

Maintenance of Traffic (Cont'd)

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.

Work Zone Markings

The following estimated quantities have been carried to the General Summary for use at locations identified by the Engineer for work zone pavement markings per the requirements of CMS 614.04 and 614.11. Place temporary markings at the same locations as the proposed permanent markings.

After the planing is completed, use the following temporary markings:

Item 614 – Work Zone Lane Line, Class I, 4", 642 Paint	0.30 Mile
Item 614 – Work Zone Center Line, Class I, 642 Paint	1.09 Mile
Item 614 – Work Zone Edge Line, Class I, 4", 642 Paint.....	0.33 Mile
Item 614 – Work Zone Channelizing Line, Class I, 8", 642 Paint	1317 Ft

Item 614 – Work Zone Stop Line, Class I, 642 Paint.....	203 Ft
Item 614 – Work Zone Crosswalk Line, Class I, 12", 642 Paint	579 Ft
Item 614 – Work Zone Arrow, Class I, 642 Paint	24 Each

After the intermediate course is placed, use the following temporary markings:

Item 614 – Work Zone Lane Line, Class I, 4", 642 Paint	0.30 Mile
Item 614 – Work Zone Center Line, Class I, 642 Paint	1.09 Mile
Item 614 – Work Zone Edge Line, Class I, 4", 642 Paint	0.33 Mile
Item 614 – Work Zone Channelizing Line, Class I, 8", 642 Paint	1317 Ft

Item 614 – Work Zone Stop Line, Class I, 642 Paint.....	203 Ft
Item 614 – Work Zone Crosswalk Line, Class I, 12", 642 Paint	579 Ft
Item 614 – Work Zone Arrow, Class I, 642 Paint	24 Each

After the surface course is placed, use the following temporary markings:

Item 614 – Work Zone Lane Line, Class III, 4", 642 Paint	4.33 Mile
Item 614 – Work Zone Center Line, Class III, 642 Paint	1.54 Mile
Item 614 – Work Zone Edge Line, Class III, 4", 642 Paint	7.45 Mile
Item 614 – Work Zone Channelizing Line, Class III, 8", 642 Paint	2230 Ft
Item 614 – Work Zone Dotted Line, Class III, 4", 642 Paint	1561 Ft
Item 614 – Work Zone Stop Line, Class III, 642 Paint.....	524 Ft
Item 614 – Work Zone Crosswalk Line, Class III, 12", 642 Paint	704 Ft
Item 614 – Work Zone Arrow, Class III, 642 Paint.....	31 Each

Permanent Pavement Markings

After placing the surface course, the Contractor may place permanent pavement markings instead of placing work zone pavement markings, which shall be non-performed at these locations.

Work Zone Marking Signs

After planing or paving, the Contractor may place these signs instead of placing work zone edge lines, which shall be non-performed, As Directed by the Engineer. These signs shall be removed when painted edge lines are present. The following estimated quantity has been carried to the General Summary:

Item 614 – Work Zone Marking Sign **16 Each**

Major Work Items

The following major work items will require traffic maintenance which shall be incorporated into the Contractor's sequence of operations.

- A. Planing of asphalt concrete
- B. Completion of pavement repairs
- C. Adjustment/reconstruction of existing castings
- D. Placing of asphalt concrete
- E. Placing proposed pavement markings
- F. Perform curb ramp work

Maintaining Traffic and Sequence of Operations

All asphalt concrete operations shall be conducted in a manner that will assure minimum danger and inconvenience to highway users. The procedure for the removal or placement of any existing or proposed asphalt course shall be such that no greater than 1-1/2" discontinuity in the elevation of the travelled surface shall be exposed to traffic.

Traffic shall not be permitted to cross any partial-width removal or resurfacing joint during the actual removal or paving operation except as necessary. Any partial-width longitudinal joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete for Maintaining Traffic at a rate not steeper than 6:1.

Temporary transverse removal or paving joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete for Maintaining Traffic as a rate not to exceed 1" in 10'.

For removal of existing overlays, a transition may be planed into the existing overlay and may be substituted for the asphalt ramps previously described, provided the transition is removed in a subsequent operation within 24 hours.

Whenever traffic is subject to partial width removals or overlays prior to full width completion, the Contractor shall provide W8-11-48 "UNEVEN LANES" signs (dual sign installation). Placement shall be as directed by the Engineer and included in the lump sum payment for Item 614 – Maintaining Traffic.

Whenever any part of the traveled surface is closed, the motorists shall be warned and diverted by the Contractor through the use of a flashing arrow, in addition to those provisions set forth in the OMUTCD, the Traffic Engineering Manual and the applicable Standard Construction Drawings.

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 for Item 614 – Maintaining Traffic.

Ramp Closures for Resurfacing

The Contractor may close one ramp at a time at each location for milling, pavement repairs, or resurfacing. Closures for ramps scheduled for repairs and resurfacing shall be limited according to the days of the week and hours shown in the "Schedule of Through Lanes to be Maintained" table.

The motoring public shall be given advance warning of closures at least 72 hours in advance through the use of either a ground mounted flat sheet sign or a portable changeable message sign (PCMS). A LEO with patrol car (paid for separately) shall be used for each ramp closure and be present for the entire closure time.

SR-17 & SR-21 interchange ramps shall be closed with a PCMS suggesting a recommended detour.

For ramp closures, one or two additional PCMS units will be needed as described above. These will be in addition to the PCMS units specified in the plans and shall be included for payment in Item 614 – Maintaining Traffic.

Item 614 – Asphalt Concrete for Maintaining Traffic

This item shall be used to install and remove temporary asphalt ramps at butt joints, and drainage/utility castings, where required. Material shall be removed prior to the placement of the next course of asphalt. The following estimated quantity has been carried to the general summary to accomplish this item of work.

Item 614 – Asphalt Concrete for Maintaining Traffic **50 Cu Yd**

Covering of Ground-Mounted Signs – General

When required by other items or incidentally to Item 614 – Maintaining Traffic, cover existing ground-mounted signs with plywood or OSB blanks (1/2" minimum thickness) covering 80% of the sign area and all of the sign legend. The use of low quality materials such as duct tape and black plastic is not permitted.

Item 630 – Signing Misc.: Additional Signs, Ground Mounted, As Directed by the Engineer

When additional signing is needed to maintain traffic, the Contractor shall furnish the sign or signs as directed by the Engineer. These signs shall be ground mounted and meet all the specifications of the plan, proposal and current year CMS.

Payment for this item shall include, but not be limited to, the cost to furnish and erect the sign, including driving posts or other approved methods of sign support, maintaining the sign and removal of the sign. The following estimated quantity has been carried to the General Summary for use as directed by the Engineer:

Item 630 – Signing Misc.: Additional Signs, Ground Mounted, As Directed by the Engineer **300 Sq Ft**

DESIGN AGENCY



DESIGNER
JAG

REVIEWER
DAB 09/11/23

PROJECT ID
108005

SHEET TOTAL
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Item 614 - Law Enforcement Officer With Patrol Car for Assistance

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) may 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).

In general, LEOs 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.

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. Once the LEO has completed the duties described above and still has time remaining on his/her shift, the LEO may be asked to patrol through the work zone (with flashing lights off) or be placed at a location to deter motorists from speeding. 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 which 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 **80 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 – 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.

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 SNMT**
Assuming 4 PCMS Sign(s) for 3 Month(s)

Sequence of Construction

Phase 1
West of Warner Rd, close the outside lane in each direction to conduct the proposed work. East of Warner Rd, work to be completed using flaggers only.

Phase 2
West of Warner Rd, close the inside lane in each direction to conduct the proposed work. East of Warner Rd, work to be completed using flaggers only.

DESIGN AGENCY



DESIGNER

JAG

REVIEWER

DAB 09/11/23

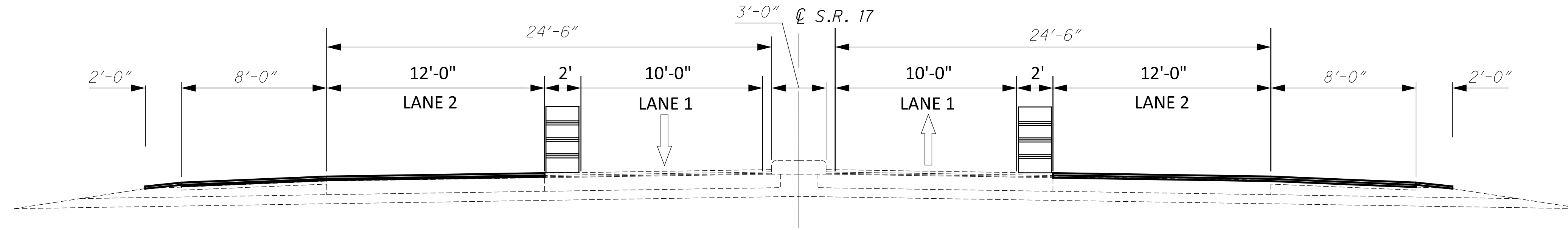
PROJECT ID

108005

SHEET TOTAL

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PHASE I - WEST OF WARNER RD. (OUTSIDE LANES CLOSED)



CLOSE LANE 2 AND SHOULDER

LONG TERM CLOSURE

PLANE LANE OUTSIDE LANES AND SHOULDERS

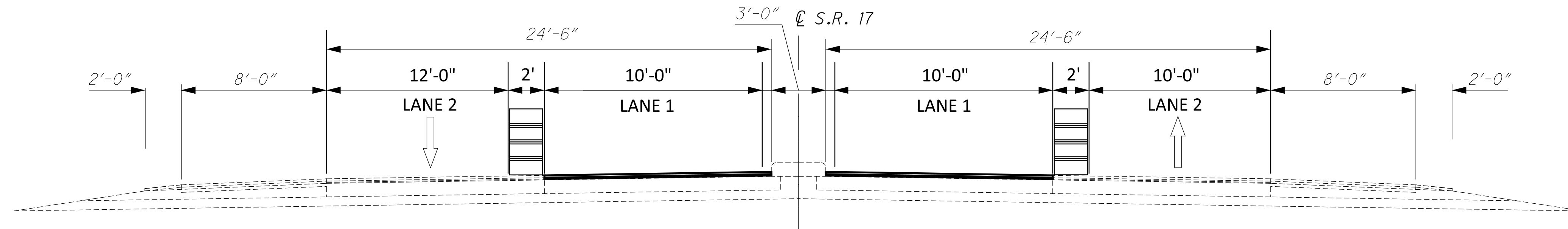
PERFORM FULL DEPTH REPAIRS

PLACE INTERMEDIATE COURSE

PLACE SURFACE COURSE

PLACE TEMPORARY PAVEMENT MARKINGS (TYPE CLASS III)

PHASE 2 - WEST OF WARNER RD. (INSIDE LANES CLOSED)



CLOSE LANE 1

LONG TERM CLOSURE

PLANE LANE INSIDE LANES

PERFORM FULL DEPTH REPAIRS

PLACE INTERMEDIATE COURSE

PLACE SURFACE COURSE

PLACE TEMPORARY PAVEMENT MARKINGS (TYPE CLASS III)

MAINTENANCE OF TRAFFIC DETAILS FOR SR-17

CUY-017-12.58

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 12/7/2023 TIME: 11:02:35 AM USER: jgrmorse
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DESIGN AGENCY



DESIGNER
JAG

REVIEWER
DAB 09/11/23

PROJECT ID
108005

SHEET TOTAL
P.15 30

