EXECUTIVE SUMMARY

Vision Capital Partners proposes a mixed-use development (the Project) located in the southwest corner of 95th Avenue and Missouri Avenue in Glendale, Arizona. In 2010, the Project originally proposed a mixed-use development of 710 multi-family dwelling units (DU), a 300-key hotel, 86,800 square feet (SF) of retail, and 1,374 KSF of office space. The development now proposes approximately 1,293 multi-family DU, a 300-key hotel, and approximately 108,900 SF of retail. Access to the site is provided by way of Missouri Avenue, 95th Avenue, 96th Avenue, Georgia Avenue, and Orange Drive.

CivTech, Inc. has been retained by Vision Capital Partners to perform the traffic impact study (TIS) for the proposed development. The purpose of this assessment is to address the traffic and transportation impacts of the proposed development on the surrounding streets and intersections.

The following conclusions and recommendations have been documented in this study:

GENERAL

- The proposed development is anticipated to generate 12,216 weekday daily trips, 705 (231 in/474 out) trips during the AM peak hour, and 971 (573 in/ 398 out) trips during the PM peak hour.

EXISTING

- The results of the existing conditions analysis indicate that all study intersections operate with acceptable levels of service (LOS D or better), with the exception **of 95th Avenue and Cardinals Way**.
    - The northbound and southbound overall approaches at 95th Avenue and Cardinals Way operate at LOS E during both AM and PM peak hours. The northbound approach operates with a delay of 57.9 seconds per vehicle during the AM peak hour and 59.8 seconds per vehicle during the PM peak hour. The southbound approach operates with a delay of 61.6 seconds per vehicle during the AM peak hour and 61.3 seconds per vehicle during the PM peak hour.

BUILD OUT 2025 AND 2030

- The results of the Synchro analysis indicate that most of the study intersections operate with overall acceptable levels of service (LOS D or better), with the exception of the following intersections.

- The signalized intersection of **95th Avenue and Cardinals Way** experienced delay in the existing capacity analysis; therefore, delays were carried through into the no build and build scenarios of 2025 and 2030. In the 2025 build scenario, the intersection operates with an overall intersection delay of 32.4 seconds per vehicle during the AM peak hour and 34.3 seconds per vehicle during the PM peak hour. The intersection has delay in the northbound and southbound approaches during both AM and PM peak hours. The northbound approach operates with a projected delay of 64.2 seconds per vehicle during the AM peak hour and 63.2 seconds per vehicle during the PM peak hour. The southbound approach operates with a

projected delay of 60.7 seconds per vehicle during the AM peak hour and 61.9 seconds per vehicle during the PM peak hour.

  - In the 2030 build scenario, the intersection operates with an overall intersection delay of 32 seconds per vehicle during the AM peak hour and 33.8 seconds per vehicle during the PM peak hour. The intersection has delay in the northbound and southbound approaches during both AM and PM peak hours. The northbound approach operates with a projected delay of 64.4 seconds per vehicle during the AM peak hour and 63.7 seconds per vehicle during the PM peak hour. The southbound approach operates with a projected delay of 61 seconds per vehicle during the AM peak hour and 62 seconds per vehicle during the PM peak hour.

  - Due to the intersection having unacceptable delay in the existing condition and background scenario, the developer is not responsible for mitigation recommendations at the intersection. To mitigate the delay at the intersection during the peak hours it is recommended that the cycle length of the signal be adjusted to 120 seconds from 140 seconds. With the cycle length adjustment, in the build scenario of 2025, the intersection operates with a decreased overall intersection delay of 29.2 seconds per vehicle in the AM peak hour and 31 seconds per vehicle in the PM peak hour. The intersection has delay in the northbound approach, operating with a projected delay of 50.3 seconds per vehicle during the AM peak hour and 51.1 seconds per vehicle during the PM peak hour. The intersection has delay in the southbound approach, operating with a projected delay of 50.1 seconds per vehicle during the AM peak hour and 51.5 seconds per vehicle during the PM peak hour.

  - With the same cycle length adjustment applied to the build scenario of 2030, the intersection operates with a decreased overall intersection delay of 29.1 seconds per vehicle in the AM peak hour and 30.9 seconds per vehicle in the PM peak hour. The intersection has delay in the northbound approach, operating with a projected delay of 50.3 seconds per vehicle during the AM peak hour and 51.4 seconds per vehicle during the PM peak hour. The intersection has delay in the southbound approach, operating with a projected delay of 50.3 seconds per vehicle during the AM peak hour and 51.5 seconds per vehicle during the PM peak hour.

- The signalized intersection of **95th Avenue and Camelback Road** experiences delay in both 2025 and 2030 build conditions during the PM peak hour. In 2025, the intersection has delay in the southbound approach. The southbound approach operates with a projected delay of 64.1 seconds per vehicle during the PM peak hour.

  - In 2030, the intersection has delay in the southbound approach with a projected delay of 70.1 seconds per vehicle during the PM peak hour and delay in the eastbound approach of 76.6 seconds per vehicle during the PM peak hour.

  - To mitigate the delay at the intersection during the PM peak hour it is recommended that the signal timing be adjusted by reallocating green time from movements with less delay to the movements that have unacceptable delay. With the same mitigation

measures in the 2025 and 2030 build scenarios, the intersection experienced a decreased delay in both the southbound and eastbound approaches during the PM peak hour.

- With signal timing adjustments in 2025, the southbound approach operates with a delay of 46.8 seconds per vehicle and 38 seconds per vehicle in the eastbound approach in the PM peak hour. In 2030, the southbound approach operates with a delay of 52.3 seconds per vehicle and 51.4 seconds per vehicle in the eastbound approach in the PM peak hour.

TURN LANE NEEDS

- **Figure 11** illustrates the turn lanes needed based on the turn lane analysis performed at the proposed intersections and driveways.
  - It is recommended that exclusive right-turn lanes be implemented in the westbound approach at the intersection of **Access G and Orange Avenue**.
  - It is recommended that exclusive left-turn lanes be implemented in the northbound approaches at the intersection of **95th Avenue and Georgia Avenue**, **96th Avenue and Access B**, and **96th Avenue and Access F**.

QUEUE STORAGE

- The recommended storage lengths are provided for study horizon year 2030 using the total traffic projections.

SIGHT DISTANCE

- Unobstructed sight visibility should be provided and maintained at all driveways according to the distances calculated and the sight triangles at public intersections shall be maintained at all times. Any vegetation and/or trees within the sight distance triangles shall be maintained according to City of Glendale requirements.

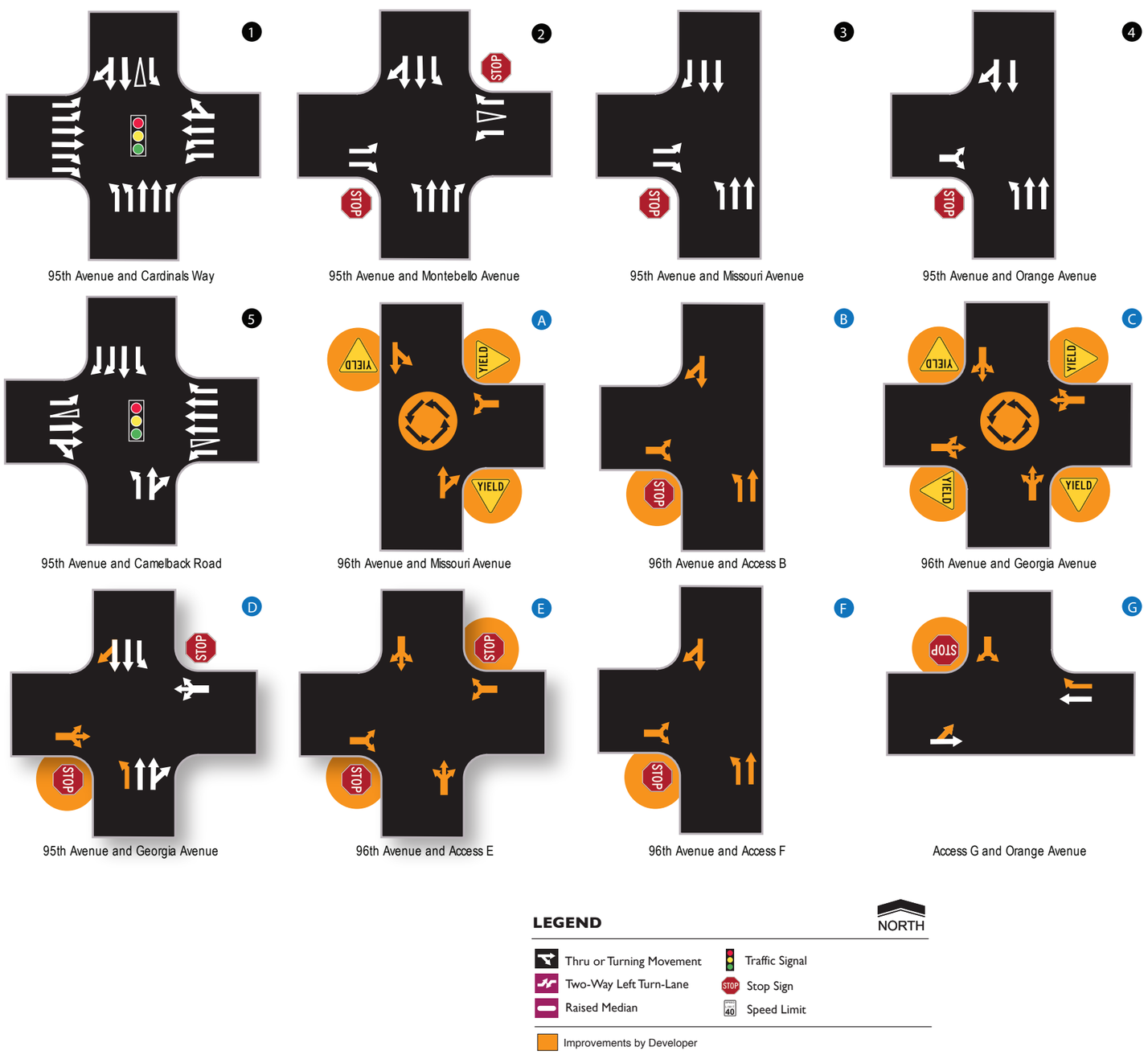

Figure 11: Proposed Lane Configurations and Traffic Controls