

June 16, 2023

PK# 5431-22.460

# PARKING DEMAND ANALYSIS-OFFICE

Project:

**1715 Market Center**

*In Dallas, Texas*

Prepared for:

**City of Dallas**

On behalf of:

**Market Center Boulevard JV LP**

Prepared by:

*Steve E. Stoner*

Steve E. Stoner, P.E., PTOE



7557 Rambler Road, Suite 1400  
Dallas, Texas 75231-2388  
(972) 235-3031 [www.pkce.com](http://www.pkce.com)  
TX.REG: ENGINEERING FIRM F-469  
TX. REG. SURVEYING FIRM LS-100080-00

**PARKING DEMAND ANALYSIS-OFFICE**  
**1715 Market Center**  
Dallas, Texas

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## INTRODUCTION

The services of **Pacheco Koch (PK)** were retained by **Market Center Boulevard JV LP** to conduct a Parking Demand Analysis (PDA) for the office component of the proposed mixed-use development (the "Project") located at 1715 Market Center in Dallas, Texas. For reference, a concept plan and a site location map (**Exhibit 1**) are provided at the end of this report.

Market Center Boulevard JV LP is seeking a new Planned Development Subdistrict for the subject property. The proposed PD conditions contain a slight deviation in the parking requirements for the office land use compared to the property's existing zoning rights. This study is being provided to support the request. Pacheco Koch is a licensed engineering firm based in Dallas, Texas, that provides professional services in traffic engineering, transportation planning, parking analysis, and related fields.

### **Purpose**

A PDA is an investigation of actual and/or published parking demand characteristics for a specific site with specific land use(s). The analysis is designed to take into consideration any site-, project-, or use-specific factors that may affect parking demand. Therefore, the results presented in this analysis may or may not apply to other similar projects.

Parking demand is theoretically represented by local zoning ordinances, which provide a good baseline point of reference. However, in many cases, these ordinances can be overly-simplified and/or over-generalized and do not sufficiently reflect actual parking needs of the Project. The purpose of this PDA is to compare the anticipated parking needs with the corresponding code requirements to illustrate the differences and provide justification for a potential reduction in the corresponding code parking requirement. Approval of any reduction is a subject to the approval process of the City of Dallas.

### **Project Description**

Based upon development program data provided by the Owner, the Project is proposed to consist of the following land uses:

*Table 1. Proposed Development Program*

<b>LAND USE</b>	<b>AMOUNT</b>
Office	462,100 SF
Restaurant	48,000 SF
Retail/Personal Service	12,000 SF
<b>TOTAL</b>	<b>522,100 SF</b>

The Project is anticipated to provide an off-street parking supply of 1,340 spaces within various surface and structured facilities within the site.

The 4.4-acre site is currently zoned PD 621 – Old Trinity and Design District Special Purpose District, Subdistrict 1.

## PARKING CODE REVIEW

As outlined in Section 51P-621.110 of the Dallas Development Code, the parking requirement for the office uses in PD 621 is one space per 358 SF of floor area (plus, one space per 105 SF for restaurant, and one space for 275 SF for retail and personal service uses). Section 51P-621.110(b)(1) also allows for application of time-of-day factors for multi-use developments. A summary of the resulting net parking requirement is summarized in **Table 2A** and **2B**.

Table 2A. Base Code Parking Requirement (No Factors Applied)—Current PD Conditions

LAND USE	QUANTITY	RATE	PARKING REQUIREMENT
Office	462,100 GSF	1 space per 358 GSF	1,291
Restaurant	48,000 GSF	1 space per 105 GSF	457
Retail and Personal Service	12,000 GSF	1 space per 275 GSF	44
Total (before Time-of-Day Adjustments)			1,792

Table 2B. Parking Requirement (With Time-of-Day Factors)—Current PD Conditions

LAND USE	BASE REQUIREMENT	Morning	Noon	Afternoon	Late Afternoon	Evening
Office-Related	1,291	100% (1,291)	80% (1,033)	100% (1,291)	85% (1,097)	35% (452)
Restaurant	457	20% (91)	100% (457)	30% (137)	30% (137)	100% (457)
Retail and Personal Service	44	60% (26)	75% (33)	70% (31)	65% (28)	70% (31)
Subtotal	1,792	1,408	<b>1,522</b>	1,458	1,263	939

The net parking requirement, which is equal to the highest subtotal after application of the time-of-day factors, is 1,522 parking spaces.

REQUEST: The Applicant's request is to reduce the parking requirement for the office land use from one space per 358 SF to one space per 435 SF. Application

of this ratio in the preceding calculation would lower the parking requirement to 1,340 spaces as summarized in Table 3.

Table 3A. Base Code Parking Requirement (No Factors Applied)—Proposed PD Conditions

LAND USE	QUANTITY	RATE	PARKING REQUIREMENT
Office	462,100 GSF	1 space per 435 GSF	<b>1,062</b>
Restaurant	48,000 GSF	1 space per 105 GSF	457
Retail and Personal Service	12,000 GSF	1 space per 275 GSF	44
Total (before Time-of-Day Adjustments)			1,563

Table 3B. Parking Requirement (With Time-of-Day Factors)—Proposed PD Conditions

LAND USE	BASE REQUIREMENT	Morning	Noon	Afternoon	Late Afternoon	Evening
Office-Related	<b>1,062</b>	100% <b>(1,062)</b>	80% <b>(850)</b>	100% <b>(1,062)</b>	85% <b>(903)</b>	35% <b>(372)</b>
Restaurant	457	20% (91)	100% (457)	30% (137)	30% (137)	100% (457)
Retail and Personal Service	44	60% (26)	75% (33)	70% (31)	65% (28)	70% (31)
Subtotal	1,563	1,180	<b>1,340</b>	1,230	1,068	859

The requested rate change would reduce the required parking by 182 spaces—from 1,522 to 1,340.

## PARKING DEMAND ANALYSIS-OFFICE

Submittal of this Parking Demand Analysis-Office is being provided to provide technical support for the request.

### Published Parking Data

The *Parking Generation* manual, 5<sup>th</sup> Edition (2019), published by the **Institute of Transportation Engineers (ITE)**, is the preeminent source of technical parking demand data. The manual is a compilation of actual parking generation data and statistics by land use as collected over several decades by creditable sources across the country. Though the manual is not comprehensive, data are provided for several land uses. Use of the ITE equations and rates to project peak

parking demand is widely recognized, when applicable; however, application of engineering judgment to interpret the data is strongly advised.

**Table 4** provides a summary of ITE's projected peak parking demand rates for general office use.

*Table 4. Projected Peak Parking Demand for Office Use (Published Data)*

LAND USE	RATE
General Office Building* <i>[ITE Land Use Code 710]</i>	Average rate: 2.39 per 1,000 square feet of gross floor area <i>(equivalent to one space per 418 SF)</i> [95% Confidence Interval: 2.28-2.50 per 1,000 SF GFA]

\* NOTE: ITE definition state 'General Office Building' may include other on-site uses, such as restaurant.

### **Parking Demand Observations**

For a similar request, Pacheco Koch collected a limited amount of parking demand data at an existing office building located in the vicinity of the subject site at 1825 Market Center Boulevard, which is considered to be representative of the parking character and demand conditions for the proposed office use. The data indicated the observed parking demand for that site was one space per 425 SF, which is generally consistent with the ITE rate and the requested rate. A copy of the study is provided in the Appendix of this report.

## **SUMMARY**

**Market Center Boulevard JV LP** is seeking to modify the parking requirement for office use within the subject property PD conditions from the existing ratio of one space per 358 SF to a ratio of one space per 435 SF. The remainder of the proposed parking conditions correspond to the property's current zoning conditions. The net result of the proposed rate change would reduce the net parking requirement for the property by 182 spaces (from 1,522 to 1,340) for the development program described herein.

The Applicant's requested office parking ratio of one space per 435 spaces (or 2.29 spaces per 1,000 SF) is within the **Institute of Transportation Engineers Parking Generation** manual, 5<sup>th</sup> Edition 95% confidence interval peak parking demand rate for general office use of 2.28-2.50 spaces per 1,000 SF.

Previous parking demand observations collected by Pacheco Koch at a comparable office use in the vicinity of the subject site (from a prior study) showed an actual peak parking demand rate of approximately one space per 425 SF (2.35 per 1,000 SF), which is also within the ITE 95% confidence interval.

END OF MEMO



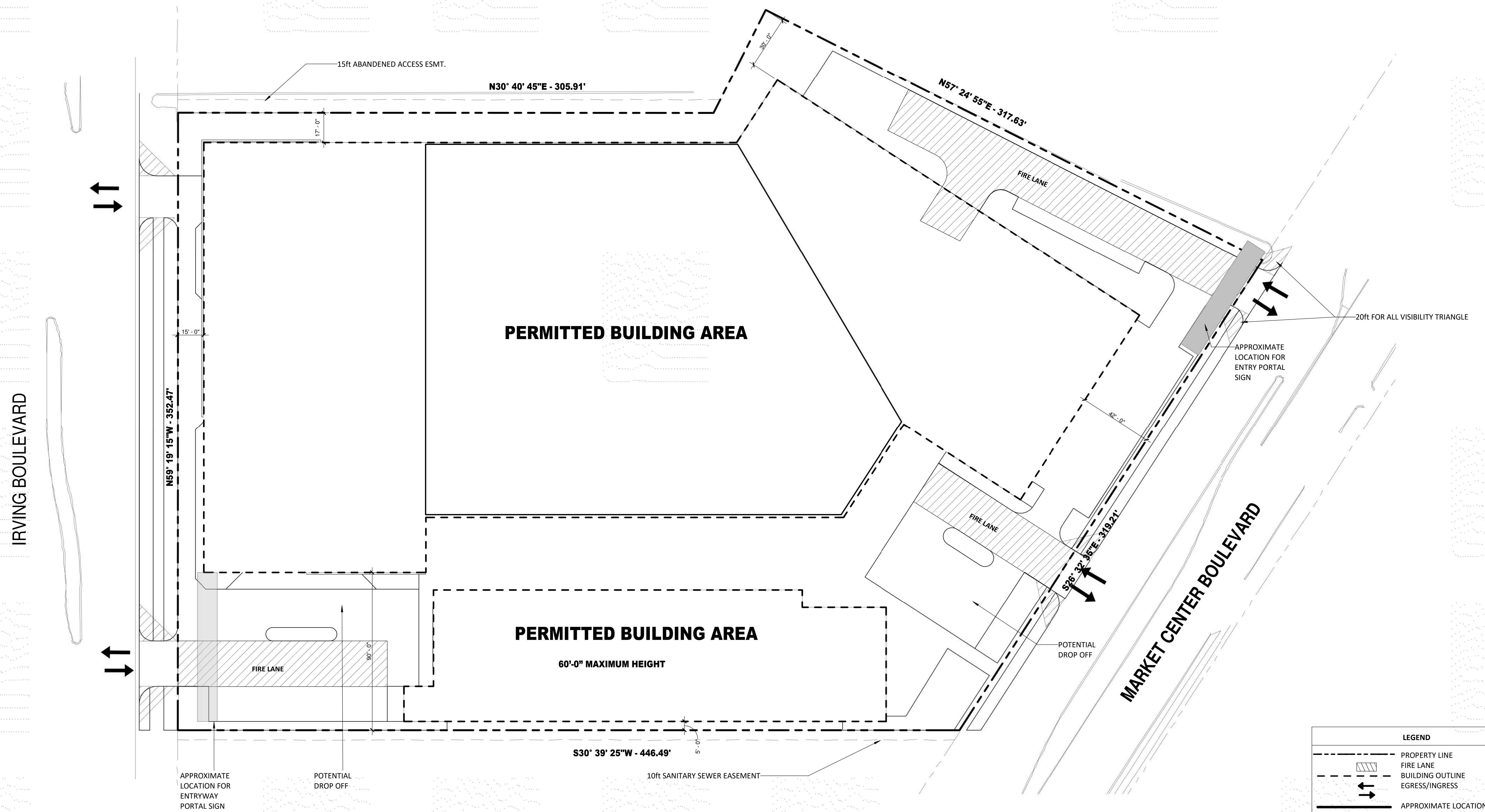
VICINITY MAP | 1333 OAK LAWN

OVERALL SITE DATA TABLE Allowable Uses Per PD 621, Subdistrict 1K	
Site Area	4.416 acres (192,365 SF)
Building Height	185' Mechanical equipment, elevator overrides, penthouses, parapet walls, and related equipment and structures may extend an additional 20 feet in height above the maximum structure height.
FAR	4.0
Minimum Square Footage (for specific uses)	Restaurant, retail, or personal service uses: minimum 15,000 square foot of floor area, located on street level



VICINITY MAP

NOT TO SCALE



LEGEND	
	PROPERTY LINE
	FIRE LANE
	BUILDING OUTLINE EGRESS/INGRESS
	APPROXIMATE LOCATION OF ROOFTOP-MOUNTED SIGN

**HKS**  
350 North St. Paul Street #100,  
Dallas, TX 75201

CIVIL ENGINEER  
**JACOB & HEFNER ASSOCIATES, INC.**

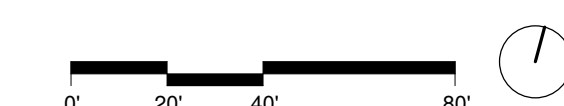
LANDSCAPE  
DWG.  
9128 Congress Avenue | Austin, Texas 78701

MEP  
**SUMMIT CONSULTANTS INC.**  
4144 N. Central Expressway Suite 635 | Dallas, Texas 75204

**QIP**  
CLIENT  
GUARDIAN INVESTMENT PROPERTIES  
750 N. Saint Paul Street Suite 1350 | Dallas, TX 75201

1715 MARKET CENTER BLVD.  
02/10/2023

25344.000  
XA1.01



CONCEPT PLAN  
PD CASE NUMBER



## APPENDIX



7557 Rambler Road, Suite 1400  
Dallas, Texas 75231-2388  
(972) 235-3031 www.pkce.com  
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## MEMORANDUM

**To:** David Nevarez, P.E., PTOE, CFM – City of Dallas Sustainable Development & Construction

**From:** Steve E. Stoner, P.E., PTOE

**CC:** Colin Moore – 1333 Oak Lawn Dallas Owner, LP  
Jonathan Vinson – Jackson Walker

**Date:** July 26, 2021

**Subject:** **Supplement to the Parking Demand Analysis for 1333 Oak Lawn Avenue**  
*PK#4918-21.127*

Per the request of City staff, Pacheco Koch has collected actual, current parking demand data from a nearby property of similar use and character as the proposed development at 1333 Oak Lawn Avenue. The subject property of this data collection is a mid-rise office building located at 1825 Market Center Boulevard, which is physically within about 500 feet of the subject site and the only candidate site of comparable size in the local area. The characteristics of the subject site are as follows:

- 113,021 SF, leasable (per Dallas Central Appraisal District) [119,079 GSF, approximated]
- 62.9% occupancy (as of July 6, 2021 per CoStar)<sup>1</sup>

The number of parked vehicles was counted on site during the 10:00 AM hour and the 2:00 PM hour (typically, these hours are among the times when the highest parking accumulation occurs) on two consecutive days—Tuesday, June 20, 2021 and Wednesday, June 21, 2021. To account for the diminished attendance resulting from lingering effects of the Covid pandemic (e.g., remote

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<sup>1</sup> Information provided by Quadrant Investment Properties, LLC. CoStar is an office-industry publication containing current office occupancy statistics.

workers, reduced staffing, etc.), PK applied an estimated adjusted factor of 1.4 to the raw data collection.<sup>2</sup>

The results of the study are summarized in the following table:

**Table 1. Summary of Parking Demand Characteristics  
at 1825 Market Center Boulevard**

QUANTITY	TUESDAY 07/20/2021 10:00 AM	TUESDAY 07/20/2021 2:00 PM	WEDNESDAY 07/21/2021 10:00 AM	WEDNESDAY 07/21/2021 2:00 PM
Total Vehicles Parked	121	<b>126</b>	121	123
Parked Vehicles per GSF <i>(119,079 GSF)</i>	--	<b>1 veh. per 945 GSF</b>	--	--
Parked Vehicles per occupied GSF <i>(62.9% occ.)</i>	--	<b>1 veh. per 594 occ. GSF</b>	--	--
Adjusted Parked Vehicles per occupied GSF <i>(x1.4 Covid factor—estimated)</i>	--	<b>1 veh. per 425 occ. GSF</b>	--	--

Based on the findings summarized above, the observed parking demand from a similar office use in the vicinity of 1333 Oak Lawn Avenue is approximately 1 parked vehicle per 425 occupied square feet (after adjustments for occupancy and Covid). Therefore, the proposed parking request (309 spaces, or one space per 419 GSF) is supported.

END OF MEMO

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<sup>2</sup> This estimated adjustment factor is specific to office use and was derived from two sources: (1) article from *Dallas Morning News* “Back to work: More than 50% of D-FW office workers return”, Steve Brown, July 8, 2021; and (2) PK study of office tenant attendance at Old Parkland office campus as of April 2021.