COMMUNITY DEVELOPMENT DIVISION
Engineering Department
22560 SW Pine Street
Sherwood, OR 97140
503-925-2309

Policy and Procedures

Date: 19 January 2006

Subject: Capacity Allocation Program (CAP);
Trip Analysis Worksheet

To: Planning, Building and Engineering,

The City of Sherwood has had the Capacity Allocation Program in place since 2000. This program and the resulting Trip Allocation Certificate have helped to manage growth along important transportation corridors here in Sherwood.

Accurate evaluation of traffic generation issues during project review is critical to a successful land use action. A Traffic Analysis and a CAP Trip Analysis Worksheet (with required attachments) shall be completed by the applicant and submitted to the City as part of the Initial Land Use Application. These documents are required to deem the application complete. If the proposed development meets the CAP requirements, a Preliminary Trip Allocation Certificate will be issued with the Final Trip Allocation Certificate issued as part of the staff report and the Notice of Decision.

If the development is modified at any time during the development approval process and this modification changes the square footage or the distribution of uses to the point that the net trips are increased, a new Trip Analysis and CAP Trip Analysis Worksheet will be required. A change in the development that exceeds the requirements of the CAP Ordinance will not be permitted.

Eugene F Thomas

Eugene Thomas, P.E.
City Engineer

Attachments:
CAP Trip Analysis Worksheet

Community Development Division
Engineering Department
22560 SW Pine Street
Sherwood, OR 97140
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CAP TRIP ANALYSIS WORKSHEET

The Sherwood Development Code, Section 6.307 -- The Highway 99W Capacity Allocation Program, requires a Trip Analysis (prepared by a professional engineer registered in the State of Oregon with expertise in traffic or transportation engineering) and Trip Allocation Certificate prior to determining completeness of the base Land Use Planning Application. The City of Sherwood has set a net trip limit of 43 trips/acre per Ordinance No. 2000-1104 (net trips refer to PM peak hour) and this applies to certain zones and uses. The primary purpose of a CAP Trip Analysis is to identify whether peak-hour net trips generated in a specified area do **NOT** exceed the net trip limit along Highway 99W in the City of Sherwood thereby preserving capacity of a State facility.

A Trip Analysis must use the entire area of the tax lot(s) containing the regulated activities, less the 100-year flood plain area in accordance with FEMA FIRM map for the City of Sherwood and/or as surveyed by a registered surveyor. The Trip Analysis is required only to demonstrate that a site will have fewer trips than the Net Trip Limit and to document any mitigation measures that may be required. The information provided for the Trip Analysis does not replace Traffic Study information as required by any other Land Use Application. The following information shall be submitted with a Trip Analysis Worksheet.

CAP Trip Analysis Worksheet Checklist
The following items are required to be attached to the completed CAP Trip Analysis Worksheet:

- ☐ Type and location of the regulated activity.
- ☐ A tax map identifying the parcel(s) involved.
- ☐ Square footage used to estimate trips, in accordance with methods outlined in the most recently published ITE Manual.
- ☐ Description of the type of activity as described in the ITE Manual.
- ☐ Copy of the ITE Manual page(s) used to estimate trips.
- ☐ Acreage of the site containing the regulated activity calculated to two (2) decimal points.
- ☐ Trip distributions and assignments from the regulated activity to all full access intersections impacted by ten (10) or more trips from the regulated activity with identification of the method used to distribute trips from the site.
- ☐ Copies of other studies utilized in the Trip Analysis.

- □ Summary of the net trips generated by the regulated activity in comparison to the net trip limit of 43 trips/acre.
- □ Signature and stamp of a professional engineer, registered in the State of Oregon with expertise in traffic or transportation engineering, who prepared the analysis.

Note: If a trip generation for the proposed use is not available in the ITE Manual or the applicant wishes to dispute the findings in the ITE Manual, the trip generation calculation may be based on an analysis of trips from five (5) sites with the same type of activity as that proposed.

Note: The City Engineer may waive, in writing, some of the requirements of the CAP Trip Analysis as described in Ordinance 2000-1104, Exhibit A, Section E, Part 5 (page 3 of 5)

CAP TRIP ANALYSIS WORKSHEET

Trip Analysis conducted by:	Michael T. Ard, PE
Project Description:	The Springs at Sherwood Expansion
Land Use Application File No:	N/A
Project Name:	The Springs at Sherwood

The CAP Trip Analysis Worksheet is meant to summarize the detailed information contained in the Traffic Study prepared by a professional engineer registered in the State of Oregon with expertise in traffic or transportation engineering and attached with the CAP Trip Analysis.

Net Trips means the number of trips generated by a regulated activity during the p.m. peak hour. Net trips equal new trips, diverted trips, and trips from existing activities on a site that will remain. Net trips do not include: pass-by trips, internal trips, trips from existing facilities that will be removed, and trips reduced due to implementation of transportation demand strategies.

The following types of projects and activities are specifically excluded from the provisions of the CAP: (1) churches; (2) elementary, middle, and high schools; (3) residential; and (4) changes in use that do not increase the number of trips generated by the current use.

1. **Net Trips**

   a 30 Existing Site Net Trips

   b 50 Proposed Development Net Trips (proposed development includes existing sites that will remain)

   c 0 Future (Full-Build-Out) Development Net Trips

   d 50 Proposed and Future Development Net Trips (1b+1c)*

2. **Acreage**

Tax Lot Number	Total Acreage	Net Acreage (Total Minus 100-Year Flood plain)	Proposed Development Net Acreage	Future Development Net Acreage (2b-2c)
2S132BA04400	2.85	2.85	2.85	0.00
2S132BA04300	0.43	0.43	0.43	0.00
2S132BA00600	1.24	1.24	1.24	0.00
2S132BA00400	0.21	0.21	0.21	0.00
2S132BA00401 & 2S132BA00402	0.22 & 0.15	0.22 & 0.15	0.22 & 0.15	0.00 & 0.00
TOTAL	a 5.10	b 5.10	c 5.10	d 0.00

3. **Net Trips Per Acre**

a 5.88 Existing Net Trips per Net Acre (1a/2b)

b 9.80 Proposed Development Net Trips per Net Acre (1b/2c)

c 9.80 Proposed & Future Development Net Trips per Net Acre (1d/2b)

d **43** Net Trips per Net Acre Allowed (**City of Sherwood Trip Limit**)

4. Proposed Mitigation:

A marked crosswalk is proposed to be installed across SW Oregon Street, connecting the project site to the southern sidewalk along SW Oregon Street which leads to City Hall, a library, the local farmer's market, among other various walking destinations. This marked crosswalk will mitigate the expected increase in safety conflicts experienced along SW Oregon Street associated with additional pedestrians of all ages wishing to use the walking facilities within the vicinity of the project site. In addition, the proposed development will contribute to the Transportation Development Tax which assists with funding improvements made to the transportation system.

*If proposed and future net trips per net acre (3c) are less than the existing net trips per net acre (3a) then the application is EXEMPT from CAP Ordinance requirements.

If any changes are proposed for the regulated activity (i.e. type of activity, acreage, etc.) the trip analysis worksheet shall be resubmitted with the original for comparative purposes and approval.

Comments:

Engineers Stamp

Attached Information for 'The Springs at Sherwood' CAP Trip Analysis

Parcels Involved with the Proposed Development:

Parcel Numbers: 400, 401, 402, 600, 4300, and 4400. (Please reference the attached Tax Map of the area.)

Parcel Acreage: #400 = 0.21 AC, #401 = 0.22 AC, #402 = 0.15 AC, #600 = 1.24 AC, #4300 = 0.43 AC, and #4400 = 2.85 AC, Total Acreage = 5.10 AC. (Please reference the attached Tax Map of the area.)

Land Use Code 210 (Single-Family Detached Housing):

Description of the Type of Activity: Per ITE *Trip Generation* "Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision." (Please reference the attached copies of *Trip Generation*.)

Location of the Regulated Activity: The existing conditions contain Single-Family Detached Housing units within parcels 400, 401, 402 and 4300, whereas the proposed conditions will not contain Single-Family Detached Housing units within any parcels. (Please reference the attached Tax Map of the area and the attached Proposed Site Plan.)

Units Used to Estimate Trips: Existing Conditions = 4 Dwelling Units; Proposed Conditions = 0 Dwelling Units. (Please reference the attached Proposed Site Plan and the attached Trip Generation Calculations.)

Land Use Code 252 (Senior Adult Housing—Attached):

Description of the Type of Activity: Per ITE *Trip Generation* "Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include limited social or recreational services. However, they generally lack centralized dining and on-site medical facilities. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired. " (Please reference the attached copies of *Trip Generation*.)

Location of the Regulated Activity: The existing conditions do not contain Senior Adult Housing—Attached units within any parcels, whereas the proposed conditions will contain Senior Adult Housing—Attached units within parcels 400, 401, 402, and 600. (Please reference the attached Tax Map of the area and the attached Proposed Site Plan.)

Units Used to Estimate Trips: Existing Conditions = 0 Dwelling Units; Proposed Conditions = 70 Dwelling Units. (Please reference the attached Proposed Site Plan and the attached Trip Generation Calculations.)

Land Use Code 254 (Assisted Living):

Description of the Type of Activity: Per ITE *Trip Generation* "Assisted living complexes are residential settings that provide either routine general protective oversight or assistance with activities necessary for independent living to mentally or physically limited persons. They commonly have separate living quarters for residents, and services include dining, housekeeping, social and physical activities, medication administration and transportation. Alzheimer's and ALS care are commonly offered by these facilities, though the living quarters for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and nursing homes. In

some areas of the country, assisted living residences may be called personal care, residential care, or domiciliary care. Staff may be available at an assisted care facility 24 hours a day, but skilled medical care—which is limited in nature—is not required. ” (Please reference the attached copies of *Trip Generation*.)

Location of the Regulated Activity: The existing conditions contain Assisted Living units within parcels 4400, and the proposed conditions will contain Assisted Living units within parcels 4300 and 4400. (Please reference the attached Tax Map of the area and the attached Proposed Site Plan.)

Units Used to Estimate Trips: Existing Conditions = 67 Beds; Proposed Conditions = 87 Beds. (Please reference the attached Proposed Site Plan and the attached Trip Generation Calculations.)

Trip Distributions and Assignments from the Regulated Activity:

Trip Distribution and Assignment: It is projected that 40% of all site trips will travel along NE 1st Street to/from areas west and south of the project site, 40% of all site trips will travel along SW Oregon Street to/from areas east of the intersection of SW Oregon Street at SW Langer Farms Parkway, and the remaining 20% of all site trips will travel along SW Langer Farms Parkway to/from areas north of the project site. Trips were assigned based on the relative amount of on-site parking available within each site access point and the associated type of land use activity served by the on-site parking within each access point, combined with the directional flow provided within ITE’s *Trip Generation* (Ninth Edition). (Please reference the attached aerial map displaying the trip distribution percentages and assigned trips.)

Full Access Intersections Impacted by 10 or More Trips by Regulated Activity: (Please reference the attached aerial map displaying impacted intersections.)

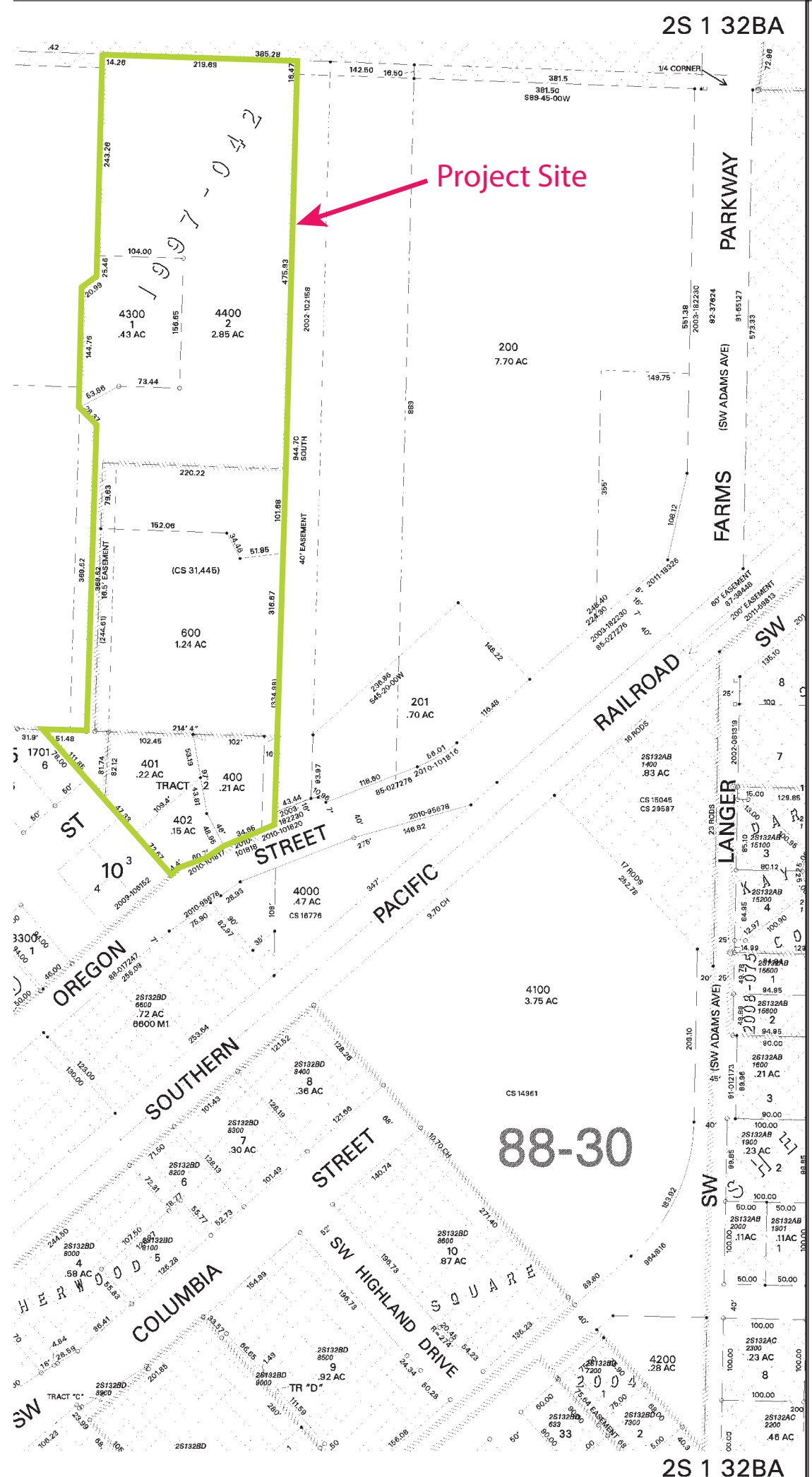
- Intersection of SW Oregon Street at the project site’s private roadway along the eastern edge of the property (net increase of 19 PM peak-hour trips generated from the proposed development)
- Intersection of SW Oregon Street at SW Langer Farms Parkway (net increase of 12 PM peak-hour trips generated from the proposed development)
- Intersection (traffic circle) of SW Oregon Street at SW First Street (net increase of 10 PM peak-hour trips generated from the proposed development)

Method Used to Distribute Trips: A review of the existing travel patterns, existing transportation facilities within the vicinity of the project site, and nearby destination points were considered when creating the distribution model.

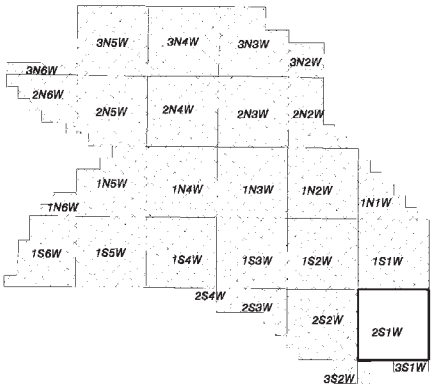
Summary of the Net Trips Generated by the Regulated Activity:

Under existing conditions for all of the properties involved in the proposed development, there are approximately 5.88 net trips generated per net acre, well below the 43 net trips per net acre allowed by the City of Sherwood.

Under proposed conditions for all of the properties involved in the proposed development, it is estimated that there will be approximately 9.80 net trips generated per net acre, well below the 43 net trips per net acre allowed by the City of Sherwood.



2S 1 32BA



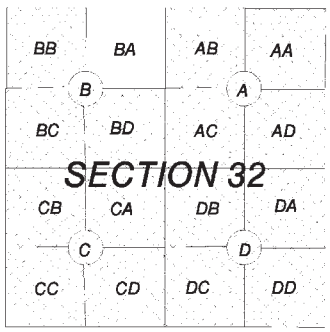
WASHINGTON COUNTY OREGON

NE1/4 NW1/4 SECTION 32 T2S R1W W.M.

SCALE 1" = 100'

36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6
12	7	8	9	10	11	12	7
13	18	17	16	15	14	13	18
24	19	20	21	22	23	24	19
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6

FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT
www.co.washington.or.us



Cancelled Taxlots For: 2S132BA

3301,100,300,801,900,500,700,3700,3800,3900,

SCALE 1" = 100'

0 50 100 200 300

WASHINGTON COUNTY 1843 OREGON

Assessment CARTOGRAPHY Taxation

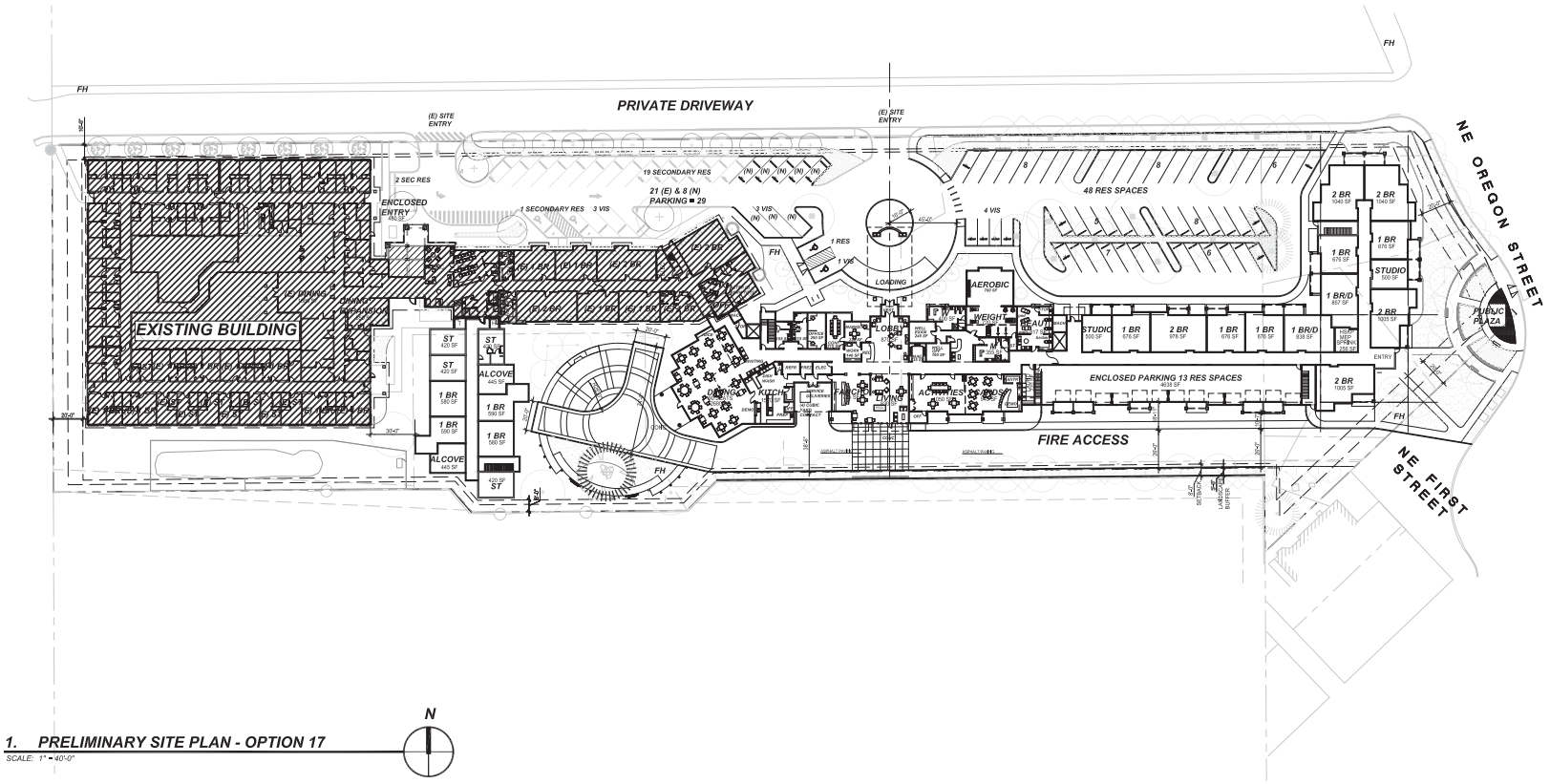
PLOT DATE: January 03, 2014

FOR ASSESSMENT PURPOSES ONLY - DO NOT RELY ON FOR OTHER USE

Map areas delineated by either gray shading or a cross-hatched pattern are for reference only and may not indicate the most current property boundaries. Please consult the appropriate map for the most current information.

2S 1 32BA

SHERWOOD
2S 1 32BA



N

1. PRELIMINARY SITE PLAN - OPTION 17

SCALE: 1" = 40'-0"

PARKING

(assumed) PREFERRED	REQUIRED	PROVIDED
(31) EXIST. MC UNITS X .5 = 15 SPACES	OFF STREET PARKING NOT REQUIRED FOR ALL PROPERTIES AND USES IN SMOCKVILLE AREA ORD. 2006-009. CALC ONLY FOR UNITS OUTSIDE SMOCKVILLE	EXIST.TO REMAIN = (21) SPACES
(36) EXIST AL UNITS X .5 = 18 SPACES		GARAGE PARKING = (13) SPACES
(20) NEW AL UNITS X .5 = 10 SPACES		PROPOSED ONSITE = (62) SPACES
(70) NEW IL UNITS X 1.2 = 84 SPACES	(13) 2BDRM X 1.5 = 20 SPACES	TOTAL ONSITE = 96 SPACES
TOTAL PREFERRED = 127 SPACES	(28) 1 BDRM X 1.25 = 35 SPACES	
	15% FOR VISITORS = 8 SPACES	RESIDENT PARKING = 84 SPACES
		VISITOR PARKING = 12 SPACES
	TOTAL REQUIRED = 63 SPACES	ACCESSIBLE PARKING = 5 SPACES

MEMORY CARE

(31) EXIST. UNITS

ASSISTED LIVING

(8) 1BR - AL
(4) ALCOVE - AL
(8) STUDIO - AL
TOTAL NEW - 20 UNITS
TOTAL EXISTING - 36 UNITS
TOTAL AL - 56 UNITS

1ST/2ND FLOOR AREA TOTAL = 6,385 SF
BUILDING AREA TOTAL = 12,770 SF

INDEPENDENT LIVING

ROOM COUNT 1ST FLR	ROOM COUNT TOTALS
(5) 2BR	(25) 2BR - 36% OF TOTAL
(5) 1BR	(33) 1BR - 48% OF TOTAL
(2) 1BR/D	(6) 1BR/DEN - 8% OF TOTAL
(2) STUDIO	(6) STUDIO - 8% OF TOTAL
TOTAL - 14 UNITS	70 TOTAL UNITS

1ST FLOOR AREA TOTAL	= 33,157 SF
2ND FLOOR AREA TOTAL	= 30,286 SF
3RD FLOOR AREA TOTAL	= 31,255 SF
IL BUILDING AREA TOTAL	= 94,698 SF
GARAGE	= 4,638 SF
MAINTENANCE BASEMENT	= 1,988 SF
IL BUILDING AREA TOTAL	= 101,324 SF
TI AREA (DINING EXPANSION)	= 1030 SF

LRS ARCHITECTS
720 NW Davis 503.221.1121
Suite 300 503.221.2077
Portland OR 97209 www.lrsarchitects.com

PRELIMINARY NOT FOR CONSTRUCTION

CONSULTANT:

PROJECT NUMBER: 212203

The Springs at Sherwood
Sherwood, Oregon

SHEET TITLE:
PRELIMINARY SITE PLAN

DRAWN BY: ----
DATE ISSUED: 03.24.2014

SHEET: **A101**

Land Use: 210
Single-Family Detached Housing

Description

Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.

Additional Data

The number of vehicles and residents had a high correlation with average weekday vehicle trip ends. The use of these variables was limited, however, because the number of vehicles and residents was often difficult to obtain or predict. The number of dwelling units was generally used as the independent variable of choice because it was usually readily available, easy to project and had a high correlation with average weekday vehicle trip ends.

This land use included data from a wide variety of units with different sizes, price ranges, locations and ages. Consequently, there was a wide variation in trips generated within this category. Other factors, such as geographic location and type of adjacent and nearby development, may also have had an effect on the site trip generation.

Single-family detached units had the highest trip generation rate per dwelling unit of all residential uses because they were the largest units in size and had more residents and more vehicles per unit than other residential land uses; they were generally located farther away from shopping centers, employment areas and other trip attractors than other residential land uses; and they generally had fewer alternative modes of transportation available because they were typically not as concentrated as other residential land uses.

The peak hour of the generator typically coincided with the peak hour of the adjacent street traffic.

The sites were surveyed between the late 1960s and the 2000s throughout the United States and Canada.

Source Numbers

1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 16, 19, 20, 21, 26, 34, 35, 36, 38, 40, 71, 72, 84, 91, 98, 100, 105, 108, 110, 114, 117, 119, 157, 167, 177, 187, 192, 207, 211, 246, 275, 283, 293, 300, 319, 320, 357, 384, 435, 550, 552, 579, 598, 601, 603, 611, 614, 637, 711, 735

Single-Family Detached Housing
(210)

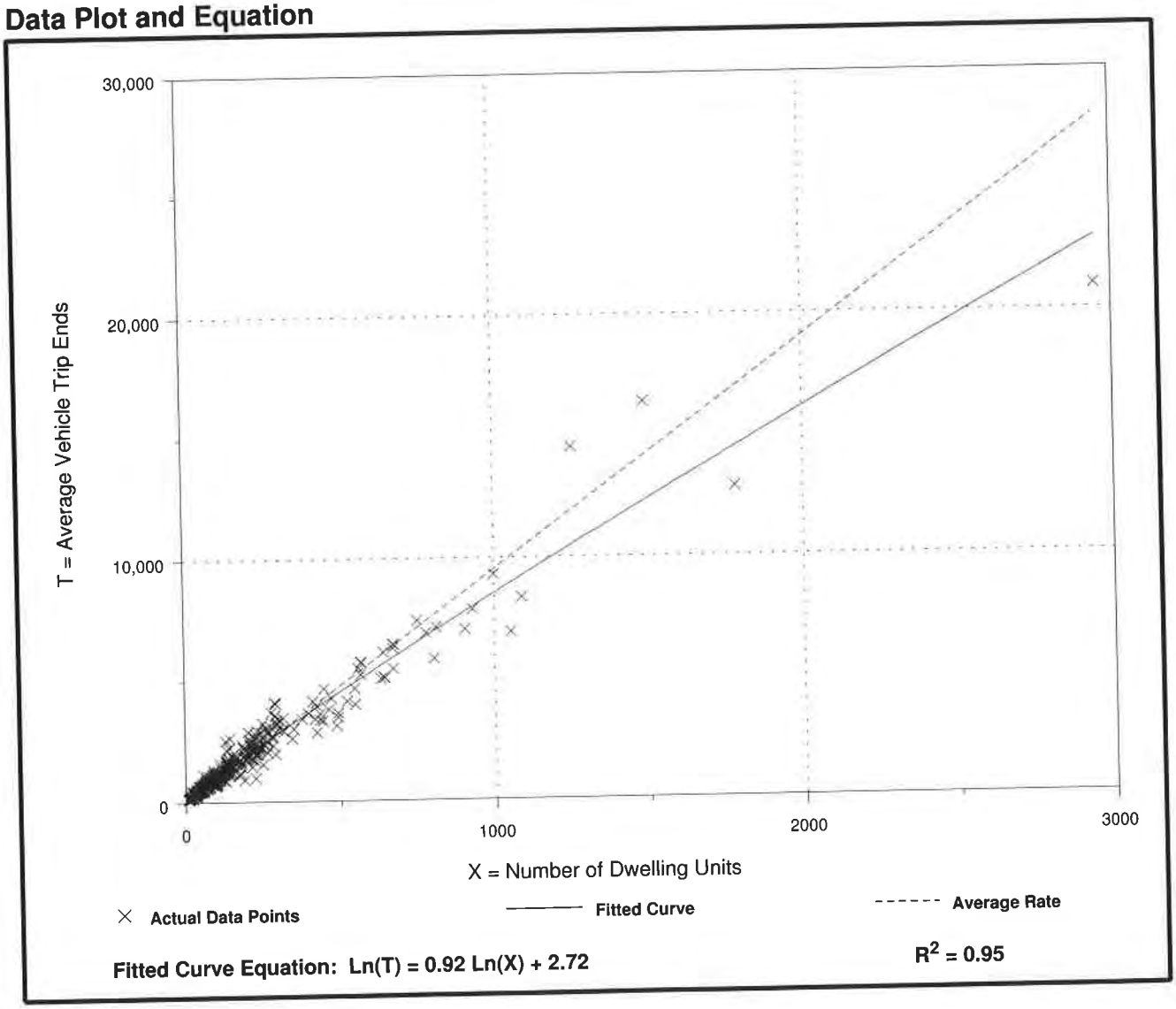
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 355
Avg. Number of Dwelling Units: 198
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.52	4.31 - 21.85	3.70

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.72

R^2 = 0.95

Single-Family Detached Housing
(210)

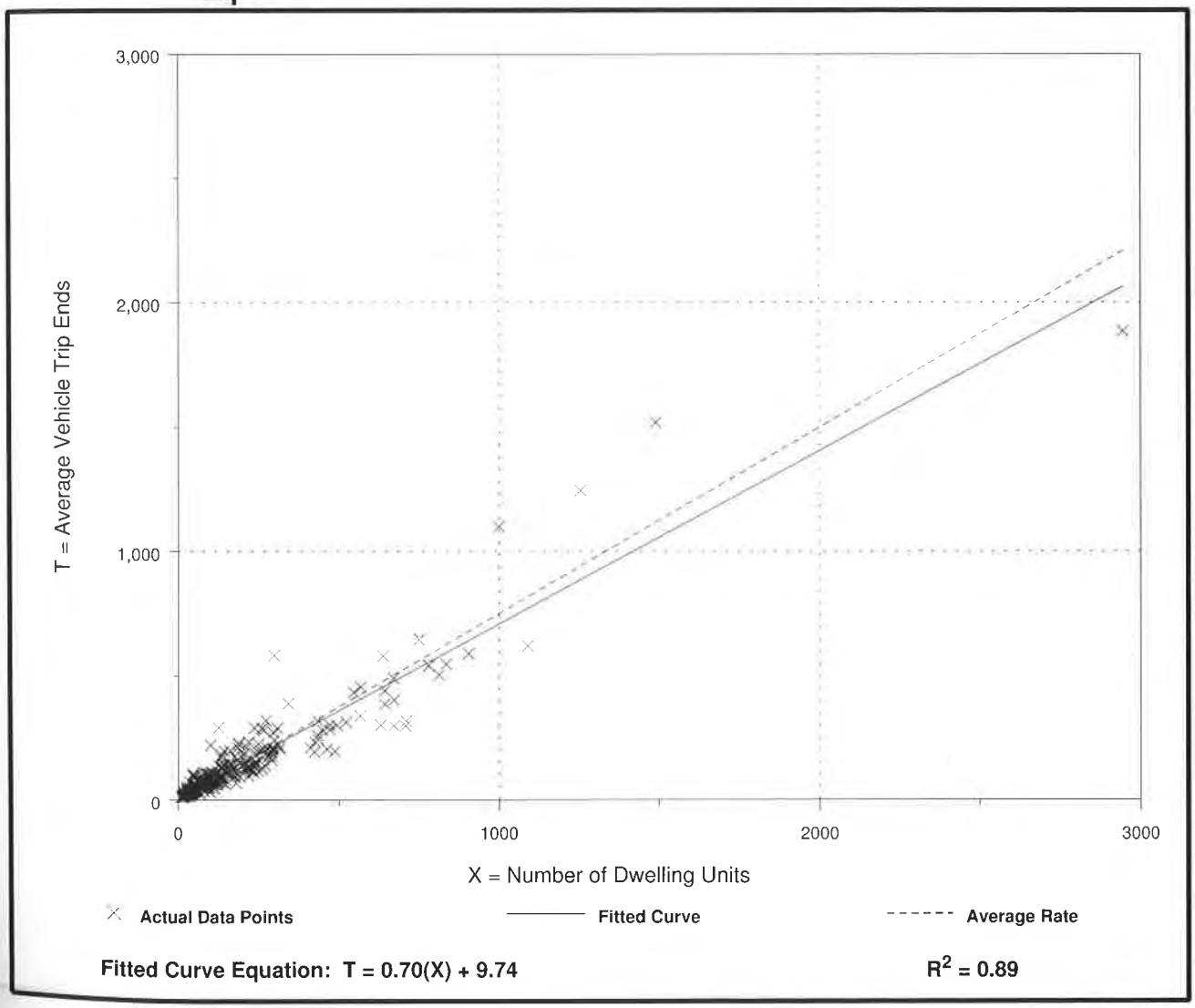
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 292
Avg. Number of Dwelling Units: 194
Directional Distribution: 25% entering, 75% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.75	0.33 - 2.27	0.90

Data Plot and Equation



Fitted Curve Equation: T = 0.70(X) + 9.74

R^2 = 0.89

Single-Family Detached Housing
(210)

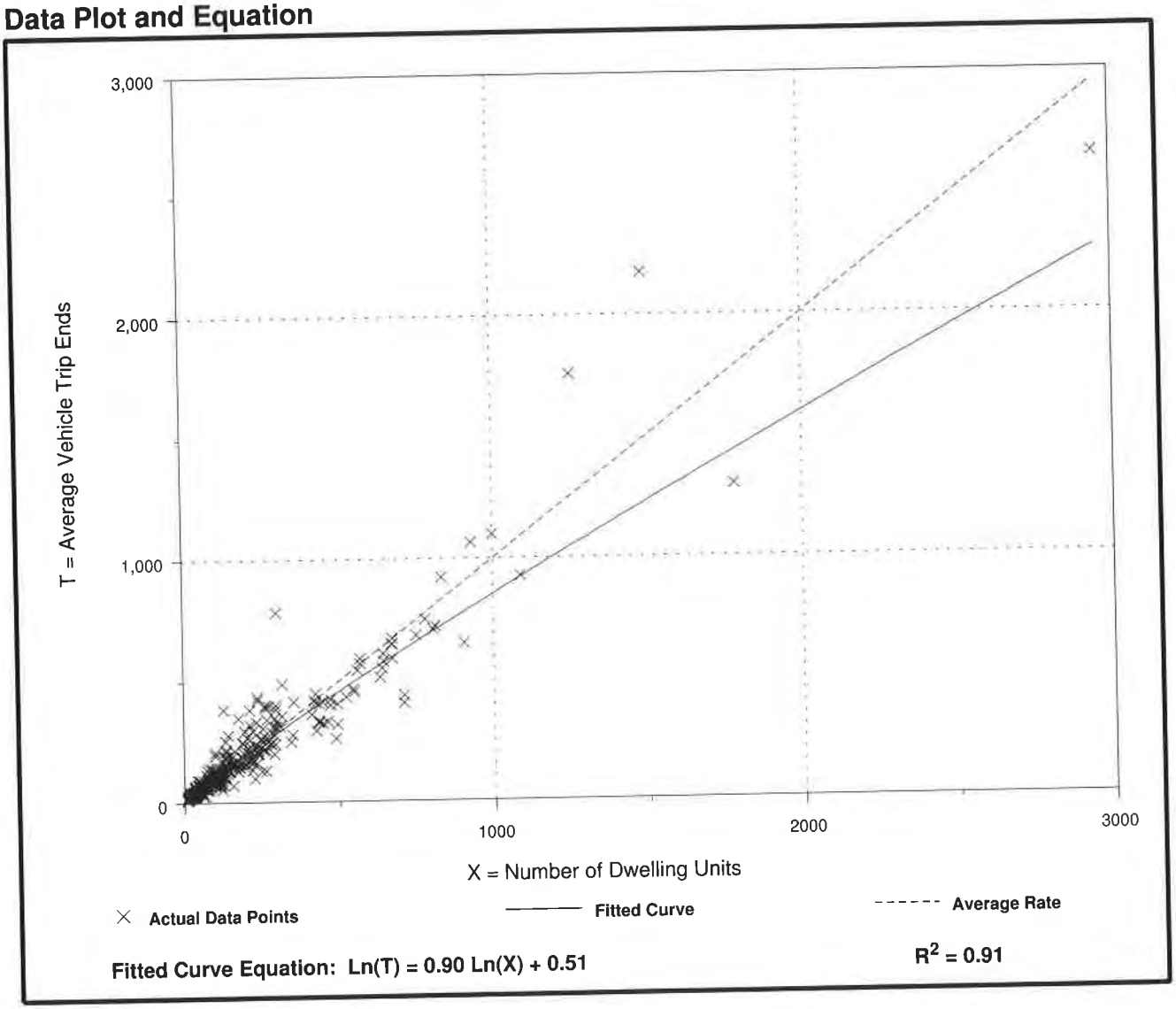
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 321
Avg. Number of Dwelling Units: 207
Directional Distribution: 63% entering, 37% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
1.00	0.42 - 2.98	1.05

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.90 Ln(X) + 0.51

R^2 = 0.91

Land Use: 252
Senior Adult Housing—Attached

Description

Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include limited social or recreational services. However, they generally lack centralized dining and on-site medical facilities. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired. Senior adult housing—detached (Land Use 251), congregate care facility (Land Use 253) and continuing care retirement community (Land Use 255) are related uses.

Additional Data

The peak hour of the generator typically did not coincide with the peak hour of the adjacent street traffic. The A.M. peak hour of the generator typically ranged from 8:30 a.m. to 12:00 p.m. and the P.M. peak hour of the generator typically ranged from 1:00 p.m. to 6:00 p.m. **It should also be noted that in some cases, because of the limited sample size and variation in the data received, the projected trip generation estimate for the independent variable "dwelling units" exceeds the trip generation estimate for the independent variable "occupied dwelling units". By definition, this is impossible; therefore, knowledge of the project site and engineering judgment should be used to select the appropriate trip generation approximation.**

The sites were surveyed between the 1980s and the 2000s in California, Illinois, Maryland, New Hampshire, New Jersey, Pennsylvania and Canada.

Source Numbers

237, 272, 501, 576, 602, 703, 734, 741

Senior Adult Housing - Attached
(252)

Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

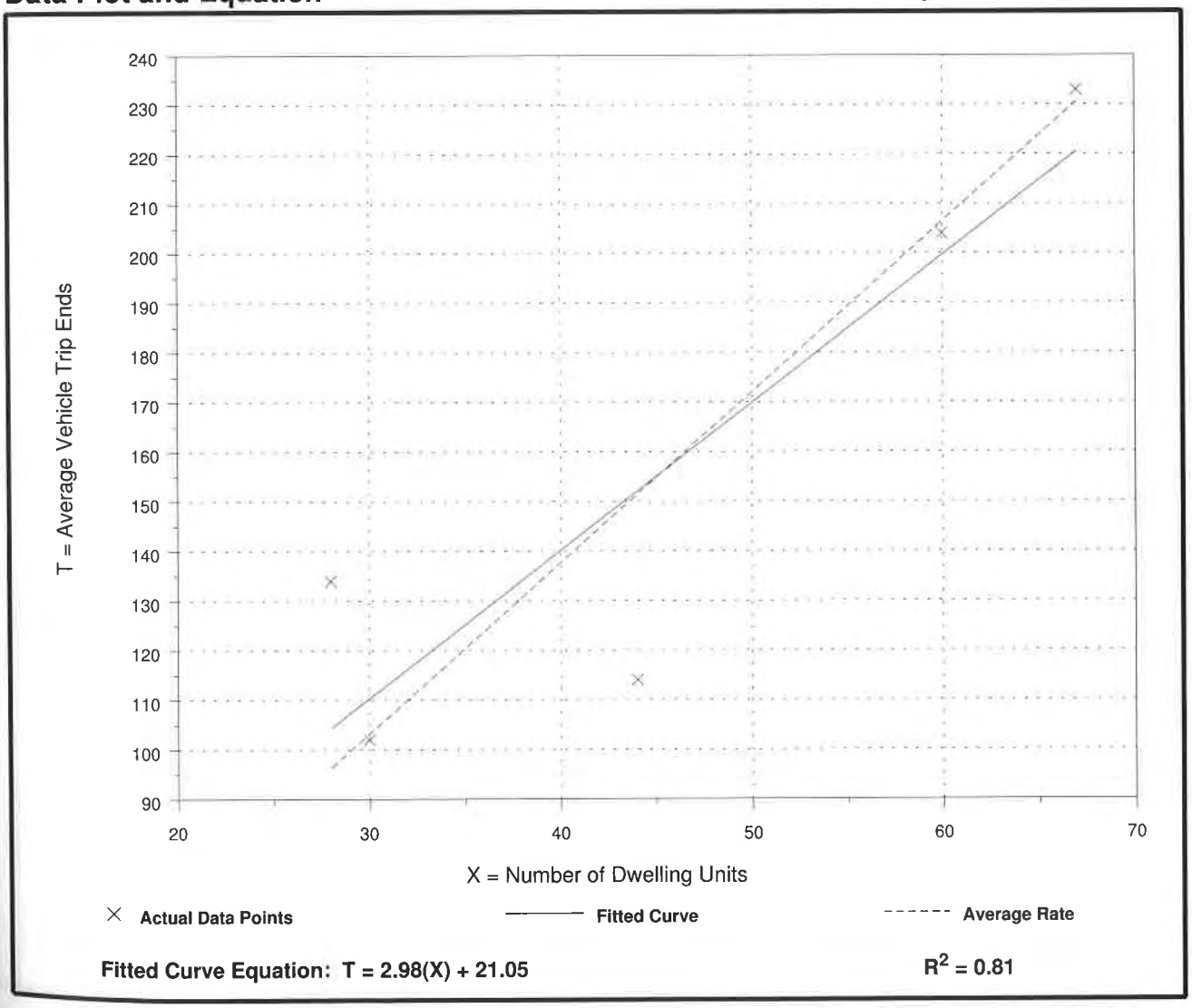
Number of Studies: 5
Avg. Number of Dwelling Units: 46
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
3.44	2.59 - 4.79	1.93

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: T = 2.98(X) + 21.05

R^2 = 0.81

Senior Adult Housing - Attached
(252)

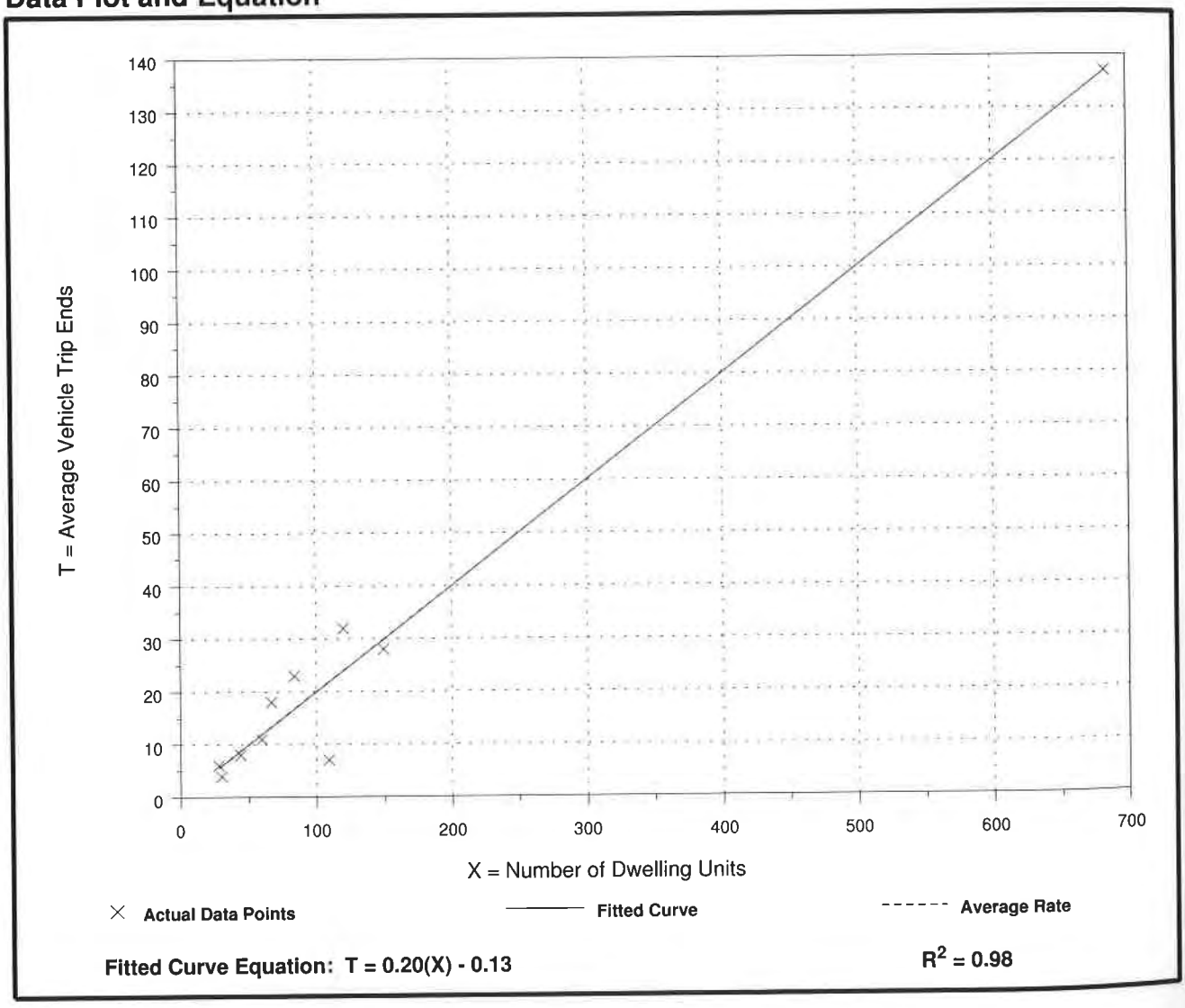
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 10
Avg. Number of Dwelling Units: 138
Directional Distribution: 34% entering, 66% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.20	0.06 - 0.27	0.45

Data Plot and Equation



Fitted Curve Equation: T = 0.20(X) - 0.13

$R^2 = 0.98$

Senior Adult Housing - Attached
(252)

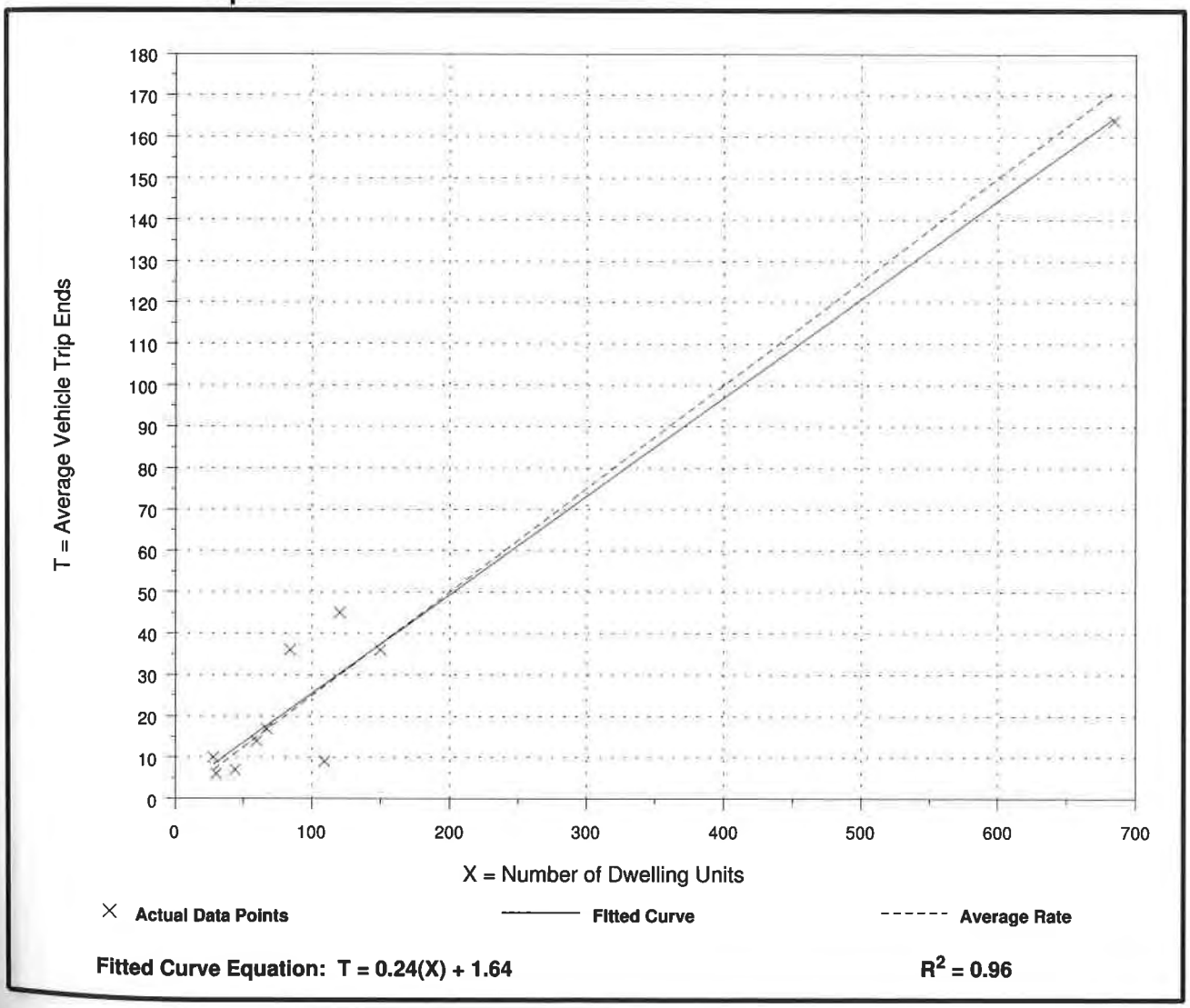
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 10
Avg. Number of Dwelling Units: 138
Directional Distribution: 54% entering, 46% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.25	0.08 - 0.43	0.50

Data Plot and Equation



Fitted Curve Equation: T = 0.24(X) + 1.64

R^2 = 0.96

Land Use: 254
Assisted Living

Description

Assisted living complexes are residential settings that provide either routine general protective oversight or assistance with activities necessary for independent living to mentally or physically limited persons. They commonly have separate living quarters for residents, and services include dining, housekeeping, social and physical activities, medication administration and transportation. Alzheimer's and ALS care are commonly offered by these facilities, though the living quarters for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and nursing homes. In some areas of the country, assisted living residences may be called personal care, residential care, or domiciliary care. Staff may be available at an assisted care facility 24 hours a day, but skilled medical care—which is limited in nature—is not required. Continuing care retirement community (Land Use 255) and nursing home (Land Use 620) are related uses.

Additional Data

The rooms in these facilities may be private or shared accommodations, consisting of either a single room or a small apartment-style unit with a kitchenette and living space.

One study reported that according to national and local data, less than 5 percent of the residents owned cars, which were rarely driven. Employees, visitors and delivery trucks make most of the trips to these facilities.

Truck traffic was captured for some studies in this land use and is presented in the following table. Although truck traffic was very low overall, most trips occurred during the mid-day period on a weekday.

The peak hour of the generator did not coincide with the peak hour of the adjacent street traffic for several sites included in this land use, primarily because of the shifts of the employees. For the data collected at those sites, shifts typically began at 7:00 a.m., 3:00 p.m. and 11:00 p.m. For all sites, the A.M. peak hour of the generator typically ranged from 6:00 a.m. to 9:00 a.m., while the P.M. peak hour of the generator typically ranged from 3:00 p.m. and 5:00 p.m.

Assisted Living
(254)

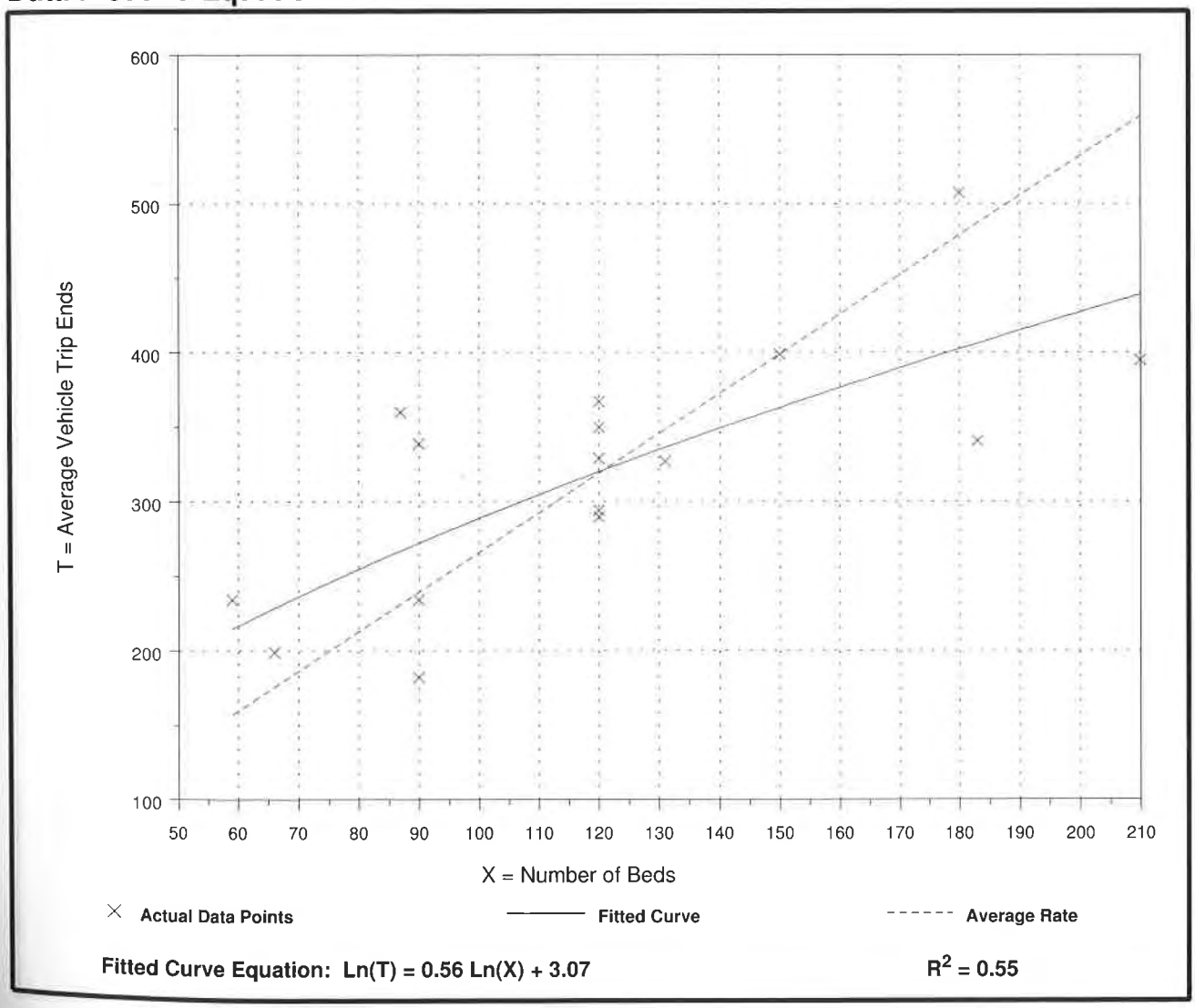
Average Vehicle Trip Ends vs: Beds
On a: Weekday

Number of Studies: 16
Average Number of Beds: 121
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
2.66	1.86 - 4.14	1.74

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.56 Ln(X) + 3.07

R^2 = 0.55

Assisted Living
(254)

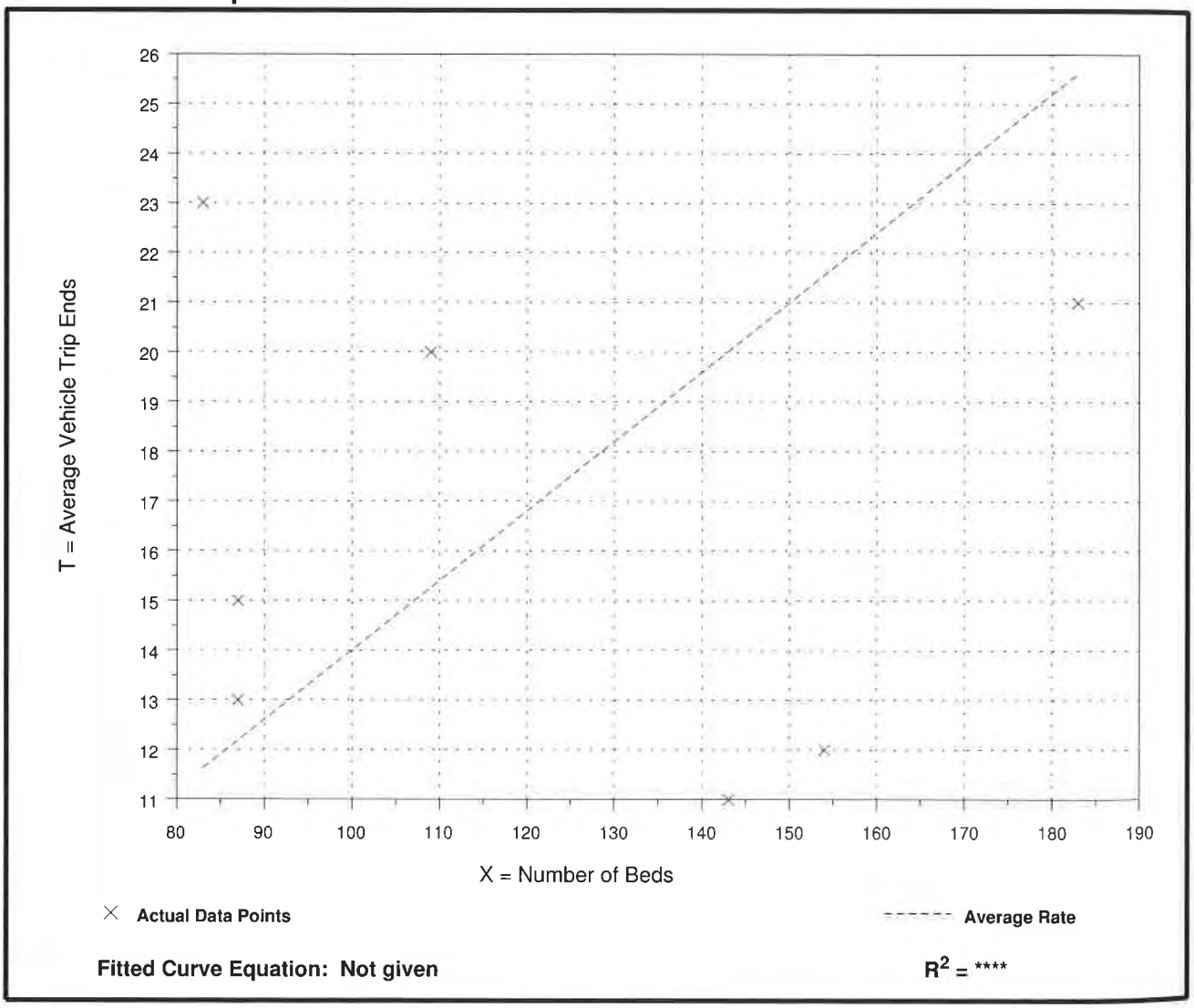
Average Vehicle Trip Ends vs: **Beds**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 65% entering, 35% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.14	0.08 - 0.28	0.37

Data Plot and Equation



Fitted Curve Equation: Not given

R^2 = ****

Assisted Living
(254)

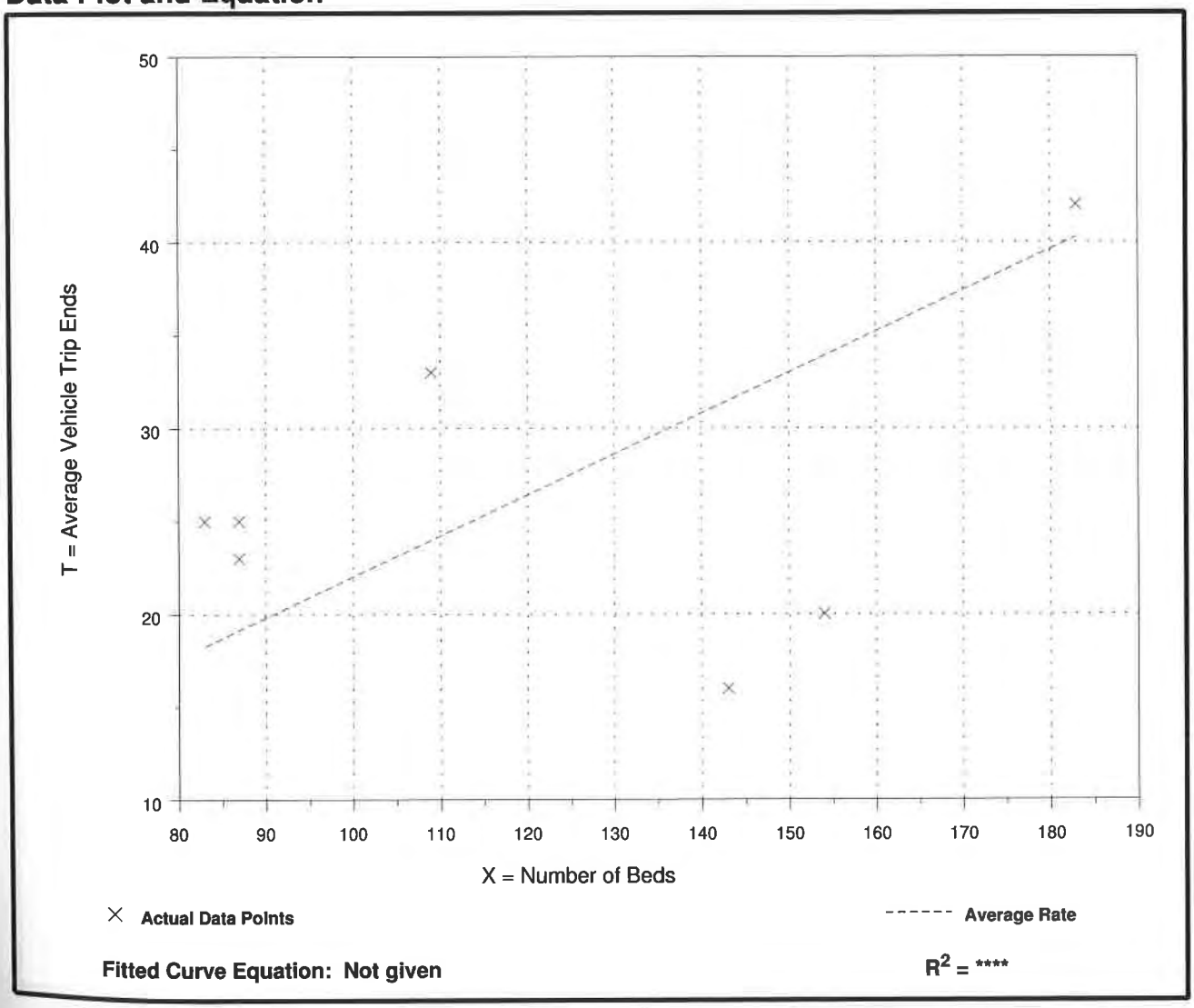
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 44% entering, 56% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.22	0.11 - 0.30	0.47

Data Plot and Equation



Fitted Curve Equation: Not given

R^2 = ****

Assisted Living
(254)

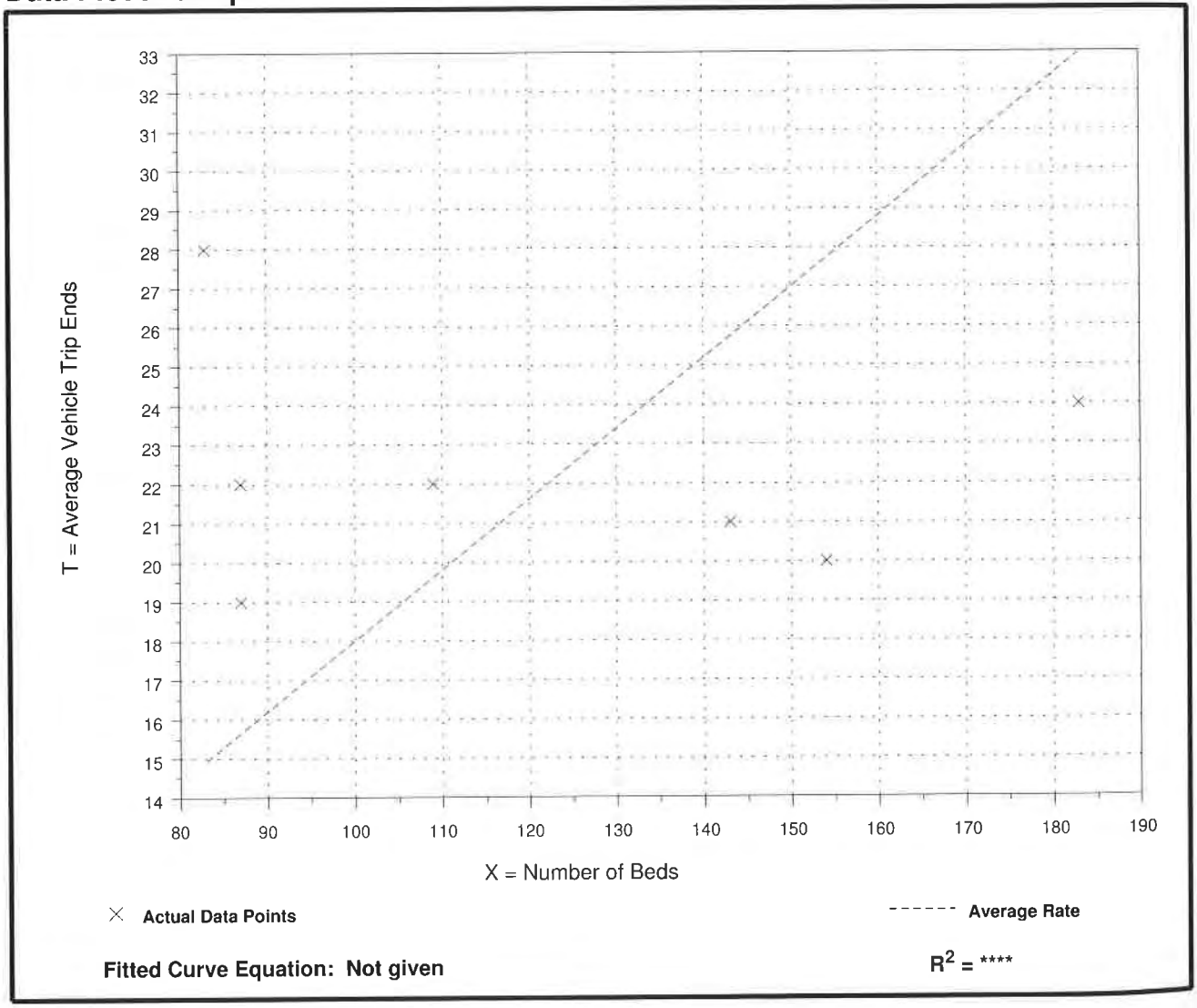
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
A.M. Peak Hour of Generator

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 67% entering, 33% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.18	0.13 - 0.34	0.43

Data Plot and Equation



Fitted Curve Equation: Not given

R^2 = ****

Assisted Living
(254)

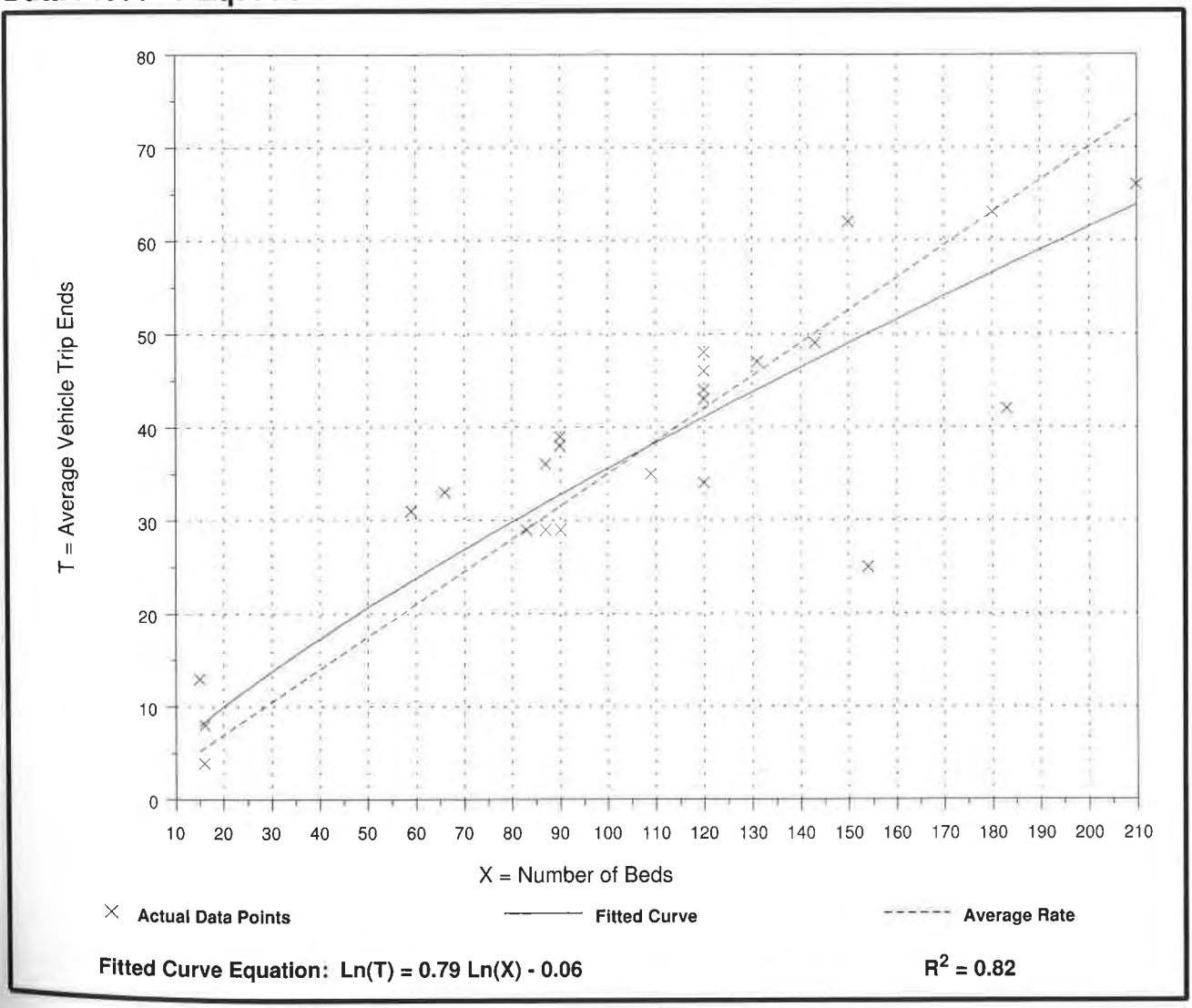
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
P.M. Peak Hour of Generator

Number of Studies: 24
Average Number of Beds: 107
Directional Distribution: 47% entering, 53% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.35	0.16 - 0.87	0.59

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.79 Ln(X) - 0.06

R^2 = 0.82

TRIP GENERATION CALCULATIONS

Land Use: Single-Family Detached Housing
Land Use Code: 210
Variable: Dwelling Units
Variable Value: 4

AM PEAK HOUR

Trip Rate: 0.75

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	**1**	**2**	**3**

PM PEAK HOUR

Trip Rate: 1.00

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	**3**	**1**	**4**

WEEKDAY

Trip Rate: 9.52

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**19**	**19**	**38**

SATURDAY

Trip Rate: 9.91

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**20**	**20**	**40**

Source: TRIP GENERATION, Ninth Edition

TRIP GENERATION CALCULATIONS

Land Use: Senior Adult Housing - Attached
Land Use Code: 252
Variable: Dwelling Units
Variable Value: 70

AM PEAK HOUR

Trip Equation: T = 0.20(X) - 0.13

	Enter	Exit	Total
Directional Distribution	36%	64%	
Trip Ends	**5**	**9**	**14**

PM PEAK HOUR

Trip Equation: T = 0.24(X) + 1.64

	Enter	Exit	Total
Directional Distribution	60%	40%	
Trip Ends	**11**	**7**	**18**

WEEKDAY

Trip Equation: T = 2.98(X) + 21.05

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**115**	**115**	**230**

Source: TRIP GENERATION, Ninth Edition

TRIP GENERATION CALCULATIONS

Land Use: Assisted Living
Land Use Code: 254
Variable: Beds
Variable Value: 67

AM PEAK HOUR (of Generator)

Trip Rate: 0.18

	Enter	Exit	Total
Directional Distribution	65%	35%	
Trip Ends	**8**	**4**	**12**

PM PEAK HOUR (of Generator)

Trip Equation: Ln(T)=0.79Ln(X)-0.06

	Enter	Exit	Total
Directional Distribution	44%	56%	
Trip Ends	**11**	**15**	**26**

WEEKDAY

Trip Equation: Ln(T)=0.56Ln(X)+3.07

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**113**	**113**	**226**

SATURDAY

Trip Rate: 2.20

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**74**	**74**	**148**

Source: TRIP GENERATION, Ninth Edition

TRIP GENERATION CALCULATIONS

Land Use: Assisted Living
Land Use Code: 254
Variable: Beds
Variable Value: 87

AM PEAK HOUR (of Generator)

Trip Rate: 0.18

	Enter	Exit	Total
Directional Distribution	65%	35%	
Trip Ends	**10**	**6**	**16**

PM PEAK HOUR (of Generator)

Trip Equation: Ln(T)=0.79Ln(X)-0.06

	Enter	Exit	Total
Directional Distribution	44%	56%	
Trip Ends	**14**	**18**	**32**

WEEKDAY

Trip Equation: Ln(T)=0.56Ln(X)+3.07

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**131**	**131**	**262**

SATURDAY

Trip Rate: 2.20

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**96**	**96**	**192**

Source: TRIP GENERATION, Ninth Edition

The Springs at Sherwood - CAP Analysis Trip Distribution and Assignment

Legend: O = Intersections impacted by a net increase of 10 or more PM peak-hour trips
X = # of trips traveling along the roadway or through the intersection
X% = % of site trips traveling along the roadway