

## 6.0 Alternative Investment Concept Analysis

An alternative concept analysis was conducted as part of Livability 2040 development to package the broad potential solution sets into various concepts. Building on identification of needs, the high-level analysis of alternative investment choices helped to develop a preferred investment direction before the plan development process moved into evaluation of projects. This type of analysis is often a key analytical and public involvement technique during this phase of plan development. The consequences of alternative investment choices on transportation system performance are analyzed by applying the performance measures that link directly to the RTP's goals and objectives.<sup>18</sup>

The analysis was used to illustrate the benefits of two "bookend" investment concepts that emphasize two different directions for the region:

- **Regional Roadway Connections** – This concept emphasized a radial, highway-focused investment strategy, consistent with past development; and
- **Expanded Travel Options** – This concept emphasized a "livability" grid system to improve connections between decentralized employment centers and the regional core, and to each other.

The alternative concepts were not built upon actual projects but rather were considered at a high, conceptual level for comparison and discussion. The RTPAC helped define the options through their input, identifying concepts that made sense within the regional context. Their intent was to advance policy discussions around the mobility and livability corridor analysis summarized in Section 4.7.

The alternative investment concepts were developed as two distinct options for advancing consideration of the mobility/livability corridor concept within Livability 2040. These concepts relate to the long term vision of the RTP and were used to help guide investment decisions for the financially-constrained plan.

### 6.1 Regional Roadway Connections

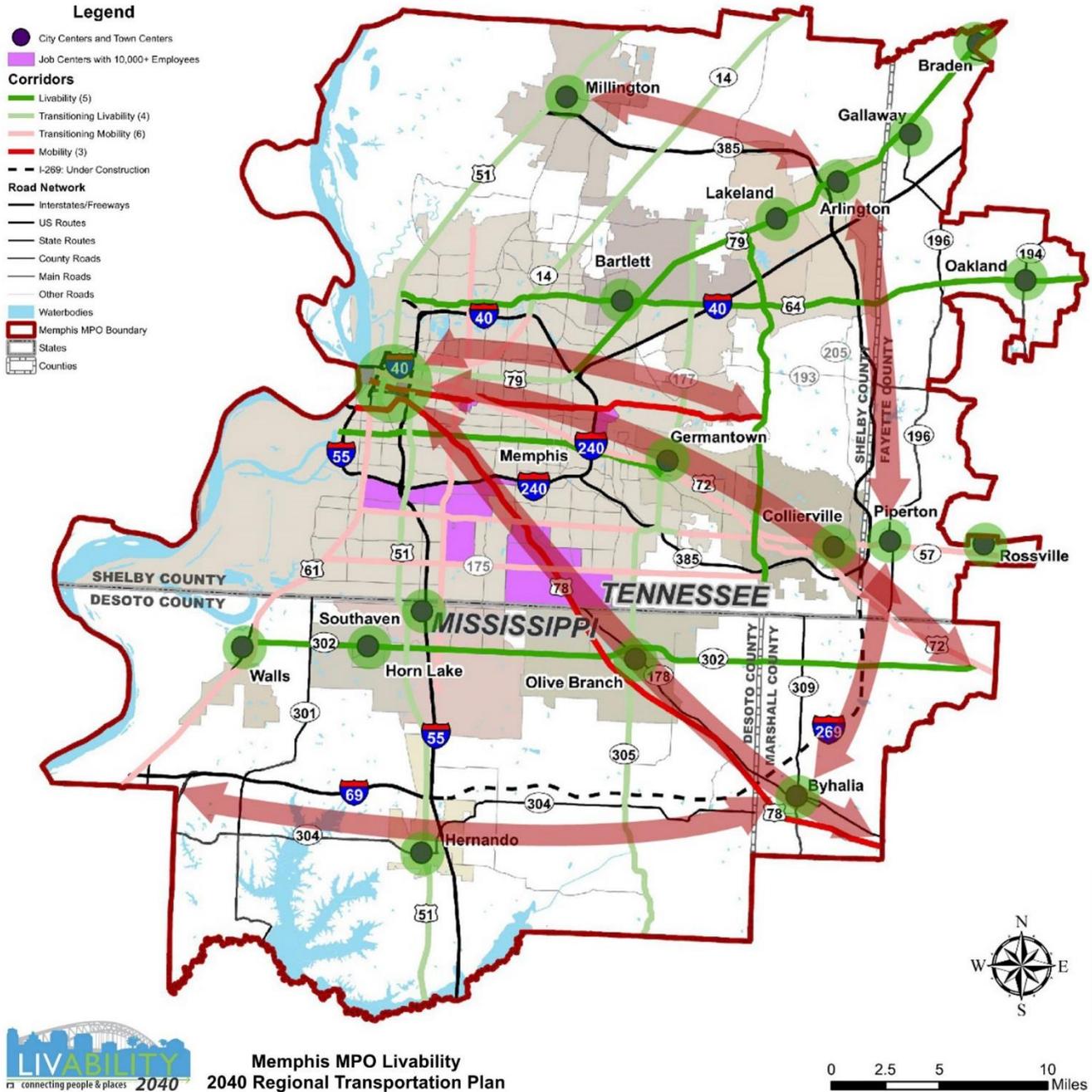
This concept focused on a radial development and investment strategy, recognizing the trend of outward growth that is extending linearly along major transportation corridors, including:

- Upgrading a strategic set of radial corridors with focus on improving roadway level of service for autos and freight;
- Maximizing delay reduction for autos and freight along key radial corridors to improve connections between the regional core and decentralized employment and activity centers; and
- Targeting multimodal investment within employment and activity centers to improve multimodal access for current businesses and increase attractiveness for new businesses and development.

<sup>18</sup> FHWA, *Model Long - Range Transportation Plans: A Guide for Incorporating Performance-Based Planning*, 2014.

Potential investment areas are highlighted in **Figure 6.1** as an illustrative concept only. Red denotes a mobility focus, with green a livability focus.

**Figure 6.1 Potential Investment Areas –  
Regional Roadway Connections Concept**



## 6.2 Expanded Travel Options

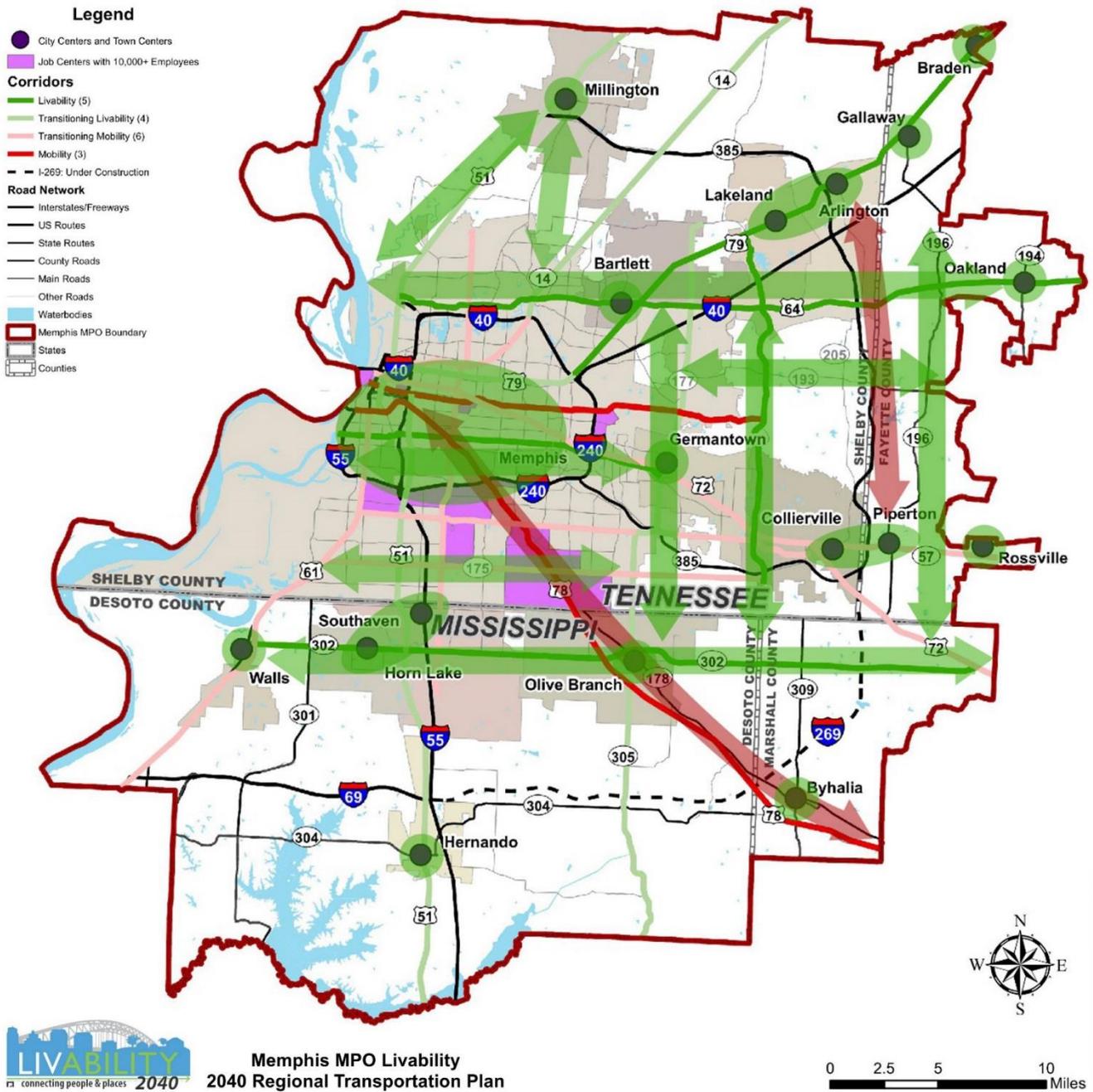
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This concept moves toward a regional “livability” grid system to improve connections between decentralized employment centers and the regional core, and to each other, focusing on:

- Aligning investment approach to incorporate a regional grid system that improves upon the current radial pattern of the transportation network;
- Modifying facility design along key north-south connections to maximize multimodal level of service;
- Providing more connections within the system to disperse traffic along an expanded grid that channels commute/freight traffic to corridors that maximize delay reduction and non-commute travel to corridors that maximize safe, multimodal access to community resources.

Potential investment areas are highlighted in **Figure 6.2** as illustrative concept only. Red denotes a mobility focus, and green a livability focus.

**Figure 6.2** Potential Investment Areas –  
Expanded Travel Options Concept



## 6.3 Comparison of Alternatives

The performance impacts of each concept are presented in **Table 6.1** on a relative scale from “low” to “high” for criteria that align with the RTP’s goals and objectives. At this level of analysis, simplified performance measures were identified that related to the project-level performance measures identified in Section 3. The assessment of these measures for each high-level concept utilized local knowledge and results of the needs analysis and existing and future conditions assessment.

*Both ETC and TPB members confirmed Concept Two – Expanded Travel Options as the preferred direction for the region based on the assessment and ongoing input from the public.*

The results of the high-level performance assessment were used to help guide the ETC and TPB in making a decision on the preferred direction for the Memphis MPO region. Both ETC and TPB members confirmed **Concept Two – Expanded Travel Options** as the preferred direction for the region based on the assessment and ongoing input from the public.

**Table 6.1 Alternative Investment Concept Performance Assessment**

MAP-21 Goals	Criteria	Concept One: “Regional Roadway Connections”	Concept Two: “Expanded Travel Options”
Infrastructure Condition	Limits long-term maintenance burden	○	●
Safety	Improves multimodal safety	◐	●
Economic Vitality/Freight Movement; Environmental Sustainability	Provides new facility coverage (by mode) – roadway	●	◐
	Provides new facility coverage (by mode) – transit	○	◐
	Provides new facility coverage (by mode) – bicycle/pedestrian	◐	●
Environmental Sustainability	Limits environmental and social impacts	◐	●
Environmental Sustainability	Improves access for disadvantaged populations	◐	●
Environmental Sustainability	Reduces VMT	○	◐
Environmental Sustainability; Economic Vitality/Freight Movement	Provides additional complete streets	◐	●
Congestion Reduction/System Reliability; Economic Vitality/Freight Movement	Reduces congestion and delay for autos and trucks	●	◐

● High   ◐ Medium   ○ Low