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Reply to: Somerville Office

April 12, 2023

Via Email: [sngan@alpine-re.com](mailto:sngan@alpine-re.com)

Sara Ngan, AIA, LEED AP  
VP of Design and Development  
AR SciTech, LLC  
257 Park Avenue South, 3<sup>rd</sup> Fl  
New York, NY 10010

Re: Parking Evaluation  
Scholars Village - SciTech Scity  
225 Phillips Street  
Jersey City, Hudson County

To Ms. Ngan:

As requested, our office has completed a reevaluation of the potential parking needs associated with the Scholars Village component of the SciTech Scity development. This study is an update to an August 17, 2021 parking analysis prepared by our office for the adjacent EdgeWorks application. At the time of that study, the Scholars Village residential component was envisioned with 400 mid-rise multifamily residential units. Under the current proposal, that has increased to 500 units with a minimum of 150 dedicated parking spaces. The residential component is now being submitted as a separate site plan application for which this study has been updated.

The other components of SciTech Scity remain unchanged: a 400-student high school and a 120,231 square foot (sf) commercial building - known as EdgeWorks - that was the subject of a recent site plan approval by the Jersey City Planning Board. EdgeWorks includes indoor and outdoor public performance space that could attract significant attendance for which event parking is needed.

The Jersey City Land Development Ordinance and the Liberty Harbor Redevelopment Plan ("Redevelopment Plan") contains parking standards for each of the site components but is unique in that both minimum and maximum parking requirements have been established for residential uses. As such, the subject application for Scholars Village is requesting relief from this section to provide less than the required minimum parking.

As will be detailed in this report, the overall SciTech Scity design will allow for areas to accommodate unanticipated parking demands whether for EdgeWorks events, after hours school programming and for additional visitor and guest parking for Scholars Village. This concept of "shared" parking is a well-recognized land planning technique to avoid "over-building" of parking that will seldom, if ever be needed. As detailed below, with accessible mass transit options available in the immediate site vicinity, like elsewhere in the City (i.e., neighboring Morris Canal), a reduced parking supply is appropriate for Scholars Village.

This evaluation considers the parking for Scholars Village application in the context of the balance of the SciTech Scity components. Specifically, the proposed parking supply of 0.3 spaces/unit will meet the required residential parking for typical day-to-needs. But, with the EdgeWorks approval that included the potential for higher attendance events, surplus parking has been programmed within the overall “campus” that can accommodate non-event parking for residential guest and visitor parking, in particular.

To support the variance request for Scholars Village, this parking study considers the additional parking demands of different site functions. As permitted in the Science and Technology District Provisions of the Redevelopment Plan:

*“The parking study shall provide analysis [sic] of innovative techniques to help minimize the parking requirements for each proposed use and optimize the proposed parking facilities. Shared parking is encouraged”.*

As noted, one objective of the Redevelopment Plan is to help minimize the parking requirements for each individual proposed use, given the other site uses and non-coincident periods of parking demand. This “shared parking” methodology requires a detailed, temporal evaluation under a “shared” parking approach to ascertain the overall efficiency and need for other areas on the site initially set aside for parking.

Scholars Village (and SciTech Scity) is comprised to consist of three primary components:

- 500 residential multifamily, market rate units (Scholars Village)
- A high school (Grades 9-12) with approximately 400 students and staff
- Up to 383 personnel working within the EdgeWorks incubator/office/R&D space

Within EdgeWorks, there would be other, complimentary components including:

- Conference center – occupancy: 365
- Event space – occupancy: 940
- Exhibit space – 3,254 SF
- Restaurant/cafe – occupancy: 125 seats
- Outdoor plaza for public performance/events - 900 – 1,500 attendees

The development is in the Liberty Harbor Redevelopment Plan Area. According to the Redevelopment Plan the residential units require a range of minimum and maximum parking ratios from a minimum of 0.5 spaces/studio unit to a maximum of 1.75 spaces/2+BR units. As will be documented within this analysis, a minimum exclusive (i.e., dedicated) residential ratio of 0.3 spaces/unit is proposed for Scholars Village with the balance to be available per this shared parking analysis. This dedicated supply would be available for residents at all times with no shared ability from the other site components.

The assignment of spaces would be controlled via the leasing agent to ensure that future resident demands never exceed the proposed supply of at least 150 spaces. This mechanism has proven to effectively control the parking supply, which has an added benefit of “capping” the potential traffic generated by Scholars Village. Simply stated, by providing more parking and assuming there was an actual demand by residents, the project would generate more traffic on the local roadway system. Thus by intentionally limiting parking, the overall traffic impacts can also be minimized.

In addition, following maximum parking ratios are allowed for each non-residential use:

- Research/Development, Office and Other Commercial Uses: maximum of 0.9 spaces/1,000 SF of gross floor area. This parking ratio can be averaged for the entire redevelopment area.
- Retail, Restaurants, Bars, Nightclubs, Health Clubs: a maximum of 0.5 spaces/1,000 SF of gross floor area

Note: The Redevelopment Plan has no required (or maximum) parking standard for the proposed school component

Based on these provisions, the following is the calculation of the maximum allowable parking for the overall SciTech Scity development application with an allocation of at least 150 spaces for Scholars Village:

#### Day-to-Day Operations - Maximum Parking Spaces allowed per the Redevelopment Plan

##### Scholars Village - Residential Parking

In reviewing an appropriate residential parking supply for 500 units, we have reviewed leasing and other independent research data compiled by our office for other, newer residential sites in Hudson County, specifically in Jersey City and Hoboken that are in close proximity to either the HBLR, New York Waterway or other transit routes wherein automobile ownership is significantly reduced. Newer buildings in the Morris Canal Redevelopment area by IronState (295J apartments) and Fields and Alpine Residential have used a parking ratio of just under 0.3 spaces/unit (or even lower). Some buildings have recently been approved with no residential parking, given the proximity to the HBLR station. Actual leasing data has shown even fewer residents require (or wish to lease) on-site spaces, particularly with the convenience of ride-share services (Uber, Lyft) that obviate the need for automobile ownership.

For the proposed Scholars Village residences, the HBLR is in close walking distance to the site (less than ½ mile and an approximate 9-minute walk). Therefore, for the residential component a parking supply ratio of 0.3 spaces would be appropriate resulting in a need for at least 150 dedicated, residential parking spaces. The plans meet the recommended requirement. This recommended ratio would appropriately allow for some residents to have vehicles, unlike for example in Morris Canal where newer buildings have been approved with no or minimal on-site parking.

This proposed supply for Scholars Village also reflects that some future residents may also work at either EdgeWorks or the proposed school. With a ratio of 0.3 spaces for a conservative estimate, recognizing the slightly further location of the site (for example, compared to Morris Canal), a minimum of 150 vehicle parking spaces with a separate set aside for bicycle parking, on-demand scooter rental and accommodations for ride-sharing pick-up/drop-off areas would be appropriate for the residential buildings. Scooters are available at the new Fields and Alpine Residential building at the end of Maple/Garrabrant Street and SciTech Scity could include a similar option.

The prior parking study also included an evaluation of typical daily demands for EdgeWorks and for special events. The analysis concluded that for day-to-day operations, the proposed parking met the required standards under the Redevelopment Plan. However, for special events, the operation required the use of after-hours and otherwise empty parking spaces in the LSC parking lot.

### Edgeworks Parking – Special Events

As described, the proposed Scholars Village would have at least 150 parking spaces; EdgeWorks and the school are proposed to have 92 onsite spaces. As noted above, this parking supply meets the anticipated parking demands under the Redevelopment Plan for day-to-day activities based on a shared parking model.

As previously studied, EdgeWorks also includes spaces for public assembly including indoor exhibit/conference spaces and an outdoor plaza for performance-related events. While the Redevelopment Plan permits such components, there is also no corresponding parking requirement. Consequently, even though no parking is “required” for these uses, it would represent poor site planning to essentially ignore these activities without having adequate infrastructure to support such programming. A parking management plan was therefore included as part of EdgeWorks for additional “overflow” parking that exceeds the Redevelopment Plan maximums for select, higher attendance events.

As provided within the Redevelopment Plan, under Section 3(e) - Science and Technology District Provisions:

- A parking study shall be provided as part of any Site Plan application within the Science and Technology District.
- The parking study shall evaluate the parking requirements within the District in a comprehensive manner considering existing uses and the phasing of proposed uses.
- The parking study shall provide analysis of innovative techniques to help minimize the parking requirements for each proposed use and optimize the proposed parking facilities. Shared parking is encouraged.

In keeping with the provisions of innovative techniques and shared parking to minimize the requirements for each use, the EdgeWorks approval included an arrangement with LSC for up to 227 spaces to be made available in the adjacent LSC lot. These spaces are physically closest to EdgeWorks (and the further from the LSC), thus providing a convenient supply, if and when needed by EdgeWorks. Added to this supply would be the additional 221 onsite, gravel spaces. Key to the shared parking management will be a calendar/scheduling matrix presumably to be developed among the parties with management oversight to ensure there is no overlap or conflict with weekend assembly either at EdgeWorks, the school or at the Liberty Science Center (LSC) for after hour events. These parking areas would also be available for afterhours visitors and guests to Scholars Village.

Following the same methodology as used for the EdgeWorks parking analysis from August 2021, the initial estimates for the peak parking of each component, times of day factors were then applied as noted on the appended spreadsheets. Each hour of the weekday and weekend evaluates the parking demand as a percentage of the “peak” for each individual site component.

Findings

Consistent with our prior analysis of each site component demand by hour of the day, we have determined the following peak site parking demands and hour of occurrence for special events at maximum attendance for planning purposes:

- Weekday 2:00-3:00 p.m. Edgeworks/School 539
- Weekend 8:00-9:00 p.m. Edgeworks/School 361

For the weekend, please note that there is an assumed non-simultaneous use of both the EdgeWorks indoor event/conference space and outdoor performance/plaza space that could otherwise overlap and would result in higher combined parking demand.

With 227 parking spaces in the LSC parking lot closest to Edgeworks and 92 school spaces with a non-residential demand of 539 spaces the peak weekday deficit is therefore 220 spaces. With 221 spaces in the gravel overflow lot, the demand can be met.

For weekends and assuming non-coincident event scheduling, the non-residential demand could be accommodated entirely with the onsite permanent and gravel lots with only 48 additional parking spaces needed in the LSC lot, assuming the LSC does not have a peak demand day.

In conclusion, the residential component is proposed to have an exclusive supply of at least 150 parking spaces to meet the needs of residents on a day-to-day basis. This supply would not be shared and would be unaffected by the non-residential demand fluctuations of the balance of SciTech Scity. Based on actual parking demand with newer residential buildings in the immediate area, recognizing the convenience and proximity to the HBLR, and with the ability to accommodate off-peak visitor and guest parking, this analysis has concluded that there would be sufficient parking for Scholars Village and the SciTech Scity campus.

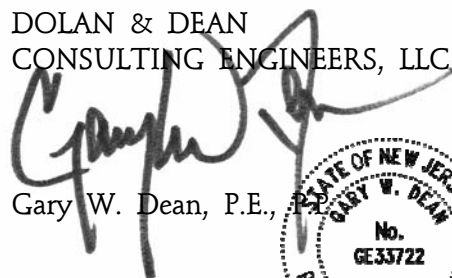
Visitors and guest parking demand can be accommodated in the non-residential parking areas, to the extent there is any appreciable demand. Allocation of the residential spaces can be managed through the leasing office and any surplus could be made available for visitor/guest demands directly on site.

Should there be any questions, please feel free to contact me.

Very truly yours,

DOLAN & DEAN  
CONSULTING ENGINEERS, LLC

Gary W. Dean, P.E.,



Hour	WEEKDAY														Total Spaces	Non Residential Spaces	Hour	
	Residential		School		Edgeworks - Workspace		Edgeworks - Exhibit Space		Edgeworks - Conference Space		Edgeworks - Restaurant Space		Edgeworks - Outdoor Space					
	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>3</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>4</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>4</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>4</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>4</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>4</sup>	Required number of Spaces				
12:00 - 5:00 am	100	150	1	1	0	0	0	0	0	0	0	0	0	11	39	189	39	12:00 - 5:00 am
5:00 - 6:00 am	100	150	1	1	0	0	0	0	0	0	0	0	0	0	0	151	1	5:00 - 6:00 am
6:00 - 7:00 am	100	150	3	2	0	0	0	0	0	0	0	0	0	0	0	152	2	6:00 - 7:00 am
7:00 - 8:00 am	100	150	27	15	0	0	0	0	13	0	0	0	0	0	0	202	52	7:00 - 8:00 am
8:00 - 9:00 am	100	150	79	45	91	163	0	48	0	48	137	0	0	0	0	495	345	8:00 - 9:00 am
9:00 - 10:00 am	100	150	99	56	98	175	0	0	88	0	251	0	0	0	0	633	483	9:00 - 10:00 am
10:00 - 11:00 am	100	150	99	56	100	179	0	0	100	0	285	26	3	0	0	673	523	10:00 - 11:00 am
11:00 - 12:00 pm	100	150	100	57	93	166	0	0	100	0	285	43	4	0	0	663	513	11:00 - 12:00 pm
12:00 - 1:00 pm	100	150	99	56	84	150	0	0	85	0	242	95	10	0	0	609	459	12:00 - 1:00 pm
1:00 - 2:00 pm	100	150	97	55	90	161	0	0	84	0	239	95	10	7	25	640	490	1:00 - 2:00 pm
2:00 - 3:00 pm	100	150	99	56	97	174	0	0	93	0	265	49	5	11	39	689	539	2:00 - 3:00 pm
3:00 - 4:00 pm	100	150	97	55	92	165	0	0	94	0	268	39	4	11	39	681	531	3:00 - 4:00 pm
4:00 - 5:00 pm	100	150	57	32	75	134	30	14	85	14	242	37	4	16	56	633	483	4:00 - 5:00 pm
5:00 - 6:00 pm	100	150	49	28	31	55	51	23	56	23	160	62	6	16	56	479	329	5:00 - 6:00 pm
6:00 - 7:00 pm	100	150	21	12	0	0	88	12	40	20	57	99	10	32	113	381	231	6:00 - 7:00 pm
7:00 - 8:00 pm	100	150	8	5	0	0	0	0	100	45	31	100	10	64	226	467	317	7:00 - 8:00 pm
8:00 - 9:00 pm	100	150	1	1	0	0	90	41	0	0	83	86	8	86	304	503	353	8:00 - 9:00 pm
9:00 - 10:00 pm	100	150	1	1	0	0	84	38	0	0	51	99	5	99	349	543	393	9:00 - 10:00 pm
10:00 - 11:00 pm	100	150	1	1	0	0	79	36	0	0	28	100	3	100	353	542	392	10:00 - 11:00 pm
11:00 - 12:00 am	100	150	1	1	0	0	71	32	0	0	0	100	0	100	353	536	386	11:00 - 12:00 am

Weekday

Land Use Size	500 Units	Based on
100% of residential demand:	150	0.3 recommended
100% of school demand:	57	ITE Parking Gen, High-School, 35 Staff X 0.47, 75 Seniors - assume more than half don't drive
100% of Edgeworks - Workspace demand:	179	ITE Parking Gen, R&D, 383 Staff, Weekday, X 0.47
100% of Edgeworks - exhibit demand:	45	ITE Parking Gen, Museum, Weekday, 3.25 KSF
100% of Edgeworks - conference demand:	285	Level 2 event space demand X 0.47, 1.75 Attendants per ride share
100% of Edgeworks - Restaurant demand:	10	Not expected to draw people from off-site, Only Restaurant Staff
100% of Edgeworks - Outdoor demand:	353	Attendants X 0.47, 2.25 Attendants per ride share

Total based on 100% demand 1,045  
 Shared Parking Output 689 Total Spaces - 539 Non-Residential Spaces

Hour	Saturday																Hour
	Residential		School		Edgeworks - Workspace		Edgeworks - Exhibit Space		Edgeworks - Conference Space		Edgeworks - Restaurant Space		Edgeworks - Outdoor Space		Total Spaces	Non Residential Spaces	
	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces	Percent of Maximum Parking Requirement <sup>2</sup>	Required number of Spaces			
12:00 - 5:00 am	100	150	1	0	0	0	0	0	0	0	0	0	0	0	150	0	12:00 - 5:00 am
5:00 - 6:00 am	100	150	1	0	0	0	0	0	0	0	0	0	0	0	150	0	5:00 - 6:00 am
6:00 - 7:00 am	100	150	3	0	0	0	0	0	0	0	0	0	0	0	150	0	6:00 - 7:00 am
7:00 - 8:00 am	100	150	27	2	0	0	0	0	0	0	0	0	0	0	152	2	7:00 - 8:00 am
8:00 - 9:00 am	100	150	79	5	0	16	0	0	0	0	0	0	0	0	171	21	8:00 - 9:00 am
9:00 - 10:00 am	100	150	98	6	0	98	0	0	0	0	0	0	0	0	174	24	9:00 - 10:00 am
10:00 - 11:00 am	100	150	99	6	0	100	18	24	1	0	87	9	0	0	183	33	10:00 - 11:00 am
11:00 - 12:00 pm	100	150	100	6	0	93	17	47	1	0	90	9	0	0	183	33	11:00 - 12:00 pm
12:00 - 1:00 pm	100	150	99	6	0	84	15	75	2	0	100	10	5	18	201	51	12:00 - 1:00 pm
1:00 - 2:00 pm	100	150	97	6	0	90	16	80	2	0	98	10	73	258	442	292	1:00 - 2:00 pm
2:00 - 3:00 pm	100	150	99	6	0	97	17	99	3	0	85	9	77	272	457	307	2:00 - 3:00 pm
3:00 - 4:00 pm	100	150	97	6	0	92	17	100	3	0	73	7	77	272	454	304	3:00 - 4:00 pm
4:00 - 5:00 pm	100	150	57	3	0	75	14	81	2	0	58	6	81	286	461	311	4:00 - 5:00 pm
5:00 - 6:00 pm	100	150	49	3	0	31	6	51	2	0	63	6	84	297	463	313	5:00 - 6:00 pm
6:00 - 7:00 pm	100	150	21	1	0	0	0	0	0	0	76	8	86	304	462	312	6:00 - 7:00 pm
7:00 - 8:00 pm	100	150	8	0	0	0	0	0	0	0	78	8	93	328	487	337	7:00 - 8:00 pm
8:00 - 9:00 pm	100	150	1	0	0	0	0	0	0	0	76	8	100	353	511	361	8:00 - 9:00 pm
9:00 - 10:00 pm	100	150	1	0	0	0	0	0	0	0	55	6	98	346	502	352	9:00 - 10:00 pm
10:00 - 11:00 pm	100	150	1	0	0	0	0	0	0	0	46	5	39	138	292	142	10:00 - 11:00 pm
11:00 - 12:00 am	100	150	1	0	0	0	0	0	0	0	0	0	43	152	302	152	11:00 - 12:00 am

<sup>2</sup> 100% of residential demand: 150  
<sup>3</sup> 100% of school demand: 6  
<sup>4</sup> 100% of Edgeworks - Workspace demand: 18  
<sup>5</sup> 100% of Edgeworks - exhibit demand: 3  
 100% of Edgeworks - conference demand: 285  
 100% of Edgeworks - Restaurant demand: 10  
 100% of Edgeworks - Outdoor demand: 353

Land Use Size  
 500 Units  
 1654.75 SF  
 90,225 SF  
 3,254 SF

Based on?  
 0.3/unit recommended  
 ITE Parking Gen, High-School, 35 Staff X 0.47, 75 Seniors - assume half don't drive, X 0.10 (assuming 10% occupancy on weekends)  
 ITE Parking Gen, R&D, 383 Staff, Weekday (Sat not available), X 0.1 (assuming 10% occupancy on weekends), X 0.47  
 ITE Parking Gen, Museum, Saturday, 3.25 KSF - Assumed to be closed on weekends  
 Level 2 event space demand X 0.47, 1.75 Attendants per ride share  
 Not expected to draw people from off-site, Only Restaurant Staff  
 Attendants X 0.47, 2.25 Attendants per ride share

Total Based on 100% Demand  
 Shared Parking Output

511 Spaces - Assumes EdgeWorks conference space is closed  
 481 Total Spaces - 391 Non-Residential Spaces