

Context Sensitive Solutions in Practice

CSS Workshop
South Texas ITE Section
& WTS-San Antonio Region



Gary W. Schatz, P.E., PTOE
Austin Transportation Department
July 27, 2010

Traffic Engineering “Basics”

- Mobility - movement of people and goods within the transportation system
- Traffic - includes all roadway users
 - Pedestrians
 - Bicyclists
 - Transit riders
 - Motorists
 - Ridden or herded animals¹

¹ Texas Transportation Code §541.301

Traffic Engineering “Basics”

- Intersection Efficiency → Corridor Capacity
 - Roadway Up to 1,900 vehicles/hour/lane
 - Intersections
 - All-Way Stop Up to 400 vehicles/hour/approach
 - Traffic Signal Up to 600 vehicles/hour/lane
 - Roundabout Up to 1,200 vehicles/hour/lane

CSS In Practice: The Context

- Population and Vehicular Traffic Increasing
 - Limited modal options
 - Aging population
 - ADA is 20 years old; Limited progress
- Limited Funding and “Political Will”
 - Aging infrastructure
 - New corridors unlikely
 - Acquiring ROW challenging
 - Socio-economic and Environmental Impacts

CSS In Practice: Austin Strategic Mobility Plan

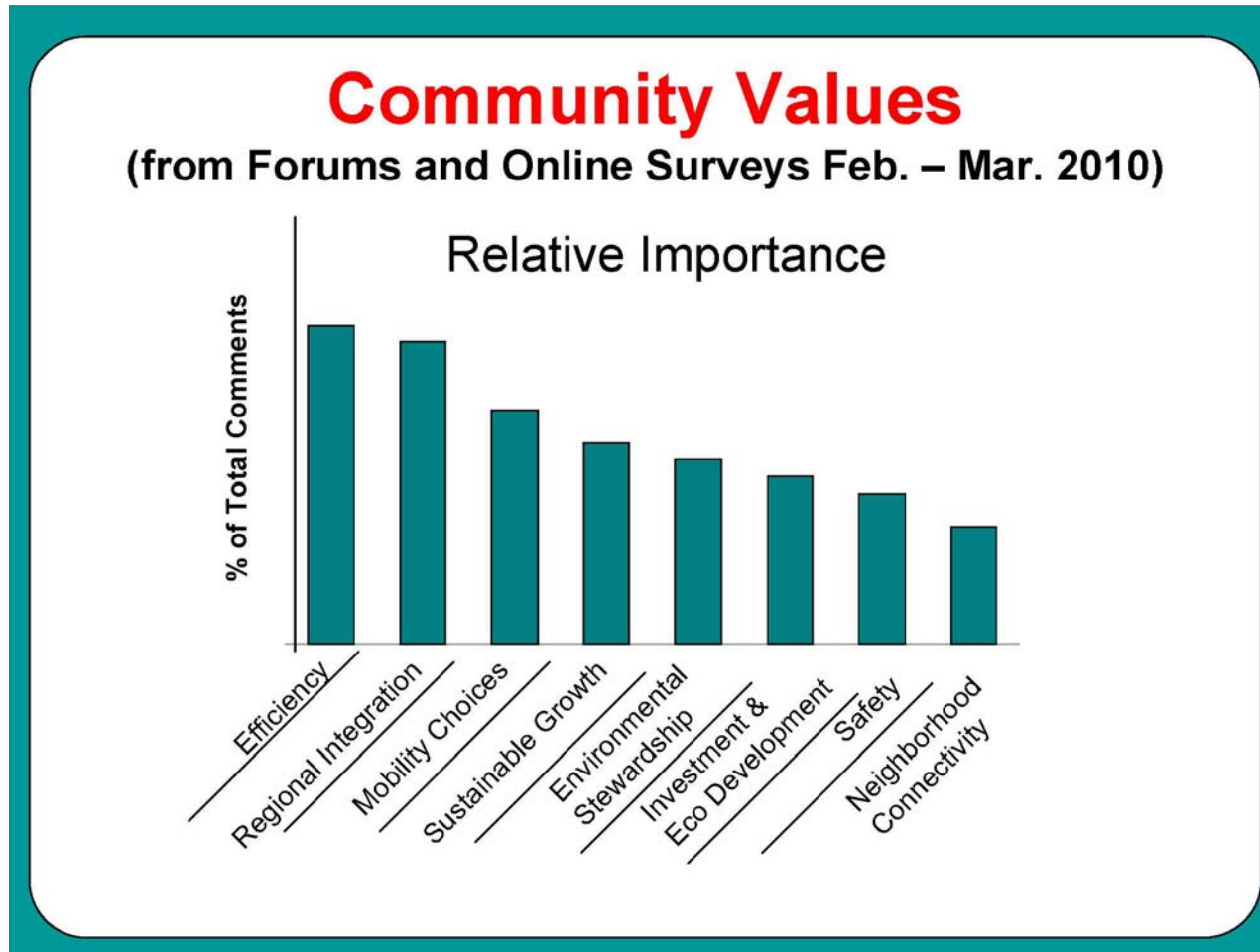
Strategic Mobility Plan Vision & Mission

- **Vision:** An integrated mobility network for all of Austin
 - provide safe, efficient and diverse choices for people to travel.
- **Mission:** Prioritize City transportation plans and investments according to key community values to meet the vision; support and inform the Imagine Austin Comprehensive Plan as well as other City planning efforts.



From *Austin Strategic Mobility Plan Open House*, June 17, 2010

CSS In Practice: Austin Strategic Mobility Plan



From *Austin Strategic Mobility Plan Open House*, June 17, 2010

CSS In Practice: Austin Strategic Mobility Plan

Partnerships Address Regional Gaps

MoPac Loop 1 Mgd Lanes Design
\$184.4 million (TxDOT, CTRMA)
\$350,000 COA bond & grants
2011 Design/build anticipated

Capital Metro BRT Construct.
\$80 - 85 million (Cap Metro)
\$2 million COA bond (utilities)
2011 Construction

Loop 360 Feasibility
\$2 million (TxDOT)
COA In-Kind Contribution
2010-2011 Construction

**"Oak Hill Y" Congestion Relief
Projects Design & Construct**
\$4 million COA bond (TxDOT, CTRMA)
2011-2012 Construction

US 290 W & SH 71 W ("Oak Hill Y")
Environmental and Design
\$22.4 million (TxDOT, CTRMA)
2018 Construction

**South Loop 1 at Ben White
(Construct)**
\$13 million total project cost
City pass-through financing
September 2010 Construction

US 290 E Construct
\$344.8m CTRMA, TxDOT
City In-Kind Contribution
2012 Construction

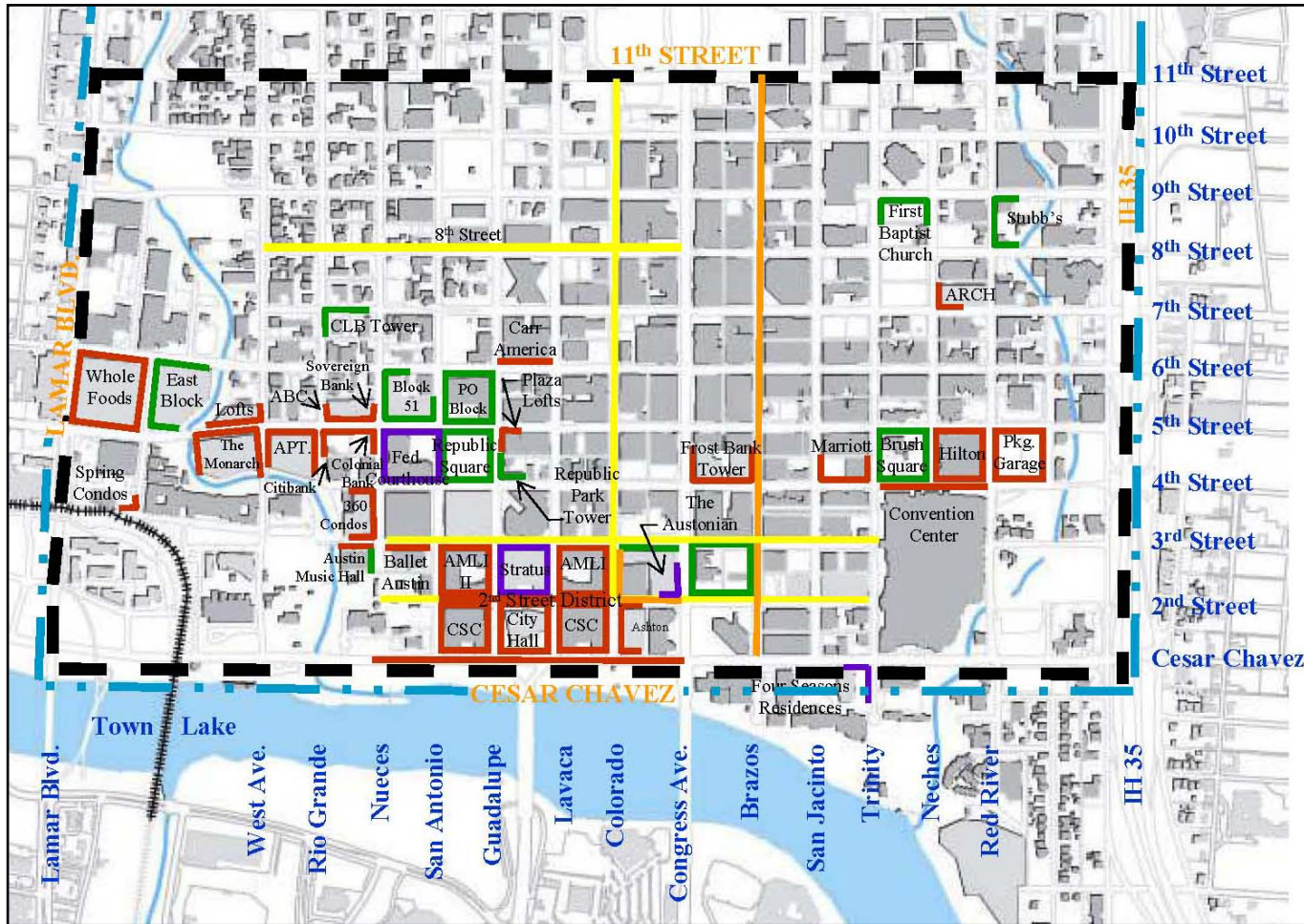
**US 183 S Construct
& Early Action**
\$223 million (TxDOT, CTRMA)
\$250,000 COA bond request
(early congestion relief projects)
2015 Construction (full project)
2012 Construction (early relief)

**IH 35 at Ben White
Construct**
\$25.6 million (TxDOT)
City In-Kind Contribution
Construction (on-going)

**SH 71 E (Including
Riverside Dr) Construct**
\$45 million (TxDOT)
City In-Kind Contribution
Construction 2013

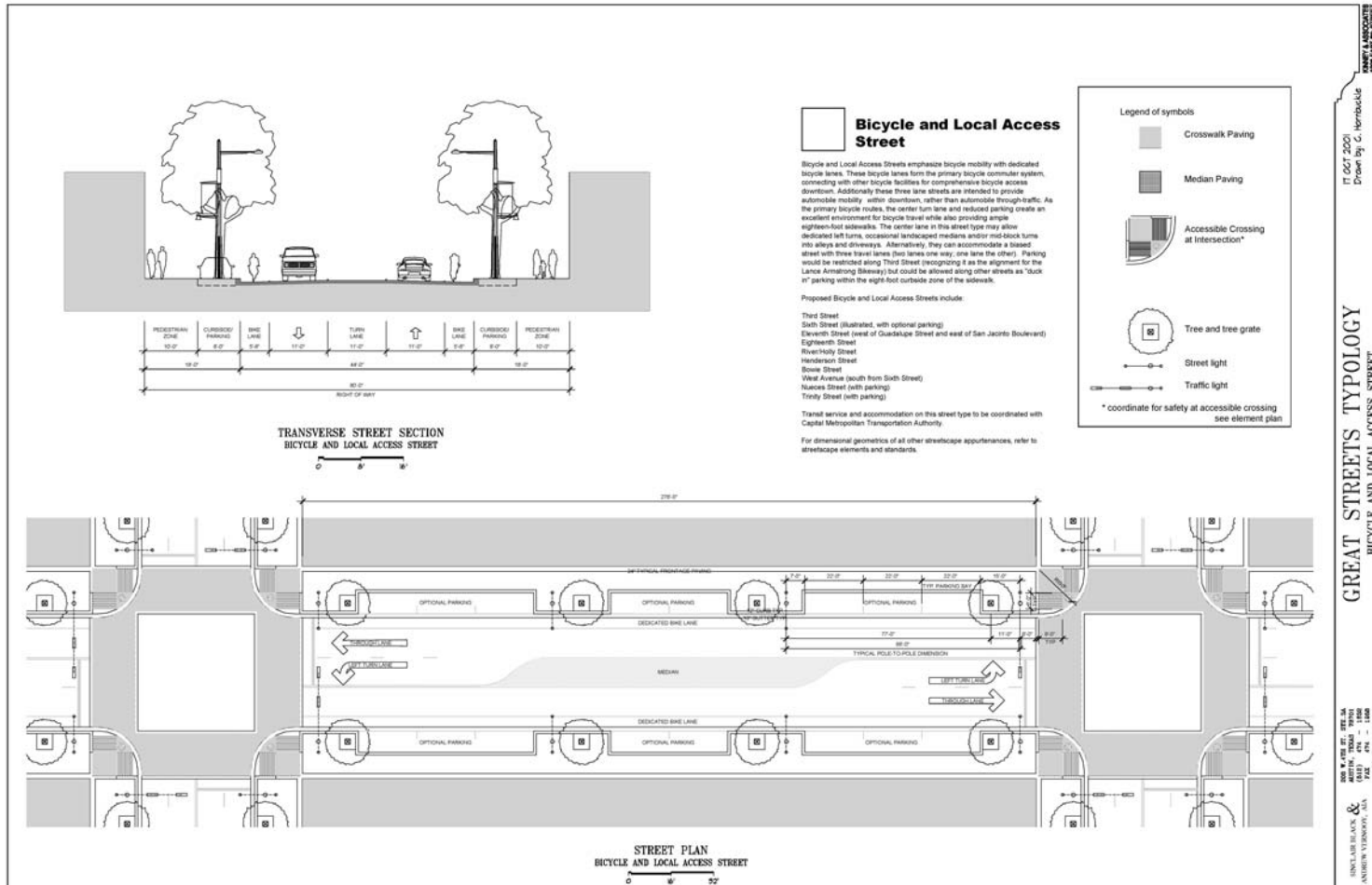
From *Austin Strategic Mobility Plan Open House*, June 17, 2010

CSS In Practice: Great Streets



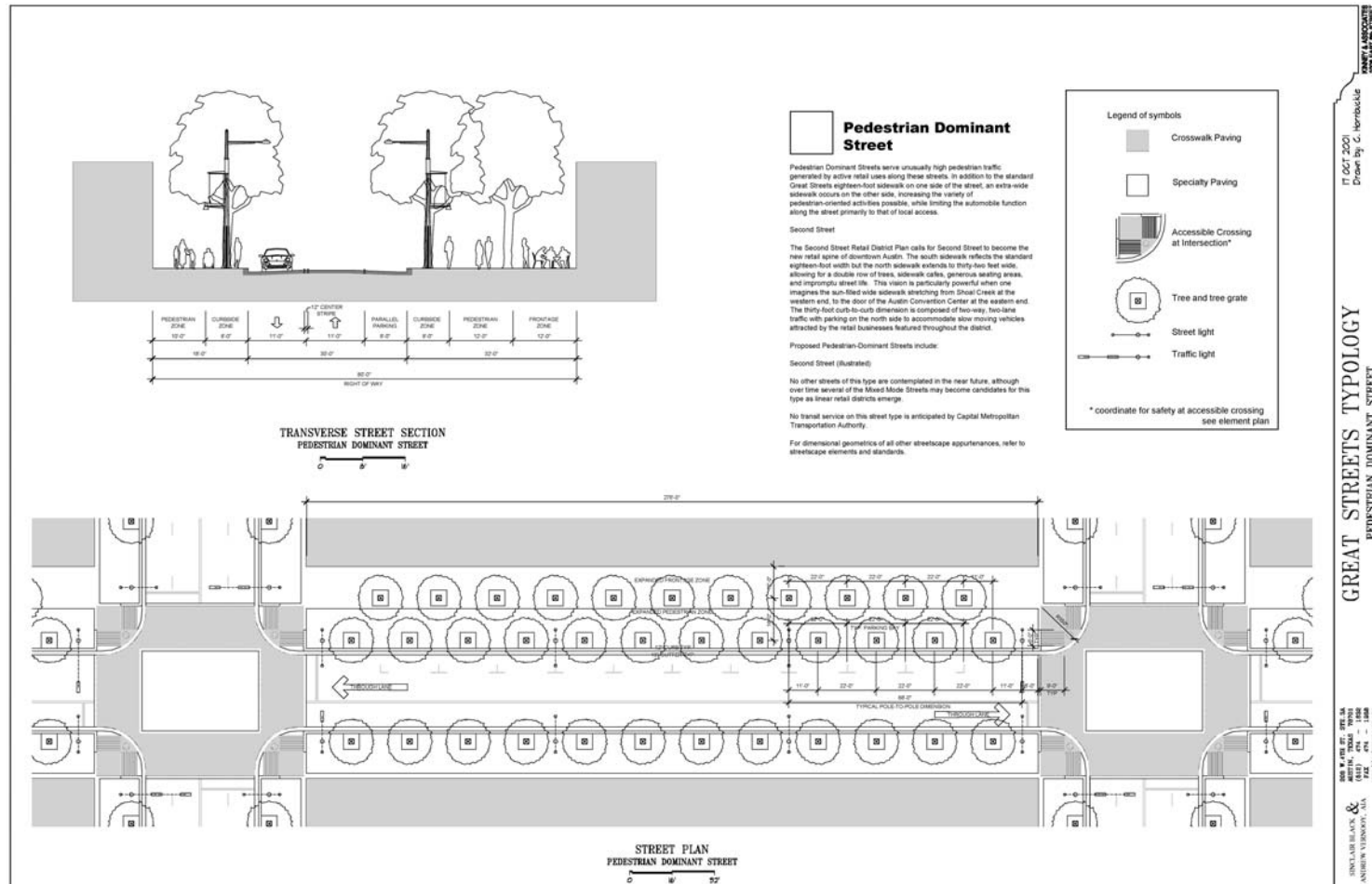
From *Great Streets Development Program*, City of Austin, 2010

CSS In Practice: Great Streets



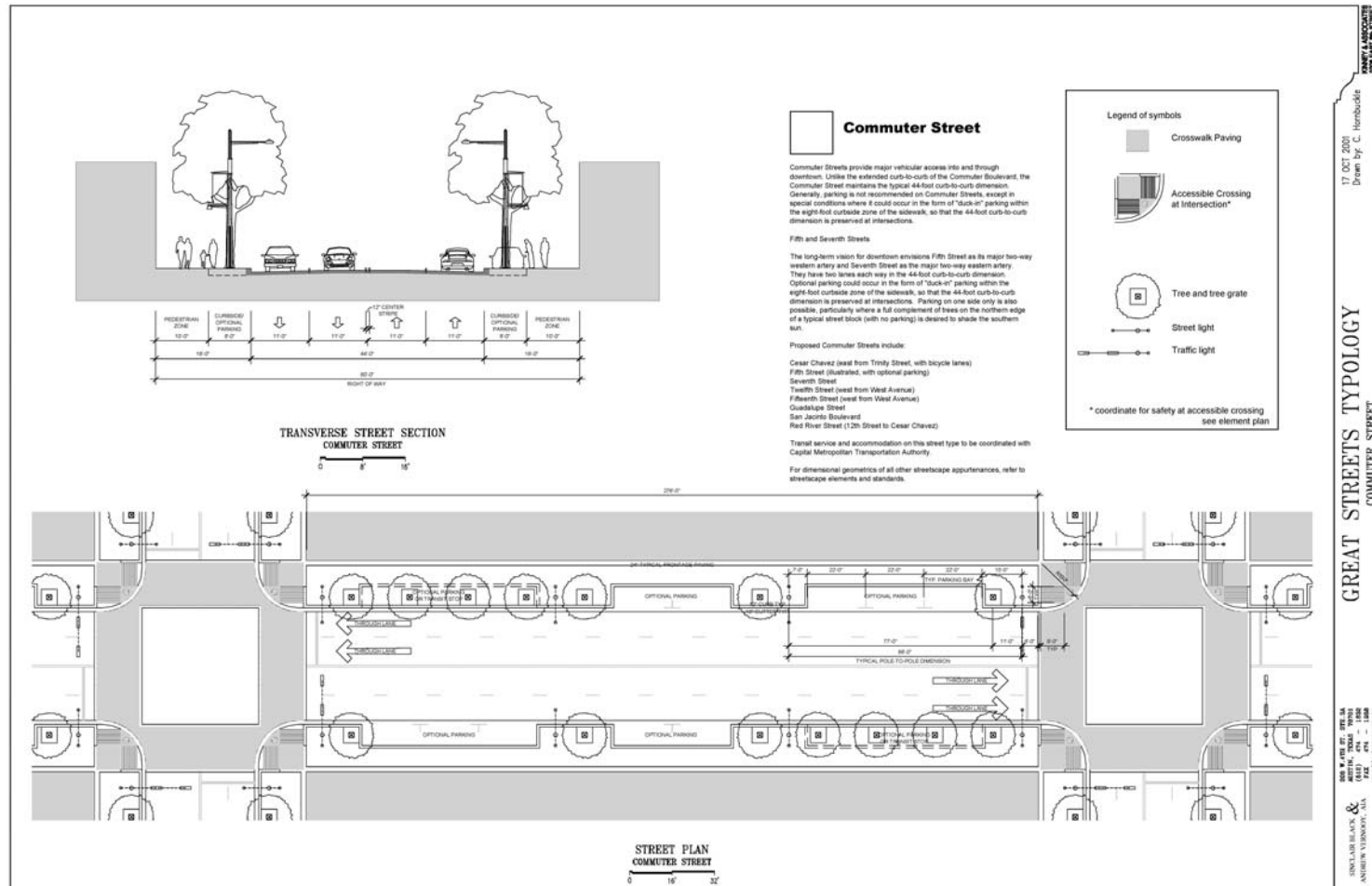
From *Great Streets Development Program*, City of Austin, 2010

CSS In Practice: Great Streets



From *Great Streets Development Program*, City of Austin, 2010

CSS In Practice: Great Streets



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CSS In Practice: Great Streets



Fifth Street, Austin, Texas

CSS In Practice: Great Streets



N. Lamar by *Whole Foods*, Austin, Texas

CSS In Practice: Great Streets



Austin City Hall, Second Street & Lavaca Street, Austin, Texas

CSS In Practice: Great Streets



Nueces Street, Austin, Texas

CSS In Practice: Great Streets



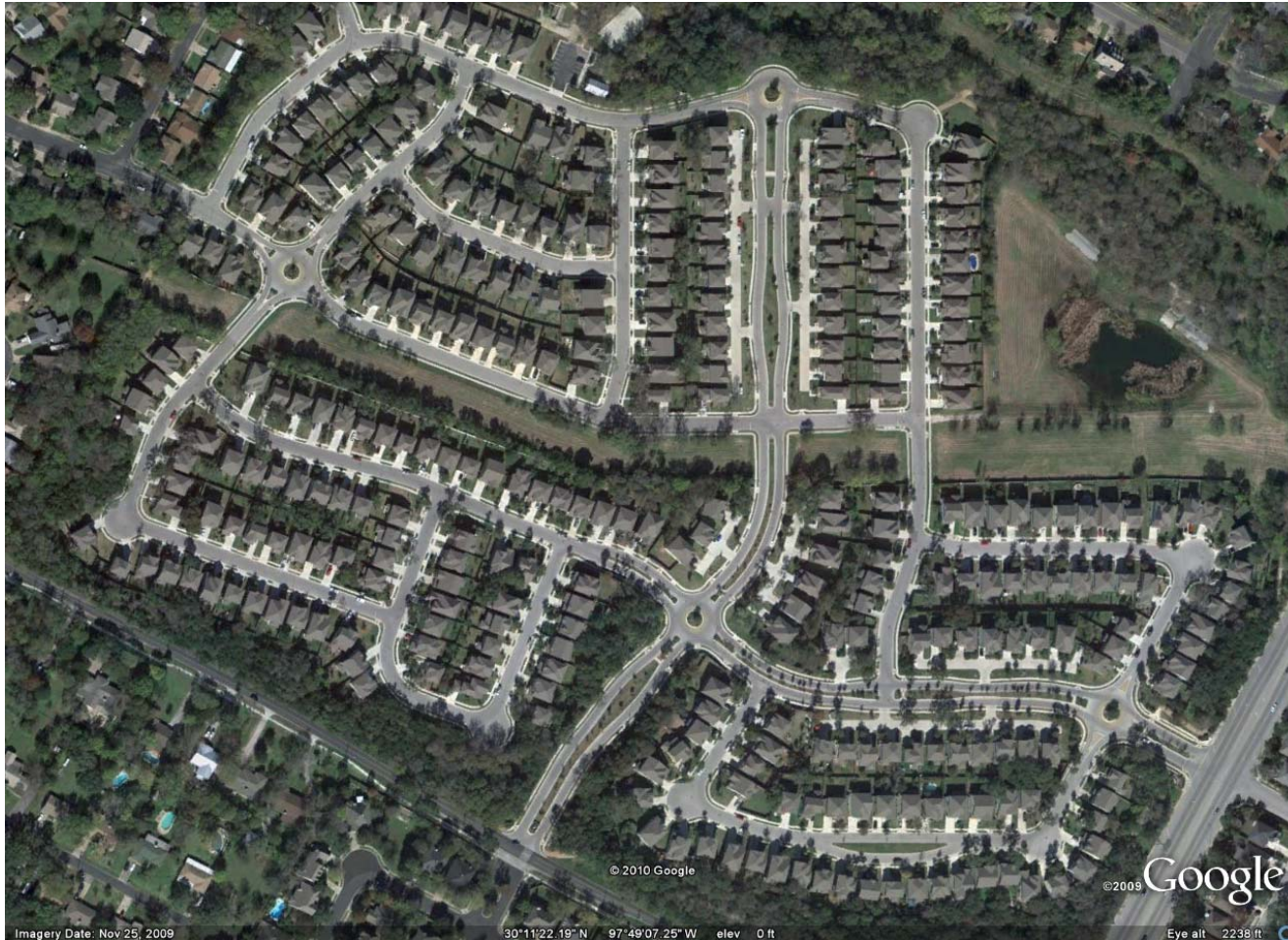
Second Street & San Antonio Street, Austin, Texas

CSS In Practice: Great Streets



Second Street, Austin, Texas

CSS In Practice: Grand Oaks, Austin, Texas



(Image from Google Earth)

CSS In Practice: Grand Oaks, Austin, Texas



CSS In Practice: Grand Oaks, Austin, Texas



CSS In Practice: Grand Oaks, Austin, Texas



CSS In Practice: Grand Oaks, Austin, Texas



CSS In Practice: Grand Oaks, Austin, Texas



CSS In Practice: Modern Roundabouts



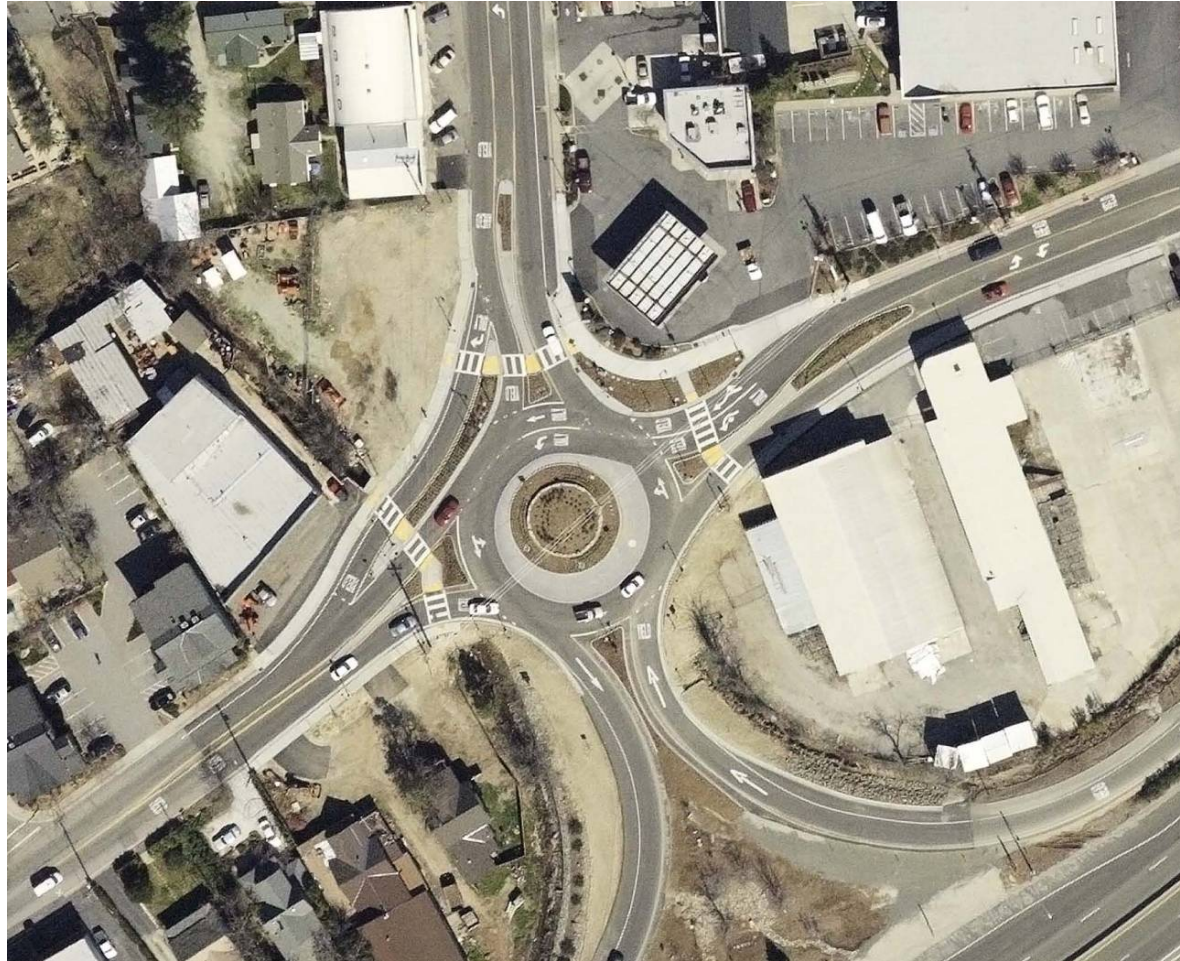
College Street – Asheville, North Carolina
(Images from www.iihs.org)

CSS In Practice: Modern Roundabouts



Dunning Street (SR 9) – Malta, New York
(Image from Google Earth)

CSS In Practice: Modern Roundabouts



East Main/Idaho/Maryland Road/SH 20 Ramps Roundabout – Grass Valley, California
(Image courtesy of Reid Middleton)

CSS In Practice: Modern Roundabouts



Jefferson/Webb/Coffey Roundabout – Daingerfield, Texas (Before)
(Image courtesy of Brown & Gay, Inc.)

CSS In Practice: Modern Roundabouts



Jefferson/Webb/Coffey Roundabout – Daingerfield, Texas (After)
(Image courtesy of Brown & Gay, Inc.)

CSS In Practice: Modern Roundabouts



US 2 & US 302 Roundabout – Montpelier, Vermont
(Image courtesy of City of Montpelier, Vermont)

CSS In Practice: Modern Roundabouts



Roundabout at Cotton Elementary School – San Antonio, Texas
(Image from Google Earth)

CSS In Practice: Modern Roundabouts



Roundabout at Cotton Elementary School – San Antonio, Texas

CSS In Practice: Modern Roundabouts



SH 10 Roundabout – Hanover, New Hampshire

CSS In Practice: Issues of the Profession

- Standard Designs vs. Creation of Place
- Engineering vs. Imagineering
- Auto-centric vs. People-centric

“Find a way to say ‘yes’ so that when you do say ‘no’, they believe you.”

M.C. Ollar, P.E. Division Engineer, Oklahoma Department of Transportation

Questions?



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