



Project Background

- Summary
 - 5 Story, 179,000 GSF Area
 - Type IIB Post Tension Construction -Passively ventilated
 - 516 Parking Spaces
 - 10% Set Aside for EV Parking
 - Segregated Parking for 6 EV Autonomous Vehicles ("LAVTA Toasters")
 - CEQA, Bridging Design & RFQ For Design Build Entity Completed
- Funded by Alameda County Transportation Commission \$14 M & LAVTA \$20 M,
 & initial funds from GSA 500k, Total Funding: \$34.5 M
- Contract Model: Design Build \$30 M Construction Budget.
- Main Project Goals
 - Provide much needed transit parking garage at Pleasanton / Dublin Hub
 - Create a positive and safe user experience (ease of use, wayfinding, payment methods)
 - Design Garage for Sustainability
 - 15' Ground Level Convertible to retail / commercial at some point in the future
 - Zero Net Energy capable via rooftop solar array



Key overview of Program

Primary Design Objectives

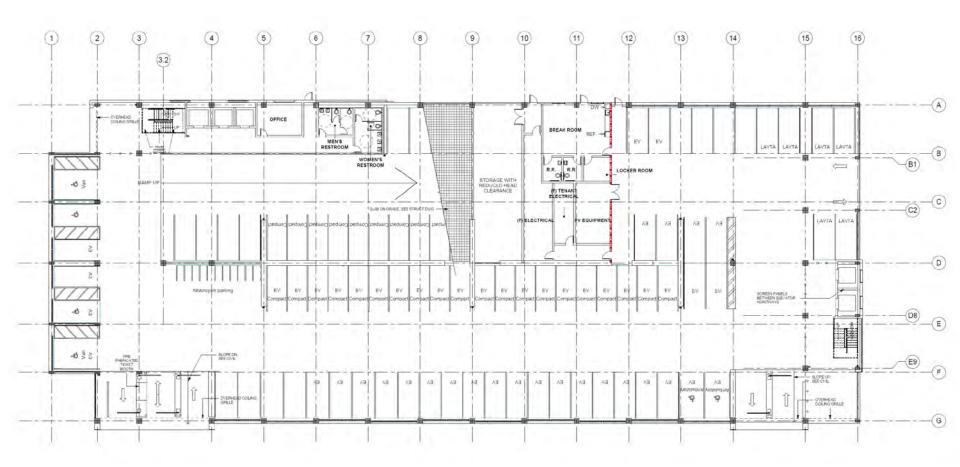
- <u>Simplicity and Ease of Construction</u> (modular, easily sources systems/materials)
- "Bullet Proof" Maintenance
- <u>Attractive User Experience</u> (make users <u>want</u> to use this garage)
 - Additional fair gates for flexibility and to avoid queuing
 - Modern parking system / stall indicator with flexible payment methods
 - 5 traction elevators for speed
- Design Review with City of Dublin
 - Punched openings, materials, cornices to match surrounding materials
 - Design represents both the existing Residential and Commercial fabric, supported by City of Dublin Planning Department & Bart
 - <u>Security</u> (ample light, plenty of site lines, cell phone repeaters)
- <u>Post Tensioned</u> (Analyzed other options)
 - 55' Height Limit and 15' Ground Height mean thinner profile structure
 - Ample base of PT concrete subs appears to make this marketplace more competitive than precast
- Provide Community Artwork Opportunity



Site Plan – Offsite Improvements



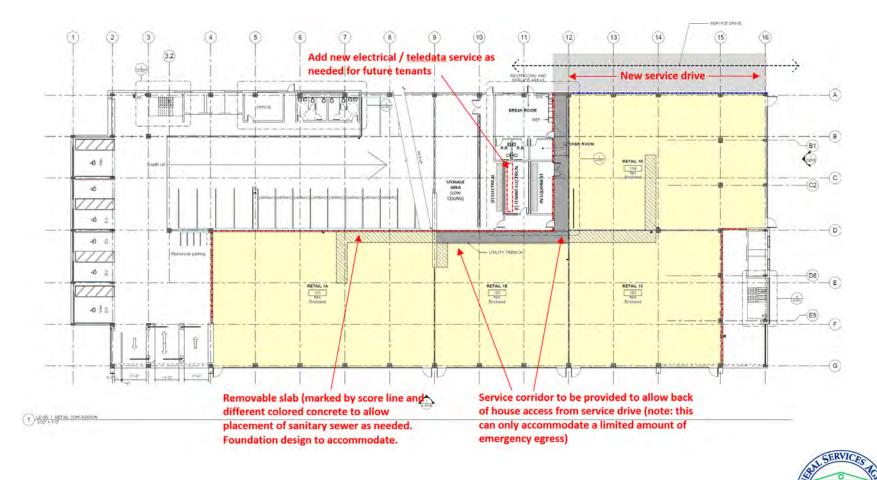
1st floor plan





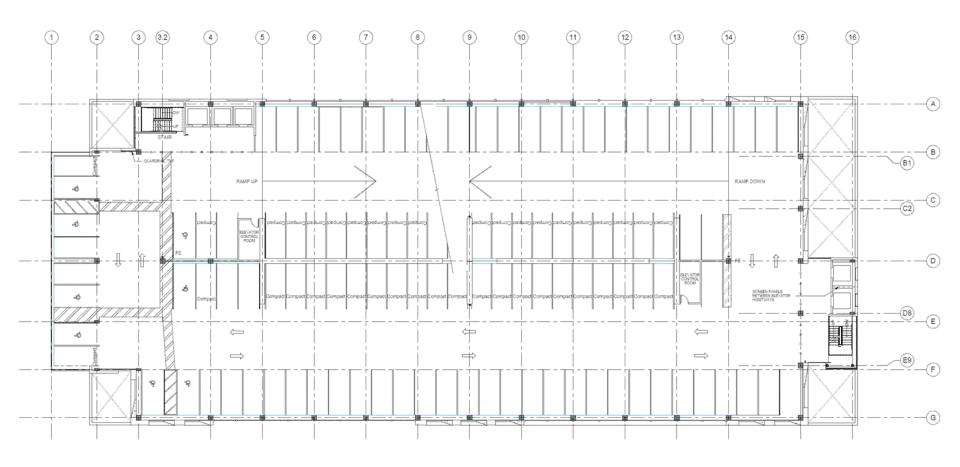
Ground floor conversion

 Approximately 20,000sf of the ground level can be converted in future commercial / rail at an undetermined point in the future



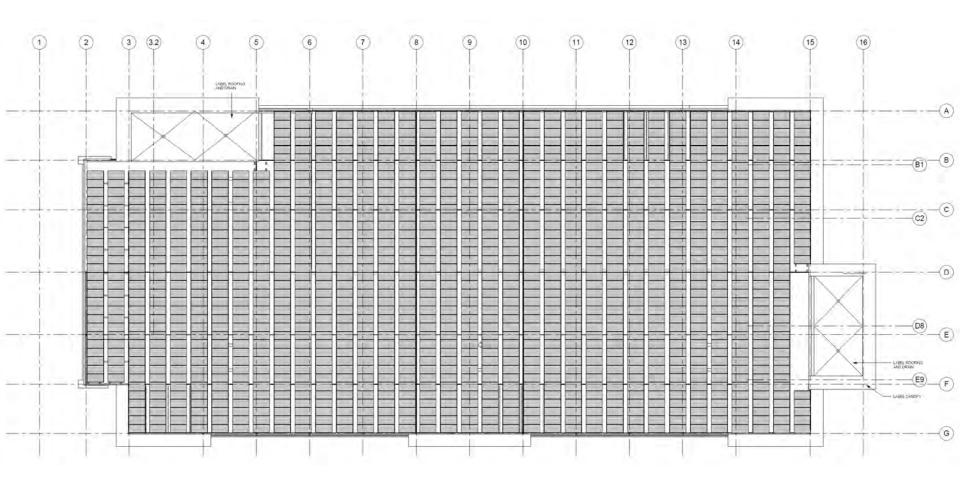
2nd floor plan

3rd and 4th Floor Plans Similar





5th floor plan





Renderings 1



From Northeast



From Northwest

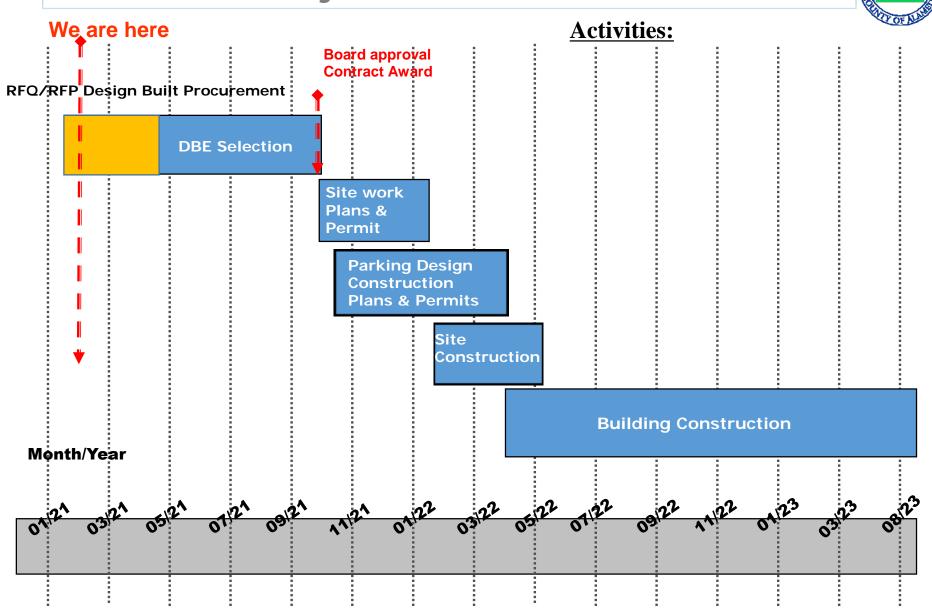
Renderings 2





From Southwest

Current Project Schedule



Risks and Mitigation

Туре	Nature of Risk	Probability	Impact	Risk Mitigation
Schedule (Pre-award activities)	Pre-established milestones, on-going uncertainty & unclear Procurement Req. by different agencies.	High	High	Allow adequate float in the schedule & the time extension request submitted to Caltrans.
Budget	Pre-established budget (2018) based on funding availability & prior to full design.	High	High	Identify additional funding sources for EV & PV Build-out- Carry a Design Contingency
Cost	Current Cost estimate has a shortfall of \$1M without the PV System.	Med	Med	Value Engineer & reduce cost during detail design phase
Design Changes	Due to the Design/Build Delivery Model.	Med	Med	Manage the design changes during next Phase
Loss of Funding	Due to nature of the grant funding.	Low	Low	Establish Project control measures

Questions

Dublin Transit Center Parking Garage - Current Massing Model (Perspective 2)





LAVTA ZEB Transition Study

March 1, 2021

Steve Clermont, Director of Planning & Deployment Savannah Gupton, Lead Managing Consultant Niki Rinaldi El-Abd, Associate

About CTE





WHO WE ARE

501(c)(3) nonprofit engineering and planning firm



OUR MISSION

Improve the health of our climate and communities by bringing people together to develop and commercialize clean, efficient, and sustainable transportation technologies



PORTFOLIO

\$600+ million

- Research, demonstration, deployment
- 118 Active Projects totaling over \$316 million



OUR FOCUS

Zero-Emission Transportation Technologies



NATIONAL PRESENCE

Atlanta, Berkeley, Los Angeles, St. Paul

CTE Service Areas





Prototype
Development
& Demonstration

We support technology providers' cutting edge pilots.



Smart Deployment

We support early adopters with technical solutions.



Fleet Transition

We help fleet operators implement strategic plans.



Education & Outreach

We help organizations of all shapes and sizes stay ahead of the technology curve.

CARB Innovative Clean Transit Regulation



100% ZEB Fleet by 2040 is not a mandate, but a goal There is only a *purchasing* mandate:

ZEB Purchase Requirements

Starting January 1	ZEB Percentage of Total New Bus Purchases		
2026	25%		
2027	25%		
2028	25%		
2029	100%		

- Small CA Transit Agencies (<100 buses) are required to submit a board-approved ZEB Rollout Plan by **July 1, 2023.**
- If the available depot-charged battery electric buses cannot meet a transit agency's daily mileage needs, the agency may request an exemption

Battery Electric Buses & Fuel Cell Electric Buses



Battery Electric Buses (BEBs)

- May need to increase fleet size
- Fueling time longer than ICE bus
- Fuel cost highly variable could be higher or lower than fossil fuels
- BEB bus cost approximately 50% higher than ICE bus
- Infrastructure costs increases per bus when scaled up

Fuel Cell Electric Buses (FCEB)

- Comparable range to ICE bus 1:1 replacement ratio
- Fueling time comparable to ICE bus
- Fuel cost significantly higher than fossil fuel
- Bus cost significantly higher than ICE bus
- Infrastructure costs reduce per bus when scaled up
- Greater resilience

BEB Fuel Delivery Pathway

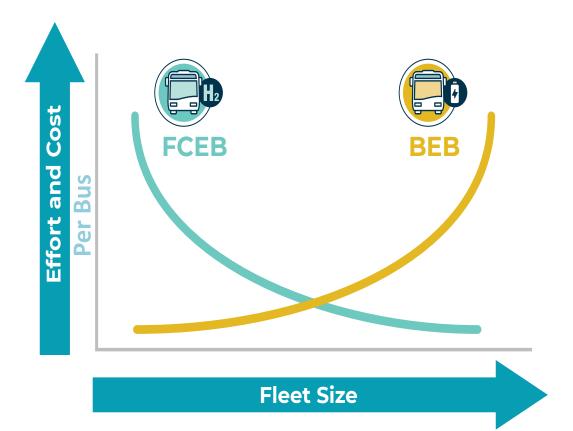


FCEB Fuel Delivery Pathway



ZEB Infrastructure Scalability

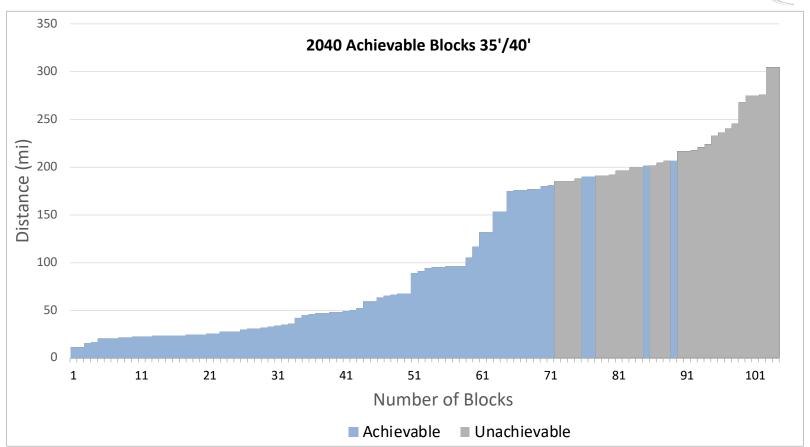




- reference of FCEB: High initial cost for H2 fueling stations can be leveraged over many buses in larger fleets
- BEB: More
 equipment and
 infrastructure is
 needed to support
 larger fleets

Battery-Electric Bus Service Feasibility





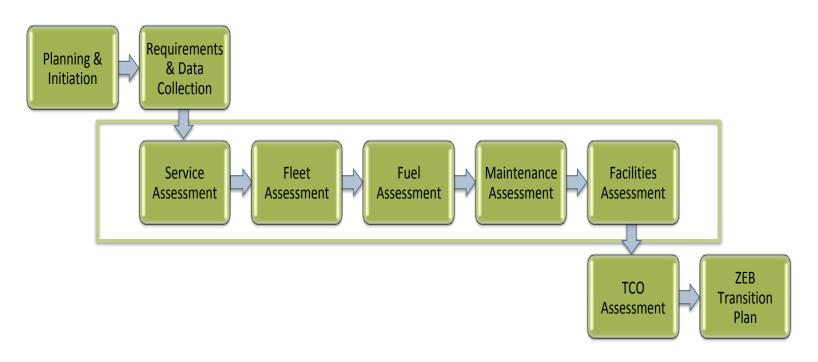
ZEB Technology Fleet Solutions



- 1. Depot & on-route charged battery-electric buses (BEBs)
- 2. Depot charged battery-electric buses (BEBs) & fuel cell electric buses (FCEBs)
- 3. Fuel cell electric buses (FCEBs) only

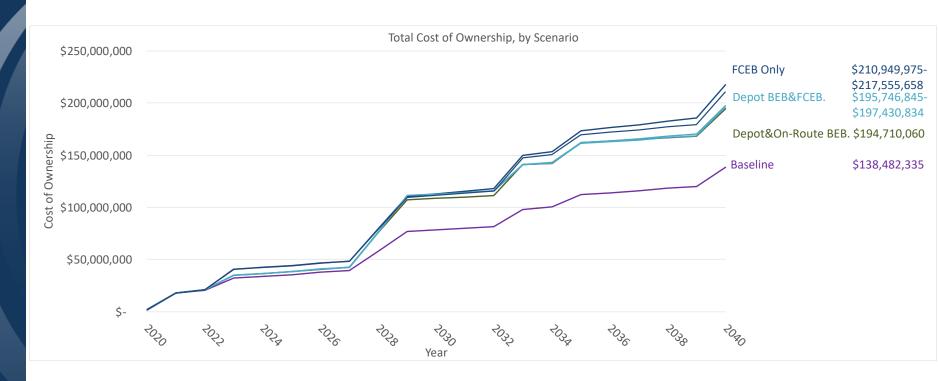
ZEB Transition Methodology





Cumulative Total Cost of Ownership Summary





Next Steps



- LAVTA ZEB Transition Master Plan
- ICT Rollout Plan

Questions?

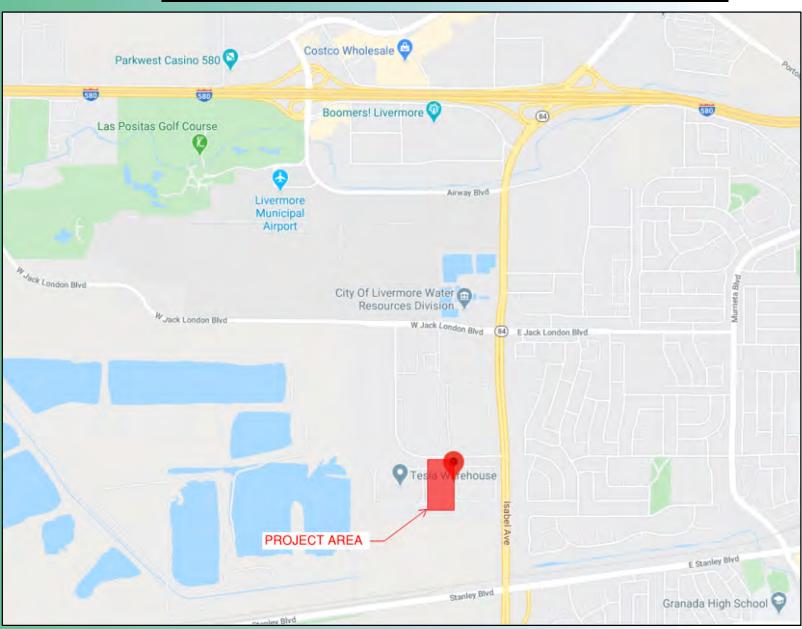




Livermore Amador Valley TRANSIT AUTHORITY

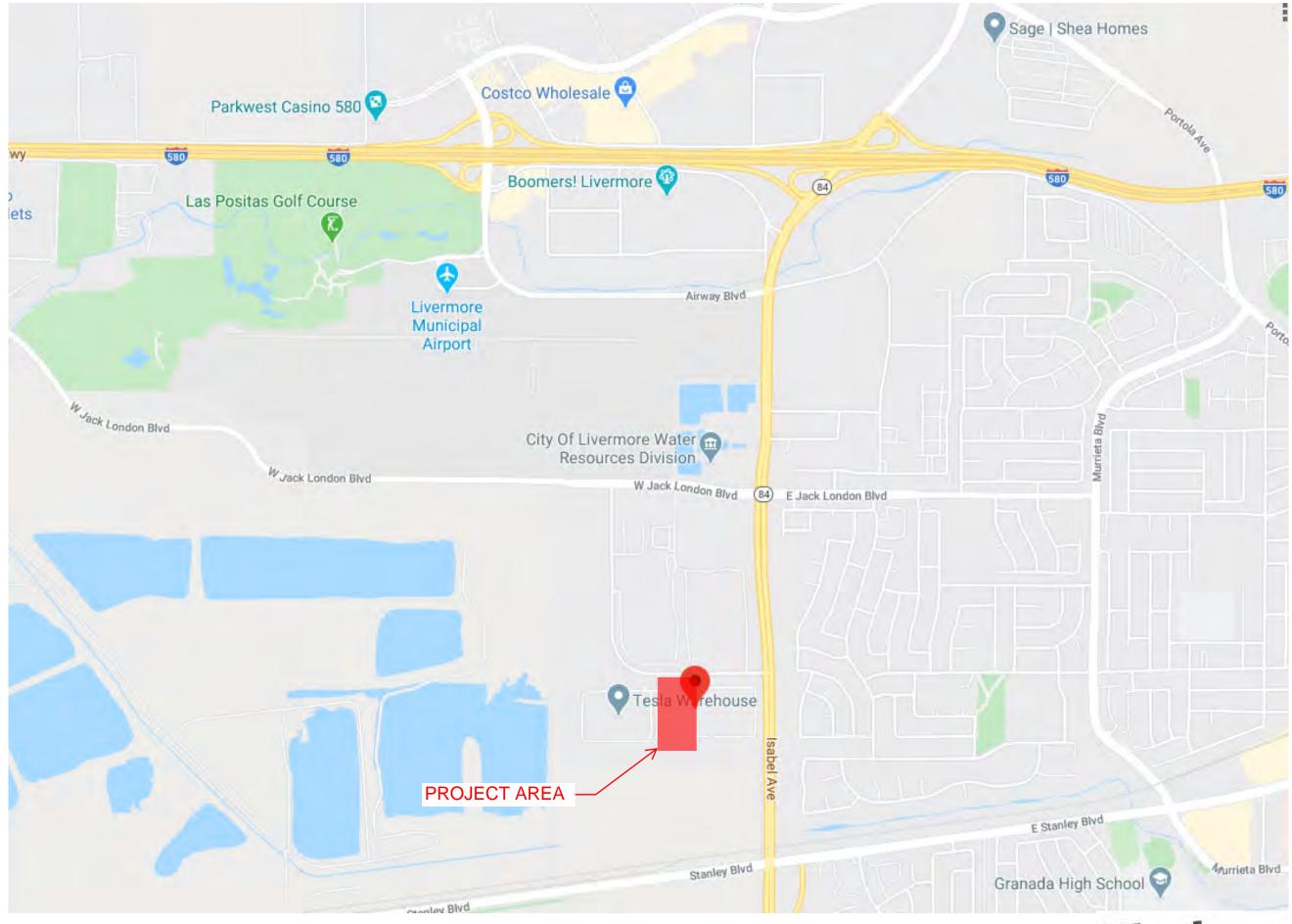


Atlantis Court Transit Facility

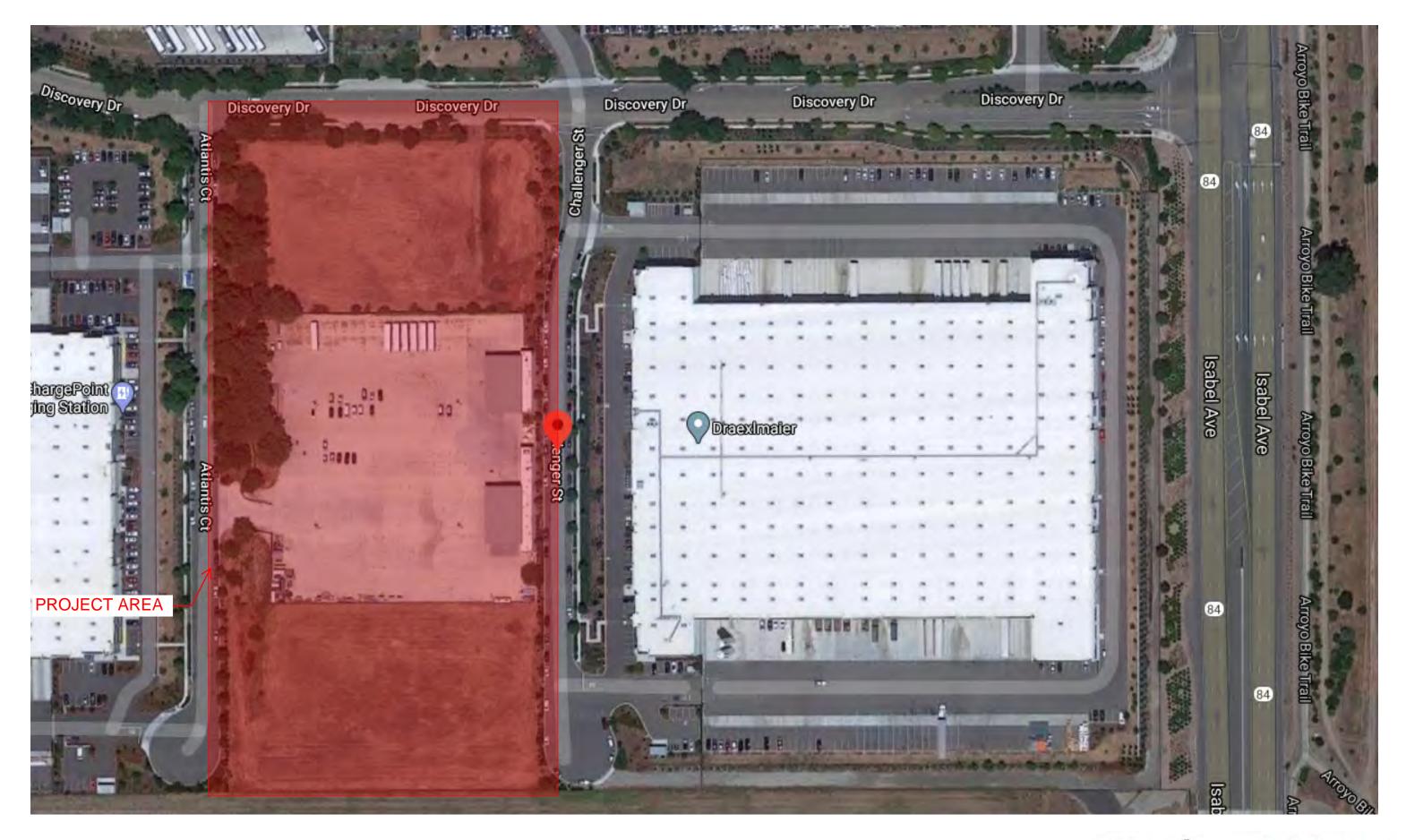






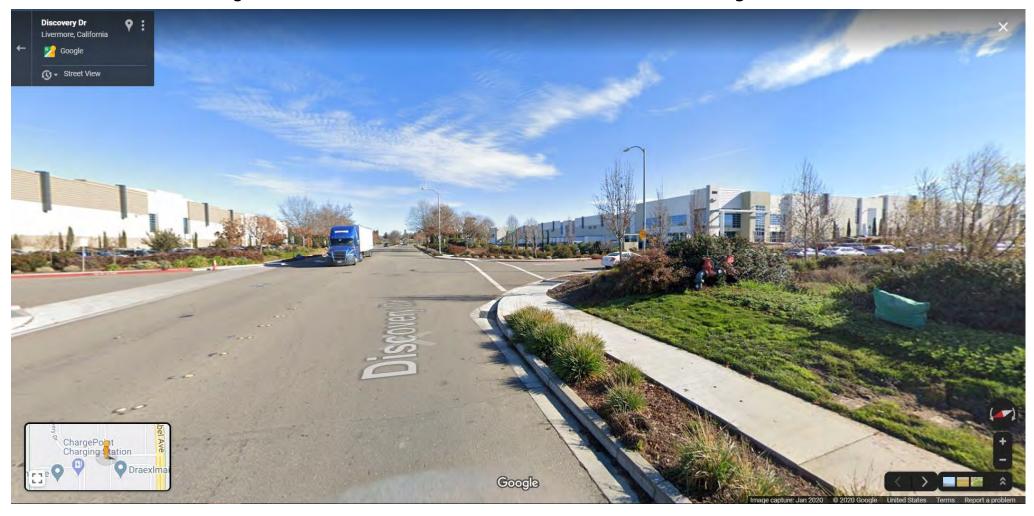


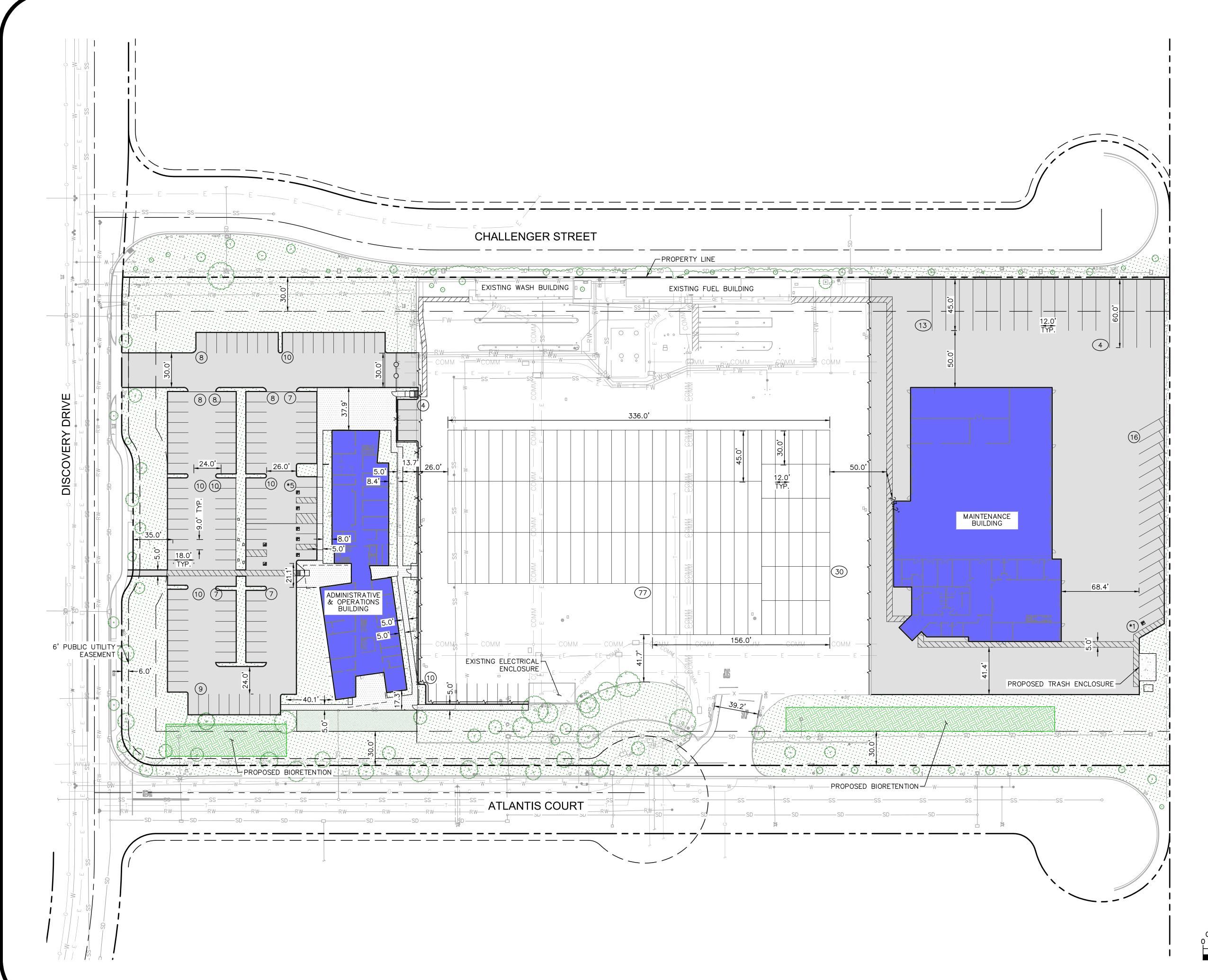






Adjacent Architecture on Discovery Drive





LEGEND

— — — P

CENTERLINE
PROPERTY LINE
EASEMENT LINE

SETBACK LINE

PROPOSED ASPHALT PAVEMENT

PROPOSED CONCRETE PAVEMENT
PROPOSED BIORETENTION

PROPOSED LANDSCAPING

(#) (##) NUMBER OF STANDARD (9'X18') PARKING STALLS (* INDICATES ADA SPOTS)

NUMBER OF BUS PARKING STALLS

PARKING NOTE:

ZONING: PDI - PLANNED DEVELOPMENT INDUSTRIAL

PARKING REQUIREMENT BASED OFF TABLE 4.6 IN SECTION 4.04.02 OF THE LIVERMORE DEVELOPMENT CODE

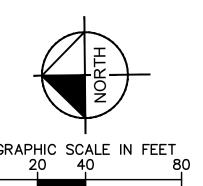
ADA REQUIRED PARKING IS BASED OFF CHART 4.1.2(5)(A) OF THE ADA ACCESSIBILITY GUIDELINES (ADAAG)

PRIMARY USE: OFFICE/ADMINISTRATIVE BUILDING PARKING REQUIREMENT: 1 SPACES / 300 SQUARE FEET (SF)

GROSS FLOOR AREA: X SF PARKING REQUIRED = X SF * (1 SPACE / 300 SF) = X SPACES

PARKING DATA TABLE							
PARKING	EXISITING	REQUIRED	PROPOSED				
STANDARD SPACES	14	_	142				
STANDARD/VAN ACCESSIBLE SPACES	2	6	6				
60' BUS STALLS	0	_	4				
45' BUS STALLS	15	_	94				
30' BUS STALLS	0	_	30				
OPTIONAL EV STALLS*	-	7	-				
OPTIONAL CLEAN AIR STALLS*	_	11	_				
TOTAL VEHICULAR PARKING	31	_	267				

* OPTIONAL EV AND CLEAN AIR STALL REQUIREMENTS ARE PER CALGREEN CODE SECTION 5.106.5.2 & 5.106.5.3



CONCEPTUAL SITE PLAN MARCH 2021

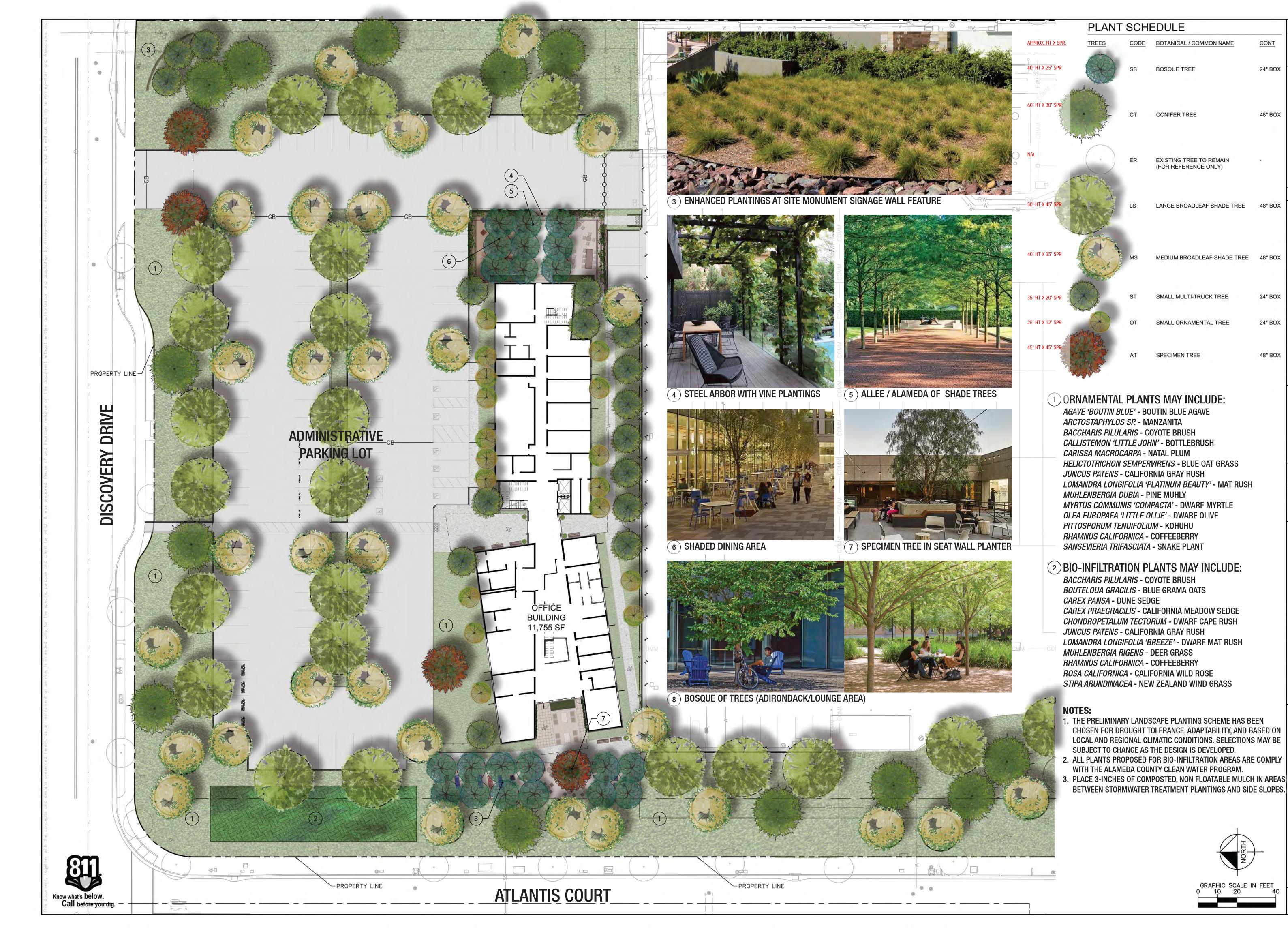






NORTH HARDSCAPE PLAN

SHEET NUMBER L200



CONT

24" BOX

48" BOX

24" BOX

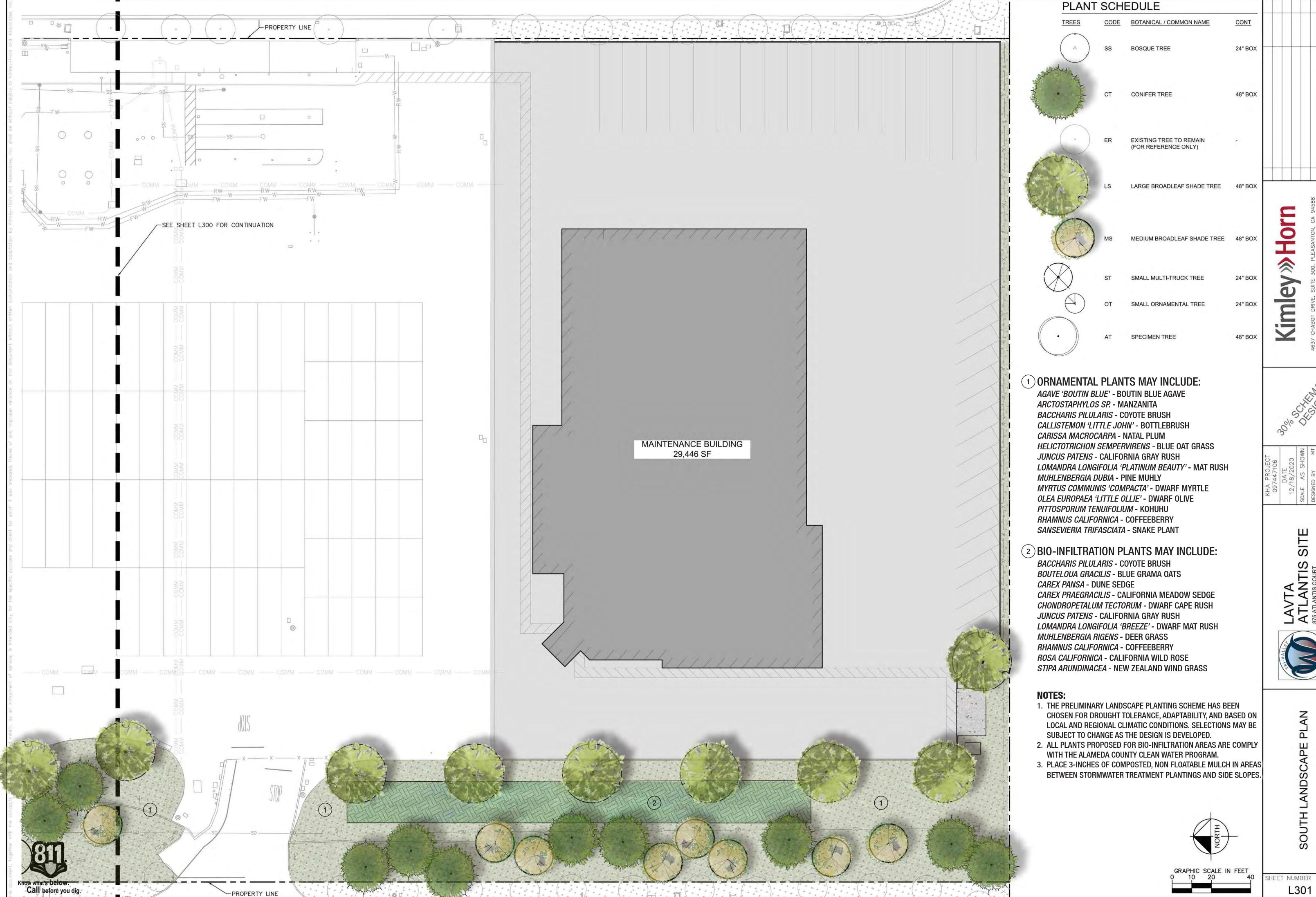
24" BOX

48" BOX

LAVTA
ATLANTIS
875 ATLANTIS COURT
LIVERMORE, CA 94551



SHEET NUMBER L300







VIEW 1

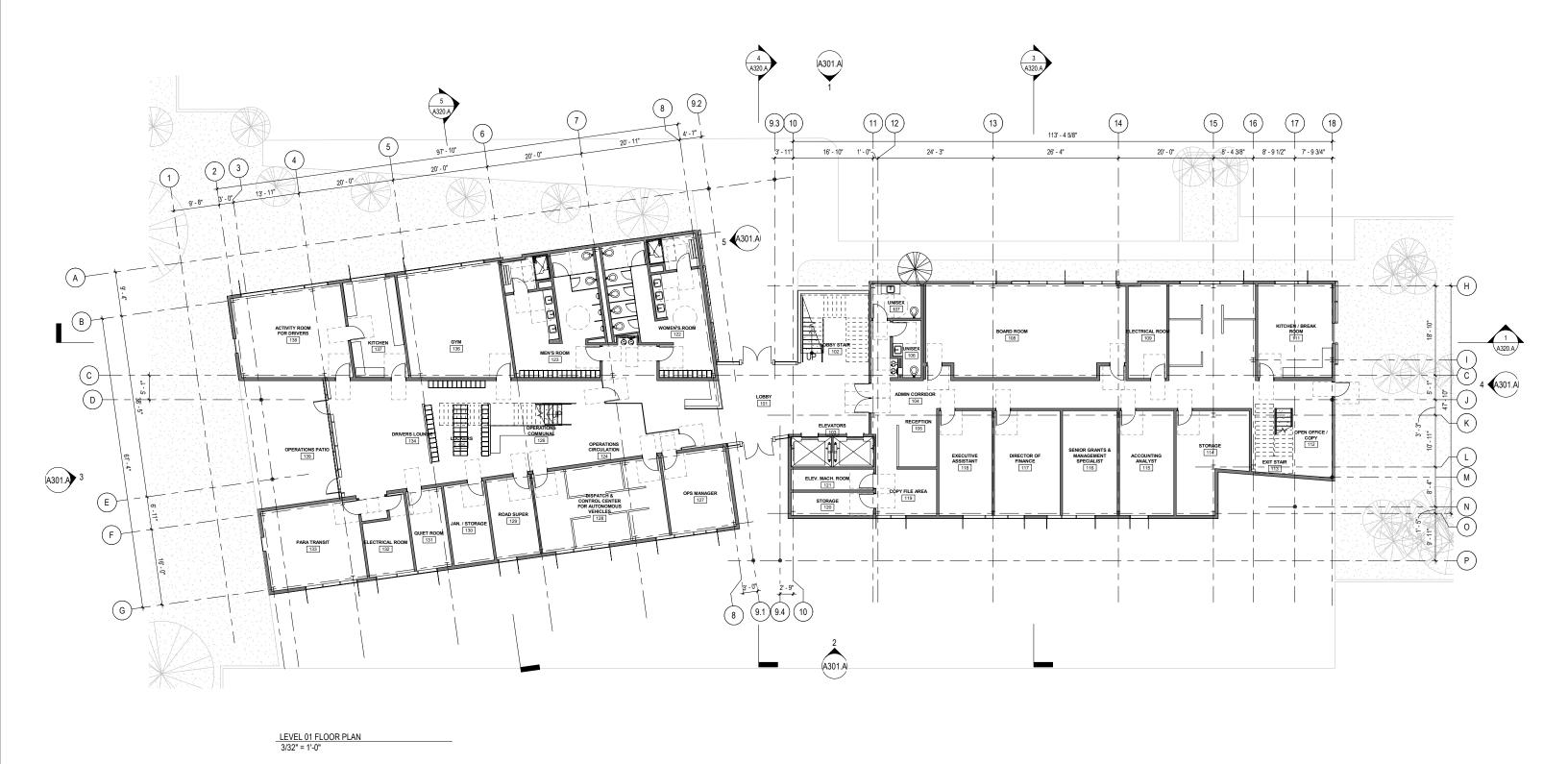


VIEW 5



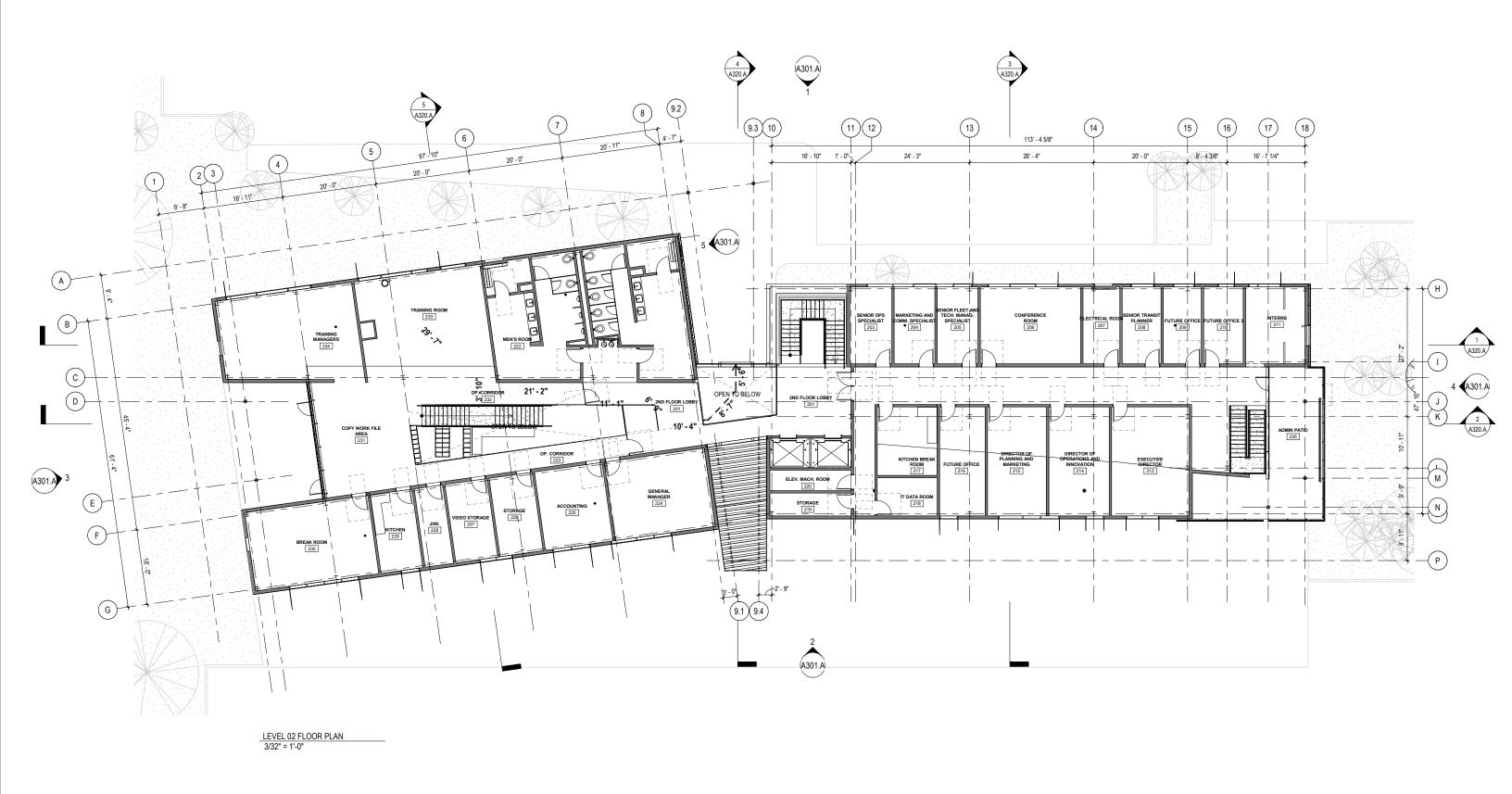
VIEW 4







V-101B





N 0 8' 16' V-102B

PERSPECTIVE VIEW

SEAL

OF SHEETS

22' - 0"

221' - 0"

26' - 0"

26' - 0"

3 A200

26' - 0"

22' - 0"

26' - 0"

LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY (LAVTA)

SEAL

A102.M OF SHEETS

FIRST FLOOR PLAN

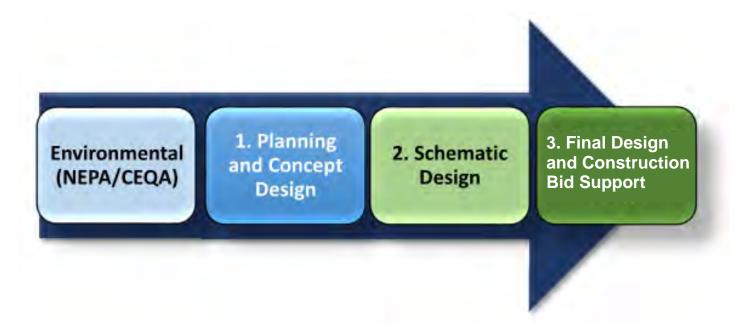
22' - 0"

22' - 0"

26' - 0"

SCALE: 3/32" = 1'-0"

1 A103



PHASE 1 SERVICES AND DELIVERABLES:

Phase 1 included:

- Building and Site Programming for key features
- Conceptual Building Design with Alternatives
- Conceptual Site Layout
- Site Survey

PHASE 3 SERVICES AND DELIVERABLES:

Phase 3 services will include:

- Bid level design for Grading, Utility and Stormwater
- Bid level design for Landscape, Lighting and Electrical
- City plan check, Entitlements and Permitting
- CTE Study (Electrical Fleet) incorporation
- Bid level design for Architectural and Site Design
- Bid support for on boarding General Contractor

PHASE 2 SERVICES AND DELIVERABLES:

Phase 2 will include additional services from

- Utility, Grading and Stormwater
- Site Landscaping / Site Lighting
- Mechanical, Electrical and Plumbing Engineering
- Refined Building Architecture and Building Layout
- Refined Site Design



LAVTA Shared Autonomous Pilot









TIMELINE

October 19, 2016 – LAVTA receives BAAQMD grant (\$966,000)

February 2018 – City of Dublin receives MTC grant to support project

February 28, 2018 – AB 1444 (extension) permits the operation of an autonomous vehicle on public roads for testing purposes

June 22, 2018 – DMV registration of SAV

September 18, 2018 – Dublin & LAVTA enter into an MOU

December 12, 2019 – NHTSA Phase 1 Approval

February 11, 2020 – Dublin Encroachment Permit

February 25, 2020 – NHTSA EasyMile Safety Review – Country Wide

July 2020 - Start of testing

January 2021 – NHTSA Phase 1 Route Extension Submission

PHASE 1

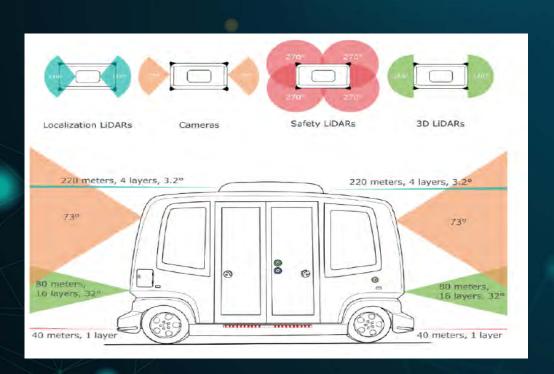


VEHICLE SETUP AND TESTING

- Weather
- Speed



CURRENT VEHICLE - EASYMILE - GENERATION 2





CLICK ON LINK TO VIEW LAVTA PHASE 1 SAV

https://www.dropbox.com/s/dhtaviypyu57n14/Presentation%204%2C%20Slide%205.mp4?dl=0

Limiting passengers due to COVID

Having strong partnerships with MTC, City of Dublin, and LAVTA

Improving vehicle speed

Testing under various environmental conditions (such as ash from California fires)

Vehicle uses localization methods outside of GPS to locate where it's at on the route. Localization signs had to be put on the existing route due to lack of fixed structures to handle the localization needs

FCC has restricted the go forward use of DSRC so V2X and TSP technologies along with 5G are being considered

PHASE 1 LESSONS LEARNED

CURRENT SERVICE / COVID-19

Wed and Sat Service

- Static Display 8:00am-9:30am
- Operations 10:00am-2:00pm

Individual rides with up to 3 others in the same party

Scheduling passenger trips and reserving seats

Wipe down vehicle after every run

Deep clean each night

Hand sanitizer on-board

Masks required for safety operator and passengers

Communication to passengers on cleaning process – build passenger trust



PHASE 2

Will focus on expansion of the route to serve more businesses in the area, continue testing, and working to make the SAV a more convenient, feasible service.



PHASE 2



UPGRADE VEHICLES

New technology
Increased speed capability



CLICK ON LINK TO VIEW PHASE 2 UPGRADED TECHNOLOGY

https://www.dropbox.com/s/2t721up8l7mo7id/Presentation%204%2C%20Slide%2010.mp4?dl=0

PHASE 2



MOBILITY HUB

Agreements with local businesses

Design and construction



CONSIDER BIKE AND SCOOTER SHARE

Look at logistics, safety, demand





Valley Link Connecting People, Housing and Jobs

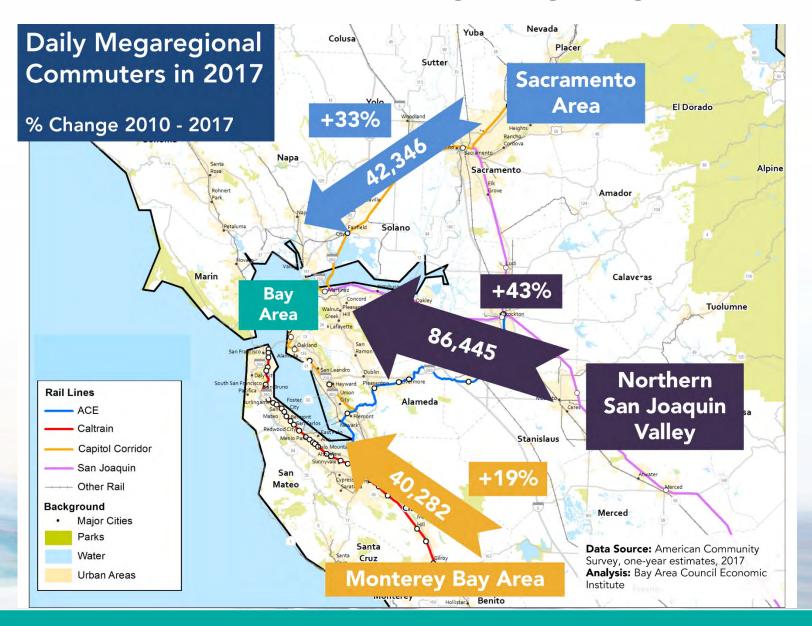
Briefing Materials

February 2021

The Super Commute on I-580



More Commuters Making Megaregional Trips



#megaregion



BOARD OF DIRECTORS





VERONICA VARGA
CHAIR
Vice Mayor
City of Tracy



MELISSA HERNANDEZ VICE CHAIR Mayor City of Dublin



PAUL AKINJO BOARDMEMBER Councilmember City of Lathrop



BENJAMIN CANTU BOARDMEMBER Mayor City of Manteca



DAVID HAUBERT BOARDMEMBER Supervisor County of Alameda



DAVID HUDSON BOARDMEMBER Mayor City of San Ramon



SOL JOBRACK BOARDMEMBER Councilmember City of Stockton



BRITTNI KIICK BOARDMEMBER Boardmember LAVTA



BERNICE TINGLE BOARDMEMBER President Mountain House



JOHN MCPARTLAND BOARDMEMBER Director BART



BOARDMEMBER Vice Mayor City of Pleasanton



ROBERT RICKMAN
BOARDMEMBER
Supervisor
County of San Joaquin



KAREN STEPPER
BOARDMEMBER
Mayor
Town of Danville



BOB WOERNER
BOARDMEMBER
Mayor
City of Livermore



LEO ZUBER BOARDMEMBER Vice Chair ACE



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COLE MANAGEMENT Project Controls tglenn@cole-mgtandeng.com

Corridor Snapshot with Proposed Stations



42 miles

stations

33,000

daily riders by 2040

42,000

Metric tons of CO₂ equivalent/year reduction in Greenhouse Gas (GHG) emissions in 2040

seamless

Connections to BART and ACE







Economic Impact Study

American Public Transit Association Model

construction

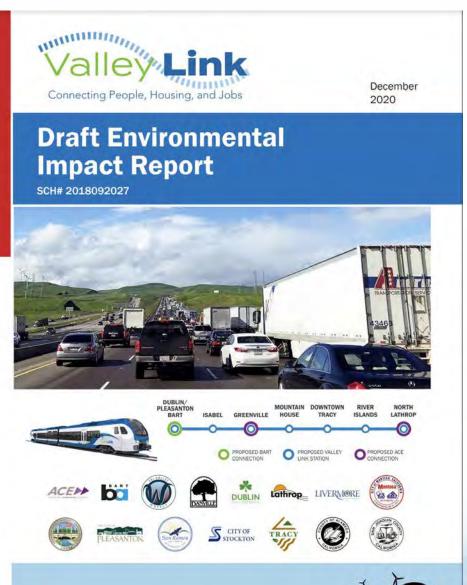
22,000 potential jobs

\$3.5b economic impact

Operations

395 potential jobs

\$69M economic impact annually



Public comments were due January 21, 2021.

Comment letters from 42 different entities, which included 27 agencies, 3 organizations, 4 private companies and 8 individuals.

Project team currently responding to those comments and making any associated revisions to the Draft EIR.





Valley Link

February 2021

PROJECT OVERVIEW

The Tri-Valley – San Joaquin Valley Regional Rail Authority was established on January 1, 2018 through the enactment of Assembly Bill 758 with the mandate to plan and deliver cost-effective and responsive transit connectivity between the BART system and the Altamont Commuter Express. The Feasibility Report adopted by the Board in October 2019, identifies a proposed project.

The Proposed Project is a new 42-mile, 7-station passenger rail project that will connect the existing Dublin/Pleasanton Bay Area Rapid Transit (BART) Station in Alameda County to the planned Altamont Corridor Express (ACE) North Lathrop Station in San Joaquin County utilizing existing transportation rights-of-way where feasible. Regular service is planned for throughout the day in both directions with timed connections with both BART and ACE services. Initial Operating Segments are also under consideration - from the Dublin/Pleasanton BART Station to either the Greenville or Mountain House Station.

Valley Link promotes social equity by providing transit to jobs in the Bay Area for some of the most disadvantaged communities in California. These include essential jobs that are critical to the entire megaregion.



PROJECT GOALS & BENEFITS

Improve connectivity within the Northern California Megaregion: connecting housing, people, and jobs.

Will provide a reliable alternative to congestion for the more than 93,500 Bay Area workers now commuting daily from their homes in Northern San Joaquin County.

Establish rail connectivity between BART's rapid transit system and the ACE commuter service.

The connection of these two intermodal hubs would link nearly 500 miles of commuter and intercity rail with more than 130 stations in the Northern California Megaregion.

Pursue Project implementation that is fast, cost-effective, and responsive to the goals and objectives of the communities it will serve.

The Authority's TOD policy supports regional goals by encouraging the development of station area plans tailored to the goals and objectives of each community.

Be a model of sustainability in the design, construction, and operation of the system.

Valley Link provides an estimated 33,000 daily rides in 2040, resulting a reduction of 99.4 million vehicle miles traveled per year between 32,220 and 42,650 metric tons of GHG emissions.

Support the vision of the California State Rail Plan to connect the Northern California Megaregion to the State rail system.

Valley Link supports State transportation goals, It closes critical transit gaps, connects two designated State Rail Hubs, and provides a potential interim connection to high-speed rail.



CALIFORNIA High-Speed Rail Authority



REVISED DRAFT 2020 BUSINESS PLAN



Recovery and Transformation

"Our collaboration...will focus on developing integrated services and connections between state rail systems, including projects such as the Valley Link project that will provide increased connectivity..."

Project Funding

- Cost of Project:
 - \$2.4 to \$3.2 billion in year of expenditure
- Funds identified for the project:

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Measure BB $400 Million
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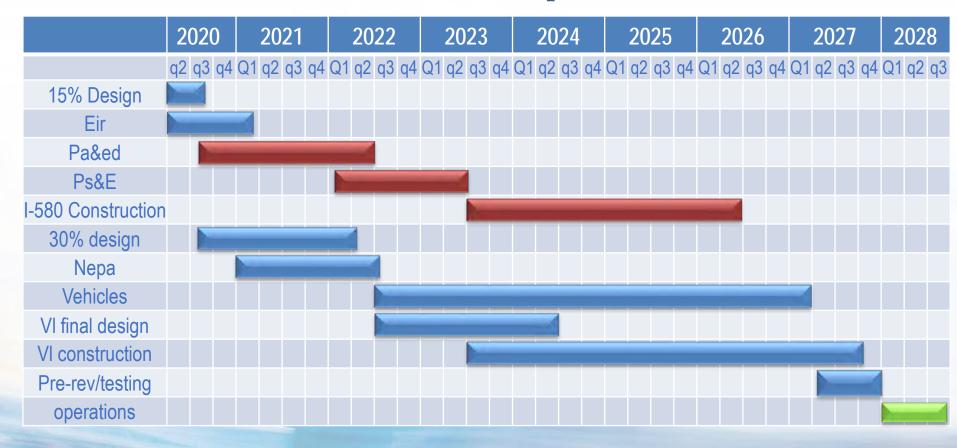
Bridge Toll \$188 Million

Impact/Developer \$120 Million

Fees

Total \$708 Million

Project Schedule [unconstrained funding scenario]





Changes to SB 548

- Eliminated the requirement for Valley Link to connect BART and ACE rail services in the Tri-Valley (at Greenville).
- Added the ability of the Authority to enter into design-build contracts, and allows Authority to include long-term maintenance and operations obligations in a design-build contract.
- Exempts Authority from specified provisions related to regulation by counties and cities regarding building, zoning and related matters.