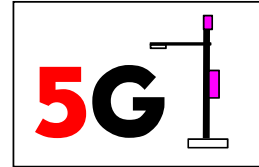


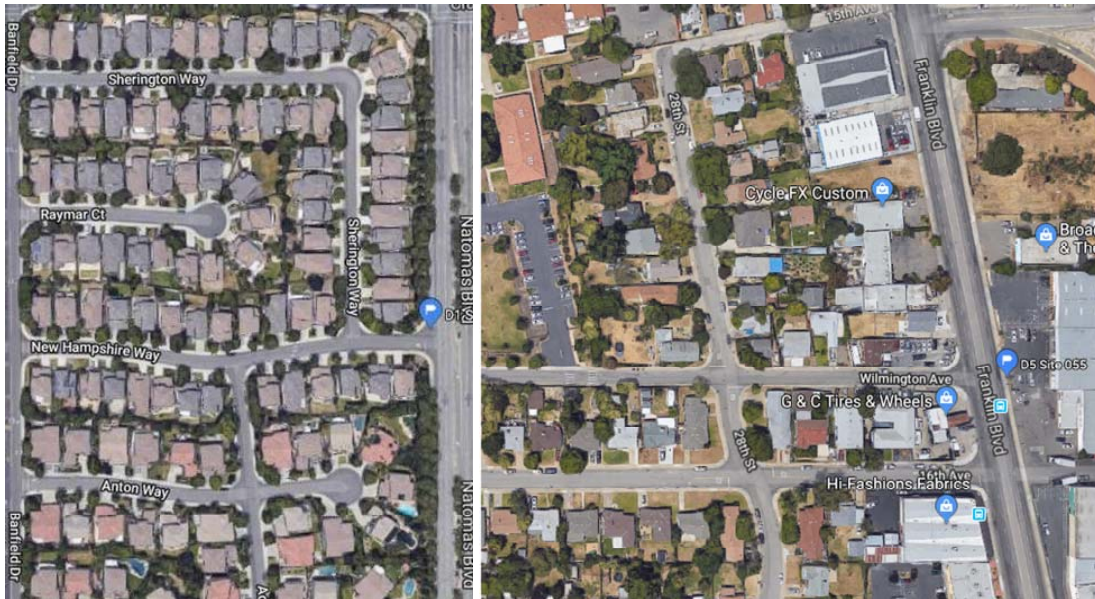
Earl J. Lum
+1-650-430-2221
elum@ejlwireless.com



**United States 5G Fixed Wireless Access
Single Family Home/Apartment Building
ROI Analysis**

Verizon Wireless & City of Sacramento, CA

January 2019



Entire contents © 2019 EJL Wireless Research LLC. All Rights Reserved. Reproduction of this publication in any form without prior written permission is strictly forbidden and will be prosecuted to the full extent of US and International laws. The transfer of this publication in either paper or electronic form to unlicensed third parties is strictly forbidden. The information contained herein has been obtained from sources EJL Wireless Research LLC deems reliable. EJL Wireless Research disclaims all warranties as to the accuracy, completeness, or adequacy of such information. EJL Wireless Research LLC shall bear no liability for errors, omissions, or inadequacies in the information contained herein or for the interpretation thereof. The reader assumes sole responsibility for the selection of these materials to achieve their intended results. The opinions expressed herein are subject to change without notice.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
Summary.....	4
RESEARCH METHODOLOGY	5
CHAPTER 1: SINGLE FAMILY HOME BUSINESS USE CASE	6
District 1 Analysis	6
CHAPTER 2: MIXED SIUNGLE FAMILY HOME/APARTMENT BUILDING USE CASE....	12
District 5 Analysis	12

TABLES

Table 1: ROI Analysis Summary.....	4
Table 2: 5G Site Return on Investment Analysis, Radius = 500 ft.	10
Table 3: 5G Site Return on Investment Analysis, Radius = 1,000 ft.	11
Table 4: 5G Site Return on Investment Analysis, Radius = 450 ft.	16

EXHIBITS

Exhibit 1: Verizon Wireless 5G Home Service Area Webpage	5
Exhibit 2: Verizon Wireless District 1 Site 309	6
Exhibit 3: Verizon Wireless District 1 Site 309 Radio 1 Field of View	7
Exhibit 4: Verizon Wireless District 1 Site 309 Radio 2 Field of View	7
Exhibit 5: Verizon Wireless District 1 Site 309 Service Availability Map	8
Exhibit 6: Verizon Wireless District 1 Site 309 Service Availability Satellite Map	9
Exhibit 7: Verizon Wireless District 5 Site 055	12
Exhibit 8: Verizon Wireless District 5 Site 055 Radio Field of View	13
Exhibit 9: Verizon Wireless District 5 Site 055 Service Availability Map	14
Exhibit 10: Verizon Wireless District 5 Site 055 Service Availability Satellite Map	15