



# ***Bow-Concord Interstate 93 Transportation Planning Study***

Presentation to:  
Greater Concord Chamber of  
Commerce and Concord 2020

June 21, 2006



# ***Transportation in New Hampshire***

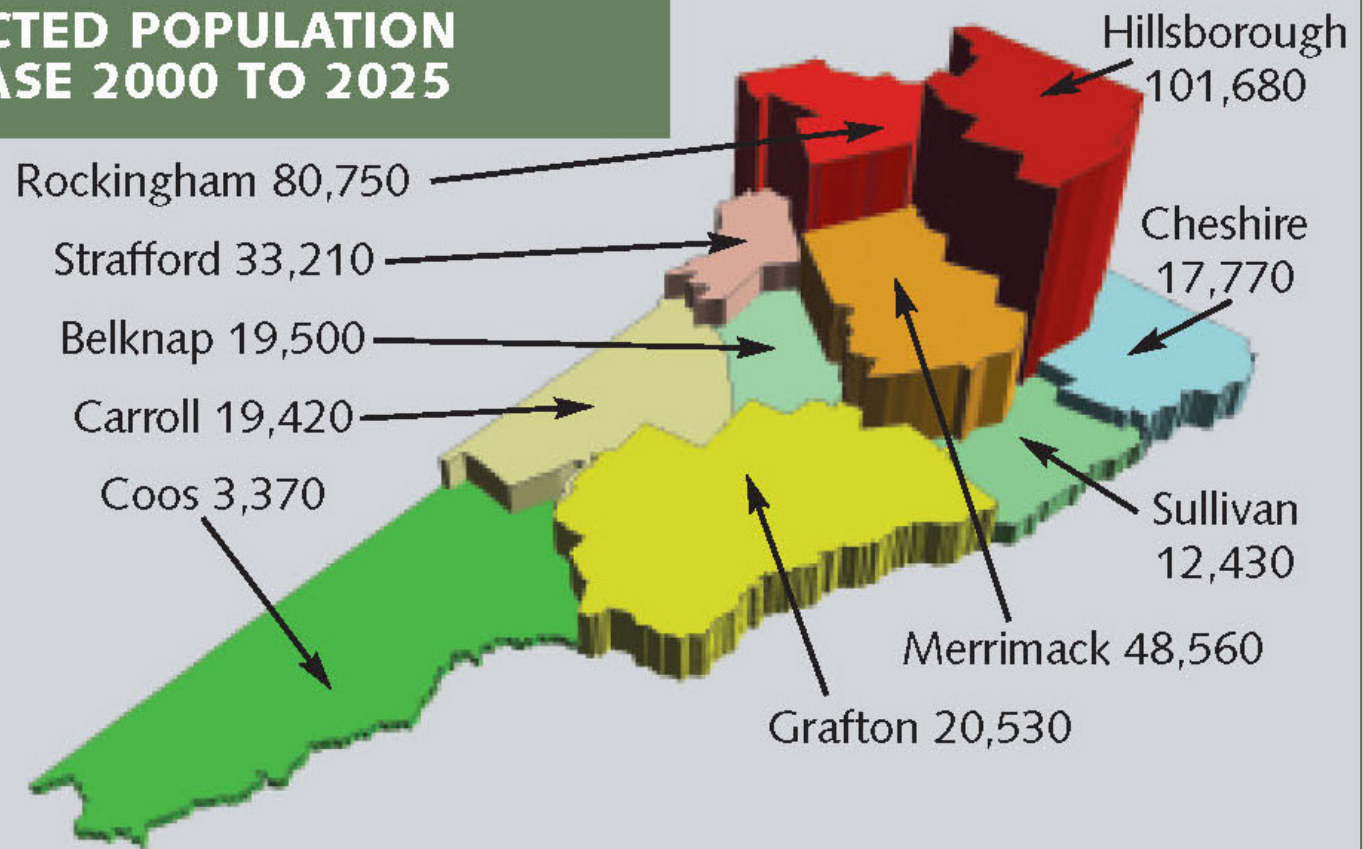
- NH Transportation Business Plan
- NHDOT Long Range Plan
- Community Technical Assistance Program (CTAP)
- Context Sensitive Solutions (CSS)



# ***A Changing New Hampshire***

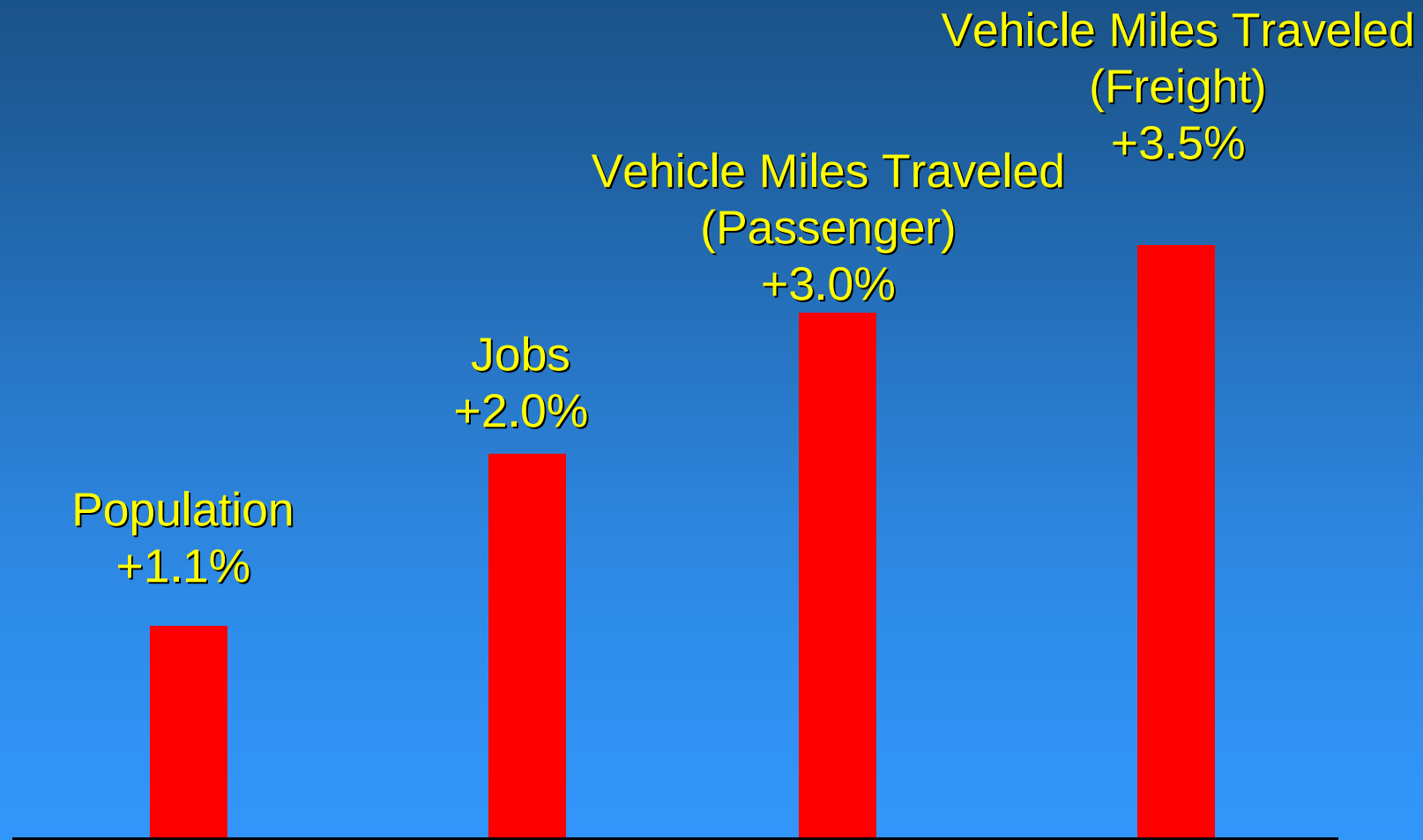
## **WHERE IS NH GROWING?**

### **PROJECTED POPULATION INCREASE 2000 TO 2025**



Source: Society for the Protection of NH Forests, 2005.

# ***Demographic and Travel Trends***



## ***Central NH Population***

|            | <u>2000</u>   | <u>2030 Forecast</u> |                  |
|------------|---------------|----------------------|------------------|
| Allenstown | 4,854         | 6,100                |                  |
| Boscawen   | 3,684         | 5,100                |                  |
| Bow        | 7,168         | 11,300               |                  |
| Canterbury | 1,991         | 3,400                |                  |
| Chichester | 2,259         | 3,600                |                  |
| Concord    | 40,785        | 53,500               |                  |
| Dunbarton  | 2,252         | 3,700                | <u>2030</u>      |
| Epsom      | 4,051         | 6,700                | Concord – 45%    |
| Hopkinton  | 5,412         | 7,000                | All Others – 55% |
| Loudon     | 4,510         | 7,400                |                  |
| Pembroke   | 6,917         | 9,000                |                  |
| Webster    | 1,591         | 3,100                |                  |
| Total      | <u>85,474</u> | <u>120,000</u>       | (40% Increase)   |

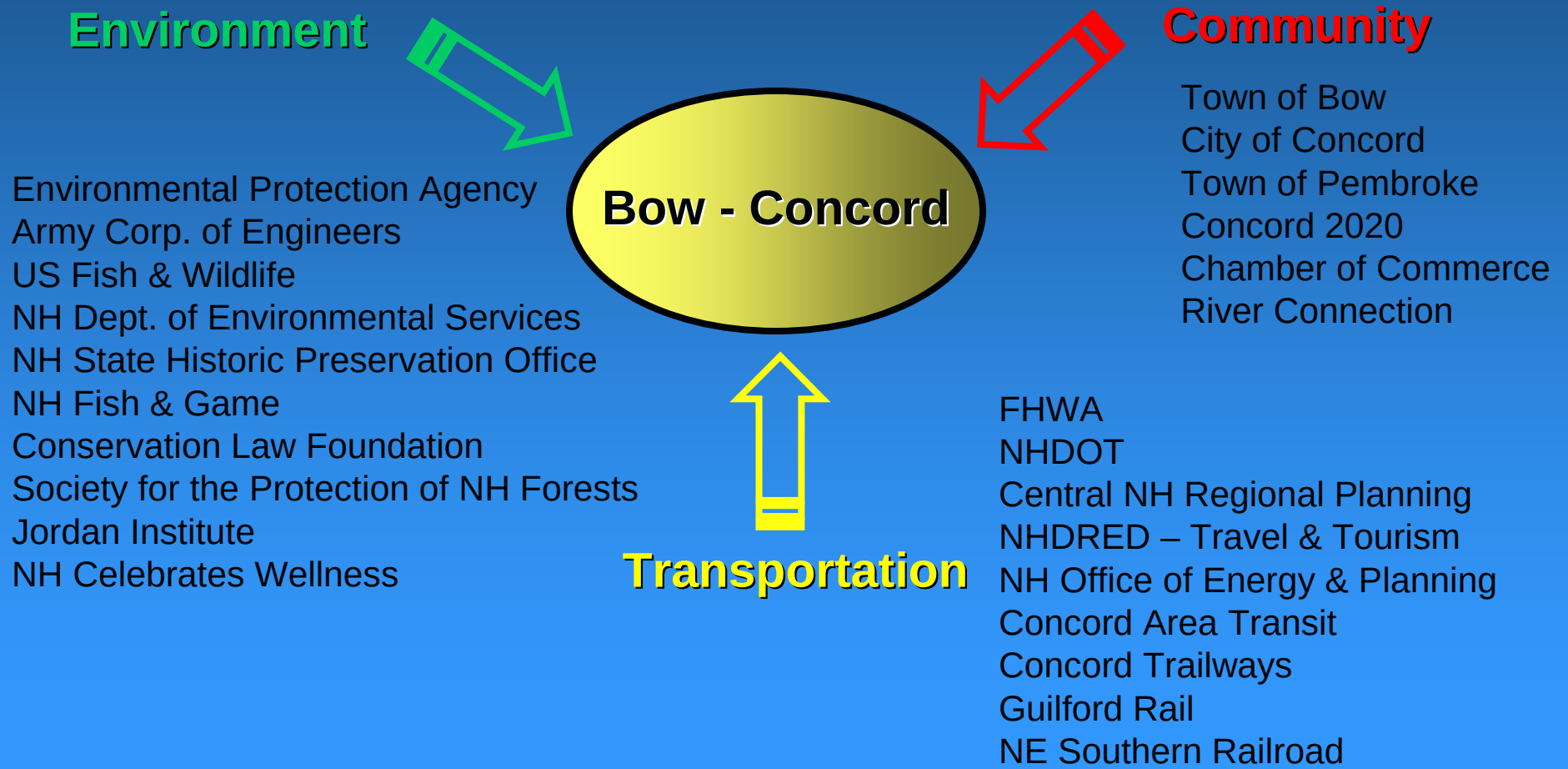
|            | <u>2000</u> | <u>2030 Forecast</u> |
|------------|-------------|----------------------|
| Allenstown | 1,040       | 1,872                |
| Boscawen   | 1,760       | 3,092                |
| Bow        | 4,741       | 10,072               |
| Canterbury | 336         | 606                  |
| Chichester | 729         | 1,172                |
| Concord    | 46,423      | 87,518               |
| Dunbarton  | 244         | 688                  |
| Epsom      | 1,387       | 2,273                |
| Hopkinton  | 2,206       | 3,528                |
| Loudon     | 1,826       | 2,716                |
| Pembroke   | 2,600       | 3,932                |
| Webster    | 134         | 138                  |
| Total      | 63,426      | 117,616              |

## ***Central NH Employment***

**2030**  
**Concord – 74%**  
**All Others – 26%**

(85% Increase)

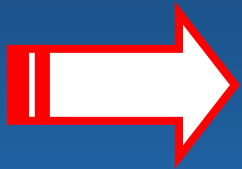
# ***Bow-Concord Planning Group***



# ***Context Sensitive Solutions Planning Steps***



# ***NHDOT Project Development Process for Bow-Concord***



## **Part A – Planning (2003 - 2006)**

- Purpose and Need for Project
- Range of Reasonable Alternatives
- Public Involvement

## **Part B – Scoping (2007-2008)**

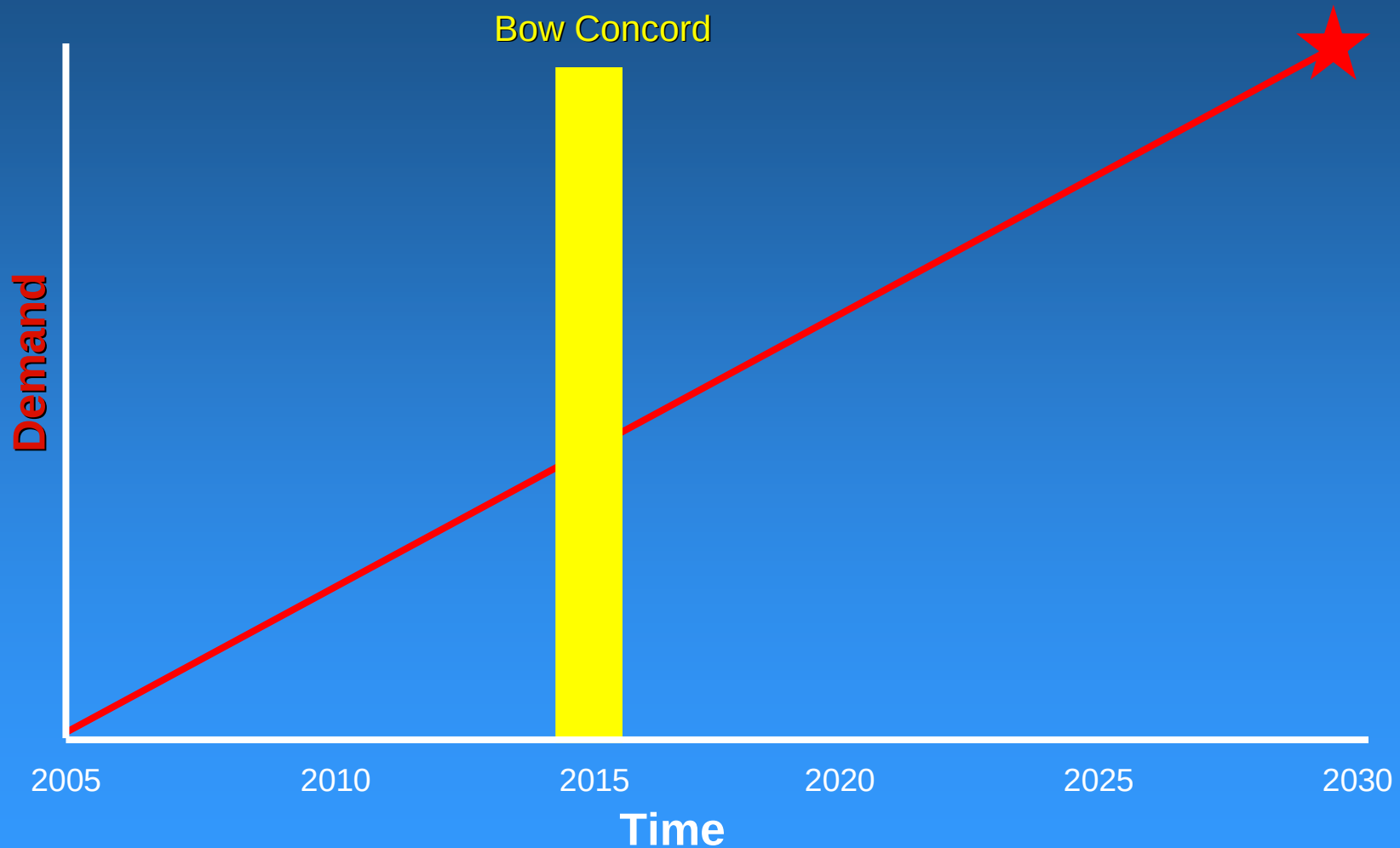
- Select Preferred Alternative
- Environmental Documentation
- Public Hearing

## **Part C – Design (2009-2012)**

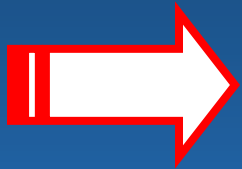
- Detailed Design
- Purchase Right of Way
- Secure Permits

## **Begin Construction (2013)**

# ***Traditional Approach***



# ***NHDOT Project Development Process for Bow-Concord***



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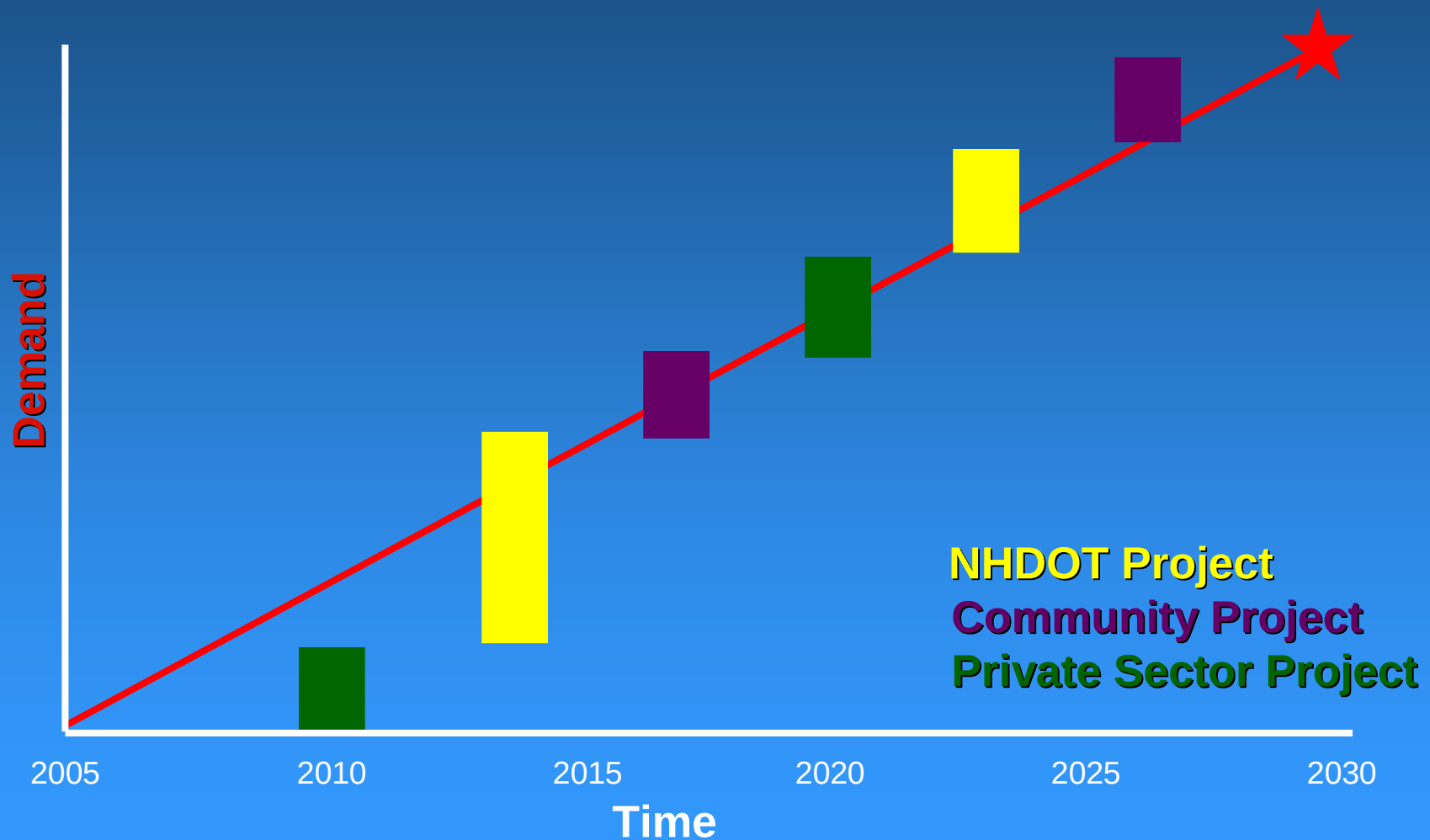
## **Begin Construction (2013)**

**Problem  
Solution**

**Solution  
Implementation**



# ***New Approach***



# ***Known Alternatives***

## **Alternatives**

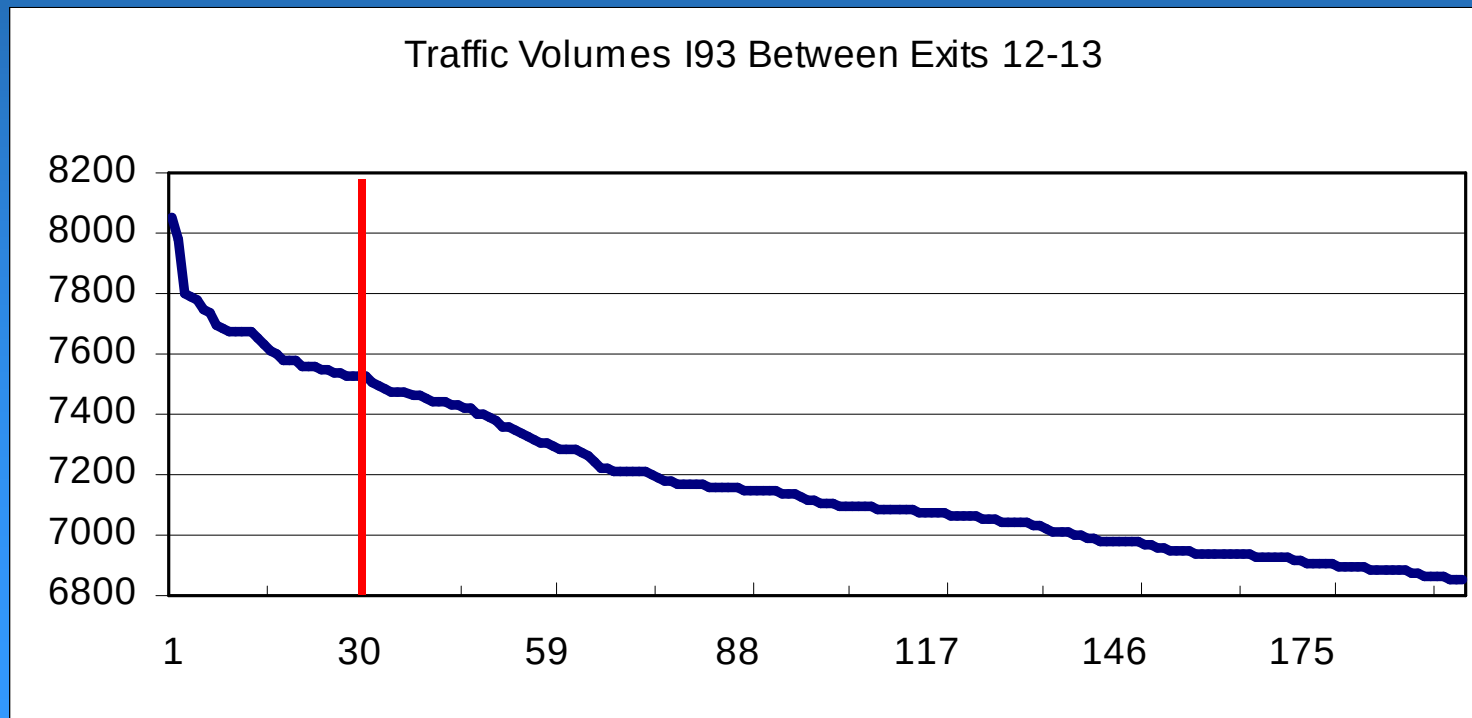
- No Build
- Transportation Demand Management
- Interstate 93
  - Four Lanes
  - Six Lanes
  - Eight Lanes
  - Shift to East Side of River
  - Shift West
  - Reversible Lanes
- Opportunity Corridor Concept
- Route 106 Connectors
- Passenger Rail Service
- 1992 Feasibility Study
- Separate Local/Thru Traffic
- Western Beltway

## **Components**

- I-93
- New Exit 16-1/2 on I-93  
(at Sewalls Falls Rd)
- New Exit 11-1/2 on I-93
- New Exit 2-1/2 on I-393  
(at Portsmouth St)
- Exit 14 Grade Reversal
- Langley Parkway (NW Bypass)
- Storrs & Commercial Streets Expansion
- Expanded Bus Service
- Access to Merrimack River
- Bicycle and Pedestrian Access
- Exit 16 to Route 3 Connector
- Reduce Exits
- More Rail Freight

# ***Forecast Considerations***

- Scenarios only corridor-level
- 2030 Land Use same for all scenarios
- Forecasting of the 30<sup>th</sup> highest hour



# Changes between 2000 to 2030 No Build

## Travel Time Change

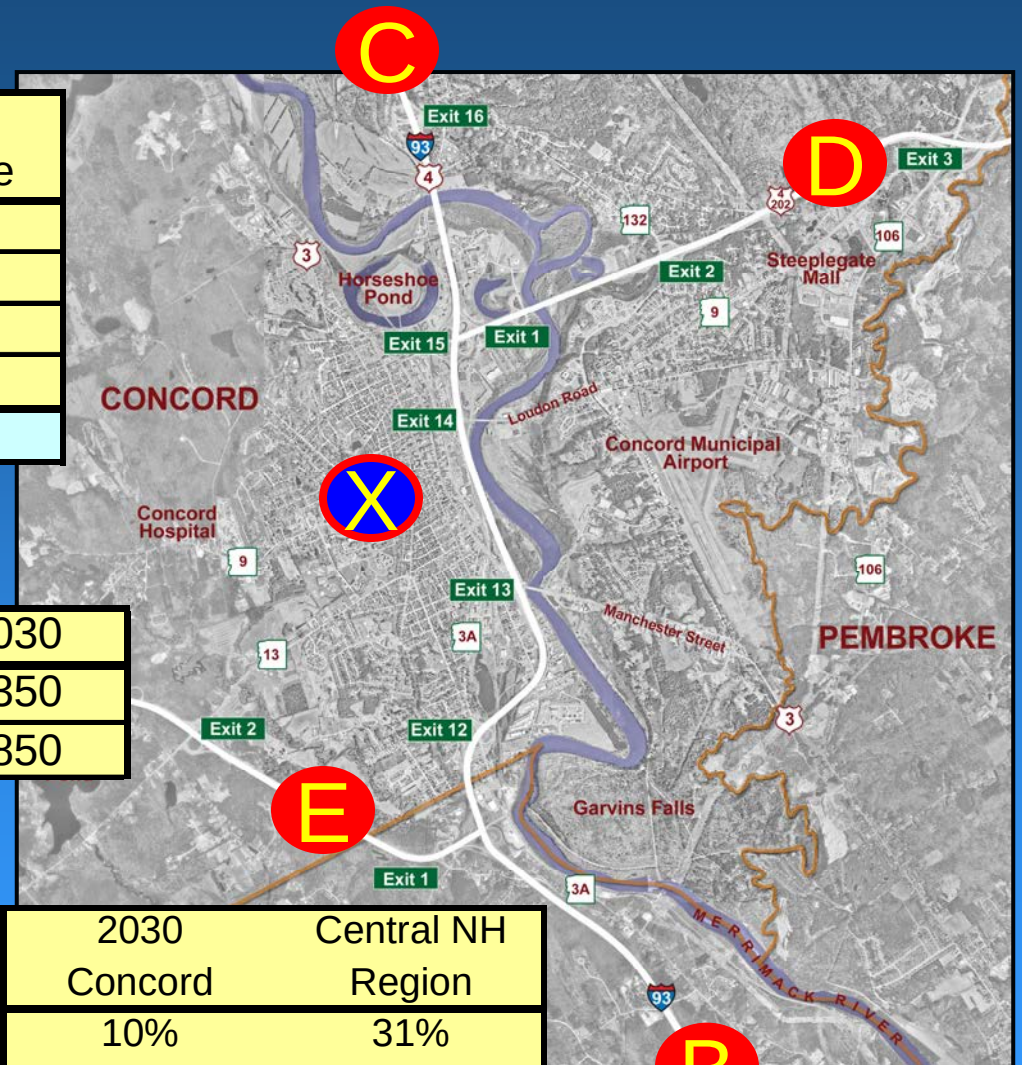
| From Statehouse | 2000 | 2030 | Increase |
|-----------------|------|------|----------|
| to B            | 15   | 25   | 67%      |
| to C            | 10   | 16   | 64%      |
| to D            | 20   | 28   | 41%      |
| to E            | 20   | 33   | 65%      |
| I-93 (B-C)      | 15   | 23   | 53%      |

## Route Choice Changes

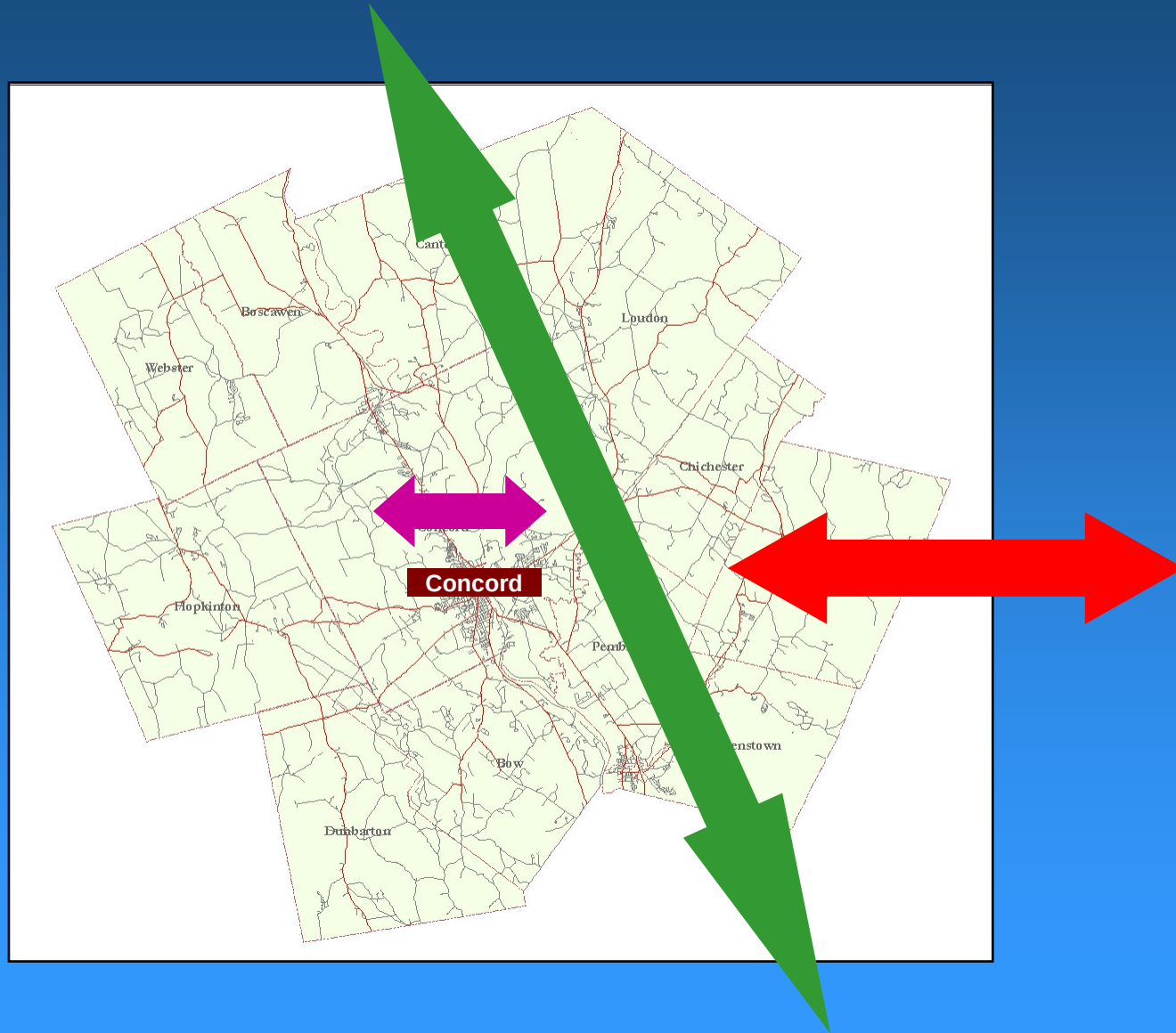
| Roads | Increase | 2000 | 2030 |
|-------|----------|------|------|
| I-93  | 28%      | 7300 | 9350 |
| Local | 40%      | 2750 | 3850 |

## I-93 Trip Composition

| Type      | 2000 Concord | 2000 Central NH Region | 2030 Concord | 2030 Central NH Region |
|-----------|--------------|------------------------|--------------|------------------------|
| Internal  | 13%          | 34%                    | 10%          | 31%                    |
| I-E / E-I | 39%          | 32%                    | 44%          | 31%                    |
| External  | 48%          | 34%                    | 46%          | 37%                    |



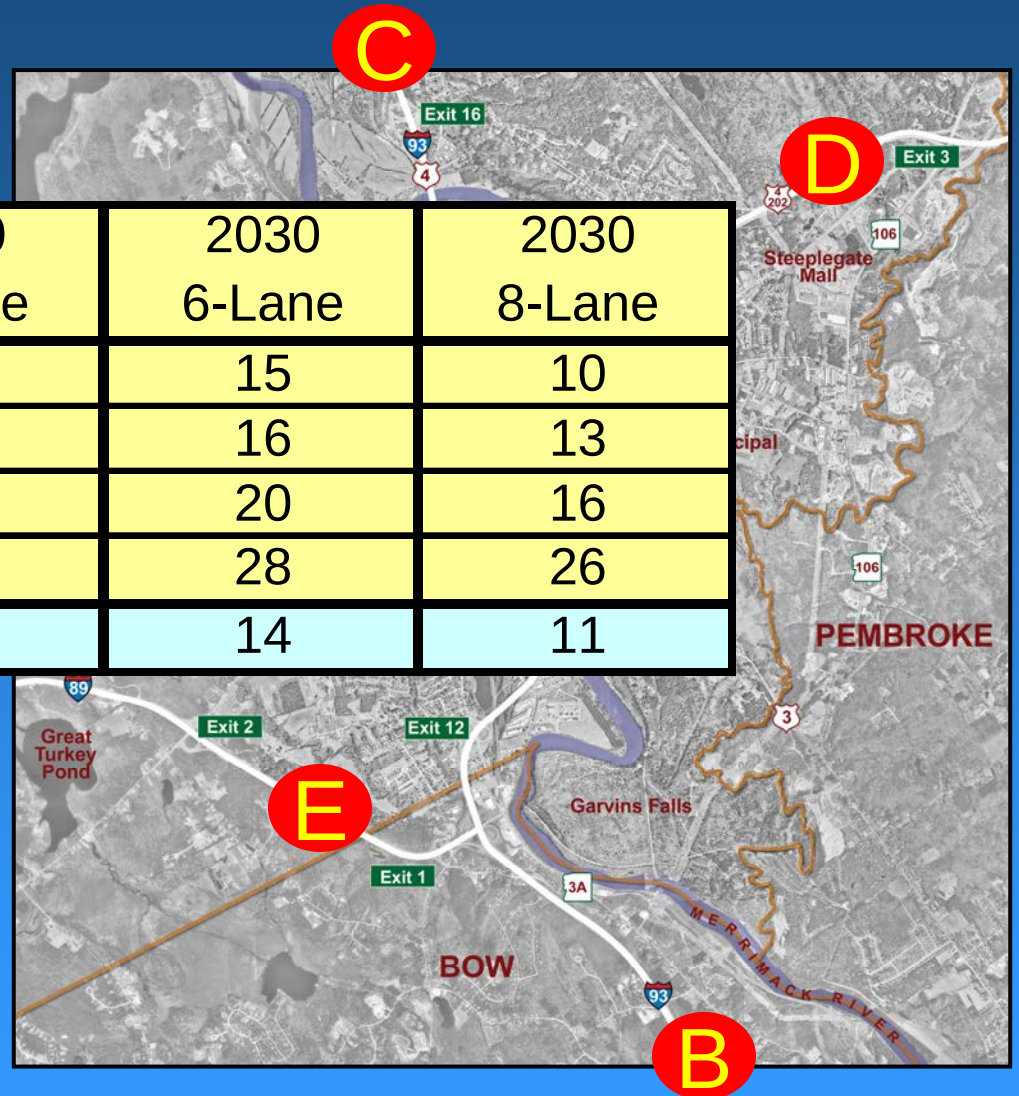
# ***Trip Composition***



# 2030 I-93 Investment Forecast

## I-93 Travel Time Change

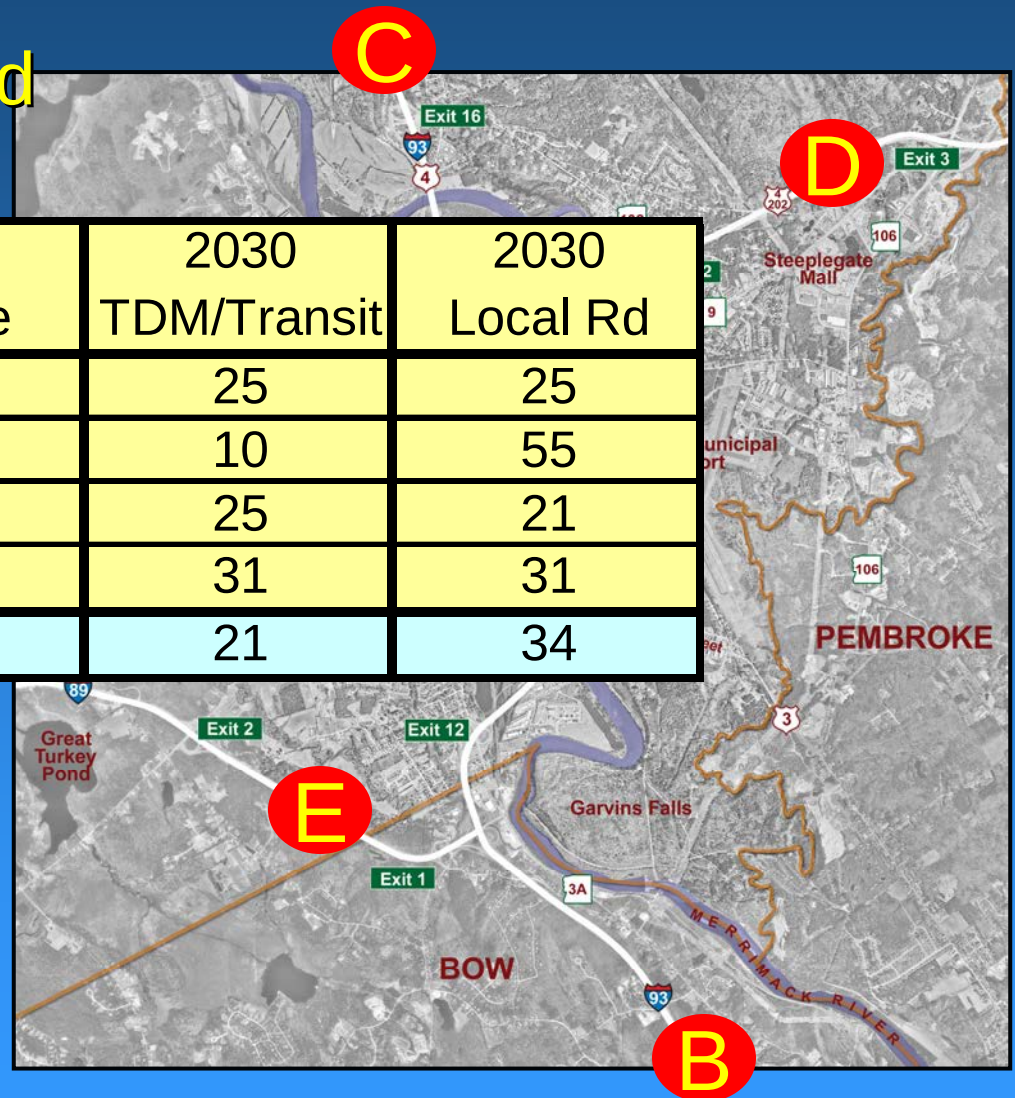
| From Statehouse | 2000 4-Lane | 2030 4-Lane | 2030 6-Lane | 2030 8-Lane |
|-----------------|-------------|-------------|-------------|-------------|
| to B            | 15          | 25          | 15          | 10          |
| to C            | 10          | 16          | 16          | 13          |
| to D            | 20          | 28          | 20          | 16          |
| to E            | 20          | 33          | 28          | 26          |
| I-93 (B-C)      | 15          | 23          | 14          | 11          |



# 2030 TDM/Transit & Local Road Forecast

## TDM/Transit & Local Road Travel Time Change

| From Statehouse | 2000 4-Lane | 2030 4-Lane | 2030 TDM/Transit | 2030 Local Rd |
|-----------------|-------------|-------------|------------------|---------------|
| to B            | 15          | 25          | 25               | 25            |
| to C            | 10          | 16          | 10               | 55            |
| to D            | 20          | 28          | 25               | 21            |
| to E            | 20          | 33          | 31               | 31            |
| I-93 (B-C)      | 15          | 23          | 21               | 34            |



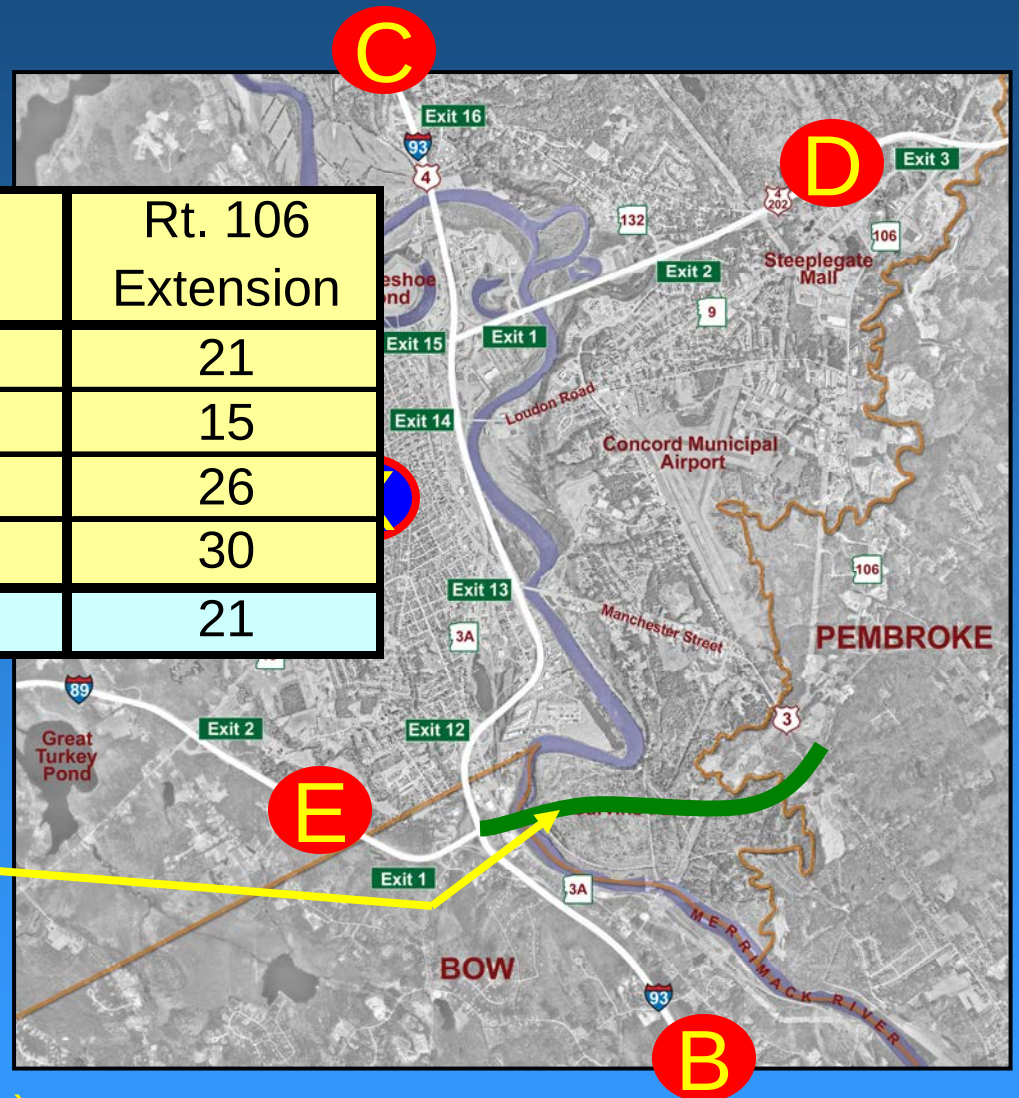
# 2030 Route 106 Connector Forecast

## Travel Time Changes

| From Statehouse | 2000 4-Lane | 2030 4-Lane | Rt. 106 Extension |
|-----------------|-------------|-------------|-------------------|
| to B            | 15          | 25          | 21                |
| to C            | 10          | 16          | 15                |
| to D            | 20          | 28          | 26                |
| to E            | 20          | 33          | 30                |
| I-93 (B-C)      | 15          | 23          | 21                |

Route 106 Connector carries 2050 vehicle trips

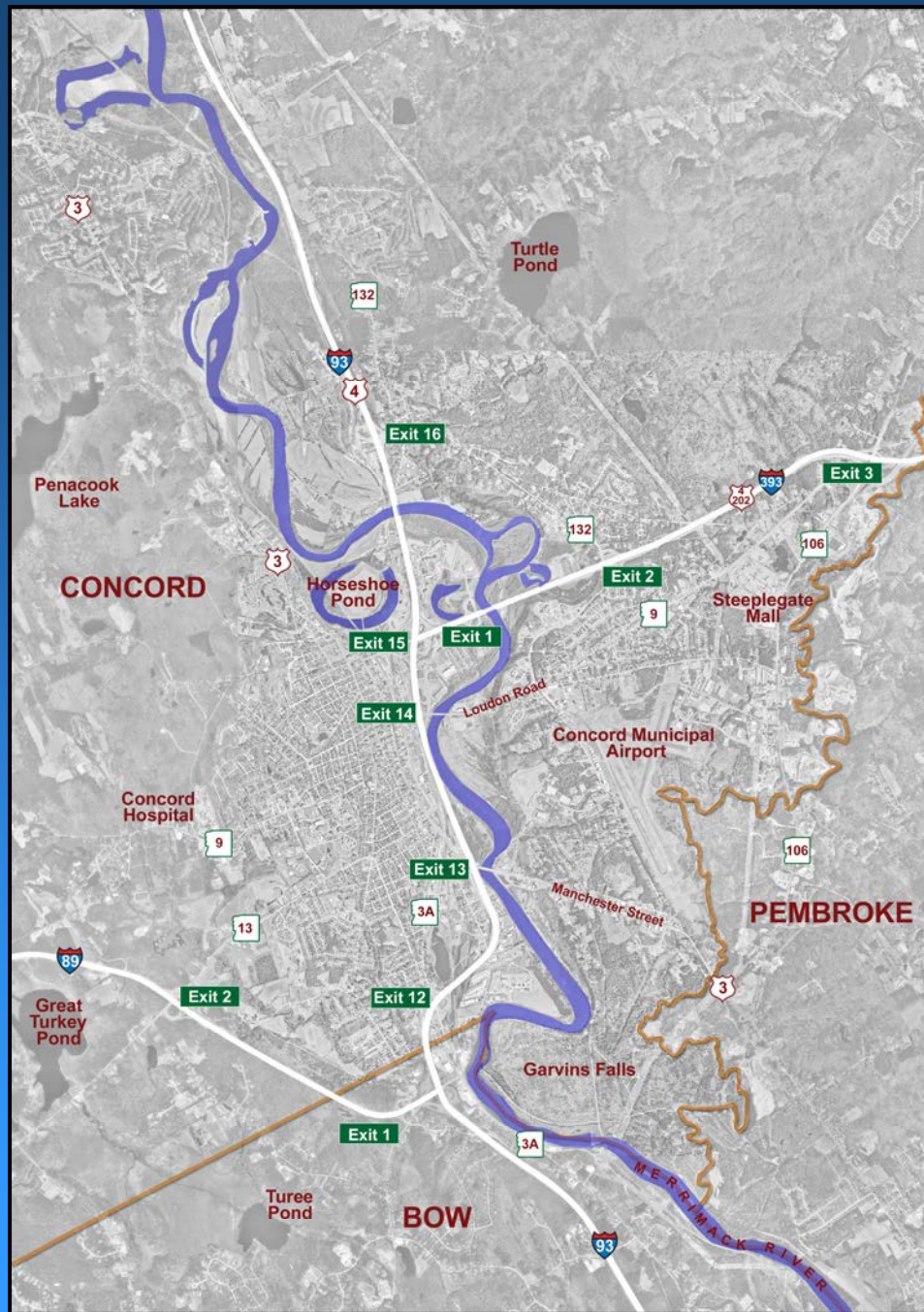
- -30% on Manchester Street
- -7.5% on I-93 North (-650 Vehicles)
- No change on I-93 South
- +30% on NH 106 North (+650 Vehicles)





## Opportunity Corridor Concept

- Six Lanes on I-93
- Westerly Shift of I-93
- Lower I-93 b/w Exits 13 & 15
- Reconfigure Exits 14 & 15
- Maintain Rail Corridor
- Extend Storrs Street
- Local connection over I-93
- Multi-modal center
- Enhanced pedestrian & bicycle connections
- Enhance river access



***Questions?***  
***Comments?***  
***Other Ideas?***

***WWW.***  
***i93bowconcord.com***