



Santa Ana College

Facilities Meeting

May 17, 2016





SAC Facilities Committee

May 17, 2016

1:30p.m. – 3:00p.m.

SAC Foundation Board Room, S-215

***THE FACILITIES COMMITTEE** is the participatory governance committee responsible for identifying and prioritizing capital projects including scheduled maintenance projects. It serves as an information and exchange body on facilities projects that are in construction or that are being planned.*

Santa Ana College Participatory Governance Structure Handbook (May 27, 2015)

Agenda

1. Welcome and Introductions
2. Public Comments
3. Approval of Minutes – April 19, 2016 ACTION
4. Project Updates- Carri Matsumoto/ Darryl Taylor/ Matt Schoeneman INFORMATION
 - Bond Projects Update
 - SAC Active Project Update
 - Scheduled Maintenance Projects
5. Standing Reports (5mins.) INFORMATION
 - HEPSS Task Force - Don Mahany
 - Facilities Report – Mark Wheeler
 - Environmental Task Force – Susan Sherod
6. Old Business
7. New Business
 - Tree Replacement – Carri Matsumoto
 - Parking Improvements – Mark Wheeler
 - o What is still needed?
 - Lot 1 – Electric Car stations – Mark Wheeler
 - Bicycle parking – Darliene Zepeda-Field
8. Other

Next Meeting - Tuesday, September 20, 2016

The mission of Santa Ana College is to be a leader and partner in meeting the intellectual, cultural, technological, workforce and economic development needs of our diverse community. Santa Ana College prepares students for transfer, employment, careers and lifelong intellectual pursuit in a dynamic learning environment.



**SANTA ANA COLLEGE
FACILITIES COMMITTEE MEETING
MAY 17, 2016**





ACTIVE PROJECTS

Santa Ana College

- ▶ Chavez Hall Renovation
- ▶ Temporary Village Phase 2
- ▶ Bristol Street Sidewalk Improvement

Santa Ana College

- ▶ Perimeter Site Improvements
- ▶ Building G Renovation
- ▶ Artesia Street Improvements
- ▶ Property Acquisition of 17th/Bristol St. Lot
- ▶ Central Plant (Design)
- ▶ Dunlap Hall Renovation (Design)
- ▶ Temporary Village
- ▶ Parking Lot 11 & Site Improvements
- ▶ Tessmann Planetarium & Restroom Addition
- ▶ Dunlap Hall Renovation



PROJECT UPDATE SANTA ANA COLLEGE CHAVEZ HALL RENOVATION

Project Summary:

- ▶ Repairs to the roof, exterior walls, windows, parapet and restoration of interior and exterior finishes.
- ▶ Multiple remediation efforts to be undertaken.

Current Status:

- ▶ Geotechnical investigation completed.
- ▶ District review of pilot study completed.
- ▶ Test pilot of concrete slab sealant under investigation.
- ▶ Currently developing scope of work to remediate building.
- ▶ Developing scope with sequencing of work.
- ▶ Developing budget for project.

Budget:

- ▶ \$400,000 (under review).





PROJECT UPDATE SANTA ANA COLLEGE TEMPORARY VILLAGE PHASE 2

Project Summary:

- Relocation of current Johnson occupants and programs into the Temporary Village which includes an interior reconfiguration within the portables.

Current Status:

- Current activities: minor post occupancy adjustments.
- Upcoming activities: re-locate the Spot space to the existing Johnson Student Center.
- Target occupancy:
 - Phase 1 – Completed
 - Phase 2 – Campus store completed May 6, 2016

Budget:

- \$3 million

Programs to Be Relocated Include:

- Campus Store / Grab-n-Go
- DSPS
- EOPS/CARE & CalWORKS
- Student Financial Services
- Financial Aid
- Student Placement
- Health & Wellness Center
- DSPS
- Office of Student Life
- ASG
- The Spot





PROJECT UPDATE SANTA ANA COLLEGE BRISTOL STREET SIDEWALK IMPROVEMENT

Project Summary:

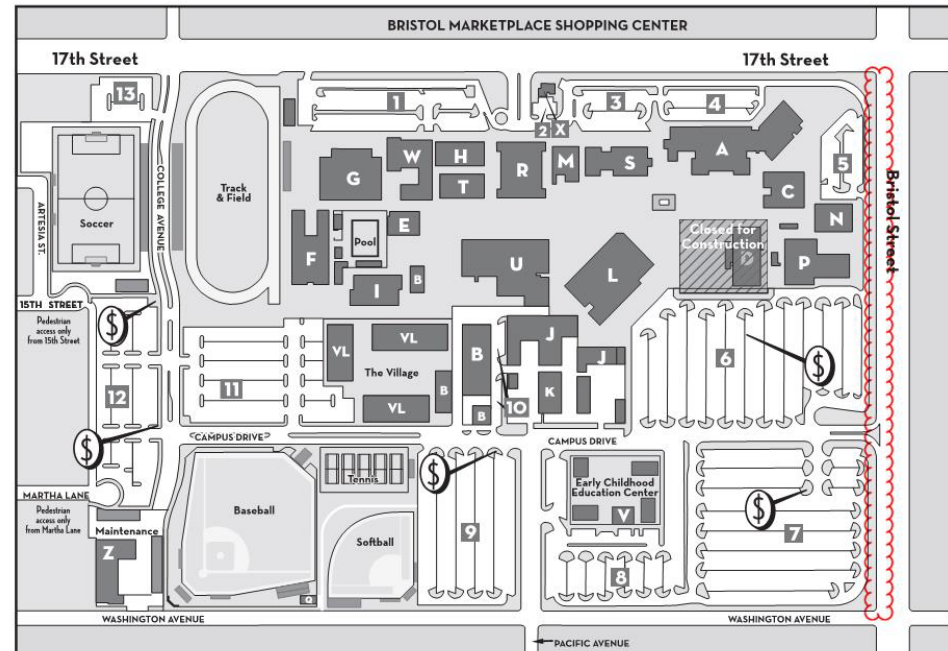
- ▶ New project to complete work that was originally part of previous Site Perimeter Improvement project.
- ▶ Removal and replacement of sidewalk on Bristol Street between 17th & Washington Streets.

Current Status:

- ▶ Final drawings being prepared by Engineering Consultant.
- ▶ District met with the City on April 14, 2016.
- ▶ City to undertake work in the Bristol Street Corridor Widening Project. Construction anticipated Summer 2017.
- ▶ Project to be removed from future report updates.

Budget:

- ▶ Under review – project budget to be reallocated.





PROJECTS

- ▶ Dunlap Hall Renovation - Completed
- ▶ Central Plant & Infrastructure
- ▶ Johnson Student Center
- ▶ Johnson Demolition
- ▶ Science Center & Building J Demolition
- ▶ 17th & Bristol Street Parking Lot



CAMPUS PARKING STUDY

- ▶ In Fall 2014 and Spring 2015 semesters the District hired a traffic consultant, LSA Consultants, to undertake a parking study prior to the start of the Central Plant and Utility Infrastructure Construction to better understand parking demand and adequacy.
- ▶ Parking demand generally refers to the amount of parking that would be used at a particular time, place and price.
- ▶ As an example, City's may govern to have a minimum specified number of parking based on land use type, business type, or occupancy.
- ▶ However, Educational institutions are not governed by City codes for parking. Therefore, a demand study is the best tool to determine need.
- ▶ Part of the analysis is to evaluate existing parking and vehicular counts taken at various times of the day (both peak times and other).
- ▶ An independent car count company took data counts Monday – Thursday, from 7:00 am – 9:00 pm during both the Fall and Spring Semesters to calculate the average parking demand for a worst case scenario.
- ▶ Through the study it was determined that the average peak parking demand for the college occurs at 11:00 am with a utilization of 88% of parking stalls.



CAMPUS PARKING STUDY

▶ College's Determined Parking Demand:

- Based on headcounts/enrollments for Fall 2014 (19,815) and Spring 2015 (19,699), during these time periods, it was determined that the campus parking demand is the following:
- Demand ratio for the campus is: 1 space per approximately 7.6 students, or .13 space per student
- For example, if Fall student enrollment was 19,815, parking needed would be 2,576 spaces. Average parking demand at 11:00 am would slightly increase to 2,592 spaces.

▶ Current Situation:

- Available spaces prior to construction of Central Plant project – 2,950
- Current spaces available – 2,632

Central Plant and Utility Infrastructure Construction Parking Impact:

- ▶ MCHS reduced by 20 spaces
- ▶ CDC reduced by 30 spaces
- ▶ Bldg J reduced by 77 spaces
- ▶ Lot 9 reduced by 181 spaces

▶ Future Situation:

- Parking Lot 6 will be partly re-opened on May 25, 2016 with an additional 60 spaces.
- New parking lot on corner of Bristol Street & 17th Street will add approximately 180 spaces.



PROJECT UPDATE SANTA ANA COLLEGE CENTRAL PLANT AND INFRASTRUCTURE

Project Summary:

- ▶ Construction of a new central plant building and replacement of all underground utilities (domestic water, sewer, fire water, storm drain, gas, electric and data).
- ▶ Central Plant facts:
 - ▶ Reduces electrical loads during peak demand periods.
 - ▶ Has a chilled water loop, connecting 7 existing buildings to the HVAC equipment to provide cooling.
 - ▶ Includes a new Energy Management System (EMS) to be able to control building temperatures and monitor system remotely.
 - ▶ Building is designed to meet LEED Silver certification.

Budget:

- ▶ \$68.17 million





PROJECT UPDATE SANTA ANA COLLEGE CENTRAL PLANT AND INFRASTRUCTURE

Current Activities:

- ▶ Concrete pour footings at Central Plant
- ▶ Install chilled water lines West of Campus Road
- ▶ Install and test piping for storm drain, sewer, domestic water and fresh water
- ▶ Excavate, install and test fresh water piping (Phase 3C)
- ▶ Install and test chilled water piping at Middle College Road (Phase 2)



Upcoming Activities:

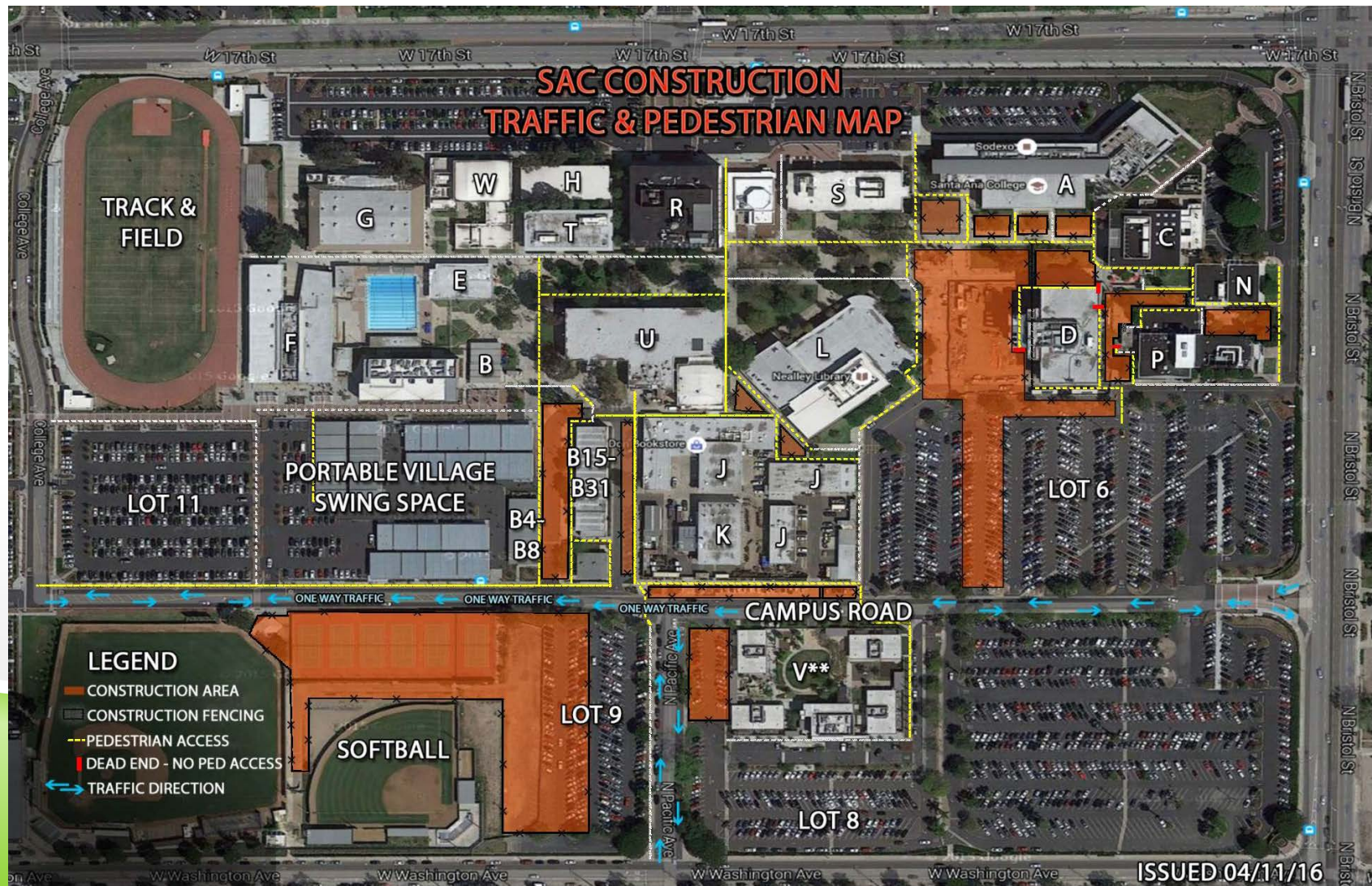
- ▶ Install base, pave, stripe and remove fencing at Parking Lot 6
- ▶ Install and test storm drain, sewer, domestic water and fresh water piping (Phase 3A.3)
- ▶ Install and test chilled water piping (South of Dunlap Hall and Campus Road)
- ▶ Install foundation rebar at Central Plant
- ▶ Install domestic and fresh water lines (Phase 3A)

Current Status:

- ▶ The project is approximately 2 months behind the original target schedule.
- ▶ There have been numerous unforeseen conditions encountered.
- ▶ A recent softball field irrigation valve failed to turn off overnight and flooded the new Central Plant footings and will need to be redone, as concrete pour work has been delayed.
- ▶ The impact to the schedule is still TBD.

Target Occupancy/Completion

- ▶ December 2017 (under review)
- ▶ Project Close-Out 2018 (under review)





PROJECT UPDATE SANTA ANA COLLEGE QUAD & AMPHITHEATER (PART OF CENTRAL PLANT)

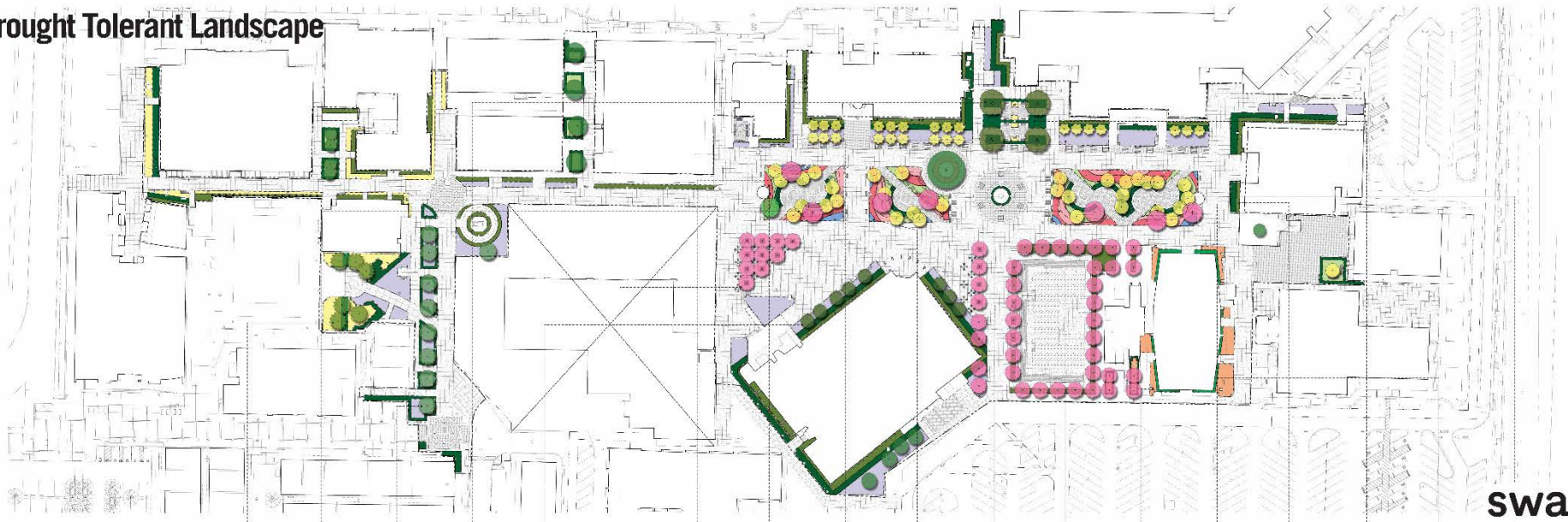
Project Summary:

- ▶ Replacement of existing sidewalks, planters, and landscaping in the central quad and amphitheater areas.
- ▶ Quad facts:
 - ▶ New sustainable low water usage landscaping.
 - ▶ Correcting ADA path of travel issues.
 - ▶ Tree replacement is two new per one existing (2:1).
 - ▶ New seating and lighting.
 - ▶ New permeable brick pavers to help with storm water retention.
 - ▶ New emergency blue phones.



Landscaping Plan (part of Central Plant)

Drought Tolerant Landscape



A 90% Reduction in water use

Our landscape design team has selected drought-tolerant plants that are well-suited to the local climate and soil conditions. These plants require minimal watering, reducing water consumption by up to 90% compared to traditional lawns and water-intensive plants. This sustainable approach not only conserves water but also reduces maintenance costs and environmental impact.

Drought tolerant does not mean ugly...

Our drought-tolerant landscape design team has selected plants that are not only water-efficient but also aesthetically pleasing. These plants offer a variety of colors, textures, and shapes, creating a beautiful and diverse landscape that enhances the overall appearance of the campus.





PROJECT UPDATE SANTA ANA COLLEGE MIDDLE COLLEGE HIGH SCHOOL RELOCATION

Middle College High School

Project Summary:

- ▶ Due to the construction impacts of the Central Plant project and future Johnson demolition and construction activities, the Middle College High School is being temporarily relocated into the Village for both summer school classes, including all classes by start of Fall 2016.

Current Status:

- ▶ Ongoing coordination with MCHS/SAUSD, Campus, and ITS regarding technology, internet and phone.



PROJECT UPDATE SANTA ANA COLLEGE JOHNSON DEMOLITION

Project Summary:

- ▶ Demolition of existing Johnson Student Center.

Current Status:

- ▶ Construction Document package is under review by District.
- ▶ Relocation into interim housing: completed (see Temporary Village Phase 2 Project).
- ▶ Decommission building: spring/summer 2016.
- ▶ Target out-to-bid: under review
- ▶ Target demolition start: under review.
 - ▶ Reviewing alternate schedule: Winter 2016.
- ▶ Due to the delays associated with Central Plant Infrastructure project, the demolition will be delayed as an alternate schedule is currently under review.



Budget:

- ▶ \$2.5 million (increased budget due to costs associated with underground footings/piles)



PROJECT UPDATE SANTA ANA COLLEGE JOHNSON STUDENT CENTER

Project Summary:

- Construction of a 59,638 square foot new Johnson Student Center.

Current Status:

- Schematic Design package has been submitted and is under District & Campus review.
- DSA approval anticipated to be mid-March 2018.
- Target new construction start July 2018.
- Target occupancy: Summer Session 2020 (End of July 2020).

Budget:

- \$40.7 million target

\$37.77 million funded by Measure Q

Note: Budget is currently deficient by \$2.9 million

Programs Include:

- | | |
|------------------------------|----------------------------|
| ➤ Campus Store | ➤ Financial Aid |
| ➤ Grab-n-Go / Coffee & Juice | ➤ Student Placement |
| ➤ DSPS | ➤ Health & Wellness Center |
| ➤ EOPS/CARE & CalWORKS | ➤ DSPS |
| ➤ Student Financial Services | ➤ Office of Student Life |
| ➤ SSSP / Upward Bound | ➤ ASG |
| ➤ Warehouse | ➤ The Spot |
| ➤ Reprographics | |
| ➤ Conference Center | |





PROJECT UPDATE SANTA ANA COLLEGE SCIENCE CENTER

Project Summary:

- Construction of a new 65,428 square foot science center housing modern laboratories, classrooms, lecture classrooms, and faculty offices.
- Demolition of (3) J Buildings.

Current Status:

- Design Development package has been submitted and is under District & Campus review.
- DSA approval target – October 2017.
- Target construction start – January 2018.
- Target occupancy - Summer Session 2020.

Budget:

- \$73.38 million

Programs Include:

- | | |
|---------------------------------------|--------------------------------------|
| ➤ Division Office | ➤ (6) Biology Labs & Support Space |
| ➤ Faculty Offices | ➤ (2) Geology Labs & Support Space |
| ➤ (2) Standard Classrooms | ➤ (5) Chemistry Labs & Support Space |
| ➤ (1) Large Classroom | ➤ (1) Physics Labs & Support Space |
| ➤ (1) Large Divisible Classroom | ➤ Student Collaboration Areas |
| ➤ (1) Computer Lab | |
| ➤ (1) Engineering Lab & Support Space | |





PROJECT UPDATE SANTA ANA COLLEGE PARKING LOT AT 17TH/BRISTOL ST.

Project Summary:

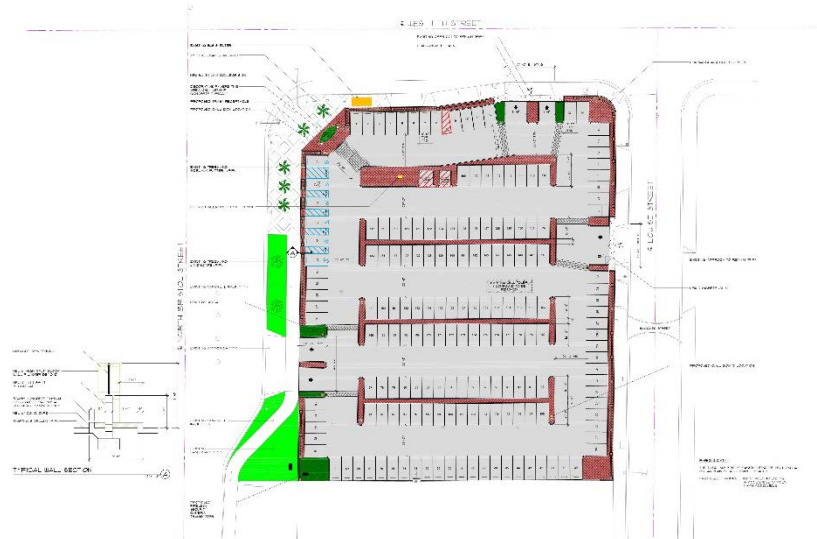
- ▶ New surface parking lot.

Current Status:

- ▶ In construction document design phase.
- ▶ Parking lot to be utilized for contractor worker parking for Central Plant on an interim basis.
- ▶ Plans submitted to City of Santa Ana Department of Public Works on March 8, 2016.
- ▶ Plans submitted to DSA on March 22, 2016.
- ▶ Target construction August 2016.

Budget:

- ▶ \$2.5 million
- ▶ Acquisition of property was paid by Measure E funds.





2015-2016 SCHEDULED MAINTENANCE NEW PROJECTS

Santa Ana College – In Planning

State Allocation 2016 \$1,837,665

- ▶ Roof Replacement (W)
- ▶ Roof Replacement (G & S)
- ▶ Roof Replacement (E, K & T)
- ▶ Water Conservation
- ▶ Door Replacement (C, H, L, R, S and OCSRTA)
- ▶ Flooring Repair (Gym)
- ▶ Painting (C, P, S)
- ▶ Waste Oil Tank Removal & Replacement (K)



2015-2016 SCHEDULED MAINTENANCE PROJECTS SANTA ANA COLLEGE

PROJECT	STATUS	ESTIMATED BUDGET
Roof Replacement (W)	Contractor was approved by Board of Trustees April 25, 2016. Pre-construction meeting held May 11, 2016. Construction to commence June 2016.	\$317,790 * Budget under review
Roof Replacement (G, S)	Bids were rejected April 25, 2016. Re-bid pending, under review. Budget under review.	\$568,200 * Budget under review
Roof Replacement (E, K, T)	Schedule under review. Budget under review.	\$490,900 * Budget under review
Water Conservation	Review and development of scope of work underway.	\$80,000
Door Replacement (C, H, L, R, S, OCSRTA)	In planning. Survey assessment for replacement has been completed. RFP to be released for architectural services.	\$100,530
Flooring Repair & Dance Room floor Repair (G)	Scope for remediation and monitoring has been developed.	\$100,005
Painting (C, P, S)	Schedule under review. Budget under review. Central Plant coordination of construction activities.	\$117,700 * Budget under review
Waste Oil Tank Replacement	In planning. Bid documents to be developed for release November 2016.	\$62,540
TOTAL		\$1,837,665



OTHER CURRENT PROJECTS SANTA ANA COLLEGE

Door Hardware Upgrade

Project Summary:

- ▶ To retrofit door hardware across the campus.
- ▶ This work has been phased over several years.

Current Status:

- ▶ Consultant commenced in August 2014, and has completed original scope of work.
- ▶ Future door hardware scope of work will be undertaken by the Campus.
- ▶ This project will be removed from future updates.

Budget:

- ▶ \$85,857

Orange County Sheriff's Regional Training Academy

Project Summary:

- ▶ New block wall to screen training area from the public right-of-way.
- ▶ Temporary screening as an interim measure.

Current Status:

- ▶ DSA approval was received in May 2016.
- ▶ Pending bid in June 2016.
- ▶ Anticipated construction August 2016.

Budget:

- ▶ \$420,000



PROP 39 PROJECTS SANTA ANA COLLEGE

YEAR 3 - Project Summary:

- ▶ Additional Year Three project.
- ▶ LED Lighting conversion at Building I and Z at Santa Ana College.

Current Status:

- ▶ Installation of LED lights at parking lots 12 and 13 has been completed.
- ▶ Installation of LED Lighting at Building I has been completed, except for 6 cove lights in the restrooms.
- ▶ Installation of LED Lighting at Building Z in all offices has been completed. Installation in the warehouse/maintenance area is ongoing.

Budget:

- ▶ \$ 100,000

YEAR 4 - Project Summary:

- ▶ Energy Management Systems (EMS) upgrade at Santa Ana College (15 buildings), Digital Media Center and Orange County Sheriff's Regional Training Academy.

Current Status:

- ▶ Feasibility studies, potential scope of work, and Energy studies for Santa Ana College and Digital Media Center, Orange County Sheriff's Regional Training Academy was completed mid-April 2016.
- ▶ Expenditure applications submitted at the end of April 2016.
- ▶ Pending approval received by the State and the funding allocation is determined, an RFP will be released as early as August 2016.

Budget:

- ▶ Pending



QUESTIONS

Central Utility Plant and Infrastructure Project

RSCCD Project Manager: Dave Gonzales

Architect: Westberg + White Architects

Construction Manager: Linik Corp.

Contractor: McCarthy Building Companies

Contract Start: 10/12/15

Contract Completion: 04/13/18

Scope: Construction of a new central plant building, a new electrical building, utility replacement, and mechanical upgrades to 7 buildings connecting them to the new central plant building. Site improvements include an underground chilled water piping loop, new gas, electrical, domestic water lines, sewer, drainage and fire water systems. New landscaping and hardscape will be replaced following the infrastructure improvements.

Recent Construction Activities:

- Excavate trench for fresh water (Phase 3C)
- Excavate trench for storm drain (Phase 3B)
- Excavate, install and test sewer piping (Phase 3B)
- Install chilled water and gas pipe along Campus Drive (Phase 2)
- Install, test and backfill gas piping (Phase 1)
- Concrete pour footings at Central Plant

Current Activities:

- Install base at Parking Lot 6
- Install chilled water lines West of Campus Road
- Install and test piping for storm drain, sewer, domestic water and fresh water (Phase 3A)
- Excavate, install and test fresh water piping (Phase 3C)
- Install and test chilled water piping at Middle College Road (Phase 2)
- Install foundation rebar at Central Plant
- Install vaults and place conduit at Electrical Building

Upcoming Activities:

- Install base, pave, stripe and remove fencing at Parking Lot 6
- Saw-cut and remove concrete for pothole and investigative work to verify the existing underground utilities (Phase 5 & 6)
- Install and test storm drain, sewer, domestic water and fresh water piping (Phase 3A.3)
- Install and test chilled water and gas piping at Middle College Road
- Install domestic and fresh water lines (Phase 3A)
- Excavate chilled water trench (Phase 3A)



Installation of chilled water pipe at Parking Lot 6



Installation of vaults and conduit at Electrical Building

Facilities Committee

Health, Emergency Preparedness, Safety and Security

May 17, 2016

The mission of Santa Ana College is to be a leader and partner in meeting the intellectual, cultural, technological, workforce and economic development needs of our diverse community. Santa Ana College prepares students for transfer, employment, careers and lifelong intellectual pursuit in a dynamic learning environment.

MEMBERSHIP

Rebecca Barnard x	Renee Miller	Michael Collins x	Gary Dominguez
Michael Colver x	Andy Gonis	Nilo Lipiz	Donald Mahany, Chair x
Don Maus x	Alistair Winter x	Mark Wheeler x	Norma Castillo x

Amy Treat, x
DSPS Specialist
Morrison, Gloria x
Hazzard Mitigation

*Bold font with an x indicates members in attendance
Meeting called to order – 1:00p.m.*

OLD BUSINESS	DISCUSSION/COMMENTS	ACTIONS/OUTCOME/FOLLOW UPS
Office Security	Office safety to walk-ins (tell Mr Bates I will be late")	Mahany / Colver
Additional Floor Warden	A - Building (Chavez); Two Floor Wardens (Norma Castillo, Hillary Barker) and One Building Captain (Kris Ross) for the Chavez building (A-Building), due to its unique wing shape	Castillo
NEW BUSINESS		
1. Office Security	Office safety to walk-ins ("Tell Mr Bates I will be Late") Where are we with the office visits (two officers to visit each office)? - President's Counsel accepted the phrase, "Tell Mr Bates I am going to be late" as a way to call for security. - Security Dispatchers have been trained to recognize when a caller is under duress and trying to talk in code that they need to send help - Security Officers will be going to each office next week to explain the function of how and when to call for help. - Officers will also be talking about the new bomb questionnaire that will be in all offices soon.	Colver/ Winter

	Big discussion about officers going to the offices. Toni Withey and Sue Gibson from SCEA and some questions for Lt. Colver and the committee.	
Safe Trek is going to be replaced by <u>Life Safe Mobile app</u>	A new mobile phone app was presented by Alistair to the committee. This cell phone app makes an emergency phone call to campus security and local PD when activated. It is available to students and all members of RSCCD and their friends.	Alistair
2. Cross Walk between R building and Security	I was asked by Debbi Martin to bring up dialog concerning people stepping off the sidewalk into the crosswalk between the R-building and the Security Office. • A Light Deflector is going to be installed in R-119 that should better illuminate the crosswalk.	Mahany
3. Skate boards on Campus	Are skateboards going too fast across campus; Group discussion took place and further discussion is needed about <u>not</u> allowing skateboards to be ridden on campus due to the restricted walking area in construction zones. This lead to a discussion about walking bicycles on campus. Mike Colver is going to check other college campus to see how they address riding skateboards and bicycles on campus.	Miller/ Treat
4. LiveSafe mobile app • Panic buttons	Replacement for Safe Track; LiveSafe is a mobile app that will replace Safe-Track. Life-Track has not lived up to their promises and will be replaced. The LiveSafe App is multifunctional and works with smart phones.	Winter
5. Additional Floor Warden	A - Building (Chavez); Two Floor Wardens (Norma Castillo, Hillary Barker) and One Building Captain (Kris Ross) for the Chavez building (A-Building), due to its unique wing shape	Castillo
STANDING REPORTS	DISCUSSION/COMMENTS	ACTIONS/OUTCOME/FOLLOW UPS
SAC – Mike Colver	Campus Safety report; • Speed bumps were added next to the stop sign between the security building and parking lot three and two other speed bumps were added to lot 1, in an effort to slow traffic.	Colver
Risk Management – Don Maus	District incident report	Maus

	• 3 injuries reported in the last two months	
Next Meeting	June 2, 2016 day before commencement and we will be dark for the summer.	Mahany

Site Based DC Power

Solutions
Available Now!



Why DC?

- With the CalGreen code mandating LEDs for lighting, every building will be lit by LED lights sooner or later. It is possible to capture savings with creation of low voltage wiring and wifi controls
- Vendors have been implementing DC Grid solutions in commercial buildings
- Many plug loads today could be using low voltage – many devices are made with transformers that step down current, resulting in big drops in power efficiency (for example, you can feel the energy lost as heat in the laptop boxy transformer, your cell phone charger, etc.). Energy guzzling IT data centers in commercial buildings can save with DC.
- Especially beneficial for solar (PV) power, DC circuits mean barely ever needing the inverter.
- The time has come to run DC circuits!

DC LEDs Powered by Safe, Low Voltage Grid

- Major Vendors such as OSRAM Sylvania and Armstrong, have opted to roll out solutions as early as 2012

<http://www.emergealliance.org/default.aspx?Contenttype=ArticleDet&tabID=191&moduleId=&Aid=95&PR=PR>

- Armstrong® Ceilings Partners with Ideal® Electrical; CoMarkets New Wireless Lighting Management System see:

<http://www.armstrong.com/common/c2002/content/files/88650.pdf>

DC Grid Visual Example

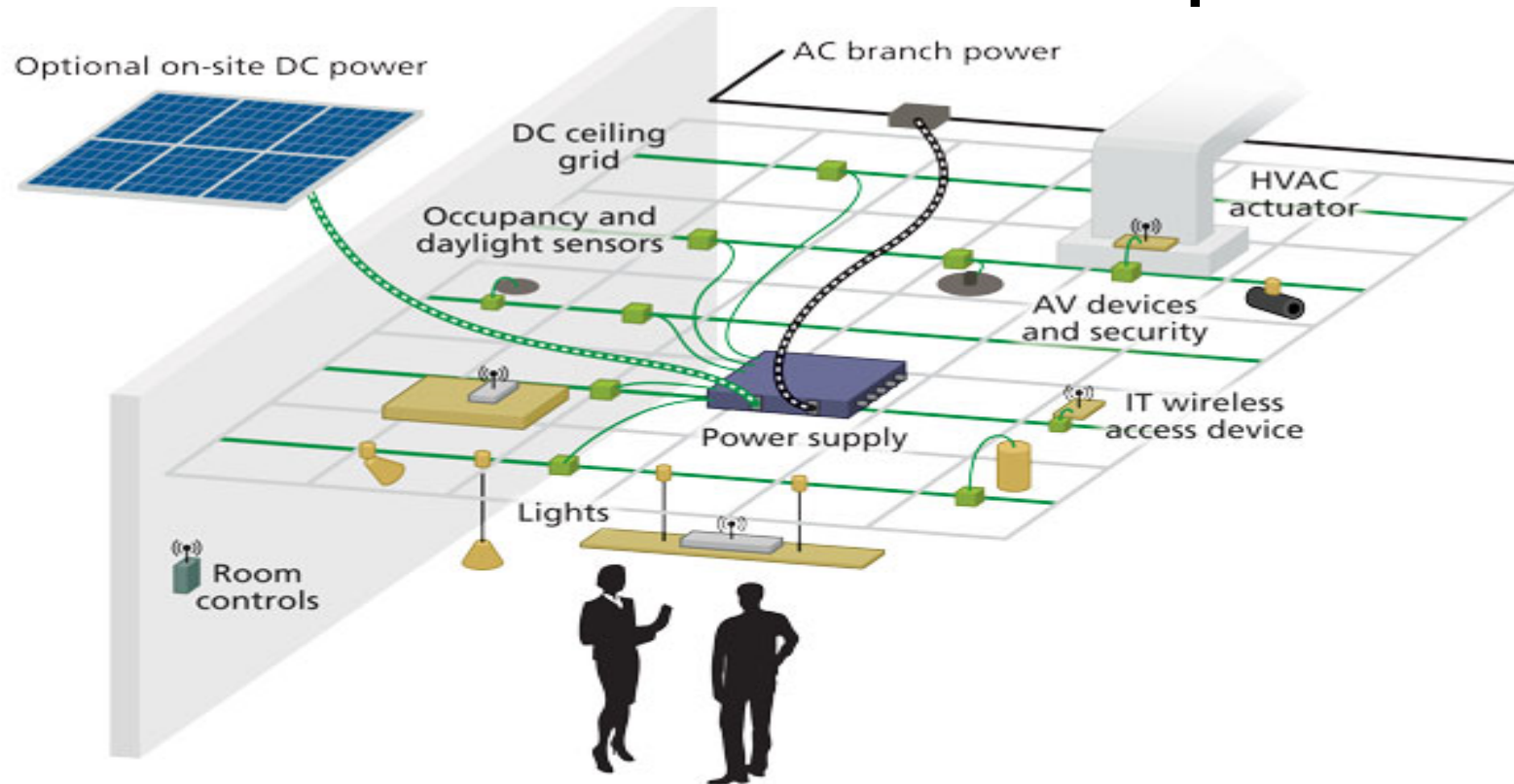


FIG. 2. The EMerge Alliance has developed standards for DC power technology for both lighting systems and IT data centers.

From <http://www.ledsmagazine.com/articles/iif/print/volume-3/issue-1/features/dc-grids/lighting-systems-leverage-dc-distribution-for-maximum-efficiency.html>, accessed 5-11-16. Article By Maury Wright, Editor, LEDs Magazine and Illumination in Focus

Keep up to date with LED Technology

- LED magazine is free to subscribe to at:
<http://www.ledsmagazine.com/articles/2013/04/emerge-alliance-reaches-100-members-introduces-compliant-ssl-products-at-lightfair.html>
- Treehugger is also following this exciting new trend: see
<http://www.treehugger.com/energy-efficiency/dc-power-slow-electricity.html>