1. Overview of ImagineMadison Transportation Components
2. Strategic Direction
3. Introduction of Transportation Department Divisions
4. Differentiation between CE and Transportation
5. Parking
   a. Overview of Division
   b. Overview of Recent Projects
   c. RP3 program
   d. Foreshadow Alder Request tracking
6. Traffic Engineering
   a. What TE is responsible for
   b. Alder Request tracking
      i. Ped/Bike on Arterials
      ii. Neighborhood Traffic Management Program
      iii. Signalization Priority List
   c. Introduce and say we will be working on later
      i. Vision Zero
      ii. Modal Hierarchy, Street typology
7. Metro
   a. Overview of Metro Transit
      i. Foreshadow transit package
   b. BRT
   c. Brief Introduce Transit Package
   d. Unique Metro Challenges
      i. Funding
      ii. Debt Service
      iii. Electric bus conversion
8. Question and Answers
Transportation Planning
- Bassett
- Wilson
- Schenks Corners
- US 12/18 Access-Ho-Chunk
- I-94 Access

Traffic Engineering
Yang Tao
- Vision Zero?
- Request Tracking
- Street Typology?
- Protected bike lanes
- Transit priority

Traffic Engineering
3 employees

Metro
Chuck Kamp
- Vision Zero?
- Request Tracking
- Street Typology?
- Protected bike lanes
- Transit priority

MovingMadison
- Satellite Facility
- BRT
- 1101 EW
- Transit Priority
- Park n Ride

Metro
460 employees

Funding and Debt Serv Strat
- Inter-city Bus Term
- Peripheral Service
- DT Restruct

Parking
Sabrina Tolley
- Vision Zero?
- Request Tracking
- Street Typology?
- Protected bike lanes
- Transit priority

Parking
90 employees

STRATEGIC INITIATIVES

Other Issues
- Escooters, micromobility
- Occupancy Permits
- Excavation Permits
- Adaptive Signal Control
- Bike Treatments - Quadrants
- CityWorks
- Transit Priority
- AV Pilot
- Smart corridor
- Winter maintenance

Other Issues
- Family Care
- Labor agreements
- Electric Buses
- Farmers Market Routing
- Mobile Pay

Other Issues
- Gov East Demo
- Meter conversion
- Park n Ride
- Brayton Lot Redevelop
- Inter-city bus terminal

66 FT 17 PT employees
460 employees
90 employees
1. OVERVIEW OF IMAGINE MADISON COMPONENTS

2. STRATEGIC OVERVIEW
• In the last 5 yrs Madison has approved **14,000 dwelling units** creating **120,000 daily trips**

• In the last 2 yrs Madison has approved **3.3 million square feet** of office, commercial, industrial, and institutional space – creating **60,000 daily trips**.

### Madison vs. Dane Co

<table>
<thead>
<tr>
<th>Year</th>
<th>Madison</th>
<th>Dane Co</th>
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<tr>
<td>2017</td>
<td>255,200</td>
<td>536,000</td>
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<tr>
<td>2050</td>
<td>292,500</td>
<td>638,000</td>
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<tr>
<td>2050*</td>
<td>355,000</td>
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*If we grew at similar rate as from 1990 to 2017*
200,000 jobs in 2010
+85,000 projected for Dane Co 2050
+45,000 projected for Madison 2050
+10,000 in Isthmus

OUR SITUATION – MORNING RUSH HOUR

Lake Mendota
Capacity 3300 vph
Demand 3600 vph

Lake Monona

10,000 more jobs = 2100 vph

~ 2 more lanes in each direction???
OUR SITUATION – MORNING RUSH HOUR

38 buses = 1500 people

76 large buses = 3800 people

10,000 more jobs = 2100 vph

1 every 40 seconds
215 Buses, 62 Routes
53,000 passengers/day
$54 Million operating budget
Strong support of council and mayor
19th in rides per capita in the nation

Platinum bicycle city
Named 8th best cycling city in America
Ranks 7th in nation for bicycle commuting
Our downtown, and many neighborhoods are very walkable

Condition of System
Motor vehicle capacity can not keep up
Bike commute share is down
Bus ridership is stagnant
Metro’s significant infrastructure needs
Metro does not serve all residents well
Funding stagnant

Metro

• Portions of current bus barn over 100 yrs old – significant infrastructure needs.
• Current bus barn designed for 160 buses now houses 215 buses.
Metro infrastructure spiral

We can’t add service unless we have more buses

We can’t have more buses unless we have a place to store more buses

We can’t build a place to store more buses until we fix the place where our existing buses are

WisDOT Modal Funding Trends 2000-2019

State Funding has Remained Stagnant
Imagine Madison Comp Plan

6 Elements
Major topic areas

12 Goals
Statements of what we want to achieve over the long-term within each Element

50 Strategies
General approaches to achieve the Goals

150+ Actions
Several implementation Actions for each Strategy
LAND USE AND TRANSPORTATION

GOAL: Madison will be comprised of compact, interconnected neighborhoods anchored by a network of mixed-use activity centers.

GOAL: Madison will have a safe, efficient, and affordable regional transportation system that offers a variety of choices among transportation modes.

Madison will be comprised of compact, interconnected neighborhoods anchored by a network of mixed-use activity centers.

Madison will have a safe, efficient, and affordable regional transportation system that offers a variety of choices among transportation modes.
STRATEGIES

1. Improve transit service, especially to peripheral employment and residential locations, with a focus on reducing the travel time for transit dependent populations.

2. Implement bus rapid transit (BRT) to improve travel times, enhance reliability, and increase ridership.

3. Ensure all populations benefit from the City’s transportation investments.

4. Improve access to transit service to nearby cities, such as Milwaukee, Chicago, and Minneapolis.

5. Concentrate the highest intensity development along transit corridors, downtown, and at Activity Centers.

6. Facilitate compact growth to reduce the development of farmland.

7. Maintain downtown Madison as a major activity center for the region while improving access and inclusivity.

8. Expand and improve the city’s pedestrian and bicycle networks to enable safe and convenient active transportation.

9. Implement new technologies to more efficiently use existing transportation infrastructure.

Strategy 1
Improve transit service, especially to peripheral employment and residential locations, with a focus on reducing the travel time for transit dependent populations.

Actions:

a. Pursue improvements to transit service in peripheral areas and adjacent municipalities.

b. Consider implementing additional Madison Metro routes that more directly connect peripheral areas without traveling through Downtown.

c. Prioritize improved service for transit-dependent populations when integrating Madison Metro routes and schedules with BRT.

Concepts being pursued:

- Shared ride service to outlying employers
Strategy 2
Implement bus rapid transit (BRT) to improve travel times, enhance reliability, and increase ridership.

Actions:
- a. Build a new bus storage and maintenance facility to support an expanded bus fleet.
- b. Prepare detailed plans for BRT corridors to guide redevelopment and improve pedestrian and bicycle linkages.
- c. Integrate BRT-supportive features into street reconstruction and development projects along BRT corridors wherever feasible.
- d. Explore opportunities to use alternative methods to fund BRT infrastructure.

Concepts being pursued:
- Improvements to 1101 East Washington Facility
- Purchase and repurposing of Oscar Mayer site.
- BRT study, Small Starts Application, and implementation (2024)
- Signal Priority

Strategy 3
Ensure all populations benefit from the City’s transportation investments.

Actions:
- a. Use the City’s Racial Equity and Social Justice Initiative (RESJI) tools to inform major transportation projects.
- b. Partner with businesses and governmental entities to expand access to various money-saving transit pass programs.
- c. Pursue equitable distribution of amenities and traffic calming measures in street reconstruction projects throughout the city.

Concepts being pursued:
- Using RESJI in major actions.
- Using NRT’s in identifying and selecting neighborhood traffic management measures.
Strategy 4
Improve access to transit service to nearby cities, such as Milwaukee, Chicago, and Minneapolis.

Actions:
- Support construction of an intercity bus terminal that is well-integrated with Madison Metro and future BRT.
- Work with WisDOT and local railroad operators to maintain the viability of existing rail corridors for future passenger rail operations both within the city and to adjoining metro areas.
- Continue to advocate for high speed rail connections to nearby metro areas with state officials.

Concepts being pursued:
- Possible/probable Intercity Bus Terminal with
- Using NRT’s in identifying and selecting neighborhood traffic management measures.

Strategy 5
Concentrate the highest intensity development along transit corridors, downtown, and at Activity Centers.

Actions:
- Implement Transit Oriented Development (TOD) overlay zoning along BRT and other existing and planned high-frequency transit service corridors to create development intensity minimums, reduce parking requirements, and support transit use.
- Ensure that redevelopment is well-integrated with adjacent low density residential areas.
- Facilitate the creation of Transportation Management Associations (TMAs) and implementation of Transportation Demand Management (TDM) strategies to serve high-intensity development at Activity Centers and along transit corridors.
- Prepare plans to transition auto-oriented commercial areas into mixed-use Activity Centers.

Strategy 6
Facilitate compact growth to reduce the development of farmland.

Actions:
- Continue to update peripheral neighborhood development plans to increase allowable development intensity and create density minimums.
- Steer peripheral growth towards mapped priority areas, with a focus on land already served by utilities.
- Accommodate a majority of growth through infill and redevelopment.
Strategy 7
Maintain downtown Madison as a major Activity Center for the region while improving access and inclusivity.

Actions:

a. Continue to use the City's Affordable Housing Fund to support construction of affordable housing in and near downtown.

b. Facilitate partnerships with community organizations to host more downtown events that attract a wider variety of demographic groups.

c. Improve transit service to and from downtown outside of standard commuting hours.

d. Develop and implement a park-and-ride plan to increase accessibility to downtown and the UW-Madison campus.

Concepts being pursued:
• Possible/probable Intercity Bus Terminal at Lake Street Ramp 2021-2024
• Using NRT’s to identify and select neighborhood traffic management measures.

Strategy 8
Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation.

Actions:

a. Proactively fill gaps in the pedestrian and bicycle network.

b. Continue to integrate pedestrian and bicycle safety improvements and amenities into new and reconstructed streets.

c. Update the subdivision ordinance to ensure that new developments incorporate the City's planned shared-use path network.

d. Develop and adopt a citywide pedestrian and bicycle plan that advocates for implementation of modern design principles while also moving towards a financially sustainable maintenance program.

Concepts being pursued/considered:
• Street typology
• Protected bike network
**Strategy 9**

Implement new technologies to more efficiently use existing transportation infrastructure.

**Actions:**

a. Work with the Madison Area Transportation Planning Board (MATPB) and other entities to implement the Regional Intelligent Transportation Systems (ITS) Plan for the Madison Metropolitan Area.

b. Partner with UW-Madison and other entities to safely test and build transportation infrastructure that supports connected and autonomous vehicles.

c. Use technology to enhance parking management systems.

d. Evaluate emerging technologies for use in bridging "first mile/last mile" gaps in the transit system.

**Concepts being pursued/considered:**

- Adaptive Signal Control
- Park Street Smart Corridor
- East Capital AV
3. TRANSPORTATION DEPARTMENT DIVISIONS

4. TRANSPORTATION DEPARTMENT VS ENGINEERING
Difference between Engineering and Transportation

*Generally* — still being worked out

**Engineering**
- Develops CIP
- Develops/designs Contract drawings/documents
- Administers Contracts

**TE**
- Input on CIP
- Input on Geometric Design
- Design and review of traffic control and construction staging
- Monitoring of traffic control

**Transportation**
- Input on CIP
- Input on Geometric Design
- Design and review of traffic control and construction staging

---

**General Process for Collectors and Arterials**

[Diagram showing the process of determining projects, conducting corridor studies, individual project designs, and traffic control with roles assigned to CE, DOT, and TE.

*Wilson Street & Basset Street DOT doing study*

*University Ave & Atwood Ave CE doing study*
Madison Transportation Planning prior to 11/2018 - Incrementalism

- Lindblom (Science of Muddling Through - 1959) (Reaction to Rational Planning)
- Broad set of policies (2006 & 2012 comp plan)
- Projects brought up individually based on need (e.g., pavement maintenance)
- Because of limited nature of each individual project, success and failures were limited to a single segment of road.

Incrementalism (Lindblom)

Broad Policies → Project Selected → Proposed Improvement → Improvement Refinements → Project Recommendation

Termini typically based on infrastructure need

Public Input

Incrementalism

Madison Transportation Planning since 11/2018 - Rational Planning

Hope

- Similar to NEPA—codified in 23CFR 771 and 40 CFR 1500-1508
- Follows goals/objectives, alternatives, alternative evaluation, recommendation framework.
- Public input solicited in each step of the process
- Uses logistical terms with independent utility—e.g., full corridors, not pieces of corridors.

Rational Method (Also in NEPA—40 CFR 1500-1508, 23 CFR 771)

Scope Limits (Corridor) → Goals and Objectives → Alternatives → Evaluation → Corridor Recommendation

Logical Termini

Independent Utility

Individual project implementation based on corridor plan
Parking Division Overview

The Parking Division builds, maintains, and operates on-street and off-street public parking infrastructure and establishes policy and procedure to manage the public parking system in concert with City-wide transportation goals and policy.

**Four Services:**

1. **Garage Parking:** 7 garages totaling ~ 4,300 spaces.

2. **Lot Parking:** 6 parking lots totaling ~ 450 spaces.

3. **On-Street Parking:** 1400 metered spaces, on-street loading zones, accessible parking, administer permit parking programs - including Residential Parking Permit Program.

4. **Parking Operations (Admin):** overall management of operations, financials, and policy.
Parking Division
Organizational Structure

- 74.65 FTE's and 16 Hourly
- 94 Employees (incl. vacancies)
- Two Office Locations:
  1. 1120 Sayle Street (Field Office)
  2. MMB Suite 109 (Downtown Office)

Parking Division Facilties

City of Madison Parking
Gares, Lots, & Meters
Parking Division Operating Budget Overview

Annual Operating Revenues ~ $16 Million
Annual Operating Expenses ~ $11 Million
Annual Net Revenues ~ $5 Million

PARKING UTILITY ANNUAL REVENUES BY SERVICE
(2017 TOTALS: $16M)

- Garages: $11,800,000
- On-Street: $3,000,000
- Lots: $1,225,800

Parking Division Funding and Reserves

PARKING DIVISION FUNDING SOURCES
- Operating revenues (user fees)
- Recent state statute change, allowing use of TIF.
- Revenue Bond Issuance. Currently none.
- No General Fund Support:
  Parking Utility contributes $2M+ annually to General Fund through PILOT/fees & allocations.

PARKING DIVISION RESERVES
- Fund Operating and Capital Costs
- $5M net annual operating revenue (Reserves generated).
- 2018 beginning balance was $33.5M
Current & Recent Projects

JUDGE DOYLE GARAGE CONSTRUCTION
Total Project Budget: $50.4M
($23.5M Parking Reserves w/$10.4M to be repaid)
Opening fall 2019

- Below-Grade public parking structure ~ 560 Spaces (520 for public and 40 for City Fleet).

- "Podium": Comprised of above-grade parking of about 140 spaces and retail grey box.

- Timing of Demolition/Closure of GE – TBD.
S. LIVINGSTON ST. GARAGE CONSTRUCTION
Project Budget: $17,890,465
($3.6M of Parking Reserves)
Opened December 3, 2018

S. LIVINGSTON ST. GARAGE
Opened December 3, 2018

- Owned & Operated by City
- 650 parking spaces
- 550 long-term lease spaces (M-F weekdays)
- Commercial building – owned by City

Public Art: “Glimpse” by Actual Size Artworks
SINGLE SPACE METER REPLACEMENT PROJECT
Total Project Budget: $2,225,000
Installation April 22-May 3 (coin-only replacement); Multi-Space Meter replacement 2019-2020

- Replacement of All on-street coin-only meters (620 spaces).
- Continuing trial of 46 vehicle occupancy sensors.
- Replace Multi-Space on 100 N Hamilton with SS smart meters. (hill/user feedback)
- Trial 2 Multi-Space machines
- Replace Blair Lot meters

---

SINGLE SPACE METER REPLACEMENT PROJECT
Phase 2: Replacing existing multi-space machines (reaching end-of-life)

- TBD: Smart Meters or new Multi-Space?
- Study options 2019-2020
- Purchase and installation 2020-2021
GARAGE LIGHTING REPLACEMENT PROJECTS
Total Project Budget: $2,957,000

*Under Construction*

**Description**
- Electrical upgrades, backup generators, CO monitoring for fan controls, & replace lighting fixtures with energy efficient LED lighting
- Reduce energy consumption
- Improve lighting quality

**Project Status**
- Projects completed at Capitol Square North Garage, and State Street Capitol Garage.
- State Street Campus - Frances – almost complete.
- Overture Center Garage – 2019 construction

PARKING ACCESS REVENUE CONTROL SYSTEM (PARCS) REPLACEMENT PROJECT
Total Project Budget: $2,800,000

*Under Construction*

**Description**
- Replacement of all hardware; software upgrades

**Locations**
- Brayton Lot
- Capitol Square North Garage
- Government East (firmware/software upgrade)
- Judge Doyle Garage
- Overture Center Garage
- South Livingston Street Garage
- State Street Capitol Garage
- State Street Campus Frances & Lake Garages

Parking division
Additional Capital Projects

**2019**
- Overture Center Garage Screening/Fencing (Suicide Prevention)
- Overture Garage Window Replacement

**2023-2024**
- State Street Campus Lake Garage Replacement

Parking Utility

*Capital Improvement Plan*

<table>
<thead>
<tr>
<th>Project Summary</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
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Residential Parking Permit Program
Residential Parking Permit Program (RP3 and RPO)

- The program is established by MGO 12.138 – RESIDENTIAL DAYTIME PARKING PRIVILEGES FOR “COMMUTER PARKING IMPACTED” STREETS.

- MGO 12.138 (2) Purpose: “...to establish a mechanism whereby area residents will be afforded an opportunity for the limited storing of vehicles on public streets to the partial exclusion of commuter vehicles. It is intended that this residential parking Ordinance will reduce automobile commuting and its accompanying energy waste and air pollution, reduce the total vehicle miles of travel in the affected area, and alleviate traffic congestion, illegal parking, and related health and safety hazards.”

Residential Parking Permit Program (RP3 and RPO)

**How Does it Work?**

- 1-hour & 2-hour parking time limit restrictions or Resident Parking Only restrictions.
- Restrictions enforced 8AM – 6PM (M-F or M-Sat).
- Residents can purchase permits for their area, exempting their vehicles from the time limit restrictions.
- Reduces commuter impact & improves parking availability for residents on congested neighborhood streets.
Residential Parking Permit Program Areas

• 24 Areas (to date)
• Eligible residents may purchase a permit for their Area (only).
• Permit valid on any RP3 restricted street in the Area.

Adding RP3 or RPO Restrictions on a street

Eligibility Requirements:

• At least 50% of the block must be residential

• Commuter Impacted: vehicle occupancy and license plate studies performed to determine eligibility.

• Majority support of residents on the block to install restrictions, and willingness to pay the cost for the program. (Petition process & recent ordinance change for Parking Manager Authority)
Limitations/Challenges

- Permits are a "hunting permit". Some areas have permit to space ratios as high as 2.5.
- Evening impacts: events, businesses, guests of residents, and residents
- Visitors, contractors, childcare providers, etc. must follow posted restrictions.
- Limitations on authority to enact restrictions for RP3/RPO programs. (State Statute and federal Equal Protection Clause).

Staff Team and On-Street Parking Study

Legistar File 54961: (Adopted 4/22/19) Resolution to convene a staff team to study and address on-street parking issues to include:

- Minimize parking impacts of new developments, while encouraging mode shift
- Policies to manage shared parking demand of infill development
- Develop policy for responding to developer requests for use of City parking & ROW
- Review existing RP3 Program

- Considerations include (partial list): impact on housing costs when parking bundled with rents, equity, zoning requirements and policies, reducing reliance on ROW for parking to allow for other ROW priorities, accessibility.
Traffic Engineering Division

Yang Tao, PhD, PE, City Traffic Engineer

Locations

TE Office:
Madison Municipal Building,
215 MLK Jr. Blvd, Suite 109

TE Field Operations (Shop):
1120 Sayle St.
People

Permanent Employees: 66
Hourly/Seasonal Employees: 17
Total # of Employees: 83

Permanent Positions by Primary Function:

<table>
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<th>Section</th>
<th># of Permanent Positions</th>
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<tbody>
<tr>
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<td>pavement markings</td>
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<td>general admin</td>
<td>7</td>
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<tr>
<td>Total permanent positions</td>
<td>65.6</td>
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TE Office
Organization Chart
**Signing**

- Fabricates, installs, repairs, and relocates signs in the City
- Maintains 48,000 signs
- Revenue from making and maintaining signs for other agencies and surrounding municipalities
Pavement Markings

- Installs and maintains pavement markings throughout the City

- Each year:
  - 140 miles of street centerline
  - 850 school crosswalks
  - 1,500 regular crosswalks

- Increased demand for additional and more complex pavement markings: the increasing number of city bike paths and the public’s demand for safer pedestrian crossings

Traffic Signals

- Designs, installs, repairs, and operates traffic signals and Fiber/Conduit in the City

- Revenue from installing and maintaining traffic signals for other agencies and surrounding municipalities

- Currently maintains:
  - 342 traffic signals
  - 69 miles of backbone fiber optic
  - 36 traffic cameras located in the City’s ROW
  - Other type of devices: RRFBs, DFBs, Bike Beacons, ped/bike counters (demand is increasing)
Streetlighting

- Installs, repairs, and relocates streetlights
- Revenue from installing and maintaining streetlights for other agencies and surrounding municipalities
- 14,700 Street lights in City of Madison
  - 7,450 maintained by city electricians
  - 7,250 are maintained by the utility companies
- The city also maintains streetlights for the State and 10 other communities throughout Dane County

Communications

- Installs, repairs, calibrates, modifies and tests two-way radios and associated electronic equipment; and plans, designs and installs municipal communications systems.
- Maintains the City's digital new P25 Simulcast Radio System at 8 tower sites.
- Serves approx. 3500 users including city employees (MPD, MFD, Metro, etc); and users from Dane county, the State and various Federal agencies.
Pedestrian Bicycle Services

- Ped/bike issues are integral to the design of traffic signals, signing, streetlighting, pavement markings, traffic control plans
- Manages bicycle and pedestrian infrastructure improvements and program administration

Special Services

- Provides overall leadership for traffic safety programs in the City
- Transportation review for private and public development projects
- Assists on the overall transportation and traffic planning, design and transportation engineering for the City
- Assists neighborhoods and other government entities in planning transportation improvements
2019 Budgetary Highlights

2019 Operating Budget: $6.6 million
• Focused on the goal of efficiently maintaining city infrastructure and facilities while providing a high level of customer service and improved safety to our customers

2019 Capital Budget: $1.7 million
• Upgrading pedestrian signals by adding countdown timers
• Leverage state grant funding to upgrade innovative adaptive traffic signal technology (East Washington Ave)
• Upgrade traffic signals to Centracs traffic system
• Install LEDs lighting fixtures whenever practical

Current Project Highlights

• State-of-the-Art Traffic Signal Management System
• Adaptive Traffic Signal Control Corridors
• LED Lighting
• Signature Bike Routes and Bike Way-Finding System
• Systematic Bike Network Review
• Travel Demand Management (TDM) in Development Review: City's First Transportation Management Association (TMA) at Madison Yards
• Smart City Initiative: 2018 ITE Transportation Achievement Award
Request Process and Tracking

Yang Tao, PhD, PE, City Traffic Engineer

Alder Request Tracking Process - Proposed

Traffic Engineering and the Parking Utility get 20 to 30 requests per week from Alders and Citizens. Sometimes the request can be answered promptly. Most often, the request requires study, data collection, and/or entering the request into a work program. Sometimes the delays in work flow or TEJPU response time make it difficult for Alders to address constituent concerns.

To more efficiently keep track of Alder requests, and provide more information to Alders and Madison residents, TEJPU will be initiating in May the adjacent Alder and Resident request process using a new tracking software. The process and software will provide a systematic way for us to provide you with information as you interact with your constituents. Our expectations will include the following:

- You will receive a response within 2 working days.
- You will receive monthly updates on the status of the request (unless it relates to a yearly funding program, such as the Neighborhood Traffic Management Program).
- You will receive monthly reports on open work orders in your district.
- You will be notified when your request has been completed.
Neighborhood Traffic Management Program

2019-04-26

Can be a one-year process

DEPARTMENT OF TRANSPORTATION

Pedestrian/Bicycle Capital Improvement Program

2019-04-26

Can be a one-year process

DEPARTMENT OF TRANSPORTATION
Traffic Signal Priority List

1. Data Collection
2. Initial Analysis
3. Transportation Commission Screening
4. Staff present TSPL
5. Transportation Commission Approval
6. Design Traffic Signal
7. Construct Traffic Signal

Staff Suggestions based on:
- Safety
- Congestion
- Development

DEPARTMENT OF TRANSPORTATION

Key Initiatives

Yang Tao, PhD, PE, City Traffic Engineer
### State of Wisconsin

Crash Cost by Type and Severity

<table>
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<th>SEVERITY</th>
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<th>BIKE</th>
<th>VEH</th>
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<td>A Incapacitating</td>
<td>$433,383</td>
<td>$362,759</td>
<td>$389,169</td>
</tr>
<tr>
<td>B Non-Incapacitating</td>
<td>$113,100</td>
<td>$90,303</td>
<td>$107,674</td>
</tr>
<tr>
<td>C Possible Injury</td>
<td>$73,539</td>
<td>$60,060</td>
<td>$56,365</td>
</tr>
<tr>
<td>O Property Damage</td>
<td>$35,692</td>
<td>$49,042</td>
<td>$24,322</td>
</tr>
</tbody>
</table>

Motor Vehicle-Pedestrian (PED), Motor Vehicle-Bicycle (BIKE), Motor Vehicle Only (VEH)

Recent study by Wisconsin TOPS lab
What is Vision Zero?

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe — and now it’s gaining momentum in major American cities.

<table>
<thead>
<tr>
<th>TRADITIONAL APPROACH</th>
<th>VISION ZERO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic deaths are INEVITABLE</td>
<td>Traffic deaths are PREVENTABLE</td>
</tr>
<tr>
<td>PERFECT human behavior</td>
<td>Integrate HUMAN FAILING in approach</td>
</tr>
<tr>
<td>Prevent COLLISIONS</td>
<td>Prevent FATAL AND SEVERE CRASHES</td>
</tr>
<tr>
<td>INDIVIDUAL responsibility</td>
<td>SYSTEMS approach</td>
</tr>
<tr>
<td>Saving lives is EXPENSIVE</td>
<td>Saving lives is NOT EXPENSIVE</td>
</tr>
</tbody>
</table>
Vision Zero Cities

A Vision Zero City meets the following minimum standards:

- Sets clear goals of eliminating crashes, fatalities, and serious injuries
- Has a publically visible goal of zero
- Vision Zero plan as a priority in planning. MPS has committed to doing activities for the plan.
- Key city departments (including Public Transportation and Public Health) are involved.

Modal Hierarchy

1. Pedestrian
2. Transit
3. Bicycle
4. Auto

Chicago

Minneapolis

Bellingham, WA
Street Typology

BETTER STREETS PLAN TYPLOGIES

- **BSP Base Class**
  - Commercial Thoroughway
  - Downtown Commercial
  - Neighborhood Commercial
  - Residential Thoroughway
  - Downtown Residential
  - Neighborhood Residential
  - Mixed-use
  - Industrial
  - Park Interior

- **Special Condition Overlay**
  - Boulevard
  - Ceremonial/Civic
  - Parkway
  - Park Edge
  - Alley
  - Paseo

- **Other**
  - TBD/See Development Plan
  - Unaccepted/Paper Streets
  - HWY/HWY Ramp

San Francisco

**VITAL STREETS**

- Mode Emphasis
  - Balanced
  - Transit
  - Vehicle/Truck + Transit
  - Vehicle/Truck
  - Bicycle: Commuter
  - Bicycle: Community

Grand Rapids

MODE EMPHASIS MAP

DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION
Contact

Yang Tao, PhD, PE
City Traffic Engineer
608-266-4815
ytao@cityofmadison.com
www.cityofmadison.com/trafficengineering
New Alder Orientation

April 27, 2019

Chuck Kamp, Transit General Manager

By the Numbers

<table>
<thead>
<tr>
<th>Ridership</th>
<th>13.2 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses</td>
<td>218*</td>
</tr>
<tr>
<td>Employees</td>
<td>460</td>
</tr>
<tr>
<td>Operating Budget</td>
<td>$54 million</td>
</tr>
<tr>
<td>Local Funding Partners</td>
<td>11*</td>
</tr>
</tbody>
</table>

*Adding 3 buses and one funding partner when service to Sun Prairie starts in August 2019
2017 Expenses excluding Depreciation
$54 million

- Employee Compensation & Benefits 74%
- Metro transit ------------
- Advertising 1%
- Passenger Revenue 27%
- City Operating Funds 20%
- State Funds 32%
- Federal Operating Funds 12%
### Ridership per Capita

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>2,000</td>
<td>2,500</td>
<td>3,000</td>
</tr>
<tr>
<td>Chicago</td>
<td>1,500</td>
<td>2,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
</tr>
<tr>
<td>Dallas</td>
<td>750</td>
<td>1,000</td>
<td>1,250</td>
</tr>
<tr>
<td>Houston</td>
<td>500</td>
<td>750</td>
<td>1,000</td>
</tr>
<tr>
<td>San Francisco</td>
<td>250</td>
<td>500</td>
<td>750</td>
</tr>
<tr>
<td>Seattle</td>
<td>200</td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>Portland</td>
<td>150</td>
<td>250</td>
<td>350</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>100</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>New Orleans</td>
<td>50</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>25</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>10</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

### 2017 Local Funding Per Capita

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>UZA</th>
<th>UZA Name</th>
<th>Primary</th>
<th>Square Miles</th>
<th>Final Local Funding/ ( \text{Capital} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro Transit System</td>
<td>92</td>
<td>Madison, WI</td>
<td>Y</td>
<td>400,261</td>
<td>Y, 2,655</td>
</tr>
<tr>
<td>LaCrosse County Transit Utility</td>
<td>209</td>
<td>La Crosse, WI</td>
<td>Y</td>
<td>100,869</td>
<td>Y, 1,203,456</td>
</tr>
<tr>
<td>Oshkosh Transit</td>
<td>176</td>
<td>Oshkosh, WI</td>
<td>Y</td>
<td>74,935</td>
<td>Y, 2,428,012</td>
</tr>
<tr>
<td>Janesville Transit System</td>
<td>396</td>
<td>Janesville, WI</td>
<td>Y</td>
<td>69,658</td>
<td>Y, 2,863,263</td>
</tr>
<tr>
<td>Beloit Urban System - Racine</td>
<td>239</td>
<td>Beloit, WI</td>
<td>Y</td>
<td>137,700</td>
<td>Y, 2,706,364</td>
</tr>
<tr>
<td>Shoreline Metro</td>
<td>988</td>
<td>Sheboygan, WI</td>
<td>Y</td>
<td>73,333</td>
<td>Y, 2,133,544</td>
</tr>
<tr>
<td>Wausau Area Transit System</td>
<td>325</td>
<td>Wausau, WI</td>
<td>Y</td>
<td>74,352</td>
<td>Y, 1,592,472</td>
</tr>
<tr>
<td>Green Bay Metro</td>
<td>176</td>
<td>Green Bay, WI</td>
<td>Y</td>
<td>205,520</td>
<td>Y, 9,967,305</td>
</tr>
<tr>
<td>City of Appleton - Valley Transit</td>
<td>165</td>
<td>Appleton, WI</td>
<td>Y</td>
<td>216,125</td>
<td>Y, 2,083,140</td>
</tr>
<tr>
<td>Milwaukee County Transit System</td>
<td>35</td>
<td>Milwaukee, WI</td>
<td>Y</td>
<td>810,600</td>
<td>Y, 2,523,546</td>
</tr>
<tr>
<td>City of Racine Transit System</td>
<td>432</td>
<td>Racine, WI</td>
<td>Y</td>
<td>63,855</td>
<td>Y, 1,838,364</td>
</tr>
<tr>
<td>Fond du Lac Area Transit</td>
<td>468</td>
<td>Fond du Lac, WI</td>
<td>Y</td>
<td>54,901</td>
<td>Y, 1,013,963</td>
</tr>
<tr>
<td>Kenosha Transit</td>
<td>256</td>
<td>Kenosha, WI</td>
<td>Y</td>
<td>120,000</td>
<td>Y, 2,473,163</td>
</tr>
</tbody>
</table>

**Total** | **4,075,129** | **$13,840,459** |

---

**Funding/ \( \text{Capital} \)**
Questions?

Chuck Kamp, Transit General Manager
(608) 266-4904
ckamp@cityofmadison.com

www.mymetrobus.com
Bus Rapid Transit (BRT)

- From Plan to Reality -

Isthmus Freeway Plan (1955)
Rail/Transit Studies: Recent History

Previous Rail/ High Capacity Transit Studies

1980-81 Dane County Transit Technology Corridor Study (DCRPC)
1985-86 Dane County Transit Priority Corridor Study (DCRPC)
1990-92 Light Rail Transit Corridor Study (C. Madison)
1996 Study to Evaluate Commuter Rail Implementation (Dane Co)
1998 Dane County Commuter Rail Feasibility Study (Dane Co)
1999-2003 Transport 2020 Commuter Rail Alternatives Analysis (City/County/WisDOT)
2005-2008 Transport 2020 Commuter Rail Preliminary Engineering/EIS (City/County/WisDOT)
2011-13 Bus Rapid Transit (BRT) Preliminary Feasibility Study (MATPB)
2018-2020 Bus Rapid Transit East-West Corridor Project Development

Bus Rapid Transit (BRT)
Madison East-West Corridor Project Development
Bus Rapid Transit
Differences: BRT vs. Local Bus

- Direct Routes/Fewer Stops
- Simple, Frequent All-Day (incl. evening/weekend) Service; every 10-15 min.
- Branded Stations and Buses
- Transit Signal Priority and Other Intersection Treatments
- Off-Board Fare Payment (at Stations)
- Bus-Only Lanes (median or curb; full or partial)

Key Project Elements - BRT

BRT vs. Local Bus (travel time benefits)
Midday from Capitol Square to:
  - West Towne in 30 min compared to 40-50 min
  - East Towne in 25 min compared to 35 min
  - Warner Park in 20 min compared to 30 min
  - Fitchburg Hatchery Hill in 25 min compared to 40 min
How do City residents travel to work?

Source: US Census American Community Survey, 2009-2012

Public Transit Work Trips (by Census Tract)

Means of Transportation to Work: Public Transportation
Percent of Total Commuters

City of Madison
**BRT Phase 1 Project Development**

- City Resolution (2018): Phase 1 East to West Corridor (termini TBD)
- $500,000 Budget for Planning Project
  - AECOM/Strand/UA: Notice to Proceed Oct. 2
- Phase 1 Analysis: Costs, Ridership, Traffic Impacts, Service Changes
  - Downtown Street Routing Evaluation
- Est. Phase 1 Capital Budget: $50-85 million; Operating ??
- Extensive Public Outreach
- Complete NEPA/Prepare FTA Small Starts Application
  - Enter PD Fall 2019; Grant Application Fall 2020

**BRT East-West Routes and Stations**
Bus Rapid Transit (BRT)
Conceptual Elements

Loop Link BRT
Chicago, IL

HealthLine BRT, Cleveland, OH
Bus Rapid Transit (BRT) - Signal Priority

It's a new traffic signal!

Bus Rapid Transit (BRT) - Queue Jump
Two Transfers
Three buses
1 hour
6:30 am

Proposed BRT System with
2016 Employment Density
A regional strategy with a branded package could include:

Imagine Madison Comp Plan
- 1101 EW and Satellite Facility
- Transit Priority Measures
- Park and ride
- Bus Rapid Transit
- Service to neighboring communities
- Intercity Bus Terminal
- Electric Buses
- JobRide Plus
- Service to Sun Prairie
- Increased frequency
- Increased frequency
- Park and ride
- Park and ride

JobRide Plus Concept

- Shared ride access to peripheral employers
- More efficient access to employers within Metro service area
- Late night shared ride service for shift workers
Public Engagement To-Date

Public Kickoff Meeting – December 12, 2018

Survey (12-5-18 to 2-4-19)
1. MetroQuest: 2,697 responses
2. Accessible survey: 295 responses

Small Group Meetings
3 Mobile Engagement Stations (Warner Park, Mount Zion Church)

Social Media (Facebook, Twitter, Instagram)

Project Website: www.madisonbrt.com

Next PIM: Tuesday, May 14, 6:00 p.m., Senior Center

PIM 1 Dot Voting

71 votes: “Provide more frequent service.”
53 votes: “Provide faster service.”
23 votes: “Provide nicer stations.”
19 votes: “Purchase property to add dedicated lanes.”
14 votes: “Purchase property to add more park-n-rides.”
**Top Priorities Overall**

1. Fast and reliable buses
   - Buses take too long – stop too frequently
   - Service not frequent enough during off-peak, or weekends
2. Convenient transfers
3. Pedestrian connections
   - Add new sidewalks (eliminate missing segs)
   - Add signalized crossings/crosswalks
4. Regional benefits
   - Faster cross-town travel times
5. Enhanced bus features
   - Alternative fuel, or electric buses
6. Bicycle connections
   - Improved bike routes connecting to corridor
7. Parking accommodations
   - Add new park-n-ride lots to serve the corridor

---

**Madison East-West BRT Project Development Process**

- **Design**
  - 2019
  - Adopt LPA, Request Entry into PO, COA Request, Adopt into RTP
  
- **Project Funding**
  - Pre-award authority for NEPA / Design work
  - Request Funding
  - NEPA

- **Environmental**
  - FTA Project Development
  - Following NEPA, pre-award authority is extended to ROW and utility relocation
  - PMCC conducts readiness review, assesses technical capacity, and conducts risk analysis

- **Prior to Construction Grant Agreement (not necessary for rating):**
  - All non-federal funding identified and committed – no further approvals required
  - All third-party agreements complete

- **Grant**
  - Award / End of PO
Questions/Comments?

David Trowbridge, AICP
Principal Transportation Planner
Direct: 608-267-1148
dtrowbridge@cityofmadison.com
7.d Overview of Possible Transit Package
Muni Forward aims to make getting around San Francisco safer and more reliable.

**THE CHALLENGE**

- Unreliable service
- Crowded vehicles
- Frustrating delays
- Too many traffic collisions

**THE SOLUTION**

- Transit Priority Projects
- Service Increases
- Improvements for people walking

**THE RESULTS**

- Predictable arrivals
- Fewer delays
- Less crowded trips
- Shorter travel times
- Safer streets
The most significant service improvement in decades

Implementation and expansion of a Rapid Network of core routes serving nearly 70% of all riders is providing a whole new level of more frequent and reliable service.

- Transit Signal Priority
- Relocation of Bus Stops

17 miles of dedicated transit lanes

"including . . . . transforming one of the oldest fleets in the nation to the newest"

Should we have a regional strategy with a branded package?

Imagining Madison Comp Plan:... 1101 EW and Satellite Transit Priority Metra exams Rapid Transit Service to neighboring communities Terminal Electric Buses JobRide Plus

Service to Sun Prairie

Increased frequency

Park and ride

Increased frequency

Park and ride

JobRide Plus
Metro Facility Needs is Prerequisite to Addressing the Comp Plan

Imagine Madison Comp Plan & Madison in Motion

1101 East Washington and/or Satellite Facility

- Park and ride
  Imagine Madison 7d
- Service to neighboring communities
  Imagine Madison 3a
- Electric Buses
  Imagine Madison 3a
- Transit Priority Measures
  (Imagine Madison 9)
  (Madison in Motion-Transit 3)
- Intercity Bus Terminal
  Imagine Madison 4a
- Increased Service frequency
  Imagine Madison 1c, 7c
- Peripheral Service
  Imagine Madison 1
- Bus Rapid Transit
  Imagine Madison 2B

Possible Capital Funding

Possible Capital Funding

- $250 Million?
- Other sources
  - Tax Incremental Financing
  - Parking Utility
  - Grant awards
  - Private Sector Contributions
  - Development Impact fees
- Regular Programmed Roadway Improvements
- FTA Small Starts Grant – 2023?
- Satellite Facility – in CIP
- General Obligation Borrowing
- 1101 East Washington Remodel – in CIP
- General Obligation Borrowing
- Regular Programmed Roadway Improvements
7.d.i, ii Financial Challenges

Upgrading 1101 East Washington  
$57M

Obtaining a Satellite Facility  
$31M

Initiating Transit Priority  
~$2M

Implementing Bus Rapid Transit  
$80M

Bus replacement cycle  
$7.5M annually

Provide Service to Outlying Communities  
Operational Cost

Improve Service to Peripheral Emp. & Res.  
Operational Cost

Park n Ride Lots  
~4M?

Electric Buses  
+$5M annually?
Madison Metro Transit Historical and Projected Revenue Comparison

- Passenger Revenue
- Local Public Subsidies (Other Cities)
- Other Operating Rev (Advertising and Family Care)
- Federal Subsidies
- City Operating Subsidies
- State Subsidies

Transportation Price Index 2001-2019

State subsidies have remained flat, despite increasing transportation costs.

Metro Increased Operating Expenses

- Debt Service
- Potential Revenue Sources

$54M Existing Metro baseline service
Potential Revenue Sources

Wheel Tax $30 ~$5.7 million annually
¼ cent Sales Tax (RTA) ~$13.5 million annually
Increased state (?) ~$2 million annually

7.d.iii Transit and Sustainability
Sustainable Infrastructure
Moving people, not just cars

126 People move through this roadway during each light cycle. 80 in transit.

235 People on a road with transit-only lanes move through this roadway during each light cycle. 204 in transit.

Overall Sustainability – Use of Resources

Passengers per (revenue) Hour

40
35
30
25
20
15
10
5
0

Passengers per Hour

Metro Bus

Passenger Car
Amount of road needed to carry 40 people at 30 mph

Bus – 130 feet

Auto – Almost 3000 feet

1.2 vehicle occupancy ratio
Number of $65,000 underground parking spaces needed per 100 jobs

Bus – 0
Auto – 100

$365/month/space for debt service alone

FIGURE 1
Transportation Accounts For 29% of U.S. Greenhouse Gas Emissions.

SCENARIO 3
100% Renewable Energy and Zero Net Carbon by 2030

All Scenario 1 & 2 Measures
Efficiency (Demand)
HVAC Retrofits
Plug Load Management Strategies
Building Envelope Improvements
Renewable Generation (Supply)
Behind-the-Meter Solar (Phase 2)

Transportation
100% Electric Buses
Mid-Duty EV Procurement
Heavy Duty CNG Procurement

Policy
RECs and Carbon Offsets

*55% carbon reduction with 25% self-generated renewable energy
*45% RECs and carbon offsets
*$95M investment over 13 years; IRR 17%
*Cost savings to city of $78M by 2030
*Reduce total carbon emissions by 426,000 tons by 2030
*Societal co-benefits range from $21M - $162M by 2030

Figure A-3 illustrates baseline carbon emissions for municipal operations by fuel type in 2018, the baseline year for the report, including electricity (57%), diesel (29%), natural gas (9%) and gasoline (5%).
Metro reducing emissions from the private sector

10,000 new riders per workday reduces CO2 emissions by 6,000 tons/year

40 pass/bus, 3 mile average trip, weekdays only

This reduction would represent 1/3 of Metro's emissions
Density and Trips

FIGURE 5
Vehicle Trips per Day of Transit Oriented Development (TOD) Housing Sites versus Typical Housing Sites

<table>
<thead>
<tr>
<th></th>
<th>Vehicle Trips per Day per Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Housing Sites</td>
<td>6.7</td>
</tr>
<tr>
<td>TOD Housing Sites</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Department of Transportation and Metro is committed to helping to achieve a 100% renewable future.

But its more than just flipping a switch
Electric Buses

Size

Internal clearance currently does not allow electric buses

To be addressed in 2019 construction
Approx Range & Types of Buses

Long Range

Quick Charge

Range

Buses in Operation

Moscow Routes 73, 76, 80

MADISON DEPARTMENT OF TRANSPORTATION

MADISON DEPARTMENT OF TRANSPORTATION

Moscow experience suggests that more electric buses may be needed to serve same routes.
Charging Capacity is Limited

**Electric Charging Capacity – Slow Charging**

Currently 215 buses are housed at 1101

Could be available

1101 East Washington

Oscar Mayer Bldg 43

Oscar Mayer Bldg 50

- Available

- Needed

1200 amp service – 2000 amp service – possibility for 2000 amp service + possibility for 2000 more amps

**Changing Charging Speed**

**Amps x Volts = Watts**

Rapid chargers reduce the number of buses that can be charged at a time.

They hold promise on how Metro blocks routes.
**Replacement Cycle**

**Bus Replacement Schedule Dictates Fleet Conversion**

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
<td>EW retrofitted to allow electric buses in building, with capacity to charge 3 buses.</td>
<td>Capacity increased to 5</td>
<td>Assumes charging capacity is provided</td>
<td>Credits until full fleet transition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- = 10 electric buses ~$0.7M/ea
- = 10 diesel buses ~$0.5M/ea
- = 10 electric articulated buses ~$1.2M/ea

**Replacement Schedule**

2019

- Assumes charging credits until full.

**Fleet Conversion**

- Full capacity to charge 3 buses.
Department of Transportation and Metro is committed to helping to achieve a 100% renewable future.

We are working on how to flip the switch.
1. **DEDICATED LANES**
Options range from BRT in mixed traffic to dedicated side or center lane.

Security and safety will be increased through lighting or monitoring features.

2. **STATIONS**
Stations will include fare ticketing machines, covered waiting areas, level boarding, and real-time transit information.

Dedicated lanes give buses uninterrupted travel.

3. **VEHICLES**
BRT vehicles may be 40' or 60' long to accommodate more riders, and include features like multi-door boarding and interior bike storage.

Making the shift to BRT buses helps reduce vehicle emissions and pollutants. Options for alternative fuel buses can also increase environmental sustainability.

4. **FARE COLLECTION**
Fare payment will occur at BRT stations.

BRT systems generate permanent jobs in operations.

5. **INTELLIGENT TRANSPORTATION SYSTEM**
Technology is used to help improve system operation and passenger experience, including transit priority at intersections, real-time arrival information, and safety enhancements.

Sophisticated traffic signal management can minimize delays by extending green signals for buses approaching an intersection.

6. **SERVICE AND OPERATION PLAN**
BRT routes are designed to efficiently connect riders with their destinations by optimizing routes, station locations, and service schedules to meet rider demand.

High-frequency bus service minimizes passenger wait-time.

7. **BRANDING**
Unique name, color scheme, logo or other visual identifiers to differentiate BRT service from existing bus service.

Level boarding platforms and wider and additional doorways provide greater accessibility.

The City of Madison is exploring options for a new East-West Bus Rapid Transit line to make our city's transit system work faster and smarter. Madison's BRT will complement existing Madison Metro routes and be our city's next big step toward a sustainable local transit system.
**Madison Bus Rapid Transit (BRT)**

Help us define the future of public transit in Madison!

The City of Madison is exploring options for a new east-west bus rapid transit (BRT) line to make our city’s transit system work faster and smarter.

BRT uses dedicated lanes where feasible and modern stations to provide fast and cost-effective service to jobs, entertainment, and schools. Madison's BRT will complement existing Metro routes and be our city's next big step toward a more sustainable local transit system.

Want to know more?

Public Meeting #2
May 14th, 6:00-7:30 p.m.
Madison Senior Center
330 West Mifflin Street

Join us for a presentation and open house to learn more about route and station location options for the East-West BRT corridor.

More Information
Visit the project website at [www.madisonbrt.com](http://www.madisonbrt.com) to:
+ Sign up for email updates.
+ Take survey #2 (launching on May 1st!).
+ Learn more about BRT and this project.

Follow us on social media:
@mymetrobus // @CityofMadison

Contact Information

Everyone is welcome! Spanish and sign language interpreters will be available. For other accommodations such as interpreters or materials in alternate formats, please contact us at least three business days prior to the event. We ask that attendees refrain from wearing heavily-scented products and using flash photography.

City of Madison
David Trowbridge, AICP
Principal Planner, Project Manager
dtrowbridge@cityofmadison.com
(608) 267-1148

Urban Assets
Zia Brucaya, AICP
Senior Planner, Public Engagement
zia@urbanassetsconsulting.com
(608) 819-6566 (x3)

Common BRT Features

**BRT Only Lanes**
Separate or preferential lanes allow BRT to stay on schedule and move more efficiently through mixed traffic environments.

**Traffic Signal Priority**
BRT buses can signal a green light at an upcoming intersection to stay on schedule and reduce travel times.

**Moving More Riders**
BRT buses carry more passengers, and operate more times per hour, for more hours per day.

**Enhanced Transit Stations**
BRT stations include real-time information, covered seating, bicycle access and enhanced pedestrian crossings.

**Support Existing Transit**
BRT routes will complement other Madison Metro transit services with faster and more efficient connections.