June 7, 2018

Item #1

CITIZENS PARTICIPATION
Item #2

APPROVAL OF MINUTES

Item #3

TRAC GOALS, FRAMEWORK & AGENDA REVIEW
COMMITTEE GOALS

• Learn about Southern Nevada’s mobility challenges, new developments and opportunities.

• Learn about smart communities, emerging technologies and how these efforts can impact and improve mobility, accessibility and safety in Southern Nevada.

• Obtain input and make recommendations on how to best address and prioritize mobility solutions.

MEETING FRAMEWORK

Meeting 6 - September 6, 2018 - On Board Transit update to include: Enhanced Transit; Technology-Driven Public-Private Partnerships; Paratransit, Seniors and Veterans Update

Meeting 7 - November 1, 2018 - On Board High-Capacity Transit update to include: Additional High-Capacity Transit Corridors & Resort Corridor; Emerging Transit Technology; 2019 Legislative Ask

Meeting 8 - January 3, 2019 - 2019 Legislative Ask; Overall On Board Recommendations and Funding
AGENDA REVIEW

- Transit-Oriented Development (TOD) Symposium Recap
- TOD Community Comparison
- On Board Update
- Maryland Parkway Alternatives Background
- TRAC Recommendations for Maryland Parkway
- Upcoming Events

Item #4

TRANSIT-ORIENTED DEVELOPMENT (TOD) SYMPOSIUM Recap
TRANSPORT-Oriented Development Symposium

April 25, 2018

Thank you to our sponsors:

- UNLV
- Las Vegas Global Economic Alliance
- Southern Nevada Home Builders Association
Communities Surveyed

- Kansas City
- Phoenix
- Portland
- Sacramento
- Salt Lake City
- San Francisco Bay Area
- San Diego
- Denver
- Los Angeles – Orange Line
- Charlotte, NC

What did we ask?

- BRT, LRT, both
- Funding
- Special taxing districts
- Airport connection
- Right-of-way
- Relaxed zoning
- Development
- Enticements for developers
- Land values
- Types of users
Traditional Transit - LRT - BRT - Both

Funding & Special Tax Districts
Airport Connection

- Yes: 62%
- No: 25%
- Future Plan: 13%

Relaxed Zoning

- Yes: 78%
- No: 11%
- Under Construction: 11%
Who is riding transit in Phoenix?

- 39 percent are commuters
- 35 is the average age
- 54 percent are employed full-time
- 27 percent are students
Who is riding transit in California?

- Sacramento
  - 64% minority
  - 36% non-minority
- San Francisco Bay Area
  - Employees
  - Students
  - Tourists
  - Shoppers
- LA Orange Line
  - Employees
  - Students
  - Tourists

Who is riding transit in Charlotte?

- Students and employees of the nearby community college
- Employees of nearby hospitals
- Commuters
Transit-Oriented Development

“Intense development around light rail.”

“Light rail has been so successful as incentive for development.”

“Higher quality uses around light rail.”

“Property values have increased.”

Discussion
ON BOARD UPDATE

ON board
YOUR FUTURE TRANSIT PLAN
WHAT WILL ON BOARD DO?

- Traditional Transit Improvements
- High Capacity Transit Options
- Emerging Transit Technology Opportunities

ON BOARD

- Regional Transportation Commission (RTC)
- Community Input
- Emerging Transit Technologies
- Traditional Transit
- Additional MCT Corridors
- Resort Corridor Feasibility Study
- Maryland Parkway Study

On Board
ON BOARD

Top corridors for next round

Identify universe of corridors

Segment corridors

Screen / evaluate

Top corridors for next round
UNIVERSE OF CORRIDORS

1. Identify Phase 1 Corridors
2. Split Corridors into Segments
3. Conduct Screening of Segments

PHASE 2 CORRIDORS
**TOD TYPOLOGIES**

- **Las Vegas Strip**
- **Downtown - Regional**
- **Downtown - Local**
- **Urban Neighborhood**
- **Town Center**
- **Entertainment District**
- **Employment District**
- **Medical District**
- **Educational Campus**

**WHERE WE’VE BEEN**

- More than 15,000 surveys
- Attended more than 93 events
- 66 speaking engagements
- 16 technical advisory group meetings
- 5 TRAC meetings
- 4 public meetings
NEXT STEPS

2017
1. PURPOSE AND NEED
   Spring 2017 to Summer 2017

2. DEVELOP ALTERNATIVES
   Summer 2017 to Winter 2017

3. EVALUATE ALTERNATIVES
   Winter 2017 to Spring 2018

2018
4. RECOMMENDATIONS AND FINAL PLAN
   Summer 2018 to Fall 2018

STAKEHOLDER AND COMMUNITY ENGAGEMENT

ON BOARD AND TRAC NEXT STEPS

On Board
- High Capacity Transit
- Resort Corridor Feasibility Study
- Additional HCT Corridors
- Maryland Parkway Study
- Emerging Transit Technologies
- Traditional Transit
On Board Approval Process

Technical Advisory Group
Local Municipal Planning and Engineering Representatives

Public Stakeholder Community
Interested Businesses, Community Organizations, Local Jurisdictions and Elected Officials

Transit Riders / General Public

TRAC
RTC Committees
Local Government Boards

RTC Board

UPCOMING TRAC MEETING TIMELINE

**On Board - Transit**
Enhanced Transit | Technology-driven Public-Private Partnerships | Paratransit, Seniors & Veterans

**On Board - High-Capacity Transit**
Additional High-Capacity Transit Corridors | Resort Corridor | Emerging Transit Technologies | 2019 Legislative Ask

**SEPTEMBER 2018**
Legislative Update | On Board Community Input Update

**JUNE 2019**
Community Input for On Board Recommendations & Priorities

**JANUARY-JUNE 2019**
2019 Legislative Ask | Overall On Board Recommendations & Funding

**JANUARY 2019**
Recommendations on On Board Priorities

**AUGUST 2019**
Made it!

**NOVEMBER 2018**
2019 Legislative Ask | Overall On Board Recommendations & Funding

**UPCOMING TRAC MEETING TIMELINE**
MARYLAND PARKWAY
ALTERNATIVES BACKGROUND

WHY MARYLAND PARKWAY?

Connects to 21 transit lines

Links key destinations

High-productivity route

93,096 Residents

85,685 Jobs

Item #7
WHAT ARE WE TRYING TO ACHIEVE?

- Improve mobility
- Maximize transportation choices
- Faster, more reliable and attractive
- Instill a sense of place
- Foster economic development

WHAT ARE WE TRYING TO ACHIEVE?

- Downtown to Airport
- 8.7-Mile Route
- Technology Options:
  - Bus Rapid Transit
  - Light Rail
- 25 Station Locations
  0.35-mile spacing

PROPOSED ROUTE

Las Vegas Medical District 12,000
Sunrise Hospital 4,600
Boulevard Mall 1,000
UNLV 5,500 employees
30,000 students
McCarran International Airport 16,000
Downtown Las Vegas 30,000
KEY CONNECTIONS

UMC  Huntridge Circle Park  Sunrise Hospital
Bonneville Transit Center  McCarran Airport  The Boulevard Mall
Fremont Street Experience  University of Nevada at Las Vegas (UNLV)  Container Park

CONFIGURATION COMPARISON

Equivalent
- Ridership
- Economic development
- Urban design
- Passenger experience
- Bike & Ped facilities
- Capital and O&M Costs

SIDE-RUNNING
- More efficient traffic operations
- Requires less RoW
- Slightly slower speed

CENTER-RUNNING
- Less efficient traffic operations
- Requires more RoW
- Slightly faster speed
**Side-running vs. Center-running**

<table>
<thead>
<tr>
<th>Side-running</th>
<th>Center-running</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit lanes allow right turns</td>
<td>No shared use of transit lanes</td>
</tr>
<tr>
<td>More left-turn access points</td>
<td>Very limited left-turn access points</td>
</tr>
<tr>
<td>More efficient traffic operations</td>
<td>Less efficient traffic operations</td>
</tr>
<tr>
<td>Lower capital cost</td>
<td>Higher capital cost</td>
</tr>
<tr>
<td>Limited Right-of-Way acquisition ~3 acres</td>
<td>Significant Right-of-Way acquisition ~35 acres</td>
</tr>
</tbody>
</table>

**Configuration Options**

- **Center-Running**
- **Side-Running**
NEXT STEPS

- 30-Day Public Comment Period
- Input from Local Jurisdictions
- Input from RTC Advisory Committees
- RTC Board Adopts Locally Preferred Alternative

PROJECT IMPLEMENTATION SCHEDULE

- Alternatives Analysis
- Environmental Assessment
- Project Refinement
- Conceptual Design
- Funding Plan
- Preliminary/Final Design
- Bid/Construction/Testing
- Revenue Service

TRAC RECOMMENDATIONS FOR MARYLAND PARKWAY

Maryland Parkway & On Board
**PROPOSED ROUTE**

- **Downtown to Airport**
- **8.7-Mile Route**
- **Technology Options:**
  - Bus Rapid Transit
  - Light Rail
- **25 Station Locations**
  0.35-mile spacing

**ENHANCED TRANSIT**

- Attracts more riders but less than bus rapid transit (BRT) and light rail (LRT)
- Minimal opportunity for transit-oriented development
- Least construction impact
- Increased service can be phased in faster than BRT or LRT
- Lowest capital and annual operations & maintenance costs
BUS RAPID TRANSIT

- Increased frequency, faster travel time, higher ridership
- Operates like light rail transit, but not as many riders
- May attract some transit-oriented development
- Major reconstruction of the corridor
- Higher capital and annual operations & maintenance costs
URBAN LIGHTRAIL

• Improves community image and attracts new riders
• Increased frequency, fastest travel time, highest ridership
• Greatest opportunity for economic and transit-oriented development
• Major reconstruction of the corridor
• Highest capital and annual operations and maintenance costs

Q-Line
Detroit Michigan
### PROPOSED PROJECT COSTS
**ESTIMATED IN FUTURE DOLLARS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Bus Rapid Transit</th>
<th>Light Rail Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEDERAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FTA New Starts</td>
<td>$164,150,000</td>
<td>$367,500,000</td>
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<tr>
<td>CMAQ</td>
<td>$45,850,000</td>
<td>$163,687,643</td>
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<tr>
<td>Fuel Tax Indexing II</td>
<td>$125,000,000</td>
<td>$125,000,000</td>
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<tr>
<td>Value Capture</td>
<td>---</td>
<td>$50,000,000</td>
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<tr>
<td>Other Local Source</td>
<td>---</td>
<td>$43,812,357</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$335,000,000</strong></td>
<td><strong>$750,000,000</strong></td>
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</tbody>
</table>

**LOCAL SOURCE:**

- Value Capture
- Other Local Source
- Total
Real Estate Investment Near Transit

### Real Estate Investment per $ of Transit Investment

<table>
<thead>
<tr>
<th>Dollars of TOD</th>
<th>Regional Light Rail</th>
<th>Bus Rapid Transit</th>
<th>Urban Light Rail*</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20</td>
<td>$3</td>
<td>$9</td>
<td>$17</td>
</tr>
<tr>
<td>$-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Observed cities:
- Charlotte
- Denver (max: $15)
- Los Angeles (min: $1)
- Phoenix
- Portland
- Boston (min: $1)
- Cleveland (max: $115)
- Eugene
- Kansas City
- Las Vegas
- Ottawa
- Pittsburgh
- Atlanta
- Detroit
- Kansas City
- Portland
- Salt Lake City
- Seattle (max: $32)
- Tucson (min: $5)

Note: (*) Typically referred to as Modern Streetcar Rail with an average investment length under three miles. Portland's loop is the longest system in this dataset at 7.2 miles and saw roughly $9 in real estate development per dollar invested in transit.

Item #9 - Upcoming Events

Item #10

OPEN DISCUSSION
Item #11

FINAL CITIZENS PARTICIPATION