GARLAND THOROUGHFARE PLAN

Town Hall Meeting
March 30, 2015
THOROUGHFARE PLAN FRAMEWORK

- Comprehensive Approach
- Incorporation of Envision Garland
- Public Involvement
- Technical Analysis
- Policy Document
Existing Thoroughfare Plan Map

Existing Classifications

- Current thoroughfare plan includes 9 functional classifications
- Defines right-of-way needed
Thoroughfare Plan Amendments

- New classification proposed for thoroughfare plan
- 7 new roadway types
  - A-C
  - C1/C2
  - D3
  - S
  - G1/G2
  - A-F
  - A-R

<table>
<thead>
<tr>
<th>Functional Class</th>
<th>ROW</th>
<th>Travel Lanes</th>
<th>Median</th>
<th>Easement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>120'</td>
<td>6</td>
<td>Raised</td>
<td>1’ on both sides</td>
</tr>
<tr>
<td>A-C</td>
<td>70'</td>
<td>3</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>B</td>
<td>100'</td>
<td>6</td>
<td>Raised</td>
<td>10’ on both sides</td>
</tr>
<tr>
<td>C1</td>
<td>100'</td>
<td>4</td>
<td>Raised</td>
<td>10’ on both sides</td>
</tr>
<tr>
<td>C2</td>
<td>100'</td>
<td>4</td>
<td>Raised</td>
<td>10’ on both sides</td>
</tr>
<tr>
<td>D1</td>
<td>82'</td>
<td>4</td>
<td>Raised</td>
<td>5’ on both sides</td>
</tr>
<tr>
<td>D2</td>
<td>80'</td>
<td>4</td>
<td>Center Turn Lane</td>
<td>5’ on both sides</td>
</tr>
<tr>
<td>D3</td>
<td>80'</td>
<td>2</td>
<td>Center Turn Lane</td>
<td>5’ on both sides</td>
</tr>
<tr>
<td>E</td>
<td>80'</td>
<td>4</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>F</td>
<td>60'</td>
<td>2</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>S</td>
<td>Varies</td>
<td>Varies</td>
<td>Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>G1</td>
<td>50'</td>
<td>2</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>G2</td>
<td>50'</td>
<td>2</td>
<td>No</td>
<td>10’ on both sides</td>
</tr>
<tr>
<td>A-A</td>
<td>Varies</td>
<td>Varies</td>
<td>No</td>
<td>Varies</td>
</tr>
<tr>
<td>A-F</td>
<td>Varies</td>
<td>Varies</td>
<td>No</td>
<td>Varies</td>
</tr>
<tr>
<td>A-R</td>
<td>Varies</td>
<td>Varies</td>
<td>No</td>
<td>Varies</td>
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</tbody>
</table>
GARLAND THOROUGHFARE PLAN

Thoroughfare Plan Amendments

- New Thoroughfare Cross Sections
GARLAND THOROUGHFARE PLAN

Thoroughfare Plan Amendments

Address the Current Network Demands within Garland

– Improved Roadway Capacity

– Improved Network Connectivity

– Functional Class Changes

– New Roadways

– Roadway Extensions
REVISED THOROUGHFARE MAP
<table>
<thead>
<tr>
<th>Street Name</th>
<th>From</th>
<th>To</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   Holford Rd</td>
<td>Naaman Forest</td>
<td>North city limit</td>
<td>D1 to C2</td>
</tr>
<tr>
<td>2   Brand Rd</td>
<td>Muirfield Rd</td>
<td>Campbell Rd</td>
<td>C to S</td>
</tr>
<tr>
<td>3   Mapleridge Dr</td>
<td>at Shiloh Rd</td>
<td></td>
<td>Realignment</td>
</tr>
<tr>
<td>4   Naaman School Rd</td>
<td>Brand Rd</td>
<td>Lavon Dr</td>
<td>F to D1</td>
</tr>
<tr>
<td>5   Glenbrook Dr</td>
<td>Walnut St</td>
<td>Miller Rd</td>
<td>D2 to D3</td>
</tr>
<tr>
<td>6   Avenue B/Avenue D</td>
<td>One-way pairs</td>
<td></td>
<td>A to A-C</td>
</tr>
<tr>
<td>7   Miller Rd</td>
<td>Dairy Rd</td>
<td>Centerville Rd</td>
<td>B to C1</td>
</tr>
<tr>
<td>8   Leon Rd</td>
<td>Garland Ave</td>
<td>Shiloh Rd</td>
<td>Extension</td>
</tr>
<tr>
<td>9   Marketplace Dr</td>
<td>Through Centerville</td>
<td>Marketplace catalyst area</td>
<td>Extension</td>
</tr>
<tr>
<td>10  IH 635</td>
<td>On both sides within</td>
<td></td>
<td>New Roadway</td>
</tr>
<tr>
<td>11  Oates Rd</td>
<td>Broadway Blvd</td>
<td>Rosehill Rd</td>
<td>D1 to S</td>
</tr>
<tr>
<td>12  La Prada Dr</td>
<td>Northwest Hwy</td>
<td>IH 635</td>
<td>C1 to B</td>
</tr>
<tr>
<td>13  Roan Rd</td>
<td>Rowlett Rd</td>
<td>Bobtown Rd</td>
<td>B to C2</td>
</tr>
<tr>
<td>14  IH 30 Frontage</td>
<td>At Lake Ray Hubbard</td>
<td></td>
<td>New Roadway</td>
</tr>
<tr>
<td>15  Garland Ave</td>
<td>Belt Line Rd</td>
<td>Arapaho Rd</td>
<td>B to C1</td>
</tr>
</tbody>
</table>
Holford Rd

- Change from D1 to C2
Brand Rd

- Change from C to S
Naaman School Rd

- Change from F to D1

GARLAND THOROUGHFARE PLAN
Glenbrook Dr

- Change Designation to D3

Previous Cross-Section

Current Designation*

* Represents Current Street Section
GARLAND THOROUGHFARE PLAN

Miller Rd

- Change from B to C1
GARLAND THOROUGHFARE PLAN

IH 635 Frontage Roads
Leon Rd & Marketplace Rd Extensions
GARLAND THOROUGHFARE PLAN

Oates Rd

- Change from D1 to S
La Prada Rd

- Change from C to B
**Roan Rd**

- Change from B to C2
GARLAND THOROUGHFARE PLAN

IH 30 Frontage & U-turn
GARLAND THOROUGHFARE PLAN

Avenue B/Avenue D

- Change from A to A-C
Garland Ave

- Change from B to C1
Consideration: Avenues B and D as Two-Way Streets

Converting one-way couplets to two-way streets with enhancements:

- **Projected Traffic Volumes:**
  - Avenue B: 5,000 per day
  - Avenue D: 40,000 per day

- **Additional lane capacity needed on Avenue D**
  - ROW needs for 6-Lane facility (30 – 50 ft. additional pavement)

### One-way Couplet vs Two-way Street

<table>
<thead>
<tr>
<th></th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Way Couplet</td>
<td>• Potential Lane Reduction</td>
<td>• Excess Capacity</td>
</tr>
<tr>
<td></td>
<td>• Corridor Enhancements</td>
<td>• Barrier for Downtown Expansion</td>
</tr>
<tr>
<td>Two-Way Street</td>
<td>• Opens Ave B for Development</td>
<td>• Overloads Ave B</td>
</tr>
<tr>
<td></td>
<td>• Lane Reductions for Ave B</td>
<td>• Lane Additions to Ave D</td>
</tr>
<tr>
<td></td>
<td>• Simple Traffic Circulation</td>
<td>• Additional ROW Needed</td>
</tr>
<tr>
<td></td>
<td>• Expanded Downtown to Ave D</td>
<td></td>
</tr>
</tbody>
</table>

Recommendation: One-Way Couplet
Alignment Alternatives

- Pros and Cons for Six (6) Alternative Alignments Presented to City Staff
- Preferred Alternative Derived by City Staff
- Select Link Analysis on Preferred Alternative
Selected Alternative for Conceptual Analysis

Pros

- Provides a direct route within Garland
- Expands Potential for Downtown Garland
- Creates a New Front Door for Downtown
- May Alter Traffic Demands for Downtown Area
- Grand Boulevard as Identified in Envision Garland
Preferred Alignment

Cons

- Property Impacts
  - Commercial
  - Residential
- Rail Road Coordination
- Major Utility Corridor
- Mobility vs Local Access
- Quality of Life
- Expensive
Main, First & Lavon Street Connections
STATE HIGHWAY 78 ALTERNATIVES

SH 78 and Miller Connections
STATE HIGHWAY 78 ALTERNATIVES

2035 Forecasted Daily Volumes
Volume Difference Build Versus No Build
Volume Difference Build Versus No Build
Complete Streets

- New approach to thoroughfare design
- Design element determine by context
  - Parks and Open Space
  - Suburban
  - General Industrial
  - General Urban Centers
  - Targeted Corridors
Complete Streets

- Complete streets design elements
  - Travel Way
  - Travel Lane Considerations
  - Streetside
  - Pedestrian Accommodations
  - Bicycle Facilities
  - Parking
  - Transit
  - Medians

- Handout of Design Standards
Strategy Corridors

- Strategy corridors introduced to incorporate complete street design elements
  - Walnut Street
  - Garland Avenue
  - Glenbrook Drive
  - Naaman Forest Boulevard
  - Pleasant Valley Road
  - Zion Road
  - Oats
GARLAND THOROUGHFARE PLAN

Walnut Road

WALNUT - Existing Cross-Section

WALNUT - Alternative 1

WALNUT - Alternative 2
GARLAND THOROUGHFARE PLAN

N. Glenbrook Drive

GLENBROOK - Existing Cross-Section

GLENBROOK - Alternative 1

GLENBROOK - Alternative 2
Naaman Forest Boulevard

NAAMAN FOREST - Existing Cross-Section

NAAMAN FOREST - Alternative 1

NAAMAN FOREST - Alternative 2
Critical Intersections

- 2035 Scenario Analysis
- Analyzed over 37 intersections
- Optimized for Projected Conditions performance
- Recommended mitigation efforts to address intersection performance
- Potential location for consideration of roundabout location
Bike Route Criteria

Evaluating Planned Facilities

- Primary and Secondary Route Identification
- Projected Low Roadway Level-of-Service
- Available Right-of-Way
- Posted Speed Limit
- Adjacent Destinations
- Inter-Jurisdictional Connections
Primary Bike Routes

- Provides Contiguous Connectivity
- Connects Key Destinations/ Catalyst Areas
- Connections with Other Regional Trails
- Principal Alignment: North South Bikeway
- Highest Priority for Trail Funding

Route Applications:
- Striped On-Street Lanes
- Off-Street Trails
- Sharrows
- Signed Routes
Secondary Routes

- Supplements Primary Routes
- Provides connections through key areas/ neighborhood areas

Route Applications:
- Striped On-Street Lanes
- Off-Street Trails
- Sharrows
- Signed Routes
Transit Circulation

- Currently Four (4) Transit Stations in Garland
  - Downtown Garland Station
  - Forest- Jupiter Station
  - Lake Ray Hubbard Transit Center
  - South Garland Transit Center
Recommended Transit Station and Route Considerations

- No Transit Service North of the Toll Road
- Employment Centers in the Northern Sector of the City
- Public Input from June 5, 2014 Town Hall Meeting

Recommendations:
- Extend existing routes north of PGBT
- DART Station along PGBT with park and ride lot and express service to Dallas
NEXT STEPS

- Collect Comments/ Input
- Refine Draft Document
- Public Hearing Process
  - Plan Commission
  - Parks Board
  - City Council
Garland Town Hall Meeting

March 30, 2015