



Dewberry®

Presenters:



Larry Hlavacek, AIA
Public Safety Planner | Team Leader
Dewberry Architects



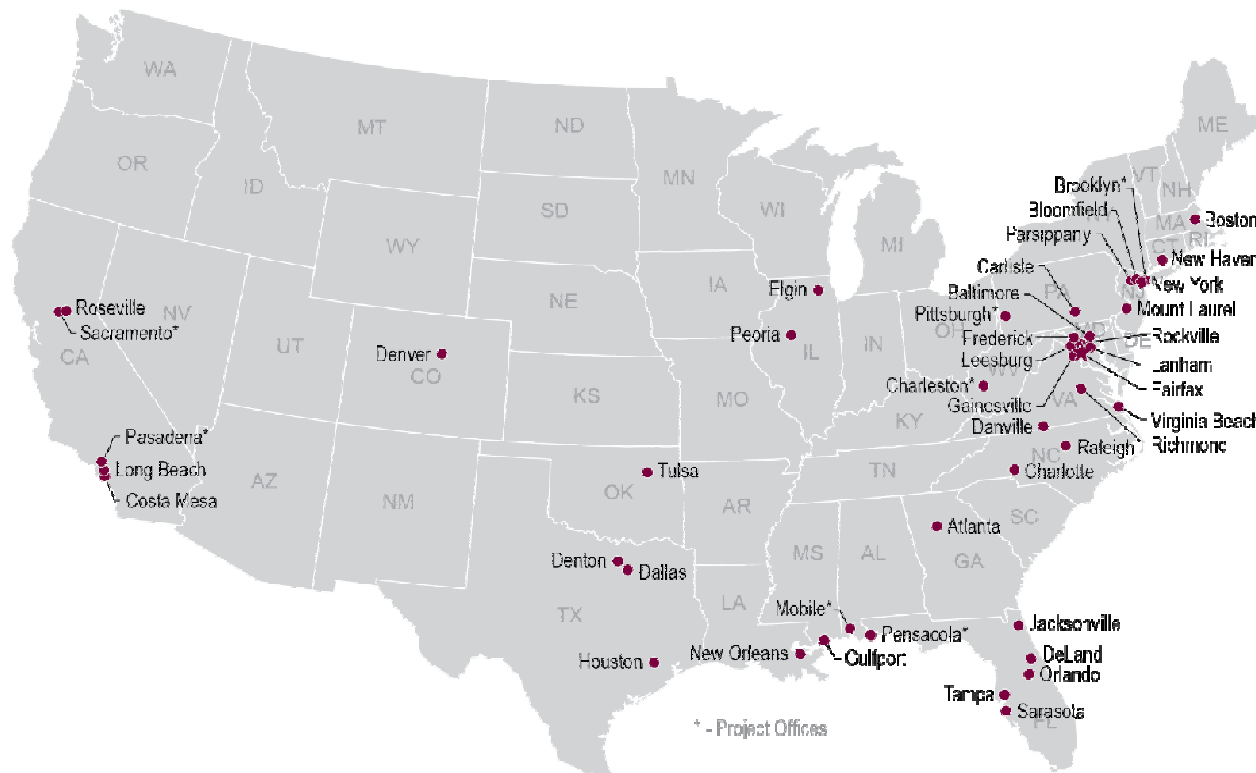
Brian Meade, AIA
Public Safety Planner | Designer
Dewberry Architects



Gene Lowery
Chief of Police
DeKalb, IL Police Department

Dewberry's National Presence

- 2000 employees in over 48 locations (architects, engineers, consultants)
- Ranked 44th largest A/E firm (*Engineering News Report*)
- **Sustainable Design Leaders:**
 - 100+ LEED projects (including 21 public safety LEED projects)
 - 160+ LEED Accredited Professionals
 - Ranked 41st (*2012 ENR Top 100 Green Design Firms*)



CHALLENGING THE STATUS QUO

SESSION # AAJ1511LE

Future Ready Design for Law Enforcement

The City of DeKalb Police Headquarters



2015 AIA ACADEMY OF ARCHITECTURE
FOR JUSTICE CONFERENCE

MIAMI
NOVEMBER 18-21, 2015

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Continuing education questions can be directed to aaj@aia.org.

Course Description

Burdened by undersized and aging infrastructures that no longer support modern law enforcement missions, many municipalities are faced with the overwhelming task of updating their facilities to meet the needs of the next 30 to 50 years. The DeKalb Police Department recognized this challenge and in response to the local campus shooting in 2008 that claimed six lives, they embraced planning and design solutions that focus on the future of law enforcement. Collaborative discussions between the design team, police leadership, and community led to a building design that supports community based initiatives and proactive policing strategies including technology based solutions. This presentation will highlight the innovative building design features that facilitate collaborative community engagement while providing adaptable training environments that meet future needs and how these techniques can be used for your building design. This program explores the various methods and tools used during the design process to identify and prioritize these trends and balance them with demanding budget constraints to help you future ready your facility.

Learning Objectives

1. Participants will be able to **identify** opportunities to incorporate building design elements that encourage interaction between community members and law enforcement officers.
2. Participants will **discover** future technology and training trends and how it impacts and influences their facility infrastructure and operations.
3. Participants will **develop** strategies to control the cost of the building design through innovative use of new and sustainable products, adaptable spaces, and smart future planning.
4. Participants will **observe** future trends towards partnerships with other law enforcement agencies and community groups and how they are supported through innovative building design.

Project Goals

Create a future ready building design that:

- Facilitates community engagement
- Provides adaptable training/policing environments
- Plans for future trends
- Balances function with design and cost



Project Background: History

1885

DeKalb PD
Founded

2001

New PD
Needed

2008

NIU Cole
Shooting

12/2011

New PD
Design Begins

1837

DeKalb
Founded

1966

New
Municipal
Center

2006

Space
Needs Study

2010

Updated
Study

12/2013

New PD
Opens



Project Background: NIU Campus Shooting

February 14, 2008

- 5 dead + shooter
- 25 shot/wounded
- Over 50 rounds fired

Multi-agency response

- Wirtz Hall converted to a Law Enforcement Reception Area
- Holmes Student Center used as Command Center



A Clear Vision for the Future

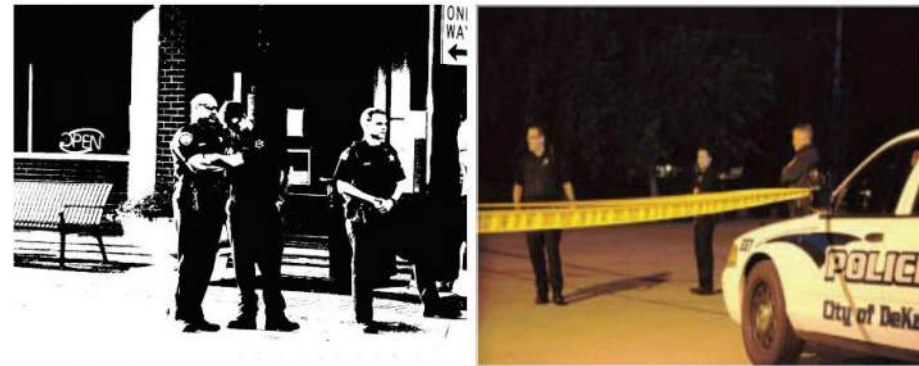
DeKalb Police Department 20 Initiatives in 20 Months

- Community Based Initiatives
- Proactive Policing Strategies
- Community Service Initiatives



A VISION FOR THE FUTURE

December, 2012



DEKALB POLICE DEPARTMENT 20/20

At the Police Department, we welcome a partnership that promotes a strong sense of community and bonds us in our common cause.

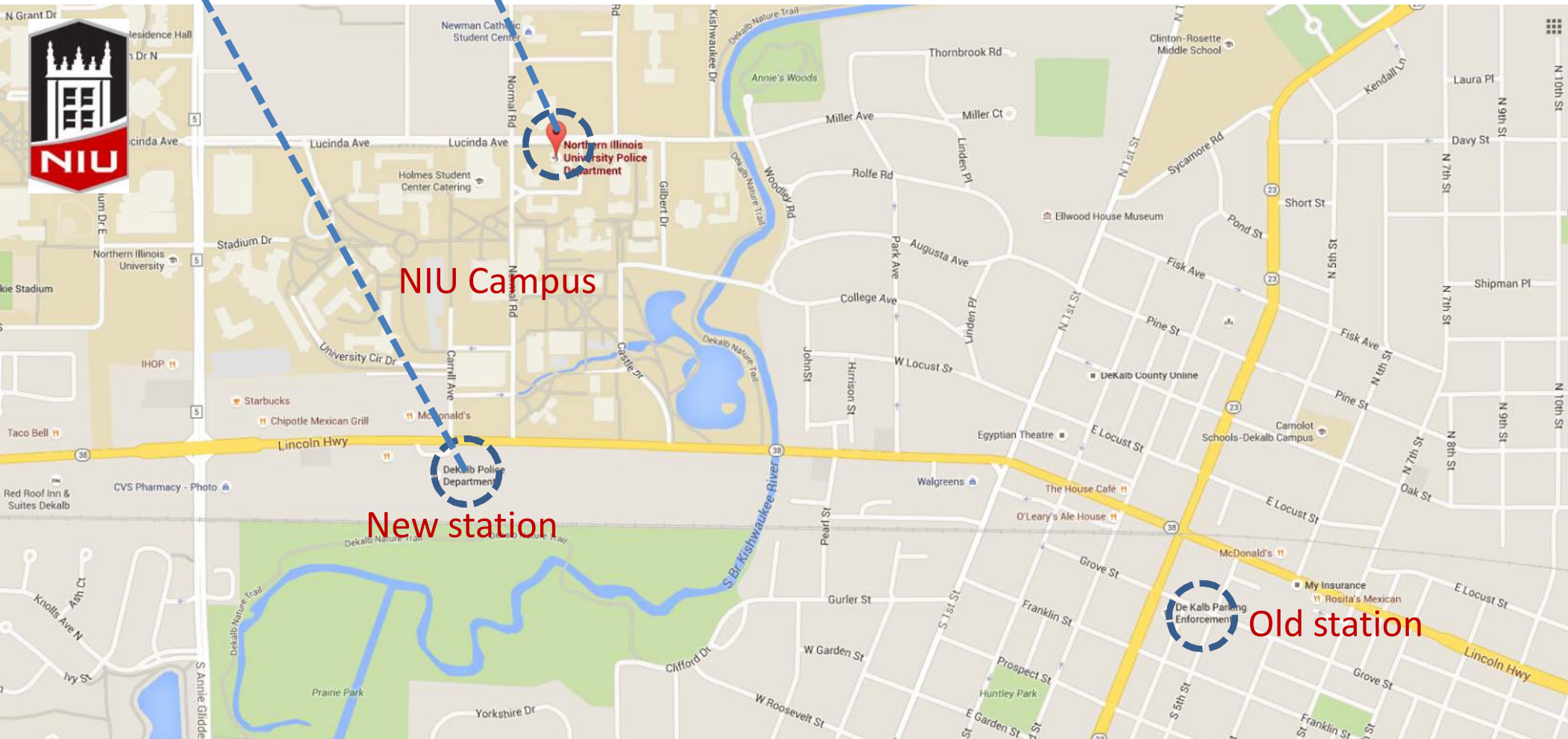
-Gene Lowery, Chief of Police



Design to Connect:

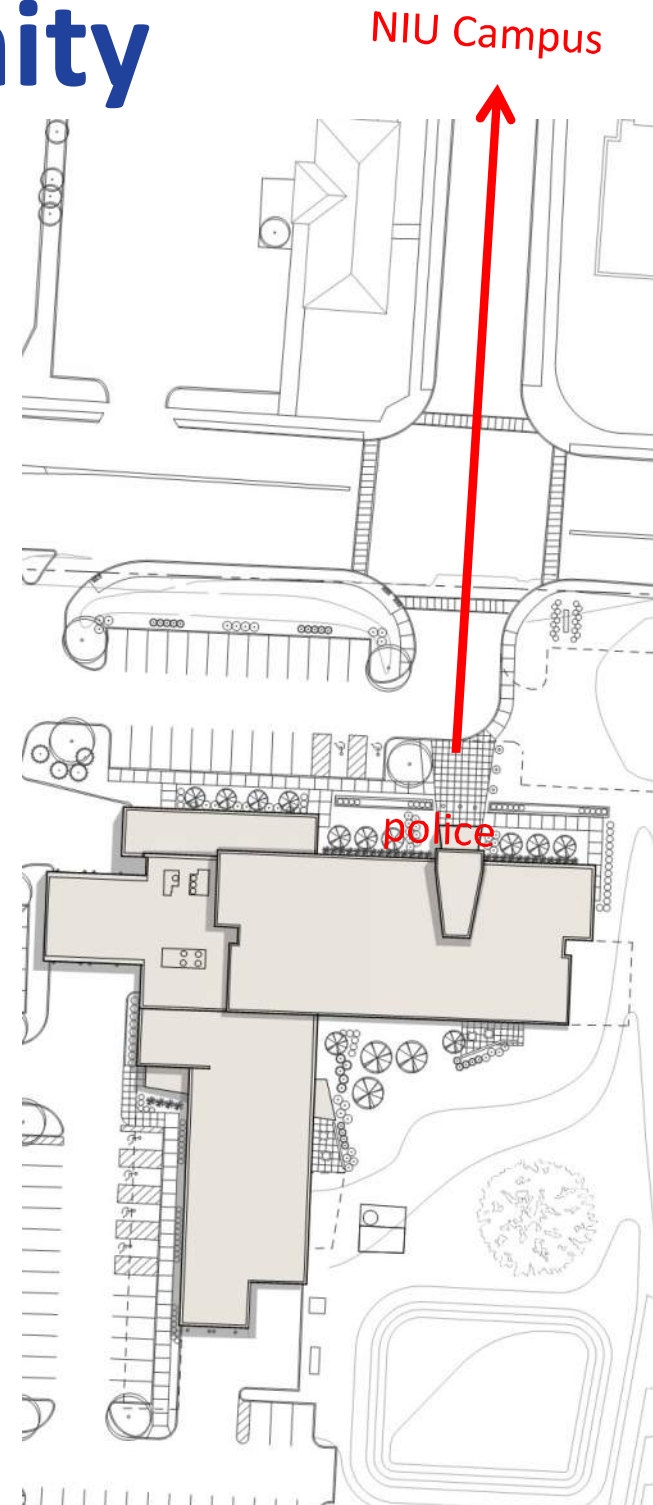


- Co-policing Initiative with NIU Police
- The 2 departments are near each other now
- Joint meetings | ride alongs | recruiting



Design to engage Community

- Public lobby on axis with NIU campus entrance.
- NIU digital graphics on building demonstrate community pride.



Design to engage Community

CAMP POWER AND POWER ACADEMY

In July 2013 the Police Department formed the ***Youth in Need Task Force*** to develop strategies to decrease youth delinquency in DeKalb. In the summer of 2014 the first **Camp Power** began and was hosted at the University Village apartment complex.

Camp Power included:

- Academic Tutoring
- A daily healthy lunch and afternoon snack
- Nutrition Education
- Structured physical activity
- Mentoring & development of community gardens

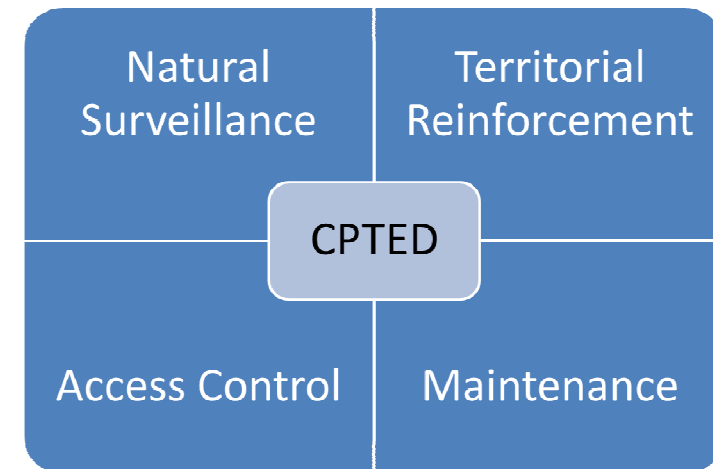
During the tenure of the program **Part 2**
Crimes decreased by 26%
as compared to the previous year.



Design to engage Community

C.P.T.E.D. and CRIME FREE HOUSING 2014

- Properties registered: **1,670** for a total of **8,598** units (**99%**)
- Property inspections: **1,464** | **521** warnings | **223** citations
- Training: **22** classes conducted; **650** landlords trained (**70%**)
- **465** police cases covering **630** criminal charges.
- Remedies for limiting recidivism were employed.
- Following incidents of crime, **36** eviction proceedings were initiated by property owners, **18** tenants moved out voluntarily, & **27** tenant guests were banned from properties.



Community Service Initiatives

- Web-based reporting system
- Online – Text – App – Phone
- Provides tips and data for policing

iWatch
DeKalb.
Do You?

*Send Crime Tips from the Web or Your Mobile Phone.
Anywhere, Anytime. Anonymously.*



iWatch DeKalb. Do You?

*Send Crime Tips from the Web or Your Mobile Phone.
Anywhere, Anytime. Anonymously.*



What is iWatch?

You are the eyes and ears of your community. Your awareness of suspicious behaviors and activities and reporting it to the police can help solve crimes or prevent crimes.

What should I report?

Give as many details as possible,

for example:

- ✓ Time of day
- ✓ Where it happened
- ✓ What you witnessed
- ✓ A description of individual(s) involved
- ✓ Was there a vehicle?
Color and license plate number?
- ✓ Have you seen this activity before?

There are four ways to report:

- ✓ Report online at iWatch.com
- ✓ Text a tip to 1-(815) 673-7603
- ✓ Use the FREE downloadable app
- ✓ Call 1-(815) 673-7603

**see something?
say something.**

iWatchDeKalb.com



Watch applications are available for a wide range of smartphones, download by visiting iWatchDeKalb.com



*If one person can make a difference,
consider what an entire community can do.*

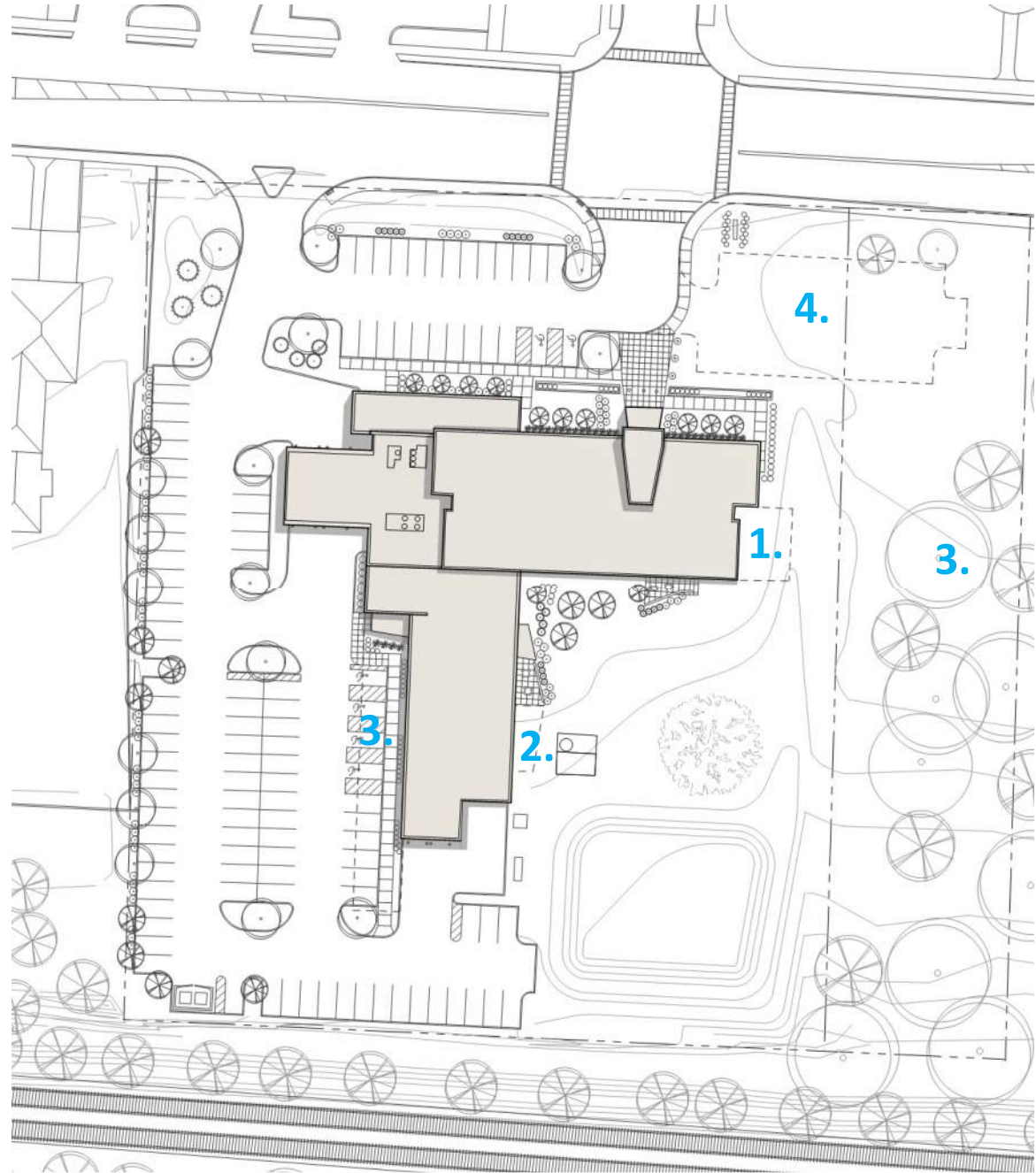
I Watch DeKalb. Do You?
Gene Lowery, Chief of Police

If you have an emergency and need the police immediately do not use iWatch, call 911

Design for Expansion

Master plan for future growth

1. 911 Dispatch expansion
2. Evidence storage expansion
3. Future firing range ?
4. Public parking expansion



Design to Motivate:

- Inspiring messages placed throughout the building
- Link police mission to community partnership



Design for Safety / Technology

- New booking / holding area designed for improved officer safety
- Previous facility had multiple officer attacks

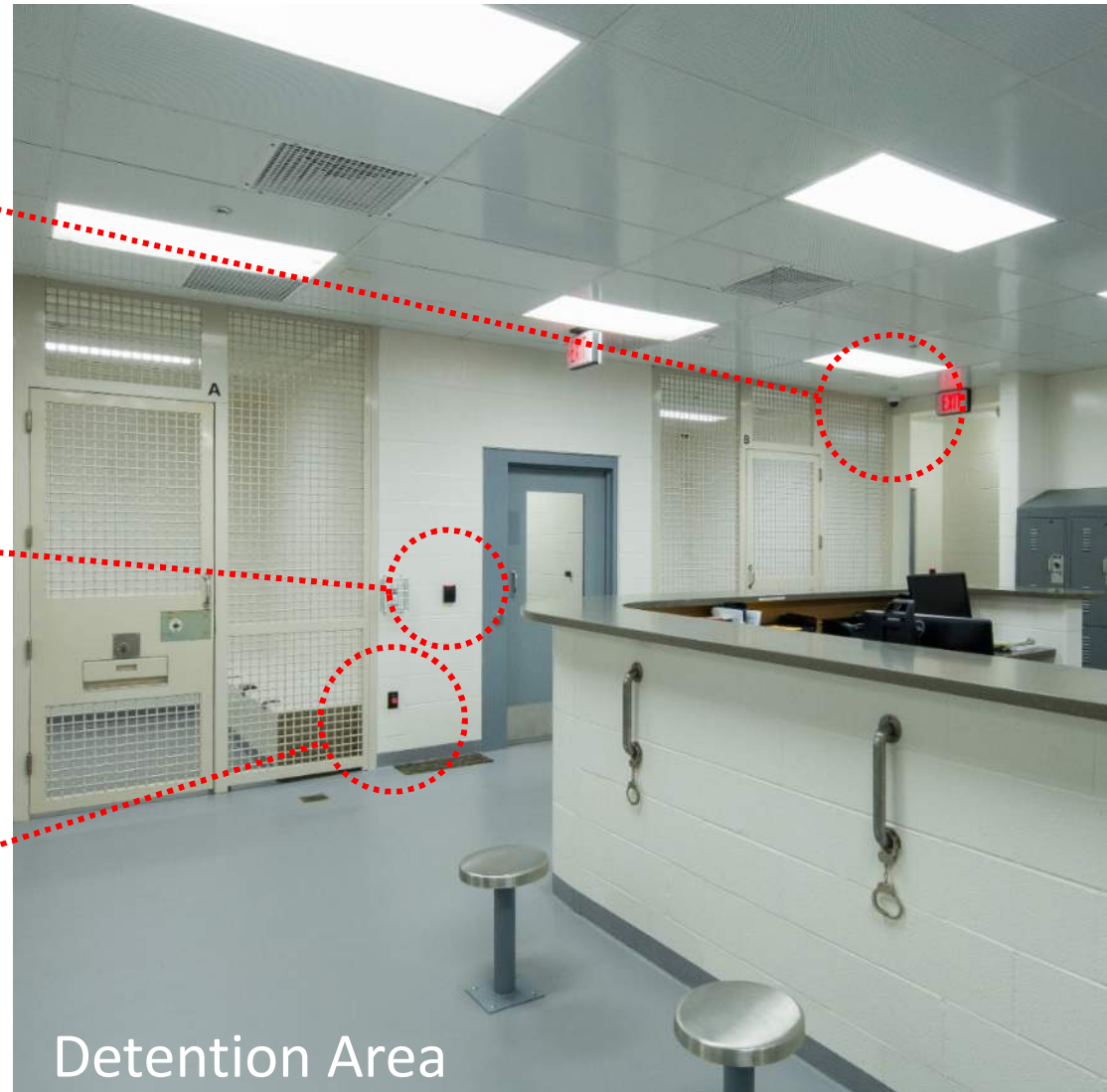
CCTV
Camera



Card
Reader



Duress
Alarm



Collaborative Design Process

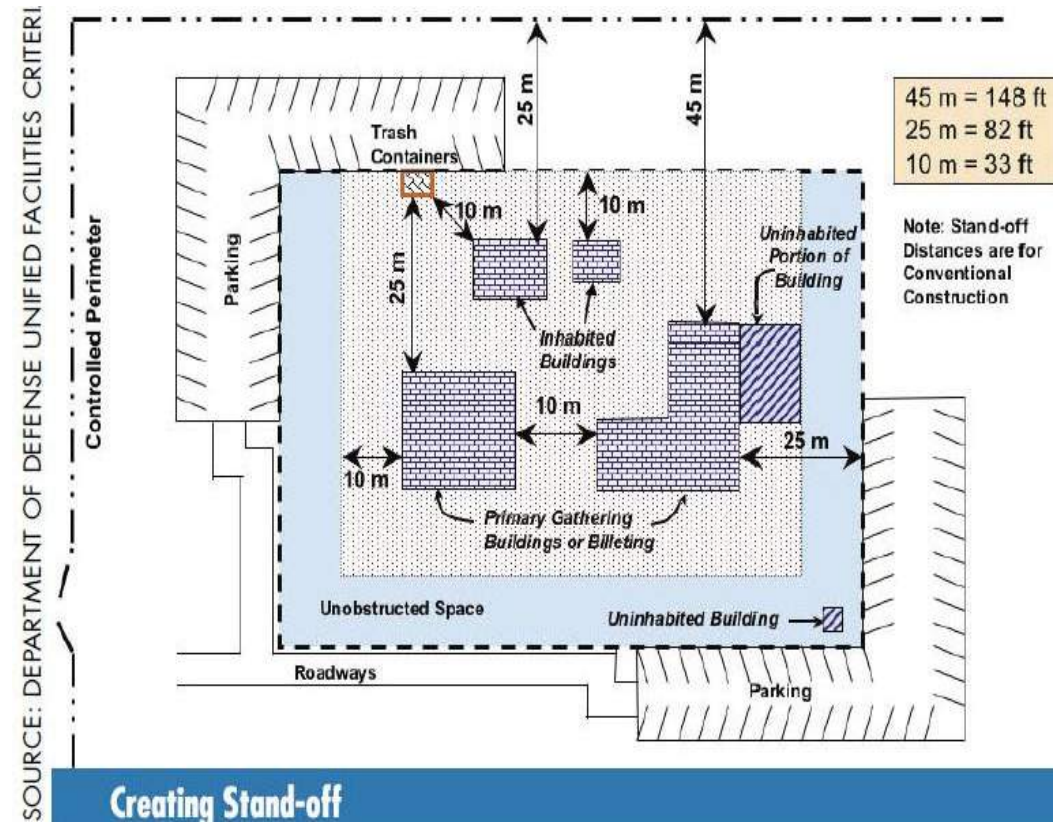
- Police Leadership and Department Leaders
- City Officials and Department Leaders
- Community Members
- Campus Organizations and Students



Design for Protection

Security Stand-offs

- Distance
- Identify Level of Threat
- Use Setbacks, Barriers, Grade Changes, Site Features



Design for Protection

Facility Hardening

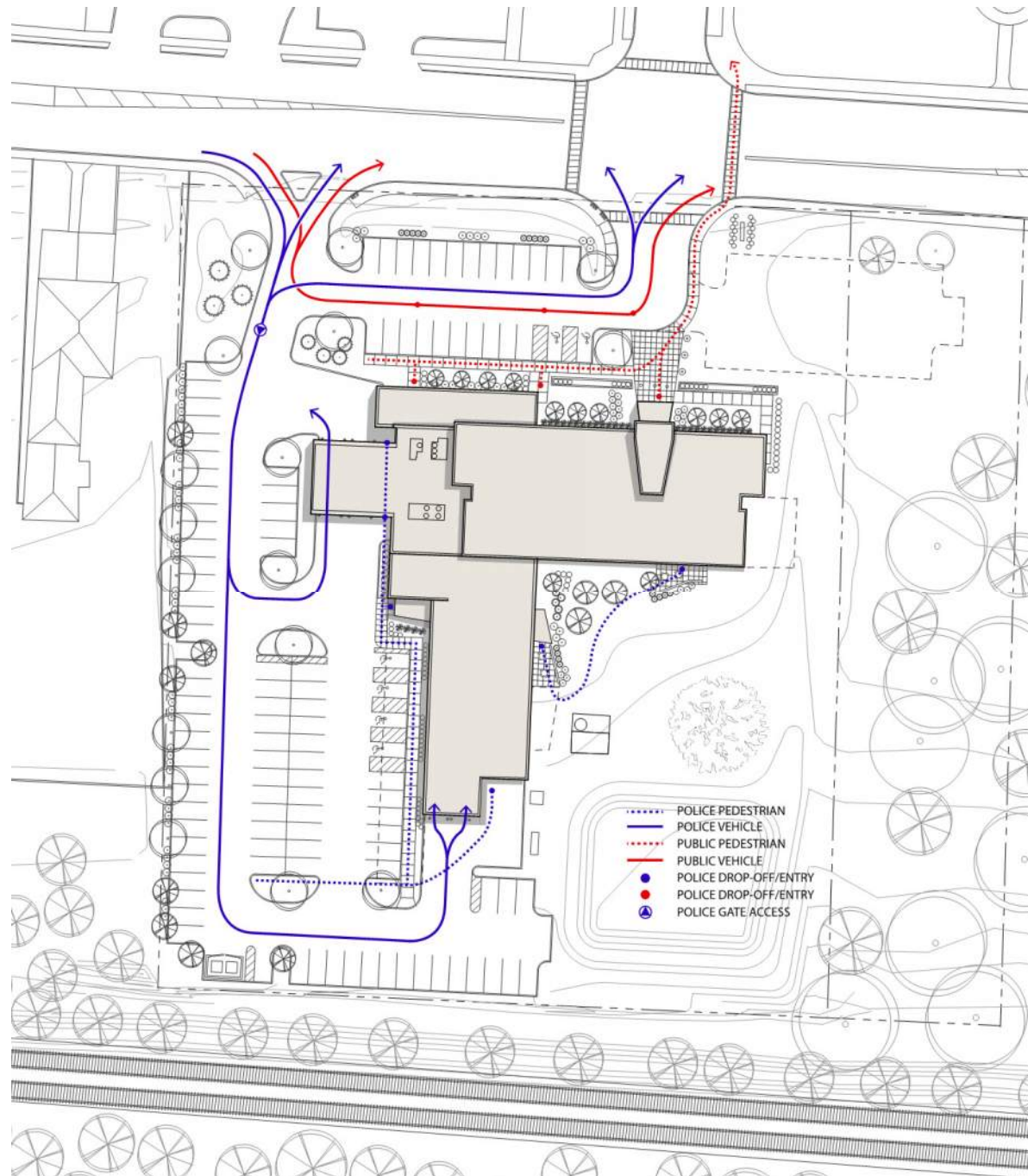
- Dallas Police HQ Attach (June 2015)
- Bullets penetrated the lobby and embedded into the information desk, Records Department wall, and display cases on the 2nd Floor



Design for Protection

Site Security/Circulation

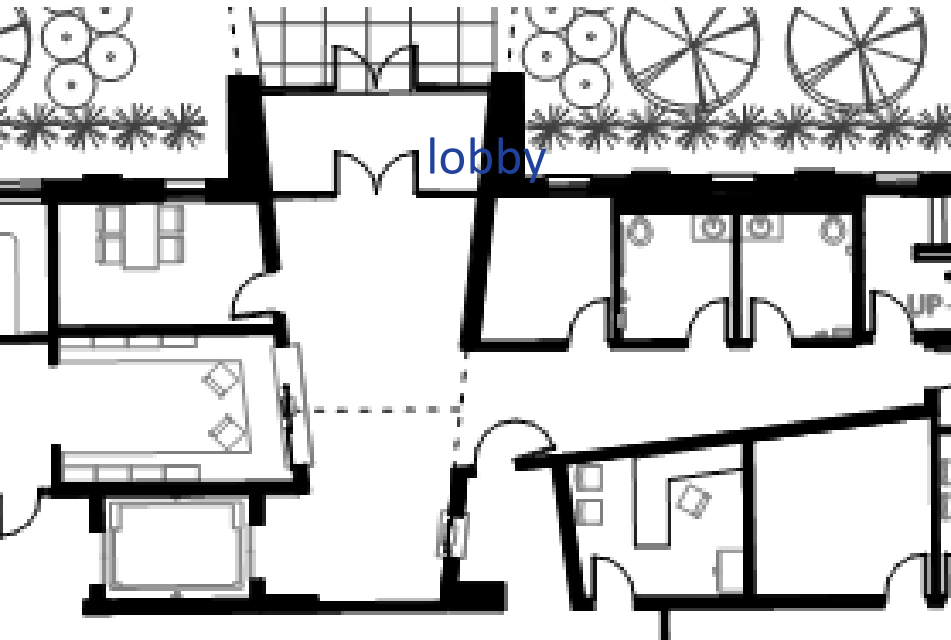
- Minimize circulation overlap between public and staff
- Provide at least 2 site access points for staff
- Limit public access on site (red)
- Provide controlled staff access (blue)
- Plan for secure staff parking areas and site perimeter



Design for Protection

Public Lobby

- Unobstructed sight lines into lobby from records window.
- Ballistic separation from Staff Areas

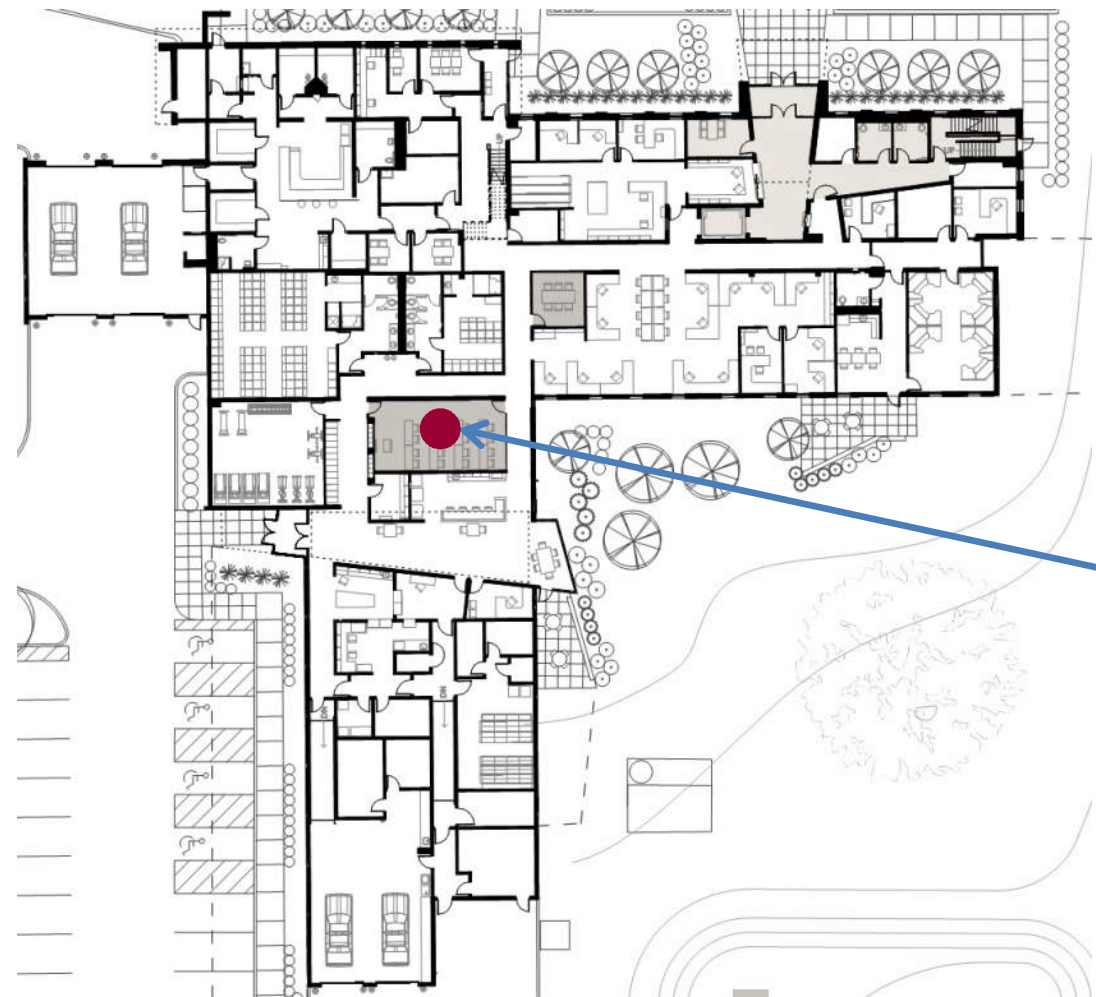


Ratings of Bullet Resistant materials as identified by UL 752

Rating	Ammunition	Weight (grains)	Weight (grams)	min fps	max fps	Number of shots
Level 1	9mm Full Metal Copper Jacket with Lead Core	124	8.0	1175	1293	3
Level 2	.357 Magnum Jacketed Lead Soft Point	158	10.2	1250	1375	3
Level 3	.44 Magnum Lead Semi-Wadcutter Gas Checked	240	15.6	1350	1485	3
Level 4	.30 Caliber Rifle Lead Core Soft Point (.30-06 Caliber)	180	11.7	2540	2794	1
Level 5	7.62mm Rifle Lead Core Full Metal Copper Jacket Military Ball (.308 Caliber)	150	9.7	2750	3025	1
Level 6	9mm Full Metal Copper Jacket with Lead Core	124	8.0	1400	1540	5
Level 7	5.56mm Rifle Full Metal Copper Jacket with Lead Core (.223 Caliber)	55	3.56	3080	3383	5
Level 8	7.62mm Rifle Lead Core Full Metal Copper Jacket Military Ball (.308 Caliber)	150	9.7	2750	3025	5
Shotgun	12-Gauge Rifled Lead Slug	1 Oz.	28.3	1585	1744	3
	12-Gauge 00 Buckshot (12 pellets)	1.5oz	42	1200	1320	3

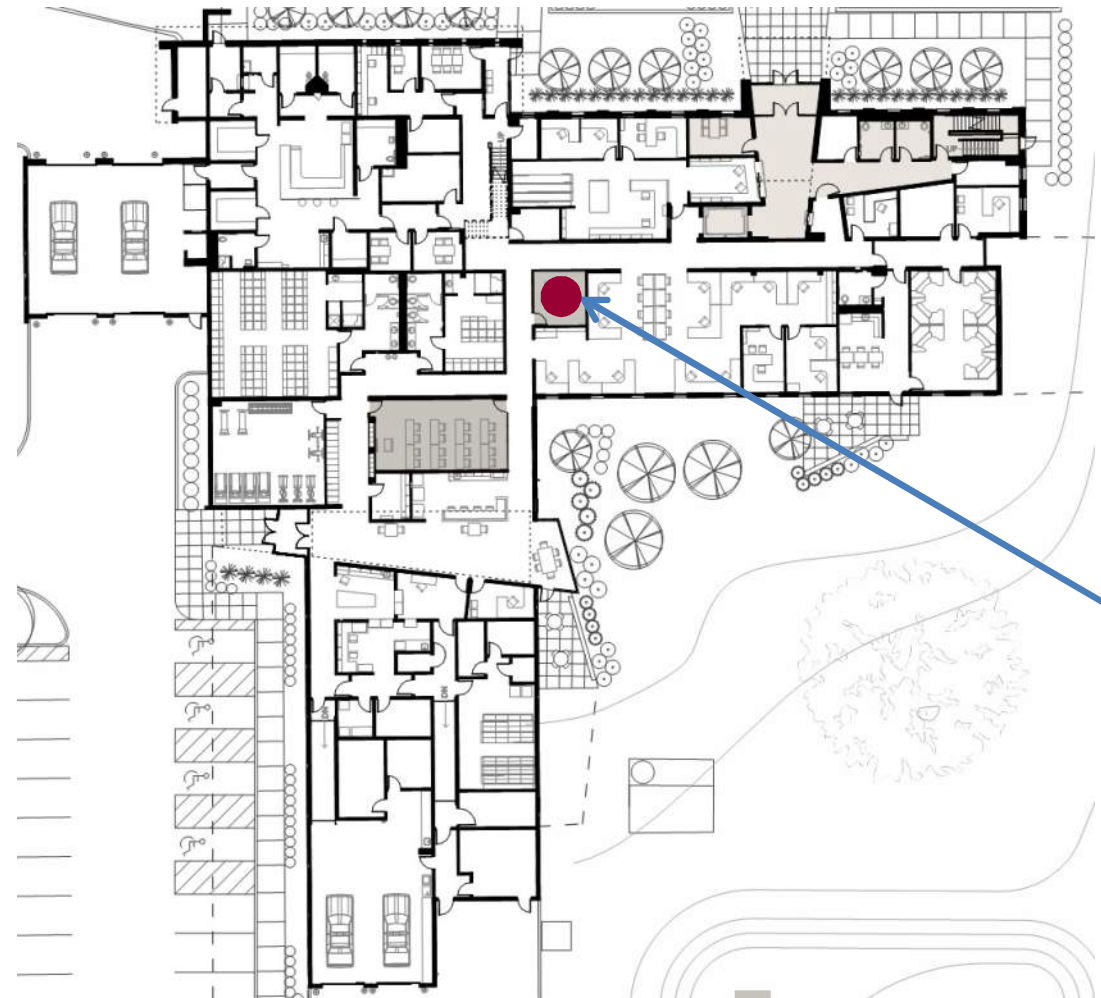
Design for Sharing: roll call rm | 535sf | 16-20pp

- Roll Call Room 2014 annual usage:
 - Roll call (3 times / day)
 - Training (52 times / yr)
 - Internal Meetings (25 times / yr)
 - External Meetings (12 times / yr)



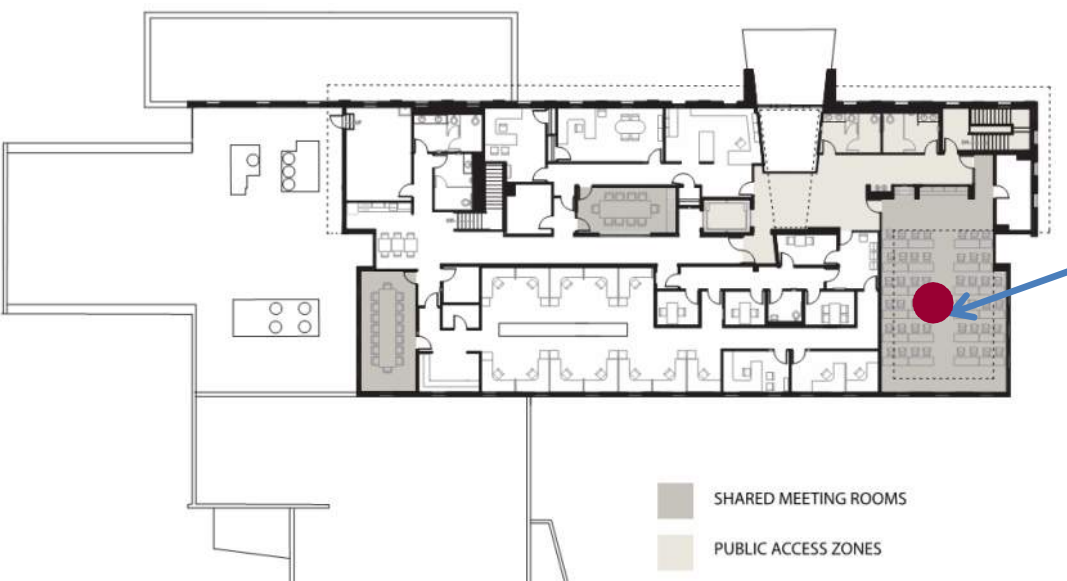
Design for Sharing: patrol mtg rm | 170sf | 6-8pp

- 2014 annual usage:
 - Field Training Officers (daily)
 - Crime Free Housing Mtgs (28 / yr)
 - Internal Meetings (18 / yr)
 - Applicant Interviews (18 / yr)



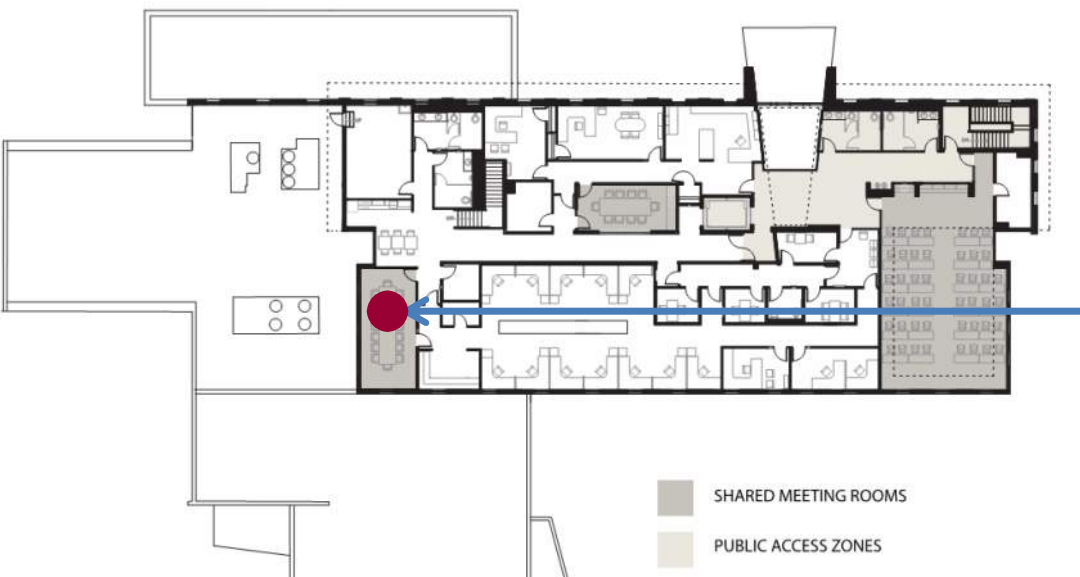
Design for Sharing: eoc mtg rm | 1200sf | 48-60pp

- EOC Mtg Room 2014 annual usage:
 - Training (112 / yr)
 - EOC Training (3 / yr)
 - Internal Meetings (24 / yr)
 - City Department Meetings (18 / yr)
 - External Public Service Mtgs (21 / yr)



Design for Sharing: major case rm | 365sf | 16pp

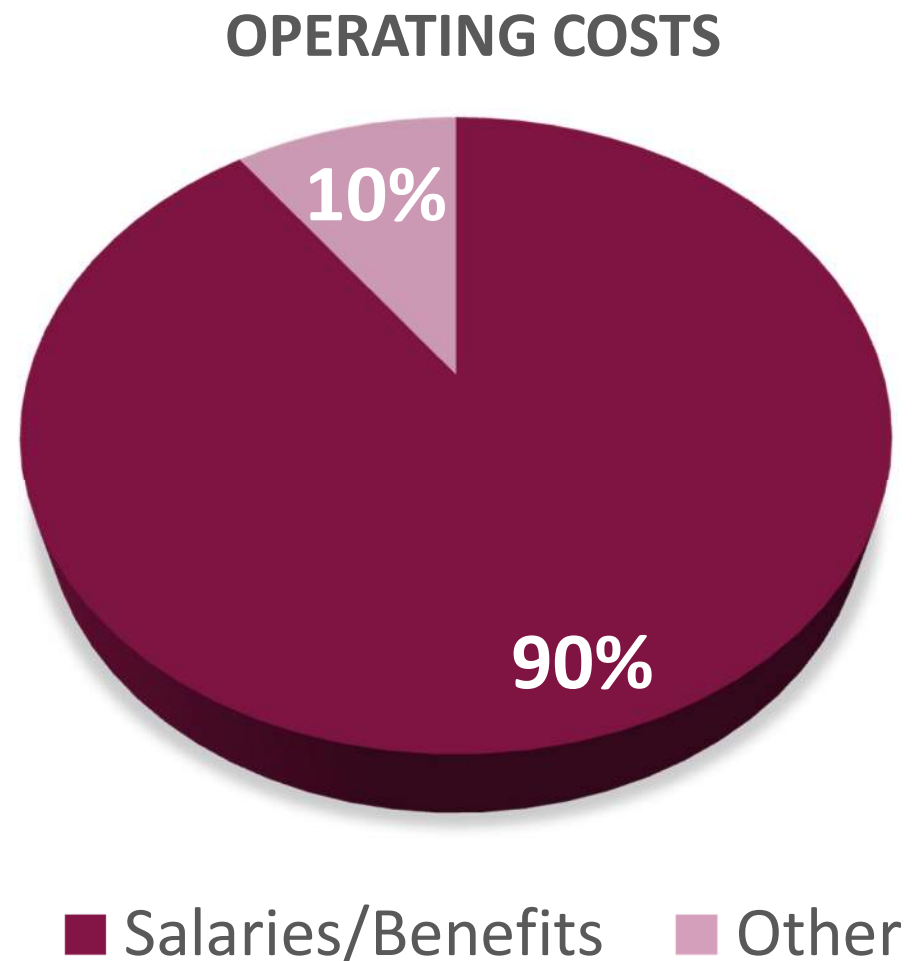
- Major Case Mtg Room 2014 annual usage:
 - Detective Morning Briefings (daily)
 - Major Case Squad (10 / yr)
 - Internal Meetings (11 / yr)
 - External Public Service Mtgs (5 / yr)



Design for Health / Sustainability

Employees are your most valuable asset!

- Focus on Healthy Environment
- Well-being
- Productivity
- Indoor Air Quality
- Thermal Comfort
- Views / Daylighting
- Acoustics
- Amenities



Design for Health / Sustainability

Benefits

- Reduced Absenteeism
- Higher Productivity
- Fewer Illnesses
- More Productive Work Environment

Top Benefits With Best Return on Investment in Healthier Work Environment

(According to Owner HR Executives)

Source: McGraw Hill Construction, 2014

■ Ranked 1st ■ Ranked 2nd or 3rd

Greater Worker Productivity



Lower Absenteeism



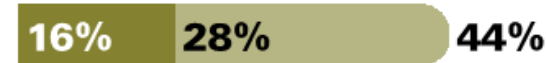
Reduced Healthcare Costs



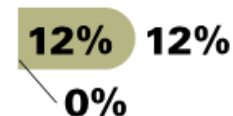
Improved Employee Satisfaction



Improved Employee Engagement



Improved Ability to Attract New Talent



Design for Health / Sustainability

Health Impact

- Focus trend shifting towards conservation and impact on Health
- Poor air quality or thermal comfort can lower productivity by 10%
- Short term sick leave is 35% lower in offices ventilated with more outside air
- 6.5 fewer sick days per year when better daylighting and views are provided

Impact of Buildings on Occupant Health Has a High Influence on Firms' Design/Construction Decisions

(Current and Expected Future By Player)

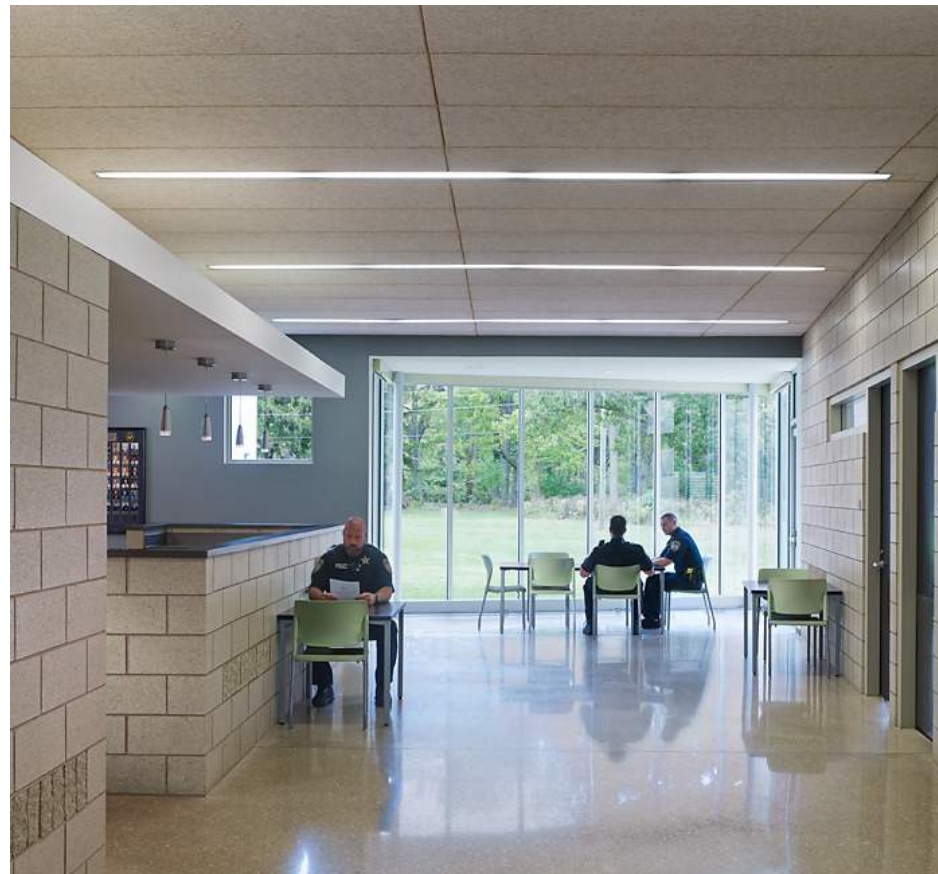
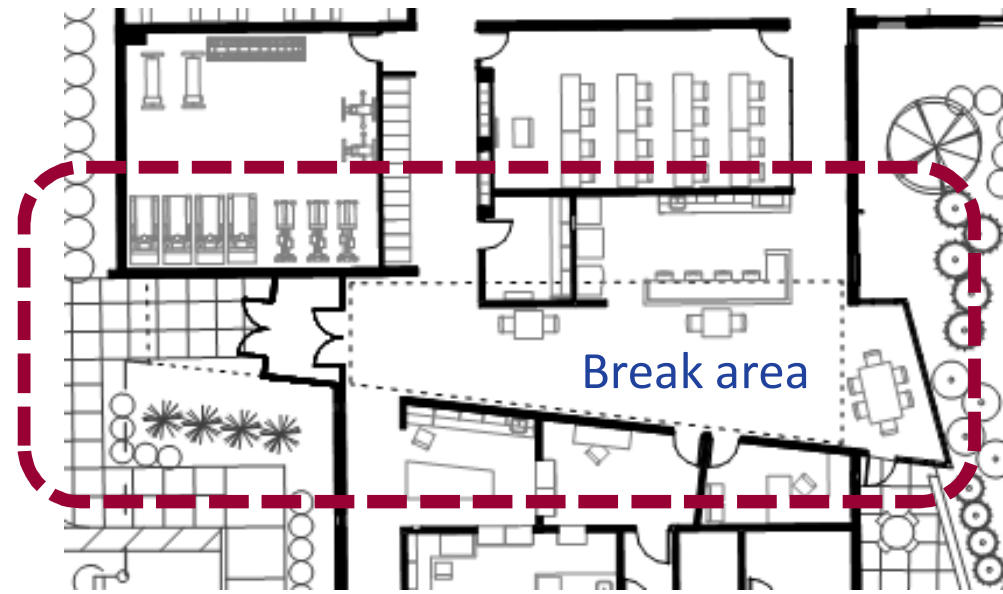
Source: McGraw Hill Construction, 2014

- Highest Percentage Report High Impact
- Second Highest Percentage Report High Impact
- Third Highest Percentage Report High Impact

	2014			2016		
	Owners	Architects	Contractors	Owners	Architects	Contractors
Energy Saving	79%	77%	68%	87%	88%	77%
Aesthetics	65%	86%	54%	68%	88%	54%
Improving Productivity	56%	64%	57%	65%	74%	68%
Water Savings	60%	56%	40%	77%	73%	56%
Impact of Building on Health	59%	63%	41%	67%	79%	56%
Improving Surrounding Community	53%	62%	38%	59%	72%	53%

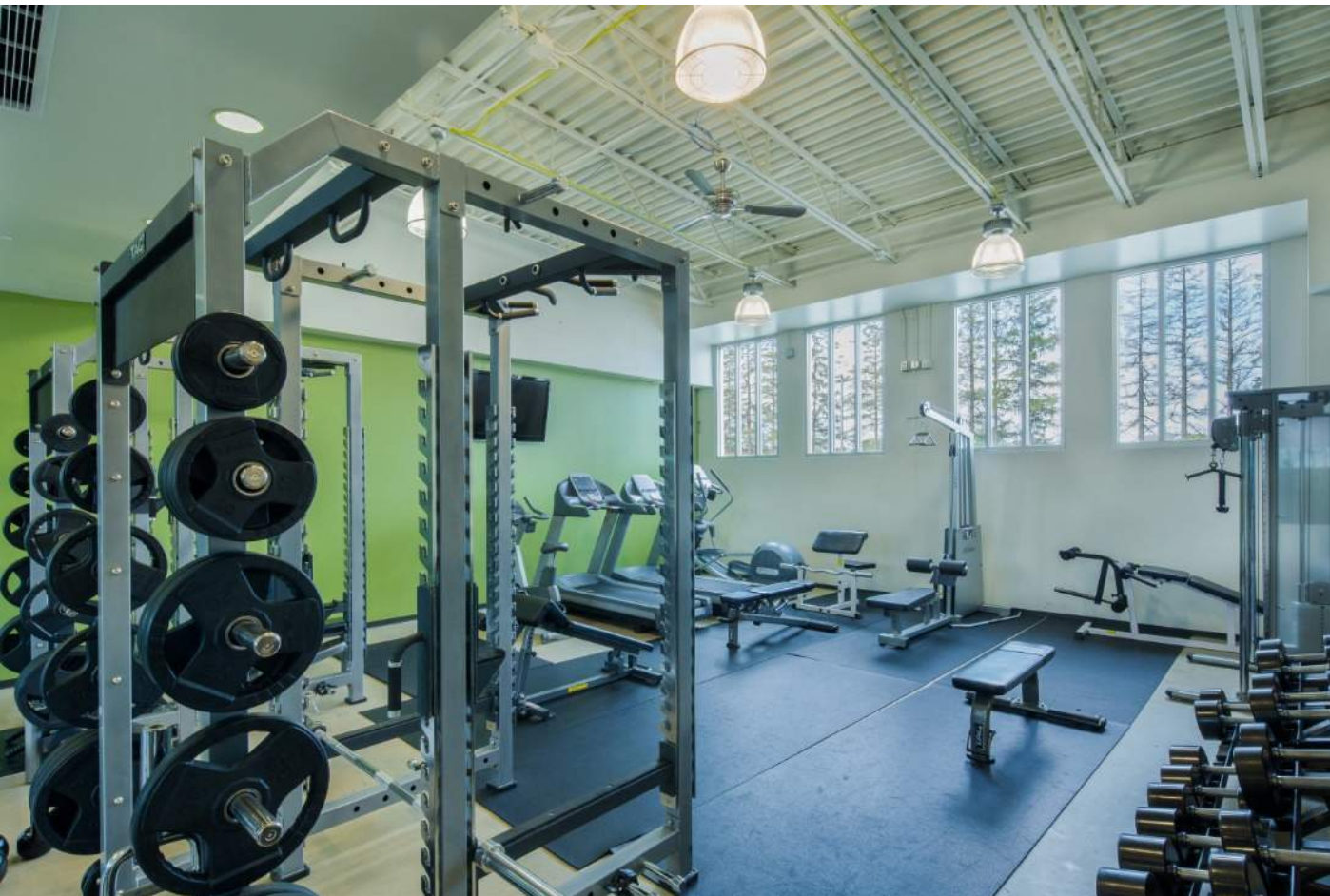
Design for Health:

- Break areas filled with natural light
- Open, flexible space design with multiple seating options



Design for Health:

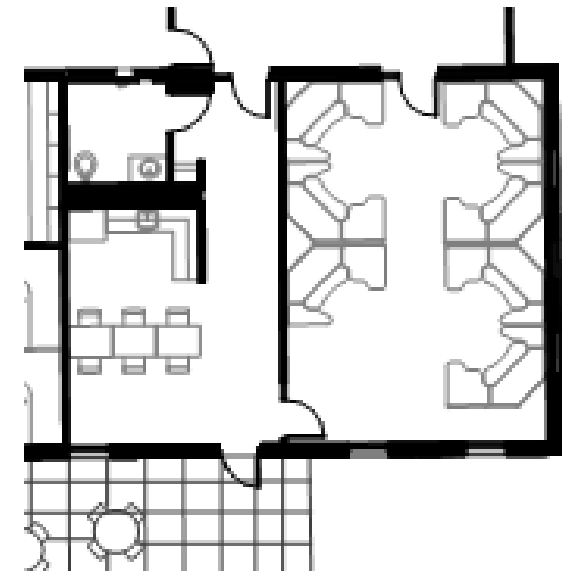
- Fitness room has views to nature and good daylighting.
- Good ventilation and acoustic control



Design for Technology

CCTV Video & Surveillance | Dispatch

- Monitor systems
- Secure Location
- Ballistic Rated
- Lighting Control
- Acoustical Control
- Ergonomics



Design for Technology

Threat-based System Design

- Design to threat level
- Key Pad
- Proximity sensor
- Scramble Pad



Design for Technology

New Systems - Adaptability

- Security Devices
- Access Control Systems
- CCTV Video and Surveillance
- Cabling and Infrastructure



Project Summary

Create a future ready building design that:

- Facilitates community engagement
- Provides adaptable training/policing environments
- Plans for future trends and expansion
- Balances function with design and cost





Future Ready Design for Law Enforcement

The City of DeKalb, IL Police Headquarters

Presentation Discussion