Hunt Highway

CELESTE PEMBERTON, CFM, CPM | PINAL COUNTY
CARLOS SANCHEZ SORIA, PE | T.Y. LIN INTERNATIONAL
Agenda

- Design Concept Report
- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Questions
Design Concept Report

- 12.8 miles along Hunt Highway (Empire Blvd to Franklin Road)
- Explosive Growth 2003-2008
  - 5 Major Master Planned Communities
- Existing 2-lane facility, some areas of new development widened to 5-lanes
- 20,000+ on average vehicles per day
- Hunt Hwy is Pinal County’s #1 Transportation Priority
Design Concept Report

• 7-lane Ultimate Section
• 5-lane Interim Section
Design Concept Report (Traffic)

- Intersections
- Existing & Projected Volumes
Design Concept Report (Pavement)

- Existing Conditions
Design Concept Report (Drainage)

- Preliminary Analysis
- Size and Locations for Culvert Crossings

<table>
<thead>
<tr>
<th>Location</th>
<th>Culvert No.</th>
<th>Quantity</th>
<th>Size</th>
<th>Type</th>
<th>New/Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sta 217+00</td>
<td>10 2-Barrel</td>
<td>4 8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 271+50</td>
<td>- 3-Barrel</td>
<td>3 8’ by 3’</td>
<td>Box Culvert</td>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>Sta 304+50</td>
<td>- 3-Barrel</td>
<td>10’ by 3’</td>
<td>Box Culvert</td>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>Sta 324+50</td>
<td>- 1 36”</td>
<td>Pipe</td>
<td>Extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sta 352+00</td>
<td>- 6-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>Sta 390+99</td>
<td>2 Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>Sta 422+50</td>
<td>- 1 54”</td>
<td>Pipe</td>
<td>Extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sta 477+50</td>
<td>13 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 512+00</td>
<td>12 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 532+00</td>
<td>- 1 54”</td>
<td>Pipe</td>
<td>Extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sta 544+50</td>
<td>11 6-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 565+00</td>
<td>10 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 573+50</td>
<td>9 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 597+50</td>
<td>8 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 639+00</td>
<td>7 1-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 653+50</td>
<td>6 2 36”</td>
<td>Pipe</td>
<td>New</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sta 659+50</td>
<td>5 3 36”</td>
<td>Pipe</td>
<td>New</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sta 662+00</td>
<td>4 1-Barrel</td>
<td>10’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 732+00</td>
<td>3 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 748+50</td>
<td>2 3-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Sta 774+50</td>
<td>1 1-Barrel</td>
<td>8’ by 4’</td>
<td>Box Culvert</td>
<td>New</td>
<td></td>
</tr>
</tbody>
</table>
Design Concept Report (Right-of-Way)

- Private
- Arizona State Land Department
- United States Bureau of Reclamation
Design Concept Report (Utilities)

- Power (SRP Transmission and Distribution, WAPA)
- Johnson Utilities (Water, Sewer, Reclaimed Water)
- Telecommunication (Cox, Century Link and Mediacom)
- City of Mesa Gas
- New Magma Irrigation and Drainage District
Design Concept Report (Phasing)

- 6 Phases
- Construction Cost of $68M (Interim 5-lane section)
Hunt Highway Phase 1
Empire Boulevard to Thompson Road
Phase 1
Empire Blvd to Thompson Rd

- **Budget & Funding Source**
  - $7.5 Million
  - Federal Funds

- **Project Status**
  - Construction Completed on August 2014
Phase 1
Empire Blvd to Thompson Rd

- **Scope of Work**
  - 5-lane, 2 Through, Median, 4.5’ Paved Shoulders
  - Drainage Channel Design (Sonoqui Wash)
  - Traffic Signal at Thompson Road
Phase 1
Empire Blvd to Thompson Rd

- Project Challenges
  - Right-of-Way
    - 36 Properties
    - 13 Acres of Right-of-Way Acquisition
    - 8.5 Acres of Drainage Easements
    - Meetings with Each Property Owner
Phase 1
Empire Blvd to Thompson Rd

- Project Challenges
  - Drainage
    - Regional Drainage Solution Balancing:
      - Proposed Commercial and Residential Development
      - Existing Drainage Conditions
  - Empire Blvd Box Culvert
    - Prone to heavy sediment deposits
    - Downstream Sonoqui Wash not well defined during design
Phase 1
Empire Blvd to Thompson Rd

- Project Challenges
  - Earth Fissures
  - Mapping
  - Mitigation
Phase 1
Empire Blvd to Thompson Rd
Phase 1
Empire Blvd to Thompson Rd
Phase 1
Empire Blvd to Thompson Rd
Phase 1
Empire Blvd to Thompson Rd
Phase 1
Empire Blvd to Thompson Rd
Hunt Highway Phase 2
Thompson Road to Gary Road
Phase 2
Thompson Rd to Gary Rd

- **Budget & Funding Source**
  - $5.5 Million
  - Transportation Excise Fund (half cent gas tax)

- **Project Status**
  - Construction Substantial Completion - September 2015

- **Project Schedule**
  - Design (18 months)
  - Bid Advertisement - August 2014
  - Construction NTP - December 2014 (9 months)
Phase 2
Thompson Rd to Gary Rd

- Scope of Work
  - 5-lane Section
  - Widening
  - Mill & Overlay

- Two box Culvert Drainage Crossings
- New Traffic Signal at Village Lane
- Dedicated Right Turn Lanes
Phase 2
Thompson Rd to Gary Rd

- Innovation
  - TriAx reinforced pavement section
    - Reduced AC and ABC
    - $180k+ Savings
    - Higher Performance
Phase 2
Thompson Rd to Gary Rd

- Project Challenges
  - Coordination with Proposed Development
Phase 2
Thompson Rd to Gary Rd

- Project Challenges
  - Bureau of Reclamation
  - Utility Crossing
Phase 3  
Gary Rd to Bella Vista Rd

- **Budget & Funding Source**
  - $6 Million
  - Bond

- **Project Status**
  - Design Finalized - August 2015
  - Bid Advertisement - October 2015
Phase 3
Gary Rd to Bella Vista Rd

- **Scope of Work**
  - 5-lane section
  - Widening
  - Mill & Overlay

- **Bicycle and Pedestrian Facilities**
- **Storm Drain System (on-sites)**
- **Dedicated right turn lanes**
Phase 3
Gary Rd to Bella Vista Rd

- Project Challenges
  - Utility Coordination
    - 80+ Potholes
  - Telecommunication
  - Water, Sewer and Reclaimed Water
  - SRP Transmission
Phase 3
Gary Rd to Bella Vista Rd

- Project Challenges
  - Arizona State Land
  - Right-of-Way Easement Acquisition

- Bureau of Reclamation
  - Modifications to cross-section
Phase 3
Gary Rd to Bella Vista Rd

- Project Challenges
  - Drainage
  - On-site storm drain system
Hunt Highway Phase 4
Bella Vista Road to Magma Road
Phase 4
Bella Vista Rd to Magma Rd

- **Budget & Funding Source**
  - $8 Million
  - Bonds

- **Project Status**
  - Under Design
  - 60% Documents - November 2015

- **Project Schedule**
  - Design Complete - Summer of 2016
  - Construction Anticipated FY 2016-2017
Phase 4
Bella Vista Rd to Magma Rd

- **Scope of Work**
  - 4-lane/5-lane Sections
  - 2 Box Culvert Drainage Crossings
  - Two New Traffic Signals
  - Dedicated Right Turn Lanes
Phase 4
Bella Vista Rd to Magma Rd

- Project Challenges
  - Offsite Drainage
  - Gantzel Channel (Flood Control)
  - Box Culvert Crossings
Phase 4
Bella Vista Rd to Magma Rd

- Project Challenges
  - Utilities
    - New Magma Irrigation and Drainage District
    - WAPA
    - SRP Conversion
Phase 4
Bella Vista Rd to Magma Rd

- Project Challenges
  - ASLD
Hunt Highway Phase 5
Magma Road to Arizona Farms Road
Phase 5
Magma Rd to Arizona Farms Rd

- **Budget & Funding Source**
  - $5 Million
  - Bond

- **Project Status**
  - Under Design
  - 30% Documents due on Spring 2016

- **Project Schedule**
  - Design complete by Spring of 2017
  - Construction anticipated FY 2017-2018
Phase 5
Magma Rd to Arizona Farms Rd

- **Scope of Work**
  - 5-lane Section
  - Arizona Farms Re-Alignment
Phase 5
Magma Rd to Arizona Farms Rd

- Project Challenges
  - Utility Coordination
  - SRP Conversion
  - NMIDD Siphon Extension
Phase 5
Magma Rd to Arizona Farms Rd

- Project Challenges
  - Relocate Existing Intersection
Hunt Highway

QUESTIONS