2011 AAJ National Conference

POETIC PRAGMATISM

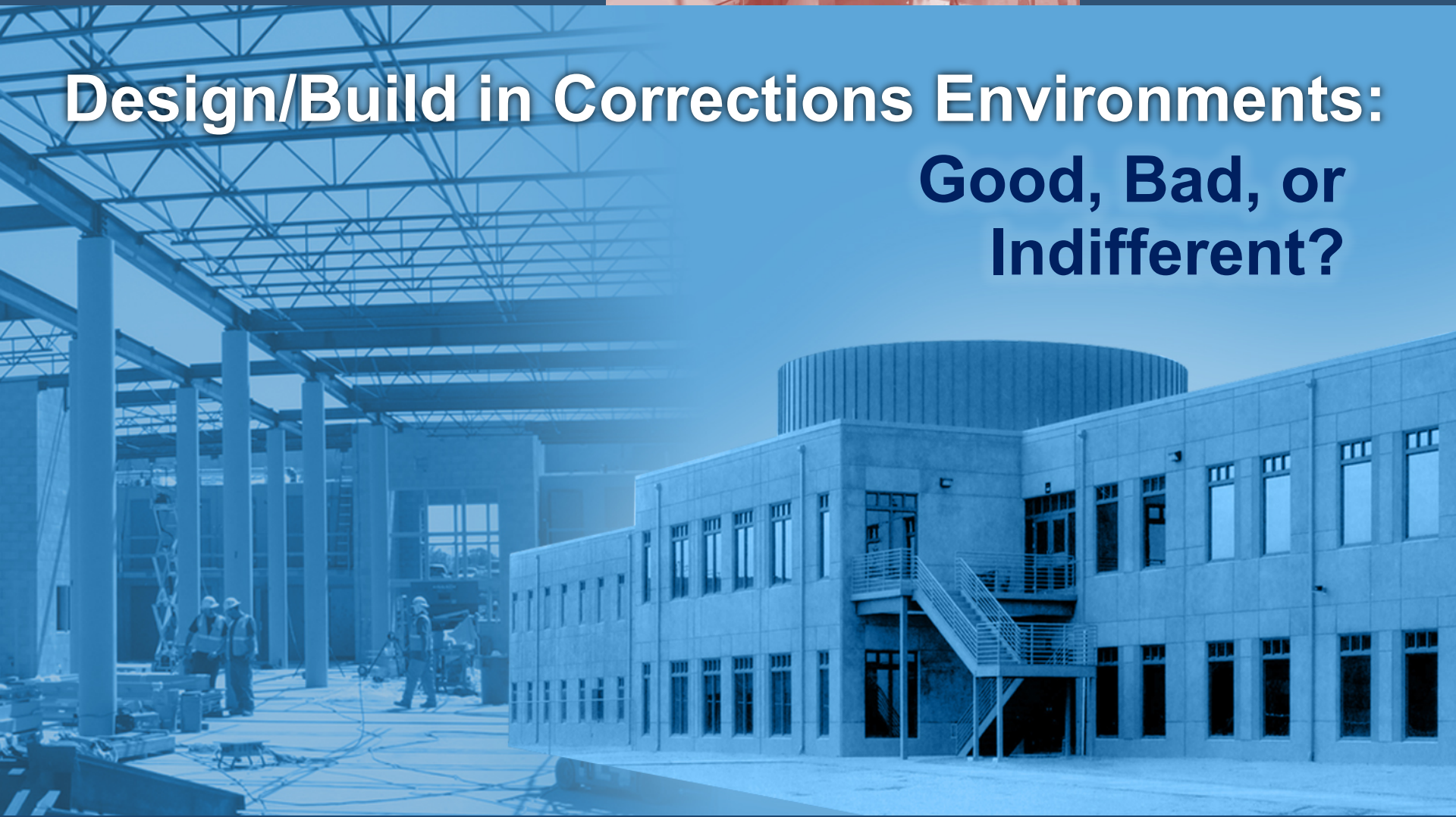
NOVEMBER 2–4, **2011**
LOS ANGELES, CA

CELEBRATING CREATIVE, COST EFFECTIVE, AND FUNCTIONAL DESIGN FOR JUSTICE FACILITIES

PANEL SESSION

Design/Build in Corrections Environments:

Good, Bad, or Indifferent?



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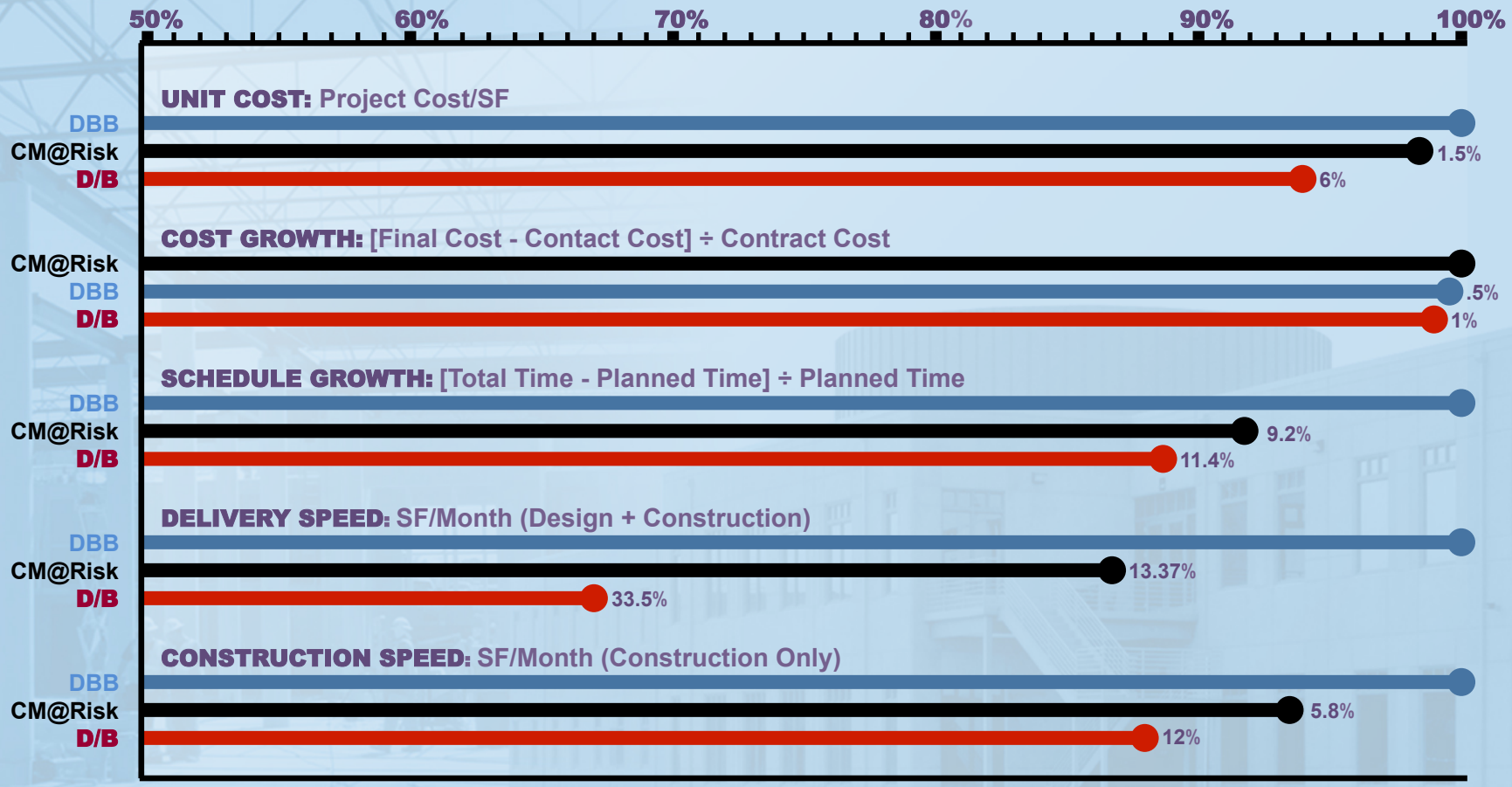
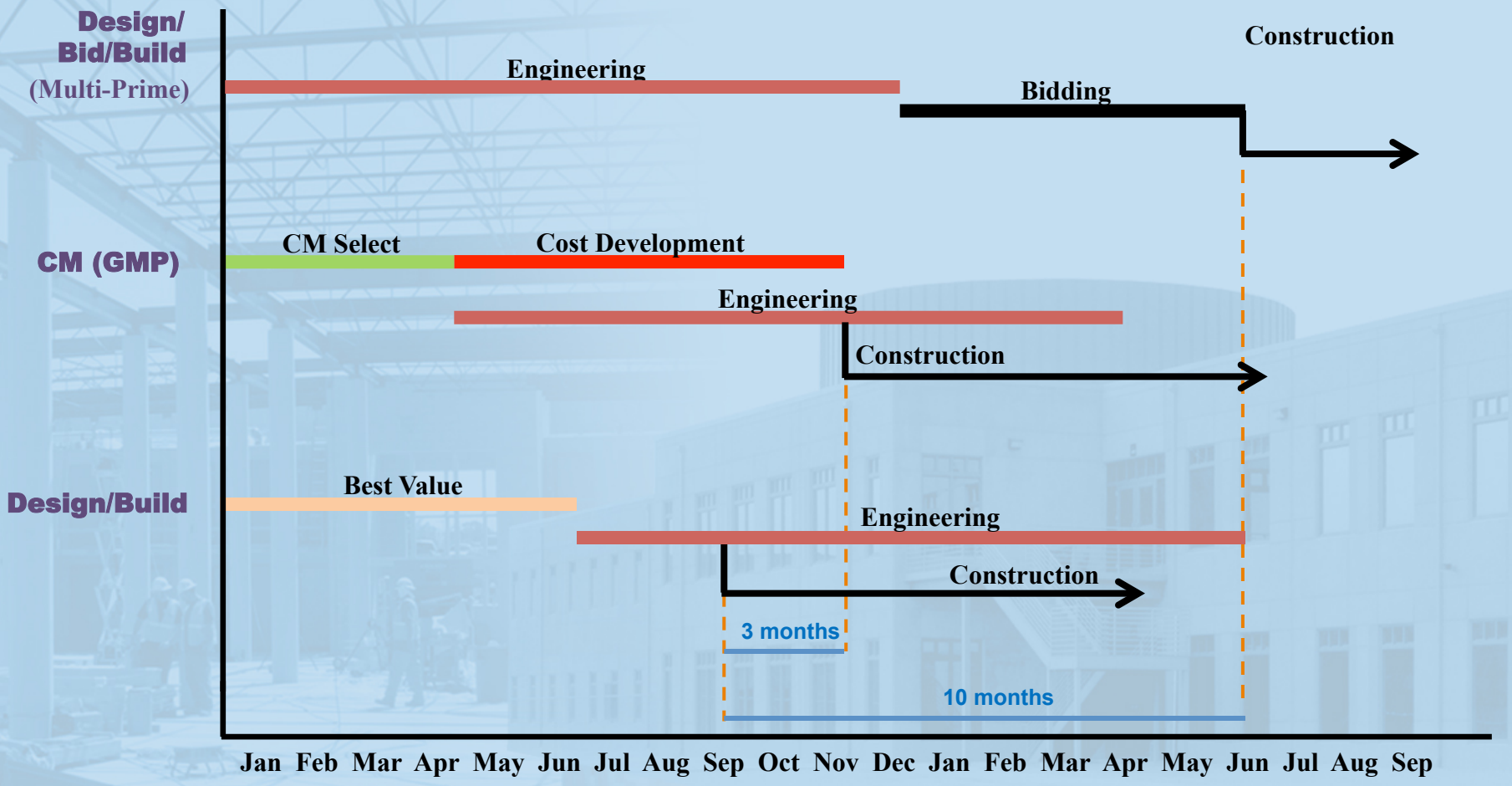
Design/Build in "Global" Environments: Good, Bad, or Indifferent?

Design/Build Performance Attributes*



*Construction Industry Institute/Penn State (351 Projects)

Project Delivery Method Timelines



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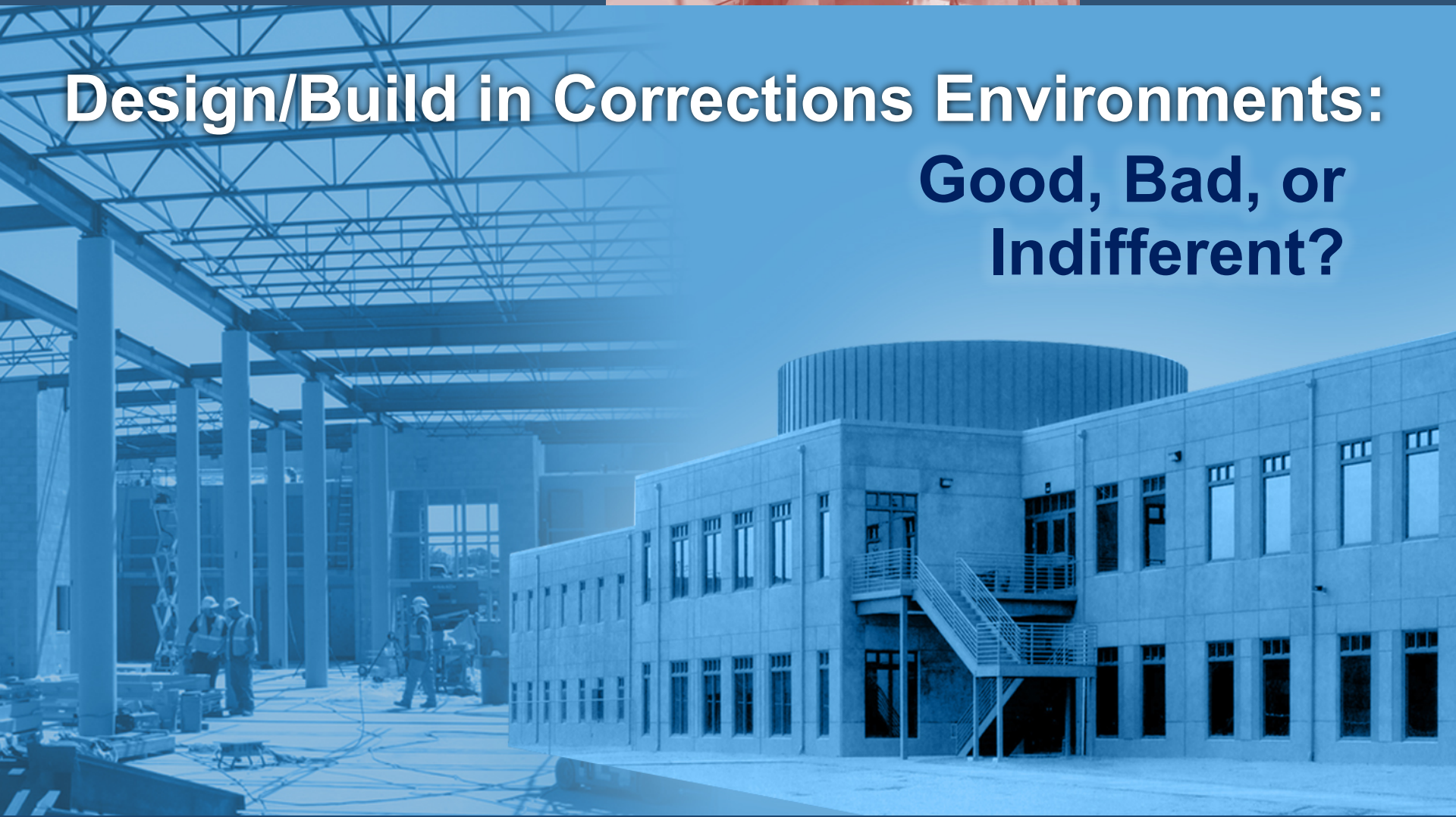

Agenda

- Case Studies
- Plus / Delta Outcomes
- Recommendations
- Questions & Answers

PANEL SESSION

Case Studies

San Diego County Women's Detention Facility

Naval Consolidated Brig Expansion Miramar

FBOP Federal Correctional Institution Berlin

Alameda County Juvenile Justice Center

California Department of Corrections Rehabilitation PAC #1

PANEL SESSION

Case Studies

San Diego County Women's Detention Facility

Naval Consolidated Brig Expansion Miramar

FBOP Federal Correctional Institution Berlin

Alameda County Juvenile Justice Center

California Department of Corrections Rehabilitation PAC #1

San Diego County Women's Detention Facility
Santee, CA

Owner

San Diego County

Andrew Bohnert

CM

Vanir, *Andy Morgan*

Builder

Balfour Beatty Barnhart

Dave Roach

Architect

KMD/HMC, *Jim Mueller*

PANEL SESSION

Case Studies

San Diego County Women's Detention Facility

Naval Consolidated Brig Expansion Miramar

FBOP Federal Correctional Institution Berlin

Alameda County Juvenile Justice Center

California Department of Corrections Rehabilitation PAC #1

Naval Consolidated Brig Expansion
Miramar, CA

Owner

NAVFAC

Leeann Wootton/Sam Kaplan

Builder

Clark Construction

Alan Petrasek

Bridging Architect

HDR

Jeff Goodale

Architect

KMD, *Ivan Romero*

PANEL SESSION

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FBOP Federal Correctional Institution
Berlin, NH

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Craig Unger

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Architect

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Ivan Romero

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Beverly Prior

PANEL SESSION

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California Department of Corrections Rehabilitation PAC #1
Stockton, CA

Owner

CDCR

Mike Courtney (Vanir)

Builder

Hensel Phelps

Tina Wells

Architect

HOK

Jeff Goodale

San Diego County Women's Detention Facility
Santee, CA

Owner

San Diego County

Andrew Bohnert

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Vanir, *Andy Morgan*

Builder

Balfour Beatty Barnhart

Dave Roach

Architect

KMD/HMC, *Jim Mueller*

San Diego County Women's Detention Facility
Santee, CA

Existing Las Colinas Detention Facility

- Former Juvenile Facility
- Current Women's Detention Facility
- 810 Beds (400 CSA Rated)
- Pre-Fabricated Buildings

Programmatic Parameters

- Safe & Secure
- Gender Specific
- Normative Environment
- Campus Plan
- Community Sensitive
- Graduated Amenities

San Diego County Women's Detention Facility
Santee, CA

Site: 45 Acres

No. of Bldgs: 24

Total SF: 477,000

Housing:

- Level 1 (Program Intensive): 192 Beds
- Level 2 (Gen. Min.): 384 Beds
- Level 3 (Gen. Med.): 448 Beds
- Level 4 (High Risk): 128 Beds
- Level 5 (Ad Seg.): 32 Beds
- Level 6 (Seg.): 32 Beds
- PSU: 30 Beds
- Infirmary: 24 Beds

Total: 1,270 Beds

San Diego County Women's Detention Facility
Santee, CA

Support:

- Administration
- Education
- Recreation
- Religious Services
- Food Services/Dining
- Intake/Release
- Central Plant
- Industries

San Diego County Women's Detention Facility
Santee, CA

San Diego County Women's Detention Facility
Santee, CA

Click image to play fly-through video

Why Design/Build?

- Superior to low bid mentality
- Can be used for variety of project types
- Applies expertise of design *and* construction industry to the solution
- Single point of responsibility

County Staff Experience with Design Build

- Higher Quality End Product
- Fewer Claims
- Fewer Change Orders
- Reduced Contract Administration
- Higher End User Satisfaction
- Budget Consistency
- Completion Consistency
- Better Commissioning
- ***Life is too short to have adversarial relationships***

Solicitation / Delivery Format

- No bridging designs to *Promote Creativity*
- Performance requirements as minimums to *Promote Enhancement*
- BIM requirement for design reviews & facility management

San Diego County Women's Detention Facility
Santee, CA

Selection Process

GMP:

Phase 1 = $149mil

San Diego County Women's Detention Facility
Santee, CA

Selection Process

GMP:

Phase 2 = $56mil

Selection Process

- Two Step Process/Stipend
- RFQ (Quals/Shortlist)
- RFP (Program/Business/Contract Requirements)
- Interim Confidential Meetings
- Selection (GMP/"Best Value")

Owner Perspective

PLUS

- Creative & unique approaches & solutions
- Early budget & schedule validation
- Single point of responsibility

DELTA

- Difficulties with AB 900 Program
- Challenges assembling performance, prescriptive, Public Contract Code requirements

Builder Perspective

PLUS

- Compete against shortlist of qualified competitors
- Qualifications step limits effort
- Lets us assemble best "Team" to work together creatively
- Teamwork & creativity allows us to carry contingency
- Reduced change orders *(Contractors don't like change orders)*

DELTA

- Level of effort
- Lack of input/feedback at interim confidential meetings

C.M. Perspective

PLUS

- Four design solutions to choose from
- Early understanding of design solution

DELTA

- Lengthy selection process
- Project schedule driven by California approval process

Architect Perspective

PLUS

- Programmatic clarity
- GMP vs. Bid
- "Best Value" selection (design/enhancements)
- Stipend
- Interim meetings

DELTA

- Overly prescriptive
- Lack of input
- Submittal information required
- At risk costs

Naval Consolidated Brig Expansion
Miramar, CA

Owner

NAVFAC

Leeann Wootton/Sam Kaplan

Builder

Clark Construction

Alan Petrasek

Bridging Architect

HDR

Jeff Goodale

Architect

KMD, *Ivan Romero*

Major Expansion to Existing Complex

97,000 GSF/200 Beds

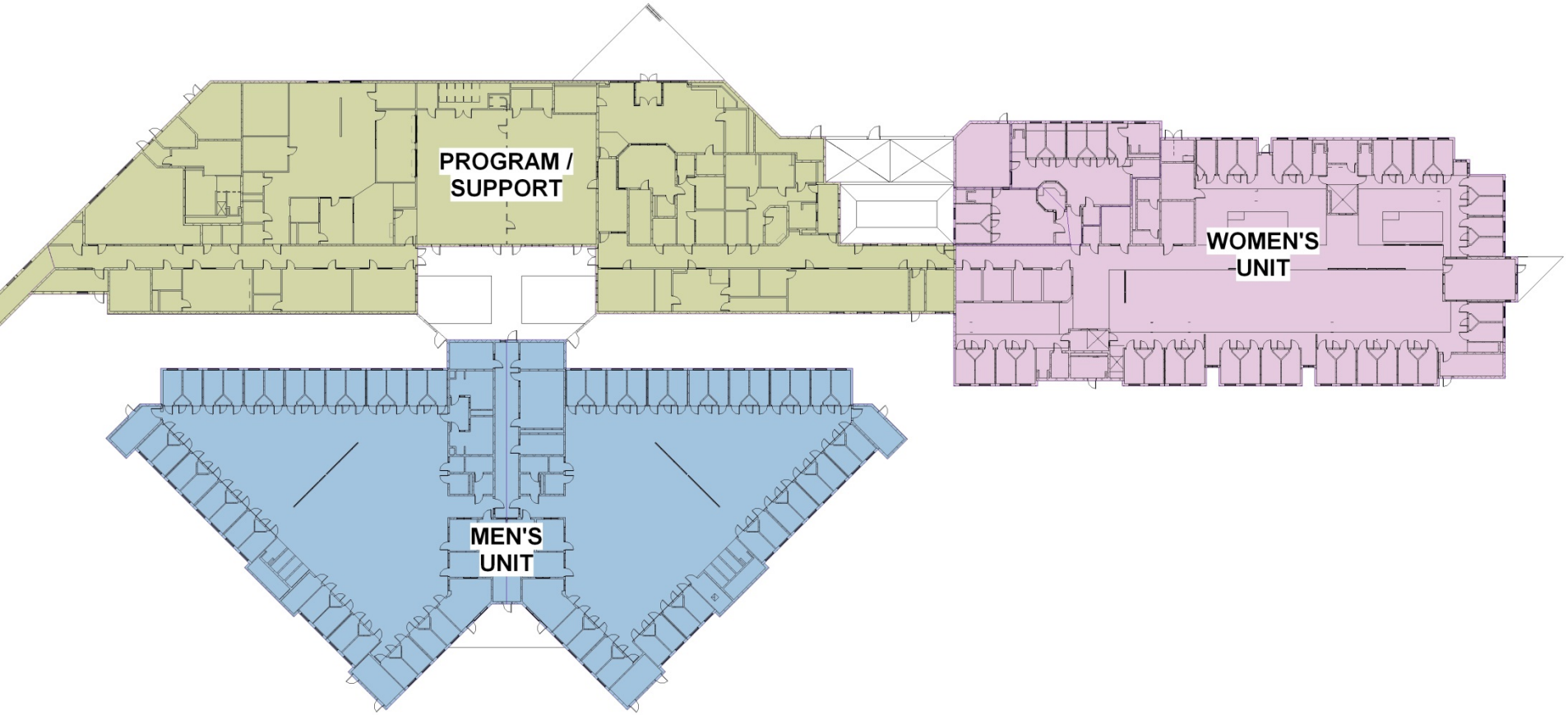
- Men's: 120 Beds/3 sub-populations
- Women's: 80 Beds/6 sub-populations

Project Cost: $30,838,000

Attributes

- Unique operational requirements
- New population group (female)

Naval Consolidated Brig Expansion
Miramar, CA



Naval Consolidated Brig Expansion
Miramar, CA

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Naval Consolidated Brig Expansion
Miramar, CA

Naval Consolidated Brig Expansion
Miramar, CA

Why Design/Build?

- Better quality facilities in less time / for less overall cost
- Award by “Best Value” not just lowest price
- Leverage private sector up-to-the-minute innovations / industry knowledge
- Declining funds but not declining needs
- Less litigation
- Everyone is a stakeholder / team member
- Control risk, schedule, cost

Acquisition Selection Process

- Unrestricted / full & open D/B over $50M
- 1st Phase used to down-select to highest qualified
- No separate pre-qual – technical quals / price in single proposal
- No design proposal / no stipend
- Selection based on “Best Value” of quals & price

Acquisition Selection Process

- Stipulated construction cost limitation
- Standardized six-part format
- Project specific programmatic requirements / desired quality
- Sustainability / life cycle costs / maintenance objectives addressed

NAVFAC RFP Development

- Standardized format edited to project specifics
- Government estimate required
- Level of RFP/Bridging tied to project complexity & mission/user needs
- Drivers for D/B contract duration stipulation
- Cost management during bridging

Bridging Phase

- Selection via IDIQ
- Heavy Bridging Effort
- 6 Month Bridging Phase
- Program / Concept / Performance Criteria

NAVFAC Proposal Evaluations

- Evaluation by committee
- Technical evaluation first, then price
- Experience with project type – *Paramount Importance*
- Project staffing resumes
- Past performance quality
- Safety
- Small business plan

An Evolving Process at NAVFAC

- Performance based requirements
- Lessons Learned
- Improvements to standard DB methodology
- Utilize Navy / DoD criteria, standards, specifications
- Utilize Uniformat as a basic information structure
- Create common business practice across NAVFAC
- New process opportunities – CM @ Risk

Owner Perspective

PLUS

- Controlled / Shared Cost Growth
- Team / Partner Relationship
- Reduced Litigation
- Innovation

DELTA

- Differing Agendas
- Unclear Expectations

Builder Perspective

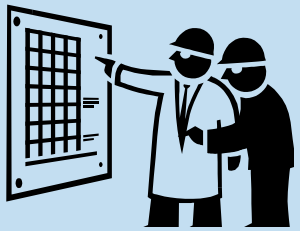
PLUS

- Fast Track delivery supported by
  - User Group – *Knew What They Wanted*
  - User Group – *Led by Decision Makers*
  - Positive issue resolution climate

DELTA

- Commissioning

Bridging Architect Perspective



PLUS

- Design Quality
- Good Project Definition
- Fixed Budget Early On

DELTA

- Scope Management
- Tight Bridging Phase
- Coordination

Architect of Record Perspective

PLUS

- Extensive Bridging Documents
- Bridging Documents Flexibility
- Design Expectations
- Minimal to Moderate At-Risk Investment
- Partnering

DELTA

- Relatively Short Bid
- Partnering

FBOP Federal Correctional Institution
Berlin, NH

Owner

Federal Bureau of Prisons

Craig Unger

Builder

Bell Construction Company

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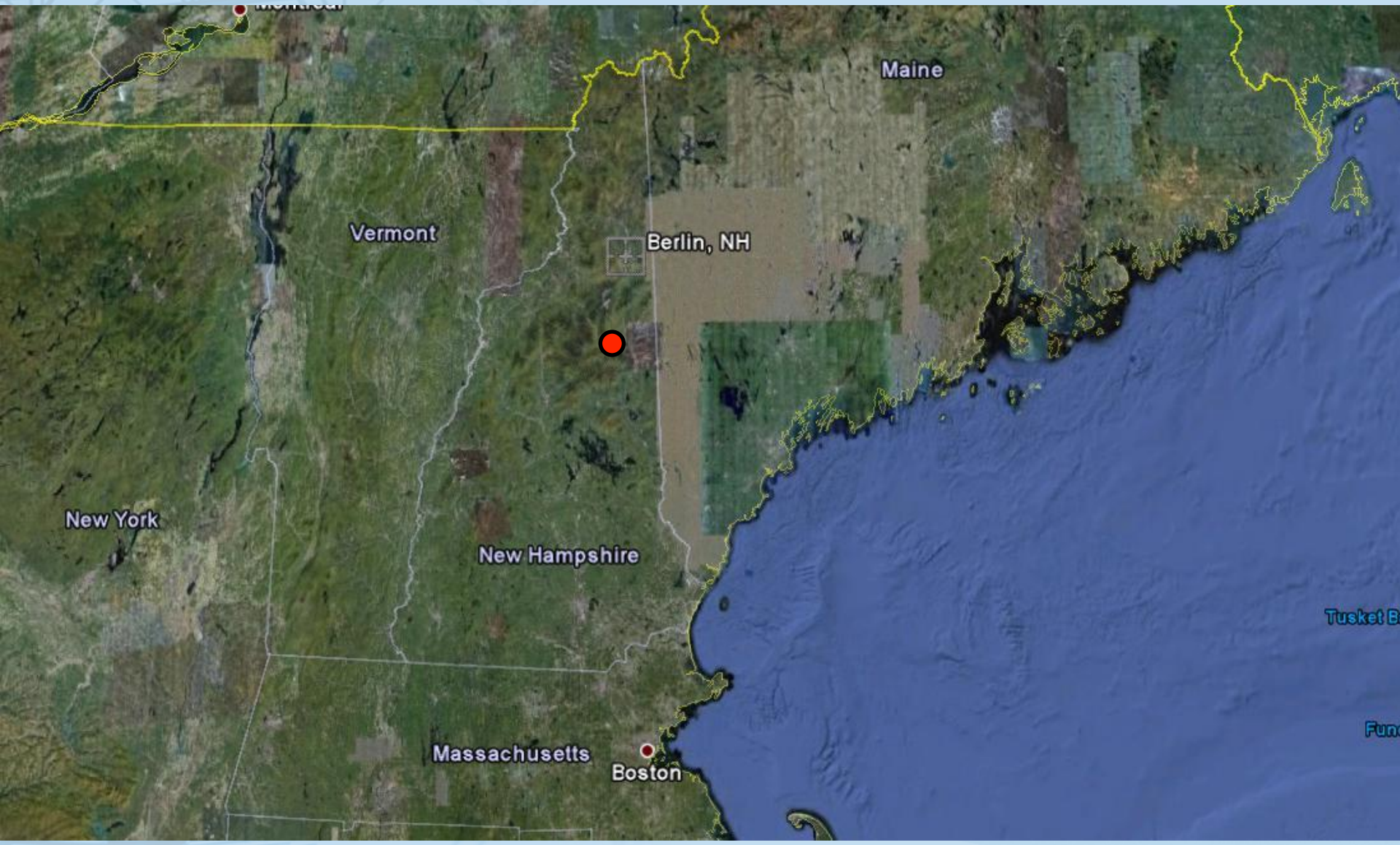
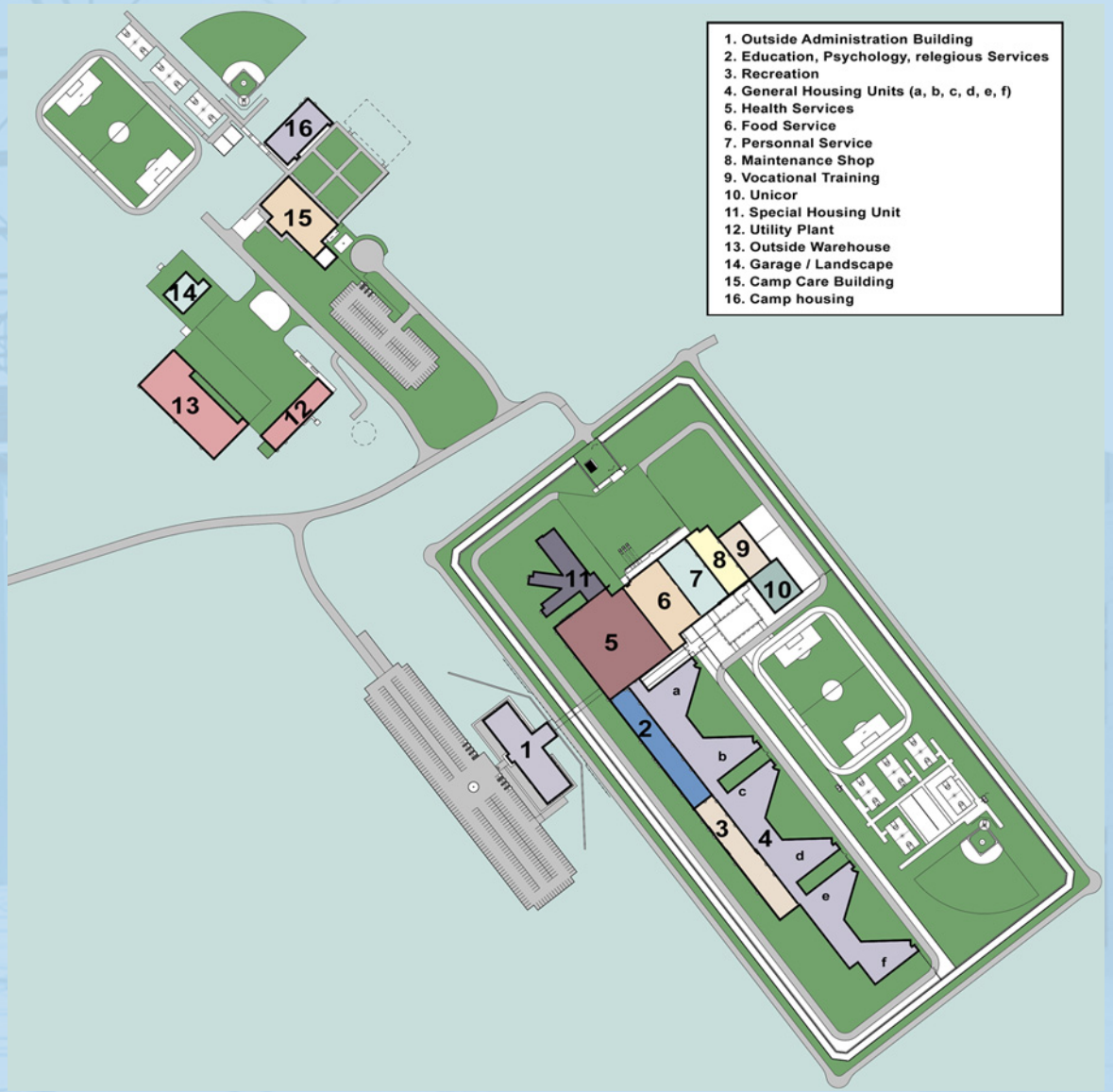


FBOP Federal Correctional Institution
Berlin, NH

- 768 Cells / 1,152 Beds (50% double bunked)
- 711,000 Project GSF
- $242,000,000 Construction Cost
- Duration: 38 months (May 07–July 10)

FBOP Federal Correctional Institution
Berlin, NH



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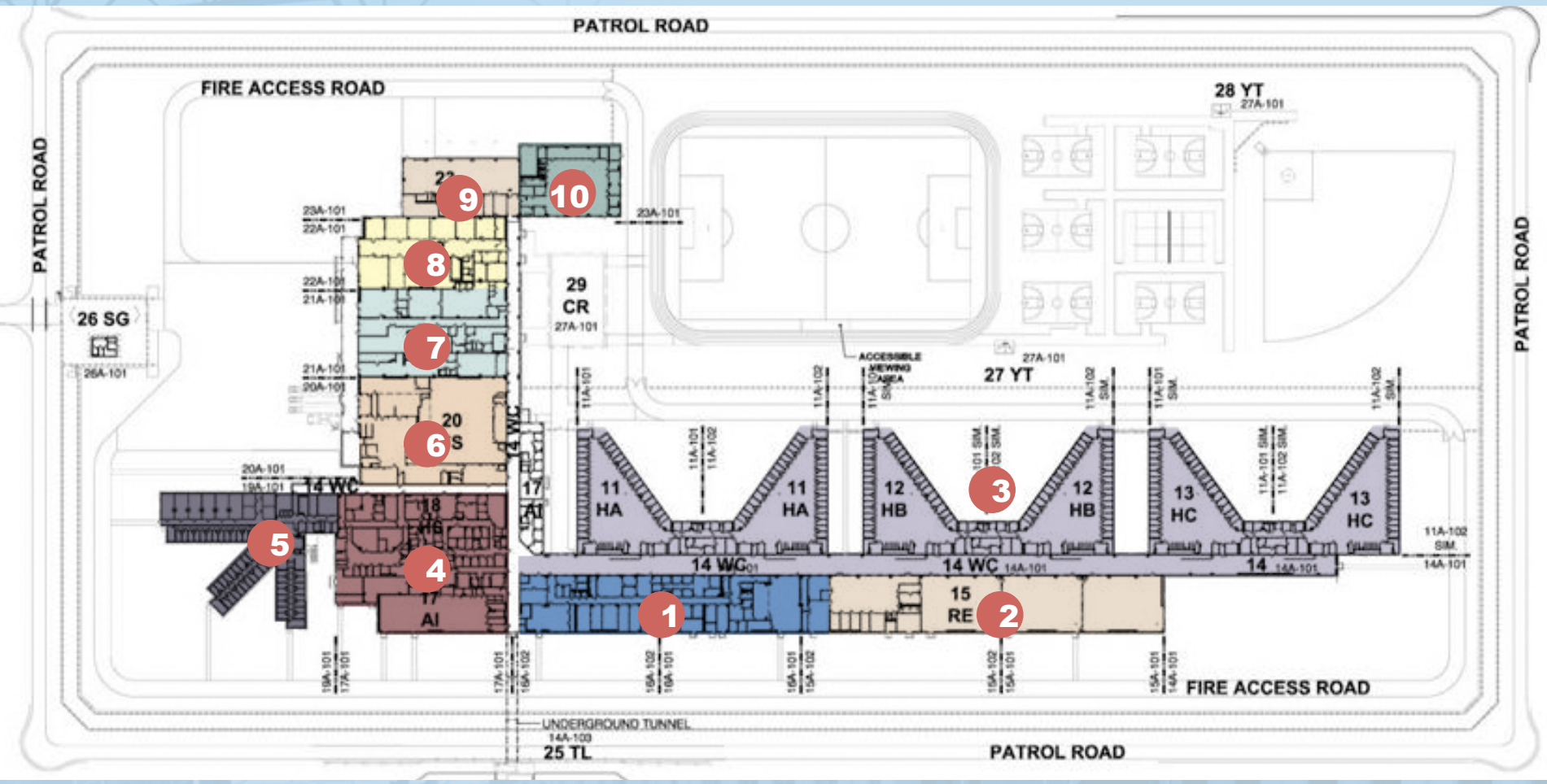
Berlin, NH



1 Education
2 Recreation
3 Gen. Housing
4 Health Services
5 Special Housing Unit
6 Food Service
7 Personnel Service
8 Maintenance Shop
9 Vocational Training
10 Unicor

FBOP Federal Correctional Institution
Berlin, NH

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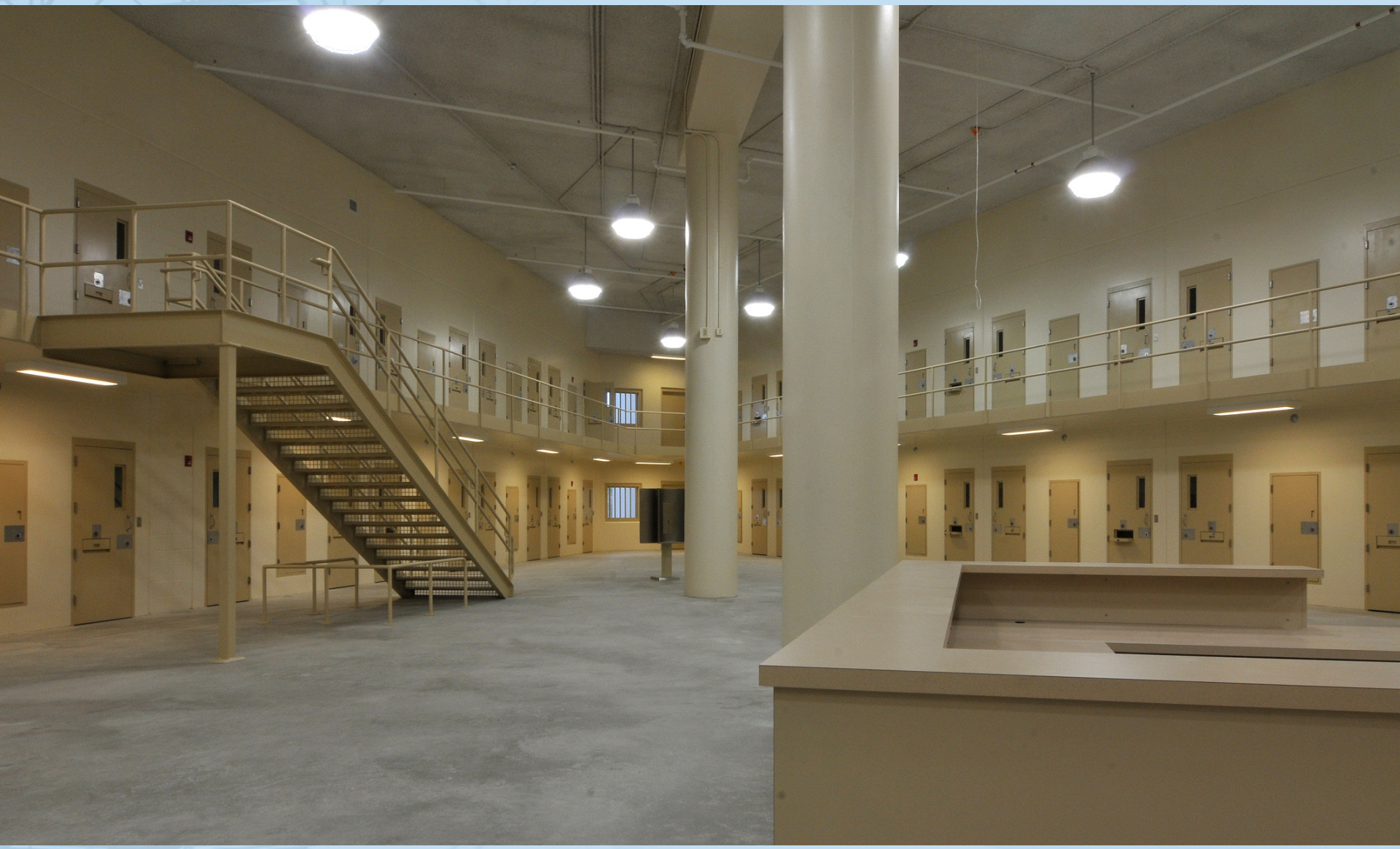
FBOP Federal Correctional Institution
Berlin, NH



FBOP Federal Correctional Institution
Berlin, NH

FBOP Federal Correctional Institution
Berlin, NH

FBOP USP Canaan – Federal Prison Camp Canaan
Canaan, PA

FBOP Federal Correctional Institution
Berlin, NH

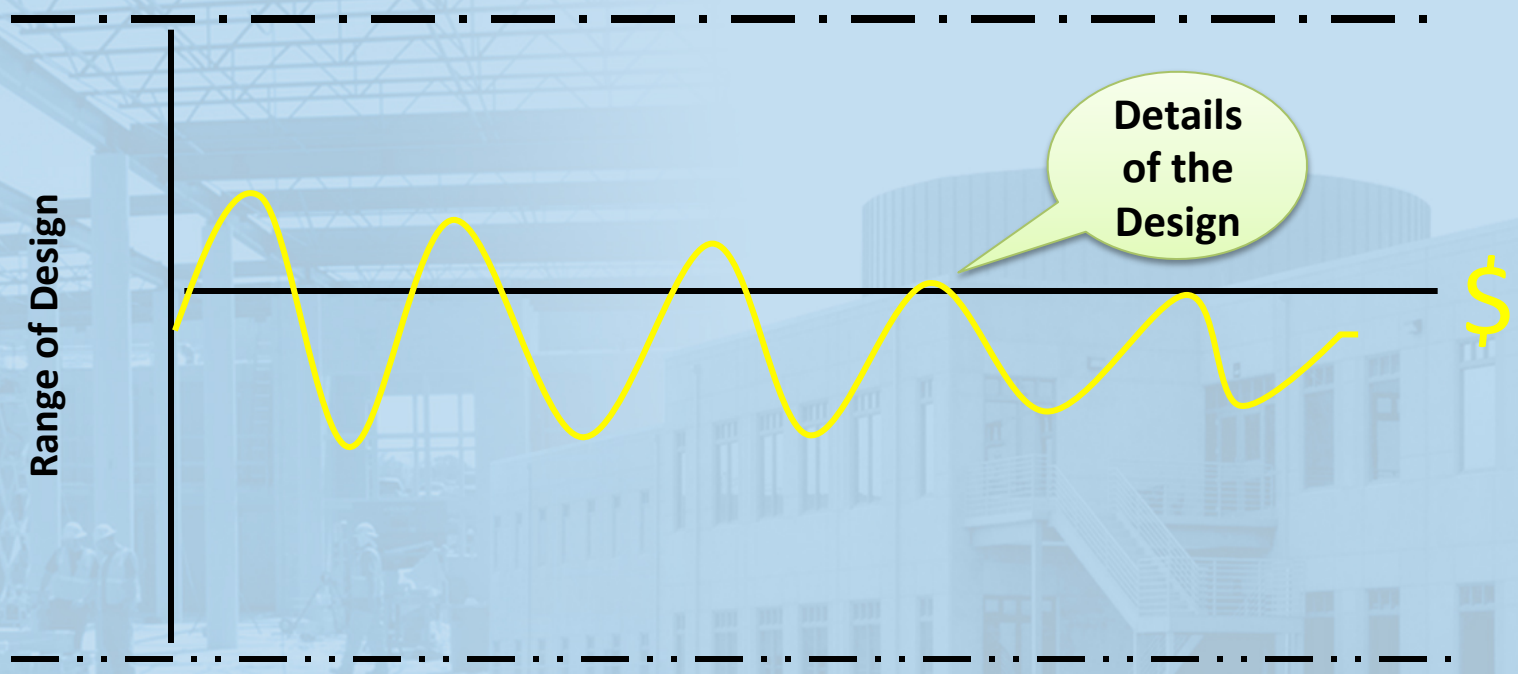
Selection Process

- SOQ
- Shortlist for Technical Proposal
- Technical Proposal
- Best Value Selection
- Conformed Set

Builder Perspective

- Descriptive benefits of Design/Build vs. Traditional project delivery methods
- Difference between Design/Build vs. Design/Bid/Build formats
- Relationship between contractor & architect/engineer
- Betterments thru Lessons Learned

Design/Cost Relationship Design-Build



Cost (and performance is fixed) **– We are designing to the cost**

Difference Between Design/Build vs. Design/Bid/Build Formats

- Source selection looks at team not necessarily price
- Teams with past experience understand the details
- Creates a *Collaborative Team*

Learners *not* Knowers

- As human beings we think we must have all the answers – we pretend like we should & we do
- Design-Builders do not need to have all the answers
- They are great at discovering the answers in the dialogue
- Leverage the team's pool of understanding, knowledge, meaning, and experience

Relationship Between Contractor & Architect/Engineer

- Effective team relationship generates creativity within the project
- Conflict issues are an opportunity for innovation
- Contractor's duty: maintain / understand professional ethics & standards of the architect / engineer

Betterments thru Lessons Learned

- Non Prescriptive vs. Prescriptive program
- Define schedules and involvement of subcontractors
- Keep the flow of information immediate

The work of business is making and keeping commitments…

Fernando Flores 1982

Owner Perspective

- Why Design-Build?
- The Source Selection Process
- Partnering Program
- Lessons Learned

Why Design/Build?

- Schedule Driven
- Historical Adversarial Contracts
- Delays & Disputes
- Predictability of Final Cost & Schedule

The Source Selection Process

- Best Value vs. Low Initial Price
  - **1st Question** –
    Are we buying a "Service" or a "Commodity"?
  - **2nd Question** – Trying to select the best "Team" or the best "Proposal"?
  - Best Value vs. Low Initial Price

- Evaluation Criteria
  - Technical & past performance significantly *MORE IMPORTANT* than price

The Source Selection Process – Concerns

- Balancing “Performance” requirements with “Detail-Prescriptive” specs
- Relinquishing Control of Design
  - Need for standardization
  - Specific correctional requirements

Partnering Program

- Meaningful collaborative relationship
- 3rd party facilitator
- Periodic face-to-face sessions
- Disagreements *NOT* swept under the rug

Lessons Learned

- Make past performance most important evaluation factor
- Shortlist no more than 3 teams
- Transition to “Performance Based” requirements
- Conduct proprietary meetings
- Incentive – Award Fee Program
- *Be Responsive!*

Architect Perspective

PLUS

- Compatibility with Design Builder
- Bridging documents provide information & improvements
- RFP format consistency
- Quality local architect
- Relatively few RFIs

DELTA

- Stipend/At Risk investment
- Definition in owner's feedback to proposal
- Modest or minimal design goals

Alameda County Juvenile Justice Center
San Leandro, CA

Owner
Alameda County
Jim Kachik

Builder
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Bridging Architect
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Prime Architect
HOK
Chuck Oraftik

PM/CM
Vanir
Andy Morgan

Associate Architect
HMC + Beverly Prior Architects
Beverly Prior

Why Design/Build?

- D/B/B history of litigation, overruns and conflict
- *Life is too short*

Solicitation & Delivery Formats

- California Public Contract Code Section 201331

Alameda County Juvenile Justice Center
San Leandro, CA

A **Transformative** EXPERIENCE

Alameda County Juvenile Justice Center
San Leandro, CA

PROGRAM

- 360-bed Juvenile Detention Facility, 379,000 SF
- $175M Project budget
- Stakeholders: Courts, Schools, Healthcare, AOC, Probation, District Attorney, Public Defender
- Largest, most complex capital project at time
- Activist campaign against juveniles in detention
- Site selection battle created funding schedule crisis
- *Design/build saves the day…….*

ACHIEVEMENTS

- 30 months construction, preserve State grant, in ($135M) budget, *no claims/litigation!*
- 100% JJC electricity from renewable energy
  - 47.5% less than Title 24 / 20% renewable
  - Rooftop PV: $150,000/yr savings1
  - 100% roof area reflects heat
- Water use reduction:
  - 400,000 gallons annual landscape reduction
  - 2 million gallons annual domestic reduction
- LEED® GOLD (first in USA):
  - Bioswales filter 100% stormwater run-off
  - 4000 tons/94% construction waste recycled
  - Skylights in each detention pod
  - All interior finishes low-emitting materials
  - 200,000 SF dedicated natural space
- Exceeded County program goals:
  - Small local business participation
  - Youth participation and mentoring
  - County Art Program
  - Green building and sustainable operations

Alameda County Juvenile Justice Center
San Leandro, CA

Bridging Design

Alameda County Juvenile Justice Center
San Leandro, CA

Alameda County Juvenile Justice Center
San Leandro, CA

Youth Training and Mentoring

Small Local Business Contracting

Housing Unit

Art Program

Alameda County Juvenile Justice Center

San Leandro, CA

Alameda County Juvenile Justice Center
San Leandro, CA

Photo credit: Rahman Batin

Photo credit: Sibila Savage

U.S. GREEN BUILDING COUNCIL
LEED GOLD
2007

Recognition of the County's success and the Board's commitment to social justice and sustainability

Owner Perspective

PLUS

- Met/exceeded all goals, both social & project management
- Saved a grant. Reduced cost & time.
- Collaborative relationships: demonstrated a better way

DELTA

- Each project a learning experience
- The “art” parts: phase transitions, documents, evaluation/award, expectations

Bridging Architect Perspective

PLUS

- Allows for owner design Input
- Promotes traditional architect/owner collaboration
- Sheds owner liability and reduces unknowns

DELTA

- Design does not always meet owner's expectation
- Level of documentation to balance owner's requirements and DB flexibility is difficult to determine

Alameda County Juvenile Justice Center
San Leandro, CA

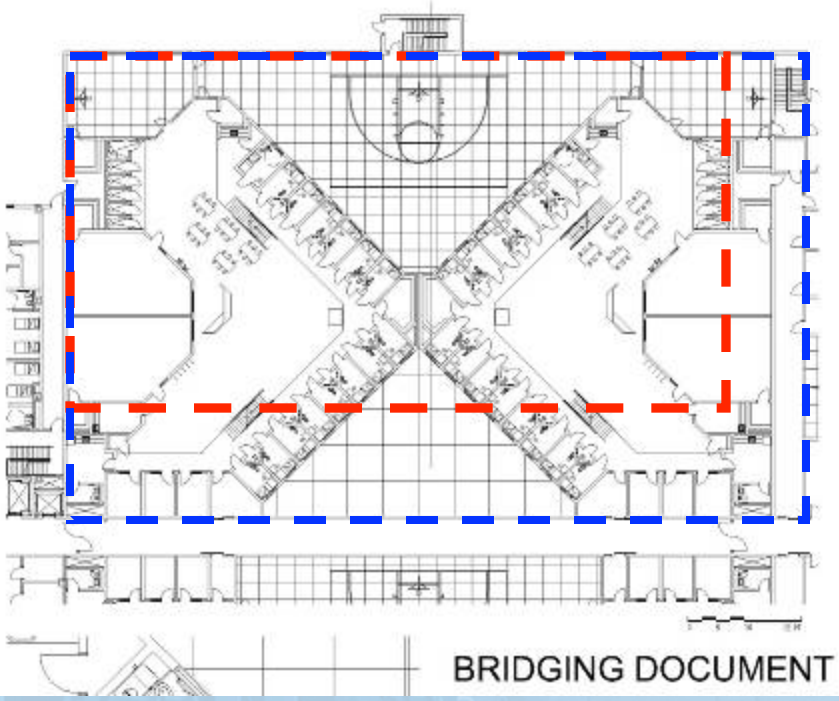
Alameda County Juvenile Justice Center
San Leandro, CA

Architect's Perspective

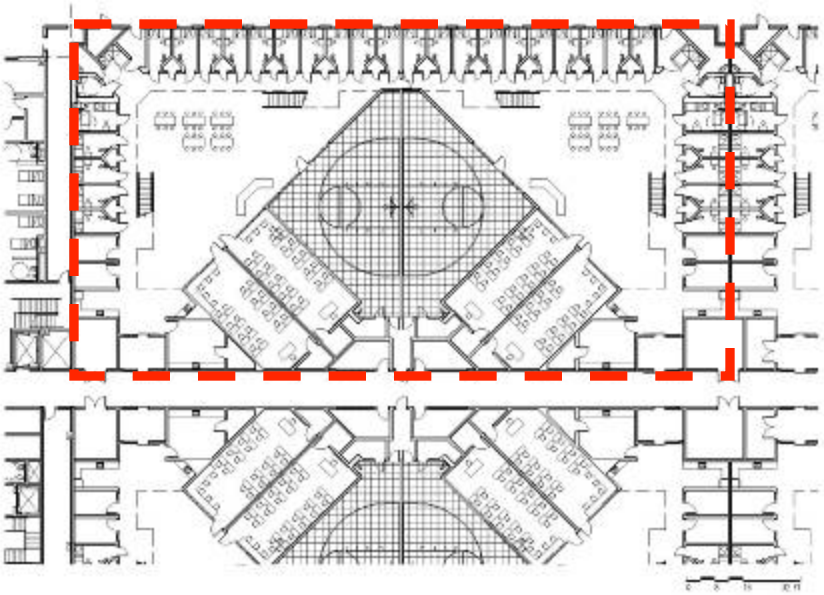
PLUS

- Bridging docs proposed an excellent project
- Budget bust led to rebid w/ loosened requirements
- Redesigned / broke ground within 4 months – opened within 24 more months
- Collaborative and compatible team members with experience together

Alameda County Juvenile Justice Center
San Leandro, CA



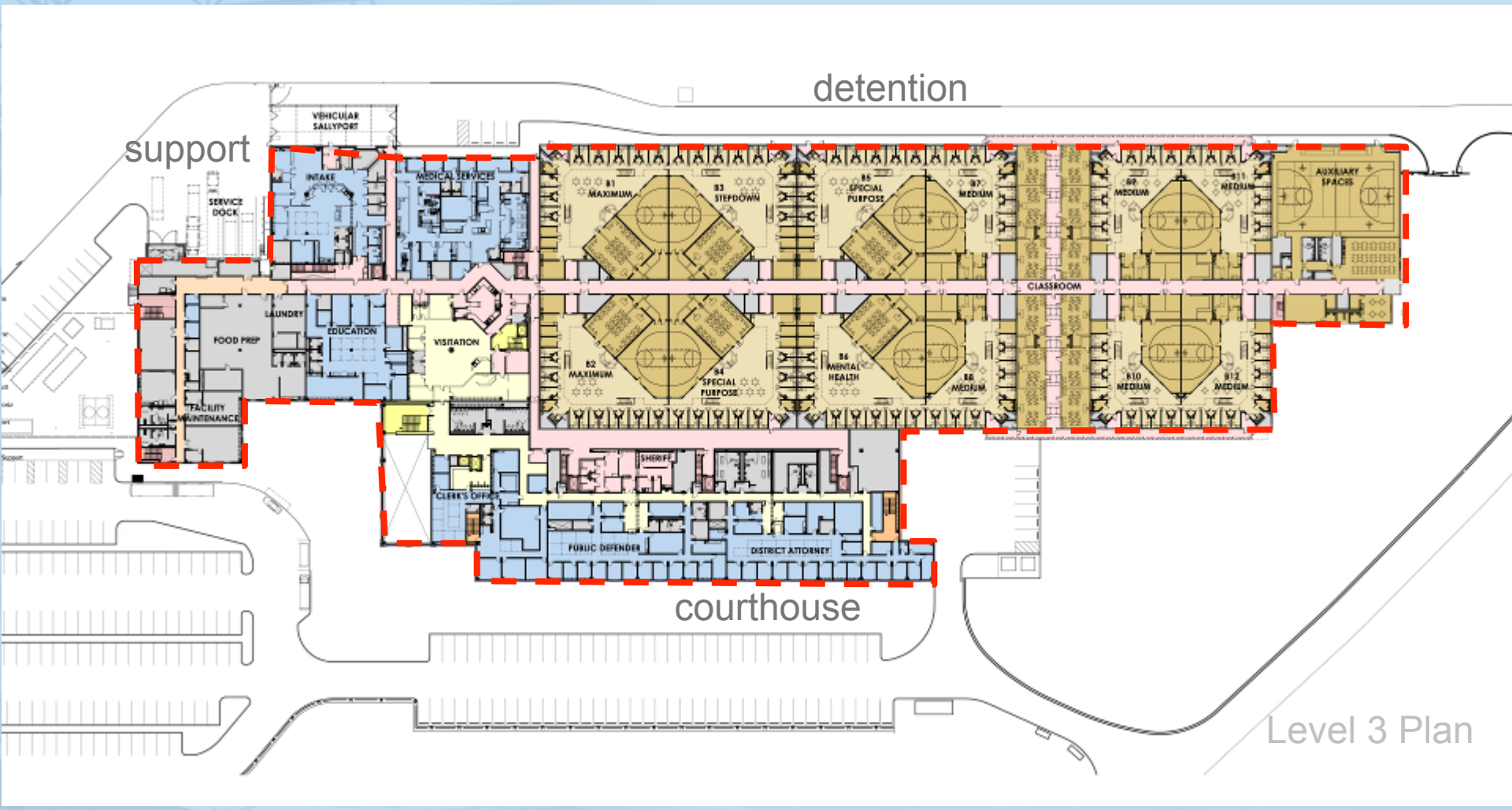
BRIDGING DOCUMENT



PROPOSED REVISION

Alameda County Juvenile Justice Center
San Leandro, CA

Alameda County Juvenile Justice Center
San Leandro, CA



Alameda County Juvenile Justice Center
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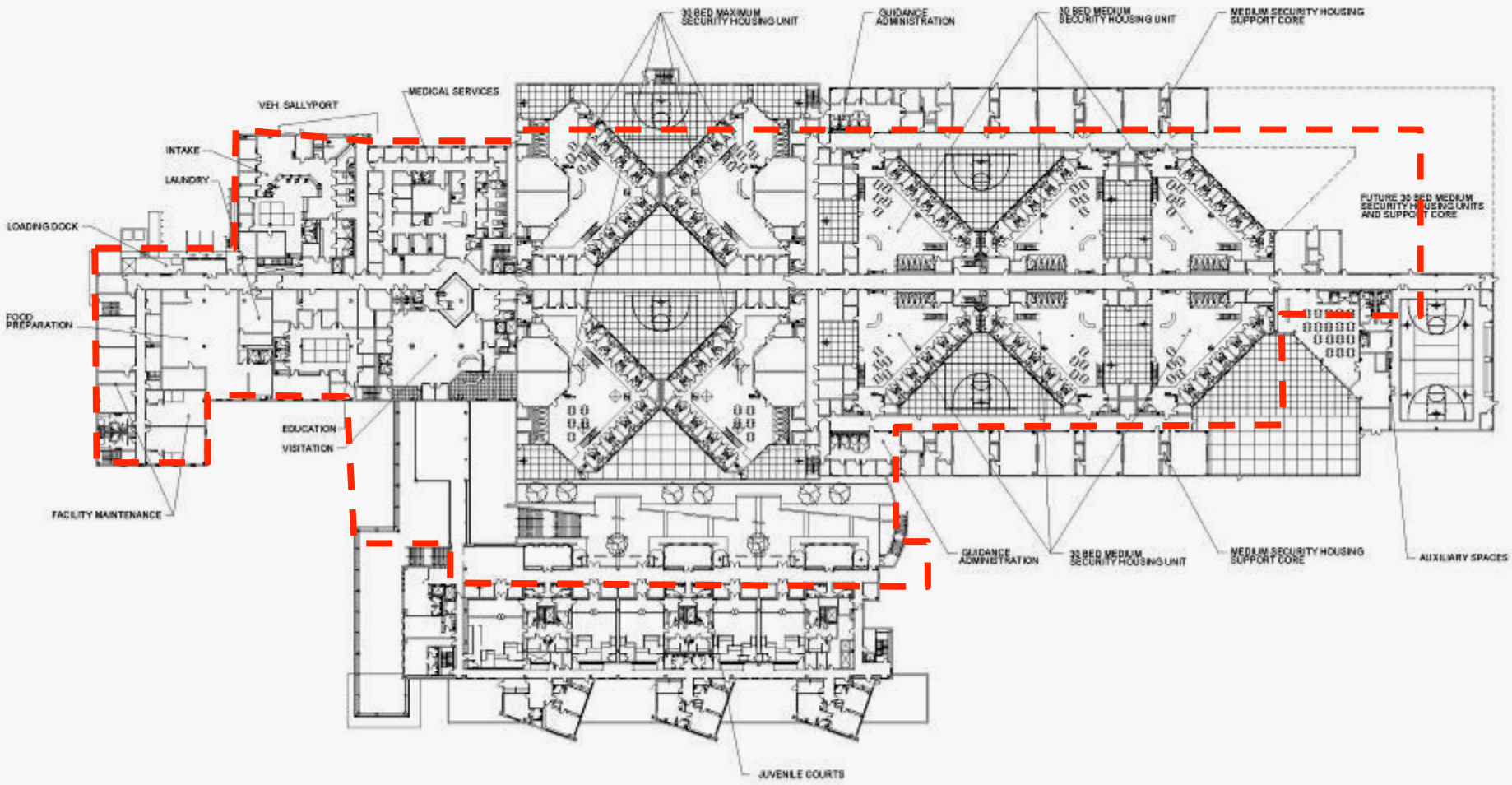


HELLMUTH, OBATA + KASSABAUM, INC.

THIRD LEVEL PLAN - BRIDGING DOCUMENT
ALAMEDA COUNTY JUVENILE JUSTICE CENTER
SAN LEANDRO, CA FEBRUARY 5, 2004

Hensel Phelps Construction Co

DELTA

Architect's Perspective

- Manage bridging documents' scope / estimate / owner expectations
- Manage D-B pursuit costs to maximize owner's opportunity for qualified teams
- Include architect in owner discussions

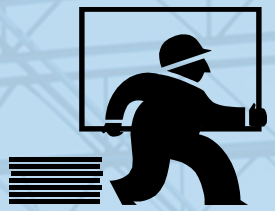
PM/CM Perspective

PLUS

- “Best Value” selection
- Not-to-Exceed pricing = maximum scope for budget
- Superior teamwork

DELTA

- Managing “Scoping” documents
- Limited number of proposers



Builder Perspective

PLUS

- Team's consistent involvement during design/ construction
- Partnering approach to project challenges
- Local participation goals met through creative bonding assistance program

DELTA

- Proposal allowed for enhancements or reductions to achieve stipulated sum
- Reduce need for "Best & Final Offer"

California Department of Corrections Rehabilitation CHCF
Stockton, CA

Owner

CDCR

Mike Courtney (Vanir)

Builder

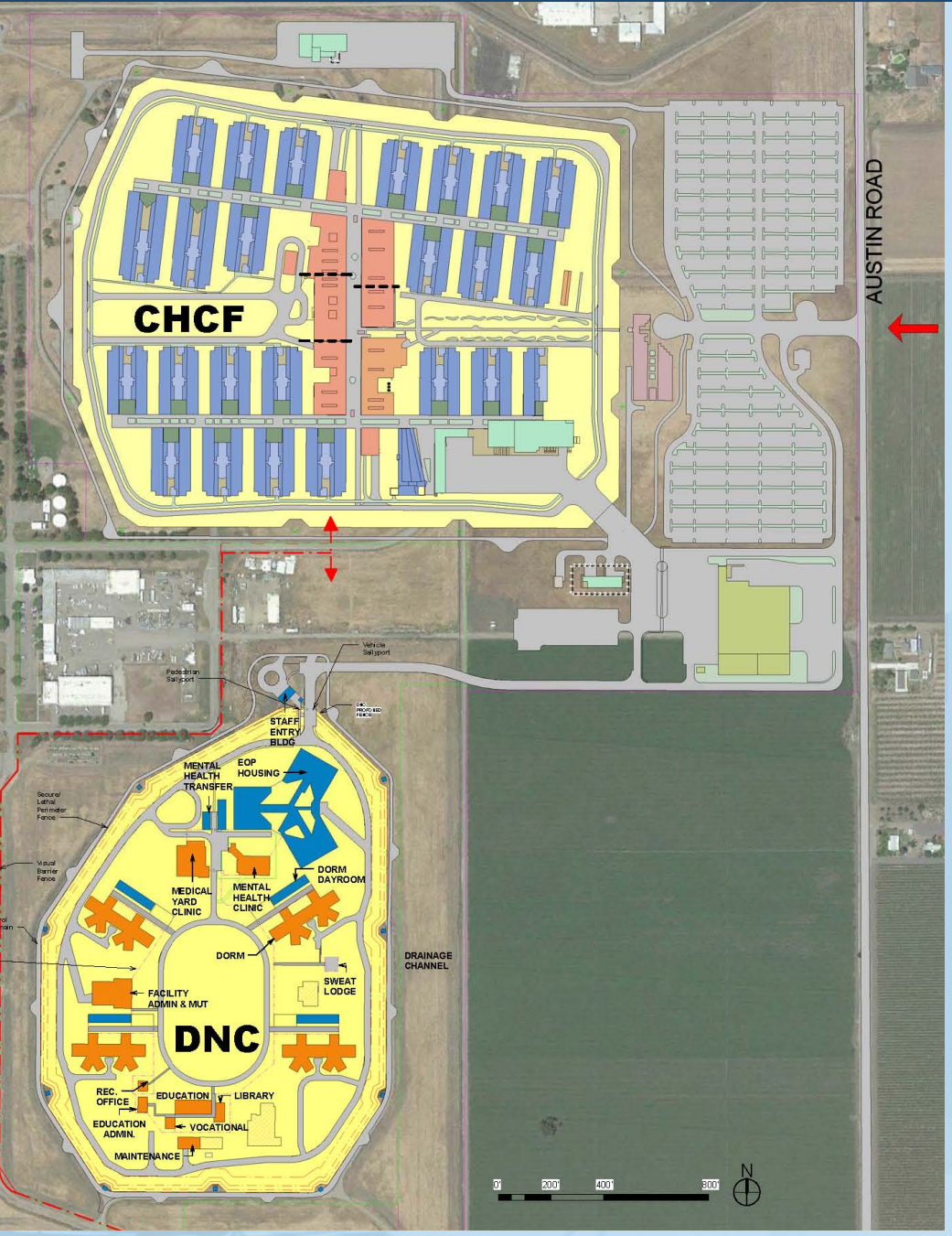
Hensel Phelps

Tina Wells

Architect

HOK

Jeff Goodale



CHCF

- **Project Procurement Strategy ($1.08 billion/39 months)**
  - Design/Build
  - Multiple Packages
    - Risk Allocation
    - Bonding
    - Increased Market Participation
    - Design/Build Delivery

CHCF

Design/Build Delivery

- Why – Speed of Delivery, Collaborative Partnership
- Government Code Section 14661.1
- Best Value Stipulated Sum w/Stipend
- Two Step Process
  - RFQ
  - RFP

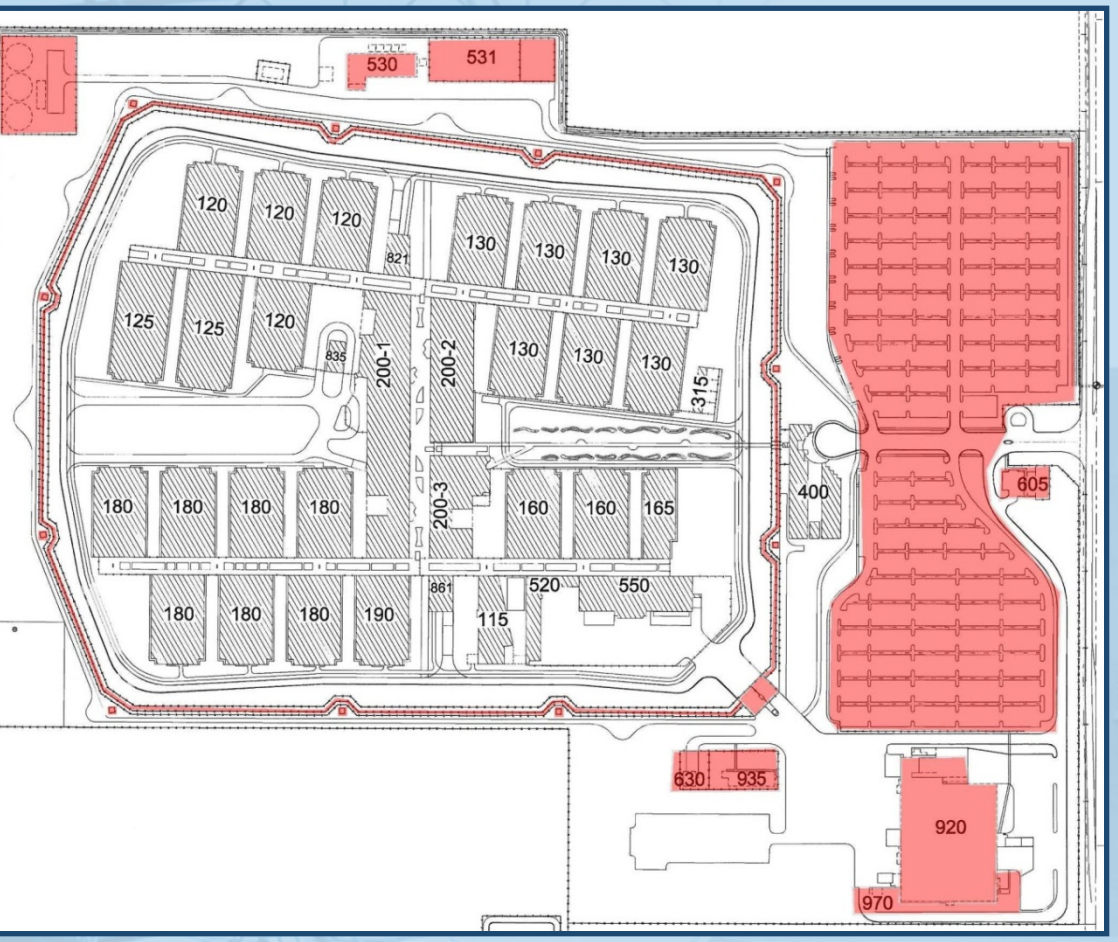
RFQ Phase

Two Part Process

- Mandatory Requirements (defined in statute)
- CDCR added financial component
  - Working Capital (backlog/letters of credit)
  - Insurance/Bonding
- Qualifications (project specific)

DESIGN/BUILD PACKAGE #1:

CHCF Site Work



Datum:

- 150 Acres
- $129.1 Million
- 24 Months

Scope:

- Mass Grading
- Off-Site Improvements
- Central Plant
- Material Service Center

DESIGN/BUILD PACKAGE #2:

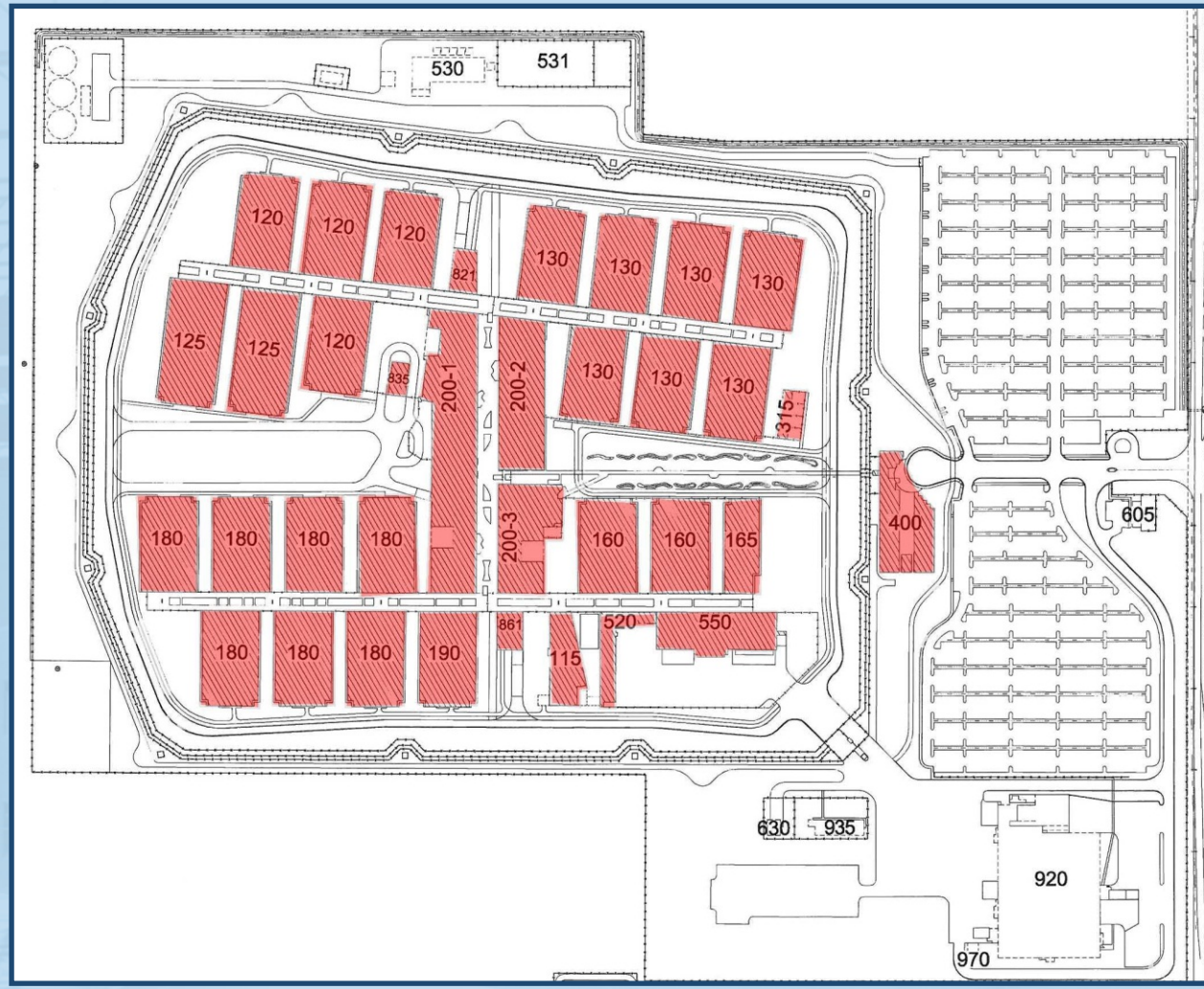
CHCF Housing & Health Facilities

Datum:

- 1.2 Million SF
- $512 Million
- 22 Months

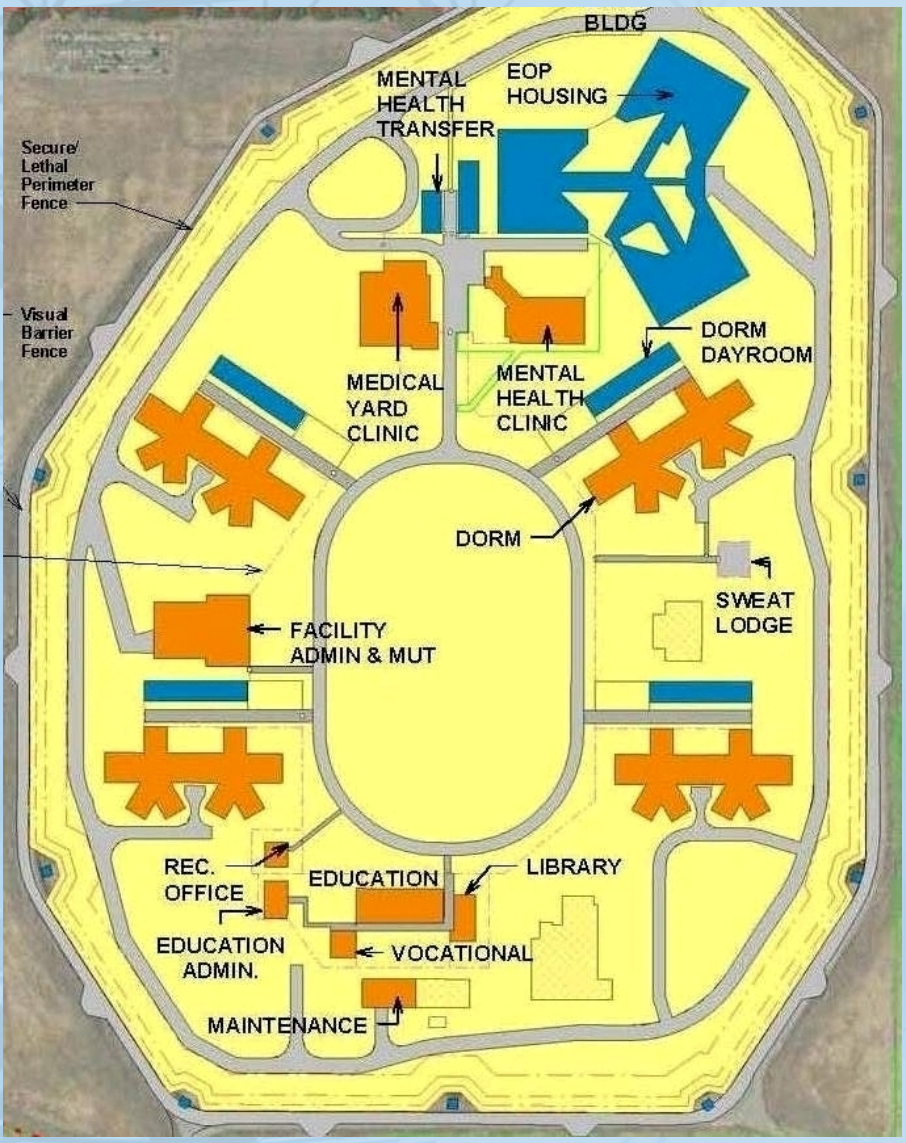
Scope:

- 39 Buildings
- 1,722 Beds
- 145,000 SF Treatment Center



DESIGN/BUILD PACKAGE #3:

CHCF Housing & Health Facilities (DeWitt Nelson)



Datum:

- $120 Million
- 21 Months
- Relies on CHCF for Medical Treatment and Support Services

Scope:

- Renovation of DJJ Facility/ New Construction for SGP/ EOP Inmates

RFP Phase

CHCF - Bid Package #1

Proposal/Contract/General Requirements (436 pages)
Design Guidelines – APS/ISP/Narratives (743 pages)
Performance Criteria – Concept Drawings/Room Data Sheets (271 pages)
Performance Criteria – Technical Specifications (1,178 pages)
Performance Criteria – FF&E (8 pages)
Appendix (a lot)
Total Pages : 2,636

CHCF - Bid Package #2

Proposal/Contract/General Requirements (429 pages)
Design Guidelines – APS/ISP/Narratives (1,563 pages)
Performance Criteria – Concept Drawings/Room Data Sheets (532 pages)
Performance Criteria – Technical Specifications (2,419 pages)
Performance Criteria – FF&E (1 page)
Appendix (more than a lot)
Total: 4,944 pages

DeWitt Nelson - Bid Package #3

Proposal/Contract/General Requirements (462 pages)
Design Guidelines – APS/ISP/Narratives (1,184 pages)
Performance Criteria – Concept Drawings/Room Data Sheets (77 pages)
Performance Criteria – Technical Specifications (2,298 pages)
Performance Criteria – FF&E (page)
Appendix (780 pages + multiple electronic files)
Total: pages

Timelines

RFQ Phase for CHCF – 3 months
CHCF BP#1 Competition Phase – 5 months (NTP 06/29/11)
CHCF BP#2 Competition Phase – 7 months (NTP 08/02/11)
DeWitt BP#3 Competition Phase – 4 months (To Be Awarded 12/21/11)

DESIGN/BUILD RESPONSE

Design/Build Package #1: CHCF Site Work

Competition

- 9 Proposals
- Shortlist – Granite/HP; Skanska-Moss; Rudolph & Sletten

Strategy

- Granite/Hensel Phelps joint venture
- Heavy local participation

Work Effort

- Heavy Bridging
- 5 month
- Approx. $1 million
- 2 Proprietary Meetings, 1 Interview

DESIGN/BUILD PACKAGE #1: CHCF Site Work

DESIGN/BUILD RESPONSE

Design/Build Package #2: CHCF Housing & Health Facilities

Competition

- 8 Proposals
- Shortlist – Hensel Phelps; Clark-McCarthy; Skanska-Moss

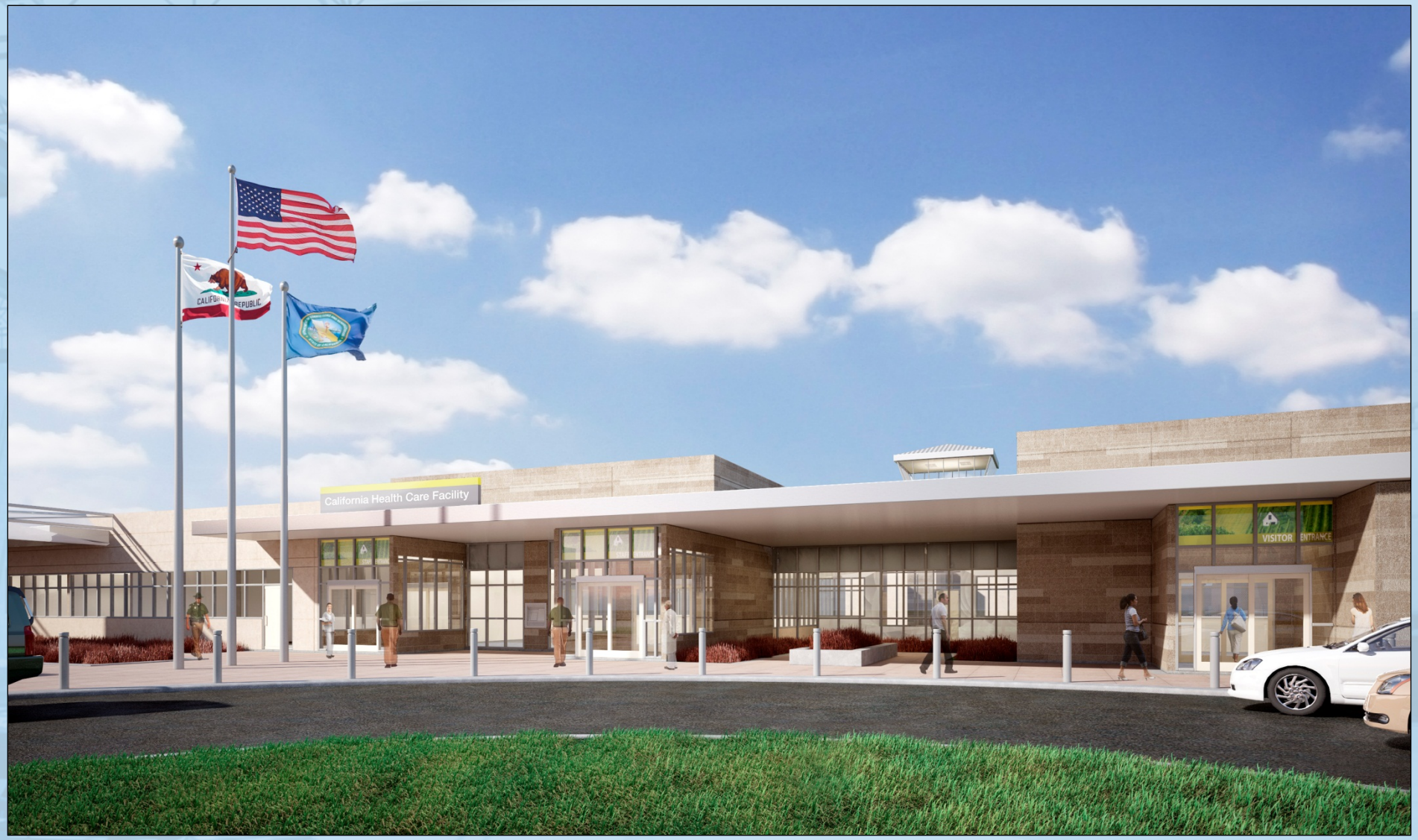
Strategy

- Winning Package 1
- Team with high level of previous experience – HOK w/ PSA/Dewberry

Work Effort

- Heavy Bridging
- 5 months
- Approx. $1 million
- 3 Proprietary Meetings, 1 Interview

DESIGN/BUILD PACKAGE #2:
CHCF Housing and Health Facilities



DESIGN/BUILD PACKAGE #2:
CHCF Housing and Health Facilities

DESIGN/BUILD PACKAGE #2:
CHCF Housing and Health Facilities

DESIGN/BUILD PACKAGE #2:
CHCF Housing and Health Facilities

DESIGN/BUILD RESPONSE

Design/Build Package #3: CHCF Housing & Health Facilities (DeWitt Nelson)

Competition

- 8 Proposals
- Shortlist – Hensel Phelps; Skanska-Moss; Sundt-Leyton

Strategy

- ???????

Work Effort

- Light Bridging
- 3 month
- Approx. $750k
- 2 Proprietary Meetings, 1 Interview

Design Build Experience

Good, Bad, or Indifferent?

+

- Encourages collaboration
- Promotes speed, creativity and efficiency
- Gives owner high value for the dollar

▲

- *High, High Risk*
- Design without communication
- Heavy bridging puts owner more at risk

➡

- Lighter BIM requirements
- Shorten or eliminate bridging phase
- Open communications
- Mitigate contractor risk at bid time
- *Bigger Stipend!!!*

2011 AAJ National Conference

POETIC PRAGMATISM

NOVEMBER 2–4, **2011**
LOS ANGELES, CA

CELEBRATING CREATIVE, COST EFFECTIVE, AND FUNCTIONAL DESIGN FOR JUSTICE FACILITIES

PANEL SESSION

Case Study Results

Owner Rationale for Process

- Mitigate Adversarial Relationships / Disputes
- Create Collaborative Environment
- Fewer Claims / Litigation
- Single Point of Responsibility
- Early Price / Schedule Validation
- Fewer Change Orders
- Increased Speed of Delivery
- Contractor Input During Design (Innovation)
- Variety of Design Solutions

Case Study Results

"Plus" vs. "Delta"

- 3 to 2 (55/37)
- Equal Distribution (Owner/Builder/Architect)
- Plus → **Primarily Delivery Implementation**
- Delta → **Primarily Selection Process**

Case Study Results

“Plus” Cluster

- Best Delivery Teams
- Collaborative Relationships / Partnering
- Reduced Claims
- Cost / Schedule Maintenance
- Opportunities for Creativity / Innovation
- Multiple Design Solutions
- Best Value

Case Study Results

“Delta” Cluster

- Level of Effort
- Submittal Data Required
- At-Risk Investment
- Inadequate Stipend

…Pursuit Cost…

…and Cost…

…and More Costs

Issues of Impact

Design Professionals

- Balancing Roles
- Integrating Contractor Priorities
- Cost of Participation
- The “Practice of Architecture”

Issues of Impact

Builders

- Architects as Consultants vs. Sub-Contractors
- Enabling the Design Process
- Design Responsibility / Liability

Issues of Impact

Owners

- Loss of Control
- Understanding Changed Roles / Relationships
- Selection: Need to Know
- Loss of Competition

Recommendations

- 2 Stage Selection
- Shortlist on Qualifications / Select on “Best Value”
- Bridging Format
- Clearly Define Constraints / Expectations
- Allow for Flexibility / Innovation
- Provide Input
- Define / Limit Submittal Data / Format
- Limit Length of Selection Process
- Stipend Commensurate with Effort

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PANEL SESSION

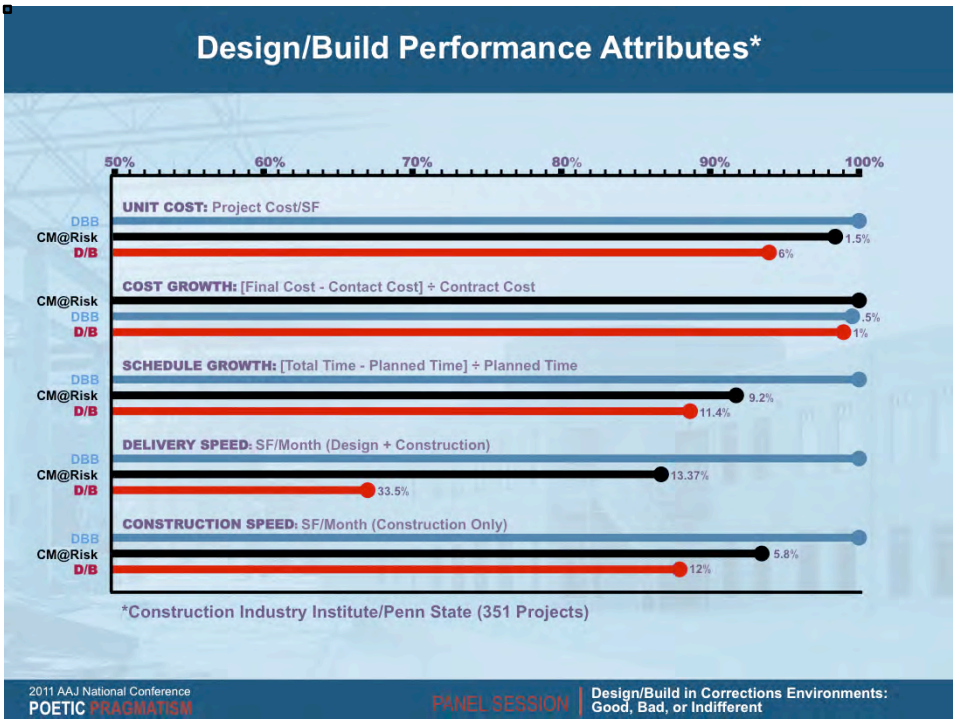
Q & A

Panel | Audience

OUR PANEL IS DELIGHTED TO BE HERE THIS MORNING TO INITIATE A DISCUSSION BETWEEN THEMSELVES – AND WITH YOU – ABOUT A TOPIC THAT HAS STARTED TO PERMEATE OUR INDUSTRY, ESPECIALLY IN THE LAST YEAR.

OVER THE PAST DECADE THE USE OF VARIOUS FORMS OF ALTERNATIVE PROJECT DELIVERY HAS INCREASED SUBSTANTIALLY IN THE PUBLIC SECTOR AND HAS BECOME THE PREFERRED APPROACH BY PUBLIC ENTITIES WISHING TO CIRCUMVENT THE MANY CHALLENGES OF THE LOW-BID, DESIGN-BID-BUILD DELIVERY PROCESS. ENABLING LEGISLATION

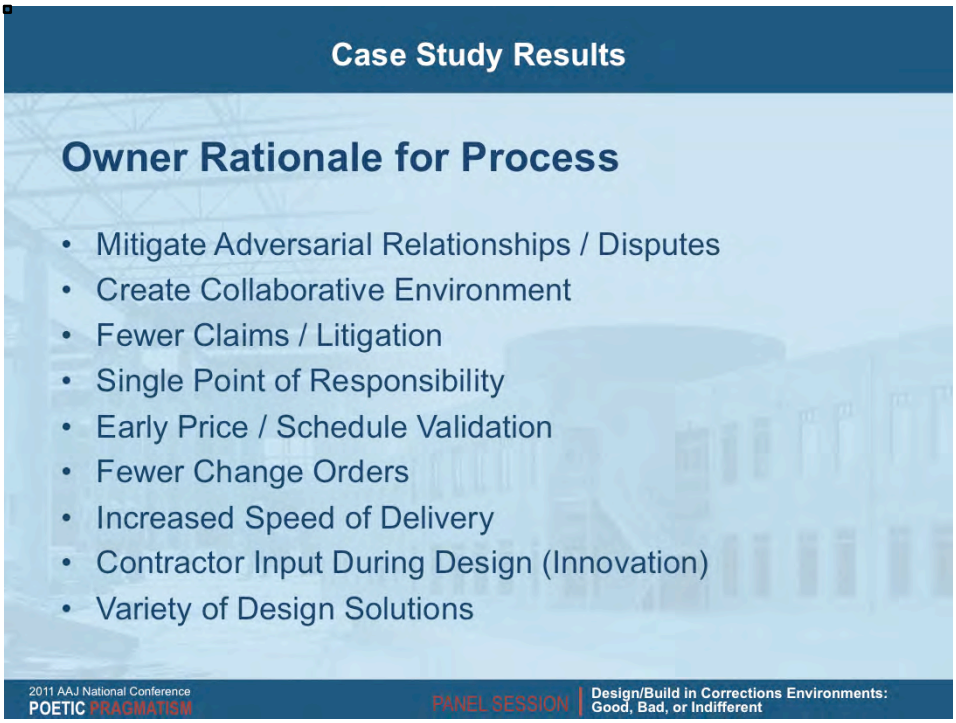
THE MOST COMMON ADVANTAGES OF THE METHOD CITED BY OWNERS ARE SAVINGS IN DELIVERY TIME AND COSTS COMBINED WITH A TRANSFER OF LIABILITY AND SUBSEQUENT REDUCTION IN CLAIMS. AND THERE'S SUBSTANTIVE EVIDENCE TO SUPPORT THIS VIEW.



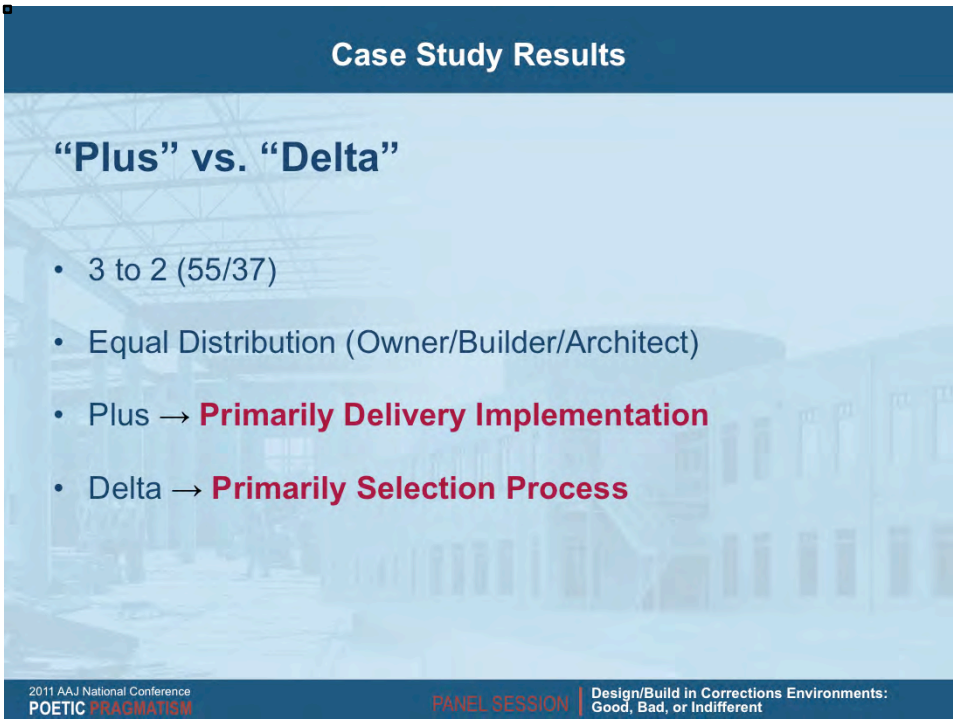
THIS STUDY BY CONSTRUCTION INDUSTRY INSTITUTE AND PENNSYLVANIA STATE UNIVERSITY INDICATES THAT IN EFFECTIVELY EVERY SUCCESS CATEGORY, DESIGN/BUILD OUT-PERFORMS BOTH CM @ RISK AND TRADITIONAL DESIGN/ BID/BUILD DELIVERY METHODS. AND SEVERAL OTHER STUDIES REPLICATE THESE RESULTS.

BUT IN THE PRAGMATISM OF REALIZING THESE INTERESTS, DOES DESIGN/BUILD STIFLE CREATIVITY, COMPROMISE FUNCTIONAL DESIGN, CHEAPEN THE FINAL PRODUCT AND, PERHAPS MOST IMPORTANTLY, IS IT A VIABLE, SUSTAINABLE BUSINESS MODEL FOR ALL THE PARTICIPANTS IN THE PROCESS. FOR THOSE DESIGN PROFESSIONALS WHO PREDOMINATELY PRACTICE IN THE PUBLIC SECTOR DESIGN/BUILD ENVIRONMENT, THIS REPRESENTS A "SEA" CHANGE IN THE WAY THAT WE WILL MARKET OUR SERVICES AND PRACTICE ARCHITECTURE AND ENGINEERING. TO BE PRACTICED SUCCESSFULLY IN ITS PRESENT FORM, DESIGN/BUILD DOES AND WILL REQUIRE A MAJOR CULTURAL SHIFT BY ALL THE PARTIES TO THE CONSPIRACY. VIA CASE STUDIES, IT IS THE INTENT OF THIS PROGRAM TO ASSESS SOME OF THE MORE POPULAR FORMS OF THE DESIGN/ BUILD METHOD AS THOSE PROCESSES HAVE BEEN APPLIED TO DETENTION AND CORRECTIONS BUILDING ENVIRONMENTS. IN ITS EXECUTION, EACH VERSION OF THE METHOD HAS MUCH TO RECOMMEND IT BUT EACH ALSO INEVITABLY ENTAILS CERTAIN CHALLENGES AND DISADVANTAGES WHICH NEED TO BE ADDRESSED TO ASSURE THE METHOD'S LONGEVITY.

THIS DISCUSSION IS NOT INTENDED TO BE A CRITIQUE OF THE DESIGN/BUILD PROCESS – ALL THE MEMBERS OF THE PANEL ARE SUPPORTERS OF THE METHOD – BUT RATHER A REALISTIC ASSESSMENT BY PRACTITIONERS OF THE METHOD.



NOT SURPRISINGLY, THE COLLECTIVE RATIONALE FOR THE USE OF DESIGN/ BUILD PROJECT DELIVERY BY THE OWNER'S REPRESENTATIVES ON THE PANEL ARE FAIRLY CONSISTENT WITH THOSE MOST OF US HAVE HEARD BEFORE AND THEY INCLUDE:



THE CUMULATIVE COMPARISON OF THE 'PLUS' AND 'DELTA' ASPECTS OF THE CASE STUDY PROJECTS WEIGHED 3 TO 2 IN FAVOR OF THE POSITIVE CHARACTERISTICS OF THE METHOD. WHAT WAS SOMEWHAT SURPRISING WAS THAT ALL THE PARTICIPANTS – OWNER, BUILDER AND ARCHITECT – EQUALLY SHARED A PROPENSITY TOWARDS GENERALLY COMMENDING DESIGN/BUILD.

ALSO INTERESTINGLY THE MAJORITY OF THE PLUSES RELATED PRIMARILY TO THE DELIVERY IMPLEMENTATION – THE ACTUAL EXECUTION OF THE PROJECT, WHEREAS THE MINUSES PREDOMINATELY ADDRESSED THE ENERVATING ASPECTS OF THE SOLICITATION AND SELECTION PROCESS.

Case Study Results

"Plus" Cluster

- Best Delivery Teams
- Collaborative Relationships / Partnering
- Reduced Claims
- Cost / Schedule Maintenance
- Opportunities for Creativity / Innovation
- Multiple Design Solutions
- Best Value

THE COLLECTIVE AND THE DISTILLED 'PLUSES' OF THE CASE STUDIES EFFECTIVELY VALIDATED THE OWNERS' RATIONALES FOR THE USE OF THE PROCESS IN THE FIRST PLACE.

IN THE PANEL'S EXPERIENCE, DESIGN/BUILD DID, IN FACT, ….

THE "DELTA" CLUSTER IS WHERE DOUBT AND APPREHENSION STARTS TO SET IN. IN THESE MATTERS THE CONCERN IS GENERATED PRIMARILY ON THE DESIGN AND BUILD SIDE OF THE EQUATION AND IT ESSENTIALLY REVOLVES AROUND THE COST OF PURSUIT. IT IS EXTREMELY RARE NOWADAYS TO SEE "PURE" DESIGN/BUILD SELECTIONS BASED EXCLUSIVELY ON TEAM QUALIFICATIONS. RATHER, THE AMOUNT OF PROPOSAL SUBMITTAL DOCUMENTATION REQUIRED BY OWNERS HAS EXPANDED BY QUANTUM AMOUNTS IN THE PAST FEW YEARS, DRIVING UP EXPONENTIALLY THE LEVEL OF EFFORT AND, SUBSEQUENTLY, THE "AT RISK" INVESTMENT REQUIRED OF THE DESIGN/BUILD TEAM TO PARTICIPATE.

CONCURRENTLY, ANY STIPEND IF IT'S OFFERED, NEVER MITIGATES IN ANY SUBSTANTIVE WAY THE EXPENSES INCURRED BY THE DESIGN/BUILD TEAM IN THE PURSUIT. SO THIS THORNY ISSUE ALL REVOLVES AROUND ….

– GIVE INVESTMENT EXAMPLE
– NOT A VIABLE/SUSTAINABLE BUSINESS MODEL

SO, ALONG WITH COSTS, WHAT ARE THE RESPECTIVE IMPACTS ON THE VARIOUS PARTIES TO THE DESIGN/BUILD DELIVERY METHOD.

FOR THE DESIGN PROFESSIONAL THEY WOULD INCLUDE BALANCING OUR HISTORIC PROFESSIONAL RESPONSIBILITY TO AN OWNER WITH OUR CONTRACTUAL RESPONSIBILITY TO OUR BUILDER PARTNER. IN DESIGN/BUILD WE EFFECTIVELY SERVE TWO MASTERS AND IT IS A DELICATE EQUILIBRIUM TO MAINTAIN. DESIGN/BUILD NECESSITATES ROLE CHANGES MANY OF WHICH HAVE BEEN ENTRENCHED OVER YEARS AND YEARS OF PRACTICE. THIS IS NOT AN EASY TRANSITION TO MAKE AND IT PLACES UNIQUE DEMANDS NOT JUST ON THE ARCHITECT BUT ALSO ON THE BUILDER AND THE OWNER.

BECAUSE OF THE CONTRACTUAL RELATIONSHIPS, DESIGNERS ARE OBLIGED TO ADDRESS THE BUILDER'S PRIORITIES WHICH ARE FREQUENTLY NOT CONSISTENT WITH BOTH THOSE OF THE ARCHITECT HIMSELF AND WITH HIS/HER PERCEPTION OF WHAT IS IN THE BEST INTERESTS OF THE OWNER. WHEN YOU COMBINE THIS WITH THE COST OF PARTICIPATION, THE DESIGN/BUILD DELIVERY ENVIRONMENT ENTAILS A TREMENDOUS CULTURAL SHIFT ON THE PART OF THE DESIGN PROFESSIONAL AND A RE-DEFINITION OF THE WAY IN WHICH WE MARKET OUR SERVICES AND PRACTICE ARCHITECTURE.

HOWEVER, ARCHITECTS AND ENGINEERS ARE NOT ALONE IN THIS CHANGING PARADIGM. BUILDERS SHARE IN THE DILEMMA OF UNTENABLE COST AND CULTURAL ADJUSTMENT …

– WE DON'T PRODUCE A PRODUCT, WE PROVIDE SERVICES
– THE PROCESSES DIFFER DRAMATICALLY

NOT TO BE LEFT OUT, OWNERS ALSO FACE THEIR OWN COTERY OF CHALLENGES. HISTORICALLY THE OWNER'S PRIMARY CONCERN RELATIVE TO THE DESIGN/BUILD PROCESS HAS BEEN THE POTENTIAL LOSS OF CONTROL OF THE DESIGN PROCESS SINCE HIS/HER CONTRACTUAL AND, SUBSEQUENTLY, PROFESSIONAL RELATIONSHIP WITH THE DESIGN PROFESSIONAL IS CHANGED SUBSTANTIALLY. HAVING SUCCESSFULLY RE-ALLOCATED RISK AND LIABILITY, MOST OWNERS DO NOT UNDERSTAND, OR ARE RELUCTANT TO ACKNOWLEDGE, THAT INHERENT TO THE DESIGN/BUILD PROCESS IS A SHIFT IN ROLES, OBLIGATIONS, AND, CONSEQUENTLY, IN THE BASIC RELATIONSHIPS BETWEEN THE PARTIES. THIS TENSION IS SOMEWHAT MITIGATED BY THE RECENT INTRODUCTION OF A NEW COMPONENT OF THE SELECTION PROCESS – THE IMPLEMENTATION OF CONFIDENTIAL INTERIM DESIGN MEETINGS DURING THE TECHNICAL PROPOSAL PHASE.

WHILE DESIGN-BUILD IS A GREAT BOON TO THE PUBLIC SECTOR, IN ITS CURRENT, UNBALANCED SELECTION PROCESS WHICH PUTS AN EXTREME FINANCIAL BURDEN ON THE DESIGN TEAM, IT IS A REAL THREAT TO THE VIABILITY OF ARCHITECTURAL FIRMS. IN THIS INEQUITABLE ENVIRONMENT, IT IS ONLY THE DESIGN TEAM THAT IS ASKED TO PUT ITS CORE BUSINESS AT RISK IN THE EXTREME. WHILE AT FIRST BLUSH THIS MIGHT SEEM LIKE A DESIGNER-ONLY PROBLEM, THE IMPACTS OF THIS PROBLEM HAVE FAR-REACHING IMPACTS ON OWNERS, BUILDERS, AND THE PUBLIC. IN PARTICULAR, AS ARCHITECTURAL FIRMS NEED TO BALANCE THE COST OF PURSUIT WITH THE RISK TO BUSINESS VIABILITY, MANY OF THE MOST QUALIFIED FIRMS ARE LIMITING THE NUMBER OF PROJECTS THEY PURSUE. THE IMPACT ON OWNERS AND, BY EXTENSION, THE PUBLIC IS THAT COMPETITION IS REDUCED, OWNERS HAVE A REDUCED POOL OF QUALIFIED DESIGN TEAMS TO SELECT FROM, AND FINALLY THE VITALITY OF THE ENTIRE INDUSTRY IS DILUTED.

GIVEN ITS INCREASE IN USE OVER THE PAST DECADE (GIVE EXAMPLES) AND ITS APPARENT CONCURRENT CREDIBILITY IN THE MARKETPLACE, IT IS PRETTY CLEAR THAT DESIGN/BUILD PROJECT DELIVERY IS HERE TO STAY AND HAS BECOME A PERMANENT FIXTURE IN ALL OF OUR PROFESSIONAL LIVES. ACCEPTING THAT, IT IS IN ALL THE PARTIES INTEREST TO DEVELOP A DESIGN/BUILD PROTOCOL WHICH IS EQUITABLE AND SUSTAINABLE.

---- PRESENT RECOMMENDATIONS ----

IF WE CAN SUPPORT OWNERS IN DEFINING A DESIGN-BUILD SELECTION PROCESS THAT MAXIMIZES QUALIFIED COMPETITION WHILE LIMITING FINANCIAL RISK TO THE DESIGN TEAM, THIS WILL BE A WIN-WIN PROCESS FOR ALL INVOLVED.