CALL NO. 364

CONTRACT ID. 224313

JEFFERSON COUNTY

FED/STATE PROJECT NUMBER FD04 056 031E 014-016

DESCRIPTION BARDSTOWN ROAD (US 31E)

WORK TYPE ASPHALT RESURFACING

PRIMARY COMPLETION DATE 10/28/2022

LETTING DATE: May 26,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 26,2022. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 224313

FD04 056 031E 014-016

COUNTY - JEFFERSON

PCN - 05056031E2201
FD04 056 031E 014-016

BARDSTOWN ROAD (US 31E) (MP 14.390) FROM BONNYCASTLE AVENUE EXTENDING NORTH TO E BROADWAY (MP 15.882), A DISTANCE OF 01.49 MILES.ASPHALT RESURFACING SYP NO. 05-09030.00.

GEOGRAPHIC COORDINATES LATITUDE 38:14:09.66 LONGITUDE 85:42:59.97

ADT 16,311

COMPLETION DATE(S):

COMPLETED BY 10/28/2022	APPLIES TO ENTIRE CONTRACT
COMPLETED BY 09/15/2022	MILESTONE DATE (SEE SN FOR COMPLETION DATES)

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at https://secure.kentucky.gov/sos/ftbr/welcome.aspx .

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

April 30, 2018

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

ASPHALT MIXTURE

Unless otherwise noted, the Department estimates the rate of application for all asphalt mixtures to be 110 lbs/sy per inch of depth.

INCIDENTAL SURFACING

The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on the plans, Standard Drawing RPM-110-07 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

FUEL AND ASPHALT PAY ADJUSTMENT

The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of $1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all items on the contract with the adjustments, the Department will establish additional monies with a change order.

OPTION A

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.

SPECIAL NOTE FOR CONSTRUCTION OF SIDEWALK RAMPS

GENERAL

Unless otherwise stated in the contract, or as directed by or with prior approval from the Engineer, construct sidewalk ramps and adjacent roadway features in accordance with Section 505 of the Standard Specifications; Supplemental Specifications; Standard Drawings RPM-100-10, RPM-150-08, RPM-152-08, RPM-170-09, RPM-172-07, RGX-040-03; current editions as applicable.

Saw cut existing sidewalks, curb and gutter, and pavement, if present, and reconstruct sidewalk ramps with detectable warnings as directed or approved by the Engineer. Unless specified otherwise in the Contract, construct concrete sidewalk with 4" nominal minimum required thickness; however, if the existing sidewalk thickness is found to be greater or less than the thickness specified, transition the thickness as directed by the Engineer.

During the work to bring the existing sidewalk ramps into current ADA standards, the elevation of the new ramp may be above the grade of the existing roadway. Following completion of the new sidewalk ramp, if a grade difference of 1/2" or greater exists between any portion of the new ramp and roadway, and more than 14 days will pass prior to beginning resurfacing, the Contractor will be required to install asphalt wedges to ensure the sidewalk facilities remain accessible until resurfacing activities begin. Failure to maintain access to the new sidewalk ramps could result in Liquidated Damages being applied at a rate of $200/day after 14 days. All liquidated damages will be applied cumulatively.

Except as required by the work or directed by the Engineer, do not disturb drainage pipes, catch basins and other roadway features on public or private property. Restore and/or re-install any damaged and/or disturbed features and private property in like kind materials and design at no additional cost to the Department. Dispose of all waste off the right of way at sites obtained by the Contractor at no additional cost to the Department (see SPECIAL PROVISION FOR WASTE AND BORROW SITES). Following completion of the concrete work, backfill and regrade all disturbed areas to ensure they are flush with the sidewalk and back slopes match or are flatter than the pre-construction conditions. Seed and protect all disturbed earthen areas using Seed Mix Type I. Remove all construction debris, rocks and other undesirable material from the disturbed areas prior to seeding.

If the sidewalk ramp work is located at a signalized intersection, the sidewalk Contractor is to coordinate with the electrical Contractor and Engineer to ensure the necessary electrical components are located and installed prior to installing the new sidewalk ramp, such as but not limited to conduit and junction boxes. Following construction of new sidewalk, the Department will not be responsible for additional work required to complete the installation of the required electrical components due to improper planning or coordination. Any damage resulting to traffic signal or other electrical facilities shall be repaired at no cost to the Department (see SPECIAL NOTE FOR TRAFFIC SIGNAL LOOP DETECTORS for more information).

The Contractor shall be responsible to ensure that all sidewalk ramp landings meet flush with the final asphalt surface and maintain positive drainage following the completion of the concrete work and resurfacing, regardless of the existing conditions. This work should be coordinated between the sidewalk and paving Contractors to ensure the final product does not cause standing water or negatively affects the ride quality of the roadway.

Install curb & gutter and header curbs as closely as possible to the standard drawing as field conditions permit or as directed by the Engineer. For example, header curb shall have a thickness of 7 inches and

minimum depth of 12 inches below the pavement surface with the top modified to match surrounding conditions. Also, curb and gutter shall have a gutter depth of at least 8 inches with the thickness and curb varying to match existing conditions. Unless otherwise directed by the Engineer or if field conditions prohibit, ensure minimum 1-inch/1-foot (8.33%) transitions on all curb drawdowns, both adjacent to the roadway and parallel with the sidewalk and sidewalk ramp.

MEASUREMENT & PAYMENT (see attached payment example for additional detail)

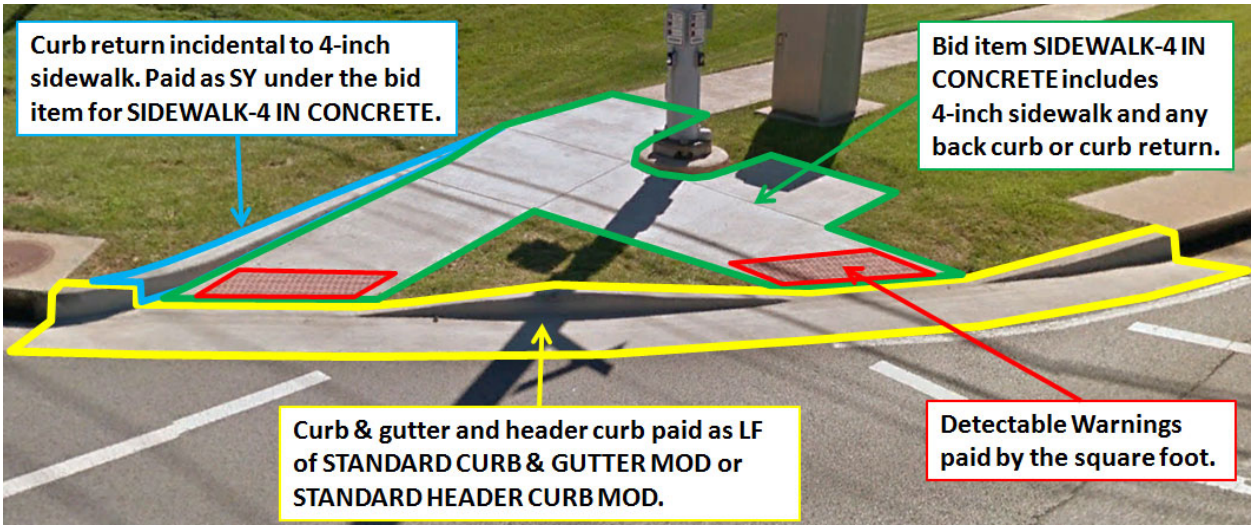
SIDEWALK-4 IN CONCRETE – The Department will measure the new sidewalk and sidewalk ramps in accordance with Section 505.04 of the current Standard Specifications. The Department will not measure Roadway Excavation or Embankment in Place, but shall consider this work to be incidental to the bid item SIDEWALK-4 IN CONCRETE. Accept payment at the Contract unit price per square yard as full compensation for all labor, materials, equipment, and incidentals required for removal and disposal of existing sidewalk, excavation and embankment, construction of the sidewalk and ramps, and restoration of disturbed features in accordance with these notes or as directed by the Engineer. The bid item for SIDEWALK-4 IN CONCRETE will **NOT** include any curb and/or gutter along the edge of pavement, even if the curb and/or gutter is poured monolithic with the sidewalk. However, any curb not continually adjacent to the edge of pavement will be included in the measured square area of sidewalk and no additional compensation will be made regardless of depth or height (ie. back curb, curb returns, etc.). In the event that a small utility or curb box hood requires adjusting as part of this work, no additional compensation shall be made and will be considered incidental to the bid item for SIDEWALK-4 IN CONCRETE.

DETECTABLE WARNINGS – The Department will measure and make payment for Detectable Warnings in accordance with Section 505 of the Standard Specifications, Standard Drawing RGX-040-02 and Sepia 028, current editions.

STANDARD CURB AND GUTTER – The Department will measure and make payment for curb and gutter in accordance with Section 506 of the current Standard Specifications. Curb and gutter will be measured for the full length installed, including the area between the sidewalk ramp and roadway pavement. Accept payment at the Contract unit price per linear foot as full compensation for all labor, materials, equipment and incidentals required for removal and disposal of the existing curb and gutter, grade adjustments, transitions, restoration of adjacent pavement and disturbed areas, and all other work necessary to install the new curb and gutter to meet current ADA standards, Standard Drawing RPM-100-09 and the satisfaction of the Engineer. In the event that a small utility or curb box hood requires adjusting as part of this work, no additional compensation shall be made and will be considered incidental to the bid item for STANDARD CURB AND GUTTER.

STANDARD HEADER CURB – The Department will measure and make payment for header curb in accordance with Section 506 of the current Standard Specifications. Header curb will be measured for the full length installed, including the area between the sidewalk ramp and roadway pavement. Accept payment at the Contract unit price per linear foot as full compensation for all labor, materials, equipment and incidentals required for removal and disposal of the existing curb, grade adjustments, transitions, restoration of adjacent pavement and disturbed areas, and all other work necessary to install the new header curb to meet current ADA standards, Standard Drawing RPM-100-09 and the satisfaction of the Engineer. In the event that a small utility or curb box hood requires adjusting as part of this work, no additional compensation shall be made and will be considered incidental to the bid item for STANDARD HEADER CURB.

SIDEWALK RAMP PAYMENT EXAMPLE



SPECIAL NOTE FOR UTILITY/CATCH BASIN ADJUSTMENT & RECONSTRUCTION

Quantities established for manhole, water valve & catch basin adjustments are approximate and actual quantities and locations shall be determined by the Engineer during the course of the resurfacing work. It is anticipated some adjustments will be required following paving to ensure facilities are flush with the final surface. For all adjustments made following the resurfacing, 3,500 psi concrete shall be used for all pavement restoration.

ADJUST CATCH BASIN – This item shall include all work necessary to adjust the existing catch basin inlet to approximate roadway elevation or as directed by the Engineer. Adjustment may include minor repairs to the existing structure. Ensure the adjustment does not negatively impact drainage to the inlet. Any damaged frames and/or grates shall be replaced, either with materials supplied by Louisville MSD or paid for by the KYTC. Adjustments are to be performed using brick, mortar and/or concrete having a compressive strength of 3,000 psi prior to being exposed to vehicular traffic.

RECONSTRUCT CATCH BASIN – This item shall include all work necessary to repair all damaged parts of the catch basin and to adjust the inlet to approximate roadway elevation or as directed by the Engineer. The repair work may include but is not limited to the lid, throat, collar/riser and top of the chamber. Ensure the reconstruction does not negatively impact drainage to the inlet. Any damaged frames and/or grates shall be replaced, either with materials supplied by Louisville MSD or paid for by the KYTC. The reconstruction work is to be performed using brick, mortar and/or concrete having a compressive strength of 3,000 psi prior to being exposed to vehicular traffic. The Engineer will determine reconstruction locations prior to resurfacing activities beginning.

April 2022

Special Note for Thermoplastic All Weather Pavement Markings

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1. Description. Furnish and install a wet retroreflective pavement marking system in accordance with this special note. Project will include use of various thermoplastic markings. Striping (both edge and center lines) and select intersection markings shall include specified elements to provide wet retroreflectivity.

2. Thermoplastic Striping. Thermoplastic pavement markings shall comply with Sections 714, 717 and 837 of the Department of Highways' Standard Specifications for Road and Bridge Construction, unless otherwise noted. Striping shall include specified elements to provide wet retroreflectivity.

3. Wet Reflective Elements. Wet reflective elements shall be:

- 3M Connected Roads All Weather Elements

The color of the wet reflective beads shall match the color of the marking being applied. Traditional and wet reflective beads shall be applied in a double-drop application of traditional glass beads and wet reflective optical elements. Contractor shall follow manufacturer's recommendations as to incorporating wet reflective elements into the striping operation. Apply traditional beads and wet reflective elements in sufficient quantities to obtain the dry retroreflectivity requirements and desired wet retroreflectivity levels. A 50/50 ratio of traditional beads to wet reflective elements is recommended, but bead distribution may be modified with the approval of the engineer, if the contractor feels that a different distribution is necessary to meet dry/wet retroreflectivity levels.

4. Pavement Marking Performance. Pavement marking retroreflectivity performance under dry conditions will be evaluated in accordance with the Standard Specifications for Road and Bridge Construction.

Although wet retroreflectivity performance will not be considered as part of the acceptance and payment for pavement markings on this project, desired minimum wet recovery retroreflectivity requirements at the end of the proving period (Standard Specifications for Road and Bridge Construction, Section 714.03.06) are as follows:

Retroreflectivity (mcd(ft^{-2})(fc^{-1})) {metric equivalent mcd(m^{-2})(lux^{-1})}

	White	Yellow
Wet recovery (ASTM 2177)	250	175
Wet Continuous (ASTM E2832)	150	100

5. Measurement. Wet retroreflective elements will be incidental to the pay items for pavement markings.

6. Payment. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
6546	Pave Striping-Thermo-12 IN W (Wet Reflective)	LF
6565	Pave Marking-Thermo X-Walk-6 IN (Wet Reflective)	LF
22520EN	Pave Marking-Thermo Yield Bar-36 IN (Wet Reflective)	LF
23261EC	Pave Mark-Thermo X-Walk-24 IN (Wet Reflective)	LF
24683ED	Pave Marking-Thermo Dotted Lane Exten (Wet Reflective)	LF
25008EC	Pave Striping-Thermo-6 IN W-Wet Reflect	LF
25009EC	Pave Striping-Thermo-6 IN Y- Wet Reflect	LF

SPECIAL NOTES FOR COMPLETION DATES & LIQUIDATED DAMAGES

The ultimate fixed completion date for this project will be **October 28, 2022**. The contract also includes a fixed milestone date of **September 15, 2022** for the following work items:

- All concrete work items.
- All resurfacing work items.
- All required temporary pavement markings per the contractor and Engineer.
- All other work items required to be completed prior to beginning the items above.

Liquidated Damages for failure to complete the project or the required milestone items per the above dates will be assessed following Section 108.09. The Engineer has the discretion to waive this penalty due to unforeseen circumstances.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **$2,500** per hour for the first hour and **$5,000** for any additional hour, or fraction of an hour, for any and all lane closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

Contrary to Section 108.09, Liquidated Damages will be assessed for the months of December through March.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites
01/02/2012

October 2021

SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can "break" within 15 minutes under conditions listed in 3.2.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide a tack conforming to the following material requirements:

Property	Specification	Test Procedure
Viscosity, SFS, 77 ˚ F	20 – 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue[1], %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ˚ F	20 max.	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ˚ C	1.0 min.	AASHTO T 315
Softening Point, ˚ F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

[1] Bring sample to 212 ˚F over a 10-15 minute period. Maintain 212 ˚F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 ˚F and 180 ˚F. Do not exceed 180 ˚F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14" and 18" from the roadway.

2.3. Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the non-tracking tack, ensure the pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris on to the pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

3.2 Non-tracking Tack Application. Placement of non-tracking tack is not permitted from October 1st to May 15th. When applying material, ensure the roadway temperature is a minimum of 40˚F and rising. Prior to application, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 – 180 ˚F. After the initial heating, between 170 – 180 ˚F, the material may be sprayed between 165 ˚F and 180 ˚F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered with the asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tack certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the non-tracking tack. The Department will consider all such items incidental to the non-tracking tack.

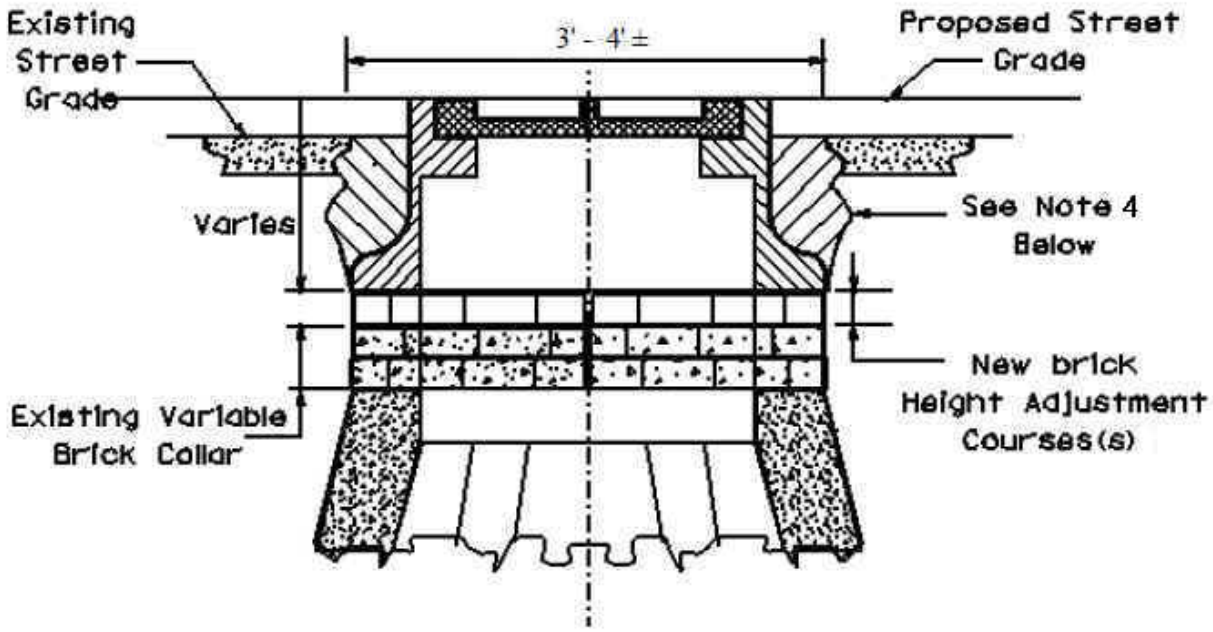
5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. Non-tracking tack will not be permitted for use from October 1st to May 15th. From September 1st to June 1st, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

October 2021

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ˚ F	20 – 100	19 - 102	17 - 18 103 - 105	15 - 16 106 - 107	14 108 - 109	≤13 ≥ 110
Sieve, %	0.30 max.	≤ 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 – 48.9	48.0 – 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F	20 max.	≤ 21	22 - 23	24 - 25	26 - 27	≥ 28
Original Dynamic Shear (G*/sin δ), 82 ˚ C	1.0 min.	≥0.95	0.92 – 0.94	0.90 – 0.91	0.85 - 0.89	≤ 0.84
Softening Point, º F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤ 137
Solubility, %	97.5 min.	≥ 97.0	96.8 – 96.9	96.6 – 96.7	96.4 – 96.5	≤ 96.3

Code	Pay Item	Pay Unit
24970EC	Asphalt Material for Tack Non-Tracking	Ton

SPECIAL NOTE FOR MANHOLE ADJUSTMENT
LOUISVILLE METROPOLITAN SEWER DISTRICT (MSD)

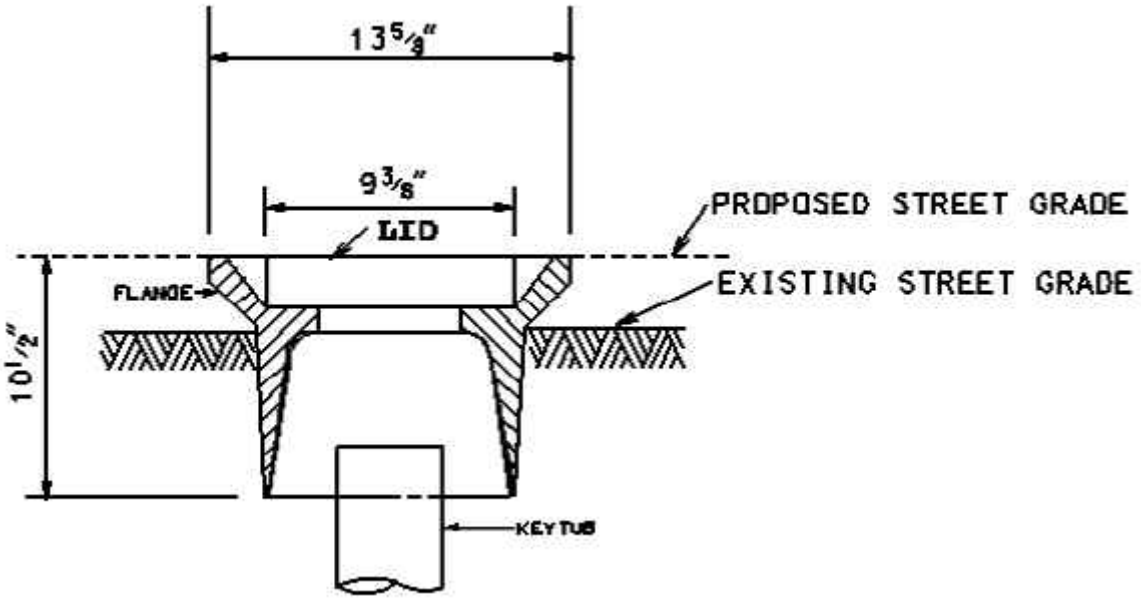


NOT TO SCALE

CONSTRUCTION NOTES:

1. The Engineer will determine whether manhole adjustments are to be made prior to or after milling and/or resurfacing.
2. Reuse existing frames, grates, and covers. Use other materials conforming to MSD's Technical Specifications. Obtain these specifications from MSD's Engineering Division Office, 400 South Sixth Street, Louisville, KY 40202.
3. Report any missing or damaged frame, grate, or cover discovered by the Contractor to MSD's inspector. Obtain replacement hardware items from MSD's Storage Yard, 151 Cabel Street, Louisville, KY, upon presentation of an MSD inspector's validated Stores Requisition and exchange for the damaged hardware items.
4. Adjust manhole frame and grates with brick and mortar as shown on the drawing or as directed by the Engineer. Do not use wood shims or blocks to adjust or reset the frame height. Fill cross-hatched area with concrete having a minimum 28-day compressive strength of 2000 psi. Use first class workmanship in conformity with MSD's Technical Specifications.
5. Adjust catch basin frames and grates in similar manner as manhole adjustments as approved by the Engineer.
6. Louisville MSD and/or the Engineer may inspect manhole and/or catch basin frame height adjustments. Make corrections as directed by the Engineer at no additional cost to the Department.
7. The Department will measure and pay Adjust Manhole Frame to Grade according to Sections 403.04.02 and 403.05.01 or Sections 408.04.04 and 408.05.02 as applicable.

SPECIAL NOTES FOR WATER VALVE ADJUSTMENT
LOUISVILLE WATER COMPANY (LWC)



1. Unless directed otherwise by the Engineer, adjust all water valve boxes to grade during resurfacing operations. For streets to be milled prior to resurfacing, either mill around the valve box or remove the round top and replace it prior to paving as approved by the Engineer.
2. Immediately prior to paving, work the round top loose by prying with a crowbar or cold chisel under the flange. If necessary, free round tops located in concrete streets with jackhammer. During paving, the contractor has the option to place cold patch under the flange or leave the round top loose. During paving, raise the round top to grade and install with an adequate amount of compacted asphalt placed under the flange to prevent future settlement. Keep the keytube free of millings and/or foreign objects (rocks, asphalt, broken castings).
3. Replace all valve boxes damaged during removal with the standard round top furnished by the Louisville Water Company. A supply of round tops is available at the Louisville Water Company Distribution Center, 4801 Allmond Avenue.
4. LWC estimates that approximately 5% of valve box assemblies may be a different style one piece cast iron round top and keytube. When these are encountered, cut the valve box off five (5) inches below existing grade and replace with the standard valve box available at the Louisville Water Company's yard.
5. The Louisville Water Company and/or the Engineer will inspect all adjusted water valve boxes after paving. Adjust any valve boxes which are paved over or adjusted water valve boxes determined by the Engineer or LWC to be substandard in workmanship by cutting out in a 2 feet square, raised to grade, and repaving with hot mix asphalt. Perform all corrective work at no additional expense to the Department,
6. The Department will measure Adjust Water Valve in individual units, each. Payment at the Contract unit price shall be full compensation for all labor, equipment, materials, and incidentals for adjusting water valve boxes to grade according to these notes and as directed by the Engineer.

COORDINATION OF WORK WITH OTHER CONTRACTS

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts
01/02/2012

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

Begin paving operations within **72 hours** of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate prescribed by Section 108.09 until such time as paving operations are begun.

Take possession of the millings and recycle the millings or dispose of the millings off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.

1-3520 72 hours Contractor keeps millings
05/4/2021

TRAFFIC CONTROL PLAN

FD04 056 031E 014-016

TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications, and the Standard and Sepia Drawings. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

PROJECT PHASING & CONSTRUCTION PROCEDURES

Maintain access to bus facilities at all times.

LANE CLOSURES & MOBILE OPERATIONS ARE PERMITTED DURING THE FOLLOWING HOURS:

- Sunday through Thursday nights 8:00 P.M. – 5:00 A.M.
- The engineer may permit operations that cause minor disruption to traffic between the hours of 9:00 A.M. TO 3:00 P.M.
- Except for milling and resurfacing activities, work may occur during all day light hours if it is contained within an existing parking lane.

LANE CLOSURES WILL NOT BE PERMITTED ON THE FOLLOWING DAYS:

Independence Day	Saturday, July 2, 2022 – Monday, July 4, 2022
Labor Day Weekend	Friday, September 2, 2022 – Monday, September 5, 2022
CycLOUvia	Friday, September 30, 2022 – Sunday, October 2, 2022
Thanksgiving Holiday	Wednesday, November 23, 2022 – Sunday, November 27, 2022

The Engineer may specify additional days and hours when lane closures will not be allowed, including for various events within or near the project.

At locations with three or more lanes, maintain one lane of traffic in each direction at all times during construction. At locations with two lanes, maintain alternating one-way traffic during construction and provide a minimum clear lane width of 10 feet. At locations with one lane, such as at exit and entrance ramps, a partial lane closure is permitted during construction if a minimum clear lane width of 10 feet is maintained. NOTE: During any lane closure or partial lane closure, make provisions for the passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus or emergency vehicle on an official run arrives on the scene, make provisions for the passage of the school bus or emergency vehicle as quickly as possible.

The Department will require night work on this project for all milling and resurfacing activities. Obtain the Engineer's approval of the method of lighting prior to performing night work.

Take these restrictions along with those in the General Notes into account in submitting bid. The Department will not consider any claims for money or grant contract time extensions for any delays to the Contractor as a result of these restrictions.

LANE CLOSURES & LIQUIDATED DAMAGES

Long term lane closures shall not be allowed; therefore, lane closures will not be measured for payment. Do not leave lane closures in place during non-working hours.

In the event that lane closures are in place outside of the days and/or times listed above, Liquidated Damages shall be applied as follows:

- $ 2,500 for the first hour or fraction thereof
- $ 5,000 for any additional hour or fraction thereof

A lane closure shall be defined as any traffic control device or Contract worker or vehicle in the traveled way that could potentially impact the flow of traffic. This includes but not limited to signs, barricades, barrels, cones, arrow boards, flaggers, and Contractor work vehicles.

All liquidated damages will be applied cumulatively.

TEMPORARY SIGNS

Temporary sign posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Temporary signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term temporary signs (temporary signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term temporary signs (temporary signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. Place changeable message signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Changeable Message Signs or for signs the Engineer directs be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

ARROW PANELS

Use arrow panels as shown on the Standard Drawings or as directed by the Engineer. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Arrow Panels only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Arrow Panels or for panels signs the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Arrow Panels upon completion of the work.

TEMPORARY ENTRANCES

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties and apartments or apartment complexes of four or more units at all times.

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

TRAFFIC SIGNAL LOOPS

Install traffic signal loops according to the Special Notes for Traffic Signal Loop Replacement. Coordinate the placement of the loops with the Engineer.

THERMOPLASTIC INTERSECTION

Consider the locations listed on the summary as approximate only. Prior to milling and/or resurfacing, locate and document the locations of the existing markings. After resurfacing, install the markings per the contract plans, Engineer, KYTC Standards and MUTCD.

BARRICADES

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01.

The Department will measure barricades used to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of the work.

PAVEMENT MARKINGS

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the final surface course. Install Temporary Striping according to Section 112 with the following exceptions:

1. Include edge lines in Temporary Striping; and
2. Place Temporary or Permanent Striping before opening a lane to traffic; and
3. If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.

PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Greater than 4' - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing oncoming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the engineer.

USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

Application

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

CMS should not be used for:

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related)

Messages

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- No more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

Placement of the CMS is important to insure that the sign is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent theft (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

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Standard Abbreviations

The following is a list of standard abbreviations to be used on CMS:

Word	Abbrev	Example
Access	ACCS	ACCIDENT AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/ USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/ DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/ MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/ USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/ USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/ MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/ USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/ EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/ DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/ PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/ DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/ DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/ EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/ 2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/ DETOUR EXIT 20
Lane	LN	LN CLOSED MERGE LEFT
Left	LFT	LANE CLOSED MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
Major	MAJ	MAJ DELAYS I75/ USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/ 30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MI/ PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/ USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/ DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

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Standard Abbreviations (cont)

Word	Abbrev	Example
Street	ST	MAIN ST CLOSED/ USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/ DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/ DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/ POSSIBLE DELAYS

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS:

Abbrev	Intended Word	Word Erroneously Given
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)
LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

Typical Messages

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

Reason/Problem	Action
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT

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Typical Messages (cont)

Reason/Problem	**Action**
FREEWAY CLOSED	PREPARE TO STOP
FRESH OIL	REDUCE SPEED
HAZMAT SPILL	SLOW
ICE	SLOW DOWN
INCIDENT AHEAD	STAY IN LANE
LANES (NARROW, SHIFT, MERGE, ETC.)	STOP AHEAD
LEFT LANE CLOSED	STOP XX MILES
LEFT LANE NARROWS	TUNE RADIO 1610 AM
LEFT 2 LANES CLOSED	USE NN ROAD
LEFT SHOULDER CLOSED	USE CENTER LANE
LOOSE GRAVEL	USE DETOUR ROUTE
MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER
NO PASSING	
NO SHOULDER	
ONE LANE BRIDGE	
PEOPLE CROSSING	
RAMP CLOSED	
RAMP (SLIPPERY, ICE, ETC.)	
RIGHT LANE CLOSED	
RIGHT LANE NARROWS	
RIGHT SHOULDER CLOSED	
ROAD CLOSED	
ROAD CLOSED XX MILES	
ROAD (SLIPPERY, ICE, ETC.)	
ROAD WORK	
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)	
ROAD WORK XX MILES	
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)	
NEW SIGNAL XX MILES	
SLOW 1 (OR 2) - WAY TRAFFIC	
SOFT SHOULDER	
STALLED VEHICLES AHEAD	
TRAFFIC BACKUP	
TRAFFIC SLOWS	
TRUCK CROSSING	
TRUCKS ENTERING	
TOW TRUCK AHEAD	
UNEVEN LANES	
WATER ON ROAD	
WET PAINT	
WORK ZONE XX MILES	
WORKERS AHEAD	

SPECIAL NOTE FOR TRAFFIC SIGNAL LOOP DETECTORS

1.0 DESCRIPTION. Be advised that there are existing traffic signal loop detectors within the construction limits of this project. Except as specified herein, perform traffic signal loop replacement in accordance with the Department's Standard/Supplemental Specifications, Special Provisions, Special Notes, and Standard/Sepia Drawings, current editions and as directed by the Engineer. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for replacement of traffic signal loop installation(s) and all other work specified as part of this contract.

1.1 Pre-bid Requirements. Conform to Subsection 723.03.17

2.0 MATERIALS. Except as specified herein, furnish materials in accordance with Subsection 732.02 and Section 835. Provide for materials to be sampled and tested in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in this Special Note.

2.1 Maintain and Control Traffic. See Traffic Control Plan.

2.2 Sand. Furnish natural sand meeting the requirements of Subsection 804.04.01.

2.3 Seeding. Furnish Seed Mix Type I.

2.4 Loop Saw Slot and Fill. Furnish loop sealant, backer rod, and non-shrink grout according to the Saw Slot Detail.

2.5 Junction Boxes. Furnish junction box type B, #57 aggregate, and geotextile filter type IV according to junction box detail.

2.6 Cable No. 14/1 Pair (Lead-in). Furnish cable that is specified in Section 835. Cable shall be ran splice free. This shall include splice kits to connect to the loop wire.

2.7 Conduit. Furnish and install appropriate conduit from transitions to the roadway, junction boxes and poles. See details below.

3.0 CONSTRUCTION. Except as specified herein, install and test Traffic Signal Loop Detectors in accordance with Section 723 and the drawings.

3.1 Testing. Conform to Subsection 723.03.17 (A)

3.2 Coordination. Conform to Subsection723.03.17 (B)

3.3 Connection. Conform to Subsection 723.03.17 (C)

3.4 Maintain and Control Traffic. See Traffic Control Plan.

3.5 Milling. Conform to Subsection 723.03.17 (F)

3.6 Loop Saw Slot and Fill. Conform to Subsection 723.03.13 (A).

3.7 Backfilling and Disturbed Areas. Conform to Subsection 723.03.11.

3.8 Removal. Conform to Subsection 723.03.16.

3.9 Property/Roadway Damage. Conform to Subsection 723.03.17 (J).

3.10 Right-of-Way Limits. Conform to Subsection 723.03.17 (K).

3.11 Utility Clearance. Conform to Subsection 716.03.01.

3.12 Control. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to permit other contractors, state forces, public utility companies, and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with each other's work will be reduced to a minimum. The Contractor agrees to make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to ensure the completion of the work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

3.13 Bore and Jack. Conform to Subsection 723.03.06 (I).

3.14 Open Cut Roadway. Conform to Subsection 723.03.06 (I).

4.0 MEASUREMENT. See Subsection 723.04 for bid item notes. Additional bid items include the following:

4.1 Loop Test. The Department will measure the quantity as each individual unit loop tested. The Department will not measure disconnection, reconnection, traffic control, re-splicing per specifications, before and after testing per note above, and any associated hardware for payment and will consider them incidental to this item of work.

4.2 Remove Signal Equipment. The department will measure the quantity by each. The department will not measure backfilling and the disposal or transportation of equipment and materials associated with any structural or electrical component of the signal system including, but not limited to pole bases, poles, junction boxes, cabinets, and wood poles for payment and will consider them incidental to this item of work.

5.0 PAYMENT. The Department will make payment for the completed and accepted quantities of listed items according to Subsection 723.05 in addition to the following:

Code	Pay Item	Pay Unit
Conduit 1"	4792	Linear Foot
PVC Conduit – 1 ¼ inch – sch 80	24900EC	Linear Foot

Traffic Signal Loop Detectors
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PVC Conduit – 2 inch – sch 80	24901EC	Linear Foot
Conduit 2”	4795	Linear Foot
Electrical Junction Box type B	4811	Each
Loop Test	24963ED	Each
Trenching and Backfilling	4820	Linear Foot
Loop Wire	4830	Linear Foot
Cable-No. 14/1 Pair	4850	Linear Foot[1]
Loop Saw Slot and Fill	4895	Linear Foot[1]
Bore and Jack Conduit	21543EN	Linear Foot[3]
Open Cut Roadway	4821	Linear Foot[3]
Remove Signal Equipment	24955ED	each

The Department will consider payment as full compensation for all work required under these notes and the Standard Specifications.
Contrary to section 723:
SUBSECTION: 03.13 Loop Installation.
REVISION: Replace first sentence note with the following:
twist unshielded loop wire (imsa 51-7) with 3 to 5 turns from the start of homerun to the inside conduit, junction box, cabinet, or pole. Twist unshielded loop wires (imsa 51-7) with 3 to 5 turns per foot from the start of the homerun to the junction box, cabinet, or pole. Slot can be widen to .5" to .625" to help with the installation of the twisted wire.

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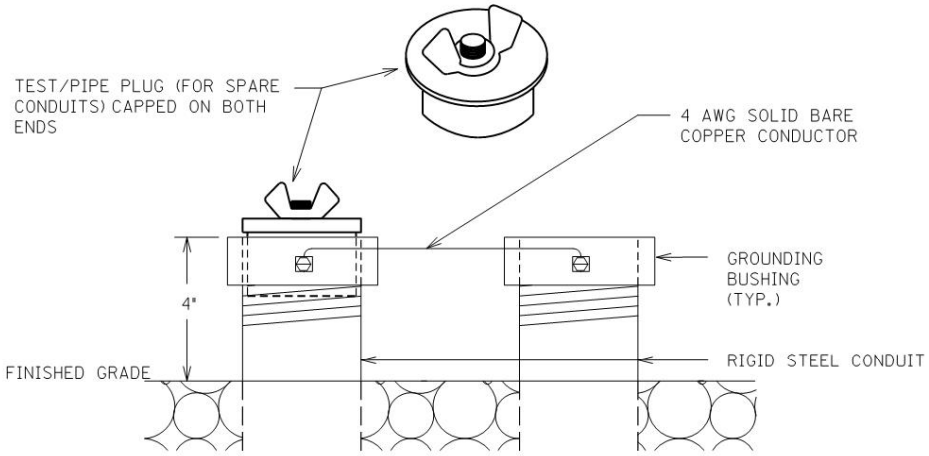

TEST/PIPE PLUG(FOR SPARE CONDUITS) AND GROUNDING DETAIL

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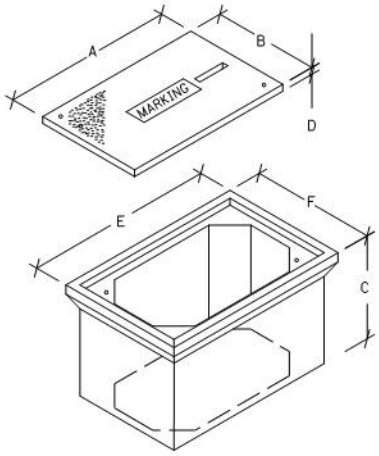
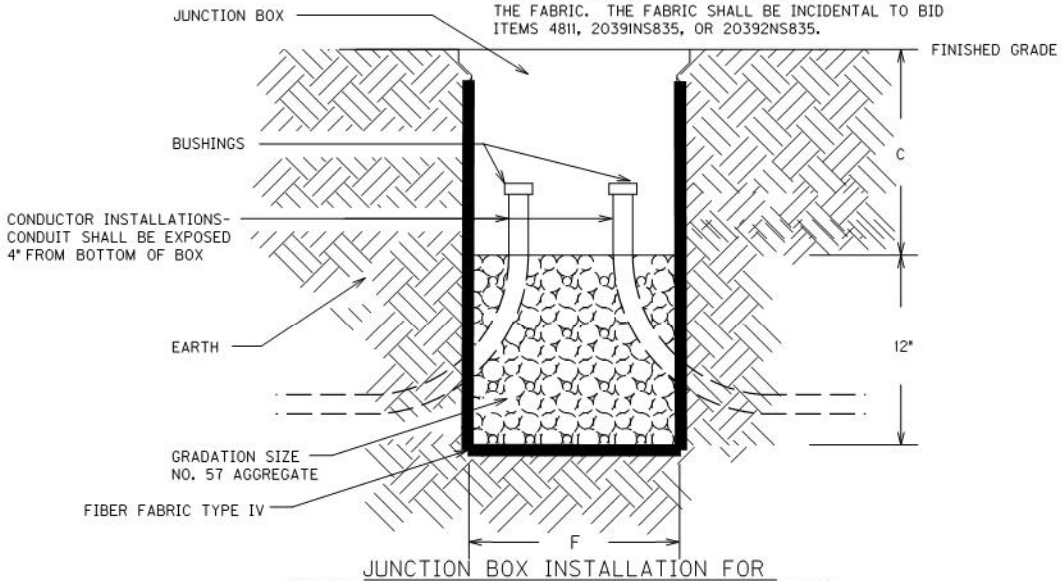


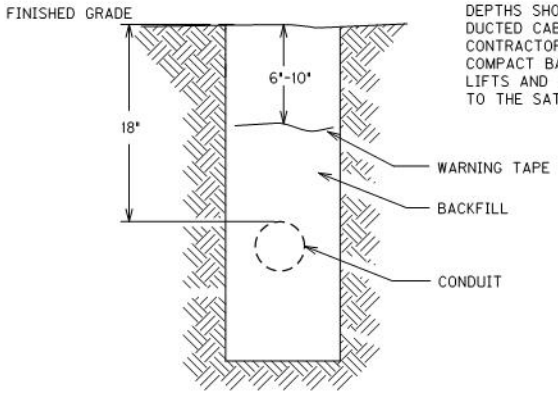
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1¾" *	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED

BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE 'X CUT' ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 4811, 2039INS835, OR 20392NS835.



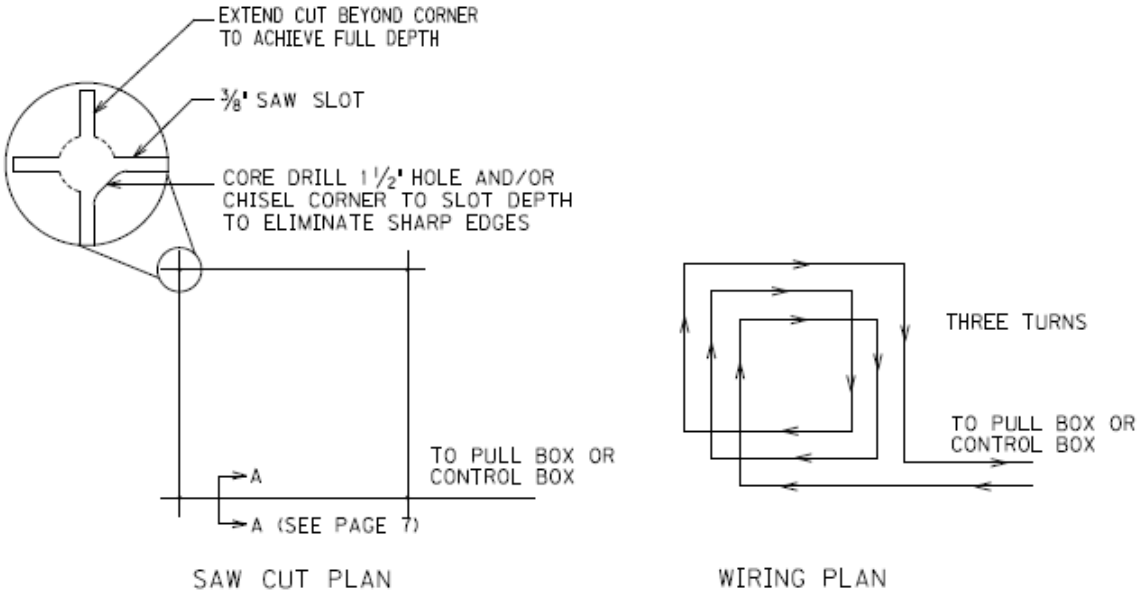
JUNCTION BOX INSTALLATION FOR
CONVENTIONAL LIGHTING OR TRAFFIC SIGNALS



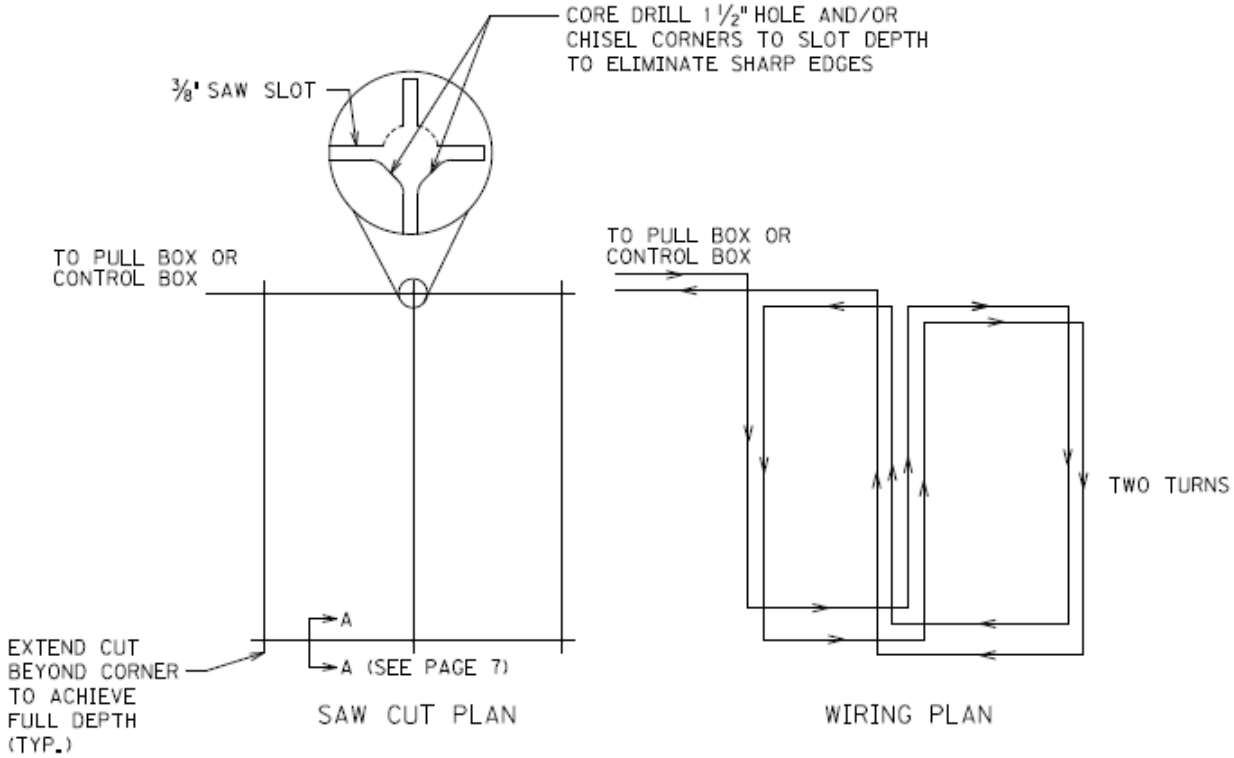
DEPTHS SHOWN FOR CONDUIT AND DUCTED CABLE ARE MINIMUMS. CONTRACTOR SHALL PLACE AND COMPACT BACKFILL IN 9" MAXIMUM LIFTS AND RETORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER.

CONDUIT AND WARNING TAPE TRENCH

Traffic Signal Loop Detectors
Page 6 of 9

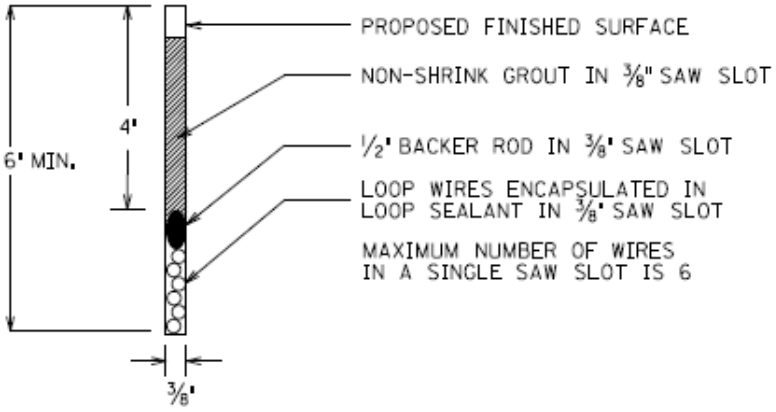


6'X6' LOOP

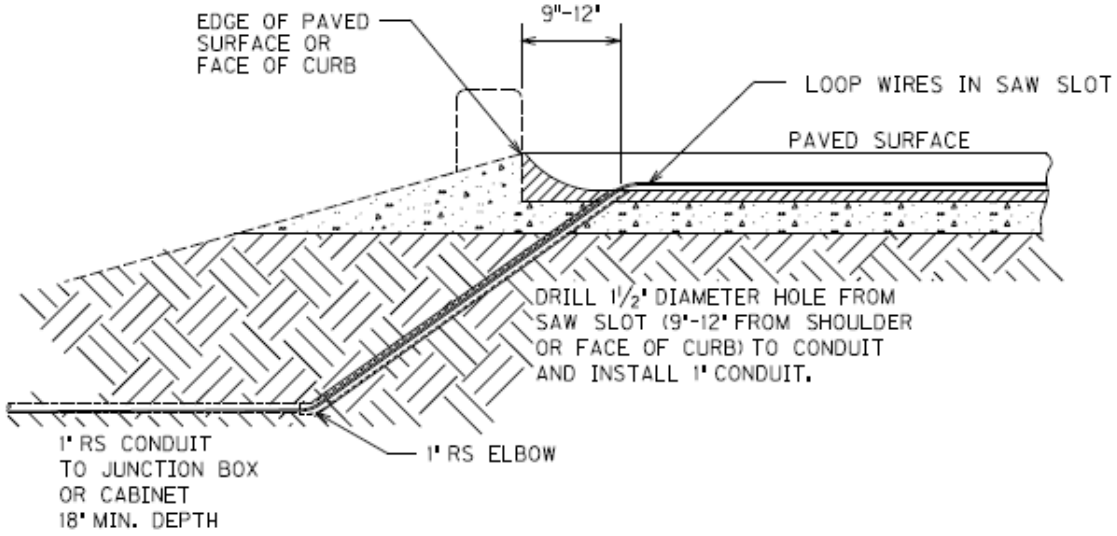


6'X30' QUADRAPOLE LOOP

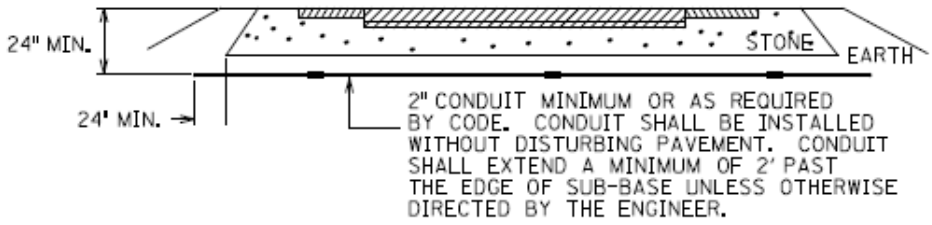
Traffic Signal Loop Detectors
Page 7 of 9



SECTION A-A (SAW SLOT DETAIL)

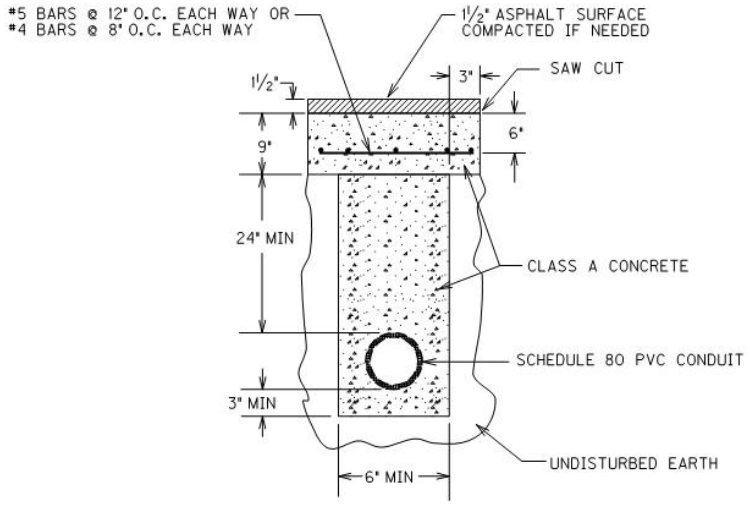


SAW SLOT EDGE OF PAVEMENT TRANSITION

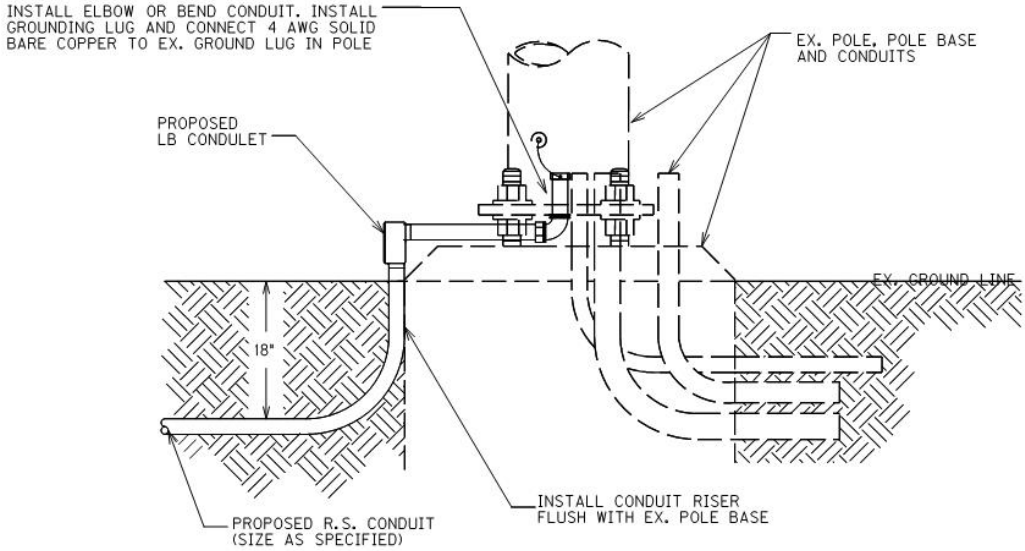


CONDUIT UNDER EXISTING PAVEMENT DETAIL

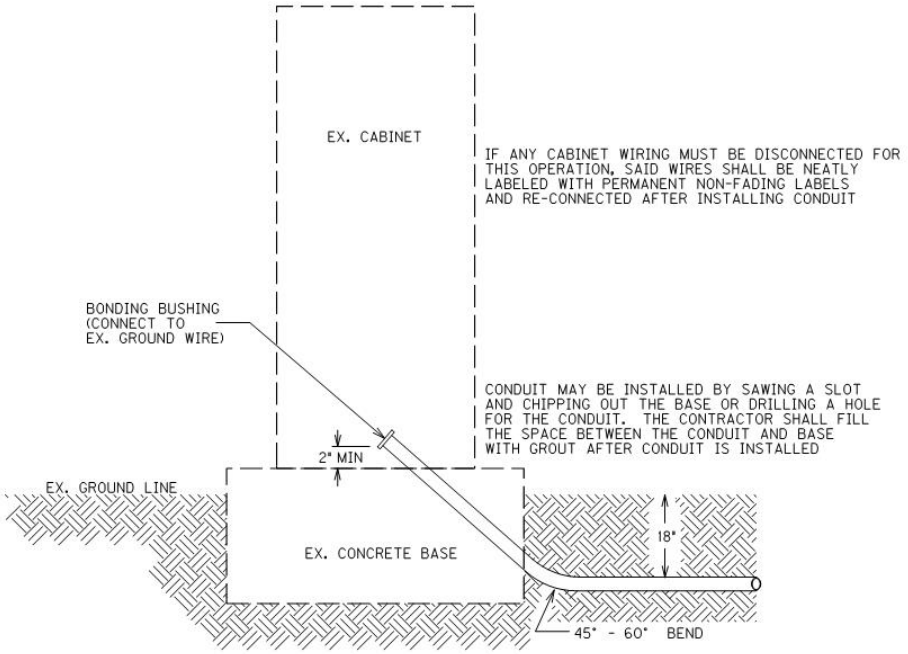
Traffic Signal Loop Detectors
Page 8 of 9



OPEN CUT PAVEMENT DETAIL



CONDUIT INSTALLATION IN EX. POLE BASE



CONDUIT INSTALLATION IN EX. CABINET BASE

Update: 4-5-2022

SPECIAL NOTES FOR TRAFFIC SIGNAL LOOP DETECTORS
CITY OF LOUISVILLE

Be advised, existing traffic signal loop detectors are within the construction limits of this project. Notify the Engineer in writing, (2) weeks prior to beginning any work on the project. Install and test the new signal loops according to the Special Notes for Traffic Signal Loop Replacement.

The Engineer will contact and maintain liaison with the District Traffic Engineer and the City of Louisville to coordinate any necessary work.

On projects that include milling of roadways with existing traffic signal loops and if after milling the remnant contents of the existing saw slot (grout, loop wires, backer rod, and/or loop sealant) are not intact and flush with or below the top of the milled portion of the asphalt and with the saw slot completely filled with fines from the milling operation, clear the saw slot of loose remnant contents and refill the saw slot with natural sand. Obtain the Engineer's approval of the stabilized saw slot prior to resurfacing. The Department will not measure for separate payment clearing the saw slot and refilling with natural sand, but shall be incidental to Asphalt Pavement Milling and Texturing.

1-3893 Louisville Traffic Signal Loops
01/02/2012

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

☒ **Original** ☐ **Re-Certification** — **RIGHT OF WAY CERTIFICATION**

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
5-9030.00	Jefferson	FD04 056 031E 014-016	N/A

PROJECT DESCRIPTION

OVERLAY AND RESTRIPE BARDSTOWN RD BETWEEN EASTERN PARKWAY AND E BROADWAY AND CONSTRUCT CURB BUMP OUTS, ENHANCED CROSSWALKS, AND OTHER LOW-COST SAFETY IMPROVEMENTS

☒ **No Additional Right of Way Required**

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

☐ **Condition # 1 (Additional Right of Way Required and Cleared)**

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

☐ **Condition # 2 (Additional Right of Way Required with Exception)**

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

☐ **Condition # 3 (Additional Right of Way Required with Exception)**

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

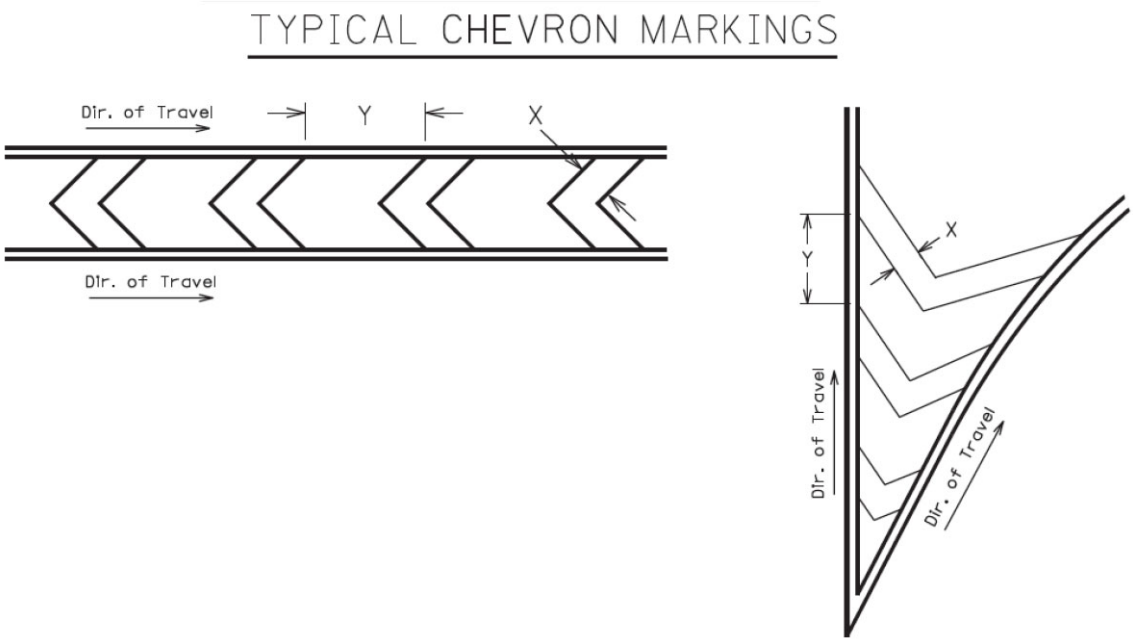
Total Number of Parcels on Project	0	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed			
Condemnation			
Signed ROE			

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	
Signature		Signature	Tom Boykin Digitally signed by Tom Boykin Date: 2022.04.18 09:23:10 -04'00'
Date		Date	

Right of Way Director		FHWA	
Printed Name		Printed Name	
Signature	Digitally signed by Kelly R. Divine Date: 2022.04.18 09:35:59 -05'00'	Signature	
Date		Date	

CHEVRON PAVEMENT MARKINGS DETAIL



The chevron pavement marking width (X) and spacing (Y) will usually be specified in the plans. The width to spacing values usually have a ratio of 1:10. If the plans do not specify the width (X) and spacing (Y) the Engineer will provide the contractor with the X and Y values for each chevron installation. If necessary, the Engineer may obtain guidance from the District Traffic Engineer and/or the Division of Traffic Operations.

NOTE: Adjust the width and spacing of the chevron pavement markings as necessary so that a minimum of three (3) chevron markings are placed within the area being marked. The 1:10 ratio between width and spacing values should be maintained as much as possible.

Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

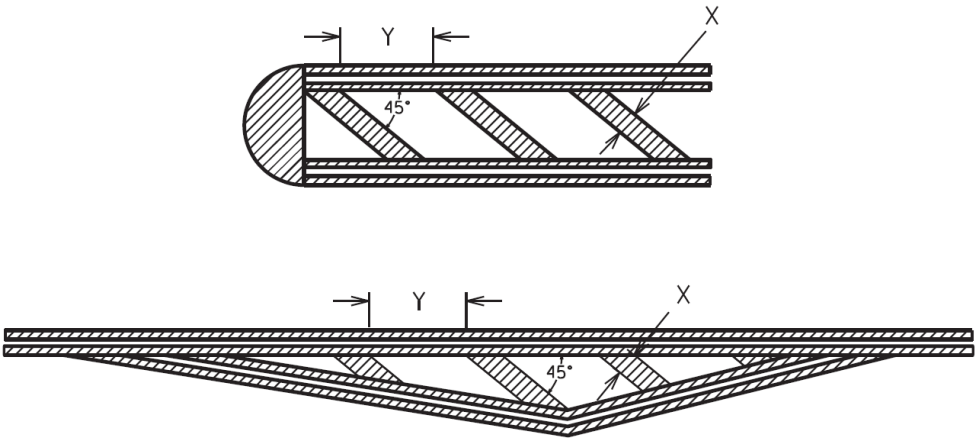
The Department will measure the finished in-place area of Chevron Pavement Markings in Square Feet. The Department will NOT measure overlaps or the void space between the chevrons. See Section 717.04 for additional measurement information.

When listed as a bid item, the Department will make payment for the completed and accepted quantities of Chevron Pavement Markings under the following:

Code	Pay Item	Pay Unit
24679ED	Pave Mark Thermo Chevron	Square Foot
26166ES717	Pave Mark TY 1 Tape Chevron	Square Foot

CROSS-HATCH PAVEMENT MARKINGS DETAIL

TYPICAL CROSS-HATCH MARKINGS



The cross-hatch pavement marking width (X) and spacing (Y) will usually be specified in the plans. The width to spacing values usually have a ratio of 1:10. If the plans do not specify the width (X) and spacing (Y) the Engineer will provide the contractor with the X and Y values for each cross-hatch installation. If necessary, the Engineer may obtain guidance from the District Traffic Engineer and/or the Division of Traffic Operations.

NOTE: Adjust the width and spacing of the cross-hatch pavement markings as necessary so that a minimum of three (3) cross-hatch markings are placed within the area being marked. The 1:10 ratio between width and spacing values should be maintained as much as possible.

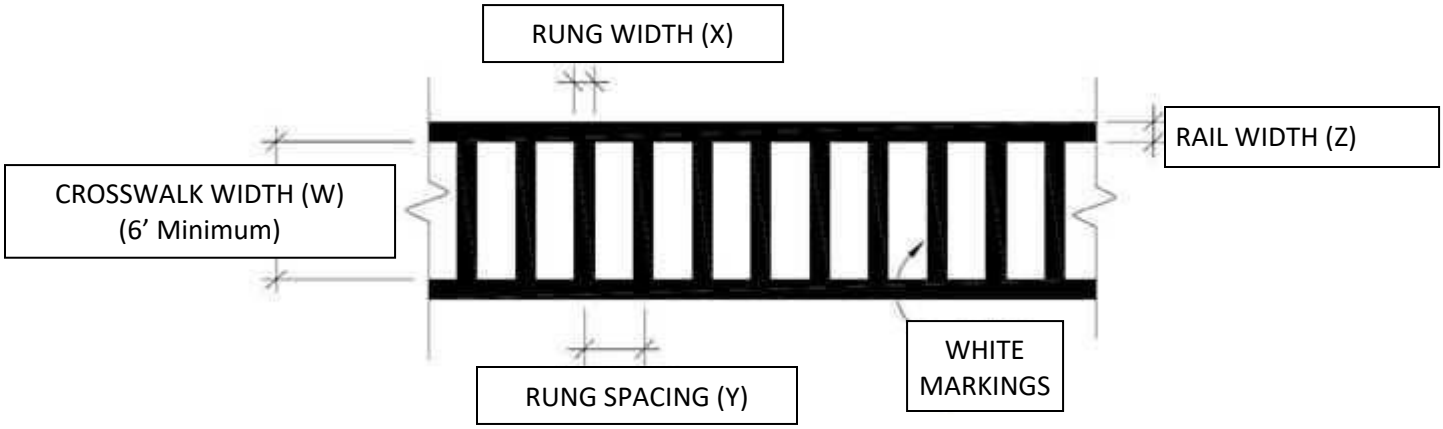
Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure the finished in-place area of Cross-Hatch Pavement Markings in Square Feet. The Department will NOT measure overlaps or the void space between cross-hatching. See Section 717.04 for additional measurement information.

When listed in the bid items, the Department will make payment for the completed and accepted quantities of Cross-Hatch Pavement Markings under the following:

Code	Pay Item	Pay Unit
06569	Pave Marking-Thermo Cross-Hatch	Square Foot
23253ES717	Pave Mark TY 1 Tape Cross Hatch	Square Foot

LADDER STYLE CROSSWALK DETAIL



Ladder Style Crosswalks consist of white markings that produce rails and rungs. The overall crosswalk width (W), rung width (X), rung spacing (Y), and rail width (Z) are to be installed as specified above or as specified on the plans and/or summary sheets (the latter case is typically because there are multiple crosswalks with different dimensions). If this detail, the plans, and/or summary sheets do not specify the dimensions, then construct the Ladder Style Crosswalks as directed by the District Traffic Engineer and/or the Engineer.

Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure the sum of the lengths of the rails in linear feet and make payment under the X-Walk bid item with a description containing the applicable rail width and material type.

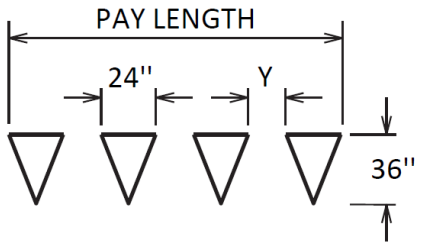
The Department will measure the sum of the lengths of the rungs in linear feet and make payment under the X-Walk bid item with a description containing the applicable rung width and material type.

When listed in the bid items, the Department will make payment for the completed and accepted quantities of Ladder Style Crosswalks under the following:

Code	Pay Item	Pay Unit
06565	Pave Marking-Thermo X-Walk-6 Inch	Linear Foot
06566	Pave Marking-Thermo X-Walk-12 Inch	Linear Foot
23261EC	Pave Mark-Thermo-X-Walk-24 Inch	Linear Foot
23251ES717	Pave Mark TY 1 Tape X-Walk-6 Inch	Linear Foot
23264ES717	Pave Mark TY 1 Tape X-Walk-12 Inch	Linear Foot
26164ES717	Pave Mark TY 1 Tape X-Walk-24 Inch	Linear Foot

YIELD BAR PAVEMENT MARKING DETAIL

YIELD BAR DETAILS



NOTE: SPACING (Y) BETWEEN
TRIANGLES SHOULD BE 3'' - 12''

Triangles should be evenly spaced. The spacing (Y) between triangles will depend on the width of the lane the yield bar is for. Unless otherwise directed by the Engineer, space the triangles according to the lane width as follows:

Lane Width	# of Triangles	Spacing (Y)
9’	4	4”
10’	4	8”
11’	5	3”
12’	5	6”
13’	5	9”
14’	6	4”
15’	6	7”
16’	7	4”

In the event of larger lane widths, install triangles on equal spacing, as close to the 3” minimum as possible.

Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure Yield Bars in Linear Feet. The measurement will include the void space between triangles. See Section 717.04 for additional measurement information.

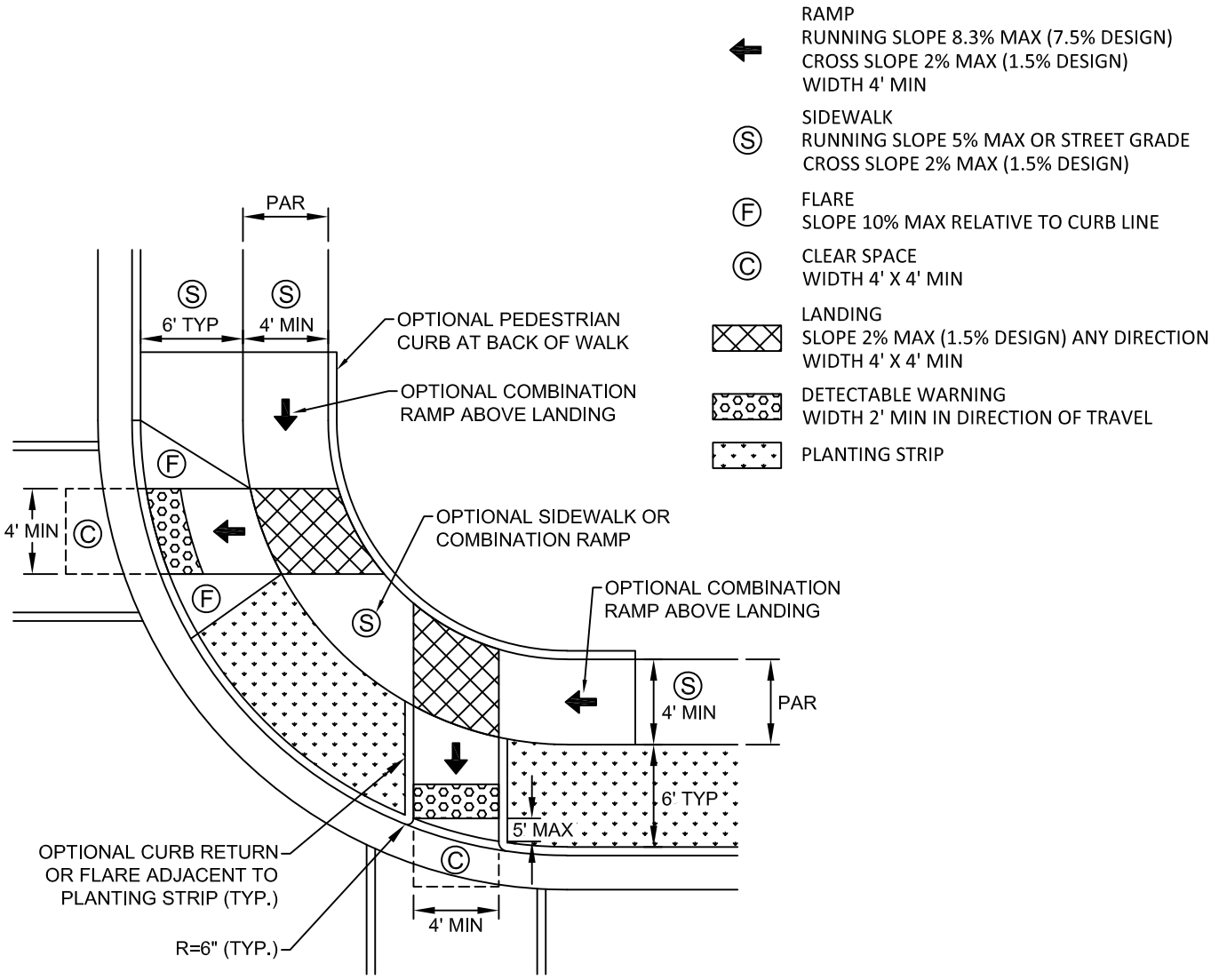
The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
22520EN	Pave Marking-Thermo Yield Bar-36 Inch	Linear Foot
26165ES717	Pave Mark TY 1 Tape Yield Bar-36 Inch	Linear Foot

400 STREET PAVING AND APPURTENANCES

STANDARD PLAN NO 425A

REV DATE: NOV 2018



TYPE A - LARGE RADIUS

NOTES

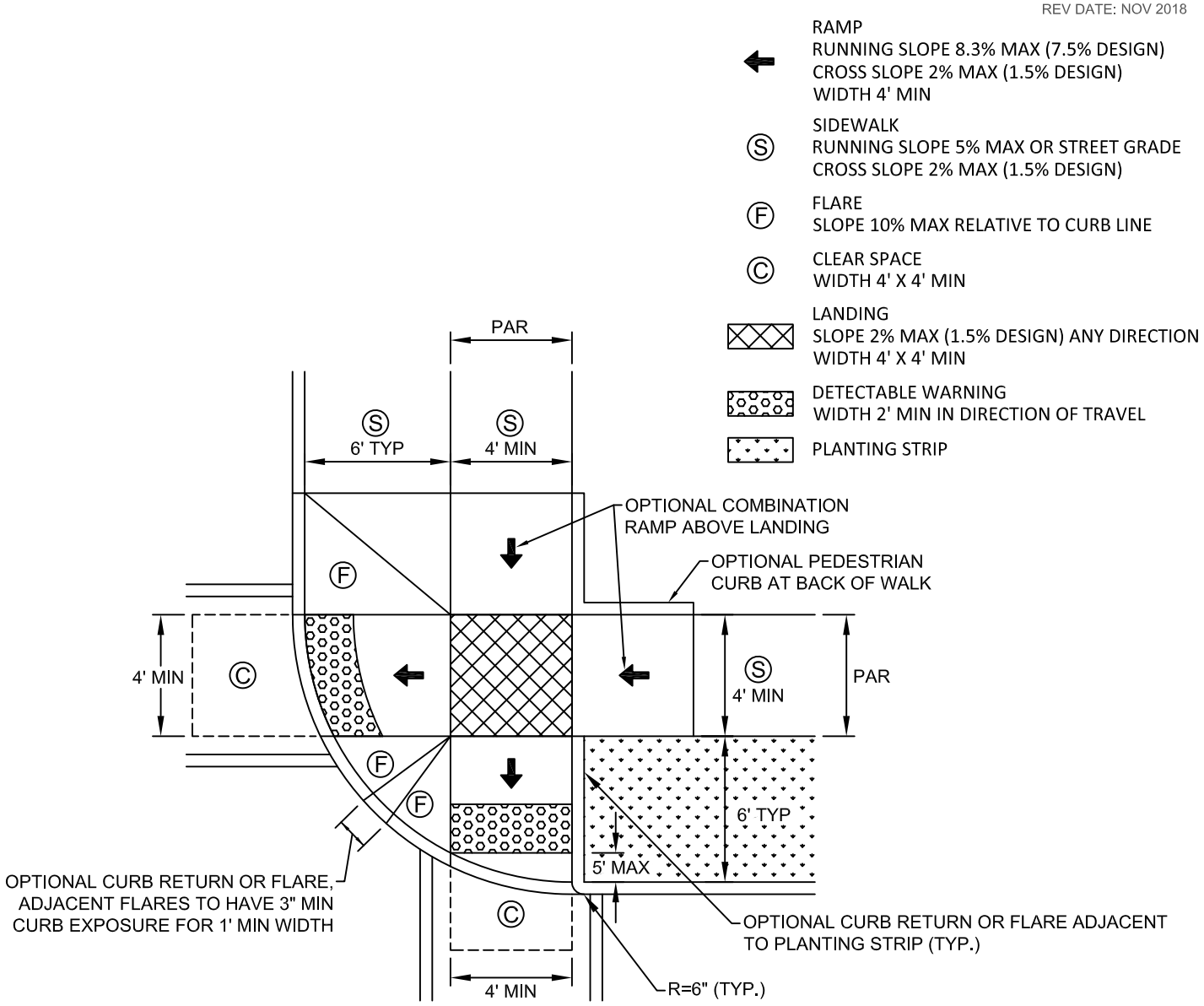
1. STANDARD SIDEWALKS, SHARED-USE PATHS, AND RAMPS SHALL BE CONSTRUCTED OF KYTC CLASS A CONCRETE (3,500 PSI COMPRESSIVE STRENGTH IN 28 DAYS AND HAVING A SLUMP BETWEEN 2-IN AND 4-IN). HISTORIC SIDEWALK AND CURB SHALL BE CONSTRUCTED OF HISTORIC MIX CONCRETE. SIDEWALK 4-IN MIN. THICKNESS PLACED OVER DGA 4-IN MIN. THICKNESS PLACED OVER COMPACTED SUBGRADE. DGA MAY BE REPLACED WITH NO. 57 STONE WITH METRO APPROVAL.
2. SIDEWALK, RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL DRAIN TO THE STREET.
3. WHEN THE LANDING IS CONSTRAINED AT THE BACK OF WALK OR ON TWO OR MORE SIDES, PROVIDE 5-FT MIN. LENGTH IN THE DIRECTION OF THE CROSSWALK.
4. CROSSWALK WIDTH SHALL BE AT LEAST THE WIDTH OF THE SIDEWALK AND RAMP OR 6-FT MIN. WIDTH, WHICHEVER IS GREATER.
5. COUNTER SLOPE OF THE GUTTER OR STREET AT THE BOTTOM OF RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL BE 5% MAX.
6. CLEAR SPACE TO BE LOCATED OUTSIDE OF A VEHICULAR TRAVEL LANE, CLEAR SPACE MINIMUM WIDTH SHALL MATCH ADJACENT RAMP.
7. FLARES MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR). CURB RETURNS MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR), ALIGNED WITH THE PEDESTRIAN STREET CROSSING, AND PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, POLES, TRASH RECEPTACLES, FENCING, OR RAILING.
8. AT PEDESTRIAN CROSSINGS WITHOUT YIELD OR STOP CONTROL, THE CROSS SLOPE OF LANDINGS, RAMPS, BLENDED TRANSITIONS, AND CLEAR SPACE SHALL BE PERMITTED TO BE 5% MAX. AT THE CURB LINE WITH METRO APPROVAL.
9. SEE KYTC STD DWG RGX-040 FOR DETECTABLE WARNINGS.

	LOUISVILLE METRO PUBLIC WORKS	NOT TO SCALE	CURB RAMP TYPE A

400 STREET PAVING AND APPURTENANCES

STANDARD PLAN NO 425C

REV DATE: NOV 2018



TYPE C - SMALL RADIUS

NOTES

1. STANDARD SIDEWALKS, SHARED-USE PATHS, AND RAMPS SHALL BE CONSTRUCTED OF KYTC CLASS A CONCRETE (3,500 PSI COMPRESSIVE STRENGTH IN 28 DAYS AND HAVING A SLUMP BETWEEN 2-IN AND 4-IN). HISTORIC SIDEWALK AND CURB SHALL BE CONSTRUCTED OF HISTORIC MIX CONCRETE. SIDEWALK 4-IN MIN. THICKNESS PLACED OVER DGA 4-IN MIN. THICKNESS PLACED OVER COMPACTED SUBGRADE. DGA MAY BE REPLACED WITH NO. 57 STONE WITH METRO APPROVAL.
2. SIDEWALK, RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL DRAIN TO THE STREET.
3. WHEN THE LANDING IS CONSTRAINED AT THE BACK OF WALK OR ON TWO OR MORE SIDES, PROVIDE 5-FT MIN. LENGTH IN THE DIRECTION OF THE CROSSWALK.
4. CROSSWALK WIDTH SHALL BE AT LEAST THE WIDTH OF THE SIDEWALK AND RAMP OR 6-FT MIN. WIDTH, WHICHEVER IS GREATER.
5. COUNTER SLOPE OF THE GUTTER OR STREET AT THE BOTTOM OF RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL BE 5% MAX.
6. CLEAR SPACE TO BE LOCATED OUTSIDE OF A VEHICULAR TRAVEL LANE, CLEAR SPACE MINIMUM WIDTH SHALL MATCH ADJACENT RAMP.
7. FLARES MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR). CURB RETURNS MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR), ALIGNED WITH THE PEDESTRIAN STREET CROSSING, AND PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, POLES, TRASH RECEPTACLES, FENCING, OR RAILING.
8. AT PEDESTRIAN CROSSINGS WITHOUT YIELD OR STOP CONTROL, THE CROSS SLOPE OF LANDINGS, RAMPS, BLENDED TRANSITIONS, AND CLEAR SPACE SHALL BE PERMITTED TO BE 5% MAX. AT THE CURB LINE WITH METRO APPROVAL.
9. SEE KYTC STD DWG RGX-040 FOR DETECTABLE WARNINGS.

	LOUISVILLE METRO PUBLIC WORKS	NOT TO SCALE	CURB RAMP TYPE C

400 STREET PAVING AND APPURTENANCES — STANDARD PLAN NO 425D

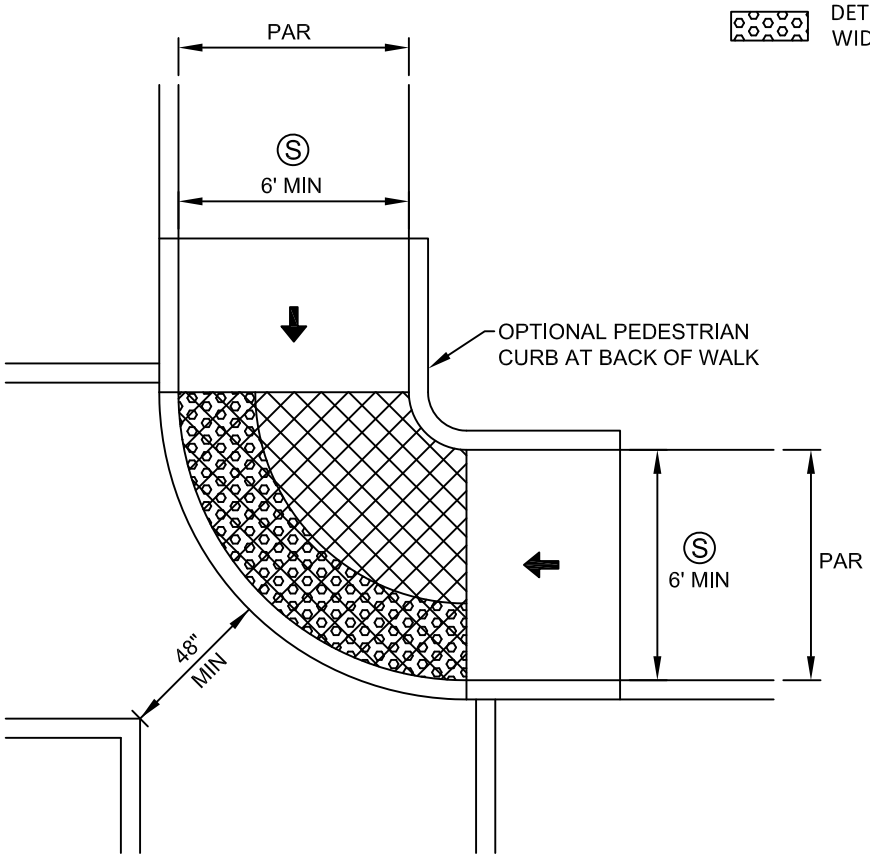
REV DATE: NOV 2018

RAMP
RUNNING SLOPE 8.3% MAX (7.5% DESIGN)
CROSS SLOPE 2% MAX (1.5% DESIGN)
WIDTH 4' MIN

SIDEWALK
RUNNING SLOPE 5% MAX OR STREET GRADE
CROSS SLOPE 2% MAX (1.5% DESIGN)

LANDING
SLOPE 2% MAX (1.5% DESIGN) ANY DIRECTION
WIDTH 4' X 4' MIN

DETECTABLE WARNING
WIDTH 2' MIN IN DIRECTION OF TRAVEL



TYPE D - SMALL RADIUS AT BACK OF CURB

NOTES

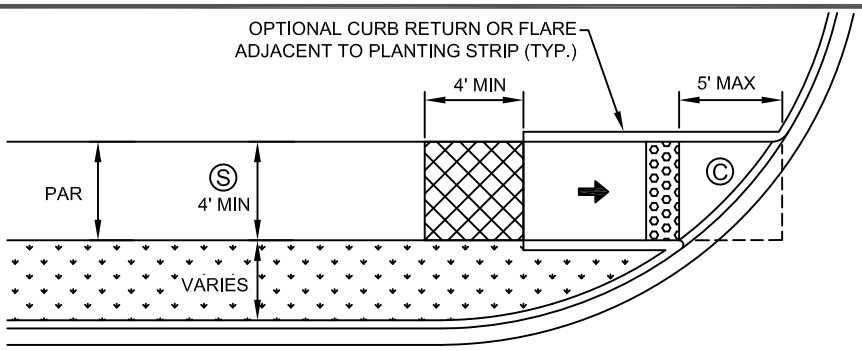
1. STANDARD SIDEWALKS, SHARED-USE PATHS, AND RAMPS SHALL BE CONSTRUCTED OF KYTC CLASS A CONCRETE (3,500 PSI COMPRESSIVE STRENGTH IN 28 DAYS AND HAVING A SLUMP BETWEEN 2-IN AND 4-IN). HISTORIC SIDEWALK AND CURB SHALL BE CONSTRUCTED OF HISTORIC MIX CONCRETE. SIDEWALK 4-IN MIN. THICKNESS PLACED OVER DGA 4-IN MIN. THICKNESS PLACED OVER COMPACTED SUBGRADE. DGA MAY BE REPLACED WITH NO. 57 STONE WITH METRO APPROVAL.
2. SIDEWALK, RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL DRAIN TO THE STREET.
3. WHEN THE LANDING IS CONSTRAINED AT THE BACK OF WALK OR ON TWO OR MORE SIDES, PROVIDE 5-FT MIN. LENGTH IN THE DIRECTION OF THE CROSSWALK.
4. CROSSWALK WIDTH SHALL BE AT LEAST THE WIDTH OF THE SIDEWALK AND RAMP OR 6-FT MIN. WIDTH, WHICHEVER IS GREATER.
5. COUNTER SLOPE OF THE GUTTER OR STREET AT THE BOTTOM OF RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL BE 5% MAX.
6. FLARES MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR). CURB RETURNS MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR), ALIGNED WITH THE PEDESTRIAN STREET CROSSING, AND PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, POLES, TRASH RECEPTACLES, FENCING, OR RAILING.
7. AT PEDESTRIAN CROSSINGS WITHOUT YIELD OR STOP CONTROL, THE CROSS SLOPE OF LANDINGS, RAMPS, BLENDED TRANSITIONS, AND CLEAR SPACE SHALL BE PERMITTED TO BE 5% MAX. AT THE CURB LINE WITH METRO APPROVAL.
8. SEE KYTC STD DWG RGX-040 FOR DETECTABLE WARNINGS.

LOUISVILLE METRO PUBLIC WORKS	NOT TO SCALE	CURB RAMP TYPE D

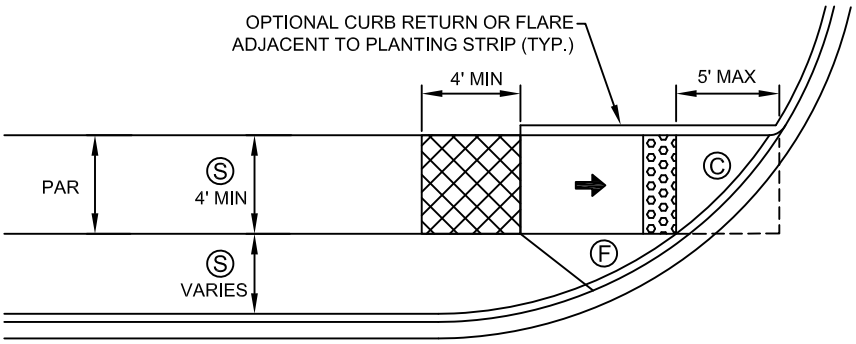
400 STREET PAVING AND APPURTENANCES

STANDARD PLAN NO 425F

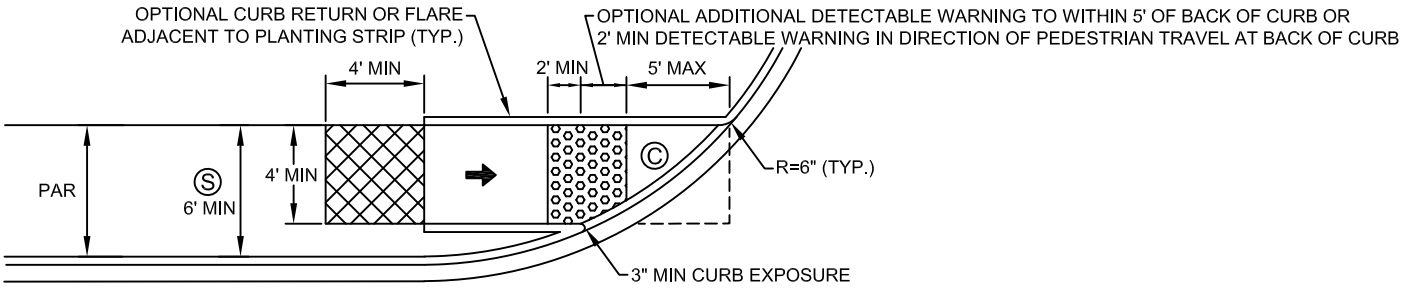
REV DATE: NOV 2018



TYPE F1 - DIRECTIONAL WITH PLANTING STRIP



TYPE F2 - DIRECTIONAL WITH UTILITY STRIP



TYPE F3 - DIRECTIONAL AT BACK OF CURB

RAMP
RUNNING SLOPE 8.3% MAX (7.5% DESIGN)
CROSS SLOPE 2% MAX (1.5% DESIGN)
WIDTH 4' MIN

Ⓢ SIDEWALK
RUNNING SLOPE 5% MAX OR STREET GRADE
CROSS SLOPE 2% MAX (1.5% DESIGN)

Ⓕ FLARE
SLOPE 10% MAX RELATIVE TO CURB LINE

Ⓒ CLEAR SPACE
WIDTH 4' X 4' MIN

LANDING
SLOPE 2% MAX (1.5% DESIGN) ANY DIRECTION
WIDTH 4' X 4' MIN

DETECTABLE WARNING
WIDTH 2' MIN IN DIRECTION OF TRAVEL

PLANTING STRIP

NOTES

1. STANDARD SIDEWALKS, SHARED-USE PATHS, AND RAMPS SHALL BE CONSTRUCTED OF KYTC CLASS A CONCRETE (3,500 PSI COMPRESSIVE STRENGTH IN 28 DAYS AND HAVING A SLUMP BETWEEN 2-IN AND 4-IN). HISTORIC SIDEWALK AND CURB SHALL BE CONSTRUCTED OF HISTORIC MIX CONCRETE. SIDEWALK 4-IN MIN. THICKNESS PLACED OVER DGA 4-IN MIN. THICKNESS PLACED OVER COMPACTED SUBGRADE. DGA MAY BE REPLACED WITH NO. 57 STONE WITH METRO APPROVAL.
2. SIDEWALK, RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL DRAIN TO THE STREET.
3. WHEN THE LANDING IS CONSTRAINED AT THE BACK OF WALK OR ON TWO OR MORE SIDES, PROVIDE 5-FT MIN. LENGTH IN THE DIRECTION OF THE CROSSWALK.
4. CROSSWALK WIDTH SHALL BE AT LEAST THE WIDTH OF THE SIDEWALK AND RAMP OR 6-FT MIN. WIDTH, WHICHEVER IS GREATER.
5. COUNTER SLOPE OF THE GUTTER OR STREET AT THE BOTTOM OF RAMPS, LANDINGS, AND BLENDED TRANSITIONS SHALL BE 5% MAX.
6. CLEAR SPACE TO BE LOCATED OUTSIDE OF A VEHICULAR TRAVEL LANE, CLEAR SPACE MINIMUM WIDTH SHALL MATCH ADJACENT RAMP.
7. FLARES MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR). CURB RETURNS MAY BE USED WHEN LOCATED OUTSIDE OF THE PEDESTRIAN ACCESS ROUTE (PAR), ALIGNED WITH THE PEDESTRIAN STREET CROSSING, AND PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, POLES, TRASH RECEPTACLES, FENCING, OR RAILING.
8. AT PEDESTRIAN CROSSINGS WITHOUT YIELD OR STOP CONTROL, THE CROSS SLOPE OF LANDINGS, RAMPS, BLENDED TRANSITIONS, AND CLEAR SPACE SHALL BE PERMITTED TO BE 5% MAX. AT THE CURB LINE WITH METRO APPROVAL.
9. SEE KYTC STD DWG RGX-040 FOR DETECTABLE WARNINGS.

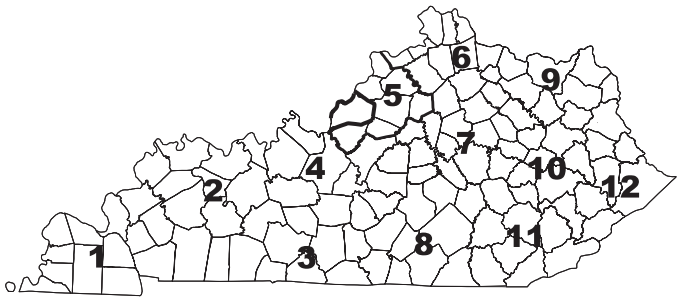
LOUISVILLE METRO PUBLIC WORKS	NOT TO SCALE	CURB RAMP TYPE F

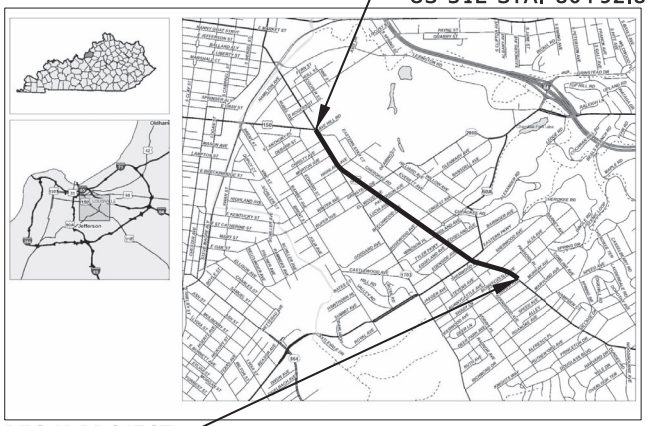
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT
JEFFERSON County

US 31E/150
FD52 056 031 E 014-016

KENTUCKY TRANSPORTATION CABINET





LAYOUT MAP

PRELIMINARY
SUBJECT TO CHANGE

THIS PROJECT IS ON THE NH SYSTEM

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

THESE PLANS ARE FOR MILLING, DRAIN, SURFACING, AND SIGNALS

DESIGN CRITERIA

CLASS OF HIGHWAY	PRINCIPAL ARTERIAL
TYPE OF TERRAIN	LARGE URBANIZED AREA
DESIGN SPEED	35
REQUIRED NPSD	X
REQUIRED PSD	X
LEVEL OF SERVICE	X
ADT PRESENT (2012)	22376
ADT FUTURE (X)	X
DHV	2237.6
D %	X
T %	5.879

GEOGRAPHIC COORDINATES

LATITUDE 38 DEGREES 14 MINUTES 10.06 SECONDS NORTH
LONGITUDE -85 DEGREES 43 MINUTES .615 SECONDS WEST

DESIGNED

% RESTRICTED SD	X
LEVEL OF SERVICE	X
MAX. DISTANCE W/O PASSING	X

INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
R001	LAYOUT SHEET
R002	GENERAL, PAVING, AND TRAFFIC LOOPS SUMMARIES
R003	GENERAL NOTES
R004	LEGEND SHEET
R005	UTILITY OWNERS
R006-R020	PLAN SHEETS
R021	COORDINATE CONTROL
R022	SIDEWALK UNDERDRAIN DETAIL SHEET
R023	PEDESTRIAN SIGNAL DETAIL

STANDARD DRAWINGS

US 31E/150

LENGTH 8094.1 LIN. FT. 1.53 MILES	LENGTH X LIN. FT. X MILES	LENGTH X LIN. FT. X MILES	LENGTH X LIN. FT. X MILES
ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.
NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED
RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.
BRIDGES X LIN. FT.	BRIDGES X LIN. FT.	BRIDGES X LIN. FT.	BRIDGES X LIN. FT.
X	X	X	X
X	X	X	X

PROJECT NUMBER: 05-09030.00

PROJECT DESCRIPTION: ASPHALT RESURFACING WITH INSTALLATION OF CURB EXTENSIONS AND PEDESTRIAN IMPROVEMENTS ALONG US 31E/150

RECOMMENDED BY: KEVIN BAILEY, PE X
PROJECT MANAGER DATE:

PLAN APPROVED BY:
STATE HIGHWAY ENGINEER DATE:

LETTING DATE: 5/26/2022

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON

SHEET NO. R001

GENERAL SUMMARY

ITEM	DESCRIPTION	BID ITEM NOTE*	UNIT	MAINLINE	APPROACH	ENTRANCE	TOTAL PROJECT
1719	ADJUST INLET		EACH	1			1
1720	RECONSTRUCT INLET	1	EACH	2			2
1792	ADJUST MANHOLE		EACH	10			10
1810	STANDARD CURB AND GUTTER	1	LF	24			24
1875	STANDARD HEADER CURB	1	LFT	1107			1107
1904	REMOVE, CURB		LFT	50			50
2200	ROADWAY EXCAVATION	4	CUYD	124			124
2460	REMOVE TREES OR STUMPS		EACH	1			1
2562	TEMPORARY SIGNS		SQFT	790			790
2568	MOBILIZATION		LS	1			1
2569	DEMOBILIZATION		LS	1			1
2650	MAINTAIN & CONTROL TRAFFIC		LS	1			1
2671	PORTABLE CHANGEABLE MESSAGE SIGN		EACH	2			2
2676	MOBILIZATION FOR MILL & TEXT		LS	1			1
2677	ASPHALT PAVE MILLING & TEXTURING		TON	3361			3361
2720	SIDEWALK - 4 IN CONCRETE	1	SQYD	651			651
2726	STAKING		LS	1			1
2775	ARROW PANEL		EACH	4			4
3425	ADJUST WATER VALVE		EACH	15			15
4793	CONDUIT - 1 1/4 IN	2	LF	244			244
4811	ELECTRICAL JUNCTION BOX TYPE B		EACH	10			10
4821	OPEN CUT ROADWAY		LF	244			244
4830	LOOP WIRE		LF	6350			6350
4850	CABLE - NO. 14/1 PAIR		LF	1100			1100
4882	SIGNAL PEDESTAL	3	EACH	3			3
4895	LOOP SAW SLOT AND FILL		LF	2530			2530
5952	TEMP MULCH		SQYD	282			282
6600	REMOVE PAVEMENT MARKER TYPE V		EACH	300			300
10020NS	FUEL ADJUSTMENT		DOLL	5520			5520
10030NS	ASPHALT ADJUSTMENT		DOLL	13863			13863
20071EC	JOINT ADHESIVE		LF	26000			26000
20550ND	SAW CUT		LFT	1138			1138
23158ES	DETECTABLE WARNINGS		SQFT	482			482
23158ES	DETECTABLE WARNINGS - RETROFIT		SQFT	122			122
23235EC	INSTALL PEDESTAL POST	5	EACH	1			1
23807EC	REMOVE, SIDEWALK, CONCRETE	4	LFT	65			65
24890EC	SIDEWALK-8 IN CONCRETE	1	SQYD	14			14
24963ED	LOOP TEST		EACH	19			19
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING		TON	17			17
25071ED	SIDEWALK UNDERDRAIN	6	EACH	46			46

BID ITEM NOTES

1. 1720, 1810, 1875, 2720, 24890EC, 25071ED - HISTORIC CONCRETE MIX
   PROVIDE A CLASS A CONCRETE MIX CONFORMING TO KENTUCKY STANDARD SPECIFICATION SECTION 601 WITH THE FOLLOWING EXCEPTIONS:
   -APPROVED COARSE AGGREGATE SHALL BE #8 OR #9M RIVER GRAVEL. THE COARSE AGGREGATE SHALL BE AT LEAST 50% OF THE TOTAL AGGREGATE IN THE MIX WITH RIVER SAND BEING THE FINE AGGREGATE.
   -ACHIEVE A "HISTORIC" WEATHERED FINISH BY USE OF A WATER BASE PIGMENTED, TOP SURFACE RETARDER RESULTING IN A SURFACE DEPTH ETCH OF UP TO 1/8 INCH. APPLY AND REMOVE THE SURFACE RETARDER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   -PLACEMENT AND REMOVAL OF THE SURFACE RETARDER SHALL BE CONSIDERED INCIDENTAL TO THE PLACED CONCRETE.
2. 4793 - INCLUDE PULL STRINGS AND CAP ALL ENDS.
3. 4882 - PROVIDE TEMPORARY CAP AT TOP OF POST TO PREVENT WATER INTRUSION. WIRING, FUSES, DETECTORS, SIGNS, AND SIGNALS WILL BE INSTALLED BY OTHERS. IF FOUNDATION OR POLE TRANSFORMER BASE DIAMETER IS GREATER THAN 2', COORDINATE RELOCATION WITH ENGINEER.
4. 40024, 23807EC - WHEN SPECIFIED FOR TREE PLANTERS, REMOVAL IS ESTIMATED AT 40 SQFT PER LOCATION, AND PAY IS BASED ON MEASUREMENT APPROVED BY ENGINEER. DO NOT DAMAGE ADJACENT SIDEWALK SLABS. SUPPORT ANY SLABS THAT ARE LEFT UNSUPPORTED WITH ENGINEER APPROVAL.
5. 23235EC - WIRING, FUSES, DETECTOR, AND SIGN WILL BE INSTALLED BY OTHERS. IF FOUNDATION OR POLE TRANSFORMER BASE DIAMETER IS GREATER THAN 15", COORDINATE RELOCATION WITH ENGINEER.
6. 25071ED - DESIGN BASED ON NEENAH R-4994-HB TYPE 'S' FRAME. SUBSTITUTION OF PRODUCT MUST BE APPROVED BY ENGINEER.

PAVING SUMMARY

ITEM CODE	ITEM	UNIT	MAINLINE	SECONDARY	ENTRANCES	APPROACHES	TEMPORARY	TOTAL PROJECT
324	CL3 ASPH SURF 0.50B PG64-22	TON	3361					3361
190	LEVELING & WEDGING PG64-22	TON	168					168

PAVING AREA

ITEM		MAINLINE	SECONDARY	ENTRANCES	APPROACHES	TEMPORARY	TOTALS
		SQUARE YARDS					
324	CL3 ASPH SURF 0.50B PG64-22	40,743					40743
23019EN	ASPHALT MILLING AND TEXTURING	40,743					40743

MILL DEPTH IS 1.5" AVERAGE AND SURFACING DEPTH IS 1.5" AVERAGE OF CL3 ASPH SURF 0.38B, PG 64-22. CONSIDER THESE DIMENSIONS FOR PAVEMENT THICKNESSES TO BE NOMINAL OR TYPICAL DIMENSIONS. IN ADDITION TO LEVELING AND WEDGING, THE ENGINEER MAY DIRECT OR APPROVE VARYING THE ACTUAL DIMENSIONS TO BE CONSTRUCTED TO FIT EXISTING CONDITIONS.

TRAFFIC LOOPS SUMMARY

STA.	INTERSECTION	APPROACHES	NO. OF LOOPS	LOOP WIRE	SAW SLOT & FILL	CONDUIT 1 1/4 INCH	OPEN CUT	CABLE 14/1 PAIR	JUNCTION BOX TYPE-B	REMOVE & REPLACE SIDEWALK	LOOP TEST
			EACH	LF	LF	LF	LF	LF	EACH	SQYD	EACH
14+68	EASTERN PARKWAY	NB/SB LEFTS	2	675	270	10	10	250	1	3	2
36+22	LONGEST AVENUE	SB LEFT & SS	2	700	280	10	10	175	1		2
39+46	MID CITY MALL ENTRANCE	NB LEFT	1	350	140	10	10	150	1	3	1
55+52	GRINSTEAD DRIVE	NB/SB LEFTS & SS	6	1900	750	20	20	350	2	5	6
67+10	BAXTER AVENUE/ HIGHLAND AVENUE	NB/SB LEFTS & SS	6	2000	800	10	10	175	1	4	6
81+00	BROADWAY/ CHEROKEE ROAD	NB LEFT/THRU	2	725	290						2
TOTALS			19	6350	2530	60	60	1100	6	15	19

TRAFFIC LOOPS SUMMARY NOTES:

1. *SEE SPECIAL NOTE FOR TRAFFIC SIGNAL LOOP DETECTORS FOR ADDITIONAL INFORMATION.*
2. *COORDINATE SIGNAL LOOP LOCATIONS WITH THE PROJECT ENGINEER & DISTRICT 5 TRAFFIC*
3. *QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY AND ARE ALSO INCLUDED IN THE ADJACENT GENERAL SUMMARY TABLE. FIELD MEASURE AND INSPECT ITEMS TO VERIFY QUANTITIES.*
4. *TWO, 1 1/4-INCH CONDUITS MAY BE USED IN LIEU OF A 2-INCH CONDUIT. FIELD VERIFY CONDUIT TO MATCH EXISTING FACILITIES TO TIE-IN TO POLES OR CABINETS.*
5. *ONLY REPLACE EXISTING CONDUIT IF MISSING AND/OR DAMAGED.*
6. *INSTALL NEW LEFT TURN LOOPS & JUNCTION BOXES AS DIRECTED BY D5 TRAFFIC &/OR LOUISVILLE METRO ELECTRICAL. SPLICE LOOP WIRE TO NEW 14/1 PAIR CABLE AND RUN 14/1 PAIR TO THE CABINET. COIL 3' OF 14/1 PAIR CABLE IN THE CABINET AND LABEL ALL WIRES*

GENERAL NOTES

1. REPAIR BROKEN HEADER CURB ADJACENT TO PROPOSED CURB AND GUTTER. PAYMENT WILL BE THROUGH ITEMS 1875 AND 1904 WITH ENGINEER'S APPROVAL.

2. ENSURE THERE IS NO PONDING AT PROPOSED PED RAMPS.

3. THE TYPICAL SECTION IS A 40' PAVEMENT WIDTH BETWEEN THE EXISTING CURBS WITH ONE 10' LANE, ONE 2' BUFFER, AND ONE 8' WIDE PARALLEL PARKING SPACE IN EACH DIRECTION. CONSIDER THESE DIMENSIONS TO BE NOMINAL OR TYPICAL DIMENSIONS. THE ENGINEER MAY DIRECT OR APPROVE VARYING THE ACTUAL DIMENSIONS TO BE CONSTRUCTED TO FIT EXISTING CONDITIONS. DO NOT WIDEN EXISTING PAVEMENT OR SHOULDERS UNLESS SPECIFIED ELSEWHERE IN THE PLANS OR DIRECTED BY THE ENGINEER.

4. COORDINATE WITH ENGINEER BEFORE PLACING TEMPORARY MULCH AT THE CURB EXTENSIONS AS A DIFFERENT FILL MATERIAL MAY BE SPECIFIED.

5. KEEP PROPOSED MIDBLOCK AND SIGNALIZED CROSSWALKS CLOSED PER KYTC AND MUTCD TRAFFIC CONTROL STANDARDS UNTIL DIRECTED BY KYTC TO OPEN THEM.

6. DATES THAT LANE CLOSURES ARE NOT PERMITTED INCLUDE BUT ARE NOT LIMITED TO:
BIKEAPALOOZA, INDEPENDENCE DAY WEEKEND (7/2/22–7/4/22), LABOR DAY WEEKEND (7/2/22–7/5/22), CycLOUvia (9/30/22–10/2/22), THANKSGIVING WEEKEND (11/23/22–11/27/22), CHRISTMAS WEEKEND (12/23/22–12/26/22), NEW YEARS WEEKEND (12/30/22–1/2/23), EASTER WEEKEND (4/7/23–4/9/23), THUNDER OVER LOUISVILLE (4/21/23–4/23/23), AND KENTUCKY DERBY WEEKS (4/24/23–5/7/23).

7. CONSTRUCTION HOURS AND RESTRICTIONS FOR THE PROJECT INCLUDE BUT ARE NOT LIMITED TO:
- LANE CLOSURES & MOBILE OPERATIONS ARE PERMITTED SUNDAY THROUGH THURSDAY NIGHTS FROM 8 PM – 5 AM.
- PERFORM ALL MILLING AND RESURFACING ACTIVITIES AT NIGHT. OBTAIN ENGINEER'S APPROVAL OF THE LIGHTING METHOD PRIOR TO PERFORMING NIGHT WORK.
- NON-MILLING AND RESURFACING ACTIVITIES MAY OCCUR DURING ALL DAYLIGHT HOURS IF CONTAINED WITHIN AN EXISTING PARKING LANE.
- THE ENGINEER MAY PERMIT OPERATIONS THAT CAUSE MINOR DISRUPTION TO TRAFFIC BETWEEN THE HOURS OF 9 AM TO 3 PM.

8. SEE THE TRAFFIC CONTROL PLAN DOCUMENT INCLUDED IN THE CONTRACT DOCUMENTS FOR ADDITIONAL LANE CLOSURE AND TRAFFIC CONTROL DETAILS.

9. KYTC RESURFACING PROJECT, CONTRACT 22-2080 IS ADJACENT TO THIS PROJECT. CONTRACT 22-2080 WILL START AT THE NORTHERN LIMIT AT APPROXIMATELY MILEPOINT 15.9.
LMPW HAS APPLIED FOR A PERMIT TO CONSTRUCT CURB EXTENSTIONS AND PEDESTRIAN RAMP IMPROVEMENTS WITHIN THE PROJECT LIMITS. THE ANTICIPATED WORK IS SHOWN AS FOR INFORMATION ONLY WITHIN THIS PLAN SET. THE SHOWN LMPW WORK SHOULD BE COMPLETED BEFORE THIS PROJECT BEGINS CONSTRUCTION.
COORDINATION WILL BE REQUIRED BETWEEN THESE THREE PROJECTS AND MINOR, TEMPORARY STRIPING MAY NEED TO BE INSTALLED BASED ON THE SEQUENCE OF THE RESURFACING. INFORM THE ENGINEER AS SOON AS PRACTICAL OF THE ANTICIPATED RESURFACING SCHEDULE TO PREVENT ANY CONFLICTS. THE ENGINEER WILL HELP COORDINATE THE WORK OF ANY OTHER CONTRACTORS OR PERMIT HOLDERS WITHIN THE LIMITS OF THIS PROJECT. SEE SECTIONS 105.06, 107.06 AND 107.14 OF THE STANDARD SPECIFICATIONS.
LMPW HAS APPLIED FOR A PERMIT TO CONSTRUCT CURB EXTENSTIONS AND PEDESTRIAN RAMP IMPROVEMENTS WITHIN THE PROJECT LIMITS.

SPECIAL NOTES FOR STAKING

PERFORM CONTRACTOR STAKING ACCORDING TO SECTION 201; EXCEPT, IN ADDITION TO THE REQUIREMENTS OF SECTION 201, PERFORM THE FOLLOWING:

1. CONTRARY TO SECTION 201.03.01, PERFORM ITEMS 1 & 2 USUALLY PERFORMED BY THE ENGINEER.

2. USING PAINT MARKS ON THE PAVEMENT, AND/OR ANY OTHER MEANS APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL LAYOUT AND PRE-MARK THE PROPOSED STRIPING, PAVEMENT MARKINGS, ETC. ADJUST AS NECESSARY TO ACCOMMODATE THE EXISTING SITE CONDITIONS AND TO PROVIDE PROPER ALIGNMENT OF THE PROPOSED THRU AND TURNING LANES. OBTAIN APPROVAL OF THE PRE-MARKED LAYOUT FROM THE ENGINEER AND/OR DISTRICT TRAFFIC ENGINEER PRIOR TO INSTALLING THE STRIPING AND/OR PAVEMENT MARKINGS.

3. AFTER STAKING OUT THE PROPOSED WORK AND/OR LAYING OUT THE PROPOSED STRIPING, DETERMINE IF THERE ARE ANY EXISTING SIGNS THAT REQUIRE REMOVAL AND/OR RELOCATION. PROVIDE THE DISTRICT TRAFFIC ENGINEER WITH 2 WEEKS OF NOTICE WHEN A ROUTE WILL BE READY FOR A REVIEW OF THE STAKED LOCATIONS.

4. PRIOR TO INCORPORATING INTO THE WORK, OBTAIN THE ENGINEERS APPROVAL OF ALL REVISIONS DETERMINED BY THE CONTRACTOR.

5. PERFORM ANY AND ALL OTHER STAKING OPERATIONS REQUIRED TO CONTROL AND CONSTRUCT THE WORK.

Corporate Limits
County Line
Easement
Fence COA
Mineral Parcel
Property Line
Right of Way Line
All Overhead Utility Lines
Electric Line Underground
Electric Line Underground Duct
Gas Main
Sanitary Force Main
Telephone Underground Cable
Telephone Underground Duct
Fiber Optic Cable
Television Line Underground
Water Main
Storm Sewer
Cable Guardrail
Ditch
Edge of Water
Fence Hedge
Fence
Flow Line/Thalweg/ Int. Stream or Ditch
Guardrail
Railroad
Shrub Line
Sink Hole
Tree Line
Wall (WSM or DSM)
Blue Line Stream
Lakes and Ponds
Regulated Floodway
RDZ Line

ADA Ramp
Anchor Pole
Benchmark
Bike Lane Symbol
Bollard
Centerline
Centerline Stationing
Control Monument
Control Point
Core Hole
Crash Cushion TY 6 D
Crash Cushion TY 6 A
Crash Cushion TY 9A
Crash Cushion TY 9
Cross Notch
Curb Box Inlet
Curb Notch
Combination Pole
Delineator Post
Drop Box
Existing Spring
Electric Manhole
Electric Meter
Electric Pedestal
Electric Pole
Electric Junction Box
Fire Hydrant
Flag Pole
Force Main Sewer Valve
Fuel Tank Inlet
Fuel Tank Vent
Gasline Marker
Gas Meter
Gas Monitoring Well
Gas Valve
Gas Vent
Gas Well
Guidewires & Anchors

Headstone
Interstate Shield
Iron Pin
Light Pole
Low Wire
Mag Nail
Mailbox
Manhole
Mile Marker Post
Mineral Parcel
Misc Location Point
Monitoring Well
Parking Meter
Pedestrian Signal
Pins/Pipes
PK Nail
Point (Misc)
Pole
Pole (Light)
Post
Power Pole
Quarry
Random (Ground Shot)
Railroad Mile Marker
Railroad Spike
Right of Way Marker
Right of Way Monument
RR Traffic Signal Pole
RW Parcel
Sanitary Cleanout
Sanitary Manhole
Satellite Dish
Septic Tank Cleanout
Service Pole
Sewer Air Release Valve
Shrub
Sign
Sign Post (Single)
Sign with 2 posts
(By Others)

Sign group (4)
Station Stamp
Storm Manhole
Stub Power
Stub Telephone
Survey Cross Notch
Survey Curb Notch
Survey Nail
Survey Spike
Survey Stone Marker
Swamp
Telephone Booth
Telephone Junction Box
Telephone Line Overhead
Telephone Manhole
Telephone Pedestal
Telephone Pole
Temporary Benchmark
Traffic Light
Traffic Signal Control Box
Traffic Signal Junction Box
Traffic Signal Pole
Traverse Point
Tree
TV Junction Box
Utility Pole
Underground Storage Tank
Utility Test Hole
Water Line Marker
Water Meter
Water Spigot
Water Valve
Water Well
Yard Light
Yard Sprinkler
Yard Sprinkler Water Valve

BASE MOUNTED CONTROLLER
POLE MOUNTED CONTROLLER
STEEL STRAIN POLE
WOOD POLE
PEDESTAL POLE
JUNCTION BOXES TYPES A, B, & C (AS DESIGNATED)
PEDESTRIAN DETECTOR
SIGNAL HEAD
PEDESTRIAN HEAD
SCHOOL FLASHER OR 5 SECTION
LOOP DETECTOR
1¼" SCHEDULE 80 PVC CONDUIT (UNLESS OTHERWISE NOTED)

SHADING

MILLING AND RESURFACING
SIDEWALK/ASPHALT REMOVAL FOR TREE WELLS
PROPOSED SIDEWALK
TEMPORARY MULCH (OR OTHER FILL PER ENGINEER'S DIRECTION)

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

LEGEND SHEET

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R004

OpenRoads Designer v10.16.0.80 USER: andrew.perez DATE PLOTTED: 9/7/2005 7:08:02 PM FILE NAME: C:\PWWORK\KYTC_ANDREW.PEREZ\D1969080\05_09030_00_LEGEND.DGN

UTILITY OWNERS

CABLE:

CHARTER COMMUNICATIONS
10168 LINN STATION ROAD, SUITE 120
LOUISVILLE, KY 40223
CONTACT: MICHAEL YORK
CELL: 502-548-1632
EMAIL: MICHAEL.YORK@CHARTER.COM

GAS:

LG&E
820 WEST BROADWAY
LOUISVILLE, KY 40202
GAS EMERGENCY NUMBER: 502-589-5511
LG&E AND KU EMERGENCY NUMBER: 1-800-331-7370
CONTACT: CAROLINE JUSTICE
OFFICE: 502-627-3708
EMAIL: CAROLINE.JUSTICE@LGE-KU.COM

TELEPHONE:

VERIZON
2421 HOLLOWAY ROAD
LOUISVILLE, KY 40299
CONTACT: RONNIE KUERZI
CELL: 502-780-2748
EMAIL: RONALD.KUERZI@VERIZON.COM

ELECTRIC:

LG&E KU
820 WEST BROADWAY
LOUISVILLE, KY 40202
LG&E EMERGENCY NUMBER: 502-589-5511
LG&E AND KU EMERGENCY NUMBER: 1-800-331-7370
CONTACT: CAROLINE JUSTICE
OFFICE: 502-627-3708
EMAIL: CAROLINE.JUSTICE@LGE-KU.COM

SEWER:

METROPOLITAN SEWER DISTRICT
700 WEST LIBERTY STREET
LOUISVILLE, KY 40203-1911
CONTACT: BRANDON FLAHERTY
OFFICE: 502-540-6632
CELL: 502-381-0804
EMAIL: BRANDON.FLAHERTY@LOUISVILLEMSD.ORG

WATER:

LOUISVILLE WATER COMPANY
550 SOUTH THIRD STREET
LOUISVILLE, KY 40202
CONTACT: PAT HOWARD, PE
OFFICE: 502-569-3615
CELL: 502-287-7568
EMAIL: PHOWARD@LWCKY.COM

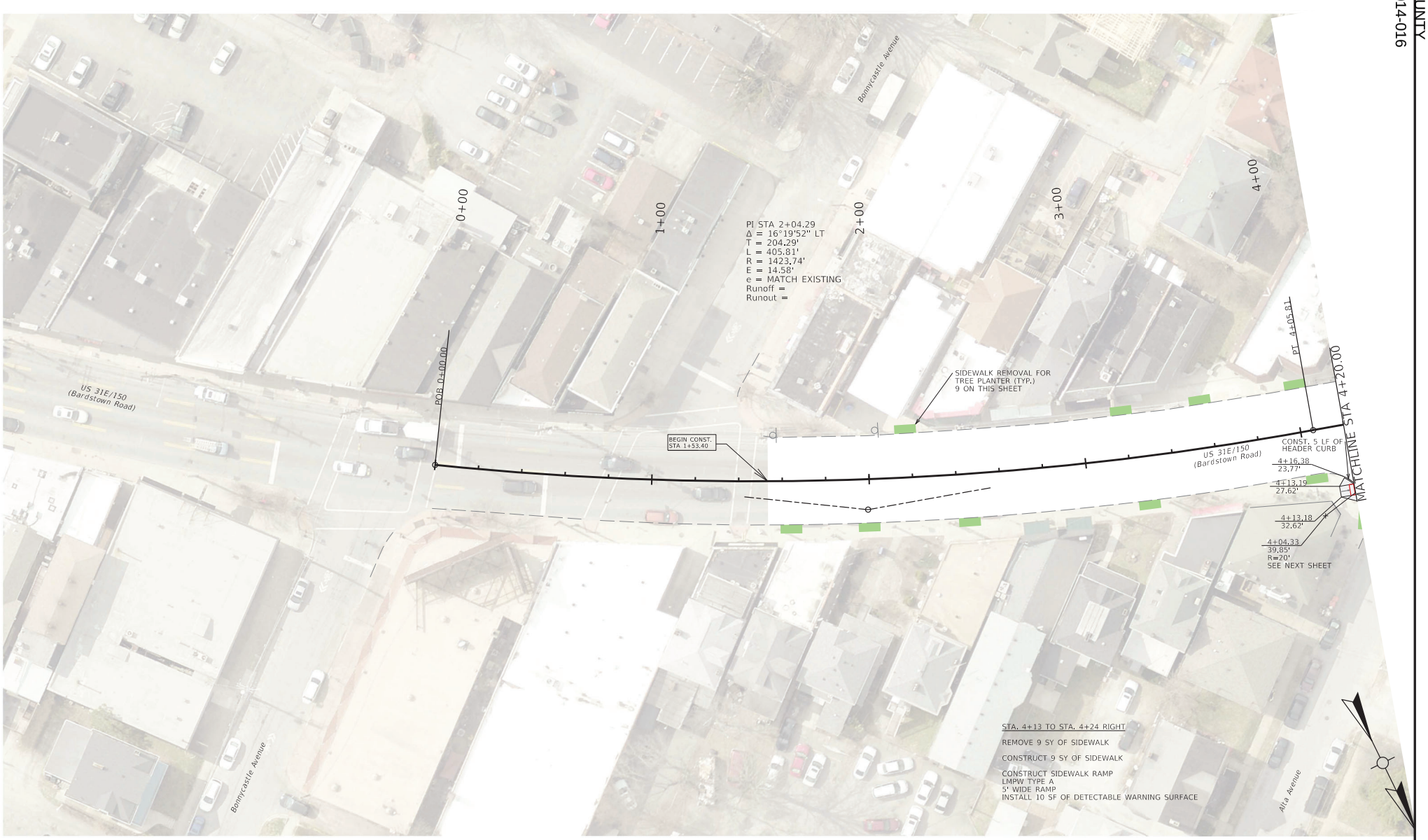
FIBER OPTIC:

AT&T LEGACY
7555 EAST PLEASANT VALLEY ROAD, SUITE 140
INDEPENDENCE, OH 44131
CONTACT: DON GARR
CELL: 502-741-8374
EMAIL: DONGARR@OUTLOOK.COM

CROWN CASTLE FIBER
3310 RUCKREIGEL PARKWAY
JEFFERSONTOWN, KY 40299
CONTACT: LISA CLARK
CELL: 810-223-3780
EMAIL: LISA.CLARK@CROWNCASTLE.COM

LUMEN TECHNOLOGIES
11857 COMMONWEALTH DRIVE
LOUISVILLE, KY 40299
CONTACT: TIM SEWELL
EMAIL: TIM.SEWELL@LUMEN.COM
OFFICE: 502-389-4812
CELL: 502-295-0940
CONTACT: RICHARD COMPTON
EMAIL: RICHARD.COMPTON@LUMEN.COM

WINDSTREAM
111 SOUTH MAIN STREET
ELIZABETHTOWN, KY 42701
CONTACT: JAMES GALVIN
OFFICE: 270-748-9249
EMAIL: JAMES.GALVIN@WINDSTREAM.COM



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA. 0+00 TO STA. 4+20

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R006

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLAN SHEET

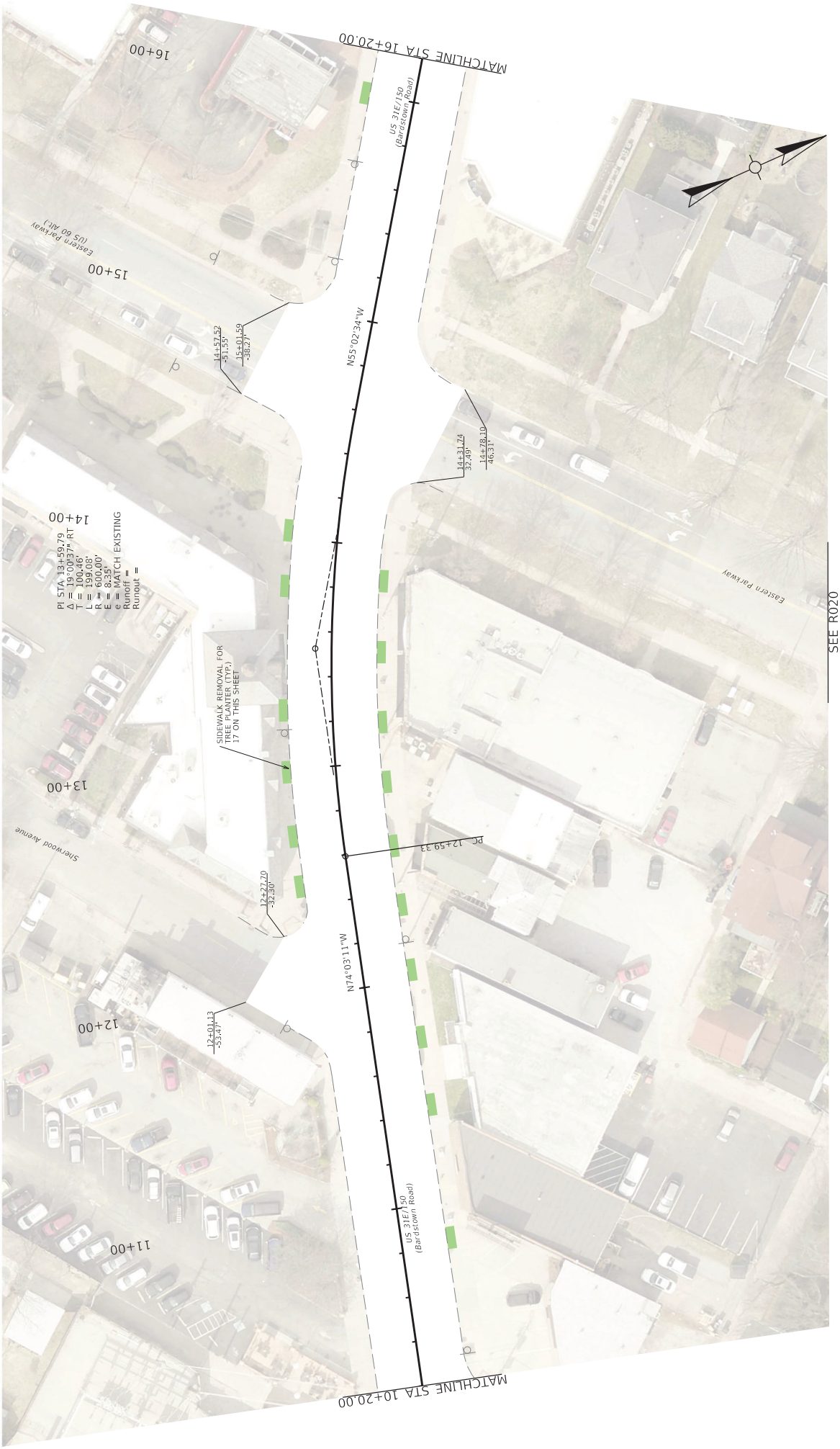
HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA. 4+20 TO STA. 10+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON

SHEET NO. R007



ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R008

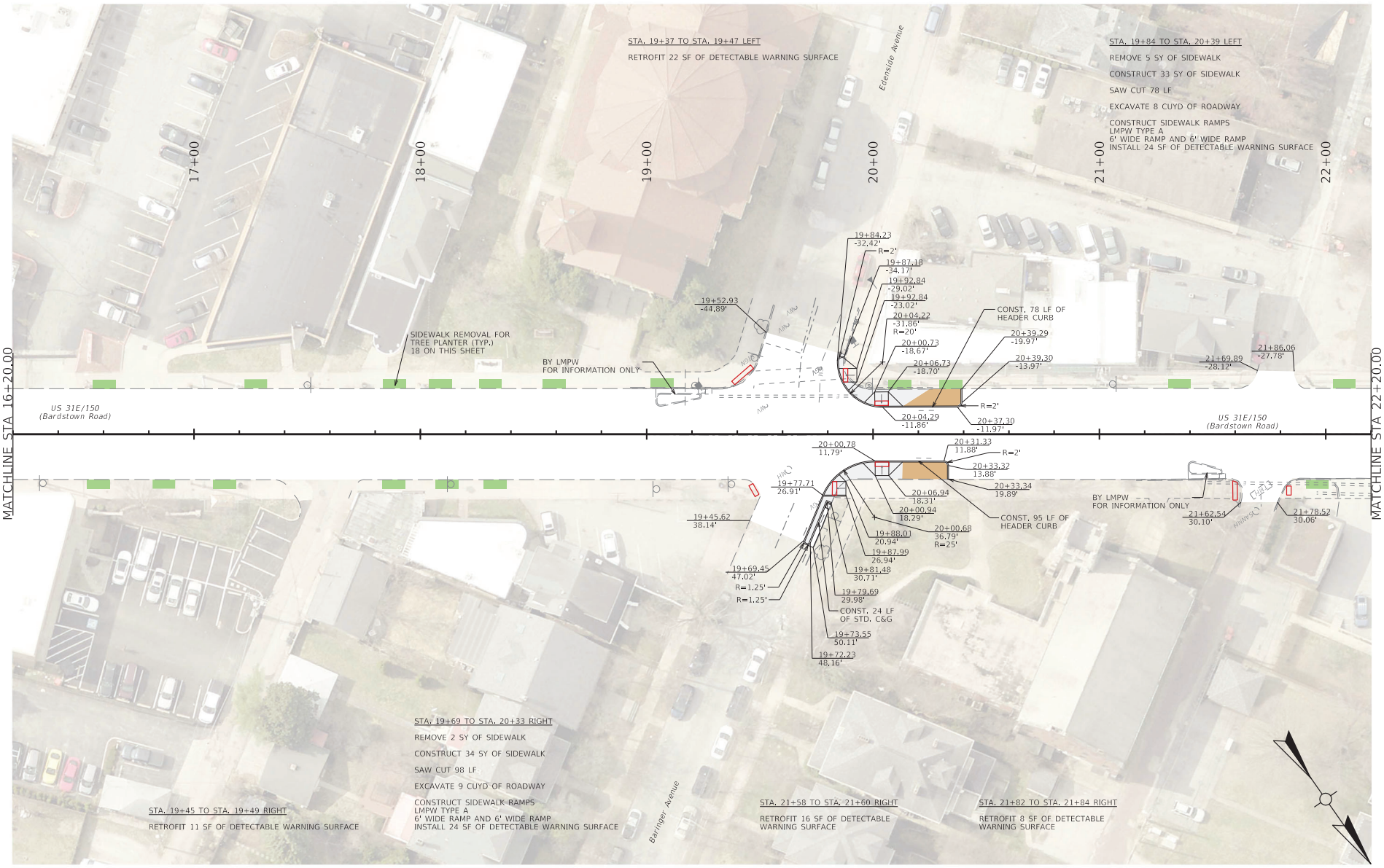
STA. 10+20 TO STA. 16+20

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

PLAN SHEET

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

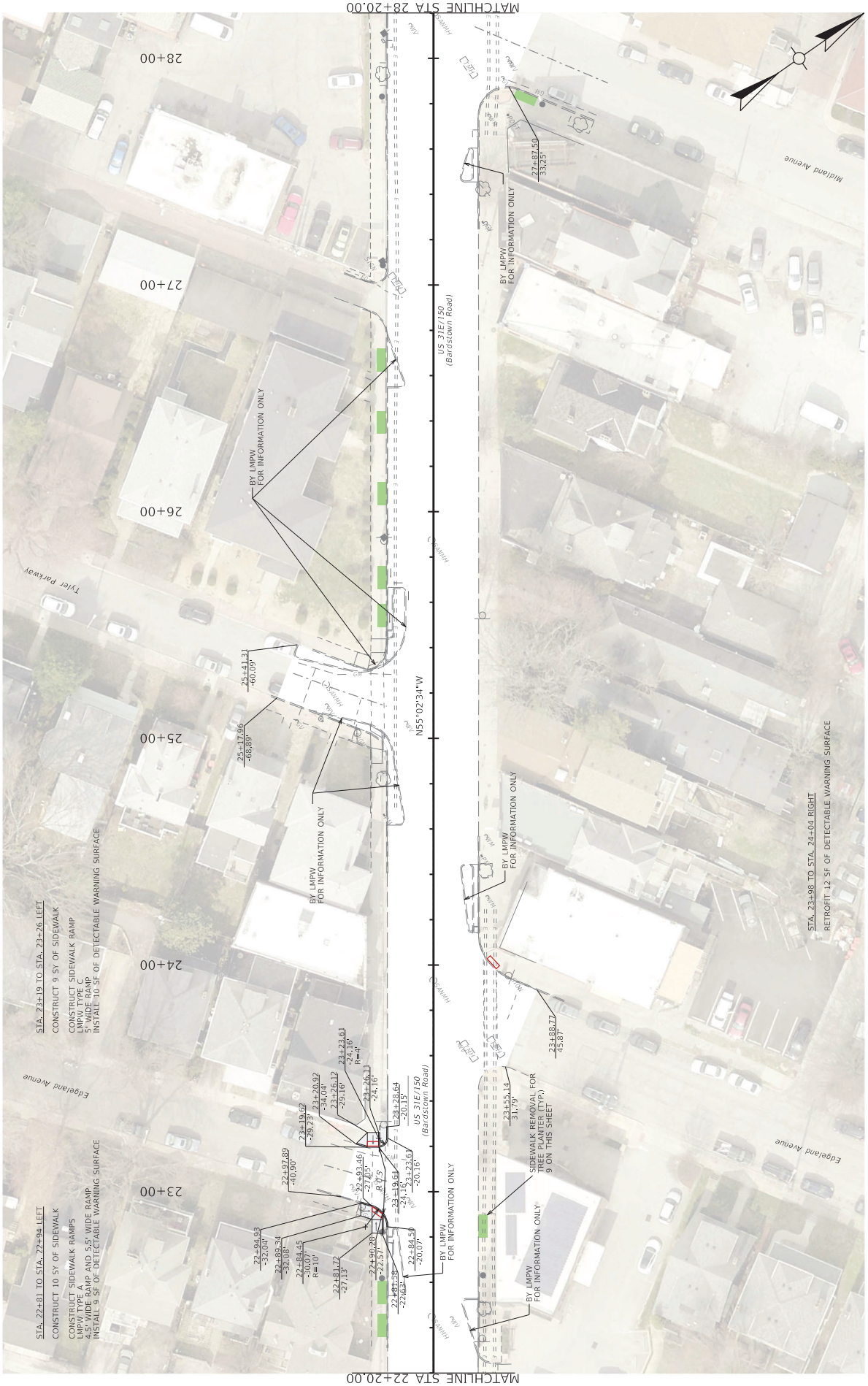
PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

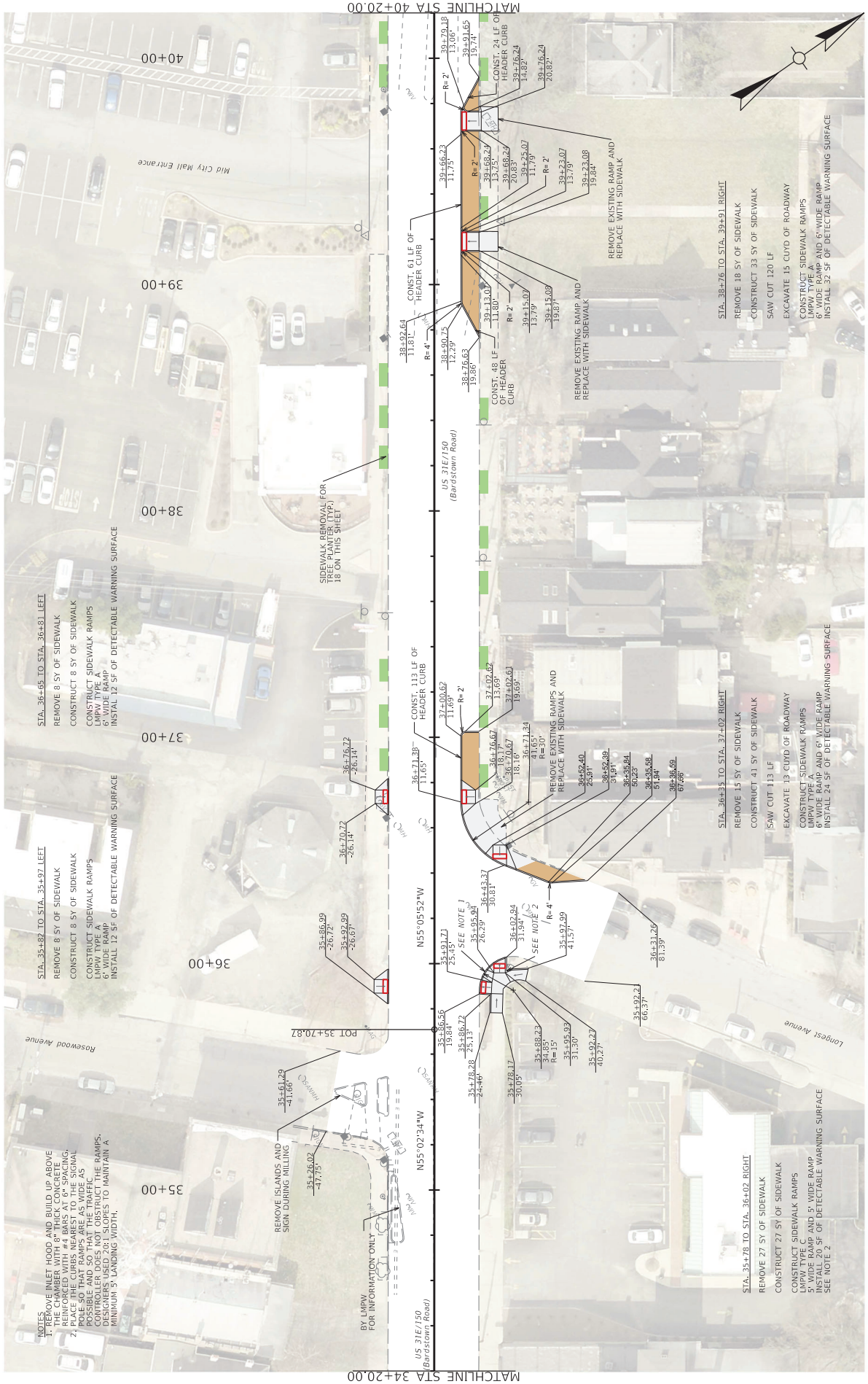
0' 20' 40' 80'

STA. 16+20 TO STA. 22+20

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R009


MATCHLINE STA 22+20.00
MATCHLINE STA 28+20.00
22+00
23+00
24+00
25+00
26+00
27+00
28+00
N55°02'34"W
US 31E/150 (Bardstown Road)
Edgeland Avenue
Tyler Parkway
Midland Avenue
STA. 22+81 TO STA. 22+94 LEFT
CONSTRUCT 10 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMPS
LMPW TYPE A
4.5' WIDE RAMP AND 5.5' WIDE RAMP
INSTALL 9 SF OF DETECTABLE WARNING SURFACE
STA. 23+19 TO STA. 23+26 LEFT
CONSTRUCT 9 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMP
LMPW TYPE C
5' WIDE RAMP
INSTALL 10 SF OF DETECTABLE WARNING SURFACE
STA. 23+98 TO STA. 24+04 RIGHT
RETROFIT 12 SF OF DETECTABLE WARNING SURFACE
BY LMPW FOR INFORMATION ONLY
SIDEWALK REMOVAL FOR TREE PLANTER (TYP.) 9 ON THIS SHEET
22+94.93 -32.04'
22+89.34 -32.08'
22+84.45 -30.07' R=10'
22+81.72 -27.13'
22+99.46 -27.05' R=5'
22+97.89 -40.90'
23+19.62 -29.73'
23+20.92 -34.04'
23+26.12 -29.16'
23+23.61 -24.16' R=4'
23+26.1 -24.16'
23+28.64 -20.15'
23+19.61 -24.16'
23+23.61 -20.16'
22+84.50 -20.07'
22+90.29 -22.53'
22+88.58 -22.63'
25+41.31 -60.09'
25+17.96 -60.89'
23+55.14 31.79'
23+88.77 45.87'
27+87.50 33.25'
HORIZONTAL SCALE SCALE: 1" = 20'
0' 20' 40' 80'
ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R010
STA. 22+20 TO STA. 28+20
PLAN SHEET
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS


MATCHLINE STA 34+20.00
MATCHLINE STA 28+20.00
34+00
33+00
32+00
31+00
30+00
29+00
US 31E/150 (Bardstown Road)
Cherokee Parkway
Midland Avenue
Windsor Place
STA. 30+66 TO STA. 30+76 LEFT
REMOVE 8 SY OF SIDEWALK
CONSTRUCT 8 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMP
LMPW TYPE F3
(6' WIDE RAMP)
INSTALL 12 SF OF DETECTABLE WARNING SURFACE
STA. 30+90 TO STA. 30+95 LEFT
RETROFIT 12 SF OF DETECTABLE WARNING SURFACE
SIDEWALK REMOVAL FOR TREE PLANTER (YP), 2 ON THIS SHEET
BY LMPW FOR INFORMATION ONLY
30+76.62 -28.59'
30+69.35 -27.54' R=7'
30+66.86 -28.56'
30+66.88 -22.08'
30+66.88 -20.57'
30+69.22 -20.54'
30+76.25 -26.39'
30+76.99 -30.65'
30+90.11 -30.78'
30+63.37 48.08'
30+28.27 33.25'
28+21.03 48.21'
28+89.51 -86.90'
29+22.83 -73.88'
0' 20' 40' 80'
HORIZONTAL SCALE
SCALE: 1" = 20'
PLAN SHEET
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R011
STA. 28+20 TO STA. 34+20

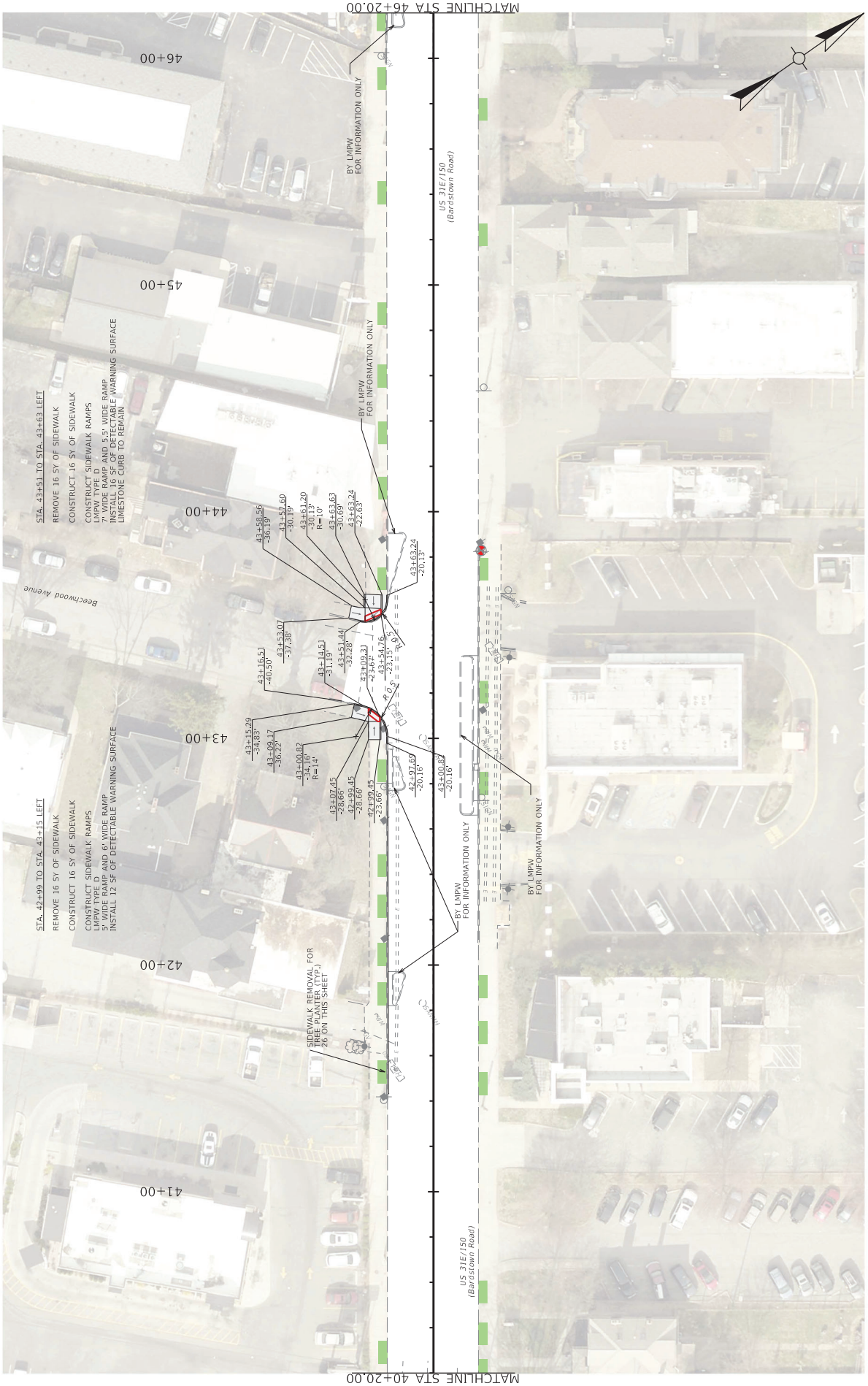


COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLAN SHEET

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R012

STA. 34+20 TO STA. 40+20



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

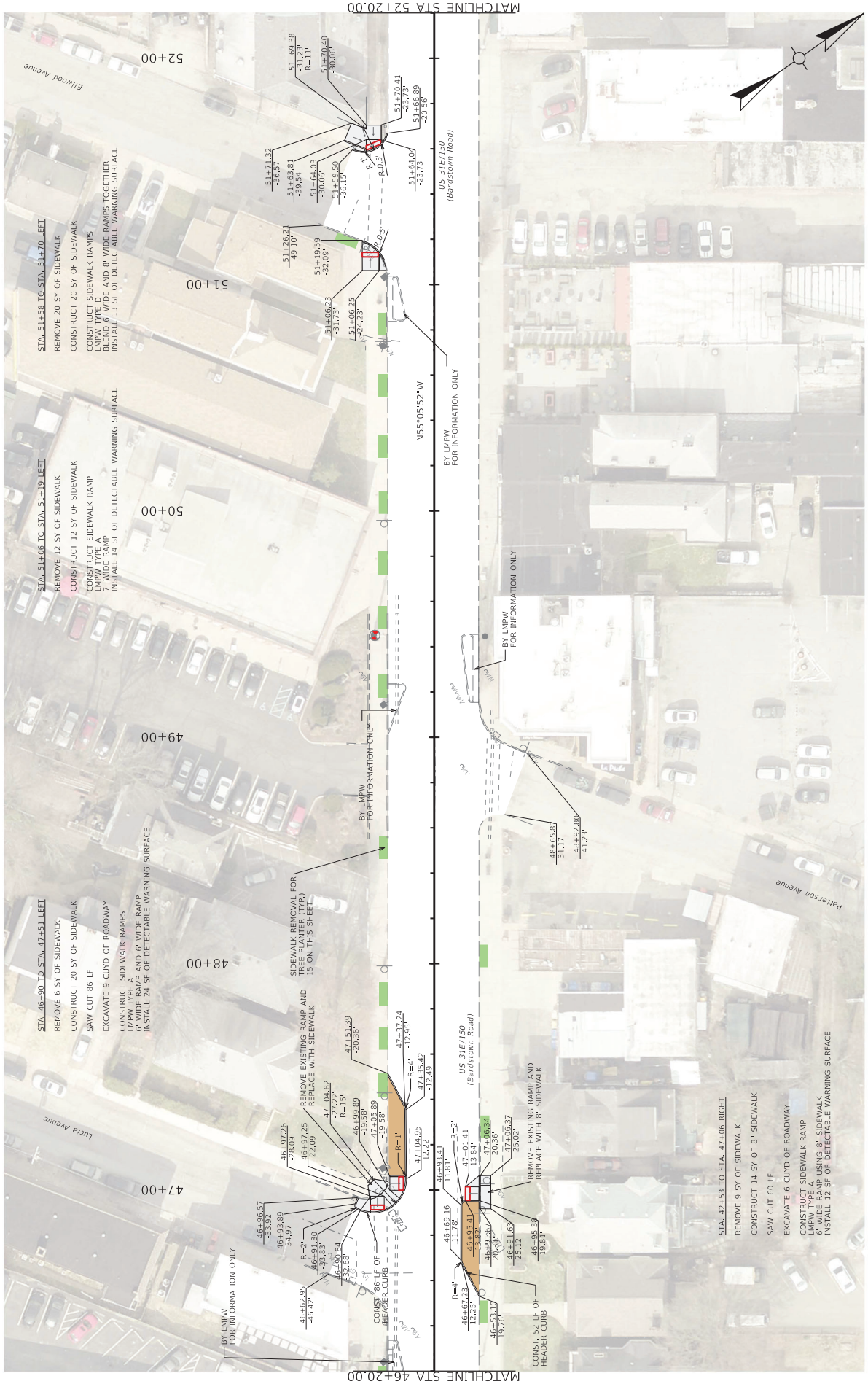
PLAN SHEET

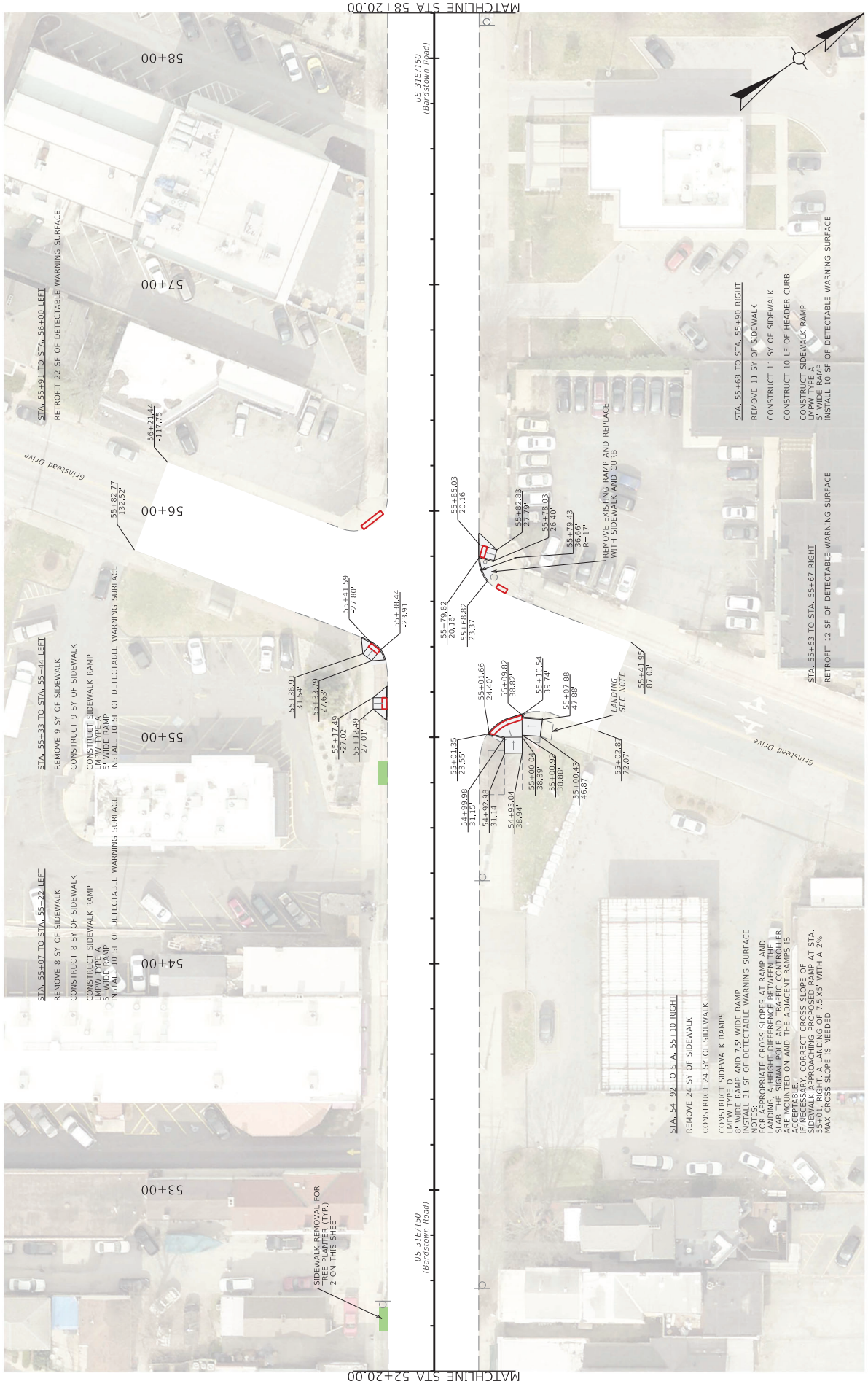
HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA. 40+20 TO STA. 46+20

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R013


MATCHLINE STA 46+20.00
MATCHLINE STA 52+20.00
46+00
47+00
48+00
49+00
50+00
51+00
52+00
Lucia Avenue
Elwood Avenue
Patterson Avenue
US 31E/150 (Bardstown Road)
N55°05'52"W
BY LMPW FOR INFORMATION ONLY
SIDEWALK REMOVAL FOR TREE PLANTER (TYP.) IS ON THIS SHEET
REMOVE EXISTING RAMP AND REPLACE WITH SIDEWALK
REMOVE EXISTING RAMP AND REPLACE WITH 8" SIDEWALK
CONST. 86' LF OF HEADER CURB
CONST. 52' LF OF HEADER CURB
STA. 46+90 TO STA. 47+51 LEFT
REMOVE 6 SY OF SIDEWALK
CONSTRUCT 20 SY OF SIDEWALK
SAW CUT 86 LF
EXCAVATE 9 CUYD OF ROADWAY
CONSTRUCT SIDEWALK RAMPS
LMPW TYPE A
6' WIDE RAMP AND 6' WIDE RAMP
INSTALL 24 SF OF DETECTABLE WARNING SURFACE
STA. 51+06 TO STA. 51+19 LEFT
REMOVE 12 SY OF SIDEWALK
CONSTRUCT 12 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMP
LMPW TYPE A
7' WIDE RAMP
INSTALL 14 SF OF DETECTABLE WARNING SURFACE
STA. 51+58 TO STA. 51+70 LEFT
REMOVE 20 SY OF SIDEWALK
CONSTRUCT 20 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMPS
LMPW TYPE A
BLEND 5' WIDE AND 8' WIDE RAMPS TOGETHER
INSTALL 13 SF OF DETECTABLE WARNING SURFACE
STA. 42+53 TO STA. 47+06 RIGHT
REMOVE 9 SY OF SIDEWALK
CONSTRUCT 14 SY OF 8" SIDEWALK
SAW CUT 60 LF
EXCAVATE 6 CUYD OF ROADWAY
CONSTRUCT SIDEWALK RAMP
LMPW TYPE A
6' WIDE RAMP USING 8" SIDEWALK
INSTALL 12 SF OF DETECTABLE WARNING SURFACE
HORIZONTAL SCALE
SCALE: 1" = 20'
0'
20'
40'
80'
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
PLAN SHEET
STA. 46+20 TO STA. 52+20
ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R014


MATCHLINE STA 58+20.00
MATCHLINE STA 52+20.00
US 31E/150 (Bardstown Road)
Grinstead Drive
58+00
57+00
56+00
55+00
54+00
53+00
STA. 55+91 TO STA. 56+00 LEFT
RETROFIT 22 SF OF DETECTABLE WARNING SURFACE
STA. 55+33 TO STA. 55+44 LEFT
REMOVE 9 SY OF SIDEWALK
CONSTRUCT 9 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMP LMPW1 TYPE A 5' WIDE RAMP
INSTALL 10 SF OF DETECTABLE WARNING SURFACE
STA. 55+07 TO STA. 55+22 LEFT
REMOVE 8 SY OF SIDEWALK
CONSTRUCT 8 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMP LMPW1 TYPE A 5' WIDE RAMP
INSTALL 10 SF OF DETECTABLE WARNING SURFACE
STA. 54+92 TO STA. 55+10 RIGHT
REMOVE 24 SY OF SIDEWALK
CONSTRUCT 24 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMPS
LMPW1 TYPE A
8' WIDE RAMP AND 7.5' WIDE RAMP
INSTALL 31 SF OF DETECTABLE WARNING SURFACE
NOTES:
FOR APPROPRIATE CROSS SLOPES AT RAMP AND LANDING, A HEIGHT DIFFERENCE BETWEEN THE SLAB AT THE SIGNAL POLE AND THE TRAFFIC CONTROLLER ARE MOUNTED ON AND THE ADJACENT RAMPS IS ACCEPTABLE.
IF NECESSARY, CORRECT CROSS SLOPE OF SIDEWALK APPROACHING PROPOSED RAMP AT STA. 55+91 RIGHT A LENGTH OF 2.5'@ 3.5% WITH A 2% MAX CROSS SLOPE IS NEEDED.
STA. 55+63 TO STA. 55+67 RIGHT
RETROFIT 12 SF OF DETECTABLE WARNING SURFACE
STA. 55+68 TO STA. 55+90 RIGHT
REMOVE 11 SY OF SIDEWALK
CONSTRUCT 11 SY OF SIDEWALK
CONSTRUCT 10 LF OF HEADER CURB
CONSTRUCT SIDEWALK RAMP
LMPW1 TYPE A
5' WIDE RAMP
INSTALL 10 SF OF DETECTABLE WARNING SURFACE
REMOVE EXISTING RAMP AND REPLACE WITH SIDEWALK AND CURB
LANDING SEE NOTE
SIDEWALK REMOVAL FOR TREE PLANTER (TYP.) 2 ON THIS SHEET
55+82.77 -132.52'
56+21.44 -117.75'
55+41.59 -27.80'
55+38.44 -23.91'
55+36.91 -31.64'
55+33.79 -27.63'
55+17.49 -27.02'
55+12.49 -27.01'
55+01.35 23.55'
55+01.66 24.40'
55+09.82 38.82'
55+10.54 39.74'
55+07.88 47.88'
55+02.87 72.07'
55+01.95 87.03'
54+99.98 31.15'
54+92.98 31.14'
54+93.04 38.94'
55+00.04 38.89'
55+00.09 38.88'
55+00.43 46.87'
55+79.82 20.16'
55+68.82 23.37'
55+85.03 20.18'
55+82.83 27.79'
55+78.03 26.40'
55+79.43 36.66' R=17'
0' 20' 40' 80'
HORIZONTAL SCALE SCALE: 1" = 20'
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
PLAN SHEET
ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R015
STA. 52+20 TO STA. 58+20

MATCHLINE STA 64+20.00

64+00

63+00

62+00

61+00

60+00

59+00

KY 1703
(Baxter Avenue)

US 31E/150
(Bardstown Road)

US 31E/150
(Bardstown Road)

MATCHLINE STA 58+20.00

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLAN SHEET

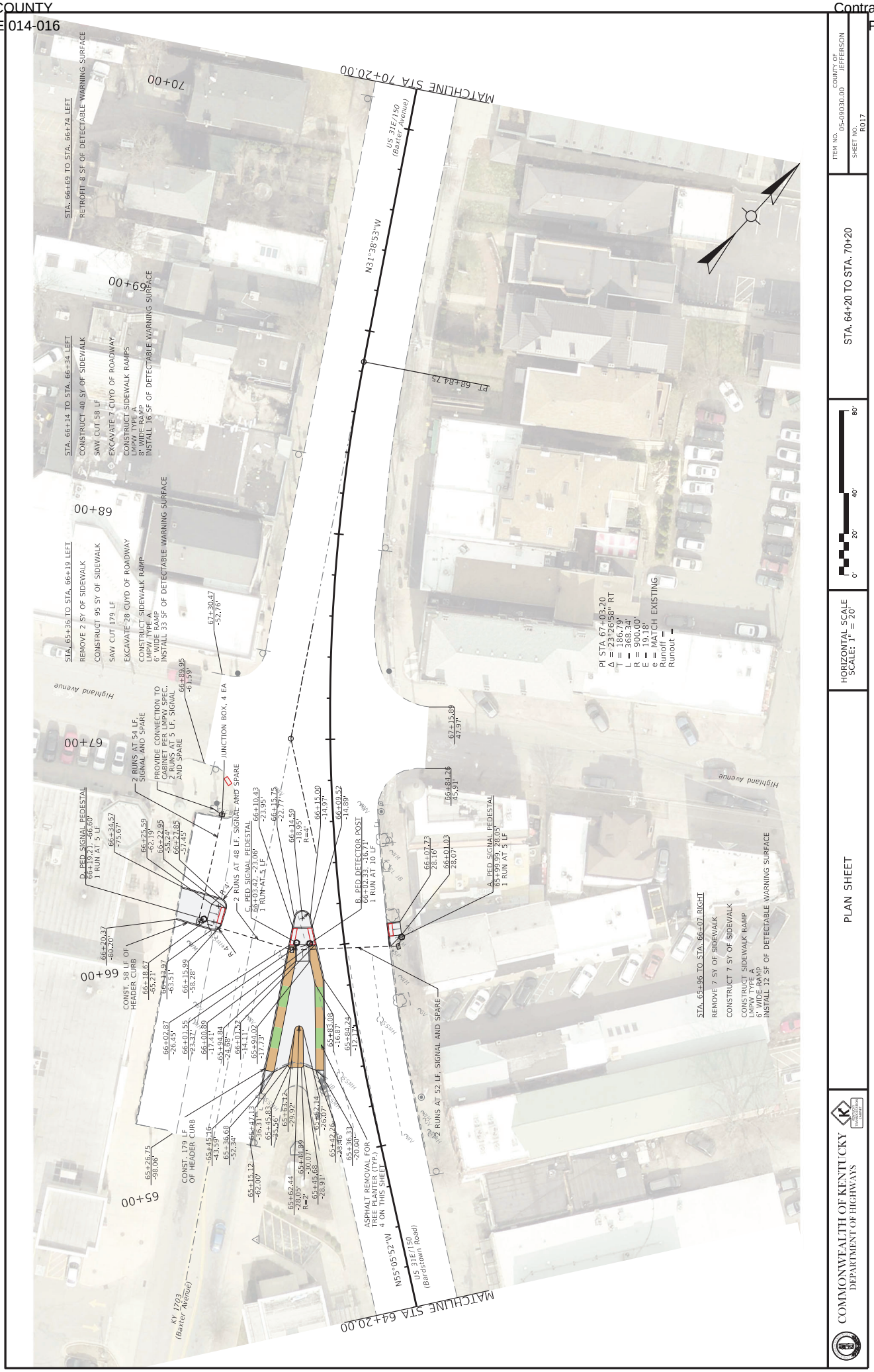
HORIZONTAL SCALE
SCALE: 1" = 20'

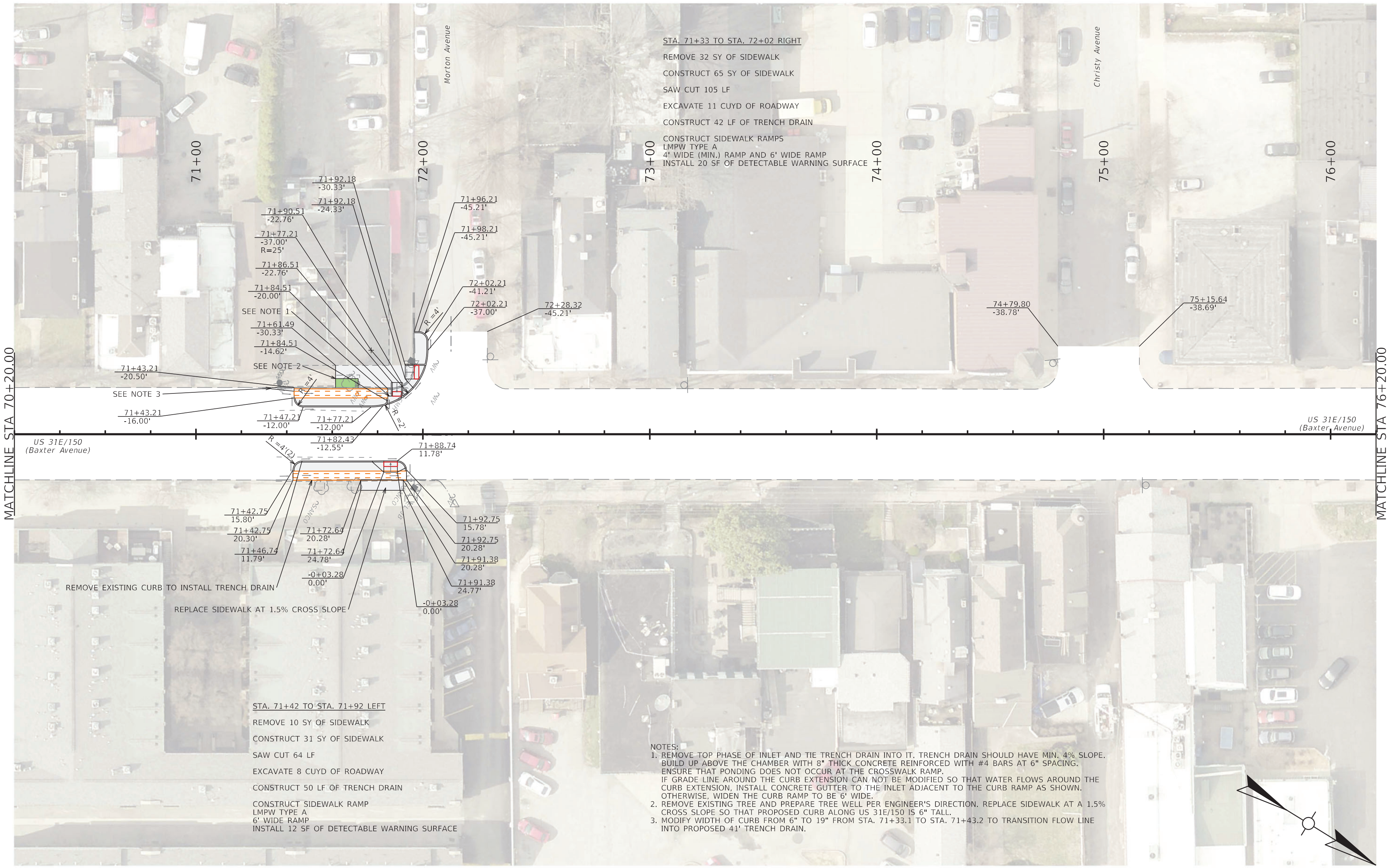
0' 20' 40' 80'

STA. 58+20 TO STA. 64+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON

SHEET NO. R016


MATCHLINE STA 70+20.00
MATCHLINE STA 64+20.00
US 31E/150 (Baxter Avenue)
US 31E/150 (Bardstown Road)
KY 1703 (Baxter Avenue)
Highland Avenue
N31°38'53"W
N55°05'52"W
PT 68+84.75
PI STA 67+03.20
Δ = 23°26'58" RT
T = 186.79'
L = 368.34'
R = 900.00'
E = 19.18'
e = MATCH EXISTING
Runoff =
Runout =
STA. 65+36 TO STA. 66+19 LEFT
REMOVE 2 SY OF SIDEWALK
CONSTRUCT 95 SY OF SIDEWALK
SAW CUT 179 LF
EXCAVATE 28 CUYD OF ROADWAY
CONSTRUCT SIDEWALK RAMP
LMPW TYPE A
6' WIDE RAMP
INSTALL 33 SF OF DETECTABLE WARNING SURFACE
STA. 66+14 TO STA. 66+34 LEFT
CONSTRUCT 40 SY OF SIDEWALK
SAW CUT 58 LF
EXCAVATE 7 CUYD OF ROADWAY
CONSTRUCT SIDEWALK RAMPS
LMPW TYPE A
8' WIDE RAMP
INSTALL 16 SF OF DETECTABLE WARNING SURFACE
STA. 66+69 TO STA. 66+74 LEFT
RETROFIT 8 SF OF DETECTABLE WARNING SURFACE
STA. 65+96 TO STA. 66+07 RIGHT
REMOVE 7 SY OF SIDEWALK
CONSTRUCT 7 SY OF SIDEWALK
CONSTRUCT SIDEWALK RAMP
LMPW TYPE A
6' WIDE RAMP
INSTALL 12 SF OF DETECTABLE WARNING SURFACE
A. PED SIGNAL PEDESTAL
65+99.99', 28.05'
1 RUN AT 5 LF
B. PED DETECTOR POST
66+02.33', -16.71'
1 RUN AT 10 LF
C. PED SIGNAL PEDESTAL
66+03.42', -23.06'
1 RUN AT 5 LF
D. PED SIGNAL PEDESTAL
66+19.21', -66.60'
1 RUN AT 5 LF
2 RUNS AT 52 LF, SIGNAL AND SPARE
2 RUNS AT 48 LF, SIGNAL AND SPARE
2 RUNS AT 54 LF, SIGNAL AND SPARE
PROVIDE CONNECTION TO CABINET PER MMUCC SPEC.
2 RUNS AT 5 LF, SIGNAL AND SPARE
JUNCTION BOX, 4 EA
CONST. 58 LF OF HEADER CURB
CONST. 179 LF OF HEADER CURB
ASPHALT REMOVAL FOR TREE PLANTER (TYP.) 4 ON THIS SHEET
HORIZONTAL SCALE
SCALE: 1" = 20'
0'
20'
40'
80'
PLAN SHEET
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. R017
STA. 64+20 TO STA. 70+20



STA. 71+33 TO STA. 72+02 RIGHT
REMOVE 32 SY OF SIDEWALK
CONSTRUCT 65 SY OF SIDEWALK
SAW CUT 105 LF
EXCAVATE 11 CUYD OF ROADWAY
CONSTRUCT 42 LF OF TRENCH DRAIN
CONSTRUCT SIDEWALK RAMPS
LMPW TYPE A
4' WIDE (MIN.) RAMP AND 6' WIDE RAMP
INSTALL 20 SF OF DETECTABLE WARNING SURFACE

STA. 71+42 TO STA. 71+92 LEFT
REMOVE 10 SY OF SIDEWALK
CONSTRUCT 31 SY OF SIDEWALK
SAW CUT 64 LF
EXCAVATE 8 CUYD OF ROADWAY
CONSTRUCT 50 LF OF TRENCH DRAIN
CONSTRUCT SIDEWALK RAMP
LMPW TYPE A
6' WIDE RAMP
INSTALL 12 SF OF DETECTABLE WARNING SURFACE

NOTES:
1. REMOVE TOP PHASE OF INLET AND TIE TRENCH DRAIN INTO IT. TRENCH DRAIN SHOULD HAVE MIN. 4% SLOPE. BUILD UP ABOVE THE CHAMBER WITH 8" THICK CONCRETE REINFORCED WITH #4 BARS AT 6" SPACING. ENSURE THAT PONDING DOES NOT OCCUR AT THE CROSSWALK RAMP. IF GRADE LINE AROUND THE CURB EXTENSION CAN NOT BE MODIFIED SO THAT WATER FLOWS AROUND THE CURB EXTENSION, INSTALL CONCRETE GUTTER TO THE INLET ADJACENT TO THE CURB RAMP AS SHOWN. OTHERWISE, WIDEN THE CURB RAMP TO BE 6' WIDE.
2. REMOVE EXISTING TREE AND PREPARE TREE WELL PER ENGINEER'S DIRECTION. REPLACE SIDEWALK AT A 1.5% CROSS SLOPE SO THAT PROPOSED CURB ALONG US 31E/150 IS 6" TALL.
3. MODIFY WIDTH OF CURB FROM 6" TO 19" FROM STA. 71+33.1 TO STA. 71+43.2 TO TRANSITION FLOW LINE INTO PROPOSED 41' TRENCH DRAIN.

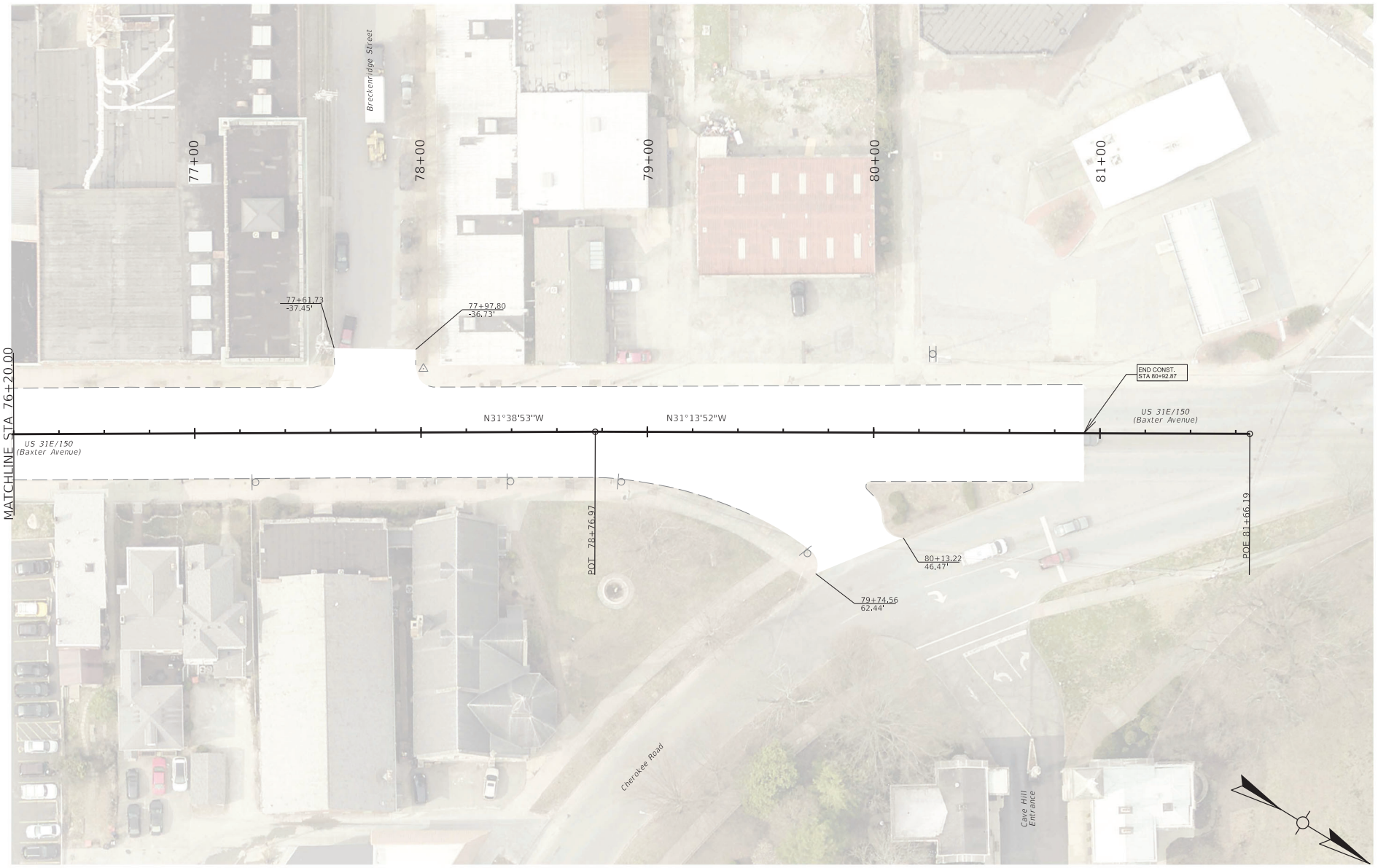
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

STA. 70+20 TO STA. 76+20

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R018



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

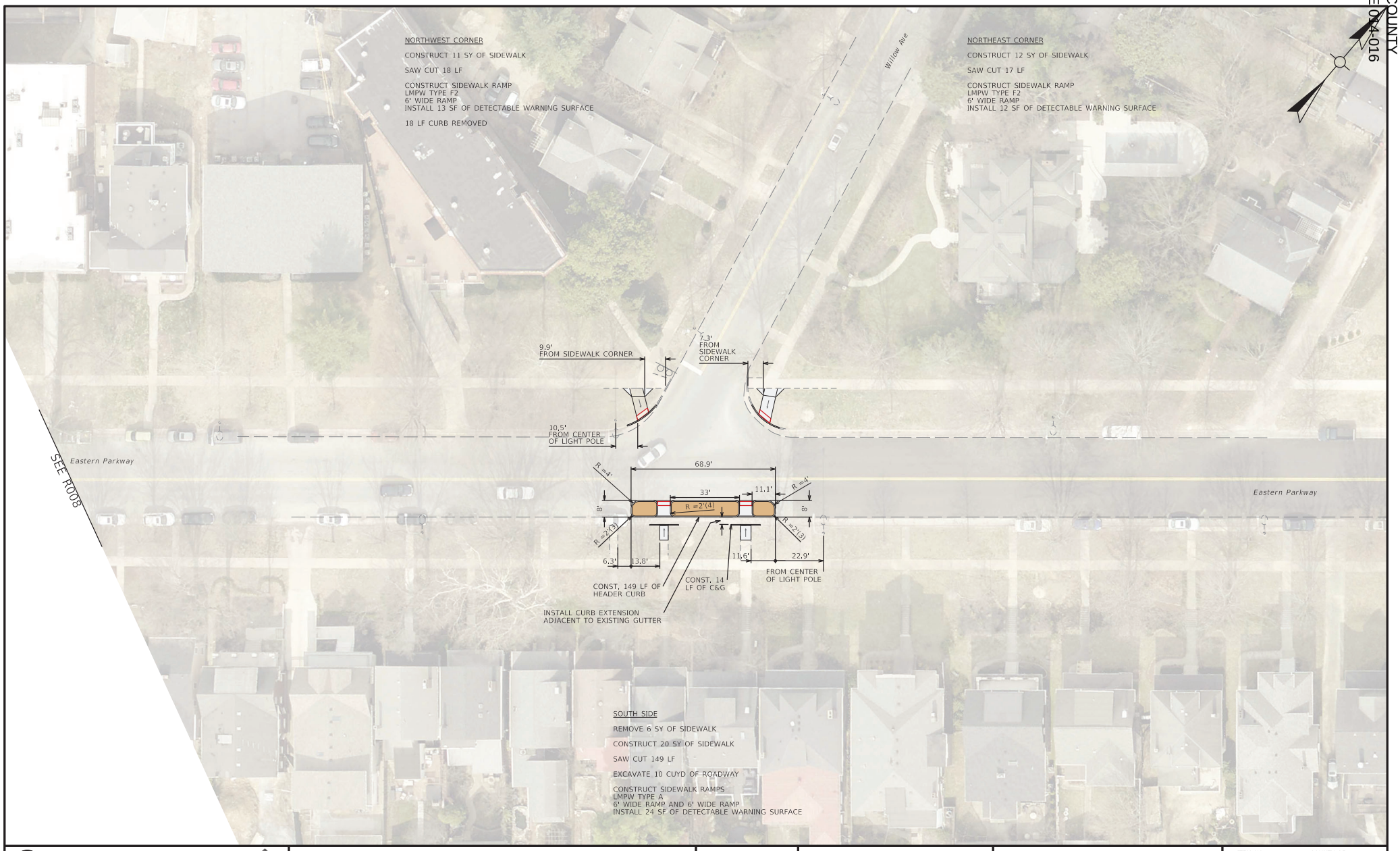
PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA. 76+20 TO STA. 81+67

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R019



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

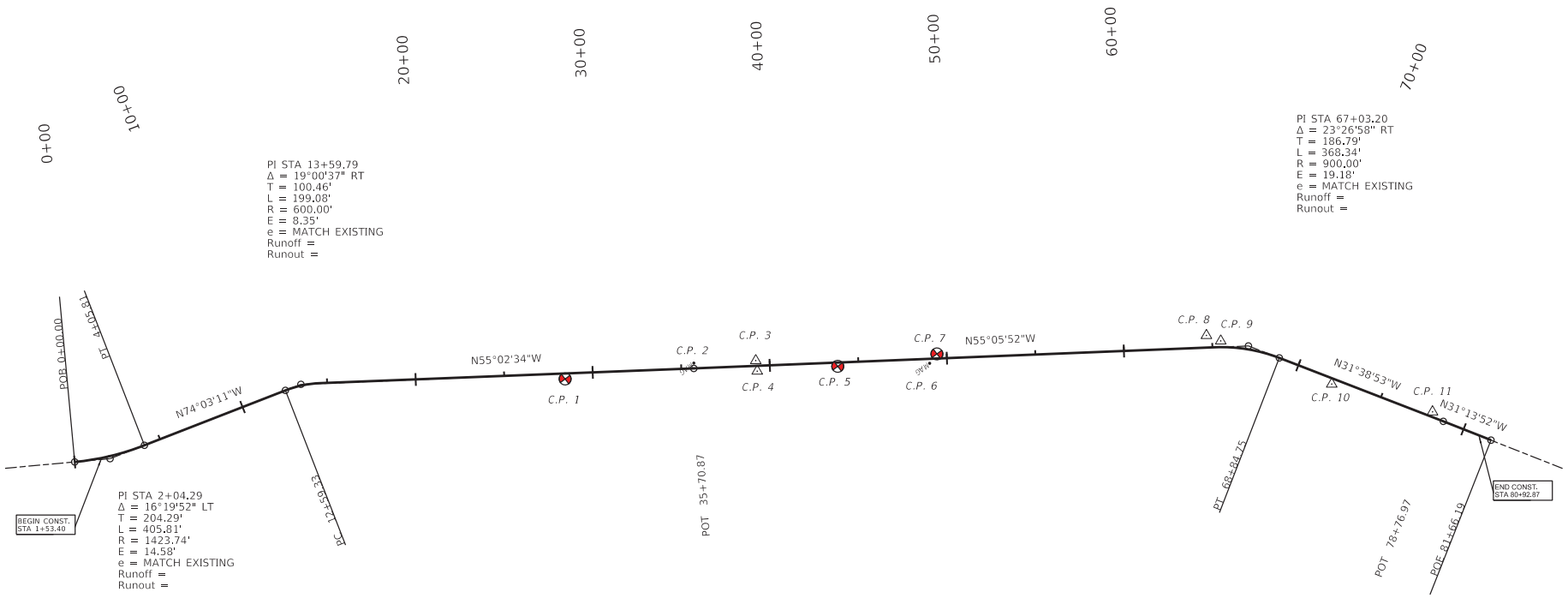
PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

EASTERN PARKWAY & WILLOW AVENUE

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. R020



CONTROL LINE DATA

BEARING	DISTANCE	NORTHING (Y)	EASTING (X)	PC	PI	PT	DELTA	R	L	T
N74.359°W	1057.811 '	3971790.407	4934136.231	0+00.0		4+05.8	16.331°	-1423.739 '	405.808 '	204.289 '
N55.043°W	2212.923 '	3972107.59	4933022.236	12+59.3		14+58.4	19.010°	600.000 '	199.076 '	100.461 '
N55.098°W	2945.541 '	3973375.519	4931208.57		35+70.9					
N31.648°W	1179.002 '	3975167.77	4928639.657	65+16.4		68+84.8	23.450°	900.000 '	368.345 '	186.787 '
N31.231°W	289.226 '	3976171.438	4928021.032		78+77.0					
		3976418.75	4927871.071		81+66.2					

CONTROL POINTS

CP NUMBER	TYPE	NORTHING (Y)	EASTING (X)	ELEVATION (Z)	STATION	OFFSET	DESCRIPTION
1	BENCHMARK	3972983.740	4931822.793	534.770	28+42.99	30.83' RT	ON SOUTHERNMOST BOLT ON BASE OF PRIVATE SIGN FOR HIGHLAND MART AT THE NORTHERN CORNER OF THE INTERSECTION OF BARDSTOWN ROAD AND MIDLAND AVENUE. MARKED WITH PINK PAINT.
2	MAG NAIL	3973351.500	4931190.113	529.220	35+72.26	30.26' LT	MAG NAIL WITH WASHER MARKED "SMUFF PLS 3417" FOUND ALONG THE SOUTH SIDE OF BARDSTOWN ROAD IN BRICK SIDEWALK AT THE EASTERN CORNER OF THE INTERSECTION OF BARDSTOWN ROAD AND ROSEWOOD AVENUE.
3	CONTROL POINT	3973551.412	493090.610	524.830	39+21.62	30.24' LT	-
4	CONTROL POINT	3973604.259	4930932.810	525.219	39+27.91	29.81' RT	-
5	BENCHMARK	3973857.410	4930554.659	520.160	43+82.89	21.06' RT	ON WESTERNMOST BOLT ON BASE OF SIGNAL POLE ON NORTH SIDE OF BARDSTOWN ROAD JUST WEST OF MCDONALD'S, ACROSS THE STREET FROM BEECHWOOD AVENUE. MARKED WITH PINK PAINT.
6	MAG NAIL	3974157.621	4930131.402	513.386	49+01.79	25.09' RT	-
7	BENCHMARK	3974140.235	4930066.566	513.940	49+45.01	26.26' LT	ON NORTHERN MOST BOLT ON BASE OF SIGNAL POLE ON SOUTH SIDE OF BARDSTOWN ROAD ACROSS FROM PATTERSON AVE. MARKED WITH WHITE PAINT.
8	CONTROL POINT	3974977.014	4928792.489	496.510	64+68.71	69' LT	-
9	CONTROL POINT	3975050.644	4928747.043	496.162	65+46.92	35.15' LT	-
10	CONTROL POINT	3975623.242	4928395.217	489.247	72+13.96	30.9' RT	-
11	CONTROL POINT	3976092.124	4928036.812	487.313	78+01.17	28.18' LT	-

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

COORDINATE CONTROL

HORIZONTAL SCALE
SCALE: 1" = 300'

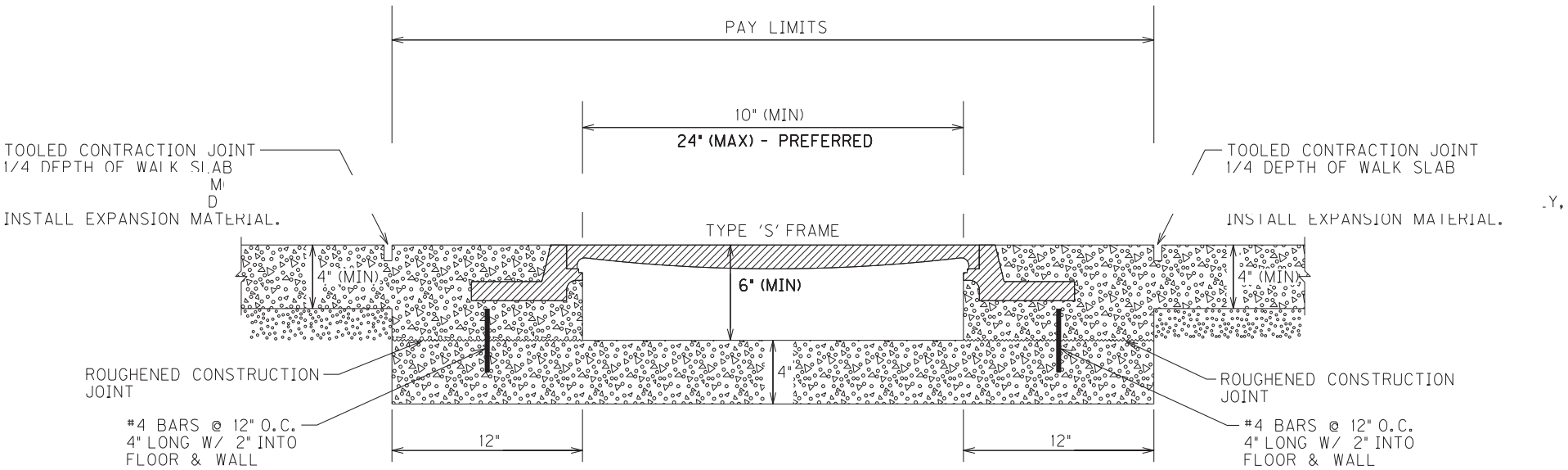
0' 300' 600' 1,200'

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON

SHEET NO. R021

OpenRoads Designer v10.16.0.80 USER: jared.greene DATE PLOTTED: 9/7/2005 7:08:02 PM FILE NAME: C:\PWWORK\KYTC_JARED.GREENE\D1969080\05_09030_00_COORDINATE_CONTROL.DGN

COUNTY OF	ITEM NO.	SHEET NO.
JEFFERSON	05-9030	R022



NOTES:

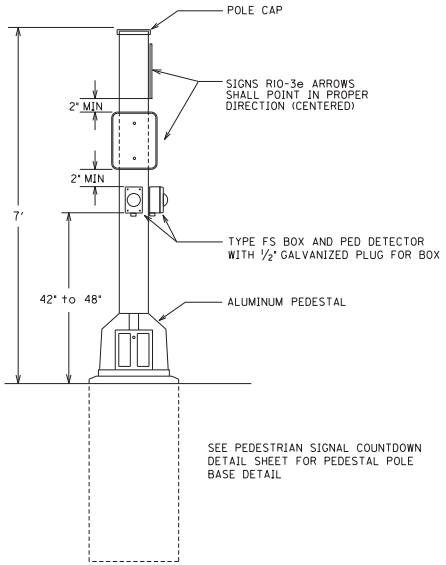
1. THIS IS A MODIFIED VERSION OF MSD "DRAIN UNDER SIDEWALK TYPE 1" DRAWING NO. DS-01-01
2. FORMWORK SHALL BE REMOVED AFTER CONCRETE HAS MET STRENGTH REQUIREMENT
3. CONCRETE SHALL BE CLASS "A"
4. SUBGRADE SHALL BE COMPACTED AND LOW AREAS FILL WITH KTC #8 OR #57 CRUSHED STONE
5. DRAIN SHALL MAINTAIN 0.50% SLOPE OR GREATER
6. FRAME SHALL BE SOLID LID OR APPROVED ADA COMPLIANT EQUAL WITH AN INDIVIDUAL LENGTH NO GREATER THAN 24" MEASURED DOWN THE CENTERLINE OF THE DRAIN. SUM OF FRAME LENGTHS SHALL EQUAL SIDEWALK WIDTH.
7. THE DEPARTMENT WILL MAKE PAYMENT FOR THE COMPLETED AND ACCEPTED QUANTITY UNDER THE FOLLOWING:

CODE	PAY ITEM	PAY UNIT
25071ED	SIDEWALK UNDERDRAIN	EACH

SCALE: 1"= NTS

SIDEWALK UNDERDRAIN
DETAIL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
JEFFERSON	05-9030	R023



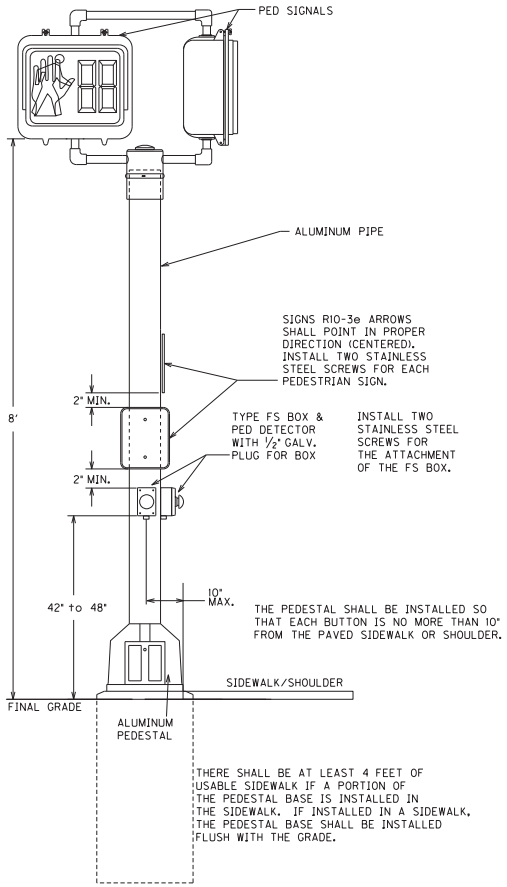
PEDESTAL POST DETAIL FOR PED DETECTORS & SIGNS

SPECIAL NOTE FOR TRANSFORMER DOOR:
FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:
VOLTAGE (120 VOLT)
GLOVE CLASS (0)
LIMITED APPROACH BOUNDARY (42 IN)
RESTRICTED APPROACH BOUNDARY (CONTACT)
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

NOTE:

ALL GROUNDING AND SPARE CONDUITS THAT ARE INSTALLED IN THE CONCRETE PEDESTAL POLE BASE ARE INCIDENTAL TO BID ITEM '23222EC'. THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE CONCRETE BASE. AN ARROW SHALL BE ETCHED INTO THE TOP OF THE PEDESTAL BASE TO SHOW LOCATION AND DIRECTION OF THE SPARE CONDUIT.

THERE SHALL BE A 2.5' (MIN.) X 4' (MIN.) CLEAR SPACE AT ALL PEDESTRIAN BUTTONS PER SECTION 404 OF PROWAG REQUIREMENTS.



CONTRACTOR SHALL DRILL HOLES IN THE PIPE AND THE TYPE FS BOX NOT EXCEEDING ½" IN DIAMETER. CONTRACTOR SHALL USE A ROUND FILE TO REMOVE ALL BURRS AND SHARP EDGES FROM THE HOLES. WIRES SHALL BE PROTECTED WITH HEAT SHRINK TUBING OR VINYL TAPE WHERE THEY PASS THROUGH THE HOLES.

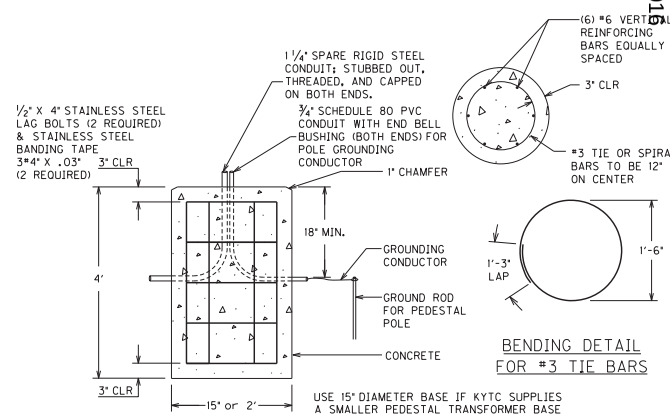
PEDESTAL POLE DETAIL FOR PED DETECTORS AND PED SIGNALS

GROUNDING REQUIREMENTS:

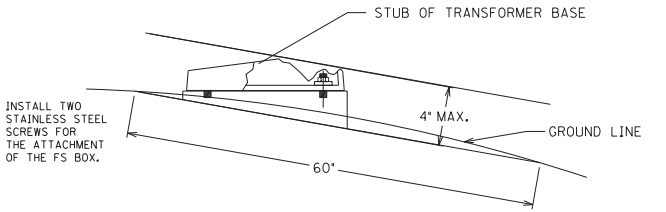
CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO THE TRANSFORMER BASE.

LEAVE TOP OF GROUND RODS EXPOSED FOR ELECTRICAL INSPECTION.

PEDESTAL POLE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO A GROUND LUG ON THE TRANSFORMER BASE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING.
ALL GROUND RODS SHALL BE 24" FROM THE CONCRETE POLE BASE.



PEDESTAL POLE BASE DETAIL



THE ANCHOR BOLTS AND CONDUITS SHALL NOT BE PROJECTED MORE 4 INCHES ABOVE A GROUND LINE BETWEEN THE STRADDLING WHEELS OF A VEHICLE.

BREAKAWAY SUPPORT STUB HEIGHT MEASUREMENT

NOTE:
THE PEDESTAL BASE DOOR SHALL HAVE A 4" BY 6" SHOCK HAZARD WARNING STICKER (IF SMALLER TRANSFORMER BASE IS INSTALLED USE A 2" BY 3" INSTEAD). INSTALL 3" FROM THE TOP OF THE DOOR. THE STICKER SHALL BE METALCRAFT PLY695 PREM STYLEMARK LABEL WITH .007 THICKNESS, WITH UV WHITE POLYCARBONATE MATERIAL, AND WITH MC53FL PRESSURE SENSITIVE ADHESIVE OR APPROVAL EQUAL. THIS SHALL BE INCIDENTAL TO THE PROJECT.

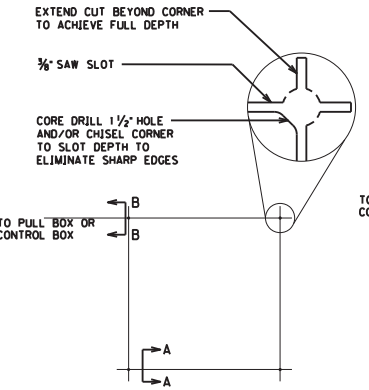
SPECIAL NOTE FOR THE TRANSFORMER BASE:
FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:
VOLTAGE (120 VOLT)
GLOVE CLASS (0)
LIMITED APPROACH BOUNDARY (42 IN)
RESTRICTED APPROACH BOUNDARY (CONTACT)
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

PEDESTRIAN SIGNAL DETAIL

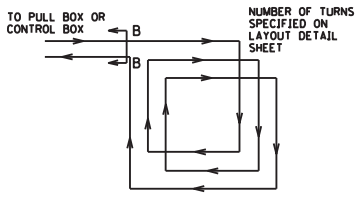
COUNTY OF	ITEM NO.	SHEET

TWIST UNSHIELDED LOOP WIRES (IMSA 51-7) WITH 3 TO 5 TURNS PER FOOT FROM THE START OF THE HOMERUN TO THE JUNCTION BOX, CABINET, OR POLE. SLOT CAN BE WIDEN TO 1/2" to 5/8" TO HELP WITH THE INSTALLATION OF THE TWISTED WIRE.

SECTION B-B (TWIST NOTE)
-FOR CANCELING OUT CROSSTALK

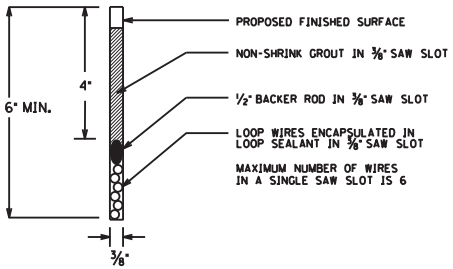


SAW CUT PLAN

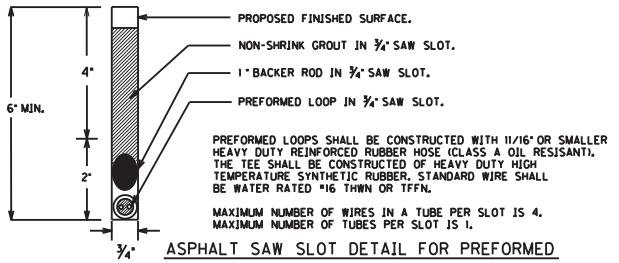


LOOP WIRE PLAN

6'X6' LOOP



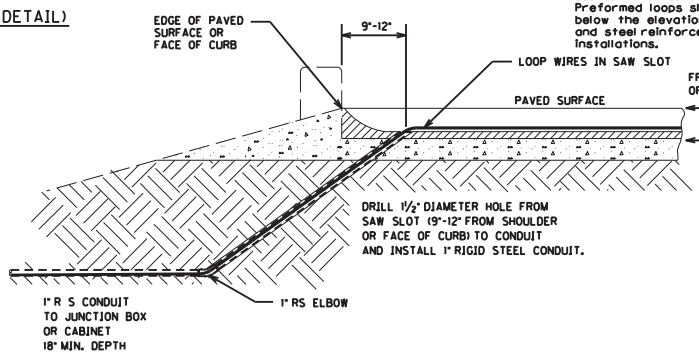
SECTION A-A (SAW SLOT DETAIL)



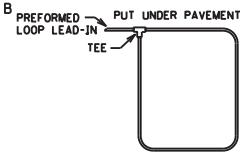
ASPHALT SAW SLOT DETAIL FOR PREFORMED

Use detail for concrete application if concrete is 4" or less. Preformed loops shall not be installed more than twelve inches below the elevation of the final pavement surface. Concrete joints and steel reinforcement shall be located to avoid the preformed loop installations.

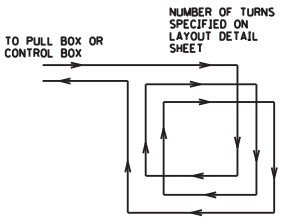
PREFORMED LOOP CROSS SECTION



SAW SLOT EDGE OF PAVEMENT TRANSITION



PREFORMED LOOP DIAGRAM

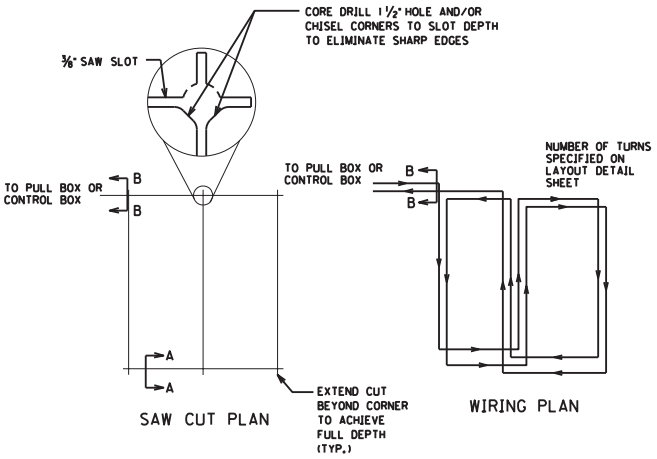


LOOP WIRE PLAN

6'x6' PREFORMED LOOP

CONSTRUCTION DETAILS FOR LOOP SAW SLOT AND FILL BID ITEM:
THE FOLLOWING IS A TYPICAL STEP BY STEP PROCEDURE FOR THE INSTALLATION OF A LOOP.

- CAREFULLY MARK THE SLOT TO BE CUT, PERPENDICULAR TO THE FLOW OF TRAFFIC AND CENTERED IN THE LANE.
- MAKE EACH SAW-CUT ⅜ INCH WIDE AND AT A DEPTH SUCH THAT THE TOP OF THE BACKER ROD IS A MINIMUM OF 4 INCHES BELOW THE SURFACE OF ASPHALT PAVEMENT.
- DRILL A 1½ INCH CORE HOLE AT EACH CORNER AND USE A CHISEL TO SMOOTHE CORNERS TO PREVENT SHARP BENDS IN THE WIRE.
- CLEAN ALL FOREIGN AND LOOSE MATTER OUT OF THE SLOTS, DRILLED CORES, AND WITHIN 1 FOOT ON ALL SIDES OF THE SLOTS USING A HIGH PRESSURE WASHER.
- COMPLETELY DRY THE SLOTS, DRILLED CORES, AND WITHIN 1 FOOT ON ALL SIDES OF THE SLOTS.
- MEASURE 9-12 INCHES FROM THE EDGE OF THE PAVED SURFACE (SHOULDER BREAK OR FACE OF CURB) AND DRILL A 1½ INCH HOLE ON A 45 DEGREE ANGLE TO THE CONDUIT ADJACENT TO THE ROADWAY.
- CLOSELY INSPECT ALL CUTS, CORES, AND SLOTS FOR JAGGED EDGES OR PROTRUSIONS PRIOR TO THE PLACEMENT OF THE WIRE. ALL JAGGED EDGES AND PROTRUSIONS SHALL BE GROUND OR RE-CUT AND CLEANED AGAIN.
- INSTALL 1" RIGID STEEL CONDUIT IN 45 DEGREE DRILLED SLOT. CONNECT CONDUIT TO 1" RIGID STEEL CONDUIT ADJACENT TO THE ROADWAY WITH RIGID STEEL ELBOW.
- PLACE THE LOOP WIRE SPLICE-FREE FROM THE TERMINATION POINT. SEE SECTION B-B NOTE.
- PUSH THE WIRE INTO THE SAW SLOT WITH A BLUNT OBJECT SUCH AS A WOODEN STICK. MAKE SURE THAT THE LOOP WIRE IS PUSHED FULLY TO THE BOTTOM OF THE SAW SLOT. SCREWDRIVERS SHALL NOT BE USED.
- INSTALL DUCT SEALANT TO A MINIMUM OF 1 INCH DEEP INTO THE CORED 1½ INCH HOLE.
- APPLY LOOP SEALANT FROM THE BOTTOM UP AND FULLY ENCAPSULATE THE LOOP WIRES IN THE SAW SLOT. THE WIRE SHOULD NOT BE ABLE TO MOVE WHEN THE SEALANT HAS SET.
- COVER THE ENCAPSULATED LOOP WIRE WITH A CONTINUOUS LAYER OF BACKER ROD ALONG THE ENTIRE LOOP AND HOME RUN SAW SLOTS SUCH THAT NO VOIDS ARE PRESENT BETWEEN THE LOOP SEALANT AND BACKER ROD.
- FINISH FILLING THE SAW CUT WITH NON-SHRINKABLE GROUT PER MANUFACTURER'S INSTRUCTIONS. ALLEVIATE ALL AIR POCKETS AND REFILL LOW SPACES. THERE SHALL BE NO CONCAVE PORTION TO THE GROUT IN THE SAW SLOT. ANY EXCESS GROUT SHALL BE CLEANED FROM THE ROADWAY TO ALLEVIATE TRACKING.
- CLEAN UP THE SITE AND DISPOSE OF ALL WASTE OFF THE PROJECT.
- ENSURE THAT THE GROUT HAS COMPLETELY CURED PRIOR TO SUBJECTING THE LOOP TO TRAFFIC. CURING TIME VARIES WITH TEMPERATURE AND HUMIDITY.

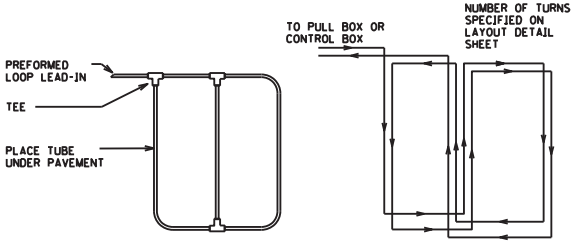


SAW CUT PLAN

WIRING PLAN

6'X30' QUADRAPOLE LOOP

PREFORMED LOOP LEAD-IN SHALL BE TWISTED WITH THREE TO FIVE TURNS PER FOOT UNTIL TERMINATED AT FIELD CONNECTIONS IN THE CABINET OR CONNECTED TO SHIELDED CABLE.



PREFORMED LOOP DIAGRAM

LOOP WIRE PLAN

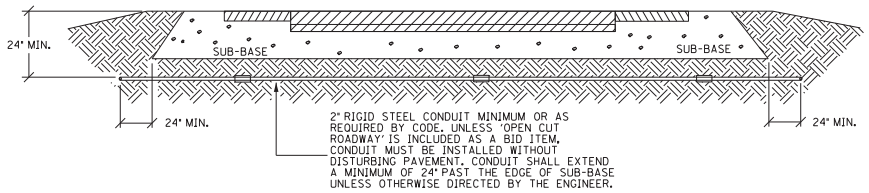
6'x30' QUADRAPOLE PREFORMED LOOP

10/25/2021

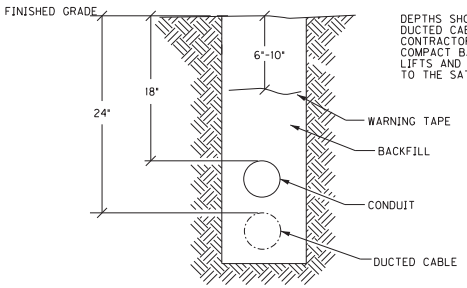
LOOP DETAILS

FILE NAME: C:\PWWORK\TED.SWANSEGAR\DMS28756\04-LOOPS (LP).DGN
USER: Ted.Swansegar
DATE PLOTTED: December 2, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.



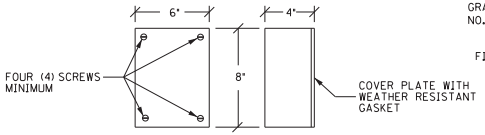
CONDUIT INSTALLATION UNDER EXISTING PAVEMENT DETAIL



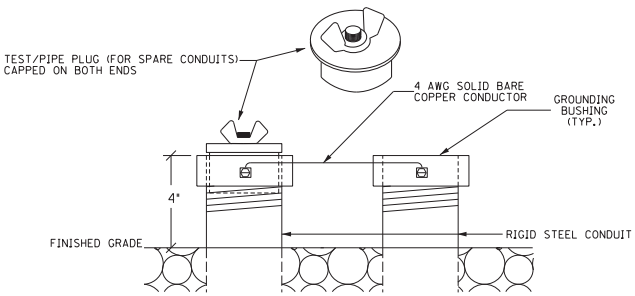
DEPTHS SHOWN FOR CONDUIT AND DUCTED CABLE ARE MINIMUMS. CONTRACTOR SHALL PLACE AND COMPACT BACKFILL IN 9" MAXIMUM LIFTS AND RETORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER.

CONDUIT, DUCTED CABLE, AND WARNING TAPE TRENCH

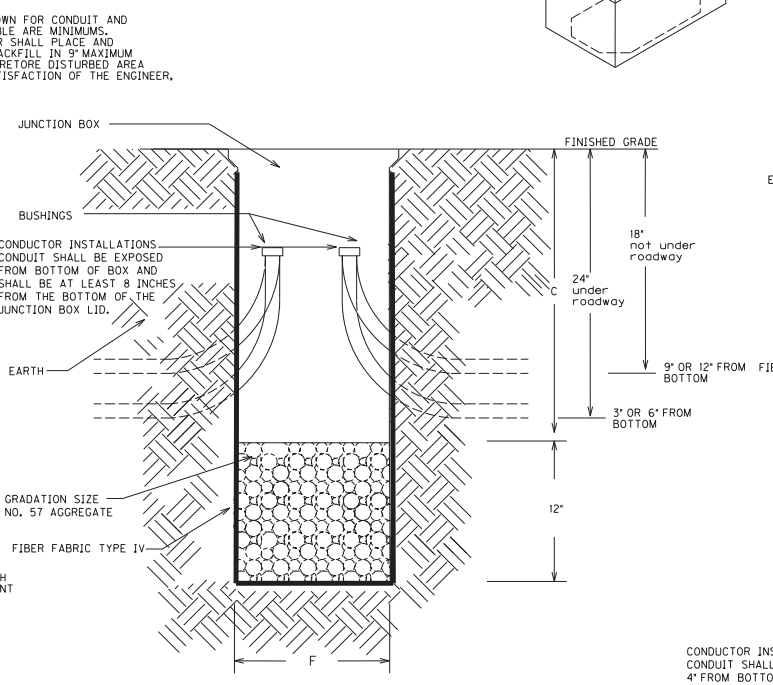
ABOVE GROUND BOX SHALL BE FABRICATED FROM MINIMUM 12 GAUGE STEEL AND GALVANIZED AFTER FABRICATION. BOXES SHALL HAVE NO KNOCKOUTS AND SHALL BE PROVIDED WITH A PLATE COVER WITH A WEATHER RESISTANT GASKET AND A MINIMUM OF FOUR SCREWS FOR ATTACHING THE PLATE COVER TO THE BOX. CABLE CLAMPS SHALL BE PROVIDED FOR CABLES ENTERING AND EXITING THE BOX.



ABOVE GROUND BOX



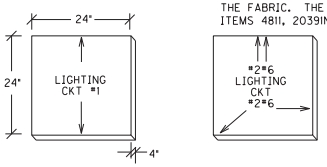
TEST/PIPE PLUG(FOR SPARE CONDUITS) AND GROUNDING DETAIL



JUNCTION BOX INSTALLATION FOR CONVENTIONAL LIGHTING

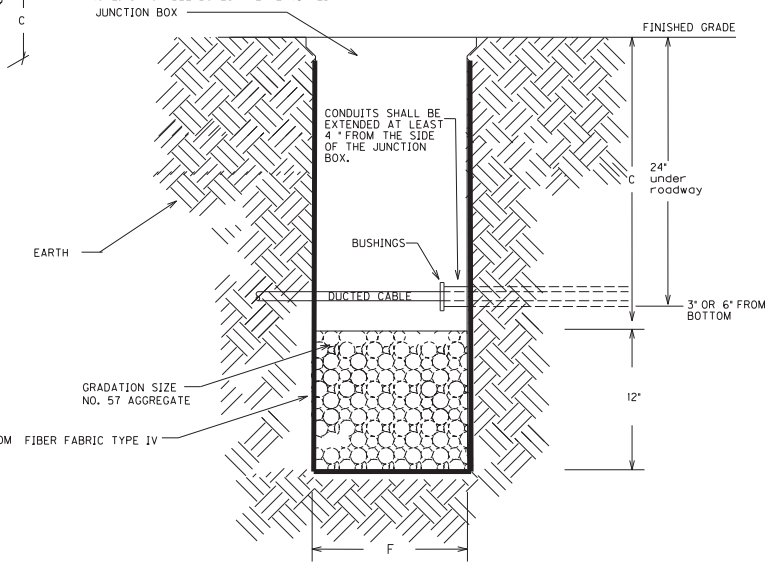
BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE "X CUT" ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 4811, 2039INS835, OR 2039ZNS835.

CONCRETE CABLE MARKERS

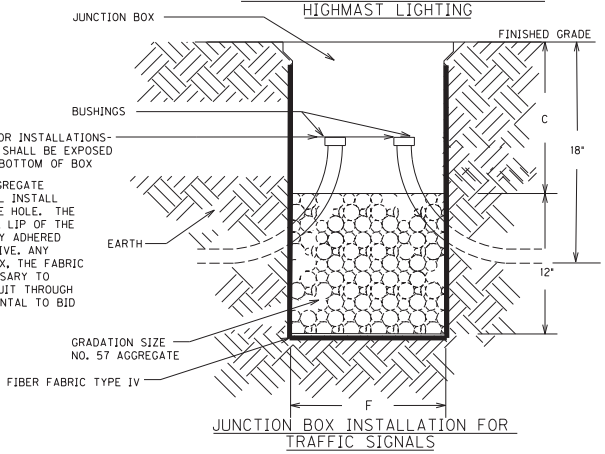


JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1¾" •	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

• MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED



JUNCTION BOX INSTALLATION FOR HIGHMAST LIGHTING



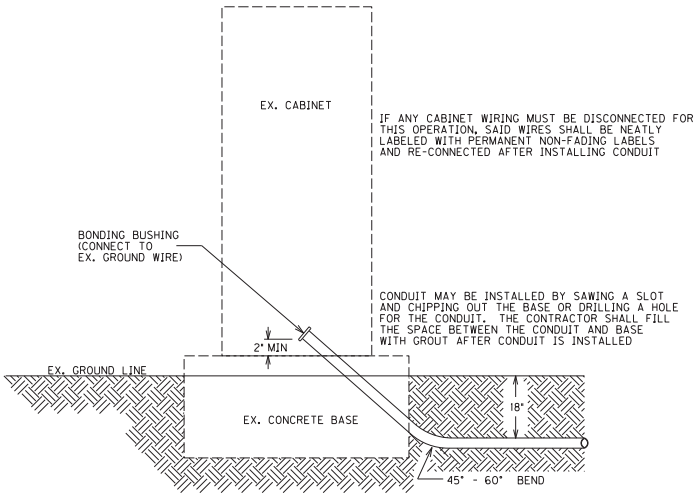
JUNCTION BOX INSTALLATION FOR TRAFFIC SIGNALS

TRAFFIC SIGNAL AND ROADWAY LIGHTING
JUNCTION BOX AND CONDUIT DETAILS

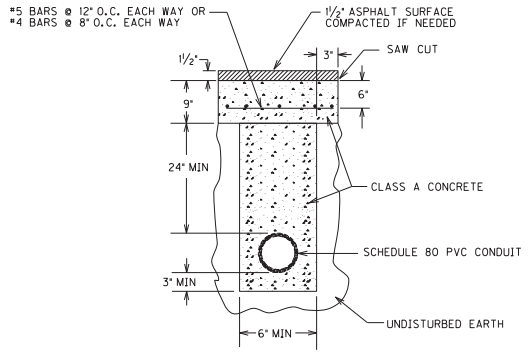
3/13/2017

FILE NAME: C:\PWWORK\TED.SWANSEGAR\D0528754\ALL LIGHTING STANDARDS REVISION 3-10-2017.DGN
USER: ted.swansegar
DATE PLOTTED: March 13, 2017
E-SHEET NAME:
MicroStation v8.11.7.443

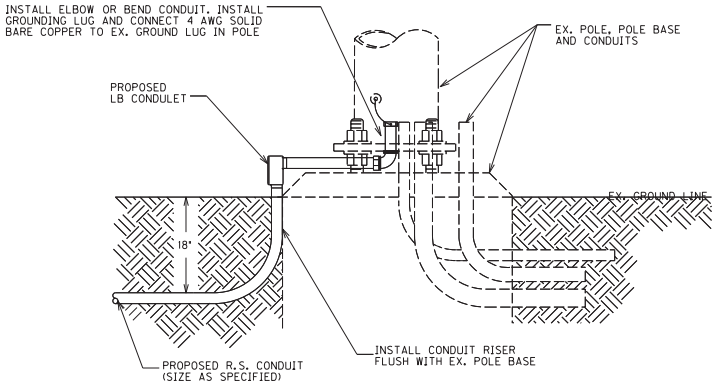
COUNTY OF	ITEM NO.	SHEET NO.



CONDUIT INSTALLATION IN EX. CABINET BASE



OPEN CUT PAVEMENT DETAIL



CONDUIT INSTALLATION IN EX. POLE BASE

MicroStation v8.11.7.443 | E-SHEET NAME: | USER: ted.swansegar DATE PLOTTED: March 20, 2017 | FILE NAME: C:\PWWORK\TED.SWANSEGAR\DMS28756\10-CONDUIT (SP).DGN

3/10/2017

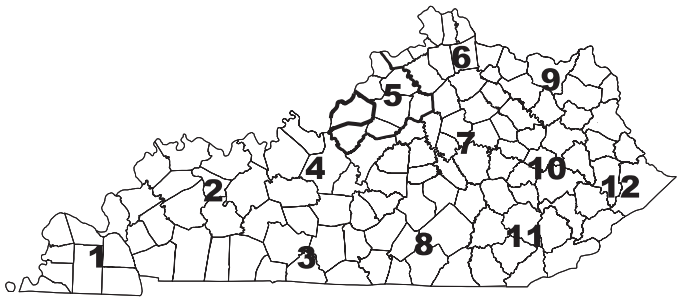
CONDUIT INSTALLATIONS IN EXISTING LOCATIONS

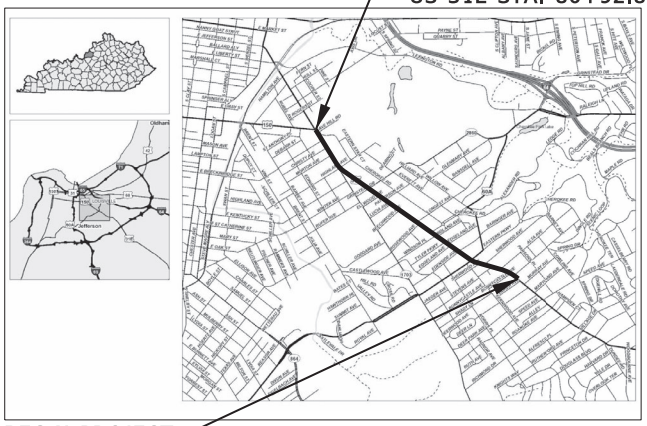
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT
JEFFERSON County

US 31E/150
FD52 056 031 E 014-016

KENTUCKY TRANSPORTATION CABINET





LAYOUT MAP

PRELIMINARY
SUBJECT TO CHANGE

THIS PROJECT IS ON THE NH SYSTEM

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

THESE PLANS ARE FOR PAVEMENT MARKINGS

DESIGN CRITERIA

CLASS OF HIGHWAY	PRINCIPAL ARTERIAL
TYPE OF TERRAIN	LARGE URBANIZED AREA
DESIGN SPEED	35
REQUIRED NPSD	X
REQUIRED PSD	X
LEVEL OF SERVICE	X
ADT PRESENT (2012)	22376
ADT FUTURE (X)	X
DHV	2237.6
D %	X
T %	5.879

GEOGRAPHIC COORDINATES

LATITUDE 38 DEGREES 14 MINUTES 10.06 SECONDS NORTH
LONGITUDE -85 DEGREES 43 MINUTES .615 SECONDS WEST

DESIGNED

% RESTRICTED SD	X
LEVEL OF SERVICE	X
MAX. DISTANCE W/O PASSING	X

INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
T001	LAYOUT SHEET
T002	GENERAL SUMMARY
T003-T017	PAVEMENT MARKING PLAN SHEETS

STANDARD DRAWINGS

US 31E/150

LENGTH 8094.1 LIN. FT. 1.53 MILES	LENGTH X LIN. FT. X MILES	LENGTH X LIN. FT. X MILES	LENGTH X LIN. FT. X MILES
ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.
NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED
RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.
BRIDGES X LIN. FT.	BRIDGES X LIN. FT.	BRIDGES X LIN. FT.	BRIDGES X LIN. FT.
X	X	X	X
X	X	X	X

PROJECT NUMBER: 05-09030.00

PROJECT DESCRIPTION: ASPHALT RESURFACING WITH INSTALLATION OF CURB EXTENSIONS AND PEDESTRIAN IMPROVEMENTS ALONG US 31E/150

RECOMMENDED BY: KEVIN BAILEY, PE X
PROJECT MANAGER DATE:

PLAN APPROVED BY:
STATE HIGHWAY ENGINEER DATE:

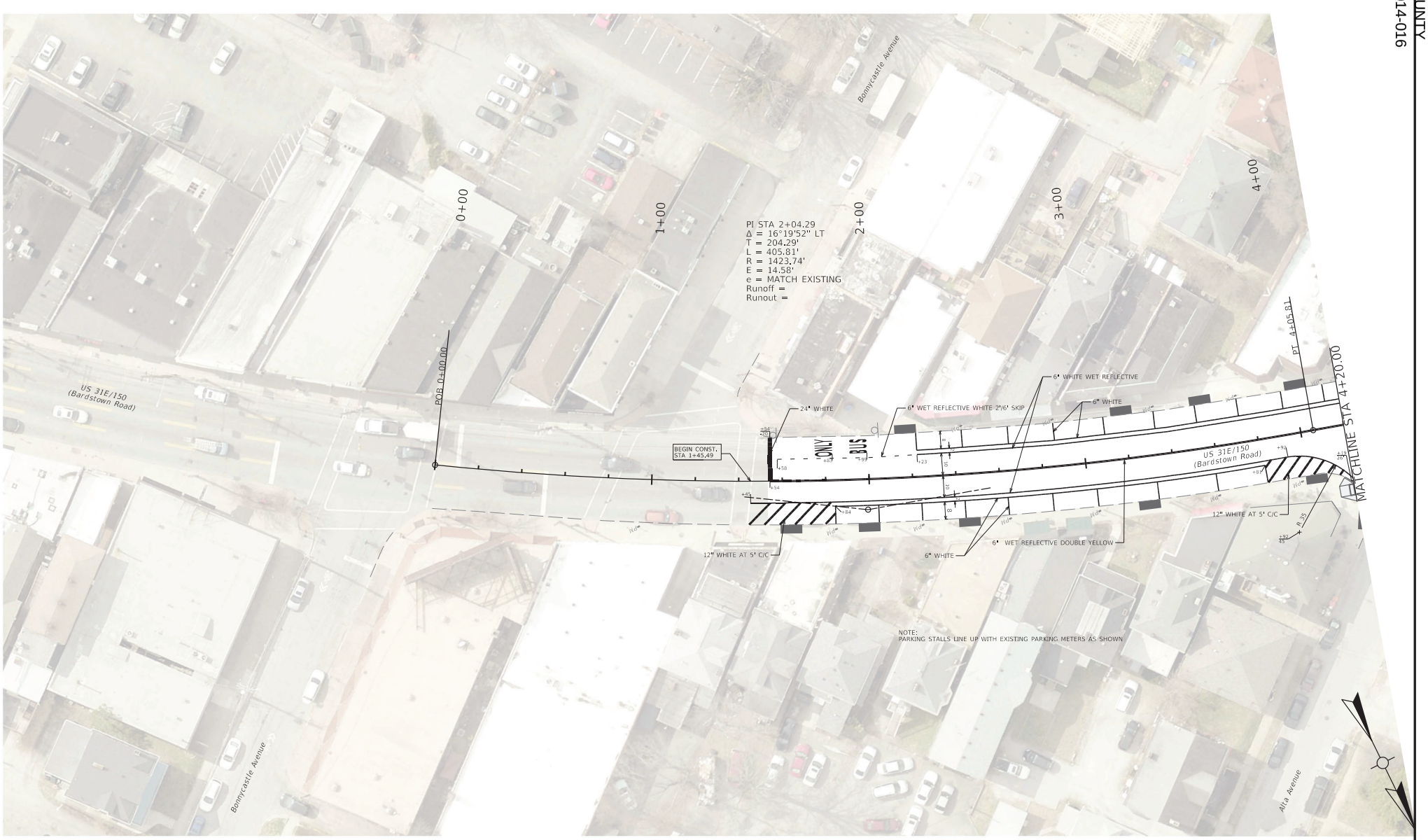
LETTING DATE: 5/4/2022

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON

SHEET NO. R1

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	TOTAL PROJECT
6510	PAVE STRIPING-TEMP PAINT-4 IN	LFT	40000
6514	PAVE STRIPING-PERM PAINT-4 IN	LFT	500
6531	PAVE STRIPING REMOVAL-6 IN	LFT	210
6542	PAVE STRIPING-THERMO-6 IN W	LFT	8350
6546	PAVE STRIPING-THERMO-12 IN W - WET REFLECTIVE	LFT	330
6565	PAVE MARKING-THERMO X-WALK-6 IN	LFT	3740
6565	PAVE MARKING-THERMO X-WALK-6 IN - WET REFLECTIVE	LFT	160
6568	PAVE MARKING-THERMO STOP BAR-24IN	LFT	790
6569	PAVE MARKING-THERMO CROSS-HATCH	SQFT	2610
6573	PAVE MARKING-THERMO STR ARROW	EACH	3
6574	PAVE MARKING-THERMO CURV ARROW	EACH	29
6575	PAVE MARKING-THERMO COMB ARROW	EACH	9
6576	PAVE MARKING-THERMO "ONLY"	EACH	13
21417ES717	PAVE MARK THERMO CONE CAP-SOLID YELLOW	SQFT	6
22520EN	PAVE MARKING-THERMO YIELD BAR-36 IN - WET REFLECTIVE	LFT	80
23261EC	PAVE MARK-THERMO-X-WALK-24 IN	LFT	2130
23261EC	PAVE MARK-THERMO-X-WALK-24 IN - WET REFLECTIVE	LFT	150
23928EC	PAVE MARK-THERMO "BUS" 8 FT	EACH	13
24683ED	PAVE MARKING-THERMO DOTTED LANE EXTEN - WET REFLECTIVE (2' SKIP, 4' GAP)	LFT	200
24683ED	PAVE MARKING-THERMO DOTTED LANE EXTEN - WET REFLECTIVE (2' SKIP, 6' GAP)	LFT	1070
25008EC	PAVE STRIPING-THERMO-6 IN W-WET REFLECT	LFT	13820
25009EC	PAVE STRIPING-THERMO-6 IN Y-WET REFLECT	LFT	14320



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

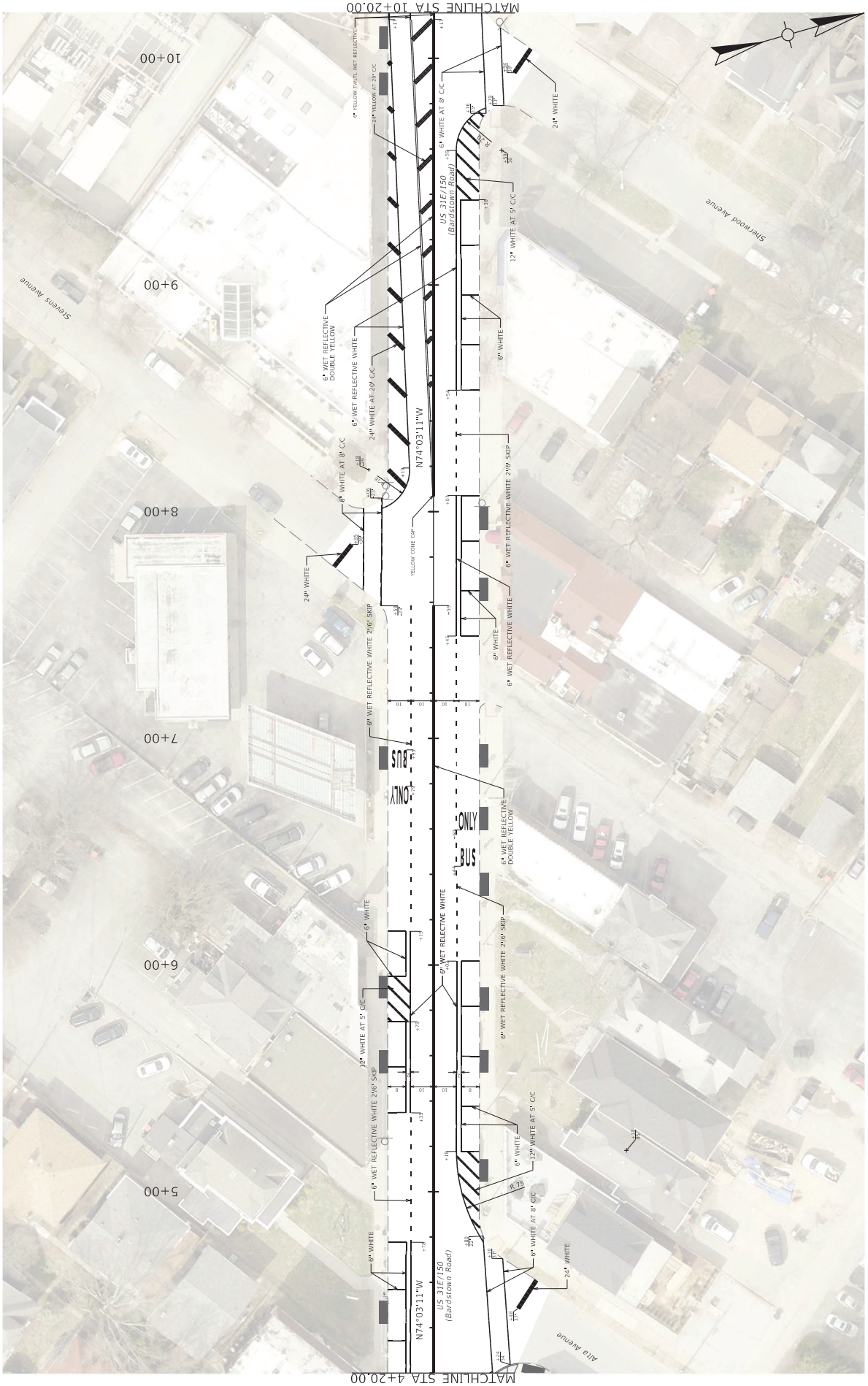
HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 00+00 TO 04+20

ITEM NO. 05-09030.00
COUNTY OF JEFFERSON
SHEET NO. T003

OpenRoads Designer v10.16.0.80 USER: andrew.perez DATE PLOTTED: 9/7/2005 7:08:02 PM FILE NAME: C:\PWWORK\KYTC_ANDREW.PEREZ\D1969146\05_09030_00_T_PLAN.DGN



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. T004

STA 04+20 TO 10+20

FILE NAME: C:\PW\WORK\KYTC_ANDREW.PEREZ\D19691460\5_09030_00_T_PLAN.DGN
USER: andrew.perez
DATE PLOTTED: 9/7/2005 7:38:02 PM
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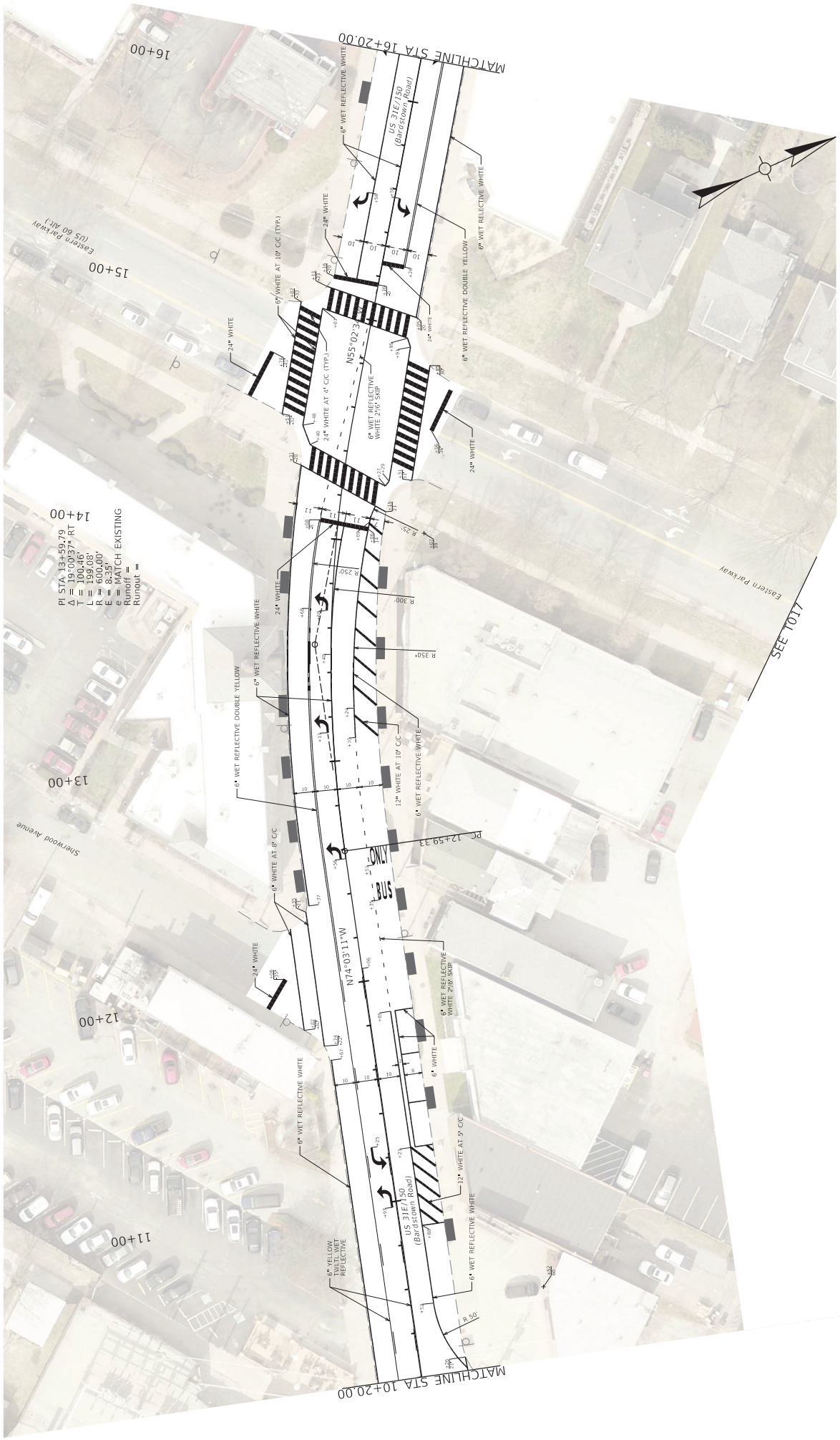

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 10+20 TO 16+20

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. T005

FILE NAME: C:\PW\WORK\KYTC_ZACHARY.CASSIDY\D1908146\05_09030_00_T_PLAN.DGN
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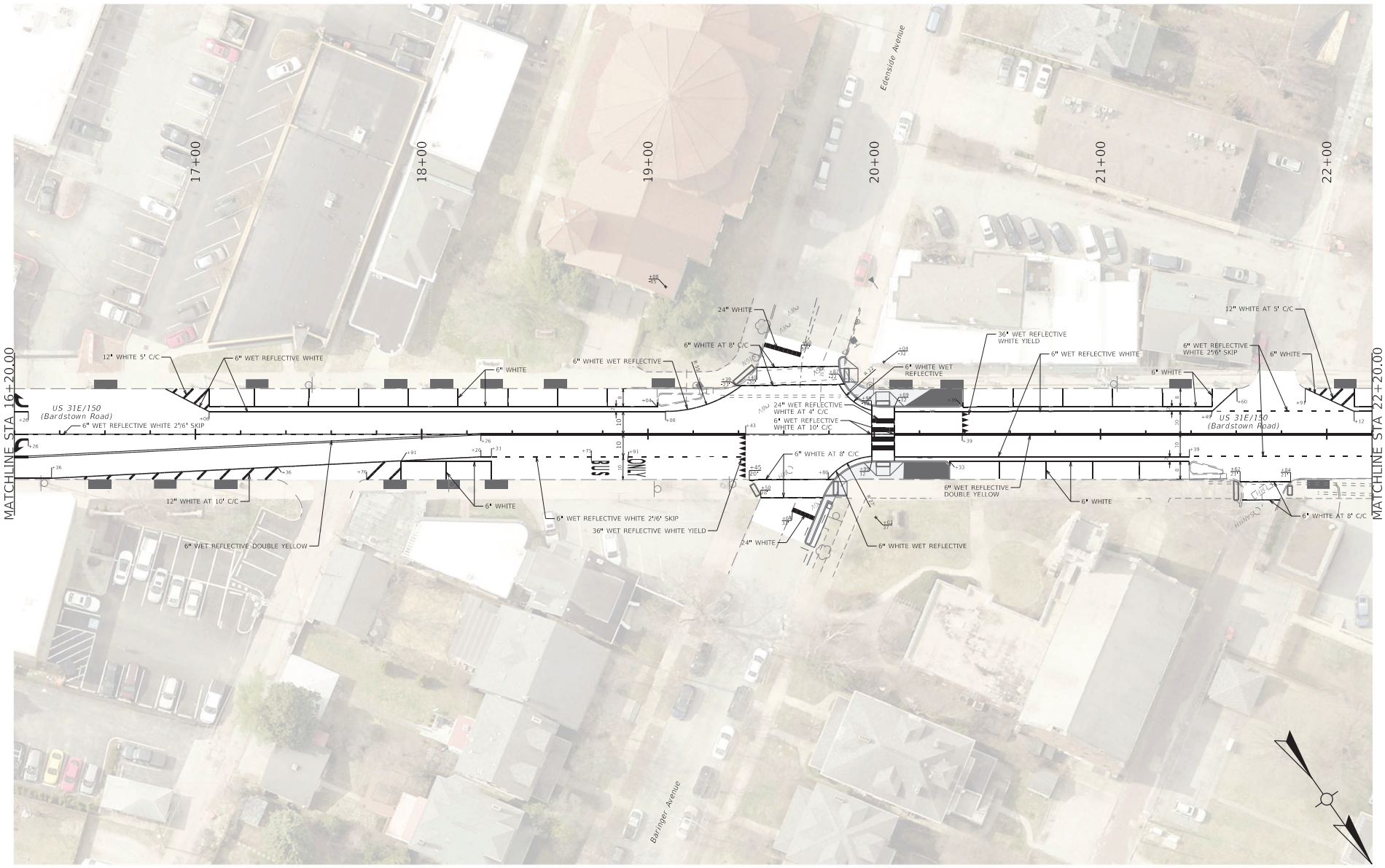
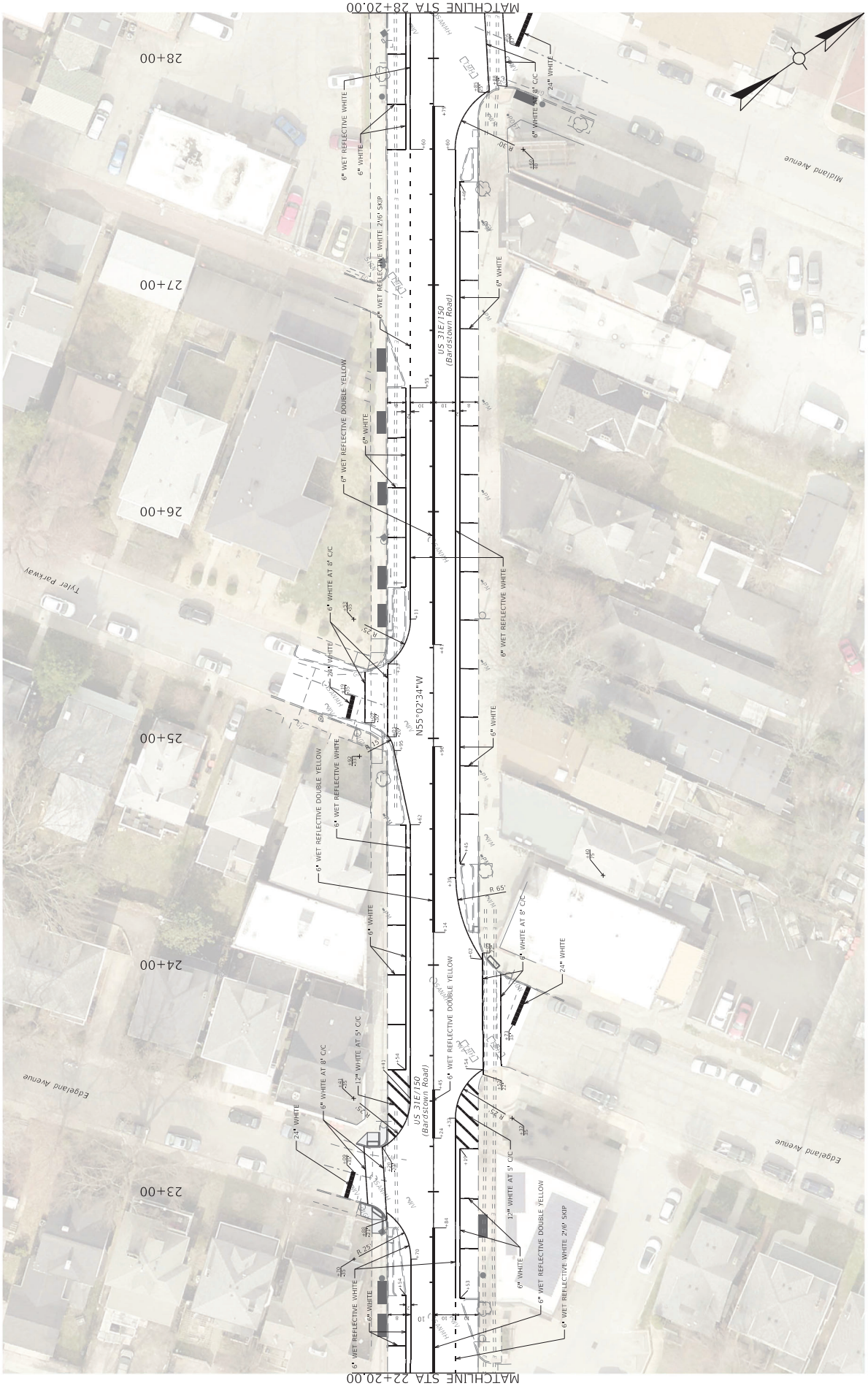


COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	DRAWING TITLE: PAVEMENT MARKING PLAN SHEET	HORIZONTAL SCALE SCALE: 1" = 20'	STA 16+20 TO 22+20	ITEM NO. 05-09030.00 COUNTY OF JEFFERSON SHEET NO. T006

0' 20' 40' 80'

OpenRoads Designer v10.16.0.80 USER: zachary.cassidy DATE PLOTTED: 9/7/2005 7:08:02 PM FILE NAME: C:\PWWORK\KYTC_ZACHARY.CASSIDY\D1969146\05_09030_00_T_PLAN.DGN



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 22+20 TO 28+20

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. T007

FILE NAME: C:\PW\WORK\KYTC_ZACHARY.CASSIDY\D1908144606_09030_00_T_PLAN.DGN
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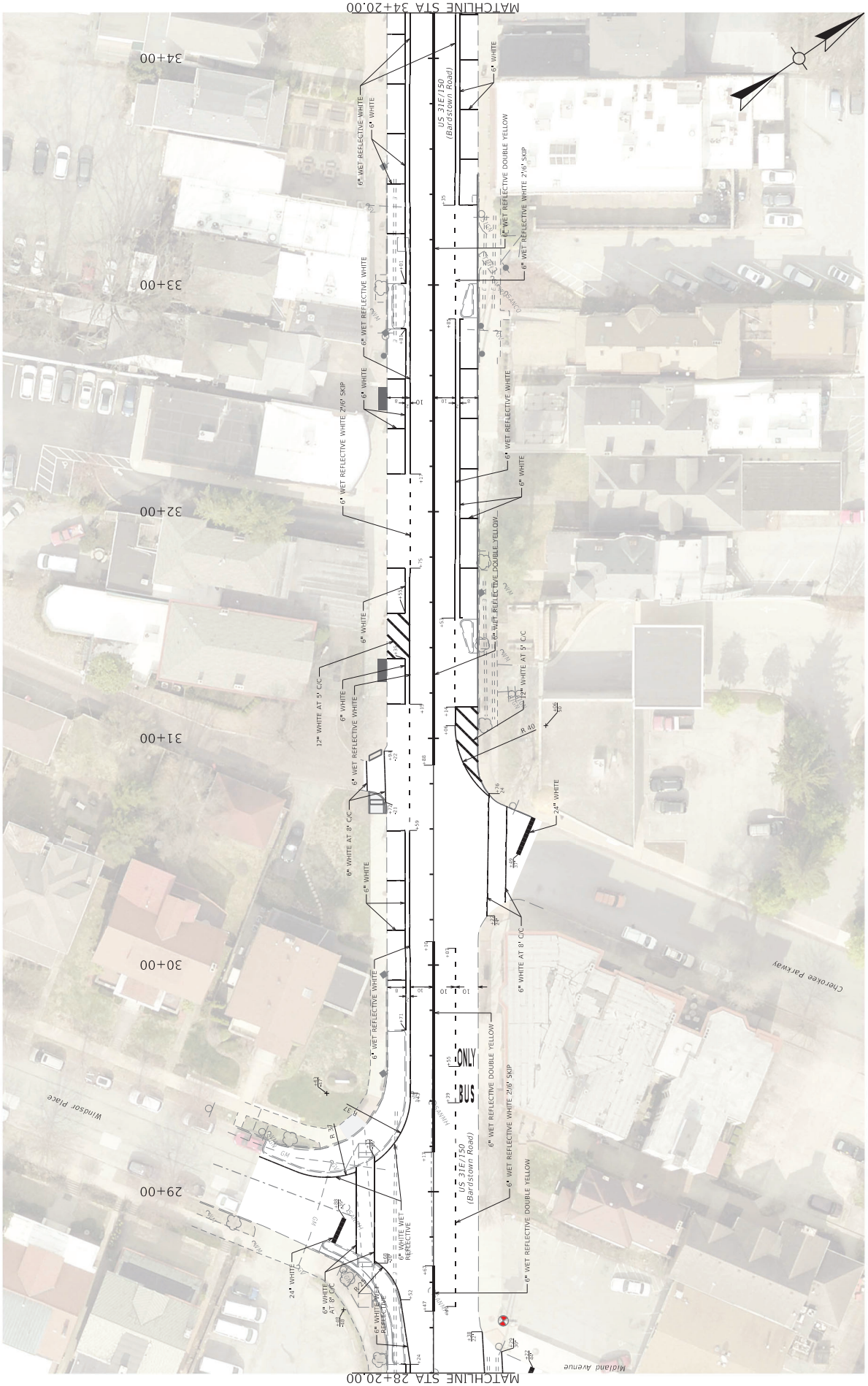

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 28+20 TO 34+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON
SHEET NO. T008

FILE NAME: C:\PW\WORK\KYTC_ZACHARY.CASSIDY\D1908146\05_09030_00_T_PLAN.DGN
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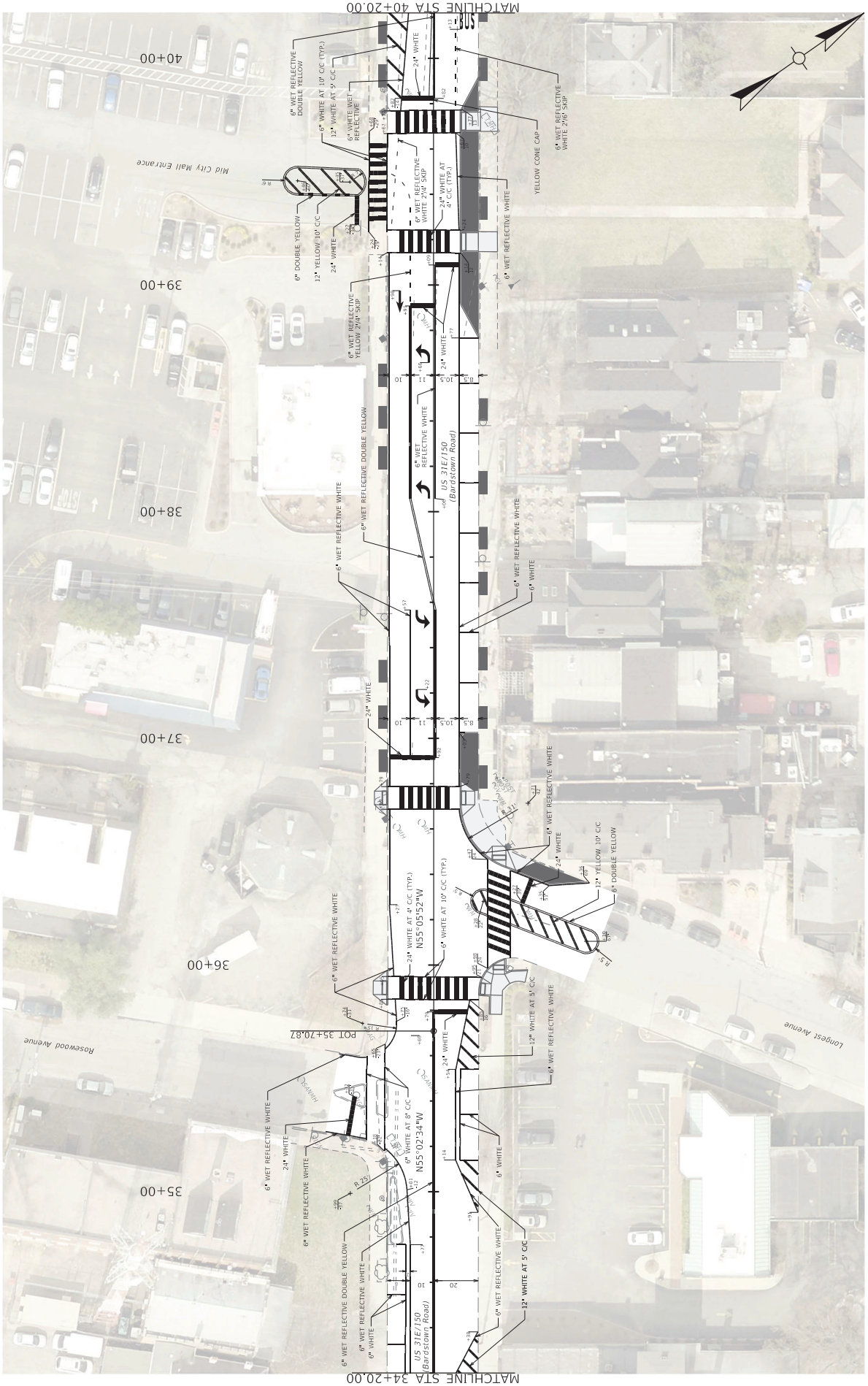
OpenRoads Designer v10.16.0.80



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 34+20 TO 40+20

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. T009

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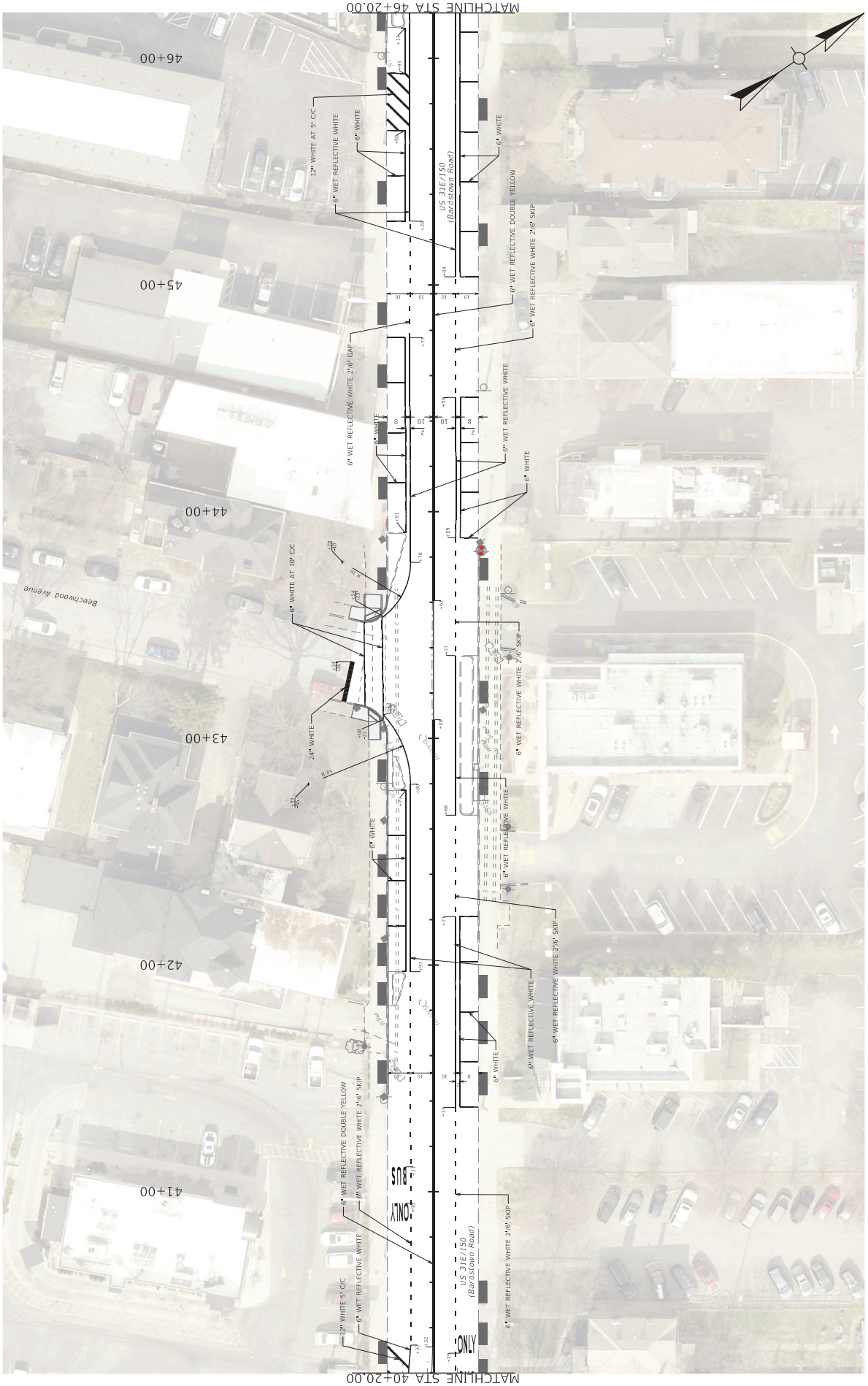

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 40+20 TO 46+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON
SHEET NO. T010

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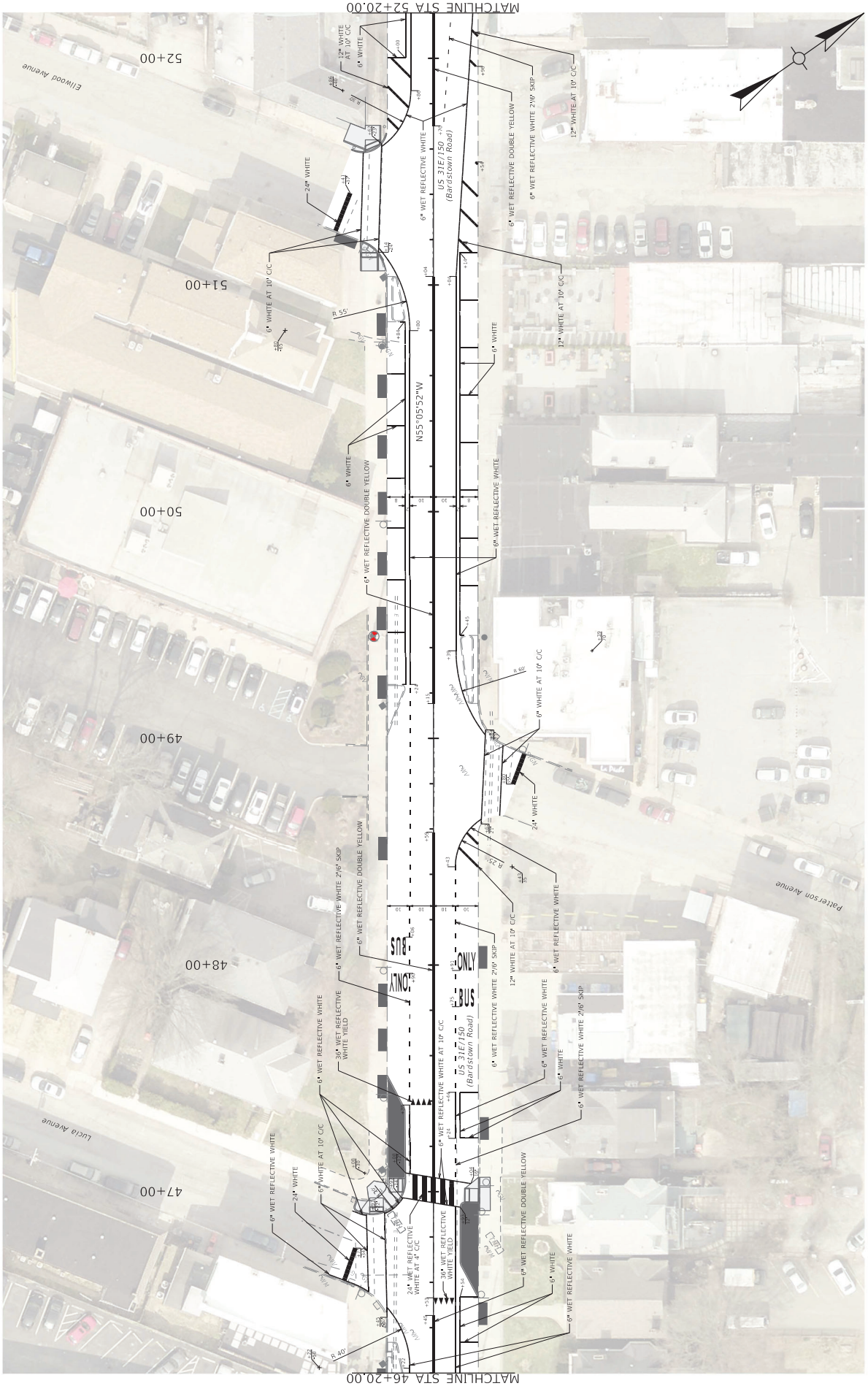

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 16+20 TO 52+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON
SHEET NO. T011

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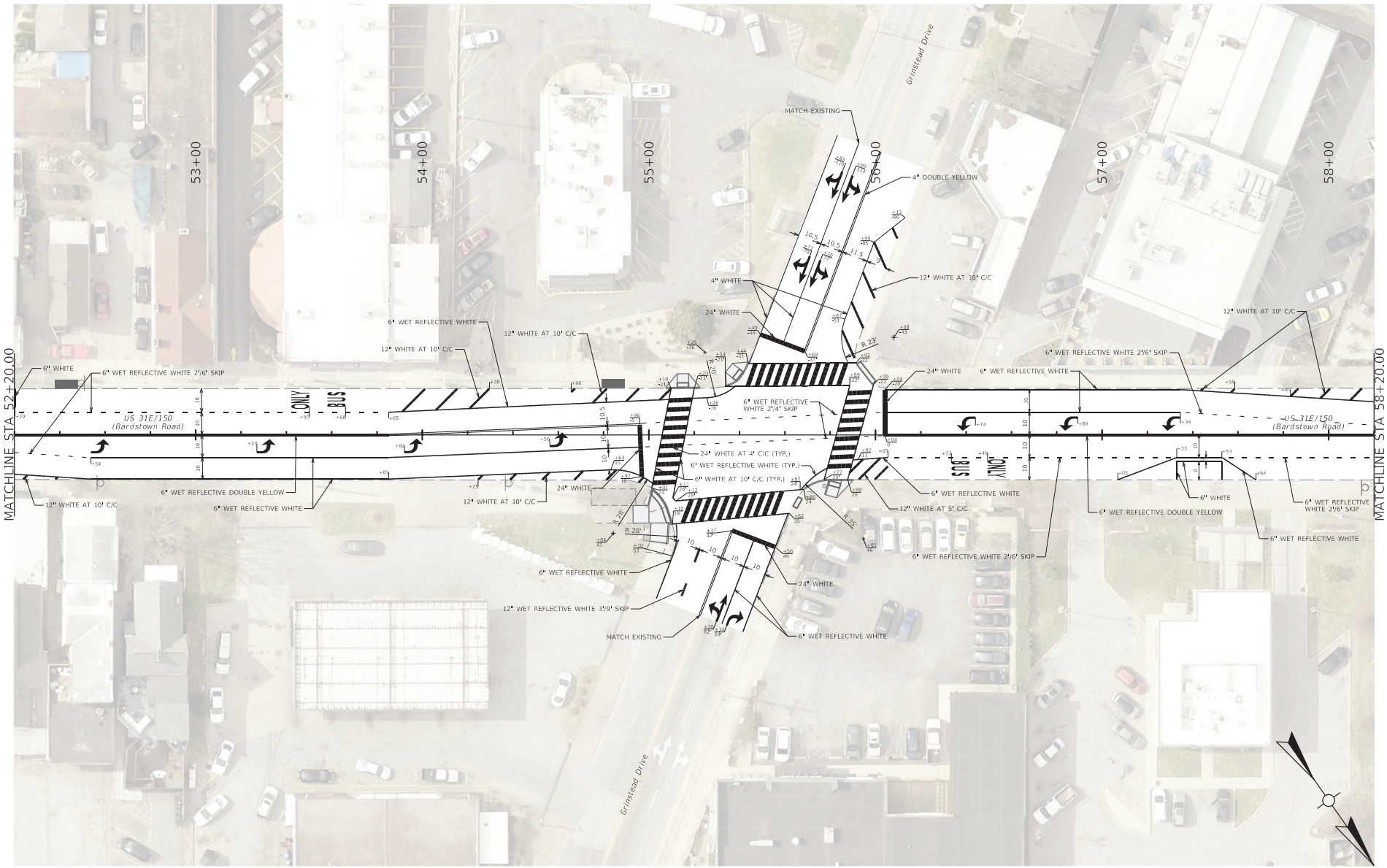
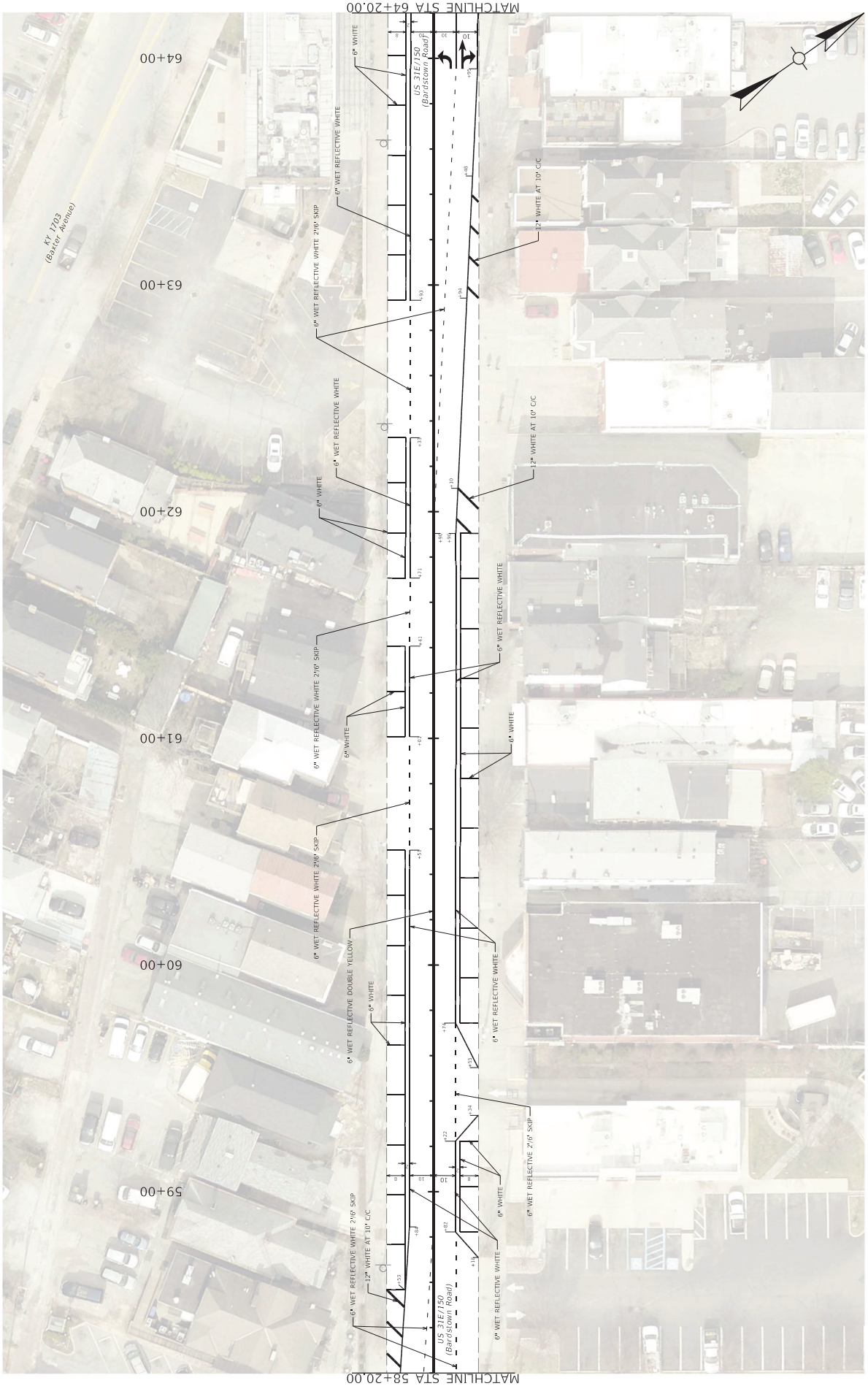


COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	DRAWING TITLE: PAVEMENT MARKING PLAN SHEET	HORIZONTAL SCALE SCALE: 1" = 20'	STA 52+20 TO 58+20	ITEM NO. 05-09030.00 COUNTY OF JEFFERSON SHEET NO. T012

OpenRoads Designer v10.16.0.80 USER: zachary.cassidy DATE PLOTTED: 9/7/2005 7:08:02 PM FILE NAME: C:\PWWORK\KYTC_ZACHARY.CASSIDY\D196914\05_09030_00_T_PLAN.DGN



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 58+20 TO 64+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON
SHEET NO. T013

USER: zachary.cassidy
DATE PLOTTED: 9/7/2005 7:38:02 PM
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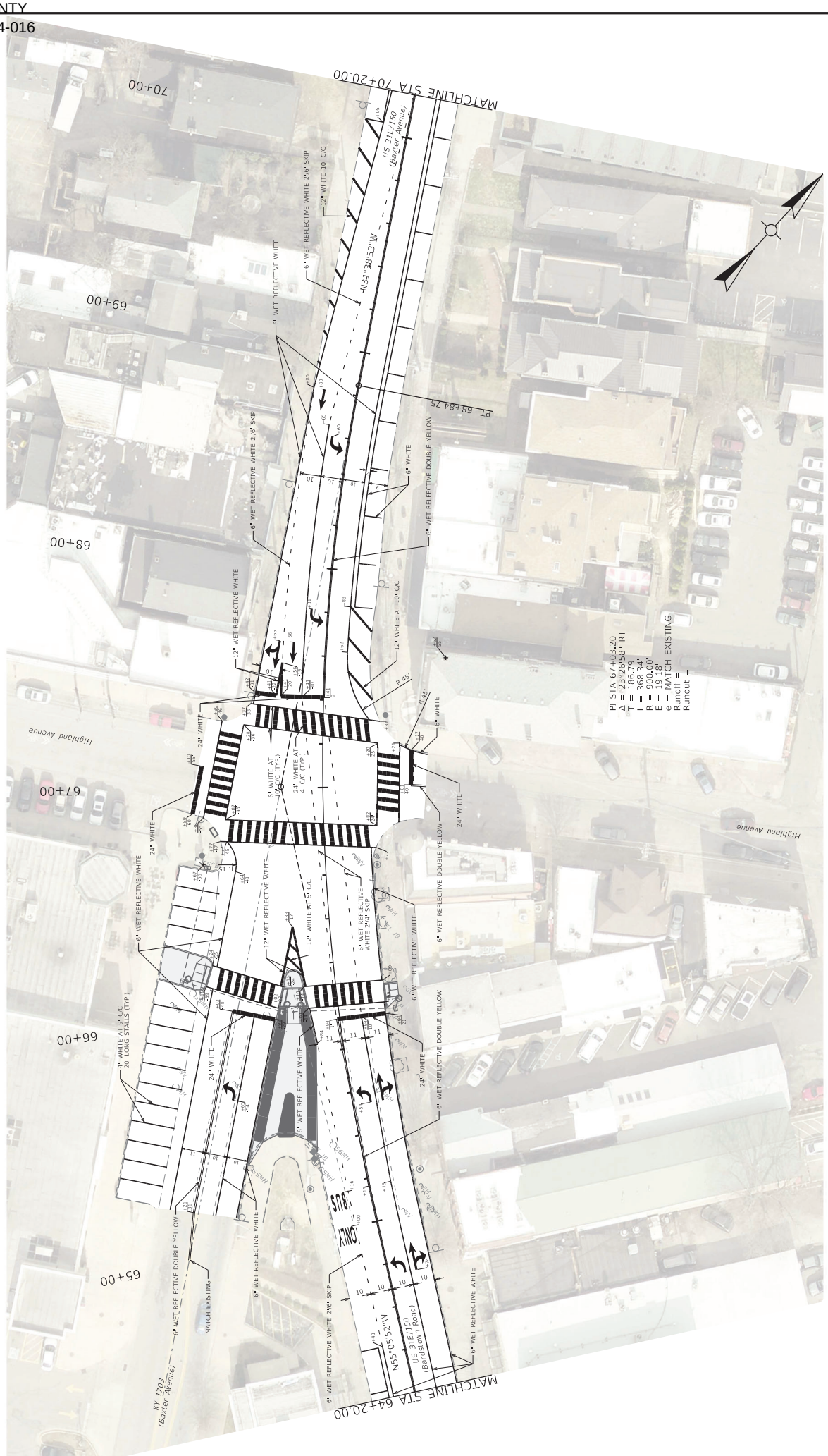
OpenRoads Designer v10.16.0.80



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 64+20 TO 70+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON
SHEET NO. T014

FILE NAME: C:\PW\WORK\KYTC_ZACHARY.CASSIDY\D1908146\05_09030_00_T_PLAN.DGN
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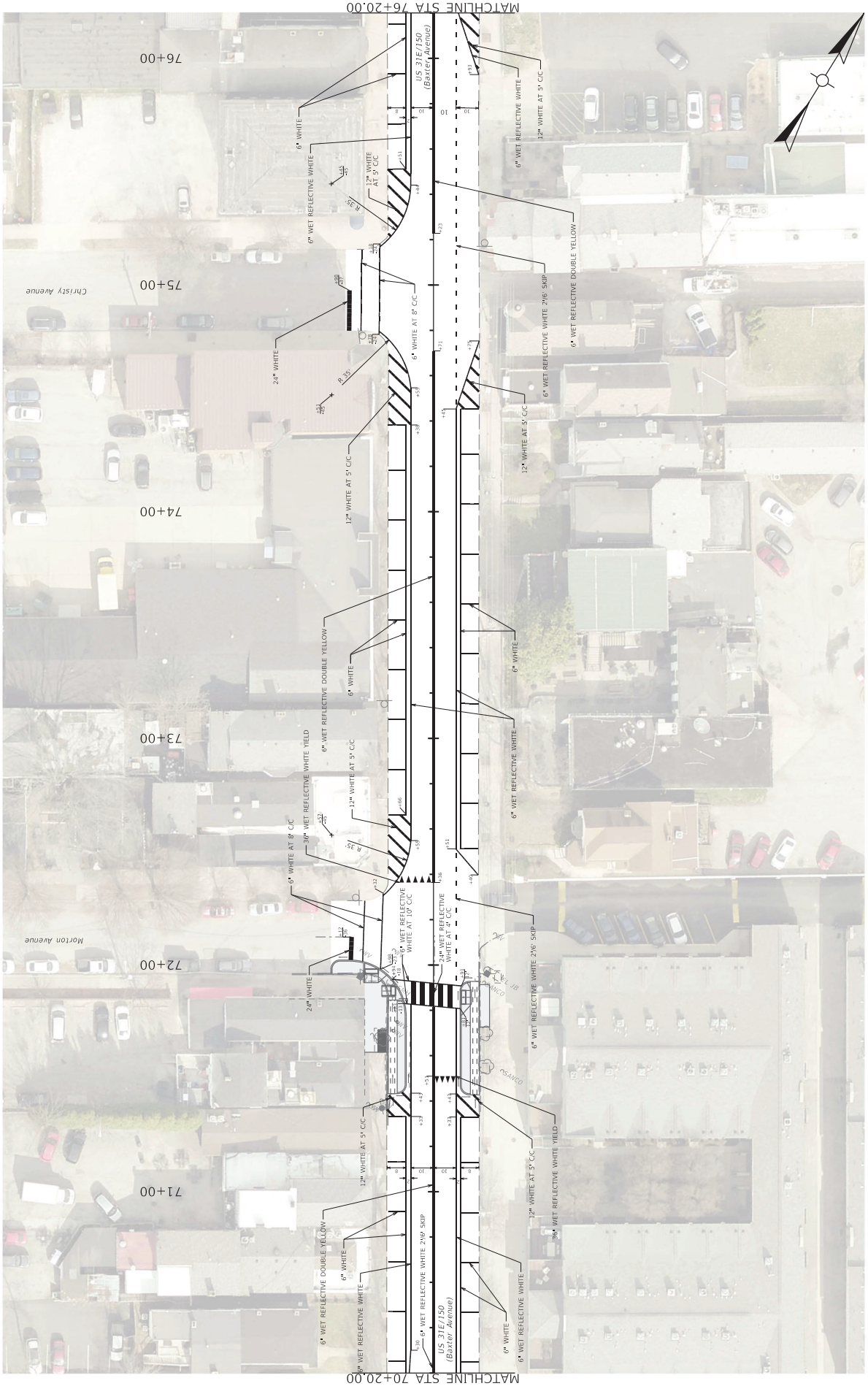

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 70+20 TO 76+20

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON
SHEET NO. T015

FILE NAME: C:\PW\WORK\KYTC_ZACHARY.CASSIDY\D1908146\05_09030_00_T_PLAN.DGN
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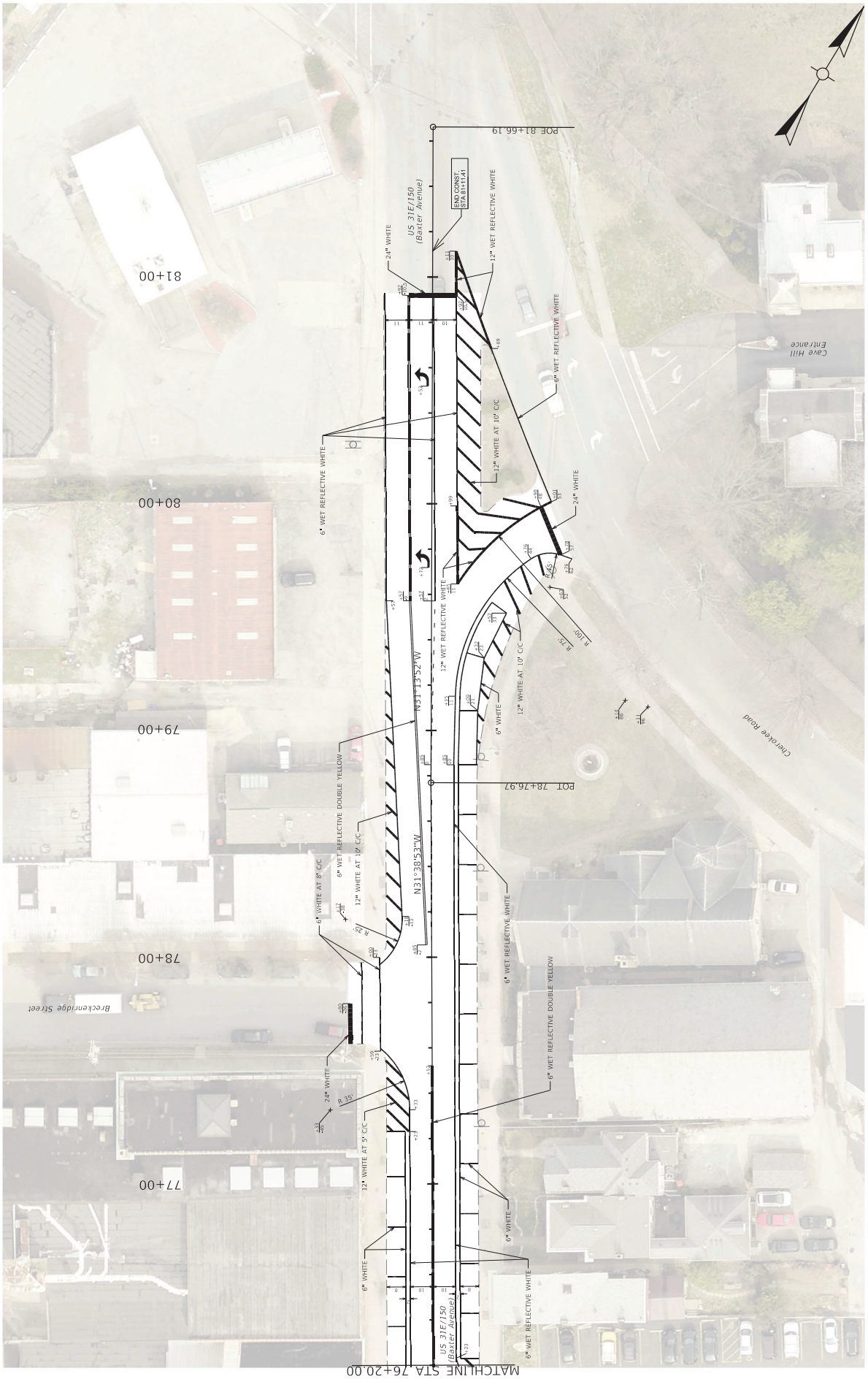

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

STA 76+20 TO 81+66.19

ITEM NO. 05-99030.00 COUNTY OF JEFFERSON
SHEET NO. T016

FILE NAME: C:\PW\WORK\KYTC_ANDREW.PEREZ\D19691460\5_09030_00_T_PLAN.DGN
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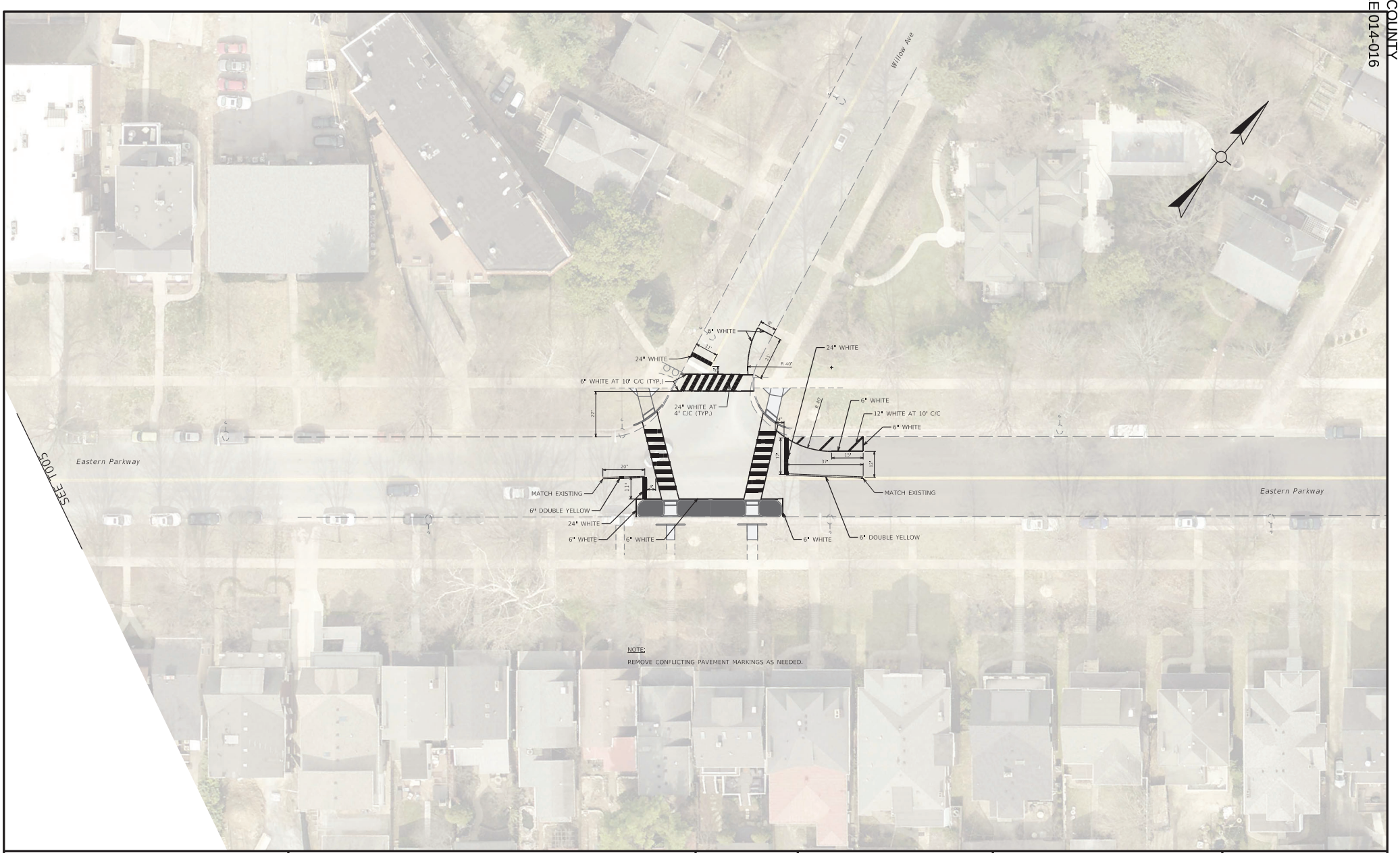


NOTE:
REMOVE CONFLICTING PAVEMENT MARKINGS AS NEEDED.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

DRAWING TITLE: PAVEMENT MARKING PLAN SHEET

HORIZONTAL SCALE
SCALE: 1" = 20'

0' 20' 40' 80'

EASTERN PARKWAY AND WILLOW AVENUE

ITEM NO. 05-09030.00 COUNTY OF JEFFERSON

SHEET NO. T017

OpenRoads Designer v10.16.0.80 USER: andrew.perez DATE PLOTTED: 9/7/2005 7:08:02 PM FILE NAME: C:\PWWORK\KYTC_ANDREW.PEREZ\D1969146\05_09030_00_T_PLAN.DGN

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020.*

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:

http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx

1I

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
3) Provide a controller consisting of:
   a) Keyboard or keypad.
   b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
   c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
   d) Logic circuitry to control the sequence of messages and flash rate.
4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
11) Provide a photocell control to provide automatic dimming.

1I

12) Allow an on-off flashing sequence at an adjustable rate.
13) Provide a sight to aim the message.
14) Provide a LED display color of approximately 590 nm amber.
15) Provide a controller that is password protected.
16) Provide a security device that prevents unauthorized individuals from accessing the controller.
17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/AHEAD/
/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

1I

the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

11N

SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

11N

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ^{o} F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.

5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s)			3.0-3.4	2.5-2.9	2.0-2.4	≤1.9
ASTM D 3236	4.0-10.0	3.5-10.5	10.6-11.0	11.1-11.5	11.6-12.0	≥ 12.1
Cone Penetration, 77 ° F			54-56	51-53	48-50	≤ 47
ASTM D 5329	60-100	57-103	104-106	107-109	110-112	≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code	Pay Item	Pay Unit
20071EC	Joint Adhesive	Linear Foot

May 7, 2014

2020 STANDARD DRAWINGS THAT APPLY

ROADWAY

~ GENERAL ~

MISCELLANEOUS STANDARDS

DETECTABLE WARNINGS RGX-040-03

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

CURB AND GUTTER, CURBS AND VALLEY GUTTER RPM-100-11
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT RPM-110-07
ISLAND CURB CONSTRUCTION DETAILS (RIGID & FLEXIBLE PAVEMENT) RPM-120-07
SIDEWALK RAMPS RPM-170-09

TRAFFIC

~ PERMANENT ~

MARKERS

PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS ..... Sepia 017
TYPICAL ENTRANCE RAMP MARKINGS TPM-200
TYPICAL MARKINGS AT SIGNALIZED INTERSECTIONS TPM-203
TYPICAL MARKINGS FOR ISLANDS AND MEDIANS TPM-205
TYPICAL MARKINGS FOR TURN LANES PAGE 1 ..... TPM-206
TYPICAL MARKINGS FOR TURN LANES PAGE 2 ..... TPM-207

~ TEMPORARY ~

TRAFFIC CONTROL

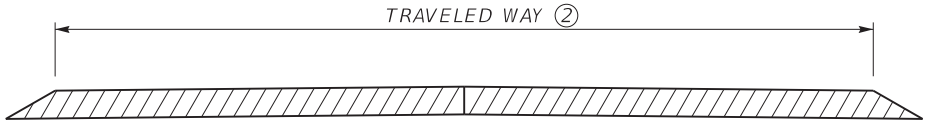
LANE CLOSURE TWO-LANE HIGHWAY TTC-100-05
LANE CLOSURE MULTI-LANE HIGHWAY CASE I TTC-115-04
SHOULDER CLOSURE TTC-135-03

DEVICES

PAVEMENT CONDITION WARNING SIGNS TTD-125-03

STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE I TTS-100-02
MOBILE OPERATION FOR PAINT STRIPING CASE II TTS-105-02
MOBILE OPERATION FOR DURABLE STRIPING CASE III TTS-130-02
MOBILE OPERATION FOR DURABLE STRIPING CASE IV TTS-135-02



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

TRAVELED WAY (2)	TYPE OF PAVEMENT STRIPING	NON-STATE PRIMARY ROUTES				STATE PRIMARY ROUTES	
		< 1000 ADT		>= 1000 ADT		ANY ADT	
		WIDTH	MATERIAL	WIDTH	MATERIAL	WIDTH	MATERIAL*
< 16' (4)	EDGELINE STRIPES ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
16' TO < 20'	EDGELINE STRIPES ONLY OR CENTERLINE STRIPE ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
>=20' (3)	CENTERLINE AND EDGELINE STRIPES	4" (5)	PAINT	6"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)

*OTHER DURABLE NON-WATERBORNE MARKINGS MAY BE USED WITH APPROVAL FROM THE DIVISION OF TRAFFIC OPERATIONS.

~ NOTES ~

1. INSTALL PAVEMENT STRIPING ON TWO LANE, TWO WAY ROADWAYS AS DETAILED IN THE ABOVE TABLE AND IN ACCORDANCE WITH THE PAVEMENT MARKINGS AND DELINEATION CHAPTER OF THE TRAFFIC OPERATIONS GUIDANCE MANUAL. CONTACT THE DIVISION OF TRAFFIC OPERATIONS FOR ADDITIONAL GUIDANCE IF NECESSARY.

(2) THE TRAVELED WAY IS THE PORTION OF ROADWAY FOR THE MOVEMENT OF VEHICLES, EXCLUSIVE OF THE SHOULDERS.

(3) ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS THAN 22 FT, EDGELINE RUMBLE STRIPS ARE NOT A STANDARD APPLICATION, BUT THEY MAY BE INSTALLED. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL EDGELINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT, AS WELL AS THE DIMENSION AND PLACEMENT DETAILS OF THE RUMBLE STRIPS AND PAVEMENT STRIPING.

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 22 FT OR GREATER, BUT LESS THAN 34 FT, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND EDGELINE RUMBLE STRIPS AS DETAILED ON TPR-120 .

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 34 FT OR GREATER, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUCTION WITH CENTERLINE AND SHOULDER RUMBLE STRIPS AS DETAILED ON TPR-125.

(4) EDGELINES MAY BE OMITTED FROM ROADWAYS WITH A TRAVELED WAY WIDTH LESS THAN 16 FEET WITH THE APPROVAL OF THE DIVISION OF TRAFFIC OPERATIONS.

(5) EDGELINES MAY BE OMITTED ON NON-STATE PRIMARY ROUTES WITH A TRAVELED WAY WIDTH GREATER THAN OR EQUAL TO 20 FEET AND AN ADT LESS THAN 1,000.

6. EDGELINES MAY BE OMITTED, BASED ON ENGINEERING JUDGMENT, IN AREAS WHERE THE PAVEMENT EDGE IS DELINEATED BY PHYSICAL OBJECTS SUCH AS CURBS, PARKING SPACES, OR OTHER MARKINGS. EDGELINES SHOULD BE INSTALLED ON ROADWAYS WITH CURB AND GUTTER IF THE POSTED SPEED LIMIT IS 45 MPH OR GREATER.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.
TPR-120 & TPR-125

KENTUCKY
DEPARTMENT OF HIGHWAYS

PAVEMENT STRIPING
DETAILS FOR TWO LANE
TWO WAY ROADWAYS

SUBMITTED _____ 06-09-21
DIVISION DIRECTOR DATE

017

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LABOR AND WAGE REQUIREMENTS
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY
GENERAL ASSEMBLY TO PREVENT
DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address: **https://www.eProcurement.ky.gov**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

EMPLOYEE RIGHTS
UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE
$7.25 PER HOUR
BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

224313

PROPOSAL BID ITEMS

Report Date 4/25/22

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00190		LEVELING & WEDGING PG64-22	168.00	TON		$	
0020	00388		CL3 ASPH SURF 0.38B PG64-22	3,361.00	TON		$	
0030	02676		MOBILIZATION FOR MILL & TEXT (JEFFERSON US 31E)	1.00	LS		$	
0040	02677		ASPHALT PAVE MILLING & TEXTURING	3,361.00	TON		$	
0050	20071EC		JOINT ADHESIVE	26,000.00	LF		$	
0060	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	17.00	TON		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0070	01719		ADJUST INLET	1.00	EACH		$	
0080	01720		RECONSTRUCT INLET	2.00	EACH		$	
0090	01792		ADJUST MANHOLE	10.00	EACH		$	
0100	01810		STANDARD CURB AND GUTTER	24.00	LF		$	
0110	01875		STANDARD HEADER CURB	1,107.00	LF		$	
0120	01904		REMOVE CURB	50.00	LF		$	
0130	02200		ROADWAY EXCAVATION	124.00	CUYD		$	
0140	02460		REMOVE TREES OR STUMPS	1.00	EACH		$	
0150	02562		TEMPORARY SIGNS	790.00	SQFT		$	
0160	02650		MAINTAIN & CONTROL TRAFFIC (JEFFERSON US 31E)	1.00	LS		$	
0170	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		$	
0180	02720		SIDEWALK-4 IN CONCRETE	651.00	SQYD		$	
0190	02726		STAKING (JEFFERSON US 31E)	1.00	LS		$	
0200	02775		ARROW PANEL	4.00	EACH		$	
0210	03425		ADJUST WATER VALVE	15.00	EACH		$	
0220	05952		TEMP MULCH	282.00	SQYD		$	
0230	06510		PAVE STRIPING-TEMP PAINT-4 IN	40,000.00	LF		$	
0240	06514		PAVE STRIPING-PERM PAINT-4 IN	500.00	LF		$	
0250	06531		PAVE STRIPING REMOVAL-6 IN	210.00	LF		$	
0260	06542		PAVE STRIPING-THERMO-6 IN W	8,350.00	LF		$	
0270	06546		PAVE STRIPING-THERMO-12 IN W (WET REFLECTIVE)	330.00	LF		$	
0280	06565		PAVE MARKING-THERMO X-WALK-6 IN	3,740.00	LF		$	
0290	06565		PAVE MARKING-THERMO X-WALK-6 IN (WET REFLECTIVE)	160.00	LF		$	
0300	06568		PAVE MARKING-THERMO STOP BAR-24IN	790.00	LF		$	
0310	06569		PAVE MARKING-THERMO CROSS-HATCH	2,610.00	SQFT		$	
0320	06573		PAVE MARKING-THERMO STR ARROW	3.00	EACH		$	
0330	06574		PAVE MARKING-THERMO CURV ARROW	29.00	EACH		$	
0340	06575		PAVE MARKING-THERMO COMB ARROW	9.00	EACH		$	
0350	06576		PAVE MARKING-THERMO ONLY	13.00	EACH		$	
0360	06600		REMOVE PAVEMENT MARKER TYPE V	300.00	EACH		$	
0370	10020NS		FUEL ADJUSTMENT	5,520.00	DOLL	$1.00	$	$5,520.00

224313

PROPOSAL BID ITEMS

Report Date 4/25/22

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0380	10030NS		ASPHALT ADJUSTMENT	13,863.00	DOLL	$1.00	$	$13,863.00
0390	20550ND		SAWCUT PAVEMENT	1,138.00	LF		$	
0400	21417ES717		PAVE MARK THERMO CONE CAP-SOLID YELLOW	6.00	SQFT		$	
0410	22520EN		PAVE MARKING-THERMO YIELD BAR-36 IN (WET REFLECTIVE)	80.00	LF		$	
0420	23158ES505		DETECTABLE WARNINGS (NEW)	482.00	SQFT		$	
0430	23158ES505		DETECTABLE WARNINGS (RETROFIT)	122.00	SQFT		$	
0440	23261EC		PAVE MARK-THERMO-X-WALK-24 IN	2,130.00	LF		$	
0450	23261EC		PAVE MARK-THERMO-X-WALK-24 IN (WET REFLECTIVE)	150.00	LF		$	
0460	23807EC		SIDEWALK REMOVAL	65.00	LF		$	
0470	23928EC		PAVE MARK-THERMO "BUS" 8 FT	13.00	EACH		$	
0480	24683ED		PAVE MARKING-THERMO DOTTED LANE EXTEN (WET REFLECTIVE)	1,270.00	LF		$	
0490	24890EC		SIDEWALK-8 IN CONCRETE	14.00	SQYD		$	
0500	25008EC		PAVE STRIPING-THERMO-6 IN W-WET REFLECT	13,820.00	LF		$	
0510	25009EC		PAVE STRIPING-THERMO-6 IN Y-WET REFLECT	14,320.00	LF		$	
0520	25071ED		SIDEWALK UNDERDRAIN	46.00	EACH		$	

Section: 0003 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0530	04793		CONDUIT-1 1/4 IN	244.00	LF		$	
0540	04811		ELECTRICAL JUNCTION BOX TYPE B	10.00	EACH		$	
0550	04821		OPEN CUT ROADWAY	244.00	LF		$	
0560	04830		LOOP WIRE	6,350.00	LF		$	
0570	04850		CABLE-NO. 14/1 PAIR	1,100.00	LF		$	
0580	04882		SIGNAL PEDESTAL	3.00	EACH		$	
0590	04895		LOOP SAW SLOT AND FILL	2,530.00	LF		$	
0600	23235EC		INSTALL PEDESTAL POST	1.00	EACH		$	
0610	24963ED		LOOP TEST	19.00	EACH		$	

Section: 0004 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0620	02568		MOBILIZATION	1.00	LS		$	
0630	02569		DEMOBILIZATION	1.00	LS		$	