Royal Oak Citizens Traffic Committee

AGENDA ITEM

Title	**Request to review N. Main Street crosswalks at E. University Avenue and Pingree Boulevard**
SUBMITTING DEPARTMENT	**Engineering Division**
PRESENTER	**Holly Donoghue, P.E.**
MEETING DATE	**July 22, 2025**

Requestor Concern:

A request was received from Caitlin Rayburn of 221 N. Main to review the existing unsignalized crosswalks on N. Main Street between 11 Mile and Farnum due to safety concerns for pedestrians. She stated that traffic is often speeding and it can be difficult to see pedestrians at night.

Staff Analysis:

The Staff Traffic Committee has reviewed this request and determined that:

1. N. Main Street is a 73-foot wide major road consisting of composite pavement with curb and gutter. The speed limit is 25 mph.
2. The road consists of two lanes of traffic in each direction with a center turn lane. There are also parking lanes on each side of the road between 11 Mile and Farnum. There are unsignalized crosswalks across N. Main Street at the following locations in this corridor:
    a. South side of University Avenue with a pedestrian refuge island
    b. North side of University Avenue without a pedestrian refuge island
    c. South side of Pingree Boulevard with a pedestrian refuge island

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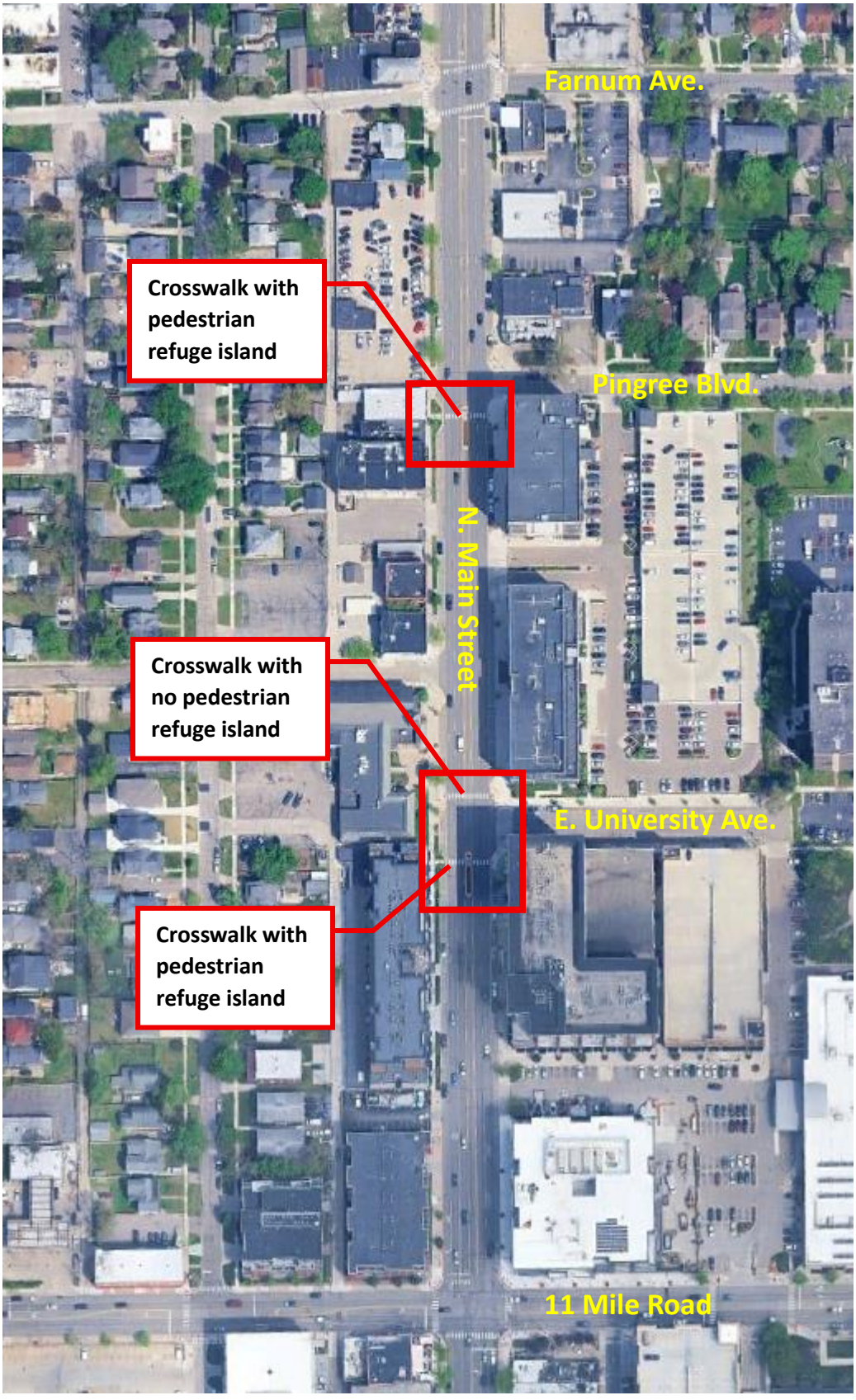

3. The three-year (2022-2024) accident report shows:
    a. At E University: two accidents. One involving a vehicle running over the pedestrian refuge island and the other involving a vehicle turning south from University and hitting a vehicle driving south on Main.
    b. At Pingree: nine accidents. Four of these were rear-end accidents, possibly caused by drivers unexpectedly stopping for the crosswalk. The other accidents were not related to the crossing (hitting parked cars, icy conditions, poor turning decisions).
4. MDOT provides guidance for various treatments at uncontrolled crosswalks based on the number of pedestrians as well as traffic volumes. Uncontrolled crosswalks include unsignalized or mid-block intersections where the mainline does not stop.
5. The city requested traffic counts from the TIA for traffic volume which were measured on May 14-17, 2025:

N. Main Street	Vehicles Per Day	Total Volume Per Day
At Pingree Southbound	7,094	13,738
At Pingree Northbound	6,644	
At University Southbound	7,470	14,100
At University Northbound	6,630	

6. The traffic volume on Main Street is high as it is a major road and this corridor is near downtown Royal Oak. The minimum vehicle volume to install crossing treatments is at least 1,500 vehicles per day, which Main Street traffic is far above.
7. The minimum pedestrian volume for an enhanced crossing treatment is the following:
    a. 20 pedestrians per hour* in any one hour, or
    b. 18 pedestrians per hour* in any two hours, or
    c. 15 pedestrians per hour* in any three hours

    *Young, elderly, and pedestrians with disabilities count two times toward the volume thresholds
8. Pedestrian counts were performed at both intersections on Friday, May 16 from 4 pm-7pm and Saturday, May 17 from 4 pm-7 pm.
    a. At University (south leg): pedestrian counts well above the threshold, with the largest number in an hour at 39 pedestrians and averaging around 33 pedestrians per hour.
    b. At University (north leg): pedestrian counts lower than the threshold with the largest count being 13 pedestrians per hour.
    c. At Pingree: pedestrian counts lower than the threshold with the largest count being 13 pedestrians per hour.

9. Rectangular Rapid Flashing Beacons (RRFB) can be used in conjunction with pedestrian crossing signs to alert drivers that a pedestrian may be entering the crosswalk. It is intended to provide emphasis on the crossing signs where drivers may not be expecting pedestrians or where special emphasis is required. It is a pedestrian-activated device. A picture of crosswalk signage with RRFBs is shown below.

10. The University intersection (south leg) qualifies for the RRFBs based on both vehicular and pedestrian volumes. Pingree does not qualify based on pedestrian volumes, however it is near the threshold and staff feels both intersections should receive this enhanced treatment to minimize potential driver confusion. Staff feels that providing the enhanced treatment for both uncontrolled crossings will provide a more cohesive and pedestrian-friendly area north of 11 Mile Road.

11. Due to safety concerns, staff also recommends removing the existing crosswalk on the north side of University with no pedestrian refuge island. Pedestrians are using this crosswalk at far lower numbers than the crosswalk on the south side and without the refuge island, pedestrians have to be concerned with traffic in both directions as well as southbound vehicles turning left onto University in the center turn lane.

12. Staff raised concerns about sight distance at the intersection of Pingree and Main. With parked vehicles so close to Pingree, this can be a safety concern for both drivers and pedestrians. Staff recommends eliminating one parking stall south of Pingree as shown below.

13. The capital improvement plan includes $50,000 each fiscal year for miscellaneous traffic safety improvements such as signage and speed humps. The signs can be placed later this year using these funds and the crosswalk on the north side of University can be removed with the concrete patching job in 2026.

Suggested Staff Recommendation: To install pedestrian-activated Rectangular Rapid Flashing Beacons (RRFB) at the crosswalks across N. Main Street on the south side of Pingree Boulevard and the souths side of University Avenue; to remove the crosswalk across N. Main Street on the north side of University Avenue; and to eliminate one parking stall south of Pingree Boulevard on the east side of N. Main Street.

Estimated cost:

RRFBs: $23,000
Crosswalk removal: $11,000
Total: $34,000