

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*, 5th 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 85th 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 85th 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.

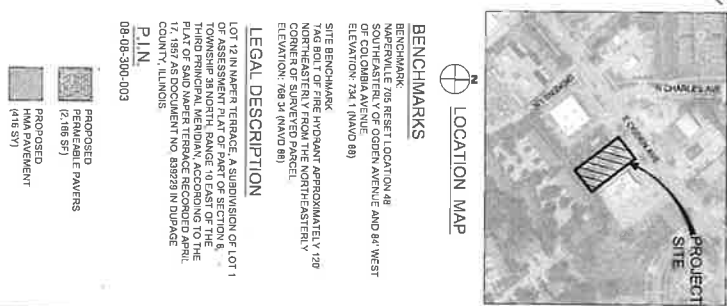
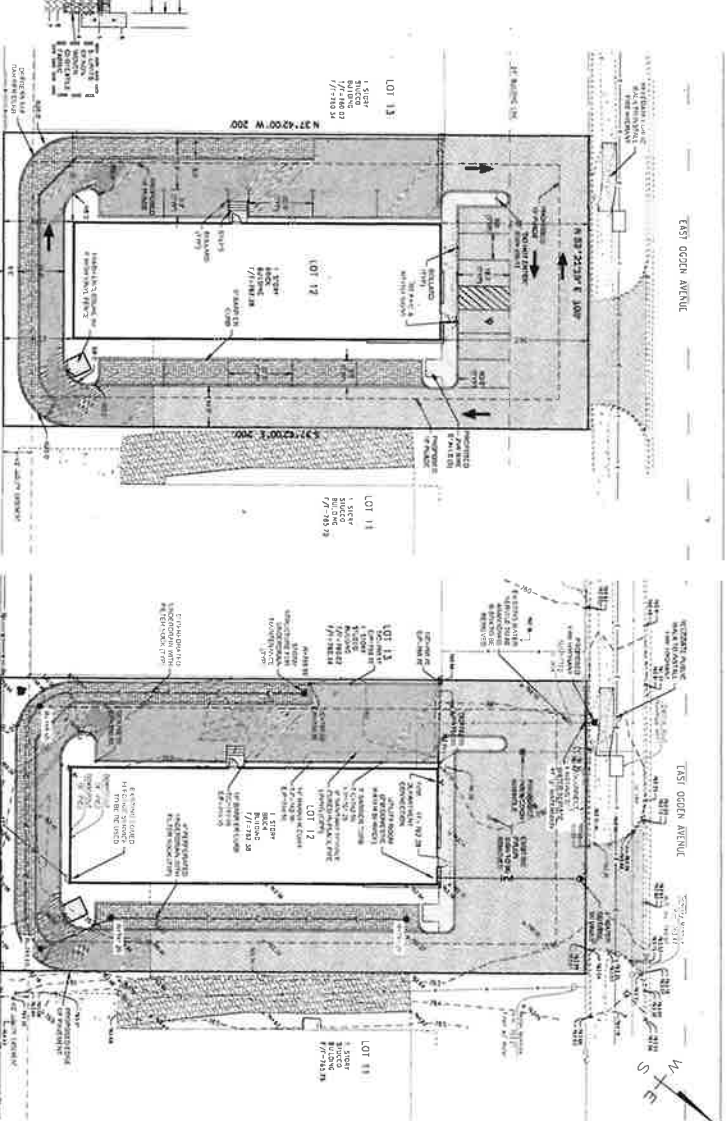
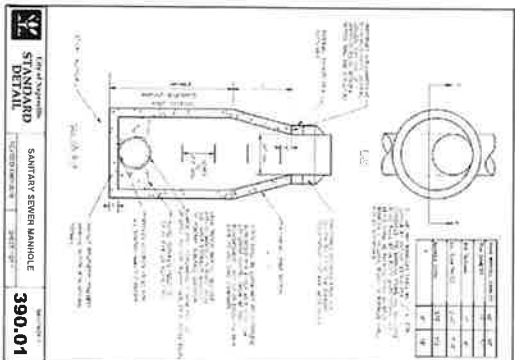
Conclusions

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.

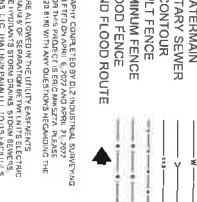
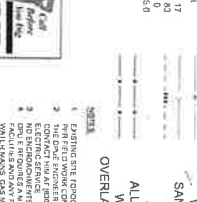
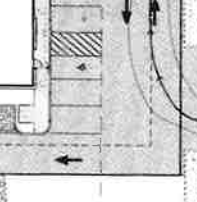
Appendix



SITE AREA STATISTICS

TOTAL DEVELOPER AREA: 27,023 SF
 OVERALL DEVELOPER DEVELOPER AREA: 26,888 SF

EXISTING	EXISTING	PROPOSED	PROPOSED
AREA (SF)	AREA (SF)	AREA (SF)	AREA (SF)
1. EXISTING IMPAVED DRIVEWAY	8,726	7,148	6,000
2. EXISTING DRIVEWAY	8,000	8,000	8,000
3. EXISTING DRIVEWAY	8,000	8,000	8,000
4. EXISTING DRIVEWAY	8,000	8,000	8,000
5. EXISTING DRIVEWAY	8,000	8,000	8,000
6. EXISTING DRIVEWAY	8,000	8,000	8,000
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99. EXISTING DRIVEWAY	8,000	8,000	8,000
100. EXISTING DRIVEWAY	8,000	8,000	8,000



LEGEND

EXISTING	PROPOSED
FLARED END SECTION	FLARED END SECTION
STORM INLET	STORM INLET
CATCH BASIN	CATCH BASIN
FIRE HYDRANT	FIRE HYDRANT
VALVE AND VAULT	VALVE AND VAULT
VALVE BOX	VALVE BOX
B BOX	B BOX
SANITARY MANHOLE	SANITARY MANHOLE
STREET LIGHT	STREET LIGHT
STORM SEWER	STORM SEWER
WATERMAIN	WATERMAIN
SANITARY SEWER	SANITARY SEWER
SILT FENCE	SILT FENCE
ALUMINUM FENCE	ALUMINUM FENCE
OVERLAND FLOOD ROUTE	OVERLAND FLOOD ROUTE

REVISIONS

NO.	DATE	DESCRIPTION
1	08-08-2003	PER CITY REVIEW DATE 08/27/03
2	08-08-2003	REMOVED OFF SITE IMPROVEMENTS
3	08-08-2003	PER CITY REVIEW DATE 08/26/03

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

DATE: 04/28/2003
SCALE: 1" = 20'
DRAWN BY: C/W
CHECKED BY: W/C
DATE: 04/28/2003

PROJECT: 2223-009
CLIENT: G&G PEDIATRIC DENTISTRY
ADDRESS: 1108 EAST OGDEN AVENUE, NAPERVILLE, IL 60563
DATE: 04/28/2003

ENGINEER: JASON BERENSON
SCALE: 1" = 20'
DRAWN BY: C/W
CHECKED BY: W/C
DATE: 04/28/2003

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