#### HNTB



# SR 24 (Archer Road) to SR 26 (Newberry Road)



## HNTB Agenda







- Need For Project
- Background
- Decision Making
  - Number And Type of Lanes
  - Locally Preferred Alternative Alignment
- Next Steps



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# **Need For Project**





## **Relieve Congestion**





## No Build Level of Service



## LOS C-D









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## Connectivity











## Pedestrian Access to Transit



## Bus Stops Impeding Traffic Flow











## **Consider Additional Signals**











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## Promote Pedestrian and Bicycle Safety











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# Background



## Integration Of Legacy Projects



 Builds On Prior Projects But Requires Analysis "Without Prejudice To Prior Studies" As Part Of NEPA

SW 62<sup>nd</sup> Boulevard/SW 24<sup>th</sup> Ave/SW 40<sup>th</sup> Blvd



#### Student Village Option "M"



## **North of Southwest 20th Avenue**



























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## **Decision #1**

# Number And Type of Lanes







## Alternative Section – Dedicated Bus Lane





#### **Alternate Section – Median Transit** HNTB



## **Alternate Section – Two Lane (Phase)**



## Four Lane Typical Section









#### **Advantages**

- Satisfies Objectives of Project
- Meets LOS Standard in Design Year
- Provides Congestion Relief

#### Disadvantages

- Requires Additional Rights of Way
- Costs To Construct
- Environmental Consequences



## **Transit Analysis**









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	Base Year		2025	
And the A	No BRT	BRT	No BRT	BRT
North Segment	6 500	7 600	3,400	3,600
20th Ave. Segment	0,000	.,	8,100	8,700
South Segment	700	700	1,000	1,100
East Segment	700	700	700	700
Total Ridership	7,900	9,000	13,200	14,100
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## **Transit Analysis**









- BRT Feasible On Both North and South Corridors
- Four Lanes Needed for Vehicle (Auto) Demand
  To Provide Adequate LOS
- More In Depth Analysis Will Be Needed If Applying For FTA Funding
- Specific Technology Will Be Determined In RTS BRT System Study





## Transit Typical Section



#### Advantages

- Supports Objectives of Project
- Supports Multi-modal System Development
- Supports RTS Long-Term Transit System Vision

#### Disadvantages

- Does Not Provided Adequate LOS For Automobile
- Requires Additional Rights of Way
- Costs To Construct
- Environmental Consequences



## Two Lanes on New Location Only



#### **Advantages**

- Supports Objectives of Project
- Costs

#### Disadvantages

- Does Not Provided Adequate LOS
- Requires Additional Rights of Way
- Environmental Consequences





## Change In System Capacity South of SW 20<sup>th</sup> Ave.



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## Change in Travel Time (Minutes)



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## **Decision # 2**

## **Locally Preferred Alignment**



## **Alternative Alignments**







# 1. Four-Lane Urban And 2+2 BRT Section

- Same Right-of-Way Needed
- Identified Critical Environmental Or Cost Issues
- Four Alternative Alignments
- 2. Alternatives To Avoid Or Minimize Impacts
  - Changed Typical Section Or Alignment As Needed
  - Reduces Impacts and Costs
  - I6 Alternative Alignments Four Presented
- 3. Phased Solution
  - **1. Two-Lane Alignments For New Construction**
  - 2. Two Alternative Alignments
  - **Results in 22 Alternative Alignments**
- Applied Same Evaluation Factors And Level of Detail To Each Alignment

#### North of SW 20<sup>th</sup> Avenue HNTB











## **Corridor 1 - Initial Alignment**





## **Corridor 3 – Initial Alignment**





## **Corridor 2 – Initial Alignment**





## **Corridor 2 – Two-Lane Alternative**



## **Corridor 4 – Initial Alignment**







## Alternative Section – Dedicated Bus Lane

**Corridor Alternatives 1, 2, and 3** 



## Alternate Section – Median Transit

## **Corridor Alternative 4**

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Southwest 62<sup>nd</sup> Boulevard Connector **Multimodal Operations – Four Lane Min** HNTB Bike **Pedestrians** Transit Vehicles 1 2 3 3 4 4 47



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## Costs - Four Lane (22-ft Median)



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## Costs - Four Lane (22-ft Median)



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## **Costs – Four Lane Urban (Min)**



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## **Costs By Segment – Four Lane Urban (Min)**



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## Phased Construction – New 2-Lane Only











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## **Next Steps**



#### **Next Steps** HNTB









#### **Stakeholder Coordination**

- MTPO Design Team 10/21
- MTPO Committees 10/28-10/29
- City Commission 11/6
- MTPO Board- 11/13
- Documentation
  - Preliminary Engineering Report
  - Section 4(f) Determination
  - Environmental Assessment
- **Public Hearing** 
  - March 2009
- **FHWA Approval** 
  - June 2009

## **Next Steps**



2007 2008 2009 2010 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 **Corridor Study** (June 2007- February 2008) **Project Development And Environment Study** (December 2008 - June 2009) **Interim Project Design** (Nov 2008 - August 2009) **Interim Project Construction** (August 2009 – TBD) No Corridor Design, Right **Corridor Design** of Way, or Construction (TBD) **Phases Are Funded At This Time Corridor Right of Way** (TBD)

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# SR 24 (Archer Road) to SR 26 (Newberry Road)



## **Corridor 1 - Throughput**











## **Corridor 3 Throughput**











## Corridor 2 Throughput











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## Corridor 2 – Two Lane Throughput











## **Corridor 4 Throughput**











## **Corridor 4 – Two Lane Throughput**











## Change in North South Throughput/Capacity



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