



Wayne County Consolidated Jail

Detroit, Michigan

Urban Jail Savings Through Consolidation

Academy for Architecture for Justice

Toronto, Canada
October 12, 2012



AAJ Toronto Presentation

Agenda



Antecedents:

- ❑ System Master Plan

Restart: Consolidated Jail Project

- ❑ Basic Assumptions: Savings
- ❑ Best Practices
- ❑ Design Concept
- ❑ Technical Elements
- ❑ Resultant Savings

Lessons Learned/ Reinforced



AAJ Toronto Presentation

System Master Plan Agencies

2008 Comprehensive System Master Plan

- ❑ Sheriff (Detention + Administration)
- ❑ Courts (Criminal, Civil, Family)
- ❑ County Clerk
- ❑ Prosecuting Attorney
- ❑ Related Agencies

5 Independently Elected Officials



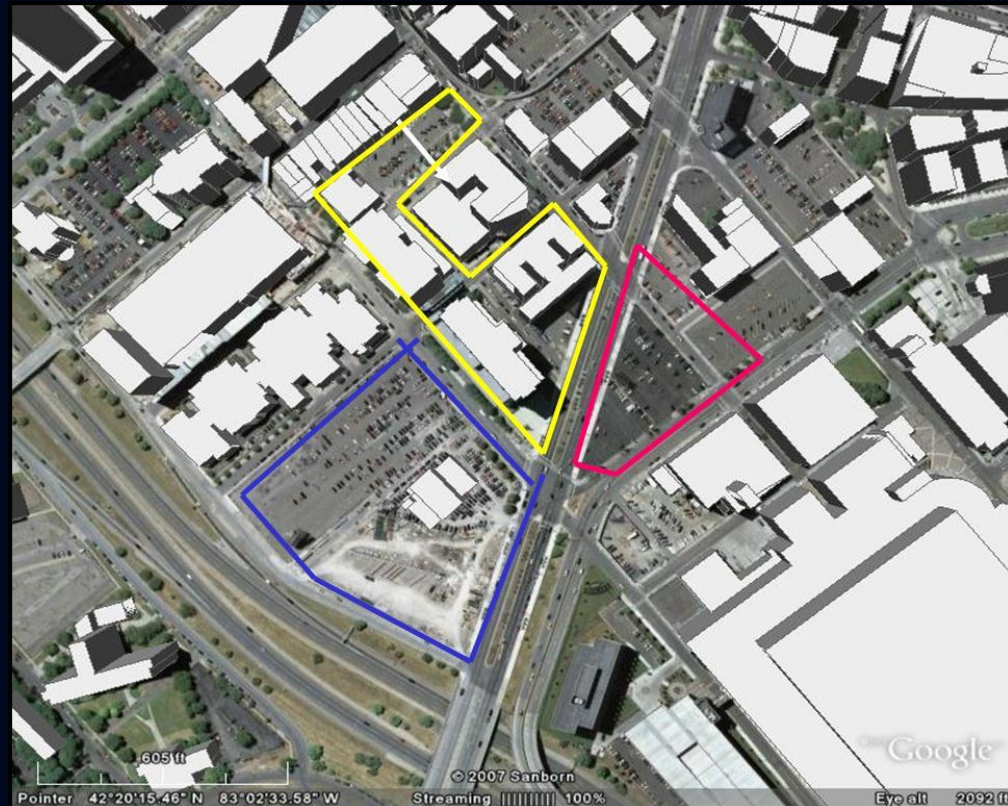


AAJ Toronto Presentation

System Master Plan Contract

Working with all local stakeholders/partners:

- **Phase I Initial Project Assessment**
 - Task I Orientation/Organization
 - Task II System Planning
 - Task III Alternatives Analysis
 - Task IV Strategic Development Plan
- **Phase II Design/Bridging Documents, RFP, Selection, Design Oversight**
- **Phase III Implementation/Construction**

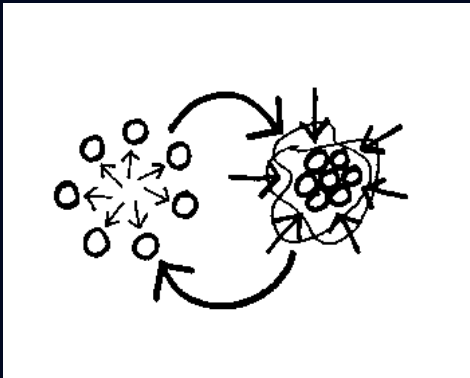




AAJ Toronto Presentation

System Master Plan Scope of Work

Scope Elements



- Needs Assessment and In-Custody Population Projections
- Physical Conditions Evaluation
- Alternatives to Incarceration
- Systemic Issues and Recommendations
- Outline Facility Program
- Site Investigation and Recommendations
- Conceptual Design, Blocking, Stacking, Massing
- Staffing Analysis
- Calculation of System-wide Economies
- Implementation Investigation and Recommendations



AAJ Toronto Presentation

System Master Plan Court Side Findings



Innovation to Enhance Public Service, Reduce Costs & Provide Long-Term Flexibility for the Courts

Working with all local stakeholders/partners:



- Clustered Chambers
- General Purpose vs. Specialized Courtrooms
- Ratio of Courtrooms to Hearing Rooms to Judges
- Common Service Counters
- Multi-Use of Support Space (Jury Rooms for Mediation and Arbitration)
- Self-Service Kiosks
- Remote Access for Payment
- Corner vs. Center Bench Arrangement
- Differentiated Case Management & Calendaring
- Jury vs. Non-Jury Courtrooms
- Direct Connection to Detention Facilities
- Video Appearance





AAJ Toronto Presentation

Master Plan Detention Side Findings



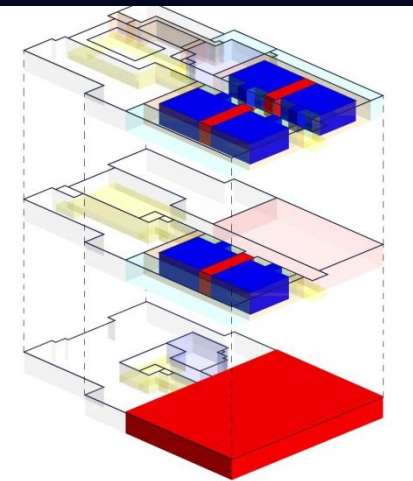
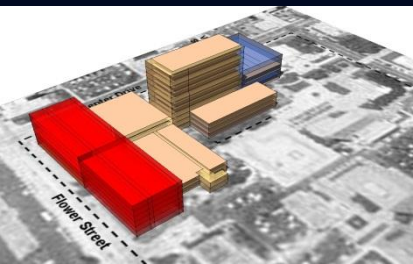
Innovation to Improve Detention Operations & Reduce Costs

- Operations as a Basis for Programming Decisions
- Direct Supervision
- Service Delivery at Housing Units
- Open Booking
- Multi-Cell Housing
- Consolidated Medical/Mental Health Services
- Cook-Chill Food Preparation
- Video Visiting/tele-conferencing
- Video Arraignment
- Borrowed Light/Rear Chase Access



AAJ Toronto Presentation

System Master Plan Results



KEY FINDINGS

- System-wide Potential Economies Documented
 - Regional Economies of Scale
 - Public Access Improved for overall lower cost
 - Consolidating 5 Courts into 1 very cost effective
 - Biggest Potential Savings on the Detention Side
 - Court Order in Place
 - Existing Capacity 3,100 beds (3 Facilities)

TWO MAJOR PROBLEMS

- Difficulty of Getting a 5-Way Memorandum of Understanding Signed
- City's Failure to Sign Off on Recommended Site



AAJ Toronto Presentation

Project Restart



Proposed Site Context

Objective is to “Work Smarter”

- ❑ Joint Effort of the Sheriff and County Executive
- ❑ Consolidation of three existing facilities into one new contemporary Detention Center
- ❑ Includes Relocation of Sheriff's Administration Building
- ❑ Total Capacity of 2,000 beds
- ❑ Economies in terms of Staffing Efficacy, Systems, Processes, Elimination of Redundancy, Reduced Movement, Plant Operation Costs to Pay for New Facility.



AAJ Toronto Presentation

Facility Tours



High Security Housing, Lexington-Fayette



Mini-Dorm Housing Pima County

Tours of 5 recent facilities were made to gain first hand experience with national best practices.

- ❑ Lexington-Fayette Detention Center, Lexington, KY
- ❑ Pima County Jail, Tucson, AZ
- ❑ Travis County Jail, Austin, TX
- ❑ Lubbock County Jail, Lubbock, TX
- ❑ Charleston County Jail, Charleston, SC



AAJ Toronto Presentation

Housing Unit Prototypes: Fan Units



Mini-dorm



Sub-dayroom

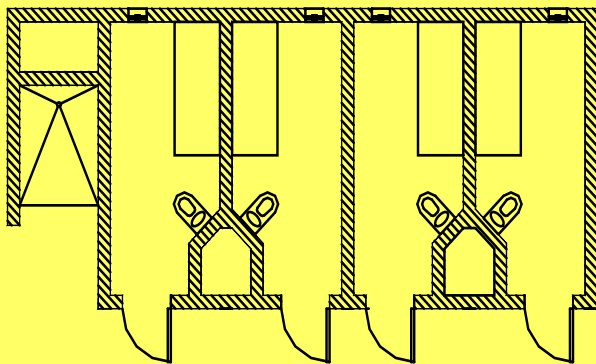


Lexington-Fayette Fan Unit Cell and Mini-Dorm Housing

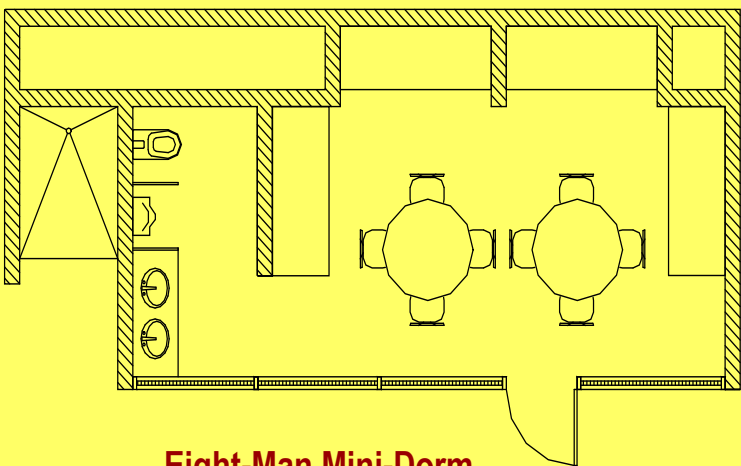


AAJ Toronto Presentation

Housing Unit Prototypes



Typical Single/Double Cell Block



Eight-Man Mini-Dorm

Potential for use of multi-occupancy cells in lieu of traditional single or double cells



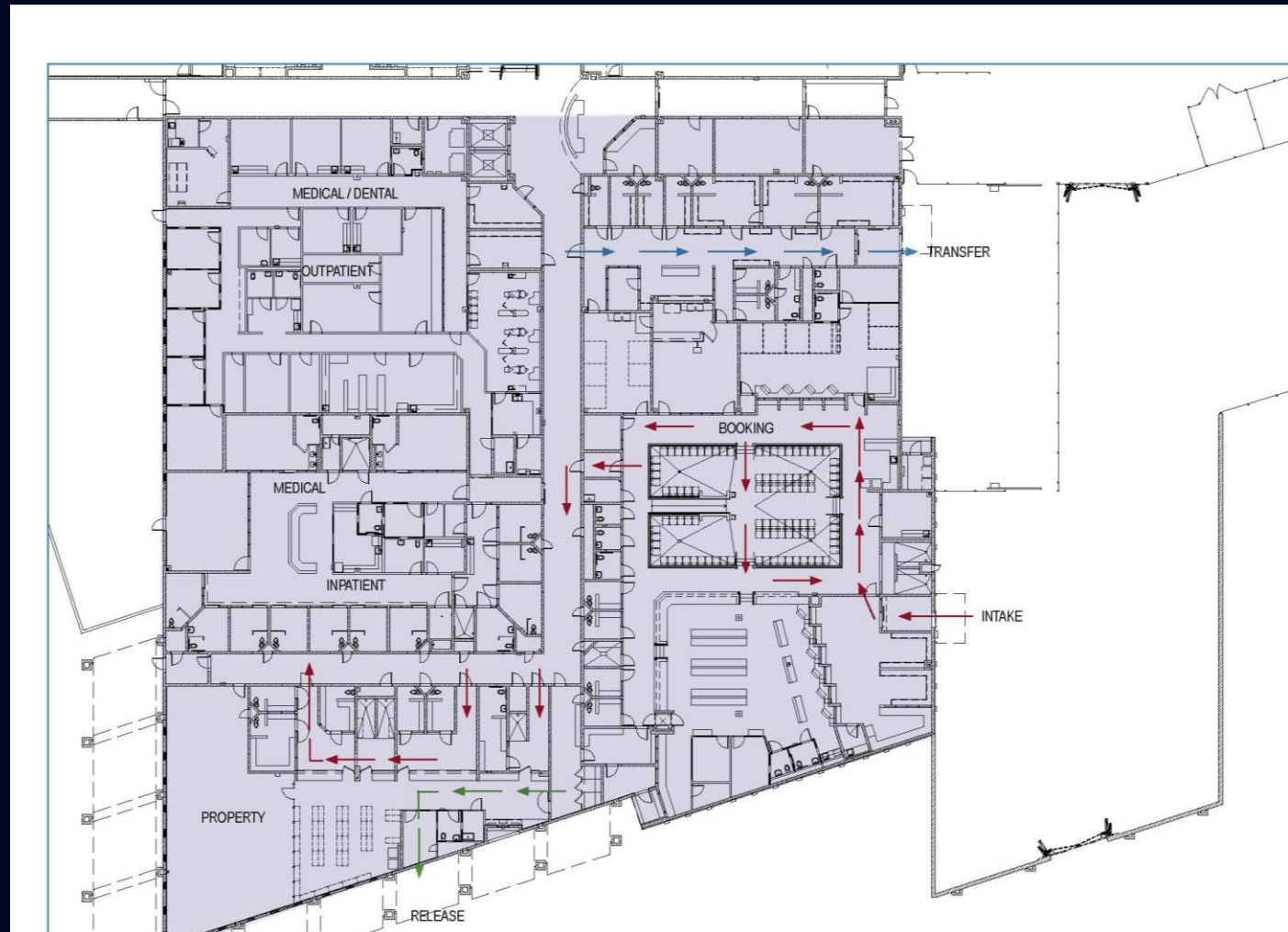
Pima County Multi-Occupancy Cell Housing





AAJ Toronto Presentation

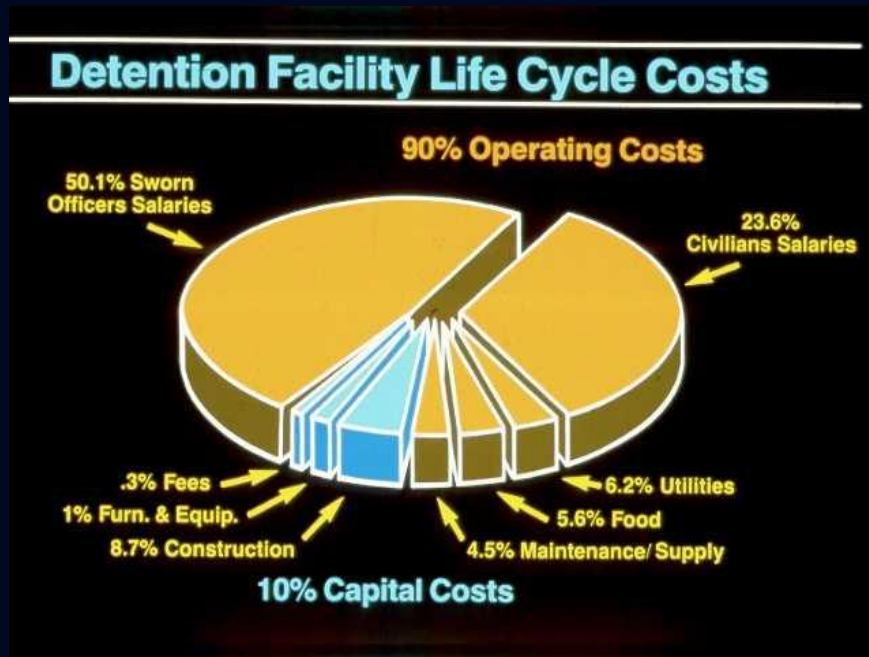
Open Booking





Toronto Presentation

Integration of Best Practices



Typical detention facility life cycle costs over a 20 year period.

National Best Practices Form the Basis for Operationally Based Planning and Design

Four Impact Areas:

- Population Management
- Operational Initiatives
- Technology Applications
- Physical Environment



AAJ Toronto Presentation

Integration of Best Practices

- ❑ **Continued Compliance** with provisions of the 10/2009 **Court Order** Relative to Population Management;
- ❑ **Increased Funding for Alternatives** to Incarceration in Lieu of secure incarceration capacity;
- ❑ **Consolidation of Facilities** to reduce Duplication of Functions;
- ❑ **Compliance with Accepted Standards**, including Michigan Department of Corrections (MDOC), the American Correctional Association (ACA), and National Commission on Correctional Health Care (NCCHC);
- ❑ **Enhancing Classification** and Information Systems;
- ❑ Adoption of the **Direct Supervision Mode** of Operation;
- ❑ **Service Delivery at the Housing Unit** to Reduce Inmate Movement; Decentralization of Housing Management;
- ❑ Improved Housing and Support for **Special Needs inmates**;



AAJ Toronto Presentation

Integration of Best Practices

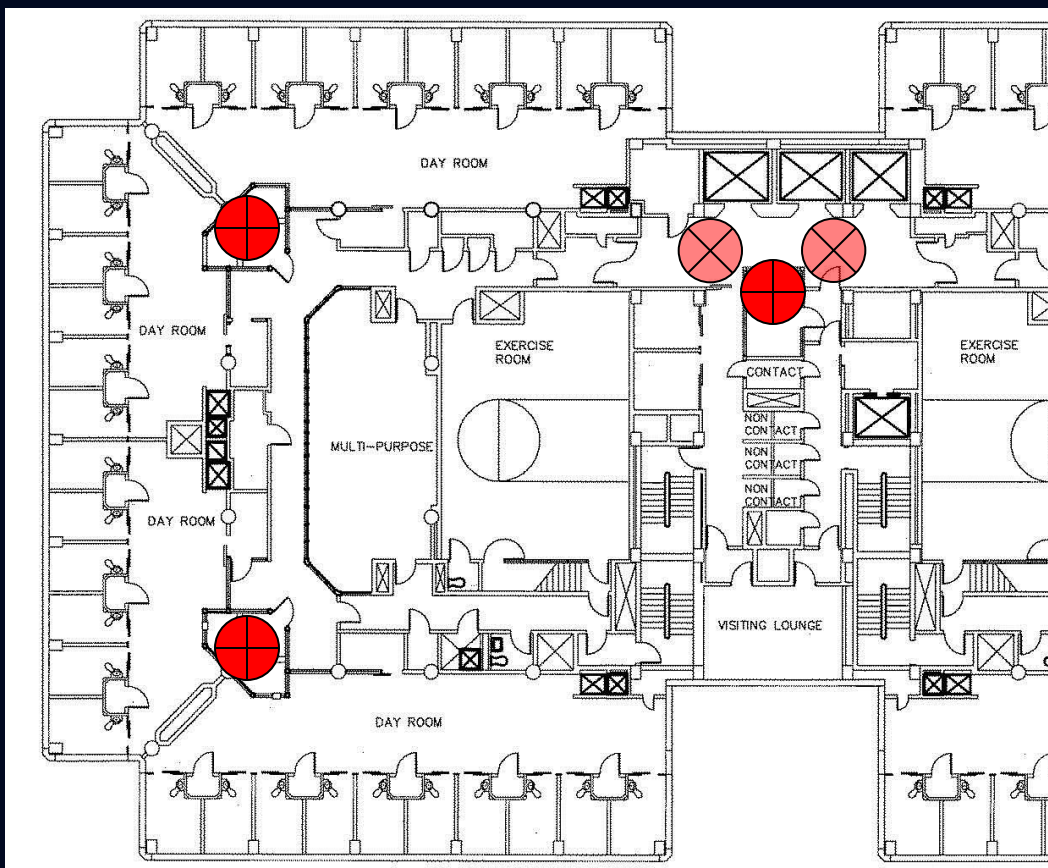
- ❑ Improved Registry Operations, streamlining processes and information flow;
- ❑ Potential incorporation of a Central Arrestee Processing and Holding Center for the City of Detroit;
- ❑ Improved Medical and Mental Health Services Delivery processes and facilities;
- ❑ Increased Access to Inmate Programs
- ❑ Plan for Facility Zoning and Reduced Perimeters - Day/ Evening/ Night;
- ❑ Improved Integration of Security, Communication, and Control Systems;
- ❑ Improved Inmate Information Systems, and cross agency access;
- ❑ Utilization of Inside Cells; and
- ❑ Incorporation of sustainable design features.





AAJ Toronto Presentation

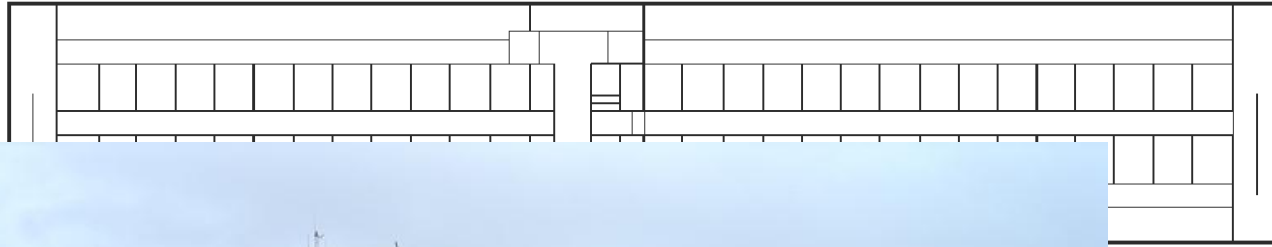
Division I Typical Floor: 5 fixed posts + 2 utility officers





AAJ Toronto Presentation

Division II Typical Floor: 2 fixed posts + 1 utility officer





Division I Typical Floor: 5 fixed posts + 2 utility officers



- **Key Issues: Division III**

- Robert Dickerson (Hamtramck)
- Constructed in 1991 as a freestanding facility
- Current rated capacity: 896 inmates in direct supervision open dorms and some dry sleeping rooms with congregate hygiene areas; includes some disciplinary and protective custody beds
- Direct supervision (successfully implemented in Division III) allows effective inmate behavior management, and further supports evidenced based design based on National Institute of Corrections studies



AAJ Toronto Presentation

Areas of Duplication

Staffing Budget

Component	Day 8-5	Shifts 1 2 3	Shift Relief	Total
Administration	4			4
Jail Commander	1	-	-	1
Captain	1	-	-	1
Secretary	1	-	-	1
Accounting Clerk	Shared With Sheriff's Department			
Admin. Lt.	1	-	-	1
Visitor Processing	1.5	1.5	0	1.66
Custody Administration	1	2	2	2
Central Control	-	1	1	1.66
Shift Commander	-	1	1	1
Mail	1	-	-	1
Intake	5	5	3	21
Supervisor	-	1	1	1.66
Booking Officer	-	2	2	1.66
F.P./ID	-	1	1	1.66
Transportation	By Rovers			
Property	-	1	1	1.66
Housing	1	6	6	4
Pod A	-	1	1	.5
Pod B	-	1	1	.5
Pod C	-	1	1	.5
				10.0
				1.0

- Three Separate Facilities Result in Areas of Duplication
 - Administration
 - Staff Support
 - Registry
 - Inmate Services
 - Warehouse
 - Maintenance
 - Visitation
 - Central Control
 - Transportation / VSP
 - Food Service
 - Laundry
 - Central Plant





AAJ Toronto Presentation

Total Staffing Analysis

Based upon Essential Jail Staffing May 3, 2010 Order Issued by the Court

	Total Divisions I & II				Division III					Total Divisions I, II & III		
		Positions	Relief	Total Staffing	Notes	Positions	Relief	Total Staffing		Positions	Relief	Total Staffing
Commanders		3		3		1		1		4		4
Lieutenants		12		12		5		5		17		17
Sergeants		25		35		10		14		35		49.4
Floor Security		133		212.8		52		83.2		185		296
Support Services		177		243.6		41		56		218		299.6
Building Security		43		68		15		23.6		58		91.6
Intake/Transfer/Release Related - Registry		53		70		23		28.8		76		98.8
Support Services		66		87.6		3		3.6		69		91.2
Programs		15		18		0		0		15		18
Recreation		15		18						15		18
Total Staffing		350		506.4		109		159.2		459		666



AAJ Toronto Presentation

Project Savings Basis

Charter County of Wayne, Michigan Wayne County Detention Center Proposed Savings

	Anticipated Savings	
Estimated Staffing Reductions (Direct Security)		
LTs	6	
Sgts	15	
Officers/Corporals	149	
	<u>170</u>	
Avg Salaries & Benefits		
LTs	130,000	
Sgts	110,000	
Officers/Corporals	67,600	
Savings		
LTs	780,000	
Sgts	1,650,000	
Officers/Corporals	<u>10,072,400</u>	
	12,502,400	
Other costs		
Overtime	2,500,000	Conservative Estimate
Other Operational Costs		
Other Personnel savings not included above	1,230,585	Shift, Vacation/sick payouts which would not be incurred
Transportation	500,000	Primarily Staffing savings but not included above direct Staffing
Jail Medical Unit Security	<u>1,100,000</u>	Primarily Staffing savings but not included above direct Staffing
	2,830,585	
Supplies, Gun, Clothing Allowances and Contracted Services	308,475	Reductions in Staffing and Consolidation of Facilities
Building Chargebacks and Maintenance Costs	1,689,238	Would be replaced by Debt Service
Other Chargebacks (Personnel, M&B, DOT Corp Counsel, etc.)	1,062,000	Assume 30% - Consolidation of Facility
Maintenance to Equipment	359,345	New equipment and consolidation of facilities
Utilities	<u>1,421,806</u>	Assume 30% - Consolidation of Facility, more energy efficient
	7,671,450	
Jail Medical/ Mental Services	3,328,550	Direct Nursing Care, Inpatient/Outpatient Prisoner Care Due to consolidation of facilities
	<u>26,002,400</u>	

Pro Forma for
ARRA Bond
Assistance



AAJ Toronto Presentation

Housing Unit Size and Distribution

Total Capacity – 2000 Beds

Housing Types and Distribution Based Upon Inmate Population Analysis

	Single Cell Units			Multi-Cell/Mini Dorms			Total Capacity
	Cells/ Unit	No. of Units	Capacity	Beds/ Unit	No. of Units	Capacity	
Male General Population	64	8	512	64	15	960	1,472
Female General Population			128			64	192
General Population	56	2	112	64	1	64	176
Special Populations	16	1	16				16
Mental Health Population			128			128	256
Acute	16	1	16				16
Sub-Acute	56	2	112				112
Chronic Care				64	2	128	128
Subtotal							1,920
Segregation			56				56
Medical Beds			12			12	24
Total		42%	836		58%	1,164	2,000

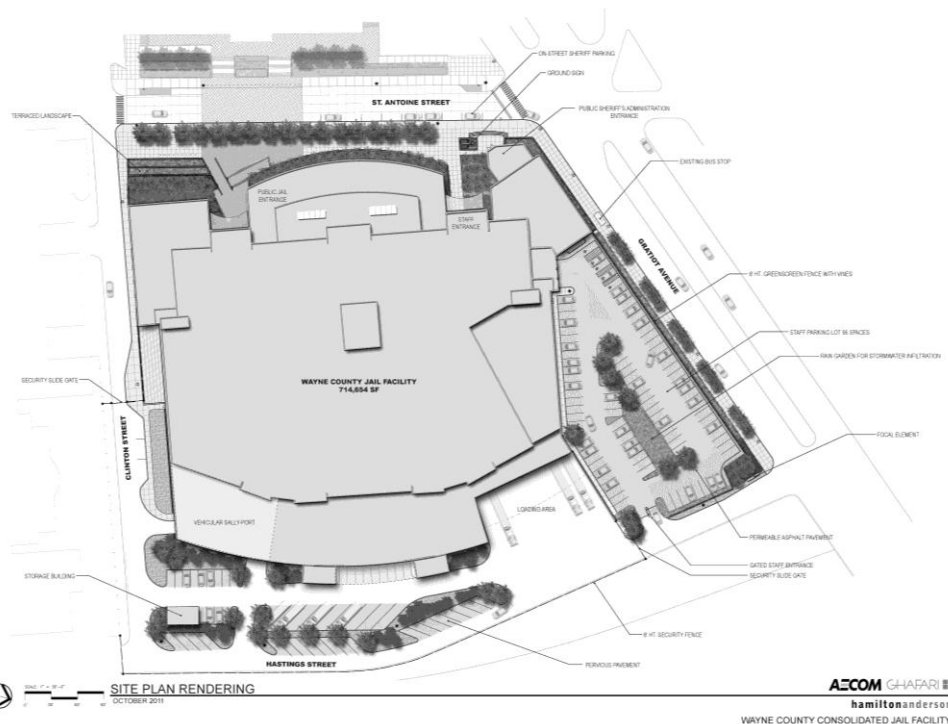


AAJ Toronto Presentation

Site Development

Site Organization

- ❑ Site Location between St. Antoine, Gratiot, I-375 Access, and Clinton
- ❑ Plaza Along St. Antoine to merge Pedestrian Area with Murphy
- ❑ Separate Public, Staff, Inmate, and Sheriff's Office Entries
- ❑ Service and Inmate Traffic along I-375 Chrysler Parkway Side
- ❑ Limited Basement Area – Tunnel Connection to Frank Murphy

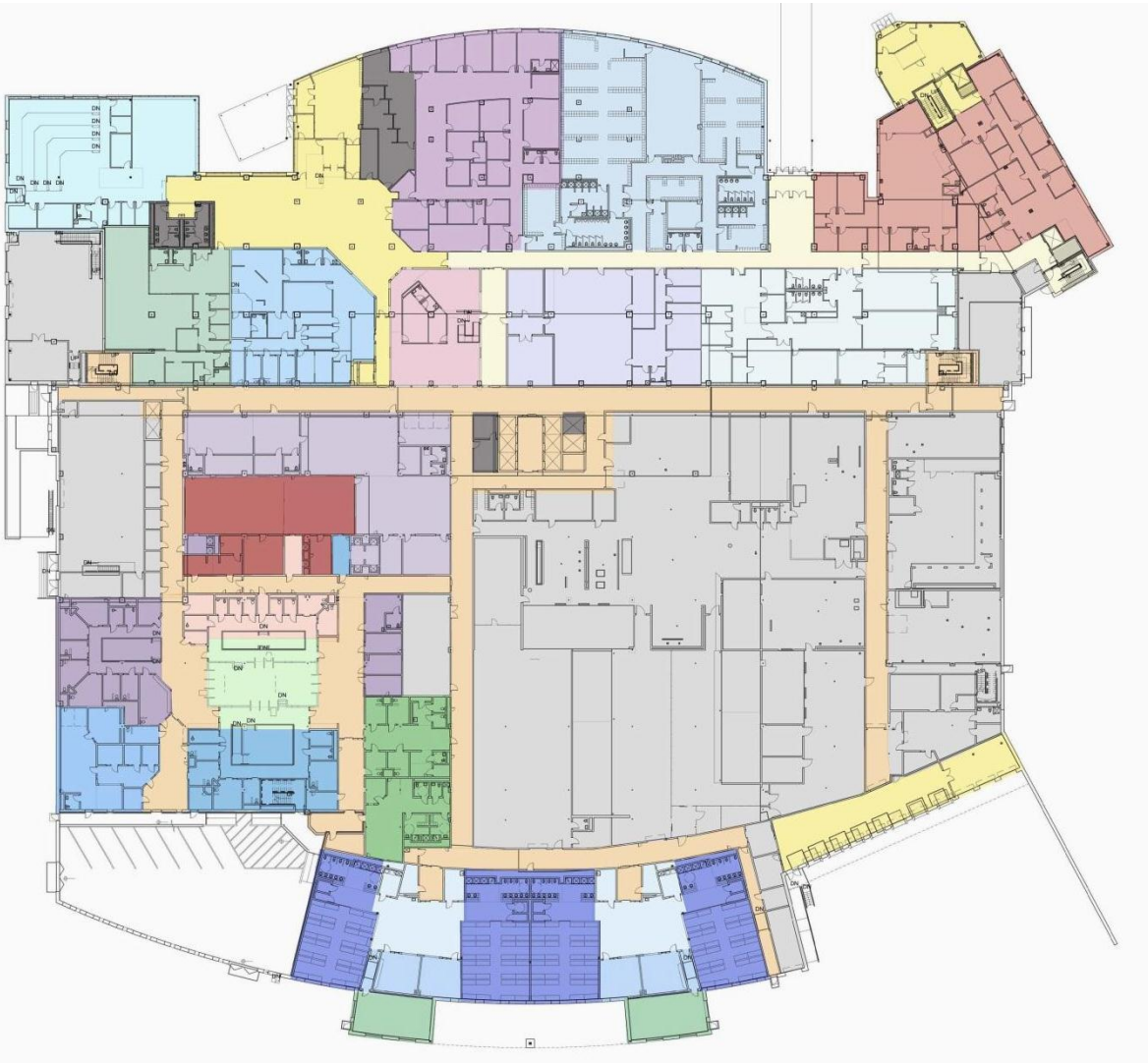


Site Development Plan



AAJ Toronto Presentation

Ground Floor Plan (Level 1)



Ground Floor Elements

- ❑ Sheriff's Administration
- ❑ Jail Administration/ Staff Services/ Training
- ❑ Video Visitation
- ❑ Central Control
- ❑ Food Service, Laundry, Warehouse, Maintenance
- ❑ Arrestee Processing, Registry

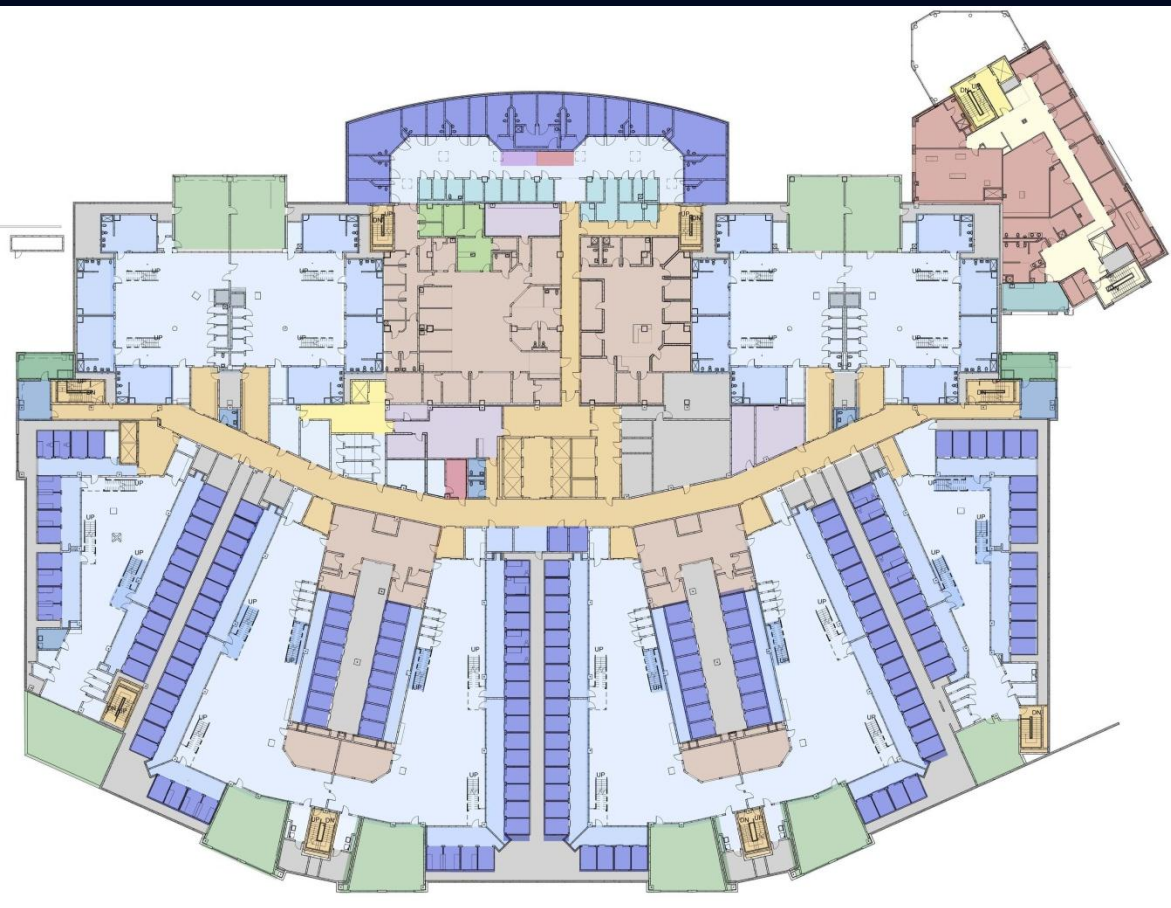


AAJ Toronto Presentation

Level 2 Plan

Level 2 Elements

- ❑ Medical/ Mental Health Core Areas – Outpatient Clinic, Infirmary, Dental
- ❑ Mental Health Housing
56 – 16 – 56 Single Cells for Acute Mental Health
One 64-Bed Mini-Dorm Unit for Chronic Care
- ❑ Medical Housing
One 64-Bed Mini-Dorm Unit for Medical Needs Inmates
- ❑ Segregation Housing -56 Beds
- ❑ Female Housing
56 – 16 – 56 Single Cells for Special Needs
Two 64-Bed Mini-Dorm Unit for General Population



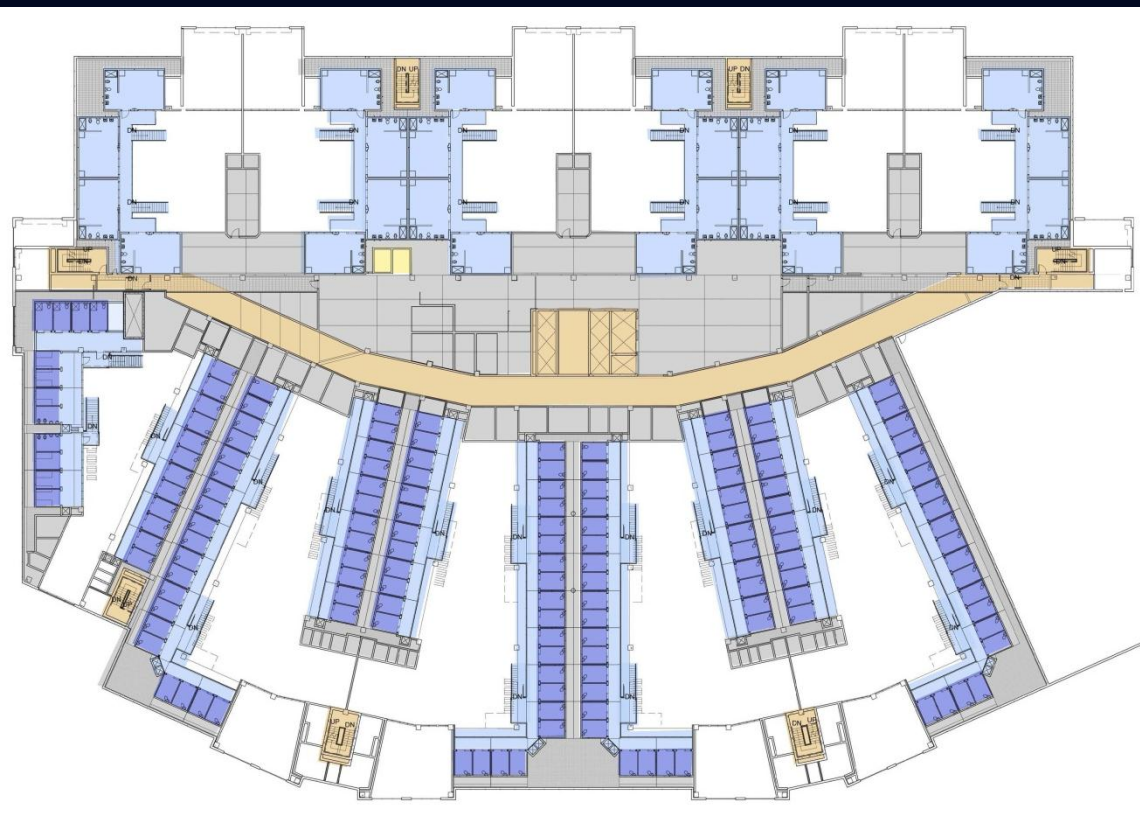


AAJ Toronto Presentation

Level 3, 4 Plans

Levels 3,4 Elements (Each Level)

- All Male Housing Units
- Four 64-Bed High Security Single Cell Housing Units
[2 Used for Reception on Level 3, all Male General Population on Level 4]
- Six 64-Bed Mini-Dorm Male General Population Housing Units.
- One 56-Bed Arrestee Housing Unit – combination of single and multi-occupancy cells.





Typical 64-Bed Single Cell Housing Unit



AAJ Toronto Presentation

Single Cell Housing Unit Concepts



Dayroom View Towards Entry Sally Port

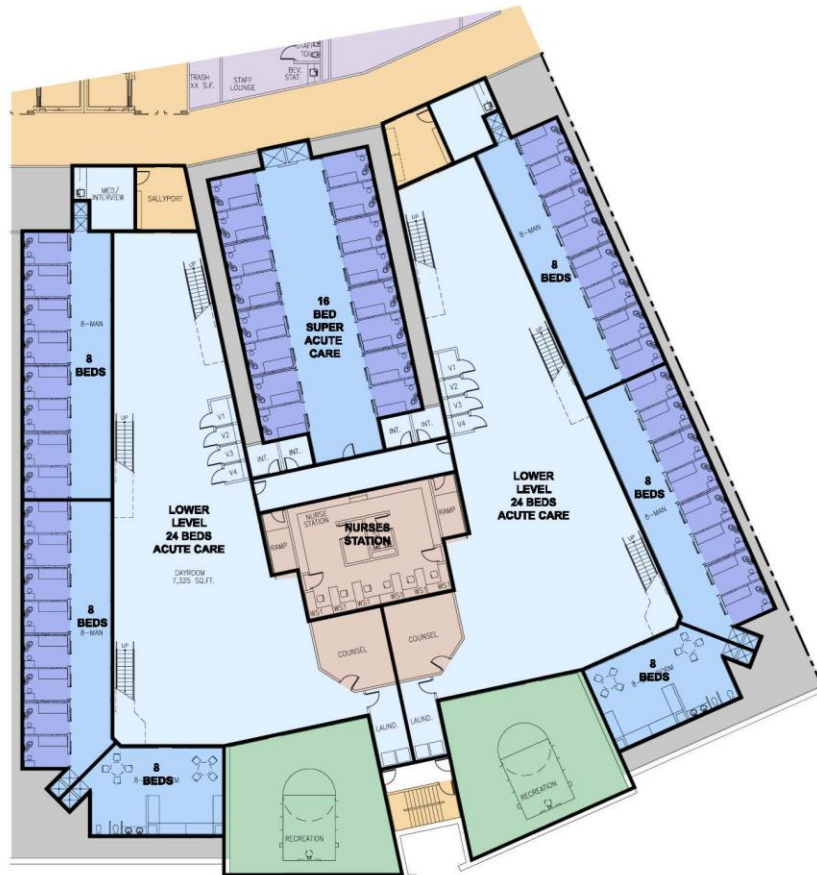


View From Upper Level Towards Entry



AAJ Toronto Presentation

Mental Health/Female High Security Housing Unit Concepts



MAIN FLOOR



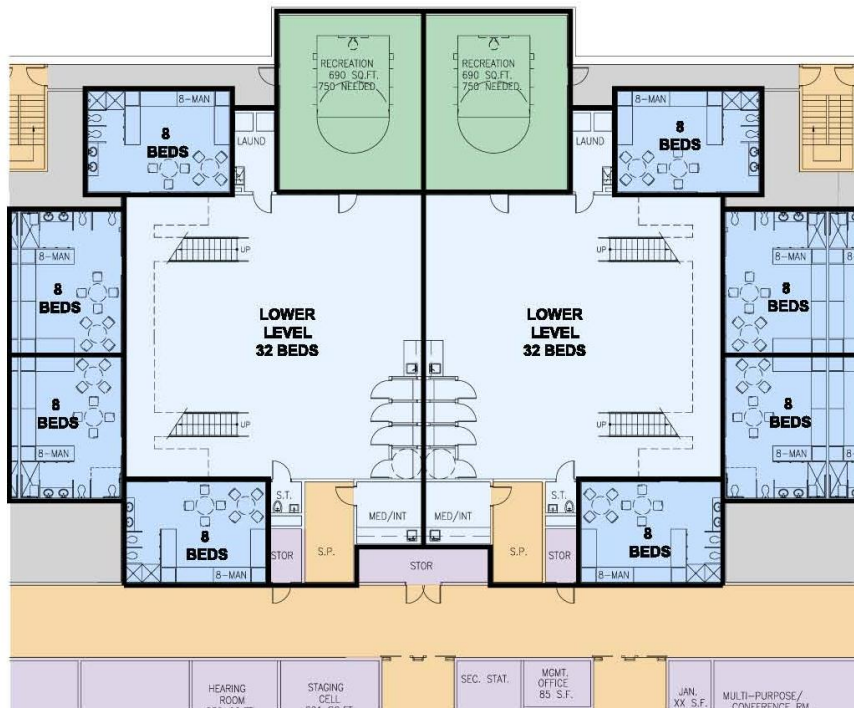
MEZZANINE FLOOR

56/ 16/ 56-Bed Single Cell Housing Unit
for High Security Female and Mental Health

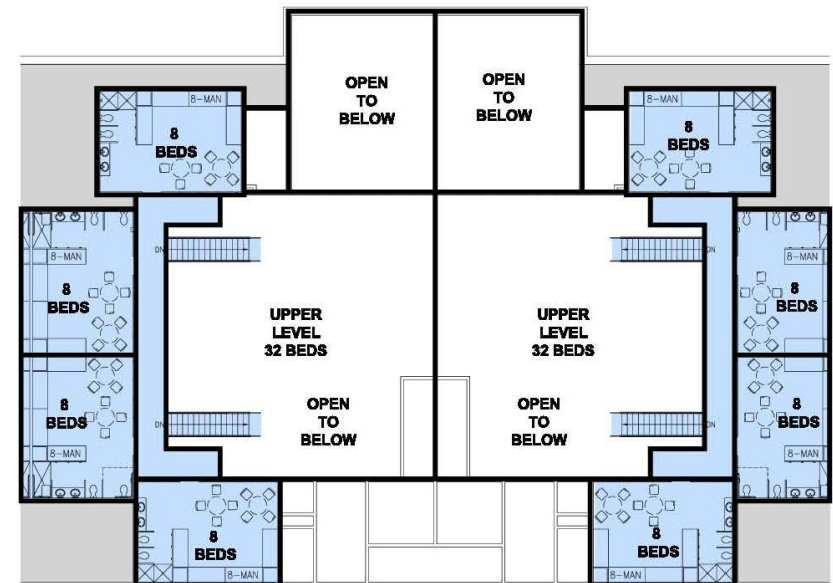


AAJ Toronto Presentation

Mini-Dorm Housing Unit Concepts



MAIN FLOOR



MEZZANINE FLOOR

Typical 64-Bed Mini-Dorm Housing Unit



AAJ Toronto Presentation

Mini-Dorm Housing Unit Concepts



View from Main Dayroom Area to Lower and Upper Level Mini-dorms



View from Upper Level towards Recreation Yard



AAJ Toronto Presentation

Perspective Study

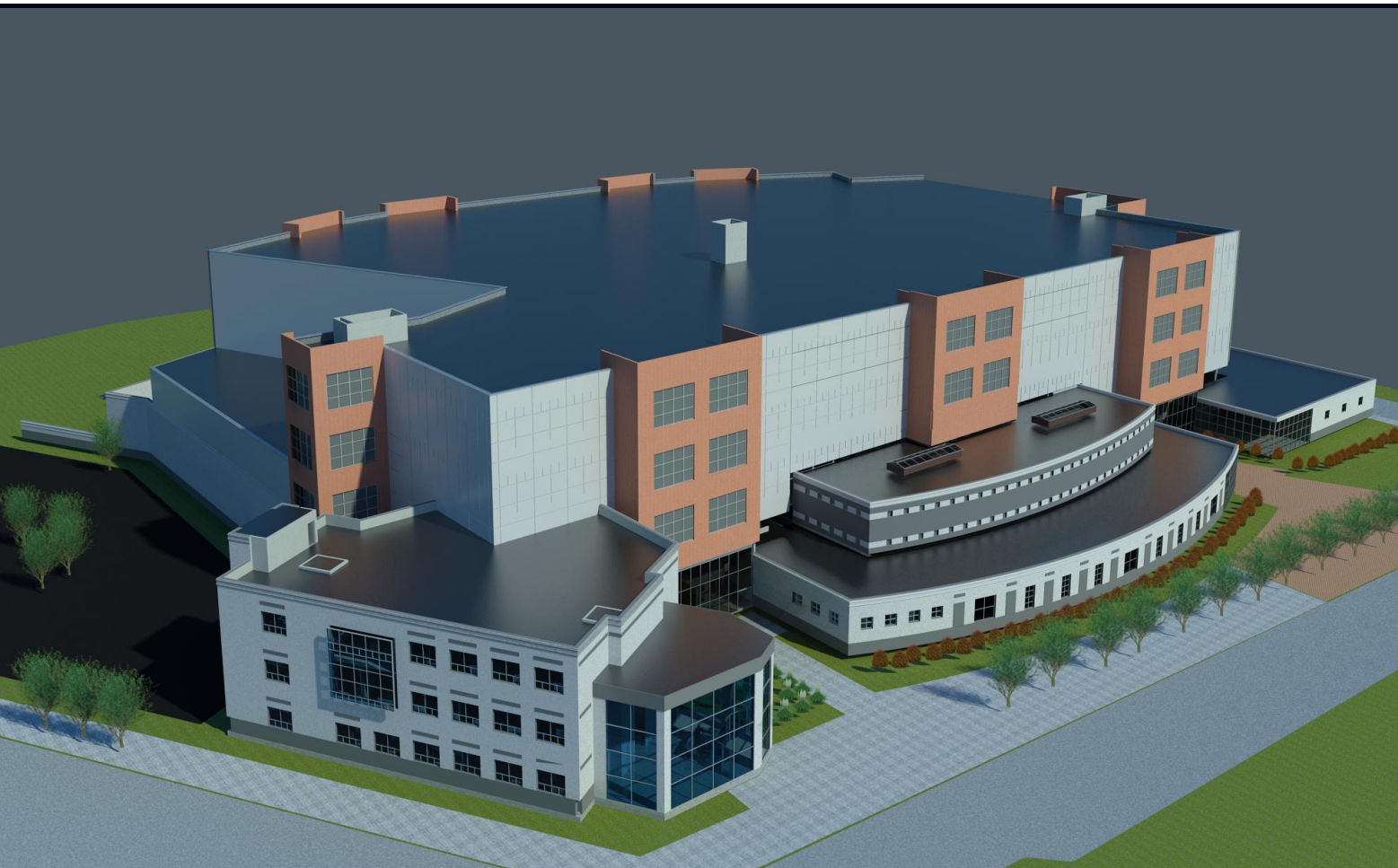


Contextual View of Proposed Facility from St. Antoine



AAJ Toronto Presentation

Massing Study



Contextual View of Proposed Facility from Gratiot



AAJ Toronto Presentation

Technical Integration



Video Courtroom



Electronic Key Keeper



Video Visitation



Vacuum Waste System



AAJ Toronto Presentation

Technical Integration



- ❑ Pre-Cast Cells with Extensions
- ❑ Walk-Around Control
- ❑ Podium Structural Transition
- ❑ Robust Inmate Information System
- ❑ L3 Full Body Scans for Staff and Inmates





AAJ Toronto Presentation

Current Staffing Analysis

Original Staffing Assumptions for Project Initiation 2,000 Beds

The original theoretical staffing/savings estimate was based upon a single consolidated 2,000 bed facility considering funded positions as of 5/3/2010. Jail Related Services were excluded from the analysis.

	Commanders	Lieutenants	Sergeants	Officers	Total
Court Ordered Staffing 5/3/10	4	17	49	595	665
Basis of Bond Authorization	4	11	34	446	495
Estimated Savings	0	6	15	149	170
Average Salary + Benefits		\$130,000	\$110,000	\$67,600	
Calculated Savings		\$780,000	\$1,650,000	\$10,072,400	\$12,502,400

AECOM/Ghafari Analysis Current Design for 2,000 Beds

The current staffing analysis is based upon the project as designed for a single consolidated 2,000 bed facility considering funded positions as of 5/3/2012. Jail Related Services were similarly excluded from the analysis. Note that estimated staffing/savings are totally contingent on having adequate technology installed in the project to have it function as designed.

	Commanders	Lieutenants	Sergeants	Officers	Total
Court Ordered Staffing 5/3/10	4.0	17.0	49.0	595.0	665.0
AECOM/Ghafari 10/4/12	4.0	20.4	54.4	399.4	478.2
Savings	0	-3.4	-5.4	195.6	186.8
Average Salary + Benefits	Not	\$130,000	\$110,000	\$67,600	
Calculated Savings	Changed	-\$442,000	-\$594,000	\$13,222,560	\$12,186,560



AAJ Toronto Presentation

Lessons Learned or Relearned



- Value Added Selection
- Get a Good Contract
- Fractured Owner/Client can be a Rocky Road
- PM and A/E Design together?
- Just because it makes Sense, doesn't mean it will Happen
- It's All About Staffing Now
- Alternatives/ Population Management are Essential
- Technology now has huge impact on Operational Costs
- Get Approvals signed in Blood
- Document Everything!
- Get people that know what they are doing.



AAJ Toronto Presentation Discussion

Thank You