MADISON DEPARTMENT



Transportation Demand Management Program

City of Madison Department of Transportation

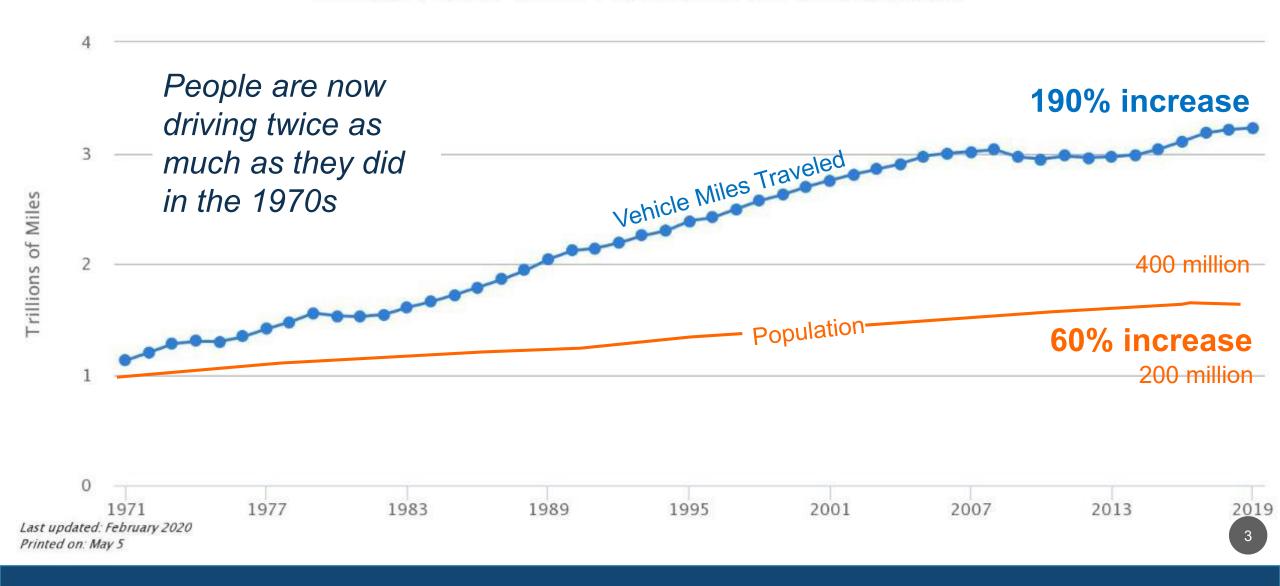
Philip L. Gritzmacher, Jr., AICP

WHAT IS TRANSPORTATION DEMAND MANAGEMENT?

A package of policies and strategies designed to increase transportation system efficiency and shift travel patterns to reduce the number and length of single-occupancy vehicle (SOV) trips.



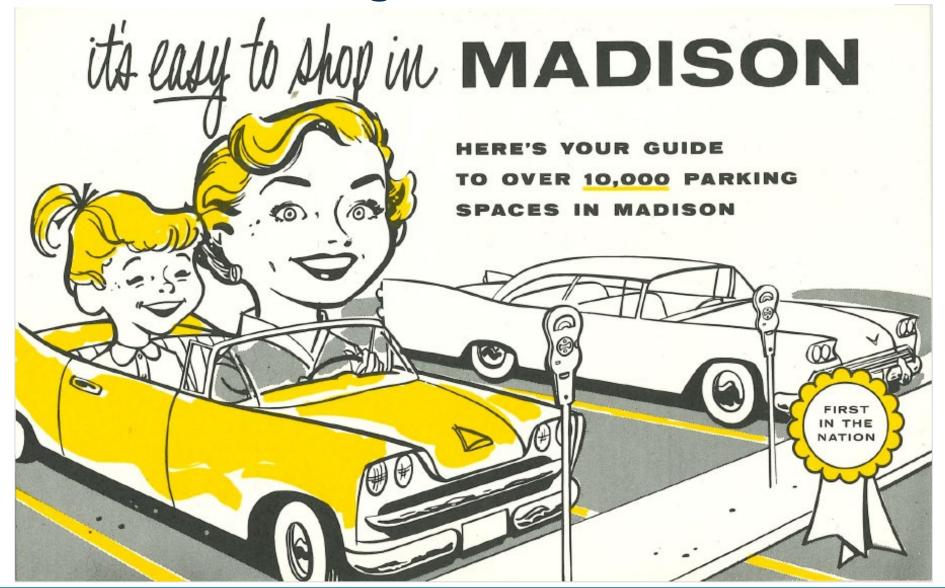
Annual Vehicle Miles Traveled in the United States



50 Years - Auto Funding and Investment



50 years - Auto Funding and Investment





Why Madison, Wisconsin Attracts More Millennials Than Any Other City

How Madison's talent base makes it a major player for attracting

"Madison is where Austin was in the



late 1990s. It has the talent, access to capital, connectivity and livability that is seen in all major growing startup

markets."

Study shows Austin traffic congestion among the nation's worst







MOST POPULAR

- November 2018 election results Nov 6 at 4:28 PM
- Cruz edges O'Rourke by 3 points, says he will 'represent every Texan' Nov 7 at 12:53 AM
- Bastrop County assistant DA arrested, charged with family

https://www.statesman.com/news/20130516/study-showsaustin-traffic-congestion-among-the-nations-worst



Posted May 16, 2013 at 12:01 AM Updated Sep 27, 2018 at 12:00 AM









Another day, another study showing Austin traffic is bad. And getting worse.

INRIX, a Kirkland, Wa., company that collects real-time traffic data from more than 100 million vehicles worldwide using global positioning devices, rates Austin traffic as the fourth worst in the United States. And the company's recently released 2012-13 report indicates that traffic here bucked a national and international trend last year and got worse.

Austin traffic congestion increased 3 percent in 2012, compared to 2011, INRIX says, even as congestion fell 22 percent in North America and 18 percent in Europe. And for the first three months of 2013, congestion in Austin increased another 8 percent versus that same time period in 2012.

The average delay at rush hour in Austin, INRIX said, is about 22 percent compared to a similar trip taken in free flowing traffic. The national average is 6.6 percent.

A frightening view of things to come for Austin? Traffic congestion can be a job killer

















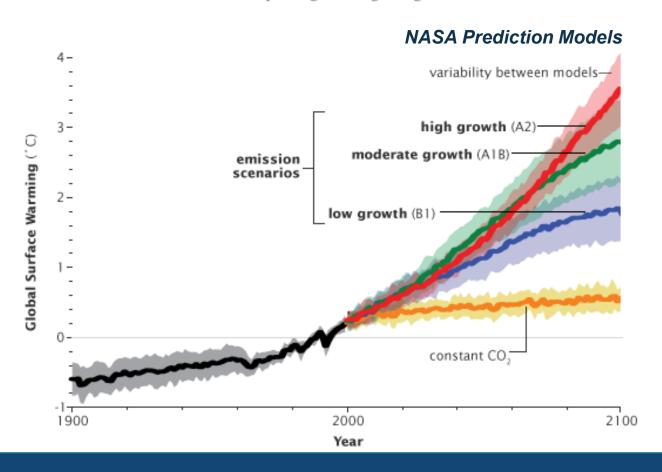


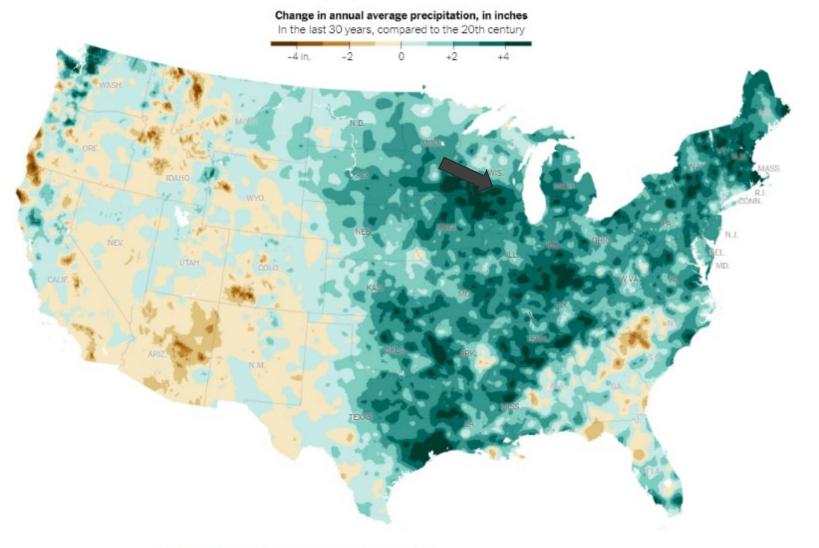
Downtown Austin traffic at Sixth Street and Lamar Boulevard.

NIOLD WELL OFFICE

A Hotter Future Is Certain, Climate Panel Warns. But How Hot Is Up to Us.

Some devastating impacts of global warming are now unavoidable, a major new scientific report finds. But there is still a short window to stop things from getting even worse.



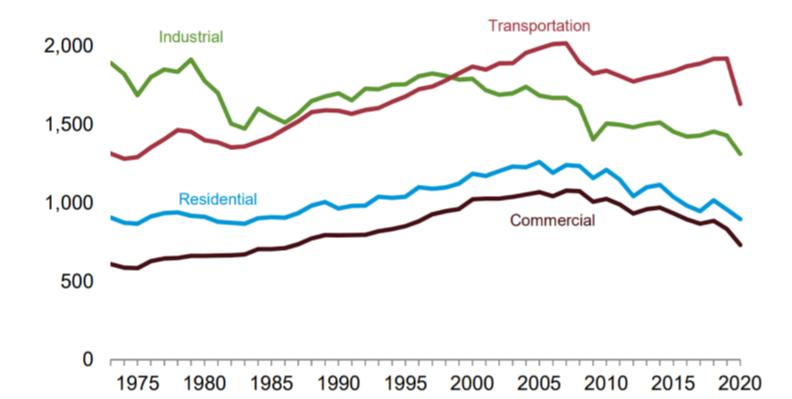




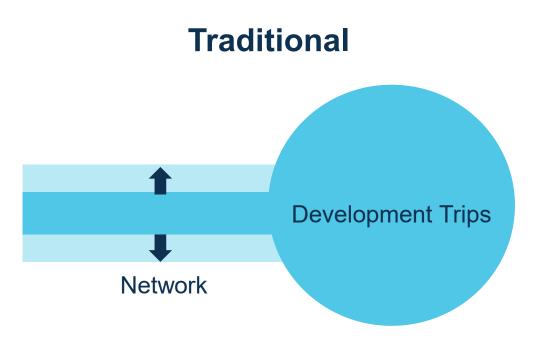


Carbon Dioxide Emissions by Sector

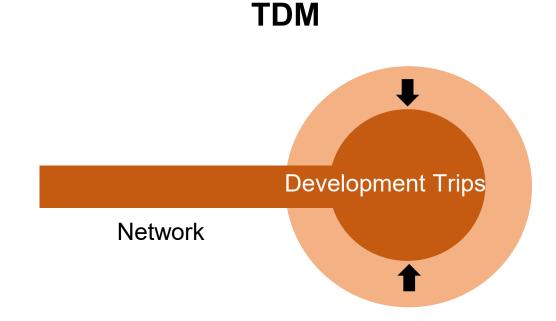
Total [a] by End-Use Sector [b], 1973–2020 2,500



Methods of Facilitating Growth



Increase network capacity to accommodate trips

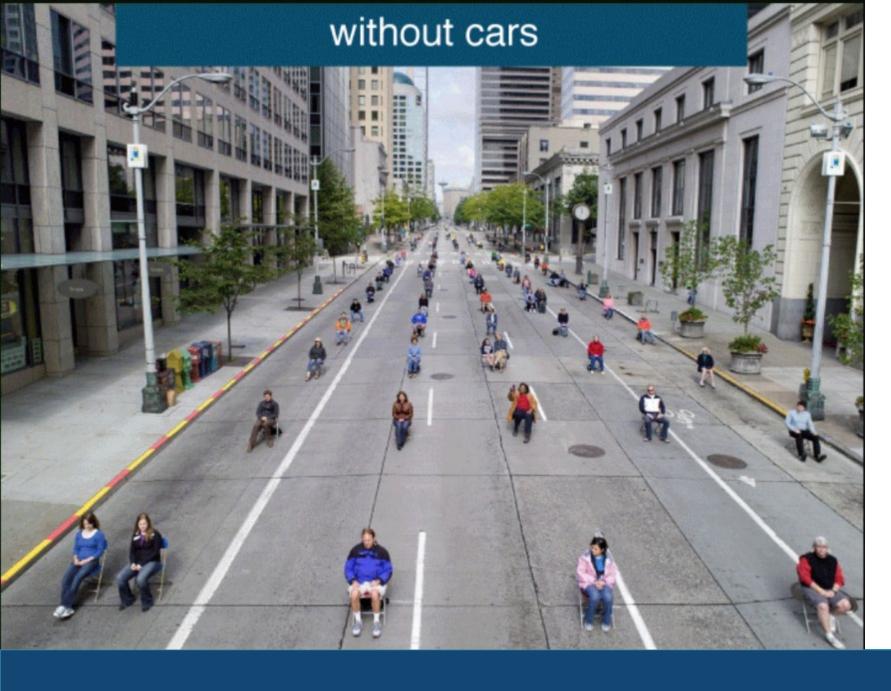


Reduce trips to accommodate network



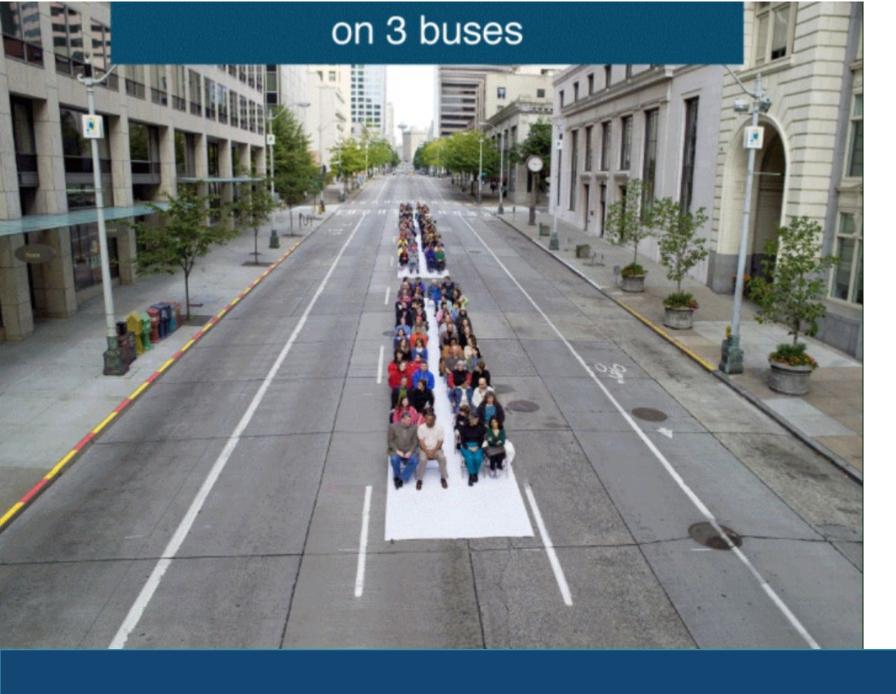
How Do We Facilitate Growth without Parking?

- Walking
- Biking
- Transit



How Do We Facilitate Growth without Parking?

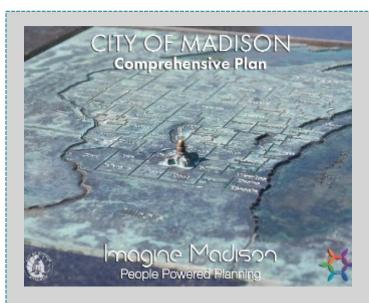
- Walking
- Biking
- Transit



How Do We Facilitate Growth without Parking?

- Walking
- Biking
- Transit

TDM is Aligned with City Plan Strategies



Strategy 5 Action:

c) Facilitate the creation of transportation management associations and implementation of **TDM strategies to serve high-intensity development** at Activity Centers and along major transit corridors.

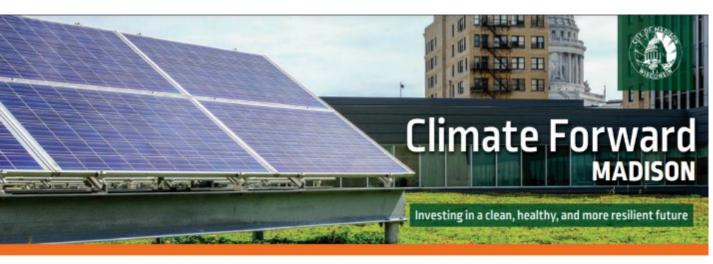


Priority Recommendations:

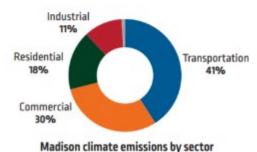
- 11. Develop a prototype TMA in Madison, at an appropriate area of the city, to organize individual employers and **administer TDM initiatives**.
- 12. Evaluate employer-based **TDM measures to increase the use of alternatives to the SOV** and reduce the need for parking.

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Aligned With Sustainability Vision



Climate change threatens our health, our economy, our environment, and our quality of life. Simply put, it is one of the greatest threats of our time, and we all need to do our part to fix it. Madison is ready to do its part. We know that making a big dent in our emissions will mean doing things a little differently. Luckily, changing our ways comes with a lot of benefits — cleaner air and water, lower asthma rates, lower energy bills, less flooding, and more jobs. Madison is ready to step up and build a better economy and community for our future.



Continue to invest in transit and other low-carbon transportation modes

- Charge forward by constructing a bus rapid transit system with clean electric buses
- Continue improving and expanding Metro routing to provide fast, frequent service
- Require new development to incorporate features that help future residents and workers get around without a car
- Construct bike lanes and bike paths to eliminate barriers and reach unserved areas
- Keep improving our street crossing to improve access and connectivity for walking

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TDM In Madison Land Use Regulations

Conditional Use

Give consideration to TDM measures and participation in a transportation management association (TMA).

Planned Development District

A TDM plan may be required to resolve traffic and parking concerns. It should include measurable goals, strategies, and actions to encourage travelers to use alternatives to driving alone, especially at congested times of day.

Employment Campus District

Requirement of master plan for any rezoning submittal which needs to have a TDM Plan with measurable goals, strategies, and actions to encourage non-SOV trips.

Mixed Use Center District

City Traffic
Engineer may
require a traffic
impact analysis
(TIA) to determine
the impacts of the
District. A TDM
plan may be
required to resolve
traffic and parking
concerns.

Big-box Retail

Single retail
business
establishments of
or over 40,000 sq.
ft. with 100 or
more full-time
employees are
required to have a
TDM Plan or
participate in a
TMA.

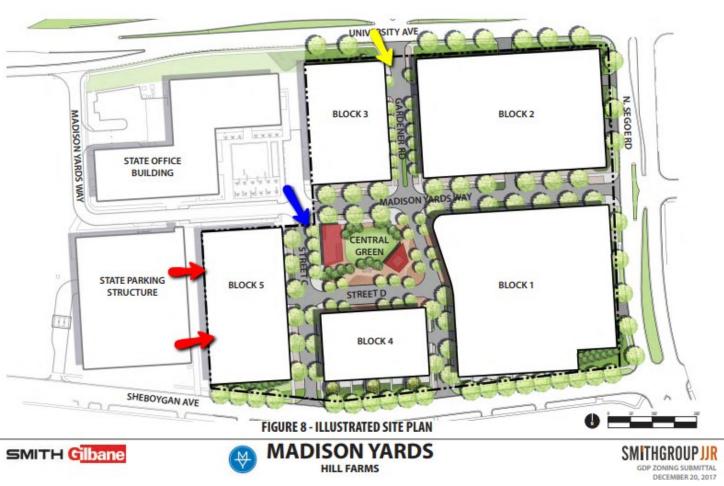


Current TDM Challenges

- Madison has been requesting/requiring some form of TDM and transportation impact mitigation through the development review process for over 20 years.
- Its application has been uneven.
- Developers are unsure what TDM measures may be required.
- Plan Commission and Council members struggle to determine how many TDM measures are enough to warrant approval – leading to prolonged discussions.
- Environment of uncertainty for developers and policy makers.

TDM in Madison – Madison Yards

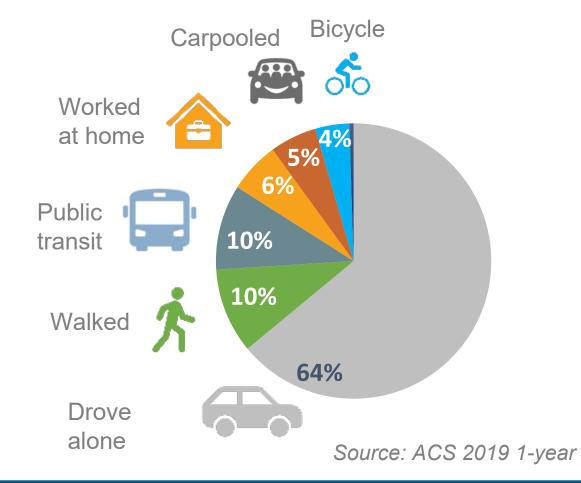
- 4/13/20 PC
- 4/27/20 PC
- 5/19/20 CC
- 6/8/20 PC
- 6/17/20 TPPB
- 7/14/20 CC over 1 hour
- 7/27/20 CC



What Would a New TDM Program Do?

- Roughly two-thirds of workrelated commute trips in Madison are SOV trips.
- TDM policies can shift travel patterns to reduce the number and length of SOV or drivealone trips by encouraging alternative ways of commuting and limiting new car travel.

Means of transportation to work in Madison



Purpose & Community Benefits

- Limit negative traffic impacts such as emissions, noise and congestion, by improving sustainable transportation choices, infrastructure, and services.
- Also proactively address localized issues of public health and safety, livability and multimodal access.



Support equitable transportation options



Reduce congestion, travel delay, noise and air emissions



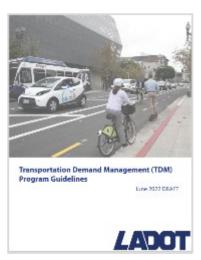
Support TOD and infill

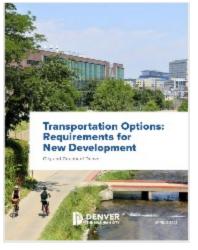


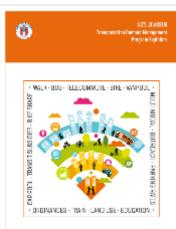
Address public safety impacts

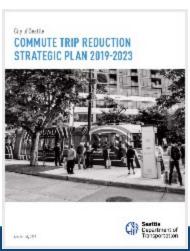


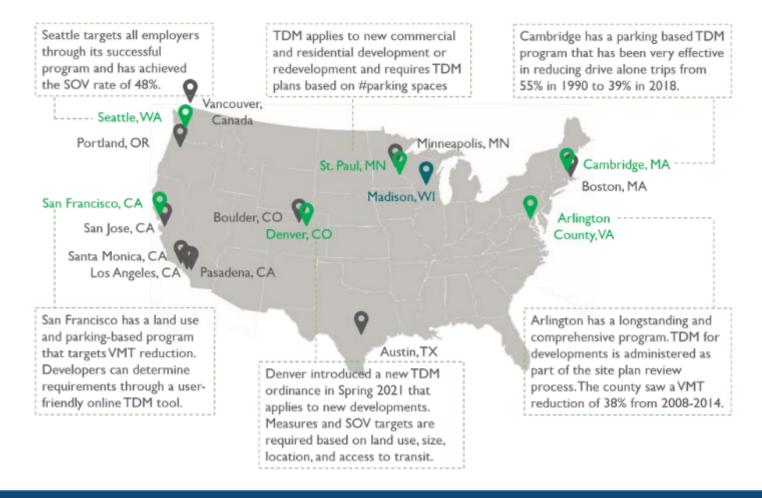
Communities Across the Country are Implementing TDM Programs

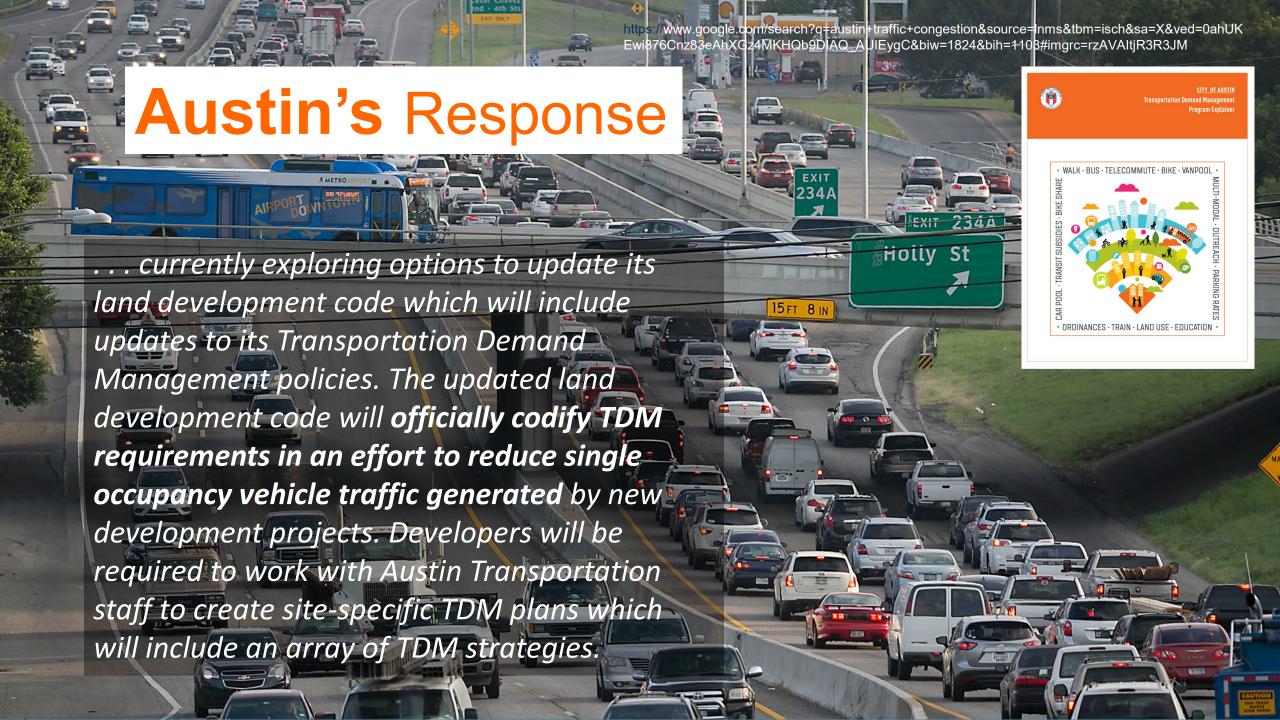












Madison's Proposed TDM Process

 Determine applicability

Step 1

Step 2

 Determine TDM requirements

- Create & submit TDM plan
 - Step 3

Step 4

Implement TDM measures; reporting and monitoring

Factors That Determine TDM Requirements



Land use(s)

Requirements and measures vary across residential and non-residential uses (employment, commercial, institutional).



Development size

Requirements are proportional to the development size, i.e., number of residential units or non-residential floor area.



Proposed parking

Requirements also depend on parking capacity. Higher parking ratios mean more TDM requirements.



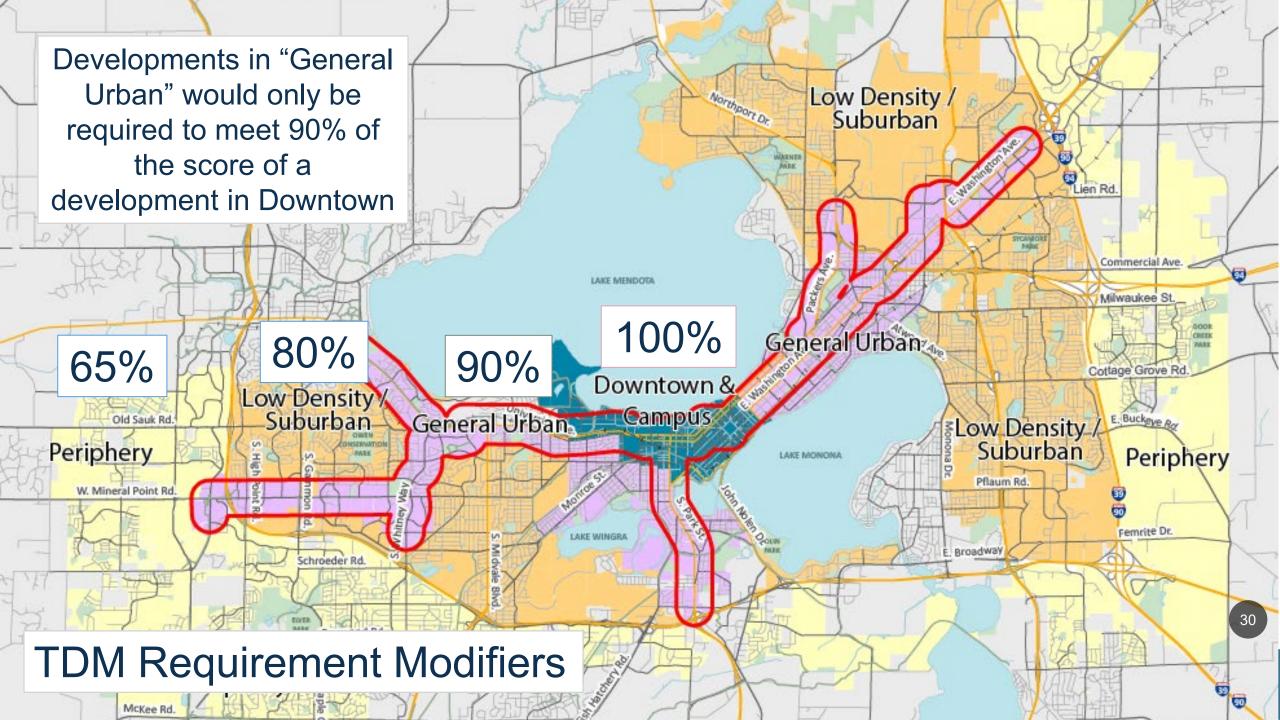
Location

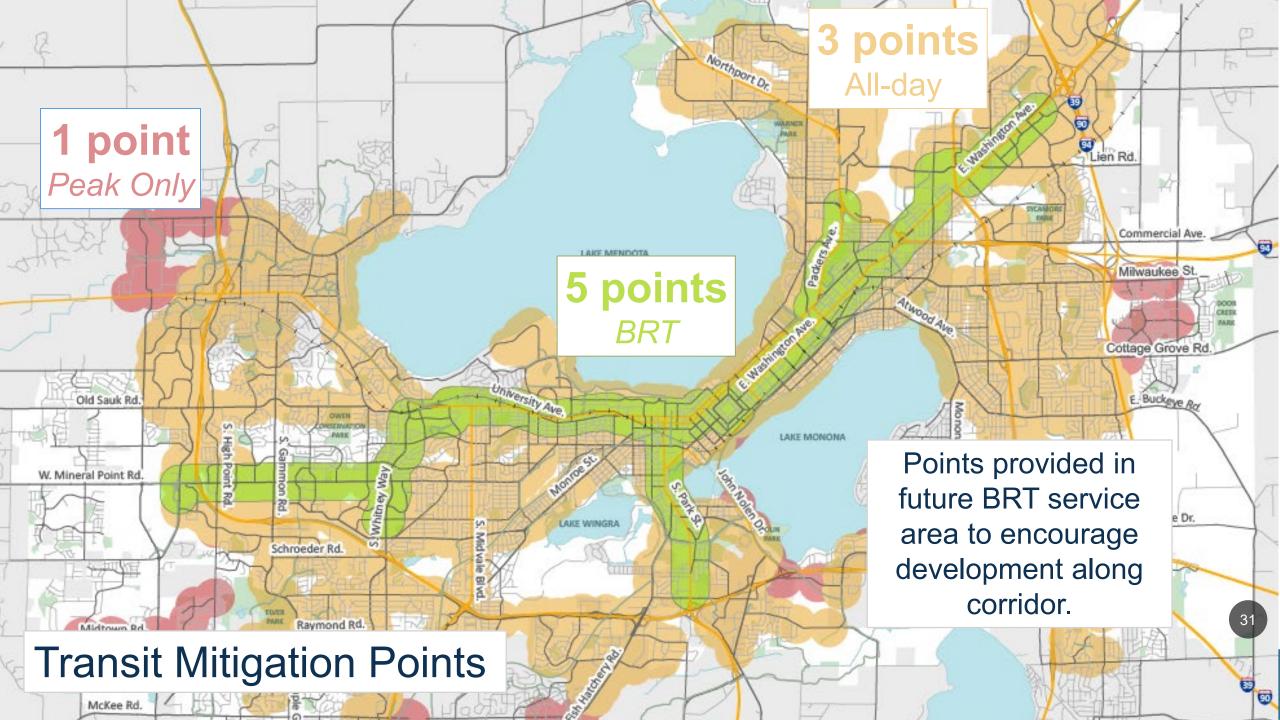
Proximity to transit service provides base points. Ability to implement measures influences TDM requirements.

Identify Mitigation Measures

- Each measure is worth points ranging from one to ten.
- Points depend on efficacy in reducing vehicle travel, documented best practices, cost, and contextual relevance for Madison.
- Measures may include modifiers for proximity to transportation services (transit, carshare, bikeshare)

Category	Code	TDM Measures	Max Points
Active	AT-1	Dedicated Access to Bike Parking	1
Transportation	AT-2	Indoor Covered Bike Parking	1
	AT-3	Bicycle Maintenance Facilities	1
	AT-4	Clothes Lockers and Showers	1
	AT-5	Bicycle Lockers or Secure Storage Room	2
	AT-6	Shared Fleet of Bikes for On-site Users	2
	AT-7	Off-site Bike Infrastructure	1-4
	AT-8	Off-site pedestrian infrastructure	1-4
	AT-9	Traffic calming	1-4
Transit	T-1	Validate Transit Passes for Visitors	1
	T-2	Subsidize Monthly Transit Passes OR Daily Passes	1-3
	T-3	Fund Transit Facilities and Amenities	1-4
	T-4	Complementary Transit Passes	7
Parking	P-1	Cash out for employees	10
Management	P-2	Unbundle Parking	10
	P-3	Market-Rate Parking Fees	10
	P-4	Shared Parking Agreement or Off-Site Parking	5
	P-5	Carpool preferential/free parking	1
Shared Mobility	SM-1	Provide a Shuttle bus	3
	SM-2	Provide Vanpool	3
	SM-3	Provide car share parking space.	2
	SM-4	Car share memberships	2
	SM-5	Install a bike share station	6
	SM-6	Provide memberships to employees and residents	2
	SM-7	Emergency Ride Home program	2
	SM-8	Shared Fleet of Vehicles	1
Information &	I-1	Marketing & informational campaign	1
Communication	I-2	Multimodal wayfinding signs	1
	I-3	Alternative Transportation Kiosk	2
Delivery	D-1	Delivery Supportive Amenities	1
	D2	Package Drop-Off Area	2
	D-3	Provide VMT-Reducing Delivery Services	1
Land Use	LU-1	Affordable Housing at 30% AMI	1-10
	LU-2	Affordable Housing at 60% AMI	1-5
	LU-3	Add Land Use Mix	1-5
	LU-4	On-site Daycare Facility	4
	LU-5	Provide Other Specific Trip-reducing Service	1
Employer	EP-1	Flexible Work Schedules Policy	1
Policies	EP-2	Work from Home Policy	1
Other	0-1	Join a Transportation Management Association (TMA)	1
	O-2	Innovative measure	As desired

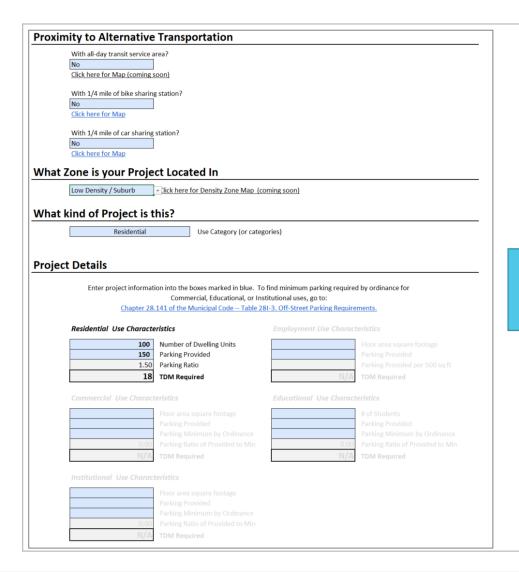


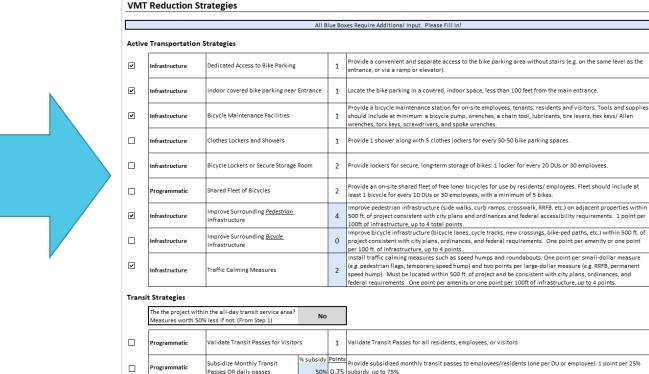


Would Use TDM Tool For Process

Required Points

18 Residential





Fund transit facilities and

Complementary Transit Passes

nfrastructure

Provided Points

23 Residential

Compliant

and real-time arrival screens. Up to 1 point per feature, up to a maximum of 4 points. Metro Transit must accep

3.5 Provide complementary monthly transit passes to employees/residents (one per DU or employee

proposal prior to points being awarded.

Hypothetical Project 1

 Property: 7400 block of Raymond Road

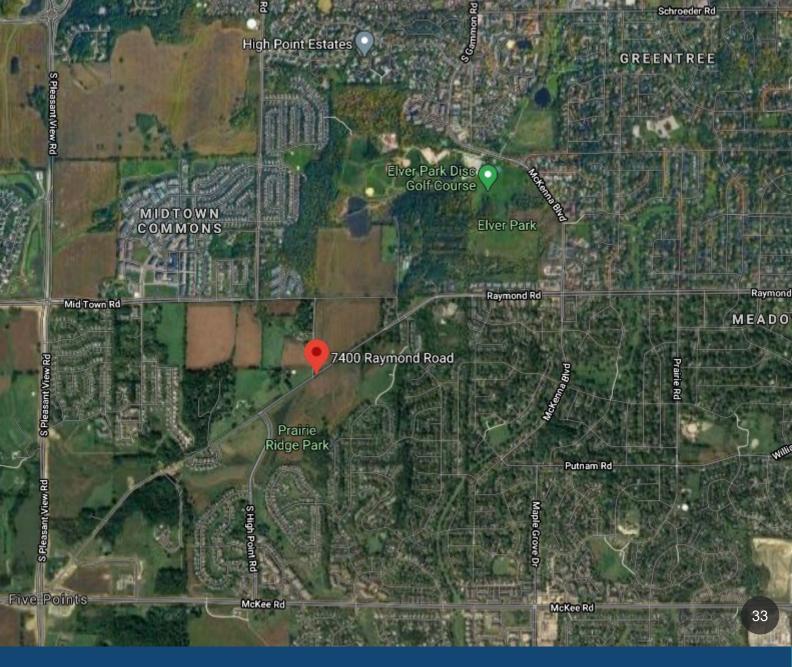
• Use: Residential

• No. of DUs: 100

Proposed parking: 150 stalls

Parking: 1.5 stall/DU

Project Size: Medium



Exploration Trial TDM Requirements: Residential

	Small	Low-Medium	Medium	High-Medium	Large
Residential uses	10-25 DU	26-50 DU	51-100 DU	101-150 DU	150+ DU
Parking Stalls per dwelling unit (DU)	Mitigation points required				
< 0.5	no TDM	5	7	9	12
0.5 - 0.99	no TDM	9	12	15	17
1.0 - 1.49	12	15	17	19	22
1.5 - 1.99	17	19	22	25	27
2.0 - 2.5	22	25	27	29	32
2.5 +	27	29	32	35	37

22 x 65% for Low Density/Suburban Area = 14 Points

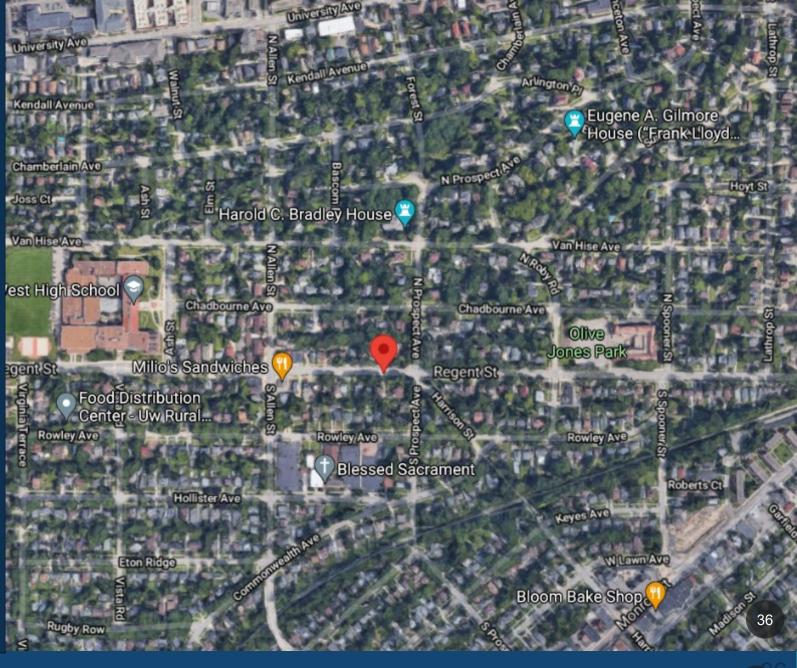
Earns 50% of points for Transit, Car Share, and Bike Share

Hypothetical Project 1 – Potential TDM Measures

Code	Hypothetical TDM measures	Points
AT-1	Dedicated Access to Bike Parking	1
AT-2	Indoor Covered Bike Parking	1
AT-3	Bike Maintenance Facilities	1
IC-1	Marketing and Information Campaign	1
P-1	Priced parking – Unbundled Parking	10
	TOTAL	14/14

Hypothetical Project 2

- Property: 2100 block of Regent Street
- Use: Commercial
- Floor area: 20,000 sq. ft. (grocery store)
- Proposed parking: 65
- Ratio of proposed parking to parking minimum: 1.30
- Project Size: Small



Exploration Trial TDM Requirements: Commercial

	Small	Low-Medium	Medium	High-Medium	Large		
Commercial uses	< 40,000 sf	40,001 -	100,001 -	150,001 -	> 200,000		
		100,000 sf	150,000 sf	200,000 sf	sf		
Ratio of proposed			-				
parking to use-specific	Mitigation points required						
parking minimum (PM)							
Under PM	no TDM	5	5 7	9	12		
1.00 - 1.24 times PM	no TDM	Ç) 12	15	17		
1.25 - 1.49 times PM	9	12	2 15	17	19		
1.50 - 1.74 times PM	12	15	17	19	22		
1.75 - 2 times PM	15	17	7 19	22	25		
2+ times PM	17	19	22	25	27		

9 x 90% for General Urban Area = 8 points

Earns 100% of points for Transit, Car Share, and Bike Share

Hypothetical Project 2 – Potential TDM Measures

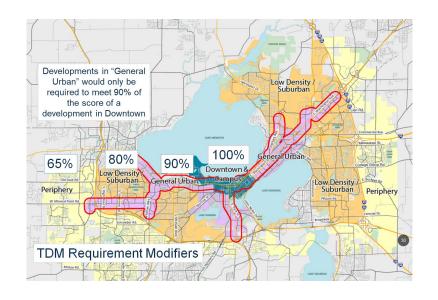
Code	Hypothetical TDM measures	Points
AT-6	Provide Complementary Bikeshare Membership or passes	2
IC-3	Alternative Transportation Kiosk	2
D-3	Provide VMT-reducing delivery services	1
LU-3	Proximity to Transit (All-day service)	3
	TOTAL	8/8

Other Considerations

- Program would go into effect 6 months after approval
- Program would not impact existing properties until:
 - Expansion of Parking
 - Expansion of Use
 - Change of Use (as defined in TDM Plan)
 - Redevelopment
- City / MPO to provide guidance for implementation for TDMinformation measures

Modifications due to Stakeholder Feedback

- TDM modifiers to reduce points requirements where TDM measures are harder to implement (periphery).
- Reduced the reliance on walkscore, which penalized new developments.
- Streamlined measures to reduce complexity.
- More closely aligned point values to coincide with cost to implement
- Developed procedure for existing mall and other multi-use sites.





Modifications due to Stakeholder Feedback

- Point reduction / appeals process added for special circumstances/cases
- Use of property deeds for TDM tracking, similar to leases
- Moved to bi-annual re-certification to reduce administrative burden for stakeholders
- Adding additional outreach meetings
- Adding report-out after 6 months, to gather feedback from those participating in program



Next steps

- Incorporate Additional Stakeholder Feedback
- Introduce to Council Sept 2022
- TPPB / PC October 2022
- Council Approval Nov/Dec 2022

Requi	red Points		Provided	d Poir	its	Compliant
18	Residential	Residential	23	Reside	ential	YES
	Employment			Emplo		
	Commercial			Comm		
	Educational			Educa		
	Institutional			Institu		
(Calcula	ted based on your inputs j	from Step 1)				
VMT	Reduction St	trategies				
			All D	lus Day	Denvise 6	dditional Input. Please Fill In!
			AII D	iue box	es Require A	additional input. Please Fill in:
Activ	Transportation	Strategies				
✓	Infrastructure	Dedicated Access to Bike Parking		1		onvenient and separate access to the bike parking area without stairs (e.g. on the same level as the rvia a ramp or elevator).
✓	Infrastructure	Indoor covered bike parking near	Entrance	1	Locate the b	like parking in a covered, indoor space, less than 100 feet from the main entrance.
v	Infrastructure	Bicycle Maintenance Facilities	ycle Maintenance Facilities			icycle maintenance station for on-site employees, tenants, residents and visitors. Tools and supplies ude at minimum: a bicycle pump, wrenches, a chain tool, lubricants, tire levers, hex keys/ Allen orx keys, screwdrivers, and spoke wrenches.
	Infrastructure	Clothes Lockers and Showers		1	Provide 1 s	hower along with 5 clothes lockers for every 30-50 bike parking spaces.
	Infrastructure	Bicycle Lockers or Secure Storage Room		2	Provide loc	kers for secure, long-term storage of bikes: 1 locker for every 20 DUs or 30 employees.
	Programmatic	Shared Fleet of Bicycles		2		on-site shared fleet of free loner bicycles for use by residents/ employees. Fleet should include at cle for every 10 DUs or 30 employees, with a minimum of 5 bikes.
v	Infrastructure	Improve Surrounding <u>Pedestrian</u> Infrastructure		4	500 ft. of pr	destrian infrastructure (side walks, curb ramps, crosswalk, RRFB, etc.) on adjacent properties within oject consistent with city plans and ordinances and federal accessibility requirements. 1 point per rastructure, up to 4 total points.
	Infrastructure	Improve Surrounding <u>Bicycle</u> Infrastructure		0	project con	cycle infrastructure (bicycle lanes, cycle tracks, new crossings, bike-ped paths, etc.) within 500 ft. of sistent with city plans, ordinances, and federal requirements. One point per amenity or one point of infrastructure, up to 4 points.
V	Infrastructure	Traffic Calming Measures		2	(e.g. pedest speed hump	ic calming measures such as speed humps and roundabouts. One point per small-dollar measure rian flags, temporary speed hump) and two points per large-dollar measure (e.g. RRFB, permanent o). Must be located within 500 ft. of project and be consistent with city plans, ordinances, and uirements. One point per amenity or one point per 100ft of infrastructure, up to 4 points.
Trans	it Strategies					
		in the all-day transit service area? % less if not. (From Step 1)	No			
	Programmatic	Validate Transit Passes for Visito	rs	1	Validate Tra	ansit Passes for all residents, employees, or visitors
	Programmatic	Subsidize Monthly Transit Passes OR daily passes	% subsidy 50%		Provide sub subsidy, up	sidized monthly transit passes to employees/residents (one per DU or employee). 1 point per 25% to 75%.
	Infrastructure	Fund transit facilities and amenities	# Inc. 0	l	and real-tin	d transit facilities and existing or proposed stops including benches, trash receptacles, shelters, ne arrival screens. Up to 1 point per feature, up to a maximum of 4 points. Metro Transit must accept rior to points being awarded.
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Questions?

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