

# *Wareham Road Mixed-Use Development*

*Plymouth, Massachusetts  
Transportation Workshop  
May 21, 2007*



**A.D. MAKEPEACE**  
*Inspired by nature.*

*Jeffrey S. Dirk, P.E., PTOE  
Vice President*

**Wai** **Vanasse & Associates, Inc.**  
Transportation Engineers & Planners  
10 New England Business Center Drive  
Suite 314  
Andover, MA 01810-1066

# *Wareham Road Mixed-Use Development Transportation Workshop Outline*

- Introduction
- Study Methodology/Scope of Work
- Existing Conditions
- Future Conditions Development
- Project-Generated Traffic
- Transportation Improvement Summary
- Questions



# Existing Conditions Study Area Map



## Intersections

1. Long Pond Road at Clark Road
2. Long Pond Road at Ship Pond Road and Herring Way
3. Long Pond Road at Halfway Pond Road and Bloody Pond Road
4. Long Pond Road at Hedges Pond Road
5. Long Pond Road at Herring Pond Road and Tamarack Road
6. Long Pond Road at Carter's Bridge Road
7. Long Pond Road at Mast Road
8. Halfway Pond Road at Wareham Road and Mast Road
9. Halfway Pond Road at West Long Pond Road
10. Halfway Pond Road at Bourne Road
11. Halfway Pond Road at Justine Road and Private Driveway
12. Herring Pond Road at the Route 3 Northbound Ramps
13. Herring Pond Road at the Route 3 Southbound Ramps
14. Herring Pond Road at State Road and Private Driveway
15. Clark Road at the Route 3 Northbound Ramps
16. Clark Road at the Route 3 Southbound Ramps
17. State Road at Hedges Pond Road and Old County Road
18. Plymouth Avenue and Douglas Lane at Glen Charlie Road and Barker Road (Wareham)
19. Plymouth Lane at Head of the Bay Road (Bourne)

## Ramp Junctions

20. Route 3 Southbound at the Clark Road On- and Off-Ramps
21. Route 3 Northbound at the Clark Road On- and Off-Ramps
22. Route 3 Southbound at the Herring Pond Road On- and Off-Ramps
23. Route 3 Northbound at the Herring Pond Road On- and Off-Ramps

# Existing Conditions Pedestrian and Bicycle Facilities Map



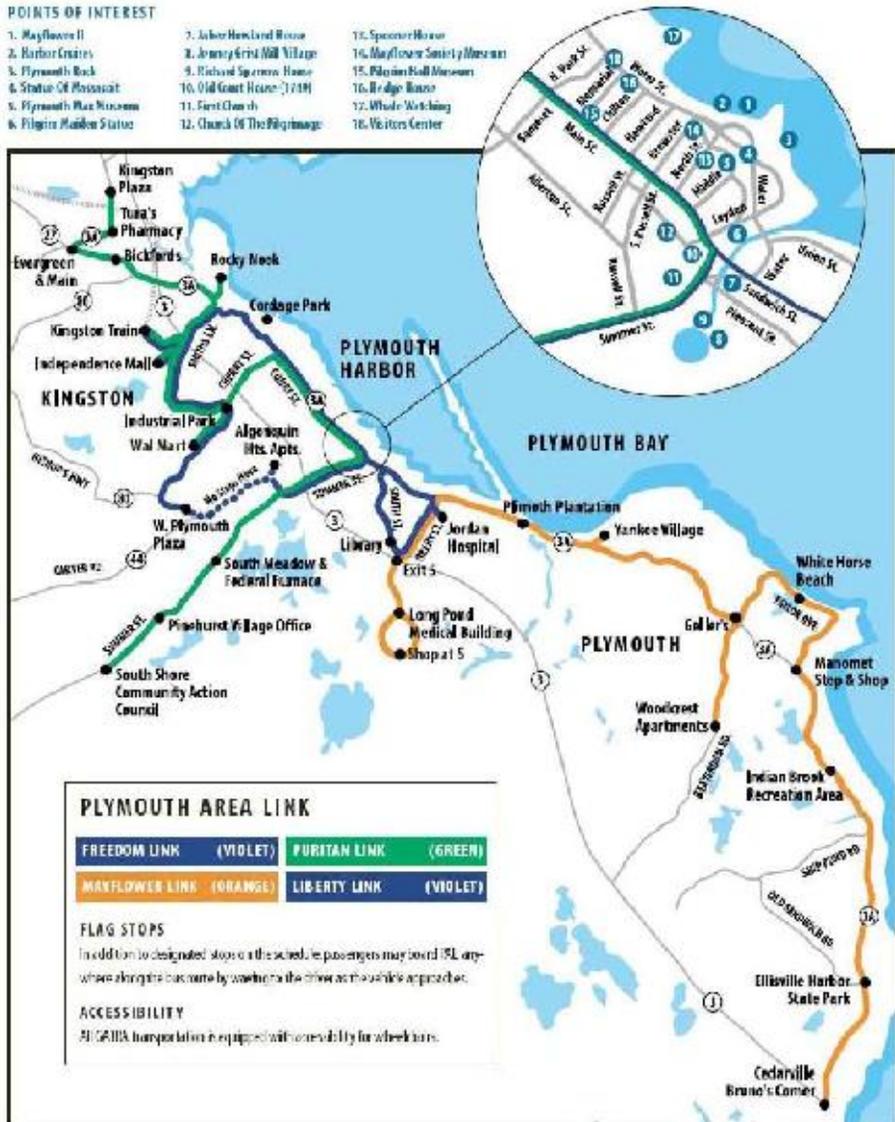
# Existing Conditions

## Public Transportation Map

### PAL Bus Routes

**POINTS OF INTEREST**

- |                            |                              |                              |
|----------------------------|------------------------------|------------------------------|
| 1. Mayflower II            | 7. Asher-Bensford House      | 13. Spencer House            |
| 2. Harbor Crests           | 8. Johnny Grist Mill Village | 14. Mayflower Society Museum |
| 3. Plymouth Rock           | 9. Richard Spence House      | 15. Pilgrim Hall Museum      |
| 4. Statue Of Massachusetts | 10. Old Grant House (1741)   | 16. Bridge House             |
| 5. Plymouth Place Museum   | 11. First Church             | 17. Whale Watching           |
| 6. Pilgrim Plaque Statue   | 12. Church Of The Pilgrimage | 18. Visitors Center          |



# Future Conditions Development

## Site Specific Developments



### Site-Specific Developments<sup>a</sup>

Project Name	Description	Status
1 Bog View Estates	16-lot subdivision	Under construction
2 Camp Child Settlement	23-lot subdivision	3 lots remaining
3 Chilton Park	45-lot subdivision/25 age-restricted townhouses	5 lots remaining/age-restricted units under construction
4 Herring Pond Preserve	7-lot subdivision	Complete (67 percent occupied)
5 Ponds at Plymouth	823-lot subdivision	Complete (6 lots unoccupied)
6 Preserve at Halfway Pond	20-lot subdivision	Complete (50 percent occupied)
7 Tara Woods	19-lot Subdivision	Under construction
8 Village Crossing	84-lot age-restricted sub division	Under construction
9 Wadsworth Estates	39-lot subdivision	Awaiting construction
10 Watercourse Place	54-lot subdivision	Under construction
11 Bartlett Pond Pasture	75-lot 40B subdivision/+ 65 age-restricted units	Awaiting construction
12 The Trails	52-lot subdivision	Under construction
13 Pickerd Cove	35-lot subdivision	Under construction
14 Stone Gale Farm	35-lot subdivision	In litigation
15 Nestle Down	15-lot subdivision	In litigation
16 Gunning Point Road	8-lot subdivision	Proposed
17 Nye Acres Condos	8 condominium units	Complete (3 units unoccupied)
18 Lighthouse Cove	125-lot age-restricted subdivision	Awaiting construction
19 Beaver Dam Ridge	19-lot subdivision	Under construction
20 Valley View Preserve	10-lot subdivision	Awaiting construction
21 Orchard Hills	16-lot subdivision	Under construction
22 Alpine Road	5-lot subdivision	Complete (0 percent occupied)
23 Black Cat Estates	4-lot subdivision	Awaiting construction
24 Cedarville Commons	170,000 sf of retail space	In litigation
25 Cedar Hill Park	61 lots (general commercial)	Under construction
26 Applewood E States	23-lot subdivision	Under construction
27 Little Hios Hills	51-lot subdivision	Under construction
28 Colony Place	835,000 sf of commercial/retail space	50 percent complete
29 The Pinhills	3,000± unit mixed-use community	1,800 residential units, 1 golf course, 400 hotel rooms, 150-room assisted living facility, and 307,000 SF of commercial space remaining
30 Sawmill Woods	240 40B Condominium units	Awaiting construction
31 Twin Pines	22-unit multi-family development	In litigation
32 Plymouth High School Master Plan	Addition/expansion and reorganization of Plymouth High Schools	In planning process

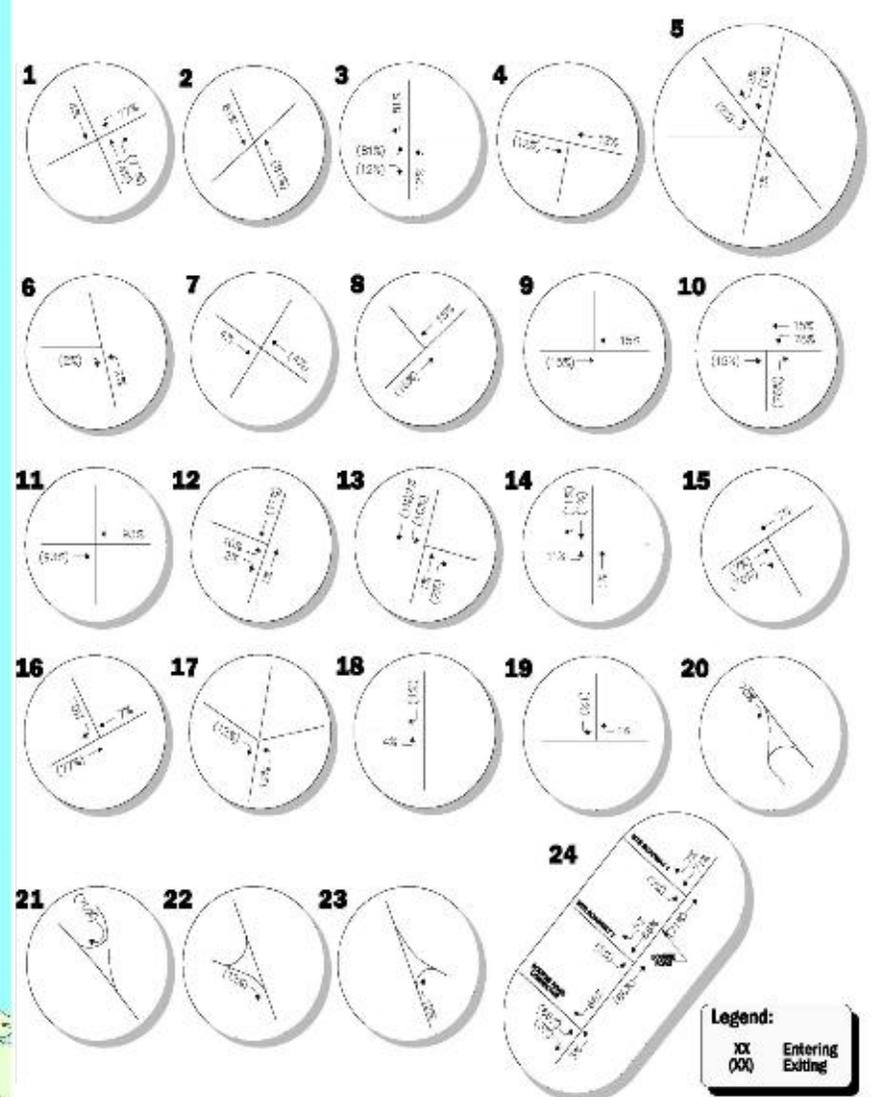
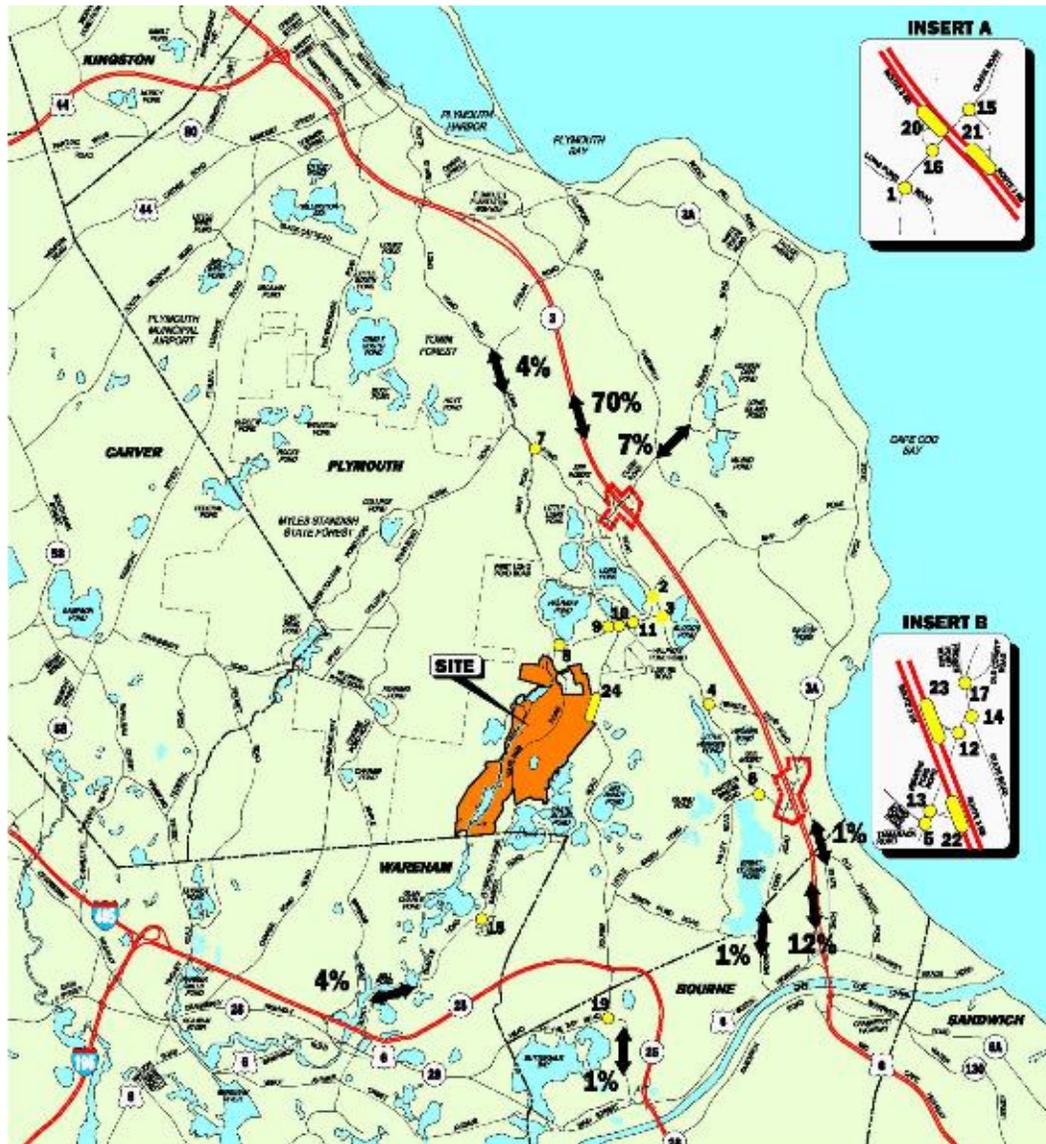
<sup>a</sup> Information regarding site-specific developments was obtained from the Town of Plymouth Planning Department.

# Project Generated Traffic Trip Generation Summary

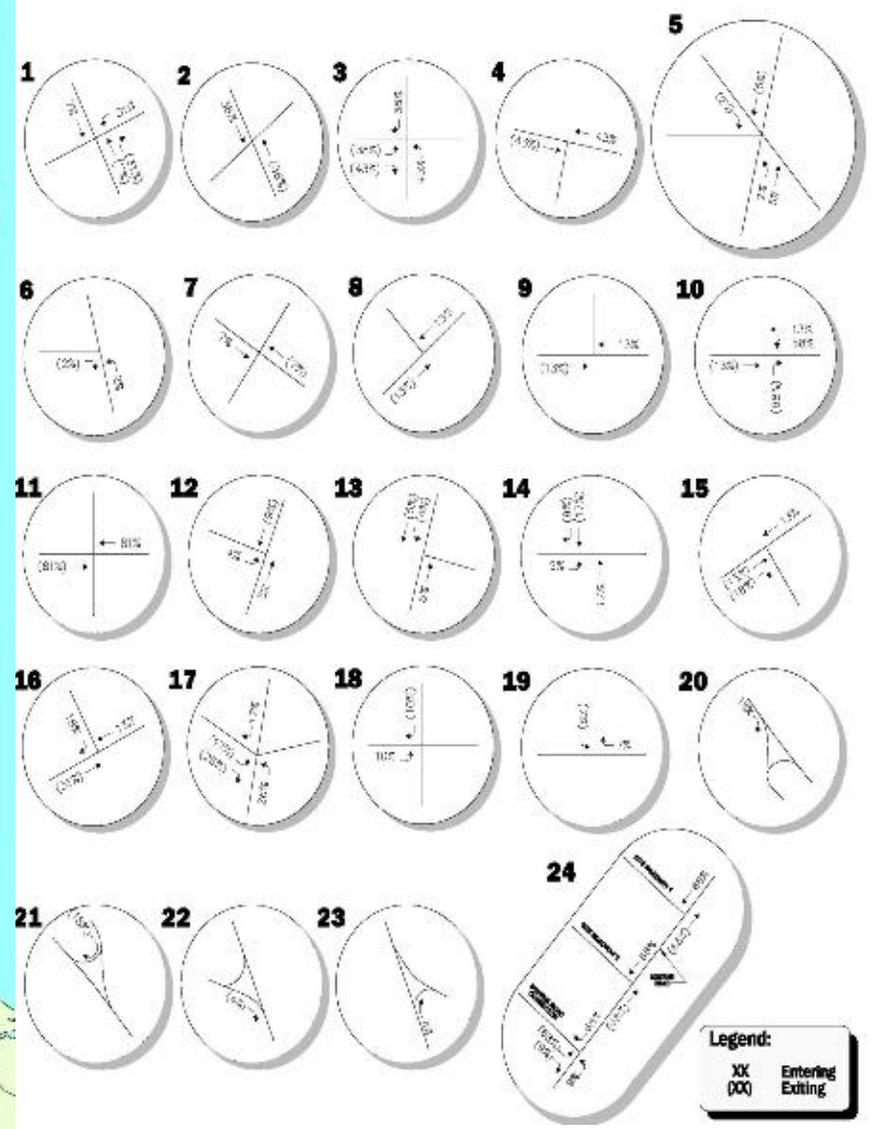
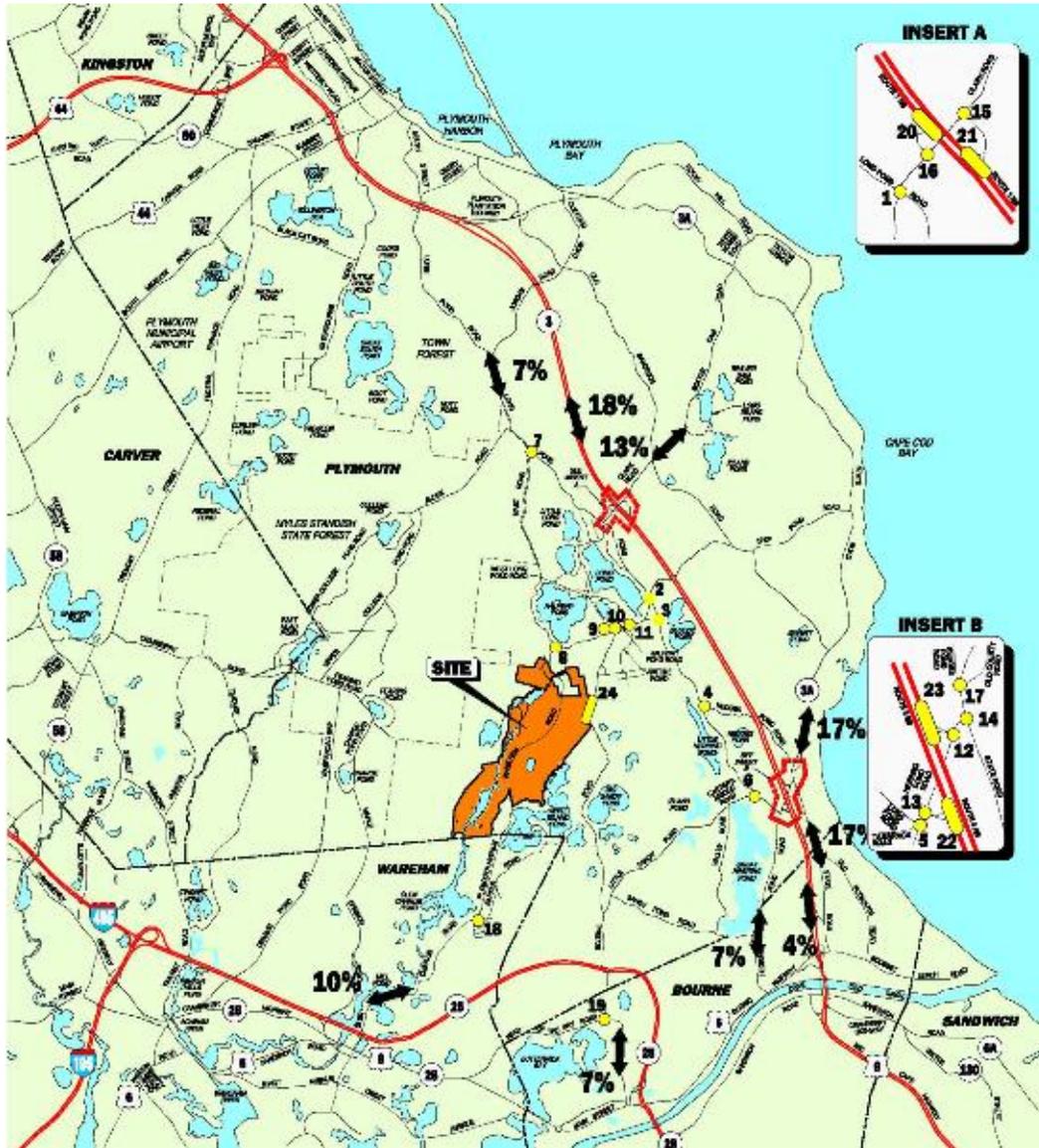
Time Period/Direction	Residential Component						Retail Component			
	(A) Single-Family Homes (395 homes) <sup>a</sup>	(B) Apartments (159 units) <sup>b</sup>	(C) Residential Condominiums/ Townhouses (521 units) <sup>c</sup>	(D = A+B+C) Total Residential Trips	(E) 15% Internal Trips	(F = D-E) Total New Residential Trips	(G) Community Retail Center (90,000 sf) <sup>d</sup>	(H) 60% Internal Trips	(I = G-H) Total New Retail Trips	(J = F+I) Total New Trips
Average Weekday Traffic	3,680	1,106	2,612	7,398	1,110	6,288	3,866	2,320	1,546	7,834
<i>Weekday Morning Peak Hour:</i>										
Entering	72	16	33	121	42	79	57	28	29	108
<u>Exiting</u>	<u>214</u>	<u>66</u>	<u>160</u>	<u>440</u>	<u>42</u>	<u>398</u>	<u>36</u>	<u>28</u>	<u>8</u>	<u>406</u>
Total	286	82	193	561	84	477	93	56	37	514
<i>Weekday Evening Peak Hour:</i>										
Entering	232	68	156	456	53	403	162	102	60	463
<u>Exiting</u>	<u>137</u>	<u>37</u>	<u>77</u>	<u>251</u>	<u>53</u>	<u>198</u>	<u>176</u>	<u>102</u>	<u>74</u>	<u>272</u>
Total	369	105	233	707	106	601	338	204	134	735

a Based on ITE LUC 210 - Single Family Detached Housing.  
 b Based on ITE LUC 220 - Apartment.  
 c Based on ITE LUC 230 - Residential Condominium/Townhouse.  
 d Based on ITE LUC 820 - Shopping Center.

# Project Generated Traffic Residential Component

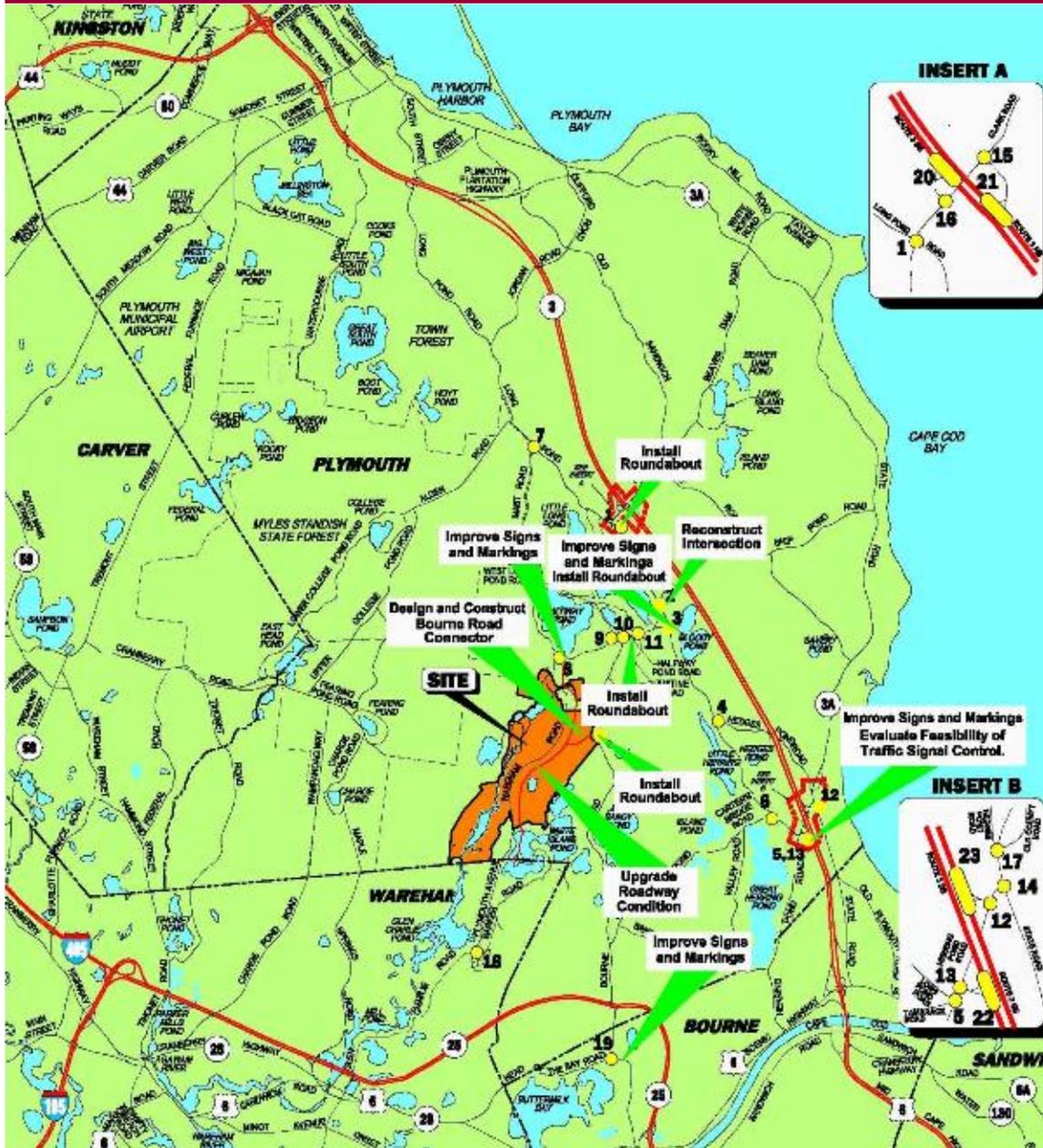


# Project Generated Traffic Commercial Component





# Future Conditions Development Transportation Improvement Summary



## Location/Improvement Measure

1. Long Pond Road/Clark Road – Install modern roundabout.
  2. Long Pond Road/Ship Pond Road/Herring Way – Reconstruct intersection to improve alignment.
  3. Long Pond Road/Halfway Pond Road/Bloody Pond Road – Improve signs and pavement markings and install modern roundabout.
  5. Long Pond Road/Herring Pond Road/Tamarack Road – Improve signs and pavement markings and evaluate feasibility of traffic signal control.
  8. Halfway Pond Road/Wareham Road/Mast Road – Improve signs and pavement markings.
  10. Halfway Pond Road/Bourne Road – Install modern roundabout.
  13. Herring Pond Road/Route 3 Southbound Ramps - Improve signs and pavement markings and evaluate feasibility of traffic signal control.
  19. Plymouth Lane/Head of the Bay Road (Bourne) – Improve signs and pavement markings.
- Wareham Road – Improve and upgrade roadway cross-section and structural condition.
- Bourne Road Connector – Design and construct the Wareham Road-Bourne Road connector.