1258 – 1264 ARGYLE ROAD RESIDENTIAL DEVELOPMENT WINDSOR, ON

PARKING STUDY

Prepared by:

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PARKING STUDY (OCTOBER 2024)

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INTRODUCTION AND BACKGROUND

A low-rise residential apartment building is proposed for a vacant lot located at 1258 – 1264 Argyle Road, in Windsor, Ontario. The subject property is located on the east side of Argyle Road, between Ontario Street and Ottawa Street. Ontario Street is an east / west collector roadway running from Gladstone Avenue at the west to Walker Road at the east. Ottawa Street is a minor arterial roadway that starts at Howard Avenue and continues east to Walker Road. This development is proposed for construction in a single phase and is to be serviced via the alley located between Argyle Road and Monmouth Road.

The developer is proposing a three-storey residential building comprised of 14 bedrooms (within eight dwelling units); two units are to be included on each floor. The development is to be supplemented by six vehicle parking spaces. The site plan is provided in **Appendix A**.

The City's zoning bylaw (minimum 1.25 parking spaces per unit) requires at least 10 spaces for the eight units; accordingly, a variance is required for the shortfall of four parking spaces. Transportation Planning has indicated that they will accept the proposal if a parking study can sufficiently justify the reduction in required parking spaces. Therefore, the purpose of this study is to evaluate the anticipated peak parking demand versus the proposed on-site parking supply.

ITE PARKING GENERATION MANUAL VS. WINDSOR BYLAW REQUIREMENTS

The Institute of Transportation Engineers (ITE) Parking Generation Manual (6th Edition) reports parking demand studies and statistics from various land uses across North America. For a multifamily low-rise residential development (Land Use Codes 217 and 220), parking demand can be estimated based on the number of dwelling units (according to the number of bedrooms in the building). Six of the units are noted as having a primary bedroom and an additional room (which could serve as a den or a second bedroom); two of the units show only one bedroom. As referenced in **Appendix B**, the ITE's average rate for 2+ bedrooms (per dwelling unit) suggests that a minimum parking supply of 10 parking spaces should sufficiently accommodate the peak parking demand. However, if these accommodations are marketed as 1-bedroom units, the ITE's average rate for 1-bedroom units (per dwelling unit) suggests a minimum of seven parking spaces. Furthermore, since the subject location is technically within a Dense Multi-Use Urban area (defined as *a fully developed area [or nearly so], with diverse and interacting complementary land uses, good pedestrian connectivity, and convenient and frequent transit*), the ITE's average rate for 1-bedroom units (per dwelling unit) suggests that a minimum of 4 parking spaces could be sufficient for the proposed residential building.

Although the proposed parking supply may sufficiently accommodate the peak parking demand on its own, transit and active transportation options were also evaluated. Currently, Windsor Transit provides three Route 4 stops along Ottawa Street (within 300m of the site). Additional transit routes are provided along Richmond Street. The below Windsor Transit map depicts the routes available around the site; the site is identified with a red box:

Active transportation facilities are also provided within the study area; sidewalks are provided on both sides of Argyle Road. Several destinations are also located within walking / bicycling distance of the development (like food venues, pharmacy, medical, dental and commercial establishments, etc.), so walking and / or cycling transportation modes are likely. Therefore, due to the potential modal split, it is the engineers' opinion that the proposed on-site parking supply could adequately accommodate the subject development's peak parking demand.

Finally, it should also be noted that on-street parking is permitted on Argyle Road. Parking is permitted on alternate sides of the street (depending on the month of the year). A late-night on-site visit was arranged to evaluate the unoccupied overnight (on-street) parking supply; overnight, it was observed that six parking spaces were unoccupied within 50m walking distance of the subject site.

Realistically, the proposed parking supply is in keeping with current sustainability policies intended to encourage non-auto modes of travel, particularly within built-out and mature neighbourhoods. Furthermore, by limiting the availability of on-site vehicle parking, the developer is being proactive in encouraging an increased modal split for the subject area.

Based on the provided metrics and area characteristics, it is the engineers' opinion that the six proposed on-site parking spaces could sufficiently accommodate the peak parking demand generated by the proposed 8-unit, 14-bedroom, low-rise residential building.

SUMMARY AND CONCLUSIONS

A low-rise residential apartment building is proposed for a vacant lot located at 1258 – 1264 Argyle Road, in Windsor, Ontario. The subject property is located on the east side of Argyle Road, between Ontario Street and Ottawa Street. This development is proposed for construction in a single phase and is to be serviced via the alley located between Argyle Road and Monmouth Road. The developer is proposing a three-storey residential building comprised of eight dwelling units; the development is to be supplemented by six vehicle parking spaces.

The City's zoning bylaw (minimum 1.25 parking spaces per unit) requires 10 spaces for the eight units; however, if the dwellings are considered "one-bedroom units", the ITE references suggest that a minimum parking supply of seven spaces could accommodate the subject development's eight units. Furthermore, if the "Dense Multi-Use Urban" subcategory is applied, a minimum of four parking spaces could sufficiently accommodate the site's peak parking demand. Finally, the proposed development is close to existing active transportation facilities and reliable transit options; therefore, it is anticipated that the site's modal split could further reduce the peak parking demand.

Even if the potential modal split reductions are not realized post-buildout, an overnight on-site visit confirmed that a surplus of six on-street parking spaces could be available for residents' or visitors' use. Accordingly, it is the engineers' opinion that the proposed on-site parking supply (of six parking spaces) could adequately accommodate the peak parking demand generated by the proposed eight-unit low-rise residential development.

All of which is respectfully submitted,

RC Spencer Associates Inc.

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Appendix A

SITE PLAN

ARCHITECTURAL LEGEND

ACC	AIR CONDITIONING CONDENSING UNIT	N.I.C.	NOT IN CONTRACT
ACP	ALUMINUM COMPOSITE PANELS	ND	SANITARY NAPKIN DISPOSAL
ACT	ACOUSTIC CEILING TILE	NV	SANITARY NAPKIN VENDOR
ADO	AUTOMATIC DOOR OPERATOR	OH	OVERHEAD
AL	ALUMINIUM	OPP	OPPOSITE
AN	ANODIZED	P.LAM	PLASTIC LAMINATE
AFF	ABOVE FINISH FLOOR	PT	PAINT
ARS	ASSISTANCE REQUIRED SIGNAL	PTD	PAPER TOWEL DISPENSER/DISPOSAL
AVS	AUDIBLE VISUAL SIGNAL	PTL	PUSH TO LOCK
AWP	ACOUSTIC WALL PANEL	RA	ROOF ANCHOR
BL	BREAK LINE	RB	RESILIENT BASE
CBLK	CONCRETE BLOCK	RD	ROOF DRAIN
CG	CORNER GUARD	RFID	RADIO FREQUENCY IDENTIFICATION
CH	COAT HOOK	RWL	RAIN WATER LEADER
CJ	CONTROL JOINT	SCW	SOLID CORE WOOD
CL	CLEAR GLASS	SD	SOAP DISPENSER
CONC	CONCRETE	SHWR	SHOWER
CPT	CARPET TILE	SIM	SIMILAR
CR	CARD READER	SLR	COMCRETE SEALER
CT	PORCELAIN TILE	SR	SERVER RACK
CUH	CABINET UNIT HEATER	S.S	STAINLESS STEEL
CV	CONVECTOR	SSS	STAINLESS STEEL SHELF
CW	CURTAIN WALL	SVT	SOLID VINYL TILE
DS	DOWNSPOUT	TB	TACK BOARD
EBP	EMERGENCY PUSH BUTTON	TG	TINTED GLASS
EP	ELECTRICAL PANEL	TM	TILTED MIRROR
ES	EMERGENCY SIGN	T.O.	TOP OF
EX	EXISTING	TP	TOILET PAPER HOLDER
FB	FLOOR BOX - ELECTRICAL	TPG	TEMPERED GLASS
FD	FLOOR DRAIN	TWSI	TACTILE WALKING SURFACE INDICATOR
FE	FIRE EXTINGUISHER	U.N.O.	UNLESS NOTED OTHERWISE
FHC	FIRE HOSE CABINET	U/S	UNDERSIDE
FM	FLAT MIRROR	V.I.F.	VERIFY IN FIELD
GB	GRAB BAR	VFL	VINYL FLOOR
GL	GLASS	VCT	VINYL COMPOSITE TILE
GYP BD	GYPSUM BOARD	WB	WHITE BOARD
HM	HOLLOW METAL	WD	WOOD
IG	INSULATED GLASS	WI	WIRED GLASS
IM	INSULATED METAL	WP	WATERPROOFING
INS	INSULATION		

ROOM NAME 101a — ROOM NUMBER

101 — DOOR NUMBER

G1 — WINDOW TYPE

W1a — WALL TYPE/ CEILING TYPE

F-1 — FLOOR TYPE

R-1 — ROOF TYPE

? — MATERIAL TYPE

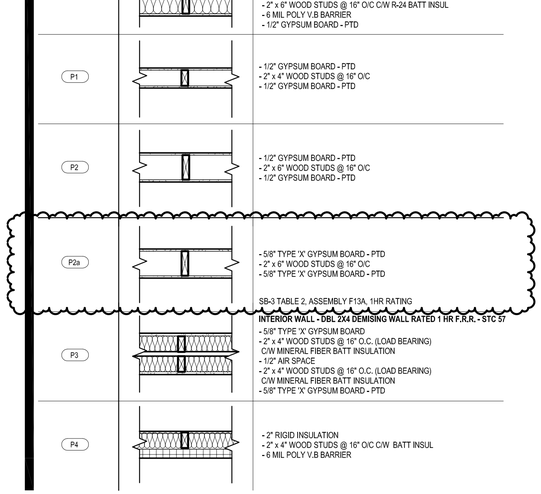
1 — REVISION NUMBER

No / No SHEET No / No — EXTERIOR BUILDING ELEVATION INDICATOR

No SHEET — MILLWORK ELEVATION INDICATOR

No SHEET — SECTION INDICATOR

WALLTYPE LEGEND



W1
- BOARD AND BATTEN
- WEATHER BARRIER
- 1/2" PLYWOOD
- 1" RIGID INSULATION CONTINUOUS R-6
- 2" x 6" WOOD STUDS @ 16" O/C C/W R-24 BATT INSUL
- 6 MIL POLY V.B BARRIER
- 1/2" GYPSUM BOARD - PTD

W2
- 3 5/8" BRICK
- 7/8" AIR SPACE
- WEATHER BARRIER
- 1/2" PLYWOOD
- 1" RIGID INSULATION CONTINUOUS R-6
- 2" x 6" WOOD STUDS @ 16" O/C C/W R-24 BATT INSUL
- 6 MIL POLY V.B BARRIER
- 1/2" GYPSUM BOARD - PTD

P1
- 1/2" GYPSUM BOARD - PTD
- 2" x 4" WOOD STUDS @ 16" O/C
- 1/2" GYPSUM BOARD - PTD

P2
- 1/2" GYPSUM BOARD - PTD
- 2" x 6" WOOD STUDS @ 16" O/C
- 1/2" GYPSUM BOARD - PTD

P2a
- 5/8" TYPE 'X' GYPSUM BOARD - PTD
- 2" x 6" WOOD STUDS @ 16" O/C
- 5/8" TYPE 'X' GYPSUM BOARD - PTD

SB-3 TABLE 2, ASSEMBLY F13A, 1HR RATING
INTERIOR WALL - DBL 2X4 DEMISING WALL RATED 1 HR F.R.R. - STC 57

P3
- 5/8" TYPE 'X' GYPSUM BOARD
- 2" x 4" WOOD STUDS @ 16" O.C. (LOAD BEARING) C/W MINERAL FIBER BATT INSULATION
- 1/2" AIR SPACE
- 2" x 4" WOOD STUDS @ 16" O.C. (LOAD BEARING) C/W MINERAL FIBER BATT INSULATION
- 5/8" TYPE 'X' GYPSUM BOARD - PTD

P4
- 2" RIGID INSULATION
- 2" x 4" WOOD STUDS @ 16" O/C C/W BATT INSUL
- 6 MIL POLY V.B BARRIER

SB-12 PERFORMANCE *TABLE 3.1 SB-12, A1 PACKAGE*

CEILING W/ ATTIC SPACE:	R-60
CEILING W/O ATTIC SPACE:	R-31
EXPOSED FLOOR:	R-31
WALLS ABOVE GRADE	R-22
BASEMENT WALLS:	R-12 + R-12
EDGE OF BELOW GRADE SLAB≤ 600MM BELOW GRADE:	R-10
HEATED SLAB OR SLAB ≤ 600MM BELOW GRADE:	R-10
WINDOWS MAX U VALUE:	.28
SKYLIGHTS MAX U VALUE:	.49
SPACE HEATING EQUIPMENT MIN AFUE:	96%
HRV MIN EFFICIENCY:	75%
DOMESTIC HOT WATER HEATER MIN EFFICIENCY:	0.8

SITE INFORMATION

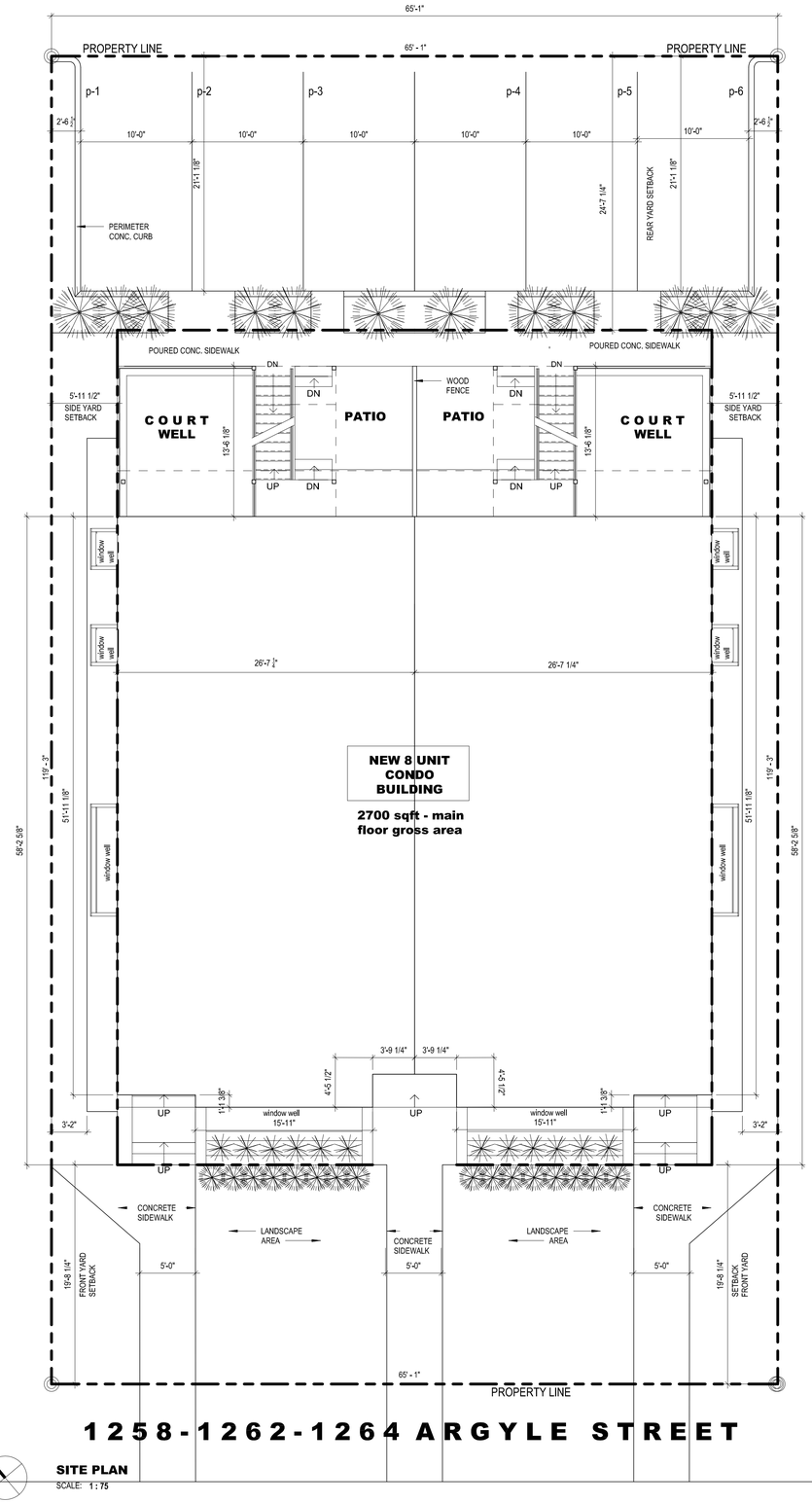
ADDRESS:	1258-1262-1264, ARGYLE STREET WINDSOR ON N8Y 3K4
ZONING:	RD2.2
SITE AREA:	7760 SF
MAX. COVERAGE ALLOWANCE:	45% (3,492 SF)
PROPOSED COVERAGE:	35% (2,700 SF)

AREAS

8 UNIT MULTI-RESIDENTIAL BUILDING
GROSS AREAS:

BASEMENT:	2700 SF (BELOW GRADE)
FIRST FLOOR:	2700 SF
SECOND FLOOR:	2520 SF
THIRD FLOOR:	2026 SF

ALLEY ACCESS



1258-1262-1264 ARGYLE STREET

SITE PLAN
SCALE: 1 : 75

THIS LINE IS 4" LONG

180 Eugenie Street West
Windsor, ON N8X 2X6
519.208.1390

Issued For (YYMMDD)

No.	Revision Schedule Description	Date

ARCHITECTURAL SITE PLAN

Walkerville 8 Unit Residential

1258-1262-1264, Argyle St, Windsor ON N8Y 3K4

Drawn By PA | Checked By DS

Project No 2422

Sheet No A101

3/27/2024 10:47:37 AM C:\Users\designer12\Documents\2422 ARCH - No.Garage_jimS6DYV.rvt

Appendix B

ITE PARKING GENERATION MANUAL – 6TH EDITION REFERENCES

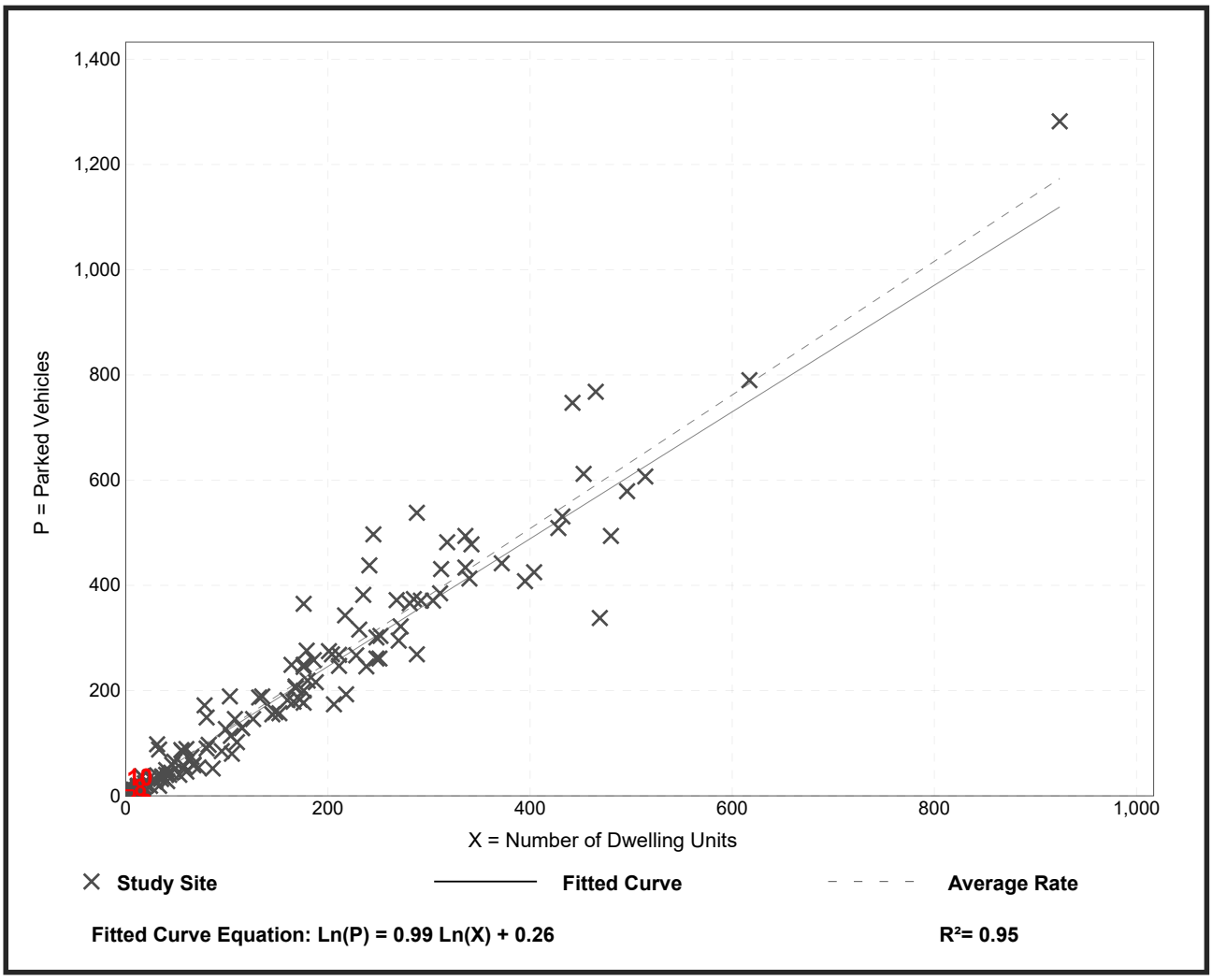
Multifamily Housing - 2+ BR (Low-Rise) - Not Close to Rail Transit
(220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Number of Studies: 143
Avg. Num. of Dwelling Units: 154

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.27	0.58 - 3.16	1.07 / 1.59	1.22 - 1.32	0.29 (23%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) + 0.26 **R^2= 0.95**

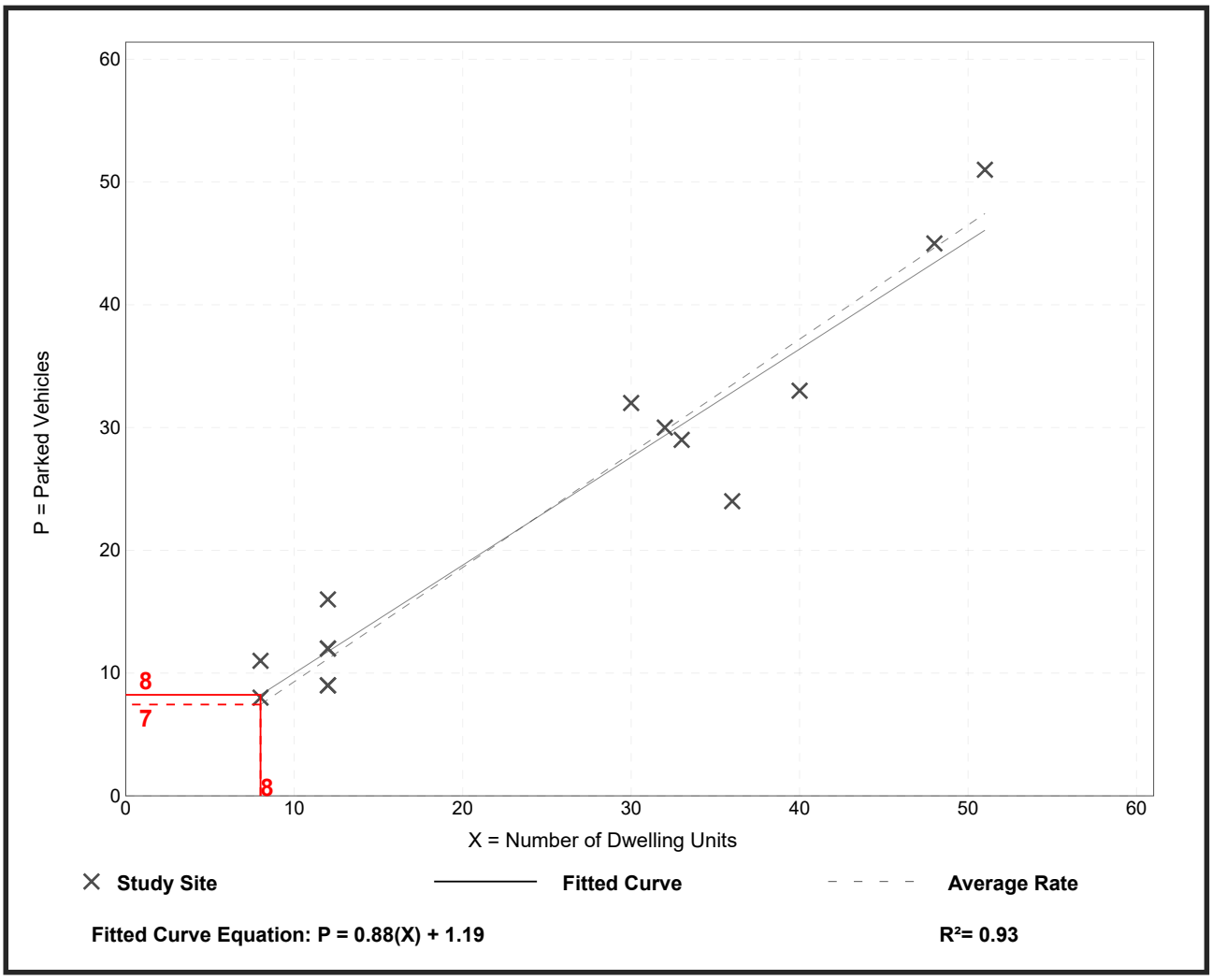
Multifamily Housing - 1 BR (Low-Rise) - Not Close to Rail Transit
(217)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Number of Studies: 14
Avg. Num. of Dwelling Units: 25

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.93	0.67 - 1.38	0.88 / 1.27	***	0.16 (17%)

Data Plot and Equation



Fitted Curve Equation: P = 0.88(X) + 1.19

R^2= 0.93

Multifamily Housing - 1 BR (Low-Rise) - Not Close to Rail Transit
(217)

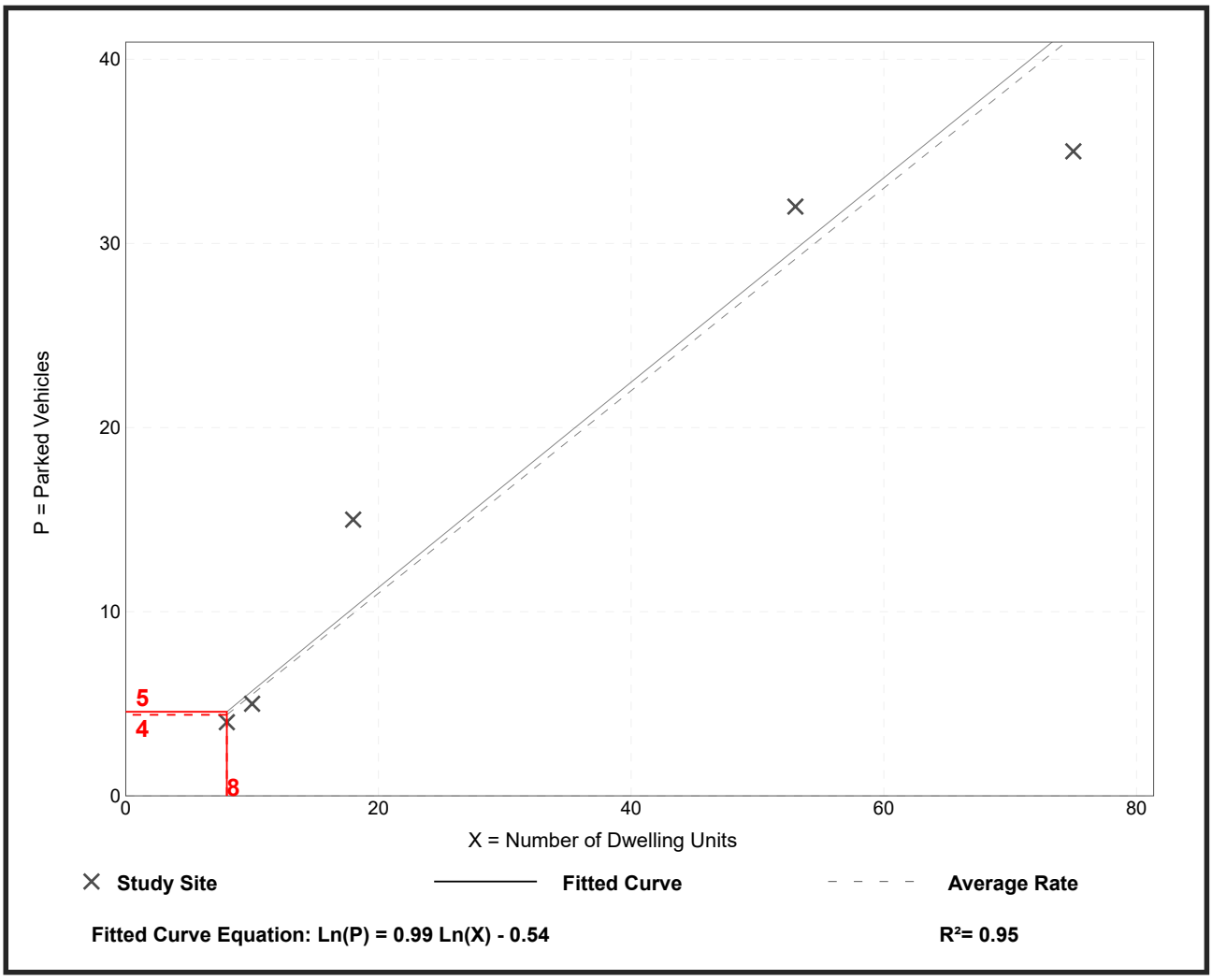
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 5
Avg. Num. of Dwelling Units: 33

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.55	0.47 - 0.83	0.50 / 0.83	***	0.13 (24%)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) - 0.54

R^2= 0.95