Bismarck-Mandan
METROPOLITAN PLANNING ORGANIZATION

MANDAN WALKABILITY ASSESSMENT 2023

Final Report

January 2024

Prepared for:
BMMPO Bicycle-Pedestrian Subcommittee

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INTRODUCTION

What is walkability? Walkability might be generally defined as the quality of walking conditions, including safety, comfort, and convenience. What, then, is a walkable community? The Federal Highway Administration provides this definition: *"A walkable community is one where it is easy and safe to walk to goods and services (i.e., grocery stores, post offices, health clinics, etc.). Walkable communities encourage pedestrian activity, expand transportation options, and have safe and inviting streets that serve people with different ranges of mobility." (USDOT FHWA 2013).*

This report documents a walkability assessment of portions of Mandan, ND, completed in June 2023 by members of the Bismarck-Mandan MPO (BMMPO) Bicycle & Pedestrian Subcommittee and other community stakeholders. The goal of the assessment is to identify system improvements made since the initial assessment performed for this same route in 2017 and to determine any remaining or new deficiencies that may still need to be addressed.

SITE SELECTION

The route was originally selected in 2017 due to the context of the surrounding residential neighborhood and the relative proximity to the downtown business and commercial district. Comprised of primarily single- and multi-family residential on the northern portion, with a mix of office space and small retail, the route was chosen in 2023 for a reassessment because the previous Mandan Junior High School building at 4th St NW and 3rd Ave NW has since been redeveloped into what is now low-income housing. It is likely that many residents living in this building would frequently travel this corridor.

Point of beginning for the walk audit route was at the intersection of 1st Street NW and 3rd Avenue NW, near the Mandan City Hall building. The route included 10 block lengths of 3rd Avenue NW, 4th Street NW, 4th Avenue NW, and Main Street to assess, along with 10 separate intersections. (*See map, above.*)

ASSESSMENT TOOLS

An assessment tool was developed using materials from the previous walk audit performed in 2017 which were incorporated into the *Bismarck-Mandan MPO Bicycle & Pedestrian Plan*, as well as materials obtained from AARP's *Walk Audit Tool Kit*. Packets containing all walk audit materials were sent to potential participants in advance of the assessment date for review. (*See Appendix A*.) A brief training to review the audit materials, including the checklist and rating methodology, was held in the Veteran's Conference Room of Mandan City Hall prior to beginning the walkability assessment.

Elements to be considered throughout the assessment include:

- Sidewalk presence, condition, and width
- Accessibility
- Driveway slopes and design
- Bicycle facilities
- Lighting
- Medians
- Street Trees & Vegetation
- Transit Access

The elements were to be evaluated relative to the applicable areas of sidewalks, streets, mid-block crossings, and intersections along the route.

In addition to assessing the existing physical conditions along the route, participants were encouraged to consider who was using the route at the time of the assessment, how they were using it (walk, bike, roll) and for what reasons (work, fitness, school, etc.). This can further help identify gaps in the network which may prevent its use in one capacity or another or by specific user groups.

Assessment sheets were provided for the following segments of the route:

- 1st Street NW and 3rd Ave NW Intersection
- 3rd Avenue NW, west side of street, north to 4th Street NW (3 blocks)
- 4th Street NW, south side of street, west to 4th Avenue NW (1 block)
- 4th Avenue NW, east side of street, south to Main Street (4 blocks)
- Intersection of 4th Ave NW & Main (crossing west and south) and E Main, south side, to 3rd Ave Intersection

Auditors were asked to assess the route by segment, using this three-part methodology:

1. First, indicate whether certain elements exist at the sidewalk, the street, and pedestrian crossing signals with a simple yes or no checked for each element listed.
2. Secondly, at the completion of each route segment, assign a score to the overall condition of the sidewalks, the streets, and any pedestrian crossing signals in the segment. The scoring was suggested to be as follows:
    a. Good (+3 points)

b. Fair (+1 point)
c. N/A (0 points)
d. Poor/Gap in pedestrian infrastructure (-3 points)

3. Finally, indicate the overall "walkability" of the area based on the findings from the two previous steps as Great, Acceptable, Mixed, or Poor.

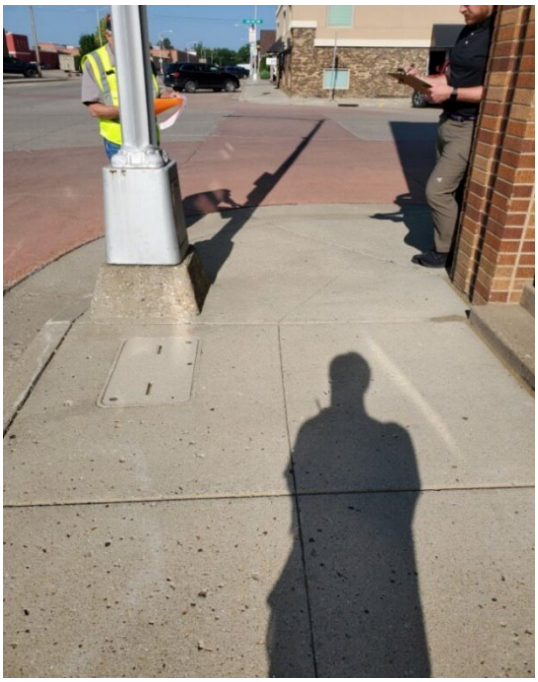
SITE VISIT ASSESSMENT

The assessment training, site visit, and assessment was completed on June 29, 2023. The checklists were completed as observations were made and discussed by the participants throughout the course of the walk audit. Participants also provided valuable written comments which covered issues identified both during the assessment, as well as those observed at other times by the participant. Participants varied in age, levels of fitness, and daily walking habits.

OBSERVATIONS

The walkability assessment began at 9:30 am in the business/commercial area of downtown Mandan, extending north through a residential area comprised of a mix of single and multi-family housing, and then circling back to Main Street in the downtown area. The weather was sunny, 78˚ and no wind. Each segment of the audit route varied from the others regarding land use, adjacent roadway width and speeds, and pedestrian facilities; therefore, observations will be provided for each of the individual route segments assessed.

1st Street NW & 3rd Ave NW Intersection (crossing east to west)



This intersection was found to be good overall, with some room for improvement. Roadways comprising this intersection are all two-way, two-lane with diagonal on street parking and absence of designated bicycle lanes or facilities. Posted speed limit of 25mph seemed to be somewhat obeyed by the drivers observed. Lighting at the intersection appeared to be adequate. East/west traffic on 1st St NW is free flowing while north/south traffic on 3rd Ave NW has stop control. Diagonal parking and placement of the stop sign on the sidewalk make it difficult for motorists to see. Sidewalk widths in this area were sufficient when taken from building edge to inside of curb. However, there were instances of sign or light pole placement which restricted the

accessible area of the sidewalk. The concrete sidewalk was found to be generally level and in overall good condition without substantial cracks or raised sections.

The intersection featured colored bulb outs and crossing area throughout. ADA ramps are present on all four legs of the intersection, and each have tactile ground surface indicators for pedestrians with visual impairments; however, there are no truncated domes. The bottom of the ramp opens to a diagonal crossing of the intersection rather than to the desired perpendicular crossing of the roadway. Visually impaired individuals following the direction of the ramp opening may find themselves in the middle of the four legs of the intersection traffic rather than crossing the street as intended.

Future improvements at this intersection, which has a wide crossing area of approximately 60-feet, should include enhancements like raised curb bulb outs, additional high visibility crosswalk markings, or parking restrictions on crosswalk approach. There may be an option of placing stop signs and lighting in bulb outs to remove impediments from sidewalks and to increase visibility of stop signs.

The walkability of the area, based on the findings: Acceptable

3rd Avenue NW, west side, 3 blocks

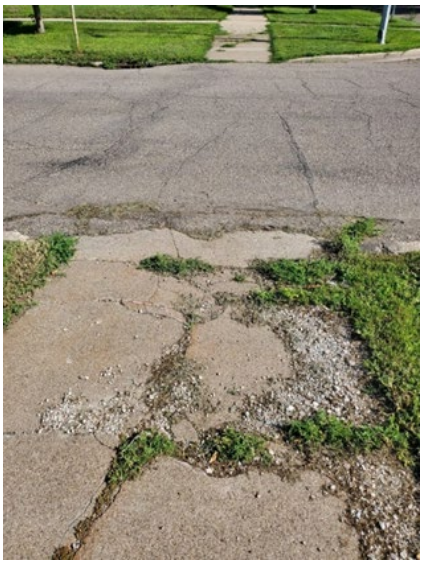
This segment of the audit route begins in the business/commercial district and extends north through a residential area that includes a mix of single-family homes and multi-family units. The level of walkability is initially good but gets progressively more difficult traveling northward. The adjacent road is a two-way, two lane street with on street diagonal parking for the first block which then changes to parallel parking. There are no designated bicycle facilities or marked pedestrian crossings along this segment. The posted speed limit is 25mph which motorists seemed to observe.

Initially, the segment was quite walkable, with 72" concrete sidewalks which, once beyond the commercial area and walking through the residential area, were separated from the roadway with an approximate 18' grass covered boulevard. This boulevard provides sufficient area for shade trees. It is assumed it would also be used by property owners for snow storage in the winter months, assisting with maintaining clear sidewalks for walking. The sidewalks here were

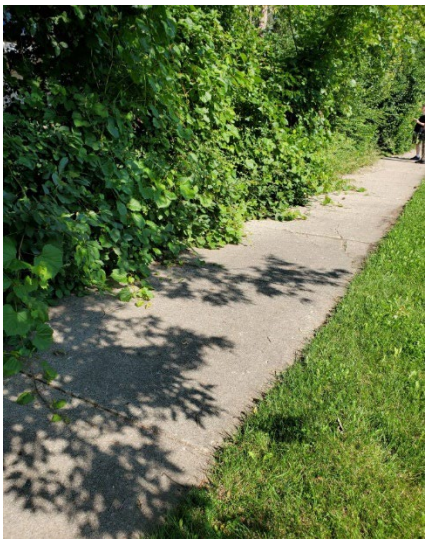
in good condition, level and of a consistent material with no missing segments. Additionally, driveways intersecting with the sidewalks were predominantly level with the sidewalk. The photo (*left*) shows an area of pleasant walking conditions with excellent fence placement to foster a feeling of security for passing pedestrians without encroaching on the usable sidewalk area. One assessor commented this is an example that could be used for any homeowner interested in making front yard enhancements.

The walkability level soon deteriorated and became more difficult. The surface condition of the sidewalk was predominantly poor, displaying an inconsistency in materials used and overall poor surface condition. There was cracking, pitting, flaking, and heaving observed, with vegetation growing up through the sidewalk. (*see photos, below*)

The intersections on this segment, as mentioned previously, have no marked pedestrian crossings. In addition, each crossing area posed difficult conditions, as shown. In addition to poor sidewalk conditions and lack of ADA accessibility, the adjacent roadway was typically of a higher elevation than the sidewalk. The original street surfacing in this older section of the city has been overlayed several times with asphalt as part of street improvements made over the course of time. While storm sewer inlets remain open, much of the asphalt overlay extends into the gutter area and in some instances meets the sidewalk, causing drain inefficiency and an incline from the sidewalk onto the street. The poor conditions resulting from this scenario are evident in the photos (*below*). City of Mandan personnel indicated there are plans to address not only the roadway, but also the underground utilities in this area of the city, likely providing the opportunity to upgrade the existing sidewalks as part of the project(s), as well.



While it is generally agreed that trees and other vegetation can create separation for the pedestrian from roadway traffic or the property use next to the sidewalk (i.e., a front yard), and thus a feeling of comfort and safety, it is not always so. In cases where the vegetation has been allowed to grow unchecked (such as shrubs or bushes bordering a sidewalk) or without proper pruning (as with boulevard trees that overhang the sidewalk at a level too low for a person to pass underneath without tilting, bending, or stooping, creating a vertical clearance restriction) it has an opposite effect making passage not only difficult but intimidating or impassable. The photo on the right provides an example of vegetation on a homeowner's property along 3rd Ave that has been allowed to become overgrown and has restricted access to much of the sidewalk. The sidewidth is 72" but has been restricted to 48" in this area. This provides an opportunity to involve the public works department in ordinance development and/or enaction to help prevent this situation with formal policy and enforcement.



The walkability of the area, based on the findings: Mixed to Poor

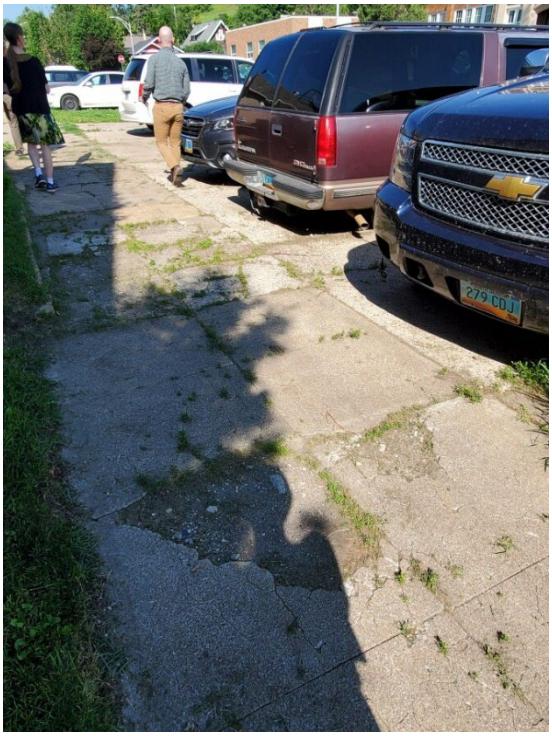
4th Street NW, 3rd Ave NW to 4th Ave NW, south side

This one-block portion of the audit route lies directly south of the former Mandan Junior High School building which was redeveloped into low to moderate income housing. It seems likely that many of these residents may have limited access to personal motor vehicle transportation and may rely on alternate means such as walking, bicycling, or public transportation.

The roadway is a two-way, two lane street with minimal options for on street curbside parallel parking. At most properties along this block, what would be a boulevard area between the sidewalk and street has been utilized for perpendicular parking which adjoins the sidewalk with no separation. There is a mid-block ally running north/south. There are no designated bicycle facilities or marked pedestrian crossings along this segment. The posted speed limit is 25mph. The level of walkability is challenging on this short stretch.

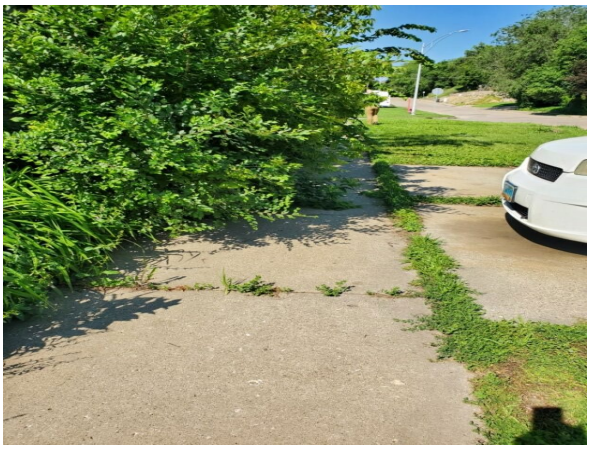
The photo to the right shows the intersection of 3rd Ave NW and 4th St NW, looking north toward the redeveloped Mandan Junior High School, which is now the Historic Apartments on Fourth. Efforts to improve this crossing have been made with the installation of a high visibility truncated dome pedestrian tile. This pad is ADA compliant and beneficial to visually impaired pedestrians. There is also evidence of some possible pavement markings in the crossing area, but they are so diminished that it is hard to determine whether they are the remnants of crosswalk markings or a stop bar, as there is a side street stop sign located here. (It is notable that the sidewalk facility on the north side of 4th Street has been entirely replaced and includes ADA compliant truncated dome tiles at the sidewalk where it meets the crossing area of the intersections as can be seen in the photo.) Also demonstrated in the photo is the rise of the road where it meets the sidewalk. This is due to the asphalt overlay situation previously described and results in the same issues of inefficient storm water and runoff drainage, erosion and vegetation growth, and a transition from sidewalk to roadway that contributes to collection of debris, making this area difficult to navigate.

Many challenges to pedestrian accessibility, comfort, and safety were encountered. Shown here is the perpendicular parking of vehicles immediately adjacent to the sidewalk, common to this segment of the audit route. This type of parking lacks any barrier between the pedestrian and the moving vehicle, presenting a safety issue with vehicles pulling into park, whether driving forward or backing in as shown in the photo. Bollards or some form of barrier should be installed to prevent vehicles from parking on the sidewalk, which was also observed, and to protect sidewalk users. It may be possible for the City to codify regulations to address this issue as part of their parking ordinance.



Additionally, the sidewalk was in very poor condition, with heaving, cracking, and breaking throughout. Broken segments exposed the dirt underneath and scattered rock and debris, along with the uneven surface and vegetation cropping up in places, made walking very difficult.

The photos below show the mid-block ally (*below, left)* displaying the same asphalt overlay pavement issue as the streets in the area and overgrown vegetation (*below, right*) which has rendered the sidewalk impassable. Again, there may be opportunity to involve the public works department to help prevent the latter with formal policy development and enforcement.



The walkability of the area, based on the findings: Poor

4th Avenue NW, east side, 4 blocks

This segment of the audit route begins in the residential area and extends south to the business/commercial district. The level of walkability is improved from the previous audit segment on 4th Street NW. The adjacent road is a two-way, two lane street with on street curbside parallel parking in the residential area which switches to diagonal parking in the business/commercial district. There are no designated bicycle facilities along this segment. There are no marked pedestrian crossings in the residential areas, but there are in the commercial district. The posted speed limit is 25mph which motorists seemed to obey.

There are numerous driveways that intersect with the sidewalk along this stretch, and they are all level, with absence of any slope, which is highly desirable and lends to the walkability of the area. The boulevards are approximately 18-feet wide, providing an excellent buffer between the sidewalk and roadway, as well as providing an adequate area for sign or utilities placement, shade trees, and snow storage. It should be noted this residential area is one of Mandan's older neighborhoods and has recently seen an uptick in improvements made to homes and property. However, even if perceived as an improvement by the property owner, beautification elements (i.e., planters, etc.) should not be allowed to obstruct the public sidewalk, as shown in the photo (*right*). Additionally, fence placement should be located behind the sidewalk a minimum of 12 inches. Including such requirements in the City's ordinance if they do not already exist would assist with regulating and enforcing such best practices.

Once beyond the residential area we found that commercial buildings and parking lots were built to or nearly to the property line, a common practice. The sidewalk width was sufficient, consisted of uniform material (concrete) and was in mostly good condition but was found to have areas of scattered debris such as gravel, and obstructions. Pictured (*left*) is a tree which was allowed to grow in the middle of the sidewalk. While the relief offered by its shade was appreciated, its grate consumed most of the interior portion of the sidewalk, pushing users to the curbside, with no barrier from roadside vehicles. Also, the path the pedestrian is forced to use to avoid the tree is then obstructed by a No Parking sign, which from the road, is partially obstructed by overhanging tree branches.

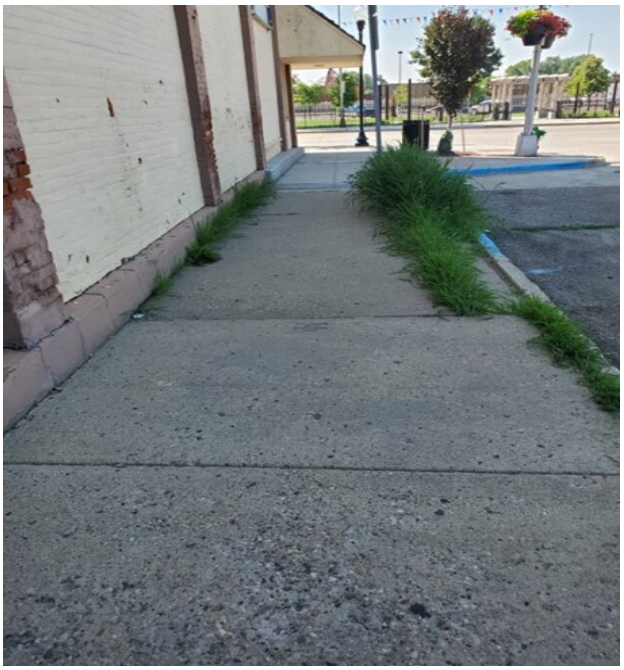
Imagine yourself to be a motorist approaching the intersection in the photo, left, which you are unfamiliar with. You are less than 100 feet away. This road is two-way and has two driving lanes with diagonal parking on each side and the speed limit is 25 mph. It is immediately apparent there are no traffic signals at this intersection. Are you readily able to determine whether there is any stop control for motorists proceeding in the direction you are traveling?

The photo below shows the stop sign placed well back from the roadway on the sidewalk, perhaps due to the diagonal parking. However, there have been pedestrian crossing improvements made to this intersection which include ADA ramps and colored pavement markings indicating bulb outs. Further improvements, such as raised curb bulb outs, would provide an area for stop sign placement within the bulb out which would increase motorist visibility of the stop sign and decrease the distance for pedestrians to cross the street.

This photo (*left*) further illustrates the colored pavement crossing markings at the intersection of 4th Ave NW and 1st Street NW and the excellent condition of the sidewalk here. However, placement of a fire hydrant and traffic signs on the pedestrian sidewalk restrict use of its full width. Additionally, the Manual on Uniform Traffic Devices should be consulted to verify the height of this stop sign is not in violation.

A mid-block ally (*photo below, right*) shows pavement degradation that has interrupted the walkability of this part of the route.

Further on (*also photo, right*) we saw weeds growing out from the building and restricting passage on the sidewalk, pushing pedestrians out to the curb which has diagonal parking abutting it. There is no barrier to prevent the vehicle from entering the sidewalk area. This restricts access and creates a safety hazard for pedestrians by moving vehicles.



Another photo of the same building (*photo, left*) illustrates the weeds that have been allowed to overtake the curbside, completely obstructing access from the handicap accessible parking spaces adjacent to the sidewalk. (Note: City of Mandan stated they have received assurances from the property owner that all weeds will be removed.)

The walkability of the area, based on the findings: Mixed to Poor

Intersection of 4th Ave NW & Main Street

The sidewalk material at the corner of 4th Avenue NW and Main Street is consistent and in excellent condition, with no obstructions. (*Photo, right*) Garbage receptacles and pedestrian scaled lighting is located out of the primary transition areas for the pedestrian crossings. Pedestrian crossing improvements have been made here to include raised curb bulb outs and ADA ramps with truncated dome pedestrian tiles at each crossing which is preferred over a central curb cutout shared by multiple direction crossings which face diagonally into the intersection. The raised curb bulb outs provide a sense of safety for the pedestrian against parking vehicles and reduce the distance required to cross the street. Additionally, the

crossings are well marked and include a Rectangular Rapid Flashing Beacon, or RRFB. (*photo, left*) RRFBs are pedestrian activated crossing signals that feature two beacons and flashing lights to alert motorists to crossing pedestrians. The audible signal provided by the RRFB at the crossing on the west side of 4th Avenue crossing south to Main Street is audible from several feet away from the speaker. And finally, as part of the RRFB, there is highly visible signage and flashing lights at the location of the crossing. The lights flashed long enough to easily complete the crossing. All these elements serve to make the pedestrian crossing experience non-threatening and accomplished with ease.

The walkability of the area, based on the findings: Great

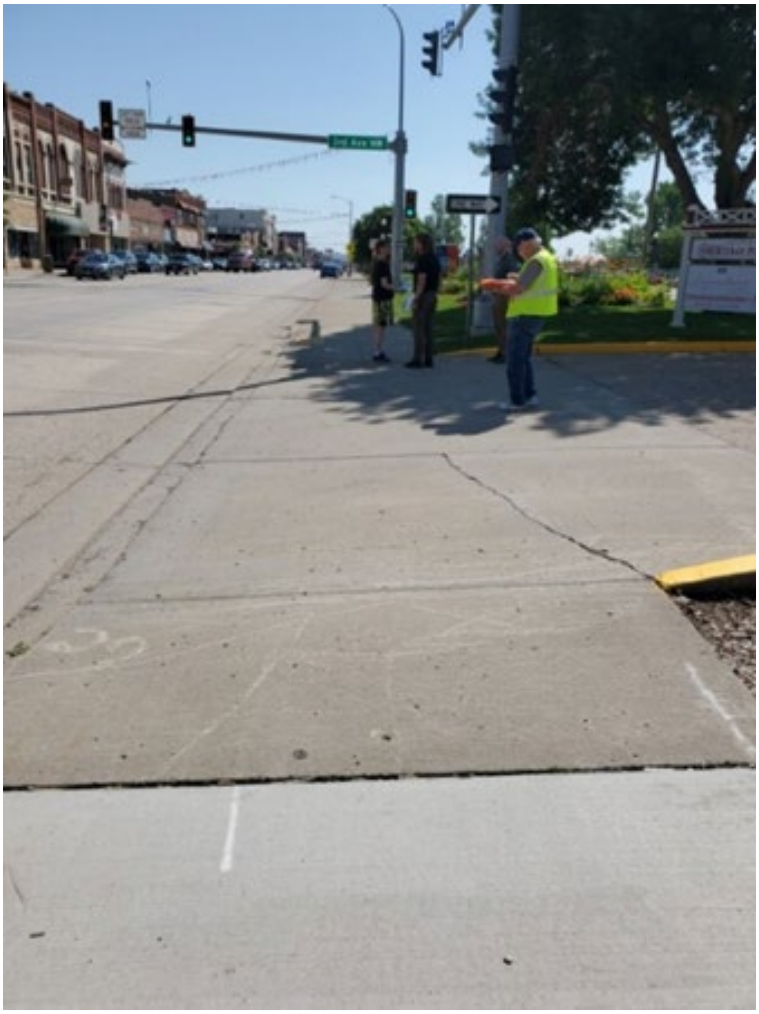
Main Street, south side, and Main & 3rd Ave Intersection

Main Street has been the most highly improved area of the walk assessment since it was last conducted in 2017. This portion of Main Street was the subject of a lane reconfiguration that resulted in one westbound lane and one eastbound lane with a shared center turn lane and parallel curbside parking on both sides of the street. The posted speed limit is 25mph. The public space along the south side of Main which includes the Morton Mandan Public Library, the Depot, Dykshoorn Park, and Heritage Plaza was redeveloped to maximize its use as a public gathering space shortly thereafter. There is no dedicated bicycle lane although the sidewalk on the south side of the road is wide enough to constitute use as a multi-use path. Bis-Man Transit fixed route bus runs both west and east on this part of Main Street. Many place making and pedestrian oriented amenities were installed as part of the improvements making this a very pedestrian friendly and pleasant space to experience.

Signage alerts motorists well in advance of impending pedestrian crossings. (*below, left)* The sidewalk, which is concrete throughout, is in very good to excellent condition, free of cracks, chips, or uneven slabs. At 8-feet, it is wide enough to be used as a multi-use path. It is separated from the interior public space by a fence, with shaded seating areas and utilities (i.e., fire hydrants) in recessed areas so they are set back from the sidewalk/multi use path. This offers a safe resting place, limiting potential conflict with those who may be walking or rolling on the sidewalk. The seating areas are shaded by trees planted inside the public space, away from the sidewalk, keeping the sidewalk free from obstructions and less susceptible to the heaving frequently caused to concrete by tree roots.

We found this to be a very pleasant and walkable area. In addition to benches, there are other enhancements such as pedestrian scaled lighting, graphic-wrapped utility boxes, decorative garbage receptacles, bike racks, planters and hanging baskets of flowers lining both the north and south sides of the street, all of which add to the aesthetic value of the area. This segment presents an excellent demonstration of best practices in creating walkable environments.

While Main Street represented the segment of the walk audit most improved since the 2017 assessment, there is still a challenge or two that remains. The driveway entrance to Heritage Plaza is located on the south side of the intersection of Main Street and 3rd Avenue NW. (*Photo, right*) The concrete, although older, is still in good condition with the exception of the crack that extends the width of one side of the driveway. There is a slope to the driveway, rather than being level with the sidewalk. The width of the sidewalk and the fact that one side abuts the roadway, presents some challenges in achieving a no slope status to this driveway intersection. Additionally, this is a one-way driveway into the Plaza from either Main Street or 3rd Avenue NW, and intersection geometry, along with the location of the pedestrian crossing on the east edge of this driveway present safety concerns. City staff stated there have been conversations to convey this concern to the Plaza.



The intersection includes traffic lights and marked crosswalks with markings clearly visible to drivers and pedestrians. The pedestrian crossing signal at the intersection has a "push to cross" or pedestrian activated mechanism. The audible prompts at this signal crossing were loud enough to be clearly heard, there was plenty of time provided to cross, and all the lighted features were in working order. The landing to the north is another example of best practice improvements with raised curb bulb outs and ADA ramps with truncated dome pedestrian tiles at each crossing which is preferred over a central curb cutout shared by multiple direction crossings facing diagonally into the intersection. In addition, bike racks, benches, garbage receptacles and pedestrian scaled lighting is located out of the primary transition areas for the pedestrian crossings.

The walkability of the area, based on the findings: Great

SUMMARY & RECOMMENDATIONS

Walkability of the segments throughout the audit route varies greatly overall. There are areas that are quite acceptable but could be improved; there are areas that have been improved to a very high degree, offering a very walkable environment; and there are areas that contain a variety of unsound conditions, which make not only walkability challenging but even general navigation potentially hazardous.

Positive Observations, Route-Wide

- Sidewalk width is typically adequate throughout
- Sidewalks are predominantly of a consistent material and are continuous
- Driveway interruptions to sidewalks are typically free of slope at the sidewalk, maintaining a level walking surface
- The public transit bus route on Main Street is within walking distance of any location on this route (within 4 blocks)
- All pedestrian crossing signals that exist along this route are pedestrian actuated, have audible prompts, and are in good working order

Potential Hazards Observed, Route-Wide

- Poor Sidewalk Condition
    - Inconsistent materials creating uneven surfaces (trip hazards)
    - Cracked, Chipped, Pitted or Broken sections, often covered with debris from the breakage or weeds growing through the cracks/breaks
    - Heaving caused by tree roots
- Lack of tactile ground surface indicators to alert visually impaired users that the path is ending (primarily when approaching intersections)
- Lack of buffer between sidewalk and street or diagonal/perpendicular parking
- Obstructed Sidewalk
    - Overgrown shrubs that restrict sidewalk access
    - Tree branches hanging too low over the sidewalk
    - Street signs, fire hydrants, light and signal poles, beautification elements, etc., and one tree
- Inadequate Pedestrian Crossings at Intersections
    - Absence of ADA compliant pedestrian curb cut ramps
    - ADA ramps inappropriately oriented to the diagonal of the intersection
    - Elevation discrepancies between the landing of the sidewalk and the street at the pedestrian crossing (street is higher than the sidewalk) and debris deposits
    - Lack of signage to alert motorists of impending crossings (except Main St.)
- Low Visibility of Stop Signs (due to placement) or other signs due to obstruction
- Lack of Designated Bicycle Lane

Recommendations Route-Wide

- Systematic tracking of sidewalk conditions using a city-wide sidewalk inventory with a schedule for replacement of cracked, broken, heaved, or missing segments or sections of sidewalk comprised of inconsistent materials – many cities' ADA Transition Plans help with this effort. NOTE: City of Mandan has indicated there are plans to reconstruct roadway and make infrastructure (storm sewer, utility) improvements in portions of the audit route as they become feasible. This may include opportunities for sidewalk improvements.
    - Associated sidewalk improvements should include replacement of existing sidewalks in poor condition with consistent material such as concrete; inclusion of appropriately placed ADA compliant curb cut ramps with tactile indicators/truncated dome pedestrian tiles; and ensure obstructions (traffic signs, light poles, etc.) are not installed on the sidewalk
- Buffer area between sidewalk and street should be considered in any area in which there is not an existing boulevard or buffer area of 2-feet or more between the sidewalk and the street. A buffer area provides space for locating traffic signs and street lights, etc. as well as for snow maintenance to help maintain a clear sidewalk
- Bollards or another means of physical separation should be installed in areas where diagonal or perpendicular vehicular parking abuts the sidewalk, to prevent vehicles from entering the sidewalk and offer protection to sidewalk users from moving vehicles.
- Vegetative sidewalk obstructions should be assessed regularly through a monitoring process established through City policy which contain action plans to ensure boulevard trees and trees and plant material located on private property are properly pruned so as not to restrict sidewalk access. Enforcement of such a policy could potentially be supported by City Ordinance.
- Pedestrian crossings should be included with any roadway improvement and inclusion of the following design elements should be considered for applicability:
    - Raised curb bulb outs
    - Colored concrete indicating the crossing and bulb out areas and/or painted crossing markings to make the crossing highly visible to motorists
    - ADA compliant curb cut ramps with tactile indicators/truncated dome pedestrian tiles, appropriately oriented within the intersection to facilitate perpendicular crossing paths
    - Parking restrictions at pedestrian crossings
    - Pedestrian scaled illumination
    - Adequate signage to alert motorists in advance of pedestrian crossings
    - Pedestrian actuated crossing signals, including Rectangular Rapid Flashing Beacon, with audible prompts

  NOTE: City of Mandan has indicated there are plans to reconstruct roadway and make infrastructure (storm sewer, utility) improvements in portions of the audit route as they

become feasible. Any roadway improvements or reconstruction should include opportunities for sidewalk/pedestrian crossing improvements.

- Opportunities for the inclusion/installation of designated bicycle lanes should be assessed as part of any roadway or street improvement project that is undertaken in the audit area.

While assessing the walkability of the selected route, participating auditors made the following observations regarding who was using the sidewalks and for what suspected reasons, if obvious. The following was observed:

Several people were seen walking throughout the route but primarily in the downtown area. Of these, 1 appeared to be in their teens, 9 appeared to be adults between 20 and 50 years of age and 2 appeared to be over 50. It was obvious that 1 of the adults between 20 and 50 years old was walking for fitness. We met and visited with many residents who were out in their yards along 3rd Avenue NW who were enjoying the nice weather. However, they were not out using the sidewalks. Additionally, there were 2 elementary school aged children riding their bicycles for what appeared to be recreational purposes.

Pedestrian activity seemed to be central to the downtown area where the walkability was greatest. However, the group agreed it may be beneficial to conduct walk audits of the same route under different sets of circumstances, such as time of day and season of year. This may assist in evaluating snow removal and its impact, accommodation of storm water runoff, and pedestrian access.

In conclusion, it should be noted that the City of Mandan has transformed its downtown area from that which was observed in the 2017 walk audit. The Main Street portion of the audit area has been substantially improved through roadway reconfiguration, redevelopment of the public space on the south side of Main Street, and the addition/inclusion of many pedestrian friendly and place making amenities. This is a truly great example of the positive change a community can bring about to the benefit of its citizens, residents, and visitors.

PARTICIPANTS

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