



Municipal Planning Commission
Portland City Hall
100 South Russell Street
Portland, TN 37148
5:00 PM

A. Roll Call

B. Approval Of Agenda

C. Approval Of Minutes

D. Public Comments

Anyone wishing to speak for or against an item on the agenda will have 5 minutes to do so and must sign-in on the public comment sheet before the start of the meeting.

E. Public Hearings

1. A Request By Andy Leath (Applicant) For Rezone Approval Of The Munday College Street Preliminary Master Plan Development For A Parcel Of About 9.08 Acres +/- At 403 College Street (Tax Map 033A, Group A, Parcel 005.01) From R-7.5 (Medium Density Single Residential) To RM-1(High Density Residential) Plan Unit Development (PUD).

F. Old Business

G. New Business

1. A Request By Andy Leath (Applicant) For Rezone Approval Of The Munday College Street Preliminary Master Plan Development For A Parcel Of About 9.08 Acres +/- At 403 College Street (Tax Map 033A, Group A, Parcel 005.01) From R-7.5 (Medium Density Single Residential) To RM-1(High Density Residential) Plan Unit Development (PUD). Design Review Included.

Documents:

[MUNDAY COLLEGE STREET RM1 PUD STAFF REPORT.PDF](#)

2. A Request By Zach Wilkinson (Applicant) For Ruby Springs Final Master Development Plan (PUD) Approval For A Parcel Of About 30.85 Acres +/- At 780,782,784 College Street (Tax Map 034, Parcel 072.07,072.09) With A Base Zoning R-15 (Residential). A Request By Zach Wilkinson (Applicant) For Rezoning Approval For A Parcel Of About 7.34 +/- Acres At 784 College Street (Tax Map 034, Parcel 072.10) Zoned From RS-40 To R-15 (Residential PUD). With A Base Zoning Of R-15.
3. A Request By Andy Leath (Applicant) For Site Plan Approval For Shoals Parking Lot And Building Expansion, Location 1400 Shoals Way, (Tax Map 018, Parcel 015.01) 25

Acres +/- Zoned IG (Industrial General). Design Review Included.

Documents:

[SHOALS WAY PARKING AND BUILDING EXPANSION STAFF REPORT.PDF](#)

4. A Request By Zach Wilkinson (Applicant) For Final Plat Approval For Magnolia Springs Subdivision Section VI (Sumner Tax Map 16, Parcel 031.03) Of About 13.35 Acres +/- Location Magnolia Springs Road. Zoned RS-20 (Residential).

Documents:

[MAGNOLIA SPRINGS FINAL PLAT STAFF REPORT.PDF](#)

5. Amend Zoning Ordinance 387:

- 4-404: Residential accessory buildings and/or structures.
- 4-404.1: Accessory buildings.

Documents:

[ACCESSORY BUILDINGS- CARPORT ORDINANCE.PDF](#)

H. Presentations

1. BYPASS GIS

I. City Planner's Comments

J. Planning Commission Member Comments

K. Adjournment



Project Name: Munday College Street RM1 PUD

IDT: 1066863

Current Zoning: R7.5

Total Units: 60

Applicant: Greenlid

Type: Multi Family- Townhomes

Location: College Street

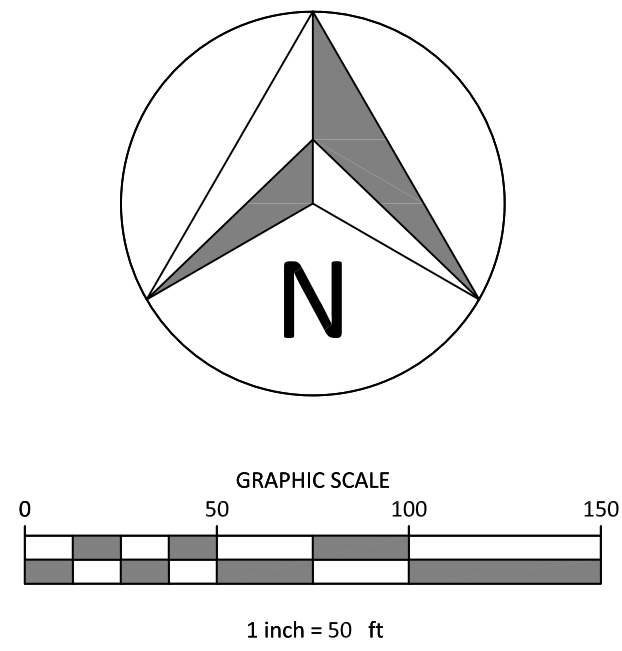
SITE DATA TABLE	
OWNER / DEVELOPER	C & C BUILDING GROUP, INC. 915A DOBBINS PIKE GALLATIN, TN 37066
SITE LOCATION	403 COLLEGE STREET
TAX MAP	033A, GROUP A
PARCEL	PARCEL 005.01 RB. 2762, PG. 22
ACREAGE	± 9.08 ACRES
CURRENT ZONE	R-7.5
REQUESTED ZONE	RM-1 PUD
EXISTING USE	VACANT
PROPOSED USE	DWELLING, TOWNHOME

PARKING REQUIREMENTS		
TYPE	REQUIRED SPACES	PROPOSED SPACES
RESIDENTIAL - SINGLE-FAMILY	(2 SPCS / UNIT) x 60 UNITS = 120	120
	OVERFLOW SPACES = 22	TOTAL SPACES
		142



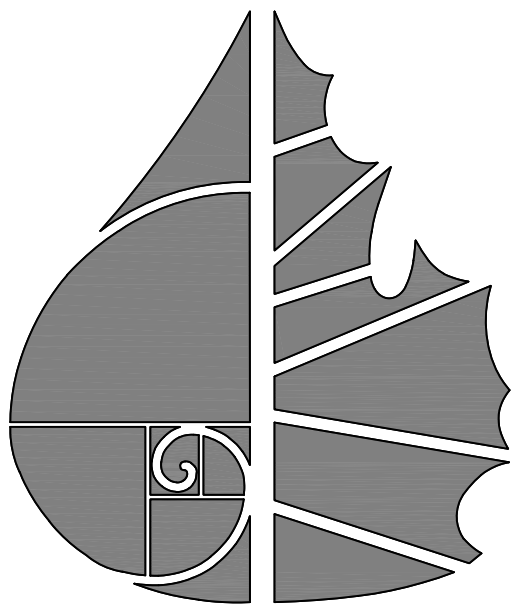


LAND USE AREA TABLE	
USE	AREA
ROADS	0.748 ACRES
SIDEWALK	0.268 ACRES
TOWNHOMES	0.520 ACRES
DRIVEWAYS	0.913 ACRES
REAR YARD	1.100 ACRES
USABLE OPEN SPACE	4.355 ACRES
UNUSABLE OPEN SPACE	0.553 ACRES
FLOOD PLAIN	1.178 ACRES

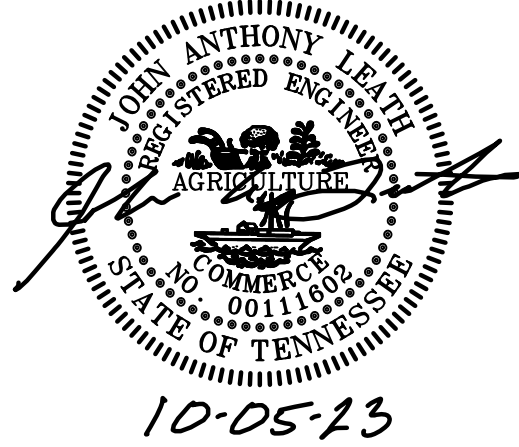


LEGEND

- CONCRETE MONUMENT (OLD)
- CONCRETE MONUMENT (NEW)
- IRON ROD (OLD)
- IRON ROD (NEW)
- BENCHMARK
- BOUNDARY LINE
- BUFFER
- SETBACK / YARD
- PUDE
- EXTRUDED CURB
- SS SANITARY SEWER LINE
- W WATER LINE
- G GAS LINE
- OHE OVERHEAD UTILITY LINE
- UGT UNDERGROUND UTILITY LINE
- FENCE
- TREE LINE
- UTILITY POLE
- UTILITY POLE W/ LIGHT
- GUY ANCHOR
- TELEPHONE MANHOLE
- ELECTRIC JUNCTION BOX
- CABLE PEDESTAL
- SANITARY SEWER MANHOLE
- WATER METER
- WATER VALVE
- BLOW OFF VALVE
- AIR RELEASE ASSEMBLY
- FIRE HYDRANT
- GAS METER
- GAS VALVE
- A/C PAD



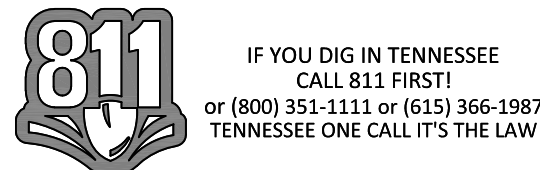
114 B West Main Street
Gallatin, TN 37066
615-230-7269
andy.leath@greenliddesign.com



MUNDAY - COLLEGE STREET
PLANNED UNIT DEVELOPMENT
403 COLLEGE STREET
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

NO.	DATE	REVISION	PER CITY COMMENTS
1	07/17/23		PER CITY COMMENTS
2	08/31/23		PER CITY COMMENTS
3	10/05/23		PER CITY COMMENTS

SHEET NO.
C 3.0
SHEET 4 OF 6
PROJ #21.122G 01 APRIL 2022



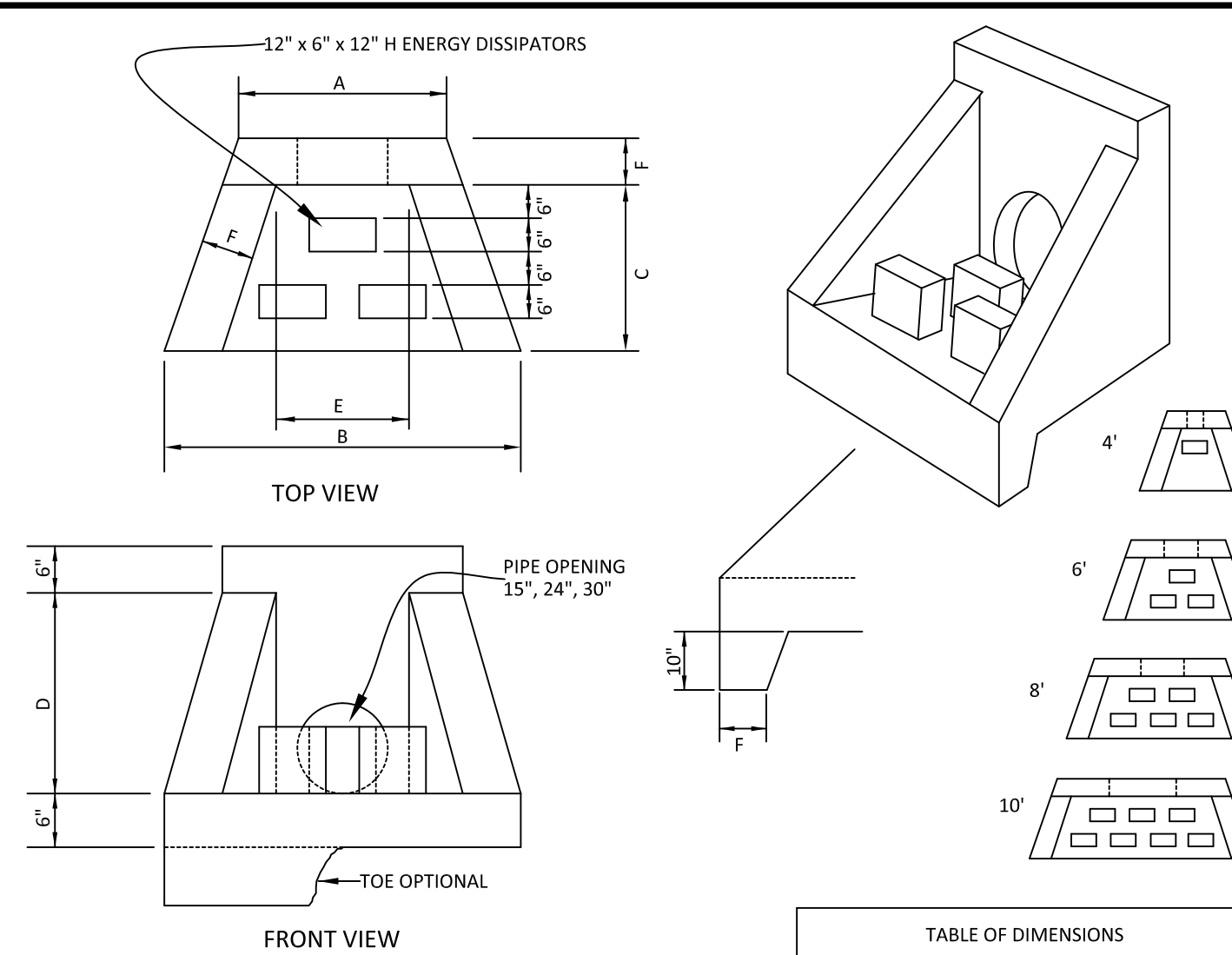
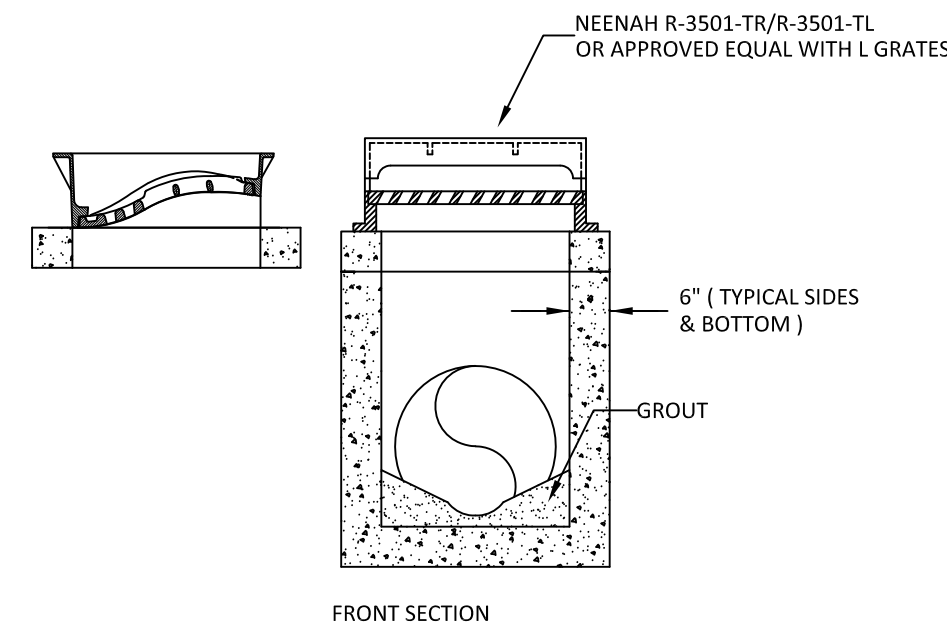
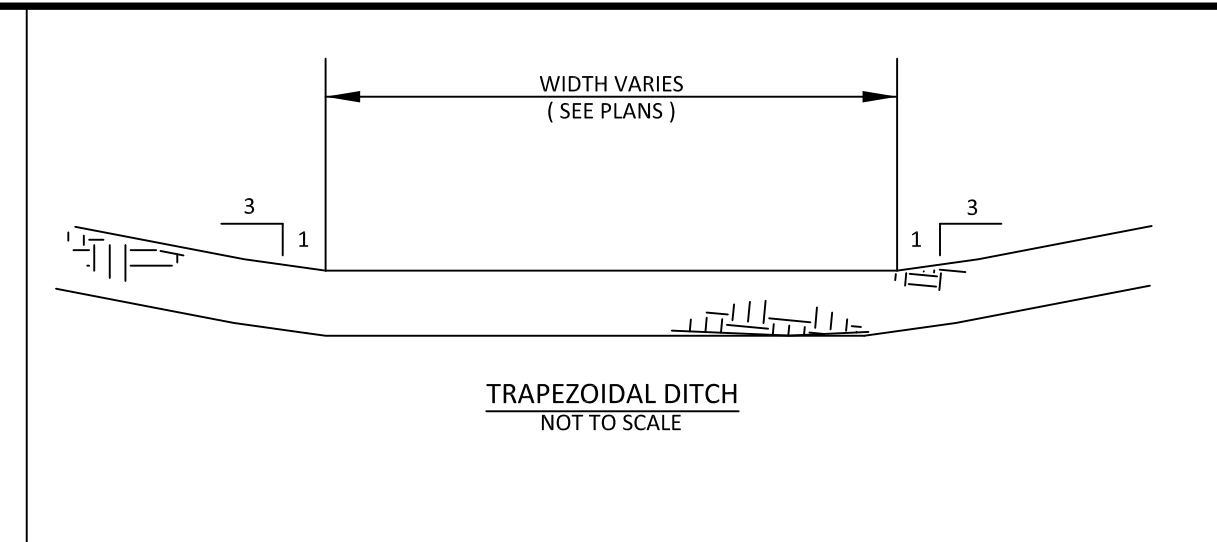
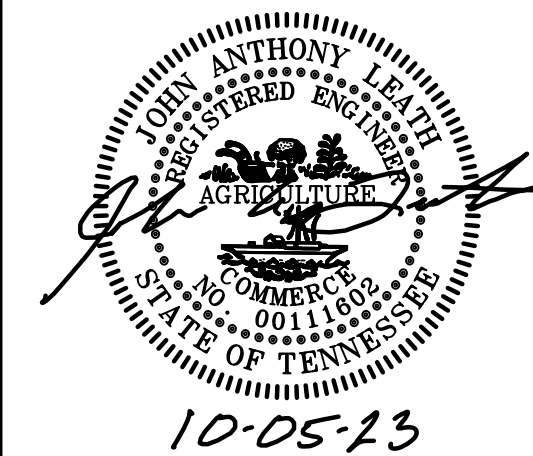
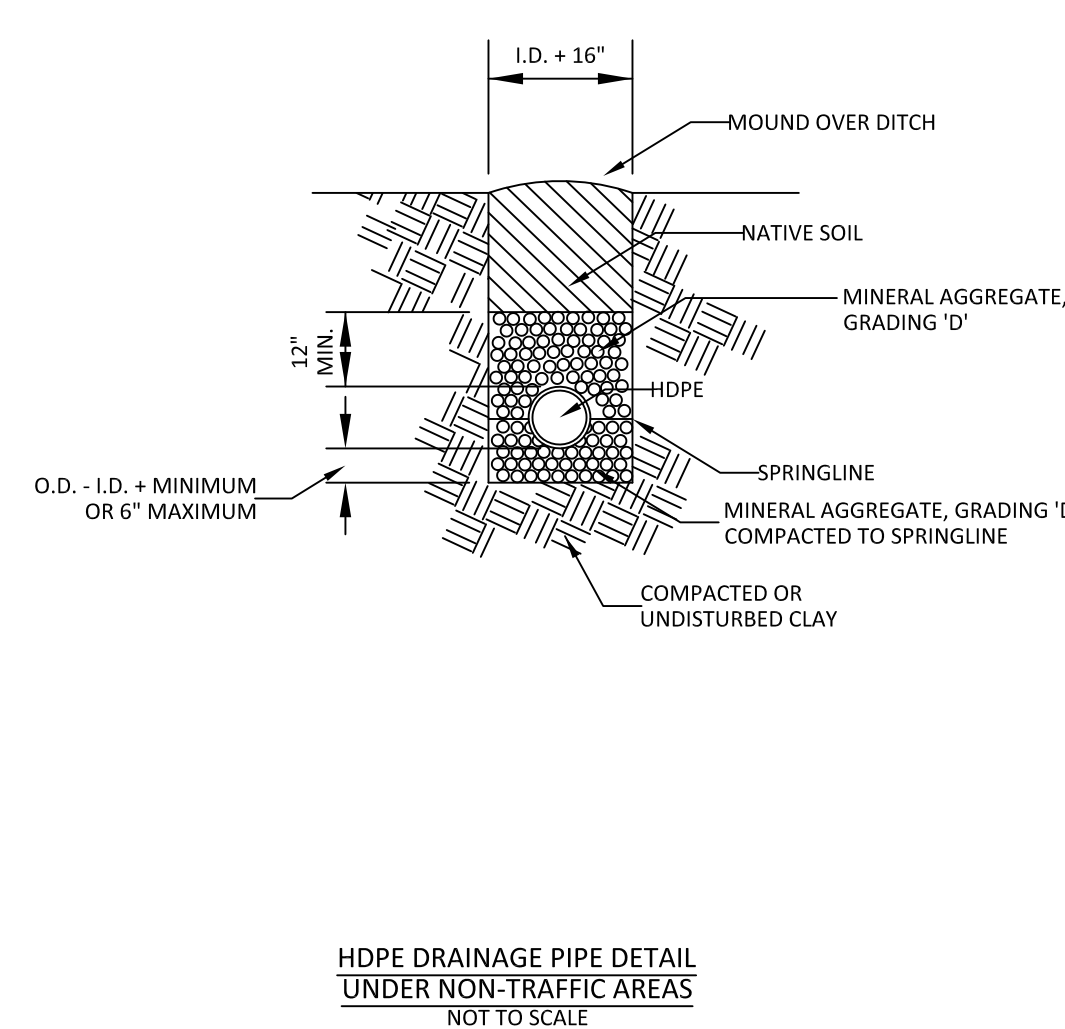
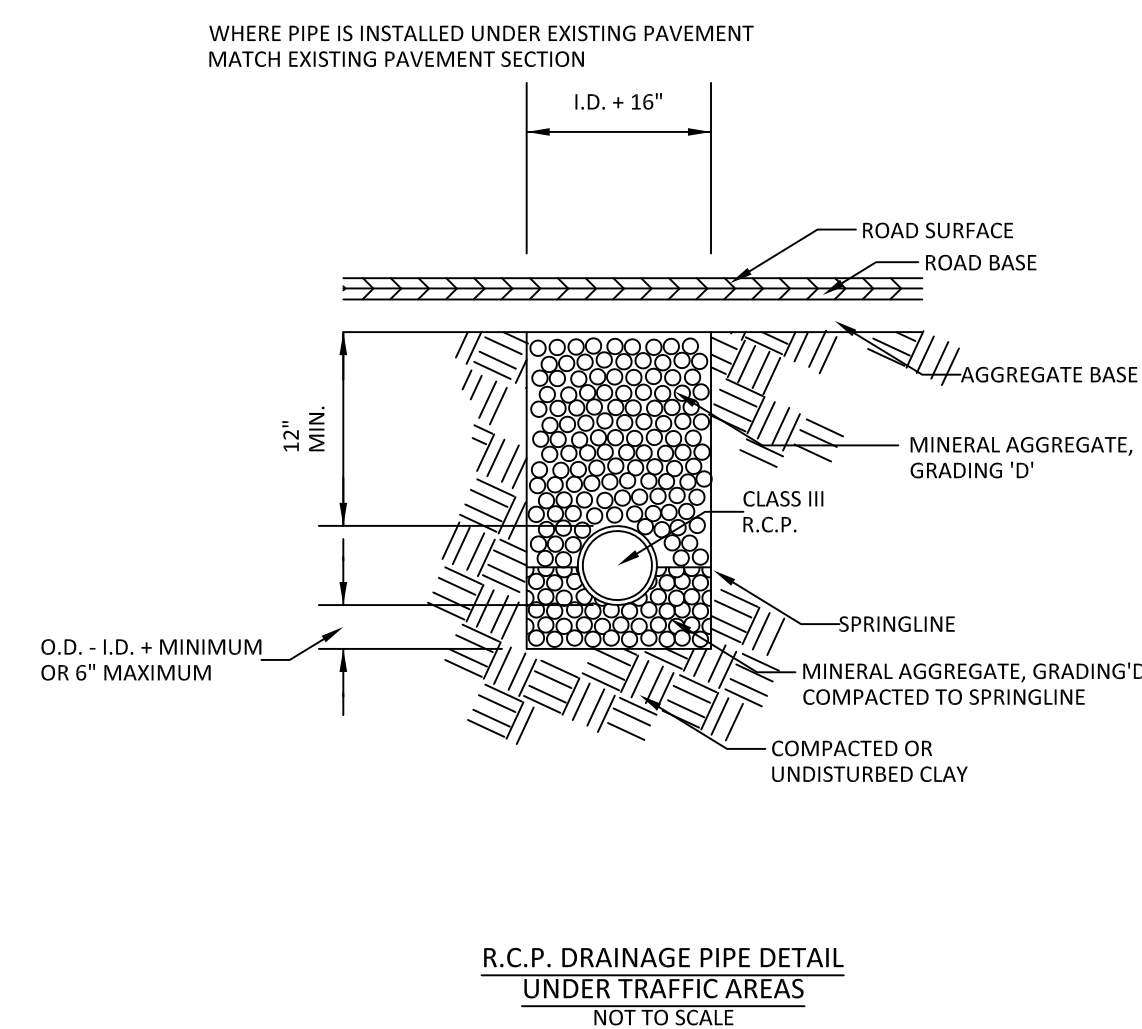
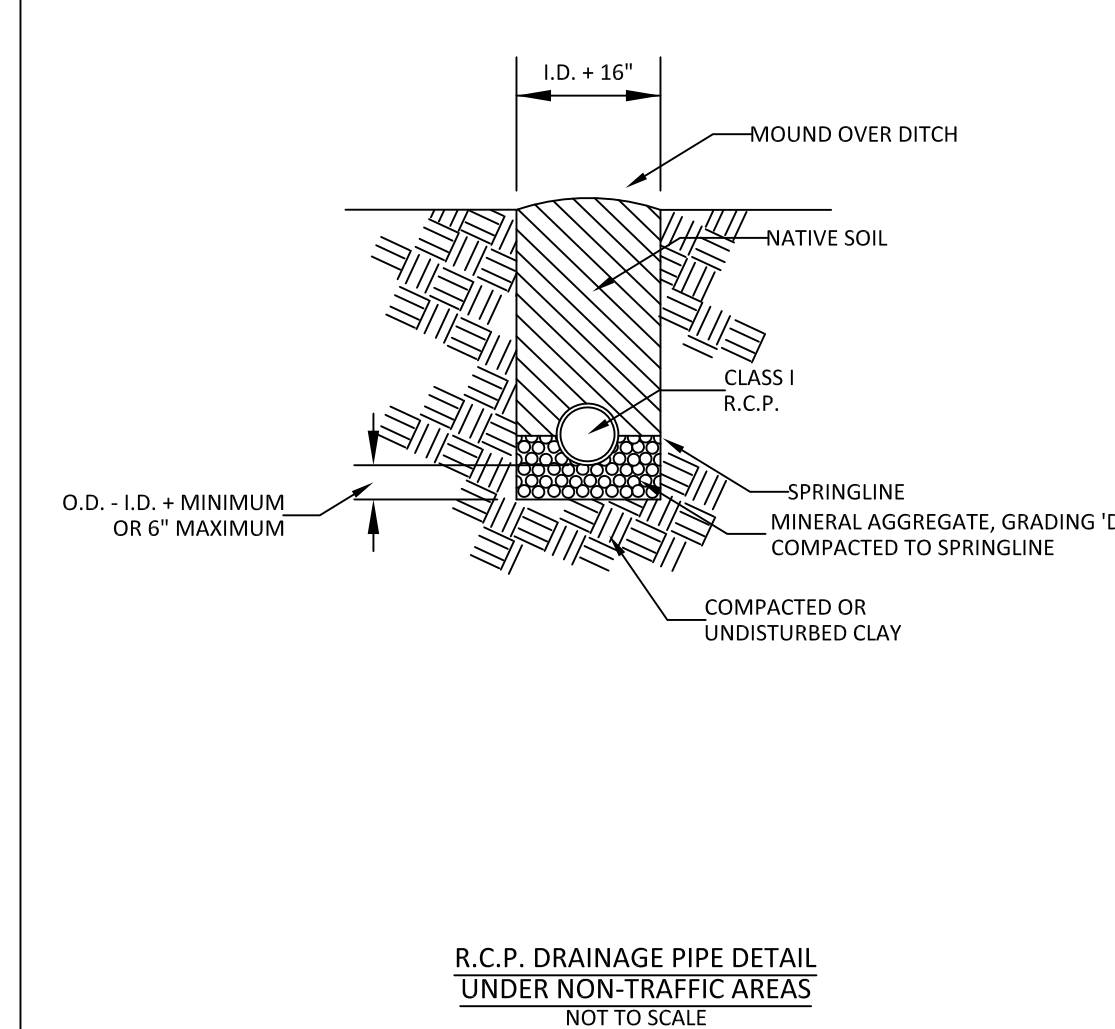
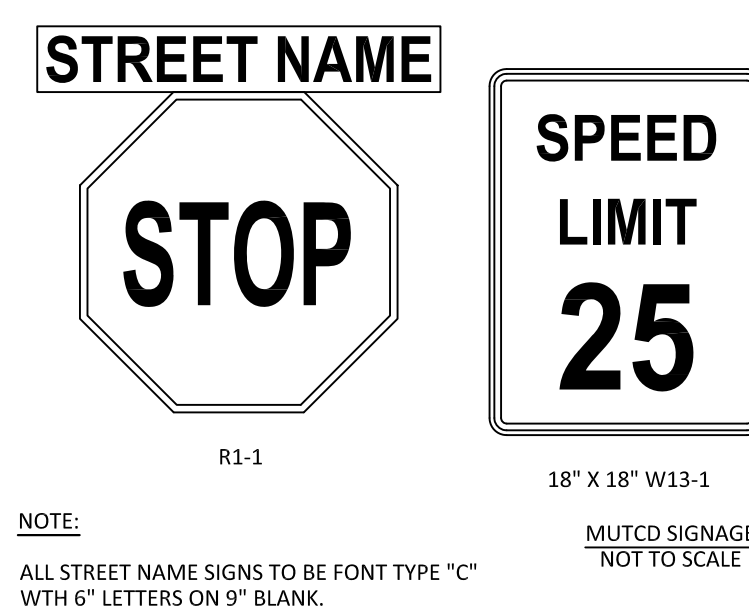
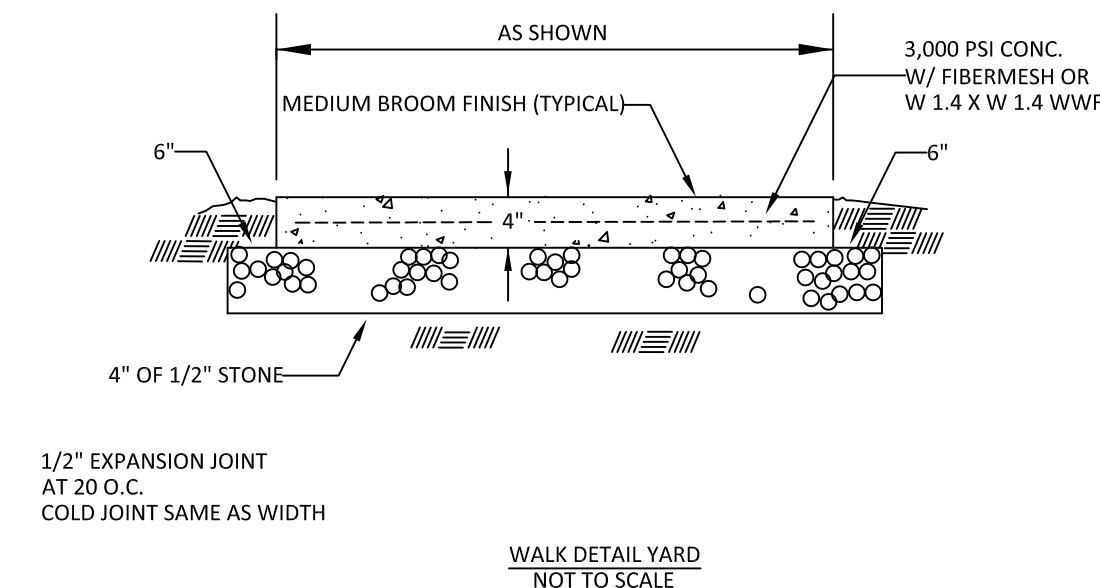
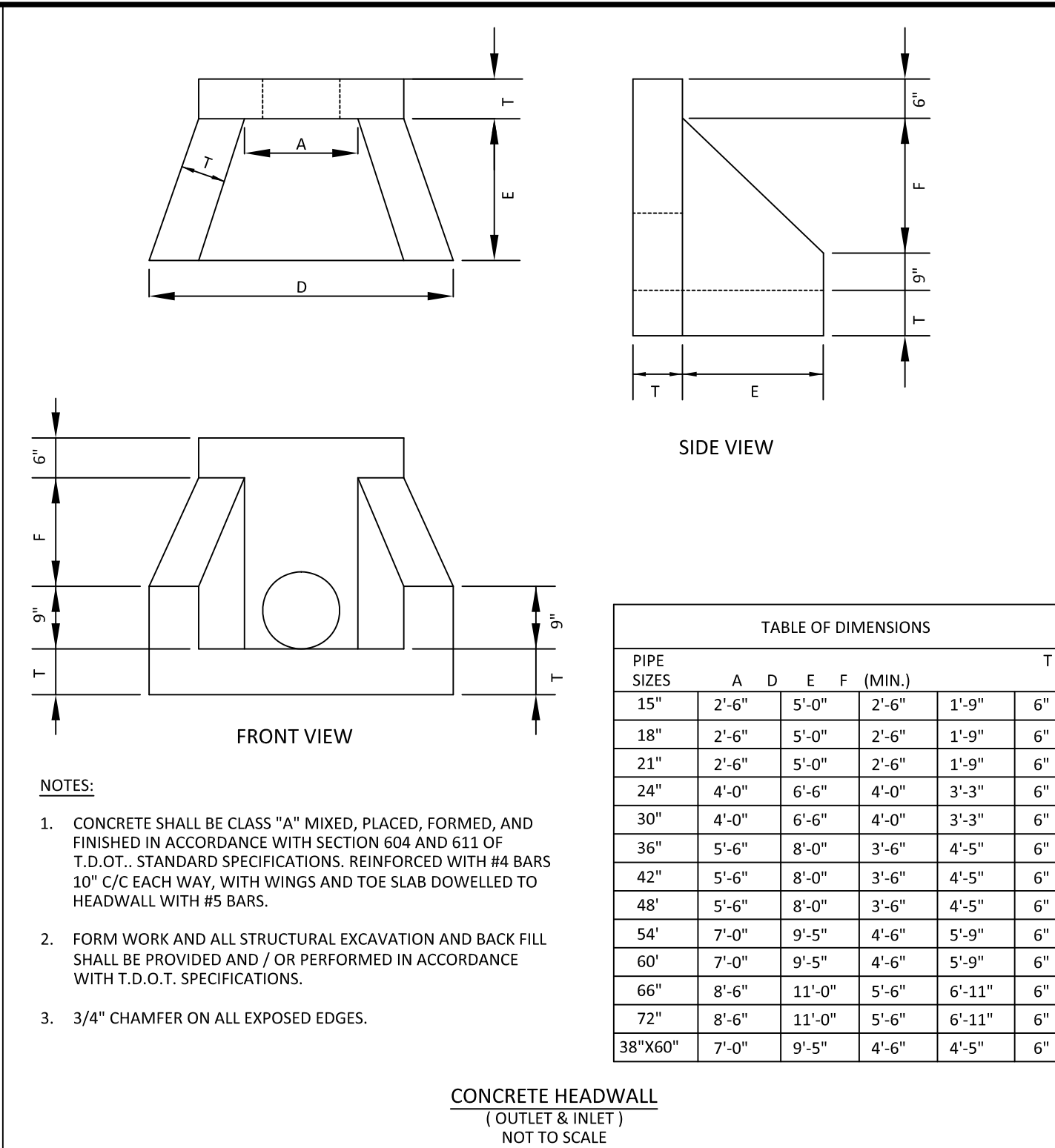
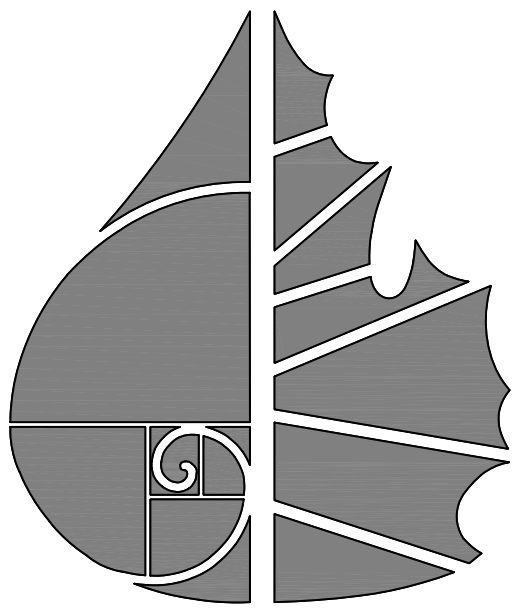
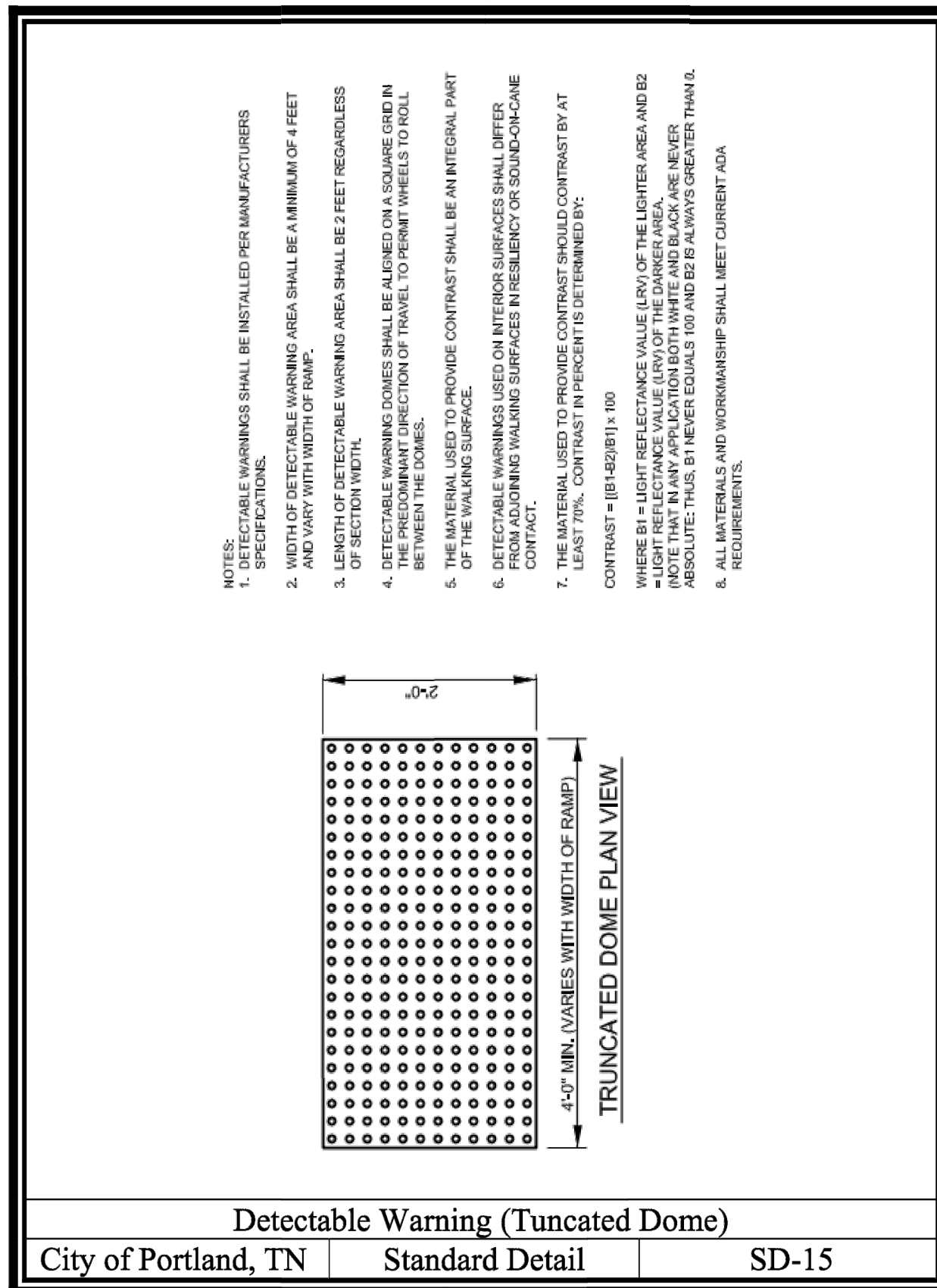
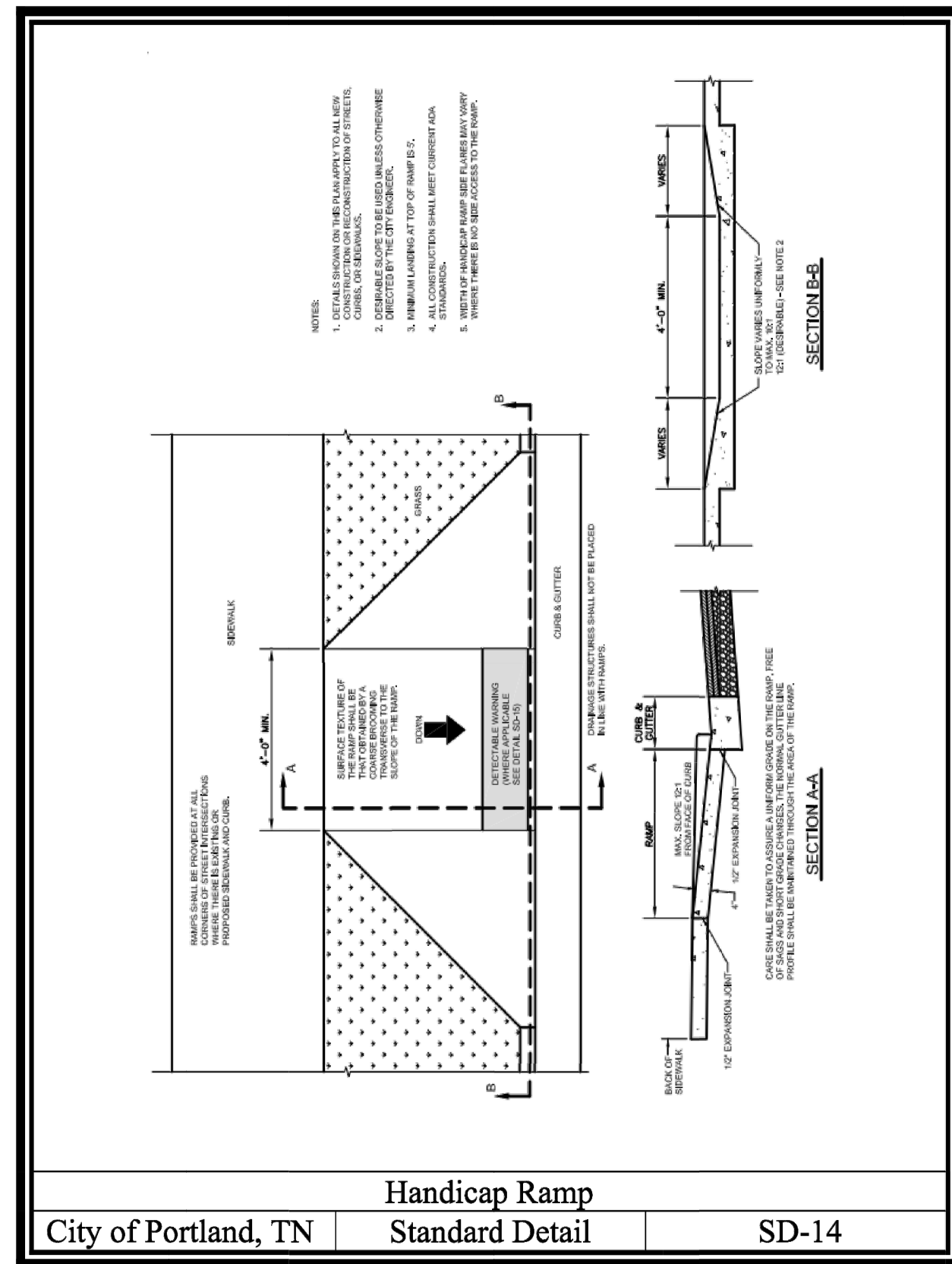
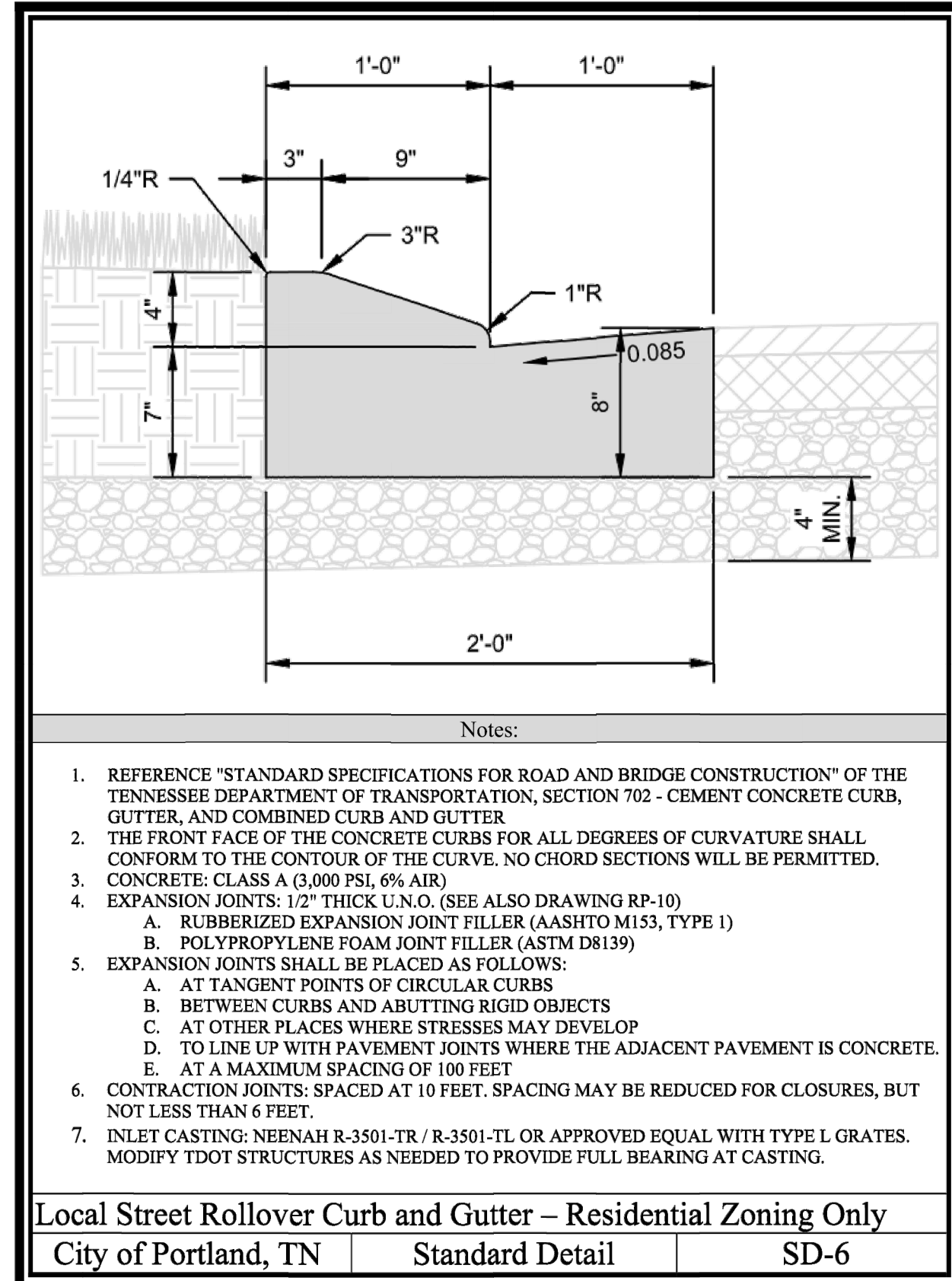
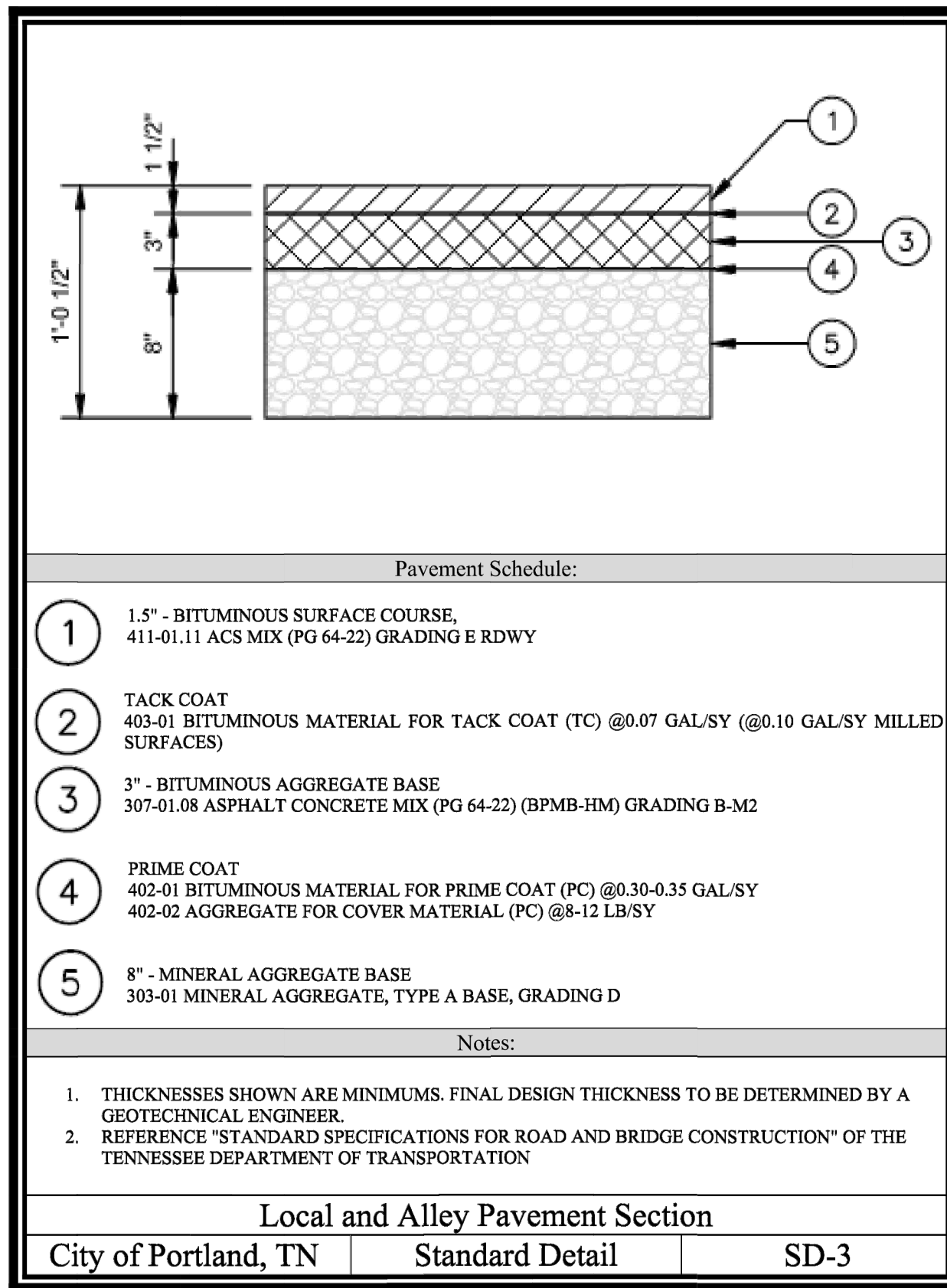


TABLE OF DIMENSIONS				
SIZE	4'	6'	8'	10'
A	32"	48"	72"	96"
B	48"	72"	96"	120"
C	30"	44"	50"	56"
D	25"	36"	52"	66"
E	24"	36"	59"	83"
F	NA	8"	8"	8"
MAX. OPG.	18"	26"	40"	60"
WT./#	1090	3130	5625	8575



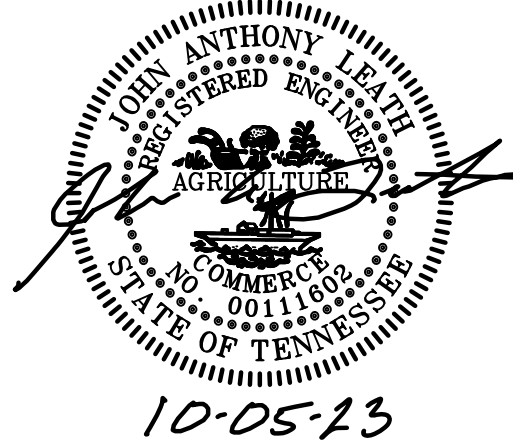
MUNDAY - COLLEGE STREET
PLANNED UNIT DEVELOPMENT
403 COLLEGE STREET
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

NO.	DATE	REVISION
1	07/17/23	PER CITY COMMENTS
2	08/31/23	PER CITY COMMENTS
3	10/05/23	PER CITY COMMENTS



GreenLID Design

114 B West Main Street
Gallatin, TN 37066
615-230-7269
andy.leath@greenliddesign.com



MUNDAY - COLLEGE STREET
PLANNED UNIT DEVELOPMENT
403 COLLEGE STREET
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

DETAILS

NO.	DATE	REVISION
1	07/17/23	PER CITY COMMENTS
2	08/31/23	PER CITY COMMENTS
3	10/05/23	PER CITY COMMENTS

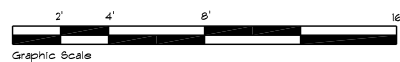
SHEET NO.

C 4.2

SHEET 6 OF 6

PROJ #21.122G

01 APRIL 2022



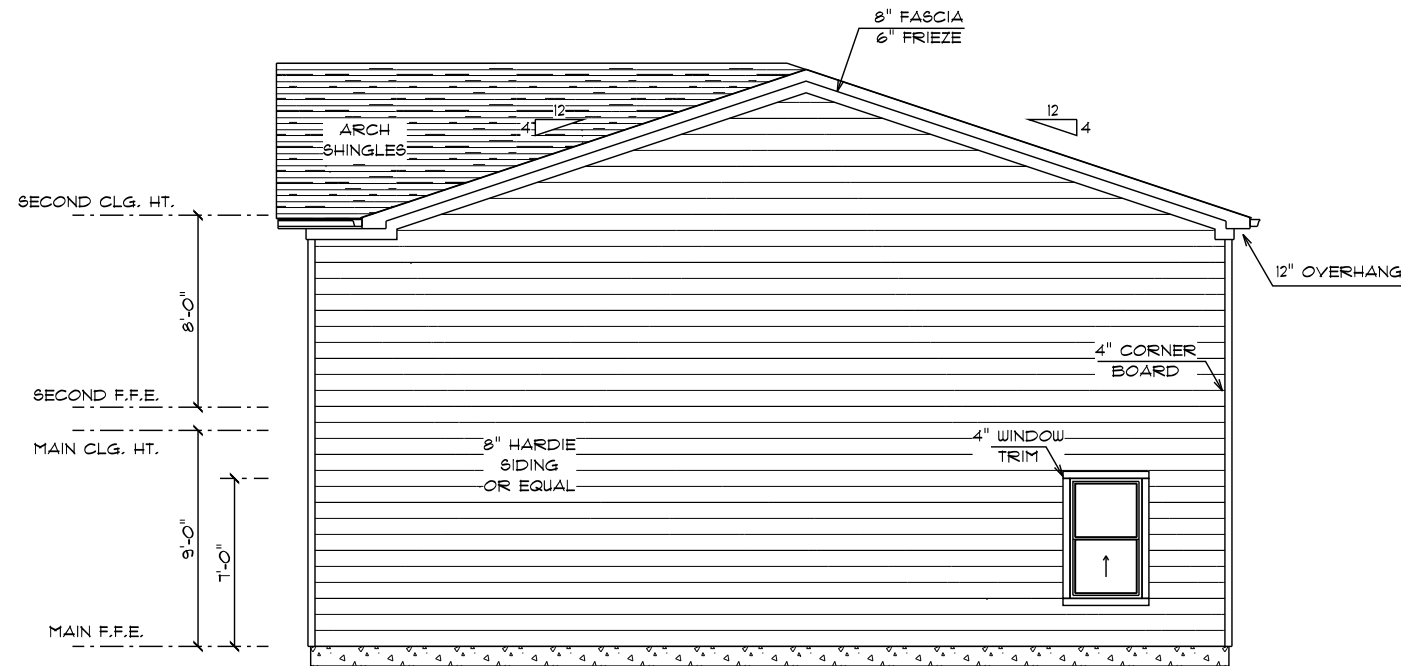
THESE DRAWINGS ARE FOR DESIGN INTENT ONLY.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE
CONSTRUCTION MEETS OR EXCEEDS ALL CODES.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE
ALL MECHANICAL, STRUCTURAL, ELECTRICAL, AND SYSTEMS
WITH THE FRAMEWORK AND AESTHETICS OF THIS HOME

PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

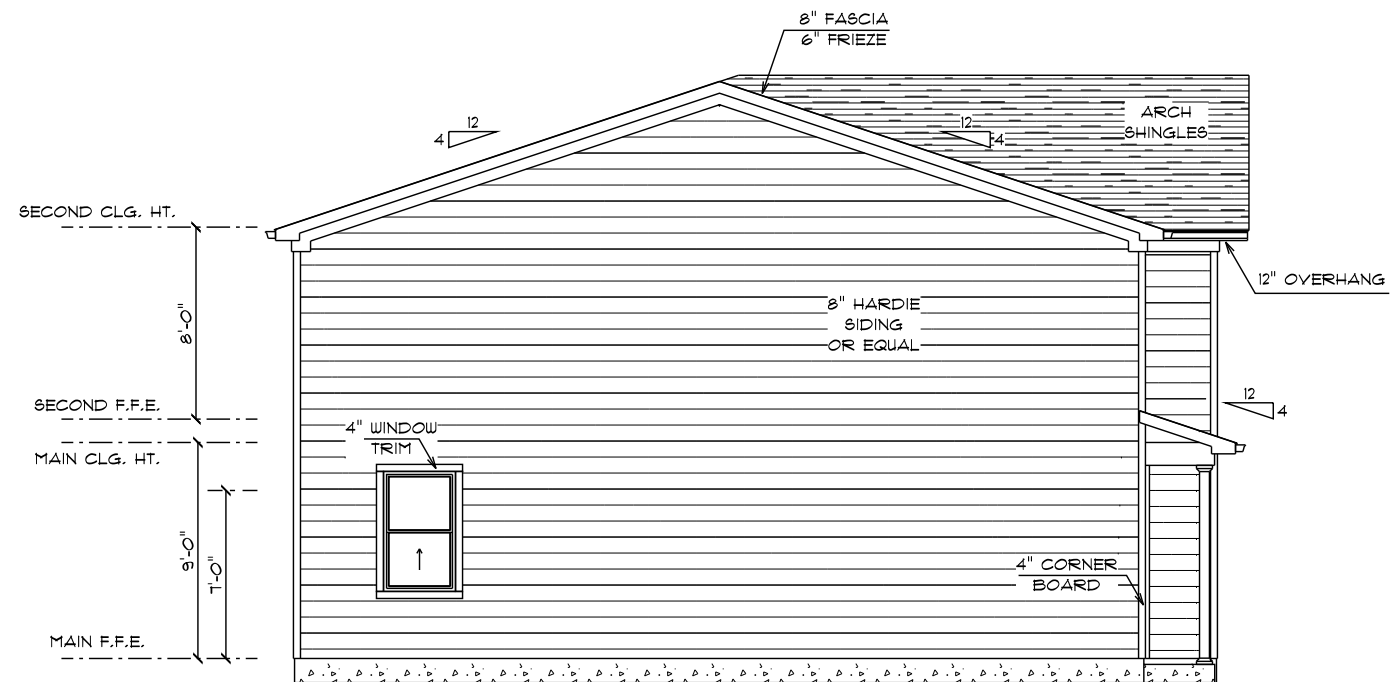
C & C BUILDING GROUP
405 College St.
Portland, Tn 37148

Front and Rear Elevation
Scale 1/4" = 1' ON 24"x36" PAPER
Scale 1/8" = 1' ON 11"x17" PAPER

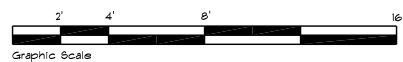
Date: 6-24-22



RIGHT ELEVATION



LEFT ELEVATION



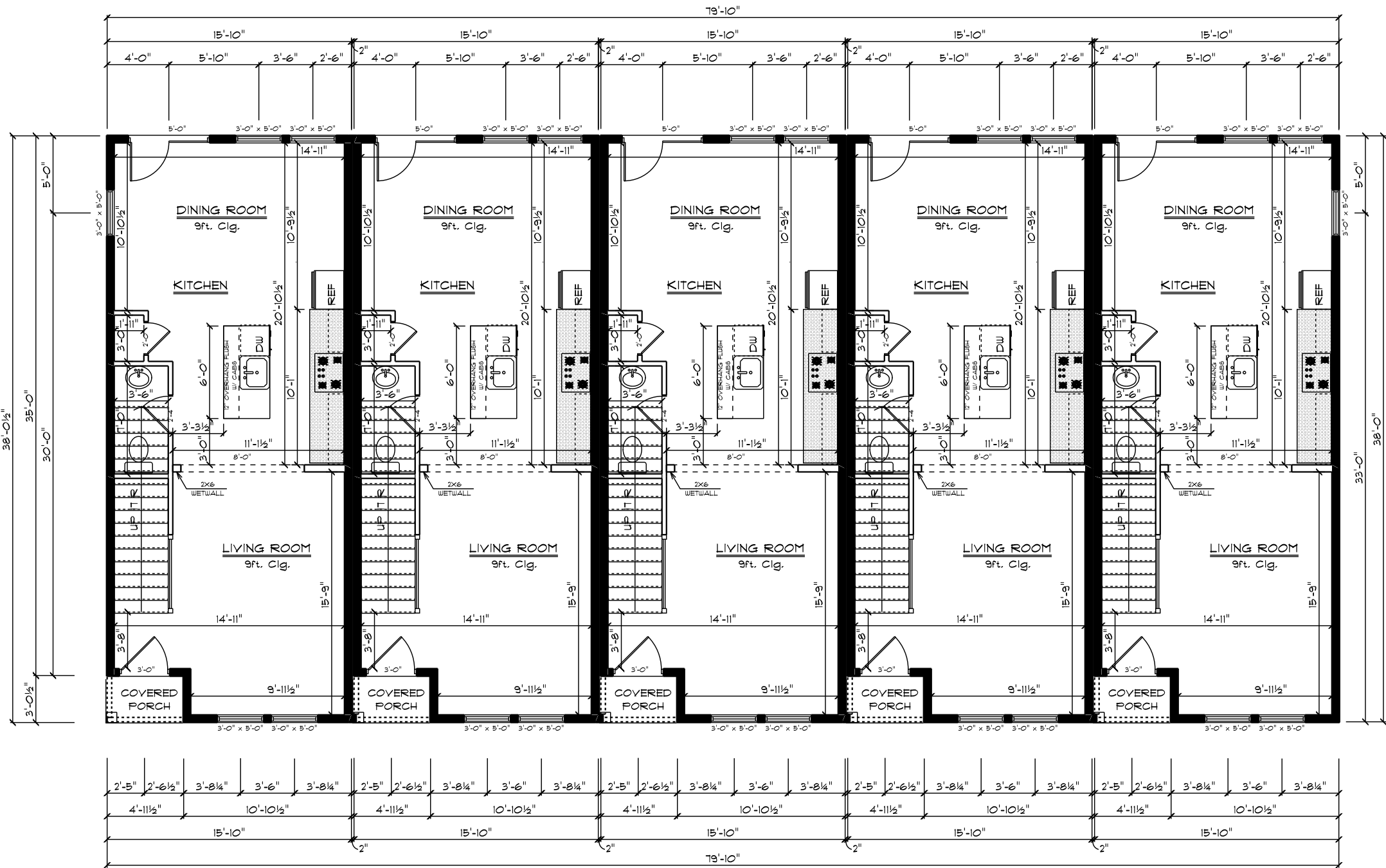
THESE DRAWINGS ARE FOR DESIGN INTENT ONLY.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE
CONSTRUCTION MEETS OR EXCEEDS ALL CODES.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE
ALL MECHANICAL, STRUCTURAL, ELECTRICAL, AND SYSTEMS
WITH THE FRAMEWORK AND AESTHETICS OF THIS HOME

PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

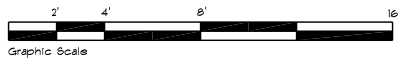
C & C BUILDING GROUP
405 College St.
Portland, Tn 37148

Right and Left Elevation
Scale 1/4" = 1' ON 24"x36" PAPER
Scale 1/8" = 1' ON 11"x17" PAPER

Date: 6-24-22



MAIN FLOOR PLAN



GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, REGULATIONS AND FHA/VA MFS.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE BEFORE BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGNER FOR JUSTIFICATION AND/OR CORRECTION BEFORE PROCEEDING WITH WORK. CONTRACTORS SHALL ASSUME ALL RESPONSIBILITY FOR ANY DISCREPANCIES THAT ARE NOT REPORTED.
3. ALL DIMENSIONS SHALL BE READ OR CALCULATED, NEVER SCALED.
4. ALL FOOTINGS TO BE BELOW FROST LINE (SEE LOCAL CODE), AND MUST REST ON UNDISTURBED SOIL, CAPABLE OF HANDLING THE BUILDING. CONSULT WITH LOCAL ENGINEER FOR PROPER FOOTING AND REINFORCEMENT SIZES.
5. CONTRACTOR SHALL INSURE COMPATIBILITY OF THE BUILDING WITH ALL SITE REQUIREMENTS.
6. IF BACKFILL EXCEEDS 4' AGAINST ANY FOUNDATION WALL, REINFORCE AS PER CODE.
7. ALL FOUNDATION AND STRUCTURAL MEMBERS SHOULD BE VERIFIED AND AN ENGINEER IN THE STATE WHERE THE CONSTRUCTION IS OCCURRING.
8. ALL WOOD, CONCRETE, AND STEEL STRUCTURAL MEMBERS SHALL BE OF A GOOD GRADE AND QUALITY AND MEET ALL NATIONAL, STATE, AND LOCAL BUILDING CODES WHERE APPLICABLE.
9. ALL COLUMNS OR SOLID FRAMING SHOULD BE DESIGNED TO CARRY LOADS AND SHOULD EXTEND DOWN THROUGH THE LEVELS BELOW AND TERMINATE AT THE BASEMENT FLOOR OR AT OTHER BEARING POINTS DESIGNED TO CARRY THE LOAD.
10. ALL WINDOW HEADERS FIRST FLOOR ARE TO BE AT 1'-0" UNLESS OTHERWISE NOTED.

OPENING SCHEDULE

TYPE	SIZE	HINGE	COUNT	R.O. HEIGHT	COMMENT
DOOR	3'-0"	L	5	6'-9 1/2"	
DOOR	5'-0"	NR	5	6'-9 1/2"	
DOOR	2'-4"	L	5	6'-9"	
DOOR	2'-0"	R	5	6'-9"	
WINDOW	3'-0" x 5'-0"	U	10	5'-0"	
WINDOW	3'-0" x 5'-0"	U	12	5'-0"	

AREA PER UNIT:

Ext. Footage Per Unit

Main.....590 SF
Second.....590 SF
Total..... 1180 SF
Front Porch.....35 SF

FRAMING NOTE:

1. ALL DIMENSIONS TO FACE OF FRAMING.
2. EXTERIOR WALLS DIMENSIONED @ 5 1/2".
3. INTERIOR WALLS DIMENSIONED @ 3 1/2".

PLAN NOTES:

IT IS THE RESPONSIBILITY OF THE BUILDER TO VERIFY THE CONSTRUCTION OF THE HOME MEETS ALL LOCAL CODES AND ENERGY TYPES PRIOR TO CONSTRUCTION. BUILDER SHOULD VERIFY SITE CONDITIONS AND ALL DIMENSIONS PRIOR TO CONSTRUCTION.

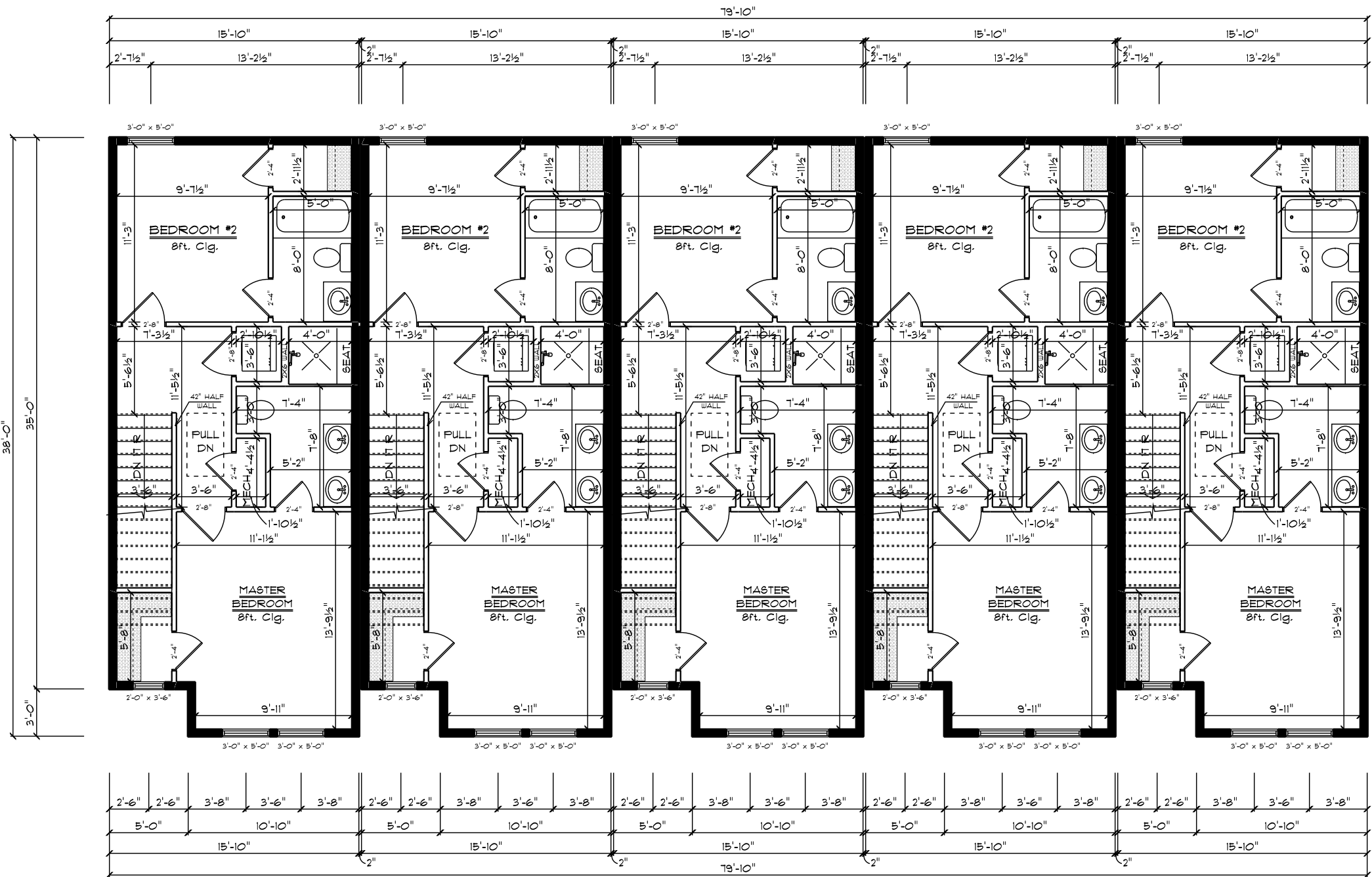
PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

C & C BUILDING GROUP

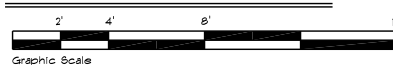
405 College St.
Portland, Tn 37148

Main Floor Plan
Scale 1/4" = 1' ON 24"x36" PAPER
Scale 1/8" = 1' ON 11"x17" PAPER

Date: 6-24-22



SECOND FLOOR PLAN



GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, REGULATIONS AND FHA/VIA MFS.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE BEFORE BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGNER FOR JUSTIFICATION AND/OR CORRECTION BEFORE PROCEEDING WITH WORK. CONTRACTORS SHALL ASSUME ALL RESPONSIBILITY FOR ANY DISCREPANCIES THAT ARE NOT REPORTED.
- ALL DIMENSIONS SHALL BE READ OR CALCULATED, NEVER SCALED.
- ALL FOOTINGS TO BE BELOW FROST LINE (SEE LOCAL CODE), AND MUST REST ON UNDISTURBED SOIL CAPABLE OF HANDLING THE BUILDING. CONSULT WITH LOCAL ENGINEER FOR PROPER FOOTING AND REINFORCEMENT SIZES.
- CONTRACTOR SHALL INSURE COMPATIBILITY OF THE BUILDING WITH ALL SITE REQUIREMENTS.
- IF BACKFILL EXCEEDS 4' AGAINST ANY FOUNDATION WALL, REINFORCE AS PER CODE.
- ALL FOUNDATION AND STRUCTURAL MEMBERS SHOULD BE VERIFIED AND AN ENGINEER IN THE STATE WHERE THE CONSTRUCTION IS OCCURRING.
- ALL WOOD, CONCRETE, AND STEEL STRUCTURAL MEMBERS SHALL BE OF A GOOD GRADE AND QUALITY AND MEET ALL NATIONAL, STATE, AND LOCAL BUILDING CODES WHERE APPLICABLE.
- ALL COLUMNS OR SOLID FRAMING SHOULD BE DESIGNED TO CARRY LOADS AND SHOULD EXTEND DOWN THROUGH THE LEVELS BELOW AND TERMINATE AT THE BASEMENT FLOOR OR AT OTHER BEARING POINTS DESIGNED TO CARRY THE LOAD.
- ALL WINDOW HEADERS FIRST FLOOR ARE TO BE AT 1'-0" UNLESS OTHERWISE NOTED.

OPENING SCHEDULE

TYPE	SIZE	HINGE	COUNT	R.O. HEIGHT	COMMENT
DOOR	2'-4"	L	15	6'-9"	
DOOR	2'-4"	R	10	6'-9"	
DOOR	2'-8"	L	5	6'-9"	
DOOR	2'-8"	R	10	6'-9"	
WINDOW	2'-0" x 3'-6"	N	5	3'-6"	
WINDOW	3'-0" x 5'-0"	N	5	5'-0"	
WINDOW	3'-0" x 5'-0"	N	10	5'-0"	

AREA PER UNIT:

Ext. Footage Per Unit
 Main.....590 SF
 Second.....590 SF
 Total..... 1180 SF
 Front Porch.....35 SF

FRAMING NOTE:

- ALL DIMENSIONS TO FACE OF FRAMING.
- EXTERIOR WALLS DIMENSIONED @ 5 1/2".
- INTERIOR WALLS DIMENSIONED @ 3 1/2".

PLAN NOTES:

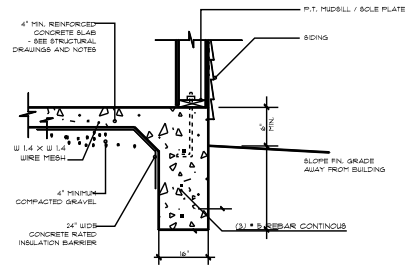
IT IS THE RESPONSIBILITY OF THE BUILDER TO VERIFY THE CONSTRUCTION OF THE HOME MEETS ALL LOCAL CODES AND ENERGY TYPES PRIOR TO CONSTRUCTION. BUILDER SHOULD VERIFY SITE CONDITIONS AND ALL DIMENSIONS PRIOR TO CONSTRUCTION.

PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

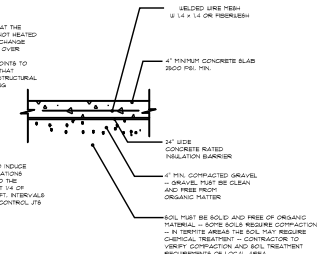
C & C BUILDING GROUP
405 College St.
Portland, Tn 37148

Second Floor Plan
 Scale 1/4" = 1' ON 24"x36" PAPER
 Scale 1/8" = 1' ON 11"x17" PAPER

Date: 6-24-22



EXPANSION JOINTS
PROVIDE EXPANSION JOINTS AT THE EDGES OF SLABS THAT ARE NOT WEATHERED OR THAT ARE EXPECTED TO CHANGE TEMPERATURES SIGNIFICANTLY OVER THEIR LIFESPAN.
ALSO PROVIDE EXPANSION JOINTS TO SEPARATE BUILDING ELEMENTS THAT PENETRATE SLABS SUCH AS STRUCTURAL COLUMNS, WALLS, OR PIPING.



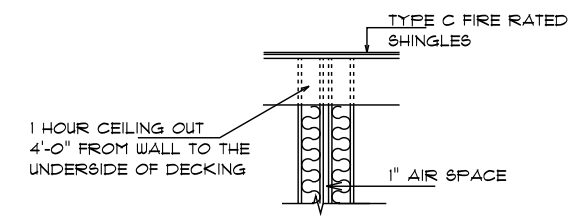
CONCRETE SLAB
DETAILS / NOTES

*** NOTE: ***

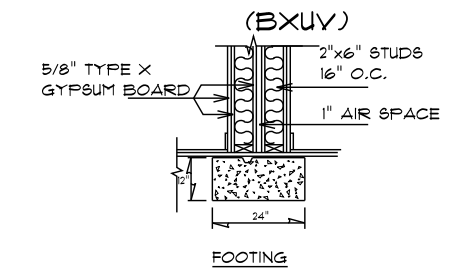
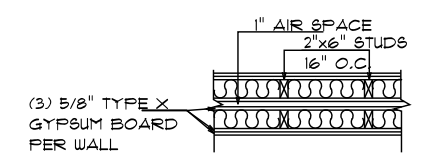
Design No. U342
Bearing Wall Rating -- 2 Hr.

1. Wood Studs - Nom 2 by 4 in. Cross braced at mid-height and effectively firestopped at top and bottom of wall. Spaced max of 16 in. O.C. depending on type of wallboard. See item 2 below.
2. Gypsum Board* - 5/8 in. thick, 4 ft wide. Applied either horizontally or vertically. Inner layers nailed to studs and bearing plates 6 in. O.C. with 6d cement coated nails, 1 - 7/8 in. long, 0.0915 in. shank diam and 1/4 in. dia. head. Outer layer of double layered side nailed to studs and bearing plates 8 in. O.C. with 8d cement coated nails, 2-3/8 in. long, 0.113 in. shank diam and 9/32 in. diam head. Vertical joints located over studs. As an alternate, No. 6 bugle-head drywall screws, 1-7/8 or 2-3/8 in. long for the inner and outer layers, respectively, may be substituted for the cement coated nails. All joints in outer layer of double layer sides staggered with joints in inner layer. When used in widths other than 48 in., gypsum board to be installed horizontally.
3. Joints and Nailheads - Wallboard joints of outer layer covered with tape and joint compound. Nail heads of outer layer covered with joint compound.
4. Batts and Blankets* - (Optional) - 3-1/2 in. max thickness glass or mineral fiber batt insulation.

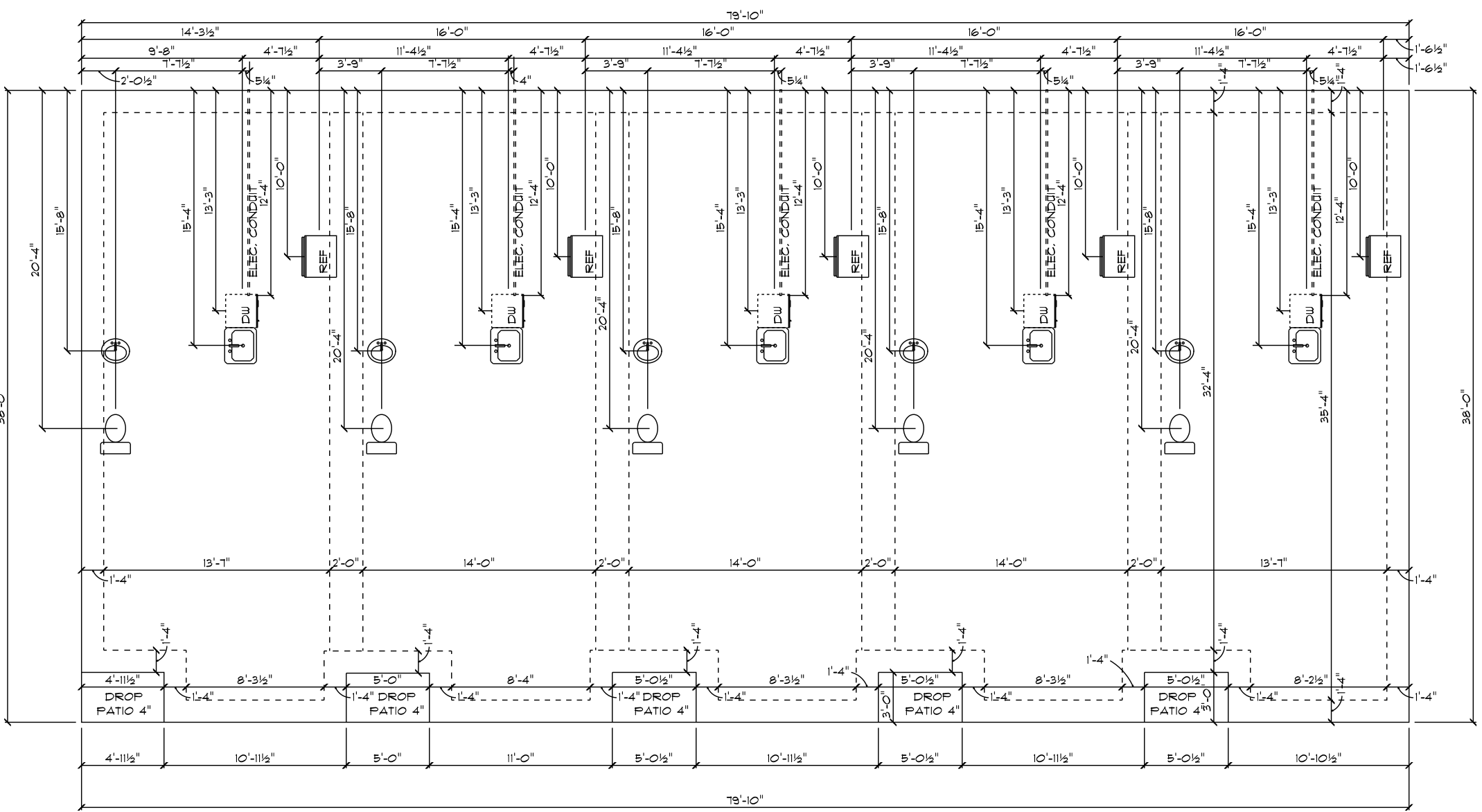
**FIRE RESISTANCE
RATING - ANSI/UL 263**



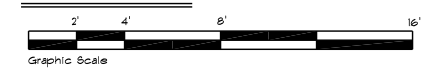
**HORIZONTAL SECTION
TOP VIEW**



TYPICAL PARTY FIREWALL DETAIL



SLAB PLAN



THESE DRAWINGS ARE FOR DESIGN INTENT ONLY.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE
CONSTRUCTION MEETS OR EXCEEDS ALL CODES.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE
ALL MECHANICAL, STRUCTURAL, ELECTRICAL, AND SYSTEMS
WITH THE FRAMEWORK AND AESTHETICS OF THIS HOME

PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

C & C BUILDING GROUP
405 College St.
Portland, Tn 37148

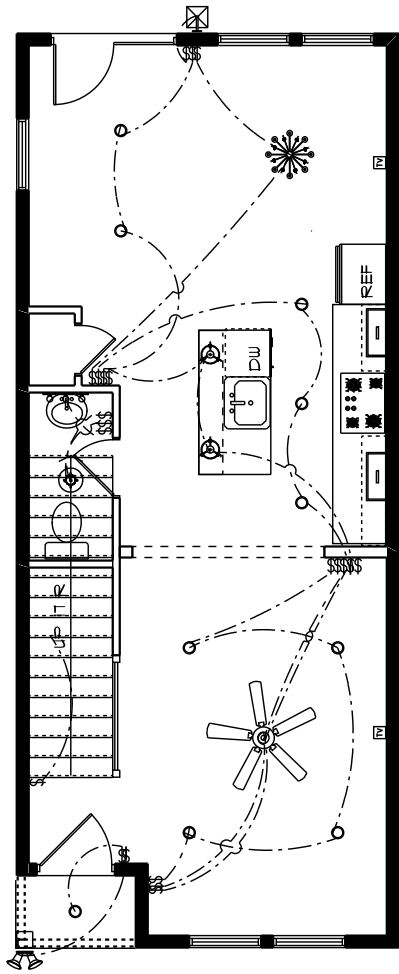
Slab Plan
Scale 1/4" = 1'
Scale 1/8" = 1'

ON 24"x36" PAPER
ON 11"x17" PAPER

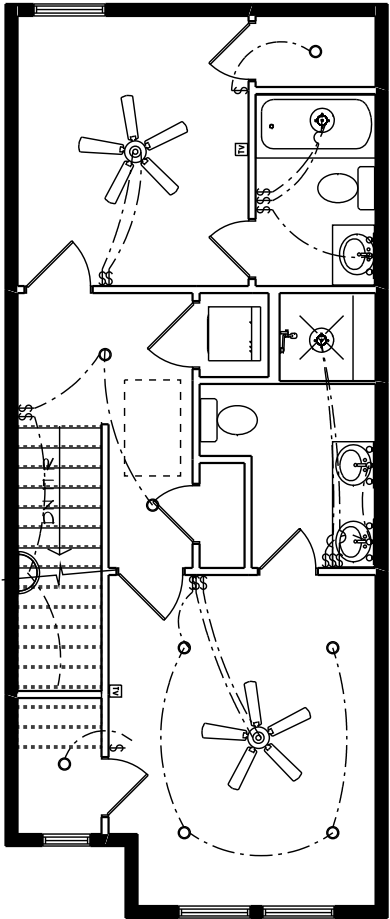
Date: 6-24-22



MAIN FLOOR PLAN



SECOND FLOOR PLAN



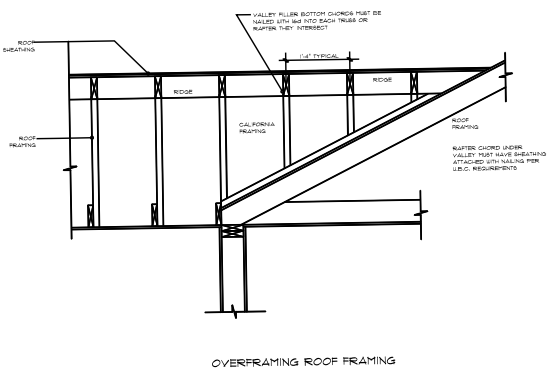
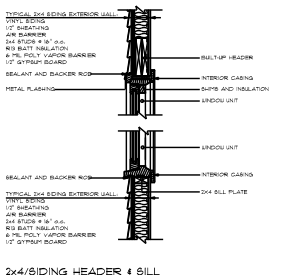
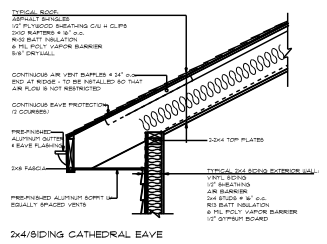
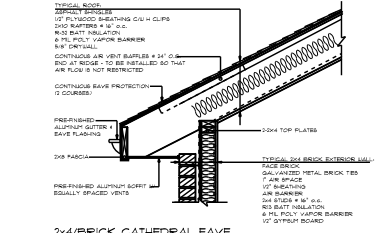
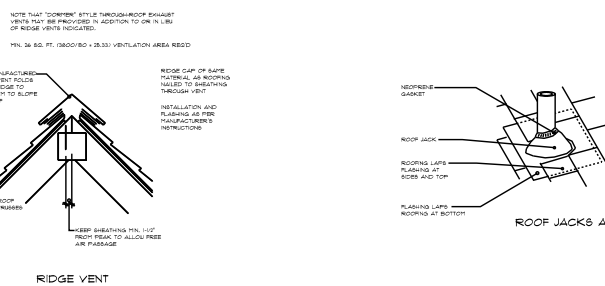
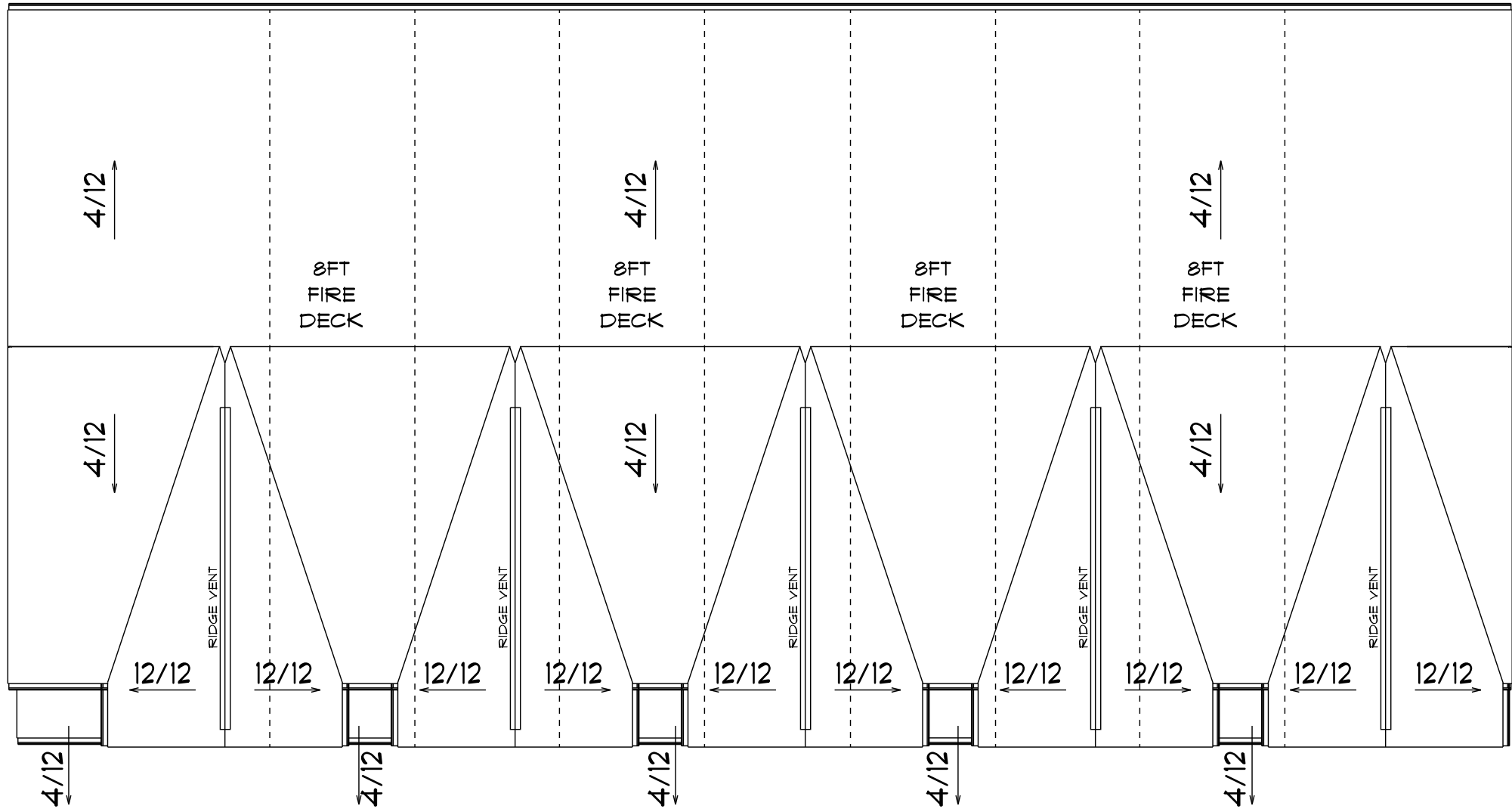
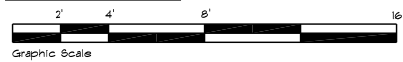
ELECTRICAL LEGEND PER UNIT		
ELECTRICAL	COUNT	SYMBOL
ceiling fan	3	
can light	18	o
chandelier	1	
cabinet light	2	
pendant	2	
ceiling light / vent	3	
exterior light	1	
spotlight motion detector	1	
cable tv outlet	4	
switch		\$
wall sconce	1	
vanity bar light	4	

Lighting Plan
Scale 1/4" = 1'
Scale 1/8" = 1'

ON 24"x36" PAPER
ON 11"x17" PAPER

Date: 6-24-22

ROOF PLAN



NOTE: THAT "CONCRETE" STYLE THROUGH-ROOF EXHAUST VENTS MUST BE PROVIDED IN ADDITION TO ONE IN EACH OF ROOF VENTS INDICATED.

MIN. 36 SQ. FT. (3600/100 x 25.33) VENTILATION AREA REQ'D.

PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

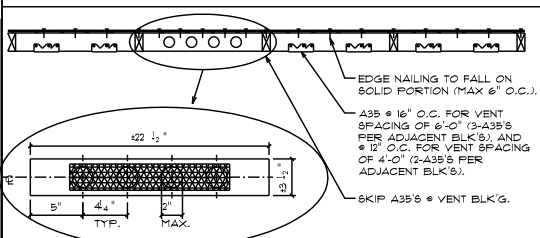
C & C BUILDING GROUP
405 College St.
Portland, Tn 37148

Roof Plan
Scale 1/4" = 1'
Scale 1/8" = 1'

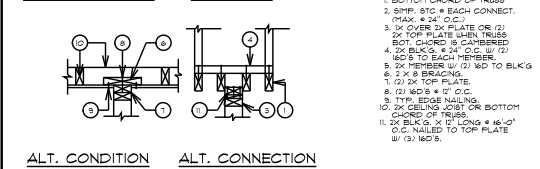
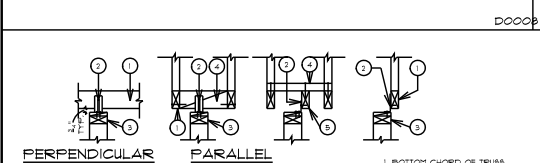
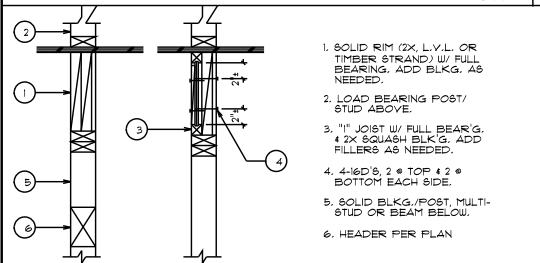
ON 24"x36" PAPER
ON 11"x17" PAPER

Date: 6-24-22

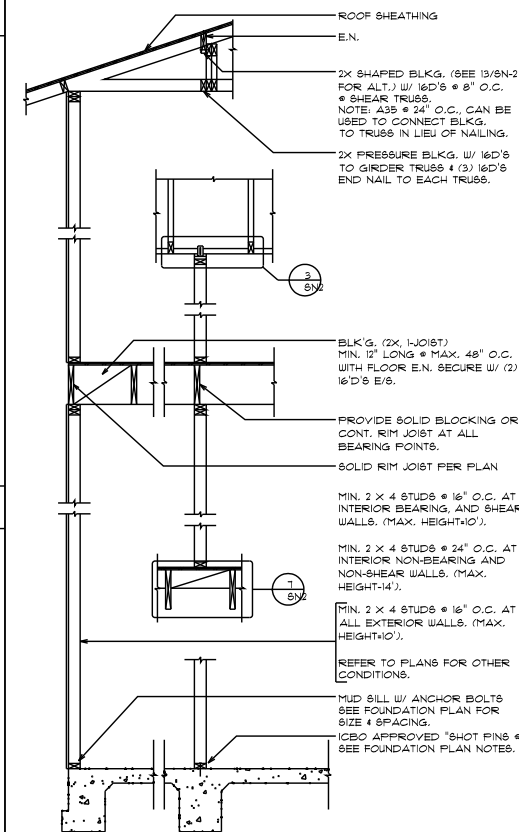
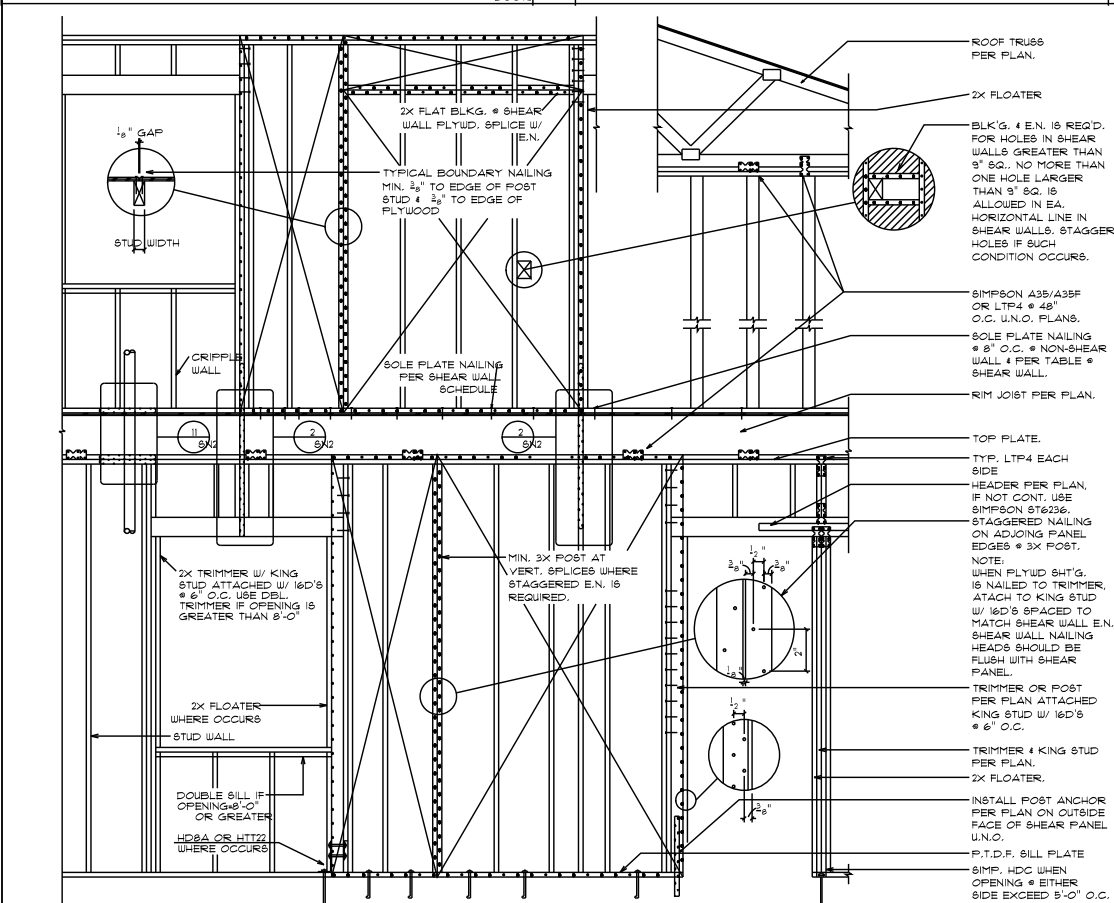
TYPICAL FRAMING ELEVATION



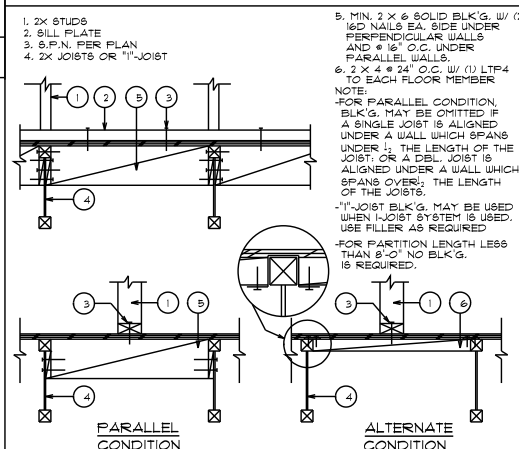
TYPICAL VENT BLOCK



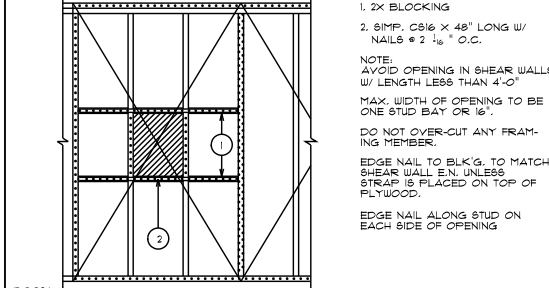
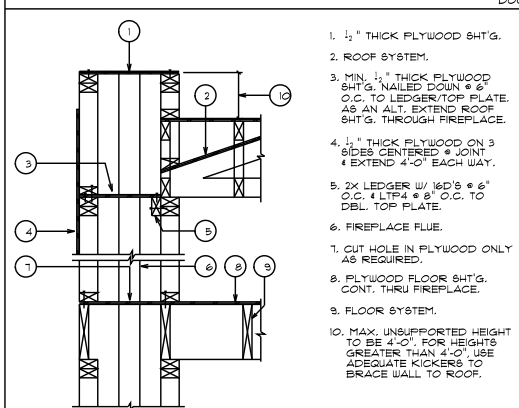
MASONRY VENEER/CAVITY WALL



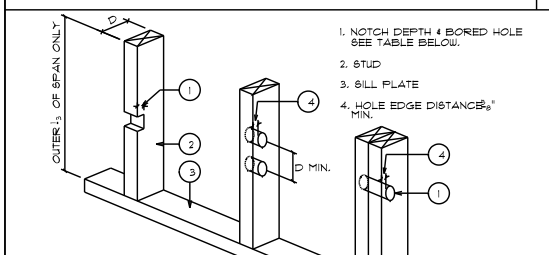
TYP. FRAMING CROSS SECTION



NON-BEARING WALL SUPPORT



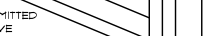
FIELD FIX FOR OPENING IN S.W.



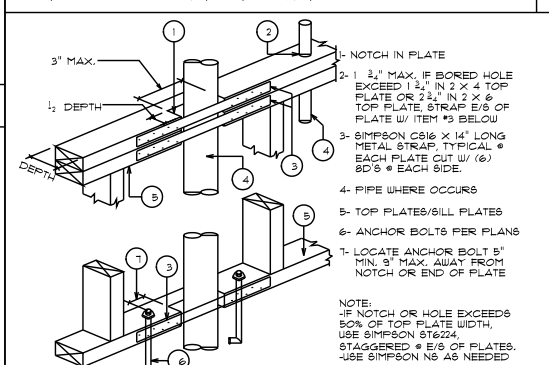
NOTE: BORED HOLES NOT PERMITTED
IN MORE THAN TWO CONSECUTIVE
DOUBLE STUDS

BORED HOLES		
STUD SIZE	EXTERIOR & BEARING WALLS	NON- BEARING WALLS
2 X 4	1 1/2"	2 1/8"
2 X 6	2 1/8"	3 1/8"
2 X 4	2 1/8"	2 1/8"
2 X 6	3 1/8"	3 1/8"

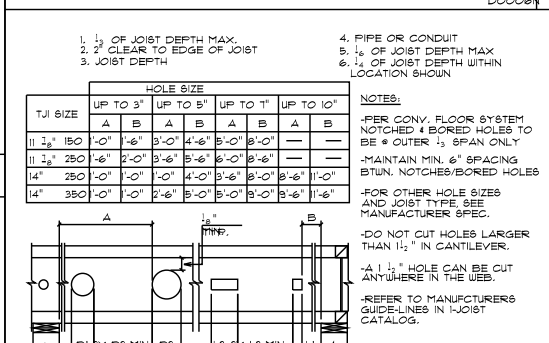
NOTCH DEPTH		
STUD SIZE	EXTERIOR & BEARING WALLS	NON- BEARING WALLS
2 X 4	1 1/2"	1 1/8"
2 X 6	1 3/4"	2 1/8"



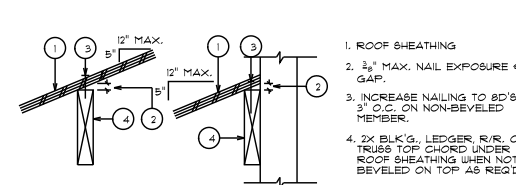
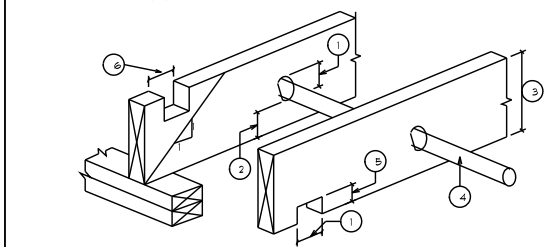
STUD NOTCHING/BORING LIMITS



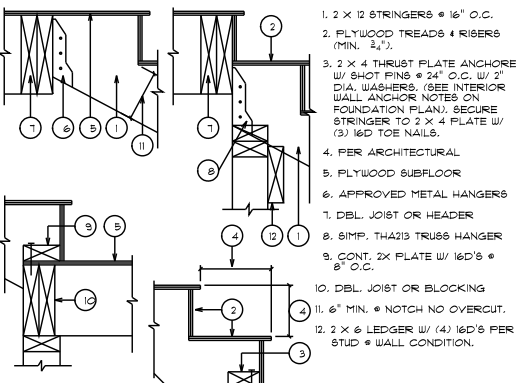
PIPING THRU PLATE FRAM'G



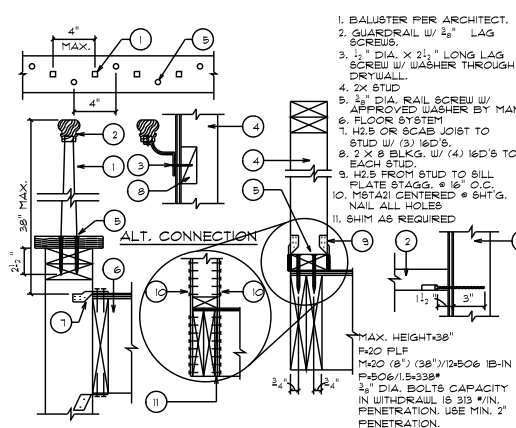
NOTCH & HOLES IN I-JOIST



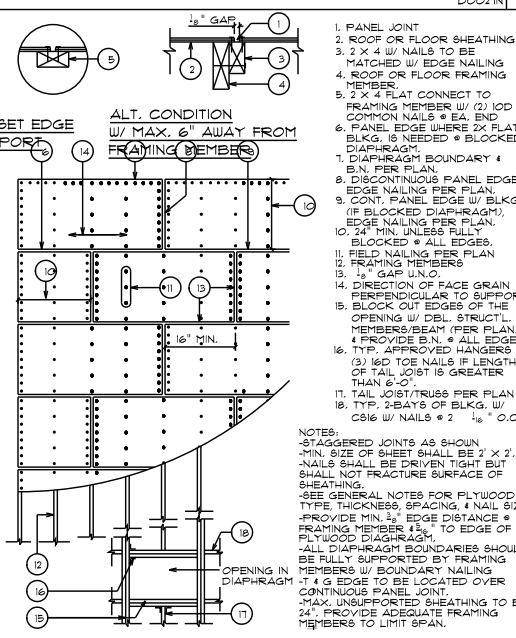
SHEAR TRANSFER



STAIR DETAILS



HANDRAIL/GUARD RAIL



SHEATHING LAYOUT

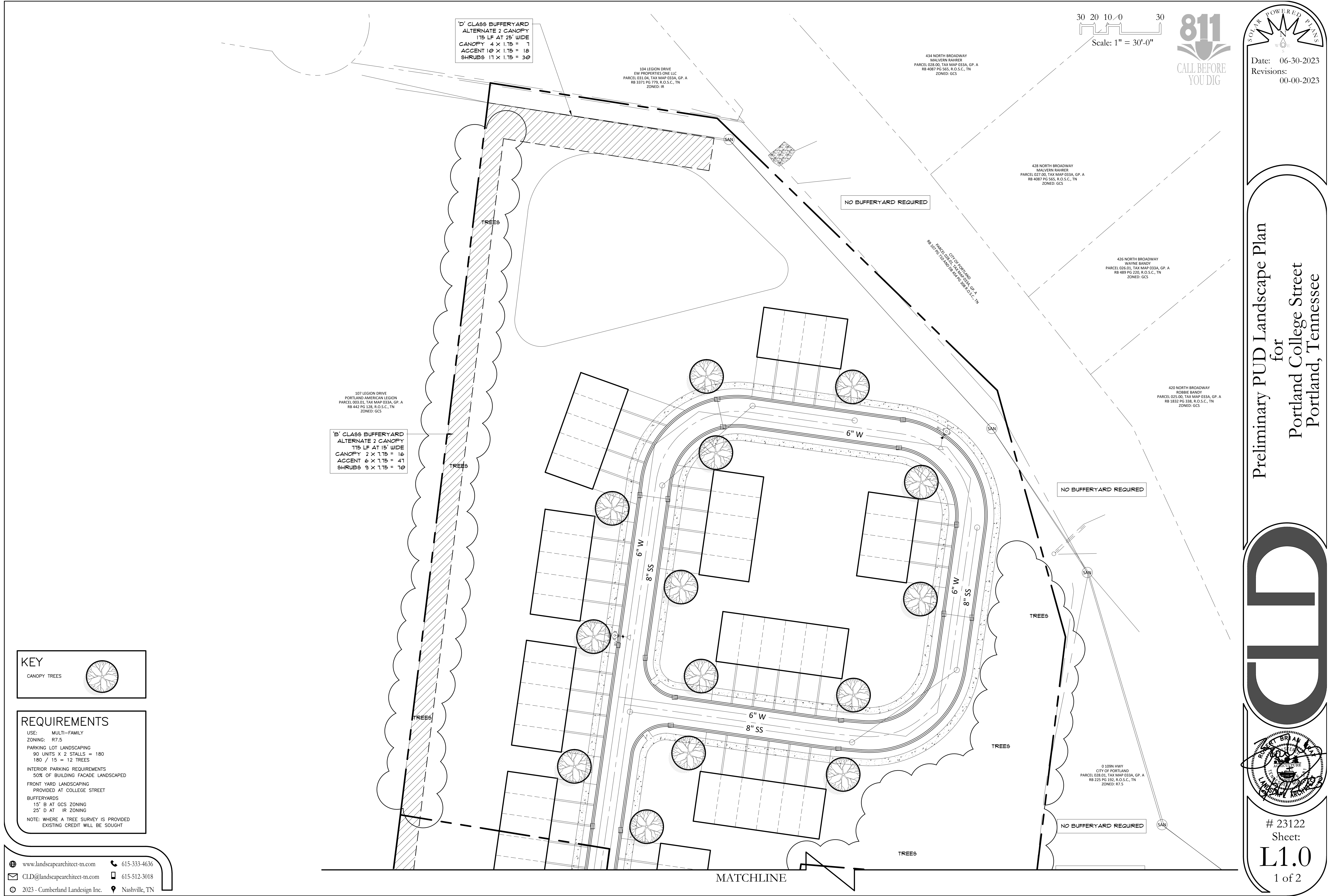
THESE DRAWINGS ARE FOR DESIGN INTENT ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE CONSTRUCTION MEETS OR EXCEEDS ALL CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL MECHANICAL, ELECTRICAL, AND SYSTEMS WITH THE FRAMEWORK AND AESTHETICS OF THIS HOME.

PREMIER
HOME DESIGNS
@GMAIL.COM
615.720.7598

C & C BUILDING GROUP
405 College St.
Portland, Tn 37148

Typical Details
Scale 1/4" = 1' ON 24"x36" PAPER
Scale 1/8" = 1' ON 11"x17" PAPER

Date: 6-24-22



'D' CLASS BUFFERYARD
ALTERNATE 2 CANOPY
175 LF AT 25' WIDE
CANOPY 4 X 1.75 = 7
ACCENT 10 X 1.75 = 18
SHRUBS 17 X 1.75 = 30

104 LEGION DRIVE
EW PROPERTIES ONE LLC
PARCEL 031.04, TAX MAP 033A, GP. A
RB 3371 PG 779, R.O.S.C., TN
ZONED: IR

434 NORTH BROADWAY
MALVERN RAHRER
PARCEL 028.00, TAX MAP 033A, GP. A
RB 4087 PG 565, R.O.S.C., TN
ZONED: GCS

428 NORTH BROADWAY
MALVERN RAHRER
PARCEL 027.00, TAX MAP 033A, GP. A
RB 4087 PG 565, R.O.S.C., TN
ZONED: GCS

426 NORTH BROADWAY
WAYNE BANDY
PARCEL 026.01, TAX MAP 033A, GP. A
RB 489 PG 220, R.O.S.C., TN
ZONED: GCS

420 NORTH BROADWAY
ROBBIE BANDY
PARCEL 025.00, TAX MAP 033A, GP. A
RB 1832 PG 338, R.O.S.C., TN
ZONED: GCS

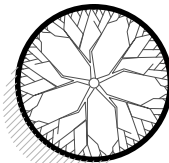
0 109N HWY
CITY OF PORTLAND
PARCEL 028.01, TAX MAP 033A, GP. A
RB 225 PG 192, R.O.S.C., TN
ZONED: R7.5

107 LEGION DRIVE
PORTLAND AMERICAN LEGION
PARCEL 003.01, TAX MAP 033A, GP. A
RB 442 PG 128, R.O.S.C., TN
ZONED: GCS

'B' CLASS BUFFERYARD
ALTERNATE 2 CANOPY
175 LF AT 15' WIDE
CANOPY 2 X 1.75 = 16
ACCENT 6 X 1.75 = 41
SHRUBS 9 X 1.75 = 16

KEY

CANOPY TREES

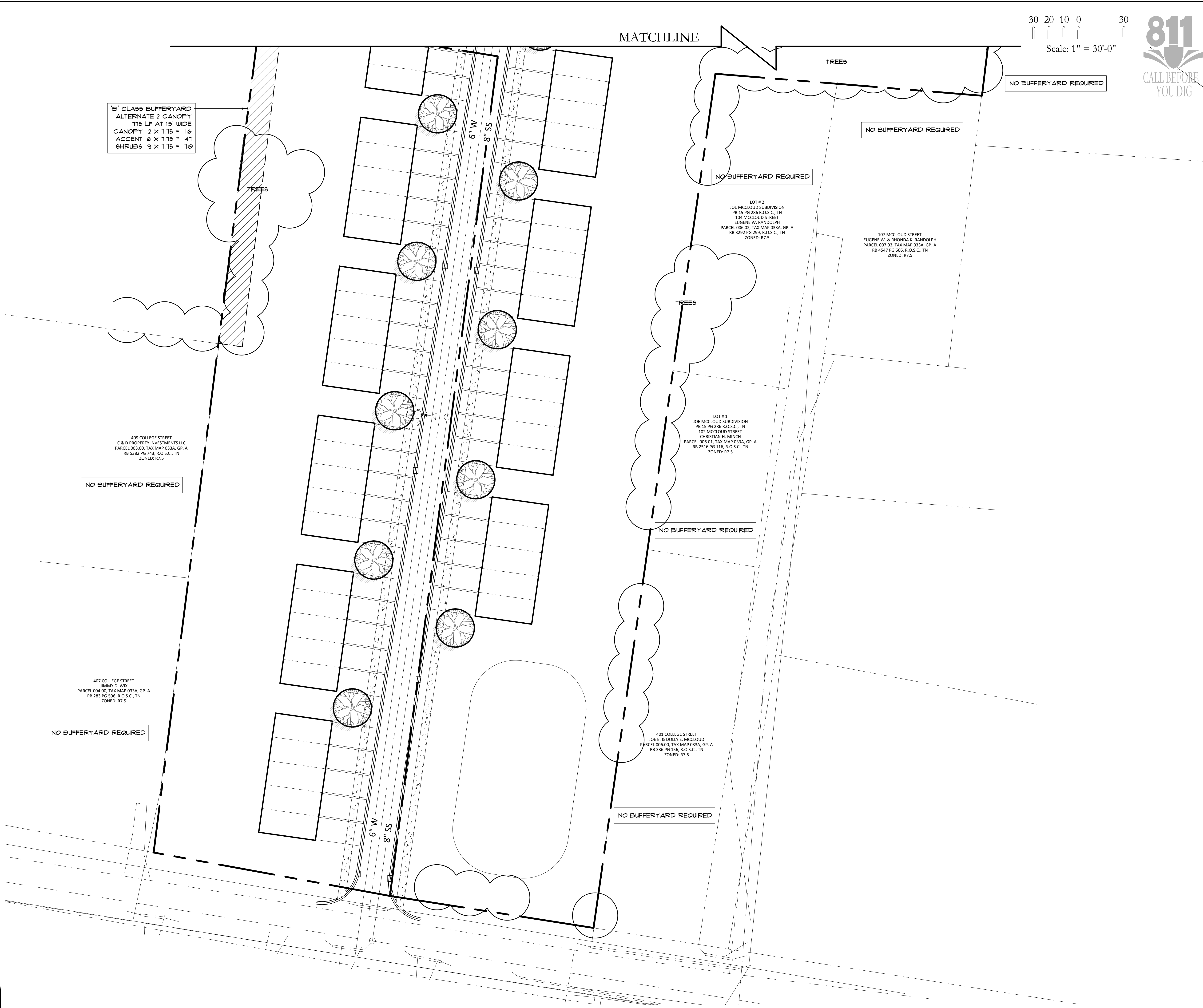


REQUIREMENTS

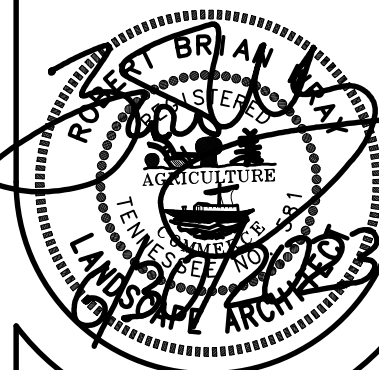
USE: MULTI-FAMILY
ZONING: R7.5
PARKING LOT LANDSCAPING
90 UNITS X 2 STALLS = 180
180 / 15 = 12 TREES
INTERIOR PARKING REQUIREMENTS
50% OF BUILDING FACADE LANDSCAPED
FRONT YARD LANDSCAPING
PROVIDED AT COLLEGE STREET
BUFFERYARDS
15' B AT GCS ZONING
25' D AT IR ZONING
NOTE: WHERE A TREE SURVEY IS PROVIDED
EXISTING CREDIT WILL BE SOUGHT

Preliminary PUD Landscape Plan for Portland College Street Portland, Tennessee

23122
Sheet:
L1.0
1 of 2



Preliminary PUD Landscape Plan
for
Portland College Street
Portland, Tennessee





City of Portland

Rezoning

Planning Commission

This property is subject of an annexation request.
For more details call 615-325-6776

TRAFFIC IMPACT STUDY

**COLLEGE STREET TOWNHOMES
RESIDENTIAL DEVELOPMENT
PORTLAND, TENNESSEE**

PREPARED ON BEHALF OF:



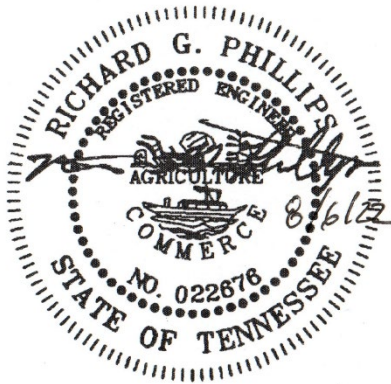
PREPARED BY:



AUGUST 2022

TRAFFIC IMPACT STUDY

COLLEGE STREET TOWNHOMES RESIDENTIAL DEVELOPMENT PORTLAND, TENNESSEE



PREPARED BY:

RG Phillips Consulting, LLC

Richard G. Phillips, P.E.
106 Mission Court, Suite 301
Franklin, TN 37067



Traffic Impact Study

College Street Townhomes Residential Development Portland, Tennessee

Table of Contents

Section	Page
1. Introduction	1
2. Project Description	3
3. 2022 Existing Traffic Conditions	6
4. 2025 Background Traffic Conditions	12
5. 2025 Projected Traffic Conditions	16
6. Conclusions and Recommendations	26
List of Tables	
Table 1. Signalized Levels of Service	6
Table 2. Unsignalized Levels of Service	6
Table 3. 2022 Existing Levels of Service	11
Table 4. 2025 Background Levels of Service	15
Table 5. Trip Generation for College Street Townhomes	16
Table 6. 2025 Projected Levels of Service	23
List of Figures	
Figure 1. Project Location & Study Intersections	2
Figure 2. Conceptual Site Development Plan	4
Figure 3. 2022 Existing Traffic Volumes	9
Figure 4. 2025 Background Traffic Volumes	13
Figure 5. Trip Distribution for College Street Townhomes	18
Figure 6. Site Generated Traffic Volumes	20
Figure 7. 2025 Projected Traffic Volumes	21
Appendix	
A Traffic Count Data	A-1
B Capacity Analyses	B-1
C Trip Generation	C-1
D Trip Distribution Worksheets	D-1
E Traffic Assignment Worksheets	E-1
F Turn Lane Analyses	F-1

1. INTRODUCTION

The purpose of this study is to evaluate the traffic impacts associated with the proposed College Street Townhomes residential development and to identify if any offsite access or traffic control improvements will be required to address those impacts.

The project site is located in Portland, Tennessee, west of Highway 109, along the north side of College Street. Figure 1 shows the proposed project site, along with the intersections that will be included as part of the study.

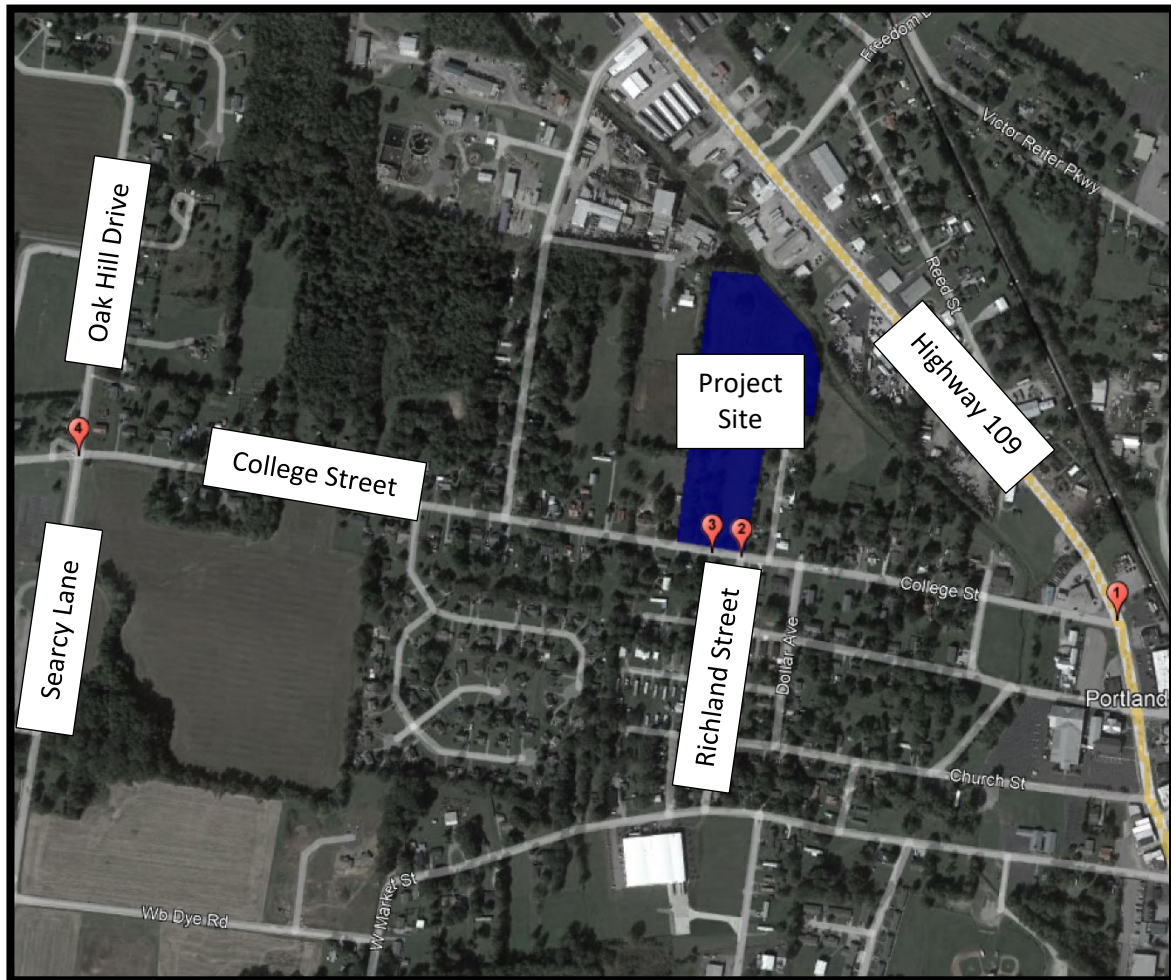


Figure 1.
Project Location &
Study Intersections

2. PROJECT DESCRIPTION

The current site development plan, provided by GreenLID Design, is illustrated in Figure 2. As detailed in Figure 2, the current plan proposes the development of 95 townhomes. The project site has a single proposed access drive on College Street.

For the purposes of this study, a three-year horizon was assumed (2025).

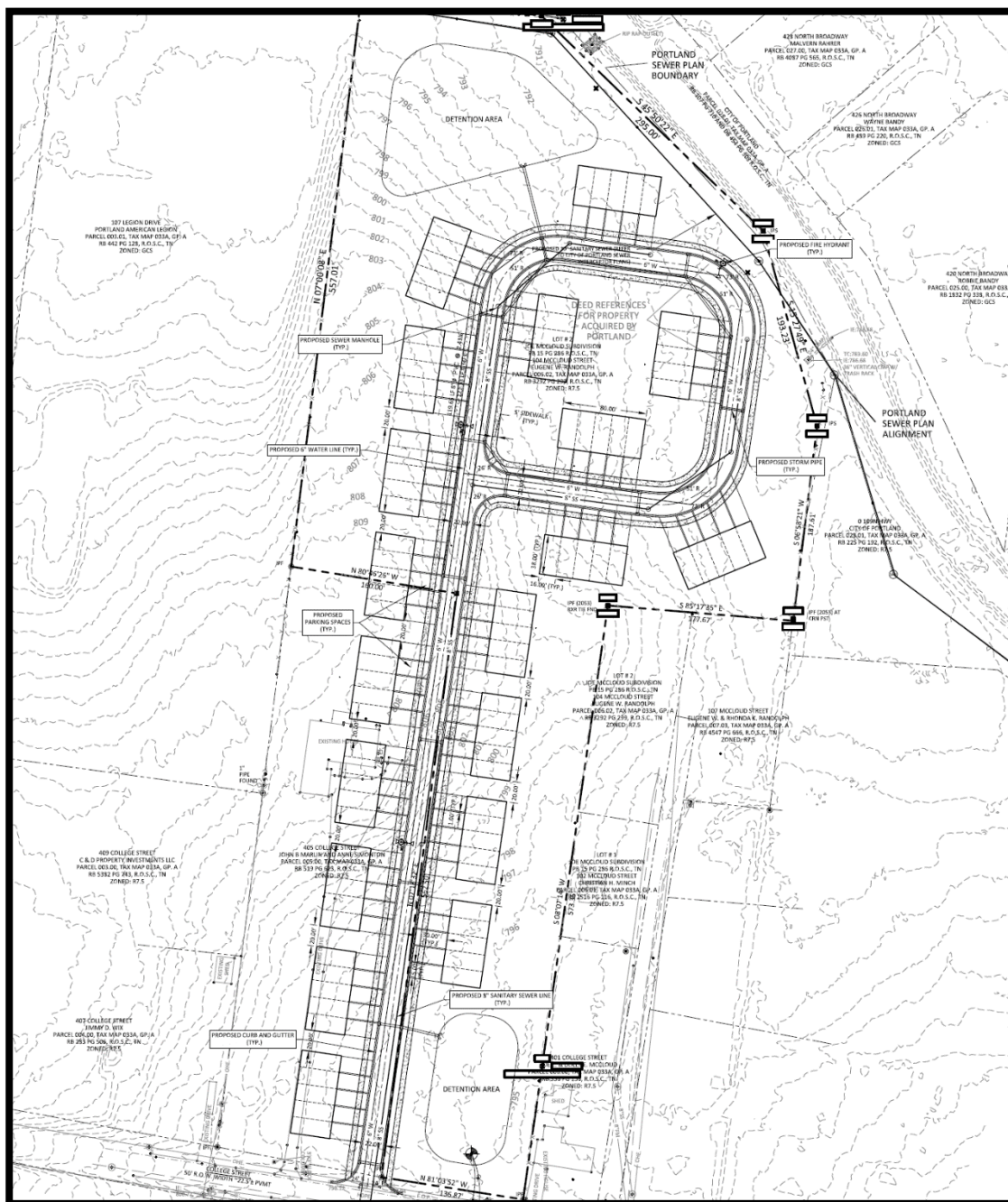


Figure 2.
Conceptual Site Development Plan

Project Scope

This report identifies potential traffic impacts to the surrounding roadway network based on the proposed development. Three scenarios were considered for analysis, as follows:

- Existing Traffic Conditions (2022)
- Background Traffic Conditions (2025)
- Total Future Traffic Conditions at Project Buildout (2025)

The following intersections were included in the scope of the traffic study:

- #1 – Highway 109 & College Street
- #2 – College Street & Richland Street
- #3 – College Street & Project Access
- #4 – College Street & Searcy Lane / Oak Hill Drive

To simplify review of the traffic study, each intersection was assigned a reference number, as shown above. The traffic assignment and capacity analyses worksheets contained in this report refer to each intersection by both name and assigned intersection number.

3. 2022 EXISTING TRAFFIC CONDITIONS

Methodology

The traffic analyses performed in this report were conducted using *Synchro* software, which emulates the methodologies set forth in the *Highway Capacity Manual, 6th Edition*, for evaluation of signalized and unsignalized intersections.

The intersections considered in this study were evaluated in terms of level of service (LOS), which is a rating of traffic conditions for a given roadway or intersection. For comparative purposes, the descriptions for the various levels of service at both signalized and unsignalized intersections are shown in Table 1 and Table 2, respectively.

Table 1
Level of Service Criteria for Signalized Intersections

Level of Service	Description	Control Delay (Seconds)
A	Very low delay with minimal stops.	<10
B	Stable traffic flow, low delay, few traffic stops.	>10 to ≤20
C	Operations with stable flow, moderate delay.	>20 to ≤ 35
D	Noticeable delays, many stopped vehicles.	>35 and ≤ 55
E	Unstable flow, high delays and congestion.	>55 and ≤ 80
F	Unacceptable delay, excessive congestion.	>80

Table 2
Level of Service Criteria for Unsignalized Intersections

Level of Service	Description	Control Delay (Seconds)
A	Minimal or no delay	≤ 10
B	Minor traffic delay	>10 and ≤ 15
C	Average traffic delay	>15 and ≤ 25
D	Long traffic delay	>25 and ≤ 35
E	Very long traffic delay	>35 and ≤ 50
F	Extreme traffic delay	> 50

Existing Roadway Network

The roadways in the vicinity of the site that will provide access to the College Street

Townhomes development are described as follows:

- *Highway 109 (Ronnie McDowell Boulevard / North Broadway)* is functionally classified as a principal arterial roadway. At its signalized intersection with College Street, Highway 109 runs north-south, with two travel lanes in each direction. The speed limit on Highway 109 is posted at 30 mph near its intersection with College Street.
- *College Street* is functionally classified as a collector roadway and has a posted speed limit of 30 mph in the vicinity of the project site. College Street has a paved width of approximately 22'.
- *Richland Street* is a local roadway with a paved width that varies between 18' and 24'. The speed limit on Richland Street is posted at 30 mph.
- *Searcy Lane* is a local roadway with posted speed limit of 30 mph. South of College Street, Searcy Lane generally has a paved width of approximately 24'.
- *Oak Hill Drive* is a local roadway with a paved width that varies between 18' and 20'. The speed limit on Oak Hill Drive is posted at 20 mph.

Existing Traffic Operations

To provide data for the analysis, manual turning movement traffic counts were performed at the following locations:

- #1 – Highway 109 & College Street
- #2 – College Street & Richland Street
- #3 – College Street & Project Access
- #4 – College Street & Searcy Lane / Oak Hill Drive

Traffic counts were collected on Thursday, May 19th, 2022, while school was in session. The counts were conducted from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. From the traffic counts collected, it was determined that the AM peak hour was 7:00 AM to 8:00 AM and the PM peak hour was 4:00 PM to 5:00 PM.

The existing 2022 peak hour traffic volumes for the intersections studied are illustrated in Figure 3. The traffic count data utilized for this study are included in summary form in Appendix A.

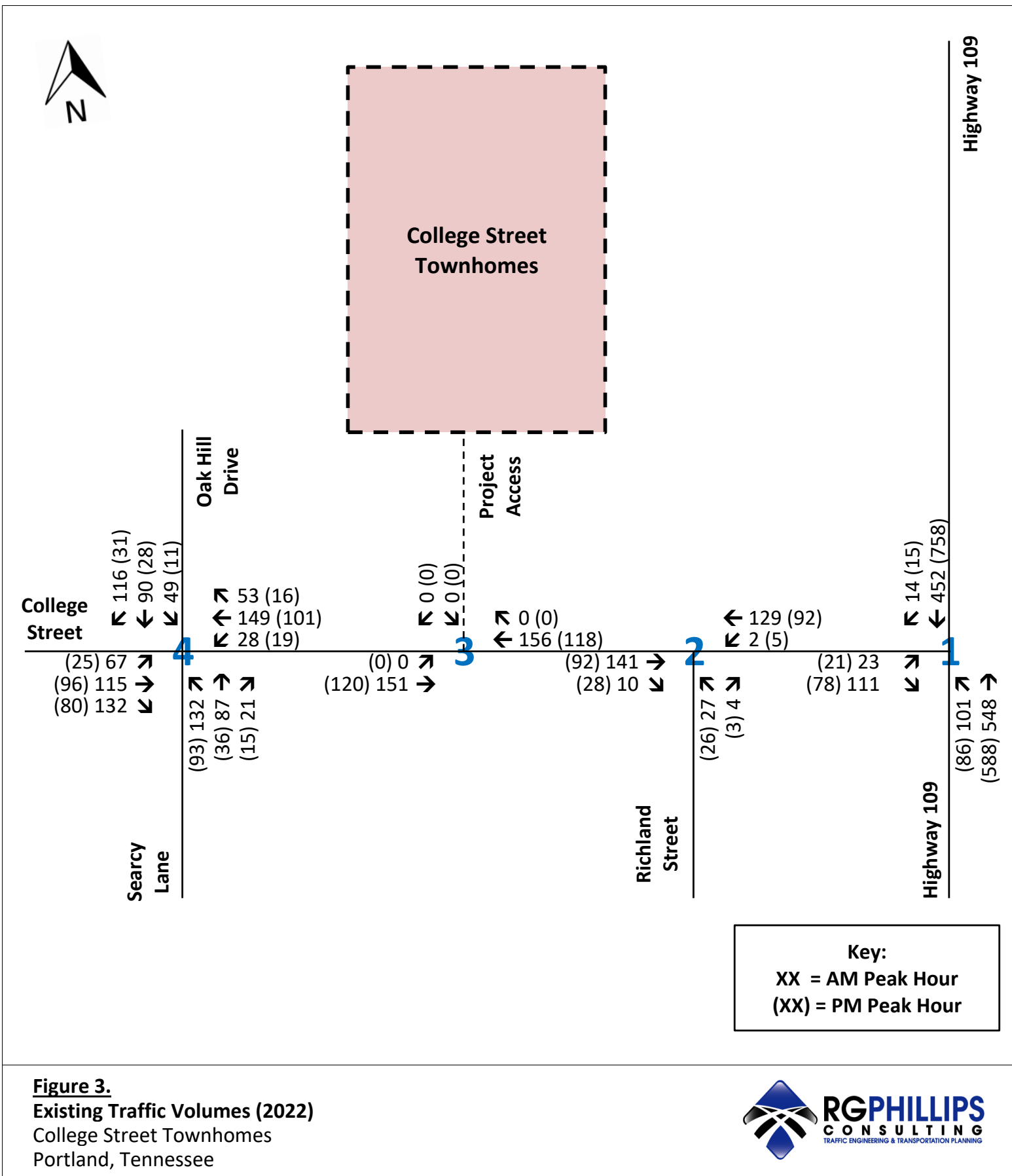


Figure 3.
Existing Traffic Volumes (2022)
 College Street Townhomes
 Portland, Tennessee

Existing Intersection Capacity Analyses

To determine the current LOS of the intersections studied, capacity analyses were performed for the AM and PM peak hours of traffic. The capacity calculations were performed in accordance with the methods outlined in the *Highway Capacity Manual*.

As previously described, the capacity analyses result in the determination of a Level of Service (LOS) for an intersection. The LOS is a concept used to describe how well an intersection or roadway operates. LOS A is the best, while LOS F is the worst.

As shown in Table 3, the intersections contained in the study area presently operate at relatively good levels of service (LOS C or better) during the AM and PM peak traffic hours.

Appendix B contains the capacity analysis worksheets for the 2022 existing traffic conditions.

Table 3
2022 Existing Traffic Conditions Analyses
Peak Hour Levels of Service

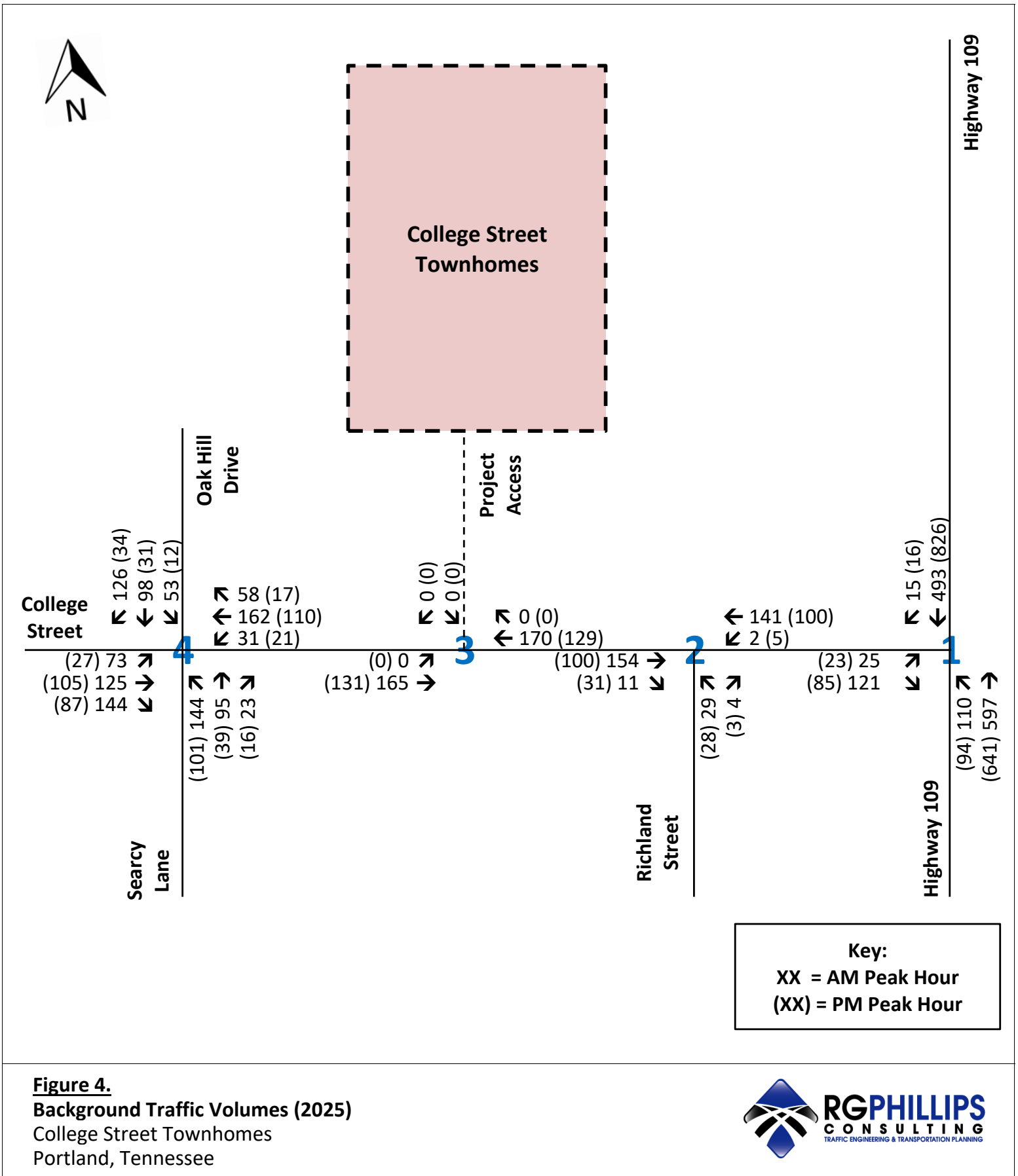
Intersection			Level of Service/ Delay (Seconds)	
#	Description	Movement ⁽¹⁾	AM Peak Hour	PM Peak Hour
1	Highway 109 & College Street	Overall (Signalized)	A (8.3)	A (6.7)
2	College Street & Richland Street	Northbound	B (10.7)	A (9.9)
		Westbound Left	A (7.6)	A (7.5)
3	College Street & Project Access	Southbound	---	---
		Eastbound Left	---	---
4	College Street & Searcy Lane / Oak Hill Drive	Overall (All-Way Stop)	C (18.5)	A (8.9)

⁽¹⁾ For signalized locations and all-way stop control, the overall LOS and delay are listed for the intersection. For intersections with stop control on the minor approaches only, the LOS and delay are listed for movements that are required to stop or yield the right-of-way.

4. 2025 BACKGROUND TRAFFIC CONDITIONS

The 2025 background conditions analyses are presented to evaluate the traffic levels expected at the project buildout year due to growth. Data from a nearby count station, #12 on College Street, west of the project site, was obtained from TDOT. Based on historical ADT traffic counts at this count station, an average rate of 2.3% traffic growth was indicated in the vicinity of the project site over the last ten-year period. In view of this, the 2022 existing traffic volumes were increased by 3.0% for the three-year development period to obtain the 2025 background traffic volumes.

These 2025 background traffic volumes represent the traffic which could be expected to travel through the study area even if the proposed project is not developed. The historical TDOT data from count station #12 is included in Appendix A. The resulting 2025 background traffic volumes are illustrated in Figure 4.



2025 Background Intersection Capacity Analyses

To determine the LOS of the intersections studied, capacity analyses were performed for the AM and PM peak hours of traffic for the 2025 background traffic conditions. The capacity calculations were performed in accordance with the methods outlined in the *Highway Capacity Manual*. As previously described, the capacity analyses result in the determination of a Level of Service (LOS) for an intersection. The LOS is a concept used to describe how well an intersection or roadway operates. LOS A is the best, while LOS F is the worst.

The 2025 background traffic volumes represent the traffic which could be expected to travel through the study area even if the proposed project is not developed. As shown in Table 4, the intersections included in this study are expected to operate at acceptable levels of service (LOS D or better) during the AM and PM peak traffic hours.

Appendix B contains the capacity analysis worksheets for the 2025 background traffic conditions.

Table 4
2025 Background Traffic Conditions Analyses
Peak Hour Levels of Service

Intersection			Level of Service/ Delay (Seconds)	
#	Description	Movement ⁽¹⁾	AM Peak Hour	PM Peak Hour
1	Highway 109 & College Street	Overall (Signalized)	A (8.6)	A (6.9)
2	College Street & Richland Street	Northbound	B (11.0)	B (10.1)
		Westbound Left	A (7.6)	A (7.5)
3	College Street & Project Access	Southbound	---	---
		Eastbound Left	---	---
4	College Street & Searcy Lane / Oak Hill Drive	Overall (All-Way Stop)	D (25.8)	A (9.2)

⁽¹⁾ For signalized locations and all-way stop control, the overall LOS and delay are listed for the intersection. For intersections with stop control on the minor approaches only, the LOS and delay are listed for movements that are required to stop or yield the right-of-way.

5. 2025 PROJECTED TRAFFIC CONDITIONS

To develop the projected traffic conditions, the trips expected to be generated by the proposed development were determined. These trips were then assigned to the roadway network using a directional traffic distribution.

Trip Generation

As mentioned in the project description, the proposed development will include 95 townhomes. Trips expected to be generated by the proposed development were calculated using data from *Trip Generation* (11th Edition), which is a publication of the Institute of Transportation Engineers (ITE). The results of the trip generation calculations are presented in Table 5.

Table 5
Trip Generation for the Proposed
College Street Townhomes Development

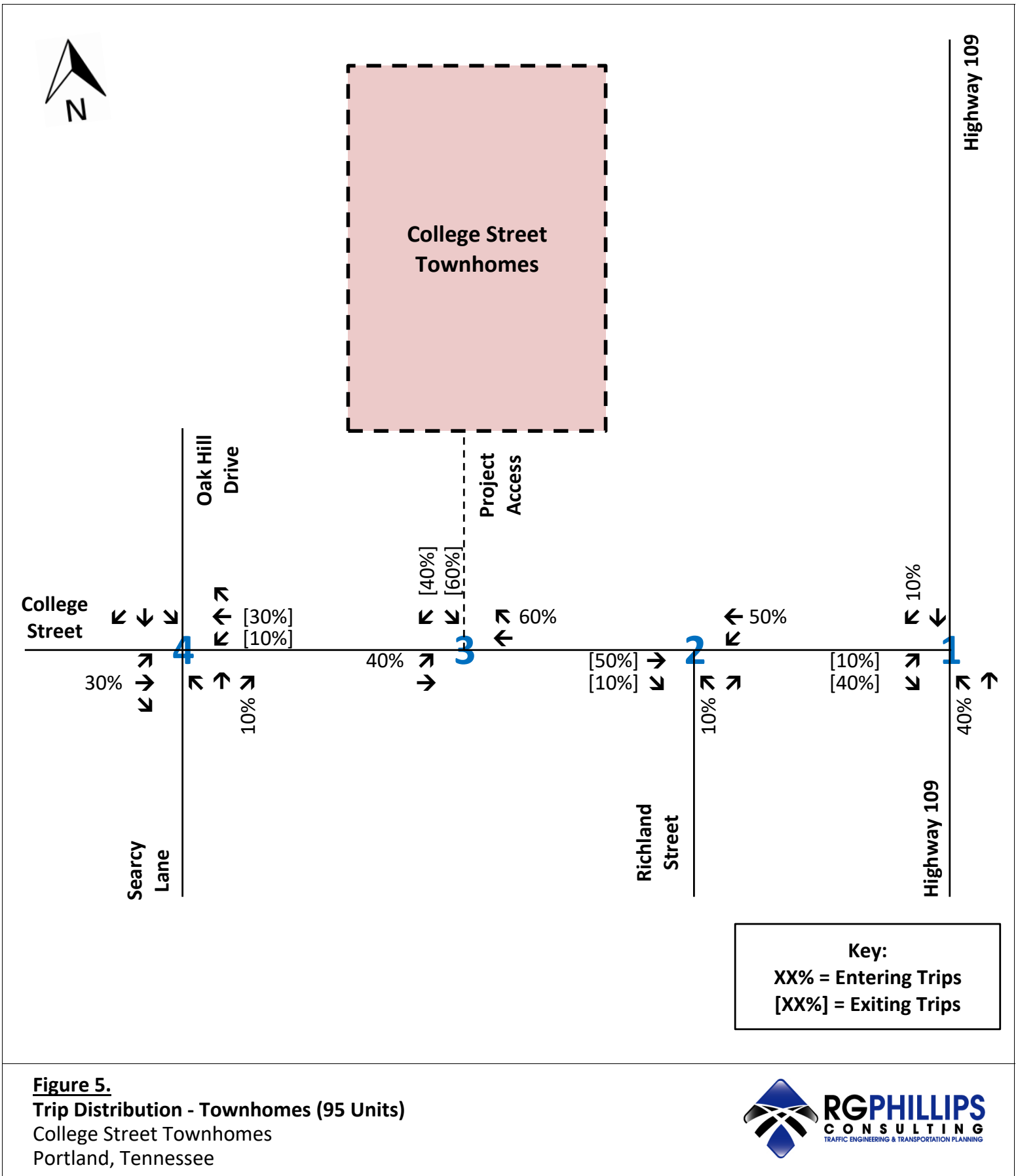
Description	ITE Land Use Code (LUC)	SIZE	Daily Trips	AM Peak Hour Trips		PM Peak Hour Trips	
				Enter	Exit	Enter	Exit
Townhomes	215	95 Units	674	14	31	31	23

Additional information regarding the trip generation calculations for the site development included in this study is contained in Appendix C.

Trip Distribution

The trips that will be generated by the proposed residential development were assigned to the roadway network using a trip distribution that is detailed in Appendix D. This directional distribution, which is illustrated in Figure 5, was based on the existing directional split of traffic, the access proposed for the site, and the employment centers in the area and is described as follows:

- 50% to / from the east on College Street
- 40% to / from the west on College Street
- 10% to / from the south on Richland Street



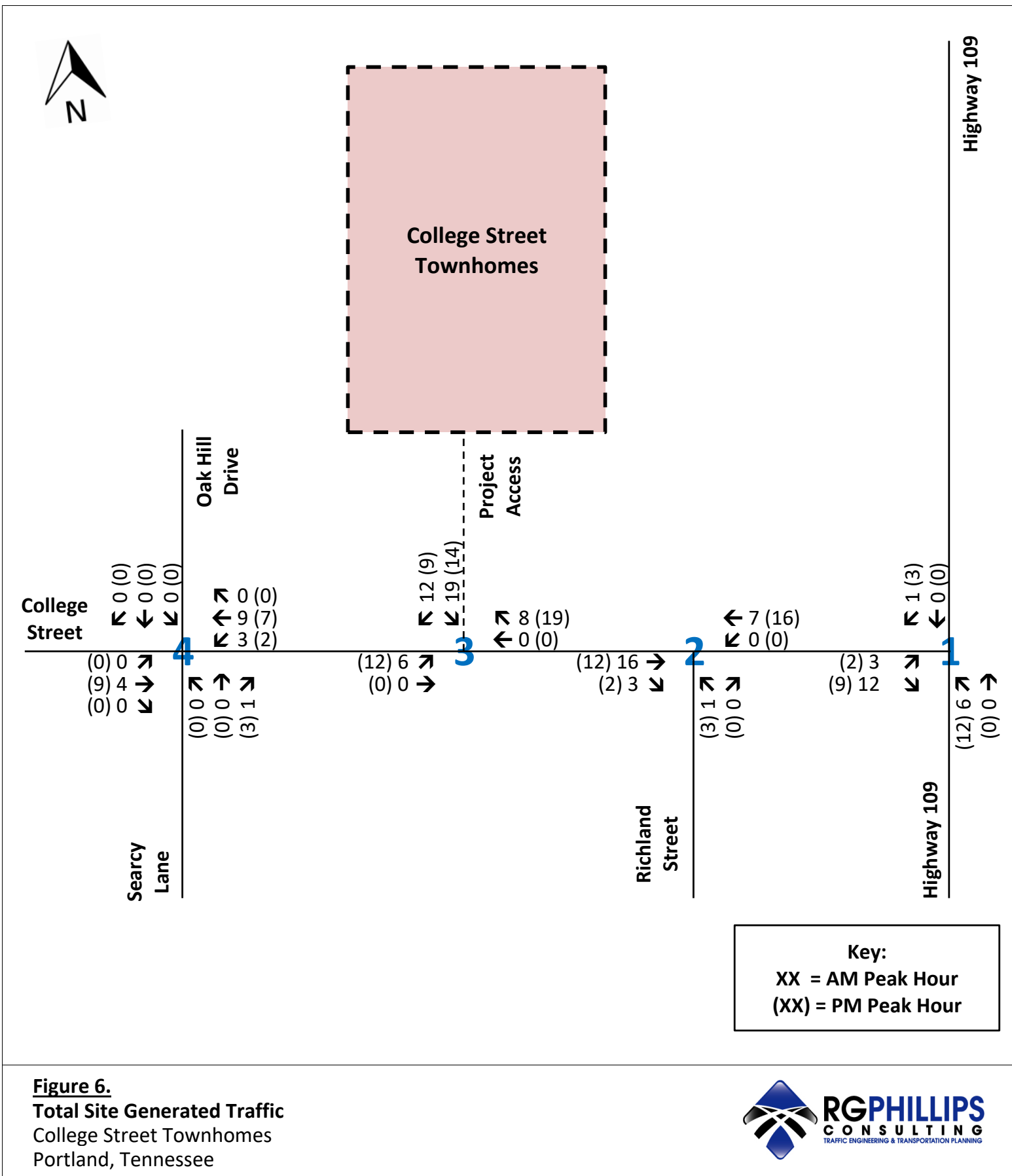
Traffic Assignment

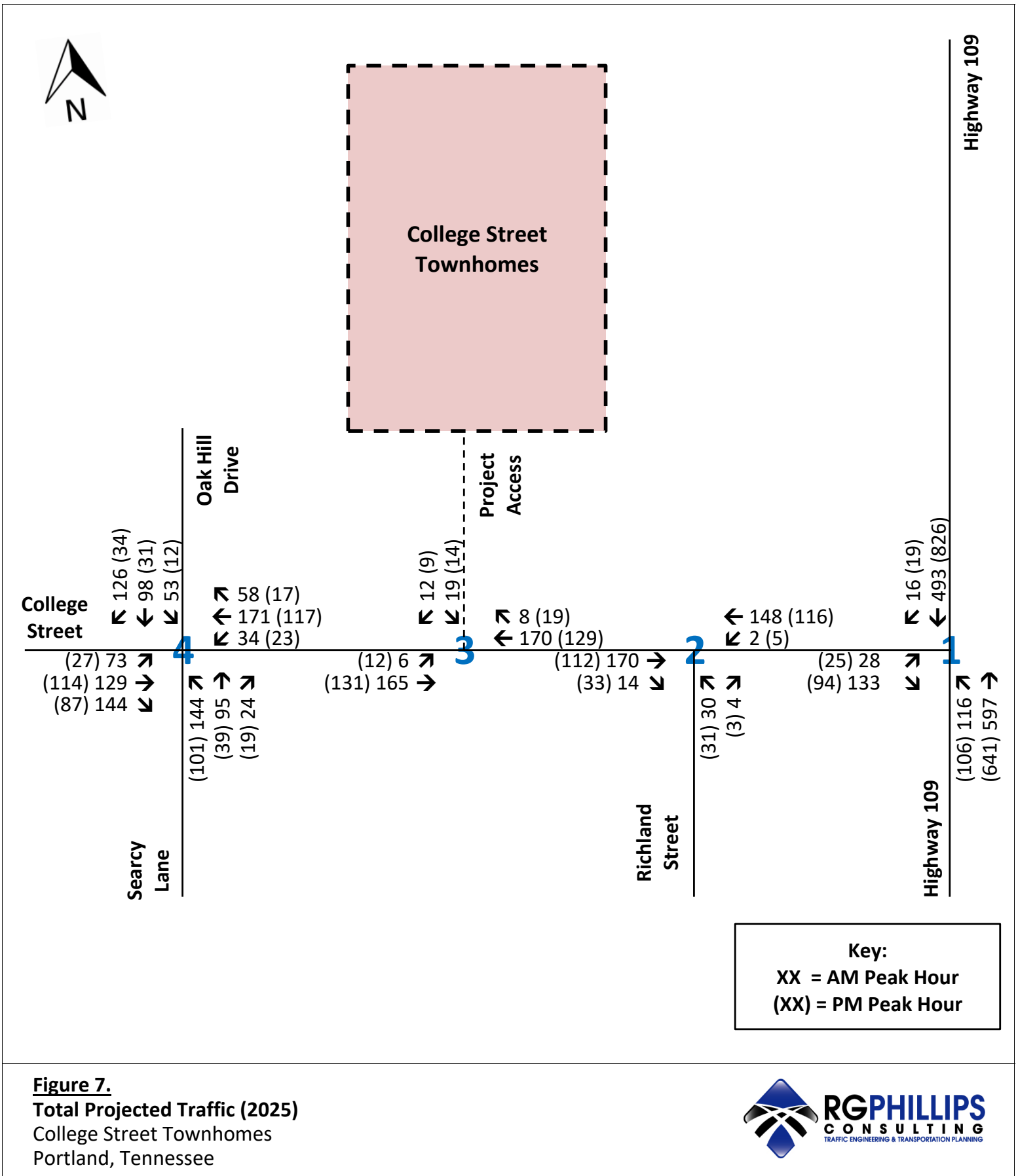
The assignments of the total trips that will be generated by the proposed College Street Townhomes development are presented in Figure 6. These trips represent the new traffic expected to be generated by the site development of the project.

Appendix E contains the traffic assignment figures utilized in developing the projected traffic volumes at buildout conditions. Traffic assignment information included in Appendix E is listed as follows:

- Existing Traffic Volumes (2022)
- Background Traffic Volumes (2025)
 - Historical Growth (3.0% per year for 3 years)
 - Total Background Traffic (2025)
- Total Site Generated Traffic Assignment (95 Townhomes)
- Total Projected Traffic Volumes at Project Buildout (2025)

Figure 7 presents the total projected AM and PM peak hour traffic volumes expected at the completion of the proposed project in 2025.





2025 Projected Intersection Capacity Analyses

Capacity analyses were performed in order to determine the impact of the project on the intersections included in the scope of the study. These capacity analyses were used to evaluate the need for roadway and traffic control improvements at the intersections studied.

The results of the capacity analyses for the 2025 projected traffic conditions at the intersections studied are presented in Table 6. As shown, the intersections included in this study are projected to operate at acceptable levels of service (LOS D or better) during the AM and PM peak traffic hours.

Appendix B contains the capacity analysis worksheets for the 2025 projected traffic conditions.

Table 6
2025 Projected Traffic Conditions at Project Buildout
Peak Hour Levels of Service

Intersection			Level of Service/ Delay (Seconds)	
#	Description	Movement ⁽¹⁾	AM Peak Hour	PM Peak Hour
1	Highway 109 & College Street	Overall (Signalized)	A (9.2)	A (7.4)
2	College Street & Richland Street	Northbound	B (11.2)	B (10.4)
		Westbound Left	A (7.7)	A (7.6)
3	College Street & Project Access	Southbound	B (10.9)	B (10.2)
		Eastbound Left	A (7.7)	A (7.6)
4	College Street & Searcy Lane / Oak Hill Drive	Overall (All-Way Stop)	D (27.5)	A (9.4)

⁽¹⁾ For signalized locations and all-way stop control, the overall LOS and delay are listed for the intersection. For intersections with stop control on the minor approaches only, the LOS and delay are listed for movements that are required to stop or yield the right-of-way.

Consideration of Offsite Improvements

Based on the results of the 2025 projected intersection capacity analyses, various offsite improvements were evaluated. Specifically, the need for left and right turn lane improvements was assessed.

Left Turn Lane Warrants

The 2025 projected traffic volumes were compared to the standards set forth in M.D. Harmelink's Volume Warrants for Left-Turn Storage Lanes at Unsignalized Intersections. Analyses were conducted to determine the need for left turn lane improvements at the following locations:

- #2 – College Street & Richland Street
- #3 – College Street & Project Access

#2 – College Street & Richland Street

The results of the analyses show that the projected volumes do not meet the thresholds required for the installation of a westbound left turn lane at the intersection of College Street and Richland Street.

#3 – College Street & Project Access

The results of the analyses show that the projected volumes do not meet the thresholds required for the installation of an eastbound left turn lane at the intersection of College Street and the proposed Project Access.

Copies of the left turn warrant analyses sheets for the 2025 projected traffic conditions are included in Appendix F.

Right Turn Lane Evaluations

To evaluate the need for right turn lane improvements, the criteria contained in NCHRP 457 were compared to the 2025 projected traffic volumes at the following locations:

- #2 – College Street & Richland Street
- #3 – College Street & Project Access

For each location, the AM and PM peak hour volumes were compared to the data for a two-lane, 40-mph roadway.

#2 – College Street & Richland Street

The results of the analyses show that the projected volumes do not meet the thresholds indicated for the installation of an eastbound right turn lane at the intersection of College Street and Richland Street.

#3 – College Street & Project Access

The results of the analyses show that the projected volumes do not meet the thresholds indicated for the installation of a westbound right turn lane at the intersection of College Street and the proposed Project Access.

Copies of the right turn analyses are included in Appendix F.

6. CONCLUSIONS AND RECOMMENDATIONS

The analyses presented in this study indicate that the traffic generated by the College Street Townhomes residential development can be supported by the existing roadway network without any offsite improvements. The analyses of the 2025 projected traffic conditions at each intersection included in the scope of the study indicate acceptable levels of service (LOS D or better) during both the AM and PM peak hours of traffic. Additionally, the 2025 projected traffic volumes do not meet the thresholds indicated for the installation of left or right turn lanes at the proposed Project Access.

In conclusion, the proposed College Street Townhomes development is not expected to have a significant impact on the traffic operations in the area.

APPENDIX A
TRAFFIC COUNT DATA

INTERSECTION TURNING

MOVEMENT COUNTS

INTERSECTION VEHICULAR TURNING MOVEMENT COUNTS

LOCATION: #1 - Highway 109 & College Street

PROJECT: College Street Townhomes TIS

DATE: Thursday, May 19, 2022

LOCATION	Northbound			Southbound			Eastbound			Westbound		
	Highway 109			Highway 109			College Street					
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM - 7:15 AM	11	135			112	3	3		22			
7:15 AM - 7:30 AM	19	147			127	5	3		33			
7:30 AM - 7:45 AM	39	128			105	4	9		24			
7:45 AM - 8:00 AM	32	138			108	2	8		32			
8:00 AM - 8:15 AM	11	112			101	2	1		18			
8:15 AM - 8:30 AM	14	132			101	4	4		8			
8:30 AM - 8:45 AM	4	121			94	1	2		15			
8:45 AM - 9:00 AM	7	141			89	5	1		13			
4:00 PM - 4:15 PM	30	153			181	6	6		16			
4:15 PM - 4:30 PM	25	155			158	3	7		24			
4:30 PM - 4:45 PM	13	121			229	4	2		19			
4:45 PM - 5:00 PM	18	159			190	2	6		19			
5:00 PM - 5:15 PM	21	154			175	5	5		16			
5:15 PM - 5:30 PM	14	143			141	4	3		29			
5:30 PM - 5:45 PM	28	140			158	4	1		29			
5:45 PM - 6:00 PM	19	162			126	3	2		28			
AM Peak Hour (7:00 AM - 8:00 AM)	101	548	0	0	452	14	23	0	111	0	0	0
PM Peak Hour (4:00 PM - 5:00 PM)	86	588	0	0	758	15	21	0	78	0	0	0
												PHF
												0.93
												0.98

INTERSECTION VEHICULAR TURNING MOVEMENT COUNTS

LOCATION: #2 - College Street & Richland Street

PROJECT: College Street Townhomes TIS

DATE: Thursday, May 19, 2022

LOCATION	Northbound			Southbound			Eastbound			Westbound		
	Richland Street						College Street			College Street		
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM - 7:15 AM	7		1					26	2	0	20	
7:15 AM - 7:30 AM	6		0					31	2	2	28	
7:30 AM - 7:45 AM	8		2					39	1	0	47	
7:45 AM - 8:00 AM	6		1					45	5	0	34	
8:00 AM - 8:15 AM	1		0					20	2	0	10	
8:15 AM - 8:30 AM	2		1					10	4	0	16	
8:30 AM - 8:45 AM	0		0					15	1	0	11	
8:45 AM - 9:00 AM	1		1					12	1	1	5	
4:00 PM - 4:15 PM	5		1					20	9	0	31	
4:15 PM - 4:30 PM	6		0					28	8	2	27	
4:30 PM - 4:45 PM	7		1					23	6	2	16	
4:45 PM - 5:00 PM	8		1					21	5	1	18	
5:00 PM - 5:15 PM	2		1					22	5	1	32	
5:15 PM - 5:30 PM	4		3					33	8	0	19	
5:30 PM - 5:45 PM	8		1					30	3	2	34	
5:45 PM - 6:00 PM	4		1					28	6	27	1	
AM Peak Hour (7:00 AM - 8:00 AM)	27	0	4	0	0	0	0	141	10	2	129	0
PM Peak Hour (4:00 PM - 5:00 PM)	26	0	3	0	0	0	0	92	28	5	92	0
												PHF
												0.81
												0.87

INTERSECTION VEHICULAR TURNING MOVEMENT COUNTS

LOCATION: #3 - College Street & Project Access

PROJECT: College Street Townhomes TIS

DATE: Thursday, May 19, 2022

LOCATION	Northbound			Southbound			Eastbound			Westbound		
				Project Access			College Street			College Street		
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM - 7:15 AM								28			27	
7:15 AM - 7:30 AM								33			34	
7:30 AM - 7:45 AM								40			55	
7:45 AM - 8:00 AM								50			40	
8:00 AM - 8:15 AM								22			11	
8:15 AM - 8:30 AM								14			18	
8:30 AM - 8:45 AM								16			11	
8:45 AM - 9:00 AM								13			6	
4:00 PM - 4:15 PM								29			36	
4:15 PM - 4:30 PM								36			33	
4:30 PM - 4:45 PM								29			23	
4:45 PM - 5:00 PM								26			26	
5:00 PM - 5:15 PM								27			34	
5:15 PM - 5:30 PM								41			23	
5:30 PM - 5:45 PM								33			42	
5:45 PM - 6:00 PM								34			5	
AM Peak Hour (7:00 AM - 8:00 AM)	0	0	0	0	0	0	0	151	0	0	156	0
PM Peak Hour (4:00 PM - 5:00 PM)	0	0	0	0	0	0	0	120	0	0	118	0
												PHF
												0.81
												0.86

INTERSECTION VEHICULAR TURNING MOVEMENT COUNTS

LOCATION: #4 - College Street & Searcy Lane / Oak Hill Drive

PROJECT: College Street Townhomes TIS

DATE: Thursday, May 19, 2022

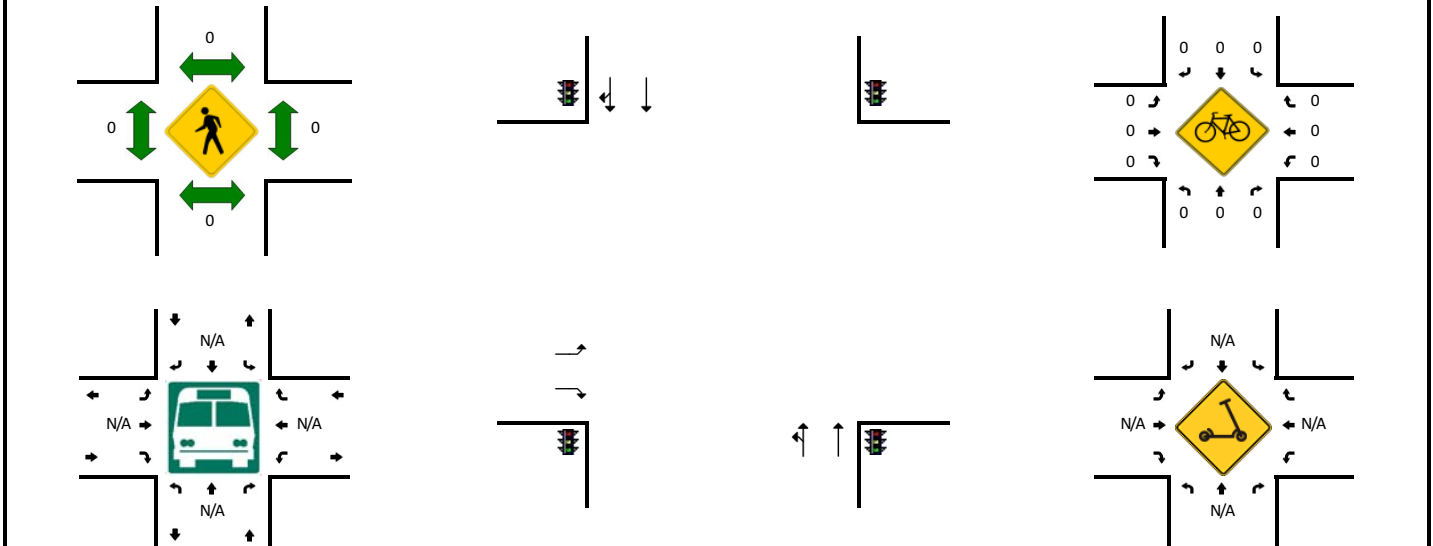
LOCATION	Northbound			Southbound			Eastbound			Westbound		
	Searcy Lane			Oak Hill Drive			College Street			College Street		
TIME	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM - 7:15 AM	23	19	7	7	27	17	13	22	20	11	20	7
7:15 AM - 7:30 AM	28	27	6	18	18	28	16	24	36	5	20	14
7:30 AM - 7:45 AM	41	25	5	14	23	39	21	26	39	4	43	26
7:45 AM - 8:00 AM	40	16	3	10	22	32	17	43	37	8	66	6
8:00 AM - 8:15 AM	20	4	3	2	6	5	8	16	31	2	14	1
8:15 AM - 8:30 AM	13	2	3	3	2	4	2	5	13	2	13	2
8:30 AM - 8:45 AM	6	4	1	1	2	3	0	12	9	1	8	0
8:45 AM - 9:00 AM	8	3	1	0	7	2	3	12	14	0	4	1
4:00 PM - 4:15 PM	26	6	5	2	8	3	3	19	17	8	34	4
4:15 PM - 4:30 PM	20	7	2	5	12	7	7	28	20	4	27	4
4:30 PM - 4:45 PM	24	8	6	1	3	13	6	26	22	2	18	5
4:45 PM - 5:00 PM	23	15	2	3	5	8	9	23	21	5	22	3
5:00 PM - 5:15 PM	21	11	3	6	10	8	4	20	12	4	32	8
5:15 PM - 5:30 PM	22	3	1	4	8	7	9	34	10	1	18	4
5:30 PM - 5:45 PM	31	7	2	4	5	12	8	32	11	2	41	5
5:45 PM - 6:00 PM	30	9	4	4	8	6	6	23	15	2	26	5
AM Peak Hour (7:00 AM - 8:00 AM)	132	87	21	49	90	116	67	115	132	28	149	53
PM Peak Hour (4:00 PM - 5:00 PM)	93	36	15	11	28	31	25	96	80	19	101	16
												PHF
												0.85
												0.96

QUALITY COUNTS

TMC REPORTS

LOCATION: N Broadway -- College St**CITY/STATE:** Portland, TN**QC JOB #:** 15831804**DATE:** Thu, May 19 2022

Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:15 AM -- 7:30 AM



15-Min Count Period Beginning At	N Broadway (Northbound)				N Broadway (Southbound)				College St (Eastbound)				College St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	11	135	0	0	0	112	3	0	3	0	22	0	0	0	0	0	286	
7:15 AM	19	147	0	0	0	127	5	0	3	0	33	0	0	0	0	0	334	
7:30 AM	39	128	0	0	0	105	4	0	9	0	24	0	0	0	0	0	309	
7:45 AM	32	138	0	0	0	108	2	0	8	0	32	0	0	0	0	0	320	1249
8:00 AM	11	112	0	0	0	101	2	0	1	0	18	0	0	0	0	0	245	1208
8:15 AM	14	132	0	0	0	101	4	0	4	0	8	0	0	0	0	0	263	1137
8:30 AM	4	121	0	0	0	94	1	0	2	0	15	0	0	0	0	0	237	1065
8:45 AM	7	141	0	0	0	89	5	0	1	0	13	0	0	0	0	0	256	1001
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	76	588	0	0	0	508	20	0	12	0	132	0	0	0	0	0	1336	
Heavy Trucks	4	88	0	0	0	132	4	0	0	0	4	0	0	0	0	0	232	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

Comments:

Report generated on 5/31/2022 5:40 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

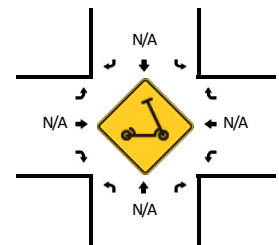
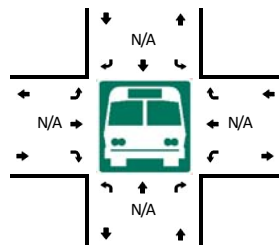
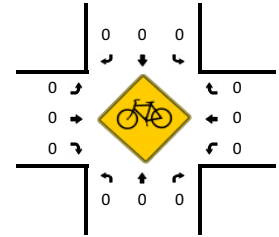
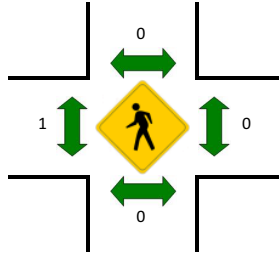
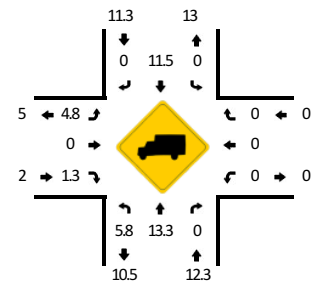
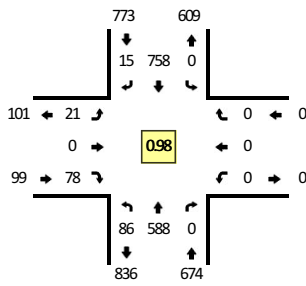
LOCATION: N Broadway -- College St

CITY/STATE: Portland, TN

QC JOB #: 15831805

DATE: Thu, May 19 2022

Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:45 PM -- 5:00 PM



15-Min Count Period Beginning At	N Broadway (Northbound)				N Broadway (Southbound)				College St (Eastbound)				College St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	30	153	0	0	0	181	6	0	6	0	16	0	0	0	0	0	392	
4:15 PM	25	155	0	0	0	158	3	0	7	0	24	0	0	0	0	0	372	
4:30 PM	13	121	0	0	0	229	4	0	2	0	19	0	0	0	0	0	388	
4:45 PM	18	159	0	0	0	190	2	0	6	0	19	0	0	0	0	0	394	1546
5:00 PM	21	154	0	0	0	175	5	0	5	0	16	0	0	0	0	0	376	1530
5:15 PM	14	143	0	0	0	141	4	0	3	0	29	0	0	0	0	0	334	1492
5:30 PM	28	140	0	0	0	158	4	0	1	0	29	0	0	0	0	0	360	1464
5:45 PM	19	162	0	0	0	126	3	0	2	0	28	0	0	0	0	0	340	1410
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	72	636	0	0	0	760	8	0	24	0	76	0	0	0	0	0	1576	
Heavy Trucks	0	60	0	0	0	120	0	0	4	0	0	0	0	0	0	0	184	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

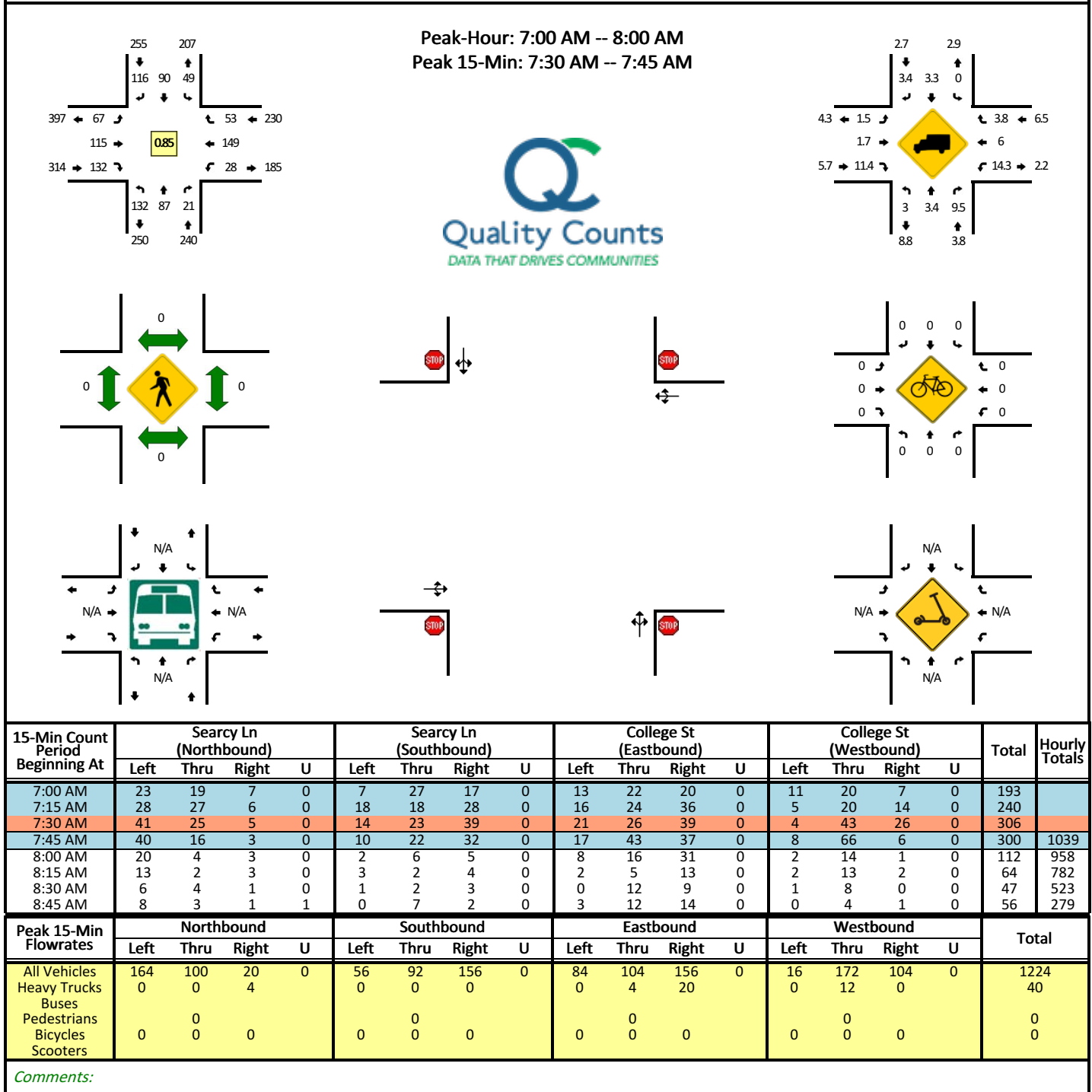
Comments:

Report generated on 5/31/2022 5:40 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

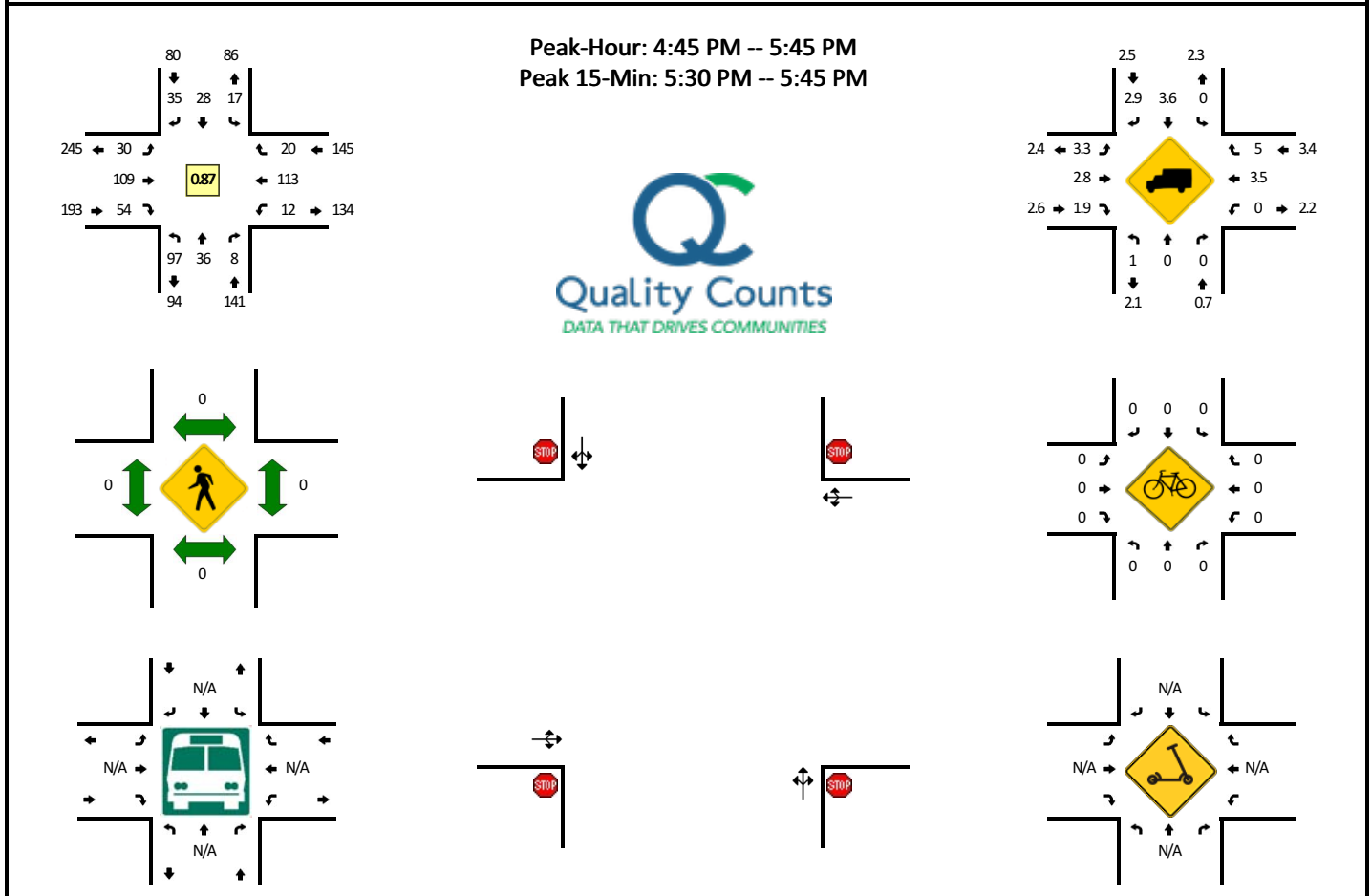
LOCATION: Searcy Ln -- College St
CITY/STATE: Portland, TN

QC JOB #: 15831801
DATE: Thu, May 19 2022



LOCATION: Searcy Ln -- College St
CITY/STATE: Portland, TN

QC JOB #: 15831802
DATE: Thu, May 19 2022



15-Min Count Period Beginning At	Searcy Ln (Northbound)				Searcy Ln (Southbound)				College St (Eastbound)				College St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	26	6	5	0	2	8	3	0	3	19	17	0	8	34	4	0	135	
4:15 PM	20	7	2	0	5	12	7	0	7	28	20	0	4	27	4	0	143	
4:30 PM	24	8	6	0	1	3	13	0	6	26	22	0	2	18	5	0	134	
4:45 PM	23	15	2	0	3	5	8	0	9	23	21	0	5	22	3	0	139	551
5:00 PM	21	11	3	0	6	10	8	0	4	20	12	0	4	32	8	0	139	555
5:15 PM	22	3	1	0	4	8	7	0	9	34	10	0	1	18	4	0	121	533
5:30 PM	31	7	2	0	4	5	12	0	8	32	11	0	2	41	5	0	160	559
5:45 PM	30	9	4	0	4	8	6	0	6	23	15	0	2	26	5	0	138	558
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	124	28	8	0	16	20	48	0	32	128	44	0	8	164	20	0	640	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

Comments:

Report generated on 5/31/2022 5:40 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

TDOT TRAFFIC DATA

TDOT Traffic Count Historical Data
Sumner County Station #12 (College Street)

Average Annual Growth, 2011-2021: 2.3% Per Year

	ADT	Average Per Year
2021	3,624	
		17.8%
2020	3,076	
		-16.5%
2019	3,682	
		23.4%
2018	2,985	
		-12.7%
2017	3,421	
		2.8%
2016	3,327	
		-1.8%
2015	3,389	
		-1.5%
2014	3,439	
		7.4%
2013	3,201	
		1.0%
2012	3,169	
		8.0%
2011	2,935	



APPENDIX B
TRAFFIC ANALYSES

EXISTING TRAFFIC CONDITIONS (2022)

AM PEAK

HCM 6th Signalized Intersection Summary

1: Highway 109 & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	23	111	101	548	452	14
Future Volume (veh/h)	23	111	101	548	452	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1752	1870
Adj Flow Rate, veh/h	25	119	109	589	486	15
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	10	10	2
Cap, veh/h	193	171	351	1820	2464	76
Arrive On Green	0.11	0.11	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1781	1585	399	2514	3384	102
Grp Volume(v), veh/h	25	119	331	367	245	256
Grp Sat Flow(s),veh/h/ln	1781	1585	1319	1514	1664	1734
Q Serve(g_s), s	1.1	6.5	1.8	7.3	3.9	3.9
Cycle Q Clear(g_c), s	1.1	6.5	5.9	7.3	3.9	3.9
Prop In Lane	1.00	1.00	0.33			0.06
Lane Grp Cap(c), veh/h	193	171	1039	1132	1244	1296
V/C Ratio(X)	0.13	0.69	0.32	0.32	0.20	0.20
Avail Cap(c_a), veh/h	455	405	1039	1132	1244	1296
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	38.7	3.6	3.8	3.4	3.4
Incr Delay (d2), s/veh	0.3	5.0	0.8	0.8	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.7	1.6	1.9	1.1	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.6	43.7	4.4	4.5	3.7	3.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	144			698	501	
Approach Delay, s/veh	42.5			4.5	3.7	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.3		16.7		73.3
Change Period (Y+Rc), s		6.0		7.0		6.0
Max Green Setting (Gmax), s		54.0		23.0		54.0
Max Q Clear Time (g_c+I1), s		9.3		8.5		5.9
Green Ext Time (p_c), s		3.5		0.4		2.1
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	141	10	2	129	27	4
Future Vol, veh/h	141	10	2	129	27	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	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	12	2	159	33	5
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	186	0	343	180
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1388	-	653	863
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1388	-	652	863
Mov Cap-2 Maneuver	-	-	-	-	652	-
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	864	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.1		10.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	673	-	-	1388	-	
HCM Lane V/C Ratio	0.057	-	-	0.002	-	
HCM Control Delay (s)	10.7	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th AWSC
4: Searcy Lane/Oak Hill Drive & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

Intersection

Intersection Delay, s/veh 18.5
Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	115	132	28	149	53	132	87	21	49	90	116
Future Vol, veh/h	67	115	132	28	149	53	132	87	21	49	90	116
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	135	155	33	175	62	155	102	25	58	106	136
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	21.1			16.6			18			17.6		
HCM LOS	C			C			C			C		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	55%	21%	12%	19%
Vol Thru, %	36%	37%	65%	35%
Vol Right, %	9%	42%	23%	45%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	314	230	255
LT Vol	132	67	28	49
Through Vol	87	115	149	90
RT Vol	21	132	53	116
Lane Flow Rate	282	369	271	300
Geometry Grp	1	1	1	1
Degree of Util (X)	0.544	0.66	0.508	0.552
Departure Headway (Hd)	6.932	6.434	6.756	6.621
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	520	562	533	546
Service Time	4.97	4.473	4.814	4.657
HCM Lane V/C Ratio	0.542	0.657	0.508	0.549
HCM Control Delay	18	21.1	16.6	17.6
HCM Lane LOS	C	C	C	C
HCM 95th-tile Q	3.2	4.8	2.8	3.3

EXISTING TRAFFIC CONDITIONS (2022)

PM PEAK

HCM 6th Signalized Intersection Summary

1: Highway 109 & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	78	86	588	758	15
Future Volume (veh/h)	21	78	86	588	758	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1752	1870
Adj Flow Rate, veh/h	21	80	88	600	773	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	10	10	2
Cap, veh/h	155	138	286	1906	2655	52
Arrive On Green	0.09	0.09	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1781	1585	307	2477	3427	65
Grp Volume(v), veh/h	21	80	312	376	385	403
Grp Sat Flow(s),veh/h/ln	1781	1585	1190	1514	1664	1740
Q Serve(g_s), s	1.2	5.3	0.6	7.4	6.8	6.8
Cycle Q Clear(g_c), s	1.2	5.3	7.4	7.4	6.8	6.8
Prop In Lane	1.00	1.00	0.28			0.04
Lane Grp Cap(c), veh/h	155	138	988	1204	1323	1384
V/C Ratio(X)	0.14	0.58	0.32	0.31	0.29	0.29
Avail Cap(c_a), veh/h	453	403	988	1204	1323	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	48.3	2.8	3.1	3.0	3.0
Incr Delay (d2), s/veh	0.4	3.9	0.8	0.7	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.3	1.5	1.9	1.9	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.8	52.2	3.7	3.7	3.6	3.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	101			688	788	
Approach Delay, s/veh	51.1			3.7	3.6	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		93.5		16.5		93.5
Change Period (Y+Rc), s		6.0		7.0		6.0
Max Green Setting (Gmax), s		69.0		28.0		69.0
Max Q Clear Time (g_c+I1), s		9.4		7.3		8.8
Green Ext Time (p_c), s		3.7		0.3		3.7
Intersection Summary						
HCM 6th Ctrl Delay			6.7			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	92	28	5	92	26	3
Future Vol, veh/h	92	28	5	92	26	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	106	32	6	106	30	3
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	138	0	240	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	118	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1446	-	748	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1446	-	745	929
Mov Cap-2 Maneuver	-	-	-	-	745	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	903	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		9.9		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	761	-	-	1446	-	
HCM Lane V/C Ratio	0.044	-	-	0.004	-	
HCM Control Delay (s)	9.9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	96	80	19	101	16	93	36	15	11	28	31
Future Vol, veh/h	25	96	80	19	101	16	93	36	15	11	28	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	100	83	20	105	17	97	38	16	11	29	32
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9			8.8			9.2			8.2		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	65%	12%	14%	16%
Vol Thru, %	25%	48%	74%	40%
Vol Right, %	10%	40%	12%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	201	136	70
LT Vol	93	25	19	11
Through Vol	36	96	101	28
RT Vol	15	80	16	31
Lane Flow Rate	150	209	142	73
Geometry Grp	1	1	1	1
Degree of Util (X)	0.204	0.258	0.184	0.095
Departure Headway (Hd)	4.89	4.434	4.674	4.696
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	732	808	765	759
Service Time	2.937	2.472	2.717	2.75
HCM Lane V/C Ratio	0.205	0.259	0.186	0.096
HCM Control Delay	9.2	9	8.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1	0.7	0.3

BACKGROUND TRAFFIC CONDITIONS (2025)

AM PEAK

HCM 6th Signalized Intersection Summary

1: Highway 109 & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	121	110	597	493	15
Future Volume (veh/h)	25	121	110	597	493	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1752	1870
Adj Flow Rate, veh/h	27	130	118	642	530	16
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	10	10	2
Cap, veh/h	194	173	346	1797	2463	74
Arrive On Green	0.11	0.11	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1781	1585	391	2486	3386	99
Grp Volume(v), veh/h	27	130	355	405	267	279
Grp Sat Flow(s),veh/h/ln	1781	1585	1284	1514	1664	1734
Q Serve(g_s), s	1.2	7.2	2.9	8.3	4.4	4.4
Cycle Q Clear(g_c), s	1.2	7.2	7.3	8.3	4.4	4.4
Prop In Lane	1.00	1.00	0.33			0.06
Lane Grp Cap(c), veh/h	194	173	1012	1131	1243	1295
V/C Ratio(X)	0.14	0.75	0.35	0.36	0.21	0.22
Avail Cap(c_a), veh/h	455	405	1012	1131	1243	1295
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	38.9	3.7	3.9	3.4	3.4
Incr Delay (d2), s/veh	0.3	6.5	1.0	0.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	1.8	2.2	1.2	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.6	45.4	4.7	4.8	3.8	3.8
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	157			760	546	
Approach Delay, s/veh	43.9			4.7	3.8	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.2		16.8		73.2
Change Period (Y+Rc), s		6.0		7.0		6.0
Max Green Setting (Gmax), s		54.0		23.0		54.0
Max Q Clear Time (g_c+I1), s		10.3		9.2		6.4
Green Ext Time (p_c), s		4.0		0.5		2.3
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	154	11	2	141	29	4
Future Vol, veh/h	154	11	2	141	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	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	190	14	2	174	36	5
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	204	0	375	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1368	-	626	844
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1368	-	625	844
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	851	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.1		11		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	645	-	-	1368	-	
HCM Lane V/C Ratio	0.063	-	-	0.002	-	
HCM Control Delay (s)	11	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection

Intersection Delay, s/veh	25.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	125	144	31	162	58	144	95	23	53	98	126
Future Vol, veh/h	73	125	144	31	162	58	144	95	23	53	98	126
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	147	169	36	191	68	169	112	27	62	115	148
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	31.9			21.7			24			23.5		
HCM LOS	D			C			C			C		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	55%	21%	12%	19%
Vol Thru, %	36%	37%	65%	35%
Vol Right, %	9%	42%	23%	45%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	262	342	251	277
LT Vol	144	73	31	53
Through Vol	95	125	162	98
RT Vol	23	144	58	126
Lane Flow Rate	308	402	295	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.653	0.79	0.612	0.661
Departure Headway (Hd)	7.624	7.066	7.464	7.307
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	475	511	481	495
Service Time	5.669	5.11	5.532	5.352
HCM Lane V/C Ratio	0.648	0.787	0.613	0.659
HCM Control Delay	24	31.9	21.7	23.5
HCM Lane LOS	C	D	C	C
HCM 95th-tile Q	4.6	7.3	4	4.8

BACKGROUND TRAFFIC CONDITIONS (2025)

PM PEAK

HCM 6th Signalized Intersection Summary

1: Highway 109 & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	23	85	94	641	826	16
Future Volume (veh/h)	23	85	94	641	826	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1752	1870
Adj Flow Rate, veh/h	23	87	96	654	843	16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	10	10	2
Cap, veh/h	156	139	279	1861	2653	50
Arrive On Green	0.09	0.09	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1781	1585	298	2423	3429	63
Grp Volume(v), veh/h	23	87	331	419	420	439
Grp Sat Flow(s),veh/h/ln	1781	1585	1127	1514	1664	1740
Q Serve(g_s), s	1.3	5.8	1.8	8.7	7.6	7.6
Cycle Q Clear(g_c), s	1.3	5.8	9.5	8.7	7.6	7.6
Prop In Lane	1.00	1.00	0.29			0.04
Lane Grp Cap(c), veh/h	156	139	937	1203	1321	1382
V/C Ratio(X)	0.15	0.63	0.35	0.35	0.32	0.32
Avail Cap(c_a), veh/h	453	403	937	1203	1321	1382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	48.4	3.0	3.2	3.1	3.1
Incr Delay (d2), s/veh	0.4	4.5	1.0	0.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	1.7	2.2	2.1	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.8	53.0	4.0	4.0	3.8	3.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	110			750	859	
Approach Delay, s/veh	51.7			4.0	3.7	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		93.3		16.7		93.3
Change Period (Y+Rc), s		6.0		7.0		6.0
Max Green Setting (Gmax), s		69.0		28.0		69.0
Max Q Clear Time (g_c+I1), s		11.5		7.8		9.6
Green Ext Time (p_c), s		4.2		0.4		4.1
Intersection Summary						
HCM 6th Ctrl Delay			6.9			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	100	31	5	100	28	3
Future Vol, veh/h	100	31	5	100	28	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	36	6	115	32	3
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	151	0	260	133
Stage 1	-	-	-	-	133	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1430	-	729	916
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1430	-	726	916
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	895	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		10.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	741	-	-	1430	-	
HCM Lane V/C Ratio	0.048	-	-	0.004	-	
HCM Control Delay (s)	10.1	-	-	7.5	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th AWSC
4: Searcy Lane/Oak Hill Drive & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

Intersection

Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	105	87	21	110	17	101	39	16	12	31	34
Future Vol, veh/h	27	105	87	21	110	17	101	39	16	12	31	34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	109	91	22	115	18	105	41	17	13	32	35
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9.4			9			9.5			8.4		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	65%	12%	14%	16%
Vol Thru, %	25%	48%	74%	40%
Vol Right, %	10%	40%	11%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	156	219	148	77
LT Vol	101	27	21	12
Through Vol	39	105	110	31
RT Vol	16	87	17	34
Lane Flow Rate	162	228	154	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.225	0.286	0.204	0.107
Departure Headway (Hd)	4.983	4.509	4.759	4.801
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	717	794	751	741
Service Time	3.041	2.557	2.814	2.866
HCM Lane V/C Ratio	0.226	0.287	0.205	0.108
HCM Control Delay	9.5	9.4	9	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	1.2	0.8	0.4

PROJECTED TRAFFIC CONDITIONS (2025)

AM PEAK

HCM 6th Signalized Intersection Summary

1: Highway 109 & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	133	116	597	493	16
Future Volume (veh/h)	28	133	116	597	493	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1752	1870
Adj Flow Rate, veh/h	30	143	125	642	530	17
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	10	10	2
Cap, veh/h	204	181	355	1750	2440	78
Arrive On Green	0.11	0.11	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1781	1585	407	2441	3379	105
Grp Volume(v), veh/h	30	143	356	411	268	279
Grp Sat Flow(s),veh/h/ln	1781	1585	1253	1514	1664	1733
Q Serve(g_s), s	1.4	7.9	3.9	8.7	4.5	4.5
Cycle Q Clear(g_c), s	1.4	7.9	8.3	8.7	4.5	4.5
Prop In Lane	1.00	1.00	0.35			0.06
Lane Grp Cap(c), veh/h	204	181	983	1122	1234	1284
V/C Ratio(X)	0.15	0.79	0.36	0.37	0.22	0.22
Avail Cap(c_a), veh/h	455	405	983	1122	1234	1284
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	38.8	4.0	4.1	3.6	3.6
Incr Delay (d2), s/veh	0.3	7.4	1.0	0.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.4	1.9	2.3	1.3	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.2	46.2	5.0	5.1	4.0	4.0
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	173			767	547	
Approach Delay, s/veh	44.5			5.0	4.0	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		72.7		17.3		72.7
Change Period (Y+Rc), s		6.0		7.0		6.0
Max Green Setting (Gmax), s		54.0		23.0		54.0
Max Q Clear Time (g_c+I1), s		10.7		9.9		6.5
Green Ext Time (p_c), s		4.0		0.5		2.3
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	170	14	2	148	30	4
Future Vol, veh/h	170	14	2	148	30	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	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	210	17	2	183	37	5
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	227	0	406	219
Stage 1	-	-	-	-	219	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1341	-	601	821
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	845	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1341	-	600	821
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	843	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.1		11.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	620	-	-	1341	-	
HCM Lane V/C Ratio	0.068	-	-	0.002	-	
HCM Control Delay (s)	11.2	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th TWSC
3: College Street & Project Access

Synchro 11 Report
RG Phillips Consulting, LLC

Intersection

Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	165	170	8	19	12
Future Vol, veh/h	6	165	170	8	19	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	204	210	10	23	15

Major/Minor	Major1	Major2		Minor2	
Conflicting Flow All	220	0	-	0	433
Stage 1	-	-	-	-	215
Stage 2	-	-	-	-	218
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1349	-	-	-	580
Stage 1	-	-	-	-	821
Stage 2	-	-	-	-	818
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1349	-	-	-	577
Mov Cap-2 Maneuver	-	-	-	-	577
Stage 1	-	-	-	-	816
Stage 2	-	-	-	-	818

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1349	-	-	-	653
HCM Lane V/C Ratio	0.005	-	-	-	0.059
HCM Control Delay (s)	7.7	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th AWSC
4: Searcy Lane/Oak Hill Drive & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

Intersection

Intersection Delay, s/veh 27.5
Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	129	144	34	171	58	144	95	24	53	98	126
Future Vol, veh/h	73	129	144	34	171	58	144	95	24	53	98	126
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	152	169	40	201	68	169	112	28	62	115	148
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	34.5			23.8			25.1			24.7		
HCM LOS	D			C			D			C		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	55%	21%	13%	19%
Vol Thru, %	36%	37%	65%	35%
Vol Right, %	9%	42%	22%	45%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	346	263	277
LT Vol	144	73	34	53
Through Vol	95	129	171	98
RT Vol	24	144	58	126
Lane Flow Rate	309	407	309	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.667	0.812	0.651	0.674
Departure Headway (Hd)	7.758	7.18	7.575	7.446
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	464	505	476	486
Service Time	5.827	5.242	5.644	5.514
HCM Lane V/C Ratio	0.666	0.806	0.649	0.671
HCM Control Delay	25.1	34.5	23.8	24.7
HCM Lane LOS	D	D	C	C
HCM 95th-tile Q	4.8	7.8	4.6	4.9

PROJECTED TRAFFIC CONDITIONS (2025)

PM PEAK

HCM 6th Signalized Intersection Summary

1: Highway 109 & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	94	106	641	826	19
Future Volume (veh/h)	25	94	106	641	826	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1752	1870
Adj Flow Rate, veh/h	26	96	108	654	843	19
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	10	10	2
Cap, veh/h	158	141	300	1785	2639	59
Arrive On Green	0.09	0.09	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1781	1585	323	2331	3415	75
Grp Volume(v), veh/h	26	96	327	435	422	440
Grp Sat Flow(s),veh/h/ln	1781	1585	1060	1514	1664	1738
Q Serve(g_s), s	1.5	6.5	3.8	9.2	7.7	7.7
Cycle Q Clear(g_c), s	1.5	6.5	11.6	9.2	7.7	7.7
Prop In Lane	1.00	1.00	0.33			0.04
Lane Grp Cap(c), veh/h	158	141	884	1201	1320	1379
V/C Ratio(X)	0.16	0.68	0.37	0.36	0.32	0.32
Avail Cap(c_a), veh/h	453	403	884	1201	1320	1379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	48.6	3.3	3.3	3.2	3.2
Incr Delay (d2), s/veh	0.5	5.7	1.2	0.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.8	1.7	2.4	2.2	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.8	54.3	4.4	4.2	3.8	3.8
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	122			762	862	
Approach Delay, s/veh	52.7			4.3	3.8	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		93.2		16.8		93.2
Change Period (Y+Rc), s		6.0		7.0		6.0
Max Green Setting (Gmax), s		69.0		28.0		69.0
Max Q Clear Time (g_c+I1), s		13.6		8.5		9.7
Green Ext Time (p_c), s		4.4		0.4		4.1
Intersection Summary						
HCM 6th Ctrl Delay			7.4			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	112	33	5	116	31	3
Future Vol, veh/h	112	33	5	116	31	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	38	6	133	36	3
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	167	0	293	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1411	-	698	899
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1411	-	695	899
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	878	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.3		10.4		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	709	-	-	1411	-	
HCM Lane V/C Ratio	0.055	-	-	0.004	-	
HCM Control Delay (s)	10.4	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th TWSC
3: College Street & Project Access

Synchro 11 Report
RG Phillips Consulting, LLC

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	131	129	19	14	9
Future Vol, veh/h	12	131	129	19	14	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	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	152	150	22	16	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	172	0	-	0	341	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	180	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1405	-	-	-	655	884
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1405	-	-	-	648	884
Mov Cap-2 Maneuver	-	-	-	-	648	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	851	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		10.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1405	-	-	-	724	
HCM Lane V/C Ratio	0.01	-	-	-	0.037	
HCM Control Delay (s)	7.6	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

HCM 6th AWSC
4: Searcy Lane/Oak Hill Drive & College Street

Synchro 11 Report
RG Phillips Consulting, LLC

Intersection

Intersection Delay, s/veh 9.4
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	114	87	23	117	17	101	39	19	12	31	34
Future Vol, veh/h	27	114	87	23	117	17	101	39	19	12	31	34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	119	91	24	122	18	105	41	20	13	32	35
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9.6			9.2			9.6			8.5		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	64%	12%	15%	16%
Vol Thru, %	25%	50%	75%	40%
Vol Right, %	12%	38%	11%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	159	228	157	77
LT Vol	101	27	23	12
Through Vol	39	114	117	31
RT Vol	19	87	17	34
Lane Flow Rate	166	238	164	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.231	0.3	0.218	0.108
Departure Headway (Hd)	5.018	4.541	4.789	4.855
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	786	746	732
Service Time	3.081	2.594	2.847	2.927
HCM Lane V/C Ratio	0.233	0.303	0.22	0.109
HCM Control Delay	9.6	9.6	9.2	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	1.3	0.8	0.4

APPENDIX C
TRIP GENERATION

Land Use: 215

Single-Family Attached Housing

Description

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Additional Data

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077

COLLEGE STREET TOWNHOMES RESIDENTIAL DEVELOPMENT

VEHICLE TRIPS BEFORE REDUCTION									
Land Use & Data Source	Location	Independent Variable	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total	
215 - Single-Family Attached Housing	General Urban/Suburban	Dwelling Units	95	AM Peak Hour	Average	14	31	45	
					0.48	31%	69%		
NEW VEHICLE TRIPS									
Land Use					New Vehicle Trips				
					Entry	Exit	Total		
215 - Single-Family Attached Housing					14	31	45		
RESULTS									
Site Totals									
New Vehicle Trips					Entry	Exit	Total		
					14	31	45		

Data Source: Trip Generation Manual, 11th Ed

COLLEGE STREET TOWNHOMES RESIDENTIAL DEVELOPMENT
TRIP GENERATION
PM PEAK HOUR

VEHICLE TRIPS BEFORE REDUCTION						
Land Use & Data Source	Location	Independent Variable	Size	Time Period	Method Rate/Equation Average	Entry Split% Exit Split% Total
215 - Single-Family Attached Housing	General Urban/Suburban	Dwelling Units	95	PM Peak Hour	0.57	31 57% 23 43% 54
NEW VEHICLE TRIPS						
Land Use						New Vehicle Trips
215 - Single-Family Attached Housing						Entry Exit Total
						31 23 54
RESULTS						
Site Totals						Entry Exit Total
New Vehicle Trips						31 23 54

Data Source: Trip Generation Manual, 11th Ed

COLLEGE STREET TOWNHOMES RESIDENTIAL DEVELOPMENT TRIP GENERATION WEEKDAY

VEHICLE TRIPS BEFORE REDUCTION									
Land Use & Data Source	Location	Independent Variable	Size	Time Period	Method		Entry	Exit	
					Rate/Equation	Split%		Split%	Total
215 - Single-Family Attached Housing	General Urban/Suburban	Dwelling Units	95	Weekday	Best Fit (LN)		337	337	
					T = 7.62(X) - 50.48			50%	
								50%	
NEW VEHICLE TRIPS									
Land Use							New Vehicle Trips		
							Entry	Exit	Total
215 - Single-Family Attached Housing							337	337	674
RESULTS									
Site Totals									
							Entry	Exit	Total
							337	337	674
New Vehicle Trips									

Single-Family Attached Housing (215)

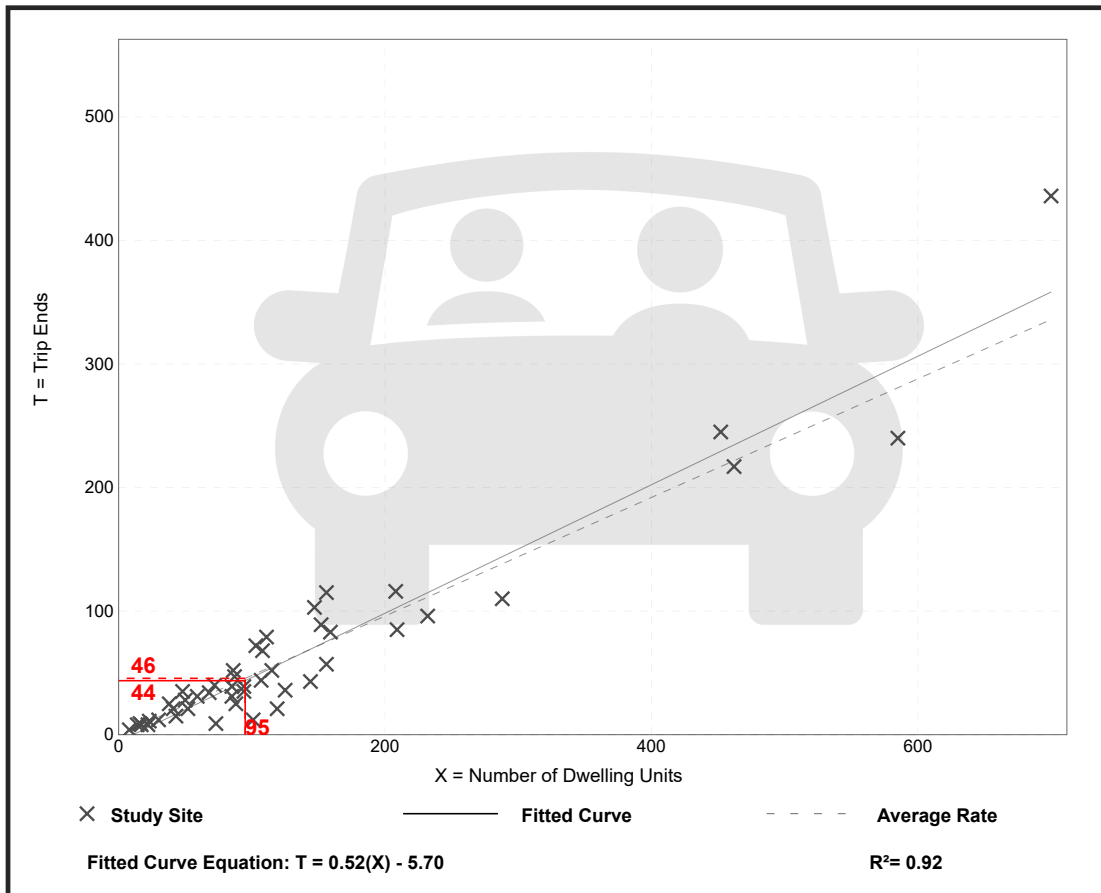
Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 46
 Avg. Num. of Dwelling Units: 135
 Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 51

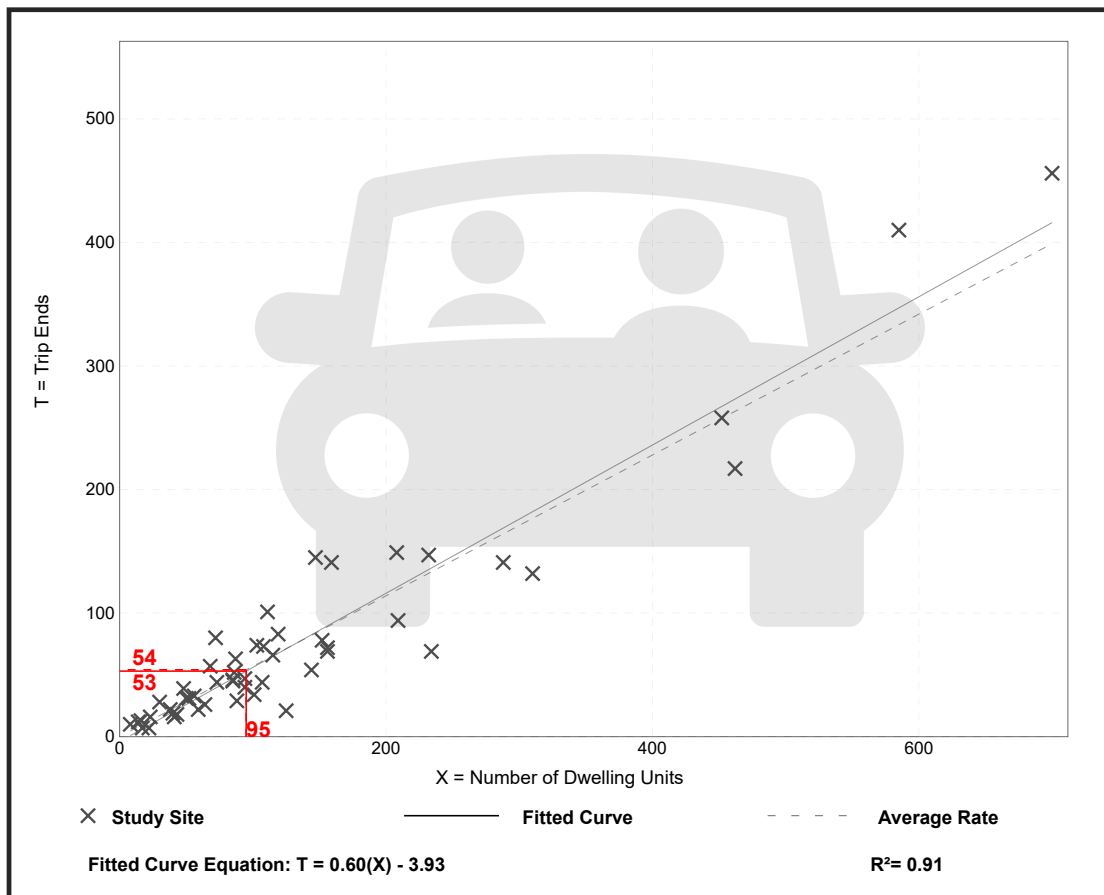
Avg. Num. of Dwelling Units: 136

Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Single-Family Attached Housing (215)

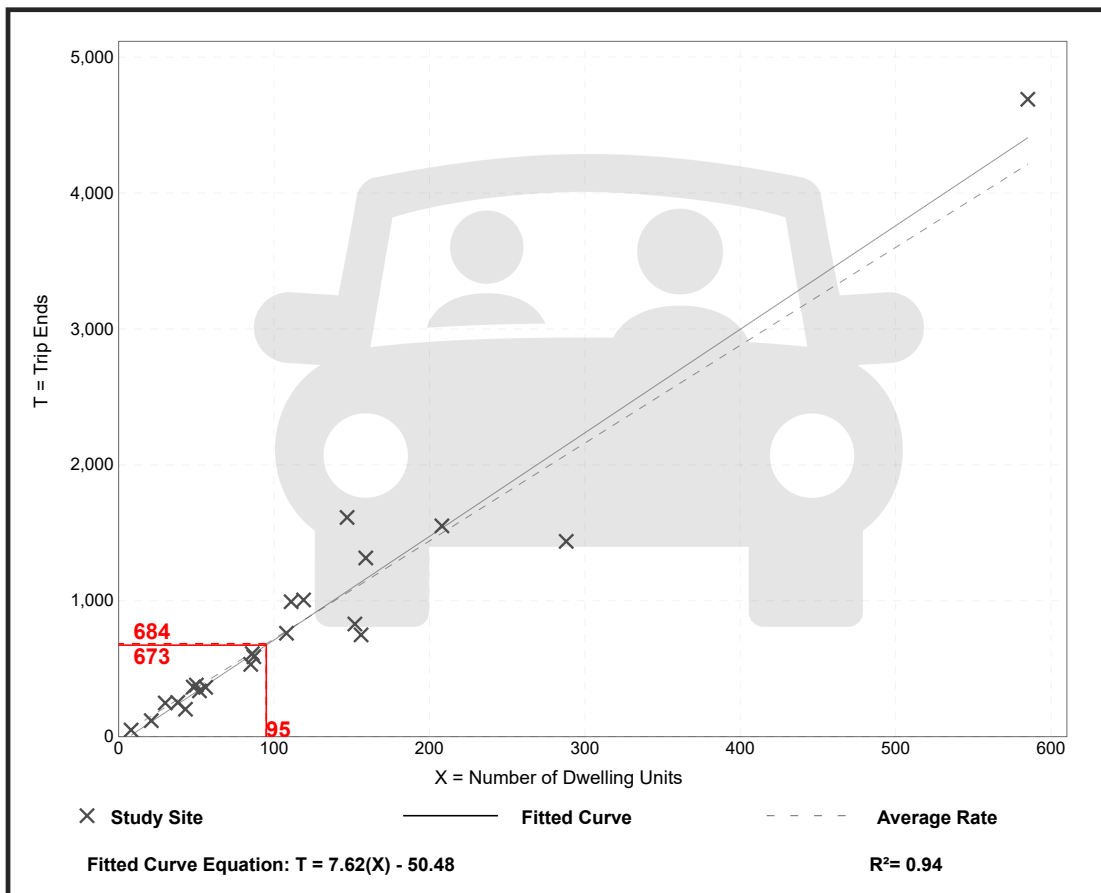
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

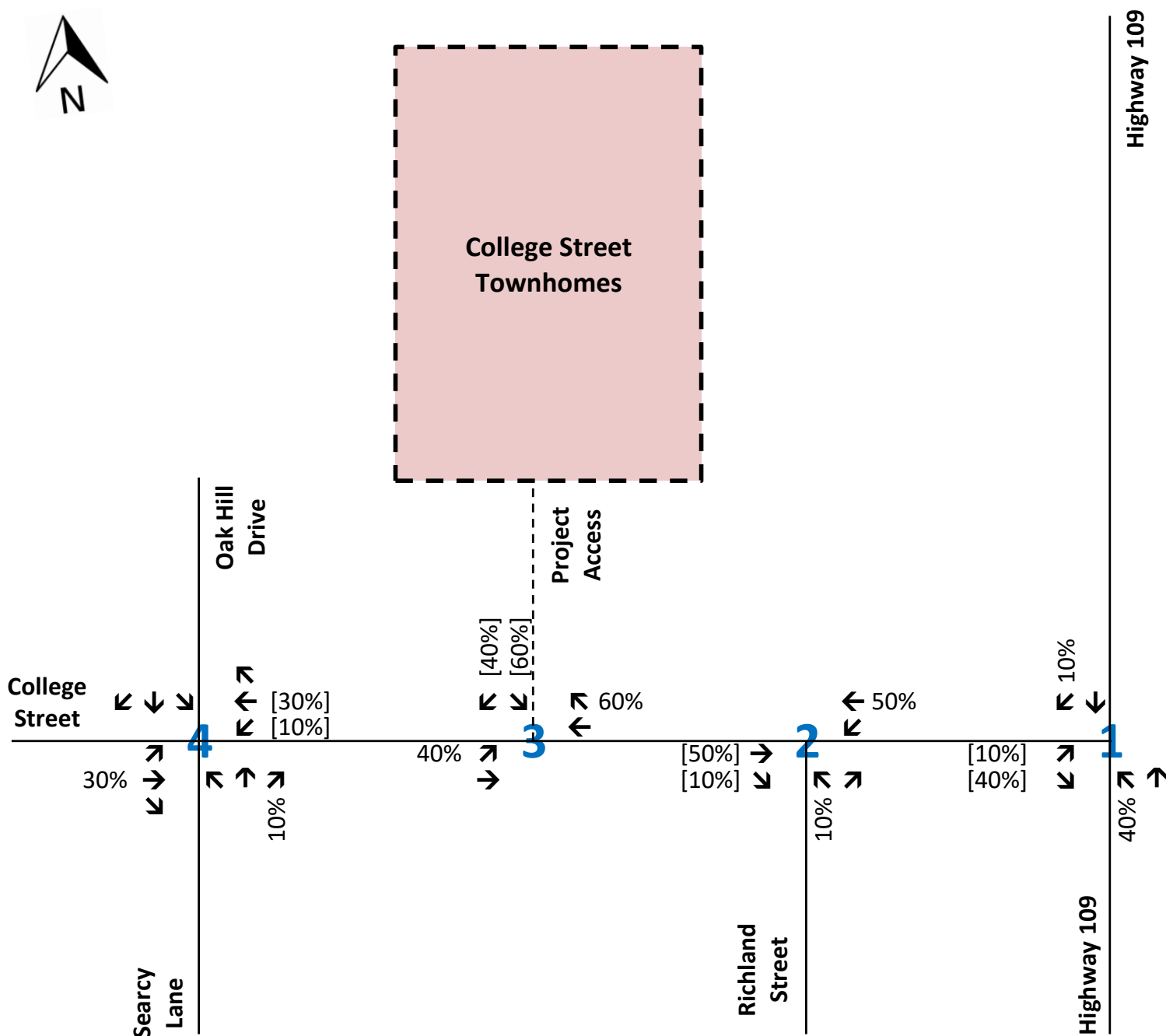
Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



APPENDIX D
TRIP DISTRIBUTION



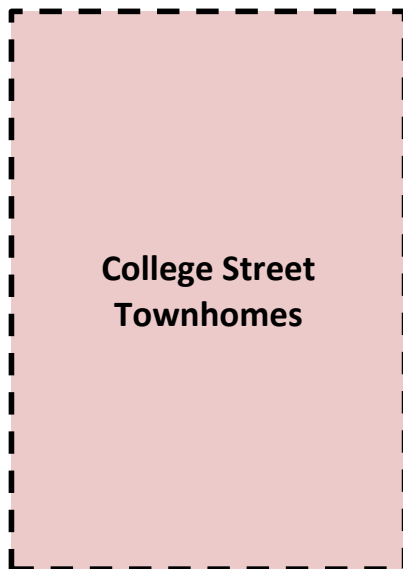
Trip Distribution Worksheet
Trip Distribution - Townhomes (95 Units)
College Street Townhomes
Portland, Tennessee



APPENDIX E
TRAFFIC ASSIGNMENT

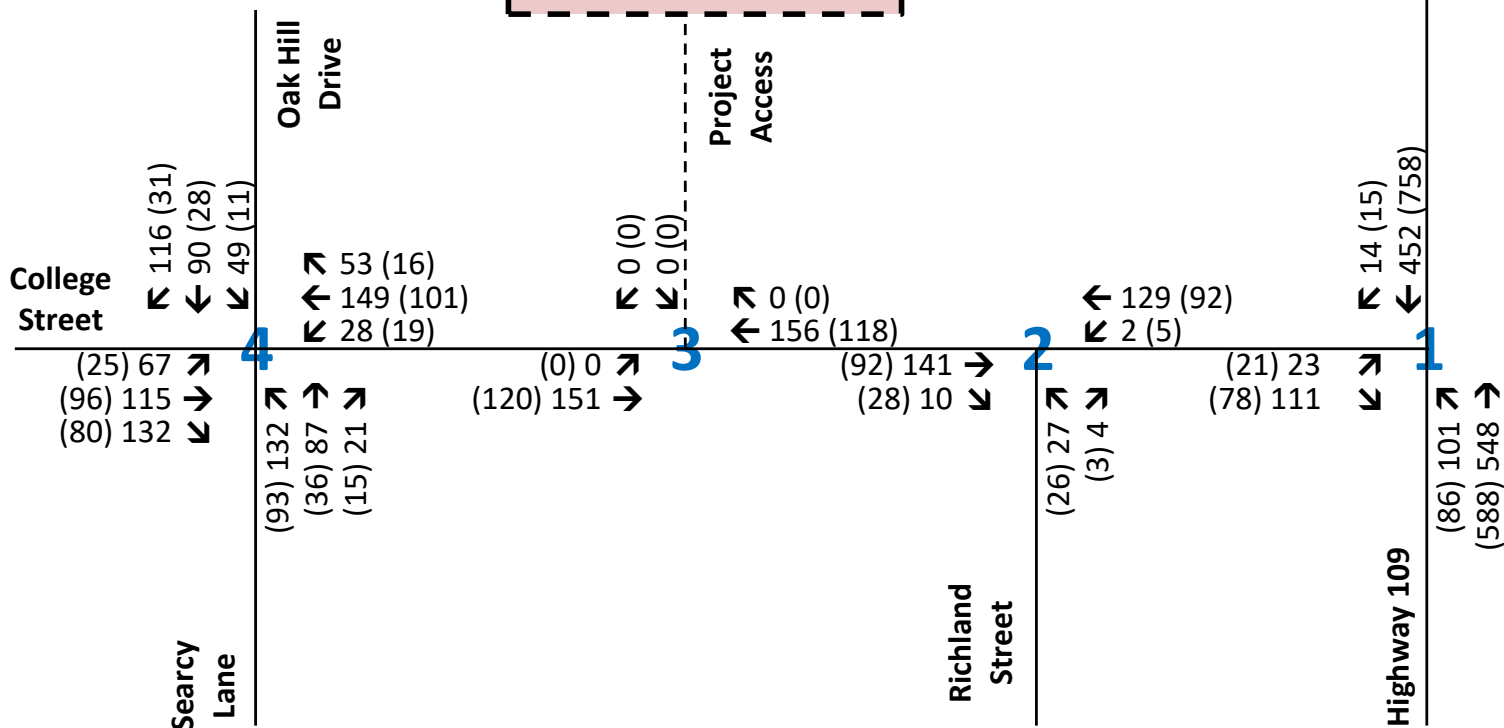
TRAFFIC ASSIGNMENT WORKSHEETS

AM & PM PEAK HOURS



College Street
Townhomes

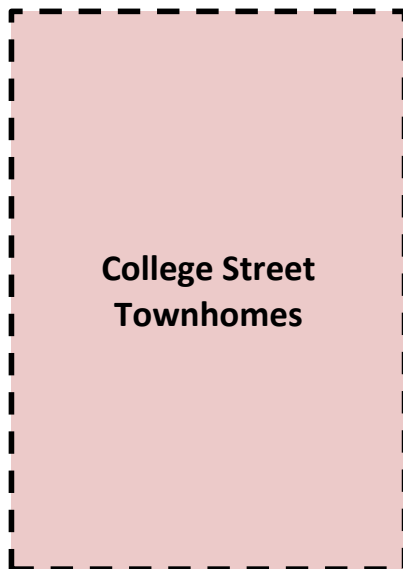
Project
Access



Key:
XX = AM Peak Hour
(XX) = PM Peak Hour

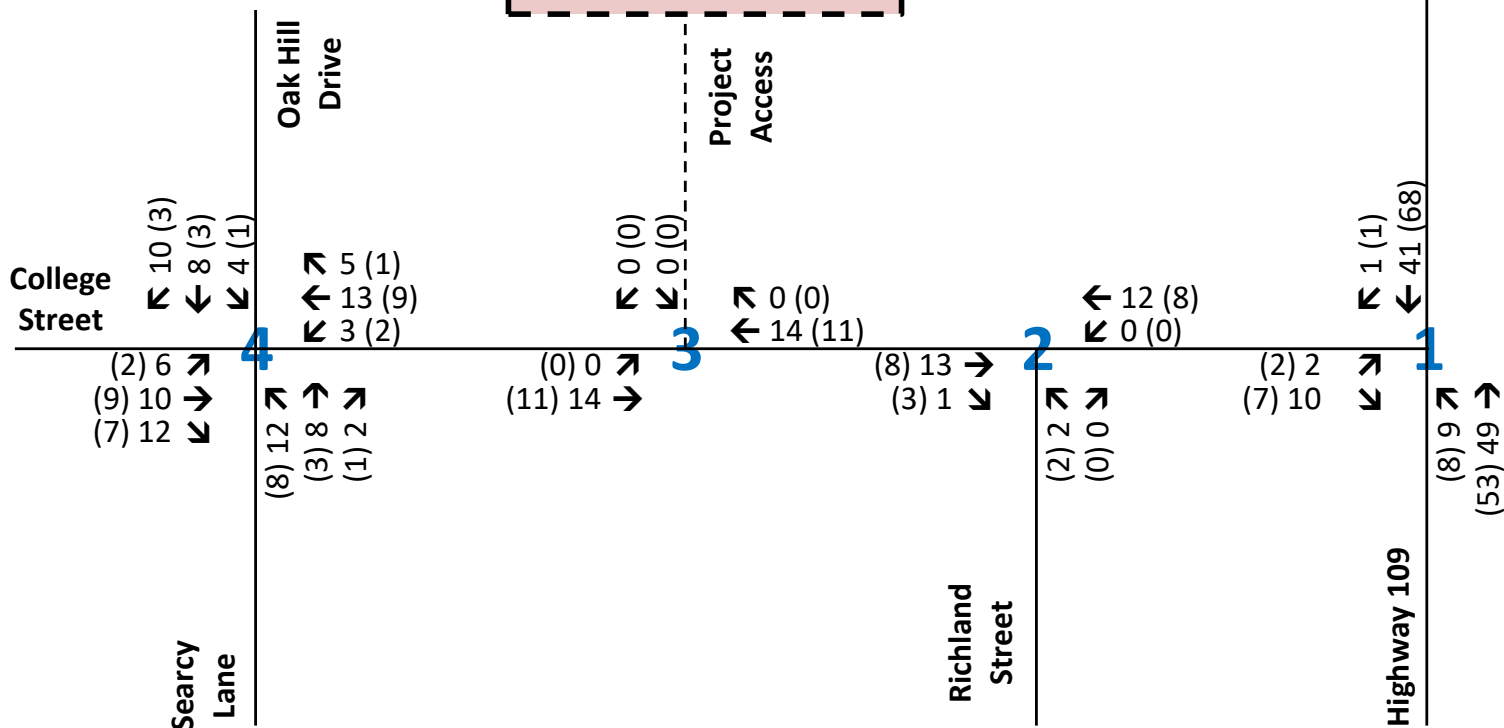
Traffic Assignment Worksheet
Existing Traffic Volumes (2022)
College Street Townhomes
Portland, Tennessee





College Street
Townhomes

Project
Access

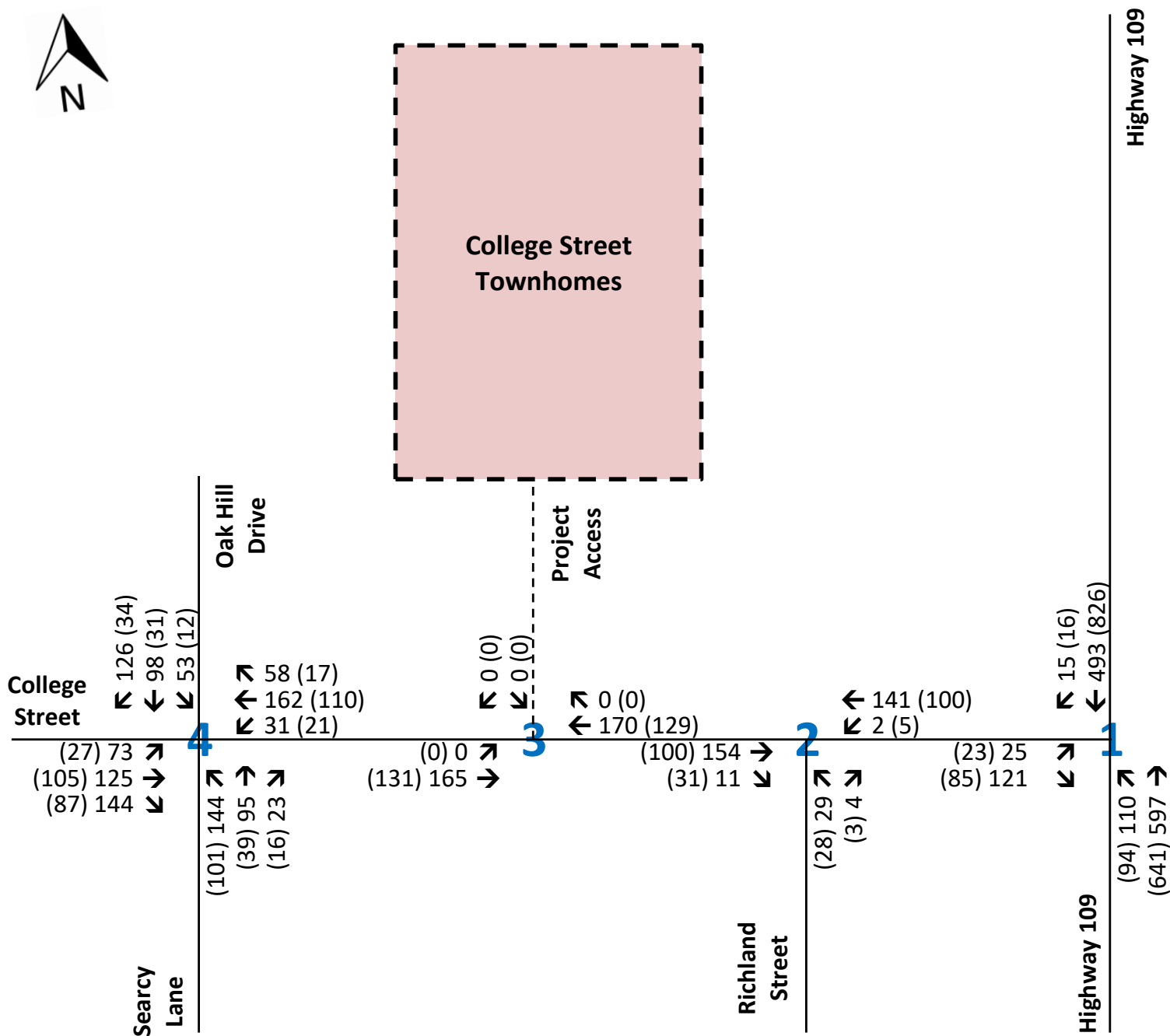


Key:

XX = AM Peak Hour
(XX) = PM Peak Hour

Traffic Assignment Worksheet
Background - Historical Growth Only (2025)
College Street Townhomes
Portland, Tennessee



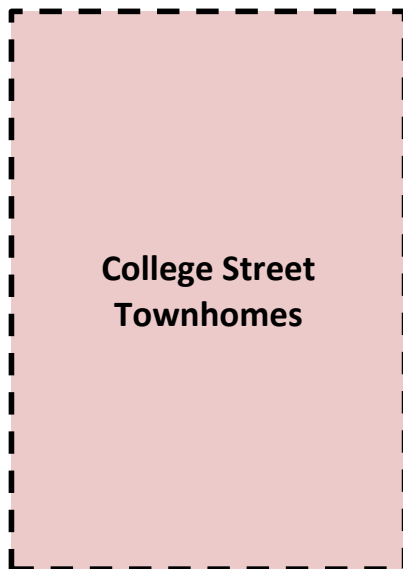


Key:

XX = AM Peak Hour
(XX) = PM Peak Hour

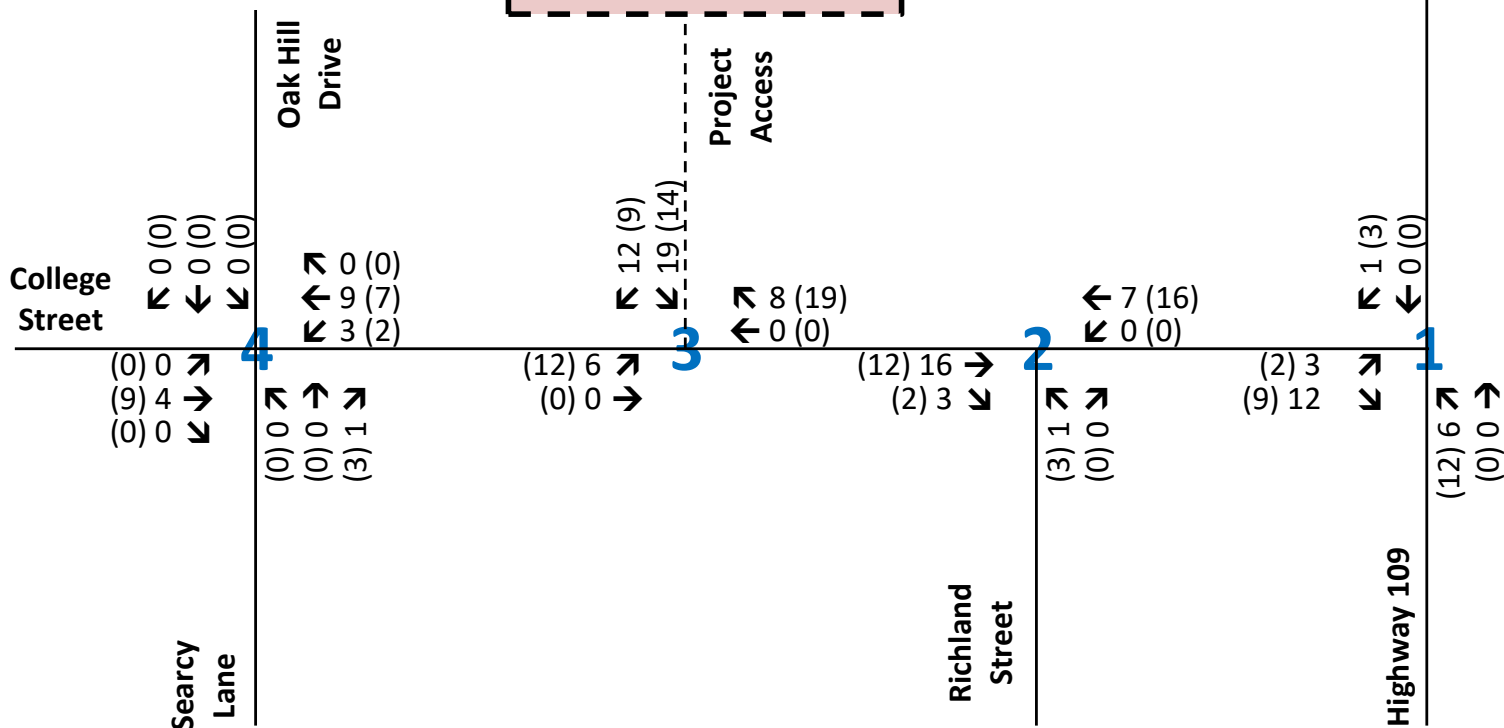
Traffic Assignment Worksheet
Background Traffic Volumes (2025)
College Street Townhomes
Portland, Tennessee





College Street
Townhomes

Project
Access



Key:

XX = AM Peak Hour
(XX) = PM Peak Hour

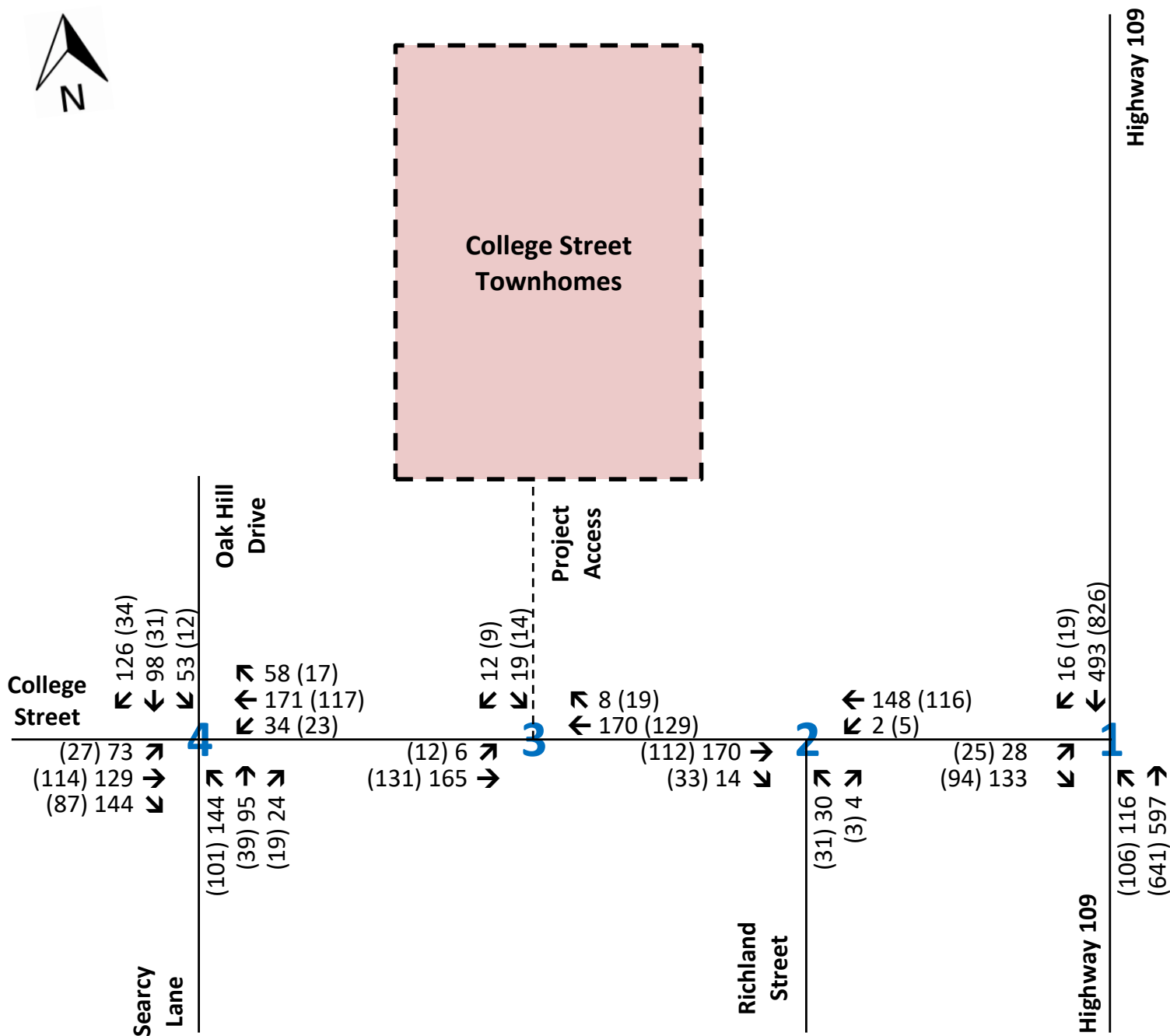
Traffic Assignment Worksheet

Traffic Assignment - Townhomes (95 Units)

College Street Townhomes

Portland, Tennessee



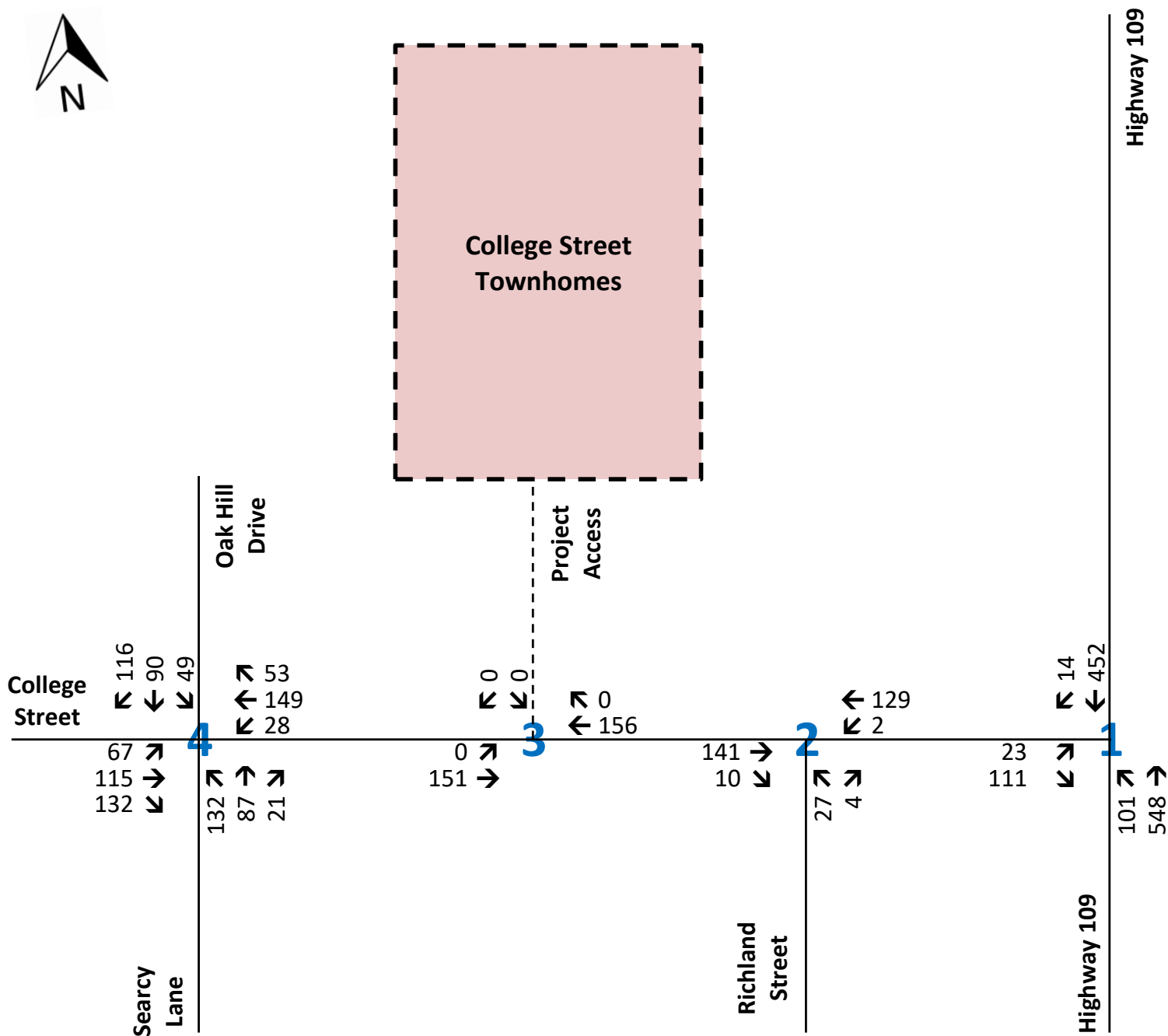


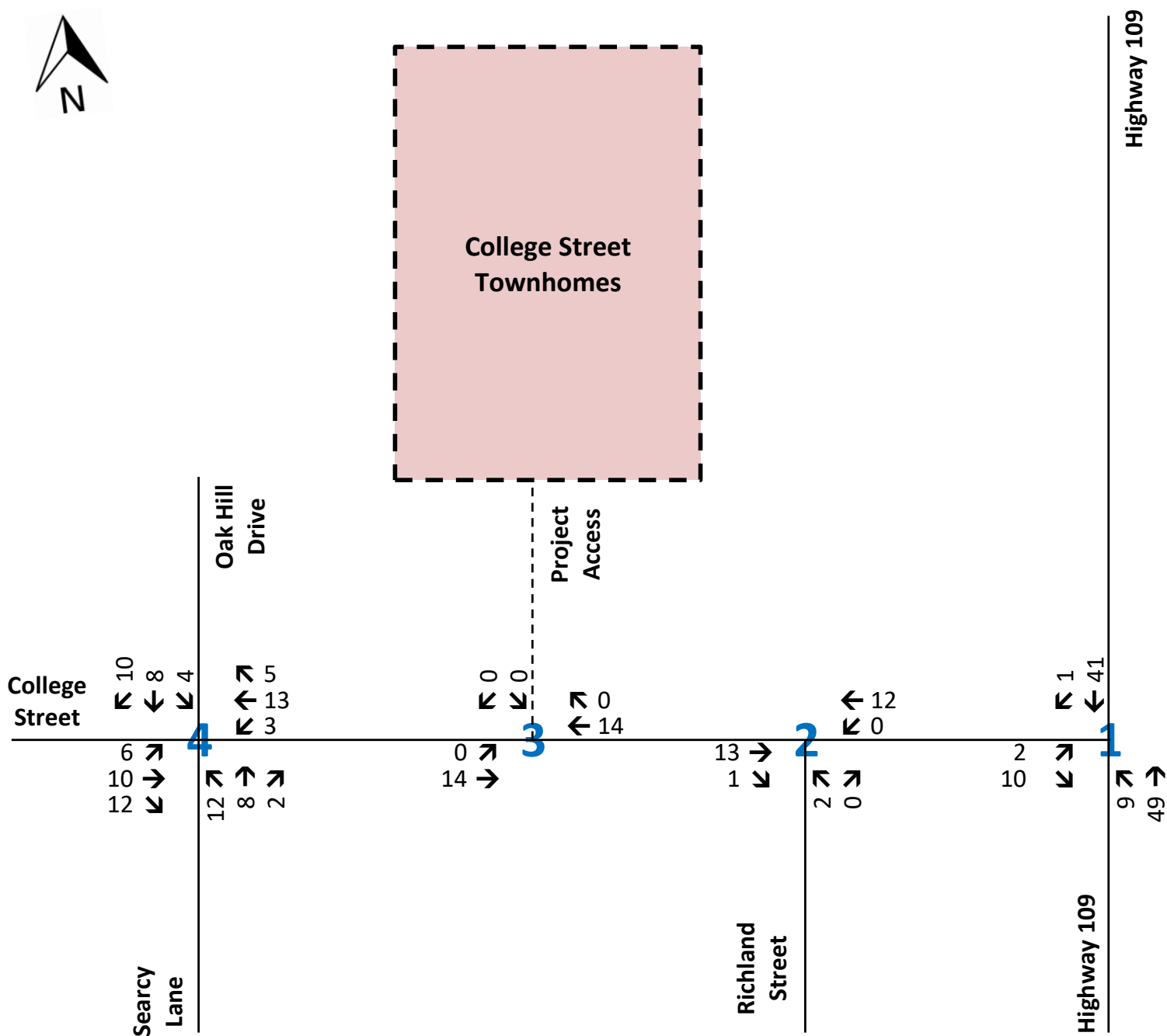
Traffic Assignment Worksheet
Total Projected Traffic (2025)
College Street Townhomes
Portland, Tennessee

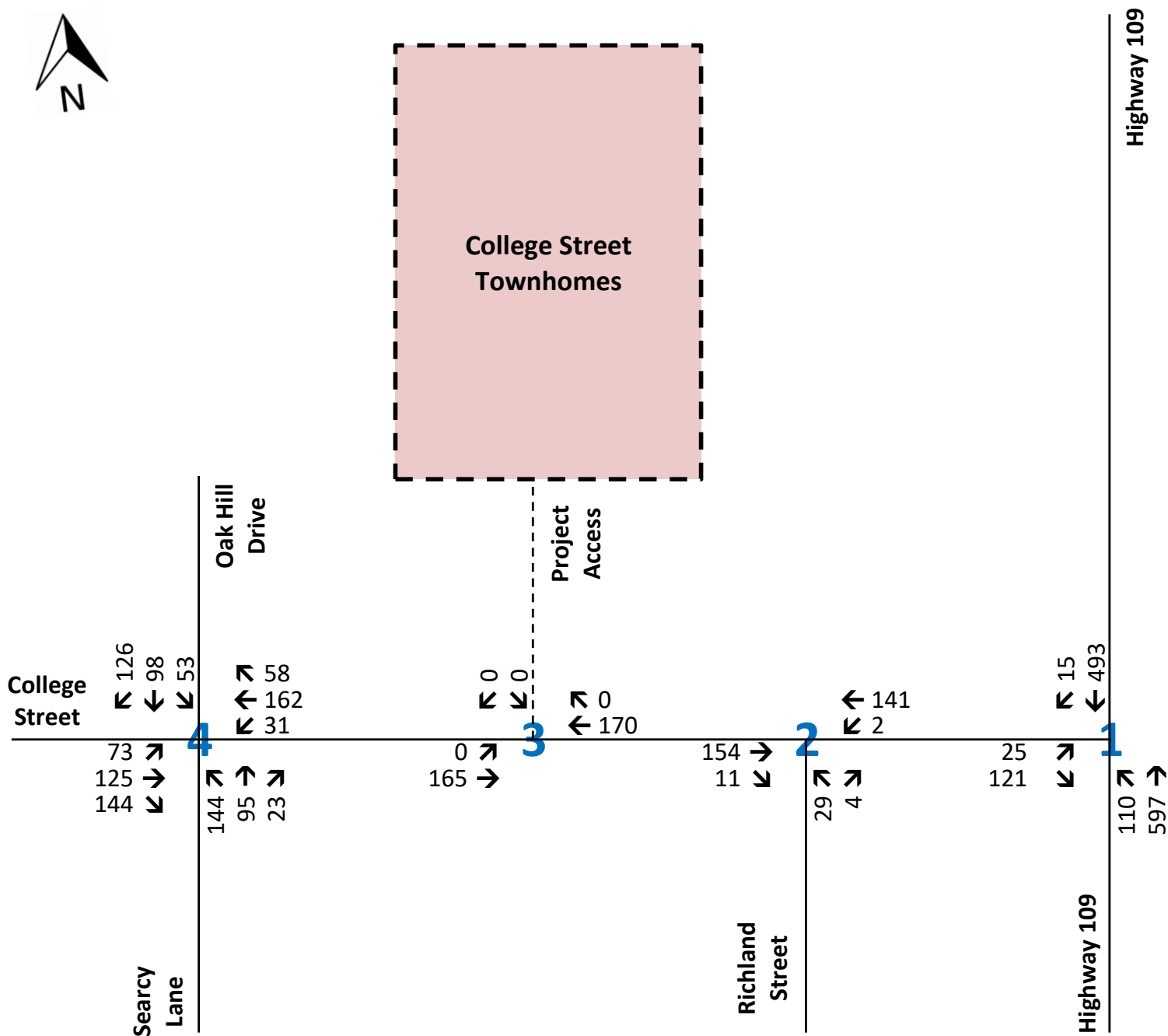


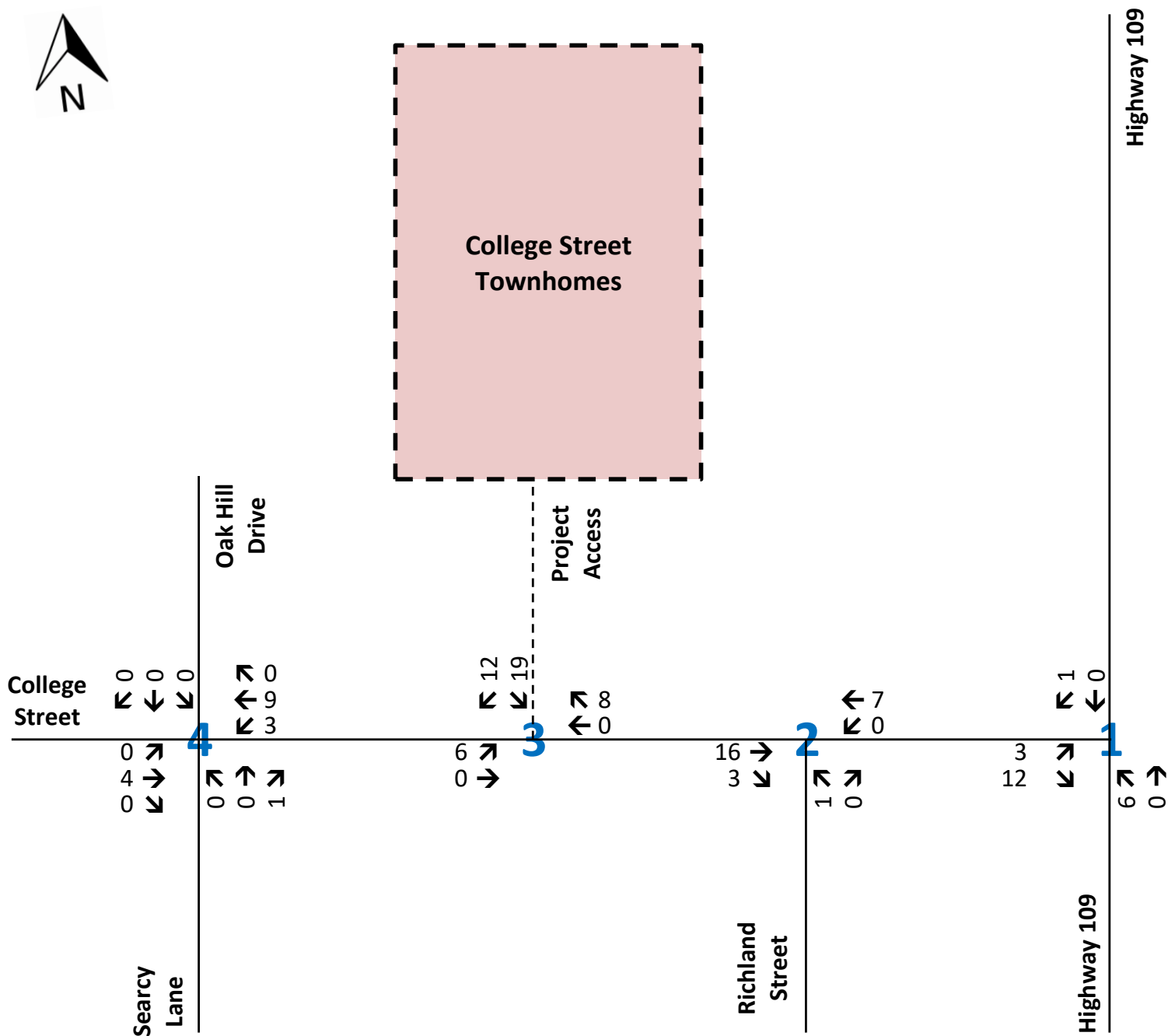
TRAFFIC ASSIGNMENT WORKSHEETS

AM PEAK HOUR



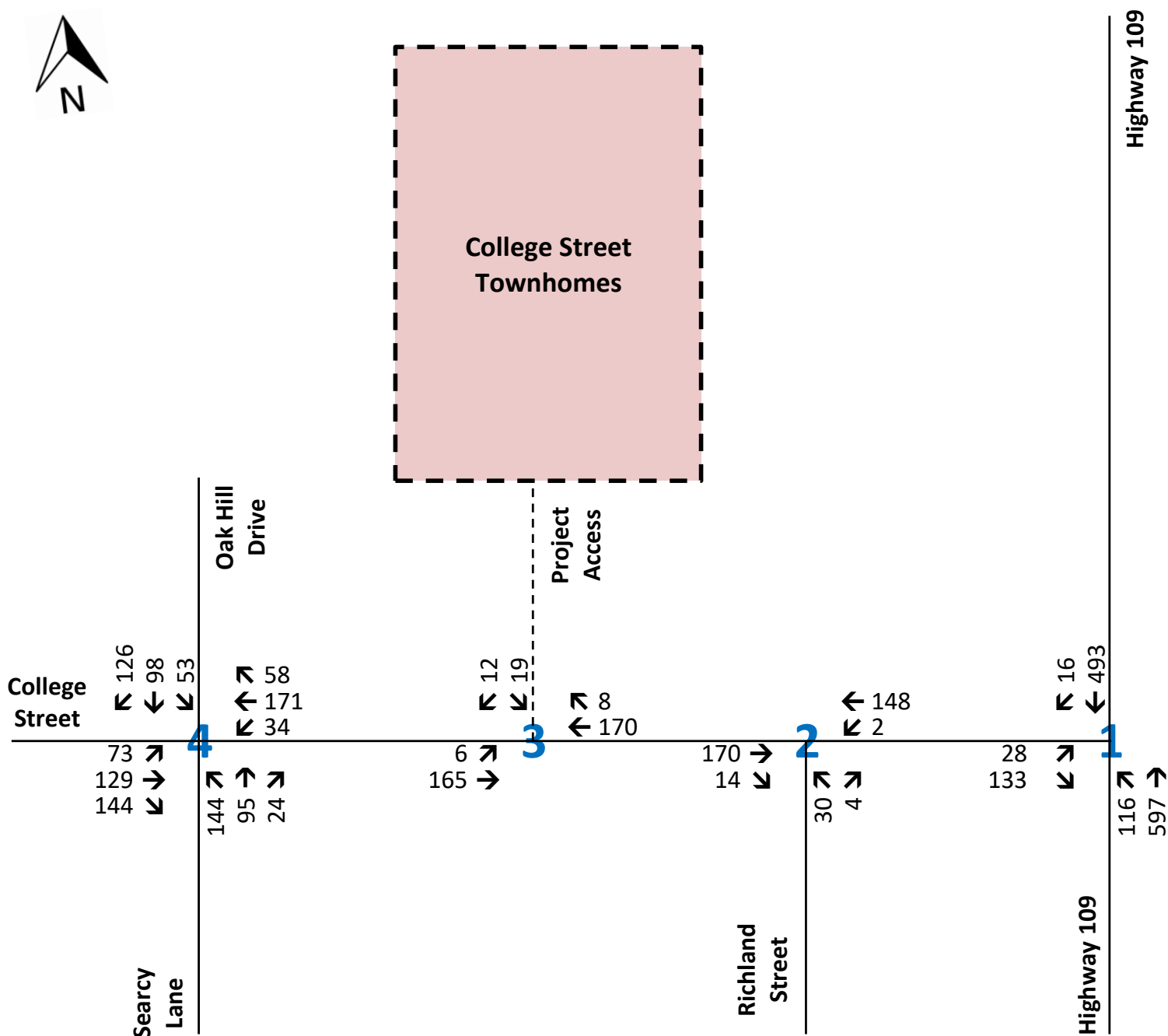






Traffic Assignment Worksheet
Traffic Assignment - Townhomes (95 Units)
College Street Townhomes
Portland, Tennessee





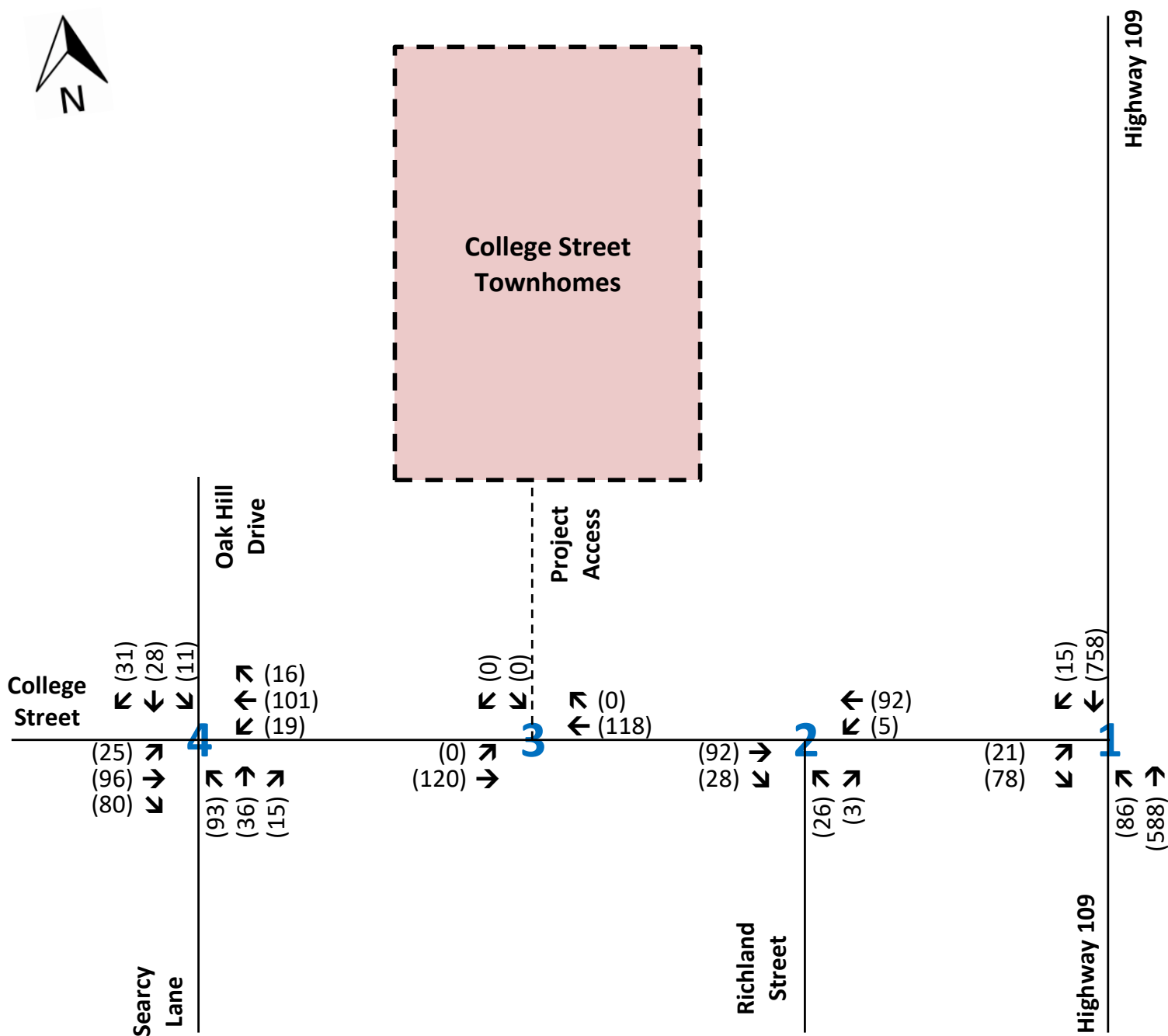
Key:
XX = AM Peak Hour

Traffic Assignment Worksheet
Total Projected Traffic (2025)
College Street Townhomes
Portland, Tennessee



TRAFFIC ASSIGNMENT WORKSHEETS

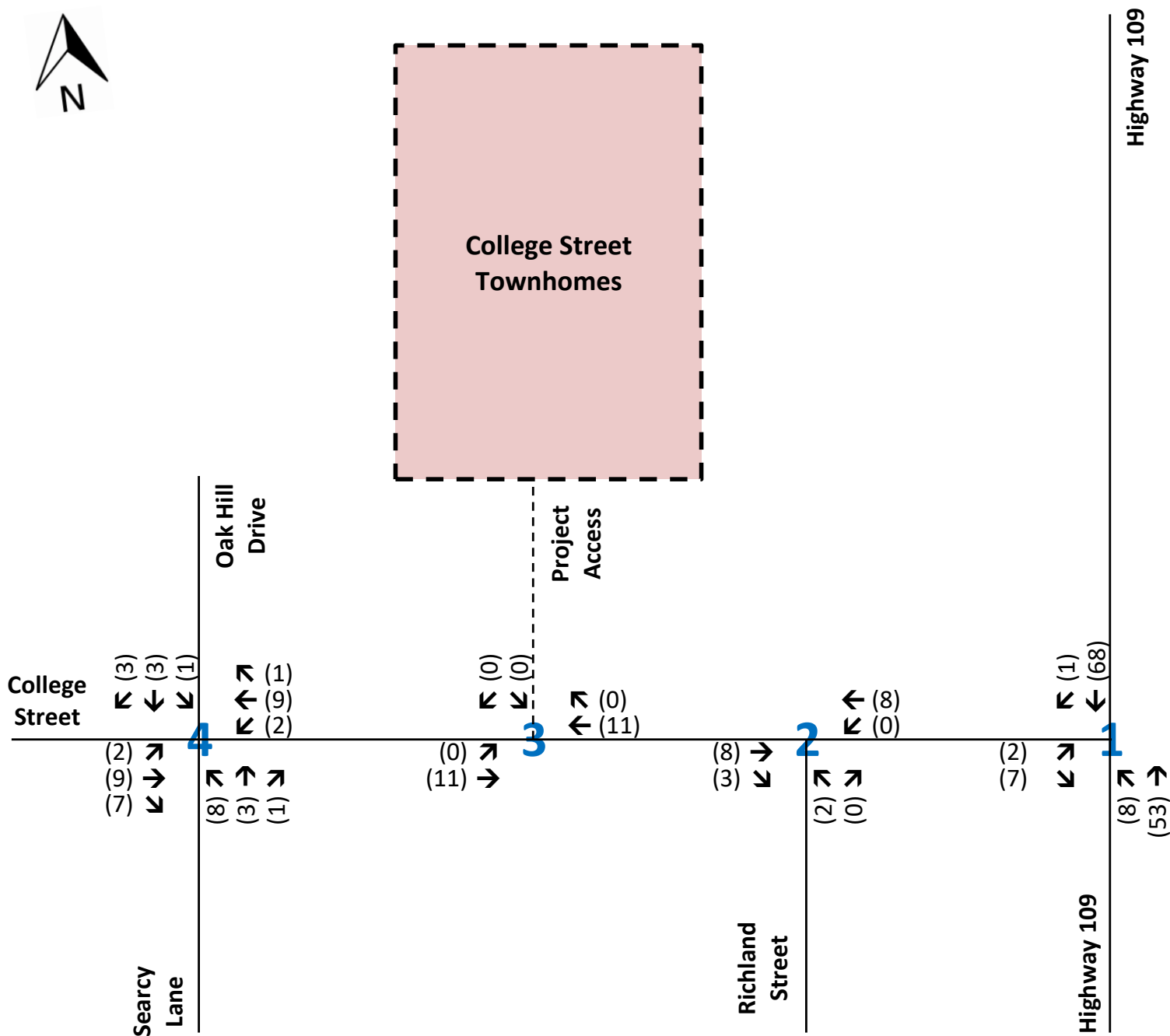
PM PEAK HOUR



Key:
(XX) = PM Peak Hour

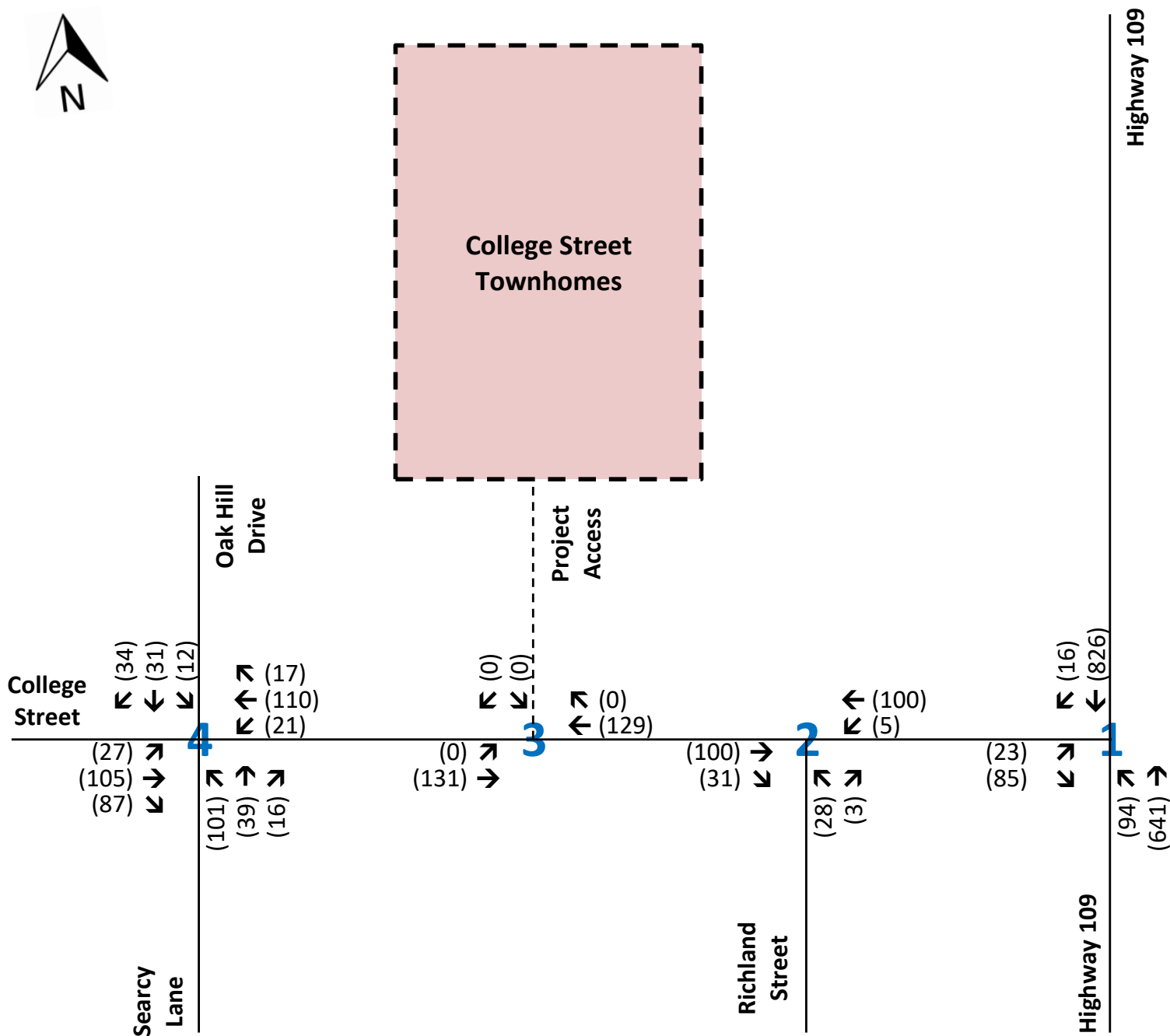
Traffic Assignment Worksheet
Existing Traffic Volumes (2022)
College Street Townhomes
Portland, Tennessee





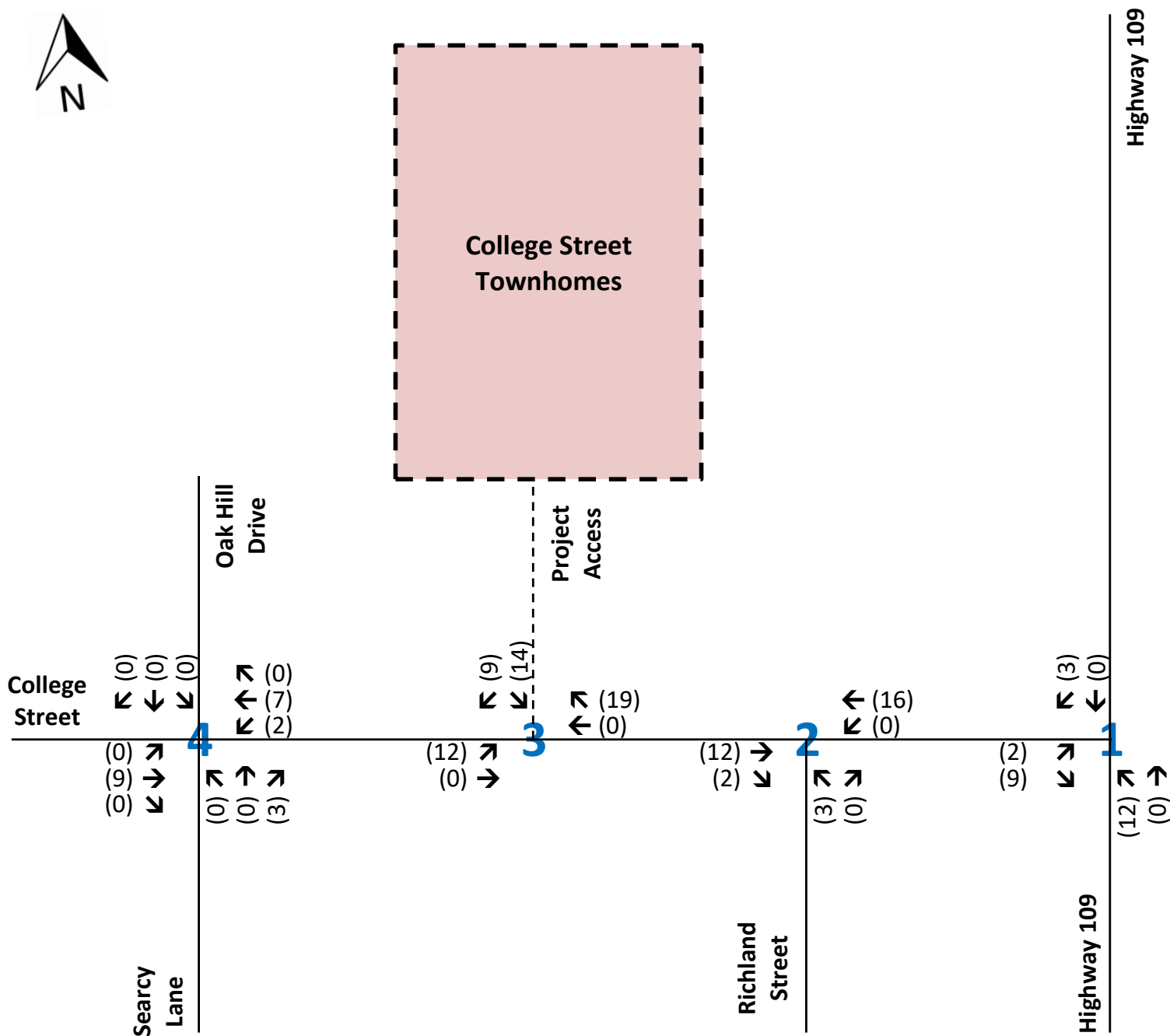
Traffic Assignment Worksheet
Background - Historical Growth Only (2025)
College Street Townhomes
Portland, Tennessee





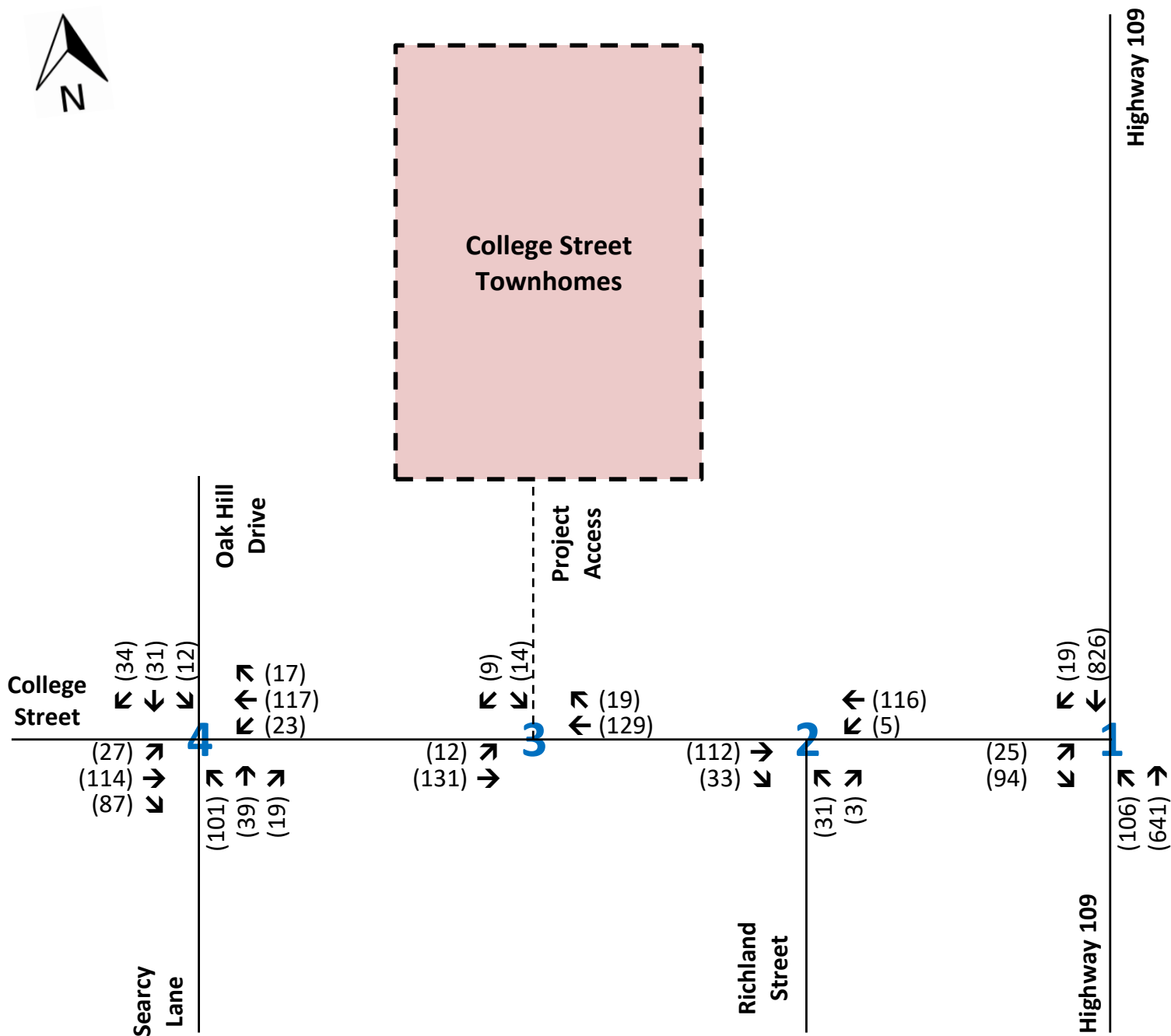
Traffic Assignment Worksheet
Background Traffic Volumes (2025)
College Street Townhomes
Portland, Tennessee





Traffic Assignment Worksheet
Traffic Assignment - Townhomes (95 Units)
College Street Townhomes
Portland, Tennessee





Traffic Assignment Worksheet
Total Projected Traffic (2025)
College Street Townhomes
Portland, Tennessee



APPENDIX F
TURN LANE
EVALUATIONS

LEFT TURN LANE

WARRANTS

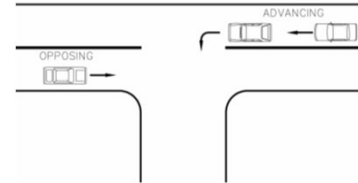
LEFT TURN LANE WARRANT ANALYSIS (BASED ON HARMELINK)

LOCATION: #2 - COLLEGE STREET & RICHLAND STREET
PROJECT: COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

SPEED LIMIT: 30 MPH
USE CHART: **40 MPH**

SCENARIO: **2025 - PROJECTED TRAFFIC VOLUMES**
ANALYSIS TIME PERIOD: **AM PEAK HOUR**

DEFINITION OF MOVEMENTS

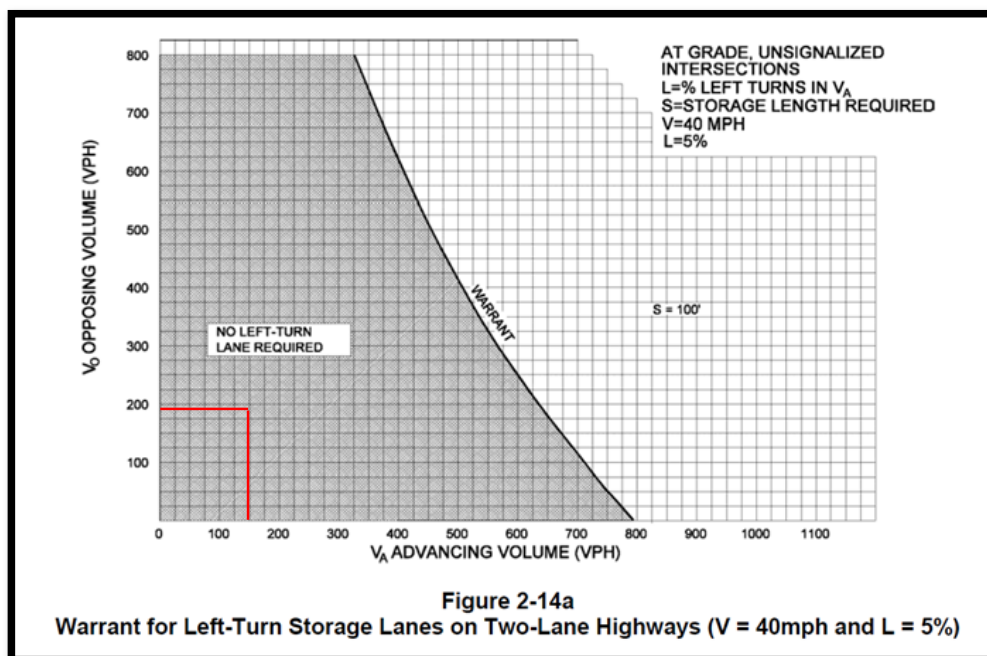


	WESTBOUND			
	LT	THRU	RT	TOTAL
ADVANCING VOLUMES	2	148		150

WB LT	LT %
2	1.3%
Use Chart For:	5%

	EASTBOUND			
	LT	THRU	RT	TOTAL
OPPOSING VOLUMES		170	14	184

Warrant Met:	No
Storage Length:	---



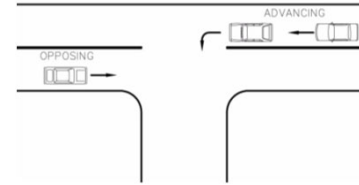
LEFT TURN LANE WARRANT ANALYSIS (BASED ON HARMELINK)

LOCATION: #2 - COLLEGE STREET & RICHLAND STREET
PROJECT: COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

SPEED LIMIT: 30 MPH
USE CHART: **40 MPH**

SCENARIO: **2025 - PROJECTED TRAFFIC VOLUMES**
ANALYSIS TIME PERIOD: **PM PEAK HOUR**

DEFINITION OF MOVEMENTS

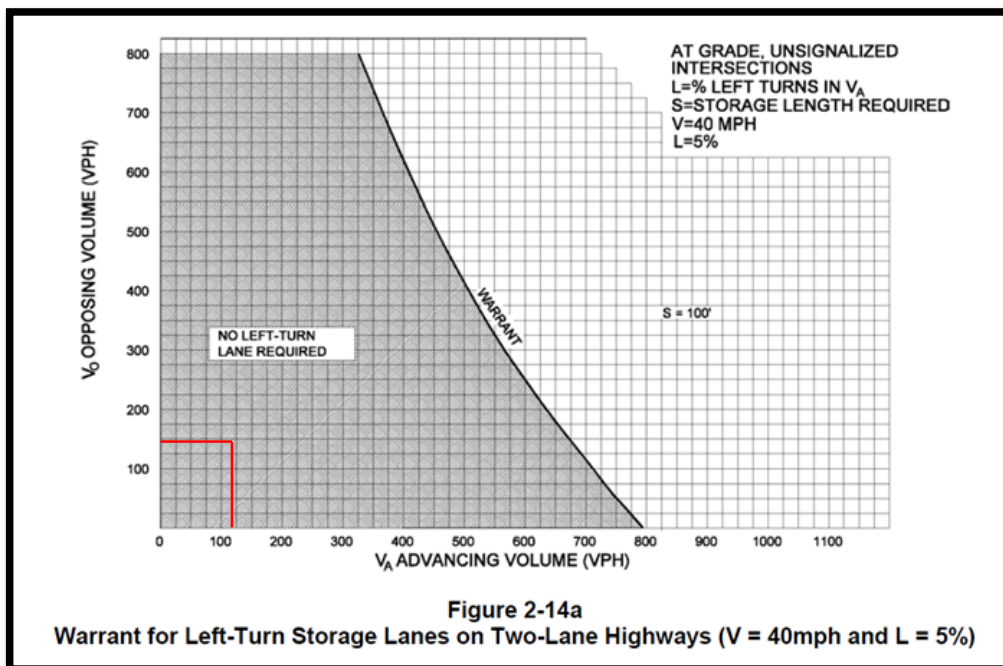


	WESTBOUND			
	LT	THRU	RT	TOTAL
ADVANCING VOLUMES	5	116		121

WB LT	LT %
5	4.1%
Use Chart For:	5%

	EASTBOUND			
	LT	THRU	RT	TOTAL
OPPOSING VOLUMES		112	33	145

Warrant Met:	No
Storage Length:	---



LEFT TURN LANE WARRANT ANALYSIS (BASED ON HARMELINK)

LOCATION: #3 - COLLEGE STREET & PROJECT ACCESS
PROJECT: COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

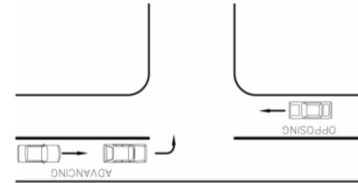
SPEED LIMIT: 30 MPH

USE CHART: **40 MPH**

SCENARIO: **2025 - PROJECTED TRAFFIC VOLUMES**

ANALYSIS TIME PERIOD: **AM PEAK HOUR**

DEFINITION OF MOVEMENTS

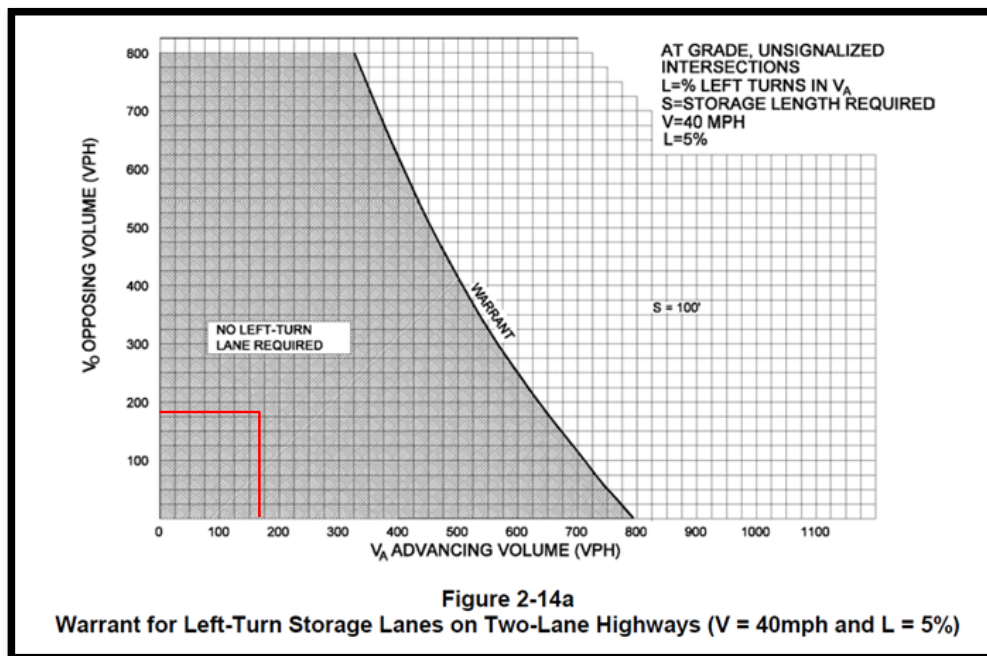


	EASTBOUND			
	LT	THRU	RT	TOTAL
ADVANCING VOLUMES	6	165		171

EB LT	LT %
6	3.5%
Use Chart For:	5%

	WESTBOUND			
	LT	THRU	RT	TOTAL
OPPOSING VOLUMES		170	8	178

Warrant Met:	No
Storage Length:	---



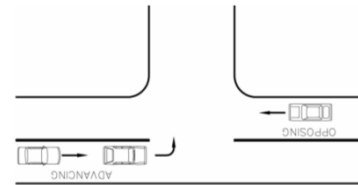
LEFT TURN LANE WARRANT ANALYSIS (BASED ON HARMELINK)

LOCATION: #3 - COLLEGE STREET & PROJECT ACCESS
PROJECT: COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

SPEED LIMIT: 30 MPH
USE CHART: **40 MPH**

SCENARIO: **2025 - PROJECTED TRAFFIC VOLUMES**
ANALYSIS TIME PERIOD: **PM PEAK HOUR**

DEFINITION OF MOVEMENTS

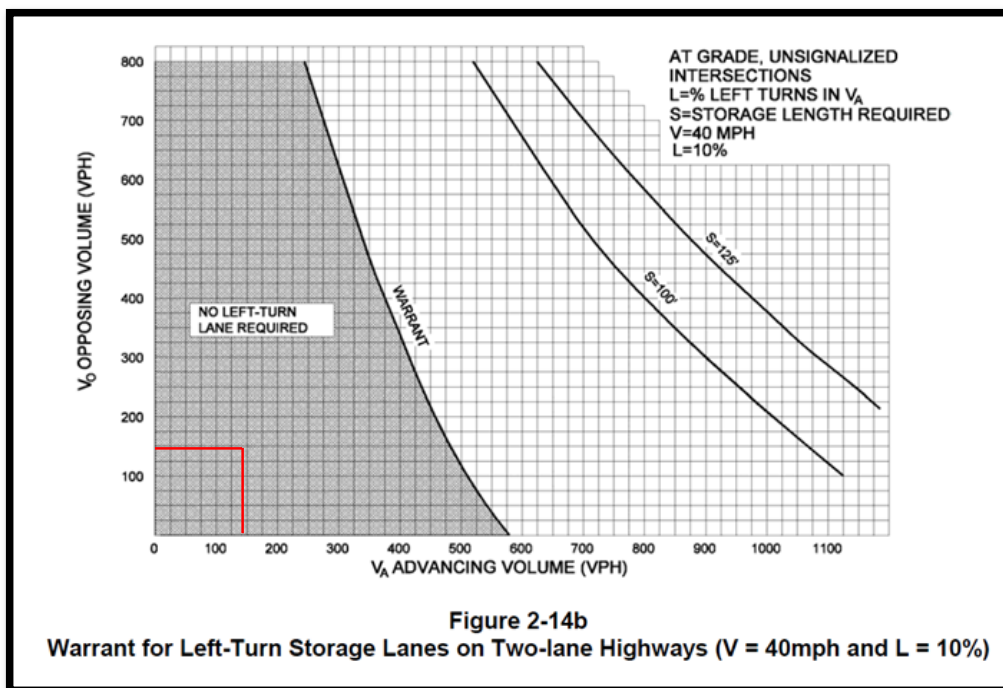


	EASTBOUND			
	LT	THRU	RT	TOTAL
ADVANCING VOLUMES	12	131		143

EB LT	LT %
12	8.4%
Use Chart For:	10%

	WESTBOUND			
	LT	THRU	RT	TOTAL
OPPOSING VOLUMES		129	19	148

Warrant Met:	No
Storage Length:	---



RIGHT TURN LANE

EVALUATIONS

RIGHT TURN LANE EVALUATION

Based on NCHRP 457 for evaluation of right turn deceleration lanes.

PROJECT COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

INTERSECTION #2 - COLLEGE STREET & RICHLAND STREET

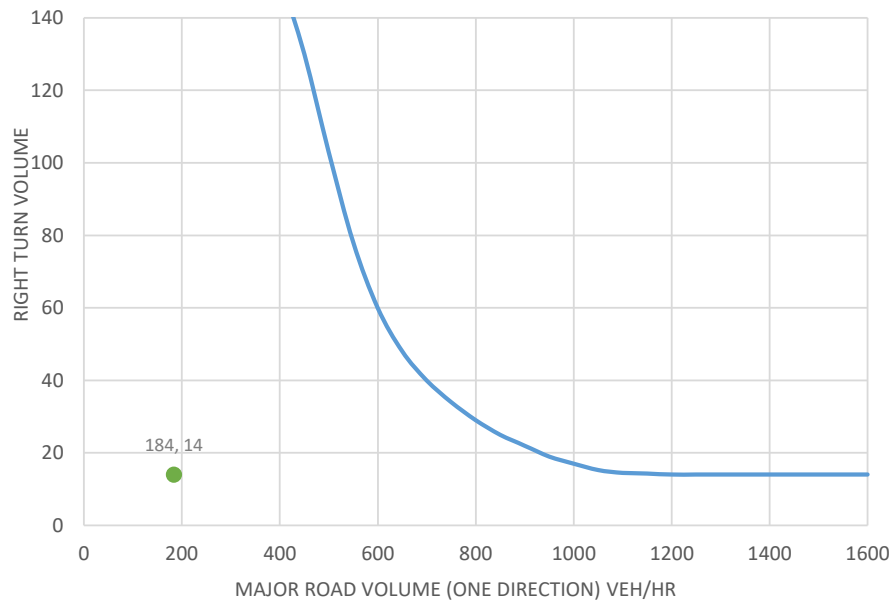
SCENARIO 2025 PROJECTED TRAFFIC CONDITIONS

DIRECTION EASTBOUND

TIME PERIOD AM PEAK HOUR

NUMBER OF LANES (2/4)	2
SPEED LIMIT (MPH)	30 USE 40
RIGHT TURN VOLUME (VPH)	14
ADVANCING VOLUME (VPH)	184

RIGHT TURN LANE EVALUATION



Right Turn Lane NOT RECOMMENDED

RIGHT TURN LANE EVALUATION

Based on NCHRP 457 for evaluation of right turn deceleration lanes.

PROJECT COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

INTERSECTION #2 - COLLEGE STREET & RICHLAND STREET

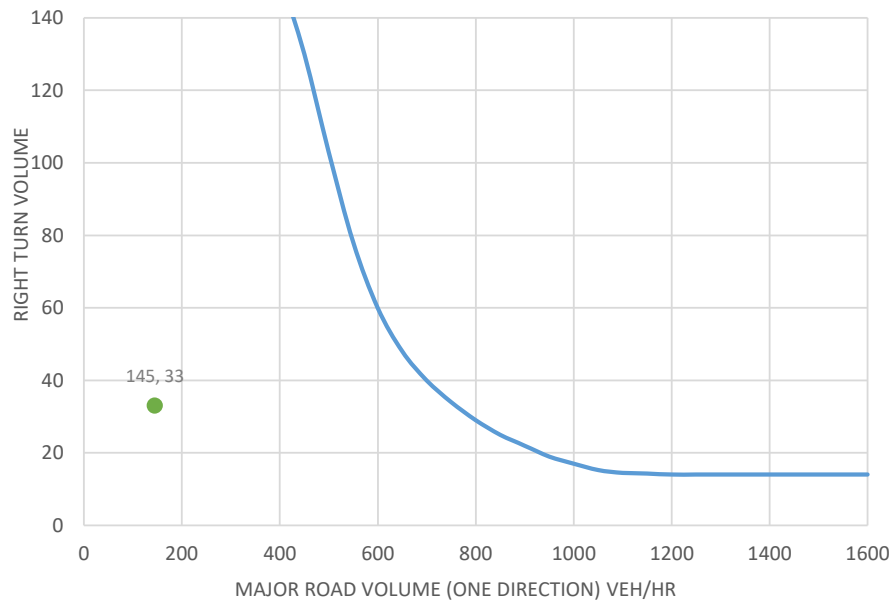
SCENARIO 2025 PROJECTED TRAFFIC CONDITIONS

DIRECTION EASTBOUND

TIME PERIOD PM PEAK HOUR

NUMBER OF LANES (2/4)	2
SPEED LIMIT (MPH)	30 USE 40
RIGHT TURN VOLUME (VPH)	33
ADVANCING VOLUME (VPH)	145

RIGHT TURN LANE EVALUATION



Right Turn Lane NOT RECOMMENDED

RIGHT TURN LANE EVALUATION

Based on NCHRP 457 for evaluation of right turn deceleration lanes.

PROJECT COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

INTERSECTION #3 - COLLEGE STREET & PROJECT ACCESS

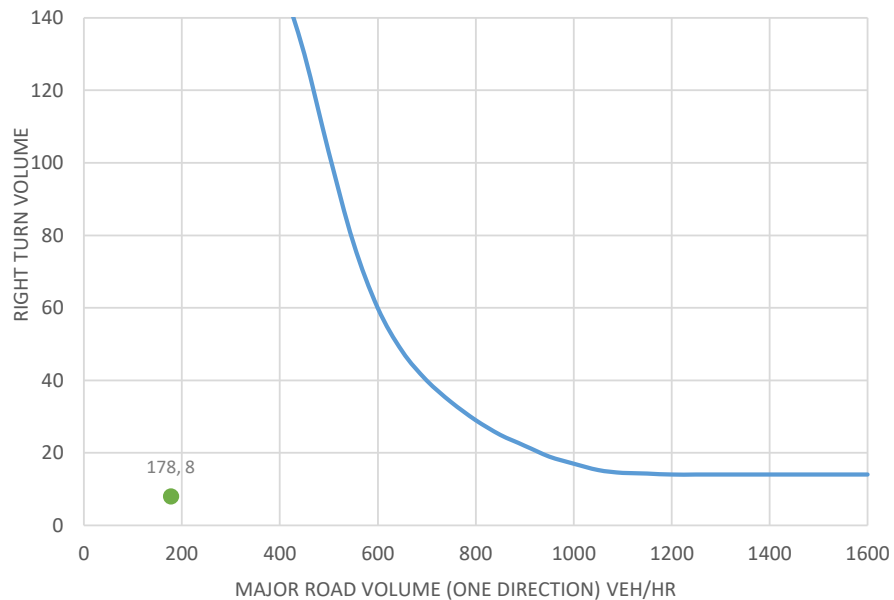
SCENARIO 2025 PROJECTED TRAFFIC CONDITIONS

DIRECTION WESTBOUND

TIME PERIOD AM PEAK HOUR

NUMBER OF LANES (2/4)	2
SPEED LIMIT (MPH)	30 USE 40
RIGHT TURN VOLUME (VPH)	8
ADVANCING VOLUME (VPH)	178

RIGHT TURN LANE EVALUATION



Right Turn Lane NOT RECOMMENDED

RIGHT TURN LANE EVALUATION

Based on NCHRP 457 for evaluation of right turn deceleration lanes.

PROJECT COLLEGE STREET TOWNHOMES DEVELOPMENT TIS

INTERSECTION #3 - COLLEGE STREET & PROJECT ACCESS

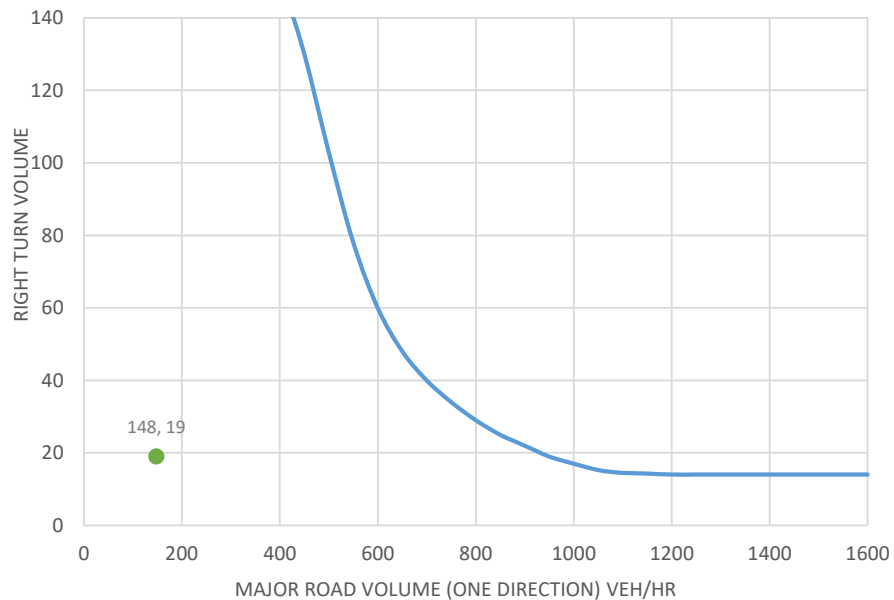
SCENARIO 2025 PROJECTED TRAFFIC CONDITIONS

DIRECTION WESTBOUND

TIME PERIOD PM PEAK HOUR

NUMBER OF LANES (2/4)	2
SPEED LIMIT (MPH)	30 USE 40
RIGHT TURN VOLUME (VPH)	19
ADVANCING VOLUME (VPH)	148

RIGHT TURN LANE EVALUATION



Right Turn Lane NOT RECOMMENDED



Project Name: Shoals Way Parking and Building Expansion

IDT: 1119252 Zoning: IG (Industrial General)

Description: Parking lot and building expansion

Applicant: Greenlid

Type: Site Plan

Location: 1400 Shoals Way, Portland, TN

SITE DATA TABLE	
OWNER / DEVELOPER	JOEY ROLLINS 360 FREELAND ROAD, PORTLAND, TN 37148 615-306-3608 JROLLINSCO@AOL.COM
SITE LOCATION	1400 SHOALS WAY, PORTLAND TN 37148
TAX MAP	018
PARCEL	PARCEL 015.01
ACREAGE	25± ACRES
CURRENT ZONE	IG
REQUESTED ZONE	
EXISTING USE	MANUFACTURING
PROPOSED USE	MANUFACTURING

PARKING REQUIREMENTS		
TYPE	REQUIRED SPACES	PROPOSED SPACES
MANUFACTURING	(1 SPCS / 1,500 SF) x 103,302 SF = 69	302

TOTAL PARKING SPACES PROVIDED: 302 TOTAL SPACES (294 + 6 ACCESSIBLE SPACES)

TOTAL IMPERVIOUS AREA
335,043 SF



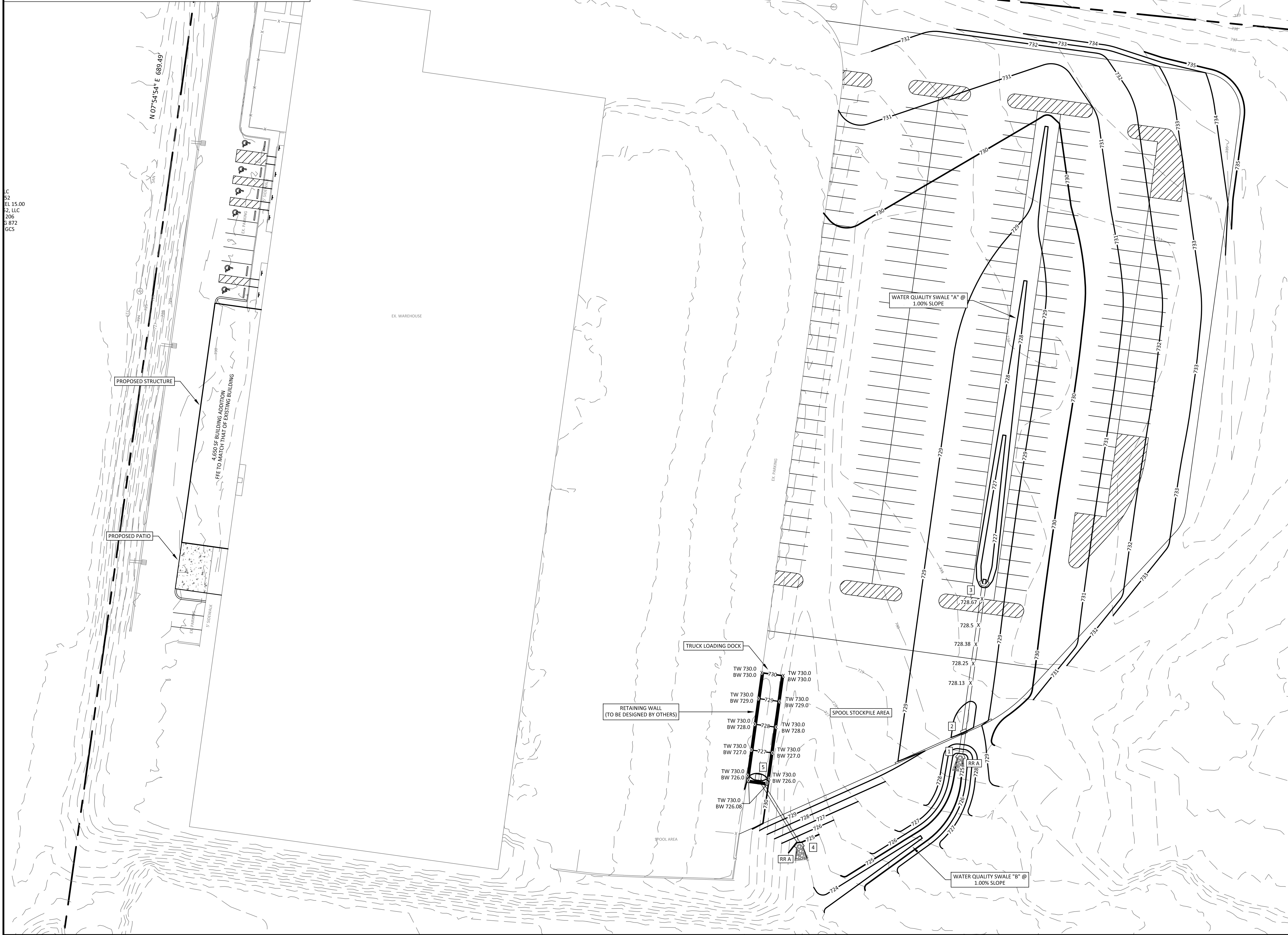
STORM SEWER STRUCTURE TABLE				
NO.	TYPE*	RIM	INVERTS	CASTING
1	HEADWALL**	727.16	724.41 (2)	
2	CURB INLET	727.85	724.52 (3) 724.52 (1)	3103
3	HEADWALL	727.20	725.00 (2)	
4	HEADWALL**	725.73	723.49 (5)	
5	AREA DRAIN	725.88	723.74 (4)	SEE DETAIL

** HEADWALL WITH ENERGY DISSIPATORS

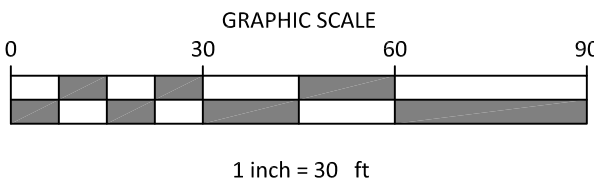
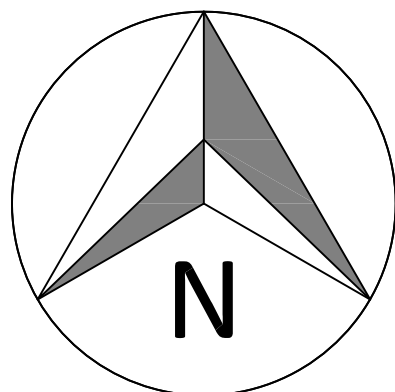
PIPE TABLE			
LINE	SIZE/TYPE	LENGTH	SLOPE
2-1	24" RCP	14.87'	0.75%
3-2	24" RCP	95.13'	0.50%
5-4	15" RCP	50.00'	0.50%

Ditch	Ditch Shape	Length	Base Width	Run of Side Slope	Slope	Manning' s n	Water Ht. ft.	Wetted Perimeter	Hydraulic Radius	Area ft²	Top Width	Flow (cfs)	Velocity (ft/s)
A	Trap.	296	2.00	3.00	0.0100	0.022	0.87	7.50	0.53	4.01	7.22	17.84	4.45
B	Trap.	145	2.00	3.00	0.0100	0.022	0.95	8.01	0.58	4.61	7.70	21.53	4.67

EL 15.00
2, LLC
206
872
GCS



SHOALS WAY INDUSTRIAL
0 HWY 52
MAP 18 PARCEL 15.02
RB 5987 PG 851
ZONING: GCS



LEGEND

- CONCRETE MONUMENT (OLD)
- CONCRETE MONUMENT (NEW)
- IRON ROD (OLD)
- IRON ROD (NEW)
- BENCHMARK
- BOUNDARY LINE
- BUFFER
- SETBACK / YARD
- PUDE
- EXTRUDED CURB
- SS SANITARY SEWER LINE
- W WATER LINE
- G GAS LINE
- OHE OVERHEAD UTILITY LINE
- UGT UNDERGROUND UTILITY LINE
- FENCE
- TREE LINE
- UTILITY POLE
- UTILITY POLE W/ LIGHT
- GUY ANCHOR
- TELEPHONE MANHOLE
- ELECTRIC JUNCTION BOX
- CABLE PEDESTAL
- SANITARY SEWER MANHOLE
- WATER METER
- WATER VALVE
- BLOW OFF VALVE
- AIR RELEASE ASSEMBLY
- FIRE HYDRANT
- GAS METER
- GAS VALVE
- A/C PAD

AS-BUILT

IN ACCORDANCE WITH THE CITY OF PORTLAND REQUIREMENTS, THE CITY OF PORTLAND ENGINEERING DEPARTMENT MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT AND FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS

THE ENGINEER SHALL CONTACT STORMWATER DEVELOPMENT REVIEW STAFF FOR SUBMITTAL REQUIREMENTS.

SPOT SHOT LEGEND

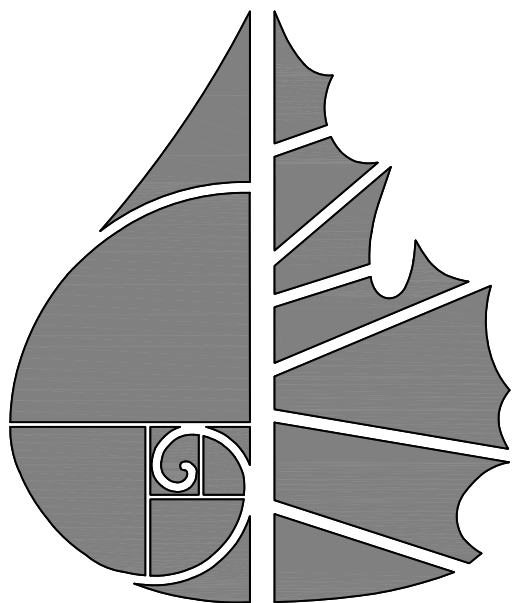
- TW - TOP OF WALL
- BW - BOTTOM OF WALL

RIP-RAP DESIGNATIONS:

RR A = 450 x 6" X 11" DEEP OVER GEOTEXTILE TYPE III

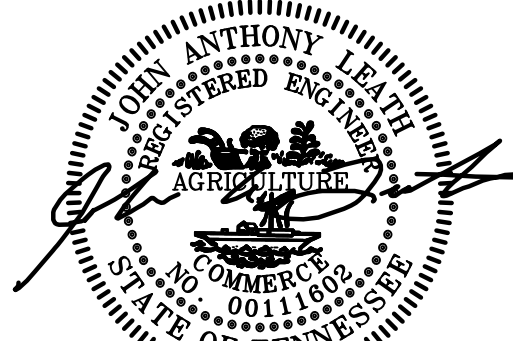


IF YOU DIG IN TENNESSEE
CALL 811 FIRST!
or (800) 351-1111 or (615) 366-1987
TENNESSEE ONE CALL IT'S THE LAW



GreenLID Design

114 B West Main Street
Gallatin, TN 37066
615-230-7269
andy.leath@greenliddesign.com



SHOALS PARKING EXPANSION

SITE PLAN

1400 SHOALS WAY
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

GRADING PLAN

REVISION

DATE

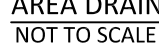
NO.

SHEET NO.
C 4.0

SHEET 5 OF 10

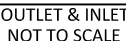
JOB 23.044G

SEPTEMBER 13, 2023

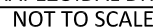
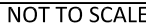


NOTES:

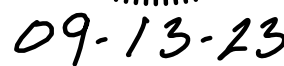
1. CONCRETE SHALL BE CLASS "A" MIXED, PLACED, FORMED, AND FINISHED IN ACCORDANCE WITH SECTION 604 AND 611 OF T.D.OT. STANDARD SPECIFICATIONS. REINFORCED WITH #4 BARS 10" C/C EACH WAY, WITH WINGS AND TOE SLAB DOVELED TO HEADWALL WITH #5 BARS.
2. FORM WORK AND ALL STRUCTURAL EXCAVATION AND BACK FILL SHALL BE PROVIDED AND / OR PERFORMED IN ACCORDANCE WITH T.D.O.T. SPECIFICATIONS.
3. 3/4" CHAMFER ON ALL EXPOSED EDGES.



1. CONCRETE SHALL BE CLASS "A" MIXED, PLACED, FORMED, AND FINISHED IN ACCORDANCE WITH T.D.O.T. STANDARD SPECIFICATIONS. REINFORCED WITH #4 BARS 10" C/C EACH WAY, SLAB DOWELED TO HEADWALL WITH #5 BARS.
2. FORM WORK AND ALL STRUCTURAL EXCAVATION AND BACK FILL SHALL BE PROVIDED AND / OR PERFORMED IN ACCORDANCE WITH T.D.O.T. SPECIFICATIONS.
3. 3/4" CHAMFER ON ALL EXPOSED EDGES.



114 B West Main Street
Gallatin, TN 37066
615-230-7269
andy.leath@greenliddesign.com



SHOALS PARKING EXPANSION

SITE PLAN

1400 SHOALS WAY
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

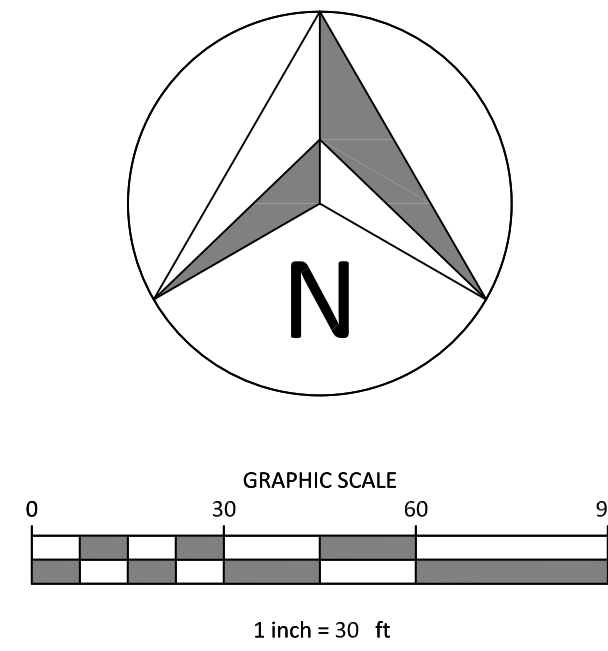
DETAILS

[illegible]

SHEET NO.
C 5.0

SHEET 6 OF 10

JOB 23.044G SEPTEMBER 13, 2023



LEGEND

- | | |
|---|--------------------------|
|  | CONCRETE MONUMENT (OLD) |
|  | CONCRETE MONUMENT (NEW) |
|  | IRON ROD (OLD) |
|  | IRON ROD (NEW) |
|  | BENCHMARK |
|  | BOUNDARY LINE |
|  | BUFFER |
|  | SETBACK / YARD |
|  | PUDE |
|  | EXTRUDED CURB |
|  SS | SANITARY SEWER LINE |
|  W | WATER LINE |
|  | STORM SEWER |
|  G | GAS LINE |
|  OHE | OVERHEAD UTILITY LINE |
|  UGT | UNDERGROUND UTILITY LINE |
|  | FENCE |
|  | TREE LINE |
|  | UTILITY POLE |
|  | UTILITY POLE W/ LIGHT |
|  | GUY ANCHOR |
|  | TELEPHONE MANHOLE |
|  | ELECTRIC JUNCTION BOX |
|  | CABLE PEDESTAL |
|  | SANITARY SEWER MANHOLE |
|  | WATER METER |
|  | WATER VALVE |
|  | BLOW OFF VALVE |
|  | AIR RELEASE ASSEMBLY |
|  | FIRE HYDRANT |
|  | GAS METER |
|  | GAS VALVE |
|  | A/C PAD |

LIMITS OF DISTURBANCE ACREAGE: 4.72± ACRES

OUTFALL CHARACTERISTICS:

OUTFALL	ACREAGE	SLOPE %
1	12.94±	VARIES

EROSION CONTROL LEGEND

- | | | |
|------------|---|-------------------------------|
| CE | - | CONSTRUCTION EXIT |
| SI | - | SLOPE INTERRUPTION |
| CW | - | CONSTRUCTION WASHOUT |
| FR | - | FILTER RING |
| SF | - | SILT FENCE |
| SFB | - | SILT FENCE WITH BACKING |
| NAG | - | NORTH AMERICAN GREEN OR EQUAL |
| FS | - | FILTREXX SOXX |
| // | | SILT FENCE |

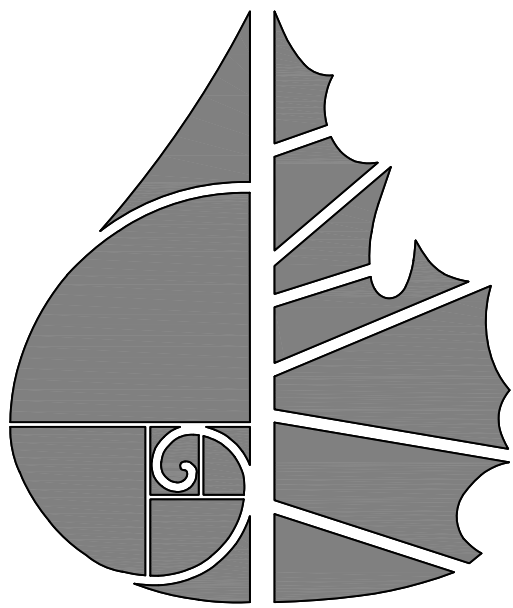
TEMPORARY SEEDING NOTES

1. SEED AND STRAW REQUIRED AS FOLLOWS;
STRAW: 75 LBS PER 1,000 SQ. FT.
10-10-10 FERTILIZER: 200 LBS PER ACRE
SEED: 100 LBS PER ACRE
AGR LIME: 75 LBS PER 1,000 SQ. FT.

TEMPORARY COVER SEEDING MIXTURES	
SEEDING DATE	GRASS SEED
JANUARY 1 TO MAY 1	ITALIAN RYE
	KOREAN LESPEDEZA
	SUMMER OATS
MAY 1 TO JULY 15	SUDAN - SORGHUM
MAY 1 TO JULY 15	STARR MILLET
JULY 15 TO JANUARY 1	BALBOA RYE
	ITALIAN RYE

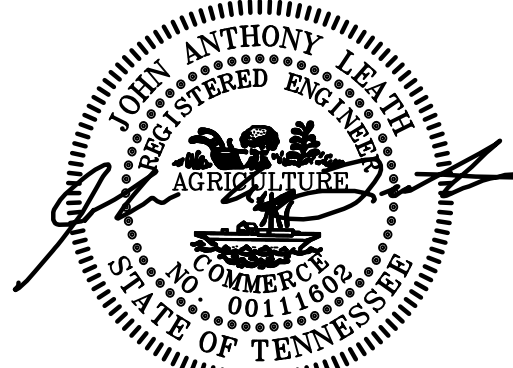


**IF YOU DIG IN TENNESSEE
CALL 811 FIRST!**
or (800) 351-1111 or (615) 366-1987
TENNESSEE ONE CALL IT'S THE LAW



GreenLID Design

114 B West Main Street
Gallatin, TN 37066
615-230-7269
ndy.leath@greenliddesign.com



09-13-23

SHOALS PARKING EXPANSION

SITE PLAN
1400 SHOALS WAY
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

EROSION CONTROL PLAN A

[illegible]

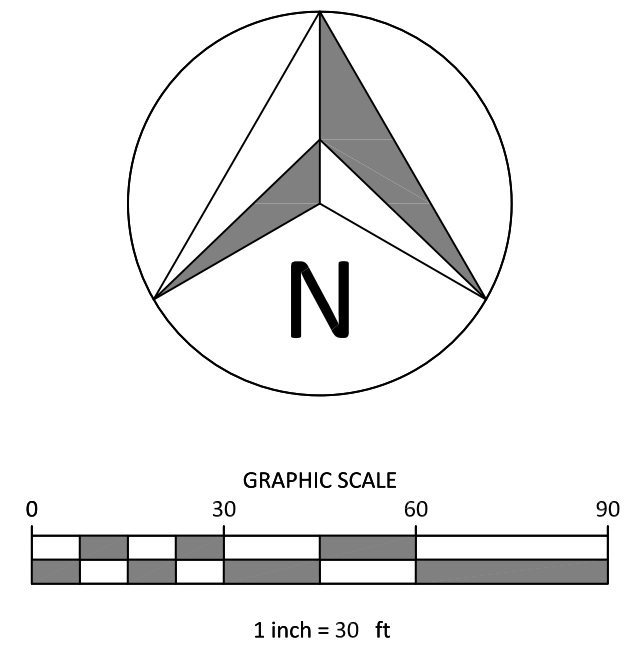
SHEET NO.

C 6.1

SHEET 7 OF 10

JOB 23.044G

SEPTEMBER 13, 2023



- LEGEND**
- CONCRETE MONUMENT (OLD)
 - CONCRETE MONUMENT (NEW)
 - IRON ROD (OLD)
 - IRON ROD (NEW)
 - ⊕ BENCHMARK
 - BOUNDARY LINE
 - - - BUFFER
 - - - SETBACK / YARD
 - - - PUDE
 - EXTRUDED CURB
 - - - SS — SANITARY SEWER LINE
 - - - W — WATER LINE
 - - - G — GAS LINE
 - - - OHE — OVERHEAD UTILITY LINE
 - - - UGT — UNDERGROUND UTILITY LINE
 - - - FENCE
 - - - TREE LINE
 - UTILITY POLE
 - UTILITY POLE W/ LIGHT
 - ⊕ GUY ANCHOR
 - TELEPHONE MANHOLE
 - ELECTRIC JUNCTION BOX
 - CABLE PEDESTAL
 - SANITARY SEWER MANHOLE
 - WATER METER
 - WATER VALVE
 - BLOW OFF VALVE
 - AIR RELEASE ASSEMBLY
 - FIRE HYDRANT
 - GAS METER
 - GAS VALVE
 - A/C PAD
- LIMITS OF DISTURBANCE ACREAGE: 4.72± ACRES

OUTFALL CHARACTERISTICS:

OUTFALL	ACREAGE	SLOPE %
1	12.94±	VARIES

- EROSION CONTROL LEGEND:**
- CE - CONSTRUCTION EXIT
 - SI - SLOPE INTERRUPTION
 - CW - CONSTRUCTION WASHOUT
 - CD - CHECK DAM
 - SF - SILT FENCE
 - SFB - SILT FENCE WITH BACKING
 - NAG - NORTH AMERICAN GREEN OR EQUAL
 - IP - INLET PROTECTION
 - SILT FENCE
 - LIMITS OF DISTURBANCE

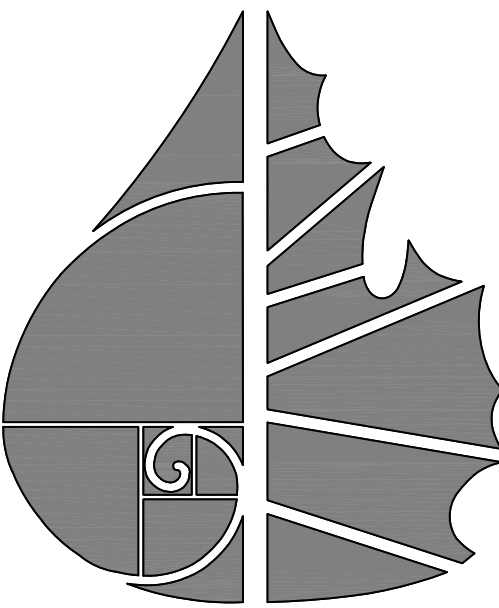
- TEMPORARY SEEDING NOTES**
- SEED AND STRAW REQUIRED AS FOLLOWS:
STRAW: 75 LBS PER 1,000 SQ. FT.
10-10-10 FERTILIZER: 200 LBS PER ACRE
SEED: 100 LBS PER ACRE
AGR LIME: 75 LBS PER 1,000 SQ. FT.

TEMPORARY COVER SEEDING MIXTURES

SEEDING DATE	GRASS SEED
JANUARY 1 TO MAY 1	ITALIAN RYE KOREAN LESPEDEZA SUMMER ORYS
MAY 1 TO JULY 15	SUDAN - SORGHUM
MAY 1 TO JULY 15	STARR MILLET
JULY 15 TO JANUARY 1	BALBOA RYE ITALIAN RYE



IF YOU DIG IN TENNESSEE
CALL 811 FIRST!
or (800) 351-1111 or (615) 366-1987
TENNESSEE ONE CALL IT'S THE LAW



GreenLID Design

114 B West Main Street
Gallatin, TN 37066
615-230-7269
andy.leath@greenliddesign.com



SHOALS PARKING EXPANSION

SITE PLAN
1400 SHOALS WAY
CITY OF PORTLAND
SUMNER COUNTY, TENNESSEE

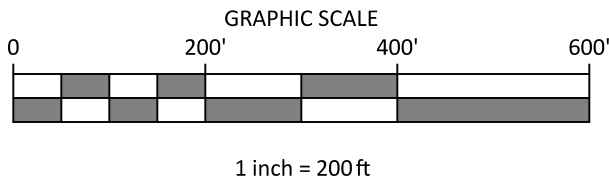
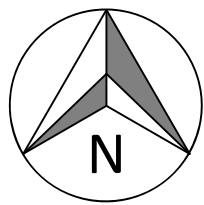
EROSION CONTROL PLAN B

NO. REVISION DATE

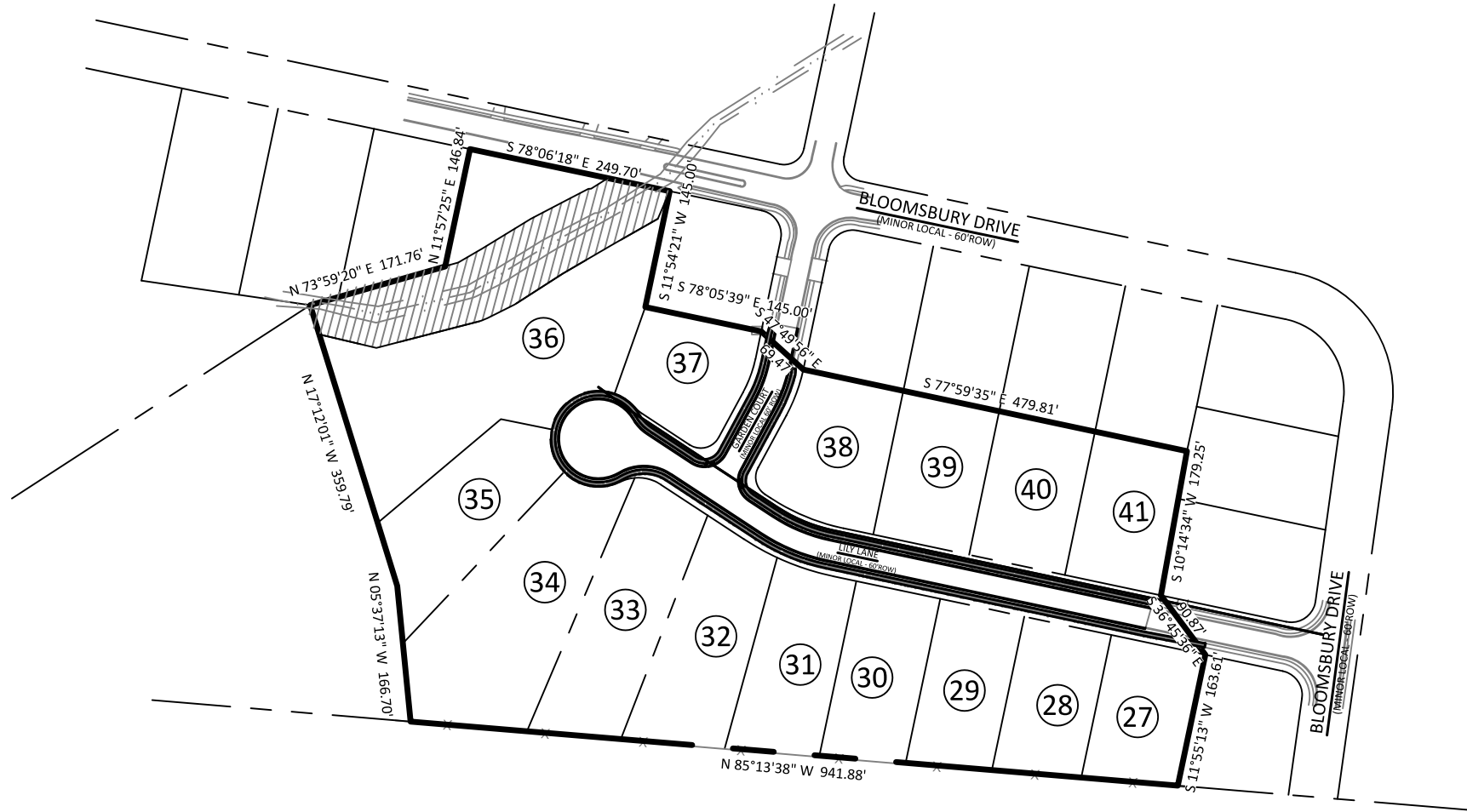
SHEET NO.
C 6.2

SHEET 8 OF 10

JOB 23.044G SEPTEMBER 13, 2023



PLAT CONTAINS
12.05 ACRES ±
(524,841 SF ±)



LINE	BEARING	DISTANCE
L1	N 11°54'09" E	34.52'
L2	S 56°42'47" E	8.32'
L3	N 78°04'47" W	465.29'
L4	N 56°42'47" W	121.64'
L5	S 56°42'47" E	69.17'
L6	N 28°24'05" E	62.83'
L7	S 28°24'05" W	72.23'
L8	S 78°04'47" E	397.04'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	320.00'	72.36'	72.21'	N 71°36'05" W	12°57'24"
C2	320.00'	46.97'	46.93'	N 60°55'05" W	8°24'35"
C3	50.00'	33.23'	32.62'	S 75°45'05" E	38°04'36"
C4	50.00'	18.87'	18.75'	S 74°24'02" W	21°37'09"
C5	59.00'	74.66'	69.77'	N 80°09'35" W	72°29'55"
C6	59.00'	56.96'	54.77'	N 16°15'14" W	55°18'47"
C7	59.00'	100.99'	89.11'	N 60°26'28" E	98°04'39"
C8	59.00'	31.05'	30.69'	S 55°26'43" E	30°08'59"
C9	40.00'	11.41'	11.37'	S 48°32'30" E	16°20'34"
C10	25.00'	41.40'	36.83'	N 75°50'39" E	94°53'08"
C11	155.19'	43.42'	43.28'	N 20°23'10" E	16°01'51"
C12	215.19'	60.21'	60.01'	S 20°23'10" W	16°01'51"
C13	25.00'	37.14'	33.82'	S 14°09'21" E	85°06'52"
C14	260.00'	96.96'	96.40'	S 67°23'47" E	21°22'00"

CERTIFICATE OF STORMWATER SYSTEM

I HEREBY CERTIFY GENERAL DRAINAGE PLANS HAVE BEEN SUBMITTED AND APPROVED FOR THIS SUBDIVISION AND THAT ALL REQUIRED TEMPORARY AND PERMANENT EROSION CONTROL, STABILIZATION, AND OTHER WATER QUALITY AND WATER RELATED REQUIREMENTS HAVE BEEN DESIGNED IN A MANNER WHICH MEETS THE CITY OF PORTLAND DRAINAGE REQUIREMENTS. I HEREBY CERTIFY: (1) THAT THE STORMWATER SYSTEM OUTLINED OR INDICATED HEREON HAS BEEN INSTALLED IN ACCORDANCE WITH CURRENT STATE AND/OR LOCAL GOVERNMENT REQUIREMENTS OR, (2) THAT A LETTER OF CREDIT IN THE AMOUNT OF \$ _____ HAS BEEN POSTED WITH THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT TO ASSURE COMPLETION OF ALL REQUIRED STORMWATER IMPROVEMENTS IN CASE OF DEFAULT.

DATE _____ NAME AND TITLE _____

CERTIFICATE OF APPROVAL OF PUBLIC STREETS

I HEREBY CERTIFY: (1) THAT THE PUBLIC STREETS HAVE BEEN INSTALLED IN AN ACCEPTABLE MANNER AND ACCORDING TO CITY SPECIFICATION IN THE SUBDIVISION ENTITLED: MAGNOLIA SPRINGS SUBDIVISION OR, (2) THAT A LETTER OF CREDIT IN THE AMOUNT OF \$ _____ HAS BEEN POSTED WITH THE CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS TO ASSURE COMPLETION OF ALL REQUIRED IMPROVEMENTS IN CASE OF DEFAULT.

DATE _____ NAME (PUBLIC WORKS DIRECTOR) _____

CERTIFICATE OF PROPERTY NUMBERS AND STREET NAMES

I HEREBY CERTIFY THAT THE PROPERTY NUMBERS ASSIGNED HEREIN CONFORM TO SUMNER COUNTY EMERGENCY COMMUNICATIONS DISTRICT (E-911) POLICIES AND THE STREET NAME(S) CONFORM TO THE INTER-LOCAL AGREEMENT FOR NON-DUPLICATION.

DATE _____ SUMNER COUNTY EMERGENCY COMMUNICATIONS E-911 DISTRICT

LEGEND

□	CMF	CONCRETE MONUMENT (FOUND)
■	CMS	CONCRETE MONUMENT (SET)
○	IPF	1/2" IRON REBAR (FOUND)
●	IPS	1/2" IRON REBAR WITH RED CAP "2776 WILKINSON" (SET)
⊙	PKF	PK NAIL (FOUND)
●	PKS	PK NAIL (SET)
⊕		BENCHMARK
---		BOUNDARY LINE
- - -		SETBACK / YARD
- - - - -		EASEMENT
— E.O.P. —		EDGE OF PAVEMENT
- - - - SAN - - - -		SANITARY SEWER LINE
— WL —		WATER LINE
==		STORM SEWER
- - - GAS - - -		GAS LINE
— OHE —		OVERHEAD UTILITY LINE
— UGT —		UNDERGROUND UTILITY LINE
---		FENCE
~~~~~		TREE LINE
⊙		UTILITY POLE
⊙		UTILITY POLE W/ LIGHT
→		GUY ANCHOR
⊙		LIGHT POLE
ET		ELECTRICAL TRANSFORMER
EV		ELECTRICAL VAULT
CV		COMMUNICATIONS VAULT
⊗		COMMUNICATIONS PEDESTAL
⊗		SANITARY SEWER MANHOLE
⊗		WATER METER
⊗		WATER VALVE
⊗		BLOW OFF VALVE
⊗		FIRE HYDRANT
⊗		GAS METER
⊗		GAS VALVE
⊗		STORM MANHOLE

#### DEED REFERENCE

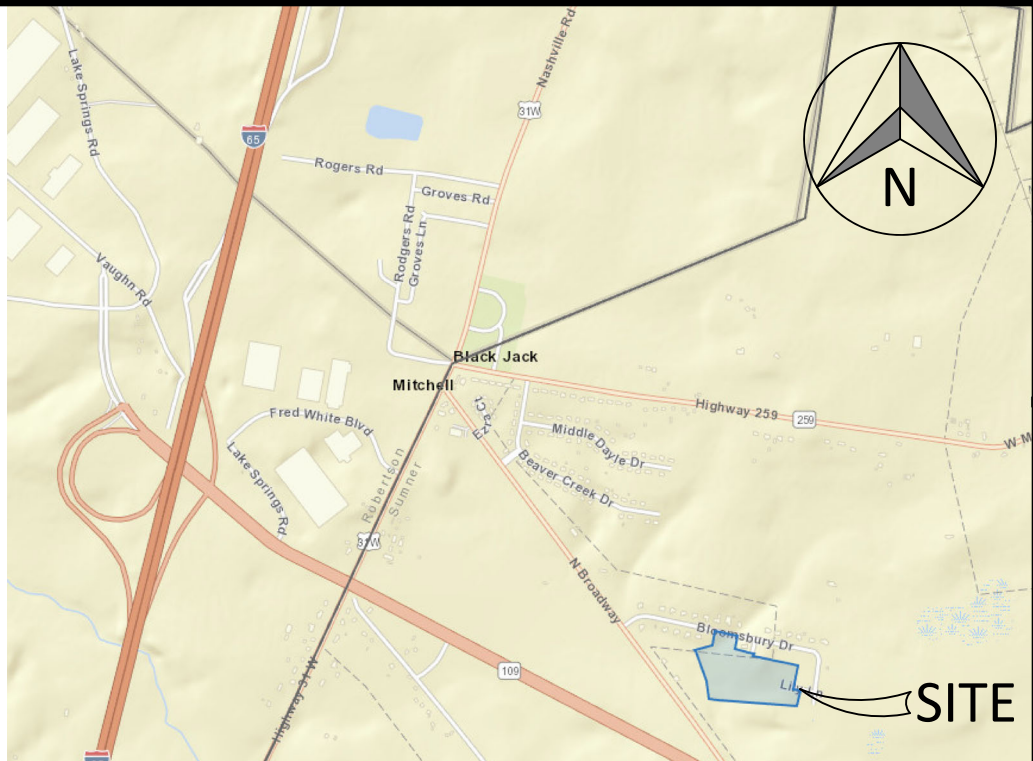
BEING PART OF THE SAME PROPERTY CONVEYED TO CHRISTOPHER NORRIS BY DEED OF RECORD IN RECORD BOOK 2434, PAGE 57, REGISTERS OFFICE OF SUMNER COUNTY, TN.

#### TAX ASSESSORS REFERENCE

BEING SHOWN ON TAX MAP 16, PARCEL 31.03 OF THE TAX ASSESSORS OFFICE OF SUMNER COUNTY, TENNESSEE.

#### MS4 NOTES

- PRIOR TO FUTURE CONSTRUCTION, THE OWNER SHALL APPLY FOR A LAND DISTURBANCE PERMIT FROM THE CITY OF PORTLAND.
- ANY LOT THAT IS TO HAVE A DISTURBED AREA OF 1 ACRE OR GREATER SHALL HAVE AN INDIVIDUAL NOTICE OF COVERAGE (NOC) FROM TDEC.
- THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH PERMANENT VEGETATION.
- CURRENT AND SUBSEQUENT PROPERTY OWNERS ARE REQUIRED TO MAINTAIN ALL DRAINAGE DITCHES AND OTHER STORMWATER INFRASTRUCTURE AND KEEP THEM FREE FROM OBSTRUCTION.
- STREAM BUFFER, IF ANY, ARE TO BE KEPT IN A NATURAL VEGETATIVE STATE. NO BUILDINGS OR STRUCTURES ARE ALLOWED WITHIN THE BUFFER. DRIVEWAYS OR UTILITY CROSSINGS ARE PERMITTED WITH WRITTEN CONSENT OF THE CITY OF PORTLAND STORMWATER MANAGEMENT COORDINATOR.
- POSITIVE DRAINAGE SHALL BE REQUIRED FOR A MINIMUM OF 10' FROM THE DWELLING, INCLUDING GARAGE DOORS, AS REQUIRED BY THE CITY OF PORTLAND BUILDING CODES OFFICE.



LOCATION MAP  
NOT TO SCALE

#### SURVEYORS NOTES:

- THE PURPOSE OF THIS PLAT IS TO CREATE 14 BUILDABLE LOTS AND DEDICATE OPEN SPACE.
- SUBJECT PROPERTY IS ZONED CITY OF PORTLAND R5-20 AS OF THE DATE OF THIS SURVEY. SETBACKS SHOWN ARE BASED ON THIS ZONING.
- SUBJECT SURVEY WAS PERFORMED 9-06-2023 UTILIZING RTK GPS TECHNIQUES AND FIELD RUN MEASUREMENTS UTILIZING ROBOTIC TOTAL STATION.
- BEARINGS SHOWN ARE REFERENCED TO TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83 EPOCH 2010.00). THE TDOT GNSS REFERENCE NETWORK WAS USED TO ESTABLISH THESE COORDINATES UTILIZING NETWORK RTK TECHNIQUES.  
TYPE OF GPS EQUIPMENT USED: CARLSON BRX7 BASE AND ROVER  
TYPE OF TRANSIT USED: LEICA GEOSYSTEMS TS16 3" R500 TOTAL STATION  
RELATIVE POSITIONAL ACCURACY OF CONTROL POINTS SET IS LESS THAN:  
HRMS AVG: 0.03  
VRMS AVG: 0.05  
COMBINED GRID FACTOR: 1.00
- VERTICAL CONTROL BASED ON NAVD1988 (GEOID 2018)
- THIS SURVEYOR HAS NOT BEEN FURNISHED WITH A TITLE REPORT, THEREFORE SURVEY IS SUBJECT TO THE FINDINGS OF AN ACCURATE TITLE SEARCH. ONLY DOCUMENTS NOTED HEREON WERE SUPPLIED TO THIS SURVEYOR. THERE MAY EXIST OTHER DOCUMENTS THAT WOULD AFFECT THE SUBJECT PROPERTY. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH.
- THIS SURVEYOR HAS NOT PHYSICALLY LOCATED ALL UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN HEREON WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS AND/OR MAPS PREPARED BY OTHERS. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION AS INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. ALWAYS CALL TN811 BEFORE YOU DIG.
- ALL BUILDINGS, SURFACE IMPROVEMENTS, AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO SITE ARE NOT NECESSARILY SHOWN HEREON. ONLY THE IMPROVEMENTS OBSERVED VISUALLY ON THE DATE OF SURVEY ON SUBJECT PROPERTY ARE SHOWN.
- SUBSURFACE AND/OR ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY.  
ONLY THE IMPROVEMENTS OBSERVED VISUALLY ON THE DATE OF SURVEY ON SUBJECT PROPERTY ARE SHOWN.
- BY GRAPHIC PLOTTING ONLY, SUBJECT PROPERTY IS IN ZONE "X" AREA OF MINIMAL FLOOD HAZARD OR SPECIAL FLOOD HAZARD AREA ACCORDING TO F.I.R.M. 47165CO025G & 47165CO131G, WITH AN EFFECTIVE DATE 4/17/2012, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.  
ONLY AN ELEVATION CERTIFICATE CAN DETERMINE THE EXACT DESIGNATION.
- XXXXX INDICATES STREET ADDRESS

#### JURISDICTIONAL NOTES:

- GARDEN CT AND LILLY LN ARE CLASSIFIED AS LOCAL ROADS.
- DRAINAGE EASEMENTS OUTSIDE DEDICATED RIGHT-OF-WAY ARE NOT THE RESPONSIBILITY OF SUMNER COUNTY OR THE CITY OF PORTLAND.

## FINAL PLAT MAGNOLIA SPRINGS SUBDIVISION SECTION VI

PROPERTY SITUATED ALONG THE NORTHEASTERN MARGIN OF  
NORTH BROADWAY (S.R. 109)  
PORTLAND, SUMNER COUNTY, TENNESSEE

OWNER:  
CHRISTOPHER NORRIS  
121 BLOOMSBURY DRIVE  
PORTLAND, TN, 37148

PROPERTY ADDRESS:  
0 HWY 109 N  
PORTLAND, TN, 37148

DATE: 9/06/2023

#### CERTIFICATE OF OWNERSHIP & DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AS EVIDENCED IN BOOK NUMBER 2434, PAGE 57, COUNTY REGISTERS OFFICE, AND THAT I (WE) ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT, ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES, AND THAT OFFERS OF IRREVOCABLE DEDICATION FOR ALL PUBLIC ROADS, UTILITIES, AND OTHER FACILITIES HAVE BEEN FILED AS REQUIRED BY THE CITY OF PORTLAND SUBDIVISION REGULATIONS.

DATE _____ OWNER _____

DATE _____ OWNER _____

#### CERTIFICATE OF ACCURACY

I HEREBY CERTIFY THAT THIS IS A CATEGORY "I" SURVEY AND IS A TRUE AND CORRECT SURVEY TO THE ACCURACY REQUIRED BY THE CITY OF PORTLAND PLANNING COMMISSION IN ACCORDANCE WITH THE CURRENT STANDARDS OF PRACTICE FOR SURVEYORS IN THE STATE OF TENNESSEE WITH AN ESTIMATED ERROR OF CLOSURE EXCEEDING 1:100,000 AND THAT THE MONUMENTS HAVE BEEN OR WILL BE PLACED AT THE CORNERS HEREON, TO THE SPECIFICATIONS OF THE TENSILE STANDARD.

JOHN ZACHARY WILKINSON  
TN RLS #216  
REGISTERED LAND SURVEYOR  
AGRICULTURE  
COMMERCE  
NO. 2716  
DATE : _____

#### CERTIFICATE OF WATER SYSTEM

I HEREBY CERTIFY: (1) THAT THE WATER SYSTEM OUTLINED OR INDICATED HEREON HAS BEEN INSTALLED IN ACCORDANCE WITH CURRENT STATE AND/OR LOCAL GOVERNMENT REQUIREMENTS OR, (2) THAT A LETTER OF CREDIT IN THE AMOUNT OF \$ _____ HAS BEEN POSTED WITH THE CITY OF PORTLAND UTILITIES DEPARTMENT TO ASSURE COMPLETION OF ALL REQUIRED SEWER IMPROVEMENTS IN CASE OF DEFAULT.

WATER SYSTEM _____ AGENCY _____

DATE _____ NAME & TITLE OF AUTHORIZED APPROVING AGENT _____

#### CERTIFICATE OF SEWER SYSTEM

I HEREBY CERTIFY: (1) THAT THE SEWER SYSTEM OUTLINED OR INDICATED HEREON HAS BEEN INSTALLED IN ACCORDANCE WITH CURRENT STATE AND/OR LOCAL GOVERNMENT REQUIREMENTS OR, (2) THAT A LETTER OF CREDIT IN THE AMOUNT OF \$ _____ HAS BEEN POSTED WITH THE CITY OF PORTLAND UTILITIES DEPARTMENT TO ASSURE COMPLETION OF ALL REQUIRED SEWER IMPROVEMENTS IN CASE OF DEFAULT.

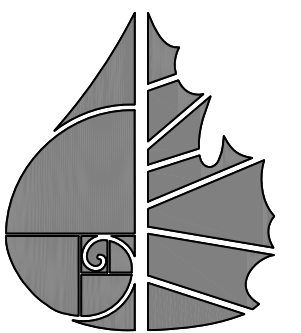
DATE _____ NAME & TITLE _____

#### CERTIFICATE FOR APPROVAL FOR RECORDING

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS FOR PORTLAND, TENNESSEE, EXCEPT FOR SPECIAL EXCEPTION(S), IF ANY, AS NOTED IN THE MINUTES OF THE PLANNING COMMISSION, AND THAT IT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE COUNTY REGISTRAR.

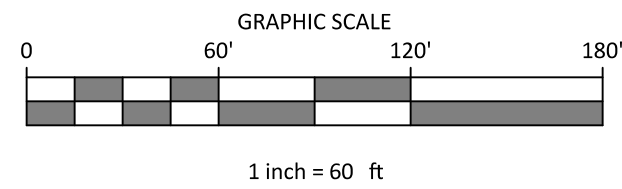
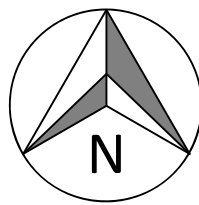
DATE _____ SECRETARY, PLANNING COMMISSION _____

#### PREPARED BY:



GreenLID Design  
114 B West Main Street  
Gallatin, TN 37066  
615-230-7269  
zach.wilkinson@greenlidesign.com





# FINAL PLAT MAGNOLIA SPRINGS SUBDIVISION SECTION VI

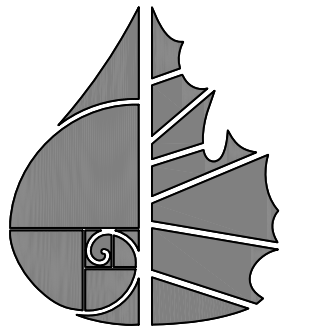
PROPERTY SITUATED ALONG THE NORTHEASTERN MARGIN OF  
NORTH BROADWAY (S.R. 109)  
PORTLAND, SUMNER COUNTY, TENNESSEE

OWNER:  
CHRISTOPHER NORRIS  
121 BLOOMSBURY DRIVE  
PORTLAND, TN, 37148

PROPERTY ADDRESS:  
0 HWY 109 N  
PORTLAND, TN, 37148

DATE: 9/06/2023

PREPARED BY:



GreenLID Design  
114 B West Main Street  
Gallatin, TN 37066  
615-230-7269  
zach.wilkinson@greenliddesign.com

JOB # 22.019G

SHEET 1 OF 1



DATE :

LOT 51  
114 BLOOMSBURY DRIVE  
VICTORIA E & TREY D WISEMAN  
PARCEL 015.00, TAX MAP, GROUP A  
R.B. 4005, PG. 191, R.O.S.C., TN  
P.B. 24, PG. 139, R.O.S.C., TN  
ZONED: RS-20

LOT 50  
116 BLOOMSBURY DRIVE  
KENNETH A WILBER & LYNN JACKIE  
PARCEL 015.00, TAX MAP, GROUP A  
R.B. 2912, PG. 374, R.O.S.C., TN  
R.B. 24, PG. 139, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE I & II  
LOT 49  
122 BLOOMSBURY DRIVE  
MICHAEL B WATKINS & JULIE B  
PARCEL 0140.00, TAX MAP, GROUP A  
R.B. 3208, PG. 570, R.O.S.C., TN  
P.B. 24, PG. 139, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE III  
LOT 48  
126 BLOOMSBURY DRIVE  
GEORGE WILLIAM IV &  
STAPHANIE MICHELLE MCCORMICK  
PARCEL 014.01, TAX MAP, GROUP A  
R.B. 5228, PG. 221, R.O.S.C., TN  
R.B. 26, PG. 39, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE IV  
LOT 47  
128 BLOOMSBURY DRIVE  
CHRISTOPHER J & KENDRA JO ARNOLD  
PARCEL 001.00, TAX MAP, GROUP A  
R.B. 4860, PG. 492, R.O.S.C., TN  
R.B. 29, PG. 129, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE IV  
LOT 46  
130 BLOOMSBURY DRIVE  
JOSHUA & JENNIFER ADKINS  
PARCEL 002.00, TAX MAP, GROUP A  
R.B. 4969, PG. 106, R.O.S.C., TN  
R.B. 29, PG. 129, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE IV  
LOT 45  
132 BLOOMSBURY DRIVE  
PAUL OWEN TRAUGHBER  
PARCEL 003.00, TAX MAP, GROUP A  
R.B. 5002, PG. 464, R.O.S.C., TN  
P.B. 29, PG. 129, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE IV  
LOT 44  
136 BLOOMSBURY DRIVE  
MICHAEL KEVIN & CHRISTINA GILBERT  
PARCEL 004.00, TAX MAP, GROUP A  
R.B. 5826, PG. 358, R.O.S.C., TN  
P.B. 29, PG. 129, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE IV  
LOT 43  
140 BLOOMSBURY DRIVE  
BARRY J SILVERS & MICHELLE GEMMEL  
PARCEL 006.00, TAX MAP, GROUP A  
R.B. 5774, PG. 749, R.O.S.C., TN  
P.B. 30, PG. 292, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE V  
LOT 42  
102 LILY LANE  
JENNIFER & BRIAN CRADDOCK  
PARCEL 005.00, TAX MAP, GROUP A  
R.B. 5370, PG. 313, R.O.S.C., TN  
P.B. 30, PG. 292, R.O.S.C., TN  
ZONED: RS-20

MAGNOLIA SPRINGS, PHASE V  
LOT 26  
144 BLOOMSBURY DRIVE  
ROBERT E & DAWN L TOOKER  
PARCEL 004.00, TAX MAP, GROUP A  
R.B. 4779, PG. 780, R.O.S.C., TN  
P.B. 30, PG. 292, R.O.S.C., TN  
ZONED:

LOT 2  
1043 MAGNOLIA SPRINGS ROAD  
JERRY GROVES & PEGGY  
PARCEL 031.04 TAX MAP, GROUP A  
R.B. 360, PG. 527, R.O.S.C., TN  
P.B. 21, PG. 29, R.O.S.C., TN  
ZONED: RS-40

LOT 2  
0 MAGNOLIA SPRINGS ROAD  
JERRY ETUX PEGGY GROVES  
PARCEL 031.06, TAX MAP, GROUP A  
R.B. 360, PG. 527, R.O.S.C., TN  
JERRY GROVES  
P.B. 21, PG. 39, R.O.S.C., TN  
ZONED: RS-40



# ORDINANCE

## City of Portland, Tennessee

No. 23 -

First Reading

### **AN ORDINANCE TO AMEND ARTICLE IV OF THE COMBINED ZONING ORDINANCE NO. 387 OF THE CITY OF PORTLAND TO SPECIFY REQUIREMENTS FOR RESIDENTIAL ACCESSORY BUILDINGS AND/OR STRUCTURES TO INCLUDE SIDEYARD CARPORTS.**

**WHEREAS**, An amendment to Ordinance No. 387 Combined Zoning Ordinance, Article IV: Supplementary District Regulations, Chapter 4. Development Standards, Subsection 4-404 Residential Accessory Buildings and/or structures has been deemed necessary; and

**WHEREAS**, the Portland Municipal Planning Commission recommended approval of this Zoning Code Amendment to City Council by a vote of , at their October 10th, 2023, meeting; and

**WHEREAS**, The City of Portland Planning and Codes Departments proposes no issues with the additional carport regulations.

**BE IT ORDAINED**, That this section of the Zoning Ordinance be amended as follows:

#### **CHAPTER 4. DEVELOPMENT STANDARDS**

#### **SECTION 4-404: RESIDENTIAL ACCESSORY BUILDINGS AND/OR STRUCTURES SUBSECTION 4-404.3 CARPORTS**

##### **4-404.3 CARPORTS.**

An unattached carport open on three (3) or more sides, may be constructed or erected on the side of or behind any principal building and/or structure in any residential district, provided that:

- A. No such carport shall be constructed closer than ten (10) feet to any property line and shall be located a minimum of five (5) feet from any building and/or structure.
- B. Any such carport located on a corner lot shall be set back at least the minimum front yard setback for the district in which it is located.
- C. Carport coverings shall be placed on gravel, asphalt, or concrete and be properly anchored.
- D. Carport coverings shall not exceed the height of the principal structure.
- E. Carport coverings shall not pass the front build line of the principal structure.

**BE IT FURTHER ORDAINED**, That all ordinances or parts thereof that are in conflict with this ordinance shall be and are hereby repealed; and

**NOW THEREFORE, BE IT ORDAINED**, That this Ordinance shall become effective upon its passage, the public welfare requiring it.

---

Mike Callis, Mayor

---

Rachel Slusser, City Recorder

Passed First Reading:

Passed Second Reading:

#### **4-404 RESIDENTIAL ACCESSORY BUILDINGS AND/OR STRUCTURES.**

It is the intent of this section that accessory buildings and/or structures may be permitted on any lot used or zoned for residential purposes. The following standards apply to residential accessory buildings and/or structures:

##### **4-404.1 ACCESSORY BUILDINGS.**

- A. Are permitted in rear yards; no accessory building and/or structure shall be permitted in a regulatory front or side yard.
- B. Shall be located a minimum of five (5) feet from any building and/or structure
- C. Shall be located a minimum of ten (10) feet or the minimum side yard setback, whichever is least, from any property line.
- D. Shall be included in calculations for impervious surface, lot coverage, floor area ratio, or any other zoning or site design requirements applying to the principal use of the lot.
- E. Shall be secondary and subordinate to the principal structure.
- F. Shall comply with any size requirements for the applicable zoning district.
- G. Vehicles, including recreational vehicles, and travel trailers, shall not be used as temporary or permanent living quarters, storage buildings, utility buildings, or other such uses.

##### **4-404.2 SWIMMING POOLS, WADING POOLS, HOT TUBS, AND SIMILAR**

- A. Swimming pools, wading pools, hot tub, or similar structure shall be constructed no closer than five (5) feet from the waterline to any property line and shall be completely enclosed by a fence or wall in accordance with any adopted swimming pool code.
- B. Any building or roofed area associated with a pool, hot tub, or similar structure shall comply with the accessory structure requirements if detached from the primary structure. If attached to the primary structure it shall comply with the zoning requirement of the primary structure.

##### **4-404.3 CARPORTS**

- A. No such carport shall be constructed closer than ten (10) feet to any property line and shall be located a minimum of five (5) feet from any building and/or structure.
- B. Any such carport located on a corner lot shall be set back at least the minimum front yard setback for the district in which it is located.
- C. Carport coverings shall be placed on gravel, asphalt, or concrete and be properly anchored.
- D. Carport coverings shall not exceed the height of the principal structure.
- E. Carport coverings shall not pass the front build line of the principal structure.

