

3. Flashing Arrow Requirement

Whenever any part of the traveled surface is closed, the motorists shall be warned and directed by the contractor through the use of one flashing arrow panel for each lane closed. The contractor shall refer to Supplement Specification 821 and the provisions set forth in the "Manual" for all information regarding furnishing, maintaining, and use of flashing arrow panels.

4. Drums

Drums shall be in accordance with pertinent sections of the "Manual". All costs for installing, maintaining, and subsequent removal of said drums is to be included in the lump sum bid price for Item 614 - Maintaining Traffic.

5. Cones

Cones, if utilized, are to be located as shown in the "Manual" and the standard drawings.

6. Barrier

Portable barrier if necessary is to be located as shown in the "manual" and the standard drawings.

7. Flashers

Flashers shall be 12 volt battery-operated models with 7 inch diameter yellow lenses illuminated by rapid intermittent flashers of short duration and are to be placed on all signs at all times as required by the "Manual" and the standard construction drawings.

8. Floodlighting

Floodlighting of the worksite for operations conducted during the nighttime periods shall be accomplished so that the lights do not cause glare to the drivers on the roadway. To ensure adequacy of the floodlight placement, the contractor and engineer shall drive through the worksite each night when the lighting is in place and operative prior to commencing any work. If glare is detected, the light placement and shielding shall be adjusted to the satisfaction of the engineer before work proceeds.

9. Work Vehicles

All work vehicles licensed to operate on the highway, shall be equipped with a flashing, rotating, or oscillating amber light visible to all directions of traffic for a minimum of one-quarter mile in bright sunlight and shall be operated with lighted head and tail lamps. The amber light shall be in operation at all times within the work zone and while traveling to and from the work zone whenever the vehicle speed is below the posted legal limit. Vehicle hazard lights do not satisfy this requirement. All other equipment shall be equipped with a flashing, rotating, or oscillating amber light visible to all directions of traffic for a minimum of one-quarter mile in bright sunlight. The amber light shall be in operation while the equipment is within the work zone.

V. Payment

Payment for providing, erecting, maintaining and removing temporary maintenance of traffic control devices shall be made under the lump sum price bid for Item 614 - Maintaining Traffic.

Continuous Access

The contractor shall maintain safe and adequate driveways and walkways in order to provide continuous access for pedestrians, passenger vehicles, trucks, and safety equipment to all adjoining properties. The cost for all materials, equipment and labor necessary to provide continuous access shall be included in the lump sum price bid for Item 614 - Maintaining Traffic.

Construction Traffic

All construction traffic shall use acceptable truck routes to access the construction area. Use of local residential streets is strictly prohibited unless allowed in writing by the local enforcement authority.

Location 4 Maintenance of Traffic Scheme

For the installation and removal of cables at Location 4 (Ramp F-7) ramps from Rockside Rd to IR-77 NB and the ramp from IR-77NB to IR-480 EB/WB shall be closed per Maintenance of Traffic Plans - Phase 1 from 1AM to 5 AM on weekdays only. For installation of plates, ramps from Rockside Rd to IR-77 NB shall be closed and traffic from IR-77NB to IR-480 EB/WB shall be shifted per Maintenance of Traffic Plans - Phases 2 and 3 between 1AM and 5AM on weekdays only. Closures shall not be implemented on Saturday and Sunday mornings.

- Portable Changeable Message Signs (PCMS) shall be placed before the ramps **14** full days prior to closure per the applicable note. Provide a PCMS at the point of closure to direct traffic on IR-77 NB to remain on IR-77 NB, follow IR-77 NB to the Grant Ave exit (Exit 205), and re-enter IR-77 SB from Grant Ave. From there, motorists can access IR-480 EB/WB. In addition to the first PCMS used to detour traffic at the point of closure, provide a second PCMS on IR-77 NB located 1-mile in advance advising motorists of the detour ahead.
- Portable Changeable Message Signs (PCMS) shall be placed before the Rockside Rd ramps to I-77NB **14** full days prior to closure per the applicable note. Provide a PCMS at the point of closure to direct traffic on Rockside Rd EB to follow Brecksville Rd (SR-21 NB) to IR-77 NB to the Grant Ave exit (Exit 205), and re-enter IR-77 SB from Grant Ave. From there, motorists can access IR-480 EB/WB. Additionally, provide a PCMS at the point of closure to direct traffic on Rockside Rd WB to follow Broadview Rd (SR-176 NB) to Brookpark Rd (SR-17) to IR-480 EB. From there, motorists can access IR-77 NB.
- In addition to the first PCMS used to detour traffic at the point of closure, provide a second PCMS on Rockside Rd EB/WB located 1-mile in advance advising motorists of the detour ahead.

- Suggested messages for IR-77 NB PCMS boards prior to date of closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

| Phase 1 | Phase 2 | Phase 1 | Phase 2 |
|------------------------|----------------|--------------------------|-------------------------|
| [RAMP CLOSED XX/XX/XX] | [1 AM TO 5 AM] | [RAMP TO I-480 TO CLOSE] | [XX/XX/XX 1 AM TO 5 AM] |

- Suggested messages for IR-77 NB PCMS boards during closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

| Phase 1 | Phase 2 | Phase 1 | Phase 2 |
|---------------|---------------------------|------------------------|--------------------------|
| [RAMP CLOSED] | [USE EXIT 158 TO I-77 SB] | [RAMP TO I-480 CLOSED] | [FOLLOW DETOUR EXIT 158] |

- Suggested messages for Rockside Rd EB/WB PCMS boards prior to date of closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

| Phase 1 | Phase 2 | Phase 1 | Phase 2 |
|------------------------|----------------|---------------------------------|-------------------------|
| [RAMP CLOSED XX/XX/XX] | [1 AM TO 5 AM] | [RAMP TO I-77 & I-480 TO CLOSE] | [XX/XX/XX 1 AM TO 5 AM] |

- Suggested messages for Rockside Rd EB PCMS boards during closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

| Phase 1 | Phase 2 | Phase 1 | Phase 2 |
|---------------|------------------------------|-------------------------------|-----------------------|
| [RAMP CLOSED] | [USE SR-21 TO I-77 TO GRANT] | [RAMP TO I-77 & I-480 CLOSED] | [FOLLOW DETOUR SR-21] |

- Suggested messages for Rockside Rd WB PCMS boards during closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

| Phase 1 | Phase 2 | Phase 1 | Phase 2 |
|---------------|-----------------------------------|-------------------------------|------------------------|
| [RAMP CLOSED] | [USE SR-176 NB TO SR-17 TO I-480] | [RAMP TO I-77 & I-480 CLOSED] | [FOLLOW DETOUR SR-176] |

- Closure shall take place between 1:00 AM and 5:00 AM except on Saturday and Sunday mornings.
- One night-time closure will be permitted for cable assembly (MOT Phase 1), two night-time closures will be permitted for platform assembly (MOT Phases 2 & 3), two night-time closures will be permitted for platform disassembly (MOT Phases 4 & 5), and one night-time closure will be permitted for cable disassembly (MOT Phase 6). Therefore, six total night-time closures are permitted for this location.
- PCMS's notifying the public of the closure shall be installed 14 calendar days prior to the closure being implemented per the applicable plan note.
- The Contractor shall notify the City of Independence Fire Chief Steve Rega at (216) 524-4001 a minimum of 14 calendar days prior to the closure being implemented and include him in all discussions involving maintained EMS access to the Ramp.

Item 614 - Law Enforcement Officer (With Patrol Car) for Assistance During Construction Operations

Use of **Law Enforcement Officers (LEOs)** by contractors other than the uses specified below will not be permitted at project cost. LEOs should not be used where the OMUTCD intends that flaggers be used.

In addition to the requirements of C&MS 614 and the OMUTCD, a uniformed **LEO** with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) shall be provided for the following traffic control tasks:

- During the entire advance preparation and closure sequence where complete blockage of traffic is required.
- During a traffic signal installation when impacting the normal function of the signal or the flow of traffic, or when traffic needs to be directed through an energized traffic signal contrary to the signal display (e.g., directing motorists through a red light).



In addition to the requirement of **C&MS 614** and the **OMUTCD**, a uniformed **LEO** with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) should be provided for the following traffic control tasks as approved by the Engineer:

- For lane closures: during initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated for long-term lane closures/shifts (for the first and last day of major changes in traffic control setup).
- For operations without positive protection occurring within 10 feet of an open traveled lane that meet all of the following criteria:
 - On a multi-lane divided interstate, other freeway or expressway; and
 - An authorized speed limit of 45 mph or greater that is in effect at the time of the operation; and,
 - AADT of 50,000 (or AADT of 30,000 with 25% or higher percent trucks)

“Without positive protection” means use of drums, cones, shadow vehicle, etc., without protection from portable barrier or other rigid barrier along the work area. This phrase does not apply to cases where positive protection is required. Mobile operations are regarded as “without positive protection”. For work zones using a combination of barrier and temporary traffic control devices (cones, drums, etc.), the designation shall be based upon the type of devices used in the area that workers are located.

If multiple active localized qualifying work areas occur without positive protection, per mainline traffic direction, provide a uniformed **LEO** and official patrol car in advance of:

- The first active work area that drivers will encounter; or
- The active work area laterally closest to the open traveled lane; or
- Other location as approved by the Engineer.

The uniformed **LEO** and official patrol car may relocate among the listed locations as appropriate as the operations proceed in the localized qualifying work areas.

In general, LEO2s should be positioned in advance of and on the same side as the lane restriction (or at the point of road closure), and to manually control traffic movements through signalized intersections in work zones.

LEOs should not forgo their traffic control responsibilities to apprehend motorists for routine traffic violations. However, if a motorist’s actions are considered to be reckless, then pursuit of the motorist is appropriate. The LEOs work at the direction of the Contractor. The Contractor is responsible for securing the services of the LEOs with the appropriate agencies and communicating the intentions of the plans with respect to duties of the LEOs. The Engineer shall have final control over the LEOs’ duties and placement, and will resolve any issues that may arise between the two parties.

Ensure provided LEOs have been trained appropriate to the job decisions they are required to make while on the project, in accordance with **C&MS 614.03**.

The **LEO** shall report in to the Contractor prior to the start of the shift, in order to receive instructions regarding specific work assignments during his/her shift. The **LEO** is expected to stay at the project site for the entire duration of his/her shift. The **LEO** shall report to the Contractor at the end of his/her shift. Should it be necessary to leave the project site, the **LEO** shall notify the Engineer. The Contractor shall provide the **LEO** with a two-way communication device that shall be returned to the Contractor at the end of his/her shift.

LEOs (with patrol car) required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under Item 614, Law Enforcement Officer (With Patrol Car) for Assistance. The following estimated quantities have been carried to the General Summary.

Item 614 - Law Enforcement Officer
 With Patrol Car for Assistance..... **400 Hours**

The hours paid shall include any minimum show-up time required by the law enforcement agency involved.

Any additional costs (administrative or otherwise) incurred by the Contractor to obtain the services of an **LEO** are included with the bid unit price for Item 614, Law Enforcement Officer With Patrol Car for Assistance.

Item 614, Maintaining Traffic (Notice of Closure Sign)

Notice of Closure signs (W20-H13) shall be erected by the Contractor prior to the scheduled road or ramp closure in accordance with the Notice of Closure Time Table below. At the approval of the Engineer, portable changeable message signs may be used in lieu of the standard flatsheet sign for closure durations of less than 1 week.

The signs shall be erected on the right-hand side of the road/ramp facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. On roadways, they should be erected at or near the point of closure. The signs may be erected anywhere on ramps as long as they are visible to the motorists using the ramp. On entrance ramps, the sign shall be erected well in advance of the merge area to avoid distracting motorists.

| Item | Duration of Closure | Sign Displayed to Public |
|----------------------|-----------------------|-----------------------------------|
| Ramp & Road Closures | >= 2 Weeks | 14 calendar days prior to closure |
| | >12 hours & < 2 weeks | 7 calendar days prior to closure |
| | <= 12 Hours | 2 business days prior to closure |

The sign shall display the date of the closure in MMM-DD format and the number of days of the closure. The last line of the W20-H13 sign lists a phone number which a motorist may call for additional information. This is to be a specific office within the District rather than the general switchboard number.

Item 614 – Portable Changeable Message Signs, As Per Plan

The Contractor shall furnish, install, maintain and remove, when no longer needed, a changeable message sign. The sign shall be of a type shown on a list of approved PCMS units available on the Office of Materials Management web page. The list contains Class A and B units with minimum legibility distances of 800 feet and 650 feet, respectively.

Each sign shall be trailer-mounted and equipped with a functional dimming mechanism, to dim the sign during darkness, and a tamper and vandal proof enclosure. Each sign shall be provided with appropriate training and operation instructions to enable on-site personnel to operate and troubleshoot the unit. The sign shall also be capable of being powered by an electrical service drop from a local utility company. The PCMS shall be delineated in accordance with C&MS 614.03.

Placement, operation, maintenance and all activation of the signs by the Contractor shall be as directed by the Engineer. The PCMS shall be located in a highly visible position yet protected from traffic. The Contractor shall, at the direction of the Engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS shall be turned off. Additionally, when not in use for extended periods of time, the PCMS shall be turned away from all traffic.

The Engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions to enable ODOT personnel to operate and troubleshoot the unit, and to revise sign messages, if necessary. All messages to be displayed on the sign will be provided by the Engineer. A list of all required pre-programmed messages will be given to the Contractor at the project preconstruction conference. The sign shall have the capability to store up to 99 messages. Message memory or pre-programmed displays shall not be lost as a result of power failures to the on-board computer. The sign legend shall be capable of being changed in the field. Three-line presentation formats with up to six message phases shall be supported. PCMS format shall permit the complete message for each phase to be read at least twice.

The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or messages changed automatically at different times of the day for different days of the week.

The PCMS unit shall be maintained in good working order by the Contractor in accordance with the provisions of C&MS 614.07. The Contractor shall, prior to activating the unit, make arrangements, with an authorized service agent for the PCMS, to assure prompt service in the event of failure. Any failure shall not result in the sign being out of service for more than 12 hours, including weekends. Failure to comply may result in an order to stop work and open all traffic lanes and/or in the Department taking appropriate action to safely control traffic. The entire cost to control traffic, accrued by the Department due to the Contractor’s noncompliance, will be deducted from moneys due, or to become due the Contractor on his contract.

The Contractor shall be responsible for 24-hour-per-day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use.

The Portable Changeable Message Sign shall have a Web Based Communication System that will allow the Contractor or ODOT to change or program the message board remotely. This system shall be password protected and may be operated from a computer or have an application that can be opened from a cell phone, android or I phone. The Web Based Communication System will show the location of each message board on a map. All charges for the Web Based Communication System will be included in the cost of this item, Portable Changeable Message Sign, As Per Plan.

Payment for the above described item shall be at the contract unit price. Payment shall include all labor, materials, equipment, fuels, lubricating oils, software, hardware and incidentals to perform the above described work.

Item 614 – Portable Changeable Message Sign,
 As Per Plan **12 Sign Month(s)**
 Assuming 6 PCMS Signs for 2 Months Average



Item 614, Maintaining Traffic (Notice of Closure Sign)

Notice of Closure signs (W20-H13) shall be erected by the Contractor prior to the scheduled road or ramp closure in accordance with the Notice of Closure Time Table below. At the approval of the Engineer, portable changeable message signs may be used in lieu of the standard flatsheet sign for closure durations of less than 1 week.

The signs shall be erected on the right-hand side of the road/ramp facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. On roadways, they should be erected at or near the point of closure. The signs may be erected anywhere on ramps as long as they are visible to the motorists using the ramp. On entrance ramps, the sign shall be erected well in advance of the merge area to avoid distracting motorists.

| Item | Duration of Closure | Sign Displayed to Public |
|----------------------|------------------------|-----------------------------------|
| Ramp & Road Closures | >= 2 Weeks | 14 calendar days prior to closure |
| | > 12 hours & < 2 weeks | 7 calendar days prior to closure |
| | <= 12 Hours | 2 business days prior to closure |

The sign shall display the date of the closure in MMM-DD format and the number of days of the closure. The last line of the W20-H13 sign lists a phone number which a motorist may call for additional information. This is to be a specific office within the District rather than the general switchboard number.

Work Zone Barrier Contingency Quantities

The following items are to be used for protection of bridge painting equipment staged along the shoulders and medians of IR-77.

The following contingency quantities have been carried to the General Summary.

- Item 642 - Work Zone Impact Attenuator, Over 24" and Less Than 36" Wide Hazards, (Unidirectional)..... **4 Each**
- Item 622 - Portable Barrier, Unanchored..... **400 Ft**

Holiday Closures

No work shall be performed and all existing lanes shall be open to traffic during the following designated holidays or events:

| | | |
|---------------------------|-----------|------------------------------------|
| New Years (Observed) | | Memorial Day |
| Fourth of July (Observed) | Labor Day | General/Regular Election Day (Nov) |
| Thanksgiving | Christmas | (Other Holiday or Special Event) |

The period of time that the lanes are to be open depends on the day of the week on which the holiday or special event falls. The following schedule shall be used to determine this period:

| Day of Holiday or Special Event | Times All Lanes Must Be Open to Traffic |
|---------------------------------|--|
| Sunday | 12:00N Friday through 6:00 AM Monday |
| Monday | 12:00N Friday through 6:00 AM Tuesday |
| Monday (Total Solar Eclipse) | 12:00N Friday through 6:00 AM Wednesday |
| Tuesday | 12:00N Monday through 6:00 AM Wednesday |
| Tuesday (Gen. / Reg. Election) | 5:00 AM Tuesday through 12:00 AM Wednesday |
| Wednesday | 12:00N Tuesday through 6:00 AM Thursday |
| Thursday | 12:00N Wednesday through 6:00 AM Friday |
| Thursday (Thanksgiving only) | 6:00 AM Wednesday through 6:00 AM Monday |
| Friday | 12:00N Thursday through 6:00 AM Monday |
| Saturday | 12:00N Friday through 6:00 AM Monday |

During the same periods, maintain pedestrian access if pedestrian access was present prior to construction.

Should the Contractor fail to meet any of these requirements, the Contractor shall be assessed a disincentive per the lane value contract (PN 127).

Lane Closure Disincentive

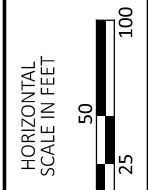
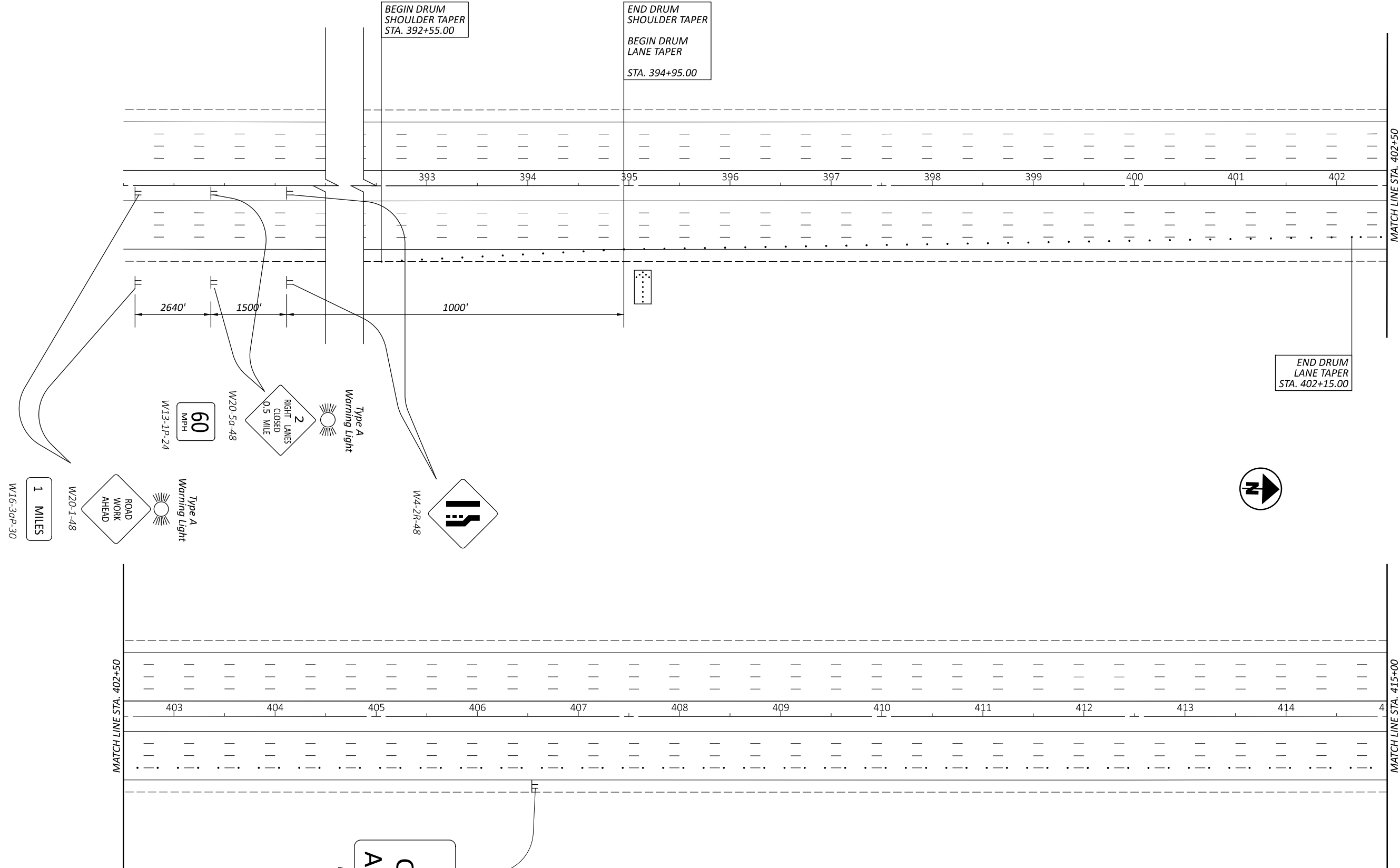
A lane closure is defined as any restriction of a lane of traffic including, but not limited to, set-up and tear-down of traffic control zones. The contractor will be assessed a disincentive fee as per the lane value contract table for lanes that are closed to traffic during times designated as "Lane Closure Not Permitted" as stated in these plans and on the ODOT PLCM Website.

Lane Value Contract Table

| Description of Critical Lane/Ramp to be Maintained | Restricted Time Period | Time Unit | Disincentive \$ per Time Unit per Lane |
|--|--|-------------|--|
| IR-77 NB/SB at W Snowville Rd (CUY-77-0.38) | As per the D12 Permitted Lane Closure Schedule | Each Minute | \$165 |
| IR-77 NB/SB at Oakes Rd (CUY-77-2.24) | As per the D12 Permitted Lane Closure Schedule | Each Minute | \$190 |
| IR-77 NB/SB Lacey at Ln (CUY-77-4.26) | As per the D12 Permitted Lane Closure Schedule | Each Minute | \$225 |
| IR-77 NB/SB at Ramp F-7 over Ramp SW (Rockside Rd to IR-77N) | As per the D12 Permitted Lane Closure Schedule | Each Minute | \$285 |

The Contractor shall be assessed a disincentive equal to the largest disincentive within all sections impacted by the physical lane restriction, including the Transition Area, Activity Area, and Termination Area as defined by the OMUTCD. Holiday disincentives shall be applied per section per lane per time unit.





MAINTENANCE OF TRAFFIC PLANS
 IR-77 PHASES 1 & 6

DESIGN AGENCY



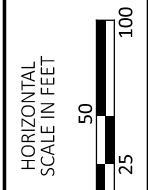
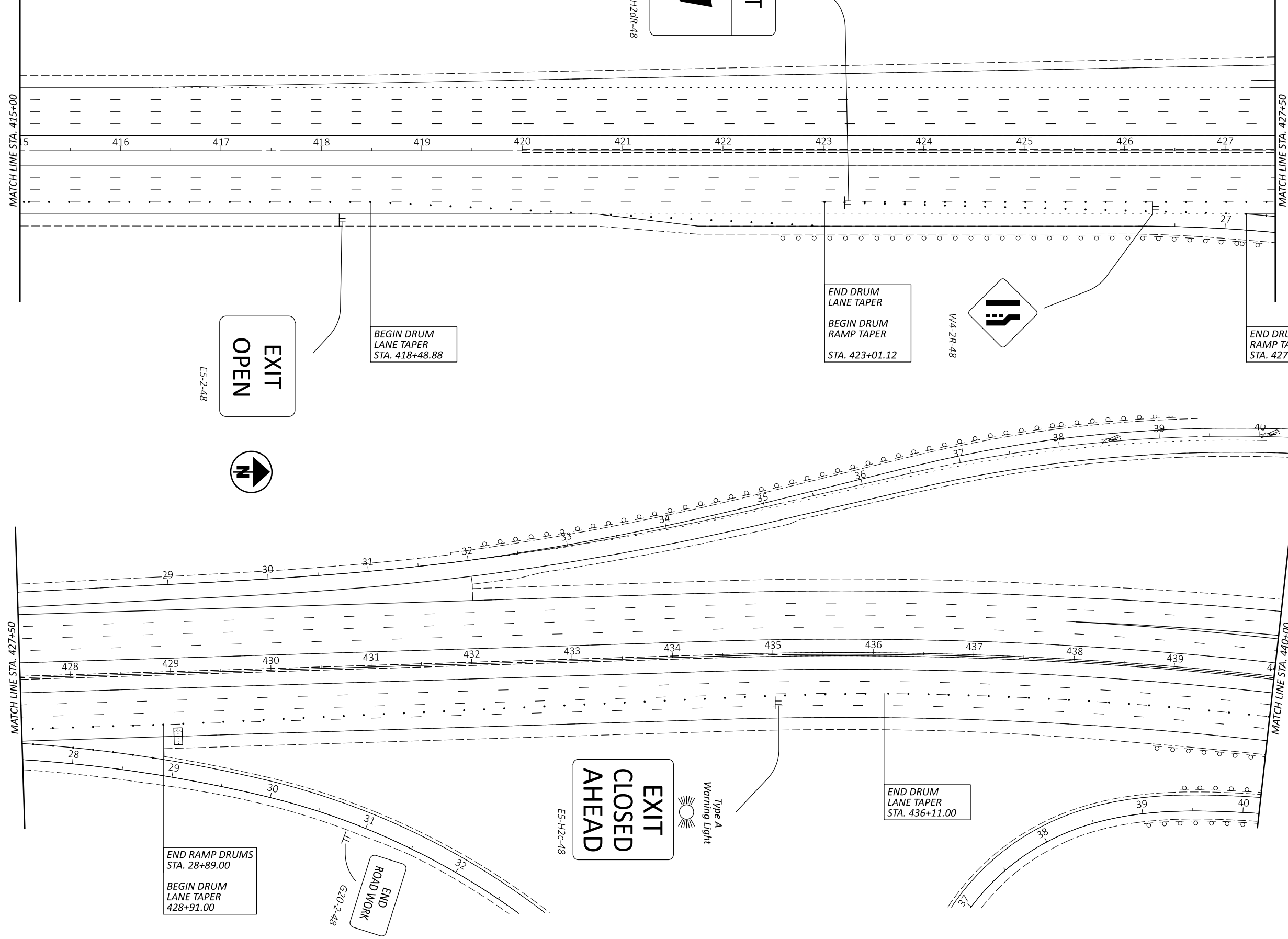
DESIGNER
 KHD

REVIEWER
 PAT

PROJECT ID
 01-23-24

PROJECT ID
 110502

SHEET TOTAL
 P.10 24



MAINTENANCE OF TRAFFIC PLANS
IR-77 PHASES 1 & 6

DESIGN AGENCY



DESIGNER
KHD

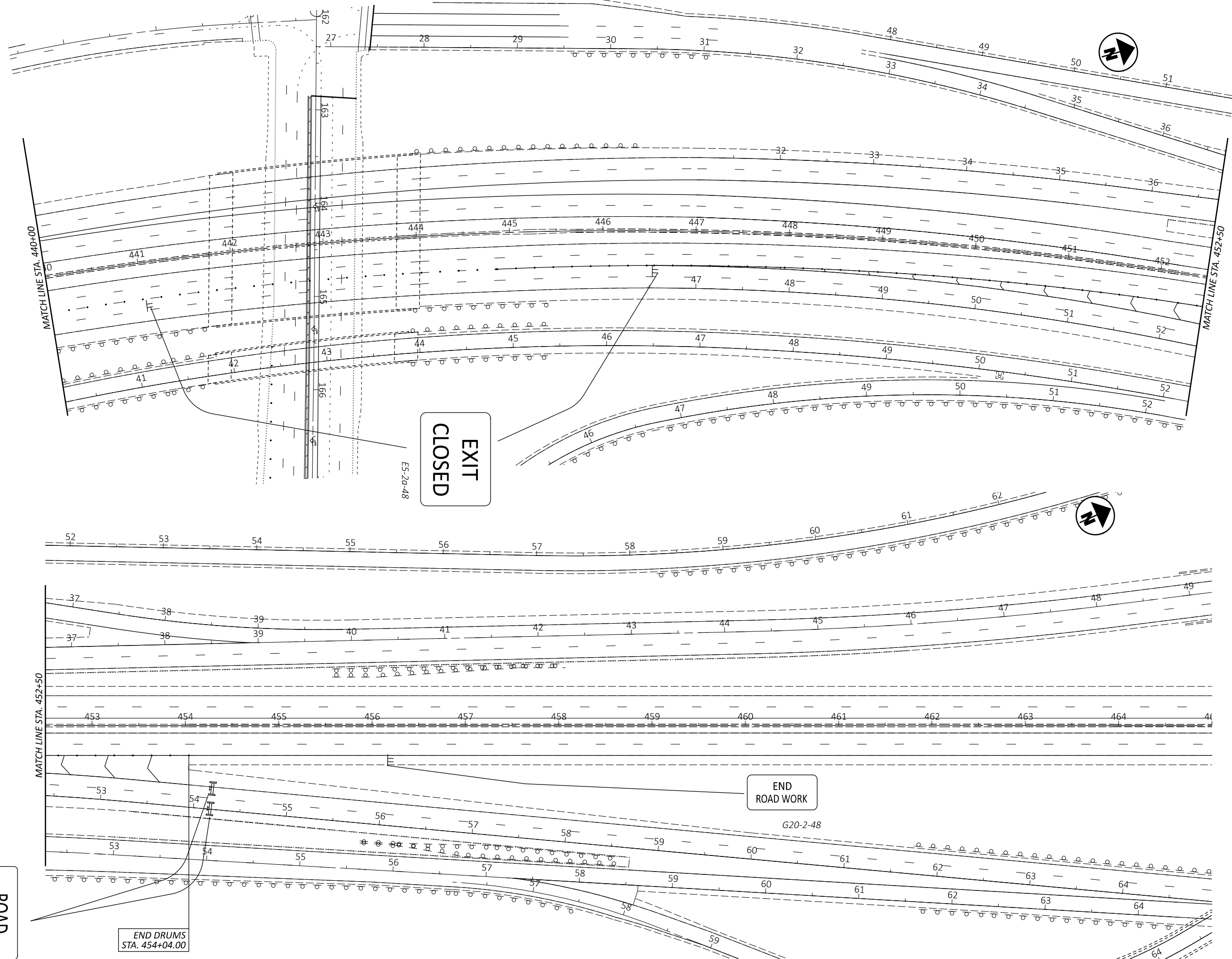
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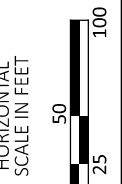
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| SHEET | TOTAL |
| P.11 | 24 |

R11-2-48

ROAD
CLOSED



END DRUMS
STA. 454+04.00



MAINTENANCE OF TRAFFIC PLANS
IR-77 PHASES 1 & 6

DESIGN AGENCY



DESIGNER
KHD

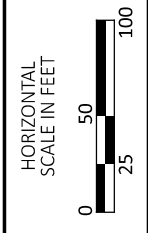
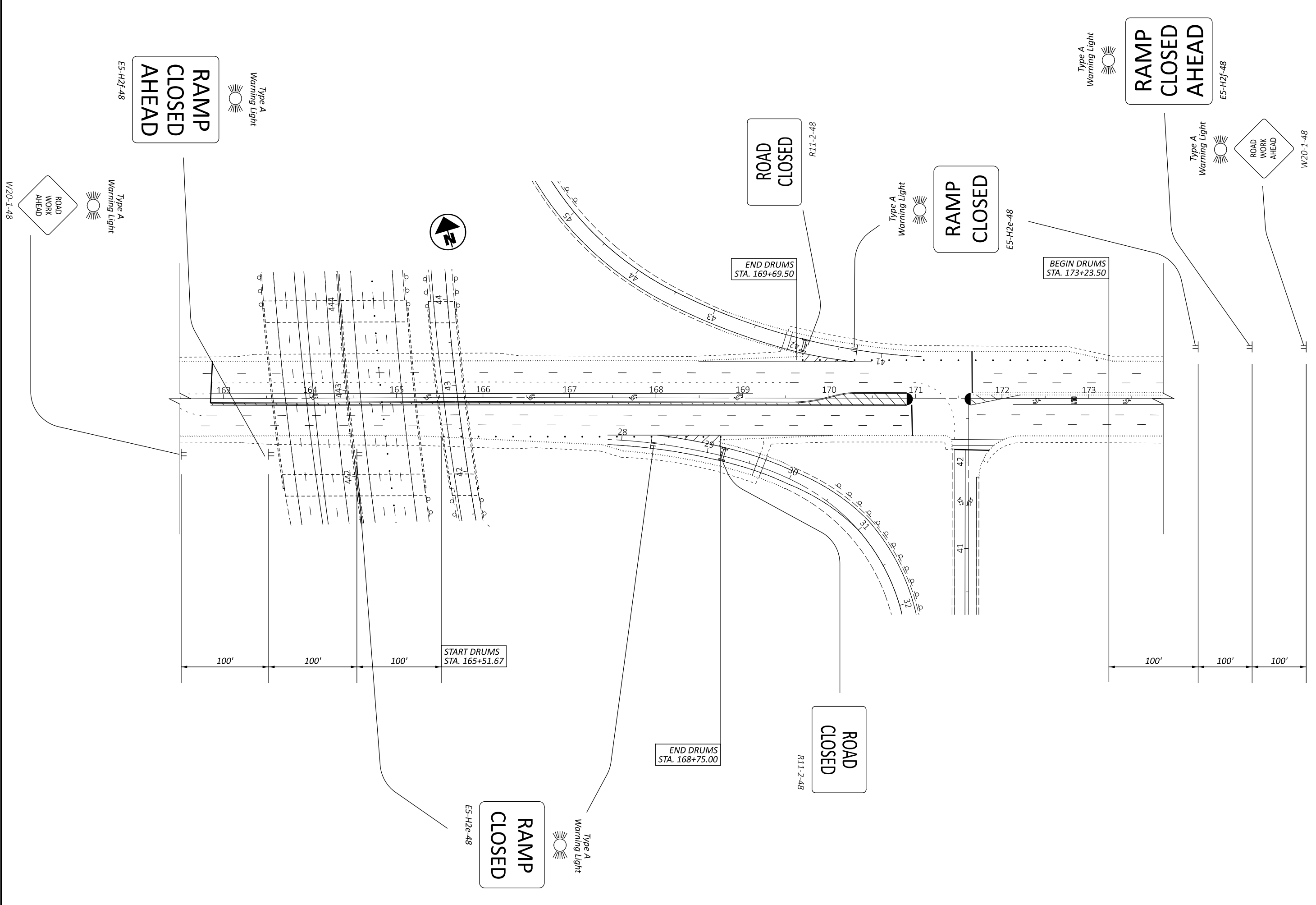
REVIEWER
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PROJECT ID
110502

SHEET TOTAL

P.12 24



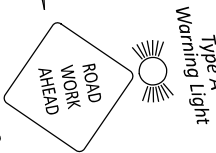
**MAINTENANCE OF TRAFFIC PLANS
ROCKSIDE RD PHASES 1 TO 6**

| | |
|---------------|--------------|
| DESIGN AGENCY | |
| | |
| DESIGNER | KHD |
| REVIEWER | PAT 01-23-24 |
| PROJECT ID | 110502 |
| SHEET | TOTAL |
| P.13 | 24 |

W16-3dP-30

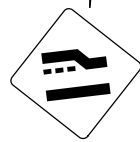
1 MILES

W20-1-48



Type A Warning Light

W4-2L-48



Type A Warning Light

W13-1P-24
60 MPH

W20-5-48



Type A Warning Light

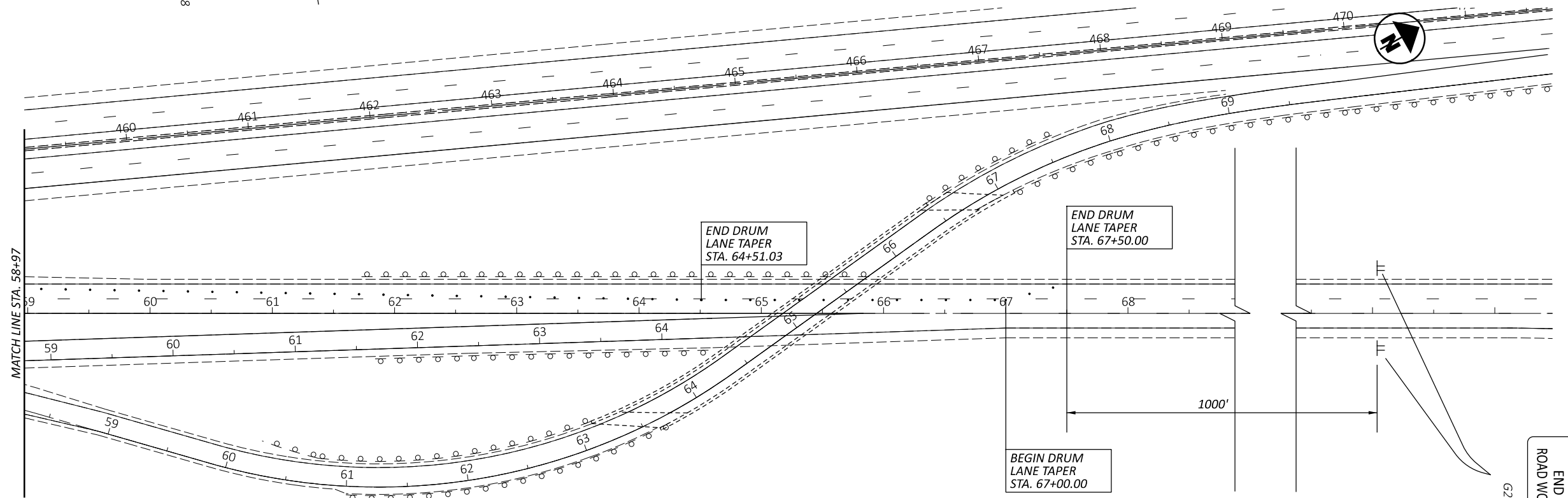
Warning Light

2560'

1500'

1000'

MATCH LINE STA. 58+97



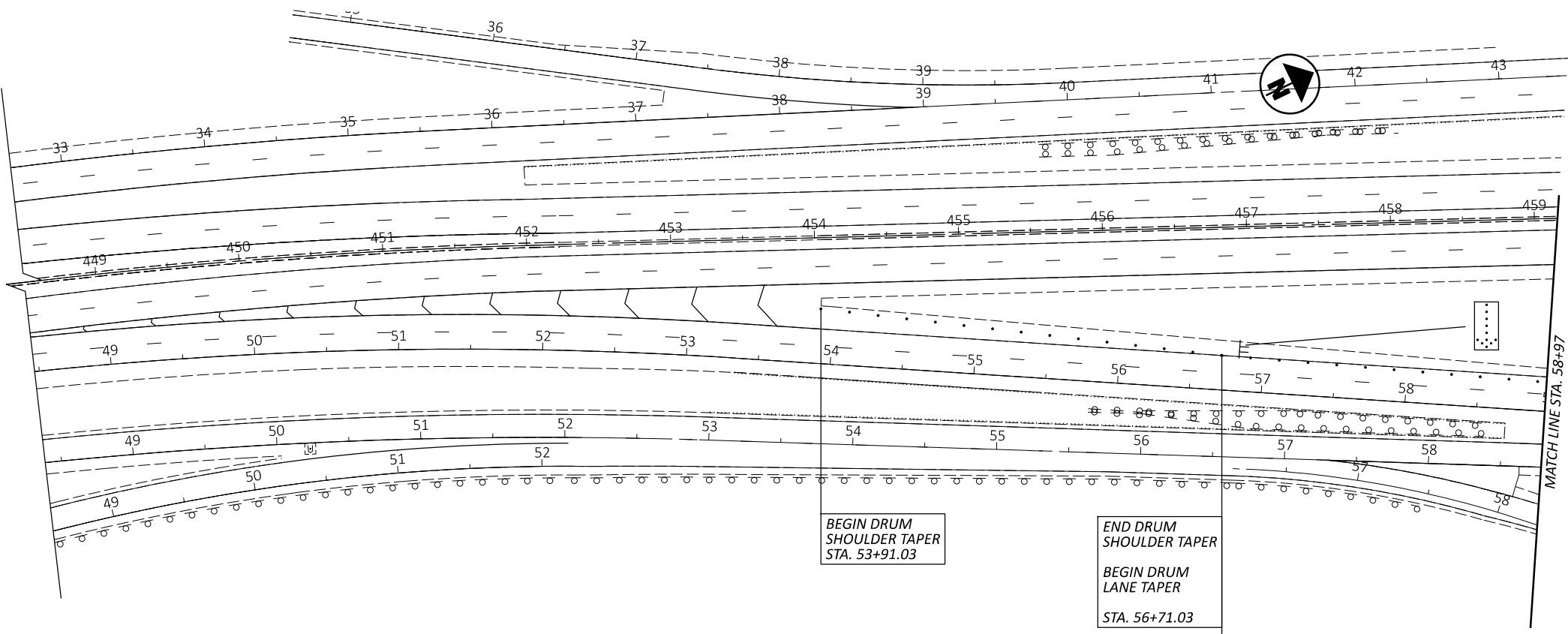
END DRUM LANE TAPER
STA. 64+51.03

END DRUM LANE TAPER
STA. 67+50.00

BEGIN DRUM LANE TAPER
STA. 67+00.00

END ROAD WORK

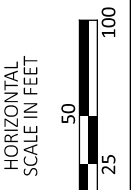
G20-2-48



BEGIN DRUM SHOULDER TAPER
STA. 53+91.03

END DRUM SHOULDER TAPER
BEGIN DRUM LANE TAPER
STA. 56+71.03

MATCH LINE STA. 58+97



MAINTENANCE OF TRAFFIC PLANS
IR-77 PHASES 2 & 4

DESIGN AGENCY

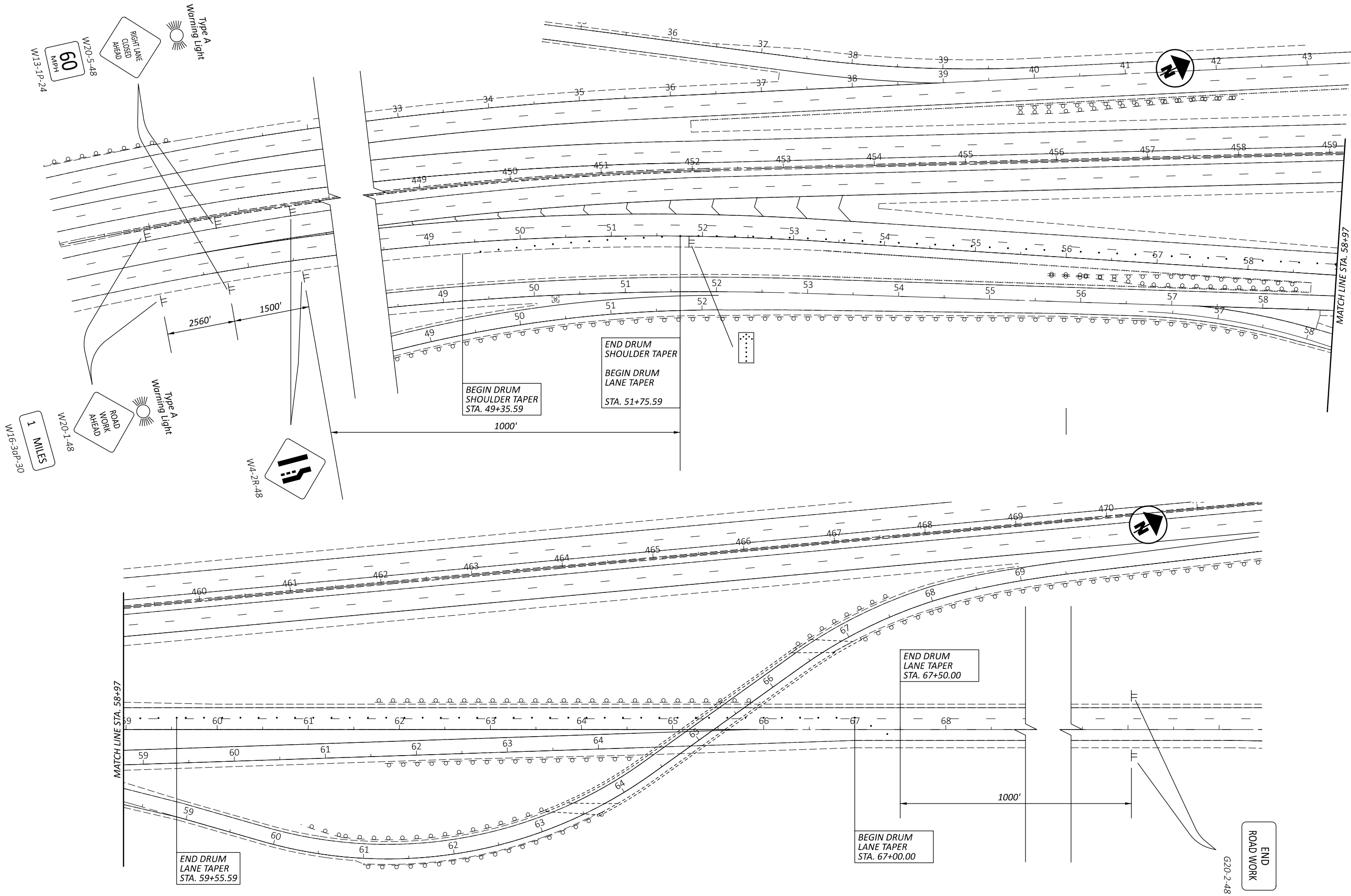


DESIGNER
KHD

REVIEWER
PAT 01-23-24

PROJECT ID
110502

SHEET TOTAL
P.14 | 24



W20-5-48
60
W13-1P-24
MPH



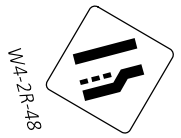
Type A
Warning Light

1 MILES
W16-30P-30

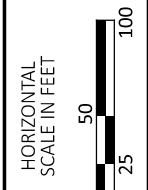
W20-1-48
ROAD WORK AHEAD



Type A
Warning Light



W4-2R-48



MAINTENANCE OF TRAFFIC PLANS
IR-77 PHASES 3 & 5

DESIGN AGENCY



DESIGNER
KHD


REVIEWER
PAT 01-23-24

PROJECT ID
110502

SHEET TOTAL
P.15 24

| SHEET NUM. | | | | | | | | | | | PART. | ITEM | ITEM | GRAND | UNIT | DESCRIPTION | SEE SHEET NO. |
|---|-----|-----|--------|----|--------|--------|-----------|-----|-------|--------|-------|------|------|--|------------------------------------|-------------|---------------|
| 5 | 8 | 9 | 17 | 19 | 21 | 23 | 01/IMS/47 | EXT | TOTAL | | | | | | | | |
| ROADWAY | | | | | | | | | | | | | | | | | |
| LS | | | | | | | LS | 201 | 11001 | LS | | | | | CLEARING AND GRUBBING, AS PER PLAN | 5 | |
| EROSION CONTROL | | | | | | | | | | | | | | | | | |
| 4,000 | | | | | | | 4,000 | 832 | 30000 | 4,000 | EACH | | | EROSION CONTROL | | | |
| STRUCTURE OVER 20 FOOT SPAN (CUY-77-0.38; SFN 1805649) - LOCATION 1 | | | | | | | | | | | | | | | | | |
| | | | 500 | | | | 500 | 513 | 10201 | 500 | LB | | | STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN | 5 | | |
| | | | 15,000 | | | | 15,000 | 514 | 00050 | 15,000 | SF | | | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL | | | |
| | | | 15,000 | | | | 15,000 | 514 | 00056 | 15,000 | SF | | | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT | | | |
| | | | 15,000 | | | | 15,000 | 514 | 00060 | 15,000 | SF | | | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT | | | |
| | | | 15,000 | | | | 15,000 | 514 | 00066 | 15,000 | SF | | | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT | | | |
| | | | 24 | | | | 24 | 514 | 00504 | 24 | MNHR | | | GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL | | | |
| | | | 14 | | | | 14 | 514 | 10000 | 14 | EACH | | | FINAL INSPECTION REPAIR | | | |
| | | | 2 | | | | 2 | 630 | 97700 | 2 | EACH | | | SIGNING, MISC.: OVERPASS NAME INSTALLATION | 5 | | |
| STRUCTURE OVER 20 FOOT SPAN (CUY-77-2.24; SFN 1805762) - LOCATION 2 | | | | | | | | | | | | | | | | | |
| | | | 500 | | | | 500 | 513 | 10201 | 500 | LB | | | STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN | 5 | | |
| | | | 15,500 | | | | 15,500 | 514 | 00050 | 15,500 | SF | | | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL | | | |
| | | | 15,500 | | | | 15,500 | 514 | 00056 | 15,500 | SF | | | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT | | | |
| | | | 15,500 | | | | 15,500 | 514 | 00060 | 15,500 | SF | | | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT | | | |
| | | | 15,500 | | | | 15,500 | 514 | 00066 | 15,500 | SF | | | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT | | | |
| | | | 24 | | | | 24 | 514 | 00504 | 24 | MNHR | | | GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL | | | |
| | | | 14 | | | | 14 | 514 | 10000 | 14 | EACH | | | FINAL INSPECTION REPAIR | | | |
| | | | 2 | | | | 2 | 630 | 97700 | 2 | EACH | | | SIGNING, MISC.: OVERPASS NAME INSTALLATION | 5 | | |
| STRUCTURE OVER 20 FOOT SPAN (CUY-77-4.26; SFN 1805940) - LOCATION 3 | | | | | | | | | | | | | | | | | |
| | | | | | 500 | | 500 | 513 | 10201 | 500 | LB | | | STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN | 5 | | |
| | | | | | 14,700 | | 14,700 | 514 | 00050 | 14,700 | SF | | | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL | | | |
| | | | | | 14,700 | | 14,700 | 514 | 00056 | 14,700 | SF | | | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT | | | |
| | | | | | 14,700 | | 14,700 | 514 | 00060 | 14,700 | SF | | | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT | | | |
| | | | | | 14,700 | | 14,700 | 514 | 00066 | 14,700 | SF | | | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT | | | |
| | | | | | 24 | | 24 | 514 | 00504 | 24 | MNHR | | | GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL | | | |
| | | | | | 14 | | 14 | 514 | 10000 | 14 | EACH | | | FINAL INSPECTION REPAIR | | | |
| | | | | | 2 | | 2 | 630 | 97700 | 2 | EACH | | | SIGNING, MISC.: OVERPASS NAME INSTALLATION | 5 | | |
| STRUCTURE OVER 20 FOOT SPAN (CUY-77-8.81E; SFN 1806297) - LOCATION 4 | | | | | | | | | | | | | | | | | |
| | | | | | | 500 | 500 | 513 | 10201 | 500 | LB | | | STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN | 5 | | |
| | | | | | | 21,000 | 21,000 | 514 | 00050 | 21,000 | SF | | | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL | | | |
| | | | | | | 21,000 | 21,000 | 514 | 00056 | 21,000 | SF | | | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT | | | |
| | | | | | | 21,000 | 21,000 | 514 | 00060 | 21,000 | SF | | | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT | | | |
| | | | | | | 21,000 | 21,000 | 514 | 00066 | 21,000 | SF | | | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT | | | |
| | | | | | | 20 | 20 | 514 | 00504 | 20 | MNHR | | | GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL | | | |
| | | | | | | 12 | 12 | 514 | 10000 | 12 | EACH | | | FINAL INSPECTION REPAIR | | | |
| | | | | | | 2 | 2 | 630 | 97700 | 2 | EACH | | | SIGNING, MISC.: OVERPASS NAME INSTALLATION | 5 | | |
| MAINTENANCE OF TRAFFIC | | | | | | | | | | | | | | | | | |
| | 400 | | | | | | 400 | 614 | 11110 | 400 | HOUR | | | LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE | | | |
| | 12 | 4 | | | | | 4 | 614 | 12390 | 4 | EACH | | | WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL) | | | |
| | | 400 | | | | | 12 | 614 | 18601 | 12 | SNMT | | | PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN | 8 | | |
| | | | | | | | 400 | 622 | 41100 | 400 | FT | | | PORTABLE BARRIER, UNANCHORED | | | |
| INCIDENTALS | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | LS | 614 | 11000 | LS | | | | MAINTAINING TRAFFIC | | | |
| | | | | | | | 12 | 619 | 16021 | 12 | MNTH | | | FIELD OFFICE, TYPE C, AS PER PLAN | 5 | | |
| | | | | | | | LS | 623 | 10001 | LS | | | | CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN | 5 | | |
| | | | | | | | LS | 624 | 10000 | LS | | | | MOBILIZATION | | | |

GENERAL SUMMARY

DESIGN AGENCY

 DESIGNER
KHD
 REVIEWER
 PAT 04-15-24
 PROJECT ID
 110502
 SHEET TOTAL
 P.16 | 24