

Community Update

April 21, 2021



Agenda

- Easy Street AV Shuttle Project
- Campus Solar
- Mines Master Plan Phase 2
 - Mines Park Expansion/Renovations Feasibility and timing
- Daycare Center Status (new location feasibility)
- **OZ Architecture**
 - Labriola Innovation Complex (final design)
 - Beck Venture Center Design Presentation 1

EZ STREET PROJECT

Community Meeting 4-21-2021



WHAT IS THE ALLIANCE?



A 501(c)3 non-profit founded to **create technology partnerships** that prove next-generation solutions to improve Colorado's quality of life

We focus on actionable innovation through education, partnership building, and co-development of solutions.



EZ STREET PROJECT BACKGROUND



PROJECT VISION

Deploy Meaningful, Autonomous Service

Provide the nation's largest autonomous mobility service across multiple use cases



01

03

02

Educate

Capture and communicate all of the data and lessons learned in order to create the world's first roadmap to prepare the city, and the industry, for robust autonomous transit in the next few years



Create Living Labs

Incorporate a range of novel technologies that can leverage the autonomous vehicle micro transit service



SUPPORTIVE STAKEHOLDER ECOSYSTEM



Local Organizations

- Golden
- Colorado School of Mines
- Regional Transportation District (RTD)
- National Renewable Energy Lab (NREL)
- Colorado Department of Transportation

Industry Groups

- ITS America
- AASHTO
- APTA
- NLC
- NACTO
- PAVE

Private Companies

- EasyMile
- Stantec
- Panasonic
- Siemens
- SmartNet

DRIVERLESS SHUTTLES INTRODUCTION



EZ10 AUTONOMOUS SHUTTLE



Driverless and
electric shuttle



Up to 6 people
seated w/ seatbelts



10h
autonomy,
7h with A/C



Built-in automatic
access ramp



Pre-mapped
network of roads



30 vehicles in the
US
(150 worldwide)



EZ10
maximum speed



Other vehicles'
maximum speed



60+ deployments
in the US (350+
worldwide)



ez10



WORLD'S MOST DEPLOYED DRIVERLESS SHUTTLE

> 500,000mi
Autonomous driving



150+
Shuttles
worldwide



>350
Deployments
In 30+ countries

Golden Project

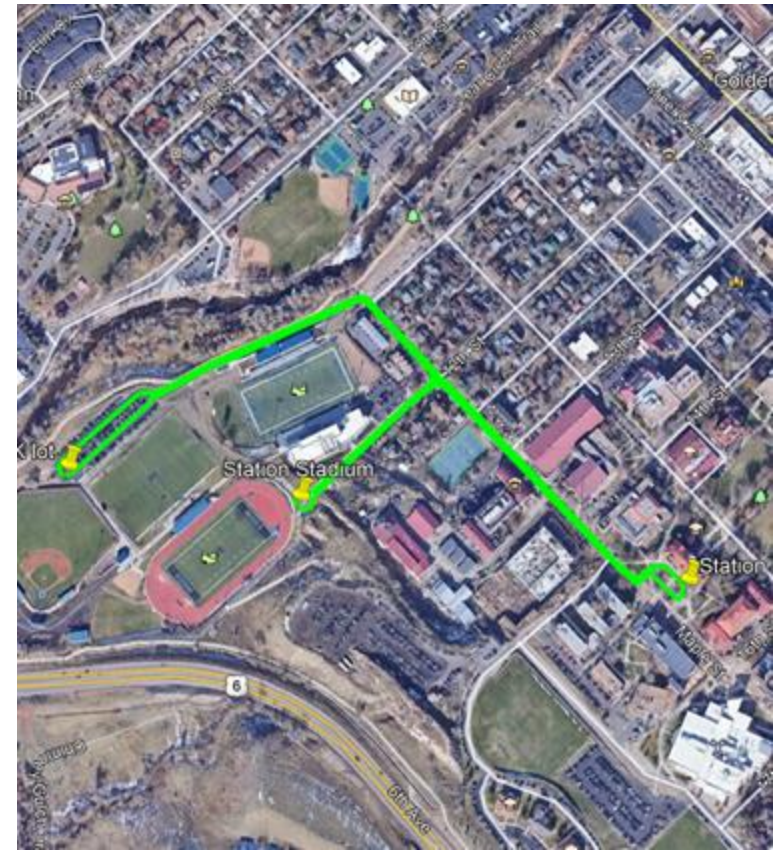
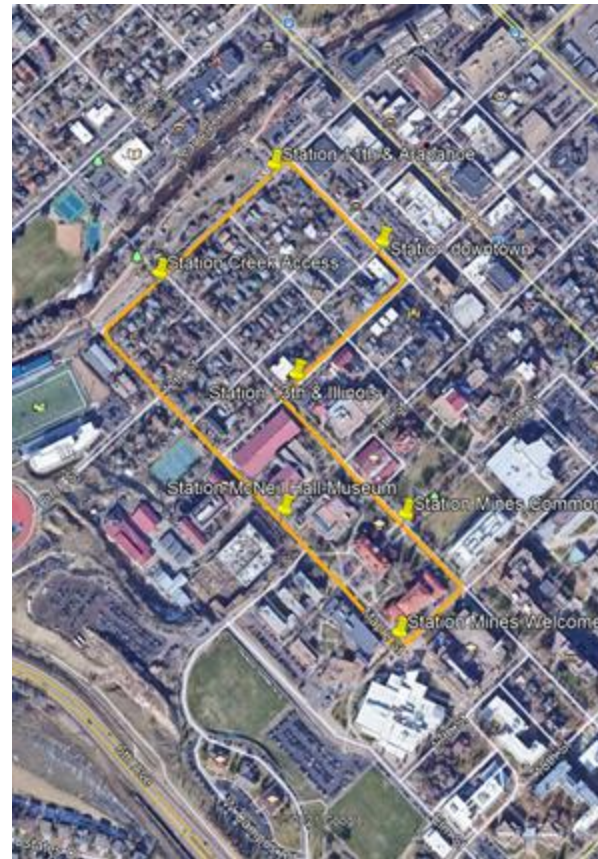
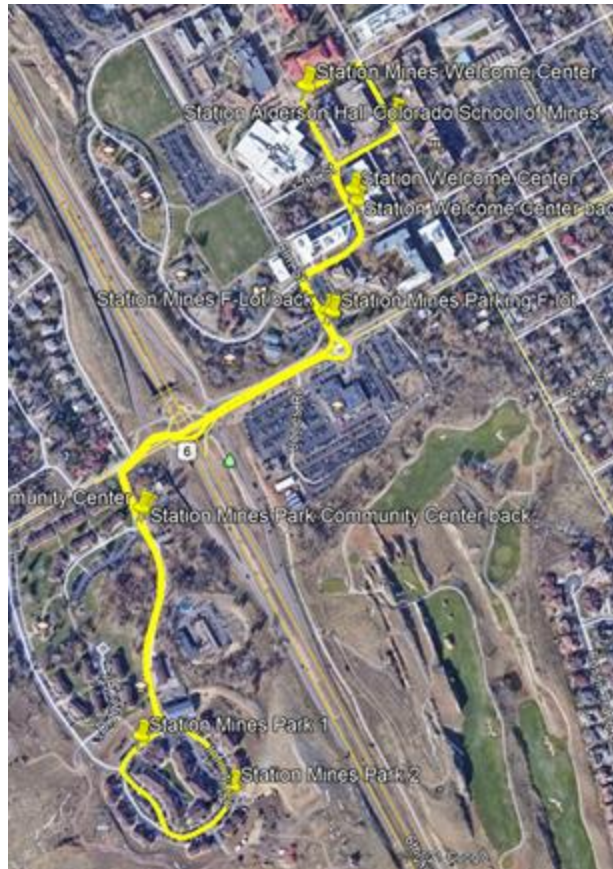


GOLDEN ROUTES

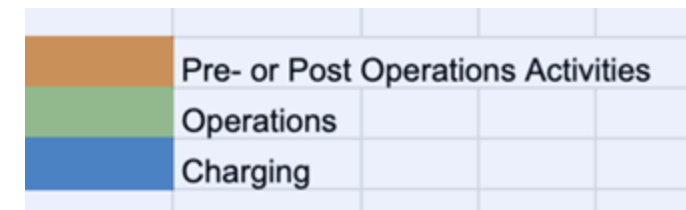
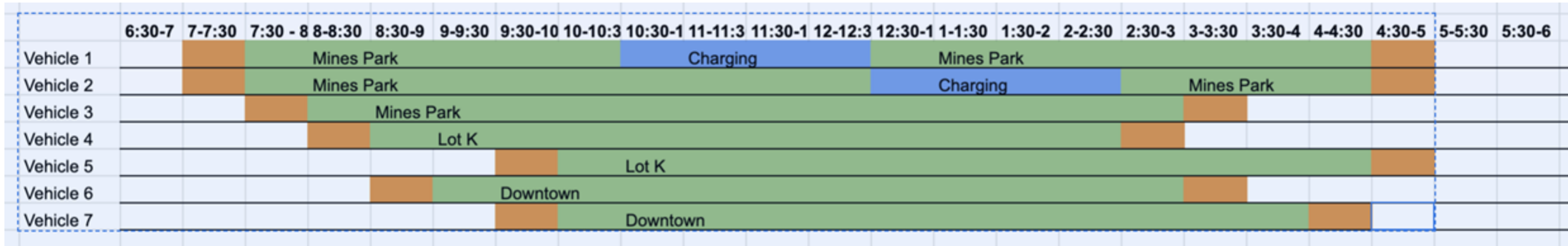


- **Mines Park Route:** Connecting Mines Park with Brown Hall and other campus buildings
- **Downtown Route:** Connecting Mines campus buildings with downtown (Arapahoe St)
- **Parking Lot Route:** Connecting K lot to Guggenheim Hall. Storage and charging will be located at former Ford dealership

ROUTE DETAILS



OPERATING SCHEDULE



IMPLEMENTATION SCHEDULE

Month	Activities
May/June	Set-up storage site with charger (Mines/Siemens) Complete infrastructure updates (Mines/Golden) Obtain Federal and State regulatory approvals (EM)
July	Set-up vehicles on site (EM) Hire and train safety operators (Mines/EM) Kick-off Communications strategy (Alliance/Mines-led) Update RTD website and trip planner to include AV shuttle service (RTD)
August	Soft and hard launch (All!)

Solar 2020

- Jackson Street Residence 56 kW
- New parking garage 74 kW



Proposed New Solar 2021

6 buildings (1012 kW)

Green Center
Korell Athletic Center
Student Rec Center
General research lab
Shops II
Steinhauer Fieldhouse

1 parking canopy (489 kW)

Stermole complex

Total: 1500.9 kW

Annual prod: 2,114,727 kWh



Solar Next Steps 2021-2022

- March – July 2021
- Steinhauer Structural Analysis
- Xcel Rebate Application
- Amend Solar Development and powerED Agreements
- Solar Development Finalized
 - Carport technical studies
 - Survey around ground mounts
 - Planning and zoning





Mines Master Plan Phase 2

PHASE 2: 2022-2024

- 1 RESEARCH BUILDING 1
 - 2 LAKES LIBRARY EXPANSION
 - 3 RESIDENCE HALL VII
 - 4 RESIDENCE HALL VIII
 - 5 RESIDENCE HALL IX
 - 6 DINING AND INDOOR RECREATIONAL FACILITY
 - 7 PARKER STUDENT CENTER EXPANSION
 - 8 MINES PARK APARTMENTS
 - 9 MINES PARK CENTER EXPANSION
 - 10 MINES PARK CHILD CARE CENTER
 - 11 BASEBALL/SOFTBALL CONCESSIONS BLDG
 - 12 EDGAR MINE UPPER SITE BUILDING
- CLASSROOM UPGRADES - IMMEDIATE PRIORITY



LEGEND

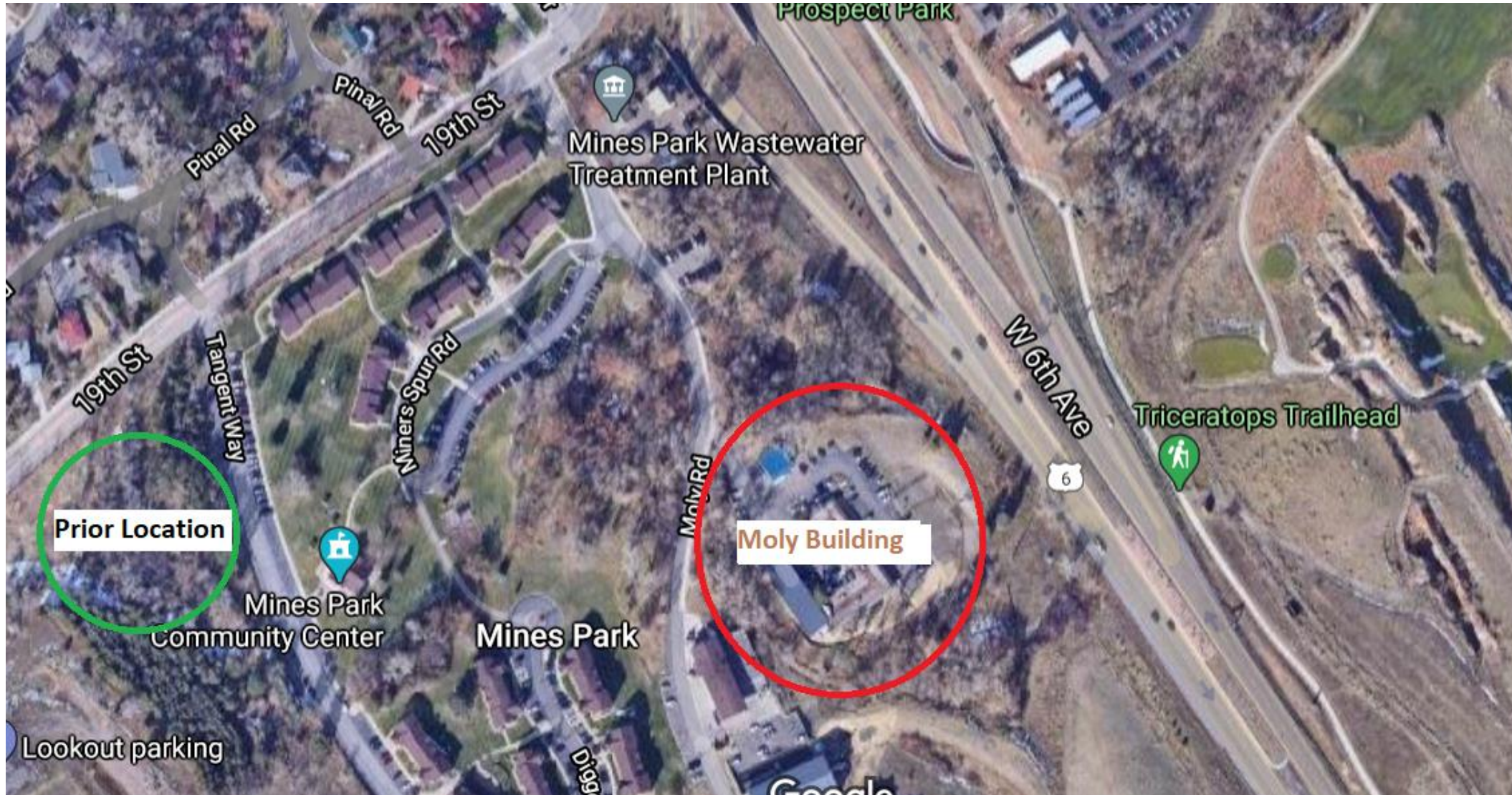
-  EXISTING AND PHASE 1
-  PROPOSED PHASE 2 RENOVATIONS
-  PROPOSED PHASE 2 NEW BUILDINGS
-  OFF-CAMPUS BUILDINGS

Mines Park Expansion/Renovations

Master Plan Phase 2

- ***What are we doing?*** Looking at the feasibility and timing to address the deferred maintenance in existing buildings and increase the number of apartment-style beds at Mines Park for upper-division and graduate students.
- ***What is the Process Schedule?***
 - April 2021 Issue a Request for Qualifications (RFQ)
 - June 2021 Identify a list of short listed firms
 - June/July 2021 Determine the feasibility and timing. If feasible, then
 - July 2021 Issue a Request for Proposals (RFP)
 - Late Fall 2021 Commence Pre-Development Activities

Daycare Center (1801 Moly Road Feasibility)



OZ Architecture

Q&A

Next meeting July 28, 2021, 6:00pm

Past meeting presentations and schedules can be found at <https://www.mines.edu/operations/community-news/>