



OAK HILL
PARKWAY

Oak Hill Parkway

Context Sensitive Solutions

CSS Workshop No. 1

October 9, 2014



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Context Sensitive Solutions

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Context Sensitive Solutions

What is CSS?

Context Sensitive Solutions (CSS) is a collaborative approach to transportation design and engineering that involves stakeholders in the process of developing a solution that is appropriate for its setting. The goals are to preserve and enhance local scenic, aesthetic, historic, and environmental resources while improving transportation safety, mobility, and infrastructure.

CSS is not a one-size-fits-all approach.



CSS



Not



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CSS Principles

Guiding Principles of CSS

- Shared stakeholder vision.
- Understanding of project context.
- On-going communication/collaboration among stakeholders.
- Adds value to community.

Benefits of CSS

- Utilizes a clearly defined decision-making process.
- Considers multiple CSS alternatives.
- Uses understandable communication and visualization tools.
- **Creates solutions appropriate to context.**



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Context Sensitive Solutions

CSS Approach

- Review existing conditions and agree on context;
- Review CSS solutions used on similar projects in Texas;
- Discuss CSS concepts that will meet design objectives;
- **Develop a CSS Vision Statement to provide direction for development of design concepts;**

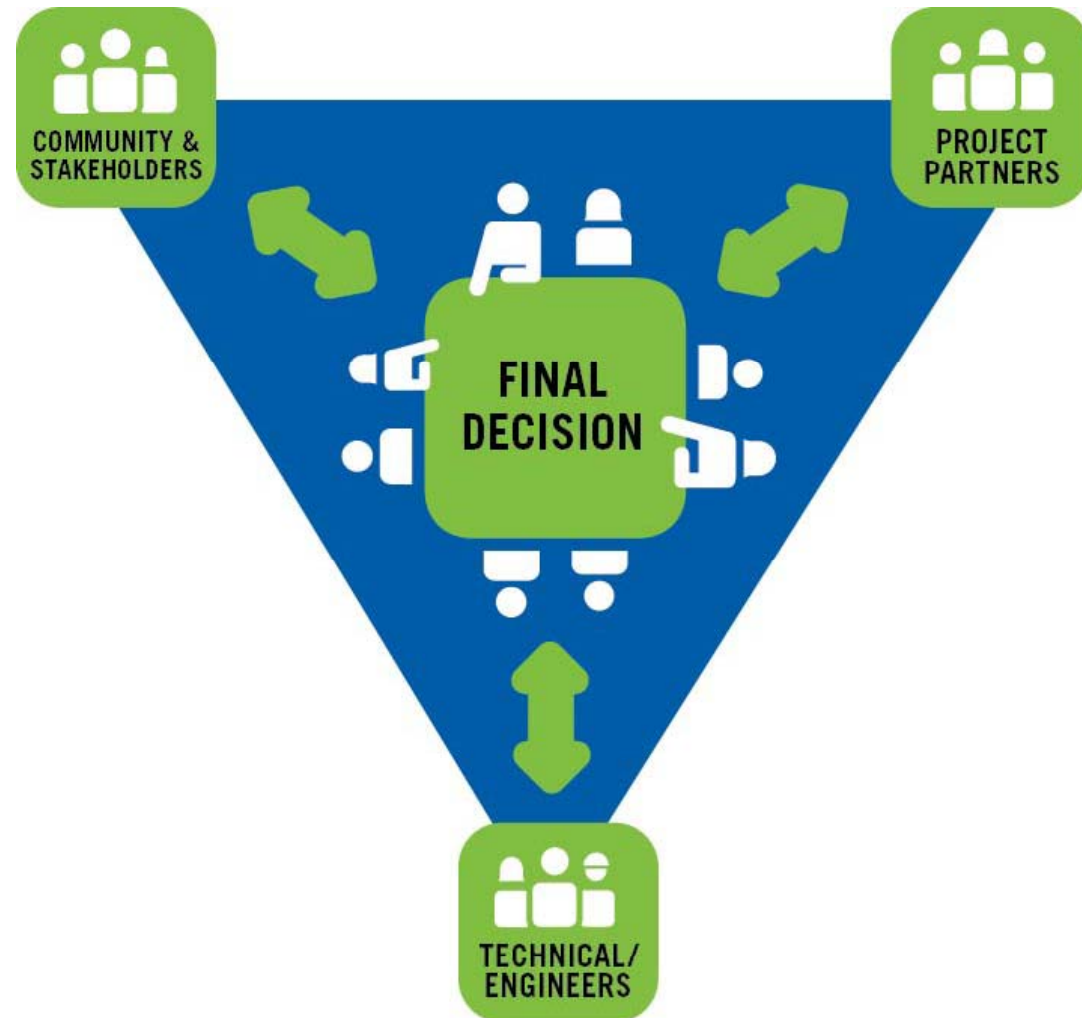
This CSS workshop will be focused on Context Sensitive Solutions and is not a forum for on-going discussion of pending mobility concepts or routing studies.



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Decision Making Process

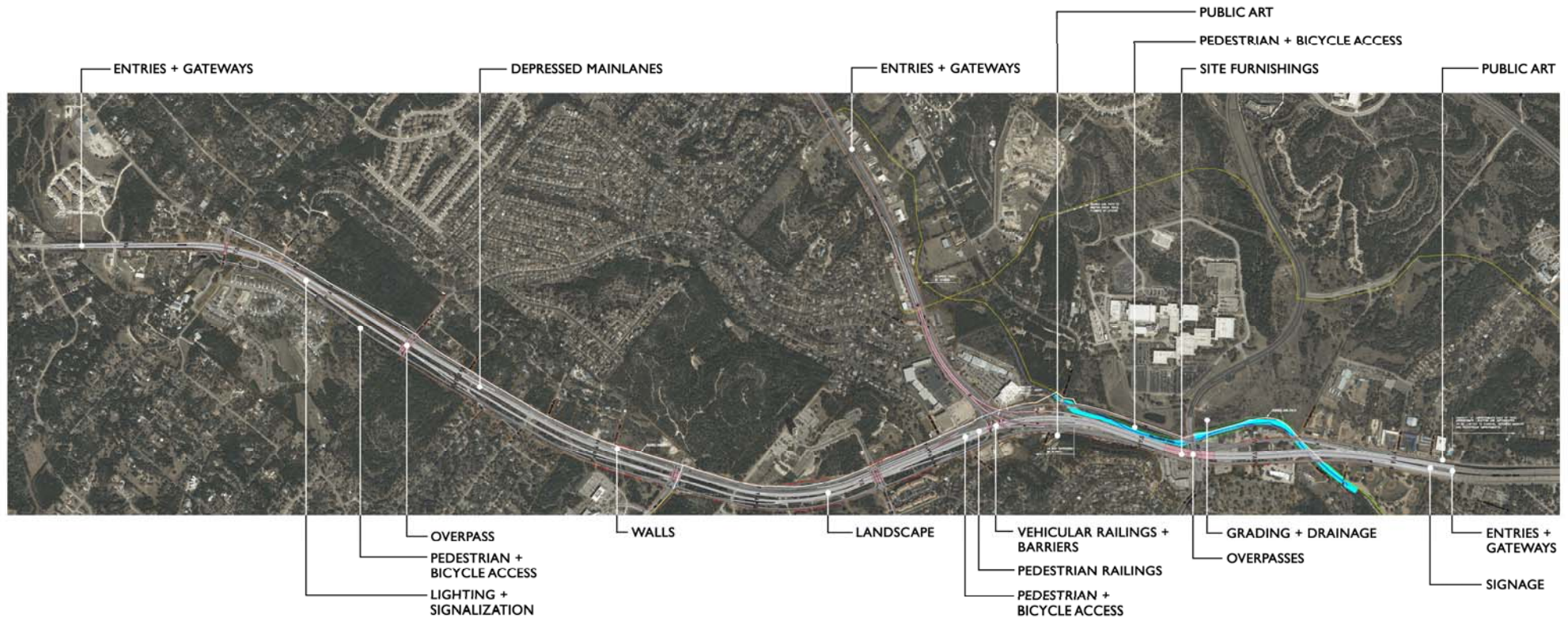




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CSS Elements



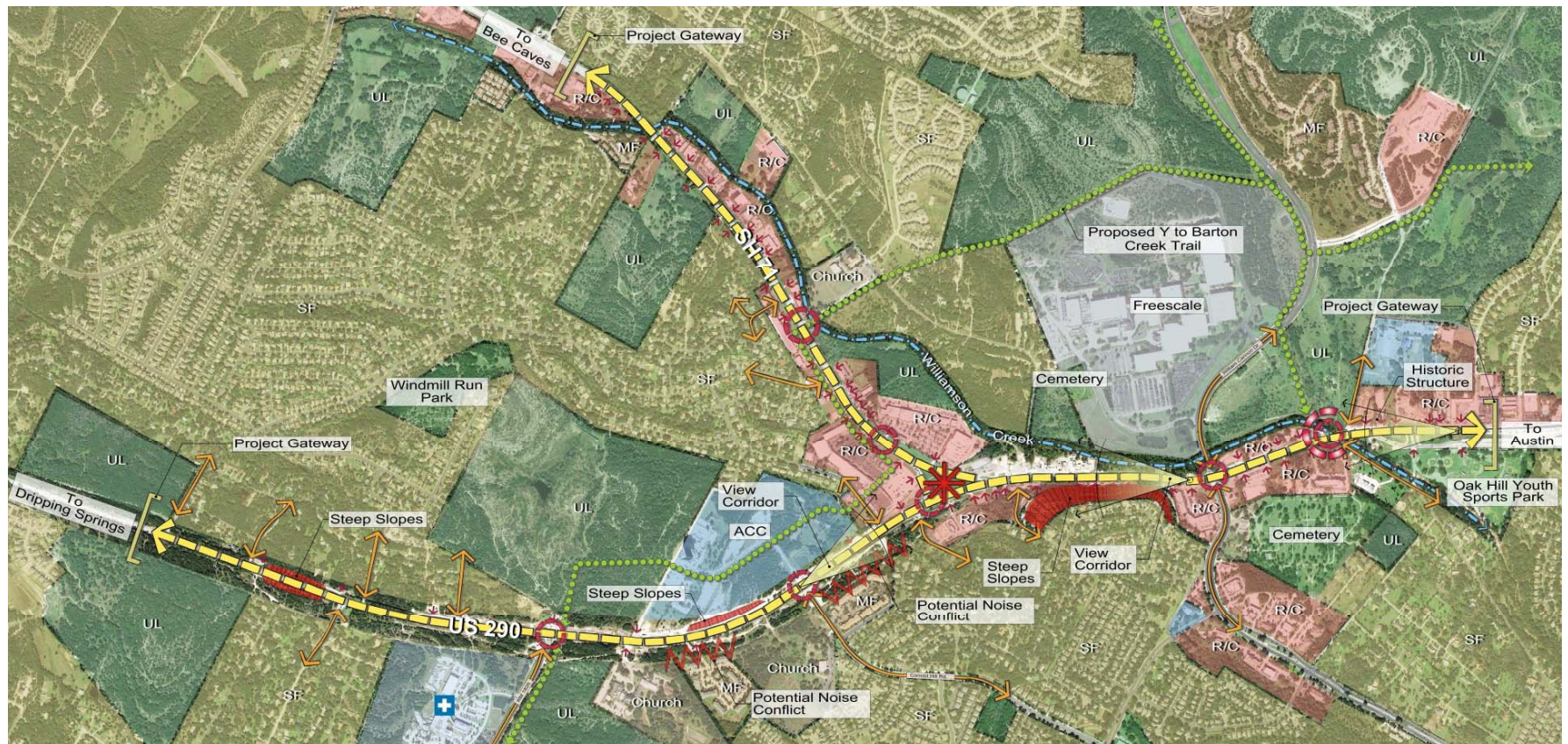
Note: This US 290 corridor image illustrates CSS elements that will be discussed tonight and is not intended as an endorsement of any specific route alternatives still under consideration.



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Site Analysis



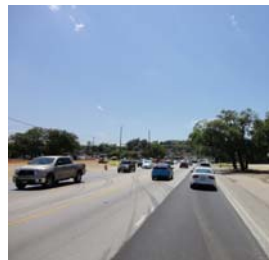
Legend	
	Conflict
	Project Center
	Oak Hill Gateway
	Project Gateway
	Intersections
	Existing US290 / SH71
	Williamson Creek
	Proposed YBC Trail
	Connecting Roads
	Site Access
	Noise
	Steep Slopes / Cliff
	View Corridors



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Context Sensitive Solutions

Existing Context





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Context Sensitive Solutions

What is Oak Hill's Context

- **Historic:** Founded in 1800s. Historic features: Grandmother Oak, historic landmarks, remains of quarry.;
- **Aesthetic:** Large Oaks, Williamson Creek, limestone cliffs;
- **Environmental:** Williamson Creek. Existing oaks. Cliffs and limestone;
- **Recreational:** Williamson Creek (potential)
- **Cultural:** suburban single-family residential. Employment: technology, retail. Linear commercial on US 290/SH 71. Academics: ASID schools, ACC. Some undeveloped areas remain;
- **Transportation:** Focused on auto with limited transit, no pedestrian or cycling facilities. Community divided by highway;

Oak Hill Context Statement

Oak Hill is a...



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Context Sensitive Solutions

Grading and Drainage

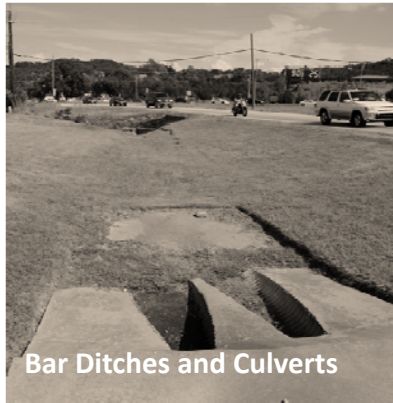
Integrate Low Impact Development site grading and drainage infrastructure and minimize the physical/visual impact of drainage structures. Work with existing drainage patterns and localize handling of runoff.



Channels



Curb Inlets



Bar Ditches and Culverts



Detention Facilities



Creeks

Existing Conditions



Typical



Photo credit: www.sswm.info



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Context Sensitive Solutions

Grading and Drainage



CSS Design Criteria

- Grade Naturally
- Minimize Disturbance
- Localize Stormwater Collection
- Reduce Infrastructure
- Increase Pervious Surface
- Filter Runoff
- Reduce Maintenance

Vegetated Filter Strips and Swales



Detention



Context Sensitive Solutions

Entries and Gateways

Create well-defined gateway features along primary transportation corridors into the community that reflect community context and clearly define its boundaries.



Existing Context



Typical



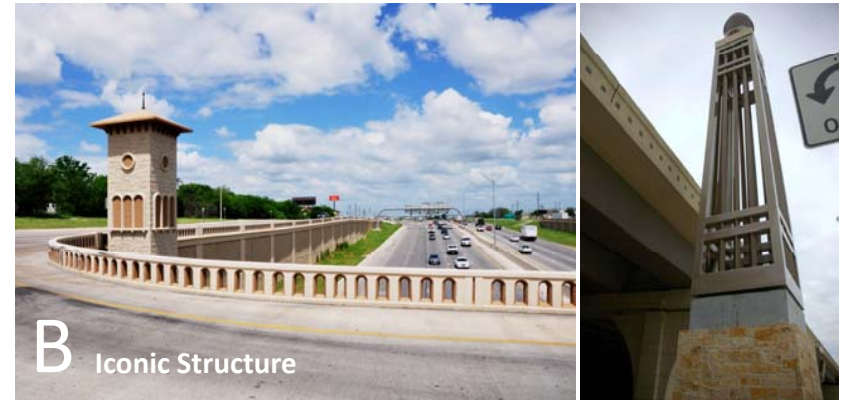
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Context Sensitive Solutions

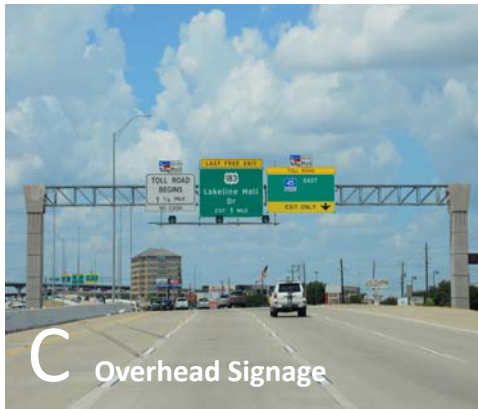
Entries and Gateways



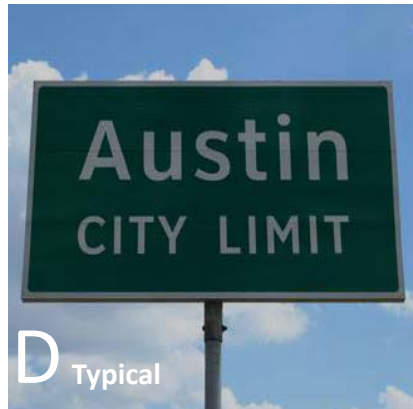
A Overpass



B Iconic Structure



C Overhead Signage



D Typical

CSS Design Criteria

- Effective Identification
- Contextual
- Appropriately Scaled
- Highly Visible
- Cost Effective
- Multi-Functional



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Context Sensitive Solutions

Overpasses

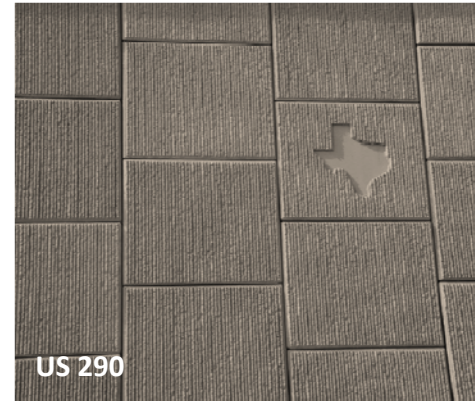
Design overpass structures that utilize cost-effective standard components while allowing for expression of community context. Address vehicular and pedestrian safety, scale, and connectivity concerns.



US 290



US 290



US 290

Existing Conditions



Typical



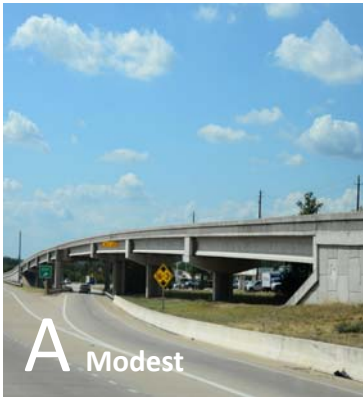
Photo credit: Google Earth



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Context Sensitive Solutions

Overpasses



A Modest



B Classic



Aesthetics



C Hill Country

D Contemporary

Pedestrian Experience

CSS Design Criteria

- Safety
- Pedestrian-Friendly
- Contextual
- Low Maintenance
- Standard Components



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Context Sensitive Solutions

Depressed Mainlanes

Design to address vehicular safety and explore aesthetic opportunities for the extensive use of walls. Address local context, scale, height, and detailing in wall design and texture.



US 290 at ACC



The Cliff



US 290 at William Cannon

Existing Conditions



Ben White Blvd.

Typical



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Context Sensitive Solutions

Depressed Mainlanes

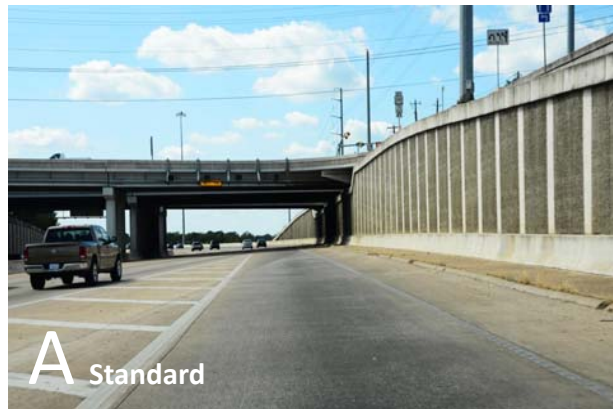


A Natural Stone

Stone

CSS Design Criteria

- Structural Stability
- Visual Quality
- Appropriate Scale
- Contextual
- Affordability
- Low Maintenance



A Standard

Precast Concrete



B Classic



C Contextual Stone



D Artistic



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Context Sensitive Solutions

Vehicular Railings and Barriers

Design to meet vehicular safety standards. Select barriers that recognize local context, scale, height, and detailing.



Corrugated Metal (existing)



Corrugated Metal (new)

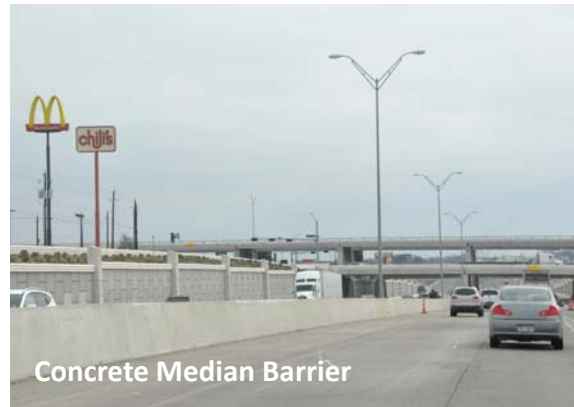


Concrete

Existing Conditions



Cable Median Barrier



Concrete Median Barrier



Concrete Edge Barrier

Typical



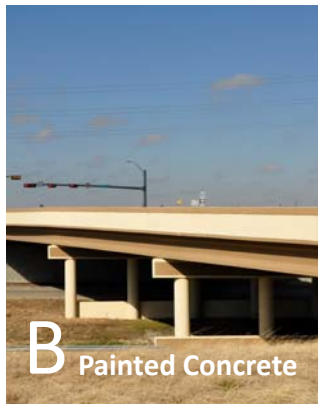
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Context Sensitive Solutions

Vehicular Railings and Barriers



A Modest



B Painted Concrete



C Classic



D Contemporary

Barriers

CSS Design Criteria

- Safety/Crash Tested
- Sustainability
- Maintainability & Access
- Contextual
- Visual Quality
- Transparency

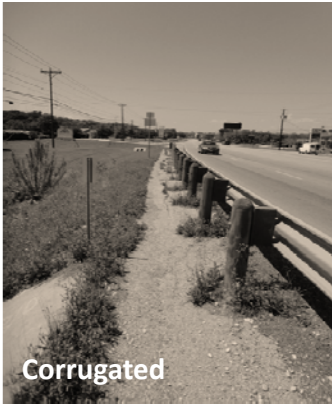


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Context Sensitive Solutions

Pedestrian Railings

Design railings that meet pedestrian safety standards and that address local context, scale, height, transparency, and detailing.



Corrugated



Nothing

Existing Conditions



Galvanized



Painted

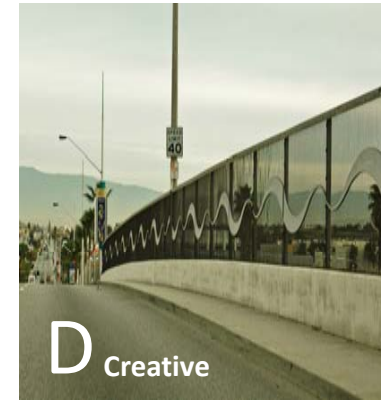
Typical



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Context Sensitive Solutions

Pedestrian Railings



CSS Design Criteria

- Safety
- Low Maintenance
- Contextual
- Visual Quality
- Transparency

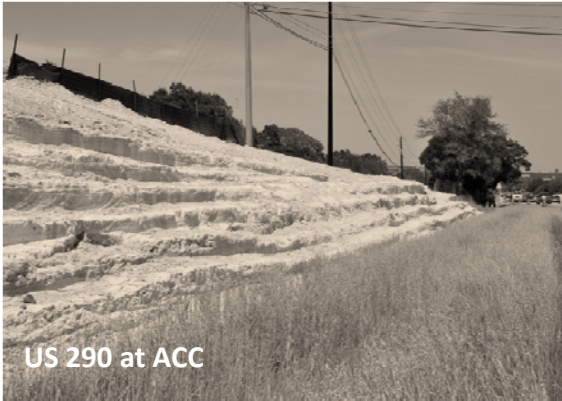


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Context Sensitive Solutions

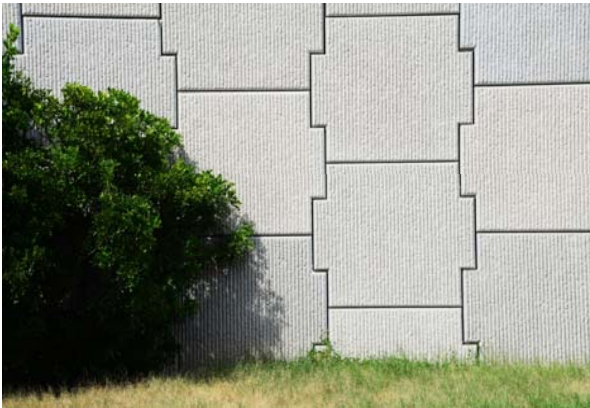
Walls

Design wall and fencing systems that respond to functional requirements, are appropriately scaled to context, and contribute positively to the desired aesthetic character of the community.



US 290 at ACC

Existing Conditions



Typical





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Context Sensitive Solutions

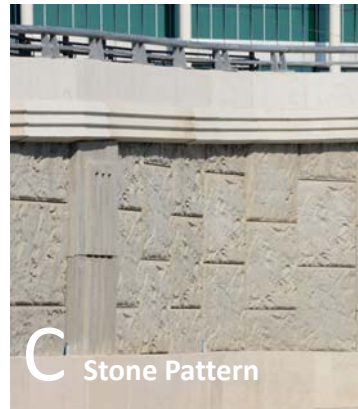
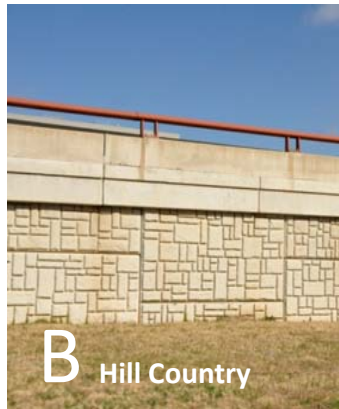
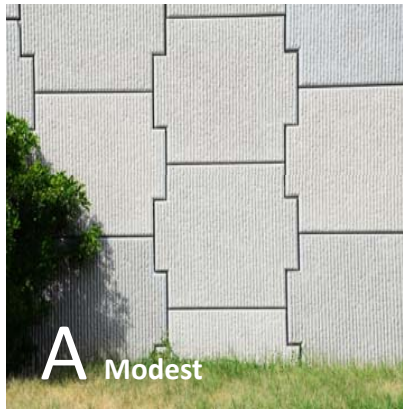
Walls



CSS Design Criteria

- Durable
- Cost Effective
- Noise Attenuation Capability
- Local Vernacular/Material
- Coordinated System
- Low Maintenance

Freestanding Walls



Retaining Walls



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Context Sensitive Solutions

Pedestrian and Bicycle Access

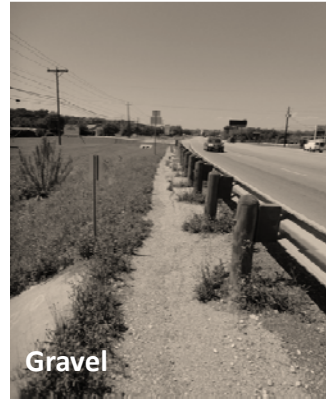
Develop comfortable pedestrian and cycle-scaled access that enhances local mobility and accessibility, encourages physical activity, and contributes to Oak Hill's long-term vision for a walkable community.



Signalized Crossing



Dirt Trails

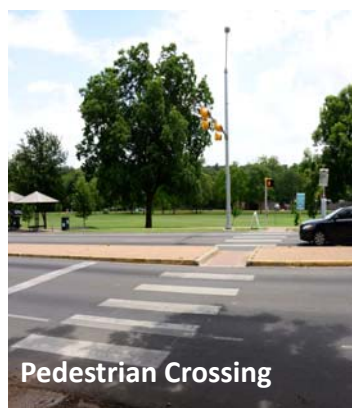


Gravel

Existing Conditions



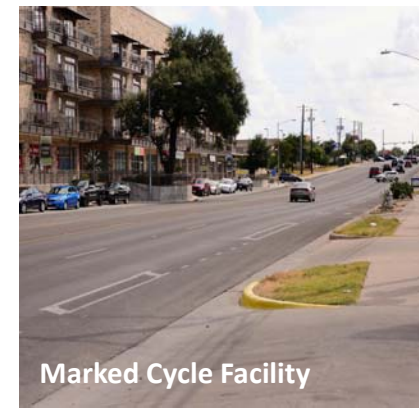
Pedestrian Walk



Pedestrian Crossing



Unmarked Cycle Facility



Marked Cycle Facility

Typical



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Context Sensitive Solutions

Pedestrian and Bicycle Access



CSS Design Criteria

- Safety and Visibility
- Accessibility
- Connectivity
- Durable
- Maintenance

Pedestrian Crossings



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Context Sensitive Solutions

Pedestrian and Bicycle Access



A Modest



B Separated



C Landscaped



D Marked Cycle Lanes



E Recreational & Shared

Walks



A Modest



B Basic Separation



C Enhanced Separation

Overpasses



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Context Sensitive Solutions

Lighting and Signalization

Design a coordinated lighting system that provides a safe environment, meets regulatory requirements, preserves the night sky, and contributes positively to the nighttime character of Oak Hill.



Steel/HID Lamp



Wood/HID Lamp



Custom



Suspended Signals



Pole-Mount Signals

Existing Conditions



Steel/HID Lamp



Steel/LED Lamp

Typical



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Context Sensitive Solutions

Lighting and Signalization



Vehicular Lighting

CSS Criteria

- Safety
- Reduced Glare and Light Pollution
- Durable
- Energy Efficiency
- Aesthetics
- Coordinated System
- Maintenance



Signalization



Accent Lighting



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Context Sensitive Solutions

Signage

Develop a sign support system that is coordinated with existing systems in the region and represents the context of Oak Hill.

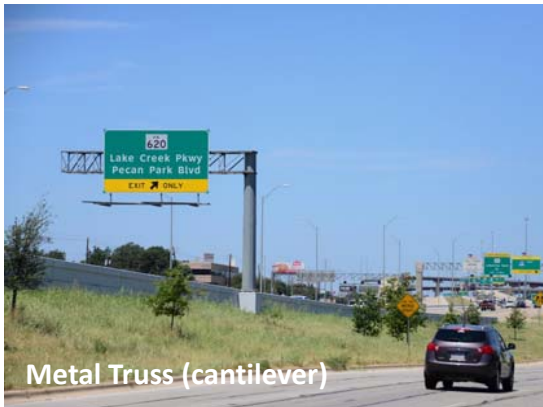


Directional Signage

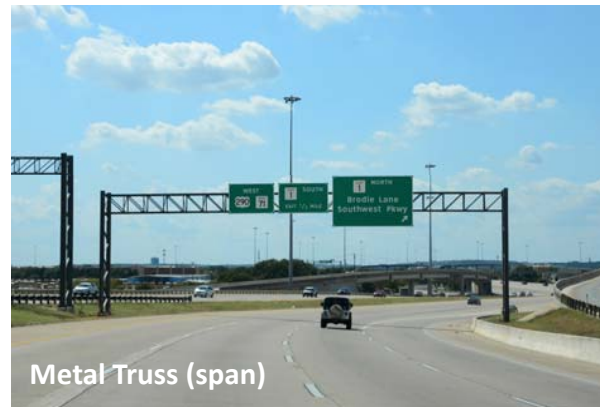


Historic Markers

Existing Conditions



Metal Truss (cantilever)



Metal Truss (span)

Typical



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Context Sensitive Solutions

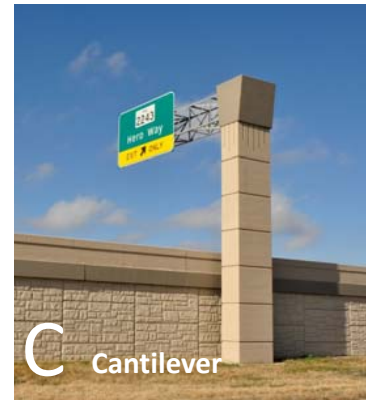
Signage



A Modest



B Span



C Cantilever



D On-Structure

Signage

CSS Criteria

- Visibility
- Safety
- Community Identification
- Contextual
- Low Maintenance
- Coordinated Design



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Context Sensitive Solutions

Landscape

Develop a sustainable landscape vocabulary that preserves existing landscape resources, responds to Oak Hill's Hill Country context, conserves water, and creates a comfortable landscape aesthetic.



Heritage Trees



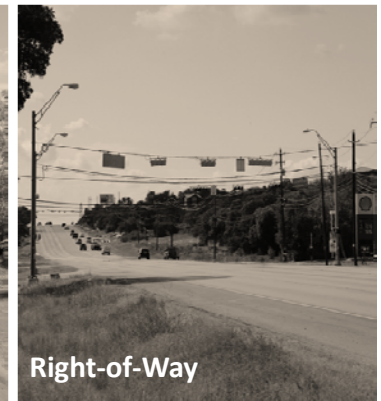
Exposed Limestone



Williamson Creek



Neighborhoods

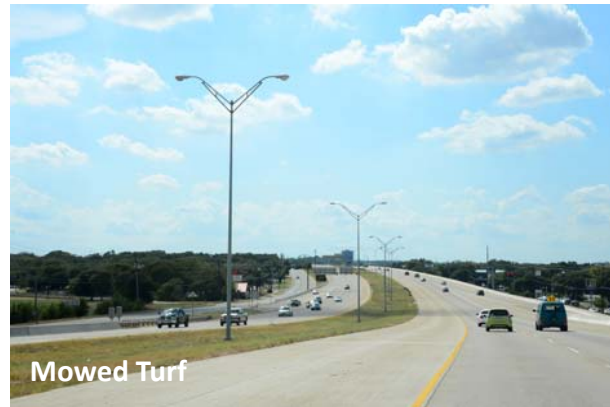


Right-of-Way

Existing Context



Low Maintenance Grasses



Mowed Turf



Screen Planting

Typical



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Context Sensitive Solutions

Landscape



CSS Design Criteria

- Safety
- Preservation
- Water Conservation
- Contextual
- Low Maintenance
- Native or Adaptive



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Context Sensitive Solutions

Public Art

Identify visual clues from the history, culture, and natural environment of Oak Hill to inspire ideas for public art and aesthetics concepts that can be integrated into project features.



Trees



Water



History



Stone

Existing Context



Typical

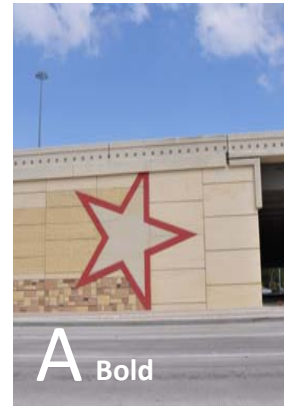
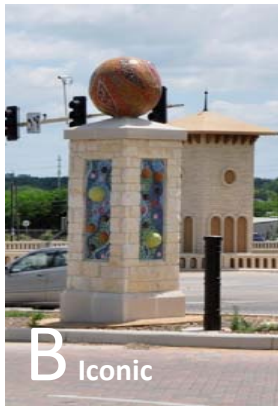




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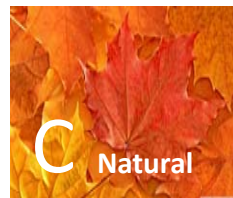
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Public Art



Sculpture

Lone Stars



Content

CSS Design Criteria

- Appropriate Scale
- High Visibility
- Contextual
- Durable
- Cost Effective



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Context Sensitive Solutions

Vision Statement

Craft a CSS Vision Statement that will provide conceptual guidance for the design and engineering team as solutions are developed. Use key words if necessary to describe the desired outcome for the project.

Example of a CSS Vision Statement

Loudon Road will be an safe and attractive transportation corridor that visually and physically connects, at a human scale, destinations on both sides of the highway. It will help create a unique place that functions well for all modes of transportation while integrating our history, aesthetics, and environment. Good stewardship of our natural and cultural assets are a priority.

Oak Hill CSS Vision Statement

Oak Hill Parkway will be...



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Context Sensitive Solutions

Priority Preference Survey

The following questions have been developed to help the Oak Hill Parkway project team get a sense for how you would like to see CSS efforts and available funds be prioritized on this project. You will be asked to consider the following categories:

- Enhanced Grading and Drainage
- Entries, Gateways and Signage
- Railings, Barriers and Walls
- Pedestrian Facilities
- Bicycle Facilities
- Landscaping
- Public Art

For each of the following questions, please indicate how important each category is it to you, using a scale from Very Important, to Not Important at all.



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Context Sensitive Solutions

Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Enhanced Grading and Drainage**?

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Context Sensitive Solutions

Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Entries, Gateways and Signage?**

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Context Sensitive Solutions

Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Railings, Barriers and Walls**?

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Context Sensitive Solutions

Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Pedestrian Facilities**?

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Bicycle Facilities**?

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Landscaping**?

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Priority Preference Survey

How important is it to you that CSS efforts and funds are spent on **Public Art**?

- A - Very Important
- B - Important
- C - Somewhat Important
- D - Of little Importance
- E - Not at all Important



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Context Sensitive Solutions

The Oak Hill Parkway project team is moving in the right direction.

- A – Strongly Agree
- B - Agree
- C - Neutral
- D - Disagree
- E – Strongly Disagree



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Conclusion

We thank you for your time, participation, and valuable input tonight!



Williamson Creek

Our next **CSS Meeting No. 2** will be held this winter. We look forward to seeing you there!

Be sure to visit the project website at www.oakhillparkway.com and voice your opinion by taking the online CSS Survey.