

# Memorandum



DATE October 9, 2009

TO Members of the Transportation and Environment Committee:  
Linda Koop (Chair), Sheffie Kadane (Vice Chair), Jerry R. Allen, Tennell Atkins,  
Carolyn R. Davis, Angela Hunt, Delia Jasso, Pauline Medrano, Ron Natinsky,  
Vonciel Jones Hill

SUBJECT Complete Streets Briefing

Attached is the "Complete Streets" briefing that will be presented to you on October 12, 2009.

Please contact me if you need additional information.



Jill A. Jordan, P.E.  
Assistant City Manager

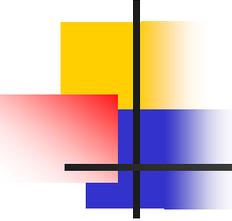
c: The Honorable Mayor and Members of the City Council  
Mary K. Suhm, City Manager  
Thomas P. Perkins Jr., City Attorney  
Deborah Watkins, City Secretary  
Craig Kinton, City Auditor  
Judge C. Victor Lander, Administrative Judge  
Ryan S. Evans, First Assistant City Manager  
A.C. Gonzalez, Assistant City Manager  
Forest Turner, Assistant City Manager  
David K. Cook, Chief Financial Officer  
Jeanne Chipperfield, Director, Official of Financial Services  
Edward Scott, City Controller  
Helena Stevens-Thompson, Assistant to the City Manager  
Rick Galceran, P.E., Director, Public Works and Transportation  
Theresa O'Donnell, Director, Sustainable Development and Construction Department

# Complete Streets Initiative

## Transportation and Environment Committee Briefing

Prepared by  
Strategic Planning Division  
Sustainable Development and Construction  
October 12, 2009

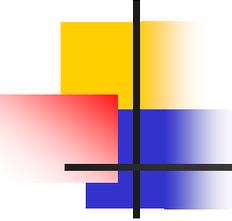




# Purpose of Briefing

---

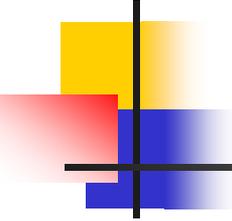
- Present an overview of the “Complete Streets” movement
- Discuss federal legislation that addresses “Complete Streets”
- Review the Transportation Element of the forwardDallas! Comprehensive Plan regarding “Context Sensitive Design”
- Obtain input from the Committee on the direction of the Complete Streets Initiative



# Complete Streets Movement

---

- Emphasis on well-planned streets as the key component of a livable city
- Belief that, to reach full potential as a livable city, street design and land use planning must be integrated in a way that allows the street to serve the needs of all users
- National Complete Streets Coalition promotes the principles of “Complete Streets”

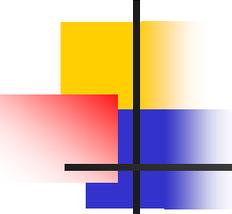


# Ideal Complete Streets Policy

## National Complete Streets Coalition

---

- Includes a vision that shows how and why streets should be completed
- Accommodates all modes, ages, and the disabled
- Aims to create an integrated and connected network for all modes
- All responsible agencies adhere to complete streets principles
- Applies to both new and retrofit projects for the entire right of way
- Requires high-level approval for exceptions
- Requires the use of the best design standards, and allows for flexibility
- Complements the context of the community
- Establishes performance standards with measureable outcomes
- Includes specific implementation steps



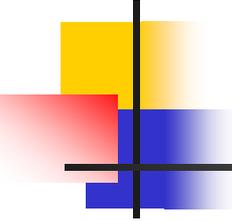
# Proposed Federal Legislation

Related to "Complete Streets"

---

## Complete Streets Act of 2009:

- Senator Tom Harkin (D-IA, S.584) and Congresswoman Doris Matsui (D-CA-5, H.R.1443) introduced the Complete Streets Act of 2009 in March
- The bills would ensure that all users of the transportation system, including pedestrians, bicyclists, and transit users as well as children, older adults, and individuals with disabilities, are able to travel safely and conveniently



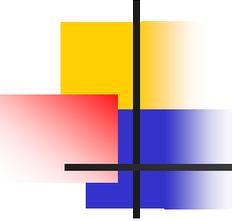
# Proposed Federal Legislation

## Related to "Complete Streets"

---

### Surface Transportation Authorization Act of 2009:

- The House Transportation bill, The Surface Transportation Authorization Act of 2009 (STAA) was released in June by Oberstar (MN), Mica (FL), DeFazio (OR), and Duncan (TN)
- Complete streets, termed "comprehensive street design policies and principles," is found in two places in the draft:
  - It directs the new Office of Livability to take steps to encourage States and Metropolitan Planning Organizations (MPOs) to adopt complete streets policies
  - It revises federal code to require new projects receiving federal aid be consistent with "comprehensive street design policies and principles," which must take into account the needs of all users of the transportation corridor

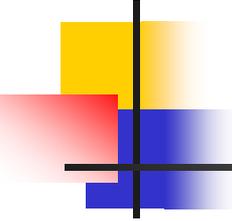


# Proposed Federal Legislation

Related to "Complete Streets"

---

- The proposed federal legislation is an indication that the concept of Complete Streets is taking hold at a national level
- If approved as an integral part of the new Surface Transportation Act, additional funding could be available to assist with implementation of Complete Street elements
- However, it is likely that most of the additional costs associated with Complete Streets will be the responsibility of local government

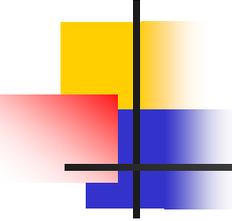


# forwardDallas!

## Transportation Element

---

- Calls for coordination of transportation and land use planning that creates an integrated network of urban places and multipurpose street systems that will support the next century of growth
- Identifies a new approach to designing streets that focuses attention on building a multi-modal system facilitating bicycling, walking, and transit – as well as automobiles
- Focus is on “context sensitive design,” the result of which is a “complete street”

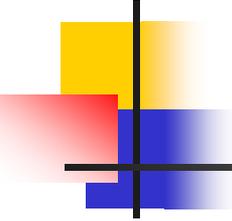


# Context Sensitive Design (C.S.)

forwardDallas! Transportation Element

---

- The practice of developing transportation projects that serve all users and meet the needs of the neighborhoods which they serve
- A collaborative process that involves all stakeholders in developing street designs that fit into the character of surrounding neighborhoods while maintaining safety and mobility
- An approach to roadway design that considers the priority of each design element such as sidewalks, travel lanes, parking lanes and medians, based on neighborhood context, safety and transportation mobility

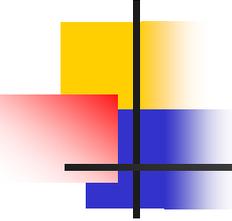


# C.S. Design Principles

## forwardDallas! Transportation Element

---

- Context Sensitive Design principles recognize three realms that together define roadways and provide a framework for street design that is sensitive to the specific needs of neighborhoods:
  - Context Realm: Covers the properties adjacent to the public right-of-way and defines the character of the roadway in terms of land uses, activities, building form and landscape
  - Travelway Realm: Includes the portion of the public right-of-way from curb to curb that provides for travel lanes for a variety of vehicles including cars, trucks, transit and bicycles; also includes parking lanes, transit stops and loading or unloading zones
  - Pedestrian Realm: Includes the area between the curb and the fronts of buildings usually in the public right-of-way, but can extend into properties adjacent to the public right-of-way or into parking lanes in order to improve the pedestrian experience and access to buildings



# C.S. Street Types

forwardDallas! Transportation Element

---

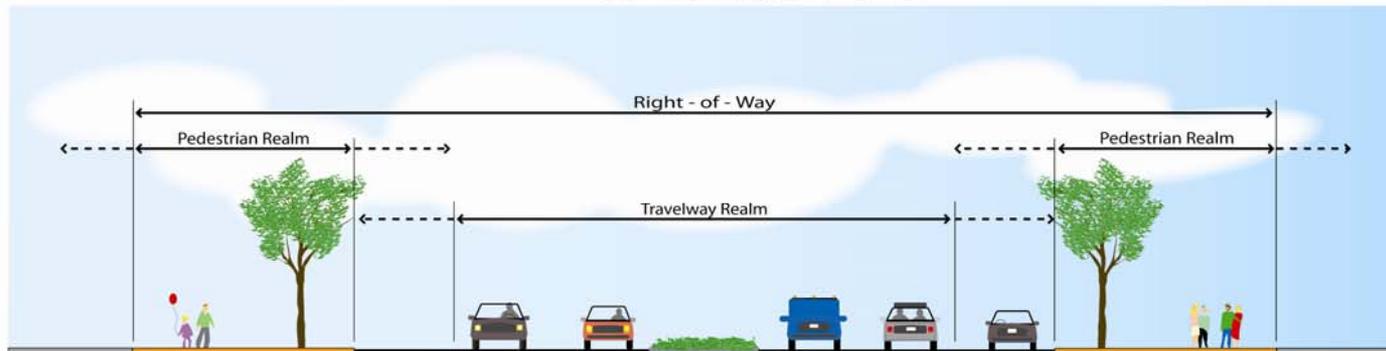
- Downtown Streets
- Mixed-Use Streets
- Transit Streets
- Main Streets
- Commercial Streets
- Industrial Streets
- Residential Streets

# C.S. Design Guidelines

forwardDallas! Transportation Element

## Street Cross Section Example

### Principal / Minor Arterial Four Lanes, Divided



Street Type	Landscape / Sidewalk	Parking	Lane	Lane	Median	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right - of - Way
Downtown Street	16	8	11	11	15	11	11	8	16	35 mph	107
Mixed - Use Street	13	7	15 (MU)	11	15	11	15 (MU)	7	13	35 mph	107
Transit Street	16	8	12 (Transit)	12	16	12	12 (Transit)	8	16	35 mph	112
Main Street	16	8	11	11	15	11	11	8	16	35 mph	107
Industrial Street	7	N/A	12	12	18	12	12	N/A	7	45 mph	80
Commercial Street	13	N/A	12	12	16	12	12	N/A	13	45 mph	90
Residential Street	11	N/A	11	11	16	11	11	N/A	11	35 mph	82

#### Abbreviations:

Shared = Shared transit lane  
 Transit = Dedicated transit lane  
 Transit = Dedicated transit lane  
 MU = Multi-Use, additional width to accommodate bicycles  
 Angled = Reference to angled parking areas

#### Notes:

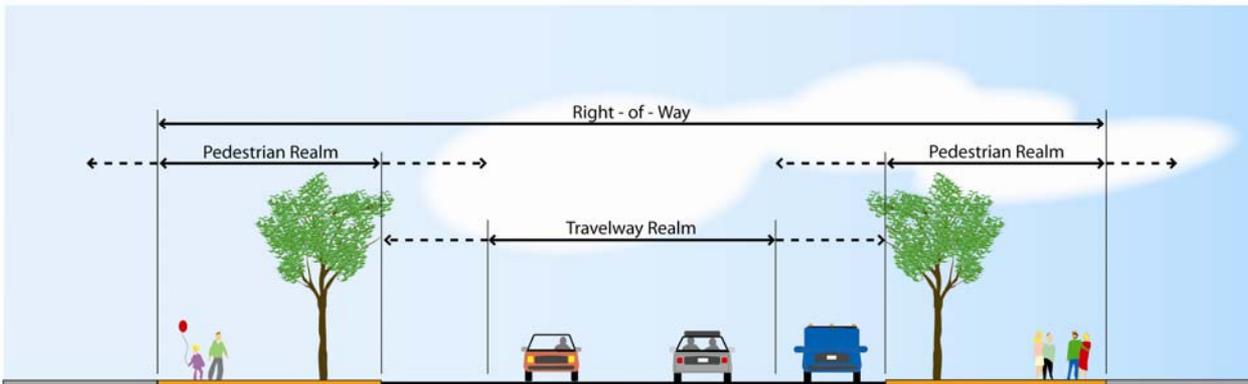
1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, treewells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

# C.S. Design Guidelines

## forwardDallas! Transportation Element

### Street Cross Section Example

### Collector Street Two Lanes, Undivided



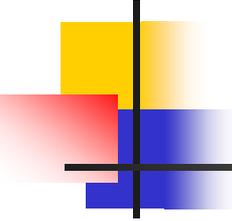
Street Type	Landscape / Sidewalk	Parking	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right - of - Way
Downtown Street	8	18 (Angled)	12	12	18 (Angled)	8	25 mph	76
Mixed - Use Street	13	7	14 (MU)	14 (MU)	7	13	25 mph	68
Transit Street	14	7	16 (MU)	16 (MU)	7	14	25 mph	74
Main Street	12	18 (Angled)	12	12	18 (Angled)	12	25 mph	84
Industrial Street	7	N/A	18	18	N/A	7	35 mph	50
Commercial Street	10	N/A	16	16	N/A	10	35 mph	52
Residential Street	10	7	11	11	7	10	25 mph	56

#### Abbreviations:

Shared = Shared transit lane  
 Transit = Dedicated transit lane  
 Transit = Dedicated transit lane  
 MU = Multi-Use, additional width to accommodate bicycles  
 Angled = Reference to angled parking areas

#### Notes:

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, treewells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

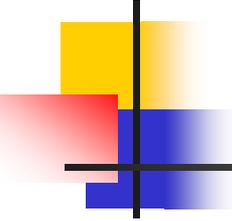


# Implementation

forwardDallas! Transportation Element

---

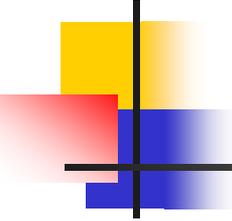
- Develop a Context Sensitive Design (“Complete Streets”) manual based on a concept of street types that will serve as overlays to the existing Thoroughfare Plan functional classification system
- Identify the location of specific street types based on community input and evaluation of transportation networks
- Target amendments to the Thoroughfare Plan to achieve the desired results



# Next Steps

---

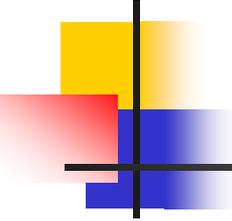
- The Transportation Element of the forwardDallas! Plan is consistent with the principles of the “Complete Streets” movement
- Staff will move forward with the update to the Bicycle Plan – it provides information that is critical to the Complete Streets process
- Staff will identify several key demonstration streets for application of a Complete Streets concept plan that could be considered for funding in the next bond program – suggested streets will be brought to the Committee
- Staff will move forward with the development of the Complete Streets (Context Sensitive Design) Manual



# Complete Streets Manual

---

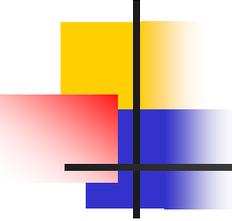
- The Manual will:
  - Define the planning process and standards to be used in the development of a plan for a street
  - Establish how specific plans will be incorporated into the Thoroughfare Plan
  - Assess costs associated with elements of a Complete Street approach
- Manual will be developed by an interdepartmental team that will include Sustainable Development and Construction, Public Works and Transportation, and the Dallas Design Studio
- Bicycle Plan Update and Demonstration Projects will be used as inputs to the development of the Manual



# Attachments

---

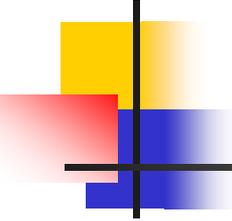
- National Coalition of Complete Streets – Steering Committee Membership
- Summary of proposed “Complete Streets Act of 2009” pending in the Senate and House
- Transportation Element of the forwardDallas! Comprehensive Plan



# National Complete Streets Coalition – Steering Committee

---

- AARP
- Active Living by Design
- Alliance for Biking and Walking
- America Bikes
- America Walks
- American Council of the Blind
- American Planning Association
- American Public Transportation Association
- American Society of Landscape Architects
- Association of Pedestrian and Bicycle Professionals
- City of Boulder
- Institute of Transportation Engineers
- League of American Bicyclists
- McCann Consulting
- National Center for Bicycling and Walking
- Safe Routes to School National Partnership
- Smart Growth America



# Summary of Proposed Complete Streets Act of 2009

---

Introduced 3/12/2009.

- Requires each state to have in effect within two years a law, or each state department of transportation and metropolitan planning organization (MPO) an explicit policy statement, that requires all federally-funded transportation projects, with certain exceptions, to accommodate the safety and convenience of all users in accordance with certain complete streets principles.
- Defines "complete streets principles" as federal, state, local, or regional level transportation laws, policies, or principles which ensure that the safety and convenience of all users of a transportation system, including pedestrians, bicyclists, public transit users, children, older individuals, motorists, and individuals with disabilities, are accommodated in all phases of project planning and development.
- Allows such law or policy to make project-specific exemptions from such principles only if: (1) affected roadways prohibit specified users by law from using them, the cost of a compliance project would be excessively disproportionate to the need, or the population and employment densities or level of transit service around a roadway is so low that there is no need to implement such principles; and (2) all such exemptions are properly approved.
- Requires: (1) the Secretary to establish a method for ensuring compliance by state departments of transportation and MPOs with complete streets principles; and (2) states to require every agency responsible for a project within an approved transportation improvement program to review and certify project compliance with complete streets principles.
- Requires the Secretary to conduct research regarding complete streets to: (1) assist states, MPOs, and local jurisdictions in developing and implementing complete streets-compliant plans, projects, procedures, policies, and training programs; and (2) establish benchmarks for, and provide technical guidance on, implementing complete streets policies and principles.

# TRANSPORTATION ELEMENT



Utilizing both commuter and light rail technologies, DART and the City of Dallas have become a national leader in public transportation.



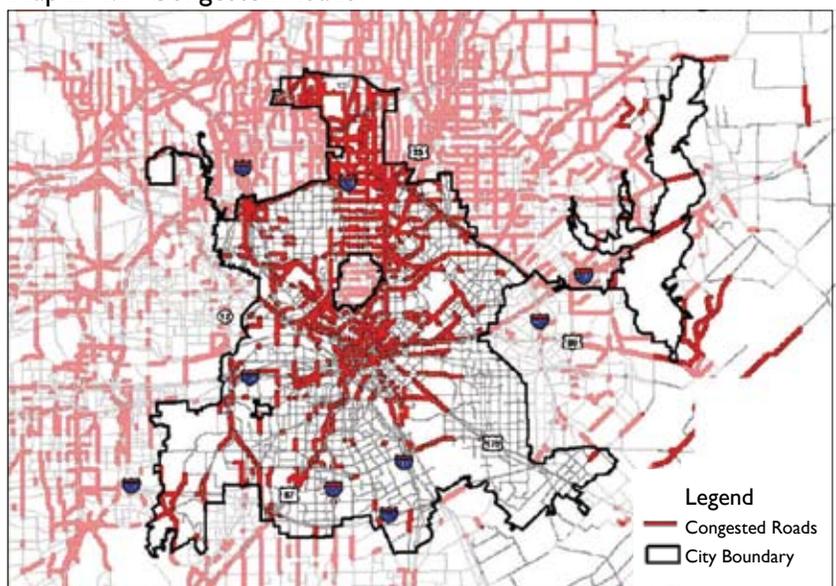
Efficient DART buses carry commuters throughout Dallas.

About 50 percent of Dallas' population is either too young or too old to drive. This statistic alone requires a new approach to designing development and transportation systems, especially in areas where schools, services and stores are not easy to get to by walking or riding a bicycle.

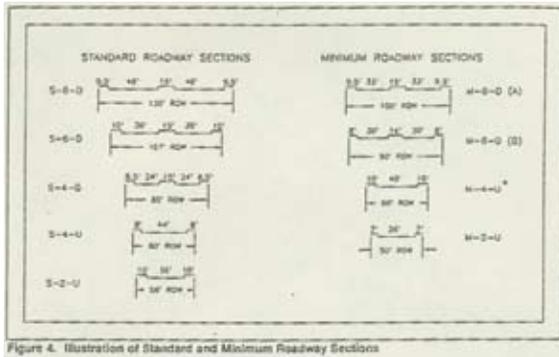
Through the forwardDallas! process, Dallas has begun the work of redefining the development, social and economic paradigms of the past. Significant changes in land use and economics cannot be achieved without fundamentally realigning the city's transportation system. Only an integrated network of urban places and multipurpose street systems can support the change needed for the next century of growth. Dallas has begun making strides in creating walkable neighborhoods and in creating mixed-use centers such as Mockingbird Station and West Village. The next step is to redefine the transportation system to support such developments.

The Transportation Element presents an opportunity to coordinate transportation and land use planning. It proposes a modified hierarchy of streets as well as a new approach to designing streets. The Transportation Element also focuses attention on building a multi-modal transportation system—one that facilitates bicycling, walking, all sorts of public transit and cars—to meet a variety of needs in the future.

Map II-4.1 Congested Roads



Congestion levels are projected to increase dramatically by the year 2030 particularly in already developed areas.



The City's current Thoroughfare Plan establishes a hierarchical system of streets—Principal Arterial, Minor Arterial, Community Collector, Residential, Collector and Local Streets.

## The Current Thoroughfare Plan

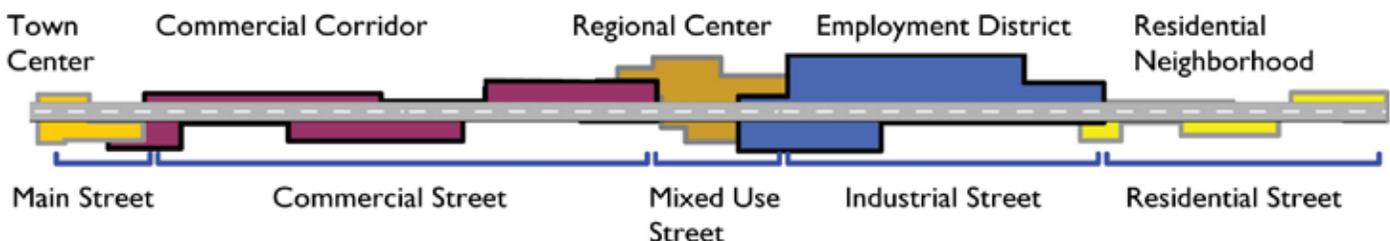
The City's current Thoroughfare Plan provides a hierarchical street classification system that distinguishes streets based on their ability to move automobile traffic. It identifies five types of roadways based on this functional classification: Principal Arterials, Minor Arterials, Community Collectors, Residential Collectors, Local Streets. These functional classes serve as the official basis for determining right-of-way requirements and the number of traffic lanes. In the past the City of Dallas' thoroughfare planning and design process has been heavily influenced by the need to move regional traffic. Typically, the street network design process focuses on minimizing automobile travel time and congestion at the regional level. This process does not always consider that thoroughfare design needs to find a balance between the goals of transportation mobility and land access, and also provide for a range of modes of transportation.

## Context Sensitive Design

Context Sensitive Design (CSD) is the practice of developing transportation projects that serve all users and meet the needs of the neighborhoods through which they pass. It is a collaborative process that involves all stakeholders in developing street designs that fit into the character of surrounding neighborhoods while maintaining safety and mobility. CSD calls for an approach to roadway design that considers the priority of each design element such as sidewalks, travel lanes, parking lanes and medians, based on neighborhood context, safety and transportation mobility.

Context Sensitive Design principles recognize three realms that together define roadways and provide a framework for street design that is sensitive to the needs of different neighborhoods:

- Context Realm: This realm covers the properties adjacent to the public right-of-way and defines the character of the roadway in terms of land uses, activities, building form and landscape.



- **Travelway Realm:** This realm includes the portion of the public right-of-way from curb to curb that provides for travel lanes for a variety of vehicles including cars, trucks, transit and bicycles. It also includes parking lanes, transit stops and loading or unloading zones.
- **Pedestrian Realm:** This realm typically includes the area between the curb and the fronts of buildings adjacent to the public right-of-way. It can extend into properties adjacent to the public right-of-way or into parking lanes in order to enhance the pedestrian experience and improve pedestrian access to buildings. It can also overlap with the travel realm to provide for amenities such as crosswalks.

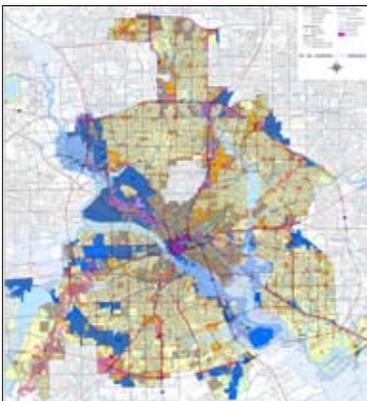


The pedestrian realm is the area between the curb and the front of buildings adjacent to the public right-of-way.

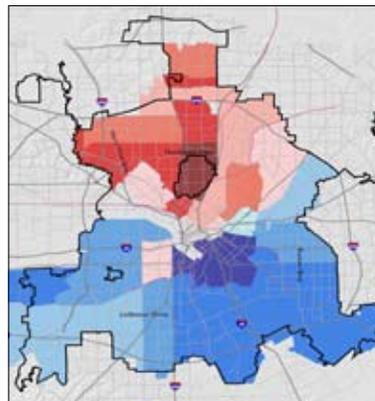
## The Thoroughfare Planning Process

The Transportation Element of forwardDallas! recognizes that thoroughfare planning must balance the regional, sub-regional and neighborhood functions of roadways in relation to desired community form and character. In order to accomplish this without major disruption of the established thoroughfare system, the Transportation Element provides a framework for smooth transition over time. This approach involves creation of a Context Sensitive Design manual based on a concept of street types that will serve as overlays on the existing Thoroughfare Plan functional classification system. It also involves identifying the location of specific street types through Area Plans based on community input and evaluation of transportation networks. Targeted amendments will be made to the Thoroughfare Plan through the Area Plan process to achieve the desired results. A conceptual framework for context sensitive street type overlays is outlined on the following pages.

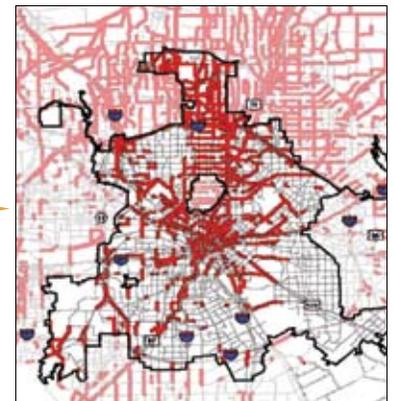
### Land Use Model



### Demographic Model



### Transportation Model



The thoroughfare planning process incorporates land use and demographics into the modeling process to create a more balanced approach to transportation planning.

# CONTEXT SENSITIVE STREET TYPES



Downtown Street example.

## Downtown Streets

Serving an intense mix of land uses at high densities and accommodating a high level of public transit service as well as bicycle and pedestrian activity.



Mixed Use Street example.

## Mixed-Use Streets

Serving a variety of land uses at a range of densities, a high degree of bicycle and pedestrian activity, and accommodating existing or future public transit.



Transit Street example.

## Transit Streets

Serving a variety of areas that do not necessarily support a mix of land uses, but accommodating some form of public transit within or adjacent to the right-of-way.

## Main Streets

Serving a variety of land uses at a moderate density, with a combination of drive up and walkable convenience.



Main Street example.

## Commercial Streets

Serving commercial corridors without public transit access, high levels of automobile movement and low to moderate levels of pedestrian and bicycle movement.



Commercial Street example.

## Industrial Streets

Serving industrial corridors without public transit access, accommodating trucks and other large vehicles. Pedestrian and bicycle movement should be discouraged other than that to support transit.



Industrial Street example.

## Residential Streets

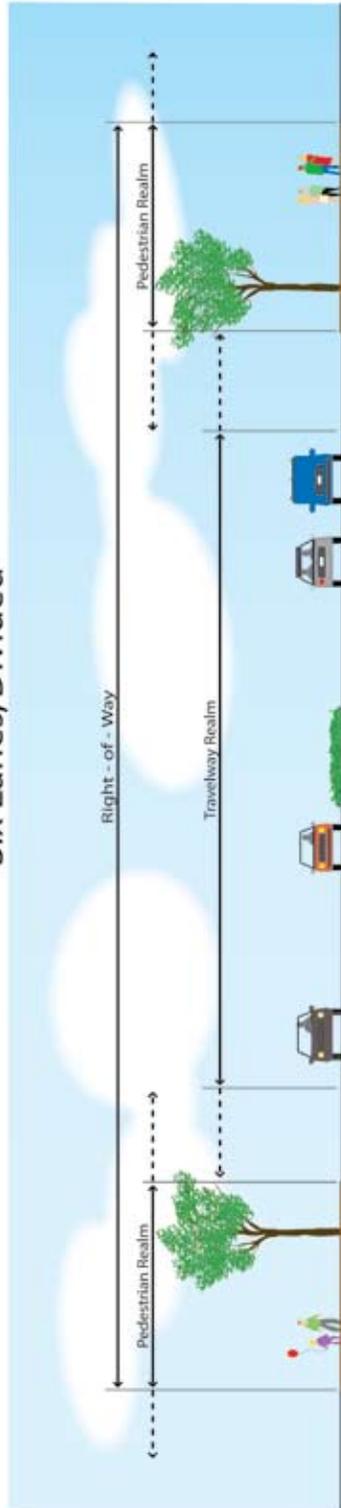
Serving residential areas at a range of densities, with low to moderate levels of automobile traffic and low levels of bicycle and pedestrian movement.



Residential Street example.

Table II-4.1 Principal Arterial Street, Six Lanes, Divided

## Principal Arterial Six Lanes, Divided



Street Type	Landscape / Sidewalk	Parking	Lane	Median	Lane	Lane	Lane	Lane	Landscape / Sidewalk	Parking	Lane	Median	Lane	Lane	Lane	Posted Speed	Total Right-of-Way
Downtown Street	14	N/A	12 (Shared)	15	11.5	11.5	11.5	11.5	14	N/A	12 (Shared)	15	11.5	11.5	11.5	35 mph	113
Mixed-Use Street	13	N/A	11	15	11	11	11	11	13	N/A	11	15	11	11	11	35 mph	107
Transit Street	13.5	N/A	12 (Transit)	15	11	11	11	11	13.5	N/A	12 (Transit)	15	11	11	11	35 mph	110
Main Street	11	N/A	14	18	13	13	13	13	11	N/A	14	18	13	13	14	45 mph	120
Commercial Street	11	N/A	11	16	11	11	11	11	11	N/A	11	16	11	11	11	45 mph	104
Residential Street	11.5	N/A	11	15	11	11	11	11	11.5	N/A	11	15	11	11	11	35 mph	104

**Notes:**

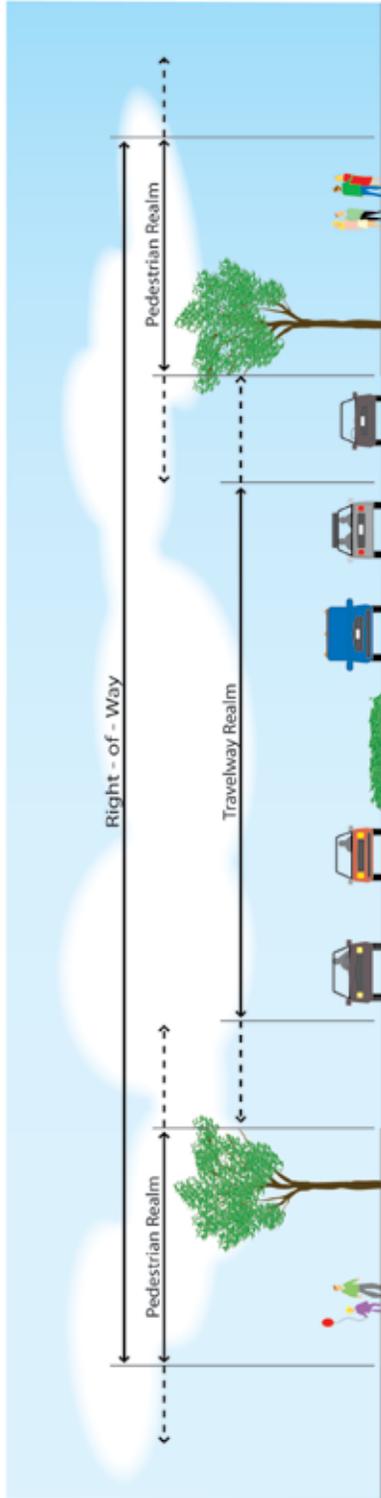
- The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
- Setbacks will be addressed by the zoning code and urban design standards for walkability.
- Pedestrian Realm may extend into parking or setback.
- Travelway Realm may include parking lanes to allow for turning lanes.
- Parking lane can be used for bus turnouts as needed.

**Abbreviations:**

- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

Table II-4.2 Principal/Minor Arterial Street, Four Lanes, Divided

# Principal / Minor Arterial Four Lanes, Divided



Street Type	Landscaping / Sidewalk	Parking	Lane	Median	Lane	Lane	Parking	Landscaping / Sidewalk	Posted Speed	Total Right - of - Way
Downtown Street	16	8	11	15	11	11	8	16	35 mph	107
Mixed - Use Street	13	7	15 (MU)	15	11	15 (MU)	7	13	35 mph	107
Transit Street	16	8	12 (Transit)	16	12	12 (Transit)	8	16	35 mph	112
Main Street	16	8	11	15	11	11	8	16	35 mph	107
Industrial Street	7	N/A	12	18	12	12	N/A	7	45 mph	80
Commercial Street	13	N/A	12	16	12	12	N/A	13	45 mph	90
Residential Street	11	N/A	11	16	11	11	N/A	11	35 mph	82

**Abbreviations:**

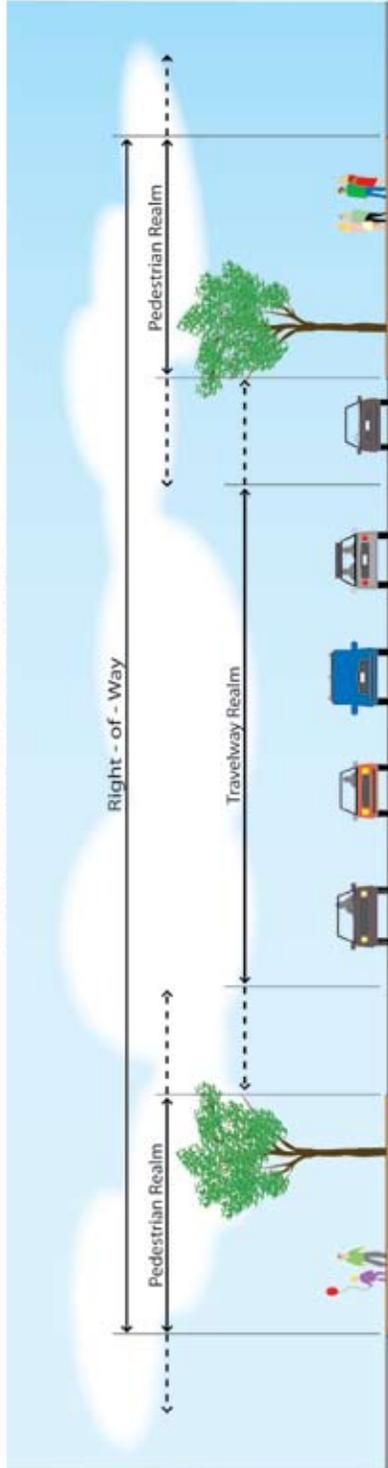
- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

**Notes:**

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

Table II-4.3 Principal/Minor Arterial Street, Four Lanes, Undivided

## Principal / Minor Arterial Four Lanes, Undivided



Street Type	Landscape / Sidewalk	Parking	Lane	Lane	Lane	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right-of-Way
Downtown Street	15	8	11	11	11	11	11	8	15	35 mph	90
Mixed-Use Street	13	N/A	15 (MU)	11	11	11	15 (MU)	N/A	13	35 mph	78
Transit Street	15	8	12 (Transit)	11	11	11	12 (Transit)	8	15	35 mph	92
Main Street	12	8	10	10	10	10	10	8	12	35 mph	80
Industrial Street	6	N/A	12	12	12	12	12	N/A	6	45 mph	60
Commercial Street	6	N/A	12	12	12	12	12	N/A	6	45 mph	60
Residential Street	10	N/A	11	11	11	11	11	N/A	10	35 mph	64

**Abbreviations:**

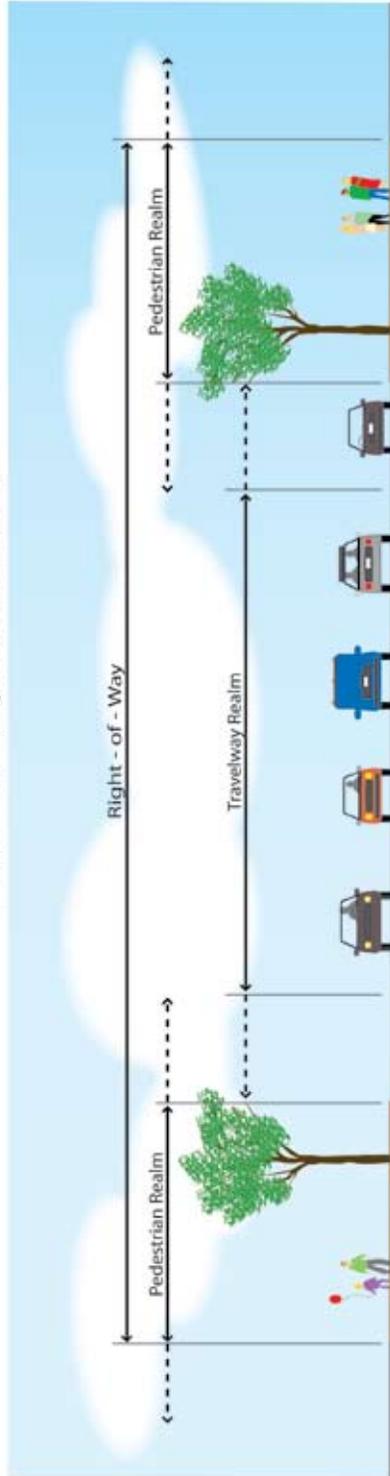
- Shared = Shared transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

**Notes:**

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

Table II-4.4 Collector Street, Four Lanes, Undivided

## Collector Street Four Lanes, Undivided



Street Type	Landscape / Sidewalk	Parking	Lane	Lane	Lane	Lane	Landscape / Sidewalk	Parking	Posted Speed	Total Right-of-Way
Downtown Street	12	8	10	10	10	10	12	8	25 mph	80
Mixed-Use Street	12	8	14 (MU)	10	10	14 (MU)	12	8	25 mph	88
Transit Street	11	N/A	12 (Transit)	12	12	12 (Transit)	11	N/A	25 mph	70
Main Street	15	8	11	11	11	11	15	8	25 mph	90
Industrial Street	5	N/A	12.5	12.5	12.5	12.5	5	N/A	35 mph	60
Commercial Street	11	N/A	12	12	12	12	11	N/A	35 mph	70
Residential Street	10	N/A	10.5	10.5	10.5	10.5	10	N/A	25 mph	62

**Abbreviations:**

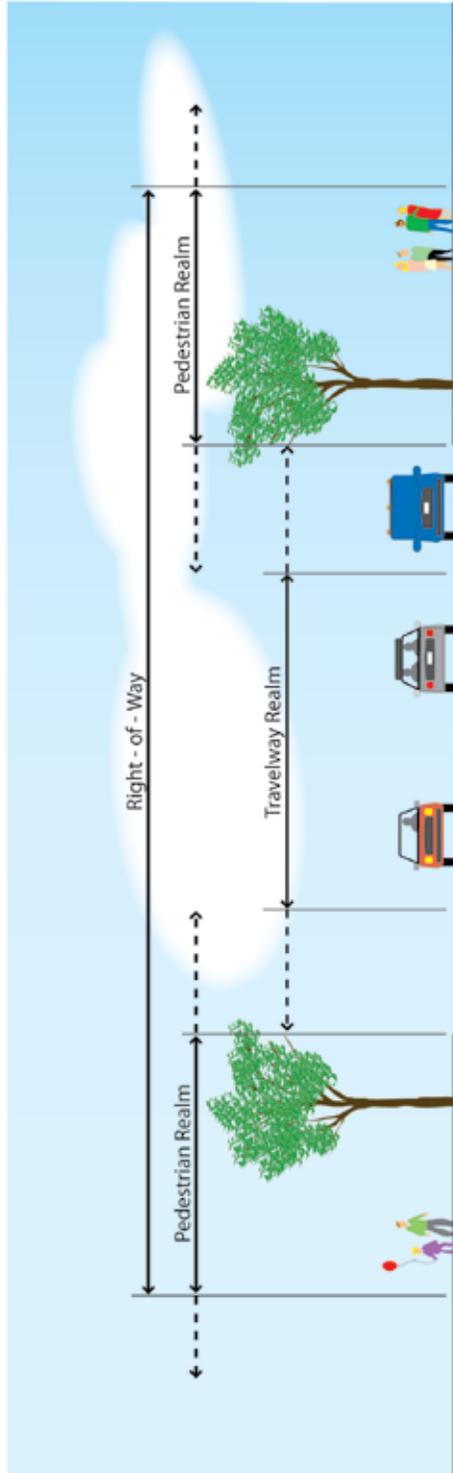
- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

**Notes:**

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

Table II-4.5 Collector, Two Lanes, Undivided

## Collector Street Two Lanes, Undivided



Street Type	Landscape / Sidewalk	Parking	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right-of-Way
Downtown Street	8	18 (Angled)	12	12	18 (Angled)	8	25 mph	76
Mixed-Use Street	13	7	14 (MU)	14 (MU)	7	13	25 mph	68
Transit Street	14	7	16 (MU)	16 (MU)	7	14	25 mph	74
Main Street	12	18 (Angled)	12	12	18 (Angled)	12	25 mph	84
Industrial Street	7	N/A	18	18	N/A	7	35 mph	50
Commercial Street	10	N/A	16	16	N/A	10	35 mph	52
Residential Street	10	7	11	11	7	10	25 mph	56

### Abbreviations:

- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

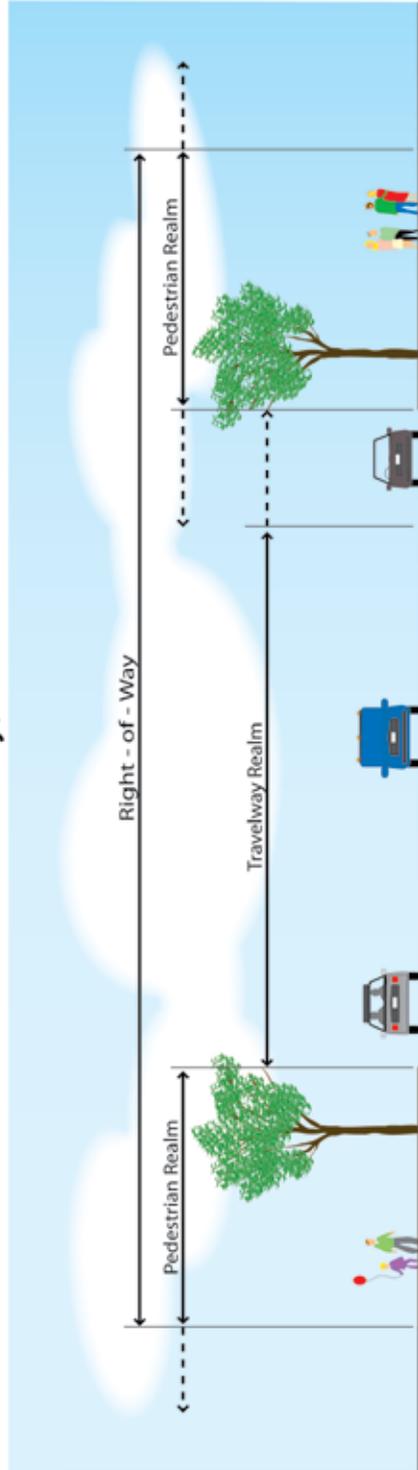
### Notes:

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

Table II-4.6 One Way, Four Lanes, Couplet

# Couplet Street

## One Way, Four Lanes



Street Type	Landscape / Sidewalk	Lane	Lane	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right-of-Way
Downtown Street	14	11	11	11	11	8	14	35 mph	80
Mixed-Use Street	21	10	10	10	10	8	21	35 mph	90
Transit Street	20	10	10	10	12 (Shared)	8	20	35 mph	90
Main Street	21	10	10	10	10	8	21	35 mph	90
Industrial Street	6	12	12	12	12	N/A	6	45 mph	60
Commercial Street	10	12	12	12	12	N/A	10	45 mph	68
Residential Street	10	11	11	11	11	N/A	10	35 mph	64

**Abbreviations:**

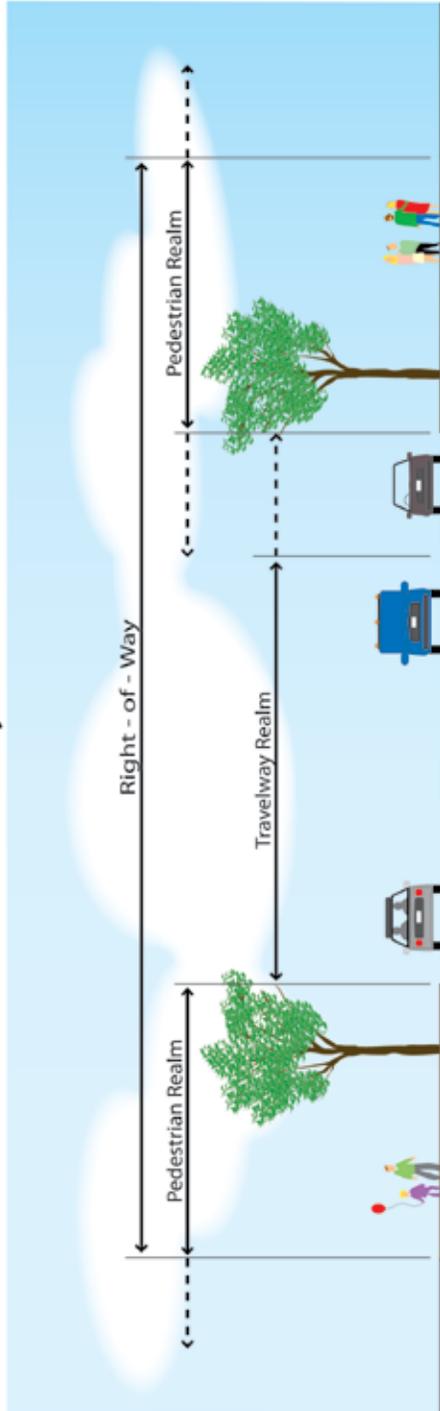
- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

**Notes:**

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk, paving, tree wells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

Table II-4.7 One Way, Three Lanes, Couplet

## Couplet Street One Way, Three Lanes



Street Type	Landscape / Sidewalk	Lane	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right-of-Way
Downtown Street	14.5	11	11	11	8	14.5	35 mph	70
Mixed-Use Street	21	10	10	10	8	21	35 mph	80
Transit Street	20	10	10	12 (Shared)	8	20	35 mph	80
Main Street	21	10	10	10	8	21	35 mph	80
Industrial Street	7	12	12	12	N/A	7	45 mph	50
Commercial Street	10	12	12	12	N/A	10	45 mph	56
Residential Street	10.5	11	11	11	N/A	10.5	35 mph	54

**Abbreviations:**

- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

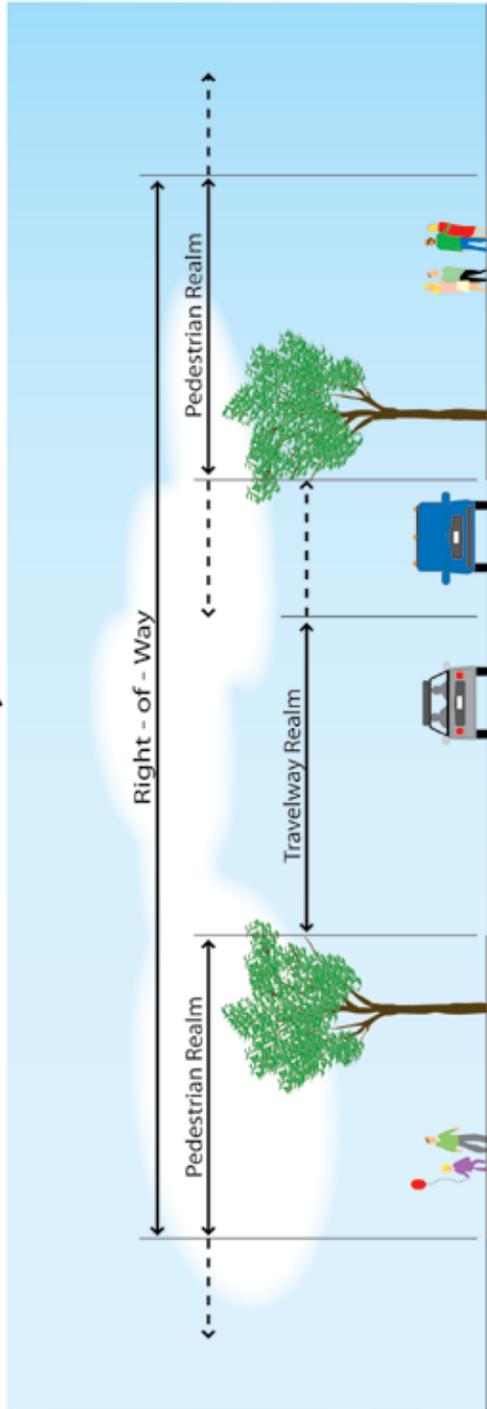
**Notes:**

- The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
- Setbacks will be addressed by the zoning code and urban design standards for walkability.
- Pedestrian Realm may extend into parking or setback.
- Travelway Realm may include parking lanes to allow for turning lanes.
- Parking lane can be used for bus turnouts as needed.

Table II-4.8 One Way, Two Lanes, Couplet

# Couplet Street

## One Way, Two Lanes



Street Type	Landscape / Sidewalk	Lane	Lane	Lane	Lane	Parking	Landscape / Sidewalk	Total Right - of - Way
Downtown Street	13	11	11	11	11	8	13	56
Mixed - Use Street	14	10	10	10	10	8	14	56
Transit Street	14	12 (Transit)	12 (Transit)	12 (Transit)	12 (Transit)	N/A	14	52
Main Street	14	10	10	10	10	8	14	56
Industrial Street	7	18	18	18	18	N/A	7	50
Commercial Street	10	16	16	16	16	N/A	10	52
Residential Street	13	9	9	9	9	8	13	52

### Abbreviations:

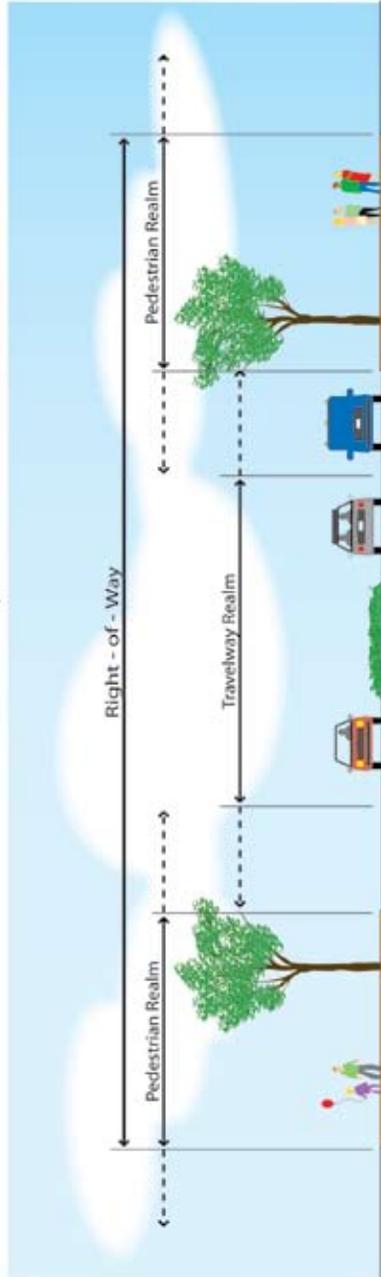
- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

### Notes:

- The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
- Setbacks will be addressed by the zoning code and urban design standards for walkability.
- Pedestrian Realm may extend into parking or setback.
- Travelway Realm may include parking lanes to allow for turning lanes.
- Parking lane can be used for bus turnouts as needed.

Table II-4.9 Local Street, Two Lanes, Divided

## Local Street Two Lanes, Divided



Street Type	Landscape / Sidewalk	Parking	Lane	Median	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right-of-Way
Downtown Street	9.5	7	11	15	11	7	9.5	20 mph	70
Mixed-Use Street	9.5	8	10	15	10	8	9.5	20 mph	70
Transit Street	9.5	6	12	15	12	6	9.5	20 mph	70
Main Street	10.5	7	10	15	10	7	10.5	20 mph	70
Industrial Street	5	N/A	18	4	18	N/A	5	25 mph	50
Commercial Street	10	N/A	16	8	16	N/A	10	25 mph	60
Residential Street	10	7	9	6	9	7	10	25 mph	58

### Abbreviations:

- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

### Notes:

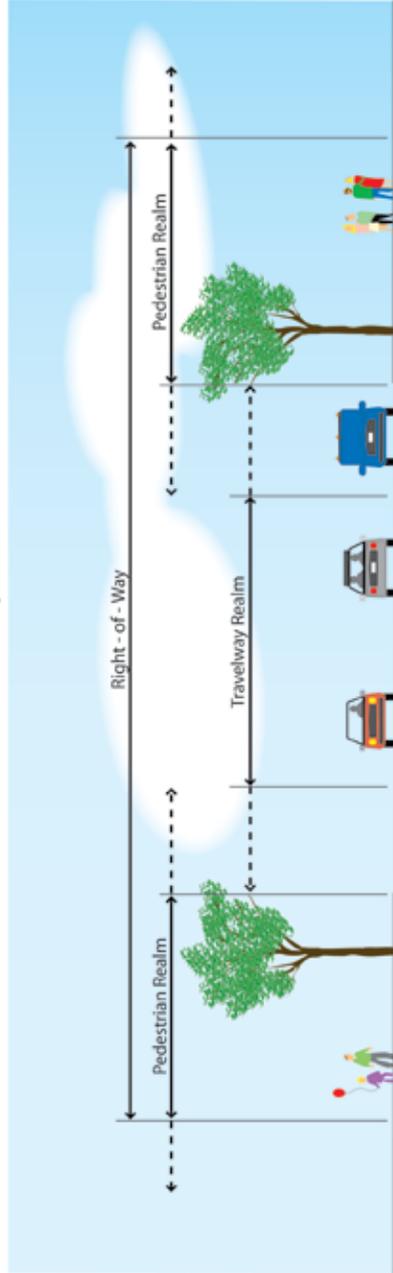
- The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
- Setbacks will be addressed by the zoning code and urban design standards for walkability.
- Pedestrian Realm may extend into parking or setback.
- Travelway Realm may include parking lanes to allow for turning lanes.
- Parking lane can be used for bus turnouts as needed.

### Local Streets:

For local streets, in certain instances a narrower right of way and or travel lanes may be allowed. Those instances include: When an area plan or a master planned development tailors the local street design to match the character of that plan or when local streets are adjacent to water features, parks, golf courses or other elements that limit driveway access on one side of the street. In either case, the local street design criteria must be approved by the City of Dallas.

Table II-4.10 Local Street, Two Lanes, Undivided

## Local Street Two Lanes, Undivided



Street Type	Landscape / Sidewalk	Parking	Lane	Lane	Parking	Landscape / Sidewalk	Posted Speed	Total Right-of-Way
Downtown Street	10	7	11	11	7	10	20 mph	56
Mixed-Use Street	11	8	10	10	8	11	20 mph	58
Transit Street	11	6	12	12	6	11	20 mph	58
Main Street	11	7	10	10	7	11	20 mph	56
Industrial Street	7	N/A	18	18	N/A	7	25 mph	50
Commercial Street	10	N/A	16	16	N/A	10	25 mph	52
Residential Street	10	7	9	9	7	10	25 mph	52

**Abbreviations:**

- Shared = Shared transit lane
- Transit = Dedicated transit lane
- Transit = Dedicated transit lane
- MU = Multi-Use, additional width to accommodate bicycles
- Angled = Reference to angled parking areas

**Notes:**

1. The dimensions noted are recommended widths allocated for various functions within the right-of-way. Actual widths of amenities such as sidewalk paving, tree wells and planting strips will be determined through detailed design.
2. Setbacks will be addressed by the zoning code and urban design standards for walkability.
3. Pedestrian Realm may extend into parking or setback.
4. Travelway Realm may include parking lanes to allow for turning lanes.
5. Parking lane can be used for bus turnouts as needed.

**Local Streets:**

For local streets, in certain instances a narrower right of way and or travel lanes may be allowed. Those instances include: When an area plan or a master planned development tailors the local street design to match the character of that plan or when local streets are adjacent to water features, parks, golf courses or other elements that limit driveway access on one side of the street. In either case, the local street design criteria must be approved by the City of Dallas.

# CONTEXT SENSITIVE DESIGN GUIDELINES

Table II-4.11 Priority Elements

## Priority Elements

Design Elements	Streets Types						
	Downtown Street	Mixed - Use Street	Transit Street	Main Street	Industrial Street	Commercial Street	Residential Street
<b>Travelway Realm</b>							
Number and width of travel lanes	Blue	Blue	Yellow	Blue	Red	Red	Yellow
Vehicular capacity	Blue	Blue	Yellow	Blue	Red	Red	Yellow
Design for large vehicles	Blue	Blue	Red	Blue	Red	Red	Blue
Medians	Blue	Blue	Yellow	Blue	Red	Red	Blue
Bicycle lanes	Blue	Blue	Yellow	Blue	Red	Red	Blue
Multimodal intersection design	Blue	Red	Red	Blue	Blue	Blue	Blue
<b>Pedestrian Realm</b>							
Wide sidewalks with amenities	Red	Red	Red	Red	Blue	Blue	Blue
On-street parking	Red	Red	Yellow	Red	Blue	Blue	Yellow
Transit priority operations	Red	Red	Red	Blue	Blue	Blue	Yellow
<b>Context Realm</b>							
High amenity transit facilities	Red	Red	Red	Blue	Blue	Blue	Blue
Urban design features	Red	Red	Red	Blue	Blue	Yellow	Red
<b>Other Elements</b>							
Interconnected street system	Red	Red	Red	Blue	Blue	Blue	Red
Access management	Yellow	Blue	Yellow	Blue	Red	Yellow	Red



Note: Chart to be used in prioritizing the above design elements when Right - of - Way is limited.

**D**uring the public workshops, participants were asked to create a street cross-section for a major arterial street. As illustrated in the graphic below, participants overwhelmingly sought to reduce the amount of vehicular travel lanes, add dedicated transit lanes and improve the pedestrian environment. Participants said street design in key areas should be changed to encourage more walking and bicycling, to improve livability and a neighborhood feel, and to support shopping districts. They also said that areas near DART stations are underused and could be the logical location for new development and new housing types to maximize use of transit.

#### **GOAL 4.1 PROVIDE A FUNDAMENTAL LAND USE/ TRANSPORTATION LINKAGE**

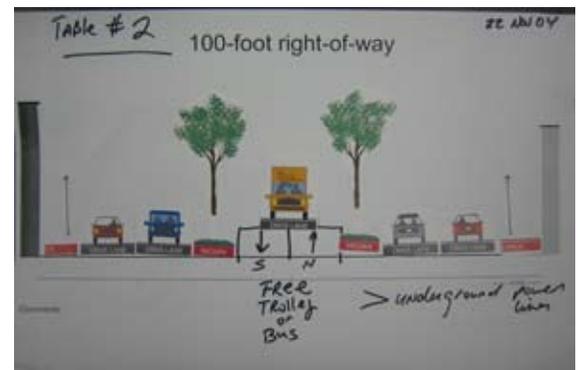
Transportation systems should be designed according to standards that are sensitive to the context of the neighborhoods through which they pass. Strategies should establish a fundamental linkage between land use in the city and transportation planning.

##### **Policy 4.1.1 Design and improve thoroughfares to balance the need for traffic mobility.**

In addition to Thoroughfare Plan functional classifications, consideration should be given to land use, access needs and the Vision Building Blocks. The mix of adjacent land uses, along with a combination of appropriate transportation modes, will be reflected in the desired street type. These street types should be determined through Area Plans and treated as overlays on the Thoroughfare Plan functional classification. The context sensitive street design charts shown in Tables III-4.1 through III-4.10 should serve as a guide for developing detailed design standards for each street type. In areas where the right-of-way width is constrained, the relative priority of various street design elements should be weighed using Table III-4.11 as a guide.

#### **The forwardDallas! citizen survey results show:**

- **53 percent of respondents said they would like to be able to use rail transit.**
- **31 percent of respondents said they would like to use the bus.**



During the workshops participants cut and pasted roadway elements in order to describe their preferred street design.



Developing Context Sensitive Design standards for DART stations will provide consistent standards that can be applied citywide.

## IMPLEMENTATION MEASURES

- 4.1.1.1 Develop and adopt a “Context Sensitive Design” manual with detailed standards based on right-of-way width allocations and prioritization criteria for various street design elements shown in this Transportation Element.
- 4.1.1.2 Amend the Thoroughfare Plan to establish the “Context Sensitive Design” manual as the official basis for thoroughfare design.
- 4.1.1.3 Develop small Area Plans with appropriate street type overlays for individual thoroughfares. Identify and fund pilot street improvement projects to demonstrate the application of context sensitive street design standards.
- 4.1.1.4 Provide funding in the Capital Improvement Programs to cover the additional costs of Context Sensitive Design in priority areas.



Traffic calming devices such as traffic circles and medians will help to reduce traffic speeds and enhance safety for pedestrians.

## Policy 4.1.2 Encourage distribution of traffic among multiple routes.

By encouraging traffic to move over multiple routes, congestion will be reduced while minimizing the impact on existing residential streets. This distribution should be coordinated with traffic calming measures to reduce speeds and minimize impacts on the pedestrian environment and residential quality of life.

## IMPLEMENTATION MEASURES

- 4.1.2.1 Develop small Area Plans and include thoroughfare amendments on targeted streets to encourage better distribution of traffic volumes in situations where negative impacts on residential streets can be minimized.
- 4.1.2.2 Implement traffic calming measures to reduce traffic speeds and cut-through traffic in existing residential areas and pedestrian-oriented districts.

## GOAL 4.2 PROMOTE A VARIETY OF TRANSPORTATION OPTIONS

The City should promote a variety of safe, efficient and sustainable multi-modal transportation options to meet a diverse range of needs in Dallas.

### Policy 4.2.1 Support expansion of Dallas' public transit system.

The City should encourage not only an efficient public transit network, but encourage a variety of transit options and technologies including commuter rail, light rail, bus rapid transit, street car and local bus. Expansion of the public transit network should address linking major destinations within Dallas and the region and creating cross-town connections.

### IMPLEMENTATION MEASURES

- 4.2.1.1 Coordinate closely with DART to periodically update the Transit System Plan.
- 4.2.1.2 Explore public-private partnerships to fund and implement lower-cost transit options such as modern streetcar and bus rapid transit that will stimulate development.
- 4.2.1.3 Explore ways to effectively integrate new transit systems, such as modern streetcar and bus rapid transit, into existing public rights-of-way. Use techniques such as signal priority for transit in appropriate locations.
- 4.2.1.4 Amend the Development Code to provide for market-tested mixed-use districts, urban design standards for walkability and urban parking standards. Proactively apply these new zoning tools in combination around transit centers and multi-modal corridors through the Area Planning process, to encourage transit oriented development at a variety of densities in a manner that is sensitive to the character of adjoining neighborhoods.
- 4.2.1.5 Use economic incentives to encourage transit oriented development catalyst projects.
- 4.2.1.6 Monitor zoning capacity and development activity around transit centers and multi-modal corridors to inform land use and transportation decisions.



A variety of transit options such as Bus Rapid Transit, Streetcar and light rail will be necessary for Dallas to achieve the goals set forth in the Transportation Element of forwardDallas!



Establishing a multi-modal system like that envisioned for Dallas requires the creation of safer routes for pedestrians and cyclists.

## **Policy 4.2.2 Promote a network of on-street and off-street walking and biking paths.**

By creating and encouraging safe and convenient paths for walking and bicycling, the City will spur residents to use these forms of transportation between neighborhoods, jobs, shops, schools, parks and other community services and also to engage in walking and biking for recreation and exercise.

### **IMPLEMENTATION MEASURES**

- 4.2.2.1 Regularly update the Trail Master Plan, and complementary plans such as the Emerald Bracelet Plan, and seek additional resources from a combination of local, state, federal and private funding.
- 4.2.2.2 Regularly update the Bike Plan to provide for enhanced bike access in Mixed-Use Building Blocks and explore ways to better integrate the Bike Plan with the Thoroughfare Plan.
- 4.2.2.3 Use “Context Sensitive Design” standards for public street improvements to ensure safe and convenient bike and pedestrian movement.
- 4.2.2.4 Incorporate bike and pedestrian amenities into public facilities and rights-of-way, and stream corridors, including wider sidewalks, trees, pedestrian lights, bike racks and street signs designed with reflective materials. Use a combination of local, state, federal and private funding to install such amenities.
- 4.2.2.5 Revise plat regulations to encourage development to incorporate convenient and reasonably direct pedestrian and bike routes from businesses to local destinations and nearby residential areas.
- 4.2.2.6 Create new zoning districts and amend existing districts to encourage new projects to provide enhanced pedestrian and bike amenities such as wider sidewalks, trees, pedestrian lighting, safe bike routes and bike racks.
- 4.2.2.7 Conduct Area Plans to identify and implement targeted thoroughfare amendments to encourage distribution of traffic volumes in situations where impacts on residential streets can be minimized, in order to reduce congestion and increase bike and pedestrian safety. Area Plans should identify locations to encourage the use of bike and pedestrian-friendly options.

4.2.2.8 Increase awareness and emphasis on the American with Disabilities Act requirements and special needs accommodations with particular attention to sidewalk and crosswalk design.

**Policy 4.2.3 Promote efficient, cost-effective and environmentally friendly movement of vehicles.**

By promoting the efficient movement of vehicles within Dallas and through the region, the City and vehicle owners will realize savings in time, money and environmental impacts.

**IMPLEMENTATION MEASURES**

4.2.3.1 Continue to work with the Texas Department of Transportation, the North Texas Tollway Authority, Dallas County and the North Central Texas Council of Governments to optimize access and circulation on arterials and highways within the city.

4.2.3.2 Partner with the North Central Texas Council of Governments to conduct transportation studies in redeveloping areas to identify and schedule improvements that would yield transportation and environmental benefits.

4.2.3.3 Ensure that evaluation of design alternatives for major transportation infrastructure in Dallas takes into account the importance of the following criteria:

- Reduction of vehicle miles traveled per capita.
- Reduction in average trip time and time spent in congestion.
- Reduction in total trip delay per capita.
- Increase in transit trip capture—the proportion of trips made using public transit.
- Increase in pedestrian/bike trip capture—the proportion of walking or biking trips.
- Increase in internal trip capture—the proportion of trips that begin and end within an area.

4.2.3.4 Explore the entire range of options to improve the efficiency and environmental friendliness of vehicular transportation systems including transportation demand management through congestion pricing, ride-sharing, telecommuting and use of alternative fuel vehicles.

Chart II-4.1 Total Regional Transit Trips

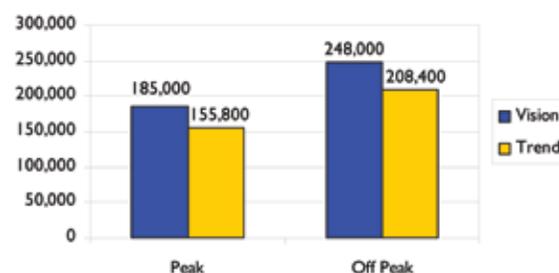
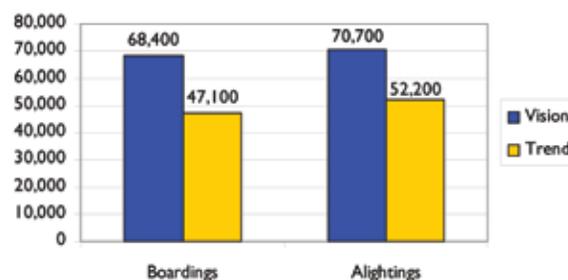


Chart II-4.2 Boardings and Alightings



The charts above summarize findings from the traffic modeling analysis conducted for forwardDallas! If current trends (illustrated in yellow) continue, there will be more congestion on Dallas’ roads. However under the Vision (illustrated in blue) there will be an increase in transit ridership.



Regional cooperation will be necessary to ensure continued viability of Dallas' airports and future Agile Port.

## **Policy 4.2.4 Promote the safe and efficient movement of goods.**

Promote the safe and efficient movement of goods within and through Dallas and the region to take advantage of Dallas' strategic location along the NAFTA trade corridor, and to support the continued viability of supply chain processes that drive Dallas' businesses and industries.

### **IMPLEMENTATION MEASURES**

- 4.2.4.1 Work with the North Central Texas Council of Governments to evaluate the strategic importance of rail and road freight corridors within Dallas and develop strategies to ensure their continued viability.
- 4.2.4.2 Evaluate specific freight corridors within the context of Area Plans. Implement land use and transportation measures to support these corridors while mitigating their impacts on neighborhoods.
- 4.2.4.3 Continue efforts to establish and sustain an Agile Port in Dallas.

## **Policy 4.2.5 Ensure continued viability of Dallas' airports.**

Ensure that the continued viability of Dallas' airports is preserved through ongoing regional cooperation and local master planning efforts.

### **IMPLEMENTATION MEASURES**

- 4.2.5.1 Continue regional cooperation efforts to maintain the success of the Dallas-Fort Worth International and Love Field Airports.
- 4.2.5.2 Explore economic development opportunities to take advantage of Dallas Executive Airport and Hensley Field.