JANUARY 22, 2014 | COMMUNITY MEETING
PURPOSE OF TODAY’S MEETING

- Summary of Work to Date
- Condition of Existing Bridge
- Highway Bridge Program (HBP)
- Discussion of Alternatives – Advantages and Disadvantages
- Relative Construction Costs and Construction Durations
- Traffic Handling & Stage Construction
- Project Schedule
- Future Activities
SUMMARY OF WORK TO DATE

• 1996-1999 – Identification of deficiencies and funding secured for preliminary analysis of alternatives

• 2005 – Preliminary analysis of alternatives completed and City begins search for funding

• 2010 – City secures HBP grant funding for engineering and construction

• 2012 – City hires Quincy Engineering to perform the engineering

• 2012-2013 – Improvement alternatives are developed

• Nov 2013 – First Community meeting held to discuss improvement alternatives

• Jan 2014 – Stakeholder Group Meeting held

• Jan 2014 – Second Community meeting held
• August 2010 City submits application to Caltrans and secures 100% HBP funding for engineering and construction

• May 2012 City hires Quincy Engineering team

• July 2012 through October 2013 improvement alternatives are developed

• November 2013 public meeting held to discuss improvement alternatives

• January 2014 Stakeholder Meeting held
EXISTING BRIDGE CONDITION

• Bridge Built in 1908
  ▪ Eligible for National Register of Historic Places
• 1914 Flood Damage
  ▪ Built Additional Span
• Supplemental Truss
  ▪ 1989 Designed
  ▪ 1990 Constructed
• Sufficiency Rating = 12.8
• ADT = 2,500
EXISTING BRIDGE CONDITION

- Bridge is Functionally Obsolete (FO)
- Inadequate Bridge Width
- Unprotected Truss
  - Blunt Object Safety Issue
  - Potential Bridge Damage
EXISTING BRIDGE CONDITION

- Bridge is Structurally Deficient (SD)
  - Insufficient vertical load carrying capacity
  - Seismic deficiencies for lateral loads
  - Poor concrete quality
  - Unknown Foundations
  - Condition of Truss
  - Paint Condition
  - Timber sidewalk
HIGHWAY BRIDGE PROGRAM (HBP)

- Primary Intent of HBP is to remove bridges from Eligible Bridge List
  - Rehabilitation
  - Replacement
- To Qualify for the HBP Program
  - Bridge Must Be On Eligible Bridge List (EBL)
  - Must be Structurally Deficient (SD) or Functionally Obsolete (FO)
  - Sufficiency Rating (SR) must be
    - 50<SR< 80 Rehabilitation
    - SR<50 Replacement
- In order to utilize HBP Funding, Scope of Work must:
  - Result in a bridge that will not be FO
  - Result in a bridge that will not be SD
  - Result in a bridge that will have an SR > 80
• Option 1 – Conventional Replacement
• Option 2 – Salvage and Relocate Truss on New Concrete Structure
• Option 3 – Replace In Kind
• Option 4 – Retrofit Existing
• Option 5 – Do Nothing
DESIGN ALTERNATIVES

Side View

Street View

Option 1 - Conventional Replacement
Option 1 – Conventional Replacement

- Pros
  - Lowest Cost
  - Lowest Construction Duration
  - 100% Federally Funded
  - Full Loading Capacity
  - Satisfies modern width standards
  - Lowest long-term maintenance

- Cons
  - Loss of Historical Significance
DESIGN ALTERNATIVES

Side View

Street View

Option 2 - Salvage & Relocate Truss
Option 2 – Salvage and Relocate Truss

- **Pros**
  - Full Loading Capacity
  - Satisfies modern width standards
  - Lower long-term maintenance
  - Maintains Some Historical Aesthetics

- **Cons**
  - Higher Cost
  - Longer Construction Duration
  - May not be fully funded
DESIGN ALTERNATIVES

Option 3 - Replace in Kind
Option 3 – Replace in Kind

- Pros
  - Full Loading Capacity
  - Satisfies modern width standards
  - Maintains Some Historical Aesthetics
  - Lower Construction Duration

- Cons
  - Higher Cost
  - May not be fully funded
  - Higher long-term maintenance
DESIGN ALTERNATIVES

Option 4 - Retrofit Existing
NEW SUPPLEMENTAL TRUSS

Water Level
Option 4 – Retrofit Existing

- Pros
  - Maintains Historical Significance

- Cons
  - Reduced Loading Capacity
  - Non standard width
  - Higher Cost
  - May not be fully funded
  - Higher long-term maintenance
  - Longer Construction Duration
Option 5 - Do Nothing Alternative

- Current Sufficiency Rating 12.8 out of 100
- 3 Ton Maximum Load Limit
- Closure is Eminent
- Failure to act now could result in funding out of other City programs
Option 5 – Do Nothing

- **Pros**
  - No action required

- **Cons**
  - Eminent Closure
CONSTRUCTION DURATION

Option 1A - Cast-In-Place Replacement

Option 1B - Pre-Cast Replacement

Option 2 - Relocate Truss on New Bridge

Option 3 - Replace In Kind

Option 4 - Retrofit Existing

Days
DESIGN ALTERNATIVES

- Existing Bridge Width 24 feet

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<td>HL 93</td>
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<td>over 2000</td>
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- AASHTO Design Criteria
  - Standard Width 30 feet
- FHWA Inventory Coding Guide
  - Absolute Minimum Width 28 Feet
  - Requires Design Exception
DESIGN ALTERNATIVES

Potential One-Way Bridge Street
CONSTRUCTION ACTIVITIES- TRAFFIC

LEGEND:
- BRIDGE STREET BRIDGE WORK ZONE AND ROAD CLOSURE

KEY STAGING FEATURES:
- SOUTHEAST CORNER DRIVEWAY WILL BE CLOSED
- OLOHAN ALLEY TO REMAIN OPEN TO TWO-WAY TRAFFIC

Detour to the West via Traffic Way is 0.4 miles long
Detour to the East via Mason Street is 0.5 miles long
• Perhaps more decorative or time period-type railing and features could be used for Option 1

• Could the existing bridge be relocated under Options 1 and 3, and would grant funds cover these costs?

• Can Option 4 be modified to reduce or replace the super-bent?

• If the bridge were to closed or modified to one-way traffic, what would be the traffic patterns/impacts?

• If the bridge was to become the City’s facility, what are the anticipated annual maintenance costs?

• Elimination of the steel structure is not desirable alternative

• Historical groups prefer preservation of the existing bridge
# ADVANTAGES AND DISADVANTAGES

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<thead>
<tr>
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<th>Option 1 Conventional Replacement</th>
<th>Option 2 Salvage and Relocate</th>
<th>Option 3 Replace In-Kind</th>
<th>Option 4 Retrofit</th>
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<td>100%</td>
<td>150%</td>
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<td>Historical Aesthetics</td>
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• Stakeholder group to meet, discuss, and vote on alternatives

• City staff gathers community comment, stakeholder group votes, and presents a preferred alternative to the City Council

• City Council selects a preferred alternative

• Environmental Studies and Preliminary Design initiated for preferred alternative

• Circulation of Draft Environmental Document and Public Comment Period

• City Council adopts Environmental Document

• Final Design is initiated
• Complete Evaluation of Alternatives
• Select Preferred Alternative
  • Environmental Studies
  • Preliminary Design
PLEASE REVIEW BOARDS
AND DISCUSS WITH DESIGN TEAM
MARK’S IDEAS ON SLIDES

- Below are my thoughts on slides, let me know:
  - Summary of work to date (Jill or Teresa??)
  - Purpose of Meeting (Mark)
  - Existing Condition of Bridge (Mark) talk about how historic truss not carrying load, existing sufficiency rating and general health
  - Functionally Obsolete Condition of Bridge (Mark)
  - Structurally Deficient Condition of Bridge (Mark)
  - HBP Program (Mark)
  - Detail Discussion of Alternatives (Greg) cover pros, cons, etc
  - Traffic Handling & Traffic Staging (Brent)
  - Summary of Relative Costs Bar Chart (Mark or Greg)
  - Summary of Relative Construction Timeline Chart (Mark or Greg)
  - Response to Comments received from Meeting #1 (Mark)
  - Future Activities (Jill or Teresa)
  - Project Schedule (Jill or Teresa)
  - Public Engagement & Communication (Jill or Teresa)
City’s Consultant Project Manager for Project Information:

Jill McPeek  
JillM@wallacegroup.us  
(805) 597-7118

Future Meetings

- Public Announcement
- Public Involvement

Comment Cards

Committed to providing timely information!
CONSTRUCTION ACTIVITIES
SUMMARY OF WORK TO DATE

- 1996 City Council Approves Resolution for Preliminary Engineering to Rehabilitate the bridge deck
  - Highway Bridge Program (HBP) funding secured
  - During inspection of the bridge, deficiencies in addition to deck were identified so deck rehabilitation was halted

- 1997 Caltrans agrees to fund a comparison analysis of rehabilitation vs replacement
  - Inspections by City’s structural consultant and Caltrans were performed
  - Due to low sufficiency rating, additional information would be required if City wished to pursue rehabilitation option

- 1999 City hires structural and soils engineers to perform Preliminary Engineering Study (PES) of various alternatives, from rehabilitation to replacement

- 2005 Preliminary Engineering Study (PES) completed and City begins search for funding
SUMMARY OF WORK TO DATE (CONT)

- August 2010 City submits application to Caltrans and secures 100% HBP funding for engineering and construction
- May 2012 City hires Quincy Engineering team
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