

3.3. Project Trip Generation

For the purposes of estimating the number of new trips that are anticipated to be generated by the proposed charter school expansion, the Regional Transportation Commission of Southern Nevada’s (RTC) *School Trip Generation Study* (prepared by Kimley-Horn, dated June 2020) was used (excerpt provided in **Appendix D**). The study compared calculated trip generation based on data collection at existing schools to the trip generation provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. The ITE *Trip Generation Manual* informational report is a standard reference used by jurisdictions throughout the country and is based on actual trip generation studies performed at numerous locations in areas of various populations. The trip generation rates from the *School Trip Generation Study* were used as they are understood to be more reflective of the school trip generation characteristics in the City of Las Vegas.

The proposed development is anticipated to generate 604 AM and 465 PM net new peak hour trips during the school peak periods, as summarized in **Table 1**.

Table 1 – School Trip Generation

Description	Size	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Existing Use Southern Nevada Charter School (K-8)	215 Students	125	99	224	96	76	172
Proposed Use Southern Nevada Charter School (K-8)	796 Students	464	364	828	357	280	637
Net Change in Trips		+339	+265	+604	+261	+204	+465

Source: RTC School Trip Generation Study (prepared by Kimley-Horn, dated June 2020)

Based on our collected traffic volumes, the existing Sage Collegiate Public Charter School generated 117 inbound and 121 outbound for a total of 238 total trips in the AM peak hour and 88 inbound and 90 outbound for a total of 178 total PM peak hour trips, consistent with the results of the 2020 RTC School Trip Generation Study.

3.4. Project Trip Distribution

The study area street network characteristics, including the existing traffic patterns, expected street network, access to regional facilities (Charleston Boulevard, US-95, and I-15), existing traffic volumes at the project access drive (Drive B), and proposed pick-up/drop-off circulation plan, were used to determine the distribution of site-generated traffic. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site in the same or different direction. **Figure 6** shows the project trip distribution at the study area intersections and project access drives.

3.5. Project Traffic Assignment

Assignment of project traffic was obtained by applying the developed trip distribution in **Figure 6** to the estimated traffic generation in **Table 1**. Project traffic assignment is illustrated in **Figure 7** for the study area intersections and proposed project access drives. The entering and exiting trips at the project access drives are rounded to the nearest whole number when assigned. Therefore, the number of trips assigned to the project driveways in **Figure 7** may differ slightly from the total trip generation.