

# Belle Meade Mobility Study

NASHVILLE DEPARTMENT of TRANSPORTATION
& MULTIMODAL INFRASTRUCTURE

### Tonight's Agenda

- Introduction
- Timeline
- Study Area & Development Descriptions
- Scope of Mobility Study
- Existing conditions
- Projected conditions
- Community Concerns
- NDOT Recommendations
- Questions & Answers

#### **Timeline: How We Got Here**

- Harding Town Center UDO Adopted in 2005
- The Harding Town Center officially becomes a T5 Regional Center in 2017, which supports mixed-use development patterns.
- November 2022, KCI requests to scope the site specific Belle Meade Plaza traffic study with NDOT.
- December 2022, with the knowledge of other redevelopments in the area, NDOT requests that KCI conduct a regional mobility study for the Harding Pike corridor.
- After community meetings in early 2023, NDOT took the feedback from the neighborhood to present the conditions/improvements the developments will be required to make.

# Three Proposed Developments

Belle Meade Plaza

Harding Town
Center

4416 Ridgefield Way



### Belle Meade Mobility Study Area



### **Development Programs**

#### **Belle Meade Plaza**

Commercial/Retail: 80,000 sf

Residential: 388 units

Hotel: 78 rooms

#### 4416 Ridgefield Way

Grocery: 60,000 sf

Residential: 304 units

#### **Harding Town Center**

Commercial/Retail: 62,000 sf

Residential: 332 units

Office/Medical Office: 200,000 sf

Hotel: 125 rooms

#### **GRAND TOTAL**

Commercial/Retail: 202,000 sf

Grocery: 60,000 sf

Residential: 1,024 units

Office/Medical Office: 200,000 sf

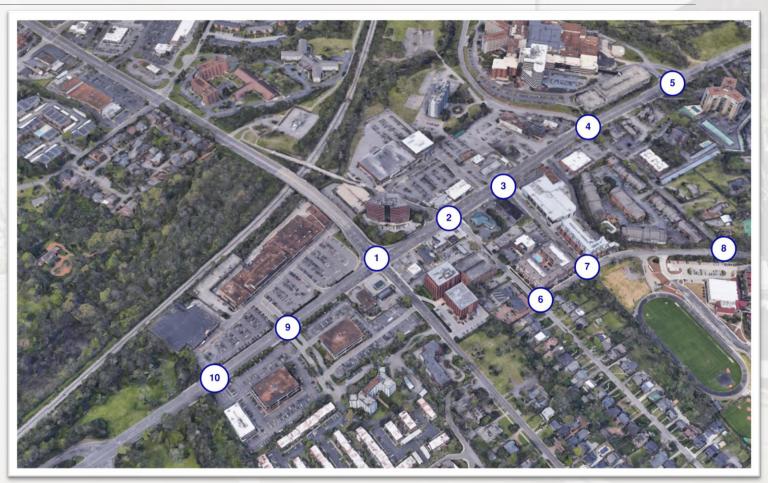
Hotel: 203 rooms

#### **Belle Meade Plaza**

Feature	Original Design (December)	Updated Plan After Community Feedback (February)	Change
Height	Building A: 212 feet Building B: 150 feet Building C: 160 feet Building D: 170 feet	Building A: 110 feet Building B: 138 feet Building C: 141 feet Building D: 149 feet	9% to 48% reduction in building heights; all buildings are now the same or lower height than the existing neighboring building
Density	500 residential units 120 boutique hotel rooms	388 residential units 78 boutique hotel rooms	22% to 35% reduction in units and 15% reduction in total square footage
Retail Options	20 shops/restaurants	30+ shops/restaurants	Minimum 50% increase in retail options compared to today
Parking	664 parking spaces	950 parking spaces	43% Increase in parking

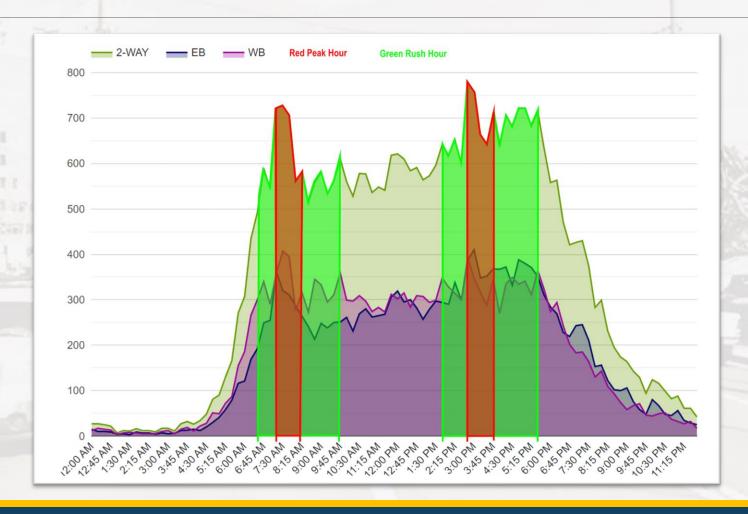
### Scope of the Mobility Study

- Assess Existing Transportation Plans
  - Bikeways Plan
  - Sidewalk Plan
  - WeGo NMotion
  - Parks & Greenways Master Plan
  - Vision Zero High Injury Network
- Incorporate Goals of those Plans
- Identify Transpo. Safety Deficiencies
- Evaluate Historical Traffic Growth
- Analyze Existing & Future Peak Hrs.
- Provide Recommendations



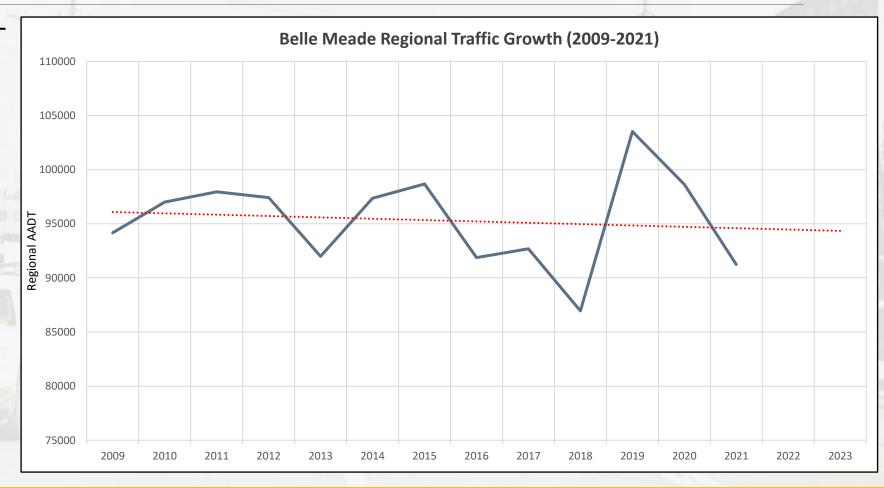
#### Peak Hour vs. Rush Hour

Example of Harding Pike traffic counts over a 24hr period

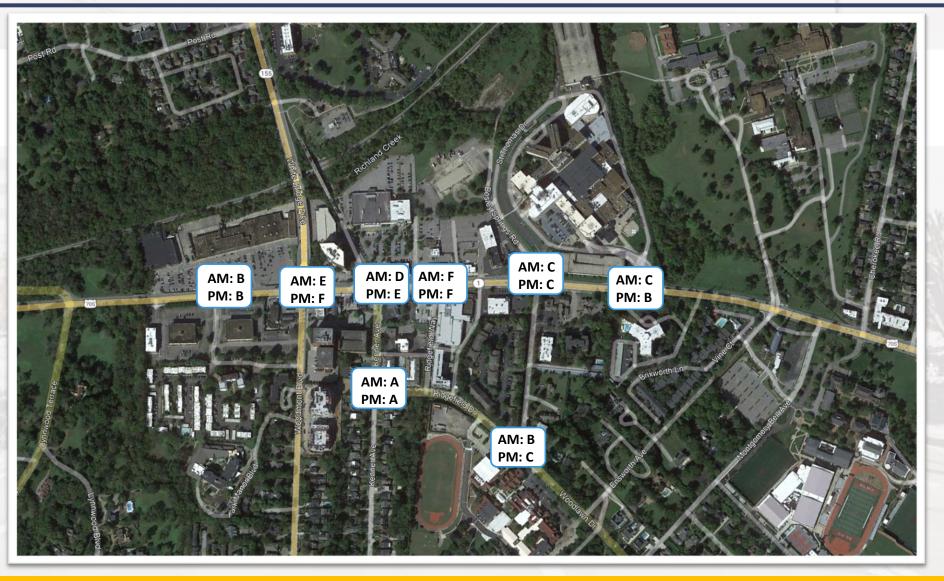


#### **Traffic Growth Over the Past Decade**

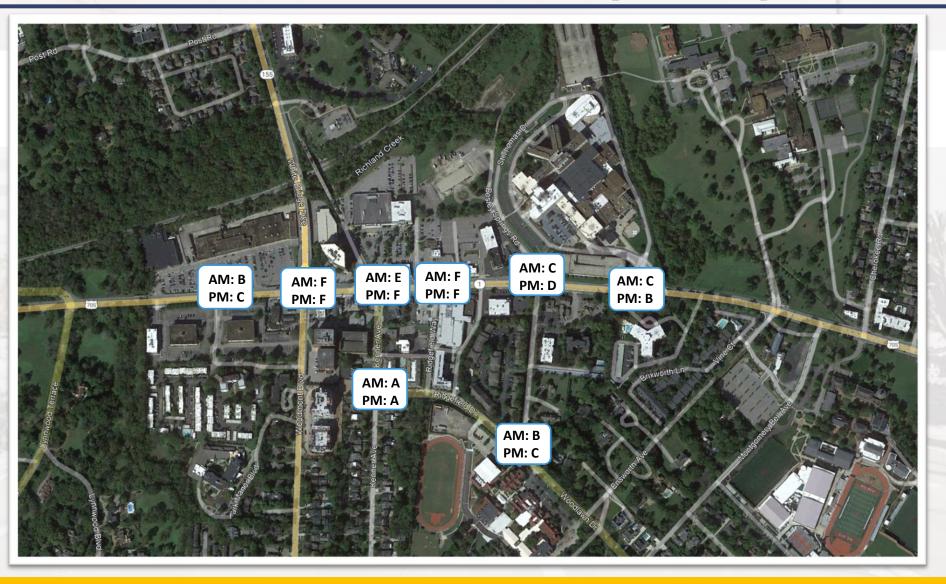
 Despite historical TDOT traffic counts trending negative over the last decade (avg. -0.7%/yr.) NDOT required KCI to growth the traffic by 1.5%/yr. to account for any discrepancies.



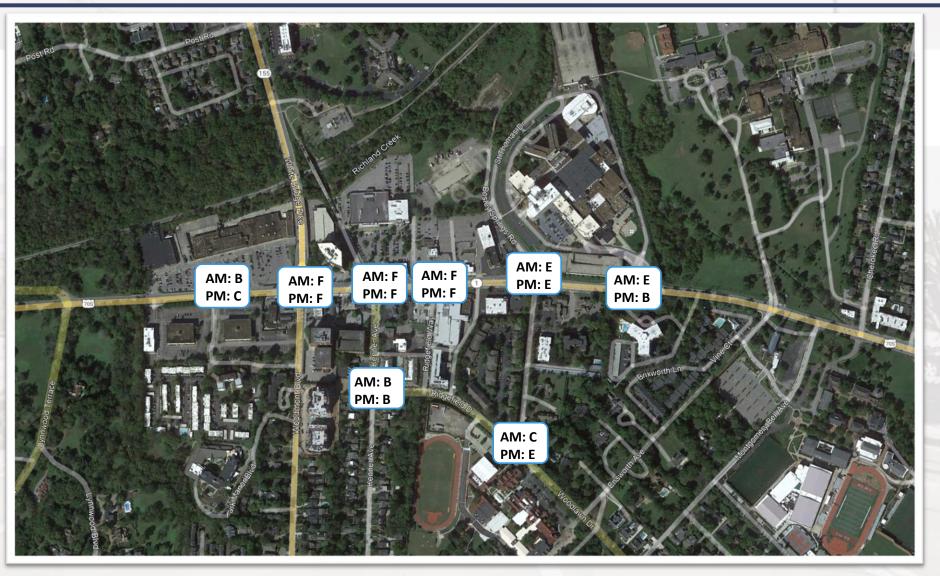
### **Existing Conditions**



## **Future Conditions (2027)**



## **Future Conditions (2032)**



# Community Meetings Summary: Top Concerns



**Safety:** Heavy traffic and lack of infrastructure creates safety concerns, especially for pedestrians.



**Traffic:** New development will increase the traffic on a corridor that is already heavily congested.



**Roadway Design:** Alterations to roadway design and signal placement needed to increase capacity and optimize traffic flow.



Land Use, Density, and Parking: Proposed land uses and density should be tailored to reduce traffic congestion during peak hours. Parking levels should be sufficient for anticipated density to avoid overflow issues.



**Pedestrian and Transit Accommodations:** Sidewalks and other pedestrian accommodations must be constructed to increase safety and comfort. Transit facilities along Harding must be enhanced.

#### **NDOT Conditions/Improvements**

- All development projects within boundaries of the Nashville Next T5 Regional Town Center (MCSP) shall dedicate the necessary ROW for a 7-lane cross-section on Harding Pike.
- Relocate the existing traffic signal from Kenner Ave to Ridgefield Way and restrict left turns with a center median, to improve overall traffic flow
- At the intersection of Harding Pike & Ridgefield Way, an additional Northbound LTL shall be installed to decrease queuing pending analysis.
- Retime the Harding Pike & White Bridge traffic signal to allow for more efficient traffic flow.
- Upgrade the signal infrastructure to allow for real time signal adaptative capabilities that will improve traffic flow.
- At the intersection of Woodlawn Dr & Ridgefield Dr, install a mini-roundabout to improve intersection safety, if ROW permits.
- Upgrade the existing three transit stops on Harding Pike into "super stops."
- As Development occurs on Harding Pike, access management will be a priority to reduce conflict points.

  Development specific traffic impact studies may be required as other properties redevelop along the Harding Pike corridor.
- 10) Due to the possible traffic impact on the surrounding neighborhoods, each development within the Belle Meade Regional Study will be required to contribute to NDOT's traffic calming program.
- 11) Each development will be required to contribute to larger regional study that incorporates the neighborhoods surrounding the Harding Regional Town Center to identify improvements at a broader scale.
- 12) Each development will be required to contribute to a feasibility study to identify larger capacity improvements for Harding Pike.
- 13) The applicants shall work with NDOT's Traffic Demand Management (TDM) coordinator to develop TDM strategies prior to the final approval of any of the three developments.

### NDOT Conditions: Addressing Community Concerns



Comply with Major and Collector Street Plan (7-lane cross-section)



Signal relocation from Kenner to Ridgefield



Left turn restrictions with center median at Kenner



Northbound Left-turn lane on Ridgefield (pending analysis)



**Traffic signal timing modifications** 

#### NDOT Conditions: Addressing Community Concerns



Improved intersection pedestrian infrastructure



Real time adaptive traffic signal capabilities



Roundabout at Woodlawn and Ridgefield



New transit "super-stops" along Harding



**Access management for curb cuts along Harding** 

### NDOT Conditions: Addressing Community Concerns



Funding for additional regional study



**Contribution of funds to traffic calming program** 



Harding and White Bridge Geometric Impr. Study



**Traffic Demand Management strategies** 



950 Parking Spaces (43% increase over original plan)

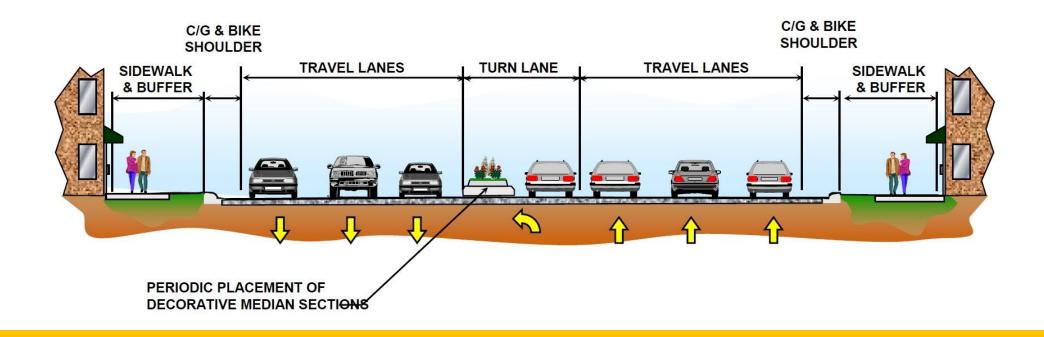


#### Major Collector Street Plan (MCSP)

- The Major Collector Street Plan (MCSP) is a planning documents that was developed to guide the growth and development of Nashville.
- T5-M-AB6
  - Mixed use
  - Arterial Boulevard
  - 6 lanes

# Geometric Study for Improving Harding Pike & White Bridge Pike

Developments will fund an NDOT study to perform a preliminary design & feasibility study to widen Harding Pike through the intersection with White Bridge Road. NDOT will submit this as a request in this year's Capital Improvement Budget (CIB).



### **Traffic Adaptive Signal Control**



**Upgrade traffic signal & communication infrastructure** to accommodate smart traffic control technology at multiple intersections along Harding Pike.



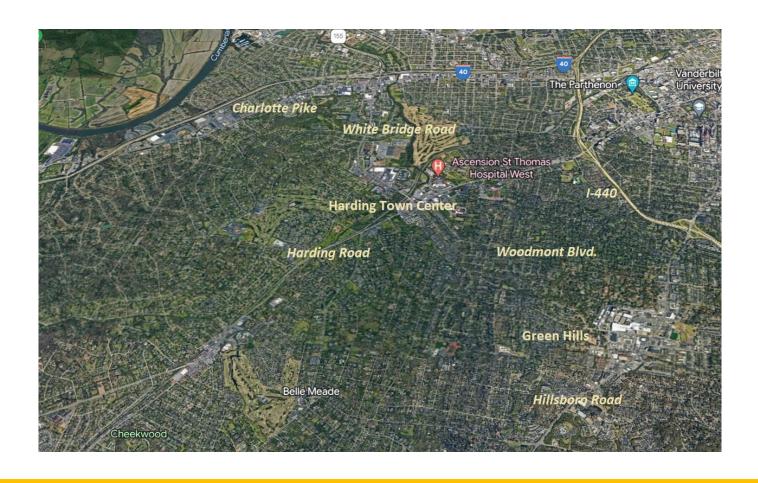
#### **Neighborhood Traffic Calming Study**

- Developments will make financial contributions to NDOT's traffic calming program.
- NDOT will work with
   District Council Members to
   identify appropriate study
   boundaries for a
   comprehensive analysis of
   the surrounding
   neighborhoods.



#### Regional Mobility Study

- Developments will make financial contributions to NDOT's to fund a larger regional mobility study to include preliminary engineering.
- NDOT will work with District Council Members to identify appropriate study boundaries for a comprehensive regional analysis.



## THANK YOU!



#### NDOT



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