

## MEMORANDUM

To: Pamela Stanton, RLA  
John McWilliams, P.E.

From: Karl Peterson, P.E.

Date: October 8, 2021

Subject: Soleste Pompano (208 N. Federal Highway)  
Traffic Impact Study Methodology

Soleste Pompano is a proposed mixed-use (residential and retail) development to be located in the southeast quadrant of the intersection at North Federal Highway (State Road 5) and NE 4<sup>th</sup> Street in Pompano Beach, Broward County, Florida. More specifically the subject site is located at 208 N. Federal Highway and is currently vacant. The proposed development will consist of approximately 256 mid-rise residential apartment dwelling units and approximately 4,000 square feet of retail space on the first floor along N. Federal Highway. Vehicular access to the site will be provided by one (1) full access driveway on NE 4<sup>th</sup> Street and one (1) full access driveway on NE 22<sup>nd</sup> Avenue. A project location map is presented in Attachment A to this memorandum and the preliminary site plan is presented in Attachment B. The following is the traffic study methodology for this proposed development.

- The trip generation analysis will be based upon the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11<sup>th</sup> Edition)*. A preliminary estimate of project traffic is presented in the following table.

Table 1 Soleste Pompano Trip Generation Analysis 208 N. Federal Highway - Pompano Beach, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<b>Proposed</b>								
Multifamily Housing (Mid-Rise)	256 DU	1,175	23	78	101	61	39	100
Retail	4,000 SF	218	5	4	9	13	13	26
<b>Total</b>		<b>1,393</b>	<b>28</b>	<b>82</b>	<b>110</b>	<b>74</b>	<b>52</b>	<b>126</b>

Compiled by: KBP Consulting, Inc. (October 2021).

Source: ITE Trip Generation Manual (11th Edition).

The trip generation rates from the referenced ITE manual for the proposed development are as follows:

**ITE Land Use #221 – Multifamily Housing (Mid-Rise)**

- ❑ Daily:  $T = 4.77 (X) - 46.46$
- ❑ AM Peak:  $T = 0.44 (X) - 11.61$  (23% in / 77% out)
- ❑ PM Peak:  $T = 0.39 (X) + 0.34$  (61% in / 39% out)

where  $T$  = number of trips and  $X$  = number of dwelling units

**ITE Land Use #822 – Strip Retail Plaza (<40k)**

- ❑ Daily:  $T = 54.45 (X)$
- ❑ AM Peak:  $T = 2.36 (X)$  (60% in / 40% out)
- ❑ PM Peak:  $T = 6.59 (X)$  (50% in / 50% out)

where  $T$  = number of trips and  $X$  = 1,000 square feet of gross leasable area

- Due to the size of the project, the trip distribution will be based upon the existing nearby land uses, the prevailing traffic patterns within the study area, and transportation network in the vicinity of the project site.
- The subject traffic study will evaluate the following intersections / driveways during the typical AM and PM peak periods:
  - N/S Federal Highway and E. Atlantic Boulevard (signalized)
  - N. Federal Highway and NE 2<sup>nd</sup> Street (signalized)
  - N. Federal Highway and NE 4<sup>th</sup> Street (signalized)
  - NE 22<sup>nd</sup> Avenue and NE 2<sup>nd</sup> Street (unsignalized)
  - NE 22<sup>nd</sup> Avenue and NE 4<sup>th</sup> Street (unsignalized)
  - Both proposed project driveways
- Traffic counts will be performed at the study intersections on a typical weekday during the AM peak period (7:00 AM – 9:00 AM) and the PM peak period (4:00 PM – 6:00 PM). These counts will include bicyclists and pedestrians.
- Traffic counts will be adjusted to reflect average peak season conditions based upon the 2019 FDOT adjustment factors.
- A growth factor will be applied to the traffic counts to reflect future traffic conditions at project build-out. The growth factor will be based upon historical traffic data available for the area near the project site. A minimum annual growth rate of 0.5% will be applied. The analysis will utilize the FDOT Traffic Trends Analysis Tool and will consider linear, exponential, and decaying exponential growth rates.

- Existing traffic signal timing data for the study intersections will be obtained from Broward County Traffic Engineering and will be included in the Appendix of the traffic study.
- Traffic analysis figures will be prepared for the following trip scenarios for each of the intersections analyzed:
  - Existing traffic
  - Proposed project traffic distribution
  - Background conditions for buildout year
  - Future conditions with growth rate and project traffic
- Intersection analyses will be conducted using the Synchro software for existing conditions, future conditions without the project, and future conditions with the proposed project in place. Level of Service (LOS) information will be provided for the overall intersections each approach for each study intersection. HCM 6<sup>th</sup> Edition reports will be presented.
- If gated entry is proposed, a queuing analysis will be prepared.
- All traffic data obtained for this project will be included in the Appendix of the traffic study.
- The project buildout year is estimated to be 2024.

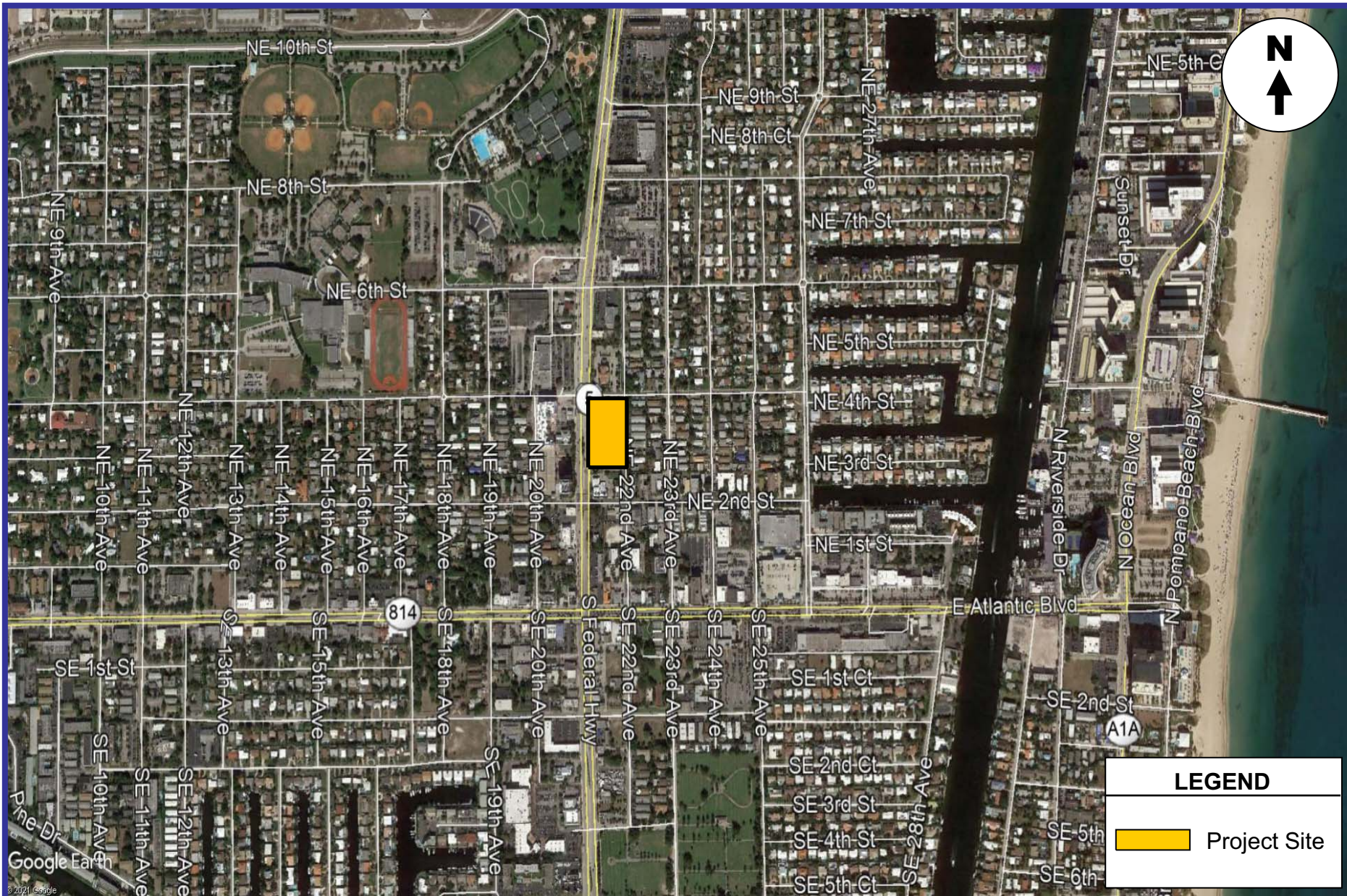
# **Attachment A**

## **Project Location Map**

**DRC**

PZ21-12000041  
3/2/2022





**KBP**  
CONSULTING, INC.

## Project Location Map

**Exhibit A**  
Soleste Pompano  
Pompano Beach, Florida

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# **Attachment B**

## **Preliminary Site Plan**

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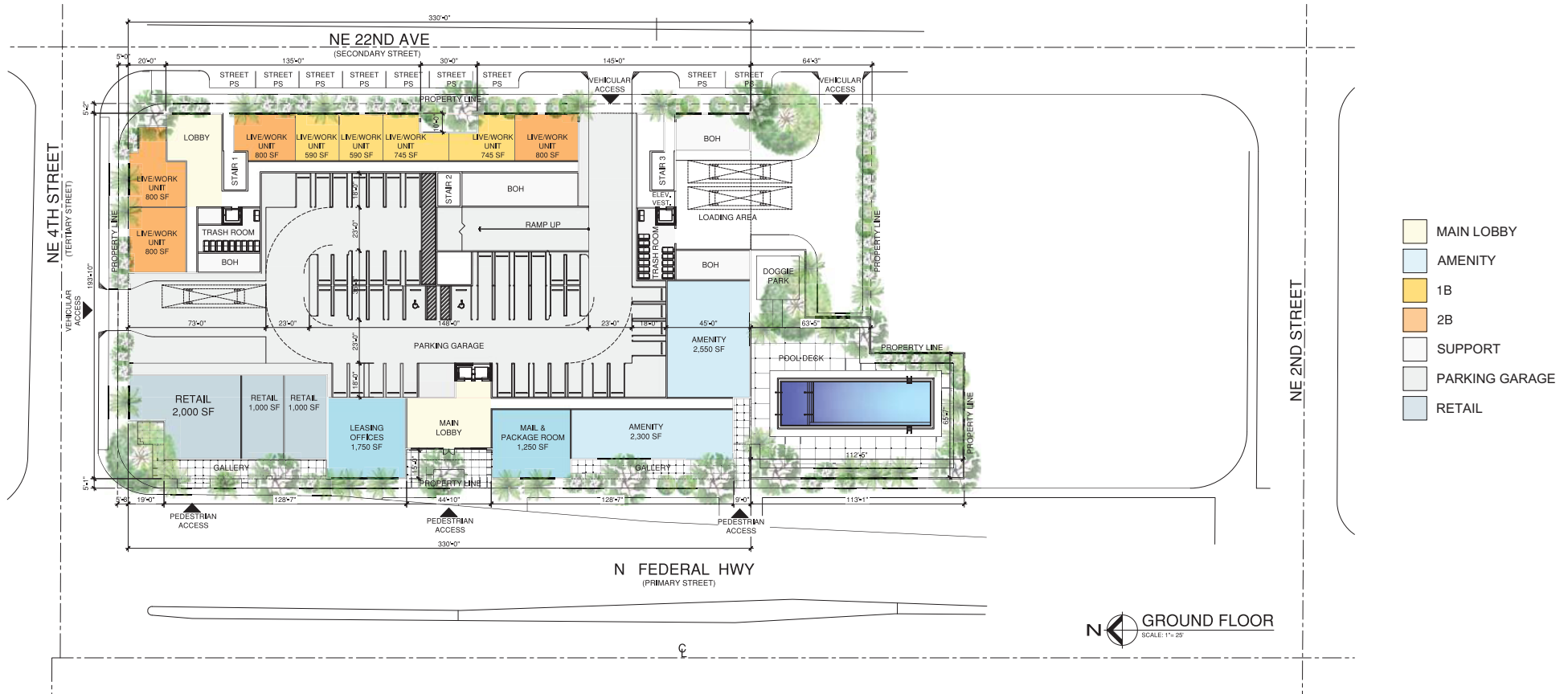


- PARKING BREAKDOWN -

FLOOR / PS TYPE	STREET PS (9'x23')	REG. PS (9'x18')	COMPACT PS (8'-6"x16')	TANDEM PS (2)(9'x18')	HC PS (17'x18')	TOTAL PS
GROUND FLOOR						
RETAIL/OFFICE		10	4		1	15
RESIDENTIAL	7	17	4	8	1	37
	7	27	8	8	2	52

- UNIT BREAKDOWN -

FLOOR/UNIT TYPE	L/W UNIT	EFFICIENCY	1B - 1B UNIT	1B - 1B - D UNIT	2B - 2B UNIT	TOTAL UNITS
GROUND FLOOR	8					8



PROJECT No.	REV#	DATE
DESIGNED BY: CUL	1	
DRAWN BY: 5	2	
CHECKED BY: CUL	3	
ISSUE DATE: 01/05/2021	4	
DRAWING SCALE: AS SHOWN	5	
	6	
	7	
	8	
	9	
	10	

208 NORTH FEDERAL HWY  
POMPAÑO BEACH, FL. 33062

DISCLAIMER: THESE DRAWINGS ARE CONCEPTUAL ONLY AND FOR THE CONVENIENCE OF REFERENCE. ALL ELEMENTS OF THIS CONCEPTUAL DESIGN ARE PLANNING LEVEL. ALL ASSUMPTIONS AND PARAMETERS MUST BE RE-EVALUATED DURING DETAILED DESIGN PROCESS AND FURTHER SITE ASSESSMENT. QUANTITIES OF BUILDING UNITS AND PARKING SPACES MAY CHANGE DURING THE DETAILED DESIGN PROCESS.

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SHEET NO:  
A-01

**DRC**

PZ21-12000041

SITE ANALYSIS			
• ZONING CLASSIFICATION: • LOT AREA:	TO-EOD		
	GROSS LOT AREA: 85,025 SF (1.9519 ACRES) LOT WIDTH X DEPTH: ±400' x 204'		
• DENSITY CALCULATION: ZONING CLASSIFICATION	<u>ALLOWED</u>		<u>PROPOSED</u>
	TO-EOD	175 DU	175 DU BY RIGHT
	90 DU / ACRE BY RIGHT		+81 DU W/ INCENTIVES
	UP TO 150 DU / ACRE W/ INCENTIVES 60 DU/ACRE (W/ BONUS)	117 DU	256 DU TOTAL
		UP TO 292 DU	(131.15 DU / ACRE)
• BUILDING HEIGHT: 80'-0" (TO ROOF SLAB)			
STORIES:		8 STORIES	
		<u>ALLOWED</u>	<u>PROPOSED</u>
• PERVIOUS AREA:		11,122 SF (13.08%)	
• LOT COVERAGE:		62,059 SF (72.98%)	
• PRIVATE OPEN SPACE:		17,656 SF (20.7%)	
-GROUND FLOOR:			
• PUBLICLY ACCESSIBLE OPEN SPACE:	GROUND FLOOR:		6,798 SF (8%)
	TOTAL OPEN SPACE:		24,454 SF (28.7 %)
• TOWER FLOOR PLATE		32,500 SF	35,750 SF (10% VARIANCE)
		<u>MINIMUM REQ.</u>	<u>PROVIDED</u>
• BUILDING SETBACKS:		5'-0"	5'-0"
N FEDERAL HWY (PRIMARY STREET)		20'-0" ABOVE 5TH STORY*	20'-0"
NE 4TH STREET (SECONDARY STREET)		0'-0"	5'-0"
		20'-0" ABOVE 5TH STORY*	20'-0"
NE 22ND AVENUE (SECONDARY STREET)		0'-0"	5'-0"
		20'-0" ABOVE 5TH STORY*	20'-0"
SIDE / REAR		0'-0"	63'-5"
		10'-0" ABOVE 5TH STORY*	10'-0"
*TOWER SETBACK FROM PODIUM			
DENSITY INCENTIVE CALCULATION			
DENSITY BONUS	ALLOWED DENSITY	UNITS	
ALL NEW NON-RESIDENTIAL, MULTI-FAMILY RESIDENTIAL AND MIXED-USE CONSTRUCTION THAT PROVIDE PUBLIC ART USING ONE OR A COMBINATION OF THE FOLLOWING STRATEGIES: 1. A FEE EQUAL TO 1% OF THE PROJECT'S CONSTRUCTION COSTS OR \$250,000 WHICHEVER IS LESS; 2. A PIECE OF ARTWORK VALUED AT 1% OF THE PROJECT'S CONSTRUCTION COSTS OR A MAXIMUM OF \$250,000. WHICHEVER IS LESS.	20 DU/AC	39 DU	
2.-PROPERTIES THAT PROVIDE A MINIMUM OF 25% OF RESIDENTIAL UNITS AS SMALL STUDIO OR 1 BEDROOM UNITS. THIS SHALL BE UNITS THAT ARE 600 SQUARE FEET OR LESS.	20 DU/AC	39 DU	
3.-PROPERTIES THAT PROVIDE STRUCTURED PARKING TO ACCOMMODATE 100% OF THE TOTAL REQUIRED PARKING NEED FOR THE DEVELOPMENT.	20 DU/AC	39 DU	
TOTAL	60 DU/AC	117 DU	

- UNIT BREAKDOWN -						
FLOOR/UNIT TYPE	LIVE/WORK 1B-1B UNIT	EFFICIENCY UNIT	1B -1B UNIT	1B -1B - D UNIT	2B - 2B UNIT	TOTAL UNITS
GROUND FLOOR	8					8
SECOND FLOOR		5	10	3	14	32
THIRD FLOOR		5	10	3	14	32
4TH FLOOR		5	10	3	14	32
5TH FLOOR		5	10	3	14	32
6TH FLOOR		6	13	2	19	40
7TH FLOOR		6	13	2	19	40
8TH FLOOR		6	13	2	19	40
TOTAL UNITS	8	38	79	18	113	256
	3.1%	14.8%	30.9%	7.0%	44.1%	100 %

- PARKING BREAKDOWN -						
LEVEL	STREET PS (9'x23')	REGULAR PS (9' X 18')	COMPACT PS (8'-6" X 16')	TANDEM PS* (2) (9'x18')	HC. PS (2) (17'x18')	TOTAL PS
GROUND FLOOR	7	27	8	8	2	52
SECOND FLOOR		44	8	32	2	86
THIRD FLOOR		44	8	32	2	86
FOURTH FLOOR		44	8	32	2	86
FIFTH FLOOR		30	8	32		70
TOTAL PS	7	159	32	104	8	310 TOTAL PS
TOTAL STALLS	7	159	32	52	8	258 STALLS
* - EACH TANDEM PARKING WILL BELONG TO THE SAME DWELLING UNIT						

- PARKING CALCULATION -				
FUNCTION	REQUIREMENT	UNITS COUNT	FACTOR	MIN. PS REQUIRED
RESIDENTIAL				
TABLE 155.5102.D.1-DWELLING,MIXED USE				
LIVE / WORK UNIT	1.00 PS PER UNIT	8	1.00	8.00
EFFICIENCY UNIT	1.00 PS PER UNIT	38	1.00	38.00
ONE BEDROOM UNIT	1.00 PS PER UNIT	79	1.00	79.00
ONE BEDROOM UNIT + DEN	1.00 PS PER UNIT	18	1.00	18.00
TWO BEDROOMS UNIT	1.00 PS PER UNIT	113	1.00	113.00
		256 DU		256.00
COMMERCIAL				
TABLE 155.5102.D.1-RETAIL & OFFICES				
RETAIL (SF)	1 PS / 300 SF	4,000	0.0033	13.20
LEASING OFFICES (SF)	1 PS / 400 SF	1,750	0.0025	4.38
HC PS REQUIRED: (INCLUDED IN TOTAL)				
RESIDENTIAL	2% OF TOTAL PS REQ.	256.00	0.02	5.12
COMMERCIAL	1 TO 25 PS = 1	17.58		1
TOTAL PARKING REQUIRED				274 TOTAL PS REQ.
BICYCLE RACK REQUIRED	4 SPACE / 10 PS REQ.	274	0.4	109.63
SECTION 155.5102.L	MAX. 20 SPACES			

PRELIMINARY DESIGN

PROJECT No.	1	DATE	
DESIGNED BY:	CM	2	
DRAWN BY:	5	4	
CHECKED BY:	CM	6	
ISSUE DATE:	01/05/2021	7	
DRAWING SCALE:	AS SHOWN	8	
		9	
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