What is Goods Movement?

- Internal and External Drivers and Impacts
- International Trade
- Domestic Trade
- Urban Goods Movement
GOODS MOVEMENT COLLABORATIVE AND GOODS MOVEMENT PLAN

Goods Movement in the Bay Area by Trade Type – 2011 and 2040

- Domestic Only
  - 2011: 359
  - 2040: 611
  - 1.9% CAGR

- Imports
  - 2011: 47
  - 2040: 99
  - 2.6% CAGR

- Exports
  - 2011: 30
  - 2040: 100
  - 4.3% CAGR

CAGR - Compound Annual Growth Rate
Source: Federal Highway Administration FAF3.

Goods Movement in the Bay Area by Movement Type – 2011 and 2040

- Intra
  - 2011: 254
  - 2040: 674

- Inbound
  - 2011: 203
  - 2040: 614

- Outbound
  - 2011: 172
  - 2040: 497

Source: Federal Highway Administration FAF3.
Bay Area Freight Flows by Commodity, 2011- $Billions

- Electronics, $110
- Machinery, $82
- Motorized vehicles, $43
- Precision instruments, $38
- Mixed freight, $31
- Gasoline, $28
- Other, $125
- Other petroleum products, $17
- Other ag products, $17
- Fuel oils, $17
- Alcoholic beverages, $17
- Misc. mfg. products, $18
- Crude petroleum, $19
- Pharmaceuticals, $20
- Textiles/leather, $23
- Other foodstuffs, $23
- Other agricultural products, $17
- Other petroleum products, $17
- Other, $125

Total = $628

Goods Movement Dependent Industries in Alameda County

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employment, in Thousands of Employees</th>
<th>Percentage of Total Alameda County Employment</th>
<th>Percentage of Alameda County Goods Movement-Dependent Industry Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>7.5 (1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>31.7 (14%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>75.5 (33%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale</td>
<td>27.8 (12%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>66.4 (29%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods Movement Dependent</td>
<td>228.3 (33%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Goods Movement Dependent</td>
<td>461.4 (67%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ABAG Plan Bay Area Economic Forecasts factors from CCSCE; and Cambridge Systematics Analysis.
Functional Elements of the Goods Movement System

- Global Gateways
- Interregional Corridors
- Intra regional Core Network
- Urban Goods Movement Network
- Last-Mile Connectors

Heavy Truck Movements on Key Corridors - Examples of Data
Daily Train Volumes in Northern California

2013 Freight and Passenger Volumes

<table>
<thead>
<tr>
<th>Combined Freight and Passenger Trains per day</th>
<th>Freight Only Trains per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 - 100</td>
<td>0 - 5</td>
</tr>
<tr>
<td>11 - 25</td>
<td>6 - 10</td>
</tr>
<tr>
<td>6 - 25</td>
<td>11 - 25</td>
</tr>
<tr>
<td>1 - 5</td>
<td>26 - 50</td>
</tr>
<tr>
<td>0 - 9</td>
<td>51 - 75</td>
</tr>
<tr>
<td>45 - 75</td>
<td>Over 100</td>
</tr>
</tbody>
</table>

Source: California Rail Plan, 2013.

Air Cargo Demand and Forecast, Oakland International Airport

Analysis of Urban Goods Movement and Land Use Issues

- Compile local truck routes and truck traffic data
- Map locations of major industries and freight generators - identify connectivity issues
- Overlay of PDAs and other modal corridors - identify potential sources of conflict and coordination
- Case studies to identify access and street design issues and opportunities
- Input to comprehensive arterial corridor plans, truck route planning, and Complete Streets guidance

Assessing Needs

- Compile Available Data (Caltrans, MTC, ACTC, Cities)
- Review Recent Reports, Plans, Studies
- Outreach to Stakeholders
- Develop Freight Forecasts & Model Traffic
- Assess Deficiencies, Gaps, & Opportunities
Who Are We Talking To?

- California Trucking Association and trucking firms
- Alameda County cities
- Alameda Labor Council and ILWU
- California Group and maritime businesses
- Logistics service providers
- Business community – BAC, EBLC, EBEDA, chambers
- Ditching Dirty Diesel Collaborative, public health organizations, and neighborhood groups
- Class I railroads
- Shippers and receivers

Key Goods Movement Trends

- Growth in high-value and bulk commodity exports
- Changing mix of air cargo suggesting need to expand international cargo capabilities
- Growth in transloading of import consumer products
- Growth of international trade on share-use corridors
- Shifting crude supplies leading to increased rail usage
- Income growth driving consumer demand and e-commerce
- Continuing improvement in emissions but needs for continued application of new technologies
Issues and Strategies

Issues
• Turn times at Port of Oakland
• Needed improvements in rail service, transload and bulk terminal availability at Port of Oakland
• Shared-use multi-modal corridor issues – rail and highway
• Local truck route lane widths, geometry, connectivity
• Noise and potential delays at at-grade crossings
• Land use conflicts in industrial corridors
• Truck parking, restrictions and encroachment issues
• Public health and jobs equity

Strategies
• Improved transload centers/bulk terminals and rail access to Port
• Freight ITS at terminals, inter-regional corridors and arterial Smart Corridors
• New and improved multi-modal inter-regional corridors and services
• Arterial corridor plans/truck route guidance – trucks in Complete Streets
• Industrial land use guidance
• Low emission technology and financial incentives
• Bottleneck relief on rail and inter/intra-regional corridors

What We Are Hearing from Cities – ACTAC Survey

Issues
• Locomotive noise
• Truck-related congestion and spillover to local streets
• Truck parking and loading/unloading issues
• Street and road damage

Opportunities
• Local street investments
• Bottleneck relief
• Road surface improvements
• Improve and mark truck routes
• Grade separations
• Coordinate land use plans with goods movement
What Sets Our Region/County Apart?

- Goods Movement for the Export Economy
- Planning Goods Movement in a Mega Regional Context
- The Farm-to-Market Goods Movement System
- Planning for Goods Movement in a Modern Urban Center
  - Complete Streets and Goods Movement
  - Comprehensive Arterial Corridor Planning
  - ITS

Next Steps

- Complete stakeholder interviews
- Complete baseline assessment (April) and conduct detailed Alameda County analysis (Spring/Summer)
- Advocacy materials - Goods Movement White Paper (May)
- Kickoff Roundtable in June
Questions?