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1. Introduction

1.1. Purpose & Scope

The Emergency Evacuation Traffic Operations Manual ("Manual") provides traffic and evacuation operations guidance for State of Delaware personnel responding to an incident occurring at the Salem and Hope Creek Nuclear Generating Stations, located in Lower Alloways Creek Township, New Jersey. The Manual is designed to manage traffic patterns around areas affected by a radiological emergency, control the access to the affected areas, and coordinate evacuation procedures for those without access to private transportation. The Manual should be used in conjunction with Standard Operating Procedure (SOP) 700 and SOP 1200, which can be found in the Delaware Radiological Emergency Plan.

This plan is NIMS (National Incident Management System) compliant¹, as it follows all recommendations, including:

- Incorporating NIMS and National Response Framework (NRF) components, principles, and policies, to include preparation, response, equipment, and corrective actions.
- Applying common and consistent terminology as used in NIMS, including establishment of plain language communication standards.
- Including preparedness organizations and elected and appointed officials in its development.

This plan is written to be NIMS compliant as it reflects the emergency management cycle:

While the Manual is a stand-alone document, it also is related to a number of other plans, including the Delaware Emergency Operations Plan (DEOP); the Delaware Transit Corporation (DTC) Emergency Service Plan; the Delaware All-Hazards Evacuation Transportation Plan; and the State of Delaware All-Hazards Evacuation Transportation Plan for Individuals Requiring Transportation. Taken together, these plans serve as a resource for Delaware officials and planners in the event of an event requiring emergency transportation.



This Manual provides a framework which outlines how DelDOT's Transportation Management Center (TMC) and the identified agencies will work together to provide transportation assistance during a radiological event that triggers an evacuation in Delaware. The goal is to safely evacuate residents, visitors, and anyone else who happens to be in an affected area.

While this document provides guidance on evacuating the Delaware Emergency Response Planning Area (ERPA) within ten radial miles of the Salem and Hope Creek Nuclear Generating Stations, it should be noted that adjustments could occur during an actual evacuation. For example, wind speed and direction could preclude certain evacuation routes or access control points from being utilized. Emergency response officials should check with the State Emergency Operations Center (EOC) at the Delaware Emergency Management Agency (DEMA), where data is being collected from the

¹ According to NCHRP Report 525 – Surface Transportation Security, Volume 16: A Guide to Emergency Response Planning for State Transportation Agencies.

radiation monitoring stations for timely radiation measurements to assist with evacuation route and traffic control decisions.

1.2. Emergency Response Planning Areas (ERPAs)

The Delaware area that falls within ten radial miles of the Salem and Hope Creek Nuclear Generating Stations is divided into four ERPAs. For reference, two figures are provided. Figure 1.1 shows the ERPAs located within five radial miles of the Generating Stations and Figure 1.2 shows the ERPAs located within ten radial miles.

ERPA A

ERPA A includes the areas of Port Penn, Odessa, East of Townsend, North Smyrna and South St. George's. Its boundaries include Routes 13, 299, and 9 to the west; the Delaware River to the east; the Chesapeake and Delaware Canal to the north; and Route 6 to the south.

ERPA B

ERPA B includes the areas of Middletown, East of Townsend and North Smyrna. Its boundaries include the Norfolk Southern Railroad to the west; Route 9 to the east; Route 299 to the north; and Route 6 and Smyrna Landing Road to the south.

ERPA C

ERPA C includes the areas of Delaware City, North Middletown, St. George's and Reybold. It includes the area bounded to the north of Route 299 by Kirkwood St. George's Road; to the east of Norfolk Southern Railroad to Route 13; to the south of Red Lion Creek and east of Route 9; to the south of the Norfolk Southern Railroad and east of Route 13 to the Chesapeake and Delaware Canal; to the south of Route 72 and east of McCoy Road to Route 13.

ERPA D

ERPA D includes the Delaware River and Bay. The boundaries include the area just north of Pea Patch Island near Delaware City to Woodland Beach.

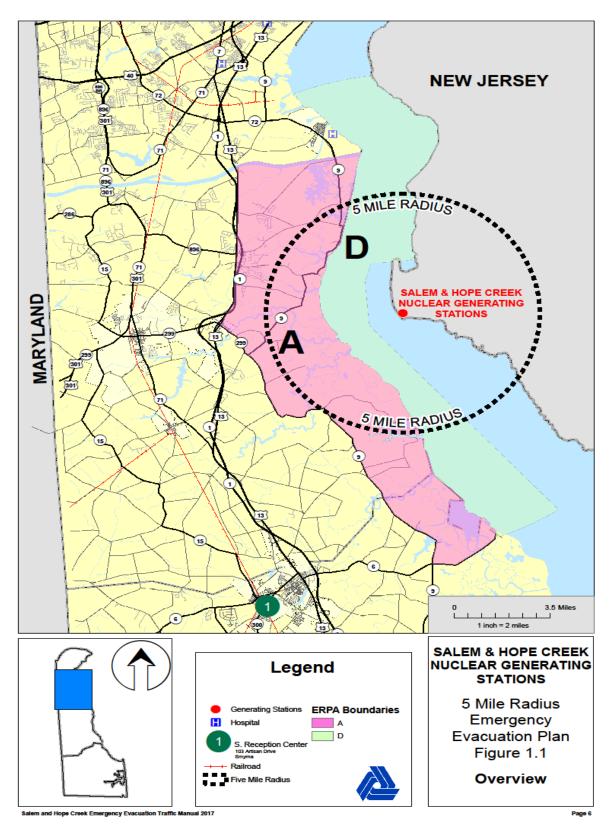


Figure 1.1: 5 Mile Radius Emergency Evacuation Plan

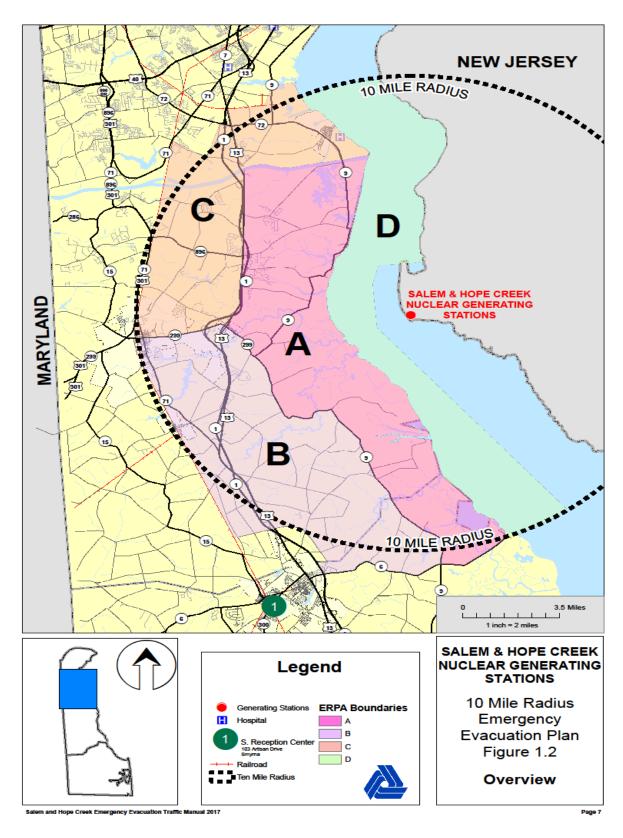


Figure 1.2: 10 Mile Radius Emergency Evacuation Plan

1.3.Kinds of Emergencies

There are four possible emergency categories that are relevant to potential incidents at Salem and Hope Creek Nuclear Generating Stations, ranging from minor to serious: unusual event, alert, site area emergency, and general emergency.

Unusual Event

A minor problem has taken place. No release of radioactive matter is expected. Federal, state and county officials will be notified. The public will not have to do anything.

Alert

This is also a minor problem. Small amounts of radioactive matter could be released inside the plant. Officials will be notified and asked to stand by. Most likely, the public will not have to do anything.

Site Area Emergency

This is a more serious problem. Small amounts of radioactive matter could be released into the area near the plant. Sirens may be sounded, which means state officials have important emergency information available for the public. Information from state officials will be broadcast on one of the Emergency Alert System (EAS) radio stations, but evacuation of the emergency response planning area is not required.

General Emergency

This is the most serious kind of problem. Radioactive matter could be released outside the plant. Proactive measures may have to be taken. Sirens will be sounded. Information from state officials will be broadcast on one of the EAS radio stations, including which areas are to be evacuated and instructions for those needing transportation.

1.4. Assumptions

- The Governor may declare a State of Emergency in order for some agencies to fully respond or provide resources as outlined in this plan (e.g. Delaware National Guard).
- All anticipated evacuation responders may not be available to assist.
- Local emergency management agencies manage evacuations during fast-breaking incidents.
- The primary responsibility of emergency medical services is to respond to standard 911 dispatch
 calls. The responsibility for transport from hospitals during an evacuation may fall on the
 National Guard and/or DelDOT if EMS resources are not available.
- Ambulance resources are the responsibility of emergency medical services (EMS) organizations.
- In the likelihood of competing priorities for transportation resources DEMA and DelDOT will
 work together to prioritize requests, under the Incident Command Structure through the
 following sections:
 - Operations Section Infrastructure Support Branch Transportation Group.
 - Logistics Section Resource Management Branch Transportation Support Group.

2. Concept of Operations

This section describes the tasks to be performed and the responsible parties, in the event of an incident at Salem and Hope Creek Nuclear Generation stations that necessitates an evacuation order. While many residents will have access to a private vehicle, a number of residents, plus visitors, will require transportation assistance in order to leave the required evacuation area(s).

2.1. Roles and Responsibilities

Meeting the needs of the individuals requiring transportation assistance is a DelDOT responsibility. Agencies, organizations, facilities, and programs that serve this population must be involved in evacuation planning for these individuals. Each agency is responsible for specific elements of the evacuation transportation plan for individuals requiring transportation assistance. To implement evacuation operations quickly, it is important for response personnel to have a clear understanding of how their normal job responsibilities and functions apply to evacuation operations.

DelDOT

- Transportation Management Center (TMC)
 - Provide transportation support to all emergency operations as requested by the State EOC.
 - Receive transportation assistance requests from County Emergency Operations Centers and/or DEMA and create a master list of all those requiring assistance.
 - Implement a call center to coordinate evacuation transportation needs from the public.
- Delaware Transit Corporation (DTC)
 - Deliver six regular buses and three paratransit buses to each staging center, along with a dispatcher at each location (one of which designated as the "lead dispatch") to manage the assignment of individual buses to evacuees.
 - Assign evacuation routes to each driver, based on information received from the TMC.

DEMA

- Activate the State EOC when necessary.
- Provide public information related to evacuation.
- Communicate instructions to the general public on how to request transportation assistance.
- Activate and operate the Reception Centers.

National Guard

• If required, dispatch and operate transit vehicles to those requesting transportation assistance.

2.2. Procedures

The following section provides an overview of the procedures for evacuating persons without access to personal transportation, in the event of an incident at Salem and Hope Creek Nuclear Generation stations.

Activation and Deployment

1) **DEMA** will use public messaging to notify residents within the ERPAs. Public messges will identify the areas to be evacuated and contain instructions on how to contact DelDOT to request

- transportation assistance.
- 2) Once a request is received and transmitted to the TMC, the **TMC** will add the name and address of the individual to the list of individuals requiring transportation assistance.
- 3) In coordination with the DTC and its dispatchers in place at the staging areas, the **TMC** will create a master list of individuals requesting transportation assistance.
- 4) The **lead DTC dispatcher**, located at the DART Wrangle Hill Road Facility, will assign each request to one of the staging areas, based on geography, the type and scope of the emergency incident, and current status of vehicles and drivers.
- 5) The **DTC dispatcher** at each staging area will deploy each transit vehicle to evacuate a specific number of people and deliver them to the assigned staging area (or Reception Center, if closer).
- 6) Once at the staging areas, evacuees will transfer to other transit vehicles (larger in size if possible / feasible) and will be then taken to the closest Reception Center. The deployment of these vehicles will be determined by **DTC dispatcher(s)**.
- 7) Evacuation operations will continue to operate as transportation assistance requests are received by the **TMC**.

National Guard

If the incident severity reaches a specific threshold (as determined by DEMA) deployed **National Guard members** may be required to operate the transit vehicles, as well as act as dispatchers. The decision to withdraw DTC employees from the evacuation zone and replace them with National Guard will be made by DEMA, in consultation with DTC.

• Under Delaware statute 21 Del. C. § 2621(3), commercial vehicles can be operated by National Guard members in the event of an emergency.

Special Transportation Needs

Persons with specific transportation needs (e.g., handicapped, disabled) will be evacuated by vehicles coordinated by **DEMA** and **DelDOT Paratransit** in conjunction with **the New Castle County, Kent County, and Sussex County EMAs**. These individuals will remain in their homes until emergency vehicles arrive to transport them to Reception Centers or hospitals. A register of special needs individuals is updated quarterly by DEMA and forwarded to the DelDOT Paratransit Supervisor, New Castle County, Kent County, and Sussex County EMAs. This function is supported by the county EMAs and the volunteer fire companies' ambulance service. For more information, please refer to the County EMAs or the *State of Delaware All-Hazards Evacuation Transportation Plan for Individuals Requiring Transportation Assistance* (2011).

2.3. Staging Areas

Two staging areas are available for use in the event of an evacuation:

- Northern staging area Blackbird Truck Weigh Station on US 13 (4580 Dupont Parkway, Townsend, DE 19734)
- Southern staging area DART Wrangle Hill Road Facility (2101 Mid County Drive, New Castle, DE 19720)

The staging areas are shown in Figure 2.1. While the Wrangle Hill Facility contains a building that can be quickly turned into a waiting area for evacuees that require additional transportation to the Reception Center, temporary infrastructure (bathrooms, enclosed space) is required at the Blackbird Weigh Station.

2.4. Reception Centers

Figure 2.1 is an overview map which shows the location of the two reception centers:

- The Northern reception center is the Frank H. Stern Readiness Center (Marshallton), located at 1420 Newport Gap Pike in Wilmington.
- The Southern reception center is the Smyrna Readiness Center, located at 103 Artisan Drive in Smyrna.

The directions to each reception center are included in Figure 2.2. Reception Centers will be managed and operated by DEMA.

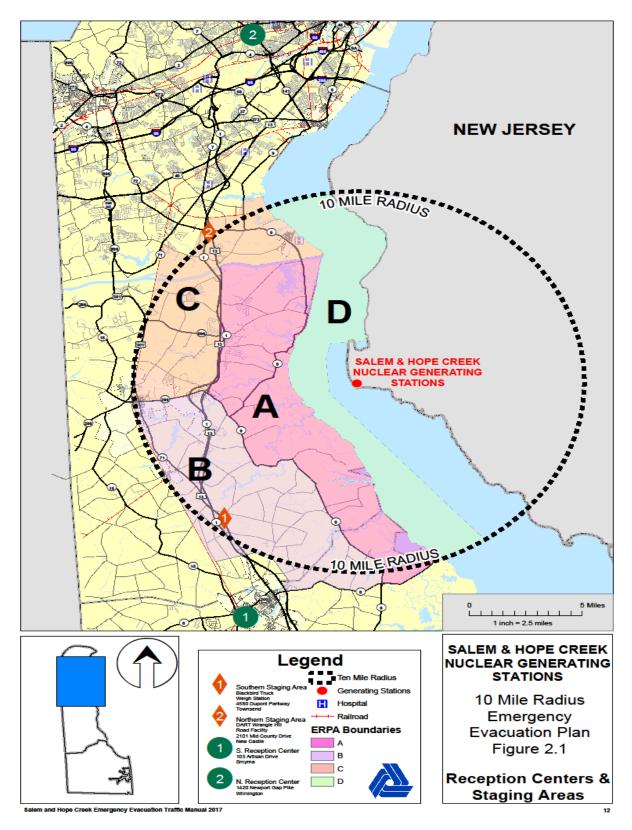


Figure 2.1: Staging Areas and Reception Centers Map

Emergency Evacuation Reception Centers

Directions to Reception Centers

Please tune to Radio Stations 1150 AM or 93.7 FM for emergency information



Frank K. Stern Readiness Center Northern Reception Center 1420 Newport Gap Pike

Wilmington

Directions:

Follow routing on the Ten-Mile Emergency Planning Zone Map. Drive north on Route 1.

Take Route 1 to Christiana. Then take I-95 north.

Go 4.5 miles and take exit exit 5A toward DE-141 / U.S.202. Merge onto Airport Rd. Turn left onto DE-141 N / US-202 N.

Go approximately 1.5 miles on 141 and take exit 5 toward DE-62 / Newport Gap Pike / Boxwood Rd.

Turn left at the first traffic light (Boxwood Rd.) and go over the interstate extension.

Take the first right over overpass (about 100 feet). This is Newport Gap Pike (Route 62). Go 0.3 miles.

Frank K. Stern Readiness Center (Delaware National Guard) is on the left.



Smyrna Readiness Center Southern Reception Center

103 Artisan Drive Smyrna

Follow routing on the Ten-Mile Emergency Planning Zone Map.

Drive south on Route 1 to Smyrna.

Take Route 1 South to exit 119A (U.S. 13 S).

Proceed south on Route 13 for approximately 1.8 miles.

Turn right on DE-300 / East Glenwood Avenue.

Go approximately 1.7 miles.

Turn left on Artisan Drive and continue 0.1 miles.

Smyrna Readiness Center (Delaware National Guard) is on the right.

Figure 2.2: Directions to Reception Centers

3. Traffic Management

3.1. Access Control Points

Access control points are pre-designated and have an alert notification sign posted to ensure positive control of the five and ten-mile Emergency Planning Zones. The Delaware State Police (DSP) utilize these locations to manage traffic exiting the affected area. Evacuees needing directions to the Reception Centers should be provided a copy of the Evacuee Instruction Sheet (Figure 2.2). When emergency precautions are ordered and/or when the affected area has been evacuated, only authorized personnel and equipment are allowed to enter.

The predetermined access control points have been divided into those for the five-mile Emergency Planning Zone (Figure 3.3) and those for the ten-mile Emergency Planning Zone (Figure 3.5). The purpose of the five-mile access control points is to restrict access to ERPA A. An evacuation would occur in stages, and within a matter of time, the ten-mile access control points would also be implemented to restrict access to all ERPAs. The barricades set-up at the five-mile access control points would remain, even once the ten-mile access control points are implemented.

Figure 3.1 shows the anticipated evacuation routes for residents living within the ten-mile Emergency Planning Zone, as they evacuate the zone and travel to one of the two reception centers.

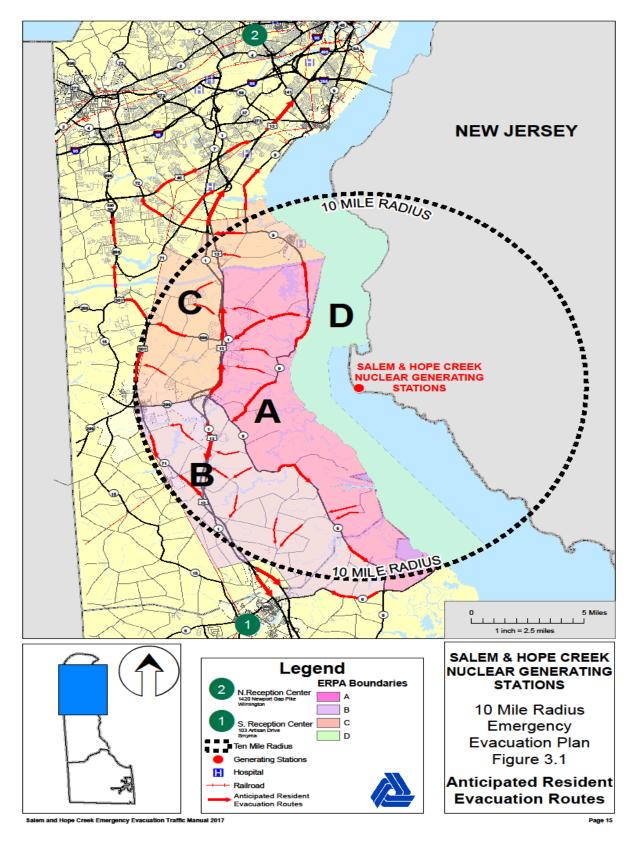


Figure 3.1: 10 Mile Radius Emergency Evacuation Plan

Five Mile Zone Access Control Points

Figure 3.2 is a table showing the Access Control Points within the five-mile Emergency Planning Zone. Images of each Access Control Point, with detailed information on where barricades, traffic cones, and emergency vehicles should be placed, as well as lane closures, are included in Appendix A. An overall map of the five-mile Access Control Points is shown as Figure 3.3.

A-1	North Side Reedy Point Bridge
A-2	Biddles Corner – US 13 and Port Penn Road (00002)
A-3	Boyds Corner - US 13 and Pole Bridge Road (00420)
A-4	Pole Bridge Road (00420) and Entrance Ramp of Southbound Lane to SR-1
A-5	US 13 and Bayview Road (00423)
A-6	US 13 and DEL 299 (Main Street)
A-7	DEL 299 (Old State Road) and Old Corbett Road (00424)
A-8	US 13 and Old State Road (00441)
A-9	US 13 and Fieldsboro Road (00452)
A-10	Naylor's Corner - Blackbird Landing Road (00455) and Union Church Road (00456)
A-11	DEL 9 (Flemings Landing Road) and Walker School Road (00045)
A-12	DEL 9 (Thomas Landing Road) and DEL 299 (Taylors Bridge Road)
A-13	DEL 9 and Cedar Swamp Road (00453)
A-14	DEL 9 and Thorofare Neck Road (00491)
A-15	DEL 9 and Deakyneville Road (00492)

Figure 3.2: 5 Mile Radius Access Control Points

Traffic will be permitted to travel north & south on SR 1 and US 13, but all points allowing access to the east will be blocked. Due to traffic volumes, the intersection of SR 1 and Route 299 should be monitored and may require additional traffic control.

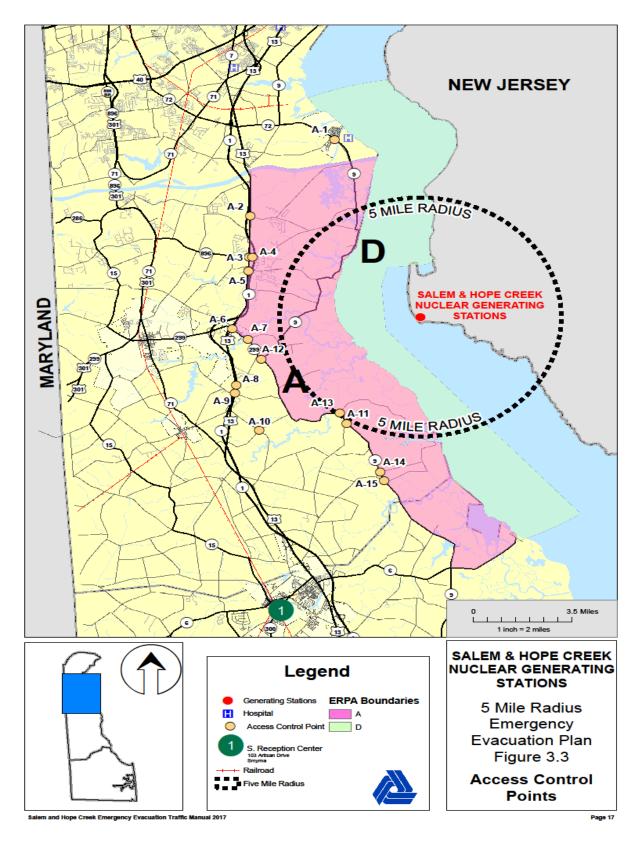


Figure 3.3: 5 Mile Radius Access Control Point Map

Ten Mile Zone Access Control Points

Figure 3.4 is a table showing the Access Control Points within the ten-mile Emergency Planning Zone. Images of each Access Control Point, with detailed information on where barricades, traffic cones, and emergency vehicles should be placed, as well as lane closures, are included in Appendix B. An overall map of the ten-mile Access Control Points is shown as Figure 3.5.

B-1	Hamburg Road/Tybouts Corner Road (00381) and DEL 9 (River Road)
B-2	DEL 7 (Bear Corbitt Road) and DEL 71 (Red Lion Road)
B-3	US 13 and DEL 71 (Red Lion Road)
B-4	SR-1 and US 40/US 301 (Pulaski Highway)
B-5	DEL 72 and Entrance Ramp to Southbound Lane of SR-1
B-6	DEL 71 (Red Lion Road) and DEL 72 (Wrangle Hill Road)
B-7	Kirkwood St. Georges Road (00409) and DEL 71 (Red Lion Road)
B-8	Conrail Chesapeake and Delaware (C&D) Canal Crossover
B-9	Lorewood Grove Road (00412) and Old Summit Bridge Road (00063)
B-10	Mount Pleasant – US 301/DEL 71 (Summit Bridge Road) and DEL 896 (Boyd's Corner Road)
B-11	US 301/DEL 71 (Summit Bridge Road) and Armstrong Corners Road (00429)
B-12	Middletown - Cedar Lane (00427) and DEL 71 (North Broad Street)
B-13	Middletown - DEL 299 (West Main Street) and US 301 (Summit Bridge Road)
B-14	St. Anne's Church Road (00447) and Wiggins Mill Road (00446)
B-15	Wiggins Mill Road (00446) and Green Giant Road (00458)
B-16	Taylor's Corner - Caldwell Corner Road (00025) and Grears Corner Road (00459)
B-17	Dexter Corner Road (00036) and Grears Corner Road (00459)
B-18	Dexter Corner Road (00036) and Blackbird Station Road (00463)
B-19	Dexter Corner Road (00036) and Oliver Guessford Road (00472)
B-20	Vandyke Greenspring Road (00047) and Blackbird Forest Road (00471)
B-21	Vandyke Greenspring Road (00047) and Blackbird-Greenspring Road (00484)
B-22	Vandyke Greenspring Road (00047) and Massey Church Road (00470)
B-23	Vandyke Greenspring Road (00047) and Duck Creek Road (Road 486)
B-24	US 13 and Paddock Road (00030)
B-25	Smyrna Landing Road (00485) and DEL 6 (Commerce Street)
B-26	DEL 6 (Commerce Street) and Lighthouse Road (00082)
B-27	DEL 6 (Commerce Street) and Gravesend Road (00319)
B-28	DEL 6 (Woodland Beach Road) and DEL 9 (Hay Point Landing Road)
B-29	US 13 and South Smyrna Eastbound Ramp to SR-1
B-30	Northbound lanes on SR-1 at Exit 114 to South Smyrna
	Figure 2 4: 10 Mile Pedius Access Central Points

Figure 3.4: 10 Mile Radius Access Control Points

^{*}Access control points B-3 and B-4 also serve as traffic management points

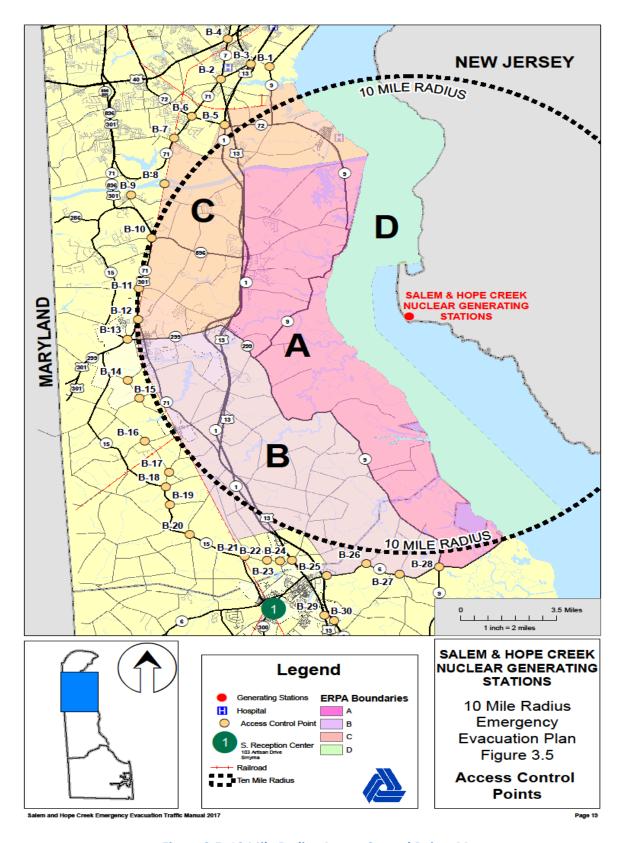


Figure 3.5: 10 Mile Radius Access Control Points Map

3.2. Traffic Management Points

Traffic Management Points will be used to initiate, control, and expedite movement around the ten-mile Emergency Planning Zone. The establishment of traffic management points provides an action parallel and complimentary to the activation of the Access Control Points. Traffic Management Points consist of the placement of trained traffic control officers, road barriers, informational and directional signs, and other traffic control aids at designated critical points to expedite a safe and orderly evacuation process. The traffic control procedures at each traffic management point are noted in Appendix C. Figure 3.6 contains the location of each traffic management point.

T-1	US 13 & DEL 6/DEL 300 (Glenwood Avenue)
T-2	US 13 & DEL 6 (Commerce Street)
T-3	US 13 & SR-1 (Exit 119B)
T-4	US 13 & SR-1 (Exit 119A) & Smyrna Landing Road
T-5	US 13 & Black Diamond Road
T-6	US 13 & Anchor Inn Road
T-7	US 13 & Eagles Nest Landing Road
T-8	US 13 & DEL 71 (Summit Bridge Road)
T-9	DEL 71 (Summit Bridge Road) & New Discovery Road
T-10	DEL 71 (Summit Bridge Road) & Pine Tree Road / Money Road
T-11	DEL 71 (Summit Bridge Road) & Noxontown Road
T-12	DEL 71 (Broad Street) & DEL 299 (Main Street)
T-13	US 301 (Summit Bridge Road) & DEL 71 (North Broad Street)
T-14	US 301/DEL 896/DEL 71 (Summit Bridge Road) & Old Summit Bridge
T-15	US 301/DEL 896 (Summit Bridge Road) & DEL 71 (Red Lion Road)
T-16	US 301/DEL 896 (South College Avenue) & US 301/US 40 (Pulaski Highway)
T-17	US 301/US 40 (Pulaski Highway) & DEL 72 (Wrangle Hill Road)
B-3*	US 13 & DEL 71 (Red Lion Road)
B-4*	SR-1 & US 40/US 301 (Pulaski Highway)

Figure 3.6: Traffic Management Points

3.3. Detours

In the case of an incident at Salem and Hope Creek Nuclear Stations that causes an evacuation, existing traffic will need to be detoured around the ten-mile Emergency Planning Zone.

Northbound Detour

Traffic heading north in Delaware will be detoured along the following route:

- SR-1 north to Exit 114
- Exit 114 to US 13 north 0.1 miles
- US 13 north to DEL 71 north (Summit Bridge Rd.) 8 miles
- North DEL 71 (Summit Bridge Rd.) to US 301 north 6.7 miles
- North US 301 / DEL 71 to US 40 (Pulaski Hwy.) 11 miles

Figure 3.7 shows the northbound detour route.

^{*}Access control points B-3 and B-4 also serve as traffic management points

Southbound Detour

Traffic heading south in Delaware will be detoured along the following route:

- For US 13:
 - O US 13 south to DEL 71 south (Red Lion Rd.)
 - DEL 71 (Red Lion Rd.) to US 301/DEL 896 south (Summit Bridge Rd.) 7.8 miles
 - o Follow SR-1 south signs
- For SR-1:
 - o SR-1 south to US 40 West (Pulaski Hwy.)
 - US 40 (Pulaski Hwy.) to US 301/DEL 896 south (S. College Ave) 5.2 miles
 - US 301/DEL 896/DEL 71 south to DEL 71 south (Summit Bridge Rd.) 11 miles
 - o DEL 71 south (Summit Bridge Rd.) to US 13 south 6.7 miles
 - O US 13 south to Exit 114 for SR-1 south

Figure 3.8 shows the southbound detour route.

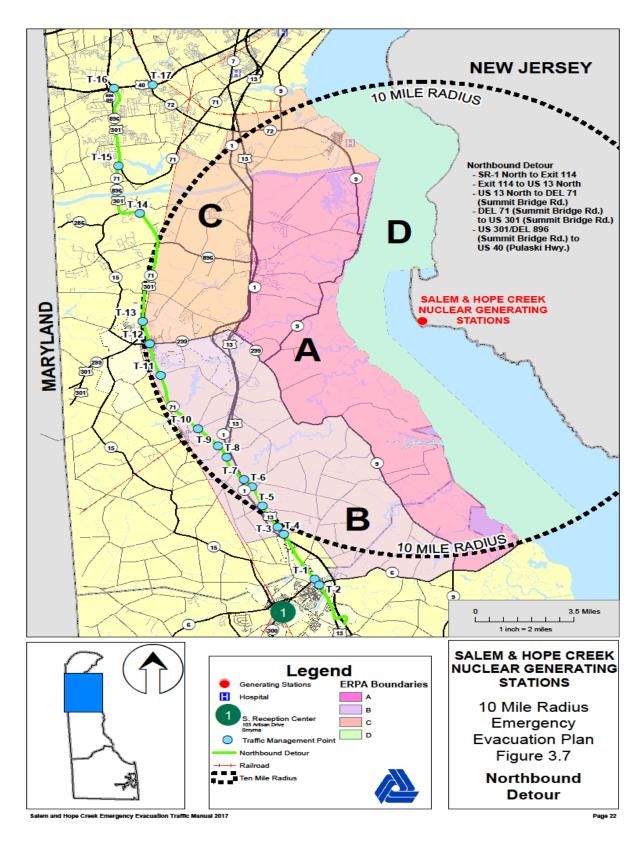


Figure 3.7: Northbound Detour Map

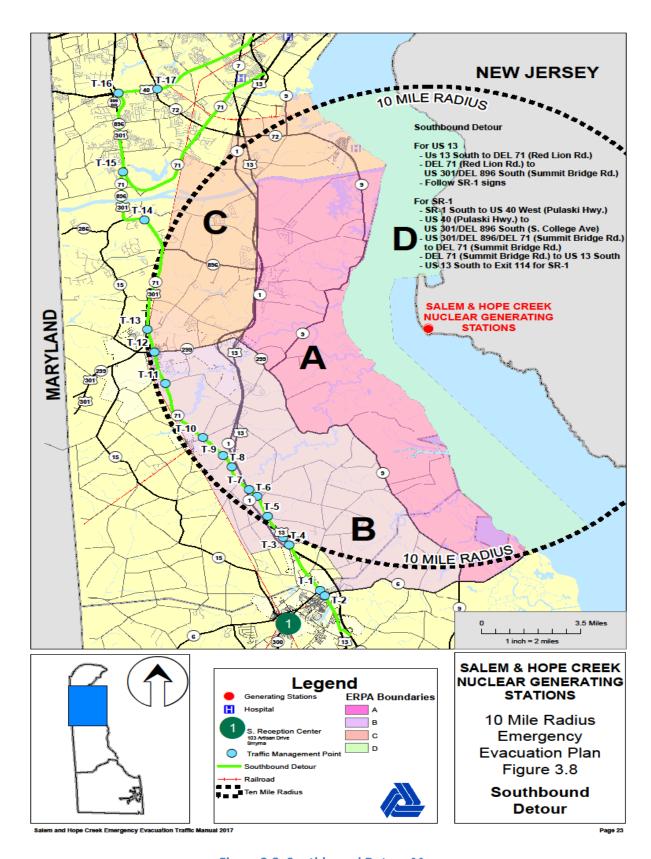


Figure 3.8: Southbound Detour Map

Detour Signage Plan

The following figure (3.9) summarizes the signage needs to implement the detour plan.

Route / Road	Intersection	Arrow Direction	Placard Label	Detour Map Reference (pg. 30		
SR-1, NB	300' before Exit 114	1	SR-1	1		
O. 2, 112	Exit 114 Ramp, 300' before US 13	\rightarrow	SR-1	2		
	300' after SR-1 Exit 114 Ramp	1	SR-1	3		
	300' before DEL 6 (Woodland Beach Rd) (00009)	1	SR-1	4		
	300' after DEL 6 (Woodland Beach Rd) (00009)	1	SR-1	5		
	300' before Paddock Rd (00030)	1	SR-1	6		
	300' before SR-1 Exit 119B	1	SR-1	7		
	300' after SR-1 Exit 119B	1	SR-1	8		
US 13, NB	300' before Smyrna Landing Rd (00485)	1	SR-1	9		
	300' before SR-1 Exit 119A	1	SR-1	10		
	300' after SR-1 Exit 119A	1	SR-1	11		
	300' before Black Diamond Rd (00469)	1	SR-1	12		
	300' before Anchor Inn Rd (00495)	1	SR-1	13		
	300' before Eagles Nest Landing Rd (00465)	1	SR-1	14		
	300' before DEL 71 (Summit Bridge Rd) (00014)	+	SR-1	15		
	300' after US 13	1	SR-1	16		
	300' before New Discovery Rd (00456)	1	SR-1	17		
	300' before Pine Tree Corner Rd (00025)	1	SR-1	18		
DEL 71, NB	300' before Noxontown Rd (00038)	1	SR-1	19		
DEE 7 1, 140	300' before DEL 299 (Main St) (00438)	1	SR-1	20		
	300' after DEL 299 (Main St) (00438)	1	SR-1	21		
	300' before Cedar Lane Rd (00427)	1	SR-1	22		
	300' before US 301 / DEL 71 (Summit Bridge Rd) (00039)	\rightarrow	SR-1	23		

	300' after DEL 71 (Summit Bridge Rd) (00039)	↑	SR-1	24
US 301 / DEL 71, NB	300' before Marl Pit Rd (004290)	1	SR-1	25
	300' before DEL 896 (Boyds Corner Rd) (00015)	↑	SR-1	26
	300' after DEL 896 (Boyds Corner Rd) (00015)	↑	SR-1	27
US 301 / DEL 71 /	300' before Old Summit Bridge Rd (00063)	↑	SR-1	28
DEL 896, NB	300' before DEL 71 (Red Lion Rd) (00035)	↑	SR-1	29
	300' after DEL 71 (Red Lion Rd) (00035)	↑	SR-1	30
US 13, SB	300' before DEL 71 (Red Lion Rd) (00035)	\rightarrow	US 13	31
	300' before DEL 7 (Bear Corbitt Rd) (00005)	↑	US 13	32
	300' before DEL 72 (Wrangle Hill Rd) (00356)	↑	US 13	33
DEL 71, SB	300' before Kirkwood-St. Georges Rd (00409)	↑	US 13	34
	300' before US 301 / DEL 896 (Summit Bridge Rd) (00016)	+	US 13	35
	300' before US 301 / DEL 896 (Summit Bridge Rd) (00016)	+	SR-1	36
SR-1, SB	300' before Exit 160 - US 40 / US 301 (Pulaski Hwy)	\rightarrow	SR-1	37
	300' before DEL 7 (Bear Corbitt Rd) (00005)	↑	SR-1	38
US 40 /	300' after DEL 7 (Bear Corbitt Rd) (00005)	↑	SR-1	39
US 301, WB	300' before DEL 72 (Wrangle Hill Rd) (00356)	↑	SR-1	40
	300' before US 301 / DEL 896 (Summit Bridge Rd) (00016)	+	SR-1	41
US 301 /	300' after US 40 / US 301 (Pulaski Hwy) (00032)	↑	SR-1	42
DEL 896, SB	300' before DEL 71 (Red Lion Rd) (00035)	↑	SR-1	43
	300' after DEL 71 (Red Lion Rd) (00035)	↑	US 13	44
US 301 / DEL 71 /	300' after DEL 71 (Red Lion Rd) (00035)	↑	SR-1	45
DEL 896, SB	300' before Old Summit Bridge Rd (00063)	↑	SR-1	46
	300' before DEL 896 (Boyds Corner Rd) (00015)	↑	SR-1	47
	300' after DEL 896 (Boyds Corner Rd) (00015)	↑	SR-1	48
US 301 / DEL 71, SB	300' before Marl Pit Rd (004290	1	SR-1	49
	300' before DEL 71 (Summit Bridge Rd) (00039)	+	SR-1	50

	300' before Cedar Lane Rd (00427)	↑	SR-1	51
	300' before DEL 299 (Main St) (00438)	1	SR-1	52
	300' after DEL 299 (Main St) (00438)	1	SR-1	53
DEL 71, SB	300' before Noxontown Rd (00038)	1	SR-1	54
	300' before Pine Tree Corner Rd (00025)	1	SR-1	55
	300' before New Discovery Rd (00456)	1	SR-1	56
	300' before US 13	\rightarrow	SR-1	57
	300' after DEL 71 (Summit Bridge Rd) (00014)	1	SR-1	58
	300' before Eagles Nest Landing Rd (00465)	↑	SR-1	59
	300' before Black Diamond Rd (00469)	1	SR-1	60
	300' before SR-1 Exit 119A 300' before SR-1 Exit 119A	1	SR-1	61
	300' after SR-1 Exit 119A	1	SR-1	62
	300' before Smyrna Landing Rd (00485)	1	SR-1	63
US 13, SB	300' before SR-1 Exit 119B	↑ ←	SR-1	64
03 13, 36	300' after SR-1 Exit 119B	1	SR-1	65
	300' before Paddock Rd (00030)	1	SR-1	66
	300' before DEL 6 / DEL 300 (Commerce St) (00039)	1	SR-1	67
	300' after DEL 6 / DEL 300 (Commerce St) (00039)	↑	SR-1	68
	300' before DEL 6 (Woodland Beach Rd) (00009)	1	SR-1	69
	300' after DEL 6 (Woodland Beach Rd) (00009)	1	SR-1	70
	300' before Exit 114 Ramp	+	SR-1	71

Figure 3.9: Detour Signage Needs

A map that shows the location of the detour signs is included as Appendix D.

In addition to the signage described above, four portable Variable Message Signs (VMS) will also be required to help manage traffic flow. The messages to be displayed on the portable VMS boards are shown in Figure 3.10.

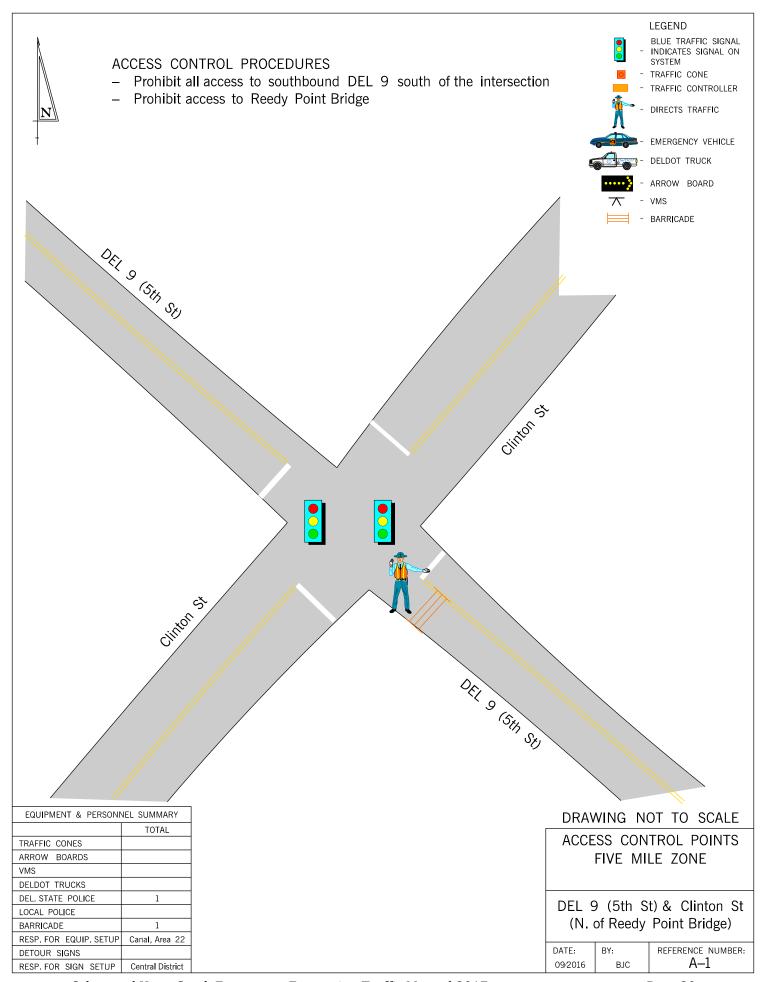
	<u>Panel 1</u>								Panel 2								
Board #1	Ι	9	5		N	&	S			U	S	1	3	&	S	R	1
Median NB US301, 0.5 miles south of US40	С	0	N	Т	I	N	U	Е		R	Н	Т		Т	U	R	N
interchange	0	N		S	R	8	9	6		0		5		М	I	L	E
Board #2		S	R	1		S											
Median WB US40, 0.5 miles east of US301 interchange	L	F	Т		Т	U	R	N									
- and an account	0	-	5		М	I	L	Е									
									•								
Board #3		U	S	1	3		S			Α	L	Т		U	S	Е	
Median SB US13, 0.5 miles east of US40 interchange		D	Ε	Т	0	U	R			U	S	4	0		0		5
3	3		М	I	L	Е	S			М	I		Α	Н	Е	Α	D
Board #4		U	S	1	3		S				S	R	1		S		
Median NB DE71, 0.5 miles south of US301 / DE 896		D	Е	Т	0	U	R				D	Е	Т	0	U	R	
		F	0	L	L	0	W				S	I	G	N	S		

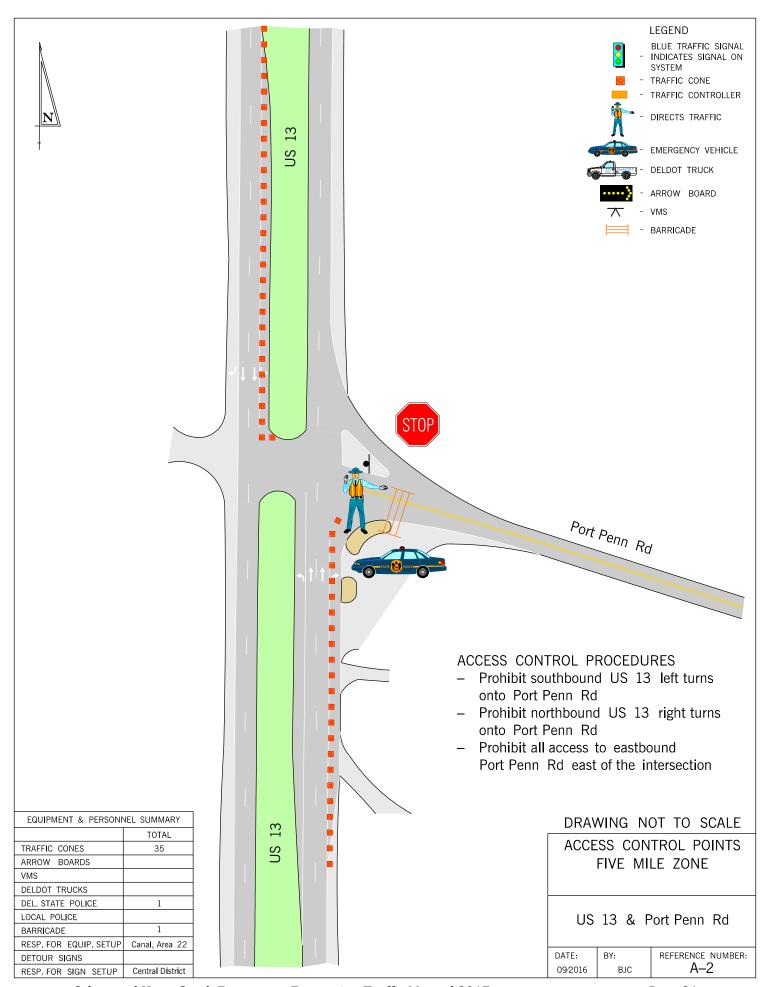
Figure 3.10: Portable VMS Messages for Detour

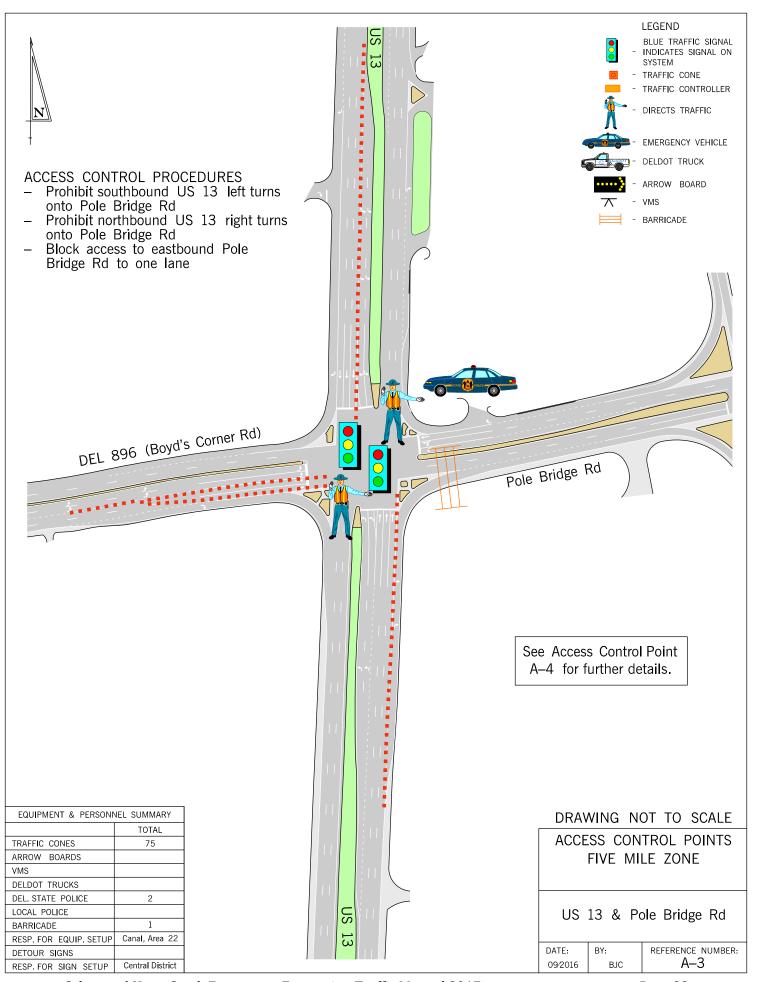
3.4. Summary of Equipment Needs

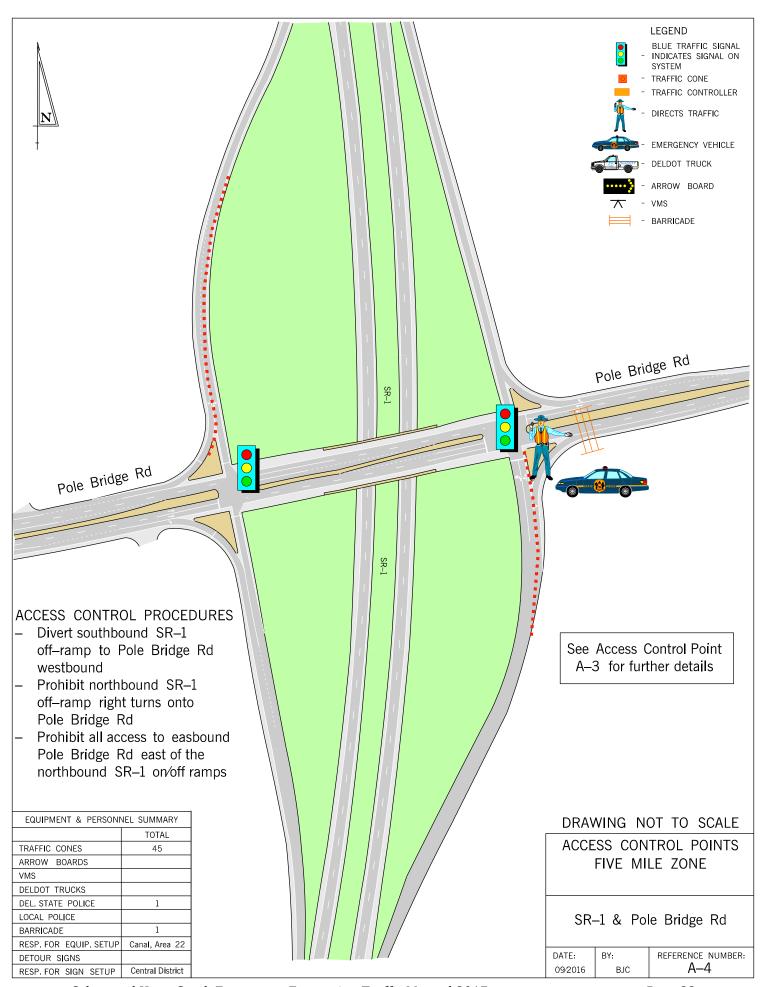
The individual equipment and personnel needs are listed on each diagram in the Appendices. A summary of equipment needs is provided in Appendix E.

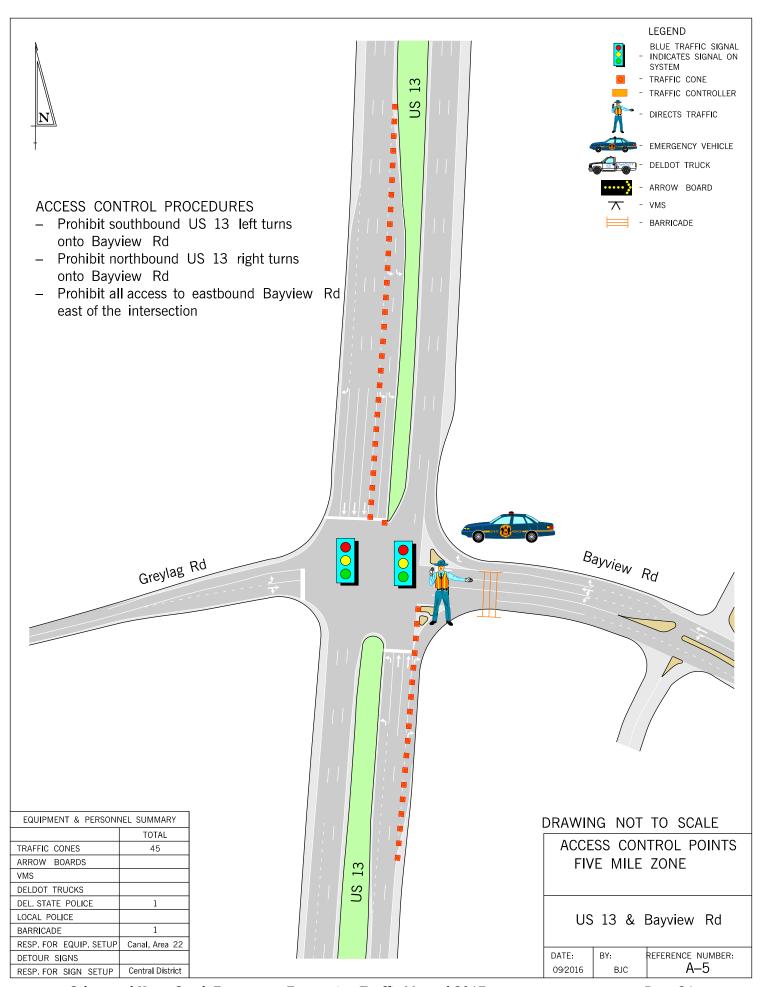


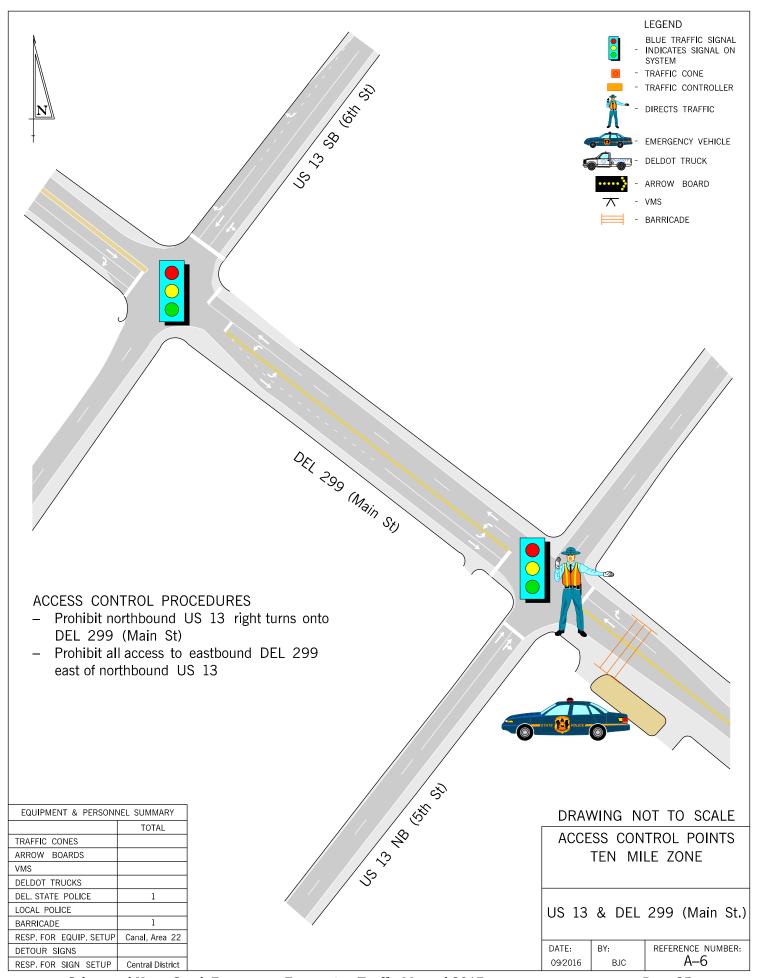


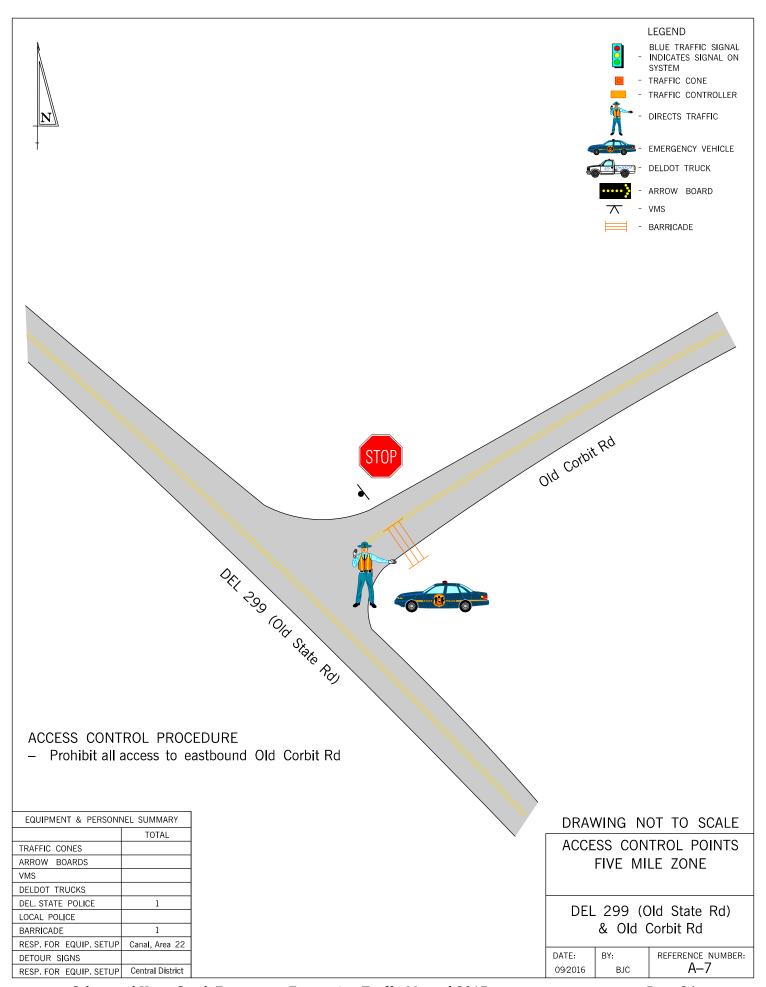


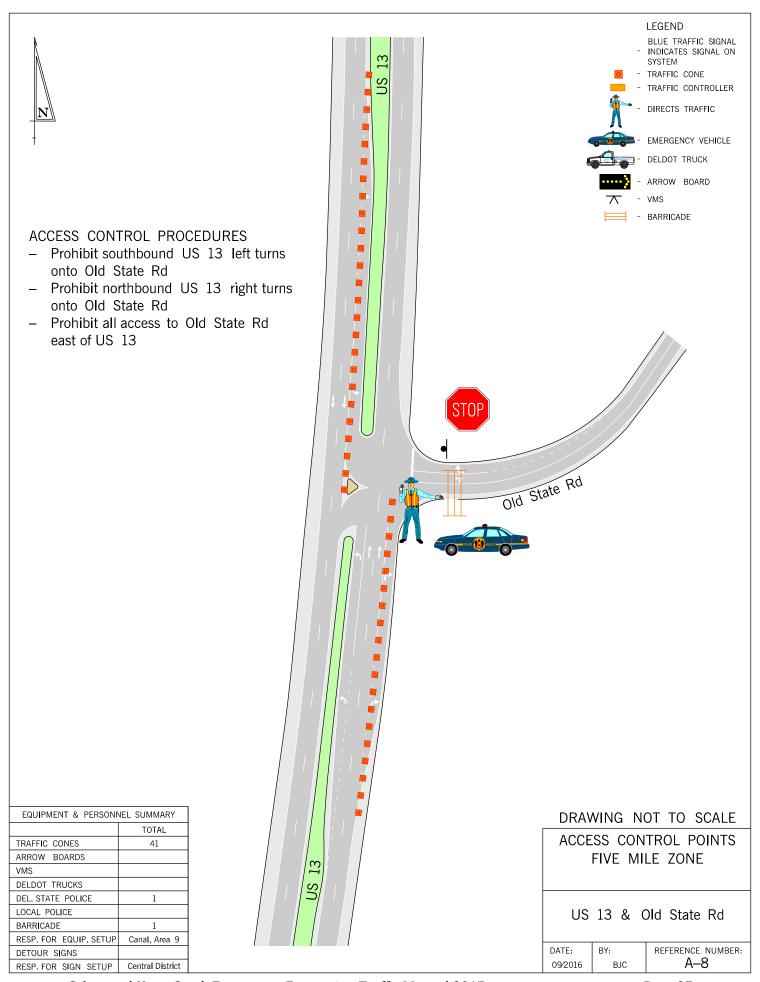


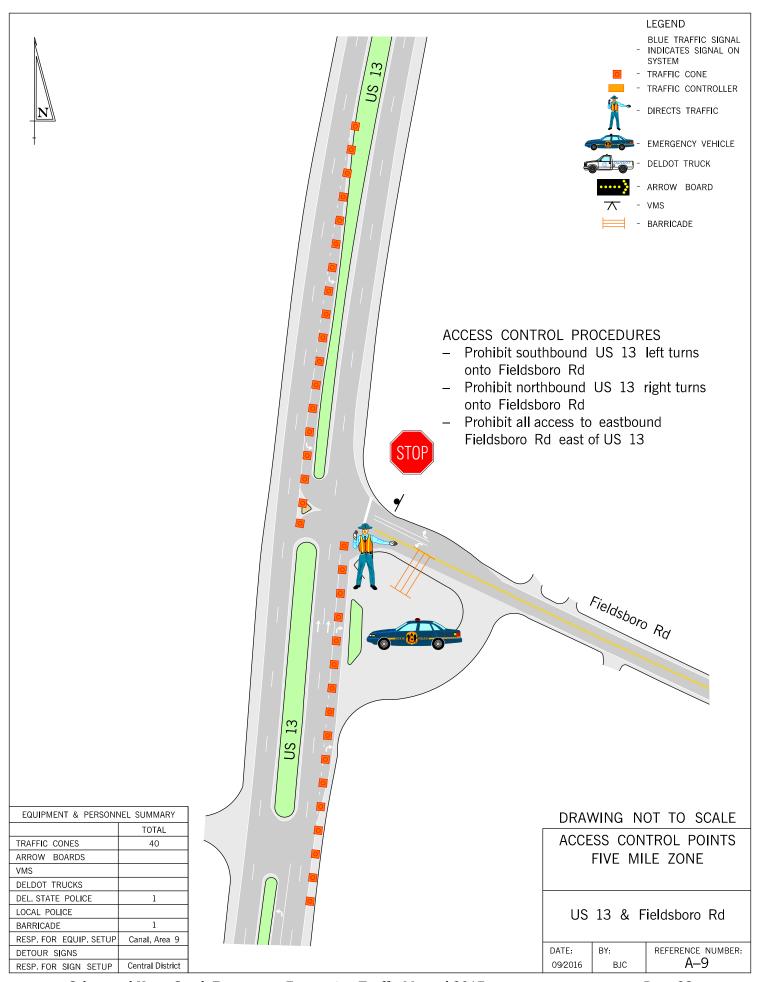


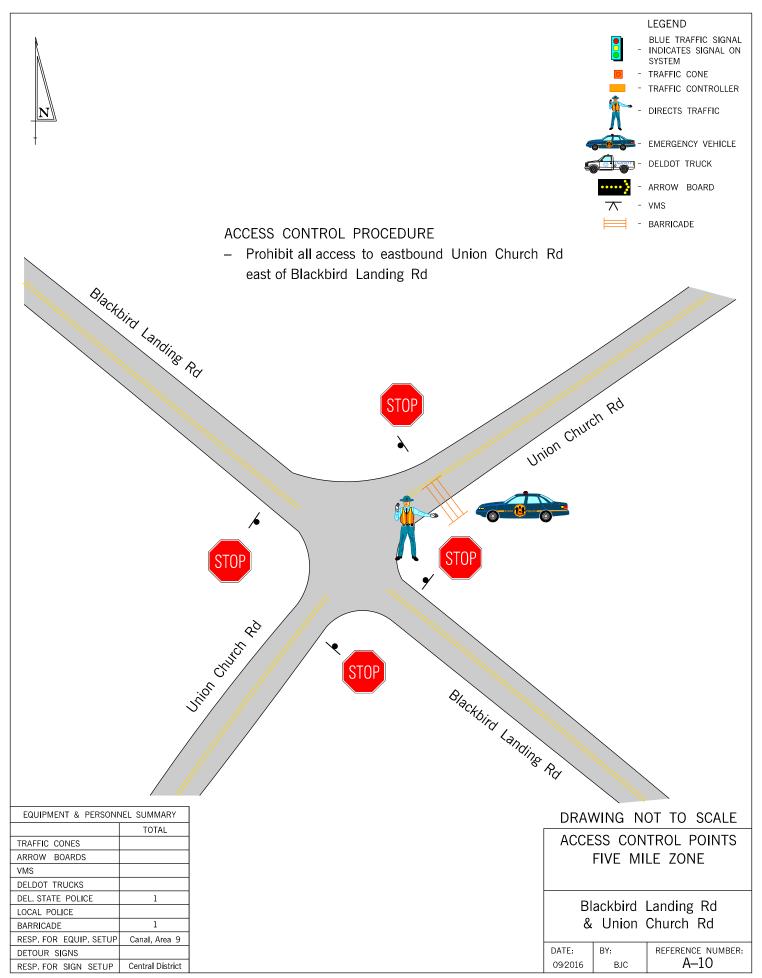


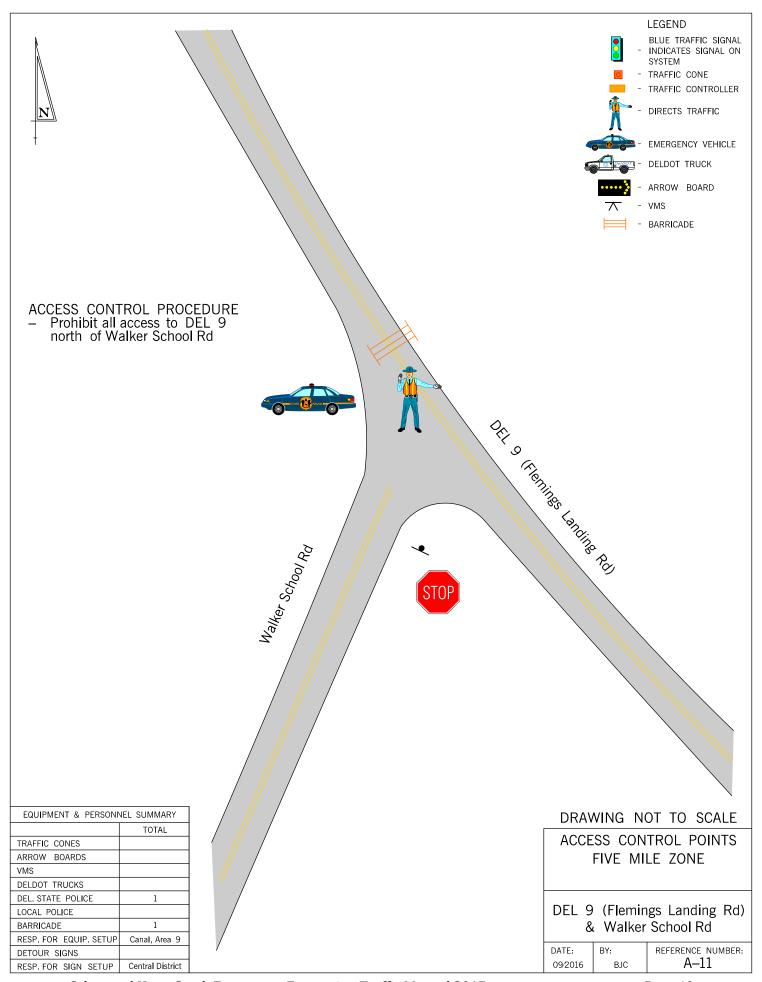


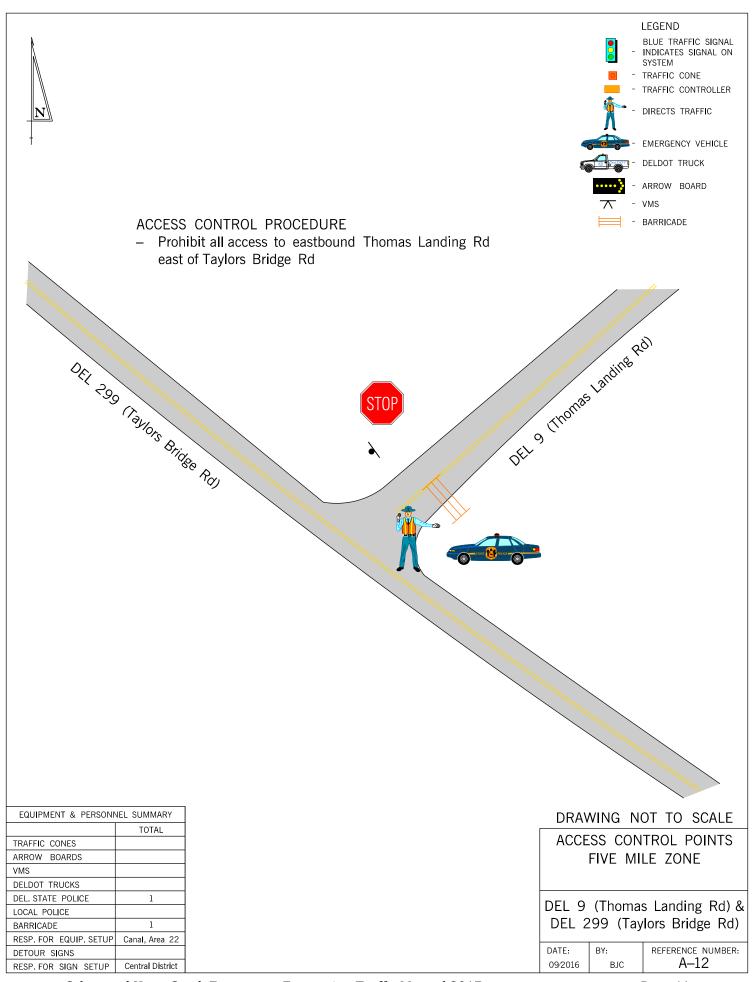


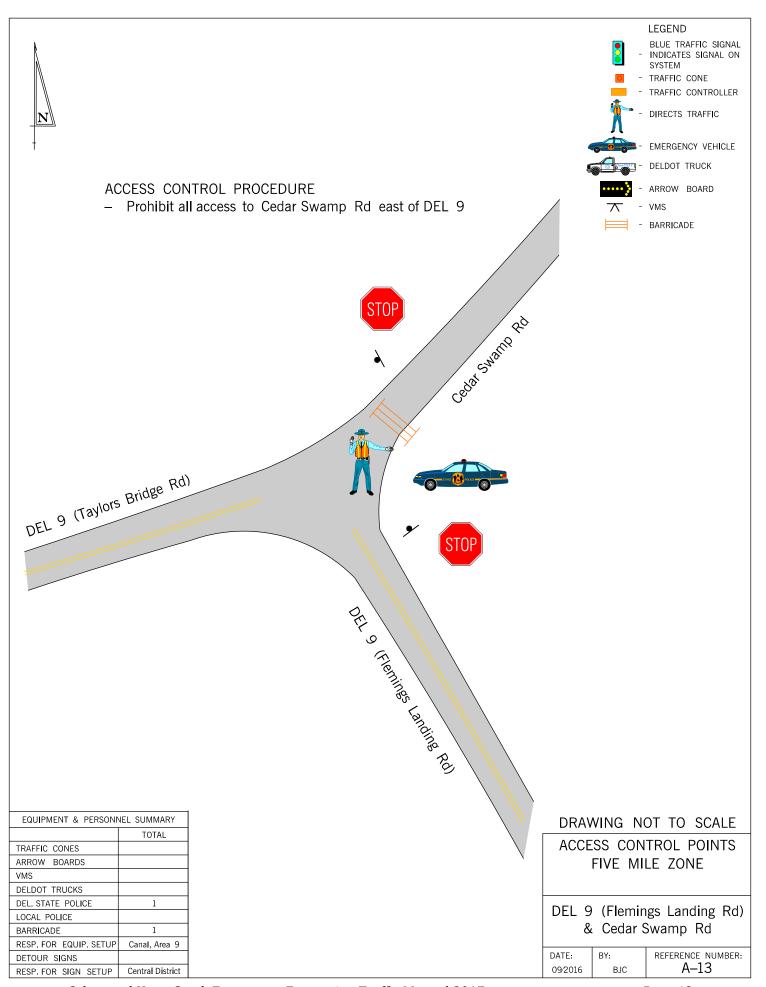


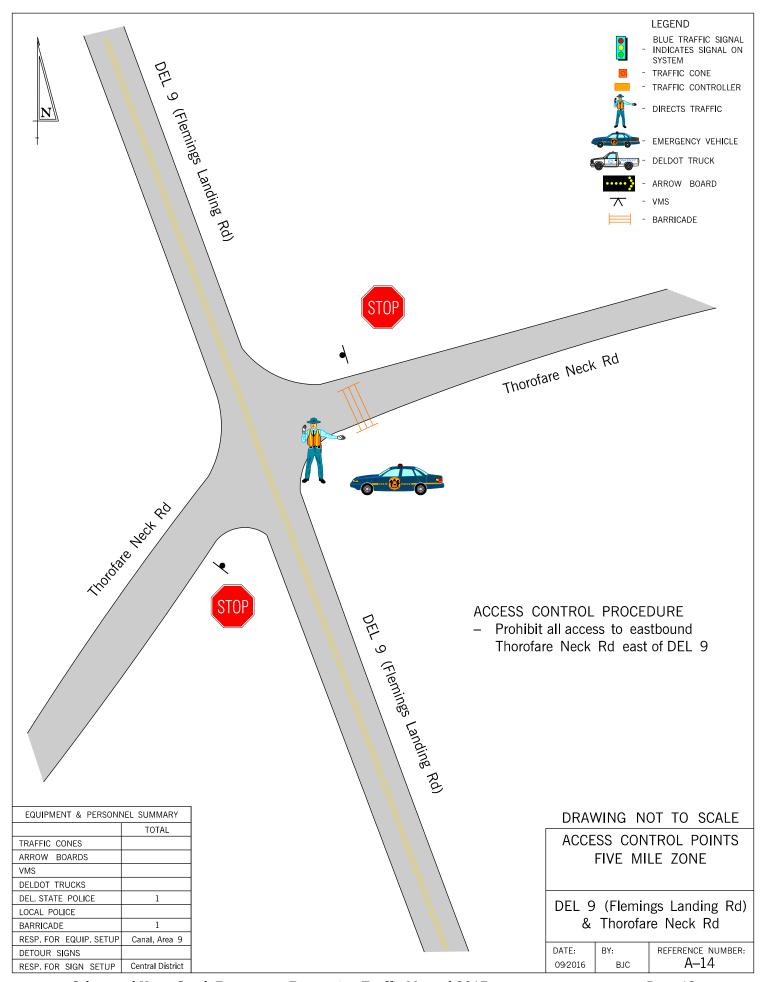


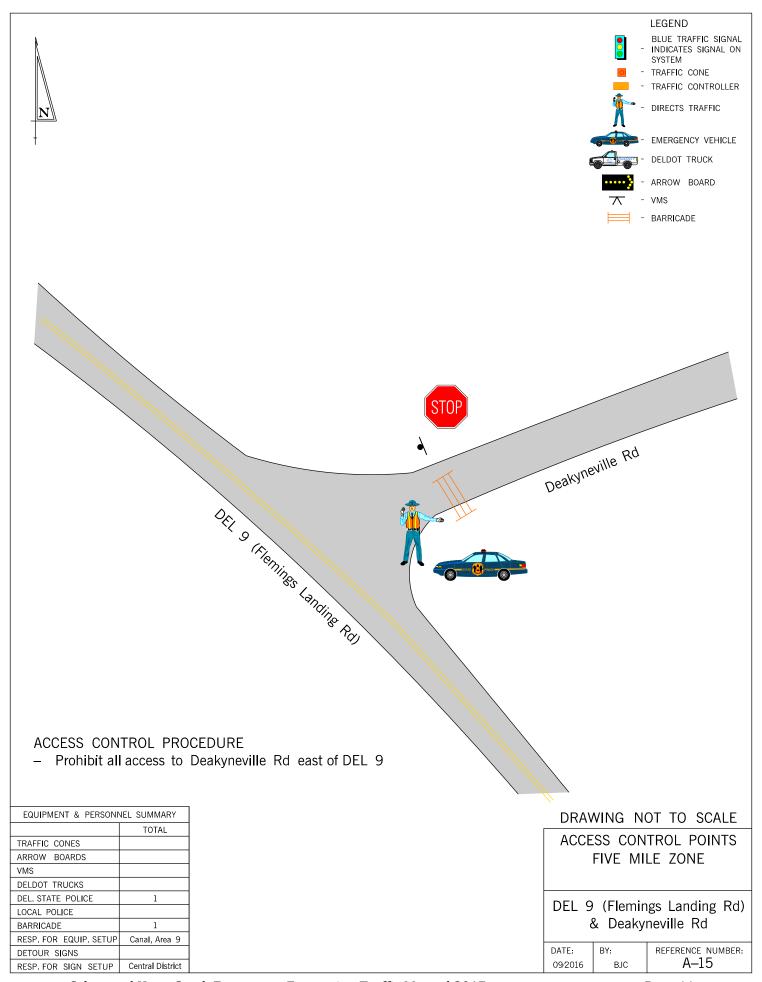




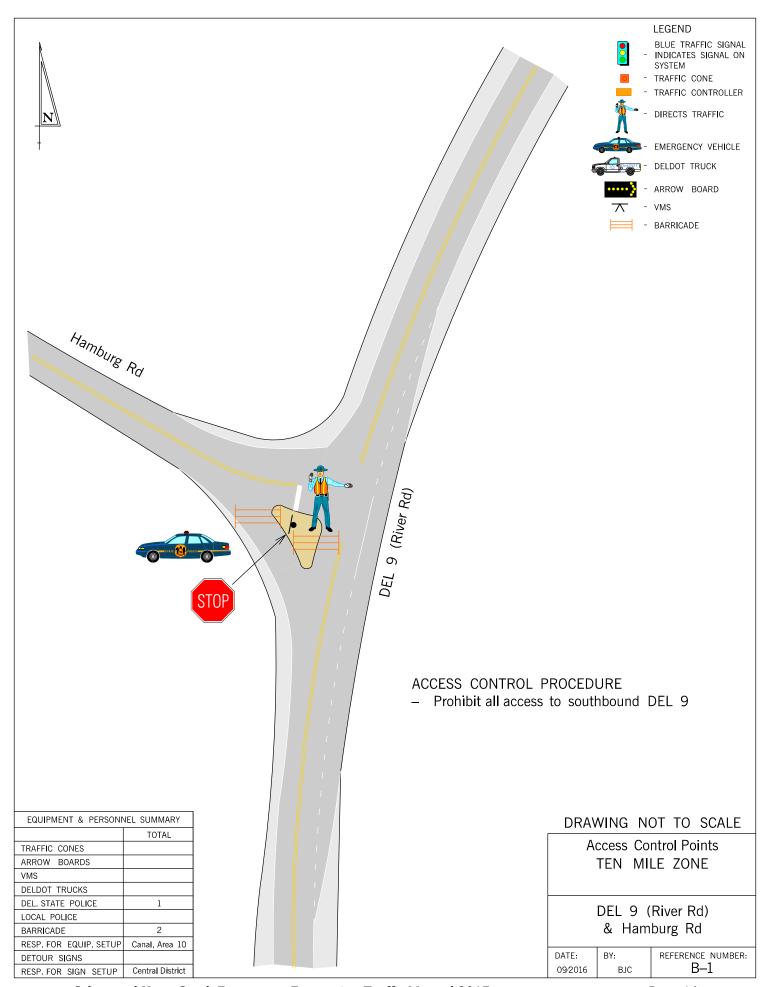


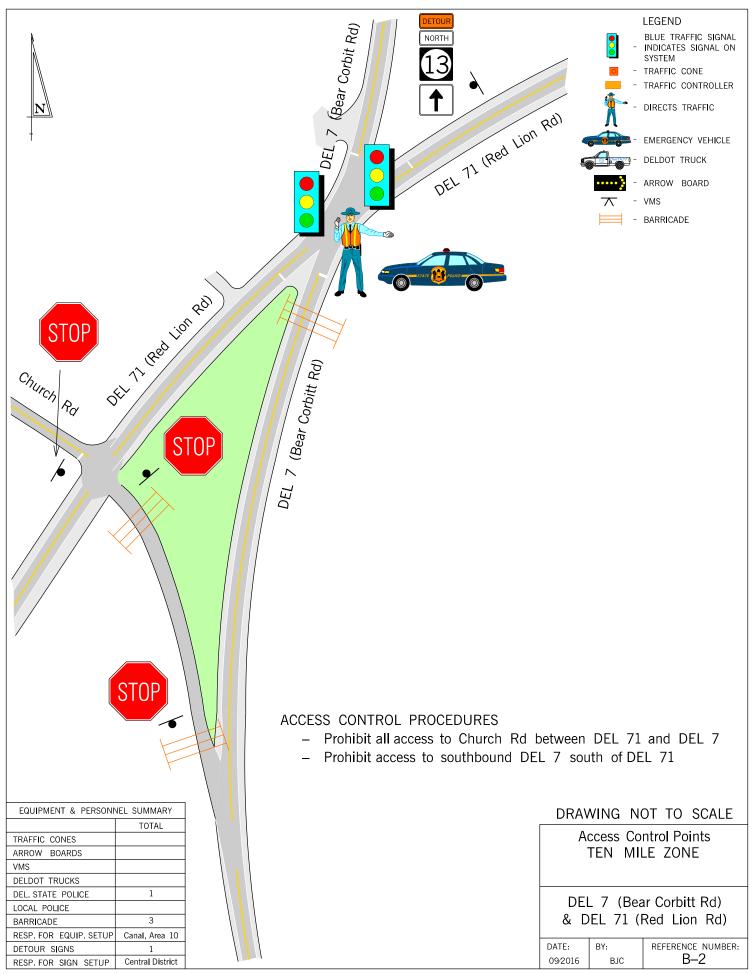


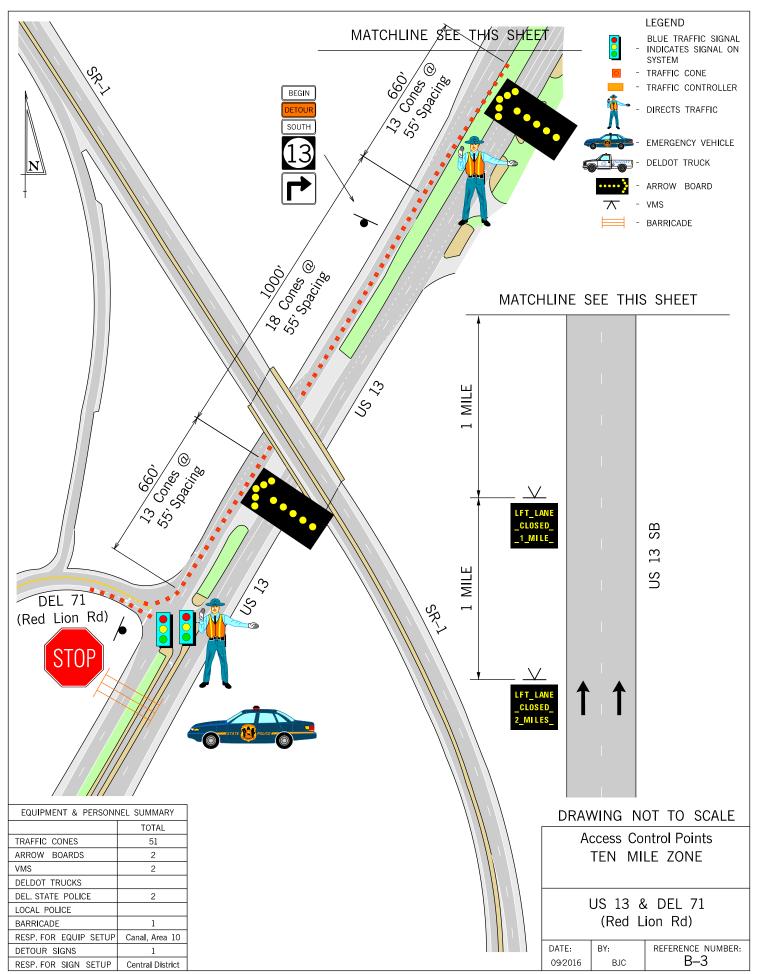




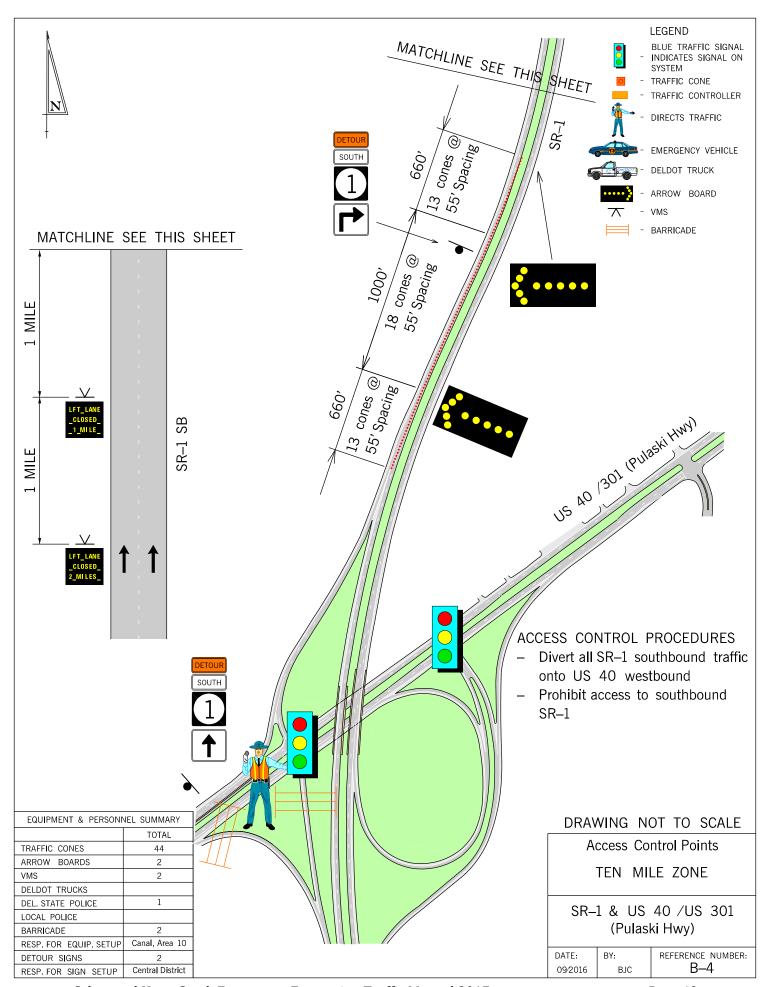


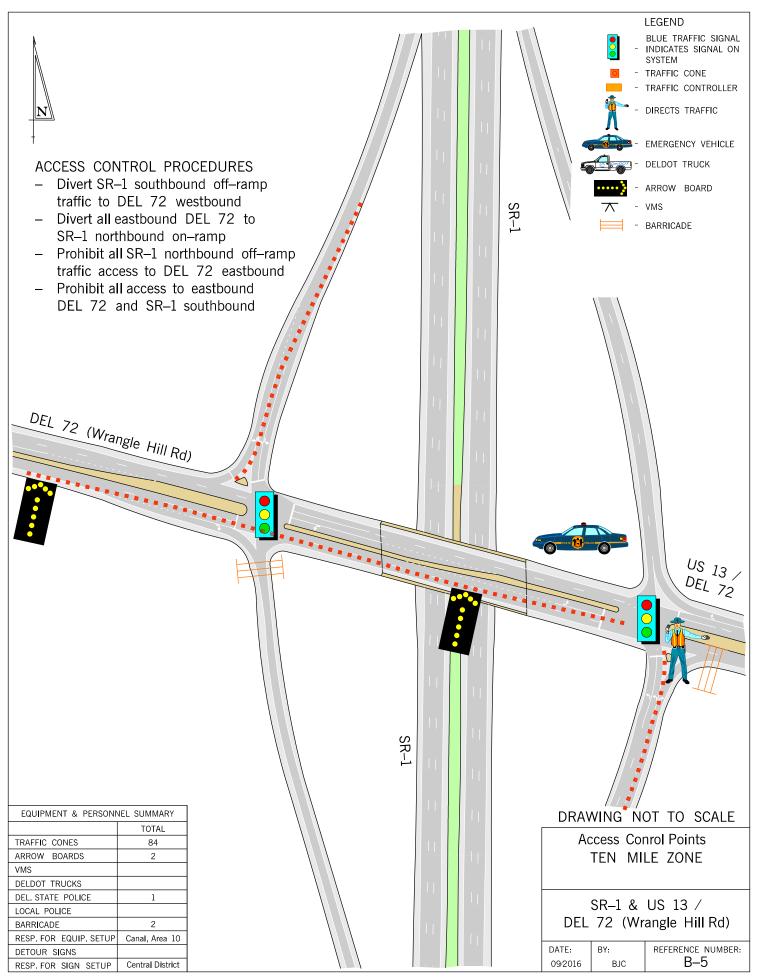


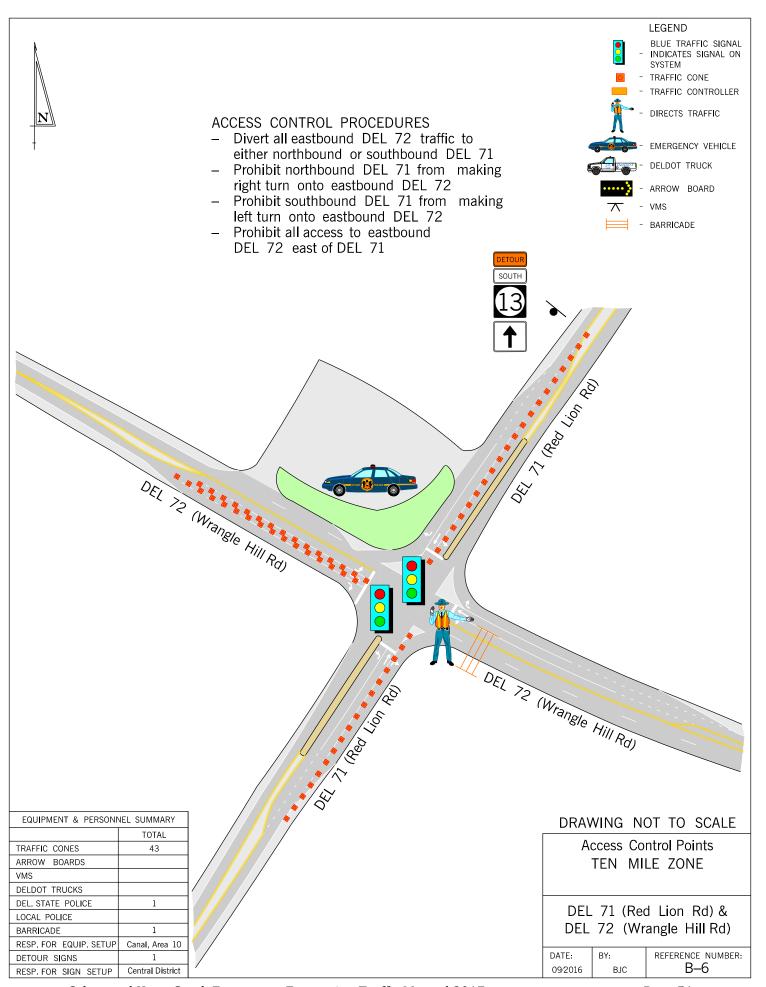


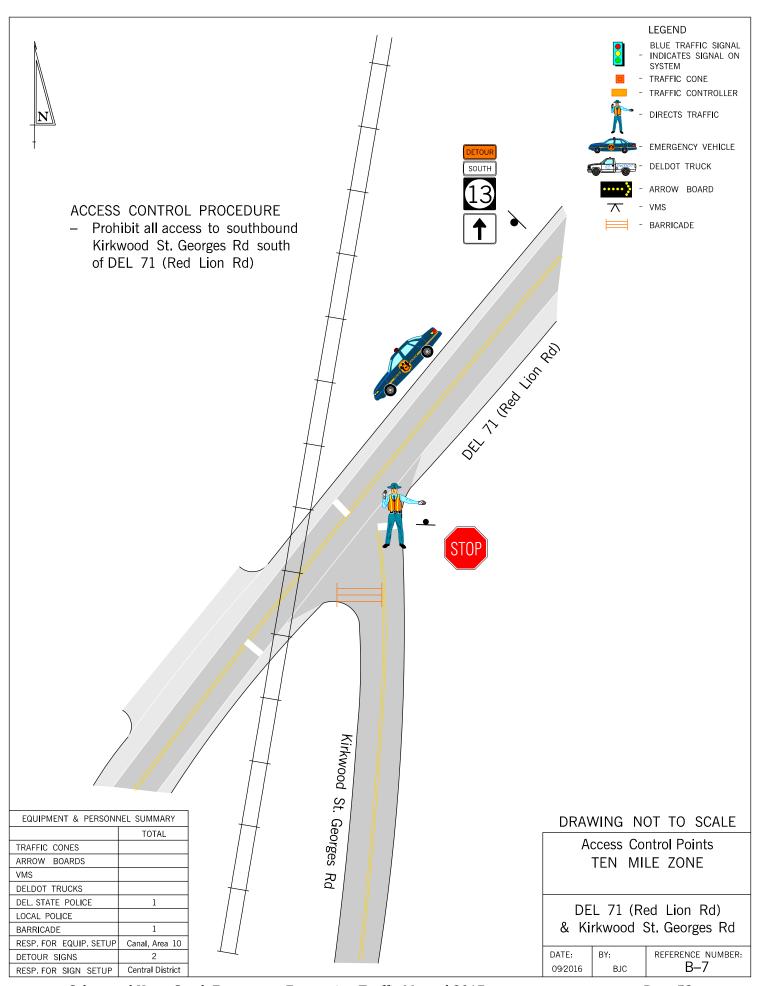


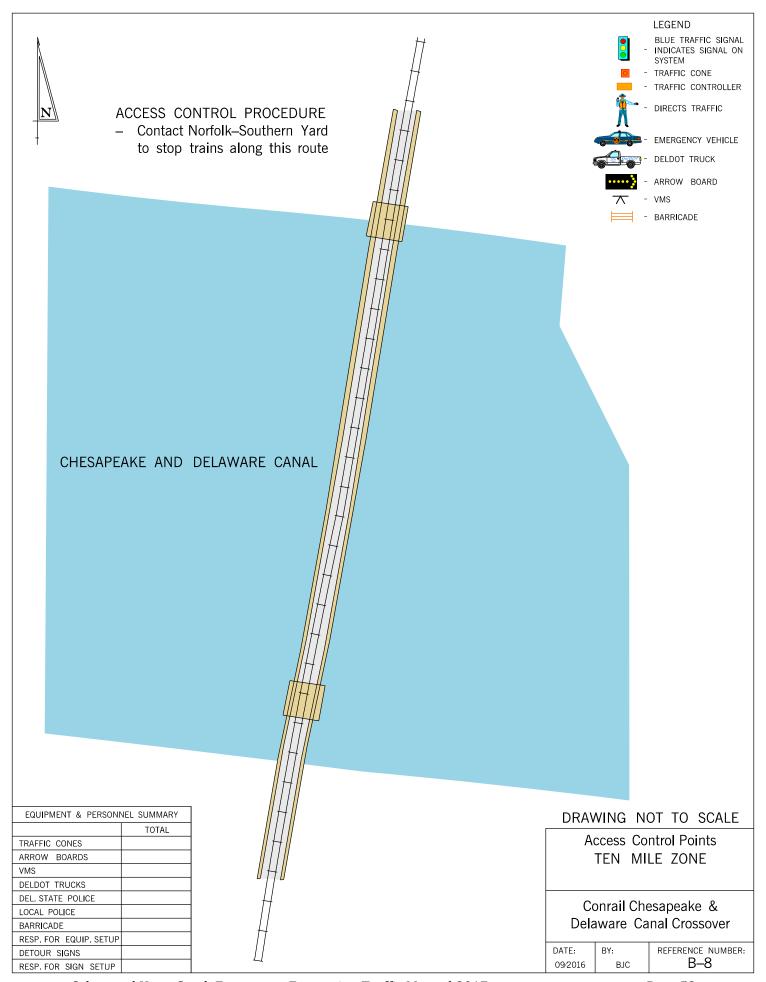
Page 48

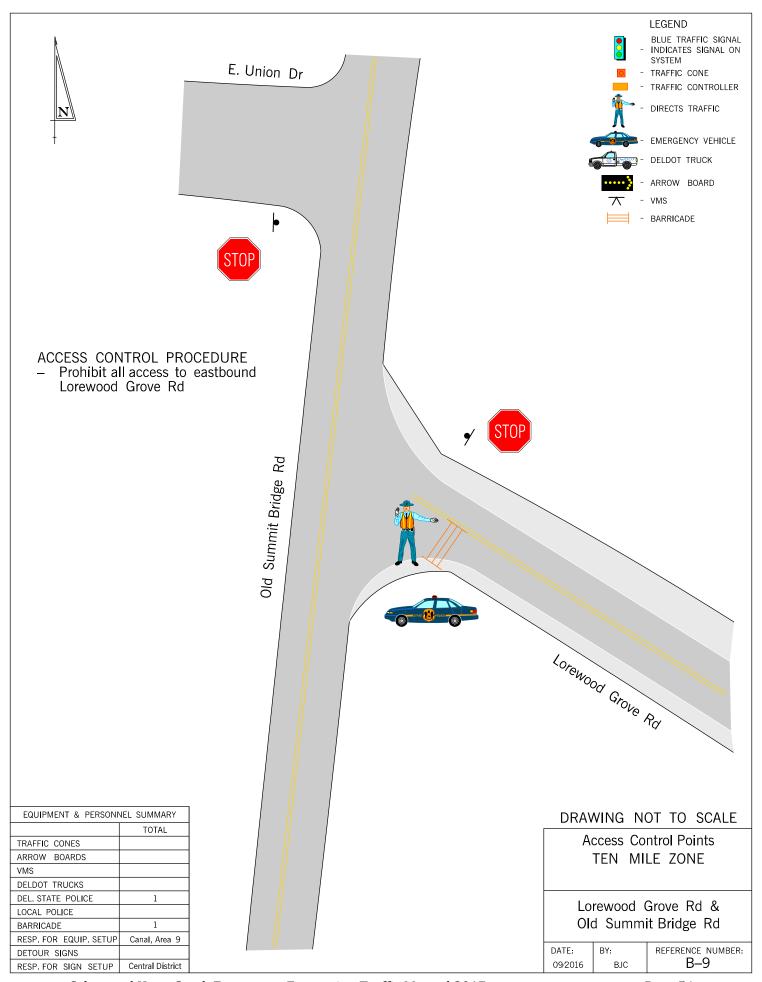


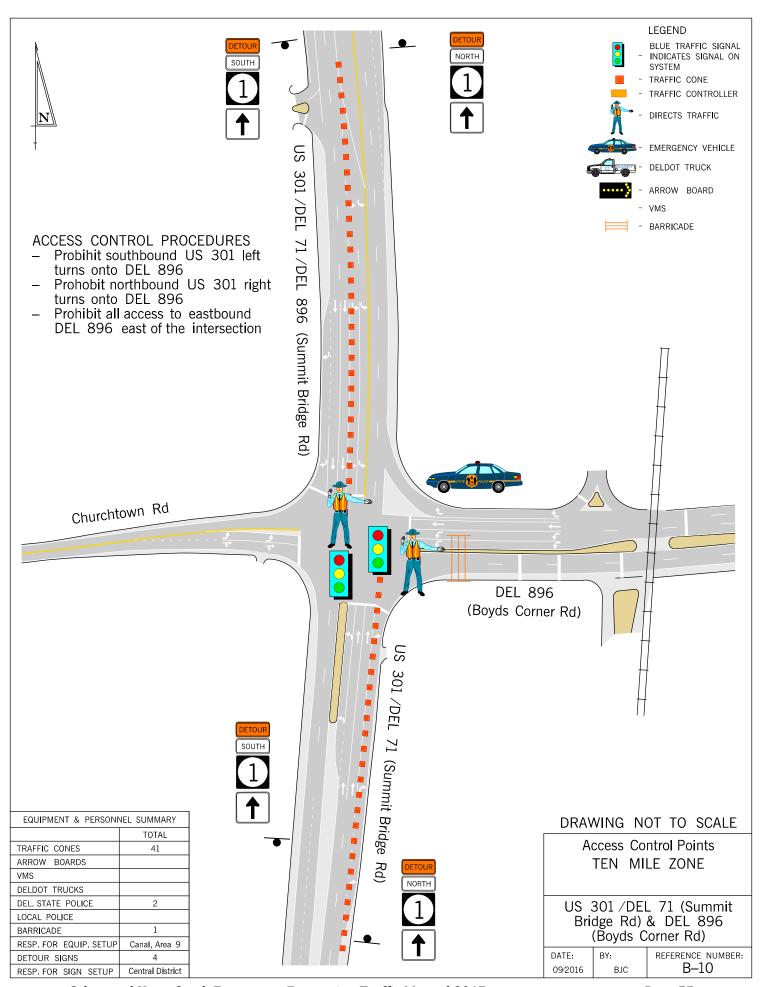


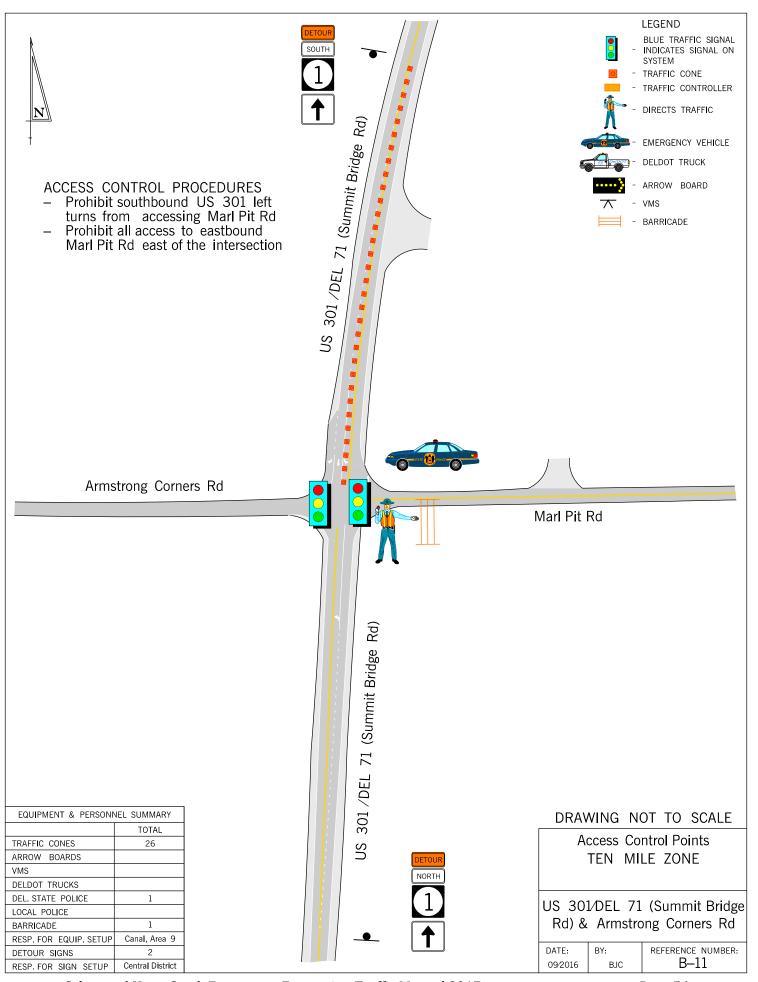


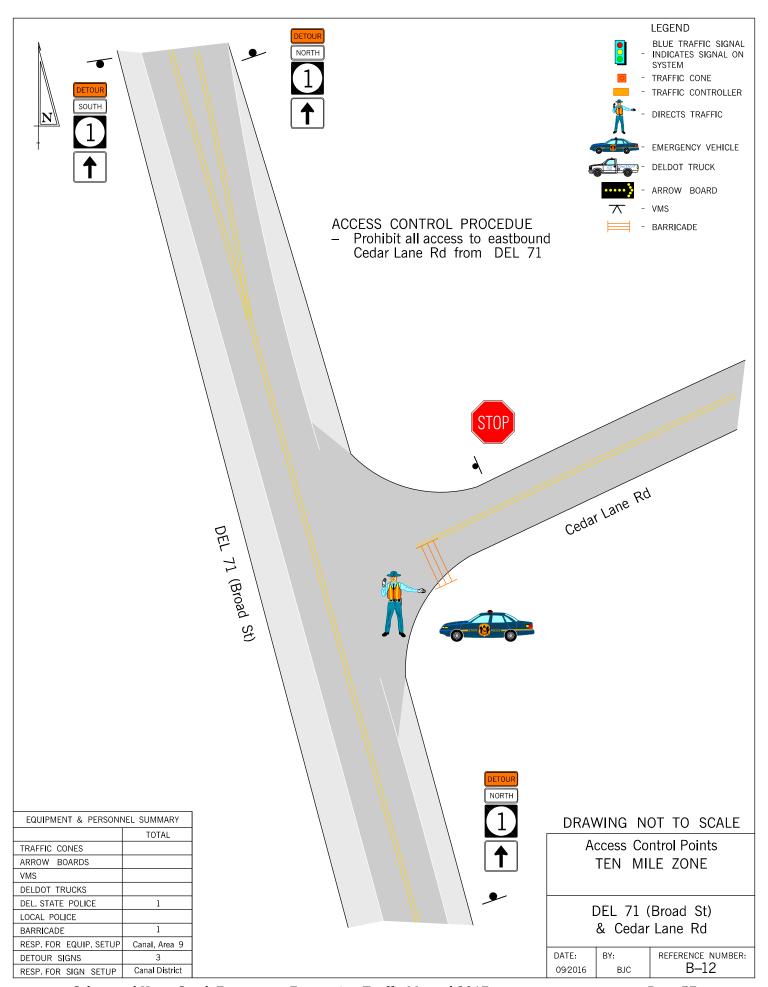


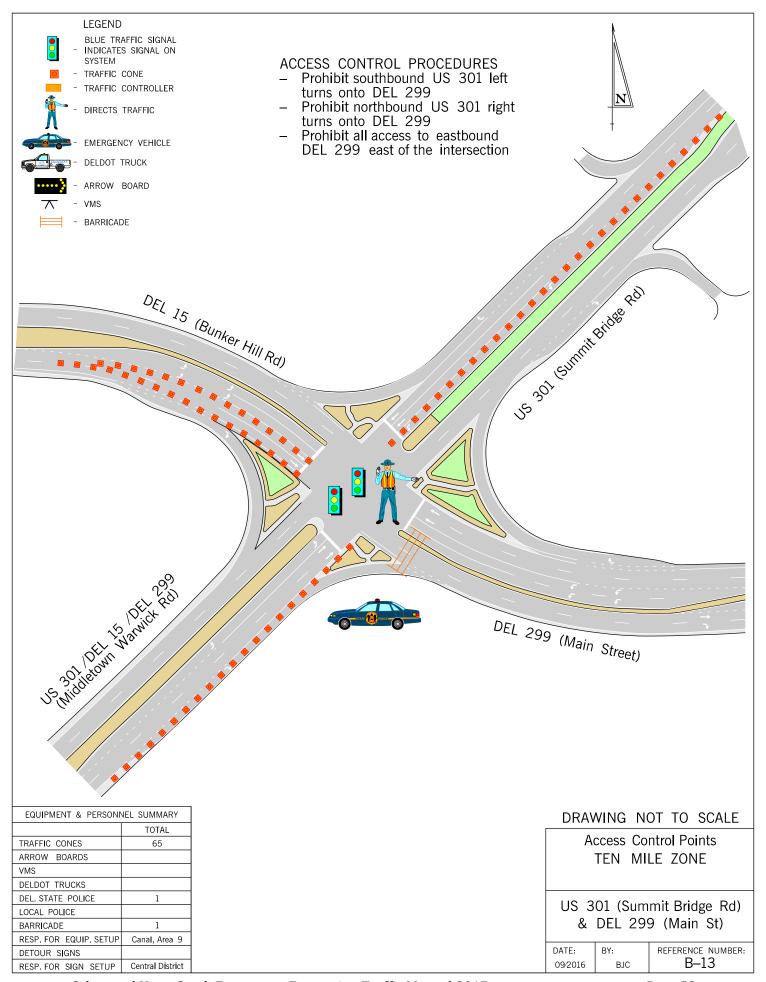


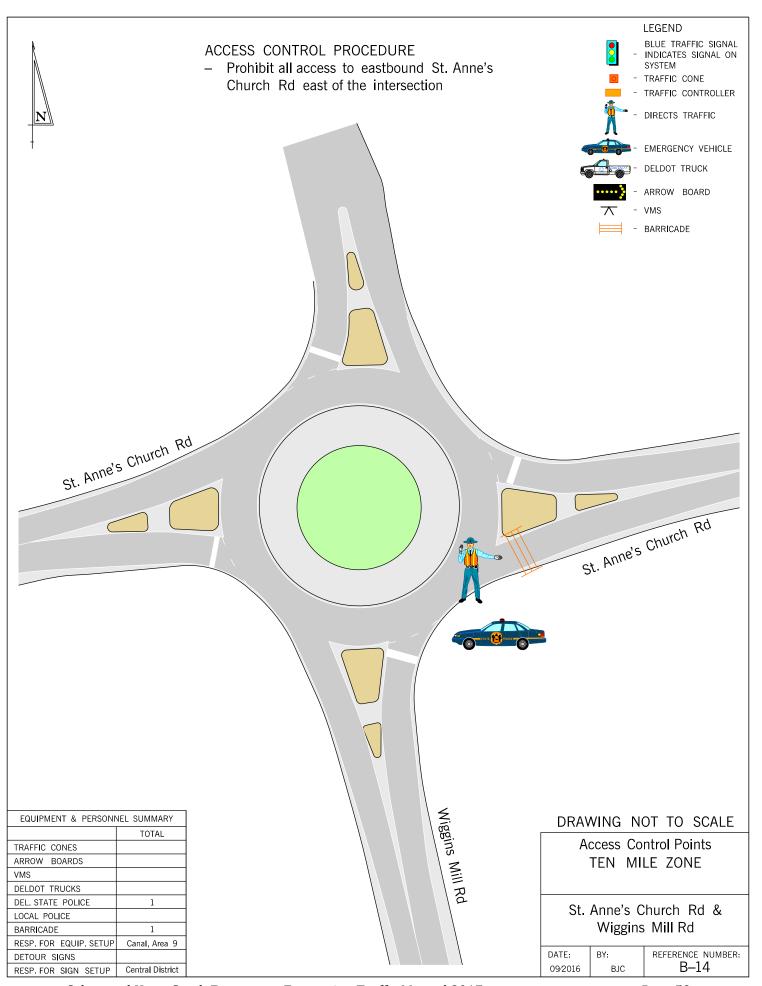


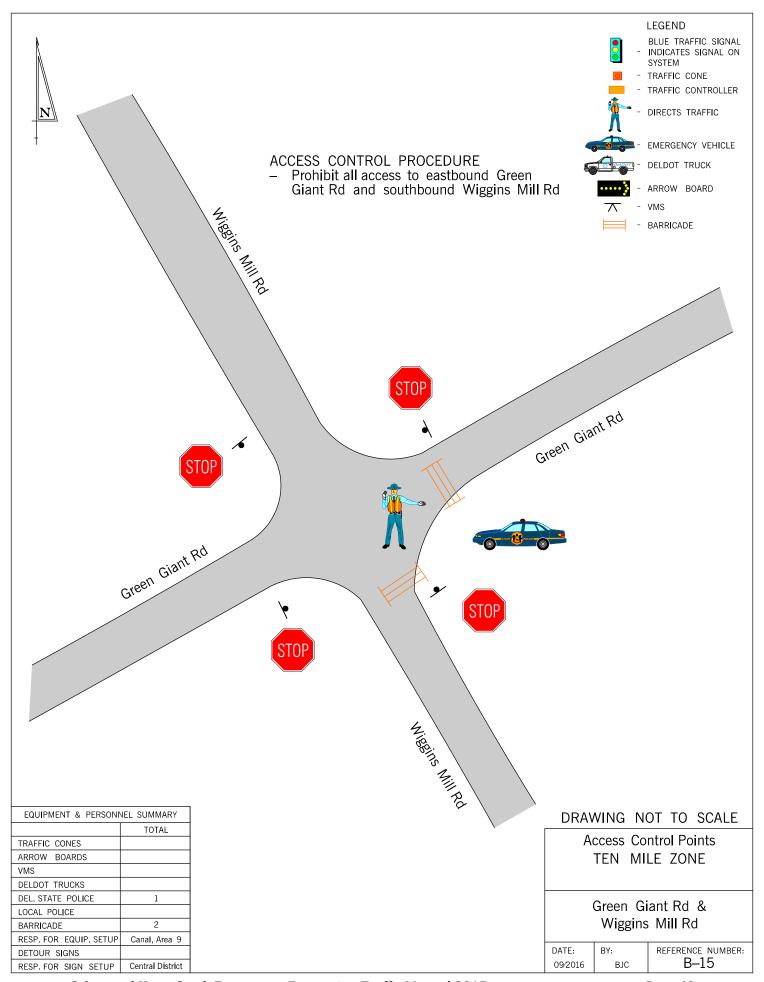


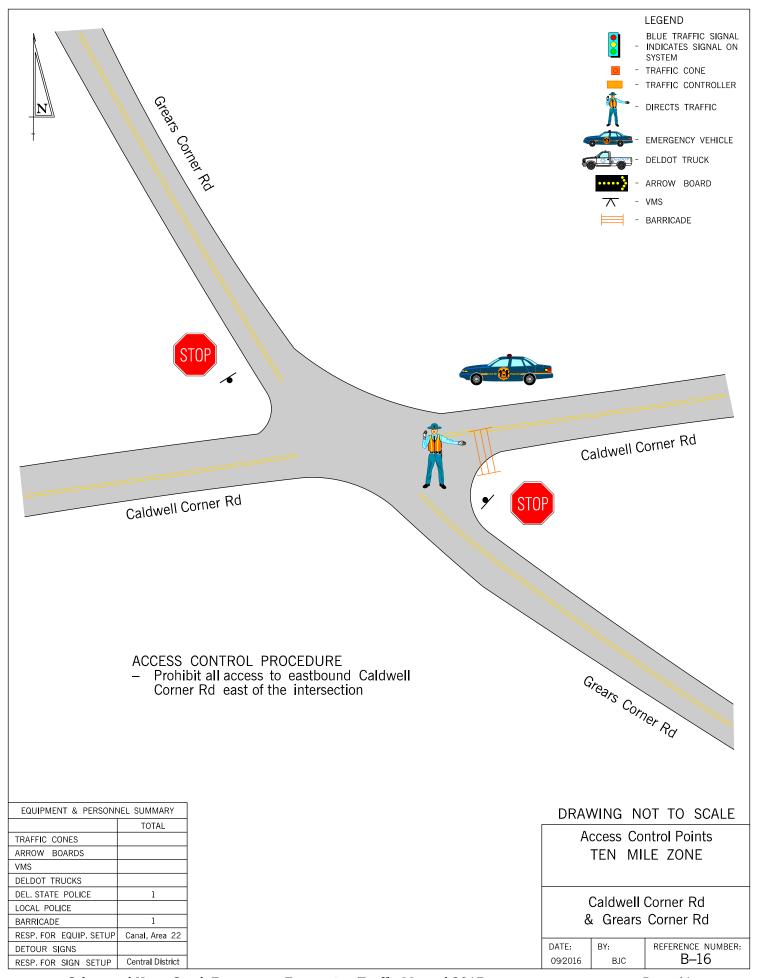


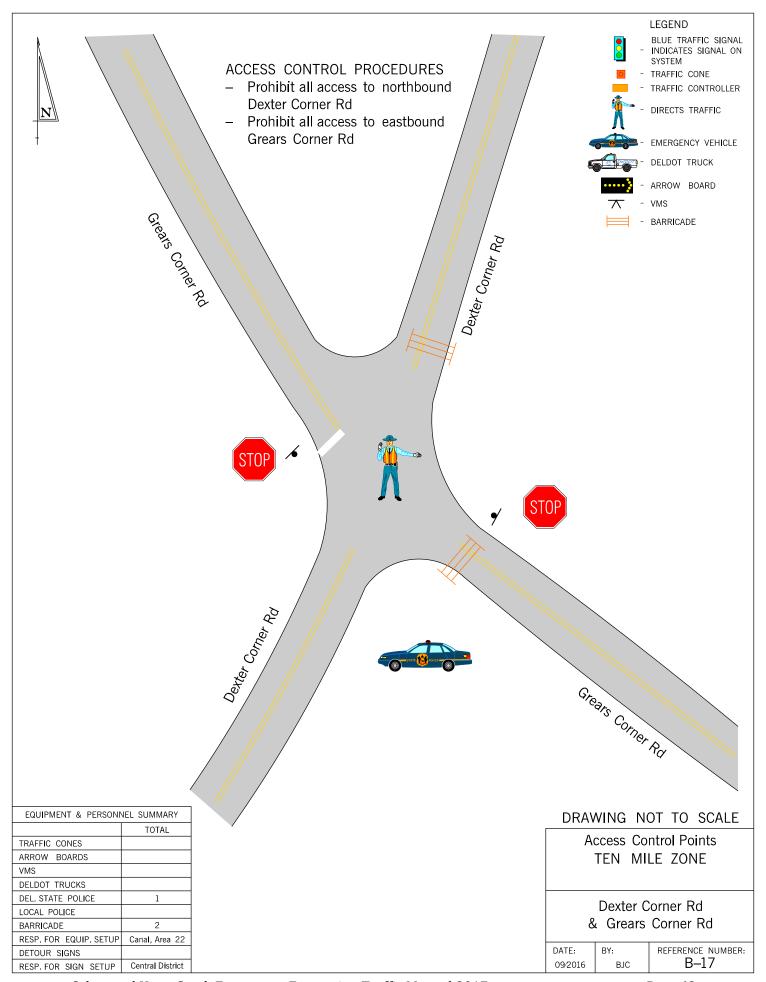


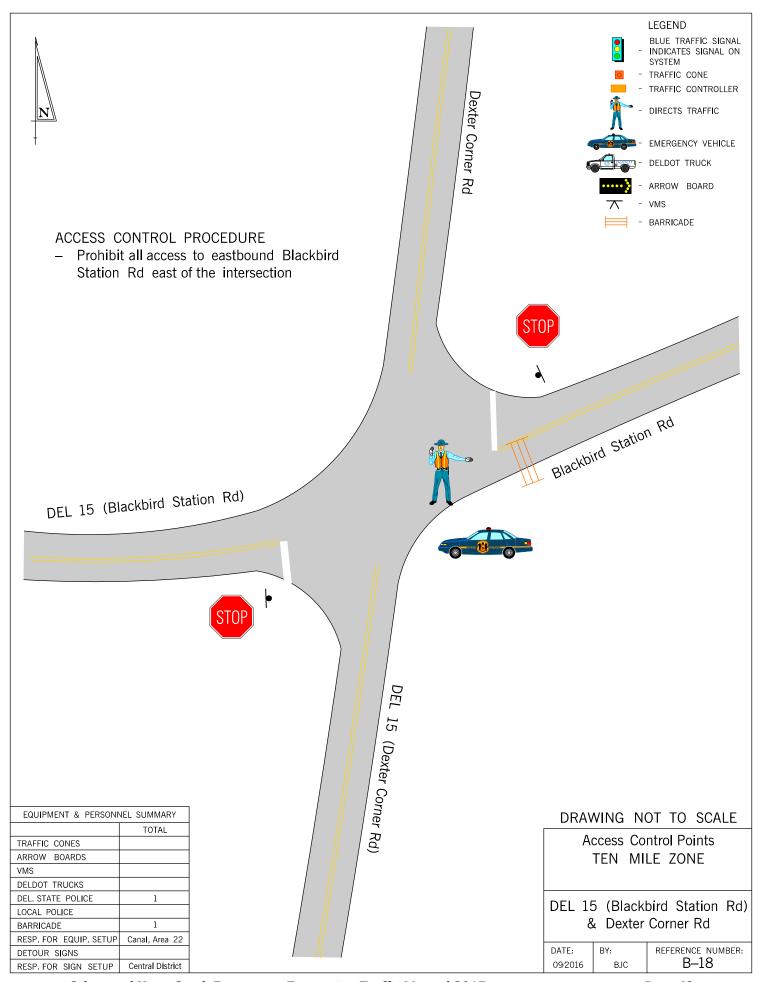


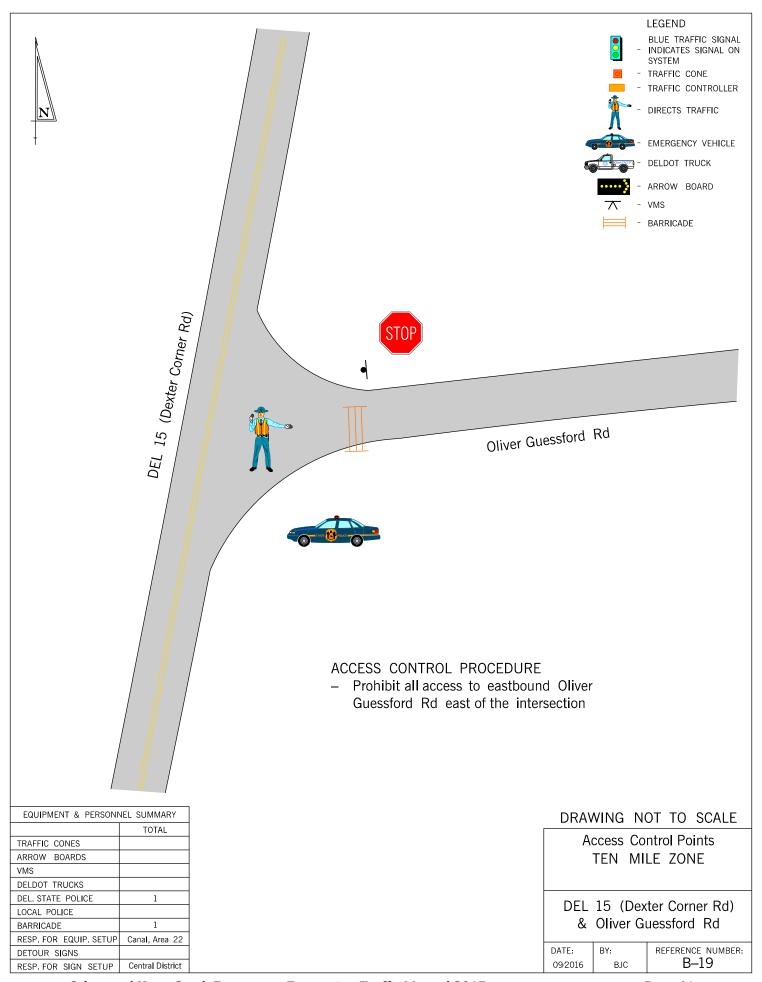


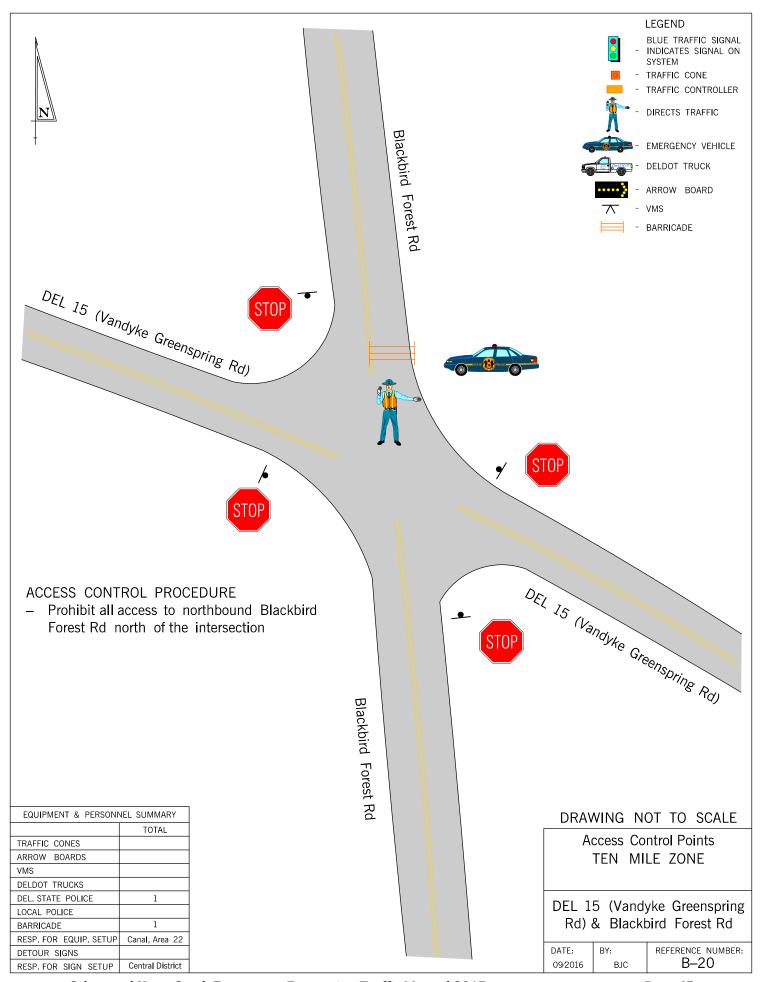


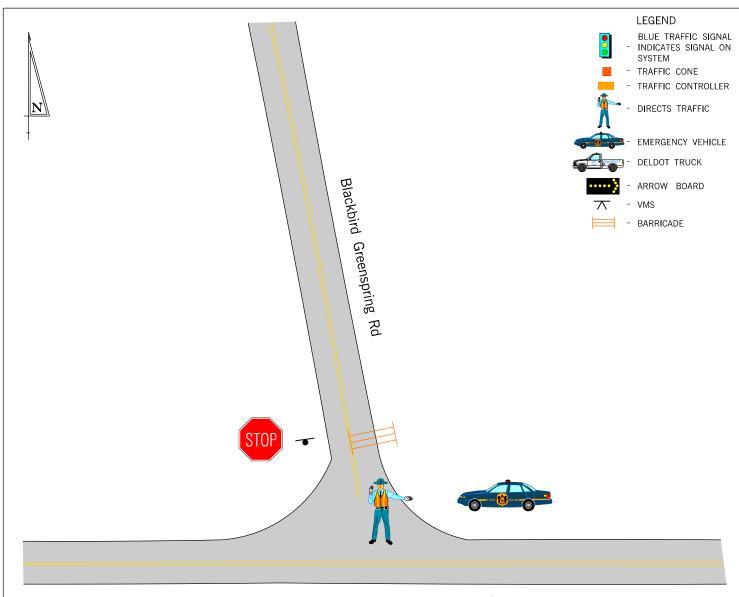












Vandyke Greenspring Rd

ACCESS CONTROL PROCEDURE

 Prohibit all access northbound Blackbird Greenspring Rd north of the intersection

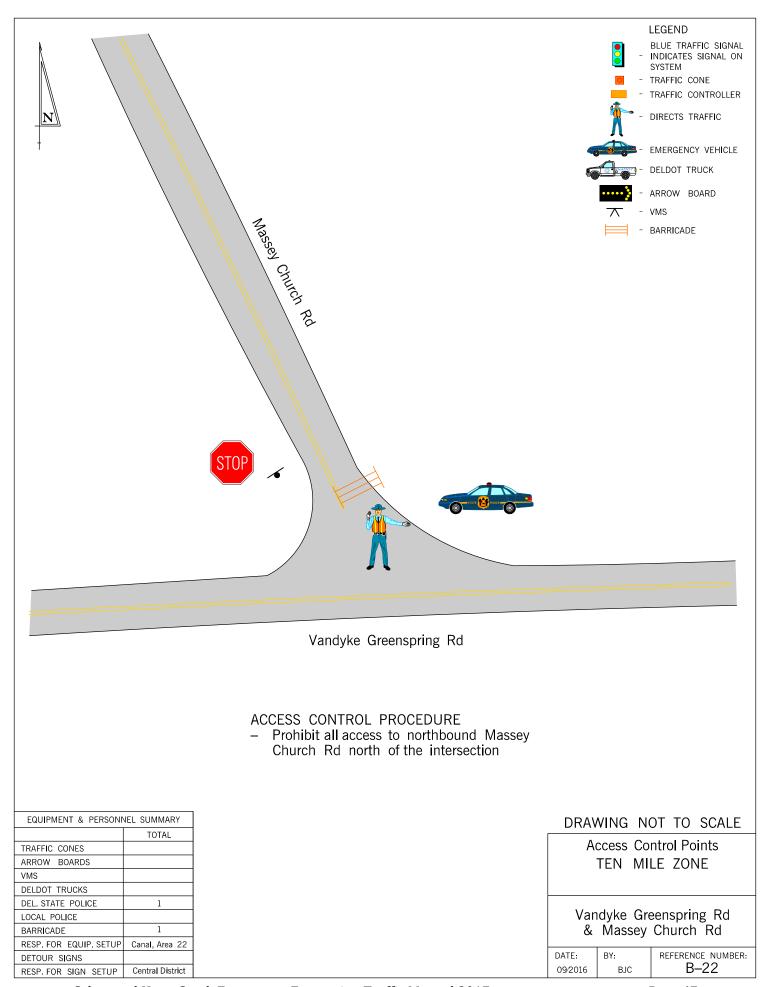
EQUIPMENT & PERSONNEL SUMMARY	
	TOTAL
TRAFFIC CONES	
ARROW BOARDS	
VMS	
DELDOT TRUCKS	
DEL. STATE POLICE	1
LOCAL POLICE	
BARRICADE	1
RESP. FOR EQUIP. SETUP	Canal, Area 22
DETOUR SIGNS	
RESP. FOR SIGN SETUP	Central District

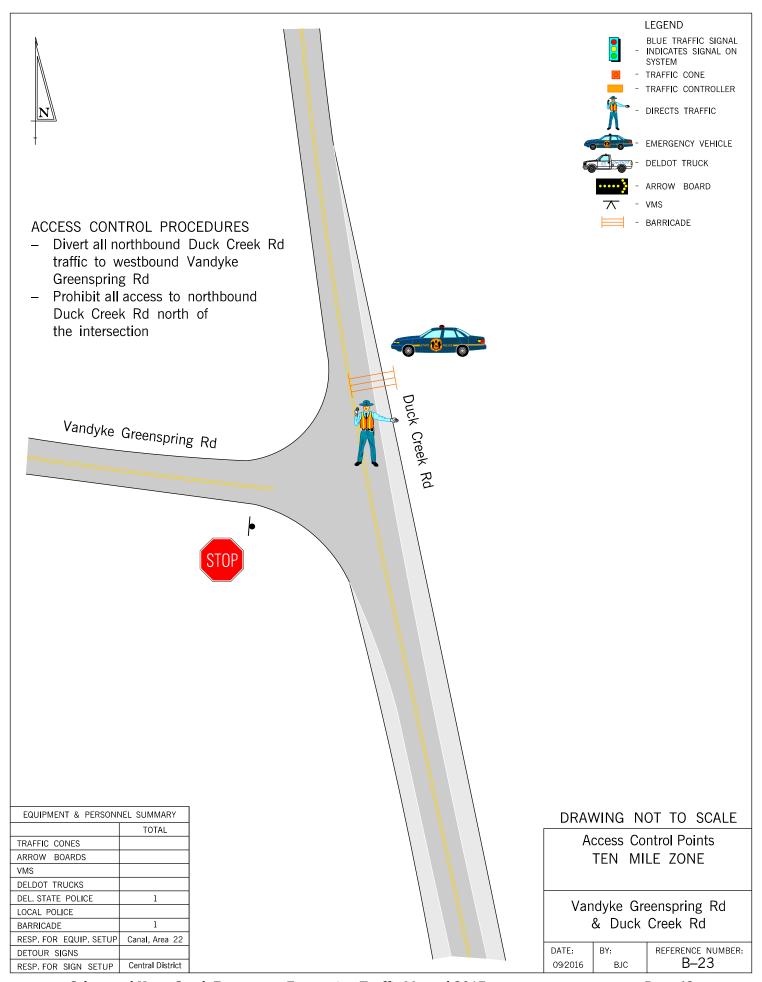
DRAWING NOT TO SCALE

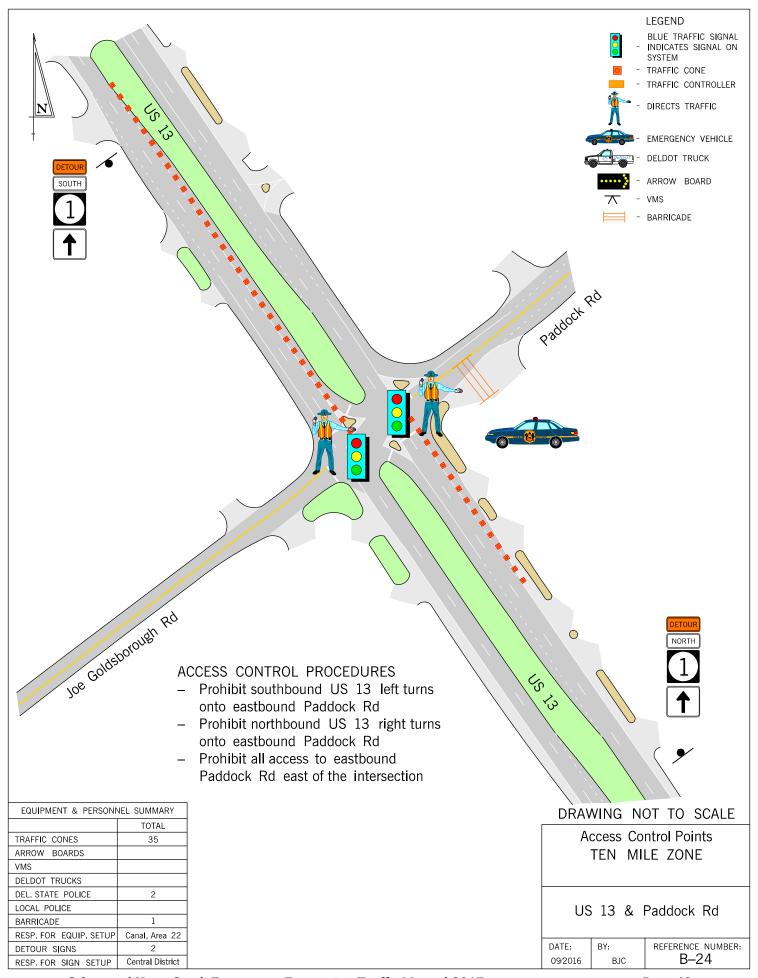
Access Control Points
TEN MILE ZONE

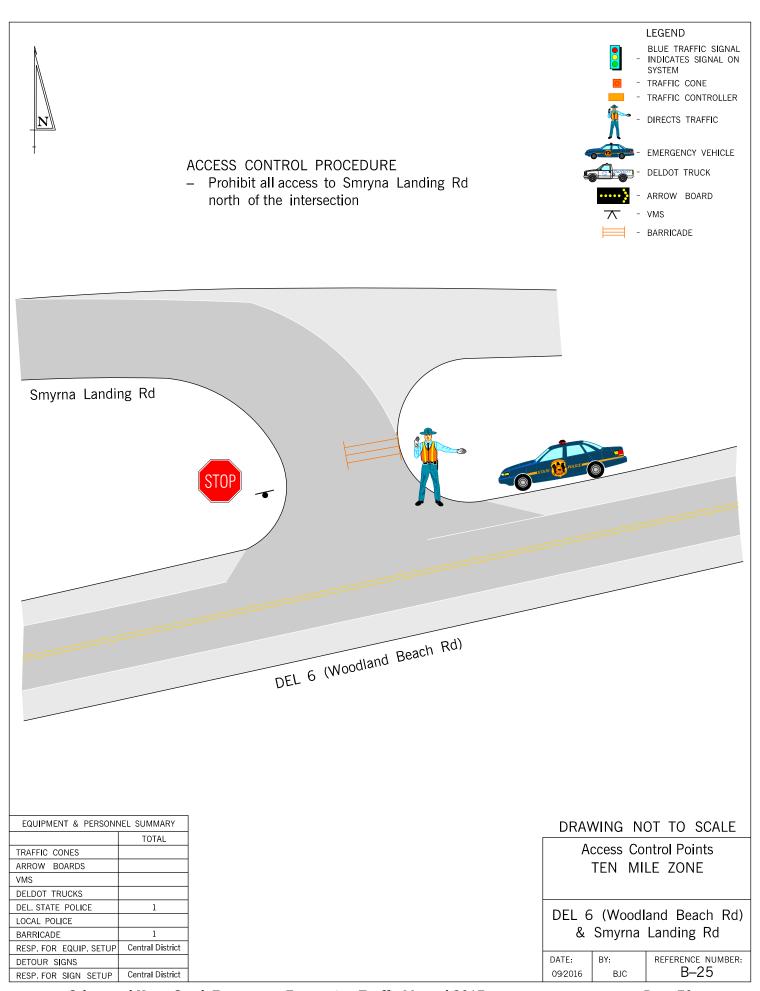
Vandyke Greenspring Rd & Blackbird Greenspring Rd

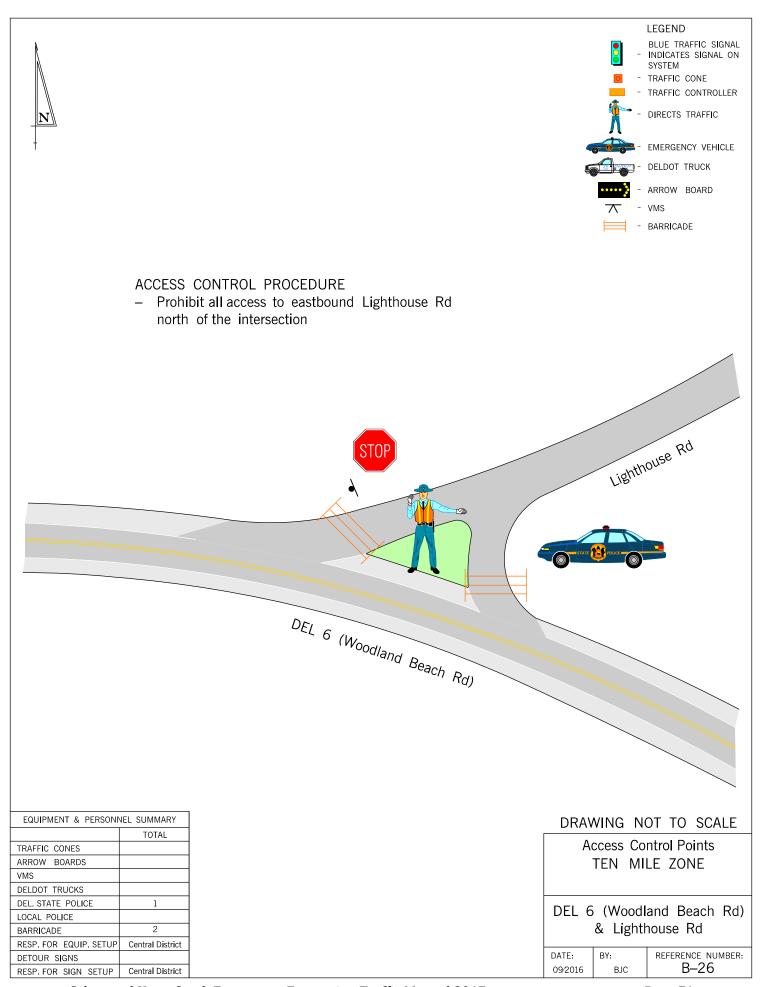
DATE: BY: REFERENCE NUMBER: 092016 BJC B-21

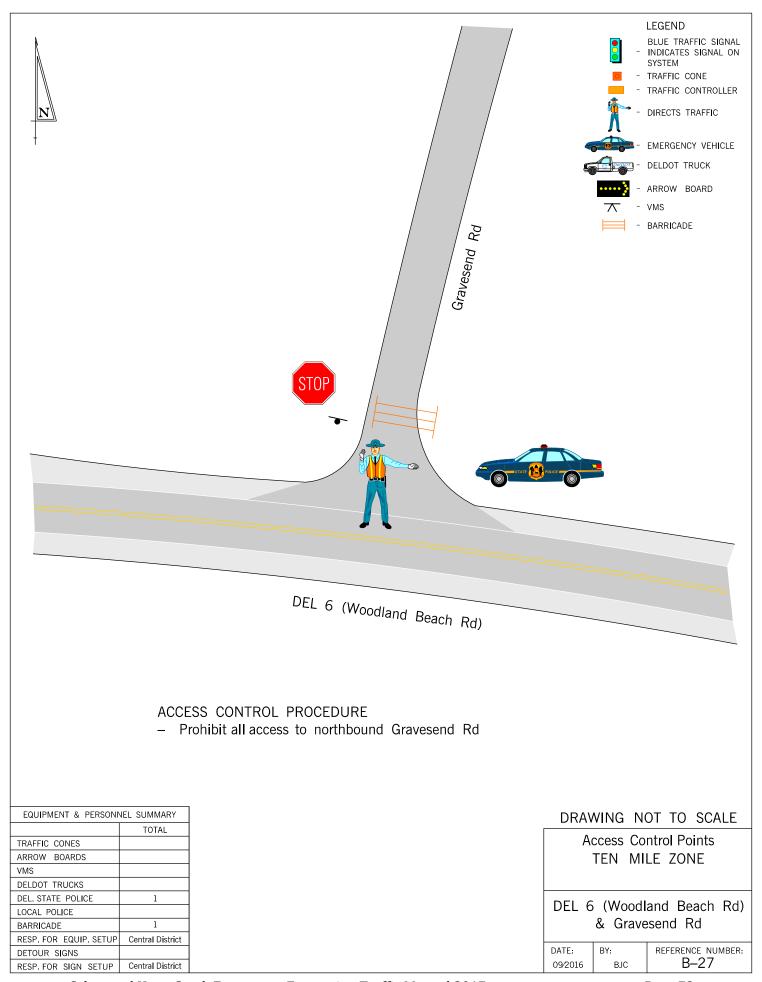


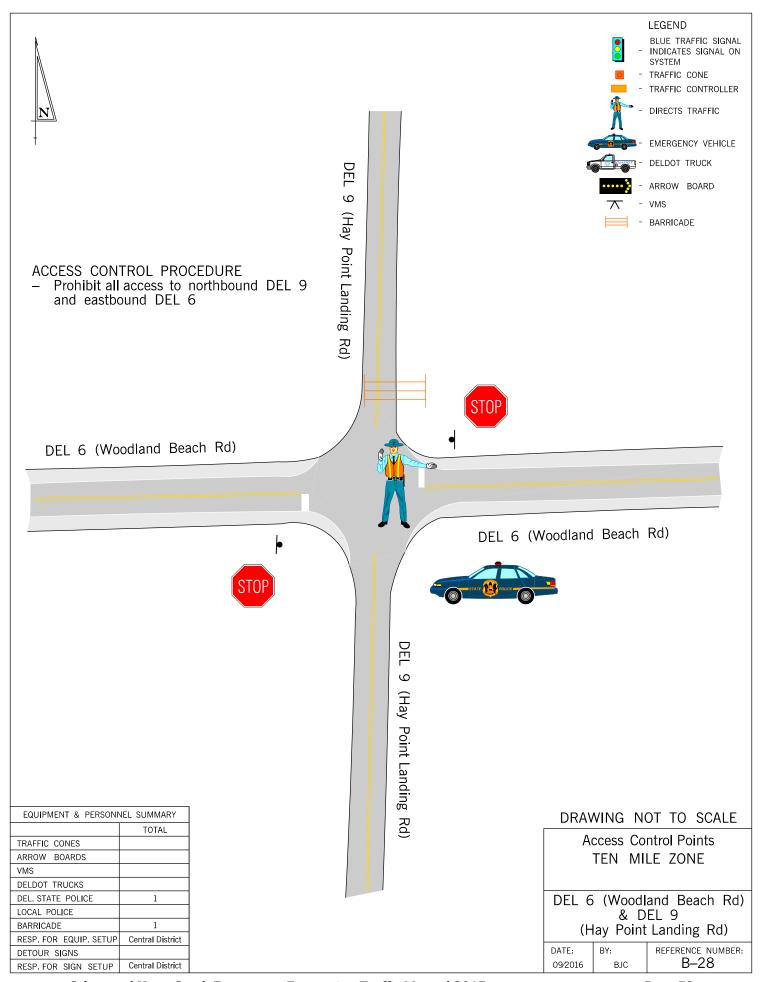


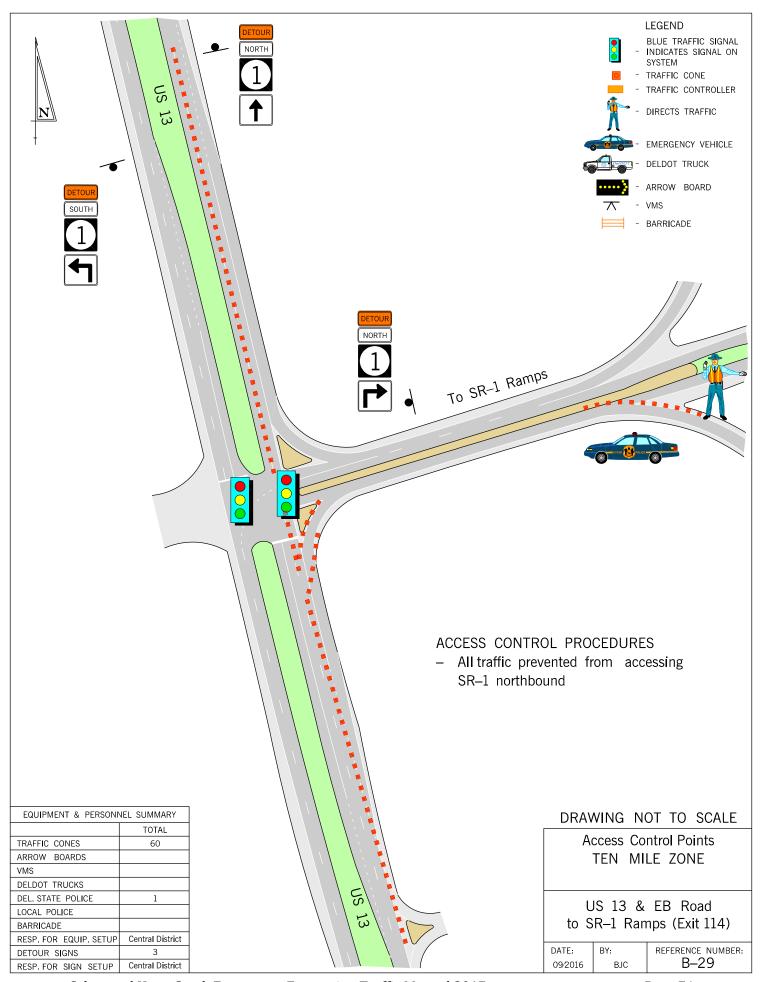


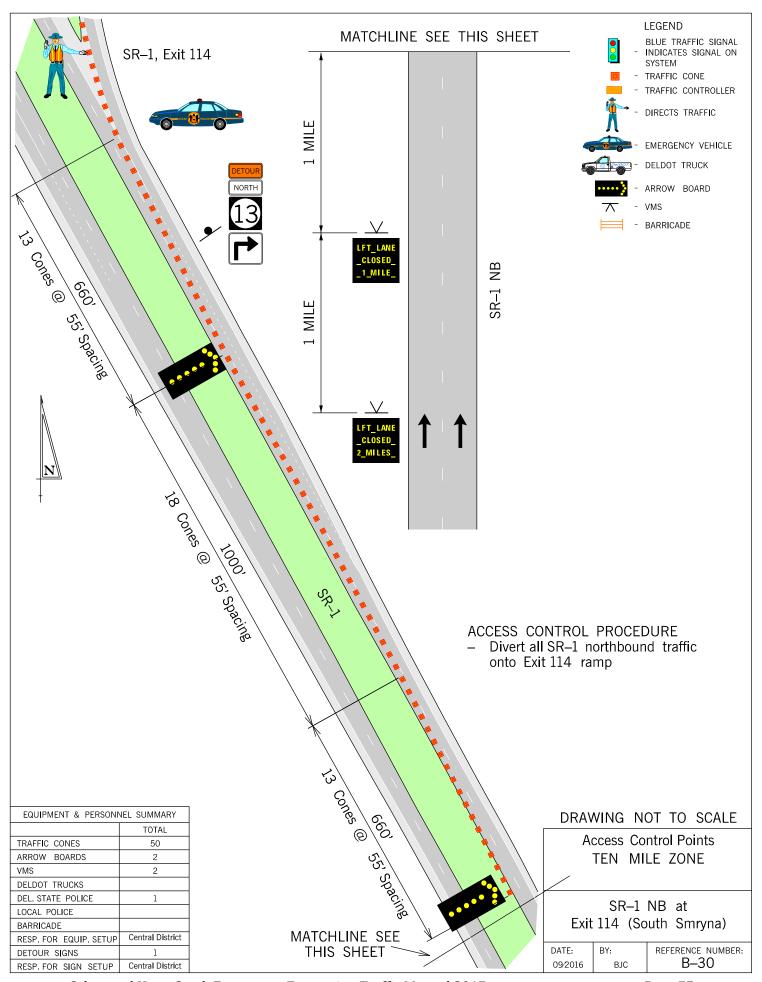




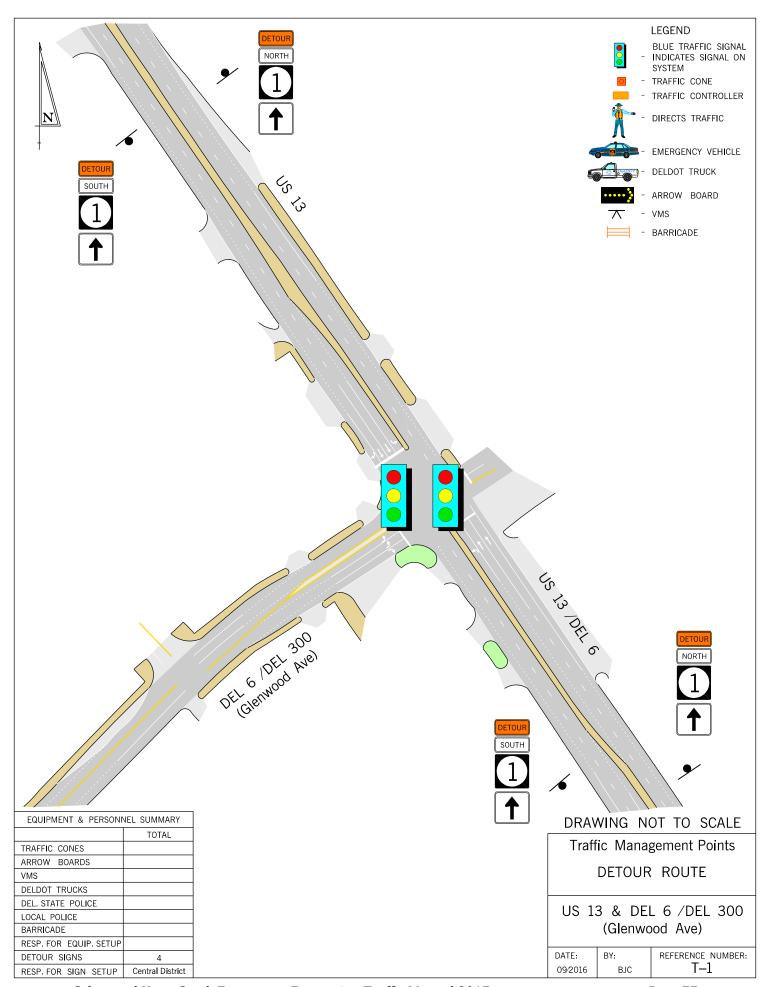


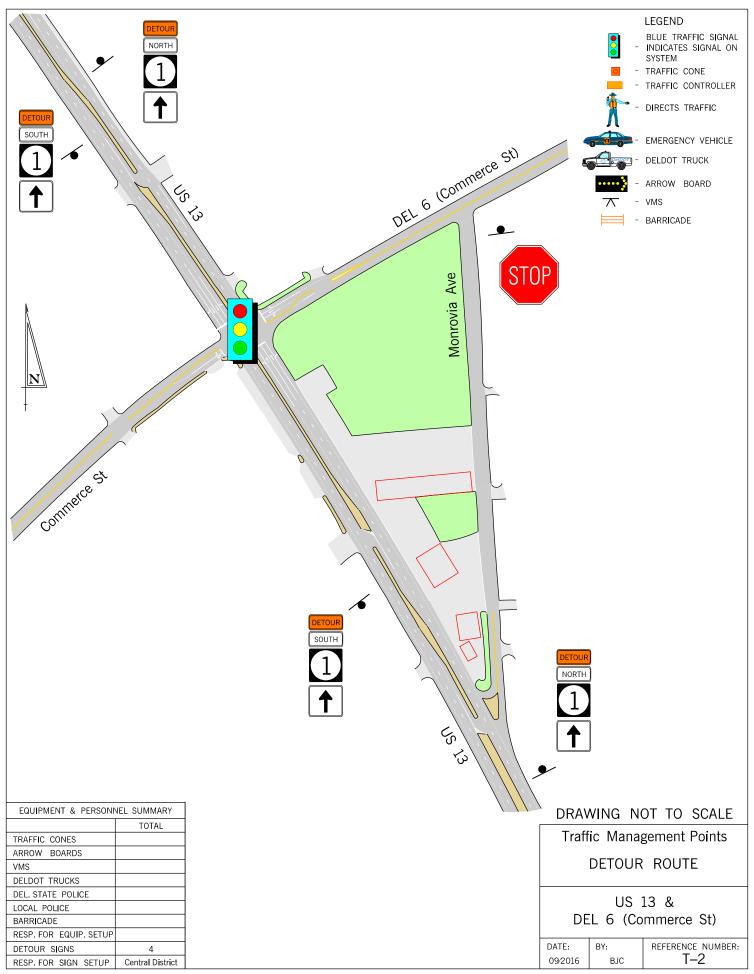


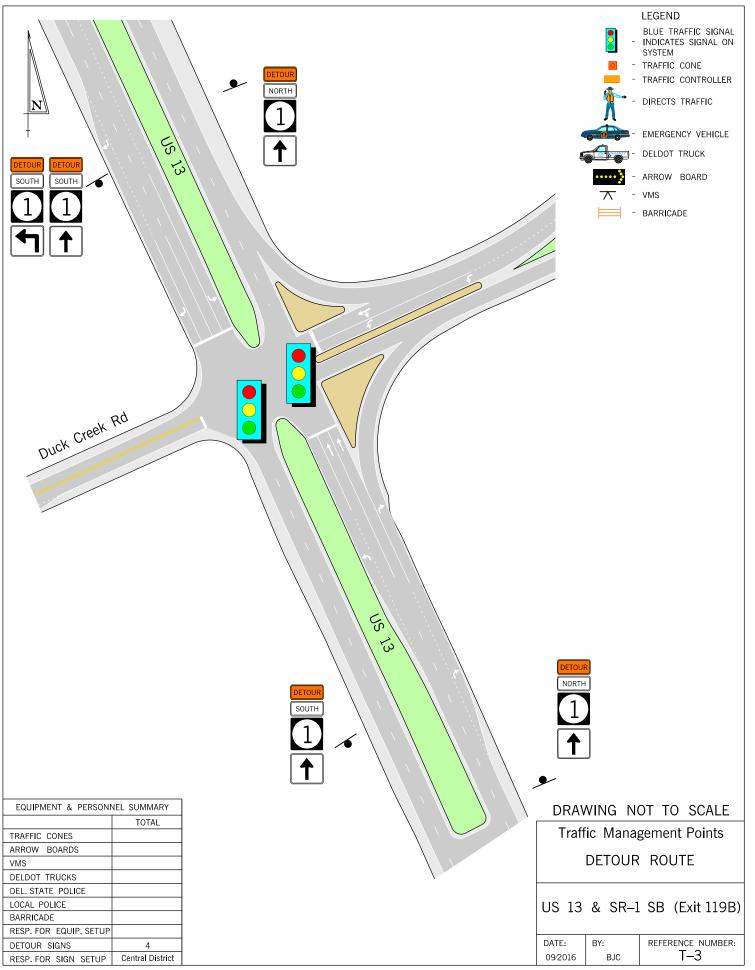


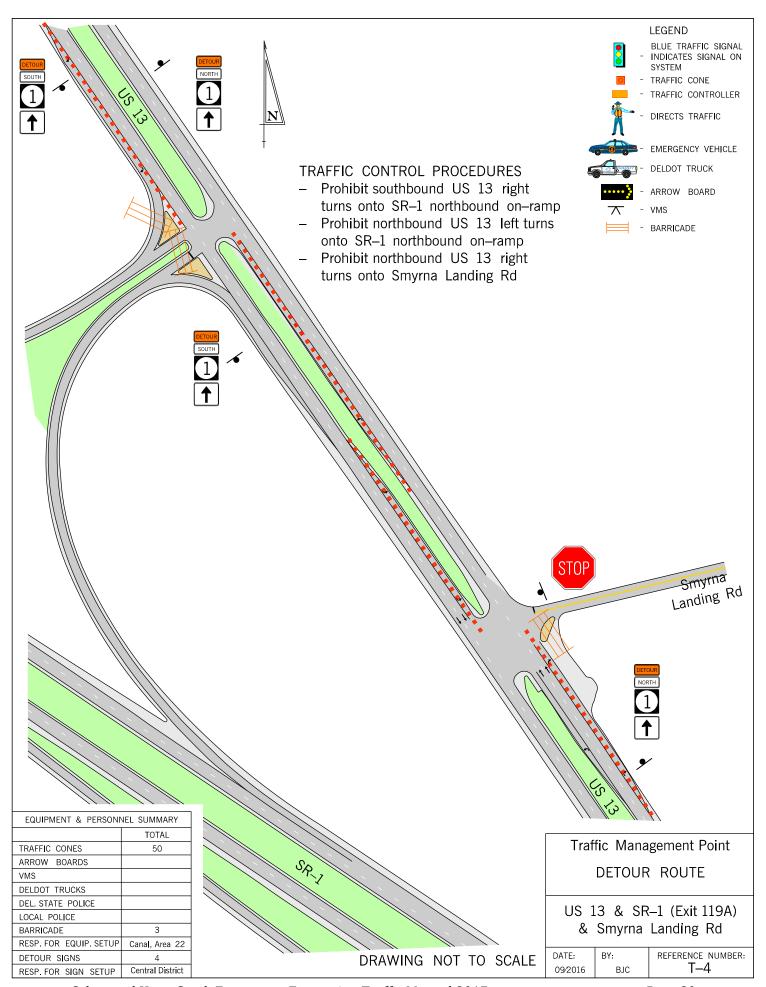


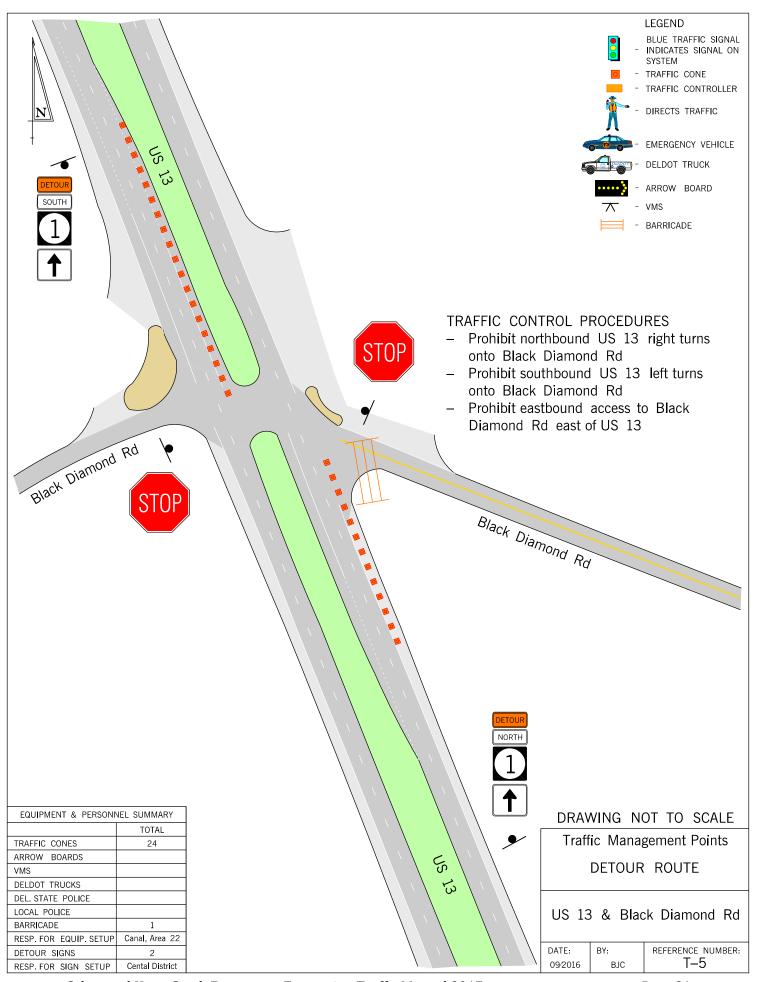
APPENDIX . - T&°//Ł M°"°fn! 1"(POINTS

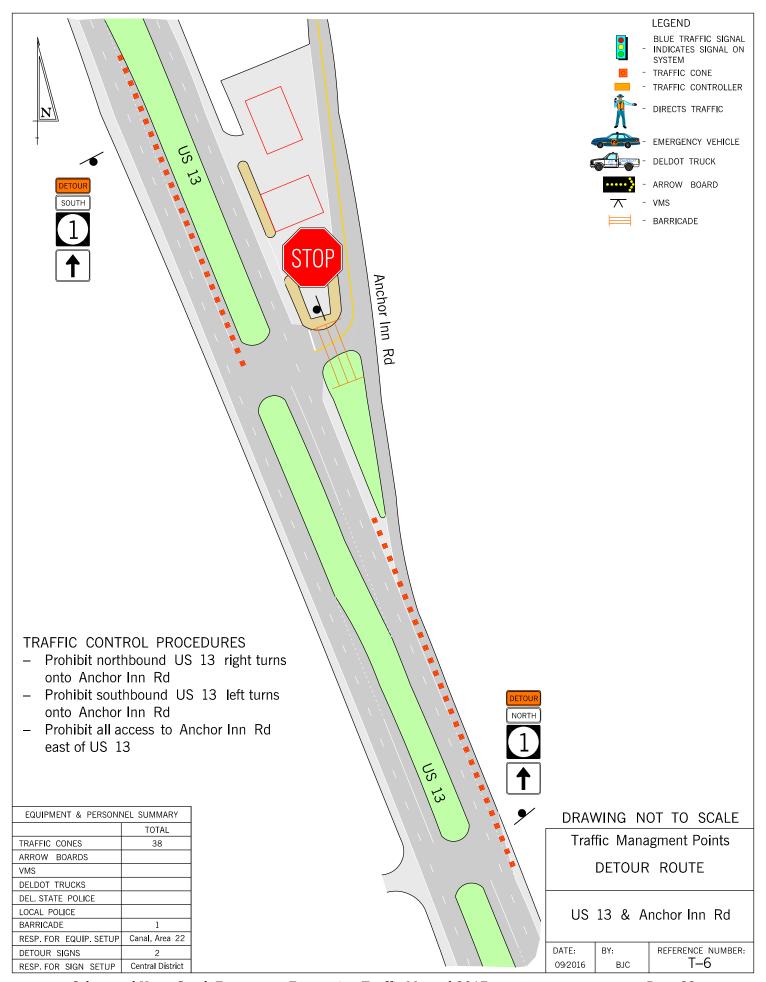


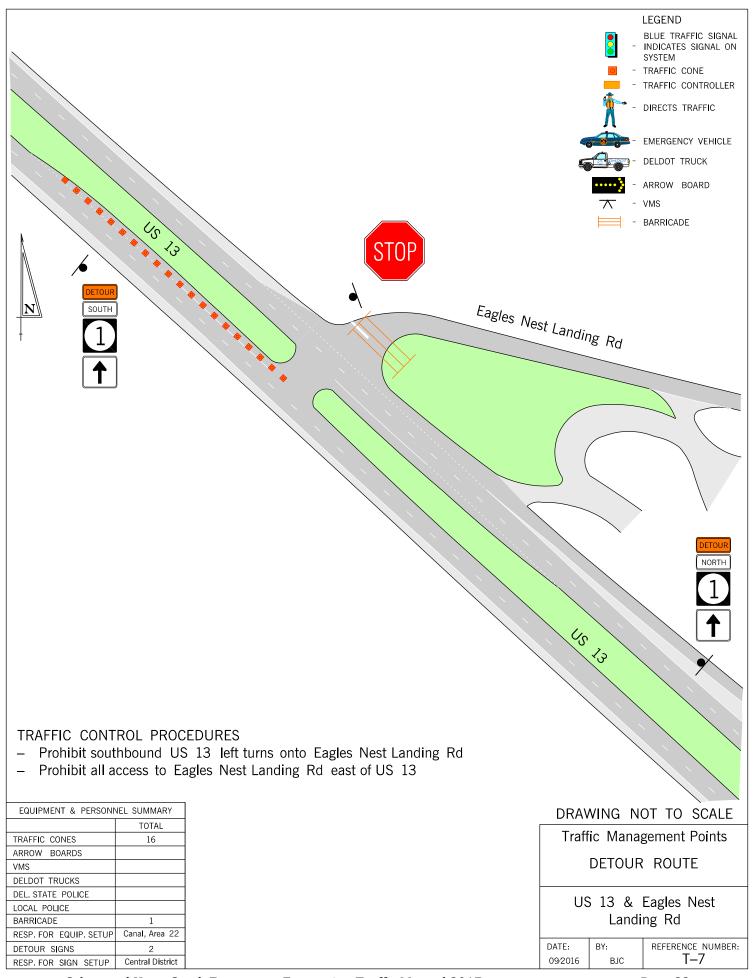


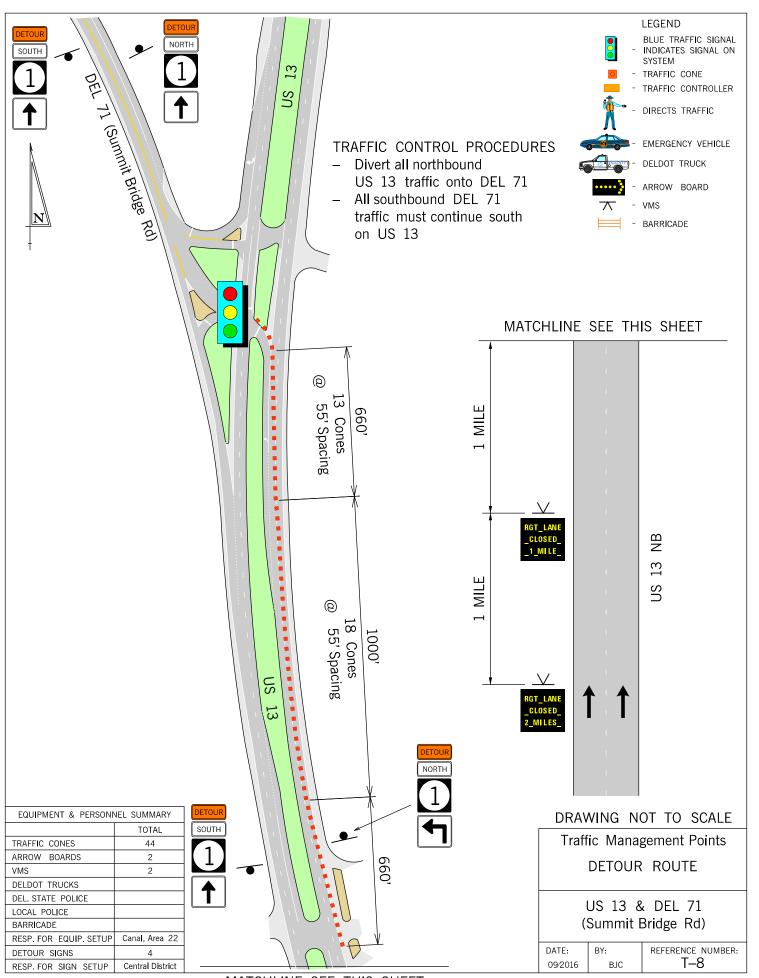


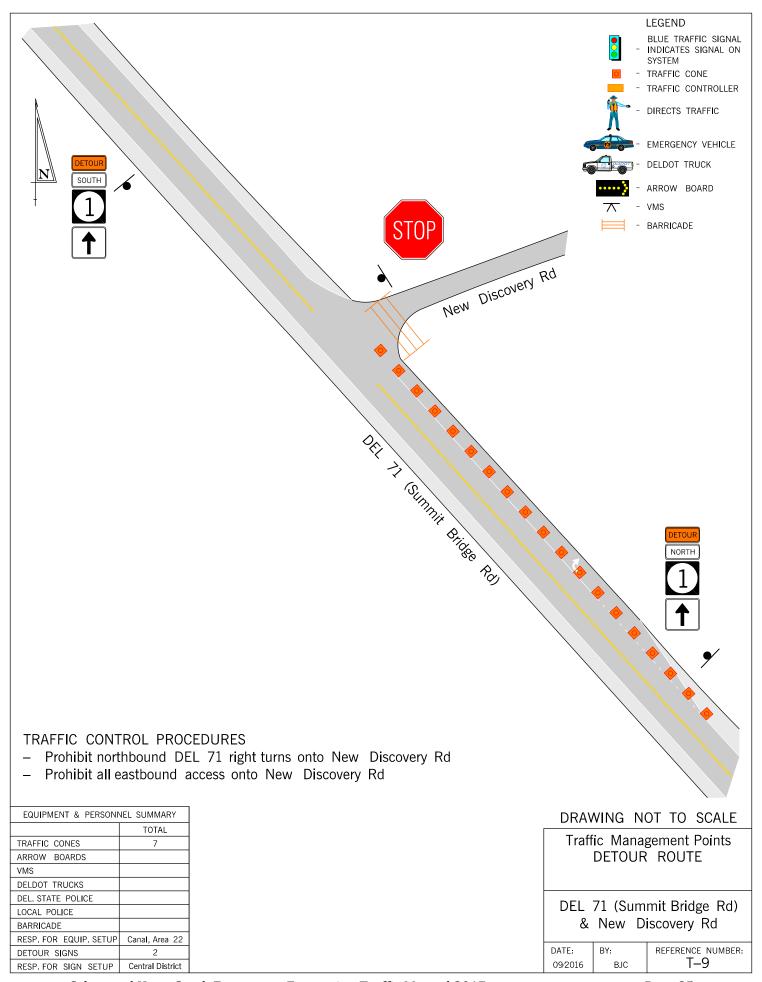


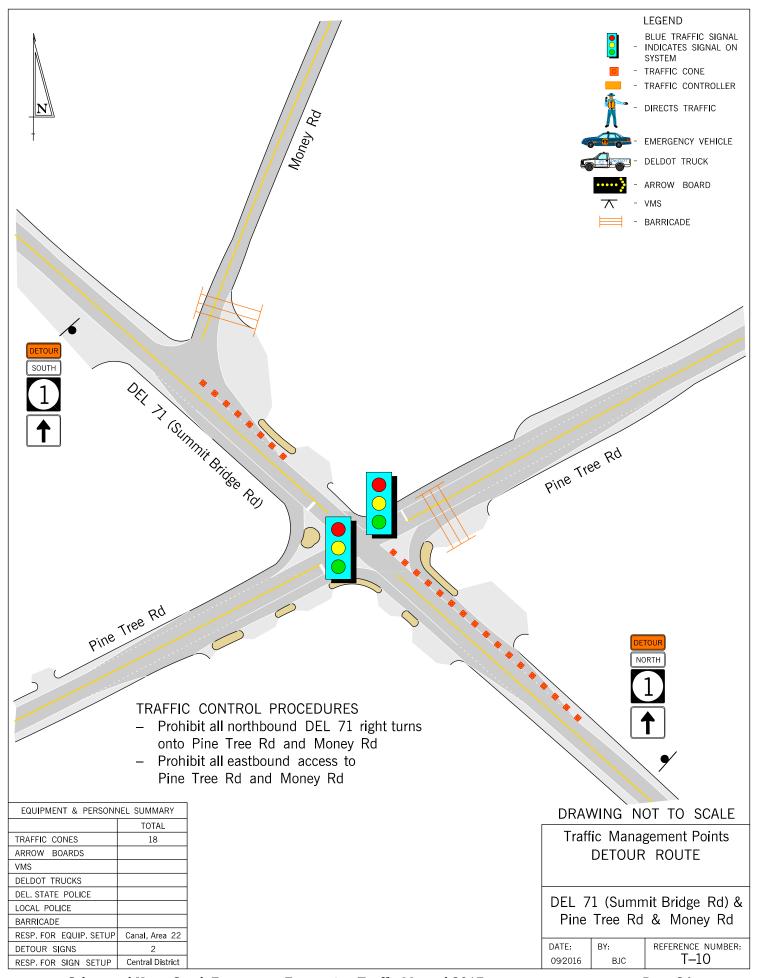


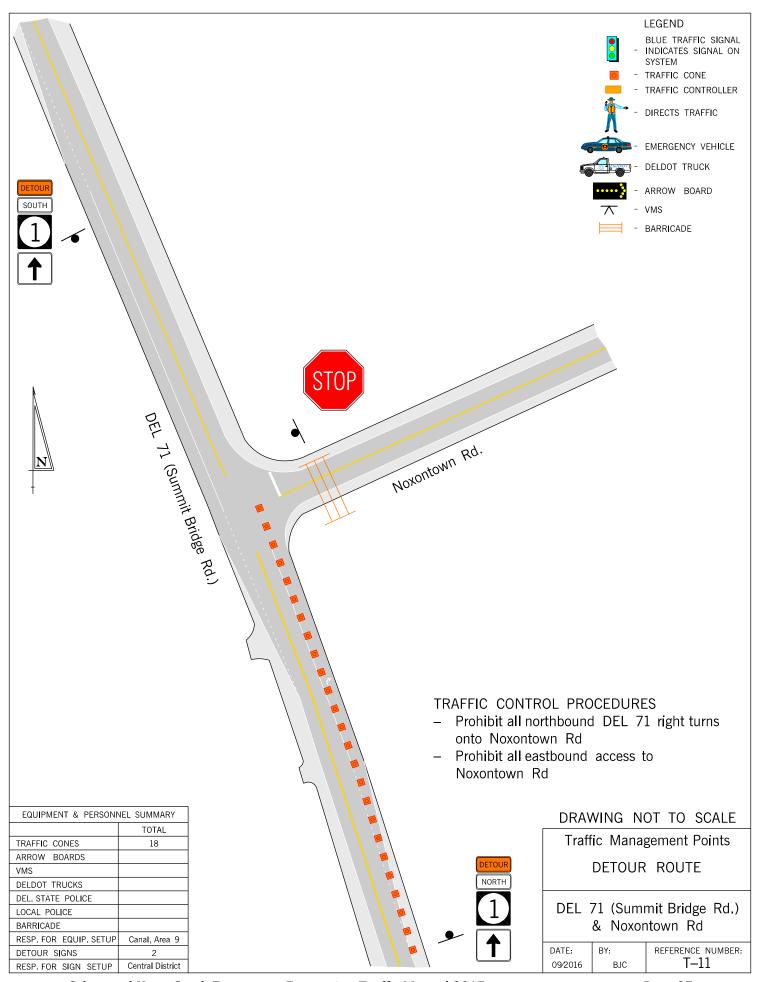


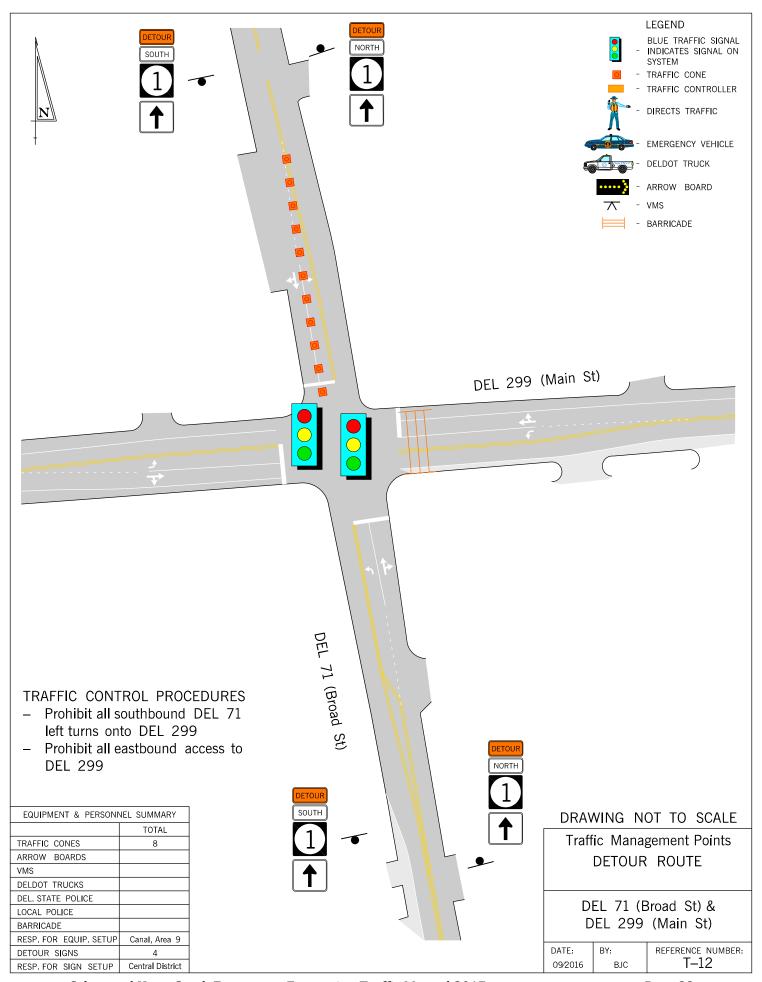


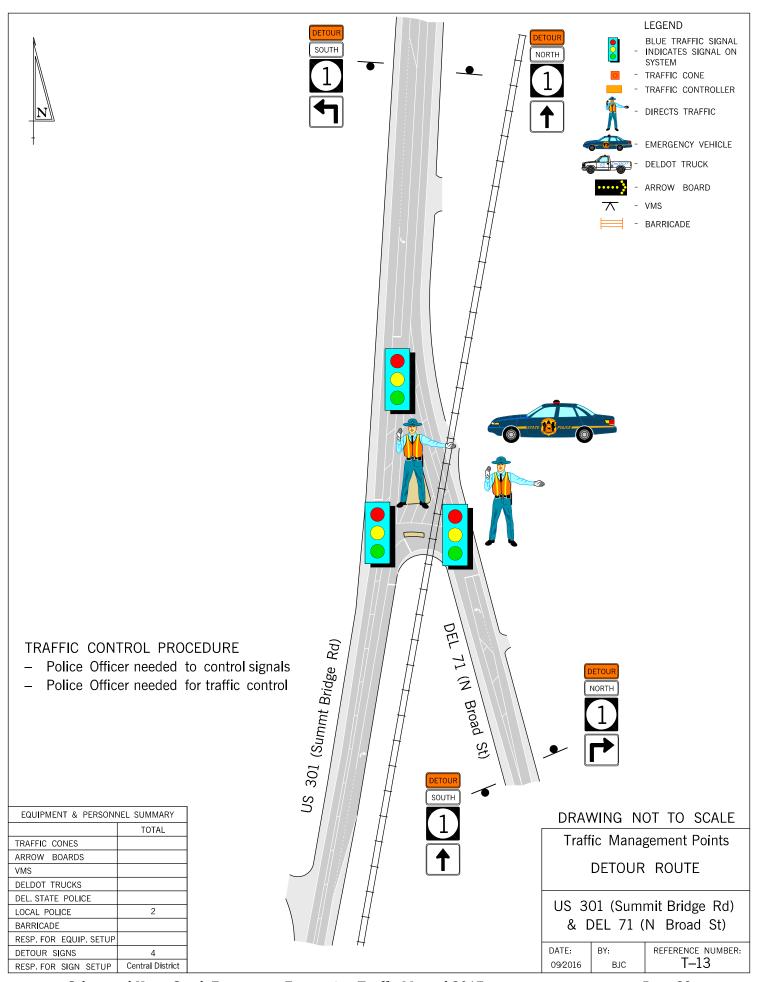


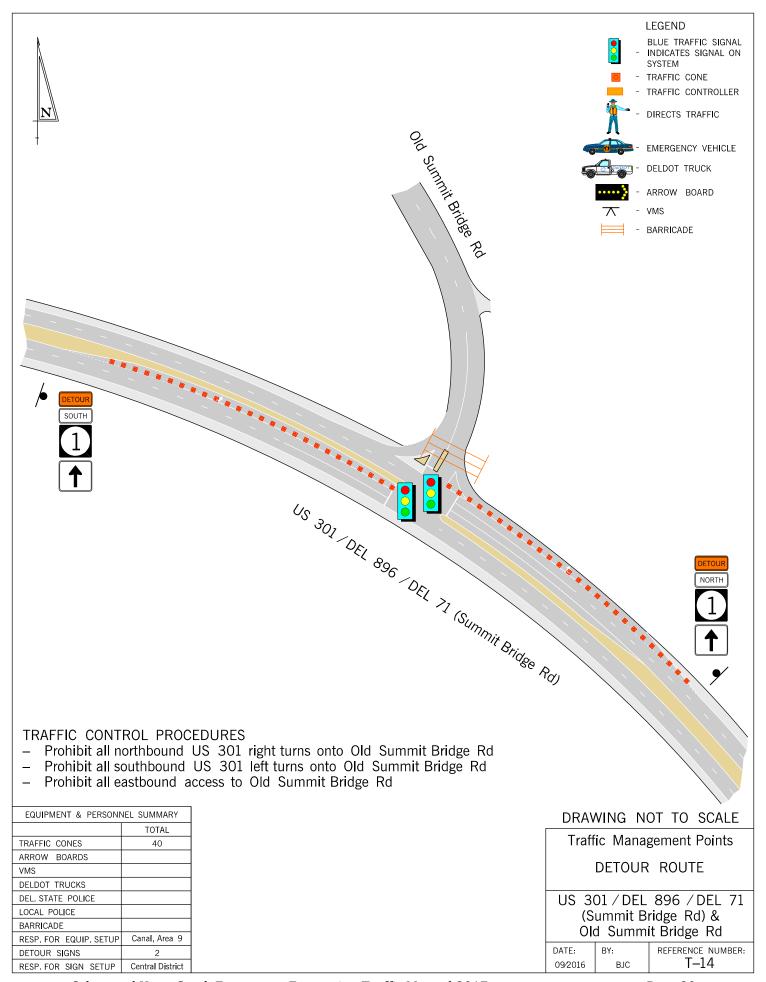


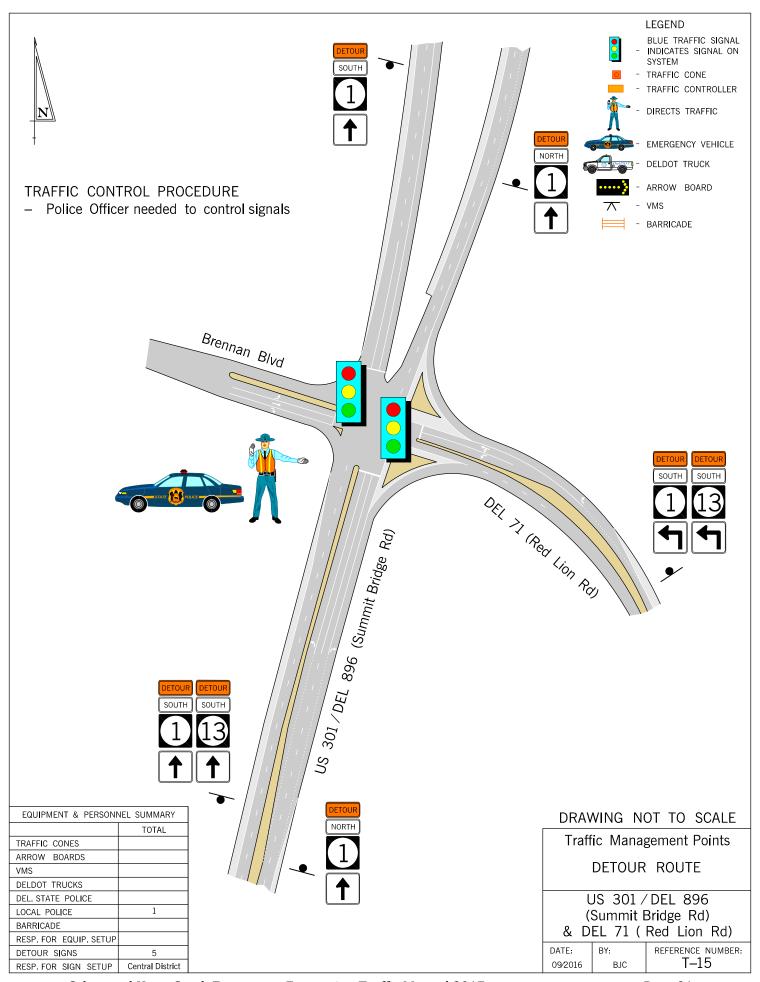


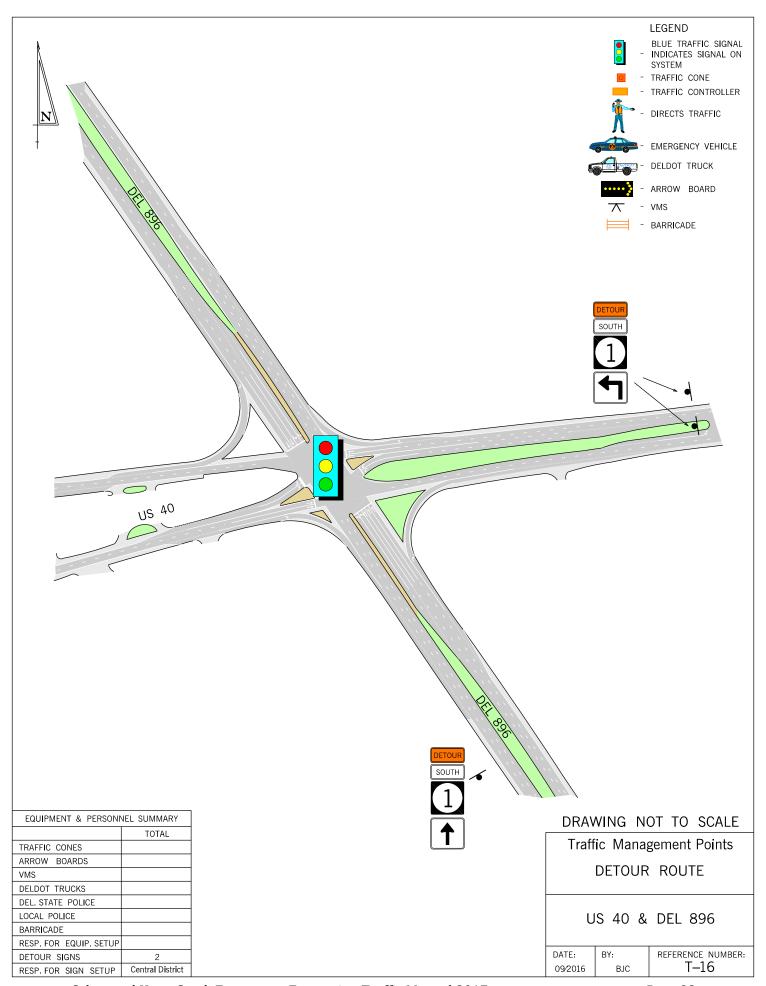


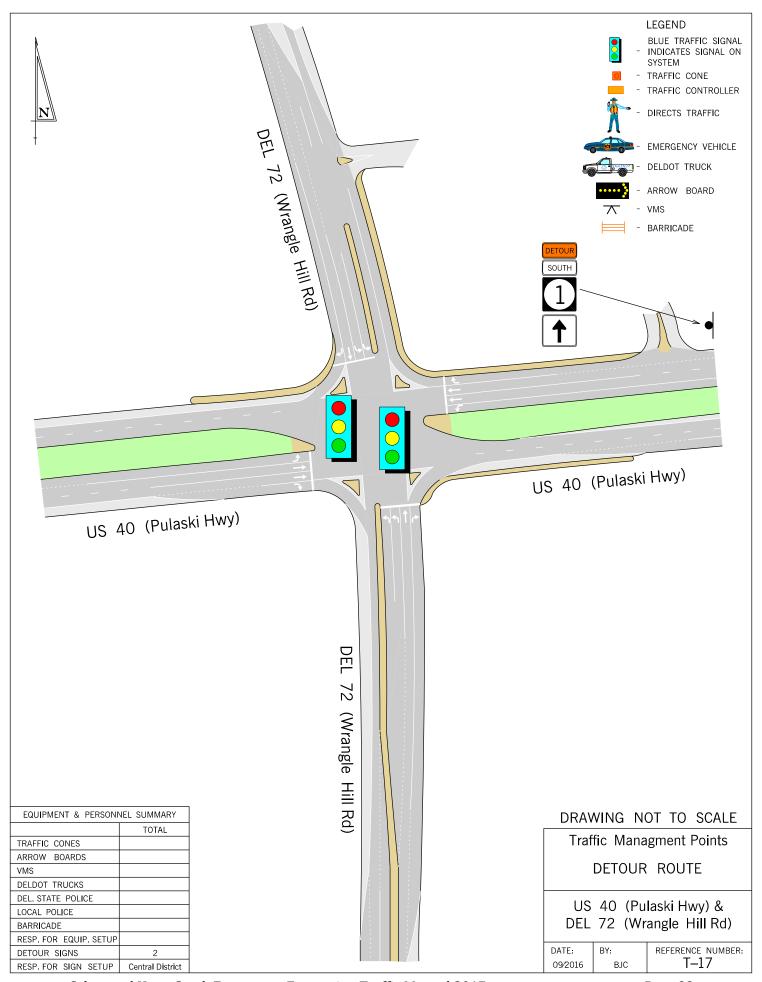




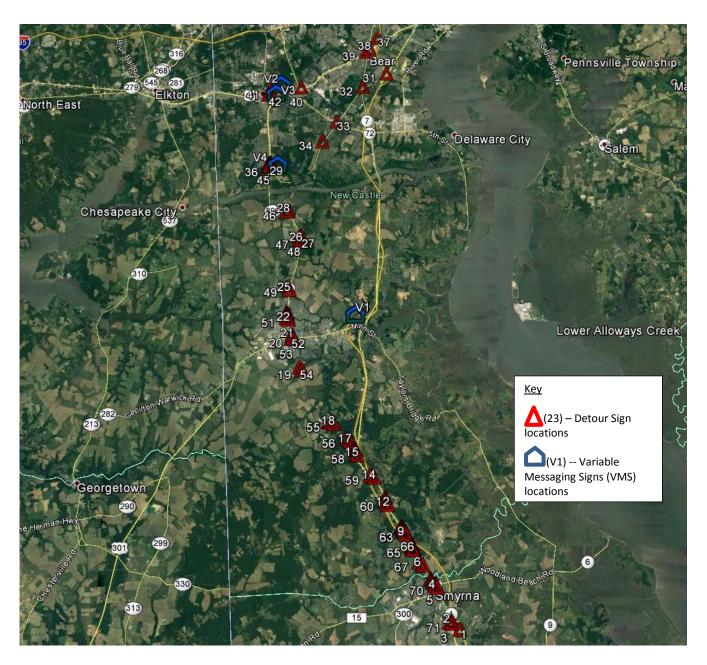








APPENDIX D - DETOUR SIGNAGE MAP



The above map displays the locations of the 71 detour signs, as well as the 4 VMS (Variable Messaging Signs) locations (see pages 24-26 for the exact locations of each detour and VMS sign).



Access Control Point Inventory - 5 mile

Control Point	Traffic Cones	Arrow Boards	VMS	DelDOT Trucks	Del. State Police	Barricade
A-1	0	0	0	0	1	1
A-2	35	0	0	0	1	1
A-3	75	0	0	0	2	1
A-4	45	0	0	0	1	1
A-5	45	0	0	0	1	1
A-6	0	0	0	0	1	1
A-7	0	0	0	0	1	1
A-8	41	0	0	0	1	1
A-9	40	0	0	0	1	1
A-10	0	0	0	0	1	1
A-11	0	0	0	0	1	1
A-12	0	0	0	0	1	1
A-13	0	0	0	0	1	1
A-14	0	0	0	0	1	1
A-15	0	0	0	0	1	1
Totals	231	0	0	0	16	15

Access Control Point Inventory - 10 mile

Control Point	Traffic Cones	Arrow Boards	VMS	DelDOT Trucks	Del. State Police	Barricade
B-1	0	0	0	0	1	2
B-2	0	0	0	0	1	3
B-3	51	2	2	0	2	1
B-4	44	2	2	0	1	2
B-5	97	1	0	0	1	2
B-6	43	0	0	0	1	1
B-7	0	0	0	0	1	1
B-8	0	0	0	0	0	0
B-9	0	0	0	0	1	1
B-10	41	0	0	0	2	1
B-11	26	0	0	0	1	1
B-12	0	0	0	0	1	1
B-13	51	0	0	0	1	1
B-14	0	0	0	0	1	1
B-15	0	0	0	0	1	2
B-16	0	0	0	0	1	1
B-17	0	0	0	0	1	2
B-18	0	0	0	0	1	1
B-19	0	0	0	0	1	1
B-20	0	0	0	0	1	1
B-21	0	0	0	0	1	1
B-22	0	0	0	0	1	1
B-23	0	0	0	0	1	1
B-24	35	0	0	0	2	1
B-25	0	0	0	0	1	1
B-26	0	0	0	0	1	2
B-27	0	0	0	0	1	1
B-28	0	0	0	0	1	1
B-29	60	0	0	0	1	0
B-30	50	2	2	0	1	0
Totals	498	7	6	0	32	35

Traffic Management Point Inventory

Control Point	Traffic Cones	Arrow Boards	VMS	DelDOT Trucks	Del. State Police	Barricade
T-1	0	0	0	0	0	0
T-2	0	0	0	0	0	0
T-3	0	0	0	0	0	0
T-4	50	0	0	0	0	3
T-5	24	0	0	0	0	1
T-6	38	0	0	0	0	1
T-7	16	0	0	0	0	1
T-8	44	2	2	0	0	0
T-9	7	0	0	0	0	1
T-10	18	0	0	0	0	2
T-11	18	0	0	0	0	1
T-12	8	0	0	0	0	1
T-13	0	0	0	0	2	0
T-14	40	0	0	0	0	1
T-15	0	0	0	0	1	0
T-16	0	0	0	0	0	0
T-17	0	0	0	0	0	0
Totals	263	2	2	0	3	12

Detour Signage Plan Inventory

Detour Direction	VMS	US 13 Detour Placards	SR-1 Detour Placards	Directional Arrows
Northbound	1	0	32	32
Southbound	3	7	34	32
Totals	4	7	66	64