Charrette Goals
Foster dialogue between the CTF to achieve:
- A shared understanding of the data and performance assessments of the different alternatives;
- Recommended refinements/changes;
- Recommendations on the street design concept alternatives to move forward into further design and analysis; and,
- Input on what to obtain from the public at Public Meeting #4
  - Tentatively-anticipated for May, 2014
  - Results from this charrette will be shared with the public

Charrette Agendas
- #1: February 25 – 5:30pm – Child & Family Resources
  Study Session; 1 Call to the Audience 15 mins.
  Presentation / Discussions:
    - Phoenix Light Rail Implementation 60 mins.
    - Street design concept alternatives drawings 60 mins.
    - Performance measure assessments for the alternatives / Transportation analyses (VISSIM) for the alternatives 60 mins.
  Work between meetings:
    - Review drawings, performance measures, and studies
      - What questions, ideas, and concerns do you have? Use your Post-it Notes
      - What changes would you make to the drawings?
    - Performance Measure and Goals handout (to be distributed at meeting)
Charrette #2-#4 @ 177 N. Church Ave

Charrette Agendas
• #2: February 27 – 5:30pm – 177 N. Church Ave.
  Action Meeting; 2 Calls to the Audience  25 mins.
  – Anticipated updates and clarifications by Team to CTF re: Tuesday night requests / refinements  30 mins.
  – CTF Group Work (with Brief Breaks) identifies and prioritizes questions, issues, and concerns in order to achieve Charrette Goals  100 mins.

Work between meetings:
  – Review drawings, performance measures, and studies
  – Obtain input from stakeholders, as feasible
  – Performance Measure and Goals handout (to be distributed at meeting)

Charrette Agendas
• #3: March 6 – 5:30pm – 177 N. Church Ave.
  Action Meeting; 2 Calls to the Audience  25 mins.
  – Updates from the Team  30 mins.
  – CTF Group Activities with Brief Breaks:  115 mins.
    Hands-on Work in Groups to Achieve CTF Charrette Goals’ Decisions

Work between meetings:
  – Reflect on activities, discussions, and progress; bring any additional considerations to the last meeting of the Charrette

Charrette Agendas
• #4: March 7 – 3pm – 177 N. Church Ave.
  Action Meeting; 2 Calls to the Audience  25 mins.
  CTF Discussions and Decisions (with Brief Breaks):  110 mins.
  • Design Concepts,
  • Performance Measures and Assessments,
  • Vision and Goal Statements, and
  • What to Advance to Public Meeting #4

Project Schedule and Next Steps  30 mins.

Charrette Agendas
• #4: March 7 – 3pm – 177 N. Church Ave.
  Action Meeting; 2 Calls to the Audience  25 mins.
  CTF Discussions and Decisions (with Brief Breaks):  110 mins.
  • Design Concepts,
  • Performance Measures and Assessments,
  • Vision and Goal Statements, and
  • What to Advance to Public Meeting #4

Project Schedule and Next Steps  30 mins.

Project Policy Parameters
March 2012  M&C requests hold on acquisitions/demos
June 24, 2012  RTA Board discusses ‘No Diminishment of Functionality’ in relationship to modifications
June 19, 2012  M&C empowered CTF to use creative design
Dec. 18, 2012  M&C strongly encourages staff to communicate to CTF and community that alternatives to the scope will be reviewed and can be built

Representational Roles & Considerations
• CTF Representational Roles
  – 4 Neighborhood Interests
  – 4 Business Interests
  – 1 Regional
  – 1 Citizens Transportation Advisory Committee
  – 1 Planning Commission
  – 1 Bicycle Advisory Committee
  – 1 Special Needs
• Personal Experience / Perspectives/ Knowledge
2. Approval of January 23, 2014 & February 6, 2014 CTF Meeting Summaries

Nanci Beizer

3. Public Input Report, and Reports on Project Presentations and Outreach

Jenn Toothaker
Project Manager, Tucson Department of Transportation

Phil Erickson
Community Design + Architecture

4. Presentation and Discussion: Phoenix Light Rail Implementation

Wulf Grote
Planning and Development Director, Phoenix Valley Metro

Light Rail Transit in Phoenix

Broadway Citizen’s Task Force
February 25, 2013

Valley Metro – Who Are We?

• Operate Regional Transit Services
  • Valley Metro and Phoenix are region’s primary service providers
  • Light Rail and Bus

• Project Development
  • Rail and bus corridors
  • Support facilities

Total Transit Network

• Every transit mode serves a certain purpose and market.
• Many modes working in concert create a successful transportation network.
• We have to continue to build.
  – Economic prosperity
  – Mobility choices
  – Quality of life
Valley-Wide Transit Growth – 25 years

- Population - Doubled
  - 3.8 million in 2010
- Miles of Operation - Tripled
  - 31 million annual revenue miles
- Transit Boardings - Quadrupled
  - 72 million annual passengers

*Travellers have responded to the investment in transit!*

1985 – Regional Sales Tax

- Proposed Freeways
  - 20 year tax
  - Also created RPTA and minor transit funding

Light Rail Funding Sources

- Tempe Sales Tax - 1996 (Prop 400)
- Phoenix Sales Tax - 2000 (Prop 2000)
- Mesa General Fund
- Glendale Sales Tax – 2001 (Prop 402)
- Regional Sales Tax 2004 (Prop 400)
  - 20 year tax; 2/3 highways & 1/3 transit
- Federal Transit Administration
  - New Starts
  - CMAQ and STP

20-Mile Light Rail Line

- Corridor has highest travel demand
- High demonstrated bus ridership
- Highest employment concentrations
- Good residential base
- High student population
- Corridor contains most special event facilities
20-mile LRT Project History

- Initiated Project Planning - 1996
- Selected Preferred Alternative - May 1998
- Started Preliminary Engineering - Sept 1998
- Completed Environmental Work - Jan 2003
- Started Final Design - July 2003
- Started Construction - Oct 2003
- Full Funding Grant Agreement - Jan 2005
- Open for Operations – Dec 2008

Defining Success: LRT Ridership

- Exceeding all expectations
  - Exceeded opening year forecast by 34%
  - Forecast - 26,000/day, Actual - 35,000/day
  - Nearing 2020 ridership projection
  - Forecast - 48,000/day, Current - 44,000/day
  - All-time high = 65,773 on Dec 7, 2013
- Demographics:
  - Students
  - Workers
  - Special event-goers

Defining Success: Development

- $6.9 billion total investment
  - Planned, under construction or completed
  - Within walking distance of LRT
  - $5.4B private investment
  - $1.5B public investment

Developments: Residential

- Campus Suites
- Tapestry on Central
- Grigio Metro

Developments: Public Investment

- Civic Space Park
- ASU Downtown Campus
- Phoenix Convention Center

Developments: Large Mixed Use

- Hayden Ferry Lakeside
- CityScape

Developments: Large Mixed Use

- Hayden Ferry Lakeside
- CityScape
Connecting Sky Harbor Airport
- Initial connection was by bus – 1200 daily riders
- PHX Sky Train Phase I opened on April 8, 2013

LRT Characteristics
- 19 of 20 miles are in street
- 149 signalized intersections
LRT in Street Median

- Left turn access is restricted
- Traffic signals located every 1/4 mile to allow left turns and u-turns for property access

Camelback Rd – Before
5 lanes

Phoenix requested the addition of 1 EB lane

Camelback Rd - After
39 lanes

Phoenix desired to retain all existing lanes because 19th Ave is an I-17 traffic reliever

19th Ave – Before
5 lanes

19th Ave - After
41 lanes

Street capacity was no longer needed because of the I-10 freeway completion

Washington St – Before
6 lanes

Street capacity was no longer needed because of the I-10 freeway completion
Tempe residents wanted traffic calming.

Phoenix desired to retain all existing lanes.
Northwest LRT Extension
Cross Section

Central Mesa LRT Extension - Before
West Mesa
- Retain 4 lanes
Downtown Mesa
- No property acquisition

Sycamore to Country Club

Country Club to Mesa Drive

Downtown Mesa Photo-Simulation

Gilbert Road LRT Extension
Gilbert Road LRT Extension
Street Configuration Options

• Existing – Four lanes with parking
• Options Evaluated
  – Four lane option
  – Two lane option

Gilbert Road LRT Extension
Recommended Cross Section

• 2 through lanes
• Widen to 4 traffic lanes at arterial Intersections
• Retains bicycle lanes and some on-street parking
• Minimizes property acquisition

Preparing for Future Light Rail

• Right-of-way preservation
• Early utility relocations
• Land use
• Transit Oriented Development
• Pedestrian and bicycles
• ADA considerations
• Phasing from bus to rail

Right-of-Way Preservation

LRT width requirements:
• Two Track Alignment – 27’ to 34’
• At Stations (two track) – 41’ to 60’
• Left turn lanes for in-street LRT – add 10’ to 12’
• Varies according to site conditions

Early Utility Relocations

• Reasons to relocate:
  – Allows utility maintenance
  – Minimum clearance for structural loads
• Can be 15 to 20% of project cost
• Can be a significant source of project delay
• Consider relocating as part of street projects

Transit Compatible Land Use

• Steps to success:
  – General Plan Policies
  – Overlay Zoning Districts
  – Building Code Modifications
  – Station Area Planning
  – Development Community Education and Recruitment
  – Market Analysis
**Transit Oriented Development (TOD)**

- Create compatible land uses at stations to improve ridership
- Make access to transit stations easy and attractive for pedestrians
- Provide an environment that is human-scaled (rather than auto oriented)

**Access to future light rail**

- Items to include with street projects:
  - Improve sidewalks & pedestrian environment
  - Bring sidewalks and curb ramps in compliance with ADA requirements
  - Add bike lanes
- Develop bike routes/paths to access future LRT stations

**Phasing From Bus to Rail**

- Successful bus ridership makes the case for federal funds
- Bus operations can be a challenge during LRT construction
  - about 3 years
- Dedicated bus lanes located in future LRT space makes transition to rail difficult
  - Bus lanes close down during LRT construction

**Broadway Boulevard**

Considerations – Phoenix vs. Tucson

- Regional Freeways
- Regional sales tax
- Land use

Vision

- Highway oriented?
- Transit oriented?

**People Lined Up to Experience LRT**

Wulf Grote, PE
Director, Planning and Development
602-322-4420
wgrote@valleymetro.org
10 Minute BREAK

5. Presentation and Q & A: Street Design Concept Alternatives

Phil Erickson
Community Design + Architecture

Mike Johnson
Project Manager, HDR International

Agenda
- Alternatives prepared for Charrette
- What the drawings show
- Overview of each alternative
- Development Diagrams update
- 15 min. for CTF to look at drawings
- 15 to 20 min. Q&A

Street Design Concept Alternatives
- 4-Lane Alternatives
  - “Minimize Direct Building Impacts”
  - “Minimize Property Impacts”
- 4+2T/6-Lane Right-of-Way Alternatives
  - “Minimize Direct Building Impacts”
  - “Minimize Property Impacts”
- 6+2T Lane Alternative
  - “Minimize Property Impacts”

What the Drawings Show

4-Lane “Minimize Direct Building Impacts”
- Align street to avoid impacting buildings
- Minimize r.o.w. width
- Rebuild some parking
- Increases risk of “unintended” acquisitions
- Includes right of way alignment for 4+2T and 6-lane alignments
4-Lane “Minimize Property Impacts”
- Align street to minimize risk of full property acquisitions
- Avoid direct building impacts as feasible
- Includes right of way alignment for 4+2T and 6-lane alignments

6+2T Lane “Minimize Property Impacts”
- Align street to minimize risk of full property acquisitions
- Avoid direct building impacts as feasible
Development Diagrams
• Tool for examining economic potential along Street Design Concept Alternatives

Development Diagrams
• Tool for relating the development diagrams to the alternative maps
• Simple building and parking diagram at 1"=50’ to match the map scale
• Color coding relates to the range of diagrams possible in that lot depth: 45’, 60’, 80’, 100’

Development Diagrams
• Theoretical block development diagrams

15 min. for CTF to Look at Drawings

CTF Q&A

6. Presentation and Q & A: Performance Measure Assessment – Review of VISSIM and other Performance Assessments

Phil Erickson
Community Design + Architecture

Jim Schoen
Principal, Kittleson & Associates, Inc.
Agenda

- Review status of Performance Measures Workbook
- Summary Table
- Multimodal Transportation Assessment – VISSIM modeling tool
  – Overview of some performance measures
- Sampling of some performance measures
- ~20 minutes for Q&A

Status of Performance Measure Assessments

- We will follow up with additional Performance Measures at the Thursday Charrette meeting
- CTF members also have post-it notes to take with your Performance Measure workbooks
- Please review the Performance Measures and write individual Post-Its with:
  - Questions
  - Concerns
  - Ideas for revisions
  - Etc.
- Post-Its will be used in group discussion exercise at Thursday meeting

1a. Streetside Functionality for Pedestrian Activity

<table>
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<tr>
<th>Street Cross Section</th>
<th>Traffic Lane Impact</th>
<th>Average Speed (mph)</th>
<th>Average Difference in Speed (mph)</th>
<th>Length of Pedestrian Improvements (miles)</th>
<th>Summary Score</th>
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<td>4-Lane</td>
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<td>West of Mamar</td>
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<td>6-Lane</td>
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2a. Separation of Bikes and Arterial Traffic

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<th>Street Cross Section</th>
<th>Traffic Lane Impact</th>
<th>Bicycle Counts (Vehicles/hour)</th>
<th>Percent Change</th>
<th>Volume (Vehicles/hour)</th>
<th>Percent Change</th>
<th>Summary Score</th>
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<td>350</td>
<td>-15%</td>
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6a. Historic Resources

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<th>Historic Resource</th>
<th>Building Impacts</th>
<th>High Risk for Acquisition</th>
<th>Moderate Risk for Acquisition</th>
<th>Total Historic Impacts</th>
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<td>Lane Minimizing Building Impacts</td>
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<td>46</td>
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<td>lane x 2</td>
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<td>3</td>
<td>78</td>
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</table>

VISSIM Modeling

- Assess/compare cross section alternatives
- Assess effect of dedicated transit lane
- Evaluate two future volume scenarios
  - PAG 2040 (33% growth)
  - Reduced PAG 2040 (22% growth)
- Assess mode shift scenario
Existing Conditions

PAG Projected Volumes

Transit Travel Time and Variation

Eastern and Western Section Travel Time

What if Scenario...Mode Shift

Multi-Modal Travel

What if Scenario...Mode Shift

Multi-Modal Travel
Call to the Audience

15 Minutes

Please limit comments to 3 minutes

• Called forward in order received
• CTF members cannot discuss matters raised
• CTF cannot take action on matters raised
• CTF members can ask project team to review an item

Call to the Audience Guidelines

• Must fill out participant card
• Participants called in the order cards are received
• 3 minutes allowed per participant
• CTF Facilitator will call on speakers and manage time
• CTF members cannot discuss matters raised
• CTF cannot take action on matters raised
• CTF members can ask project team to review an item

Next Steps/Roundtable

Jenn Toothaker

Next CTF Meeting Dates:

• Session 2: Thursday, February 27, 2014, 5:30 pm - 8:30 pm
  Transamerica Building, 1st Floor Conference Room, 177 N.
  Church Avenue
• Session 3: Thursday, March 6, 2014, 5:30 pm - 8:30 pm
  Transamerica Building, 1st Floor Conference Room, 177 N.
  Church Avenue
• Session 4: Friday, March 7, 2014, 3 pm - 6 pm
  Transamerica Building, 1st Floor Conference Room, 177 N.
  Church Avenue

Thank You for Coming – Please Stay in Touch!

Broadway: Euclid to Country Club Improvement Project
Web: www.tucsonaz.gov/broadway
Email: broadway@tucsonaz.gov
Info Line: 520.622.0815

RTA Plan
www.rtamobility.com

5a. Person Trips for Multiple Measures