3. Recommendations from Staff Technical Advisory Committee and Upcoming Presentation to the Mayor and Council

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Broadway Project has Reached a Critical Milestone

- Initial analysis of 4 alternatives complete
- Citizens Task Force (CTF) is making decisions/narrowing down alternatives
- Public Meeting #4 coming up – public will be informed and asked to provide input on decisions being made
- New RTA/City contract is contingent on ability to meet May 2016 construction deadline and policy parameters

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CTF Decisions at Charrette #3

- Table the 6+2T alternative for now
- Focus on refinements to the 4-lane and 6-lane/4+2T alternatives, seeking fewer impacts to properties and acquisitions
- Create design variations (vignettes) for how to address challenging areas identified by CTF;
- Illustrate possible infrastructure that can be built for transit in the 6-lane alternative; and,
- Create surveys and/or input opportunities for public on different topics.

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Key Issues Raised at Charrette #3

- Is 4-lane alternative really not an option? Why?
  - *Decision will need to be supported by Mayor & Council, RTA Board, and Pima County*
- Is a combo of 4-lane west of Campbell/6-lane east of Campbell on the table for consideration?
  - *Future HCT not along Broadway, Euclid to Campbell?*
  - *Is 4-lane good enough for local service?*
- What is the reality of a path from 6-lane to a 4+2T? What transit do we plan for 20+ years into future?
  - *How do we address transit (from local bus all the way to light rail)?*

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Steps for Defining Viable Alternatives

- ***4/2 TAC Workshop –*** *Technical input to respond to questions of viable alternatives*
- ***4/30 CTF Meeting*** *– Share TAC feedback; Review requested refined alternatives; Formulate CTF recommendations*
- ***5/6 Mayor & Council Meeting*** *– Provide recommendations from CTF and TAC; request direction*

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Technical Advisory Committee Workshop

- Staff representatives from a variety of departments and agencies

  (COT: CMO, Attorney's, OIP, Econ. Initiatives, TDOT, ParkWise, PDSD; RTA; Pima Co. DOT)
- Data presented to CTF at Charrette #3 shared
- Obtained technical topic matter expert input
- Requested recommendations on what alternatives to <u>eliminate and why</u>, and what the Broadway project should focus time, efforts, and resources on moving forward

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Desired Outcome of TAC Workshop

Consensus recommendation on the following question:

"As a group of technical topic experts with a role in the way this project will be designed, built, and implemented/maintained, what do you recommend the Broadway Project should focus time, money and resources on, moving forward through planning and design?"

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Alternatives Performance Summary Sheets

- Overviews of Each Alternative (incl. Sidewalk Only)
- Highlights of Performances

Broadway: Euclid to Country Club Roadway Improvement Project

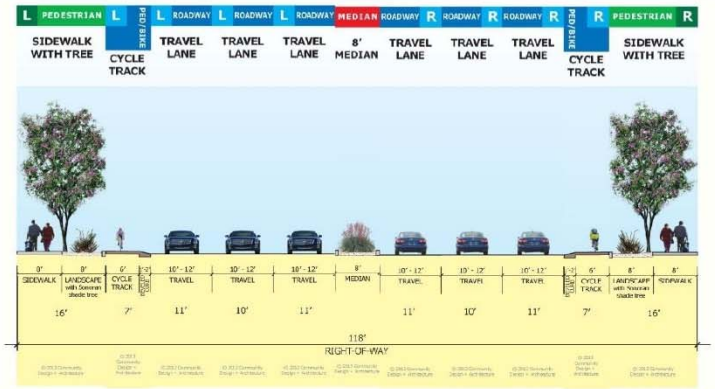
Summary of Performance Highlights:
6-Lane Street Design Concept Alternative (118' Right of Way)

Description

All alternatives include:
- 8' Sidewalks (limited narrowing to avoid impacts, 5' min.)
- 8' Landscaped areas roadside and in medians (limited narrowing to avoid impacts, 6' min. at roadside to allow for some landscape, 3' min. in median without landscape)
- 7'-8' wide cycle tracks with 6' bike lanes at vehicle crossings

6-Lane Alternatives include:
- Bus pullouts at all signals; not at midblock bus stops

Two alignment alternatives drawn for charrette; additional "hybrid" option being develo
- **Minimizing Building Impacts** - preserves as many buildings as possible
- **Minimizing Property Impacts** - limits impacts (acquisitions and demolitions) to on side of the roadway
- Hybrid –reduces impacts to both buildings and properties



Broadway: Euclid to Country Club Roadway Improvement Project

Summary of Performance Highlights:
6-Lane Street Design Concept Alternative (118' Right of Way)

Cost Estimates (Same as the 4+2T)

Alternative	Goal	Construction Estimates	Acquisition Estimates	Total	*Potential Remnant Land Sq. Ft.*	*Potential Costs Recovered*
Minimize Building Impacts	*Preserve buildings*	$26.2 M	$66.4 M	$92.6 M	*~892,637 sq. ft.*	*$13.4 – $35.7 M*
Minimize Property Impacts	*Limit impacts to one side*	$26.2 M	$44.1 M	$70.3 M	*~713,665 sq. ft.*	*$10.7 – $28.5 M*

Results of Transportation Analysis (Transportation Specific Measures)
Assumes a reduced growth rate (22%) from 2040 PAG Projections (33%)

Mode/Measure	Description	Performance Highlights
Vehicle	*~4,166 vehicles (5,000 people)*	- Vehicle travel time during peak hour EB travel **reduced by 1.4% (minus 0.1 min.)** - Intersection delays are high for all movements, but the 6-lane continuous lanes perform better than the 6+2T alternative, which must narrow at both ends of the project area resulting in congestion that "backs into" rest of the study area - Results are comparable to those achieved in the 6+2T alternative, and better than 4-lane or 4+2T - Signal timing creates delays due to wide crossings
Transit	*500 total riders during PM peak hour, assuming local bus and limited stop bus running*	- Bus travel during peak hour EB travel **reduced by 0.7% (minus 0.1 min.)** - Local bus service performs well, although not as good as when there are dedicated lanes - Results are comparable to those achieved in the 6+2T alternative, and better than the 4-lane - Could accommodate future High Capacity Transit if it is acceptable to reduce the number of mixed flow lanes to 4
Bike	*50 bikes*	- All alternatives provide improved buffered facilities and reduced number of conflict points between vehicles and bicyclists - Travel time not impacted much across alternatives (assumed 9-11 mph) - Provides OK support for bike network connections. Crossings at key points are pretty wide – Campbell, Highland, Treat
Pedestrian		- All alternatives provide improved facilities - Reduced number of conflict points - Neutral performance for crossing times same as 4+2T lane, compared to 4-lane performing best and 6+2T performing worst

Results of Additional Analysis (Non-Transportation Specific Measures)

Measure	Performance Highlights
Sense of Place: Impacts to Historic Resources	
Minimize Building Impacts	- 90 Historic Properties impacted of 143 total properties - 23 Historic Buildings directly impacted (of 37 buildings total)
Minimize Property Impacts	- 63 Historic Properties Impacted of 96 total properties - 26 Historic Buildings directly impacted (of 41 buildings total)
"Hybrid"	- Likely impacts many fewer Historic Properties and Buildings
Sense of Place: Impacts to Significant Resources	
Minimize Building Impacts	- Total of 2 Significant (Not yet historic) Property (1 at High, 1 at Mod. Risk for Acquisition)
Minimize Property Impacts	- Total of 2 Significant (Not yet historic) Property (2 at Mod. Risk for Acquisition)
"Hybrid"	- Impact to Significant Properties still to be determined, likely similar to other
Environment & Public Health	
- More cars and vehicle delays lead to higher levels of Greenhouse Gases and other tailpipe emissions than existing; however, performs better than 4-lane or 4+2T, and comparably with the 6+2T - Has not been evaluated for opportunities for water harvesting and green streets, can be assessed for the "Hybrid" option as it is being designed at a detailed level	
Economic Vitality: Change in Economic Potential	
Minimize Building Impacts	- Leaves more existing structures in place compared with other 6-lane alternative (note: "hybrid" performs even better), scoring second lowest for change in economic potential for near-term - Provides the most remnant property for long-term reuse and infill
Minimize Property Impacts	- Leaves less existing structures in place, second highest of all alternatives - Provides less remnant property for long-term reuse and infill, scoring slightly worse than other 6 lane

Considerations
- Meets County Bond Project Ordinance description
- Project does not meet the RTA Plan ballot language, but has more ability to meet the policy "No Diminishment of Functionality" as originally envisioned by the original Technical Committee and Citizens Advisory Committee, because its performance in comparison to the 6+2T is better.

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Summary of
TAC Recommendations by Alternative

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6-Lanes (118’ Right of Way)

Staff Recommendation: **Make this alternative the priority focus of project design now.** **Focus on how roadway could convert to a 4+2 dedicated transit lanes, as ridership and technologies warrant.**

- Creates enhanced benefit to automobiles
- Creates enhanced benefit to transit
- Could accommodate future High Capacity Transit
- Remnant properties are reasonably sized
- Fundable by RTA and Pima County

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4+2T (118’ Right of Way)

Staff Recommendation: Focus on 6-lane design that could convert to a 4+2T dedicates lanes, when ridership and technologies warrant.

- Enhances transit, but creates congestion for automobiles
- Current and modelled transit service does not provide enough functionality to warrant reduction in auto lanes
- Congestion worse than for the 4-lane or existing
- No enhanced benefit to automobiles
- Not fundable by Pima County or RTA because solution creates no added functionality or benefit to auto-driving public (the majority of users on Broadway are in cars)
  - *Repayment of expenditures to date would be required by RTA and Pima County (~$7M)*

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6+2T (150' Right of Way)

Staff Recommendation: Eliminate from consideration.

- Benefits to automobiles and transit worse than the 6-lane
- Does not serve non-transportation specific measures well (e.g., Economic Vitality, Impacts to Historic and Significant Resources, Environmental / Public Health, and others)
- Does not really allow for building a roadway that relates well to existing context (context sensitive)
- Shallow lots restrict ability to attract future infill and businesses (also context sensitive)
- Low benefits to cost ratio, given that there are higher impacts and costs, but performance does not improve on a complementary scale
- Fundable by RTA and Pima County because meets the bond and ballot language
- Construction and acquisition costs create doubt that option is cost feasible

4-Lane (96’ Right of Way)

Staff Recommendation: Eliminate from consideration.

- Does not accommodate future High Capacity Transit
- No enhanced benefit to automobiles
- No enhanced benefit to transit
- Not fundable by Pima County or RTA because solution creates no added functionality or benefit to auto-driving public (the majority of users on Broadway are in cars)
    - *Repayment of expenditures to date would be required by RTA and Pima County (~$7 M)*
- Too far off from the project described in the 2 measures previously voted on (1997 Pima County Transportation Bonds; 2006 RTA Plan)
- Limits future economic vitality because it doesn’t provide enough investment and visible; it is not a catalyst for a better economic future in the area
- Time and money spent on studying this further takes away from potential of other alternatives

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Sidewalk-Only (Existing Curb-to-Curb)

Staff Recommendation: **Example of what City would face if widening not undertaken now;** **staff recommendation is to avoid this situation.**

- Complies with 2013 joint US DOJ/DOT ruling regarding installation of ADA pathways and curb ramps when roadways are altered. If the City resurfaces the roadbed, it will trigger compliance. Such maintenance will be needed within the next 5-15 years. Roadway resurfacing would cost $5-6 M more than above costs.
- No enhanced benefit to automobiles
- No enhanced benefit to transit
- Does not accommodate ROW for future High Capacity Transit
- Not fundable by Pima County or RTA because solution creates no added functionality or benefit to auto-driving public (the majority of users on Broadway are in cars)
    - *Repayment of expenditures to date would be required by RTA and Pima County ($7 M)*

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  - ***Any CTF members able/willing to attend?***

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CTF Discussion / Decisions

- Poll: Are any CTF members available to attend the May 6 M&C Study Session (time to be determined; most likely afternoon)?
- Does CTF support tabling the following decision until after 1st Call to the Audience and Break:
  - Formulating CTF recommendations on alternative(s) to move forward to Mayor and Council and Public Meeting #4
- *Someone needs to make a motion to table this decision*

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