

I-40 Humphreys County TDOT Incident Management Plan

Project Overview

The 1.96- mile project on Interstate 40 in Humphreys County, from near Exit 137 to near Exit 143, consists of temporarily widen the roadway to the median for traffic control and replacing two bridges. The planned improvements are designed to replace the two bridges and improve future capacity of I-40. This is a \$78 million project.

Incident Management Need

TDOT has determined that a TDOT incident management plan is needed for this section of I-40 to enhance incident clearance, minimize incident impacts on the public and to identify how project personnel coordinate and assist emergency responders.

Work Zone Impacts to Incident Management

The final design has a concrete median barrier to separate eastbound and westbound traffic along the length of the project. Phase III through Phase VI will consist of swapping each direction of traffic to the newly constructed portion of bridge to demolish and construct each directions new bridge. There will be double concrete barrier wall along each direction in all these phases. The double concrete wall will prevent vehicles from being able to move out of the way of responding agencies if there is an incident. During Phase II of the project, the median portion of the bridges will be constructed. The traffic control plans show concrete barrier wall being installed on the inside lane. This will only be a concern at the bridges with the outside bridge rail restraining traffic. The responding agencies will have to access the incident from an exit above/below the incident.

This project contains construction ingress/egress locations per drawing page T2F. The list below shows the locations and quantity of the construction ingress/egress points per phase.

- Phase 2 EB - There are three total ingress/egress points: before Squeeze Bottom bridge, between Squeeze Bottom bridge and the Buffalo River bridge, and after the Buffalo River bridge. This will allow access to the median.
- Phase 2 WB - There are three total ingress/egress points: before the Buffalo River bridge, between Squeeze Bottom bridge and the Buffalo River bridge, and after Squeeze Bottom bridge. This will allow access to the median.
- Phase 3 EB – There are no ingress/egress points for this phase.
- Phase 3 WB – There are two total ingress/egress points: before the Buffalo River bridge and between Squeeze Bottom bridge and the Buffalo River bridge. This will allow access to the outside shoulder.
- Phase 4 EB - There are three total ingress/egress points: before Squeeze Bottom bridge, between Squeeze Bottom bridge and the Buffalo River bridge, and after the Buffalo River bridge. This will allow access to the median.

- Phase 4 WB - There are three total ingress/egress points: before the Buffalo River bridge, between Squeeze Bottom bridge and the Buffalo River bridge, and after Squeeze Bottom bridge. This will allow access to the median.
- Phase 5 EB – There is one ingress/egress point between the Squeeze Bottom bridge and the Buffalo River bridge. This will allow access to the outside shoulder.
- Phase 5 WB - There is one ingress/egress point before the Buffalo River bridge. This will allow access to the outside shoulder.
- Phase 6 EB – There are two ingress/egress points: Before the Squeeze Bottom bridge and after the Buffalo River bridge. This will allow access to the median.
- Phase 6 WB – There are two ingress/egress points: Before the Buffalo River bridge and after the Squeeze Bottom bridge. This will allow access to the median.

TDOT Incident Management

In the event of an incident, the TMC will be notified and respond accordingly. TDOT forces will respond with mobile queue trucks and other traffic control devices to assist with maintaining traffic.

Region 3 TMC will dispatch an on-shift HELP unit to assist with incident management. If the incident requires a long-term lane closure, Region 3 TMC will relieve the on-shift HELP unit with an on-call unit. Region 3 TMC can also control/monitor all components of the Smart Work Zone established as part of the project. The Smart Work Zone currently consists of message boards on each end of the project, radar detection devices and cameras throughout the project. Per Special Provision 725 SWZ, the TMC will have access to the operation of the Smart Work Zone. Upon completion of the current ITS contract CNW907, Region 3 TMC can also provide advance notification of westbound interstate closures using overhead message boards.

The contractor can also assist with incident management if resources are available and on-site.

Predetermined Alternate Route and Officer Positioning

There is no detour set up for this project. There will be two lanes of traffic open in each direction for all phases after Phase 1. Phase 1 only includes nightly shoulder and lane closures including two full weekend lane closures in each direction (One lane to remain open in each direction at all times).

Future Concerns

The Exit 143 ramp improvement project is projected to be let in June 2025. The ramp is 0.7 miles east of the end of the project limits. There is a concern about having traffic control for two separate projects less than a mile apart with conflicting traffic control signs. This ramp improvement project could also impact the emergency vehicle response if Exit 143 is needed to access the interstate.

CNX333 is an ITS project on I-40 in Hickman and Humphreys counties. During this project there may be temporary lane closures or shoulder closures in or around the project limits. This contract will include installing a CCTV west of Exit 137 and installing two CCTV and DMS signs east of Exit 143. There is a concern about having traffic control for two separate projects close together with conflicting traffic control signs.

There is a resurfacing project CNX379 across the Tennessee River on I-40. There is a note in these plans that states the contractor is responsible for coordinating traffic control with the resurfacing job.

With multiple years of holidays, TDOT has concerns about incident response. Holidays will increase the volume of vehicles, which will increase the risk for incidents and longer backups. TDOT, TDOT contractors, and various agencies will all have reduced staff during holidays, which has potential to impact incident response time. TDOT will provide a list of on-call staff during the holiday seasons to all responding agencies.

Snow and ice also have the potential to significantly impact motorists in the construction zone. The double concrete barrier rail sections will prevent snowplows from being able to remove snow efficiently. The snowplows will not be able to push snow off the road, because of the concrete barrier rail. This will result in longer clearing times, potential piles of snow on rail, and reduced capacity of I-40.

TDOT Contacts

Dement Construction – Jay Gilbert – 731-234-8675

HDR - Jay Wood - 662-418-5673

TDOT TMC – 615-350-3424

Webb Rizer – 615-913-2762

McEwen Construction - Matthew Sanders – 931-213-1389

Humphreys County Maintenance – Mark Sanders – 931-319-7726

Webber Infrastructure Management Inc. – Jarred Bonar - 615-879-8208

Suggestions for Each Phase

Phase 1:

EB and WB: Contractor to move barrels and equipment to allow for emergency vehicles to pass on closed outside lane/shoulder.

Phase 2:

EB: From Exit 143, if both lanes are blocked, come back down the opposite way on I-40 EB. If traffic is still flowing, then get on I-40 WB and turn around to go EB at the nearest point.

WB: Utilize construction entrances and exits, if possible, to maneuver around traffic coming from SR 13 Exit 143. Possibly go past I-40 on SR 13 and turn onto Cuba Landing Rd to proceed to Exit 137 and get on I-40 the opposite way to get to the accident.

Phase 3:

EB: From Exit 143, if both lanes are blocked, come back down the opposite way on I-40 EB. If traffic is still flowing, then get on I-40 WB and turn around to go EB at the nearest point.

WB: If both lanes are blocked on/after bridges, come down Exit 137 and come the opposite direction (WB side). Possibly use WB Construction Entrance/Exit to get around large portion of traffic on Buffalo River Bridge.

Phase 4:

EB: From Exit 143, if both lanes are blocked then get on I-40 opposite way to get to the accident. If only one lane is blocked, then get on I-40 WB and utilize construction entrances and exits as necessary to turn around.

WB: Possibly utilize the wide inside shoulder when necessary to maneuver around traffic. If not possible then go past I-40 on SR 13 and turn onto Cuba Landing Rd to proceed to Exit 137 and get on I-40 the opposite way to get to the accident.

Phase 5:

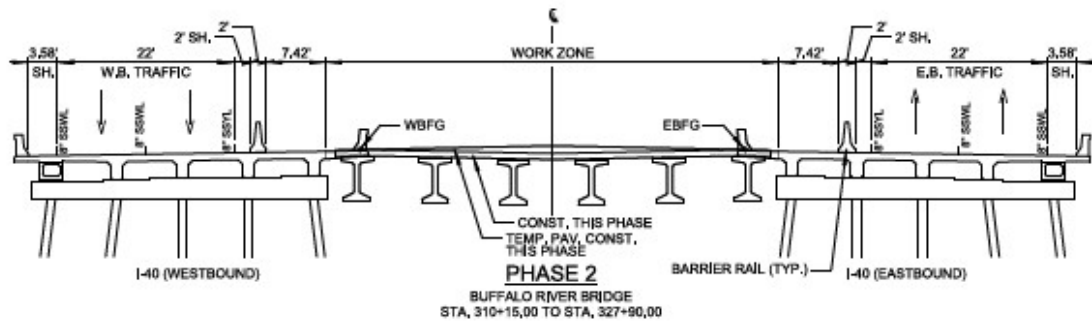
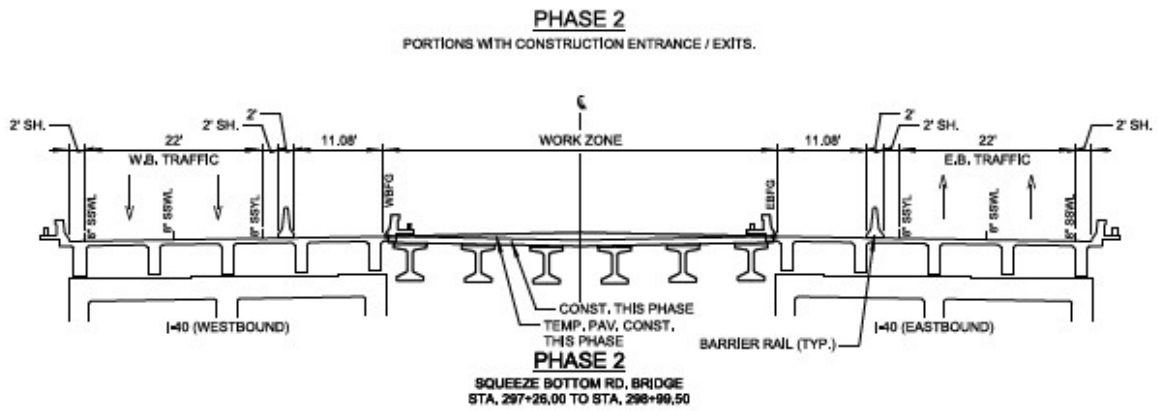
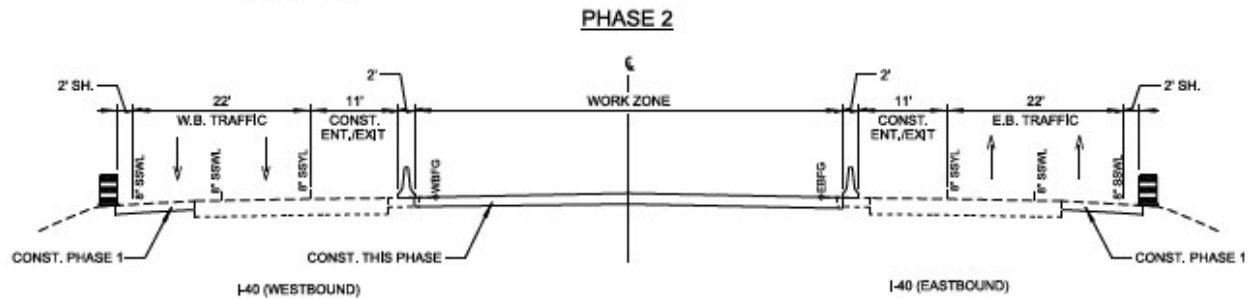
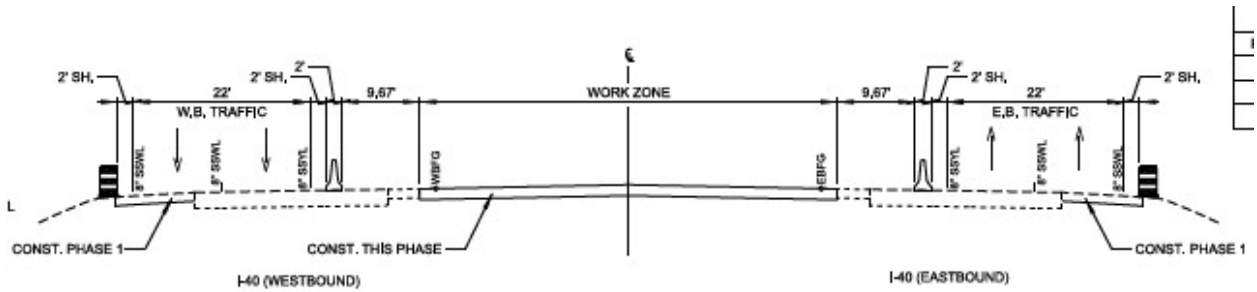
EB: From Exit 143, if both lanes are blocked then get on I-40 opposite way to get to the accident. There seems to be enough room for traffic to move out of the way for most of the project length. More coordination with Dement could make it even more accessible.

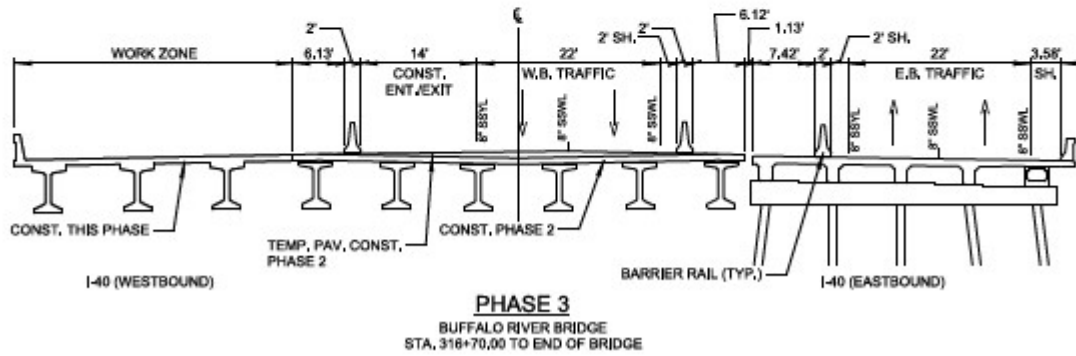
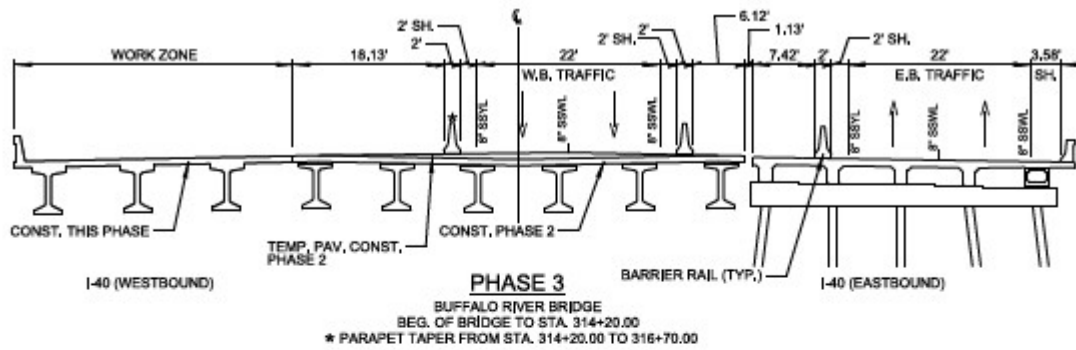
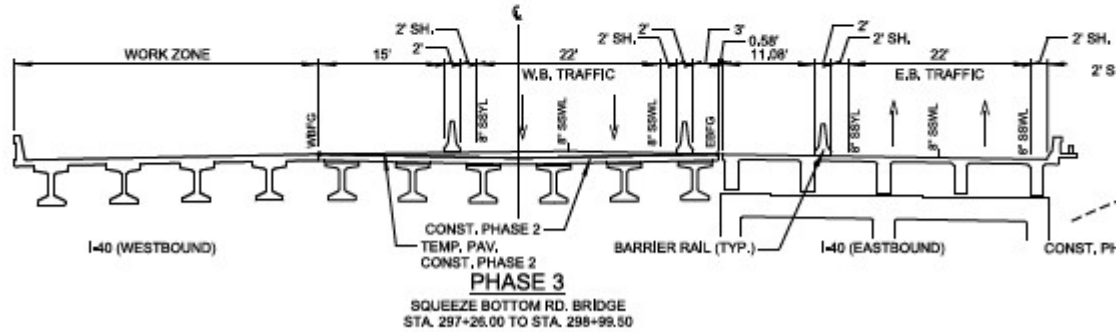
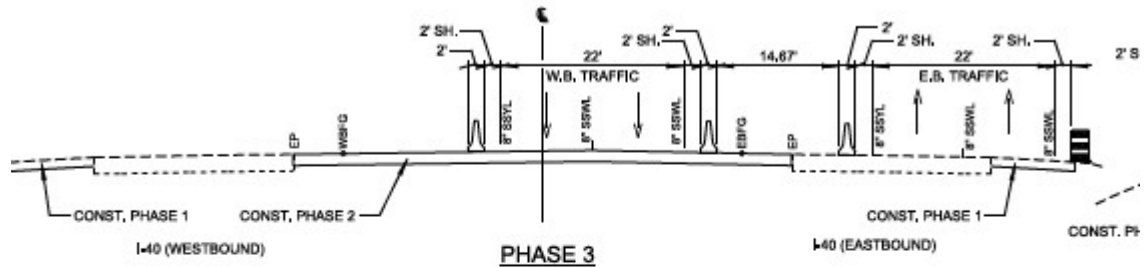
WB: There seems to be enough room for traffic to move out of the way for most of the project length. More coordination with Dement could make it even more accessible.

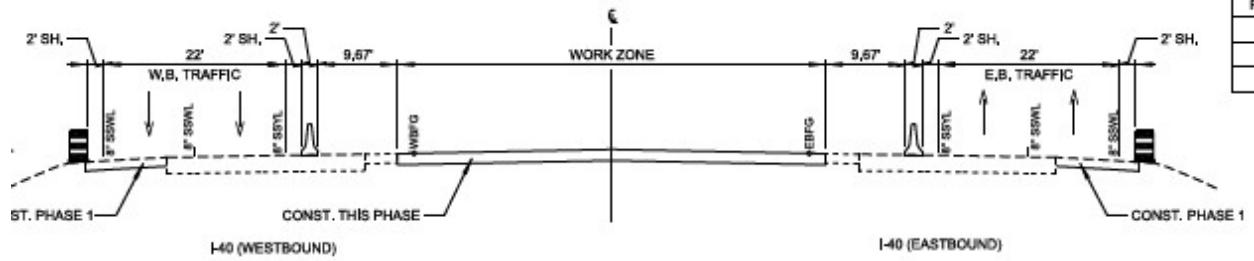
Phase 6:

EB: From Exit 143, if both lanes are blocked then get on I-40 opposite way to get to the accident. If traffic is still flowing, then get on I-40 WB and turn around at the nearest point to go EB in the work zone. The work zone should be clear enough to navigate through.

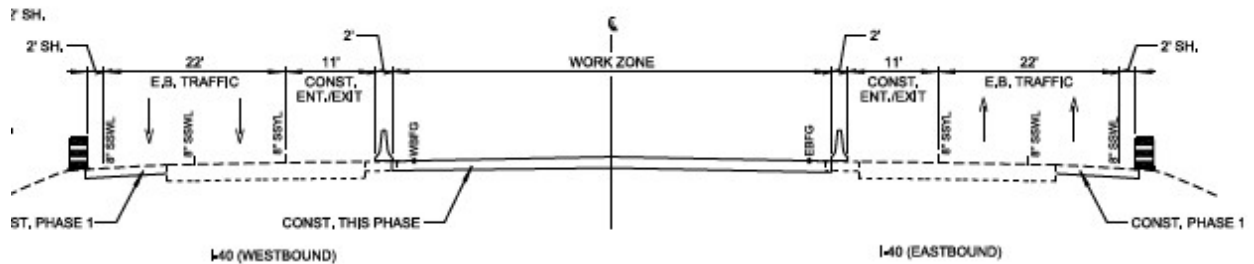
WB: From Exit 143, get on I-40 WB and turn into the work zone to get to the accident. The work zone should be clear enough to navigate through.





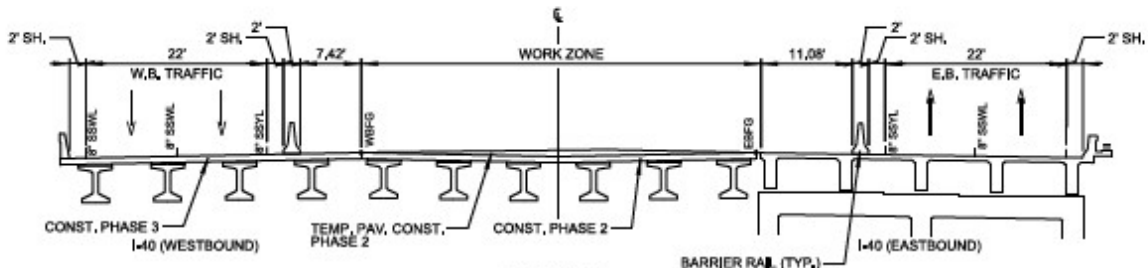


PHASE 4



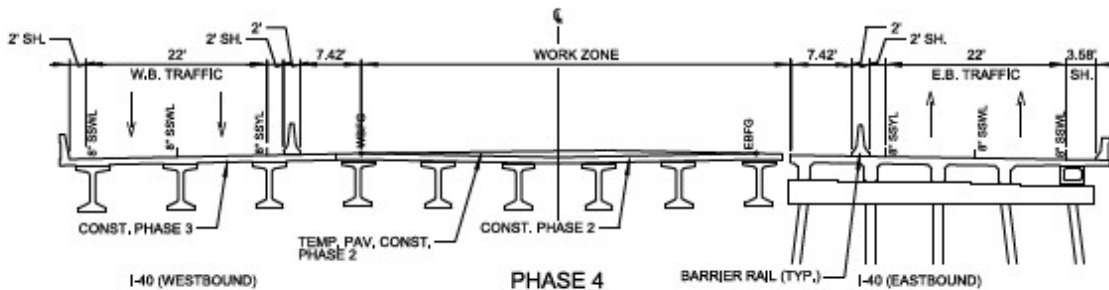
PHASE 4

PORTIONS WITH CONSTRUCTION ENTRANCE / EXITS.



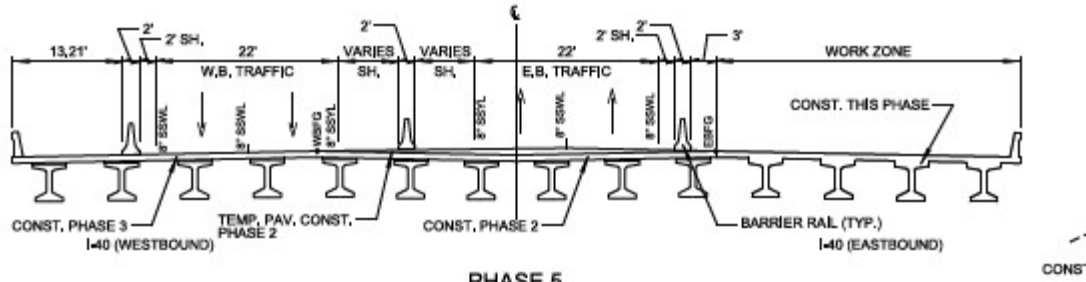
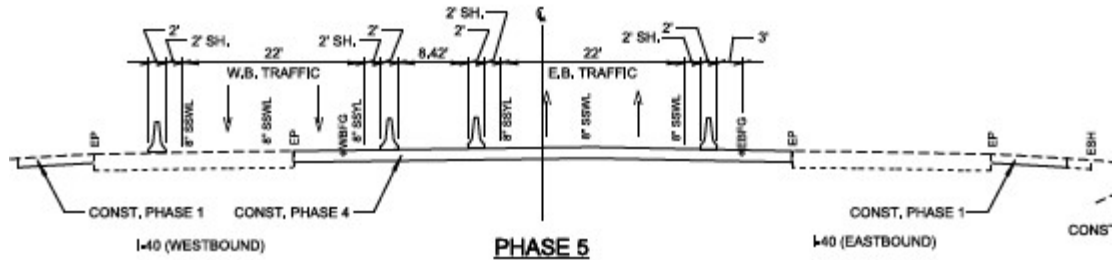
PHASE 4

SQUEEZE BOTTOM RD. BRIDGE
STA. 297+26.00 TO STA. 298+99.50

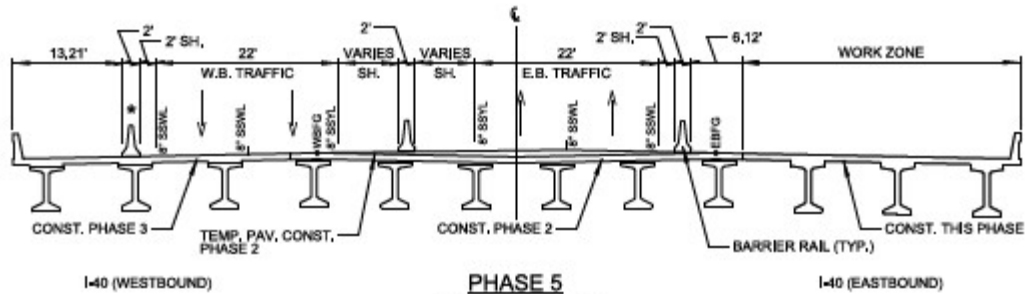


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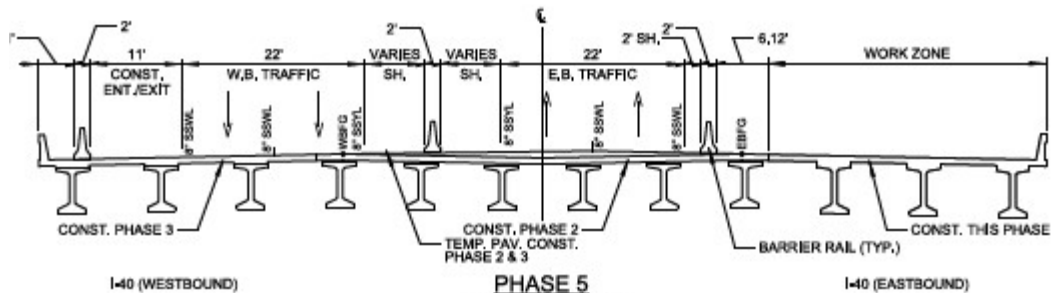
BUFFALO RIVER BRIDGE
STA. 310+15.00 TO STA. 327+90.00



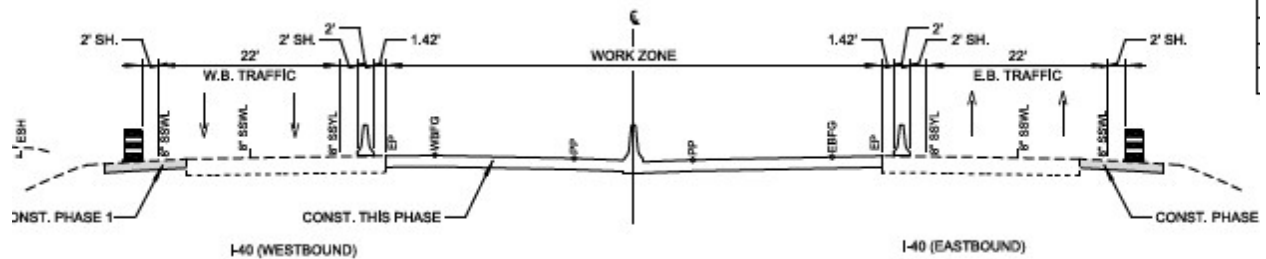
PHASE 5
SQUEEZE BOTTOM RD. BRIDGE
STA. 297+26.00 TO STA. 298+99.50



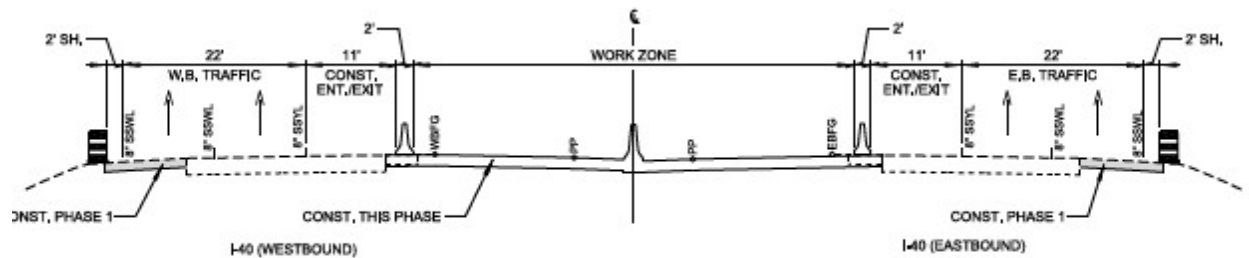
PHASE 5
BUFFALO RIVER BRIDGE
BEG. OF BRIDGE TO STA. 314+20.00
★ PARAPET TAPER FROM STA. 314+20.00 TO 316+70.00



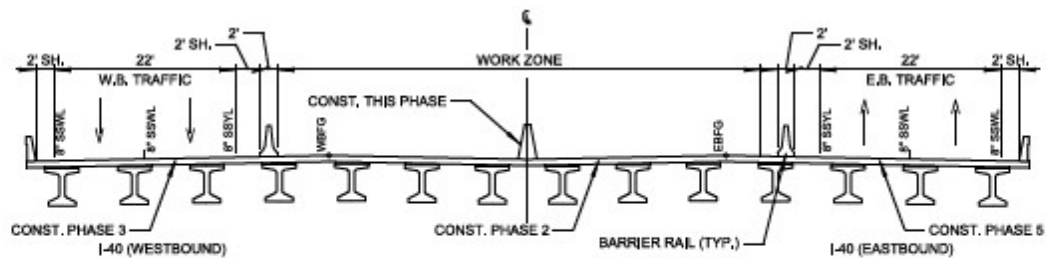
PHASE 5
BUFFALO RIVER BRIDGE
STA. 316+70.00 TO END OF BRIDGE



PHASE 6

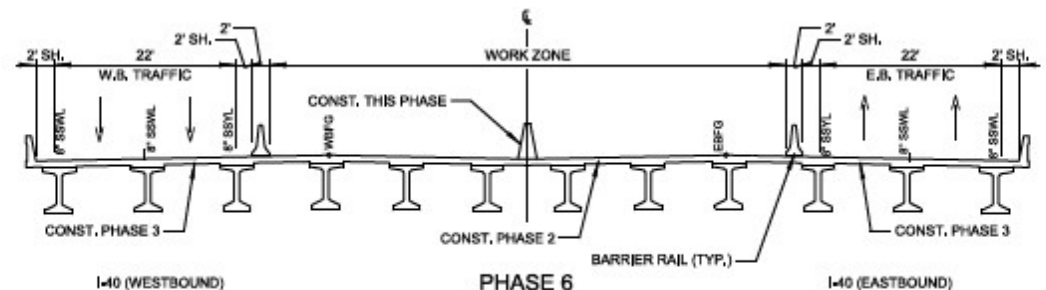


PHASE 6



PHASE 6

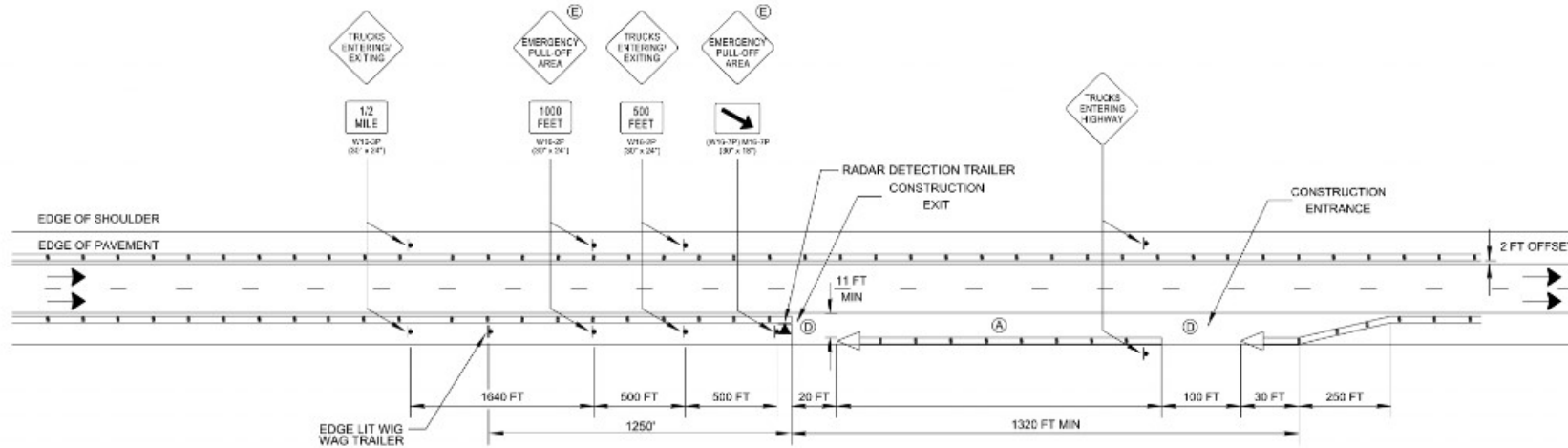
SQUEEZE BOTTOM RD. BRIDGE
STA. 297+26.00 TO STA. 298+99.50



PHASE 6

BUFFALO RIVER BRIDGE
STA. 310+15.00 TO STA. 327+90.00

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2024 | BR-440-3(183) | T2F |
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CONSTRUCTION ACCESS/ EMERGENCY PULL-OFF PLAN
WITH CONSTRUCTION ADVANCED WARNING SYSTEM

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION
ACCESS/ EMERGENCY
PULL-OFF PLAN
WITH CONSTRUCTION
ADVANCED WARNING SYSTEM

