



Success Tools - Stakeholder Involvement in The Design Process

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Course Description

Design Success through Effective Stakeholder Involvement

Why Do We Need Tools?

- Two-way understanding, communication, clarity & verification, alignment of purpose
- Building blocks, each phase dependent on getting consensus on the previous, documentation
- Changing minds gets more difficult and expensive as the project progresses

- What are we telling you (mostly architects) that you don't already know?
- What value will this session be to you in your quest to achieve success?

Learning Objectives

- **Identifying, Establishing & Justifying Facility Needs**
Participants will be able to structure a defensible and justifiable statement of needs in support of facility renewal.
- **Design Tools & Processes for Success**
Participants will be able to apply tools and methodologies to improve the quality and accuracy of design requirements, when used as part of an inclusive integrated design process.
- **Design-Build v Design Bid Build Project Delivery Models**
Participants will better understand the issues, benefits and considerations of using alternate project delivery models, and to advise actual or potential clients regarding the most appropriate approach for facility renewal strategies.

Presenters



John E. Pepper, OAA, SAA, MRAIC, AIA Int'l Assoc. LEED AP
Rebanks Pepper Littlewood Architects Toronto, Ontario
35 years in police, high-security & public safety facilities



Peter Ortved, OAA, SAA, AAA, FRAIC
CS&P Architects Inc. Toronto, Ontario
Architect with 40 years of experience in justice, public
safety & community facilities



Susan Grant, Staff Sergeant (Retired)
Saskatoon Police Service Saskatoon, Saskatchewan
Police Headquarters Project Liaison Officer

Agenda

- **Case Study Project – Saskatoon Police Headquarters**
- **Success Tools**
 - RFP stage
 - Pursuit stage
 - Design-build & compliance stage
- **Design Initiatives**
- **Lessons Learned**
- **Discussion**





Why are tools important to Stakeholder involvement in the design process?

- **Bridge** between user knowledge and final built product
- **Transfer** understanding & information on functions
- **Increase probability** of meeting operational needs

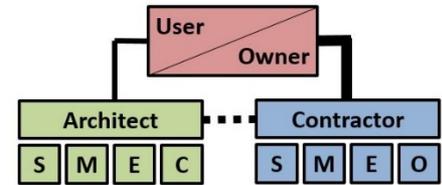
- **Opportunity** to overcome current facility challenges
- **Clean slate approach**, remove blockers and friction
- **Achieve or exceed** 'industry' current best practice

- **Ensure clear communication** amongst parties
- **Mutual understanding** of the importance of the Contract
 - We understand what they need & want
 - They understand what will be in the project documents

Project Delivery Options

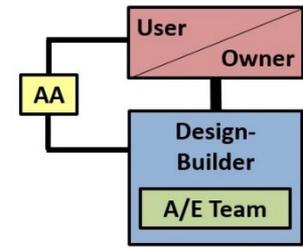
Design-Bid-Build

- Client retains architect, iterative design process
- Completed documents issued for Contractor bids



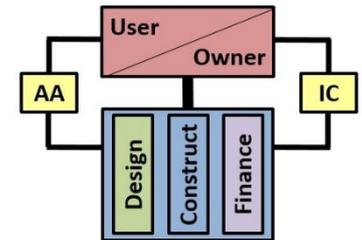
Design-Build

- Advocate Architect prepares Owner's Requirements (OSR)
- Design specifications for RFP to D-B teams
- Design-build teams present competitive proposals



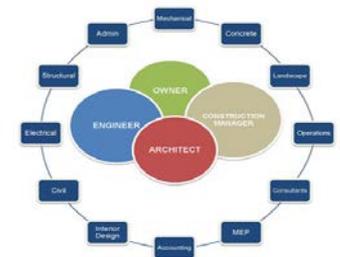
Design-Build-Finance (DBF) or Design-Build-Finance-Maintain (DBFM)

- Design Build team incentivized to factor in maintenance & operating costs to improve performance over time



Integrated Project Delivery

- Stakeholders work together in multi-party contract (owner, architect, engineers, constructor, subtrades)
- Shared risk & reward



Role of the Advocate Architect in D-B

Determine (& ensure compliance with) Owner's requirements
Establish performance v. prescriptive requirements
Permit innovation by Design-Build proponent teams (design, construction, cost)

Project Phases:

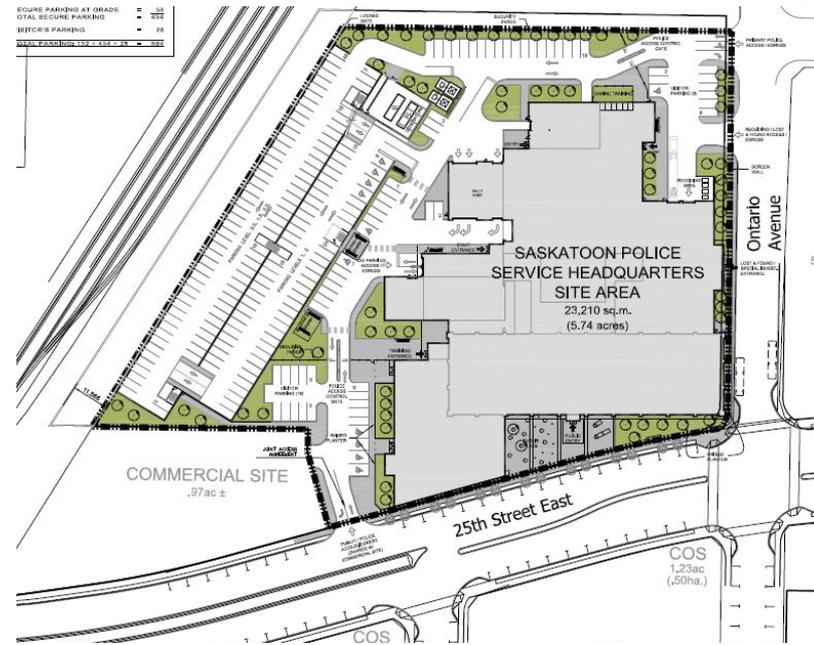
- 1. Needs assessment/programming, Indicative Design, Technical Requirements as basis for RFP**
- 2. Proposal/Pursuit stage – evaluation of proposals, selection of Preferred Proponent**
- 3. Design & Construction Compliance**

Project management & contract administration
Issues & risk logs, project dashboard

The Saskatoon Police Headquarters



From Concept to Reality



Project Summary



- 28,540 sqm (300,000 sq.ft) GFA
- Planned for population of 350,000, 775 total staff
- Parking for 576 vehicles
- Planned/designed for future growth & expansion
- Catalyst for 25th Street urban renewal



Project Summary



Operational Opportunities:

- Consolidate & co-locate dispersed facilities
- Improve & streamline operations
- Improve safety & security
- Allow for growth & change

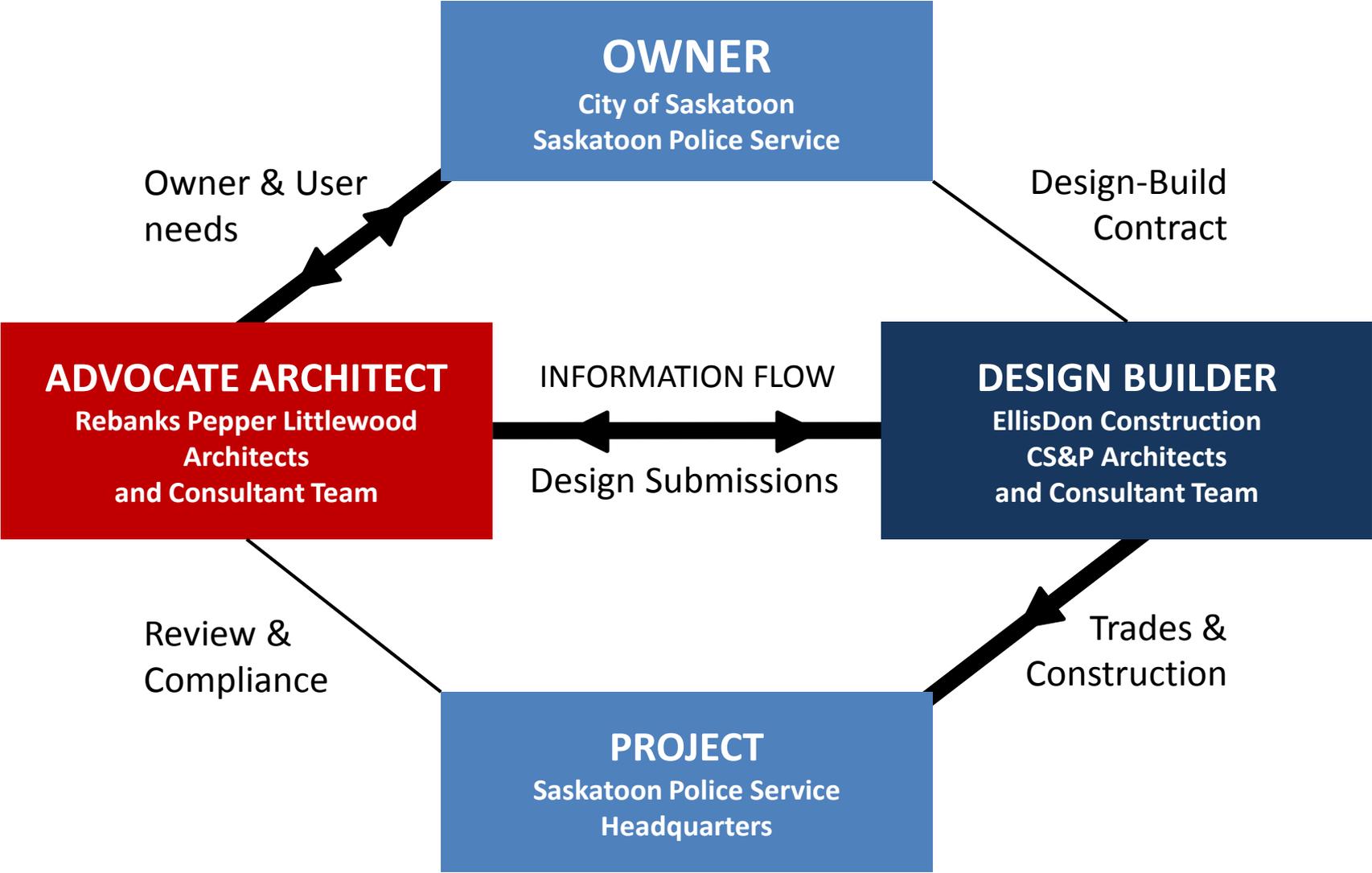
Urban Design Objectives:

- Urban renewal for former works yard
- Respect & enhance historic architectural character

Project Parameters:

- Approved facility program
- On-site employee parking
- Fixed budget – \$99.5M for design & construction

Project Participants



Project Schedule

2009-2010

City/SPS prepare OSR with Advocate Architect

Fall 2010

Prequalify 3 Design-Build proponents and issue RFP

April 2011

3 Proponent submissions

June 2011

Preferred Proponent (EllisDon) selected and Saskatoon City Council contract approval

August 2011

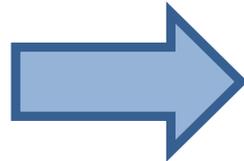
Construction Start

May 2014

Substantial Completion (34 months)

June 2014

SPS move in



Part 1 – The RFP Stage

RFP

Pursuit

Compliance

**Needs Assessment,
Programming, Technical
Requirements**



**Developing the OSR and
Indicative Design**

Developing the Design-Build RFP

Objectives:

Determining the Needs
Balancing Scope & Budget
Program Verification
Technical Requirements
Indicative Design

Methods:

Stakeholder Involvement
Best Practice Precedents
Validation & Refinement
Technical Requirements
Indicative Design

Final RFP

Project Agreement
Owner's Statement of
Requirements

Success Tools

#1 - Defining & Documenting Project Parameters

- **Understand police service objectives**
- **Focus on functional needs**
- **Address City & community priorities, urban renewal**
- **Forecasting, flexibility & future-proofing**
- **Budget & affordability**
- **Define project success factors**

Project Success Factors

Objective	
Functionality	Support efficient execution of program tasks.
Collaboration	Facilitate efficient and effective collaboration amongst units
Safety & Security	Ensure security & safety of occupants, continuity of essential operations, protection of assets. Balance with openness, communication & community accessibility.
Durability	Withstand hard 24-hour uses a police facility is subject to.
Flexibility	Accommodate on-going changes in police functions.
Future-proofing	Accommodating anticipated growth within the organization
Value for Money	Represent a high value by design, planning efficiency, and selection of systems, materials and components

Owner/User Comments

Owner's Quote

“

- **Communication - Get City and police information documented and into the designers' hands**
- **Ensure Needs Assessment is up to date**
- **Rely on an Architect with experience**
- **Anticipate and plan for growth and change**
- **Visit other facilities to verify needs**

”

S/Sgt Susan Grant

Needs Assessment & Programming

Getting the Right People – Getting the Right Information

- Clean slate mindset, forget the status quo
- Understand why things are the way they are – band-aids, legacy decisions, outdated processes
- Turn ‘evolution’ into ‘revolution’
- Research & visits
- Best practice opportunities

- Re-examine processes (Lean)
- Test, compare approaches, evaluate, decide

Owner/User Comments

- “
- Research & evidence-based Needs Assessment
 - Space standards to municipal or provincial/state guidelines
 - Office size by rank decreases arguments
 - Room Data Sheets require time and diligence
 - Right decisions might not be the popular ones
-
- Have users and clients at the table
 - Users – sworn, civilian, management – all have different pressures
 - Client needs to see the big picture
 - Inclusivity generates ownership
 - Don't make promises you can't keep....
- ”

S/Sgt Susan Grant

Success Tools

#2 – Precedents & Best Practice

- **Tours of other facilities**
- **Good, bad and new approaches**
- **Lessons learned**
- **Discuss processes & practices**

- Kingston Police HQ
- Waterloo Regional Police FIS & firing range
- Toronto Police Service
- Calgary & Edmonton
- Halton Regional Police 2 District



Precedents & Best Practice - 1



Precedents & Best Practice - 2



Precedents & Best Practice - 3



Precedents & Best Practice - 4



Success Tools

#3 – A Day in the Life

	Exterior Street	Secure Parking	Public Areas	Semi- Public	Training	Common Areas	Operational Areas	Administrative Areas	Service Areas	Restricted Areas	Secure Receiving	Detention	Indoor Parking
Zone	E1	E2	1	2	2	3							
General Public		X		X	X	X	X	X	X	X	X	X	X
Public Users		X		A	X	X	X	X	X	X	X	X	X
Victims/Witnesses		X		E	X	E	E	X	X	X	X	X	X
External Agencies (Training)		A			A	A/E	A	X	X	X	X	X	X
Visitors		A		A/E	A/E	E	E	E	E	X	X	X	A/E
Operational Staff									A	R		R	
Administrative Staff									A	R			
Facility Maintenance		A		A	A	A	A/E	A/E		E	E	E	A
Deliveries		A									A		
Couriers		X											
Property Pickup		A									*		
Prisoners		X	X	X	X	X	X	X	X	X	X	E	X
Operational Vehicles													
Staff Vehicles													
Garbage/Recycling		A											
Service Vehicles		A											

X = Not Permitted

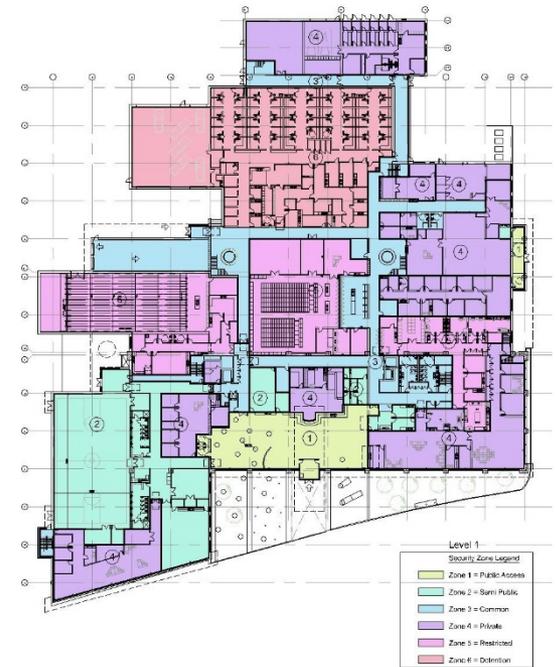
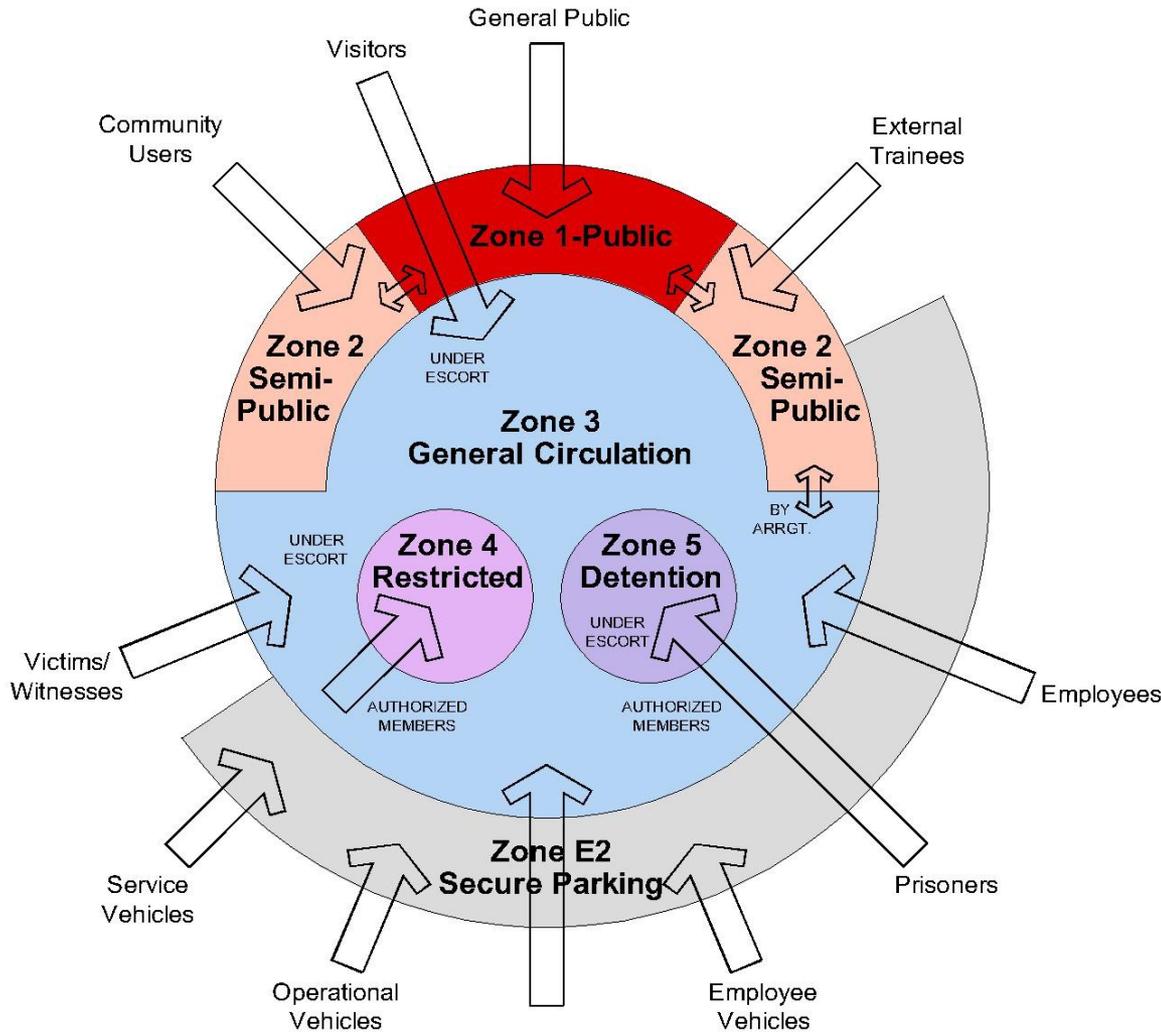
E = Only under Escort

A = By arrangement only

R = Restricted to authorized personnel only

S = Special arrangement

A Day in the Life - 2

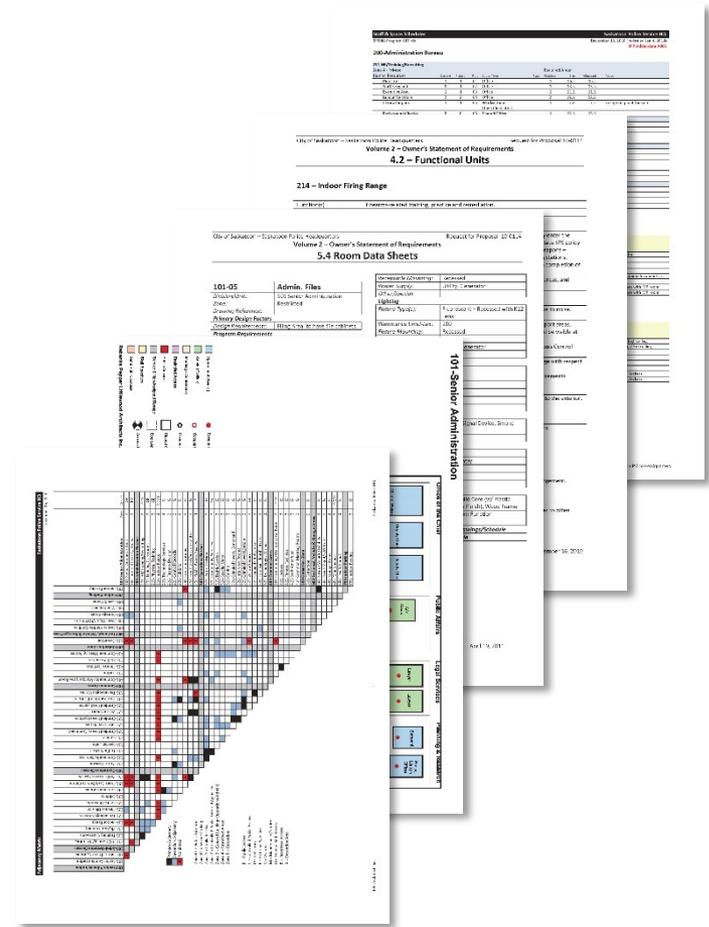


Success Tools

#4 – Functional Program

Brings all previous work together in a single document:

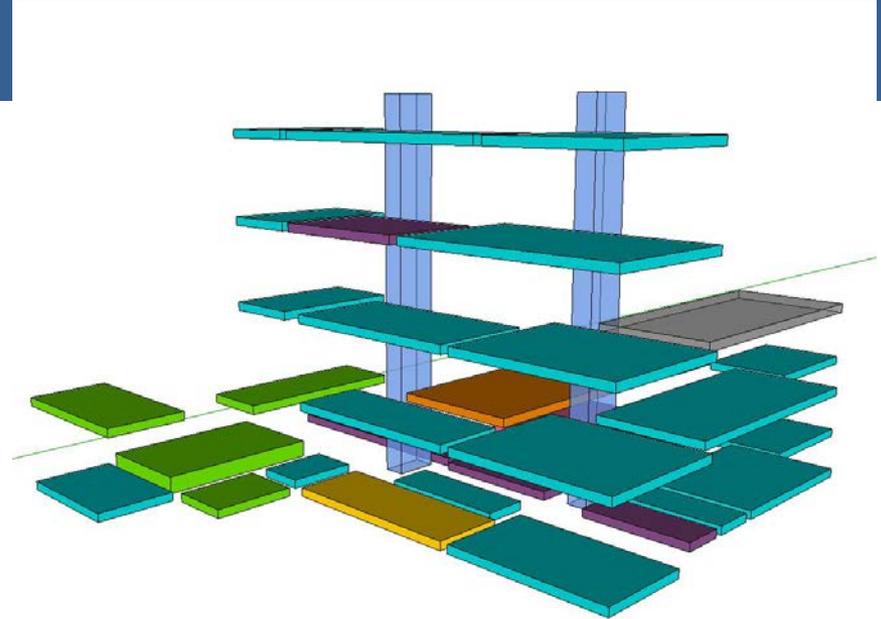
- **Functional unit narratives**
- **Space program tables**
- **Blocking diagrams**
- **Room Data Sheets**
- **Adjacency diagrams**
- **Security zoning & circulation**
- **Parking & site needs**



Success Tools

#5 – Blocking & Stacking

- 3-dimensional adjacencies
- Site context
- Security zoning & circulation



“I never realized architecture could be such fun! This is fascinating – it’s like watching the project come to life...”

S/Sgt Susan Grant

Success Tools

#6 – Concept/Indicative Design

Build on & validate blocking & stacking
Explore options & alternatives

User feedback & refinement
CPTED, security assessment & risks

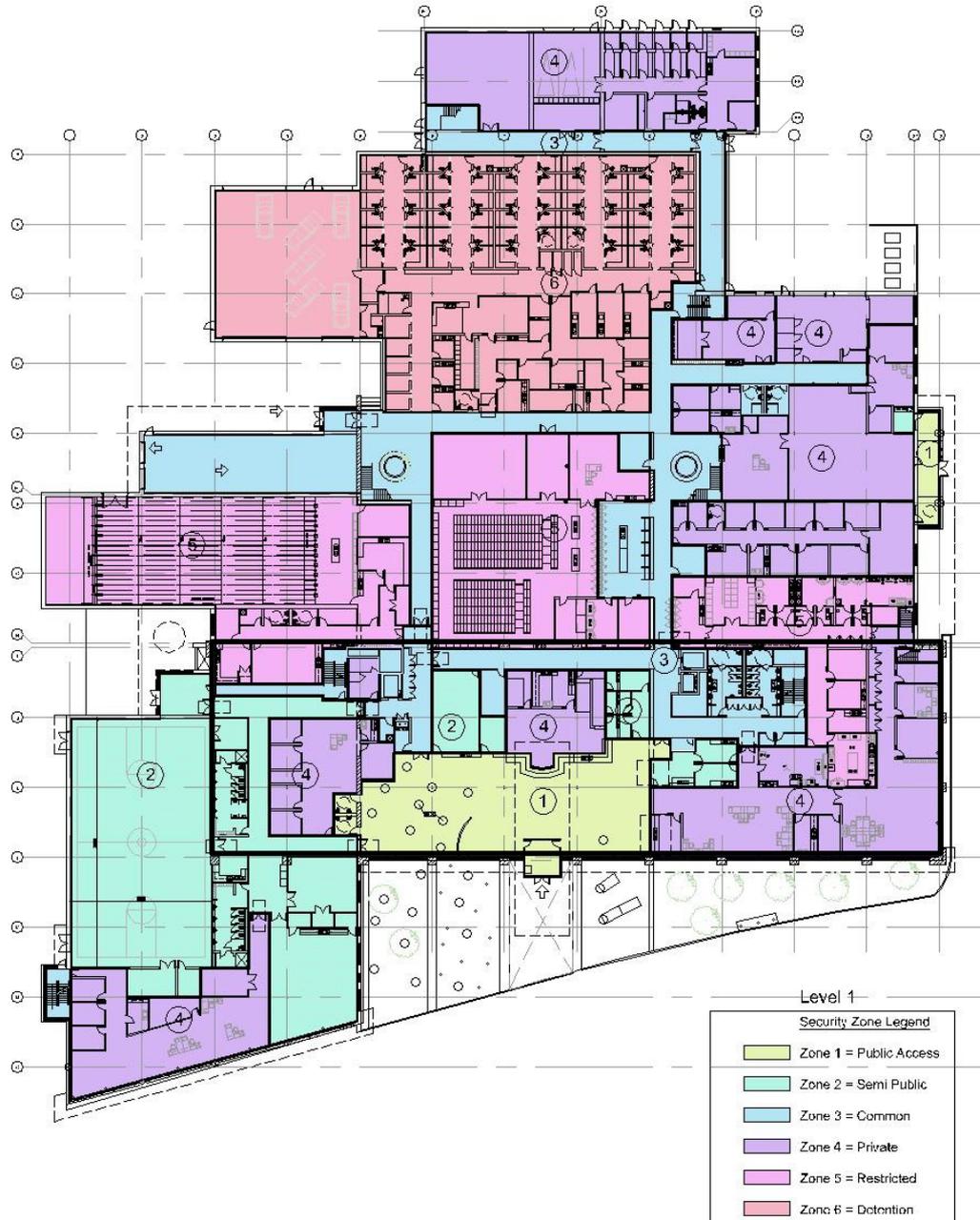
With Users:

- Validation of previous steps, explore & evaluate options & alternate approaches
- Clear two-way understanding – this is what you'll get
- Town Hall workshops

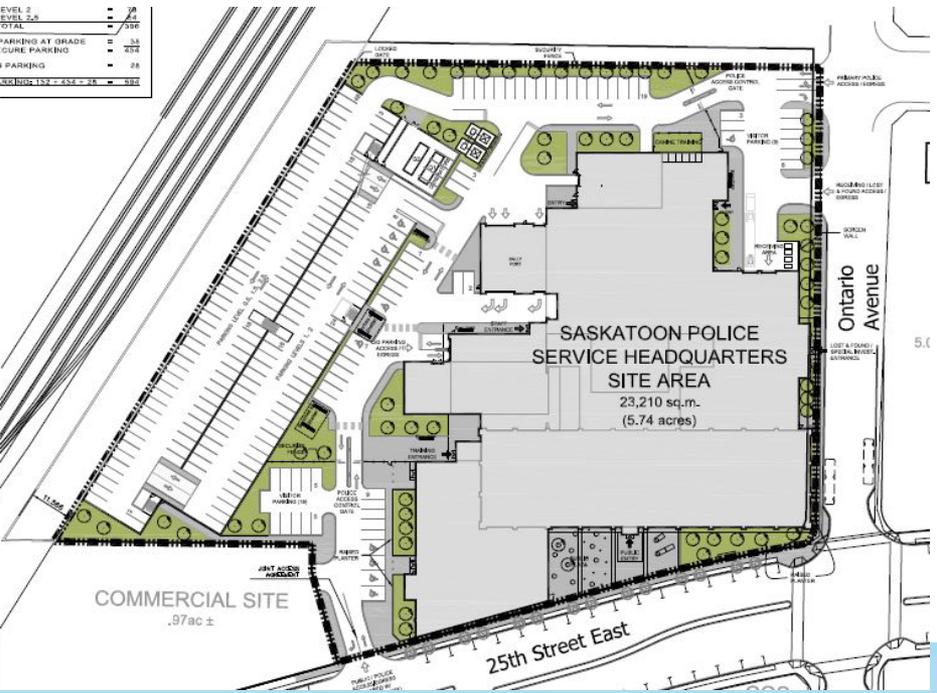
For Proponents:

- Ensure documents clearly define needs
- Recognize value of previous work with users, operational preferences
- Challenge assumptions, encourage innovation

Concept/Indicative Design



Concept/Indicative Design



Sustainable Design

Mandatory LEED Credits

7 4 4			Indoor Environmental Quality	15 Points
Y			Prereq 1 Minimum IAQ Performance	Required
Y			Prereq 2 Environmental Tobacco Smoke (ETS) Control	Required
		N	Credit 1 Carbon Dioxide (CO₂) Monitoring	1
Y			Credit 2 Ventilation Effectiveness	1
Y			Credit 3.1 Construction IAQ Management Plan: During Construction	1
	?		Credit 3.2 Construction IAQ Management Plan: Testing Before Occupancy	1
Y			Credit 4.1 Low-Emitting Materials: Adhesives & Sealants	1
Y			Credit 4.2 Low-Emitting Materials: Paints and Coating	1
Y			Credit 4.3 Low-Emitting Materials: Carpet	1
	?		Credit 4.4 Low-Emitting Materials: Composite Wood and Laminate Adhesives	1
		N	Credit 5 Indoor Chemical & Pollutant Source Control	1
Y			Credit 6.1 Controllability of Systems: Perimeter Spaces	1
		N	Credit 6.2 Controllability of Systems: Non-Perimeter Spaces	1
Y			Credit 7.1 Thermal Comfort: Compliance	1
	?		Credit 7.2 Thermal Comfort: Monitoring	1
		N	Credit 8.1 Daylight & Views: Daylight 75% of Spaces	1
	?		Credit 8.2 Daylight & Views: Views 90% of Spaces	1

Yes ? No

Pre-RFP Success Tools



OK, so let's step back and look at some of the processes and tools instrumental in achieving the success we did.

#1 – Defining & Documenting Project Objectives & Parameters

#2 – Precedents, Lessons Learned & Best Practices

#3 – Day-in-the Life

#4 – Functional Program & Room Data Sheets

#5 – Blocking & Stacking

#6 – The Indicative Design

#7 – Technical Requirements & Performance Specifications

#8 – The Owner's Statement of Requirements & PA

Part 2 – The Pursuit Stage



Finding the Right Team

- Design Development Stage
- Proposal

Selecting the Best Proposal

Developing the Winning Design

Owner's Side:

RFQ

RFP

Design submissions/CCM

Evaluation

Cost target

Proponent Side:

Strategies to Win

Design submissions

Design options & evolution

Winning tactics

Cost target

Final Proposal

Compliant

Preferred

Affordable

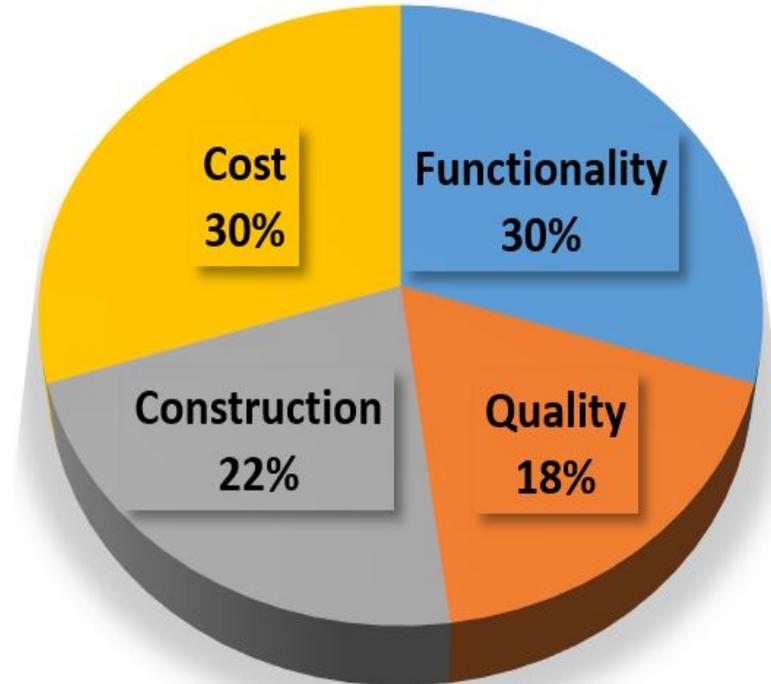
Success Tools

#1 – Winning Strategies

1. **Develop** a preferred design
2. **Recognize** prior input into Indicative Design
3. **Ask** questions, identify problems
4. **Innovation**, improvement, application of experience, design expertise
5. **Design** within target budget
6. **Focus** on evaluation points, these are important to the Owner
7. **Evaluation points** given if cost target was achieved
8. **Owner & AA involvement** through proposal process

Proposal Evaluation Criteria

Site Plan		5
Building Layout & Construction		15
Police Specialties		10
Building Elevations		10
Space Quality		4
Mech., Elec. & Lighting		5
Structure		2
Outline Specs		5
LEED, Durability, LCEE		5
FM & Safety		5
Other Features/Benefits		4
Price		30
	Total	100



Owner/User Engagement

Design Presentations:

- Understanding the OSR
- Workable design
- Cost effective
alternates & strategies

Interim Reviews & Feedback to Proponents

Final Evaluation

“

- **Involve the right people in each section**
- **Confirm their time availability to avoid frustration/delay**
- **Authority to make decisions - or access to those who do**
- **Identify those with knowledge in their area of expertise**
- **Focus on the best solution - not whose idea or where it came from**

”

S/Sgt Susan Grant

Indicative v Final Design

User engagement through proposal presentations:

- 3 commercially confidential presentations
- Built-in value of indicative design, opportunity to innovate
- Feedback evaluation – valuable responses

DB team innovations & strategies:

- Simpler circulation
- More compact envelope
- Fewer floors



Program Reconciliation

Saskatoon Police Service - Gross Floor Areas per floor level

Level	RFP Plans (s.m)		EllisDon Plans
	Stated	Measured	
Level 0	8273	8406	8557
Level 1	9116	8959	9348
Level 2	7383	7409	6203
range mechanical		175	
Level 3	2779	2845	4329
Level 4	2298	2317	2806
Level 5	2298	2317	1282
Level 6	1038	1112	
totals	33185	33540	32525

**2% saving = 660 sqm
(7,100 sf)**

Spare Reconciliation Schedules

Saskatoon Police Service HQ

ED-Program Reconciliation.xls

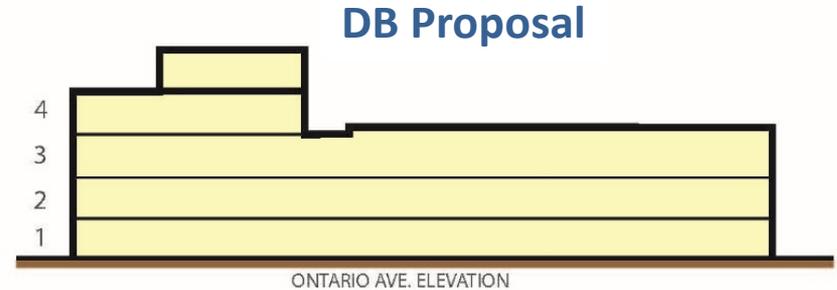
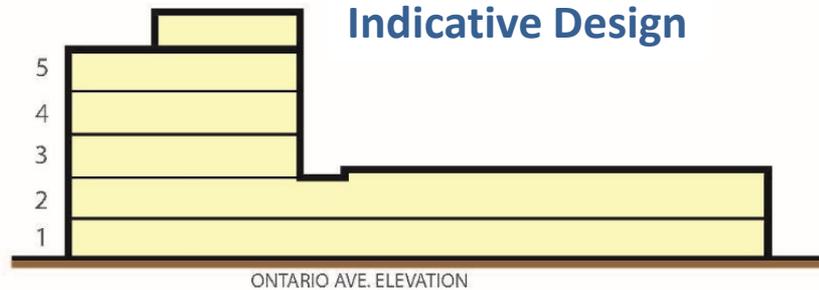
Last Updated April 18, 2011

100-Senior Administration

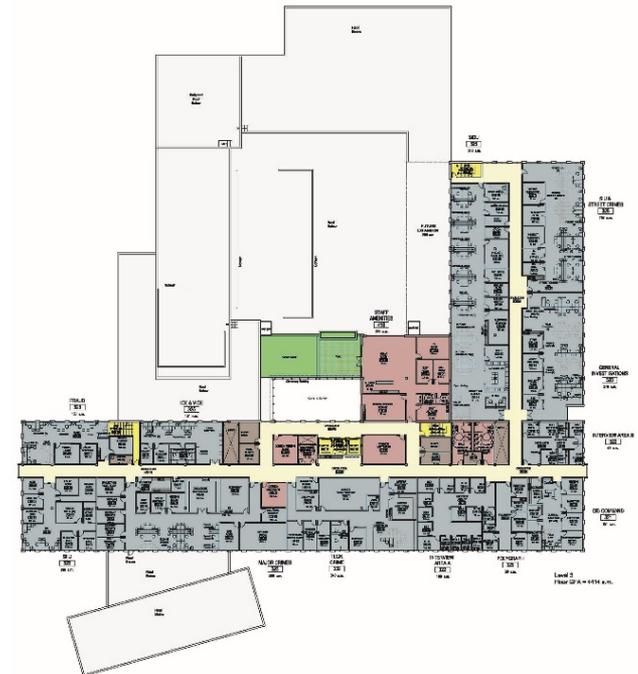
101-Senior Administration					RFP Concept Plans			EllisDon Team Plans			
Zone 4 - Private					Provided Areas (Areas Drawn)			Provided Areas (Areas Drawn)			
Office of the Chief:	Ref	Space Type	Required Areas	Allocated	Allocated	Difference	Percent	Allocated	Difference	Percent	
Chief of Police:	01	Office	1	32.0	32.0	30.0	(2.0)	94%	37.0	5.0	116%
	02	Washroom/Shower	1	9.5	9.5	9.7	0.2	102%	9.5	-	100%
Deputy Chief:	03	Office	3	27.0	81.0	81.0	-	100%	81.0	-	100%
Exec. Assistant:	04	Office	3	11.0	33.0	33.0	-	100%	33.0	-	100%
	05	Admin Files	1	12.0	12.0	14.8	2.8	123%	13.7	1.7	114%
	06	Open Circulation									
Legal Services:											
Lawyer	11	Office	2	16.5	33.0	33.0	-	100%	33.0	-	100%
Legal Exec. Assistant	12	Office	1	11.1	11.1	11.1	-	100%	11.1	-	100%
	13	Legal Files	1	13.5	13.5	14.8	1.3	110%	15.9	3.4	125%
	14	Open Circulation									
Planning & Research:											
Project Liaison Officer	21	Office	1	13.5	13.5	13.5	-	100%	18.3	4.8	136%
Sergeant	22	Office	1	11.1	11.1	11.1	-	100%	18.3	7.2	165%
	23	Storage (P&R)	1	9.3	9.3	9.3	-	100%	17.6	8.3	189%
Constable	24	Workstation	1	7.2	7.2	7.2	-	100%	7.2	-	100%
Planner (civ.)		Workstation	2	7.2	14.4	14.4	-	100%	14.4	-	100%
Clerical Support		Workstation	1	7.2	7.2	7.2	-	100%	7.2	-	100%
		Layout Area	1	9.0	9.0	9.0	-	100%	9.0	-	100%
		Project Workstation	1	7.2	7.2	7.2	-	100%	7.2	-	100%
		Open Circulation									
Public Affairs:											
Manager	31	Office	1	13.5	13.5	13.5	-	100%	14.7	1.2	109%
Assistant	32	Office	1	11.1	11.1	11.1	-	100%	11.5	0.4	104%
	33	A/V Suite	1	45.0	45.0			0%	45.6	0.6	101%
	34	Media Prep/Storage	1	13.5	13.5	16.2	2.7	120%	15.7	2.2	116%
A/V Coordinator	35	Office	1	9.3	9.3	9.5	0.2	102%	12.0	2.7	129%
	36	Sound Booth	1	6.0	6.0	3.3	(2.7)	55%	6.0	-	100%
Crimestoppers:											
Constable	41	Office	1	9.3	9.3	9.3	-	100%	9.3	-	100%
Clerical Support	42	Workstation	1	7.2	7.2	7.2	-	100%	7.2	-	100%
		Storage	1	9.0	9.0			0%	9.0	-	100%
		Open Circulation									
Share/Common:											
	51	Document Centre	1	6.0	6.0	5.6	3.6	160%	9.3	3.3	155%
	52	Meeting Room (8p)	1	18.0	18.0	15.8	1.8	110%	19.8	1.8	110%
	53	Reception/Waiting Area	1	21.0	21.0	21.0	-	100%	18.0	(3.0)	86%
	54	Board Room (20p+)	1	120.0	120.0	120.0	-	100%	120.5	0.5	100%
	55	Coffee/Resource	1	2.0	2.0	2.0	-	100%	9.0	7.0	450%
		Open Circulation									
		Net Area		585		549	(46)	92%	642.0	47.1	108%
		Circulation		125		147			122		
		Est. U.A.		740		806	66		786.4		

Design Initiative #1

Consolidate 5 Storeys to 4

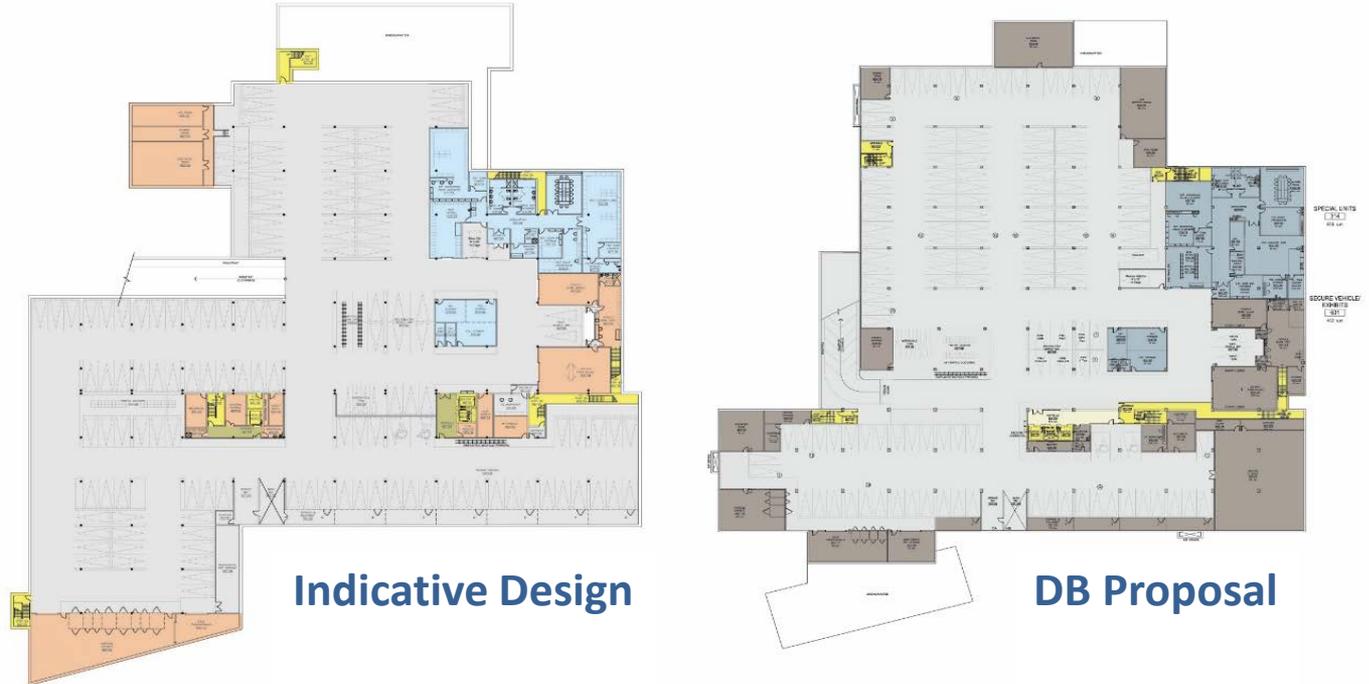


- Longer 'bar' improved massing, street presence
- Investigative units on Level 3 improved staff interaction, future flexibility
- Better constructability, lower construction cost



Design Initiative #2

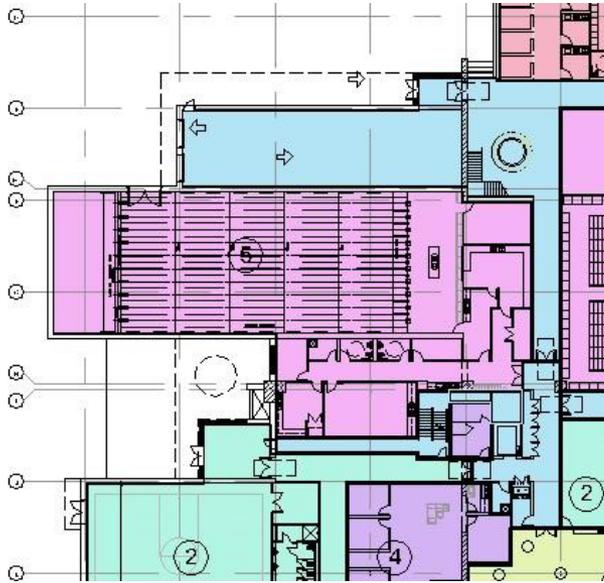
Simplify Underground Garage



- Simplified vehicle circulation, more spaces, less area
- Excellent adjacencies for special units, vehicles, equipment
- Good access to central elevator core and stair
- Less excavation, simpler outline & lower construction cost

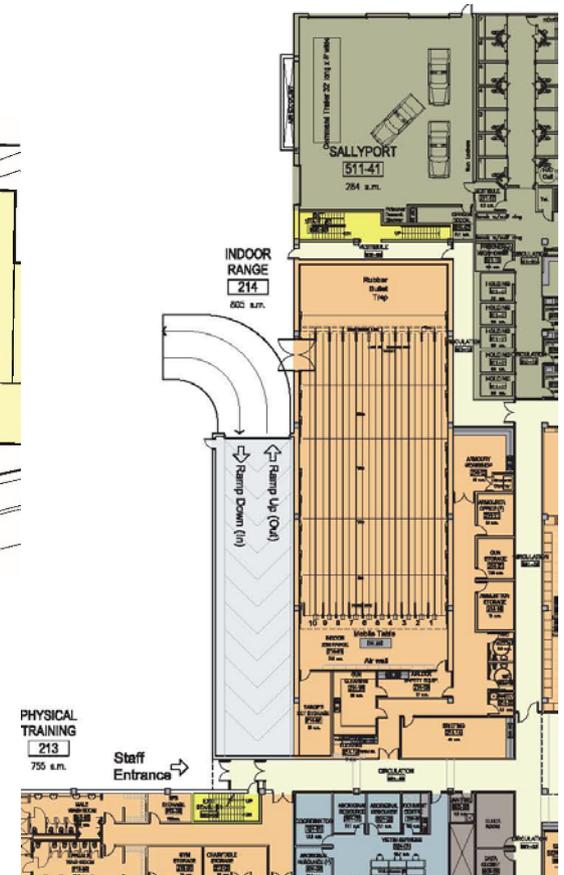
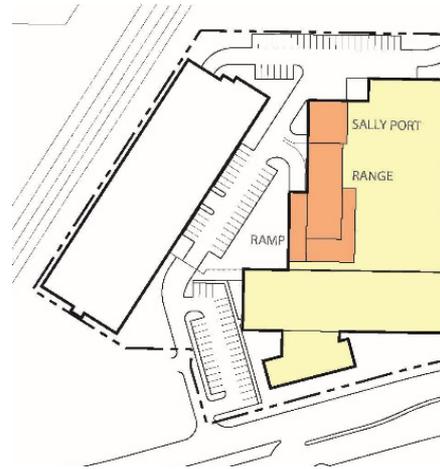
Design Initiative #3

Realign Range, Ramp & Sallyport



Indicative Design

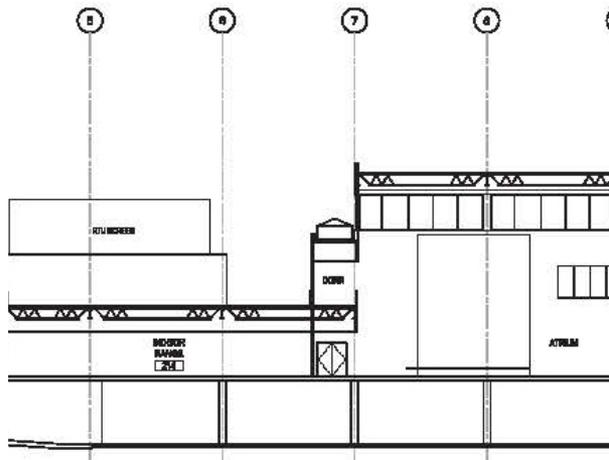
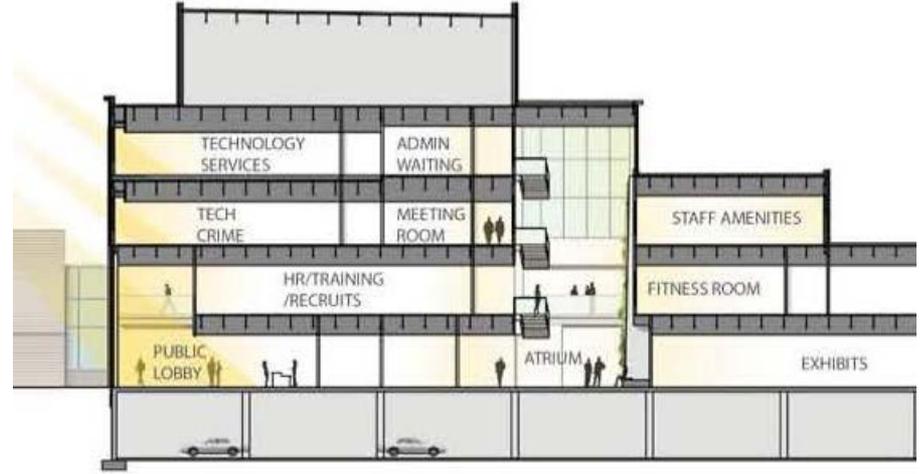
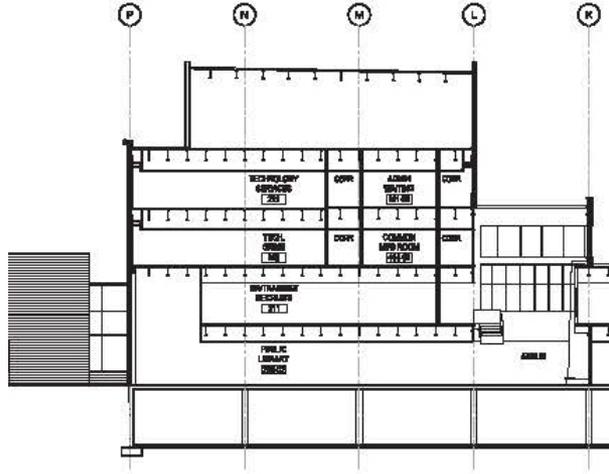
- More compact building form
- Reduce exterior wall area
- Improve vehicle & pedestrian circulation
- Reduce construction cost



DB Proposal

Design Proposal

Two-storey v Four-storey Option



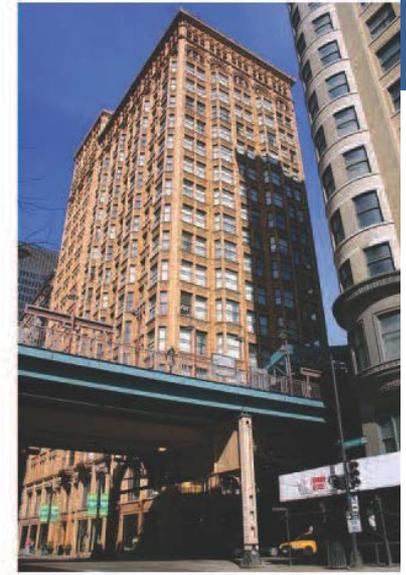
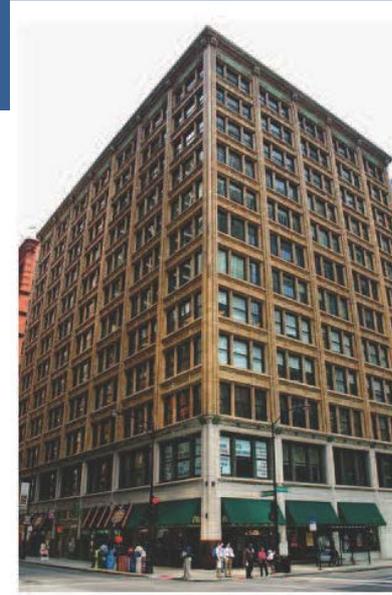
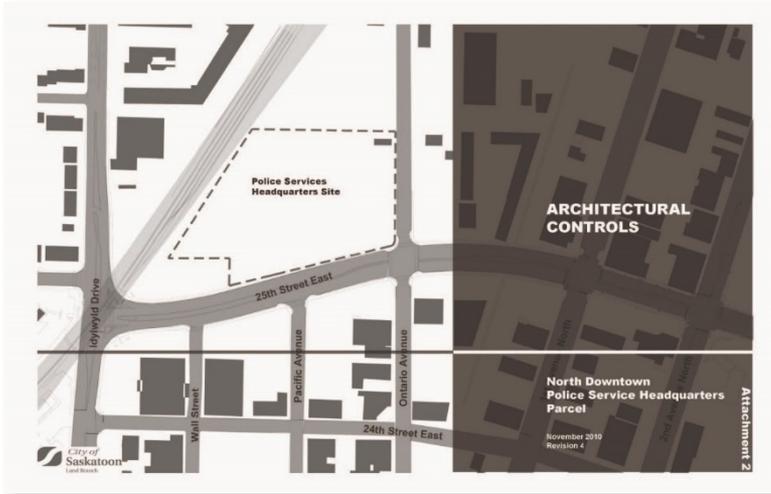
Design Initiative

Central Atrium

- Provide daylight to central core
- Excellent orientation device, single location for primary vertical circulation
- Create multi-level social interaction, informal activity
- Near main staff activity areas, meeting rooms, amenity areas
- Interesting views, changing daylight, green wall feature
- Create internal identity and uniqueness



Urban Design



'Chicago School' Precedents

- Historic Architectural Context
- Proportion, Scale, Form
- Building Façade
- Relationship to the Street
- Parking Structure



'Buckwold Building

Urban Design Response



Tees and Perse Building



Elevation Design Study



Part South Elevation



Success Tools

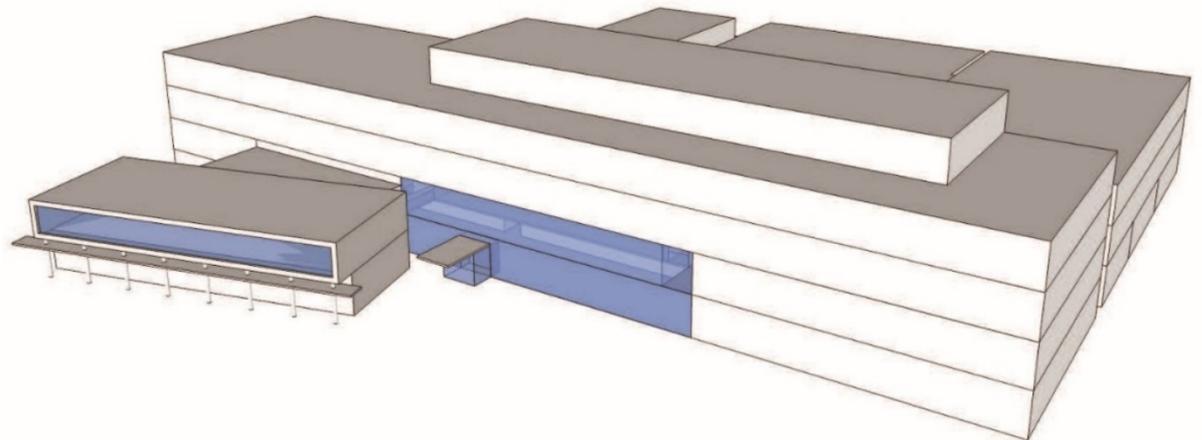
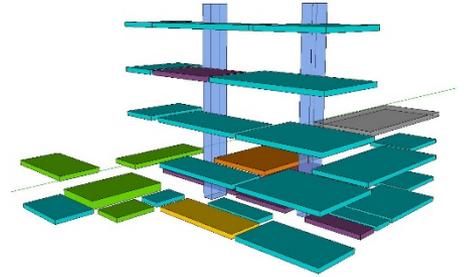
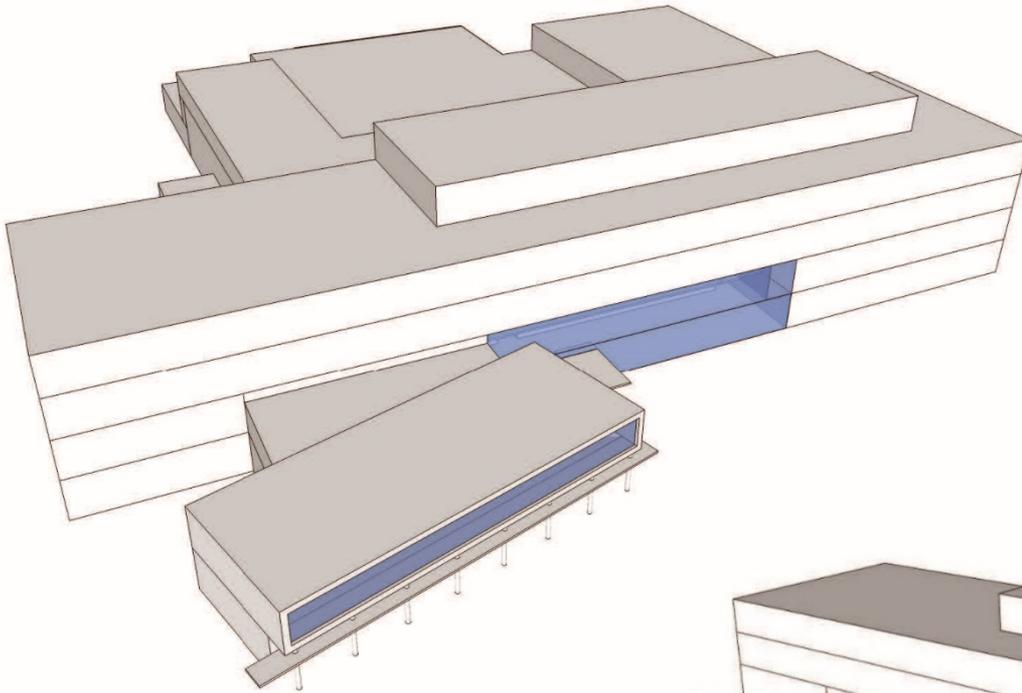
#2 – Proposal Design Feedback & Evaluation

Obtaining Owner & Advocate Team Feedback & Response:

- **Approval** of blocking & stacking, or preferred alternatives
- **Circulation** concept (improve or rationalise)
- **Urban design** strategies & solutions
- **Floor plan** & process diagrams
- **Confirm** 'Day in the Life' for all user groups

Schematic Design Tools

Concept Design Blocking & Stacking



Schematic Design Tools

3-D Models – Urban Design Concept

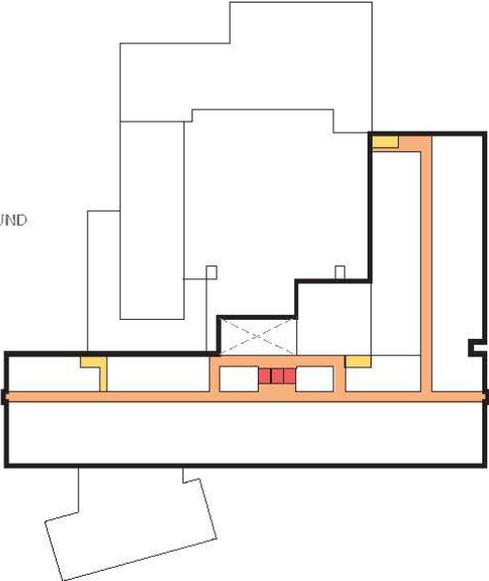
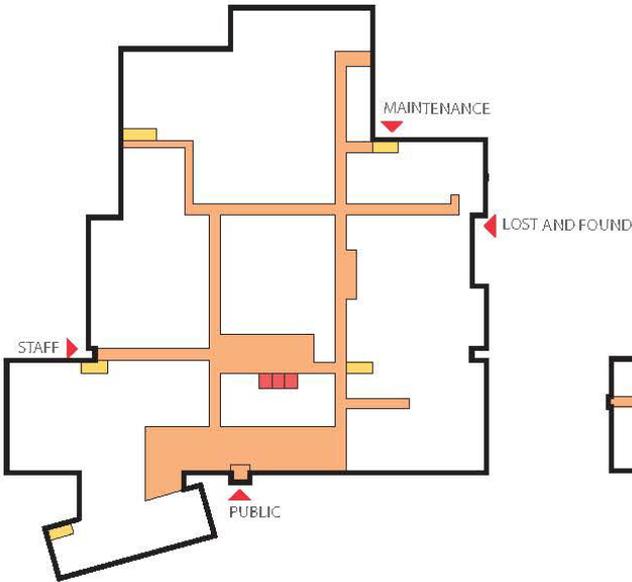


Urban Design Concept – 25th Street Extension



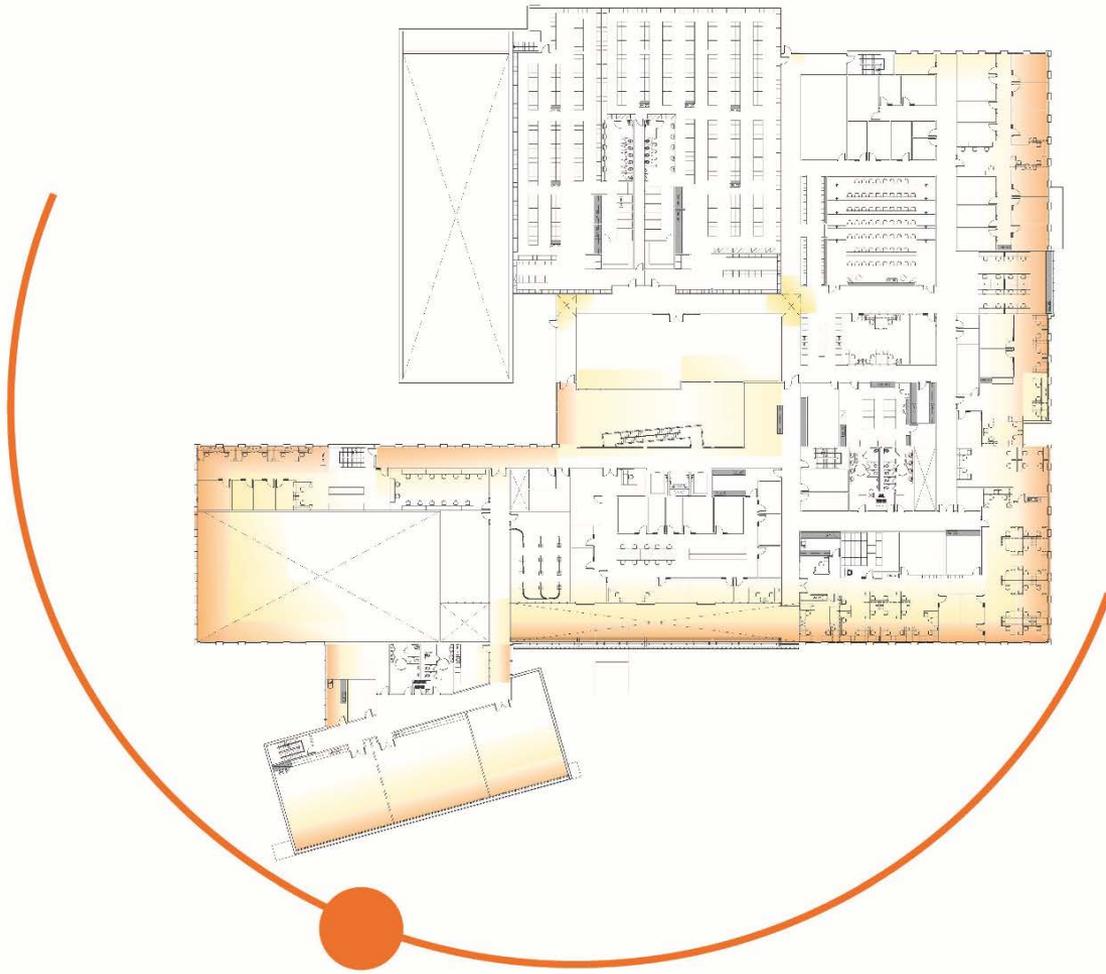
Schematic Design Tools

Concept Design Circulation



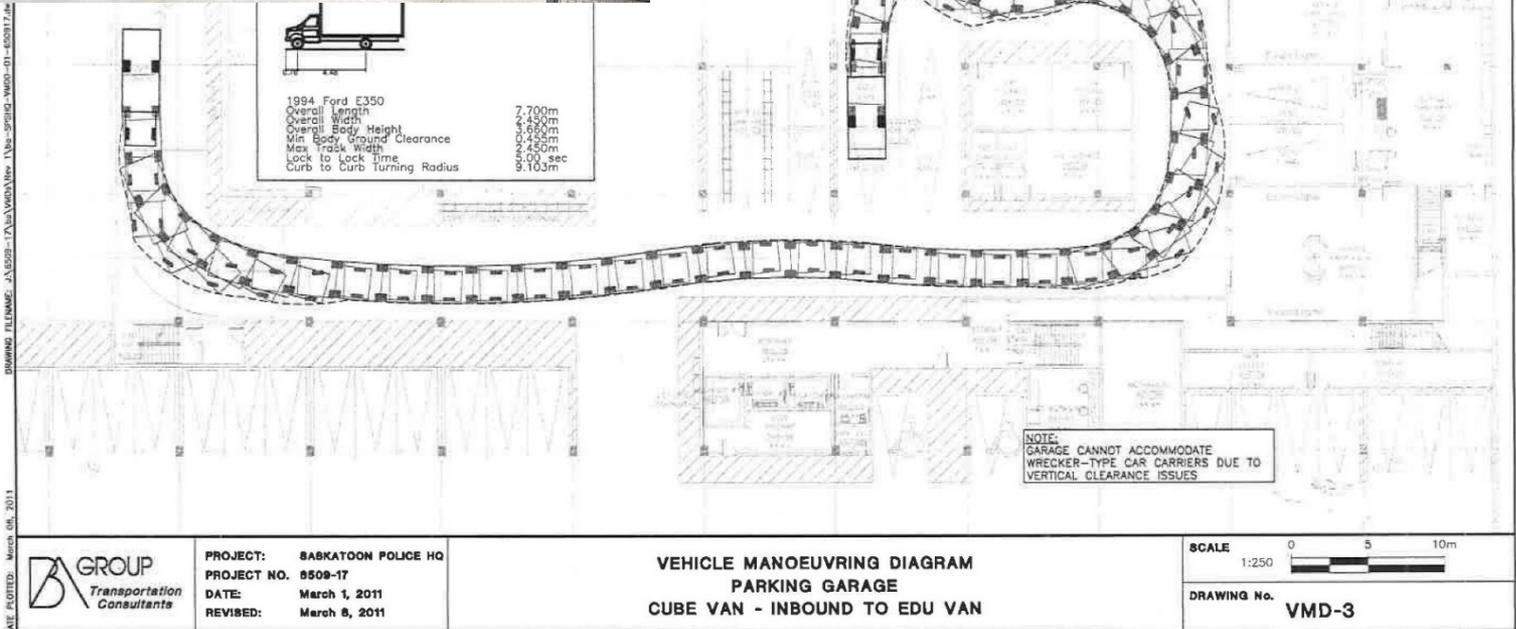
Schematic Design Tools

Demonstrating Daylight & Views



Schematic Design Tools

Vehicle Garage & Circulation Analysis



DATE PLOTTED: March 08, 2011
DRAWING FILENAME: J:\S259-1\Auto\VMD\New_VNs - SPIND-W00-01-60017.rvt



PROJECT: SASKATOON POLICE HQ
 PROJECT NO. 8809-17
 DATE: March 1, 2011
 REVISED: March 8, 2011

VEHICLE MANOEUVRING DIAGRAM
 PARKING GARAGE
 CUBE VAN - INBOUND TO EDU VAN

Part 3 – Designing & Building

RFP

Pursuit

Compliance

The Compliance Stage

- Meeting the OSR
- Collaboration for Success

Success Tools

#1– It's in the OSR!

What's in the OSR?

- **Design objectives**
- **Specific technical requirements to support functions**
- **Performance requirements**

What's not in the OSR?

- **Architectural & engineering details**
- **Overly prescriptive requirements if not necessary**

Compliance – strict or interpretive?

- **Owner's perspective**
- **DB team perspective**

Design & Construction Compliance

Owner/User Priorities:

- **Functionality**
- **Compliance with general and specific requirements**
- **Durability**
- **Maintainability**
- **Safety**
- **Schedule**
- **Cost control**

Design-Build Team Priorities:

- **Cost-effectiveness**
- **Compliance (design and construction phases)**
- **Timely review of submissions**
- **Fairness**

Design & Construction Compliance

“

- OSR is detailed, clear and concise
- Design Development phase allows Design-Build team to utilize creativity to improve final design
- Design options were offered with costing included
- OSR can be a “reliable” document and tool
- Owner begins to understand the ‘look’ of the building

”

S/Sgt Susan Grant

Team Building



Success Tools

#1 – Design Development Submissions & Review

Design-Build Team Deliverables:

- **Drawings**
- **Equipment (photos, specs)**
- **Schedules & specs**
- **Colours & finishes**

All reviewed in detail through iterative process by owners, users and compliance team

Process allowed user input and involvement

Success Tools

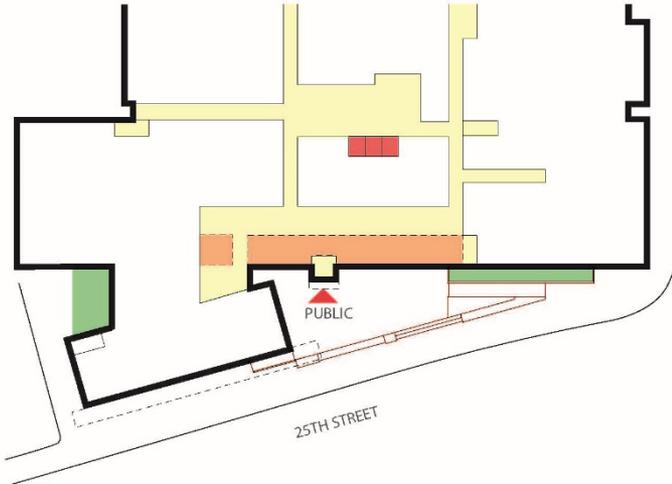
The OSR – Owner's Perspective

- **Design-Build process needs a full time Project Manager representing the user**
- **Must have decision making authority and/or quick access to those who do**
- **Involve specialized systems staff – Forensics, IT systems, building maintenance**
- **Ensure the needs are clear and the Design Builder knows what they are responsible for**
- **Information flow is critical to progress and avoiding delays**
- **SITOSR – “It’s somewhere in the OSR.....”**

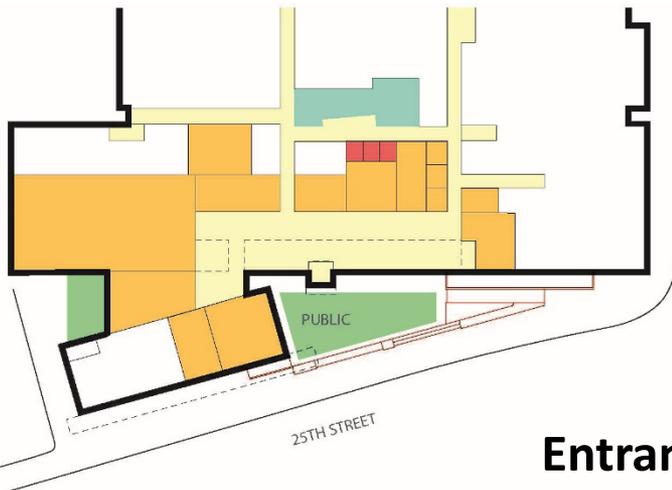
S/Sgt Susan Grant

Success Tools

#2 – Diagrams & 3-D Renderings



ONTARIO AVENUE



ONTARIO AVENUE

Entrance Lobby Studies



Public Access Areas

Success Tools

#3 – Functional & Ergonomic Models



Success Tools

#4 – Materials & Colours – Function, Durability, Preference



Brick



Tyndall Rough



Tyndall Smooth



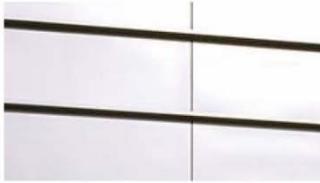
Block. Dark Grey



Aluminum Windows



Transparency



Metal Panel



Hardware



Pavers



Sunscreens



Greenery



Wood Soffit



Success Tools

#5 – Building Operations & Maintenance

Occupational Health & Safety:

- Service stairs, roof anchors
- Equipment access

Building Operations:

- Involvement in the Commissioning process
- Training & O&M documents
- Spare parts & materials

Maintenance:

- Materials, consistency (no isolated pockets)
- Access to equipment
- Equipment selection

LEED® & Sustainable Design

7	4	4	Indoor Environmental Quality	15 Points
----------	----------	----------	-------------------------------------	------------------

Y			Prereq 1	Minimum IAQ Performance	Required
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
?		N	Credit 1	Carbon Dioxide (CO ₂) Monitoring	1
Y			Credit 2	Ventilation Effectiveness	1
Y			Credit 3.1	Construction IAQ Management Plan: During Construction	1
?	?		Credit 3.2	Construction IAQ Management Plan: Testing Before Occupancy	1
Y			Credit 4.1	Low-Emitting Materials: Adhesives & Sealants	1
Y			Credit 4.2	Low-Emitting Materials: Paints and Coating	1
Y			Credit 4.3	Low-Emitting Materials: Carpet	1
?	?		Credit 4.4	Low-Emitting Materials: Composite Wood and Laminate Adhesives	1
?		N	Credit 5	Indoor Chemical & Pollutant Source Control	1
Y			Credit 6.1	Controllability of Systems: Perimeter Spaces	1
?		N	Credit 6.2	Controllability of Systems: Non-Perimeter Spaces	1
Y			Credit 7.1	Thermal Comfort: Compliance	1
?	?		Credit 7.2	Thermal Comfort: Monitoring	1
?		N	Credit 8.1	Daylight & Views: Daylight 75% of Spaces	1
?	?		Credit 8.2	Daylight & Views: Views 90% of Spaces	1

Yes ? No

The Final Result

All Success Factors Achieved



The Final Result

Critical Success Factors

The Process:

- **Whole team approach, collaboration**
- **Facilitated innovation**

Technical & Design Requirements:

- **Functional & pleasant**
- **Technically competent**
- **Flexible & future-proof**

The Final Design:

- **Cost effective, value-for-money**
- **Quality assured**



The Final Result

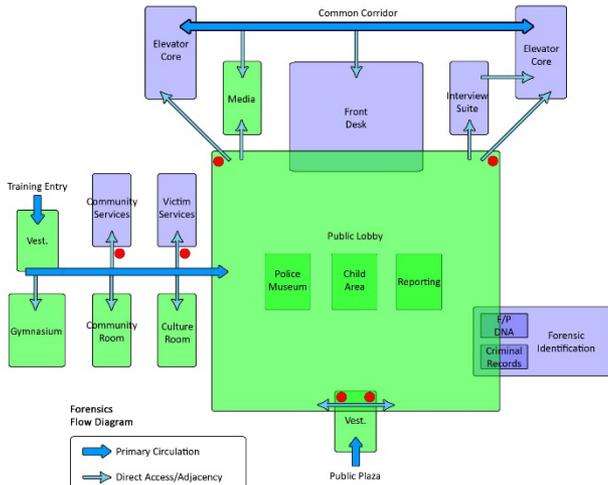


Access Point	General Public	Police Area	Police - Public	Training	Common Areas	Operational Areas	Administrative Areas	Service Areas	Restricted Areas	Support Building	Detention	Police Parking
General Public	X	X	X	X	X	X	X	X	X	X	X	X
Police Area	X	A	X	X	X	X	X	X	X	X	X	X
Police - Public	X	A	X	X	X	X	X	X	X	X	X	X
Training	X	X	X	E	X	X	X	X	X	X	X	X
Common Areas	A	AX	AX	E	E	E	E	X	X	X	X	AX
Operational Areas	A	A	A	A	AX	AX	E	E	E	E	A	A
Administrative Areas	A	A	A	A	AX	AX	E	E	E	E	A	A
Service Areas	A	A	A	A	AX	AX	E	E	E	E	A	A
Restricted Areas	A	A	A	A	AX	AX	E	E	E	E	A	A
Support Building	A	A	A	A	AX	AX	E	E	E	E	A	A
Detention	A	A	A	A	AX	AX	E	E	E	E	A	A
Police Parking	A	A	A	A	AX	AX	E	E	E	E	A	A

X = Not Permitted
 E = Only under Escort
 A = By arrangement only
 R = Restricted to authorized personnel only
 S = Special arrangement



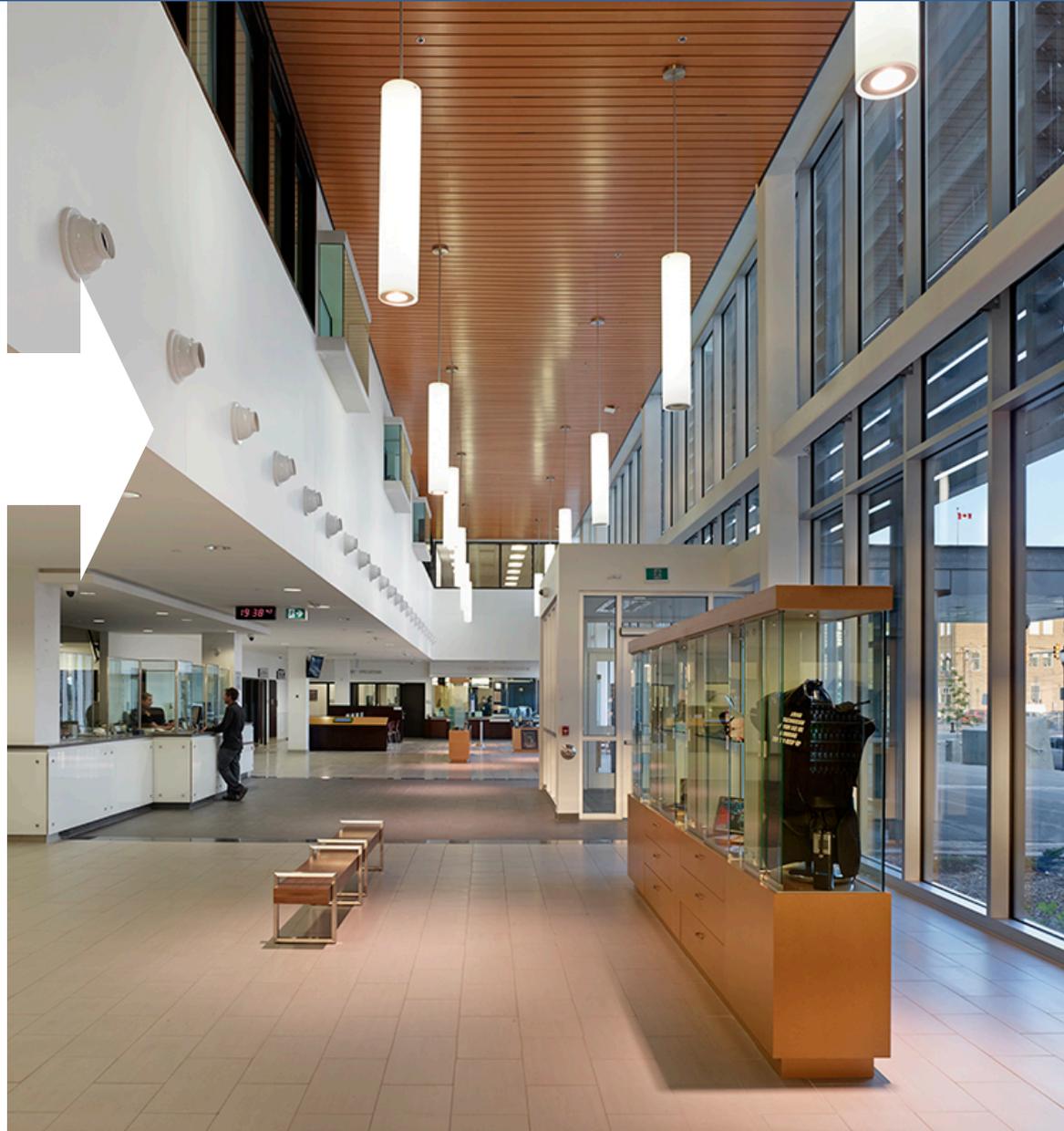
The Final Result



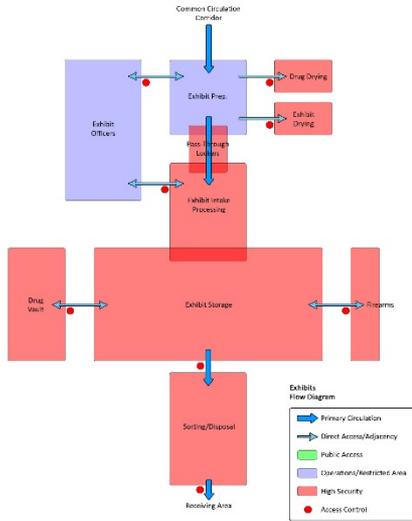
Client: [Redacted] | Location: [Redacted] | Date: [Redacted]

4.2 - Functional Units

Room Name	Functional Unit	Description
214 - Indoor Training Range	Training	Indoor training range for law enforcement and other agencies. Includes target practice, tactical training, and other activities.
215 - Vest	Forensic	Vest for forensic analysis and storage of evidence.
216 - Gymnasium	Public Access	Gymnasium for community use and events.
217 - Community Room	Public Access	Community room for meetings and events.
218 - Culture Room	Public Access	Culture room for art and cultural activities.
219 - Community Services	Public Access	Community services for residents and visitors.
220 - Victim Services	Public Access	Victim services for support and assistance.
221 - Media	Public Access	Media room for press and public information.
222 - Front Desk	Public Access	Front desk for reception and information.
223 - Interview Suite	Operations/Restricted Area	Interview suite for police and other agencies.
224 - Police Museum	Public Access	Police museum for education and display.
225 - Child Area	Public Access	Child area for play and activities.
226 - Reporting	Operations/Restricted Area	Reporting area for police and other agencies.
227 - F/P DNA	Forensic	Fingerprint and DNA analysis laboratory.
228 - Criminal Records	Forensic	Criminal records management system.
229 - Forensic Identification	Forensic	Forensic identification laboratory.
230 - Public Plaza	Public Access	Public plaza for outdoor seating and events.



The Final Result



Client: [Redacted] | Location: [Redacted] | Project: [Redacted]

Volume 2 - Owner's Statement of Requirements

4.2 - Functional Units

214 - Indoor Filing Range

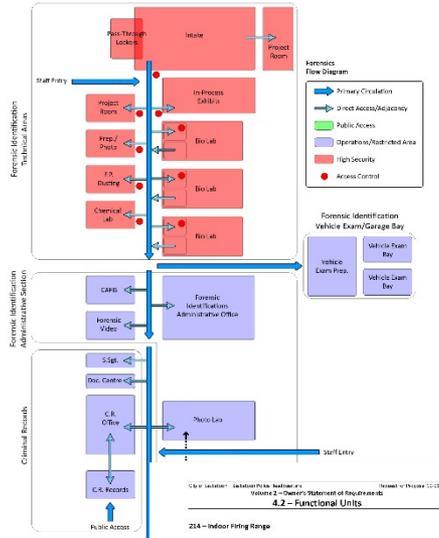
Function:	Provide a secure area for the storage and retrieval of physical evidence.
Location:	Adjacent to the Evidence Processing Area.
Access:	Controlled access via a secure door system.
Security:	High security area with multiple layers of protection.
Capacity:	Capable of storing a large volume of evidence.
Integration:	Seamlessly integrated with the overall evidence management system.

Other Information & Special Requirements:

High security area with multiple layers of protection. Access control via secure door system. Integration with overall evidence management system.

Revised: [Date] | Version: [Number] | Project: [Redacted]

The Final Result



Client: [Redacted] | Location: [Redacted] | Issue: [Redacted]

4.2 – Functional Units

214 – Indoor Filing Range

Function: [Redacted]

Location: [Redacted]

Access: [Redacted]

Security: [Redacted]

Operational: [Redacted]

Notes: [Redacted]

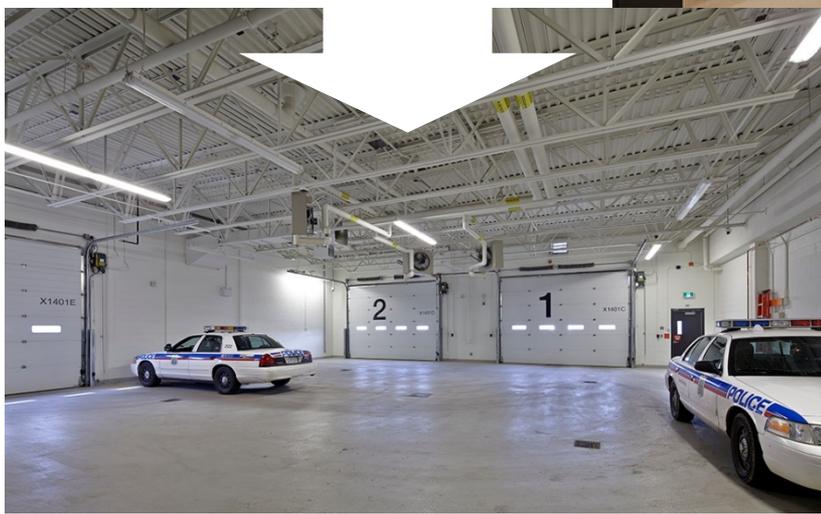
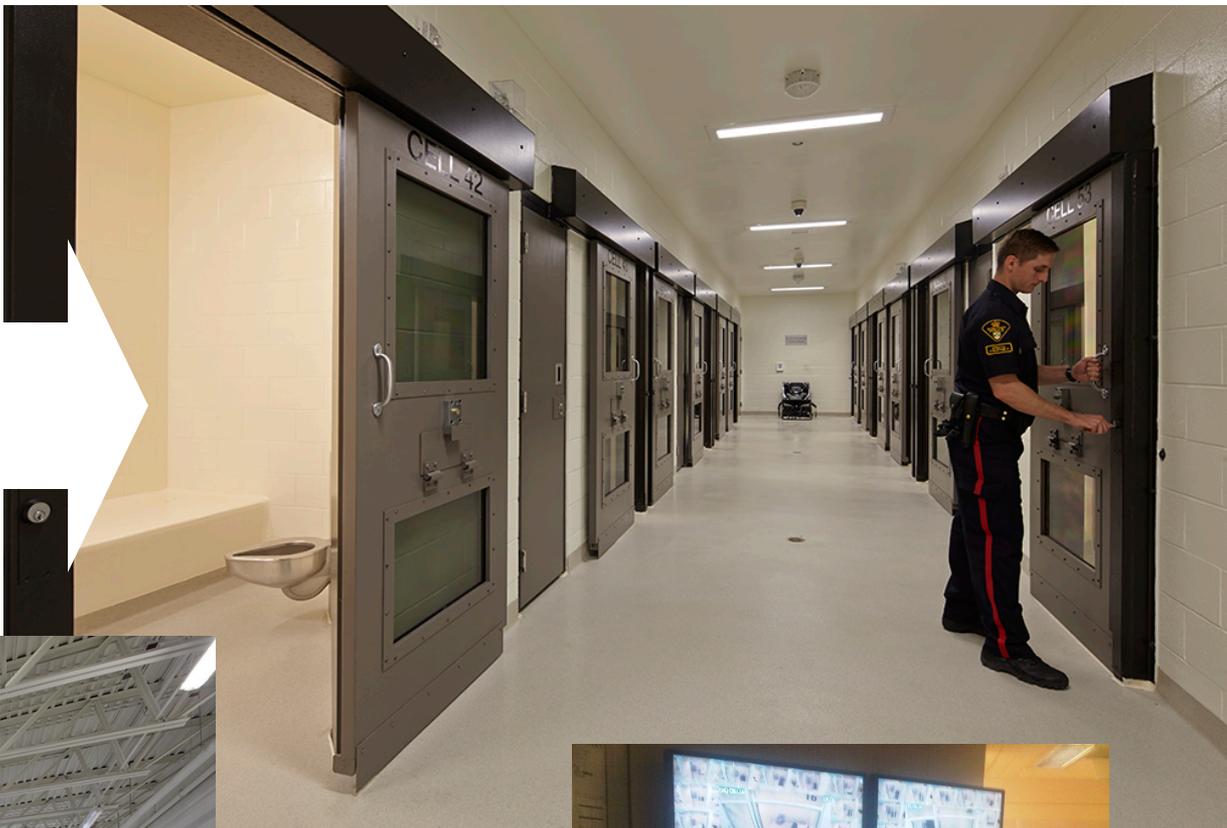
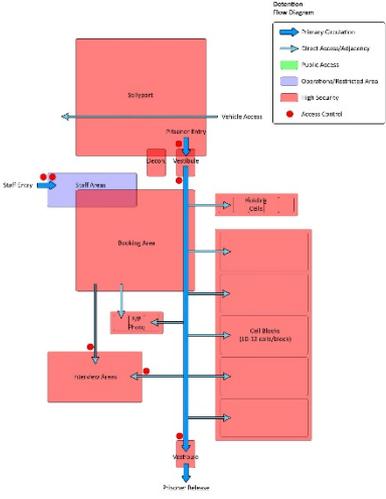
Site Diagram: [Redacted]

Planning Diagram: [Redacted]

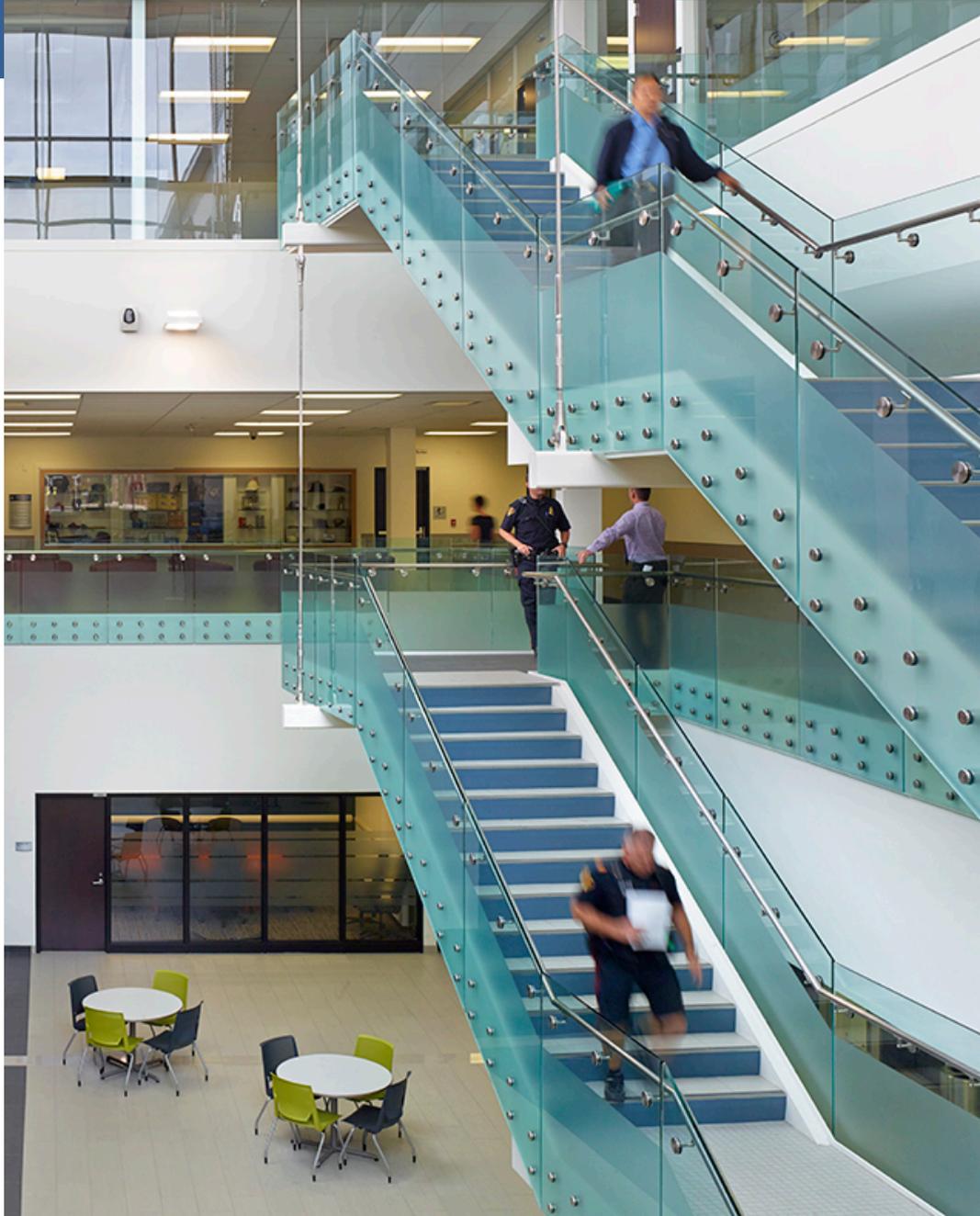
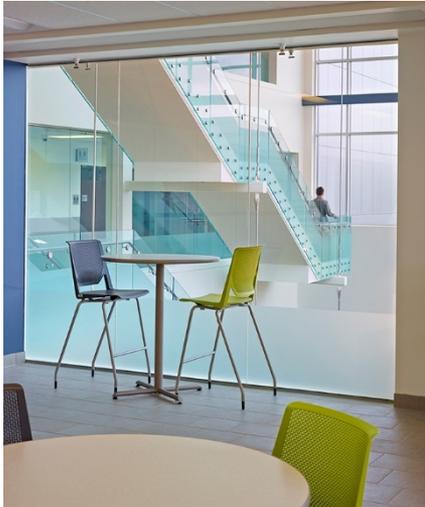
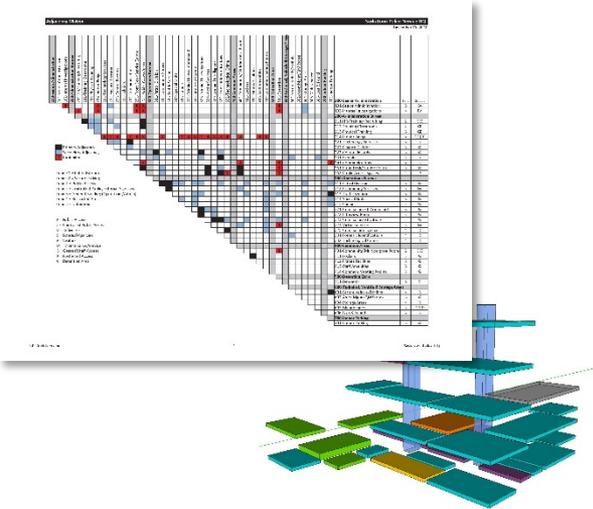
Other Information & Specific Requirements: [Redacted]

Project Information: [Redacted]

The Final Result



The Final Result



The Final Result

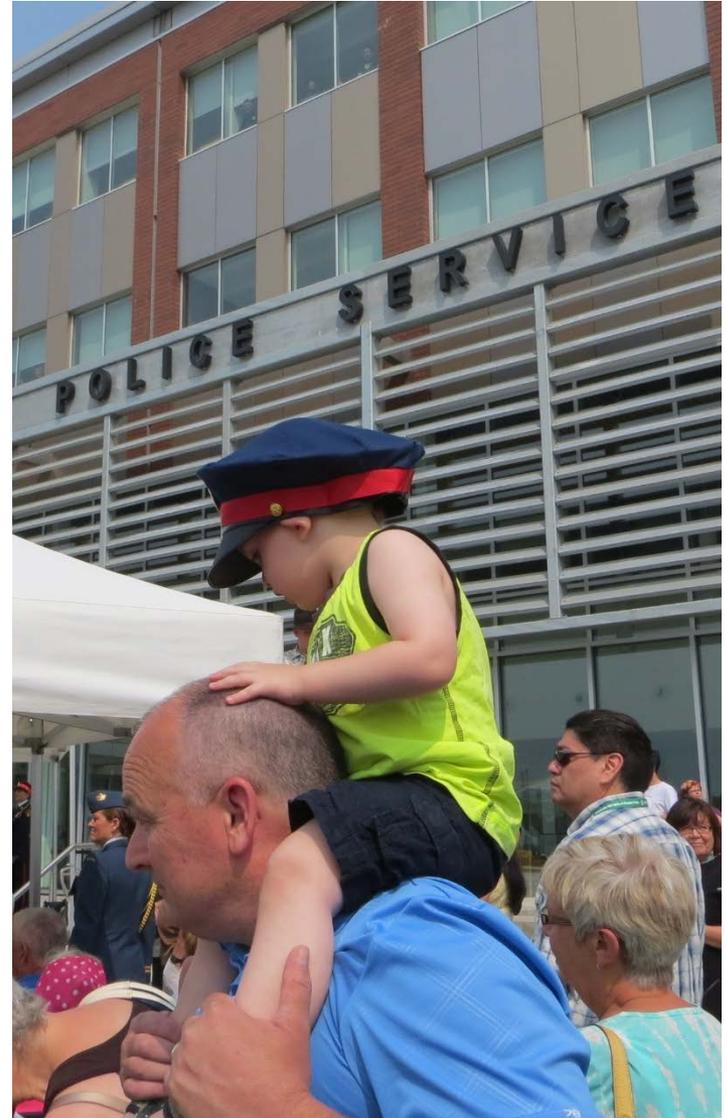


The Final Result

“Communication and information sharing between units is much easier in the new building, which increases productivity. The centre atrium contributes greatly to informal information sharing, as members meet each other on the stairs.

“Saskatoon embraced the community policing model more than 20 years ago, now this new building is a better reflection of our policing philosophy”

Deputy Chief Bernie Pannell

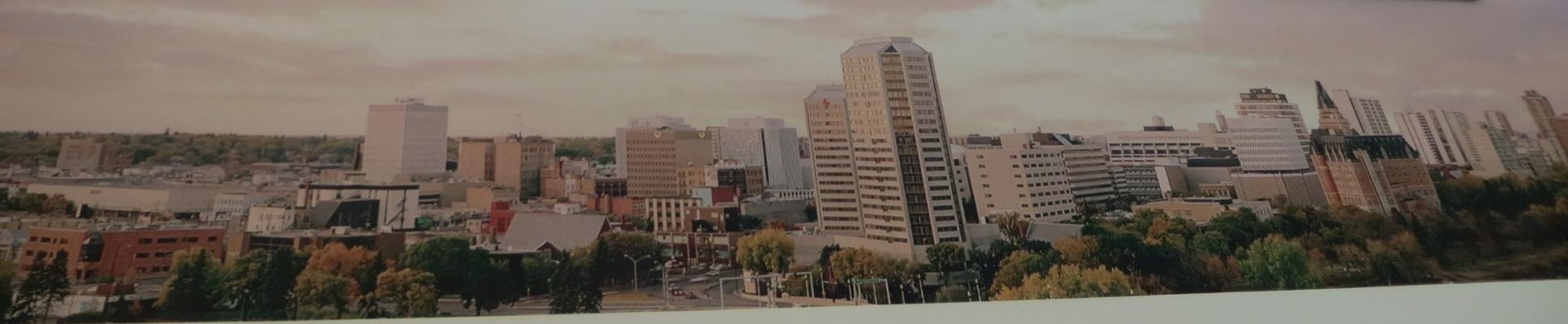




Pride

SASKATOON
POLICE
NEQUE TIMORE

SASKATOON
SERVICE
NEQUE FAVORE



Pride



Lessons Learned

The Process:

- Success depended on full-team partnering approach & attitude
- Success was helped by having consistent personal commitment from beginning to end
- DB process demands quick decisions

Technical & Design Requirements:

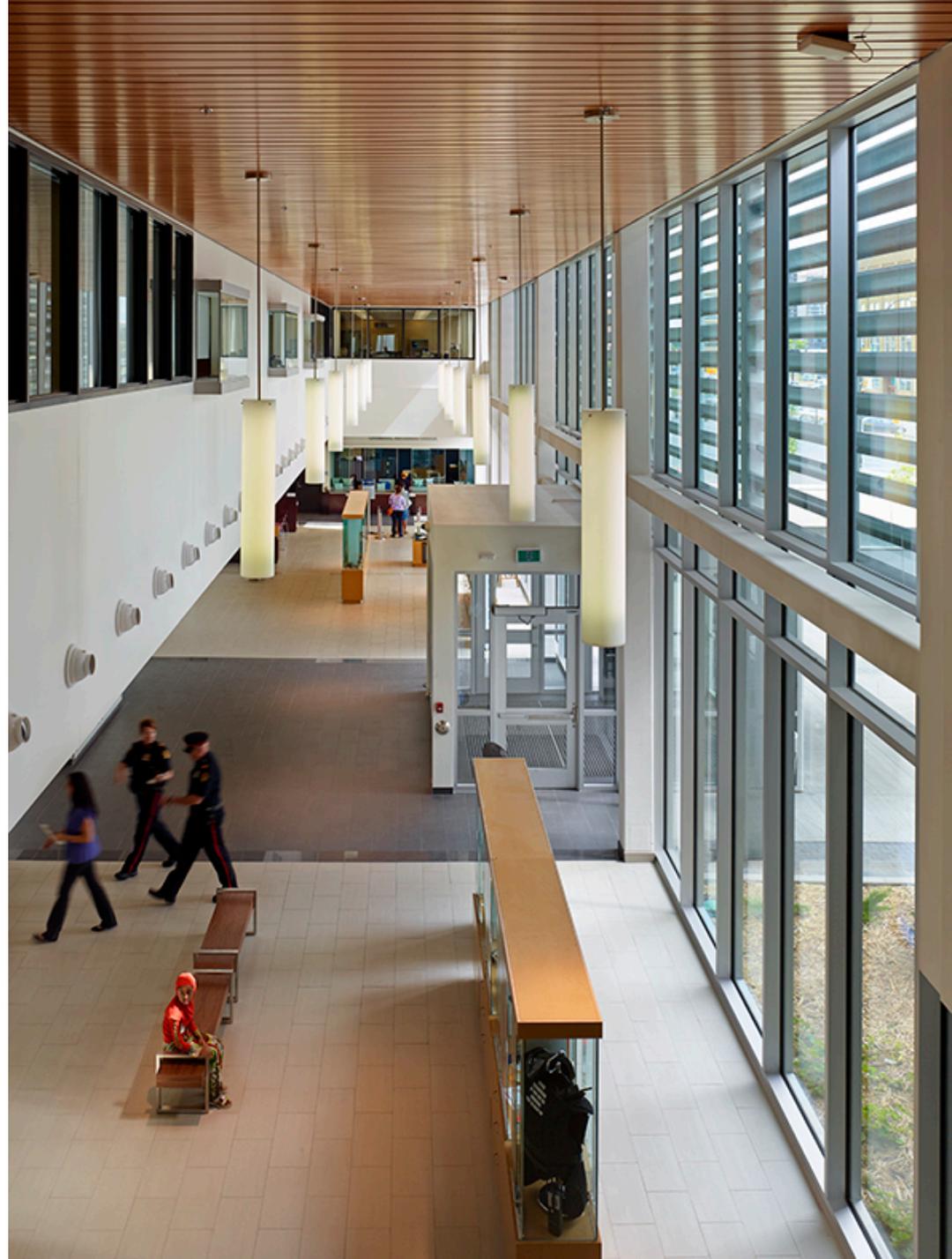
- Value in prior research & investigation
- Look for the best solution – not necessarily in the OSR or proposal
- Attention to detail ensured

The Final Design/Product:

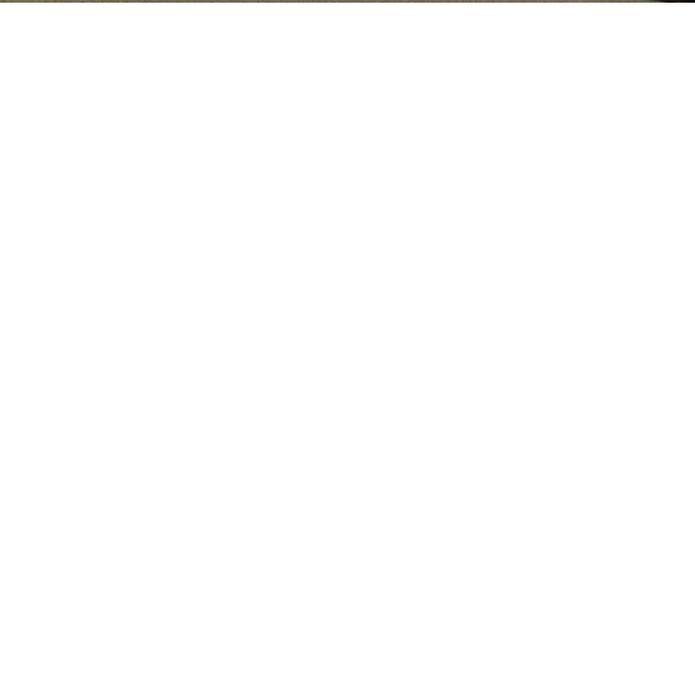
- Cost certainty was obtained
- Quality was assured through the whole team understanding
- The value of an enlightened client can't be overstated

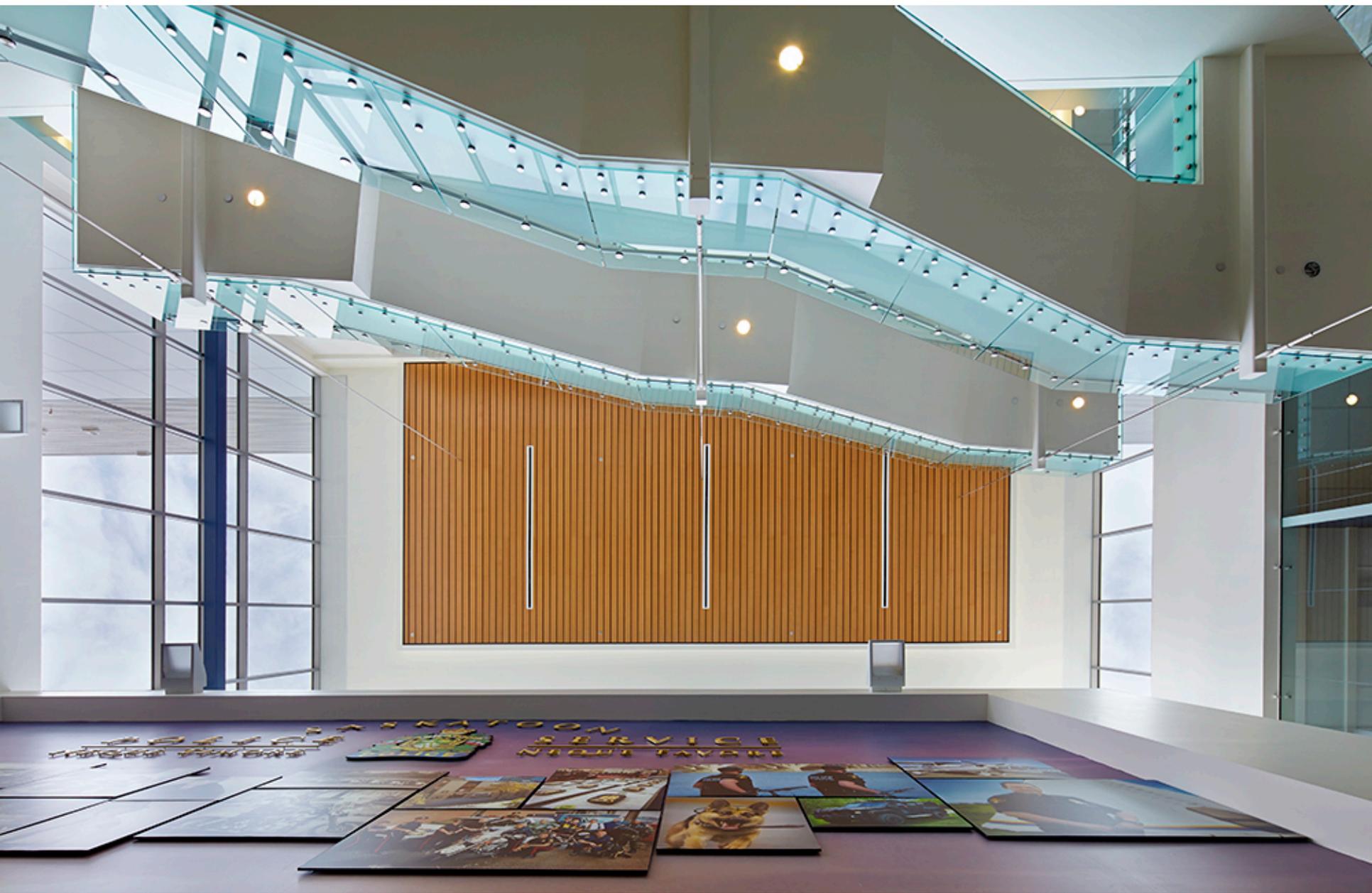
















76 KING STREET WEST

Discussion, Questions

