

Owners are getting better Cost, Quality, Schedule, and Safety using Lean

James Pease, Executive Director
Health Design and Construction
University of California San Francisco

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Introduction

How did I get here and why do I stay?



What are we going to talk about?



- Learning from Sutter Health



- Introduction to UCSF



- Current State Review



- Implementation Plan



- Closing Thoughts

Learning From Sutter Health

Sutter Health Performance



- 24 projects completed in the past 11 years
- \$3.1 Billion Program
- Net 4% under budget

- Data from Sutter Health

Summary of Results

- Cost

- Goal is reliability not lowest cost: 23 out of 24 on budget, net 4% under budget across the program

- Schedule

- 23 out of 24 finished on schedule – one project finished 3 months late

- Safety

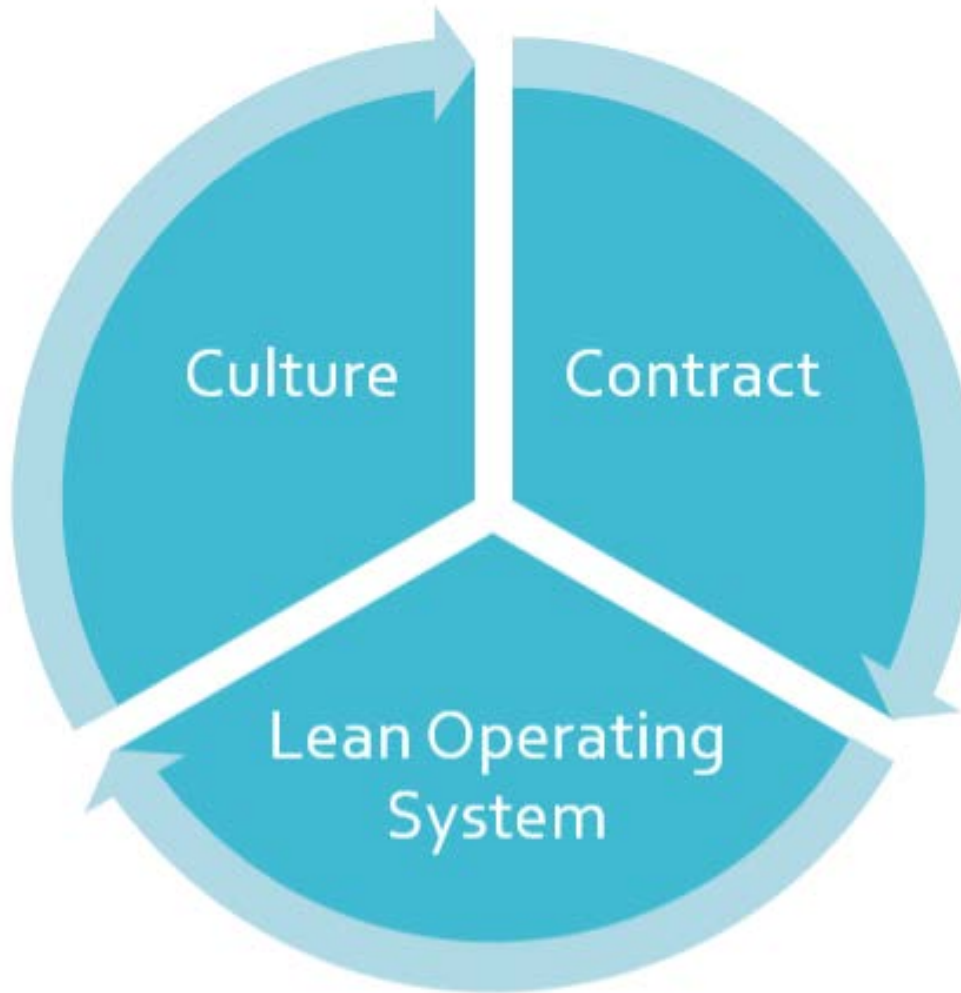
- San Francisco Projects, Sunnyvale CCIP Results

- Quality

- Significantly less rework at the end of projects, Shorter/ Faster punch lists, no reductions to scope

How did they do it?

With Lean IPD



Aligning Incentives with the Contract

Shared Risk and Reward

Single Goal: Meet the Owner's Conditions of Satisfaction

Cost of Work
Guaranteed

X% Share
of Savings

Fixed
Overhead
Guaranteed

**Architect &
Designers**



GC & Trades

100% of Profit
at Risk

Graphic by Digby Christian

And Changing Everything . . .

Recreating project delivery from scratch with Lean Processes

- Co-Location
- Target Value Design
- Last Planner ® System
- BIM for Risk Management
- Design for Fabrication
- Risk and Opportunity Tracking
- Cost to Complete Forecasting
- Takt Time / Location Based Scheduling
- Dashboarding / Visual Management
- Active Learning from Failures

All Built on a Collaborative Culture

Focused on Trust, Transparency and Mutual Respect



So what's next?

Hmmm...I'm from the Bay Area...

What do you do when you have a process that works well and is repeatable???

You go Public of course!

Going Public at UCSF

UCSF Parnassus Campus

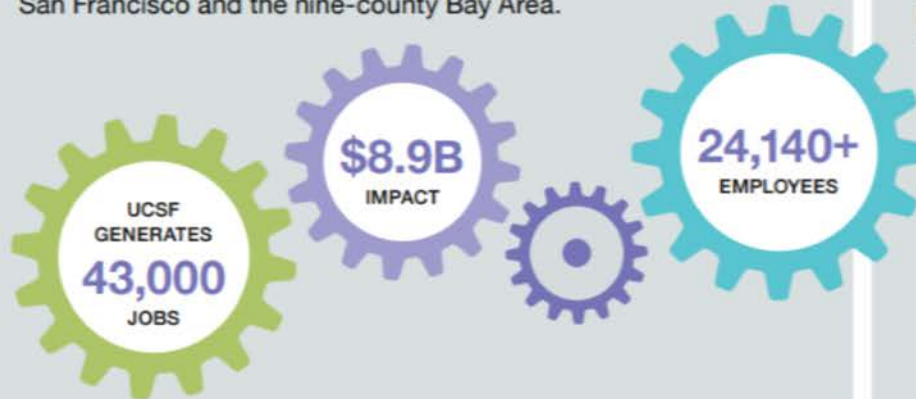




*The University of California, San Francisco (UCSF) is exclusively focused on the health sciences and is dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and **excellence in patient care.***

Economic Impact

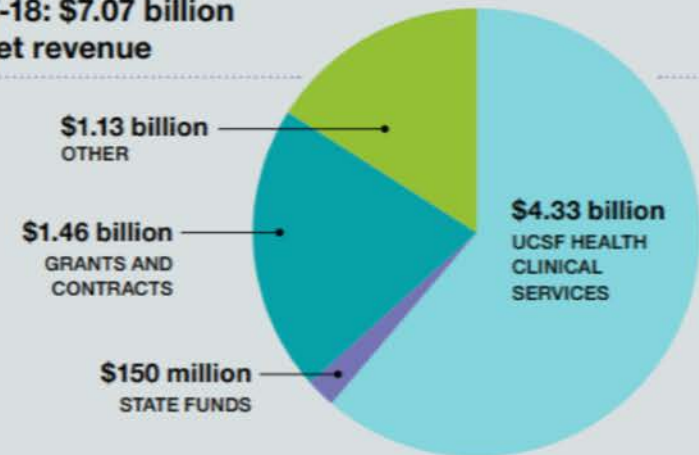
UCSF stands as one of the principal economic engines in San Francisco and the nine-county Bay Area.



Data from 2016 Economic Impact Report

UCSF Budget

**FY 17-18: \$7.07 billion
budget revenue**



Education

U.S. News & World Report consistently ranks UCSF's four graduate schools — **Dentistry, Medicine, Nursing and Pharmacy** — as well as its graduate programs in basic science, social science and global health — among the top in the world.

3,300
STUDENTS

1,600
RESIDENTS

1,100
POSTDOCTORAL
SCHOLARS

Training takes place at UCSF Health's hospitals and clinics, as well as at its partner hospitals — Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center, the San Francisco Veterans Affairs Medical Center, Community Regional Medical Center in Fresno — and numerous clinics throughout Northern California.

Research

UCSF is recognized as one of the world's greatest research universities, with a collaborative culture focused on understanding, preventing and treating disease.

UCSF is the top public recipient of the highly competitive funding from the National Institutes of Health (NIH).

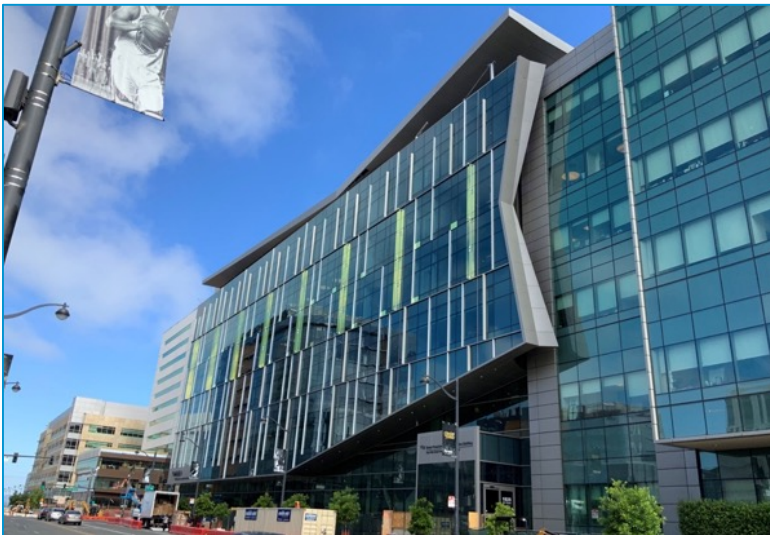
In 2018:

■ UCSF School of Medicine	\$578 million
■ UCSF School of Pharmacy	\$28.9 million
■ UCSF School of Dentistry	\$24.4 million
■ UCSF School of Nursing	\$9.1 million

1,800+
ACTIVE
INVENTIONS

185+
START-UPS

Sample of Current Projects



Recent Smaller Projects



New Long OR Fan being lifted to roof of ED

ACC 7 Demolition



New Patient Holding Area – Radiology 3rd Floor



MZ Endoscopy Waiting Room Refresh



M12 East Sterile Compounding Pharmacy

Current State Assessment

What is happening today?

Great People

Projects tend to finish later than expected and cost more than expected

Root Causes:

- No Validation Phase

- Single Phase Funding Approach

- Lots of Scope Change After Funding

- Discovered Conditions and Change Orders

 - Trades involved late, Not Design/Assist or Design/Build

 - Little preconstruction effort

Inconsistent Reporting on Project Status

UCSF Mission Bay Campus

With a stand out success! – GMP with IPD Lite approach



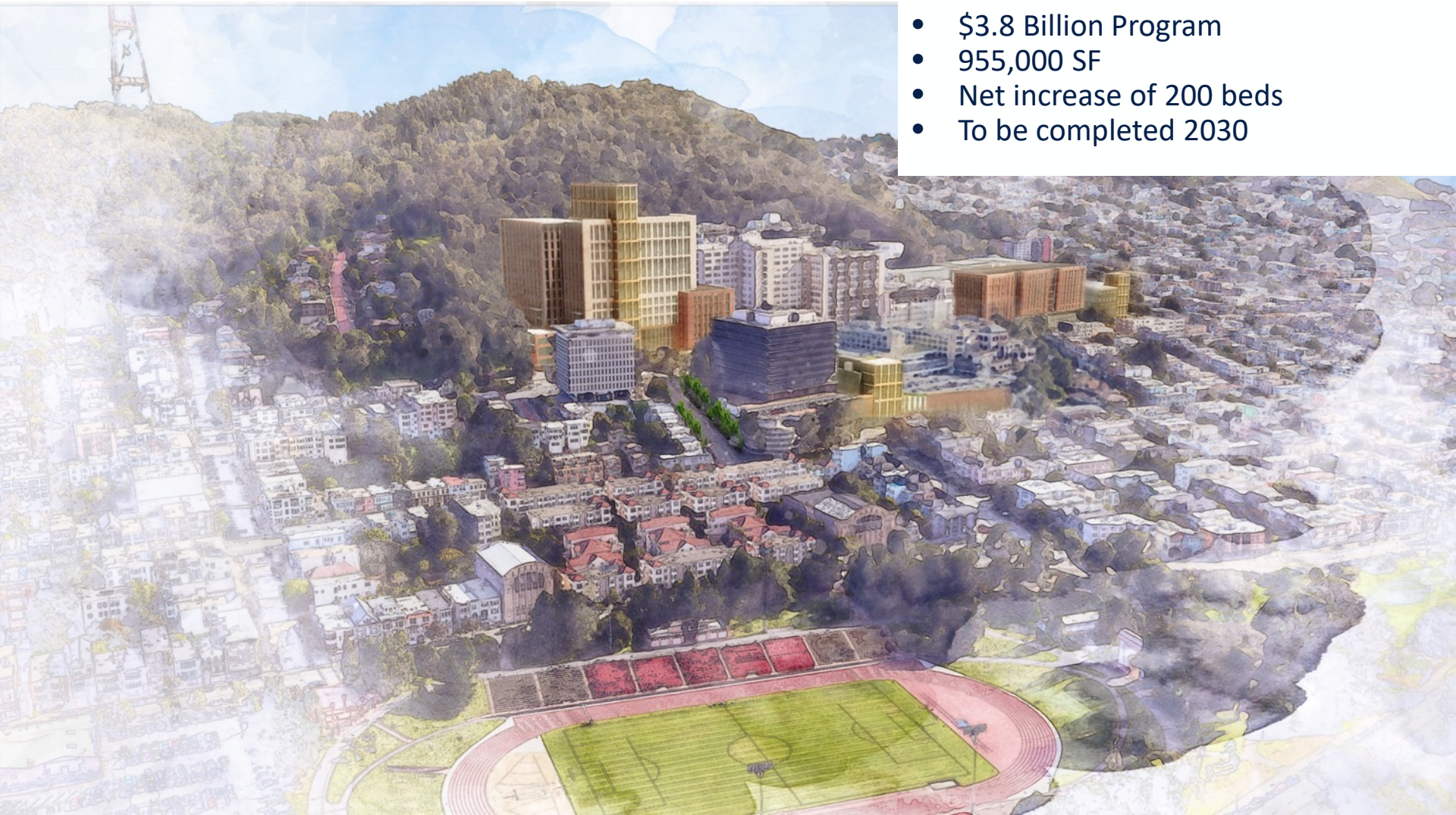
Are We Done Building?

Comprehensive Parnassus Heights Plan



Helen Diller Medical Center

- \$3.8 Billion Program
- 955,000 SF
- Net increase of 200 beds
- To be completed 2030



Oakland Master Plan Phase 2

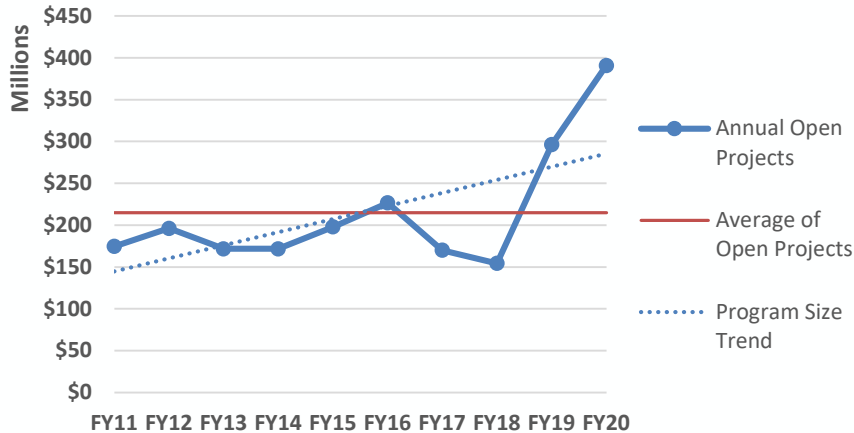


\$1 Billion Estimated Program

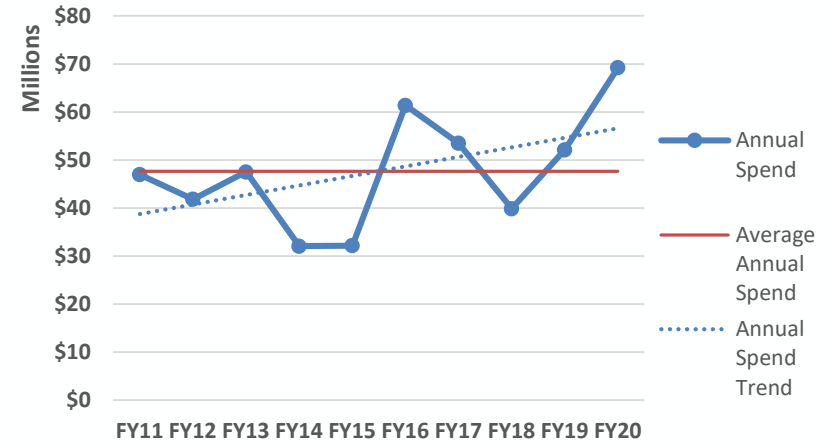
Occupancy 2027 - 2029

Small Project Workload is Growing

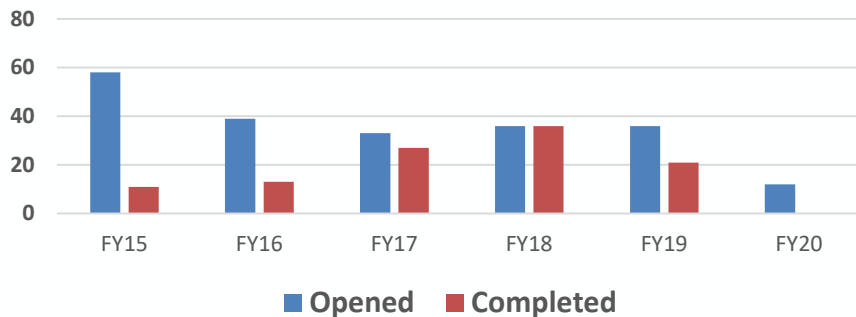
Annual Volume of Capital Projects



Annual Capital Spend (invoices paid)



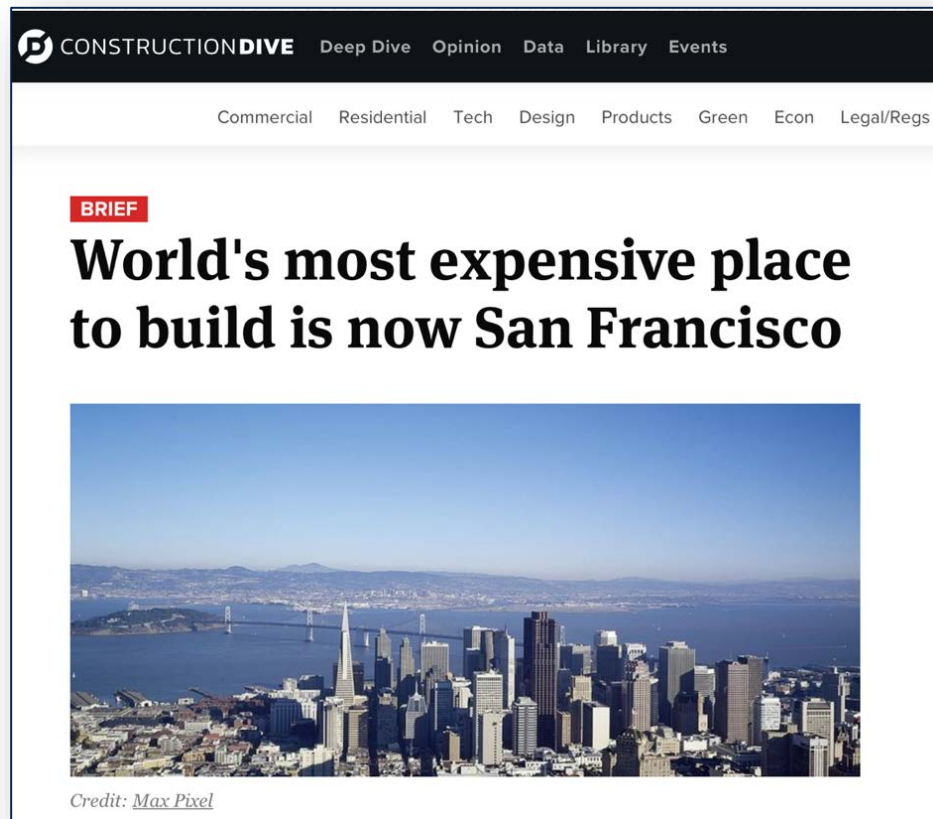
Opened and Completed Projects by Year



D&C is currently managing 136 projects including new programs, renovations, infrastructure & leaseholds.

Key Challenges

- Construction Cost Escalation
- Skilled Labor Shortages
- Aging Facilities and Infrastructure
- OSHPD and CDPH Coordination
- Hiring & Retention
- **We created our own SB1953**



How do We Contribute to the Mission?

As UCSF Real Estate aka Our Why

Why do we exist?

To create exceptional places for healing, discovery and learning

How do we behave?

Professionalism, Respect, Integrity, Diversity, Excellence

What do we do?

We plan, design and deliver spaces, places and buildings

How will we succeed?

Quality Work, Excellent Customer Service, Great People

What steps are we taking?

Aligning Business Deal for Success

Aligning the Business Deal

To the extent possible within constraints

Currently:

Bidding General Conditions for LPPI

Allow for design-assist and/or design-build trades

Lean IPD for major projects for Parnassus and Oakland

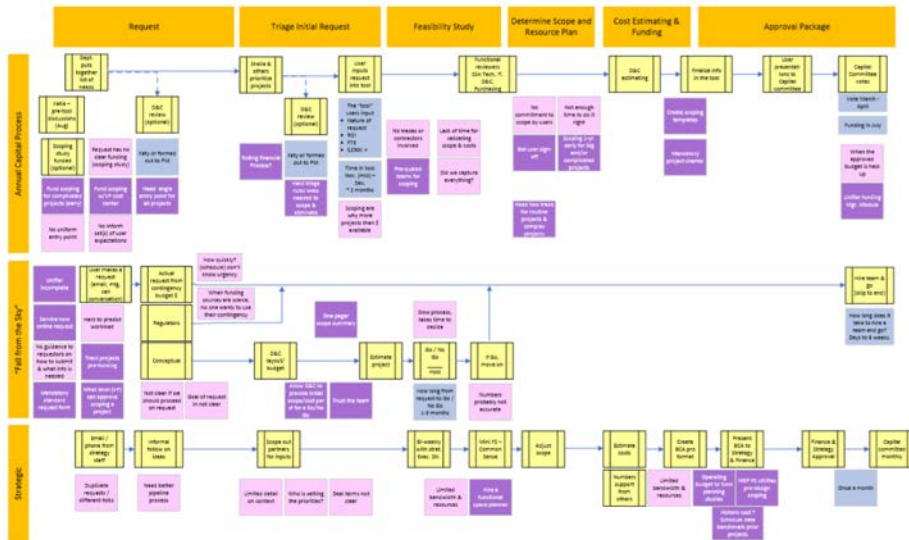
CM Multiple Prime to drive Transparency on MU15

Going Forward:

Best Value Selection and Progressive Design Build for Small Projects

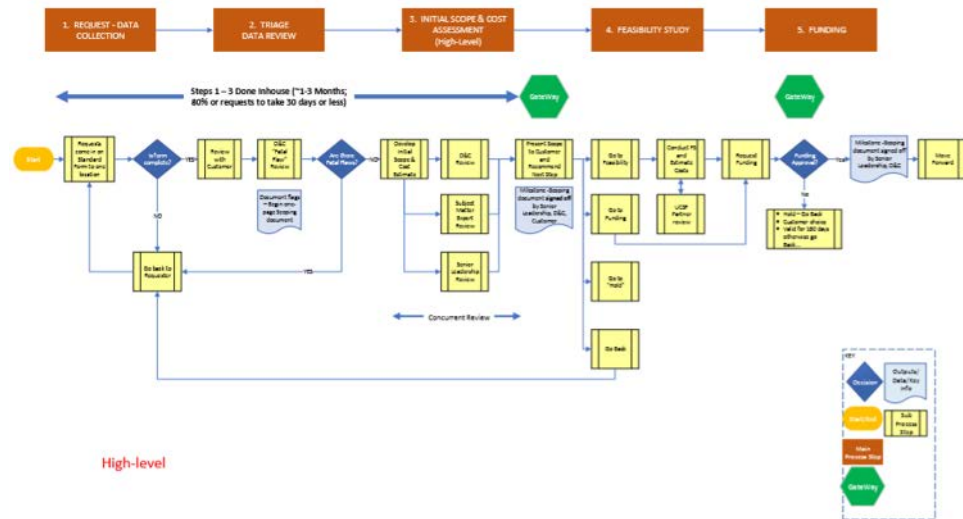
Lean Processes

Process Mapping for Improvement



Redesigning our work

Remapping and standardizing the project initiation and scoping phase



Introducing Lean Concepts Slowly

Not all in one giant leap

Co-Location

Target Value Design

Last Planner ® System

BIM for Risk Management

Design for Fabrication

Risk and Opportunity Tracking

Cost to Complete Forecasting

Takt Time / Location Based Scheduling

Dashboarding / Visual Management

Active Learning from Failures

Creating a Collaborative Culture

Building a Team

Start with Trust and Build towards Results



Creating a Collaborative Culture

Internally and with Our Partners

Start with Why – Simon Sinek

Open Door Policy – Don't Take the Window Office

Celebrate Together

Recognize your Team Members

Be Inclusive and Transparent

How We Will Succeed?

Great People

Building a Team of Great People

- LISTEN!!!
- Training & Professional Development
 1. Competency
 2. Capability
 3. Capacity
- Create Opportunities for Growth

Excellent Customer Service

Where do we start?

- Make it Easy to Work with Us
- Align Org Chart Around Customer Needs
 - Update Roles and Responsibilities
- Align Expectations through a Validation Process
 - Introduce a 2 Step Funding Process
- Increase Project Reporting
 - Including Ability to Forecast Costs Accurately

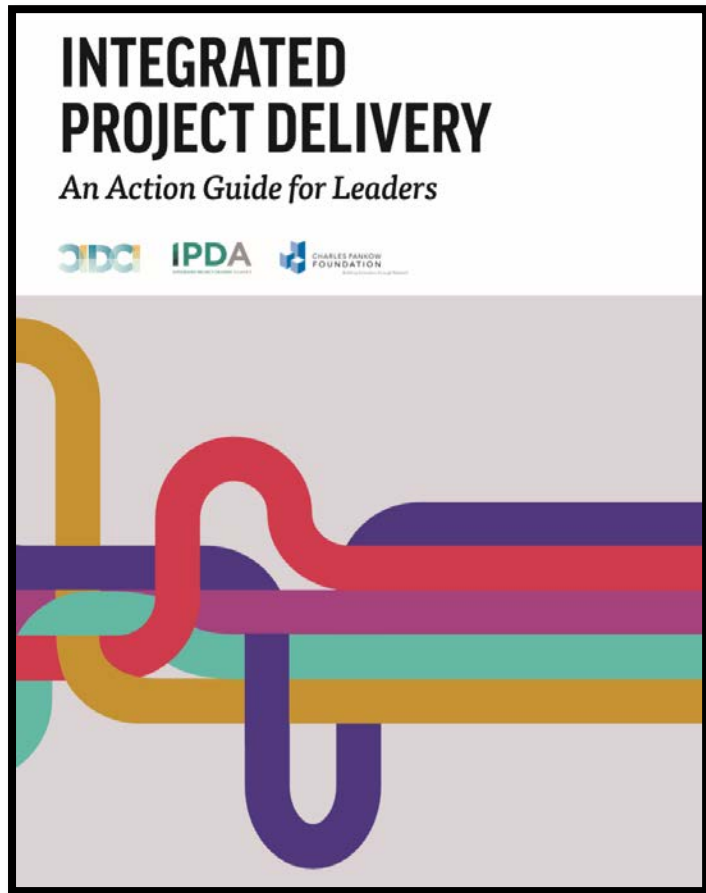
Quality & Safety will be the
Outcome!

Closing Thoughts

- 1) Align Incentives
- 2) Implement Lean Processes
- 3) Focus on the People

Integrated Project Delivery

An Action Guide for Leaders



FREE Download

LeanIPD.com/IPDGuide

■ Research • November 14, 2019

In Down Syndrome Mouse Model, Scientists Reverse Intellectual Deficits with Drugs

By [Jason Alvarez](#)

In a surprising finding using the standard animal model of Down syndrome (DS), scientists were able to correct the learning and memory deficits associated with the condition – the leading genetic cause of cognitive disability and the most frequently diagnosed chromosomal disorder in the U.S. – with drugs that target the body's response to cellular stresses.

published Nov. 14, 2019, in the journal **Science**

Thank you!

Contact Info:

James Pease

James.pease@ucsf.edu

Case Studies and More Information:

LeanIPD.com

