



**STATE LOOP 360**

**CSJ 5000-00-131**

**Travis County, Texas**

**CONTEXT SENSITIVE SOLUTIONS  
SUMMARY**

**Prepared By: SL 360 GEC**

**January 2020**

## **Loop 360 Context Sensitive Solutions Report June 2019 Workshop and Survey Feedback**

In June 2019, TxDOT gathered public input on the Context Sensitive Solutions (CSS) features being considered for incorporation along Loop 360. CSS is a collaborative approach to developing roadways that fit within their surroundings. It incorporates public input to determine what natural, historic, environmental and social resources best enhance the roadway design.

Members of the public had the opportunity to view and provide feedback on CSS features at the Lakewood Drive/Spicewood Springs Road project workshop held on June 6, 2019. The community also had the option of providing feedback via an online survey included in the virtual workshop for the Lakewood Drive/Spicewood Springs Road project. The survey remained open during the 15-day comment period following the workshop. It was advertised using a flyer handed out at the workshop, as well as through e-blasts sent to the entire corridor-wide listserv.

Participants viewed five display boards (see Appendix A). The first board contained information about the overall CSS process. The remaining boards shared options for the public's consideration, including intersection treatments, landscaping and plants, bridge supports, and shared-use path (SUP) hardscaping.

TxDOT received a total of 29 written comments at the public workshop, and an additional 35 comments via the online survey. A summary of feedback is below. See Appendix B for photographs of written comments received at the workshop, as well as the online survey questions and each response.

### **Intersection Treatments**

Participants preferred a muted look for the intersection treatments along Loop 360. They also indicated a preference for including many trees and plants near intersections, and suggested using curved lines with an odd number of plants at these locations.

### **Landscaping and Plants**

Respondents requested that low-maintenance, native grasses be used for the landscaping along the corridor. Some participants suggested using the Texas Red Oak, Mexican Plum and Red Bud trees; others suggested avoiding use of oak trees and Arizona Cypress. Respondents requested that bluebonnets and the current wildflower mix continue to be planted along Loop 360.

### **Bridge Supports**

Participants were given three bridge support options to consider. The supports featuring a standard sloped bent cap with square columns was the favored option. Some respondents requested adding color to the bridge supports while others suggested that white or a more neutral color be used. Suggestions were made to include the Texas star on the supports and colored lighting as an accent underneath the overpasses.

### **Shared-Use Path Hardscaping**

Participants generally appreciated the addition of the SUP. Suggestions were made to increase the SUP to 12 feet and to use pavement that reduces sound and heat. Some respondents also requested a separate dedicated path for cyclists using asphalt instead of concrete.

### **Other Comments for the CSS Process**

Overall, respondents welcomed the proposal of creating underpasses and overpasses along Loop 360, though a few participants expressed their opinion that the improvements are too industrial for the area. Suggestions were made to depress the Loop 360 mainlanes and add sound walls for noise reduction. Additionally, participants requested that TxDOT account for wildlife along the corridor.

Respondents were also in favor of keeping lighting low along the corridor, and mentioned the Dark Skies initiative. The International Dark-Sky Association (IDA) is the recognized authority on light pollution worldwide and is the entity who determines whether a certain area qualifies as a "Dark-Sky Place." There are currently only three Dark-Sky Places located near Austin, including the town of Dripping Springs, and the River Hills and Lost Creek neighborhoods. Although the lighting specifications under consideration for Loop 360 may not meet International Dark-Sky standards, TxDOT is partnering with the City of Austin to add lighting features that will preserve the natural look of the night skies along Loop 360. Lighting options are still being evaluated, but might include include low-level, LED lighting that focuses lighting downward, prevents glare, and preserves the nighttime aesthetic of the community.

## Appendix A: Boards and Corridor Assets Map

# CONTEXT SENSITIVE SOLUTIONS



Context Sensitive Solutions (CSS) is a collaborative approach to developing roadways that fit within their surroundings.

### CONSIDERATIONS

The CSS approach considers not only physical aspects or standard specifications of a roadway, but also the scenic, environmental, historic, economic and social resources in the surrounding community.

### INVOLVEMENT

The process involves all stakeholders, including community members, elected officials, interest groups, and affected local, state and federal agencies.

### OUTCOME

CSS processes help to preserve and enhance community resources while improving safety and mobility along the corridor.

### COMMUNITY FEEDBACK

In November 2018, TxDOT conducted a survey to receive feedback from the community. We shared the results of that survey and collected further public input in March 2019.

More details about the CSS process can be found at [Loop360Project.com](http://Loop360Project.com)

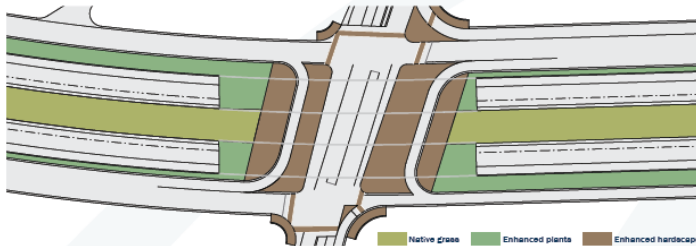


## LOOP 360 PROGRAM

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# CONTEXT SENSITIVE SOLUTIONS

## OPTIONS FOR INTERSECTION TREATMENTS



### OPTION 1



Plantings in structured groupings focus of interchange



Intricate hardscape  
Bolder color(s)



Detailed accents  
Low walls

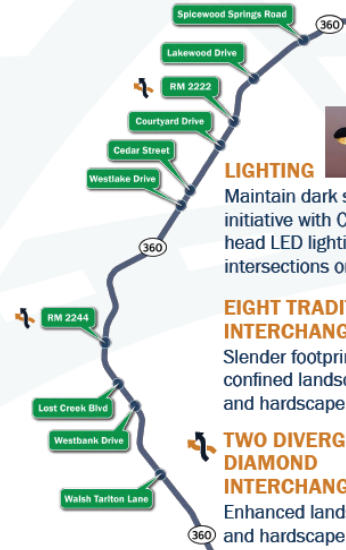
### OPTION 2



Planting in loose groupings with prairie grass focus of interchange



Muted color(s)  
Simple accents



### LIGHTING

Maintain dark skies initiative with Cobra head LED lighting at intersections only

### EIGHT TRADITIONAL INTERCHANGES

Slender footprint with confined landscape and hardscape areas

### TWO DIVERGING DIAMOND INTERCHANGES

Enhanced landscape and hardscape areas

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# CONTEXT SENSITIVE SOLUTIONS

## OPTIONS FOR LANDSCAPING AND PLANTS



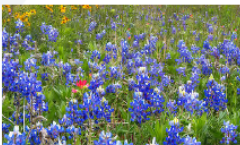
### TREES

Arizona Cypress	Eastern Red Cedar	Red Bud
Cedar Elm	Live Oak	Texas Red Oak
Chinquapin Oak	Mexican Plum	



### SHRUBS

Agarita	Evergreen Sumac	Lindheimer Muhly	Sotol (Desert Spoon)
Anacacho	False Red Yucca	Mexican Buckeye	Texas Sage
Orchid Tree	Flameleaf Sumac	Mountain Laurel	Yaupon Holly
Crape Myrtle	Fragrant Sumac		



### WILDFLOWER MIX

Indian Blanket	Black Eyed Susan	Coreopsis	Buffalograss
Bluebonnet	Texas Star	Little Bluestem	Curly Mesquite
Pink Evening Primrose	Mealy Blue Sage	Blue Grama	

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# CONTEXT SENSITIVE SOLUTIONS

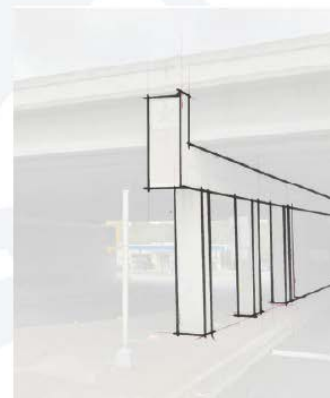
## OPTIONS FOR BRIDGE SUPPORTS



**BENT CAP** Standard Rectangular  
**COLUMNS** Round



**BENT CAP** Standard Sloped  
**COLUMNS** Square



**BENT CAP** Standard Rectangular with Ear Wall  
**COLUMNS** Rectangular

**LOOP 360 PROGRAM**

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# ➤ CONTEXT SENSITIVE SOLUTIONS

## OPTIONS FOR SHARED-USE PATH HARDSCAPING



### CONCEPTUAL CROSS SECTION FOR SHARED-USE PATH



10 foot shared-use path with 5 foot buffer as right of way allows

### LIGHTING OPTIONS



Low-level path lighting

### PAVING OPTIONS



Enhanced paving at high bicycle and pedestrian traffic areas



Colored, textured herringbone treatment

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## Appendix B: Comments and Survey Results

# CONTEXT SENSITIVE SOLUTIONS

## OPTIONS FOR INTERSECTION TREATMENTS



Native grass   Enhanced plants   Enhanced hardscape

**OPTION 1**

- Plantings in structured groupings focus of interchange
- Intricate hardscape Bolder color(s)
- Detailed accents Low walls

**OPTION 2**

- Planting in loose groupings with prairie grass focus of interchange
- Muted color(s) Simple accents

**LIGHTING**

Maintain dark skies initiative with Cobra head LED lighting at intersections only

**EIGHT TRADITIONAL INTERCHANGES**

Slender footprint with confined landscape and hardscape areas

**TWO DIVERGING DIAMOND INTERCHANGES**

Enhanced landscape and hardscape areas

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*Handwritten notes on board:*

- Consider trees to add numbers to plants
- Sketches of landscape treatments
- Sketch of Cobra head LED lighting
- Sketch of landscape treatment with text: "Landscape by aerial roots keep low to trees/plants"
- Sketch of landscape treatment with text: "More prairie grass landscape"
- Top right: "Cobra head LED lighting for option 1 & 2"

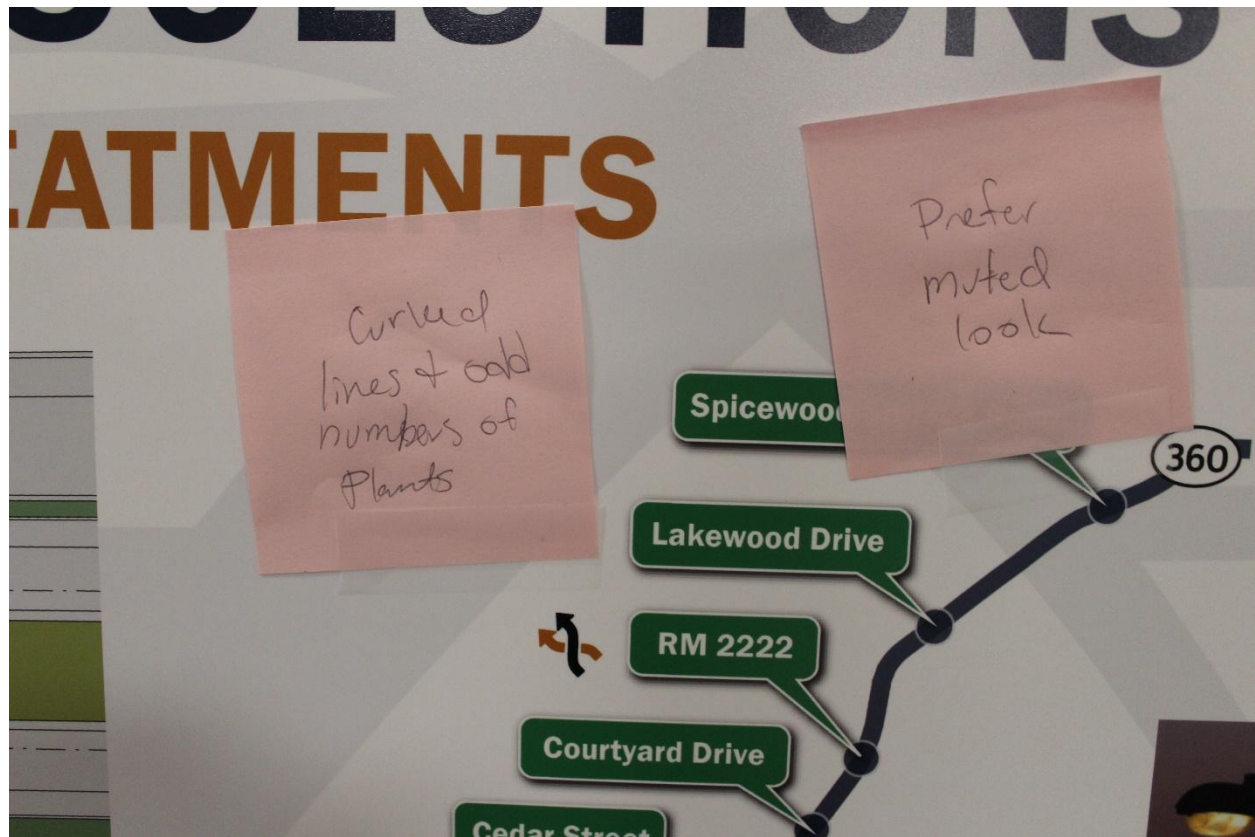
**NS**

**Texas**

*Handwritten notes on sticky notes:*

- Sketch of landscape treatment
- Sketch of Cobra head LED lighting
- Sketch of landscape treatment with text: "Landscape by aerial roots keep low to trees/plants"
- Sketch of landscape treatment with text: "More prairie grass landscape"
- Top right: "Cobra head LED lighting for option 1 & 2"

**360**



Bolder color(s)

Detailed accents

Low walls

Landscape  
by access roads  
Keep lots of  
trees/plants



0 PROGRAM





## Simple accents

Mix  
prairie grass  
with wildflowers

## CONTEXT SENSITIVE SOLUTIONS OPTIONS FOR LANDSCAPING AND PLANTS



### TREES

Arizona Cypress  
Cedar Elm  
Chinquapin Oak

Eastern Red Cedar  
Live Oak  
Mexican Plum

Red Bud  
Texas Red Oak

Red Oak  
are beautiful  
- give shade  
on trees!

Do I need  
to care  
about this?

Mexican  
Plum or  
Red Bud  
at intersection

Tree &  
Shrub  
closer  
to the  
intersection



### SHRUBS

Agarita  
Anacacho  
Orchid Tree  
Crape Myrtle

Evergreen Sumac  
False Red Yucca  
Flameleaf Sumac  
Fragrant Sumac

Lindheimer Muhly  
Mexican Buckeye  
Mountain Laurel

Sotol (Desert Spoon)  
Texas Sage  
Yaupon Holly

Some  
trees that  
are very well  
at the intersection  
and trees



### WILDFLOWER MIX

Indian Blanket  
Bluebonnet  
Pink Evening  
Primrose

Black Eyed Susan  
Texas Star  
Mealy Blue Sage

Coreopsis  
Little Bluestem  
Blue Grama

Love the native grass  
wildflowers are  
not so much  
like they are  
these days?

lograss  
Mesquit

Native  
and  
native  
shrubs  
mesquite

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# SOLUTIONS

## PLANTS

Mexican  
Plum &  
Red Bud  
at intersection

Do I need  
to care  
about this?

Red Oaks  
are beautiful!

Red Bud

Texas Red Oak

+ more bluebonnets,  
on 360.

Trees &  
Shrubs  
closer  
to the  
intersection

ter Munly

Buckeye

n Laurel

Solar (Desert Spoon)

Texas Sage

Yaupon Holly

TEXAS  
Sage does  
not age well  
it gets spindly  
and dies

sis

uestem

rama

Love the native grass  
& wildflower mix  
that you currently  
have along 360.  
Please keep it.

lograss

Mesquit

Native  
grass  
prefer  
existing  
species



# CONTEXT SENSITIVE SOLUTIONS

## TIONS FOR BRIDGE SUPPORTS

**BENT CAP** Standard Rectangular  
**COLUMNS** Round

**BENT CAP** Standard Sloped  
**COLUMNS** Square

**BENT CAP** Standard Rectangular with Ear Wall  
**COLUMNS** Rectangular

Colors on columns, textures, stone treatment

Use this same standard sloped

Bent Cap Same as northbound service

Non-intrusive as possible

as long as it has the to show we are here

make it like the old bridge

Use the same standard sloped

I like this one.

Use columns, textures, stone treatment

**LOOP 360 PROGRAM**

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# CONTEXT SENSITIVE SOLUTIONS

**BENT CAP** Standard Rectangular  
**COLUMNS** Round

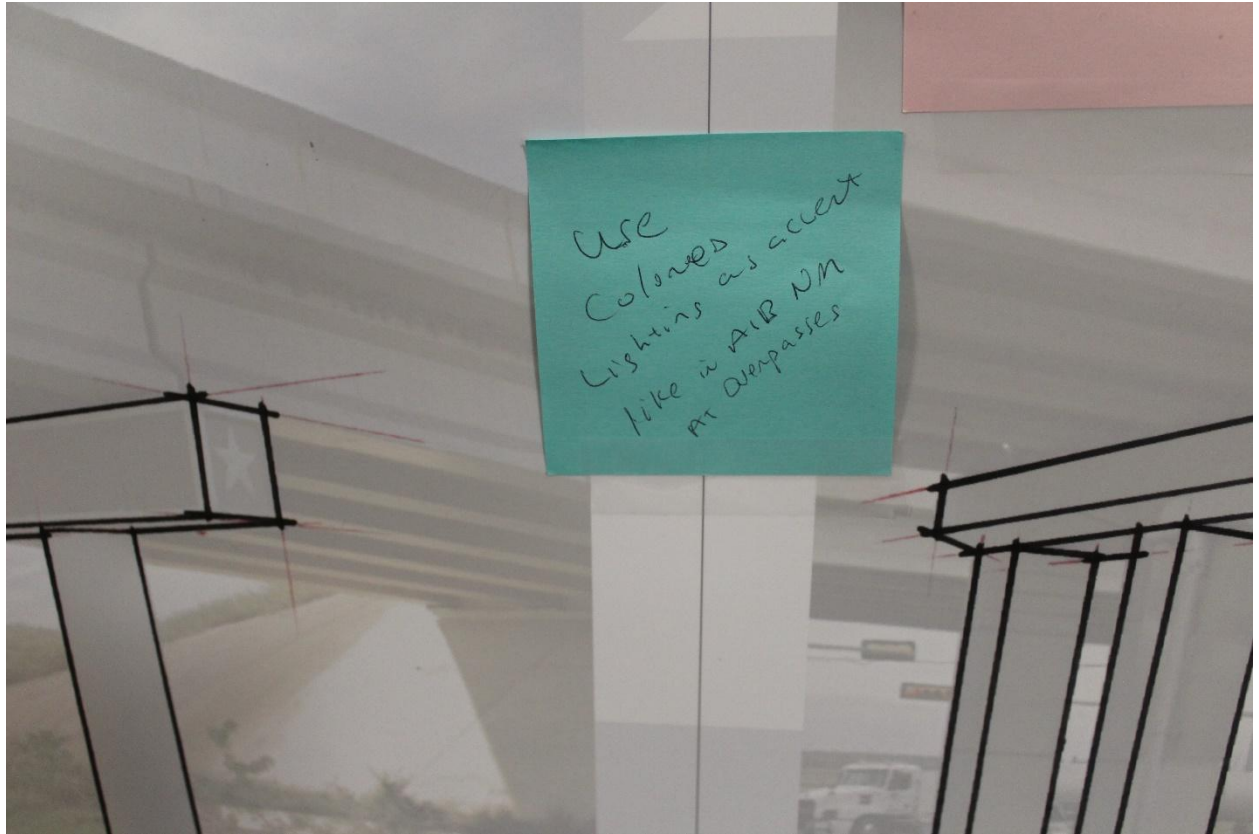
**BENT CAP** Standard Sloped  
**COLUMNS** Square

**BENT CAP** Standard Rectangular with Ear Wall  
**COLUMNS** Rectangular

Colors on columns, textures, stone treatment

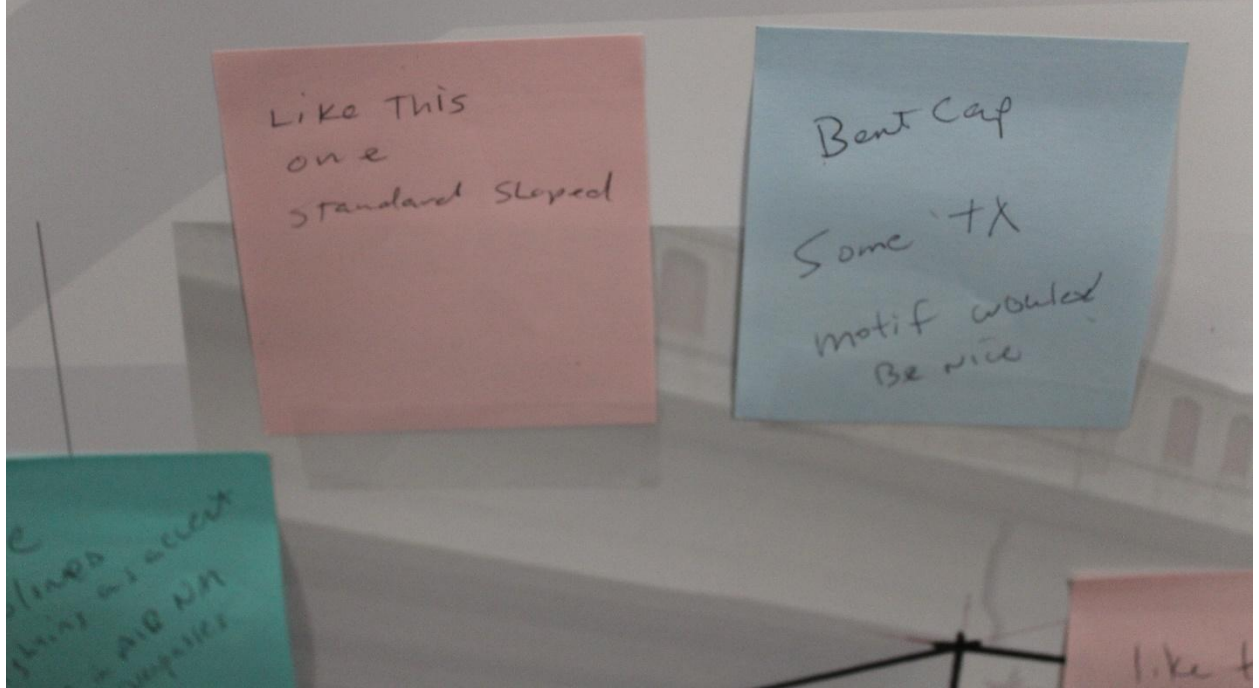
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Use  
Columns as accent  
Lighting as accent  
like in AIR NM  
at overpasses

# BRIDGE SUPPORTS



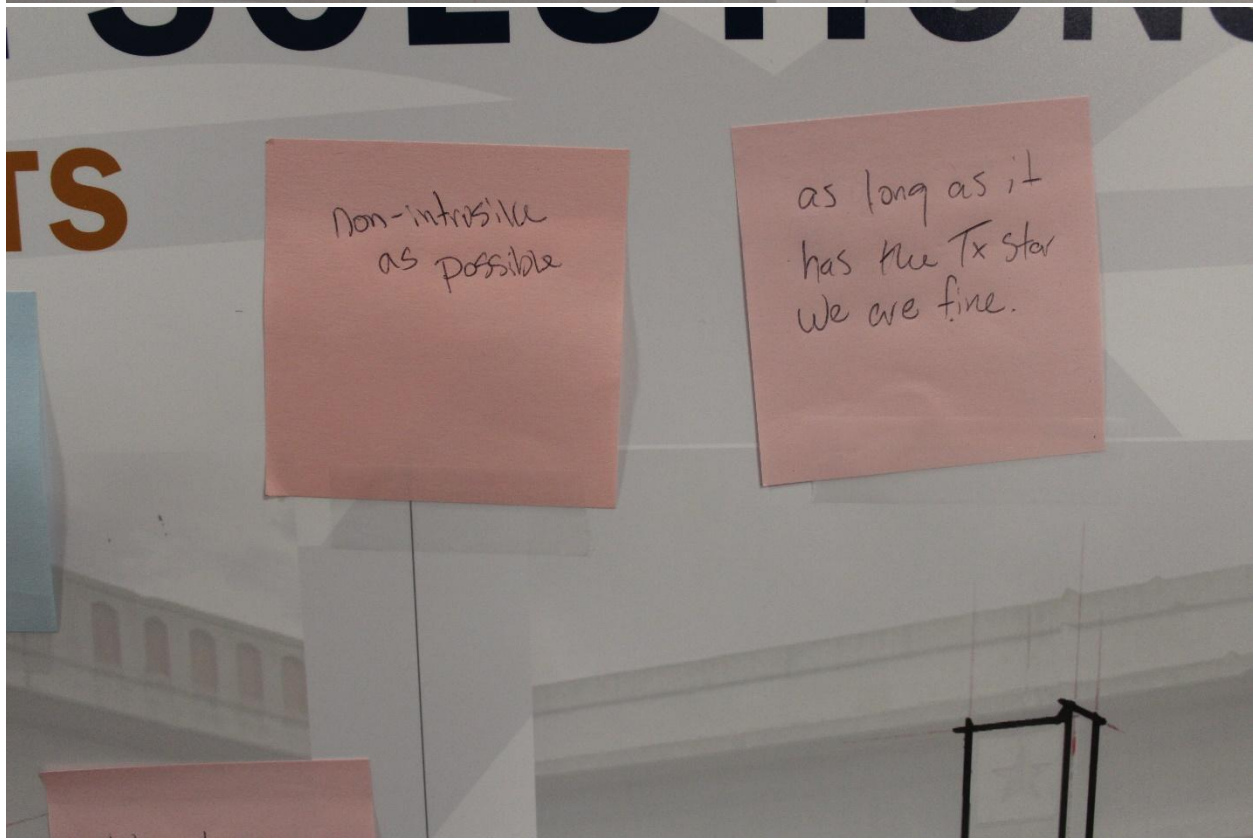
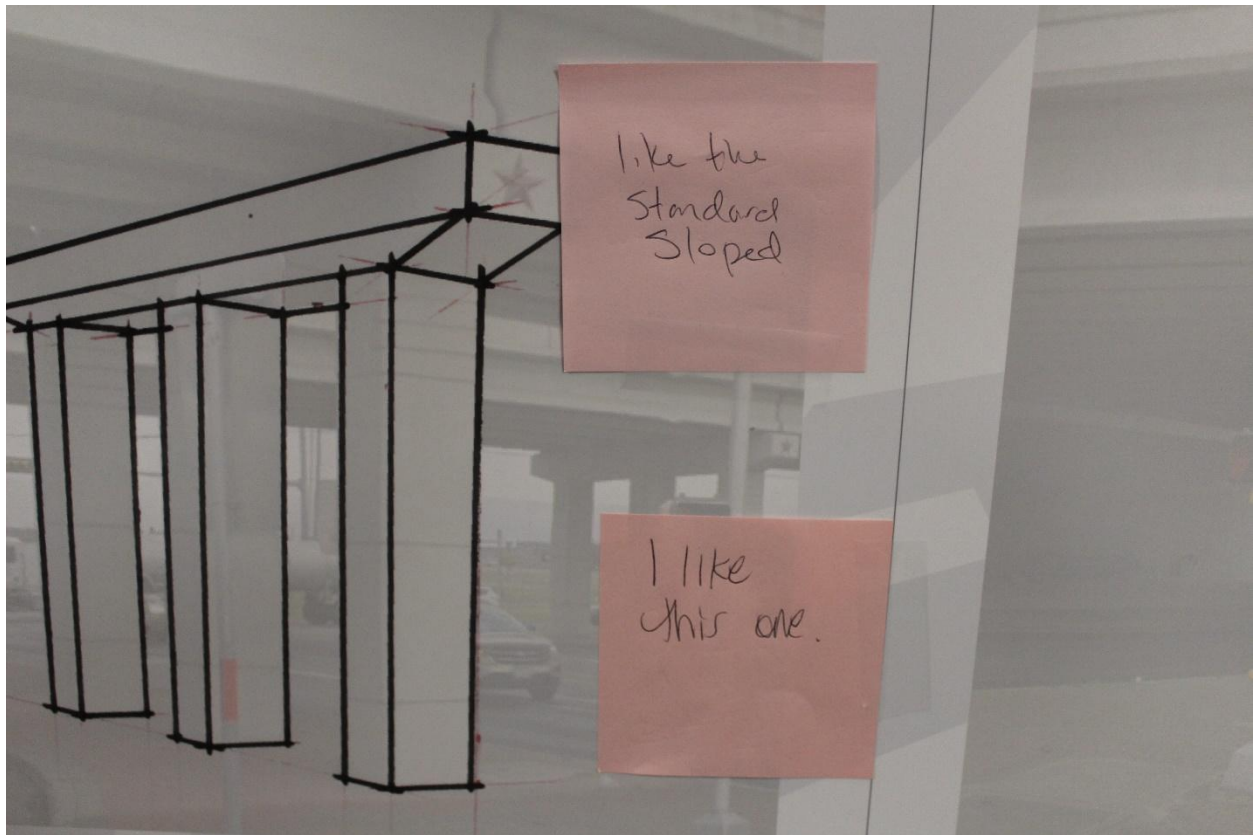
Like this  
on a  
standard sloped

Bent Cap  
Some TX  
motif would  
be nice

e  
slabs  
lighting as accent  
like in AIR NM  
at overpasses

like t






as it  
Tx star  
fine.

make it look  
like a highway

# CONTEXT SENSITIVE SOLUTIONS

## OPTIONS FOR SHARED-USE PATH HARDSCAPING

### CONCEPTUAL CROSS SECTION FOR SHARED-USE PATH




10 foot shared-use path with 5 foot buffer as right of way allows

*of approximately 10' to the right of the path to provide a buffer for the path. The path is 10' wide and the buffer is 5' wide. The total width is 15'.*

*Width of way to give the proper dimension*

### LIGHTING OPTIONS




*Level path lighting*

*Save reduction of power*

*Rice Bros Pkwy 100' Street Lights*

*Urban Heat Island Effect Mitigation*

### PAVING OPTIONS




*Enhanced paving at high bike and pedestrian areas*

*Colored, textured herringbone treatment*

*Washington County Approaches Department for Bikes*

**LOOP 360 PROGRAM**

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# UTIONS SCAPING

of Transportation

Sound  
Reduction  
w/ pavement

Like keep  
w/ low

G OPTIONS



vel path  
lighting

Rice Texas

Lessen  
Heat island



vel path  
lighting

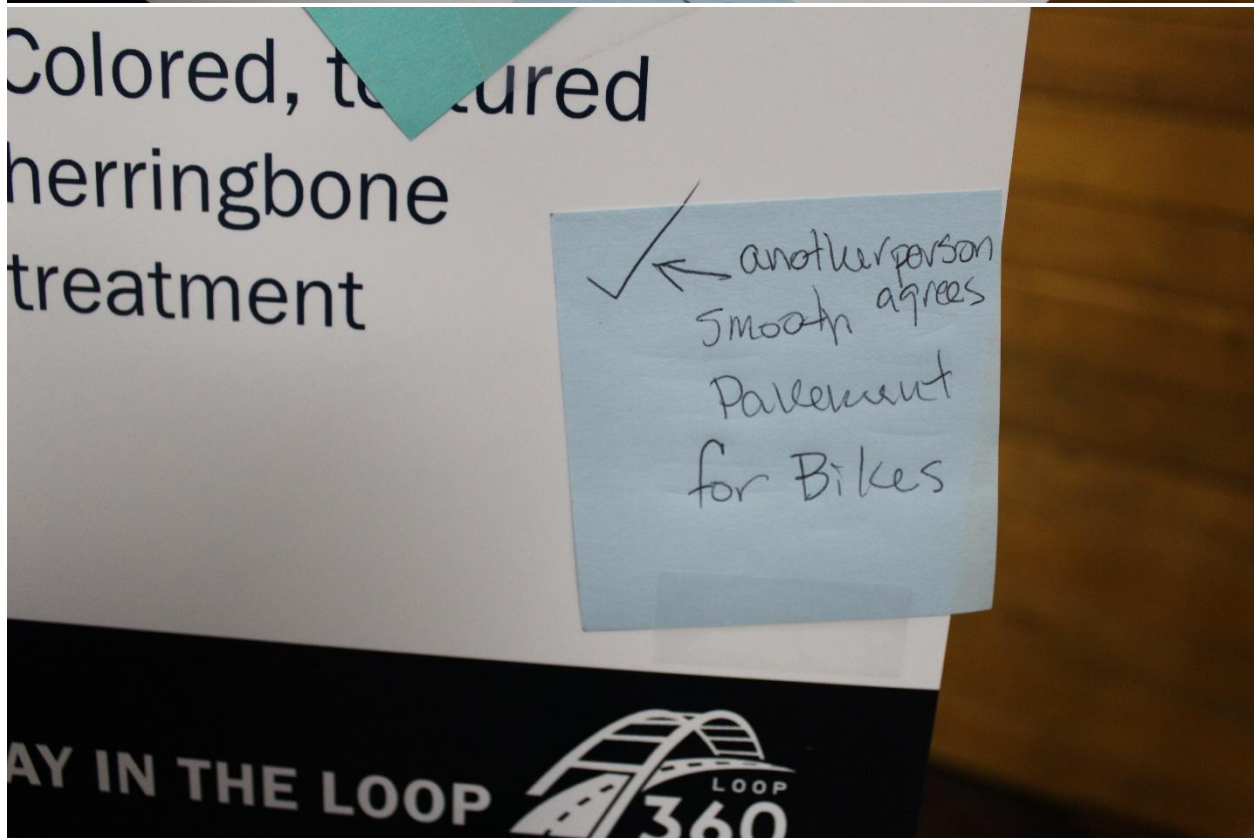
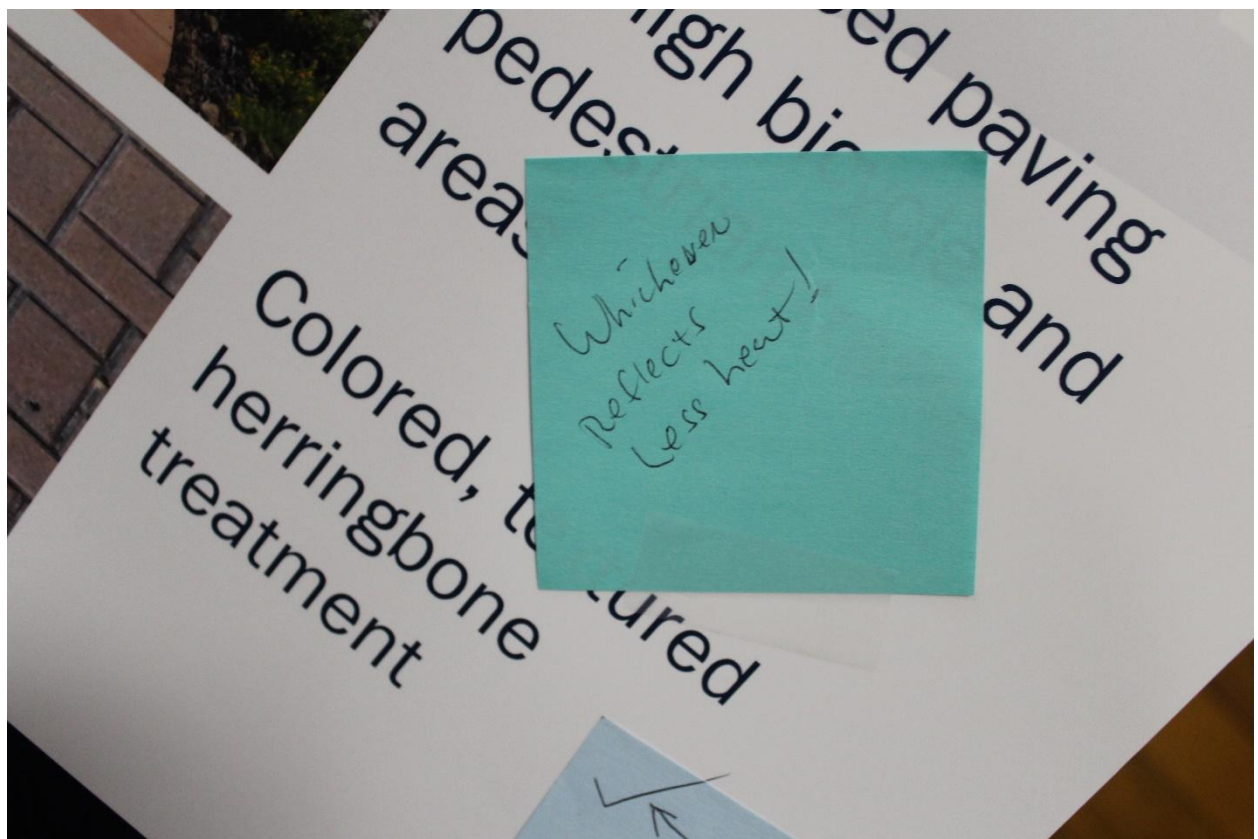
Rice Texas  
Policy lab  
Social  
Sciences

Lessen  
Heat island  
effect.  
w/ pavement

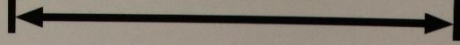
PTIONS



Enhanced paving  
at high bike and







10 foot shared-use path with 5 foot buffer

I strenuously  
object to the proposal  
to use this type  
of design at the  
Courtgard Drive/360  
intersection. It  
destroys the natural  
beauty.

ffer as right of way allows

Waste of money  
to pay for  
Peoples Recreation



**What do you like about the proposed Context Sensitive Solutions (CSS) options (i.e. intersection treatments, landscaping and plants, bridge supports and shared-use path hardscaping)?**

1	I would love a separate shared use path! I also like the use of native plants in the landscaping.
2	I like the "Standard Sloped" bent cap and either the round or square columns. I also really like the white or very light-colored stone shown in one of the pictures. It makes the underneath area much brighter and not just drab dark gray cement that looks dirty and dingy over time. Also, please keep the wildflowers in the surrounding greenspace around the road ways. They help make 360 beautiful in the spring and summer.
3	It seems nice
4	It looks fine but is starting to look like 360 will look like 183 with these changes. Also, adding more live and red oaks to an area that is in danger of having oak diseases is not a good idea.
5	More landscaping the better
6	Nothing.
7	This would hopefully be a huge improvement. There are so many people running red lights on 360 and getting into deathly collisions.
8	I think it could be attractive.
9	Option 2 is the preferred choice. It looks more natural.
10	Seems well thought out. Hopefully, these will be low-maintenance. Would it be cost-prohibitive to add a protective barrier of some sort between the mainlines and the SUP, in addition to the 5-ft embankment?
11	Nice, keeps the intersection pleasant to look at
12	The more plants we have the better. I appreciate the shared-use path very much. This is critical to ensure pedestrian safety on this busy road.
13	two DDI interchange options
14	like the support with the standard slope on the top
15	STRONGLY in favor of honoring dark skies initiative, with lighting installed only at intersections. Prefer Std Sloped bridge supports. Pleased that durable, drought tolerant landscape is included in project.
16	I don't understand if Options 1 & 2 are both to be included or are alternatives. Same with bridge supports. I definitely favor using natives species, but Arizona Cypress? I also endorse the Dark Skies initiative.

**What do you dislike about the proposed CSS options?**

1	A focus on prairie grass rather than the groupings in option one would be better overall. Since prairie grasslands are the fastest disappearing habitat, providing them whenever possible helps grassland birds as well as storm water flow!
2	Dedicated bike path (not shared use) is more important as 360 is a very popular bike route. It is my experience that concrete bike paths are terrible compared to asphalt which is smoother as it doesn't have seams/cracks. Shared use paths will push recreational cyclists onto the road because mixing pedestrians, casual riders,

	and recreation riders in the same space is dangerous.
3	There is no indication that anyone has thought about noise reduction. Again, this is an environmentally sensitive area and it's being treated like building another Mo-Pac.
4	All of it. It's too big and industrial for the area.
5	The highway is beautiful as it is now. I hope even though it may look different the beauty of it stays.
6	It does not look like you are designing this for the cyclists who already use Loop 360. Bike paths should not be made of concrete (concrete is rough and unpleasant to ride on with high-pressure tires). You need to make the path as smooth as possible, and make it easy to maintain. Keep stops to a minimum. Make sure that the path is at least 12 feet wide to accommodate pedestrians with pets AND cyclists.
7	This area is part of the Hill Country which is what makes it so nice. Please try to keep that natural, wild look and not make it look like a mass produced strip mall type infrastructure construction. More nature, less concrete.
8	Colors are a bit bland, but I realize there are limitations.
9	I don't like the fake brick paving pattern on the path. It increases rolling resistance and does not really increase traction on the surface, and is sure to be unnecessarily expensive.
10	Nothing
11	More shared use paths
12	Don't use bright colors in hardscape. They should be muted to blend in.

**What other comments or feedback do you have about the proposed CSS options?**

1	I would love to see the main roads of 360 be sunken with large berms (as shown in one of the drawings) on either side to restrict the visual and auditory impacts of creating an expressway through a sensitive and mostly residential area. For the overpasses, enclose the sides with walls for noise reduction.
2	While I welcome the other overpass / underpass options up and down 360, the intersection at Lakewood should not be an overpass / underpass. it's too big and "industrial" for the area. Planting pretty plants and making fake rock out of concrete is not going to make this project more palatable.
3	Loop 360 is a favorite route for weekend group rides -- 20 to 50 cyclists riding in a group. These facilities should be designed with that kind of activity in mind.
4	Good luck.
5	Nothing
6	Prefer enhanced landscape, hardscape and accents.
7	Let's not forget about wildlife crossings.