

## SECTION II - FUNCTIONS

### PART J - PROTECTIVE RESPONSE

#### 1. Purpose

This part identifies the basis for decisions regarding protective actions for the public, the implementation of those protective actions, and the provisions made for continued protection and care of evacuees.

#### 2. Protective Action Decision-Making

- a. The Governor of Massachusetts has ultimate responsibility and will make the final decision on protective actions in consultation with the Massachusetts Emergency Management Agency (MEMA) Director, and the Massachusetts Department of Public Health (MDPH) Commissioner. The MEMA Director and the MDPH Commissioner will base their recommendations on federal Protection Action Guides (PAGS), radiological data, plant parameters, and local conditions. The decision-making process involves comparing the benefits to be gained versus risks and constraints that might result from each particular action under consideration. The Marshfield Board of Selectmen is responsible for the implementation of Protective Actions for the affected public.

- b. When a protective action has been directed by the Governor, MEMA will notify the Town of Marshfield of the Protective Action Directive, the EAS message to be broadcast and the time when the sirens will be activated. This notification will take place via the BECONS Radio System and will be communicated within fifteen minutes from the time the Governor of Massachusetts or his designee has issued a Protective Action Directive. Copies of EAS messages will be telefaxed to EPZ Towns from MEMA SEOC.
- c. The Commonwealth of Massachusetts will be guided by Protective Action Guidelines established by the U.S. Environmental Protection Agency, the U.S. Health and Human Services and the U.S. Food and Drug Administration for the ingestion of food, water, and milk. The Massachusetts Department of Health will coordinate these activities.
- d. Some of the variables that may influence decision-making regarding protective actions for the 10-mile EPZ are:
  - (1) Plant conditions.
  - (2) Projected radiation dose.
  - (3) Measured radiation dose.
  - (4) Portion of the EPZ affected.
  - (5) Time available in which an action could be taken to significantly reduce radiation doses.
  - (6) Radiation dose pathway.
  - (7) Available resources.
  - (8) Local weather or road conditions.

- e. Some of the data needed for consideration of the above variables will be collected by State, Federal, and Utility field monitoring teams at pre-selected radiological sampling and monitoring points. (See Figure J-1 for a map of State pre-selected Radiological sampling and monitoring points.) The Town has no field monitoring capability.
  - f. The Town of Marshfield will provide information on local conditions to the MEMA Headquarters EOC through MEMA Region II. This information may include weather and road conditions, resource availability, major local events and any other constraints. The State will consider this information when making a protective action decision. The Town will update this information, as necessary.
3. Protective Actions

Sheltering and evacuation are the two primary protective actions for the general public within the plume exposure pathway. Other available protective measures designed to support or supplement these two protective actions include access control, ad hoc respiratory protection, and radio protective drugs for the institutionalized population.

Areas in close proximity to and downwind from PNPS are more likely to be affected by a release; therefore, the 10-mile EPZ has been divided into subareas, so that protective actions may be taken in the particular part of the EPZ affected by a release (see Figure J-2 for a map of the 10 mile EPZ and its subareas). Furthermore, protective actions may be used in combination with one another.

In order to implement protective actions, resources beyond what is available on a daily basis may be needed. In addition to resources provided through letters of agreement, additional assistance, and the authority for making it available, are provided through a "Declaration of Emergency" declaration, first by Town Selectmen and then by the Governor. The various actions available to protect the public in the plume exposure pathway are described below.

a. Sheltering

Sheltering may be the appropriate protective action for the rapid passage of a plume, or when weather and/or road conditions indicate that sheltering would be safer than an evacuation. Most year-round homes and buildings in the 10-mile EPZ are insulated and could provide sufficient protection and shelter against direct and inhalation exposure. If sheltering is the protective action selected, the public will be instructed to do the following:

- (1) Remain indoors with ventilation systems turned off and doors and windows closed.
- (2) Continue to monitor local radio/television stations for further EAS instructions/information.
- (3) If traveling in a vehicle close windows, vents, and shut off air circulation systems and proceed out of the EPZ or seek more permanent shelter.

b. Evacuation

Evacuation is the appropriate protective action for releases of long duration or high intensity.

- (1) If evacuation is the selected protective action, residents will be instructed to leave the affected subarea(s). If radiological monitoring or lodging is needed, the public will be directed to report to reception centers located at least 5 miles beyond the 10-mile EPZ boundary. At reception centers, the evacuees will be monitored for contamination, decontaminated (if necessary) and registered. Those evacuees who require lodging will be assigned to a mass care shelter. Most of the evacuating population will travel in their own vehicles, driving out of the EPZ using designated evacuation routes. (See Figure J-3 for a map of evacuation routes.)
- (2) Should conditions warrant evacuation of PNPS, onsite personnel will be directed to evacuate via personal vehicle to one of the utility-owned offsite Assembly areas, either the Chiltonville Training Center in Plymouth or the PNPS Support Building Cafeteria. The Offsite Assembly Area will be chosen on the basis of wind direction and whether a release is in progress.

c. Access Control

Access control consists of the establishment of barriers and/or the assignment of personnel to restrict access to all or part of the 10-mile EPZ.

At the ALERT classification level, recreational areas and major events will be closed to the public. Primary points of entry to recreational areas and major events will be controlled to restrict access to a closed area.

Access control will be used in conjunction with sheltering and evacuation protective actions. Access control can be highly effective in preventing the exposure of persons by preventing them from traveling through the EPZ. It is also an effective means of reducing traffic congestion on key roadways and providing security to evacuated areas. Those points necessary to control access into an affected area will be activated.

The Massachusetts State Police coordinates access control activities.

Personnel from Massachusetts State Police Troop D, Plymouth County Sheriff's Department, and local police departments will staff access control points. The Massachusetts Department of Transportation and local public works departments will provide the necessary equipment to support access control.

Access to an affected area will be controlled until reentry of the public is authorized. The Massachusetts National Guard will support access control by providing relief personnel.

The U.S. Coast Guard, with assistance from the Marshfield Harbormaster will control access into the portion of the Cape Cod Bay within the Town's portion of the 10-mile EPZ.

MEMA Headquarters will contact appropriate authorities to restrict air and rail traffic. (SARDA plan restricts air traffic.) See Massachusetts Comprehensive Radiological Emergency Response Plan, Appendix 2.

d. Ad Hoc Respiratory Protection

Respiratory protection may be recommended on an ad hoc basis. This can be accomplished by placing a cotton handkerchief or wash cloth over the nose and mouth. Ad hoc respiratory protection can increase the effectiveness of sheltering by reducing inhalation exposure. It could also be used during an evacuation if the public must, at any time, pass through a radioactive plume.

The Massachusetts Department of Public Health is responsible for recommending ad hoc respiratory protection, if warranted. The public would be advised over EAS stations of the need for ad hoc respiratory protection and how it is to be improvised.

e. Radioprotective Drugs

Potassium Iodide (KI), the most commonly used thyroid blocking agent, saturates the thyroid gland with non-radioactive iodine which blocks the uptake of radioactive iodine. According to MDPH policy, KI will be distributed to the general public. KI will be distributed to emergency workers with their dosimetry packets. The tablets will not be ingested unless MDPH recommends it.

Potassium Iodide (KI) has been made available by the Massachusetts Department of Public Health to members of the general public within the Emergency Planning Zone. Additional information on the use of KI by the general public is included in the Massachusetts Radiological Emergency Response Plan.

KI for hospital and nursing home patients whose immediate evacuation would be life threatening has not been distributed in the Town of Marshfield, due to the absence of any hospitals or nursing homes within the Town's EPZ.

4. Sheltering and Evacuation of Special Populations

Most of the population in the 10-mile EPZ have the capability and the resources needed to implement protective actions. Special Populations, however, require assistance in taking protective action. This Special Population consists of transportation dependent persons, mobility impaired, persons in recreational areas, workers for major employers and persons in special facilities. The Special Needs Coordinator in the EOC will coordinate the protective response for their respective special population groups.



In the event of Sheltering, members of the Special Population who are residents or normally work in the EPZ will shelter in their own home or workplace in the same manner as the general public. Public shelters have been established for those individuals within the EPZ who may require assistance in sheltering (e.g. tourists). These shelters and their capacities are identified in the Marshfield Shelter Implementation Program Summary and in the standard operating procedures which support the plan.

In the event of Evacuation, most members of the Special Population, particularly persons in recreational areas, will travel out of the EPZ using their own vehicles. Others will require transportation assistance. The Transportation Coordinator in the EOC will contact staff at special population sites to determine the number of persons requiring transportation assistance. Transportation needs will be met to the extent possible with local resources used on a daily basis. Each officer in the EOC will report additional resource needs to the Town Transportation Officer who will obtain supplemental transportation resources through MEMA Region II.

Adequate supplemental transportation resources (vehicles and drivers) have been identified. Private bus companies within an approximate 40-mile radius of PNPS will supplement buses and drivers already under contract to the Town, such as school buses and drivers. MEMA maintains agreements with a sufficient number of private bus companies for enough buses and drivers to evacuate persons without transportation in a single trip. Private ambulance companies within an approximate 40-mile radius of PNPS will transport persons who are without transportation means and unable to ride in a bus. MEMA maintains agreements with a sufficient number of private ambulance companies to provide enough ambulances with crews to evacuate ambulance dependent persons in a single trip. The Agreements with bus companies and ambulance providers are part of the MEMA Region II Plan.

At request of the town Transportation Officer, supplemental school bus resources will be dispatched by MEMA directly to Gov. Winslow School. All other supplemental transportation resources will be assembled at Transportation Staging Areas. There are four Transportation Staging Areas designated for the 10 mile EPZ. The Transportation Staging Area for the Town of Marshfield is the Martinson Elementary School.

This facility will be staffed by volunteers who will maintain telephone and radio communications with the EOC. In an evacuation, ambulances will be dispatched by staging area personnel to special facilities, and private homes as needed. Buses will be dispatched to special facilities, homes, and planned bus routes throughout the Town for those without personal transportation. Bus routes are shown in the Emergency Public Information calendar.

a. Transportation-Dependent

Generally, transportation-dependent persons will be notified of a protective action in the same manner as other members of the general public.

In an evacuation, they will be instructed through EAS to go to a bus route for transportation to a reception center. Those unable to get to a route are considered "mobility impaired" and will be picked up at their homes.

b. Mobility Impaired

A list of persons with special needs (including mobility impaired) is on file with the Marshfield Emergency Management Agency for use in an emergency. The special needs list will be updated at least annually as part of the Emergency

Public Information Calendar which is mailed directly to homes within the 10-mile EPZ. The calendar contains a postpaid mail-in card requesting information on specific needs that require special attention during an emergency. The cards are pre-addressed to the MEMA Region II Manager who will ensure the list is kept up to date and distributed to the Marshfield Emergency Management Director who is authorized to maintain the confidential information. At the time of the emergency, the Special Needs Coordinator will verify transportation requirements of those on the special needs list. At the time transportation needs are being verified, mobility impaired persons will be told to tune to an EAS station for emergency information. If a protective action is directed, they will be notified through EAS.

In an evacuation, mobility impaired persons will be picked up at their homes. Those able to ride in a bus will be transported to a reception center. Those requiring ambulance transportation will be taken to a hospital for care in a host facility.

c. Recreational Areas and Major Events

Recreational areas, including major events, will be closed at the ALERT classification; however, in the event of a rapidly escalating incident, provisions have been made for the protection of the public in these areas.

Persons in recreational areas will be notified of the closing or protective action through route alerting and staff announcements. Managers of recreational areas will be notified by appropriate officers in the EOC.

If sheltering is directed, persons in recreational areas will be informed to take shelter in a public building, such as a Town building. There is adequate public shelter space in close proximity to recreational areas to accommodate this population group.

The Shelter Manager in the EOC will request shelter owners/managers to prepare their buildings for use and receive persons in need of public shelter. Route alerting personnel and recreational area staff will direct this population to the shelters. Some EPZ residents at recreational areas may choose to shelter in their own homes instead of a public shelter.

If evacuation is directed, persons in recreational areas will be informed to evacuate. If radiological monitoring or lodging is needed, they will be directed to report to a reception center.

(1) Boaters

Boaters will be advised of a protective action by the Harbormaster's staff and U.S. Coast Guard personnel. The Harbormaster Representative in the EOC will coordinate with the U.S. Coast Guard Representative at the State EOC to ensure boaters are advised of a protective action.

If a protective action is directed, boaters will be instructed to return to their launch sites or to leave the area to the north. Any boaters returning to Marshfield will receive further instructions from the Police and Harbormaster.

If evacuation is directed, most boaters will return to launch sites and travel out of the area in their own vehicles using evacuation routes. Those in need of transportation will be directed to a bus route.

(2) Beaches

The beach population will be advised of a protective action by route alert teams from the Police and Fire departments and through the prompt notification system for the public.

The Harbormaster/Police Representative, in the EOC will ensure the beach population is advised of the protective action.

If evacuation is directed, most of the beach population will travel out of the area using their own vehicles. Those in need of transportation will be directed to a bus route.

d. Major Employers

Workers for major employers will be notified of an emergency by their employer. The Special Needs Officer in the EOC will notify major employers of the emergency and advise them to tune to an EAS station. Employers and workers will be notified of a protective action through the prompt notification system for the public. Major employers have been provided with tone alert radios.

If sheltering is directed, workers will be advised to shelter in their workplace.

If evacuation is directed, workers will be informed through EAS to evacuate. If radiological monitoring or lodging is needed, they will be directed to report to a reception center.

Most workers will travel out of the EPZ using their own vehicles. Those in need of transportation will be directed to a bus route.

e. Schools

Children in EPZ schools will receive special consideration during an emergency at PNPS. At the ALERT classification level, buses will park in front of EPZ schools in preparation for a precautionary transfer of children to designated host schools. An adequate number of buses have been identified to transport the children in a single trip. In the event of a rapidly escalating incident in which an evacuation is required, provisions have been made for the protection of children at schools by directing them to Reception Centers for monitoring prior to relocation to a relocation facility.

There is one school in the Town of Marshfield located in the EPZ. The School Department Officer in the EOC will notify the Gov. Winslow school principal of the emergency. In addition, school administrators will be notified through Tone Alert Monitors activated by the EAS Station.

The principal of the Governor Winslow School will be notified of the protective action. The Principal will then notify his/her staff.

School staff will remain with students at relocation schools until parental pickup is completed.

Schools located outside the EPZ with students who reside within the EPZ will be notified by the School Department Officer and MEMA special facilities coordinator to retain the students for parental pickup.

5. Evacuation Route Capacities

Roads within the 10-mile EPZ have been evaluated to determine their capability to handle traffic. Route capacity, i.e., the maximum hourly rate at which vehicles can travel past a point in the road, is identified in the Pilgrim Station Evacuation Time Estimate Study, Appendix N.

6. Traffic Control

- a. Traffic control will be provided to ensure adequate traffic flow for evacuation.
- b. Major traffic intersections will be controlled by the Marshfield Police Department with support from the Marshfield DPW, Massachusetts State Police Troop D, Plymouth County Sheriff's Office, and other local police departments.

- c. The Marshfield Police Department will coordinate traffic control with Massachusetts State Police Troop D, a representative of which is located at the MEMA Region II EOC. If additional assistance is needed to perform traffic control, it will be requested from MEMA Region II. Figure J-9 denotes traffic and access control points in the Town of Marshfield.

7. Impediment Removal

- a. The Marshfield Public Works Department, in conjunction with the Massachusetts Department of Transportation, will provide resources needed to clear roads of impediments, such as snow or fallen trees. The Public Works Department maintains a listing of equipment used in road impediment removal for any emergency.
- b. Stalled vehicles restricting evacuation routes will be removed through local police department means (town truck providers) or by Town or State Highway personnel pushing the disabled vehicles off the road.
- c. If assistance is required for clearing roads or removing stalled vehicles, it will be requested from MEMA through Region II.



8. EPZ Population

Population figures for three major population groups within the 10-mile EPZ have been determined. Figures J-4 through J-6 indicate the population figures for permanent residents, transients, and employees by EPZ subarea.

9. Evacuation Time Estimates (ETEs)

Estimates of the time it would take to evacuate the 10-mile EPZ or portions of it have been made. Figure J-7 indicates the time estimates under various periods of time and weather conditions. Estimated mobilization times for transportation providers are referenced in the MEMA Region II plan.

10. Potential Problems in Evacuation

- a. The Town of Marshfield has a history of fog, severe snow storms, ice, and hurricanes due to its geographical location along the Atlantic Ocean. The Commonwealth of Massachusetts will take into consideration visibility, road conditions, high winds, etc., when developing Protective Action Directives.
- b. In the event of an emergency at PNPS, traffic from Boston to Cape Cod may be diverted from Route 3 to Route 128/I-93. Boston-Cape Cod diversion routes (I-93/Route 128, I-95, I-495/Route 25, Route 6) offer travelers a path around the 10-mile EPZ along major, limited-access routes.

In reverse, traffic from Cape Cod to Boston may be diverted from Route 3 to Route 6 from Sagamore Bridge to the Bourne Bridge onto Route I-495 N/Route 25.

- c. Some traffic congestion may be caused by disabled vehicles; therefore, provisions have been made in this plan for removing impediments, such as disabled vehicles.
- d. In the event that evacuation traffic would be diverted through Marshfield, from Saquish, additional Traffic Control Points will be designated by the Marshfield Police Department.

#### 11. Security Patrols

Security will be provided for evacuated areas. Patrols will be limited to areas where radiation levels are acceptable for emergency worker activities. MDPH will identify areas not to be entered and inform the Town of Marshfield of these areas through MEMA Region II.

The Marshfield Police Department, supported by the Massachusetts State Police Troop D, and the Massachusetts National Guard, will provide security patrols for evacuated areas until the majority of the residents have returned.

12. Reception Centers

- a. The reception center listed below will be available to monitor, decontaminate (if necessary) and register evacuees. If lodging is needed, evacuees will be assigned to mass care shelters shown on Figure J-8.

The Braintree Reception Center at the Braintree High School will serve as the reception center for the Town of Marshfield. The Braintree Reception Center at the Braintree High School will also serve as the reception center for school students who are transferred out of the EPZ from the same area in a rapidly escalating incident.

- b. Braintree Reception Center

- (1) The Braintree Reception Center will serve as the reception center for residents and transients from Marshfield.
- (2) Braintree Reception Center personnel will provide monitoring for evacuees and perform decontamination, as necessary. The State has sufficient trained personnel and equipment to monitor at least 20 % of evacuees (residents and transients) from the assigned portion of the 10-mile EPZ within 12 hours after evacuees arrive at the reception center.

- (3) The town of Braintree will provide traffic control, security, and maintain Public Safety at the Braintree Reception Center.
- (4) See the Braintree High School Radiological Emergency Response Plan and Standard Operating Procedures for details on receiving evacuees, monitoring and decontamination of evacuees, and the provision of mass care shelters.

13. Mass Care Shelters

Mass care shelters for evacuees (see Figure J-8 for map) will be set up in schools and private facilities, as needed. There is adequate space to house at least twenty percent of the evacuating population, residents and transients. Mass care shelters will be operated under the direction of the American Red Cross, which will provide adequate personnel and materials for care center operations.

- a. If personal transportation between reception center and mass care shelters is not available, bus transportation will be provided.
- b. Amateur radio personnel in the Braintree Reception Center community will provide communications support from mass care shelters to other sites, including the reception center, other mass care shelters, and the EOC. Mass care shelters are able to communicate by radio to designated hospitals and ambulance services through the EOC.

14. Ingestion Exposure Pathway Protective Measures

Ingestion Exposure Pathway protective measures involve controlling food, water, milk and livestock feed supplies, which may have become contaminated within the Ingestion Exposure Pathway. These measures are designed to keep radioactive material out of the human food chain.

Recommendations for the Ingestion Exposure Pathway EPZ will be based on plant conditions and/or field samples. The Massachusetts Department of Public Health Coordinates the collection and analysis of food, water and milk samples. Protective actions will be based on Department of Public Health, Education and Welfare/Food and Drug Administration criteria. Local communities will assist state agencies implementation of protective actions, as requested.

**FIGURE J-1  
RADIOLOGICAL SAMPLING AND MONITORING POINTS**

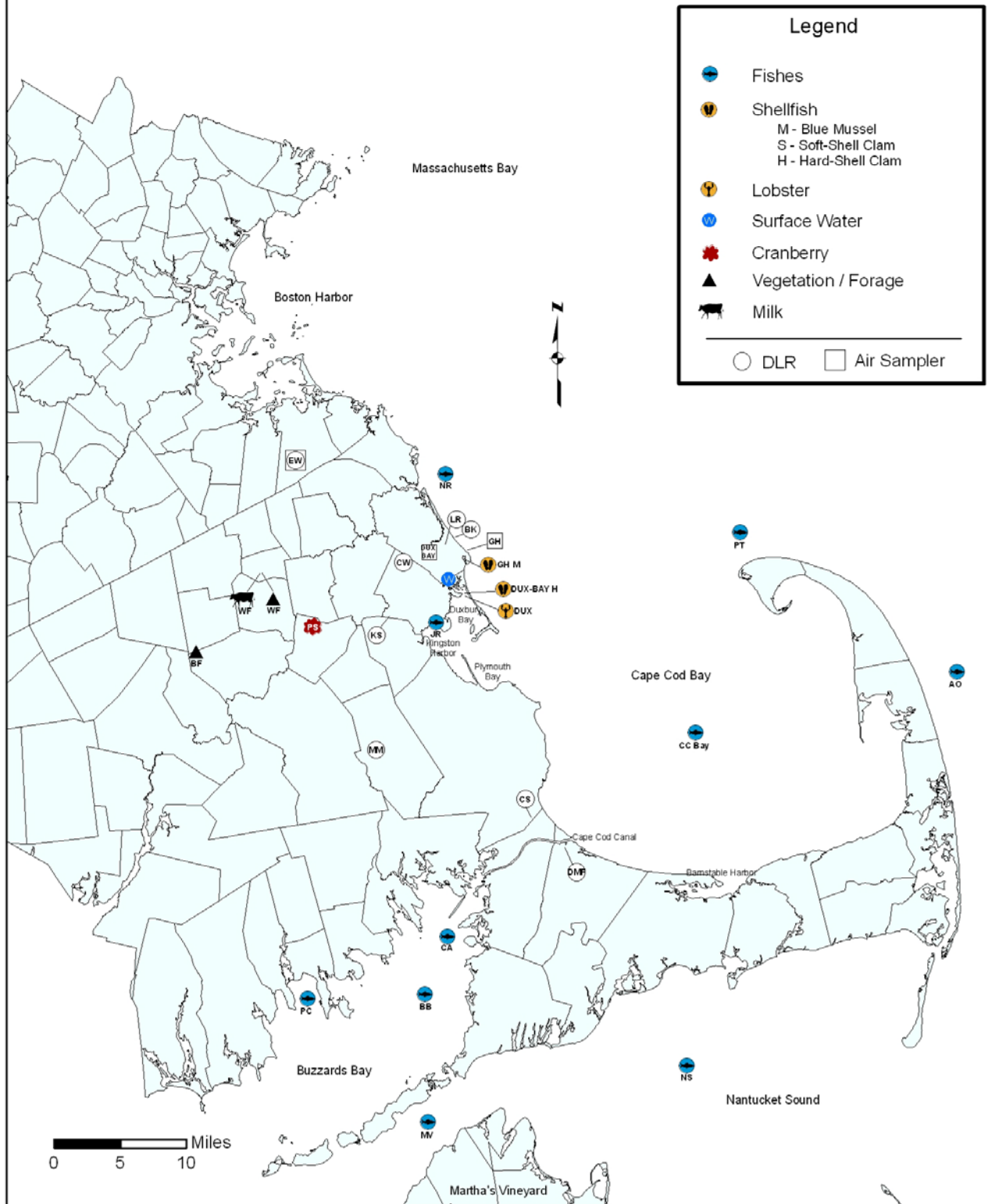


Figure J-2  
10-Mile EPZ with Sub Areas

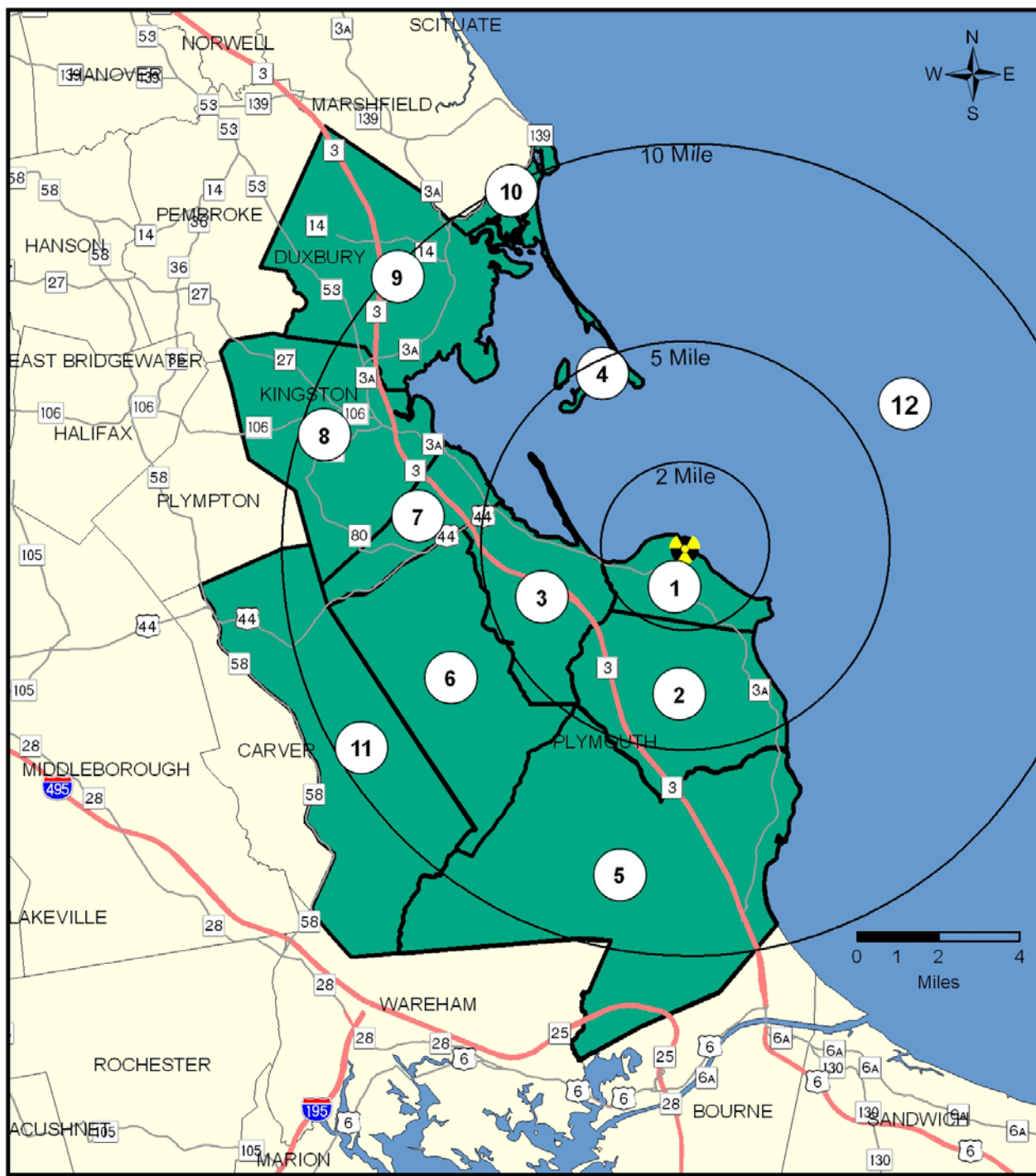


Figure J-3  
Evacuation Routes

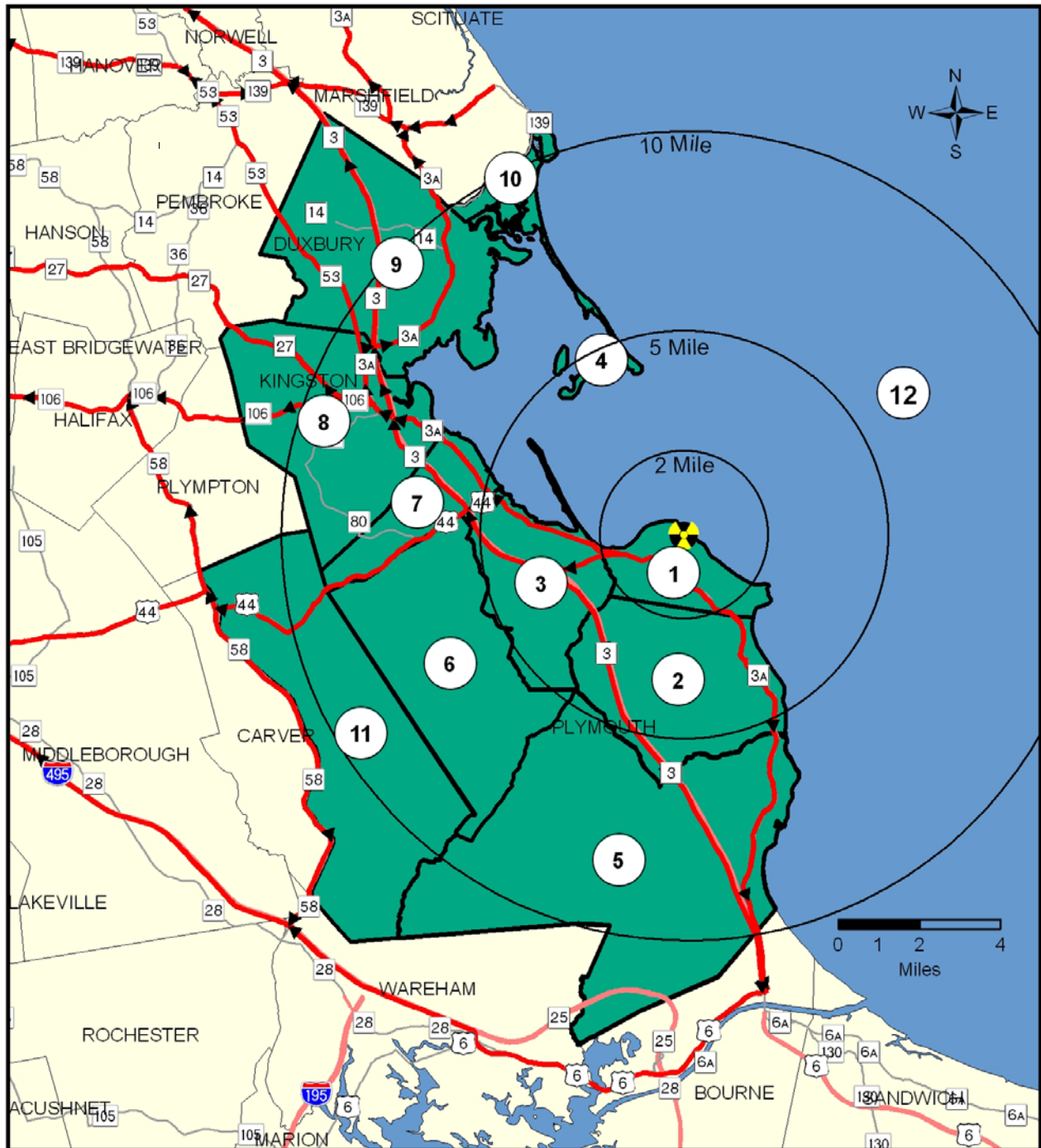




Figure J-4  
Peak Employee Population

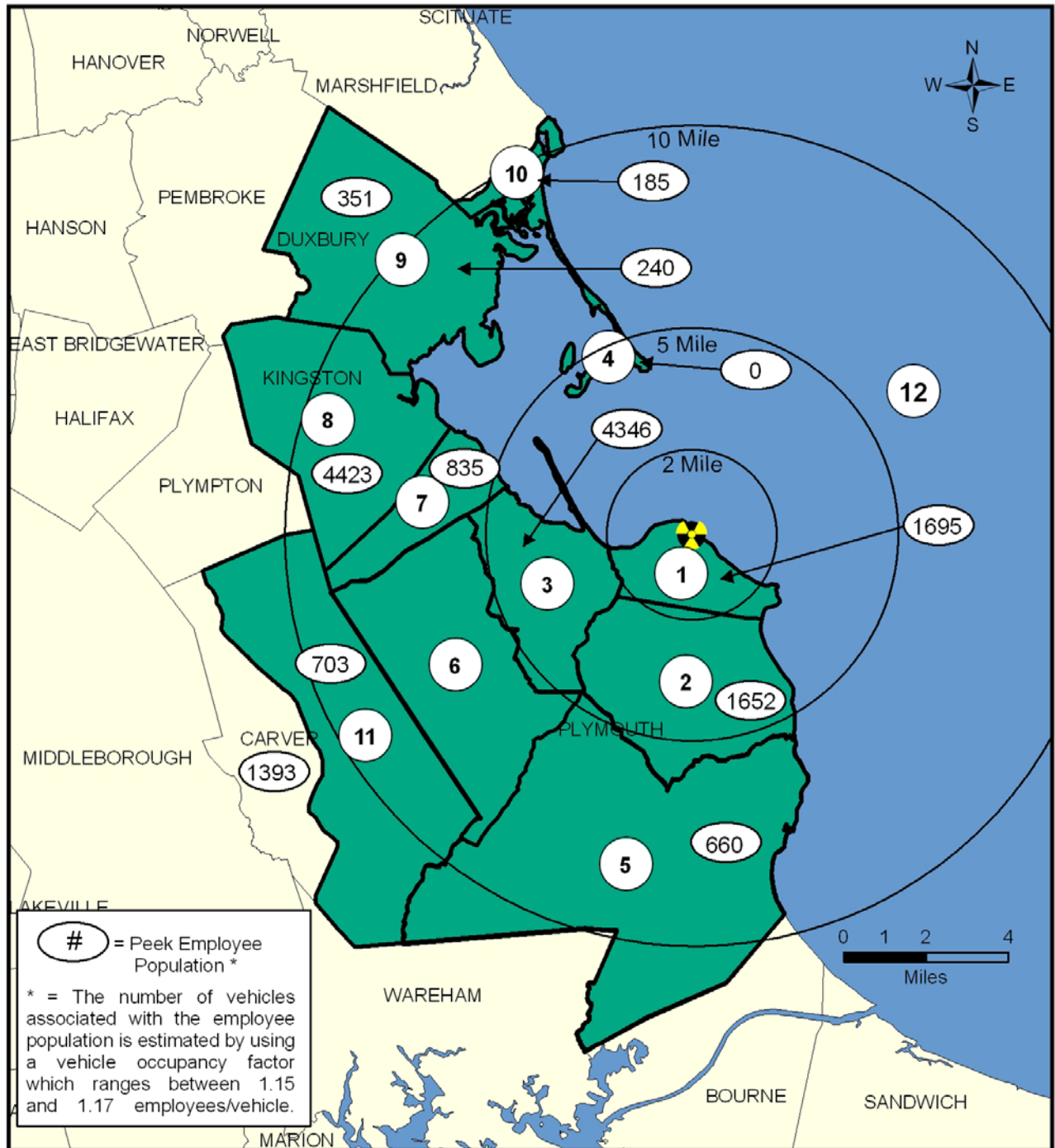


Figure J-5  
Peak Resident Population

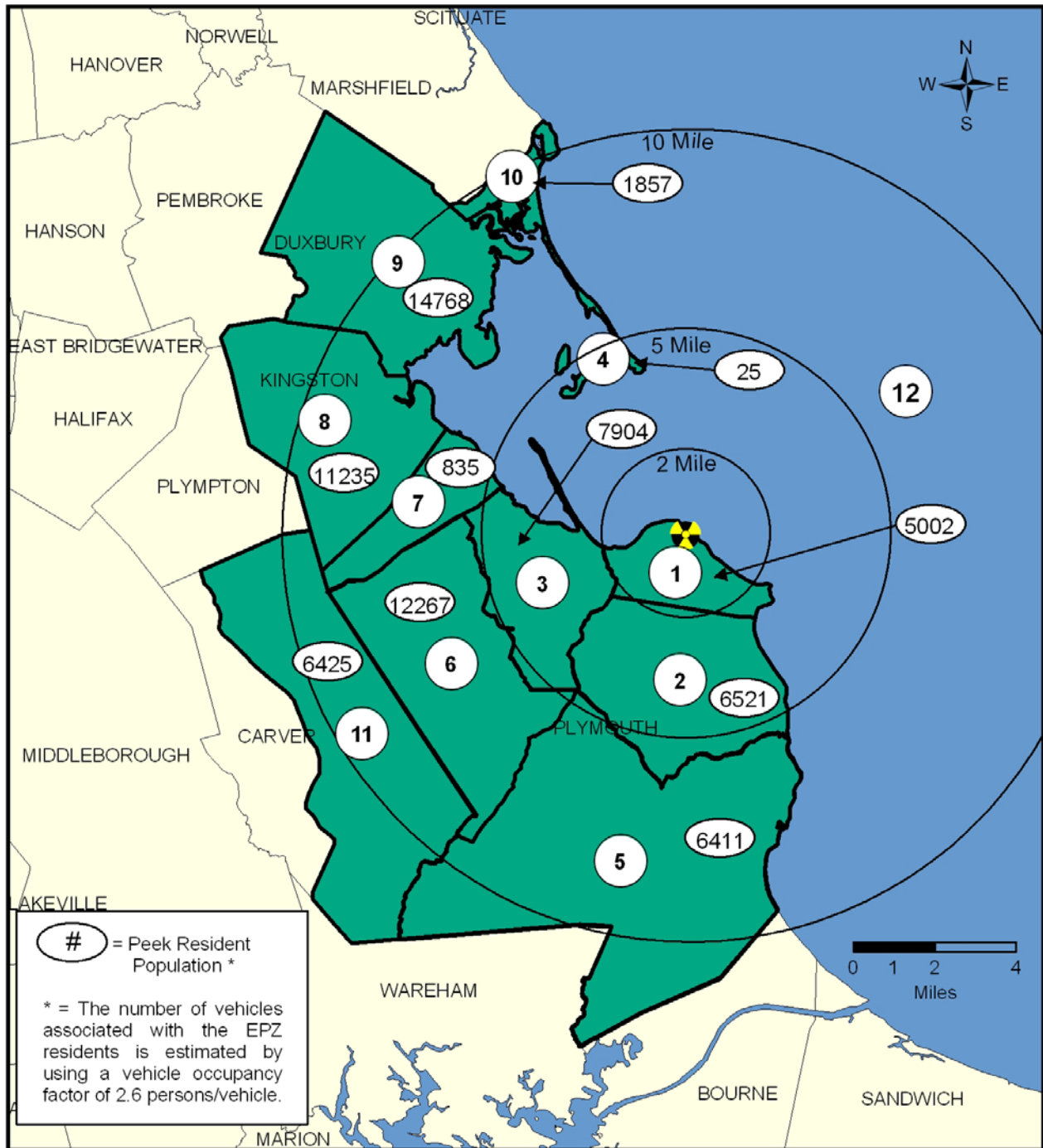
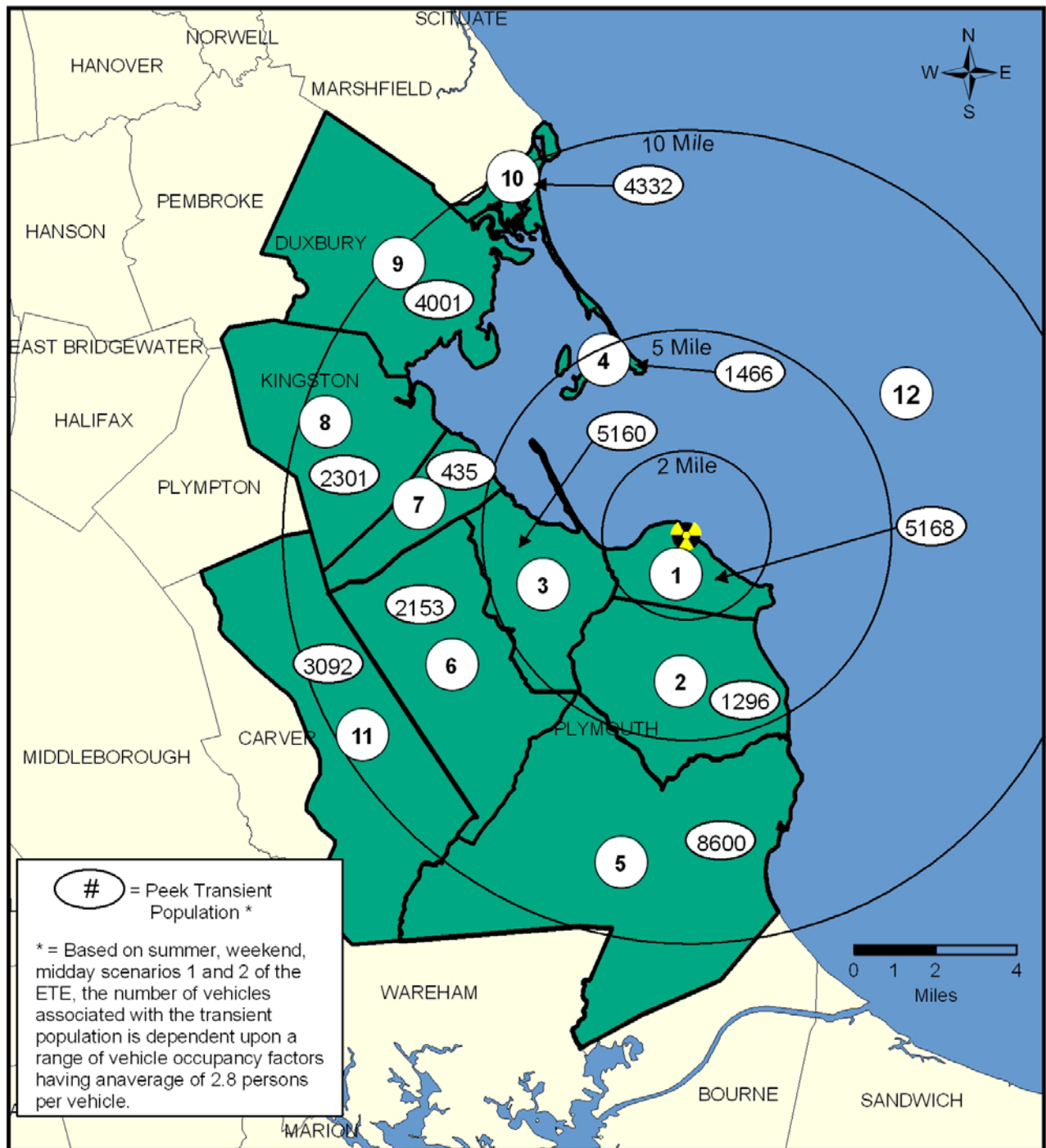


Figure J-6  
Peak Transient Population



**Figure J-7**  
**Evacuation Time Estimates**  
 1 of 2

Table J-1D.

Estimates Time (Hrs:Min) to Evacuate 100 Percent of the Indicated Region After The Evacuation Advisory													
Evac. Regions	Summer						Evac. Regions	Off-Season					
	Weekend				Midweek			Midweek			Midweek, Evening		
	Midday	Evening	Midday	Evening	Midday			Midday			Weekend, All Day		
	Good Weather		Rain		Good Weather	Rain		Good Weather	Rain	Snow	Good Weather	Rain	Snow
Entire Two Mile, Entire Five Mile, and Entire EPZ Regions													
R01	3:30	3:30	3:30	3:30	4:05	4:05	R01	4:10	4:20	5:25	3:35	3:35	5:20
R21	4:05	4:00	4:35	4:30	4:20	4:35	R21	4:15	4:30	5:30	3:50	4:05	5:30
R22	5:35	5:30	6:20	6:10	5:40	6:30	R22	5:05	5:55	6:45	4:30	5:00	5:50
Two Mile Ring and Evacuation to Five Miles													
R02	4:05	4:00	4:35	4:30	4:20	4:35	R02	4:10	4:30	5:25	3:35	4:05	5:15
R03	4:05	4:00	4:35	4:30	4:20	4:35	R03	4:15	4:30	5:30	3:35	4:05	5:20
R04	3:35	3:30	4:00	3:40	4:15	4:15	R04	4:15	4:15	5:25	3:30	3:30	5:20
R05	3:35	3:35	4:00	3:40	4:15	4:15	R05	4:15	4:25	5:30	3:40	3:40	5:25
R06	3:35	3:35	3:35	3:35	4:10	4:10	R06	4:15	4:25	5:30	3:40	3:40	5:25
Two Mile Ring and Evacuation to EPZ Boundary													
R07	5:25	5:05	6:15	5:55	5:40	6:30	R07	5:05	5:55	6:35	4:30	5:00	5:35
R08	5:15	5:00	6:05	5:40	5:40	6:30	R08	5:05	5:55	6:30	4:30	5:00	5:35
R09	5:20	5:05	6:05	5:55	5:40	6:30	R09	5:05	5:55	6:45	4:30	5:00	5:50
R10	5:15	5:00	5:55	5:50	5:30	6:05	R10	5:05	5:50	6:45	4:30	5:00	5:50
R11	5:15	5:05	6:00	5:50	5:30	6:10	R11	5:05	5:50	6:45	4:30	5:00	5:50
R12	5:30	5:30	6:20	6:05	5:30	6:05	R12	5:00	5:40	6:45	4:25	4:55	5:50
R13	5:35	5:30	6:20	6:10	5:30	6:15	R13	5:00	5:40	6:45	4:25	4:55	5:50
R14	5:05	5:00	5:55	5:30	5:15	6:00	R14	4:50	5:25	6:20	4:05	4:35	5:30
R15	5:05	4:55	5:35	5:30	5:05	5:55	R15	4:35	5:20	6:00	4:05	4:35	5:30
R16	5:05	4:55	5:35	5:30	5:05	5:55	R16	4:35	5:20	6:00	4:05	4:35	5:30
R17	5:25	5:20	6:00	5:55	5:05	6:00	R17	4:35	5:25	6:00	4:05	4:35	5:30
R18	5:25	5:20	5:55	5:55	5:00	5:30	R18	4:30	5:00	5:35	4:00	4:25	5:30
R19	5:30	5:25	6:00	6:00	4:40	5:15	R19	4:20	4:30	5:35	3:45	3:50	5:30
R20	3:40	3:40	3:40	3:40	4:15	4:15	R20	4:20	4:30	5:35	3:45	3:45	5:30

**FigureJ 7**  
**Evacuation Time Estimates**  
**2 of 2**

Table J-1D (Concluded).

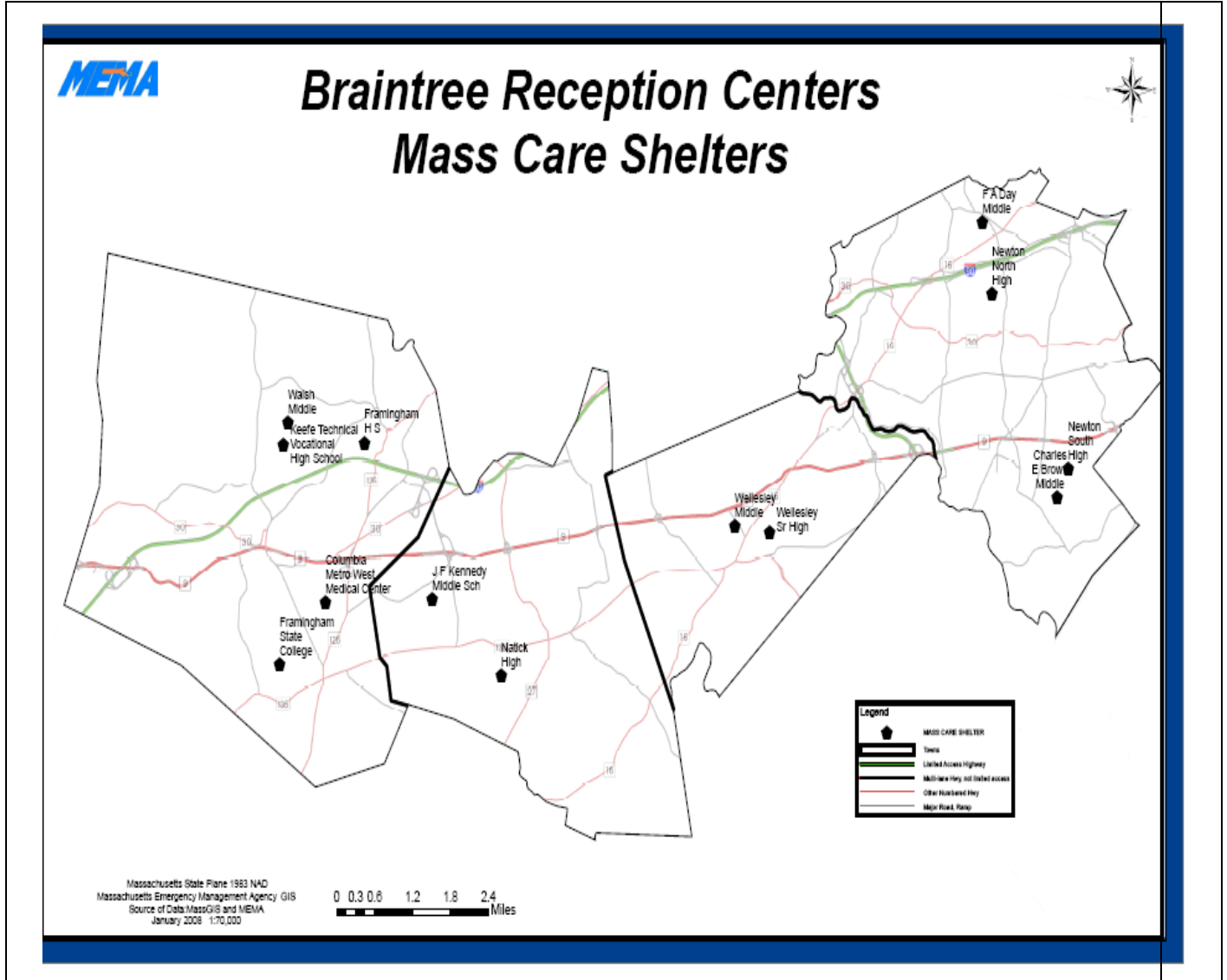
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	Weekend				Midweek			Midweek			Midweek , Evening		
	Midday	Evening	Midday	Evening	Midday			Midday			Weekend, All Day		
	Good Weather		Rain		Good Weather	Rain		Good Weather	Rain	Snow	Good Weather	Rain	Snow
Five Mile Ring and Evacuation to EPZ Boundary													
R23	5:25	5:05	6:15	5:55	5:40	6:30	R23	5:05	5:55	6:35	4:30	5:00	5:35
R24	5:15	5:00	6:05	5:40	5:40	6:30	R24	5:05	5:55	6:30	4:30	5:00	5:35
R25	5:20	5:05	6:05	5:55	5:40	6:30	R25	5:05	5:55	6:45	4:30	5:00	5:50
R26	5:15	5:00	5:55	5:50	5:30	6:05	R26	5:05	5:50	6:45	4:30	5:00	5:50
R27	5:15	5:05	6:00	5:50	5:30	6:10	R27	5:05	5:50	6:45	4:30	5:00	5:50
R28	6:30	5:30	6:20	6:05	5:30	6:05	R28	5:00	5:40	6:45	4:25	4:55	5:50
R29	5:35	5:30	6:20	6:10	5:30	6:15	R29	5:00	5:40	6:45	4:25	4:55	5:50
R30	5:05	5:00	5:55	5:30	5:15	6:00	R30	4:50	5:25	6:20	4:05	4:35	5:30
R31	5:05	4:55	5:35	5:30	5:05	5:55	R31	4:35	5:20	6:00	4:05	4:35	5:30
R32	5:25	5:20	6:00	5:55	5:05	6:00	R32	4:35	5:25	6:00	4:05	4:35	5:30
R33	5:25	5:20	5:55	5:55	5:00	5:30	R33	4:30	5:00	5:35	4:00	4:25	5:30
R34	5:30	5:25	6:00	6:00	4:40	5:15	R34	4:20	4:30	5:35	3:45	3:50	5:30
R35	3:40	3:40	3:40	3:40	4:15	4:15	R35	4:20	4:30	5:35	3:45	3:45	5:30

**Figure J 7-A**  
**Regional Evacuation Groupings**

**Table J-2. Regional Evacuation Groupings**

Wind Direction From	2 Mile Evacuation		2 Mile Ring Evacuate to 5 – Miles Downwind		2 Mile Ring Evacuate to EPZ Boundary Downwind		5 Mile Ring Evacuate to EPZ Boundary Downwind	
	Region	Subareas	Region	Subareas	Region	Subareas	Region	Subareas
006°-019°	1	1,12	2	1,2,12	7	1,2,5	23	1,2,3,4,5,12
020°-021°	1	1,12	3	1,2,3,12	8	1,2,3,5,6	24	1,2,3,4,5,6,12
022°-056°	1	1,12	3	1,2,3,12	9	1,2,3,5,6,11	25	1,2,3,4,5,6,11,12
057°-063°	1	1,12	3	1,2,3,12	10	1,2,3,6,11	26	1,2,3,4,6,11,12
064°-066°	1	1,12	3	1,2,3,12	10	1,2,3,6,11,12	26	1,2,3,4,6,11,12
067°-069°	1	1,12	3	1,2,3,12	11	1,2,3,6,7,11,12	27	1,2,3,4,6,7,11,12
070°-103°	1	1,12	4	1,3,12	12	1,3,6,7,8,11,12	28	1,2,3,4,6,7,8,11,12
104°-109°	1	1,12	4	1,3,12	13	1,3,6,7,8,9,11,12	29	1,2,3,4,6,7,8,9,11,12
110°-115°	1	1,12	4	1,3,12	14	1,3,6,7,8,9,12	30	1,2,3,4,6,7,8,9,12
116°-122°	1	1,12	4	1,3,12	15	1,3,7,8,9,12	31	1,2,3,4,7,8,9,12
123°-129°	1	1,12	5	1,3,4,12	16	1,3,4,7,8,9,12	31	1,2,3,4,7,8,9,12
130°-132°	1	1,12	5	1,3,4,12	17	1,3,4,7,8,9,10,12	32	1,2,3,4,7,8,9,10,12
133°-140°	1	1,12	5	1,3,4,12	18	1,3,4,8,9,10,12	33	1,2,3,4,8,9,10,12
141°-175°	1	1,12	6	1,4,12	19	1,4,9,10,12	34	1,2,3,4,9,10,12
176°-179°	1	1,12	6	1,4,12	20	1,4,10,12	35	1,2,3,4,10,12
180°-183°	1	1,12	6	1,4,12	6	1,4,12	21	1,2,3,4,12
184°-305°	1	1,12	1	1,12	1	1,12	21	1,2,3,4,12
306°-318°	1	1,12	2	1,2,12	2	1,2,12	21	1,2,3,4,12
319°-005°	1	1,12	2	1,2,12	7	1,2,5,12	23	1,2,3,4,5,12
Any			21	1,2,3,4,12	22	1 - 12		

Figure J-8





**Figure 9**  
**Marshfield Traffic and Access Control Points**

