



GREEN RIBBON PROJECT

1999 - present

Corridor Aesthetics and Landscape Master Plan

Design Guidelines for the Construction of Highways,
Streets, & Bridges

Why

Scope

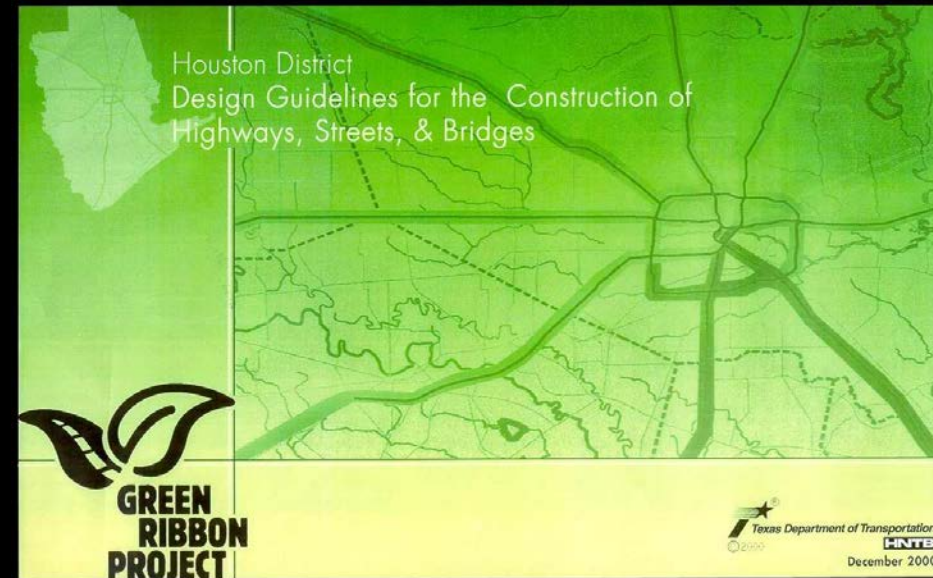
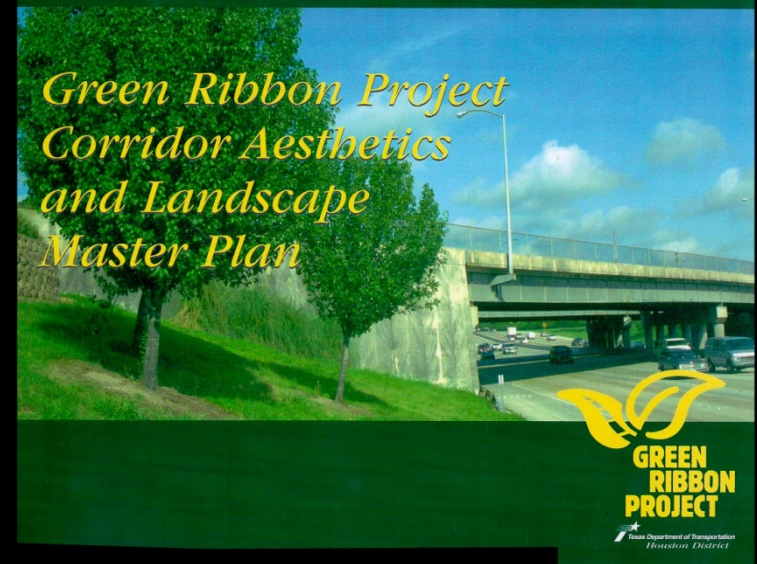
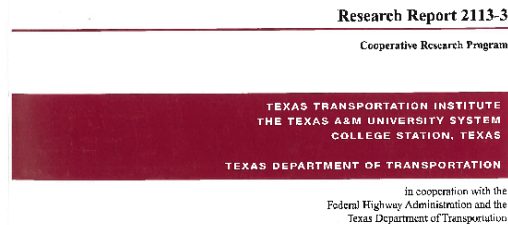
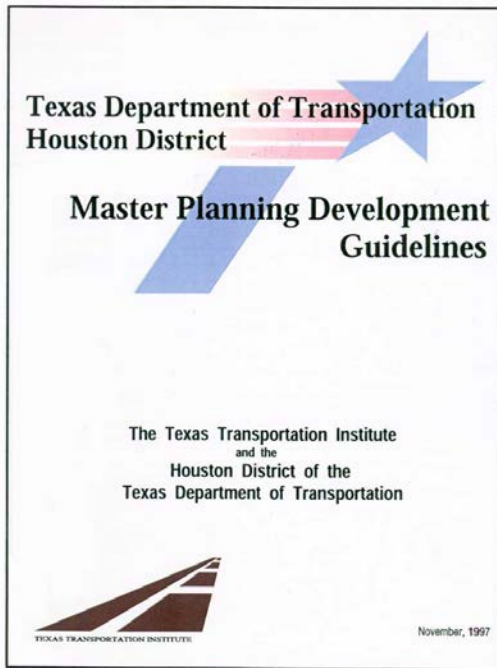
What

Scale

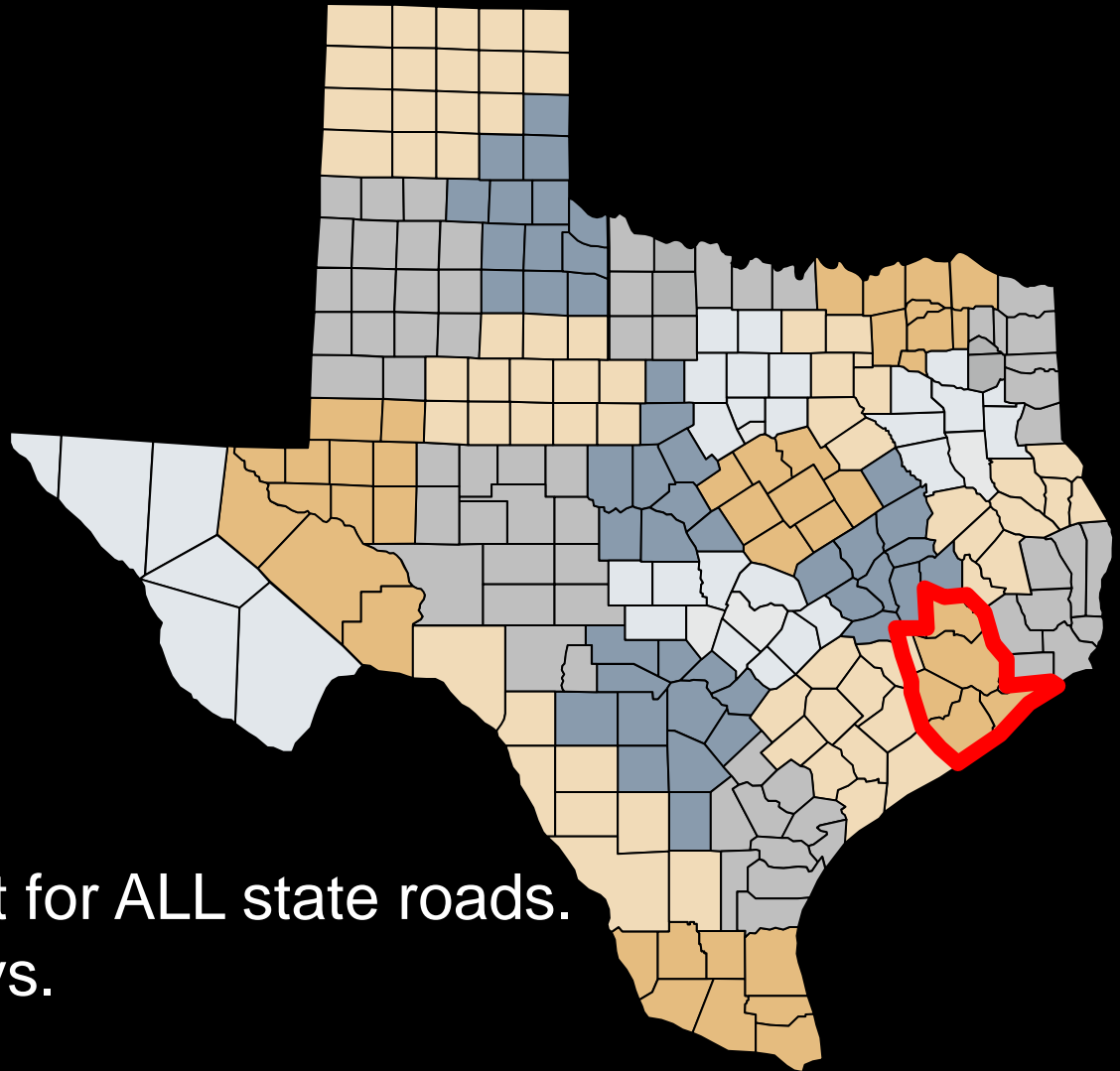
Withstand



Four Deliverables, Four Purposes



TxDOT Districts



Green Ribbon Project for ALL state roads.
Not limited to freeways.

Houston District

On-system bridges = 2856

Centerline miles = 3,223

Lane miles = 10,436

Population = 5.8 million

Vehicles = 4.9 million

Daily Vehicle Miles = 82.3 million

**Construction expenditures =
\$1.3 billion (FY 2013)**



Why Do It?

Public Demand... unfocused

View to a road.

Business Community Demand... organized

View to a city.

State/Local Legislative Demands... focused

To incorporate a higher level of Structural Aesthetics and Landscape Development into the State's roadway facilities.

Why Is This Important?

In years past, our cities seemed to be natural magnets for business growth and people simply adapted to the traffic, pollution and daily inconveniences that ineffective planning and development created.

Today, this paradigm has changed and every city must compete against others around the world for capital, business, and talent. But pressure is increasing to control pollution, improve quality of life and enhance aesthetics – all at the same time.

Think, issue 04-2009 hntb.com/think

Four Key Events To Begin:

1. State Representative Garnet Coleman's request.
2. Greater Houston Partnership(GHP)'s mission.
3. Upcoming reconstruction of several freeway corridors.
4. Expanded Representative's request.

1. State Representative Garnet Coleman

- requested TxDOT improve roadway landscapes, undesirable
- TxDOT began to review landscape improvements

2. Greater Houston Partnership(GHP) mission: To make the Houston region the best place to live, work, and build a business.

GHP's Quality of Life Advisory Committee was becoming very active to change national and international perception of the region.

“Ugly Houston” commercials in 2000 Presidential election fueled the effort.

- corporations pay workers more to be in Houston vs. other cities such as Seattle, Austin, Atlanta, etc.
- long-term economy of blue collar or white collar
- tourism
- green space
- commercial signage
- air quality

Quality of Life Committee organized non-profits, cities, and counties. Approached TxDOT Houston District as one focused voice for change.

3. Due to age of many freeway corridors, many were to be rebuilt.

- public meetings consistently demanding something different
- District Engineer tired of discussing ugly structures/landscape
- multiple consultant teams on each corridor were struggling with 'creating an image or theme' in a place without natural character

Lack of 'shared meaning' led to larger plan.

Sense of Place discussion opportunity.

Roadway corridor negative meaning > Any positive shared meaning.

4. District Engineer changed approach and expanded Representative's landscape request.

New goal: Improve all roadway structure and landscape elements to higher base line. Above base line to be funded by partners.

GHP Quality of Life Advisory Committee organized all stakeholders to support the plan.

Developed buy-in at all levels within Houston District staff.

Developed trust and understanding with local partners.

Other TxDOT districts and headquarters never understood why/what.

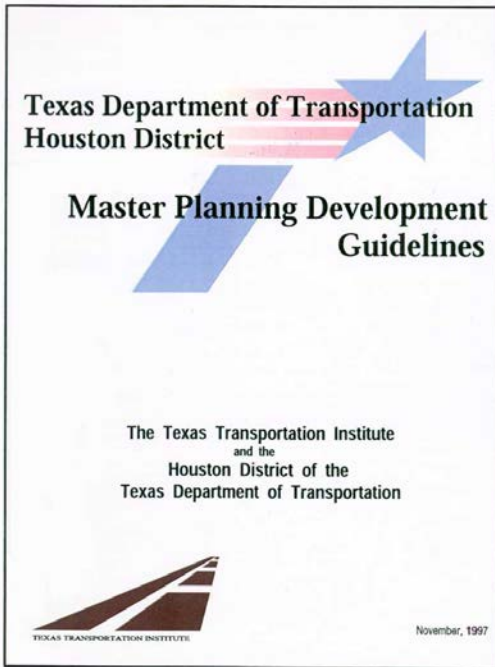
MISSION STATEMENT

Integrate Architecture, Landscape Architecture and Public Art with
the Engineered functionality of the Highway Corridor

Four Deliverables, Four Purposes

1997 1999

2001 2000



Guidelines for Aesthetic Design in Highway Corridors: Tools and Treatments for Texas Highways

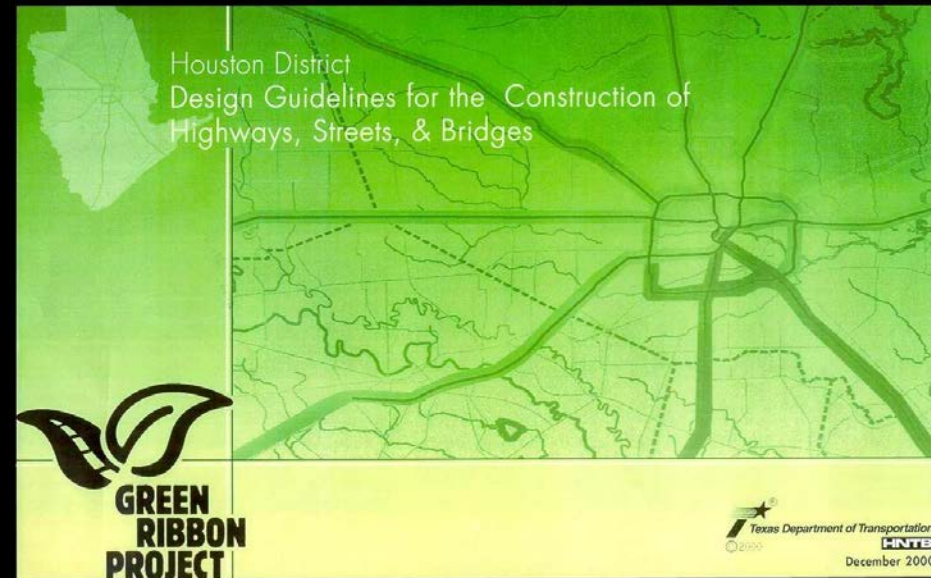
Research Report 2113-3

Cooperative Research Program

TEXAS TRANSPORTATION INSTITUTE
THE TEXAS A&M UNIVERSITY SYSTEM
COLLEGE STATION, TEXAS

TEXAS DEPARTMENT OF TRANSPORTATION

in cooperation with the
Federal Highway Administration and the
Texas Department of Transportation



Timeline – Houston District Efforts

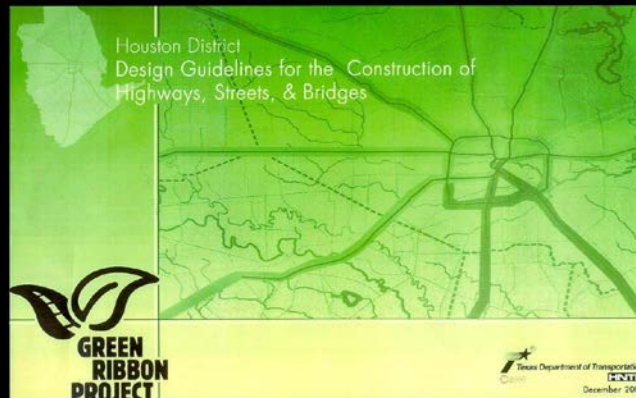
1997 **Master Planning Development Guidelines–Houston District**
Consultant: The Texas Transportation Institute
Purpose: “familiarize design professionals with design issues relevant to aesthetic goals” (TRANSLATION: Help LAs and Architects understand engineering functionality. Help engineers understand aesthetic opportunities.)

1999 **Green Ribbon Project Corridor Aesthetics and Landscape Master Plan – Houston District**
Consultant: HNTB Architects Engineers Planners
 SWA Group
 Rey de la Reza Architects, Inc.
 Cultural Arts Council of Houston and Harris County

Additional Contributors: The Texas Transportation Institute
 Green Ribbon Committee

Purpose: “conceptual guidelines to integrate environmental aesthetics with roadway functionality”


- 2000
- Author: HNTB Architects Engineers Planners
- Additional Contributors: Green Ribbon Implementation Team
- Purpose:
- “manual for **preliminary engineering** of highway elements”
 - “overall guideline necessary to produce the preferred aesthetic form, function, and appearance of each **new baseline** highway element”
 - three regional zones identified with specific design schemes
 - “provides design guidance for upgrades of baseline elements with community involvement”

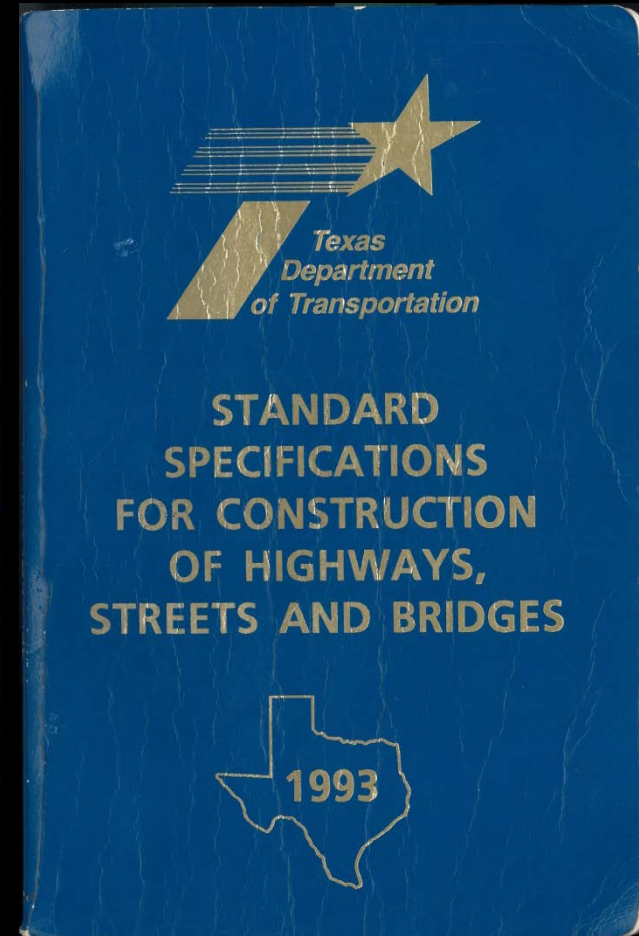


What's in a Name?

Houston District
Design Guidelines for the Construction of
Highways, Streets, & Bridges



 Texas Department of Transportation
© 2000 **HNTB**
December 2000



Timeline - Statewide Efforts

2001 **Green Ribbon Project Expansion, Appropriations Rider 57**

Author: State Legislature

Additional Contributors: Texas Transportation Commission

Purpose: - expand Green Ribbon to all areas of the state
 - all districts develop master plans
 - established percentage of construction costs in air quality
nonattainment & near nonattainment counties **be allocated for**
landscaping and other enhancements
 - **What is missing?**

2001 **Guidelines for Aesthetic Design in Highway Corridors:**
Tools and Treatments for Texas Highways

Author: The Texas Transportation Institute

Purpose: - develop cost-effective tools to add aesthetically pleasing
features to transportation projects

Do the Plans Continue?

Houston District

Guidelines included structural elements and landscape.

Part of everyday business and updated as needed.

District bridge section is the caretaker of the detailed guidelines.

Details are available on the district website.

Most of the Implementation Team is no longer at TxDOT, the guidelines continue with new players.

GRP is the tool used by administration to efficiently manage public requests.

Statewide

Guidelines were limited to landscape, no structural component.

Not part of everyday business.

Public requests are managed individually. Challenge to get projects built.

Someone Move The Cheese

Master Plan must endure various **design delivery methods**:

1. Consultant design teams – district control
2. In-house design teams – district control
3. Comprehensive Development Agreements (CDAs) – HQ/SPO control
4. Public Private Partnerships (PPPs) – HQ/SPO control
5. Design-Build (DB) – HQ/SPO control

Master Plan must endure various **management and funding methods**:

1. Non-toll
2. Toll
3. Pass Through
4. Managed
5. CDAs
6. PPPs



Benefits

Construction costs :

- monitored for several years
- standardized concrete forms
- installation efficiency (ex: rebar)

Public involvement process more efficient and less antagonistic.

Design development process more efficient.

Maintenance not increased (standardized).



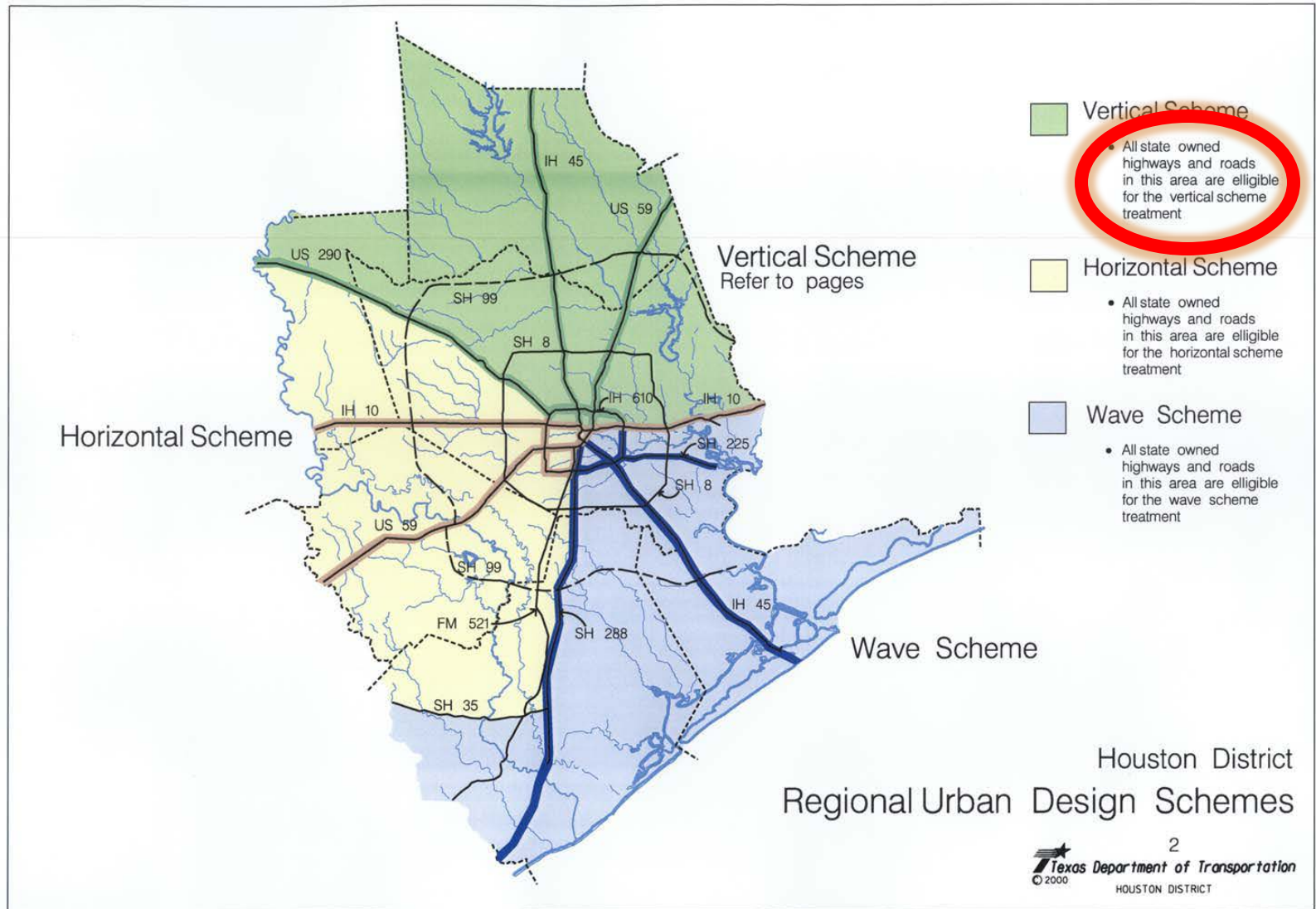
Funding The Plan

A primary guideline for design principles:

No increased funding or maintenance is available to fulfill the Plan.



What Are The Design Guidelines?



Introduce into the cluttered urban environment:

- Organized Complexity
- Visual Cues for sense of scale at high and low speed



Design Principle: Green First

Since 1998:

1,546,142 TREES

416,630 SHRUBS

585,252 VINES/GROUNDCOVER



Promoting biological processes in construction soils.

\$1 tree in a \$10 hole.



Can Landscape Impact Views To A Freeway?



Hurricane Rita evacuation



**Houston District
Mowing Acreage
29,000 AC**

**Over 1,000 AC
reforested**











What Have We Done?

PUBLIC RELATIONS TOOL

- *Education* process
- *Commitment* by TxDOT
- *Consensus Based* design

LEGISLATIVE ACTION

- *Commitment* by the public
- *Commitment* by the State

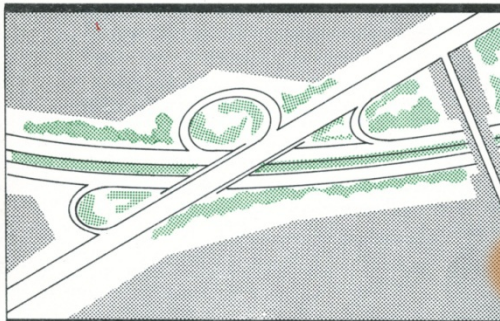
PARTNERSHIPS

- Mutual *understanding*
- *Opportunities* to define identity
- Cash and In-kind *contributions*
- Long term *commitments*

DESIGN, CONSTRUCTION & MAINTENANCE

- Consistency through guidelines and standards (*Design*)
- Consistency in form and materials (*Construction*)
- Consistency in materials and methods (*Maintenance*)

HIGHWAY DEPARTMENT MANAGEMENT AND THE LANDSCAPE ARCHITECTURE



Prepared for Highway Department
Top Management
by
The Operating Committee on Roadside Development
American Association of Highway Officials

THE BEAUTY OF AMERICA

"For over three centuries the beauty of America has sustained our spirit and enlarged our vision. We must act now to protect this heritage.

"In a fruitful new partnership with the states and cities the next decade should be a conservation milestone. We must make a massive effort to save the countryside and establish - as a green legacy for tomorrow - more large and small parks, more seashores and open spaces than have been created during any period in our history.

"A new and substantial effort must be made to landscape highways and provide places of relaxation and recreation wherever our roads run.

"Within our cities imaginative programs are needed to landscape streets and transform open areas into places of beauty and recreation."

From President Johnson's State of the Union
message to Congress, Jan 4, 1965

THE HIGHWAY CAKE CONCEPT

A POOR CAKE



A GOOD CAKE



The **INGREDIENTS**
for a **GOOD CAKE**
MUST include
ROADSIDE DEVELOPMENT



Ethan Beeson
Landscape Architect
ISA Certified Arborist
TxDOT – Houston District
713-802-5471 ph
ethan.beeson@txdot.gov