

DECEMBER 9, 2020

SENT BY E-MAIL:  
C/O JESSICA.FERRI@CA.CRH.COM

Transportation Development  
Finance & Infrastructure Services  
6311 Old Church Road  
Caledon, ON L7C 1J6

**Attention:**      **Arash Olia, Ph.D., P.Eng.**  
                         **Coordinator, Transportation Development**

**RE:**                **TRAFFIC BRIEF**  
                         **PROPOSED RESIDENTIAL DEVELOPMENT**  
                         **18309 & 18314 HURONTARIO STREET**  
                         **TOWN OF CALEDON, REGIONAL MUNICIPALITY OF PEEL**

Dear Arash,

C.F. Crozier & Associates Inc. (Crozier) was retained by Rizmi Holdings Limited to prepare a traffic assessment in support of the development application for the proposed residential development located at 18309 & 18314 Hurontario Street in the Town of Caledon, Regional Municipality of Peel.

The development proposal is not expected to generate significant traffic volumes during the weekday a.m. and p.m. peak hours, respectively. Therefore, we assume that the Town of Caledon (the Town) will accept a scoped Traffic Brief in lieu of a comprehensive Traffic Impact Study (TIS) and that the focus of the Traffic Brief will be mainly on traffic safety as opposed to typical traffic operations and capacity analysis. Our scope of work for this assessment reflects this understanding and consists of the following components:

- Site traffic generation forecasts for the proposed development during the weekday a.m. and p.m. peak hours;
- Qualitative traffic operations assessment on the boundary road network during the weekday a.m. and p.m. peak hours under full-build out conditions;
- Access geometrics and sight distance requirements;
- Internal site circulation for passenger cars, waste collection trucks and firetrucks; and
- Minimum resident and visitor parking requirements.

## **1.0 DEVELOPMENT PROPOSAL**

Per the Draft Site Plan dated November 5, 2020, the development proposes 30 new residential townhouse dwelling units with driveways, and an additional 10 parking spaces for visitor use.

The development will be accessed via an internal roadway spanning through the unopened east-west Brock Street right-of-way (ROW), the unopened north-south Elizabeth Street ROW and connecting to the existing three-legged intersection of Elizabeth Street and James Street.

The Draft Site Plan is attached to this letter.

## 2.0 EXISTING CONDITIONS

### 2.1 Subject Property

The subject property is located within a mixed-use residential and commercial neighbourhood in Caledon Village and is zoned as RR "Rural Residential" per the Town's Zoning By-Law. The property is bound by the unopened Brock Street ROW to the north, an existing residential dwelling to the south, Hurontario Street to the east, and vacant lands to the west. The subject property currently consists of a two-storey residential unit fronting Hurontario Street.

A Key Plan illustrating the site location is attached to this letter.

### 2.2 Boundary Road Network

The existing conditions on the boundary road network are described in **Table 1**.

**Table 1: Boundary Road Network**

Feature	Hurontario Street (Highway 10)	Charleston Sideroad (Regional Road 24)	James Street	Elizabeth Street
Direction	Two-way (North-South)	Two-way (East-West)	Two-way (East-West)	Two-way (North-South)
Classification	High-Capacity Arterial	High-Capacity Arterial west of Hurontario Street  Medium-Capacity Arterial east of Hurontario Street	Local	Local
Jurisdiction	Ministry of Transportation of Ontario (MTO)	Region of Peel	Town of Caledon	Town of Caledon
Surrounding Uses	Mixed-Use	Mixed-Use	Residential	Mixed-Use
Cross-Section	Urban	Rural	Rural	Rural
Span	Highway 410 to Owen Sound	Regional Road 25 to Regional Road 7	Troiless Street to easterly limit	Charleston Sideroad to James Street
Speed Limit	50 km/h in Caledon Village	50 km/h in Caledon Village	50 km/h (assumed)	50 km/h (assumed)
Number of travel lanes	Four	Two	Two	Two
Median type	None	None	None	None
Pedestrian / Cycling Facilities?	Pedestrian Sidewalks	Pedestrian Sidewalks	None	None

### 3.0 FUTURE ROAD NETWORK

As previously discussed, there are two unopened ROWs in the study area. The unopened north-south Elizabeth Street ROW extends south of the existing Elizabeth Street ROW between Charleston Sideroad and James Street and spans to the unopened east-west ROW (referred to as Brock Street in the Town's Official Plan) between Troiless Street and Hurontario Street.

The development proposes to utilize a portion of the unopened Brock Street ROW and the entirety of the unopened Elizabeth Street ROW south of James Street.

### 4.0 TRIP GENERATION

Trip generation for the proposed development was forecasted using published data from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition. The ITE Trip Generation Manual is a compendium of industry collected trip generation data across North America for a variety of land uses and is used industry wide as a source for trip generation forecasts.

Land Use Category (LUC) 220 "Multifamily Housing (Low-Rise)" was applied to the proposed townhouse dwelling units. **Table 2** outlines the trip generation forecasts for the proposed development.

**Table 2: Trip Generation – Proposed Development**

ITE Land Use Category	Units	Peak Hour	Trips Generated		
			Inbound	Outbound	Total
LUC 220 "Multifamily Housing (Low-Rise)"	30	A.M.	4	12	16
		P.M.	13	8	21

### 5.0 IMPACTS TO TRAFFIC OPERATIONS

The proposed development is expected to generate 16 and 21 total two-way trips during the weekday a.m. and p.m. peak period, respectively. These trips would be expected to access the arterial road network via Elizabeth Street and Charleston Sideroad.

These trip generation forecasts are negligible from a traffic operations perspective and are typically not associated with traffic operational issues nor external roadway improvements.

### 6.0 ACCESS SAFETY

#### 6.1 Access Location

As discussed earlier, the development will connect to the existing three-legged intersection of Elizabeth Street and James Street. This access location is ideal from a traffic safety perspective as it does not introduce a new access point on James Street, thus minimizing the potential for vehicle conflicts.

Connecting to James Street will also keep the development access confined to the local roadway system and avoid accesses to the arterial roads such as Hurontario Street or Charleston Sideroad. This

access management system preserves the through-traffic function of the arterial roads and thus will improve traffic safety on these higher-order roadways.

## 6.2 Access Geometrics

Access geometrics such as width and radii were reviewed per the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads (GDGCR).

Per Table 8.9.1 of the TAC GDGCR, the typical width of a two-way residential driveway ranges from 2.0 – 7.3 metres and the curb radius ranges from 3.0 – 4.5 metres.

Per Section 8.4.9 of the TAC GDGCR, curb radii at accesses should be designed to accommodate the design vehicles that are required based on current and anticipated turning movements. The primary design vehicle will be passenger cars, which per Chapter 2 of the TAC GDGCR has a turning radii path of 6.3 metres. Therefore, the site accesses on the boundary road network should be constructed with a minimum curb radius of 6.3 metres.

As the internal roadway branching from the site access will be a fire route, the minimum width of the access will be 6.0 metres per the Ontario Building Code (OBC) for fire access route design. Therefore, the site accesses on the boundary road network should be constructed with a minimum width of 6.0 metres.

## 6.3 Sight Distance Requirements

Sight distance requirements were analyzed at the proposed site access per the TAC GDGCR. Sight distance is measured using the following assumptions:

- A standard driver eye height of 1.08 metres for a passenger car, and
- A 4.4 metre setback from the approximate extension of the outer curb to represent a vehicle waiting to exit the site.

Intersection sight distance is calculated using equation 9.9.1 from the GDGCR as outlined below:

$$ISD = 0.278 * V_{major} * tg$$

Where;

*ISD* = Intersection Sight Distance

*V major* = design speed of roadway (km/h)

*tg* = assumed time gap for vehicles to turn from stop onto roadway (s)

The design speed of a local roadway in an urban environment is typically equal to the posted speed limit. The assumed speed limit on the local roadways within the existing neighbourhood is 50 km/h; therefore, a design speed of 50 km/h was assumed.

A sight distance of 105 metres is required at the site access for passenger cars exiting at James Street. The existing local roadways in the residential neighbourhood are straight and flat, thus optimizing sight distance availability at the proposed site access. Thus, a sight distance of 105 metres can be achieved at the development site access.

## 7.0 VEHICLE CIRCULATION

To assess the internal site circulation, vehicle turning analysis was conducted for the following vehicle profiles:

- Standard passenger car;
- Region of Peel side-load waste collection truck; and
- pumper firetruck.

Vehicle turning analysis indicates that there are generally no expected maneuverability constraints within the site.

It is further noted that the internal roadway meets the OBC fire access route design requirements of having a roadway width of 6.0 metres or greater and centerline radii of 12 metres or greater.

The vehicle turning diagrams for each vehicle profile are attached to this letter.

## 8.0 MINIMUM PARKING REQUIREMENTS

The proposed parking supply for the development was reviewed and compared to Zoning By-Law requirements to determine if the proposed parking supply satisfies minimum Zoning By-Law requirements.

The minimum parking requirements per the Town's Zoning By-Law are outlined in **Table 3**.

**Table 3: Town of Caledon Zoning By-Law Minimum Parking Requirements**

Land Use	"X" variable	Zoning By-Law Requirements	Minimum Parking Required	Proposed Parking Supply
Dwelling, Townhouse	30 units	2 parking spaces per dwelling unit plus 0.25 parking spaces per unit for visitors	60 resident spaces  8 visitor spaces  <b>68 spaces total</b>	<b>62 parking spaces</b>  <b>10 visitor spaces</b>

As outlined above, the proposed development is required to provide a total of 60 resident parking spaces and 8 visitor parking spaces. The development proposes individual car garages and driveways for each residential dwelling unit, thus effectively providing 2 parking spaces per dwelling unit. It is noted that 4 of the proposed dwelling units will feature double-car garages, thus effectively providing more parking for those dwelling units. The development proposes 10 visitor parking spaces on site.

Therefore, the proposed parking supply satisfies minimum Zoning By-Law requirements.

## 9.0 CONCLUSIONS

The analysis contained within this Traffic Brief concludes that no traffic operations nor safety issues are identifiable with the proposed development. Therefore, the proposed development can be supported from a traffic operations and safety perspective, and parking perspective.

The analysis was conducted using the Draft Site Plan dated November 5, 2020. Any minor changes to the plan will not materially affect the conclusions contained within this traffic brief.

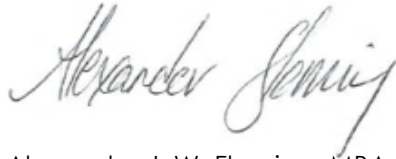
Rizmi Holdings Limited  
18309 & 18314 Hurontario Street, Town of Caledon

Traffic Brief  
December 9, 2020

We trust that this Traffic Brief addresses the Town's traffic concerns. Should you have any questions or require any further information, please feel free to give us a call.

Yours truly,

**C.F. CROZIER & ASSOCIATES INC.**



Alexander J. W. Fleming, MBA, P.Eng.  
Associate

**C.F. CROZIER & ASSOCIATES INC.**



Darren J. Loro, C.E.T.  
Transportation Technologist

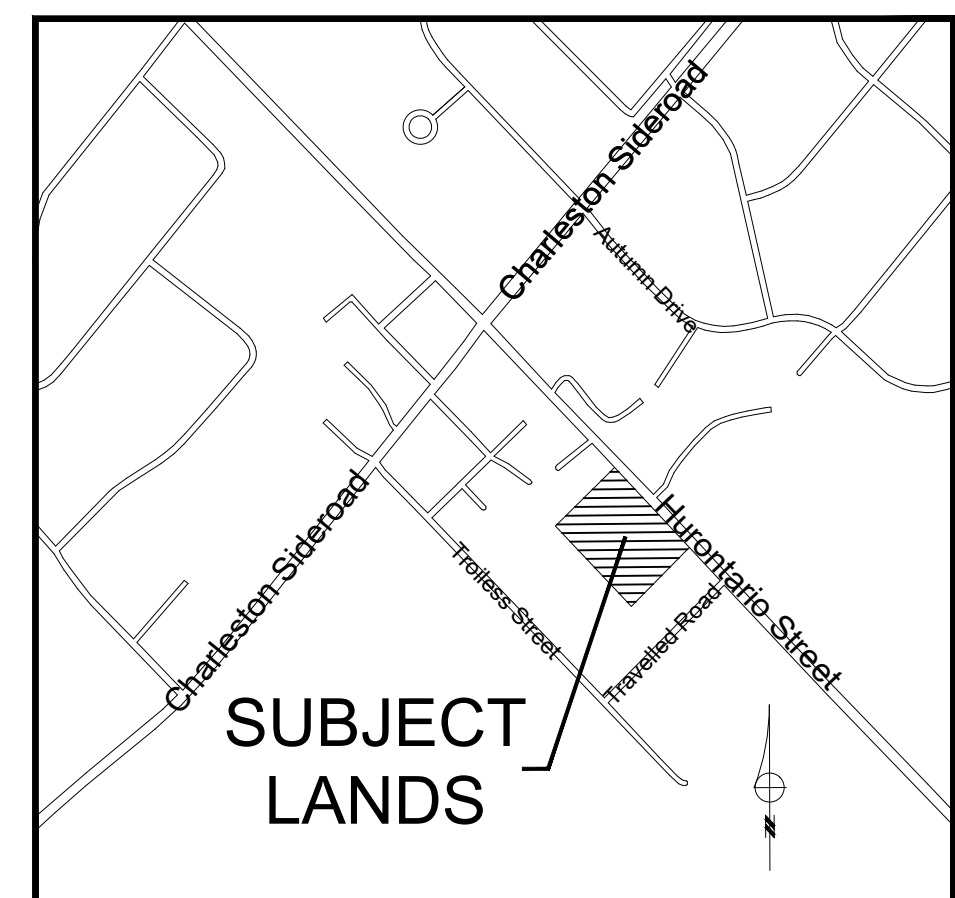
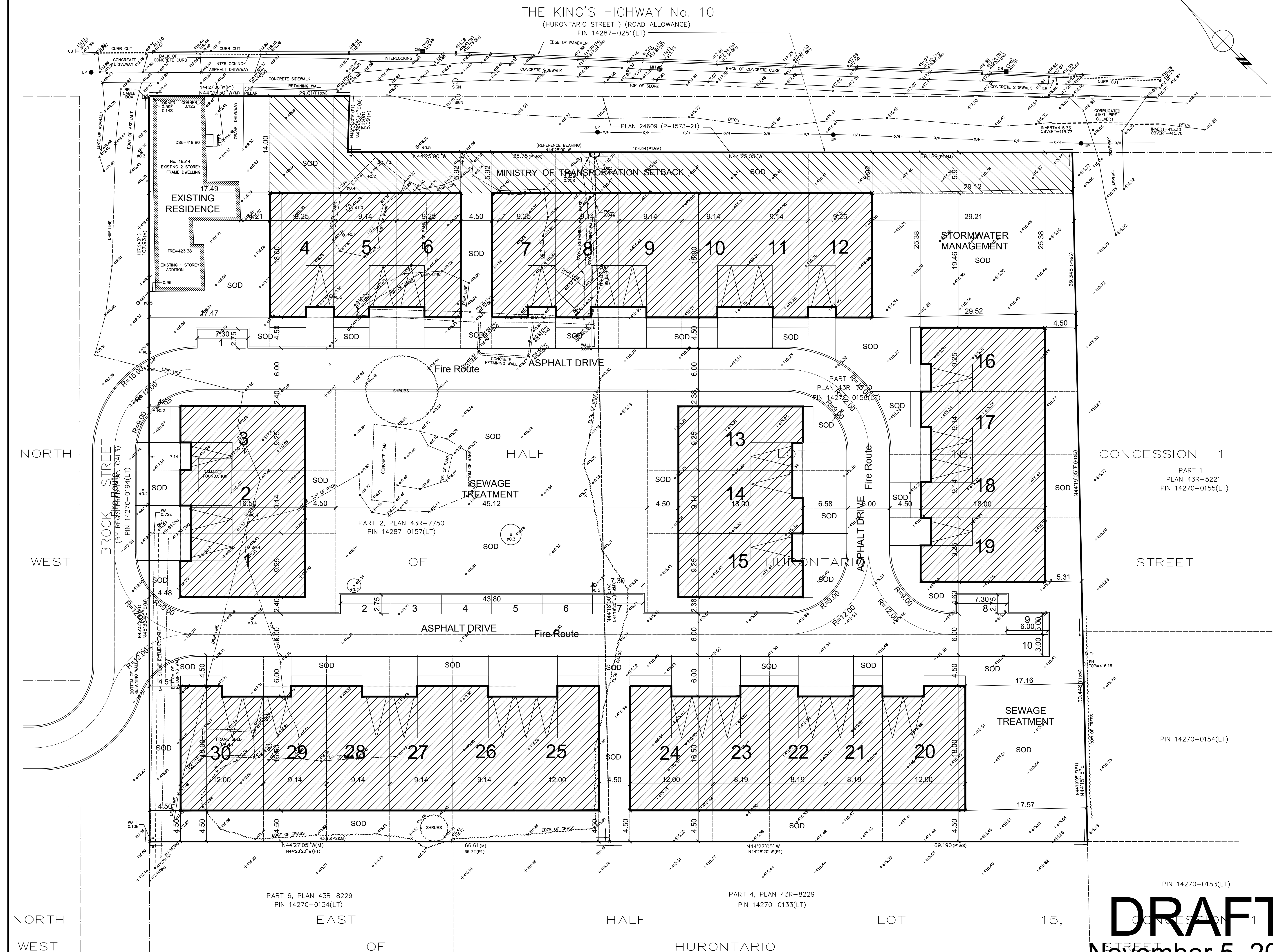
Encl.

Draft Site Plan  
Vehicle Turning Diagrams

/dl

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# CALEDON TOWNHOUSE DEVELOPMENT

PART OF NORTH HALF LOT 15  
CONCESSION 1  
WEST OF HURONTARIO STREET  
(FORMER TOWNSHIP OF CALEDON)

TOWN OF CALEDON  
REGIONAL MUNICIPALITY OF PEEL



IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS ON THE SITE AND REPORT ANY DISCREPANCIES OF VARIATIONS TO LUCAS AND ASSOCIATES. LUCAS AND ASSOCIATES IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY OR ARCHITECTURAL INFORMATION SHOWN ON THE DRAWING.

THIS DRAWING IS NOT TO BE SCALED

BEARING NOTE  
BEARINGS SHOWN HEREON ARE ASTRONOMIC AND ARE REFERRED TO THE  
NORTHEAST LIMIT OF PARTS 1 AND 2 AS SHOWN ON PLAN 43R-7750, HAVING  
BEARING OF N44°25'00"W.

ELEVATION NOTE  
ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFRRRRED TO TOWN OF  
CALEDON BENCH MARK No. 72B403 (STATION No. 00B1972B403), HAVING AN  
ELEVATION OF 412.106 METRES.

## DEVELOPMENT DETAILS

DEVELOPMENT AREA	13,681.05 m <sup>2</sup>
BUILDING AREA	5,148.58 m <sup>2</sup>
BUILDING HEIGHT	xx.xx m
UNITS (Proposed)	30
UNITS (Existing)	1
UNITS (Total)	31
PERCENTAGE LOT COVERAGE	37.63%
TOTAL PAVED AREA	2,615.81 m <sup>2</sup>
PERCENTAGE PAVED AREA	19.12%
LANDSCAPED AREA	5,916.67 m <sup>2</sup>
PERCENTAGE LANDSCAPED AREA	43.25%
No. PARKING SPACES (Proposed)	44
No. PARKING SPACES (Existing)	2
No. PARKING SPACES (Total)	46
PARKING RATIO	1.48 SPACES/UNIT

## RT-XX EXCEPTION ZONING DETAILS

	REQUIRED/ PROPOSED	PROVIDED
MIN. LOT AREA (per unit)	220.00 m <sup>2</sup>	441.32 m <sup>2</sup>
MAX. BUILDING AREA	40.00%	37.63%
MIN. LANDSCAPED AREA	30.00%	43.25%
MIN. LOT FRONTAGE (per unit)	6.00 m	8.19 m
MIN. FRONT YARD	5.50 m	5.92 m
MIN. INT. SIDEYARD	4.50 m	4.50 m
MIN. REAR YARD	4.50 m	4.50 m
MAX. HEIGHT	10.50 m	xx.xx m <sup>2</sup>
PARKING SPACES	xx	46

4.		
3.		
2.		
1.		
No.	Description	Date

# SITE PLAN

Lucas & Associates  
Consultants in Planning and Land Development

21 White Oaks Road, Barrie, Ontario L4N 5A2  
(705) 727-8335

DATE : October 27, 2020	DRAWN BY : G.J.L.
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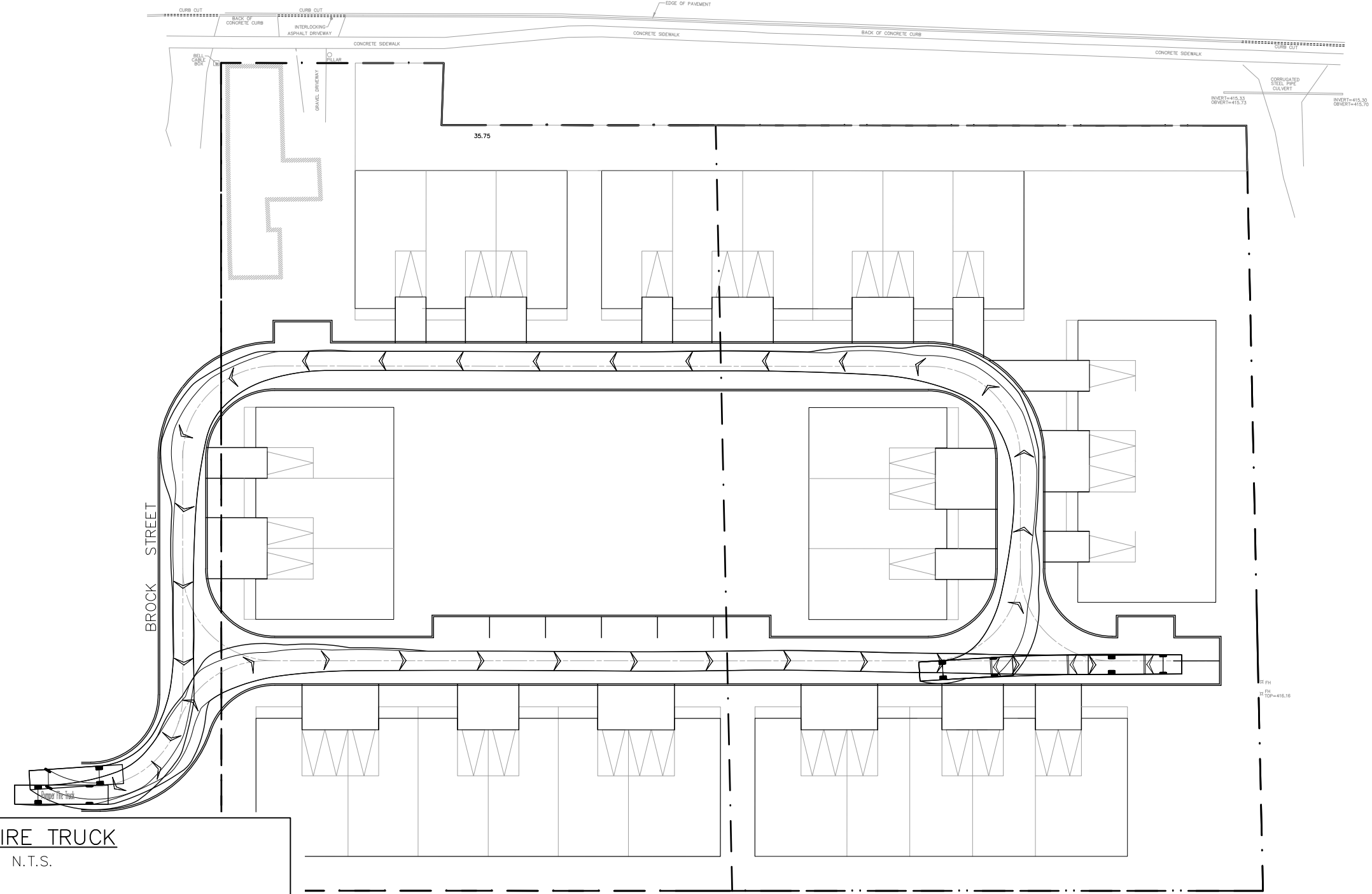
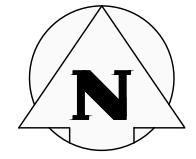
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**DRAFT**  
CONCESSION 1  
STREET  
November 5, 2020

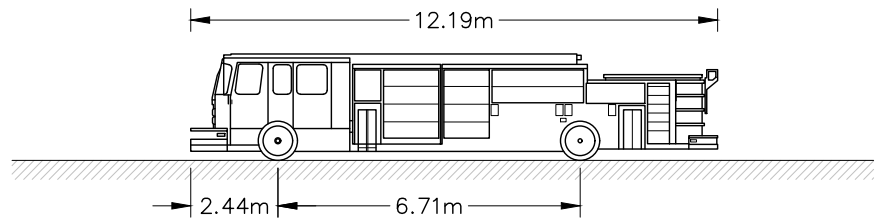


NOTE:  
THIS FIGURE IS SCHEMATIC ONLY  
AND IS NOT TO BE SCALED.

THE KING'S HIGHWAY No. 10



PUMPER FIRE TRUCK  
SCALE: N.T.S.




VEHICLE STATISTICS:

OVERALL VEHICLE LENGTH:	12.19 m
OVERALL VEHICLE WIDTH:	2.49 m
OVERALL VEHICLE HEIGHT:	2.36 m
MIN. BODY/GROUND CLEARANCE:	0.20 m
VEHICLE TRACK WIDTH:	2.49 m
LOCK-TO-LOCK TIME:	5.00 sec
MAX. WHEEL ANGLE:	45.00°

18309 & 18314 HURONTARIO STREET  
TOWN OF CALEDON

PUMPER FIRE TRUCK  
TURNING MOVEMENT



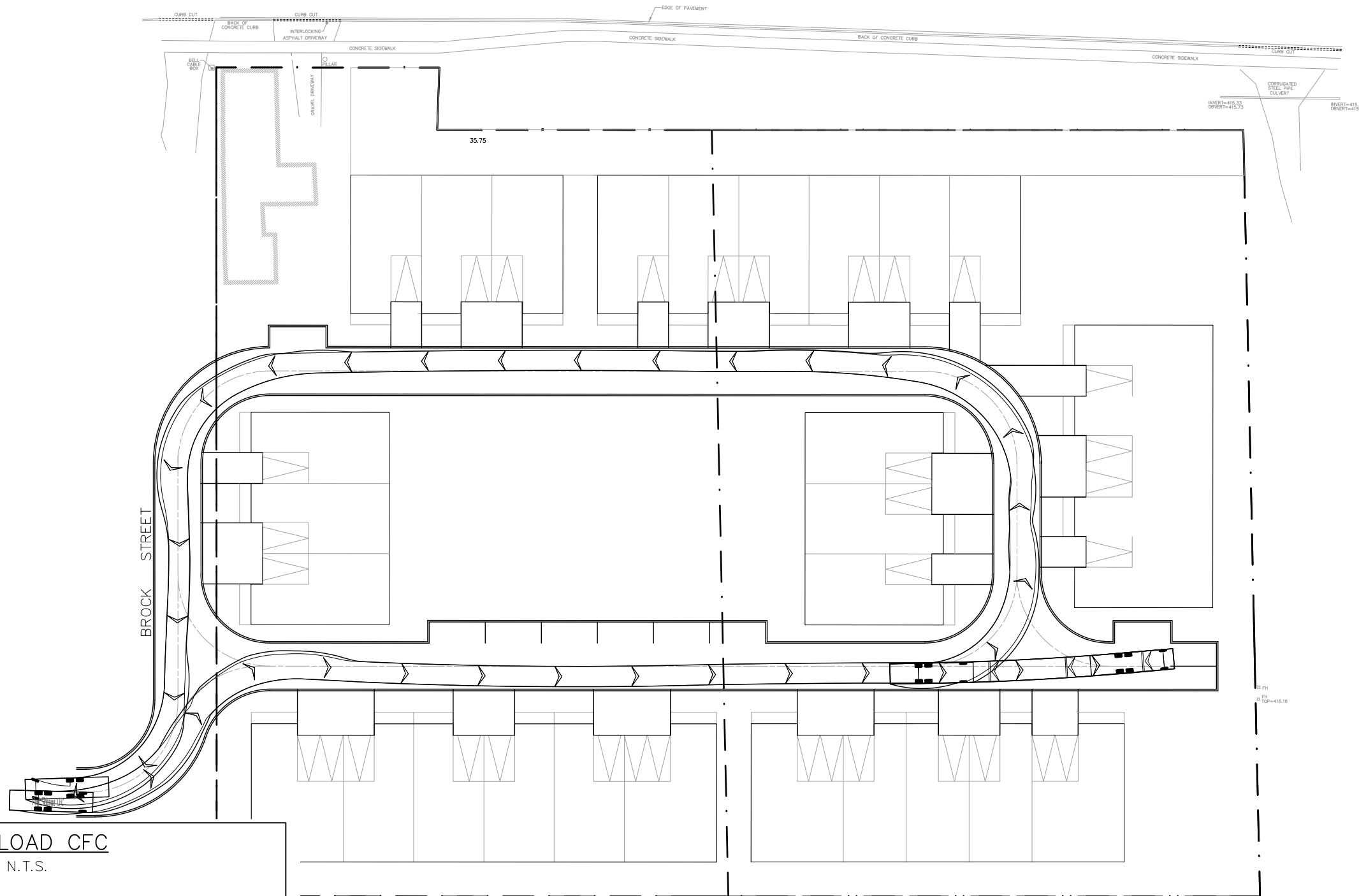
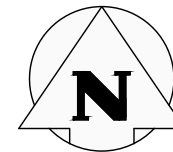
**CROZIER  
& ASSOCIATES**  
Consulting Engineers

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705 446-3520 F  
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info@cfcrozier.ca

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Check	D.L.	Check	Scale	N.T.S.
			Dwg.	FIG 01

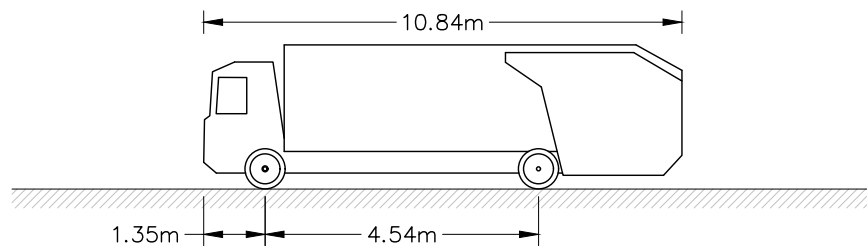


NOTE:  
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**PEEL SIDELOAD CFC**

SCALE: N.T.S.

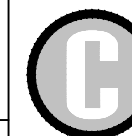


**VEHICLE STATISTICS:**

OVERALL VEHICLE LENGTH: ..... 10.84 m  
OVERALL VEHICLE WIDTH: ..... 2.62 m  
OVERALL VEHICLE HEIGHT: ..... 3.23 m  
MIN. BODY/GROUND CLEARANCE: 0.31 m  
VEHICLE TRACK WIDTH: ..... 2.62 m  
LOCK-TO-LOCK TIME: ..... 6.00 sec  
CURB TO CURB TURNING RADIUS: 14.73 m

18309 & 18314 HURONTARIO STREET  
TOWN OF CALEDON

WASTE COLLECTION TRUCK  
TURNING MOVEMENT

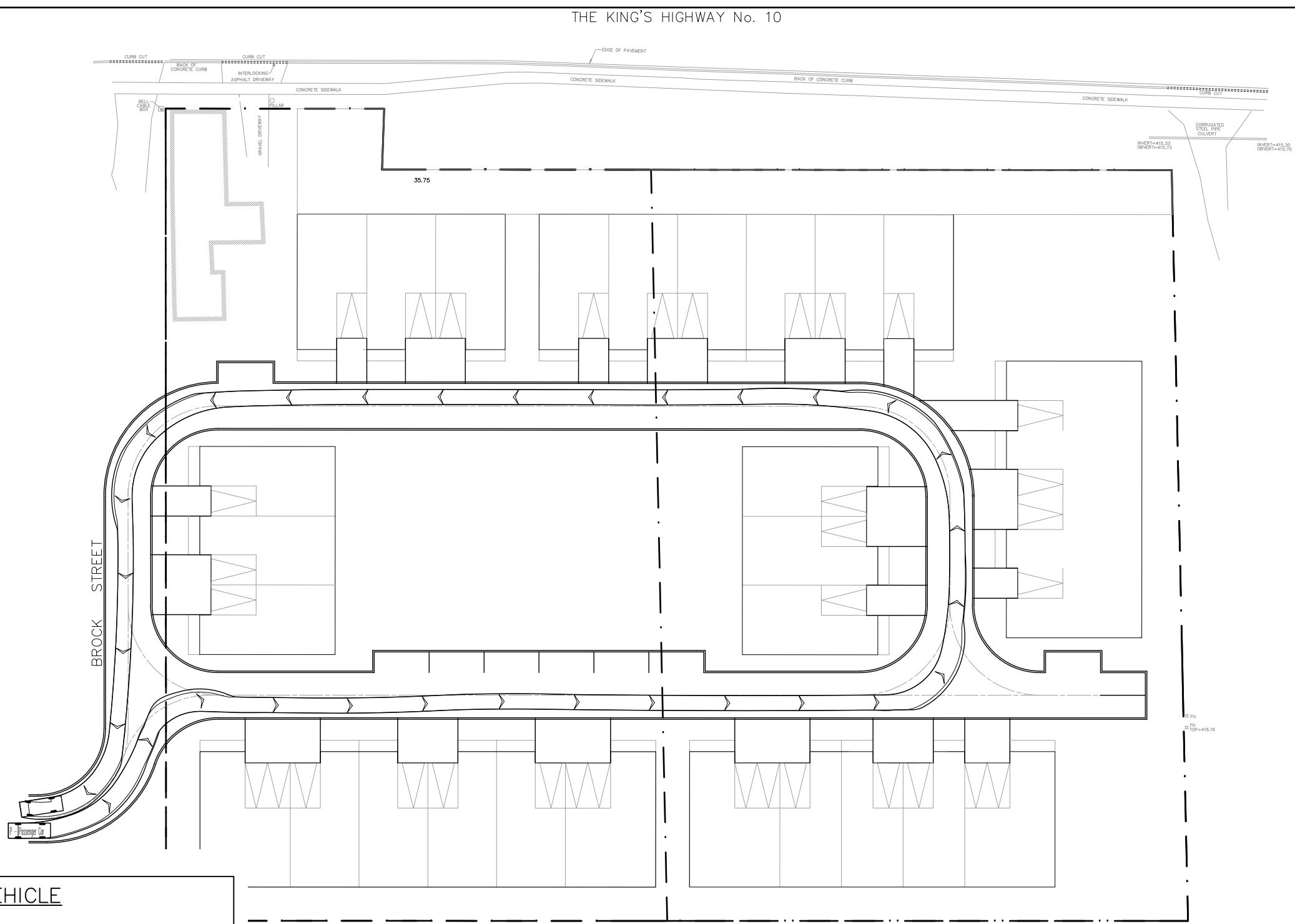


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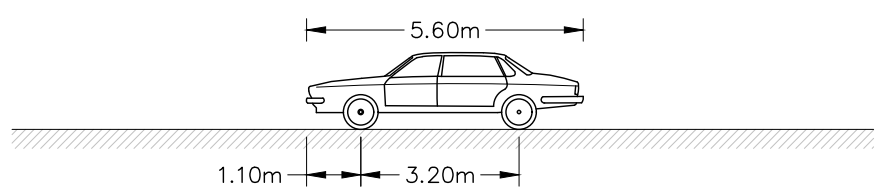
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			Dwg.	FIG 02

NOTE:  
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PASSENGER VEHICLE  
SCALE: N.T.S.




VEHICLE STATISTICS:

OVERALL VEHICLE LENGTH:	5.60 m
OVERALL VEHICLE WIDTH:	1.99 m
OVERALL VEHICLE HEIGHT:	1.55 m
MIN. BODY/GROUND CLEARANCE:	0.34 m
VEHICLE TRACK WIDTH:	2.00 m
LOCK-TO-LOCK TIME:	1.22 sec
CURB TO CURB TURNING RADIUS:	6.30 m

18309 & 18314 HURONTARIO STREET  
TOWN OF CALEDON

PASSENGER CAR  
TURNING MOVEMENT

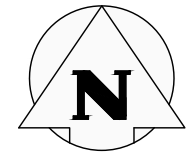
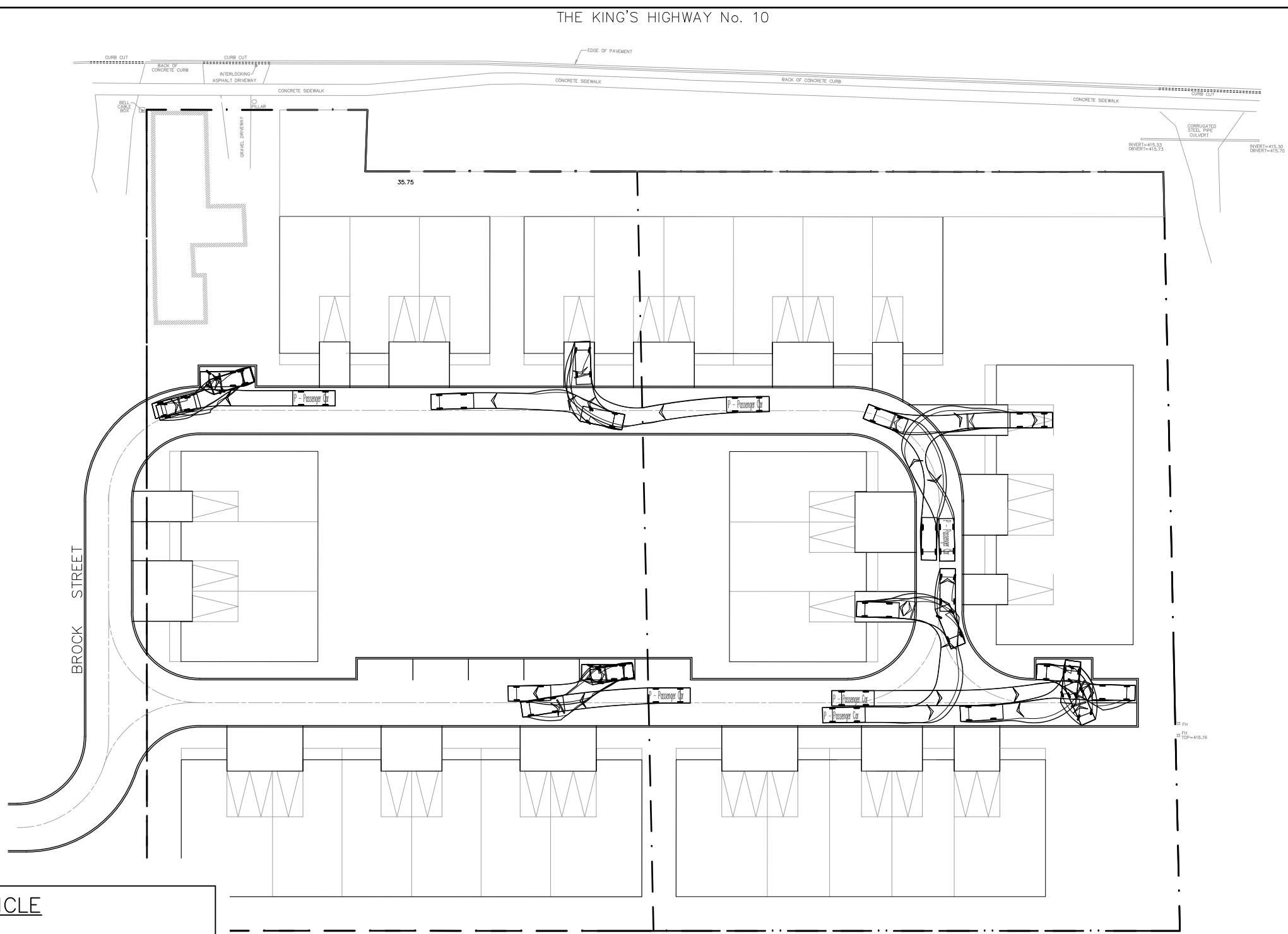


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			Dwg.	FIG 03

NOTE:  
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AND IS NOT TO BE SCALED.



**PASSENGER VEHICLE**  
SCALE: N.T.S.

VEHICLE STATISTICS:

OVERALL VEHICLE LENGTH:	5.60 m
OVERALL VEHICLE WIDTH:	1.99 m
OVERALL VEHICLE HEIGHT:	1.55 m
MIN. BODY/GROUND CLEARANCE:	0.34 m
VEHICLE TRACK WIDTH:	2.00 m
LOCK-TO-LOCK TIME:	1.22 sec
CURB TO CURB TURNING RADIUS:	6.30 m

18309 & 18314 HURONTARIO STREET TOWN OF CALEDON		<b>CROZIER &amp; ASSOCIATES</b> Consulting Engineers The HarbourEdge Building 40 Huron Street, Suite 301 Collingwood, ON L9Y 4R3 705 446-3510 T 705 446-3520 F www.cfcrozier.ca info@cfcrozier.ca		
PASSENGER CAR TURNING MOVEMENT				
Drawn	A.K.	Design	Project No.	1610-5023
Check	D.L.	Check	Scale	N.T.S.
			Dwg.	FIG 04