



CAROLINA **CROSSROADS**

18th ACEC-SC/SCDOT Conference

December 2, 2015



3

+

12

=

INTERSTATES

KEY INTERCHANGES





19

Bridges



12

Interchanges



14

Interstate
(miles)



166

Roadway
(lane miles)



134k

AADT
(Between St. Andrews and I-20)





Reduced
Congestion



Improve Traffic
Operations



Increase
Safety



Increase
Capacity

Project Goals



Improved
Freight Mobility



Job
Creation



Reduced
Emissions



Other
Benefits

Additional Project Benefits



South Carolina
Department of Transportation



Other Partners

- Edwards Pitman
- F&ME, Inc.
- Quality Counts, LLC.
- Toole Group
- DESA, Inc.
- Civic Communications
- A-Squared
- So-Deep, Inc.
- CH Engineering, PLLCMark
- Cornelius, PLS (M&H)
- Photo Science
- CH Engineering, PLLC
- McKim & Creed, Inc.

01

Project Process

36 Months

WE ARE HERE

PHASE 1

Notice of Intent (NOI) to
prepare an EIS and
Scoping

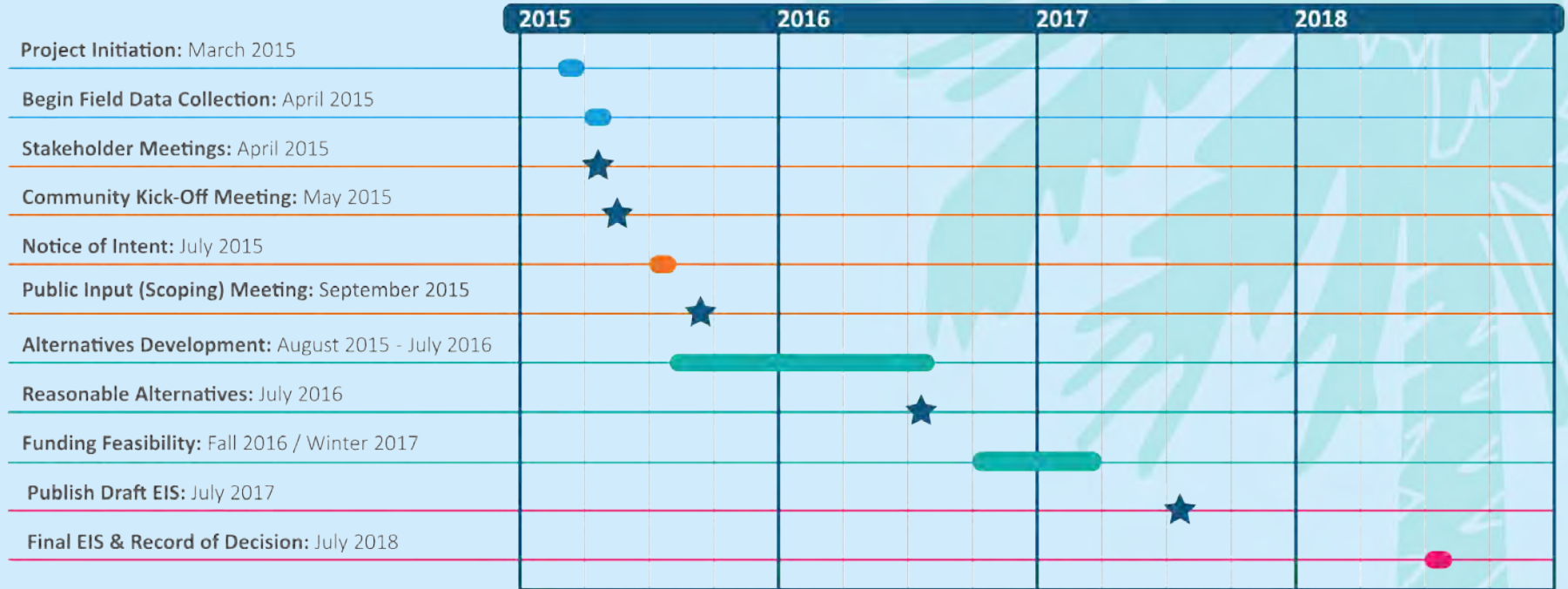
PHASE 2

Compare alternatives
and prepare a Draft EIS
and a Final EIS, ROD

PHASE 3

Project Delivery

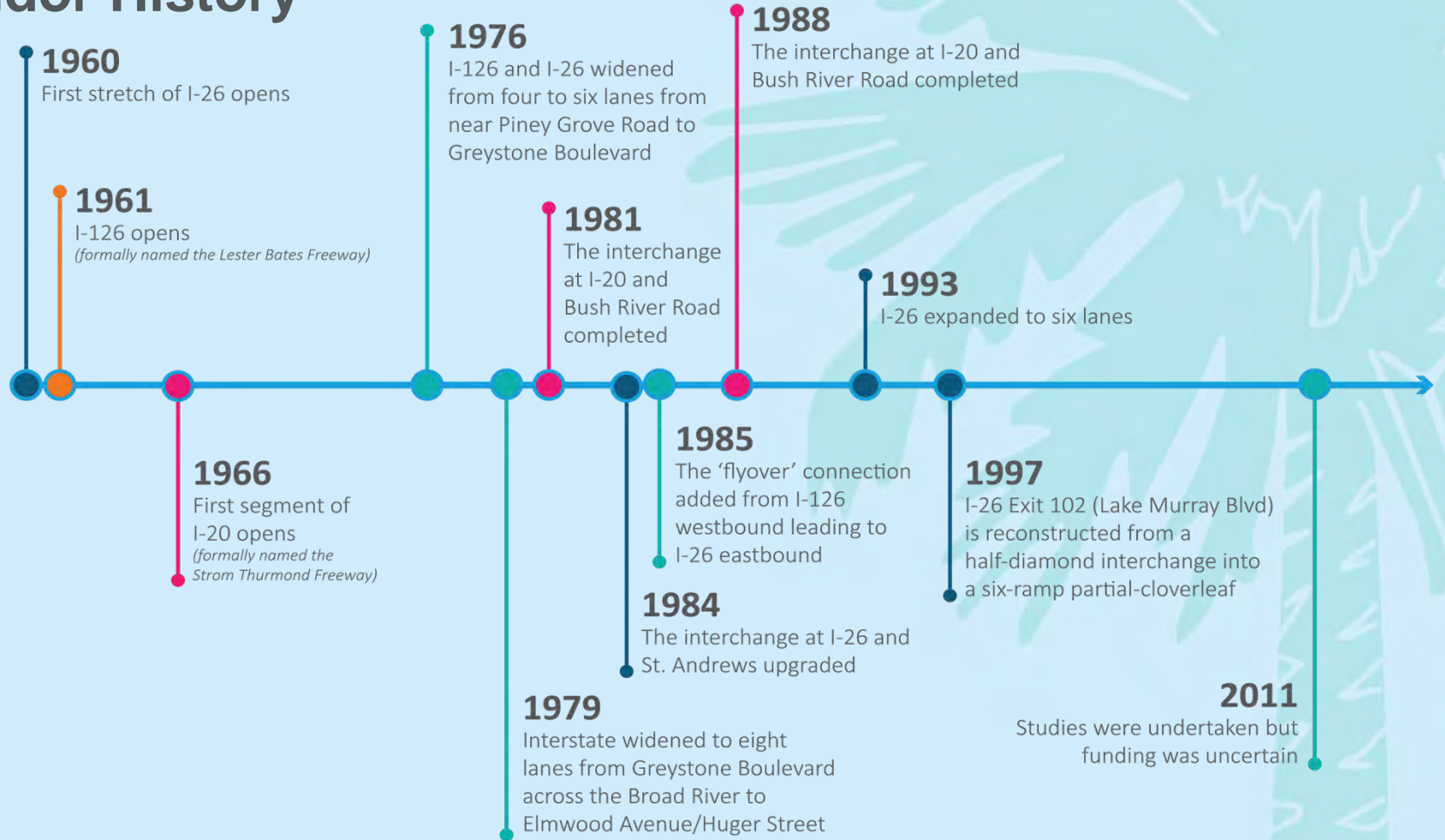
Anticipated Schedule



★ – Public & Stakeholder Meeting

Dates are estimated and subject to change.

Corridor History



02 EIS Implementation

NEPA - Environmental Impact Statement (EIS)

Step 1

Initiate EIS

- Develop purpose and need
- Collect baseline data
- Conduct agency and public scoping meetings
- Hold public comment period
- Start developing alternatives
- Continue Stakeholder Advisory Committee

WE ARE HERE

Step 2

Collect Data

- Analyze existing conditions
- Identify needed studies
- Begin preparation of the Draft EIS

Step 3

Analyze Alternatives

- Continue alternatives analysis
- Analyze the environmental impacts of alternatives

Step 4

Publish Draft EIS

- Release Draft EIS to public
- Conduct public meetings
- Hold public comment period
- Review all public/agency comments received on the Draft EIS

Step 5

Publish Final EIS

- Review and develop responses to comments on the Draft EIS
- Prepare Final EIS addressing public/agency comments
- Hold public reviewing period

Step 6

Make Decision

- Prepare and publish Record of Decision (ROD)

Opportunity for Public Comment

Decision
Announced

Environmental Studies



Threatened/endangered species



Wetlands and water quality



Air Quality



Historic and cultural sites



Social and economic resources



Noise environs



In Scoping We Identify



Transportation
Deficiencies



Study
Boundaries



Reasonable
Alternatives



Agency
Roles



Environmental
Factors



Permits

Purpose and Need Process

PURPOSE AND NEED PROCESS



**Establish
Planning
Horizon**



**Define
No-Action
Alternative**



**Refine Travel
Model**



**Develop
Project
Purpose, Goals
and Objectives**



Reduce
Congestion



Improve System
Linkages

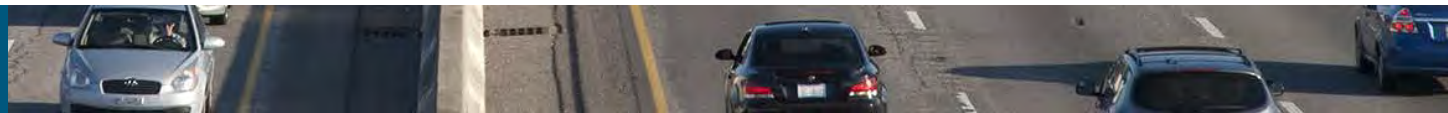


Improve
Safety



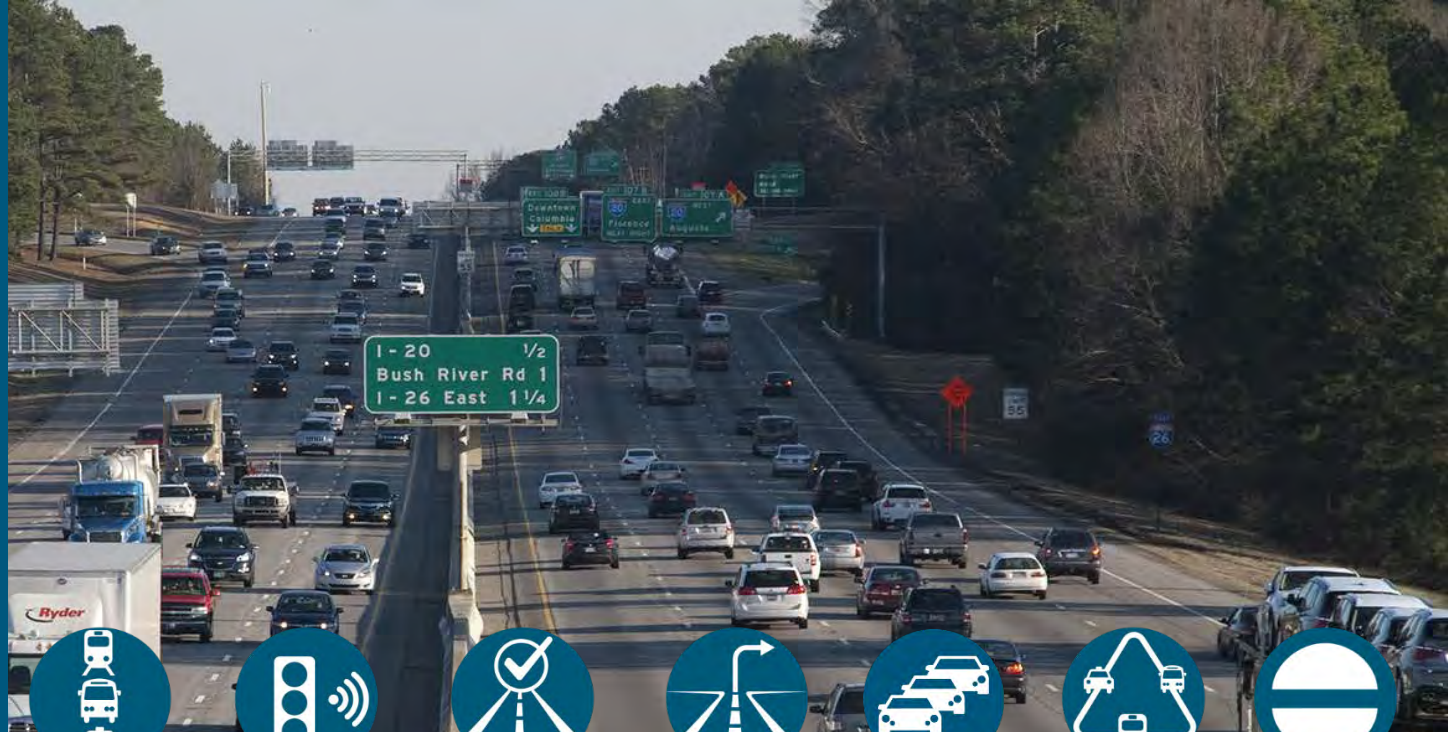
Accommodate
Future Traffic

Why is the
project
needed?



How will traffic data be collected?

| Task | Approach |
|-------------------------|--|
| Traffic Data Collection | Collect data in and adjacent to the corridor: Volumes, Accident Data, Regional Data |
| Travel Demand Modeling | Assess Regional and Statewide Models for use Model "High-Level", General Improvement Options |
| Accident Analysis | Collect Three Years Recent Crash Data: I-26, I-20, I-126, Arterial Roadways, Parallel Frontage Roads |
| Microsimulation | Prepare Comprehensive Study Area Network |



What is the Range of Alternatives to be Evaluated?



Mass
Transit



Traffic
System
Management



Improvements in
Existing Corridor



New
Alignment



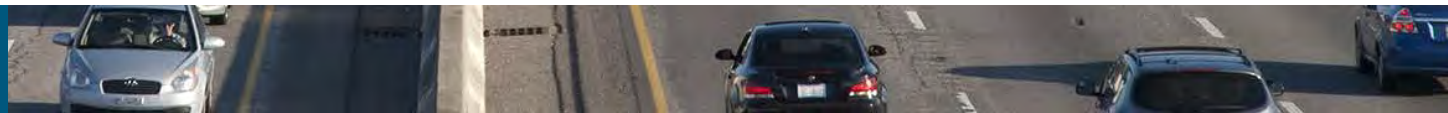
Managed
Lanes



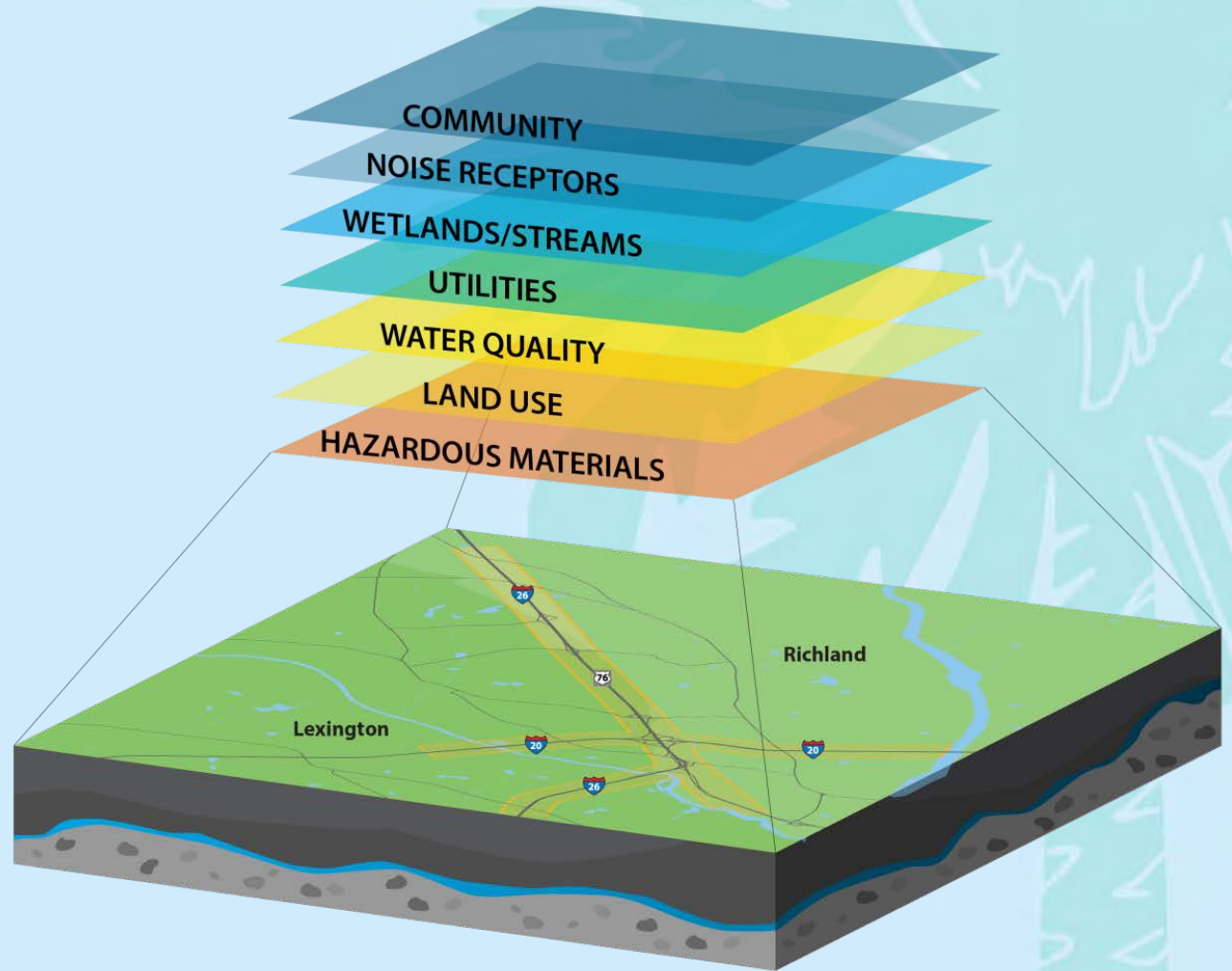
Regional
Transportation
Network



Do Nothing



How will
alternatives be
evaluated?



What happens
after reasonable
alternatives are
identified?

- **DEIS.** Based on results of the alternatives analysis process, reasonable build alternatives will be determined, screened and reduced to a Preferred Alternative.
- **FEIS.** A discussion of substantive comments received on the DEIS will be included in the FEIS along with the responses to comments.

03 Public Involvement

Public Information & Engagement





202 Elected Officials Briefing Packets Sent



10,019 Postcards Sent



554 Emails Sent



2 Stakeholder Advisory Committee Meetings Held

To Date 40 Stakeholder Advisory Committee Members Identified

5,530 Website Visitors



228 Visitors Online Meeting #1

962 Visitors Online Meeting #2

170 Web Comments



387 Social Media Followers

531,523 Social Media Impressions

Submit a Co

The Carolina Crossroads Project Team welcomes you to the September 2015 Online Meeting

Click on image to view video:

Navigate through this session

Submit a comment



View a closed caption video

Thank you for joining us to learn more about the Carolina Crossroads I-20/26/126 Corridor Project. We're here to provide updated information on the Project, process, and schedule and explain how you can stay informed and get involved!

3 INTERSTATES + 12 KEY INTERCHANGES = CAROLINA CROSSROADS

How To Navigate Through This Meeting:

- To advance to the next portion of the meeting, click on the arrows to the right of your screen.
- Use the navigation bar at the top of your screen to revisit any part of the meeting.
- Share your comments with us by clicking on the comment tab in the upper right hand corner.

We encourage you to submit a comment on the study.

For more information on the Project, click on the buttons below:



Top Five Comment Topics To Date

Alternatives: 71

Mailing List Request: 66

Traffic/Safety: 30

General: 28

Noise: 9

What We've Heard:

“Need noise barrier on Jamil Road between Jamil & I-26 in front of Lakewood Village Condos”

“Make interchanges smarter & more efficient for safety. Use traffic signaling on highway systems”

“Pedestrian and bicycle access should be included in the future of this corridor.”

“Well done online meeting presentation, thank you. When appropriate, I would like to see and hear about LEED features being considered for this project.”

04 Innovation

Financial Plan Development



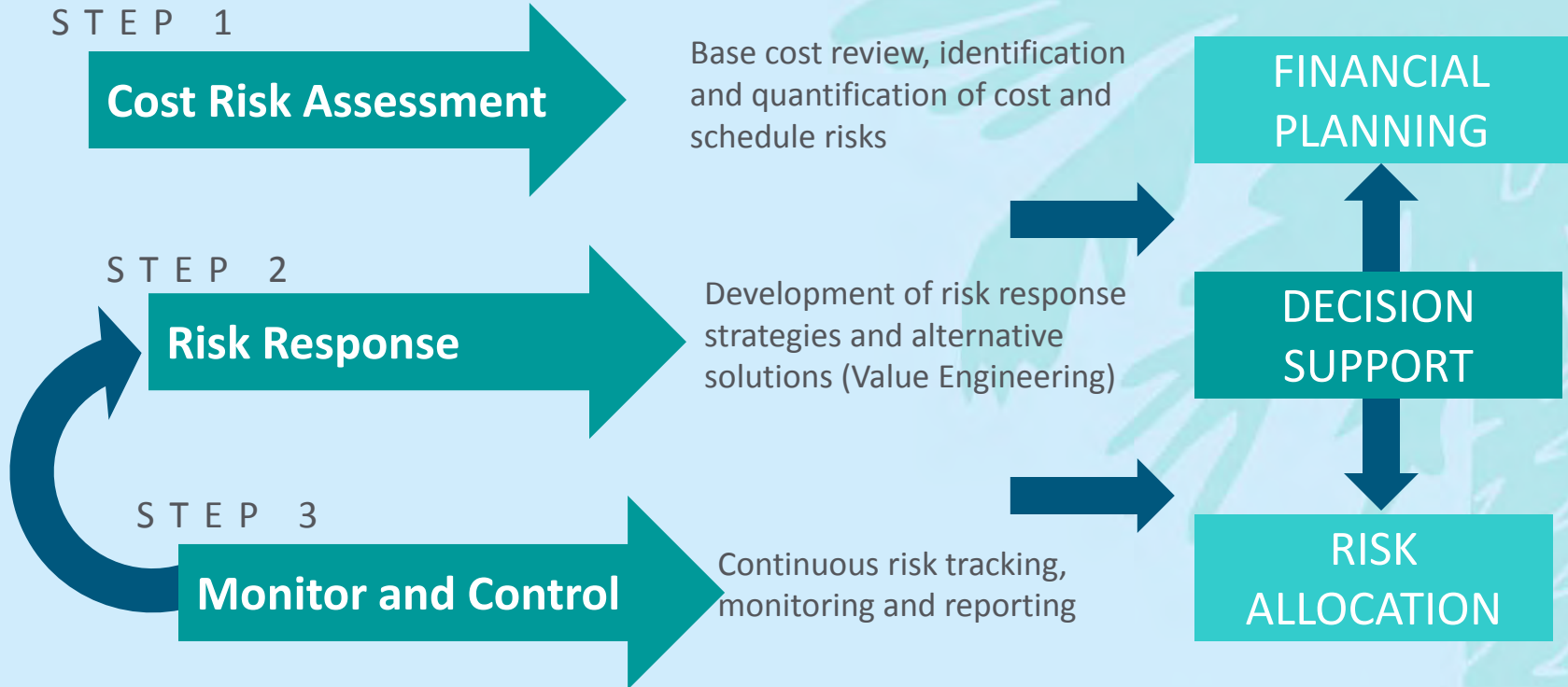
WHY

- Determine Project Budget
- Identify potential revenue sources and determine cash flow strategies
- Determine Project Schedule
- FHWA requires it for large federally funded project

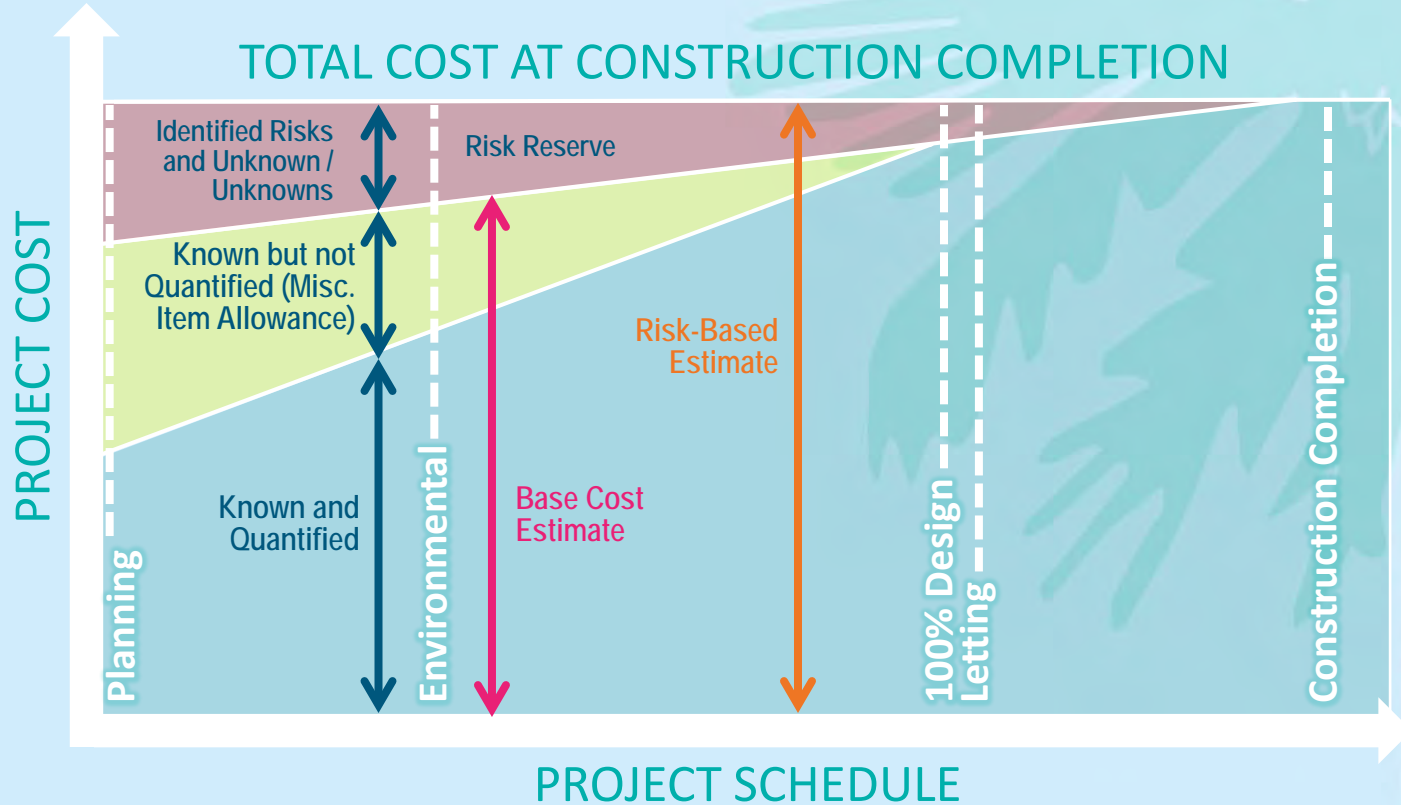
HOW

- Determination of a Base Budget and Schedule through comparable projects and engineering judgment
- Qualitative and Quantitative Risk Analysis
- Value Engineering & Mitigation Strategies

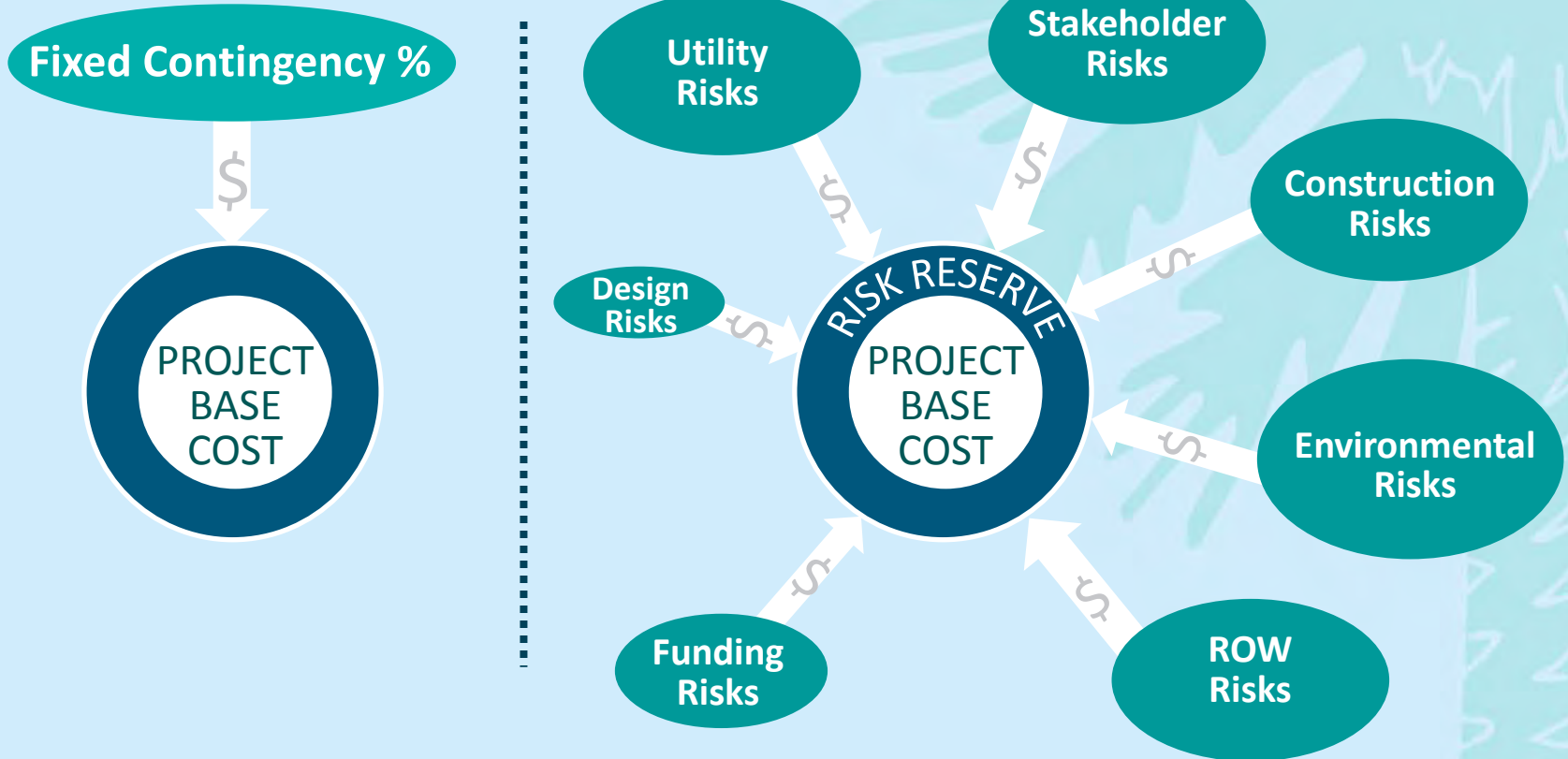
Risk Management Process



Project Cost



Traditional Estimate Vs. Risk Based Estimate



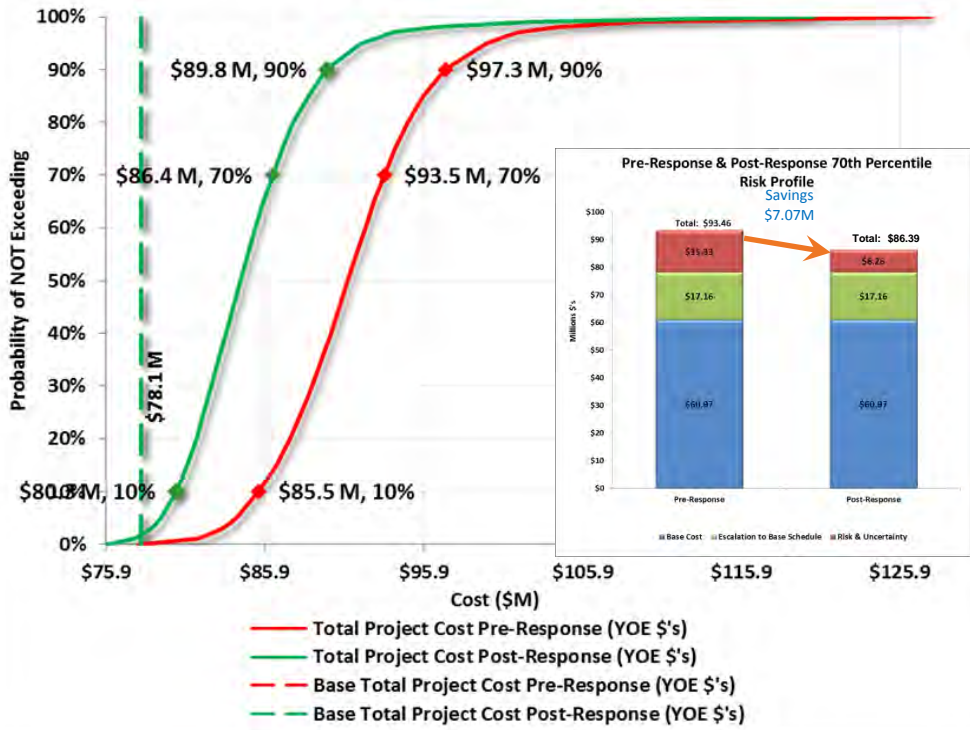
Consensus-Based Workshops

- Structured Workshops to Build Consensus Among Various Stakeholders
- Engagement of Internal and External Subject-Matter Experts
- Sessions by Functional Assignment to:
 - Identify Risks
 - Quantify Risks
 - Discuss Risk Response and Mitigation Strategies

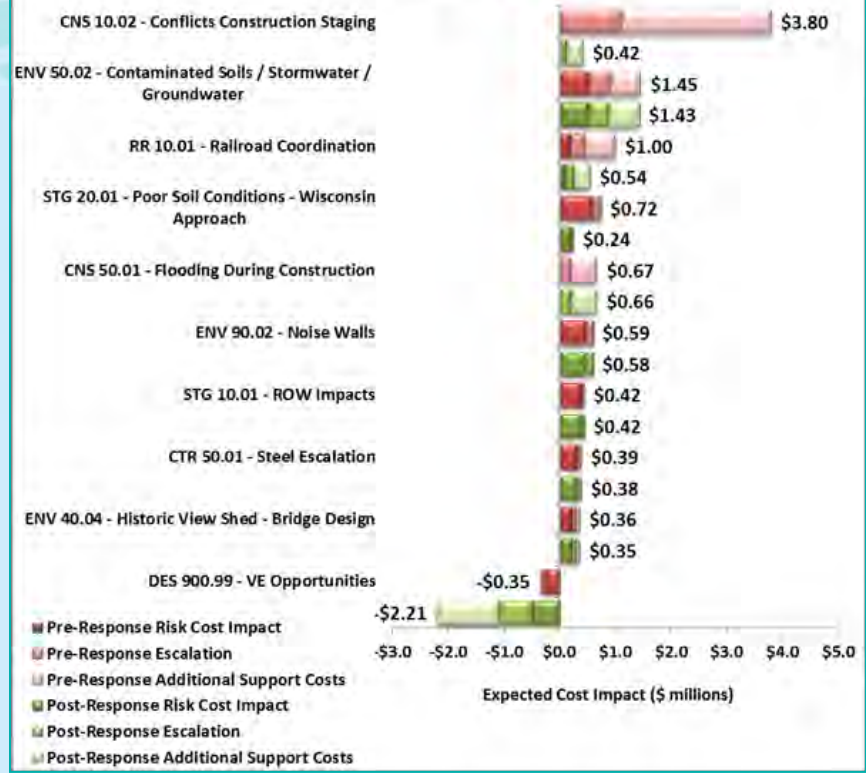


Sample Analysis of Results from Another Project

Total Project Cost Pre-Response & Post-Response Results



Top Cost Risk Factors



Initial Outputs from the CRA process for Carolina Crossroads:

- Understanding that “Time is Money” – Escalation due to project delays is the largest potential risk to this project
- Risk should not only be identified but it is imperative to track and manage mitigation strategies associated with each
- **Estimated Program Cost (based on CRA process and assuming no delays in funding) = \$1.1 Billion - \$1.5 Billion**

The benefits of using Envision & Invest

- Resiliency to future changing conditions
- Applies the Triple-bottom line approach to decision making (social, economic and environmental impacts)
- Reduces negative impacts on the community and the environment



Envision Documentation Tracking

Search this site...

ENVISION DOCUMENTATION TRACKING

Project Name

Carolina Crossroads



Project Description

Phase 1: Carolina Crossroads (I-20/26/126 Interstate Corridor Improvement Project)
The South Carolina Department of Transportation has selected HDR to provide Engineering Services necessary for the preparation of an environmental impact statement (EIS), right of way plans, and final construction plans for roadways and bridges for improvements to the I-20/26/126 corridor in Richland and Lexington Counties. Services include but are not limited to: notice of intent, project scoping (surveying and mapping, public involvement, purpose and need, traffic studies and analysis, and alternatives analysis), preparation of draft EIS, preparation of draft interchange modification report, preparation of final EIS, technical memorandums, assistance with record of decision, administrative record, project management and financial plan, and other related duties. Services may also include the development of right-of-way and/or construction plans for selected improvements.

✓ Envision Verification Goal: Silver

📅 Targeted Project Due Date: 7/30/2018

Key Project Documents

| Type | Name |
|---|-------------------------------|
|  | Link to Test4 |
|  | Test4 |

Project Workbook

My Assignments



Key Contacts

| Full Name | Role | E-mail Address |
|----------------|------|--|
| Chris Malmberg | | chris.malmberg@hdrinc.com |

HDR Contacts

| Full Name | Role | E-mail Address |
|-----------|------|----------------|
|-----------|------|----------------|

There are no items to show in this view of the "Contacts" list.

External Contacts

| Full Name | Company | Role | E-mail Address |
|-----------|---------|------|----------------|
|-----------|---------|------|----------------|

There are no items to show in this view of the "Contacts" list.

Draft Envision Fact Sheets

DRAFT Envision™ Fact Sheets

Category: QUALITY OF LIFE

QL 1.1 Improve Quality of Life

Intent: Improve the net quality of life of all communities affected by the project and mitigate negative impacts to communities.

Metric: Measures taken to assess community needs and improve quality of life while minimizing negative impacts.

LEVELS OF ACHIEVEMENT

| IMPROVED | ENHANCED | SUPERIOR | CONSERVING | RESTORATIVE |
|--|--|--|--|---|
| <p>(2) Internal focus.</p> <p><input type="checkbox"/> The project team has located and reviewed the most <u>recent and relevant community planning information</u>.</p> <p><input type="checkbox"/> Some, but <u>not systematic, outreach to stakeholders</u> and decision makers has taken place.</p> <p><input type="checkbox"/> Some relatively easy, but not particularly important or meaningful changes made to the project.</p> <p><input type="checkbox"/> <u>No significant adverse community effects</u> are caused by the project.</p> <p>(A, B, C)</p> | <p>(5) Community linkages.</p> <p><input type="checkbox"/> More <u>substantive efforts</u> to locate, review, assess and incorporate the needs, goals and plans of the host community into the project.</p> <p><input type="checkbox"/> Most potential negative adverse impacts of the project on the host community are reduced or eliminated.</p> <p><input type="checkbox"/> <u>Key stakeholders are involved</u> in the project decision-making process.</p> <p>(A, B, C)</p> | <p>(10) Broad community alignment.</p> <p><input type="checkbox"/> All relevant community plans are reviewed and verified through <u>stakeholder input</u>.</p> <p><input type="checkbox"/> The project team works to <u>achieve good project alignment with community plans</u>, recognizing that the scope of the project is a limiting factor.</p> <p><input type="checkbox"/> Potential negative impacts on nearby affected communities are reduced or eliminated.</p> <p>(A, B, C)</p> | <p>(20) Holistic assessment and collaboration.</p> <p><input type="checkbox"/> The project makes a <u>net positive contribution</u> to the quality of life of the host and nearby affected communities.</p> <p><input type="checkbox"/> The project team makes a <u>holistic assessment of community needs, goals and plans</u>, incorporating <u>meaningful stakeholder input</u>.</p> <p><input type="checkbox"/> Project <u>meets or exceeds</u> important <u>identified community needs</u> and long-term requirements for sustainability.</p> <p><input type="checkbox"/> Remaining adverse impacts are minimal, mostly accepted as <u>reasonable tradeoffs</u> for benefits achieved.</p> <p><input checked="" type="checkbox"/> <u>The project has broad community endorsement</u>.</p> <p>(A, B, C, D, E)</p> | <p>(25) Community renaissance.</p> <p><input checked="" type="checkbox"/> Through <u>rehabilitation</u> of important community assets, upgraded and extended access, increased safety, improved environmental quality and additional infrastructure capacity, <u>the project substantially reinvigorates the host and nearby communities</u>.</p> <p><input checked="" type="checkbox"/> Working in genuine collaboration with stakeholders and community decision-makers, the project owner and the project team scope the project in a way that <u>elevates community awareness and pride</u>.</p> <p><input checked="" type="checkbox"/> <u>Overall quality of life</u> in these communities is <u>markedly elevated</u>.</p> <p>(A, B, C, D, E, F)</p> |

05 Conclusion

Phase 3 – Project Delivery





www.SCDOTCarolinaCrossroads.com



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1-800-601-8715



Look for us on social media!

Contact Us