

TRANSPORTATION TECHNICAL MEMORANDUM

Date: July 28, 2020

To: Susan Habina-Woolard, PE
Town Engineer
Town of Matthews, Public Works Department

From: Michael Wickline, PE
Principal
Design Resource Group, PA (C02370)

Subject: **Matthews Seniors Traffic Information (887-002)**



Per Town of Matthews staff request, we provide the following memorandum detailing the Matthews Seniors project’s anticipated trip generation and trip assignment utilizing the adjacent roadways. As discussed below, the proposed senior residential development (see Figure 1), in our opinion will not have a significant impact on the adjacent roadways and nearby intersections. This is based on the estimated number of peak hour trips expected to be generated from the senior housing at the two proposed access locations.

We provide the following supporting information:

Background Information

Idlewild Road is classified as a minor arterial, with a posted speed limit of 45 mph. It is a two-lane undivided facility (one lane in each direction with appropriate right and left turn lanes). No curb/gutter, planting strip, bike lanes, or sidewalk are present on either side of the roadway south of Margaret Wallace Road (except for the frontage of the adjacent Lidl property).



Idlewild Road Facing North Along Site



Idlewild Road Facing South Along Site



Geospatial information provided by NCDOT's ArcGIS portal (*Go! NC*) was collected such as Annual Average Daily Traffic (AADT) and crash frequency where available in the vicinity of the site.

AADT for two-way volumes on roadways within the area of influence as well as the available crash data are depicted in the tables below.

Annual Average Daily Traffic Volumes (veh. per day)

Roadway	AADT (Year)
Idlewild Road south of Margaret Wallace Road	7,600 vpd (2018)
Idlewild Road north of Margaret Wallace Road	16,500 vpd (2018)
Margaret Wallace Road east of Dion Drive	16,000 vpd (2018)

Crash Data from 2015-2019

Intersection	Severity Type			Total Crashes
	K & A Injury Crashes	B & C Injury Crashes	PDO Crashes	
Idlewild Rd & Margaret Wallace Rd	1	26	43	70

Notes:

K: Fatality, **A:** A injury type (disabling), **B:** B injury type (evident), **C:** injury type (possible), **PDO:** Property Damage Only

Proposed Access

According to the schematic site plan (see RZ1.0 and Figure 1 for the site plan on aerial), access to the development is expected to occur via two access locations:

- Proposed Access "A" (Full Movement) – unsignalized access located on Idlewild Road approximately 435 feet south of Margaret Wallace Road
- Proposed Access "B" (Internal Connection to the Adjacent Development) – unsignalized connection to the existing stub located within the adjacent Lidl development

Projected Traffic

The daily and peak-hour trip generation data for the site is presented in the table below for the proposed 128 attached senior housing units. Values derived for the anticipated trips generated by the site are obtained from the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017.

Trip Generation Table

Land Use [ITE Code]	Weekday Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Proposed Development							
Senior Adult Housing- Attached [252]	128 DU	9	17	26	19	15	34

Reference:

Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC. 2017.

Under the proposed zoning the site is anticipated to generate approximately 26 AM peak hour trips and 34 PM peak hour trips.



The directional distribution assumes the following trip distribution percentages (see Figure 2 for the site directional distribution):

- 35% to/from the west on Margaret Wallace Road
- 25% to/from the east on Margaret Wallace Road
- 20% to/from the south on Idlewild Road
- 20% to/from the north on Idlewild Road

The AM and PM peak hour trip assignments were developed using the anticipated trip generation data and above trip distribution percentages and are detailed on Figure 3.

The existing laneage is shown on Figure 4, while the suggested laneage is shown on Figure 5.

It is our opinion that the trips generated by the proposed residential development will not significantly impact the area roadway network based on the minimal number of additional trips anticipated to utilize the adjacent roadways.

Please contact us should you have any questions or need any additional information.

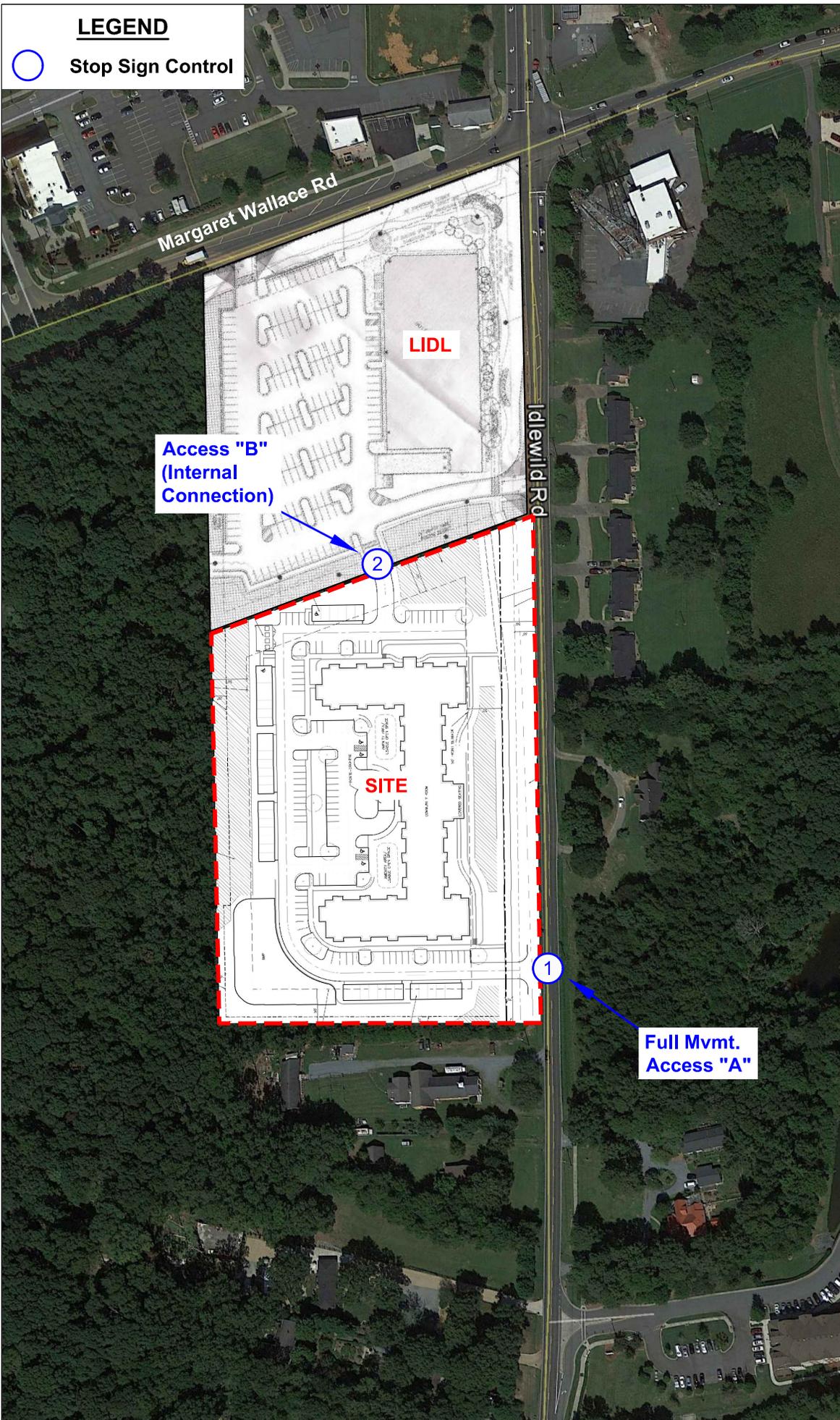
Attachments: Figure 1 – Site Plan on Aerial
Schematic Site Plan – RZ1.0
Figure 2 – Site Directional Distribution
Figure 3 – Peak Hour Site Trip Assignment
Figure 4 – Existing Laneage
Figure 5 – Suggested Laneage

cc: Michael Mahjoub NCDOT
Kevin Woodley Bovermo Investments, Inc.
Nick Bushon, PLA DRG
File

LEGEND



Stop Sign Control



LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING

2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
704.343.0608
www.drgrp.com

MATTHEWS SENIORS TTM

MATTHEWS, NORTH CAROLINA

BUVERMO INVESTMENTS, INC.

7315 WISCONSIN AVENUE

SUITE 925W

BETHESDA, MARYLAND 20814

SITE PLAN ON AERIAL

0 100' 200'

SCALE: 1" = 200'



PROJECT #: 887-002
DRAWN BY: PAH
CHECKED BY: MWW

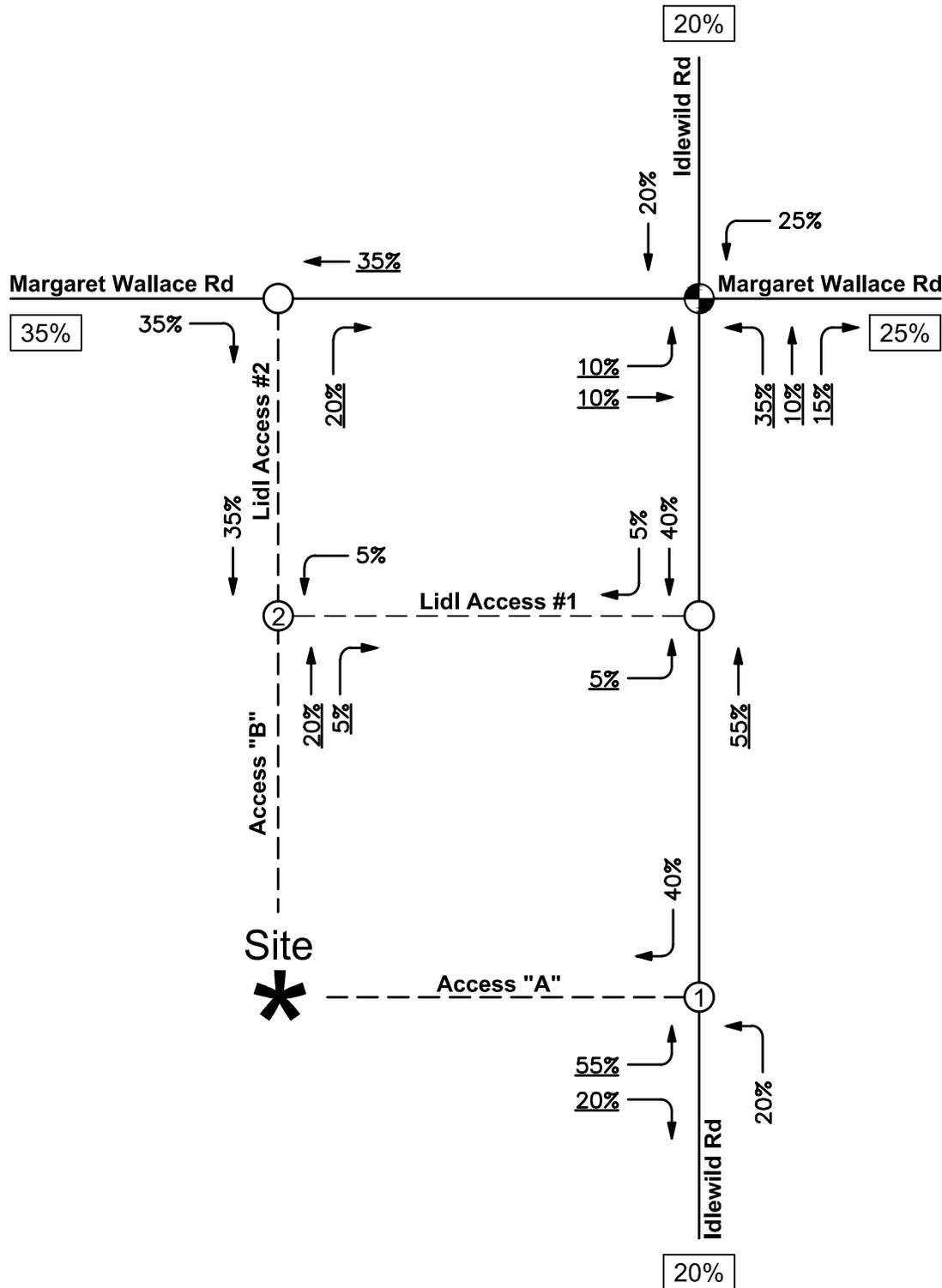
JULY 2020

REVISIONS:

Figure 1

LEGEND

-  Traffic Signal
-  Stop Sign Control
- xx%/xx% Distribution Percentage



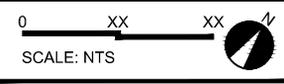
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING

2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
704.343.0608
www.drgrp.com

MATTHEWS SENIORS TTM
MATTHEWS, NORTH CAROLINA

BUVERMO INVESTMENTS, INC.
7315 WISCONSIN AVENUE
SUITE 925W
BETHESDA, MARYLAND 20814

SITE DIRECTIONAL DISTRIBUTION



PROJECT #: 887-002
DRAWN BY: PAH
CHECKED BY: MWW

JULY 2020

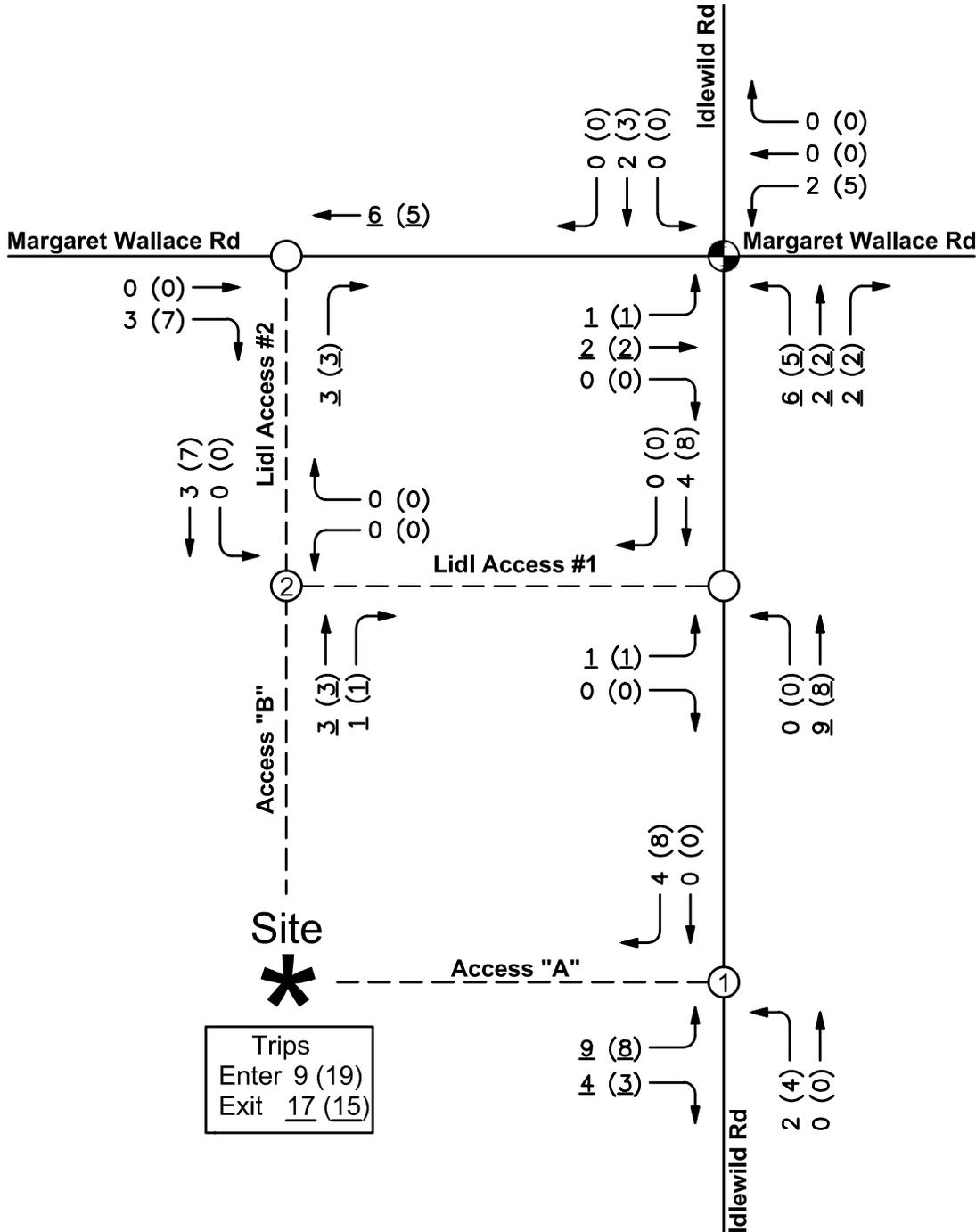
REVISIONS:

Figure 2

LEGEND

-  Traffic Signal
-  Stop Sign Control

VOLUMES: AM (PM)



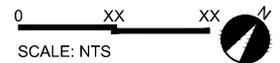
LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
 TRANSPORTATION PLANNING

2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
 704.343.0608
 www.drgrp.com

MATTHEWS SENIORS TTM
 MATTHEWS, NORTH CAROLINA

BUVERMO INVESTMENTS, INC.
 7315 WISCONSIN AVENUE
 SUITE 925W
 BETHESDA, MARYLAND 20814

SITE TRIP ASSIGNMENT



PROJECT #: 887-002
 DRAWN BY: PAH
 CHECKED BY: MWW

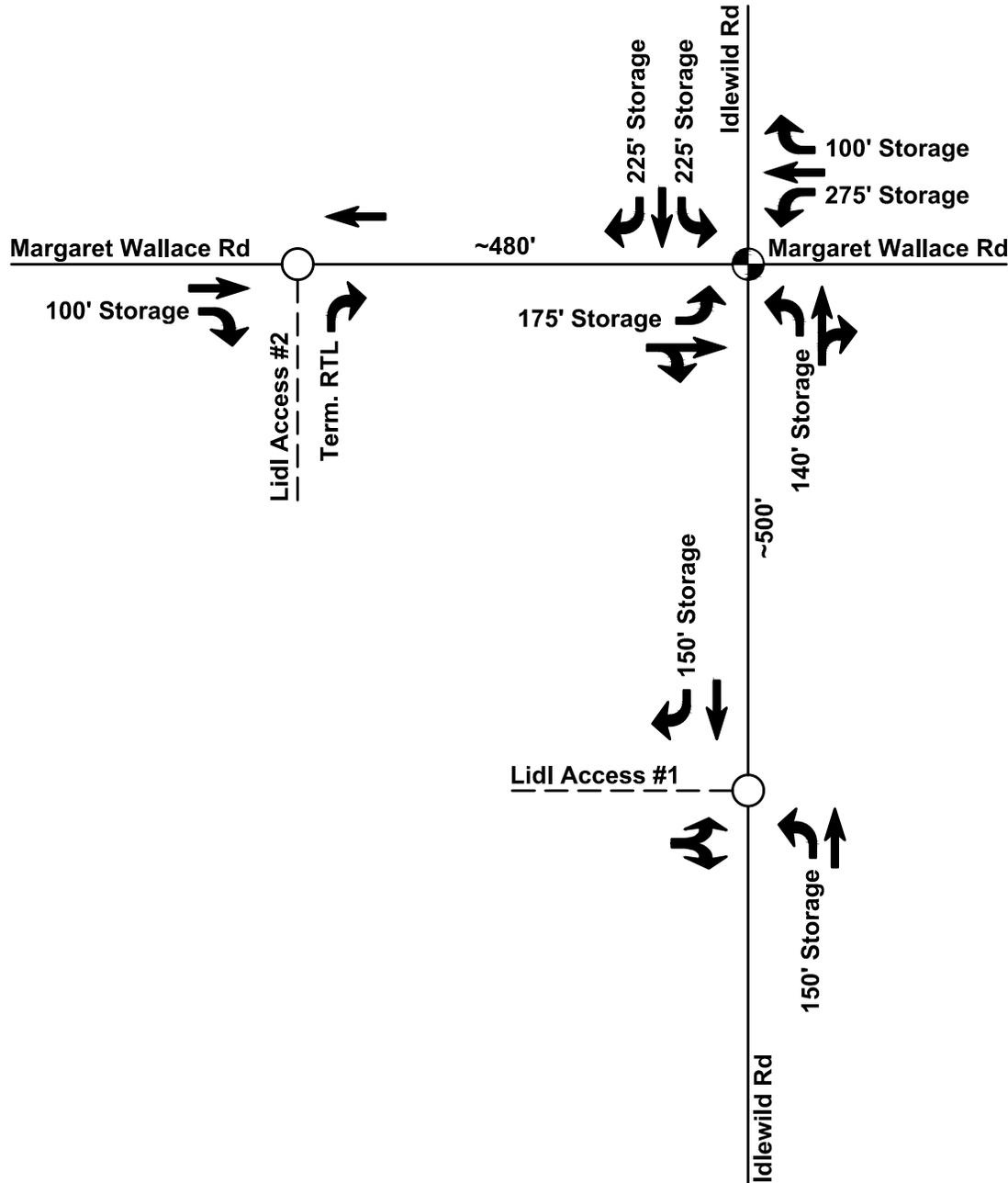
JULY 2020

REVISIONS:

Figure 3

LEGEND

-  Traffic Signal
-  Stop Sign Control
-  Existing Laneage



LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING

2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
704.343.0608
www.drgrp.com

MATTHEWS SENIORS TTM

MATTHEWS, NORTH CAROLINA

BUVERMO INVESTMENTS, INC.

7315 WISCONSIN AVENUE
SUITE 925W
BETHESDA, MARYLAND 20814

**EXISTING
LANEAGE**



SCALE: NTS

PROJECT #: 887-002
DRAWN BY: PAH
CHECKED BY: MWW

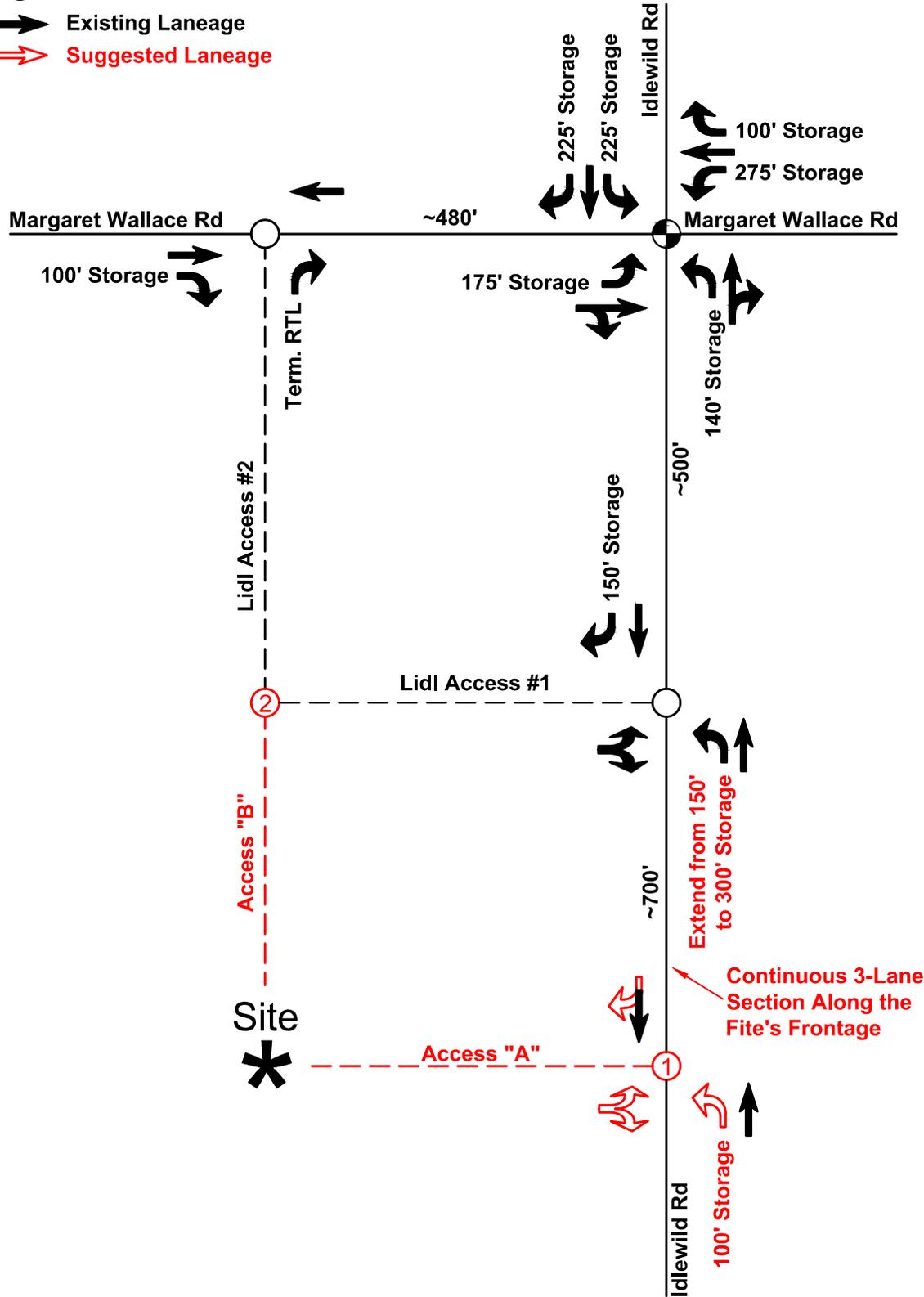
JULY 2020

REVISIONS:

Figure 4

LEGEND

-  Traffic Signal
-  Stop Sign Control
-  Existing Laneage
-  Suggested Laneage



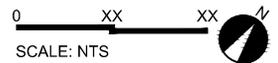
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING

2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
704.343.0608
www.drggrp.com

MATTHEWS SENIORS TTM
MATTHEWS, NORTH CAROLINA

BUVERMO INVESTMENTS, INC.
7315 WISCONSIN AVENUE
SUITE 925W
BETHESDA, MARYLAND 20814

SUGGESTED LANEAGE



PROJECT #: 887-002
DRAWN BY: PAH
CHECKED BY: MWW

JULY 2020

REVISIONS:

Figure 5