# (d) 4.  Access East Side Update

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Al Brown, CEO, SmartWave Technologies
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# BACKGROUND

East Side Union High School District:

- Passed 2014 technology bond to increase student access to computers and modern technology

- Explored several options to leverage bond for digital inclusion

- Partnered with the City to pilot "Community Wireless Network" which is now called "Access East Side"

- Provided community Wi-Fi access to a total of 6,000 student and non students households within the James Lick attendance area in October 2017 and in March 2019 respectively
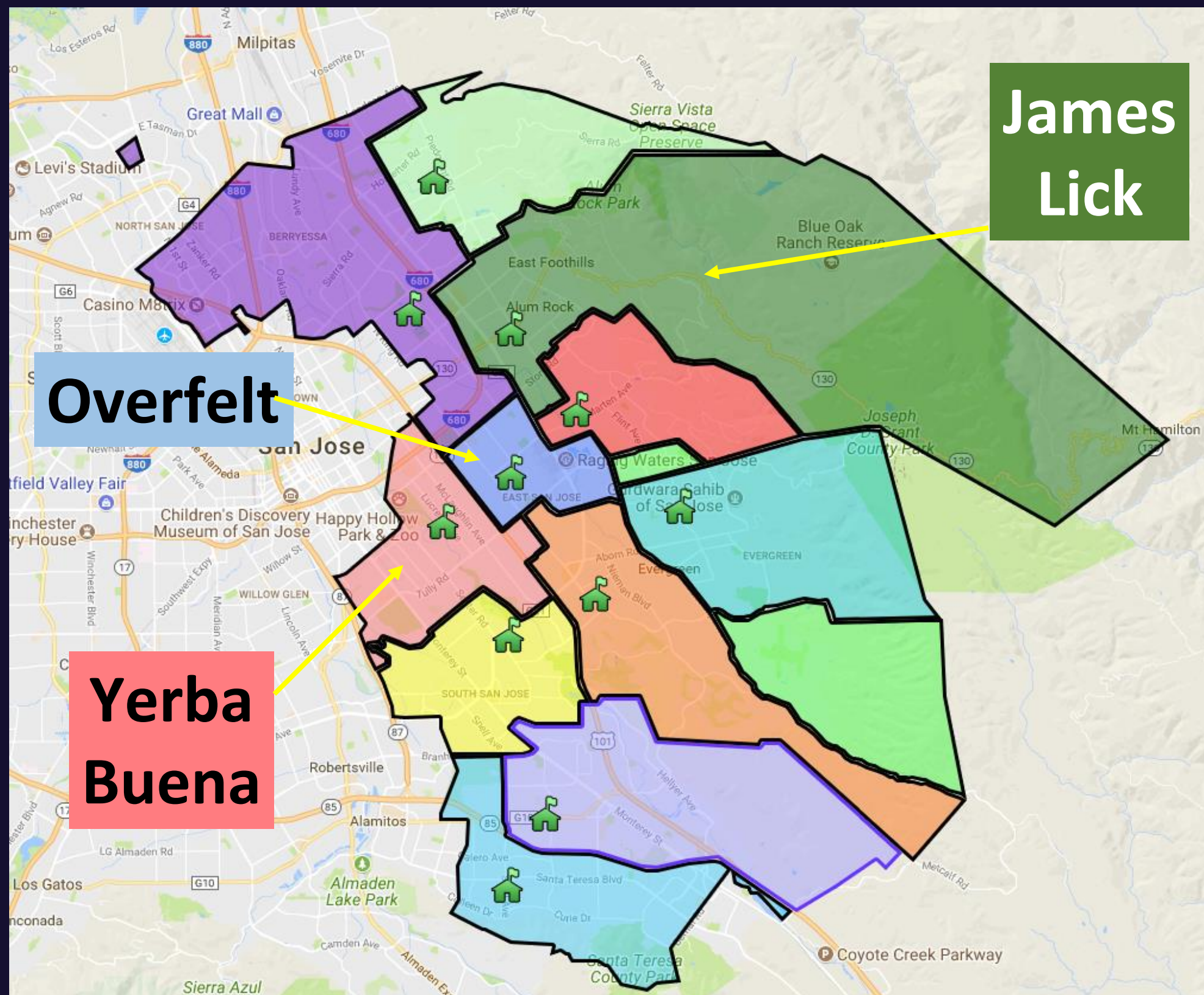
# ACCESS EAST SIDE COMMUNITY WIRELESS OUTCOMES



- ❑ Provide free internet access for all students, teachers, and community within the coverage area surrounding three high school attendance areas in the lowest income areas of East San Jose

- ❑ Advance student academic achievement through internet based learning technologies

- ❑ Provide opportunities for students to connect to career and college resources online

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# ACCESS EAST SIDE COMMUNITY WIRELESS SCOPE - OVERVIEW



**James Lick**

**Overfelt**

**Yerba Buena**

❑ Free outdoor Wi-Fi

❑ Free LTE hotspots and service by Sprint 1MP (fills coverage and quality gaps)

❑ Three attendance areas (James Lick, Overfelt and Yerba Buena) across 5100 students total in addition to community wi-fi access to non student households within these attendance areas

❑ Innovative partnership between the City and ESUHSD
  ➢ ESUHSD funds design, installation and maintenance
  ➢ ESUHSD performs administration
  ➢ City manages the network delivery
  ➢ City project manages and permits
  ➢ City provides power
  ➢ City provides internet backhaul
  ➢ SmartWAVE installs and maintains

❑ Largest known public sector intervention in digital inclusion

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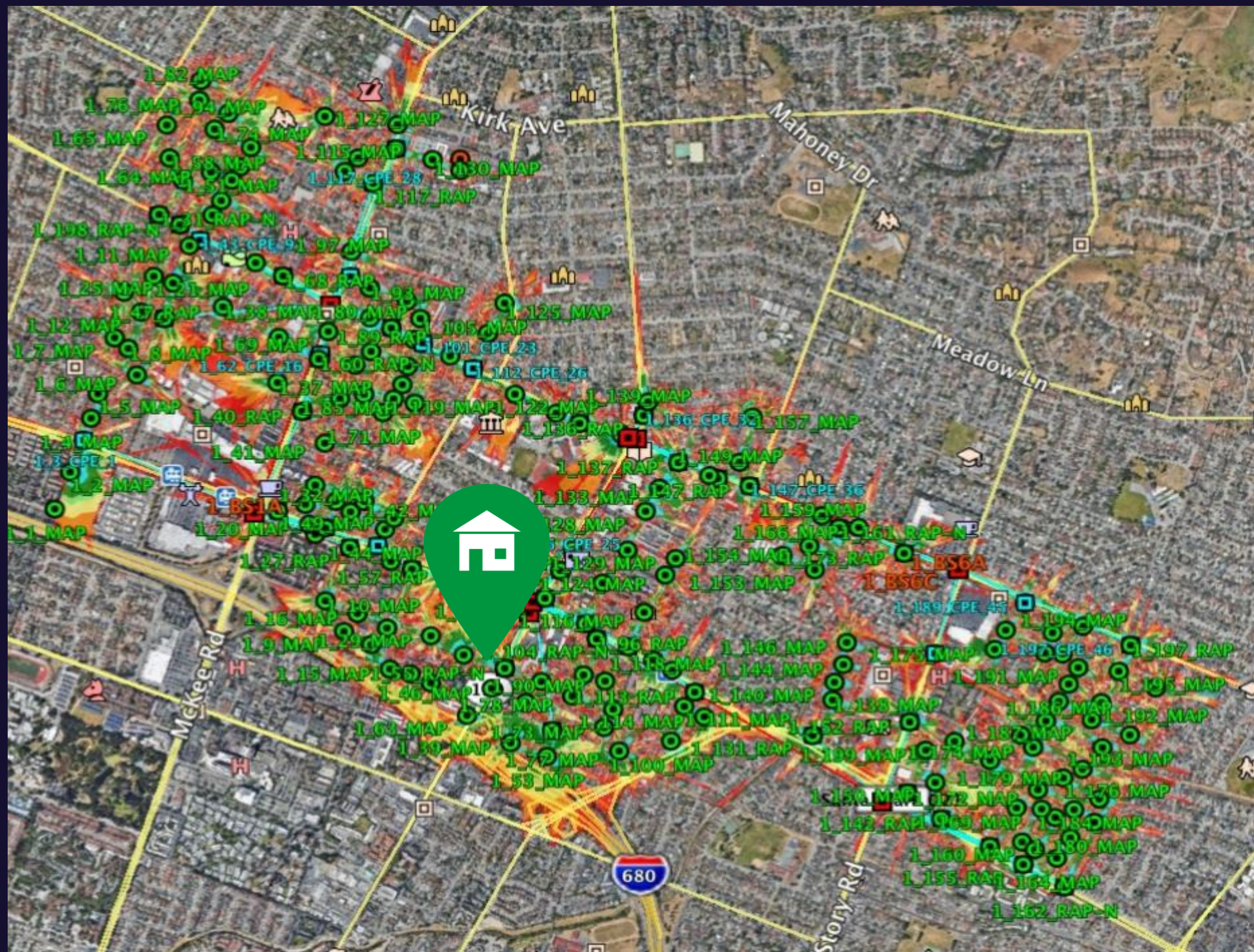## ACCESS EAST SIDE COMMUNITY WIRELESS PARTERSHIPS

- Cupertino Electric
- ESUHSD Superintendent Chris Funk and Board
- Pacific Gas and Electric Company
- PayPal
- Rosendin Electric
- San Jose City Council and Mayor's Office
- San Jose Department of Public Works
- San Jose Department of Transportation
- San Jose Information Technology Division
- San Jose Library Department
- Silicon Valley Talent Partnership
- SmartWAVE Technologies
- Students, teachers and community within James Lick attendance area

# COMMUNITY WIRELESS TECHNICAL CAPABILITIES FINDINGS – JAMES LICK ATTENDANCE AREA



James Lick High School          Wi-Fi Access Point

- ❑ Since November 2017, the total amount of data transfer per students usage was over 1.5 TB per month

- ❑ Since April 2019, the total amount of data transfer for community public access Wi-Fi was over 5 TB per month (5 times greater than downtown, convention center and airport usage combined!)

- ❑ Since, November 2017, the Wi-fi availability was 99.4% reliable

- ❑ Mesh network provided a cost effective means for connectivity with enhance resiliency and reliability

# WHAT DOES 1 TERABYTE (TB) ACTUALLY MEAN?

❑ 1 TB = 200,000 5-minute songs; 310,000 pictures; or approximately 500 hours worth of movies

❑ 10 TB = Amount of data produced by the Hubble Space Telescope per year

❑ 24 TB = Amount of video data uploaded to YouTube per day in 2016

❑ 1 TB equates to 50,000 trees that is made into paper and printed

❑ 10 TB equals the entire Library of Congress printed documents only

# COMMUNITY WIRELESS EDUCATIONAL OUTCOMES FINDINGS – JAMES LICK ATTENANCE AREA

❑ 71% of 2018 graduates matriculated to a 2 year college or 4 year university

❑ 11% Increase in SAT, ACT, and State Assessments scores for the past 5 years

❑ 58% of graduates passed the English college competency exam the first time as Juniors

❑ 88% increase in GPAs since 2014 (44% of that growth occurred in the past 2 years)

❑ 94% of students reported feeling more connected and proud of their school vs. 57% in 2014

❑ 91% of students stated that they are given challenging tasks in every class

The 2019 graduating class for James Lick is on track to be the most successful graduating class in James Lick student history!

# NEXT STEPS

❑ ESUHSD and City agreed to pursue next phase of Wi-Fi installation at Overfelt attendance area

❑ ESUHSD agreed to provide funding for design, construction and maintenance up to Year 3 for Overfelt attendance area

❑ Seek Council's approval by early October 2019 to authorize Smartwave to install Wi-Fi in Overfelt attendance area

❑ Provide Committee an update on the City's overall Community Wi-Fi strategy in October 2019

❑ Library is leading the initiative to create first ever digital literacy quality standards for all City programs by Spring 2020 for Council approval

❑ ESUHSD and City will evaluate potential funding options for Yerba Buena (including feeder schools, e.g. Alum Rock) and continue to evaluate education and technical outcomes with James Lick attendance area

# Questions?

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