

TECHNICAL ADVISORY COMMITTEE

June 26, 2019 10:00 – 12:00 p.m. McCloskey Room (#135)

- I. Call to Order and Introductions
- II. Approval of Minutes:
 - a. May 22, 2019
- III. Communications from the Chair and Vice Chair
- IV. Reports from Officers and/or Committees
- V. Reports from Staff
- VI. Old Business
- VII. New Business
 - a. Monroe County Southwest Corridor Study
 - b. Area 10-Rural Transit Route Optimization Study
 - (1) http://www.area10agency.org/wp-content/uploads/2019/06/Final-Report-Monroe-County-Rural-Transit-Section-1-Service-Analysis-1.pdf
 - (2) http://www.area10agency.org/wp-content/uploads/2019/06/Final-Report-Monroe-County-Rural-Transit-Section-2-Community-input-1-1.pdf
 - (3) http://www.area10agency.org/wp-content/uploads/2019/06/Final-Report-Monroe-County-Rural-Transit-Section-3-Demand-Analysis-1.pdf
 - (4) http://www.area10agency.org/wp-content/uploads/2019/06/Final-Report-Monroe-County-Rural-Transit-Section-4-Recommendations-and-Financial-Plan.pdf
 - c. Bloomington Transit Route Optimization Study
 - d. Bloomington Transit Maintenance/Operations Facility Condition Assessment Study
- VIII. Communications from Committee Members and the public (non-agenda items)
 - a. Topic suggestions for future agendas
- IX. Upcoming Meetings
 - a. Policy Committee August 9, 2019 at 1:30 p.m. (Council Chambers)
 - b. Technical Advisory Committee August 28, 2019 at 10:00 a.m. (McCloskey Room)
 - c. Citizens Advisory Committee August 28, 2019 at 6:30 p.m. (McCloskey Room)

Adjournment

*Action Requested / Public comment prior to vote (limited to five minutes per speaker).

Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call <u>812-349-3429</u> or e-mail <u>human.rights@bloomington.in.gov</u>.



TECHNICAL ADVISORY COMMITTEE MINUTES

May 22, 2019 10:00 – 12:00 p.m. McCloskey Room (#135)

Technical Advisory Committee Minutes are transcribed in a summarized outline manner. Audio recordings of the meeting are available in the Planning & Transportation Department for reference.

Members Present: Lew May, Paul Satterly, Neil Kopper, Kurt Babcock, Jim Ude, Brian Noojin, Steve Cotter, Sarah Ryterband, Chris Myers

Staff Present: Pat Martin, Ryan Clemens

- I. Call to Order and Introductions
- II. Approval of Minutes:
 - a. April 24, 2019
 - **Ryterband moved approval of the April 24, 2019 minutes. Babcock seconded. Satterly abstained due to absence at previous meeting. Motion passes by voice vote.**
- III. Communications from the Chair and Vice Chair None at this time.
- IV. Reports from Officers and/or Committees
 - a. Satterly reported on the progress of the Fullerton Pike Phase 1 and 2 projects
 - b. Myers reported on the progress of Rural Transit projects and route studies (**PUT ON AGENDA FOR JUNE MEETING**)
- V. Reports from Staff
 - a. Martin reported on the 2019 Unified Planning Work Program (UPWP) approval by INDOT, the FY 2020 2024 Transportation Improvement Program (TIP), the Statewide Transportation Improvement Program (STIP) progress and update, the statewide performance targets (crash data report), the citizen comment at the May 10, 2019 Policy Committee (PC) meeting, and the car/bicycle hit-and-run crash that occurred on SR 45 on May 13, 2019. Kopper questioned whether MPO communication to INDOT about the citizen comment at the PC meeting will be reviewable by the MPO committees. Martin answered in the affirmative to aforementioned question. Ryterband inquired about the timeframe of the 5 year Crash Report. Discussion ensued about how the report is assembled and about data accuracy.
- VI. Old Business
- VII. New Business
 - a. FY 2018 2021 & FY 2020 2024 Transportation Improvement Program Amendments*
 (1) DES# 1901448 District-Wide Bridge Asphalt Patching at Various Locations

Martin presented on the proposed INDOT amendment and its funding.

Ryterband moved approval of the FY 2018 – 2021 & FY 2020 – 2024 Transportation Improvement Program Amendment. Myers seconded. Motion passed by unanimous consent by voice vote.

VIII. Communications from Committee Members (non-agenda items)

- a. Topic suggestions for future agendas
 - (1) Report on Rural Transit route study (Chris Myers) at June MPO meetings
 - (2) Statewide Performance Targets and crash data (MPO staff)

IX. Upcoming Meetings

- a. Policy Committee June 14, 2019 at 1:30 p.m. (Council Chambers)
- b. Technical Advisory Committee June 26, 2019 at 10:00 a.m. (McCloskey Room)
- c. Citizens Advisory Committee June 26, 2019 at 6:30 p.m. (McCloskey Room)

Adjournment

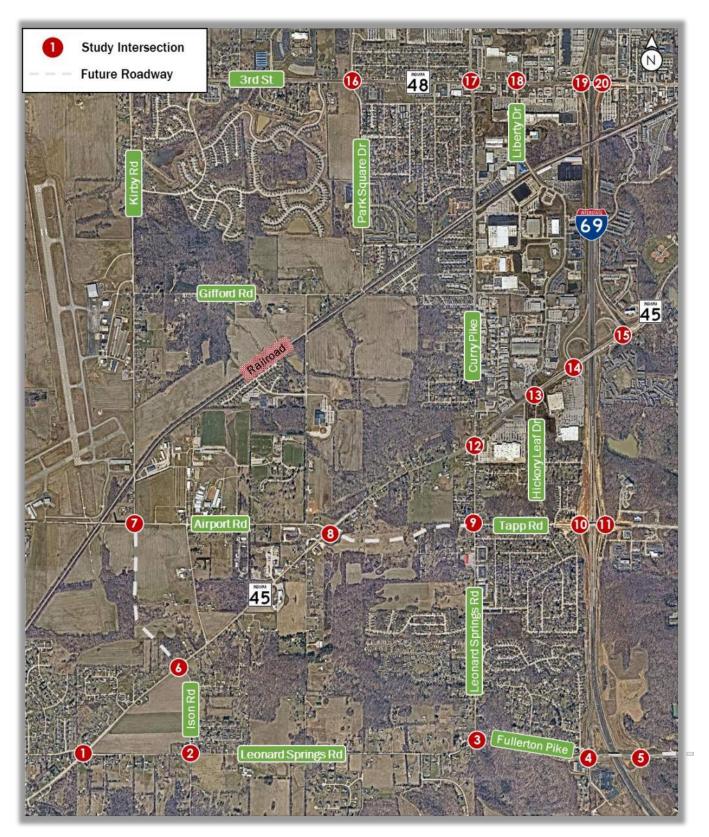
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Figure 1.1 – Study Area



Monroe County – Rural Transit Service Optimization Study

Overview of Findings and Recommendations

June 2019

Rural Transit Service Analysis

Performance Indicators

- Door to Door Provides 1.95 Passenger Boardings Per Revenue Hour
- Express Route Provides 3.52 Passenger Boardings Per Revenue Hour
- Both Values Are Within a Normal Productivity Range for These Service Types

Rural Transit Service Analysis

Performance Indicators

 Overall Cost Per Passenger Boarding Has Increased

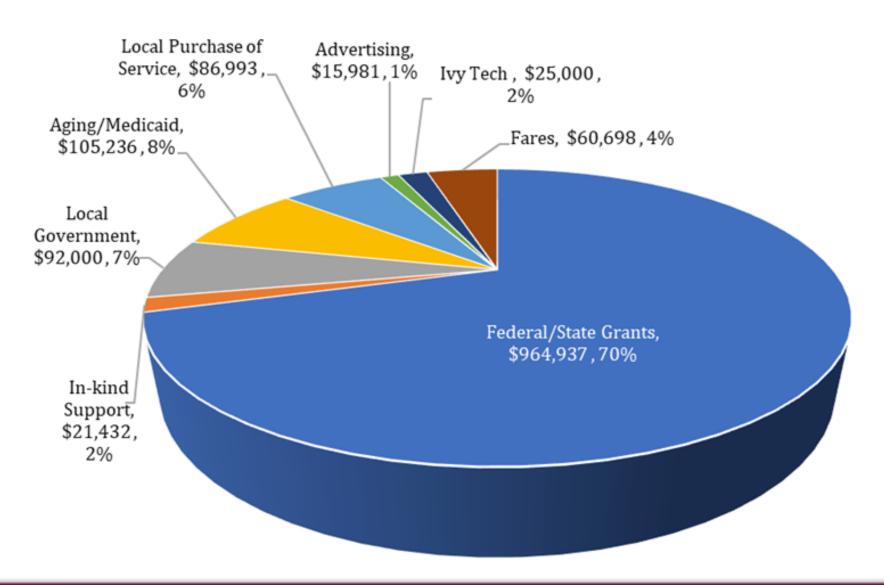
o 2016: \$14.12

o 2017: \$15.40

o 2018: \$17.81

 Study Recommendations Are Intended to Increase Productivity and Cost-Efficiency

2018 Rural Transit Revenue



2018 Rural Transit Expense

- ◆ Labor: \$710,000
- ♦ Benefits: \$149,247
- ♦ Services: \$30,000
- Materials/Supplies (Includes Fuel): \$229,000
- ◆ Utilities: \$45,569
- Casualty & Liability: \$90,000
- Indirect Expenses: \$213,806
- Other: \$6,800

Community Input

- Public and Stakeholder Input was Gathered Through 3 Public Meetings, Stakeholder Interviews and a Survey
- There Is Particular Interest in Transit for People Unable to Drive Due to Age, Disability or Lack of a Vehicle

Recommendations

- Population Density is Low in Areas Outside the Bloomington Urbanized Area (UZA)
- Fixed Route Transit Is Not Likely to Generate Strong Ridership in Areas Outside the UZA
- ◆ There Is Some Level of Transit Need Throughout the County, so Rural Transit Should Continue to Offer Countywide Door to Door Service

Adopt a Cost Allocation Model

- Analyze Operating Data and Expenses to Calculate Rural Transit Cost per Unit
- Use Calculations to Estimate Costs of Services that Rural Transit Adds, Changes or Eliminates
- Use the Cost Model to Generate Pricing for Contracted Service for Stone Belt and Other Organizations Eligible to Purchase Service

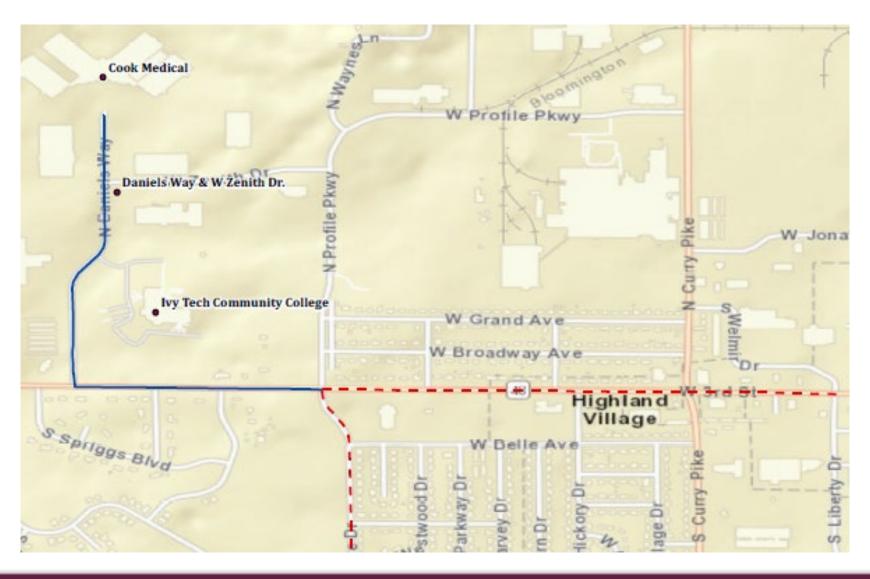
Expand Door to Door Capacity

- Add More Vehicle-Hours of Door to Door Service
- Increase Capacity at High-Demand Times (6:00 AM to 8:00 AM and 2:00 PM to 6:00 PM)

Replace Express Route with "Park 48 Connector"

- Instead of Connecting with BT Downtown, Use a Transfer Point on the West Side of Bloomington
- Run a Shorter, Higher-Frequency Point Deviation Service

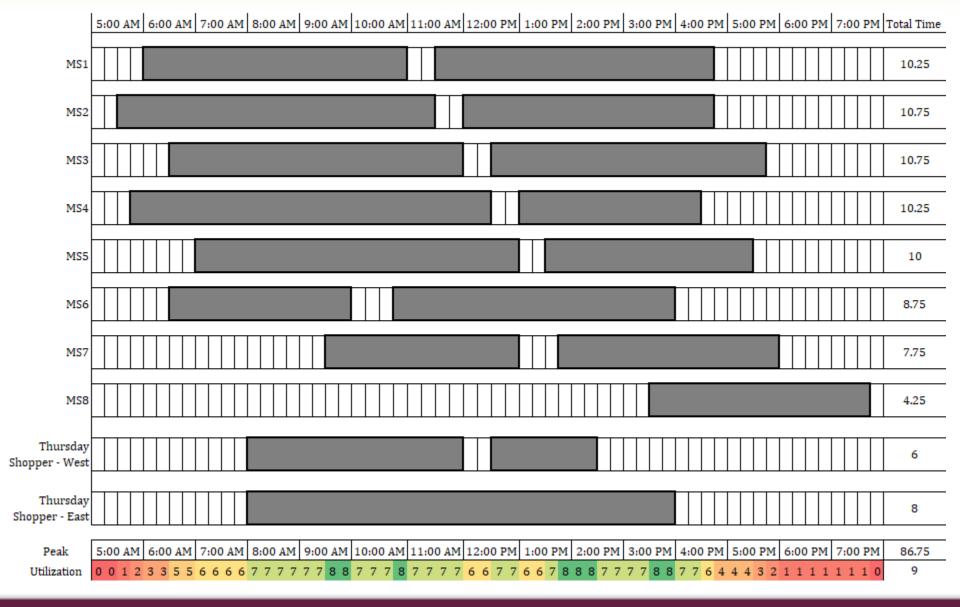
- This Change Would Result in Estimated Savings of \$109,542
- This Savings Should Be Reinvested Primarily in the Door to Door Expansion
- Following Slide Shows a Sample Map
 - Blue Line is Park 48 Connector
 - Red Line is Area Where Bloomington Transit Transfer Point Could Be



Shopper Shuttle Expansion

- Rural Transit Currently Offers a Weekly Shopper Shuttle on the West Side of Monroe County
- This Concept is A Weekly Shopper Shuttle That Takes Residents of the East Side of Monroe County to College Mall

Fleet Utilization w/Changes



Transportation Scheduling Software

- Rural Transit Currently Schedules Door to Door Rides through Google Calendar
- Google Is Free, but Limited in Functionality
- Rural Transit Can Increase Productivity (Boardings per Vehicle Hour) by Using Transportation Scheduling Software

Transportation Scheduling Software

- Software Capital Cost is Up to \$100,000
- Software Annual Maintenance/Support Cost is \$10,000 to \$30,000
- Peer Systems Have Significantly Increased Ridership and Cost-Efficiency Through Acquiring Scheduling Software

Service Concept #5 - Alternative

Transportation Scheduling Software

- Bloomington Transit Has Paratransit
 Scheduling Software for BT Access
- Rural Transit and Bloomington Transit
 Could Explore Whether It is Feasible for RT to Utilize BT's Software Remotely

Revised Staffing Model

- After the Adoption of Software, Rural Transit Should Evaluate its Level of Staffing for Data Entry and Reservations/Scheduling
- Adequate Reservations/Scheduling Staffing is Important for Customer Service – Potentially, No Changes Would be Made

New Marketing Efforts

- Rural Transit Should Invest a Small Amount of the Savings from Eliminating the Express Route into Community Awareness and Outreach
- Expenses Would Include Updated Brochures, Branding and Community Outreach

- Two Additional Service Concepts Are Provided for Consideration
- Meant as community alternatives, not specifically Rural Transit provision
- These Services are Beyond the Current Scope of Rural Transit and Would Involve Partnership with Other Agencies

Vanpool Program

- A Commuter Vanpool Program Would Help Rural Residents Get to Work in Bloomington
- Vanpools are Groups of 5-15 Commuters
 Who Ride to Work in Vans
- One of the Commuters is the Driver (There is No Paid Driver)

Vanpool Program

- Vanpool Costs are Typically Subsidized by Government Funding and/or Employers
- Central Indiana Regional Transportation Authority (CIRTA) Operates the Commuter Connect Carpool/Vanpool Program
- 4 Vanpools in CIRTA's Program Currently Travel from Bloomington to Indianapolis Each Weekday

Vanpool Program

- Commuter Connect Has Recently Expanded Vanpooling to the City of Columbus
- The City of Columbus Covers the Cost of the Columbus Expansion
- Commuter Connect's Vans are Leased from Enterprise Rideshare

<u>Demand-Response Employment Rides</u> <u>Program</u>

- New Program to Provide Rides to Work for People with Low Incomes in Rural Areas
- Collaboration of Rural Transit, 1 or More Local Employers, and a Non-Profit Organization that Focuses on Supporting People in Achieving Economic Self-Sufficiency

<u>Demand-Response Employment Rides</u> <u>Program</u>

- This Program Would Be a Dedicated Employment-Focused Service Operated Under Contract to the Partner Non-Profit
- A One-Vehicle Program Is Estimated to Cost \$46,869 Per Year
- Interested Stakeholders Would Need to Identify a Funding Source

Contact Information

- The Full Report is Available from Chris Myers, President/CEO, Area 10 Agency on Aging
 - o (812) 876-3383 ext. 503
 - cmyers@area10agency.org

Thank you!





June, 2019

Project Background

- Two primary transit operators in the City: BPTC and IU
 - 40,000 IU students account for 70% of BPTC ridership
 - County service provided by Rural Transit
- Strong ridership growth over past 35 years, but recent declines
 - Each system caries approximately 3 million riders per year
 - BT peaked at 3.5 million; IUCB peaked at 3.7 million
- Ridership declines in line with national trends
 - Changing mobility landscape
 - Changing market and development patterns

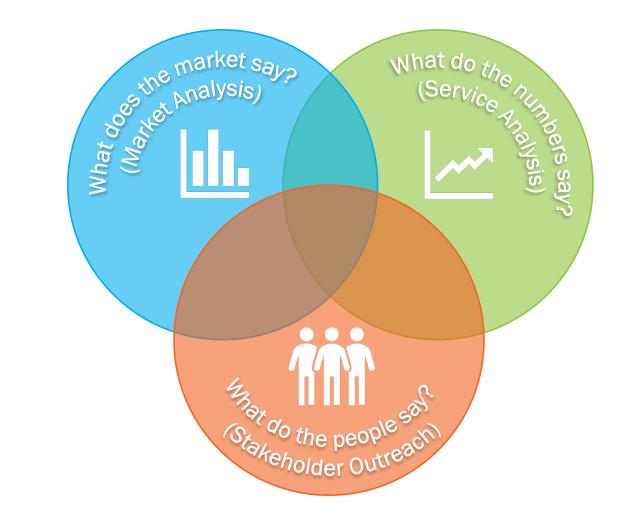


Project Goals

- Identify strengths and weaknesses of existing systems
 - Review travel patterns
 - Assess system efficiency
 - Identify unmet transit needs
- Recommend service improvements
 - Serve existing riders better
 - Attract new riders
 - Improve over-all system efficiency
 - Consider innovative solutions and emerging technologies



Project Approach





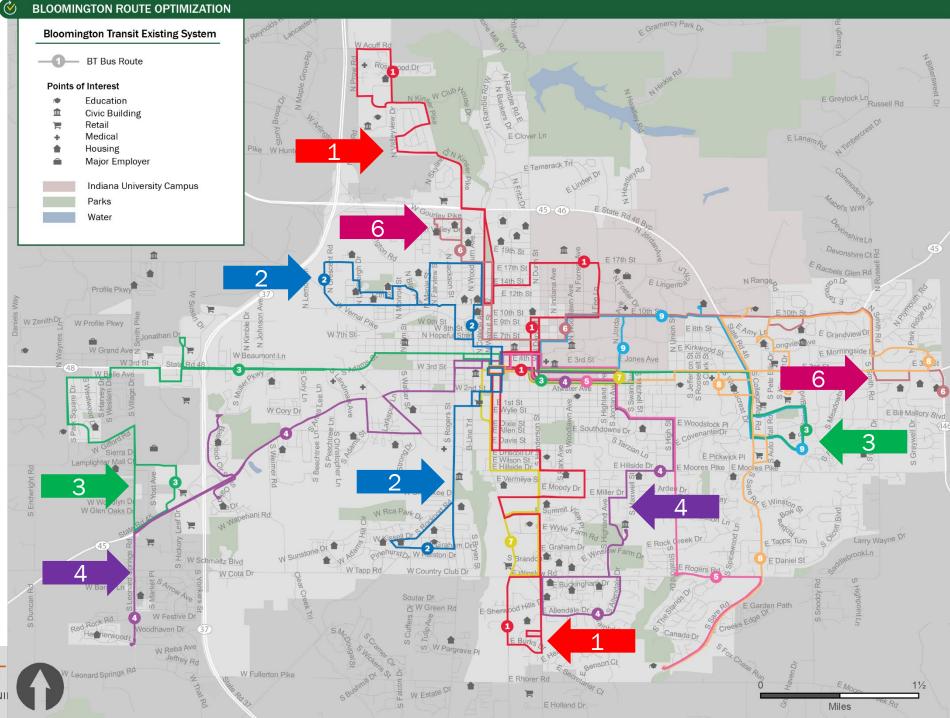
Guiding Principles

- Service Should be Simple!
 - Service Should Operate at Regular Intervals
 - Routes Should Operate Along a Direct Path
 - Routes Should be Symmetrical
 - Routes Should Serve Well Defined Markets
 - Service Should be Well Coordinated



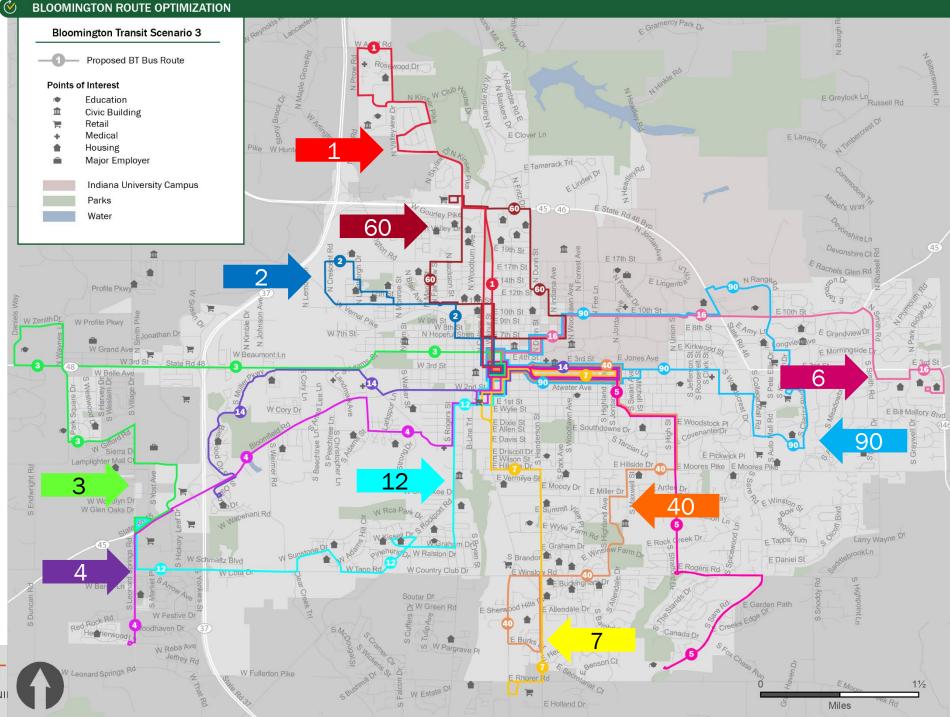
Issues

RoutesServingUnrelatedMarkets



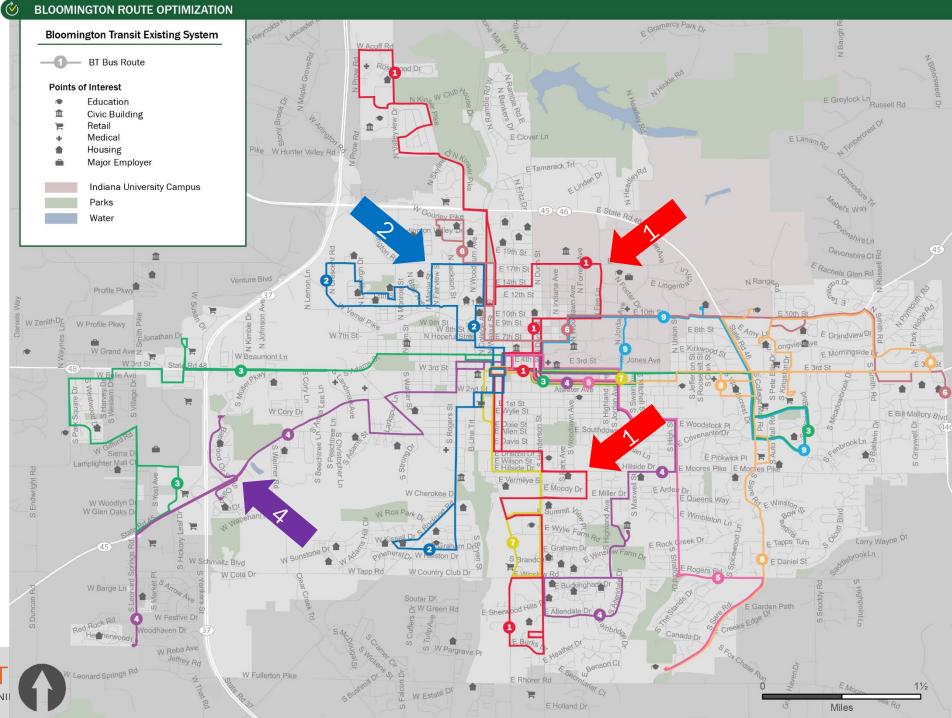


RoutesServingUnrelatedMarkets



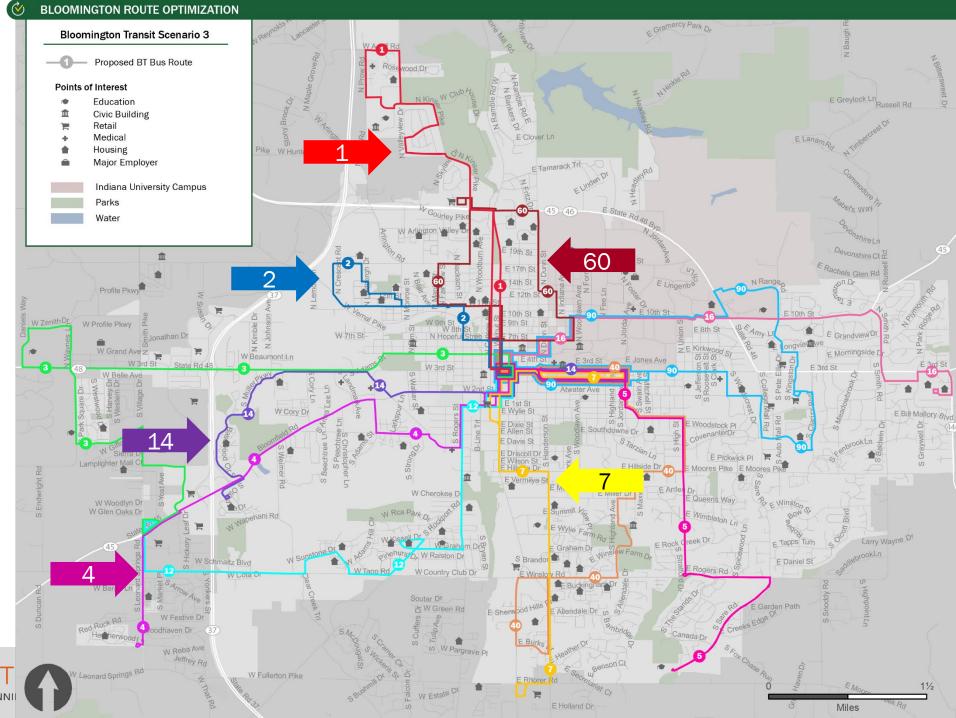


Circuitous Alignments



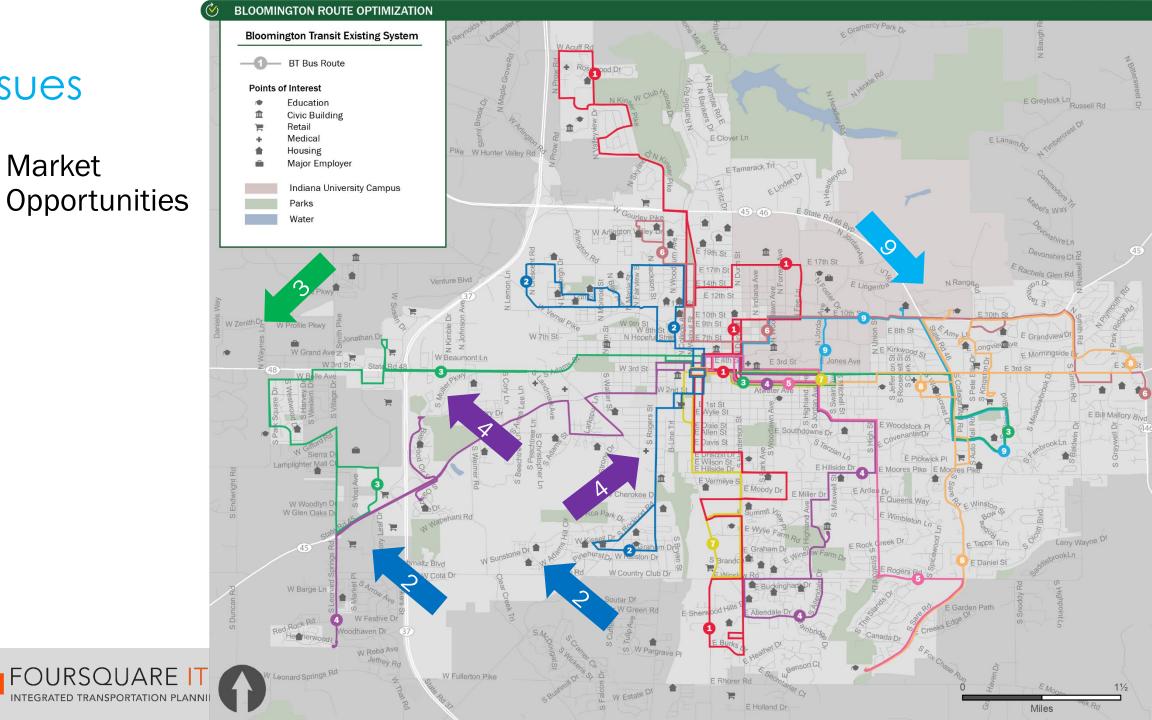


Circuitous Alignments

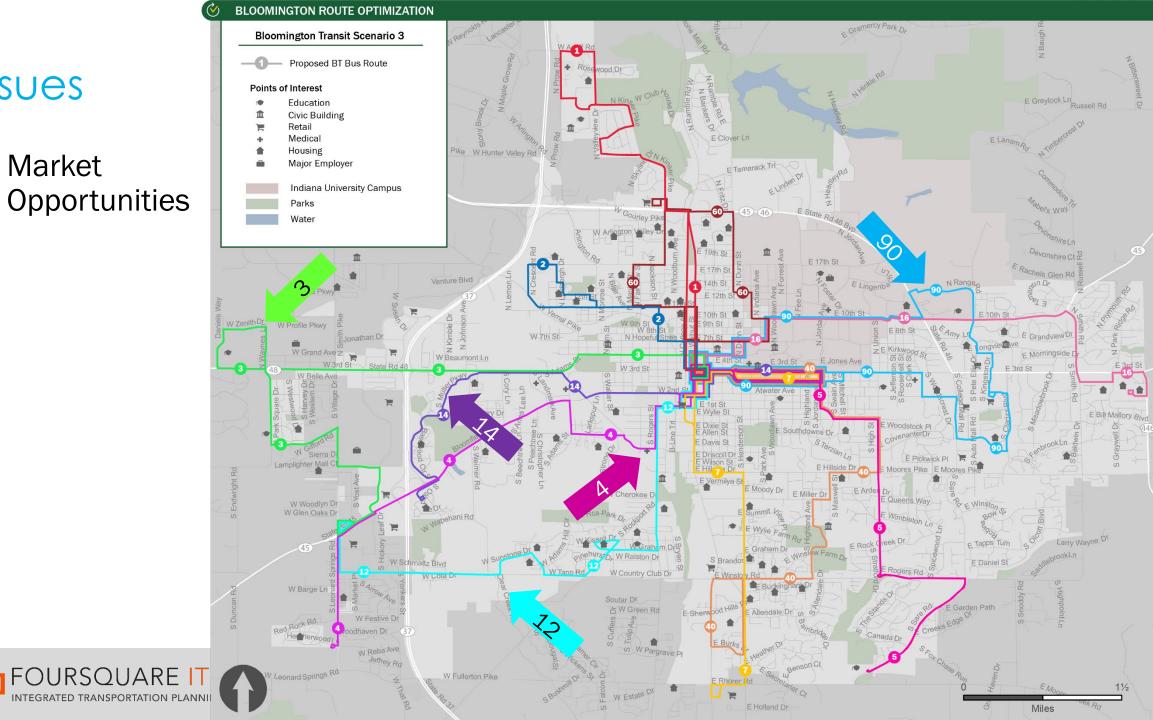




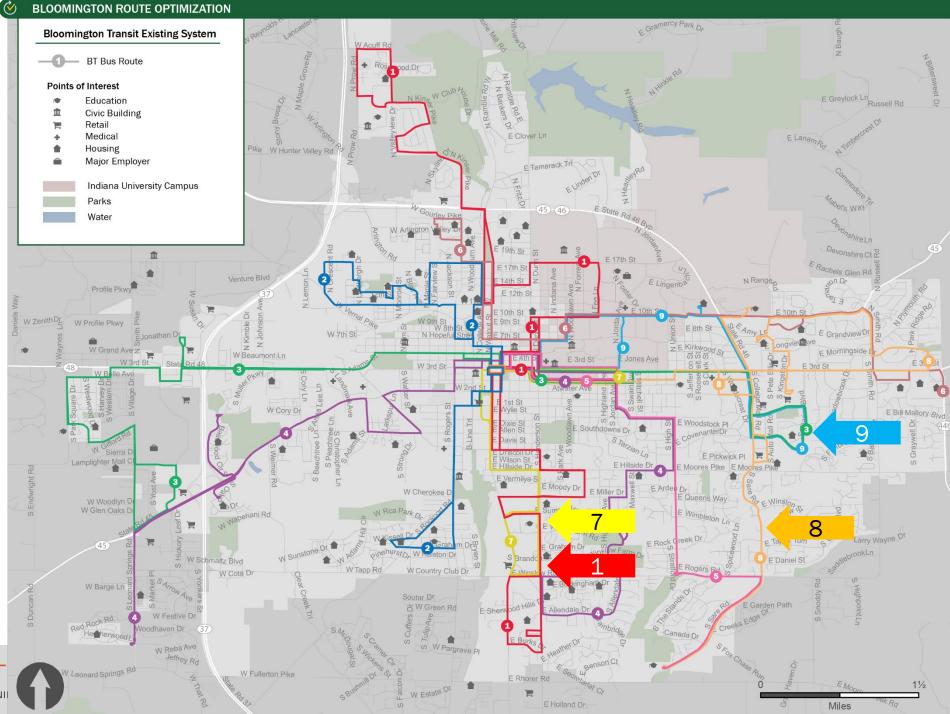
Market Opportunities



Market Opportunities

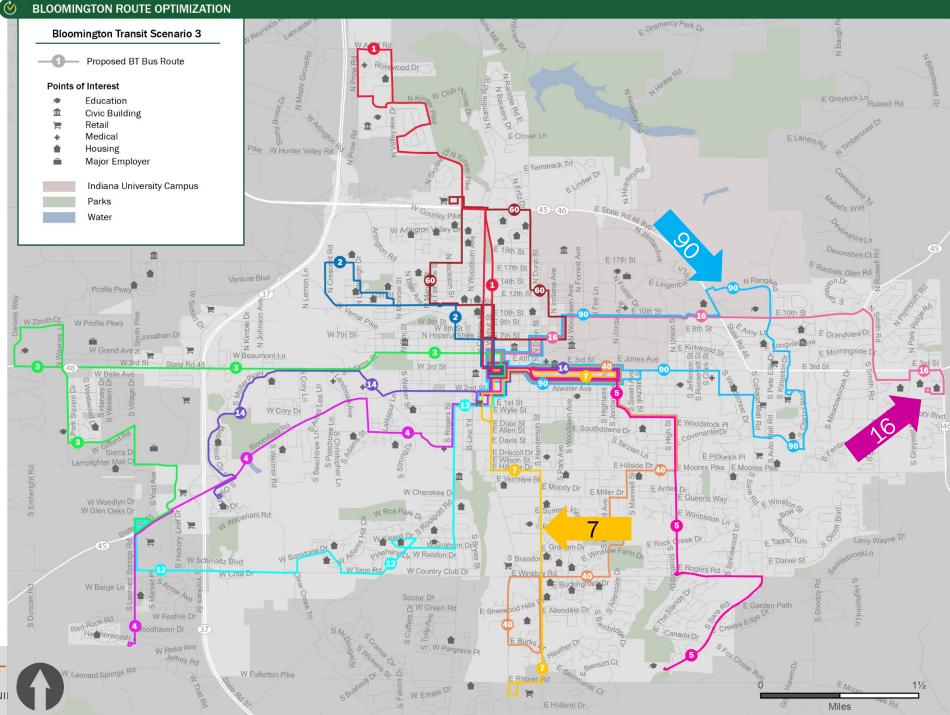


Unproductive or Redundant Service



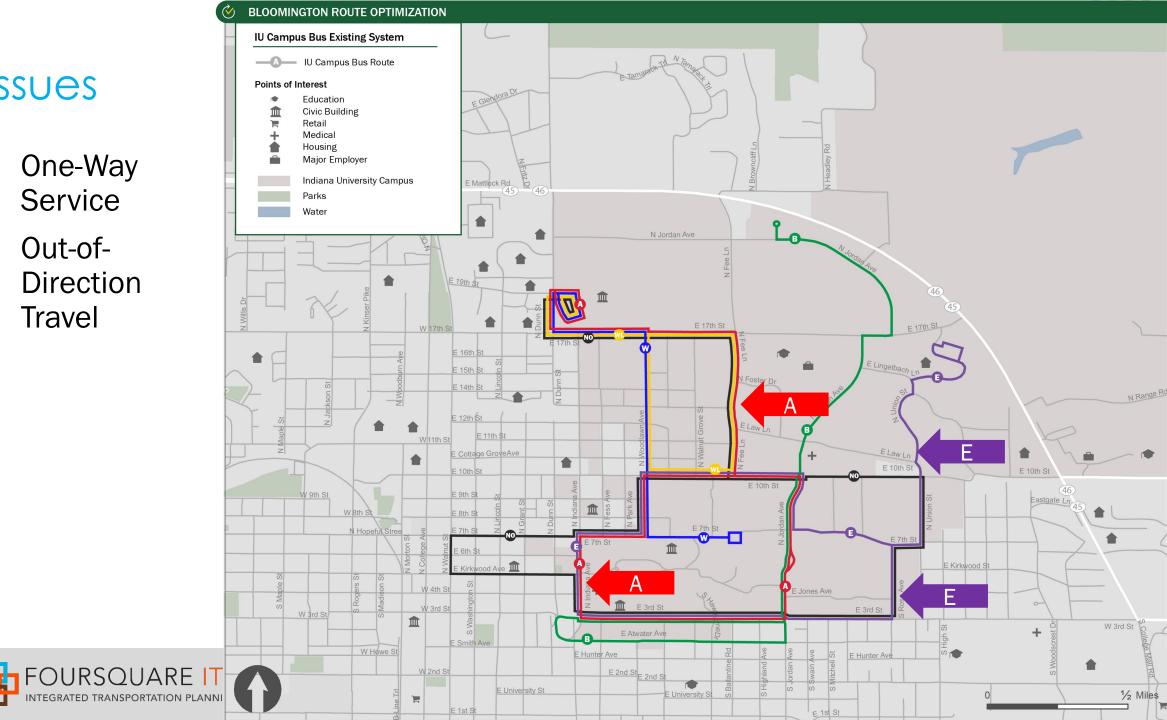


Unproductive or Redundant Service

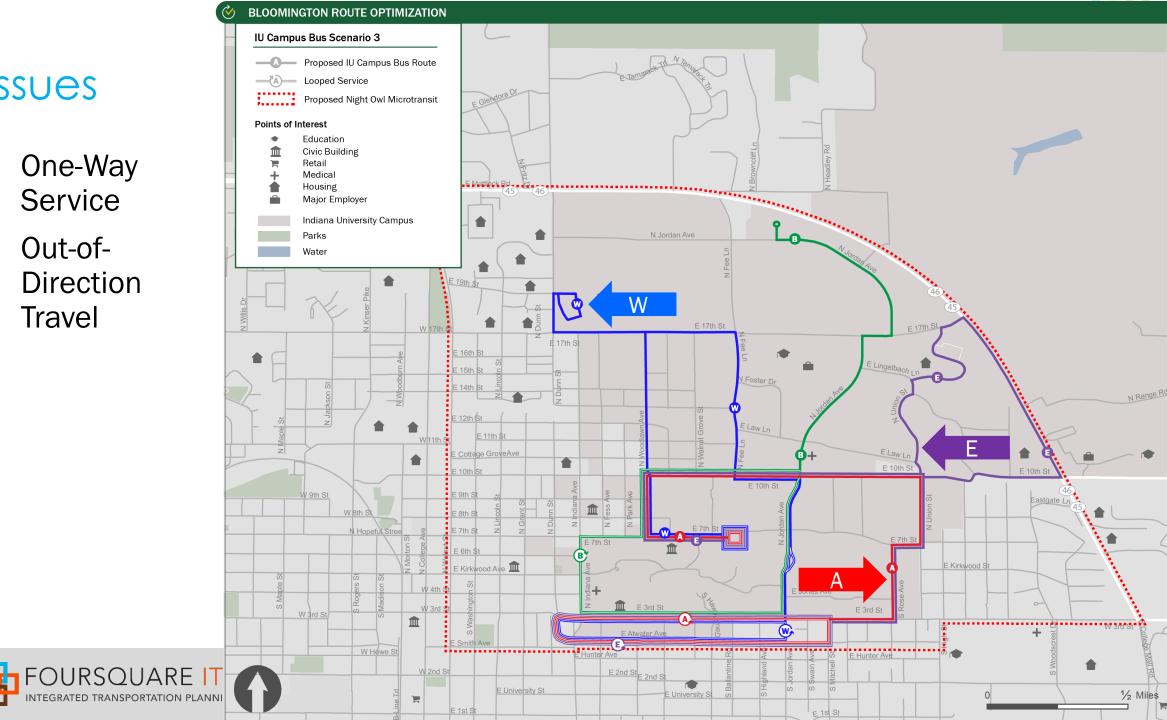




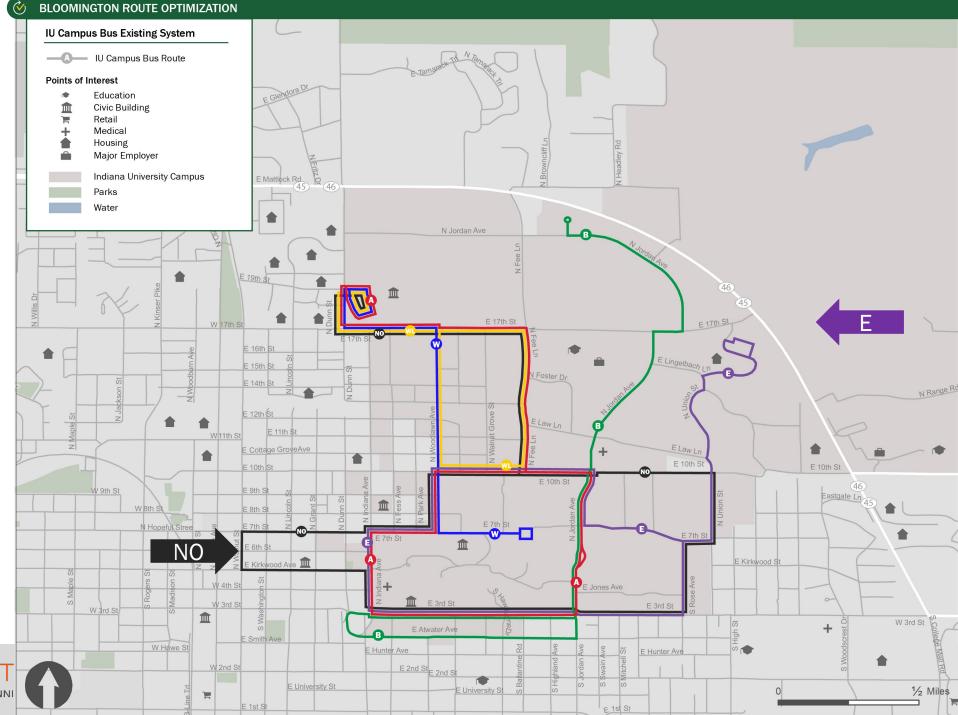
- One-Way Service
- Out-of-Direction Travel



- One-Way Service
- Out-of-Direction Travel

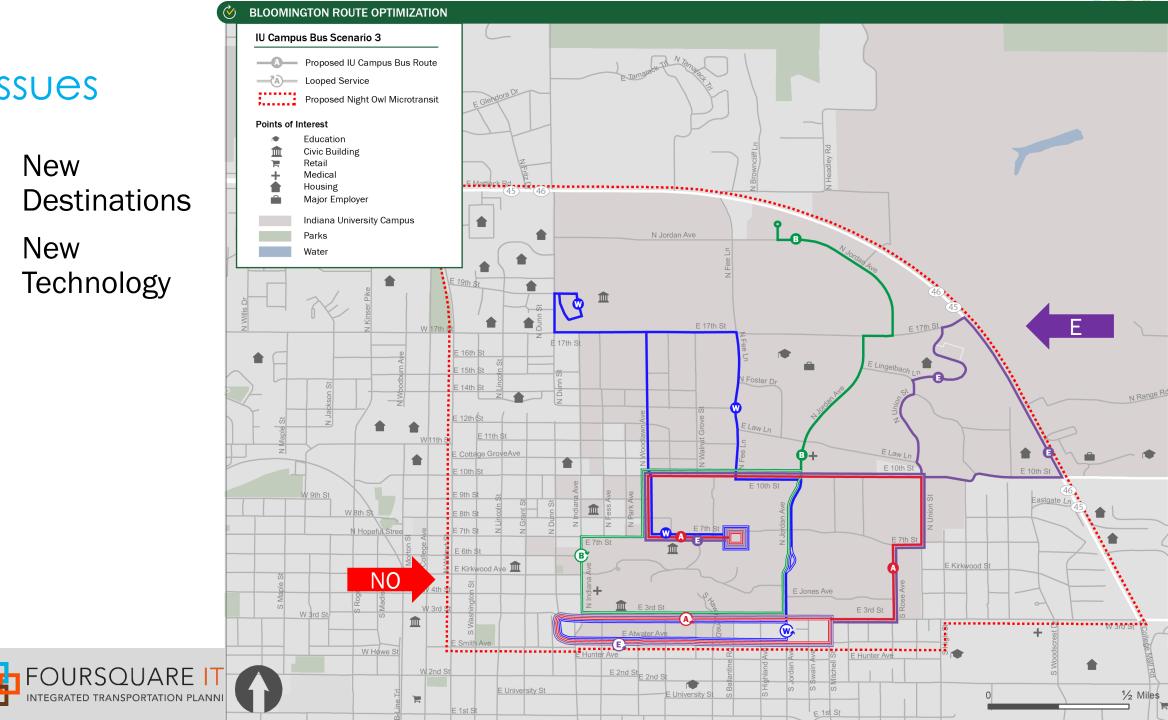


- New Destinations
- New Technology





- New **Destinations**
- New Technology



Microtransit

- Technology-driven demand-response service
 - More coverage than fixed-route service
 - More flexibility than traditional dial-a-ride service
 - Familiar interface for those who have used Uber/Lyft app (phone reservations also possible)
 - More control over vehicles and driver vetting than Uber/Lyft

Turn-Key Service



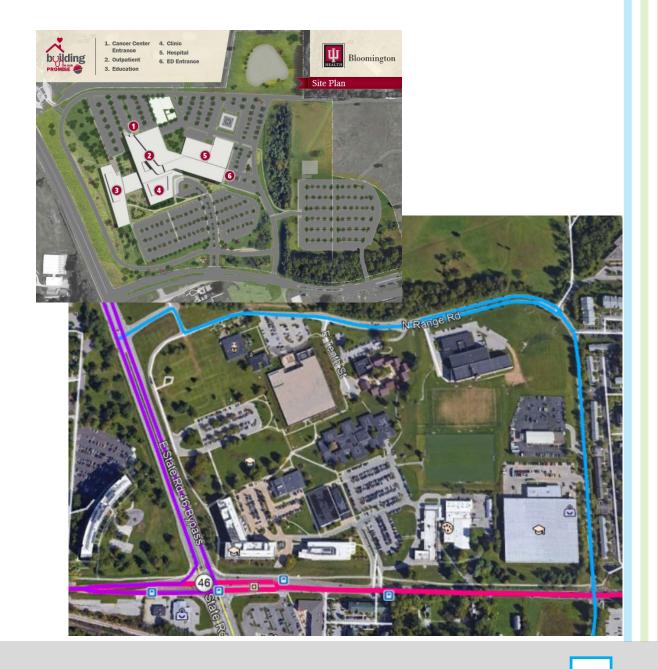
Technology Deployment





Autonomous Vehicles

- Greatest Potential for Autonomous Vehicles:
 - 10th / Bypass Campus
 - IU Health
 - IU Campus Children's Center
 - Indiana Institute on Disability and Community
 - IU Data Center
 - Smith Research Center
 - Cyberinfrastructure Building (CIB)
 - Stone Belt Disability Services
 - IU Warehouse
 - IU Auxiliary Library





Service Characteristics

- Clock-face frequency planned for all routes
- Peak BT headways would range from 15-60 minutes
 - Only 3 routes with hourly peak headways (Routes 1, 4, and 5)
 - All other routes would operate with 30-minute or better peak frequency
- Peak period defined as 12 hours (~ 6:00 AM 6:00 PM)
- Regular BT weekday service span would range from 13-17 hours
- All BT routes would operate during break weekdays, but with modified schedules
- All IU routes would operate every 10 minutes during peak period
 - 12-hour peak period for Routes A, B, and E; 10 hours for Route W
 - Off-peak headways would range from 20-30 minutes during regular weekdays







June, 2019 2



Presentation of Findings
Bloomington Public Transportation

Table of Contents

1.0 Introduction

- Who is EMG?
- EMG's Facility Condition Assessments (FCAs)
- EMG's Findings Include?
- EMG's Replacement Reserves
- Terms to Know
- Facility Condition Index (FCI)

2.0 Executive Summary

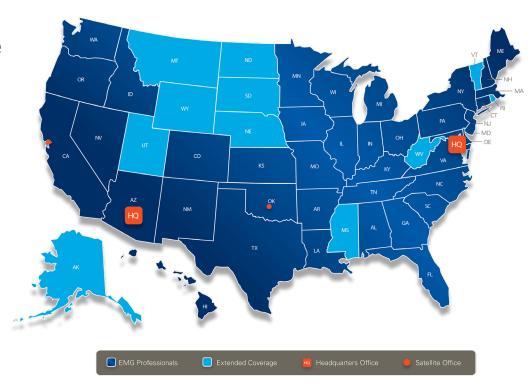
- Replacement Reserve Summary
- Replacement Reserves by Uniformat

• 3.0 Facility Condition Assessments

- Group Element Report
- Critical Need Report
- Replacement Reserve Report Example
- Reserve Summary 10 Year
- Priority Score Report

Introduction

- 30 years of FCA experience
- State, local, and federal government; parks and rec, healthcare, K-12, higher education, and multi-family housing
- 700 Employees



What Did EMG's Assessment Include?

Pre-Survey

- Pre-Survey Questionnaire
- Kick Off and Review Existing Data

Facility Condition
Assessments
and Inventory

- Inspections of Building Systems
- Identification of Deficiencies
- Inventory of Assets
- Repair / Replace Recommendations
- Cost Estimating
- FCI Calculations and Prioritization
- FCA / Inventory Reports
- Capital Planning Reports
- Database and Optional Integration

3 Deliverables



Scope Outline

Scope

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.

Definitions

Expected Useful Life (EUL) – Industry standard life expectancies for facility assets.

Effective Age – The Assessors' professional opinion of an assets condition in terms of years as it relates to that asset's EUL.

Remaining Useful Life (RUL) – Difference between the EUL of an asset and its assigned effective age.

Short term considerations – A list of assets whose effective age has either reached or exceeded their industry accepted EULs.

Reserve Items – A list of assets whose effective age has not yet attained their industry accepted EULs and whose replacement falls sometime within the reserve term or beyond.

Current Replacement Value (CRV) – Researched value to rebuild a facility.

Facility Condition Index – A simple equation of :

(all facility needs) / CRV = FCI percentage



EMG's Findings

Quantity

Expected Useful Life (EUL)

Effective age (eAge)

Remaining Useful Life (RUL)

Expected cost to replace

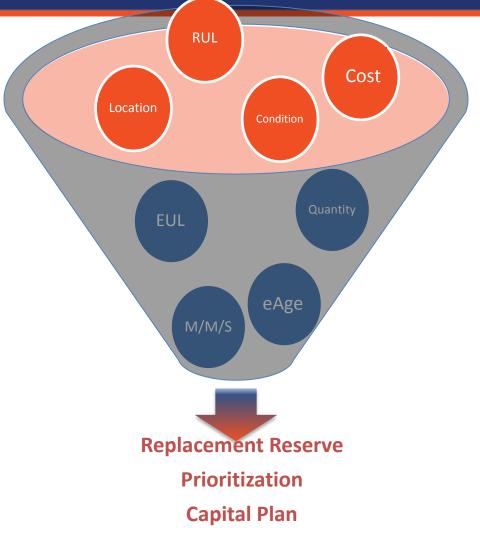
Location

Manufacturer / Model / Serial Number (if applicable)

Condition is assigned by the assessor

Critical Need Flag is assigned by the assessor (if applicable)

What are EMG's Findings?



20 Year Replacement Reserve Schedule

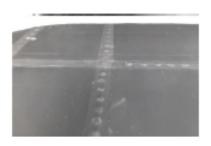
System Expenditure Forecast

System	Immediate	Short Term (3 yr)	Near Term (5 yr)	Med Term (10 yr)	Long Term (20 yr)	TOTAL
Structure	-	\$5,400	-	-	\$7,300	\$12,700
Facade	\$600	\$3,700	\$46,200	\$67,700	\$201,700	\$319,800
Roofing	\$290,700	-	\$13,700	\$114,300	\$1,402,400	\$1,821,000
Interiors	\$5,100	\$43,100	\$220,700	\$267,500	\$561,100	\$1,097,500
Plumbing	-	\$22,500	\$119,500	\$12,800	\$300,800	\$455,500
Fire Suppression	-	-	\$52,500	-	\$2,200	\$54,600
HVAC	-	\$93,300	\$383,500	\$173,700	\$816,900	\$1,467,400
Electrical	-	\$422,000	\$165,300	\$120,700	\$1,620,700	\$2,328,700
Fire Alarm & Comm	-	-	\$304,900	\$164,800	\$472,800	\$942,500
Equipment/Special	-	-	\$19,300	\$600	\$180,400	\$200,200
Pavement	\$500	\$77,000	-	\$1,552,900	\$19,700	\$1,650,100
Utilities	-	\$135,500	-	-	-	\$135,500
Site Development	-	-	-	\$84,100	-	\$84,100
TOTALS	\$296,900	\$802,500	\$1,388,100	\$2,559,100	\$5,586,000	\$10,632,100

Immediate Needs

Administration and Operation Building: Roof, Replace	\$32,900
Administration and Operation Building: Window, Replace	\$600
Garage : Roof, Replace	\$257,700
Garage: Interior Wall Finish, Prep and Paint	\$5,100
Site : Pedestrian Pavement, Sidewalk, Sectional Replacement	\$500

Key Findings



Roof in Poor condition.

Single-Ply EPDM Membrane (Uniformat Code: B3011)

Garage Bloomington Public Transportation Corporation Roof

Recommendation: Replace in 2019.

Roof leaks in several locations AssetCALC ID: 1159085



Roof in Poor condition.

Single-Ply EPDM Membrane (Uniformat Code: B3011)

Administration & Operations Building Bloomington Public Transportation Corporation Roof

Recommendation: Replace in 2019.

Roof has several small active leaks and has exceeded expected useful life.

AssetCALC ID: 1159068



Structural Flooring/Decking in Poor condition.

Metal (Uniformat Code: B1012)

Fuel Island Bloomington Public Transportation Corporation Throughout building

Recommendation: Refinish in 2020.

Metal support structure has rust in many places, should be refinished to protect from further rust damage.

Key Findings



Window in Poor condition.

SF (Uniformat Code: B2021)

Administration & Operations Building Bloomington Public Transportation Corporation 100 Vestibule

Recommendation: Replace in 2019.

Cracked pane at entrance vestibule.

AssetCALC ID: 1157833



Boiler in Poor condition.

Cleaver-Brooks FLX (Uniformat Code: D3021)

Garage Bloomington Public Transportation Corporation Boiler room

Recommendation: Replace in 2020.

Boiler #2 scheduled for replacement summer 2019.

Key Findings



Parking Lots in Poor condition.

Concrete Pavement (Uniformat Code: G2022)

Site Bloomington Public Transportation Corporation Site - Bus Parking

Recommendation: Replace in 2020.

Large areas of concrete paving exhibiting cracks, depressions and isolated areas of exposed reinforcing bars.

AssetCALC ID: 1157845



Fuel Island Concrete in Poor condition.

Concrete Curb & Gutter (Uniformat Code: G2012)

Fuel Island Bloomington Public Transportation Corporation Throughout building

Recommendation: Replace in 2020.

Metal edges of curbs is rusted through and failed in many locations, will need to be replaced throughout.

AssetCALC ID: 1159062



Pedestrian Pavement in Poor condition.

Sidewalk, Concrete Large Areas (Uniformat Code: G2031)

Site Bloomington Public Transportation Corporation Site- Side Parking

Recommendation: Replace in 2019.

Isolated areas of concrete sidewalks exhibiting cracks.

Budget Recommendation



Interior Wall Finish in Poor condition.

Concrete/Masonry (Uniformat Code: C3012)

Garage Bloomington Public Transportation Corporation Bus Wash

Recommendation: Prep & Paint in 2019.

Paint has worn away on the walls and needs to be redone.

AssetCALC ID: 1159137



Interior Wall Finish in Poor condition.

Concrete/Masonry (Uniformat Code: C3012)

Garage Bloomington Public Transportation Corporation Vehicle Service Bays

Recommendation: Prep & Paint in 2020.

Paint peeling in vehicle service area

Facility Condition Index (FCI) Rating

- The overall rating of the buildings was determined by an FCI Ratio.
 - Cost of Immediate Repairs + Deferred Maintenance / Current Value
- Appraised Values are approximate values as determined by RS Means and Marshall Swift
- The Current Year FCI is the ratio of Immediate Repair Costs to the building's Current Appraisal Value.

Current FCI

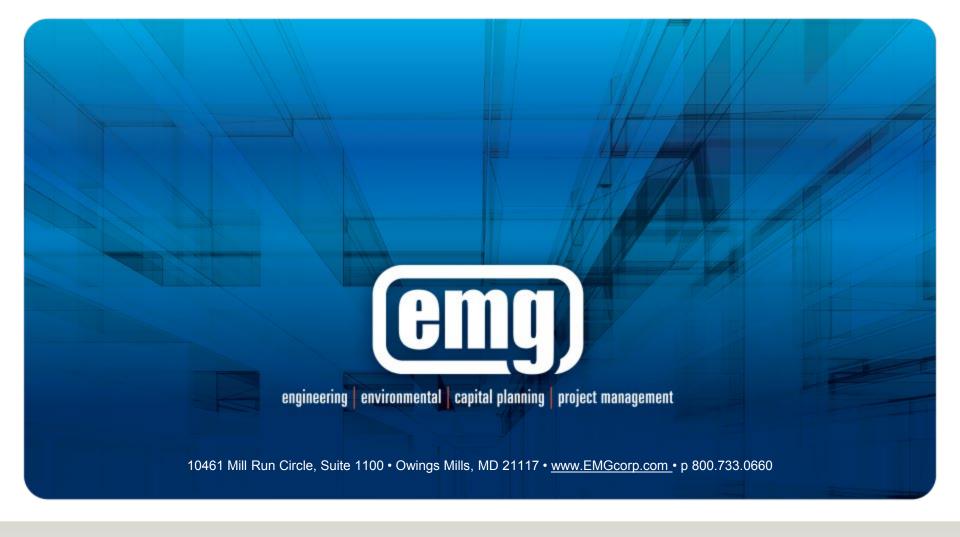
- Facility Condition Index = building needs/building replacement cost
- Higher Number indicates greater need

FCI Ranges & Description 0 – 5% In new or well-maintained condition, with little or no visual evidence of wear or other deficiencies. 5 – 10% Subjected to wear but is still in a serviceable and functioning condition. 10 – 60% Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life. 60% and above Has reached the end of its useful or serviceable life. Renewal is now necessary.

Projected FCI (10 Year)

- Show sum of repairs needed for the next 10 years
- Facility Condition Index = building needs/building replacement cost
- Higher number indicates greater need

FCI Analysis Bloomington Public Transportation Corporation					
Replacement Value \$ 14,321,700	Total SF 71,608		Cost/SF \$ 200		
Current FCI		\$ 296,800		0.02	
3-Year		\$ 1,117,500		0.08	
5-Year		\$ 2,555,900		0.14	
10-Year		\$ 5,308,000		0.35	



Thank You