



Greenfield Engineering & Planning MEMORANDUM

To: Traffic Safety Committee
From: Glen Morrow, City Engineer
Date: October 31, 2025
Re: Evaluation for 1600 block of Melody Lane

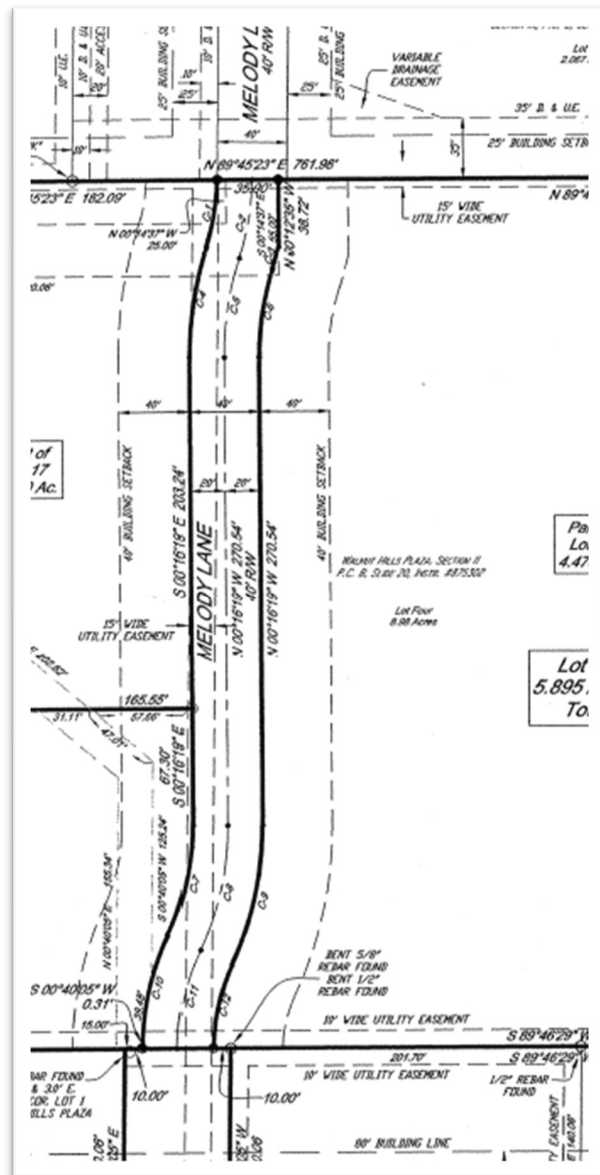
The purpose of this memorandum is to evaluate traffic safety concerns for the 1600 block of Melody Lane. This item was discussed at the October 9 Traffic Safety Committee meeting, and the following items were noted that needed evaluation:

- Removal of Landscaping,
- Modifying the 30-mph Speed Limit,
- Adding Stop Signs,
- Adding Speed Tables, Speed Humps or Speed Bumps,
- Talking to the Owner,
- Conducting Traffic Counts,
- Removing Section as a City Street,
- Adding HAWK Signals, and
- Diversion of Traffic Away from the Entrances.

In addition, this memorandum includes:

- Background,
- Current Condition,
- Comparison to Big Box Store Developments, and
- Recommended Implementations.

Background: the original plat of Walnut Hills Plaza was recorded circa 1987, presumably when Wal-Mart built their original Greenfield store. This area was re-platted circa 2005 presumably when Wal-Mart relocated to another site and this site was reconfigured for additional out lots. The original 1987 plat did not have a public road through the site but the 2025 plat included a 40-foot right of way for Melody Lane and 40-foot building setbacks.



Current Condition: this section of Melody Lane is adjacent to a building with tenants Tractor Supply (1645), Bealls (1659) and Dollar Tree (1675). From aerials, the face of the main building is approximately 20-feet from the right-of-way with the entrances of the building as close as 5 feet from the right-of-way. As a public road, Melody Lane separates the primary customer parking lot that serves the three businesses.

This section of Melody Lane also serves as a frontage road to outlots along N. State Street. One of the out lot buildings has tenants Atomic Wings (1663) and Penn Station East Coast Subs (1667). The other out lot building has tenants FedEx Office Print (1621), Richmond Carpet Outlet / Davis Cabinet (1627), Little Caesars (1633) and Gents Barber Shop (1637). Note that all addresses are N. State Street, aka Indiana State Road 9.



Landscaping: most of the landscaping trees and bushes along the building appear to be in the public right-of-way and the landscaped parking lot islands appear to be on private property. Landscaping from both sides does appear to be blocking sight-distances. Viewing from a small car is difficult to exit the perpendicular drive aisles and it is difficult in both large and small vehicles to see pedestrians walking out of businesses.

Section 155.063 3. G of the City Unified Development Ordinance states that *Landscaping materials between 3 and 10 feet in height at maturity shall not be located within the right of way Clear Sight Triangle.* 5.069. As measured from the pavement, the shrubs in the parking lot islands are as high as 4 feet and the trees along the building block sight as low as 3 feet. In discussions with the City Planning Director, the shrubs could be replaced with lower spreading varieties to reduce the maintenance needs, or more regularly scheduled maintenance would need to occur on existing shrubs to keep them below 3 feet. The trees could be trimmed higher or replaced with other species that provide more open space. This may need the opinion of an arborist to determine if removing the limbs to the height needed would likely kill the tree, at which point replacement may be more efficient.



Removal of trees with no replacement would require the landowner to make multiple appeals to the Board of Zoning Appeals and the Plan Commission to get variances from the landscape code and to modify a former development plan approval.

30-mph Speed Limit: Unless posted otherwise, all local city streets in the City of Greenfield are designated as 30-mph. This section of Melody Lane is not posted otherwise and is indeed 30-mph.

As of 2024, Indiana Code 9-21-5-6 was modified to allow municipalities to lower speed limits to 20 mph without an engineering study (prior limitation was 25 mph) if the road is a functional classification of minor collector or local road in an urban district. Melody Lane is classified as a Local City Street. Understanding that posted speed limits do not generally increase safety as drivers will drive what is comfortable, this location with the constant pedestrian traffic could be warranted to lower the speed limit to 20 mph.

A traffic count / speed study was conducted over six days from 10/17/2025 to 10/22/2025. The speed study was biased because message boards were placed to caution slow driving. Nonetheless, the average recorded speed was 15 mph and the 85th percentile speed was 19 mph. 0.22% of the vehicles (33 vehicles) exceeded the 30 mph speed limit and only seven of those vehicles (average one per day) were between the hours when customers might be present (7:00 am to 10:00 pm).

As a part of preparing this memorandum, I was most attentive to pedestrians and attempted to drive this section at 30 mph but topped at 20 mph. 20 mph, in my opinion, is the top speed to safely travel, and even that feels uncomfortably fast. That is consistent with the 85th percentile speed.

Stop Signs: Placement of stop signs should follow guidelines set forth in the Manual on Uniform Traffic Control Devices (MUTCD) section 2B.04 reprinted below (emphases added):

Guidance:

02 *Engineering judgment should be used to establish intersection control. The following factors should be considered:*

- A. *Vehicular, bicycle, and pedestrian traffic volumes on all approaches;*
- B. *Number and angle of approaches;*
- C. *Approach speeds;*
- D. *Sight distance available on each approach; and*
- E. *Reported crash experience.*

03 *YIELD or STOP signs should be used at an intersection if one or more of the following conditions exist:*

- A. *An intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;*
- B. *A street entering a designated through highway or street; and/or*
- C. *An unsignalized intersection in a signalized area.*

04 *In addition, the use of YIELD or STOP signs should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and where one or more of the following conditions exist:*

- A. *The combined vehicular, bicycle, and pedestrian volume entering the intersection from all approaches averages more than 2,000 units per day;*
- B. *The ability to see conflicting traffic on an approach is not sufficient to allow a road user to stop or yield in compliance with the normal right-of-way rule if such stopping or yielding is necessary; and/or*
- C. *Crash records indicate that five or more crashes that involve the failure to yield the right-of-way at the intersection under the normal right-of-way rule have been reported within a 3-year period, or that three or more such crashes have been reported within a 2-year period.*

05 *YIELD or STOP signs should not be used for speed control.*

Warranting stop signs for this section of Melody Lane should consider the following observations:

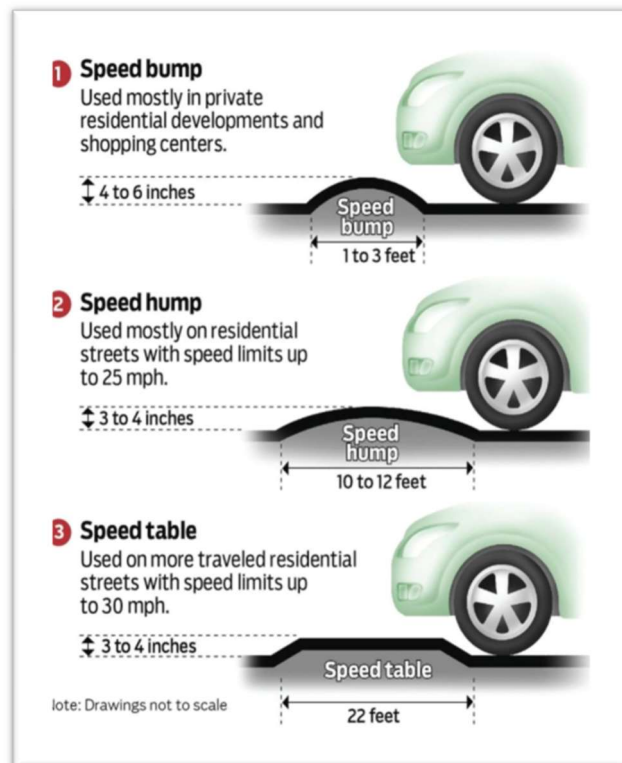
1. The volume of traffic north-south is roughly equal to the volume of collective east-west traffic from all perpendicular drive aisles. Some traffic does pass north-south without entering the drive aisles, but there is traffic that exits and enters the next drive aisle.
2. There is an excessive number of approaches over a short distance. Just within the plat, the length of 500-foot (about one city block), there are eight drive aisles/parking lots that are all actively used. Granted the eight drive aisles are private drives and those should

be signed to stop but are not signed accordingly. It should be noted that stop signs on exits from private drives are not regulatory, although the police may issue a ticket for someone driving unsafe.

3. Approach speeds do not appear to be a concern. A speed study was not conducted as cautionary message board signs were implemented after October 8 in response to a discussion at the Traffic Safety Committee meeting. Multiple visual observations at many different times of the day do not indicate that “excessive” speeding along Melody Lane is an issue.
4. Sight distances for most of the drive aisles and the pedestrians exiting the adjacent businesses are restricted with landscaping.
5. A review of vehicular crashes by the Greenfield Police Department reveals that there are no vehicular crashes for this section of Melody Lane extending at least 5 years. There was a vehicular accident in the adjacent parking lot and the McClarnon Drive intersection to the south.
6. Traffic Volumes were recorded from 10/17/2025 to 10/22/2025 and the vehicle count was found to be 2,500 vehicles per day. See further discussion in Traffic Counts discussion later in this memorandum.

Speed Tables, Speed Humps or Speed Bumps: Indiana Local Technical Assistance Program (LTAP) has published “Speed Device Policy Considerations for Local Agencies”¹ that discusses the traffic calming devices known as speed bumps, speed cushions, speed humps, and speed tables.

Speed bumps, not to be confused with speed humps, are devices that can startle and cause discomfort to motorists due to their abrupt design. This drastic shift in vertical elevation may cause vehicular damage or loss of control if used improperly. In general, speed bumps should not be used on public roadways.



¹ <https://www.purdue.edu/inltap/resources/Speed-Device-Considerations-for-Local-Agencies---9-16-25.pdf>

A speed hump is a raised area in the roadway pavement surface extending across the entirety of the roadway. Speed humps have geometric design features that create a gentle vehicle rocking motion that causes most vehicles to slow to approximately 15 miles per hour (mph) or less at each hump, and approximately 25 mph to 30 mph between properly spaced humps.

Speed cushions are speed humps that provide breaks for the wider wheelbases of emergency vehicles to pass through without traversing the hump. These gaps also allow for bicycles and motorcycles to pass and can be useful where drainage may be a concern.



Speed tables are often used with raised, textured crosswalks striped on top and connect directly to sidewalks on both sides.

Note that speed bumps “should not be used on public roadways” but are used for shopping centers.

When considering speed cushions, these would be difficult to clear snow and ice between the cushions. So, considering the large volume of pedestrians crossing the road in the winter, speed cushions should be avoided in this area.

Speed humps and speed tables appear to be most appropriate for this section of Melody Lane for their functionality. Among other characteristics, the LTAP document (p 17) states that Speed humps are appropriate for midblock placement- not at intersections and estimates cost between \$2,000 and \$4,000 (2017 dollars).

The LTAP document (p 19) states that speed tables are typically preferred by fire departments over speed humps, but not appropriate for primary emergency vehicle routes and cost ranges from \$2,500 to 8,000 (2017 dollars). Speed tables are also noted to increase pedestrian visibility and likelihood of driver yield compliance. Carmel, IN has started implementing speed tables at entrances/exits to roundabouts where pedestrians cross- i.e. the top of the table is striped as a crosswalk. The higher cost for speed tables is that the tabletop is often constructed as pavers or stamped concrete.

Talking to the Owner: Staff did reach out to the owner of the development, T Brandywine Crossing IN LLC (Dallas, TX), and was promptly connected with the property manager. The Owner is very willing to cooperate with the City in implementing changes. The property manager was advised that the City is looking at the entirety of the issue and will make contact to discuss proposed solutions.

Conducting Traffic Counts: As discussed in the 30-mph section, a traffic count / speed study was conducted over six days from 12:00 am 10/17/2025 to 11:59 pm 10/22/2025. The study recorded 15,000 vehicles which average 2,500 vehicles per day. The Federal Highway Administration considers a road with 1,100 to 6,300 AADT (Annual Average Daily Traffic) as an Urban Collector and is consistent with some Greenfield Minor Arterials such as sections of Broadway Street, Franklin Street, Blue Road, and Morristown Pike.

Removing Section as a City Street: A frontage road and/or parallel street to N. State Street is needed because the out lots near N. State Street have access restrictions to N. State Street (SR 9) and INDOT is unlikely to lift these restrictions. Regardless, if the City were to vacate the street, it would not change the course of traffic flow as a parallel street to N. State Street is needed and used by many.

Adding HAWK Signals: High-Intensity Activated cross Walk beacon (HAWK) signals are used elsewhere in Greenfield and are effective at alerting motorists of pedestrian and bicycle crossings. At a minimum of \$10,000 per location, HAWK signals are expensive.

Regardless of expense, HAWK signals would not work well in this location because the pedestrian crossings are at best three crosswalks but realistically one 500-foot-wide crosswalk. It is logistically difficult to choose designated locations for the push buttons that pedestrians would use.

Diversion of Traffic Away from the Entrances: hindsight would suggest that this is how the site should have been re-platted in 2005. Note how Melody Lane is in front of the current Wal-Mart location and Barret Drive in front of the Home Depot complexes where the frontage



access road is away from the customers entering and leaving the stores. Granted, those other lots are deeper lots and have more room for a public street.

With the way that all of the frontage buildings have been built and developed, it would be cost prohibitive to demolish buildings and reroute this section of Melody Lane to the west. Even if a meandering route could be established without demolition, it is unlikely that users of the area would use the new segment as this section of Melody Lane is a more direct connection to those traveling north and south. If the commercial building were to be redeveloped in the future, it is possible that it could be pushed back further from the road. Also, a reroute would just relocate the same safety issues from the current location to other buildings.

Big Box Store Examples: Since this section of Melody Lane functions as a front drive aisle as found at most big box store developments, the other big box store developments along the east side of N. State Street are discussed for consideration and comparison.

The complexes with adjacent big box store developments are referenced as:

- Kroger’s (1571 N. State Street)
- Wal-Mart (1945 N. State Street)
- Home Depot (2055 Barrett Drive)
- Bomgaars (2175 Barret Drive)
- Kohl’s / PetSmart (2223 Barrett Drive)

Comparisons to nearby Big Box Store developments:

Feature	Tractor Supply	Kroger’s	Wal-Mart	Home Depot	Bomgaars	Kohl’s/ PetSmart
Number of Tenants	3	9	1	1	1	2
Building Drive Signage	-	-	(4) Stop Here for Pedestrian	(3) Stop signs	-	(1) Stop sign
Aisle Signage	-	-	Stop signs	-	-	-
Speed Bump/Hump/Table	-	4 bumps	-	-	-	-
Painted Cross Walks	(3) Crossings	(4) Crossings	(4) Crossings	Wide sections	-	(2) Crossings
Building Trees	Clearance as low as 3-feet clear	-	-	-	-	Yes- thin and tall
Building Bushes	As high as 2-feet	Small planters	-	-	-	-
Parking Lot Island Trees	Clearance as low as 4-feet clear	-	-	-	Yes	Yes- full and low spreading
Parking Lot Island Bushes	As high as 4-feet tall	-	-	As high as 5-feet tall	-	-

Reviewing the comparison table, it illustrates that this Melody Lane segment, acting as a big box front drive aisle, contains more obstructions and less safety features than that of nearby private parking lot big box front drive aisles. Note that the differences in landscaping and other features may be a product of the applicable zoning codes at the time of development.

It should also be noted that the “Stop Here for Pedestrian” signs at Wal-Mart are MUTCD compliant signs (R1-5b). There are other signs that are placed at crosswalks in the middle of the street, but they do create problems with snow fighting operations.



Kroger's (looking south)



Kroger's (looking north)



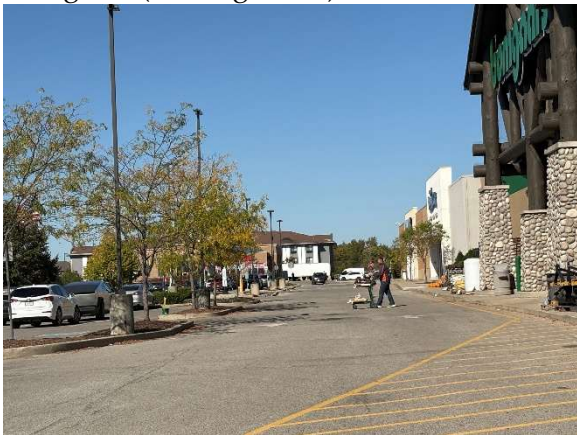
Wal-Mart (looking north)



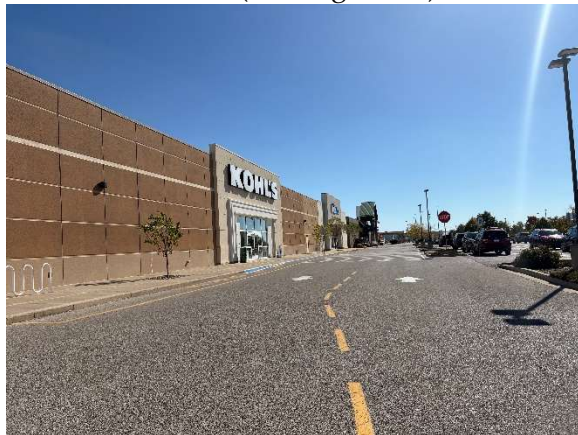
Home Depot (looking north)



Bomgaars (looking north)



Kohl's / PetSmart (looking south)



Recommended Implementations: These recommendations are for the discussion and further evaluation of the Greenfield Traffic Safety Committee. After discussion, the recommendations of the Committee may need further design, coordination and/or participation with the property owner, and further approvals by various City Boards, Commissions, and Councils.

The recommendations of this memorandum are:

1. Lower speed limit to 20 mph from W. McClarnon Drive to W. Muskegon Drive.
2. Place two speed humps or speed tables on the north and south of the building, encompassing all three crosswalks.
3. Add regulatory stop signs at each speed hump/table.
4. Add R1-5b "Stop Here for Pedestrian" signs at all three crosswalks.
5. Ask Owner to add non-regulatory stop signs for the perpendicular drive aisles.
6. Work with Owner to seek City permission to remove trees on the east side of the right-of-way (within the right-of-way).
7. Require Owner to trim trees on the west side of the right-of-way (on private property) to ensure limbs do not encroach the 10-foot clear view. If consultation with an arborist indicates the limbing may kill the trees, consider replacement with another tree species.
8. Request Owner to replace shrubs on the west side of the right-of-way with low spreading shrubs or require Owner to trim shrubs below 3-foot.