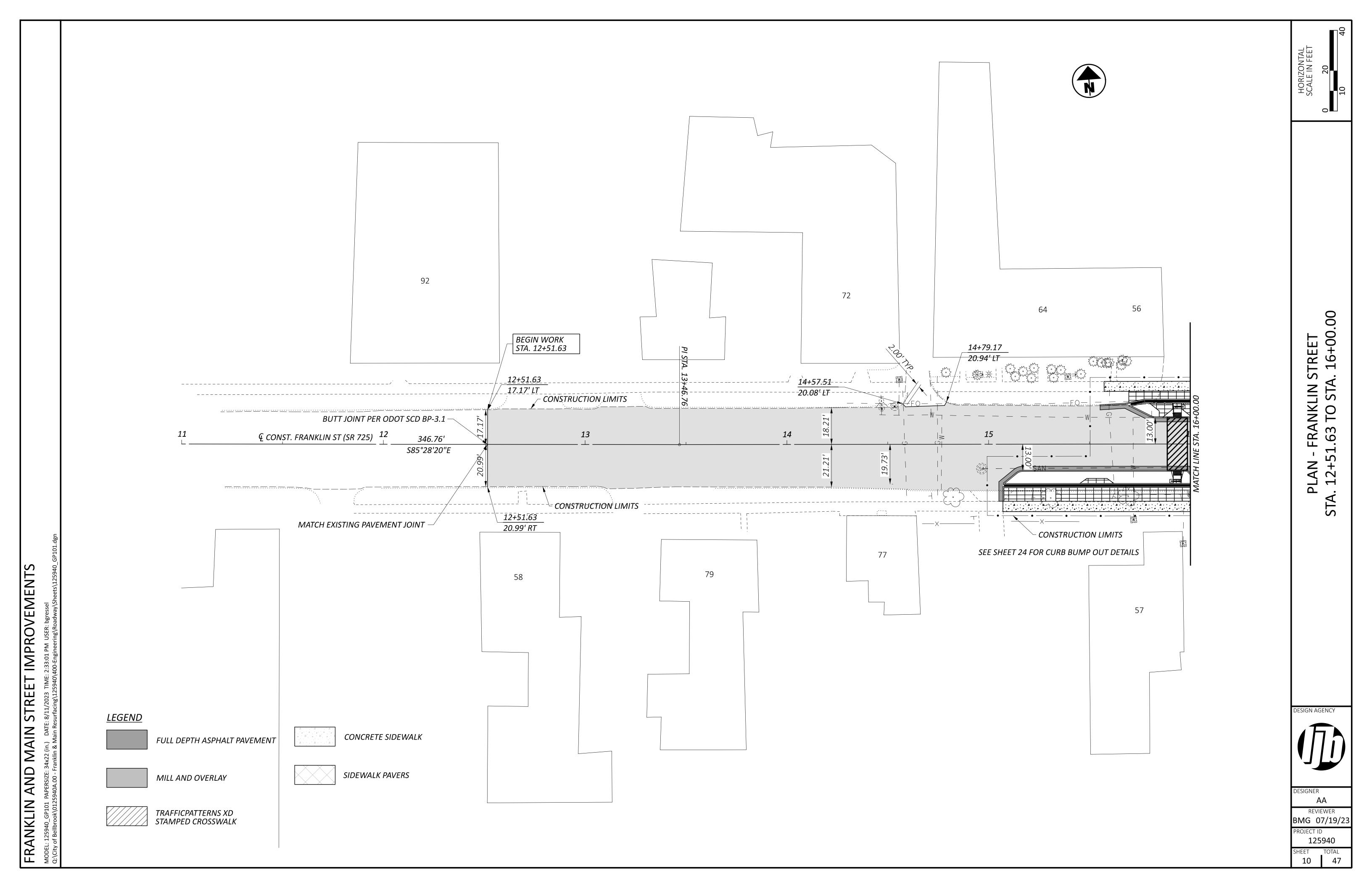
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FLASHING BEACON (RRFB) SIGN ASSEMBLY	28	
		DESIGN AGENCY
LANDSCAPING		
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INCIDENTALS		PROJECT ID 125940
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	FRANKLIN AND MAIN STREET IMPROVEMENTS MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 8/11/2023 TIME: 2:32:58 PM USER: bgressel Q:\City of Bellbrook\0125940A.00 - Franklin & Main Resurfacing\125940\400-Engineering\Roadway\Sheets\125940_GG002.dgn	 	 				 	 
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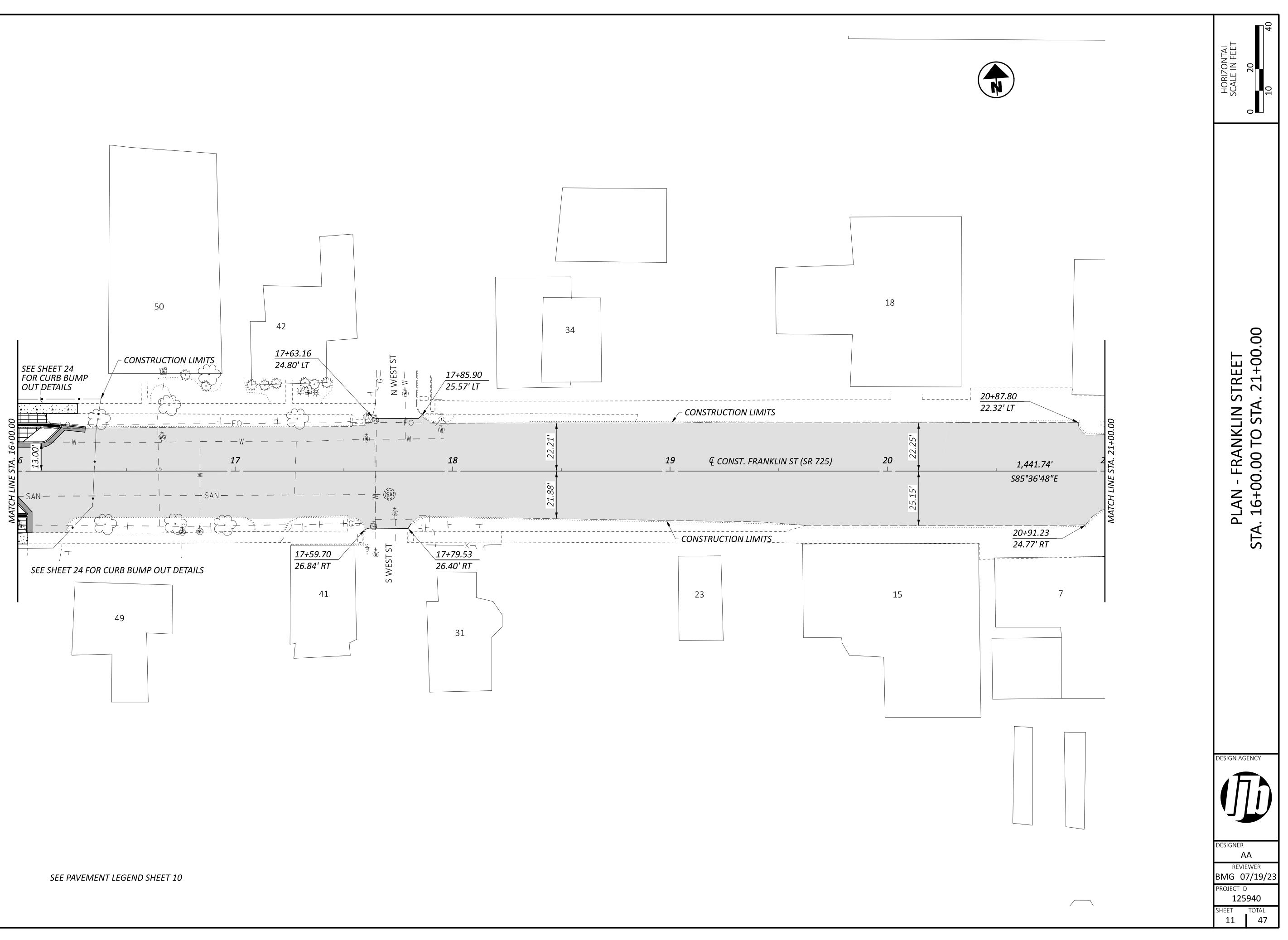
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203         2003         S         CY         EMBANKMENT           204         10000         63         SY         SUBGRADE COMPACTION           608         10000         401         SF         4" CONCRETT WAIK           608         50000         1.025         SF         WALKWY, MSC., SIDEWALK INVERS           608         50000         1.025         SF         WALKWY, MSC., SIDEWALK INVERS           608         50000         1.025         SF         WALKWY, MSC., SIDEWALK INVERS           611         611         01100         20         FT         6" CONDUT, TYPE C           611         01100         20         FT         6" CONDUT, TYPE C         611           611         01100         20         FT         6" CONDUT, TYPE C         611           611         04030         6         FT         2" CONDUT, TYPE C         641           98150         1         EACH         CATCH SASIN, NO 3         6           401         70000         3         CY         ASPHAIT CONCRETE BASE, P664-22, 1/49)           441         70000         3         CY         ASPHAIT CONCRETE BASE, P664-22, 1/49), PC           441         70000         5         CY </td <td>_</td> <td></td> <td>202</td> <td>58100</td> <td>1</td> <td>EACH</td> <td>CATCH BASIN REMOVED</td>	_		202	58100	1	EACH	CATCH BASIN REMOVED
203         2000         5         CY         EMSARKMENT           204         10000         63         SY         SUBGRADE COMPACTION           608         10000         401         SF         4"COVCRETE WALK           608         58000         1.025         SF         WALKWAY, MISC., SDEWALK PAVERS           608         58000         1.025         SF         WALKWAY, MISC., SDEWALK PAVERS           832         15000         LS         STORM WATER POLLUTION PREVENTION PLAN         E           832         30000         10,000         EACH         EROSION CONTROL         E           832         30000         10,000         EACH         EROSION CONTROL         E           832         30000         10,000         EACH         EROSION CONTROL         E           611         01100         20         FT         6" CONDUIT, MYE B         E           611         9100         5         HT         12" CONDUIT, MYE B         E           811         98150         1         EACH         CATCH BASIN, NO. 3         E           9         304         20000         14         CY         ASPHAIT CONCRETE BASE, P664-22, (A49), PC           9         <			203	10000	15	CY	EXCAVATION
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832         15000         IS         STORM WATER POLLUTION PREVENTION PLAN           832         30000         10,000         EACH         EROSION CONTROL           611         01100         20         FT         6" CONDUIT, TYPE C           611         04400         6         H         12" CONDUIT, TYPE C           611         04400         6         H         12" CONDUIT, TYPE C           611         98150         1         EACH         CATCH BASE, PG64-22, (449)           301         56000         11         CY         ASPHAIT CONCRETE BASE, PG64-22, (449)           301         56000         11         CY         ASPHAIT CONCRETE BASE, PG64-22, (449)           304         20000         14         CY         AGGREGATE BASE           407         20060         9         GAL         NON-TRACKINE TACK COAT           441         70300         5         CY         ASPHAIT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), PC           441         70300         5         CY         ASPHAIT CONCRETE MASE, TRAFIC PATTERNSKI STAMPE           441         91000         23         SY         ASPHAIT CONCRETE MASE, TRAFIC PATTERSKI STAMPE           441         91000         23         SF							
832         30000         10,000         EACH         EROSION CONTROL           611         01100         20         FT         6" CONDUIT, TYPE C           611         04400         6         FT         12" CONDUIT, TYPE B           611         04400         6         FT         12" CONDUIT, TYPE B           611         98150         1         EACH         CATCH BASIN, NO.3           611         98150         1         EACH         CATCH BASIN, NO.3           611         98150         1         CV         ASPHALT CONCRETE BASE, PG64-22, (449)           304         20000         14         CY         AGGREGATE BASE         MAGGREGATE BASE           407         20000         9         GAL         NON-TRACKING TACK COAT         ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG           441         70300         5         CY         ASPHALT CONCRETE SURFACE COURSE, TYPE 2, (44           411         91000         23         SY         ASPHALT CONCRETE SURFACE COURSE, TYPE 2, (44           609         26000         278         FT         CURB, TYPE 6           638         10800         3         EACH         SERVICE BOX ADJUSTED TO GRADE           638         10900			832	15000	15		
611         04400         6         FT         12" CONDUIT, TYPE B           611         98150         1         EACH         CATCH BASIN, NO. 3           301         56000         11         CY         ASPHALT CONCRETE BASE, PG64-22, (449)           304         20000         14         CY         ASPHALT CONCRETE BASE, PG64-22, (449)           407         20000         9         GAL         NON-TRACKING TACK COAT           407         20000         3         CY         ASPHALT CONCRETE BASE, PG64-22, (449)           407         20000         9         GAL         NON-TRACKING TACK COAT           441         70000         3         CY         ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG           441         91000         23         SY         ASPHALT CONCRETE, MISC.:TRAFFICPATTERNSXD STAMPE           441         91000         23         SY         ASPHALT CONCRETE, MISC.:TRAFFICPATTERNSXD STAMPE           441         91000         278         FT         CURB, TYPE 6           4         609         26000         278         FT         CURB, TYPE 6           4         638         10800         3         EACH         VALVE BOX ADJUSTED TO GRADE           630         8						EACH	
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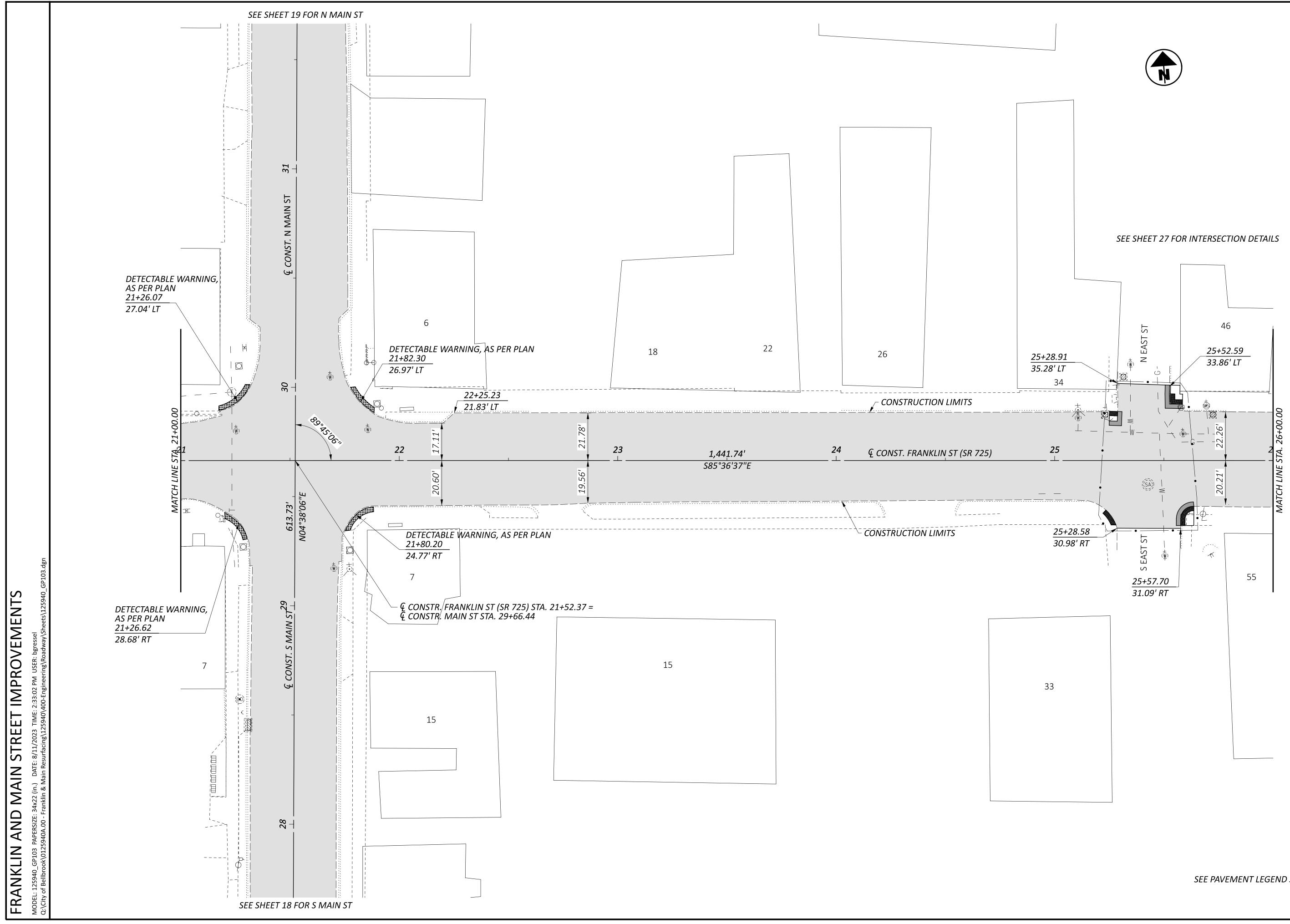
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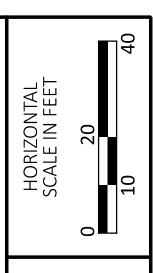
FRANKLIN AND MAIN STREET IMPROVEMENTS

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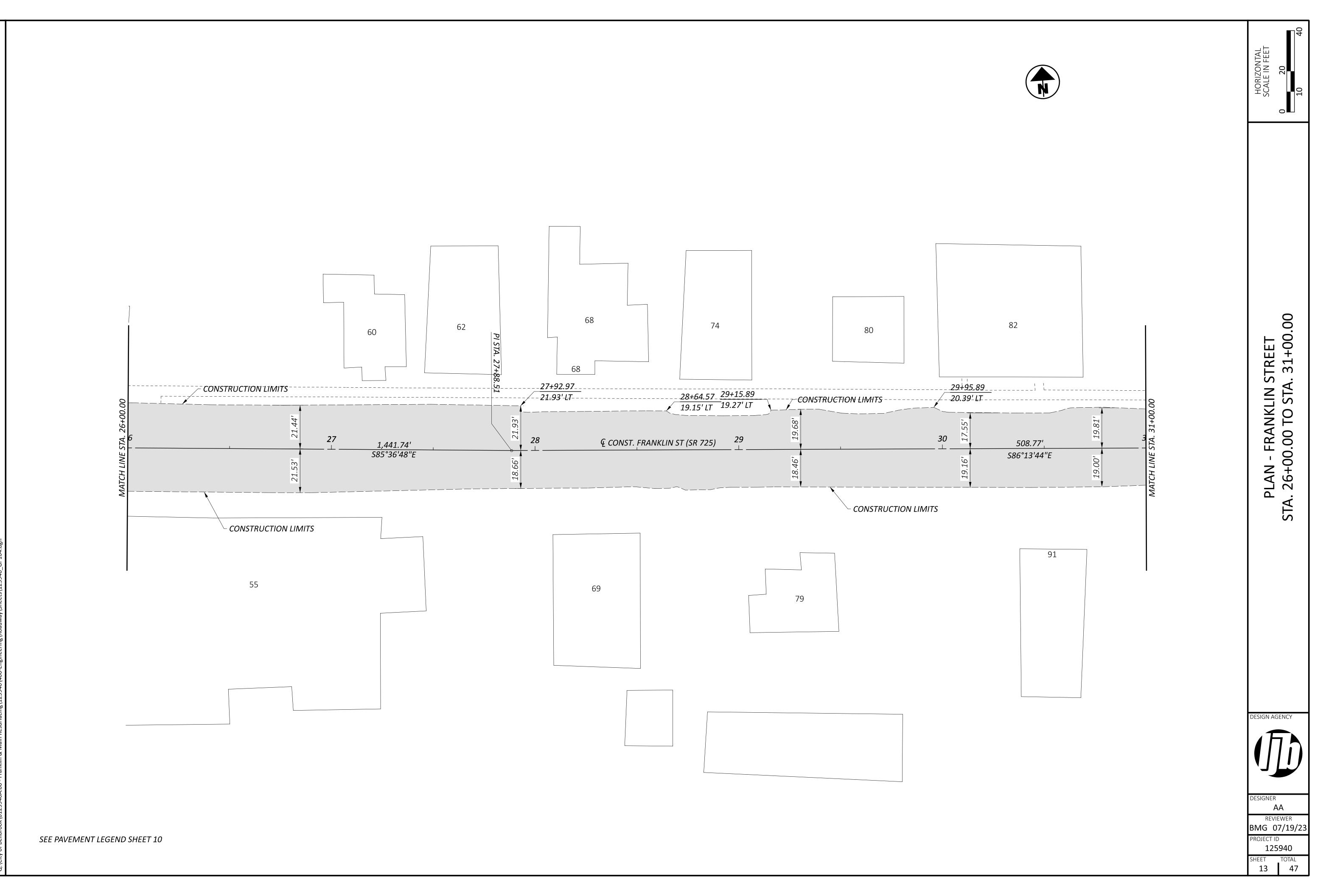
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SEE PAVEMENT LEGEND SHEET 10

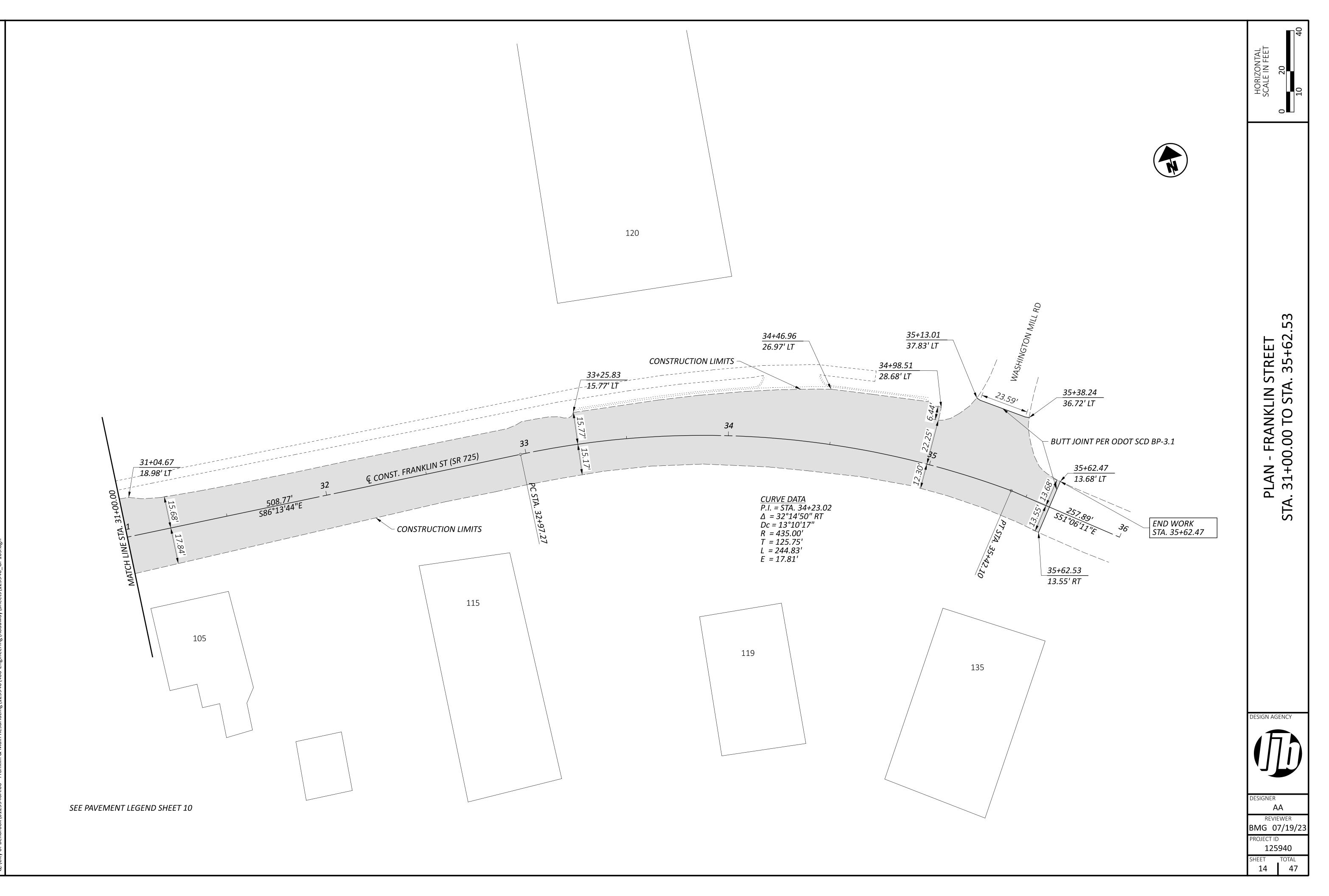


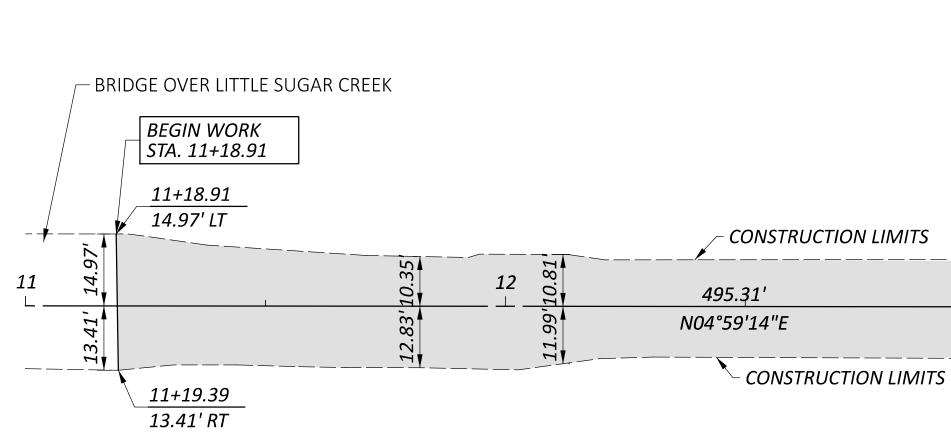
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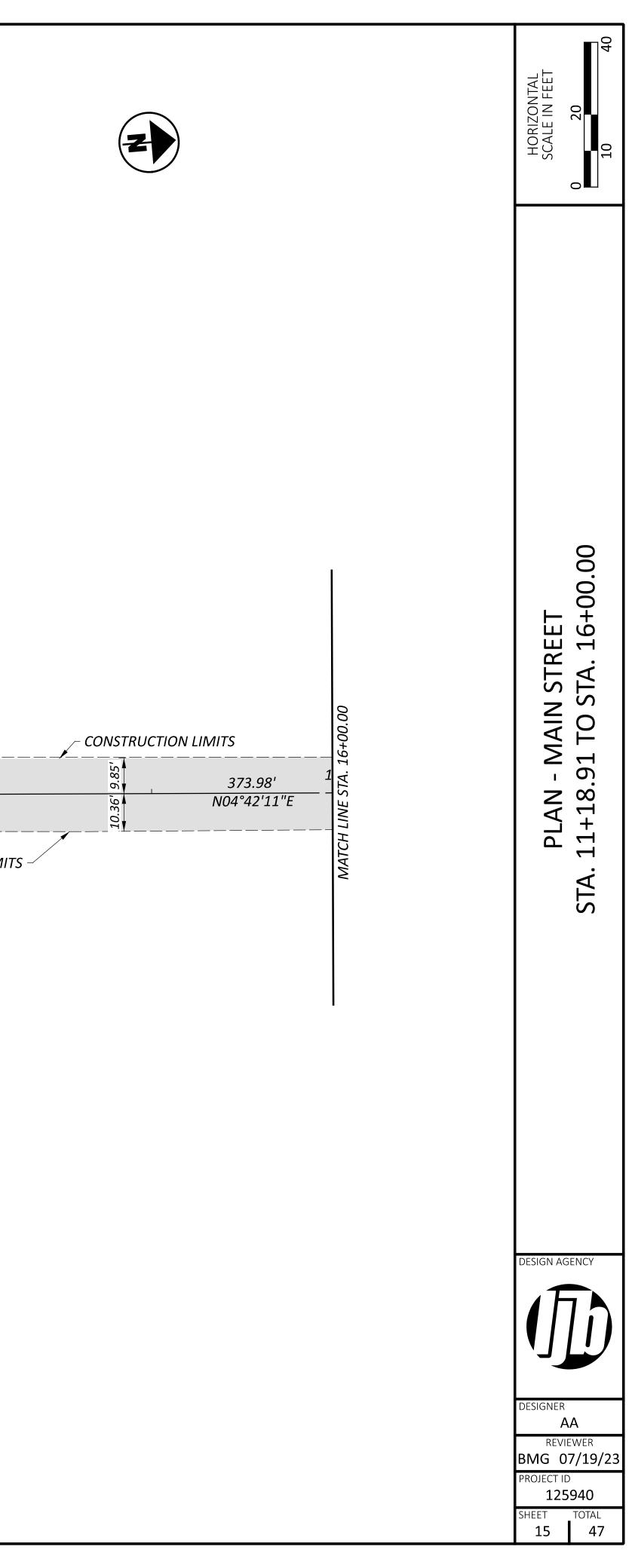
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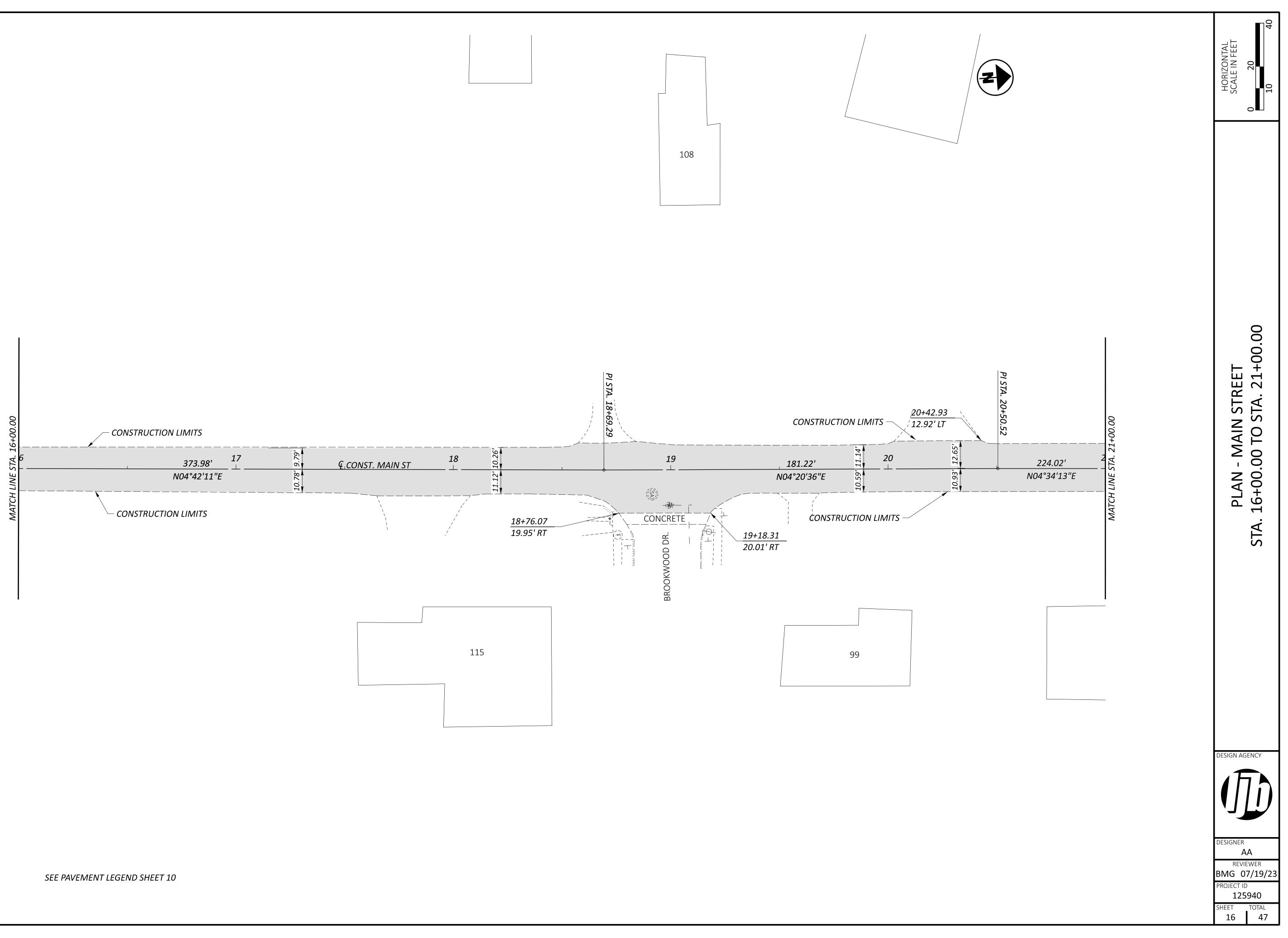
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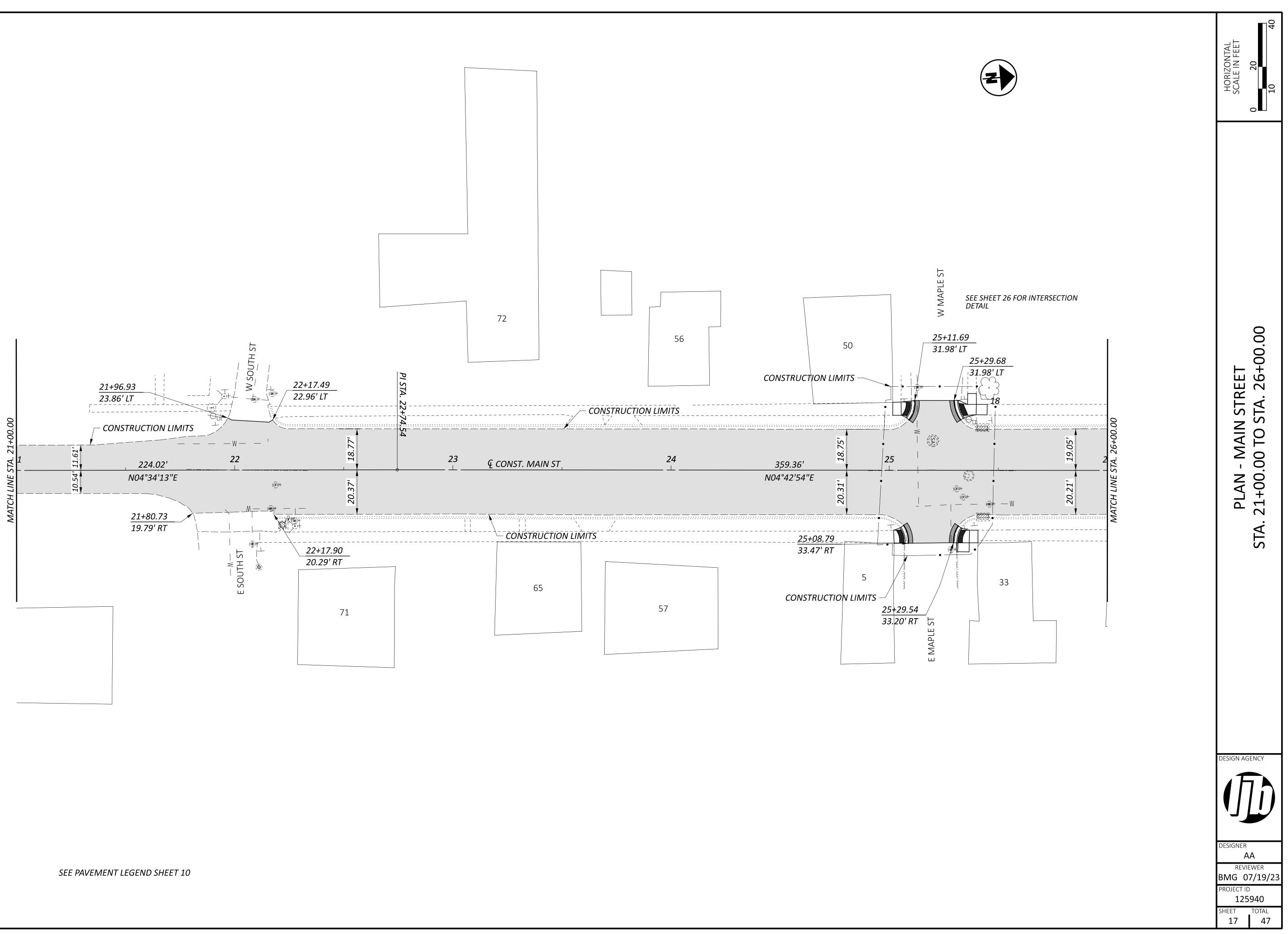


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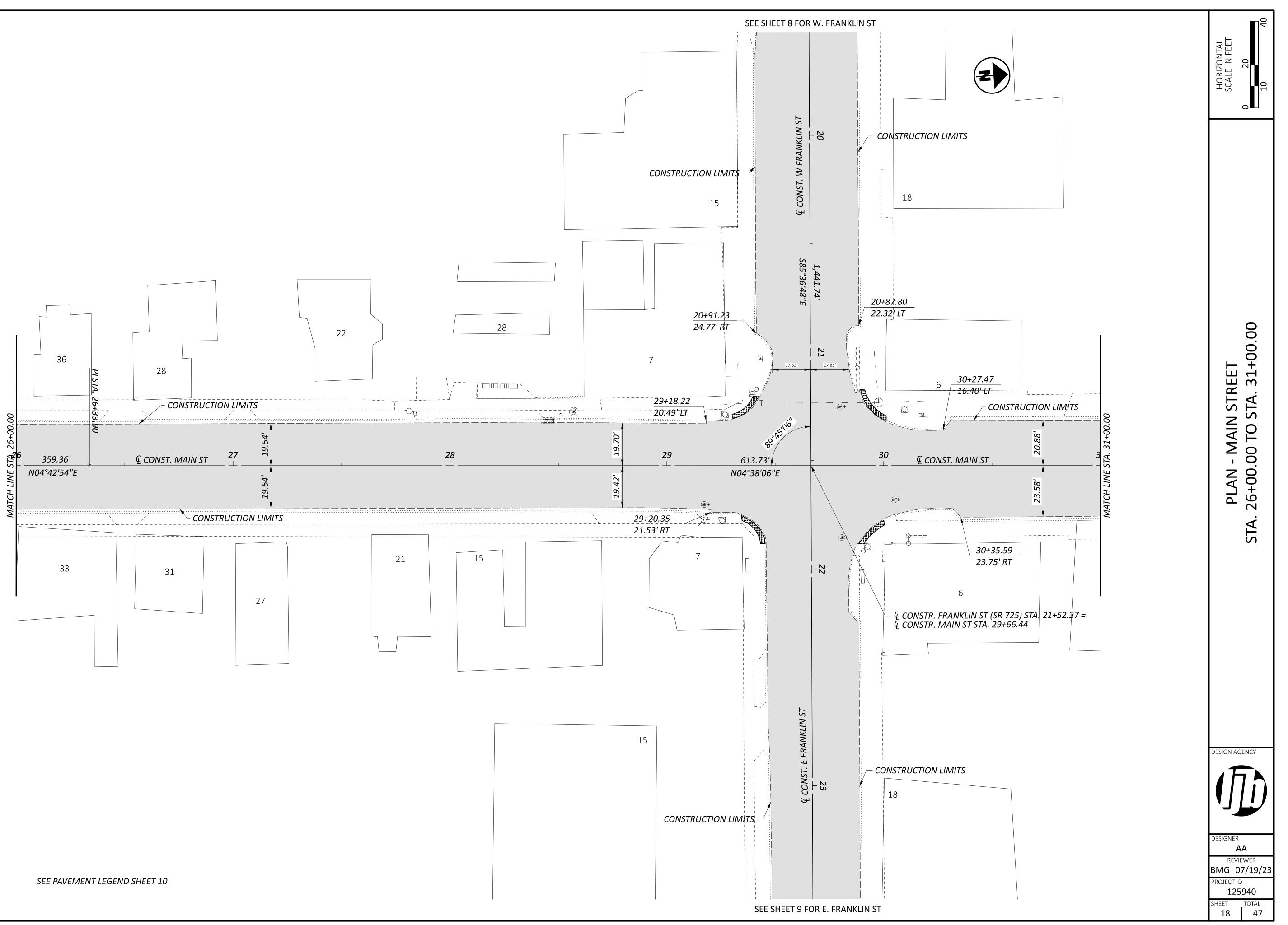




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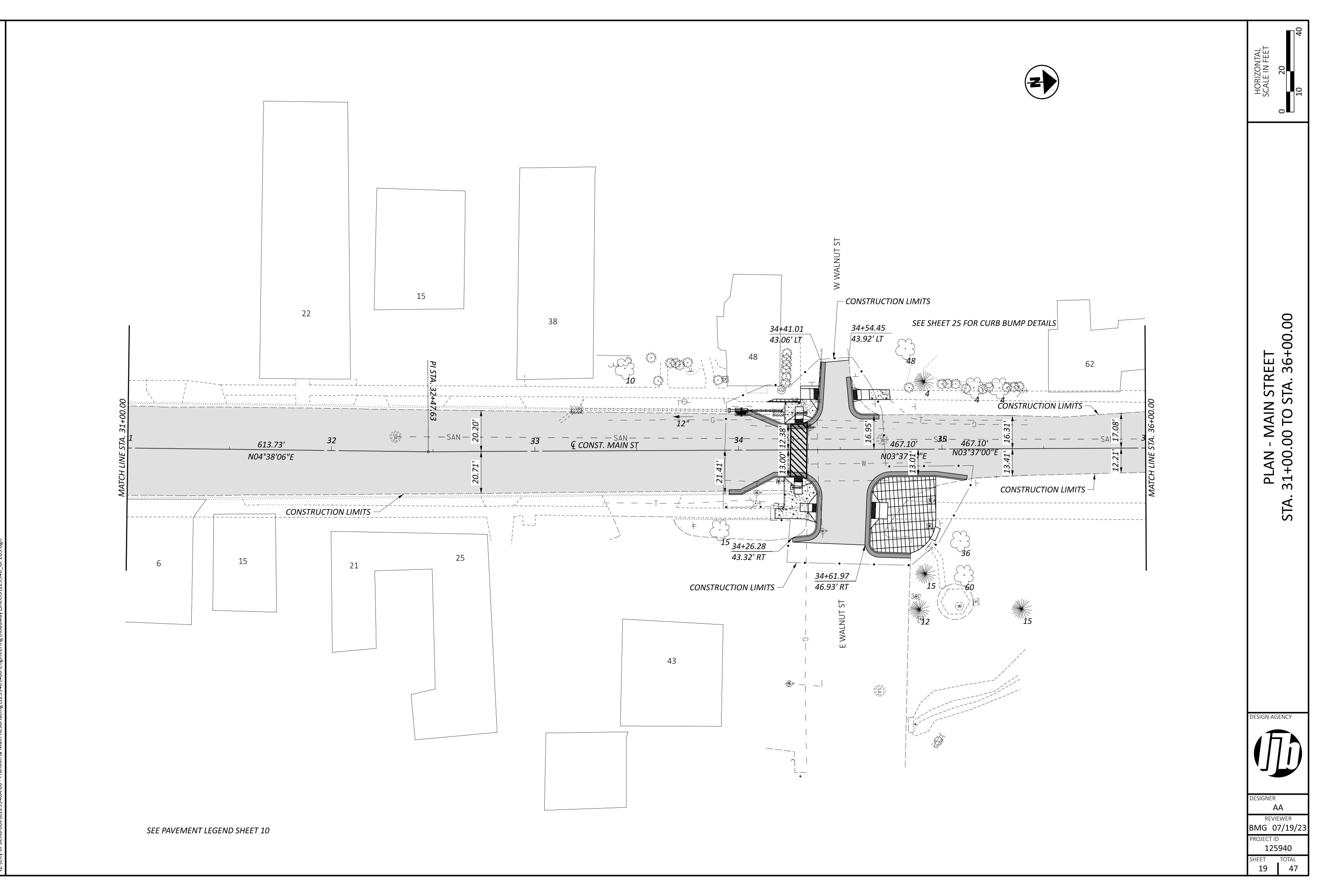


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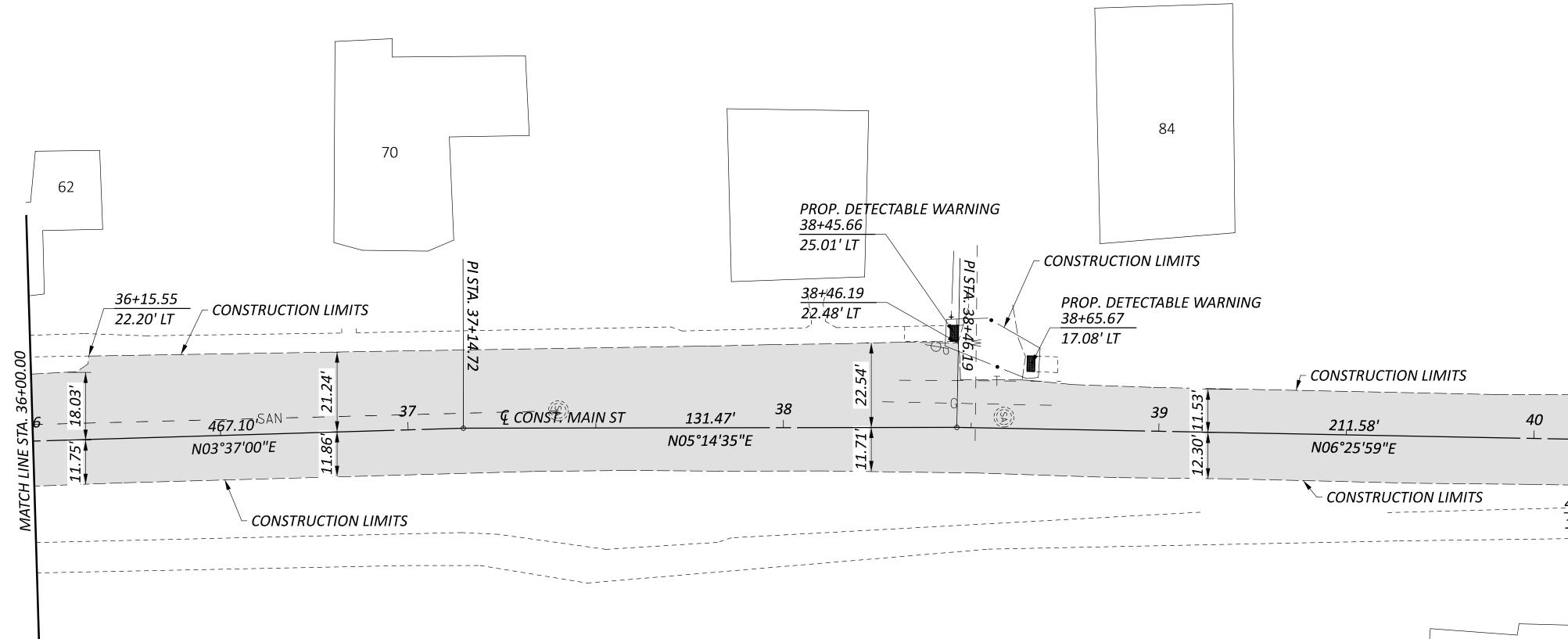




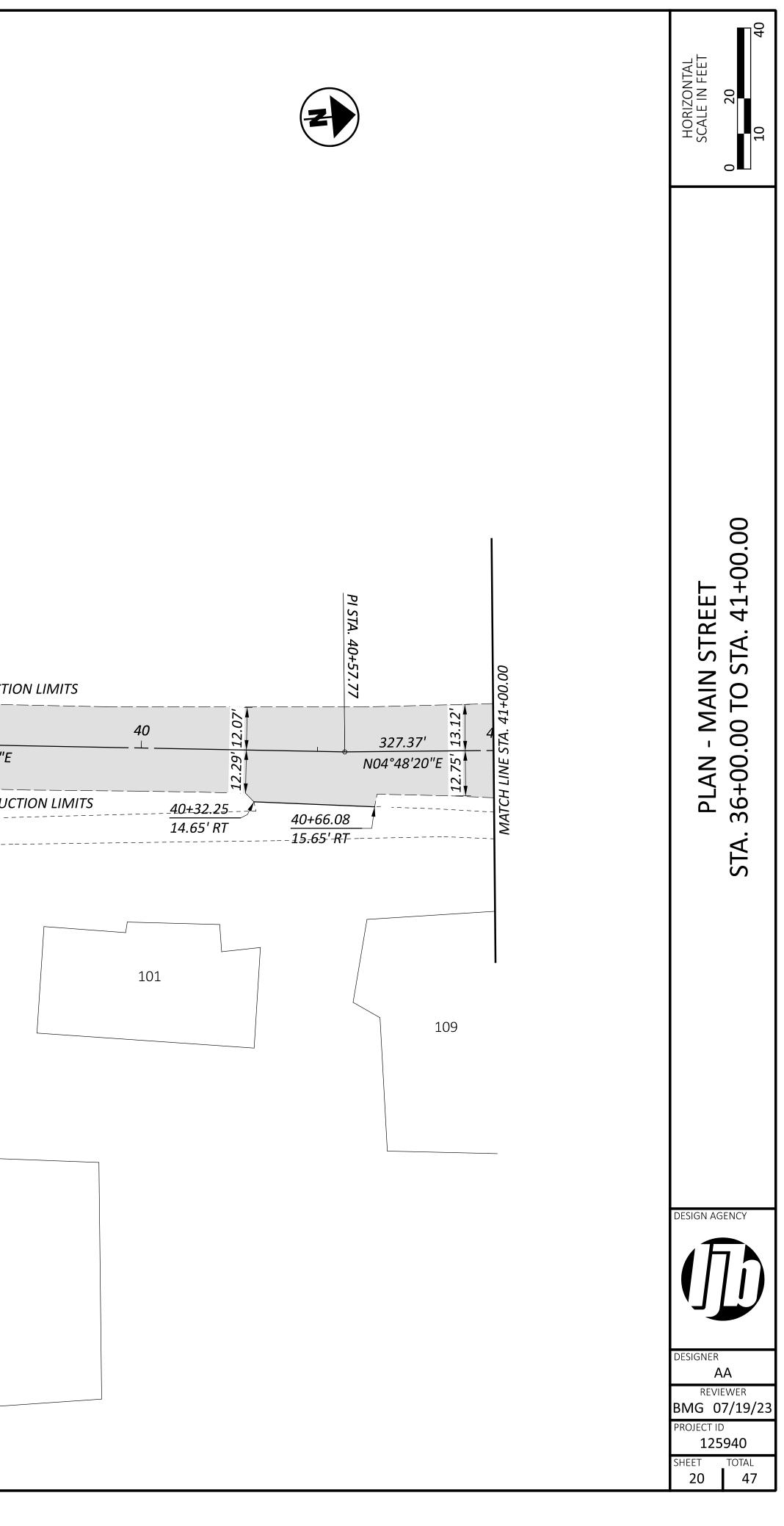
ODEL: CLP\_Franklin - GP\_006\_PAPERSIZE: 34x22 (in.) DATE: 8/11/2023\_TIME: 2:33:08 PM\_USER: bgressel كرنايد، ماج Ballhrook/0135940A 00 - Eranklin 8. Main Besurfacing/135940/400-Engineering/Boadway/Sheete/135940/GD305

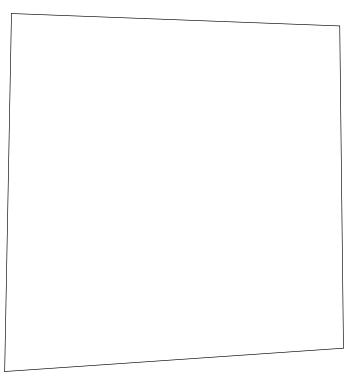


DEL: CLP\_Franklin - GP\_007 PAPERSIZE: 34x22 (in.) DATE: 8/11/2023 TIME: 2:33:09 PM USER: bgressel Dity of Bellbrook/01259404 00 - Franklin & Main Resurfacing/125940/400-Fngingering/Roadwav/Sheets/125940 GP2



SEE PAVEMENT LEGEND SHEET 10

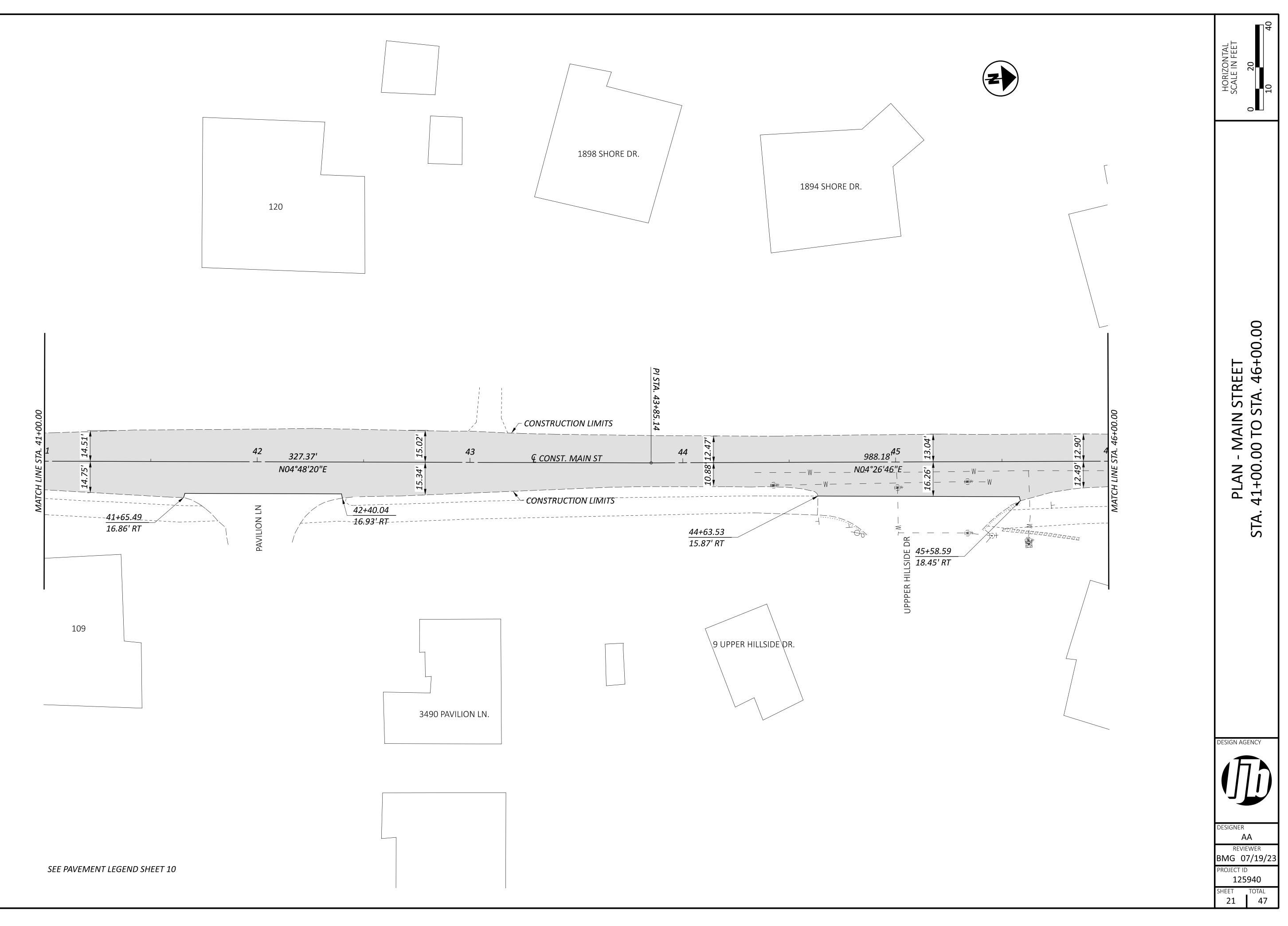




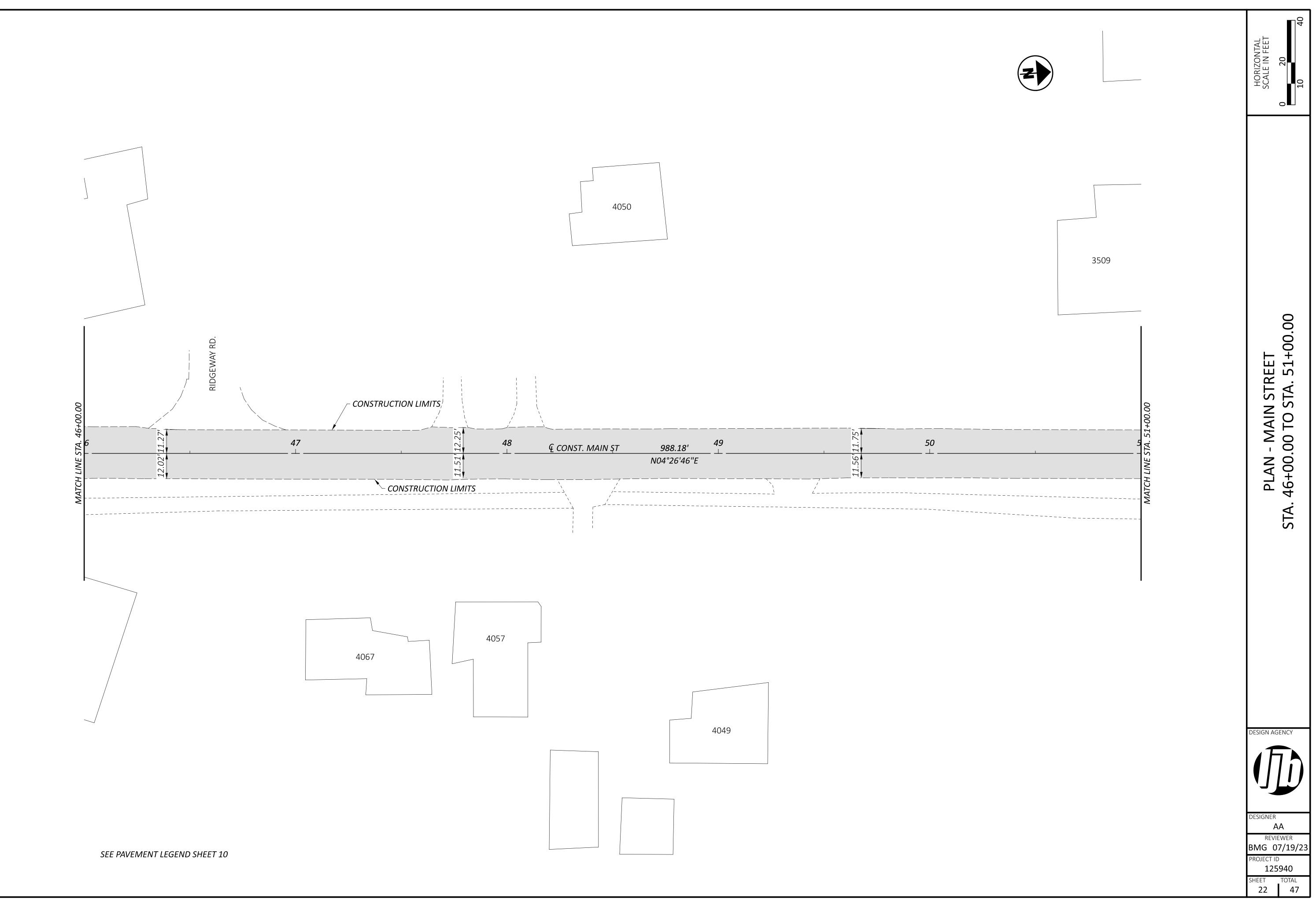


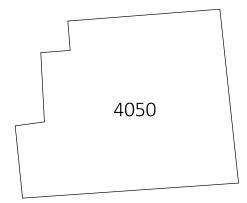
TIME: 2:33:09 PM USER: 00-Engineering\Roadwav DATE: 8/11/2023 urfacing\125940\4 ERSIZE: 34x22 (in ranklin & Main F PAF 00 008 GР ODEL: CLP\_

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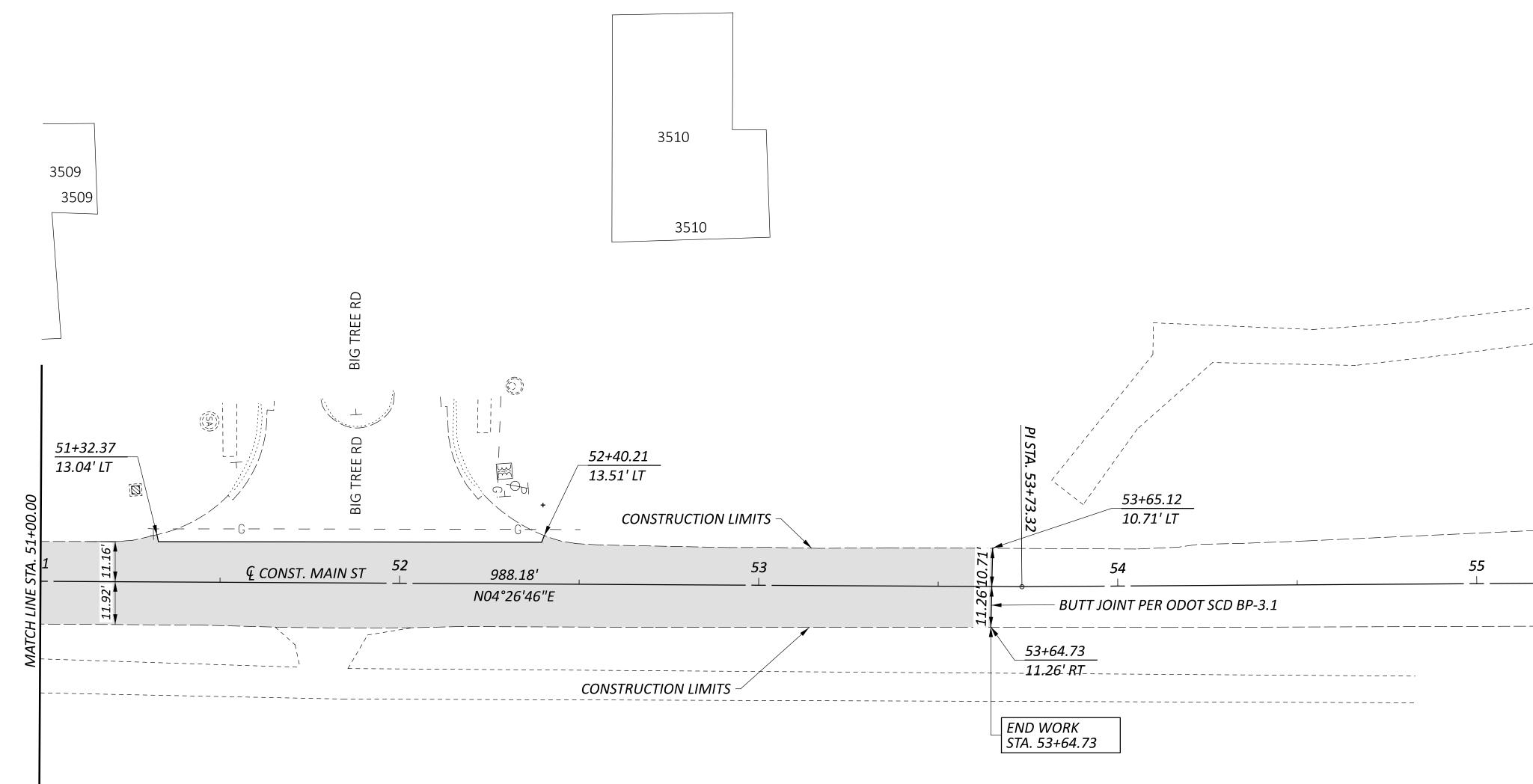
TIME: 2:33:10 PM USER: bgr 400-Engineering\Roadway\Sh DATE: 8/11/2023 urfacing\125940\4 ERSIZE: 34x22 (in.) Franklin & Main Rest \_009 PAPF GР klin MODEL: CLP\_Fra 0:\City of Bellbr





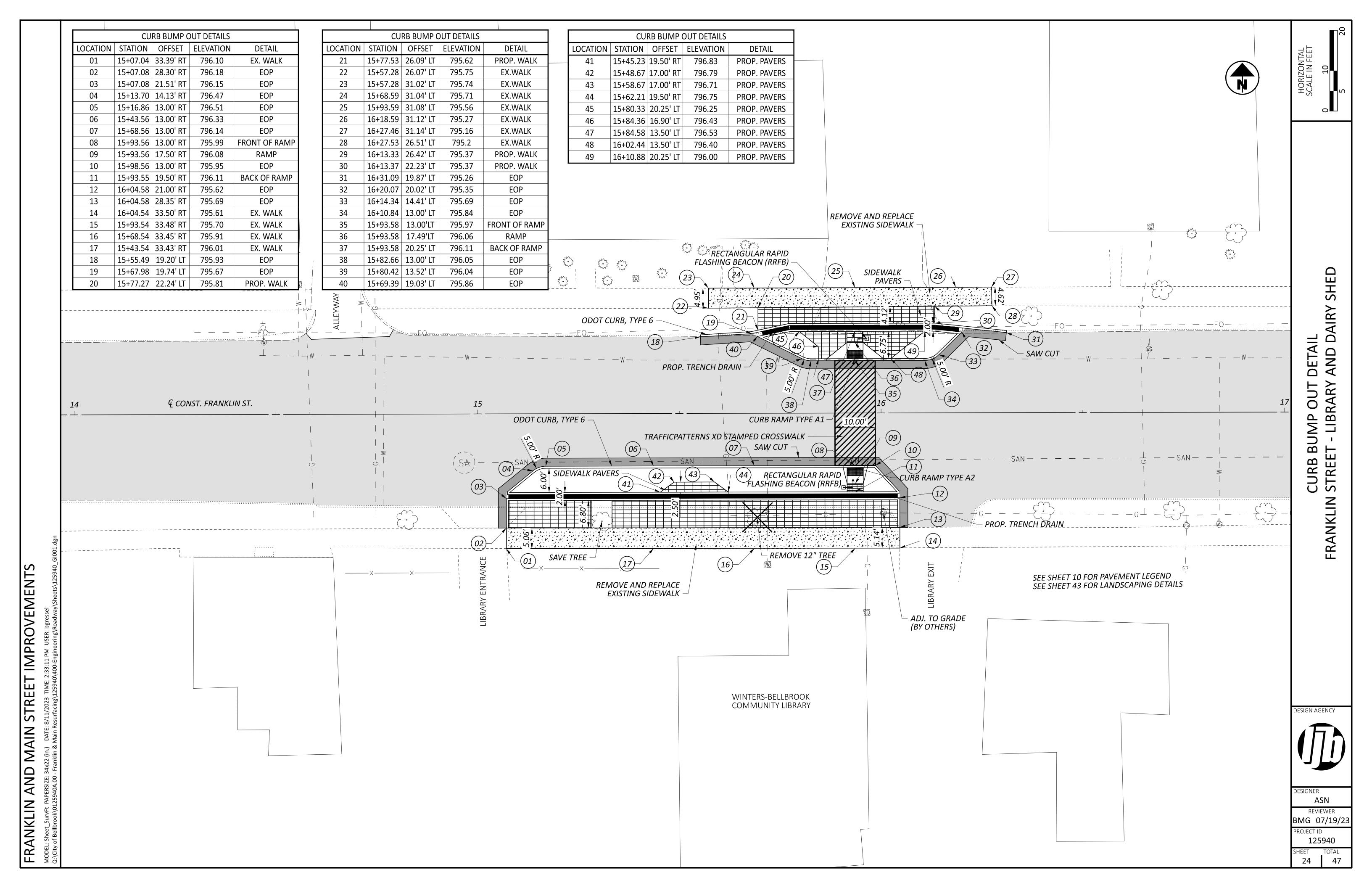
DEL: CLP\_Franklin - GP\_010 PAPERSIZE: 34x22 (in.) DATE: 8/11/2023 TIME: 2:33:11 PM USER: bgressel City of Bellbrook\0125940A.00 - Franklin & Main Resurfacing\125940\400-Engineering\Roadway\Sheets\125940 GP2

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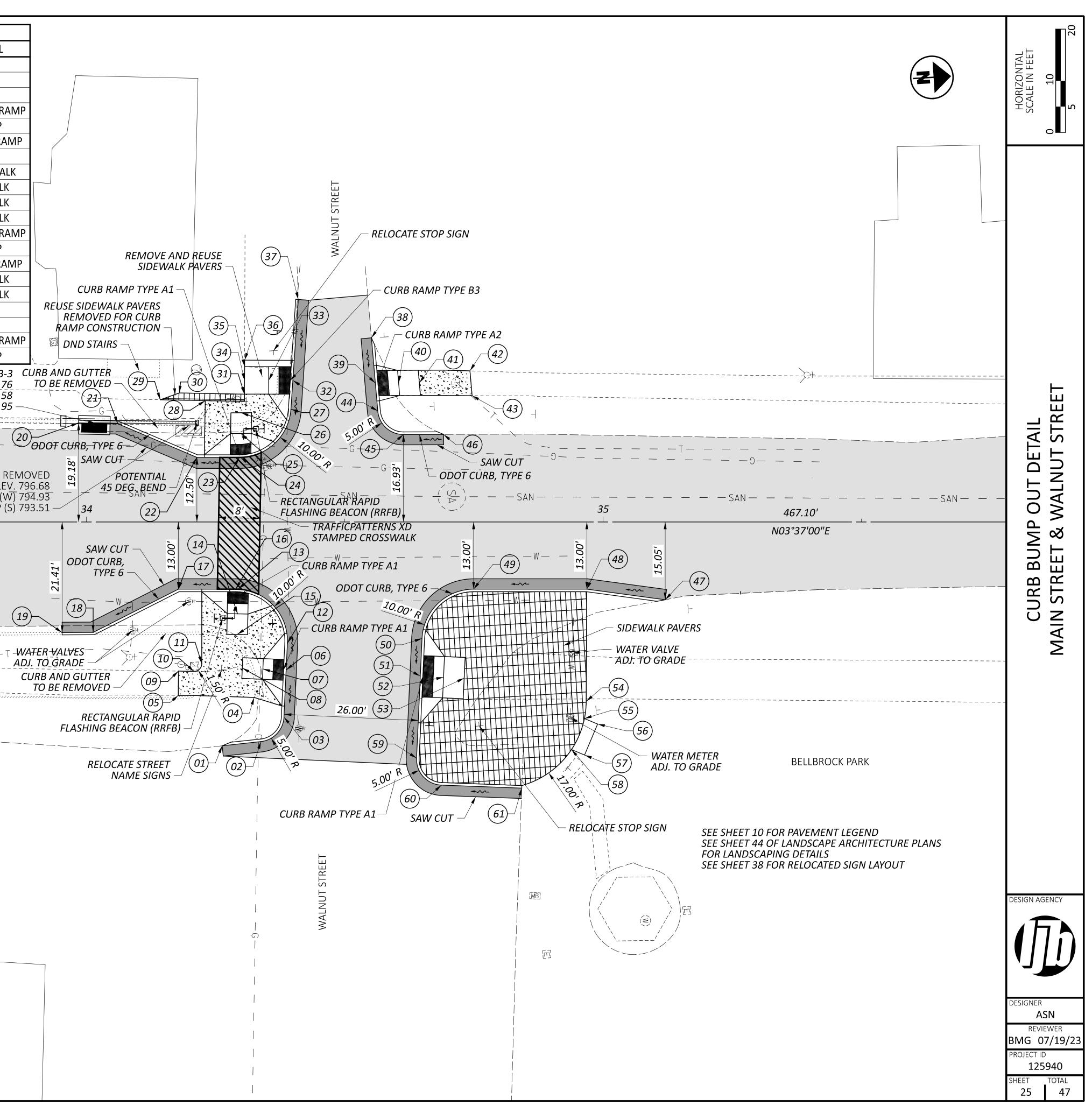


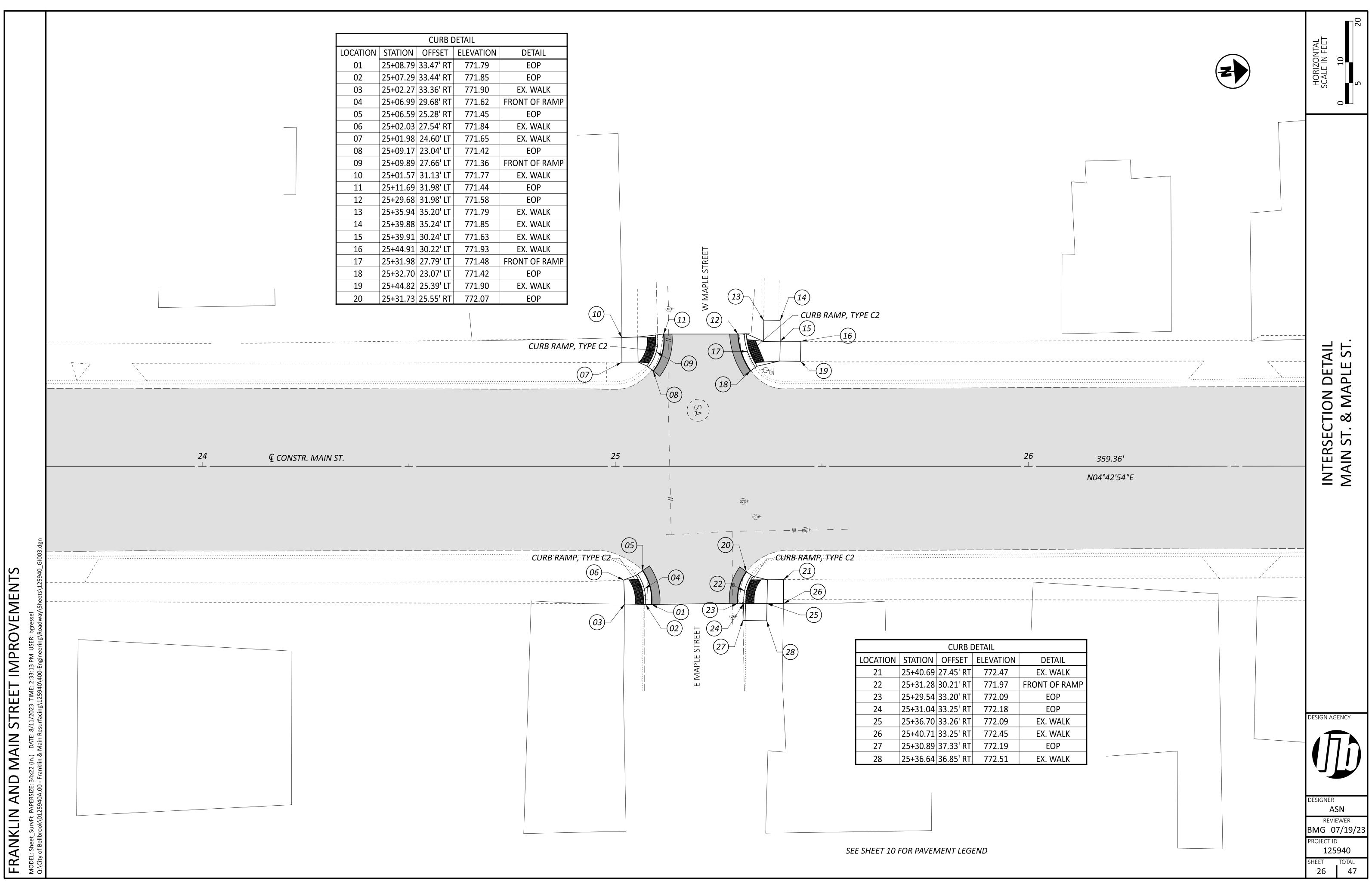
SEE PAVEMENT LEGEND SHEET 10

	HORIZONTAL SCALE IN FEET 0 20 10 40
<u>326.68'</u> 5 N03*44'46"E	PLAN - MAIN STREET STA. 51+00.00 TO STA. 53+65.12
	DESIGN AGENCY DESIGNER AA REVIEWER BMG 07/19/23 PROJECT ID 125940 SHEET TOTAL 23 47



			OUT DETAILS					OUT DETAILS	
LOCATION		OFFSET	ELEVATION	DETAIL	LOCATION	STATION	OFFSET	ELEVATION	DETAIL
01		43.32' RT		EOP	21	34+06.07		796.03	EOP
02		42.51' RT		EOP	22		12.50' LT	797.12	EOP
03		37.77' RT		EOP	23		12.50' LT	797.61	
04		33.96' RT 33.57' RT		PROP. WALK EX. WALK	24	34+29.81	12.50' LT	797.61 797.65	FRONT OF RAI
05		28.65' RT		FRONT OF RAMP	25		21.15 <sup>'</sup> LT	797.69	BACK OF RAM
07		28.44' RT		RAMP	20	34+39.59		798.48	EOP
08		28.26' RT		BACK OF RAMP	28	34+23.01		797.17	PROP. WALK
09		28.87' RT		EX. WALK	29	34+14.29		796.75	EX. WALK
10	34+20.81	28.91' RT		EX. WALK	30	34+17.98		796.94	EX. WALK
11	34+22.34	27.41' RT	797.38	EX. WALK	31	34+30.60	24.74' LT	797.76	EX. WALK
12	34+38.90	23.46' RT	798.01	EOP	32	34+39.96	27.41' LT	798.79	FRONT OF RAI
13	34+29.35	13.01' RT	797.70	FRONT OF RAMP	33	34+35.28	27.41' LT	797.81	RAMP
14	34+29.26	17.78' RT	797.73	RAMP	34	34+30.61	27.41' LT	797.69	BACK OF RAM
15	34+29.19	21.78' RT	797.60	BACK OF RAMP	- 35	34+30.62	30.08' LT	798.11	EX. WALK
16		13.00' RT		EOP	36		31.32' LT	798.18	EX. WALK
17		13.00' RT		EOP	37		43.06' LT	800.13	EOP
18		21.38' RT		EOP	38		35.64' LT	800.01	EOP
19		21.41' RT		EOP	39	34+55.92		799.43	FRONT OF RAI
20	33+98.49	19.18' LT	795.58	EOP	_ 40	34+60.44	26.92' LT	799.49	RAMP
	````	·						12" TY	PROP. CB-3 TE <u>ELEV. 795.76</u> PE B (S) 792.58 PE C (N) 793.95
	GRA <sup>T</sup>	E E ELEV. 79	X. CB 91.44						(
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			OUT DETAILS	CONSTR. MAI	N ST.				12" RCP (S
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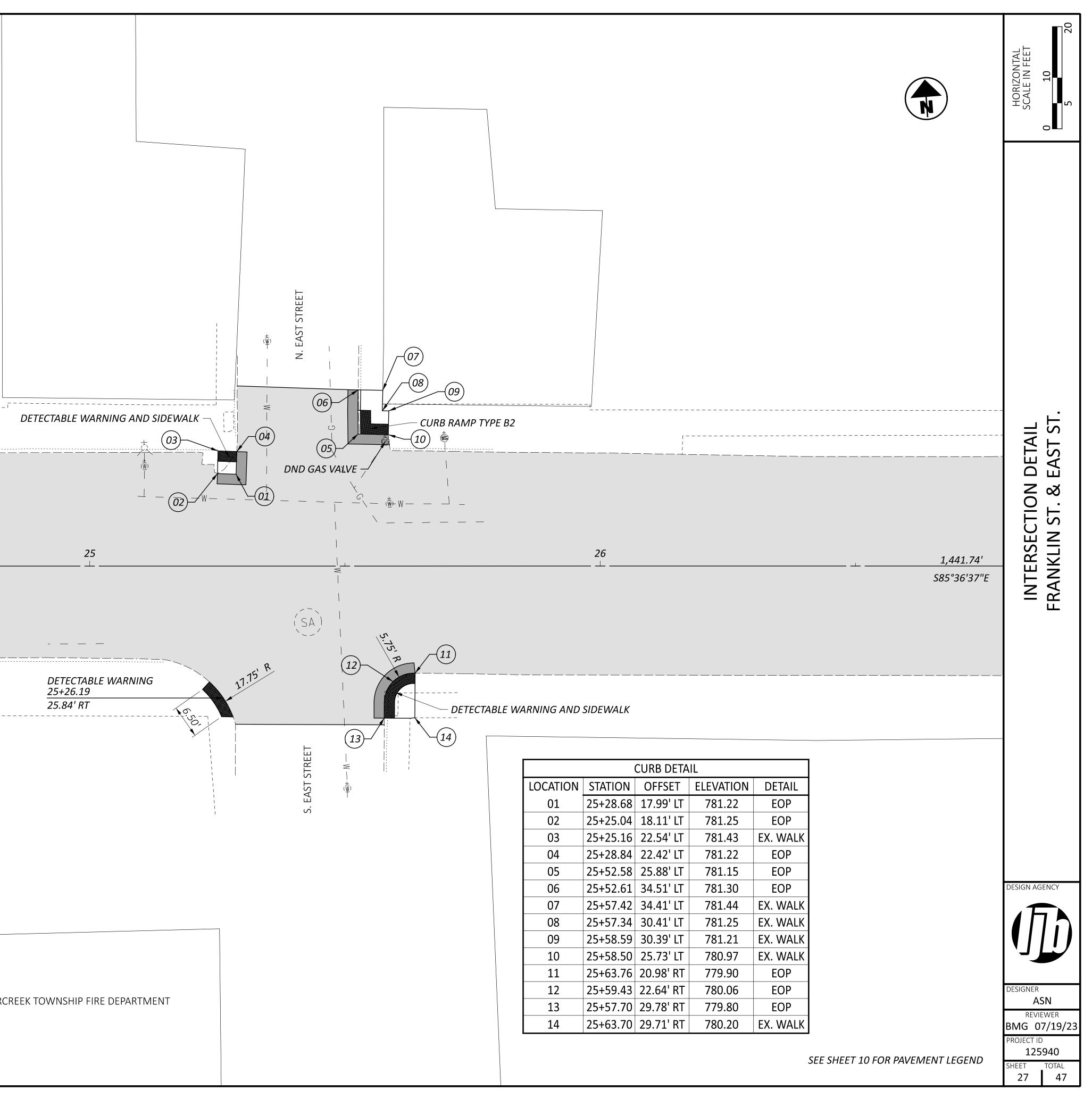




<b>AENTS</b>
NEV
IMPRC
STREET
MAIN 9
AND
FRANKLIN

DEL: Sheet\_Survet PAPERSIZE: 34x22 (In.) DATE: 8/ 11/2023 TIME: 2:33:14 PM USER: bgressel

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Q:\City of Bellbrook\0125940A.00 - Franklin & Main Resurfacing\125940\400-Engineering\Roadway\Sheets\125940_G1004.dgn		SUGARC



### 630 SIGNING MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE FLASHING UNIT SHALL BE SOLAR POWERED, PEDESTRIAN ACTIVATED, AND 2-SIDED WITH TWO LED ARRAY BASED YELLOW INDICATIONS ON EACH SIDE. MULTIPLE UNITS SHALL BE WIRELESSLY CONTROLLED AND SYNCHRONIZED. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) AND FHWA INTERIM APPROVAL FOR RRFBS (IA-21).

GENERAL REQUIREMENTS -

EACH RRFB SHALL CONSIST OF TWO RAPIDLY FLASHED RECTANGULAR-SHAPED YELLOW INDICATIONS HAVING LED ARRAY BASED LIGHT SOURCE.

EACH RRFB SHALL BE A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.).

EACH RRFB SHALL CONTAIN A PEDESTRIAN INDICATION LIGHT VISIBLE BY THE PEDESTRIAN IN THE DIRECTION OF TRAVEL.

FUNCTIONAL REQUIREMENTS -

EACH RRFB SHALL UTILIZE SOLAR POWER.

EACH RRFB SHALL BE ACTIVATED BY ADA COMPLIANT PUSHBUTTONS.

THE RRFB SHALL BE NORMALLY DARK, SHALL INITIATE **OPERATION ONLY UPON PEDESTRIAN ACTUATION, AND** SHALL CEASE OPERATION AFTER A PREDETERMINED TIME LIMIT (BASED ON OMUTCD PROCEDURES).

EACH REMOTE RRFB SHALL BE WIRELESSLY ACTIVATED.

ALL RRFB LIGHT INDICATIONS SHALL BE WIRELESSLY SYNCHRONIZED (ALL LIGHTS WILL TURN ON WITHIN 120 MSEC AND REMAIN SYNCHRONIZED THROUGHOUT THE DURATION OF THE FLASHING CYCLE).

THE UNIT SHALL BE CAPABLE OF RUNNING 14 DAYS WITHOUT SUNLIGHT.

MATERIALS -

FURNISH A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS, AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.). THE RRFB ASSEMBLY INCLUDES THE FOLLOWING ITEMS:

- 1. RRFB INDICATIONS
- A. EACH RRFB INDICATION LENS SHALL BE A MINIMUM SIZE OF APPROXIMATELY 5" WIDE X 2" HIGH.
- B. THE RRFB INDICATIONS SHALL BE ALIGNED HORIZONTALLY, WITH THE LONGER DIMENSION OF THE INDICATION HORIZONTAL. THERE SHALL BE TWO INDICATIONS ON THE FRONT AND TWO INDICATIONS ON THE BACK.
- C. EACH RRFB SHALL BE SUPPLIED WITH ALL REQUIRED HARDWARE TO INSTALL ASSEMBLY. ALL EXPOSED HARDWARE SHALL BE ANTI-VANDAL.

- DIAGONAL ARROW PLAQUE.
- JANUARY, 2005.
- DEVICE SHALL BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS.
- RRFB IS IN OPERATION.
- 2. SIGNS
- SIGN TO FIXTURE.
- **B.** PEDESTRIAN PUSHBUTTONS SIGNS SHALL BE WITH EACH PEDESTRIAN PUSHBUTTON.
- C. TWO SETS OF SIGNS SHALL BE REQUIRED PER UNIT FOR VIEW FROM EACH APPROACH.
- D. ASSURE SIGN MEETS THE REQUIREMENTS OF *C&MS 630.*
- 3. CONTROL CIRCUIT
- A. THE CONTROL CIRCUIT SHALL HAVE THE OUTPUTS AND FLASH PATTERN SHALL BE COMPLETELY PROGRAMMABLE.
- B. THE CONTROL CIRCUIT SHALL BE SEALED CONDITIONS.
- OF NEMA STANDARD 250-1991 FOR TYPE 4 AND ELECTRICAL COMPONENTS.
- 4. BATTERY AND SOLAR PANELS
- A. BATTERY UNIT SHALL BE A 12VDC, 35 AHR

IMPROVEMENTS STREET MAIN AND FRANKLIN

D. EACH RRFB SHALL BE LOCATED BETWEEN THE BOTTOM OF THE CROSSING WARNING SIGN AND THE TOP OF THE SUPPLEMENTAL DOWNWARD

E. THE LIGHT INTENSITY OF THE YELLOW INDICATIONS SHALL MEET THE MINIMUM CLASS 1 SPECIFICATIONS OF SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED

F. TO MINIMIZE EXCESSIVE GLARE DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING

G. An LED PEDESTRIAN CONFIRMATION LIGHT DIRECTED AT AND VISIBLE TO PEDESTRIANS IN THE CROSSWALK SHALL BE INSTALLED INTEGRAL TO THE RRFB OR PUSHBUTTON TO GIVE CONFIRMATION THAT THE

H. THE PEDESTRIAN CONFIRMATION LIGHT SHALL HAVE A MINIMUM AREA OF 0.5 SQUARE INCHES AND BE CONSPICUOUS TO PEDESTRIANS AT ALL DISTANCES FROM THE BEGINNING OF THE CONTROLLED CROSSWALK TO A POINT 10 FEET FROM THE END OF THE CONTROLLED CROSSWALK DURING BOTH DAY AND NIGHT.

A. ALL SIGN ASSEMBLIES SHALL USE ANTI-VANDAL FASTENERS TO MOUNT COMPONENTS TO SIGN AND

PROVIDED AND INCLUDE THE LEGEND "PUSH BUTTON TO TURN ON WARNING LIGHTS". SIGNS SHOULD BE MOUNTED ADJACENT TO OR INTEGRAL

CAPABILITY OF INDEPENDENTLY FLASHING UP T TWO INDEPENDENT OUTPUTS. THE LED LIGHT

WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER

C. THE LEDS SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS ENCLOSURE AND TO PROTECT ALL INTERNAL LED

MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO YEAR FULL

### REPLACEMENT WARRANTY.

- B. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 40 WATTS PEAK TOTAL OUTPUT.
- C. THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AND BRACKET AT AN ANGLE OF 45 DEGREES - 60 DEGREES TO PROVIDE MAXIMUM OUTPUT.
- D. ALL FASTENERS USED SHALL BE ANTI-VANDAL.
- 5. WIRELESS RADIO
- A. RADIO CONTROL SHALL OPERATE ON A 900 MHZ FREQUENCY HOPPING SPREAD SPECTRUM NETWORK, WI-FI OR APPROVED EQUAL.
- B. RADIO SHALL INTEGRATE COMMUNICATION OF RRFB CONTROL CIRCUIT TO ACTIVATE SIGN FROM PUSHBUTTON INPUT.
- C. THE RADIO SHALL BE SYNCHRONIZED SO ALL OF THE REMOTE RRFB LIGHT INDICATIONS WILL TURN ON WITHIN 120 MSEC OF EACH OTHER AND **REMAIN SYNCHRONIZED THROUGH-OUT THE** DURATION OF THE FLASHING CYCLE.
- 6. PUSHBUTTON
- A. THE PUSHBUTTON SHALL BE CAPABLE OF CONTINUOUS OPERATION OVER A TEMPERATURE RANGE OF -30 DEGREES F TO +165 DEGREES F.
- B. PUSHBUTTON SHALL BE ADA COMPLIANT.
- 7. PEDESTAL SHAFT AND BASE MOUNT ON A STANDARD 4.5-INCH OD ALUMINUM PEDESTAL POLE WITH TRANSFORMER BASE. A 14 FOOT POLE SHALL BE PROVIDED AND FIELD ADJUSTED AND CAPPED TO MAINTAIN THE PROPER SIGN MOUNTING HEIGHTS, UNLESS SPECIFIED OTHERWISE IN THE PLANS. POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.

### CONSTRUCTION -

THE RRFB SHALL BE ASSEMBLED AND CONSTRUCTED BY THE CONTRACTOR AS SHOWN AND SPECIFIED ON THE PLANS.

WARRANTY -

WARRANTY SHALL BE TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE.

**MEASUREMENT -**

THE DEPARTMENT WILL MEASURE THE ITEM COMPLETE IN PLACE, INCLUDING ALL MATERIALS, TESTING, LABOR AND SOFTWARE FOR A FULLY FUNCTIONAL UNIT.

PAYMENT -

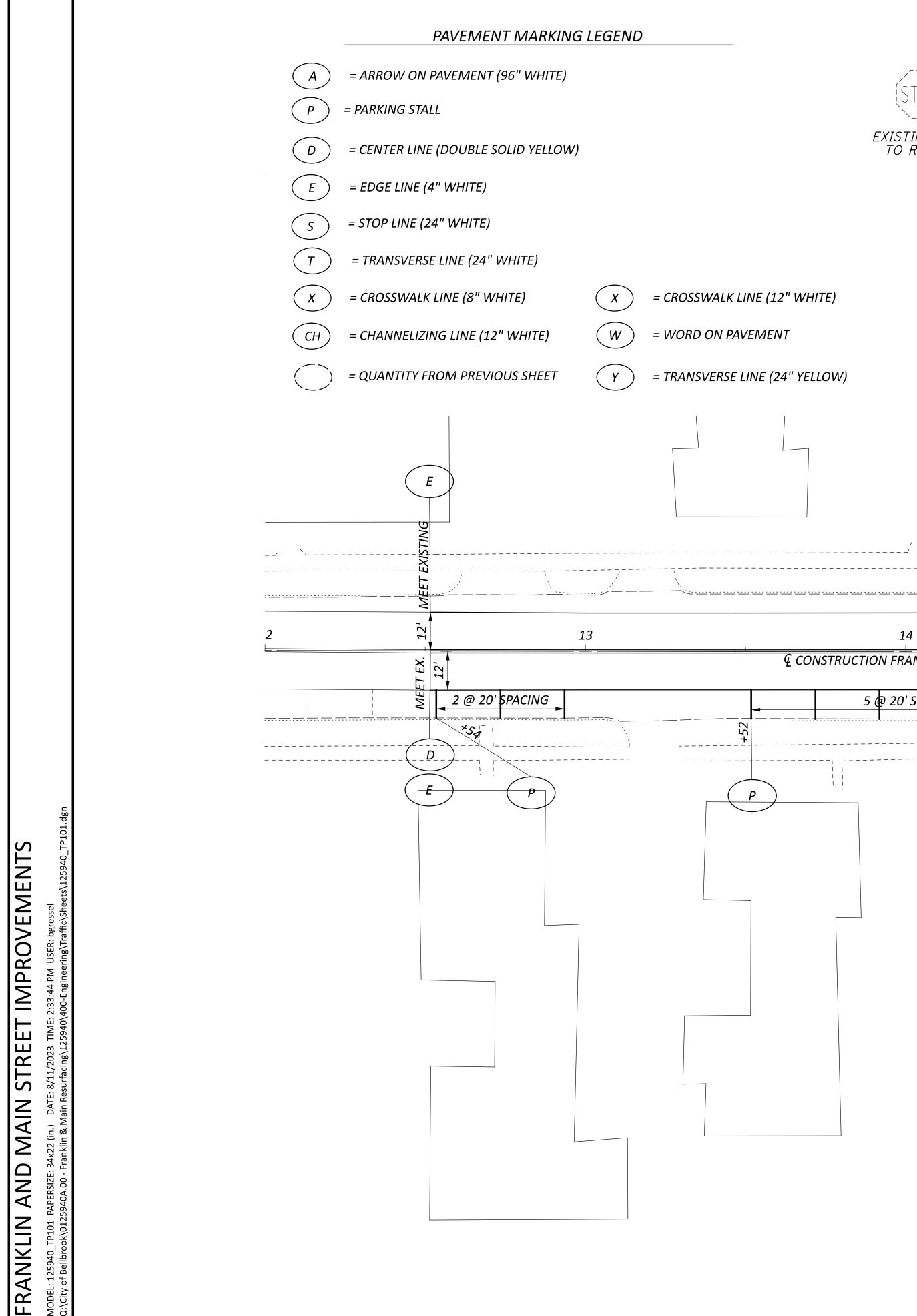
PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 630 "SIGNING MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY".

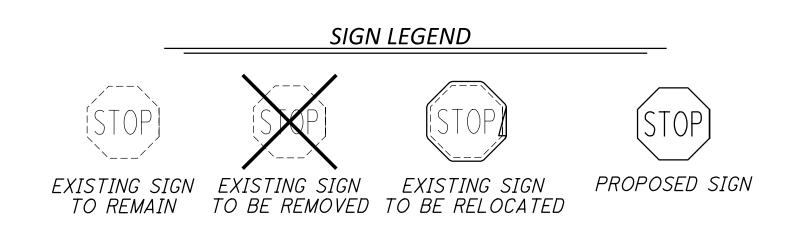
### PEDESTAL, 8' TRANSFORMER BASE

THE EXTERIOR OF PEDESTALS AND BASES PROVIDED AS PART OF THE "ITEM 630, SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB)" SHALL BE POWDER COATED BLACK AFTER GALVANIZING IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 916.

PAYMENT SHALL BE INCIDENTAL TO "ITEM 630, SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB)".

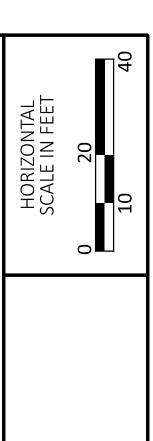
DESIGN AG	ENCY
DESIGNER	
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BMG 0	7/19/23
PROJECT ID	)
125	940
SHEET	TOTAL
28	47

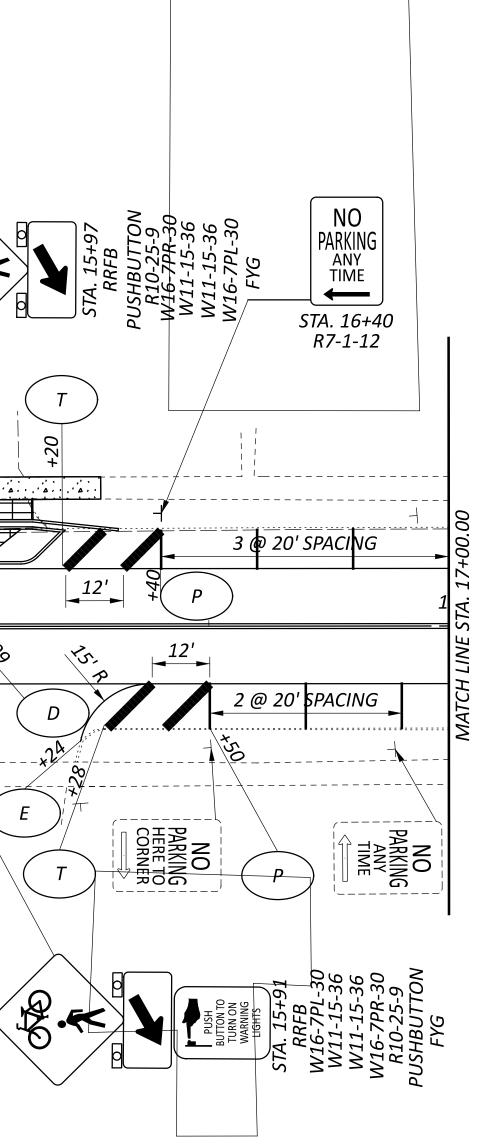




### NO Parking ANY TIME $\longrightarrow$ STA. 15+59 | R7-1-12 河南 \_ \_ \_ \_ \_ 1\_\_\_\_\_ - - - - - -\_ \_ \_ \_ \_ 3 @ 20' SPACING 12' 15 14 **CONSTRUCTION FRANKLIN ST.** X)<u>+89</u> ૾ૻ૱ 8 12' \$ 5 @ 20' SPACING t't TT -12'-\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ .---I I / - - - -PARKING Ε

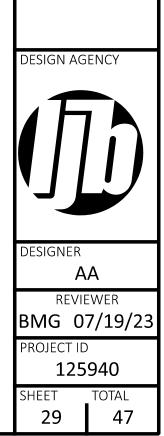




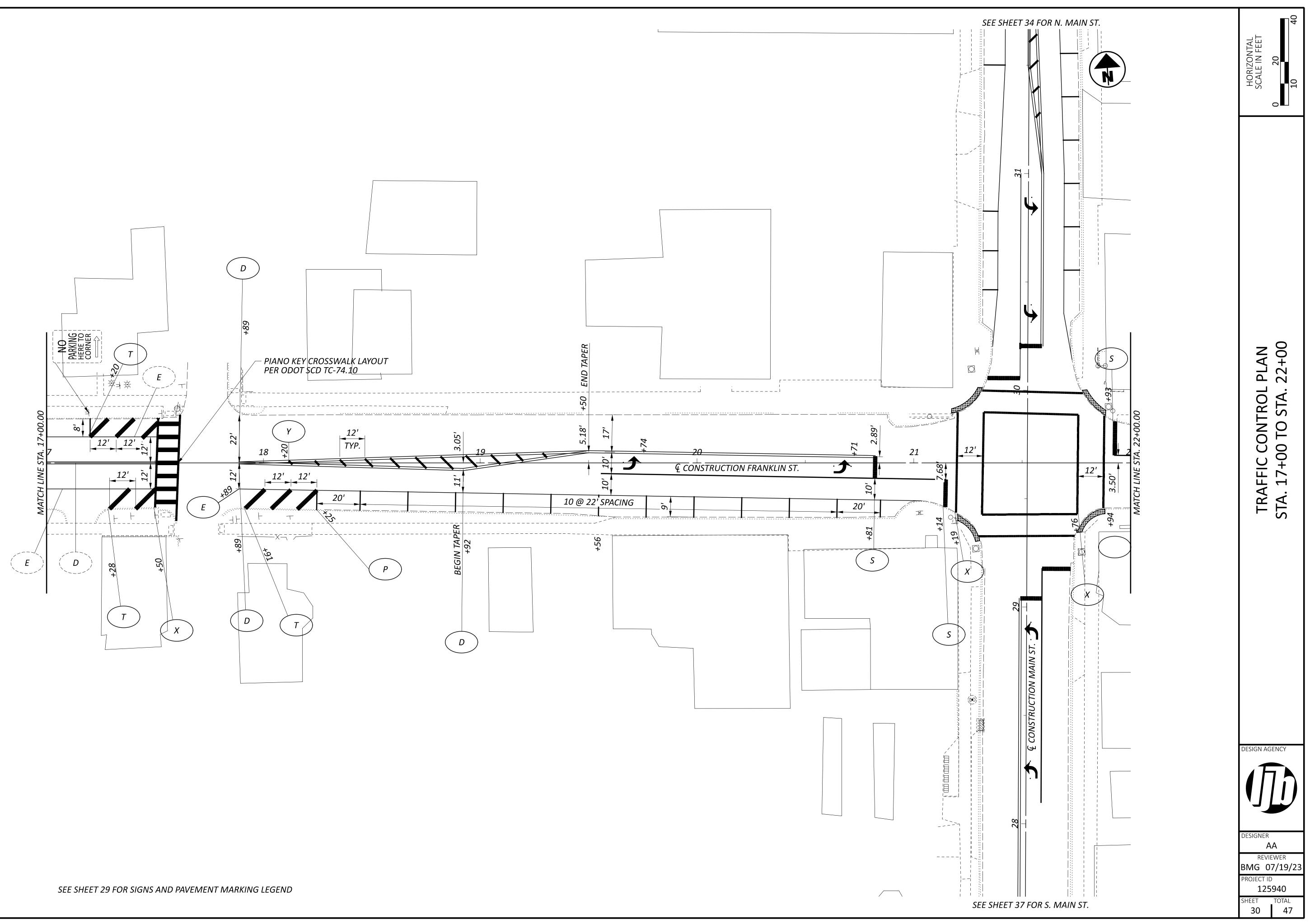


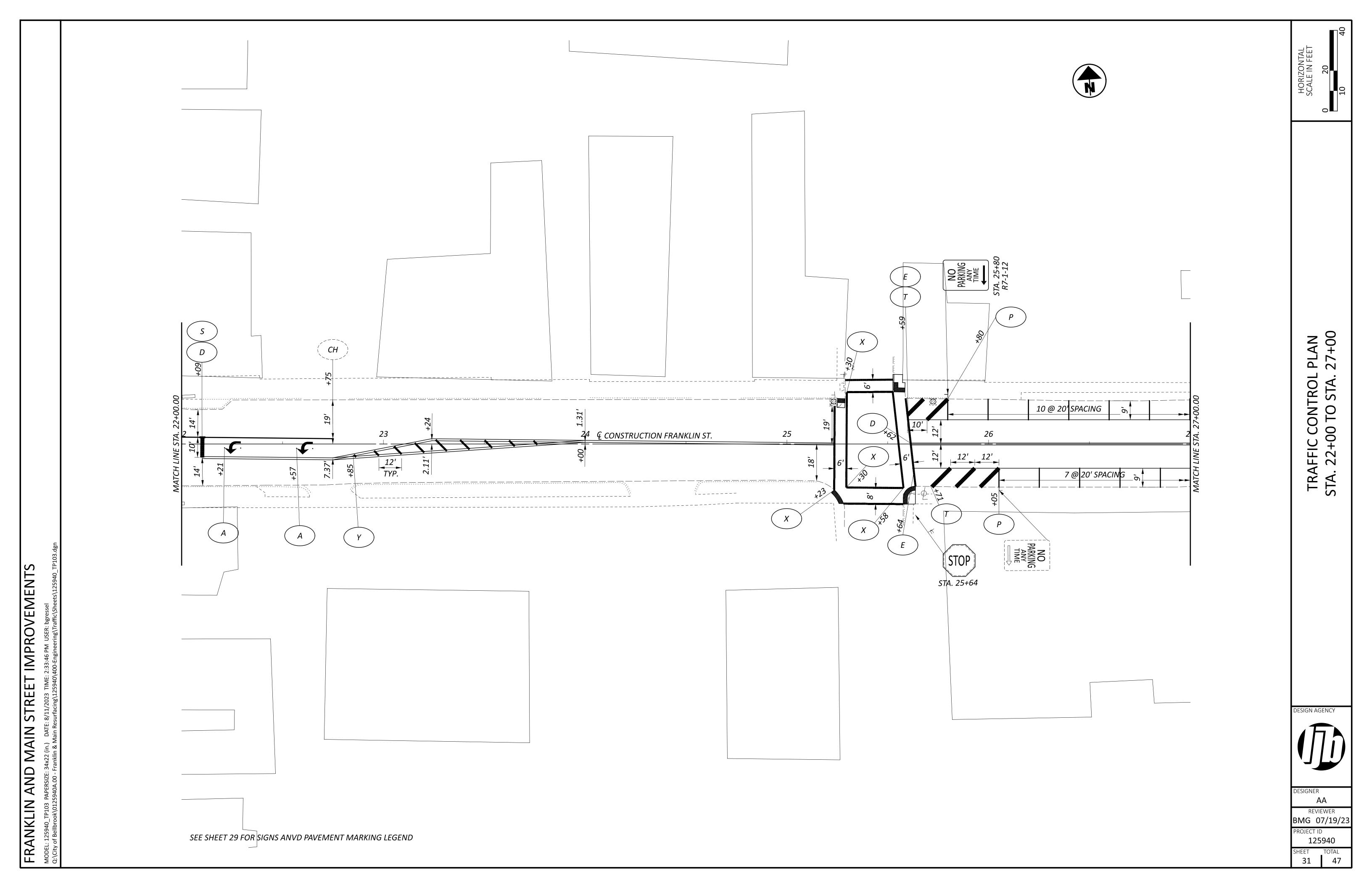
\*PLACE 12" CROSSWALK LINE ON PERIMETER OF TRAFFICPATTERNS XD ENHANCED CROSSWALK



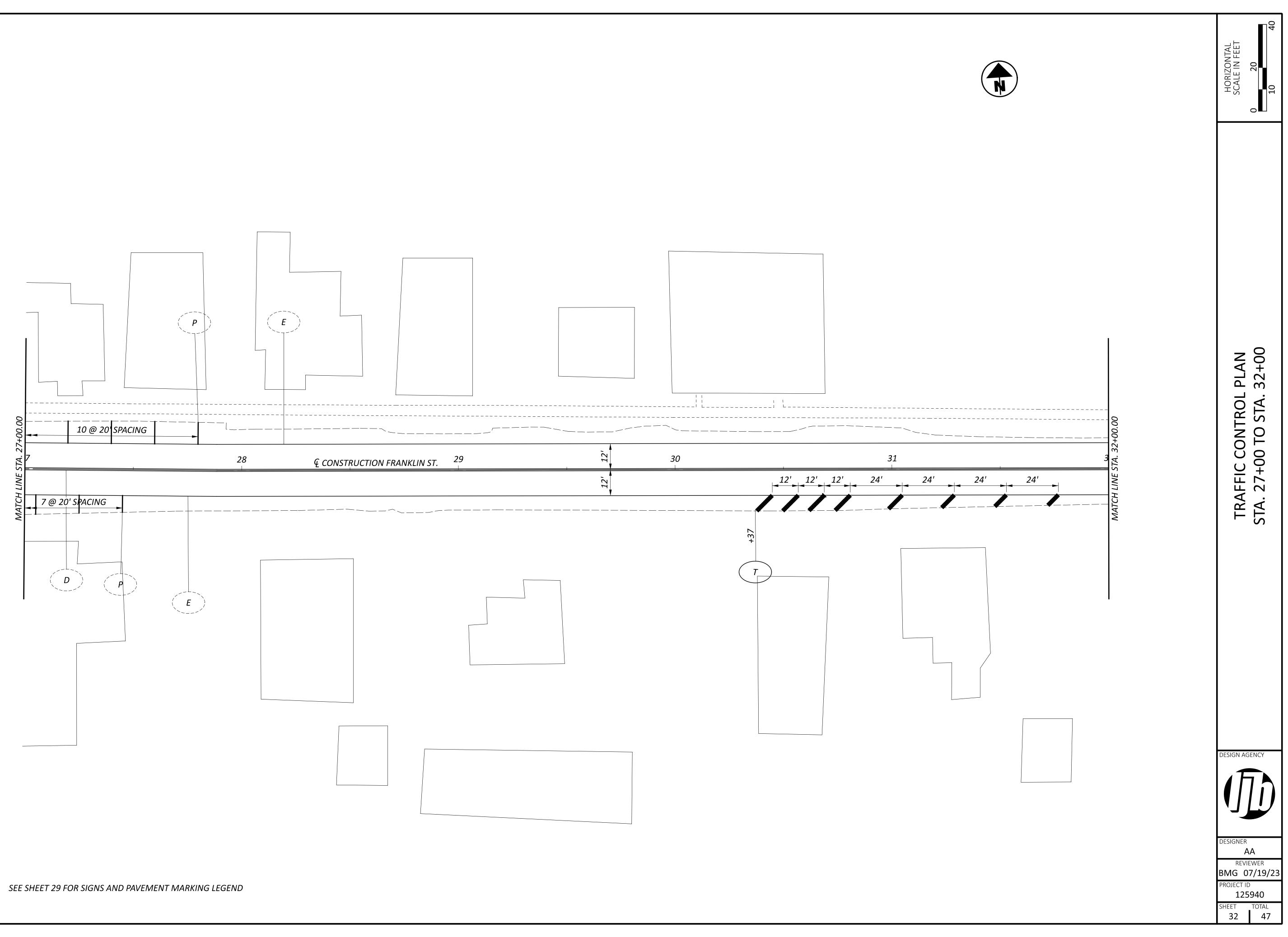


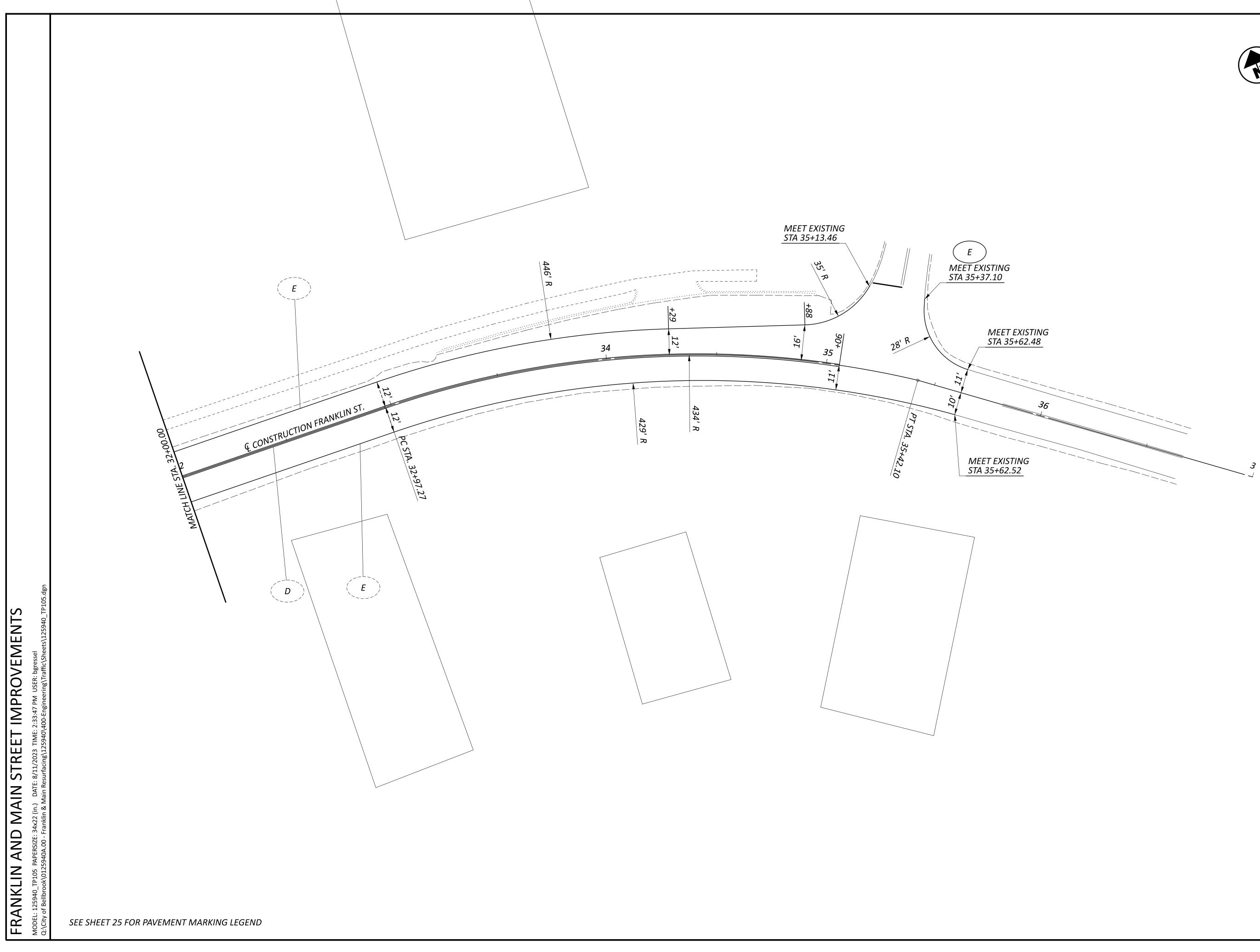
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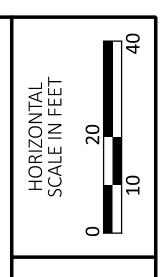




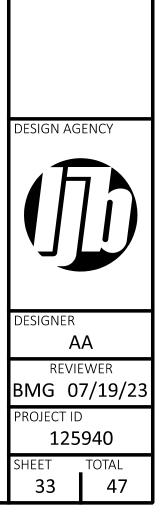
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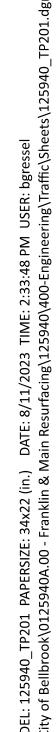


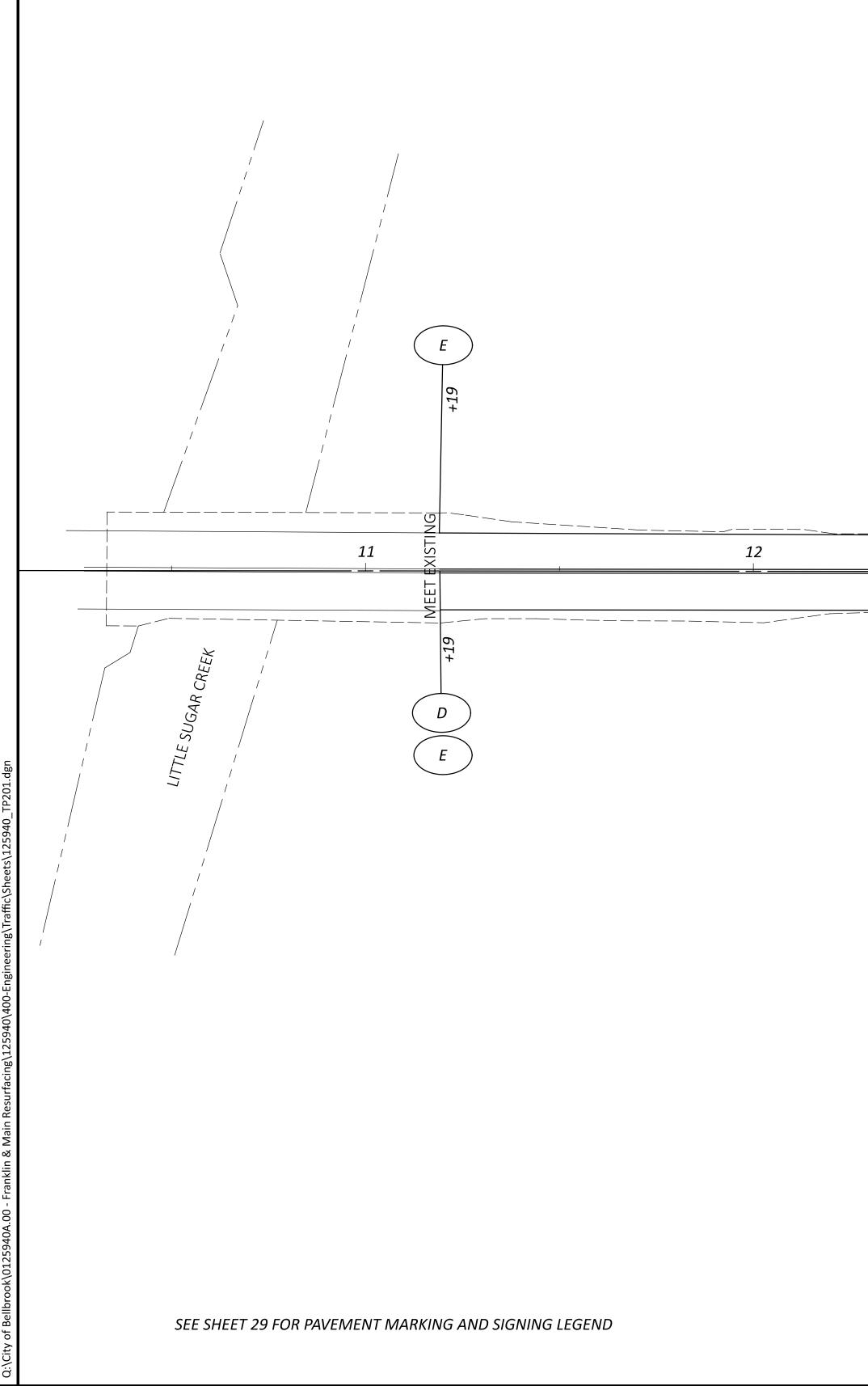












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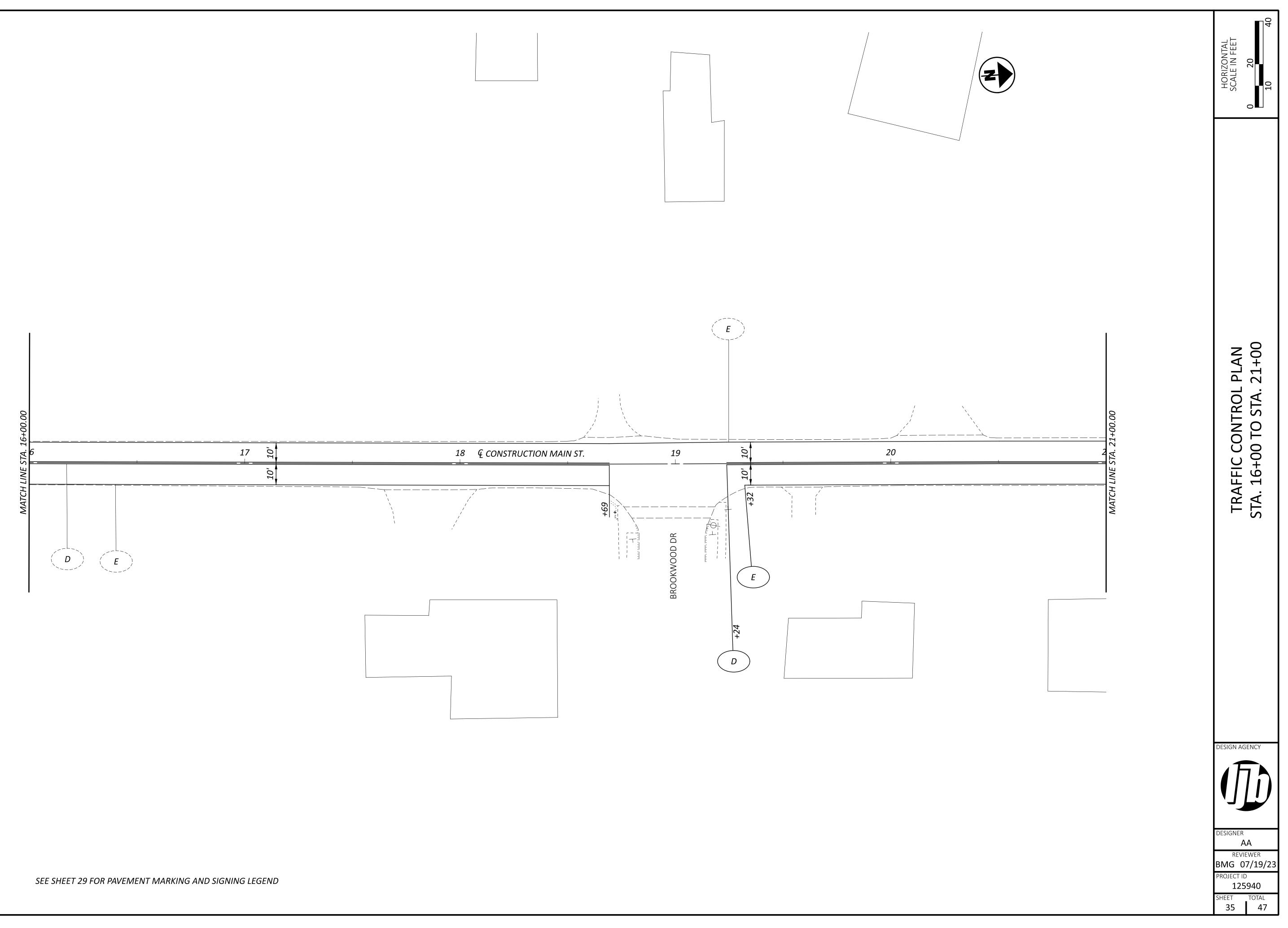
HORIZONTAL SCALE IN FEET 0 20 10 40
TRAFFIC CONTROL PLAN STA. 11+19.00 - STA. 16+00.00
DESIGN AGENCY



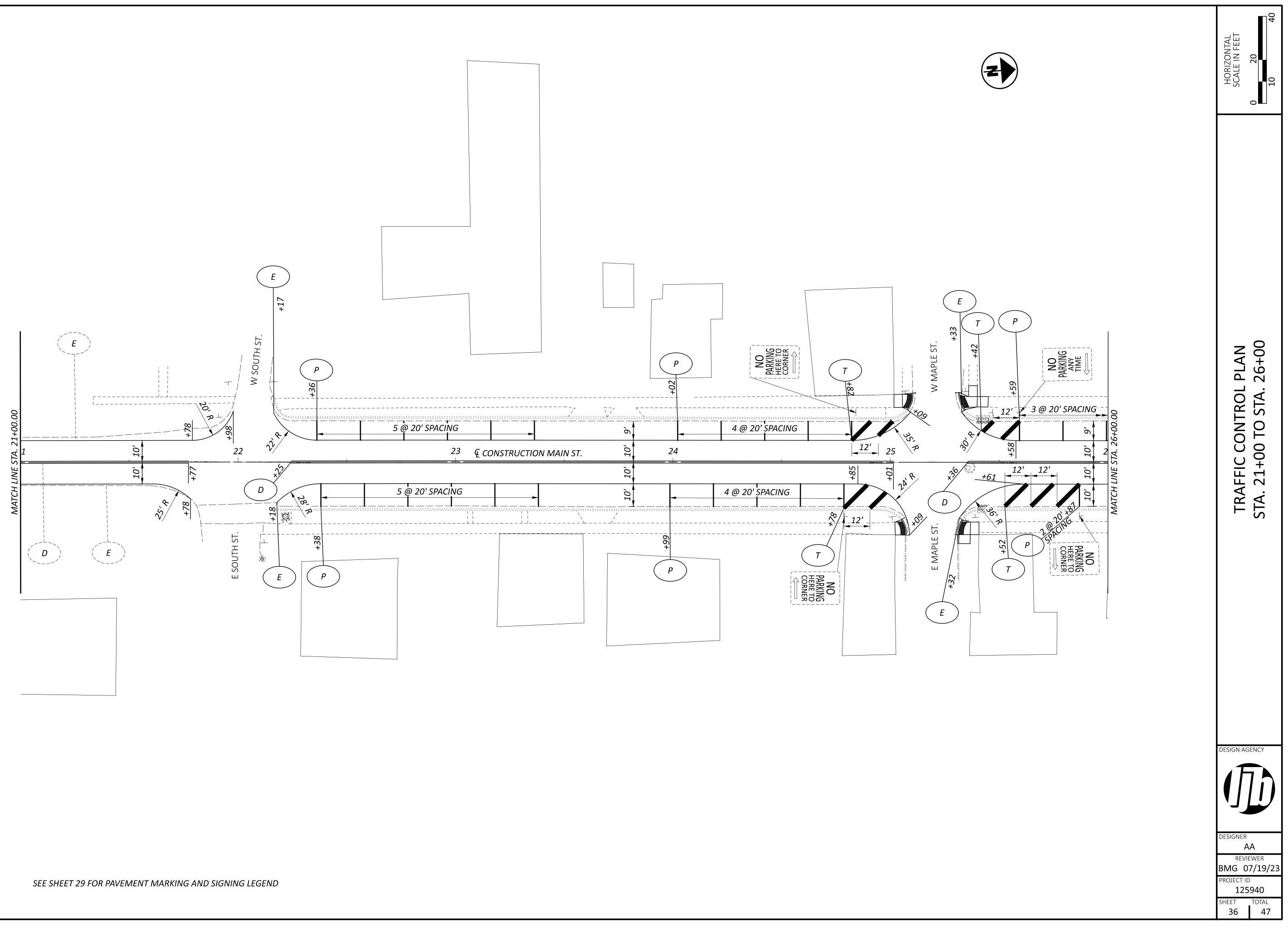
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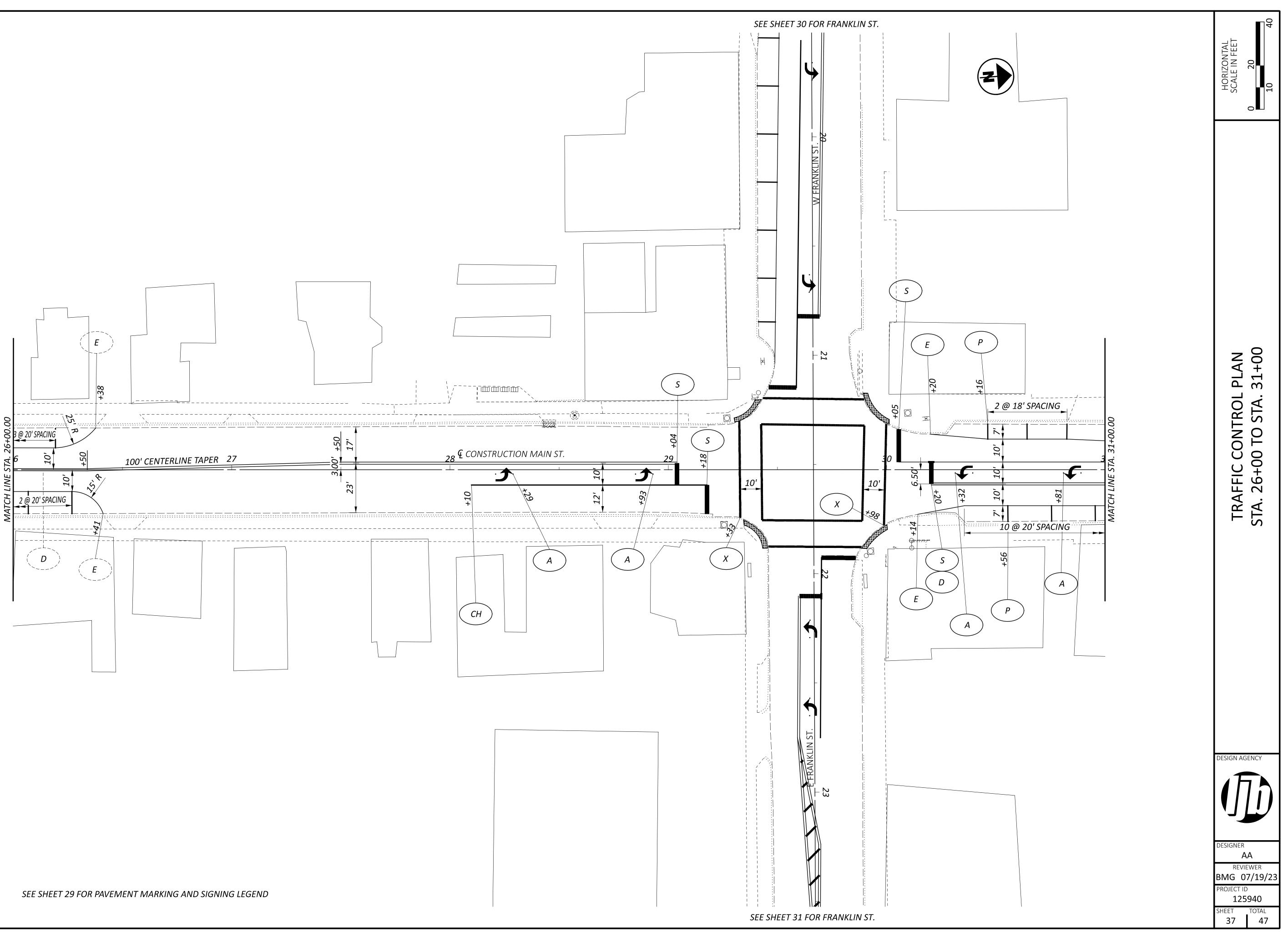
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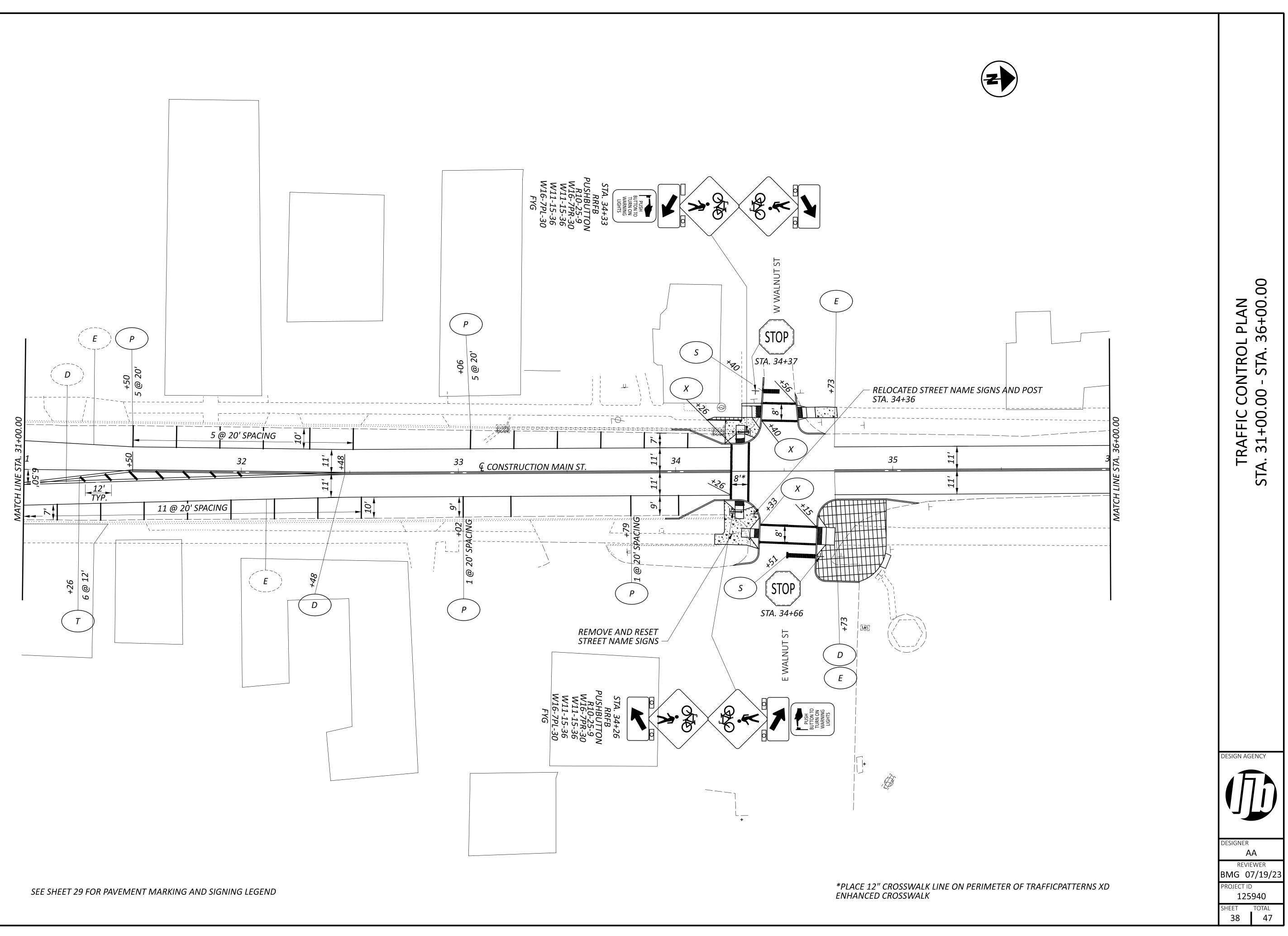


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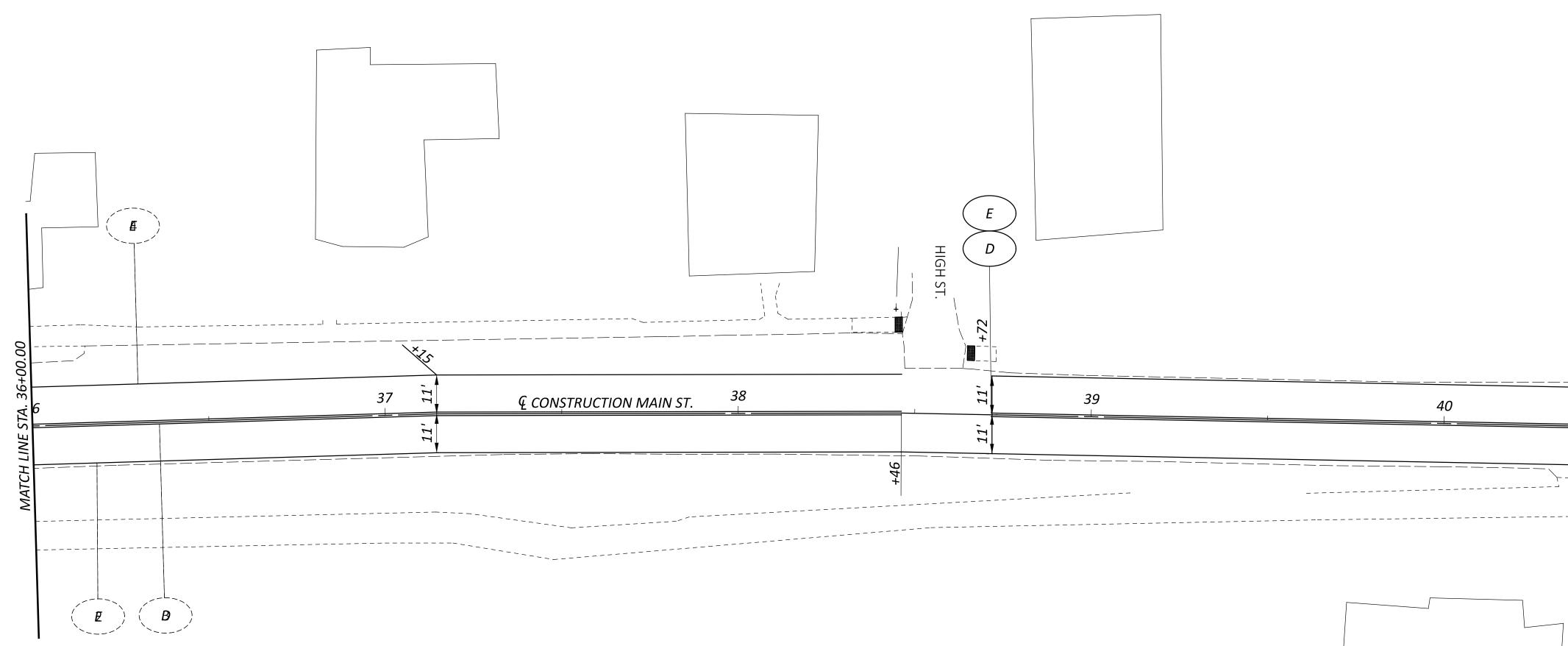




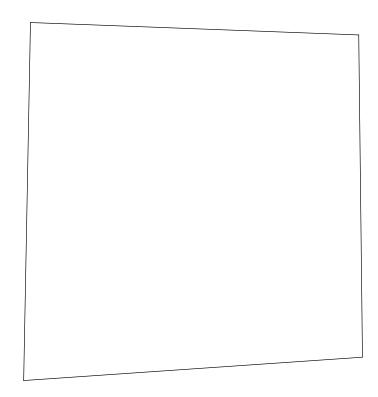
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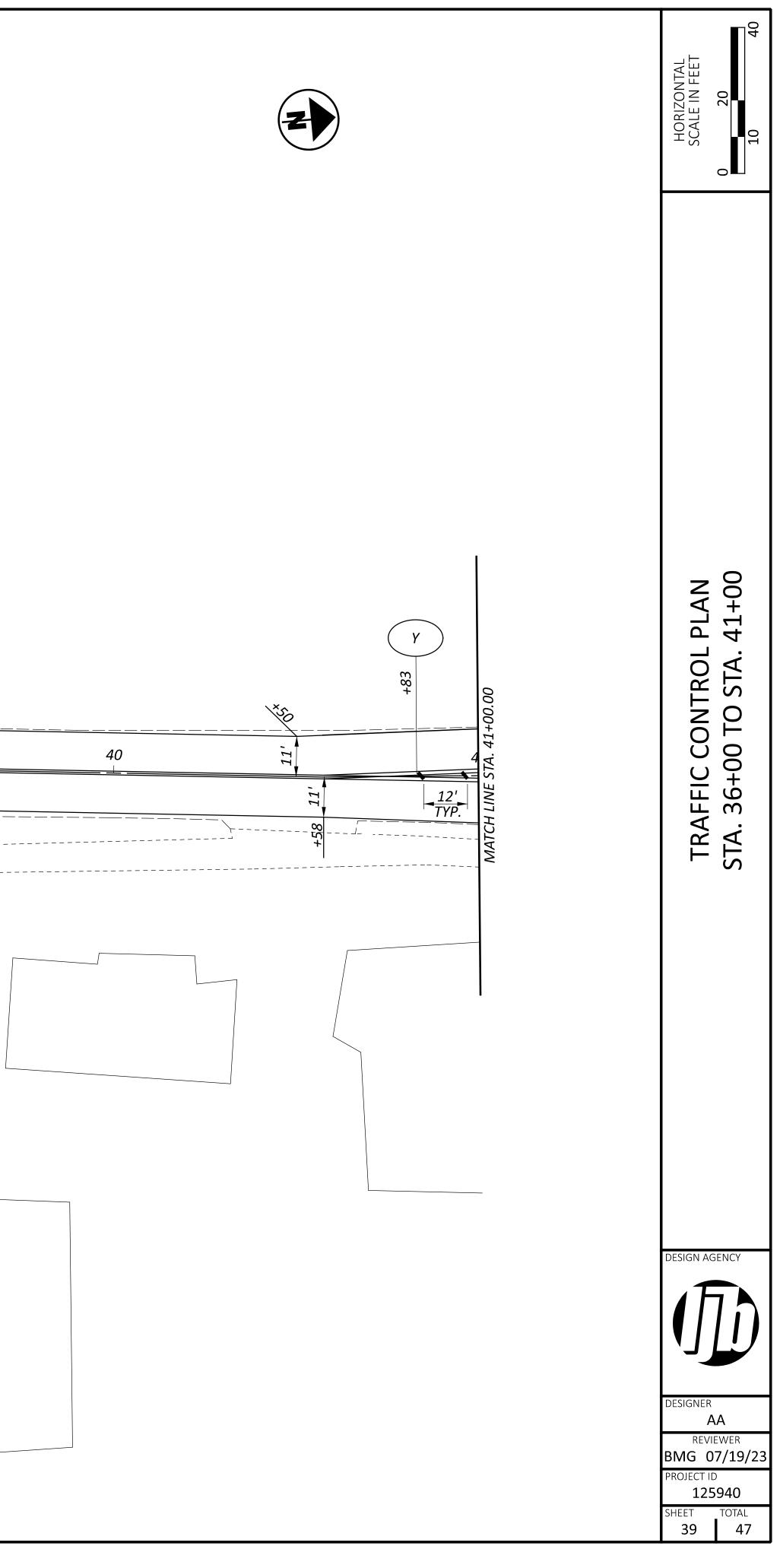


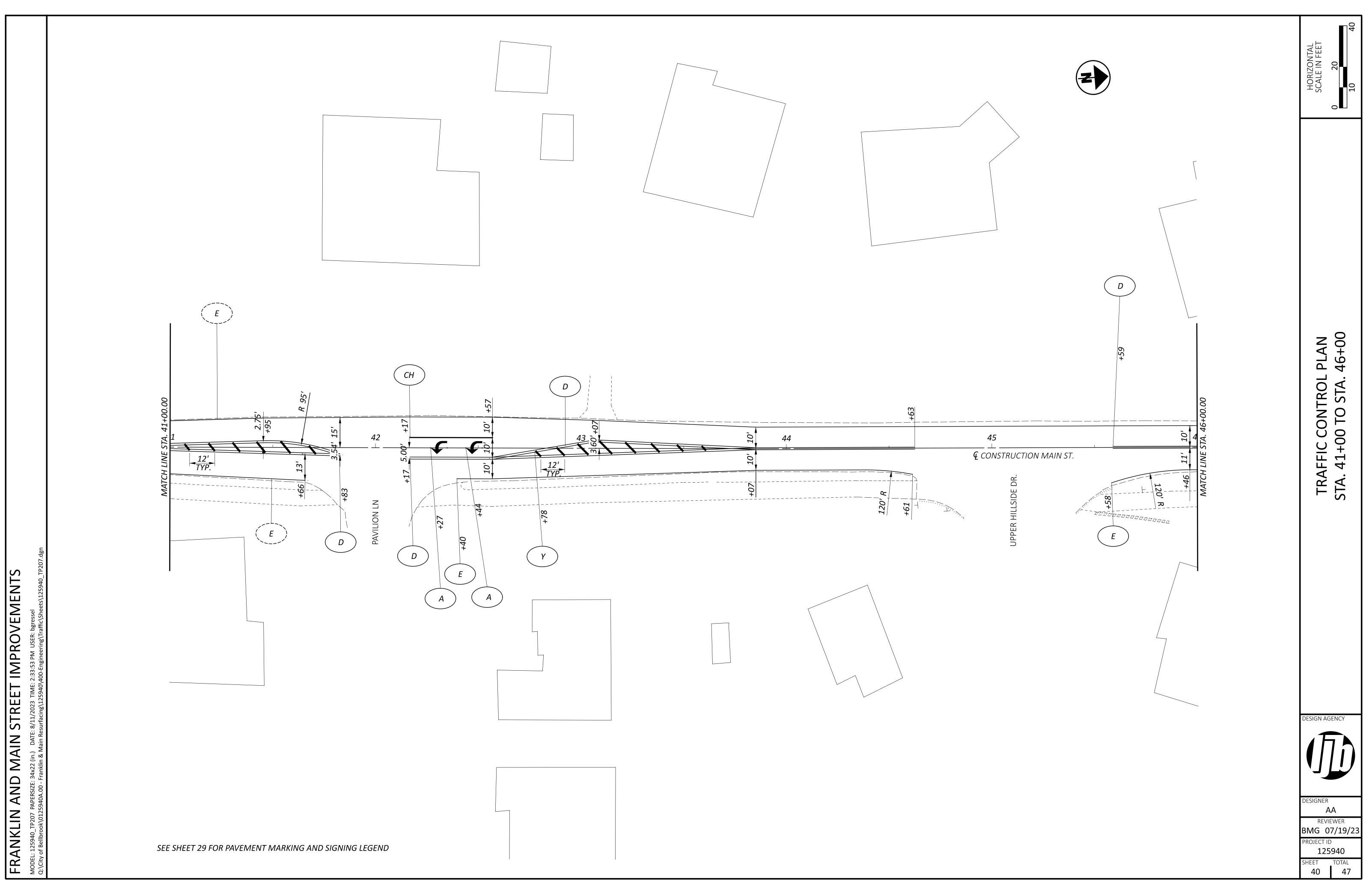
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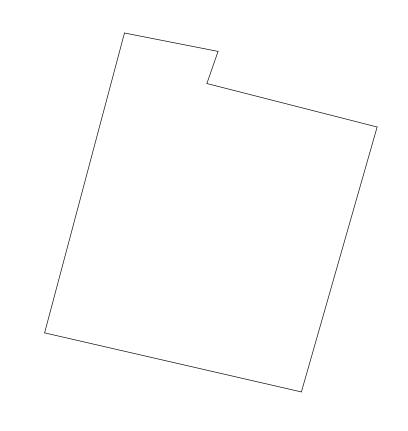


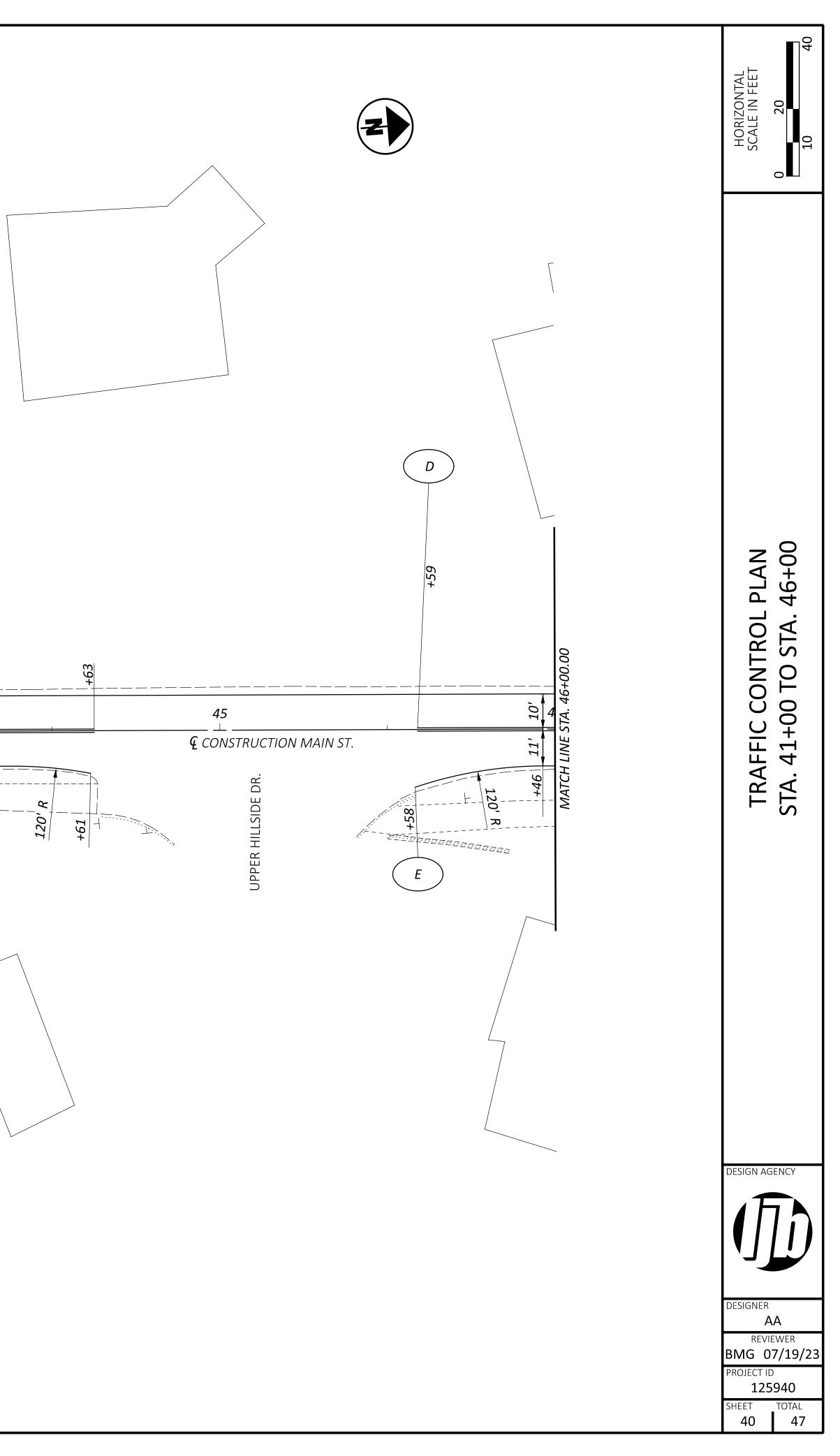
SEE SHEET 29 FOR PAVEMENT MARKING AND SIGNING LEGEND



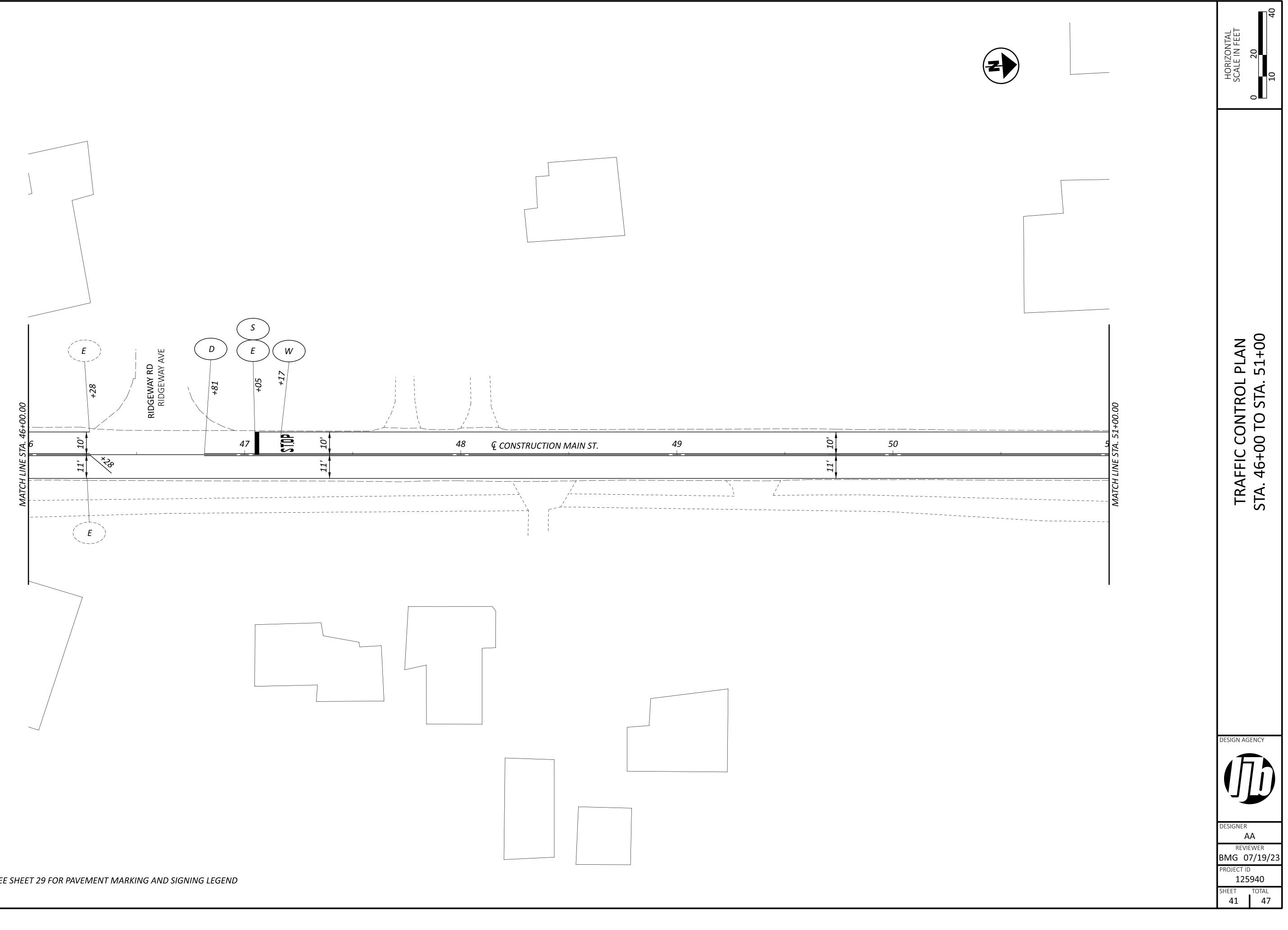




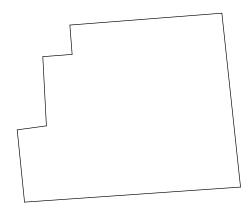




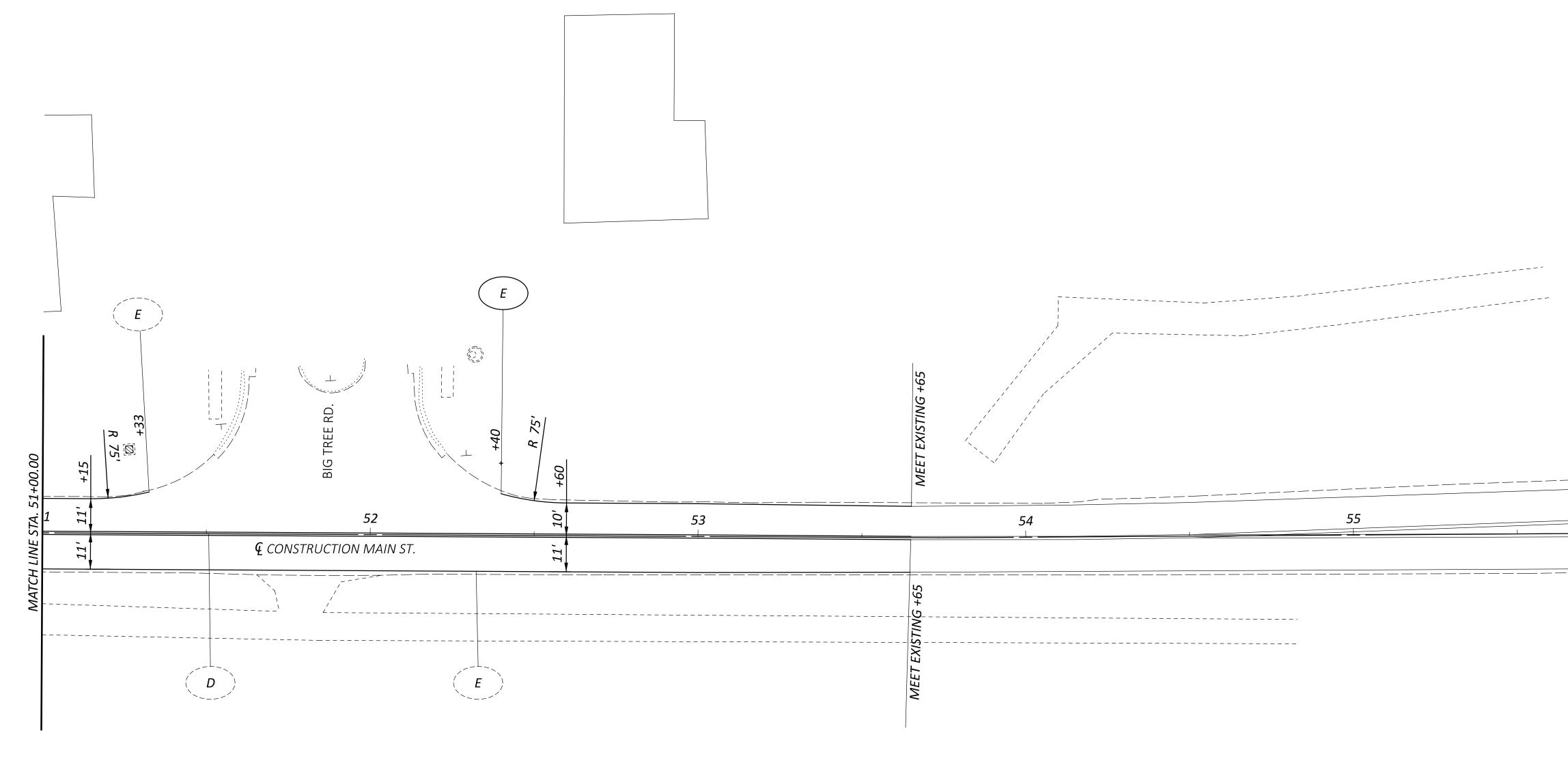
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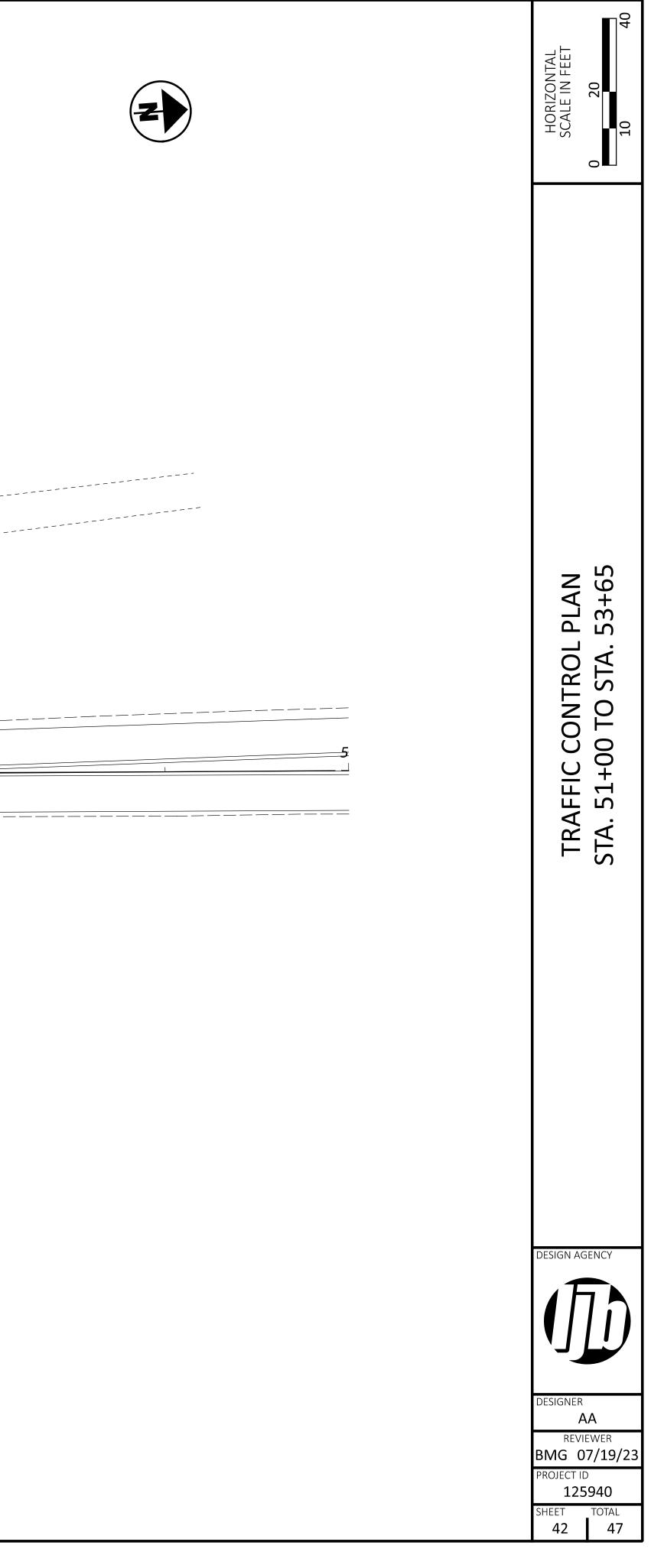
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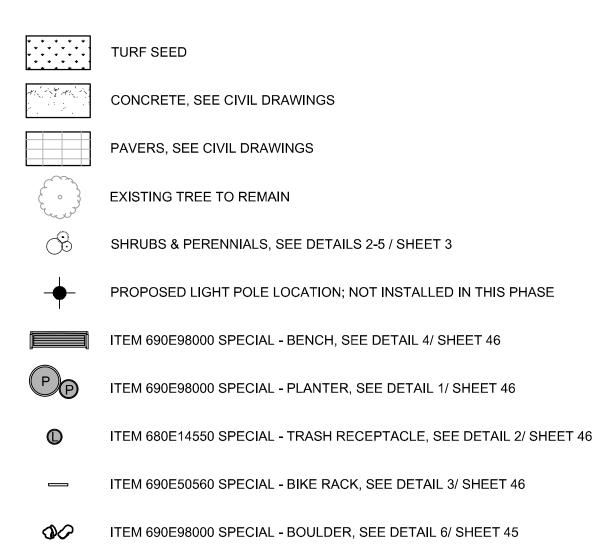


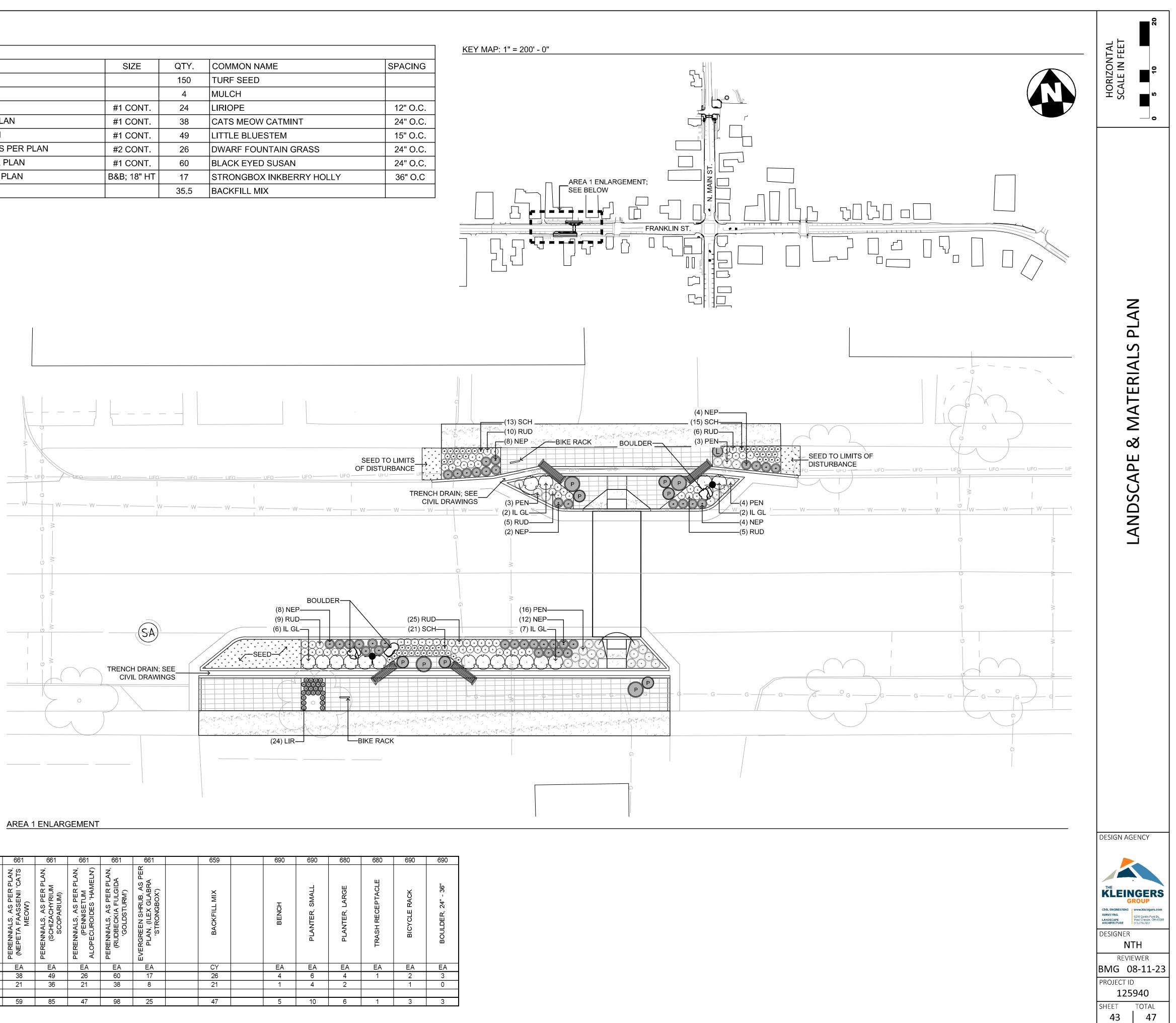
SEE SHEET 29 FOR PAVEMENT MARKING AND SIGNING LEGEND



KEY	ITEM	UNIT	DESCRIPTION	SIZE
	659E10001	SF	SEEDING, AS PER PLAN	
	661E00501	CY	MULCH, AS PER PLAN	
LIR	661E14001	EACH	PERENNIALS (LIRIOPE MUSCARI), AS PER PLAN	#1 CONT.
NEP	661E14001	EACH	PERENNIALS (NEPETA FAASSENII 'CATS MEOW'), AS PER PLAN	#1 CONT.
SCH	661E14001	EACH	PERENNIALS (SCHIZACHYRIUM SCOPARIUM), AS PER PLAN	#1 CONT.
PEN	661E14001	EACH	PERENNIALS (PENNISETUM ALOPECUROIDES 'HAMELN'), AS PER PLAN	#2 CONT.
RUD	661E14001	EACH	PERENNIALS (RUDBECKIA FULGIDA 'GOLDSTURM'), AS PER PLAN	#1 CONT.
IL GL	661E30070	EACH	EVERGREEN SHRUB (ILEX GLABRA 'STRONGBOX'), AS PER PLAN	B&B 18" HT
	690E98700	CY	BACKFILL MIX	

LEGEND





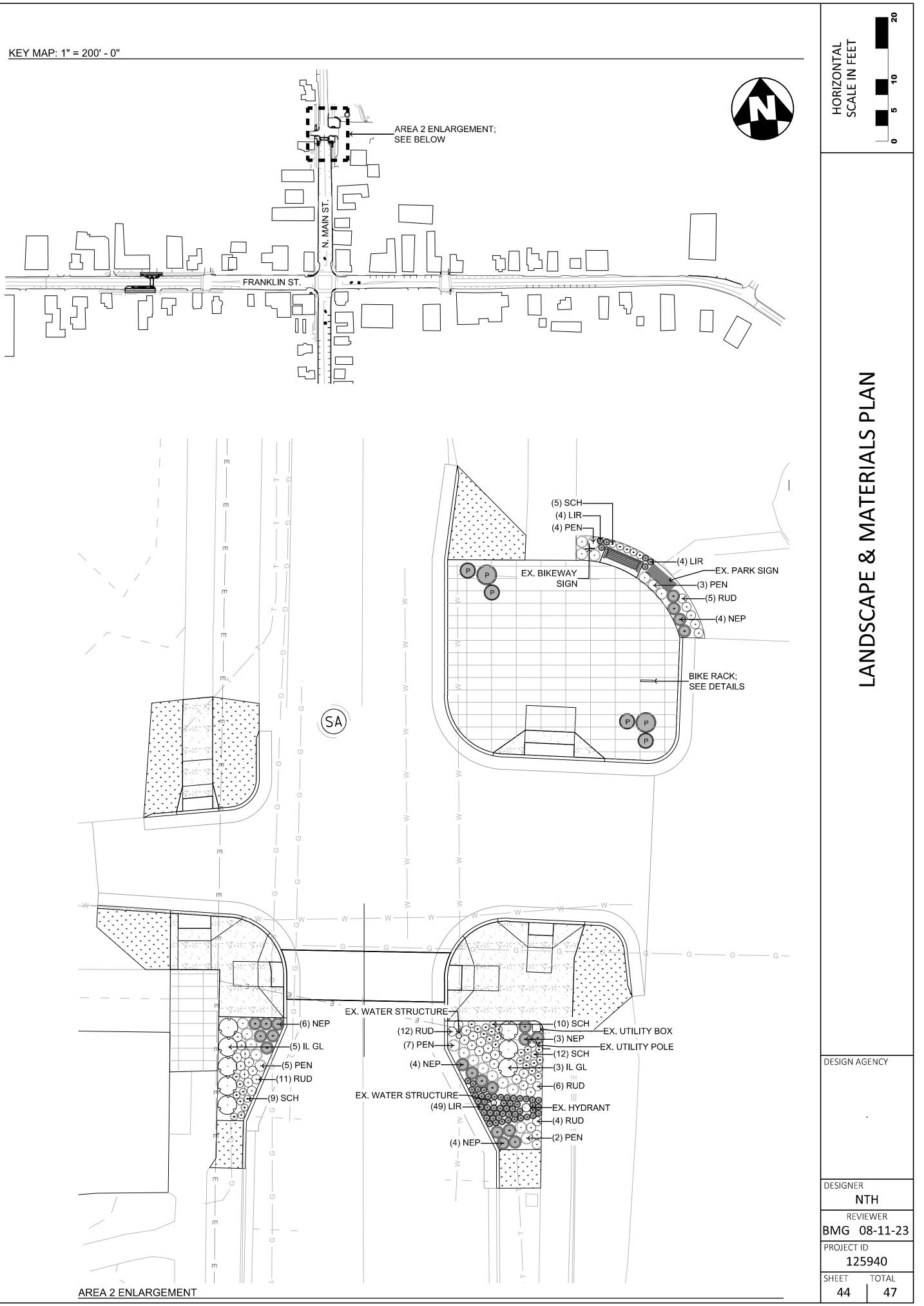
			659	661	661	661	661	661	661	661	659	690	690	680	680	690	690
REF NO.	SHEET NO.	STATION TO STATION	SEEDING AND MULCHING, AS PER PLAN	MULCH, AS PER PLAN	PERENNIALS, AS PER PLAN, (LIRIOPE MUSCARI)	PERENNIALS, AS PER PLAN, (NEPETA FAASSENII 'CATS MEOW')	PERENNIALS, AS PER PLAN, (SCHIZACHYRIUM SCOPARIUM)	PERENNIALS, AS PER PLAN, (PENNISETUM ALOPECUROIDES 'HAMELN')	PERENNIALS, AS PER PLAN, (RUDBECKIA FULGIDA 'GOLDSTURM')	EVERGREEN SHRUB, AS PER PLAN, (ILEX GLABRA 'STRONGBOX')	BACKFILL MIX	BENCH	PLANTER, SMALL	PLANTER, LARGE	TRASH RECEPTACLE	BICYCLE RACK	BOULDER. 24" - 36"
			SY	CY	EA	EA	EA	EA	EA	EA	CY	EA	EA	EA	EA	EA	EA
	1	TO	17	4	24	38	49	26	60	17	26	4	6	4	1	2	3
	2		53	3	57	21	36	21	38	8	21	1	4	2		1	(
		TOTALS	70	7	81	59	85	47	98	25	47	5	10	6	1	3	

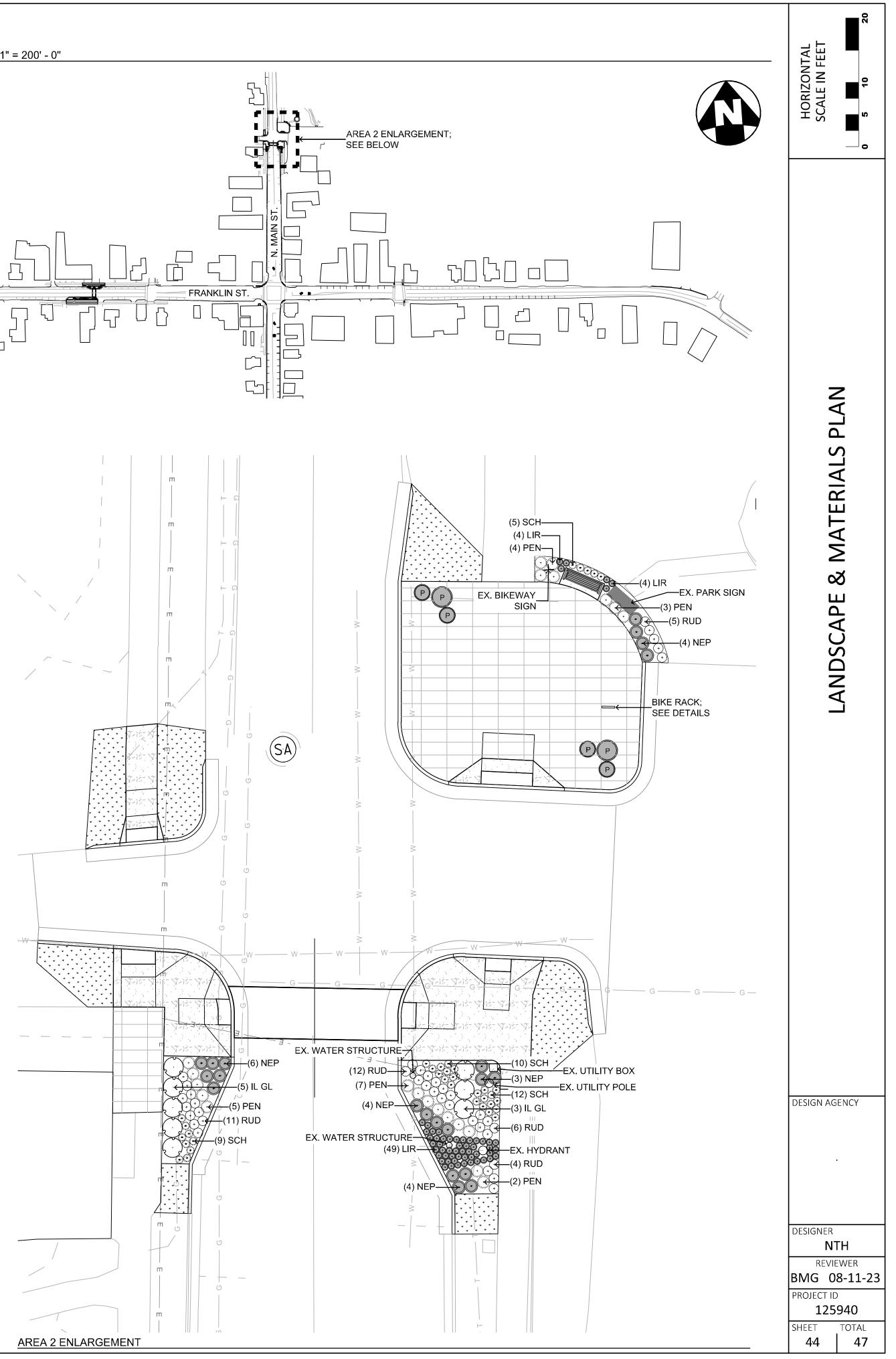
KEY	ITEM	UNIT	DESCRIPTION	SIZE	QTY <u>.</u>	COMMON NAME	SPACING
	659E10001	SF	SEEDING, AS PER PLAN		620	TURF SEED	
	661E00501	CY	MULCH, AS PER PLAN		3	MULCH	
LIR	661E14001	EACH	PERENNIALS (LIRIOPE MUSCARI), AS PER PLAN	#1 CONT.	57	LIRIOPE	18" O.C.
NEP	661E14001	EACH	PERENNIALS (NEPETA FAASSENII), AS PER PLAN	#1 CONT.	21	CATMINT	24" O.C
SCH	661E14001	EACH	PERENNIALS (SCHIZACHYRIUM SCOPARIUM), AS PER PLAN	#1 CONT.	36	LITTLE BLUESTEM	24" O.C.
PEN	661E14001	EACH	PERENNIALS (PENNISETUM ALOPECUROIDES 'HAMELN'), AS PER PLAN	#2 CONT.	21	DWARF FOUNTAIN GRASS	24" O.C
RUD	661E14001	EACH	PERENNIALS (RUDBECKIA FULGIDA 'GOLDSTURM'), AS PER PLAN	#1 CONT.	38	BLACK EYED SUSAN	24" O.C.
IL GL	661E30070	EACH	EVERGREEN SHRUB (ILEX GLABRA 'STRONGBOX'), AS PER PLAN	B&B	8	STRONGBOX INKBERRY HOLLY	36" O.C
	690E98700	CY	BACKFILL MIX		25	BACKFILL MIX	

LEGEND

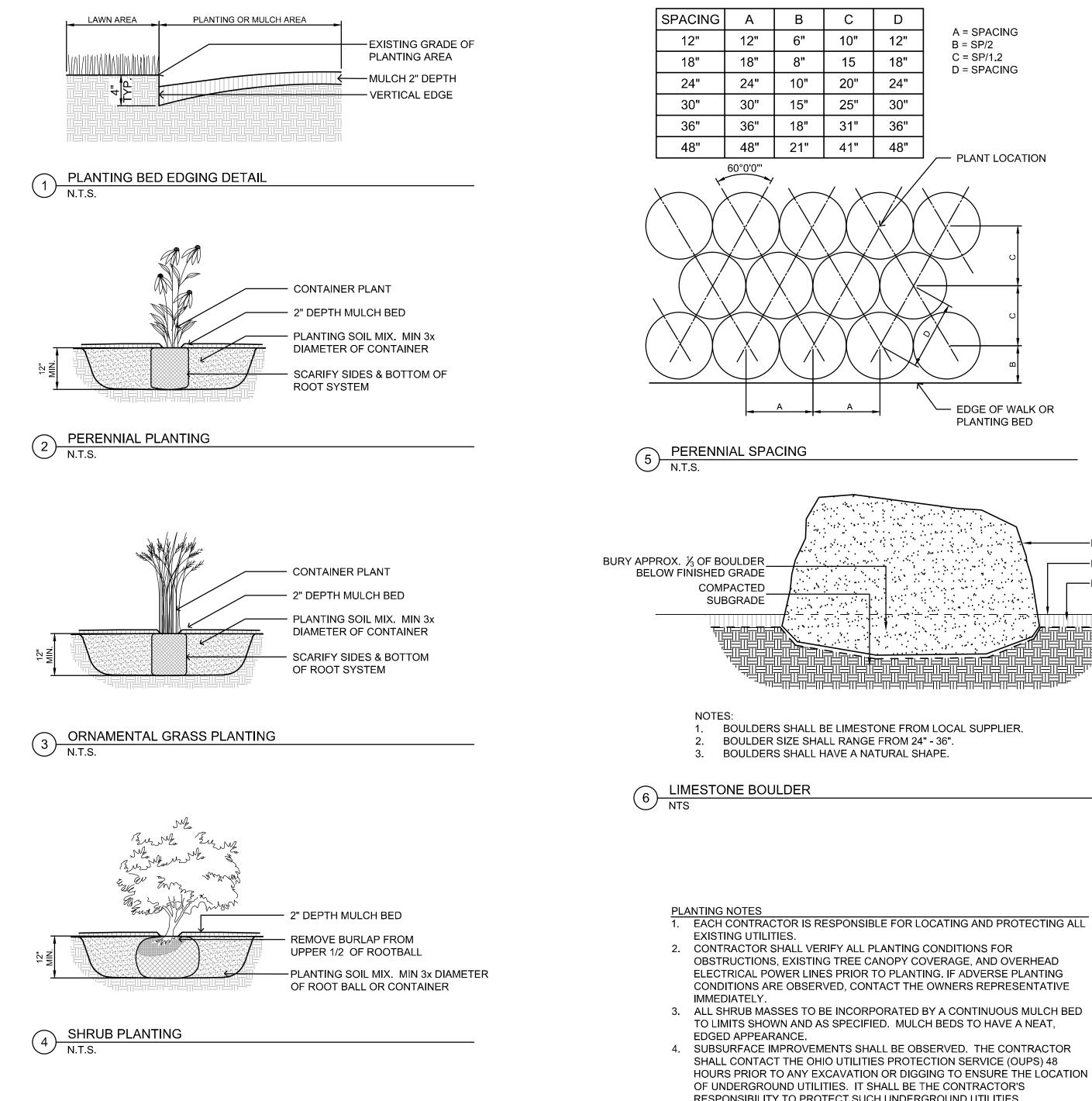


STREET IMPROVEMENTS FRANKLIN AND MAIN





S I IMPROVEMENT STREET MAIN AND FRANKLIN



- 4. SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION RESPONSIBILITY TO PROTECT SUCH UNDERGROUND UTILITIES. 5. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE FINE GRADED AND SEEDED.
- PERFECTLY ALIGNED AND SET PLUMB WITH PROPER RELATIONSHIP TO THE SURROUNDING GRADE. CONFIRM FINISHED GRADE PRIOR TO PLANTING. SUBSTITUTIONS ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF THE
- 6. ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM. 7. THE CONTRACTOR SHALL ENSURE THAT ALL NEWLY PLANTED TREES ARE 8. ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TYPE SPECIFIED. IF
- AMERICAN ASSOCIATION OF NURSERYMEN.

-BOULDER —FINISHED GRADE PLANTING BED 

DESIGN AGENCY

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NTH

REVIEWER BMG 08-11-23

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45 47

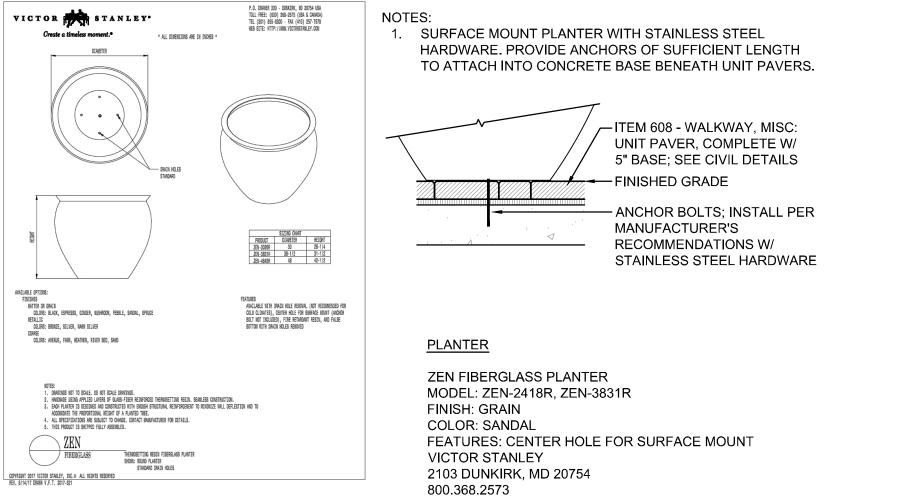
TOTAL

DESIGNER

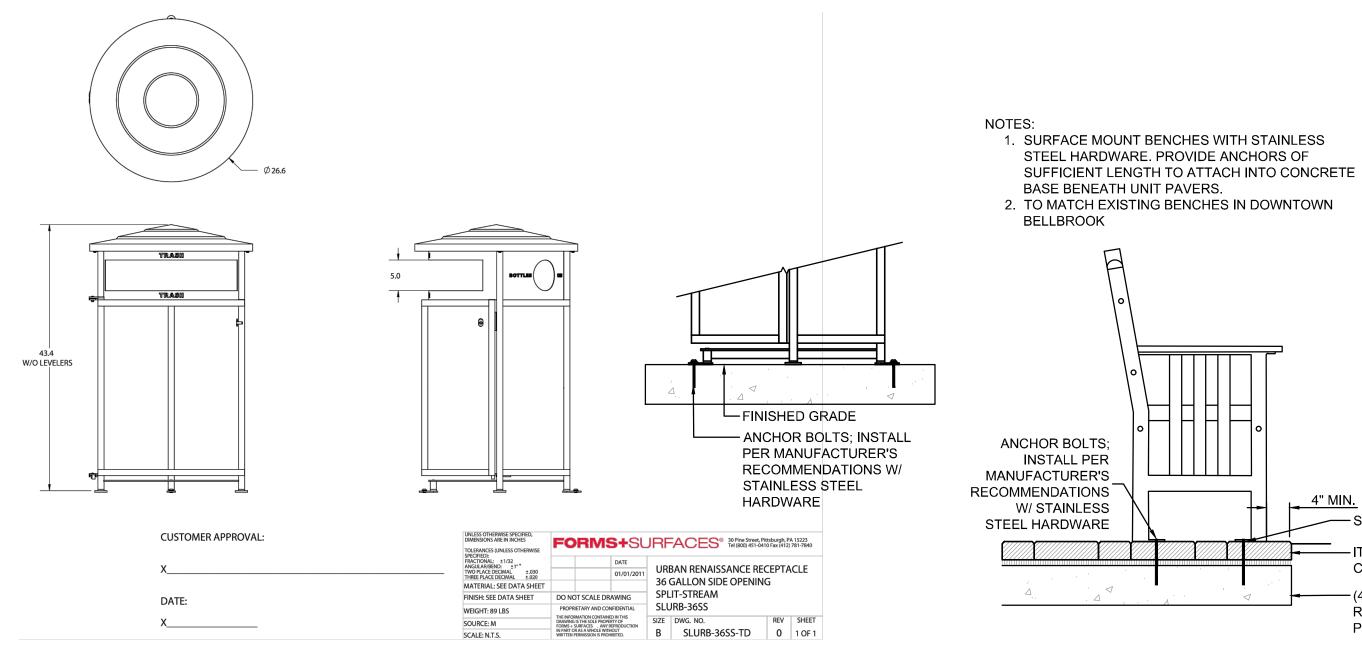
PROJECT ID

SHEET

STREET IMPROVEMENTS FRANKLIN AND MAIN

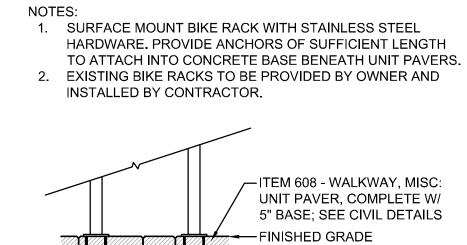








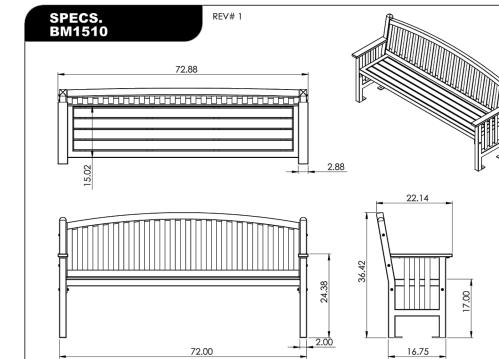
# 1 ITEM 690 SPECIAL - PLANTER N.T.S.



 $(4) \frac{11 \text{EW}}{\text{N.T.S.}}$ 

## 72.00 4" MIN. - SURFACE MOUNT - ITEM 608 - WALKWAY, MISC: UNIT PAVER, COMPLETE W/ 5" BASE; SEE CIVIL DETAILS - (4) Ø 3/8 NON-CORROSIVE BOLTS RECOMMENDED FOR ANCHORING; INSTALL PER MANUFACTURER'S RECOMMENDATIONS ITEM 690 SPECIAL - BENCH

6' MALL BENCH ARCHED BACK ITEM # 2ZK2541-TN TREETOP PRODUCTS 222 STATE ST. BATAVIA, IL 60510 866.511.5642



# 3 ITEM 690 SPECIAL - BICYCLE RACK N.T.S.

- ANCHOR BOLTS; INSTALL PER MANUFACTURER'S **RECOMMENDATIONS W/** STAINLESS STEEL HARDWARE

UNIT PAVER, COMPLETE W/ 5" BASE; SEE CIVIL DETAILS ← FINISHED GRADE



# DETAIL FURNISHINGS

S

DESIGN AG	ENCY		
DESIGNER <b>NTH</b>			
REVIE	EWER		
	8-11-23		
PROJECT ID			
125940 SHEET TOTAL			
<b>4</b> 6	<b>47</b>		

### **GENERAL NOTES**

- 1. EACH CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES.
- 2. SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION OF UNDERGROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SUCH UNDERGROUND UTILITIES.
- 3. ALL CONCRETE FORMS SHALL BE FIELD STAKED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO CONCRETE INSTALLATION.
- 4. ALL HORIZONTAL AND VERTICAL LAYOUT SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE TO ENSURE GENERAL CONFORMANCE PRIOR TO CONSTRUCTION.
- 5. PROVIDE ISOLATION JOINT WHERE CONCRETE PAVING ABUTS BUILDINGS, COLUMNS, AND STRUCTURES. VERIFY COLOR OF SEALANT WITH OWNER'S REPRESENTATIVE.
- 6. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.
- 7. CONTRACTOR SHALL BE RESPONSIBLE TO CONSULT WITH SITE SUPERINTENDENT, APPROPRIATE AGENCIES, AND PLANS FOR LOCATION OF ALL UNDERGROUND UTILITIES, PIPES, AND STRUCTURES.
- 8. CONTRACTOR TO REPORT TO ENGINEER ANY ADDITIONAL UTILITY LINES FOUND DURING CONSTRUCTION.

### **GENERAL REQUIREMENTS**

PER JANUARY 1, 2019 ODOT CONSTRUCTION & MATERIAL SPECIFICATIONS MANUAL ALL PLANT MATERIALS, TURF GRASS, AND PLANTING OPERATIONS TO MEET OR EXCEED STANDARDS SET OUT IN ODOT ITEMS 659, 661, & 662, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PROVIDE AN ONA (OHIO NURSERYMAN'S ASSOCIATION) CERTIFIED LANDSCAPE TECHNICIAN TO SUPERVISE THE PLANTING OPERATIONS.

### PERIOD OF ESTABLISHMENT

### MAINTENANCE:

DURING PLANTING: MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE FOR A PERIOD OF ONE YEAR AFTER COMPLETION OF PROJECT. PLANTS SHALL BE WATERED, MULCHED AND PRUNED, WEED GROWTH CONTROLLED, AND OTHERWISE MAINTAINED AS NEEDED DURING THE WARRANTY PERIOD. SETTLED PLANTS SHALL BE RAISED AND STRAIGHTENED. IF STAKING OR GUY WIRES ARE USED, THEY SHALL BE TIGHTENED AND REPAIRED.

### WARRANTY:

THE CONTRACTOR SHALL WARRANTY ALL PLANTS TO BE IN SATISFACTORY GROWING CONDITION AND TO LIVE FOR A PERIOD OF ONE YEAR FROM COMPLETION OF PROJECT. ALL PLANTS INSTALLED PRIOR TO DECEMBER 31ST SHALL BE GUARANTEED TO BREAK INTO GROWTH (NOT JUST BUD BREAK) AND 2ND SPRING. PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION WILL BE REPLACED AS MANY TIMES AS NECESSARY DURING THE ONE YEAR MAINTENANCE BOND. COMPLY WITH ODOT ITEM 661.

ADDITIONALLY, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO WATER AND PERFORM ANY MAINTENANCE AS NECESSARY FOR THE CONTINUOUS VIGOR OF THE PLANTS DURING THE WARRANTY PERIOD. THE COST OF WATERING AND MAINTENANCE WILL BE AT THE SOLE COST OF THE CONTRACTOR. CONTRACTOR MUST COORDINATE WITH THE CITY AS NECESSARY FOR TRAFFIC CONTROL, AS NEEDED.

IN ORDER TO PROVIDE PLANT MATERIALS THAT MEET THE SOIL AND CLIMATE CONDITIONS OF BEAVERCREEK, OHIO, THEY MUST BE OBTAINED FROM SOUTHWEST/SOUTH CENTRAL OHIO. TREES OF THE SAME SPECIES SHALL BE PURCHASED FROM THE SAME NURSERY SO AS TO PROVIDE UNIFORMITY AMONG EACH SPECIES.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN THE CONSTRUCTION SITE AFTER EACH DAY OF WORK. PRIVATE LOTS SHALL BE FREE OF ANY DEBRIS, SAFETY HAZARDS, AND/OR OBSTRUCTIONS. IF A TREE PIT IS UNPROTECTED, IT SHALL HAVE FENCE PROTECTION TO PREVENT INJURY. SIDEWALKS AND STREETS SHALL BE FREE OF ANY DEBRIS, ROCKS, LOOSE MATERIAL AND OBSTRUCTIONS AT ALL TIMES. AT THE TIME OF FINAL COMPLETION, CONTRACTOR MUST CLEAN ALL ROADS, SIDEWALKS, AND PRIVATE LOTS PER THE CITY'S DIRECTION.

### ITEM 690 SPECIAL - BACKFILL MIX

BACKFILL MIX SHALL BE PER TEM 661.09 EXCEPT MODIF READ:

FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF FOLLOWING:

- 1. PART TOPSOIL PER ITEM 659.05
- 2. PART SPHAGNUM PEAT MOSS
- 3. PART EPA RATED CLASS IV COMPOST PER ITEM 659

INSTALL BACKFILL MIX TO 12" DEPTH IN ALL PLANT BEDS

DO NOT USE BACKFILL MIX THAT IS FROZEN OR MUDDY.

PAYMENT FOR BACKFILL MIX AND PLACEMENT OF BACKI SHALL BE PAID FOR IN ITEM SPECIAL - BACKFILL MIX.

### ITEM 661 PLANTING TREES, SHRUBS, AND VINES GENERAL PLANTING NOTES

- 1. LANDSCAPE WATERING PER ODOT ITEM 662 IS CONSINCIDENTAL TO ODOT ITEM 661 AND MUST BE CONTINUED THROUGH THE ESTABLISHMENT PERIOD AS OUTLINE ODOT ITEM 661.14. THE COST FOR LANDSCAPE WAT SHALL BE CONSIDERED INCIDENTAL TO ODOT ITEM MUST BE CONTINUED THROUGH THE ESTABLISHMEIT AS OUTLINED UNDER ODOT ITEM 661.14.
- 2. CONTRACTOR MUST FOLLOW STANDARD HORTICUL PRACTICES DURING THE PERIOD OF ESTABLISHMEN ENSURE THAT ALL THE PLANTS MAINTAIN GROWTH VIGOR. THE CONTRACTOR SHALL WATER, RE-MULC RE-STAKE AND CULTIVATE / WEED AS NECESSARY.
- 3. ALL LANDSCAPE BEDS TO RECEIVE A GRANULAR PRE-EMERGENT WEED PREVENTATIVE PRIOR TO M PER ODOT ITEM 661. (PREEN, TREFLAN, OR ACCEPT EQUIVALENT)
- 4. ALL PLANTS ARE TO BE BALLED AND BURLAPPED (B CONTAINERS AS NOTED IN PLANT SCHEDULE. NO BA ROOTED OR CONTAINER TREES ARE PERMITTED. S PER OHIO NURSERY ASSOCIATION STANDARDS.
- 5. PLANT IN ACCORDANCE WITH PLAN NOTE ITEM 661: TREES, SHRUBS, AND GROUNDCOVER AS PER PLAN ODOT L.A. 1.1 AND LA 1.2 STANDARD CONSTRUCTION DRAWINGS.
- 6. SIZE OF PIT VARIES WITH SIZE OF ROOT BALL.
- 7. SPREAD FERTILIZER EVENLY IN SAUCER PRIOR TO PER ODOT ITEM 661.
- 8. ALL PLANT MATERIAL FURNISHED SHALL BE FULL, W BRANCHED, WELL PROPORTIONED, AND HAVE A VIG WELL DEVELOPED ROOT SYSTEM CAPABLE OF SUS VIGOROUS GROWTH.
- 9. ALL TREES AND SHRUBS SHALL BE NO. 1 GRADE PL/ GROWTH AND BRANCHING HABIT TYPICAL OF THE S NO PARK GRADE (NO. 2 OR 3 GRADE) PLANTS WILL E ACCEPTED.
- 10. ALL TREES WITHIN A SPECIES SHALL HAVE MATCHIN ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TY SPECIFIED.
- 11. IF SUBSTITUTIONS ARE REQUIRED, ALL SUBSTITUTIONS ARE REPARE REQUIRED, ALL SUBSTITUTIONS ARE REQUIRED, ALL SUBSTITUTIONS AR
- 12. OBSTRUCTIONS: NOTIFY OWNER OR OWNER'S REPRESENTATIVE IF UNEXPECTED ROCKS OR OBST DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNT DURING EXCAVATION.
- 13. THE COST FOR ALL FERTILIZER, HERBICIDE, WATER PLANTS, THAT MUST OCCUR BASED ON NEW PLANT CONSTRUCTION SHALL BE INCIDENTAL TO ITEM 661 LANDSCAPE PLANTINGS AND WATERING.
- 14. THE CONTRACTOR SHALL CONDUCT WATERING OPE IN COMPLIANCE WITH ALL PROJECT SPECIFICATION SHALL PROTECT AGAINST WETTING OF THE PAVEME SURFACE.
- 15. EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REIMMEDIATELY IF A DISCREPANCY IS FOUND BETWEE DIMENSION GIVEN ON THE PLANS AND ACTUAL DIME THE FIELD.
- 16. REMOVE ALL TWINE, ROPE, BURLAP, AND WIRE FRO HALF OF ROOTBALL.
- 17. NOTIFY OWNER OR OWNER'S REPRESENTATIVE IF S CONDITIONS EVIDENCE UNEXPECTED WATER SEEP RETENTION IN TREE OR SHRUB PIT.
- 18. ITEM 661.10 B PLANTING BEDS SHALL BE MODIFIED T ONE MONTH BEFORE CULTIVATION, TREAT ALL PLAN BEDS THAT ARE TO BE DEVELOPED IN AREAS OF EX TURF WITH PRE-EMERGENT AND POST-EMERGENT T HERBICIDES. USE A STATE-LICENSED PESTICIDE APP TO APPLY THE HERBICIDE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. BEFORE PLANTIN DRESS ALL PLANTING BEDS WITH A MINIMUM OF 6 IN BACKFILL MIX, THEN CULTIVATE IT TO A DEPTH OF 12 USING A PLOW, DISC, OR ROTO-TILLER.

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DIFIED TO OF THE OF THE S9.06 DS. DY. CKFILL MIX DNSIDERED NINUED UNED UNDER ATERING MENT PERIOD ULTURAL INED UNDER ATERING MENT PERIOD CULTURAL INED UNDER ATERING MENT PERIOD CULTURAL INED UNDER ATERING MENT PERIOD CULTURAL INCHING PTED (B&B) OR IN BARE SIZES ARE (1: PLANTING PTED (B&B) OR IN BARE SIZES ARE (1: PLANTING AN AND TON O PLANTING DI PLANTI	<ol> <li>ITEM 661 10 B PLANTING BEDS SHALL BE MODIFIED TO READ: DIMENSIONS AND PLANT LOCATIONS SHALL BE PLACED IN ACCORDANCE WITH THE DETAILS AND LOCATIONS SHOWN ON THE PLANS. IN NO CASE SHALL PROPOSED PLANT BEDS BE LOWER THAN EXISTING GRADES, GRADE ALL PLANT BEDS SMOOTHLY TO DRAIN. CONTRACTOR SHALL NOT REMOVE AND REPLACE EXISTING SOLR, ATHER THE EXISTING SOLS SHALL BE AMENDED FOR PROPER PLANT GROWTH.</li> <li>ITEM 661 10 B PLANTING BEDS SHALL BE MODIFIED TO READ: ALL PLANT BEDS SHALL BE COVERED WITH SHREDDED MULCH CONTINUOUSLY AS A CONTINUOUS BED SHALL BE RINGED WITH SHREDDED MULCH INIGS SIZED AS INDICATED ON THE PLAN. INDIVIDUALLY PLANTED TREES SHALL BE RINGED WITH SHREDDED MULCH INIGS SIZED AS INDICATED ON THE PLAN. MULCH SHALL BE PER ITEM 661.1.1.</li> <li>ALL ABOVE ITEMS ARE INCIDENTAL TO ODOT 661 ITEM AND SHALL BE CONTINUED THROUGH WARRANTY PERIOD.</li> <li>PAYMENT: THE COST FOR THESE ITEMS SHALL INCLUDE ALL MATERIALS. EQUIPMENT. COORDINATION, AND LABOR COSTS ASSOCIATED WITH INSTALLING ITEM 661 TREES. SHRUBS, AND VINES AND THE NOTES AND DETAILS.</li> <li>TEM 659 SEEDING AND MULCHING, AS PER PLAN THIS ITEM SHALL CONSIST OF FURNISHING ALL LABOR, TOOLS, MACHINERY, MATERIALS, AND PROCESSES REQUIRED FOR THE PLANTING OF SEEDED AREAS. SEEDING SHALL OCCUR TO THE PROJECT LIMITS SHOWN ON THE PLAN. ALL AREA DISTURBED BY CONSTRUCTION, SHALL BE RESTORED, FINE GRADED, AND SEEDED, COST FOR DAMAGE RESTORED, FINE GRADED, AND SEEDED. COST FOR DAMAGE RESTORED, FINE GRADED AND DISTURED AREAS TO BE SEEDED WITH THE REQUIREMENTS OF ITEM 659 SEEDING AND MULCHING UNLESS OTHERWISE DESCRIBED BELOW:</li></ol>	SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS. <b>ITEM 651.11 MULCH, AS PER PLAN</b> THE FOLLOWING REVISIONS TO ODOT 661 SHALL BE APPLICABLE TO THIS PROJECT 661.11 MULCH. CHANGE THE SECOND SENTENCE IN THE SECOND PARAGRAPH TO READ."SINCH LAYER OF LANDSCAPE MULCH". MULCH SHALL BE A FINELY SHREDDED DARK HARDWOOD MULCH. NON-DYED BLACK COLOR. 100% AGED SHREDDED HARDWOOD. TRIPLE GROUND. <b>ITEM 680 SPECIAL - TRASH RECEPTACLE</b> TRASH RECEPTACLE WITH DIVIDED TRASH AND RECYCLING OPENINGS. SEE DETAIL 2 / SHEET 4. MANUFACTURER: BASIS OF DESIGN: FORMS+SURFACES; MODEL: URBAN RENAISSANCE RECEPTACLE SLURB-36SS COLOR: BLACK POWDERCOAT FRAME, DESERT TAN RECYCLED PLASTIC. SURFACE MOUNTING PER MANUFACTURERS SPECIFICATIONS. PROVIDE ANCHORS OF SUFFICIENT LENGTH TO MOUNT INTO CONCRETE BASE BELOW UNIT PAVERS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM SPECIAL - TRASH RECEPTACLE. <b>ITEM 690 SPECIAL - PLANTER</b> 24* PLANTER (SMALL) & 38.5* PLANTER (LARGE). SEE DETAIL 1/ SHEFT 4. MANUFACTURER: BASIS OF DESIGN: VICTOR STANLEY MODEL: ZEN FIBERGLASS PLANTER, ZEN-2418R & ZEN-3831R SANDAL, GRAIN FINISH SURFACE MOUNTING PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ANCHORS OF SUFFICIENT LENGTH TO MOUNT INTO CONCRETE BASE BELOW UNIT PAVERS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM SPECIAL 11/ SHEET 4. MANUFACTURER: BASIS OF DESIGN: VICTOR STANLEY MODEL: ZEN FIBERGLASS PLANTER, ZEN-2418R & ZEN-3831R SANDAL, GRAIN FINISH SURFACE MOUNTING PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ANCHORS OF SUFFICIENT LENGTH TO MOUNT INTO CONCRETE BASE BELOW UNIT PAVERS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM SPECIAL - BICK PLANTER.	SEAT PATTERN: SLAT. COLOR: BLACK POWDERCOAT FRAME, DESERT TAN RECYCLED PLASTIC. SURFACE MOUNTING PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ANCHORS OF SUFFICIENT LENGTH TO MOUNT INTO CONCRETE BASE BELOW UNIT PARENS. PAYMENT FOR ALL LABOR. EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM SPECIAL - BENCH.	FURNISHINGS DETAILS
S REP. /EEN THE IMENSIONS IN	AND BARE SPOTS NOT EXCEEDING 3 BY 3 INCHES. TEMPORARY COVER: AVENA SATIVA / COMMON OAT / 512.00	RACK. Item 690 special - Bench		
ROM TOP F SUBSOIL EPAGE OR D TO READ: LANTING EXISTING IT TYPE APPLICATOR ITING, TOP 6 INCHES OF F 12 INCHES	AVENA SATIVA / COMMON OAT / S12.00 LOLIUM MULTIFLORUM / ANNUAL RYE / 240.00 PAYMENT: THE COST OF THESE ITEMS SHALL INCLUDE ALL MATERIALS, EQUIPMENT COORDINATION AND LABOR COSTS ASSOCIATED WITH SUPPLYING AND INSTALLING SEEDING AND MULCHING AS PER PLAN. THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS: ITEM 659, SEEDING AND MULCHING, AS PER PLAN 70 SQ. YD. ITEM 659, WATER	ITEM 690 SPECIAL - BENCH BACKED BENCH WITHOUT INTERMEDIATE ARMS OR DIVIDERS. SEE DETAIL 4 / SHEET 4. MANUFACTURER: TREETOP PRODUCTS 222 STATE ST. BATAVIA, IL 60510 866.511.5642 MODEL: 6' MALL BENCH ARCHED BACK ITEM # 2ZK2541-TN DIMENSIONS: 1. DEPTH: 22". 2. OVERALL HEIGHT: 36". 3. ARM HEIGHT: 24". 4. LENGTH: 72".		DESIGN AGENCY DESIGNER NTH REVIEWER BMG 08-11-23 PROJECT ID 125940
				SHEET TOTAL

SHEET

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TOTAL

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