Transportation Projects in the Lake Worth Area

Presented to: Lake Worth Regional Coordination Committee

Dan Kessler, Assistant Director of Transportation
June 9, 2016

North Central Texas Council of Governments
## Population Forecast by County

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<tbody>
<tr>
<td>Collin</td>
<td>778,427</td>
<td>1,560,421</td>
<td>781,994</td>
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<tr>
<td>Dallas</td>
<td>2,337,741</td>
<td>3,357,469</td>
<td>1,019,728</td>
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<td>Denton</td>
<td>652,270</td>
<td>1,241,681</td>
<td>589,411</td>
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<td>Ellis</td>
<td>148,000</td>
<td>283,898</td>
<td>135,898</td>
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<td>Hood</td>
<td>50,481</td>
<td>81,578</td>
<td>31,097</td>
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<tr>
<td>Hunt</td>
<td>84,260</td>
<td>131,022</td>
<td>46,762</td>
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<tr>
<td>Johnson</td>
<td>148,290</td>
<td>252,521</td>
<td>104,231</td>
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<td>Kaufman</td>
<td>102,014</td>
<td>210,097</td>
<td>108,083</td>
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<tr>
<td>Parker</td>
<td>113,806</td>
<td>195,286</td>
<td>81,480</td>
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<tr>
<td>Rockwall</td>
<td>77,678</td>
<td>166,357</td>
<td>88,679</td>
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<tr>
<td>Tarrant</td>
<td>1,788,400</td>
<td>3,094,649</td>
<td>1,306,249</td>
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<td>Wise</td>
<td>58,147</td>
<td>101,865</td>
<td>43,708</td>
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<tr>
<td>Total</td>
<td>6,339,514</td>
<td>10,676,844</td>
<td>4,337,320</td>
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</table>

Source: U.S. Census Bureau, NCTCOG

Excludes population in groups quarters such as dorms, jails, and nursing homes.
Illustrative roadway corridors indicate an identified transportation need and do not represent recommendations or specific alignments. Recommendations may be developed for future MTPs through feasibility analyses, thoroughfare plans, and environmental studies.
Planning Livable Military Communities (PLMC)

**Funding**
HUD Community Challenge Grant
- $800,000 for 2-Year Study

**Focus Area**
2.5 Mile Buffer around NAS Fort Worth, JRB
- 7 Diverse Communities with Common Challenges
- Changing Demographics

**Project Activities**
Multidisciplinary Planning Studies
- Housing and Retail Feasibility
- Enhanced Transportation Options
- Building Code Review

- Comprehensive Plan Updates
- Public Involvement
PLMC Transportation Implementation

Legend
- Completed
- Under Construction
- Planning/Design Study Underway
- Upcoming Planning Initiative

Base Access Improvements
1. Meandering Road Improvements
2. Base Main Gate
3. Westworth Village Bike Trail
4. Commercial Vehicle Gate

Area Road Improvements
5. SH 199 Corridor Assessment Study
6. SH 199 Corridor Plan
7. SH 183 Corridor Plan
8. IH 30 Capital Asset Management
9. IH 820 Access Enhancement
10. SH 183 Corridor Plan Phase 2

Map showing various road and area improvements with numbered points corresponding to the list above.
Meandering Road
Importance of Meandering Road

- Serves as main access point for the NAS Fort Worth, JRB east gate entrance
- 1,800 vehicles per day enter through east gate
- Higher traffic counts on drill weekends
- Additional roadway users include FMC Carswell, YMCA Camp Carter, Burger Lake, and gas well traffic

$1,000,000 identified for preliminary design and engineering of road improvements.
Need for Improvements
1. **Robert’s Cut Off to Y-Intersection**: Roadway Reconstruction and Additional Drainage Recommended
2. **Y-Intersection to Bridge**: Construct Curb & Gutter; Additional Signage
3. **Extension to SH 183**: Evaluate Roadway Extension
4. **Meandering/Robert’s Cut Off/SH 183 Intersection**: Potential Redesign
5. **Y-Intersection**: Potential Redesign
Preliminary Design Concepts

Meandering Road/Roberts Cut Off Road Intersection

Legend
- Existing Traffic Signal
- New Traffic Signal
- New NAS Fort Worth, JRB Wayfinding Sign

Basic Design Assumptions:
3-lane Meandering Road (2 westbound/1 eastbound)
3-lane Roberts Cut Off Road south of Meandering Rd

Considerations:
School Zone on Ohio Garden Road
School Zone on Roberts Cut Off Road
Right-Angle Intersections
Queuing at Intersections
Base Access from Northbound SH 183
Base Access from Southbound SH 183
Base Access from Roberts Cut Off Road

Pros:
Concentrates Base Traffic
Reduces Parking Lot Cut-Through Traffic
Reduces Traffic through School Zones
Avoids US Post Office (1008 Roberts Cut Off Road)
Maintains Traffic Signal Spacing on SH 183
Ability to Redevelop a Portion of Meandering Road

Cons:
Signal Delay for Southbound Roberts Cut Off Road
Impacts New Quickway (1001 Roberts Cut Off Road)
Preliminary Design Concepts

Meandering Road, LTjg Barnett Road, Gillham Road and Brocks Lane Intersection

Roundabout Alternative

Basic Design Assumptions:
3-lane Meandering Road (2 westbound/1 eastbound)

Considerations:
NAS JRB Access
YMCA Camp Carter Access
Local Residential Traffic
Traffic Control Delay
Driver Expectations
Drainage

Pros:
Simplifies Current Configuration
Reduced Traffic Control Delay
Opportunity for Oversized Vehicles to Turn Around
Dedicated Pedestrian/Bicycle Movement
Place-Making/Monument Within Roundabout

Cons:
Grade Changes Considerably in Roundabout
Roundabout Configuration Learning Curve
Brocks Lane Dead Ends
Gillham Road Limited to Right-In/Right-Out Access
Limited Driveway Access Near Roundabout
Eastbound Meandering Road Crosses Two Lanes
River Oaks Boulevard (SH 183) Corridor Master Plan
River Oaks Boulevard (SH 183)

BOULEVARD CONCEPT
Visual Preference Survey Results

Elements ranking “Very Appropriate” by majority:
Proposed Corridor Features

- Sidewalks
- Pedestrian Amenities: lighting, landscaping, benches, signage, trash receptacles, etc.
- Off Street Shared-Use Path (Sidewalk)
- Stormwater improvements: new storm drains, bio-retention, etc.
- Roadway/Intersection Improvements and traffic light enhancements
Three Context Sensitive Zones
Defined by Right-of-Way Width
Adjacent Land Uses

Three Edge Treatments
Shared Use Path and Sidewalk(s)
Parallel Parking
Angled Parking

Zone Concepts

City Hall

Zone 1
5,560ft

Zone 2
2,300ft

Zone 3
2,100ft
CONTEXT ZONE 2

City Property

City Property

Roberts Cut Off Rd

Ohio Garden Rd

Zone 2

Zone 1

Zone 3

5,560ft

2,300ft

2,100ft

5,560ft
CONTEXT ZONE 2 – AERIAL VIEW

*87 additional parking spaces shown
PROTOTYPICAL INTERSECTION DESIGN—River Oaks Blvd / Robert’s Cut Off Rd
SH 183 Corridor Enhanced Access Concept
Stormwater Recommendations

Coordinate with Regional Agencies

• Request the Texas Department of Transportation (TxDOT) to regrade ditches and clean out culverts
• Coordinate with Tarrant Regional Water District and Tarrant County to seek funding for a more detailed drainage study to document issues and make additional recommendations for improvements

Implement stormwater management solutions as reconstruction of River Oaks Boulevard occurs

• Incorporate drainage features into the aesthetic landscaping to maximize infiltration and **provide surface storage** for retaining stormwater runoff: bio-swales, bio-retention
• **New storm sewer trunk line** on each side of the road that would connect to the bio-retention underdrains
• The proposed corridor layout provides opportunities to **maximize innovative stormwater management practices**: Low Impact Development (LID), Green Infrastructure (GI), Integrated Stormwater Management (iSWM)
Reinvestment Nodes

**Node 1: Mixed-use village center**

- Civic and restaurant uses
- Blend of residential uses (attached and detached) including seniors, townhomes, lofts, and small lot single family
- Central green amenity
- Emphasis on placemaking

**Node 2: Commercial/retail reinvestment zone**

- Restaurants, neighborhood shopping, and small service office
- Anchored by the new Walmart on the other side of River Oaks Blvd.
Node 1 – Mixed Use Village Center

### Node 1: Mixed-Use Village Center – 10 Year Project Programming

<table>
<thead>
<tr>
<th>Development Type</th>
<th>Node 1 Project Programming</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Retail</td>
<td>Food, Bev. Restaurants</td>
<td>10,000 SF</td>
</tr>
<tr>
<td></td>
<td>Neighborhood Retail</td>
<td>10,000 SF</td>
</tr>
<tr>
<td></td>
<td>Clothing &amp; Accessories</td>
<td>5,000 SF</td>
</tr>
<tr>
<td>Office</td>
<td>Small Office</td>
<td>10,000 SF</td>
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<tr>
<td>Residential</td>
<td>Urban Residential</td>
<td>380 DU</td>
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<tr>
<td></td>
<td>For Sale Residential</td>
<td>65 DU</td>
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</table>

Three-Story Residential Flats    New and Renovated Single Family Residential    Mixed-Use Community Core
## Node 2: Commercial/Retail Reinvestment Zone – 10 Year Project Programming

<table>
<thead>
<tr>
<th>Development Type</th>
<th>Node 2 Project Programming</th>
<th>Square Feet</th>
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</thead>
<tbody>
<tr>
<td>Retail</td>
<td>Motor Vehicle and Parts</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Furniture and Furnishings</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Building Materials/Supply</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>Food, Beverage, Grocery</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td>Sporting Goods, Hobby</td>
<td>5,000</td>
</tr>
<tr>
<td>Office</td>
<td>Electronics, Office General</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td>Small Office</td>
<td>20,000</td>
</tr>
</tbody>
</table>

- Village Center Retail and Small Office
- Restaurants and Outdoor Dining
Reinvestment Zoning Strategy

Node 1: Mixed-use village properties
Form-Based Planned Development District
Emphasis on maximum building setbacks, streetscape improvements, building materials, building heights, and special conditions including key corners and potential locations of public open space features

Node 2: Commercial/retail reinvestment properties
Updated building material and landscape standards for existing commercial/retail zoning districts
Form Based Design Concepts – Focus on Visual Preference Survey

Attached Townhomes
Senior and Independent Living
Mixed-Use Residential/Office Retail
Streetscape-Based Development
State Highway 199 Corridor Master Plan
State Highway 199 Corridor Master Plan

EXISTING

PROPOSED CROSS SECTION
State Highway 199 Corridor Master Plan
State Highway 199 Corridor Master Plan

**Partners:**
- Sansom Park
- Lake Worth
- Fort Worth
- Tarrant County
- TxDOT
- NCTCOG
- Freese and Nichols

**Project Limits:**
- Downtown Fort Worth to IH 820

**Study Emphasis Areas:**
- Drainage Improvements
- Transportation Options
- Economic Development Opportunities
- Context-Sensitive Design Solutions
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A copy of today's presentation can be found at:
http://www.nctcog.org/trans/presentations/index.asp