

The following conclusions were made regarding the Dakota Crossing Chick-fil-A development:

- A comparison of national trip generation rates for fast food restaurants with and without drive-throughs, and the trip generation actually observed at a comparable Chick-fil-a (with a drive-through) within the District showed that a Chick-fil-a would have similar vehicular trip generation to a fast food site without a drive-through. Thus, approving this use would not lead to a significant increase in trips during times of peak hours of use on the surrounding roadways, nor would it have a negative impact on surrounding roadways.
- The maximum amount of queuing anticipated at the site can be accommodated solely on the Chick-Fil-A parcel and will not negatively impact public space.

PROJECT OVERVIEW

This section provides an overview of the transportation features of the proposed development. The proposed project will include a 4,992 square foot fast-food restaurant building with indoor seating for approximately 94 customers, outdoor seating for approximately 26 customers, a child's play area, and 27 surface lot parking spaces. The fast-food restaurant will include a double-ordering queue drive-thru with queuing space for 36 vehicles. No walk-up window is proposed. Figure 4 shows the proposed ground-floor plan.

Queueing Analysis

The amount of queuing expected at the drive-through was based on data collected at other Chick-fil-A drive-throughs. Chick-Fil-A provided comparable data from similar sites including the maximum observed queue at each drive-through line. This information was used to estimate the max queue at the proposed development, and superimpose the estimated max queue onto the proposed site plan to ensure that the estimated max queue does not "spill back" into public space. Figure 5 shows the public and private right-of-way in the immediate vicinity of the site.

The comparable data, which is attached to this memo, included data collected at five (5) Chick-fil-A locations in Delaware, Maryland, New Jersey, Pennsylvania, and Virginia. All of these locations are of similar size to the proposed development and include dual drive-thru lanes, as is planned in the proposed development. Data collection was conducted from 7:00AM to 7:00PM on a weekday and a weekend at each of the sites, with max queue observations recorded every 15 minutes. The maximum observed queue at any of the five locations was 36 vehicles long (weekday at 1:00PM at the Maryland location). As is shown on Figure 4, approximately 36 vehicles can be accommodated in the drive-through queue on site. Thus, the maximum amount of queuing anticipated at the site can be accommodated solely on the Chick-Fil-A parcel and will not negatively impact public space.

Trip Generation

Several sources of information were used to develop vehicular trip generation projections for the site. The Institute of Transportation Engineers' (ITE) *Trip Generation*, 10th Edition, contains vehicular trip generation estimates for fast food restaurants with and without drive-throughs. In addition, Gorove/Slade conducted driveway counts at the Chick-fil-A located in the District at Maryland Avenue and 14th Street on Friday, September 15, 2017.

Table 1 shows trip generation estimates for three scenarios: (1) ITE's estimates for fast food restaurants without a drive-through, (2) ITE's estimates for fast food restaurants with a drive-through, and (3) the vehicular trip generation observed at

the Maryland Avenue location. Providing all three shows a comparison between both standard (ITE) data for fast food restaurants with and without a drive-through, and a specific data point for a Chick-fil-a (with a drive-through).

Trips estimated using ITE generation rates used data for “Fast Food Restaurant with Drive Through Window” (Land Use Code 934), and “Fast Food without Drive-Through” (LU Code 933). For this analysis, the methodology was supplemented to account for the use of non-auto modes of travel and to generate trips for non-auto modes. Non-auto mode split estimates were then developed using WMATA’s 2005 *Development-Related Ridership Survey*, consistent with other studies developed within the District of Columbia. The retail mode split for the development is anticipated to be 90% auto, 5% transit, 4% walking, and 1% biking.

As can be seen in Table 1, the number of trips generated with and without a drive-through, and the actual number of trips generated by an existing comparable site in the District are very similar. Thus, permitting the drive-through use would not lead to a significant increase in vehicular trip generation during peak times.

Table 1: Trip Generation Comparison for the Proposed Development by Mode

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Fast Food w/ Drive Thru ¹	93 veh/hr	88 veh/hr	181 veh/hr	76 veh/hr	71 veh/hr	147 veh/hr
	Fast Food no Drive Thru ²	68 veh/hr	45 veh/hr	113 veh/hr	63 veh/hr	64 veh/hr	127 veh/hr
	Maryland Ave CFA ³	63 veh/hr	67 veh/hr	130 veh/hr	53 veh/hr	55 veh/hr	108 veh/hr
Transit	Fast Food w/ Drive Thru ¹	9 ppl/hr	9 ppl/hr	18 ppl/hr	8 ppl/hr	7 ppl/hr	15 ppl/hr
	Fast Food no Drive Thru ²	7 ppl/hr	4 ppl/hr	11 ppl/hr	6 ppl/hr	7 ppl/hr	13 ppl/hr
	Maryland Ave CFA ³	NA	NA	NA	NA	NA	NA
Bike	Fast Food w/ Drive Thru ¹	2 ppl/hr	2 ppl/hr	4 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
	Fast Food no Drive Thru ²	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
	Maryland Ave CFA ³	NA	NA	NA	NA	NA	NA
Walk	Fast Food w/ Drive Thru ¹	7 ppl/hr	7 ppl/hr	14 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr
	Fast Food no Drive Thru ²	5 ppl/hr	4 ppl/hr	9 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr
	Maryland Ave CFA ³	NA	NA	NA	NA	NA	NA

(1)based on ITE Trip Generation 10th Edition for "Fast Food with Drive-Through" (LU Code 934)

(2)based on ITE Trip Generation 10th Edition for "Fast Food without Drive-Through" (LU Code 933)

(3)based on driveway counts during peak hour of generator (9:15am-10:15am and 5:15pm-6:15pm)

Parking

Under Subtitle C § 701.5, the parking requirement for Eating and Drinking Establishments is 1.33 parking spaces per 1,000 square feet, in excess of 3,000 square feet. The proposed development is required to provide three (3) parking spaces. The planned development will exceed the number of parking spaces required under zoning by providing a total of 27 parking spaces.

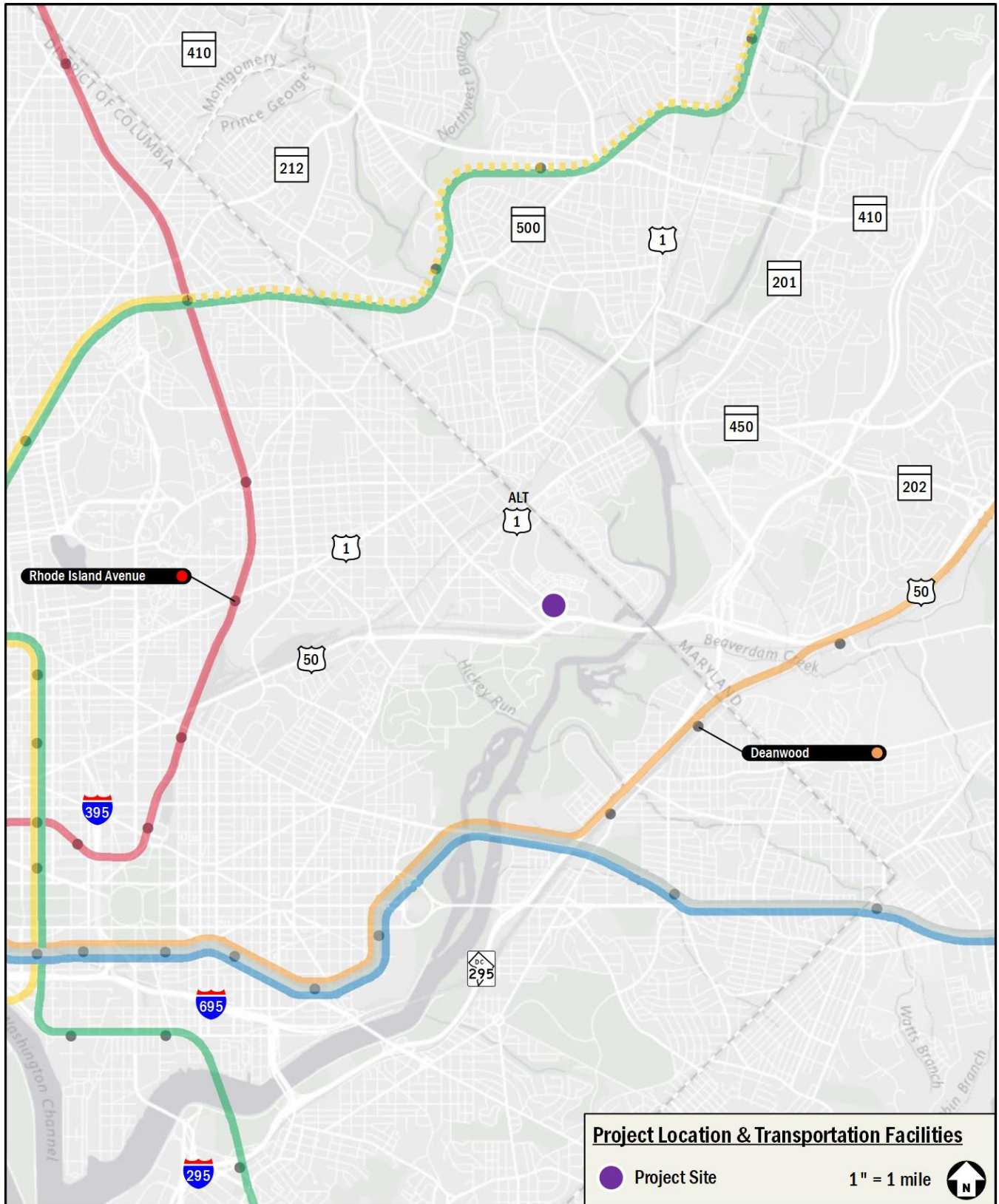


Figure 1: Regional Location

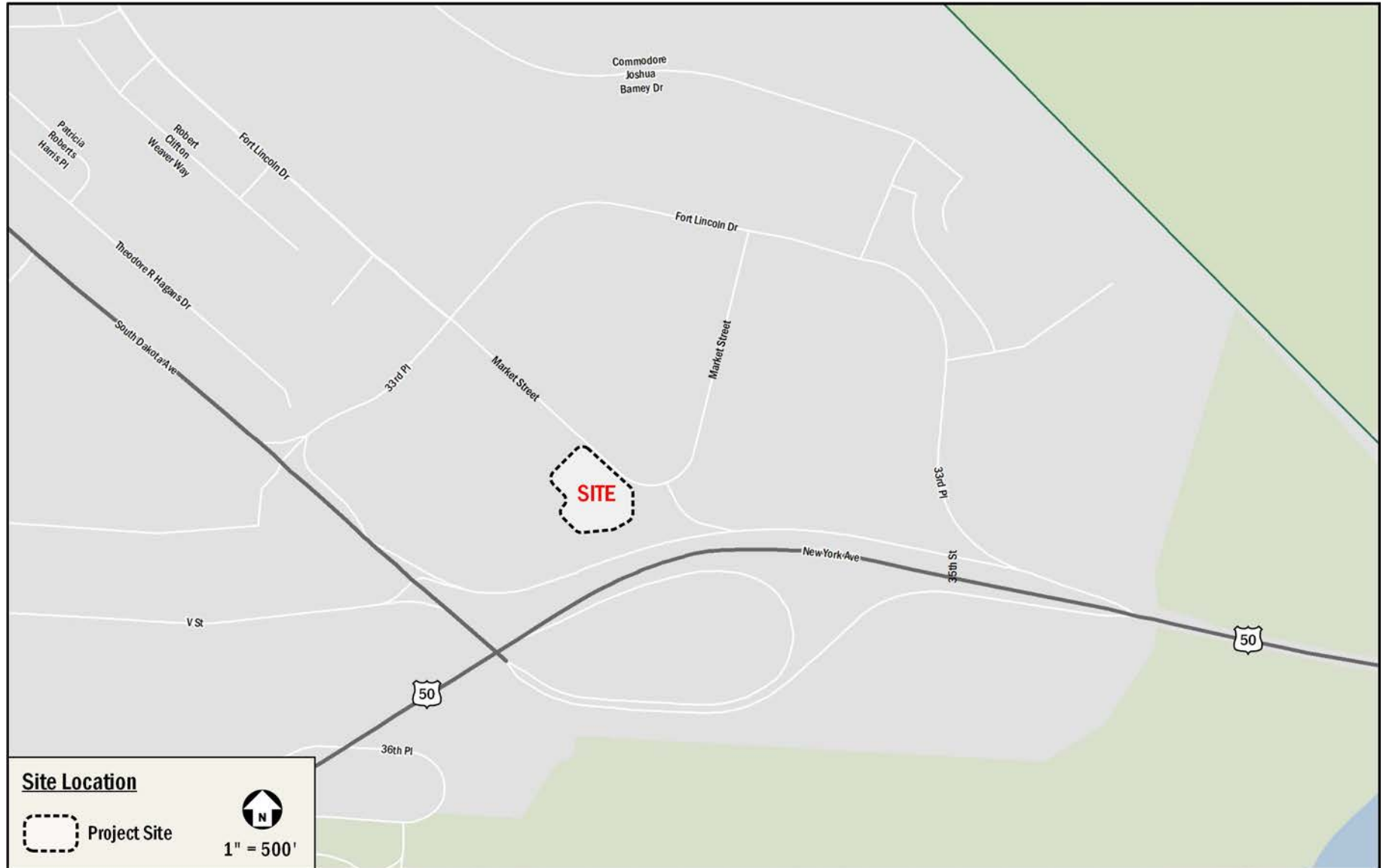


Figure 2: Site Location



Figure 3: Aerial

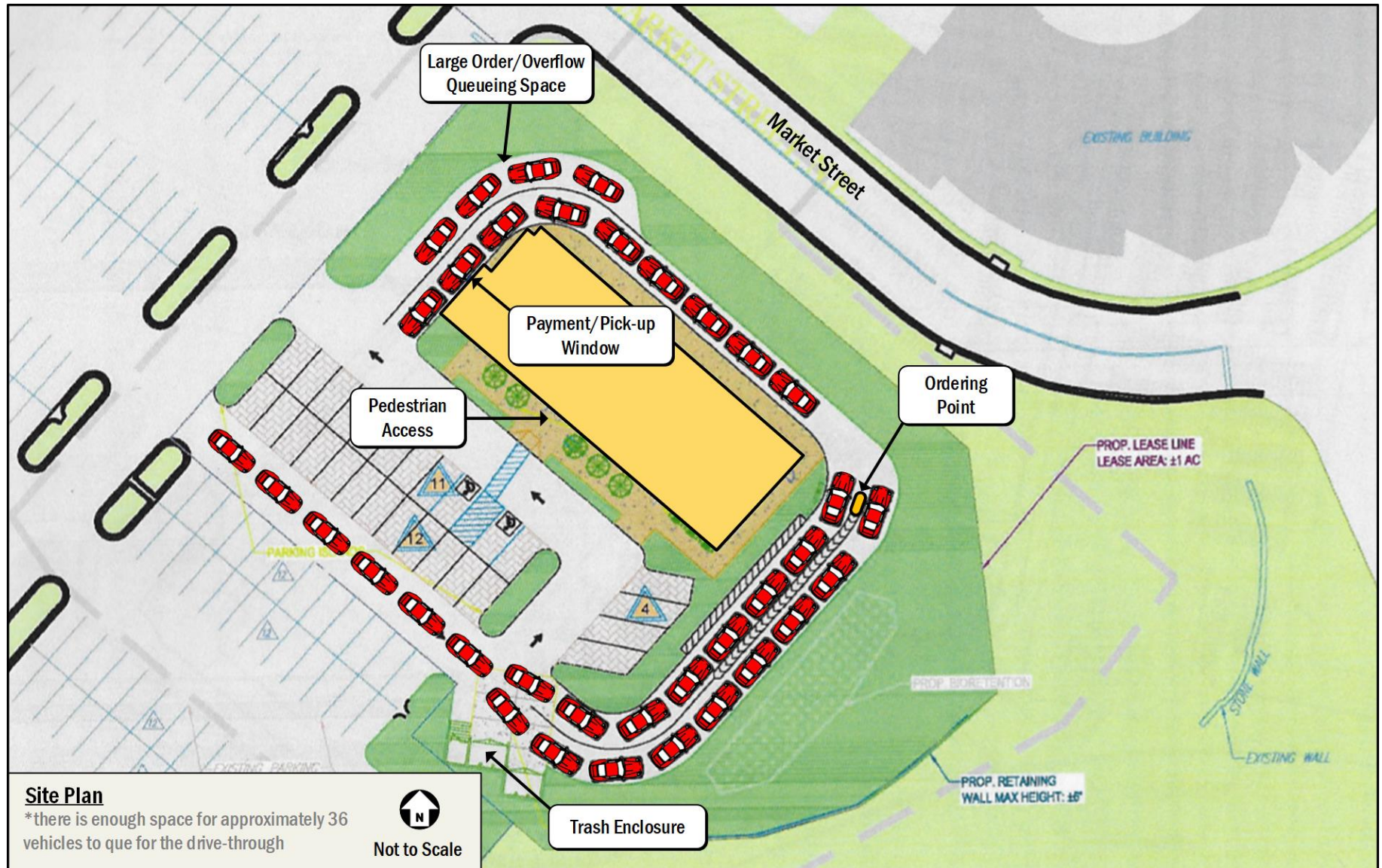


Figure 4: Site Plan

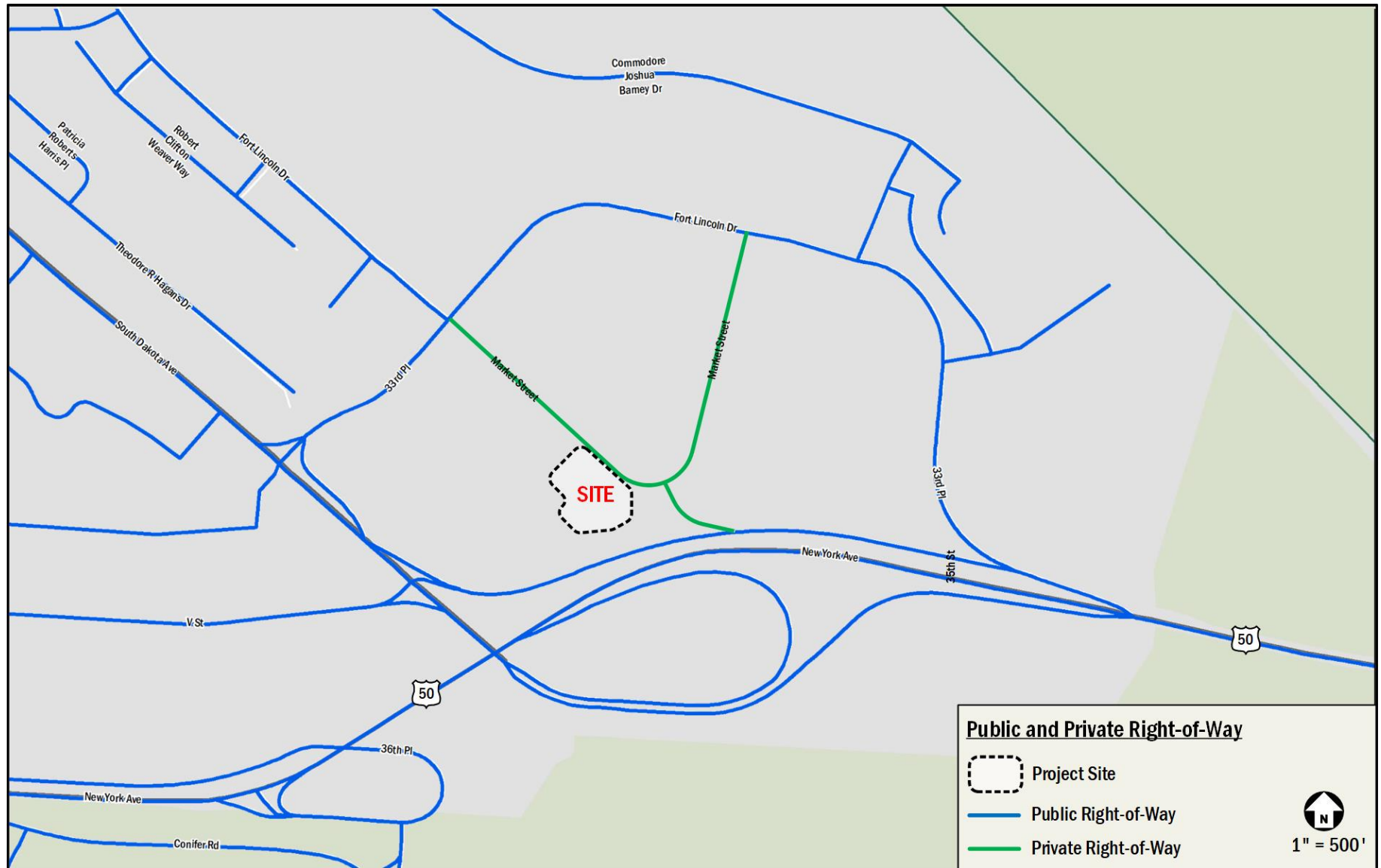


Figure 5: Public and Private Right-of-Way

TECHNICAL ATTACHMENTS

This report is supplemented by the following technical attachments:

- **Technical Attachment A: Multimodal Trip Generation**
Assumptions and calculation steps used to determine the site's projected trip generation
- **Technical Attachment B: Raw Vehicular Count Data**
Raw data showing vehicular driveway counts in 15-minute intervals passing through the study area; collected in September 2017
- **Technical Attachment C: Chick-fil-A Comparable Site Data**
Raw data showing bicycle traffic in 15-minute intervals passing through the study area; collected in September 2016