

TECHNICAL MEMORANDUM

To: Alisa Brem
Jeff C. Utz

EDENS
Goulston & Storrs

From: Daniel B. VanPelt, P.E., PTOE
Robert B. Schiesel, P.E.

Date: December 16, 2014 (**Revised January 5, 2015**)

Subject: 1309-1329 5th Street NE PUD Parking Demand Analysis

This memorandum summarizes a parking supply and demand analysis for the 1309-1329 5th Street NE PUD. It compares the parking demand generated by the uses on the site to the parking supply that will accommodate the demand. This analysis reviewed three scenarios:

1. The existing condition, with the existing Union Market building in place, served by the surface parking lot located immediately to the south (controlled by Gallaudet University and leased to EDENS).
2. The first phase of the PUD development, when the South Building opens, and parking demand will be served by the lot immediately to the south, or an interim lot on the north building site and street parking.
3. The second phase of the PUD development, when the North Building opens, and all parking demand is served by the North Building's new underground parking garage.

This memorandum reaches the following conclusion: **during all three scenarios studied, the parking supply is sufficient to accommodate demand.** This memorandum also includes a section reviewing potential parking options during the construction of the North Building. This memo concludes that several options for accommodating parking demand will be available, and that the parking supply and demand should be revisited during the Stage 2 PUD process for the North Building when more certainty is known on several key elements. Flexibility for office or residential is sought for both North and South Buildings, however, only office was assumed for the purposes of this analysis as it considers a worst case parking need.

Parking Demand

The parking demand analysis was based on methodologies contained in ULI's *Shared Parking 2nd Edition*, as the mixture of office, theatre and retail space will have different peak times of use. The shared parking methodology was adjusted to reflect the urban nature of the development site, and how the retail in the existing market and the planned North Building contains significant portions of restaurant-style use, which has a higher parking demand than general retail space.

The urban nature of the site was reflected by using peak parking demand ratios that are 25% of their suburban counterparts. This 25% figure reflects observations from Gorove/Slade's work in the District where excellent transportation opportunities exist, as is the case for the PUD site. The restaurant heavy use was accounted for by basing a percentage of

the peak parking demand on both shopping center and restaurant land use codes, and through adjusting the ULI shared parking curves so they represented a blend of retail and restaurant demand patterns.

Table 1 summarizes the peak parking demand assumptions used in the shared parking analysis.

Table 1: Summary of Parking Demand Assumptions

Land Use	Suburban Demand (Based on ITE <i>Parking Demand</i> , 4th Ed)	Assumed Demand (25% of suburban demand)
Existing Union Market	6.31 spaces per 1,000 SF <ul style="list-style-type: none"> 75% shopping center, 2.94 spaces per 1,000 SF, land use code 820 25% restaurant, 16.41 spaces per 1,000 SF, land use code 931 	1.57 spaces per 1,000 SF
Movie Theater	0.26 spaces per seat, land use code 444	0.065 spaces per seat
Office	2.84 spaces per 1,000 SF, land use code 701	0.71 spaces per 1,000 SF
North Building Retail	9.68 spaces per 1,000 SF <ul style="list-style-type: none"> 50% shopping center, 2.94 spaces per 1,000 SF, land use code 820 50% restaurant, 16.41 spaces per 1,000 SF, land use code 931 	2.42 spaces per 1,000 SF

The following programmatic assumptions were made regarding the amount of development in each component of the PUD. Of note, this analysis assumes the office alternative for the North and South Buildings as it leads to a higher parking demand relative to the residential option. When compared to office, residential has a lower demand that occurs late in the day and into the overnight hours when the other uses on site would be decreasing or at their minimum usage.

- Existing Union Market: Approximately 62,000 SF of retail space
- 1309-1329 5th Street NE PUD, South Building: 1,250 seat movie theatre, 115,000 SF office
- 1309-1329 5th Street NE PUD, North Building: 250,000 SF office, 30,000 SF retail

The results of the shared parking analyses are presented in Figure 1 through 4, attached to this memorandum. These figures display the results of the shared parking demand calculations for the two phases of the PUD, over the course of a typical weekday and weekend (Saturday).

Parking Supply

Several sources of parking supply are available to serve the different demand scenarios reviewed in this analysis:

Primary Sources:

- Gallaudet University surface lot, leased to EDENS: This lot contains 225 surface spaces and serves as the parking supply for the existing Union Market at present. EDENS is leasing this lot from Gallaudet University. The University may redevelop this site, and thus this analysis does not include this supply in the future PUD development scenarios. However, it is possible that the timing of redevelopment of this lot by Gallaudet may allow for continued use of this parking for some time to come. The ground lease for this parking ends October 2016, but can be extended depending on the timing of Gallaudet’s plans. It is expected that this lot will remain available past 2016, and as such it is planned to be used as the primary source of parking for the PUD until the North Building parking garage is constructed.

- North Building Garage: This is the parking garage proposed as part of the second phase of the PUD, with 300-475 spaces.

Potential Sources (to be used if Gallaudet surface lot is not available):

- North Building site surface lot: After completion of the South Building, the North Building site can be used as an interim surface parking lot, with approximately 102 spaces. This lot will be provided if the Gallaudet University surface lot is not available at any time before construction of the North Building.
- On-Street Parking: A significant amount of the on-street parking surrounding Union Market is available during evenings and weekends. Approximately 700 parking spaces are located on Morse Street, Neal Place, Penn Street, 4th Street, 5th Street, and 6th Street within a two to three block walk from the PUD site. During the day these spaces are used by wholesalers and other market users, but are mostly available to serve retail and movie theater demand on weekends and evenings.

Back-up Sources (if potential sources are not available):

- Penn Street surface lot: This is a surface parking lot owned by EDENS with an estimated 56 spaces, located at the corner of Penn Street and 5th Street. It is used by employees during the daytime. This parking is fully available in the afternoon, evening and weekend hours.
- 4th Street surface lot: This is a surface parking lot owned by EDENS with an estimated 49 spaces, located along 4th Street. It is used by employees during the daytime currently in the 1270 4th Street NE PUD property. This parking is fully available in the afternoon, evening and weekend hours, and the existing demand will be eliminated entirely with the redevelopment of the 1270 4th Street site.

A figure identifying various parking supply options is attached to this memo.

Comparison of Supply and Demand

Table 2 contains the results of a comparison of the parking supply and demand. The results from the shared parking analysis and the parking supplies shows that each phase of the proposed PUD will have sufficient parking supply. Furthermore, the proposed supplies are not excessive, and are within a comfortable buffer of additional supply as needed to accommodate circulation within parking lots.

Table 2: Results of Shared Parking Analysis

Phase	Shared Parking Demand	Parking Supply
Existing	98 spaces (6-8pm on Saturday night)	GU surface lot (225 spaces)
South Building Opens	180 spaces (8pm on Saturday night)	GU surface lot (225 spaces) <u>Back-up (in case GU lot is unavailable):</u> Temp. surface lot on North Building site, On-street parking <u>Additional:</u> Penn Street surface lot 4 th Street surface lot
North Building Opens	*441 spaces (2pm on a weekday)	*475 spaces (Max. proposed for North Building garage)

* Shared parking demand and proposed supply will be revisited with the Stage 2 PUD.

The existing and first phase of the PUD when the South Building opens have peak parking demands occurring on the weekends, and mid-late afternoon during the week.

The shared parking demand and proposed supply for the North Building will be revisited with the filing of the Stage 2 PUD application for this portion of the PUD. At such time the program for the North Building will be further refined, and parking needs for the entire site will be more fully understood.

Parking During North Building Construction

Although the shared parking analyses shows an adequate accommodation of supply at the end of each phase of the development, potential issues could arise during construction of the North Building. When the North Building is constructed, the temporary surface lot on the site ceases to be a potential source of parking supply. The analysis above shows that a peak demand of 180 spaces would be limited to street parking, and the Penn Street and 4th Street surface lots, which have 105 parking spaces. There are several ways this potential deficit could be accommodated. The attached Figure 5 shows the locations of potential nearby, parking resources within the Market as described below:

- As stated above, the timing of redevelopment of the Gallaudet surface lot may allow for continued use of this parking for some time to come. Given that the University has just recently selected a development partner and does not have formal plans assembled for the lot, it is highly likely they will not begin construction within the next several years.
- Gallaudet University also controls other parcels, including the parcel north of the site. Thus, if they have a phased development plan that begins with the surface lot to the south, it is possible that they may reach an agreement with EDENS to raze the structures to the north to create another temporary surface lot to meet demand during construction.
- The 1270 4th Street PUD will be constructed and open prior to the construction of the North Building of this PUD. This project will include a 400-550 space parking garage, some of which could be used to accommodate demand

from the South Building as the garage was sized to accommodate parking demand from other uses within the Market.

- The Gateway Market PUD will also be constructed and open prior to the construction of the North Building of this PUD. This project includes a 225 space parking garage, some of which could be used to accommodate demand from the South Building as the garage was sized to accommodate parking demand from other uses within the Market.
- Once the South Building is open, the demand estimates contained in this analysis can be reviewed and replaced with actual counts of parking demand. Revising the parking analysis with observations of the South Building could be used to refine demand estimates in a manner to help give confidence that the supply can be accommodate during North Building construction. This information will be incorporated into the Stage 2 review for the North Building for the subject PUD.
- As stated above, approximately 700 parking spaces are located on Morse Street, Neal Place, Penn Street, 4th Street, 5th Street, and 6th Street within a two to three block walk from the PUD site.

Due to these factors, this memorandum concludes that although a solution for the construction phase is not possible to identify in detail at the moment, several options for solutions to meet demand exist. Thus, performing an updated parking supply and demand analysis during the Stage 2 PUD application for the North Building allows for a solution to be determined at a more appropriate time. This memo recommends such a parking study be a condition of the North Building's Stage 1 PUD approval.

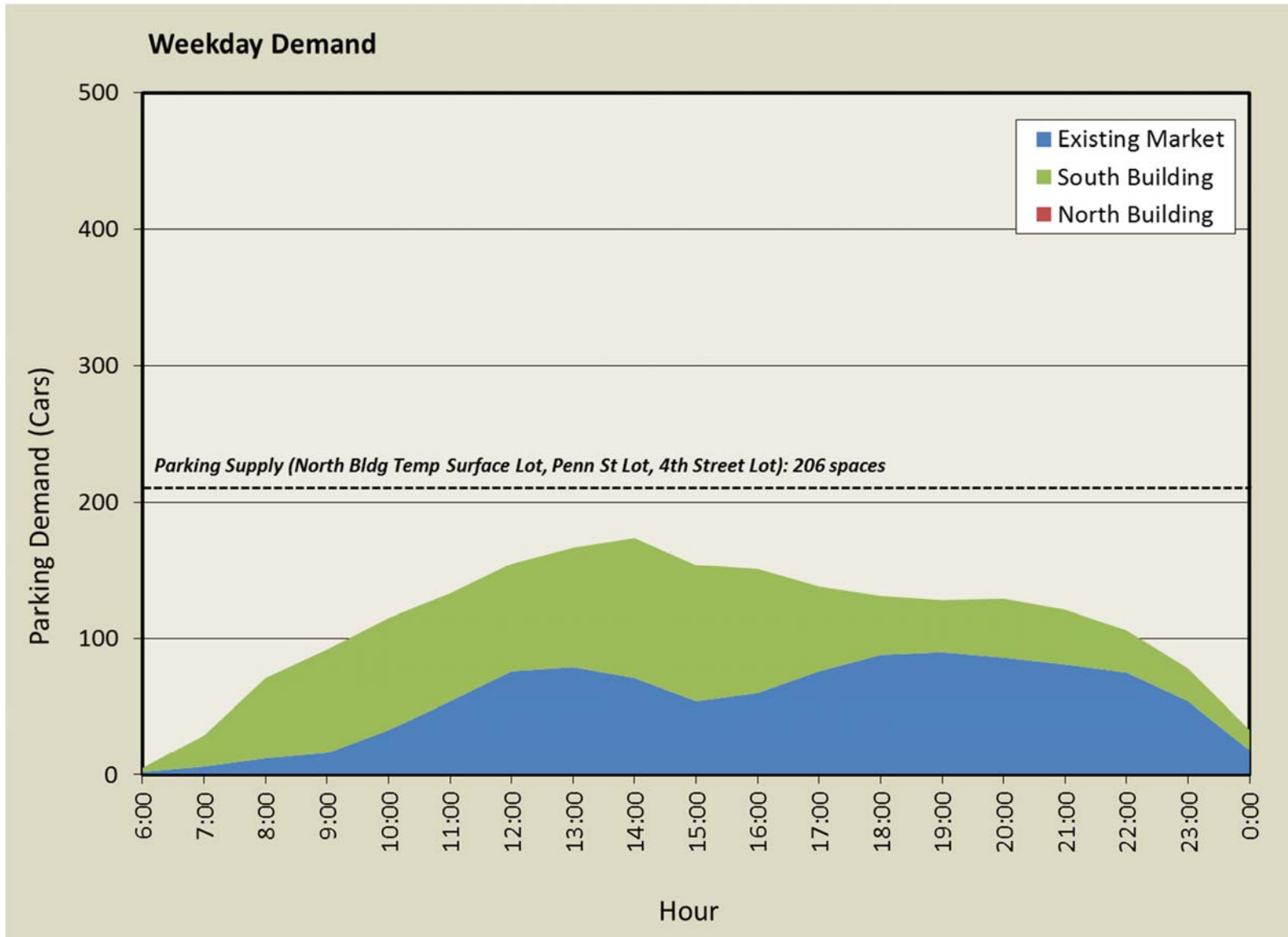


Figure 1: Shared Parking Analysis, with South Building, Weekday Demand

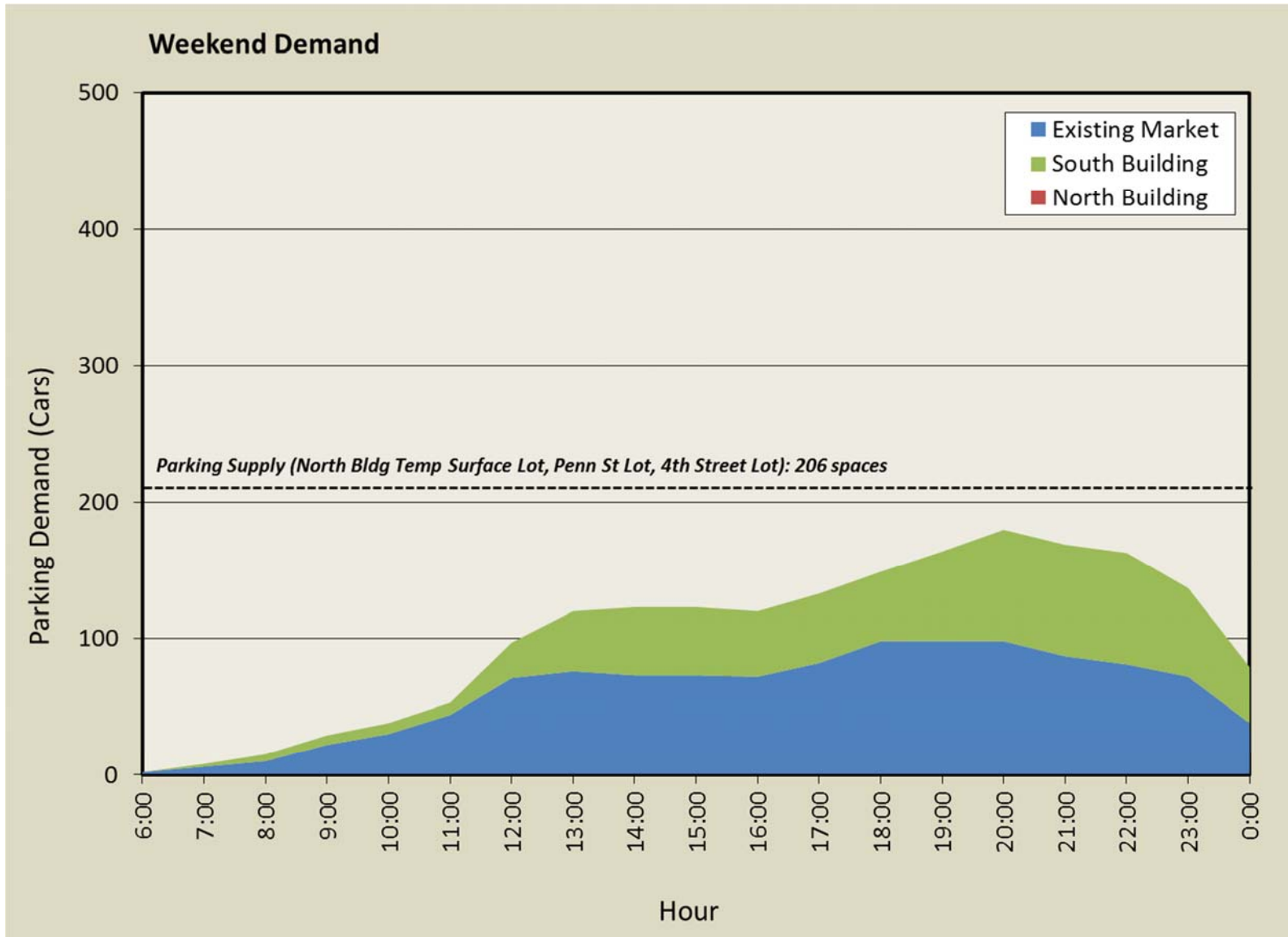


Figure 2: Shared Parking Analysis, with South Building, Weekend Demand

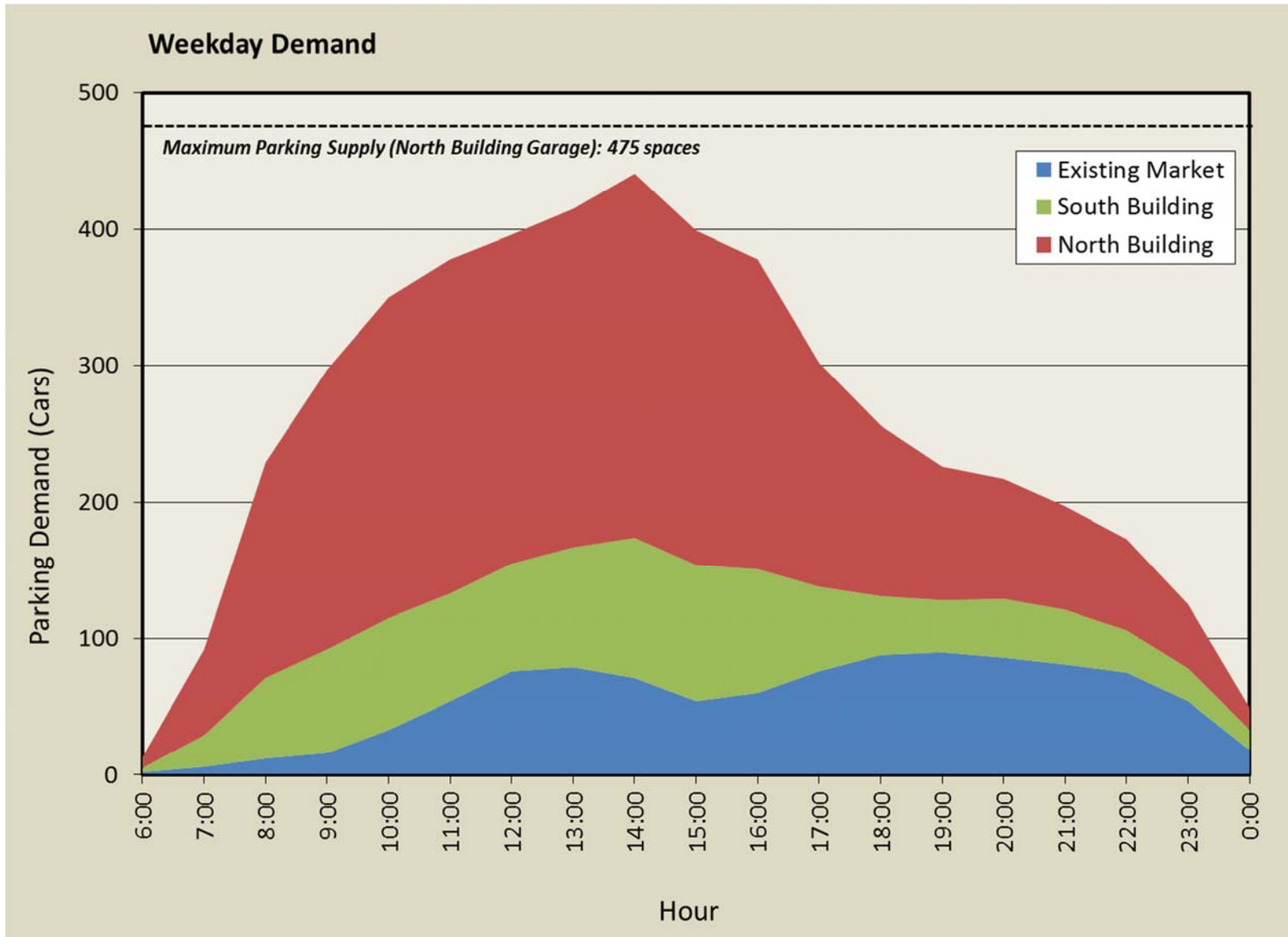


Figure 3: Shared Parking Analysis, with North Building, Weekday Demand

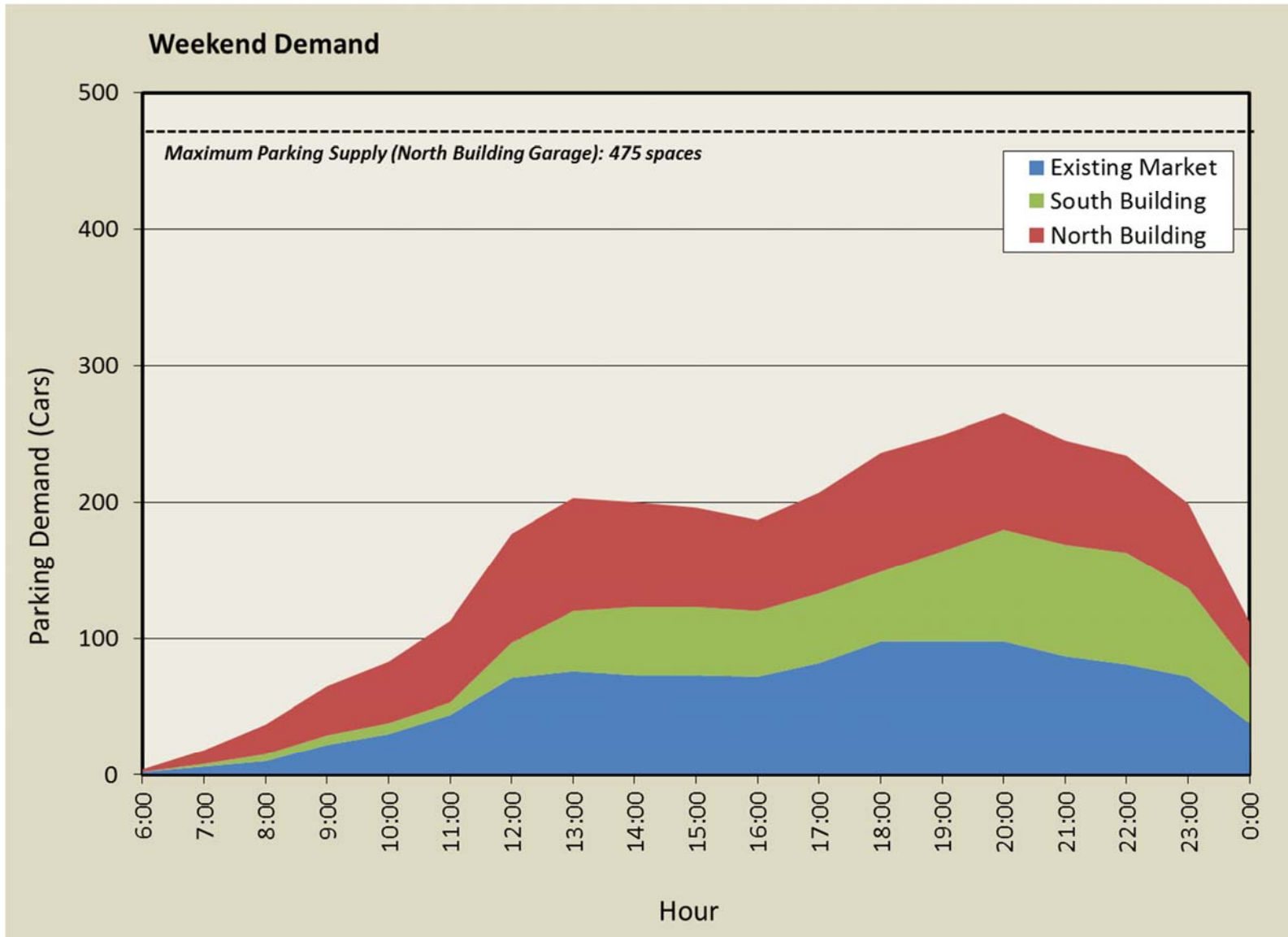


Figure 4: Shared Parking Analysis, with North Building, Weekend Demand

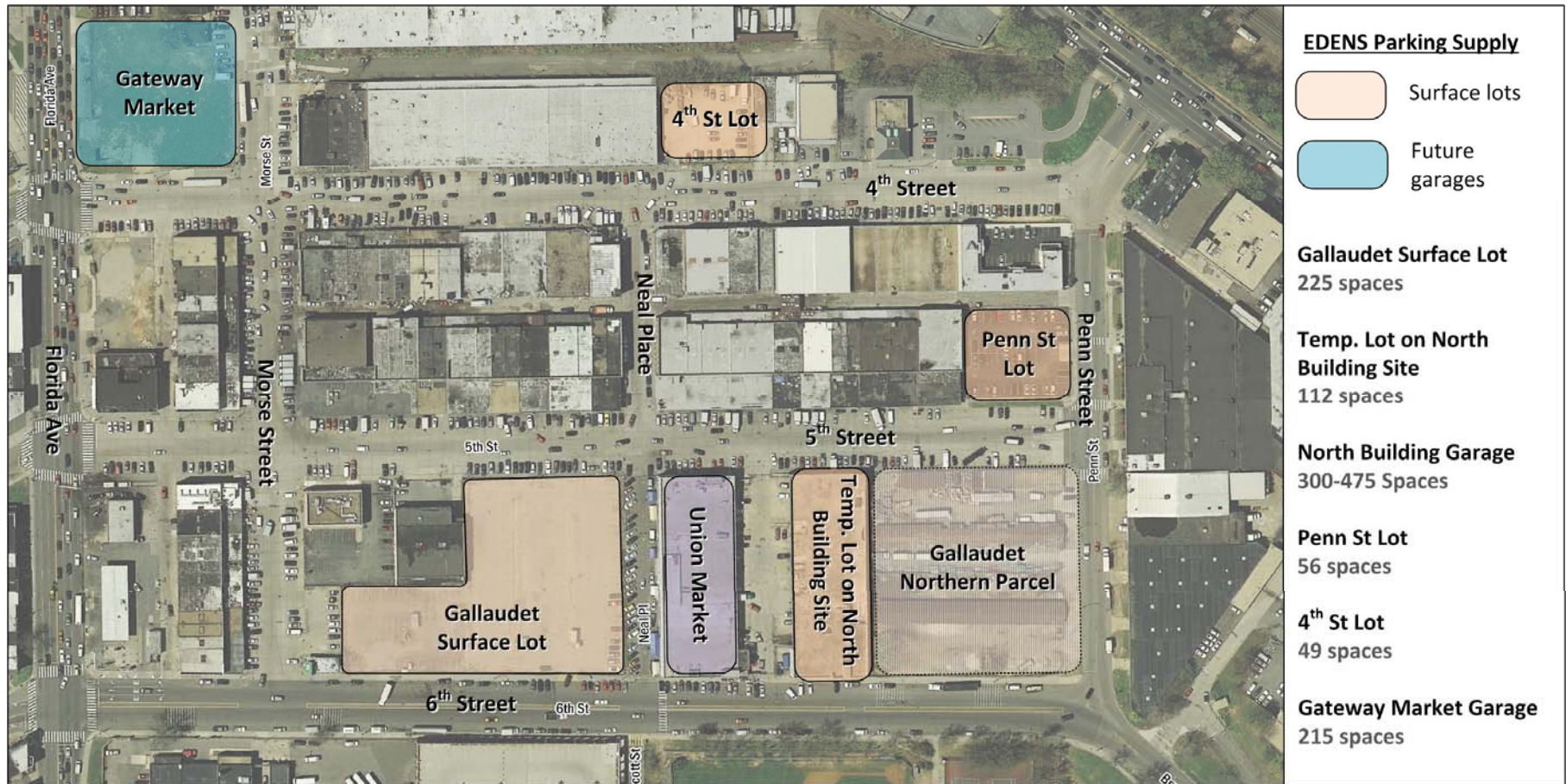


Figure 5: Sources of Parking Supply