Corridor Management and Preservation in Texas

2010 Workshops

TxDOT Research Implementation Project 5-5606-01

1

8:30-8:45 Introduction

- Welcome and Introductions
- Workshop Objectives
- Research Basis for Workshop
- Acronyms
- Agenda Overview

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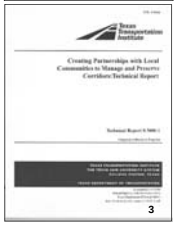
Basis for Workshop

- 2007 RMC Project 0-5606
  - Report 5606-1, *Creating Partnerships with Local Communities to Manage and Preserve Corridors*
  - 5606-P1, *Guidelines on Corridor Management and Preservation*
  - 5606-S, Summary Report
- Workshop is an 'Implementation' Project



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Workshop Objectives

- To promote understanding and importance of CM&P
- To facilitate CM&P through coordination of transportation and land use planning

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Workshop Objectives

- Promote TxDOT/local partnerships
- Show CM&P tools, practices, and studies
- Promote development and adoption of CM/CP plans

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Workshop Objectives

- To bend your ear on CM&P and help you remember benefits
- Get your input and feedback
- Keep it informal !

• Tell me and I forget
• Show me and I remember
• Involve me and I understand
Chinese Proverb

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What the 5606 Research Covered

1	Role of local and regional plans in CM&P
2	TxDOT/local authority and regs. in CM&P
3	Methods to acquire and preserve ROW
4	Current practices/case studies in CM and CP
5	Mechanisms for implementing CM&P
6	Recommendations on partnerships in CM&P for TxDOT

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Acronym Quiz

See any that you don't know?

- CM&P
- CM
- CP
- AM
- TxDOT
- MPO
- RMA
- COG
- RPO
- ROW
- ETJ

- NEPA
- ISTEA
- SAFETEA-LU
- EA
- EIS
- FONSI

…and not to forget

- LULU
- SOB
- NIMBY
- BANANA
- NIMTOO

…**abbreviations**

- Comp. plan
- T-fare plan
- Coord.
- w/ and w/o

Bonus: OSSF

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Agenda Overview

Turn to the first page of your workbook

Essentially…

CM before lunch

CP after lunch

Session	TOPICS
Opening 8:30- 8:45	• Welcome and Introductions • Workshop Objectives • Today's Agenda
1 8:45-9:15	• CM and CP: Definitions and Overview • Purpose and Benefits of CM&P • Authority and Abilities of CM&P in Texas
2 9:15-10:30	• Development Policies That Support CM • CM Tools, Access Related BREAK 10:00 – 10:15 • CM Tools, Zoning and Development Related • CM Tools, Platting Related
3 10:30-11:00	• CM Plans • Discussion of CM in Host Area
4 11:00-11:30	• CM Case Studies
LUNCH 11:30 – 1:00 (on your own)	
5 1:00-1:45	• CP Overview • ROW Acquisition and Preservation Tools
6 1:45-2:30	• Develop CP Strategies • Early Environmental in CP
BREAK 2:30 – 2:45	
7 2:45-3:00	• CP Conclusions • Discussion of CP in Host Area
9 3:15-3:45	• Bills in the 80th Legislative Session Impacting CM&P • Intergovernmental Agreements • CM/CP Practice in Select States
Closing 3:45-4:15	• Summary Recommendations • Participant Feedback • Course Evaluation

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Before we get started….

be aware that some you work with may have the Knack

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8:45 – 9:15 Session 1

- Definitions of CM and CP
- Purpose and Benefits of CM and CP?
- Authority and Abilities for CM&P

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Definition of a Corridor

Corridor–a pathway that provides for the flow of people and goods within and between activity centers, and that includes one or more transportation facilities, abutting land uses, and access facilities for development.

Corridor Management (CM) Defined

- Management of land development and the transportation facilities within an ***existing*** corridor to ensure that they develop in accordance with
  - ✓ adopted land use plans
  - ✓ roadway improvement plans
  - ✓ access management
  - ✓ future ROW needs
  - ✓ or any specially adopted plans or objectives for the corridor.
- Application of multiple strategies to achieve specific land development and transportation objectives

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CM Overview

- Is a planning strategy coordinating transportation and land use/development components
- Should be a continual process, way of business
- Is a 'system' in lieu of 'piecemeal' approach
- Includes many components
- Includes various types of plans, objectives
- Shows foresight, preparedness

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CM Tools and Ability By Area

	CM Tool or Technique	City	ETJ	County
Access Management	Driveway Spacing	✓	limited	limited
	Non-Traversable Medians	✓	✓	✓
	Signalized Intersection Spacing	✓	✓	limited
	Arterial Frontage and Backage Roads	✓	limited	
	Acquisition of Access Rights	✓	✓	✓
Zoning and Development Regs	Site Plan review	✓	limited	
	Land Use/Density Controls	✓	limited	v. limited
	Building and Parking Setbacks	✓	v. limited	v. limited
	Corridor Zoning Overlays	✓		
	Driveway Throat Length	✓	limited	
Subdivision Regulations	ROW Dedication Through Platting	✓	✓	v. limited
	ROW Reservations Through Platting	✓	✓	v.limited
	Access Easements	✓	limited	limited
	Minimum Lot Size	✓	limited	limited
	Minimum Lot Width	✓	limited	limited

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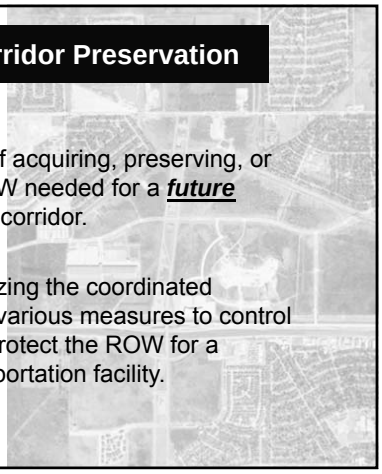
Definition of Corridor Preservation



- The practice of acquiring, preserving, or protecting ROW needed for a ***future*** transportation corridor.
- A concept utilizing the coordinated application of various measures to control or otherwise protect the ROW for a planned transportation facility.

Overview of CP

- Fed has mostly left CP to States
- TxDOT has no formal program, funding
- Starts with long-range transportation planning
- Requires involvement/coordination at all levels – federal, state, local
- Adopted plans (statewide, MPO, local) serve as basis
- Very important for future system

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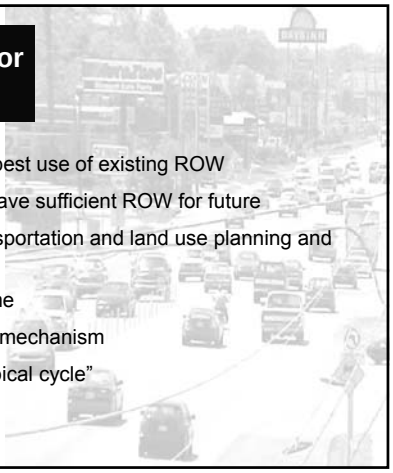
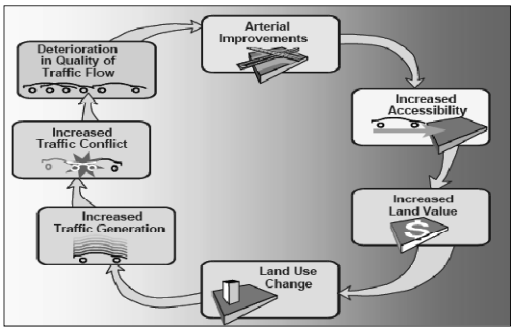
Why the Need for CM and CP?



- Make the most/best use of existing ROW
- Make sure we have sufficient ROW for future
- Coordinate transportation and land use planning and decision making
- Save money, time
- As coordination mechanism
- To avoid the "typical cycle"

Transportation-Land Use Cycle



Source: Institute of Traffic Engineers (ITE), *Transportation and Land Development, 2nd Edition*

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Why the Need for CM and CP?

Escalating costs!

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Other Benefits of CM & CP

- Improves safety, reduces congestion and improves mobility
- Economic
- Promotes orderly growth
- Aesthetics

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Without CM ...

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With CM

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Basis for CM & CP in Texas

- Related TxDOT policies and manuals
- Local comprehensive plans
- Zoning and development regulations
- City and county subdivision regulations
- City and county transportation plans
- MPO/regional transportation plans

…..TxDOT cannot accomplish alone

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TxDOT Policies that Support CM & CP

- AM, including purchase of access rights (*Access Management and ROW Manuals*)
- Early/advanced ROW acquisition (ROW Manual)
- Roadway design policies (*Roadway Design Manual*)
- Statewide Transportation Plan *(per Commission)*
- Local Agency Coordination

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CM&P Authority/Ability Texas Cities

- Comprehensive plans (92%)
- Transportation plans (90%)
- CM&P tools in subdivision regs
- CM&P tools in zoning (96%)
- Access ordinances (73%)

(% of cities that have, based on 51 surveyed)

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CM&P Authority/Ability of Texas Counties

- County subdivision regs
  - Min. lot size and width requirements (limited)
  - Ability to deny plat if in ID'd corridor (HB 1857, 2007)
  - Minimum lot size requirements for OSSF
- County transportation plans and reasonable setbacks (LGC §232.100)
- Extension of some city powers in ETJ

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Possible City Powers in ETJ for CM & CP

- Municipal T-fare plans and subdivision regs.
- Some city ordinances such as
  - access
  - parkland dedication
  - drainage
  - adequate facilities
- Use of development agreements
- City policies on infrastructure extensions

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9:15-10:45 Session 2: CM Tools

- Development Policies
- Access Management Related

MORNING BREAK 10:00-10:15

- Zoning and Site Related
- Platting Related

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Development Policies that Support CM

1. Encourage activity center instead of strip development
2. Require neighborhood connectivity
3. Limit unnecessary local street connections
4. Consider Infrastructure extensions into ETJ areas carefully

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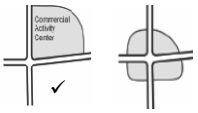
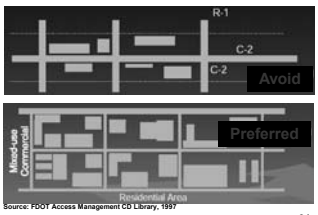
Promote Activity-Based Development

- Require greater lot depths and frontage amounts for commercial zones
  - Improves site circulation
  - Reduces liklihood of strip
  - Fewer access points
- Promote activity centers with supporting roads





Source: FDOT Access Management CD Library, 1997

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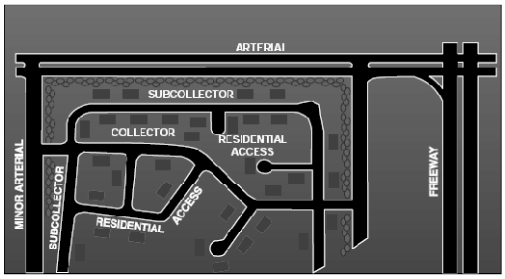
Use Functional Hierarchy in Local Street Planning

Avoid/limit minor local street connections to corridors



Source: Listokin, D. and Walker, C. The Subdivision and Site Plan Handbook, New Jersey, The State University of New Jersey. Figure excerpted from Florida DOT Access Management CD Library, 2005.

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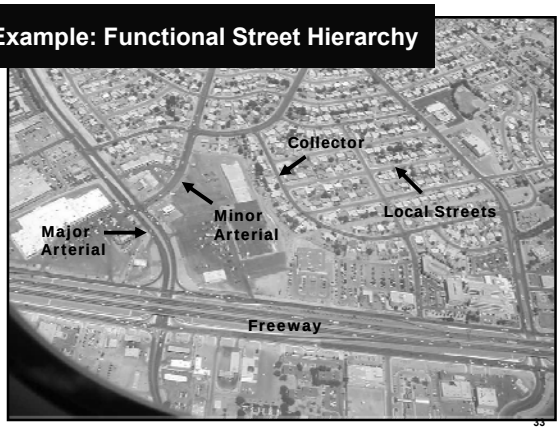
Example: Functional Street Hierarchy



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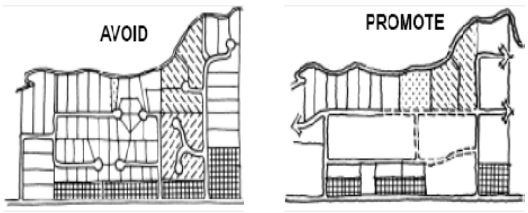
Connect Subdivisions

Connect local streets to

- serve as secondary support system
- remove shorter local trips
- reduce congestion



Source: A Guide to Land Use and Public Transportation, Volume 2 , Snohomish County Transportation Authority

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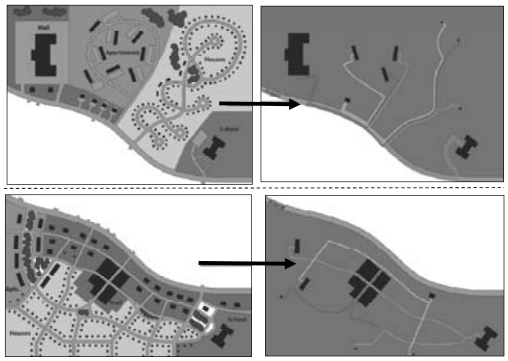
Impacts of Lack of Connectivity



Source: K. Williams, CUTR, University of S. Florida

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Consider Infrastructure Extensions Into ETJ Carefully

- Premature extension of infrastructure into ETJs can
  - Create densities that can't be handled by rural roadways
  - Be counter to infill development policies
- Cities should consider extending development policies into ETJs to level playing field
  - Transportation plans
  - Parkland dedication ordinances
  - Drainage ordinances
  - Access ordinances
- Development agreements

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Basic Access Related CM Tools

1. Driveway Spacing
2. Corner Clearance
3. Non-Traversable Medians
4. Signalized Intersection Location and Spacing
5. Arterial Frontage and Backage Roads

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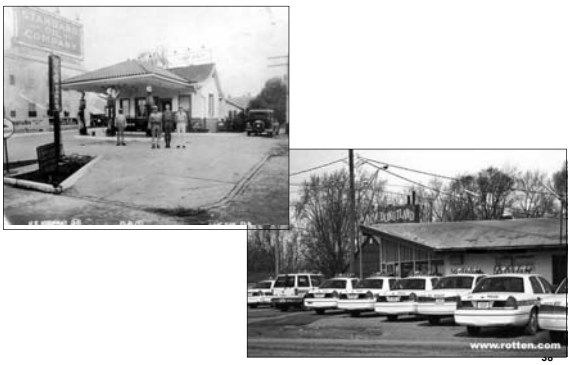
Access in the good old days…



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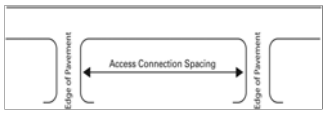
Driveway Spacing



- Limits number of driveways through min. separation requirements
- Increases likelihood of shared/cross access
- TxDOT regs and/or local ordinance

Posted Speed (mph)	Minimum Distance (Feet)		
	Existing State Highways (excluding freeways and frontage roads)	Frontage Roads	
		1-way	2-way
≤ 30	200	200	200
35	250	250	300
40	305	305	360
45	360	360	435
≥ 50	425	425	510

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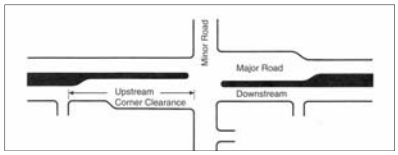
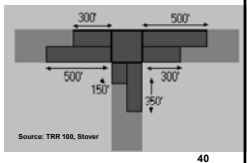
Corner Clearance



- Prevent conflicts between driveways & intersections
- Avoid driveways in functional area of intersection
- Manual: corner clearance = spacing distance for roadway



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Corner Clearance
Local Provisions

- Require shared/x-access easements for all corners
- No full movement driveways in functional area
- Require min. lot size requirements for corners
- Outparcels must obtain access from within

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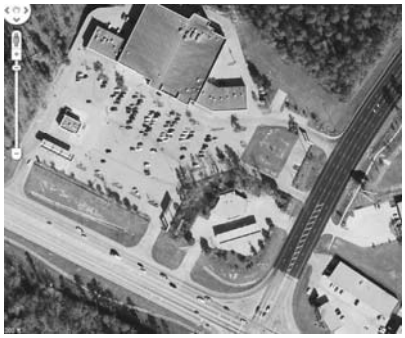
What's wrong with this picture?

Any of these in your area?



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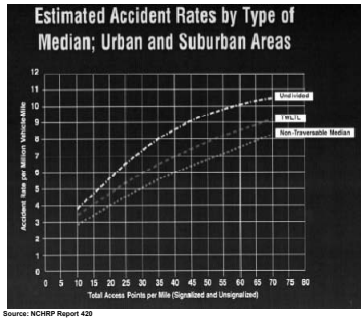
Non-Traversable Medians

- Important CM component
- Improve progression, safety
- Install ahead of development



Source: NCHRP Report 420

- Establish a median policy, TxDOT/locals should partner
- Include medians in local arterial design standards
- Locals/MPOs should assist in education, benefits

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Non-Traversable Medians
Ahead of development

FM 158
Booneville Rd.,
Bryan

FM 734
Parmer Lane,
Austin

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Non-Traversable Medians
Retrofit

Loop 323
Tyler

SH 6
Texas Ave.
College Station

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Median Retrofit - Tyler District' s Process

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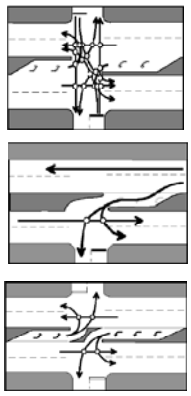
Limited Access Medians

- Use in lieu of full opening
- Fewer conflict points
- Allow only specific turning movements
- Study needed for suitability
- Potentially used in lieu of signal



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Limited Access Medians

Hooded Left Turns
Commercial Blvd.
Ft. Lauderdale, FL

SH 303
Pioneer Pkwy
Arlington

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Signalized Intersection Location and Spacing

- Important component of CM plan
- Long uniform spacing needed
- Consider in local street planning, driveway permitting, median openings
- Adopt CM plan to ensure proper signal spacing
- w/o CM plan
  - Difficult to uphold signal spacing guidelines
  - New signal locations determined by development

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Arterial Frontage / Backage Roads

- Precludes direct access to arterial/corridor
- Minimizes, consolidates access, yet provides good visibility
- Use to meet access, signal spacing criteria
- Must plan them early, hard for retrofit
- Consider in development master plans, CM plans
- Adequate separation between frontage and arterial at connector intersections is crucial

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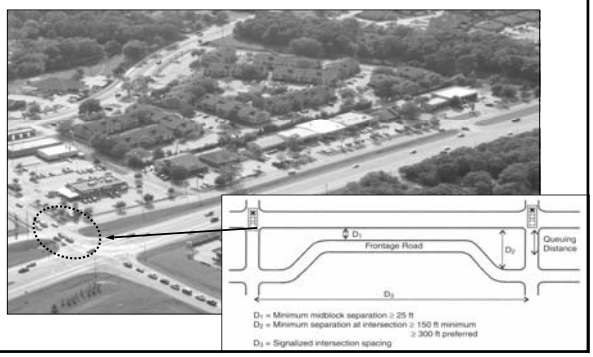
Arterial Frontage Roads



Arterial Backage Roads

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10:00 - 10:15

Morning Break

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Zoning and Development Regs.

1. Lot dimension requirements
2. Building and parking setbacks
3. Internal access for outparcels
4. Driveway throat length
5. Zoning overlay districts

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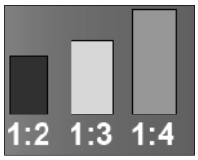
Lot Dimension Requirements

- Require deeper, wider lots along corridors via
  - Min. frontage amounts
  - Max lot width to depth ratios
- Prevent long narrow, flag lots
- Implement in zoning districts, sub. regs
- Guidance from FDOT study
  - 1:4 rural areas
  - 1:2 or 1:3 urban, suburban



Source: FDOT: *Model Land Development and Subdivision Regulations That Support Access Management*

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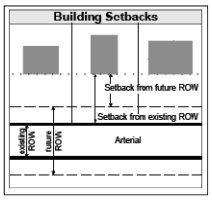
Building and Parking Setbacks

- Require ample setbacks
  - From existing ROW
  - Request, negotiate from future ROW
- Numerous benefits
- Can not be used to preserve ROW or applied arbitrarily
- Enhanced setbacks common in overlays



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Internal Access for Outparcels

- Require outparcels to take access from within development
- Prohibit direct access to roadway
- Numerous way to Implement

AVOID

PROMOTE

Source: K. Williams, Land Development Regulations That Support Access Management, CUTR, 2002

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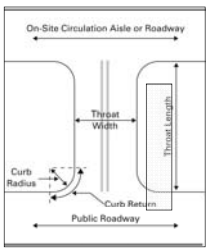
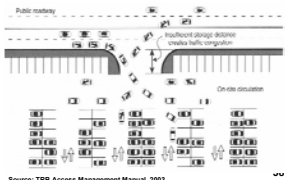
Driveway Throat Length

- Cities should regulate throat lengths along TxDOT corridors
- Florida DOT study
  - 200' for > 200,000ft² GLA
  - 75-95' for < 200,000ft² GLA
  - 40-60' small site
- Has effect of increasing parking setback





Source: TRB Access Management Manual, 2003

Corridor Zoning Overlay Districts

- Best CM, partnering tool
- Supplemental regs overlay zoned property
- Existing requirements of the base zoning district of each parcel retained
- Allows ‘corridor-wide’ in lieu of ‘site’ approach
- Commonly used on TxDOT roadways
- 2007 survey; 63% of Texas cities have used

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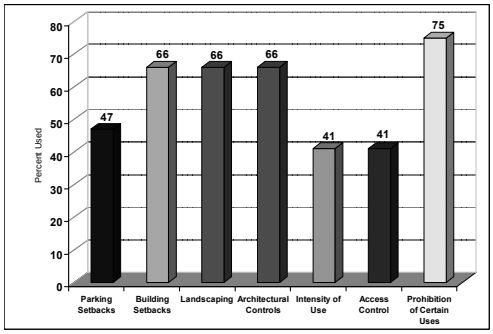
Requirements Used in Zoning Overlays

2007 Survey of Texas Cities



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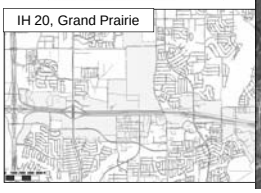
Example Corridor Overlays Texas

FM 60, University Dr., College Station

SH 289, Preston Road, Frisco

SH 161, Grand Prairie

IH 20, Grand Prairie



Key Items That Can Be Used in Overlays

Those with direct TxDOT/ transportation benefits

- Access plan, future access points
- Increased driveway throats
- Internal connections between parcels
- No direct access to outparcels
- Increased setbacks

Others

- Land use prohibitions, intensity regs.
- Utility placement
- Aesthetics

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Platting Related CM Tools

1. ROW Dedication
2. ROW Reservation
3. Access Easements
4. Acquisition of Access Rights

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TxDOT/Local Coordination on Plats

- Coordination needed in PRELIMINARY plats to:
  - Manage access
  - Coordinate in T-fare planning
  - Protect and preserve state ROW

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ROW Dedication Through Platting

- Conveyance of property to the public
- Texas cities/counties should require ROW dedication along TxDOT roads when
  - It is needed to gain compliance with their adopted transportation plan
  - Amount of dedication is roughly proportional to impact of development and reasonably related
- Coordination important to determine
  - TxDOT ROW needs for state facilities
  - Correct functional designations, cross-sections for state roads adopted in local plans

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ROW Reservation in Platting

- Area designated for future ROW on a plat
- Purpose: prevent development, improvements in future ROW
- Does not transfer ownership of property
- Premise that ROW will be purchased in future
- Reservation may be negotiated or compromise option to dedication
- Helps reduce cost for future ROW acquisition

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Access Easements

- Most important tool in carrying out TxDOT and local driveway spacing criteria
- Locals should require when property being subdivided into frontage amounts that can't meet spacing
- Types: shared, cross, and blanket easements

This does not count as cross access

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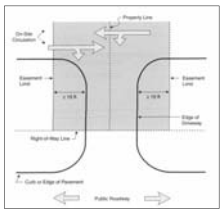
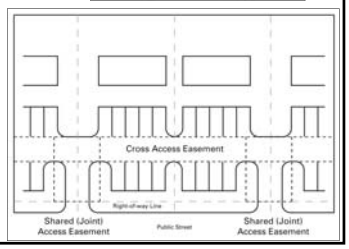
Access Easements

Shared access easement centered on a property line



Cross access easements are often are situated on parking aisle parallel to the roadway.



Platted Access Easements

Blue access easements on plat are yellow areas on aerial

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Acquisition of Access Rights

- Right of access acquired, purchased or condemned
- Consider early, commonly done during ROW acquisition
- Precludes future takings claims
- Used primarily for new highways via 'access control lines'
- Permanent access control

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Acquisition of Access Rights
Other Uses

- Control access and sight distance at intersections
- Preclude future access in the area of ramps and intersections
- Case-by-case basis for safety, design considerations
- Opportunities as they arise

Loop 12, Garland

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10:30-11:00 Session 3

- Corridor Management Plans
  - Overview and Types
  - What they can address
  - Typical objectives
- CM Case Studies

What is a CM Plan?

- Long-range comp. plan for a corridor
- Detailed planning study coordinating some/all of
  - Roadway design
  - Land use / development
  - Access and operations
  - Local street networks
- Combination '**roadway improvement/land development**' policy guide
- Coordination mechanism
- Growth management tool

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Typical CM Plan Objectives

- Prevent/minimize development in pathway
- Preserve/enhance safety, mobility
- Promote local street, development connections
- Match land intensity with roadway function
- Promote economic development
- Preserve/enhance appearance

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CM Plans Can Address

1. Safety, operations, progression
2. Land use types, intensity
3. ROW preservation, protection
4. Development patterns, quality, design
5. Utility location, placement
6. Visual clutter, aesthetics
7. Revitalization, economic development
8. Natural, cultural, historic interests

75

CM Plans Are Unique

- Different types, shapes and sizes
  - Comprehensive or access only focus
  - Local arterial section or regional highway
  - Urban or rural areas
- Different Objectives
- Tailored to TxDOT, local goals, objectives

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CM Plan Varieties or Components

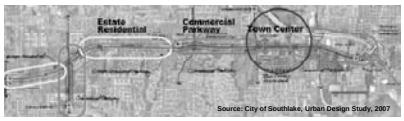
Full Blown – Comprehensive, Trans and LU components

Corridor Zoning Overlay – Focus on LU, development standards

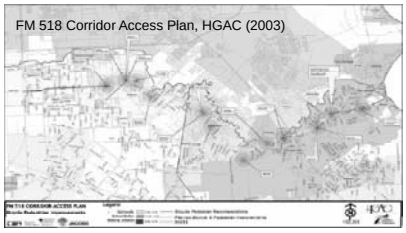
77

CM Plan Varieties or Components

Emphasis on streetscape, design context



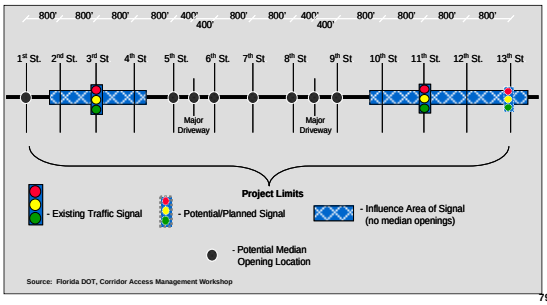
Emphasis on AM, safety, progression



78

CM Plan Varieties or Components

Median Openings and Signalized Intersection Spacing

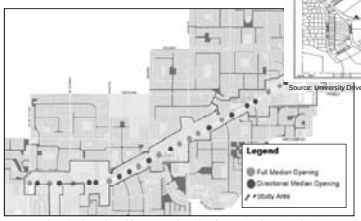


79

CM Plan Varieties or Components

Future driveway access only

Source: University Drive Corridor Study, City of College Station, TX, 1991



Median openings only

Source: Pine Island Road Corridor Master Plan, City of Cape Coral, FL, October 2001.

80

11:00-11:30 Session 4

- Corridor Management Case Studies
  - SH 289, Preston Road, Frisco, TX
  - FM 518, South Houston area
  - K-7 Corridor, Kansas City, KS

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CM Case Study 1

Preston Road (SH 289)
Corridor Management Study
Frisco, TX

82

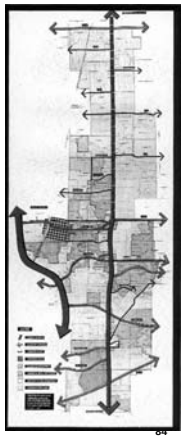
Preston Road / SH 289
Corridor Location

- Frisco, TX
- North Dallas area
- Between US 380 and SH 121
- Midway between McKinney and Lake Dallas

83

Preston Road Corridor Study
Frisco, TX (2000)

- Comprehensive LU and transportation study
- 11 mile section
- Emphasis on civic identity, aesthetics
- Street design, landscape, and development standards created
- Study products
  - Strategic plan for corridor
  - Overlay district



84

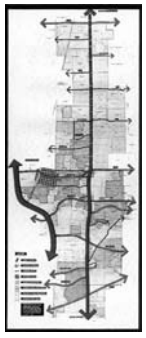
Preston Road / SH 289
Study Process

- Consensus-based planning approach
- Series of community workshops covering
  - Existing corridor conditions, analysis
  - Planning and land use concepts
  - Street framework/design
  - Landscaping and development standards
  - Desire for unique civic identity
- Surveys used to ID community desire on planning concepts, corridor identity.

85

Preston Road Study, Land Use Aspects

Existing Development and Dynamics



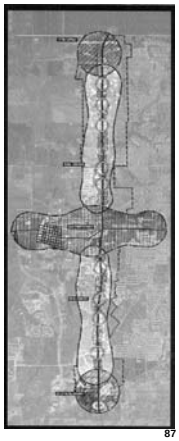
Existing Zoning

Future LU Plan

86

Preston Road Overlay District

- Extends out 750' from roadway centerline
- Includes subdistricts
  - US 380 and SH 121 gateways
  - Rural corridor
  - Main street
  - Retail
- Different development regs in each subdistrict



87

Preston Road Overlay District
Components

- Prohibited uses
- Uses with conditional development standards
- Enhanced bldg. and parking setbacks
- Special requirements on access
- Roadway design standards
- Building standards

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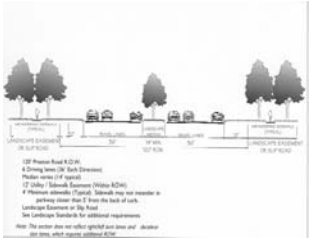
Preston Road Corridor Study
Roadway Design

- Preston Road
  - 120' ROW
  - Six 12' lanes
  - 14' median (varies)
  - Landscape easement or slip road
  - 12' utility, sidewalk easement in ROW

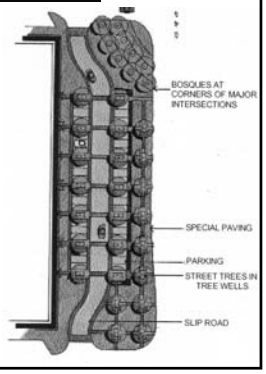


- Designs also included for collectors in corridor

89

Preston Road Overlay District
Access Related Requirements

- 14’ center landscaped median
- Use of slip roads (arterial frontage roads)
- No parking or driving aisles between buildings and street
- For sites with >200 pkg. spaces
  - medians in driveways
  - 150’ min. driveway throat length



Preston Road Overlay District
Building Setbacks

- Varies by subdistrict
- 75% of bldg must be on built-to-line, additional 25% may setback an additional 10’
- 100’ in US 380 gateway
- 50’ in SH 121 gateway

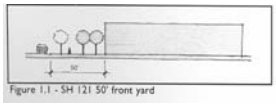


Figure 1.1 - SH 121 50' front yard

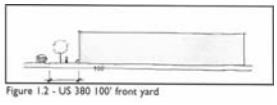


Figure 1.2 - US 380 100' front yard

91

HGAC/Houston District CM Plans

- MPOs in TMAs must do Congestion Management Process (CMP)
- HGAC includes corridor studies in UPWP
- Numerous CM studies conducted in past 6-8 years
- CMAQ $s used to fund, implement improvements
- Good TxDOT/HGAC cooperative process in place

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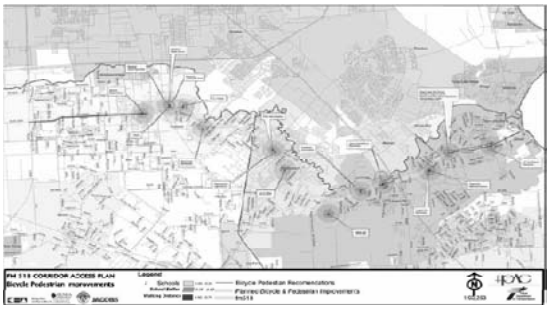
CM Case Study 2

FM 518 Corridor Access Management Plan



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FM 518 Corridor Access Management Plan

- HGAC, Houston District 2002
- Corridor extends through
  - Pearland, Friendswood, League City, Kemah
  - Brazoria and Galveston counties
  - Jurisdictions with different planning, development controls
- 26 miles, majority 5-lane with C2WLT lanes
- Area experiencing rapid growth, safety concerns, congestion

94

Corridor Goals and Objectives

- Improve safety by reducing driveway density, total conflict points per mile
- ID short-term transportation solutions, provide list of recommended projects
- Improve traffic flow, level of service
- Reduce motorist delay, decrease travel time
- Assess long-term corridor needs and recommend policy and regulation changes

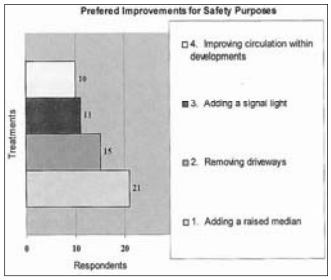
95

FM 518 Corridor
Study Process and Timeline

96

FM 518 Corridor
Public Involvement Process

- Public, stakeholder, and steering committee meetings
- 85 percent of survey respondents satisfied with public outreach effort
- 60 percent agreed with the raised median recommendation



97

FM 518 Corridor
Existing Conditions

- AADT up to 38,000 veh/day
- Speeds vary between 30 and 45 mph
- Crash rates are higher than regional average
- 58 signalized intersections (all TxDOT)
- ROW varies from 60 ft to 200 ft
- Much of the corridor has a two-way left turn lane

98

Existing Conditions (cont.)

- Access Inventory
  - 1002 access points ID'd
  - Density by segments calculated, ranged from 14 to 65 access points per mile
  - Maximum access density goal: 30 per mile
  - Current AM regulations in the 4 cities reviewed
  - AM provisions arbitrarily mentioned in city codes

99

Existing Conditions (cont.)

Corridor Sections			LOS	LOM
SH 288 West Side	to	FM 865 (Cullen)	E	Moderate
FM 865 (Cullen)		CR 89	E	Moderate
CR 89	to	Woody / Corrigan	F	Serious
Woody / Corrigan	to	Halbert / McLean	E	Moderate
Halbert / McLean	to	SH 35 / Main	F	Serious
SH 35 / Main	to	Sherwood	F	Serious
Sherwood	to	Woodcreek	F	Severe
Woodcreek	to	Dixie Farm	F	Serious
Dixie Farm	to	Williamsport	A - D	Tolerable
Williamsport	to	Newport	F	Serious
Newport	to	Interurban	F	Serious
Interurban	to	SH 3	F	Severe
SH 3	to	FM 270 / FM 2094	F	Serious
FM 270 / FM 2094	to	South Shore	F	Severe
South Shore	to	SH 146	A - D	Tolerable

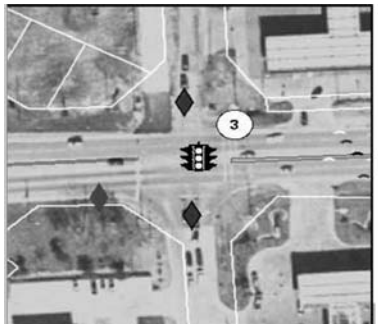
100

Recommended Corridor Improvements
Short and Medium Term, Operational

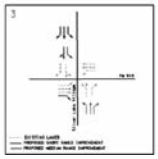
- Recs. or <u>each</u> signalized intersection in corridor
  - Phasing and striping changes
  - Eliminate all split phased signal sequences
  - Evaluate 'protected only' vs. 'protected- permitted' lefts
- Incorporate isolated signals into closed loop
- Upgrade signal communication infrastructure
- Minor roadway widening projects to accommodate turn lanes at intersections

101

Example Operational Change Recommended



- Re-stripe NB and SB from left-only, left-or-straight, and right-only to left-only, straight-only, and right-only
- Change N-S signal sequence from split-phased to quad-left



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Corridor Improvements
Short and Medium Term, Safety

- Install medians for 600 feet on either side of selected intersections
  - Intersections selected based on crash history and alternative access to adjacent property
- Medium-term recommendations include a more extensive system of medians
- Consolidate driveways, all locations ID'd.
- Other – signage, lighting, landscaping

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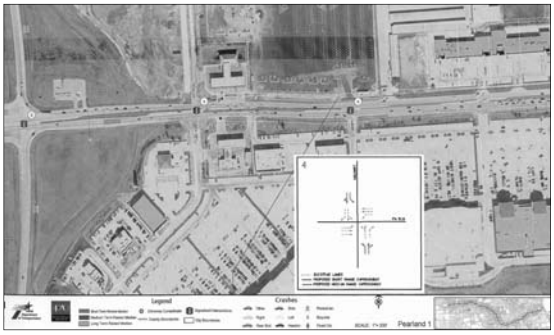
FM 518 Corridor
Example Segment Recommendation



104

11:30-1:00
LUNCH on your own

105

Corridor Management and Preservation in Texas

Afternoon Sessions

CORRIDOR PRESERVATION

2010 Workshops

1:00 - 1:45 Session 5.0

- Corridor Preservation Overview
- ROW Acquisition and Preservation Tools

2

Corridor Preservation Overview

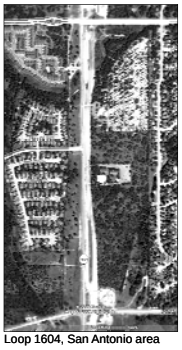
- Tools
- Strategy
- Environmental
- Bottom line

SH 71 Bastrop – after improvement

3

Purpose – Why Are We Talking About CP?

- Preserve ROW for future
- Reduce cost
- Reduce delays
- Avoid need to reroute
- Reduce dislocations/relocations



Loop 1604, San Antonio area

4

Barriers That Hinder CP

- Inadequate authority
- Protection of private property rights under 5th amendment
- Lack of planning, rampant development
- Inherent challenges in multi-jurisdictional coordination
- Funding limitations
- Most state DOTs, including TxDOT
  - Have limited options available
  - Do not have statutes supporting
  - Do not have a dedicated funding source
- NEPA and the environmental compliance process
  - Cannot use federal funds prior to clearance

5

CP in Use in Texas Cities

- 32% - active corridor preservation
- 38% - protective acquisition
- 45% - advanced purchase
- 69% - accept donations
- 88% - through platting
- 12% - options to purchase

6

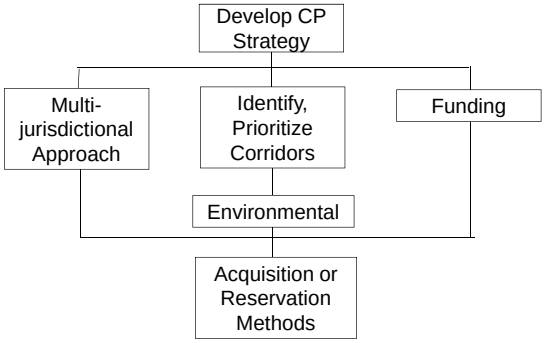
CP Steps and Needs

1. Identify, prioritize corridors for CP
2. Develop CP strategy
   - Conditions
   - Locations
   - Methods
   - Timing (relative to environmental)
   - Funding
3. Multi-jurisdictional approach
   - Partnership with local agency
   - Ongoing process
4. Early environmental work
5. Funding for early acquisition
6. Map ROW for protection

Grand Parkway (SH 99) extension, Houston area

7

Corridor Preservation Steps



8

Participants in CP

Lake Woodlands Dr. Interchange on I-45, The Woodlands

- TxDOT
  - Districts
  - Environmental Division
  - Administration
  - Commission
- Local agencies
- Developers, property owners
- Public (understanding)
- FHWA (environmental).

Preston Rd. - Legacy Pkwy. Grade Separation, Plano

9

ROW Acquisition and Preservation Tools

- Approaches and authority
- Acquisition methods
- Reservation methods
- Case study example

10

CP Approaches

- Fee-simple ownership
  - Purchase
  - Other
- Protection/preservation
  - Acquire certain rights
  - Maintain ability to acquire
  - Protect for future corridor

Powers

- TxDOT (limited)
- Local agencies (almost all)
- TxDOT-Local partnership (all)

11

CP Available Methods

Method	TxDOT Authority	Local Authority	Purchase/ Possession	Obtain Rights
Outright Acquisition				
Fee simple/negotiated purchase	●	●	●	
Condemnation	●	●	●	
Early/advanced acquisition – hardship purchase	●	●	●	
Early/advanced acquisition – protective purchase	○	●	●	
Early/advanced acquisition – donations	⊙	●	●	
Dedication through platting		●	●	
Protection	●			
Option to purchase	⊙	●		●
Right of first refusal	●	●		●
Reservation through platting		●		●
Purchase development rights	●	●		●
Development agreement	●	●		●

○ - More limited than local authority in some cases. ⊙ - More limited but also requires Commission approval.

12

Outright Acquisition (TxDOT, Local)

- Full title
  - Complete control
  - Fewest complications
  - Highest (early) cost of protection

13

Outright Acquisitions (cont.)

- Fee-simple purchase (TxDOT, Local)
  - Successfully negotiated

- Condemnation
  - TxDOT offers not accepted
  - Usable only in protective purchases

14

Outright Acquisitions (cont.)

- Dedication through platting (local agency)
  - Same as for CM
  - Dedication
    - Transfer of ownership
  - Requires
    - Inclusion on adopted plan
      - General location
      - Functional classification
    - General alignment
    - ROW is roughly proportional to development impact
  - Limitations on use for wide ROW
    - Dedication proportional to impact

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Outright Acquisitions (cont.)

Lake Woodlands Dr. Interchange on I-45, The Woodlands

- Donations (TxDOT, Local)
  - Usually for specific facility beneficial to owner
  - Owner must know of right to sell at fair market value
  - TxDOT may encourage donations
    - No coercion
  - Local agency may use as part of local share
  - Requires commission approval
    - If to TxDOT
    - If no advanced funding agreement with local agency

Local examples of donations?

16

Outright Acquisitions (cont.)

- Early acquisition purchase – hardship (TxDOT, Local)
  - Owner unable to sell
    - Designated as ROW (public knowledge)
    - Health, safety
    - Financial hardship
  - Usually residential
  - Rarely usable as a CP strategy

17

Outright Acquisitions (cont.)

- Early acquisition purchase – protective (TxDOT, Local)
  - Purchase for prevention
    - Imminent development
    - Other major cost increase
  - Parcel-by-parcel only
  - Cannot influence final environmental analysis if pre-NEPA

Local experience?

18

ROW Protection – Other Than Outright Acquisition

- Option to purchase
- Right of first refusal
- Reservation through platting
- Purchase development rights
- Development agreement

Loop 1604, San Antonio Area

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ROW Protection – Other Than Outright Acquisition

- Option to purchase (TxDOT, local agency [√])
  - Purchase a contract
    - To purchase property [√]
    - Fixed term limit
      - Up to 5 years
      - Renewable up to 5 years at a time
  - Owner retains possession [√]
    - Usage [√]
    - No further permanent improvements [√]
  - Agency may purchase parcel within term limit [√]
  - Can be expensive
  - TxDOT currently using in large urban districts
  - Locals can do at own risk [√]

20

ROW Protection – Other Than Outright Acquisition

- Option to purchase (TxDOT, local agency) (cont.)
  - Requires (TxDOT)
    - Probable alignment
    - Use of property for transportation
    - Appropriate property size
    - Economically favorable to TxDOT
    - Environmental site assessment for hazmat contamination
    - Commission approval (project usage)
    - Purchase requirements same as other methods
  - Does not require
    - Final ROW determination
    - NEPA determination

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ROW Protection – Other Than Outright Acquisition

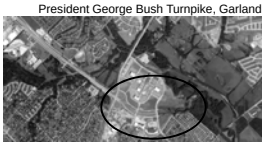
- Right of first refusal (TxDOT, local agency)
  - Contract
    - TxDOT (or local agency) has first chance to purchase
    - Fee paid to owner

22

ROW Protection – Other Than Outright Acquisition

- Reservation through platting (local agency)
  - Same as for CM
  - Reservation for future acquisition as ROW
    - Prevents permanent improvements by owner
    - TxDOT/local agency request to owner
  - Requires
    - Inclusion on adopted plan
      - General location
      - Functional classification
    - General alignment
    - Option to dedication if proportionality is an issue

President George Bush Turnpike, Garland



23

ROW Protection – Other Than Outright Acquisition

- Purchase development rights (TxDOT, local agency)
  - Usually used for conservation
    - Wildlife resource management
    - Scenic preservation
    - Growth management
    - Agricultural, natural land preservation
  - Could be used for CP
  - May not be readily adaptable for CP
    - Requirements
    - Total cost

24

ROW Protection – Other Than Outright Acquisition

- Development agreement (usually local agency)
  - Negotiated contract(s) covering obligations related to development
    - Developer
    - Local agency
    - Other parties as appropriate

  - May include ROW ownership transfer
    - Part of negotiation
    - Probably will also include TxDOT roadway improvements

25

Session 6.0 Developing CP Strategies 1:45 – 2:30

1. Identify, prioritize corridors
2. Develop corridor strategies
3. Establish partnerships
4. (Environmental)
5. Seek funding
6. Map corridors for protection

26

1. Identify Corridors

1. MPO or statewide plan
   - Statewide or regional need
   - Facility purpose
   - Functional classification
     - ROW width
     - Lanes
     - Access type

NCTCOG Regional Transportation Plan – Dallas and Tarrant Counties

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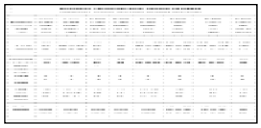
1. Identify Corridors (cont.)

City of Irving Comprehensive Plan Master Thoroughfare Plan



28

1. Identify Corridors (cont.)

2. Corridor identification
   - Project need
   - Facility type
   - General location
   - Feasible alternatives
   - Early environmental

TxDOT or
MPO or
Local agency

Portion of Houston Thoroughfare Plan

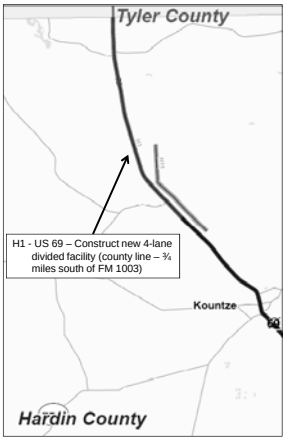
29

1. Identify Corridors (cont.)

30

1. Identify Corridors (cont.)

Is ROW preserved for each of future routes?



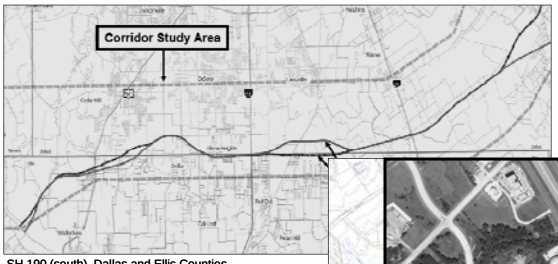
31

1. Identify Corridors (cont.)

Portion of Inner Loop schematic

32

1. Identify Corridors (cont.)



SH 190 (south), Dallas and Ellis Counties

Longmire extension, College Station

33

1. Identify Corridors (cont.)

- Adopt into local agency plans
  - Official adoption
  - Needed for local agency use of powers
  - Map corridors to protect
    - Preliminary schematic (or more)
      - Pre-, early, post environmental clearance
    - For
      - TxDOT use
      - Local agency implementation
        - » Subdivision/platting
        - » Zoning
        - » Dedication
    - Update with changes and refinements

City of Irving Comprehensive Plan Land Use Map showing ROW alignments

34

1. …and Prioritize Corridors

1. Part of planning process
   - TxDOT statewide long range plan
   - MPO MTP
   - County, city plan
2. Consider
   - TxDOT, local objectives
   - Development expected
   - Capacity, safety needs
   - Local commitment to project (incl. CP)
   - Project role in statewide system
   - Other criteria developed with local agency(s)

Mopac Expressway (Loop 1) extension, Austin

35

2. Develop CP Strategy

- Identify ROW early
  - Planning
  - Project development
- Develop strategy to protect ROW
  - Early acquisition
  - Reservation
  - Methods and tools
  - Partner agencies
  - Agency champions

FM 1604, San Antonio area

36

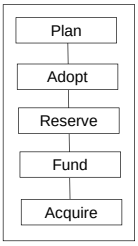
2:30 -2:45

Afternoon Break

37

2. Develop Strategy (cont.)

- Requirements to protect ROW
  - Environmental clearance – broad acquisition
  - Before environmental
    - Parcel-by-parcel
    - At risk
- Funding
  - TxDOT limited
  - Local agencies
- Multi-jurisdictional partnerships
  - Interagency agreements



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2. Develop Strategy

- Select CP methods
  - Timing of project
  - Conditions expected
  - Available funding
  - Local powers available and committed
    - Agency types
    - Capabilities
    - Interagency agreements

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3. Establish Multi-jurisdictional Partnerships

Why?

President George Bush Turnpike, Plano

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3. Establish Multi-jurisdictional Partnerships

Why?

- No single agency can be totally successful
  - Limited TxDOT authority
  - Additional local agency powers
  - Use full range of TxDOT and local authorities, tools
- Opportunity for local funding
- Active local agency participation/support

President George Bush Turnpike, Plano

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4. Early Environmental Work

- Importance – Why?

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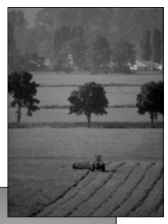
4. Early Environmental Work

- Importance
  - "Fatal flaws" +
  - Early mitigation strategies
  - Avoid later changes, costs
- Starting early
  - Planning
  - Tiered



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4. Early Environmental Work

- NEPA clearance
  - Project wide acquisition requires clearance
  - Selected advanced acquisition can precede clearance
    - Needs CE for parcels to be acquired

President George Bush Turnpike, Plano

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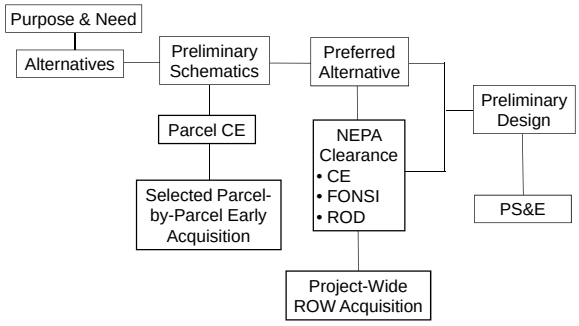
4. Early Environmental Work

Conventional project development process (simplified)



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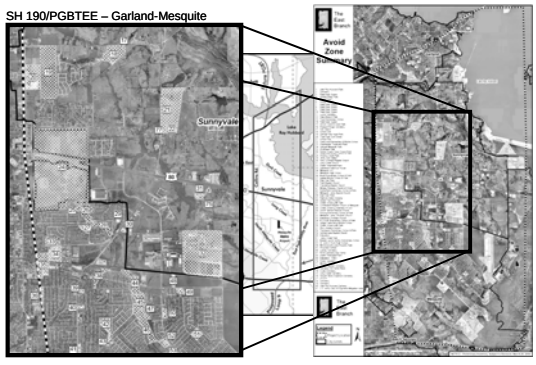
4. Early Environmental Work

SH 190/PGBTEE – Garland-Mesquite



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4. Early Environmental Work

Starting Environmental Work Early

- Reduces
  - Risk with uncleared advanced acquisitions
  - Project cost increases
  - Need to alter alignments
- Methods
  - Environmental review during planning
    - Long range plans
    - Corridor, subarea
  - Tiered environmental process

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4. Early Environmental Work

Linking planning and Environmental

- SAFETEA-LU
  - Requires some environmental during long range, corridor planning
    - Identification
    - Consultation
    - Mitigation
  - Permits use of results for NEPA
    - Purpose and need
    - General alternatives
    - Preliminary screening
    - Identification of impacts
    - Initial mitigation actions
    - Resource agency input
- Early TxDOT attempt underway – Tyler district
- May NOT finalize or influence final ROW

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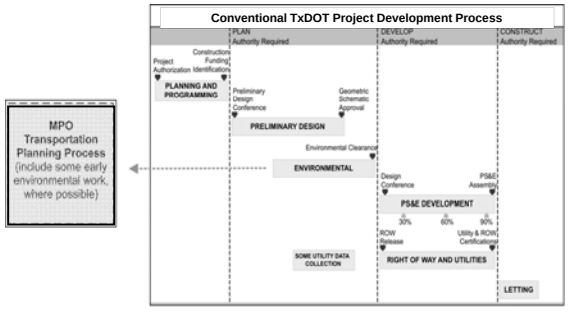
4. Early Environmental Work

Planning Level Environmental Review



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5. Early ROW Protection Requires Funding

- TxDOT through programming process
- Local agencies
- (Dedications)
- (Donations)

Donations for 4 Grade Separations/Flyovers, The Woodlands

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6. Map Corridors for Protection

- General alignments
  - Schematic drawings
  - Per early environmental findings
  - Approximate ROW limits
- Adopted plans
- Basis for protection, acquisition

Portion of Lincoln, NE comprehensive plan map

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7.0 CP Conclusions, Discussion and Case Studies 2:45-3:15

- Bottom line and Opportunities
- Discussion
- Case Studies

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Bottom Line

- ROW <u>can</u> be protected
- Many tools
- Requires experienced ROW personnel
- Timing relative to environmental finding is important
- Funding a challenge – but not insurmountable
- Partnerships with local agencies can facilitate ROW protection

Grand Parkway Extension, Houston Area

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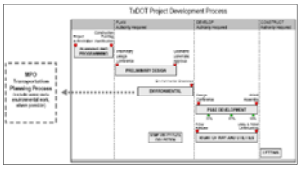
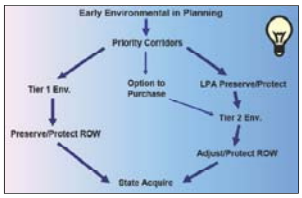
CP Opportunities

- Begin environmental work earlier



- Recommended CP process



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Case Study Example – President George Bush Turnpike (SH 190) – Plano (cont.)

Construction

- Funding lagged local agency desires
- Area agencies agreeable to toll road to expedite completion

President George Bush Turnpike, Plano

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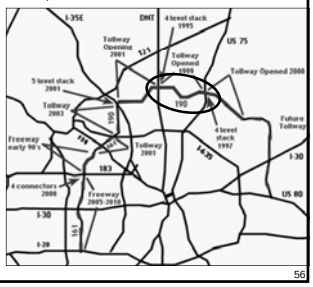
Case Study Example – President George Bush Turnpike (SH 190) - Plano

Origins

- Loop 9 (later SH 190)
  - Outer DFW loop
  - Promoted by outer suburban cities, counties
- PGBT
  - portions of SH 190, other routes



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Case Study Example – President George Bush Turnpike (SH 190) – Plano (cont.)

Plano Segment

- TxDOT developed initial schematics
  - Basis for
    - City thoroughfare plan
    - ROW protection
    - Acquisition by City

President George Bush Turnpike, Plano

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Case Study Example – President George Bush Turnpike (SH 190) – Plano (cont.)

CP Strategy

- Agreement between TxDOT, City
  - City protect, obtain ROW
  - ROW served as City 10% participation
  - TxDOT would build highway
- ROW acquisition
  - Hunt Development, Hunt family large holdings
    - Actively developing at time
    - Understood value to property
    - Dedicated from holdings
  - Some purchases

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8.0 Legislation, Agreements, and Practice in Select States 3:15-3:45

- Bills in the 80th Legislative Session Impacting CM or CP
- Intergovernmental Agreements
- CM/CP Practice in Select States

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Bills in 80th Legislative Session

- Several related to increasing the authority and ability of TxDOT *and* local jurisdictions for CM and CP activities:
  - ✓ House Bill 1857
  - ✓ Senate Bill 1266
  - ✓ Senate Bill 792
  - ✓ House Bill 1472
  - x House Bill 2268
  - x House Bill 117
  - x Bills relating to the SH 130 Corridor
- 4 bills passed, the rest failed

Go to www.capitol.state.tx.us to search bills

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House Bill 1857 (Effective September 1, 2007)

- Amended §232.0033 of Texas LGC to add a section on "Future Transportation Corridors."
- Allows a county to deny a plat in a preserved corridor if:
  1. *it does not state that the subdivision is located within the alignment of a transportation project as shown in the final environmental document; or*
  2. *if all or part of the proposed subdivision is located within the area of the alignment as shown in the final environmental doc..*
- Requires purchase or lease contracts to contain statement that the land is within the area of the alignment of the transportation project.

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Senate Bill 1266 (Effective September 1, 2007)

- Assists projects that utilize transportation financing
- Allows for creation of Transportation Reinvestment Zones (TRIZ's) around transportation projects
- TRIZs
  - Can be created by city/county intending to enter into an agreement with TxDOT
  - Capture part of incremental tax growth from development spurred by transportation project
- Provides locals leverage in financing for pass through projects

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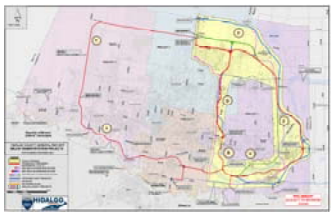
Hidalgo Loop Project

- Pharr District and Hidalgo RMA
- To be financed by
  - Pass-through funds
  - Truck tolls
  - Vehicle registration fees
  - TRIZ
- For more info:

www.hidalgocrb.com



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Hidalgo Loop TRIZ

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House Bill 2268 (did not pass)

SB 2268 **would have…**

- Authorized TxDOT to purchase property before the alignment of highway is determined.
- Been a good CP advanced acquisition tool
- Been a more attractive option than 'option to purchase' by providing landowners certainty of sale and immediate receipt of proceeds

SB 2268 **would <u>NOT</u> have…**

- Precluded or circumvented the ENV process
- Allowed acquisition by condemnation

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House Bill 117 (died in committee)

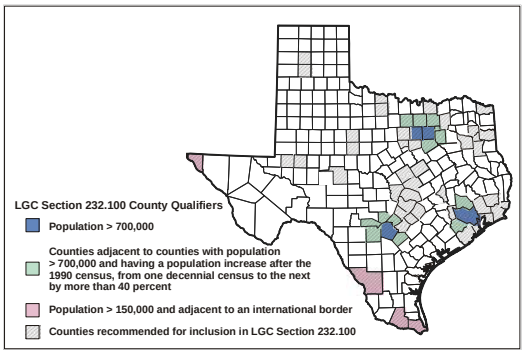
HB 117 would have….

- Significantly increased the number of counties in Texas that have the ability to adopt and enforce a transportation plan (by expanding applicability of LGC 232.100)
- Allowed counties with a pop. > 150,000 or more to adopt and enforce a transportation plan
- Been a significant benefit to Transportation Planning in Texas

Appears bill did not receive much support

66

HB 117 – Attempted to Address Need for Transportation Plans in Counties



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Bills Relating to the SH 130 Corridor

Bills that proposed expanding city and county land use powers along SH130 in Austin area

- **SB 1688** - transportation infrastructure districts
- **SB 1689** - annexation powers for small cities
- **SB 1690** - zoning authority for 2 counties

All Failed

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CM/CP Practice and Funding in Select States

- Few formal CM/CP programs across US
- The norm: lack of dedicated funding source
- U.S. trend is more state DOT involvement, coordination with locals, MPOs

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Texas Overview of CM/CP Practice

- No state statutes, no dedicated funding source
- CM/CP accomplished through
  - Access Management, TxDOT and local
  - Good ad hoc voluntary coordination
  - TxDOT advanced ROW tools
  - Local/MPO corridor studies, overlays
  - Non-traversable median installations
- 4 (8%) of 51 Texas cities reported a CP dedicated funding source

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Florida CM/CP Practice

- Emphasis on FDOT involvement in local development review and coord. in planning
- 1995 statute called for designation of corridors in local comp. plans
  - Enabled corridor management ordinances
  - Local participation optional
- FDOT facilitates intergovernmental agreements
- Strategic acquisitions

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Florida CM/CP Practice, Funding

- State Transportation Trust Fund
- Local Option Gas Tax
- Local Government Infrastructure
- Surtax – Ninth Cent Gas Tax
- Impact Fees/Developer Contributions

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Utah CM/CP Practice

- State IDs corridors, then coordinates with locals to help preserve
- 2006 Bill, Local CP Fund, established revenue source and approval process for CP projects
- Allows counties to impose fee on MV registrations/ renewals
- Revenues go to Local Transportation CP Fund
- COGs oversee project prioritization

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Nebraska CM/CP Practice

- NDOR has ‘mapping powers’ for CP
- Works with locals & public on priorities
- After corridor(s) ID’d, filed with permitting agencies
- State relies heavily on locals to negotiate agreements with developers to preserve ROW

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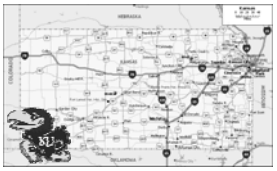
Kansas CM/CP Practice



- State CM Program funded by legislation
- Corridors designated on local district plans
- Use of CM committees in KDOT districts
- Heavy emphasis on coordination among DOT, MPOs, municipalities, public utilities, etc.

75

Intergovernmental Agreements for Corridors

- 2004 national survey: 59 % of states have used cooperative agreement to manage arterial corridors
- Most common types of cooperative instruments were MOUs (69%), maintenance agreements (54%) and public-private or development agreements (54%)
- Texas - Interlocal Cooperation Contracts ICCs authorized in Ch. 791 of TGC
- Good example: Master Interlocal Agreements used in Utah

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Closing Session: CM&P Recommendations and Class Feedback 3:45 - 4:15

- Summary Recommendations
- Participant Feedback
- Workshop Evaluations
- Adjourn

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General Recommendations

- Make CM and CP a process and integrate into
  - Local comp. plans, development ordinances
  - Local development review and planning processes
  - MPO plans and work programs
  - TxDOT policy, project development, design
- Continue to increase CM/CP practice thru AM, design, advanced ROW, local involvement
- Establish coordination with local agencies
- Establish agency roles and champions
- Use top down initiative

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TxDOT Should Encourage or Partner with Cities to…

- Develop zoning overlay districts
- Develop CM plans
- Include specific components, policies on CM/CP in comp. plans
- Use land use, development regulations to help implement AM, preserve ROW
- Get ROW dedications, reservations as opportunities arise

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Incorporate CM /CP into Local Comprehensive Plans

1. Include CM/CP in plan goals, objectives
2. Include prioritized corridors (MPO and/or city)
3. ID corridors designated for special treatment
4. Adopt completed CM plans, studies
5. Adopt development policies that support CM/CP
6. Adopt roadway design policies that support CM

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In Counties and ETJs Areas
TxDOT Should Practice CM/CP Thru…

- Access management
- Transportation planning and ROW preservation with cities (ETJs) and counties
- Monitoring platting activity along corridors
- CM components in facility design
- CM Plans

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In Counties and ETJs Areas
TxDOT Should Encourage, Support…

- Cities to develop, enforce transportation plans in their ETJs
- Cities to apply subdivision regulations and related ordinances in ETJ – access, drainage, parkland dedication
- Increased minimum lot size requirements along TxDOT corridors
  - City, county subdivision regs
  - by counties for OSSF permits

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TxDOT Roles in CM/CP

- Coordinate with locals regarding CM on design plans, schematics
- Initiate partnering with locals on
  - CM plans
  - CM treatment for planned TxDOT projects
  - Local CM efforts where previously not involved
  - Zoning overlays

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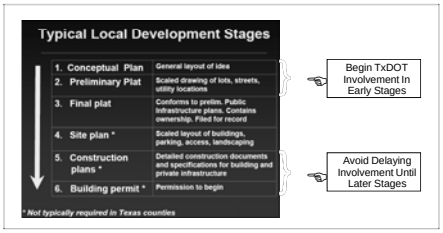
TxDOT Roles in CM/CP

- Make early, continual involvement in development review and planning standard business



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MPO Roles in CM/CP

1. Adopt policies, include in work program
2. Develop ranking criteria
3. ID and prioritize corridors
4. Procure, manage studies
5. Other
   - Facilitate TxDOT/local coord.
   - Educate community leaders
   - Support connectivity, AM
   - Coord. CM among agencies

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Partner to ID and Prioritize On-System Corridors

Cooperatively Develop Factors, Criteria

- Existing capacity and safety
- Timing of future rehabs, upgrades
- Development pressures, immediacy
- ROW protection, preservation
- LU plans, development trends
- Traffic volumes, proportional benefit
- Regional mobility, connectivity
- Community gateway, entryway
- Local government support
- Routes serving tourism destinations or regional attractions
- Routes serving as emergency evacuation routes
- Stimulation for economically distressed areas
- Address visual clutter, blight
- Preservation of natural, cultural, or historical significance

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Partner with Locals on Use of CM / CP Tools/Techniques Along TxDOT Corridors

1. Access management
2. Acquisition of access rights
3. Non-traversable medians
4. Signalized Intersection location and spacing
5. Arterial frontage and backage roads
6. Lot dimension requirements
7. Zoning overlay districts
8. Enhanced building and parking setbacks
9. Regulation of driveway throat length
10. Internal access for outparcels
11. Local street connections adjacent to TxDOT roadways
12. ROW dedication/reservation through platting
13. Joint and shared access easements
14. Operational measures and ITS

See 5606 Guidebook or Final Report for Specifics

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Recommendations Specific to CP

1. ID and prioritize corridors
2. Develop a CP strategy
3. Establish a multi-jurisdictional approach
   - Partner, seek assistance from locals
   - Integrate into project development process
   - Appoint CP champions
4. Begin environmental work earlier
5. Pursue all available options for advanced acquisition, protection
6. Map corridors for possible protection, consideration in planning

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Consequences of Not Practicing and Partnering on CM and CP

- Reduced mobility, increased congestion, accidents
- Decline in property values and tax base
- A loss in aesthetic quality
- Gradual economic disinvestment

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Consequences of Not Practicing and Partnering on CM and CP

- A loss or re-alignment of a planned corridor due to development
- Displacement of homes and businesses
- Increase in time and delays in project development
- Increase in project costs due to damages paid and purchase of improved ROW.

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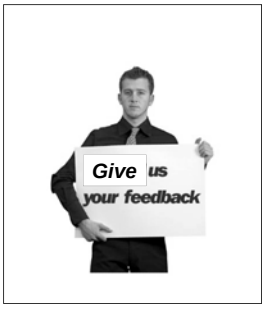
Participant Feedback on Workshop

- **Content ?**
- **Subject organization ?**
- **Time allocation by topic ?**
- **Instructor delivery ?**
- **Other ?**

How can we improve future workshops?

Please complete a workshop evaluation form!



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Corridor Management and Preservation in Texas

QUESTIONS

….for attending!

2010 Workshops

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Questions Later?

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Click on: Ed Hard
Select: Corridor_2010_CM_AM and Corridor_2010_CP_PM

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