RCCD | RIVERSIDE COMMUNITY COLLEGE DISTRICT

FACILITIES PLANNING AND DEVELOPMENT

MORENO VALLEY COLLEGE | NORCO COLLEGE | RIVERSIDE CITY COLLEGE

Facilities Planning and Development Council

March 25, 2021 – CAADO
Zoom Conference Call
10:00a.m. – 11:30a.m.

AGENDA

I. WELCOME AND CALL TO ORDER

II. APPROVAL OF MINUTES

III. FACILITIES PLANNING UPDATES

A. Facilities Master Plans
B. CCCC'O Facilities Planning
C. Policies and Procedures
D. Long-Term Capital Facilities Program
E. Sustainability and Climate Action
F. Student Housing Initiatives

IV. COVID-19 AND FACILITIES IMPACTS

A. Fall 2021 Return to Face-to-Face Instruction
B. Construction under COVID-19

V. PROJECT UPDATES

A. Master Projects List
B. Division of the State Architects
C. Capital Projects Status Report
D. Scheduled Maintenance Projects

VI. OTHERS

A. Key/Access Control Upgrade – Norco Campus Re-key Process

VII. NEW AGENDA ITEM(S); PRESENTATIONS

A. On-Bill Financing (CCC/IOU) & Energy Audit
B. CMO CTNA Carsharing Survey Tool (DRAFT)
C. Norco College Key Legacy (Re-Keying)

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FACILITIES PLANNING and DEVELOPMENT COUNCIL

February 25, 2021 Zoom Conference Call
10:00a.m. – 11:30a.m.

MEETING MINUTES

MEMBERS AND ATTENDEES:

Name	Title	Present YES/NO
Majd Askar	Moreno Valley College – Interim Vice President Business Services	YES
Ron Kirkpatrick	Moreno Valley College – Director of Facilities M&O	YES
Jennifer Floerke	Moreno Valley College – Faculty Representative, CTA/AS	YES
TBD	Moreno Valley College – Classified Representative, CSEA	NO
Michael Collins	Norco College – Vice President Business Services	YES
Steven Marshall	Norco College – Director of Facilities M&O	YES
Quinton Bemiller	Norco College – Faculty Representative, Academic Senate	YES
TBD	Norco College – Classified Representative, CSEA	NO
Chip West	Riverside City College – Vice President Business Services	NO
Robert Beebe	Riverside City College – Director of Facilities M&O	YES
Krystin Steranka	Riverside City College – Assistant Director of Facilities M&O	YES
Paul O'Connell	Riverside City College – Faculty Representative, CTA/AS	NO
Laneshla Judon	Riverside City College – Faculty Representative, CTA/AS (Rotating)	NO
Chi Ishihara	Riverside City College – Faculty Representative, CTA/AS (Rotating)	NO
Don Wilcoxson	Riverside City College – Faculty Representative, CTA/AS (Rotating)	NO
TBD	Riverside City College – Classified Representative, CSEA	NO
TBD	District – Director of Business Services	NO
Misty Griffin	District – Accounting Services Manager	YES
Susanne Ma	District – Director of IT, Infrastructure and Systems	YES
Ivan Hess	District – Student Trustee	NO
Hussain Agah	District – Associate Vice Chancellor, FPD	YES
Mehran Mohtasham	District – Director of Capital Planning	YES
Bart Doering	District – Facilities Development Director	YES
Myra Nava	District – Facilities Planning Specialist, Support Services	YES
Janna Accomando	District – Facilities Planning Specialist, Accounting	YES
Evelyn Ault	District – FPD (Recorder)	YES

Riverside Community College District Facilities Planning and Development (FPD) supports the educational mission of the District and its three Colleges- Moreno Valley, Norco and Riverside City through advanced planning and development of facilities, standards, infrastructure and resources that promotes a learning environment by providing safe, sustainable and high-quality campuses. The FPD administers the facilities improvements to ensure compliance with the District Strategic Plan and Colleges Facilities Master Plans, and manages the planning, development and implementation of the District Five (5) Year Capital Outlay plan and Long-term Capital Facilities program. The department is also responsible for formulating, promoting, guiding, and administration of district policies and procedures associated with planning, design, construction and development functions.

I. CALLED TO ORDER

A. By Hussain Agah

II. APPROVAL OF MINUTES

A. Motion to Approve January 28, 2021 Meeting Minutes by Mohtasham. Second by Beebe.

ACTION:

- *Approved*

III. FACILITIES PLANNING UPDATES

A. Facilities Master Plans Updates

1. **MVC:** The College's facilities master plan (FMP) was BOT approved in June 2019. No update.

    a) Dr. Steinback stated the college's facilities master plan was approved by the BOT. The comprehensive master plan (CMP) includes the educational master plan (EMP) as well as the FMP. It is the EMP component of the CMP that the college had some delays on. The college slowed their process on the EMP because the product being seen from the consultant did not reflect the college's guided pathways framework planning structure, nor the reorganization of the college. The VP of Student Services and Academic Affairs have taken this on personally. They have been working with committees. They will take the EMP, and therefore the entire CMP, back through the process in the spring.

2. **NC:** The College's facilities master plan (FMP) was BOT approved in June 2019. No update.

3. **RCC:** The College's facilities master plan (FMP) was BOT approved in December 2018. No update.

4. **District Unified FMPs:** The district-wide unified FMP's prioritized projects list "preliminary" was posted under the District website, including project descriptions and conceptual budgets. No update.

    a) Agah stated that the District Unified FMP's may need to be updated regularly and should reflect the Educational/Facilities Master Plan updates.
    b) Ma stated that she has been reviewing the Unified Facilities Master Plans and would like it noted that RCC's outdated cabling infrastructure is not on their plan. Ma would like it on record that it is noted and asks for it to be included.

B. CCCC'O Facilities Planning Update:

1. **Five-Year Capital Construction Plans (5YCCP) & Capital Outlay Program:**

    i. The District 5YCCP was board approved on June 16, 2020 and included the following submissions:
    ii. **RCC**:
        a) New FPP – Cosmetology Project (Growth).
        b) IPPs – 1. Visual Arts Complex (Phase I) (Growth); 2. Advanced Technology (Growth); 3. MLK Modernization.
    iii. **MVC**:
        a) Revised FPP for 2020 submission – Library Learning Resource Center (Growth).
        b) IPPs – 1. Biological & Physical Sciences (Growth); 2. Kinesiology, Athletics (Growth); 3. Ben Clark Training Center Education Center Building Phase II (Growth); 4. Fine & Performing Arts Complex (Growth).

iv. **NC**:
   a) New FPP – Library Learning Resource Center and Student Services (Growth).
   b) IPPs – 1. STEM Phase II (Growth); 2. Student Services Welcome Center (Growth); 3. Social & Behavioral Science Phase I (Growth).
   c) Pending FPP Approval – Center for Human Performance and Kinesiology was approved by the State Chancellor Office, included in the spending plan for 2021-2022 with 0% local contribution through the hardship application. It was approved by Board of Governors in September 2020, pending the Department of Finance. The FPP is in the total amount of $35,000,000, 100% funded by the state and will potentially be funded in FY 2021-2022.
   d) Agah provided additional updates on the 2021-2022 capital outlay spending plan, working with the Department of Finance (DOF) on the request for hardship to include the NC Center for Human Performance and Kinesiology project, Prop 51 funding.

v. **2021 Five-Year CCP:** There is no update from the state regarding the new FPPs submitted in 2020 yet. It is unlikely the RCC Cosmetology project, the NC Library Learning Resource Center project and the MVC Library Learning Resource Center project will be included in the 2022/2023 FPPs. They were submitted with no local contribution. No hardship provisions approved by the DOF will be applicable to RCCD.

   a) Mohtasham discussed the next steps to provide the plans to the state by July 1, 2021 for 2021/2022 that will incorporate the new scoring methodologies. Meetings were set up with each college to go over the options to get an understanding of the new matrix and how existing college IPPs and FPPs will play a role with the new matrix and if there will be any changes needed.
   b) At the RCC kick-off meeting on February 9, 2021 the IPP/FPPs were reviewed using the new scoring matrix. After meeting with all of the colleges, the information will be provided to the BOT.

ACTION:
- *Meet with NC and MVC to revisit Five-Year CCP and resubmit the three FPPs for 2021/2022 and complete by Mary 15 for June BOT resources committee meeting.*

vi. **State Capital Outlay Re-categorization and Prioritization (New Scoring Methodology):** All FPPs submitted in 2020's 5YCCP for consideration for the 2022/2023 spending plan will be scored using the new matrix. The DOF approved the scoring in late 2020. The State had included a Hardship provision last year, which tells if the District met its good faith effort for a local bond and the bond failed then the district is eligible for a 25 points' Hardship provision. Without the Hardship provision, the District will not receive the 25 points and there will be no opportunity to get any future projects funded. Not discussed.

ACTION:
- *The Chancellor has requested a presentation to the BOT in May. It will be brought to the colleges' attention as early as April. The colleges will be shown a side by side comparison between the old and new methodology and the impact to our district.*

vii. **Draft Legislative Bills:** Agah provided an update regarding AB-75 and SB-22 that places a new "potential" state school bond on the November 2022 ballot. Nobody knows how much that statewide bond would be, and it could bundle K-12 with CCD's, CSU's and the UC System. The state does not have additional funds for capital outlay projects.

viii. **Education Center for Ben Clark Training Center:** The District is pursing education center status for BCTC. Askar explained that center status means that the college will increase apportionment funding, be eligible for additional state capital outlay resources and reduce the need for lease operational spaces. The needs assessment was provided to the State in November 2019 and has been recommended for approval before BOG in March 22, 2021. The college has been working to gather data, including potential enrollment and programs at other community colleges. Dr. Steinback will present to the BOG. The presentation will also be shared with other districts to provide a similar format to the state.

ACTION:

- *Agah to provide regular updates when they become available*

ix. **Building Naming Reconciliation:** FPD worked with RCCD Ed Services and ALMA Strategies to update and capture the FTES and FTEF in FUSION by college, identifying off-campus and on campus. The list was provided to the colleges. More feedback is expected from ALMA before making any changes and FPD will confirm those changes with the colleges before submitting to the State. The data is also needed to put together IPPs and FPPs.

ACTION: *No update*

2. **Five (5) Year Scheduled Maintenance Plan & Instructional Support**

i. The Five (5) Year Scheduled Maintenance Plan was uploaded to FUSION on October 30, 2020 and the (5) Year Instructional Support was submitted on December 11, 2020
ii. Agah stated that there might be a one-time funding from the state for 2021/2022 for Scheduled Maintenance and Instructional Support. The amount of the overall allocation and type of funding from the state is unknown.
iii. FPD receives the information for the Instructional Support plan from the colleges and sends it directly to the state chancellor's office. The plan is under the college purview so there is little review by FPD. However, there was a discussion about the colleges providing actualized numbers to the previous expenditures. The state is asking for this information as part of the plan that will be submitted.

ACTION: *None*

3. **Space Inventory (SI)**

i. FPD filed the SI updates with the State and updated in FUSION on October 30.

ACTION: *No update*

4. **Facilities Conditions Assessment (FCA)**
i. Agah questioned whether the colleges are using the FCA for the development of the 5-Year Schedule Maintenance Plan. NC stated the assessments has not been used yet. RCC uses it as a database and has not used the assessment as yet. Agah has recommended that these databases be used for 5YSMP.
ii. Nava provided an overview of the January FUSION training and how the new updates included a new version of the Planning Modules that are more user friendly, holds the Capital Outlay Five Year Plan and shows the new scoring methodologies that breaks down the scoring and what the scale is for that scoring. The new module is not up and running at this time. When logging in you will see the new version as a choice but information won't make sense until all of the information is migrated over. The migration with all of the current data should be completed in March 2020. Training videos are available on FUSION.
iii. Nava stated the Facilities Condition Assessment scores on the FCI will affect the scoring on the 2020/2021 modernization projects as well as the FTES.

ACTION:
- *Nava will provide updates to the Facilities Condition Assessment as they become available.*

C. Policies and Procedures:

1. **Board/Administrative Policies**:
i. Agah and Brown will review the second draft of the BP/AP for Land Use Development, Public Private Partnership (P3) and Real Estate Management.
ii. The District is working with CCLC on several unrelated BP/AP's and have updated a majority of the procurement bids in Budget, there are a few outstanding BP/AP's that include the facilities construction and bids. The P3 and Real Estate Management have been drafted. When those are done, they will be brought to the FPDC for review.

iii. Askar reminded the Facilities departments about the bid thresholds. Purchasing has received some requisitions that have not gone through the proper bidding process. These have to be returned to the college, which in turn delays the process. Askar offered to re-send the information to the colleges as a reminder of the process. It is important to follow the process that were board approved and by the bid limits set by the state, especially because a lot of the funds we are using related to COVID-19 are grant funded so we will have additional audits.

iv. Under the Public Contract Code 20651 during a bid process the communication protocol guidelines must be followed and the college should direct vendors/bidders to Purchasing (in writing) to avoid interference.

ACTION:

- *FPDC will review the updated BP/AP's before they are presented to the BOT for approval after they are shared with the new General Council.*

2. **Prequalification List and Process:**
   i. **Professional Services:** RFQs to establish pre-qualified lists for Surveying, Environmental, and Commissioning Consultants will be in place in the near future.
   ii. **Construction Services:** FPD has been working on strategies to prequalify contractors in compliance with Public Contract Code section 20651.5 that requires a public agency like RCCD to establish a procedure to include a standardized questionnaire and financial statement. It includes an appeals process that is also in the RFQ/P. The procedure requires the BOT to approval and will be presented at the April 20 BOT. Agah shared a PowerPoint presentation regarding the process.
   iii. **CUPCCCA:** Vendors can register for a prequalification on Purchasing's website throughout the year.
   iv. **Professional Services Qualification Process:** Agah shared the PowerPoint presentation for the new transparent boilerplate qualification RFQ/P process that is being formulated to prequalify professional services such CM and architects and specialty consultants. The RFQ/P will have specific questions for specific trades and services, and specific scoring for each. The process will be tailored to specific projects using a standard scoring metrics and will include the appropriate agreement as part of the packet. Interviews of the three to five highest scoring proposals will be conducted. A committee will be formulated each time and will be asked to look at all of the qualifications independently. The committee will be provided with pre-RFQ/P training.

ACTION:

- *Present multi-prime contractors prequalification process to DPSC and BOT resources committee in April.*

3. **Consultants Engagement Process:**
   i. Askar/Agah discussed and presented the prequalified consultant engagement process in alignment with the District BP/AP and best practices as follows:
      a) **Below $25,000:** Obtain a minimum (1) one proposal from District Prequalified list of consultants; the work should not start without a PO in place; no board report is required.
      b) **Over $25,000 to $95,200:** Obtain a minimum (3) three proposals from District Prequalified list of consultants; needs to use the District's small-scale RFP format; qualified-based selection; the work should not start without an executed contract and PO in place; no board report is required.
      c) **Over $95,200:** Send formal RFP to the entire District Prequalified list of consultants; Utilize the formal RFQ/P process with scoring methodology and selection criteria; qualified-based selection; the work should not start without an executed contract and PO in place; board report is required.
   ii. The administrative policy, regarding the process, will also be developed.
   iii. The colleges requested a process to identify pre-qualified Architects and Consultants that will accept smaller projects that are DSA applicable and the Architectural services are under $20,000 or less.

ACTION:

- *Agah will draft an email for Purchasing to send to the Architectural Services firms on the prequalified list to see which firms will accept small projects. That information will be shared with the colleges.*
- *Askar will share the updated Architectural Services prequalified list with Norco College.*

D. Long-Term Capital Facilities Program

1. The LTCFP was BOT approved on March 17, 2020. Some budget has been identified for the critical mission plans, however, the identification of the top (3) including sustainability initiatives, integrated energy and infrastructure are still a priority.

2. **Total Cost of Ownership (TCO):**
   i. Agah stated that the district will be working with the colleges to develop a TCO prototype that will be applicable to all of the colleges. The TCO prototype is a requirement for Accreditation as well as for the Bond. It will capture all utilities, maintenance, custodial and grounds. The process is ongoing. Agah requested thoughts from the colleges:
   ii. Jones inquired if the TCO includes the O&M and personnel portion and suggested developing a metrics or standard benchmark so that when the Board is approving the development of a new facility there will be some correlation to staffing needs to maintain it. iii. There are APPA standards in place to maintain custodial and grounds staffing levels. The colleges need to decide what level of the standards to put in place.
   iii. West stated RCC's Accrediting group requested additional documentation with regards to TCO. It will come up when they meet with the District. RCC has a template from 2015 forward that was used for TCO. They specifically wanted to know what the staffing model is.
   iv. Collins stated that NC has a TCO calculator that takes into consideration the APPA standards. For new construction NC has to make sure a total TCO for the building is in the design phase.
   v. West suggested a standardized model of a TCO calculator should be used across the district using the same metrics.

ACTION:
- *Mohtasham is working with Beebe on a draft TCO with 19six Architect and will share for further discussion.*

E. Climate Action and Sustainability Stewardship

1. **Districtwide Sustainability & Environmental Responsibility Planning Update**
   i. Agah stated that the committee has been formed; one MVC CSEA member remains to be nominated.

ACTION:
- *The next step is to schedule the kick-off meeting then develop the scope of work and hire a sustainability consultant.*

2. **Solar Planning Initiative (Solar Plan)**
   i. The project is currently in the feasibility and planning phase.
   ii. The financial details were presented to the January 26 Chancellor's Cabinet meeting and received approval to move forward to BOT resources committee. After the final approval a request for qualifications and proposals will be requested on both delivery methods, the PPA and the Cash Loan Option.
   iii. Agah stated FPD is working with President Anderson and West to schedule a meeting with the Wood Streets Associations to provide a presentation that will address their concerns about Parking Lot C. Per the Chancellor's direction the RFQ/P will not proceed unless and until the community has accepted the location.

ACTION:
- *Develop draft RFQP for the districtwide solar plan & meet with Wood Streets Associations community*

3. **Energy Management and Dashboard**
   i. There are no tools, dashboard or platform to calculate each college's energy usage. The information is being entered manually by Nava in an excel spreadsheet (Energy Data Report). FPD is looking into an energy information and analytical platform that allows each college to maintain records for water, gas, electric and solar usage.
   ii. Nava and Mohtasham provided details and the presentation regarding the new Energy Dashboard that FPD created and is monitoring. The process will be used to capture the college's electricity and gas usage. The water usage will also be added to the Energy Dashboard.

ACTION:

- *FPD will collaborate with each college and share the information with each college's director of facilities*

4. **Community Transportation Needs Assessment Voucher**
   i. Agah described the carsharing program for disadvantaged communities and the $50K grant that the district applied for. The grant was approved and will be used to conduct a needs assessment for a carsharing program at the colleges to include students, faculty, staff and individuals who live in the Riverside regional area. A study will be conducted to help develop a plan to indicate the number of people interested in the program and the number of EV charging stations that would be needed. If the District is successful with the needs assessment there will be an opportunity to submit for project funding up to $1.0 million to implement the EV charging stations and the carsharing program. The grant was approved at the October 20, 2020 BOT Regular meeting. As a result the needs assessment will be conducted for the carsharing program.
   ii. The consultant, EViaShare presented the CMO/CTNA program to the FPDC group through a PowerPoint presentation, which outlined the carsharing program, the needs assessment process that includes community engagement, the timeline to complete the assessment, the draft summary, and the final summary scheduled to be completed by May 30.
   iii. Mohtasham discussed a meeting with the state that occurred. They were provided with the required application and forms. The committee will meet next week then the draft survey will be shared. The next step will be to schedule a meeting with each college, receive the surveys by the end of March 2021, and provide the first draft report in the first two weeks of May 2021. The state deadline is the end of August 2021.

ACTION: *Send a survey by the end of March and schedule a focus group discussion*

5. **On-Bill Financing (CCC/IOU) & Energy Audits**
1. Not discussed

ACTION: *None*

F. Students Housing

1. **RCCD "Potential Student Housing" with OPR and City of Riverside**
   i. The potential student housing near the new library is 1.5 acres and is located across from the CAADO parking structure on University Avenue across from the District office.
   ii. Student housing market demand study and student survey is underway at RCC.
   iii. The District is in the process of negotiating terms and conditions of the Purchase and Sales Agreement (PSA) with the city and OPR the developer. It is being reviewed by the district, was accepted by the developer and was submitted to the city. If the city approves it, there will be a pre-development agreement with the developer. At that time, the BOT will be engaged.

ACTION:

- *The survey will be issued in March and will run March 1 through March 15, 2021.*

2. **Districtwide Student Housing Initiative**
   i. Agah stated that the Chancellor has been advocating for funding for student housing. The goal is to conduct a district-wide on and off-campus feasibility study after accreditation, focusing on districtwide affordable student housing.
   ii. Hess inquired if the proposals can be reviewed and how far along this is in the process. Is it being framed as the solution to youth homelessness and the student housing crisis in the area, and if so what is the plan to offer economical and affordable housing, and what is the relationship between the district and OPR.
   iii. Agah stated the local bond, if it had passed, could not be utilized to build student housing, as its main use is for educational facilities. Most of the student housing across the nation is done through Public Private Partnership (P3) to build student housing. Any revenue received would pay the capital fee over 30-40 years. There is no contractual relationship with OPR other than their pre-established relationship with the City of Riverside and proposal submission.

iv. Agah stated the Districtwide Student Housing strategy will be presented to the Chancellor targeting the on-site student housing and opportunities for off-campus and will provide a framework for student housing at all three colleges.

ACTION: *No update*

IV. COVID-19 IMPACTS (FACE-TO-FACE INSTRUCTION, CONSTRUCTION)

A. Fall 2021 Face-to-Face Instruction / CARES II Funding (Facilities-Related)

1. Askar discussed the Institutional portion of the CARES II funding that can be used for deferring costs related to campus operations due to COVID-19 such as technology, transitioning to distance education, food, housing, course materials and keeping the facilities safe. Askar asked the colleges to share their ideas in terms of improving their facilities; keeping them safe; using CARES II funding; using portable or hardwired air filters; how current infrastructures can handle the MRV-13 filters; use of outdoor seating areas; and centralized controls.
2. Collins stated that the use of MRV-13 is outlined in the District Safe Return scope/guideline.
3. Marshall stated NC is using MRV-13 air filters. There have been no issues with malfunctioning equipment, however, the high quarterly change-out rate that is required is expensive, and when filters are changed the college fills a roll-off container. Marshall suggested that dump fees could possibly come from the CARES II funding. The college purchased 12 portable HEPA filter air purifiers for classrooms to deploy as needed to increase airflow or air exchanges. NC is not planning to hardwire the units. The college purchased portable plexiglass barriers that break down into three components for quick assembly/removal. Marshall will share the information with MVC. The college has space in adjoining classrooms to remove furniture that is not being used and purchased two forty foot storage containers for storing PPE and furniture paid for with CARES II funding. NC also purchased small Ryobi batteries with power inverters to power microscopes to avoid trip hazards from power cords to be able to utilize the center of the classroom rather than only the outside footprint.
4. Beebe stated RCC is using MRV-13 filters, that most units should be able to handle them except for portables, split systems, etc. RCC contacted their normal suppliers for the filters and expects a 2-month delivery timeframe and a cost of $33,000. RCC is researching the possibility of outdoor seating with solar tables between Tech A and Tech B. Beebe is requesting a bid for that scope of work. Beebe will share the information with NC and MVC. RCC is not looking at new or upgraded HVAC controls at this time. Beebe stated RCC installed a lot of plexiglass and has more on hand if more is needed in the future. Bee indicated that the college is not removing furniture due to lack of storage, furniture is being marked with colored numbered dots. West is working with the Faculty to implement a program that will assign a colored numbered dot that will tell each student which desk to sit at to help if the number of students increases.
5. Kirkpatrick indicated MVC spends approximately $9,000 to change the MRV-13 filters quarterly, and that the efficiency after the first 30 days deteriorates to a MRV-11. MVC is considering the AeraMax Professional Air Purifier from Waxie that can be hard-wired or portable. One hundred units cost approximately $150,000. MVC is researching product to cover and 1,100 square foot classroom and will follow the CDC guidelines to change out air exchanges hourly. MVC plans to upgrade to a remote HVAC control system. The college has some plexiglass and will be conducting a walkthrough with the District's Risk Management to assess the needs in all of the rooms.
6. Askar indicated that there is a piggyback contract with Waxie. Askar will confirm if Waxie is through CollegeBuys.
7. Ma discussed the threat of wireless accessibility outside of the District's network in regards to remote HVAC systems and requests that IT be included in future conversations; the outdoor space technology needs and the need to keep IT informed about new areas that students might congregate.
8. Askar discussed the possibility of a volume discounted agreement with Convergent for the security card access for the entire district rather than everyone doing it on their own. She asked the colleges if they are interested. Ma provided information related to Convergent's system and how it works with the districts systems.

ACTION:

- *Askar will find out if Convergent has a piggyback contract*

B. Safety and Risk Management

1. Tu provided additional information related to AB 685. Timely notifications of positive COVID-19 cases is crucial and required by the colleges and contractors. The need to respect each person's privacy is very important, no identification regarding who is positive is allowed to be shared.

C. Construction under COVID-19

1. Doering provided an update and stated there has been an impact to the NC VRC and RCC Greenhouse projects because the main contractors were out with COVID-19 for 2 weeks. That affected the project schedules. FPD continues to stay in contact with the contractors to ensure that they continue to comply with COVID-19 rules and to track delivery schedules. The deliveries are back on schedule now and FPD has not received any feedback from the colleges regarding COVID-19 related issues.

ACTION:
- *The District will continue to connect with other districts and industry to seek feedback and updates*

V. PROJECT UPDATES

A. Master Projects List/Calendar/Capital Project Summary Form

ACTION:
- *All projects regardless of funding source need to follow the process*

B. Division of the State Architects (DSA)

1. Agah provided a DSA regulations update regarding IR A-22 and IR A-9 for School Site Improvements and Project Exception. Even if a project is a DSA "exempt", it still needs to comply with Title 24 and CA Building Code regardless of project size to avoid any liability and comply with the State codes.
2. FPD is the point of contact with DSA and should be involved in any new project at the college regardless of funding source.
3. There is an expedited way for DSA review by the State Chancellor's office for projects impacted by COVID-19, or any new projects that need to come online because of COVID-19. The project has to be justified as an emergency project due to COVID-19. No new details.

C. Capital Projects Status Report

1. **Riverside City College:**

   i. **RCC Life Science/Physical Science Reconstruction Project:** The project is in the design phase. The project experienced an issue related to the mandatory seismic requirements. It is an issue that was not brought up before by the previous consultant. The cost for the mandatory seismic requirements and hazardous abatement were not part of the original project cost in the total amount of $3.1M over budget. State Chancellor's Office has been appraised. Staff continues working on the design development with 19six architect. The review of the IT system, MEP, AV, etc. is scheduled for February. The FF&E final layout meeting is scheduled for March.

ACTION:
- *Follow up with the State about funding augmentation and approval of preliminary planning.* ***No update***

   ii. **Throwing Sport Facility:** This is a DSA project. LPA Architects engaged and the project is in the design phase. The architect developed 3 value engineering proposals and issued 3 different drawings. West stated that the project is on hold due to budgetary issues.

ACTION: *The project is on hold due to budgetary issue and to be removed the project from the minutes.*

iii. **Gomez ADA Phase 2 Campus Improvement Project:** The project is now being funded by General Funds. The project is in the last phase to address the 25% remaining items. Westberg+White Architects have been engaged. FPD sent the City of Riverside an email identifying the areas they are responsible for. Need the topo survey results to complete the design.

ACTION: ***No update***

2. **Moreno Valley College:**

i. **Welcome Center Project**: The project is currently in construction phase (65% in progress), previously lost 7-8 days due to concrete delivery delays and is now 5-6 days behind schedule. FPD is working with the CM to consolidate different trades to make up 2-1/2 to possibly 3 weeks on the schedule. The college is working on the outdoor and indoor furniture order; it is expected to be placed in February 2021, which will meet the timeframe to have furniture delivered in July 2021.

ACTION: *None*

ii. **BCTC Education Building (Phase I):** The construction drawings were sent to DSA on December 8, 2020. The architect is working on FF&E at the same time. The CM reviewed the cost estimate and reported that it is higher than what was received from the architect and working on value engineering items.

ACTION:

- *The next step is to prequalify the prime trade contractors, after the approval of plans the project can be bid and receive pricing on construction.* ***No update***

iii. **Organic Chemistry Lab:** The project is designed to address MVC losing students due to absence of organic chemistry labs; students take these classes at other CCDs and never come back to MVC. FPD provided an estimated project budget of about $2 million. The project is on hold.

ACTION:

- *Askar will review the project with the college and determine if it should be removed from the minutes.* ***No update***

3. **Norco College:**

i. **Veterans Resource Center Project**: The project is currently in the construction phase. The work has continued without an approved baseline construction schedule from the contractor. The contractor was out with COVID-19 for two weeks. The project is behind schedule and the number of days is TBD. FPD met with the contractor and their scheduler to resolve issues. The contractor is a challenge to work with and there are ongoing issues. The college recognizes the issues Doering has had while working with the contractor and his ability to keep the project on track.

ACTION: ***None***

ii. **Early Childhood Center Project:** The College received a $5.0 million State Grant to support the planning of the development of the ECEC at NC. The Chancellor and Vice Chancellors reached out to the Legislators and approved ECEC at Stokoe in lieu of NC site. In 2004 the District entered into a 40-year real estate agreement for the space. The college completed the Instructional Program plan that will drive the project's modernization phase. The first phase will be IT, A/V, and FF&E, for a potential four (4) month construction period. The project was on hold since November 2019. Dr. Green worked with Alvord USD Superintendent to reach an agreement. A site visit occurred on December 18, 2020. A completed instructional plan was submitted to the District, it will be included in the architects RFQ/P for review. This will be a two phase project.

ACTION:

- *FPD will send NC the draft RFQ/P for review and response.* ***No update***

iii. **Sport Field Turf Replacement Project:** Installation is complete. The project received DSA approval for ADA scope on October 1, 2020. SGH Architects prepared the concrete work bid documents. The architect got the remaining ADA Path of Travel completed. The project will bid in January 2021.

ACTION:

- *Askar will ask Purchasing to send the college a link to the pre-qualified list of registered vendors.* ***No update***

iv. **Norco Amphitheater Outdoor Learning Environment:** DSA plan approval has been received. The college is using the CARES Act funding for the installation and the shade structure. Outdoor Wi-Fi will be enabled to ensure social distancing. An electrical element may be added for lighting for evening use. Soliciting pricing for CCD that was issued to address path of travel to the ADA parking stalls. Collins requested to rename the project "Norco Amphitheater Outdoor Learning Environment".

ACTION: *File DSA closeout documents to certify the project*. ***No update***

D. Scheduled Maintenance Projects Updates

3. **Moreno Valley College:**

i. **Elevator Modernization**: This is a DSA project. The funding source is Measure C and other resources. Closing documents were received from the architect. The project is closed and can be removed from the minutes. ***No update.***

ii. **Fire Alarm Upgrades:** This is a DSA project. The funding source is Measure C. DSA approval was received on October 15, 2020. The documents were sent to Purchasing to go out to bid. Bids will be due on February 26. Kirkpatrick stated that the Student Services Fire Alarm Upgrade will be removed from this project. ***No update.***

4. **Riverside City College:**

i. **Elevator Modernizations SM17/18**: This is a DSA project. Parts for the project were delivered beginning December 1, 2020. Installation was scheduled to begin before DSA approval. A fourth elevator was added to the project in the tower between the Ceramics and Arts buildings. It has been included in the bid package. The plans have been submitted to DSA and approval has been received. The first elevator will be taken down on February 1. ***No update.***

ii. **Makerspace at Digital Library:** This is not a DSA project, however, due to the critical nature of the project FPD is working to expedite and help the college move forward. Project Architect has been assigned to work on the project. ***No update.***

iii. **Shade Structure, Tech A & ECE Building:** The project requires DSA approval due to the type of structure. SGH Architects has been selected. FPD will discuss with West and Yates the additional unforeseen costs for ADA path of travel and the application for a hardship under COVID-19. FPD is waiting to hear back from Yates regarding the additional cost. Mohtasham will schedule a meeting to review those items. ***No update.***

iv. **Digital Library Card Reader:** This project will be over $200,000 and requires an official bid. IT provided a quote for equipment. Once the job walk occurs, the cost of the project will be added to the cost of the IT equipment to be sure the project is within budget, then IT will be given permission to order the equipment. Bids were due on January 4, 2021. A second job walk was held on January 27. Bids are due on February 5, 2021. ***No update.***

v. **Nursing Science Building 255 and 256 Furniture:** The furniture is expected to be delivered by the middle of January 2021. Delivery has been delayed due to COVID-19. The furniture was delivered and the project is complete. ***No update.***

vi. **Digital Library HVAC Refurbishment:** The project was expected to be completed but it experienced an issue with the drain pan that did not match the coil. A change order was processed. The project is complete, an NOC is ready to be sent when the final invoice is received. ***No update.***

5. **Norco College:**

i. **Elevator Modernization:** This is a DSA project. The project is in the planning phase. Some modification had to be done to the original scope of work due to the lack of funds. The project will only upgrade the mechanical equipment. The bid documents have not been received as yet. The architect submitted documents to DSA on January 27. ***No update.***

6. **District:**

i. **Center for Social Justice Renovation:** This is not DSA project. It will modernize and refurbish the existing space to provide higher efficiency and maximize the welcoming environment. ***No update.***

VI. OTHERS

A. Key/Access Control Upgrade – Update

1. Discussed the key and access control upgrade and consistency across the District sites. The three colleges will work together to develop a District Standard to provide the colleges with physical facility security. MVC and RCC have provided all of their key counts to NC to move forward with building the legacy key system and hierarchy key logic. NC met with Assa Abloy during the week of January 20, 2020 to establish the base-line cost. Assa Abloy indicated there are about 2,500 locks district-wide. The Medeco keying system will capture the different types of locksets and keyways needed. The hierarchy will be built starting with a doubling of the door requirements, taking into account the growth at all colleges, off-site locations and the district office. There is a database for the different system that Assa Abloy strongly recommends rather than their in-house system. Training will be provided through a Webex, all colleges will be included. A consultant will be hired then the system will be bid, owner-purchased and installed. Pinning will be done at the factory. The plan will be incorporated into the district standards.

ACTION:

- *Build the legacy key system and hierarchy key logic, board policy and administrative policy.* ***No update***

2. District-wide Alternate solution – Drinking Water

1. Askar stated the Chancellor is requesting a filtered water system, the District is considering a bid for a districtwide water filtration system. At this time there are many stop-services with the water companies due to staff not being on site.

ACTION:

- *Askar will follow up to see if it is still necessary. No update*

C. Integrated Waste Management

1. An RFP for Integrated Waste Management was drafted a few years ago. The goal is to consolidate the services districtwide. The benefit is the economies-of-scale and the recycle programs.

ACTION:

- *Askar will send a draft of the RFQ/P to the colleges after the District reviews.* ***No update***

D. Johnson Controls Maintenance Contract

1. To provide economies of scale, this services has been consolidated districtwide. A low bidder was selected, references have been checked and are favorable for February 16 BOT approval with new vendor.

ACTION:

- ***No update***

E. District Strategic Planning Council (DSPC)

ACTION:

- *FPDC membership has been formed pending representatives from the CSEA.* ***No update***

F. Parking/Traffic Study, RCC, & Districtwide

1. **Riverside Downtown:** Survey results were discussed with multiple constituent groups. Combining the Fox and CAADO studies indicates occupancy is not going above 89%. The consultant provided four recommendations; installing digital signage to show how many spaces are filled, especially at CAADO; changing the hours of some of the classes to later in the evening to free up spaces during the day.

ACTION:

- *Districtwide survey to assess the viability of students parking in staff assigned parking spaces during certain hours of the day.* ***No update***

G. Norco College Fuel Cell

1. NC is paying Doosan $120,000 a year to maintain a Fuel Cell at the college and keep it running efficiently.

ACTION:

- *Continue to evaluate the performance of the Fuel Cell and maximize savings through SCE/SCG.* ***No update***

H. Facilities Use Fees

1. Discussion has included information or history related to Facilities Use/Rental Fees, and whether these rates are at a credible market rate in light of board policy

ACTION:

- *Dr. West will schedule a meeting with Dr. Collins and Dr. Jones to discuss fee structures.* ***No update***

I. Projects Groundbreaking & Grand Opening Ceremonies

ACTION:

- *Discussed Greenhouse grand opening.* ***No update***

J. Guided Pathway & Engagement Centers

1. Agah inquired if any of the colleges could provide an update on the engagement center project requests in alignment with the Guided Pathway that was brought up at the DSPC by VC of Ed Services Dr. Kim.
2. Collins indicated NC has two engagement centers but has no input or update on the subject.
3. Floerke stated that MVC academic senate has identified couple of requests and still under discussion.

ACTION:

- ***No update***

K. College Elevator Maintenance Contract

1. Askar discussed elevator maintenance and recommended these services be consolidated for economies-of-scales. The team agreed to issue an RFQ/P for a districtwide elevator maintenance contract.

ACTION:

- *No update*

VII. NEW ITEM(S)

End of Meeting Minutes-

Facilities Planning & Development

Projects Status Update Report

March 25, 2021

Updated by: Bart Doering
Mehran Mohtasham
Janna Accomando
Myra Nava

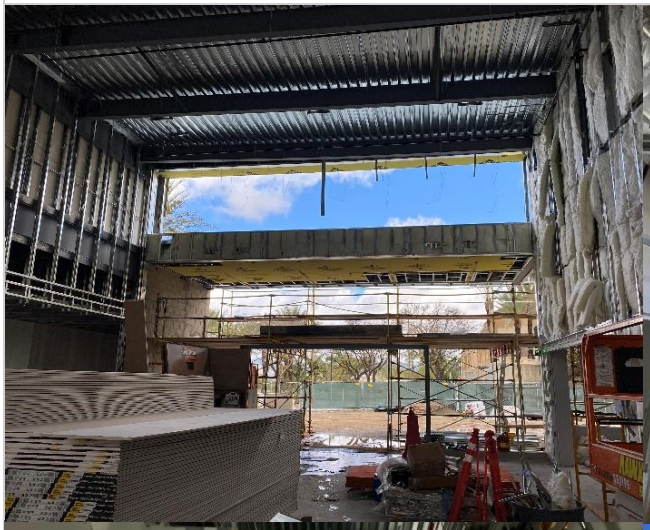
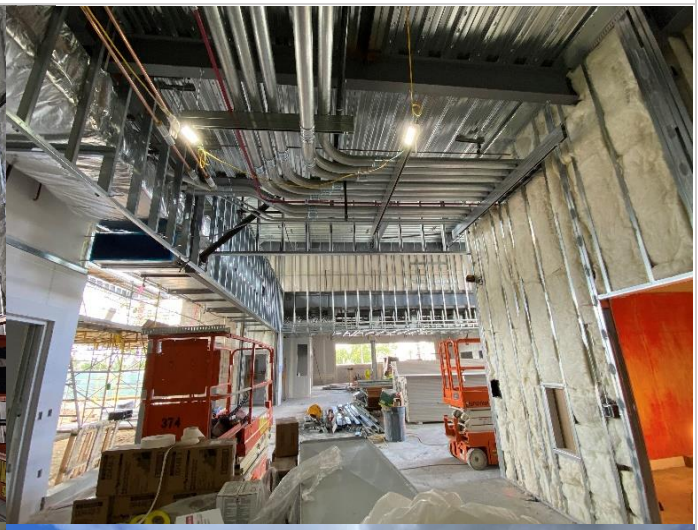
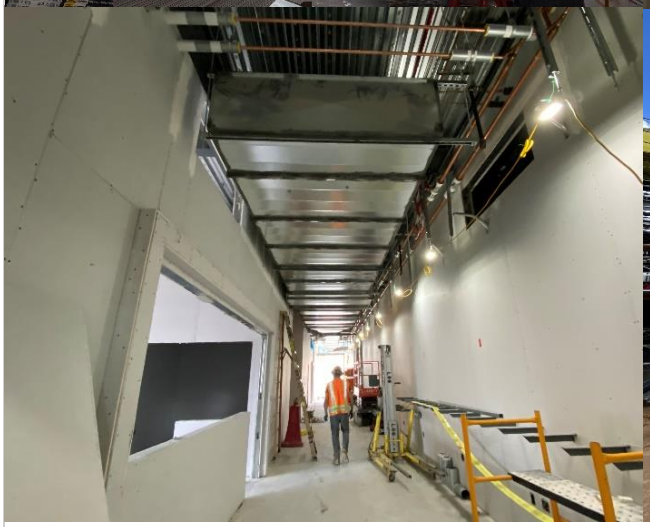
MVC New Welcome Center

Project Description: This project is designed to be the main entry to the campus for new students, and renovates the student service building. The new welcome center will provide an additional 13,634 ASF, 17,300 GSF, to the MVC space inventory. Programs Include: Outreach, Dream Center & First Year Experience Admissions and Records / Cashier, Student Financial Services / Student Employment, Counseling, Assessment Center.

Project Manager:	Bart Doering	**Fund Allocation:**	Measure C: $14,000,000
Architect & DSA:	HPI Architecture, DSA	**Project Phase:**	Construction (68%)
Duration: 12 months	Occupancy, Fall 2021	**Delivery Method:**	CM Multi-Prime, Tilden-Coil

Project Status: Project is proceeding with insulation, drywall, HVAC ducting and electrical wiring being pulled in conduits. The bio-retention basin grading has been completed. HVAC unit has been set on the roof. Construction Manager was able to coordinate with trades to make up 5 days of delay, placing the project back on original completion schedule. District working with furniture vendor GMBI, was able to move the furniture delivery date to 6/23/2021.

Issues: None pending


MVC Student Services Renovation

Project Description: The Renovated Student Services Building will be available for the relocation of student services programs currently located in the temporary structures within the Parkside Complex, such as Human Services, Health Services, Food Bank, and Veterans Resource Center. The total ASF 9,000.

Project Manager:	Mehran Mohtasham	**Fund Allocation:**	Measure C: $5,000,000
Architect & DSA:	TBD	**Project Phase:**	Engage an Architect (RFQP)
Duration:	TBD	**Delivery Method:**	TBD

Project Status: The project has not been started and it is in the early phase of planning.

Issues: This project needs to start as soon as the Welcome Center is complete and the user group moves to the new Welcome Center Building. FPD and College administration formed the project planning committee that will be charged to select an Architect via RFQP in May 2021 BOT for approval and start the design.

MVC Elevator Modernization

Project Description: This project will modernize the elevators at the Library and Science & Tech buildings, with an add alternate of modernization of Humanities elevator.
.

Project Manager:	Ron Kirkpatrick	**Fund Allocation:**	SMSR: FY17/18,18/19 $209,912 Measure C: $532,088
Architect & DSA:	SGH Architects	**Project Phase:**	Close Out
Duration:	1 year	**Delivery Method:**	D-B-B

Project Status: The project is on a closeout phase. Construction is complete as of 10/1/2020. Per DSA comment, Signs ordered and installed by the College. SGH Architect and an IOR will verify on the field and sign-off documents.

Issues: None

MVC Fire Alarm Upgrades

Project Description: This project will upgrade the outdated fire alarm systems that are not code compliant at Library, Science & Tech, Humanities, and Student Services.

Project Manager:	Ron Kirkpatrick	**Fund Allocation:**	Measure C: $467,912
Architect & DSA:	SGH Architects	**Project Phase:**	Bidding
Duration:	9 months	**Delivery Method:**	D-B-B

Project Status: DSA approved plans on 10/13/2020. The bid package has been sent out, job walk is scheduled on 3/24/2020. Construction to start in April 2021.

Issues: None

MVC BCTC Education Center Building (Phase I)

Project Description: The Education Building Ph.1 facility is designed to provide educational training facility including Administration of justice, EMT, Fire Technology, and Homeland Security programs in new classroom, lab, office, and other student and faculty support spaces.

Project Manager:	Mehran M. / Bart Doering	**Fund Allocation:**	Measure C: $13,000,000
Architect & DSA:	SVA Architects, DSA	**Project Phase:**	DSA Permit
Duration:	14 months	**Delivery Method:**	CM Multi-Prime, CW Driver

Project Status: The project is currently at DSA. The construction manager, C.W. Driver, had completed constructability and construction cost estimate. Plans submitted to DSA on 12/8/2020 and received comments, SVA is revising the plans per DSA comments. Next Step: BOT Resolution for Pre-Qualifying Primes in April 2021, prequalify in May for BOT approval and bid out in June 2021 for August 2021 BOT awards.

Issues: Had a couple of meetings with the County Rep on the width of the 11th street and starting point of the project. The final agreed that the width of the 11th street is 112 ft and SVA will revise the drawings accordingly.
CEQA report: There might be tar plants in the construction area that requires relocation to protect the species before construction starts. Dudek will survey the area within next 3 weeks and will provide a detail report.

MVC Organic Chemistry Lab

Project Description: This project is designed to address the loss of students at MVC due to the absence of organic chemistry labs; students take these classes at other CCDs and do not return to MVC.

Project Manager:	Mehran M.	**Fund Allocation:**	TBD
Architect & DSA:	TBD	**Project Phase:**	Initial Project Placement
Duration:	TBD	**Delivery Method:**	TBD

Project Status: FPD developed a schematic design, the building size is based on the college's academic requirements of 34 students. FPD placed the building on the campus site plan per the college, identified areas and discussed pros and cons for each location with the college. FPD to develop a rough order of magnitude (soft and hard cost) and a schedule milestone after receiving all of the college's requirements. The District needs to hire an architect to begin the design studies. Project is on Hold until a funding source is allocated.

Issues: No funding source has been identified yet. Project is on hold.

Norco Veterans Resource Center

Project Description: The new Veterans Resource Center (VRC) will expand and enhance programs and services to student veterans entering civilian life through military service to college credit articulation, counseling, health services, housing, and access to community and veterans resources. The new Veterans Resource Center will also offer veteran students assistance with financial aid, military benefits, counseling, and academic support. The new VRC facility will be 2,000 assignable square feet (asf) and will provide instructional and support services, including a drop-off area on Third Street, a new parking lot with accessible path of travel, and site and utility improvements.

Project Manager:	Bart Doering	**Fund Allocation:**	State Funds: $2,498,735 College Funds: $1,851,643
Architect & DSA:	Ruhnau-Clark Architects, DSA	**Project Phase:**	Construction (40%)
Duration: 8 months	Occupancy, fall 2021	**Delivery Method:**	GC, CM (Kitchell CEM)

Project Status. Sewer line has been installed and connected to building. Domestic water line is still in process. Wall framing is still in process. Ceiling framing has begun in the main building. Ceiling joists are being installed in the main lobby. Site utility contractor scheduled to be finished with street work middle of March 2021.

Issues: Contractor has requested a 2 week extension due to his COVID issue, but based on his construction schedule he is 14 days behind schedule based on his 5 days of stem wall form & pour that took him 19 days. CM and district are discussing this issue with the contractor currently and may ask for a recovery schedule. On-site utility contractor is behind on road work. District/CM met with contractor and his scheduler to update schedule, to reflect actual work/time frames for each task of work.




Norco Sport Field Artificial Turf Replacement Project

Project Description: The Soccer Field synthetic turf will be replaced with new turf. Limited concrete sidewalk will be replaced due to trip hazards.

Project Manager:	Steven Marshall	**Fund Allocation:**	NC General Fund: $250,324 NC Assoc. Students: $7,000 Measure C: $250,324
Architect & DSA:	SGH Architects, DSA	**Project Phase:**	Close Out
Duration:	5 weeks	**Delivery Method:**	D-B-B (GC)

Project Status: Replacement of the Artificial Turf was completed on March 27 by Field Turf USA, Inc. Received DSA approval on 10/01/2020. Next Step: The College will obtain Bids for the concrete work in March 2021 and start construction in April 2021.

Issues: None

Norco Amphitheatre Outdoor Learning Environment Project

Project Description: The shade structures are required in order to make the space usable during the hot weather months as it cannot currently be used by students and faculty due to excessive heat. Design and Installation of (6) shade structures within the amphitheater will provide shade for the seating and performance areas.

Project Manager:	Steven Marshall	**Fund Allocation:**	CARES Fund, $ 319,454.20
Architect & DSA:	SGH Architects, DSA	**Project Phase:**	Close Out
Duration:	6 Weeks	**Delivery Method:**	GC, no CM for the project

Project Status: Installation of the shade structure is completed. DSA Inspector visited the site and requested grinding on some of the sidewalks in order to close the project. The job has been completed. The DSA 168 has been uploaded to close out the project.

Issues: None




Norco Elevators Upgrade

Project Description: The project will upgrade mechanical equipment and controls for the Theatre building, Student Services, and Applied Tech building. The project will have 1 elevator as the base and 2 alternates.			
Project Manager:	Steven Marshal	**Fund Allocation:**	SM 18/19 and 19/20 - $122K
Architect & DSA:	SGH / DSA	**Project Phase:**	DSA Permit and Biding Phase
Duration:	1 Year	**Delivery Method:**	D-B-B
Project Status: Received DSA comments and uploaded revised drawings to DSA website on 3/16/2021. After DSA approval will proceed with biding the project.			
Issues: None			

RCC Life Science / Physical Science Reconstruction (CIS + Business)

Project Description: This project's purpose is to reconstruct the connected Life Science and Physical Science buildings at Riverside City College into an Interdisciplinary complex that can accommodate program growth in many different disciplines to a Business + CIS Building. The entire Business program will be relocated and the Business Education building will be demolished and it is not part of this project. This project is an approved FPP by the State Chancellor's Office for 2020/2021 funding.			
Project Manager:	Mehran Mohtasham	**Fund Allocation:**	State: $28,977,000 Measure C: $6,100,563 RCC GF: $3,059,437
Architect & DSA:	19.6 Architects / DSA	**Project Phase:**	Design (Working Drawings)
Duration:	51 months (overall)	**Delivery Method:**	D-B-B
Project Status: 19.6 Architects completed furniture layout and will present it to the user groups in March 2021. The State Chancellor's Office and Department of Finance approved the preliminary plans and funding augmentation to the project (76% of the structural mandatory seismic upgrade and Hazmant abatement cost which), was requested last year. The project received DF-14D releasing the Working Drawings funds. Meanwhile, selected committee is currently reviewing Agency CM's proposal to select a CM Agency by the end of March. BOT approval on 4/21/2021			
Issues: The project requires mandatory structural seismic upgrades due to California Administrative Code that required additional budget which was not included in the original FPP total project cost. The college has been appraised. FPD has informed the State Chancellor Office about the structural issue, and after submitting official request for additional funds to the state, received a verbal confirmation in January 2021 that the State will provide 76.24% of the requested amount and the rest shall be provide by local funds. The CEQA report noted the mural as a historical item in the building which is located on the exterior south wall of the Life Science building. Working with the Architect to review options for the college stakeholders.			

RCC Elevators Modernization

Project Description: Modernizations and equipment replacement for 3 elevators. 2 located in Bradshaw building, and 1 in the Quad.

Project Manager:	Robert Beebe	**Fund Allocation:**	SMSR $500,000
Architect & DSA:	SGH, DSA	**Project Phase:**	Bid
Duration:	1 year	**Delivery Method:**	D-B-B
Project Status: The College added a fourth elevator upgrade to the package to modernize Ceramic/Art Elevator tower as well. Received DSA approval on 1/14/2021. Contractor started installing equipment for 3 elevators. RCC is working with Purchasing Dept. to bid out the fourth elevator.			
Issues: Due to high cost of the modernization, Ceramic Elevator Tower was removed from the original scope of work. The college funded the fourth elevator and added to the scope of work, it will be bid out separately.			

RCC Throwing Sports Project

Project Description: The Project is the design phase to develop a new Track and Field venue located at the existing Baseball / Softball complex at Riverside City College Campus. Included in the proposed development may include Javelin runway and throwing sector, shot put pad and ring, discus/hammer pad, and cage and throwing sector			
Project Manager:	Robert Beebe	**Fund Allocation:**	College Local Fund
Architect & DSA:	LPA / DSA	**Project Phase:**	Planning
Duration:	1 Year	**Delivery Method:**	D-B-B
Project Status: The college will provide a high priority list of items that reflect the safety of the students, the college facilities and District. FPD will investigate in detail the pricing of the items and the DSA requirements.			
Issues: The Original budget is $350K and the estimate came to $980K from LPA.			

RCC Digital Library Key Card Access Upgrade

Project Description: This Project will provide more security level by Installing and expanding key card access/electronic locks thought the Digital Library			
Project Manager:	Robert Beebe	**Fund Allocation:**	$230,000
Architect & DSA:	N/A	**Project Phase:**	Construction
Duration:	4 Months	**Delivery Method:**	GC
Project Status: Job walk scheduled on 12/16/2020, only one bid received on 1/4/2021. The project was rebid on 1/27/2021; bids were received and approved by the BOT on 3/16/2021. Contractor will start installation accordingly.			
Issues:			

District Center for Social Justice Renovation

Project Description: This project will provide more flexibility for the space to promote learning and social gathering. Turn the space into more welcoming, open space environment. It includes new LED track lights, paint walls and ceiling of the first floor and renovation of the presentation room.			
Project Manager:	Mehran Mohtasham	**Fund Allocation:**	District Funds
Architect & DSA:	N/A	**Project Phase:**	Construction (90%)
Duration:	2 months	**Delivery Method:**	General Contract
Project Status: GC Completed 90% of the work, next step is to re-do the floor. Anticipated date by the end of the March.			

Issues: None



District RCC Gomez Case Ph. II

Project Description: This project is the completion (last phase) of the RCC Gomez case. These ADA barriers include- inaccessible pedestrian paths of travel from bus stops to buildings throughout the campus; inadequate restrooms clear floor space located throughout the campus; steep slopes and heavy doors; campus parking, improper signage, missing designated ADA accessible parking spaces; doors with inadequate strike side clearance and requiring excessive force to open.

Project Manager:	Bart Doering	**Fund Allocation:**	General Funds
Architect & DSA:	Westberg & White, DSA	**Project Phase:**	Design
Duration:	12 months	**Delivery Method:**	General Contract

Project Status: Architect met with District to resolve areas of conflict on the topo map that were indicated and where issues were identified, but did not show on the map. Architect is proceeding with information and will notify District if any other items are discovered.

Issues: Pending budget to proceed with project civil and topo proposal.

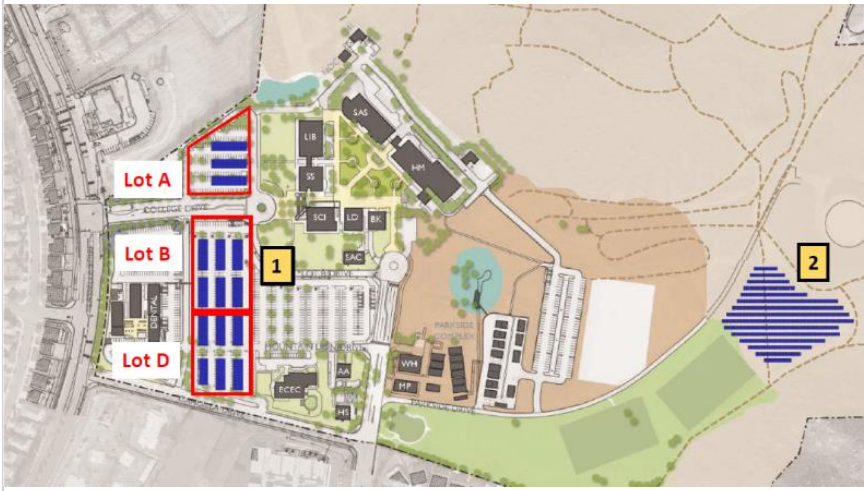
District Solar Planning Initiative

Project Description: The solar planning initiative is in alignment with the District board policy 5775, sustainability and environmental responsibility. The outcome will be a Districtwide Solar Plan (including battery storage) that aligns with the strategic planning objectives to achieve economic, social, and environmental sustainability.

Project Manager:	Hussain A / Mehran M	**Fund Allocation:**	Loan/Finance Option
Architect & DSA:	DLR Group / DSA	**Project Phase:**	Feasibility and Planning
Duration:	TBD	**Delivery Method:**	TBD

Project Status: The project is currently in the feasibility and planning phase. DLR Group provided the final report of the feasibility & planning phase by the end of the January 2021 (pending committee review). The solar planning committee concluded its presentations of solar plans including financing options that went to the board couple of times, DPSC, DBAC, Chancellor's Cabinet and FPDC. The plan received support by all the constituency groups and excited about having solar on campus. Next step is the Development Phase, which includes recommended plans and bid document to obtain proposals on the recommended solar plans at each college. FPD met with woods streets associations on March 18 and the group supported the project in it's entirely. FPD met with Trustee Vackar to address her concerns about the hillside and further discussion with the community and City of Moreno Valley will be entertained.

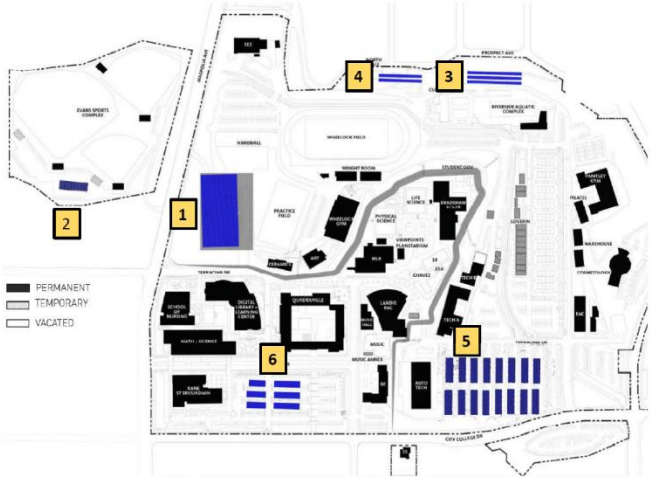
Issues: At RCC, the Wood Streets Associations (WSA) presented concerns about the solar plans at parking lot C. At MVC, Trustee Vackar presented concerns about the ground mount solar at the hillside.



ARRAYS OPTIONS

1. CENTER FOR STUDENT SUCCESS BUILDING: 105kW
   A. ROOF: 70 KW DC
   B. CANOPY: 36kW DC
2. EAST GROUND MOUNT: 364KW DC
3. NE GROUND MOUNT: 1.63 MW DC
4. NORTH GROUND MOUNT: 505 kW DC

TOTAL
2,605 kW DC



ARRAYS OPTIONS

1. PARKING STRUCTURE: 831 KW DC
2. EVANS PARKING: 66KW DC
3. RAC POOL: 194 kW DC
4. COLLEGE HOUSE: 102 KW DC
5. Lot E: 1.17MW DC
6. Lot C: 445 kW DC

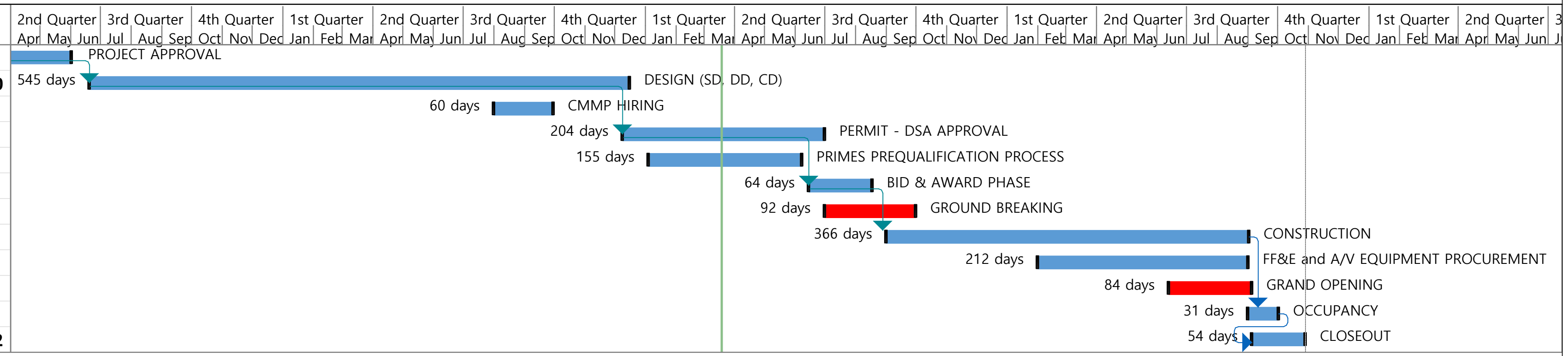
Total
2,808 kW DC

Notes:

1- **Project Manager**: Budget Manager & Construction Project Manager. The PM could be doing both.
2- **Division of the State Architect or "DSA".** DSA is required, by the Field Act, to review construction for California public schools (grades K–12) and Community Colleges, and to verify that construction meets the requirements of the Title 24 Building Standards regulations. Some projects, however, do not require DSA review. Such exceptions are explained in DSA IR A-22.
3- **Duration**: estimated construction duration for the project. See milestone schedule.
4- **Fund Allocation**: Measure C, Scheduled Maintenance Special Repairs "SMSR" or Block Grant, Federal or State Grants, Redevelopment Fund, Proposition 39, General Fund, etc.
5- **Project Phases**:
    a. Planning and Programming (Pre-Design) and includes feasibility studies,
    b. Design Phase (Schematic Design "SD", Design Development "DD", and Construction Documents "CD")
    c. Permit (DSA review and approval for plan-check and back-check, City, County, etc.)
    d. Bid and Award Phase (low bid single GC, CM multi-prime, design/build, etc.)
    e. Construction phase (notice to proceed "NTP" to Notice of Completion "NOC")
    f. Occupancy Phase (move-in)
    g. Closeout Phase (project's contracts closeout)

MORENO VALLEY COLLEGE - BEN CLARK TRAINING CENTER - EDUCATION CENTER BUILDING (PH. 1) (MEASURE C - $13,000,000)

ID	Task Name	Duration	Start	Finish
1	**PROJECT APPROVAL**	**62 days**	**4/1/19**	**6/1/19**
4	**DESIGN (SD, DD, CD)**	**545 days**	**6/20/19**	**12/15/20**
8	**CMMP HIRING**	**60 days**	**8/1/20**	**9/30/20**
9	**PERMIT - DSA APPROVAL**	**204 days**	**12/9/20**	**6/30/21**
13	**PRIMES PREQUALIFICATION PROCESS**	**155 days**	**1/4/21**	**6/8/21**
14	**BID & AWARD PHASE**	**64 days**	**6/15/21**	**8/17/21**
21	**GROUND BREAKING**	**92 days**	**7/1/21**	**9/30/21**
22	**CONSTRUCTION**	**366 days**	**9/1/21**	**9/1/22**
23	**FF&E and A/V EQUIPMENT PROCUREMENT**	**212 days**	**2/1/22**	**9/1/22**
24	**GRAND OPENING**	**84 days**	**6/13/22**	**9/4/22**
25	**OCCUPANCY**	**31 days**	**9/1/22**	**10/1/22**
26	**CLOSEOUT**	**54 days**	**9/5/22**	**10/28/22**



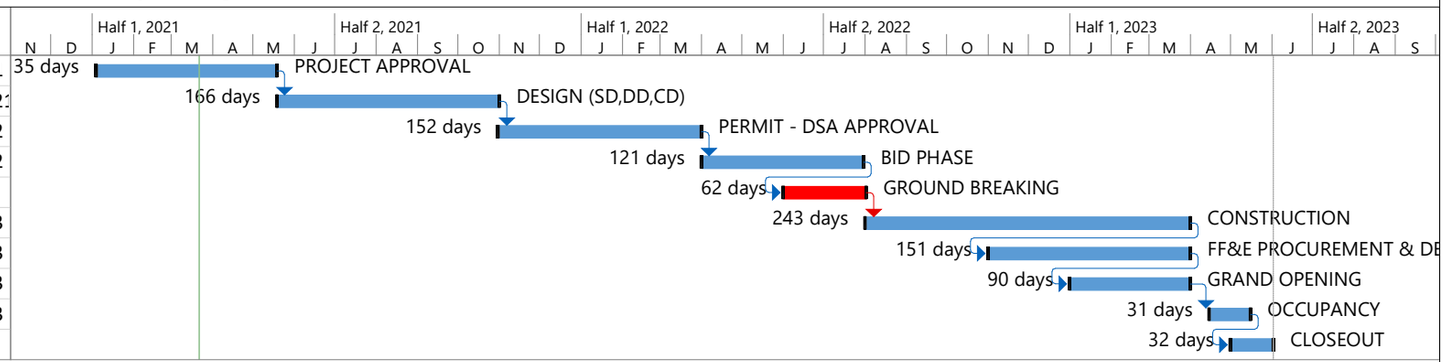
Project: MVC - BCTC - EDUCATION CENTER BUILDING (PH.1)
Date: 3/19/21

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

Moreno Valley College - Student Services Renovation

(MEASURE C, LOCAL RESOURCES - $5,000,000)

ID	Task Name	Duration	Start	Finish
1	PROJECT APPROVAL	135 days	1/4/21	5/18/21
2	DESIGN (SD,DD,CD)	166 days	5/19/21	10/31/21
3	PERMIT - DSA APPROVAL	152 days	10/31/21	3/31/22
4	BID PHASE	121 days	3/31/22	7/30/22
5	GROUND BREAKING	62 days	6/1/22	8/1/22
6	CONSTRUCTION	243 days	8/1/22	3/31/23
7	FF&E PROCUREMENT & DELIVERY	151 days	11/1/22	3/31/23
8	GRAND OPENING	90 days	1/1/23	3/31/23
9	OCCUPANCY	31 days	4/15/23	5/15/23
10	CLOSEOUT	32 days	5/1/23	6/1/23



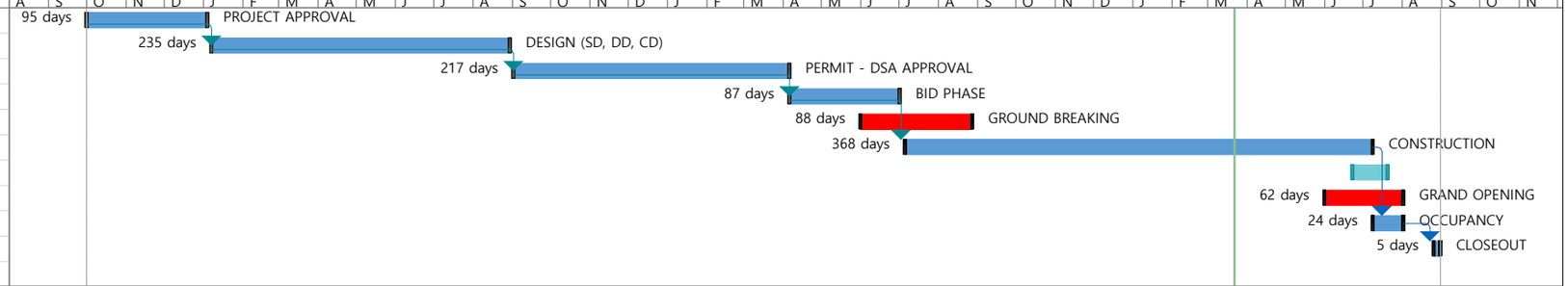
Project: MVC - Student Services Renovation
Date: 3/22/21

Task	Project Summary	Manual Task	Start-only	Deadline			
Split	Inactive Task	Duration-only	Finish-only	Progress			
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress			
Summary	Inactive Summary	Manual Summary	External Milestone				

MORENO VALLEY COLLEGE - WELCOME CENTER

(MEASURE C - $14,000,000)

ID	Task Name	Duration	Start	Finish
1	**PROJECT APPROVAL**	**95 days**	**10/1/18**	**1/4/19**
4	**DESIGN (SD, DD, CD)**	**235 days**	**1/7/19**	**8/30/19**
8	**PERMIT - DSA APPROVAL**	**217 days**	**9/2/19**	**4/5/20**
12	**BID PHASE**	**87 days**	**4/6/20**	**7/1/20**
19	**GROUND BREAKING**	**88 days**	**6/1/20**	**8/27/20**
20	**CONSTRUCTION**	**368 days**	**7/6/20**	**7/8/21**
21	**FF&E PROCUREMENT & INSTALLATION**	**7 days**	**6/23/21**	**7/20/21**
22	**GRAND OPENING**	**62 days**	**6/1/21**	**8/1/21**
23	**OCCUPANCY**	**24 days**	**7/9/21**	**8/1/21**
24	**CLOSEOUT**	**5 days**	**8/26/21**	**8/30/21**
25				



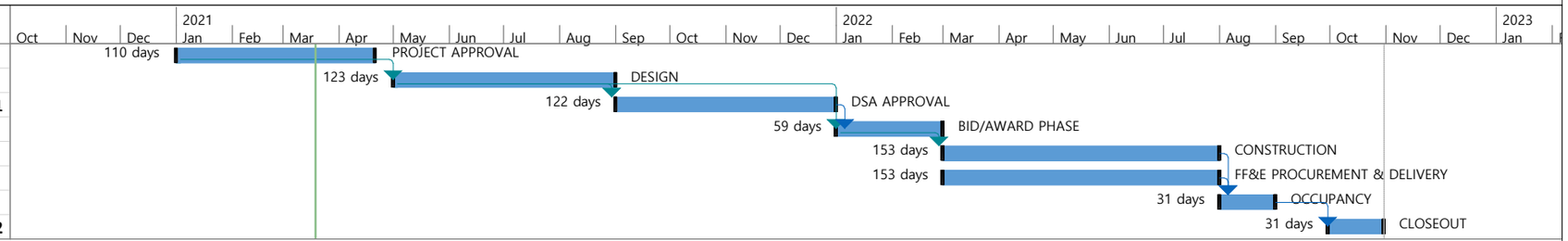
Project: MVC - Welcome Center
Date: 3/22/21

Task	Inactive Task	Manual Summary Rollup	External Milestone
Split	Inactive Milestone	Manual Summary	Deadline
Milestone	Inactive Summary	Start-only	Progress
Summary	Manual Task	Finish-only	Manual Progress
Project Summary	Duration-only	External Tasks	

NORCO COLLEGE - EARLY CHILDHOOD EDUCATION CENTER AT STOKOE ELEMENTARY SCHOOL

(STATE GRANT - $5,000,000)

ID	Task Name	Duration	Start	Finish
1	**PROJECT APPROVAL**	**110 days**	**1/1/21**	**4/20/21**
4	**DESIGN**	**123 days**	**5/1/21**	**8/31/21**
8	**DSA APPROVAL**	**122 days**	**9/1/21**	**12/31/21**
9	**BID/AWARD PHASE**	**59 days**	**1/1/22**	**2/28/22**
16	**CONSTRUCTION**	**153 days**	**3/1/22**	**7/31/22**
17	**FF&E PROCUREMENT & DELIVERY**	**153 days**	**3/1/22**	**7/31/22**
18	**OCCUPANCY**	**31 days**	**8/1/22**	**8/31/22**
19	**CLOSEOUT**	**31 days**	**9/30/22**	**10/30/22**



Project: NC - Early Childhood Education Center at Stokoe

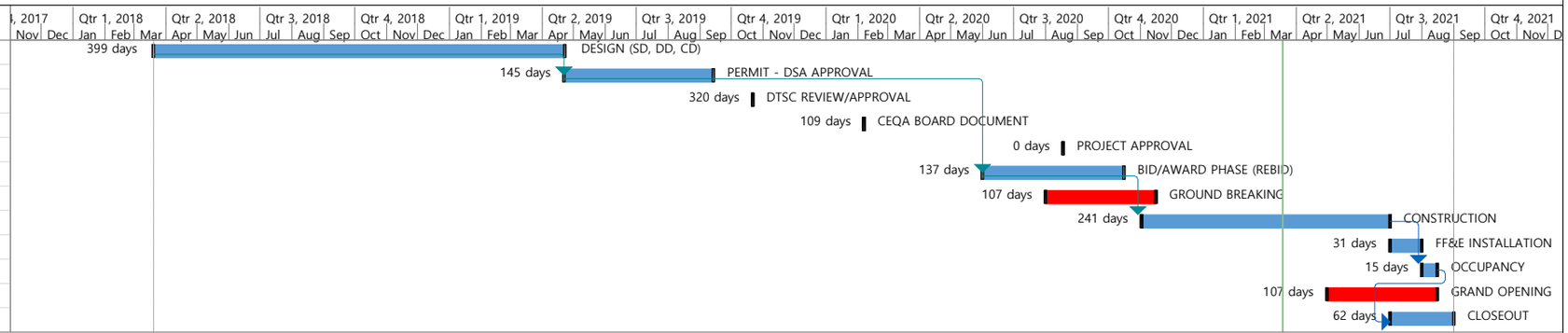
Date: 3/19/21

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

NORCO COLLEGE- VETERANS RESOURCE CENTER

(STATE GRANT & LOCAL RESOURCES - $4,350,000)

ID	Task Name	Duration	Start	Finish
1	**DESIGN (SD, DD, CD)**	**399 days**	**3/20/18**	**4/22/19**
5	**PERMIT - DSA APPROVAL**	**145 days**	**4/22/19**	**9/13/19**
9	**DTSC REVIEW/APPROVAL**	**320 days**	**12/6/18**	**10/21/19**
10	**CEQA BOARD DOCUMENT**	**109 days**	**10/21/19**	**2/6/20**
11	**PROJECT APPROVAL**	**0 days**	**8/18/20**	**8/18/20**
12	**BID/AWARD PHASE (REBID)**	**137 days**	**6/1/20**	**10/15/20**
19	**GROUND BREAKING**	**107 days**	**8/1/20**	**11/15/20**
20	**CONSTRUCTION**	**241 days**	**11/2/20**	**6/30/21**
21	**FF&E INSTALLATION**	**31 days**	**7/1/21**	**7/31/21**
22	**OCCUPANCY**	**15 days**	**8/1/21**	**8/15/21**
23	**GRAND OPENING**	**107 days**	**5/1/21**	**8/15/21**
24	**CLOSEOUT**	**62 days**	**7/1/21**	**8/31/21**

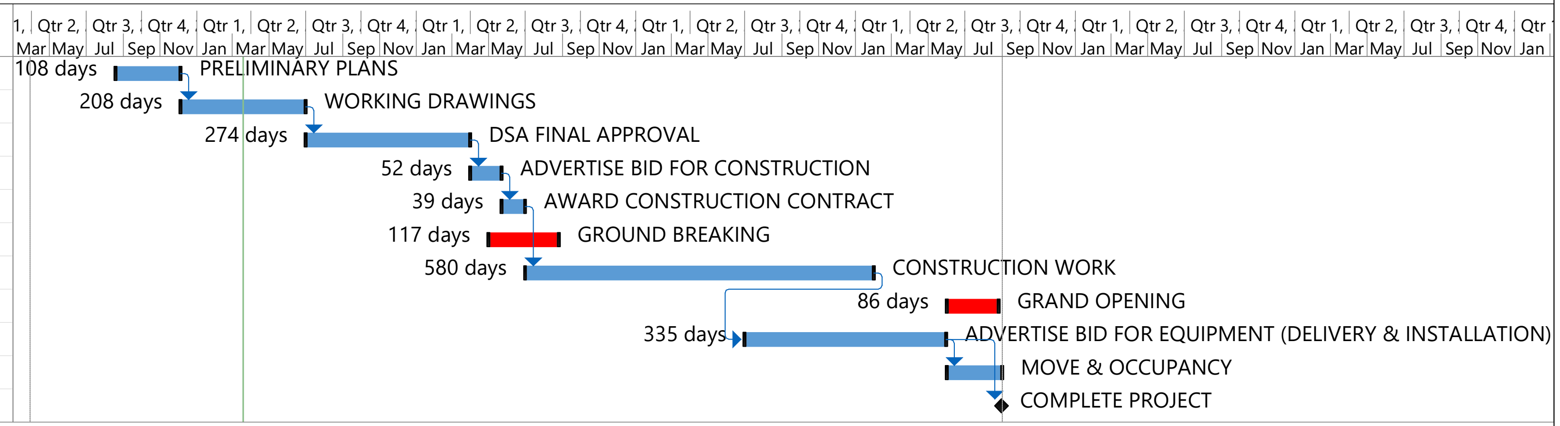


Project: NC - Veterans Resource Center
Date: 3/19/21

Task	Inactive Task	Manual Summary Rollup	External Milestone
Split	Inactive Milestone	Manual Summary	Deadline
Milestone	Inactive Summary	Start-only	Progress
Summary	Manual Task	Finish-only	Manual Progress
Project Summary	Duration-only	External Tasks	

RIVERSIDE CITY COLLEGE - LIFE SCIENCE/PHYSICAL SCIENCE RECONSTRUCTION (FOR BUSINESS EDUCATION + COMPUTER INFORMATION SYSTEMS) (STATE CAPITAL OUTLAY, MEASURE C, LOCAL RESOURCES - $35,004,000)

ID	Task Name	Duration	Start	Finish
1	PRELIMINARY PLANS	108 days	8/19/20	12/4/20
2	WORKING DRAWINGS	208 days	12/5/20	6/30/21
3	DSA FINAL APPROVAL	274 days	7/1/21	3/31/22
4	ADVERTISE BID FOR CONSTRUCTION	52 days	4/1/22	5/22/22
5	AWARD CONSTRUCTION CONTRACT	39 days	5/23/22	6/30/22
6	GROUND BREAKING	117 days	5/1/22	8/25/22
7	CONSTRUCTION WORK	580 days	7/1/22	1/31/24
8	GRAND OPENING	86 days	6/1/24	8/25/24
9	ADVERTISE BID FOR EQUIPMENT (DELIVERY & INSTALLATION)	335 days	7/1/23	5/30/24
10	MOVE & OCCUPANCY	92 days	6/1/24	8/31/24
11	COMPLETE PROJECT	0 days	8/31/24	8/31/24

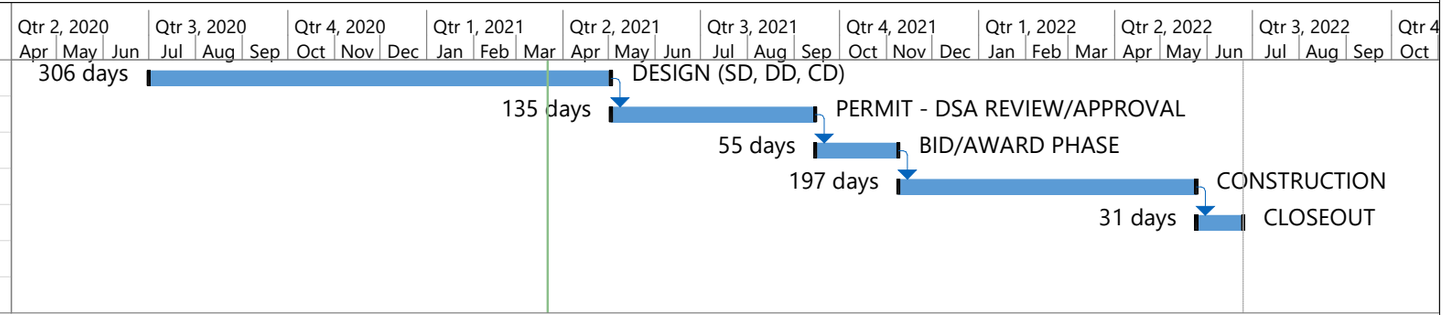


Project: RCC - LS/PS Reconstruction for Business + CIS
Date: 3/19/21

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

RIVERSIDE COMMUNITY COLLEGE DISTRICT - RCC ADA GOMEZ (PH. II) *(FUNDING SOURCE: TBD - $1,062,912)*

ID	Task Name	Duration	Start	Finish
1	DESIGN (SD, DD, CD)	306 days	7/1/20	5/2/21
2	PERMIT - DSA REVIEW/APPROVAL	135 days	5/3/21	9/14/21
3	BID/AWARD PHASE	55 days	9/15/21	11/8/21
4	CONSTRUCTION	197 days	11/9/21	5/24/22
5	CLOSEOUT	31 days	5/25/22	6/24/22
6				
7				



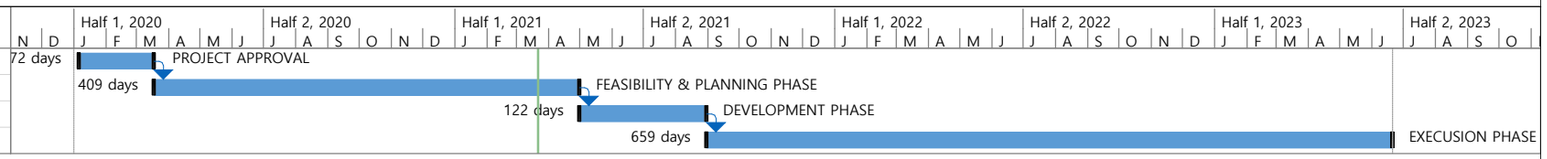
Project: RCCD - RCC ADA Gomez (Ph. II)
Date: 3/22/21

Task	Inactive Task	Manual Summary Rollup	External Milestone
Split	Inactive Milestone	Manual Summary	Deadline
Milestone	Inactive Summary	Start-only	Progress
Summary	Manual Task	Finish-only	Manual Progress
Project Summary	Duration-only	External Tasks	

RIVERSIDE COMMUNITY COLLEGE DISTRICT - SOLAR PLANNING INITIATIVE DISTRICTWIDE SOLAR PLAN

(MEASURE C - $229,220)
budget is for consultant only

ID	Task Name	Duration	Start	Finish
1	**PROJECT APPROVAL**	**72 days**	**1/6/20**	**3/17/20**
2	**FEASIBILITY & PLANNING PHASE**	**409 days**	**3/17/20**	**4/30/21**
3	**DEVELOPMENT PHASE**	**122 days**	**5/1/21**	**8/30/21**
4	**EXECUSION PHASE**	**659 days**	**8/31/21**	**6/20/23**



Project: RCCD - Districtwide Solar Plan
Date: 3/22/21

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

On-Bill Financing Program
Southern California Edison

Energy for What's Ahead®

SOUTHERN CALIFORNIA EDISON®

What is On-Bill Financing?

On-Bill Financing (OBF) is a finance (loan) program designed to facilitate the purchase and installation of qualified energy-efficiency measures by eliminating the burden of up-front costs

The OBF program offers:

- 0% interest loans
- No fees or loan costs
- Convenient loan repayment through your utility bill

OBF offers financing for the project cost, not only the measure cost

Who Qualifies for OBF?

OBF is available to all non-residential customers in good credit standing with SCE

What Projects Qualify for OBF?

OBF financing is available for all measures eligible for rebates or incentives through participating Energy Efficiency programs

Who can apply for On-Bill Financing?

To participate in OBF, business customers must complete the installation of their energy-efficiency projects by applying for one or more of the following incentive programs:

- Express Solutions (Pending Installation)
- Customized Solutions
- Commercial NMEC Program
- Third Party Programs
- Local Government and Institutional (Public Sector)
- Behavioral Retrocommissioning and Operational (BRO)
- Midstream Point of Purchase (MPOP)
- Multifamily Energy Efficiency Rebate
- Public Sector Performance Based Retrofit Program
- Capital Projects under the Strategic Energy Management Program
- Commercial Quality Maintenance Program

Credit Requirements

In order to qualify for OBF, customers must have an active SCE account and be in good credit standing with SCE without:

- Disconnection notices in the past two years
- 48-hour shut-off notices in the past two years
- Returned checks in the past 12 months
- Deposit on account in the past 12 months
- 3 or more "past due" notices in past 12 months
- Tax Payer ID/Social Security # must match our billing system
- Service account must be active for minimum of two years
- No previous OBF loan defaults

OBF Loan Amount and Term Limits

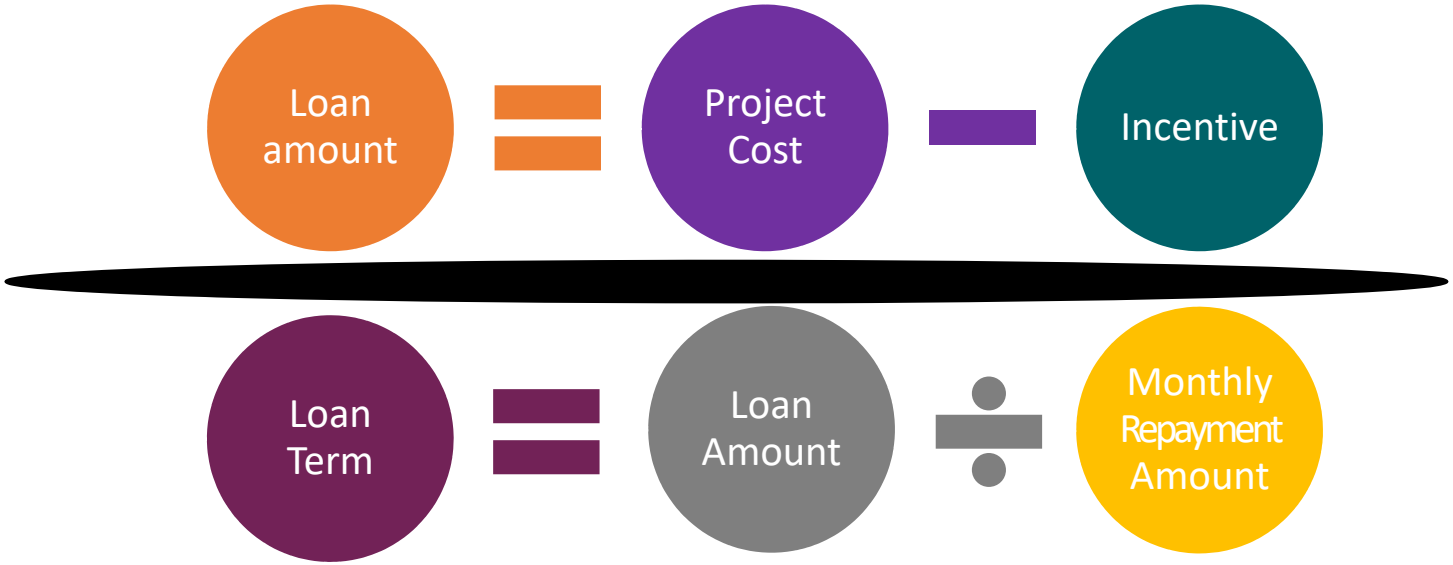
Customer Segments	Individual SA	Loan Cap by Exception	Loan Terms
Governments and Institutions (G&I)	Min: $5,000 Max: $1,000,000	Min: $5,000 Max: $4,000,000	Up to 120 months (10 Years)

- Loan caps are per Service Account
- Exception caps require SCE management approval on a case by case basis
- All customers are limited to 10% of the loan budget

Incentives vs Financing

- **OBF loans over $250,000 will be funded without incentives**
  - Customers receiving OBF loans totaling over $250,000 per service account are not eligible for additional incentives for Solutions that are funded by the OBF loan
  - OBF loans over $250,000 will be adjusted to cover the total project cost without incentives
  - If an OBF loan reservation (LTC1) exceeds the $250,000 cap, customers will be notified and will have the option to cancel their loan application if they wish to receive incentives instead of financing

OBF Loan Calculation



The OBF **monthly repayment amount** is **equal to** the monthly **bill savings** attained by the installation of the energy efficiency project. This is done to make sure customers do not experience a significant change in their energy bill and are able to pay the OBF monthly installments (**Bill Neutrality**)

Bill savings are determined by the **energy savings** achieved by the project **(kWh),** and by the customer's **billing rate** at the time of calculation. Projects with higher energy savings will have a better chance of repaying the requested loan amount within the maximum **loan term of 10 years or the Expected Useful Life** (EUL) of the measure contributing the highest energy savings to the project.

If the loan cannot be repaid within the 5-year maximum loan term limit, the loan amount will be **adjusted** by multiplying the monthly repayment amount by maximum loan tern

OBF Process Flow

1

Customer/Trade Pro submits incentive & OBF applications

2

SCE receives & reviews application

3

SCE conducts credit review & savings / usage verification

4

SCE completes the Touch Point questionnaire

5

SCE approves Loan Terms (LTC1)

Customer/Trade Pro installs project & submits Installation Report

6

SCE performs post-inspection and issues Loan Documents (LTC2)

7

Customer/Trade Pro submits signed Loan Agreements

8

Customer/Trade Pro receives OBF Funds

9

OBF Loan Appears on Utility Bill (30-60 days)

10

Using multiple Service Accounts

Customers applying for more than one OBF loan at the same time may have the option to **bundle** their loans for reducing processing times and required paperwork

- Bundling is available to government and institutional customers (including partnerships and schools)
- It allows to aggregate multiple service accounts at **one or more premises** (sites) regardless of customer account
- All bundled sites must be submitted on one OBF application
- Individual project sites (service accounts) are **not** required to meet the minimum loan requirement of $5,000
- All projects in a bundled OBF application must be completed prior to loan funding

Contact Information

Delia Williams – Program Manager

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Website: sce.com/onbill

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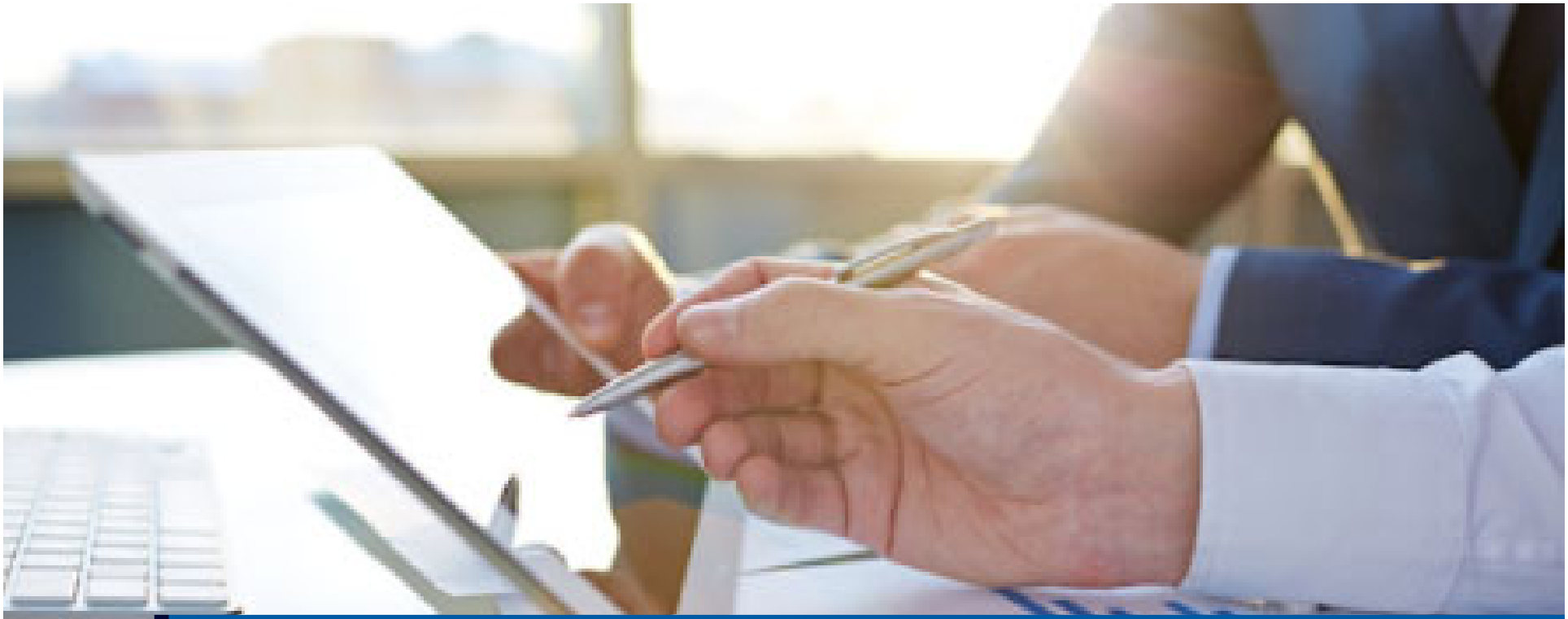

ON-BILL FINANCING (OBF)
CSU ENERGY MEETING 09/23

On-Bill Financing Program (OBF)

What is On-Bill Financing?

- **Interest-free financing** for the purchase and installation of energy efficient measures.
- Allows customers to overcome cost barriers
- The loan amounts are funded through a ratepayer pool of dollars and administered by SoCalGas.

Project Eligibility

- Available for non-residential customers
- Must meet terms and conditions of SoCalGas Energy Efficiency Programs
- Estimated energy savings must be sufficient to repay loan during repayment period.

Key Features

- Zero percent unsecured loan
- No origination fees
- No prepayment penalty
- No processing fees
- Finance 100% of installed project costs less the rebate/incentive
- No ongoing administrative fees

PROGRAM LOAN LIMITS

CUSTOMER SEGMENT	LOAN AMOUNTS	MAX LOAN TERMS
BUSINESS	**MIN. - $5,000** **MAX. - $100,000**	5 years or useful equipment life (whichever is shorter)
MULTI-FAMILY •Common area measures only	**MIN. - $5,000** **MAX. - $100,000**	5 years or useful equipment life (whichever is shorter)
LOW INCOME MULTI-FAMILY •Common area measures only •65% of tenants must be income qualified	**MIN. - $5,000** **MAX. - $250,000**	10 years or useful equipment life (whichever is shorter)
INSTITUTIONAL (CITIES, COUNTIES, SCHOOLS)	**MIN. - $5,000** **MAX. - $250,000**	15 years or useful equipment life (whichever is shorter)
STATE OF CALIFORNIA	**MIN. - $5,000** **MAX. - $1,000,000**	15 years or useful equipment life (whichever is shorter)

Milestone Loan Option

- The program allows the customer to meet contractor obligations by providing cash flow in milestone installments.
- No repayment of loan required until project completion.
  - ✓ Available for Public Sector Customers (including Local and State Government partners)
  - ✓ Max loan term - 15 years
  - ✓ Max loan amount - $1,000,000

Loan Overview

How the program works:

- Loan application submitted
- OBF team reviews and approves project
- Project milestone schedule determined
- SoCalGas disburses milestone payments as completed
- Project completed
- Converts to standard OBF loan
- Monthly payments will begin to display on customer utility bill

Contacts

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On-Bill Financing Program Manager
JFrausto@socalgas.com
213.244.4628

COMMUNITY TRANSPORTATION NEEDS ASSESSMENT
CALIFORNIA MOBILITY OPTION
CARSHARING PROGRAM

Community Transportation Needs Assessment (CTNA) –Survey

The Riverside Community College District ("RCCD"), in partnership with car share program ("EviaShare"), is conducting a transportation needs assessment survey to understand the community's mobility options, needs, travel behavior, preferences and understanding of zero-emission vehicle technologies. The survey will ultimately guide future investment in clean mobility options for RCCD to serve its community including its students, faculty and staff.

Please answer the following questions as sincerely and accurately as possible. This survey takes about [10] minutes to complete, and all personal information is confidential. If you are uncomfortable with a question, feel free to skip it and move on to the next.

About you

City:	City
Zip Code:	Zip code
Age:	Age
Gender:	Gender

1. Do you own/use any of the following?

Cellphone: A device that can be used to make calls and send texts without the need for a physical connection.

Smartphone: A device that can be used to make calls, send texts, use apps, stream the web, music and other media with out the need for a physical connection.

	Daily	Very often	Often	Not regularly	Never
Smartphone	☐	☐	☐	☐	☐
Cellphone	☐	☐	☐	☐	☐

Debit card	☐	☐	☐	☐	☐
Credit Card	☐	☐	☐	☐	☐
Pre-paid cash card	☐	☐	☐	☐	☐

Demographics

2. What is your primary language (i.e., first language or language you speak most often)?

Primary language

3. Which of the following applies to you?

I own a home/ have a mortgage.	☐	I live in an apartment or affordable housing unit.	☐
I rent a home.	☐	Other	Other

4. Do you have a valid driver's license?

Yes	☐	No	☐

5.

5. Do you or any of your household members own a car?

Yes	☐
No	☐

6. If you answered yes to the previous question, how many cars does your household own and how often are they used?

	Daily	Regularly		Not regularly
One Car	☐	☐		☐
Multiple Cars	☐	☐		☐

7. Are any of these vehicles PHEV or BEV and how often are they used?

Plug-in Hybrid Electric Vehicle (PEV): Often referred to as a hybrid vehicle, a PHEV is powered by both electricity and gasoline.

Battery Electric Vehicle (BEV): BEV's are fully electric vehicles that do not have a gasoline engine. They are powered by electricity from a rechargeable battery onboard.

	Daily	Very often	Often	Not regularly
One	☐	☐	☐	☐
Two	☐	☐	☐	☐
Three or more	☐	☐	☐	☐

Mobility options

Mobility options: The ability to move freely to and from places. A mobility option can be walking, transit (e.g., bus, light rail), taxi, carpool, rideshare (e.g., Uber, Lyft), carshare, a vehicle.

8. It is generally easy to go where I need to go:

Strongly agree	☐	agree	☐	neutral	☐	disagree	☐	strongly disagree	☐

9. Why or why not?

Why or why not?

10. How do you think having access to a personal vehicle affects your quality of life?

(Please choose up to **three** of the following)

Able to get a job or a better job.	☐	Able to make more money.	☐
Make me feel more independent.	☐	Able to have a better social life.	☐
Able to have a better social life.	☐	Able to access the services I need.	☐
Able to shop for things I need.	☐	Save time wasted on public transit or walking	☐

11. What would you consider to be the most important factor in personal transportation? (Please choose up to **three** of the following)

Able to take mewherever you want to go.	☐	Being available most or all of the time.	☐
Being independent (I don't need to rely on others).	☐	Being affordable.	☐
Able to help me make money.	☐	Able to impress people.	☐

Travel behaviors

12. Which transportation do you currently use for each of the purposes below:

(Check all that apply)

	Work	School	Groceries/ errands	Pick up/drop off children	Social events: dates hang outs	Recreation: sports games	Medical appointments	Visiting relatives
Drive alone	☐	☐	☐	☐	☐	☐	☐	☐
Ask a friend	☐	☐	☐	☐	☐	☐	☐	☐
Drive with others (co-workers, friends)	☐	☐	☐	☐	☐	☐	☐	☐
Carpool service	☐	☐	☐	☐	☐	☐	☐	☐
Public transit (Bus, light rail)	☐	☐	☐	☐	☐	☐	☐	☐
Bicycle	☐	☐	☐	☐	☐	☐	☐	☐
Walk	☐	☐	☐	☐	☐	☐	☐	☐
Taxi	☐	☐	☐	☐	☐	☐	☐	☐
Uber/Lyft	☐	☐	☐	☐	☐	☐	☐	☐
Government provided rides	☐	☐	☐	☐	☐	☐	☐	☐
Other: Other	☐	☐	☐	☐	☐	☐	☐	☐

13. How often do you use the following? (check **all** that apply)

	Every day	3-6 times a week	1-3 days a week	Once a week	Every other week	Once a month	Never
Drive alone	☐	☐	☐	☐	☐	☐	☐

Ask a friend	☐	☐	☐	☐	☐	☐	☐
Drive with others (co-workers, friends)	☐	☐	☐	☐	☐	☐	☐
Carpool service	☐	☐	☐	☐	☐	☐	☐
Public transit (Bus, light rail)	☐	☐	☐	☐	☐	☐	☐
Bicycle	☐	☐	☐	☐	☐	☐	☐
Walk	☐	☐	☐	☐	☐	☐	☐
Taxi	☐	☐	☐	☐	☐	☐	☐
Uber/Lyft	☐	☐	☐	☐	☐	☐	☐
Government provided rides	☐	☐	☐	☐	☐	☐	☐
Other: Other	☐	☐	☐	☐	☐	☐	☐

14. On average, how many errands under 2 hours do you do per week?

List the number here: List the number here.

15. How long is your average commute to and from work?

List average commute time here: List the number here.

16. On average, how much do you spend per month total on transportation (bus fare, car payment, car insurance, gas, tolls, parking, etc.)?

List the estimated amount here: $	List.

17. 23. Would you be interested in driving for Uber, Lyft, food or package delivery services if you have access to a vehicle?

Yes	☐	Probably	☐	Not sure	☐	Probably not	☐	No	☐

Interest in a carshare program

19. Would you be interested in carsharing?

Carsharing: A mobility option where you can share a car with others within your neighborhood. You pay by the minutes, use by the hour, or pay a monthly fee for the service. The service covers fuel, insurance, and maintenance.

Yes	☐	Probably	☐	Not sure	☐	Probably not	☐	No	☐

20. What would you be willing to pay to rent a car for one hour?

List the estimated amount here: $	List.

21. Do health and safety concerns from the COVID-19 pandemic affect your likelihood in becoming a member of a carshare program?

Yes	☐	Probably	☐	Not sure	☐	Probably not	☐	No	☐

22. What sanitation protocols will ensure the GREATEST vehicle safety and comfort in your driving experience?

- Cleaning and disinfecting stations available for riders to sanitize after every ride
- Mask availability for members
- Readily available EPA-approved disinfectant sprays

Understanding of ZEV technologies

23. How familiar are you with each of the following from a scale 1-5?

Zero-emission vehicle: A vehicle that does not emit pollutants from its tail pipe, usually refers to battery electric or fuel cell (hydrogen powered) vehicles.

Rideshare: A arrangement via a website or app where a passenger may travel in a private vehicle driven by its owner for a fee.

	1) Not familiar	2) Somewhat familiar	3) Moderately familiar	4) Familiar	5) Very familiar
Zero-emission vehicles (e.g., battery electric, fuel cell)	☐	☐	☐	☐	☐
Electric vehicles (e.g., battery electric, plug-in hybrid)	☐	☐	☐	☐	☐
Car-share (e.g., Zipcar, Getaround)	☐	☐	☐	☐	☐
Public transit (e.g., bus, light rail)	☐	☐	☐	☐	☐
Ride-share (Lyft/Uber)	☐	☐	☐	☐	☐
Bike-share (e.g., Lime Bike, Jump)	☐	☐	☐	☐	☐
Scootershare/E-scooters (e.g., Lime, Bird)	☐	☐	☐	☐	☐

24. Do you have access to electric vehicle charging?

Yes	☐	Probably	☐	Not sure	☐		Probably not	☐	No	☐

If no, what are the challenges to access?

Why or why not?

25. If given the opportunity, would you drive a battery-electric car or a zero-emission vehicle?

Yes	☐	Probably	☐	Not sure	☐	Probably not	☐	No	☐

Final section

26. Do you have any other feedback or suggestions you would like to share?

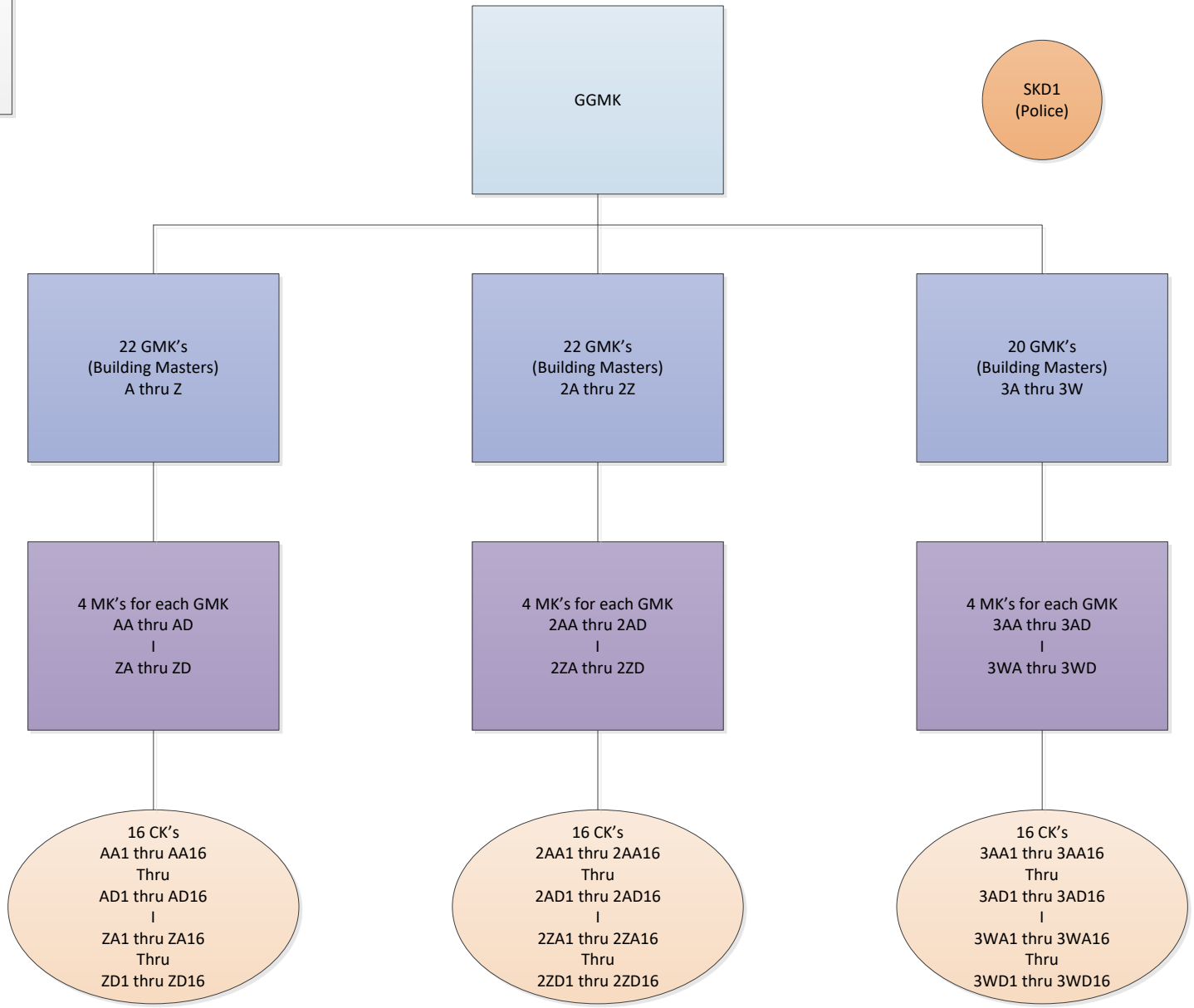
Please share your feedback here:

Share your feedback here.

Thank you for completing the survey!

Norco College System
Medeco X4
Ver1
10/28/2020

NORCO COLLEGE RE-KEYING LEGECY - SCHEMATIC



MEDECO X4 SECURITY SOLUTIONS

Medeco X4 offers a wide variety of retrofit cylinders, including SFIC. The patent life extends through 2027 and offers four times the masterkey capacity of similar-style cylinders.

Patented Key Control—Protects unauthorized duplication of your keys.

Uses Existing Hardware—Medeco offers the largest selection of retrofit cylinders, which will reduce costs by eliminating the need to replace your existing hardware.

Superior Masterkey Capabilities—Four times the masterkey ability of similar-style cylinders.

LEVEL 1

PATENTED KEY CONTROL
For applications where access to duplicate keys is prohibited without authorization.
Product Recommendation: **Medeco X4**

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MEDECO U.S.: 3625 Alleghany Drive
P.O. Box 3075
Salem, Virginia 24153-0330
Customer Service: 1-877-633-3261

MEDECO Canada: 160 Four Valley Drive
Vaughan, Ontario L4K 4T9
Customer Service: 1-888-633-3264

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.

LT-922123-10 REV B

Medeco X4 Smart Security Solutions: Linking Key Control Across Your Facility

ASSA ABLOY, the global leader in door opening solutions

medeco®
ASSA ABLOY

WHO HAS THE KEYS TO YOUR FACILITY?

Medeco believes in giving customers the greatest control over their security. All facilities need patented key control to effectively secure exterior and interior openings. This strength of integrity allows security managers to have peace of mind when it comes to managing the system. Unfortunately, instituting a new key system is not always easy…or economical.

Medeco X4 is the most economic and efficient solution. Medeco X4 has one of the largest masterkey capabilities on the market. This allows facility managers to tie everything together under one key for ease, convenience and efficiency. Additionally, Medeco X4 easily retrofits into existing systems so installation time is minimal.

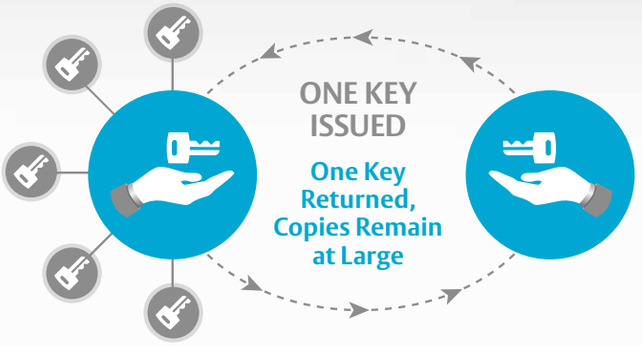
Medeco X4 is the perfect security upgrade for small format interchangeable core (SFIC) installations for Best®-style systems. Additionally, Medeco X4 can also be integrated in with Prox® and iClass® systems. In addition to SFIC cylinders, Medeco X4 is available in many other styles of retrofit cylinders and can be keyed into a single system.

LEVEL 0	NO KEY CONTROL
LEVEL 1	PATENTED KEY CONTROL

SECURITY BEGINS WITH KEY CONTROL

LEVEL 0 — NO KEY CONTROL

Regular keys can be easily copied at any hardware or discount store. Multiple keys often become unaccounted for over time, which can allow unauthorized access, either directly or indirectly.



LEVEL 1 — PATENTED KEY CONTROL

Patent-protected Medeco X4 key control ensures that only designated people can duplicate keys, which effectively controls how many keys are issued and to whom keys are distributed.

LEVEL 0	NO KEY CONTROL Unpatented keys can easily be duplicated without your permission. *Product Recommendation:* **Upgrade to a higher level of security.**

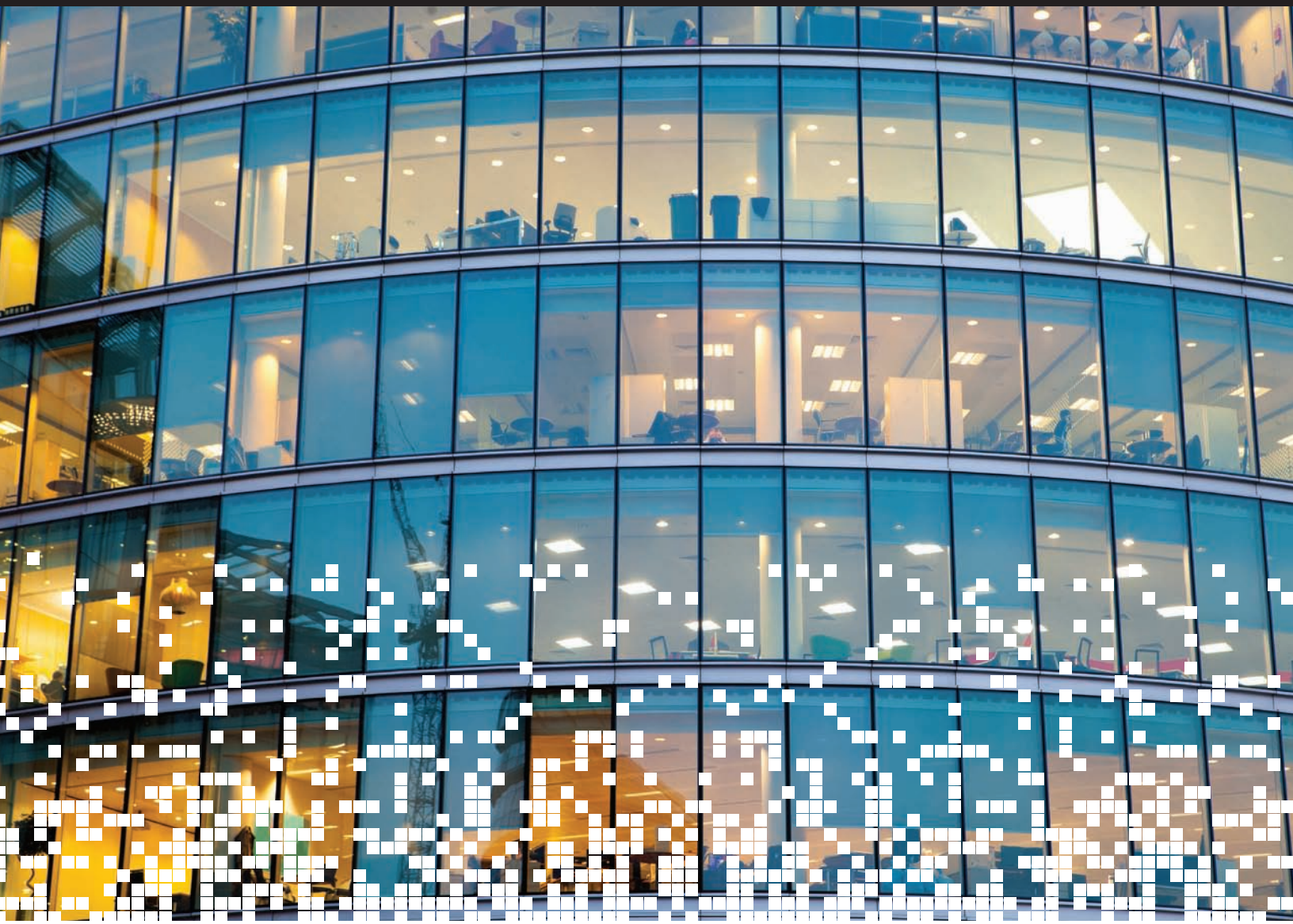
ONE KEY FITS ALL

The Medeco X4 key can be masterkeyed into a system containing a variety of different lock formats to provide a one-key solution for your facility.

medeco®

ASSA ABLOY

Experience a safer
and more open world



2020

Product Catalog

U.S. Prices Effective December 1, 2019

Medeco X4 Architectural Product Specifications

Cylinders shall be of the knob, rim, mortise, or interchangeable core type. All cylinder components (excluding tumbler pins) shall be constructed of machined extruded brass. All cylinders, cores and housings shall be available in all standard architectural finishes and shall match the cylinder housing and lock and door hardware. Further, cylinders and housings shall be plated, not scalped with the appropriate finish.

Cylinders to be of the 6- or 7-pin tumbler type, providing the maximum unique, non-interchangeable key combinations respectively. All cylinders shall incorporate two locking elements consisting of pin tumbler elevation and a slider mechanism. Further expansion of a master key system shall be available by use of additional multiplex keyways. Cylinders shall not lose any combinations due to MACs (maximum adjacent cut) loss.

All cylinders shall use a .150" space dimension between tumbler pin chambers and shall be capable of using industry-standard tumbler pins. Cylinder shall contain standard pins, a portion of which (both bottom and top pins) shall be spooled to resist pick attacks.

All non-I/C rim and mortise cylinders shall be so constructed to use threaded set screws, not staked covers or caps, to cover each individual tumbler pin chamber.

All cut keys, key blanks and cylinders (knob, rim, mortise, and interchangeable core-type) shall be so constructed to be capable of being keyed in the same system, allowing the convenience of one master key to operate all types of listed cylinders. Further, the key or key blank's tip shall be so constructed to correctly locate the bits of the key beneath the proper chamber of an interchangeable core cylinder by locating against a key stop on the rear core. Additionally, the key or key blank's shoulder shall serve as a stop to correctly locate the bits of the key beneath the proper plug chamber of rim, mortise and knob-type cylinders by locating against the front face of the cylinder. The key blank thickness should be no less than .093" (ninety-three thousandths).

All cut keys and key blanks shall be utility patented and controlled by a contract between the end user and the manufacturer. Key blanks for this project shall be delivered directly from the factory to the end user unless otherwise requested in writing by the end user.

All keys must be capable of being configured to allow an upgrade to a dual mechanical/electronic credential by the simple exchange of a field-removable key bow.

The key shall incorporate the capacity to include eight possible side bittings along the key blade, located on two different planes or surfaces of the key.

All key blanks shall be custom coined with the end user's name or other unique identification mark. All cut keys and key blanks are to be constructed from nickel silver.

All keys shall be capable of being cut by a punch machine that originates the exact cut in the key from the code sheet, instead of using patterns.

Cylinders shall be immediately rekeyable to new combinations or a new system at any time desired and shall be serviceable on location in the field. Installation of the cylinders shall require no modifications to U.S. manufactured commercial-grade locksets.

The locking system established for this project shall be proprietary, and the owner will furnish the manufacturer a list of those persons and their signatures that will be authorized and required to order additional pinned materials or duplicate keys. Orders not bearing authorized signatures will not be filled.

All cylinders, cores, housings, keys and key blanks shall be made in the USA.

Medeco X4

Technical Service Manual

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in door opening solutions

Medeco X4 Technical Service Manual

- History of Key Control by Medeco
- Key Control Programs
    - Patents and Key Control Agreements
    - Custom Coining
- Cylinders
    - SFIC
    - LFIC, Conventional, Cam lock Cylinders
    - Visual Key Control
    - Construction Cores
- Tumbler Pins
- Key Specifications
    - Decoding/Cutting Keys
- Pinning How-to
    - SFIC Pinning
    - Conventional Cylinder Pinning
    - Pinning Sheets
- Tools and Key Machines
- FAQ
- Warranty
- Architectural Specification

History of High Security and Key Control by Medeco®

The birth of key control and high security locks occurred in October 1968 in Salem, Virginia. A unique locking principle of elevating and rotating pin tumblers was developed that provided millions of key combinations and a level of security that was unmatched in its time. Special angled cuts on the key, a sidebar and hardened steel inserts were used to produce a cylinder that was highly resistant to virtually all forms of attack. Medeco locks soon became the standard for high security and key control.

A utility patent was issued, protecting the operation of the cylinder and also covering the key restricting other manufacturers from producing the cylinder or key blank. The principle of exclusive manufacturing rights over key blanks was tested in court many times over the life of the patent.

The Biaxial® design was introduced in 1985, also providing high security and key control through the use of an elevating and rotating tumbler design and also provided enhanced master keying capability with the addition of an offset pin tip.

Introduced in 2003, Medeco^3 adds to the proven high security design of elevating and rotating pins and sidebar with the addition of a slider mechanism. A utility patent is still used today to provide protection against unauthorized manufacture and duplication of key blanks through the 2021 key patent expiration.

History of Key Control by Medeco

In 1921 a removable core lock was designed by Best Lock Co. allowing quick and easy lock changes by an untrained person removing and replacing a core. This design was the industry standard for many decades, but didn't always meet the customer's need for strict control over duplication of their keys.

In 1995 Medeco introduced KeyMark, a cylinder to retrofit the Best® style small format interchangeable core (SFIC), and added large format interchangeable core (LFIC) to retrofit Corbin Russwin, Sargent, Schlage, and Yale style cores, and conventional non-interchangeable core cylinders using the same key. KeyMark cylinders were protected by a utility patent on both the cylinder and the key providing the ultimate in patented key control. KeyMark is now known as Medeco KM.

In 2008, Medeco introduced the next generation of quality key control cylinders, now known as Medeco X4, (previously KeyMark X4). Like the original KeyMark product line, Medeco X4 is available is SFIC, LFIC, as well as a large variety of conventional non-interchangeable core cylinders. The addition of a special locking pin and slider mechanism greatly increases the number of possible keying combinations on specific end user keyways allowing Medeco X4 to provide much larger master keying capability compared to other SFIC products. Medeco X4 keys and cylinders are patented in the U.S. and other many countries around the world.

For over 45 years Medeco has set the standard for high security and key control in the retrofit cylinder marketplace.

Program Policies

The combination of a Best style Interchangeable Core with a full line of retrofit cylinders and legally protected principles and practices of strict key control is the essence of Medeco X4. As with other Medeco products, several key control program options are available in End User & Dealer keyways, as well as a hybrid Distributor option.

A. End User Program
This level of key control is designed for use by large institutions with a o locksmith on staff. Institutions may order through any Medeco X4 authorized dealer/distributor by presenting a properly signed letter of authorization to Medeco as part of their order. All key blanks are shipped directly to the end user. Product (including cut keys) may be shipped to the dealer/distributor or to the end user. Entirely unique families of multiplex keyways are available at this level, but only used when required.

Typically an end user customer meets the following criteria:
1. 250 or more lockable doors within the institution.
2. Locksmith on staff.
3. Key Control Agreement between end user and Medeco.
4. End user must have an acceptable key machine or punch machine to cut keys.
5. Product is not sold directly to the institution; rather it is sold through authorized distribution or retail based locksmiths.

B. Locksmith Dealer Restricted Program
1. Key Control Agreement between dealer and Medeco.
2. Key blanks are drop shipped to the dealer, even when purchased through a distributor.
3. Dealer must have an acceptable key machine or punch machine to cut keys.

Restricted keyways are assigned geographically and by size, and each dealer has exclusive rights over the systems they sell on their keyway.

C. Medeco X4 Chrome Distributor Program
The Medeco X4 Chrome Distributor program is a hybrid, allowing for keys to be cut at the distributor on custom coined distributor blanks and sold to a dealer or end user as cut keys.

1. If the end user or dealer later requests the option to cut their own keys, a three way agreement between the distributor, the end user (or dealer), and Medeco is initiated.
2. Once the end user (or dealer) has completed the key control agreement and purchased a coining die, they may order custom coined blanks from the distributor.
3. The distributor may continue to provide cut keys to the dealer or end user as well.

No Key Control Agreement is necessary for a dealer or end user not be cutting keys and who purchases all cut keys from the distributor. The three way agreement is only initiated for a dealer or end user who determines the need to independently cut keys.

Medeco X4 Patents

1. Slider/Locking Pin Patent – expires in 2028
2. Key Section/Keyway Patent – expires in 2027

Medeco X4 Key Control Agreements

If the essence of the KeyMark technology in both Medeco KM or Medeco X4 is key control, then, to preserve the keyway integrity, Medeco, the locksmith, and the end user must all work together to control the issuance of keys. Part of Medeco's task in this is to set up strong procedures to preserve the secure distribution of the restricted key blanks, the storage of those key blanks, and the procedures for cutting authorized keys.

Thus, all KeyMark technology program options are controlled with a key control agreement. To enroll in any Medeco X4 program, a "Restricted Key Section Agreement" must be signed to commit adherence to the proper key control procedures. Through vigorous enforcement and periodic monitoring by Medeco of the provisions in the key control agreement, the strength of our utility patented key control and the correct jurisdiction over your keying systems provide protection against unauthorized duplicate keys.

A. Key Control Agreement Overview

To preserve the integrity of Medeco X4 key control, Medeco, the locksmith, and the end user must all work together to control the issuance of keys. Medeco will set up strong procedures to preserve the secure distribution of the Medeco X4 patented key blanks, the storage of those key blanks, and the procedures for cutting authorized keys.

B. Key Control Agreement Highlights

The following topics are covered in the Medeco X4 Key Control Agreement

1. Necessary security of blanks and key machines
2. Key control record keeping
3. Specific keyway assignment
4. Custom coining policies
5. Prohibition on resale of Medeco X4 products (by end users)
6. Prohibition on resale of Medeco X4 key blanks by dealer or end user. A distributor may sell blanks only to dealers or end user with properly executed agreements and custom coining dies
7. Necessary signature authorization
8. Indemnification and termination
9. Key Control Agreement is between end user or dealer and

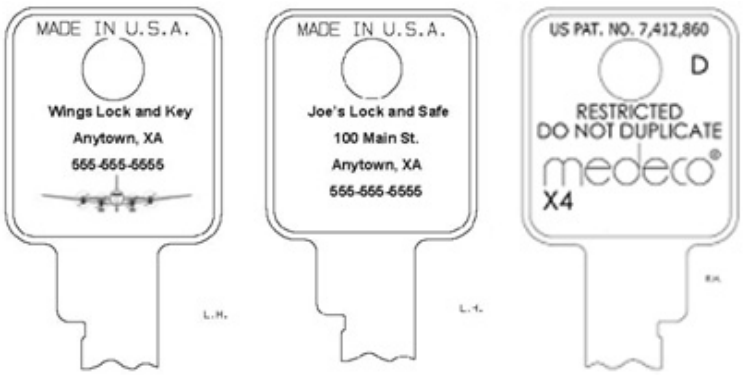
C. Process to Complete Key Control Agreement

1. Contact your Medeco sales representative or Medeco customer service at 1-800-839-3157 for a contract request form.
2. Return two signed copies to Medeco
3. Order for initial product and key blanks
4. Custom Coining Die Form returned
5. Master Key System Request (if new master key system required)
6. Premise survey provided in digital format if a master key system is ordered
7. Letters of authorization if new end user system setup.

Custom Coining

To further enhance the safety and control of Medeco X4 keys and blanks, all key blanks released to the field must be custom coined with a unique identifiable name, number, or code. Custom coining, which is the same process the United States mint uses to produce coins, produces a jewelry-quality finish and is an excellent advertisement for a Medeco X4 dealer or end user. If, for security reasons, an end user chooses not to explicitly identify their key blanks by the name of the institution, an appropriate blind code may be assigned instead.

Custom coining designs may be as elaborate or simple as desired and are available in two Medeco X4 bow styles, large (38 bow) and small (32 bow).
All Medeco X4 key blanks are coined with a unique, identifiable name, number or code. This is provided by Medeco following design of the coining die.



A Custom Coining die is required for all restricted keyway program blanks. If you already have a custom coining die, it will work with Medeco X4 blanks. Custom coining produces a look, feel and finish of jewelry-like quality and is an excellent advertisement for a dealer or end user. A minimum of 200 key blanks may be ordered at a single time.

The Medeco X4 key blank part number includes a keyway number, followed by "99" for Custom Coining.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ORDER FORM & CHECK LIST
38 BOW CUSTOM COINING

P.O.#:
BILL TO:

COINING DIE NO.: V99-
DIE REQUESTED FOR:

CONTACT:
PHONE:
FAX:
EMAIL:

PROGRAM-DETAIL

- ☐ EKMX4 (ENDUSER)
- ☐ DKMX4 (DEALER)
- ☐ DKMV (DEALER)
- ☐ EKMV (ENDUSER)

- ☐ CUSTOMER APPROVAL REQUIRED
- ☐ OPENING ORDER ENCLOSED
- ☐ ARTWORK & PRICE QUOTATION (ADD 2 WEEKS)
- ☐ SPECIAL INSTRUCTIONS: IF NO SPECIAL INSTRUCTIONS DIE WILL BE CREATED AS MARKED.

PLEASE ALLOW ONLY 14 CHARACTERS PER LINE. PUNCTUATION MARKS (.,:;!), REQUIRE THEIR OWN BLANK SPACE.

L.H. — YOUR NAME / YOUR ADDRESS / YOUR PHONE
R.H. — SEE PROGRAM DETAIL ABOVE

ACTUAL SIZE

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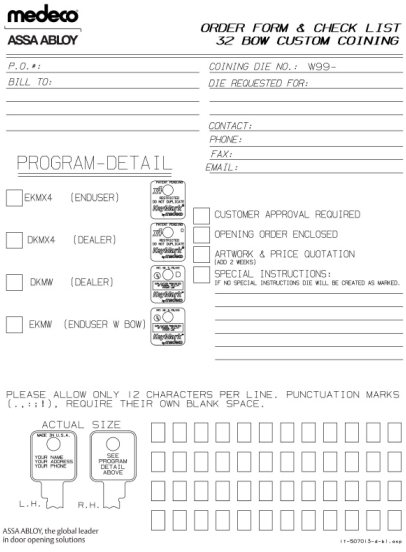
medeco
ASSA ABLOY

ORDER FORM & CHECK LIST
32 BOW CUSTOM COINING

P.O.#:
BILL TO:

COINING DIE NO.: W99-
DIE REQUESTED FOR:

CONTACT:
PHONE:
FAX:
EMAIL:

PROGRAM-DETAIL

- ☐ EKMX4 (ENDUSER)
- ☐ DKMX4 (DEALER)
- ☐ DKMW (DEALER)
- ☐ EKMW (ENDUSER W BOW)

- ☐ CUSTOMER APPROVAL REQUIRED
- ☐ OPENING ORDER ENCLOSED
- ☐ ARTWORK & PRICE QUOTATION (ADD 2 WEEKS)
- ☐ SPECIAL INSTRUCTIONS: IF NO SPECIAL INSTRUCTIONS DIE WILL BE CREATED AS MARKED.

PLEASE ALLOW ONLY 12 CHARACTERS PER LINE. PUNCTUATION MARKS (.,:;!), REQUIRE THEIR OWN BLANK SPACE.

ACTUAL SIZE

L.H. — YOUR NAME / YOUR ADDRESS / YOUR PHONE
R.H. — SEE PROGRAM DETAIL ABOVE

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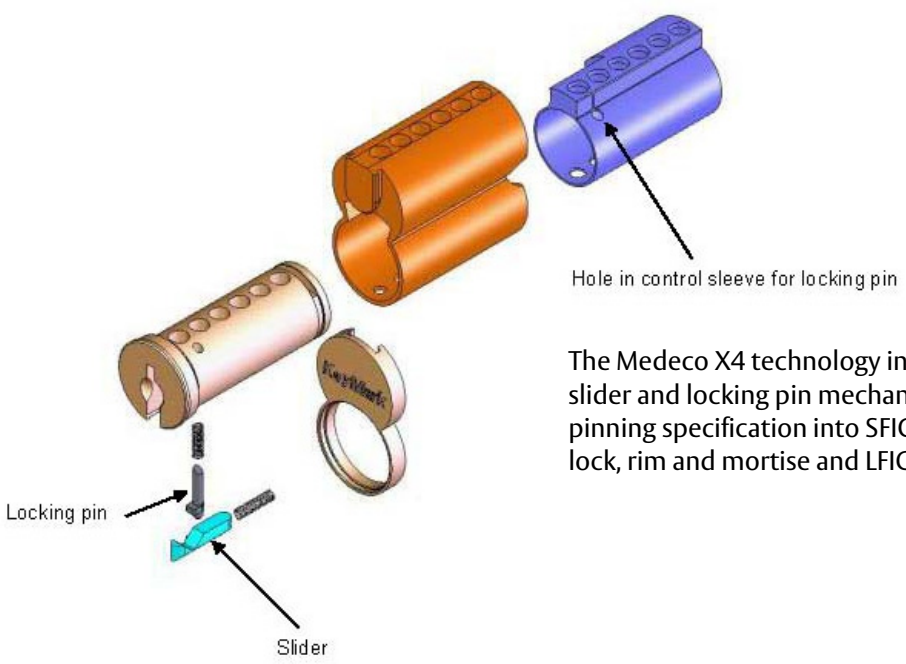
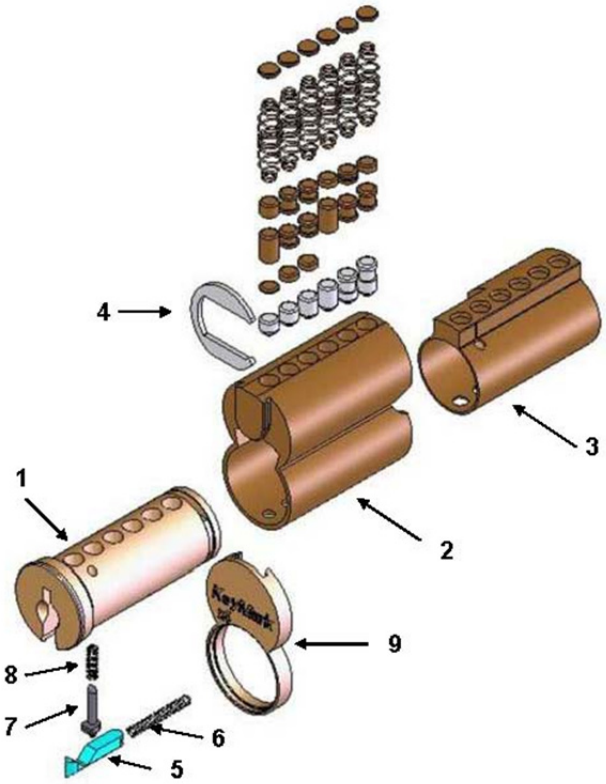


The Medeco X4 technology incorporates a proprietary slider and locking pin mechanism paired with the A2 pinning specification into SFIC and conventional KIK, cam lock, rim and mortise and LFIC cylinders.



Item	Part #	Description
1	1236800N 1236700N	6 Pin SFIC Plug 7 Pin SFIC Plug
2	1355800K 13-56000K	6 Pin SFIC Shell 7 Pin SFIC Shell
3	CP-021971 CP-02198	6 Pin SFIC Retainer Sleeve 7pin SFIC Retainer Sleeve
4	CP-021810	Retaining Ring
5	CP-087690-XX	X4 SFIC Slider
6	CP-031180	X4 Slider Spring
7	CP-064700	X4 SFIC Locking Pin
8	CP031480	X4 SFIC Locking Pin Spring
9	CP-182881-XX	X4 SFIC Front Plate

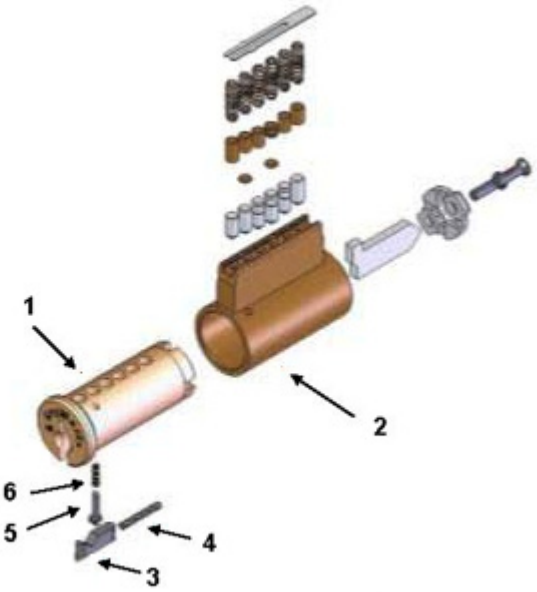
SINGLE SHEAR LINE (NON IC) REPLACEMENT CYLINDERS

A full line of non I-Core replacement cylinders for retrofit into other manufacturers' locksets is available. By using the same keys, it is possible to combine a retrofit of Best®/Arrow®/Falcon® style interchangeable cores with most other lock types without changing any hardware except the cylinder. In addition, standard Medeco cams and tailpieces can be used on the Medeco x4 retrofit line. These cylinders are available in 6 pin versions only, except cam lock, rim and mortise cylinders which can accommodate 7 pins. Therefore, any key system that will use both I-core and conventional retrofit cylinders should be planned from the outset as a 6 pin system. For part numbers, see the Medeco catalog.

KIK Exploded View

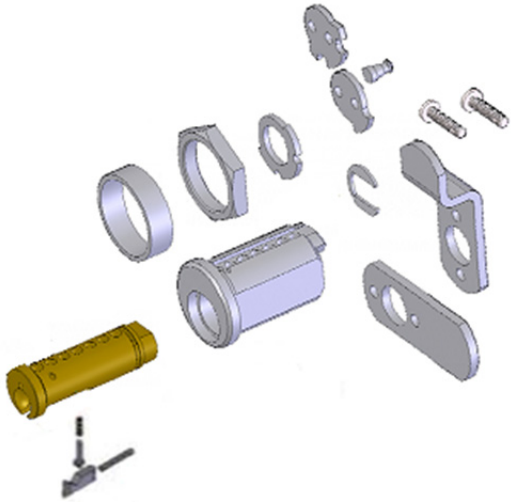
Stack Height = 19 for KIK, Rim, Mortise

Item	Part #	Description
1	Various	6 Pin KIK Plug
2	Various	6 Pin KIK Shell
3	CP-084690-XX	X4 Conventional Slider
4	CP-031180	X4 Slider Spring
5	CP-064231	X4 Conventional Locking Pin
6	CP-031170	X4 Conventional Locking Pin Spring

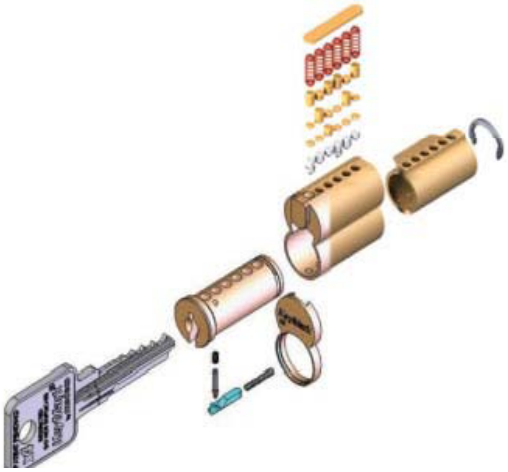


Medeco X4 Cam Lock Kit

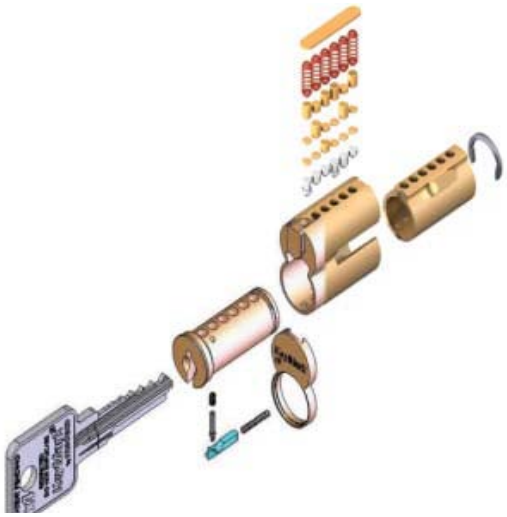
210503 N 26 (7 Pin Cylinder)
Stack Height = 12
Standard Medeco X4 A2 pin kit



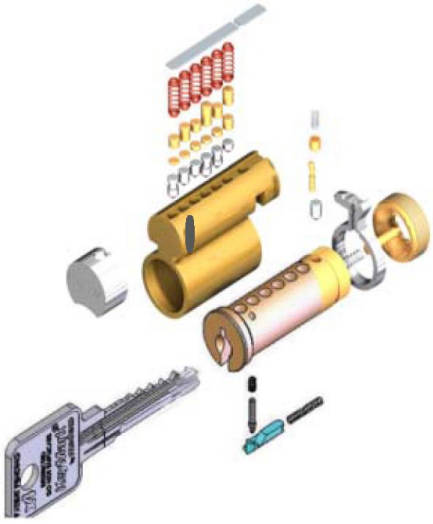
X4 Corbin Russwin LFIC



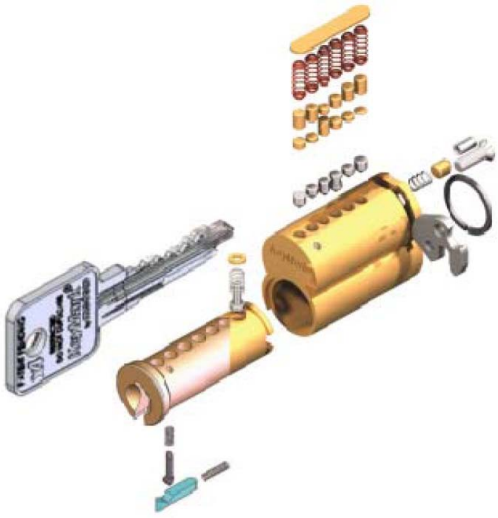
X4 Sargent LFIC



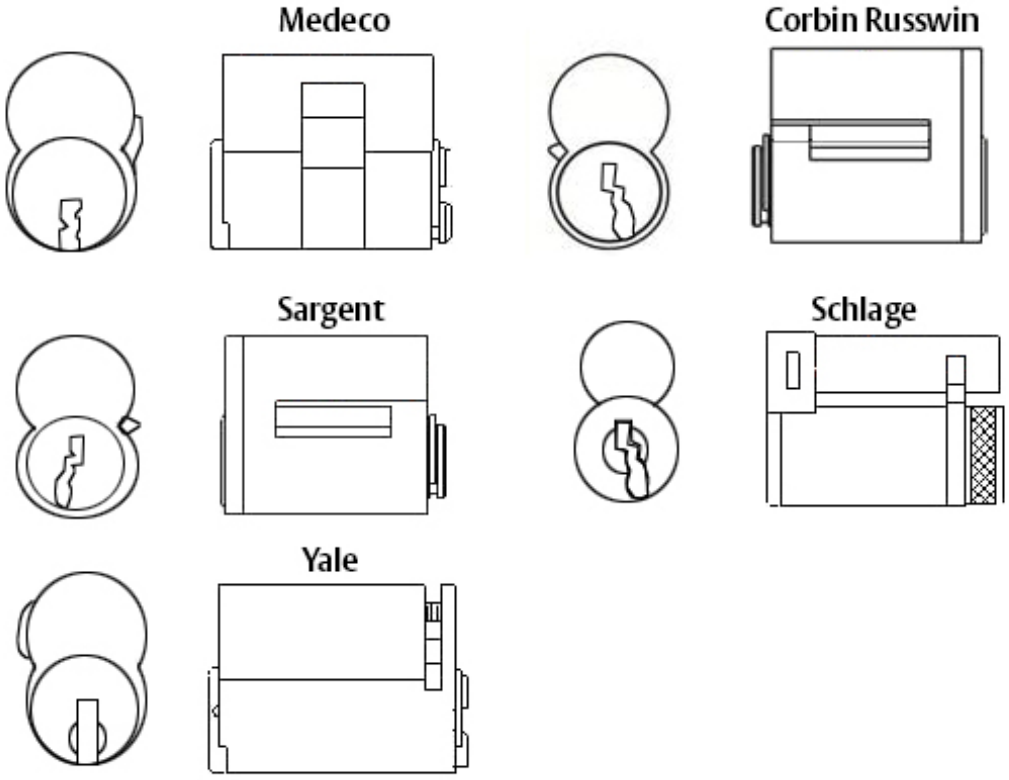
Schlage LFIC/FSIC



Yale LFIC

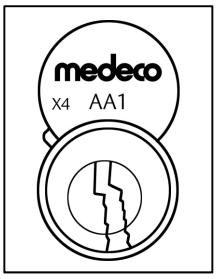


Interchangeable Core Format	*Control Key*	*Const. Cores?*	*Interchangeable Core Format*
Medeco 320201 (6 pin)	Cut on standard key blank	5 pin Not Available 320201CC BI R1P (6 pin)	**Medeco** 320201 (6 pin)
Corbin Russwin 322301 (6 pin) 322801 (7 pin)	Cut on standard key blank	Not Available	**Corbin Russwin** 322301 (6 pin) 322801 (7 pin)
Sargent 322401 (6 pin)	Cut on standard key blank	Not Available	**Sargent** 322401 (6 pin)
Schlage 322201	Cut on special key blank, **31** variation KYBxxxx**31**-xxxx	Not Available	**Schlage** 322201
Yale 310100 (6 pin) 310100A (7 pin)	Cut on special key blank, **11** variation KYBxxxx**11**-xxxx	310100CC BI R1P (6 pin) 7 pin Not Available	**Yale** 310100 (6 pin) 310100A (7 pin)

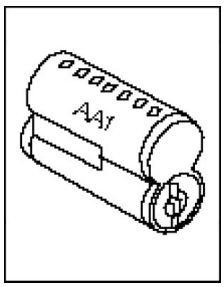


VISUAL KEY CONTROL

Visual key control (VKC) can be furnished on the face of the core. For better security, we recommend Concealed Key Control (CKC) on the side of the core where it cannot be seen until the core is removed with the control key.



VKC



CKC

CONSTRUCTION CORES

Construction keying for Medeco X4 I-Cores is available through the use of specially marked, temporary cores. Construction cores will be furnished in a distinct finish (Black Imron) which will provide easy identification to users when they make the change to permanent cores. Cores will all be keyed alike.

Construction cores are ordered on a "loaner" status and are intended to maintain security while a facility is under construction or repair. The part number for 6-pin is 33K600001-BI. For 7-pin cores, specify 33K700001-BI. Construction cores are not provided in the same keyway as the final cores will be.

Customers are charged for the construction cores and the number of keys required (maximum number of keys is twelve: 11 operation and 1 control). Pricing is the same as standard, combinated cores. Upon return of cores and keys, a credit will be issued at the price the account was charged. The customer may order the construction core cylinders at any time. The order for permanent cores does not necessarily need to be placed with the order for permanent shells and/or construction cores.

ADDITIONAL PRODUCTS

Medeco also has mortise and rim housings, padlocks, deadbolts, cabinet locks, and International type cylinder housings to accept the X4 SFIC cylinders. Medeco X4 will also work in SFIC housings manufactured by other companies.

Medeco X4 Pins

Medeco X4 cylinders use pin segments with the same lengths and diameter as Best®/Arrow®/Falcon®.
However, for added security, selected and various top and bottom pins will be available with spool type pins. While other manufacturers' pin kits can be used in Medeco X4 cylinders for the master, build up and top pins, the strict tolerances of Medeco X4 pins and the added security from the spool pins are good reasons to use original Medeco X4 pins. Also, use of non-factory original pins can void your warranty.

Medeco X4 bottom pins are made of high quality nickel silver. This distributes wear evenly between the key and the pins. Top pins and master pins are made of brass. Using brass bottom pins will cause premature wear in the cylinder.

Pinning SFIC vs. Conventional

Medeco X4 SFIC have a plug diameter of .434 and use the same pins and are also pinned in the same manner as first generation KeyMark (Medeco KM). Detailed keying instructions are found below.
Medeco X4 conventional KIK, Mortise and Rim cylinders have a .511 plug diameter and must use different *bottom pins* that are longer than the SFIC bottom pins to compensate for the larger diameter plug and still allow for the same key to operate both the SFIC and conventional cylinder. The longer bottom pins are the same diameter, and have the same depth increment but start with a longer #0 bottom pin.

SFIC

KIK, Rim & Mortise, Yale & Schlage LFIC

Cylinder Type	Plug Diameter	Stack Height	Bottom pins	Pin Kit
Cam lock	.434	12	TP-K40	K4001/K4002
SFIC	.434	23	TP-K40	K4001/K4002
Corbin Russwin/Sargent LFIC	.434	23	TP-K40	K4001/K4002
Medeco LFIC	.434	23	TP-K40	K4001/K4002
Schlage/Yale LFIC	.511	19	TP-K43	K4006
Conventional (KIK/rim/mortise)	.511	19	TP-K43	K4006

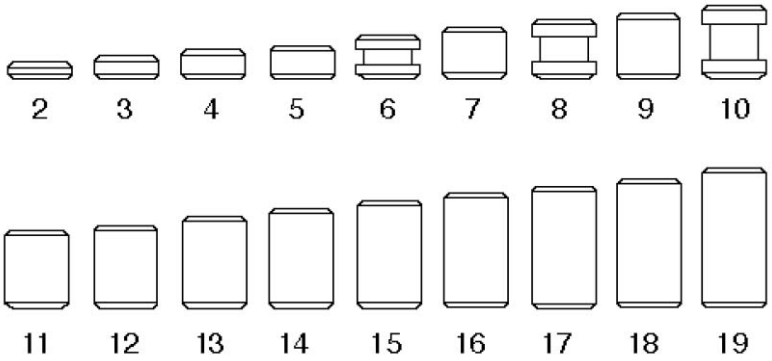
Pins for SFIC TP-F40-XXX

Part #	Pin #	Length
TP-F40-00B	0	.110"
TP-F40-01B	1	.1225"
TP-F40-02B	2	.135"
TP-F40-03B	3	.1475"
TP-F40-04B	4	.160"
TP-F40-05B	5	.1725"
TP-F40-06B	6	.185"
TP-F40-07B	7 (Spool)	.1975"
TP-F40-08B	8 (Spool)	.210"
TP-F40-09B	9 (Spool)	.2225"

.511 Bottom Pins for Conventional (non-sfic) Cylinders TP-F43-XXX

Part #	Pin #	Length
TP-F43-00B	0	.1860"
TP-F43-01B	1	.1985"
TP-F43-02B	2	.2110"
TP-F43-03B	3	.2235"
TP-F43-04B	4	.2360"
TP-F43-05B	5	.2485"
TP-F43-06B	6	.2610"
TP-F43-07B	7 (Spool)	.2735"
TP-F43-08B	8 (Spool)	.2860"
TP-F43-09B	9 (Spool)	.2985"

Master Wafer, Build Up, and Top Pins for Conventional & SFIC Cylinders TP-F40-XXX

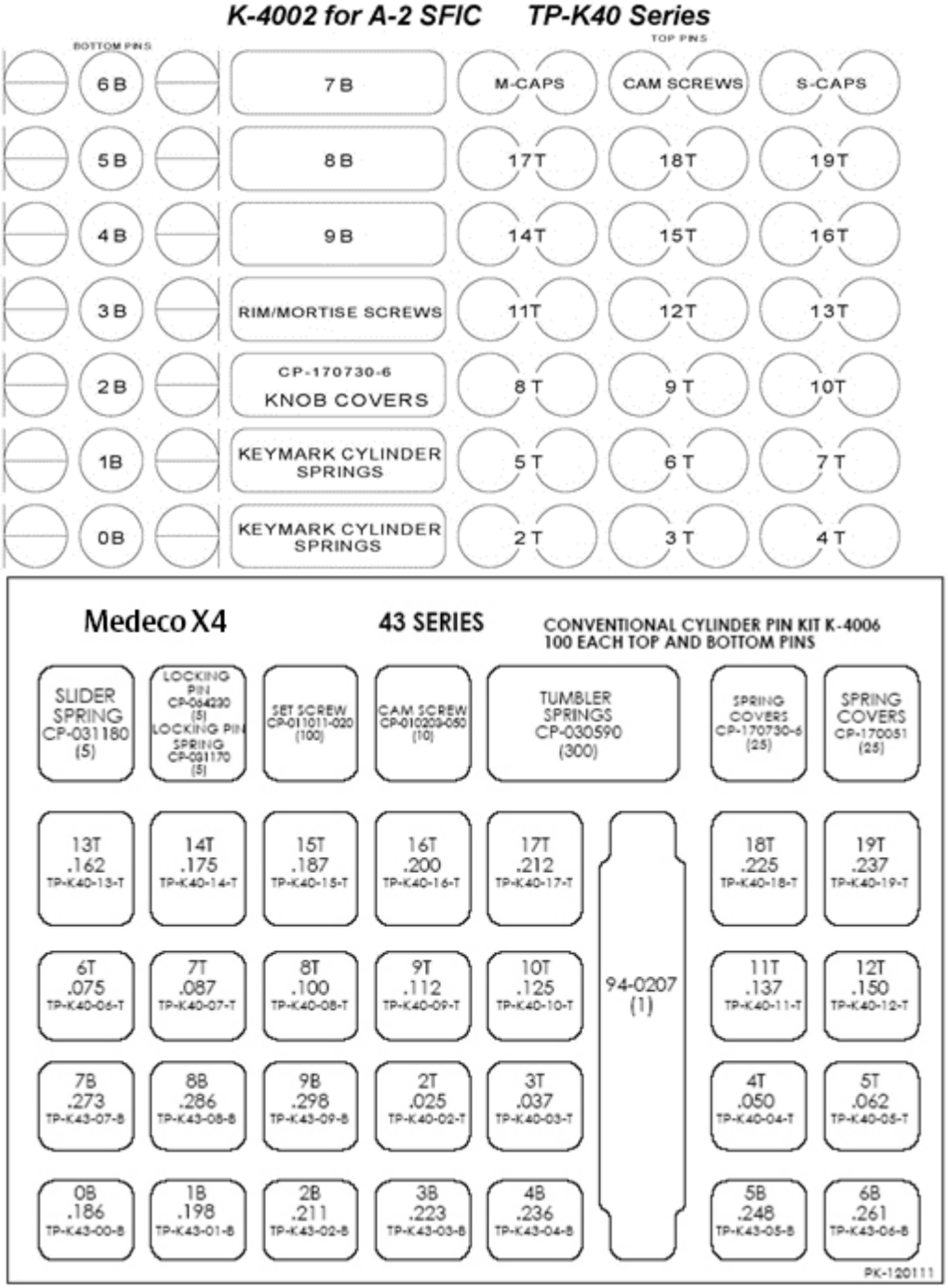


Part Number	Pin #	Length
TP-F40-02T	2	.025"
TP-F40-03T	3	.0375"
TP-F40-04T	4	.050"
TP-F40-05T	5	0625"
TP-F40-06T	6 (Spool)	.075"
TP-F40-07T	7	.0875"
TP-F40-08T	8 (Spool)	.100"
TP-F40-09T	9	.1125"
TP-F40-10T	10 (Spool)	.125"
TP-F40-11T	11	.1375"
TP-F40-12T	12	.150"
TP-F40-13T	13	.1625"
TP-F40-14T	14	.175"
TP-F40-15T	15	.1875"
TP-F40-16T	16	.200"
TP-F40-17T	17	.2125"
TP-F40-18T	18	.225"
TP-F40-19T	19	.2375"

Medeco X4 Pin increment is .0125" (like all A2 systems)
Medeco X4 Pin diameter is .1085"

Bottom pins are precision machined out of solid nickel silver. Bottom Pins 7, 8, and 9 are spool pins for slight additional pick resistance. Top pins 6, 8, and 10 are also spool type pins. The same top pins are used with the TP-F40 and TP-F43 bottom pins.

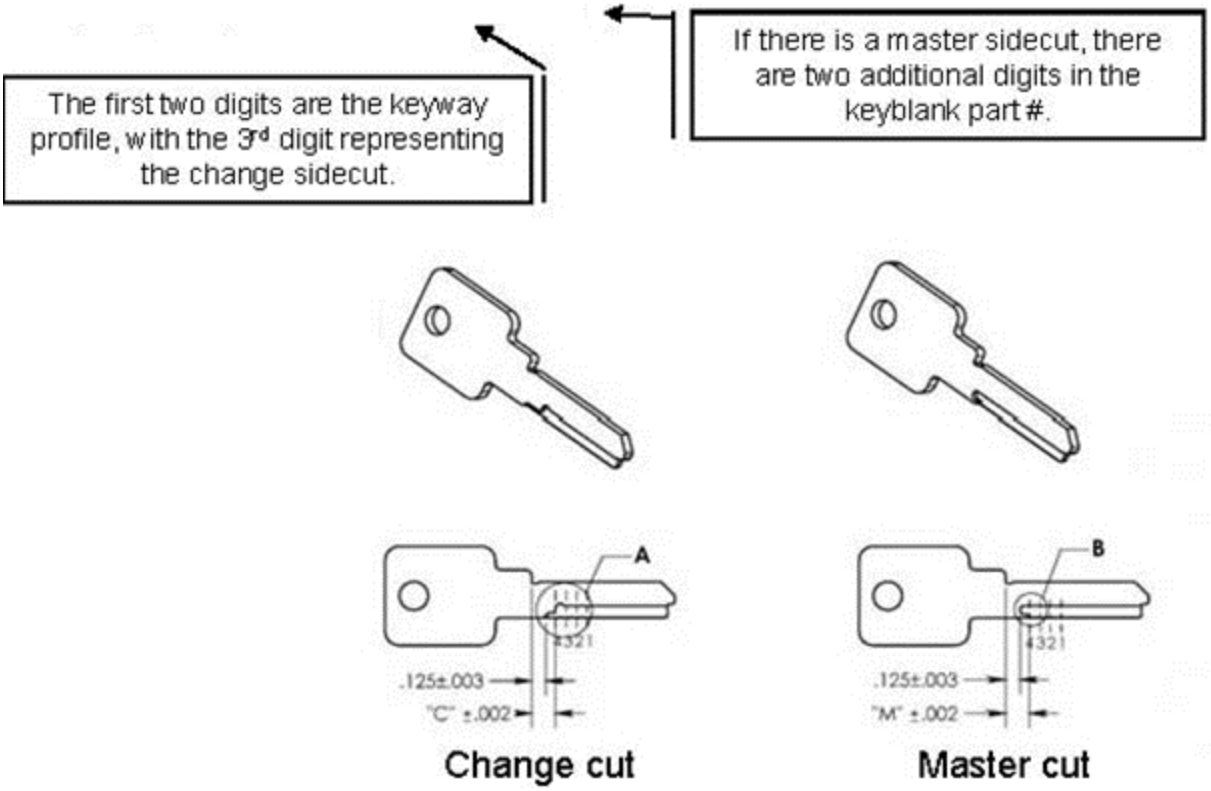
The pin kit required for Medeco X4 SFIC cylinders uses A-2 pinning increment. The pin kit part numbers are K4001 (100 ea.) and K4002.
A separate pin kit is required for Medeco X4 conventional cylinders. (K4006)



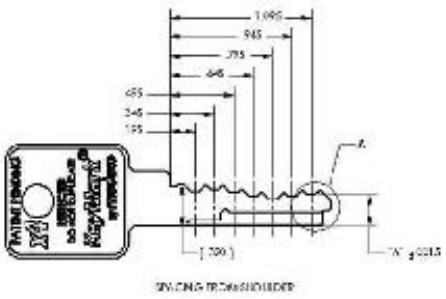
The key blank part number includes information on the sidecut.

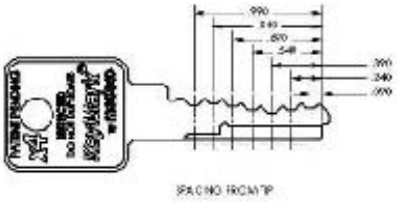
Medeco X4 keys have a unique side bitting that interacts with the slider mechanism in the cylinder. These side bittings are cut at the factory and cannot be created or modified in the field. On certain specific end user keyways, there is also the potential to have a Master sidecut. That is, all Medeco X4 keys will include a change sidecut; for some extremely large master key systems there may also be keys with a master sidecut.

The key blank part number includes information on the sidecut.
Example key blank part#:KYB 32 6 9 00 XXX 91 XX



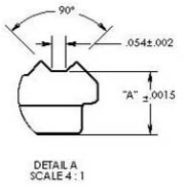
Medeco X4 keys can be 6 or 7 pin and have both a shoulder stop (used for conventional cylinders) and a tip stop (used for SFIC). These two stops allow you to mix SFIC and conventional cylinders in one keying system.





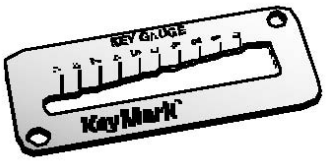
Decoding/Cutting Keys

- Medeco X4 uses the Best "A-2" system of key cut depths.
- Keys are read and cut TIP TO BOW!
- Spacing dimensions can be referenced either from the shoulder or the tip stop.
- MACS (Maximum Adjacent Cut Specification) = 9. There are no MACS violations in the A-2 system.
- Cutter angle is 90 degrees (+ or – .001°). Cut flat is .054" (+ or – .002").
- Cut depth increment is .0125".
- All key blanks are made of nickel silver.



To decode keys:

1) Use the Medeco X4 key gauge.



2) Or, use a micrometer or caliper. Measure each depth from the ledge of the key to the root of the cut. Use the chart above to translate the measurement in thousandth of an inch to the numerical value of the key cut.

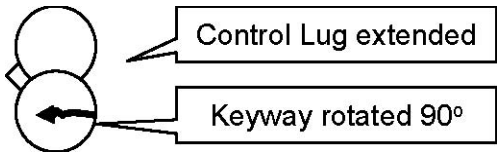
3) Always remember to read from tip to bow!

Bitting	Dimension from bottom of Blade
0	.3180
1	.3055
2	.2930
3	.2805
4	.2680
5	.2555
6	.2430
7	.2305
8	.2180
9	.2055

Complete the pinning sheet to determine the correct pins if you don't have a copy of cylinder pinning created from the master key system. The following information provides the basics of pinning a cylinder, but the calculation may be more easily determined with the pinning calculation sheets.

1.) If the core is already pinned, use the Medeco X4 pin ejector to eject all pins and springs. Insert the ejector tool through each ejector hole in the bottom of the core and force the pins and pin cap out through the top of the core out through the top of the core. Discard the used pins and springs.

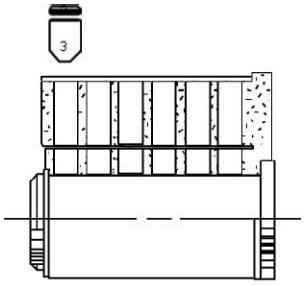
2.) Turn the plug 90 degrees counter-clockwise from center, making sure that the control lug is fully projected. Be sure that the shell and sleeve pin chambers are aligned.



Plug position for pinning

3.) Always load the core from back to front. Tumbler pins are always loaded through the top of the core and individually capped. Keys are always cut tip to bow and key bittings are listed from tip to bow.

4.) Load the bottom pin first. If the cylinder is master keyed, pin to the shallowest cut (smaller pin) first, then use master pins to build up to the deeper cut (longer pin).



For example: CK: 3 2 4 5 4 9 (Tip to bow)

TMK : 5 6 4 1 8 3

2	4	-	4	4	6	Master Pins
3	2	4	1	4	3	Bottom Pins

5) Load the Build-Up Pins next. These pins are the same type as the master wafers. The Build-Up pins bring the shear line up to the level of the control sleeve so that the Control Key may retract it.

The build-up pins are calculated by adding 10 to the control key depths and subtracting the total of the bottom pin and master wafer from this number. If our Control key has a #7 in the first cut position, our control # is 17. Since the bottom pin is 3 and a 2 master wafer, subtract 5 from 17 to determine the build-up pin of 12. The control number is different for each position, so the Build-up pin is also different. (example on next page)

Calculating Build-Up Pins example:

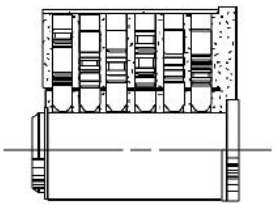
Control Key = 7 2 4 3 2 1
Control <u>*Number*</u> = 17 12 14 13 12 11

12	6	10	8	4	2	Build-up Pins
2	4	-	4	4	6	Master Pins
3	2	4	1	4	3	Bottom Pins

6) Add the Top Pins that bring the total stack height to 23. Top Pins are also the same type of pin as the Master Wafers and Build-Up Pins. An easy way to calculate the top pin is to subtract the Control Number from 23 for each position. (e.g. 23-17=6)

6	11	9	10	11	12	Top Pins
12	6	10	8	4	2	Build-up Pins
2	4	-	4	4	6	Master Pins
3	2	4	1	4	3	Bottom Pins

Tip: If the numbers were calculated correctly and the correct pins inserted, a visual check of the pins stacks will show the same height with all pins sitting just below the edge of the cylinder shell.

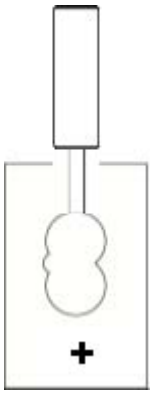


7) Rotate the plug back to the vertical position allowing the pins to fall into the plug. Insert springs in each pin chamber and test the keys while holding your finger over the top of the cylinder.

8) Remove the springs and insert the cylinder into the capping block with the face of the core on the + side of the capping block.

9) Reinsert the springs and add caps in each position, insert the capping tool and tap the caps into place using a small hammer.

10.) Lubricate the cylinder and test the operation of all keys.

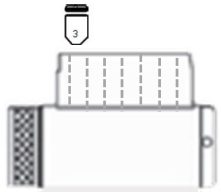


SINGLE SHEAR LINE REPLACEMENT CYLINDER (NON I-CORE)

Conventional cylinders with Medeco X4 technology with a plug diameter of .511 use longer bottom pins than the SFIC cylinders. This pin kit is K-4006. The stack height for rim, mortise, knob, Schlage and Yale LFIC, and deadbolt cylinders is 19 and the cylinders do not include a 'build-up pin' as used in the SFIC to achieve the control sleeve shear line. Rim and mortise cylinders are top loaded by removing the set screw at the top of each pin chamber. Knob and dead lock retrofit cylinders are top loaded with a spring cover installed or replaced after loading.

Cam lock cylinders are pinned using the same pin kit as SFIC (the same bottom, master and top pins), but have a stack height of 12, and are pinned like a conventional cylinder without a control sleeve or build-up pins. (Pin kits K-4001 or K-4002)

1) Always load the cylinder from back to front. Keys are always cut tip to bow and key bittings are listed from tip to bow.



2) Load the bottom pin first. If the cylinder is master keyed, pin to the shallowest cut (smaller pin) first, then use master pins to build up to the deeper cut. Although the bottom pins are slightly longer for the conventional cylinders (except the cam locks), the pins have the same number as the SFIC (e.g. 3 bottom, 2 master if one key is cut to a 3 and the other is cut to a 5)

3) Add the bottom pin and master wafer together and subtract from 19 (12 for cam locks) to determine the Top pin. (E.g. Conventional 2+3=5, 19-5=14, Top Pin = 14 or Cam Lock 12-5=7, Top Pin =7)

For example: CK: 3 2 4 5 4 9 (Tip to bow)
TMK : 5 6 4 1 8 3

Conventional Cylinder Pinning

14	13	15	14	11	10	Top Pins
2	4	-	4	4	6	Master Pins
3	2	4	1	4	3	Bottom Pins

Cam Lock Cylinder Pinning

7	6	8	7	4	3	Top Pins
2	4	-	4	4	6	Master Pins
3	2	4	1	4	3	Bottom Pins

4) Insert springs and test all of the keys. Insert set screws in rim or mortise cylinders or a spring cover in key-in-knob style cylinders. Stake a brass cap on top of the shell to hold springs and pins in place for cam locks and Yale and Schlage LFIC.

Medeco X4 A-2 Cylinder Pinning Sheet

Sample Pinning Sheet for Reference Only

To calculate the pinning for SFIC, you must already have the Control Key cuts, the TMK cuts, and the Change key that you need the pinning for. This sheet will walk you through the process step by step. It is possible to 'skip' some of the steps by writing the results in the section at the bottom instead of writing the results twice, once you become adept at the process.This process doesn't generate a MK system, but simply provides the pinning for an existing system.

Control Key = 724321

TMK = 564183

Change Key = 144705

A	7	2	4	3	2	1	Control Key Cuts
B	10	10	10	10	10	10	Add 10 to Get Control Number Below
C	17	12	14	13	12	11	Control Number (control key cuts + 10)
D	5	6	4	1	8	3	Top Master Key (TMK) Cuts
E	1	4	4	7	0	5	Change Key Cuts
F	1	4	4	1	0	3	Bottom Pins (smaller cut # from ck or mk)
G	4	2	-	6	8	2	Master Pins (difference between ck & mk cuts)
H	17	12	14	13	12	11	Control Number (taken from line C)
I	5	6	4	7	8	5	Bottom & Master Pins (add line F & line G)
J	12	6	10	6	4	6	Build Up Pins (subtract line I from line H)
K	23	23	23	23	23	23	Total Stack Height (pre-set)
L	17	12	14	13	12	11	Control Number (taken from line C)
M	6	11	9	10	11	12	Top Pins (Drivers) (subtract line L from K)
N	23	23	23	23	23	23	When all Pins Below are Added Together They Should = 23
	⇑	⇑	⇑	⇑	⇑	⇑	
O	6	11	9	10	11	12	Top Pins (Drivers) (from line M)
P	12	6	10	6	4	6	Build-Up Pin (from line J)
Q	4	2	-	6	8	2	Master Pin (from line G)
R	1	4	4	1	0	3	Bottom Pin (from line F)

Medeco X4 A-2 Cylinder Pinning Sheet

(6 Pin)

A							Control Key Cuts
B	10	10	10	10	10	10	Add 10 to Get Control Number Below
C							Control Number (control key cuts + 10)
D							Top Master Key (TMK) Cuts
E							Change Key Cuts
F							Bottom Pins (smaller cut # from ck or mk)
G							Master Pins (difference between ck & mk cuts)
H							Control Number (taken from line C)
I							Bottom & Master Pins (add line F & line G)
J							Build Up Pins (subtract line I from line H)
K	23	23	23	23	23	23	Total Stack Height (pre-set)
L							Control Number (taken from line C)
M							Top Pins (Drivers) (subtract line L from K)
N	23	23	23	23	23	23	When all Pins Below are Added Together They Should = 23
	⇑	⇑	⇑	⇑	⇑	⇑	
O							Top Pins (Drivers) (from line M)
P							Build-Up Pin (from line J)
Q							Master Pin (from line G)
R							Bottom Pin (from line F)

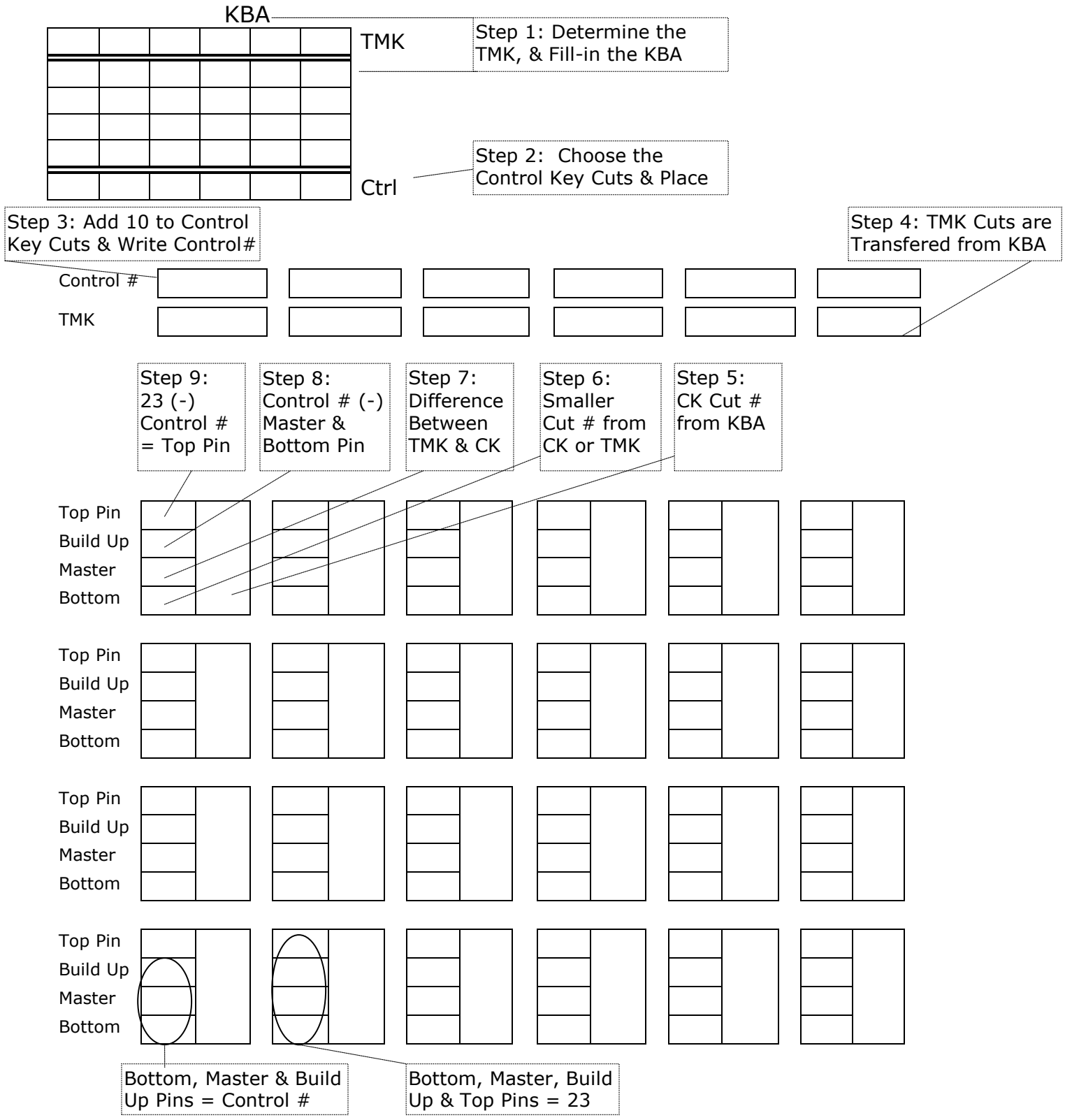
Medeco X4 A-2 Cylinder Pinning Sheet

(7 Pin)

A								Control Key Cuts
B	10	10	10	10	10	10	10	Add 10 to Get Control Number Below
C								Control Number (control key cuts + 10)
D								Top Master Key (TMK) Cuts
E								Change Key Cuts
F								Bottom Pins (smaller cut # from ck or mk)
G								Master Pins (difference between ck & mk cuts)
H								Control Number (taken from line C)
I								Bottom & Master Pins (add line F & line G)
J								Build Up Pins (subtract line I from line H)
K	23	23	23	23	23	23	23	Total Stack Height (pre-set)
L								Control Number (taken from line C)
M								Top Pins (Drivers) (subtract line L from K)
N	23	23	23	23	23	23	23	When all Pins Below are Added Together They Should = 23
	⇑	⇑	⇑	⇑	⇑	⇑	⇑	
O								Top Pins (Drivers) (from line M)
P								Build-Up Pin (from line J)
Q								Master Pin (from line G)
R								Bottom Pin (from line F)

Medeco X4 A-2 KBA Pinning Sheet

Training/KeyMark/ Keymark_pinning.doc



Sample Pinning Sheet for Reference Only

Medeco X4 A-2 KBA Pinning Sheet

Training/KeyMark/ Keymark_pinning.doc

3	7	5	8	5	2	TMK
5	9	7	0	7	4	
7	1	9	2	9	6	
9	3	1	4	1	8	
1	5	3	6	3	0	
7	5	1	6	9	7	Ctrl

Step 1: Determine the TMK, & Fill-in the KBA

Step 2: Choose the Control Key Cuts & Place

3: Add 10 to Control Key Cuts

4: TMK Cuts are transferred

Control #	17	15	11	16	19	17
TMK	3	7	5	8	5	2

8: Control# (-) Master & Bottom Total=Build up

7: Difference of TMK & CK = Master

6: Smaller # of CK or TMK

9: 23 (-) Control # = Top Pin

5: CK Cut #'s

Top Pin	6		8		12		7		4		6	
Build Up	12	5	6	9	4	7	8	0	12	7	13	4
Master	2		2		2		8		2		2	
Bottom	3		7		5		0		5		2	

Top Pin	6		8		12		7		4		6	
Build Up	10	7	8	1	2	9	8	2	10	9	11	6
Master	4		6		4		6		4		4	
Bottom	3		1		5		2		5		2	

Top Pin	6		8		12		7		4		6	
Build Up	8	9	8	3	6	1	8	4	14	1	9	8
Master	6		4		4		4		4		6	
Bottom	3		3		1		4		1		2	

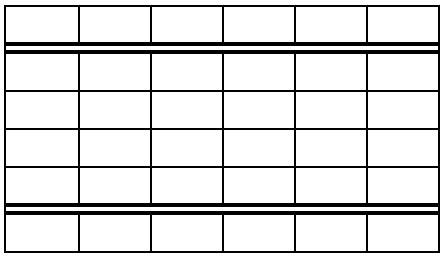
Top Pin	6		8		12		7		4		6	
Build Up	14	1	8	5	6	3	8	6	14	3	15	0
Master	2		2		2		2		2		2	
Bottom	1		5		3		6		3		0	

Bottom, Master & Build Up Pins = Control #

Bottom, Master, Build Up & Top Pins = 23

Medeco X4 A-2 KBA Pinning Sheet

Training/KeyMark/ Keymark_pinning.doc



TMK

Step 1: Determine the TMK, & Fill-in the KBA

Ctrl

Step 2: Choose the Control Key Cuts & Place

3: Add 10 to Control Key Cuts

4: TMK Cuts are transferred

Control #

TMK

9: 23 (-) Control # = Top Pin

5: CK Cut #'s

8: Control# (-) Master & Bottom Total=Build up

7: Difference of TMK & CK = Master

6: Smaller # of CK or TMK

Top Pin
Build Up
Master
Bottom

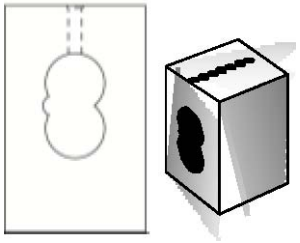
Top Pin
Build Up
Master
Bottom

Top Pin
Build Up
Master
Bottom

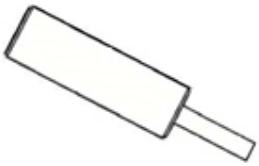
Top Pin
Build Up
Master
Bottom

Bottom, Master & Build Up Pins = Control #

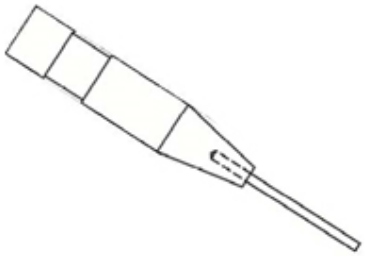
Bottom, Master, Build Up & Top Pins = 23



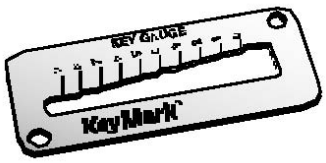
Medeco X4 Pinning Block (I-Cores) **CP-282500**
When used in conjunction with the Medeco X4 Capping Punch, it allows you to properly "seat" the cap.



Medeco X4 Hand Capping Punch (I-Cores) **CP-282540** While the Medeco X4 core is held securely in place by the Pinning Block, the Hand Capping Punch is used to seat the cap, sealing the pins within each barrel of the core.



Medeco X4 Pin Ejector (I-Cores) **CP-282530** Use this handy tool to eject pins and springs from Medeco X4 cores as preparation for recombinating. Insert the Pin Ejector into the ejector pin hole at the bottom of each barrel in the Medeco X4 core and push to eject the components of each barrel. Always discard used pins and springs.



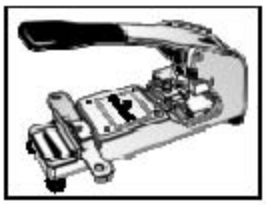
Medeco X4 Gauge **CP-286350** The Medeco X4 key gauge allows accurate and immediate identification of the proper cut depth of Medeco X4 keys. A key gauge comes with every Medeco X4 Key Punch and is sold separately.

Key-in-Knob Capping Tool **94-0207** KIK capping tool holds springs in place to allow spring cap to slide in the top of the bible chamber.

LUBRICATION
Only the following lubricants are approved by the factory:
1.) Medeco Key Lube
2.) Poxylube (Sandstrom Products)
3.) DRI LUBE (Synco Chemical)
Use of any other lubricants will void the Medeco X4 warranty. Never use oil or graphite to lubricate Medeco cylinders! Also, never mix different lubricants.

Key Machines Available From Medeco

95-000601 Medeco KM Electric Key Machine 115 V 4.4 amp (Air Assist)
95-000701 Medeco KM Electric Key Machine 115 V 4.4 amp (Hand)



95-000200 Medeco X4 Technology Key Punch

Key Machines Available From Other Manufacturers

Key machine are available from a number of other manufacturers (HPC, ITL, Framon, and A-1 Mfg., for example) that will cut Medeco X4 keys to the A-2 cut specifications. As long as the key machines jaws hold the key blank snugly, no modifications are necessary to cut the keys.

Are New Tailpieces, Cams, Staking Covers, Plug Retainers, Set Screws and Cam Screws Required For Conventional X4 Cylinders?

- No. If you are already servicing Medeco 10 and 20 series products, these pieces will work on Medeco X4 conventional rim, mortise and knob cylinders. You do not need to purchase new pieces. Double the effectiveness of your inventory by servicing both Medeco and Medeco X4 with these same pieces.
- The only part that is unique for Medeco X4 ((besides the plug & shell) are the top set screws for Rim & Mortise cylinders. Medeco X4 set screws have a smaller diameter for the smaller diameter tumbler pins than a high security cylinder.

Can Knob Cylinders Tie Into An Interchangeable Core System?

- Yes. The beauty of the Medeco X4 line is its ability to tie both interchangeable core and conventional cylinders together using one key. WARNING: Knob cylinders are only available as 6 pin models. Remember this when designing a system. Most mortise, rim and I/C cylinders are available 7-pin.

How Are Cut Keys Marked?

- Cut keys for non-master key systems will not be marked at Medeco.
- For master key systems, a registry number and key set (key code) number is stamped onto cut keys at no charge.
- Any special stamping, such as door number or serialization, can also be included on any cut keys for a slight extra charge

Are Conventional Cylinders Pinned the Same as I-Cores?

- Longer bottom pins are used for Medeco X4 conventional cylinders than in interchangeable cores. The master wafers and top pins are the same in both types of cylinders. The stack height for rim, mortise, knob and deadbolt cylinders is 19. Rim and mortise cylinders are top loaded by removing the set screw at the top of each pin chamber. Knob and deadbolt cylinders are top loaded with a spring cover installed or replaced after loading. Cam lock cylinders have a stack height of 12, but use the same bottom pins, master wafers and top pins as SFIC.

Medeco® Warranty for Mechanical & Electromechanical Products

Medeco Security Locks Inc. ("Medeco") warrants to the original purchaser of a Medeco branded lock, lock cylinder, or electromechanical door hardware product (referred to collectively as "Product") to be free of defects in material and/or workmanship for a period of two (2) years from the date of original purchase for use. This Warranty may also apply to other specific products. For additional Warranty information or Warranty claim service contact Medeco Customer Service at (800) 839-3157 or in Canada (888) 633-3264.

In the event of a defect in material or workmanship during the Warranty period, Medeco will repair or replace (at its option) the Product under the conditions of this Warranty, this action being the sole remedy available to the purchaser under this express limited Warranty.

Limitations, Exclusions and other Rights:

a. Medeco disclaims liability for implied warranties including but not limited to those of merchantability or fitness for any particular purpose.

b. Medeco disclaims liability for indirect, incidental or consequential damage at any time.

c. Medeco warrants that Maxum deadbolt products are free from defects in materials and workmanship for the life of the product. This warranty does not cover defects or damage arising from improper installation, lack of or improper maintenance, ordinary wear and tear, misuse, abuse, or accident.

d. This Warranty gives specific legal rights and a buyer may also have other rights that may vary from state to state. Some states do not allow limitations on indirect, incidental, and consequential damages or implied warranties so that the above limitations may not fully apply.

e. Medeco key blanks are made from a special nickel silver alloy. Medeco warrants its keys against defects in workmanship or breakage for the life of the Product. Bitted Medeco keys must be precisely cut to exact angles and depths, and require special duplication. This Warranty shall be void and Medeco disclaims liability of any kind in the event any key other than a genuine Medeco key has been used with the Product or that the key has been cut on any machine other than a Medeco or Medeco-approved key cutting machine.

f. Medeco shall not be held responsible for damage arising from, in its sole judgment, improper installation, failure to provide normal maintenance, extreme environmental conditions, use rates in excess of the industry standards defined for the type of product, use of incompatible parts or products not made or authorized by Medeco, or application of force not resulting from normal use.

g. Unless otherwise specified by separate warranty, finishes are warranted for a period of two years following purchase for use. This finish Warranty shall be considered void after installation if, in the sole judgment of Medeco, the damage to the finish is the direct result of extreme climatic conditions, chemical or abrasive actions.

Medeco X4 Architectural Product Specifications

Cylinders shall be of the knob, rim, mortise, or interchangeable core type. All cylinder components (excluding tumbler pins) shall be constructed of machined extruded brass. All cylinders, cores and housings shall be available in all standard architectural finishes and shall match the cylinder housing and lock and door hardware. Further, cylinders and housings shall be plated, not scalped with the appropriate finish.

Cylinders to be of the 6 or 7 pin tumbler type, providing the maximum unique, non-interchangeable key combinations respectively.

All cylinders shall incorporate two locking elements consisting of pin tumbler elevation and a slider mechanism. Further expansion of a master key system shall be available by use of additional multiplex keyways. Cylinders shall not lose any combinations due to MACs (maximum adjacent cut) loss.

All cylinders shall use a .150'' space dimension between tumbler pin chambers and shall be capable of using industry standard tumbler pins. Cylinder shall contain standard pins, a portion of which (both bottom and top pins) shall be spooled to resist pick attacks.

All non-I/C rim and mortise cylinders shall be so constructed to use threaded set screws, not staked covers or caps, to cover each individual tumbler pin chamber.

All cut keys, key blanks and cylinders (knob, rim, mortise, and interchangeable core-type) shall be so constructed to be capable of being keyed in the same system, allowing the convenience of one master key to operate all types of listed cylinders. Further, the key or key blank's tip shall be so constructed to correctly locate the bits of the key beneath the proper chamber of an interchangeable core cylinder by locating against a key stop on the rear core. Additionally, the key or key blank's shoulder shall serve as a stop to correctly locate the bits of the key beneath the proper plug chamber of rim, mortise and knob-type cylinders by locating against the front face of the cylinder. The key blank thickness should be no less than .093" (ninety three thousandths).

All cut keys and key blanks shall be utility patented and controlled by a contract between the end user and the manufacturer.

Key blanks for this project shall be delivered directly from the factory to the end user unless otherwise requested in writing by the end user.

All keys must be capable of being configured to allow an upgrade to a dual mechanical/electronic credential by the simple exchange of a field removable key bow.

The key shall incorporate the capacity to include eight possible side bittings along the key blade located on two different planes or surfaces of the key.

All key blanks shall be custom coined with the end user's name or other unique identification mark. All cut keys and key blanks are to be constructed from nickel silver.

All keys shall be capable of being cut by a punch machine that originates the exact cut in the key from the code sheet, instead of using patterns.

Cylinders shall be immediately rekeyable to new combinations or a new system at any time desired and shall be serviceable on location in the field. Installation of the cylinders shall require no modifications to U.S. manufactured commercial grade locksets.

The locking system established for this project shall be proprietary and the owner will furnish the manufacturer a list of those persons and their signatures that will be authorized and required to order additional pinned materials or duplicate keys. Orders not bearing authorized signatures will not be filled.

All cylinders, cores, housings, keys and key blanks shall be made in the USA.

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ASSA ABLOY

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Customer Service: 1-877-633-3261

MEDECO CANADA: 160 Four Valley Drive | Vaughan, ON L4K 4T9 CANADA
Customer Service: 1-888-633-3264

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