MULTI-MODAL TRANSPORTATION BOARD
THURSDAY, APRIL 13, 2017
5:30 PM
CITY COMMISSION ROOM
151 MARTIN STREET, BIRMINGHAM

1. Roll Call
2. Introductions
3. Review of the Agenda
4. Approval of Minutes, Meeting of March 2, 2017
5. S. Eton Rd. Cross-Section
6. W. Maple Rd. Crossing at Rouge River
7. Lawndale Ave. No Parking Area
8. Handicap Parking Policy
9. Meeting Open to the Public for items not on the Agenda
10. Miscellaneous Communications
11. Next Meeting May 4, 2017
12. Adjournment

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Persons with disabilities that may require assistance for effective participation in this public meeting should contact the City Clerk's Office at the number (248) 530-1880, or (248) 644-5115 (for the hearing impaired) at least one day before the meeting to request help in mobility, visual, hearing, or other assistance.

Las personas con incapacidad que requieren algún tipo de ayuda para la participación en esta sesión pública deben ponerse en contacto con la oficina del escribano de la ciudad en el número (248) 530-1800 o al (248) 644-5115 (para enos un dia antes de la reunión para solicitar ayuda a la movilidad, visual, auditiva, o de otras asistencias. (Title VI of the Civil Rights Act of 1964).

MULTI-MODAL TRANSPORTATION BOARD

Resolution No. 02-31-14 & 09-282-16

The purpose of the Multi-Modal Transportation Board shall be to assist in maintaining the safe and efficient movement of motorized and non-motorized vehicles and pedestrians on the streets and walkways of the city and to advise the city commission on the implementation of the Multi-Modal Transportation Plan, including reviewing project phasing and budgeting.

In so far as possible, the seven member committee shall be composed of the following: one pedestrian advocate member; one member with a mobility or vision impairment; one member with traffic-focused education and/or experience; one bicycle advocate member; one member with urban planning, architecture or design education and/or experience; and two members at large living in different geographical areas of the city. At least five Board members shall be electors or property owners in the city. The remaining Board members may or may not be electors or property owners in the City.

Term: Three years.

Last Name	First Name	Home Business E-Mail	Appointed	Term Expires
Adams 2109 Dorchester Birmingham 48009	**Vionna**	(202) 423-7445 *vionnajones@gmail.com*	12/15/2014 Member at large from different geographical areas of the city.	3/24/2018
Edwards 1636 Bowers Birmingham 48009	**Lara**	(734) 717-8914 *lmedwards08@gmail.com*	4/28/2014 Member at large from different geographical areas of the city.	3/24/2020
Folberg 1580 Latham Birmingham 48009	**Amy**	(248) 890-9965 *amy.folberg@gmail.com*	12/14/2015 Member at large from different geographical areas of the city.	3/24/2020

Last Name	First Name	Home Business E-Mail	Appointed	Term Expires
Lawson 1351 E. Maple Birmingham 48009	**Andy**	(586) 944-6701 *andlawson@deloitte.com*	4/28/2014 Pedestrian Advocate Member	3/24/2018
Rontal 926 Bird Birmingham 48009	**Daniel**	(734) 904-2544 *darontal@gmail.com*	10/27/2016 Mobility or Vision Impairment Experience/Expertise	3/24/2020
Schafer 1966 Fairway Birmingham 48009	**Katie**	(248) 835-5064 *schafekat@gmail.com*	3/13/2017 Alternate	10/27/2019
Slanga 4410 Charing Way Bloomfield Hills 48304	**Johanna**	(248) 761-9567 *johannaslanga@gmail.com*	5/5/2014 Traffic-Focus Education/Experience Member	3/24/2019
Surnow 320 Martin St. #100 Birmingham 48009	**Michael**	(248) 865-3000 *michael@surnow.com*	4/13/2015 Bicycle Advocate Member	3/24/2019
VACANT			Alternate	10/27/2019

DRAFT

CITY OF BIRMINGHAM
MULTI-MODAL TRANSPORTATION BOARD
THURSDAY, MARCH 2, 2017
City Commission Room
151 Martin Street, Birmingham, Michigan

Minutes of the regular meeting of the City of Birmingham Multi-Modal Transportation Board held Thursday, March 2, 2017.

Chairperson Vionna Adams convened the meeting at 6:04 p.m.

1. ROLL CALL

Present: Chairperson Vionna Adams; Board Members Lara Edwards, Amy Folberg, Johanna Slanga

Absent: Board Members Vice-Chairperson Andy Lawson, Daniel Rontal, Michael Surnow

Administration: Lauren Chapman, Asst. City Planner
Jana Ecker, Planning Director
Scott Grewe, Operations Commander
Paul O'Meara, City Engineer
Carole Salutes, Recording Secretary

Also Present: Mike Labadie from Fleis & Vandenbrink ("F&V"),Transportation Engineering Consultants.

2. INTRODUCTIONS (none)

3. REVIEW AGENDA (no change)

4. APPROVAL OF MINUTES, MEETING OF FEBRUARY 2, 2017

Motion by Ms. Slanga
Seconded by Ms. Folberg to approve the Minutes of February 2, 2017 as presented.

Motion carried, 4-0.

VOICE VOTE
Yeas: Slanga, Folberg, Adams, Edwards
Nays: None
Absent: Lawson, Rontal, Surnow

5. SAXON RD. IMPROVEMENTS
Norfolk Dr. to Southfield Rd.

Mr. O'Meara recalled that at the February Multi-Modal Transportation Board ("MMTB") meeting, the City presented a proposal to install a marked, improved crosswalk at the intersection of Saxon Dr. and Latham Dr./Norchester Rd. This is in the Multi-Modal Master Plan as a suggested improvement for the area. Also, the residents on Saxon are unhappy because there are too many cars and too much speeding.

Last month, staff presented a $21,000 improvement that both Birmingham and Beverly Hills could pay for out of their general funds. Beverly Hills has already gone on record to say that they will contribute. The ditches would be filled in, storm sewer issues would be re-worked, and concrete sidewalks could be extended across the four corners of the intersection. Pavement markingswould be installed on both sides to identify the crossing.

Last month, when the idea was reviewed by the MMTB, the following questions and concerns were raised:

1. Board members were not convinced that the crosswalk improvement would make much difference in addressing the issue of traffic speeds and volumes.
2. Board members felt that other ideas had more merit:
    - Flashing speed indicator signs for both directions if suitable locations can be found.
    - Pavement markings, consisting of a skip or double yellow down the middle, and white edge lines throughout the corridor. However, Mr. Labadie, the Police, and some of the residents do not endorse that suggestion.
    - Installation of a “25” pavement marking legend for westbound traffic, west of Southfield Rd., as weather permits. Mr. O'Meara indicated that idea can be pursued.

Staff initiated conversations with the two neighborhood representatives for Saxon Rd. relative to these ideas. Ms. Susan Randall on the Birmingham side and Mr. Pete Webster on the Beverly Hills side were present to provide their input.

Mr. Pete Webster, 32906 Balmoral, said he is in close communication with the vast majority of the residents from Southfield to the Birmingham Country Club and beyond. They are well aware of the problem and aware of the need to address a number of different issues. Anything that can be done would be helpful, whether it is the flashing speed indicator; a crosswalk to help pedestrians integrate into the pedestrian network; or a raised sidewalk on the east side of the crossing.

Ms. Slanga observed that putting stripes on the road at the crosswalk doesn't solve the speeding problems or shorten the crossing. Mr. Webster said independent of that, the markings are extremely valuable because they demarcate where people should cross plus they remind drivers where people do cross. He suggested installing a traffic island in the roadway just west of Southfield to calm traffic entering the residential area. It may be beneficial to put in speed humps.

Ms. Susan Randall, 1220 Saxon, said an average of 5,500 cars a day go down their street at speeds up to 60 or 70 mph. She was in favor of the recommendations for a painted crosswalk and to make it slightly raised so that it is a hump, not a bump. She does not like the idea of a flashing light but is in favor of the "25" to be painted east of Southfield. With respect to installing an island, the residents do not want to do a U-turn out of their driveway by turning west to go east. She doesn't know if they will agree to that.

Mr. Tom Randall, 1220 Saxon, was not impressed with the flashing lights. They only work when police are present.

Mr. O'Meara said a little island isn't a bad idea from a cost standpoint, but there is a driveway issue. The idea of a raised crosswalk has not been studied. Mr. Labadie advised that with an island there would not be enough room on either side to make a U-turn.

Ms. Chris Arbor, 18837 Saxon, suggested trying removable speed bumps for a while to see if they work. Mr. O'Meara voiced the concern that this is an unimproved road with gravel shoulders and people that are irritated by the bump would just drive around it. Residents would not want that problem in front of their house.

Mr. Labadie said the speed humps are an effective way to control speed. However, right after going over the hump, people will increase their speed, similar to unwarranted STOP signs. He would like to see current speed and volume data before a decision is made on some of these ideas. He thought the sidewalk and the crosswalk are great ideas and they should be moved forward.

Motion by Ms. Edwards
Seconded by Ms. Folberg to recommend to the City Commission the approval of the following improvements for Saxon Dr. The installation of crosswalks on the east and west sides of the Latham Dr./Norchester Rd. intersection, in accordance with the Multi-Modal Master Plan. including pavement markings, to be funded 50% by the City of Birmingham, and 50% by the Village of Beverly Hills.

Motion carried, 4-0.

VOICE VOTE
Yeas: Edwards, Folberg, Adams, Slanga
Nays: None
Absent: Lawson, Rontal, Surnow

Commander Grewe said the Police Dept. has a black box that is a speed monitor/counter and goes on a tree so no one knows what it is and they don't react differently when they see it on the road. It will capture both sides of the road. It can be installed as soon as possible.

Mr. Steve Still, 1190 Saxon, hoped there would be a "Stop for Pedestrians" sign in the crosswalk.

6. MAPLE RD. AND S. ETON RD.
Crosswalk Improvements

Mr. O'Meara noted that the Ad Hoc Rail District Committee finished its work, and submitted a report of recommendations to the City Commission in December 2016. The report dated January 27, 2017, summarizing suggested improvements at Maple Rd. and S. Eton Rd. was reviewed by the MMTB at its meeting of February 2, 2017. At that time, the primary concern was whether the proposed new island was sized appropriately to allow large trucks to make a left turn from Maple Rd. onto southbound Eton Rd. It has been demonstrated that the island leaves sufficient room for a large truck to make the turn.

Ms. Ecker said at the last meeting the board had several concerns that staff has now investigated:

- It works to increase the sidewalk width from 5 ft. to 8 ft. Landscaping can be added to the splitter island at the south end.
- It is not recommended to move the westbound Maple Rd. stop bar west.
- Turn lane hash marks are not needed and they would soon be worn off.
- . Paint the curbs around the new island with something reflective that makes them stand out.

Motion by Ms. Folberg
Seconded by Ms. Edwards to recommend to the City Commission that the City prioritize the Ad Hoc Rail District Committee's recommendations for changes to S. Eton Rd. from Maple Rd. to Yosemite Blvd. including:
1. Landscaped splitter island to improve the S. Eton Rd. south side crosswalk at Maple Rd.
2. Enlarged handicap ramp area at the southeast corner of the intersection.

3. Relocation of the west side curb and gutter section to allow for a widened 8 ft. sidewalk on the entire length from Maple Rd. to Yosemite Blvd.

Motion carried, 4-0.

VOICE VOTE
Yeas: Folberg, Edwards, Adams, Slanga
Nays: None
Absent: Lawson, Rontal, Surnow

7. POPPLETON AVE. PAVING Knox Ave. to Maple Rd.

Mr. O'Meara recalled the MMTB discussed the above planned City project at its meeting of December 1, 2016. A recommendation to approve the three-lane cross-section presented at that time was passed. It was noted that this segment is identified as part of a future Neighborhood Connector Route, but that due to the lack of right-of-way, the City will be unable to make improvements to the road that would allow for an improved environment for bicyclistsThe MMTB recommended that further study be given to this issue before this Connector Route is finalized in the future.

During further study of this block, it was noted that this is the only available route for trucks to enter and exit the loading dock for the adjacent Kroger store. Due to the narrow right-of-way, the existing pavement at the Maple Rd. and Poppleton Ave. intersection was not constructed to accommodate these large trucks. Due to heavy traffic volumes and the narrow street, trucks have to routinely drive over the curb to exit Poppleton Ave.

Staff's suggested street design shows the new road to be about 18 in. wider, and a standard 25 ft. radius at both corners is recommended (the current radii, particularly on the NW corner, are smaller, and are not recommended on a truck route). To summarize, a minor expansion of the road, particularly to the west, will better accommodate the multiple trucks that need to use this intersection daily, while extending the length of the crosswalk for those crossing Maple Rd. on the west side of the intersection by about 5 ft. Doing so will remove the current ongoing maintenance issue that is present at the northwest corner of this intersection.

To ensure that this is appropriate, F&V will study the traffic signal timing to make sure that there is sufficient green time to allow pedestrians to safely cross Maple Rd. with this new condition.

Motion by Ms. Edwards
Seconded by Ms. Slanga to recommend to the City Commission the modified pavement design for Poppleton Ave. between Knox Ave. and Maple Rd. to better accommodate the frequent truck turning movements at this intersection.

Motion carried, 4-0.

ROLLCALL VOTE
Yeas: Edwards, Slanga, Adams, Folberg
Nays: None
Absent: Lawson, Rontal, Surnow

8. HANDICAP PARKING POLICY

Ms. Chapman noted that in 2016, the City installed over sixty on-street designated accessible parking spaces to comply with new regulations under the Americans with Disabilities Act ("ADA"). The guidelines require cities to provide reserved, marked accessible parking spaces in all municipal lots and on any public street that has individually marked spaces. This policy does not apply to streets that do not have individually marked spaces.

Staff was asked to explore creating an accessible parking installation policy for areas with unmarked on-street parking.

Should the board wish to recommend the On-Street Accessible Parking Policy, an application process will need to be established to review and evaluate requests for additional on-street accessible parking spaces.

Discussion concluded that the sample Application would state that the requestor needs to provide their handicap parking license plate or placard as well as describe their disability and explain why they would need an accessible parking space in front of their home or place of work. The application will ask whether this is a commercial address or a residential address, and if the requestor has other off-street parking options. Consent of the property owner is needed, even if the tenant is the requestor. An inspector could go out to determine if the request is legitimate.

Approval would only be good for two years, and after that time the requestor needs to re-apply. There should be clarity about how many neighbors need to be notified about the request.

Commander Grewe indicated he does not see the need to get signatures from residents on the whole block. Further, he doesn't see this happening that much

because most houses in Birmingham have driveways and garages. Also, putting a handicap spot in front of someone's house doesn't guarantee they get to use it. Another neighbor with a handicap pass may park there. It was noted that information to this effect should be added to the application.

Ms. Ecker explained the proposed process. The application would come in to the Police Dept. and they would send it around to the different City departments. An inspector would be sent out to survey the situation and then file a report. The report gets put on a MMTB or APC Agenda for a decision.

Mr. Labadie stated that how the space is designated will be important, not just the sign. In other communities the requestor pays for the sign and for the pavement markings that go down. Renewal is not a new cost, but a verification that the space is still needed.

It was concluded that Staff would further investigate other cities to determine their notification requirements. When this matter is brought back the application language will be tightened up and a fee will be added.

9. STANLEY AVE. PARKING ISSUE

Commander Grewe said the City received a letter from Erica and Ben Auslander of 627 Stanley regarding problems they are having entering and exiting their driveway due to vehicles parked across the street. Stanley has no parking on the east side of the street and there is permit parking on the west side.

The Auslanders are asking to have no parking directly across the street. However, Commander Grewe does not want to impose a restriction on a resident who gets no benefit from it. He explained if the City wants to change parking on a street it is typically done by the block so as not to single out any one area or resident. The other issue is many of the residents on the west side of the street have converted their easement into a parking area so their cars are parked as close to the sidewalk as possible. However the resident across from 627 Stanley has a tree in the middle of the easement which causes vehicles to park in front of the tree and pushes them a little further into the roadway.

Mr. Ben Auslander addressed the board and passed around photos that depicted the problem. Ms. Erica Auslander said the neighbors across the street have a four-car garage and a double driveway that could fit six cars. Neighbors on their side are complaining because when the Auslanders pull out, they go onto their lawn.

Ms. Slanga suggested asking the neighbors if they could brick in the mouth of their driveway to make it wider. Ms. Auslander replied the base of their driveway is almost on the neighbor's lawn and a sprinkler head is in the way.

Mr. Auslander went on to say there is easy access to parking down the entire street. There are no other spots on the entire street where there is any conflict.

Commander Grewe suggested to the Auslanders that they could round out their driveway at the approach so they would end up going southbound when backing out. That way it is something they could do to fix their situation versus imposing a restriction on someone else.

Ms. Edwards was not comfortable with starting something new. It opens the board up to every homeowner asking for their own personal restriction. She does not think that is a good precedent to set. The onus is on the requestors to talk to their neighbors and try to get permit parking totally removed so there is no parking on their street, or to fix their driveway. It was discussed if the Auslanders could petition the residents to remove parking just in that section. Commander Grewe did not think this was an option as residents would be signing a petition to impose a restriction on one resident of the street. Currently petitions are used for changes that affect all residents of the block. ~~see why it would be a problem if 75% of the block was okay with removing parking in that one section~~. ~~Granted, the City has never done that before.~~

The Chairperson observed that at this time the board members are not comfortable with getting rid of the space. She suggested that the requestors see if they can get a petition for no parking across from their driveway signed by 75% of the entire block. Then they can come back for re-evaluation.

Ms. Edwards was not comfortable with making a one spot exemption. The Chairperson concluded that at this time the board could not move forward with eliminating parking across from 627 Stanley.

10. MEETING OPEN TO THE PUBLIC FOR ITEMS NOT ON THE AGENDA

(no audience present)

11. MISCELLANEOUS COMMUNICATIONS

Ms. Folberg noted the board seems to have a very consistent pattern of sacrificing bicycles in place of other considerations which always makes sense at the time. She thought at some point the board needs to revisit its vision of how bicycles will function in Birmingham.

12. NEXT MEETING APRIL 6, 2017 at 6 p.m.

13. ADJOURNMENT

No further business being evident, the board members adjourned the meeting at 8:35 p.m.

Jana Ecker, Planning Director

Paul O'Meara, City Engineer

City of Birmingham
A Walkable Community

MEMORANDUM

Engineering Dept.

DATE: **April 5, 2017**

TO: **Multi-Modal Transportation Board**

FROM: **Paul T. O'Meara, City Engineer**

SUBJECT: **S. Eton Rd. – Villa Ave. to Lincoln Ave.**
Proposed Cross-Section

As you know, the City Commission appointed several residents to a temporary study group known as the Ad Hoc Rail District Committee early in 2016. The group was charged with studying parking and zoning issues within the Rail District. Lara Edwards acted as the Multi-Modal Transportation Board (MMTB) representative. Overseen by the Planning Dept., their final report was prepared late last year, and reviewed by the City Commission at their meeting of January 9, 2017.

The MMTB first focused on the suggested crosswalk island construction at the S. Eton Rd. and Maple Rd. intersection. A recommendation has been prepared, and will be considered for final approval by the City Commission at their meeting of April 13, 2017. If approved, the Engineering Dept. is set to complete this work during the summer of 2017, in time for the opening of the nearby Whole Foods grocery store located just east of this location.

The next significant recommendation from the Ad Hoc Committee for the MMTB to consider is the cross-section on the bulk of the road, from Villa Ave. to Lincoln Ave. As shown on Page 30 of the final committee report, three different cross-sections for this section of S. Eton Rd. were considered:

Design Option 1: Removing on-street parking on the west (residential) side of the street in favor of a 7 ft. wide bike lane and 3 ft. wide buffer area.

Design Option 2: Removing on-street parking on the west (residential) side of the street, narrowing the remaining drive lanes and parking lane to allow room for southbound and northbound bike lanes.

Design Option 3: Narrow the existing parking lanes on both sides to provide a buffer between parked cars and the travel lanes, and add sharrows to the travel lanes.

Although the vote was not unanimous, the Ad Hoc Rail District Committee voted in favor of Option 3. Details relative to the decision-making process will be available at the meeting. The cross-section, if changed, will have a significant impact on the S. Eton Rd. corridor. There are strong feelings from stakeholders in the area that would be interested in having input on the final decision. It is suggested that the MMTB discuss the issue to better understand the issues at stake, as well as how the Ad Hoc Committee came to their conclusion. It is then suggested that a public hearing be scheduled for the next regular MMTB meeting, inviting interested parties along the corridor to submit their input or attend the next meeting, so that a final MMTB

recommendation can be prepared for the City Commission. A suggested recommendation is provided below:

SUGGESTED RECOMMENDATION:

To accept the Ad Hoc Rail District Committee's recommendation to add buffer lanes and sharrows on S. Eton Rd. from Villa Ave. to Lincoln Ave.

MEMORANDUM

Planning Division

DATE: **December 6, 2016**

TO: **Joseph A. Valentine, City Manager**

FROM: **Jana L. Ecker, Planning Director**

SUBJECT: **Ad Hoc Rail District Review Committee's Final Report**

On January 11, 2016, the City Commission established the Ad Hoc Rail District Committee to study existing and future conditions and to develop a recommended plan to address parking, planning and multi-modal issues in the Rail District and along S. Eton Road ("the Rail Plan"). The following resolution was adopted at that time by the City Commission to create the committee.

Whereas, the City of Birmingham is desirous of studying the needs of the Rail District to develop an integrated approach to address parking capacity and demands while incorporating multi-modal and planning concepts in this district, and

Whereas, over time the City of Birmingham has studied individual elements of the Rail District, however, a review of these various elements is now desired in order to integrate parking, planning and multi-modal efforts under a single coordinated approach; and

Whereas, the *Eton Road Corridor Plan* contemplated a mixed use vision for this district, and

Whereas, the *Multi-Modal Transportation Plan* contemplated a multi-modal approach, including a bike lane and enhanced pedestrian crossings along S. Eton Road, and

Whereas, the City Commission wishes to establish an Ad Hoc Rail District Review Committee to provide a coordinated review of the Rail District while considering all of the elements and input needed to formalize an integrated approach to addressing parking, planning and multi-modal considerations within this mixed use district, including the S. Eton corridor.

Now Therefore Be It Resolved that an Ad Hoc Rail District Review Committee is hereby established to develop a recommended plan for addressing parking, planning and multi-modal issues in the Rail District and along S. Eton Road, while considering capacity needs and various plan concepts as follows:

1. The Committee will be Ad Hoc. The term of the Committee shall continue through December 31, 2016 and the Committee will cease functioning unless otherwise directed by the Commission.

2. The City Commission hereby appoints a seven (7) member Ad Hoc Committee to be comprised of the following members. Each respective board shall recommend an appointee for consideration by the City Commission.
    a) One member from the Advisory Parking Committee
    b) One member from the Planning Board
    c) One member from the Multi-Modal Board
    d) One business owner in the Rail District

    e) Three resident members from the general public; one living in the neighborhood adjoining S. Eton between Maple and Lincoln; one living in the neighborhood adjoining S. Eton between Lincoln and 14 Mile Road; and one living in the neighborhood adjoining N. Eton between Maple and Derby.

    The City Commission also hereby appoints the Planning Director as an ex officio member of the committee and the City Manager may designate respective city staff members to serve as ex officio members of the committee to assist in providing information and assistance as may be required.

3. The scope of the Committee shall be to develop a recommended plan on how to best proceed in addressing the current and future parking demands, along with planning goals and multi-modal opportunities for this district in accordance with the following:

a. Review the *Eton Road Corridor Plan, Multi-Modal Transportation Plan*, and previous findings of the Rail District Committee in order to identify and recommend how to best incorporate these elements into an integrated approach for this district.

b. Calculate the long-term parking demands for both the north and south ends of the Rail District, while considering on-street and off-street parking, shared parking arrangements, use requirements and other zoning regulations which impact parking.

c. Review planning and multi-modal objectives for the Rail District with the findings from the long-term parking calculations and develop recommendations to integrate planning and multi-modal elements with parking solutions. Recommendations should consider:
    i. Considerations for on-street and off-street parking
    ii. Road design initiatives
    iii. Multi-modal uses
    iii. Neighborhood input

iv. Existing plans and findings

d. **Compile the committee's findings and recommendations into a single report to be presented to the City Commission by the end of the committee's term. (Emphasis added.)**

Over the past eight months, the Ad Hoc Rail District Review Committee has worked to identify issues in the Rail District and along S. Eton, and to develop a plan with recommendations to address parking, planning and multi-modal issues in the Rail District, as directed by the City Commission. The Ad Hoc Rail District Review Committee requested funds to hire a consultant to review some of the intersection design concepts discussed by the Committee, and to conduct an analysis of parking in the study area.

Based on the Committee's direction, the findings outlined in the consultant's report, and the input of the public, a draft of the Ad Hoc Rail District Report requested by the City Commission has been prepared. On December 5, 2016, the Ad Hoc Rail District Review Committee held their final meeting to review and approve their final report. After much discussion, the Ad Hoc Rail District Review Committee voted to recommend approval of the final report to the City Commission, with minor changes. All of the requested changes have been made.

Consistent with the direction of the City Commission to complete their report prior to the end of 2016, please find attached the final draft of the Ad Hoc Rail District Report for your consideration.

The report from Fleis and Vandenbrink with the results of the parking study, and their review of the proposed intersection improvements at Bowers and S. Eton and Maple and S. Eton is also attached at the end of this package for your information.

Suggested Action:

To accept the final report of the Ad Hoc Rail District Review Committee, and forward same to the Multi-Modal Transportation Board for their consideration in finalizing the design of the S. Eton corridor;

AND

To forward the final report of the Ad Hoc Rail District Review Committee to the Planning Board, and to direct the Planning Board to add Recommendations 4 (Encourage Shared Parking) and 5 (Add Wayfinding Signage) from the final report to their Action List for further study.

Commissioner Bordman added that there are different criteria and assumptions being suggested tonight which explains the conflict when there really is not a conflict.

Mr. Manda agreed that it is design criteria and priorities and the process involves putting those in order and evaluating. If having a medium to large size trucks in the downtown is not a desirable criteria, that will have an impact on the intersections, curves and details.

Mayor Nickita commented that we are very close. There are some subtleties to the midblock crossings. He confirmed with Mr. Manda that the width of the crossing on Maple is 10 feet. It may be too close to Old Woodward. He said that is another priority criteria issue. Surely, parking is a priority, but also designing a pedestrian crossing in the most appropriate way is a very important priority. He thinks we have to minimize the parking loss by doing it at the Café Via ~~via~~ and not at the Social Kitchen restaurant crossing. We can explore options on how to address a couple of medians in the way we discussed achieving the goals.

Mayor Pro Tem Harris recognized we are on a tight timeline, and wondered if an additional iteration will affect the timeline.

City Manager Valentine said we are very tight on the timeline, and as we move forward, that will push things back. It would be an additional two weeks before the next meeting. Mr. Manda said that is enough time to revise and bring back. Mayor Nickita said it is very important to do this as well as we can.

Mayor Nickita clarified the items discussed which include diminishing the width of midblock crosswalks to maximize parking wherever that is possible, and some of the options for the medians in two locations. The only other median we did not discuss is the alley located by Pierce. He suggested designing something there that would be similar to the other median designs, perhaps smaller and with a rolling curb. Mr. Manda said that is a very narrow alley. Mayor Nickita suggested that we might consider recommending a traffic pattern question on whether that is done one way or the other. He suggested looking at the use at that alley to determine if there is another option.

01-03-17 FINAL REPORT OF THE AD HOC RAIL DISTRICT REVIEW COMMITTEE

City Planner Ecker provided background and history of the Ad Hoc Rail District Review Committee established by the City Commission on January 11, 2016, to study existing and future conditions and to develop a recommended plan to address parking, planning and multi-modal issues in the Rail District and along S. Eton Road ("the Rail Plan").

Over the past eight months, the Ad Hoc Rail District Review Committee has worked to identify issues in the Rail District and along S. Eton, and to develop a plan with recommendations to address parking, planning and multi-modal issues in the Rail District, as directed by the City Commission. The Ad Hoc Rail District Review Committee requested funds to hire a consultant to review some of the intersection design concepts discussed by the Committee, and to conduct an analysis of parking in the study area. Based on the Committee's direction, the findings outlined in the consultant's report, and the input of the public, a draft of the Ad Hoc Rail District Report requested by the City Commission has been prepared. On December 5, 2016, the Ad Hoc Rail District Review Committee held their final meeting to review and approve their final report. After much discussion, the Ad Hoc Rail District Review Committee voted to recommend

approval of the final report to the City Commission, with minor changes. All of the requested changes have been made.

Ms. Ecker introduced Sean Campbell, Assistant Planner and Brooks Cowen, Planning Intern who provided assistance with the GIS analysis of parking and intersection design.

Ms. Ecker explained the goals and objectives of the committee which included:

Goals:
To create an attractive and desirable streetscape that creates a walkable environment that is compatible with the adjacent residential neighborhoods.
To design the public right-of-way for the safety, comfort, convenience, and enjoyment for all modes of transportation throughout the corridor.
To facilitate vehicular traffic and parking without sacrificing the corridor's cycling and pedestrian experience.
To minimize the impacts of traffic on the existing residential neighborhoods.
To recommend updates to the Rail District zoning regulations as needed to meet goals.

Objectives:
To use creative planning to promote a high quality, cohesive right-of-way that is compatible with the existing uses in the corridor.
To implement "traffic calming" techniques, where appropriate, to reduce speeds and discourage cut-through traffic on residential streets.
To enhance pedestrian connectivity through the addition of crosswalks, sidewalks, and curb extensions.
To improve accommodations for bicycle infrastructure on Eton Road.
To create a balance between multimodal accessibility and parking provisions.

Ms. Ecker said the concerns were apparent during the tour. Key areas identified were S. Eton and Maple. Discussion included widening the sidewalk on the west side of the street for a bigger safety zone for pedestrians. Widening the sidewalk on the east side of S. Eton was also suggested to create a bigger plaza area there as well. They also discussed adding a splitter island to give a pedestrian island in the middle for people walking across. Several intersections up and down S. Eton were also looked at and the need for additional bump outs, and better striping. The intersection at S. Eton and Bowers was felt to be an important area with a great deal of activity. Bump outs and using different accent material in that area to create a plaza feel which would remind vehicles to slow down in the area.

Ms. Ecker noted a parking inventory and study were conducted. The study revealed there are 2,480 parking spaces in the district as a whole. There are 941 on-street parking spaces, 1539 parking spaces on individual private properties. The north end of the district has more a need for parking at different times. The south end is busier during the working day, but it clears out at 5:00 PM.

It was noted that the entire west side of S. Eton was never at full capacity. The highest use was around Griffin Claw with 28 out 60 spaces that were full on a Friday night.

Ms. Ecker discussed future build-outs and how they reached some of the conclusions. She explained that the issue became clear because they have to self-park, maximum build-out will not be done, and the biggest issue is that there is no shared parking in the area. That keeps

the development down to roughly 26-30% of what could be done under the ordinance. Many of the parcels in the focus area do not have enough space to provide required parking for four stories of retail and residential uses unless they build an underground parking facility. Based on recent development trends in the area, this is unlikely to occur and thus, buildout rates will likely remain in the 20-30% range of maximum build-out, requiring less than 1,070 additional parking spaces in the study area. It is important to note that based on the current standards, all of these additional parking spaces must be provided by individual property owners and/or developers. Thus, the City need only focus on encouraging an efficient use of private parking facilities, and ensuring good right-of-way design to accommodate additional vehicle traffic and balance the needs of non-motorized users. The provision of additional public parking is not warranted now, nor in the near future.

The recommendations of the committee include:
Construct bump-out curbs throughout the study area;
Install a splitter island at the crosswalk at S. Eton and Maple, widen the sidewalk on the west side of S. Eton, restripe S. Eton to realign lanes, and add enhanced crosswalk markings;
Add sharrows and buffers to S. Eton from Yosemite to 14 Mile. Maintain sharrows and accommodate parking south of Lincoln where possible.
Encourage shared parking in the district by providing the zoning incentives for properties and/or businesses that record a shared parking agreement. Incentives could include parking reductions, setback reductions, height bonuses, landscape credits, or similar offers;
Install gateway signage at the north and south ends of the study area and install wayfinding signage throughout the Rail District to direct people to destinations and parking.

Mayor Nickita commended the committee on the depth and problem solving that was undertaken.

Commissioner Bordman said the study was so thorough. She was very impressed that the committee was able to figure out the real parking needs.

Mayor Pro Tem Harris questioned what incentives there might be for shared parking. Ms. Ecker said perhaps landscaping requirements could be relaxed, but we would ask the Planning Board to study that in more detail.

Commissioner DeWeese noted there might be an economic incentive.

Commissioner Hoff asked about the southeast corner of S. Eton and Maple intersection and if the property is city property. She also asked if the Whole Foods operation was studied by the committee. Commissioner Hoff expressed concern that traffic on S. Eton will be increased. The committee's concern was with the speed of the traffic.

Mayor Pro Tem Harris asked why the committee did not recommend a dedicated bike lane. Ms. Ecker said there were a couple of issues including the bump out incompatibility as well as the pavement material issue.

Commissioner DeWeese noted that we can accept the report and use it for a general guideline. City Manager Valentine confirmed that any recommendation will be brought back to the Commission for consideration.

Mayor Nickita asked if this addressed the edge condition that has been an issue and do we need to include something in the Zoning Ordinance. Ms. Ecker said it was not discussed in detail. She said currently there is a regulation in the ordinance that does not allow parking in the first twenty feet of depth.

Mayor Nickita said this helps bring attention to a very under-utilized area of the city, and land owners do not realize that they are sitting on potential redevelopment value if they work together at shared parking for example.

MOTION: Motion by Sherman, seconded by Bordman:
To accept the final report of the Ad Hoc Rail District Review Committee, and forward same to the Multi-Modal Transportation Board for their consideration in finalizing the design of the S. Eton corridor, and to the Planning Board, and direct the Planning Board to add Recommendations 4 (Encourage Shared Parking) and 5 (Add Wayfinding Signage) from the final report to their Action List for further study, and to develop a way to implement the shared parking, and to correct the crosswalk marking within the final report as discussed.

Larry Bertollini expressed concern about the recommended options, and focusing on both sides of Maple and S. Eton, and visibility concerns.

Mayor Nickita suggested going forward to study with and without parking on both sides, and how it may affect speed. We know people tend to speed up when parking is removed on one side.

VOTE: Yeas, 7
Nays, None
Absent, None

01-04-17 MONTHLY PARKING PERMIT RATE INCREASES

City Engineer O'Meara explained that monthly permit rates at the structures have been adjusted on several occasions over the years, usually to reflect the difference in demand at the various parking structures. Recently, increases at all five structures were implemented in the summer of 2014, and again in 2015. As demand for parking spaces grew, increases were considered justified not only because of high demand, but also to help build a savings account in the parking system fund for potential upcoming construction.

In April of this year, staff reviewed the rates with the Advisory Parking Committee (APC), and recommended a package of increases that would primarily impact both the monthly and daily rates in the parking structures. Raising the lower priced meters so that all meters were $1 per hour was also suggested. Other changes were included as well, designed to reduce demand in the parking structures, and to encourage employees to consider the City's off-site parking options. The APC was not inclined to recommend any changes at that meeting.

Staff refined the package based on APC input, and also provided options on how to charge the daily rate. At the May meeting, the APC approved a recommendation that included several items, with the two significant changes impacting the monthly and daily rates in the structures.

The suggested increase for most of the lower cost parking meters was not agreed to.
At the June 6, 2016 Commission meeting, the recommendations of the APC were discussed.

Ad Hoc Rail District Report

November 28, 2016

Table of Contents

Executive Summary

The Ad Hoc Rail District Committee was tasked with conducting research and analysis regarding parking, street design initiatives, and non-motorized safety to develop a plan with recommendations for the future of the Rail District along S. Eton. The Committee conducted a walking survey to assess the existing conditions of the Rail District. During this exercise, crosswalks issues, poor driver visibility at street corners, inconsistent sidewalks, and lack of bicycle facilities were noted. Based on the Committee's observations, several intersection and streetscape improvements were reviewed, a parking study was completed to review current parking demand, and a buildout analysis was conducted to calculate future parking needs. The Ad Hoc Rail District Committee's resulting findings include recommendations for intersection improvements to calm traffic and improve pedestrian comfort, exploring shared parking opportunities to more efficiently use off-street parking lots, and adding bicycle facilities to better accommodate bicyclists.

Newingham Dental – Completed 2014

District Lofts Phase 2 – Completed 2016

IrgonGate – Completed in 2016

Formation of the Committee

On January 11, 2016, the City Commission unanimously passed a resolution to establish the Ad Hoc Rail District Committee. The Committee was tasked with developing a plan to address the current and future parking demands, along with planning goals and multi-modal opportunities for the district in accordance with the following:

a) Review the Eton Road Corridor Plan, Multi-Modal Transportation Plan, and previous findings of the Rail District Committee in order to identify and recommend how to best incorporate these elements into an integrated approach for this district.

b) Calculate the long-term parking demands for both the north and south ends of the Rail District, while considering on-street and off-street parking, shared parking arrangements, use requirements and other zoning regulations which impact parking.

c) Review planning and multi-modal objectives for the Rail District with the findings from the long-term parking calculations and develop recommendations to integrate planning and multi-modal elements with parking solutions. Recommendations should consider:
   i. Considerations for on-street and off-street parking
   ii. Road design initiatives
   iii. Multi-modal uses
   iv. Neighborhood input
   v. Existing plans and findings

d) Compile the committee's findings and recommendations into a single report to be presented to the City Commission by the end of the committee's term (December 31, 2016).

Goals and Objectives of Committee

The following goals and objectives were established by the Ad Hoc Rail District Committee to guide their discussions and recommendations for the future:

Goals

i. Create an attractive and desirable streetscape that creates a walkable environment that is compatible with the adjacent residential neighborhoods.
ii. Design the public right-of-way for the safety, comfort, convenience, and enjoyment for all modes of transportation throughout the corridor.
iii. Facilitate vehicular traffic and parking without sacrificing the corridor's cycling and pedestrian experience.
iv. Minimize the impacts of traffic on the existing residential neighborhoods.
v. Recommend updates to the Rail District zoning regulations as needed to meet goals.

Objectives

i. Use creative planning to promote a high quality, cohesive right-of-way that is compatible with the existing uses in the corridor.
ii. Implement "traffic calming" techniques, where appropriate, to reduce speeds and discourage cut-through traffic on residential streets.
iii. Enhance pedestrian connectivity through the addition of crosswalks, sidewalks, and curb extensions.
iv. Improve accommodations for bicycle infrastructure on Eton Road.
v. Create a balance between multimodal accessibility and parking provisions.

Rail District Study Area

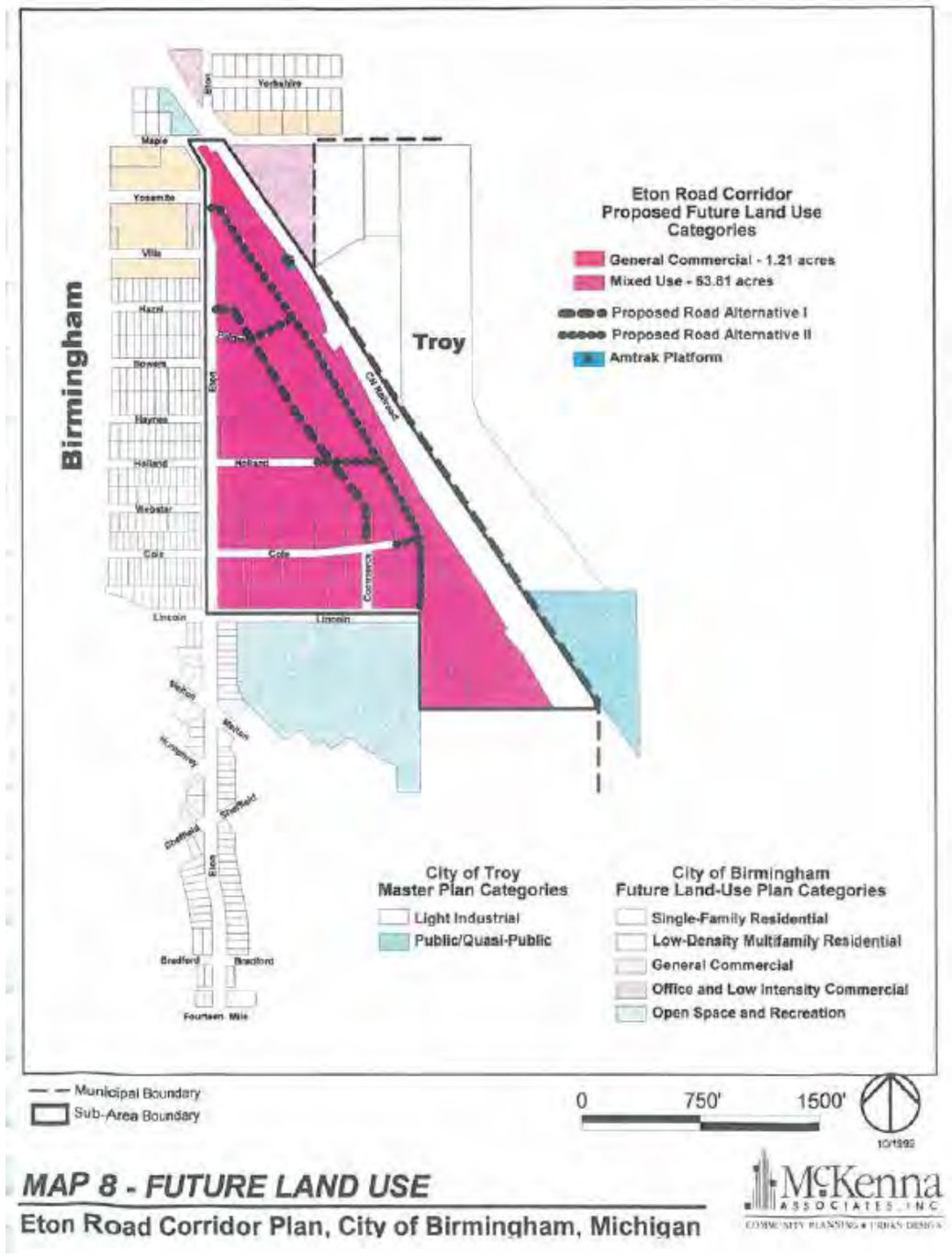
Eton Road Corridor Plan (1999)

Vision Statement: "*The Eton Road Corridor will be a mixed use corridor with a range of commercial, service, light industrial and residential uses that serve the needs of the residents of Birmingham. Creative site planning will be encouraged to promote high quality, cohesive development that is compatible with the existing uses in the corridor and adjacent single-family residential neighborhoods.*"

Much of the success that can be observed in the District today is owed to the recommendations contained in the Eton Road Corridor Plan (ERCP). Many of the recommendations have been implemented including the eastward extension of Villa and Hazel into the northern end of the District, the creation of the MX zoning classification, associated development regulations, and the addition of streetscape requirements.

However, many recommendations contained in the ERCP have not been fully implemented that specifically impact the circulation of vehicular, pedestrian, and bicycle traffic. These recommendations are as follows:

- A series of curb extensions and "chokers" at select intersections to create better visibility for pedestrians and to encourage lower speeds for motorists;
- To accommodate at least one protected bike lane, given that S. Eton is an important link in a regional bike system; and
- To discourage front parking and to place commercial and residential buildings closer to the road.



MAP 8 - FUTURE LAND USE
Eton Road Corridor Plan, City of Birmingham, Michigan

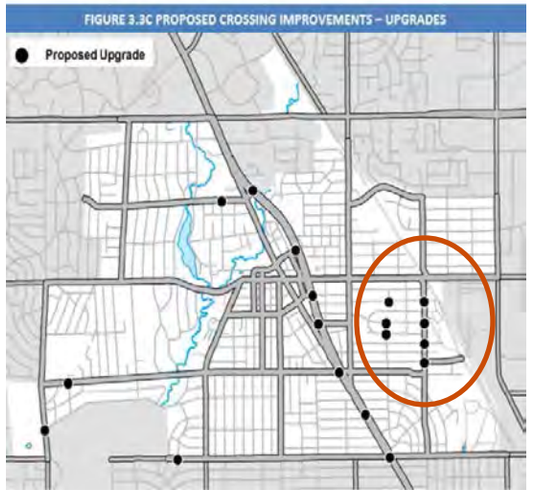
Multimodal Transportation Plan (2013)

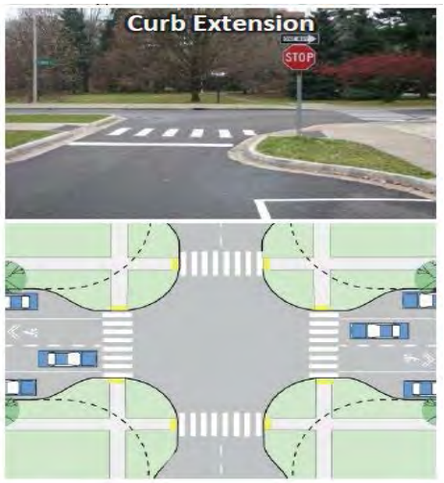
Vision Statement: *"The City of Birmingham seeks to build upon its brand as a walkable community. The purpose of this plan is to provide a document that the Community may reference when contemplating future actions regarding infrastructure, policies and programs. It is envisioned that this plan will guide improvements designed to give people additional transportation choices, thereby enhancing the quality of life in the City of Birmingham."*

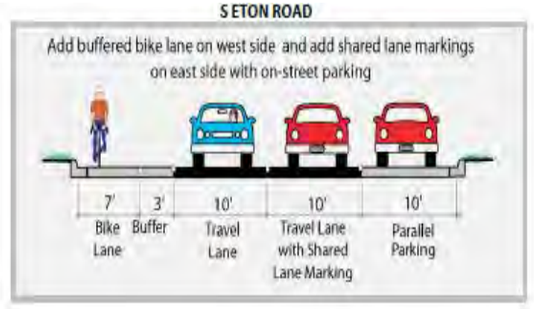
Less than 3 years since its adoption, implementation of the Multimodal Transportation Plan ("MMTP") is already well underway. Many areas identified in the plan that have not yet been retrofitted are at least at the forefront of multimodal discussion in the city. The Eton Road Corridor has proven to be one of those areas.

As demonstrated in the MMTP, there is an expressed community desire for a transportation network that adequately responds to the needs of various users and trip types. In order to achieve this vision for the Rail District, the MMTP recommends the following physical improvements:

- Completing sidewalks along Cole St.;
- Installing curb extensions on S. Eton Rd. at Yosemite, Villa, Bowers, Holland, and Cole;
- Improving crossing areas at Villa, Bowers, Holland and Cole; and
- Striping bike lanes on S. Eton via parking consolidation: shared lane markings from E. Maple to Villa; buffered bike lane and shared lane markings from Villa to E. Lincoln.







Zoning Analysis

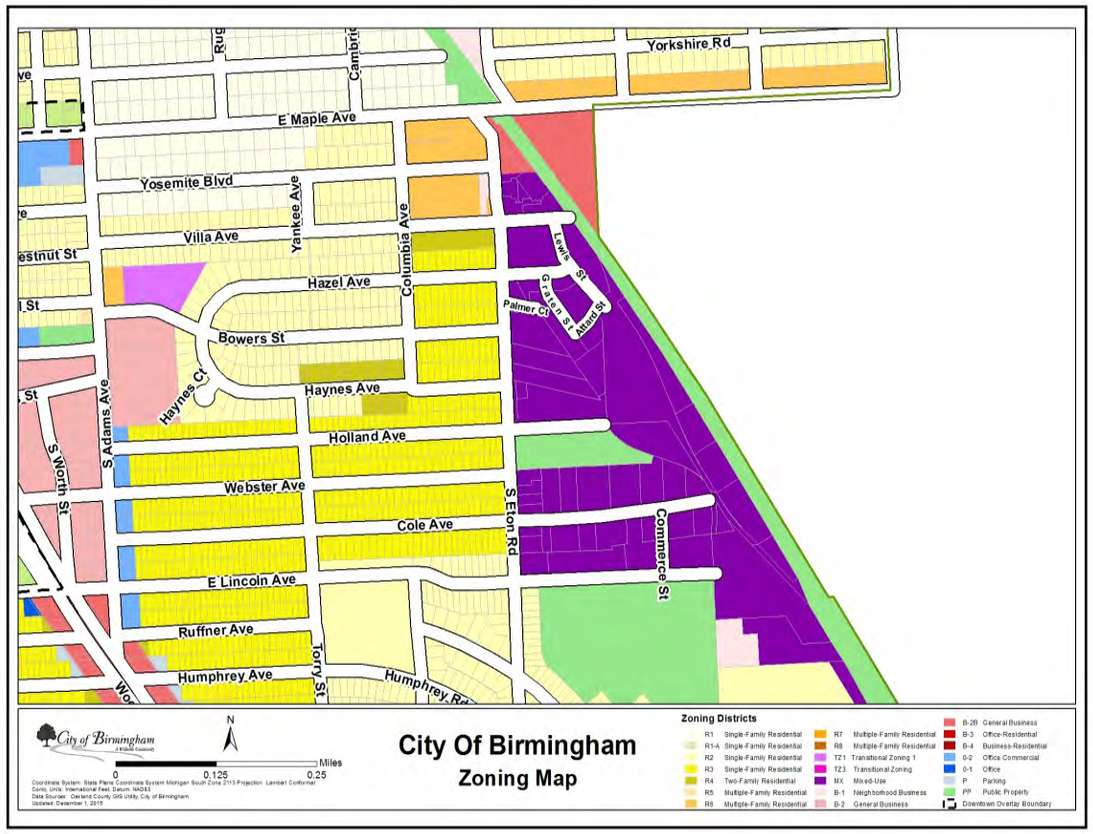
The majority of the S. Eton Corridor was zoned MX Mixed-Use, in accordance with the recommendation of the ERCP. The MX District was established with the intent to:

a) Encourage and direct development within the boundaries of the Eton Road Mixed-Use District and implement the Eton Road Corridor Plan;
b) Encourage residential and nonresidential uses that are compatible in scale within adjacent resident neighborhoods;
c) Encourage the retention, improvement, and expansions of existing uses that help define the Eton Road Corridor;
d) Allow mixed use developments including residential uses within the Eton Road Corridor; and
e) Minimize the adverse effects of nonresidential traffic on the adjacent residential neighborhood.

With zero foot minimum front and side yard setback requirements, no required open space, and buildings permitted up to 4 stories in height, the MX District encourages a midrise, integrated urban form throughout the Corridor. However, a majority of the buildings in the district have not been developed to the new standards set forth in the current Zoning Ordinance. Many properties still contain single-use, one-story buildings that do not maximize their potential space.

The buildings that have been recently constructed are emblematic of the District's goal of creating appealing mixed-use buildings that complement the adjacent residential neighborhoods. The District Lofts, for example, demonstrate the potential of the District development standards with its well-fenestrated façades that abut the front and side lot lines, ground floor retail space and residential upper floors, and its sufficient parking facilities.

A fundamental goal of the Rail District is to "minimize the adverse effects of nonresidential traffic on the adjacent neighborhood," but the current road design does little to provide a buffer between the MX and residential zones. Traffic, parking, and safety issues still persist to this day. Actions are recommended for Eton Rd that ease the transition from the residential neighborhood to the mixed use zone and provide safe access to the area's amenities for all modes of transportation.



Preliminary Assessment: Public Perception and Identification of Issues

Committee members reviewed and analyzed existing conditions in the Rail District. Discussion branched off into five main topics: *Rail District Design and Development, Pedestrian Safety/Amenities, Parking, Traffic*, and *Bicycles***.** The committee's comments have been summarized into bullet points below.

Rail District Design & Development

- The committee members are pleased with new developments in the district. The development standards for the new buildings have created an overall appealing look.
- Parking in front of the older buildings is not favorable in the context of creating a more pedestrianized corridor.
- The Committee raised the point about how the Rail District ends at Lincoln. Members discussed extending the project area towards 14 Mile as the stretch south of Eton serves as a vital connection.
- The width of S. Eton is viewed as problematic, as it encourages cars to exceed the speed limit. Bump-out curbs are needed on S. Eton at necessary intersections between E. Maple and Sheffield as a way to narrow down the road, slow traffic, and make it easier to cross the street. This would create safer access to the parks, pool, and other amenities.
- The Committee proposed reviewing zoning uses and standards for the rail district. The recent improvements to W. Maple are also something the Committee wants to keep in mind as a good example when making recommendations for the Rail District.

Pedestrian Safety/Amenities

- The Committee is displeased with the lack of pedestrian safety in the Rail District. Committee members emphasized the importance of safe and adequate pedestrian crossing throughout the District, especially along S. Eton Rd. The idea is to have a complete network of sidewalks and crossings that encourage people to walk through the District.
- The intersection at S. Eton and Maple is not amenable to pedestrians, especially when they are attempting to get from S. Eton to N. Eton.
- The intersection at S. Eton and Cole, especially on the commercial side, is not safe from a pedestrian or vehicle standpoint.

Parking

- Parking was raised as a priority. The committee would like to see an evaluation of parking demand with respect to supply, and how to resolve the issue via structures, surface lots, and on-street locations.
- Parking along S. Eton, especially the southbound (west) side, was identified as a key focus of the committee. It was also mentioned that on street parking may not need to extend to 14 Mile.
- On-street parking spaces on S. Eton are seen as a problem as they inhibit the visibility of drivers and pedestrians and make it difficult for residents to back out of their driveways. Visibility should be considered in future parking studies.

Traffic

- Excessive speed heading southbound on S. Eton – especially from 14 Mile to Lincoln –was identified as an issue to be addressed moving forward.
- The Committee is concerned with the cut-through traffic that occurs on S. Eton
- The new Whole Foods is expected to increase the amount of traffic through the corridor, so the City should consider street designs that regulate speed and traffic, while ensuring a safe pedestrian experience.

Bicycles

- More emphasis should be placed on non-motorized transportation in the study area. More specifically, S. Eton should be designed to be safer for bicyclists.
- The bike route transition from N. Eton to S. Eton should be improved; however, a continuous bike lane may not be a feasible means by which to do this.
- The committee would like the southwest corner of E. Maple and S. Eton to be widened in order to improve bicycle and pedestrian safety and to ease traffic flowing in and out.

Preliminary Assessment: Walking Survey

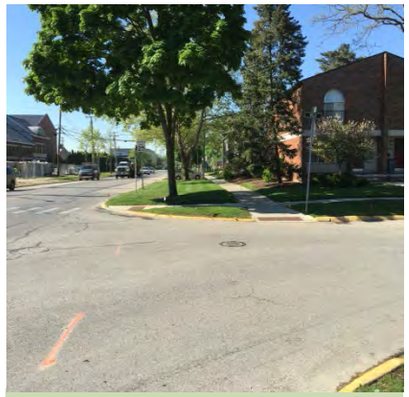
Committee members conducted a walking survey and inventory of the S. Eton Corridor. Findings are outlined below and on the pages that follow.

First stop - under the bridge at S. Eton/Maple Rd.

- Viaduct has a "bunker" feel
- Not a good corner to cross
- Widening the sidewalk would help calm traffic
- Bump-out/plaza at corner would be effective, but difficult
- A pedestrian island would help at this intersection

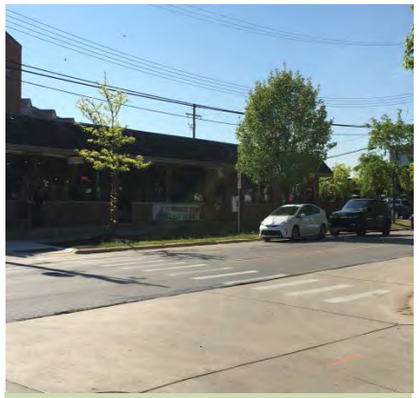
Second stop - Yosemite/S. Eton

- Drivers are not fully aware of pedestrians around this stretch of S. Eton
- A crosswalk is needed here
- Bump-out curbs may be necessary
- A bike lane could start around here
- The street begins to narrow down closer to beauty shop
- Bump-out and bike lane might contradict each other



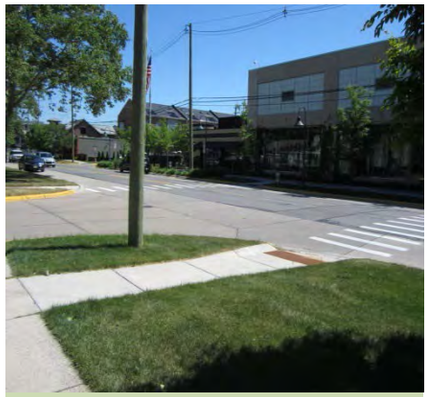
Third stop – Villa/S. Eton

- Possible bump-out curbs here
- Visibility is very obstructed at this corner



Fourth stop – Hazel/S. Eton

- A crosswalk is needed at the Whistle Stop
- A crosswalk would help slow traffic
- S. Eton improvements must be consistent



Fifth stop - Bowers/S. Eton

- This is area is a destination and should receive a large crossing with different treatment, such as a plaza in the center
- This stop does not warrant a stop sign, but controls should be built to calm traffic speed
- People who come to eat at Griffin Claw don't know where to park

Preliminary Assessment: Walking Survey (Continued)

Sixth stop – Haynes/S. Eton

- It was noted that parking could occur along the dividing island at Bolyard Lumber

Seventh stop – Holland/S. Eton

- A double crosswalk exists here but it is not a natural crossing spot

Eighth stop – Webster/S. Eton

- Curbs are terrible here
- Bump-out curbs are suggested for this location
- Yellow no parking lines may be too long next to driveways

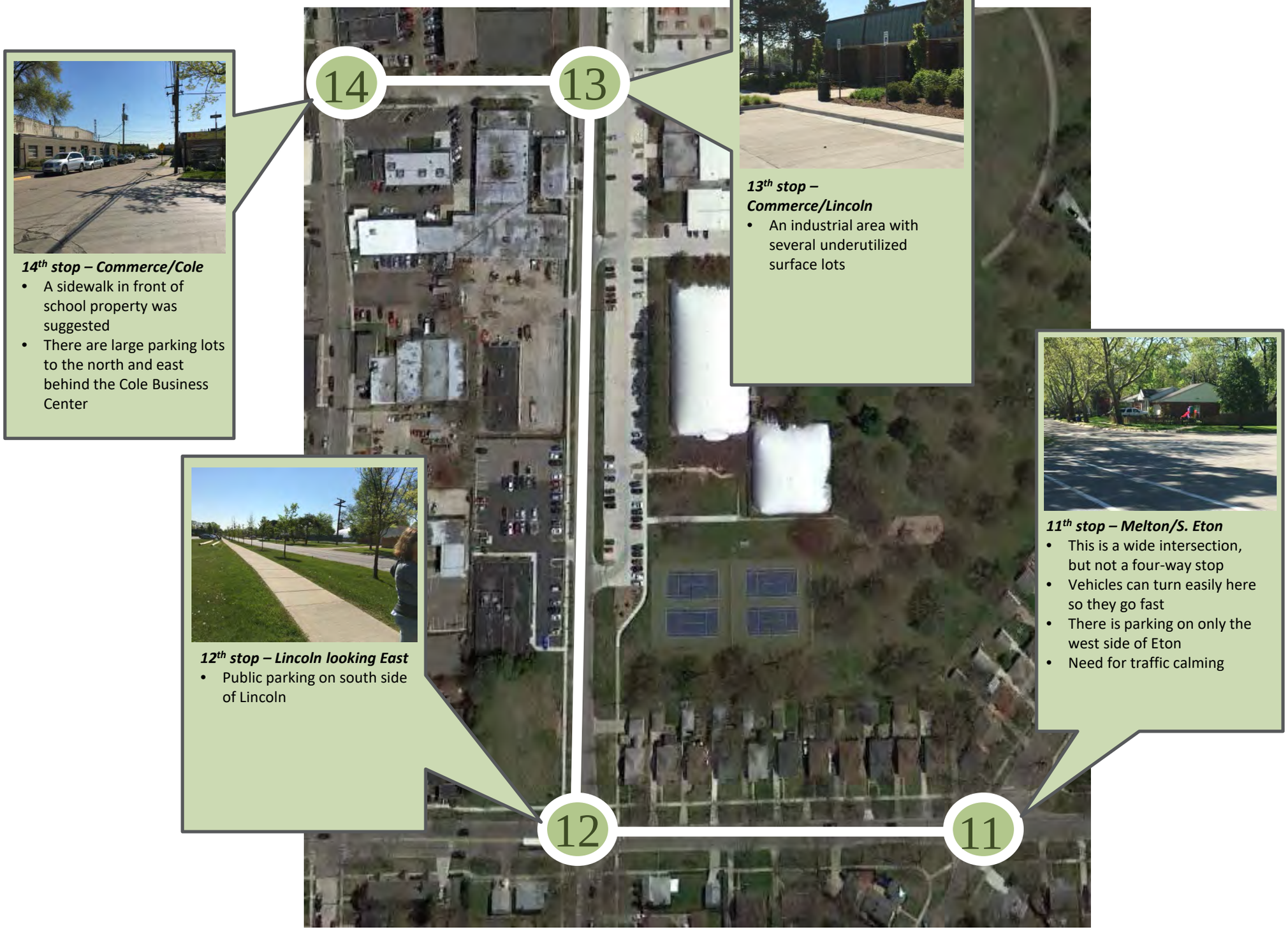
Ninth stop – Cole/S. Eton

- Bump-outs are recommended on the four corners
- Many interesting shops to the east

Tenth stop – Lincoln/S. Eton

- This is a prominent corner
- There should be something that demarcates commercial from residential
- Well defined crosswalks here
- Future streetscape improvements should be considered

Preliminary Assesment: Walking Survey (Continued)



14th stop – Commerce/Cole

- A sidewalk in front of school property was suggested
- There are large parking lots to the north and east behind the Cole Business Center

13th stop – Commerce/Lincoln

- An industrial area with several underutilized surface lots

11th stop – Melton/S. Eton

- This is a wide intersection, but not a four-way stop
- Vehicles can turn easily here so they go fast
- There is parking on only the west side of Eton
- Need for traffic calming

12th stop – Lincoln looking East

- Public parking on south side of Lincoln

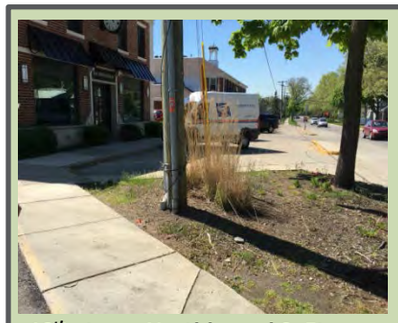
Preliminary Assessment: Walking Survey (Continued)

16th stop – Cole Business Center Lots

- There is much parking to the north and east behind Cole Business Center with underutilized parking
- Two adjoining parking lots are blocked from each other by a wall (no shared access)

15th stop – Commerce and Cole

- Sidewalks needed in front of the school property
- Several surface parking lots in front of buildings that are not full



18th stop – Northbound S. Eton

- Yellow curbing was noted in front of Down River Refrigeration
- Angled parking was not supported at this location by Multi Modal Transportation Board
- Sidewalk is incomplete in front of Roy Schecter and Vocht office
- No sidewalk connection from S. Eton to Robot Garage area

17th stop – DPS/Down River Refrigeration

- Sparse parking around Down River Refrigeration

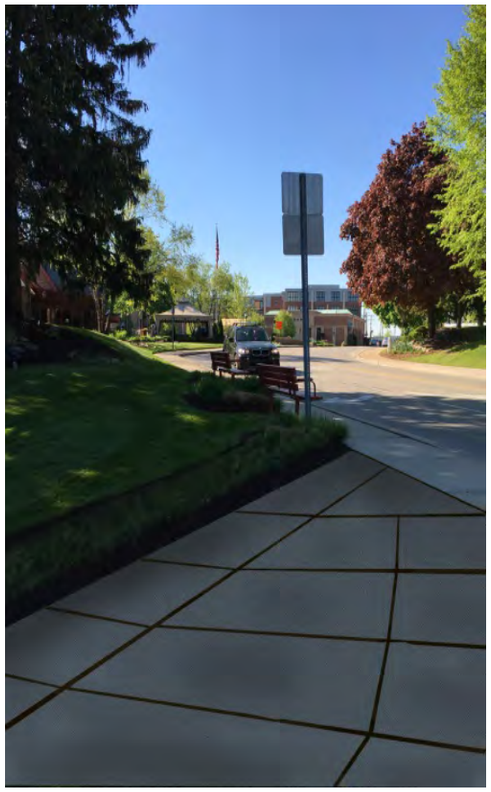
Concepts Considered Within Study Area

Based on the issues identified in the preliminary assessment of the study area and a review of the ERCP and MMTP, the Committee considered numerous improvements for the right of way at specific locations.

S. Eton and Maple Intersection

Existing

Proposed



Design Concept 1

At the southeast corner of S. Eton and Maple, there is a lot of activity but very little room to work with to make any drastic changes. As suggested during the walking tour, the pavement at this corner could be extended into the grass area to provide a more comfortable pedestrian space.

Existing

Proposed

Design Concept 2

Another option at this location could be to create a bump-out to give motorists better visibility of pedestrians attempting to cross and to shorten the length of road crossings for pedestrians.

Design Concept 3
The Committee discussed constructing a pork chop-shaped pedestrian island as an alternative to a bump-out. A pedestrian refuge could effectively channel drivers to slow down and gives pedestrians the ability to wait on it instead of having to rush across the street during a short traffic light interval.

The committee recommended hiring a consultant to evaluate traffic calming measures and pedestrian improvements at this complex intersection.

Existing

Proposed

S. Eton and Yosemite Intersection

Bump-out curbs were considered for the intersection of S. Eton and Yosemite and could be coupled with striped crosswalks for additional safety. Having a bump-out at this intersection would help demarcate between the commercial area and residential area.

Additional bump out curbs and crosswalk improvements were also suggested along S. Eton at Villa Road, Hazel St, Webster St., and Cole St.

Existing

Proposed

S. Eton and Bowers Intersection

Committee members recognized this area as being of significant importance as it marks the approximate center of the Rail District. Brick pavers could be used to accent the intersection with color to remind people that it is a place for both pedestrians and cars. As shown in the suggested rendering, the concept is coupled with curb bump outs, benches, and on-street bike racks, as well as pedestrian crosswalk improvements to create a plaza condition.

The committee recommended hiring a consultant to study possible improvements to this intersection.

Existing

Proposed

S. Eton Corridor (Maple to Lincoln)

Following the recommendation of the MMTP, the Committee discussed the option of adding bicycle facilities to S. Eton by adding sharrows for northbound bicycle traffic, eliminating parking on the west side (also recommended by the MMTP), and giving southbound traffic a 10 foot protected bike lane that includes a 3 foot buffer zone.

Existing

Proposed

Parking Inventory and Study

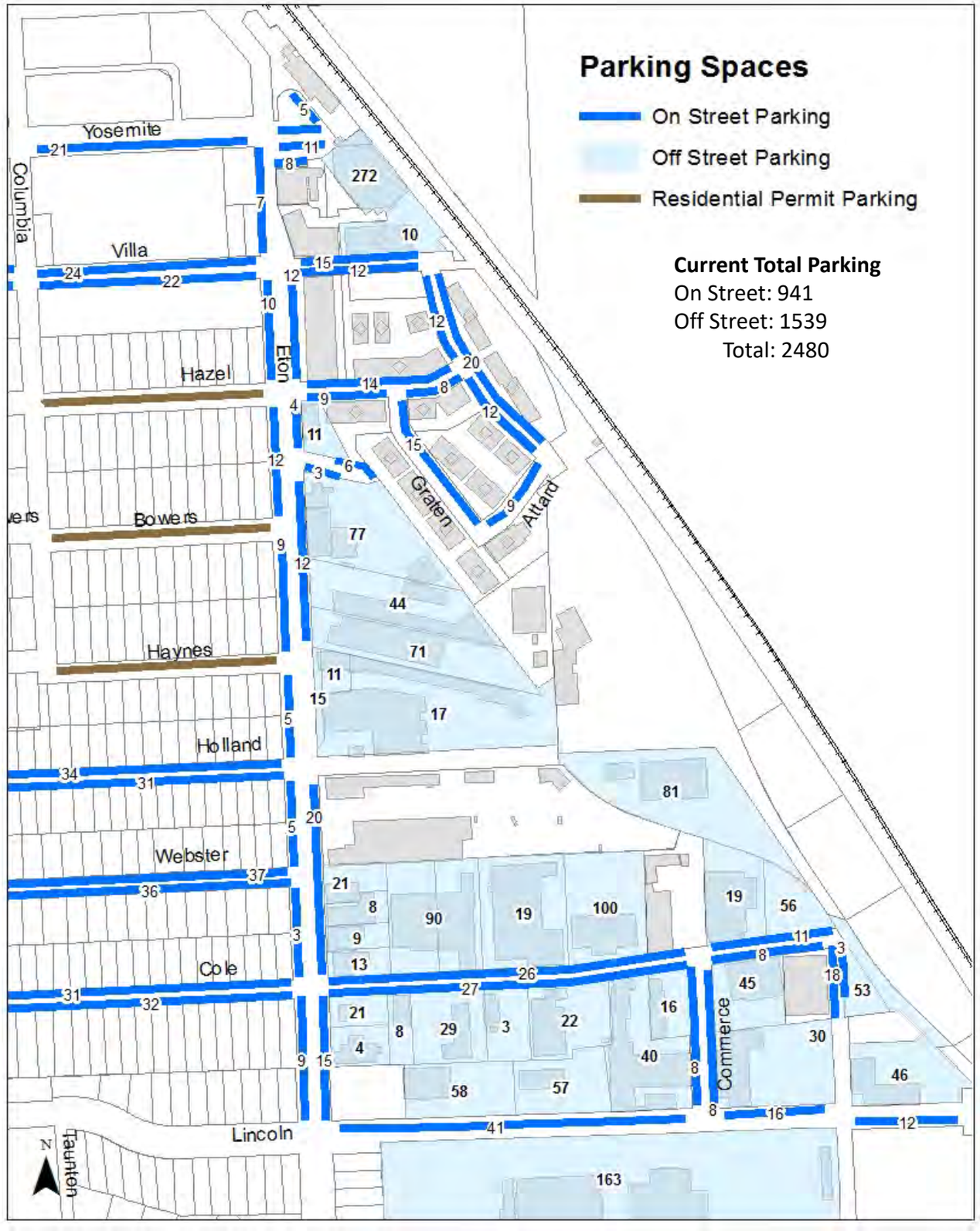
A Parking inventory was completed in the study area for a better understanding of when and where parking spaces are being utilized. A map of total spaces was created for private lots and on street parking. The results are illustrated in Figure 1, and show an existing parking count of 2,480 spaces in the study area and surrounding neighborhood.

A parking study was also completed to determine parking utilization in the study area. Parking counts were conducted by city staff at 4, 5, and 6pm on Friday September 23rd and Wednesday September 30th, and the data was then analyzed.

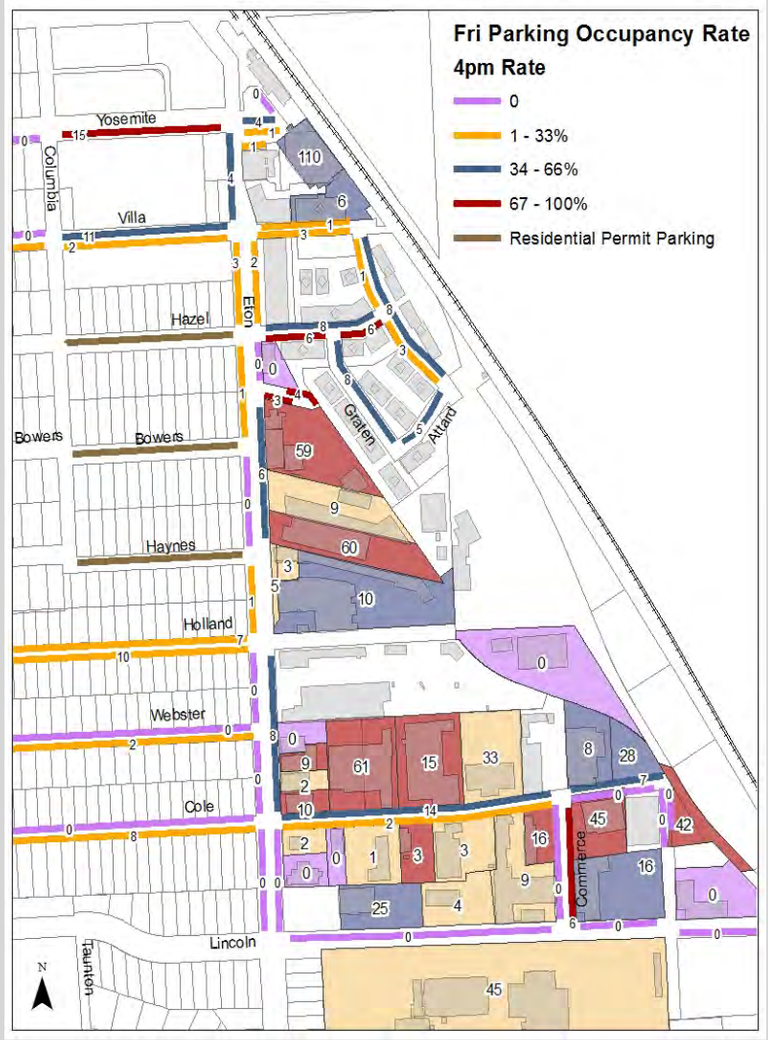
The consulting firm Fleis and Vandenbrink was contracted to create a report for the count studies and provide summary tables showing available spaces, occupied spaces, and percent occupancy rate for the north and south zones of the study area. An analysis and conclusion based upon the findings was then made for off street and on street parking situations in each of the zones.

Count data was then entered into a map for each day and time of the study. The maps on the following pages indicate the total counts for each hour of on street and off street parking spaces, and color code the percent occupancy rate in classes for 0, 1-33%, 34-66%, and 67-100%. These maps are shown side by side to visually illustrate the intensities of parking in the district, and how the parking occupancy rates change from 4-6pm in the study area.

Figure 1



Friday Parking Count: 4:00 PM

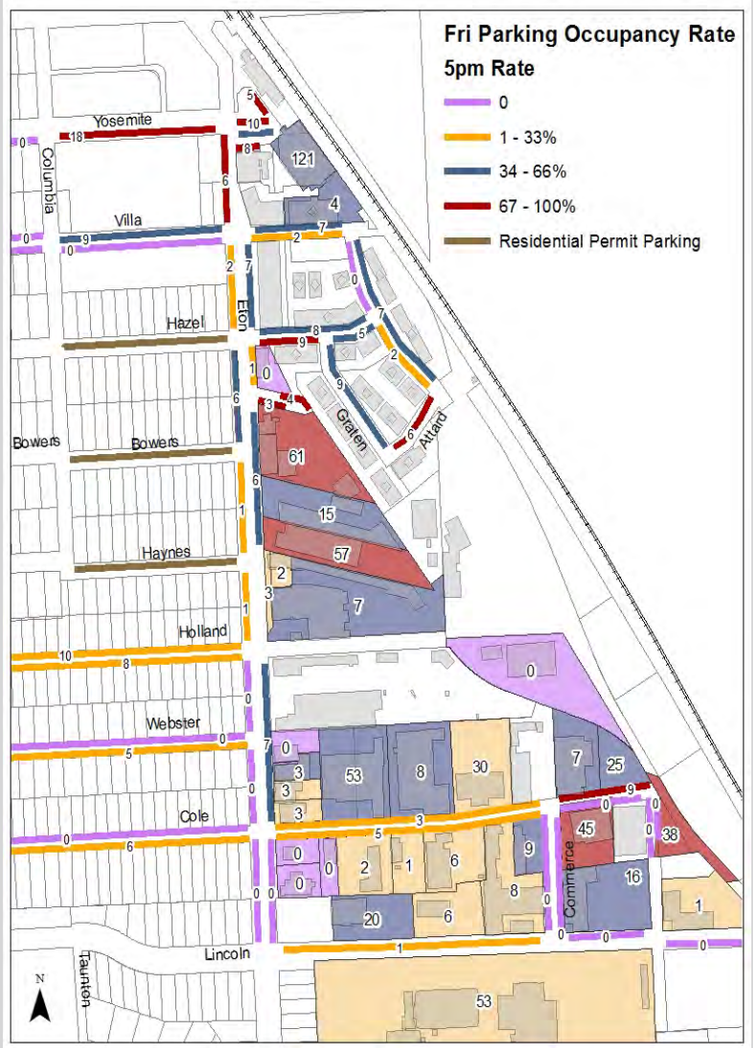


S. Eton Rd
- 9 out of 60 spaces on the west side are used
- 16 out of 63 spaces on the east side are used

Off Street Parking
- Parking lots off of Cole Street at or near capacity
- Griffin Claw already above 66% capacity

Residential Parking
- Yosemite and Villa experience overflow throughout the evening.
- Villa stays between 33-66% occupancy rate throughout the Friday study.

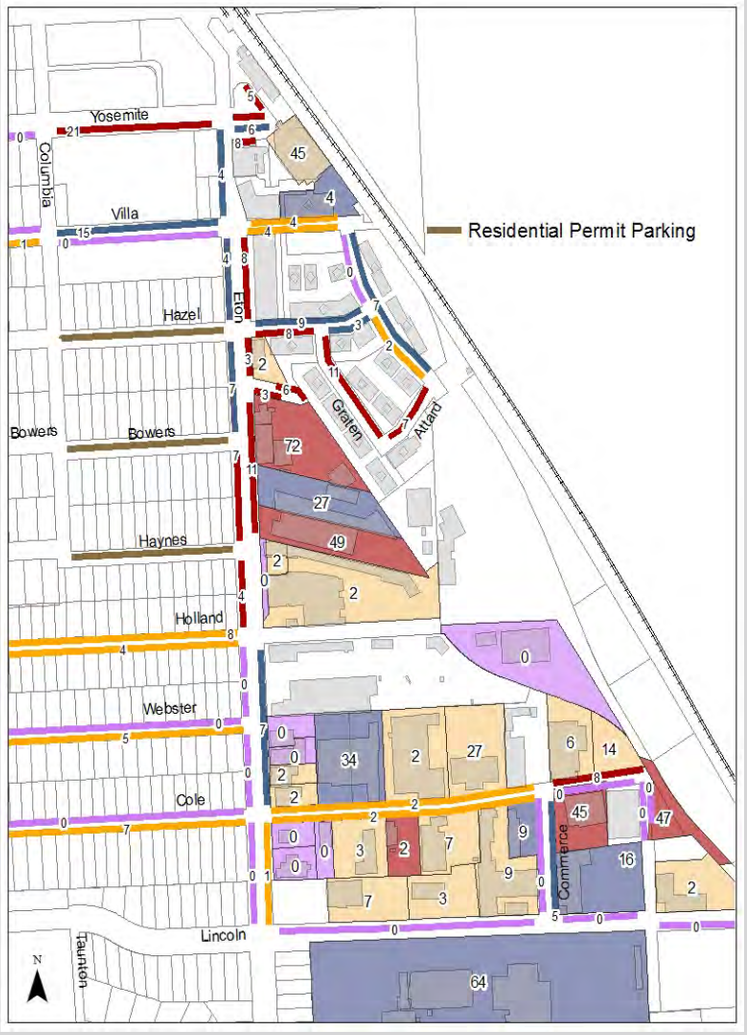
Friday Parking Count: 5:00 PM



S. Eton Rd
- 16 out of 60 spaces on the west side are used
- 21 out of 63 spaces on the east side are used

Off Street Parking
- The lots off of Cole Street begin to clear out
- Two of the parcels above 66% are auto repair shops with outdoor vehicle storage.

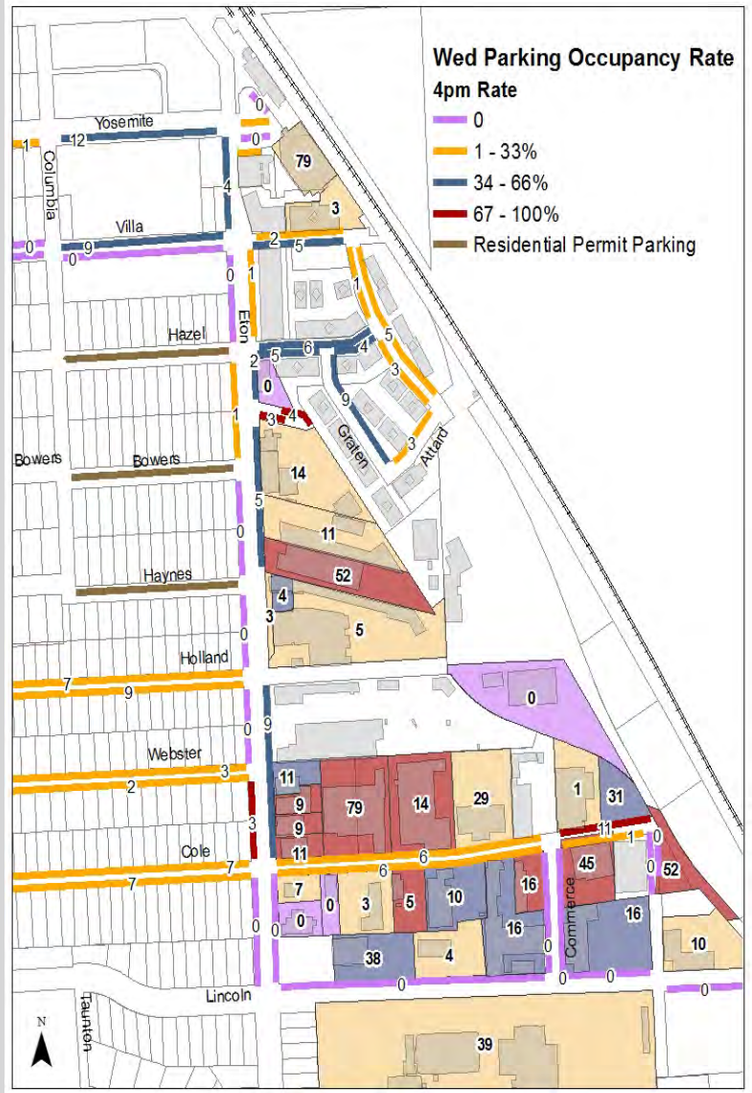
Friday Parking Count: 6:00 PM



S. Eton Rd
- 26 out of 60 spaces on the west side are used
- 30 out of 63 spaces on the east side are used
  *the highest occupancy throughout the study
- 0 spaces on west side, south of Holland are used the entire evening

Off Street Parking
- Griffin Claw parking lot reaches capacity.
- Only 2 of 11 spaces are used in Whistle Stop.
- 0 spaces are used outside of Bolyard Lumber.
- Robot Garage/Watch Hill lot never exceeds 66%.

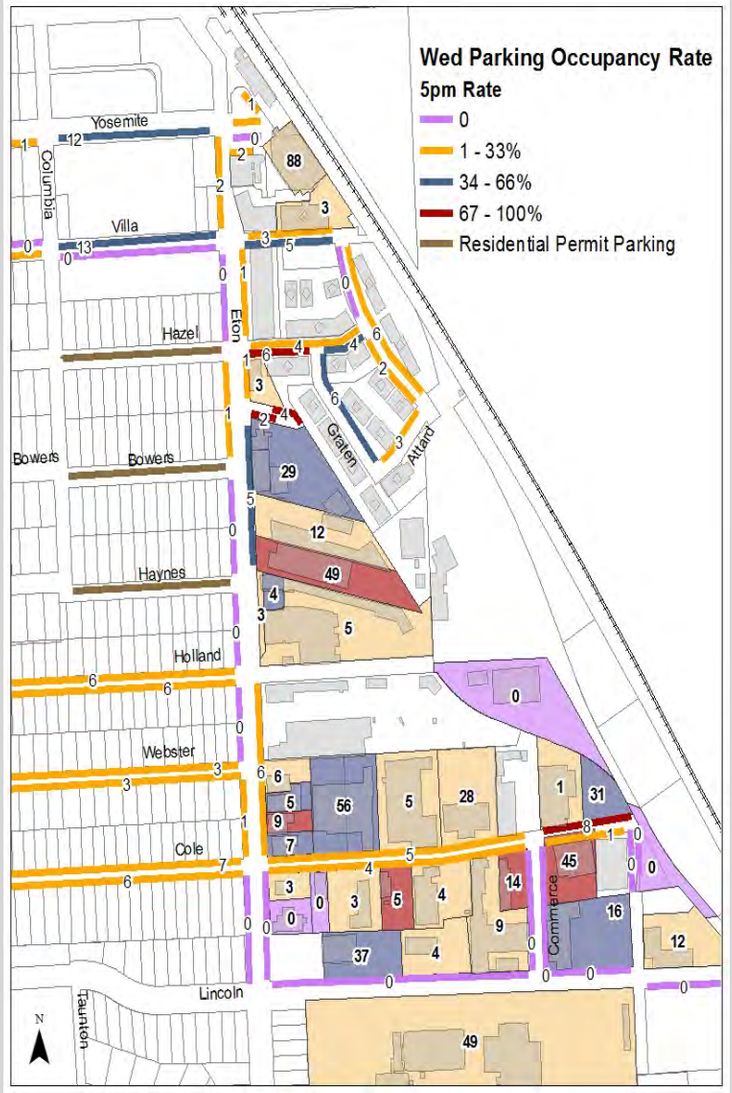
Wed. Parking Count: 4:00 PM



S. Eton
- 7 out of 60 spaces on the west side are used
- 17 out of 63 spaces on the east side are used

Off Street Parking
- Cole Street's highest occupancy rate for off street lots occurs on weekday during regular business hours.

Wed. Parking Count: 5:00 PM



S. Eton
- 4 out of 60 spaces on the west side are used
- 13 out of 63 spaces on the east side are used
  *lowest occupancy in the study

Off Street Parking
- The majority of Cole Street parking lots clear out after 5 pm.

Wed. Parking Count: 6:00 PM

S. Eton
- 8 out of 60 spaces on the west side are used
- 9 out of 63 spaces on the east side are used
  *lowest occupancy in the study

Off Street Parking
- Griffin Claw's peak parking hours increase during the evening while the rest of the parcels show a decrease in use.
- Shared Parking agreements work best when adjacent or nearby parcels have different peak parking times.

Existing Parking Analysis

For the section north of Holland Road, the parking study by Fleis and Vandenbrink concluded:

1) Off street and on-street parking demand is high and the existing spill over parking is impacting Yosemite Boulevard and Villa Road.
2) The parking garage beside Big Rock and The Reserve is underutilized.
3) Griffin Claw had the most utilized parking lot in north zone.
4) The least occupied lots were Whistle Stop and Bolyard Lumber.
    a) Together these two parcels contain 39 parking spaces, which could be an opportunity for shared parking agreement during nights and weekends.
5) During the peak hour there were no available spaces on Northbound Eton between Haynes and Palmer, or southbound Eton between Holland and Bowers.

For the section south of Holland Road, the parking study by Fleis and Vandenbrink concluded:

1) The highest parking demand in this area occurs during weekday daytime hours.
2) Many off street parking lots along Cole Street were near capacity at 4pm, then relatively vacant after 5pm.
    a) This may be an opportunity for shared parking agreements to relieve some parking demand in the north zone.
3) On street parking is not significantly impacted by the commercial properties.
4) The residential neighborhood to the west is not significantly impacted by spillover parking from the Rail District.

The parcel in front of Bolyard Lumber between the street and the building contains 15 parking spaces and is considered public right of way. Based upon the data from the study, these spaces are underutilized. On Friday September 23rd at 6pm, 0 spaces in front of Bolyard Lumber were used, while the east and west side of S. Eton were at or near capacity north of Holland. Better signage could be used to inform drivers and direct them into these spaces to alleviate parking congestion elsewhere.

The parking lots adjacent to Griffin Claw are also considered underutilized at evening hours. During peak parking time, Whistle Stop on the north side utilized 2 of the 11 spaces at 6pm, while 27 out of 44 spaces were utilized in the Robot Garage/Watch Hill parking lot at 6pm. Both of these parking lots have signs indicating parking is for their business only. Whistle Stop, Robot Garage, and Watch Hill have different peak parking hours with Griffin Claw which could be an opportunity for a shared parking agreement.

The on street parking south of Holland is considered underutilized as well. Zero cars parked on the west side of S. Eton between Holland and Lincoln on Friday, while the Wednesday count maxed out at 3 cars. The east side of S. Eton between Holland and Lincoln also had low parking rates. This side had a number of counts with a value of 0, and its maximum occupancy rate never reached above 66%.

Findings

The parking study shows that there is an abundance of parking throughout the study area. However, much of the parking is privately owned for a single use. Parking demand is high for restaurant uses in the evenings and weekends while the office uses have daytime peak parking periods. Shared parking arrangements throughout the study area should be encouraged to maximize the efficiency of existing parking in commercial areas and to eliminate spillover parking into residential areas.

The data from the parking study also supports the Multimodal Transportation Plan's recommendation to eliminate parking on the west side of Eton and use the space for a bike lane. The count data suggests that the study area has enough spaces to accommodate for the loss of parking on the west side of Eton. The highest count for this section was 26 on Friday, September 23rd at 6pm. If these spaces were removed, drivers could still find space in front of Bolyard Lumber and S.Eton between Holland and Lincoln. Available spaces could increase if adjacent businesses entered into shared parking agreements and removed 'business parking only' signs as well, as noted above.

Build-out Analysis

A build-out analysis was conducted to determine the future parking needs of the Rail District. This study involved examining the current state of development in the Rail District and demonstrating which buildings were likely to be redeveloped to their maximum size per the MX (Mixed-Use) zoning district provisions. Recently developed buildings and businesses not likely to change within the next 20 years were highlighted in blue, while properties with the potential for redevelopment were highlighted in red. See Figure 2.

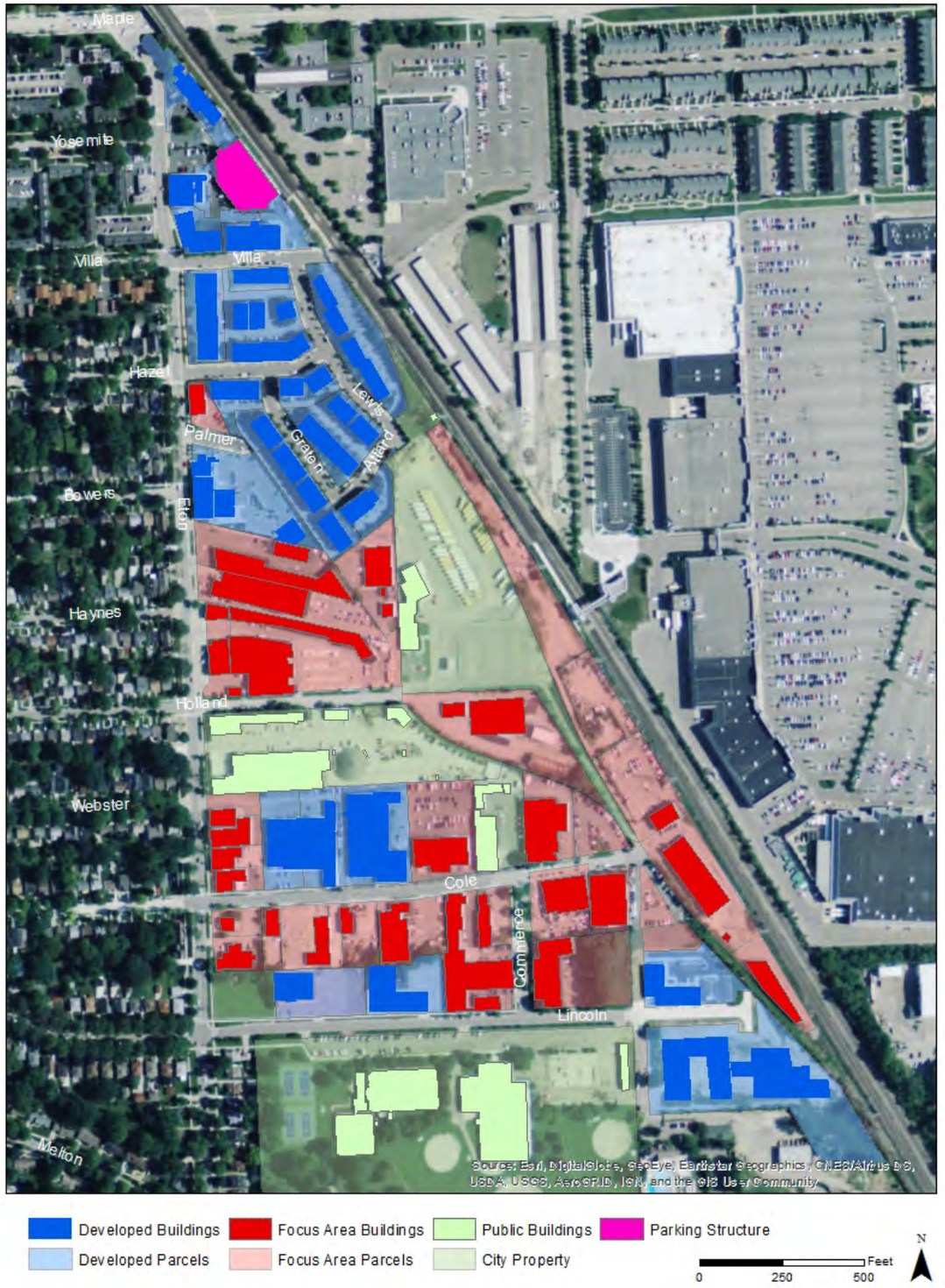
The ratio of developable parcel space vs actual building space was calculated for the properties highlighted in blue. This value is used as the Percent of Maximum Build-Out percentage. This build out rate was then used as a projection for the focus area highlighted in red. The assumption is that future buildings in the focus area will occupy a similar value of their total parcel space as those recently developed in blue.

The projected build-out square footage for the focus area was then used to calculate the additional number of parking spaces that would be required based on probable square footage and land uses.

A build-out analysis is predicated on many underlying assumptions. Presupposing the realistic and sometimes even most extreme conditions can generate a fairly accurate assessment of the issue at hand and help to envision future scenarios. The following assumptions were applied in the Rail District build-out analysis:

- All parcels in the focus area were assumed to be developed as four story, mixed use buildings, the maximum number allowed in the MX zone.
- All first floor uses were assumed to be retail/office, requiring one parking spot per 300 sq ft.
- Floors two, three, and four were assumed to be residential, requiring one parking space per 1000 sq ft of floor area.
- Percentage of Maximum Build Out =
  (Building Floor Area * Number of Stories) / (Parcel Area * 4 Stories)

Figure 2: Identifying Parcels with Potential for Redevelopment



Build-out Analysis

Existing Condition:
Figure 3 is a rendering of the Rail District's current build out. It also includes buildings approved for construction in the near future. The blue represents buildings that are unlikely to change within the next 20 years. Note that the northern section has a higher density of recent developments that occupy a larger portion of their parcel space than the older buildings in red. The restaurants and mixed-use structures in blue are clustered together with a combination of parking uses including a three story parking deck highlighted in pink, underground parking, on street parking, and private garages.

The red area indicates buildings that have not recently been re-developed or undergone significant renovation and still fit the previous zoning category. They are predominantly one story industrial buildings with large surface parking lots. These sites have been identified as a focus area for potential re-development in the build out analysis.

Future Buildout:
The transparent orange space pictured in Figure 4 indicates the maximum build out space for properties likely to redevelop in the Rail District. The MX zone allows up to 4 stories, and the orange is meant to help visualize the difference between the current build out in red, and what is now possible within the MX zone. The percentage of current built out space vs maximum build out is included in Tables 1 and 2 as the Current Percent of Maximum Build Out value on the far right column.

Figure 3

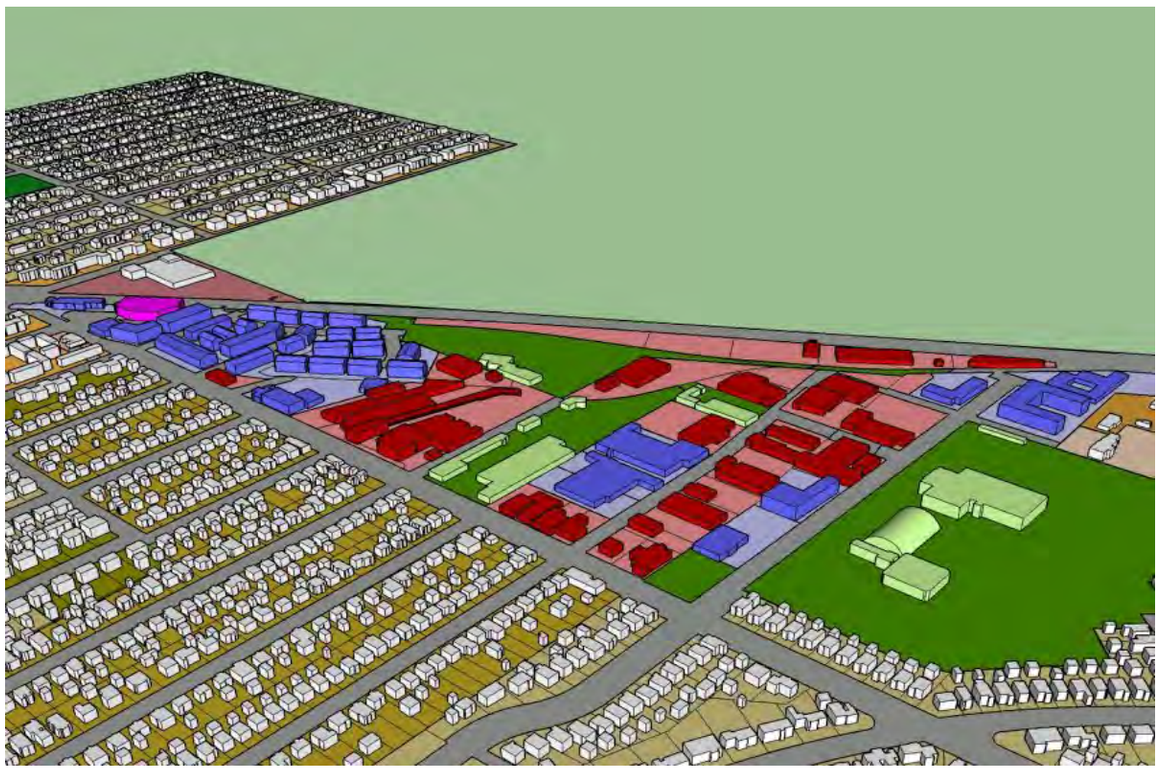
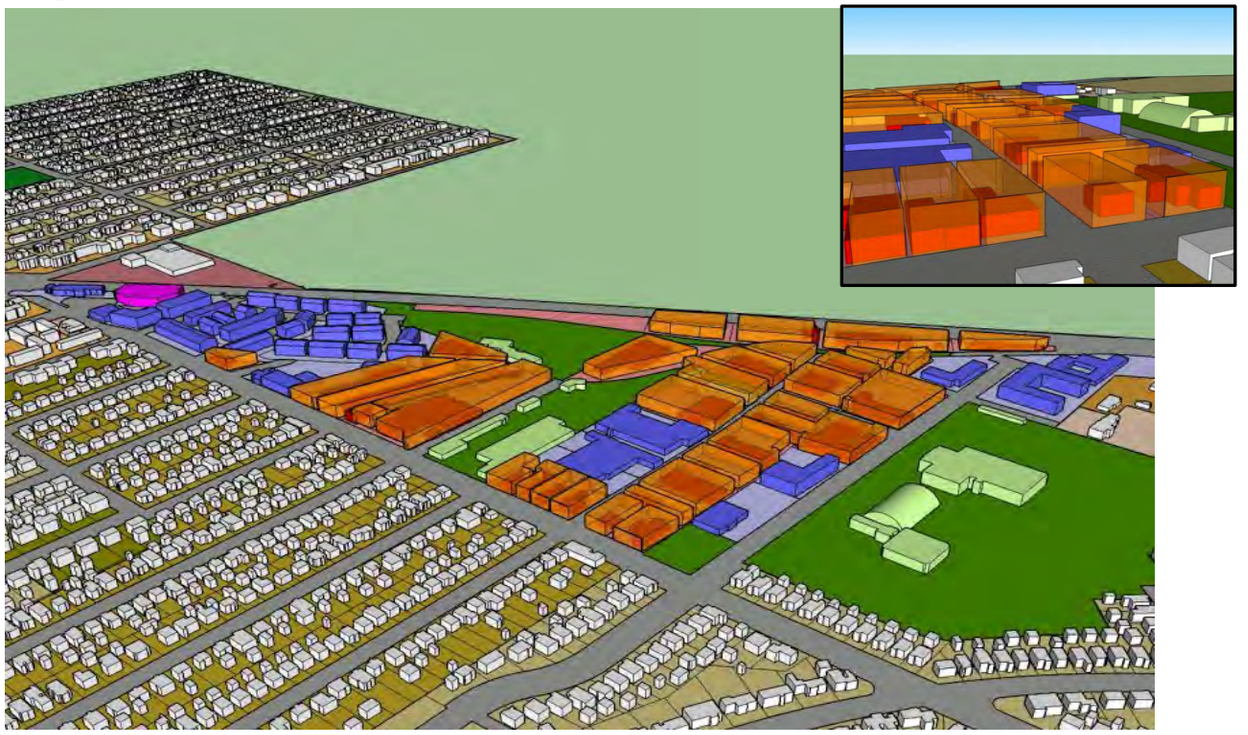


Figure 4



Existing Build-out Analysis

Based on development patterns over the past 15-20 years, it is rare for a landowner to use 100% of their developable space (highlighted in orange on Table 1). This is due to development standards such as side and rear setback requirements, access to parking and drop off space, required parking spaces, and right of way improvements. Table 1 compares the maximum build out values for different building uses, based on actual development that has occurred.

The addresses listed in Table 1 are properties not expected to significantly change within the next 20 years. They contain a mix of single story restaurants like Griffin Claw and The Reserve, single story industrial buildings converted into commercial uses such as the Cole Street multi-business spaces (as shown in white on Table 1), and multi-story, mixed used buildings including District Lofts and Crosswinds (as shown in blue on table 1). The build-out rates of properties not expected to significantly change within the next 20 years range from 6% to 62%, with an average of 26%.

Griffin Claw has a build out value of only 8% because it is a large parcel with 70% of its surface area dedicated to parking. The other 30% is occupied by a one story brewery and restaurant space. Because Griffin Claw is a restaurant, it also has a higher parking requirement than retail, office, and residential uses. Parcels with large surface lot parking areas and single story uses score lower percentage values in the maximum build out analysis.

The addresses highlighted in red on Table 2 correspond with the parcels shown in red on Figure 3, and those properties that have been identified as the focus area likely for redevelopment.

Table 1: Recent Development

Business	Address	Parcel Sq. Ft.	1st Floor Building Sq. Ft.	# of Stories	% Building on Parcel	Total Building Sq. Ft	Max Build Out Space	Current % of Max Build Out
Assumptions					Footprint/ Parcel	Footprint * # of Stories	Parcel Area *4 Stories	Current Build Sq. Ft/ Max Build
Big Rock	245 S ETON ST	28,237	9,151	1	32%	9,151	112,948	8%
The Reserve	325 S ETON ST	13,404	9,305	1	69%	9,305	53,616	17%
Griffin Claw	575 S ETON ST	66,333	20,248	1	31%	20,248	265,332	8%
Cole St. Multi-Business	2211 COLE ST	62,872	36,800	1	59%	36,800	251,488	15%
Cole St. Multi-Business	2121 COLE ST	66,700	33,502	1	50%	33,502	266,800	13%
(Combined w/ 2121)	2099 COLE ST	-	-	-	-		-	-
Armstrong White	2125 E LINCOLN ST	38,454	9,739	1	25%	9,739	153,816	6%
Dentist & Doctor Office	2425 E LINCOLN ST	42,970	12,363	1	29%	12,363	171,880	7%
Sheridan Retirement	2400 E LINCOLN ST (W SIDE)	164,428	30,664	4	19%	149,322	657,712	23%
Sheridan Retirement	2400 E LINCOLN ST (E SIDE)	(Combined)	26,666	1	-	(East +West)	-	-
CrossWinds (16 Buildings)	GRATEN, LEWIS, & HAZEL ST	253,702	97,184	4	38%	388,736	1,014,808	38%
Future Mixed Use	2000 VILLA ST	12,837	8,004	4	62%	32,016	51,348	62%
District Lofts	375 S ETON ST	20,180	10,391	4	51%	41,564	80,720	51%
District Lofts	2051 VILLA RD # 101	27,316	12,171	4	45%	48,685	109,264	45%
Irongate	401 S ETON ST	31,045	15,000	2.5	48%	37,500	124,180	30%
Future Mixed Use	2159 E LINCOLN ST	35,226	16,577	4	47%	66,310	140,904	47%
Total		**863,704**	**347,766**	**-**	**40%**	**895,241**	**3,454,816**	**26%**

Build-out Analysis

Table 2: Focus Area with Potential for Redevelopment

Parcel Address	Parcel Sq. Footage	1st Floor Building Sq. Footage	% Building on Parcel	Est. Total Building Sq. Footage	Est. Max Build Out	Current % of Max Build Out
Assumptions		Building Floor Area	Floor Area / Parcel	Building Floor Area * # of Stories	Parcel Area * 4 Stories	Total Build Sq. Ft. / Max Build
501 S ETON	11,331	3,959	35%	3,959	45,326	9%
653 S ETON	54,444	24,705	45%	24,705	217,776	11%
677 S ETON	55,569	22,184	40%	22,184	222,275	10%
707 S ETON	7,335	2,602	35%	5,205	29,338	18%
953 S ETON	10,080	5,003	50%	5,003	40,320	12%
995 S ETON	11,200	4,263	38%	4,263	44,800	10%
925 S ETON	14,016	3,901	28%	3,901	56,062	7%
929 S ETON	11,104	7,146	64%	7,146	44,416	16%
757 S ETON	111,124	49,332	44%	55,640	444,496	13%
1041 S ETON	11,677	1,771	15%	1,771	46,706	4%
1081 S ETON	14,992	6,036	40%	6,036	59,968	10%
2203 HOLLAND	38,614	10,945	28%	10,945	154,456	7%
2200 HOLLAND	89,215	19,404	22%	19,404	356,860	5%
2275 COLE	55,729	14,241	26%	14,241	222,917	6%
2333 COLE	36,071	20,381	57%	20,381	144,285	14%
2330 COLE	36,451	13,057	36%	13,057	145,805	9%
2499 COLE	47,389	4,052	9%	4,052	189,554	2%
2388 COLE	33,531	Parking Lot	-	-	-	-
2182 COLE	20,754	2,816	14%	2,816	83,017	3%
2254 COLE	36,634	13,011	36%	13,011	146,536	9%
2300 COLE	17,196	5,682	33%	5,682	68,784	8%
2010 COLE	34,468	7,190	21%	7,190	137,871	5%
2006 COLE	10,877	3,185	29%	3,185	43,507	7%
2388 COLE	22,202	16,429	74%	16,429	88,807	19%
2400 COLE	62,645	19,461	31%	19,461	250,580	8%
2450 COLE	23,422	9,192	39%	9,192	93,687	10%
2295 E LINCOLN	53,994	33,402	62%	33,402	215,978	15%
2125 E LINCOLN	38,470	9,739	25%	9,739	153,879	6%
2335 E LINCOLN	61,009	15,992	26%	15,992	244,035	7%
Vacant	65,025	Vacant	-	-	-	-
Vacant	43,240	Vacant	-	-	-	-
Total	**1,139,807**	**349,080**	**31%**	**357,991**	**3,992,042**	**9%**

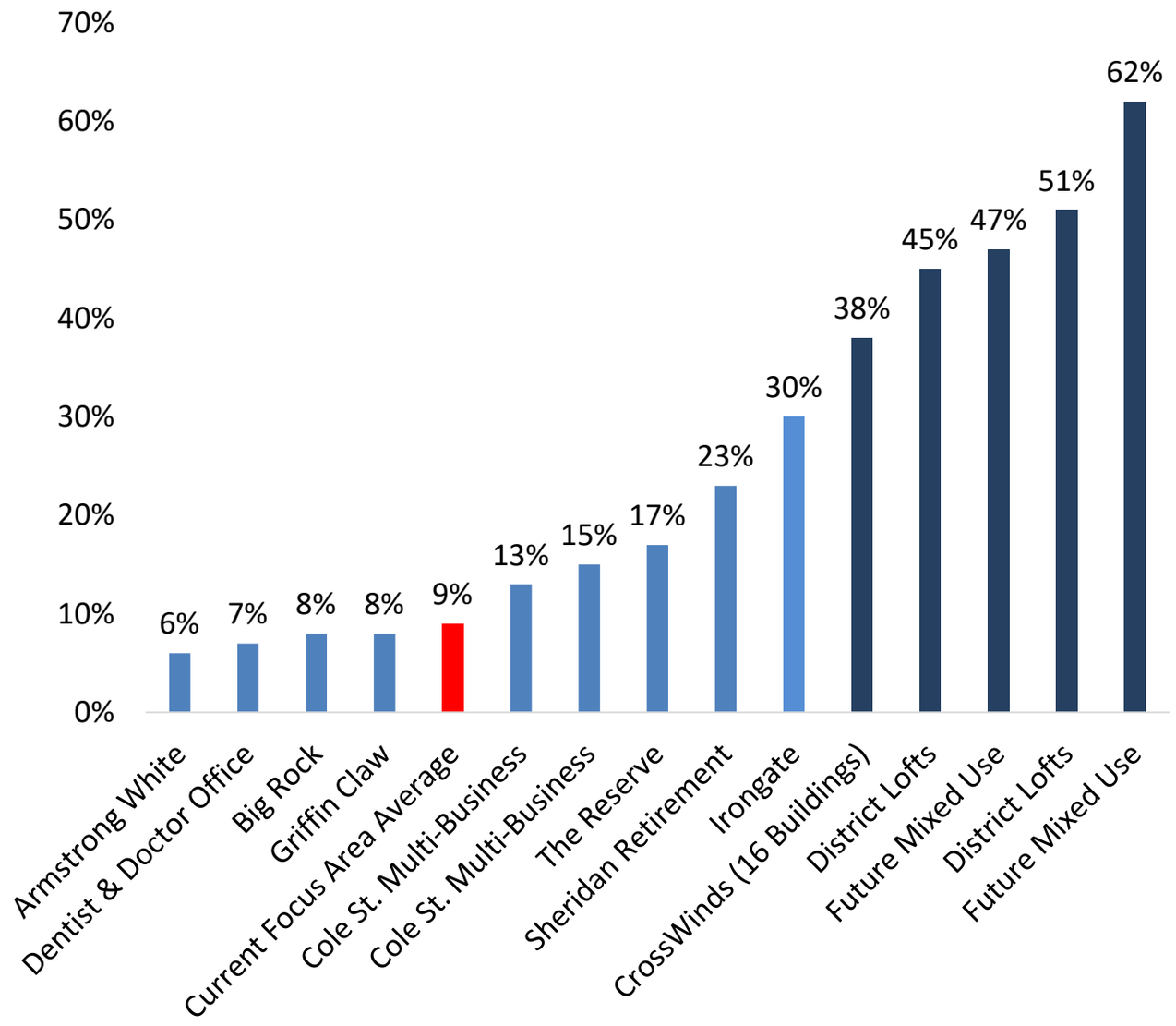
Determining Future Build-out

Figure 5 illustrates the range of current build out within the study area. the light blue and dark blue columns represent buildings that are assumed to remain the same within the next 20 years. The light blue represents existing single use buildings. These buildings have lower values because most are one story in height, and do not maximize their square footage. The Sheridan Retirement home will be four stories, but has a large surface parking area throughout its parcel. Irongate ranges from two to three stories in height, and uses garage parking to maximize its space.

The dark blue columns in Figure 5 represent mixed-use buildings that are approved to be four stories in height, and they average a 49% build out rate. These buildings score higher values because they maximize their height and square footage, and contain enclosed parking with building area above.

The focus area's current build out rate ranges from 3% to 19% with an average of 9%, which is highlighted in the red column in Figure 5. All of the buildings in the focus area are one story with large surface parking lots. For future projections, it is important to determine how the Rail District would change if the buildings in the focus area were transformed from a 9% average build out to anywhere between 30-50%, similar to recent development projects in the study area.

Figure 5: Percent of Maximum Build Out



Future Build-out Analysis

Table 3 illustrates the parking necessary for projected build-outs in the focus area. The three scenarios increase the focus area from its current 9% build-out to 30%, 40%, and 50% build out rates. These three values were selected by the committee based on recent development trends in the area with regards to size and mix of office/retail, restaurant, and residential uses.

Required parking spaces were then calculated from the floor area values at 30%, 40%, and 50% of maximum build out values. The first floor of the hypothetical build outs were assumed to be retail/office, requiring 1 space per 300 sq. ft, and floors 2-4 were assumed to be residential, requiring 1 parking space per 1000 sq ft. The total values are shown at the bottom of Table 3. The difference between these values and the existing number of parking spaces was then calculated to illustrate how many additional parking spaces would be required if the focus area developed at a 30%, 40%, and 50% build out rate (see Table 4).

Table 3: Parking Projection

Parcel Address	Current Parcel Sq. Footage	Est. Max Build Out	Parking Requirement	Parking Requirement	Max Build Out Parking Requirement	Required Parking	Required Parking	Required Parking
Assumptions		Parcel Area *4 Stories	Retail: 1st Floor 1 per 300 sq. ft.	Residential: Floors 2-4 1 per 1000 sq. ft.	100% Build Out	50% Build Out	40% Build Out	30% Build Out
501 S ETON	11,331	45,326	38	34	72	36	29	22
653 S ETON	54,444	217,776	181	163	345	172	138	103
677 S ETON	55,569	222,275	185	167	352	176	141	106
707 S ETON	7,335	29,338	24	22	46	23	19	14
(Off Site)	65,025	-	-	-	-	-	-	-
757 S ETON	111,124	444,496	370	333	704	352	282	211
2203 HOLLAND	38,614	154,456	129	116	245	122	98	73
2200 HOLLAND	89,215	356,860	297	268	565	283	226	170
953 S ETON	10,080	40,320	34	30	64	32	26	19
995 S ETON	11,200	44,800	37	34	71	35	28	21
2275 COLE	55,729	222,917	186	167	353	176	141	106
2333 COLE	36,071	144,285	120	108	228	114	91	69
2330 COLE	36,451	145,805	122	109	231	115	92	69
925 S ETON	14,016	56,062	47	42	89	44	36	27
929 S ETON	11,104	44,416	37	33	70	35	28	21
2499 COLE	47,389	189,554	158	142	300	150	120	90
(Off Site)	43,240	-	-	-	-	-	-	-
2388 COLE	33,531	-	-	-	-	-	-	-
2182 COLE	20,754	83,017	69	62	131	66	53	39
2254 COLE	36,634	146,536	122	110	232	116	93	70
2300 COLE	17,196	68,784	57	52	109	54	44	33
2010 COLE	34,468	137,871	115	103	218	109	87	65
1041 S ETON	11,677	46,706	39	35	74	37	30	22
1081 S ETON	14,992	59,968	50	45	95	47	38	28
2006 COLE	10,877	43,507	36	33	69	34	28	21
2295 E LINCOLN	53,994	215,978	180	162	342	171	137	103
2125 E LINCOLN	38,470	153,879	128	115	244	122	97	73
2335 E LINCOLN	61,009	244,035	203	183	386	193	155	116
2388 COLE	22,202	88,807	74	67	141	70	56	42
2400 COLE	62,645	250,580	209	188	397	198	159	119
2450 COLE	23,422	93,687	78	70	148	74	59	45
Total	**1,139,807**	**3,992,042**	**3,327**	**2,994**	**6,321**	**3,160**	**2,528**	**1,896**
		*Not Probable			*Not Probable			

Parking Requirement for Future Build-out

Projecting future development is a complicated task. In this analysis, trends from recent developments in the Rail District are extrapolated into the focus area, and then basic assumptions are used to calculate how many extra parking spaces would be required. Although it is an inexact science, having a general idea of future parking needs is an important task. Doing so helps predict how many additional cars could be traveling through the district and how much parking is needed in the future. This can have an impact on traffic signals, road speeds, safety precautions, parking counts, and road design.

Detailed analysis of recent development trends show an average build-out of 26% within the study area. Based on these findings, the potential build out rates of 30%, 40%, and 50% were used, assuming that future developments will try to maximize available space and build four stories. The Ad Hoc Rail District Committee recommended reliance on the 30% build out rate for the buildout analysis to allow for a combination of mixed use, four story buildings which average around 50%, and single story office and restaurant uses which average around 10%, consistent with recent development trends.

There are currently 826 parking spaces in the parking lots within the focus area. Table 4 illustrates additional parking needed based on the build out projections, which range from an additional 1,070 parking spaces if the focus area is built out to 30%, 1702 spaces at 40%, and 2,334 spaces if the focus area is built out to 50% buildout.

If future development trends towards buildings with less of an upfront cost than 4 stories and underground parking, the additional parking spaces required would drop substantially. Also, the 1,070 additional parking spaces at 30% build out projection is based on an assumption that every parcel identified in red in Figure 3 and Table 2 is redeveloped. We have seen a large amount of repurposing in the Rail District, especially on Cole Street, and if future land owners choose repurposing of current buildings over redevelopment, the projected parking spaces would see a substantial drop as well.

Many of the parcels in the focus area do not have enough space to provide required parking for 4 stories of retail and residential uses unless they build an underground parking facility. Based on recent development trends in the area, this is unlikely to occur and thus, buildout rates will likely remain in the 20-30% range of maximum build-out, requiring less than 1,070 additional parking spaces in the study area. It is important to note that based on the current standards, all of these additional parking spaces must be provided by individual property owners and/or developers. Thus, the City need only focus on encouraging an efficient use of private parking facilities, and ensuring good right-of-way design to accommodate additional vehicle traffic and balance the needs of non-motorized users. The provision of additional public parking is not warranted now, nor in the near future.

Table 4: Future Parking Needs

Focus Area Build Out Rate	Projected Parking Spaces	Projected Additional Spaces
Current	826	-
100%	6,321	5,495
50%	3,160	2,334
40%	2,528	1,702
30%	1,896	1,070

Figure 6

826 Parking Spaces in Parcels with Potential for Redevelopment

Recommendations

The following recommendations are offered by the Ad Hoc Rail District Committee.

Recommendation 1: Improve Pedestrian Crossings

Issues: Some crosswalks and intersections along S. Eton Road are dangerous due to the lack of visibility they create for pedestrians attempting to cross the street. Traffic is heavy and often exceeds the posted speed limit.

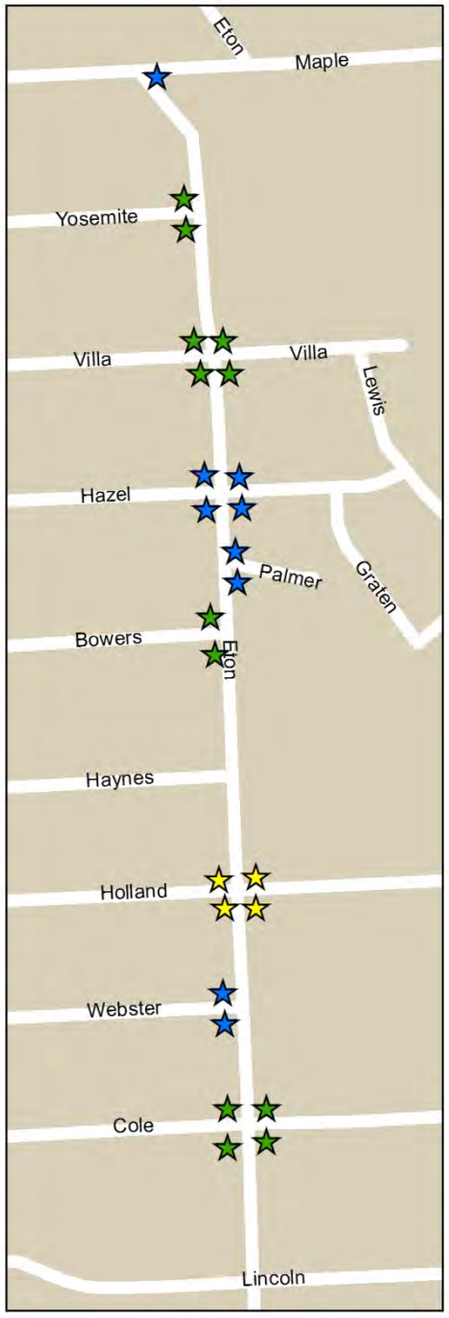
Recommendation: Construct bump-out curbs throughout the study area.

A bump-out curb is a traffic calming method in which a sidewalk is extended to reduce the crossing distance at intersection. In doing so, sight distance and sight lines for pedestrians are improved, vehicles are encouraged to slow down, and parked cars are prevented from obstructing crosswalk areas.

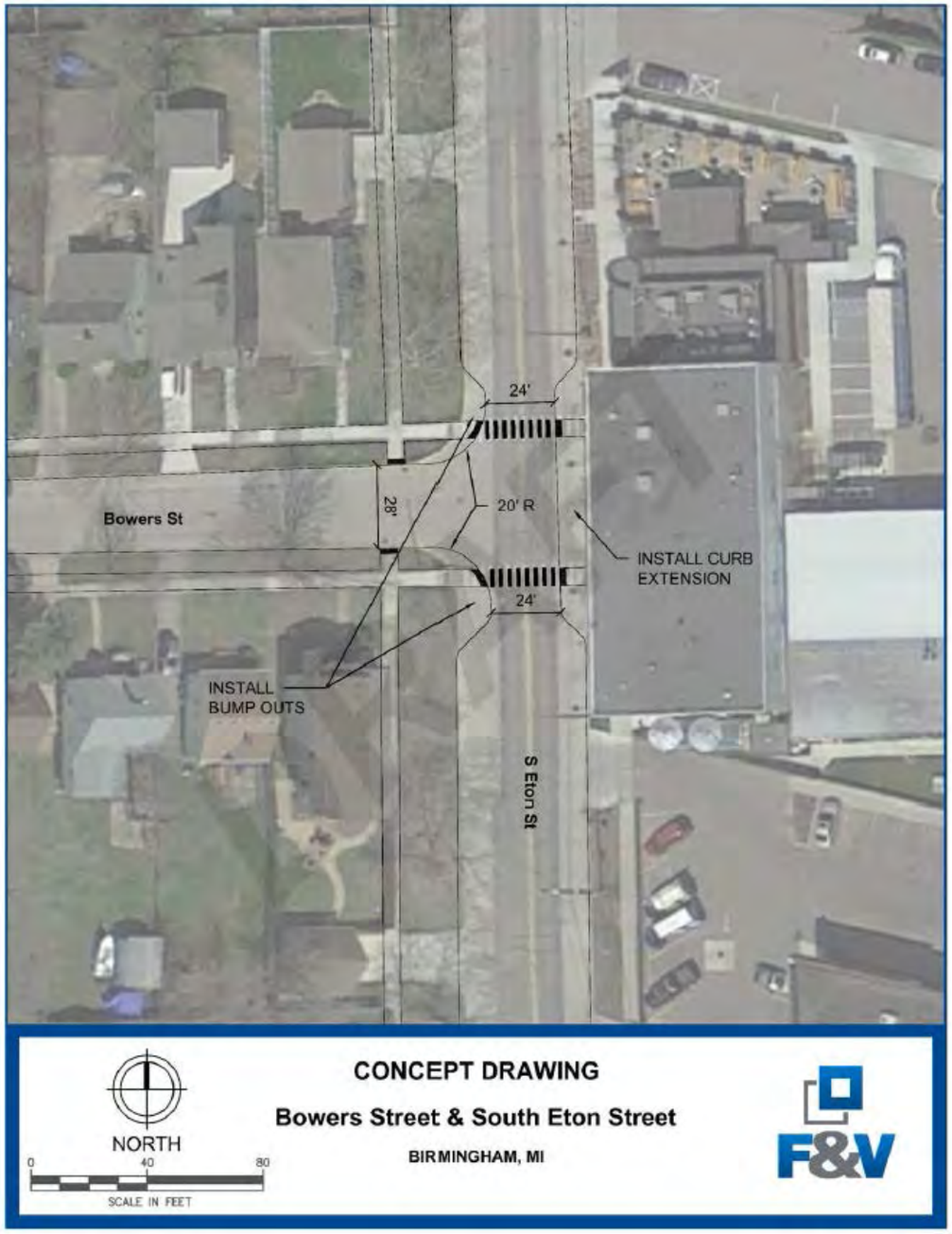
The map to the right illustrates the locations for each of the recommended bump-out curbs along S. Eton. Bump-out curbs recommended by the Committee, which are denoted by a blue star, are located along S. Eton at E. Maple, Palmer, and Webster. Green stars indicate bump-out curbs recommended explicitly by the MMTP and are located at Yosemite, Villa, and Cole. Lastly, bump-out curbs recommended by both the Committee and MMTP have been proposed for the intersection at Holland and S Eton and are denoted by a yellow star.

Please also note the sample engineering drawing of proposed improved pedestrian crossings at Bowers and S. Eton. As demonstrated, the installation of two bump-out curbs and a curb extension at this intersection could provide a safer, more visible pedestrian crossing point without obstructing right and left turn accessibility for vehicles. The Committee further recommends the use of brick pavers or other materials to create a plaza feel at this intersection. Benches, planters, and bicycle parking are also recommended.

Proposed Bump-out Locations



Sample Engineering Drawing of Bump-out Curbs



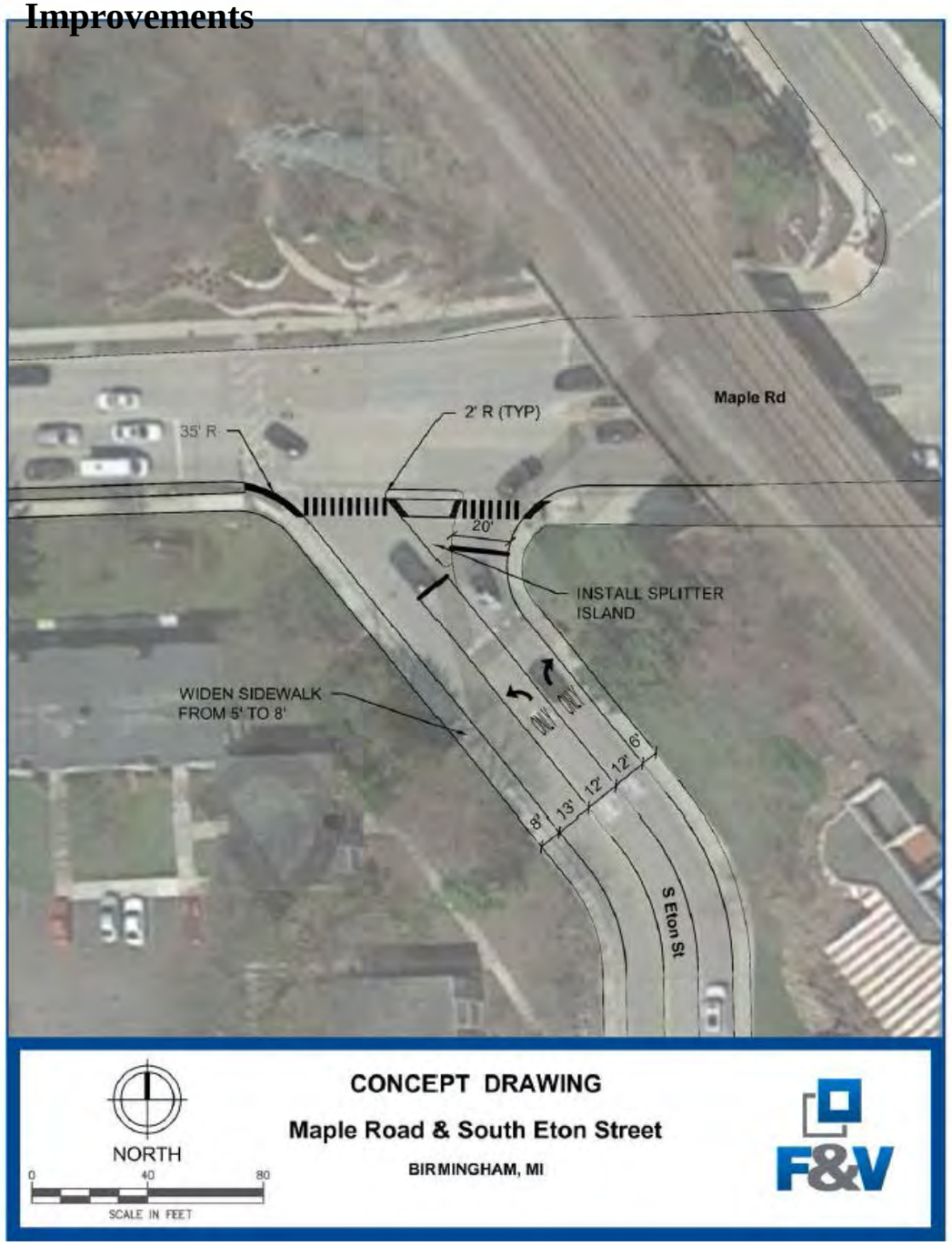
Recommendation 2:
Intersection Improvements at Maple & S. Eton

Issues: The intersection of E. Maple and S. Eton does not provide a safe pedestrian experience. With a crossing distance of 88 feet, pedestrians are expected to traverse a very wide street in a short amount of time. This intersection, especially at the southwest corner, exhibits visual barriers that make it difficult for vehicles turning right to detect a crossing pedestrian.

Recommendations: Install a splitter island at the crosswalk at S. Eton and Maple, widen the sidewalk on the west side of S. Eton, restripe S. Eton to realign lanes, and add enhanced crosswalk markings.

Elevated splitter islands are installed on roads with low visibility and high vehicle speeds as a way to call attention to an approaching intersection and to urge drivers to slow down. The splitter island also provides pedestrians with refuge for crossing traffic and provides greater detectability of the pedestrians by motorists.

Sample Engineering Drawing of Proposed Improvements



Recommendation 3:
Accommodate Bicycling on S. Eton

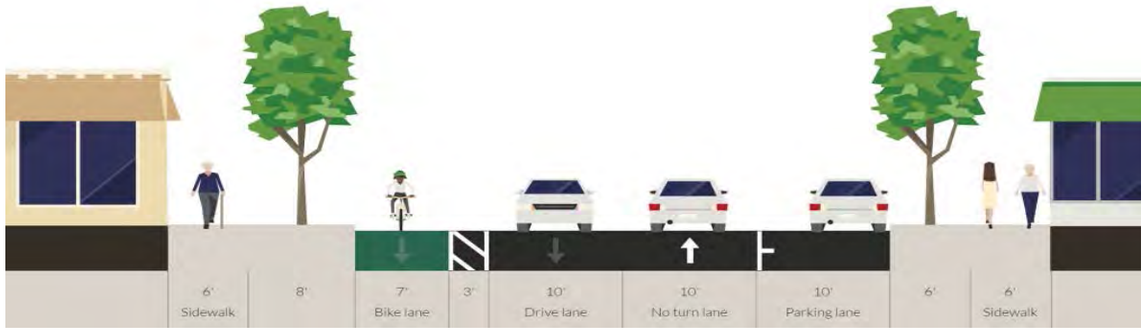
Issues: There are a significant number of bicyclists who traverse along S. Eton Road. The current road conditions in the Rail District are not favorable to those travelling by bike because no demarcation exists between the parking lanes and the driving lanes. Suggestions have been made to organize the street in order to make conditions safer for cyclists.

As shown in the picture above, a bicyclist rides through a narrow stretch of S. Eton where cars are parked on both sides. Bicyclists in the Corridor currently share lanes with vehicle traffic.

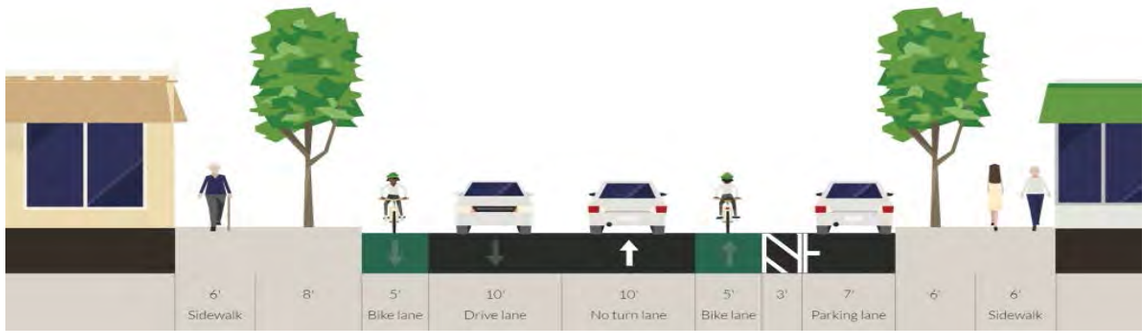
Recommendations: Add a bike lane or sharrows and buffers to S. Eton from Yosemite to 14 Mile. See illustrations to the right for design options.

Bike lanes are designated areas on a road that run alongside the flow of vehicle traffic. While it is common to channel on-street bicyclists using a single line to divide the street lane, there are other popular types of lanes that offer more protection and take up less space on the road. One type is a buffered lane that provides additional separation between the road and designated lane. Another type is a shared lane or “sharrow”, which can comfortably accommodate bikes on street without a designated lane.

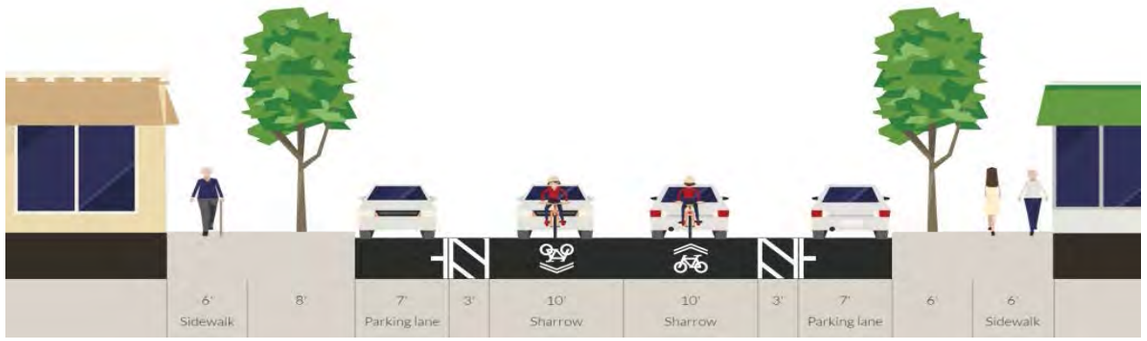
Recommendations:



Design Option 1: Multi-Modal Transportation Plan
- Add 7’ Southbound Bike Lane – 3’ Buffer – 2x10’ Driving Lanes – 10’ Parking Space
- Remove on-street parking on west side of S. Eton



Design Option 2: Northbound & Southbound Bike Lanes
- Add 5’ Southbound Bike Lane – 2x10’ Driving Lanes – 5’ Northbound Bike Lane, 3’ Buffer – 7’ Parking Space
- Remove on-street parking on west side of S. Eton



Design Option 3: Sharrows and Buffers
- Mark 7’ Parking Space – 3’ Buffer – 2x10’ Driving Lane – 3’ Buffer – 7’ Parking Space

Recommendation 4: Encourage Shared Parking

Issue: Many properties are dominated by excessively large parking lots that are not being efficiently used. Vast parking lots in the district are vacated after peak business hours and remain empty throughout the evening because of restricted access, while other lots overflow around restaurants in the evenings.

Empty parking lots can be found throughout the study area.

Shared parking is a land use strategy that efficiently uses parking capacity by allowing adjacent and/or compatible land uses to share spaces, instead of providing separate spaces for separate uses. Often, a shared parking agreement is put in place between two or more property owners and the jurisdiction to ensure parking spaces on a site are made available for other uses at different times throughout the day.

Recommendation: Encourage shared parking in the district by providing the zoning incentives for properties and/or businesses that record a shared parking agreement. Incentives could include parking reductions, setback reductions, height bonuses, landscape credits, or similar offers.

Amend the shared parking provisions to simplify the calculations to determine required parking based on industry standards and eliminate the need to hire a consultant to prepare shared parking studies. See table to the right for an example of a shared parking calculation from Victoria Transport Policy Institute.

Sample Shared Parking Occupancy Rates Table

This table defines the percent of the basic minimum needed during each time period for shared parking. (M-F = Monday to Friday)

Uses	M-F	M-F	M-F	Sat. & Sun.	Sat. & Sun.	Sat. & Sun.
	8am-5pm	6pm-12am	12am-6am	8am-5pm	6pm-12am	12am-6am
Residential	60%	100%	100%	80%	100%	100%
Office/ Warehouse /Industrial	100%	20%	5%	5%	5%	5%
Commercial	90%	80%	5%	100%	70%	5%
Hotel	70%	100%	100%	70%	100%	100%
Restaurant	70%	100%	10%	70%	100%	20%
Movie Theater	40%	80%	10%	80%	100%	10%
Entertainment	40%	100%	10%	80%	100%	50%
Conference/Convention	100%	100%	5%	100%	100%	5%
Institutional (non-church)	100%	20%	5%	10%	10%	5%
Institutional (church)	10%	5%	5%	100%	50%	5%

Courtesy of Victoria Transport Policy Institute

Recommendation 5:
Add Wayfinding Signage

Issue: Currently, the Eton Rail District lacks any uniform signage to help navigate drivers, pedestrians, and bicyclists to their desired destination. Long dead-end streets such as Cole St. and Holland St. where many businesses are located do not have any signage along S. Eton, the main thoroughfare of the Rail District.

Recommendation: Install gateway signage at the north and south ends of the study area and install wayfinding signage throughout the Rail District to direct people to destinations and parking.

Wayfinding and signage are tools that provide information relating to direction, distance, and location. Signs have an important role in the public right of way and can enhance an area's sense of place.

Design Concept for Wayfinding Signage at S. Eton and Lincoln Entrance

MEMORANDUM

Planning Department

Date: **March 28, 2017**

To: **Multi-Modal Transportation Board**

From: **Lauren Chapman, Assistant Planner**

Approved: **Jana L. Ecker, Planning Director**

Subject: **Trail Connection- North and South of W. Maple**

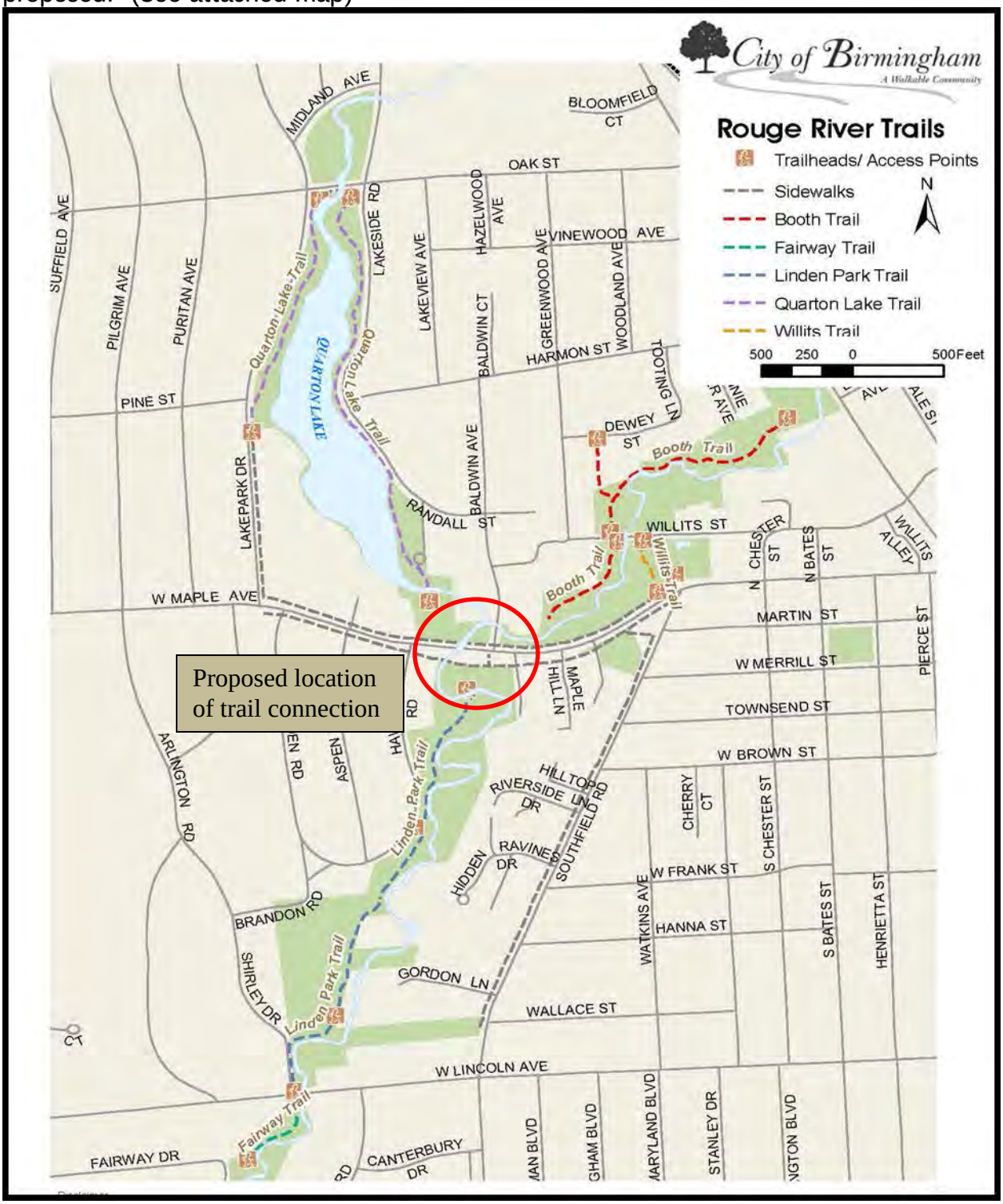
The Planning Department was asked to look into options to connect the Quarton Lake Trail (north of Maple) and the Linden Park Trail (south of Maple) across W Maple Road. Such a connection would increase access and safety for trail users. It would also be a step forward in the implementation of several of the City's master planning documents.

Connecting parks to residential areas and connecting the City to other communities through pedestrian passageways is of primary importance, as is making other community resources accessible to people. The Birmingham 2016 Plan identifies the development of a green corridor along the Rouge River as a high priority project. The 2016 Plan recognizes the value that the publicly owned corridor provides and the opportunity to connect neighborhoods to one another, with parks, and the downtown. Making the corridor accessible will also provide access to natural areas and recreational activities. During the development of the City's Recreation Master Plan in 2000 and again in 2006, there was a strong public desire for continuous, accessible and safe pathways throughout the City. A map of the City's existing trail system is attached.

The Multi-Modal Transportation Plan (MMTP) was adopted by the City in 2013. The purpose of the plan is to have a long-range strategy to improve and expand opportunities for pedestrians, cyclists and transit users. It is a response to the growing demand for alternative forms of travel and the need to improve the safety of those who choose to walk, bicycle, or take transit. The Plan recommends enhanced pedestrian crossings on W. Maple Road.

In accordance with the MMTP, W. Maple was recently restriped from 4 lanes to 3. This has made it easier for pedestrian crossings, but it still presents a challenge. In order to connect to the Quarton Lake Trail from the Linden Park Trail, pedestrians currently have to cross the road in segments and often find themselves stranded in the center turn lane of the road waiting for traffic to clear. Installing a pedestrian bridge, boardwalk, or tunnel would eliminate pedestrian and vehicular conflict by allowing pedestrians to cross

independent of the traffic on the street. A mid-block crossing island has also been proposed. (See attached map)



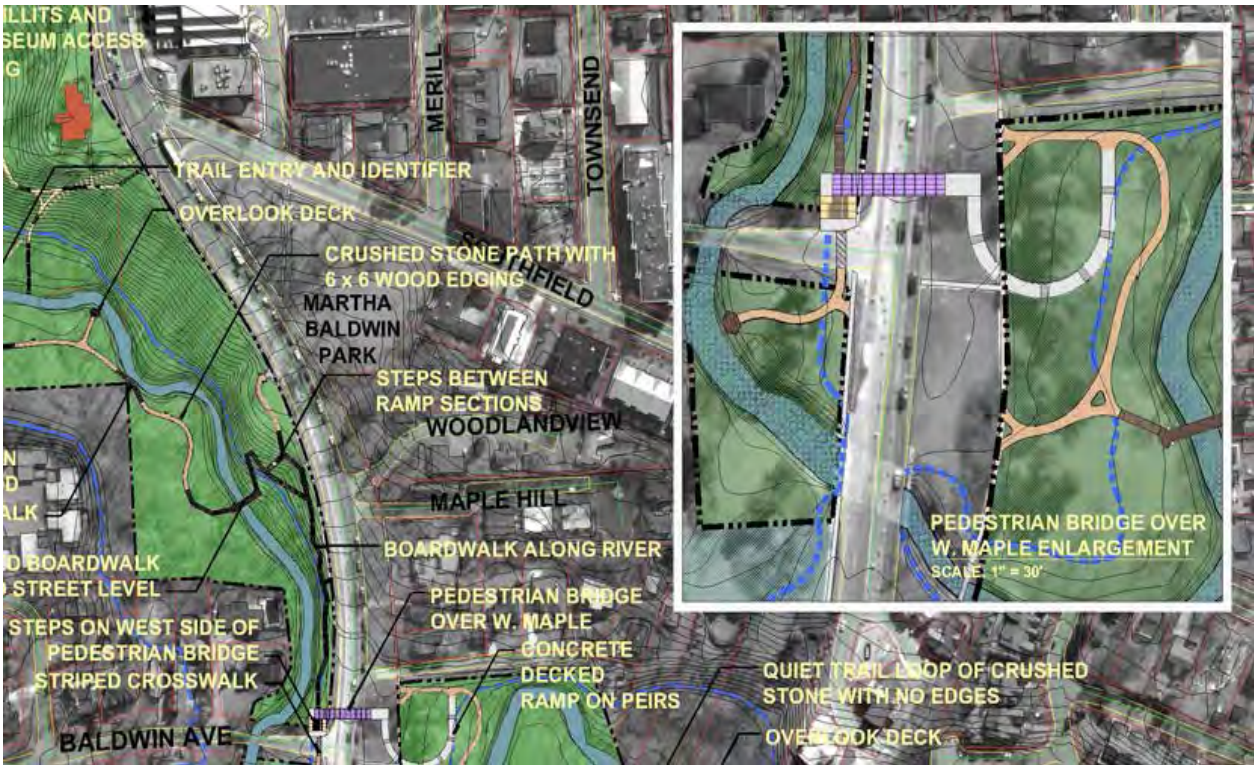
Once across W. Maple, there is no connection from the public sidewalk to the trail south of W. Maple near the river. The Parks and Recreation Board have been exploring improving the Linden Park Trail. At their March 7th meeting, the Parks and Recreation Board voted to pursue a trail connection south of Maple Road from the sidewalk to the

bridge at Lower Baldwin; opting for the western connection. (See image below). The Board also voted to support an at-grade pedestrian crossing on W. Maple Road just west of Baldwin Road. The board has not yet voted on the material that will be used.

The purple lines represent two routes that the Parks Board considered for the connection of the Linden Park Trail to the public sidewalk network.

TRAIL CONNECTION OPTIONS: PEDESTRIAN BRIDGE OVER W. MAPLE

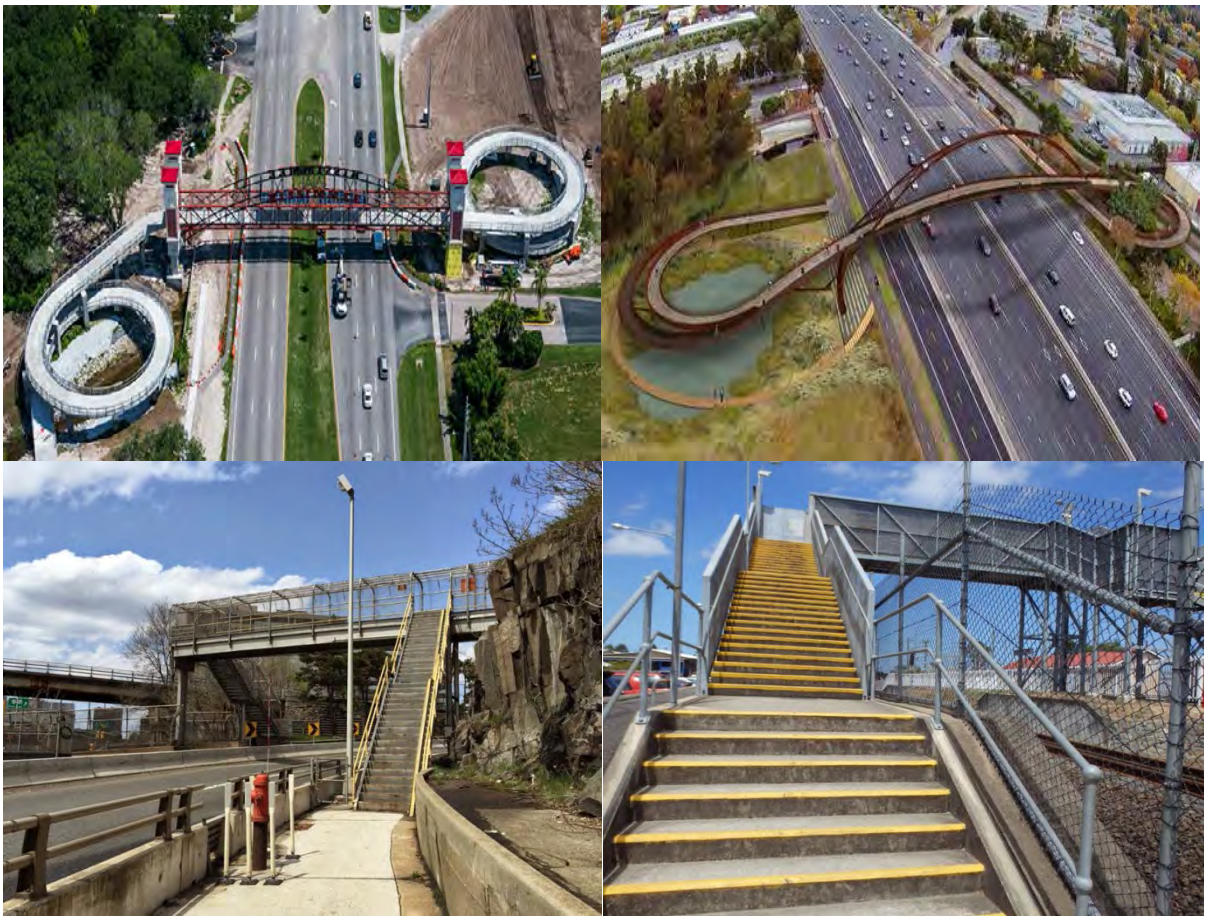
A pedestrian bridge over W. Maple would connect the Quarton Lake Trail north of Maple and the Linden Park Trail to the south. A pedestrian bridge was initially proposed by MC Smith Associates and Architectural Group in the Rouge River Trail Corridor Master Plan in 2006. The proposed ramp had a concrete decked ramp on piers on the south side of Maple leading up to the pedestrian bridge and steps on the north side of it leading to a striped crosswalk across Baldwin Road. The initial estimated cost for the bridge was $260,000 in 2005. The bridge as it was originally proposed was not handicap accessible. Below is an image of the proposed location for the bridge.



The City has asked Fleis and Vandenbrink (F & V), the City's transportation consultants, to provide updated ADA compliant options, and cost estimates. The options that they provided are presented below.

The preferred alignment is roughly perpendicular to the road, as shown in Options 1 and 4. Option 1 requires a second pedestrian bridge over the river. The new bridge over the river would be parallel to the existing one but almost 16 feet above it. Options 2 and 3 skew the crossing and take advantage of the fact that the City owns the park properties to the northwest and southeast of the vehicular bridge. This results in a longer bridge span, but still within the normal range of prefabricated bridge lengths. One drawback is that sections of the bridge would span over part of the vehicular bridge, so someday when the bridge needs significant work, the pedestrian bridge will have to be temporarily removed to provide access. Option 4 would have the shortest bridge length and is the preferred alignment.

F & V is estimating that, regardless of the option that is selected, the project will cost at least $1,000,000. There would need to be a 14-foot vertical clearance for the road below plus the height of the superstructure requires a 16-foot grade transition on both ends. Making the structure accessible would mean that an approach transition length of 320 feet would be needed on both sides. The structure could have a higher grade and still be somewhat accessible by providing landings every 30 feet. This would reduce the needed approach transition length to approximately 230 feet. Switchbacks and/or spirals could be used to compact the approaches into the available space. In order to make the structure even more compact; stairs could be built at either end. That requires approximately 30-50 feet and is much more compact. The structure would no longer be accessible if stairs were used. Most new bridges do not have stair only approaches due to the focus on accessibility. Below are examples of bridges with both spiral and stair approaches.

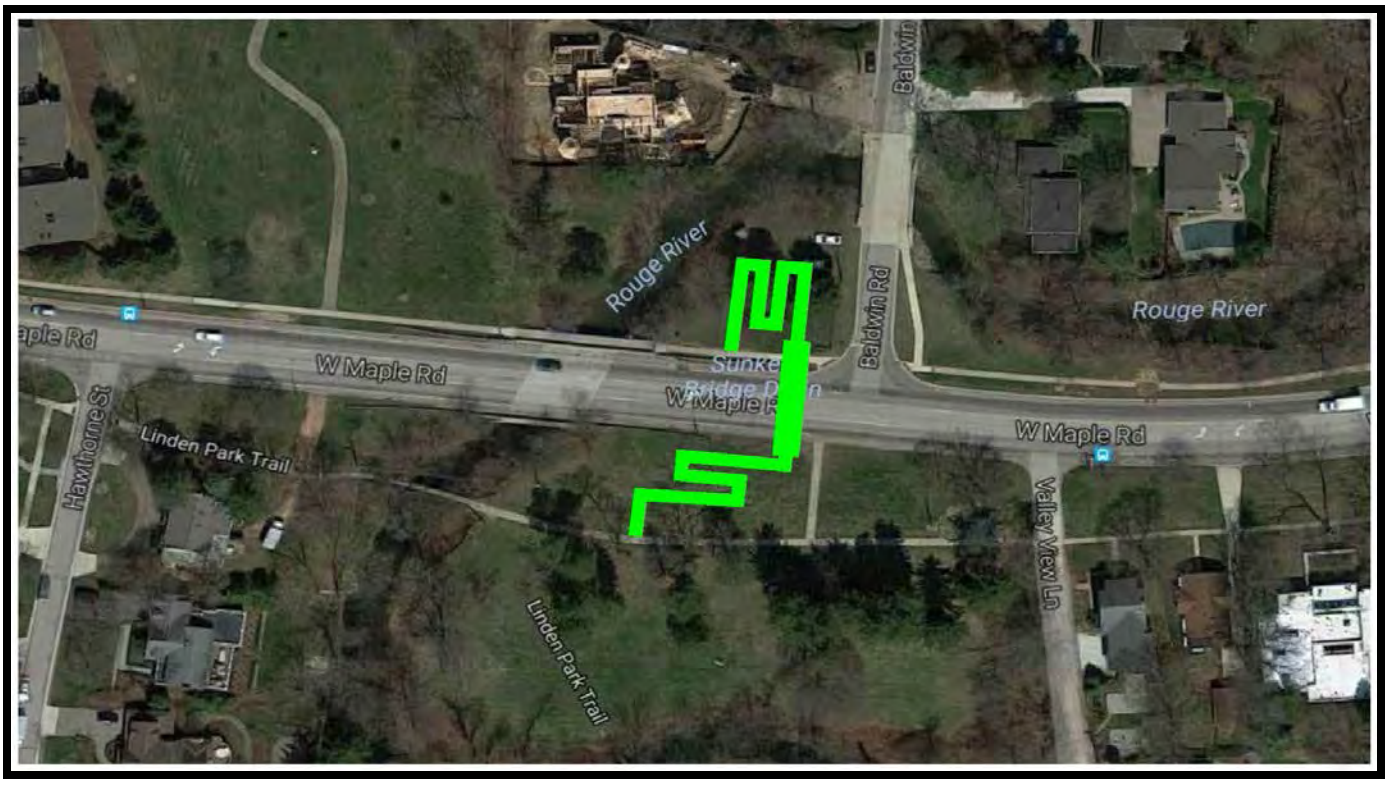


PEDESTRIAN BOARDWALK UNDER EXISTING VEHICULAR BRIDGE

There is not enough clearance for a pedestrian to be able to walk underneath the bridge at-grade alongside the river. In addition, there is no available space outside of that used for the river itself to install the boardwalk. Construction of a walkway that reduced the available capacity for river flows would not be wise, nor would it be approved by the Michigan Department of Environmental Quality, due to the negative impact it would have on the upstream floodplain.

PEDESTRIAN TUNNEL UNDER W. MAPLE ROAD

The potential drawbacks of a tunnel are not as numerous as those of a bridge, but are still significant. To transition approximately 10 feet of grade below the road, a minimum of about 200 feet of sidewalk length is needed. The tunnel option will be similar to bridge option 4. Switchbacks (either squared or curved) will be needed to fit the approaches in the available space, but less length would be needed than the bridge option 4. Below is a proposed tunnel concept.



Depending on how decorative the approaches are, the project could cost $500,000 or more. It is recommended that a high point in the culvert would be placed at the centerline of W. Maple Road and slope down to the north and south to take advantage of the crown of the road. The tunnel could be installed just west of Baldwin.

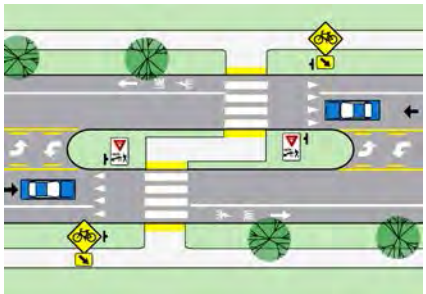
The tunnel could be drained by gravity, with backflow prevention, or a sump pump system. If a gravity solution is used, the tunnel would be subject to flooding several times a year during high flows. The water in the tunnel would drain as the river level came down. If pumps are used, the water level might be able to be kept down. Backflow prevention can be done with either with a check valve as part of a floor drain system or a duck bill type on the end of the pipe. During heavy rain events, the level of the water could be about three feet above the floor of the tunnel. The City's Dept. of Public Services would have to come in and clean out sediment after the tunnel dries out.

Pictures from similar projects are below. The first tunnel is in the City of Portland – their river trail under I-96. The second is one is in the Grand Rapids area for Kent Trails under M-6.

Interior side lighting is recommended (putting fixtures overhead reduces the clear height). Painting the inside with a light color will also make it a more inviting space. Public and private utilities would need to be lowered beneath the bottom of the box culvert as part of the project (for any that are not already that deep).

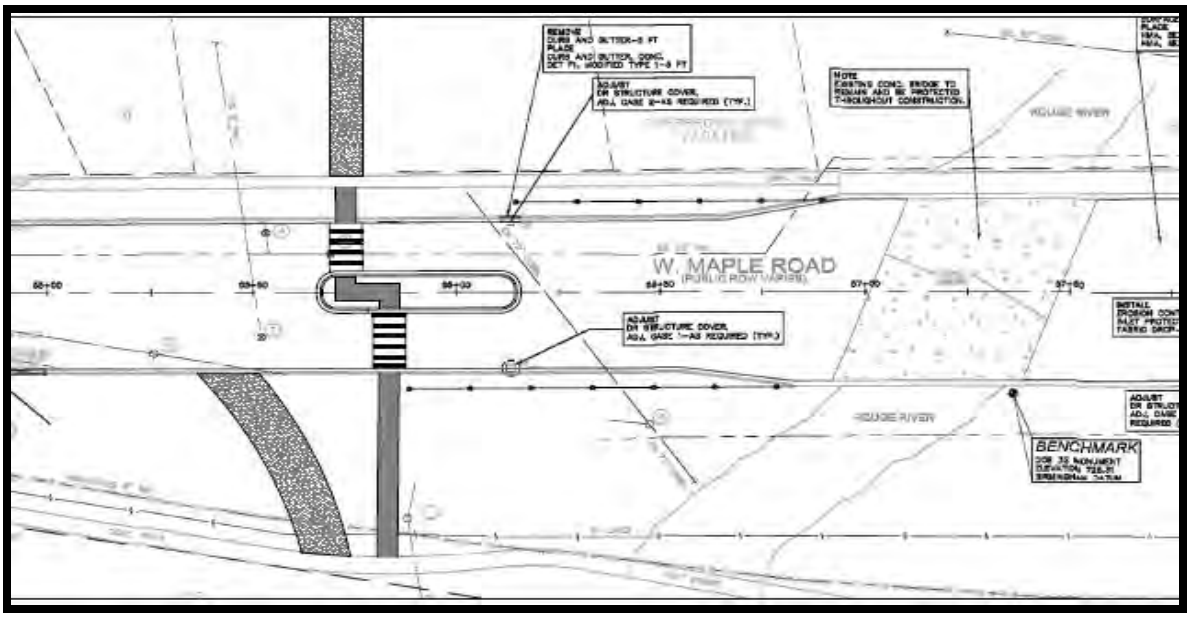
AT-GRADE PEDESTRIAN CROSSING

An at-grade crossing island on W. Maple Road at Baldwin Road with rectangular rapid flash beacons was recommended in the MMTP, and could be constructed to allow safe pedestrian crossing for trail users between the Quarton and Linden trails. Such a crossing island is estimated to cost approximately $50,000. Below is a mid-block pedestrian crossing as recommended by the MMTP.



A crossing island would be affordable, accessible, and consistent with the MMTP. Crossing islands would be beneficial for pedestrians and cyclists. Below is a drawing, provided by F & V, of an at-grade crosswalk with a pedestrian crossing island near

Baldwin, as recommended in the MMTP. The location shown is the only feasible location that considers existing guard rails, turning movements, and sight distance issues. However, this location also conflicts with the turning movements to an existing driveway on the south side of the street. If the City wishes to pursue this option, it is suggested that some form of driveway relocation agreeable to the homeowner would be required (the sketch shows a possible relocation of the driveway curved to the west).



On March 7, 2017, the Parks & Recreation Board reviewed this same issue, from the perspective of parks trail connectivity. They concurred that the at-grade crossing is the appropriate response to this question, and passed a motion to that effect, as noted in the draft minutes attached to this report.

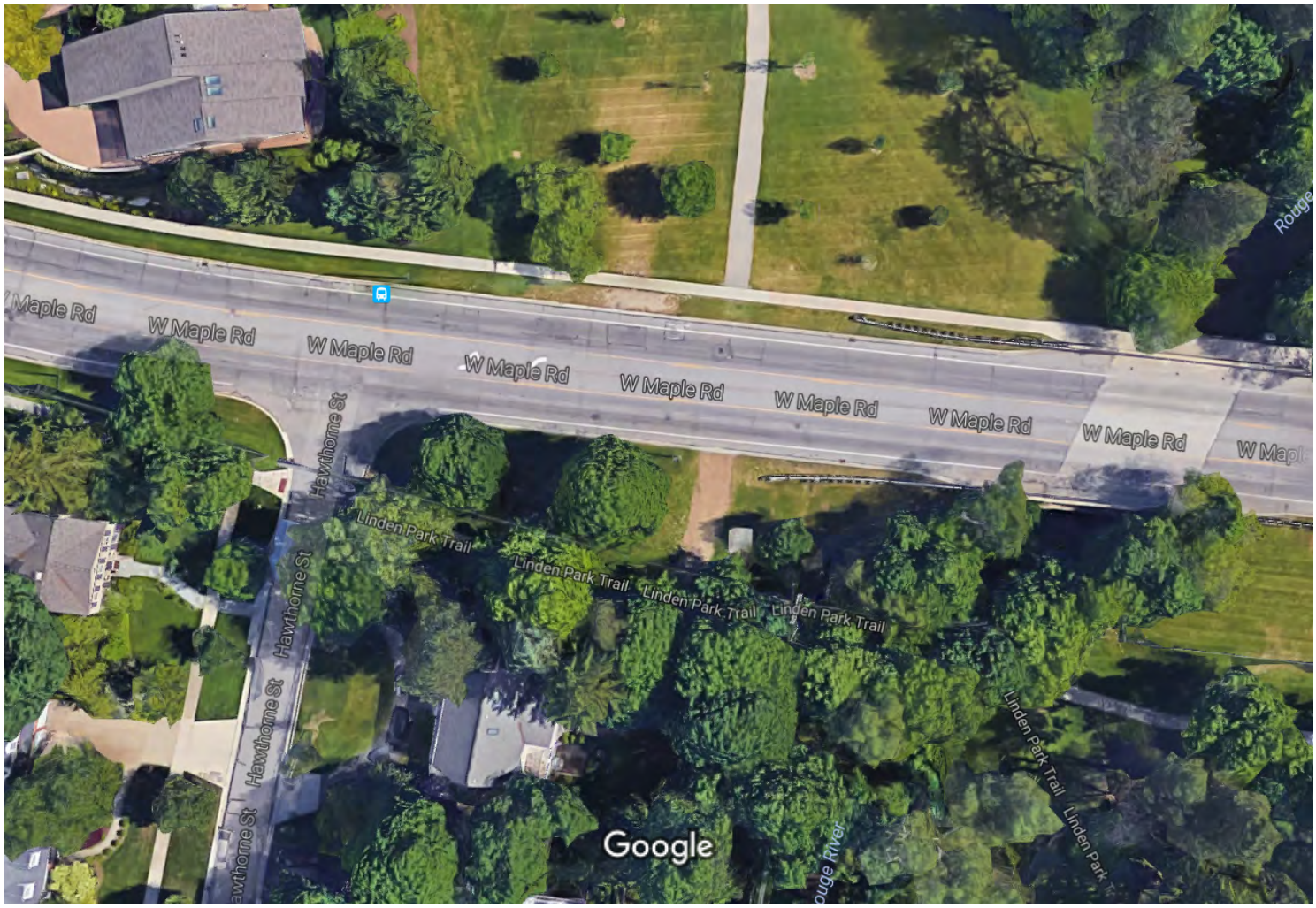
CONCLUSION

Based on a review of all available pedestrian crossing options for W. Maple, the Planning Department recommends an at-grade crossing, which would also allow trail connections to be made from the Quarton Lake Trail north of W. Maple to the Linden Park Trail south of W. Maple. Not only is the at-grade crossing the most economical choice, both initially and long-term, it is also the one most likely to be used by the public; a pedestrian would prefer to use the fewest number of steps and the least effort possible when making a crossing between two points. The Parks Board should determine the preferred alignment of trail connections from the public sidewalk to the trail networks, both north and south of W. Maple. A suggested recommendation to the City Commission follows.

SUGGESTED RECOMMENDATION:

In accordance with the Multi-Modal Transportation Master Plan, as well as with concurrence from the Parks & Recreation Board, the Multi-Modal Transportation Board recommends an at-grade crossing for W. Maple Rd. at the City's Rouge River Trail east of the Hawthorne Ave. intersection, pending resolution of the existing driveway conflict on the south side of the road.

Google Maps



Imagery ©2017 Google, Map data ©2017 Google 20 ft

City of Birmingham
A Walkable Community

MEMORANDUM

Department of Public Services

DATE: **February 27, 2017**

TO: **Parks and Recreation Board Members**

FROM: **Lauren A. Wood, Director of Public Services**

SUBJECT: **Trail Connection Location – Lower Baldwin**

In follow-up to the original report from the July 12, 2016 Parks and Recreation Board meeting on porous pave trail connection in Lower Baldwin, we provide the various attachments for background purposes.

The Community Development Department has been reviewing crosswalk options including trail connectivity for W. Maple Road at this designated location and in turn evaluated possible alternatives for trail connections. The enclosed report dated February 11, 2017 provides the latest information based on recent review of this issue. It has been requested the Parks and Recreation Board review this material to determine a final best location for the trail connection for this site. Below is listed the conclusion and recommendation from the Planning Department.

Based on a review of all available pedestrian crossing options for W. Maple, the Planning Department recommends an at-grade crossing, which would also allow trail connections to be made from the Quarton Lake Trail north of W. Maple to the Linden Park Trail south of W. Maple. Not only is the at-grade crossing the most economical choice, both initially and long-term, it is also the one most likely to be used by the public. (Pedestrians would prefer to have an option that requires the least steps and effort possible when making a crossing between two points.) The Parks Board should determine the preferred alignment of trail connections from the public sidewalk to the trail networks, both north and south of W. Maple.

SUGGESTED RESOLUTION:
To endorse and support the Planning Department recommendation for an at-grade pedestrian crossing on W. Maple Road just west of Baldwin Road. Further, to support pursuing the trail connection south of Maple Road from the sidewalk to the bridge at Lower Baldwin modifying the original July 12, 2016 staff proposal to a westerly connection.

City of Birmingham
A Walkable Community

MEMORANDUM

Department of Public Services

DATE: July 5, 2016

TO: Parks and Recreation Board

FROM: Carrie Laird, Parks and Recreation Manager

SUBJECT: Trail Improvement Project

In 2013, the Department of Public Services completed an improvement project to a section of the chip trail along the Rouge River. The section of trail was located between Booth Park and Willits Street and continually washed away when the river flooded. Approximately 120 feet x 7 feet of woodchip trail was replaced with "Porous Pave". See attached pictures A, B, C and D. This product has proven to work well in this setting and we would like to continue to use it in appropriate applications.

The targeted area for this application of Porous Pave is located at Lower Baldwin Park, the South side of Maple Rd, across from Baldwin Street. Currently, there is no connection to the Linden Park/Maple trail system at this point. There is only a large grass area between the bridge to the trail to Linden Park and the sidewalk along Maple Road. This area is highlighted in the Trail Master Plan as a potential connectivity improvement. See attached pictures E, F, & G. This new addition to the trail system will be approximately 200 feet x 5 feet, the same width as the sidewalk in the park, and will connect at the point where the sidewalk comes in from Maple Road across from Baldwin and run up to the bridge to the trail. A small part of this project will also include an area on the other side of the bridge that continually washes out.

We chose Porous Pave for this project because we have been completely satisfied with it in the test section of trail between Booth Park and Willits Street. Additionally, we are again installing this in a flood plain adjacent to the river. A benefit of this product is that there is no permit required through the MDEQ. Other notable features about the product are as follows:

- Porous Pave is poured like concrete but made out of recycled tires mixed with a stone type of substance that allows water to flow through it, not off of it. It comes in a wide variety of colors including close to the same color as the chip trail. The material is not as smooth as asphalt, skateboarders do not like it.
- Highly permeable-allows large amounts of rainwater to pass through into the ground while providing a hard surface
- Flexible- 50% rubber content allows Porous Pave to remain flexible which eliminates cracking, especially in freezing climate freeze/thaw
- Durable- can be used in parking lots and driveways. Strong enough to drive on when installed 2" thick.
- Comes in a variety of colors. "Cypress" is the selected color, a close match to the existing chip trail. See Picture H.

Michigan State University uses Porous Pave for some of their pathways. See attached Pictures I, J. Grand Rapids, South Haven (Picture K), and Royal Oak have also used this product in a variety of applications.

Porous Pave requires that a certified contractor prepare the site and install the product. X Tier Inc. is a certified installer of Porous Pave and is the only qualified contractor for installation of this product in the Southeast Michigan area. Therefore, I am recommending that X Tier Inc. complete this project as a sole source vendor and further that the normal bidding requirements are waived. The work involves excavation and base prep for the new Porous Pave walkway, trucking of material to the City DPS yard, installation of compacted stone base and Geo-mesh underlayment, installation of the new Porous Pave walkway, and complete lawn restoration with topsoil and seed for a total project cost not to exceed $25,000. The money has been budgeted in Parks – Other Contractual Services account # 101-751.000-811.0000.

SUGGESTED RESOLUTION:
To approve the Department of Public Services recommendation to purchase and install Porous Pave by X Tier Inc. that will improve connectivity to the Rouge River trail system and to forward to the City Commission for approval in the amount not to exceed $25,000. Further, to waive the normal bidding requirements due to X Tier Inc. being the sole source installer of this product. Funds are available for this project from the Parks – Other Contractual Services account # 101-751.000-811.0000.

Booth Park Trail Before

A

B

Booth Park Trail After

C

D

Proposed Location for Porous Pave

E

F


Linden Trail
River Rouge
Miles
0 0.004 0.008 0.016 0.024 0.032

G


CYPRESS
POROUS PAVE
06/17/2013

H

I

J

K

PARKS AND RECREATION BOARD MEETING MINUTES
July 12, 2016

Therese Longe, Chairperson, called the meeting to order at 6:30 p.m. at 851 S. Eton.

MEMBERS PRESENT: Ross Kaplan, Therese Longe, John Meehan, Ryan Ross, Art Stevens, Lilly Stotland and Bill Wiebrecht

STUDENT REPRESENTATIVES PRESENT: Nichole McMaster

ADMINISTRATION: Lauren A. Wood, Director of Public Services
Carrie A. Laird, Parks and Recreation Manager and Jacky Brito, Golf Course Manager

GUESTS: Cindy Rose

It was moved by Bill Wiebrecht, seconded by Art Stevens that the minutes of the June 7, 2016 regular meeting be approved as submitted.

Yeas – 7 Ross Kaplan, Therese Longe, John Meehan, Ryan Ross, Art Stevens, Lilly Stotland and Bill Wiebrecht

Nays – 0

AGENDA ITEM #1-Porous Pave Project For Lower Baldwin

Carrie stated that the department would like to extend the Rouge River corridor trail that runs from Linden Park towards Maple Road. Currently the trail stops at the bridge. The porous pave would extend from the bridge to Maple Road.

Carrie stated that the department chose porous pave versus woodchips because of the success that the department has had when installed in portions of the Rouge River Trail where a washout had occurred. Porous pave has held up great. Carrie stated that the proposed area does not have a washout issue but the material is ~~ADA assessable~~ ADA accessible and is easy to navigate.

Lilly asked if the porous pave is environmentally safe.

Carrie stated that porous pave is good for the environment because it allows for the water to flow through so there is no drainage that would be needed and the porous pave is considered a green product. The porous pave stays in place and can't be torn away.

Lilly asked if there were any other materials considered that would have been a better natural origin that would provide the run-off protection.

Carrie stated that the department looked at using woodchips or crushed limestone but because of maintenance reasons porous pave was chosen. Porous pave does not washout, there is no weed spraying and no reapplying of woodchips.

Bill stated that this project is way over due and is a good solution for the proposed area.

It was moved by Bill Wiebrecht, seconded by Art Stevens to approve the Department of Public Services recommendation to purchase and install Porous Pave by X Tier Inc. that will improve connectivity to the Rouge River trail system and to forward to the City Commission for approval in the amount not to exceed $25,000. X Tier Inc. being the sole source installer of this product.

Yeas – 7 Ross Kaplan, Therese Longe, John Meehan, Ryan Ross, Art Stevens, Lilly Stotland and Bill Wiebrecht

Nays – 0

COMMUNICATION/DISCUSSION ITEM #1- Birmingham Ice Arena Summer Rental Update
Carrie reported an updated on the summer rentals at the Birmingham Ice Sports Arena
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #2 – Project Updates
Lauren provided brief summaries on DPS project updates.

Therese stated that the Poppleton Sub-Committee walked Poppleton Park and discussed the possible placement of the portable toilet with permanent fencing around it.

Therese stated that there was discussion on the possible future handicap parking near the playground.

Therese stated that there was discussion on possibly adding 40 parking spaces along Woodward and that MDOT is not opposed to the idea and that with the added parking it would not be related to any streets nor would there be access to the neighborhood. Therese stated that the parking would be a pull in pull out such as what is along Woodward.

Therese stated that Carrie will be getting information on proposed playground for Poppleton Park.

Therese stated that the there was discussion on the drainage issues at Poppleton Park.

Therese stated that the Poppleton Park project would be completed in stages once there is an approved plan.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #3 – Free Press Article dated 6/16/2016
Lauren provided a Free Press Article to the Parks and Recreation Board regarding the dog attack in Birmingham.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #4 – Golf Course Report
Jacky provided the Parks and Recreation Board the current golf course report.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #5a – In The Park Concerts
Lauren provided the 2016 In The Park Concert Series Schedule.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #5b – Mom To Mom Sale-Saturday, July 16th
Lauren provided the 2016 Mom To Mom Schedule.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #5c – Swing Along Golf Tournament & Luau-Lincoln Hills Golf
Jacky stated that the event was cancelled but she is planning an end of a year member event.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #5d – Email received to donate a garden to the City of Birmingham
Lauren provided the Parks and Recreation Board an email from Mr. Lasser on donations for designing and building of Koi ponds and boulder gardens.

Therese stated that a previous meetings residents from the Linden Park neighborhood was against the Koi ponds and boulder gardens.

Therese stated that Mr. Lasser has been told the proper channels that he needs to go through to proceed with such a project.

Therese stated that Mr. Lasser may participate in the future Parks and Recreation Park Master Plan process.

No action was required by the board.

UNFINISHED BUSINESS:
Carrie stated that the Little Library will be installed very soon at Barnum Park.

NEW BUSINESS:
Ross Kaplan stated that in September it will be 10 years since the Community built of Booth Park.

OPEN TO THE PUBLIC FOR ITEMS NOT ON THE AGENDA:
Therese stated that the next meeting will be held on August 9, 2016 at 6:30 pm at DPS

The meeting adjourned at 7:20 p.m.
Connie J. Folk, Recreation Coordinator

PARKS AND RECREATION BOARD MEETING MINUTES
August 9, 2016

Therese Longe, Chairperson, called the meeting to order at 6:30 p.m. at 851 S. Eton.

MEMBERS PRESENT: Ross Kaplan, Therese Longe, John Meehan, Ryan Ross, Art Stevens, Lilly Stotland and Bill Wiebrecht

STUDENT REPRESENTATIVES ABSENT: Nichole McMaster

ADMINISTRATION: Lauren A. Wood, Director of Public Services,
Carrie A. Laird, Parks and Recreation Manager and
Connie J. Folk, Recreation Coordinator

PRESENTERS: Michael J. Dul, Michael J. Dul & Associates, Inc.,
Matthew Clark, Michael J. Dul & Associates, Inc.,

GUESTS: Anne Bray, Pam Graham, D. Espree, Andrea Green, David Green, Geri Rinschler,
Gordon Rinschler, Cindy Rose, Tina Norton and
Brian Wilmers, Roeper School Representative

It was moved by Art Stevens, seconded by Bill Wiebrecht that the minutes of the July 12, 2016 regular meeting be approved as corrected.

Yeas – 7 Ross Kaplan, Therese Longe, John Meehan, Ryan Ross, Art Stevens, Lilly Stotland and Bill Wiebrecht
Nays – 0

AGENDA ITEM #1-2nd Adams Park Concept Site Plan Public Workshop
Therese Longe stated that this is a feedback session on the Adams Park Concept Site Plan. Therese stated that this is a follow up from the Public Workshop that was originally held in May.

Therese stated the Parks and Recreation Board and the public will see the plan that has been developed and will be available to provide feedback to the consultants.

Lauren Wood stated that the Adams Park Concept Plan came before the Parks and Recreation Board at the Public Workshop on May 3, 2016. Lauren stated that the department met with neighborhood associations that surround Adams Park and representatives from Roeper School.

Michael Dul spoke to the surrounding neighborhood and Roeper representatives regarding Adams Park. Michael stated that there is a drainage problem that needs to be addressed and that some of the elements stated in the Adams Park Concept Plan are used by Roeper School.

Michael stated that Adams Park will have a lot of open space for a variety of activity, a play area, basketball court, an asphalt strip used for long jumping in the sand, an area for discus and shot-put.

Michael stated that the Adams Park Concept Plan shows many trees around the park, entry points to the park and a garden seating area.

Lilly Stotland asked that when the playground equipment is selected that the playground be accessible for a variety of ages and disabilities.

Bill Wiebrecht stated that inside the entry areas the placement of the benches are located in areas that allows for the parents to watch the children playing in the park. Bill stated that the bench locations are being considered for Adams Park should be incorporated in all City of Birmingham parks when installing benches.

Therese read an email received from Julie Sutherland that lives in the South Poppleton area since 2002 and has been anxiously awaiting action to refresh the park. Therese stated that Julie was unable to attend the meeting but that Julie fully supports the neighbors that will be presented at the meeting, to move forward with the plans for Adams Park as a low intensity neighborhood park. Therese stated that Julie is most urgent in the need of regrading of the land and is the first step in a longer term plan to renew Adams Park.

Cindy asked about the fencing surrounding Adams Park.

Michael Dul stated that the fencing will remain to keep the users of Adams Park safely in the park without the users traveling into the streets.

Cindy stated that the biggest draw at Barnum Park is the sandbox.

Gordon Rinschler stated that the elements of the Adams Park is all right and is supportive of the low intensity park and would recommend for the plan to be moved forward.

Anne Bray asked about drainage swales shown in the plan. Michael stated that the park is sloped for the water to move towards the drainage swales.

Pam Graham asked about drainage and what percentage would it be sloped. Pam stated that installing an attractive fence around the perimeter and having open space available is also an important feature.

Pam stated that the play areas and sitting areas should be attractive for all ages including seniors and adults.

Geri Rinschler stated having an adult swing for senior citizens would be a nice feature to the Adams Park Plan.

Art Stevens asked if Roeper is contributing to the Adams Park Plan?

Brian Wilmers stated that he has shown the Adams Park Plan to Roeper School and the elements that are shown along the north boarder that would allow the track and field activities to continue. Brian stated that Roeper would very much be interested in participating financially in that part of the Adams Park Plan as it relates to the track and field activity.

Brian stated that the shot-put does not need to be crushed stone.

Tina Norton stated that having an ornamental fence would be lovely. Tina having a six foot fence along Adams Road would be recommended.

Andrea Green stated she is excited about the Adams Park Plan but is concerned about the drainage on Ridgedale. Andrea stated as your heading towards Adams on Ridgedale it is a giant piece of ice. Andrea stated having Adams Park as an open space area is more viable.

Therese stated that the Adams Park Plan is a very approachable and doable plan and that the Adams Park Plan will be an asset to the City of Birmingham as an urban park.

Lauren stated that if the Parks and Recreation Board is comfortable with the conceptual Adams Park Plan and it was intended to be a Master Plan that is a concept site plan and the public comments will be added as the project moves forward.

Lauren stated that next step would be construction drawings for bidding. Lauren stated that for the 2016-2017 budget monies were allocated for construction drawings and planning for Adams Park. Lauren stated that the project may be able to be bid~~ed~~ bid out later in the 2016-2017 fiscal year, which would be Spring, 2017 for a Fall start of phase one.

Matthew Clark stated that the drainage could take place with proper planning on regrading of Adams Park so that the rest of the plan will work with the new catch basins that are installed.

It was moved by John Meehan, seconded by Art Stevens to support and acknowledge the Adams Park Project Concept Plan dated August 9, 2016 as presented and that the Adams Park Project Concept Plan dated August 9, 2016 was endorsed by the neighborhood associations and Roeper School and forward to the City Commission for their consideration.

Yeas – 7 Ross Kaplan, Therese Longe, John Meehan, Ryan Ross, Art Stevens, Lilly Stotland and Bill Wiebrecht
Nays – 0

AGENDA ITEM #2-Birmingham Brand Development Committee (BBDC)
Lauren stated the City Commission approved the creation of an Ad Hoc BBDC, and instructed a member of the Parks and Recreation Board be appointed.

Lilly Stotland volunteered to serve on the BBDC.

COMMUNICATION/DISCUSSION ITEM #1- Keep America Beautiful/Dr. Pepper Snapple Recycling Grant Award
Lauren was awarded a grant for eight (8) new recycling bids which will be placed at Kenning Park, Pembroke Park, St. James Park, Barnum Park and Poppleton Park.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #2 – Parks Rules and Regulations Approved at the City Commission Meeting -7/25/2016
Lauren provided the approved Parks Rules and Regulations that was approved at the July 25, 2016 City Commission Meeting.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #3 – Porous Pave Update
Lauren stated that the item was pulled from the City Commission and was not approved. Lauren stated there was discussion on material being used and it was stated that the material being considered should be consistent with material being used at other locations in the City of Birmingham.

~~Theresa~~ Therese stated that the City Commission asked that the item be referred back to the Parks and Recreation Board and for the Parks and Recreation Board to look at other options for the area.

~~Theresa~~ Therese stated that more information needs to be provided to the City Commission on the Parks and Recreation Board with due diligence on picking the porous pave for this particular area and how it relates on future projects as it relates to the Rouge River Trail system.

~~Theresa~~ Therese stated that a more detailed memorandum stating the issues of limestone and chips being used in pathways and pros on using porous pave in proposed projects by the department.

COMMUNICATION/DISCUSSION ITEM #4a – Golf Course Financials
Lauren provided the Parks and Recreation Board the golf course financials.
No action was required by the board.

COMMUNICATION/DISCUSSION ITEM #4b – Golf Course Report
Lauren provided the Parks and Recreation Board the golf course report.
No action was required by the board.

UNFINISHED BUSINESS:
Carrie stated that the Little Library has been installed at Barnum Park and that the City of Birmingham is registered with the Little Library and has received the charter plaque. Carrie stated in the Fall there will be a naming contest for the Little Library at Barnum Park.

NEW BUSINESS:
Anne stated that along the railroad track that travels through the City of Birmingham, ITC removed vegetation. Because of the removal of the vegetation Canadian thistle has grown

Carrie stated a contractor will be cutting the seed heads, treat the area before the seeds take root at the Buckingham site. Carrie stated she will be contacting a representative from ITC to discuss the area.

Cindy stated she would like the City of Birmingham for the wonderful job that has been done at Barnum Park.

OPEN TO THE PUBLIC FOR ITEMS NOT ON THE AGENDA:
Therese stated that the next meeting will be held on September 13, 2016 at 6:30 pm at DPS

The meeting adjourned at 7:27 p.m.
Connie J. Folk, Recreation Coordinator

City of Birmingham
A Walkable Community

MEMORANDUM

Police Department

DATE: March 23, 2017

TO: Multi-Model Transportation Board

FROM: Scott Grewe / Operations Commander

SUBJECT: No Parking signs on Lawndale

On December 7th, 2016 the Department of Public Services received an anonymous complaint that the no parking signs on Lawndale, between Madison and Oakland, have been removed.

HISTORY
Department records indicate, "No Parking" all times (Madison to Oakland) was installed on the east side of the street in 1968 and on the west side in 1985. There have been no changes on record. Engineering was contacted and advised there have been no recent projects in the area that would have caused for removal of the no parking signs.

DPS was advised to install the missing "No Parking" signs.

Shortly after installation of the signs, Mr. Mendel contacted writer to discuss the signage. Mr. Mendel resides at 440 Madison which is on the corner of Madison and Lawndale. He stated the no parking signs have not been there for an extended period of time and believes it may be as long as 20 years. Mr. Mendel stated there is not a parking problem on Lawndale and stated the signs are not needed. See attached letter from Mr. Mendel.

There are three lots on Lawndale between Madison and Oakland. Mr. Mendels home at 440 Oakland, Poppleton Place apartments at 35300 Woodward which provides onsite parking for its residents and a vacant lot to the south of Mr. Mendels residence.

Lawndale is a one way only street permitting southbound traffic.

Removing parking restrictions on the eastside of the street would allow Mr. Mendel to park alongside his property and still allow for smooth flow of traffic.

SUGGESTED RESOLUTION:
To remove NO PARKING signs on the east side of Lawndale from Madison to Oakland.

March 20, 2017

Direct Dial: 313-596-9323
E-Mail: tmendel@bsdd.com

Via Email: sgrewe@bhamgov.org and U.S. Mail

Operations Commander Scott Grewe
Birmingham Police Department
151 Martin Street
Birmingham, Michigan 48009

RE: No parking signs recently posted on Lawndale Street in Birmingham

Dear Commander Grewe:

My family and I live at 440 Madison Street in Birmingham. We have lived here for more than 20 years. Our house is at the corner of Madison and Lawndale streets. Our front door faces Madison. Our back door faces Lawndale. Our driveway is on Lawndale. We have parked our cars that do not fit in our driveway on Lawndale for the last 20 years, and so have our guests visiting us. Lawndale is a one way street, wide enough for three vehicles. There are only three properties on Lawndale: (1) My house, which abuts one-half of the entire street on its east side; (2) An apartment building on the entire west side of the street that has its own large parking lot off the street, and which has more than adequate off-street parking space for every resident and guest in the apartment building; and (3) A vacant piece of land owned by the City which takes up the other half of the east side of the street.

A few weeks ago, the City posted no parking signs on both sides of Lawndale. There were no such signs on Lawndale in any recent memory. More importantly, there is absolutely no need to prohibit parking on Lawndale. This is obvious since we have been parking on it for more than 20 years without incident.

When I spoke with you about this, you said that you received an anonymous complaint that the no parking signs were not posted, so the City posted them. I would have appreciated a call or notice since my property is the primary, if not only, one affected by this after 20 years. Nevertheless, you told me that the City had designated one side of the street as no parking in the 1960s, and then designated the other side of the street as no parking in the 1980s. Whatever led to those designations more than 50 and 30 years ago, respectively, is no longer applicable. The lack of any signs all of these years also shows that there is no need for a no parking designation any more.

Since the signs have been posted, we are now parking two cars in the street on the Madison side of our house. Our across the street neighbors also park cars on Madison. Madison is a fairly busy street that connects Woodward and Adams. This means that Madison, which is

wide enough for three vehicles now only allows for one vehicle at a time to pass when all of the cars are parked on Madison, which is much of the time. So the effect of the no parking sign posting on Lawndale by the City is to: prevent parking on Lawndale, a one way street with very little traffic primarily used by two properties and where we have parked without any issue for 20 years; and constrict the traffic on Madison Street, a busy cut through connector street between Woodward and Adams. Photos of Lawndale and Madison Streets are attached, so you can have a clear idea of what the two streets look like.

The posting of the no parking signs on Lawndale fixed a non-existent problem raised by an anonymous person, and caused a real problem for me and for all the traffic that proceeds on Madison. Posting the no parking signs was done without any analysis into the effect that doing so would have after all of these years or whether the no parking designation has any legitimate rationale at this point.

I spoke with the City attorney, Tim Currier, about this. He suggested that I send to you a letter so that this issue can be brought before the Multi-Modal Transportation Board, which I understand is the proper board to have this addressed and corrected. Specifically, I am asking that the City remove the no parking signs on Lawndale Street, and remove the no parking designation for Lawndale (or at least on the east side of the street where my house is and where we have been parking for the last 20 years).

I also ask that you not set this for the Multi-Modal Transportation Board meeting date on April 6, 2017, as I will be out of town that week and I would like to attend the meeting. Let me know if there is anything else that you need from me concerning this in any way.

Sincerely,

Todd R. Mendel
440 Madison Street
Birmingham, Michigan 48009
248-909-4906

TRM:sas
Encl.

cc: Timothy J. Currier (via email: tcurrier@bhlaw.us.com and U.S. Mail)

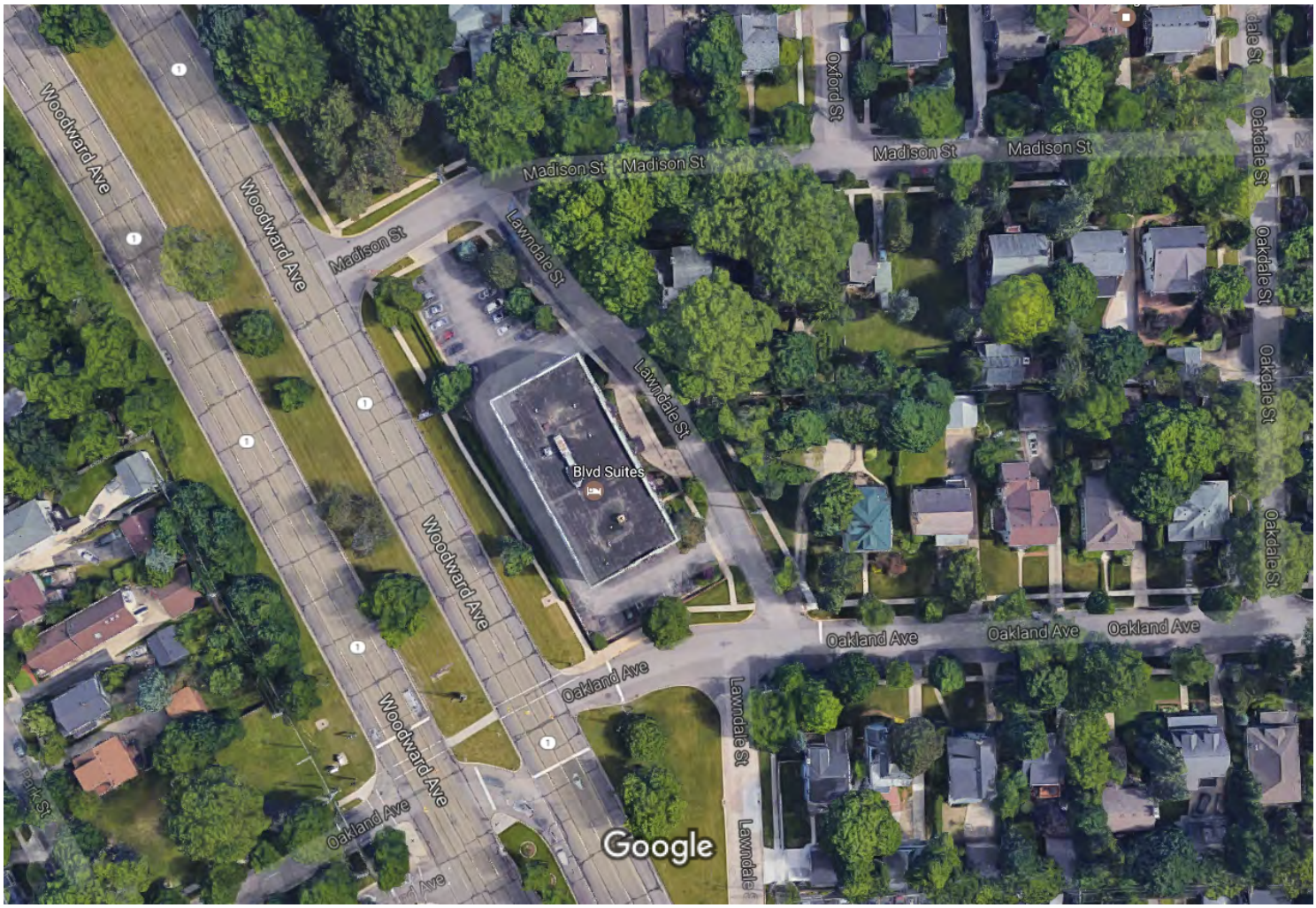
466763

Corner of Lawndale and Madison Streets

Madison Street

Lawndale Street
One way street

Google Maps



Imagery ©2017 Google, Map data ©2017 Google 50 ft

MEMORANDUM

Planning Department

Date: **April 7, 2017**

To: **Multi-Modal Transportation Board**

From: **Lauren Chapman, Assistant Planner**

Approved By: Jana Ecker, Planning Director

Subject: **Accessible Parking Space Requests (Changes are in Blue)**

In 2016, the City installed over 60 on-street designated accessible parking spaces to comply with new regulations under the Americans with Disabilities Act (ADA). The guidelines require cities to provide reserved, marked accessible parking spaces, in all municipal lots and on any public street that has individually marked spaces. **This policy does not apply to streets that do not have individually marked spaces.**

Staff was asked to explore creating an accessible parking installation policy for areas **with unmarked on-street parking**. Please find attached as Exhibit A the proposed On-Street Accessible Parking Policy as recommended by the Police, Engineering and Planning Departments.

Should the board wish to recommend the On-Street Accessible Parking Policy, an application process will need to be established to review and evaluate requests for additional on-street accessible parking spaces.

Informal Phone-In or Written Requests to City Staff

Receiving and reviewing requests would decrease the chance that the system would be abused. However, it could result in confusion for requestors. Each request could be reviewed by the Multi-Modal Transportation Board, after City staff has reviewed it. For example, the City of Detroit requires citizens to visit or call the Department of Public Works Sign Shop. The City owns any signage installed, and there is no fee for citizens. The requestor must have:

- proper medical documentation
- identification, and
- a valid handicap sticker issued by the Secretary of State.

The City sends an investigator out to verify if installing a sign is possible (not too close to: a fire hydrant or corner etc.) and whether or not it is necessary. Once approved, individuals can expect installation within 90 days.

Formal Application Process

Codifying the process by using formal applications is another option that other cities use. For example, both the City of Philadelphia and the City of Detroit have a formal application process for citizens to request an on-street accessible parking space and sign in residential areas. For Philadelphia:

- Any vehicle with a HP, DV, PD license plate or handicapped parking placard is allowed to use this zone.
- The vehicle must be registered to the applicant.
    - Exceptions will only be made for those who are under the age of 18.
- Applicants will need:
    - Completed application
    - Physician's certification of Disability
    - Copy of vehicle registration showing a physically disabled plate
    - Copy of Driver's License
- Applicants must also attempt to notice adjacent property owners
- The Philadelphia Parking Authority is responsible for all repairs of the parking poles that will be installed.
- The Philadelphia Parking Authority can be called if the property owner no longer needs the zone and would like it removed.
- If the Philadelphia Parking Authority receives reports of zone abuse (i.e. cones or other objects saving the zone, jockeying of cars to save a spot on the street, etc.) a parking investigator will verify the evidence that has been obtained. Once the evidence is corroborated, the zone can and will be removed.

Since the City of Birmingham does not have a health department, staff does not recommend requiring a physician's certification of disability. Please see Exhibit B for a sample application form that could be used.

Based on a review of options, staff recommends the use of a formal application process. This would discourage abuse of the system.

Below is a cost estimate provided by the Police Department:

	COST	VENDOR
SIGN	27.90	DORNBOS
POST	40.65	DORNBOS
HARDWARE	1.00	DORNBOS

INSTALL POST / SIGN / PAINT BLUE SPACE	176.44	DPS PAINT
PAINT BLUE SPACE	500.00	PK CONTRACTING
TOTAL - DPS PAINT	245.99	
TOTAL - PK PAINT	569.55	

Suggested Action:

The Multi-Modal Transportation Board recommends that the City Commission approve the attached On-Street Accessible Parking Policy outlined in Exhibit A, as well as the application process outlined in the application form contained in Exhibit B.

Exhibit A

CITY OF BIRMINGHAM

ON-STREET ACCESSIBLE PARKING POLICY

The City Commission has established the following prerequisites governing on-street accessible parking in accordance with the American with Disabilities Act (ADA).

1. Where on-street parking is provided on the block perimeter and the parking is marked or metered, accessible parking spaces shall be provided in accordance with the following table.

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3

2. Where parking is not marked or metered, no requirement exists for on-street accessible parking.

3. Requests for additional accessible parking locations shall be submitted to the Advisory Parking Committee (APC) if located within the Parking Assessment District, or to the Multi-Modal Transportation Board (MMTB) if located outside of the Parking Assessment District.
    a. Due to high demand of available on street parking, only extenuating circumstances will be considered for adding spaces above or beyond the requirement of the ADA.
    b. The follow review will be conducted to determine if an accessible parking location should be added.
        i. Reason for the request
        ii. Location
        iii. Availability and usage of surrounding spots
        iv. ADA requirements

4. When an accessible space is added, the City will make an effort to locate them close to an existing ramp. Once a road is reconstructed, access aisles and ramps shall be installed whenever feasible per the ADA.

5. If a request is approved by the APC or MMTB they will, by resolution, make a recommendation to the City Commission.

Exhibit B

APPLICATION FOR RESERVED ON-STREET ACCESSIBLE PARKING SPACES

The purpose of this application is to provide signed and marked accessible parking spaces for handicapped people who work and live in the city on streets that do not have marked accessible spaces. Applicants will need to fill out the application below and pay the application fee of $250. The police department will inspect the area where the space is requested. If the requested spot is in the parking assessment district the application will be reviewed by the Ad Hoc Parking Committee; if it is not it will be reviewed by the Multi-Modal Transportation Board. If the signage and associated markings are installed the applicant will need to reapply, with no fee, every two years to ensure that the spot is still needed.

If a parent, guardian, or spouse is filling out this application for a child or relative, please list the child or relative as the applicant.

Please print all information clearly and include copies of the applicant's vehicle registration and driver's license (if applicable) with the application. Also, please make a copy for your own records. Please fill out the application completely. Failure to do so will result in the return of the application in order to complete all omissions.

Applicant's Name:_____

Applicant's Address:_____

Address of requested location:_____

Is this location (check one): Commercial _____ or Residential_____

Telephone Number: _____

1. What is the nature of **the applicant's** disability?

_____

_____

_____

2. Do you have a garage, **driveway**, or other off street parking available?
(circle one) Yes No

3. Explain why **the applicant** is in need of an accessible parking space in front of your home or place of work:

_____

_____

_____

4. Michigan physically disabled license plate number **or placard for** the vehicle **the applicant** uses: _____

5. **Is the applicant** the property owner of the address given on the application?
(circle one) Yes No
If the answer to #5 is "No," please have the property owner read and complete the "Notice to Property Owner" portion on the attached "Consent Form" section of this application.

6. Please attempt to get your neighbors to sign the "Notice to **Abutting** Property Owner" **and the "Notice to Transverse Property Owner"** portions on the attached "Consent Form" section of this application. If you are unable to obtain **any or all of the signatures**, please sign below to prove that you have attempted to do so.

Signature:_____ **Date:**_____

Sign Installation Agreement: I understand that it is my responsibility to obtain the signature of the owner(s) of the **abutting and transverse properties** indicating that they have no objections to the installation of this sign. The Advisory Parking Committee

and/or the Multi-Modal Transportation Board reserve the right to conduct a public hearing at a subsequent meeting **~~if surrounding owners and tenants do not approve~~**. I further agree that if I use this space for any purpose other than that which I described in this application, the sign will be removed. I also understand that the City of Birmingham retains the right to remove this sign at any time**. I understand that this spot, if installed, is not for my exclusive use, but may be utilized by other drivers with a handicapped license or placard.**

APPLICANT'S CERTIFICATION

I am aware that it is my responsibility to file a complete application and **pay the associated fee**. I understand that the application will be returned to me if it is found to be incomplete, illegible, or otherwise not filed in compliance with the instructions. I certify that the information contained herein is true and correct to the best of my knowledge and belief.

Signature:_____ Date:_____

CONSENT FORM

NOTICE TO PROPERTY OWNER (Please read carefully and complete fully)

I, (print name) _____, certify that I am the owner of (address)_____.

I understand that my tenant is applying for a reserved on-street accessible parking space. If approved, I have no objections to the City of Birmingham installing a reserved on-street accessible parking space in front of my property.

Signature: _____ Date: _____

Telephone #: _____

NOTICE TO ABUTTING PROPERTY OWNER (Please read carefully and complete fully)

I, (print name)_____, certify that I am the owner of (address) _____.

I understand that my neighbor is requesting that the City of Birmingham install a reserved on-street accessible parking space on the street. I have no objections to the installation of a reserved on-street accessible parking space adjacent to my property.

Signature: _____ Date: _____

Telephone #: _____

NOTICE TO ABUTTING PROPERTY OWNER (Please read carefully and complete fully)

I, (print name) _____, certify that I am the owner of (address)_____.

I understand that my neighbor is requesting that the City of Birmingham install a reserved on-street accessible parking space on the street. I have no objections to the installation of a reserved on-street accessible parking space adjacent to my property.

Signature: _____ Date: _____

Telephone #: _____

NOTICE TO TRANSVERSE PROPERTY OWNER (Please read carefully and complete fully)

I, (print name) _____, certify that I am the owner of (address)_____.

I understand that my neighbor is requesting that the City of Birmingham install a reserved on-street accessible parking space on the street. I have no objections to the installation of a reserved on-street accessible parking space adjacent to my property.

Signature: _____ Date: _____

Telephone #: _____

Paul O'Meara <pomeara@bhamgov.org>

Fwd: Dangers of sidewalk biking

1 message

Joe Valentine <jvalentine@bhamgov.org> Fri, Mar 24, 2017 at 4:03 PM
To: "Andrew M. Harris" <aharris@bhamgov.org>, Carroll DeWeese <cdeweese@bhamgov.org>, Mark Nickita <mnickita@bhamgov.org>, Patty Bordman <pbordman@bhamgov.org>, Pierre Boutros <pboutros@bhamgov.org>, Racky Hoff <rackyhoff@hotmail.com>, Stuart Sherman <ssherman@bhamgov.org>, Tim Currier <tcurrier@bhlaw.us.com>
Cc: Paul O'Meara <Pomeara@bhamgov.org>, Jana Ecker <Jecker@bhamgov.org>, Scott Grewe <Sgrewe@bhamgov.org>

FYI

Jana/Paul - please share with the MMTB and obtain a copy of Royal Oak's ordinance on this as well.

---------- Forwarded message ----------
From: Mark Nickita <mnickita@bhamgov.org>
Date: Fri, Mar 24, 2017 at 12:25 PM
Subject: Dangers of sidewalk biking
To: Joe Valentine <jvalentine@bhamgov.org>

Joe

I am seeing a continuous increase in bike riding in and around metro detroit. Definitely seeing year round biking when I'm downtown around my office, also in midtown, Corktown, etc. And we are seeing more in Birmingham as well. This is all very good. Partially, this is happening because bike infrastructure is increasing every year. My firm did the Detroit Citywide Non Motorized master plan 10 years ago. Now, hundreds of miles of infrastructure has been built in the city and the ridership is up significantly. With Any trip thru the city today, you will see obvious evidence of this.

Similarly in Birmingham, we now have a non-motorized plan and strategy for implementation. And we are adding paths, signage systems as we rebuild our streets. With this, hopefully ridership will increase.

As bikes increase in use, One issue that we will see an increase of is the use of bikes on sidewalks. This is a activity that, in my opinion, is a real potential problem, is quite dangerous and needs to be addressed before we have an increase of sidewalk bikers and eventually some injuries.

One point regarding some specifics on this. Facts and stats show that biking on sidewalks is dangerous for pedestrians but it is also proven to be less safe for bikers than streets. Counter intuitive yes, but true. Sidewalks are not designed for bikes. There are some interesting videos that show this - check one out here from the League of American Bicyclists http://bikeleague.org/content/riding-sidewalk

Also of note is that biking on sidewalks is much more of an issue, a serious issue, in certain parts of the city. A man riding a bike swiftly on old Woodward in front of Starbucks (I've been almost swiped in the past at this location and others by a grown man speeding by bike - very close call) is far more of a concern that that if it happened on west maple near Cranbrook.

So location is a condition that defines where and how we could enforce or guide this. Specifically, our downtown, Rail and triangle districts could have a higher level of restrictions and enforcement than most other areas of the city. So it is site specific as well.

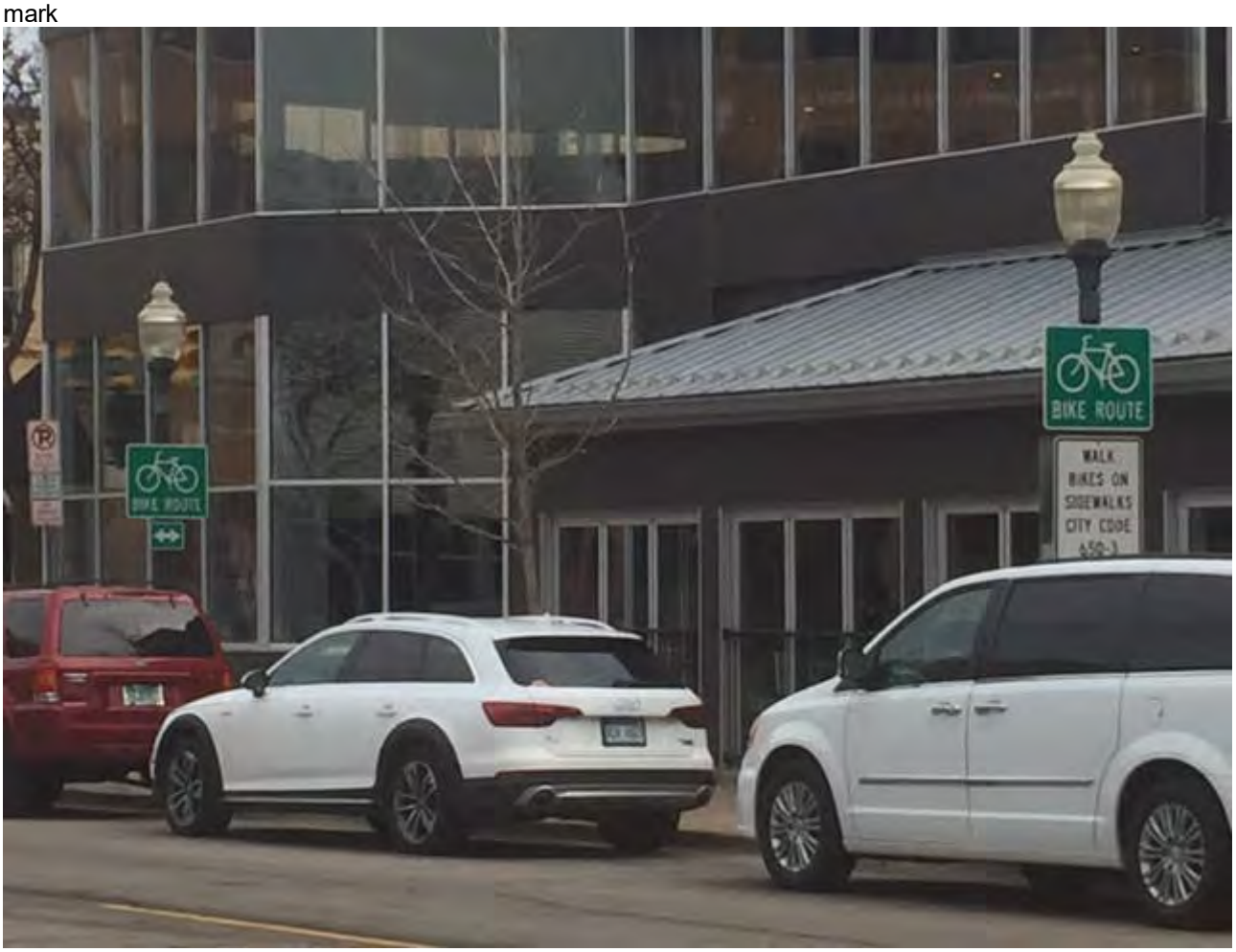
At this point, without further dialogue, I'm not sure of the best way to address this for our city, just want to increase awareness of the issue and have us consider an approach or at least a further discussion sometime in the near future.

I was in royal oak this morning and noticed that they have an ordinance that addresses this and they have added signs to inform bikers and downtown Users. Not suggesting that this is the way for us to address this, just bringing attention to the fact that our neighboring, similar cities are seeing a need as well - and taking action.

There is plenty on interesting information about this issue if you google "dangers of riding bikes on sidewalks". And here is an article in Planetizen that hits some good points

https://www.planetizen.com/node/84910/bicyclists-sidewalks-why-theyre-not-going-away-and-what-we-can-do-about-it

FYI
Thanks
mark



Mark Nickita, FAIA, CNU, APA
Mayor
City of Birmingham, MI

Like me on Facebook
Mark Nickita

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@MarkNickita

--
Joseph A. Valentine
City Manager
City of Birmingham
151 Martin Street
Birmingham, MI 48009
(248) 530-1809 Office Direct
(248) 530-1109 Fax

FEATURE

Bicyclists on Sidewalks: Why They're Not Going Away, and What We Can Do About It

Simply banning bikes from riding on sidewalks does more harm than good. A better understanding of why people choose to ride bikes on the sidewalk will be necessary to create safer environments for all users.

March 10, 2016, 2pm PST | Ariel Godwin and Anne M. Price

Dacian Dorca / Flickr

If you have ever ridden a bike, chances are you have ridden it on a sidewalk at some point. If you have ever been a pedestrian in a major city, there's a good chance that you have dodged a sidewalk cyclist. And if you've ridden a bike in a street, it's quite possible that a motorist has told you to ride on the sidewalk.

Despite being denounced in many an editorial and aggressively ticketed in many a jurisdiction, sidewalk cyclists are unlikely to become a thing of the past. This article examines the reasons why sidewalk riding persists, despite known safety hazards and regulatory prohibitions. We do not intend to encourage bicycling on sidewalks, which is riskier overall than riding in the street (Aultman-Hall and Adams 1998). However, we also do not advocate for the elimination of sidewalk riding altogether. Our aim is to develop a better understanding of the problem and to recommend actions for local governments that reduce the hazards caused by sidewalk cyclists—but without discouraging bicycling. Above all, jurisdiction-wide prohibitions of sidewalk bicycling are unproductive and should be avoided in favor of regulations specific to certain areas or facilities.

1. Is biking on sidewalks more dangerous, or less?

Numerous studies (for example, Aultman-Hall and Adams 1998; Wachtel and Lewiston 1994) have shown that crash risk,overall, is higher for bicyclists riding on sidewalks than for bicyclists riding on streets. However, we are not aware of any studies that have examined the risks of sidewalk bicycling on different types of roadways (taking into account variables such as traffic volumes, speeds, curb cut frequency, or pedestrian density). Nor are we aware of any studies that have examined the risks of sidewalk bicycling for different cyclist types (e.g., fast, slow, more or less experienced). These factors are important to consider because on any given ride, a cyclist may ride on several different types of streets (or sidewalks) and because cyclists vary greatly in their speed and behavior. For a slow-moving cyclist, riding on a sidewalk adjacent to a high-speed street may, in some cases, be safer than riding in the street.

2. What makes bicyclists ride on sidewalks?

The following factors have been identified as discouraging on-road cycling and potentially encouraging cyclists to use sidewalks:

- **Safety (real or perceived).** Multiple studies (for example, Winters et al. 2012) have found that safety concerns, above all the fear of collision with a motor vehicle, are a major deterrent to bicycling. Despite statistics showing that riding on sidewalks is less safe overall, bicyclists continue to perceive sidewalk riding as safer than street riding in many situations (Winters et al. 2012, Aultman-Hall and Adams 1998). The perception of safety comes primarily from the sidewalk's separation from motorized traffic. In reality, however, many sidewalks (those with frequent curb cuts and intersections) have many potential conflict points. Sidewalks with infrequent curb cuts and long distances between intersections manage to provide a high degree of separation from motor traffic. Regardless of crash risk, some cyclists

will always be more comfortable on a sidewalk. Some cyclists behave more like pedestrians than the cars they are expected to co-exist with—riding cautiously down sidewalks and stopping to push their bikes through crosswalks.

- **Bicycle speed.** Closely related issues include the quality of the bicycle, the physical fitness of the rider, terrain, and the difference in speed between cyclists and motorists. Although stereotypes sometimes depict cyclists as affluent, spandex-clad racers, the bulk of those who bike to work are actually in lower income brackets. An estimated 49 percent of workers who commute by bicycle earn less than $25,000 per year (Keatts and Kinder Institute 2015). Cyclists at this income level are less likely to be riding lighter, speedier bicycles. They ride for transportation, not for fitness, and may not have the leg muscle development (or bicycles) necessary to reach and sustain high speeds. Such riders are less able to blend smoothly with motorized traffic, and motorists unable to pass immediately must slow down by a correspondingly greater margin. Cyclists of this type are less likely to be comfortable riding in shared traffic than faster cyclists who have the leisure time to improve their fitness and the money to purchase bicycles conducive to higher speeds.
- **Convenience.** Sidewalks may be used as a shortcut. For example, a cyclist may ride on a sidewalk to gain direct access to a building or other destination. In some locations—for example, on many university campuses—these practices are encouraged (intentionally or unintentionally) by the placement of bicycle racks directly outside buildings. Another way in which sidewalks are used as a shortcut is for travel on a one-way street in the opposite direction from that of traffic.
- **Ignorance.** In some locations, regardless of other factors, some cyclists would be comfortable riding in streets but use sidewalks because they are unaware of crash risks and/or regulations prohibiting sidewalk riding. Informal sampling of college students at a small university in Georgia (discussed in more detail later) found that at least 50 percent of students are unaware that it is illegal to bicycle on sidewalks. Some cyclists are even under the impression that they are required to ride on sidewalks.
- **Motorists tell them to use sidewalks.** As Whet Moser (2014) put it in a recent *Chicago Magazine* article, sidewalk cyclists are "just doing what they've always been told to do."

3. Where are sidewalk bicyclists problematic—and where are they not?

As Moser (2014) writes, in locations with low pedestrian traffic and no bike infrastructure, "permitting cyclists to use the sidewalk is a cost-free way of preventing citizens from getting maimed." Despite the overall higher crash risk associated with sidewalk cycling, there are still many locations where riding on a sidewalk is likely to be less risky than riding in the adjacent street.

The following variables contribute to the safety of all users when bicyclists travel on sidewalks:

- **Cyclist behavior.** Some cyclists ride at high speed, are less cautious, and may weave quickly among pedestrians to reach their destination more quickly. Other cyclists ride slowly and cautiously, yielding to all other users. Such behavior types could be viewed as occurring along a spectrum. To our knowledge, no studies of this spectrum of cyclist behavior have been conducted.
- **Density of other sidewalk users.** A cyclist on a sidewalk crowded with pedestrians will create a greater hazard than a cyclist on a sidewalk devoid of pedestrians. In some areas, data regarding pedestrian traffic are collected at selected locations, so there are opportunities for further research on this factor.
- **Types of other sidewalk users.** A cyclist sharing a facility with typical pedestrians may create less of a hazard than a cyclist sharing a facility with numerous small children, wheelchair users, dog walkers, visually impaired individuals, and senior citizens. As above, data regarding these different user types are collected in some areas.
- **Sidewalk "design speed."** Although sidewalks are rarely, if ever, designed with any specific travel speed in mind, there are a number of factors, including clear width, curvature, and obstacles, that will influence how quickly a sidewalk user can safely travel. Sidewalks in central business districts and other commercial areas with heavy pedestrian traffic tend to have benches, planters, outdoor restaurant seating, newspaper vending boxes, and the like. Such amenities do not normally create a hazard to pedestrians but do require caution on the part of users moving at higher speeds, such as joggers and sidewalk cyclists. By contrast, sidewalks in suburban areas tend to have more clear width and fewer obstacles. The surface quality of the sidewalk is an additional factor affecting the "design speed." Newer sidewalks in suburban areas may be very smooth, while older sidewalks in established neighborhoods may have cracks resulting from tree roots.
- **Frequency of curb cuts and intersections.** This has been the most important factor in prior studies that found sidewalk riding to be more hazardous. Curb cuts and intersections are the most common points of conflict between motorists and sidewalk cyclists. The risk may be higher or lower depending on the volume of traffic passing through the curb cuts and intersections. At one end of this spectrum are long, uninterrupted stretches of sidewalk (such as one might see running alongside a large city park or a suburban or exurban road). At the other end are sidewalks on busy commercial roads with two or more curb cuts for each business.

4. Factors that complicate the issue

In addition to the factors discussed above, there are some additional factors that complicate the issue of sidewalk cycling even further:

- **High-profile pedestrian deaths.** Each year in the United States, a number of pedestrians are struck and killed by cyclists. We are not aware of any national-level data on this type of fatality. However, according to one report, 11 pedestrians were killed by cyclists in New York City between 1995 and 2006 (NYC Dept. of Health et al. 2006: 20). While the tragic nature of these events should not be understated, this fatality type represented only 0.57% of transportation-related pedestrian deaths in New York City during that timeframe. Similarly, in the United Kingdom, 0.38% of pedestrian fatalities from 1998 to 2007 involved a cyclist (UK Parliament 2009). The vast majority of pedestrian fatalities result from collisions with motor vehicles. Reckless cyclist behavior is not to be excused; however, the significant media attention paid to such cases (for example, Gellnas 2014) may encourage the perception of sidewalk cycling as a menace even in areas where it is less problematic—for example, in areas with fewer pedestrians and less bike infrastructure than New York City.
- **Cyclists already share space with pedestrians in many places.** In the hearts of many cities where sidewalk cyclists are so widely denounced, there are multi-use paths that pedestrians and cyclists use together. In some locations, the point where the multi-use path ends and the sidewalk begins may not be obvious. Some cyclists and pedestrians do not understand the difference between a sidewalk

and a multi-use path. In addition, some facilities designated as multi-use paths are, in terms of design, nothing more than wide sidewalks—or even, in some cases, normal-width sidewalks. This means that on certain sidewalk-type facilities, cycling is paradoxically legal even if there is a citywide ban on sidewalk cycling. For a layperson with no technical knowledge of transportation planning, the rules may not be grasped intuitively.

- **Some cyclists aren't comfortable using some bike facilities.** Some places provide bike facilities, but cyclists do not use them, such as the example of a high-speed arterial road with sidewalks and narrow bike lanes directly adjacent to the automobile lanes. Such road designs are common in Florida, among other places (see Figure 1).

Figure 1. Arterial road in Florida with bike lane adjacent to high-speed traffic and gutter pan partly occupying bike lane. Some cyclists may perceive the sidewalk as safer. (Photo: Ariel Godwin.)

5. Case studies

To illustrate the dynamics described above, we present case studies of two cities, Columbus, Ohio and Valdosta, Georgia, chosen as representatives of a typical large city and a typical small city, respectively. Each city is home to a university, which boosts bicycle culture, and each is in a state that is not known for being particularly friendly or unfriendly to bicycling (the League of American Bicyclists ranks Ohio as #16 in bike friendliness among the states, and Georgia as #25).

Columbus, Ohio

Columbus, Ohio (2014 population: 835,957) is home to a significant bike culture, fueled in part by the presence of the Ohio State University and its 58,000 students. While the proportion of workers who bike to work, per the 2014 American Community Survey—0.8 percent—may sound paltry, some 3,400 commuters rely on bicycles as a daily means of transportation.

The Columbus Code of Ordinances prohibits riding a bicycle on any sidewalk citywide (Chapter 2173.10; notably, police officers are exempt). Undoubtedly, there are many locations in the city where sidewalk cyclists would create a safety hazard. However, the citywide prohibition of sidewalk cycling, along with the existence of certain sub-optimal bike facilities, contributes to the following circumstances:

- Cyclists are prohibited not only from Downtown sidewalks with high pedestrian density, but also from sidewalks alongside high-speed, high-traffic suburban arterials on which riding on the sidewalk may be far safer (even for a very fast-moving cyclist) than riding in the street.
- The greater Columbus area has a large (322-mile) and growing network of multi-use paths (MORPC 2012). In some places, sidewalk-type facilities are designated as part of the multi-use path system. Most of these facilities have sufficient additional width to accommodate mixed pedestrian and bicycle traffic, but some do not (see Figure 2).

Figure 2. Five-foot-wide sidewalk designated as section of two-way multi-use path on Souder Ave. bridge (Columbus, OH). (Photo: Ariel Godwin.)

Figure 3. Bus/taxi lane on High Street (Downtown Columbus, OH). Photo: Paul Sableman, licensed under CC BY 2.0.

- High Street, in Downtown Columbus, is a four-lane street that functions as the city's main thoroughfare. In the Downtown area, the outer lanes of High Street are designated for buses and taxis only during peak commuting hours (see Figure 3). During the restricted hours, some cyclists use the sidewalks (which is illegal, and causes conflicts with pedestrians), others use the restricted lanes (which is also illegal, and causes conflicts with buses and taxis), and still others use the inner lanes of the street (causing conflicts with motorists who perceive these lanes as the "fast lanes"). There is no suitable place for cyclists to ride during peak commuting hours. Better solutions for

mixed bus and bike traffic have been developed in other cities. One example is Baltimore, where the Charm City Circulator bus runs on shared bike/bus lanes and prominent signage encourages safe riding and mutual respect (see Figure 4).

Figure 4. Shared bus/bike lane (Baltimore, MD). (Photo: Ariel Godwin.)

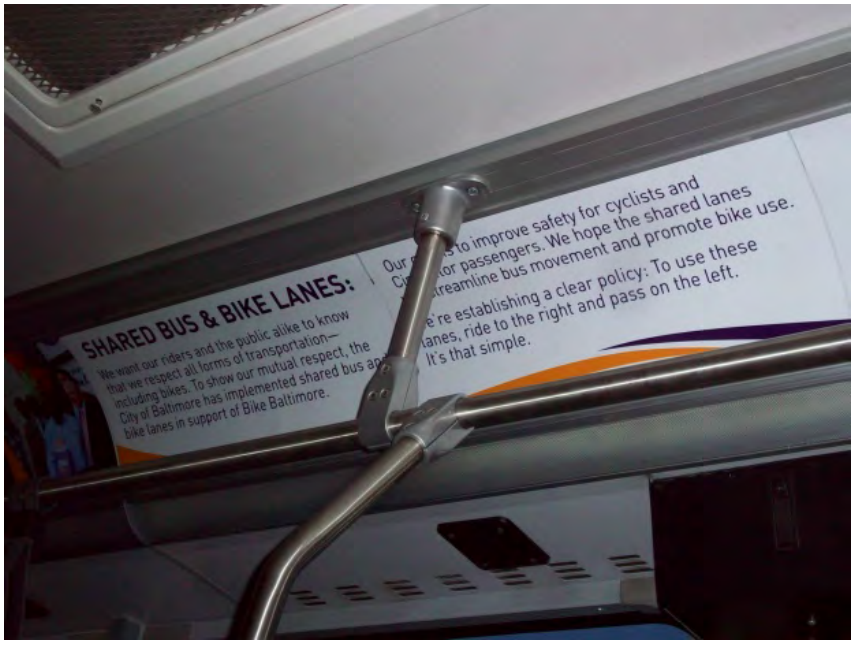

Figure 5. Sign on bus instructing cyclists on use of shared bus/bike lane (Baltimore, MD). (Photo: Ariel Godwin.)

Awareness of the citywide prohibition of sidewalk riding in Columbus is not widespread, and to our knowledge, no signage in the city indicates that bicycling on sidewalks is prohibited.

Given these circumstances, we expect that sidewalk bicycling will persist in Columbus. Further evidence for this prediction is provided by data from the Mid-Ohio Regional Planning Commission, which organizes biannual counts of pedestrians and cyclists. Since 2010, these counts have collected data as to whether cyclists were on streets or on sidewalks (see Figure 6). Over the years, the proportion of cyclists using sidewalks has decreased (from 53 percent in May 2010 to 31 percent in September 2015), but still remains significant. As might be expected, the percentage of cyclists on sidewalks was highest at count locations on high-speed, high-traffic suburban arterials, and lowest in the commercial areas of the central city and on low-speed, low-traffic residential streets.

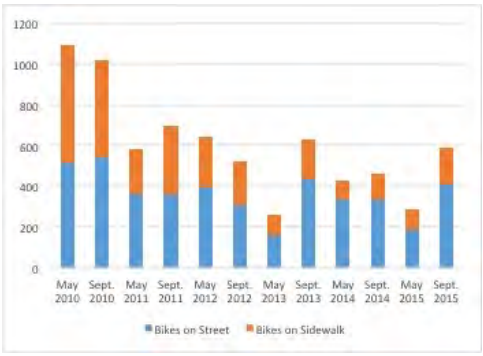

Figure 6. Bicyclists counted on streets and sidewalks in the Columbus metro area, 2010-2015. (Data source: MORPC bicycle and pedestrian counts.)

Valdosta, Georgia

Valdosta (2014 population: 56,595) is a university town and regional economic hub in southern Georgia, 14 miles north of the Florida state line. Although Valdosta lacks significant bike infrastructure as well as any comprehensive bicycle advocacy organization, the city has a significant amount of bicycle traffic, fueled in part by Valdosta State University, with a student body of about 11,000, and by an estimated 10% of households with no available motor vehicle (American Community Survey 2009-2013 estimate).

Bicycles on sidewalks are prohibited in Valdosta's Downtown area (Valdosta Code of Ordinances Sec. 94-43), although no signage exists to inform people of the prohibition. Like many central business districts, this area attracts considerable pedestrian traffic, and sidewalk cycling there would be inadvisable. However, the city's ordinance is rendered irrelevant by Georgia code (§ 40-6-144), which prohibits bicycles on sidewalks statewide. Thus, cycling on sidewalks is illegal not only in Downtown, but also in the following locations in Valdosta, which we have chosen as illustrative examples:

- The Hill Avenue overpass (see Figure 7), with a 35-mph speed limit and average daily traffic (ADT) of 15,100 (GDOT 2014): On this overpass, cyclists riding uphill in the roadway are likely to go very slowly due to the steep ascent, and the 12-foot travel lanes are not wide enough to allow a motorists to pass a cyclist safely within the same lane. Due to limited visibility, cyclists riding uphill in the roadway on this overpass risk being struck from behind by motor vehicles.
- Bemiss Road (see Figure 8), a four-lane arterial that connects Valdosta to Moody Air Force Base, with ADT up to 29,200 (GDOT 2014), a 45-mph speed limit, 11-foot lanes, and a continuous 4-foot sidewalk on each side for approximately 8 miles, with multiple stretches of 1/3 mile or longer uninterrupted by curb cuts: While cyclists can occasionally be observed in the roadway, many are more comfortable on the sidewalk.

Figure 7. Hill Avenue/US-84 overpass (Valdosta, GA). (Photo: Ariel Godwin.)

Figure 8. Bemiss Road (Valdosta, GA). (Photo: Ariel Godwin.)

As in many other communities, Valdosta also has some locations where infrastructure resembling a sidewalk is designated as a multi-use path. Although any construction of additional bike-friendly infrastructure should be encouraged, certain types of facilities may confuse drivers, cyclists, and pedestrians. One example is Williams Street (see Figure 9), where a 10-foot-wide multi-use trail was constructed as a spur of the Azalea City Trail system. This facility provides ample protected space for non-motorized users. However, the trail includes frequent curb cuts for residential driveways and no signage designating it as a multi-use path. Consequently, some residents have expressed confusion as to why the sidewalk is so wide.

An informal survey of Valdosta State University students, conducted in the fall semester of 2015, found that more than 50 percent of those surveyed were not aware of any regulations in the area prohibiting bicycling on sidewalks. Ignorance about where cyclists are supposed to ride may also extend to the local news media and/or police officers. A Valdosta Daily Times article from January 22, 2015 reported that a cyclist was "issued a citation for bicycling on roadway." Similar confusion reigns in many places; Valdosta is just one example.

Figure 9. 10-foot sidewalk on Williams St. (Valdosta, GA). There is a lack of public awareness that the reason for this facility's generous width is its status as a multi-use path. (Photo: Ariel Godwin.)

6. Conclusions and recommendations

To reduce the number of crashes and citations, and to improve public perception of cyclists, local jurisdictions should take a holistic and location-specific approach to sidewalk cycling. This could include some of the following measures:

- **Revised ordinances.** Jurisdiction-wide (and statewide) prohibitions of sidewalk bicycling are not effective because some cyclists will continue to violate them and because they discourage bicycling. Prohibitions of sidewalk bicycling could be limited only to certain areas, or to situations where riding on the sidewalk clearly endangers others. Ordinances could require cyclists to dismount when pedestrians are present. In any case, regulations should be appropriate to the transportation infrastructure and the people using it.
- **Improved signage.** Indicate clearly, with signs and pavement markings, the areas where cycling on sidewalks is prohibited. This will reduce confusion and alleviate the hazards posed to pedestrians by cyclists in certain areas.

- **Selective enforcement.** In places where an unreasonable jurisdiction-wide prohibition of sidewalk cycling continues to exist, law enforcement officers should focus on cyclists who cause the greatest safety hazard. While selective enforcement can be an acceptable tool, improving the laws would be better.
- **Improved bike infrastructure.** In many places where sidewalk cyclists are problematic, infrastructure improvements could improve safety and reduce conflict. Some infrastructure solutions are costly—for example, building multi-use paths—while others are relatively inexpensive, such as changing signage or striping bike lanes on existing pavement.

Future research could examine the factors discussed in this paper in more depth, preferably using surveys to gather quantitative data. Specific questions to address might include the spectrum of cyclist behavior (fast and reckless to slow and cautious); the reasons why people ride on sidewalks; and the crash risks of sidewalk cycling on specific types of roadways and for specific cyclist behavior types.

There are types of designated bike infrastructure that some cyclists simply will not use, which means that many people are simply not cyclists. Just as in other areas of transportation planning, a location-specific approach, leading to a context-appropriate outcome, is best for addressing the issue of sidewalk riding, with the goal of creating a safer, more user friendly system for all transportation modes.

Author Bios

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Cynara2 • 4 months ago

Your entire article completely disregarded the pedestrian reality. Typical. You are going away. Believe me. You are horrifying everyone with your disgusting behaviour toward pedestrians. Entire communities have had enough. Everyone knows a vulnerable pedestrian that you are really disturbing...injuring...killing...or making a shut in. You are going away.

Reply • Share ›

HamTech87 • a year ago

I want to ride my bike where I'm safe, and don't want to endanger anyone else. But those simple sharrows, door-zone, or high-speed arterial lanes are just too dangerous.

Please copy The Netherlands and build separated infrastructure!

Reply • Share ›

disqus_1pvtRUVrIr • a year ago

JimthePE is correct in noting that reliance on the FARS data skews the analysis. Overtaking crashes tend to be more severe, but they are also much less likely to occur. And the majority of them, especially the fatal crashes, occur on rural roads where the dearth of bicyclists is unlikely to result in bike infrastructure being built. They also occur more frequently in suburban areas where the speed differentials are high. But again, with low density and low ridership, spending money to build bike facilities will often see them go unused, or largely unused. So while we need to improve infrastructure, pointing to these crashes as demonstrated need isn't really painting an accurate picture.

What also isn't demonstrated in those stats is the underlying factors, including biking at night without lights, on busy arterials. That has contributed to several of the recent overtaking fatalities here in VA in recent years.

Reply • Share ›

Corey Burger • a year ago

I would add design: use concrete for people walking and asphalt for people biking. This design cue can help people make the right choice.

1 Reply • Share ›

Opafiets ➔ Corey Burger • a year ago

Yes. This is used extensively in Europe and increasingly in the U.S. and Asia. This is also a very critical design cue at junctions including driveways where bikeways and walkways will continue in material, color, and grade. This indicates to drivers that there is a bikeway and walkway present and that they should use caution.

1 • Reply • Share ›

Ariel • a year ago
Update: There are now signs at multiple points along Williams Street in Valdosta marking the path as the Azalea City Trail.
• Reply • Share ›

drifflo • a year ago
As someone who cycles in Atlanta often, I can relate to many of the points made in this article. The bicycle infrastructure is growing but the sidewalk is still way more appealing to less experienced riders. The bike lanes downtown could use some serious TLC. There's usually glass, parked cars, and huge potholes in the bike lanes making it very uninviting and many lanes cut off after about a mile. From a cycling perspective, the Atlanta BeltLine is a great idea, but as it has grown in popularity and foot traffic it now operates as a sidewalk. (bitter sweet I guess)
drifflo.com
• Reply • Share ›

Opafiets ➔ drifflo • a year ago
These are common problems of painted bike lanes (along with incursion by drivers going 45 mph). This is why The Netherlands and other countries are largely abandoning them and now require protected lanes in almost all cases. Curbs, a row of parked cars, or a bit of grass keep debris and drivers out of the bikeways.
• Reply • Share ›

Opafiets • a year ago
Planetizen, what happened to my comment?
• Reply • Share ›

Opafiets ➔ Opafiets • a year ago
Thank You.
• Reply • Share ›

James Brasuell ➔ Opafiets • a year ago
Sometimes comments with urls require an extra level of approval in the Disqus process. Please let us know if you have any other problems.
1 • Reply • Share ›

Opafiets ➔ James Brasuell • a year ago
No problem. Thanks for getting it back up.
• Reply • Share ›

Opafiets • a year ago
This report from the League of American Bicyclists creates significant problems for your core premise that bicycling on sidewalks is more dangerous than on the road with vehicles:

http://bikeleague.org/sites...

44% of cyclist fatalities, nearly half, are hit-from-behind while riding on shoulders, in painted bike lanes, or taking the lane with motor vehicles.
1 • Reply • Share ›

JimthePE ➔ Opafiets • a year ago
When I see a study that only uses fatal crashes, I take the results with a spoonful of salt. Fatalities are statistically rare, and therefore unlikely to represent the whole picture.

Of the 481 cases in the LAB report you cite, the collision type for 146 crashes was unknown. Including injury crashes would provide more complete results.

It's a bit stale, but the 1992 study by Alan Wachtel and Diana Lewiston found sidewalk cyclists were 1.8 times as likely to get hit by a car.
• Reply • Share ›

Opafiets ➔ JimthePE • a year ago
People who's husband, wife, father, child, or best friend were killed by someone driving a car likely don't take these with a grain of salt. Nor should we.

The safest country for pedestrians and for bicycling is The Netherlands with about 1/9 the per capita fatality rate as the U.S. Emulating their success would not be a bad idea. The foundation of their system as outlined in the CROW Manual is separation by mass and speed as much as possible and where they must interact (junctions) to control that interaction in the safest manner possible. We do not do these critical things and our highest in the developed world fatality AND INJURY rates are the result.

Comparative injury stats are difficult to come by especially given differing definitions of what is what. However... We spend over twice as much on healthcare as European countries. Yet we have a lower life expectancy and we are less healthy. A good chunk of this is our lack of activity and obesity but an estimated 20% is higher injury rates from car crashes.
1 • Reply • Share ›

JimthePE ➚ Opafiets • a year ago

I agree with you on everything but one.

I'm just saying that relying only on fatal crash data can be misleading, because it ignores most of the data.

1 ▲ ▼ • Reply • Share ›

Opafiets ➚ JimthePE • a year ago

Agree. I would love to see good injury data but have not been able to find much. Statistically the rule of thumb for the U.S. is that there are 125 serious injuries (e.g., that require a hospital visit) for each road fatality. In The Netherlands it's 30 per fatality, UK is 175 per fatality.

So, you are about 20 times as likely to incur a serious injury in the U.S. as NL but only about twice as likely to incur a serious injury in the U.S. as UK. This based on data from SWOV & OECD.

1 ▲ ▼ • Reply • Share ›

Opafiets ➚ Opafiets • a year ago

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Boston announces plan to become the most walkable city in America with vision for 2030

An aerial view of Boston's North End neighborhood. *(Wikimedia)*

By **Michelle Williams | Michelle.Williams@MassLive.com**
Email the author | **Follow on Twitter**
on March 07, 2017 at 12:29 PM, updated March 07, 2017 at 12:36 PM

For the better part of the past three decades, Bostonians have forgone getting behind the wheel, opting instead to walk, bike or take public transit.

In a 77-page **report** released Tuesday, the city's Transportation Department unveiled plans to improve transportation and housing in Boston with a vision for 2030.

Electric tricycles, self-driving buses: Boston unveils transportation plan for city in 2030

Among those goals is to see more people lacing up their sneakers and hitting the pavement.

About 14.5 percent of people who work in Boston walk to the office currently, far less than the 40.6 percent who drive themselves. By 2030, the city would like to see the percentage of people walking to work up by almost 50 percent and the percent of those who drive down by half.

While Boston has been **ranked** the third most walkable city in America in 2016 - behind only New York and San Francisco - city officials seek to improve their ranking in the coming years.

The North End is rated best neighborhood for pedestrians with a walkability score of 99.6. The neighborhood offers easy access to day-to-day needs, including to public transportation to other areas in the city. The South End, Fenway, Back Bay and Beacon Hill placed second through fifth, respectively, on the walkability ratings.

Neighborhoods further from downtown rely more heavily on public transportation and personal vehicles.

Officials seek to improve the percentage of city residents walking to their destinations -- and decrease the number relying on cars -- by improving access to reliable public transportation.

"Every home in Boston will be within a 10-minute walk of a rail or key bus route, Hubway station and car-share," the Department of Transportation report states as an aspiration for Boston in 2030.

About 43 percent of Bostonians currently live within a short walk to bus or train routes.

The city also intends to support mixed use development in neighborhoods as a means to see people walking, instead of driving, to buy groceries and other everyday goods.

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the Chaldean News

Bustling Birmingham

FEBRUARY 24, 2017 IN _MAIN PAGE SLIDER, FEATURES, MARCH 2017 | 142 VIEWS | LEAVE A RESPONSE

By Lisa Cipriano

There is a whole lot of business packed in the 4.73 square miles of Birmingham. The relatively small Oakland County city, with a small town feel, is home to 300 retailers. In fact, it boasts about 1.5 million-square-feet of retail commercial space and 2.2 million-square-feet of office space in its downtown area alone.

"I don't think a lot of people realize how much commercial activity we have going on," said Birmingham Mayor Mark Nickita. "We're almost fully occupied."

The proud mayor thinks it speaks volumes about his little city. "I think that alone says that we're business friendly enough for all businesses," Nickita said. "And, I think that we've been helpful as a city to allow them to thrive in the way that they individually are able to."

What makes Birmingham different from other local business hubs is that it's pedestrian friendly, which allows businesses to benefit from each other. In fact, the city was named the fifth most successful walkable suburb in the U.S. by the Wall Street Journal in 2010.

"You can walk to lunch, walk to go see a movie, go buy a pair of shoes and then walk to other businesses," explained Nickita. "We are very pedestrian orientated and try to make it as walkable as possible. We try to make it as

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comfortable as possible for people to make their way around without a car by adding a number of crosswalks and sidewalks."

Birmingham's businesses are housed in a mixture of historic buildings, modern retail and office developments. Architect Victor Saroki is not only a Birmingham business owner, but he's a big part of creating the retail and office space that's helped keep business booming in Birmingham.

Over the past 33 years, Saroki Architecture has done more than 70 buildings in Birmingham, in addition to custom homes in the city. "We've done the Townsend Hotel, the Birmingham Theatre, the District Lofts, the Willitz, which is a mixed use condominium development, and our own office building in ningham just to name a few," added Saroki.

oki says he was always interested in urban development, and chose to set- shop in Birmingham over much bigger cities like Detroit and Chicago. "It's a at community to do that," Saroki said. "It's very balanced with entertainment l shopping. It's upscale, walkable and we've got a lot of mixed-use buildings ere people live right downtown. It was the perfect choice."

oki says the range of people who live, work and play in Birmingham are a e asset. "We have business owners. We have developers, homeowners and have a phenomenal base of relationships," he said. "I call them the who's who of southeast Michigan. They bring a lot to the table."

Saroki also attributes his personal success in Birmingham to the ease of working with the city's government. "They are pro-business and totally business friendly," Saroki added. "They get it and strive hard to find the appropriate balance for their business owners and residents."

Attorney Randall Denha is an another example of a business owner who was able to spread his wings and thrive in Birmingham. He began his career as a partner at a large firm in Troy. When he went out on his own in 2010, he began by leasing office space in Birmingham. Denha quickly made the city his law firm's permanent home. He found his own building and developed it to suit his needs. He eventually built a development on Merrill St. that Denha & Associates PLLC and various other companies occupy today.

Denha chose Birmingham because it's centrally located and near his client base. He also wanted to be somewhere where he, personally, could enjoy a good work/life balance in a walkable community with great parks. "I don't need to get in my car to go shop and dine and everything else," explained Denha.

What he didn't realize was how much his clients would enjoy Birmingham, too. "They want to come to Birmingham," Denha said. "No longer do they want me to go to them. They are asking to come to the office. Birmingham sells itself."

Denha agrees with Saroki that the city's government is very conducive to the success of its businesses, by giving them more bang for their buck. "They advertise for you," noted Denha. "Between the local chamber of commerce and business magazines, they're circulating enough exposure for you to where you feel wanted and welcomed."

POSTED IN _MAIN PAGE SLIDER, FEATURES, MARCH 2017

Fab Cab trolley would circulate in Ferndale, Royal Oak, NW Detroit

Bill Laitner , Detroit Free Press 10:05 p.m. ET March 27, 2017

Metro-Detroit's overall bus system is spotty and costs a few bucks. But in these upscale areas, watch for a free trolley ride. . .

(Photo: Bill Laitner/Detroit Free Press, Bill Laitner/Detroit Free Press)

Mass transit it sure isn't — but the allure of a free trolley ride seems contagious.

After the success of trolleys in the Grosse Pointes (https://presto-detroitfreep.gannettdigital.com/Create/www.freep.com/story/news/local/michigan/wayne/2014/08/22/change-rolling-at-grosse-pointe-park-border-/14419615/) and Troy for high-spending diners, shoppers and tourists, a fresh trolley plan is in the works for southeast Oakland County and the edge of Detroit. It would stop for Ferndale, Pleasant Ridge, Royal Oak, the Detroit Zoo and the Livernois corridor of Detroit from 8 Mile south to the University of Detroit Mercy.

Related:

Here's how the new federal budget will affect Michigan (http://www.freep.com/story/news/politics/2017/03/16/heres-how-new-federal-budget-affect-michigan-2017/99241350/)

RTA millage rejected by metro Detroit voters (http://www.freep.com/story/news/local/michigan/detroit/2016/11/09/rta-regional-transit-authority-millage/93535602/)

“We have this concept we call Fab Cab,” said Jordan Twardy, Ferndale’s economic development boss and mastermind of the plan. Like trolleys in the Grosse Pointes and Troy, it would link key destinations with free ridership on a rubber-tired trolley car, augmented if demand is strong by SMART’s small connector buses that seat 12 to 15 people. The new service would roll from 10 a.m. until midnight on Fridays and Saturdays.

“This is not meant to be some silver bullet to replace cars. We know we’re the Motor City,” Twardy said.

“But where you have a lot of high-profile destinations in a small area, this can get people out of their cars, save them gas and parking, and make it so easy to get around,” he said.

Pleasant Ridge officials voted recently to allocate $10,000 for the first year of the service. Ferndale is set to approve $130,000 later this month “to really get this started,” Twardy said. The Detroit Zoo is being asked to allocate $30,000, and shares for Royal Oak and Detroit are pegged at $50,000 apiece.

Royal Oak Mayor Mike Fournier said a scheduled vote on the Fab Cab at Monday night's City Commission meeting would probably be delayed “so we can request more information.”

In Troy, a trolley car and additional SMART small buses run on weekdays on Big Beaver Road during an extended lunch hour and 4-8 p.m., taking in bars' traditional late-afternoon happy hours. The free service "has been very, very successful," city public affairs director Cindy Stewart said Monday. It is being subsidized by Troy businesses, she said.

In the Grosse Pointes, three "very generous family foundations" are paying for trolleys that run on Friday and Saturday nights, from early May through October, Grosse Pointe Park Mayor Bob Denner said.

"It's done very, very well — I think we're getting in excess of 500 riders each night," Denner said. The communities dubbed their service the K-Line because it runs almost entirely back and forth on Kercheval, which encompasses key dining and business districts of Grosse Pointe Farms, the city of Grosse Pointe and Grosse Pointe Park.

"We found that about 80% of our riders are going out to dinner," Denner said.

Grosse Pointe Park City Manager Dale Krajniak added that the trolley pays off in hard dollars. As Grosse Pointe Park's Kercheval dining and microbrewery district became a hot destination in the last several years, the city saved "a significant capital expense" by adding the trolley service instead of building parking lots, Krajniak said.

The success of local trolleys is evidence that "many communities are chomping at the bit for more transit service," said Megan Owens, executive director of the nonprofit group of mostly bus riders called Transportation Riders United.

"The fact that our region is developing so many piecemeal efforts at moving people this way highlights how we've failed at providing serious regional transit," Owens said, adding: "But I'm all in favor of new options like this."

From the archive:

Trolley helps 'big change in attitudes' at Grosse Pointe Park border (www.freep.com/story/news/local/michigan/wayne/2014/08/22/change-rolling-at-grosse-pointe-park-border-/14419615/)

The Fab Cab's tentative routes would vary according to time of day. Daytime stops probably would include a student pickup at UDM on Livernois and drop-offs at the Meijer store on 8 Mile in Detroit, more stops in the shopping districts of Ferndale and Royal Oak, pickups and drop-offs in Pleasant Ridge near City Hall, and regular shuttle stops at the Detroit Zoo. Night service might include Baker's Keyboard Lounge in Detroit and the busy entertainment hubs of Ferndale and Royal Oak, where parking is often hard to find on Friday and Saturday nights.

And at summer festivals, when parking can be truly costly, families could ride to the Funky Ferndale Art Fair as well as Arts, Beats & Eats in Royal Oak, according to the documents submitted to Royal Oak officials.

For the first few years, dollars from local governments — including Detroit — would support the free rides, but after that the hope is for commercial sponsors and advertising on the buses to pick up the tab for Fab Cab, the documents said.

SMART, metro Detroit's suburban bus system, has been helping Ferndale plan the new trolley system because "it's a another level of service that people would have" for getting around without personal vehicles, SMART spokeswoman Beth Gibbons said. In addition, SMART can't serve the Detroit sections of the route because its operations within Detroit are limited to only a few key routes.

"These are areas that we can't go to," she said.

Contact Bill Laitner: blaitner@freepress.com

Will You Stop for Me?

An Exploration of Characteristics Associated with a Driver's Decision to Stop for a Pedestrian in a Crosswalk with a Rectangular Rapid-Flashing Beacon

By Kay Fitzpatrick, Ph.D., P.E., PMP, Marcus A. Brewer, P.E., PMP, Raul Avelar, Ph.D., P.E., PMP, and Tomás Lindheimer, Ph.D.

The Federal Highway Administration (FHWA) provided interim approval (IA-11) for the optional use of the rectangular rapid-flashing beacon (RRFB) at uncontrolled pedestrian and school crosswalks on July 16, 2008.[1] Figure 1 shows an example installation. Results from several studies showed widely varying driver yielding rates—from a low of 19 percent to a high of 98 percent—indicating that there are characteristics other than the presence of RRFBs that have an effect on driver yielding (see Table 1 and Table 2).[2–11] While several roadway, traffic, and traffic control device characteristics have been identified as being associated with the driver yielding, the characteristics investigated are not consistent between studies and do not fully explain the large range of yielding rates observed. The researchers believe that a larger dataset could provide an opportunity to identify the roadway or traffic characteristics present at a pedestrian crosswalk with an RRFB that are associated with high or low driver yielding. Funding from the Texas A&M Transportation Institute (TTI) Center for Transportation Safety (CTS) permitted the collection of additional field data that could be added to existing data collected as part of recent projects.[12]

Selection of Characteristics

Several components can influence a driver's decision to yield to a crossing pedestrian. An obvious example is whether the region is more oriented toward pedestrians, such as residential areas. Drivers' attitudes toward pedestrians as road users could also be influential. These types of attitudes or social norms are difficult to quantify. Other influential characteristics that are more easily quantified could be vehicle volume, pedestrian volume, crossing distance (or number of lanes), and operating speed on the roadway.

Previous open-road studies have found select characteristics as being significant predictors of driver yielding at an RRFB; however, the studies did not always find the same characteristics significant. The number of sites within a study could limit the range of values for the given characteristic, which would affect whether that characteristic would be found significant. Based upon previous findings (see Table 1 and Table 2), the following characteristics were considered during site selection: intersection configuration, number of lanes (or distance) being crossed, and posted speed limit. Because

Credit: Kay Fitzpatrick

Figure 1. Example of rectangular rapid-flashing beacons.

of the challenges with identifying which characteristics may be influential and the associated costs with gathering the needed data for those characteristics, this study focused on characteristics that could be modified by a transportation agency, such as crossing distance, or that reflected the location within the region for the crosswalk, such as city or state.

Study Site Identification

Data from several previous studies were available to the research team, including the following:

- FHWA study that investigated the shape (circular versus rectangular [CvR]) of the beacon.[2]
- FHWA study that investigated flash patterns (FPs).[3]
- FHWA study that investigated the placement of the beacons above or below (A/B) the crossing sign.[3]
- Texas Department of Transportation study on several pedestrian treatments.[11]

To identify additional sites for this project, researchers contacted practitioners to ask whether they had existing RRFB sites and whether they would be willing to facilitate the team's data collection by helping to coordinate efforts with local law enforcement and other stakeholders as needed. Researchers wanted the new sites to be in different regions of the country and preferably expand on the geographical diversity already found in the sites used in previous studies. Considering the characteristics of the sites recommended to the research team, along with constraints of time, distance, and weather during data collection, 12 sites in Washington (Federal Way and Kirkland) and 13 sites in North Carolina (Cary, Chapel Hill, Davidson, Fayetteville, Indian Trail, and Morrisville) were chosen.

Table 1. Overview of driver yielding results from studies that included data for both before and after the rectangular rapid-flashing beacon (RRFB) installation.

Study	Sites	Driver Yielding[a]	Unique Characteristics of Study
2010 FHWA[4]	22 (most in St. Petersburg, Florida)	Before: average of 4% (staged)[b] After: 72 to 96% (staged)	Original study that included data for multiple years.
2009 FHWA[5]	2 (Miami, Florida)	Before: 4% day, 2 to 4% night (staged) After: 55 to 60% day, 66 to 70% night (staged)	Day and night.
2009 Florida[6]	1 (St. Petersburg)	Before: 2% overall After: 35% overall, 54% activated[c]	Trail crossing.
2011 Texas[7]	1 (Garland, Texas)	Before: < 1% (staged) After: 80% (staged)	School, overhead.
2011 Oregon[8]	3 (Bend, Oregon)	Before: 6 to 25% (staged) After: 74 to 83% (staged)	2 of the 3 sites had 45 mph posted speed limit.
2013 Calgary[9]	6 (Calgary, Alberta, Canada)	Before: 83% (staged) After: 98% (staged)	Type of before treatment not provided.
2014 Michigan[10]	1 (South Lyon Township, Michigan)	Before: 20% (staged) After: 69% (staged)	Comparison with in-street sign treatment (80%) and combination of in-street signs and RRFBs (85%).
2014 Texas[11,13]	22 (most in Garland, Texas)	Before: < 1% to 28% (staged) After: 37 to 89% (staged)	Significant characteristics: city, posted speed limit, crossing distance, one/two way.

[a] *Range provided shows the average driver yielding for the sites included in the study as reported by the authors. Results are shown for yielding rates before the RRFB was installed (existing treatment not always known) and after the RRFB was installed. See reference for details regarding study methodology and whether the findings are significant.*
[b] *Staged pedestrian protocol was used to collect the data, which included always activating the device.*
[c] *Findings reported for when the device was activated (i.e., pedestrian pushed the pushbutton).*

Data Collection and Reduction

The research team used a staged pedestrian protocol to collect driver yielding data such that oncoming drivers received a consistent presentation of approaching pedestrians. Details on the staged pedestrian protocol are provided elsewhere.[13] Data collected during daytime hours between 2012 and 2015 were included in this study. Evaluations considered the crossing data by whether the pedestrian was on the near side or far side of the crossing (see Figure 2).

Datasets

Two datasets were created for evaluation: a full dataset and a one-minute dataset. The full dataset included all pedestrian per-side crossings (i.e., either near side or far side) where at least one vehicle approached the crosswalk when the pedestrian was present. The one-minute dataset was a subset of the full dataset and only included those pedestrian per-side crossings when a one-minute vehicular volume count was available. The availability of one-minute vehicle volume counts permitted the investigation of whether higher vehicle volume is associated with less yielding. Table 3 summarizes the sample size of each dataset. The full dataset had more than 10,000 pedestrian crossings, while the one-minute dataset had 4,670 crossings.

The full dataset had an overall average driver yielding rate at the RRFBs of 72 percent. Table 3 shows the average driver yielding by state within the source of the data, which demonstrates the large range in yielding, from 35 percent for Illinois in the A/B study to 92 percent for Arizona in the CvR study. Data were also collected in a different Arizona city as part of the A/B study, with results much lower (53 percent) than those found in the CvR study (92 percent)—an indication that analyzing by city may allow accounting for more of the variation than aggregating that information to a state level.

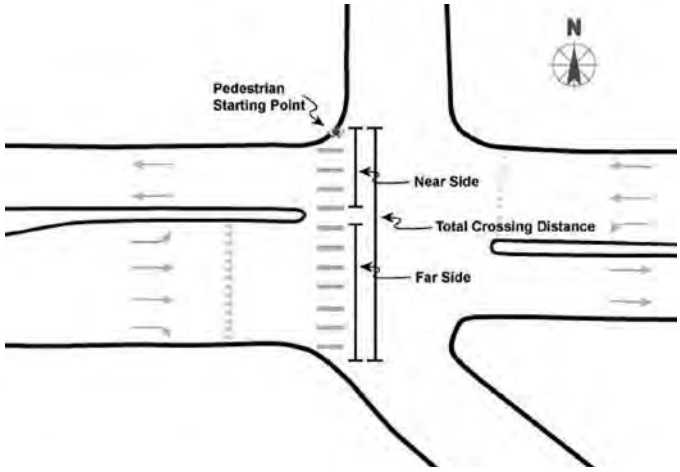

Figure 2. Example of crosswalk's near side and far side when a pedestrian is crossing from north to south (near side and far side would be reverse if the pedestrian is crossing from south to north).

Model Result for Full Dataset

The statistical analysis investigated the relationship between the number of drivers not yielding to the crossing pedestrian (considered the response variable) and the roadway, traffic control device, or traffic characteristics identified for the

Table 2. Overview of driver yielding from studies when the RRFBs were already present at the sites

Study	Sites	Driver Yielding[a]	Unique Characteristics of Study
2015 FHWA CvR[2,14]	12 (Texas, Arizona, Wisconsin)	Daytime average of 59% (RRFB) and 67% (CRFB)—not statistically different (staged)[b] Nighttime average of 72% (RRFB) and 69% (CRFB)—not statistically different (staged) 22 to 98%, daytime per-site average for RRFBs (staged)	Compared beacon shape (circular and rectangular). Study identified brightness of beacon as being influential on yielding behavior at night.
2015 FHWA[15]	12 (Texas, Arizona, Wisconsin)	When a beacon—whether rectangular or circular—is activated, a driver is 3.68 times more likely to yield to pedestrians than when it is not activated.	Used same 12 sites as circular versus rectangular study. Included both staged and general population pedestrians.
2015-2016 FHWA FP[3,16]	8 (most in Garland, Texas)	61 to 89% (staged, daytime, 2-5 pattern)	Study examined three flash patterns and found no significant difference between tested patterns.
2016 FHWA A/B[3,17]	13 (Colorado, Arizona, Illinois, Texas)	Daytime average of 64% (above) and 61% (below)—not statistically different (staged) Nighttime average of 68% (above) and 65% (below)—not statistically different (staged) Daytime per-site average for RRFBs located below sign: 19 to 98% (staged)	Study compared above-sign to below-sign beacon locations and found no significant difference between beacon placement (above or below sign).

[a] *Range provided shows the average driver yielding for the sites included in the study as reported by the authors. See reference for details regarding study methodology and whether the findings are significant.*
[b] *Staged pedestrian protocol was used to collect the data, which included always activating the device.*

crossing (considered the independent variables). Because of space constraints, detailed discussions of the statistical analyses and the results are available elsewhere.[12] Following is an overview of the characteristics that had at least one significant subcomponent.

- **Number of vehicles.** The number of vehicles for the given staged pedestrian crossing was included in the model to control for vehicle exposure and was found to be significant, as expected.
- **Intersection configuration.** Intersection configuration was subdivided into four levels with a two-leg configuration (i.e., midblock) as the reference level. For this dataset, better yielding was observed for the midblock sites compared to the four-leg intersections.
- **Refuge presence.** If a raised median or a short refuge island was present, yielding behavior was better.
- **Side (near or far).** The evaluation considered whether the staged pedestrian was on the near side or the far side (see examples in Figure 2). Drivers were less likely to yield to a waiting pedestrian on the near side compared to the far side. Perhaps drivers are more likely to yield to the pedestrian on the far side because they have additional opportunity to see the pedestrian moving.
- **Crossing distance.** As the distance being crossed increased, drivers were less likely to stop for the crossing pedestrian.
- **One-way or two-way traffic.** More drivers chose not to yield on a two-way street compared to a one-way street. All of the one-way streets had lower posted speed limits (30 or 35 mph) and more narrow street crossing widths.

Model Result for One-Minute Dataset

For a subset of the data, vehicle volume counts were collected for the minute closest to when the staged pedestrian was crossing. The number of vehicles, intersection configuration, side (near or far), and crossing distance were found to be significant, as they were for the full dataset. Several more characteristics were found to be significant for the one-minute dataset. The additional significant characteristics were:

Table 3. Dataset sample size

Dataset	Source	State	Site-Periods	Average Driver Yielding	Number of Per-Side Crossings	Number Vehicles Not Yielding	Number of Vehicles Yielding
Full	2014 Texas	TX	22	85%	1267	360	1964
Full	CvR	AZ	6	93%	740	68	929
Full	CvR	TX	8	54%	689	540	640
Full	CvR	WI	10	45%	781	833	688
Full	A/B	AZ	4	59%	339	359	507
Full	A/B	CO	12	87%	1032	185	1261
Full	A/B	IL	6	33%	589	936	466
Full	A/B	TX	4	85%	308	50	273
Full	FP	TX	31	78%	1929	711	2536
Full	TTI CTS	NC	13	75%	1164	435	1325
Full	TTI CTS	WA	12	88%	1168	199	1451
Full	**Grand Total**		**128**	**72%**	**10,006**	**4676**	**12,040**
One-min	CvR	AZ	3	86%	167	39	234
One-min	CvR	TX	7	53%	538	449	501
One-min	CvR	WI	5	39%	251	316	202
One-min	A/B	AZ	1	94%	51	4	61
One-min	A/B	CO	7	86%	507	97	620
One-min	A/B	IL	6	33%	589	936	466
One-min	A/B	TX	3	80%	193	40	164
One-min	FP	TX	1	46%	80	96	81
One-min	TTI CTS	NC	13	75%	1129	426	1297
One-min	TTI CTS	WA	12	88%	1165	199	1447
One-min	**Grand Total**		**58**	**66%**	**4670**	**2602**	**5073**

- **One-minute per-lane count.** The number of non-yielding drivers initially increased with increases in one-minute volume and then plateaued at about 6 veh/min/lane, indicating that traffic volumes higher than 6 veh/min/lane have a similar impact on yielding decision.
- **Distance to transit.** Better yielding behavior occurred when the nearest transit stop was within 200 ft of the crosswalk.
- **School within 0.5 mile.** When an elementary school was within 0.5 mile of the crosswalk, fewer drivers did not yield, which suggests that drivers are more willing to yield at a crossing where school children may be present.
- **Sign face.** The number of drivers yielding was similar for both the pedestrian and school crossing warning signs, and both of these signs had better yielding than either the bicycle or the combination bicycle/pedestrian crossing warning signs.
- **Beacon location.** In this analysis, the reference beacon location was RRFBs on both the right roadside and in the median plus an overhead sign (with no beacons). The analysis found that when the RRFBs were located only on the right roadside of the roadway, more drivers did not yield compared to the reference condition assumed for the analysis.
- **Advance yield or stop lines.** Surprisingly, when yield or stop lines were present at the crosswalk, fewer drivers yielded. This finding may be attributed to other roadway characteristics present, such as most of the sites having higher posted speed limits. Future research could explore how various combinations of roadway features are associated with yielding behavior.
- **Posted speed limit.** Interestingly, when the greater amount of crossing data were available (i.e., the full dataset), posted speed limit was not significant. In the smaller dataset of crossings where a one-minute count was available, however, data for posted speed limits of 40 and 30 were significantly different from data for a posted speed limit of 35 miles per hour (mph). More drivers yielded at the 40-mph sites compared to the 35-mph sites, and fewer drivers yielded at the 30-mph sites compared to the 35-mph sites, which is counter to the generally held thought that less yielding occurs on higher-speed roads. These observations indicate that the relationship between speed limit and yielding is complex and not fully explained with this evaluation.

Characteristics that were statistically significant in the full model analysis but not significant in the one-minute dataset were presence of refuge and one-way or two-way traffic, although the presence of refuge was very close to being statistically significant.

Discussion

Numerous studies have clearly demonstrated RRFBs as being associated with higher driver yielding, compared to no pedestrian treatment (see Table 1). Unfortunately, the amount of improvement in yielding is not consistent, and a large range of yielding among sites exists (19 to 98 percent per-site driver yielding). This study attempted to identify roadway and traffic control device characteristics associated with drivers yielding to crossing pedestrians at a location with a RRFB.

The analysis found that more drivers yield to pedestrians in the second half (or far side) of the crossing, perhaps because of the additional time that the driver can see the moving pedestrian. The results from the statistical evaluation of the full dataset found that city accounted for significant amounts of variability. Differences between crossings accounted for an even larger amount of variation, which is an indication that conditions present during a specific crossing—perhaps number of vehicles or pedestrians—are likely to be influencing driver decisions. The statistical evaluation of the one-minute dataset resulted in the variability attributed to individual crossings and cities virtually disappearing. In that model, differences between sites emerged as most influential, after accounting for one-minute counts and the other roadway and traffic control device characteristics included in this study. Additional study is needed to better understand how the city or region is influencing the driver yielding along with driver and/or pedestrian culture or behavior (including distraction).

Summary

The evaluations revealed that the following roadway and traffic control device characteristics are associated with higher yielding:

- When the distance being crossed is shorter.
- When a median refuge is present.
- When the crossing has only two legs (rather than four legs).

These findings support the general belief that pedestrian-friendly designs are associated with traffic operating conditions that are more supportive of walking. **itej**

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Kay Fitzpatrick, Ph.D., P.E., PMP *was honored with the Burton W. Marsh Award for Distinguished Service to ITE in 2014. She has served ITE in many levels including as president of the ITE Brazos Valley Section and the Local Arrangement Chair for the 2015 Spring TexITE Meeting. She was a member of the executive committee and then the chair of the ITE Traffic Engineering Council. She has written chapters in the ITE Traffic Engineering Handbook and the Urban Street Geometric Design Handbook and was one of the assistant editors for the 2000 edition of the ITE Traffic Control Devices Handbook. She is the co-author of several ITE briefing sheets, ITE compendium articles, and ITE Journal papers. She is a fellow of ITE.*

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Tomás Lindheimer, Ph.D. *is an associate transportation researcher with Texas A&M Transportation Institute. Tomás has more than 4 years of experience in research topics related to roadway safety, traffic operations, and work zone safety. He has a master's degree in civil engineering from Utah State University, and a doctorate in civil engineering from the University of Kansas. He is a member of ITE, and a member of the ITE's Brazos Valley Section.*

From The Atlantic
CITYLAB

CITYFIXER

Some Bike Infrastructure Is Worse Than None at All

It's time to put the sharrow to rest.

ERIC JAFFE | @e_jaffe | Feb 5, 2016 | 59 Comments

Mission Bicycle Company / Flickr

Denver gave rise to the sharrow in the early 1990s, and now two researchers there offer a compelling case to put the lowly form of bike infrastructure to rest.

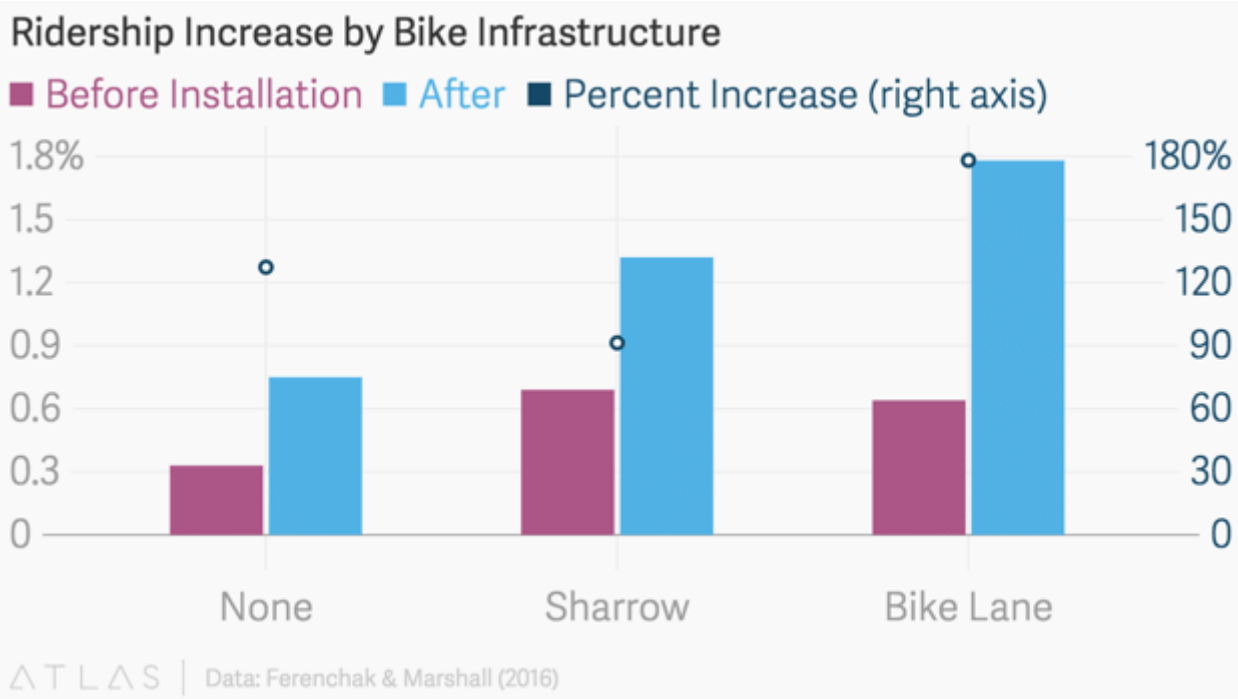
You've seen a sharrow painted on city streets: it's that image of a cyclist below two arrows in the middle of a lane that—you guessed it—is meant to be shared by bikes and cars. The Federal Highway Administration gave sharrows its official blessing in 2009, and the symbol is now ubiquitous across urban America. It's also arguably the least-loved nod to cycling, a low-cost way for cities to say they're doing something about safety and street design without really doing much at all.

But far from giving cyclists a safer ride, or even doing nothing at all, sharrows might actually be doing some harm by tugging bikes into moving traffic. Some research has found they do reduce dooring (when the door of a parked car hits a cyclist). But only one study to date looked at whether or not sharrows had any impact on overall car-bike collisions—and that study found they could be *increasing* the risk of injury.

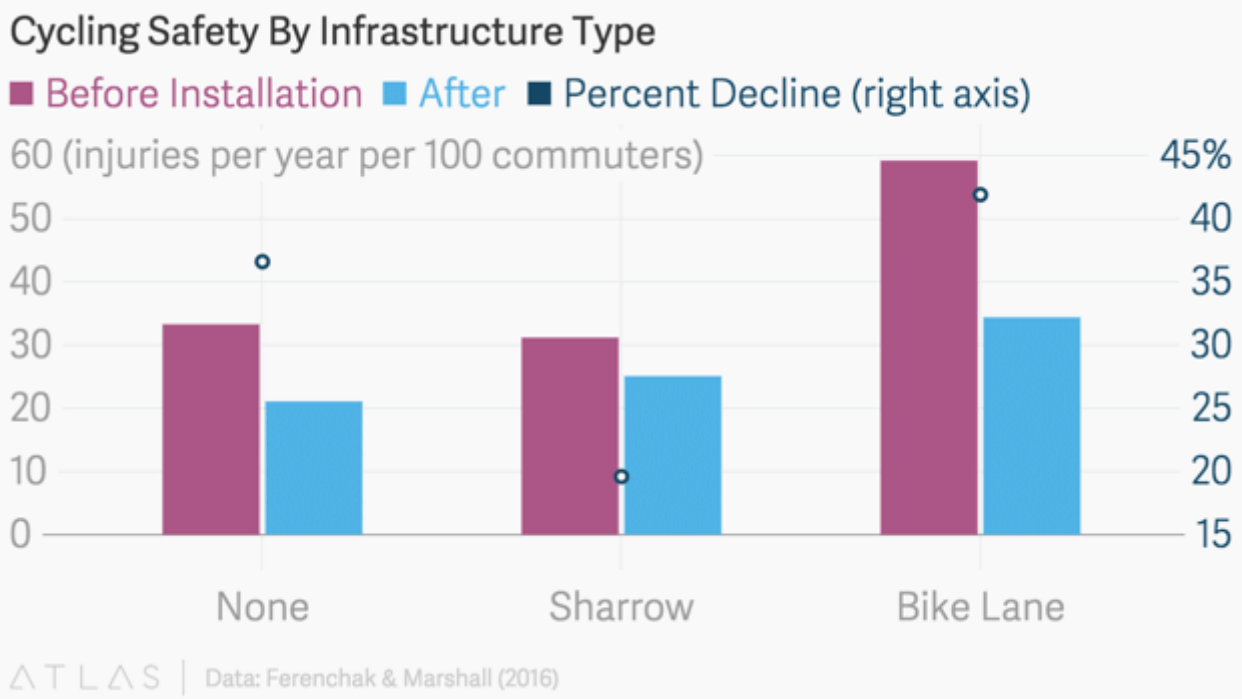
Recently civil engineering scholars Nicholas Ferenchak and Wesley Marshall of the University of Colorado at Denver

decided to take a closer look at the sharrow safety question. They gathered data on more than 2,000 blocks of Chicago in 2000 and 2010, cataloguing where sharrows were painted during this time, where bike lanes were installed, or where no cycling infrastructure emerged. Then they layered on statistics about bike commuting and street collisions.

The analysis revealed two clear messages. The first was that bike lanes were far more effective than sharrows when it came to encouraging more cyclists to a given block; sharrows, in turn, had only "slightly larger" increases in bike commuting than places where no infrastructure was built, as well as the smallest percent change, according to Ferenchak and Marshall. That's a bad sign since cycling is known to show safety in numbers, likely because drivers become more aware of riders.



The more direct safety measure was equally discouraging. The number of injuries that occurred per 100 cyclists in a given year decreased the most in areas that installed bike lanes, nearly 42 percent. That's not too surprising, but Ferenchak and Marshall also found that injuries in blocks with sharrows only declined about 20 percent—*less* of a decrease than occurred in Chicago blocks where no bike infrastructure was created at all, nearly 37 percent.



Just why sharrows increase injury risks is unclear; they might give riders a false sense of security, especially inexperienced ones. What is clear in the Vision Zero era is that truly prioritizing bike safety means building separated bike lanes. The results should be confirmed in other cities for good measure, but they certainly seem to suggest that sharrows are poor substitutes for bike lanes at best and "more dangerous than doing nothing" at worst, write Ferenchak and Marshall.

They conclude, in a working paper recently presented at TRB 2016, with some harsh words:

> As sharrows do not provide designated space for bicyclists and do not enhance the overall bicycle network, all cities should (as many already have) begin to consider sharrows simply as signage as opposed to actual infrastructure. It is time that sharrows are exposed for what they really are, a cheap alternative that not only fails to solve a pressing safety issue, but actually makes the issue worse through a sense of false security.

BLOG POST

The Wisdom of Engaging Nervous Cyclists

It was clear to the City of Toronto that engaging less confident cyclists that make up 60% of the population, yet seldom come to community meetings, might be the key to dramatic mode shifts in the city. Here's how it happened.

Dave Biggs | @MetroQuest | March 13, 2017, 5am PDT

Comfort levels for biking vary greatly. What's the profile in your city?
Pete Spiro / Shutterstock

One of my favorite tasks is interviewing clients to prepare a case study. It's fun to hear their perspective, and sometimes a great story like this one emerges. This story highlights an unexpected outcome of community engagement for a cycling plan that reminds us in a powerful way about the importance of reaching the broadest audience possible. It also serves as a warning about how easy it is to be steered off course when your community engagement is dominated by a minority with strong opinions.

While many agencies are motivated to engage a diverse audience by regulations or politics, it's becoming increasingly clear that the successful implementation of plans often hinges on the views of some of the most historically underrepresented residents. The City of Toronto's recent approval of the landmark Ten Year Cycling Network Plan, which will double spending on cycling for ten years, powerfully proves the value of broad public participation.

It might surprise many that traffic congestion in Canada's largest city ranks among the worst in North America. Like many congested metropolitan areas, transportation planners are looking to encourage cycling as a cost-effective and healthy way to ease congestion.

As the city embarked on the development of the cycling plan, it was clear to the project team that broad engagement would be critical to unveiling insights that could lead to dramatic mode shifts. Historically, community engagement on cycling issues attracts primarily avid cyclists and angry anti-cycling critics. The result is often a highly polarized debate between people with entrenched and relatively extreme views.

The most important audience is also one that is historically underrepresented. To dramatically increase cycling and reduce traffic congestion, the team needed to hear from less confident cyclists who make up 60% of the population to understand what infrastructure would make them feel safe and comfortable.

A Blend of High Tech and High Touch Engagement

The City of Toronto and the IBI Group collaboratively developed the multi-faceted consultation approach to the Ten Year Cycling Network Plan. The results were impressive with 10,500 survey respondents. They blended innovative digital and face to face engagement strategies, including an interactive online survey using MetroQuest that engaged over 7,000 residents and collected over 300,000 data points, eight outdoor events on popular cycling routes, 12 stakeholder workshops, six rides led by staff to investigate neighborhood opportunities, and over 90,000 trips captured by the city's Cycling App (full disclosure - I'm the co-founder of MetroQuest hence the reason for my interviews with the project team that led to this story in the first place).

The massive reach of the community engagement was useful beyond political sound bites. It allowed the project team to understand the opinions of different demographic groups, even the ones that are traditionally missing. Jason Diceman, senior public consultation coordinator at the City of Toronto, played a key role in the community outreach on the project. Diceman states, "Collecting opinions from a mass audience empowered us to filter the data to see the opinions of less confident cyclists. While these respondents were a small minority of the overall responses, they represented a majority of our residents."

While confident cyclists typically only represent 1% of a given population, people who occasionally cycle because they are "interested but concerned" about their safety in traffic may represent 60% of the population. The risk of an inaccessible or too-narrow public consultation approach comes from vastly under-representing the voice of this majority.

The accessibility of the digital engagement was particularly important in reaching a broad audience and, in particular, less confident cyclists. As Christina Bouchard, City of Toronto planner who led the project, states, "Including a digital consultation component that residents could access from their own homes, according to their own schedule was more accessible to 'interested but concerned' riders than the typical public meeting at a community center. Outreach efforts that capture the voice of people who are less confident and only cycle occasionally can be particularly valuable, as they are the very people most likely to switch from driving to cycling if the conditions are right."

Separated lanes can be inviting to nervous cyclists. (Image via the Toronto Cycling Network Plan)

Beyond the sheer numbers, project leaders also commented on the importance of the quality and richness of the community input. As Bouchard states, "The digital survey and mapping tools in the MetroQuest software also allowed for the inclusion of more complex questions about neighborhood origins, destinations and desired lines. The wider base of input with aggregated mapping questions, which would have been difficult to ask using a standard written-word survey, provided an overall higher quality of feedback."

Some of the insights, particularly those from less confident cyclists, were surprising and revealed previously hidden preferences.

Key Insights From Community Input

Norma Moores, Project Manager with IBI Group led the consultant team for the project. With 30 years of experience designing and delivering transportation master plans and detailed designs for cycling infrastructure projects, she has overseen a wide range of public consultations. Moores explains, "Engagement options that are easily accessible to more moderate stakeholders, can impact the outcomes of a project design." In the past, highly engaged individuals who take the time to attend events are often cyclists predisposed to "vehicular style" cycling. They may be more comfortable mixing with motor vehicles and thus prefer network designs and facility types that support a more aggressive riding style on direct, busy streets. These confident riders typically have less interest in options on quiet local streets or separated facilities as part of the overall network design.

From a network design perspective, broader outreach in under-represented areas of the City of Toronto that are suburban in character, revealed that many families and occasional cyclists were supportive of off-street facilities that could be used for recreational cycling such as multi-use trails.

It's useful to note that without careful consideration to the voices of the less confident cyclists, the results of the community engagement would have pointed to infrastructure suited to the 1% of the population who are already confident cyclists since they are highly engaged. Naturally it's important to meet the needs of confident cyclists. By also accommodating those on the fence, planners can open up a massive opportunity for change. The key lesson for planners is that, beyond cycling plans, it's likely that this same danger affects all kinds of planning efforts.

The Shallow End of the Pool

A city without separated bike lanes and off-street cycling paths may be like a swimming pool with no shallow end. It's fine for confident swimmers but intimidating for novices. Surveys have found that bike ownership is the same in all parts of Toronto, however these bikes are ridden less often in suburban communities. When meeting with councilors, city staff were told that there was little support for painted bicycle lanes on streets. However, the feedback received as part of the Cycling Network Plan consultation suggested that the provision of separated facilities such as cycle tracks or trails could be more valued by a wider base of riders. As Bouchard states, "For these types of riders, the starting point may be tuning up their bike for a recreational ride. Now with a bike in ridable condition and after building confidence riding local trails, they become more likely to take a trip to the store and then perhaps to work."

To ensure delivery of the recommendations for each community in each of Toronto's 44 wards, a majority of councilors needed to approve a doubling of the budget allocated to the city's cycling program. The adoption of a broad, accessible and inclusive consultation effort ensured that sufficient residents were engaged in a majority of wards across the amalgamated mega-city. On June 9, 2016, the Toronto City Council adopted the plan, provisioning a doubling of the annual budget from $8 million to $16 million for cycling. This will connect, grow and renew Toronto's cycling network over the next ten years. The plan includes over 600 miles of new cycling network routes.

With the plan freshly minted, it's too soon to tell how successful these changes will be in motivating a significant shift towards biking. Over the next few years we'll be watching Toronto's progress carefully. You can follow along at the Toronto Cycling Network Plan website.

In the meantime, hopefully this story will motivate other cities to broaden the reach of their community engagement to reveal previously hidden opportunities for change.

Dave Biggs

Dave Biggs is the Chief Engagement Officer at MetroQuest Community Engagement Software and a passionate public engagement strategist focused on best practices in community engagement for planners.

TOPICS | Environment | Infrastructure | Land Use

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Dave Biggs ➔ keenplanner • 5 days ago

I like that criteria about an 8 year old. Having biked around SF as a visitor I do think there are challenges but there's certainly plenty of cities behind you. I would have benefited from a cycling map to do better route planning.

• Reply • Share ›

DAW64 • 8 days ago

Nice and insightful article. Thanks for sharing

1 • Reply • Share ›

Dave Biggs ➔ DAW64 • 8 days ago

Thanks for the kind words.

• Reply • Share ›

Roger Wilson • 8 days ago

Keep the insights coming, Dave! This article in particular points to a strategy that many planners are missing: diving into demographics to understand if a minority of participants really represent a majority of community members. That is so important in today's world of squeaky wheels.

1 • Reply • Share ›

Dave Biggs ➔ Roger Wilson • 8 days ago

"World of squeaky wheels." That's hilarious. Can I quote you on that? Good one.

• Reply • Share ›

Roger Wilson ➔ Dave Biggs • 8 days ago

LOL go right ahead Dave.

• Reply • Share ›

David Nelson • 8 days ago

Dave. Please write some articles which are not advertisements for your services. I appreciate the value of the concepts, but this post should really be candidly provided as marketing, not educational material.

• Reply • Share ›

Roger Wilson ➔ David Nelson • 8 days ago

I also appreciate the value of the concepts and I have to say that I find these types of posts to be educational. The article is clearly about lessons learned so that they can be applied elsewhere and that's of value to me.

1 • Reply • Share ›

Dave Biggs ➔ David Nelson • 8 days ago

Hi David, Due to their popularity with readers, Planetizen editors requested that I write more stories related to project work which, for me, not surprisingly always involves MetroQuest in some way. It was not meant as an advertisement but rather a story about the value of going beyond the usual suspects. I've written several and will indeed write many others on other community engagement topics not related to specific projects.

1 • Reply • Share ›

Roger Wilson • 8 days ago

Great story Dave! Thanks for sharing it. It's interesting that they honed in on that demographic (nervous cyclists) and were able to isolate those people among so many others. So they asked specific questions in the survey to determine level of confidence, is that right?

2 • Reply • Share ›

Dave Biggs ➔ Roger Wilson • 8 days ago

Many thanks for the kind words, Roger. You are correct. They included in MetroQuest a specific "visual preference" question to assess cycling comfort levels as well as some "demographic" questions at the end which collected info on age, gender, location, etc. This allowed planners to hone in on specific groups to determine patterns like those discussed in the article.

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