

WELCOME

THE UNIVERSITY OF UTAH
Planning, Design & Construction Forum
May 9th, 2019

INTRODUCTION

Presenter:
Robin Burr – Chief Facilities Officer

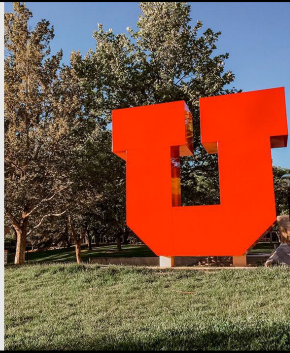
MEETING GOALS

- Our Organization
 - Where we've been
 - Where we are today
 - Where we're going
- General Updates
- Practice Changes
- Current and Upcoming Projects
- Q&A



WHERE WE'VE BEEN...

- Changing Expectations
- Success with smaller, better integrated Project Teams
- Added Design & Construction Support Team



WHERE WE ARE TODAY...

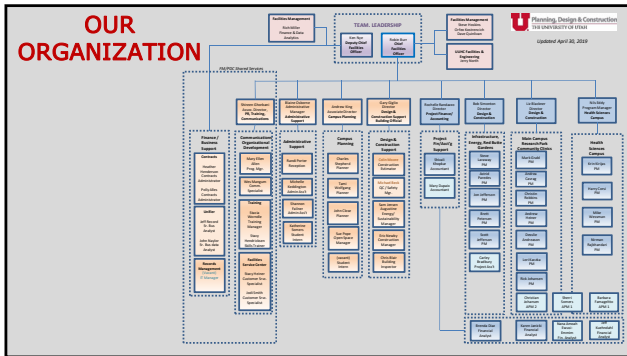
- Continuous Improvement Mode
- Strong focus on Campus Planning
- More support for Project Delivery
- New Tools and Training
- Changes in Plan Check & Inspection
- Changes in Proposal Format
- Joining with Facilities Management and University Hospitals & Clinics



WHERE WE'RE GOING...

- Continued adaptation of Tools and Training
- Strong focus on Sustainability
- Heavy up-front involvement at beginning of projects
- Evolving Project Delivery methodology
 - LEAN Practices
 - Target Value Design
 - Better integration of AE, GC and the U in project delivery





GENERAL UPDATES

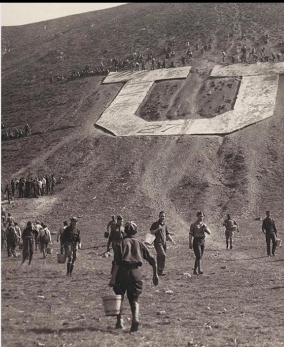
Presenter:
Ken Nye - Deputy Chief Facilities Officer

PROCUREMENT

Staff

- Heather Henderson
- Polly Alles

- o CM/GC – we are transitioning to a pre-set fee
- o Multi-Project Selections for A/E and Contractor
- o Performance Reviews



CONFLICT OF INTEREST

- Gifts
- Option to donate to U of U Student Food Bank or other charity of your choice



UNIFIER

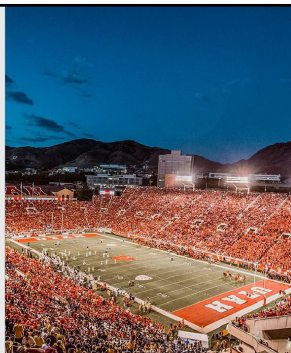
Staff

- John Naylor
 - Jeff Record
- Electronic signatures coming
 - PlanGrid is a companion system to Unifier



CONTRACTOR PARKING ON CAMPUS

- New policy coming this summer
- Objective is to minimize impact of construction on parking availability



CONTRACTOR PARKING REQUIREMENTS

- Permit required for parking anywhere on campus
- Sidewalk passes will carry a fee
- Designated parking areas for sidewalk passes
 - Limited to specific areas, according to Commuter Services parking plan
- Use of parking areas for staging require written approval in advance
- Contractor contact info on staging area fence



CHANGES IN PRACTICE & EXPECTATIONS

Presenters:
Gary Giglio - Director of Design & Construction
Support/Building Official
Sam Jensen Augustine- Energy/Sustainability Manager
Collin Moore - Preconstruction Manager

PROCESS IMPROVEMENT

Presenter:
Gary Giglio - Director of Design & Construction Support/Building Official

CHANGES IN PRACTICE & EXPECTATIONS

- LEAN Concepts for Design & Construction



LEAN CONCEPTS FOR DESIGN & CONSTRUCTION

- OUR MISSION: Delivering projects on time, on budget with the expected quality and safety
- Creating value for clients by eliminating activities that are considered waste, focusing on process and flow, and continuous improvement



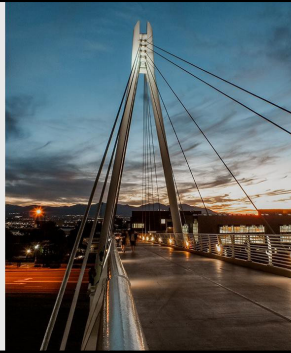
LEAN CONCEPTS FOR DESIGN & CONSTRUCTION

- 1. Deployment/Use of interoperable technology, such as BIM, cost-estimating and scheduling tools



LEAN CONCEPTS FOR DESIGN & CONSTRUCTION

- 2. Use of prefabrication, preassembly, modularization, and off-site fabrication techniques and processes



LEAN CONCEPTS FOR DESIGN & CONSTRUCTION

- 3. Effective performance measurement to drive efficiency and support innovation



PLANGRID

Presenter:
Alex Demogines- Regional Manager, PlanGrid







Secure a complete turnover package

"PlanGrid allows me to collect and turn over 'live working' as-builts that are invaluable to owners for the life of the building."

—Terry Coleman
Superintendent, Kraus-Anderson

Construction Turnover Operations

Raymond E. Jones
Mobile Apps

Why PlanGrid?

- ✓ Proven project team adoption
- ✓ Retain portable data for turnover
- ✓ Simplify team collaboration
- ✓ Deliver more predictable outcomes
- ✓ Control data for the lifecycle of the facility

★★★★★ 3,672 ratings
 ★★★★★ 2,014 ratings

ENR
Engineering News-Record

Used by 52% of ENR top 400 GCs

Grande Construction
Highway 99 Realignment

PLANGRID Q&A

SUSTAINABILITY IN DESIGN & CONSTRUCTION

Presenter:
Sam Jensen Augustine – Energy/Sustainability Manager

SUSTAINABILITY

- Started July 1, 2018
- Visiting firms to have conversation about U's evolving approach
- Owner's Project Requirements updated
- Working with project team to tailor HBPS as appropriate
- Aligning upfront project decisions with LCCA



CODE REVIEW & INSPECTION SERVICES

Presenter:
Gary Giglio- Director of Design & Construction Support/Building Official

BUREAU VERITAS NORTH AMERICA

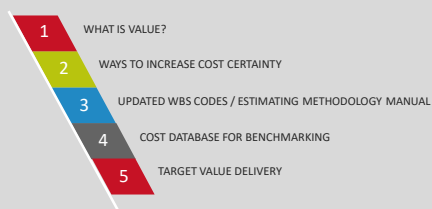
- o Moe Heivand, Regional Operations Manager Facilities-Code Compliance West-Southwest
- o Chris Blair, Building Inspector
- o Randy Moss, Plans Examiner and Inspector
- o Craig Baptista, Director of Operations, Facilities-Code Compliance
- o Building permit card



ESTIMATING MANUAL, TEMPLATE & COST DATABASE

Presenter:
Colin Moore- Preconstruction Manager

PRECONSTRUCTION



WHAT IS VALUE?

- Value is "what the customer is actually paying for the project to produce and install."
– Lean Construction Institute
- Value = $\frac{\text{Function}}{\text{Cost}}$
- Planning, Design, & Construction:
 - State entity with a charge to gain best value for Utah tax payers
 - Understands – and assists to communicate and deliver on – the client's definition of value (program, schedule, cost, social)
- Architects & Engineers:
 - Understands - and designs to - client's definition of value while collaborating closely with the client's team
- Contractors:
 - Understands client's definition of value and brings value by providing expert opinion, real-time design and constructability feedback, and cost certainty while collaborating closely with the client's team

WAYS TO INCREASE COST CERTAINTY

- Cost certainty is high on every client's value list. Cost overruns cause redesign, schedule delays, and decrease delivered value
- Ways to increase cost certainty:
 - Establish consistent cost reporting tools, including Work Breakdown Structure (WBS) codes. Establish consistent times to report costs
 - Maximize collaboration during preconstruction and construction – all team members are "linked" to the project budget
 - Project "benchmarking" against similar projects to validate costs
 - Continuous review & feedback of design documents for cost, constructability, & conflicts
 - Immediate reporting of potential cost overruns, including market factors such as tariffs or commodity pricing increases
 - Establish Target Values, with subgroups that report on how specific target values are tracking with design

UPDATED WBS CODES/ESTIMATING METHODOLOGY MANUAL

WORK BREAKDOWN STRUCTURE (WBS)

- Establishes a uniform cost reporting system between University projects
- Reduces miscommunication and is more transparent
- Template based on Construction Specification Institute (CSI 2014)
- Will be used in University's cost database

ESTIMATING METHODOLOGY MANUAL

- Explains how to measure each of the line items in the WBS
- Defines scope of unit rates for database accuracy
- Guides delineation of TI versus Shell & Core for renovation projects

WORK BREAKDOWN STRUCTURE

Example of the WBS - Summary

Div	Code	Component Description
3	03 70 00	Mass Concrete
3	03 80 00	Concrete Cutting And Boring
3	03 90 00	TOTAL CONCRETE
4	04 00 00	MASONRY
4	04 20 00	Unit Masonry
4	04 40 00	Stone Assemblies
4	04 50 00	Refractory Masonry
4	04 60 00	Corrosion-Resistant Masonry
4	04 70 00	Manufactured Masonry
4	04 80 00	Set Embeds in Masonry
4	04 90 00	TOTAL MASONRY
5	05 00 00	METALS
5	05 10 00	Structural Metal Framing
5	05 20 00	Metal Joists
5	05 30 00	Metal Decking
5	05 40 00	Cold-Formed Metal Framing
5	05 50 00	Metal Fabrications
5	05 60 00	Decorative Metals
5	05 90 00	TOTAL METALS


6	09 00 00	FINISHES
6	09 20 00	Plaster And Gypsum Board
6	09 30 00	Flng
6	09 40 00	Ceilings
6	09 50 00	Partitions
6	09 70 00	Wall Finishes
6	09 80 00	Acoustic Treatment
6	09 90 00	Painting and Coatings
6	09 99 00	TOTAL FINISHES
10	10 00 00	SPECIALTIES
10	10 10 00	Information Specialties
10	10 20 00	Interior Specialties
10	10 30 00	Fireplaces And Stoves
10	10 40 00	Safety Specialties
10	10 50 00	Storage Specialties
10	10 70 00	Electronic Specialties
10	10 80 00	Other Specialties
10	10 90 00	Hospital Specialties
10	10 99 00	TOTAL SPECIALTIES

WORK BREAKDOWN STRUCTURE

Example of the WBS - Detail

Div	Code	Component Description	Quantity	Unit Cost	\$	Total \$
6	09 00 00	FINISHES				
6	09 20 00	Plaster And Gypsum Board				
6	09 21 00	Plaster And Gypsum Board Assemblies				
6	09 22 00	Substrate For Plaster And Gypsum Board				
6	09 23 00	Exterior Wall And Partition Assemblies				
6	09 24 00	Steel stud, 16 ga - 4" spaced walls				
6	09 25 00	Steel stud, 16 ga - 6" spaced walls				
6	09 26 00	Steel stud, 16 ga - 8" spaced walls				
6	09 27 00	Steel stud, 16 ga - 10" spaced walls				
6	09 28 00	Steel stud, 16 ga - 12" spaced walls				
6	09 29 00	Steel stud, 16 ga - 14" spaced walls				
6	09 30 00	Steel stud, 16 ga - 16" spaced walls				
6	09 31 00	Steel stud, 16 ga - 18" spaced walls				
6	09 32 00	Steel stud, 16 ga - 20" spaced walls				
6	09 33 00	Steel stud, 16 ga - 22" spaced walls				
6	09 34 00	Steel stud, 16 ga - 24" spaced walls				
6	09 35 00	Steel stud, 16 ga - 26" spaced walls				
6	09 36 00	Steel stud, 16 ga - 28" spaced walls				
6	09 37 00	Steel stud, 16 ga - 30" spaced walls				
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6	09 41 00	Steel stud, 16 ga - 38" spaced walls				
6	09 42 00	Steel stud, 16 ga - 40" spaced walls				
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6	09 45 00	Steel stud, 16 ga - 46" spaced walls				
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COST DATABASE FOR BENCHMARKING

<div>  <div> <div>THE UNIVERSITY OF</div> <div>UTAHTM</div> </div> </div>		<div> <div>Costs Matrix</div> <div>by CSI Code Summary B</div> </div>					
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
Costs Disbursed by the Salt Lake City Region and 4/30/2019		6,445,000.00	6,445,000.00	6,445,000.00	6,445,000.00	6,445,000.00	6,445,000.00
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
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		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
		PROJECT A	PROJECT B	PROJECT A	PROJECT B		
		PROJECT A		PROJECT B		PROJECT C	PROJECT D
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**TARGET VALUE
DELIVERY (TVD)**

- Value & cost drive the design process instead of calculating the cost after design is complete.
- Increases cost predictability vs. the traditional method of estimating at established design intervals only.
- Teams work **together** to deliver value



MEET THE TEAMS/PROJECTS

Presenters:

Rochelle Randazzo -Director of Finance & Accounting

Andrew King- Associate Director of Campus Planning

Bob Simonton - Director of Design & Construction

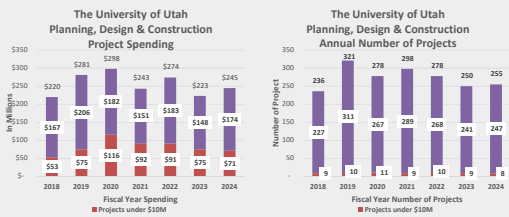
Liz Blackner - Director of Design & Construction

Nils Eddy - Program Manager, Health Sciences

Trent Cutler – Director of Planning, Design & Construction, Health Sciences

FINANCE & PROJECT METRICS

Presenter:
Rochelle Rondazzo- Director of Finance & Accounting



CAMPUS PLANNING

Presenter:
Andrew King- Associate Director, Campus Planning

CAMPUS PLANNING

Andrew King,
Associate Director, Campus Planning

Planners

- Charles Shepherd:
Cultural Resource Manager
- Sue Pope:
Open Space Manager
- Tami Wolfgang:
Campus Planner
- John Close:
Campus Planner

Campus Planning Responsibilities

- Project Studies and Research
- Visioning and Master Planning
- Campus Transportation
- Campus Parking
- Campus Site and Landscape
- Cultural Resources / Historic Preservation
- Campus Signs and Signage



INFRASTRUCTURE TEAM

Presenter:
Bob Simonton - Director of Design & Construction

INFRASTRUCTURE, ENERGY & RED BUTTE GARDEN

Project Managers

- Scott Jefferson
- Steve Laraway
- Brett Petersen
- Jon Jefferson
- Astrid Paredes

Types of Projects

- Energy Efficiency
- Transportation
- Utilities
- Red Butte Garden
- Seismic
- Building Systems Renewal

Project Assistant

- Carley Bradbury

Financial Analyst

- Brenda Diaz



MAIN CAMPUS, RESEARCH PARK & COMMUNITY CLINIC TEAM

Presenter:
Liz Blackner - Director of Design & Construction

MAIN CAMPUS & RESEARCH PARK

Project Managers

- Desslie Andreasson
- (Retiring May 17)
- Andrea Cavrag
- Mark Grabl
- Andrew Heimer
- Rick Johansen
- Lori Kaczka
- Christin Robbins

Associate Project Managers

- Christian Johansen
- Sherri Somers

Financial Analyst

- Karen Janicki
- Nana Amoah
- Ewusi-Emmim

Types of Projects

- Academic
- Research
- Athletics
- Community Spaces
- Food Service
- Administration
- Clinics
- Housing
- Performance Arts
- Tenant Improvements
- Remodels
- Additions



HEALTH SCIENCES & TRANSFORMATION TEAM

Presenter:
Nils Eddy - Program Manager,
Health Science

HEALTH SCIENCES & TRANSFORMATION

Project Managers

- o Krin Kirijas
- o Harry Coral
- o Mike Wessman
- o Nirman Rajbhandari

Construction Project Manager

- o Eric Newby

Associate Project Managers

- o Sherri Somers
- o Barbara Famagelto

Financial Analysts




- o Nana Amoah Ewusi-Emmim
- o Jeff Kuehdahl



HOSPITALS & CLINICS TEAM

Presenter:
Trent Cutler, Director of Planning, Design & Construction,
Health Sciences

DESIGN PROJECT MANAGERS

 David Dearing	 Rebecca Wheeler	 Blake McBride	 Kristanna Pusphar
 CJ Kulp	 Christian Allen	 Jennifer Brownlee	 Ben Blacker

CONSTRUCTION PROJECT MANAGERS



Rod Randall



Joe Cronin



Lesly Norman



Scott Cummins



Mark Hunziker



Jay Sarten



Kathy Ginn



Jamie Hackworth

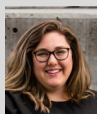
AESTHETICS TEAM



Malory Devries



Jenna Matheson



Elaine Stowell

HOSPITALS & CLINICS

Types of Projects

- Clinical
 - Inpatient
 - Outpatient
 - Support Spaces
- Research
- Tenant Improvements
- General Renovations
- Infrastructure

Geographically Spread

- Main Medical Campus
- Research Park
- Community Clinics
 - Salt Lake County
 - Davis County
 - Utah County



Q&A