Comprehensive Operational Analysis (COA)

Existing Market and Conditions Evaluation

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LSC Transportation Consultants, Inc.
What is the COA?

- a detailed study of SolTrans’ current routes, customers and customer needs
  - focusing only on Local Routes (Non-Express), General Public Dial-A-Ride and Local Taxi Scrip
- will be used to make a 5 to 7 year plan for SolTrans

Today we’re going to talk about:
- SolTrans’ transit demographics
- what we’ve seen so far in our review of current routes
- A draft list of possible changes
Trends in Ridership by Route

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 7
- Route 8
- Route 20
- Route 15
- Route 17

Annual Boardings

Fiscal Year

Ridership by Weekday/Sat/Sun

- **Weekday**
- **Saturday**
- **Sunday**

![Bar chart showing ridership by weekday/sat/sun across different routes.](chart.png)
Demographic Study Conclusions

- Population size will increase
  - Will lead to moderate growth across all transit riders
  - Will lead to large increase in senior riders due “Baby Boomer” aging and limited mobility

- City of Vallejo development along Sonoma Boulevard indicates need to consider better routing options and service levels
  - Including Bus Rapid Transit
Demographic Study Conclusions

- Most schools are directly served

- Commute patterns indicate that travel to/from work is a relatively small demographic for Local Routes

- Current routes focus well on the areas with the greatest need
  - 93% of households without a vehicle
  - 85% of all households are within ¼ mile of a bus stop
Demographic Study Conclusions

- Most underserved areas in Vallejo:
  - Mare Island
  - east of Oakwood Avenue
  - west of Ascot/north of Tennessee Street
  - around Oakwood Avenue/Skyline Drive
  - portions of Glen Cove
  - Georgia Street/Steffan Street

- Most underserved areas in Benicia:
  - Eastern industrial areas of Benicia
  - Arsenal (southernmost portion of the Industrial Park)
Households Without Vehicles
### Current SolTrans Route Frequency & Span of Service

<table>
<thead>
<tr>
<th>Time</th>
<th>Route 1</th>
<th>Route 2</th>
<th>Route 3</th>
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**School Trippers**

- **Weekday**
  - 2 Runs
  - 2 Runs
  - 1 Run

- **Saturday**
  - 2 Runs
  - 2 Runs

- **Sunday**
  - 2 Runs
Daily Rider Trips Between Zones
Daily Ridership by Stop
On-Time Performance

<table>
<thead>
<tr>
<th>Regular Routes</th>
<th>Early</th>
<th>On Time</th>
<th>Late</th>
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<tr>
<td>1</td>
<td>23%</td>
<td>69%</td>
<td>11%</td>
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<td>2</td>
<td>16%</td>
<td>64%</td>
<td>15%</td>
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<td>3</td>
<td>17%</td>
<td>73%</td>
<td>17%</td>
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<tr>
<td>4</td>
<td>17%</td>
<td>68%</td>
<td>13%</td>
</tr>
<tr>
<td>5</td>
<td>17%</td>
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<td>16%</td>
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<tr>
<td>6</td>
<td>19%</td>
<td>67%</td>
<td>13%</td>
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<tr>
<td>7</td>
<td>23%</td>
<td>69%</td>
<td>18%</td>
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<td>8</td>
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<td>60%</td>
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<th>Tripper Routes</th>
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Route Performance Analysis

SolTrans has a series of performance measures:

- **Productivity**: passengers per vehicle-hour of service
  - SolTrans standard: **12 or more**
  - Met for most local routes
  - Not met for Local Routes 3, 5, 6, 8 and 20

- **Cost per Passenger**
  - SolTrans standard: **less or equal to $8.00**
  - Met by Routes 1, 2 and 7
  - Not met by other local routes

- **Farebox Ratio**: the proportion of operating costs that are covered by fare revenues
  - SolTrans standard: **20% or more**
  - Only met by Route 1
Passengers per Vehicle-Hour

Productivity

[Bar chart showing productivity per route with a standard of 12.0 and School Tripper Routes highlighted with a value of 21.5.]
Farebox Return Ratio
Passenger Fares Divided by Marginal Operating Costs

Standard = 20%

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>Ratio of Passenger Fares to Operating Cost</th>
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<tbody>
<tr>
<td>1</td>
<td>20.5%</td>
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<td>2</td>
<td>15.2%</td>
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<td>9.9%</td>
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<td>17</td>
<td>13.4%</td>
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<td>38</td>
<td>7.1%</td>
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General Public Dial-A-Ride

▶ Service in Benicia, Monday - Saturday
▶ $2.00 fare for general public, $1.00 fare for Seniors in mid-morning to mid-afternoon
▶ **Serves 4,500 passenger per year**
▶ Performance Measures:
  ▶ Productivity = 1.9 passengers per vehicle-hour
  ▶ **Costs $35 per passenger**
  ▶ **2% farebox ratio**
▶ proportion of missed trips, late cancellations and “no shows” are within industry standards
Local Taxi Scrip Program

- Available to persons with disabilities, Seniors and Medicare cardholders, throughout Vallejo and Benicia
- Service provided by Veterans Corporation and Liberty Transit
  - Veterans Corp - 55%
  - Liberty Transit - 45%
- 7,300 trips provided annually
- Productivity = 10.6 per vehicle-hour
  - Subsidy provided per passenger = $27.87
- 18% of passengers travel on Saturday, 11% on Sunday
- Service available 24 hours, but 89% of the trips occur between 8AM - 6PM
- Ridership is concentrated in downtown and neighborhoods just north and east of downtown areas
Initial List of Alternatives for Evaluation
(In No Particular Order)

- Consider a north-south route east of I-80
- Develop a high-frequency/high-amenity corridor along North Broadway north from VTC
- Revise Route 1 to operate along Broadway Street in both directions, rather than Sonoma Boulevard
- Revise Route 2 to eliminate the one-direction segments north of SR 37 and improve running times
- Revise Route 8 to eliminate the second loop around Ascot Parkway and Georgia Street
- Eliminate/Revise Route 20
Initial List of Alternatives for Evaluation
(In No Particular Order)

- Revise Route 3 to eliminate the long in-vehicle travel times, such as splitting route
- Revise schedules to provide better transfer opportunities at STC
- Provide weekday evening service until 9 PM
- Provide consistent Sunday service on Routes 1 and 7 (fill in the afternoon schedule gap)
- Eliminate Saturday Route 8 service
- Reduce Saturday Route 6 service to 8:30 AM – 4:30 PM
- Eliminate Sunday service
- Provide consistent hourly service frequency on Saturdays
- Reduce service frequency on Route 7 during mid-day
Initial List of Alternatives for Evaluation
(In No Particular Order)

- Provision of subsidized Transportation Network Company (TNC) services (such as Lyft, Uber or local taxi) to address low-demand public transit needs. Possible applications are:
  - Replace the General Public DAR service with TNC service
  - Expand the Local Taxi Scrip program to also include TNC service
  - Serve Glen Cove/Beverly Hills with TNC service
- Ensure passengers are aware that local fares apply to SolanoExpress trips which are wholly within the local route service area
- Consider other options to increase overall service by 25 percent
- In addition, a “clean slate” analysis will be conducted
Other Alternatives?

Other Comments?

www.soltransride.com/planning/coa/

Thank You!