

Bow-Concord I-93

Transportation Planning Study



Citizen's Advisory
Task Force
Meeting No. 1
September 17, 2003

Agenda

1. Introductions/Committee Overview
2. Selection of Chairperson
3. Project Overview & History
4. Project Development Process
5. Study Methodology
6. Public Participation Process Overview
7. Proposed Project Schedule
8. Discussion
9. Public Comments
10. Next Meeting

Project Overview/History

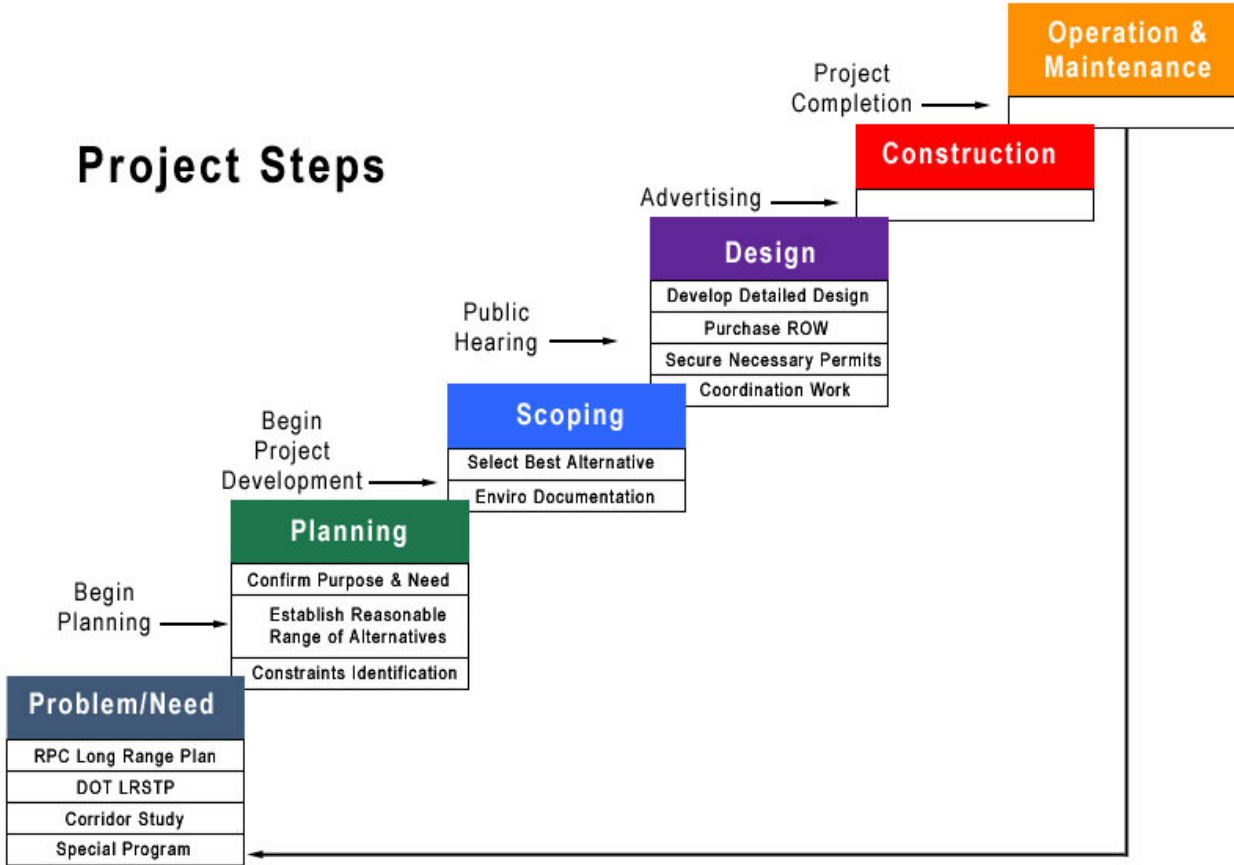
1992 I-93 Feasibility Study

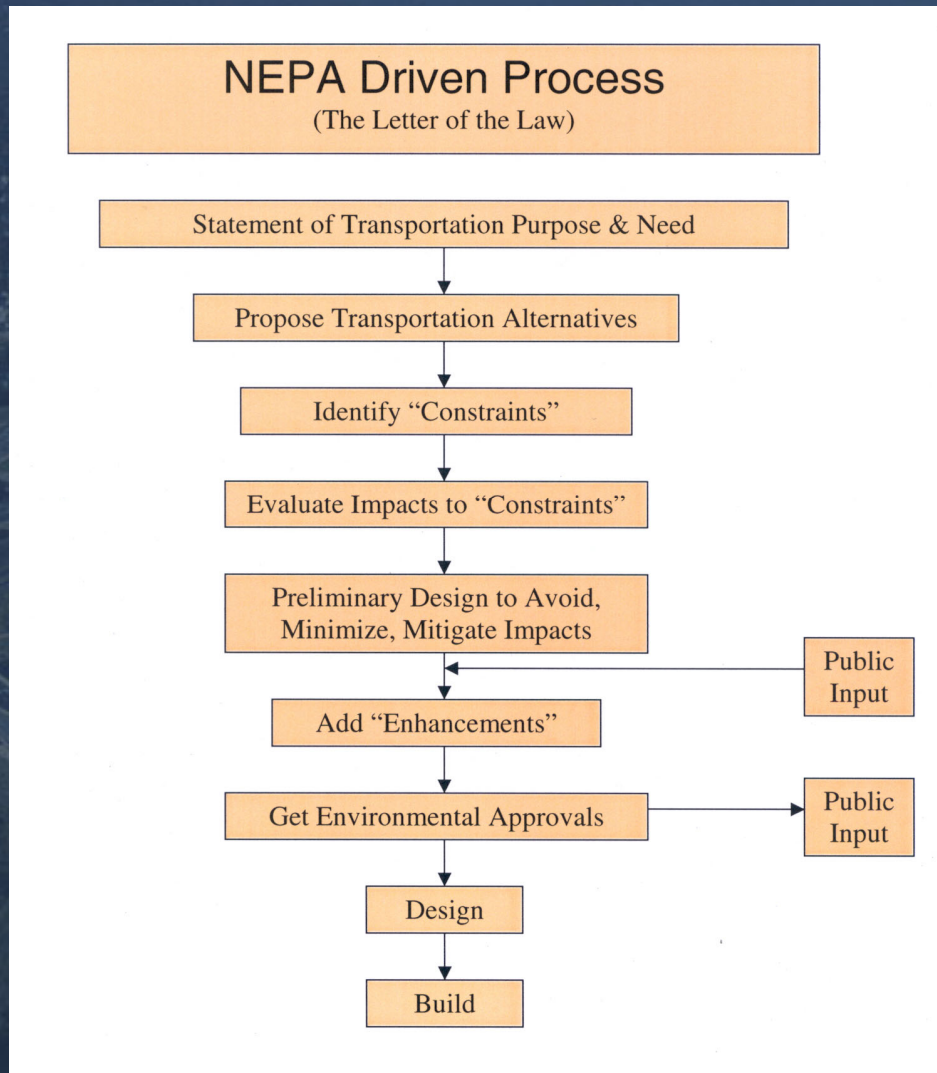
Exit 13 Improvements

2020 Vision for Concord

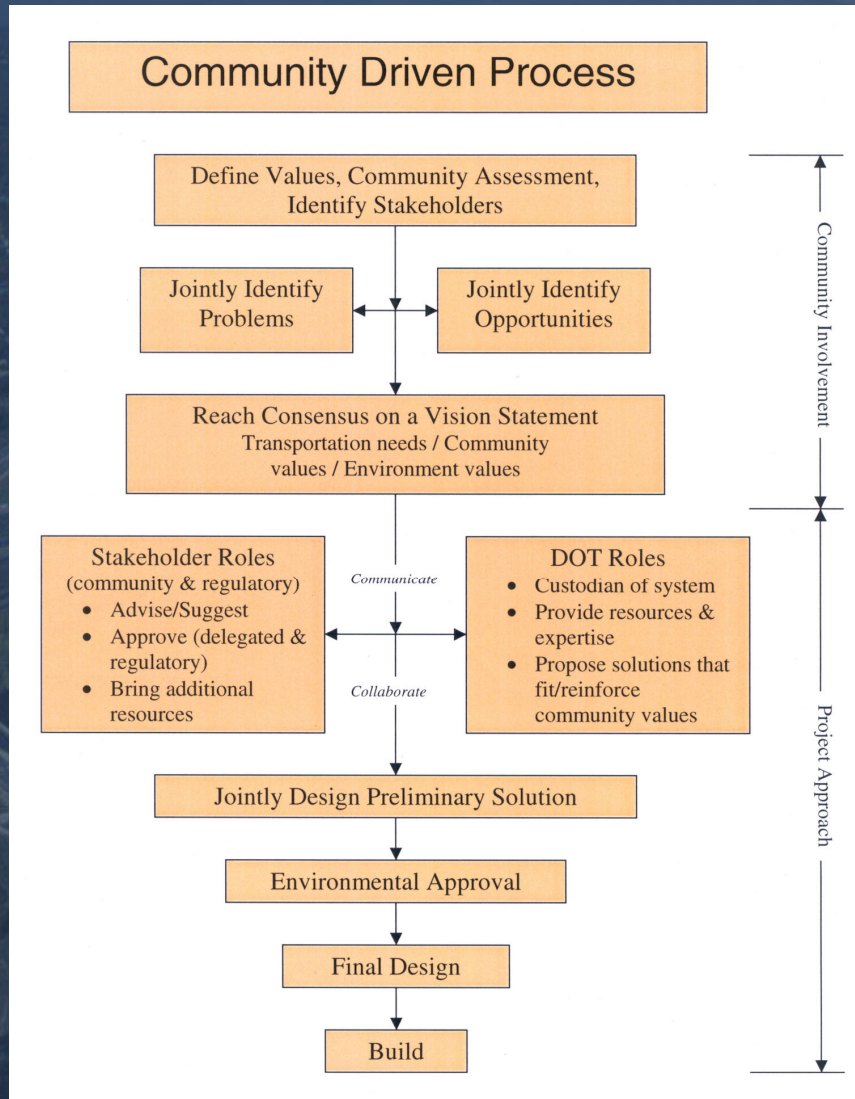
Project Development Process

Project Steps

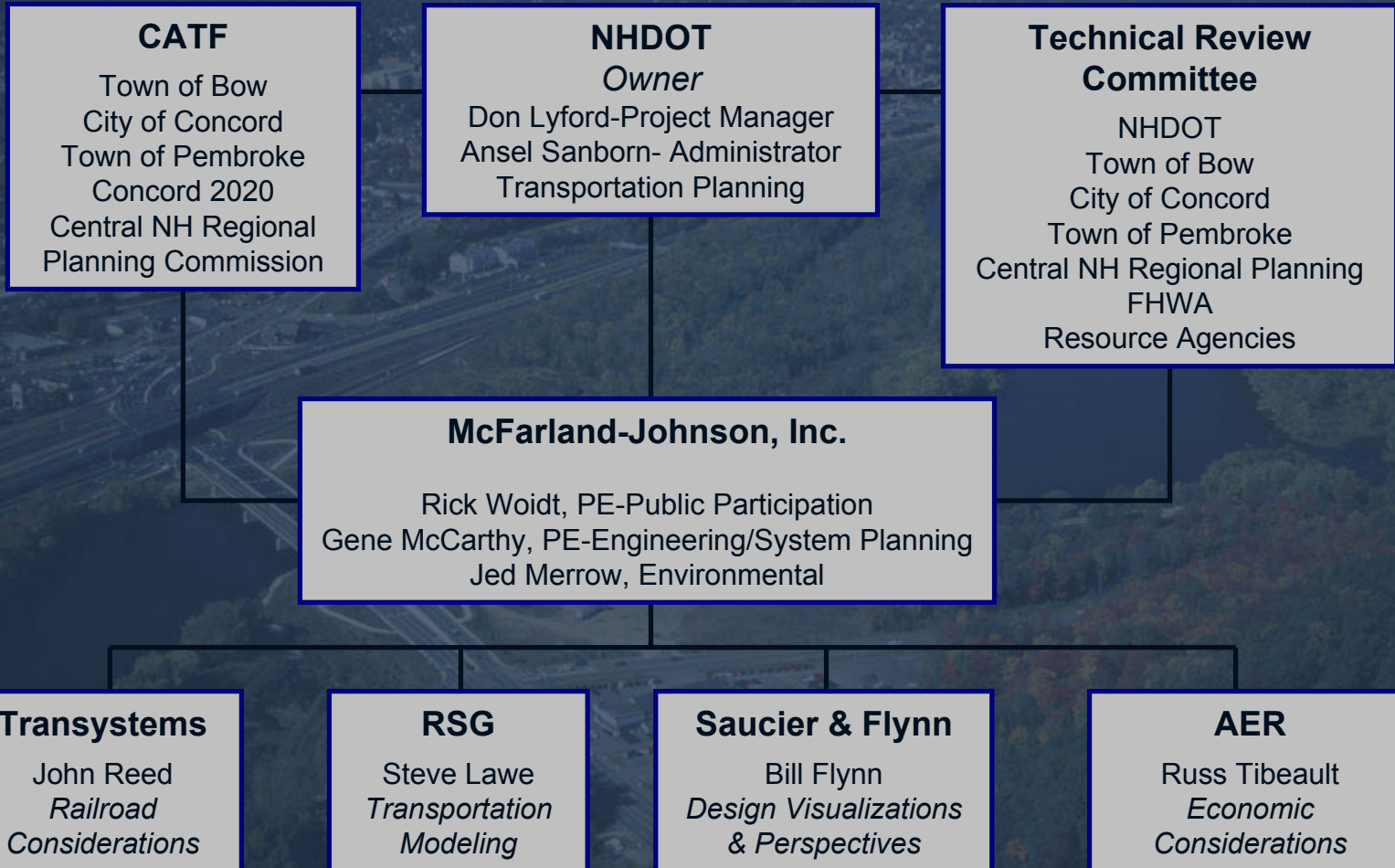




Bow-Concord I-93 Transportation Planning Study



Project Team



Transportation Considerations

- I-93 Widen to Six Lanes
- I-93 Westward Alignment Shift
- Grade Reversal of Exit 14
- Reconfiguration of Exits 14 & 15
- Possible Connection from I-89 to 106
- Exit 2 1/2 on I-393
- Exit 16 1/2 on I-93
- Exit South of I-89
- Commuter Rail Preservation
- Pedestrian & Bicycle Access
- Merrimack River Access
- Visual Aesthetics

Study Methodology

Engineering/System Planning

Data Collection/Base Plans

Transportation Modeling

Traffic Analysis

Alternatives Development

Transportation Modeling

Updated CNHRPC Transportation Model

- Expand the model geographic boundaries

 - 12 Towns

 - 240 TAZ's (214 internal & 26 external)

- Add year 2000 data

 - Housing data from 2000 census

 - Employment data from State of NH

 - Updated roadway network from CNHRPC

 - Vehicle count data for year 2000 calibration

- Converted from vehicle to person based

 - Estimate person trips rather than vehicle trips

 - Use a mode split module to estimate transit & vehicles

Transportation Modeling

Model Process

Estimate trip characteristics using:

- Census journey to work data

- Available trip diary survey data

- NH statewide stated preference & household survey

Calibrate model and calculate accuracy

- Compare vehicle results to count data

- FHWA standards (0.88 correlation coefficient)

Transportation Modeling

Model Overview:

Base model is 3rd Friday in July, 2000
AM, PM, Off-Peak hours of analysis
Auto, Shared Ride, Bus, Rail, Walk/Bike

Model Definition: 4-step approach

Step 1: Person Trip Generation
Step 2: Person Distribution
Step 3: Mode Choice
Step 4: Vehicle Assignment

Transportation Modeling

Model Operation – What To Expect

Example: auto volumes on a road increased due to a major roadway investment. WHY?

Did land use change? (land use)

Was there induced demand – released suppressed demand (trip generation)

Did people change their trip ends – go somewhere different (trip distribution)

Did they use more automobiles (mode choice)

Did people change their routing changes (assignment)

Transportation Modeling

Model Operation – What To Expect

Primary, secondary, tertiary impacts

Increased congestion may cause route changes

Decreased congestion may increase trip lengths

Importance of policy decision making

What is our goal?

How should we use these interesting dynamics to meet our goal?

Transportation Modeling

Using the Model for the Bow-to-Concord Study

Establish a baseline condition (year 2000)

Define purpose and need

Develop a set of scenarios. For each scenario:

- What land use impacts will result

- Code and run the transportation scenario

- Extract the roadway and intersection results

- Account for model error (base model vs count)

Perform LOS and other analyses

Transportation Modeling

Using the Model for the Bow-to-Concord Study

The transportation model is a tool

- Test scenarios

- Spend time to ensure that results are understood

- Retain a high level of thought-to-run ratio

- Make sure the assumptions are clearly stated

Inform “mental model”

- We have a notion of how travel patterns work

- Inform and alter your mental model

Gain a group understanding of system

- Learning from the model and others participating

Study Methodology

Traffic Analysis

I-93

Ramps

Weaving Sections

Traffic Needs Study

Study Methodology

Environmental

Data Collection

Resource Identification

Agency Coordination

Potential Resource Impacts

Screening of Alternatives

Study Methodology

Phase A Completion & Documentation

Purpose and Need Statement

Range of Reasonable Alternatives

Summary/Classification Report

Public Participation Process

Citizen's Advisory Task Force (6)

Technical Review Committee

Community Meetings/Forums

Project Newsletter

Project Website

Project Design Center

Public Participation Process

Collaborative Public Participation

City of Concord Master Plan

Town of Bow Master Plan

Town of Pembroke Master Plan

City of Concord Opportunity Corridor

Master Plan Process Goals

Ensure community buy-in on Master Plan through meaningful public participation in the planning process

Provide opportunities for participation in which the public can easily see how input will be incorporated into the Master Plan

Integrate Master Plan process with other current planning efforts (e.g., I-93)

- City of Concord Master Plan

- Town of Bow Master Plan

- Town of Pembroke Master Plan

- City of Concord Opportunity Corridor

Project Approach & Design

Standing and Special Committees

5 existing committees + 2 special committees

Asked to complete specific tasks with modest deliverables

Master Plan Coordinating Committee

All members of Standing and Special Committees

“Backbone” of the planning process

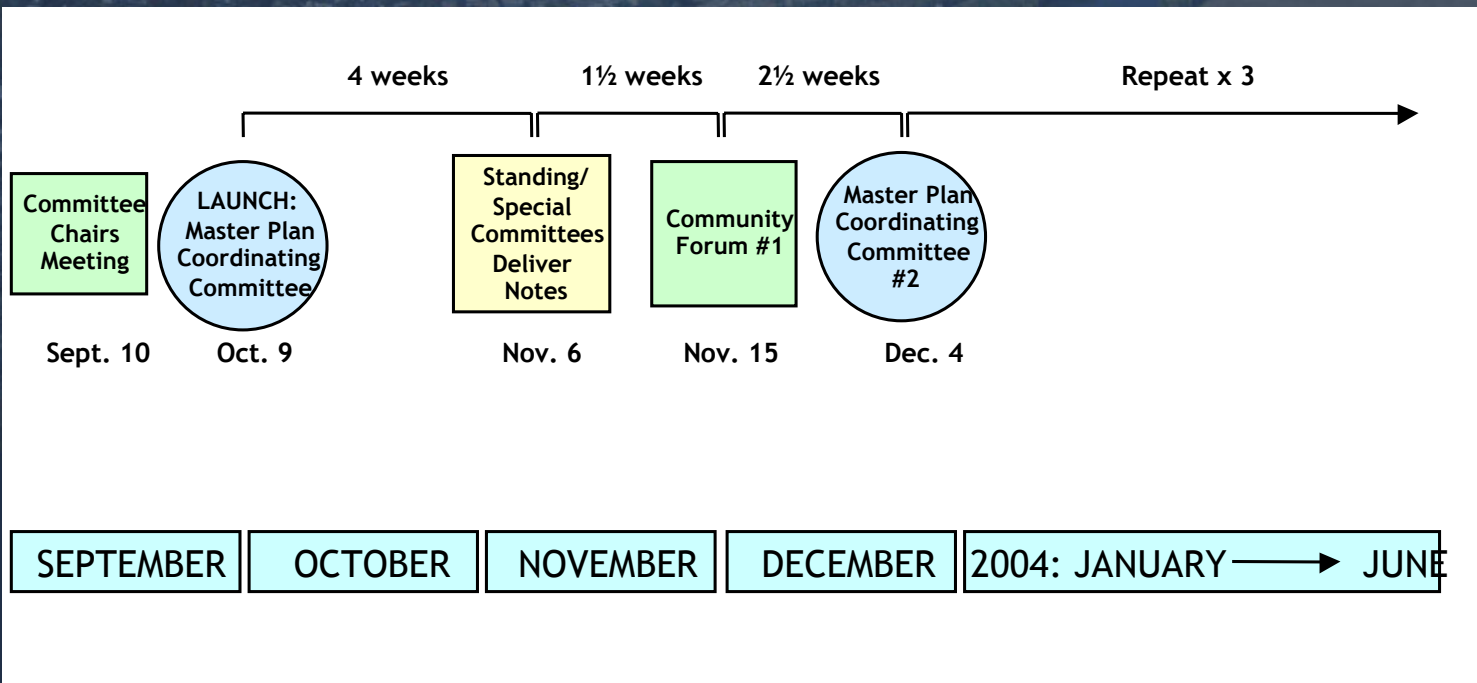
Strategies and ideas coordinated and conflicts resolved

Community Forums

Informal “tradeshow” event

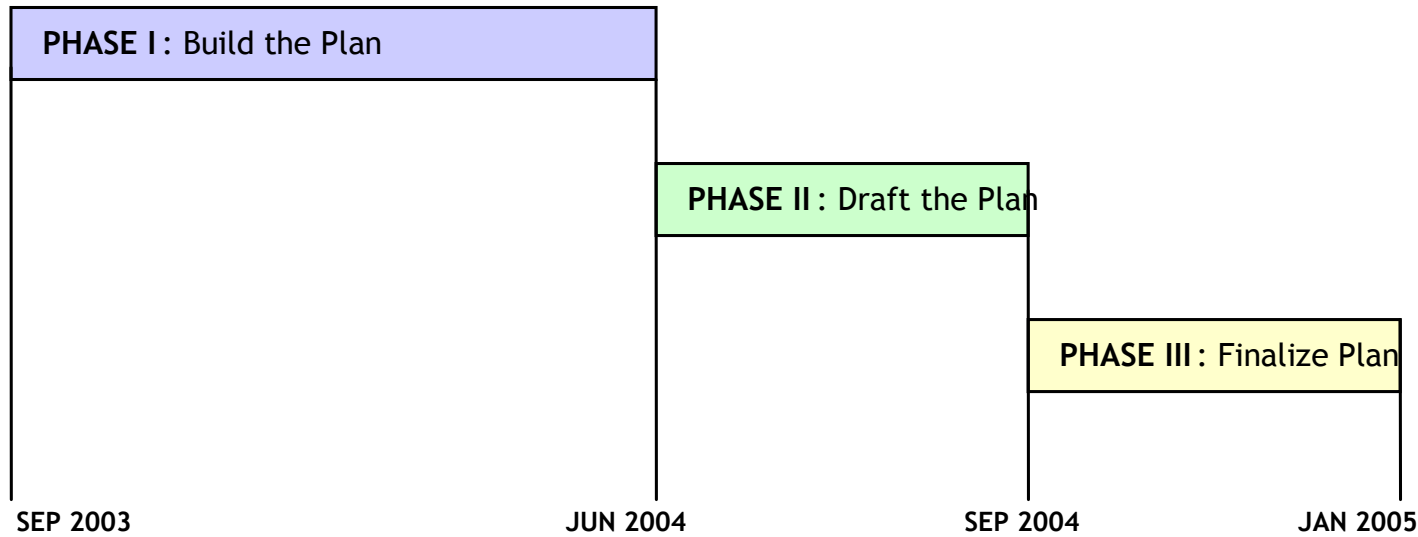
Community members are able to view the work of the committees, share ideas and provide feedback

Project Approach & Design



Project Approach & Design

Key Phases



Proposed Project Schedule

Notice To Proceed	February 2003
Data Collection	Spring 2003
Base Plans	Spring/Summer 2003
Base Year 2000 Traffic Model	Spring/Summer 2003
Design Year 2030 Traffic Model	Fall/Winter 2003/2004
Alternatives Development	Winter/Spring 2003/2004
Traffic Needs Study	Spring/Summer 2004
Summary/Classification Report	Fall 2004