# Memo

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| Date: | Tuesday, September 30, 2025 |
| Project: | WE-STEP |
| To: | Jim Boerner, MAPA |
| From: | Jason Carbee, HDR |
| Subject: | Scenarios Evaluation with 2050 Travel Demand Model |

The purpose of this memorandum is to summarize the sufficiency of the recommendations of the Western Sarpy Transportation Enhancement Plan (WE-STEP) in relation to the updated 2050 MAPA Travel Demand Model (TDM), which became available in September 2025. Recent decisions on the proposed location for a new Interstate 80 (I-80) interchange in the study area are also discussed.

## Background

WE-STEP was adopted by its partner agencies in December 2024. WE-STEP's intent is to provide a transportation framework to support the rapidly growing communities of western Sarpy County. While many of the recommendations that came out of the plan were policy related, one of the central pieces of WE-STEP was developing future road network typologies and the future WE-STEP network map. The network map is shown in **Figure 1**.

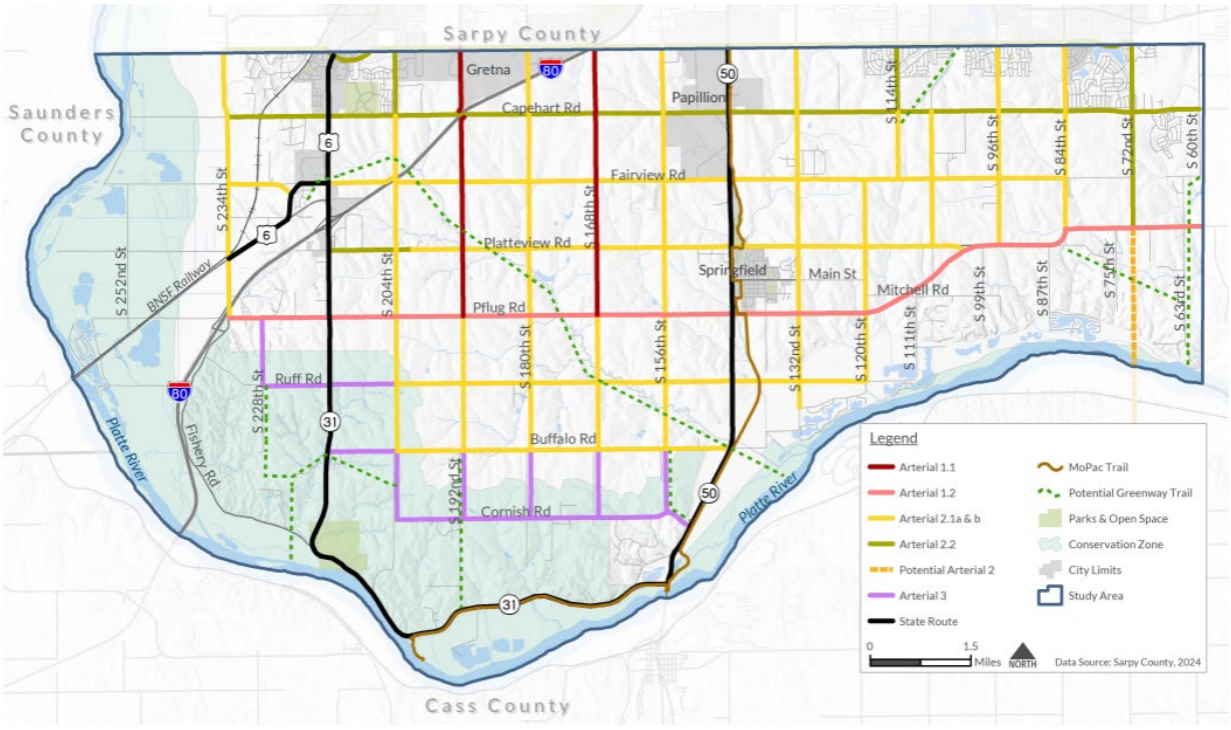


**Figure 1. WE-STEP Network Map**

The WE-STEP network map and typologies were designed to be flexible and multimodal in nature, to be resilient to future land use and travel patterns changes. As a reminder:

- **Arterial 1.x**: Arterial 1 corridors are intended to provide the highest degrees of mobility and support long distance travel. The ultimate design for Arterial 1.1 (168th Street and 192nd street north of Pflug Road) is a maximum of six lanes and a ROW width of 150 feet with turn lanes, and a 12-foot shared use path.
- **Arterial 2.x**: Arterial 2 corridors connect major areas of activity within and between western Sarpy's communities. The ultimate design for Arterial 2.1 is a maximum of four lanes and a ROW width of 110 feet and a 12-foot shared use path.

Since the WE-STEP plan was adopted in December 2024, two major planning activities have occurred:

- **2050 MAPA TDM**: The updated 2050 MAPA travel demand model became available in September 2025. This model includes the latest assumptions of future land use and traffic growth across the metro area by 2050, and includes the WE-STEP study area.
- **New I-80 Sarpy County Interchange**: Planning work has advanced to the point where the Nebraska Department of Transportation (NDOT) has recently announced that 192nd Street is the location it will move forward with for design and construction of a new I-80 interchange, which is located in the WE-STEP study area. The general location of this interchange is shown in **Figure 2**.

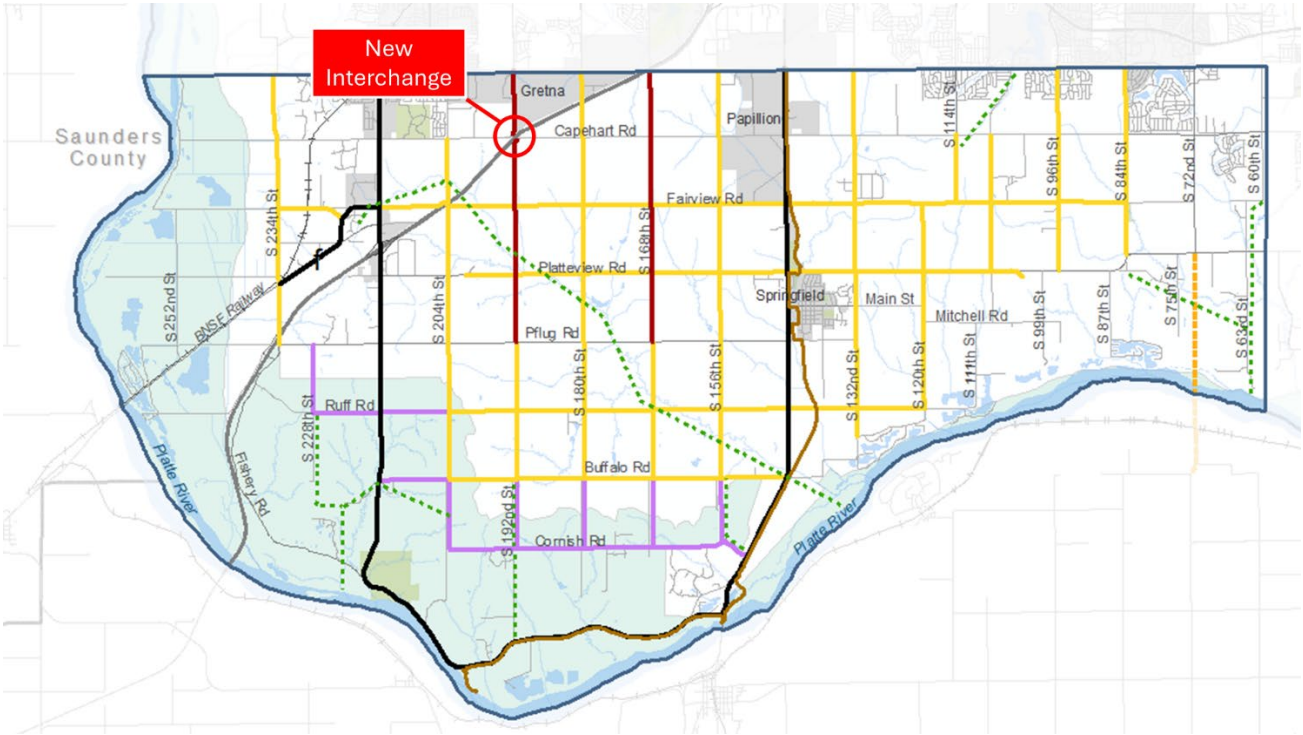


**Figure 2. Generalized 192nd/I-80 Interchange Location**

The remainder of this memorandum discusses how these two factors align with the WE-STEP plan.

## 2050 TDM Land Use and Travel Forecasts

The 2050 TDM assumes significantly less overall population, housing, and job growth than the 2045. This is due to decreasing birth rates and immigration both regionally and nationally, leading to MAPA adopting a regional control total that only assumes 19% growth in households and jobs by 2050. Past models have assumed growth rates typically around twice those levels. Thus, overall regional travel is also showing less growth than the 2045 model showed.

The allocation of household growth and employment growth are documented in **Figure 3** and **Figure 4**. The base year traffic volumes and forecasted 2050 traffic volumes are shown in **Figure 5**; this figure labels several of the key corridors demonstrating relatively high daily traffic volumes anticipated for 2050.

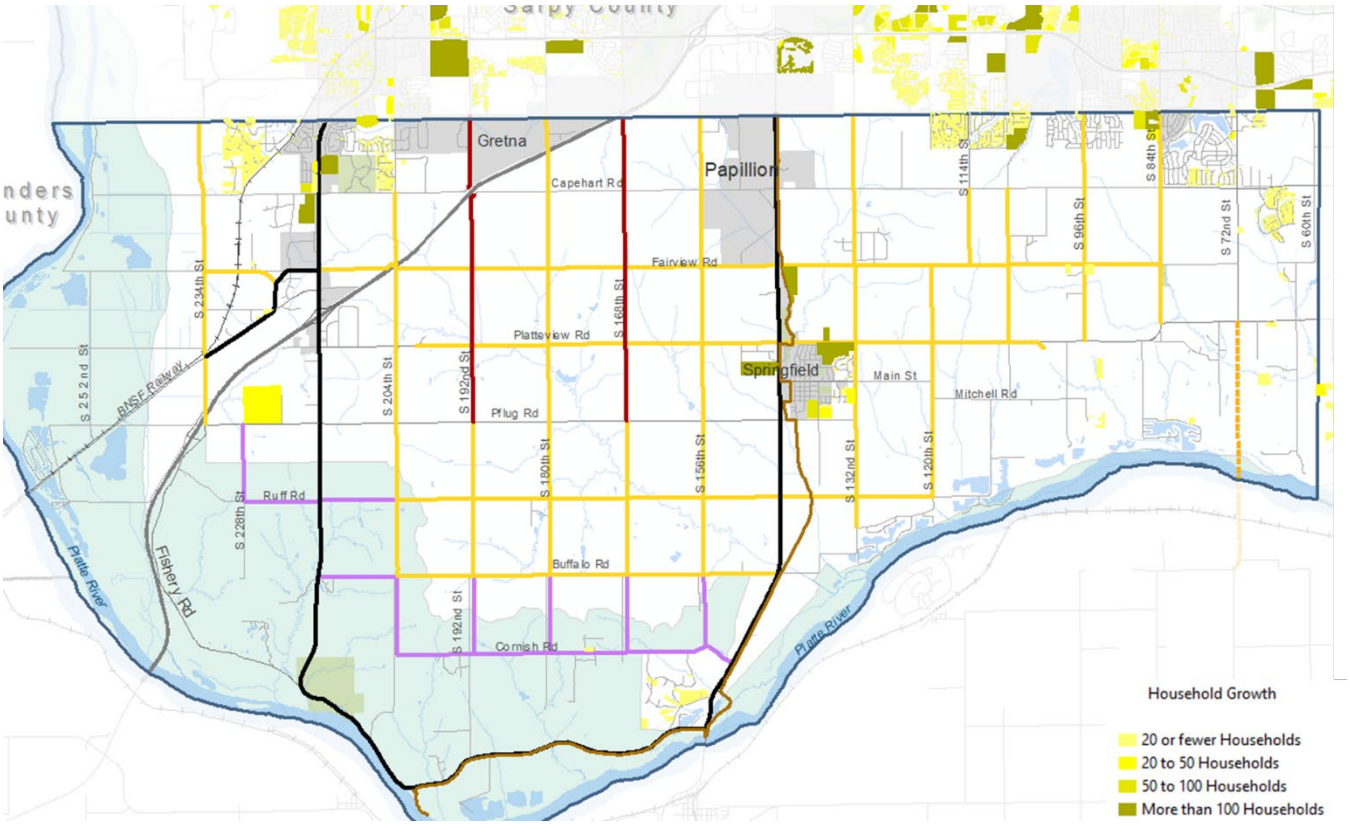


**Figure 3. MAPA TDM Household Growth Allocation, 2023-2050**

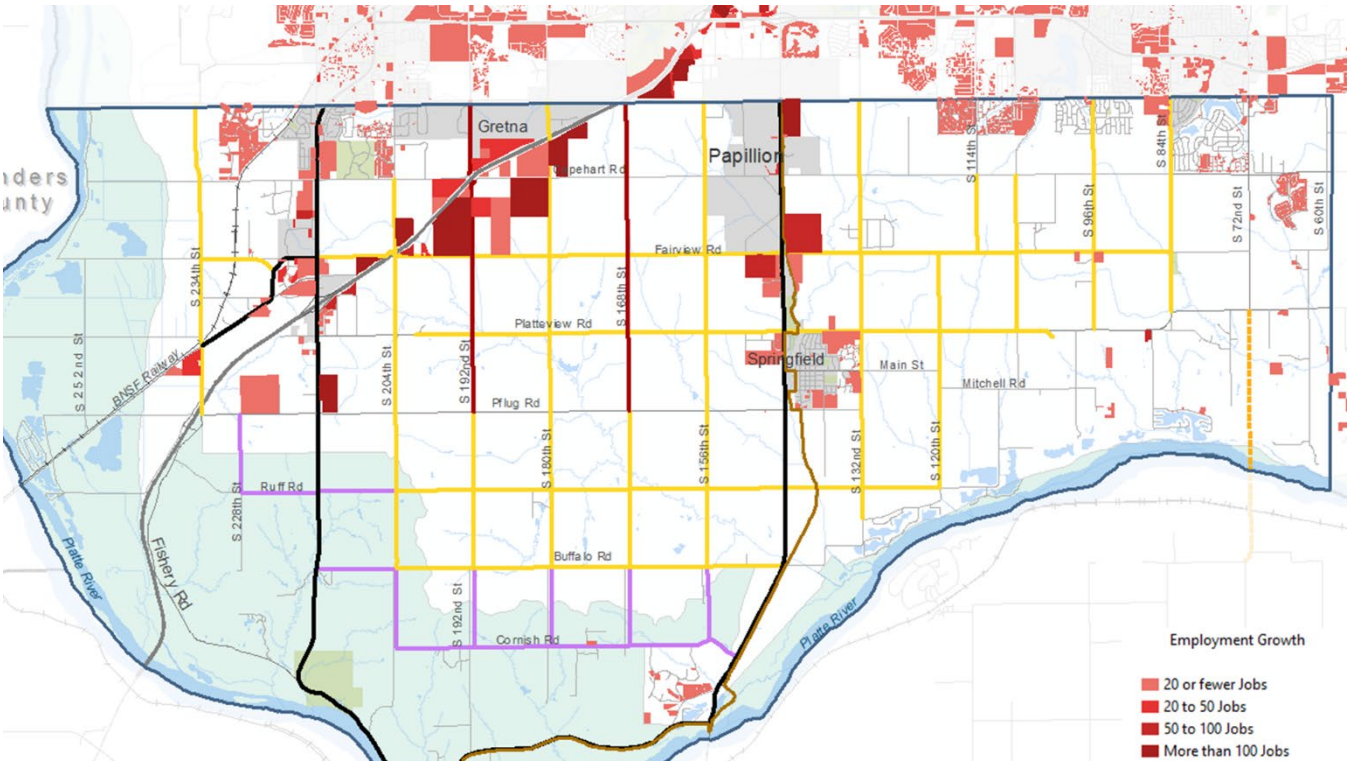


**Figure 4. MAPA TDM Employment Growth Allocation, 2023-2050**

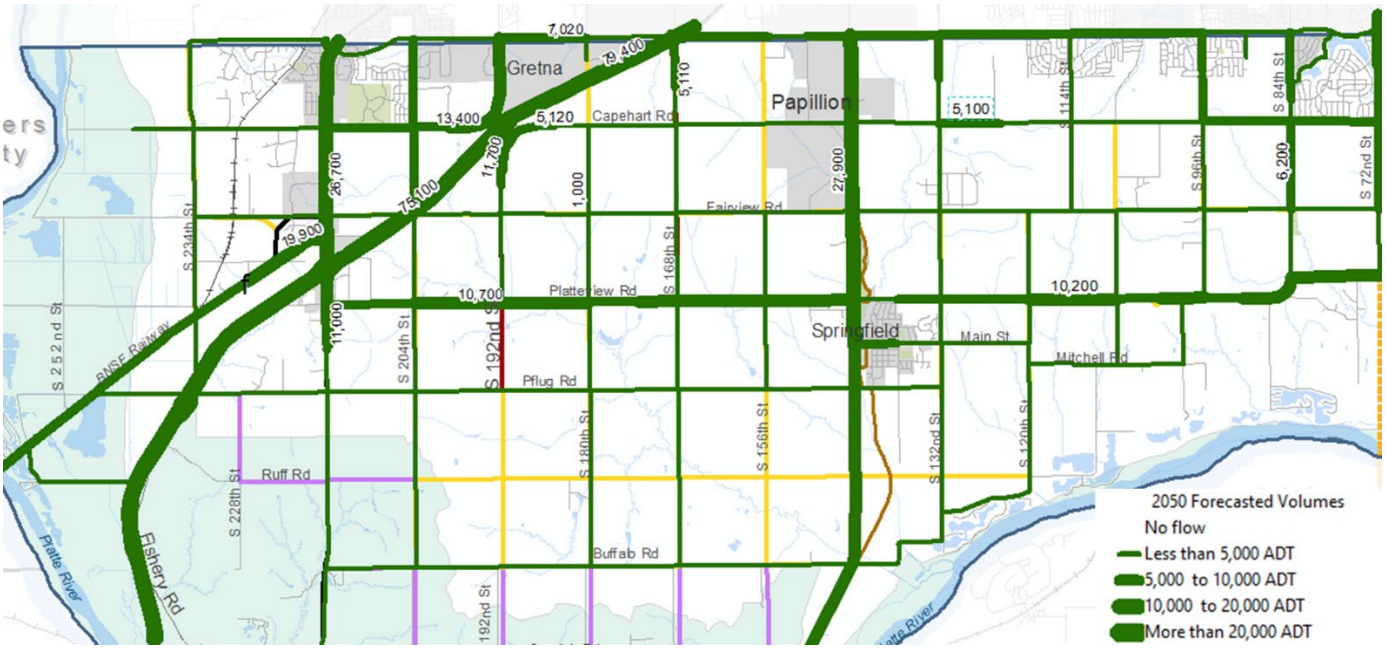


**Figure 5. 2050 Forecasted Traffic Volumes**

## Discussion

This evaluation indicates that the WE-STEP planned network is sufficient to successfully accommodate the recent updates to the 2050 traffic forecasts and newly committed I-80/192nd Street interchange.

- **Network Sufficiency**: As shown in **Figure 5**, traffic volumes through most of the currently undeveloped WE-STEP study area arterials are forecasted to be less than 15,000 ADT in 2050. Typical daily capacities for different arterial types (3-lane, 4-lane divided, and 6-lane divided) are shown below in **Figure 6**[1]. As all arterial corridors have a planned ultimate cross-section of at least 4-lanes, *the WE-STEP network plan should accommodate forecasted traffic volumes well beyond 2050*.

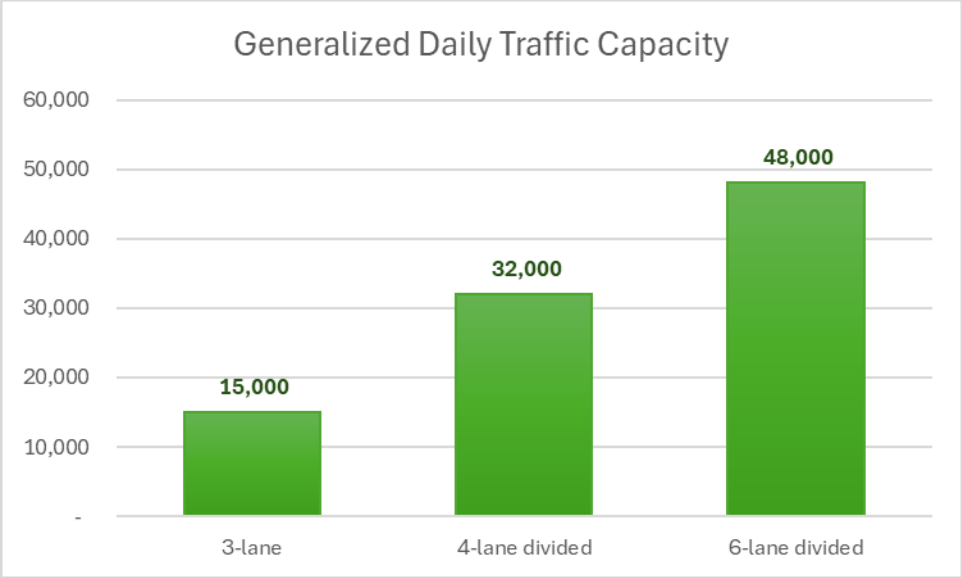


**Figure 6. Typical Daily Capacities by Arterial Type**

- **Network Plan Monitoring**: MAPA revisits their Long Range Transportation Plan every five years, and as this study area continues to urbanize, land use and traffic projections could change.
    - It is recommended that as TDM scenarios change, the WE-STEP network plan be re-evaluated for any necessary adjustments.
    - While volumes along 168th Street are shown relatively low with the 2050 TDM, 168th Street is identified as an Arterial 1.1 north of Pflug Road. In the past, 168th Street has been discussed as a potential I-80 interchange location. While that project is not anticipated for the foreseeable future, maintaining 168th as an Arterial 1.1 makes sense from a future traffic operations and network resilience perspective.

[1] Capacities adapted from Florida DOT Quality Level of Service Tables, https://www.fdot.gov/planning/systems/systems-management/quality-level-of-service. These numbers are relatively consistent with MAPA modeled capacities, and represent typical daily traffic volumes where the indicated facility type will experience peak hour congestion at level-of-service F.