



Parking Study

September 22, 2021

To: Andrey Gidenko, Greencity Development

From: Jeffrey Hee, P.E.

Subject: Spring of Life Church Parking Study

This study evaluates the parking needs and recommendations for the proposed Spring of Life Church addition at 4771 116th Street SW. This document replaces the April 26, 2021, parking study with additions information about the proposal.

Project Description

Spring of Life Church is on land parcel no. 00788400000500. The site is zoned IP-Industrial Park. Figure 1 highlights the site's location.

The existing church building totals 24,743 square feet and has a seating capacity for 471 persons.

The proposal includes an 8,500-square foot building addition to the existing church with about 4,000 square foot additional of building area for church area and classroom spaces and 4,500 square feet of area for a gymnasium.

The existing parking lot has 182 parking stalls. The addition will add a net of up to 11 new parking stalls to the site bring to future total to up to 193 parking stalls. Figure 2 includes a conceptual site plan.

The site will continue church services and on weekdays proposes to provide music lessons and language classes and homeschool co-op program. The future services are described below:

- **Church Service.** Church services are Thursdays from 7:00 PM to 9:00 PM and Sundays from 9:00 AM to 1:00 PM. Peak parking demands for the services are on Sundays.

The classrooms and gymnasium are proposed to be used weekday evenings for youth and young adult programs. On Sundays, the classrooms will be used for Sunday School for church attendees. The gymnasium space will not be in use during the same time as the main church service(s).
- **Music and Language Programs.** The new classroom annex is proposed with music lessons and a language school. Music lessons are proposed on Tuesdays and Fridays from 4:30 PM to 9:10 PM and includes up to 40 students and 12 teachers/staff. Language classes are proposed on Mondays from 6:00 PM to 8:45 PM and includes up to 92 students and 16 teachers/staff. Both programs are anticipated between September to May.
- **Homeschool Co-Op.** The homeschool co-op program is proposed from Monday to Thursday from 9:00 AM to 2:30 PM. This daycare program includes up to 25 students and 3 teachers/staff. The co-op is also anticipated to operate between September to May.
- **Gymnasium.** Use of the gymnasium space will primarily be as ancillary to the other programs onsite. Public use of the gymnasium space will be schedule around other programs.

Table 1 summarizes the anticipated schedule.

Table 1: Parking Required

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8-9 AM							
9-10 AM	Church 9:00 AM- 1:00 PM	Homeschool Co-Op 9:00 AM-2:30 PM	Homeschool Co-Op 9:00 AM-2:30 PM	Homeschool Co-Op 9:00 AM-2:30 PM	Homeschool Co-Op 9:00 AM-2:30 PM		
10-11 AM							
11-12 AM							
12-1 PM							
1-2 PM							
2-3 PM							
3-4 PM							
4-5 PM			Music Lessons 4:30 PM-9:10 PM			Music Lessons 4:30 PM-9:10 PM	
5-6 PM							
6-7 PM		Language Classes 6:00 PM-8:45 PM					
7-8 PM					Church 7:00 AM-9:00 PM		
8-9 PM							
9-10 PM							
10-11 PM							

Parking Requirements

Mukilteo Municipal Code (MMC) Parking Requirements

The MMC Table 17.56.040: Off-Street Parking Requirements includes the following requirements:

- Churches and all assembly places with fixed seats: 1 per 4 seats or 8 feet of bench or pew.
- Commercial daycare centers: 1 per employee plus 1 stall per 8 children.
- Places of assembly without fixed seats: 13.3 per 1,000 square feet of gross floor area.

Table 2 summarizes the parking requirements by use.

Table 1: Parking Required

Land Use	Size	Parking Rate	Stalls (unrounded)	Stalls (rounded)
Church	505 seats	1 per 4 seats ¹	126.3	127
Music Lessons	40 students	1 per 4 students ²	5.0	17
	12 employees	1 per employee ²	12.0	
Language Classes	92 students	1 per 4 students ²	11.5	28
	16 employees	1 per employee ²	16.0	
Homeschool Co-Op	25 students	1 per 4 students ²	3.1	7
	3 employees	1 per employee ²	3.0	

1. Church with fixed seats

2. Commercial daycare center is the sum of the student and employee parking requirements.

The onsite programs operate at different times during the week and do not overlap.

Sunday church services generate the highest requirement for onsite parking (127 stalls). There are no other programs planned during Sunday church services. The site includes up to 193 net parking stalls which is sufficient to accommodate the church service on Sundays.

The onsite parking supply, is also sufficient to accommodate parking from the other programs, which do not overlap and, at maximum, require 28 parking stalls.

Parking Demand Analysis

The ITE Parking Generation Manual, 5th Edition was used to forecast peak parking demand for the site. The table includes the peak parking demand forecasted for:

- ITE Land Use 560, "Church". 505-seat church.
- ITE Land Use 565, "Day Care Center". Music Lessons, Language Classes and Homeschool Co-Op.
- ITE Land Use 495, "Recreational Community Center". 4,500-square foot gymnasium space.

Table 1 summarizes the peak parking demands for the individual uses.

Table 1: Parking Required

Land Use (ITE Code)	Size	Peak Demand Rate	Peak Demand (vehicles)
Church (LU 560)	505 seats	0.22 per seat (Sunday)	111
Music Lessons (LU 565)	12 employees	1.22 per employee ¹	15
Language Classes (LU 565)	92 students	0.24 per student ¹	22
Homeschool Co-Op (LU 565)	25 students	0.24 per student ¹	6
Gymnasium (LU 495)	4,500 square feet	4 per 1,000 square feet	18

1. Maximum ITE parking demand by student or by employee.

The peak parking demands for the programs are less than the parking requirements for each program. The peak parking demand for the church (111 vehicles) is less than the total onsite parking supply.

Joint-Use Onsite Parking

The proposed programs occur on different days and do not overlap in time. Joint-use of the onsite parking area by the proposed programs will support the intent of Section 7.56.070 of the Mukilteo Municipal Code.

Public use of the gymnasium is to be determined; however, a schedule for use of this space will be made to not coincide with major events on the site and attendance limitations may be implemented, as needed. The city municipal code requires places of assembly without fixed seats to provide up to 13.3 stalls per 1,000 square feet of gross floor area. A 4,500-square foot gymnasium is required to provide 60 parking stalls. When characterized as a 4,500-square foot recreational community center, the gymnasium space has a peak parking demand of only 18 vehicles.

The onsite parking supply can accommodate the church parking requirement (127 stalls) and the gymnasium parking requirement (60 stalls) if both program were to occur at the same time onsite.

Drop-Off

A drop-off area is proposed fronting 116th Street SW and will be primarily utilized for the homeschool co-op program, music lessons and language classes. The area will maintain sufficient width to allow for emergency vehicle access. Unoccupied parking onsite, can also support pickup and drop-off activities.

Summary and Recommendations

The onsite parking supply (up to 193 stalls) is adequate to support the site's parking needs.

It is recommended that programs or use of the gym not be scheduled to coincide with major assemblies of over 380 persons, such as Sunday church services. The threshold assumes 2 persons per car and that 193 parking stalls, is roughly equivalent to 386 persons.

If you or city staff have any questions, please contact me at your earliest convenience.





NORTH



SCALE APPROXIMATE FEET



Figure 1:
Vicinity Map

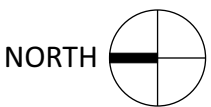
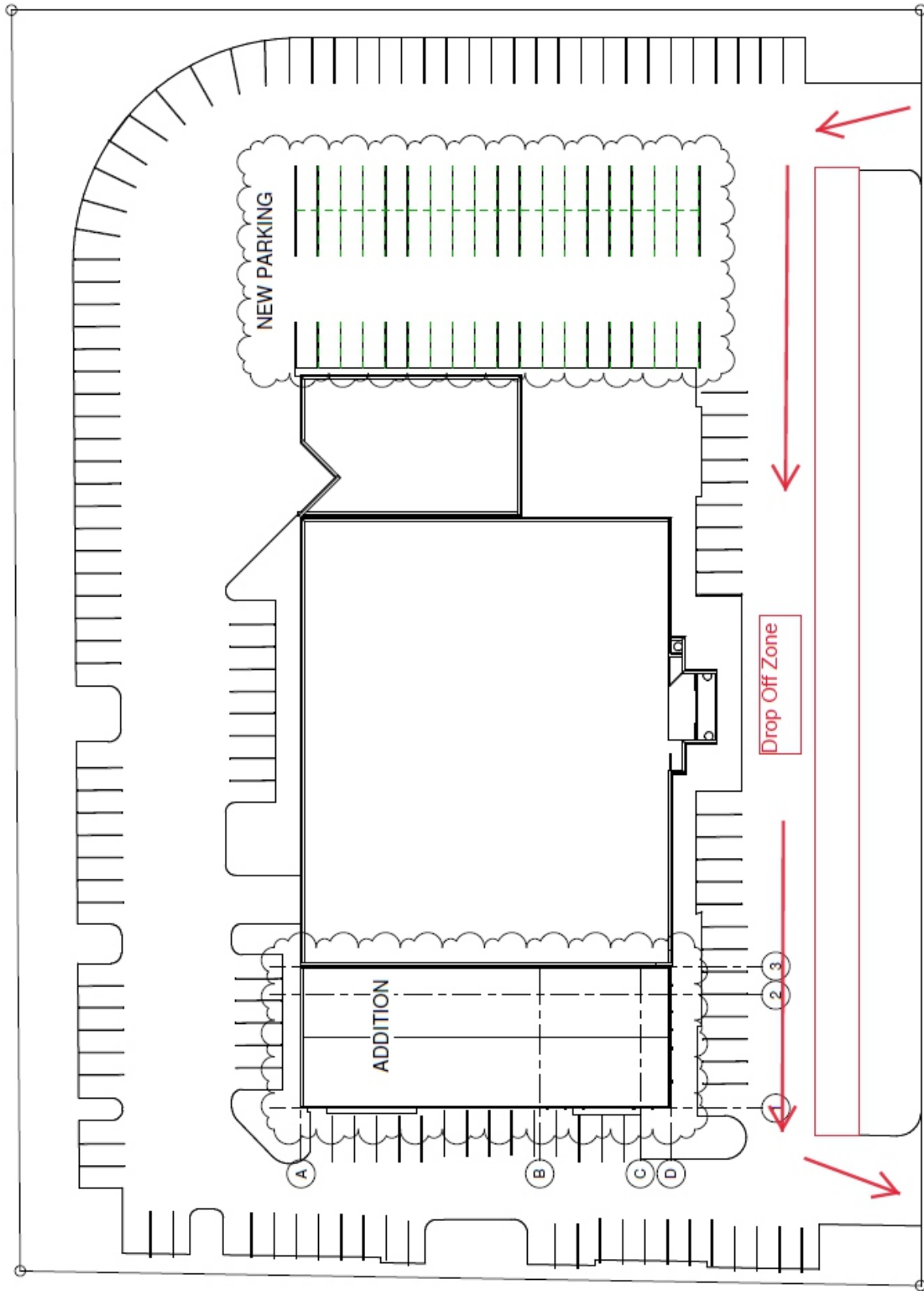


Figure 2:
Conceptual/Preliminary Site Plan

PRELIMINARY



116TH STREET SW



Scale
1" = 20'-0"

Recreational Community Center (495)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Sunday

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 2:00 - 4:00 p.m.

Number of Studies: 1

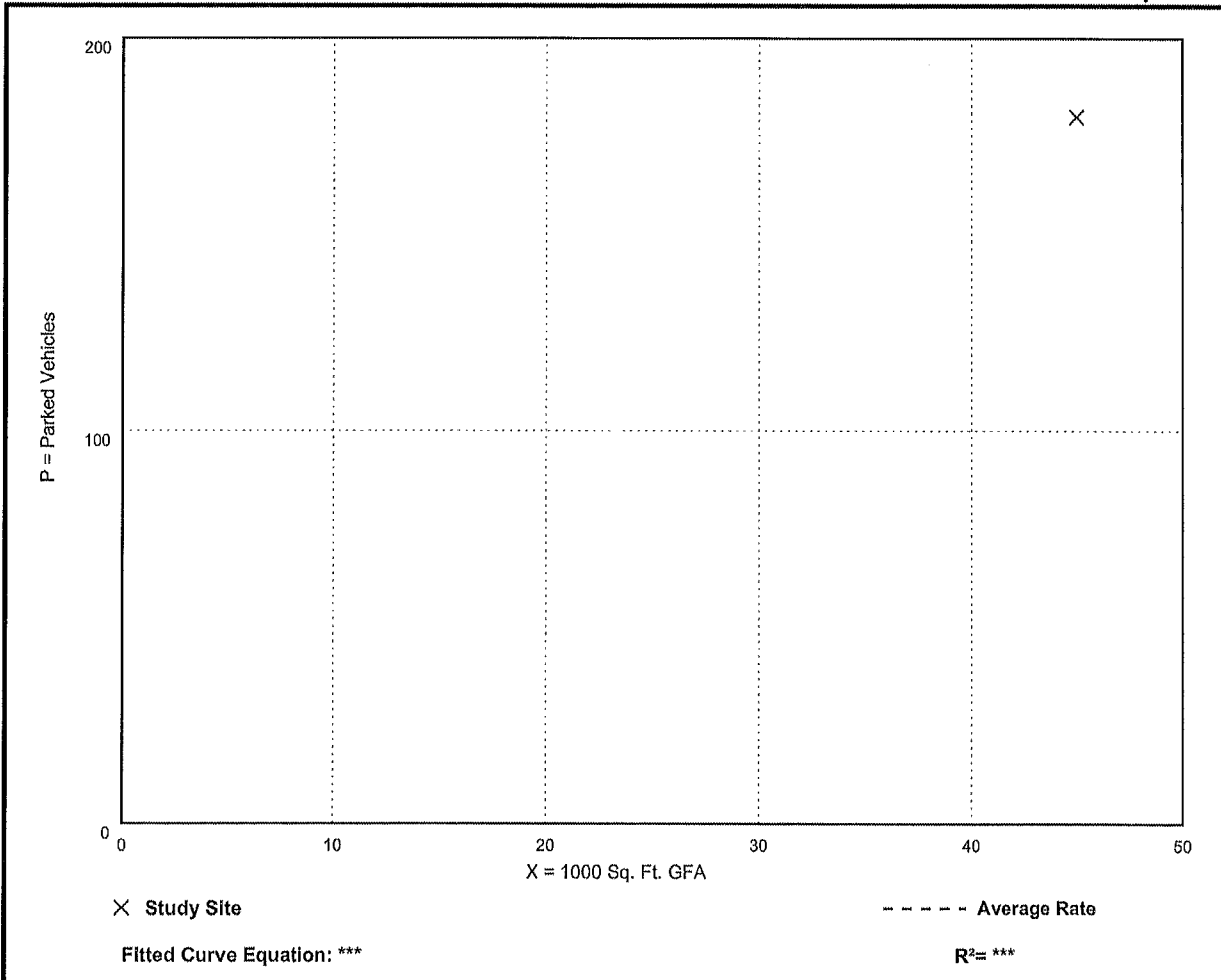
Avg. 1000 Sq. Ft. GFA: 45

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
4.00	4.00 - 4.00	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Church (560)

Peak Period Parking Demand vs: Seats

On a: Sunday

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 9:00 a.m. - 1:00 p.m.

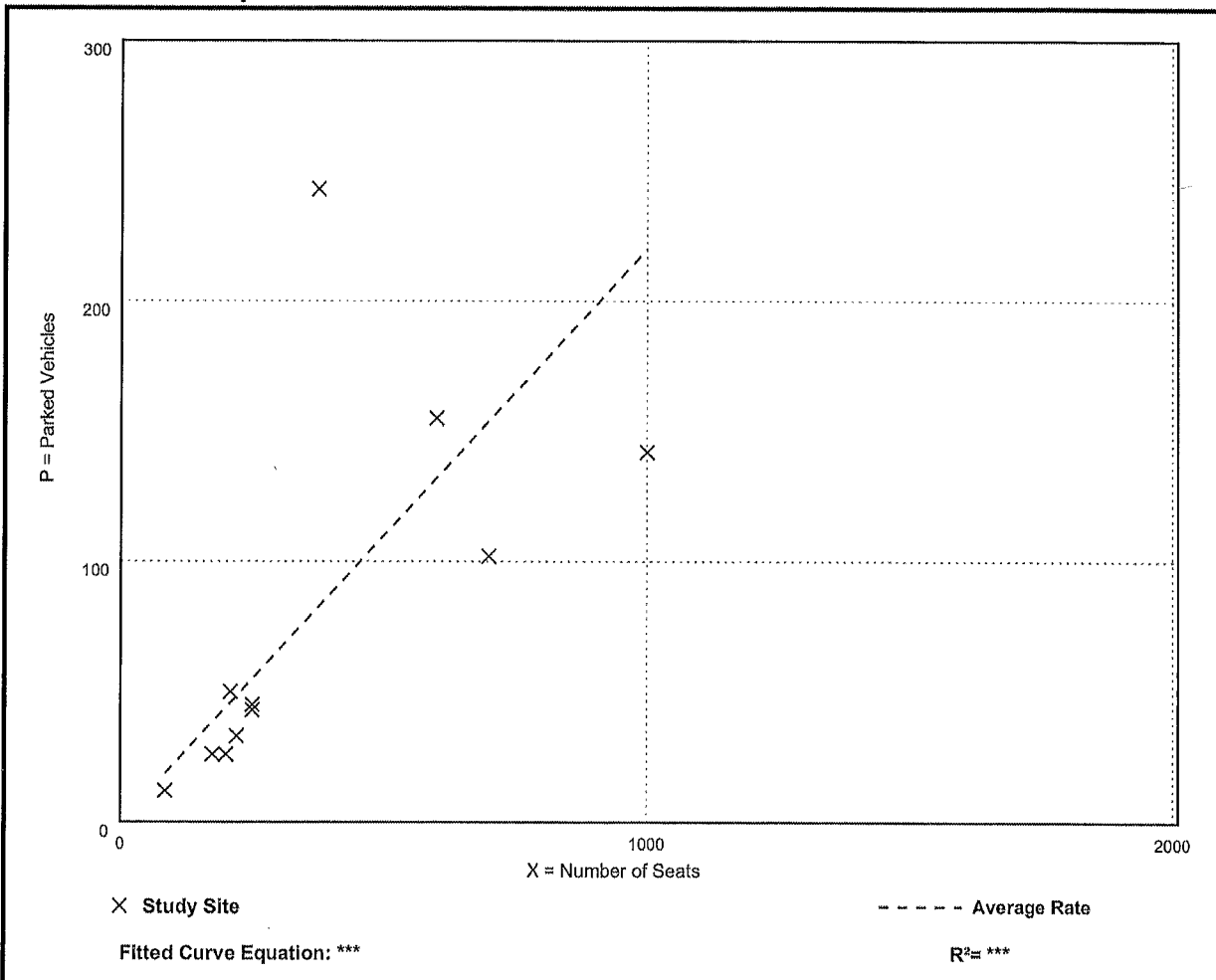
Number of Studies: 11

Avg. Num. of Seats: 369

Peak Period Parking Demand per Seat

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.22	0.13 - 0.65	0.15 / 0.34	***	0.15 (68%)

Data Plot and Equation



Day Care Center (565)

Peak Period Parking Demand vs: Employees

On a: Weekday (Monday - Friday)

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 8:00 a.m. - 6:00 p.m.

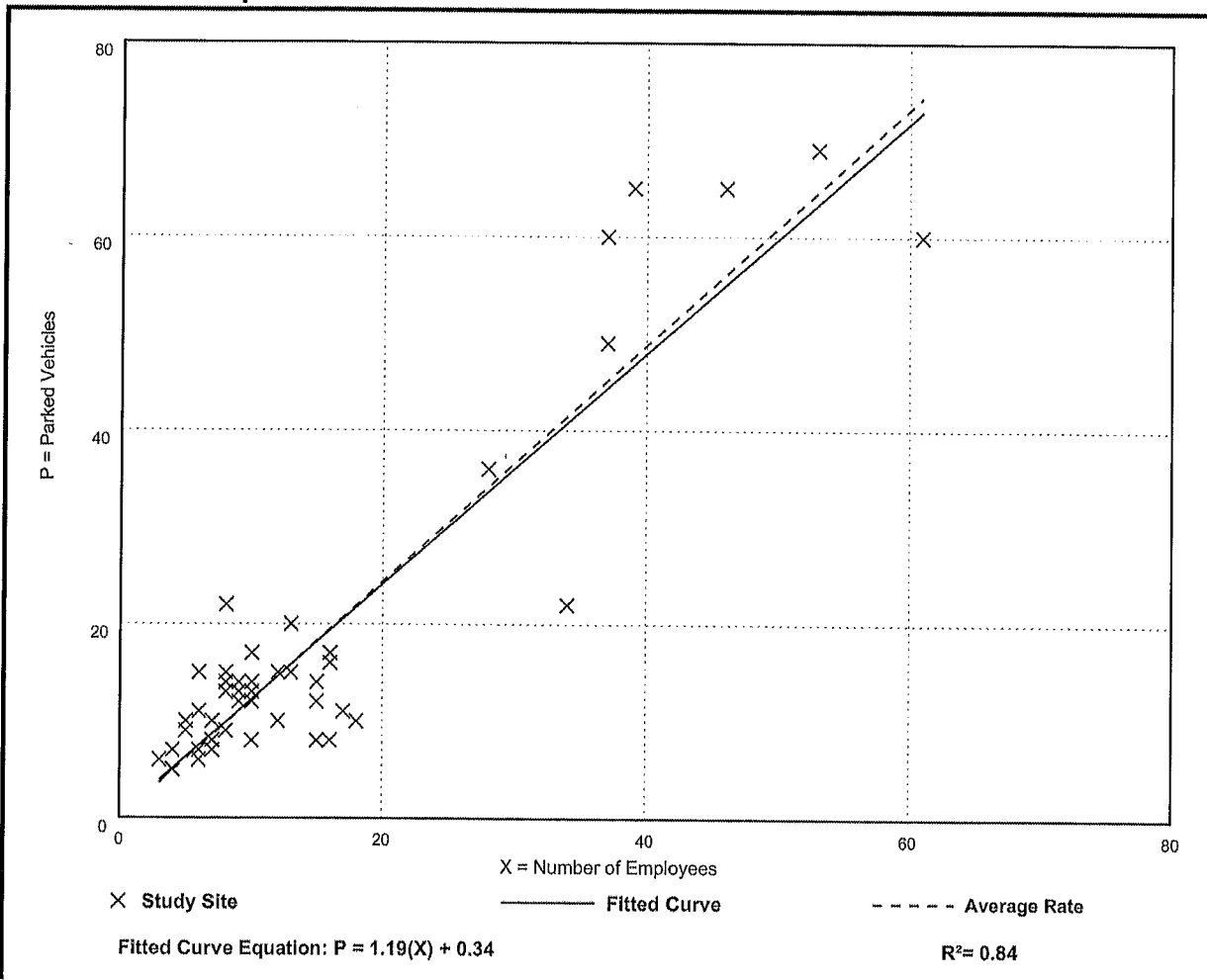
Number of Studies: 49

Avg. Num. of Employees: 15

Peak Period Parking Demand per Employee

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.22	0.50 - 2.75	1.09 / 1.78	1.10 - 1.34	0.42 (34%)

Data Plot and Equation



Day Care Center (565)

Peak Period Parking Demand vs: Students

On a: Weekday (Monday - Friday)

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 8:00 a.m. - 6:00 p.m.

Number of Studies: 39

Avg. Num. of Students: 85

Peak Period Parking Demand per Student

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.24	0.09 - 0.51	0.19 / 0.34	0.21 - 0.27	0.10 (42%)

Data Plot and Equation

