Jasper County
Planning and Building Services

358 Third Avenue - Post Office Box 1659
Ridgeland, South Carolina 29936
Phone (843) 717-3650 Fax (843) 726-7707

Lisa Wagner, CFM
Director of Planning and Building Services
lwagner@jaspercountysc.gov

Jasper County Planning Commission

Staff Report

Meeting Date:	October 11, 2022
Project:	Master Plan – CSP Single Family Rental Development
Applicant:	Conduit Street Partners, LLC
Tax Map Number:	0841-00-03-030
Submitted For:	Action
Recommendation:	Approval of CSP Single Family Rental Development

Description: Conduit Street Partners request approval of a Master Plan for CSP Single Family Rental Development. This Master Plan has been developed in accordance with the CSP Planned Development District (PDD), CSP Development Agreement (DA) and Concept Plan approved by Jasper County Council on June 27, 2022.

A Master Plan is a plan for the overall utilization of a particular area, including allocation of land uses and infrastructure. This Master Plan is located on 38.48 acre tract located along Independence Boulevard (Highway 278). The Master Plan shows 275 single-family residential rental units, with 180 units being detached and 95 units being attached. The community open space includes a community park, a clubhouse with a pool, playground, pickleball court, and an event space. The Master Plan anticipates 135 units being constructed by the end of 2024 with the remaining units being constructed by the end of 2025.

Analysis: The Master Plan for CSP was prepared in accordance with Article 8.1.10 of the Jasper County Zoning Ordinance, which is outlined below and is intended to serve as a checklist. The red print directs you to where the required information is located in the Master Plan document.

8:1.10 Master Plan.

The minimum requirements of the Master Plan include:

1. Multiple copies of the Master Plan to sufficiently distribute to all designated reviewing bodies at the time of submittal;

Received 12 copies on 9/20/2022 along with required fees.

2. Proposed arrangement of land uses, including land for public facilities, approximate acreage of each use area or tract, type of use and density (residential use tracts). All specified densities will be construed as maximums, with acceptance of the maximums subject to satisfaction of other provisions within the PDD ordinance;
See Exhibit A – Initial Master Plan

3. A boundary survey with the computed acreage of the tract bearing the seal of a registered land surveyor;
See Exhibit B – Survey

4. The location of primary control points to which all dimensions, angles, bearings, block numbers and similar data shall be referred;
See Exhibit B – Survey

5. The proposed name of the development and the names and addresses of the owner(s) of record, and the applicant, if different from the owner(s), with proof of authority to submit and process the application;
See Exhibit C – Project Name, Ownership, and Authorization Letter

6. Type of land use of all parcels contiguous to the development property;
See Exhibit D – Adjoining Land Use

7. A Master Plan Planned Development Map showing:

a. Vicinity map or sketch showing the general relationship of the proposed development to the surrounding areas with access roads referenced to the intersection of the nearest state primary or secondary paved roads;
See Exhibit E – Vicinity Map

b. Topographic survey of the area being applied for;
See Exhibit F – Topographic Map

c. Where applicable, surveyed line delineating the extent of any special district boundary on the development property; Not Applicable

d. Where applicable, survey line delineating wetlands;
See Exhibit G – Wetlands Delineation

e. The location, dimensions, descriptions, and flow of existing watercourses and drainage structures within the tract or on contiguous tracts;
There are no existing watercourses on property; however, Exhibit F – Topographic Map shows the property naturally drains to the north of the property.

f. Location of municipal limits or county lines, and district and overlay district boundaries, if they traverse the tract, form part of the boundary of the tract, or are contiguous to such boundary;

See Exhibit H – Hardeeville/Jasper Map

g. The location, dimensions, name and description of all existing or recorded streets, alleys, reservations, easements or other public rights-of-way within the tract intersecting or contiguous with its boundaries or forming such boundaries;
See Exhibit I – Existing Contiguous Streets

h. The location, dimensions, name and description of all existing or recorded residential lots, parks, public areas, permanent structures and other sites within or contiguous with the tract;
See Exhibit I – Existing Contiguous Streets

i. The proposed location, dimensions, and description of land(s) for public facilities;
Not Applicable

j. Proposed conceptual street system layout, vehicular and pedestrian, with the written comments of the DSR and/or his/her representative.
See Exhibit A – Initial Master Plan
Comments received by Fire Marshal

8. Traffic impact analysis as set forth in the Jasper County Zoning Ordinance and Land Development Regulations or as required by the DSR and/or County Council, and a statement of need for mitigation (if any). If mitigation is required, a statement of proposed mitigation;
See Exhibit J – Traffic Impact Analysis prepared by BIHL Engineering

9. Preliminary Master Drainage Plan and Master Water and Sewer Plan with the written comments of the DSR and/or his/her representative.
See Exhibit K – Preliminary Sanitary Sewer Systems Master Plan, and Stormwater Drainage Master Plan

10. Preliminary comments from affected agencies having approval or permitting authority over elements related to the proposed development, or evidence that a written request for such comments was properly submitted to the agency and a reasonable period of time has elapsed without receipt of such comments. Minimum agency responses include South Carolina Department of Transportation, South Carolina Department of Health and Environmental Control (SCDHEC), and Office of Ocean and Coastal Resource Management (OCRM), Jasper County School District and Jasper County Emergency Services (as applicable).
See Exhibits L – Approval letters have been provided from Jasper County EMS and SCDOT. Evidence of requests for comments from all other agencies are included in Exhibit L.

11. A narrative addressing:

a. The proposed ownership and maintenance of streets, drainage systems, water and sewer systems, open space areas, parking areas, and other proposed amenities and improvements; and when any of the above are to be privately owned, a description of

the governance, operation and financial structure to be used to secure their maintenance, management and long term improvements;
See Exhibit M – Project Narrative, Phasing, Schedule, and Site Standards

b. Proposed phasing and time schedule if development is to be done in phases;
See Exhibit M – Project Narrative, Phasing, Schedule, and Site Standards

c. Proposed phasing and time schedule for lands to be dedicated for public facilities;
See Exhibit M – Project Narrative, Phasing, Schedule and Site Standards

d. Proposed internal site planning standards such as typical lot sizes and widths, and setbacks and buffers aimed at addressing potential incompatibility between adjacent land uses and activities;
See Exhibit M – Project Narrative, Phasing, Schedule and Site Standards

e. Letters of capability and intent to serve community water supply or sewage disposal service from the affected agency or entity, where applicable;
See Exhibit N – Availability to Serve Letters

f. A statement describing the character of, and rationale for, the proposed Master Plan; and
See Exhibit O

g. Other information or descriptions deemed reasonably appropriate by staff or Planning Commission for review.
Phase II Archeological Report for CSP Development Has been provided – attached to document binder

Staff Recommendation: Staff recommends approval of the Center Point Storage Master Plan.

Attachments:

1. Master Plan
2. Phase II Archeological Report for CSP Development
3. PDD Standards for CSP Development

CSP SINGLE FAMILY RENTAL DEVELOPMENT MASTER PLAN APPLICATION

PREPARED FOR:

CONDUIT STREET PARTNERS, LLC

SUMBITTED TO:

JASPER COUNTY, SC

09 / 20 / 2022

MASTER PLAN

CSP DEVELOPMENT PROPERTY

TABLE OF CONTENTS

MASTER PLAN

CSP DEVELOPMENT PROPERTY

APPLICANT AND PLANNING TEAM

Owners of Record	Paul H. Anderson, Emily A.Tillman & John F. Anderson
Developer / Applicant	Conduit Street Partners, LLC Annapolis, MD Mr. Peter Zadoretzky
Land Planner	Wood + Partners, Inc. Hilton Head Island, SC Mr. Mark Baker, PLA, ASLA Mr. Eric Walsnovich, PLA, ASLA
Civil Engineer	Carolina Engineering Consultants, Inc. Beaufort, SC Mr. Jeff Ackerman
Wetlands / Environmental Consultant and Permitting	Newkirk Environmental Consultants, Inc. Beaufort, SC Mr. Ashley Howell
Surveyor	Coastal Surveying Co., Inc. Ridgeland, SC Mr. Timothy Wright, CSC of NC, PC
Archaeologist	Brockington & Associates, Inc. Savannah, GA Mr. Alex Sweeney, MA, RPA
Land Use Attorney / Legal Counsel	Bouhan Falligant LLP Savannah, GA John D. Northup III, Esq.

MASTER PLAN

CSP DEVELOPMENT PROPERTY

SCEHDULE OF EXHIBITS:

EXHIBIT	DESCRIPTION	ZONING ORDINANCE 8:1.10 REFERENCE
Exhibit A	Master Plan	8:1.10.1 & 8:1.10.2 & 8:1.10.7.j
Exhibit B	Boundary Survey	8:1.10.3 & 8:1.10.4
Exhibit C	Project Name, Ownership and Authorization Letter	8:1.10.5
Exhibit D	Adjoining Land Uses	8:1.10.6
Exhibit E	Vicinity Map	8:1.10.7.a
Exhibit F	Topographic Map	8:1.10.7.b
Exhibit G	Wetlands Delineation	8:1.10.7.d
Exhibit H	Hardeeville/Jasper County Map	8:1.10.7.f
Exhibit I	Existing Contiguous Streets	8:1.10.7.g & 8:1.10.7.h
Exhibit J	Traffic Impact Study	8:1.10.8
Exhibit K	Preliminary Master Water, Sewer, and Drainage Plans	8:1.10.9
Exhibit L	Preliminary Agency Comments	8:1.10.10
Exhibit M	Project Narrative, Phasing, Schedule & Site Standards	8:1.10.11.a & 8:1.10.11.b & 8:1.10.11.c & 8:1.10.11.d
Exhibit N	Letters of Capability & Intent to Serve	8:1.10.11.e
Exhibit O	Statement of Character & Rationale of Master Plan	8:1.10.11.f
NOTE: Sections 8:1.10.7.c Special Districts, 8:1.10.7.e Existing Watercourses on Property, 8:1.10.7.i Land for Public Facilities, are not provided as they do not exist or are otherwise not applicable to the Property.		

EXHIBIT A:

MASTER PLAN AND SECTIONS

MASTER PLAN UNIT MIX								
UNIT	TYPE A	TYPE B	TYPE C	TOTAL SINGLE FAMILY DETACHED UNITS	TYPE D	TYPE E	TOTAL SINGLE FAMILY ATTACHED UNITS	GRAND TOTAL SINGLE FAMILY UNITS
HOUSING TYPE	SINGLE FAMILY DETACHED	SINGLE FAMILY DETACHED	SINGLE FAMILY DETACHED		SINGLE FAMILY ATTACHED	SINGLE FAMILY ATTACHED		
QUANTITY	100	51	14	180	53	42	95	275
BEDROOMS	3	3	2		3	2		
BATHROOMS	2.5	2.5	2.5		2.5	2		
GARAGE	2-CAR	NONE	1-CAR		1-CAR	NONE		
AVERAGE SF	2,100	[illegible]	[illegible]		[illegible]	[illegible]		
STORIES	2	[illegible]	2		[illegible]	[illegible]		

DEVELOPMENT SUMMARY:

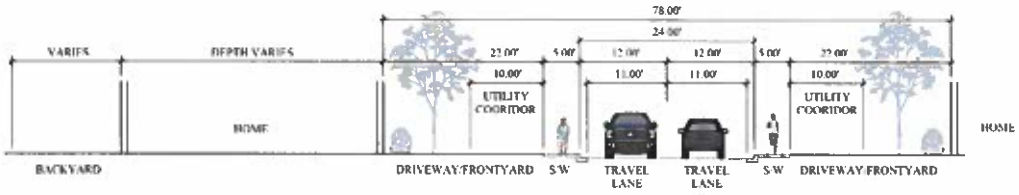
1. TRACT ACREAGE
   - 1.1 TOTAL ACREAGE: 34.40 ACRES
     - 1.1.1 WEST TRACT = 23.33 ACRES
     - 1.1.2 CENTRAL AMENITY TRACT = [illegible] ACRES
     - 1.1.3 EAST TRACT = [illegible] ACRES
2. DENSITY = 275 UNITS / 34.40 ACRES = [illegible] DU PER GROSS ACRE
3. COMMON OPEN SPACE
   - 3.1 PROPOSED TYPES OF COMMON OPEN SPACE PROVIDED
     - 3.1.1 NATURAL AREAS ARE AREAS OF UNDISTURBED VEGETATION OR AREAS REPLANTED WITH VEGETATION AFTER CONSTRUCTION
     - 3.1.2 RECREATIONAL AREAS ARE DESIGNED FOR SPECIFIC ACTIVE RECREATIONAL USES SUCH AS TOT LOTS, TENNIS COURTS, SWIMMING POOLS, SMALL FIELDS, AND SIMILAR USES
     - 3.1.3 GREENWAYS ARE LINEAR GREEN BELTS LINKING RESIDENTIAL AREAS WITH OTHER OPEN SPACE AREAS. THESE GREENWAYS MAY CONTAIN BICYCLE PATHS AND [illegible]
     - 3.1.4 LANDSCAPED AREAS, PARKS AND REQUIRED BUFFER AREAS
   - 3.2 REQUIRED OPEN SPACE RATIOS PER SECTION 12.9 OF THE CODE IS AS FOLLOWS
     - 3.2.1 REQUIRED TOWNHOUSE OPEN SPACE = [illegible] OF TOTAL SITE ACREAGE
     - 3.2.2 REQUIRED SINGLE FAMILY OPEN SPACE = 17% OF TOTAL SITE ACREAGE
     - 3.2.3 TOTAL PROJECT OPEN SPACE PROVIDED = [illegible] OF TOTAL SITE ACREAGE
   - 3.3 PER CODE, A COMMON OPEN SPACE PLAN AND LANDSCAPE PLAN SHALL BE SUBMITTED AT A LATER DATE AS PART OF THE APPLICATION FOR A BUILDING PERMIT
4. STORMWATER WET PONDS ACREAGE: [illegible] ACRES
5. PROVIDED OFF-STREET PARKING
   - 5.1 2 SPACES PER SINGLE FAMILY DETACHED UNIT = 360 SPACES
   - 5.2 2 SPACES PER SINGLE FAMILY ATTACHED UNIT = 190 SPACES
   - 5.3 COMMUNITY PARKING SPACES = [illegible] SPACES
   - 5.4 LOADING AND UNLOADING SPACES = [illegible] SPACES

The above information is subject to change during final phases of the development planning, engineering and design process.

EXHIBIT A

WOOD+PARTNERS
LANDSCAPE ARCHITECTURE
LAND PLANNING

CSP SINGLE FAMILY RENTAL DEVELOPMENT - MASTER PLAN



STREET SECTION

BUFFER SECTION

SECTION IS CONCEPTUAL AND SUBJECT TO CHANGE

WOOD+PARTNERS
LANDSCAPE ARCHITECTURE
LAND PLANNING

CSP SINGLE FAMILY RENTAL DEVELOPMENT - MASTER PLAN

EXHIBIT A

EXHIBIT B:

BOUNDARY SURVEY

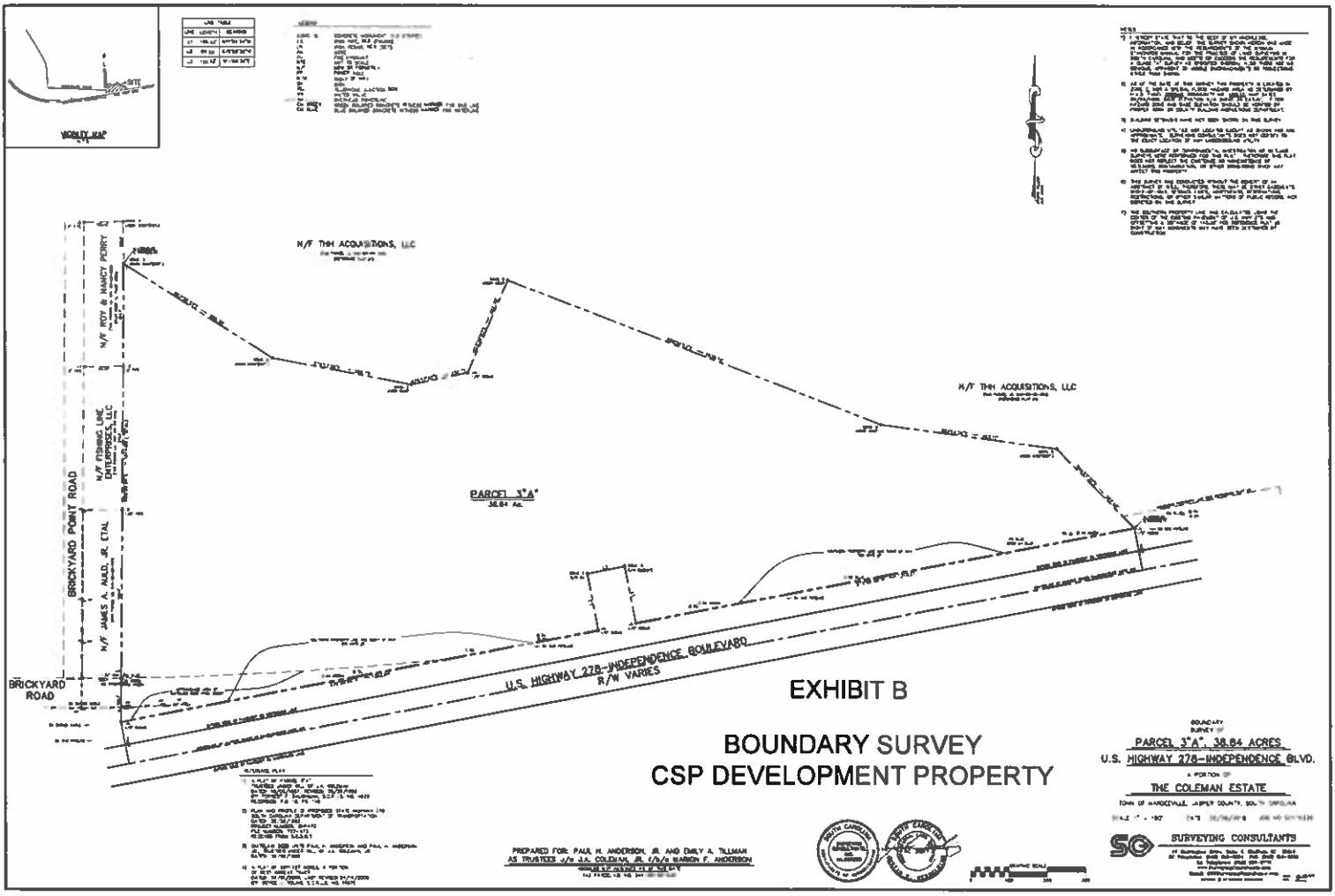

N/F THH ACQUISITIONS, LLC
N/F ROY & NANCY PERRY
N/F FISHING LINE ENTERPRISES, LLC
N/F JAMES A. ALLD., JR. ETAL
BRICKYARD POINT ROAD
BRICKYARD ROAD
PARCEL 3"A"
38.84 Ac.
U.S. HIGHWAY 278-INDEPENDENCE BOULEVARD
R/W VARIES
N/F THH ACQUISITIONS, LLC
EXHIBIT B
BOUNDARY SURVEY
CSP DEVELOPMENT PROPERTY
PARCEL 3"A", 38.84 ACRES
U.S. HIGHWAY 278-INDEPENDENCE BLVD.
THE COLEMAN ESTATE
SURVEYING CONSULTANTS

EXHIBIT C:

PROJECT NAME, OWNERSHIP, AND AUTHORIZATION LETTER

EXHIBIT C
AUTHORIZATION LETTER

January 31, 2022

Jasper County, South Carolina
Planning and Building Services
358 Third Avenue
P.O. Box 1659
Ridgeland, South Carolina

RE: Zoning Map Amendment Application seeking rezoning of Parcel Number 041-00-03-030 from its existing RP classification to PDD

To Whom It May Concern:
This letter shall serve to confirm that Peter Zadoretzky, in his capacity of Co-Managing Member of Conduit Street Partners, LLC, is hereby authorized to execute or sign any required applications, petitions, documents, instruments, and certificates needed in support of the above referenced Application.

Sincerely,
CO-OWNERS OF THE SUBJECT PARCEL:

Paul H. Anderson, Jr.

Emily A. Tillman (by Peter with express permission)

John F. Anderson (by Peter with express permission)

cc: Peter Zadoretzky

EXHIBIT D:

ADJOINING LAND USES

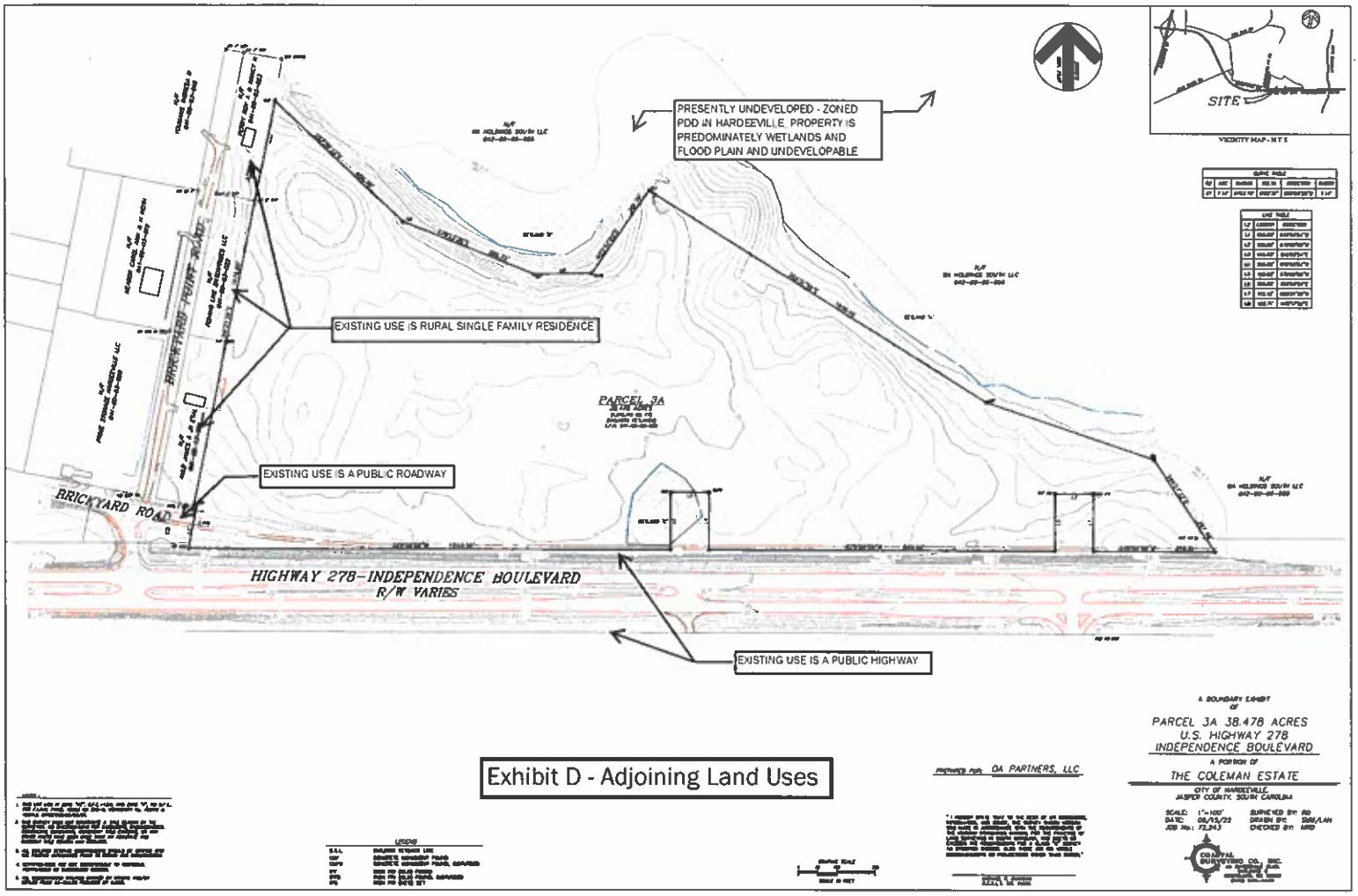


Exhibit D - Adjoining Land Uses

A BOUNDARY SURVEY OF
PARCEL 3A 38.478 ACRES
U.S. HIGHWAY 278
INDEPENDENCE BOULEVARD
A PORTION OF
THE COLEMAN ESTATE
CITY OF HARDEEVILLE
JASPER COUNTY, SOUTH CAROLINA

PREPARED FOR: OA PARTNERS, LLC

SCALE: 1"=100'
DATE: 06/15/22
JOB No.: 72.243
SURVEYED BY: RG
DRAWN BY: SMA/LAH
CHECKED BY: MRD

COASTAL SURVEYING CO., INC.

EXHIBIT E:

VICINITY MAP

EXHIBIT E - VICINITY MAP

EXHIBIT F:

TOPOGRAPHIC MAP

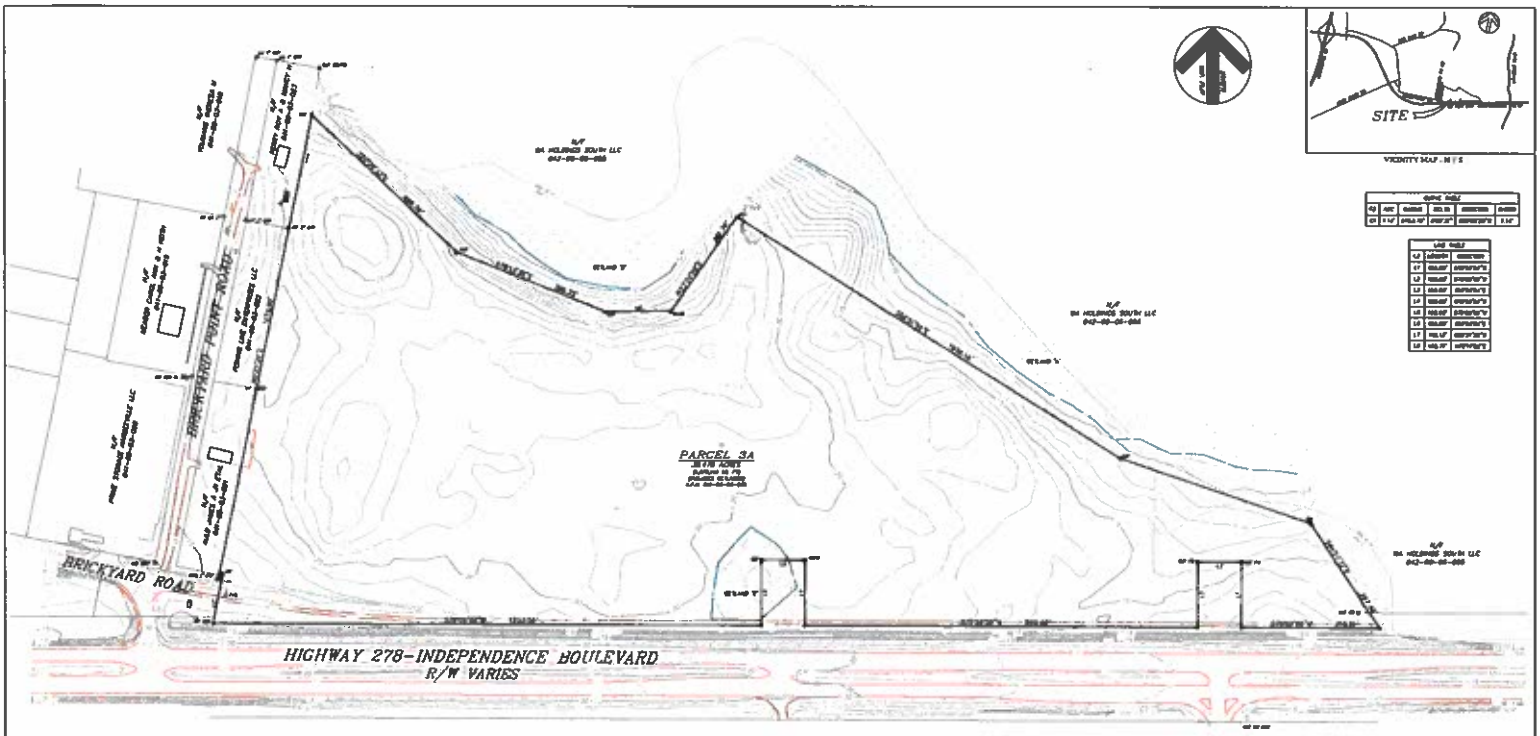


EXHIBIT F
CSP DEVELOPMENT PROPERTY
TOPOGRAPHIC MAP

A BOUNDARY EXHIBIT OF
PARCEL 3A 38.478 ACRES
U.S. HIGHWAY 278
INDEPENDENCE BOULEVARD
A PORTION OF
THE COLEMAN ESTATE
CITY OF HARDEEVILLE,
JASPER COUNTY, SOUTH CAROLINA

PREPARED FOR: OA PARTNERS, LLC

SCALE: 1"=100'
DATE: 05/15/23
JOB No.: 72.143

SURVEYED BY: RG
DRAWN BY: SW/AM
CHECKED BY: MRD

COASTAL SURVEYING CO., INC.

EXHIBIT G:

WETLANDS DELINEATION

EXHIBIT G
WETLANDS

Newkirk
ENVIRONMENTAL INC.
Charleston, SC – Beaufort, SC

September 15, 2022

Peter Zadoretzky
Principal
OA Partners, LLC
Conduit Street Partners, LLC
Via Email

RE: Coleman Tract

Mr. Zadoretzky:

As we discussed on the phone today this letter is intended to clarify and confirm that in Newkirk Environmental Inc. (NEI)'s professional opinion the reference tract has one wetland system that is considered an isolated non-jurisdictional wetland. The wetland will therefore not be under the wetland regulations set forth in the Clean Water Act. The isolated wetland will be regulated instead through SC DHEC's office of OCRM and any impacts to the wetland will be regulated through their coastal zone regulations. Therefore, with this letter NEI is stating that it is our opinion and findings that the project known as the Coleman Tract does not contain any federally regulated wetlands.

Please note, although NEI is confident in our assessment, the US Army Corps of Engineers is the only agency that can make final decisions regarding wetland delineations; therefore, all delineations are subject to change until written verification is obtained. This letter is the professional opinion of Newkirk Environmental and can be relied upon as that.

Sincerely,

J. Asher Howell

J. Asher Howell, Principal
Beaufort Office

Enc.

73 Sea Island Parkway, Suite 20, Beaufort, South Carolina 29907 •
Telephone: (843) 470-1031 • Facsimile: (843) 388-6580 • general@newkirkenv.com • www.newkirkenvironmental.com

EXHIBIT G
WETLANDS

Peter Zadoretzky

Subject: FW: SAC-2022-00924 (Coleman Tract)

Asher Howell
73 Sea Island Parkway, Suite 23
Beaufort, SC 29907
O – 843-470-1031
M- 843-810-3447
asher@newkirkenv.com

From: Peter Zadoretzky <pzadoretzky@oapartners.com>
Sent: Thursday, June 16, 2022 2:29 PM
To: Asher Howell <asher@newkirkenv.com>
Subject: RE: SAC-2022-00924 (Coleman Tract)

Thanks Asher.
Peter

From: Asher Howell <asher@newkirkenv.com>
Sent: Thursday, June 16, 2022 2:22 PM
To: Peter Zadoretzky <pzadoretzky@oapartners.com>
Subject: FW: SAC-2022-00924 (Coleman Tract)

We are officially logged in this time.

Asher

Asher Howell
73 Sea Island Parkway, Suite 23
Beaufort, SC 29907
O – 843-470-1031
M- 843-810-3447
asher@newkirkenv.com

From: SAC.RD.Charleston <SAC.RD.Charleston@usace.army.mil>
Sent: Thursday, June 16, 2022 2:12 PM
To: Asher Howell <asher@newkirkenv.com>
Cc: Estill, Leslie A CIV USARMY CESAC (USA) <Leslie.A.Estill@usace.army.mil>
Subject: SAC-2022-00924 (Coleman Tract)

EXHIBIT G
WETLANDS

Mr. Howell,

The Charleston District Corps of Engineers has received your application and the project has been assigned a project number and project manager:

SAC Number:	SAC-2022-00924
Applicant:	Peter Zadoretzky
Project name:	Coleman Tract
Project Manager:	Leslie Estill

Direct all future inquiries to your Project Manager by email Leslie.A.Estill@usace.army.mil or (843) 329-8039. In all future correspondence concerning this matter, please refer to the file number above.

Additional information about the Charleston Regulatory Program can be found on our website:
https://www.sac.usace.army.mil/Missions/Regulatory/Permitting-Process/

Thank you,

Erin Leach-Ogden
Regulatory Program Technician
US Army Corps of Engineers, Charleston District
843-329-8224
Erin.H.Leach-Ogden@usace.army.mil

Complete our Regulatory Service Survey at
https://regulatory.ops.usace.army.mil/customer-service-survey/

EXHIBIT G - WETLANDS

Please note, although Newkirk Environmental, Inc. is confident in its assessments, theUSACE is the only agency that can make final decisions regarding wetland delineations; therefore, all preliminary determinations are subject to change. Until verification is received from the USACE, no reliance may be made in this preliminary determination. Newkirk Environmental, Inc. strongly recommends that written verification be obtained prior to closing on the property, beginning any site work or making any legal reliance on this determination.

Wetland Exhibit	Coleman Tract Beaufort County, SC
Project #: 04-4943a Date: August 2022	
Created by: AH	

Newkirk ENVIRONMENTAL INC.

EXHIBIT H:

HARDEEVILLE / JASPER COUNTY MAP

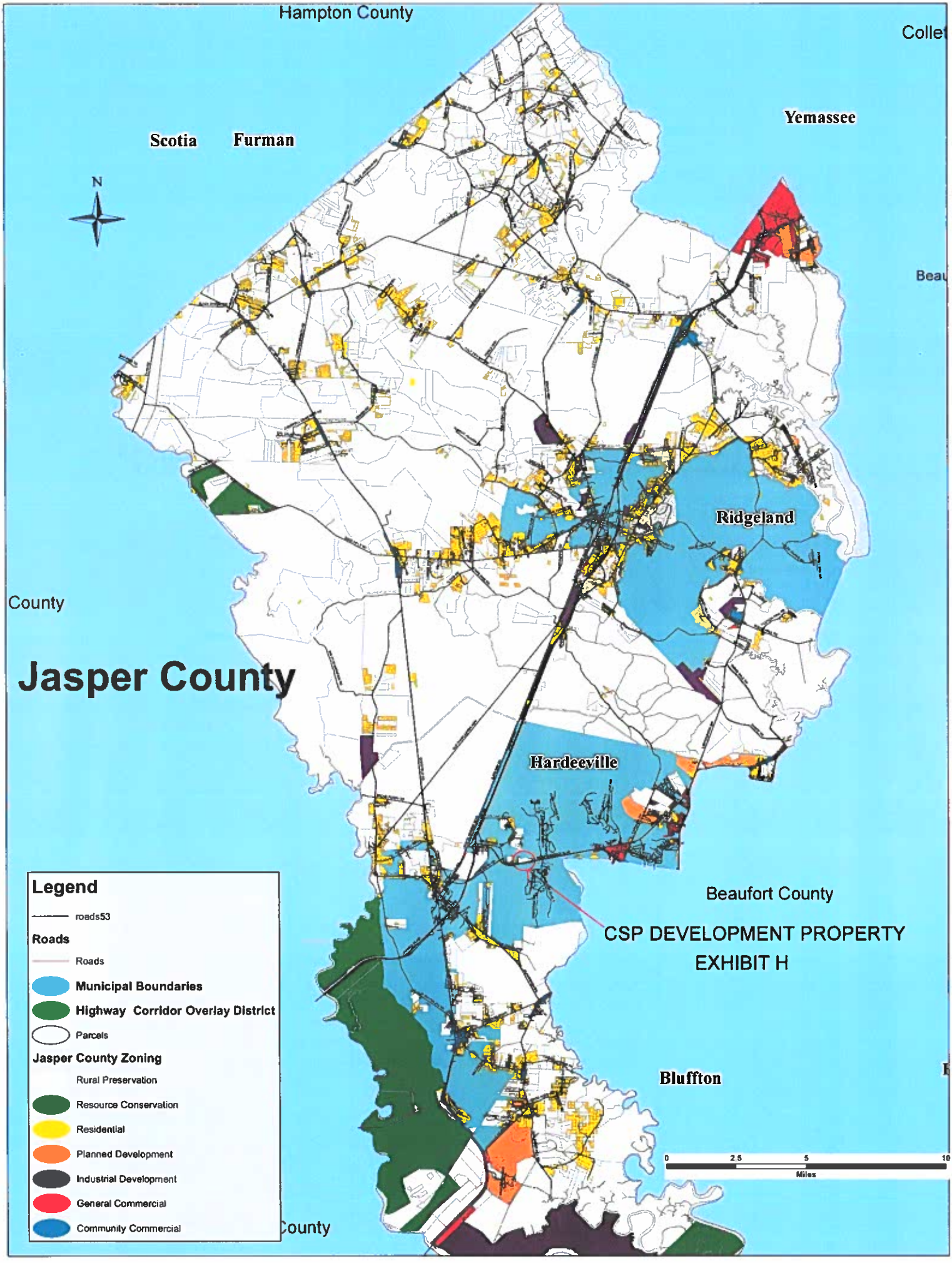
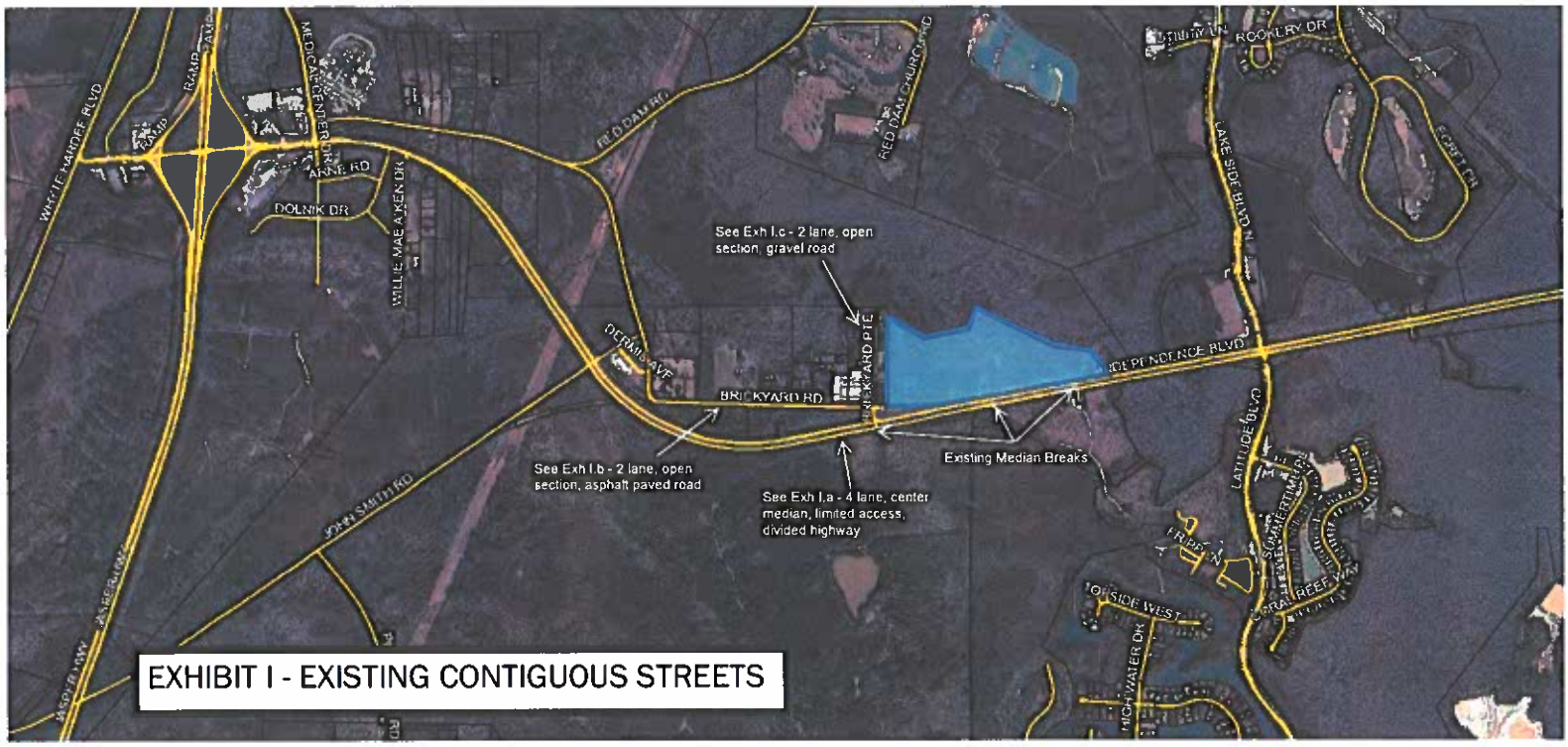

Hampton County
Colle
Yemassee
Scotia
Furman
N
Beau
Ridgeland
County
Jasper County
Hardeeville
Beaufort County
CSP DEVELOPMENT PROPERTY
EXHIBIT H
Bluffton
0 2.5 5 10
Miles
County
Legend
roads53
Roads
Roads
Municipal Boundaries
Highway Corridor Overlay District
Parcels
Jasper County Zoning
Rural Preservation
Resource Conservation
Residential
Planned Development
Industrial Development
General Commercial
Community Commercial

EXHIBIT I:

EXISTING CONTIGUOUS STREETS


See Exh I.c - 2 lane, open section, gravel road
See Exh I.b - 2 lane, open section, asphalt paved road
See Exh I.a - 4 lane, center median, limited access, divided highway
Existing Median Breaks
EXHIBIT I - EXISTING CONTIGUOUS STREETS

Google Maps 2130 US-278

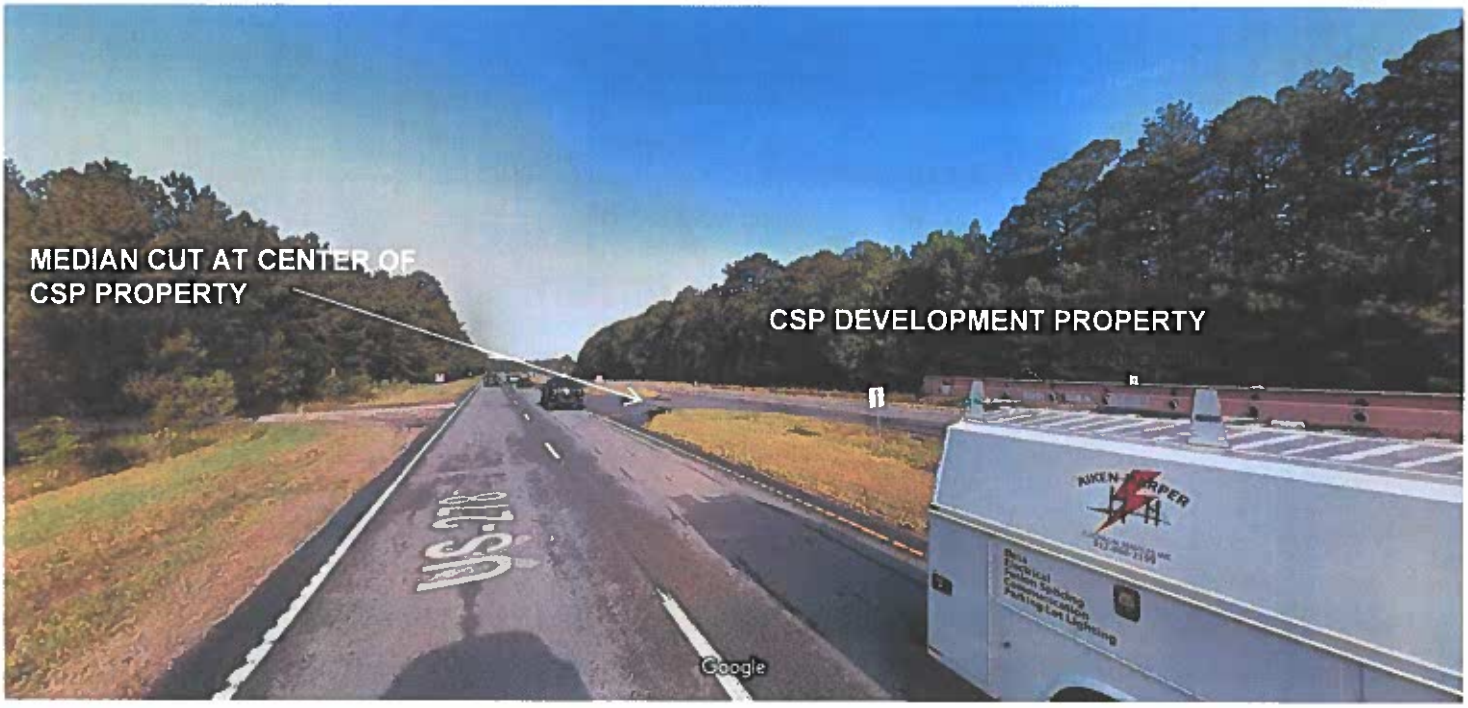


Image capture: May 2022 © 2022 Google

Hardeeville, South Carolina

Google

Street View - May 2022

Latitude Mar
Hi

EXHIBIT I.a - US 278
4 LANE, CENTER MEDIAN, LIMITED ACCESS HIGHWAY

Google Maps 1539 Brickyard Rd

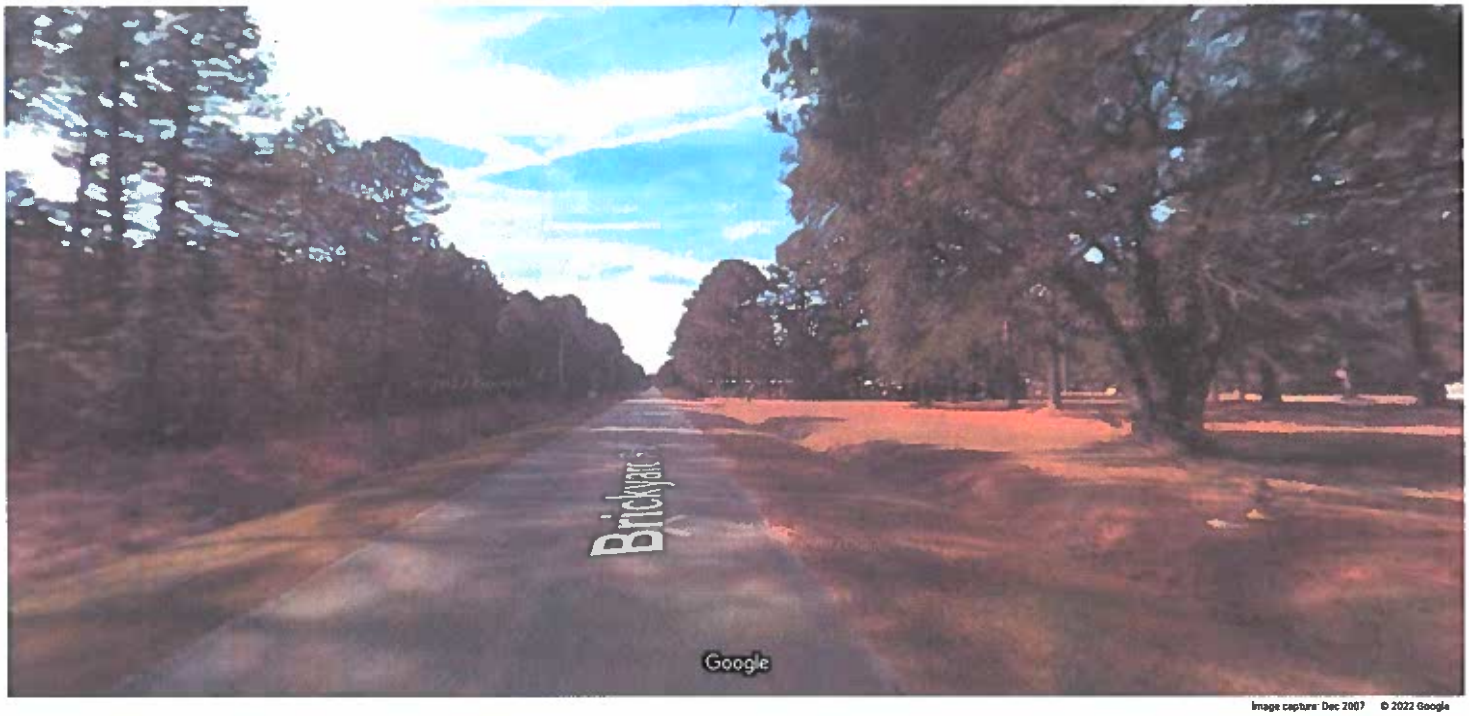


Image capture: Dec 2007 © 2022 Google

Hardeeville, South Carolina

Google

Street View - Dec 2007

EXHIBIT I.b - BRICKYARD ROAD
2 LANE, OPEN SECTION, ASHALT PAVED ROAD

Google Maps Hardeeville, South Carolina

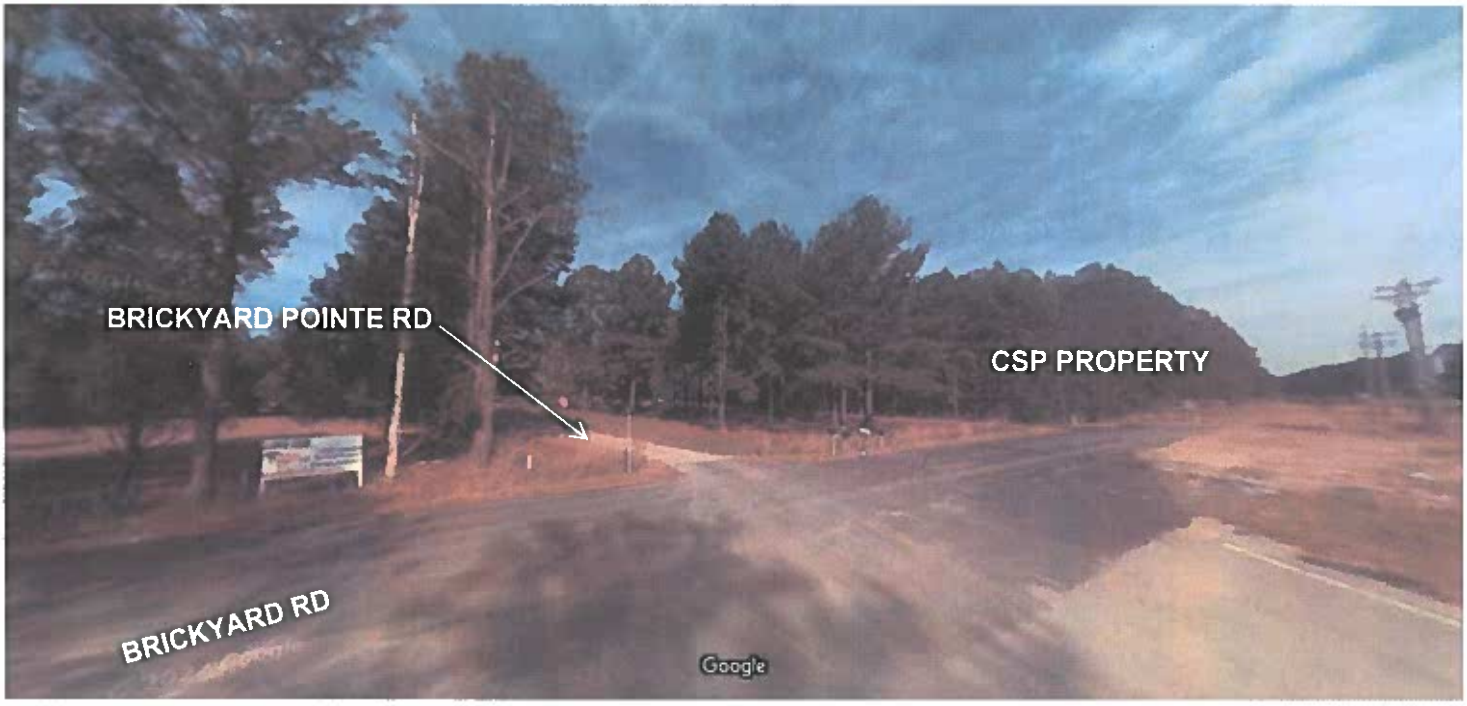


Image capture: Dec 2007 © 2022 Google

Google

Street View - Dec 2007

EXHIBIT I.c - BRICKYARD POINTE ROAD
2 LANE, OPEN SECTION, GRAVEL ROAD

EXHIBIT J:

TRAFFIC IMPACT ANALYSIS

EXHIBIT J
CSP DEVELOPMENT
Traffic Impact Analysis

US 278 Residential Development
Jasper County, SC

INCLUDES:
1. SCDOT TIA APPROVAL EMAIL DTD 7.7.22
2. SUMMARY OF APPROVED IMPROVEMENTS EXTRACTED FROM THE APPROVED TIA

Prepared for:
Conduit Street Partners

BIHL ENGINEERING

From: Johnson, Joshua A.
To: "Jennifer Bihl"
Cc: Peter Zadoretzky; Jeff Ackerman; Fleming, Juleigh B.; Grooms, Robert W.; Payne, Adam C.
Subject: RE: 278 Residential Development (Conduit Street Partners - Jasper County) Traffic Study - For Review
Date: Thursday, July 7, 2022 2:32:38 PM
Attachments: 220705_278 Residential TIA Report FINAL.pdf

Jennifer,

The US 278 (Brickyard) Residential TIA is accepted with the proposed mitigation of westbound right-turn lanes into the site driveways on US 278. Additionally, as outlined in the scoping and eluded to in the TIA, the site driveway at Brickyard Rd will need to be realigned to a more traditional T intersection.

Please upload the TIA and this approval email with the encroachment application in EPPS.

Thank you,
Josh Johnson, PE, PTOE
District Traffic Engineer | SCDOT District 6

From: Jennifer Bihl <jennifer@bihl-engineering.com>
Sent: Tuesday, July 5, 2022 4:48 PM
To: Johnson, Joshua A. <JohnsonJA@scdot.org>
Cc: Peter Zadoretzky <pzadoretzky@oapartners.com>; Jeff Ackerman <jeffa@carolinaengineering.com>
Subject: 278 Residential Development (Conduit Street Partners - Jasper County) Traffic Study - For Review

Josh,

I hope you had a great holiday weekend!

Please see attached traffic impact analysis for the 278 Residential Development (Conduit Street Partners - Jasper County) traffic study.

Let me know if you have any questions or comments.

Thanks,
Jennifer

Jennifer T. Bihl, PE, PTOE, RSP2I
Bihl Engineering, LLC

SCDOT approved project road improvements extracted from Approved TIA

Based on the results of the analysis, the following transportation-related improvements are recommended as a part of this project:

- Coordination with Jasper County and SCDOT staff on proposed driveway locations and design details
- Installation of westbound right-turn lane on US 278 at Site Access #1
- Installation of westbound right-turn lane on US 278 at Site Access #2
- Installation of exclusive southbound left-turn and right-turn lanes on Site Access #2
- Coordinate with SCDOT and Jasper County on the possible reconfiguration of the Brickyard Road at Brickyard Pointe intersection with the addition of the new site driveway at Brickyard Road

Results in this report are based solely on traffic studies and are considered input into final design considerations. The final design will be determined by the project engineer after other design elements (such as, but not limited to, utilities, stormwater, etc.) are taken into consideration.

These are the project exit lanes to WB US 278 (right turn) and to EB US 278. (cross US 278 WB lanes to median cut to left turn onto EB US 278).

2.0 Introduction

The US 278 Residential Development is proposed to be located on US 278 in Jasper County, SC. The development is proposed to include 167 single-family detached homes and 108 townhome/duplex units. The development will be accessed via two new full access driveways one each on US 278 and Brickyard Road, respectively, and RIRO driveway on US 278. For the purposes of this TIA, the development is assumed to be complete in 2025.

This report presents the trip generation, distribution, traffic analyses, and any recommendations for transportation improvements required to meet anticipated traffic demands.

3.0 Inventory

3.1 Study Area

The study area for the TIA includes the following existing intersections.

- Brickyard Road at US 278 (unsignalized)
- Brickyard Road at Brickyard Pointe (unsignalized)

Figure 1 (Appendix) shows the proposed development location and **Figure 2 (Appendix)** shows the project conceptual site plan.

Traffic Impact Analysis
US 278 Residential Development
Jasper County, SC

Prepared for:
Conduit Street Partners

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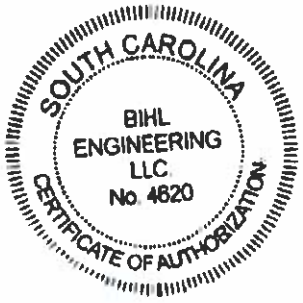

July 2022

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1.0 Executive Summary

The US 278 Residential Development is proposed to be located on US 278 in Jasper County, SC. The development is proposed to include 167 single-family detached homes and 108 townhome/duplex units. The development will be accessed via two new full access driveways one each on US 278 and Brickyard Road, respectively, and one right-in, right out (RIRO) driveway on US 278. For the purposes of this traffic impact analysis (TIA), the development is assumed to be complete in 2025.

The study area for the TIA includes the following intersections:

- US 278 at Brickyard Road (unsignalized)
- Brickyard Road at Brickyard Pointe (unsignalized)
- US 278 at Site Access #1 (unsignalized) (2025 Build conditions only)
- US 278 at Site Access #2 (unsignalized) (2025 Build conditions only)

Based on the results of the analysis, the existing study area intersection Brickyard Road at Brickyard Pointe currently operates acceptably in the AM and PM peak hours. In the 2025 No Build and Build conditions, the intersection of Brickyard Road at Brickyard Pointe is projected to operate acceptably during the AM and PM peak hours.

The existing intersection of US 278 at Brickyard Road currently operates acceptably in the AM peak hour and with elevated delay in the PM peak hour. US 278 at Brickyard Road is projected to operate with elevated delay during the AM and PM peak hours in the 2025 No Build and Build conditions. The maximum vehicle queues on Brickyard Road are projected to increase to approximately four vehicles during the 2025 Build conditions, an increase of one vehicle from the 2025 No Build conditions.

US 278 at Site Access #1 is projected to operate acceptably in the AM and PM peak hour 2025 Build conditions. US 278 at Site Access #2 is projected to operate acceptably during the AM peak hour and with elevated delay during the PM peak hour in the 2025 Build conditions. The maximum vehicle queues on Site Access #2 are projected to be four vehicles during the 2025 Build conditions.

It is not uncommon for the unsignalized side streets on a major road to operate with elevated delay during the peak hours, while the main road experiences little to no delay. Furthermore, the planned signalization of the intersection of US 278 at Lakeside Boulevard N/Latitude Boulevard east of the project will likely create some additional gaps in the US 278 westbound traffic flow allowing for more opportunities for vehicles to exit the project than what are accounted for in the traffic analysis. Therefore, the unsignalized intersections may operate slightly better than what is shown in the report.

Based on the results of the analysis, the following transportation-related improvements are recommended as a part of this project:

- Coordination with Jasper County and SCDOT staff on proposed driveway locations and design details
- Installation of westbound right-turn lane on US 278 at Site Access #1
- Installation of westbound right-turn lane on US 278 at Site Access #2
- Installation of exclusive southbound left-turn and right-turn lanes on Site Access #2
- Coordinate with SCDOT and Jasper County on the possible reconfiguration of the Brickyard Road at Brickyard Pointe intersection with the addition of the new site driveway at Brickyard Road

Results in this report are based solely on traffic studies and are considered input into final design considerations. The final design will be determined by the project engineer after other design elements (such as, but not limited to, utilities, stormwater, etc.) are taken into consideration.

2.0 Introduction

The US 278 Residential Development is proposed to be located on US 278 in Jasper County, SC. The development is proposed to include 167 single-family detached homes and 108 townhome/duplex units. The development will be accessed via two new full access driveways one each on US 278 and Brickyard Road, respectively, and RIRO driveway on US 278. For the purposes of this TIA, the development is assumed to be complete in 2025.

This report presents the trip generation, distribution, traffic analyses, and any recommendations for transportation improvements required to meet anticipated traffic demands.

3.0 Inventory

3.1 Study Area

The study area for the TIA includes the following existing intersections.

- Brickyard Road at US 278 (unsignalized)
- Brickyard Road at Brickyard Pointe (unsignalized)

Figure 1 (Appendix) shows the proposed development location and **Figure 2 (Appendix)** shows the project conceptual site plan.

3.2 Existing Conditions

Roadways in the project vicinity include US 278, Brickyard Road, and Brickyard Pointe.

US 278 is a four-lane divided roadway with a posted speed limit of 60 miles per hour (mph). Per South Carolina Department of Transportation (SCDOT) counts, along the corridor, US 278 has a 2021 Annual Average Daily Traffic (AADT) of 30,500 vehicles per day (vpd) in the vicinity of the project.

Brickyard Road is a two-lane, undivided roadway.

Brickyard Pointe is a two-lane, undivided roadway.

Figure 3 (Appendix) shows the existing roadway laneage in the study area.

4.0 Traffic Generation

The potential trip generation of the proposed development was determined using trip generation information from the Institute of Transportation Engineers' (ITE) *Trip Generation, 11th Edition* (2021).

Table 1 summarizes the AM and PM peak hour trips associated with the proposed development.

Table 1:
Projected Trip Generation

Land Use and Intensity	ITE Land Use Code	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
Single Family Detached Housing – 167 Dwelling Units	210	119	31	88	161	101	60
Townhomes/Duplexes – 108 Dwelling Units[1]	220	57	14	43	67	42	25
New Trips		**176**	**45**	**131**	**228**	**143**	**85**

Source: *ITE Trip Generation, 11th Edition*

1. Land Use Code 220 (Multifamily (Low-Rise) – not close to rail transit) was applied to the analysis for the townhomes/duplexes

As shown in **Table 1**, the proposed development is projected to generate 176 new trips (45 entering, 131 exiting) during the AM peak hour and 228 new trips (143 entering, 85 exiting) during the PM peak hour.

5.0 Site Traffic Distribution

The proposed development traffic was assigned to the surrounding roadway network. The directional distribution and assignment were based on qualitative knowledge of the project area, quantitative application of existing traffic patterns, and expected trip length.

The following general trip distribution was applied to the project trips associated with the proposed development.

- 45% to/from the west on US 278
- 55% to/from the east on US 278

Figure 4 (Appendix) shows the traffic distribution for the proposed development in the study area.

6.0 Traffic Volumes

6.1 Existing Traffic

Peak hour intersection turning movement counts including vehicular, pedestrian, and heavy vehicle traffic were performed in May 2022 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following intersections:

- Brickyard Road at US 278 (unsignalized)
- Brickyard Road at Brickyard Pointe (unsignalized)

Existing peak hour intersection turning movement volumes are shown on **Figure 5 (Appendix)**. The turning movement count data is included in the **Appendix**.

6.2 2025 No Build Traffic

Historic growth is the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area. An overall growth rate of 2.0% per year was applied to the study area in the analysis.

The 2025 No Build traffic volumes include existing traffic grown to the buildout year. **Figure 6 (Appendix)** and **Figure 7 (Appendix)** show the 2025 No Build AM and PM peak hour traffic volumes, respectively.

6.3 Project Traffic

The AM peak hour and PM peak hour projected proposed development trips were assigned based on the trip distribution discussed in **Section 5**.

6.4 2025 Build Traffic

The 2025 total traffic volumes include the 2025 background traffic and the proposed development traffic at buildout. The 2025 AM and PM peak hour total traffic volumes are shown in **Figure 6 (Appendix)** and **Figure 7 (Appendix)**, respectively.

Intersection volume development worksheets are included in the **Appendix**.

7.0 Capacity Analysis

Capacity analyses were performed for the AM and PM peak hours in the Existing, 2025 No Build, and 2025 Build conditions using the Synchro, Version 10 software program to determine the operating characteristics of the adjacent roadway network and the impacts of the proposed development. The analyses were conducted with methodologies contained in the *Highway Capacity Manual, 6th Edition* (HCM 6) (Transportation Research Board, December 2016). The Synchro output sheets are included in the **Appendix**.

Capacity of an intersection is defined as the maximum number of vehicles that can pass through an intersection during a specified time, typically an hour. Capacity is described by level of service (LOS) for the operating characteristics of an intersection. LOS is a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. HCM 6 defines six levels of service, LOS A through LOS F, with A being the best and F being the worst.

LOS for a two-way stop-controlled (TWSC) intersection is determined by the delay of the poorest performing minor approach, as LOS is not defined for TWSC intersections as a whole. At a TWSC intersection, the major street experiences little to no delay.

Capacity analyses were performed for the Existing, 2025 No Build, and 2025 Build AM and PM peak hour traffic conditions at the following intersections:

- US 278 at Brickyard Road (unsignalized)
- Brickyard Road at Brickyard Pointe (unsignalized)
- US 278 at Site Access #1 (unsignalized) (2025 Build conditions only)
- US 278 at Site Access #2 (unsignalized) (2025 Build conditions only)

Any peak hour factors (PHF) above 0.95 were adjusted to 0.95 in all conditions for the purposes of the analysis. Any heavy vehicle percentages (HV%) below 2.0% were adjusted to 2.0% in all conditions for the purposes of the analysis.

The 95th percentile queue is considered the maximum number of vehicles that will queue while waiting to complete their maneuver at the intersection. Queues discussed in the report represent the 95th percentile or maximum queue.

Table 2 summarizes LOS and control delay (average seconds of delay per vehicle) for the projected Existing, 2025 No Build, and 2025 Build AM and PM peak hour conditions at the study area locations.

Table 2:
Level of Service and Delay (average seconds per vehicle)

Intersection	Traffic Control[1]	Existing Conditions		2025 No Build Conditions		2025 Build Conditions	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
US 278 at Brickyard Road	U	D (32.5) – SB	F (82.8) – SB	E (37.9) – SB	F (93.7) – SB	E (43.6) – SB	F (127.7) – SB
Brickyard Road at Brickyard Pointe	U	A (9.0) – WB	A (9.0) – WB	A (9.1) – WB	A (9.0) – WB	A (9.4) – WB	A (9.3) – WB
US 278 at Site Access #1	U	N/A	N/A	N/A	N/A	B (12.3) – SB	C (22.4) – SB
US 278 at Site Access #2	U	N/A	N/A	N/A	N/A	D (30.9) – SB	F (132.1) – SB

N/A = Not Applicable

1. S = Signalized, U = Unsignalized

7.1 US 278 at Brickyard Road

Two vehicles of median storage were assumed on US 278. As shown in **Table 2**, the unsignalized intersection of US 278 at Brickyard Road currently operates acceptably at LOS D during the AM peak hour and operates with elevated delay at LOS F during the PM peak hour. The intersection is projected to operate with elevated delay at LOS E during the AM peak hour and at LOS F during the PM peak hour in the 2025 No Build and 2025 Build conditions. It is not uncommon for the unsignalized side streets on a major road to operate with elevated delay during the peak hours, while the main road experiences little to no delay.

The 95th percentile southbound queue is projected to increase by one vehicle between the 2025 No Build and 2025 Build conditions in the AM and PM peak hours to approximately three vehicles during the AM peak hour and approximately four vehicles during the PM peak hour.

The planned signalization of the intersection of US 278 at Lakeside Boulevard N/Latitude Boulevard approximately 4,700 feet east of the project will likely create some additional gaps in the US 278 westbound traffic flow allowing for more opportunities for vehicles to exit the property than what are incorporated in the traffic analysis for the project. It is expected that the actual operations of the intersection of US 278 at Brickyard Road will be slightly better than shown, as these gaps in US 278 westbound traffic flow created by the adjacent signal are not able to be fully accounted for in the analysis.

7.2 Brickyard Road at Brickyard Pointe

As shown in **Table 2**, the unsignalized intersection of Brickyard Road at Brickyard Pointe currently operates acceptably at LOS A during the AM and PM peak hours. The intersection is expected to operate at LOS A during the AM and PM peak hours in the 2025 No Build and 2025 Build conditions.

It is recommended that the intersection be considered for reconfiguration due to the improved connection to the proposed development. This should be coordinated with SCDOT and Jasper County.

7.3 US 278 at Site Access #1

SCDOT *Roadway Design Manual (2021)* guidelines were reviewed at the unsignalized intersection of US 278 at Site Access #1 to determine if criteria were met for the installation of a westbound right-turn lane. Based on the projected 2025 Build conditions AM and PM peak hour traffic volumes to the criteria, it was determined that a westbound right-turn lane should be considered at the intersection and is therefore recommended. The turn lane analysis chart is included in the **Appendix**.

As shown in **Table 2**, the unsignalized intersection of US 278 at Site Access #1 is projected to operate at LOS B during the AM peak hour and at LOS C during the PM peak hour in the 2025 Build conditions.

Driveway design details should be coordinated with SCDOT and Jasper County.

7.4 US 278 at Site Access #2

SCDOT *Roadway Design Manual (2021)* guidelines were reviewed at the unsignalized intersection of US 278 at Site Access #2 to determine if criteria were met for the installation of a westbound right-turn lane. Based on the projected 2025 Build conditions AM and PM peak hour traffic volumes to the criteria, it was determined that a westbound right-turn lane was not necessary at the intersection. The turn lane analysis chart is included in the **Appendix**. Site Access #2 provides access to the center of the site and therefore, a westbound right-turn lane was assumed at this location.

Two vehicles of median storage were assumed on US 278. It was also assumed that there would be exclusive southbound left-turn and right-turn lanes exiting the site. As shown in **Table 2**, the unsignalized intersection of US 278 at Site Access #2 is projected to operate acceptably at LOS D during the AM peak hour and operates with elevated delay at LOS F during the PM peak hour in the 2025 Build conditions. It is not uncommon for the unsignalized side streets on a major road to operate with elevated delay during the peak hours, while the main road experiences little to no delay.

The planned signalization of the intersection of US 278 at Lakeside Boulevard N/Latitude Boulevard approximately 3,300 feet east of the project will likely create some additional gaps in the US 278 westbound traffic flow allowing for more opportunities for vehicles to exit the property than what are incorporated in the traffic analysis for the project. It is expected that the actual operations of the intersection of US 278 at Site Access #2 will be slightly better than shown, as these gaps in US 278 westbound traffic flow created by the adjacent signal are not able to be fully accounted for in the analysis.

The 95th percentile southbound approach queue is projected to be approximately two vehicles in the AM peak hour and approximately four vehicles in the PM peak hour in the 2025 Build conditions.

Driveway design details should be coordinated with SCDOT and Jasper County.

8.0 Conclusion

The US 278 Residential Development is proposed to be located on US 278 in Jasper County, SC. The development is proposed to include 167 single-family detached homes and 108 townhome/duplex units. The development will be accessed via two new full access driveways one each on US 278 and Brickyard Road, respectively, and RIRO driveway on US 278. For the purposes of this TIA, the development is assumed to be complete in 2025.

Based on the results of the analysis, the following transportation-related improvements are recommended as a part of this project:

- Coordination with Jasper County and SCDOT staff on proposed driveway locations and design details
- Installation of westbound right-turn lane on US 278 at Site Access #1
- Installation of westbound right-turn lane on US 278 at Site Access #2
- Installation of exclusive southbound left-turn and right-turn lanes on Site Access #2
- Coordinate with SCDOT and Jasper County on the possible reconfiguration of the Brickyard Road at Brickyard Pointe intersection with the addition of the new site driveway at Brickyard Road

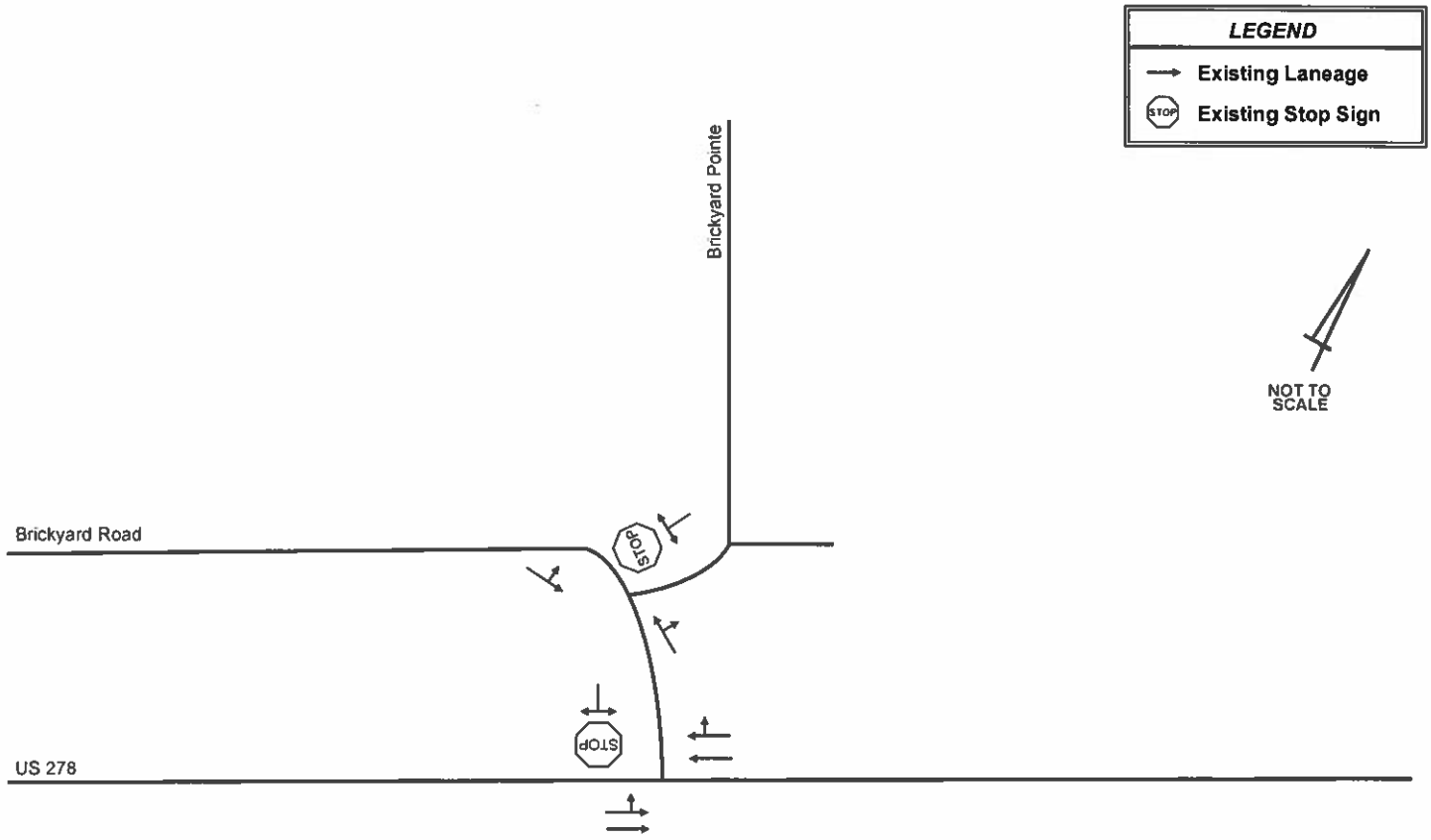
Results in this report are based solely on traffic studies and are considered input into final design considerations. The final design will be determined by the project engineer after other design elements (such as, but not limited to, utilities, stormwater, etc.) are taken into consideration.

Appendix

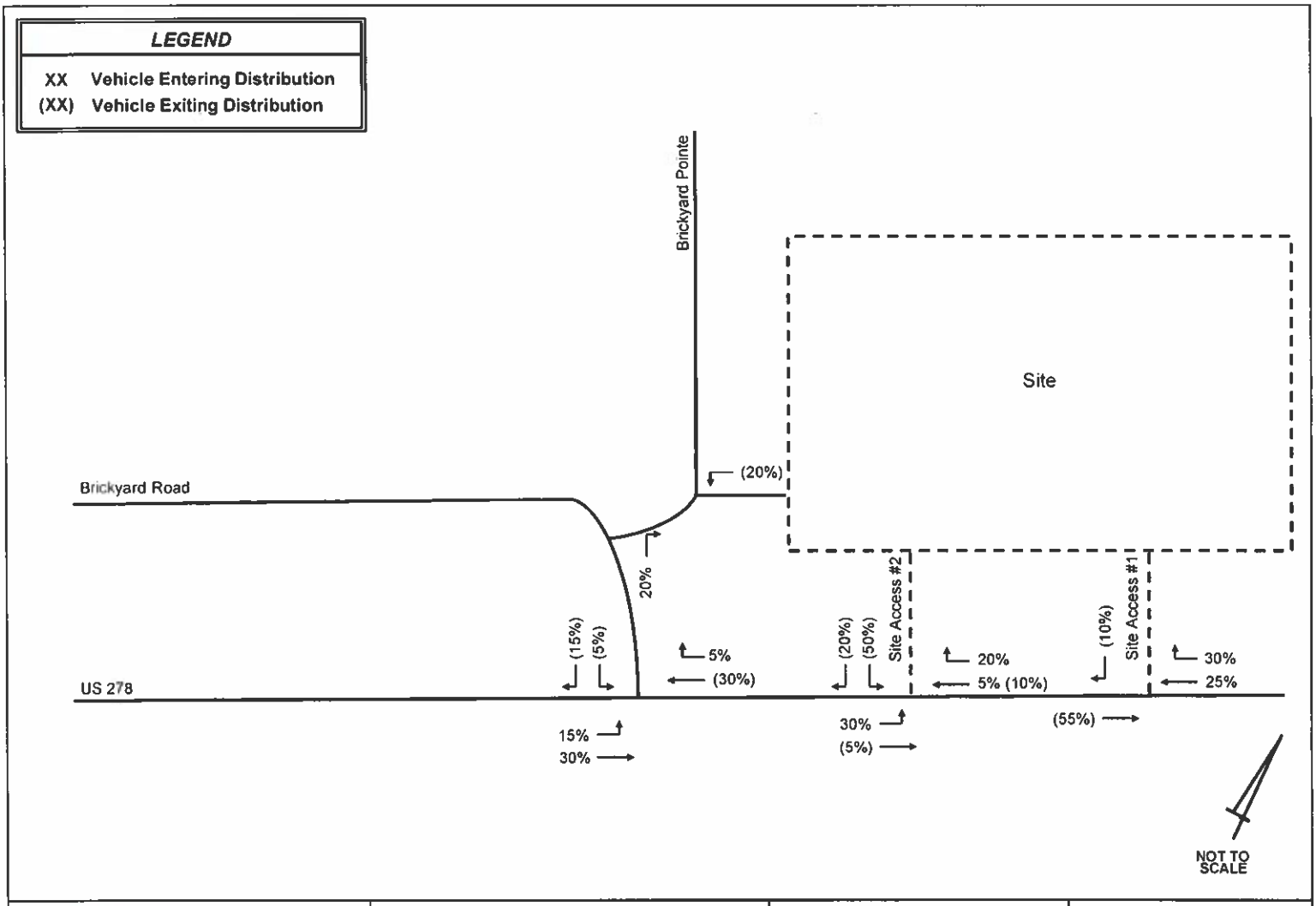
Aerial Source: Google Earth

BIHL ENGINEERING	US 278 Residential Development Traffic Impact Analysis	Site Location	Figure 1

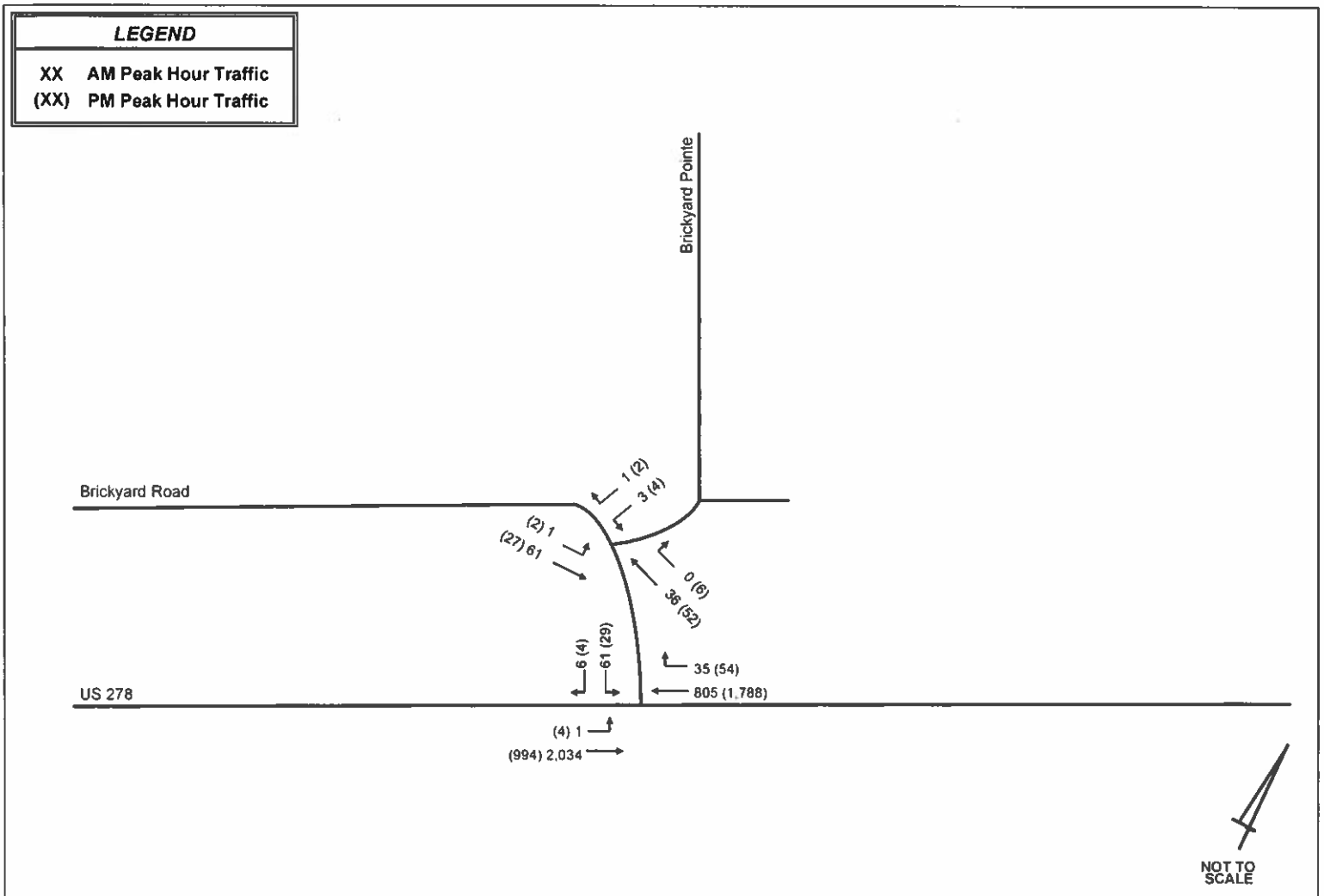
Source: Wood & Partners	**US 278 Residential Development Traffic Impact Analysis**	**Conceptual Site Plan**	**Figure 2**



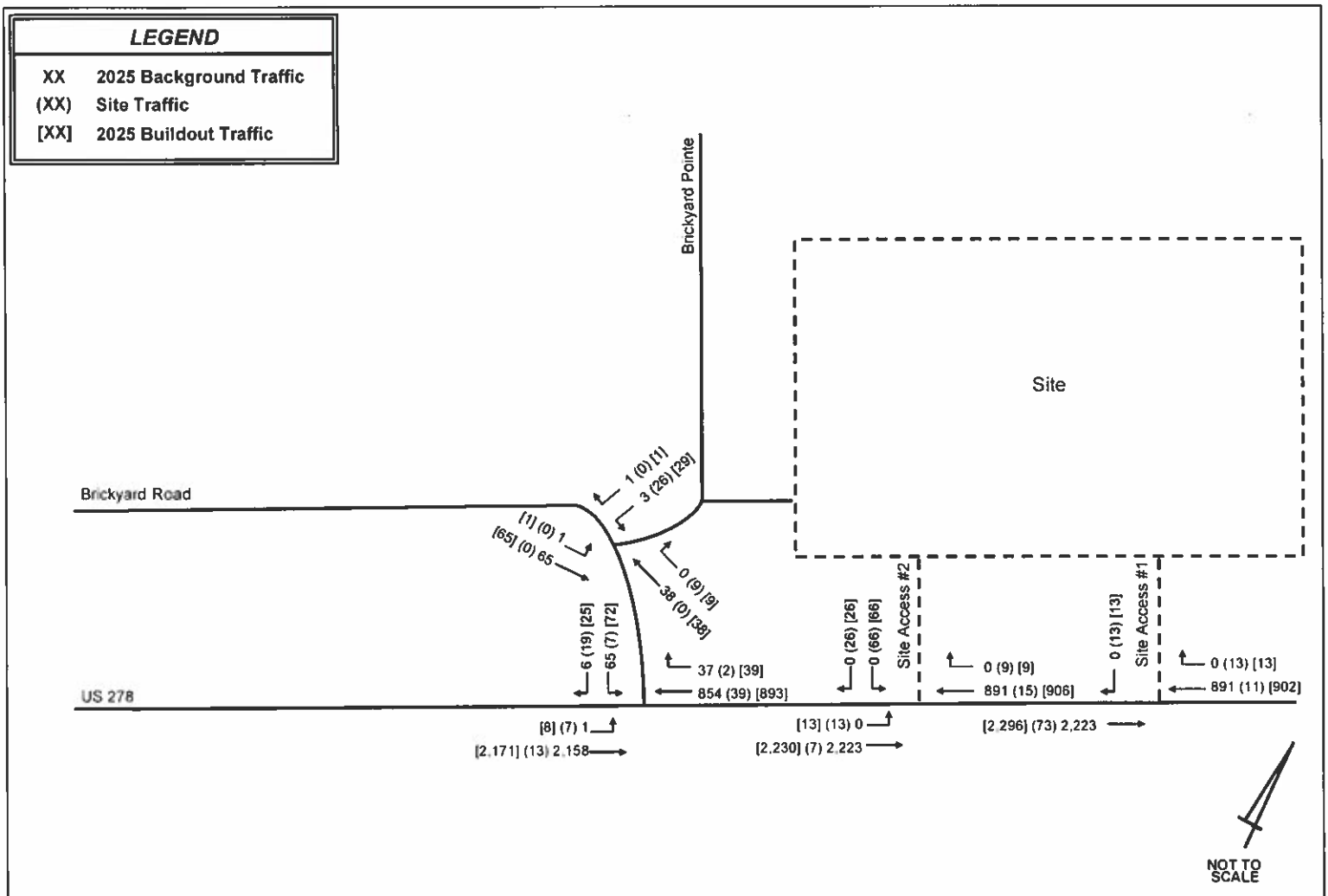
BIHL ENGINEERING	US 278 Residential Development Traffic Impact Analysis	Existing Laneage	Figure 3



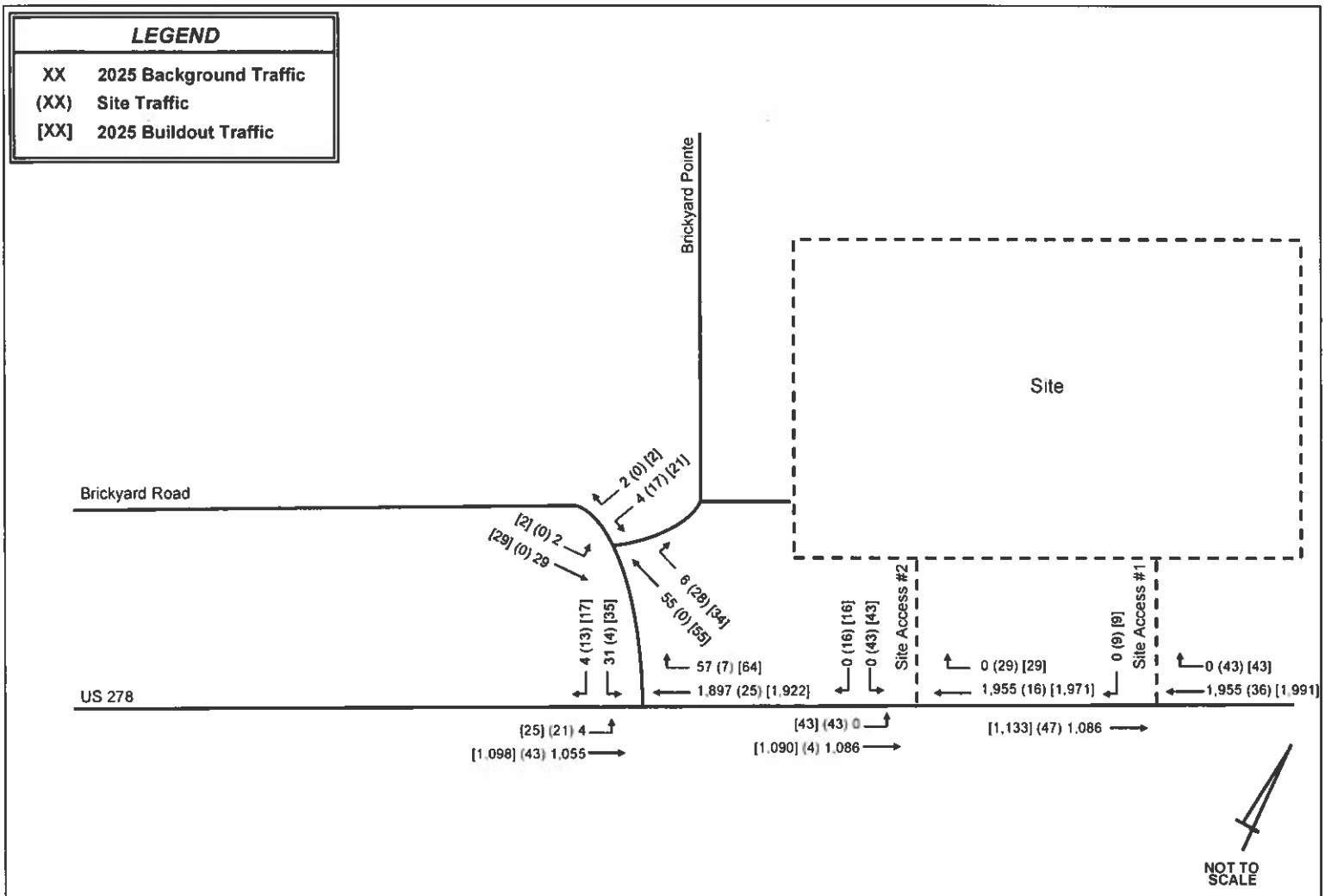
BELL ENGINEERING	US 278 Residential Development Traffic Impact Analysis	Trip Distribution	Figure 4



BIHL ENGINEERING	US 278 Residential Development Traffic Impact Analysis	Existing Traffic Volumes	Figure 5



BIHL ENGINEERING	US 278 Residential Development Traffic Impact Analysis	2025 AM Peak Traffic Volumes	Figure 6



BIHL ENGINEERING	US 278 Residential Development Traffic Impact Analysis	2025 PM Peak Traffic Volumes	Figure 7

Short Counts

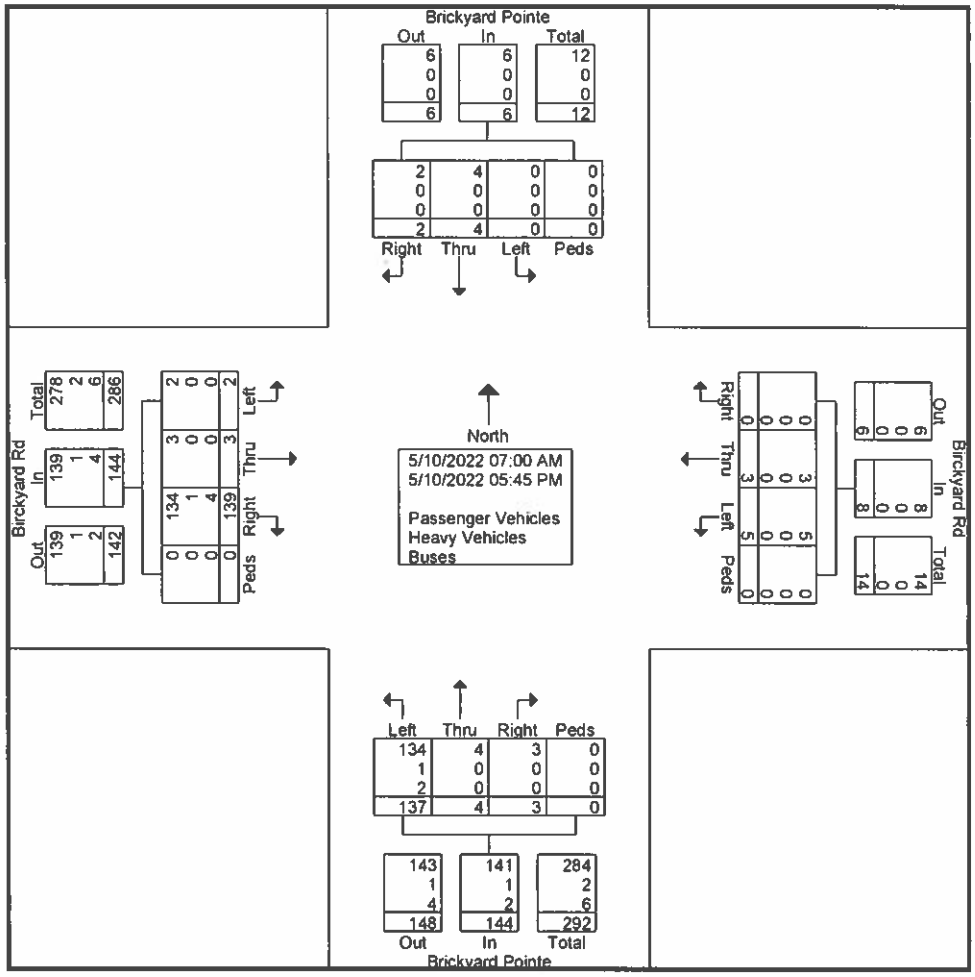
File Name : Brickyard Pointe @ Brickyard Rd
Site Code :
Start Date : 5/10/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Brickyard Pointe From North				Birckyard Rd From East				Brickyard Pointe From South				Birckyard Rd From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	0	1	0	0	0	0	0	0	12	0	0	0	0	0	19	0	32
07:15 AM	0	1	1	0	0	0	0	0	10	0	0	0	0	0	19	0	31
07:30 AM	0	0	0	0	0	0	0	0	8	0	0	0	0	0	12	0	20
07:45 AM	0	1	0	0	0	0	0	0	6	0	0	0	1	0	11	0	19
Total	0	3	1	0	0	0	0	0	36	0	0	0	1	0	61	0	102
08:00 AM	0	0	0	0	0	0	0	0	12	0	0	0	0	0	14	0	26
08:15 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	0	7	0	10
08:30 AM	0	0	0	0	0	0	0	0	7	0	0	0	0	0	6	0	13
08:45 AM	0	0	0	0	0	0	0	0	5	0	0	0	1	0	3	0	9
Total	0	0	0	0	0	0	0	0	26	1	0	0	1	0	30	0	58
04:00 PM	0	0	0	0	1	0	0	0	5	0	0	0	0	1	9	0	16
04:15 PM	0	0	1	0	1	0	0	0	6	0	0	0	0	0	5	0	13
04:30 PM	0	0	0	0	0	0	0	0	7	0	0	0	0	0	2	0	9
04:45 PM	0	0	0	0	2	1	0	0	16	1	1	0	0	1	9	0	31
Total	0	0	1	0	4	1	0	0	34	1	1	0	0	2	25	0	69
05:00 PM	0	0	0	0	0	0	0	0	14	1	0	0	0	1	3	0	19
05:15 PM	0	1	0	0	0	0	0	0	13	1	0	0	0	0	8	0	23
05:30 PM	0	0	0	0	1	1	0	0	9	0	2	0	0	0	7	0	20
05:45 PM	0	0	0	0	0	1	0	0	5	0	0	0	0	0	5	0	11
Total	0	1	0	0	1	2	0	0	41	2	2	0	0	1	23	0	73
Grand Total	0	4	2	0	5	3	0	0	137	4	3	0	2	3	139	0	302
Apprch %	0	66.7	33.3	0	62.5	37.5	0	0	95.1	2.8	2.1	0	1.4	2.1	96.5	0	
Total %	0	1.3	0.7	0	1.7	1	0	0	45.4	1.3	1	0	0.7	1	46	0	
Passenger Vehicles	0	4	2	0	5	3	0	0	134	4	3	0	2	3	134	0	294
% Passenger Vehicles	0	100	100	0	100	100	0	0	97.8	100	100	0	100	100	96.4	0	97.4
Heavy Vehicles	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
% Heavy Vehicles	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0.7	0	0.7
Buses	0	0	0	0	0	0	0	0	2	0	0	0	0	0	4	0	6
% Buses	0	0	0	0	0	0	0	0	1.5	0	0	0	0	0	2.9	0	2

Short Counts

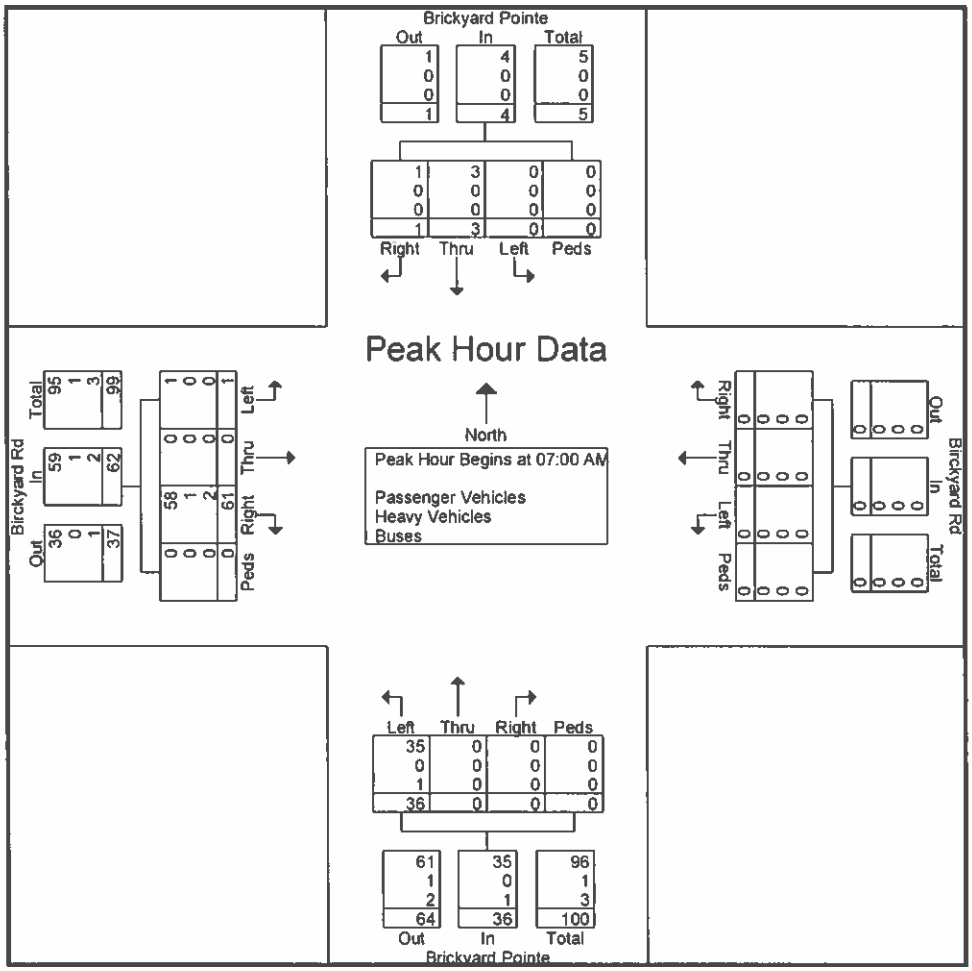
File Name : Brickyard Pointe @ Brickyard Rd
Site Code :
Start Date : 5/10/2022
Page No : 2



Short Counts

File Name : Brickyard Pointe @ Brickyard Rd
Site Code :
Start Date : 5/10/2022
Page No : 3

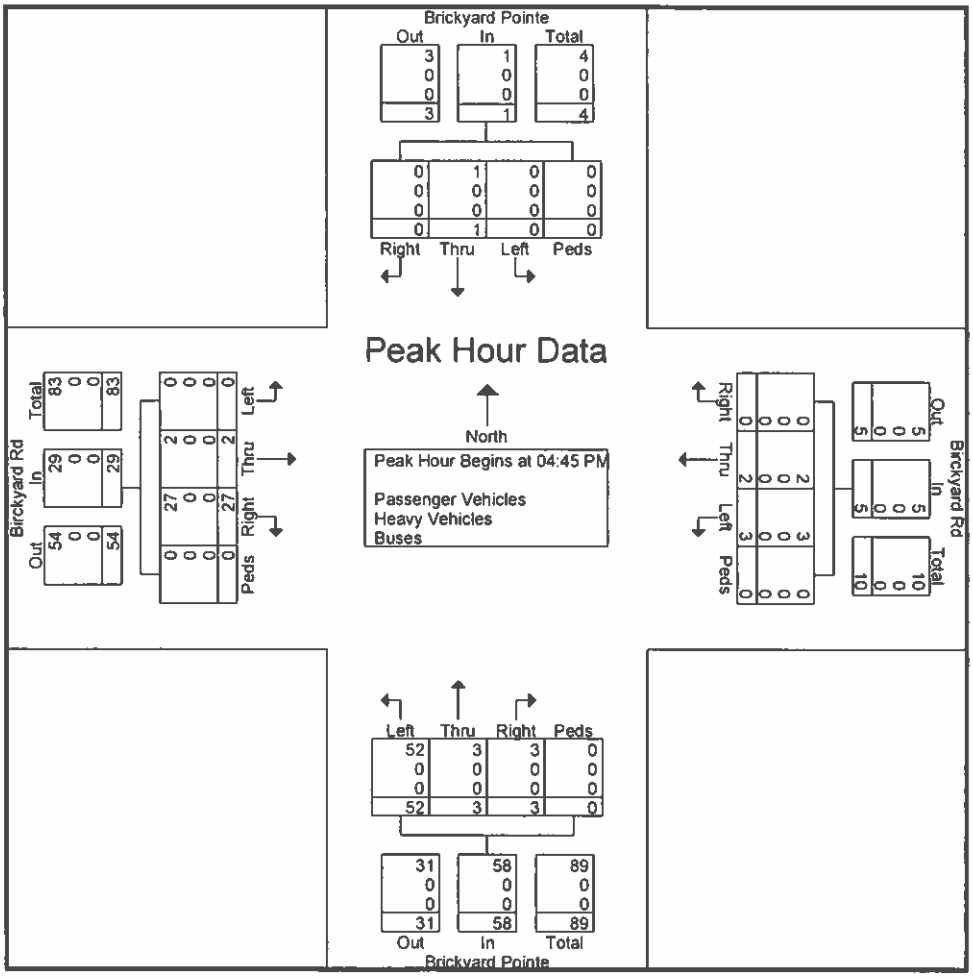
	Brickyard Pointe From North					Birckyard Rd From East					Brickyard Pointe From South					Birckyard Rd From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	1	0	0	1	0	0	0	0	0	12	0	0	0	12	0	0	19	0	19	32
07:15 AM	0	1	1	0	2	0	0	0	0	0	10	0	0	0	10	0	0	19	0	19	31
07:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	12	0	12	20
07:45 AM	0	1	0	0	1	0	0	0	0	0	6	0	0	0	6	1	0	11	0	12	19
Total Volume	0	3	1	0	4	0	0	0	0	0	36	0	0	0	36	1	0	61	0	62	102
% App Total	0	75	25	0		0	0	0	0		100	0	0	0		1.6	0	98.4	0		
PHF	.000	.750	.250	.000	.500	.000	.000	.000	.000	.000	.750	.000	.000	.000	.750	.250	.000	.803	.000	.816	.797
Passenger Vehicles	0	3	1	0	4	0	0	0	0	0	35	0	0	0	35	1	0	58	0	59	98
% Passenger Vehicles	0	100	100	0	100	0	0	0	0	0	97.2	0	0	0	97.2	100	0	95.1	0	95.2	96.1
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	0	1.6	1.0
Buses	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	3
% Buses	0	0	0	0	0	0	0	0	0	0	2.8	0	0	0	2.8	0	0	3.3	0	3.2	2.9



Short Counts

File Name : Brickyard Pointe @ Brickyard Rd
Site Code :
Start Date : 5/10/2022
Page No : 4

	Brickyard Pointe From North					Birckyard Rd From East					Brickyard Pointe From South					Birckyard Rd From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	2	1	0	0	3	16	1	1	0	18	0	1	9	0	10	31
05:00 PM	0	0	0	0	0	0	0	0	0	0	14	1	0	0	15	0	1	3	0	4	19
05:15 PM	0	1	0	0	1	0	0	0	0	0	13	1	0	0	14	0	0	8	0	8	23
05:30 PM	0	0	0	0	0	1	1	0	0	2	9	0	2	0	11	0	0	7	0	7	20
Total Volume	0	1	0	0	1	3	2	0	0	5	52	3	3	0	58	0	2	27	0	29	93
% App. Total	0	100	0	0		60	40	0	0		89.7	5.2	5.2	0		0	6.9	93.1	0		
PHF	.000	.250	.000	.000	.250	.375	.500	.000	.000	.417	.813	.750	.375	.000	.806	.000	.500	.750	.000	.725	.750
Passenger Vehicles	0	1	0	0	1	3	2	0	0	5	52	3	3	0	58	0	2	27	0	29	93
% Passenger Vehicles	0	100	0	0	100	100	100	0	0	100	100	100	100	0	100	0	100	100	0	100	100
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Short Counts

File Name : Brickyard Pointe @ Hwy 278
Site Code :
Start Date : 5/10/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Brickyard Pointe From North				Hwy 278 From East				From South				Hwy 278 From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	17	0	2	0	0	176	10	0	0	0	0	0	0	468	0	0	673
07:15 AM	20	0	2	0	0	191	11	0	0	0	0	0	0	523	0	0	747
07:30 AM	12	0	2	0	0	231	8	0	0	0	0	0	0	547	0	0	800
07:45 AM	12	0	0	0	0	207	6	0	0	0	0	0	1	496	0	0	722
Total	61	0	6	0	0	805	35	0	0	0	0	0	1	2034	0	0	2942
08:00 AM	14	0	0	0	0	209	9	0	0	0	0	0	1	407	0	0	640
08:15 AM	7	0	0	0	0	236	4	0	0	0	0	0	0	354	0	0	601
08:30 AM	6	0	0	0	0	229	6	0	0	0	0	0	0	336	0	0	577
08:45 AM	3	0	0	0	0	232	4	0	0	0	0	0	1	325	0	0	565
Total	30	0	0	0	0	906	23	0	0	0	0	0	2	1422	0	0	2383
04:00 PM	11	0	1	0	0	337	6	0	0	0	0	0	0	241	0	0	596
04:15 PM	5	0	2	0	0	356	6	0	0	0	0	0	0	243	0	0	612
04:30 PM	2	0	0	0	0	395	6	0	0	0	0	0	0	233	0	0	636
04:45 PM	11	0	0	0	0	401	18	0	0	0	0	0	2	241	0	0	673
Total	29	0	3	0	0	1489	36	0	0	0	0	0	2	958	0	0	2517
05:00 PM	5	0	0	0	0	457	13	0	0	0	0	0	0	241	0	0	716
05:15 PM	7	0	2	0	0	481	13	0	0	0	0	0	1	252	0	0	756
05:30 PM	6	0	2	0	0	449	10	0	0	0	0	0	1	260	0	0	728
05:45 PM	4	0	1	0	0	404	6	0	0	0	0	0	0	252	0	0	667
Total	22	0	5	0	0	1791	42	0	0	0	0	0	2	1005	0	0	2867
Grand Total	142	0	14	0	0	4991	136	0	0	0	0	0	7	5419	0	0	10709
Apprch %	91	0	9	0	0	97.3	2.7	0	0	0	0	0	0.1	99.9	0	0	
Total %	1.3	0	0.1	0	0	46.6	1.3	0	0	0	0	0	0.1	50.6	0	0	
Passenger Vehicles	138	0	13	0	0	4765	133	0	0	0	0	0	7	5207	0	0	10263
% Passenger Vehicles	97.2	0	92.9	0	0	95.5	97.8	0	0	0	0	0	100	96.1	0	0	95.8
Heavy Vehicles	0	0	1	0	0	225	1	0	0	0	0	0	0	210	0	0	437
% Heavy Vehicles	0	0	7.1	0	0	4.5	0.7	0	0	0	0	0	0	3.9	0	0	4.1
Buses	4	0	0	0	0	1	2	0	0	0	0	0	0	2	0	0	9
% Buses	2.8	0	0	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0.1

Short Counts

File Name : Brickyard Pointe @ Hwy 278
Site Code :
Start Date : 5/10/2022
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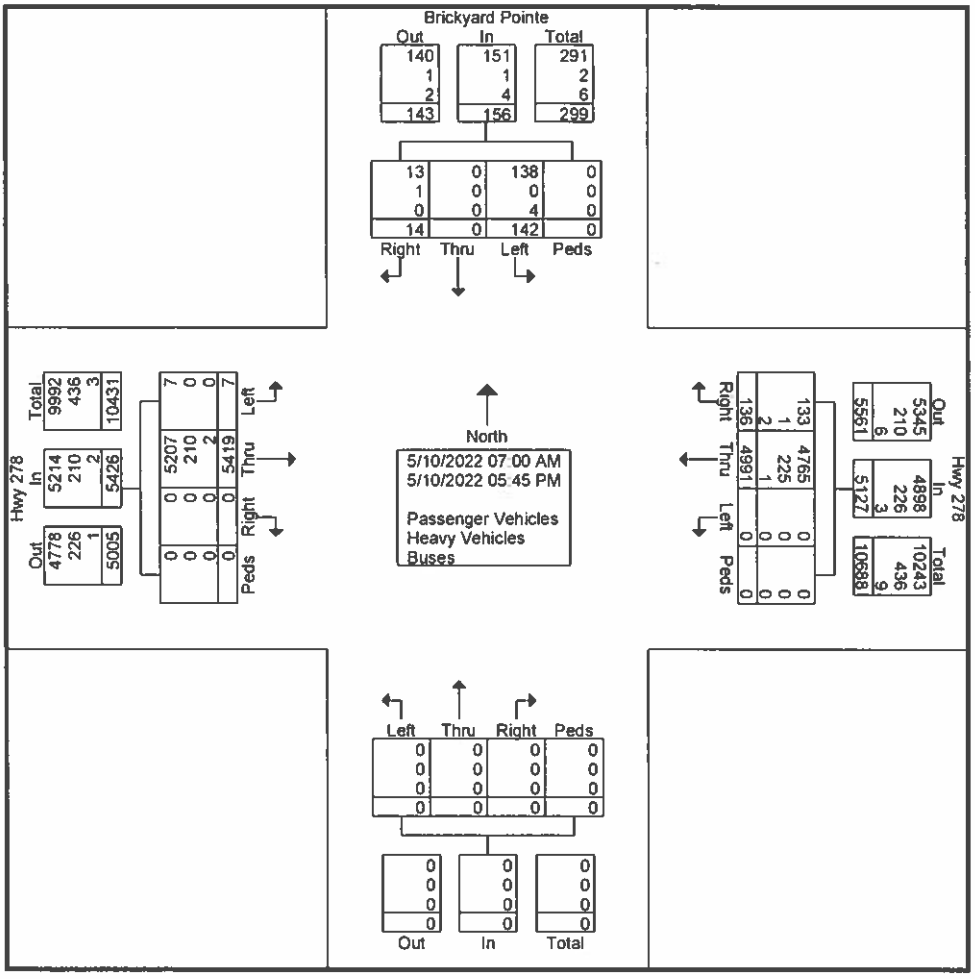
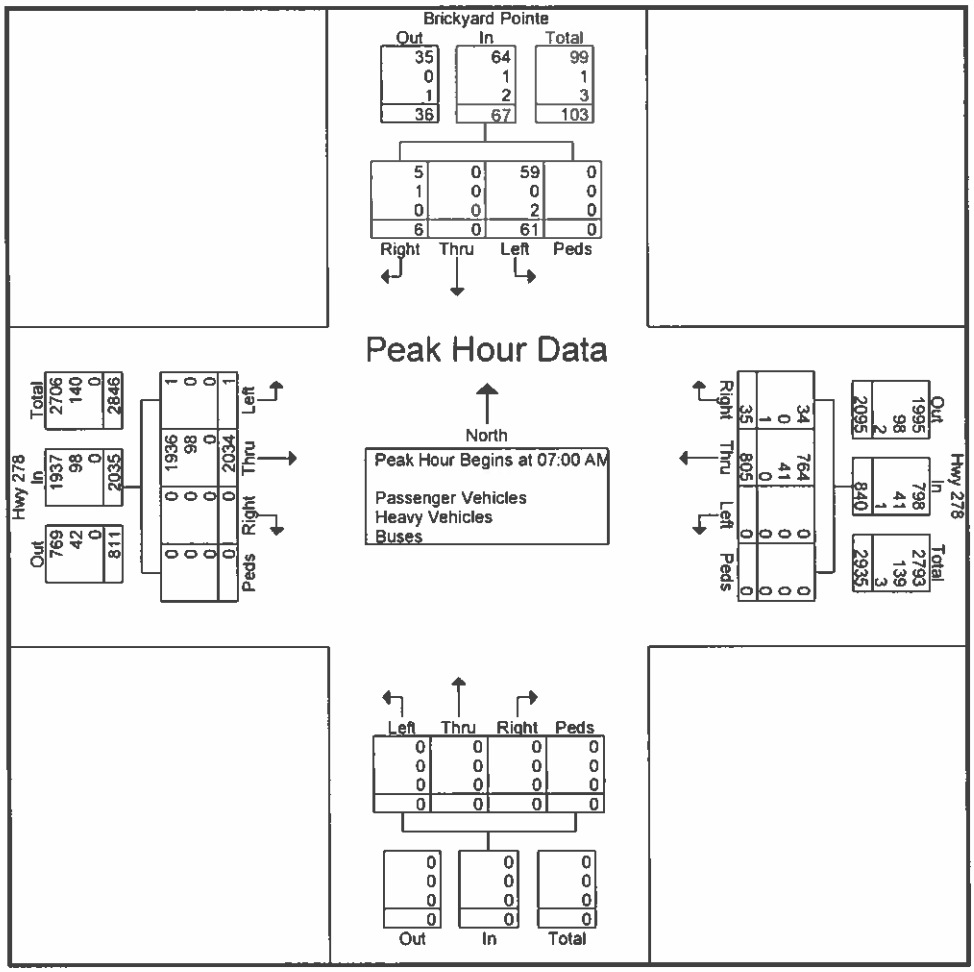


Short Counts

File Name : Brickyard Pointe @ Hwy 278
Site Code :
Start Date : 5/10/2022
Page No : 3

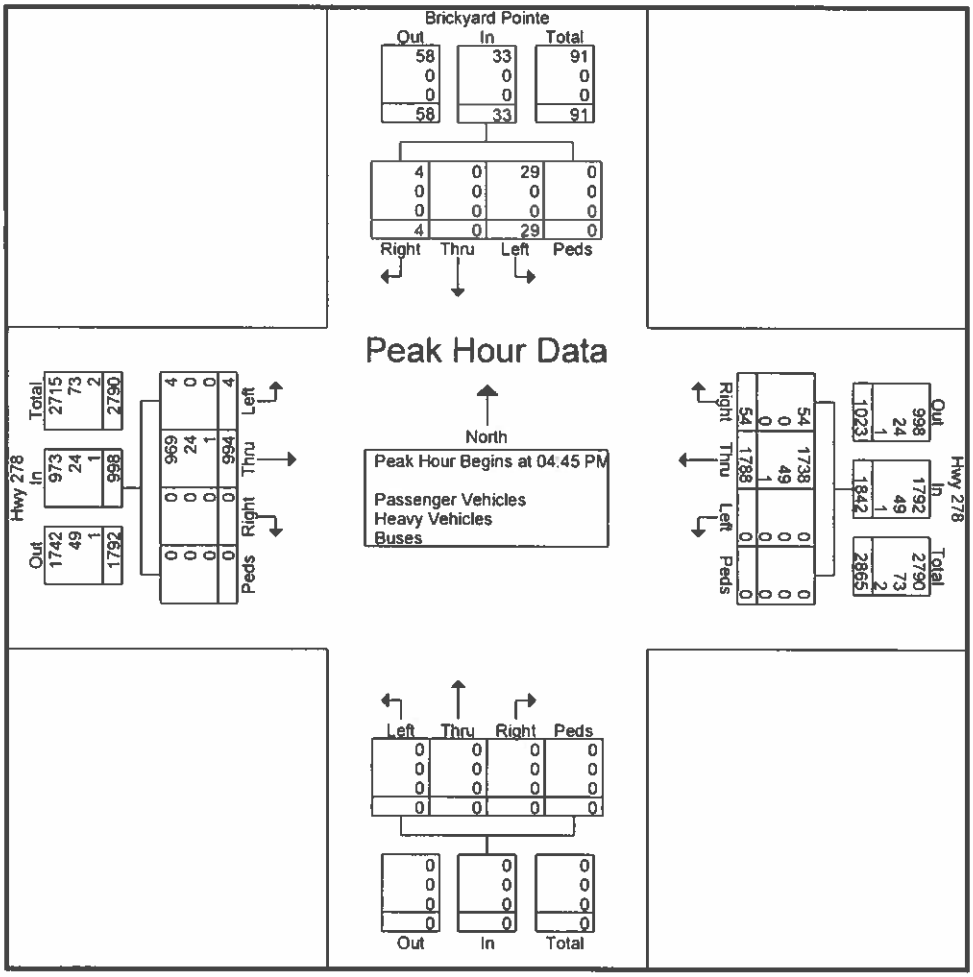
	Brickyard Pointe From North					Hwy 278 From East					From South					Hwy 278 From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	17	0	2	0	19	0	176	10	0	186	0	0	0	0	0	0	468	0	0	468	673
07:15 AM	20	0	2	0	22	0	191	11	0	202	0	0	0	0	0	0	523	0	0	523	747
07:30 AM	12	0	2	0	14	0	231	8	0	239	0	0	0	0	0	0	547	0	0	547	800
07:45 AM	12	0	0	0	12	0	207	6	0	213	0	0	0	0	0	1	496	0	0	497	722
Total Volume	61	0	6	0	67	0	805	35	0	840	0	0	0	0	0	1	2034	0	0	2035	2942
% App Total	91	0	9	0		0	95.8	4.2	0		0	0	0	0		0	100	0	0		
PHF	.763	.000	.750	.000	.761	.000	.871	.795	.000	.879	.000	.000	.000	.000	.000	.250	.930	.000	.000	.930	.919
Passenger Vehicles	59	0	5	0	64	0	764	34	0	798	0	0	0	0	0	1	1936	0	0	1937	2799
%Passenger Vehicles	96.7	-	83.3	-	95.5	0	94.9	97.1	-	95.0	-	-	-	-	-	100	95.2	-	-	95.2	95.1
Heavy Vehicles																					
%Heavy Vehicles	0	0	16.7	0	1.5	0	5.1	0	0	4.9	0	0	0	0	0	0	4.8	0	0	4.8	4.8
Buses	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
% Buses	3.3	0	0	0	3.0	0	0	2.9	0	0.1	0	0	0	0	0	0	0	0	0	0	0.1



Short Counts

File Name : Brickyard Pointe @ Hwy 278
Site Code :
Start Date : 5/10/2022
Page No : 4

	Brickyard Pointe From North					Hwy 278 From East					From South					Hwy 278 From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	11	0	0	0	11	0	401	18	0	419	0	0	0	0	0	2	241	0	0	243	673
05:00 PM	5	0	0	0	5	0	457	13	0	470	0	0	0	0	0	0	241	0	0	241	716
05:15 PM	7	0	2	0	9	0	481	13	0	494	0	0	0	0	0	1	252	0	0	253	756
05:30 PM	6	0	2	0	8	0	449	10	0	459	0	0	0	0	0	1	260	0	0	261	728
Total Volume	29	0	4	0	33	0	1788	54	0	1842	0	0	0	0	0	4	994	0	0	998	2873
% App Total																					
PHF	.659	.000	.500	.000	.750	.000	.929	.750	.000	.932	.000	.000	.000	.000	.000	.500	.956	.000	.000	.956	.950
Passenger Vehicles	29	0	4	0	33	0	1738	54	0	1792	0	0	0	0	0	4	969	0	0	973	2798
% Passenger Vehicles	100	0	100	0	100	0	97.2	100	0	97.3	0	0	0	0	0	100	97.5	0	0	97.5	97.4
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.7	0	0	2.7	0	0	0	0	0	0	2.4	0	0	2.4	2.5
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Buses	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0.1	0.1



INTERSECTION VOLUME DEVELOPMENT
278 Residential Development
US 278 at Brickyard Road
AM PEAK HOUR (7:00 AM TO 8:00 AM)

Description	Northbound			Brickyard Road Southbound			US 278 Eastbound			US 278 Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2022 AM Volumes				61	0	6	1	2,034	0	0	805	35
Pedestrians					0			0			0	
Heavy Vehicle %					4.5%			4.8%			5.0%	
Peak Hour Factor					0.76			0.93			0.88	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	0	0	65	0	6	1	2,158	0	0	854	37
Trip Distribution												
New Trips IN							15%	30%				5%
New Trips OUT				5%		15%					30%	
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	7	0	19	7	13	0	0	39	2
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	7	0	19	7	13	0	0	39	2
2025 Buildout Total	0	0	0	72	0	25	8	2,171	0	0	893	39

PM PEAK HOUR (4:45 PM TO 5:45 PM)

Description	Northbound			Brickyard Road Southbound			US 278 Eastbound			US 278 Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2022 PM Volumes				29	0	4	4	994	0	0	1,788	54
Pedestrians					0			0			0	
Heavy Vehicle %					0% (2.0%)			2.5%			2.8%	
Peak Hour Factor					0.75			0.96 (0.95)			0.93	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	0	0	31	0	4	4	1,055	0	0	1,897	57
Trip Distribution												
New Trips IN							15%	30%				5%
New Trips OUT				5%		15%					30%	
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	4	0	13	21	43	0	0	25	7
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	4	0	13	21	43	0	0	25	7
2025 Buildout Total	0	0	0	35	0	17	25	1,098	0	0	1,922	64

INTERSECTION VOLUME DEVELOPMENT
278 Residential Development
Brickyard Road at Brickyard Pointe
AM PEAK HOUR (7:00 AM TO 8:00 AM)

Description	Brickyard Road Northbound			Brickyard Road Southbound			Eastbound			Brickyard Pointe Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2022 AM Volumes		36	0	1	61	0	0	0	0	3	0	1
Pedestrians		0			0			0			0	
Heavy Vehicle %		2.8%			4.8%			0% (2.0%)			0% (2.0%)	
Peak Hour Factor		0.75			0.82			0 (0.50)			0.50	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	38	0	1	65	0	0	0	0	3	0	1
Trip Distribution												
New Trips IN			20%									
New Trips OUT										20%		
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	9	0	0	0	0	0	0	26	0	0
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	9	0	0	0	0	0	0	26	0	0
2025 Buildout Total	**0**	**38**	**9**	**1**	**65**	**0**	**0**	**0**	**0**	**29**	**0**	**1**

*Count data adjusted to match stop control conditions

PM PEAK HOUR (4:45 PM TO 5:45 PM)

Description	Brickyard Road Northbound			Brickyard Road Southbound			Eastbound			Brickyard Pointe Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2022 PM Volumes	0	52	6	2	27	0	0	0	0	4	0	2
Pedestrians		0			0			0			0	
Heavy Vehicle %		0% (2.0%)			0% (2.0%)			0% (2.0%)			0% (2.0%)	
Peak Hour Factor		0.81			0.73			0.00			0.50	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	55	6	2	29	0	0	0	0	4	0	2
Trip Distribution												
New Trips IN			20%									
New Trips OUT										20%		
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	28	0	0	0	0	0	0	17	0	0
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	28	0	0	0	0	0	0	17	0	0
2025 Buildout Total	**0**	**55**	**34**	**2**	**29**	**0**	**0**	**0**	**0**	**21**	**0**	**2**

*Count data adjusted to match stop control conditions

INTERSECTION VOLUME DEVELOPMENT
278 Residential Development
US 278 at Site Access #1
AM PEAK HOUR (7:00 AM TO 8:00 AM)

Description	Northbound			Site Access #1 Southbound			US 278 Eastbound			US 278 Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2022 AM Volumes								2,095			840	
Pedestrians												
Heavy Vehicle %								4.8%			5.0%	
Peak Hour Factor								0.94			0.88	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	0	0	0	0	0	0	2,223	0	0	891	0
Trip Distribution												
New Trips IN											25%	30%
New Trips OUT						10%		55%				
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	0	0	13	0	73	0	0	11	13
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	13	0	73	0	0	11	13
2025 Buildout Total	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**2,296**	**0**	**0**	**902**	**13**

PM PEAK HOUR (4:45 PM TO 5:45 PM)

Description	Northbound			Site Access #1 Southbound			US 278 Eastbound			US 278 Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2022 PM Volumes								1,023			1,842	
Pedestrians												
Heavy Vehicle %								2.4%			2.7%	
Peak Hour Factor								0.96 (0.95)			0.93	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.9%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.028
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	0	0	0	0	0	0	1,086	0	0	1,955	0
Trip Distribution												
New Trips IN											25%	30%
New Trips OUT						10%		55%				
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	0	0	9	0	47	0	0	36	43
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	9	0	47	0	0	36	43
2025 Buildout Total	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**1,133**	**0**	**0**	**1,991**	**43**

INTERSECTION VOLUME DEVELOPMENT
278 Residential Development
US 278 at Site Access #2
AM PEAK HOUR (7:00 AM TO 8:00 AM)

Description	Northbound			Site Access #2 Southbound			US 278 Eastbound			US 278 Westbound		
	Left	Through	U-Turns	Left	Through	U-Turns	Left	Through	Right	Left	Through	Right
Existing 2022 AM Volumes								2,095			840	
Pedestrians												
Heavy Vehicle %								4.8%			5.0%	
Peak Hour Factor								0.94			0.88	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	0	0	0	0	0	0	2,223	0	0	891	0
Trip Distribution												
New Trips IN							30%				5%	20%
New Trips OUT				50%		20%		5%			10%	
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	66	0	26	13	7	0	0	15	9
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	66	0	26	13	7	0	0	15	9
2025 Buildout Total	**0**	**0**	**0**	**66**	**0**	**26**	**13**	**2,230**	**0**	**0**	**906**	**9**

PM PEAK HOUR (4:15 PM TO 5:15 PM)

Description	Northbound			Site Access #2 Southbound			US 278 Eastbound			US 278 Westbound		
	Left	Through	U-Turns	Left	Through	U-Turns	Left	Through	Right	Left	Through	Right
Existing 2022 PM Volumes								1,023			1,842	
Pedestrians												
Heavy Vehicle %								2.4%			2.7%	
Peak Hour Factor								0.96 (0.95)			0.93	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061	1.061
Adjacent Site Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2025 Background Traffic	0	0	0	0	0	0	0	1,086	0	0	1,955	0
Trip Distribution												
New Trips IN							30%				5%	20%
New Trips OUT				50%		20%		5%			10%	
Pass By Distribution												
Pass By IN												
Pass By OUT												
New Trips	0	0	0	43	0	16	43	4	0	0	16	29
Pass By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	43	0	16	43	4	0	0	16	29
2025 Buildout Total	**0**	**0**	**0**	**43**	**0**	**16**	**43**	**1,090**	**0**	**0**	**1,971**	**29**

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	1	36	0	1	61
Future Vol, veh/h	3	1	36	0	1	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	75	75	82	82
Heavy Vehicles, %	2	2	3	3	5	5
Mvmt Flow	6	2	48	0	1	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	124	48	0	0	48	0
Stage 1	48	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	871	1021	-	-	1540	-
Stage 1	974	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	870	1021	-	-	1540	-
Mov Cap-2 Maneuver	870	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	946	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	903	1540	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2034	805	35	61	6
Future Vol, veh/h	1	2034	805	35	61	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	88	88	76	76
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	2187	915	40	80	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	955	0	-	0	2031	478
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	1096	-
Critical Hdwy	4.2	-	-	-	6.9	7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	2.25	-	-	-	3.55	3.35
Pot Cap-1 Maneuver	697	-	-	-	~ 48	526
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	275	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	697	-	-	-	~ 48	526
Mov Cap-2 Maneuver	-	-	-	-	205	-
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	275	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	32.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	697	-	-	-	217
HCM Lane V/C Ratio	0.002	-	-	-	0.406
HCM Control Delay (s)	10.2	-	-	-	32.5
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	2	52	6	2	27
Future Vol, veh/h	4	2	52	6	2	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	81	81	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	4	64	7	3	37

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	111	68	0	0	71	0
Stage 1	68	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	886	995	-	-	1529	-
Stage 1	955	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	884	995	-	-	1529	-
Mov Cap-2 Maneuver	884	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	977	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	918	1529	-
HCM Lane V/C Ratio	-	-	0.013	0.002	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	994	1788	54	29	4
Future Vol, veh/h	4	994	1788	54	29	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	93	93	75	75
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	4	1046	1923	58	39	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1981	0	-	0	2483	991
Stage 1	-	-	-	-	1952	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	4.16	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.23	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	284	-	-	-	~ 24	245
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	284	-	-	-	~ 24	245
Mov Cap-2 Maneuver	-	-	-	-	80	-
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	554	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	82.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	284	-	-	-	87
HCM Lane V/C Ratio	0.015	-	-	-	0.506
HCM Control Delay (s)	17.9	-	-	-	82.8
HCM Lane LOS	C	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	1	38	0	1	65
Future Vol, veh/h	3	1	38	0	1	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	75	75	82	82
Heavy Vehicles, %	2	2	3	3	5	5
Mvmt Flow	6	2	51	0	1	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	132	51	0	0	51	0
Stage 1	51	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	862	1017	-	-	1536	-
Stage 1	971	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	861	1017	-	-	1536	-
Mov Cap-2 Maneuver	861	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	895	1536	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	9.1	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2158	854	37	65	6
Future Vol, veh/h	1	2158	854	37	65	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	88	88	76	76
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	2320	970	42	86	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1012	0	-	0	2153	506
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	1162	-
Critical Hdwy	4.2	-	-	-	6.9	7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	2.25	-	-	-	3.55	3.35
Pot Cap-1 Maneuver	663	-	-	-	~ 39	504
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	254	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	663	-	-	-	~ 39	504
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	254	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	37.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	663	-	-	-	200
HCM Lane V/C Ratio	0.002	-	-	-	0.467
HCM Control Delay (s)	10.4	-	-	-	37.9
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	2	55	6	2	29
Future Vol, veh/h	4	2	55	6	2	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	81	81	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	4	68	7	3	40

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	118	72	0	0	75	0
Stage 1	72	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	878	990	-	-	1524	-
Stage 1	951	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	876	990	-	-	1524	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	911	1524	-
HCM Lane V/C Ratio	-	-	0.013	0.002	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1055	1897	57	31	4
Future Vol, veh/h	4	1055	1897	57	31	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	93	93	75	75
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	4	1111	2040	61	41	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2101	0	-	0	2635	1051
Stage 1	-	-	-	-	2071	-
Stage 2	-	-	-	-	564	-
Critical Hdwy	4.16	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.23	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	255	-	-	-	~ 19	223
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	533	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	255	-	-	-	~ 19	223
Mov Cap-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	533	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	93.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	255	-	-	-	83
HCM Lane V/C Ratio	0.017	-	-	-	0.562
HCM Control Delay (s)	19.4	-	-	-	93.7
HCM Lane LOS	C	-	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	2.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	1	38	9	1	65
Future Vol, veh/h	29	1	38	9	1	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	75	75	82	82
Heavy Vehicles, %	2	2	3	3	5	5
Mvmt Flow	32	1	51	12	1	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	138	57	0	0	63	0
Stage 1	57	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.15	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	855	1009	-	-	1521	-
Stage 1	966	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	854	1009	-	-	1521	-
Mov Cap-2 Maneuver	854	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	858	1521	-
HCM Lane V/C Ratio	-	-	0.039	0.001	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	2230	906	9	66	26
Future Vol, veh/h	13	2230	906	9	66	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	100	0	0
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	88	88	90	90
Heavy Vehicles, %	5	5	5	5	2	2
Mvmt Flow	14	2372	1030	10	73	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1040	0	-	0	2244	515
Stage 1	-	-	-	-	1030	-
Stage 2	-	-	-	-	1214	-
Critical Hdwy	4.2	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.25	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	647	-	-	-	~ 36	505
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	244	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	647	-	-	-	~ 35	505
Mov Cap-2 Maneuver	-	-	-	-	180	-
Stage 1	-	-	-	-	298	-
Stage 2	-	-	-	-	244	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	30.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	647	-	-	-	180	505
HCM Lane V/C Ratio	0.021	-	-	-	0.407	0.057
HCM Control Delay (s)	10.7	-	-	-	38.1	12.6
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.8	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	2171	893	39	72	25
Future Vol, veh/h	8	2171	893	39	72	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	88	88	76	76
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	9	2334	1015	44	95	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1059	0	-	0	2222	530
Stage 1	-	-	-	-	1037	-
Stage 2	-	-	-	-	1185	-
Critical Hdwy	4.2	-	-	-	6.9	7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	2.25	-	-	-	3.55	3.35
Pot Cap-1 Maneuver	636	-	-	-	~ 35	486
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	247	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	636	-	-	-	~ 35	486
Mov Cap-2 Maneuver	-	-	-	-	180	-
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	247	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	43.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	636	-	-	-	215
HCM Lane V/C Ratio	0.014	-	-	-	0.594
HCM Control Delay (s)	10.7	-	-	-	43.6
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	3.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	2296	902	13	0	13
Future Vol, veh/h	0	2296	902	13	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	88	88	90	90
Heavy Vehicles, %	5	5	5	5	2	2
Mvmt Flow	0	2443	1025	15	0	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	513
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	506
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	506
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	506
HCM Lane V/C Ratio	-	-	-	0.029
HCM Control Delay (s)	-	-	-	12.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	2	55	34	2	29
Future Vol, veh/h	21	2	55	34	2	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	81	81	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	2	68	42	3	40

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	135	89	0	0	110	0
Stage 1	89	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	859	969	-	-	1480	-
Stage 1	934	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	857	969	-	-	1480	-
Mov Cap-2 Maneuver	857	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	866	1480	-
HCM Lane V/C Ratio	-	-	0.03	0.002	-
HCM Control Delay (s)	-	-	9.3	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	1090	1971	29	43	16
Future Vol, veh/h	43	1090	1971	29	43	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	100	0	0
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	93	93	90	90
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	45	1147	2119	31	48	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2150	0	-	0	2783	1060
Stage 1	-	-	-	-	2119	-
Stage 2	-	-	-	-	664	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	247	-	-	-	~ 15	220
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	474	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	247	-	-	-	~ 12	220
Mov Cap-2 Maneuver	-	-	-	-	60	-
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	474	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	132.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	247	-	-	-	60	220
HCM Lane V/C Ratio	0.183	-	-	-	0.796	0.081
HCM Control Delay (s)	22.8	-	-	-	172.8	22.8
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	0.7	-	-	-	3.5	0.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	1098	1922	64	35	17
Future Vol, veh/h	25	1098	1922	64	35	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	93	93	75	75
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	26	1156	2067	69	47	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2136	0	-	0	2732	1068
Stage 1	-	-	-	-	2102	-
Stage 2	-	-	-	-	630	-
Critical Hdwy	4.16	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.23	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	247	-	-	-	~ 16	218
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	493	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	247	-	-	-	~ 14	218
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	493	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	127.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	247	-	-	-	88
HCM Lane V/C Ratio	0.107	-	-	-	0.788
HCM Control Delay (s)	21.3	-	-	-	127.7
HCM Lane LOS	C	-	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	4.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

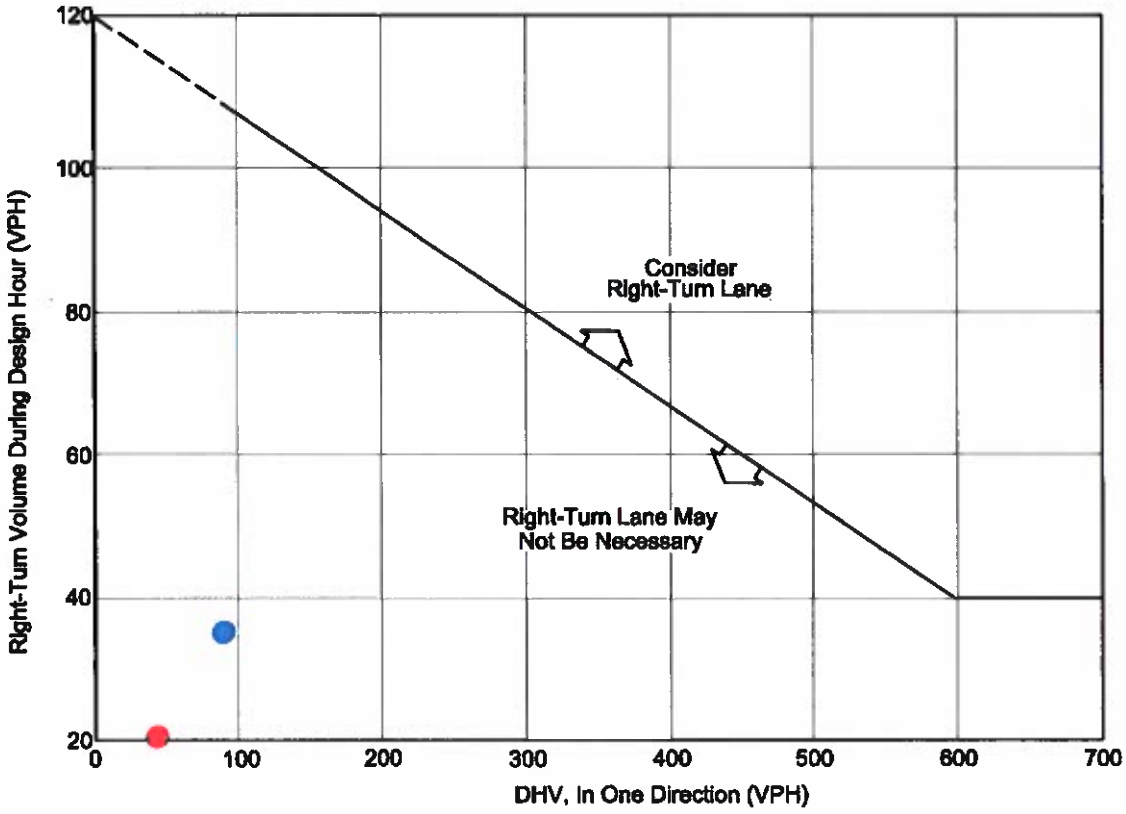
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1133	1991	43	0	9
Future Vol, veh/h	0	1133	1991	43	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	93	93	90	90
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	0	1193	2141	46	0	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1071
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	217
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	217
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	217
HCM Lane V/C Ratio	-	-	-	0.046
HCM Control Delay (s)	-	-	-	22.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

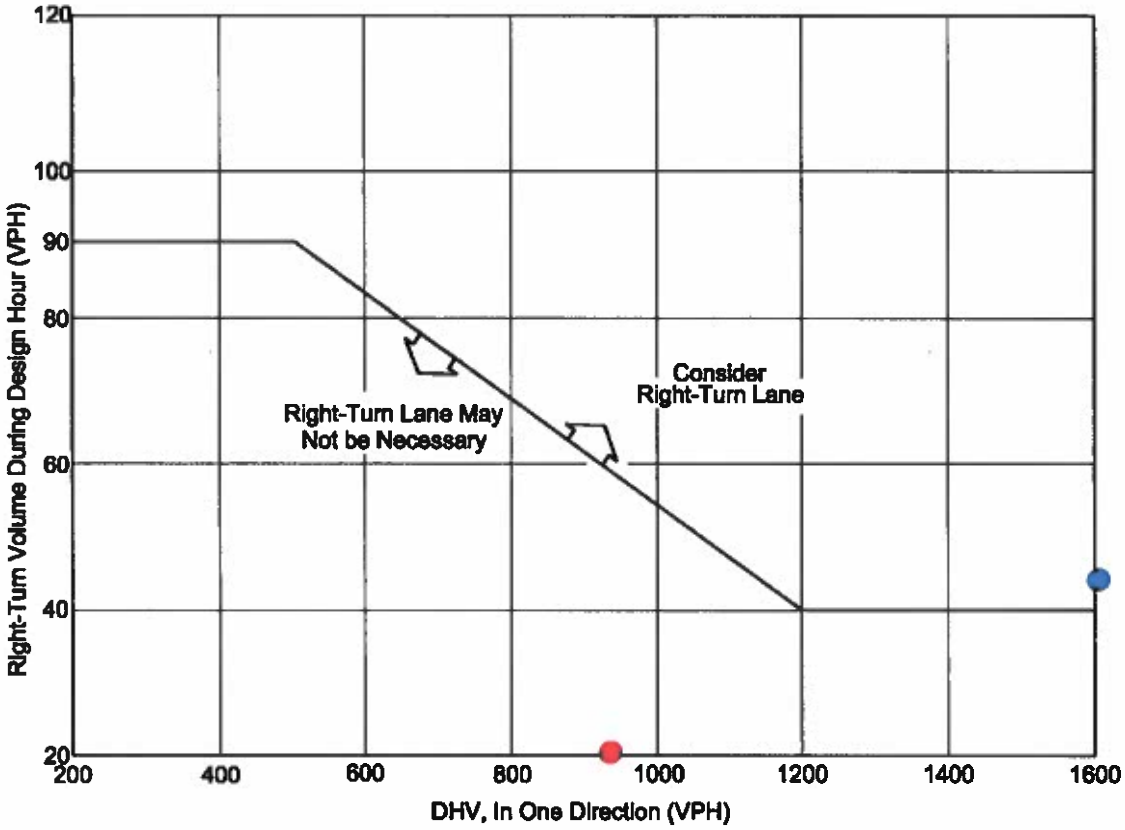
Example

				AM Peak Hour	PM Peak Hour
Given:	Design Speed	=	35 miles per hour	Speed = 35 mph	Speed = 35 mph
	DHV	=	250 vehicles per hour	DHV = 47	DHV = 89
	Right Turns	=	100 vehicles per hour	R-Turns = 9	R-Turns = 34

Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use 100 – 20 = 80 vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

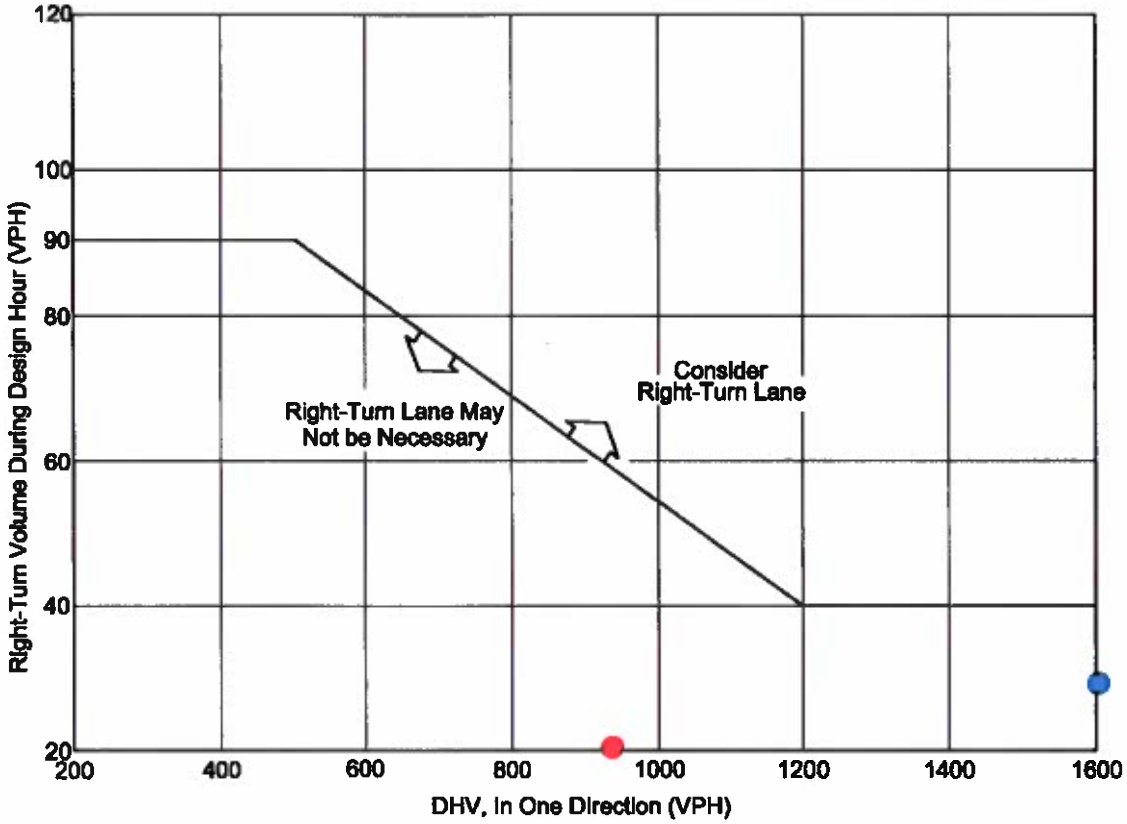
GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS
Figure 9.5-A



Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

✗ AM Peak Hour	✓ PM Peak Hour
Speed = 60 mph	Speed = 60 mph
DHV = 915	DHV = 2,034
R-Turns = 13	R-Turns = 43

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON FOUR-LANE HIGHWAYS
Figure 9.5-B



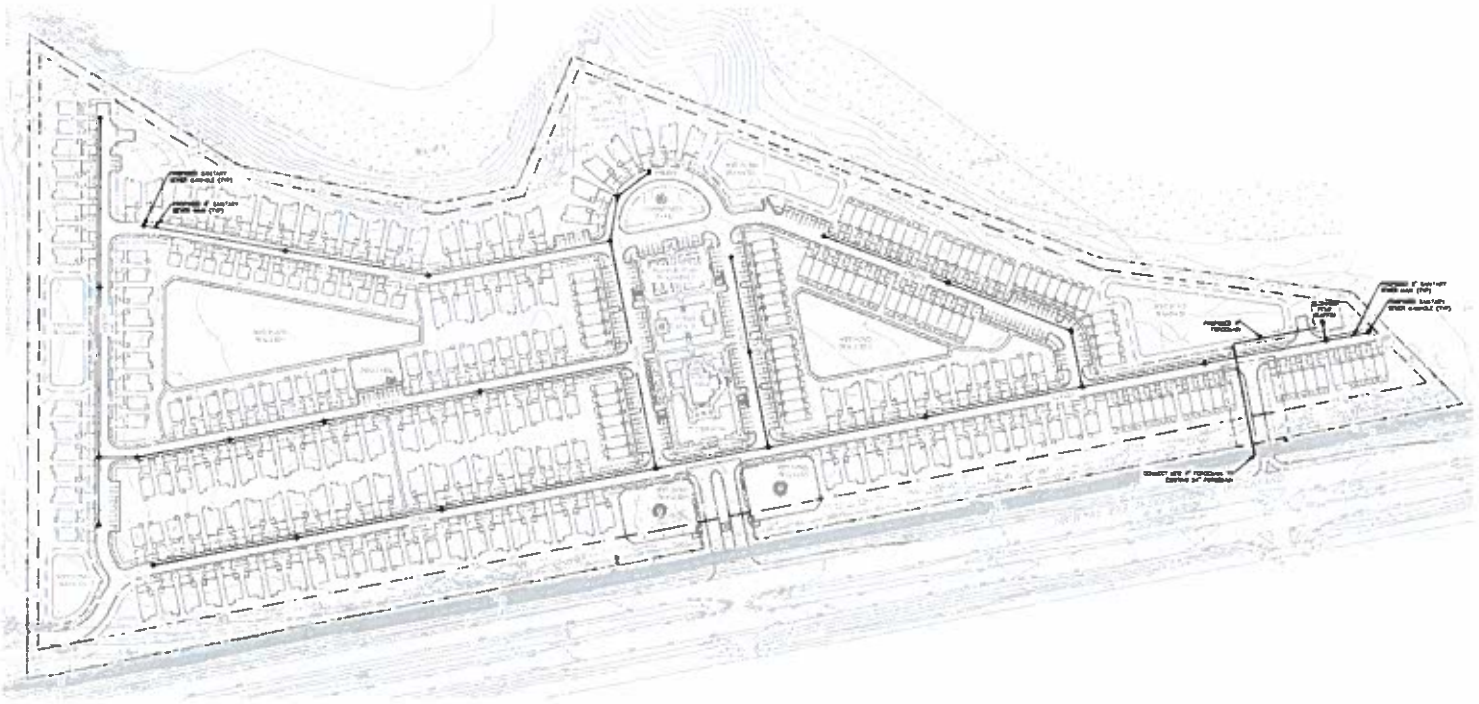
Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

AM Peak Hour	PM Peak Hour
Speed = 60 mph	Speed = 60 mph
DHV = 915	DHV = 2,000
R-Turns = 9	R-Turns 29

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON FOUR-LANE HIGHWAYS
Figure 9.5-B

EXHIBIT K:

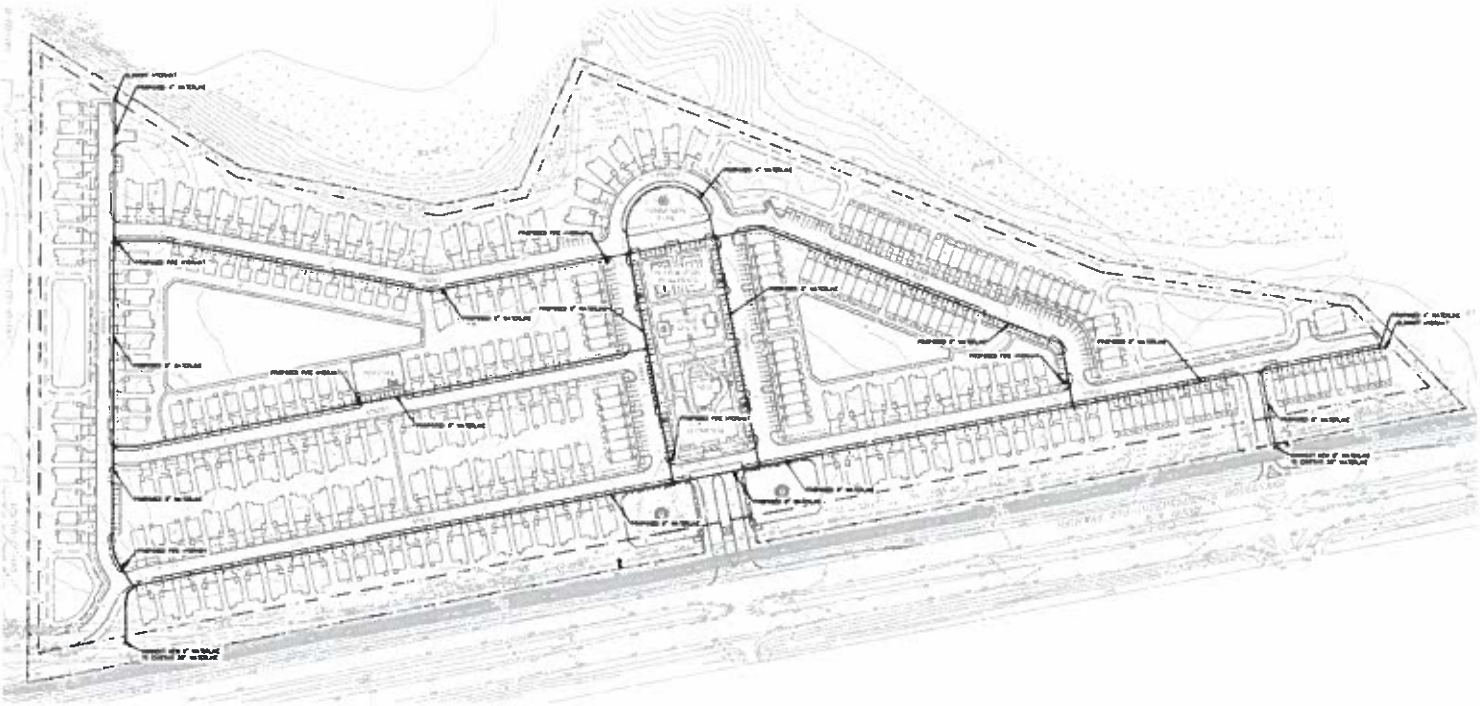
PRELIMINARY SANITARY SEWER SYSTEMS MASTER PLAN, WATER SYSTEMS MASTER PLAN, AND STORMWATER DRAINAGE MASTER PLAN



CEC CAROLINA

CSP SINGLE FAMILY RENTAL DEVELOPMENT - MASTER PLAN

EXHIBIT K - Sewer Master Plan



CEC CAROLINA

CSP SINGLE FAMILY RENTAL DEVELOPMENT - MASTER PLAN

EXHIBIT K - Water Master Plan

CEC CAROLINA

CSP SINGLE FAMILY RENTAL DEVELOPMENT - MASTER PLAN

EXHIBIT K - Storm Water / Drainage Master Plan

EXHIBIT L:

PRELIMINARY AGENCY COMMENTS

EXHIBIT L
PRELIMINARY AGENCY COMMENTS

Included are the following:

1. Jasper County School District

a. Letter to Superintendent Rachel Anderson dated, September 7, 2022

b. Email with introductory project information to Superintendent Rechel Anderson dated, September 7, 2022

c. Email with introductory project information to Executive Assistant to Superintendent Anderson, Ms. Laura Wright dated, September 7, 2022, including note of telephone conversation with Ms. Wright on September 9, 2022

2. Jasper County Emergency Services

a. Letter to Chief Russell Wells dated, September 7, 2022

b. Email with introductory project information to Chief Russell Wells dated, September 7, 2022

c. Follow up email to Chief Russell Wells requesting comments dated September 16, 2022

d. Email from Chief Russell Wells with "no objection" comment dated, September 19, 2022

3. South Carolina Department of Transportation

a. Email from Joshua Johnson, PE, PTOE, District Traffic Engineer, SCDOT District 6, dated, July 7, 2022, approving CSP Project Traffic Impact Analysis

4. South Carolina Department of Health and Environmental Control

a. Carolina Engineering Consultants letter dated, September 16, 2022, to SCDHEC-OCRM providing exhibits and requesting comments

5. Office of Ocean and Coastal Resource Management

a. Carolina Engineering Consultants letter dated, September 16, 2022, to SCDHEC-OCRM providing exhibits and requesting comments

6. US Army Corps of Engineers

a. Letter requesting confirmation of wetlands determination dated, December 17, 2021

b. Email from US Army Corps of Engineers, Charleston District dated, June 16, 2022, confirming receipt of JD Determination application

NOTE: Referenced attachments and exhbits in the above letters and correspondence are not included in this Exhibit L. All such information materials provided to recipeints are exact materials that make up this Master Plan application.

September 7, 2022

Ms. Rechel Anderson
Superintendent
Jasper County School District
10942 N. Jacob Smart Blvd
Ridgeland, SC 29936 **BY ELECTRONIC MAIL 09.07.22 VIA JCSD Web Mail System**

RE: Master Plan Application Comments
CSP Development - Property Tax Map Number 041-00-03-030

Dear Superintendent Anderson:
My firm, Conduit Street Partners, LLC, is an applicant for a Master Plan approval from the Jasper County Planning Commission as required in accordance with Section 8:1.10 of Article 8: SPECIAL PURPOSE DISTRICTS of the JASPER COUNTY ZONING ORDINANCE. Specifically, and following the June 27, 2022 approval of the rezoning of my property to PDD and the approval of its Concept Land Use Plan, per §8:1.10, ¶10 (copy attached) I am required to seek preliminary comments, if any, from various named agencies including but not limited to Jasper County School District. Thus, this letter to you and the school district. My Master Plan represents a 275-unit residential community comprised of single family detached and single family attached (town houses) to be developed on 38.8 acres on what is now unimproved, forested land with approximately 2,700 feet of frontage on the north side of US 278 immediately to the west of Hilton Head Lakes North. For your ease of reference, I have attached the following:

1. Property Aerial
2. Master Plan
3. The above referenced zoning article §8:1.10, ¶10

I have reached out to you in regard to this matter at the suggestion of Ms. Lisa Wagner, Director of Planning and Building Services. If you have any questions or comments, please feel free to contact me by phone (410-703-0896) and/or by email (pzadoretzky@oapartners.com). Your cooperation in this matter is much appreciated.

Regards,
Conduit Street Partners, LLC

Peter Zadoretzky
Co-Managing Member

Attachments

1. Vicinity Map
2. Copy of Master Plan
3. Copy of Section 8:1.10 Master Plan

Exhibit L - Item 1.b

From: do-not-reply
To: pzadoretzky@oapartners.com
Subject: Your message to Rechel Anderson
Date: Wednesday, September 7, 2022 5:31:53 PM

Here is a copy of your email:

From: Peter Zadoretzky <pzadoretzky@oapartners.com>
To: Rechel Anderson
Subject: Introduction of Residential Community in Jasper County

I am being referred to you by Ms. Lisa Wagner, Dir of Planning and Building Services, Jasper County. I am seeking Master Plan approval from Jasper County and am required to seek comments from related agencies including but not limited to Jasper County School District. I am providing a link to my materials which I hope you find self explanatory. My contact information is provided in the linked materials. Your cooperation in this matter is appreciated.
https://www.dropbox.com/t/95McK5YQVuAwR6KY

Exhibit L - Item 1.c

From: do-not-reply
To: pzadoretzky@oapartners.com
Subject: Your message to Laura Wright
Date: Wednesday, September 7, 2022 5:35:31 PM

Here is a copy of your email:

From: Peter Zadoretzky <pzadoretzky@oapartners.com>
To: Laura Wright
Subject: Introduction of Residential Community in Jasper County

I sent the below message to Superintendent Anderson on this date, 9.7.22 and am copying you on same. "I am being referred to you by Ms. Lisa Wagner, Dir of Planning and Building Services, Jasper County. I am seeking Master Plan approval from Jasper County and am required to seek comments from related agencies including but not limited to Jasper County School District. I am providing a link to my materials which I hope you find self explanatory. My contact information is provided in the linked materials. Your cooperation in this matter is appreciated."
https://www.dropbox.com/t/95McK5YQVuAwR6KY

This email was automatically sent by IP address 71.179.36.144 (computer id: 0.9339670484796199) on Wednesday, September 7, 2022 at 05:35 PM US/Eastern timezone.

This user has been authenticated with the following credentials from facebook: display name: Peter Zadoretzky; email: pzadoretzky@oapartners.com; ID: 2754056378060734.

NOTE: Ms. Laura Wright is the Executive Assistant to Superintendent Rechel Anderson. On Friday, September 9, 2022, Ms. Wright telephoned and spoke with Peter Zadoretzky about the proposed SFR Residential Community. Ms. Wright was informed of the project elements, housing types, rental vs. for sale program and other aspects of the proposed community. Mr. Zadoretzky responded to Ms. Wright's few questions after which the conversation ended.

CONDUIT STREET

September 7, 2022

Russell Wells
Director/Fire Chief
P.O. Box 1509 Grays Hwy
Ridgeland, SC 29936

BY ELECTRONIC MAIL 09.07.22 to rwells@jaspercountysc.gov

RE: Master Plan Application Comments
CSP Development - Property Tax Map Number 041-00-03-030

Dear Sir:

My firm, Conduit Street Partners, LLC, is an applicant for a Master Plan approval from the Jasper County Planning Commission as required in accordance with Section 8:1.10 of Article 8: SPECIAL PURPOSE DISTRICTS of the JASPER COUNTY ZONING ORDINANCE. Specifically, and following the June 27, 2022 approval of the rezoning of my property to PDD and the approval of its Concept Land Use Plan, per §8:1.10, ¶10 (copy attached) I am required to seek preliminary comments, if any, from various named agencies including but not limited to Jasper County Emergency Services. Thus, this letter to you and your department. My Master Plan represents a 275-unit residential community comprised of single family detached and single family attached (town houses) to be developed on 38.8 acres on what is now unimproved, forested land with approximately 2,700 feet of frontage on the north side of US 278 immediately to the west of Hilton Head Lakes North. It will be served by public water and sewer (BJWSA) and is already approved by SCDOT for two points of road connections to US 278 and one additional connection to Brickyard Road at Brickyard Road's existing western terminus. For your ease of reference, I have attached the following:

1. Property Aerial
2. Master Plan
3. Jasper County Fire Station and EMS Locations Exhibit
4. The above referenced zoning article §8:1.10, ¶10
5. BJWSA Distribution and Collection System Asset Map (existing water & sewer)
6. Fire Hydrant Pressure Test Results (for two hydrants fronting property)

I have reached out to you in regard to this matter at the suggestion of Ms. Lisa Wagner, Director of Planning and Building Services. If you have any questions or comments, please feel free to contact me by phone (410-703-0896) and/or by email (pzadoretzky@oapartners.com). Your cooperation in this matter is much appreciated.

Regards,
Conduit Street Partners, LLC

Peter Zadoretzky
Co-Managing Member

Attachments
1. Vicinity Map
2. Copy of Master Plan
3. Location and Trip Time Maps for Fire Stations 34 and 35
4. Copy of Section 8:1.10 Master Plan
5. BJWSA Water & Sewer GIS Map
6. Water Flow Test Results for Hydrants JC0176 & JC1389

Exhibit L - Item 2.b

From: Peter Zadoretzky
To: "rwells@jaspercountysc.gov"
Subject: Emailing: Chief Wells CSP Development Introductory Letter 09.07.22
Date: Wednesday, September 7, 2022 4:45:00 PM
Attachments: Chief Wells CSP Development Introductory Letter 09.07.22.pdf

---

Dear Chief Wells - at the suggestion of Ms. Lisa Wagner, Director of Planning and Building Services, I am reaching out to you to advise you that I am seeking Master Plan approval from the Jasper County Planning Commission for my proposed development of a new 275 unit residential community in Jasper County. I hope you find the attached letter and exhibits self-explanatory. If you have any questions or comments, please feel free to contact me directly by phone (410-703-0896) or by email (pzadoretzky@oapartners.com). I thank you in advance for your cooperation in this matter.

Regards,
Conduit Street Partners, LLC
Peter Zadoretzky
Co-Managing Member

Exhibit L - Item 2.c

Peter Zadoretzky

From: Peter Zadoretzky <pzadoretzky@oapartners.com>
Sent: Thursday, September 15, 2022 1:38 PM
To: 'rwells@jaspercountysc.gov'
Subject: FW: Emailing: Chief Wells CSP Development Introductory Letter 09.07.22
Attachments: Chief Wells CSP Development Introductory Letter 09.07.22.pdf

Dear Chief Wells - just want to follow up with you on the email about my project in Jasper County that I will be submitting to Jasper County on September 20th for purposes of seeking Planning Commission approval of its Master Plan on October 11th. When it is convenient for you we would appreciate receiving any comments from you on our project. Please feel free to call or email me. We look forward to hearing from you.
Regards,
Conduit Street Partners, LLC
Peter Zadoretzky
Co-Managing Member

-----Original Message-----
From: Peter Zadoretzky <pzadoretzky@oapartners.com>
Sent: Wednesday, September 7, 2022 4:45 PM
To: 'rwells@jaspercountysc.gov' <rwells@jaspercountysc.gov>
Subject: Emailing: Chief Wells CSP Development Introductory Letter 09.07.22

Dear Chief Wells - at the suggestion of Ms. Lisa Wagner, Director of Planning and Building Services, I am reaching out to you to advise you that I am seeking Master Plan approval from the Jasper County Planning Commission for my proposed development of a new 275 unit residential community in Jasper County. I hope you find the attached letter and exhibits self-explanatory. If you have any questions or comments, please feel free to contact me directly by phone (410-703-0896) or by email (pzadoretzky@oapartners.com). I thank you in advance for your cooperation in this matter.
Regards,
Conduit Street Partners, LLC
Peter Zadoretzky
Co-Managing Member

Exhibit L - Item 2.d

From: Russell Wells
To: Peter Zadoretzky
Cc: Lisa Wagner; Dave Scheuerer
Subject: RE: Emailing: Chief Wells CSP Development Introductory Letter 09.07.22
Date: Monday, September 19, 2022 9:24:41 AM

Good morning Peter,
Based solely on the information provided, we have no objections at present. Prior to plan approval we will need to review the adopted master site plan.

Sincerely,
Russell W. Wells, Director
Jasper County Emergency Services
1509 Grays Hwy
Ridgeland, SC 29936
843-726-7607 - Office
843-726-7966 - Fax
843-263-1316 - Cell
rwells@jaspercountysc.gov

An Equal Opportunity Employer.

Special Accommodations Available Upon Request to Individuals with Disabilities.

-----Original Message-----
From: Peter Zadoretzky <pzadoretzky@oapartners.com>
Sent: Thursday, September 15, 2022 1:38 PM
To: Russell Wells <rwells@jaspercountysc.gov>
Subject: FW: Emailing: Chief Wells CSP Development Introductory Letter 09.07.22

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Regards,
Conduit Street Partners, LLC
Peter Zadoretzky
Co-Managing Member

Exhibit L - Item 3.a

From: Johnson, Joshua A.
To: "Jennifer Bihl"
Cc: Peter Zadoretzky; Jeff Ackerman; Fleming, Juleigh B.; Grooms, Robert W.; Payne, Adam C.
Subject: RE: 278 Residential Development (Conduit Street Partners - Jasper County) Traffic Study - For Review
Date: Thursday, July 7, 2022 2:32:38 PM
Attachments: 220705_278 Residential TIA Report FINAL.pdf

Jennifer,

The US 278 (Brickyard) Residential TIA is accepted with the proposed mitigation of westbound right-turn lanes into the site driveways on US 278. Additionally, as outlined in the scoping and eluded to in the TIA, the site driveway at Brickyard Rd will need to be realigned to a more traditional T intersection.

Please upload the TIA and this approval email with the encroachment application in EPPS.

Thank you,
Josh Johnson, PE, PTOE
District Traffic Engineer | SCDOT District 6

From: Jennifer Bihl <jennifer@bihl-engineering.com>
Sent: Tuesday, July 5, 2022 4:48 PM
To: Johnson, Joshua A. <JohnsonJA@scdot.org>
Cc: Peter Zadoretzky <pzadoretzky@oapartners.com>; Jeff Ackerman <jeffa@carolinaengineering.com>
Subject: 278 Residential Development (Conduit Street Partners - Jasper County) Traffic Study - For Review

Josh,

I hope you had a great holiday weekend!

Please see attached traffic impact analysis for the 278 Residential Development (Conduit Street Partners - Jasper County) traffic study.

Let me know if you have any questions or comments.

Thanks,
Jennifer

Jennifer T. Bihl, PE, PTOE, RSP2I
Bihl Engineering, LLC

Exhibit L - Item 4.a

CAROLINA ENGINEERING CONSULTANTS, INC.

P.O. Box 294
Beaufort, SC 29901

(843) 322-0553
(843) 322-0556 Fax

September 16, 2022

Ms. Pamela Winkler
SCDHEC-OCRM
1362 McMillian Ave. Suite 400
Charleston, SC 29405
Via Email: winklepd@dhec.sc.gov

NOTE: Ms. Pamela Winkler is the responsible party for distribution of submittal materials to the appropriate parites/agencies at both SCDHEC and OCRM.

RE: Proposed Residential Development
Jasper County, SC
J-2488

Dear Ms. Winkler:

Our client, Conduit Street Partners, LLC, is in the process of seeking Master Plan approval from Jasper County for a 38.48-acre tract of land located off of Highway 278. The Master Plan residential community would consist of 275 residential units and an amenity center among things.

Enclosed we have provided a Vicinity Map and the proposed Stormwater Master Plan for the project for your preliminary review and consideration. If you could please review these items and provide to us any comments that you might have and if so inclined an approval letter for the Stormwater Master Plan for our Jasper County Planned Unit Development (PUD) submittal it would be greatly appreciated.

If you have any questions or require any additional information, please do not hesitate to call or email. Your attention to this matter is greatly appreciated.

Sincerely,

Jeff P. Ackerman, P.E.
President
Carolina Engineering Consultants, Inc.

JPA/jpa
Enclosures

cc: Mr. Peter Zadoretzky – Conduit Street Partners, LLC

CAROLINA ENGINEERING
CONSULTANTS, INC.

P.O. Box 294
Beaufort, SC 29901

(843) 322-0553
(843) 322-0556 Fax

September 16, 2022

Ms. Pamela Winkler
SCDHEC-OCRM
1362 McMillian Ave. Suite 400
Charleston, SC 29405
Via Email: winklepd@dhec.sc.gov

NOTE: Ms. Pamela Winkler is the responsible party for distribution of submittal materials to the appropriate parites/agencies at both SCDHEC and OCRM.

RE: Proposed Residential Development
Jasper County, SC
J-2488

Dear Ms. Winkler:

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Enclosed we have provided a Vicinity Map and the proposed Stormwater Master Plan for the project for your preliminary review and consideration. If you could please review these items and provide to us any comments that you might have and if so inclined an approval letter for the Stormwater Master Plan for our Jasper County Planned Unit Development (PUD) submittal it would be greatly appreciated.

If you have any questions or require any additional information, please do not hesitate to call or email. Your attention to this matter is greatly appreciated.

Sincerely,

Jeff P. Ackerman, P.E.
President
Carolina Engineering Consultants, Inc.

JPA/jpa
Enclosures

cc: Mr. Peter Zadoretzky - Conduit Street Partners, LLC

Newkirk
ENVIRONMENTAL INC.
Charleston, SC • Beaufort, SC

December 17, 2021

US Army Corps of Engineers
Attn: JD Request
Watershed Group 2 Manager
69A Hagood Avenue
Charleston, SC 29403-5107

RE: Coleman Tract
Beaufort County, South Carolina

Dear Sir or Mam,

Reference is made to parcel in Jasper County, South Carolina. The wetland determination of this area has been completed by Newkirk Environmental, Inc. using methods outlined in the US Army Corps of Engineers Wetland Delineation Manual, 1987 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, November 2010.

Enclosed are copies of an accurate location map, an aerial photograph, Soil Survey, data sheets representing typical site conditions, a map depicting the data point locations, USGS topographic survey, NWI maps, survey plat and photographs of the site. Please review this information to verify the accuracy of Newkirk Environmental, Inc.'s preliminary determination.

Please do not hesitate to call if you have any questions regarding this project, if additional information is needed or to schedule a site visit.

Sincerely,

J. Asher Howell

Asher Howell, Senior Biologist
Beaufort, South Carolina

Enclosures

Exhibit L - Item 6.b

Peter Zadoretzky

Subject: FW: SAC-2022-00924 (Coleman Tract)

Asher Howell
73 Sea Island Parkway, Suite 23
Beaufort, SC 29907
O – 843-470-1031
M- 843-810-3447
asher@newkirkenv.com

From: Peter Zadoretzky <pzadoretzky@oapartners.com>
Sent: Thursday, June 16, 2022 2:29 PM
To: Asher Howell <asher@newkirkenv.com>
Subject: RE: SAC-2022-00924 (Coleman Tract)

Thanks Asher.
Peter

From: Asher Howell <asher@newkirkenv.com>
Sent: Thursday, June 16, 2022 2:22 PM
To: Peter Zadoretzky <pzadoretzky@oapartners.com>
Subject: FW: SAC-2022-00924 (Coleman Tract)

We are officially logged in this time.

Asher

Asher Howell
73 Sea Island Parkway, Suite 23
Beaufort, SC 29907
O – 843-470-1031
M- 843-810-3447
asher@newkirkenv.com

From: SAC.RD.Charleston <SAC.RD.Charleston@usace.army.mil>
Sent: Thursday, June 16, 2022 2:12 PM
To: Asher Howell <asher@newkirkenv.com>
Cc: Estill, Leslie A CIV USARMY CESAC (USA) <Leslie.A.Estill@usace.army.mil>
Subject: SAC-2022-00924 (Coleman Tract)

Exhibit L - Item 6.b

Mr. Howell,

The Charleston District Corps of Engineers has received your application and the project has been assigned a project number and project manager:

SAC Number:	SAC-2022-00924
Applicant:	Peter Zadoretzky
Project name:	Coleman Tract
Project Manager:	Leslie Estill

Direct all future inquiries to your Project Manager by email Leslie.A.Estill@usace.army.mil or (843) 329-8039. In all future correspondence concerning this matter, please refer to the file number above.

Additional information about the Charleston Regulatory Program can be found on our website: https://www.sac.usace.army.mil/Missions/Regulatory/Permitting-Process/

Thank you,

Erin Leach-Ogden
Regulatory Program Technician
US Army Corps of Engineers, Charleston District
843-329-8224
Erin.H.Leach-Ogden@usace.army.mil

Complete our Regulatory Service Survey at
https://regulatory.ops.usace.army.mil/customer-service-survey/

EXHIBIT M:

PROJECT NARRATIVE, PHASING, SCHEDULE AND SITE STANDARDS

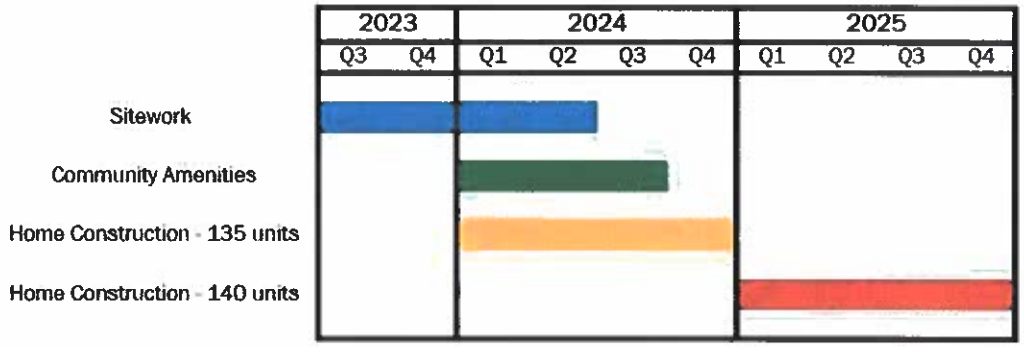
EXHIBIT M
CSP DEVELOPMENT
MASTER PLAN NARRATIVE STATEMENT
INCLUDING OWNERSHIP, SCHEDULE
AND SITE PLANNING STANDARDS

GENERAL COMMUNITY DESCRIPTION, OWNERSHIP AND MAINTENANCE:

The proposed CSP Development depicted in the attached Master Plan represents a residential, single family for rent ("SFR") community which includes an appropriate and generous mix of amenities and house types. Most of the homes come with two (2) car garages and those homes that do not have garages are provided dedicated surface parking spaces either in front of or in close proximity to their homes. Unlike "for sale" residential communities, all the homes, amenities and infrastructure, net of public water and sewer, are owned, controlled, and maintained by the developer/owner or its successor. All these improvements are located on one large parcel owned by the developer/owner as there is no subdivision. There are no "house lots". There is no HOA. There are no HOA fees. Residents will lease their homes the maintenance of which will be the responsibility of the developer/owner apart from damage due to the home, its elements, appliances, and components due to abuse or misuse by the lessee, their guests and/or invitees. Otherwise, and by way of example, the leaky roof, the misbehaving refrigerator, dishwasher, or other appliances, including the home's HVAC repairs and major maintenance responsibilities, including the possible replacement of these things, are the responsibility of the developer/owner...including the payment of real estate taxes. The maintenance, replacement and repairs of all onsite roads, sidewalks, open spaces, landscaping, SWM facilities and amenities are also the responsibility of the developer/owner. Like multifamily rental complexes, the owner/developer at its cost will provide onsite 7 day/365 property management services to address the requirements of maintaining a safe and first-class property for its residents. In exchange naturally, the residents will pay rent and they will pay for their own utility expenses. It is the intent of ownership that these are long term rentals as is customary of contemporary SFR communities.

PROPOSED PHASING AND TIME SCHEDULE:

CONCEPTUAL DEVELOPMENT SCHEDULE



The above schedule is subject to change by the owner/developer and is not guaranteed.

EXHIBIT M
MASTER PLAN NARRATIVE STATEMENT

PROPOSED PHASING AND TIME SCHEDULE FOR LANDS TO BE DEDICATED FOR PUBLIC FACILITIES:

The Master Plan does not presently anticipate any land being dedicated for public facilities save and except public utility easements and the like to accommodate installation of and access to public water and sewer infrastructure constructed on and within the community.

PROPOSED INTERNAL SITE PLANNING STANDARDS:

A. Roads

1. The CSP Development shall have on-site roads designed and constructed to the standards of the Jasper County Land Development Regulations or other engineering standards reasonably acceptable to the Jasper County Engineer.
2. Roadway construction within SCDOT right-of-way's will be in accordance with SCDOT standards. This will principally be required at roadway connections as approved by SCDOT to US 278 and Brickyard Road.
3. All onsite roads shall be privately owned and maintained.
4. The typical interior roadway cross section shall consist of a 24' wide asphalt paved travel way with concrete curb and gutter and 5' wide sidewalks each side.
5. The CSP Development shall meet or exceed the minimum allowable post development tree coverage requirements of Jasper County.

B. House Placement

1. There is not a subdivision of the property and consequently there are no "house lots". Homes will be located on un-platted sites. Therefore, the following proposed standards shall be utilized in the positioning and orientation of homes within the community:
    a. Front setbacks from edge of sidewalk shall be a minimum of 22' for garage units
    b. Front setbacks from edge of sidewalk shall be a minimum of 7' for non-garage SFA units
    c. Separation between single family detached homes shall be 10' or as otherwise required by the Jaser County Fire Marshal
    d. Backyards shall be a minimum of 15'

C. Buffers

1. Perimeter buffers along the property boundaries to the east, west, and to the north of the community (adjacent properties to east and north are jurisdictional wetlands and/ or flood plains) shall be 20 feet at a minimum. See the proposed Master Plan for perimeter buffers.
2. A minimum 50' wide buffer measured from and parallel to the US 278 ROW shall be established pursuant to and in accordance with **8:5.3 Highway Buffer** of the Zoning ordinance.
3. Except as specifically excluded within the US 278 corridor buffer area, allowable uses in buffer areas shall include but not necessarily be limited to:
    a. Underground utilities
    b. Stormwater management facilities
    c. Boardwalks
    d. Trails

e. Bicycle trails
f. Bridges
g. Exercise stations
h. Park improvements, i.e., benches, tables, shelters, fire pits, BBQ facilities, landscaping, gardens, and similar improvements

EXHIBIT N:

LETTERS OF CAPABILITY AND INTENT TO SERVE

EXHIBIT N
AVAILABILITY TO SERVE LETTERS
CSP DEVELOPMENT

Included are:

1. BJWSA Availability to Serve - 1 of 4

2. Domninion Energy - 2 of 4

3. Palemetto Electric Cooperative, Inc. - 3 of 4

4. Hargray Communications Group, Inc. - 4 of 4

EXHIBIT N
1 OF 4
BJWSA AVAILABILITY TO SERVE LETTER

BEAUFORT – JASPER WATER & SEWER AUTHORITY

[redacted] ROAD, OKATIE, SC 29909-3937
Phone 843.987.8100 | Fax 843.548.0096
Customer Service 843.987.9200
Operations & Maintenance 843.987.8046
Engineering 843.987.8065
www.bjwsa.org

Our mission: Inspire trust and enhance public health

JOE MANTUA, PE, GENERAL MANAGER

January 14, 2022

Peter Zadoretzky
OA Partners, LLC
Conduit Street Partners, LLC
59 Franklin Street
Annapolis, MD 21401

Via email: pzadoretzky@oapartners.com

Subject: Water and Sewer Availability – Independence Boulevard, PIN 041-00-03-030.

Dear Ms. Zadoretzky,

This letter is in response to the water and sewer availability request for the above referenced parcel. Water is available from BJWSA's existing 30" water main on Independence Boulevard. Gravity sewer is not currently available; however, there is a 24" wastewater force main located within the Independence Boulevard right of way. Sewer would require a pump station to be installed at the owner/developer's expense. Please be advised, depending on the amount of water and sewer capacity required to serve the development, the developer maybe responsible for offsite improvements or upgrades to the existing system.

If or when your client wishes to proceed with this development, design drawings and calculations must be submitted to BJWSA's Engineering Department for review and approval. Upon approval, capacity and project fees will be determined based on the information provided. These fees must be paid in full before a capacity commitment can be issued or a pre-construction meeting may be held. If construction on the proposed water and sewer systems has not started within twelve (12) months from the date of this letter, this availability will be invalid.

Should you have questions or require additional information, please contact me at 843-987-8082 or james.clardy@bjwsa.org.

Sincerely,

James Clardy
Development Projects Manager

JBC/mya

EXHIBIT N
2 OF 4
DOMINION AVAILABILITY TO SERVE LETTER

Natural Gas Letter of Availability

1/13/2022

CSP Development
Single Family Rental Community
U.S. 278
Hardeeville, SC 29927

I am pleased to inform you that Dominion Energy South Carolina will be able to provide natural gas service to the above referenced. Natural gas service can be provided in accordance with Dominion Energy's General Terms and Conditions, other documents on file with the South Carolina Public Service Commission, and the company's standard operating policies and procedures. In order to begin the design process for the project, the following information will need to be provided:

1. Site Plan / Cad File / PDF
2. Natural Gas load breakdown by anticipated appliance type with desired metering locations.
3. Estimated wanted by date for gas line installation

Thank you in advance for this information and I look forward to working with your company.

For more information or questions, don't hesitate to contact me.

Sincerely,

Jake Baker

Account Manager III – Natural Gas
Dominion Energy South Carolina

81 May River Rd. Bluffton, SC 29910
P (843) 576-8911 • M (843) 412-5178
jake.baker@dominionenergy.com

EXHIBIT N
3 OF 4
PALMETTO AVAILABILITY TO SERVE LETTER

PALMETTO
ELECTRIC COOPERATIVE INC.

1 Cooperative Way Hardeeville, SC 29927 843-208-5551

January 14, 2022

Peter Zadoretzky
pzadoretzky@oapartners.com
OA Partners, LLC
Conduit Street Partners, LLC
59 Franklin Street
Annapolis, MD 21401

Re: CSP Development

Dear Peter:

Palmetto Electric Cooperative, Inc. ("PECI") has ample power available to serve the above-referenced project with existing infrastructure. There may be "Aid-in-Construction" charges for line extensions or special grades of service as described in PECI policies. A redline drawing will be provided when the electrical load requirements and a detailed CAD drawing have been received.

Thank you for your cooperation in this matter. Please contact me at (843) 208-5508 or via email TBrabham@palmetto.coop if you have any questions or if I may be of further assistance.

Sincerely,
PALMETTO ELECTRIC COOPERATIVE, INC.

John A. Brabham
Distribution Engineer

JAB:mhl

c: Mr. Matt Loxley, PECI
Mr. Corey Tuten, PECI
Mr. Tim Hutchinson, PECI

EXHIBIT N
4 OF 4
HARGRAY AVAILABILITY TO SERVE LETTER

HARGRAY

January 14, 2022

Peter Zadoretzky
Conduit Street Partners, LLC
50 Franklin Street
Annapolis, MD 21401

Dear Mr. Zadoretzky:

Subject: Letter of Availability to provide service for: **CSP Development Independence Blvd**
Jasper County Pin 041-00-03-030

Hargray engineering services has reviewed the master plan for the above referenced project. This Letter of Availability is to report that Hargray can provide telecommunications service to the above referenced project. We request that you forward a digital copy of the plan that has been approved by the county or town for use with Micro station or AutoCAD. Our office will include the owner/developer conduit requirements on the plan and return it to your office.

By accepting this Letter of Availability, you accept the responsibility to forward the construction requirements listed on the Project Application Form to the owner/developer.

Where conduits are to be placed in commercial or subdivision areas the pipes are required to extend 5' (five feet) beyond any placed or planned curbed or sidewalk edge for facility access away from the roadside.

Should there be any changes or additions to the original master plan, this Letter of Availability will only cover areas shown on the original master plan. All changes or additions will require another Letter of Availability. All costs incurred by Hargray resulting from any requested change or failure to comply with minimum requirements shall be borne by the Developer.

Commercial projects require a pre-construction meeting with Hargray to review requirements. Non-recurring charges to offset construction costs may apply to certain projects. Easements are required prior to installing facilities for the project.

I am available to discuss these requirements at your convenience.

Sincerely,

Rodney Cannon

Rodney Cannon
Manager, Facilities Engineering
843-815-1697

EXHIBIT O:

STATEMENT OF CHARACTER AND RATIONALE OF MASTER PLAN

EXHIBIT O
STATEMENT OF CHARACTER & RATIONALE
OF THE
MASTER PLAN

Single family rental homes have been an important part of the US rental housing market for decades. Individual investors have long owned houses they rent to a wide variety of tenants, including families, unrelated groups, and renters by choice. Single family rentals make up about 39% of the overall US rental housing inventory, with multifamily apartments composing 58% and manufactured housing accounting for 3%. The majority of single-family rental stock is more than 40 years old, with relatively little constructed over the past ten or more years. Institutional investment in single family rental homes began to grow following the end of the global financial crisis of 2008 to 2012 period where investors started to purchase deeply discounted houses to rent out. But these homes at those times were mostly scattered across many metro areas, which made the managing of these rental houses inefficient and uneconomical not to mention that there wasn't anything in the way of standards in terms of product types, layouts, appliances, and systems. During and immediately following the end of the global financial crisis of that time single family rental homes were purchased mostly on a one-off basis by investors in a variety of ways including purchasing homes on the open market, through foreclosures, and in bulk sales. And naturally most of these acquisitions were made in areas where the housing bust was the greatest including areas such as Phoenix, Atlanta, and in many other similar markets. Although these investors used the scattered site approach, they ultimately began to shift towards purpose-built single-family rental communities.

With the shift to single family rental ("SFR") communities, which are also generally referred to as build-to-rent ("BTR") communities, investors/owners maximized efficiency and cost control by virtue of control over design, materials, home systems, etc., which also led to lower operating and maintenance costs over time. In addition, the single-family rental communities could mirror "for sale" residential communities in the way of types of homes including single family detached as well as attached townhouse style homes. Furthermore, these homes do include garages, off street parking and private and individual outdoor spaces associated with each home unlike your customary and traditional apartment building complexes. Historically single-family rental communities provide more amenities and space in comparison to their apartment complex competitors resulting in a higher level of quality of life for their residents as well as lower turnover rates and vacancy rates especially in comparison to apartment rates.

Single family rental communities, especially the community in connection with this master plan application, will appeal to a wide range of tenants including but not limited to young families, empty nesters, temporary residents, and workers that otherwise cannot afford to purchase a home in proximity to their places of employment in the greater Beaufort County and Jasper County areas. The CSP SINGLE FAMILY RESIDENTIAL RENTAL COMMUNITY shall provide a viable

alternative to "for sale" and "multifamily" complexes by providing a variety of thoughtfully designed and constructed homes with front and back yards, driveways and sidewalks, garages, parks and a full range of amenities and generous amounts of open space in addition to the quality professional management and operational services provided by its owner.