City of Rowlett

Special Meeting Minutes

City Council

4000 Main Street
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City of Rowlett City Council meetings are available to all persons regardless of disability. If you require special assistance, please contact the City Secretary at 972-412-6109 or write PO Box 99, Rowlett, Texas, 75030-0099, at least 48 hours in advance of the meeting.

Wednesday, May 13, 2009 **6:00 P.M.** **Municipal Building – 4000 Main Street**

As authorized by Section 551.071 of the Texas Government Code, this meeting may be convened into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney on any agenda item herein.

The City of Rowlett reserves the right to reconvene, recess or realign the Regular Session or called Executive Session or order of business at any time prior to adjournment.

1. CALL TO ORDER

Mayor Harper called the meeting to order at 6:10 p.m.

2. WORK SESSION ITEM

2A. Discuss transportation goals relative to the Comprehensive Plan, The Rowlett Development Code and desired levels of mobility in the City of Rowlett.

A PowerPoint presentation entitled "Access Management and Traffic Impact Analysis" was presented.

What Is Access Management?

- "Access Management is the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed."
  - Source: Federal Highway Administration

Key Goals of Access Management

- Public Safety
- Mobility
- Preserve roadway function
- Protect Infrastructure Investment

Functional Integrity

- Reserve high speed, high capacity roads for high speed, longer-distance travel
- Maintain a "hierarchy" of roads

- Balance traffic movement and access to adjacent land by providing land access compatible with roadway classification

Poor Access Management

Better Access Management

What Are The Benefits of Managing Access?

- Improved safety (reduction in crashes and crashes rates)
- Better traffic operations (increased LOS, capacity, and speed)
- Other public benefits (for pedestrians, bicyclists, public transit, taxpayers, and the environment)

Managing Access

- Maintain the functional integrity of the roadway system by:
  - Limiting conflict points
  - Separating conflict points
  - Removing turning traffic from through traffic lanes

Increasing Spacing Reduces Conflict Points

- Reduces mental workload on driver
- Separation provides more time and space to react to the unexpected
- Conflict points represent opportunities for accidents, congestion, and delay

Safety Related to Access Spacing

Driveway Spacing Conflicts

Common Access Management Treatments

- Driveway consolidation
- Increased spacing
- Deceleration Lanes – Left Turn / Right Turn
- Corner clearance
- Backage roads
- Raised Medians
- Cross Access between properties

Managing Turning Movements

- Including deceleration lanes
- Increased turning radii (driveway flares)
- Increased driveway width
- Decreased driveway slope
- Improved sight distance for turning traffic
- Improved internal site design

Managing Turning Movements – Driveway Slopes

Managing Turning Movements – Driveway Widths

Managing Turning Movements – Deceleration Lanes

Who Benefits From Access Management?

- Motorists: safer, less congested roads
- Taxpayers: investment protected
- Improved traffic = better business environment
- Environmental Benefits

VISSIM Simulation Study

- Traffic Simulation of a Major Arterial Roadway
- Analyzed Operations with and without deceleration lane at the driveway

Through Volumes	
Existing	Future (10 year)
3200	3900
1066 / ln	1300 / ln

Right Turn Volumes Analyzed	
Minor	20
TxDOT Decal Lane Threshold	50
Major	200

- 50 Right Turns w/o Decel Lane
- 50 Right Turns with Decel Lane
- 50 Right Turns – Results

	With Deceleration Lane In Place
Speed	11% Increase
Density	7% Decrease

- 200 Right Turns w/o Decel Lane
- 200 Right Turns with Decel Lane
- 200 Right Turns – Results

	With Deceleration Lane In Place
Speed	45% Increase
Density	27% Increase

- Impact on Speed and Density
- Conclusion
- Verified that roadway operations are impacted by as few as 50 right turns per hour
- Deceleration lane

- Maintains consistent through lane speeds
- Minimizes lane changes in vicinity of driveway
- Decreases density and delay
- Preserves infrastructure investment

Traffic Impact Analysis

- A study aiming "to determine the need for any improvements to the adjacent and nearby transportation system in order to maintain a satisfactory level of service, an acceptable level of safety and the appropriate access provisions for the proposed development."
  - Institute of Transportation Engineers: *Transportation Impact Analyses for Site Development*

TIA Types

- Rezoning
- Concept Plan Approval
- Site Plan Approval
- Driveway Permit
- Platting
- Variances

TIA Process

- Outlining the TIA
- Existing Conditions Analysis
  - Data Collection and Field Inventory
  - Capacity Analysis
- Estimate of Future Traffic without Development
  - Background Traffic for Build Out and Horizon Years
  - Capacity Analysis and Mitigation Improvement
- Estimate of Future Traffic with Development
  - Trip Generation
    - Trip Distribution and Assignment
    - Site Traffic
    - Add Site Traffic and Background Traffic
  - Analysis of Traffic Impacts
  - Recommended Mitigation Improvements
  - Documentation

TIA Process – Analysis

- Intersections
  - Capacity Analysis at Each Study Area Intersection and Proposed Access Drive
  - Synchro or Highway Capacity Manual (HCM)
- Roadway Links
  - Based on North Central Texas Council of Governments (NCTCOG) Roadway Capacity

TIA Process – Mitigation & Improvements

- Identify Improvements
  - Right Turn Deceleration Lane
  - Left Turn Deceleration Lane
  - Turn Lane Storage Length
  - Traffic Control
  - Driveway Spacing and Access Control
  - Sight Distance Improvements
  - Site Circulation

Due to technical difficulties, we are unable to retrieve the discussion which took place following the slide presentation.

3. ADJOURNMENT

Mayor Harper adjourned the meeting at 7:40 p.m.

John E. Harper, Mayor

Susie Quinn, City Secretary

Date Approved: July 7, 2009