Joint Study Committee on Critical Transportation Infrastructure Funding

Keith Golden, P.E.
Transportation in Georgia

- **10th** Largest Road System in Nation
  - 17,967 Centerline Miles of State Routes/Interstates
  - 85,738 Centerline Miles of County Roads
  - 17,754 Centerline Miles of City Streets
- **14,666** Bridge Structures
- **4,500** Miles of Mainline & Shortline Railroad
- **Busiest** Airport in the world (Hartsfield)
- **4th** busiest container port in US (Garden City Terminal)
- **128** Transit Providers
- **103** General Aviation Airports
GDOT Responsibilities
GDOT Staff & System

- 1,000 Employees
- 10,000 Lane Miles

FY 15 GDOT Fund Sources

State Motor Fuel, ≈$1B

General Funds, ≈$15M

Federal Funds, ≈$1.2B
On the Federal Side - Highway Trust Fund Structural Imbalance

Highway Trust Fund Receipts and Outlays Discrepancy

- Receipts
- Outlays

Dollars in Billions


Excludes $8.017 billion transfer from General Fund to Highway Account of HTF in September 2008; $7 billion transfer from General Fund to Highway Account of HTF in August 2009; $19.5 billion transfer from General Fund to Highway and Mass Transit Accounts of HTF in March 2010; $2.4 billion transfer from Leaking Underground Storage Tank Trust Fund to HTF in July 2012; $6.2 billion transfer from General Fund to Highway Account of HTF in FY 2013; $10.4 billion transfer from General Fund to Highway Account of HTF in FY 2014; $2.2 billion transfer from General Fund to Mass Transit Account of HTF in FY 2014.
GDOT FY 14 Motor Fuel Budget

Total State Motor Fuel Budget: $1,002,773,264

- **Maintenance**: $202,565,436 (20%)
- **General Operations**: $164,264,782 (17%)
- **SRTA**: $92,581,094 (9%)
- **GO Bond Debt**: $146,938,326 (15%)
- **LMIG**: $122,470,000 (12%)
- **Capital Projects**: $273,953,626

*Georgia Department of Transportation*
Motor Fuel Taxes in GA

- **18.4 cent Federal Tax**
- **7.5 cent State Excise Tax**
- **4% State Prepaid Sales Tax (1% redirected)**
- **Local Tax on Gasoline**

Local Tax (not dedicated to trans.)
Here in Georgia- Effective State and Local Motor Fuel Taxes

<table>
<thead>
<tr>
<th>Dedicated To Transportation</th>
<th>Dedicated To General Fund &amp; Local SPLOSTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excise Tax (7.5 cents)</td>
<td></td>
</tr>
<tr>
<td>3% Prepaid Sales Tax</td>
<td></td>
</tr>
<tr>
<td>(≈8.8 cents)</td>
<td></td>
</tr>
<tr>
<td>1% Sales Tax + Local Tax</td>
<td></td>
</tr>
<tr>
<td>(≈11.2 cents)</td>
<td></td>
</tr>
</tbody>
</table>

*1% sales approx. $182M/yr @ $3.43/gal; Local taxes approx. $518M in FY 2013
Effective Motor Fuel Tax (Federal & State)

- Florida – 54.42 cents
- South Carolina – 35.15 cents
- North Carolina – 55.15 cents
- Tennessee – 39.80 cents
- Alabama – 39.27 cents
- Georgia Effective – 34.7 cents
How do we compare?

Florida, $5.1B
- Total Debt Service, $660M, 11%

South Carolina, $1.3B
- Total Debt Service, $64M, 5%

Georgia, $2.2B
- Total Debt Service, $402M, 18%

Virginia, $4.3B
- Total Debt Service, $320M, 7%

North Carolina, $4.3B
- Total Debt Service, $160M, 4%

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- Total Debt Service, $660M, 11%

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<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>42,122</td>
<td>15,992</td>
<td>12,882,135</td>
<td>5,449</td>
<td>$3.5B</td>
<td>$0.7B</td>
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<tr>
<td>Florida</td>
<td>43,195</td>
<td>12,079</td>
<td>19,552,860</td>
<td>7,443</td>
<td>$4.4B</td>
<td>$0.9B</td>
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<tr>
<td>Georgia</td>
<td>48,415</td>
<td>17,912</td>
<td>9,992,167</td>
<td>4,750*</td>
<td>$1.3B</td>
<td>$0.2B</td>
</tr>
<tr>
<td>California</td>
<td>50,462</td>
<td>15,127</td>
<td>38,332,521</td>
<td>18,406</td>
<td>$4.0B</td>
<td>$2.0B</td>
</tr>
<tr>
<td>Ohio</td>
<td>49,381</td>
<td>19,236</td>
<td>11,570,808</td>
<td>5,536</td>
<td>$2.4B</td>
<td>$0.4B</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>88,383</td>
<td>39,791</td>
<td>12,773,801</td>
<td>12,833</td>
<td>$3.5B</td>
<td>$1.4B</td>
</tr>
</tbody>
</table>

*GDOT 2012 FTE; GDOT 2014 FTE is now 4,121
Cost of Doing Business

$1.0M/lane-mile Resurface Interstate
$278,000/lane-mile Resurface State Route
$30.9M/year for mowing
$14M/year for litter pickup
$5.2M/year for Rest Areas & Welcome Centers
$5.3M to construct 1 new lane mile (urban)
$5.6M/year to maintain ITS
$8.4M/year to maintain traffic lights
Georgia Strategic Plan - Freight
Georgia Strategic Plan - Safety

Georgia Highway Fatalities

Year

Fatalities

2005 2006 2007 2008 2009 2010 2011 2012 2013
GDOT Needs

• FY 2015-2018 STIP
  – $8.63 Billion (Includes PE, ROW, Debt Service, etc)
  – Approximately $1.2 Billion in lettings each Fiscal Year
GDOT Needs – Capital Projects

• Not in STIP.
• $29B* of Identified but unfunded projects
  – GRIP
  – Freight
  – Rural Mobility
  – Urban Mobility

*This list is not intended to be exhaustive. It represents an analysis of the existing GDOT program. It does not include needed projects that not currently included within the GDOT Construction Work Program or locally driven priorities.
GDOT Needs – Capital Projects (Freight)

Georgia's Statewide Designated Freight Corridor

Legend
- Statewide Freight Corridor
- Freight Rail Yards
- Sea Port
- HAAIA
- Counties
*Industrial Facilities by Number of Parking Spaces:
- 55 - 125
- 126 - 350
- 351 - 1000

Savannah

Atlanta

*Source: Georgia Statewide Freight & Logistics Plan, GDOT, 2012
GDOT Needs – Capital Projects (Freight)

Long Haul Capacity:

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-85: ATL to SC Line</td>
<td>$800</td>
</tr>
<tr>
<td>I-85: ATL to AL Line</td>
<td>$450</td>
</tr>
<tr>
<td>I-20: ATL to AL Line</td>
<td>$800</td>
</tr>
<tr>
<td>I-75: ATL to Macon</td>
<td>$1,100</td>
</tr>
<tr>
<td>I-20: ATL to SC Line</td>
<td>$3,000</td>
</tr>
<tr>
<td>I-95: FL Line to SC Line</td>
<td>$1,600</td>
</tr>
<tr>
<td>I-75: Macon to FL Line</td>
<td>$1,000</td>
</tr>
<tr>
<td>I-75: ATL to Chattanooga</td>
<td>$2,700</td>
</tr>
<tr>
<td>I-16: Macon to Savannah</td>
<td>$1,900</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$13,350</strong></td>
</tr>
</tbody>
</table>

Source: Georgia Statewide Freight and Logistics Plan (2012)
# GDOT Needs – Capital Projects (Freight)

**Interchanges/Other:**

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost ($Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-16 @ I-75</td>
<td>$300</td>
</tr>
<tr>
<td>I-285 @ I-20W</td>
<td>$450</td>
</tr>
<tr>
<td>I-285 @ I-20E</td>
<td>$250</td>
</tr>
<tr>
<td>I-16 @ I-95</td>
<td>$70</td>
</tr>
<tr>
<td>I-20 @ Savannah River</td>
<td>$41</td>
</tr>
<tr>
<td>Brampton Road Connector</td>
<td>$24</td>
</tr>
<tr>
<td>Sandersville Bypass</td>
<td>$21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,156</strong></td>
</tr>
</tbody>
</table>

Source: Georgia Statewide Freight and Logistics Plan (2012)
## GDOT Needs – Capital Projects

### Rural Mobility:

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost ($ Millions)</th>
<th>Project</th>
<th>Cost ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 5/McCaysville Bypass (Fannin)</td>
<td>$35</td>
<td>SR 36 Widening (Lamar/Upson)</td>
<td>$121</td>
</tr>
<tr>
<td>SR 101 Improvements (Floyd)</td>
<td>$90</td>
<td>SR 115 Widening (Lumpkin)</td>
<td>$47</td>
</tr>
<tr>
<td>SR 166 Widening (Carroll)</td>
<td>$45</td>
<td>Cleveland Bypass Phase III (White)</td>
<td>$8</td>
</tr>
<tr>
<td>SR 96 Widening (Houston/Twiggs)</td>
<td>$90</td>
<td>SR 99 Widening (Glynn)</td>
<td>$105</td>
</tr>
<tr>
<td>SR 10 Improvements (Clarke)</td>
<td>$35</td>
<td>SR 107 Widening (Ben Hill)</td>
<td>$35</td>
</tr>
<tr>
<td>Hinesville Bypass (Liberty)</td>
<td>$12</td>
<td>SR 11/US 129 Widening (Union)</td>
<td>$42</td>
</tr>
<tr>
<td>Sparta Bypass (Hancock)</td>
<td>$9</td>
<td><strong>Total</strong></td>
<td><strong>$674</strong></td>
</tr>
</tbody>
</table>
## GDOT Needs – Capital Projects
### Urban Mobility:

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost ($ Millions)</th>
<th>Project</th>
<th>Cost ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revive285</td>
<td>$3,000+</td>
<td>I-85 @ SR 74 (Fulton)</td>
<td>$22</td>
</tr>
<tr>
<td>Managed Lane Implementation Plan</td>
<td>$2,800</td>
<td>West Winder Bypass (Barrow)</td>
<td>$28</td>
</tr>
<tr>
<td>Rome-Cartersville Econ. Dev. Corridor</td>
<td>$180</td>
<td>SR 138 Widening (Rockdale)</td>
<td>$105</td>
</tr>
<tr>
<td>Sugarloaf Pkwy Extension</td>
<td>$300</td>
<td>SR 162 Widening (Rockdale/Newton)</td>
<td>$23</td>
</tr>
<tr>
<td>SR 316 Interchange (Barrow)</td>
<td>$45</td>
<td>SR 140 Widening (Cherokee/Bartow)</td>
<td>$165</td>
</tr>
<tr>
<td>SR 20 Widening (Cherokee/Forsyth)</td>
<td>$110</td>
<td>SR 369 Widening (Forsyth)</td>
<td>$53</td>
</tr>
<tr>
<td>SR 92 Widening (Cobb/Paulding)</td>
<td>$125</td>
<td><strong>Total</strong></td>
<td><strong>$6,956</strong></td>
</tr>
</tbody>
</table>
GDOT Needs – Capital Projects (GRIP)
## GDOT Needs – Capital Projects (GRIP)

<table>
<thead>
<tr>
<th>GRIP Corridor</th>
<th>Cost to Complete ($ Million)</th>
<th>GRIP Corridor</th>
<th>Cost to Complete ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appalachian Development Corridor</td>
<td>$15</td>
<td>US 280</td>
<td>$1,400</td>
</tr>
<tr>
<td>SR 72</td>
<td>$150</td>
<td>SR 32</td>
<td>$1,250</td>
</tr>
<tr>
<td>US 1/SR 17</td>
<td>$775</td>
<td>SR 40</td>
<td>$60</td>
</tr>
<tr>
<td>US 27</td>
<td>$375</td>
<td>East-West Highway</td>
<td>$550</td>
</tr>
<tr>
<td>US 441</td>
<td>$800</td>
<td>SR 15</td>
<td>$920</td>
</tr>
<tr>
<td>US 84</td>
<td>$110</td>
<td>SR 125</td>
<td>$170</td>
</tr>
<tr>
<td>SR 133</td>
<td>$270</td>
<td><strong>Total</strong></td>
<td><strong>$6,840</strong></td>
</tr>
</tbody>
</table>

Source: GDOT GRIP Fact Sheet (January 2014)
Other Capital Projects

- Vision, But No Money
  - SR 400 widening (North of McFarland)
  - Completion of SR 316 interchanges/grade separations
  - Macon – LaGrange Freight Corridor
  - Unforeseen Economic Development Needs
  - Other Locally Driven Transportation Priorities
GDOT Needs – Bridge Maintenance

• There are 6,651 GDOT Bridge Structures. Of these:
  – The average age is 44 with the oldest being 112.
  – The average bridge handles 17,698 vehicles per day with the heaviest traveled handling 335,210 vehicles per day.

• The state must do more with less; a “worst to first” approach won’t work.

• Maintaining bridges in a state of good repair enhances local economic engines.
GDOT Needs – Bridge Replacements

• 1622 GDOT Structures need to be replaced over the next 20 years at a cost of $6.44B.
  – Should be replacing 89 structures per year to maintain a 75 year life cycle.

• 2450 locally owned structures need to be replaced over the next 20 years at a cost of $4.8B.
  – Should be replacing 107 structures per year to maintain a 75 year life cycle.

• In 2014, GDOT replaced 60 bridges.

Source: Bridge Inventory Reports
GDOT Needs – On-going Bridge Maintenance

- Total bridge maintenance costs – representing deferred bridge maintenance (backlog).

<table>
<thead>
<tr>
<th>Activity</th>
<th># of Bridges/year</th>
<th>Funds Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue Prone</td>
<td>35</td>
<td>$15,000,000</td>
</tr>
<tr>
<td>Scour Critical</td>
<td>71</td>
<td>$27,500,000</td>
</tr>
<tr>
<td>Deck Overlay</td>
<td>3089</td>
<td>$2,280,000,000</td>
</tr>
<tr>
<td>Deck Rehab</td>
<td>412</td>
<td>$1,480,000,000</td>
</tr>
<tr>
<td>Bridge Painting</td>
<td>1724</td>
<td>$78,300,000</td>
</tr>
<tr>
<td>Deficient Joints</td>
<td>1802</td>
<td>$52,500,000</td>
</tr>
</tbody>
</table>

Source: Bridge Inventory Reports; GDOT Analysis
GDOT Needs – On-Going Bridge Maintenance

- Ongoing costs yearly to fully maintain state owned bridges and tackle backlog

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<tr>
<th>Activity</th>
<th># of Bridges/year</th>
<th>Funds Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Painting</td>
<td>69</td>
<td>$6,500,000</td>
</tr>
<tr>
<td>Bridge Joints</td>
<td>600</td>
<td>$6,000,000</td>
</tr>
<tr>
<td>Deck Overlay</td>
<td>193</td>
<td>$159,940,000</td>
</tr>
<tr>
<td>Bridge Rehab</td>
<td>101</td>
<td>$128,500,000</td>
</tr>
</tbody>
</table>

GDOT Needs - Roadway Maintenance

Percent of Routes in Fair or Better Condition

- 100%
- 90%
- 80%
- 70%
- 60%
- 50%

GDOT Needs - Roadway Maintenance

- Excellent, 28%
- Good, 24%
- Fair, 22%
- Needs Resurfacing, 26%

Legend:
- 90-100
- 80-89
- 70-79
- 60-69
- 50-59
- 40-49
- below 40
GDOT Needs - Roadway Maintenance

<table>
<thead>
<tr>
<th>Maintenance Need</th>
<th>Current Annual Allocation</th>
<th>Annual Allocation Need ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Route Resurfacing</td>
<td></td>
<td>$200,000,000.00</td>
</tr>
<tr>
<td>Interstate Rehabilitation</td>
<td></td>
<td>$140,000,000.00</td>
</tr>
<tr>
<td>Overhead Sign Replacement</td>
<td></td>
<td>$10,000,000.00</td>
</tr>
<tr>
<td>Striping and Raised Pavement Markers</td>
<td></td>
<td>$28,000,000.00</td>
</tr>
<tr>
<td><strong>Total Capital Maintenance (Federal funds)</strong></td>
<td>$125,000,000.00</td>
<td>$378,000,000.00</td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td>$15,000,000.00</td>
</tr>
<tr>
<td>Ground Signs</td>
<td></td>
<td>$2,500,000.00</td>
</tr>
<tr>
<td>Guardrail, Crack Filling, Mowing, Vegetation Control,</td>
<td></td>
<td>$100,000,000.00</td>
</tr>
<tr>
<td>Litter Removal, Slab Replacement, Fencing, Wall Repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Routine Maintenance (State Funds)</strong></td>
<td>$51,654,478.00</td>
<td>$117,500,000.00</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$176,654,478.00</td>
<td>$495,500,000.00</td>
</tr>
</tbody>
</table>
GDOT Needs - Intermodal

- Georgia Airport 5 year Capital Improvement Plan - $924M Total Cost ($18.6M State match/year)
- Annual maintenance cost of $30M for airfield pavement
  - Work is being deferred resulting in declining pavement ratings
- Short Line railroad rehab and maintenance costs total $836M over 20 years ($41.8M/year)
- FY 15 Budgeted Amount: $10,961,881
  - $10,598,291 Airport Aid
  - $363,590 Rail State General Fund
Total Needs

• Total unfunded (not in STIP) capital needs approximately $29 billion.
• $320M/year gap for roadway maintenance.
  – $6.4B over 20 years
• $276M/year gap for bridge maintenance.
  – $5.5B over 20 years
• $70M/year gap for airport aid/rail.
  – $1.4B over 20 years