Proposed lagoon flood marker and FloodWalk project
Motion to approve requested sign and location

Presented by Jessica Kramer,
Environmental Graphic Designer, Facilities Management
to the CSU Physical Development Committee July 17, 2020

July 17, 2020

Newly renovated lagoon

COLORADO STATE UNIVERSITY

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July 17, 2020

Newly renovated lagoon

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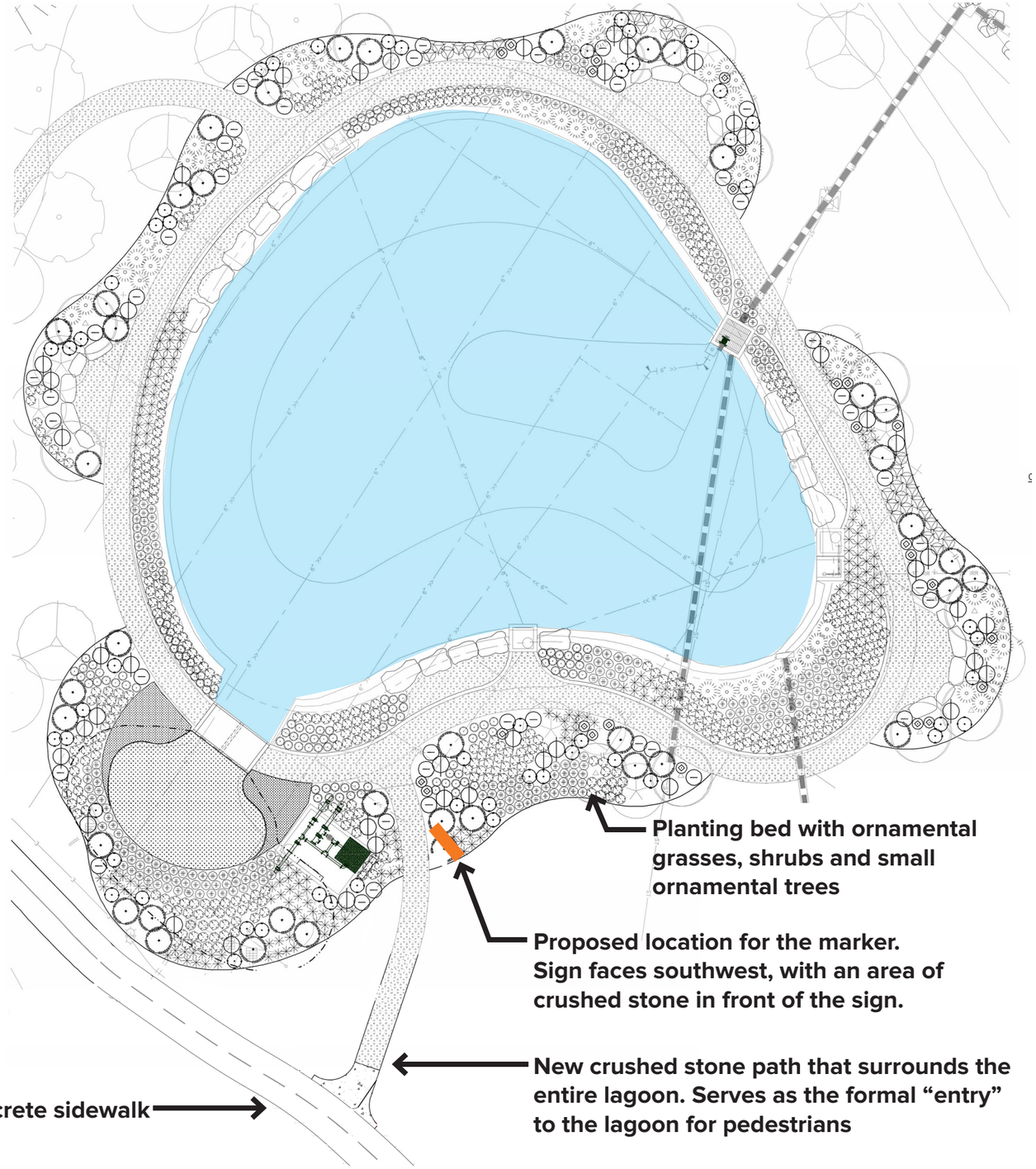
LAGOON AREA PRIOR TO 2020 CHANGES

Area of water of newly renovated lagoon

NORTH

NEWLY RENOVATED LAGOON AREA



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Proposed lagoon flood marker - General location

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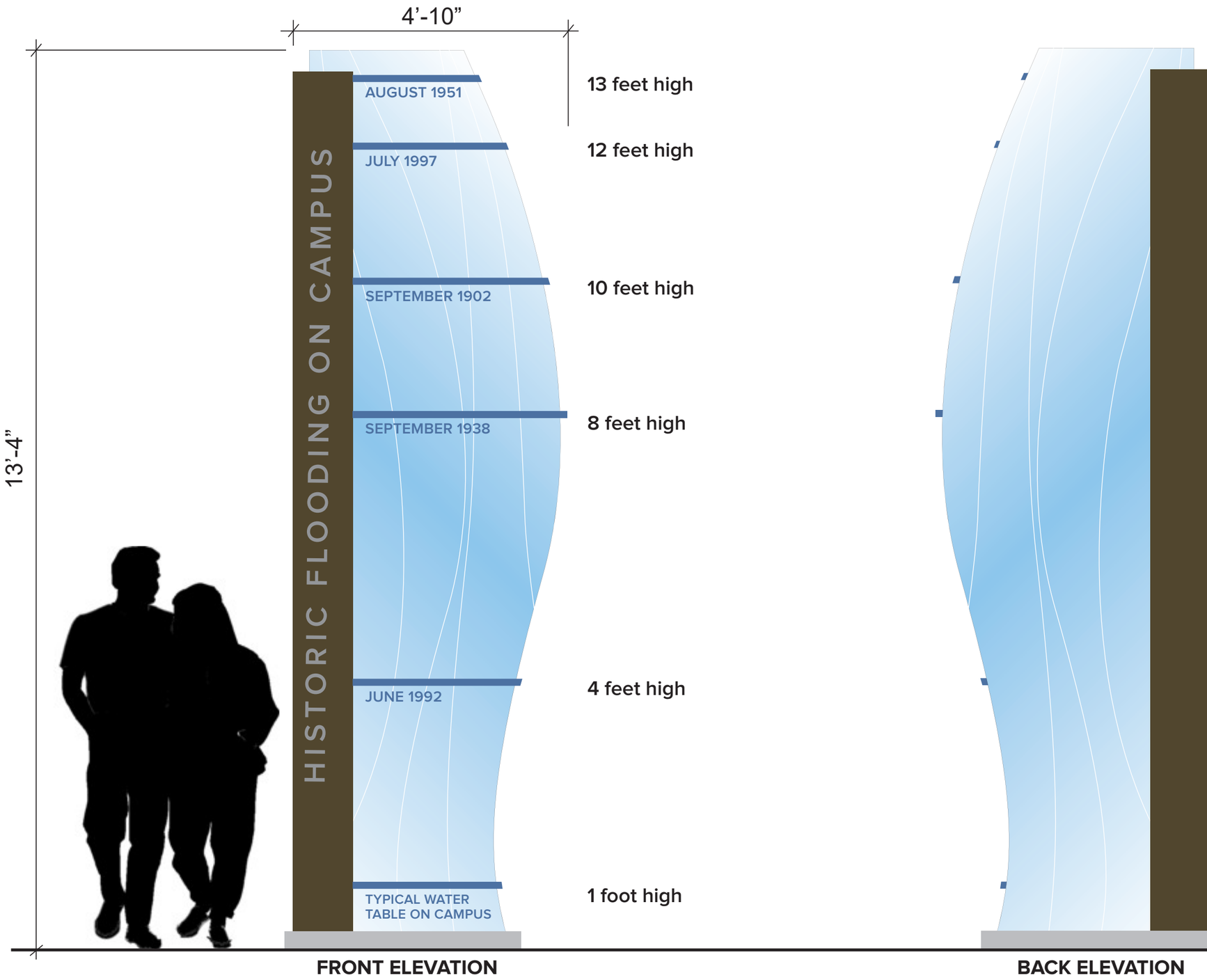

Purpose of the lagoon flood marker:

- Provides simple time line and heights of flood levels of the significant floods that have occurred on Main Campus
- Marker will be located adjacent to the new crusher fines trail that surrounds the newly renovated lagoon
- Marker is fabricated from painted metal elements
- Marker overall dimensions: 13’-4” h x 4’10” w x 5” d
- Incorporates into the City of Fort Collins’ FloodWalk virtual experience and app

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Proposed lagoon flood marker

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Proposed lagoon flood marker

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FloodWalk Information

- FloodWalk was conceived by FEMA Region VIII and developed and launched by Resilience Action Partners, the Community Engagement and Risk Communications (CERC) service provider, to help create “new ways to visualize flood risk.”
- The initial version was released June 10, 2019, and centers around Confluence Park in downtown Denver, Colorado. To date, the app has generated nearly 20,000 impressions and has been downloaded over 1,000 times.
- The app features six digital experiences that are activated via geolocation when the user is in Confluence Park. At these experiences, individuals can interact with the AR features of FloodWalk and listen to short narratives that tell the story of a city that, when faced with significant flooding, took action to reduce the risks.
- The app was made possible through coordination with local partners including: The Mile High Flood District, The Greenway Foundation, the City of Denver, and the Chatfield Reservoir Mitigation Company.
- In 2020, engagement began with the City of Fort Collins to add a second location to the app. Working primarily with the city’s Floodplain Administrator, Marsha Hilmes-Robinson, several other city representatives, and CSU, an expansion has been conceived to feature 12 AR experiences and extend across a large portion of the city.
- Development of the Fort Collins expansion is anticipated to begin in the fall with completion targeted for May 2021.
- Locations of FloodWalk app on the CSU campus illustrate flood mitigation improvements such as floodwalls and earthen berms that help redirect floodwater away from buildings.
- Locations on campus include:
  - *Field House and College Ave Gym*
  - *Occupational Therapy Building*
  - *Gibbons Building*
  - *Johnson Hall*
  - *Heating Plant*
  - *Engineering Building*
  - *Lory Student Center*
  - *Morgan Library*
  - *Eddy Hall*
  - *Lake Street Parking Garage*

Need Motion to Approve Lagoon Flood Marker

Transportation

COVID-19 Preparedness Planning 2020/2021

Updated July 8, 2020 with PPT guidance

Parking and Transportation Services

Colorado State University

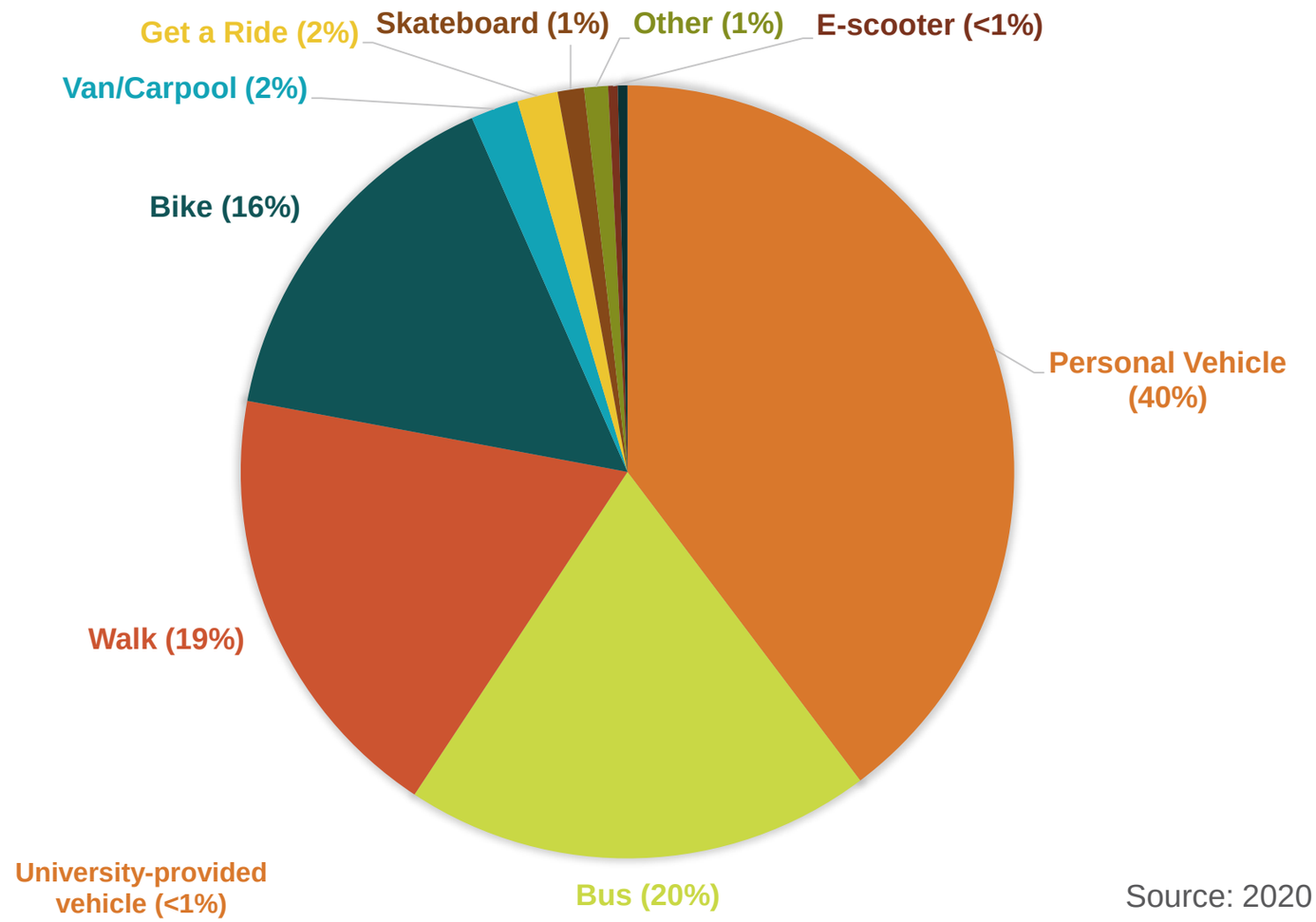
Scenario Planning

- Operations – How do we provide safe movement for students, staff and visitors on campus?
- Financial – How do we manage revenue in a predictable way to navigate short and long-term operations?

Planning Assumptions Scenario 1

- Residence Hall Unrestricted Capacity - as Housing and Dining scenario planning becomes more restrictive to on-campus student housing, transportation restrictions lifted due to reduced demand (on-campus population density decline)
- Housing and Dining residence hall capacity down 20%
- Flexible course offerings online, evening, social distancing in classrooms with all large classes moving online reduce trips to and from campus by 50% as compared to fall 2019
- As the university prepares to open offices and more staff return to campus, 25% will continue to telework
- Student enrollment down 7%, with reduced staffing 5% (staff to student ratio on campus 25%)
- Increase in single occupancy transportation modes (bicyclist, e-scooter and vehicles)
- ADA accessibility standards and supporting Student Disability Center
- Transit demand impacted by class schedules
- University requirement for mask and social distancing
- Parking enforcement to continue in all university scenarios to support revenue planning

CSU Primary Transportation by Mode pre COVID-19



Source: 2020 CSU Transportation Survey Respondents

Vehicle, Bike & Ped Movement pre COVID-19

- Average daily total vehicle, bicyclist and pedestrian movement through campus intersections
- 600 bikes and peds on average per hour move through core campus intersections at class change
- Totals illustrate 3-hour snapshot (AM, Midday, PM)
- Stop sign controlled traffic movement with modes queuing at intersection

Vehicle, Bicycle & Ped Movement Scenario 1

- Assume 50% reductions across intersections assumed impact from course schedules (online, evening and no large classes)
- 160+ peds on average per hour move through core campus intersections at class change
- Vehicular and bike movements support social distancing
- North and south campus provide greatest concern with highest pedestrian movements
- High demand west east movement on Hughes Way, Pitkin and Plum

Social Distancing Transportation Scenario 1 Planning

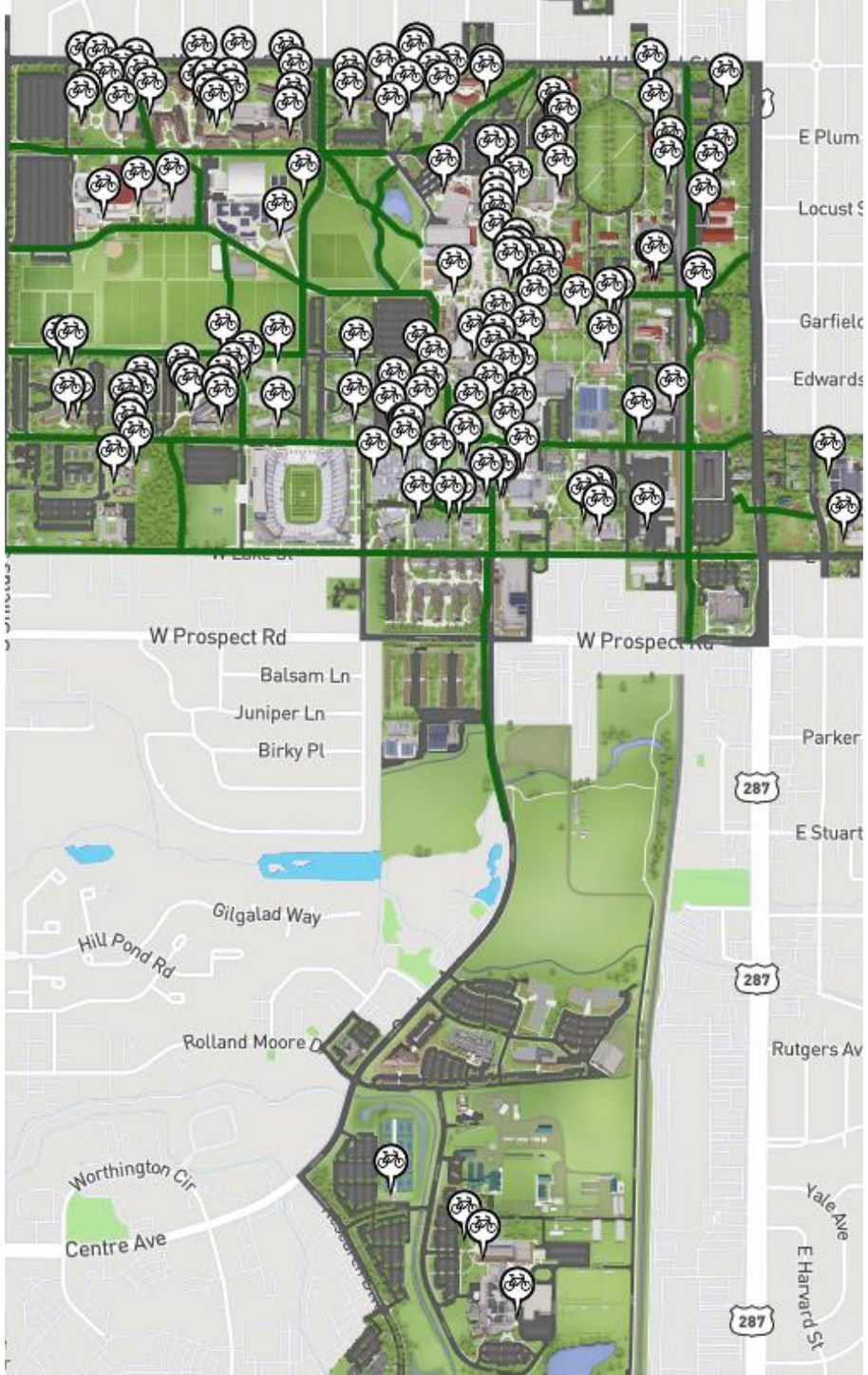
Bike trails primary access route providing movement for pedestrians on sidewalks

Bus and rental vehicles available and reliable

Hourly Parking improvement to mobile payment options

Bicycle Trails and Storage pre COVID-19

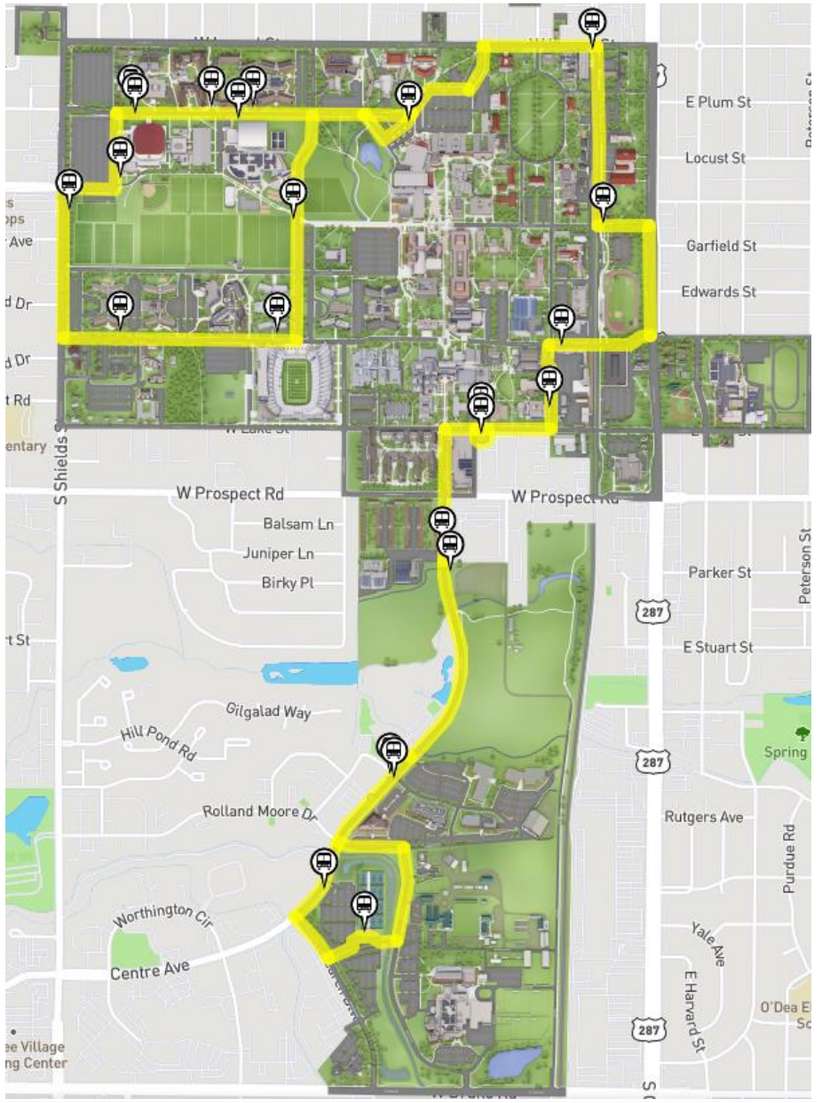
- 9.9 miles of bike facilities on campus (trails, bike lanes, etc.)
- 4,411 average daily bicycle trips on campus (2019)
- 4,018 bicycles registered in 2019
- 1,788 bicycle racks with 18,354 spaces
- 1 secure bike storage facility with 35 spaces, second secure storage available fall 2020 with 40 spaces



Bicycle Trails and Storage Scenario 1

- Signage to direct bikes to trails, to provide more space on sidewalks (ADA access)
- Route bikes to Pitkin to free up newly constructed pathways on Hughes Way for pedestrians
- Increased Rambassador presence
- No change to bike racks or bike storage due to available options across campus (see map on prior slide)

Around the Horn pre COVID-19



- 4+ miles route circulation
- 3,000-4,000 monthly riders
- Fall 2019 >80% of Horn stops reported max capacity exceeded
- Max capacity 30 riders
- 10-minute scheduled frequency
- Five buses dedicated to route
- Temporary detour pending Shepardson completion

CSU Bus & Car Rental pre COVID-19

- 9 charter buses
- 700 bus charter trips 2019
- Avg 58 bus rentals per month January to December 2019
- 100 rental vehicles
- 3,319 rental transactions 2019
- Avg 277 vehicle rentals per month January to December 2019

CSU Charter Bus and Car Rental Scenario 1

- Bus driver wearing gloves and mask
- Require mask for all riders in order to board bus
- Ridership levels restricted to 50% capacity on charter bus and vehicle rentals
- Charter bus loading and unloading patterns to support social distancing
- Hand sanitizer available on buses
- External customers follow county requirements for trip manifest supporting contact tracing
- Internal customers must confirm EHS approval at time of reservation to ensure manifest was created and available supporting contact tracing
- Support community service (current food delivery)

CSU Charter Bus and Vehicle Rental Scenario 1

- Enhanced three-part cleaning procedures are in-place for use on all charters and rental vehicles.
  - Standard cleaning of entire vehicle inside and out to remove trash, debris, and dirt.
  - Sanitize all high-touch hard surfaces with appropriate commercial product.
  - Disinfect cloth seating with (hooded) UV-C light wand if the vehicle will be rented/used within 24 hours after cleaning/sanitizing.
    - If vehicle unused for following 24+ hours, spray cloth seats with approved commercial disinfecting product and lock/close all doors to let dry completely.
- Proper PPE must be worn while cleaning.
  - Steps one and two above: closed toe shoes, long pants, long-sleeved shirts, facemask, and gloves are required.
  - UV-C wand operation, all PPE shown for steps one and two plus: UV resistant goggles, UV resistant face shield, and gauntlet gloves. Protected coveralls available (as requested).

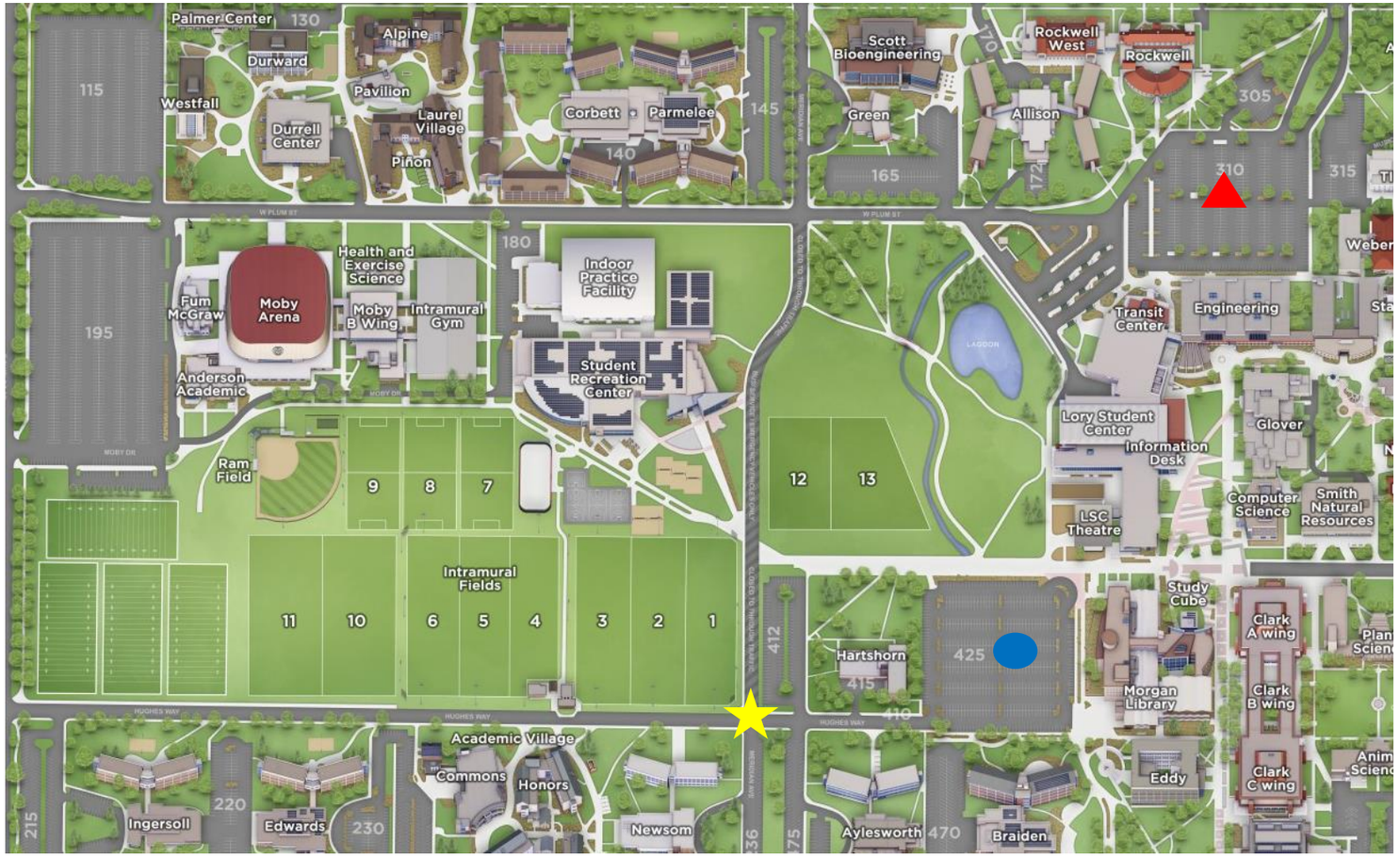
UV wand pending EHS follow up prior to implementing

Around the Horn Bus Scenario 1

- Follow City of Ft Collins and Transfort guidance with no ridership restrictions
- Require mask for all riders in order to board bus
- Hand sanitizer available on buses
- Working with Transfort to request tents for staging outside of transit center
- No Horn route changes anticipated
- Assume reduction in Horn ridership due to campus schedule changes
- Support Student Disability Center (Dial A Ride)

Pending documentation from Transfort on Dial A Ride protocols

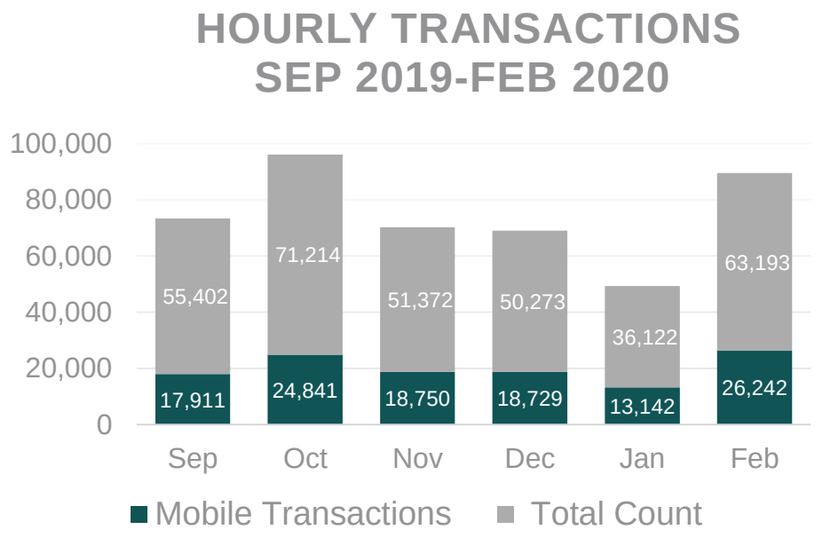
Parking pre COVID-19



- 500+ vehicles per hour (fall 2019) cross Hughes/Meridian ★
- Library parking ⬬
  - 335 hourly spaces
  - 196 A permit spaces
  - 531 spaces
- Engineering parking ▲
  - 252 hourly spaces
  - 258 A permit spaces
  - 510 spaces
- Hughes Way
  - 168 Z permit spaces
- Library Oct 1 – Nov. 22 Avg 3 transactions by space with >8,000 unique vehicles

Hourly Parking pre COVID-19

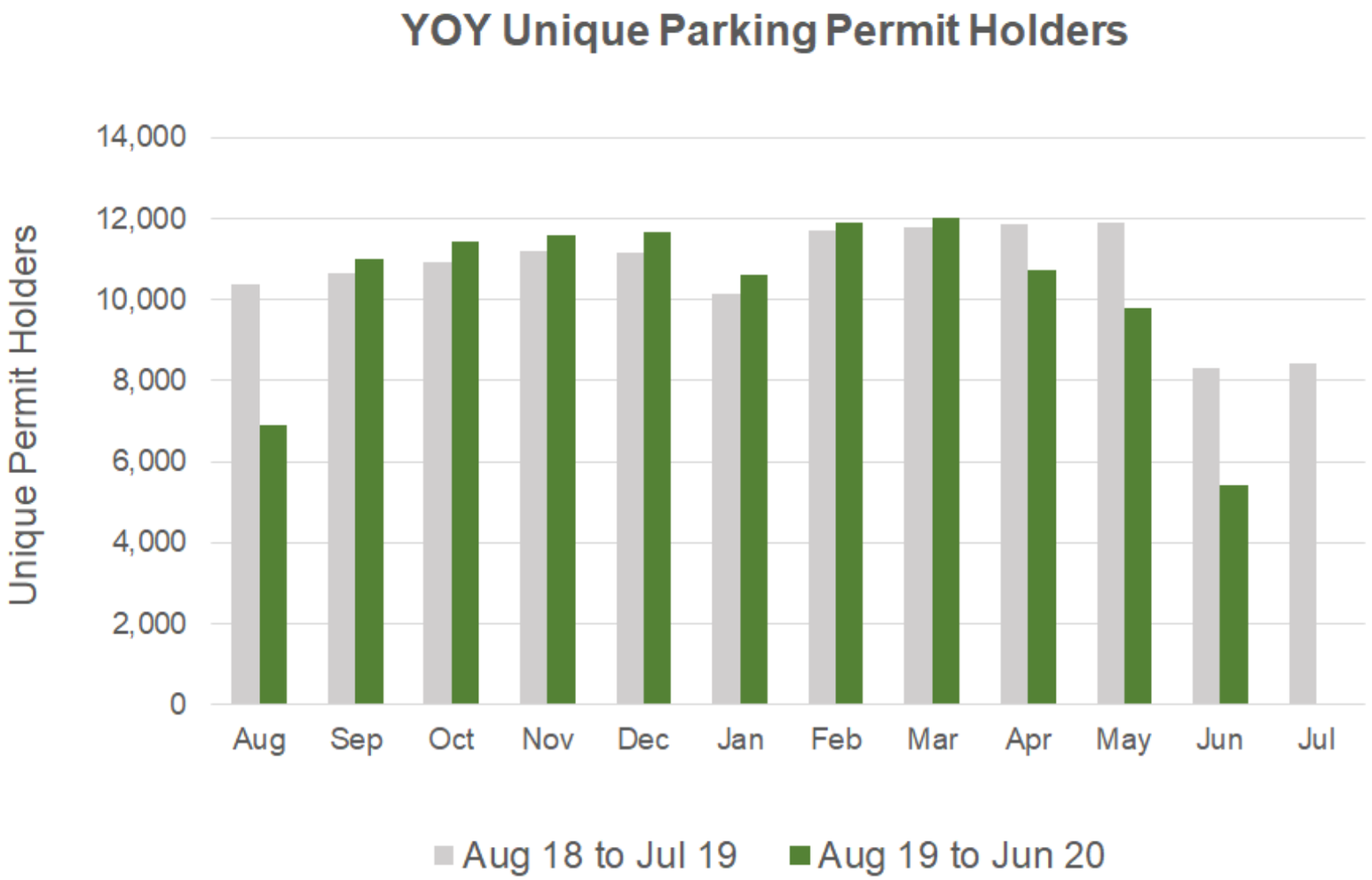
- >300,000 transactions on campus Sep 2019-Feb 2020
- 63% of hourly transactions are manually entered by customer at a pay station
- Customers are charged $0.35 per transaction for current mobile usage
- Construction and contractors are required to use in-person contact and paper permits



Parking Scenario 1

- No movement of existing permitted areas or repurposing of existing lots
- Improve mobile experience with improve customer alerts and wayfinding
- Reduce transaction fee, passing savings onto customers
- Increase contactless mobile transactions >60%
- Increase mobile signage presence and mobile parking marketing campaign
- Move remaining physical construction permits to virtual mobile environment

Permit Overview pre COVID-19



11,500 average unique monthly permit holders

Downward trend starting April with 35% decline YOY reported June

Financial & Operational Planning

- Monitor campus access for non-university activities
- Support vehicle and customer safety regarding transportation movement
- Utilize and advance current technologies to support safety
- Inventory abandoned vehicles on campus and inherent safety related risks
- 1,200 average vehicles access campus each day during the non-enforcement period (Mar 23-Jun 30)
- Charter buses operating at 50% capacity drives up cost for departments requesting rentals
- Permit sales summer open July 1, 2020 with fall permit sales August 1, 2020
- Full staff on-site to provide service effective July 27, 2020
  - Maintenance
  - Foothills campus transition
  - Transit
- Enforcement and paid parking to continue service in all university scenarios (includes a second COVID-19 outbreak)
  - In addition to reduced permit sales resulting from reduced on campus populations, providing free service creates additional concerns regarding funding sources ($600k revenue loss specific to refunds with an additional $1 M+ of delayed revenue loss related to over 6,500 permit credits pending)

Additional Restrictive Measures

Transit Capacity Restriction

- Route change to reduce capacity and support social distancing on bus with impact on social distancing at transit center.
- Routes distance reduced to increase frequency in order to meet rider demand.
- Multiple short mileage routes to increase frequency eliminates one seat ride and adds walking distance to final destination.

Parking Re-alignment

- Move short term parking with focus on less vehicular movement.
- Short term parking re-distributed from library lot to the engineering lot shifts traffic congestion off Laurel with an increase of vehicular turnover and staff permit holders with longer walk to final destination (northeast campus destination). Parking changes requirement alignment with Around the Horn to support increased pedestrian movement.

Road Circulation Restrictions

- Restrict road movement to open access to other transportation modes (pedestrians).
- Closing or restricting transportation movement to vehicles creates congestion on reduced access points redistributing transportation conflicts and safety concerns to city perimeter roadways (Laurel, Shields, Prospect).

Transportation indicators for additional restrictions

Observation

- Rambassador reporting
- University communication

Data

- Kimley-Horn counts
- Ram Ambassador counts
- Parking lot occupancy (tube counter, fixed license plate recognition and occupancy counter)
- Eco-counter (bicycle and pedestrian trail count data)
- Transfort capacity
- Permit Holders
- Hourly parking transactions

Pandemic Preparedness Team ongoing guidance

ADA access to campus

Request that ADA access be embedded in all university scenarios plans. Planning inside or outside university buildings on campus to include wayfinding to support safe access.

Wayfinding:

- Signage, limiting traffic or providing directional movement (one way or identified areas to stand) must consider staff, students and visitors with disabilities, addressing alternative methods for communication (positioning, location, braille or raised lettering).
- Building access points impacted by additional directional restrictions to support one-way directional flow for social distancing to further evaluate and provide successful ADA access and mobility.

Education and Collaboration with Student Disability Center:

- Scenario planning to include partnership with Student Disability Center to accommodate safe movement around campus.
- Sharing information in multiple formats, to include printed materials, to support safety and social distancing .
- Specifically addressing staging areas or route changes that create interruption and challenges to previously shared campus wayfinding.

Summary

Parking and Transportation Services request building access to the public with limitations in place effective July 27, 2020.

- Request submitted July 6, 2020 to allow staff to return with social distancing and all COVID-19 safety guidelines in place.
- Scenario planning or changes have no impact on enforcement and paid parking (services continue without further interruption).
- Bike movement redirected to open space to support pedestrian and ADA mobility on campus with careful consideration and partnership regarding communication.
- Transfort guidelines evaluated and ridership monitored to ensure mask enforcement and impact to staging areas support safety and social distancing.
- CSU charter bus and vehicle rentals to implement safe loading and unloading, mask enforcement and regular cleanings and capacity restrictions.
- Implement new software for contactless hourly parking payments and paperless (in office) environment.
- Ongoing evaluation of transportation movement with PPT support as necessary to adjust transportation resources.

Questions or Comments?