

# SITE PLAN

APPLICANT: CONSTRADA AGGREGATES INC.  
350 YORKTECH DRIVE

FILE No: ZA. 01104767 (DC)

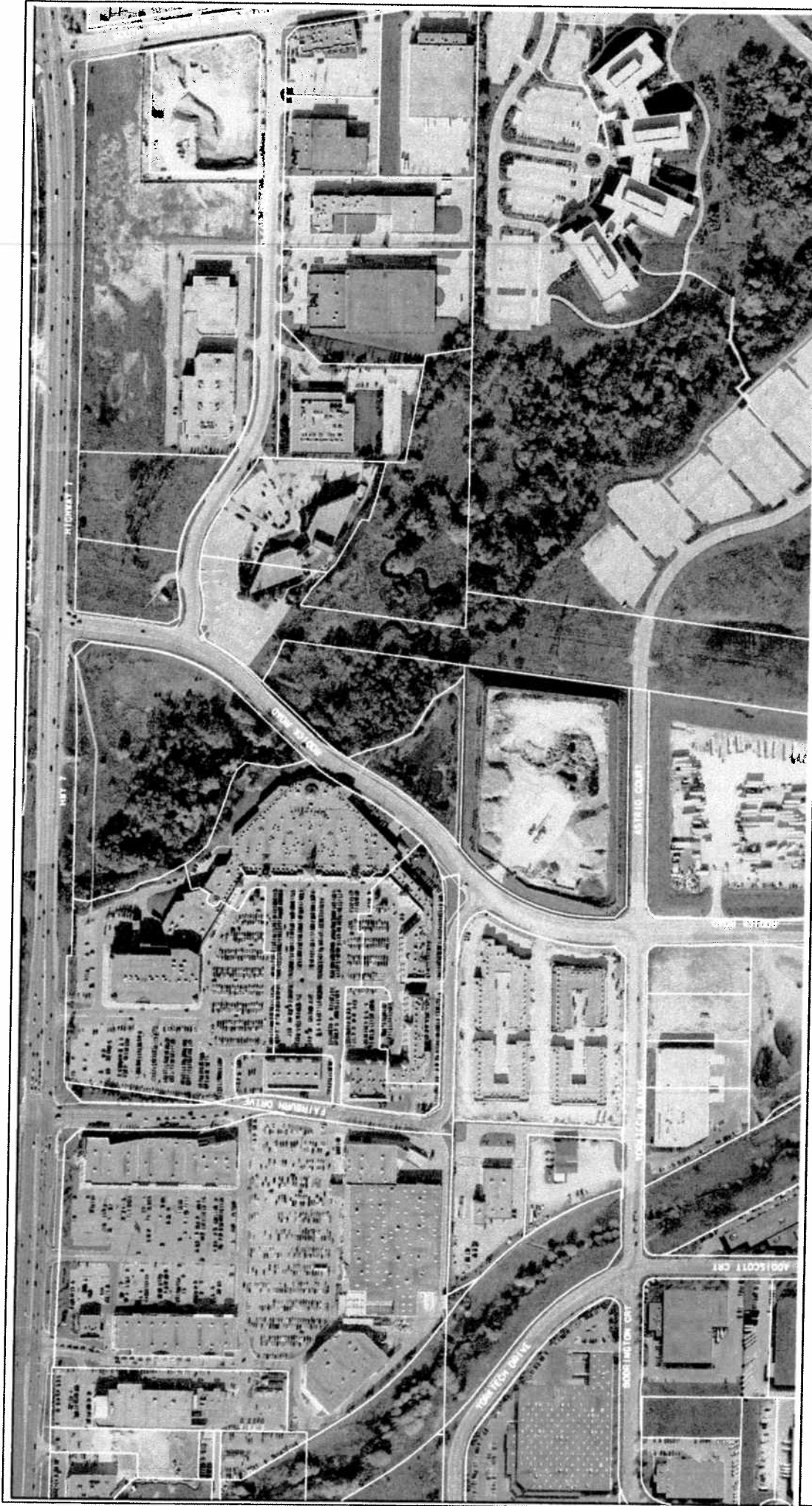


DEVELOPMENT SERVICES COMMISSION

DRAWN BY: CPW CHECKED BY: DC SCALE 1:

DATE: 060209

FIGURE No.4



# AIR PHOTO (2007)

APPLICANT: GEMCROSS DEVELOPMENTS  
350 YORKTECH DRIVE

FILE No: ZA. 08119862 (SH)



DEVELOPMENT SERVICES COMMISSION



SUBJECT PROPERTY

DATE: 06/02/09

DRAWN BY: CPW CHECKED BY: SH SCALE 1:

FIGURE No.3

**MACAULAY SHIOMI HOWSON LTD.**  
**MUNICIPAL AND DEVELOPMENT PLANNING SERVICES**

January 16, 2009

Scott Heaslip, MCIP, RPP  
Senior Project Co-ordinator,  
Planning Department,  
Town of Markham,  
101 Town Centre Blvd  
Markham, Ont  
L3R 9W3

Dear Sir:

Re: Gemcross Developments (Con-Strada Aggregate Recycling Facility) 350 Yorktech Drive; Your file # **ZA-08-119862**

Lyn Townsend has forwarded your email to me in which you request the information that Council asked for on November 18, 2008. While we are endeavouring to provide as much to you as is possible, I am sorry to say that we will not have the complete package available until near the end of February.

With respect to the Development Services Committee's questions, I can provide the following answers:

**Status of Contamination on the lands and Assurance the Property will be Cleaned:**

I have attached a copy of a Barenco letter, dated December 23, 2008, which should answer the questions.

**Amount of Trucks Eliminated, Percentage of Materials used in Markham, and Truck Circulation Patterns:**

Poulos and Chung are preparing this documentation and expect to have it available at the end of February.

**Procedural Guarantee that no application will be filed for permanent aggregate use:**

We are unable to provide such a guarantee, although it is not our client's intent to file such an application at this time.

*Your Header Here*

**Status of the Sediment Control Facility:**

Approval from the Town of the plans has been received. The appropriate culverts were delivered to the site after the frost in late December. It has not been possible to install the culverts because of weather conditions. As soon as the weather changes, the system will be installed.

I believe this covers all of the matters requested of us on November 18, 2008. As soon as the transportation information is available, I will forward it to you.

If you wish to take a status report to the Development Services Committee in February, I would be pleased to attend to provide what information we have.

Yours truly,

Macaulay Shiomi Howson

A handwritten signature in black ink, appearing to read "Peter Cheatley". The signature is fluid and cursive, with a large initial "P" and "C".

per: Peter Cheatley, RPP, MCIP

**BARENCO**Environmental Engineering  
& Site Remediation Services*20 Years  
of Innovation*

December 23, 2008

TOWNSEND, ROGERS LLP  
Barristers and Solicitors  
2-1400 Cornwall Road  
Oakville, Ontario  
L6J 7W5**DRAFT FOR REVIEW**Attention: Ms. Lynda Townsend

Dear Ms. Townsend:

Re: Strada Aggregates Property Environmental Remediation  
Northeast Corner of Rodick and Yorktech Roads, Markham, Ontario

As requested, we have reviewed the information we have on file for the Strada Aggregates property located on the northeast corner of Rodick and Yorktech Roads in Markham, Ontario, and prepared a cost estimate if an environmental remediation of the site were undertaken to meet current Ministry of the Environment standards.

**Background**

The Strada Aggregates property is about one quarter of what was formerly a larger piece of land that pre-dated the construction of Rodick and Yorktech Roads. As the larger piece was being developed, the four quarters on each corner of the two roads were named as follows:

Roseport 1 (R1) - northwest corner  
Landport 1 (L1) - southwest cornerRoseport 2 (R2) - northeast corner  
Landport 2 (L2) - southeast corner

Figure 1 shows the layout of the four parts, including the Strada Aggregates property which is Roseport 2.

Since 1981 numerous environmental investigations, remediations and site specific risk assessments have been conducted on and around the Strada Aggregates property (herein referred to as R2) and properties surrounding the Rodick/Yorktech intersection. The reports we have reviewed are listed below:

Professional Engineers  
Ontario

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- Trow, Dames & Moore, *Phase I Decommissioning - Ryan Road Subdivision - Blocks 1 through 6, Markham, Ontario, March 15, 1989.*
- Trow, Dames & Moore, *Application for Section 23 and 24 Approval (OWRA) Roddick Road North and Yortech Drive - Kellett subdivision, Markham, Ontario, May 3, 1989*
- Trow, Dames & Moore, *Application for Section 45 (EPA) Approval, Rodick Road North of Yorktech Drive - Kellett Subdivision, Markham, Ontario, June 12, 1989*
- Trow, Dames & Moore, *Supplementary Report - Phase I Decommissioning, Ryan Road Subdivision - Blocks 1 through 6, Markham, Ontario, November 15, 1989*
- Eco Geochemical Consulting Limited, *Draft Factual Report, Ryan Road Storm Sewer Investigation, Markham, Ontario, March 30, 1992*
- Conestoga-Rovers and Associates, *Landfill Gas Investigation, Ryan Road Developments, Markham, Ontario, January 12, 1995*
- Proctor and Redfern Limited. *ESSROC Canada Inc. 801 Rodick Road-Markham Yard, Town of Markham, Phase I and II Environmental Assessment, August 1997*
- Proctor & Redfern, *Phase I and II Environmental Site Assessment 801 Rodick Road - Markham Yard, Town of Markham, August 1997*
- Beak Environmental Specialists, *Site Specific Risk Assessment Report, Part of Lot 9, Concession 4, EYS (Sabiston Lands), Markham, Ontario, October 1997*
- Trow Consulting Engineers Ltd., *Phase II Environmental Site Assessment Part of Lot 9, Concession 4, Markham, Ontario, December 1, 1999*
- Trow Consulting Engineers Ltd., *Phase II Environmental Site Assessment, East Part of Part 1, Lot 9, Concession 4, Markham, Ontario, June 14, 2000*
- XCG Consultants Ltd., *Site Specific Risk Assessment and Risk Management Plan Rodick Road and Yorktech Drive, Markham, Ontario, May 15, 2001*
- Barenco Inc., *Limited Subsurface Investigation, Landport L2 Property, Yorktech Drive and Rodick Road, Markham, Ontario, March, 2005.*
- Barenco Inc., *Limited Subsurface Investigation Landport L2 Property Yorktech Drive and Rodick Road, Markham, Ontario, March 2005*



- Barenco Inc., *Phase I Environmental Assessment Landport L2 Parcel, 801 Rodick Road, Markham, Ontario, March 05, 2008*

We reviewed these reports with respect to the data relevant to R2 and chemicals that could potentially exceed the currently applicable MOE Standards. The potential contaminants are identified as follow:

Soil	Metal	antimony, arsenic, beryllium, boron, cadmium, copper, lead, molybdenum, nickel, zinc
	Polyaromatic hydrocarbon (PAH)	benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene
	Petroleum hydrocarbon (PHC)	petroleum hydrocarbon fractions (PHC) F1 - F4
Ground water	Metal	arsenic, cadmium, copper, lead, silver
	Polyaromatic hydrocarbon (PAH)	benzo(k)fluoranthene, benzo(g,h,i)perylene, indeno(1,2,3-cd)pyrene
	Volatile organic carbon (VOC)	xylene, vinyl chloride

### Scope and Costing

If remediation of the site were to be undertaken, the contaminated soil could be excavated and disposed at an Ministry of the Environment approved disposal or treatment facility. Since the contaminated ground water is entrained in the soil, removal of the soil should eliminate the ground water contamination.

During the relocation of soils from the west side of Rodick Road (Roseport 1 - R1) to R2, the grade level of R2 was raised by approximately two metres. Soils were also used to construct privacy berms two metres high and ten metres wide on the perimeter of R2.

A remedial excavation would cover the entire R2 property, approximately three hectares in area, bringing the whole property to grade level (with respect to adjacent roadways). The volume of soil that would be excavated and hauled to a landfill is estimated and presented in the following table.

December 23, 2008

4

Strada Aggregates Property Environmental Remediation, Rodick & Yortech Roads, Markham

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	Dimensions	Volume
<b>R2 property</b>	Area: $200 \times 150 = 30,000 \text{ m}^2$ Height above grade: 2 m	$30,000 \times 2 = 60,000 \text{ m}^3$
<b>Privacy Berms</b>	Area: $(200 \times 150) - (180 \times 130) = 6,600 \text{ m}^2$ Height above R2 grade: 2	$6,600 \times 2 = 13,200 \text{ m}^3$
Total Volume		<b>73,200 m<sup>3</sup></b>

Based on the estimated soil volume and a soil bulk density of 2 tonnes per m<sup>3</sup>, the mass of soil that would be excavated and hauled to landfill is approximately 150,000 tonnes.

If remediation were undertaken, the cost would be approximately \$85 per tonne of soil. This cost is estimated based on past experience and current rates and it includes the cost of excavation, laboratory leachate and confirmatory testing, haulage and disposal at an MOE approved facility, backfill material, backfilling and compaction.

If the Strada Aggregates property is remediated by excavating and disposing 150,000 tonnes of soil, the cost is estimated to be \$12,750,000.

If there are any questions, please give me a call.

Yours very truly,  
BARENCO INC.

Jim Phimister, P.Eng., P.Geo.  
Hydrogeologist, Principal

attachment: Figure 1



February 4, 2009

Mr. Peter Cheatley, B.E.S., MCIP, RPP  
Senior Associate, Planning  
MaCaulay Shiomi Howson Ltd.  
600 Annette Street  
Toronto, ON  
M6S 2C4

***Re: Strada Aggregates  
Strada Aggregates Re-Cycling Facility  
Rodick Road and Fairburn Drive  
Town of Markham***

***Project 09.203***

Dear Mr. Cheatley

Poulos & Chung Limited is pleased to submit this initial report on the yearly traffic monitoring program for the above facility. This letter report is to be followed by a final report which will contain updated boundary road and boundary road intersection turning movement count information. To verify the boundary road vehicle flow the traffic counts will be conducted in the month of February which is outside of the seasonal effects caused by the Holidays and March school break. The February counts will then use past monthly variations (of background traffic flows) to factor in the peak summer month conditions.

The information contained in this letter report includes:

- The average daily truck traffic into and out of the re-cycling facility by month over the past four (4) years;
- The re-cycling truck traffic calculated in the average day of the highest month in the year;
- The re-cycling truck traffic calculated in the highest day of the highest month of the year;
- The percentage distribution of truck types used in the arrival and departure patterns of the site;
- The calculation of truck deliveries from the site that are destined to construction sites in the Town of Markham;

The following sections present the detail analysis and calculations completed to date.

**Poulos & Chung Limited**

535 Bur Oak Avenue- Markham, ON, Canada L6C 2S5- Tel (905) 479-7942 - Fax (905) 479-1266

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***Specialists in Transportation Planning & Traffic Engineering***

## **1. Site Location**

The Strada Aggregates re-cycling facility is located on the east side of Rodick Road approximately 350 meters south of Highway 7. The entrance to the facility is located directly opposite Fairburn Drive.

The location of the site is shown in Figure 1.

Rodick Road and Fairburn Drive are roads under the jurisdiction of the Town of Markham.

The primary routing of all re-cycling trucks is Rodick Road to Yorktech Road and then to Woodbine Avenue. Yorktech Road is also under the jurisdiction of the Town of Markham. Woodbine Avenue and Highway 7 are major arterial roads and are under the jurisdiction of York Region.

## **2. Re-cycling Operations**

The Strada Aggregates re-cycling facility essentially receives trucks carrying materials such as asphalt and concrete blocks recovered from tear-down buildings and roads. The materials are then on-site ground into specified sizes for use in new construction projects including houses, buildings and roads.

Observations indicate that the site is very efficient. Most trucks arrive and leave with loads.

## **3. Average Daily Traffic Flows**

The site operates on weekdays from 7:00 a. m. to 5:00 p. m. In the summer months the site operates for one-half day on Saturdays.

The average daily truck traffic (in and out of the site) by month of year is shown in Figure 2. The daily truck traffic by month is presented for years 2004, 2005, 2006, 2007 and 2008.

Although there are minor monthly variations by year it is evident that the majority of truck movements are during the major construction season between April and November.

## **4. Daily Truck Flow Variations**

The detailed data available was analyzed to determine hourly variations in the day. Since data is available for every month of the year, the peak month of the year was used.

Within the peak month of the year, two days were calculated. The first day is the "Average Day" and the second day is the "Highest Day".

The hourly variation of these two days is shown in Figure 3.

The hourly variation of truck flows in these days is very similar. As expected the highest day in the highest month of the year experiences the greatest number of truck movements.

All other days outside of the highest month of the year accommodate less truck movements.

In the winter months of December, January, February the typical daily flows are less than half of the peak month (June). All other months range between approximately 60 to 85 percent of the peak month.

## **5. Vehicle Classification**

The type of truck using the Strada Aggregates facility is illustrated in Figure 4.

The vehicle descriptions are as follows:

- Trailer – 6 axle Tractor- Triaxle semi-trailer;
- Tri-sAxle – 4-axle Single Unit Aggregate and 3-axle Truck and 4-axle Full Trailer;
- Pick Up – 2 or 3-axle Single Unit Truck;
- Cars – Automobiles or single axle pick-up trucks.

The type of truck used in the Markham operation is considered normal and indicative of similar operations.

## **6. Truck Delivery Distribution Pattern In Markham**

The product delivery information for 2008 was examined.

The calculations indicate that of the total product (trucks) leaving the site 47.5 percent of the deliveries had destinations within the Town of Markham. The location of product deliveries within the Town of Markham was also recorded.

It is concluded that approximately half of all trucks exiting the site to deliver aggregate materials had destinations to construction sites within the Town of Markham.

Figure 5 identifies the location of product deliveries and the percentage of product (percent of total trucks leaving the site) destined to the location.

Upon completion of the boundary road and boundary road intersection turning movement counts in February a further report will be produced. This report will identify the background traffic flows on the boundary roads and examine all roadway and intersection operations with the inclusion of site truck movements. All weekday and Saturday peak hours will be examined and detailed levels of service and volume to capacity ratios will be presented.

Poulos & Chung Limited is pleased to have the opportunity to make this submission and is available to provide further clarification or respond to any questions as they may arise.

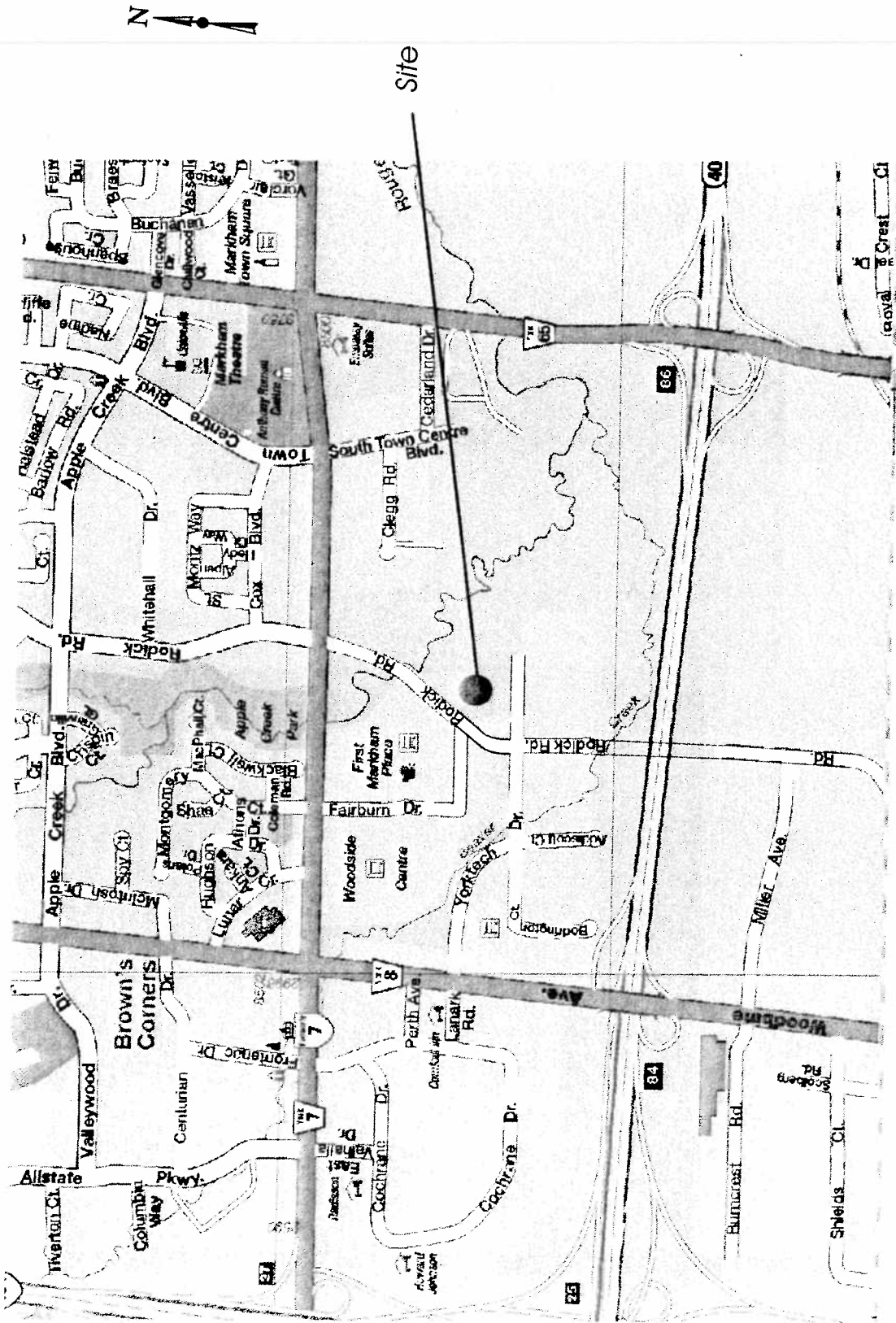
Yours Very Truly

A handwritten signature in black ink, appearing to read "N. G. Poulos". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

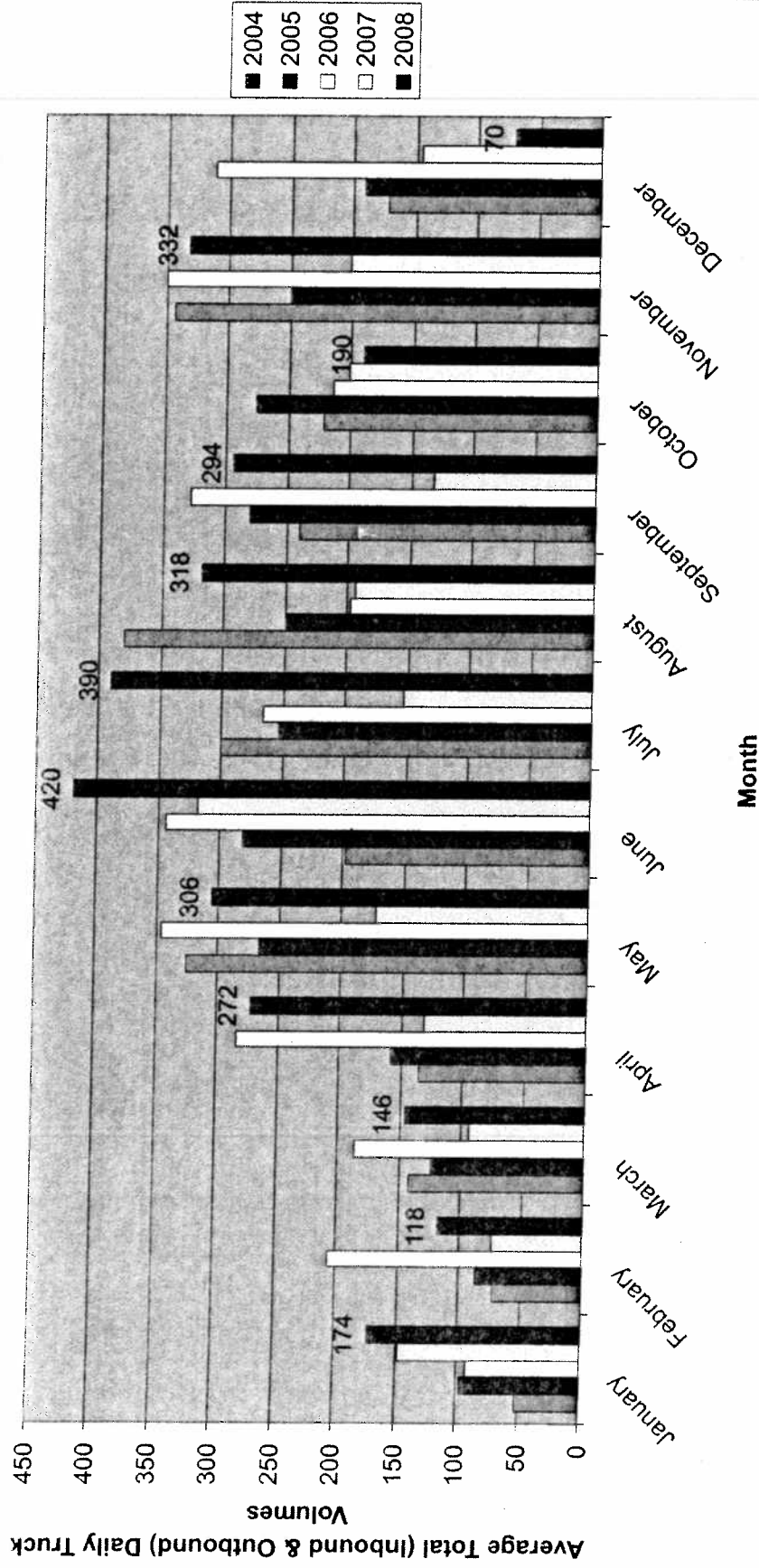
N. G. Poulos, P. Eng.  
Partner

A handwritten signature in black ink, appearing to read "Norman Q. Chung". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Norman Q. Chung, P. Eng.  
Partner

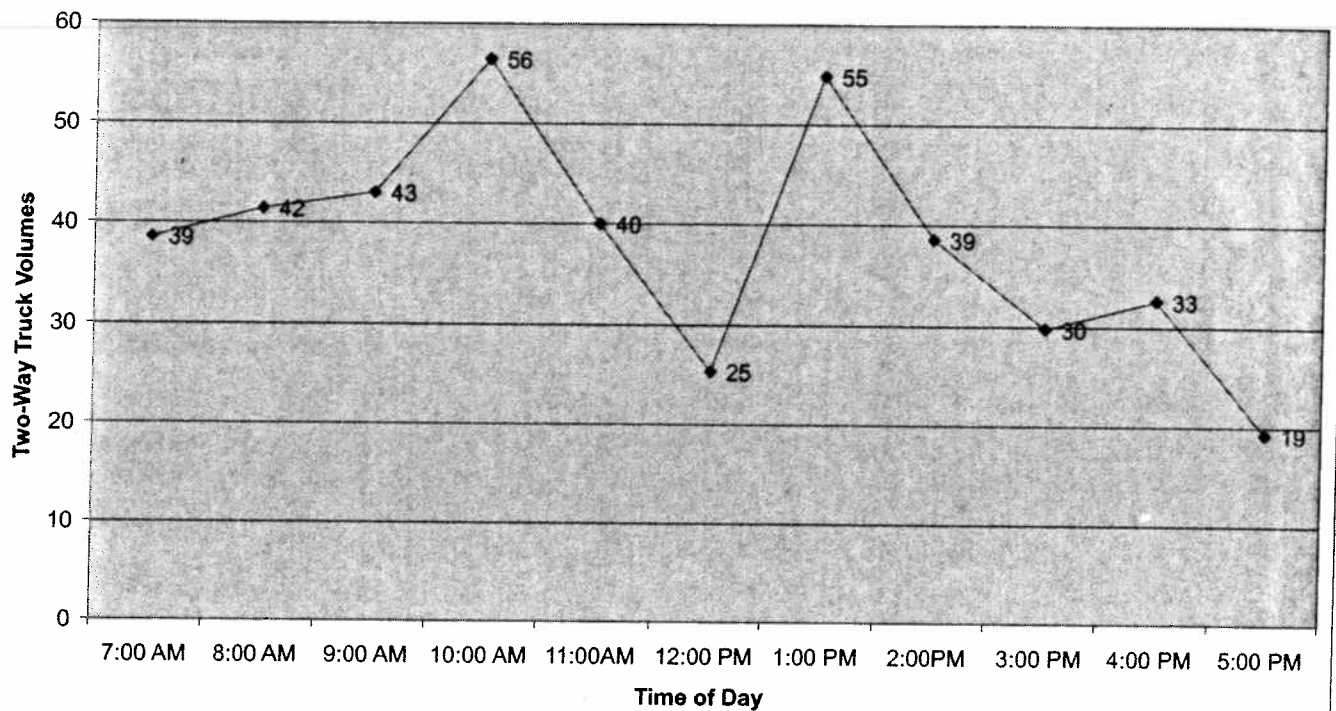


# Average Daily Truck Traffic

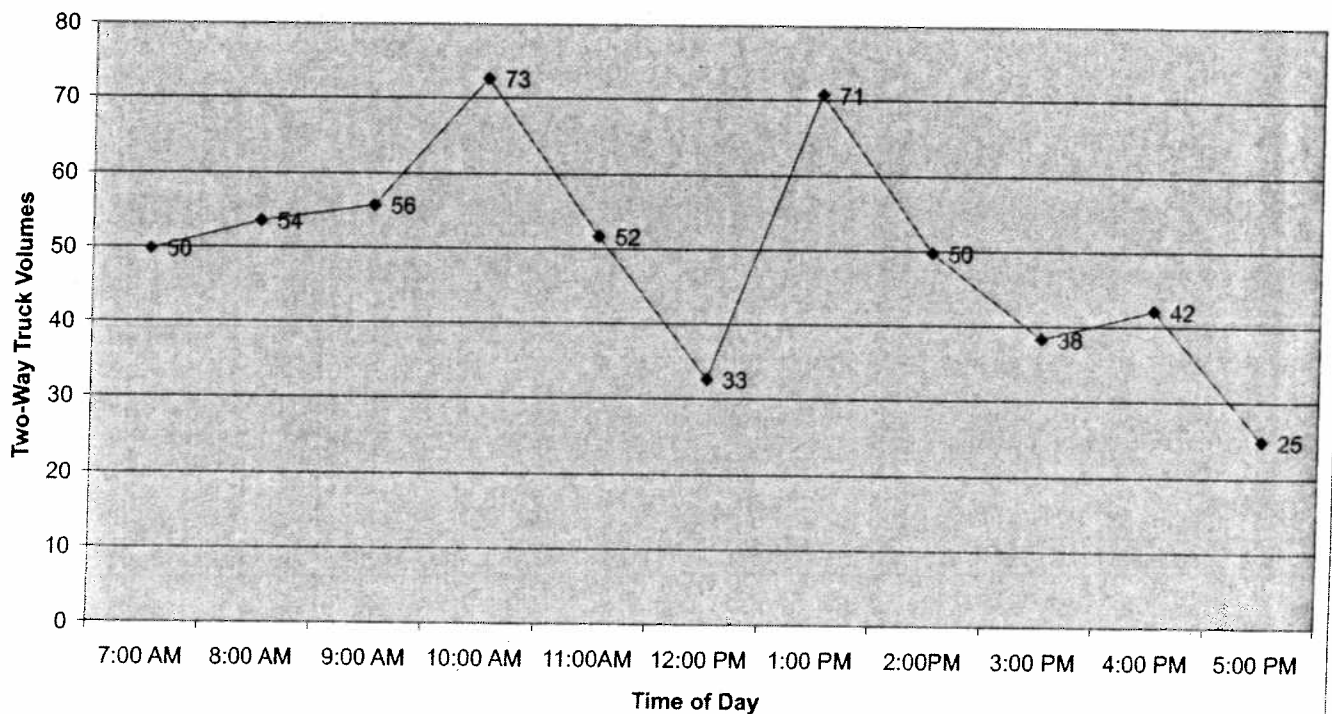




**Two-way Truck Traffic Highest Month Average Day**



**Two-way Truck Traffic Highest Month Highest Day**



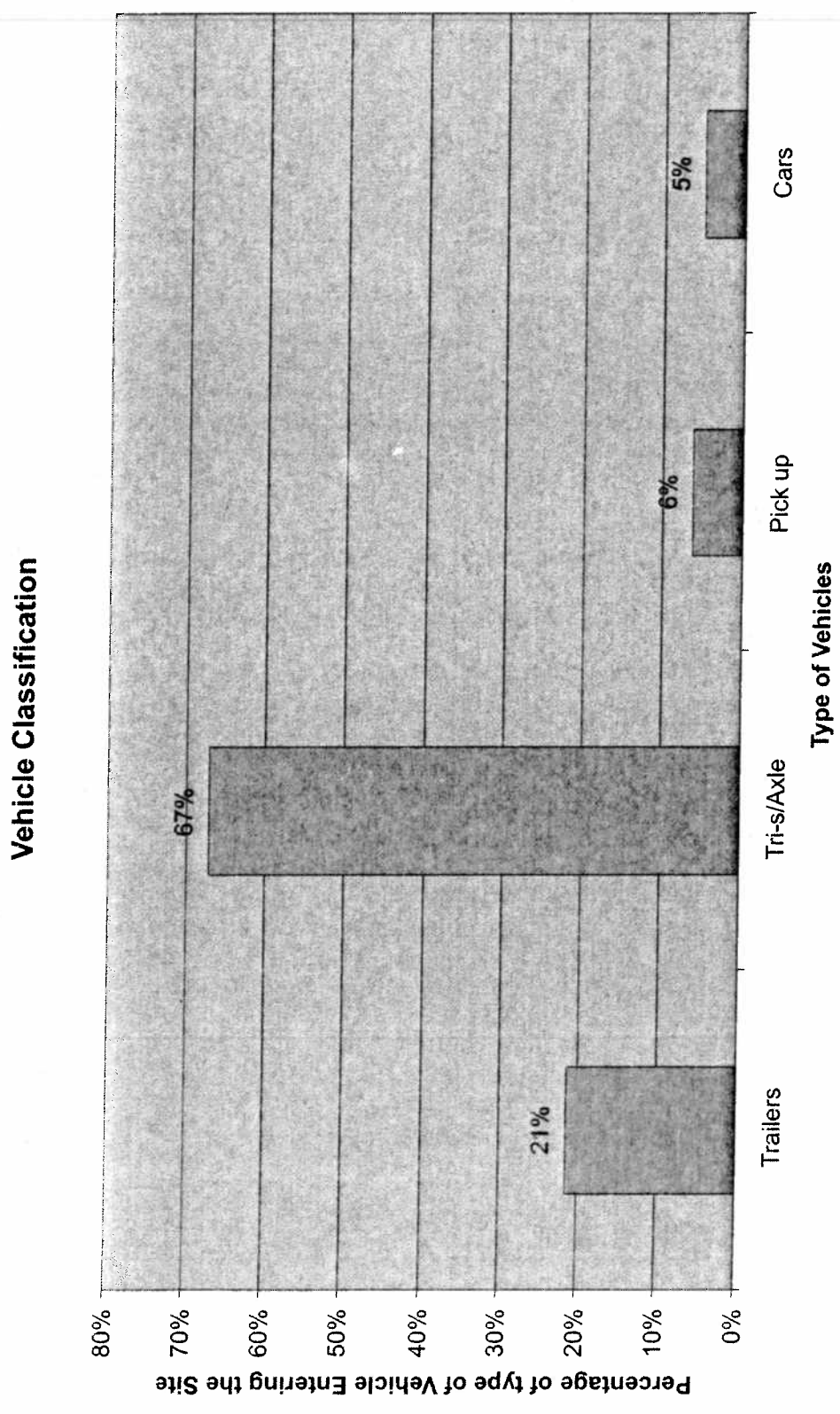
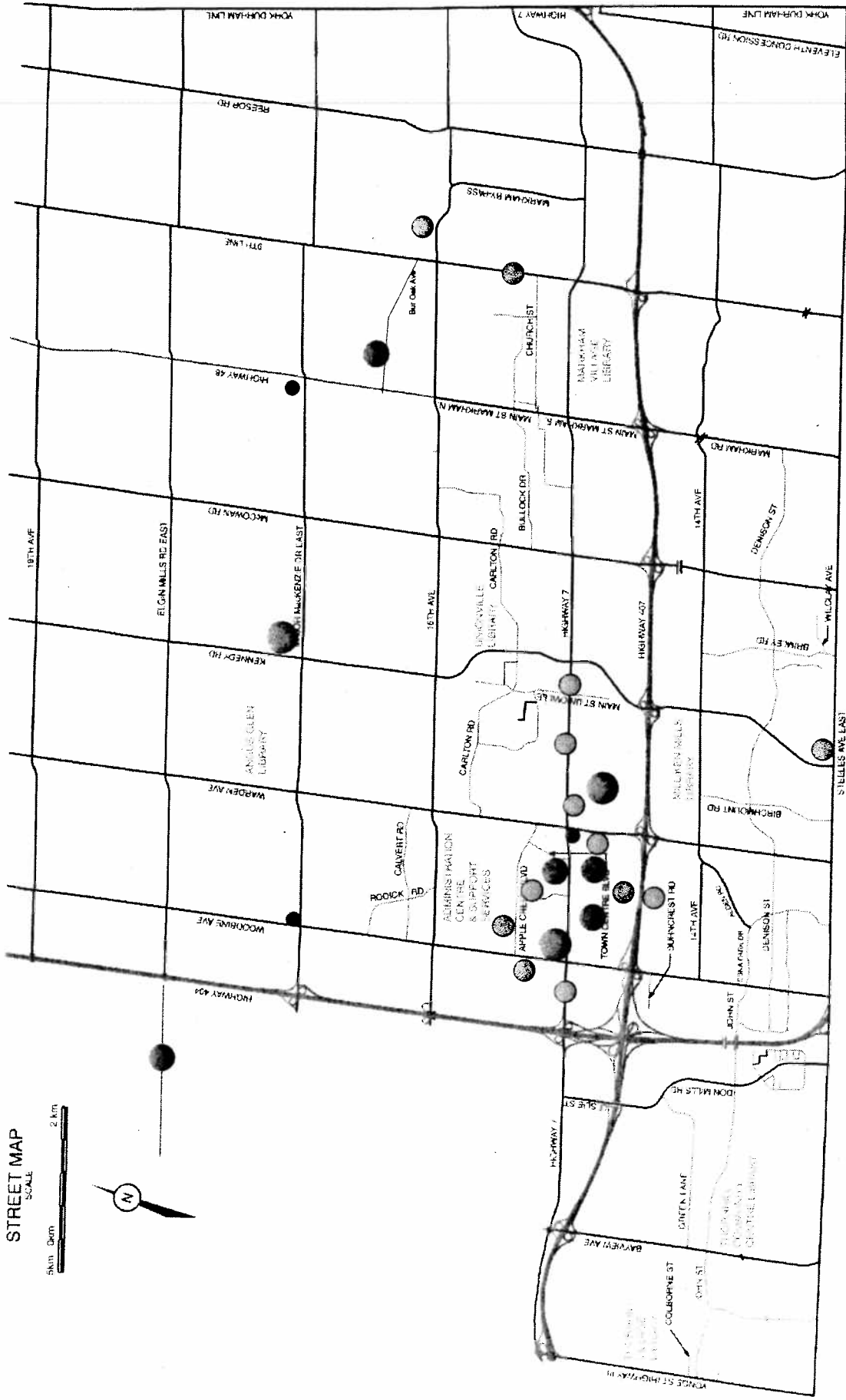
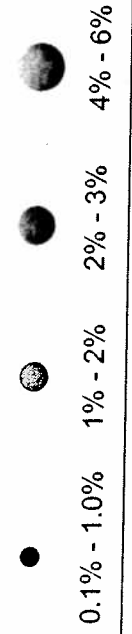


Figure 4



Legend:



Truck Distribution Pattern in Markham  
Figure 5