

April 24, 2024

MHT Housing, Inc.
Attn: Zach Ormsby
32500 Telegraph Road, Suite 100
Bingham Farms, MI 48025

Re: Traffic Impact Assessment for Gesu Senior Housing Development at 17213 Birchcrest Drive – Detroit, Michigan

This memo addresses the traffic impacts associated with the proposed Gesu Senior Housing Development. Including the additional traffic generated by the development. The Gesu Senior Housing Development is located at 17213 Birchcrest Drive, Detroit, Michigan. The proposed site plan (as attached):

- Converts the existing vacant area into 36 senior housing units with 27 parking spaces,
- Includes the addition of a parking lot with access to Santa Maria Avenue,
- Adds a loading zone along Birchcrest Drive.

Existing Conditions

The existing location experiences traffic peaks from the adjacent Gesu Catholic School. Peak times from drop-off are 6:30-8:00 AM and pick-up from 2:00-4:00 PM during school days. Oak Drive at West McNichols Road is closed from 6:30-8:00AM, 10:00AM-1:00PM, and 2:00-4:00PM as shown in Figure 2. Vehicles enter the student drop-off at the gate entrance located along Quincy Street or the parking lot located along Birchcrest Drive. Once the students are dropped off, the vehicles are directed northbound on Oak Drive towards Santa Maria Avenue. It was observed that vehicles typically turn left on Santa Maria Avenue towards Livernois.



Figure 1 Gesu Catholic School Pick Up/Drop Off Diagram

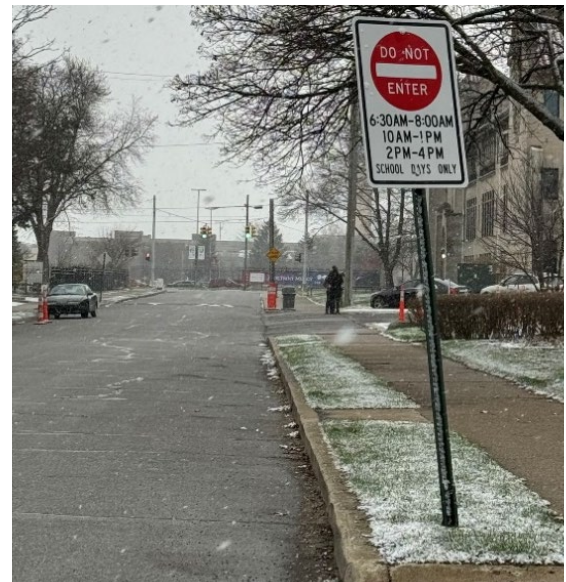


Figure 2 Sign at Oak Drive and Santa Maria Avenue (looking south)

Proposed Conditions

The City of Detroit Municipal Code¹ details the minimum criteria for a Traffic Impact Statement as developments estimated to generate 200 or more peak-hour vehicle trips in the peak direction or more than 2,000 average daily vehicle trips. Per ITE TripGen Land Use Code (LUC) 251-Senior Adult Housing-Single Family the following trips are generated for AM and PM peak hours:

- The site generates 12 AM peak hour trips (Total IN/OUT)
- The site generates 14 PM peak hour trips (Total IN/OUT)

The ITE LUC's are attached to this memo and the average trip rate for the peak hour of the generator was used. In addition to minimal trips being predicted, peak hour trips from senior housing facilities often occur outside of the school pick-up/drop-off peaks.

For comparison to the trips predicted from the ITE Trip Generation Manual, traffic counts were taken at an existing senior housing development. Counts were taken at the Jennings Senior Living development, located at 7815 E. Jefferson Ave., Detroit, Michigan on April 2, 2024 for a 12-hour period from 7:00 AM to 7:00 PM. For comparison this site contains 46 senior housing units. The traffic counts resulted in:

- 4 AM peak hour trips
- 7 PM peak hour trips

The counted trips show reduced trips from the proposed traffic generated. The counts are also attached to this memo.

The proposed Gesu Senior Housing Development is predicted to generate trips substantially less than City's minimum requirements for a Traffic Impact Statement. This is supported through the counts of the additional housing site that also produces minimal trips. This Traffic Impact Assessment is provided to quantify the negligible impact on adjacent street traffic.

If you have any questions regarding this memo please contact Lauren Warren, PE, PTOE, PMP (Lauren.Warren@itsc2g.com).



¹https://library.municode.com/mi/detroit/codes/code_of_ordinances?nodeId=COCH50_CH50ZO_ARTXIVDEST_DIV4TRIM_S50-14-491APTRIMSTRE

WASTE COLLECTION

FOR THE NEW BUILDING, THE OWNERS INTENT FOR WASTE COLLECTION IS TO HAVE A SCREENED IN DUMPSTER LOCATION ON SITE. REFER TO DETAILS ON SHEET C1.03. TRASH & RECYCLABLES WOULD BE COLLECTED BY A DISPOSAL COMPANY AS NECESSARY.

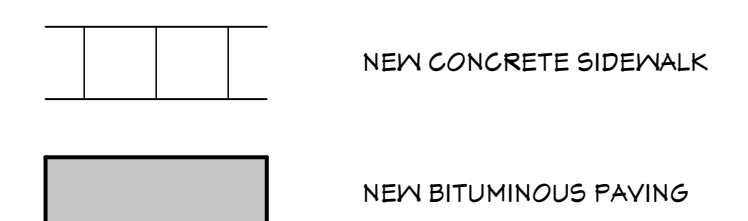
PROPOSED UNIT MIX

- 36 TOTAL UNITS
 - (36) ONE BEDROOMS
 - ADA UNITS = 15% MINIMUM (6 ONE BEDROOM UNITS)

PARKING CALC'S

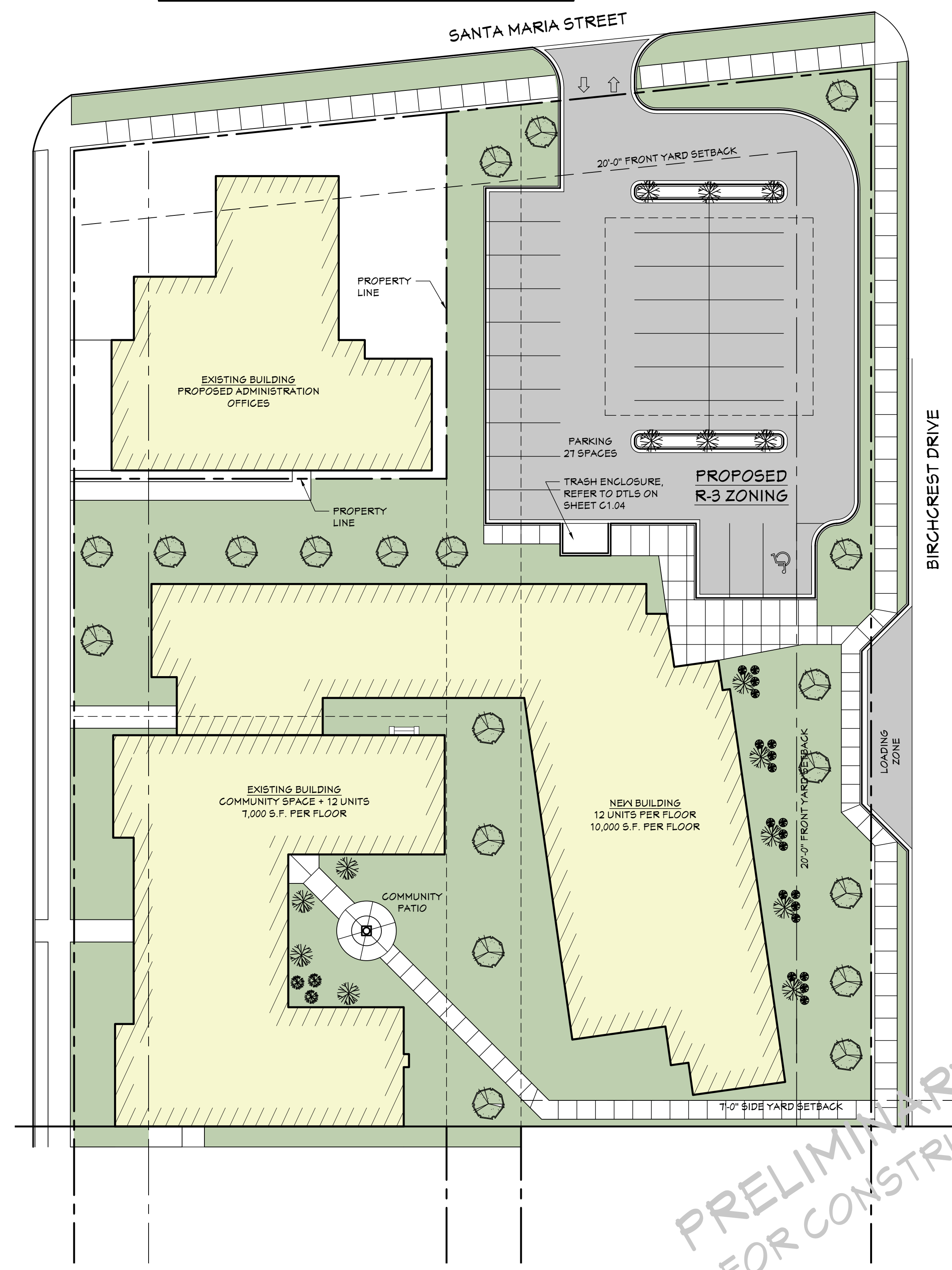
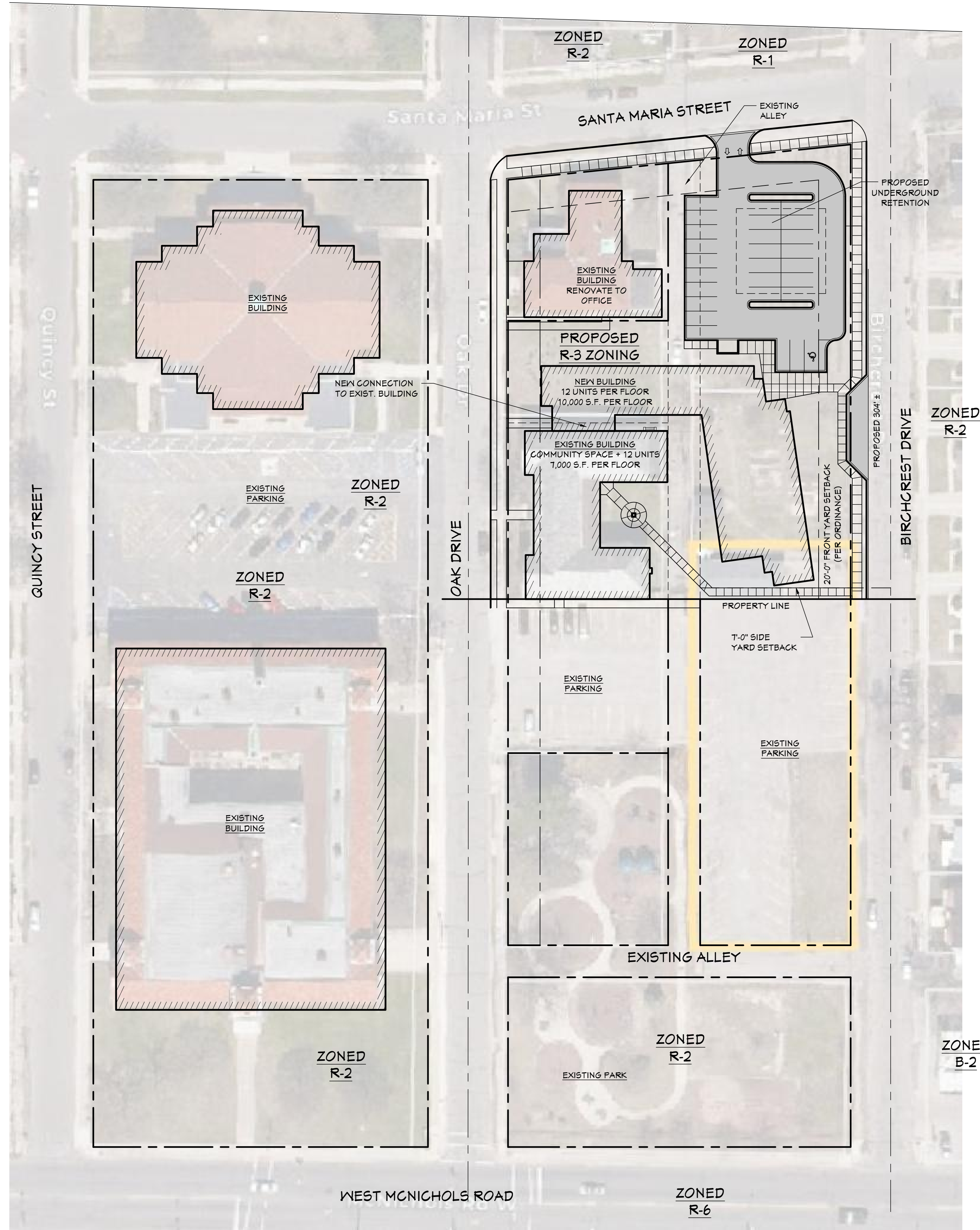
MIN. DU PARKING REQ'D (35 UNITS x 0.75 PER UNIT) = 27 MIN. SPACES
 ALL PARKING SPACES = 9'-0" WIDE x 20'-0" DEEP w/ MIN. 20'-0" DRIVE LANE
 TOTAL PARKING RATIO = 27 SPACES / 35 UNITS = .75:1

LEGEND

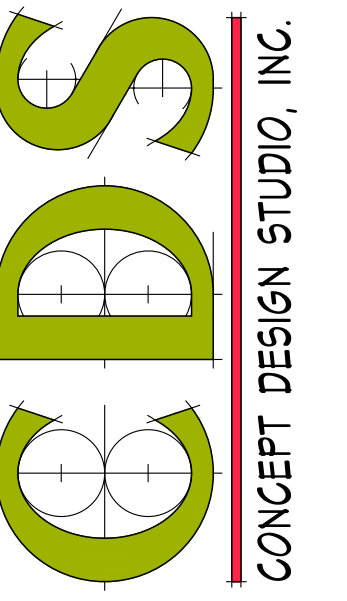


R3 REZONING NOTES

MINIMUM LOT DIMENSIONS: 10'-0"
 MINIMUM LOT AREA = 1,000 S.F.
 MINIMUM SET BACKS = 20' FRONT YARD / FORMULA A SIDE YARD / 30' REAR YARD
 RSR = .12
 MAX FAR = .70 = 34,353 S.F.
 EXISTING SITE S.F. = 44,071 S.F.
 EXISTING ADMIN. BUILDING = 1,000 S.F., 2 STORIES
 NEW BLDG. FIRST & SECOND FLOOR = 10,000 S.F.
 TOTAL BUILDING S.F. = 34,000 S.F.



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 NORTON SHORES, MI 49441
 PH. (231) 799-4838
 FAX (231) 799-4837



NEW PROJECT FOR
GESU HOUSING
 17181 BIRCHCREST DRIVE, DETROIT, MI

PROJECT #	1345-23
ISSUANCES	
OWNER REVIEW	05.22.2023
OWNER REVIEW	06.01.2023
OWNER REVIEW	06.20.2023
OWNER REVIEW	04.05.2023
OWNER REVIEW	04.15.2023
OWNER REVIEW	10.04.2023
OWNER REVIEW	10.14.2023
OWNER REVIEW	11.28.2023
OWNER REVIEW	02.14.2024
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DRAWN BY	KO

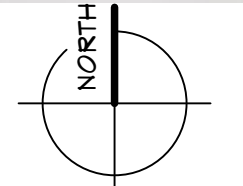
SHEET TITLE
PROPOSED SITE PLAN

SHEET NO.

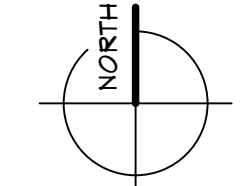
C1.01

PRELIMINARY
 NOT FOR CONSTRUCTION

2/19/2024 11:28 AM Z:\PROJECTS\1345-23 MHT Housing - Gesu Catholic School\3-Drawings\1345-23C1.01.dwg



OVERALL SITE PLAN (THIS IS NOT A SURVEY)
 SCALE: 1" = 40'-0"



ENLARGED SITE PLAN (THIS IS NOT A SURVEY)
 SCALE: 1" = 20'-0"

Senior Adult Housing - Single-Family (251)

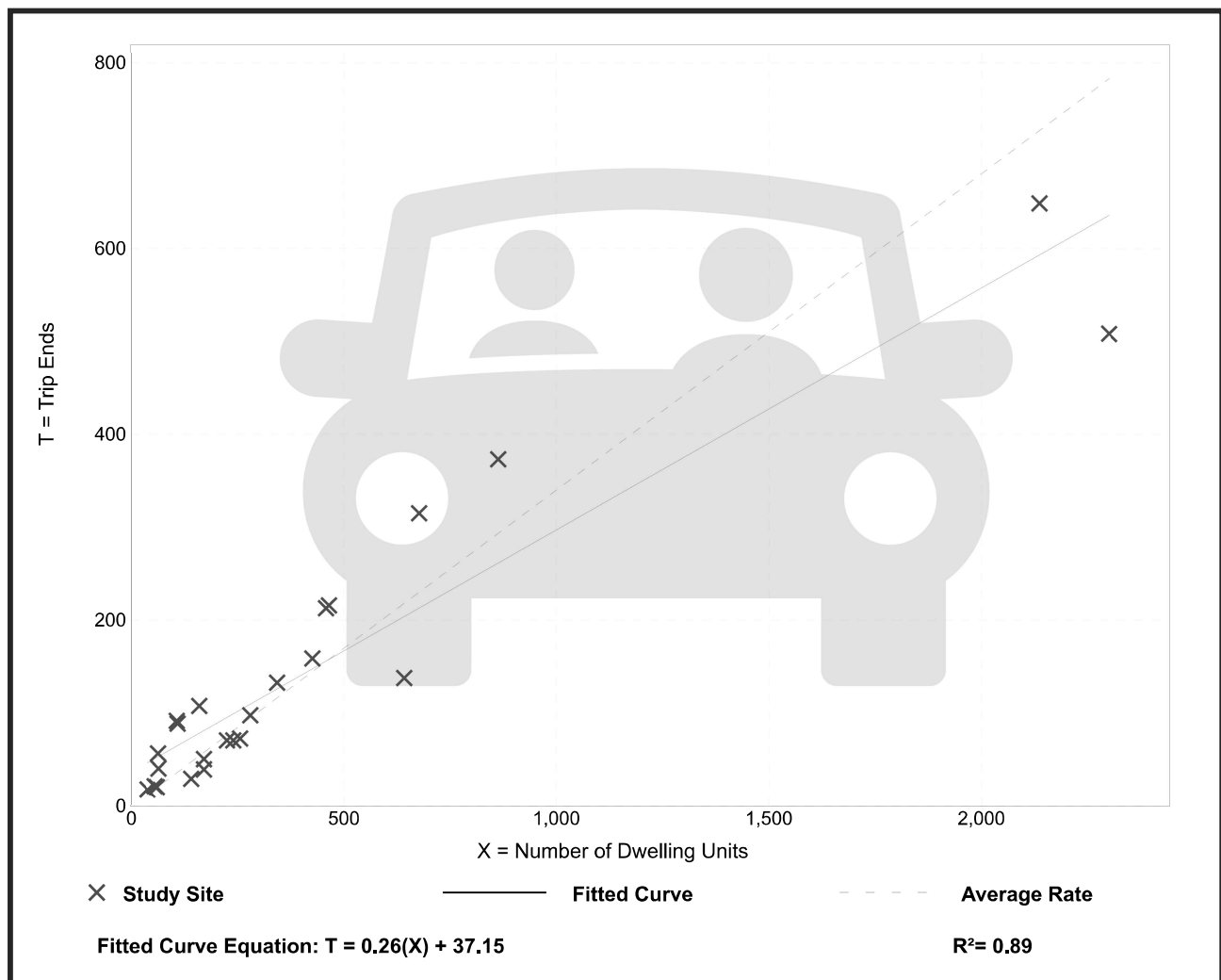
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 24
 Avg. Num. of Dwelling Units: 435
 Directional Distribution: 43% entering, 57% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.34	0.21 - 0.90	0.14

Data Plot and Equation



Senior Adult Housing - Single-Family (251)

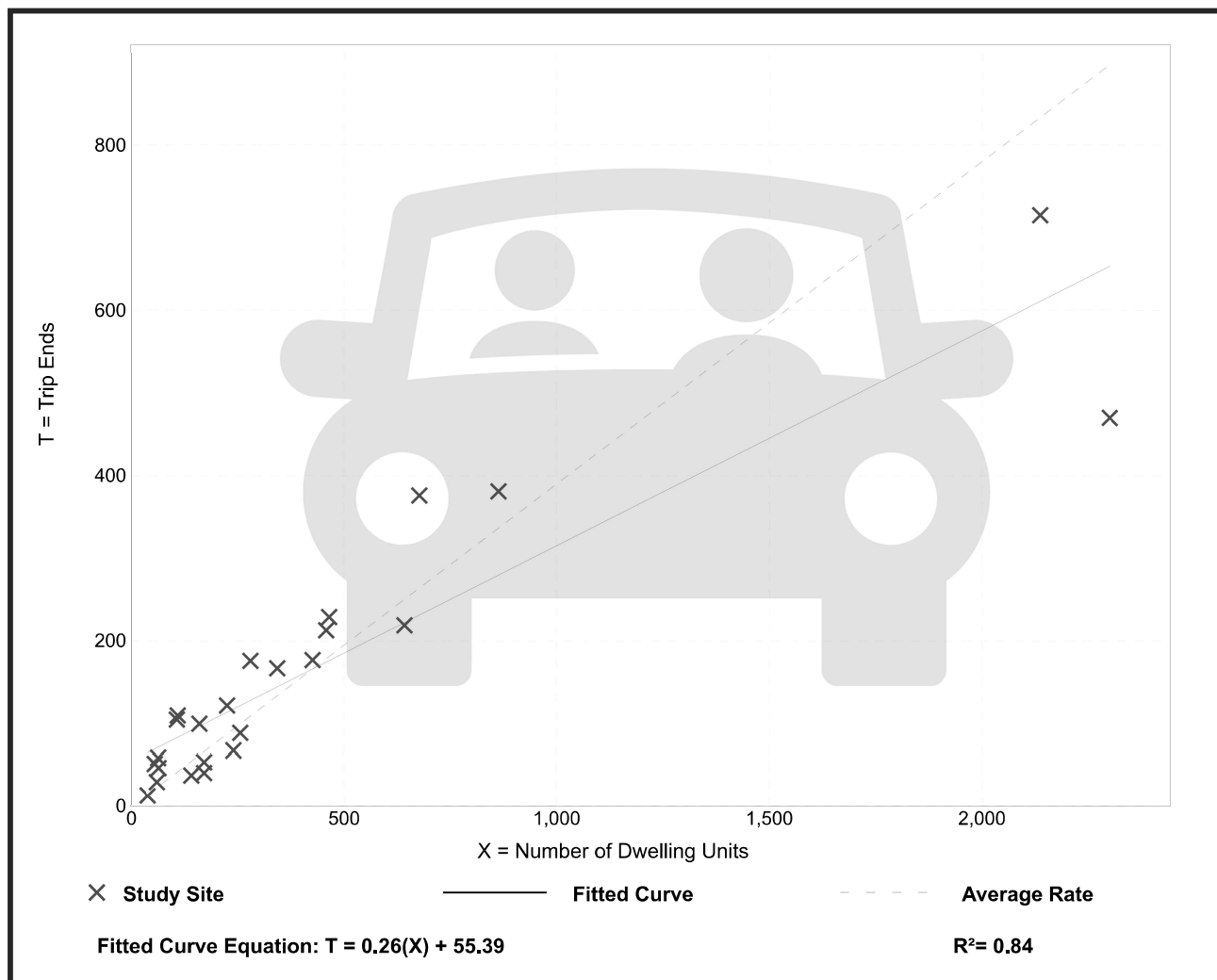
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 24
 Avg. Num. of Dwelling Units: 435
 Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.20 - 1.01	0.17

Data Plot and Equation



**Driveway Exit and n/a
Detroit Michigan
Tuesday, April 02, 2024
AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Peak Hour Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
4:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Peak Hour Total	0	0	5	0	0	5	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7
PHF	0.000	0.000	0.417	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.438

Driveway Enter					
Total Vehicles On Leg			32		
Vehicles Entering Intersection			17		
Vehicles Exiting Intersection			15		
Southbound					
Cars	0	17	0	0	0
Heavy	0	0	0	0	0
Total	0	17	0	0	0

R T L U-TURN PED

n/a	Total Vehicles on Leg	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total	PED
				0	0	0	
Vehicles Exiting Intersection	0	0	Eastbound	Cars	Heavy	Total	U-TURN
				0	0	0	L
Vehicles Exiting Intersection	0	0	Eastbound	Cars	Heavy	Total	T
				0	0	0	R

Total Volumes

R	Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg	n/a
	0	0	0				
T	0	0	0	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg	n/a
L	0	0	0				
U-TURN	0	0	0	Westbound	Vehicles Exiting Intersection	Total Vehicles on Leg	n/a
PED	0	0	0				

PED U-TURN L T R

Cars	0	0	0	15	0
Heavy	0	0	0	0	0
Total	0	0	0	15	0
Northbound					
Vehicles Entering Intersection			15		
Vehicles Exiting Intersection			17		
Total Vehicles On Leg			32		
Driveway Exit					