The purpose of this briefing document is to provide an overview of the interchange concept project, review the analysis requirements, summarize the alternatives developed and analyzed, and summarize the comparative advantages of the No Build and Build alternatives. The primary issues presented herein are intended to provide a basis for discussion at the workshop.

Briefing Packet Contents:
1. Interchange Concept Project Background
2. Scope of Services
3. Analysis Requirements
4. Alternatives Developed and Analyzed
5. Comparison of Alternatives

Item #1 – Interchange Concept Project Background

- 2005-2006 – Federal Transportation Bill provides funding for Ormond Crossing Interchange analysis
- 2005 – Volusia County MPO 2025 LRTP identifies I-95 interchange at Ormond Crossings as a cost feasible project
- December 2006 – Ormond Crossing DRI D.O. for 5 million sq. ft. of commercial/business uses and 3,700 residential units; development beyond Phase 2 of the 4 Phase project contingent upon FHWA approval of an interchange with Ormond Crossings Boulevard and I-95 with collector-distributor roads connecting with the US 1 interchange
- 2008 – Development Master Plan is reduced to a 2 Phase project with 4 million sq. ft. of commercial/business uses and 2,950 homes; Developer determines that they cannot participate in nor dedicate land for the proposed interchange, and right-of-way acquisition may be required by local or state agencies to accommodate the interchange concept
- 2008-2010 – RS&H continues coordination with FHWA, FDOT and City on continued development of the IJR/IMR analysis to identify roadway and interchange improvements that will mitigate projected future traffic congestion at the I-95 and US 1 interchange

Item #2 – Scope of Services

- Contract with City/FDOT - Prepare an interchange justification/modification report for the proposed collector-distributor system for the I-95 and US 1 interchange.
- Must comply with FHWA and FDOT policies and procedures
- IJR/IMR is a traffic-based analysis with no preliminary engineering roadway design work
- Traffic forecasts to include not only Ormond Crossing development traffic but projected future traffic from other developments and from background traffic growth
- The IJR/IMR study is a traffic forecasting and concept development analysis, which identifies potential interchange and roadway modifications that will accommodate projected future traffic volumes; no preliminary engineering work is involved at this phase of the analysis
- Upon FDOT and FHWA review and acceptance of the IJR/IMR, the next project phase would be the preparation of a Preliminary Engineering Report and a Project Development & Environment (PD&E) analysis

**Item #3 – Analysis Requirements**

- Federal interchange projects require a Memorandum Letter of Understanding (MLOU) which:
  - Is approved by FDOT Central Office, FDOT District 5, FHWY, and the City; and
  - Specifies the alternatives to be considered, the analysis years (2016, 2026, and 2036), the study area, and the analysis techniques (i.e. traffic forecasting, roadways and intersections to be analyzed, and measures of effectiveness).
- Build alternatives acceptable to FHWA and FDOT must be configured to provide acceptable capacity to accommodate year 2036 traffic forecasts

**Item #4 – Alternatives Developed and Analyzed**

Three alternatives were analyzed for their effectiveness in meeting capacity requirements for year 2016, 2026 and 2036 traffic forecasts.

**No Build**

*Description:*
Under this scenario, US 1, the I-95 interchange ramp lanes, and the interchange ramp termini at US 1 retain the existing configuration. This includes two directional lanes on US 1, and single left turn lanes at the southbound and northbound ramp termini intersections.

*Analysis:*
1. I-95 Mainline – Between SR 40 and US 1 – Capacity deficiency by 2026, capacity failure by 2036
2. US 1 Ramps – Capacity failure by 2036
3. US 1 Intersections – Capacity failure by 2016 for SB ramp intersection; Failure by 2036 for NB ramp intersection

**Build Alternative 1 (see Exhibits 1 & 2)**

*Description:*
US 1 improvements and interchange ramp improvements, as follows:
1. A single new slip ramp (US 1 eastbound to I-95 southbound) in the southwest quadrant of the US 1 and I-95 interchange; right-of-way required
2. Widen US 1 from a total of four to up to nine lanes between the two intersections of US 1 with Ormond Crossings Boulevard; requires additional right-of-way along US 1
3. Reconstruct the I-95 bridges over US 1 to accommodate the additional lanes on US 1
4. Several US 1 intersection improvements at the I-95 ramp termini
Analysis:

a. I-95 Mainline - Between SR 40 and US 1 – Same capacity deficiencies/failures as the No Build alternative
b. US 1 Ramps – Same capacity failures as the No Build alternative
c. US 1 Intersections – Acceptable operations through 2036

Build Alternative 2 (see Exhibits 3 & 4)

Description:
Alternative 2 provides an interchange with Ormond Crossings Boulevard, and a collector-distributor (CD) roadway system which ties into the US 1 interchange (a requirement due to the close spacing between the two interchanges). Other improvements include the following:

1. A single new slip ramp (US 1 eastbound to I-95 southbound) in the southwest quadrant of the US 1 and I-95 interchange; requires right-of-way
2. Widen US 1 to six lanes between the two intersections of US 1 with Ormond Crossing Boulevard
3. New collector distributor (CD) roads parallel to I-95 to accommodate the proposed new interchange with Ormond Crossing Boulevard (CD road starts approximately 3,600 feet south of the Ormond Crossing Boulevard overpass of I-95, and continues north to merge with the existing I-95 ramps north of US 1); right-of-way required
4. A new interchange of the proposed Ormond Crossing Boulevard with the CD roads; right-of-way required
5. Reconfiguration of I-95 ramps at the US 1 interchange to improve operations

Analysis:

a. I-95 Mainline
   a. Between SR 40 and the new CD ramps - Same capacity deficiencies/failures as Alternative 1
   b. Parallel to the new CD road - Acceptable capacity through 2036
b. US 1 Ramps – Acceptable capacity through 2036
c. US 1 Intersections – Acceptable capacity through 2036
## Item #5 – Comparison of Alternatives

<table>
<thead>
<tr>
<th>Year 2036 Level of Service</th>
<th>No Build</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 40 to CD Road</td>
<td>F*</td>
<td>F*</td>
<td>F</td>
</tr>
<tr>
<td>CD Road to US 1</td>
<td>F*</td>
<td>F*</td>
<td>D</td>
</tr>
<tr>
<td>US 1 to CR 4011</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>US 1 Intersections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-95 SB Ramp Access</td>
<td>F</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>I-95 NB Ramp Access</td>
<td>F</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>Potential Relocations</td>
<td>0</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Potential Business Impacts</td>
<td>0</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Construction Cost Est.</td>
<td>$0</td>
<td>$30.8M</td>
<td>$41.0M</td>
</tr>
<tr>
<td>R/W Acquisition Est.</td>
<td>0 acres</td>
<td>10 acres</td>
<td>40 acres</td>
</tr>
</tbody>
</table>

*Note: Level of service for the No Build and Alternative 1 is for SR 40 to US 1 as the C-D roadway system is not part of these scenarios.*
EXHIBIT 2 - BUILD ALTERNATIVE 1 (Zoom-in View)
EXHIBIT 4 - BUILD ALTERNATIVE 2 (On Land Use Plan)