

MEMORANDUM TO: Jason Bergwerff  
Apex Design Build

FROM: Luay R. Aboona, PE, PTOE  
Principal

DATE: September 8, 2022

SUBJECT: Parking Study  
Proposed Dental Office  
Naperville, Illinois

This memorandum summarizes the results of a parking study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed dental office to be located in Naperville, Illinois. The site is located at 1108 E. Ogden Avenue (see **Figure 1**) and is occupied by an approximately 4,835 square-foot building with 16 parking spaces (a copy of the site plan is included in the Appendix). The dental office will have eight employees, with a maximum of seven working at any given time during operating hours. The space consists of (5) general use Orthodontic chairs, (5) general use Pediatric Dental Chairs, (4) Private chairs (Private chairs are not in regular use, only during a need for private setting, and the private use leaves a general use chair open). The Orthodontic and Pediatric Dental operate on alternating days of the week; pediatric chairs and Orthodontic chairs are NOT in use on the same days.

- Monday through Thursday: 8:00 A.M. to 5:00 P.M.
- Friday: 8:00 A.M. to 1:00 P.M.
- Saturday and Sunday: Closed

Access is provided off Ogden Avenue.

The purpose of this study was to determine the adequacy of the parking supply in meeting the parking needs of the proposed dental office. In order to achieve that, the following tasks were completed:

- A review of the City of Naperville Parking Code requirements
- A review of Institute of Transportation Engineers (ITE) parking ratios
- Parking surveys of similar dental offices

## City of Naperville Parking Requirements

Based on the City of Naperville Code of Ordinances, a dental office is required to provide parking at a ratio of five spaces per 1,000 square feet. This will result in a parking requirement of 24 spaces, which is eight spaces more than the proposed supply.



Aerial View of Site

Figure 1

## ITE Parking Ratios

Based on a review of ITE's *Parking Generation Manual*, 5<sup>th</sup> Edition, the parking requirements for a "Medical Office Building" (Land-Use Code 720) are as follows:

- The average ratio is 3.23 spaces per 1,000 square feet, yielding a demand of 16 spaces
- The 85<sup>th</sup> percentile ratio is 4.59 spaces per 1,000 square feet, yielding a demand of 22 spaces

As such, the proposed supply of 16 spaces will exceed ITE's average parking ratio and will be six spaces less than the 85<sup>th</sup> percentile ratio.

## Parking Surveys

Parking occupancy surveys were conducted by KLOA, Inc. at four similar facilities as follows: (All surveyed facilities serve a general population, as opposed to a smaller pediatric market):

- 433 E. Ogden Avenue in Clarendon Hills
  - 4,202 square feet in size
  - Ten employees
  - 14 spaces on site
- 602 W. Northwest Highway in Arlington Heights
  - 3,585 square feet in size
  - Eight employees
  - 26 spaces on site plus four on-street parking spaces
- 770 Busse Highway in Park Ridge
  - 4,173 square feet in size
  - Ten employees
  - 15 spaces on site plus four on-street parking spaces
- 314 N. York Street in Elmhurst
  - 3,027 square feet in size
  - Seven employees
  - 17 spaces on site

The parking occupancy surveys were conducted during the week of August 8, 2022 with every facility surveyed during operating hours. **Table 1** summarizes the results of the parking occupancy surveys at the four facilities. A review of the results indicates the following:

- The Clarendon Hills facility had a peak parking demand of 17 spaces occurring at 3:00 P.M. This translates into a peak parking ratio of 4.05 spaces per 1,000 square feet.

Table 1  
 PARKING OCCUPANCY SURVEY SUMMARY

Time	Parking Occupancy			
	Clarendon Hills	Arlington Heights	Park Ridge	Elmhurst
9:00 A.M.	7	6	6	0
10:00 A.M.	11	11	13	10
11:00 A.M.	13	10	14	9
12:00 P.M.	11	6	10	8
1:00 P.M.	6	5	14	9
2:00 P.M.	9	11	16	5
3:00 P.M.	17	12	9	7
4:00 P.M.	16	4	8	10
5:00 P.M.	10	3	0	9
6:00 P.M.	8	0	0	6

- The Arlington Heights facility had a peak parking demand of 12 spaces occurring at 3:00 P.M. This translates into a ratio of 3.35 spaces per 1,000 square feet.
- The Park Ridge facility had a peak parking demand of 16 spaces occurring at 2:00 P.M. This translates into a ratio of 3.83 spaces per 1,000 square feet.
- The Elmhurst facility had a peak parking demand of 10 spaces occurring at 10:00 A.M. and 4:00 P.M. This translates into a ratio of 3.3 spaces per 1,000 square feet.

Applying the highest observed peak demand ratio of 4.05 spaces per 1,000 square feet observed at the Clarendon Hills facility to the proposed facility yields a peak parking demand of 20 spaces, which is four more than the proposed supply. Applying the average peak ratio of 3.63 spaces per 1,000 square feet will yield a demand of 18 spaces, which is two space more than the proposed supply.

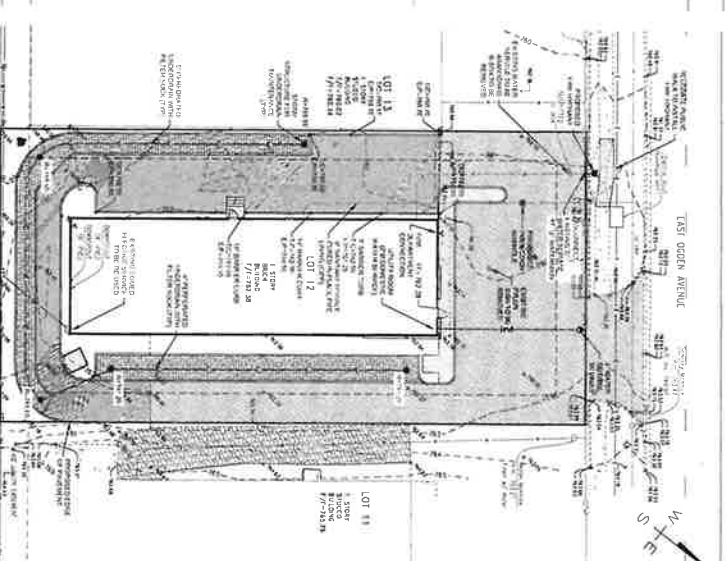
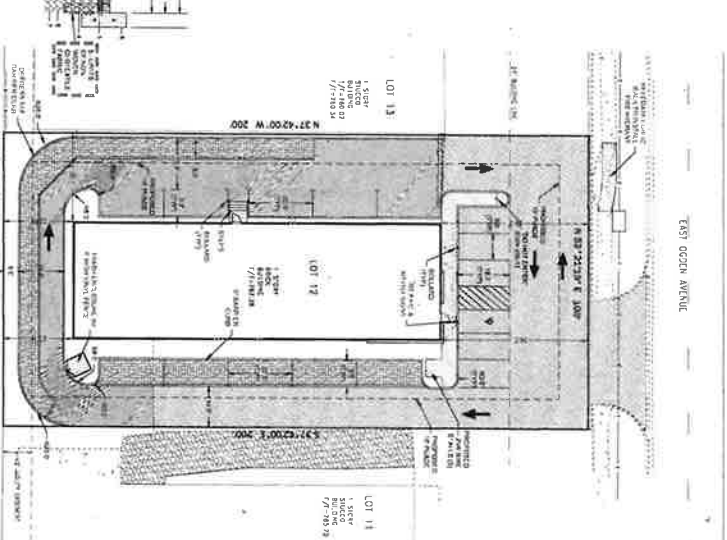
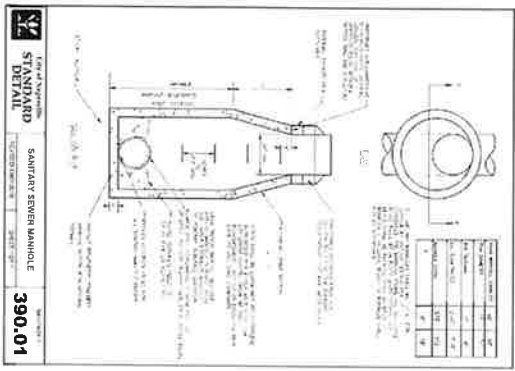
## Conclusions

Based on the preceding analyses, the proposed dental office to be located at 1108 E. Ogden Avenue with 16 parking spaces will require a parking variance due to the following:

- The City of Naperville Parking Code requirements exceed the proposed supply by eight spaces
- ITE parking ratios are either meet or exceed the proposed supply by six spaces
- The results of the parking surveys exceed the proposed supply by two to four spaces.

Parking demand is regulated by the scheduling of patients. Owners will limit scheduling to not exceed available parking. Additionally, because effectively half of square footage is dedicated to Pediatric Orthodontic and half dedicated Pediatrics Dentistry, the parking demand would be half of a single use 5,000 square foot facility would be. Rather than the multi-use facility that is proposed.

# Appendix



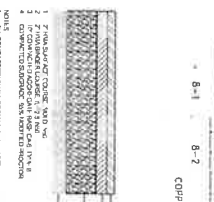
**BENCHMARKS**  
 BENCHMARK THIS RESET LOCATION 48' SOUTH EASTLY OF OGDEN AVENUE AND 84' WEST OF COLUMBIA AVENUE  
 ELEVATION: 724.1 (NAD 83)

**SITE BENCHMARK**  
 TAG BOT OF FIRE HYDRANT APPROXIMATELY 120' CORNER OF SURVEYED PLOT (SOUTH EASTLY)  
 ELEVATION: 728.34 (NAD 83)

**LEGAL DESCRIPTION**  
 LOT 12 IN MAPER TERRACE A SUBDIVISION OF LOT 1 OF ASSESSMENT PLAT OF PART OF SECTION 8, TOWNSHIP 14 N, RANGE 14 E, COUNTY OF DU PAGE, ILLINOIS, ACCORDING TO THE PLAT OF SAID MAPER TERRACE RECORDED APRIL 17, 1997 AS DOCUMENT NO. 888279 IN DU PAGE COUNTY, ILLINOIS

**PLAN**  
 08-08-3000-003

1. PROVIDE A 2" RADIUS ROUNDOFF ON ALL CORNERS.
2. PROVIDE A 2" RADIUS ROUNDOFF ON ALL CORNERS TO BE PROPOSED.
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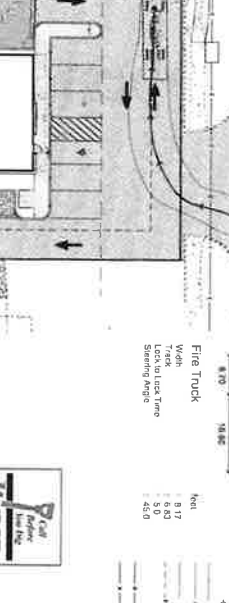
1. 1" FINISHED CURB, 4" MIN. THICKNESS.
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20. 1" FINISHED CURB, 4" MIN. THICKNESS.

**SITE AREA STATISTICS**

TOTAL OVERLAND AREA: 37,033 SF  
 OVERLAND DEVELOPER AREA: 28,888 SF

EXISTING	EXISTING	PROPOSED	PROPOSED
COVERTING	COVERTING	CONCRETE	CONCRETE
(SF)	(SF)	(SF)	(SF)
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
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97	98	99	100
101	102	103	104
105	106	107	108
109	110	111	112
113	114	115	116
117	118	119	120
121	122	123	124
125	126	127	128
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133	134	135	136
137	138	139	140
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145	146	147	148
149	150	151	152
153	154	155	156
157	158	159	160
161	162	163	164
165	166	167	168
169	170	171	172
173	174	175	176
177	178	179	180
181	182	183	184
185	186	187	188
189	190	191	192
193	194	195	196
197	198	199	200

**PAVING SUMMARY**  
 PROPOSED PROPOSED - 18,874 SF INCLUDING 140' DRIVE



**LEGEND**

EXISTING	PROPOSED
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
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75	76
77	78
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97	98
99	100

**PREPARED FOR**  
 G&G PEDIATRIC DENTISTRY  
 1108 EAST OGDEN AVENUE  
 NAPERVILLE, ILLINOIS

**DATE**  
 04/28/2022

**SHEET**  
 1 of 1

**REVISION DESCRIPTION**

NO.	DATE	DESCRIPTION
1	04/28/2022	PER CITY REVIEW 04/27/22
2	04/28/2022	PER CITY REVIEW 04/27/22
3	04/28/2022	PER CITY REVIEW 04/27/22
4	04/28/2022	PER CITY REVIEW 04/27/22
5	04/28/2022	PER CITY REVIEW 04/27/22
6	04/28/2022	PER CITY REVIEW 04/27/22
7	04/28/2022	PER CITY REVIEW 04/27/22
8	04/28/2022	PER CITY REVIEW 04/27/22
9	04/28/2022	PER CITY REVIEW 04/27/22
10	04/28/2022	PER CITY REVIEW 04/27/22

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