## MASTER PLAN FOR PUBLIC SAFETY


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## 1.1 - PROJECT BACKGROUND

The Lenexa Police Department and Municipal Court current facilities were constructed in a series of phases beginning in 1980 and continuing through 1994. Police and Court staff has increased. The assigned duties and related space to perform duties has increased. The need for security has changed and best practice security measures need to be implemented. The decision to build a new Police and Court facility for four decades, was made by community leaders, and the dollar value of that decision has been appreciated by City leaders and residents.

The City has grown from a population of 18,000 in 1980, to a 2018 population of 55,000 . More changes are anticipated as the City continues to grow toward an estimated "build out" population of approximately 85,000 with corresponding residential, commercial, industrial and other development across the City's 35 square miles, over the next 20 to 25 years. As it had in 1980, the time has come again to assess the facility needs, study planning alternatives, develop a
budget, and proceed with a plan to accommodate the facility needs for the Police Department, Municipal Court and IT Department.


## 1.2 - COMMISSION

The City has commissioned the PGAV / MWL team to work with Deputy City Manager, Todd Pelham, Police Chief, Tom Hongslo, Court Administrator, Nicole Armstrong, and the Director of IT, Jerry Swingle along with their staff, to analyze and understand facility needs and the capacity of current facilities to accommodate those needs. The planning team has used the facts learned to develop and prepare alternative plans for the City to consider. These plans project budget for facilities to accommodate the Police Department, Municipal Court and IT.

This report provides a synopsis of the process and outcomes. It serves to document the findings, This report provides a synopsis of the process and outcomes. It serves to document the findings, of this study report will allow the City to understand the alternatives for meeting the need and make informed decisions as to how to move forward with a design and construction project to accommodate the facility needs that are now identified. The study provides useful facts and con cepts to inform the process of planning, funding, constructing and occupying a new facility.

## 1.3 - PREVAILING QUESTIONS

It is the purpose of this study to define the Police, Court and IT facility needs for a building and site in a
thorough manner that will provide well-substantiated answers to four Prevailing Questions.

- How big a facility is needed to accommodate each departments' functions?
- Where should the facility be located?
- How can a facility be successfully configured on property owned by the City?
- How much will the project cost?


## 1.4 - MEASURES OF SUCCESS / CRITICAL SUCCESS FACTORS

This list of Critical Success Factors was established in early project meetings as an objective set of criteria by which project success will be measured. The factors identified are a select list compiled and agreed to b a diverse set of key project decision makers. Project success will be judged at each project milestone based on how well these factors, considered critical to project success, are being addressed.

- Building space and parking accommodation
- Efficient and effective functional adjacencies / operational flow
- Facility Location efficiency
- Effective security planning
- Civic Use / Presence
- Sustainability / Longevity
- Impact on operations during construction
- Cost / Value for money


## 1.5 - PROCESS

MWL's process of planning for new police facilities has been developed and used successfully for $30+$ years, on over 300 public safety projects. Our goal is to engage with key City Administration leaders, police and court staff as we work to gain an understanding of the community, the Police Department Calls for Service and Workload, and number of estimated future staff. We use the facts we discover to determine the amount of space needed.

Using the Space Needs outcome, we have developed building and site planning concept plans. The concep plans are used to achieve optimized operational adjacency and flow for the site and building plans for the PD, IT and Municipal Court. The concept plan alternatives form the basis for a cost estimate and project budget.

1.6 - PUBLIC OUTREACH

The City has publically engaged the citizens of Lenexa through several communication outlet including the following:

- Social Media - Facebook, Nextdoor, Twitter
- TV Coverage - KSHB, KMBC, WDAF
- Shawnee Mission Post Coverage
- Town Talk
- City Web Page Feedback Form - 27 Responses
- City Open House - 45 Attendees, 4 Public Tours



## 1.7 - CONCLUSION AND RECOMMENDATIONS

This report will echo the advantages and disadvantages recorded in recent presentations at Council
Meetings in September and December of 2019 and the Community Forum in January of 2020.

Existing 87th Street Site: New Building
Multiple phases necessary to accommodate continuous operations
Significant impact to on-going operations during construction

- Very limited capacity for future building expansion and parking
- Very limited on-site space for construction staging

Stormwater management underground vs. surface, is more costly
Estimated Cost is approximately $8 \%-10 \%$ higher, partly due to phasing
New Prairie Star Pkwy Site: New Building
Single phase project is possible - No impact to on-going operations
Multiple options available for future building expansion and parking

- Adequate on-site space for construction staging

Adequate land area to accommodate stormwater management
Site centrally located for police service calls and equipment access
Cost approximately $8 \%-10 \%$ lower compared to phased project on existing site
Based on these prominent advantages and disadvantages, the planning team recommends a new facility be designed and constructed on the land owned by the City at the Prairie Star location. We believe a new facility at this location will equip the Police Department, Municipal Court and IT to serve Lenexa's residents and visitors across the 35 square miles of the City over the next 20 to 25 years with optimized efficiency and effectiveness.

## 1.8 - NEXT STEPS

Next steps in the project process:
City Council Acceptance of Final Report
Select Preferred Project Delivery Method

- Select Architect / Engineer Design Team
- Authorize A/E to Proceed With Design


## 2.0-OVERVIEW

The existing site and building was studied to determine the feasibility of its reuse. It was determined that reutilization of the existing building would not hold the required program as diagrammed on the following pages. In addition, the required secured parking for police operations would not fit to the north of the existing building complex with the addition of structured parking to accommodate full build out of future and present parking requirements. Further study, showed that program for building and site would fit at this campus, but would necessitate rebuild of complex to ensure best organizational and functional layouts. Having come to an understanding of the facts regarding space needs and existing facilities, the planning team was commissioned to propose a concept plan to meet the needs on the current site, and an alternative concept plan to meet the needs on a new site.

| 87th Street Campus | Current Building <br> Area <br> (square feet) | Parking <br> Staff/Visitor/Public |  | Staffing <br> Authorized |
| :--- | :---: | :---: | :---: | :---: |
| POLICE DEPARTMENT | 44,745 | 108 | 10 | 149 |
| 87th Street: Upper Level | 16,883 |  |  |  |
| 87th Street: Lower Level | 22,557 |  |  |  |
| Offsite Storage \& Support IAdj. to Fire Station 3) | 5,305 | 8,416 | 13 | 60 |
| MUNICIPAL COURT | 4,619 | 12 | 2 | 12 |
| IT | 2,910 | 4 | 3 | 4 |
| LIVEWELL | 34,467 | 23 | 77 | -- |
| FORMER CITY HALL (unoccupied area) | 95,157 |  |  |  |
| TOTAL BUILDING AREA |  |  |  |  |

2.1-EXISTING FACILITY CONFIGURATION


EXISTING BUILDING USE

- Police Department
$\square$ Municipal Court
Unoccupied (City Hall)
$\square$ IT
LiveWell


Space Accommodation 95,157 to 136,356 square feet

Parking Accommodation 312 to 391 total space


## 2.2 - ESTIMATE OF PROBABLE COSTS

As part of this process, our team completed an assessment of the existing buildings and site, in cluding evaluating condition of space, maintenance requirements and replacement needs. Item were categorized as needed repair/maintenance costs or as renovation costs. It was determined that some repair/maintenance costs may be required in the interim while a new public safety complex is constructed, regardless of which location concept is chosen.

| Item | Scope | $\begin{array}{\|c} \hline \begin{array}{c} \text { Repair/Mainten. } \\ \text { Cost } \end{array} \\ \hline \end{array}$ | Renovation Cost | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
|  | Architectural and associated Plumbing \& Electrical Costs |  |  |  |
| 1 | New Roof System | \$1,709,033 |  |  |
| 2,3\&5 | New windows at Main Hallway, fixed glazing and logo at entry and new doors at entry vestibule | \$178,789 |  |  |
| 4 | Power Wash \& Seal Exterior Masonry walls | 78,212 |  |  |
| 6 | New Concrete for Rear Entrance | \$ 73,688 |  |  |
| 7 | Repaint Metal Railing at Back entrance | 2,262 |  |  |
| 8 | Repair Foundation Leaks | \$ 45,247 |  |  |
| 9 | Repaint former City Hall building |  | \$ 103,421 |  |
| 10 | Replace acoustical ceiling panels throught former City Hall building as well as Police and Courts Facilities |  | \$ 439,540 |  |
| 11 | Upgrade lighting from flourescent to LED |  | \$ 934,021 |  |
| 12 | Replace Carpet at Former City Hall Administratin Area |  | \$ 129,276 |  |
| 13 | New Furniture and Cubicles |  | \$ 1,221,661 |  |
| 14 | New Switchgear | \$ 659,309 |  |  |
| 15\&17 | Repair Underground drain for front gutters and repair front entry sidewalks | \$ 72,912 |  |  |
| 16 | Repair Rear Parking Area | \$ 145,759 |  |  |
| 18 | Fountain Needs to be repaired. | 51,711 |  |  |
| 19 | Refinish all interior doors |  | \$ 46,863 |  |
| 20 | New Rear Entry Door operator | \$ 2,586 |  |  |
| 21 | Install Snow Guards at Rear Entry | \$ 5,817 |  |  |
| 22 | Restroom Refresh |  | \$ 478,646 |  |
| 23 | Repair General Plumbing Issues thoughout building | \$ 219,770 |  |  |
| 24 | Addition of Courts (1500 SF) |  | 750,000 |  |
|  | Sub Total | \$ 3,245,094 | \$ 4,103,428 | \$ 7,348,522 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Mechanical, Electrical and Plumbing Costs Only |  |  |  |
|  | MEP Existing City Hall Building | \$ 1,104,100 |  |  |
|  | MEP Existing Police Department Building | \$ 693,500 |  |  |
|  | MEP Existing Courts IT Building | \$ 185,100 |  |  |
|  | Sub Total | \$ 1,982,700 |  | \$ 1,982,700 |
|  |  |  |  |  |
|  | Total |  |  | \$9,331,222 |

3.0 - SIMILAR FACILITIES


Visiting recently built, comparable police facilities was an important and beneficial step in the planning process. A trip to Chicago afforded the team an opportunity to visit example projects in five separate communities over a two-day period. The team toured Police Facilities in Aurora, Glen Ellyn, Arlington Heights, North Aurora and Oswego. The projects showed many features, planning and design concepts and technical details that were applicable to a new Police Municipal Court and IT facility for Lenexa

The planning team also toured recently completed police and court facilities in Leawood, Gardner and Blue Springs. These projects also included features, planning and design concepts and technical details that were applicable to a new Police Municipal Court and IT facility for Lenexa.

These projects, all constructed in the past several years, made evident how much contemporary police facility design has changed since Lenexa's original facility was designed $40+$ years ago. The buildings toured have many planning concepts and technical features in the police staff work areas that respond to the need for efficiency and effectiveness.

| Project <br> Completion | COMMUNITY | COMMUNITY COMPARATOR |  |  |
| :---: | :--- | :---: | :---: | :---: |
|  |  | Population | Land Area <br> square miles | PD Staff <br> FTE |
| $-\quad$ City of Lenexa (Yr 2019) | 53,553 | 34.05 | 149 |  |
| City of Lenexa (Yr 2040) | 85,000 | 34.05 | 236 |  |
| 2018 | Leawood Justice Center | 34,659 | 15.11 | 84 |
| 2016 | Blue Springs Public Safety Building | 54,945 | 22.36 | 140 |
| 2012 | Shawnee Justice Center | 65,513 | 41.87 | 118 |
| 2010 | Olathe Police (Expansion) | 137,472 | 60.94 | 228 |
| 2016 | Overland Park (Fire Station \& Police Sub-Station) | 191,278 | 75.14 | 331 |

3.1- OFFICER TRAINING

There are several components to each Police Department training program that are commonly being included in new police facilities. These components respond to the need to keep officers proficient and sharp in the skill sets they will use as they carry out their daily duties. Classroom training from new computer applications, to a host of specialized skills officers will gain to better serve the safety needs of a diverse resident and visitor population. Defense and arrest tactics need to be learned and available to be put to use with seconds of notice. Firearms proficiency skills and other use of appropriate force skills are essential. Simulation training that employs digital technology has also gained usefulness in many training programs.


Classroom

Professional training instructors help officers be prepared for how and when use of appropriate force may be needed. Trainers also helps hone officer skills for how to deescalate tense situations. In addition, training helps police records staff, emergency communications staff, supervisory staff and staff that deploy technology to do their jobs with excellence.

Training is important for another reason. Young officers have been motivated to choose a police department that offers a robust training program. The reason is simple; good training protects them and the citizens they serve In an era when each municipality may find themselves competing for new recruits with other communities, the department with a well-equipped training program can be a distinct benefit for the community. Lenexa prides itself on providing the best training that serves to protect all of its employees and its citizens.
3.2 - COMMUNITY ENGAGEMENT

The buildings toured each allowed the police departments to provide excellent customer service with a user-friendly public lobby. Each building has a Community / Training room that facilitates the police department to serve and engage with community members as they practice the "Community Policing" philosophy that strengthens communication and a sense of partnership between the PD and community


Multi-Purpose Room


Multi-Purpose Room


Weapons Training

Defense Training

residents. These rooms off the public lobby are consistently used for meetings with community groups. The room also serves to meet the need for on-going training for police staff.

3.3- OFFICER SAFETY

Police officers have chosen to put themselves in potentially harmful situations to protect others. Their training teaches them to manage risks to their safety, and they routinely have opportunity to call for backup when risky incidents arise, sometimes without notice or forewarning. In police building design, the focus is also to minimize risks to officer safety wherever possible. Our focus on police facility design the focus is also to minimize risks to officer safety wherever possible. Our focus on police facility design
for $30+$ years has taught us to prioritize the importance of officer safety from the initial concept design for $30+$ years has taught us to prioritize the importance of offic
through to the execution of the design and construction details.


Arrestee Booking

There are areas of the building to include the Arrestee Processing area and Interview Rooms, that are known to have higher risk due to potential physical conflict with uncooperative persons in custody. In these areas proven best practices for design for officer safety and getting the details right are especially important. It is important for the details of the design in these areas to be carefully reviewed with officers who will work in the area to help determine the most advantageous ways to protect officer safety.

## 3.4 - COMMUNICATIONS CENTER

The 911 Communication Center is a "mission critical" area. It needs to function continuously over the life of the building, even during extreme weather events and crisis events of human instigated causes. People in Lenexa depend on the resiliency and responsiveness of the professionals that operate the 911 Center, often in situations that have the potential to save both civilians and officers' lives.


Arrestee Interview Room


Vehicle Sally Port


Communication Center

The purpose-designed nature of this work area relies heavily on technology, functionality and a safe, protected environment. There are design standards and best practices for the design of this area that have been taken into account in the Master Plan work effort. The prime directive is that this center continue to operate and provide service across the city before, during and after, whatever incidents may come.



Communication Center

## 3.5 - PROPERTY AND EVIDENCE

Property and Evidence collection, processing and storage is a function of the police department that has evolved a great deal over the last 10 to 20 years. The use and increasing effectiveness of Forensic Evidence sciences to identify persons involved in crime incidents has become an essential tool in the hands of Police professionals. It is anticipated that the sciences will continue to evolve and increase in effectiveness.


The need for integrity of the "chain of evidence" has brought forward best practices and policies that validate and verify evidence linked to each criminal incident that will likely become a court case. Integrity of evidence handling procedures is crucial to the delivery of justice in court cases. The Space Needs Assessment and conceptual planning work efforts of the Master Plan have considered and addressed this important function.

3.6- OPTIMIZED ADJACENCIES

Highly efficient and effective operations for all Police Department functions can be achieved through careful and thorough planning. The diverse functions the Police Department carries out its duties to perform, vary a great deal from area to area of the building. The Arrestee Processing area is completely different from 911 Communications, as Property and Evidence collection, processing and storage is from Detective, Patrol and Traffic officer work areas. It is important to design each unique area of the building to respond to the purposes and duties of police staff who will work in each area.



Effectiveness and efficiency can be enhanced by planning the building in such a way as to bring all the diverse work areas together, to allow the Police staff to provide services to the community as "One Team". This potential to enhance communication and collaboration among staff of all duty assignments has been considered in depth and integrated in the work of the Master Plan.


## 3.7 - CENTRAL LOCATION IN THE COMMUNITY

When a Police facility is located in a central location within the geographic footprint of the community they serve, there are three primary benefits and advantages.

Access to the Police facility for residents who dwell in any part of the community allows access to services that each resident should have. A central location serves this function well.

Access for Police staff to respond to an urgent need for police services at any location in the community is important. It is understood that police officers on duty carry out their assignment by patrolling assigned designated districts within the community and these officers will be the first to respond to an urgent incident. However, most officers "call for backup" as a standard protocol to provide an appropriate response. Often the backup comes from the police facility. It is not uncommon for officers to go back and forth from the police facility to the scene of an incident as the incident evolves over a period that may last for minutes but can take several hours to fully process the scene of the incident. In such situations, time is critical. A facility located central to the community gives officers the best opportunity to provide expeditious response.


Existing Site Location - Lenexa Police Department

There are many precedents of the advantages of a central location as has been in many suburban communities, including the example facilities visited by the planning team. It is noteworthy the three other communities in Johnson County have decided to build new police facilities in a central location in recent years. In each case, the new facility replaced an older facility that was located near to the edge of the community. The maps shown here demonstrate the precedent that has been set in Leawood, Shawnee, and Overland Park.

The orange numbers in the diagrams below represent travel times from the police department to the designated perimeter of the city.


Test Site Location - Lenexa Police Department
3.8 - ADJACENT CITIES RELOCATION


LEAWOOD
Police Old Location


LEAWOOD

shawnee
Police Old Location


SHAWNEE
Police New Location


OVERLAND PARK
Police Old Location


OVERLAND PARK

## 4.0 - SUMMARY

One of the prevailing questions to be answered by the Master Plan is: How much building space is needed to accommodate the current and future needs of the Police Department, Municipal Court and IT Department? Put simply, the answer is PD - 104,500 sf, Court - 12,500 sf and IT - 6,100 sf. This section of the report shows the expanded outcome of the master plan process that has been conducted to determine well substantiated answers to this question. The process included requests for input from staff that work in all sections and units of the police department. Staff completed surveys tailored by the planning team to request input for the unique requirements of each duty assignment. The surveys were followed by interviews with staff who completed surveys. The combination of survey responses and staff interviews provided the planning team with instructive insight that was used to determine appropriate

space allocation for each section and unit of the PD. This process was also used for Municipal Court and IT. The deliverables of this work are the list of staff members, parking needs, spaces, sizes and detailed requirements for each section. Adjacency diagrams for each area were created, reviewed with staff members, edited based on input received. Sample adjacency diagrams are included in this section of the report.

A summary of the Space Needs for Police is included here, along with a detailed breakdown of needs for key groups of spaces including Public Access, Communications, Patrol and Arrestee Processing. A detailed list of spaces is included for Municipal Court and IT.
SPACE ACCOMMODATIONS

| 87th Street Facility Space |  |  | Space Needs |  |
| :--- | ---: | :--- | ---: | :---: |
|  |  |  | Planning Milestone <br> Year 2042 |  |
| Police Department | 44,745 S.F. | Police Department | 110,744 S.F. |  |
| Municipal Court | 8,416 S.F. | Municipal Court | 13,617 S.F. |  |
| Information Technology | 4,619 S.F. | Information Technology | 7,170 S.F. |  |
| LiveWell | 2,910 S.F. |  |  |  |
| Unoccupied (former City Hall) | 34,467 S.F. |  |  |  |
| TOTAL EXISTING SPACE |  | 95,157 S.F. | TOTAL SPACE NEEDED |  |

## BUILDING SPACE \& PARKING NEEDS

Planning Milestone 2042

| DEPARTMENT SPACE | BUILDING <br> AREA | PARKING |  |
| :--- | :---: | :---: | :---: |
|  | Square Feet | Staff \& Fleet <br> Vehicles | Public/Visitor <br> Vehicles |
| Police Department | 110,744 | 217 | 60 |
| Municipal Court | 13,617 | 18 | 60 |
| Information Technology | 7,170 | 16 |  |

## SPACE NEEDS ASSESSMENT SUMMARY - MUNICIPAL COURT



## SPACE NEEDS ASSESSMENT SUMMARY - IT DEPARTMENT



## 4.1 - FUTURE STAFFING ESTIMATES

Since the first new police building was built in 1980, Lenexa has been, and continues to be a steadily growing city. Therefore, significant attention has been given to understand and plan for future police department growth.

Because future staff growth is a determinant of operational needs and building size, the police department has commissioned a detailed staff growth study from academic professionals who specialize in estimating future PD staff growth. The tools used to develop the estimate for LPD future staff consider a complex set of factors that have been proven to be primary contributors to staff growth in Lenexa and other comparable cities. The conclusions reached from the future staffing study are data-driven and specifically tailored to the population, geography and historical calls for service of Lenexa.

WORKLOAD ANALYSIS - DETERMINATION OF STAFFING NEEDS

| Call for Serrice and Service Time Variables | Bave MAPPT: <br> 2018 Data | Variables Changed for 5-Year Strategle Staffing Plan |
| :---: | :---: | :---: |
|  | 54 | (3) |
|  | 15979 | 5 |
|  | 635 minue |  |
|  | 4.2 miates |  |
|  | 1,397 | 15 |
|  | 13,14 | [15s] |
|  | 78.5 minte |  |
|  | 159.5 minte |  |
| Self-Imitiated and Administrative Time Variables |  |  |
|  | 1635 mintes | 20 mb |
|  | 12.5 minta |  |
| Response Time Variables |  |  |
|  | 7.0 mistas | 5 sherem |
|  | 145 mitues |  |
| Araa (epere mint) | 34.45 meremise |  |
|  | 19 mp |  |
|  | 19 me |  |
| Immediate Availability Variables |  |  |
| Ferfirnanes objective - Pencentage of time an offecr mill be mailable to immediately | ${ }_{\text {Stamest }}$ |  |
|  | 5pem |  |
|  | 15 pexat |  |
|  | 15 peoxes |  |
| Visiblity Variables |  |  |
|  | 40 man |  |
|  | 13.0 man |  |
|  | 85 |  |
|  | 280 mates |  |
|  | 2 c [5 |  |
|  | ${ }^{14 \mathrm{mab}}$ |  |
| Weights for Performance Objectives |  |  |
|  | 10 ресаха |  |
|  | 10 peram |  |
|  | 20 pexam |  |
|  | 20 pexam |  |
| Leave Percentage |  |  |
|  | 1328 pecom |  |
| Additional Variable |  |  |
|  | 10, 新 |  |
| Number of Authorized Patrol Officers | 48 | 64 |
| Additional Patrol Officers Needed over 5 | cars [64-48] | +16 |

The results of the staffing study were used by the master plan team to allocate space to accommodate 236 PD staff members. This is intended to approximate the staffing levels reached at the future planning horizon 20 years after the anticipated move-in date of year 2022

This quantity of staff is used in the spreadsheets to determine quantity of building space and parking area needed.

## FUTURE STAFE ACCOMMODATIONS

| DEPARTMENT | Year 2019 | Year 2032 | Year 2042 |
| :--- | :---: | :---: | :---: |
| Police Department | 149 | 196 | 236 |
| Municipal Court | 13 | 16 | 16 |
| Information Technology | 12 | 13 | 15 |

## 4.2-VEHICLE NEEDS SUMMARY

We understand, from previous experience with many police facility projects, that these facilities and the sites they occupy are "vehicle intensive". Large quantities of vehicles come and go from the site over any given 24 -hour period. It is not uncommon for the vehicle needs to be underestimated leading to a shortfall of site or parking area. Our team has developed and utilized a planning tool that enables an understanding to be gained of the type and quantity of vehicles anticipated to be on site during peak hours, to include factors such as shift overlap.

The parking needs have been reflected in the detailed spreadsheets, utilized in this study.

## 4.3 - SPACE NEEDS PER DIVISION AND UNIT

We have included sample detailed lists of spaces and companion adjacency diagrams, that have been developed and reviewed by staff of each department and approved by department leadership. The sample diagrams included represent some of the critical working components of these important departments of city staff that deliver service to residents and visitors to Lenexa around the clock and throughout the year.

## SPACE NEEDS ASSESSMENT SUMMARY - PARKING NEEDS




Public Access Areas
SPACE ADJACENCY DIAGRAM



Patrol Division
space adjacency diagram





Information Technology Division SPACE ADJACENCY DIAGRAM


## 5.0 - OVERVIEW

As the study progressed and the process yielded an understanding of the future space needs the planning team shifted our focus to developing planning alternatives that accommodate the space and adjacency needs.

First, we looked at the capacity and physical condition of the existing facilities. A thorough understanding of the existing facilities was achieved and is described in another section of this report. The lessons learned informed us that the 1980 and 1994 sections of the building had, due to age, design approach of a previous and outdated era, and sheer limitations of space available, made the extent of repair and repurposing necessary to achieve meaningful reuse, cost prohibitive.

Specific attention was given to consider how the vacated area of the former city hall section of the building could be reused. Here too, similar limitations, of quantity of space available, plus the extent of repair and repurposing necessary to achieve meaningful reuse, proved cost prohibitive.

The area available in this area is 30,000 sf, whereas the need was over three times this amount. Corfiguration of the former city hall foor plan welcomes visitors deeply into the desth of the building. This is completely backward to police facility planning where visitors are welcomed at a perimeter lobby and the larger section is allocated to secure staff work areas. The shape of the building is inefficient for repurposing, and contributes to higher than reasonable cost to repurpose for Police use.

After all the facts about the existing facilities, including the former city hall, were understood it became apparent that the best long term option was to design and construct an all new facility on the current property, that would be properly sized and purpose-designed with optimized adjacencies for contemporary Police Department, Municipal Court and IT functionality.

This conclusion to not repurpose the existing facilities, along with the need for all departments to continue in operation while the new facility is built, made it necessary to develop a multiphase planning solution.

The concept plans illustrated in this section have been developed to accommodate the building space and parking needs of three departments. Optimized adjacencies and operational flow as determined in meetings with department members and leadership have been accommodated in hese planning concepts.

## 5.1 - EXPAND CURRENT SITE - SCOPE OF PROJECT NEEDS





Phase I: Upper Level Blocking Plan
12,600sF


Phase I: Ground Level Blocking Plan 37,168sF


Phase I: Lower Level Blocking Plan

Phase II: Upper Level Bocking Plan
12,600 sF (Piase II - No Change)


Phase II: Ground Level Blocking Plan 44,338 sF (Phase 11-Add 7,170 SF)


Phase II: Lower Level Bocking Plan


Current Site



Phase 1 Construction


Phase 2 Construction


Phase 2 Complete



Future Parking Expansion





Prairie Star Site


Future Building Expansion Potential


Future Parking Expansion Potential


Future Full Development
6.0 - OVERVIEW

It is important to understand the components of Project Cost. We often find cost data mis quoted leads to false conclusions. For example, some people refer to Building Construction cos hinking it to be the same as the Project Cost. This can lead to a gross error that is off by $50 \%$ or more

Building construction - Is the cost for all items within the footprint of the building. It does not include any cost for construction outside the footprint of the building or loose items found within a building, for example, furniture. It does include exterior envelope, building systems, interior finishes etc.

Site Construction - Is the cost submitted by the successful bidder(s) for all items related to the project that fall outside the footprint of the building. Excavation, paving, landscaping, site lighting, etc. These costs are in addition to Building construction and commonly range from 5\% to $15 \%$ of Building Construction cost.

Other Project Costs - Is the cost of the project not included in Building Construction or Site Construction. These costs could include furniture, A/E fees, Building Permits, Moving Cost, Land Acquisition cost, Legal fees, special systems such as building radio and cell phone internal repeater antenna, 911 features such as radio tower, dispatch consoles, technology hardware and software and a variety of miscellaneous items. These costs commonly range from 25 to $35 \%$ over and above the combined total of Building and Site Costs.

It can be easily understood how mistaken terminology can give "apples to oranges" errors and easily lead to a faulty understanding and unrealistic expectations for what a project may cost.

## PROJECT COST ESTIMATE APPROACH

We believe preparing an early cost estimate during the Facility Needs Assessment calls for a different approach compared to a cost estimate for a project when detailed design and construction documents are available. The reason is when detailed drawings are available, a professional cost estimator can "take off" detailed quantities of each building material and have a complete description of the heating, cooling, electrical, plumbing and other systems that are known to be included in the project scope. By contrast, none of this detailed information is available for a cost estimator to utilize during the Facility Needs Assessment process. What we do have available, during the Facility Needs Assessment, is a square foot area, a construction site location with Site Concept Plan and Concept or "blocking" Floor Plans

We are also able to review cost data from recent police facilities constructed within the regiona We are also able to review cost data from recent police facilities constructed within the region
geography or "construction market" of the region. These projects with their size, construction type and features provide, meaningful benchmarks that may be used as a precedent to inform the cost estimate for our project. In order for this information to be useful, we need accurate clarity about the facts and figures of each precedent project being considered. Without accurat clarity, there is risk of comparing "apple and oranges" and this can lead to false conclusion and generally do more harm than good if wrongly applied in the planning process.

## 6.1 - COST BENCHMARKS FROM SIMILAR PROJECTS

We propose to use a similar cost benchmarking approach to estimate the cost for this project. We have assembled cost data from multiple similar projects as the basis for this cost estimate. All of these projects are of similar type (police facilities); we took into account their location, size and site considerations in order to help us understand and use their costs as benchmarks for cost of future similar projects like ours.

## 6.2 - COST ESCALATION

Another important Cost Factor to understand is the impact of time on Project Costs. Most folks understand that it will cost more to build a project three years from now than it would to build today. This general understanding can be more scientifically calculated and applied to the cost of past completed projects to approximate the cost of future projects. The construction market roughly follows
comer the general economy in experiencing steady, incremental inflation referred to as "cost escalation". The the general economy in experiencing steady, incremental inflation referred to as cost escalation. The
construction market, like the general economy, is affected by diverse factors that rise and fall but have a long-term upward trend that can and should be included in the cost estimate. Construction "cost escalation" is tracked closely by construction industry cost analysis professionals each year. Data from national construction cost databases show increases that range from $3.5 \%$ to $5.5 \%$ per year over the last several years.

Using our understanding of the project, similar cost benchmarking from other projects and taking
into consideration cost escalation for construction start in second quarter of 2021, we have
developed estimated building construction costs for both options. In addition, and in collaboration with the Owner, we have developed a detailed soft cost summary for all additional components of the project. Combined, are the project cost estimates for both options summarized in the charts
below.

Option 1: Expand in Place
The expand-in-place option requires two phases of construction in order to maintain full
operations throughout the construction. For this reason, there are increased costs due to project
length of time and increased escalation. In addition, operational costs are likely increased and compromised due to construction activities on site.

| Lenexa Public Safety Master Plan | Preliminary Budget: Phased Building/ Expand-in-place |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SCOPE | Phase 1 |  |  | COST |  |
|  |  |  |  |  |  |
|  | Construction Start: 2nd Quarter 2021 |  |  | Construction Start: 2nd Quarter 2023 |  |
| Planning Milestone $+2 \quad$ Year 2042 |  | Low cost range | High cost range | Low cost range | High cost range |
| Police Main Building |  |  |  |  |  |
| Phase 1 Phase 2 |  | 22,400,000 | 23,520,000 | 2,822.400 | 2.963 .520 |
|  |  |  |  |  |  |
| $\begin{aligned} & \text { Police Secondary Building } \\ & \text { Phase 2 }\end{aligned} \quad 42,100$ |  |  |  | 16,013,261 | 17,405,718.75 |
| Municipal Court |  |  |  |  |  |
| Phase 1 12,500 |  | 4,375,000 | 4,812,500 |  |  |
| Information Technology (IT) <br> Phase 2 $6,100$ |  |  |  | 2,084,828 | 2,286,585 |
| Total 123,100 | Subtotal Building Cost | 26,775,000 | 28,332,500 | 20,920,489 | 22,655,824 |
|  | Subtotal Site Improvement Cost | \$2,677,500 | \$2,833,250 | \$2,092,049 | \$2,265,582 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Design Contingency Construction Contingency | Subtotal Construction Cost | \$29,452,500 | \$31,165,750 | \$23,012,538 | \$24,921,406 |
|  | 5\% | 1,472,625 | 1,558,288 | 1,150,627 | 1,246,070 |
|  | 3\% | 883,575 | 934,973 | 690,376 |  |
|  | Total Construction Cost | \$31,808,700 | \$33,659,010 | \$24,853,541 | \$26,915,119 |
| Other Project Cost Notes <br> 1) Assumes construction start of phase 1 by 2nd quarter 2021 and phase 2 by 2nd quarter of 2023. <br> 2) Assumes construction cost escalation of 4-5\% per year <br> 3) Other Project Costs include: Owner Contingencies, Furniture, A/E Compensation, Moving Cost, Other miscellaneous Costs. |  | \$9,968,083 | \$10,354,010 | \$4,065,812 | \$4,346,037 |
|  | Other Project Costs |  |  |  |  |
|  | Other Project Costs |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 3) Other Project Costs include: Owner Contingencies, Furniture, AE | Phase 1 Project Cost | \$41,776,783 | \$44,013,020 |  |  |
|  | Phase 2 Project Cost |  |  | \$28,919,352 | \$31,261,156 |
|  | Total Project Cost\| |  |  | \$70,696,135 | \$75,274,176 |

Option 2: New Site
Relocating to a new site allows for only one phase of construction. Full police, courts and IT
operations can be maintained without interruption until which time to move to the new facility.

| Lenexa Public Safety Master Plan | Preliminary Budget: New Building |  |  |
| :---: | :---: | :---: | :---: |
| SCOPE |  |  | COST |
| Planning Milestone $+2 \times$ Year 2042 |  | Low cost range | High cost range |
| Police Main Building 62,400 <br> Police Secondary Building 42,10 <br> Municipal Court 12,500 <br> Information Technology (IT) 6,100 |  | 24,960,000 14,524,500 $1,891,000$ | 26,208,000 15,787,500 4,812,500 2,074,00 |
| Total 123,100 | Subtotal Building Cost | 45,750,500 | 48,882,000 |
| Site Improvements for 14 acre site - Parking lot paving, curbs, drives, and lighting, mass grading, utility connections, storm wate management, landscaping \& walkways. Optional / future covered parking for 50 cars and additional 80 car parking expansion. | Subtotal Site Improvement $\begin{array}{r}\text { Cost }\end{array}$ | \$3,325,050 | \$3,488,200 |
| Design Contingency Construction Contingency | Subtotal Construction Cost $\begin{array}{r}5 \% \\ 3 \%\end{array}$ | $\begin{array}{r} \hline \$ 49,075,550 \\ 2,45,778 \\ 1,472,267 \\ \hline \end{array}$ | $\begin{array}{r} \hline \$ 5,370,200 \\ 2,61,510 \\ 1,571,106 \\ \hline \end{array}$ |
|  | Total Construction Cost | \$53,001,594 | \$56,559,816 |
| Other Project Cost Notes: <br> 1) Assumes construction start by 2nd quarter 2021. <br> 2) Assumes construction cost escalation of $4-5 \%$ per year <br> 3) Other Project Costs include: Owner Contingencies, Furniture, A/E <br> Compensation, Moving Cost, Other miscellaneous Costs. | Other Project Costs | \$13,473,244 | \$14,089,158 |

Appendix

## SECTION 7 Appendix

## 7.0 - PHASED APPROACH ON NEW SITE

In the interest of considering alternatives for how the City may proceed with this project, the planning team has developed an alternative to build the project in two phases on the new site.

This approach could allow the City to proceed with a lower first cost solution sooner, and thereby avoid the ongoing cost of continuing to put significant expense of repairs into the 40 -year-old police facility, to keep it in operation

Original Concept Plan reconfigured slightly to facilitate two-phase construction.

- Phase 1 - Building for Police Department, Municipal Court + IT server room, 91,000SF
o North wing for PD configured very similar to Original Concept Plan
- East wing for Municipal Court configured very similar to Original Concept Plan
- Community Room functions as PD Training Room
- Technical Services garage space would be multi-function
o Phase 1-\$52 to $\$ 55$ million
- Phase 2 - Police Training and Support building, 27,000 SF
o Primary Training spaces - Trainee entry, Offices, Classrooms, DT and Firing Range
- Garages for Traffic, Tactical, Motorcycles, Bike Patrol, K9, + Mobile Command
- Phase 2-\$16.5 to $\$ 18$ million

The total cost of Phases 1 and 2 , should be expected to be higher compared to a 1 phase construction project. The additional cost is due to extended duration of the construction process across both phases. For planning considerations, the cost of Phase 2 has been increased by $12 \%$ to $15 \%$.


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