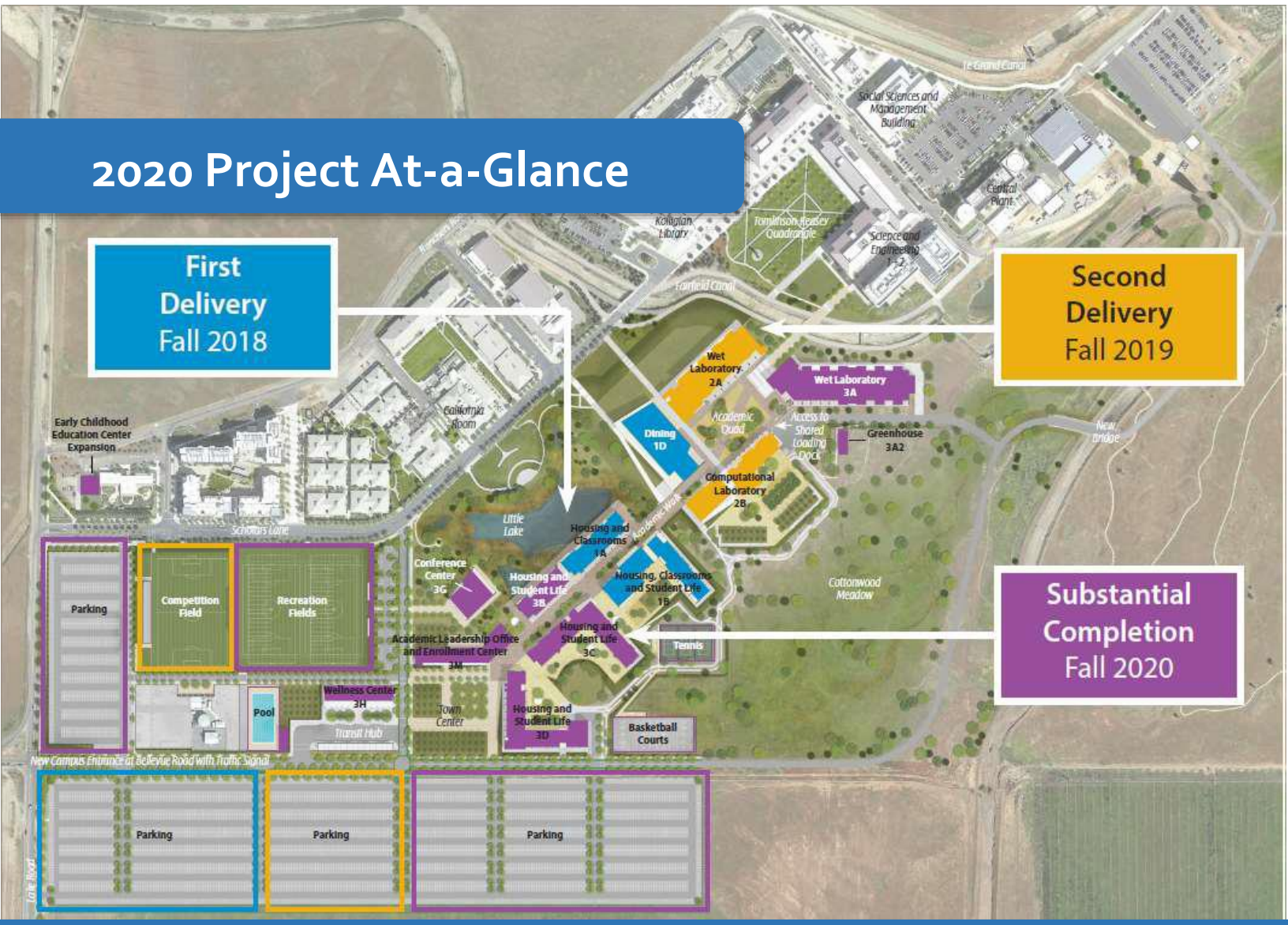
UNIVERSITY OF CALIFORNIA | MERCED 2020 PROJECT

PROJECT PERFORMANCE MONTHLY REPORT 17.0

PERIOD ENDING: 30 NOVEMBER 2017

2020 Project At-a-Glance



Team

Owner's Authorized Representative & Project Executive
- AVC Michael McLeod (POPD)

Lead Project Manager
- Paul Mackintosh (WT Partnership)

Developer/ProjectCo:
- Plenary Properties Merced ("PPM")

Equity:
- Plenary Group ("Plenary")

Design-Builder:
- Webcor Builders ("Webcor")

Operator:
- Johnson Controls ("JCI")

Commercial

Agreement:
- Availability Payment based P3 incl DBFOM
- 3 phase operational ramp-up

Term:
- 39 Years (incl 4 yr. construction)

Contract Value:
- $1,340,839,588

DB Contract Value:
- $1,166,631,875 (DB)

Annual O&M Cost (Real):
- $4.1m

Total Real Lifecycle Cost Model (over term)
- $101M

Security (equivalent cash value):
- DB Performance bond: $1,166m (100%)
- DB Payment Bond: $1,166m (100%)
- DB Limit of Liability: $583m ($50%)
- OM Limit of Liability: (200% annual cost)
- DB Parent Company Guarantee $583m ($50%)

Schedule

Financial Close
- August 12, 2016

First Delivery Occupancy Readiness Date
- July 1, 2018

Second Delivery Occupancy Readiness Date
- June 1, 2019

Substantial Completion
- June 1, 2020

Final Acceptance
- September 29, 2020

PA Long Stop Date
- June 1, 2021

Construction Schedule
- Circa 46 Months

Operating Period:
35 – 37 Years

merced2020.ucmerced.edu

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Purpose of Report

This report is provided for the benefit of the Leadership Team, executive-level reporting, and historical record, in the on-going management of the University of California, Merced 2020 Project. It includes observations about project activities, project health, Developer performance, risk, and process improvement opportunities.

[Parenthesis] - Square brackets are utilized within the document to illustrate an opinion founded on information available at the time of writing. It affords the author and the Project Team the opportunity to review the conclusion following discussion and liaison, where relevant, revising following initial issue for finalization.

Document Control

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	12/14/2017	Draft Report	RW	PM	MJM

1. EXECUTIVE SUMMARY

PROJECT EXECUTIVE'S SUMMARY

Progress during November has seen design for all first delivery buildings completed, and structural design for Buildings 2A and 3C completed. Design work for athletic and recreational fields is also currently in permit back-check.

The construction team continued to make considerable progress site wide, particularly as rain has been light with a lack of severe weather. An estimated 2,800 cubic yards was placed during November. The project has maintained the daily staggered start times to mitigate site congestion, trade coordination and potential safety related issues. However, given days are significantly shorter, attention has been focused on adequate work area lighting.

GOVERNANCE & OVERSIGHT

The Project Team continues to liaise with the Governance Board and Office of General Council (OGC) on project issues. Two Governance Board meetings were held during the period where a variety of Change Orders and project issues were reviewed and discussed.

DESIGN & CONSTRUCTION

Coordination activities with City and County of Merced, Merced Irrigation District, and State Agencies are ongoing. Design is in varying stages with all First Delivery buildings primarily completing the construction documentation stage. Presently, two-hundred and ten (210) design submittals have been received (208 completed and 2 in progress). One-hundred & eighty-five (185) stakeholder meetings have been held to date, to solicit input into the design process

Site Activities

The following outlines the status of the progress of on-site activities:

<u>First Delivery</u>

- First Delivery utility work (electrical/telecom) – Continued work in Academic Walk, working toward Mineral King Bridge with electrical and ITC ducts which should be complete by the first week in December, these ducts are critical for delivering power to first delivery buildings. Emergency power ducts between 1F generators and Academic Walk are complete, which is crucial to first delivery turnover. The first power cutover in the Central Utility Plant for the "B" feed was completed over the holiday weekend. The next power cutover for the "A" feed will be over the Christmas holiday. The 1F generator pads have started in anticipation of the generators arrival on January 1st.
- First Delivery utility work (water utilities) - Continued water, irrigation, and chilled water through Academic Quad to the Mineral King Bridge.
- First Delivery utility work (storm drainage) – Installation of rainwater leaders continues at all buildings
- and storm drain connections associated with the leaders to the mains.
- First Delivery utility work (sanitary sewer) – Sewer lines continued from Academic Walk past Building 3H towards the competition field along Evolution Valley Road. The lift station was completed and tested this month and ready for use.
- First Delivery utility work (fuel distribution) - Gas Installation through Academic Quad to the Mineral King Bridge.
- First Delivery earthwork - Grading work in the first delivery scope at Bellevue Road has been completed this month. Grading remaining at first delivery buildings are ongoing.
- First Delivery landscape - Irrigation and planting along Parking Lot P4 at Bellevue and Lake Roads have been completed this month.
- First Delivery roads & bridges – P4 Parking Lot was completed and turned over for interim parking this month as well as Bellevue Road and the Lake intersection. Signal lights have been activated in flashing mode and will be operational the second week in December.

- First Delivery special construction (loading dock) – The loading dock roof was completed on November 28th with form stripping and backfill in the month of December.
- The majority of winterization has been completed and only requires periodic maintenance through the rainy season.

Second Delivery

- Second Delivery utility work (electrical/telecom) – Installation of duct banks at 2A and 2B ongoing.
- Second Delivery utility work (water utilities) – Installation of domestic water and chilled water were ongoing to Buildings 2A and 2B.
- Second Delivery earthwork – Building 2A beam and lagging shoring wall was completed this month to allow for concrete work to start. The Evolution Valley lot was turned over to the Developer this month and demolition and earthwork have started.
- Second Delivery 2D Server – Building and yard design was completed, and earthwork began this month.

Substantial Completion

- Substantial Completion utility work (electrical/telecom) - Install electrical duct bank to Building 3A point of connection.
- Substantial Completion earthwork – Building 3A cantilever wall was completed and the lower secant wall was started with an anticipated completion in January for foundation excavation.
- Substantial Completion roads & bridges - Mineral King Bridge work is on standby while utility connections on either side are made. The bridge deck will continue when utilities are complete. The 90% CD Loop Road Bridge drawings have been submitted to MID for review.

Building Activities

First Delivery

- Building 1A/3B – Exterior framing and Building 3B roof is complete. Exterior scaffold and elevator support steel installation is complete. Priority rooms on Levels 1 and 2 have been turned over to the electrical subcontractor.
- Building 1B – North tower of Building 1B is dried-in. Exterior framing is complete, interior framing to Level 3. Exterior window installation for the north tower is 75% complete. Priority rooms have been completed to level 4.
- Building 1D – Main roof work continued. Interior slab on grade placement is complete with exterior SOG work continuing. Exterior framing, insulation, and flashing installation continued, with interior framing beginning this month. Exterior metal panel support installation continued. Set the AHU's in the mechanical wells. All kitchen equipment has been released. Priority rooms has been completed and turned over to the electrical subcontractor.

Second Delivery

- Building 2A – Slab on grade is complete. Level 02 deck placement is in progress. Exterior grade is being achieved as utility installation is progressing.
- Building 2B – Tower crane has been certified for use. Basement foundation rat slabs have been placed and mat foundation reinforcement has begun.

Schedule Activities Planned for December 2017

- Design and permitting activities will continue to progress.
- Central Plant site infrastructure will continue to progress.
- Underground utilities will continue to progress site wide.
- "A" Feed cutover is scheduled for Christmas break.
- Subgrade earthwork for pool, transit center, & 3M area.
- Earthwork, stub-ups, and concrete for T2 and T3 transformer pads.
- P5 Parking Lot- demolition, earthwork, utilities.
- Competition Field - demolition, earthwork, utilities.
- Flatwork for 1st Delivery.
- Scholars Lane utility tie-in points east and west of Competition Field while students are on break.

- Building 1A / 3B – Lath and plaster, 1A roofing, interior drywall, and elevator installation will be will be in progress.
- Building 1B – South tower will be dried in, window installation will be complete. Lath and plaster, interior drywall, and placement of AHU's will be in progress.
- Building 1D – Polishing of SOG, elevator installation, lath and plaster, MEP overhead, and secondary steel for curtain wall and hood supports will be in progress.
- Building 2A – Concrete placement of levels 02 and 03 will be worked on next month.
- Building 2B – Place all mat foundations. Begin installation of vertical concrete elements and excavation of the Auditorium and Level 1.

PROJECT CONTROLS

Schedule

The Developer's Schedule Update was received and accepted for November 2017. The Project Team's independent schedule reviewer also spent significant time on site with the Developer, reviewing the schedule and associated Project 2020 milestones.

Budget

The Campus Budget is retained as approved at a total of $148.13 million comprising: Owner Operating Budget ($79.38 million) and Campus Contingency ($68.75 million). Adequate cost control measures continue to be implemented to ensure suitable funds are retained to close out the Project. Expenditure is currently at $15.1 million (10.19%) of total forecast. Careful measures continue to be enacted in the consideration of Change Requests to mitigate impacts and avoid budget overspends.

Scope

There continues to be a series of collaborative design review meetings with the Developer and with feedback from the Stakeholders. Reviews during the period included:

90% CD	1A/3B Housing	Issue for Permit Back Check C
90% CD	1A/3B Housing	Issue for Permit Back Check D
90% CD	1E Central Plant Expansion	Design Development Back Check 2
100% CD	1H Loading Dock	Issued for Construction
90% CD	2A Lab	Mock Up Plan Back Check 1
90% CD	2B Comp Lab	Structural Permit Back Check 2
90% CD	2D Research Server	Design Development
90% CD	2E/3N Comp and Rec Field	Design Development Back Check 1
90% CD	3C Housing	Structural Permit Back Check 2
90% CD	3D Housing	Building Permit
100% SD	3H ALO	Schematic Design QA/QC Set
90% CD	1F Emergency Power	Design Development Back Check 2
100% CD	P4 Parking Lot	Back Check 4
90% CD	6B Loop Road Bridge	Design Development

CONTRACT MANAGEMENT

The Developer continues to deliver both Administrative and Design Submittals in the period.

The following were issued to the Developer during the November period: Six (6) Change Orders; four (4) Preliminary Change Orders and seven (3) Unilateral Change Orders. No new Developer Change Proposals were received, and no Relief Notices were submitted during the period.

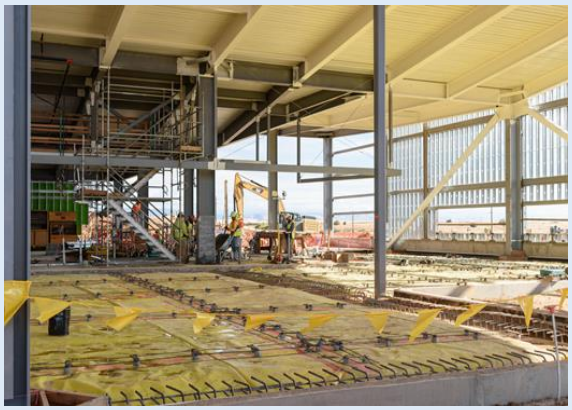
OPERATIONS

The primary focus for Project Operations in the period continues to be budgeting and forecasting each of the key contracts to enable proactive budget management of the constrained Project funds. November focused on a review of the project schedule and associated milestones in conjunction with the Developer. Additional interface meetings continued with Johnson Controls (JCI).

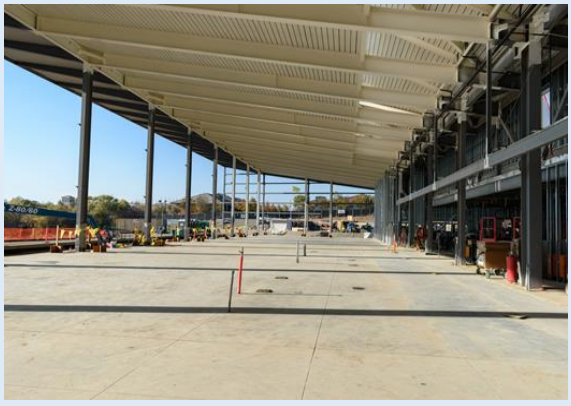
PROJECT PROGRESS PHOTOS

SITE PANORAMA – 11/22/2017

1D DINING SLAB PREPARATION – 11/22/2017



1D DINING SLAB PREPARATION – 11/22/2017



1D DINING INTERIOR – 11/28/2017

1B HOUSING – 11/8/2017

1B HOUSING PIPING AND DUCTWORK – 11/8/2017

3B HOUSING - 11/8/2017

1A HOUSING – 11/8/2017

1A HOUSING – 11/28/2017

INTERIOR DORM ROOM MOCKUP - 11/22/2017

DORM ROOM SOFFIT MOCKUP – 11/22/2017

2A LAB – 11/28/2017

2A LAB SOUTHWEST END – 11/8/2017

2A LAB LEVEL ONE DECKING – 11/22/2017

2A LAB – 11/8/2017

1H LOADING DOCK & 1B HOUSING – 11/22/2017

2B LAB SLAB REBAR – 11/29/2017

2. PROJECT HEALTH DASHBOARD

No concerns | Unable to comment | Monitoring required | Immediate action required

Schedule	A series of Schedule review meetings were successfully held to discuss compliance with First and Second Delivery Contractual Completion Milestones.

	Start	Contractual Finish	Potential Finish	Slippage	Status
First Delivery	20 Jun 2016	1 July 2018	6 Aug 2018	36 - Days	Potential delay
Second Delivery	15 Aug 2016	1 Jun 2019	1 June 19	None	On-target
Final Delivery	3 Jan 2017	1 Jun 2020	1 June 19	None	On-target

Cost	The Project Budget continues to be further developed by the Project Team and Financial Analyst. To date, fifty – five (55) Preliminary Change Orders (PCO) have been issued to date of which thirteen (13) have been cancelled and three (3) placed on hold pending alternate design solutions. Thirty-three (33) Change Orders, twenty-eight (28) Unilateral Change Orders (UCO) have also been issued to date, and seven (7) Developer Change Proposals (DCP) have been approved. The cumulative potential impact of all authorized changes (also known as Unilateral Change Orders) is in the order of $5.04m. Amounts shown in table are in millions ($MM).

	Regents Approval	Transfers	Adjusted Budget	Expenditure to Date	Pending Committed Costs	Remaining Budget
(A)Project Operations	$90.22	(-$2.15)	$88.07	$10.81	$0.00	$77.25
(B) Campus Integration	$22.00	$2.15	$24.15	$4.28	$0.00	$19.87
(C) Construction Contingency	$35.91	$0.00	$35.91	$0.00	$6.93	$28.98
(D) Construction Credits	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
(E) Total	**$148.13**	**$0.00**	**$148.13**	**$15.10**	**$6.93**	**$126.1**

Scope	October and November have seen the progression of numerous items to final agreed Change Orders. There are still items on the change list which require analysis and reconciliation of costs with the Developer in order to move forward, these are currently being undertaken. Stakeholder requests for scope changes have decreased this period but continue to be carefully monitored. They are expected to increase again following 100% SD submittals for Third Delivery buildings in December/January. All issues require justification and approvals through the Governance structure.

	Total Executed Change Orders	Total Unilateral Change Orders	Total Preliminary Change Orders
Quantity (No.)	33	28	55
Aggregate Cost ($k)	EST $1.89	EST $5.04m	$TBD
Time Impact	Nil	Nil	Nil
Developer Compliance	NEW NON-CONFORMANCE ISSUES No new non-conformance issues were raised for the month of November.		
Contract Notices	None from the Developer in the period.		
Labor Compliance	No issues to report.		
Health & Safety	In the period: No recordable Injuries. First Aid – 14. No Lost Time Injuries (LTI) to date. Webcor continue to have a full-time paramedic on site assisting the safety team and is also available to provide help in cases of emergency.		
Community Engagement	No complaints have been reported from the construction hotline for this period.		
Communication	Communication between the Project 2020 team, external authorities, the Developer, and Stakeholders continues to work positively.		
Stakeholder Engagement	Stakeholders are actively engaged in design review and shared governance. Their concerns focus largely on campus logistics and operational use of the buildings. Each case has been addressed and will be brought to a close imminently. There were 5 (five) Stakeholder meetings held during the period.		
Risk	The Team continues to systematically evaluate areas of risk with mitigation plans for each. Presently the Developer remains on schedule to achieve First Delivery, however Campus continues to proactively undertake contingency planning should schedule slippages occur.		