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September 21, 2016

Ms. Susan Pollay, Executive Director
Ann Arbor Downtown Development Authority
150 S. 5th Avenue, #301
Ann Arbor, MI 48104

RE: Core Spaces Library Lane Parking Proposal

This letter will serve as Core Spaces' request to the Downtown Development Authority for a long term parking agreement to facilitate the development of The Collective on 5th Project.

Core Spaces is an experienced urban infill developer and as such seeks to minimize, to the extent possible, vehicle parking. We purse development sites that maximize the opportunity for multi model transportation and design our walkable projects to include significant bike parking, ride share, and public transportation access. The Library Lane location certainly represents a significant opportunity to enhance the transit oriented culture in downtown Ann Arbor. The proximity to the Blake Transportation Center is ideal.

This approach makes sense not only in terms of sustainability and livability but also in a significant operating cost savings opportunity.

In order to quantify the parking requirement, Core Spaces engaged Desman Design Management, a nationally recognized parking consultant. A copy of the study is enclosed.

Based on the Desman Study, our request is as follows:

Pursuant to recent discussion, outlined below is the proposed structure for the parking agreement.

- 196 24 hour equivalent spaces (standard permits) shall be provided in the City owned parking garage located beneath the proposed development at 5th and Library. Core Spaces may elect to designate fewer 24 hour spaces with an offsetting increase in non-24 hour spaces (off peak permits).

- An additional 85 standard permit parking spaces shall be provided to Core Spaces at the City owned parking garage located at 4th and Williams.

- 80 additional off peak permits shall be provided at 4th and Williams garage.

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- Core Spaces will lease the required parking spaces in accordance with the Downtown Development Authority's current monthly rental rate including the surcharge for related to multi space contracts.

- Annual increases in the monthly rate shall be consistent with the Downtown Development Authority established standard rates, but rates shall not increase more than 3% in any given year unless the increase is not more than an equivalent of 3% annual increase over a multi-year period.

- 20 year initial term with three (3) twenty year renewal options.

- The rental rates shall not fluctuate more than once per year.

- No less than 60 days prior to the expiration of the lease term, Core Spaces shall notify the City of its parking requirements for the following calendar year. The number of standard permit spaces may be decreased in any given year; however, the number of standard permit spaces available in the following year shall not increase to more than a number leased in the prior year except during the first three years the total leased spaces can fluctuate upward and downward by a maximum number of 50 spaces. The number of off peak permits can fluctuate completely.

- Core Spaces may elect, at its sole discretion, to require less than 196 spaces at the 5th and Library garage to accommodate other needs unrelated to the development. In that event, the balance of spaces required shall still be provided at the 4th and Williams garage.

- Core Spaces shall be permitted to sub-lease parking spaces to its residential tenants, hotel operator (including guest parking) and other entities that operate within the property including, but not limited to, office tenants and retail tenants, including employees of above, as well as for visitor and customer use. Core Spaces will have complete and sole discretion as to the rate it charges its sub-lessee (rental rate charged to sub-lessee can be more than or less than the rate that Core Spaces pays to the Downtown Development Authority).

Please contact us with any questions.

Sincerely,

Tom E. Harrington, Jr.
Director of Acquisitions

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CC: Marc Lifshin
Brian Neiswender
Eric Grimm
Tom Crawford

DESMAN
Design Management

MEMORANDUM

DATE: September 7, 2016

TO: Tom Harrington
Core Spaces

FROM: Gerald Salzman

RE: Library Lane Shared Parking Study
Ann Arbor, MI

The purpose of this memorandum is to summarize the findings of a shared parking study conducted by DESMAN for the Library Lane development, a mixed-use project in Ann Arbor, Michigan. The Library Lane project would consist of approximately 3,350 square feet of ground level retail space, 20,000 square feet of commercial/office space, a 131-room hotel, and 357 rental residential units. The project site consists of the air rights over the existing Library Lane parking structure which is located in the southwest quadrant of the block bounded by S. 5th Avenue on the west, Library Lane on the south, S. Division St. on the east, and E. Liberty St. on the north. The site is conveniently located a few blocks west of the main campus of the University of Michigan.

A shared parking analysis was conducted to determine the potential parking demand for the development. The Urban Land Institute (ULI) 2nd edition (2005) of *Shared Parking* adjusted to Ann Arbor travel patterns was utilized in performing the shared parking analysis. The ULI 2nd Edition of *Shared Parking* uses a significant amount of national information for estimating parking demand. ULI defines shared parking as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment. They define that in order to share parking two conditions must exist:

- "Variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and"
- "Relationships among the land uses that result in visiting multiple land uses on the same auto trip".

In addition to the ULI data, this analysis relied in part on data reported in two recent studies conducted in Downtown Ann Arbor, as well as US Census data obtained from the Washtenaw Area Transportation Study (WATS). The two previous studies include the *Parking and TDM Study* performed by Nelson Nygaard for the Ann Arbor DDA (December 2015) and the *2016 Ann Arbor Downtown Market Scan* produced by 4award Planning, Inc. In addition, discussions were held with several downtown employers regarding parking policies, mode split characteristics and the location of residence of their employees.

Methodology

The Shared Parking analysis consisted of four steps:

1. Identification of the development assumptions
2. Development of a shared parking model based on local conditions
3. Applying the land use assumptions to the model
4. Identifying the peak month, day and hour of parking demand

Assumptions

The projected land use assumptions for the development are shown in **Table 1**.

Table 1 – Land Use Assumptions

Land Use	Size	Units
Office	20,198	Sq. ft.
Retail	3,353	Sq. ft.
Apartments	357	units
Hotel	131	Keys

Source: Core Spaces

Some key assumptions were made as part of the shared parking study which deal with modal split, non-captive ratios, categorization of land uses, and possible reserved spaces in the garage. The non-captive ratio is an estimate of the percentage of parkers at a land use in a mixed-use development or district who are not already counted as being parked at another of the land uses. An example of this would be if an employee of a retail store went to eat at a restaurant on-site, no additional parking demand is generated. Modal split is the percentage of persons arriving at a destination in different modes of transportation other than by car. Among the modes that may be available are public transportation, bicycles, carpools and vanpools, walking, and other means.

Modal split and non-captive ratios were applied to the ULI shared parking analysis. The modal split and auto ownership percentages are based on American Community Survey 2010-2014 data. **Table 2** shows the modal split for workers in Ann Arbor.

Table 2 – Modal Split for Employees in Ann Arbor, MI

Employee Mode Split	Estimate	%
Total Workers	10,558	100%
Car truck or van Drove Alone	2,616	25%
Car truck or van Carpooled	296	3%
Public transportation	969	9%
Motorcycle	10	0%
Bicycle	631	6%
Walked	5,180	49%
Other means	3	0%
Worked at Home	853	8%

Source: American Community Survey 2010-2014
Census tracts 400100, 200, 300, 500, 700, & 800

As shown in the table, only 28 percent of employees drive alone or carpool to work. The others walk, bike, or take public transportation to work. This percentage was applied to all employees in the development, while patrons and visitors were assumed to be 50 percent drivers.

Table 3 shows the US Census Bureau auto ownership for residents of rental buildings for the three Census tracts in central Ann Arbor surrounding the site. The weighted average ownership is 0.923 per unit or just under 1 vehicle per unit.

Table 3 – Auto Ownership for Ann Arbor, MI

Vehicles	Units	%
Renter occupied:	2,591	100%
No vehicle available	944	36%
1 vehicle available	1,120	43%
2 vehicles available	363	14%
3 vehicles available	117	5%
4 vehicles available	40	2%
5 or more vehicles available	7	0%
Wtg. Avg. Autos per unit		0.923

Source: American Community Survey 2010-2014
Census tracts 400100, 700, & 800

Recognizing that the census tracts stretch beyond the DDA boundaries and the core of the city, we looked to data that was more focused on the downtown. The Nelson Nygaard *Parking and TDM Study* for the Ann Arbor DDA (December 2015) found that an overnight count of DDA facilities showed a demand ratio of 1 occupied space per 5 downtown residents, a ratio of 0.20 vehicles per resident. After factoring for multiple people per unit and people who park on street and in alternative locations, the more realistic demand is between 0.40 and 0.50 spaces per unit. Some of this low auto demand reflects the demographics in downtown Ann Arbor. The *2016 Ann Arbor Downtown Market Scan* page 12, produced by 4award Planning, Inc., suggests that 87% of households in downtown Ann Arbor are made up of University aged renters age 20-24 with low annual income. This may help to explain the low auto ownership.

Given the potential variations in the demographic and mode split data, we have developed a basic scenario which assumes a low auto use and a sensitivity analysis which assumes a more conservative (high) auto demand. The actual auto demand is likely to be determined by the marketing of the residential and hotel units.

Provided below is a list of the base assumptions for this analysis.

- Assumed a 28% driver mode split for all employees, which was based on the US Census Bureau statistics for Ann Arbor, MI.
- Assumed retail space is generating at a peak of 4.0 spaces per 1,000 square feet with 90 percent captive to other uses.
- Assumed office space is generating at a peak of 3.8 spaces per 1,000 square feet.
- Assumed 50% of hotel guests drive.
- Assumed 50% of all retail patrons, office visitors and residential guests drive.

- Assumed a weighted average of 67% of resident auto ownership based on 50% occupancy by market rate tenants (at 92% auto ownership) and 50% occupancy by University aged tenants (at .4 spaces per unit) after adjusting Nelson Nygaard statistics.
- Assumed existing public parking demand on the site to remain, but existing hourly accumulations were not available to be included in the shared parking table.

Shared Parking Analysis

A shared parking analysis was performed for the development based on the shared parking model. The land use assumptions were based on the program described in Table 1, with the modal split based on the US Census Bureau data in Table 2 and auto ownership based on the US Census Bureau data in Table 3. Hotel demand ratios were based on an article written by Gerald Salzman, published by ULI, and the non-captive ratios are based on DESMAN's professional experience and analysis. Other demand factors were listed above.

Tables 4a and **4b** show the results of the shared parking analysis for the peak periods on both a weekday and a weekend. **Table 4a** shows the demand without shared parking and **Table 4b** shows the benefit of shared parking. Future parking demand is projected to peak in August at 10 pm, with demand for 332 spaces on a weekday and 334 spaces on a weekend.

Table 4 – Shared Parking Analysis Summary

4a. Representative Peak Parking Demand Factors

Land Use	Size	Units	Parking Ratio		% Drivers		% non captive		Peak Parking	
			Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
Office Emp.	20.198	1,000 SF GLA	3.5	0.35	28%	28%	100%	100%	20	2
Office Cust.	20.198	1,000 SF GLA	0.3	0.03	50%	50%	100%	100%	3	0
Restaurant Emp.	0	1,000 SF GLA	2.75	3	28%	28%	100%	100%	0	0
Restaurant Cust.	0	1,000 SF GLA	15.25	17	100%	100%	100%	100%	0	0
Retail Emp.	3.353	1,000 SF GLA	0.7	0.8	28%	28%	100%	100%	1	1
Retail Cust.	3.353	1,000 SF GLA	2.9	3.2	50%	50%	90%	90%	4	5
Hotel Employee	131	Key	0.33	0.25	28%	28%	100%	100%	12	9
Hotel Guest	131	Key	1	1	50%	50%	100%	100%	66	66
Public Parking	0	spaces	0.85	0.5	100%	100%	100%	100%	0	0
Apartment (Non Res.	357	Dwelling Unit	0.67	0.67	100%	100%	100%	100%	239	239
Res. (Gst Pkg)	357	Dwelling Unit	0.15	0.15	50%	50%	100%	100%	27	27
Condo Reserved	0	Dwelling Unit	1.7	1.7	100%	100%	100%	100%	0	0
Existing Public Parki	0	Spaces	0	0	0%	0%	0%	0%	0	0
Peak w/o Shared Parking									**371**	**348**

4b. Total Peak Vehicle Accumulation

	Weekday	Weekend
January	325	327
February	332	334
March	332	334
April	332	334
May	325	327
June	325	327
July	332	334
August	332	334
September	316	317
October	316	317
November	316	318
December	300	302
Peak	**332**	**334**

Source: DESMAN

It is important to consider the fluctuation of demand during the day. Although the weekday peak is 332 vehicles, between the hours of 9 AM and 4 PM a maximum of 281 vehicles would be parked. As shown in **Table 5**, more than 50 spaces would be vacated by residents and hotel guests for use by public parkers. Since parking for the Library Lane project would be primarily located in the Library Lane Garage, these two uses provide an additional benefit of shared parking. The peak demand of 332 spaces on a weekday and 334 on a weekend includes office visitors, retail customers and apartment visitors. Parking for these transient users (32 – 34 cars) could be provided on-street or in other facilities in order to further reduce the overall parking demand.

Table 5 – Shared Parking Detail – Basic Scenario

August Representative Hourly Accumulation of Parkers (Weekday)

Hour of Day	Office Emp.	Office Cust.	Retail Emp.	Retail Cust.	Hotel Employee	Hotel Guest	Apartment (Non Res.)	Res. (Gst Pkg)	Accumulation
6:00 A.M.	1	0	0	0	1	62	239	0	303
7:00 A.M.	4	0	0	0	4	62	215	3	288
8:00 A.M.	14	1	0	0	11	59	203	5	294
9:00 A.M.	18	2	0	1	11	52	191	5	281
10:00 A.M.	19	3	0	2	12	46	179	5	267
11:00 A.M.	19	1	0	3	12	46	167	5	254
12:00 Noon	17	0	1	3	12	43	155	5	236
1:00 P.M.	17	1	1	3	12	43	167	5	249
2:00 P.M.	19	3	5	3	12	46	167	5	261
3:00 P.M.	19	1	1	3	12	46	167	5	254
4:00 P.M.	17	0	1	3	11	49	179	5	265
5:00 P.M.	9	0	0	3	8	52	203	11	288
6:00 P.M.	5	0	0	3	5	56	215	16	300
7:00 P.M.	2	0	0	3	2	56	232	27	322
8:00 P.M.	1	0	0	2	2	59	234	27	327
9:00 P.M.	1	0	0	2	2	62	237	27	331
10:00 P.M.	0	0	0	1	2	62	239	27	332
11:00 P.M.	0	0	0	0	1	66	239	21	328
12:00 Midnight	0	0	0	0	1	66	239	13	319
									332

Source: DESMAN

Sensitivity Analysis

Two additional analyses were run to better understand the potential variability in the demand numbers, one reflecting the existing auto ownership in central Ann Arbor and the second which provides parking only for residential tenants. This should help to bracket the demand around the basic scenario.

The first alternate scenario reflects a higher rent resident and less student oriented market. It is assumed that auto ownership of 0.92 spaces per unit would reflect the patterns described in the US Census data for the area. There is substantial anecdotal evidence that even if employees do not use their vehicles every day to drive to work, they still want to own one. **Table 6** shows the peak demand based on the 0.92 scenario. The peak demand with shared parking would increase from 332 to 421 on a weekday and from 334 to 423 on a weekend.

Table 6 – Shared Parking Detail – 0.92 Scenario

6a. Representative Peak Parking Demand Factors

Land Use	Size	Units	Parking Ratio		% Drivers		% non captive		Peak Parking	
			Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
Office Emp.	20.198	1,000 SF GLA	3.5	0.35	28%	28%	100%	100%	20	2
Office Cust.	20.198	1,000 SF GLA	0.3	0.03	50%	50%	100%	100%	3	0
Restaurant Emp.	0	1,000 SF GLA	2.75	3	28%	28%	100%	100%	0	0
Restaurant Cust.	0	1,000 SF GLA	15.25	17	100%	100%	100%	100%	0	0
Retail Emp.	3.353	1,000 SF GLA	0.7	0.8	28%	28%	100%	100%	1	1
Retail Cust.	3.353	1,000 SF GLA	2.9	3.2	50%	50%	90%	90%	4	5
Hotel Employee	131	Key	0.33	0.25	28%	28%	100%	100%	12	9
Hotel Guest	131	Key	1	1	50%	50%	100%	100%	66	66
Public Parking	0	spaces	0.85	0.5	100%	100%	100%	100%	0	0
Apartment (Non Res.	357	Dwelling Unit	0.92	0.92	100%	100%	100%	100%	328	328
Res. (Gst Pkg)	357	Dwelling Unit	0.15	0.15	50%	50%	100%	100%	27	27
Condo Reserved	0	Dwelling Unit	1.7	1.7	100%	100%	100%	100%	0	0
Existing Public Parki	0	Spaces	0	0	0%	0%	0%	0%	0	0
Peak w/o Shared Parking									**461**	**438**

6b. Total Peak Vehicle Accumulation

	Weekday	Weekend
January	415	416
February	421	423
March	421	423
April	421	423
May	415	417
June	415	417
July	421	423
August	421	423
September	405	407
October	405	407
November	405	407
December	389	391
Peak	**421**	**423**

Source: DESMAN

The second alternate scenario assumes the same low auto ownership as in the basic scenario, but no provision of parking for office or retail tenants or guests or for apartment guests. These groups would not be permitted to park on-site and would have to use on- or off-street public parking. **Table 7** shows the peak demand based on the residential-hotel scenario. The peak demand with shared parking would decrease from 332 to 306 on a weekday and from 334 to 309 on a weekend.

Table7 – Shared Parking Detail – Residential-Hotel Only Scenario

7a. Representative Peak Parking Demand Factors

Land Use	Size	Units	Parking Ratio		% Drivers		% non captive		Peak Parking	
			Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
Office Emp.	20.198	1,000 SF GLA	0	0	28%	28%	100%	100%	0	0
Office Cust.	20.198	1,000 SF GLA	0	0	50%	50%	100%	100%	0	0
Restaurant Emp.	0	1,000 SF GLA	2.75	3	28%	28%	100%	100%	0	0
Restaurant Cust.	0	1,000 SF GLA	15.25	17	100%	100%	100%	100%	0	0
Retail Emp.	3.353	1,000 SF GLA	0	0	28%	28%	100%	100%	0	0
Retail Cust.	3.353	1,000 SF GLA	0	0	50%	50%	90%	90%	0	0
Hotel Employee	131	Key	0.33	0.25	28%	28%	100%	100%	12	9
Hotel Guest	131	Key	1	1	50%	50%	100%	100%	66	66
Public Parking	0	spaces	0.85	0.5	100%	100%	100%	100%	0	0
Apartment (Non Res	357	Dwelling Unit	0.67	0.67	100%	100%	100%	100%	239	239
Res. (Gst Pkg)	357	Dwelling Unit	0	0	50%	50%	100%	100%	0	0
Condo Reserved	0	Dwelling Unit	1.7	1.7	100%	100%	100%	100%	0	0
Existing Public Parki	0	Spaces	0	0	0%	0%	0%	0%	0	0
Peak w/o Shared Parking									**317**	**314**

7b. Total Peak Vehicle Accumulation

	Weekday	Weekend
January	299	302
February	306	309
March	306	309
April	306	309
May	299	302
June	299	302
July	306	309
August	306	309
September	289	291
October	289	291
November	289	291
December	273	274
Peak	**306**	**309**

Source: DESMAN

Conclusion

The basic scenario shows parking demand peaking for all user groups at 334 spaces on a weekend evening. In addition, some of the residential demand will be absent during the day which provides additional potential to share with public parkers in the garage. This assumes that no spaces will be reserved in the garage for tenants. Two additional scenarios provide an understanding of the potential variability in the projections, depending on the actual marketing of the residential units.