SECTION 2 – SITE DESIGN CRITERIA

The design and construction of a new police station is governed by many considerations. Proximity to service areas is paramount, followed by the cost of site acquisition. Sites already owned by the County are usually given preference. The site that is selected is rarely optimal, and the standard facility must be adapted to the site in a way that ensures safety for officers and the public. Elements of the site include the police facility building, parking for visitors, secure staff and specialty police vehicle parking, and a fueling station located outside the secure perimeter.

SITE SELECTION CRITERIA

Site Size

The site should preferably be situated on a corner lot where there is easy access to at least one, but preferably two, major thoroughfares. The size/dimensions for the police facility site, at a minimum, should accommodate the features described below:

- the minimum facility footprint
- approximately 200 secure parking spaces for a Police Station (exact number to be determined with the police staff during the programming phase) for police personnel
- the appropriate number of visitor/public parking spaces (exact number to be determined during programming phase)
- a fueling station for county vehicles outside the secure perimeter that provides a CPTED-based level of protection from hostile surveillance for county employees engaged in the refueling operation
- setbacks to provide a buffer, screening, and a secure perimeter around the secure (police) parking area and the building
- adequate green space and storm water management space to meet local code that also accomplishes CPTED security principles where possible
- vehicular site circulation and sidewalks designed so that full surveillance of these areas can be accomplished by CCTV. Refer to Section 4 “Equipment Standards” for details on CCTV equipment.

With the development of new urban areas within Fairfax County, it is possible that there may be a need for an urban police facility with the need to utilize a small or sloped site. On a small or sloped site, a two-story option may be the only solution. There is no set standard for the two-story station as to which spaces are to be located on the first or second floor of the facility. A blocking and stacking adjacency layout for each facility should be determined during the design process and should be based on the unique needs of that station and the site. Public and police staff should still be separated by the configuration and placement of the building on the site. As with the one-story option, this site is required to be sufficient to permit sidewalks, green space, and the optimal setbacks as described in these standards. If optimal setbacks cannot be met, certain security measures will be recommended to protect the facility and all personnel.

EXTERNAL SITE CRITERIA

Impact on Neighboring Communities

Police facilities are a vital part of the community they are within and should be designed in context with the surrounding neighborhood. Facilities should be welcoming to visitors, while maintaining the level of security vital to those on the premises.

General Site Requirements

All site design must conform to the requirements of the Fairfax County Public Facilities Manual (PFM), Fairfax County Zoning Ordinance (ZO), Americans with Disabilities Act Accessibility Guidelines (ADAAG), and other governing codes and ordinances.

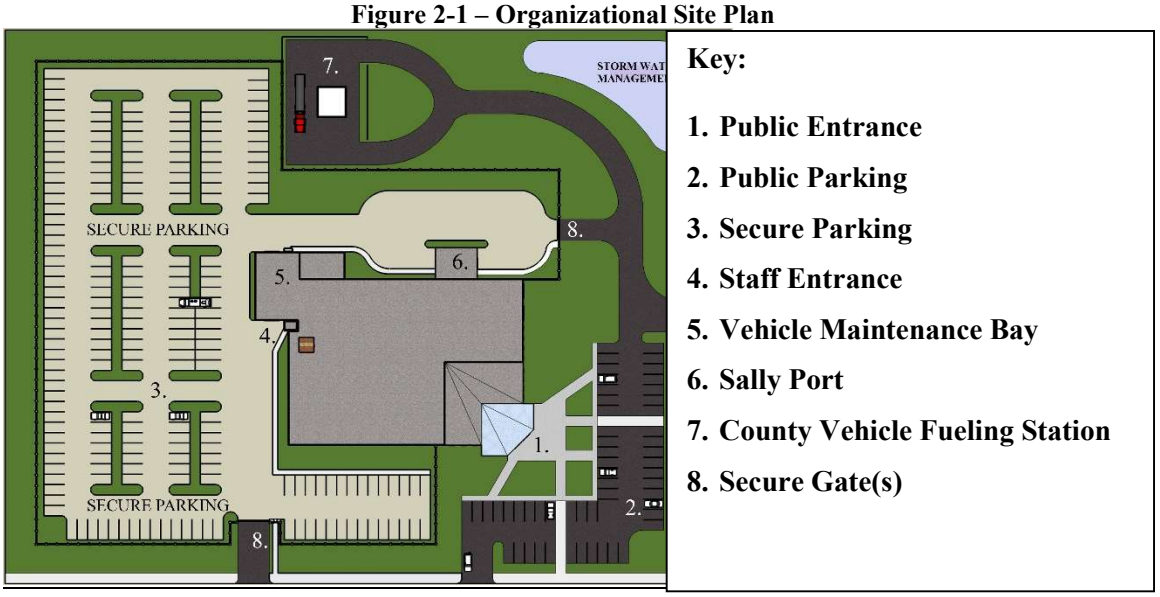
INTERNAL SITE CRITERIA

Site

The police facility should be situated in a manner that clearly distinguishes public and police secure areas. This separation ensures that the facility welcomes the public, while maintaining separation and safety of police staff. Key points on facility siting (Figure 2-1) include:

- The building is located such that the public parking is in the front for high visibility and easy public access and secure police parking is in the rear.
- The two zones are divided by the building and a security barrier, such as an eight-foot (8') high chain link fence surrounding the secure police parking area.
- The fueling station is screened from street view, if possible, by the building and landscape/hardscape elements appropriate to the site and is adjacent to the secure parking.
- Access to the police/secure parking should be limited to one monitored and secured entry only.
- The building should be positioned to utilize the slope of the site to strategic advantage, with the secure parking area on the higher elevation portion of the site. This positioning will help prevent external threats from gaining a position of strategic advantage. If uphill areas are present, the building should be oriented with the public side of the building facing any uphill areas, high-rise buildings, or elevated areas from which a sniper could achieve a position of strategic advantage. Secure Police staff areas are situated so that they open onto flat or downhill areas; windows covered with reflective ballistic material to prevent those in adjacent buildings from targeting staff in the police station
- For collocated facilities, to protect the secure staff portion of the facility, a separate secure visitor entry must be provided. To accomplish this goal, the police facility should be sited to clearly distinguish public (Board of Supervisors, community room, public parking) and staff-secure (police entrance, sally port, police parking) in a way that welcomes the public, but ensures the separation and safety of both groups.
- A turn-around area should be provided at the pull-through sally port to permit a quicker exit from the secure parking lot.

Figure 2-1 – Organizational Site Plan



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Setbacks

The building should be situated such that stand-off distances of no less than 50' and preferably 100' from any vehicle-accessible area are achieved. Generally, vehicles should be prevented from stopping or parking within 50' (preferably 100') of the building. To ensure that vehicles cannot be driven into the building, implementation of the following should be considered:

- Bollards – fixed and removable and planters between the street and the building. Planters should be of sufficient weight and construction material to significantly impact the ability of a vehicle to reach the building
- natural boulders or stone walls where possible and appropriate
- Contour landscaping including use of boulders, sunken landscape beds, and similar design elements that can deny vehicle access to the building and secure parking areas
- Restrictive parking signage
- Analytic CCTV
- High curbs, flag poles, monument and/or signage

Figure 2-2 –Removable Bollards, Planters and Walls Between the Street and Building

If the building cannot be set back more than 50', the following should be considered to further harden the building:

- Blast-resistant/laminated glass windows or blast-resistant film added to windows, recessed a minimum of 2 inches into the wall and attached with enhanced anchoring.
- Blast and gunshot-resistant construction methods and materials (glazing, progressive collapse), according to the estimated level of risk and budgetary restrictions
- Use of reinforced concrete for greater structural blast resistance
    - Existing buildings can have reinforcement applied over existing concrete walls
- Use of landscaping (planters, hills, valleys, soft soils, trees, boulders, and bushes) along with sunken landscaping beds and fencing to provide more protection from vehicle approaches
- Security cameras to monitor the building perimeter with 100% visual coverage of the building envelope and perimeter

Site Circulation and Parking

Public and police vehicle circulation must be separated by use of a barrier and by visibility screening. The public should NOT be able to see into the secured police parking areas.

- Public Vehicle Parking:
    - Near the public entrance of the building
    - No contiguous connection between the public parking lot and the secured police parking lot
    - Adjacent to the front or public side of the building
    - Signage should be placed at all entrances to help guide the public and facility users as well as emergency responders and to notify vehicles and persons that the area is under full-time electronic surveillance
    - Signage clearly designating restricted areas from public and visitor parking (refer to Exterior Signage section)

Figure 2-3 – Organizational Site Plan - View of public entrance and parking

Key:

1. Public Entrance

2. Public Parking

3. Secure Parking

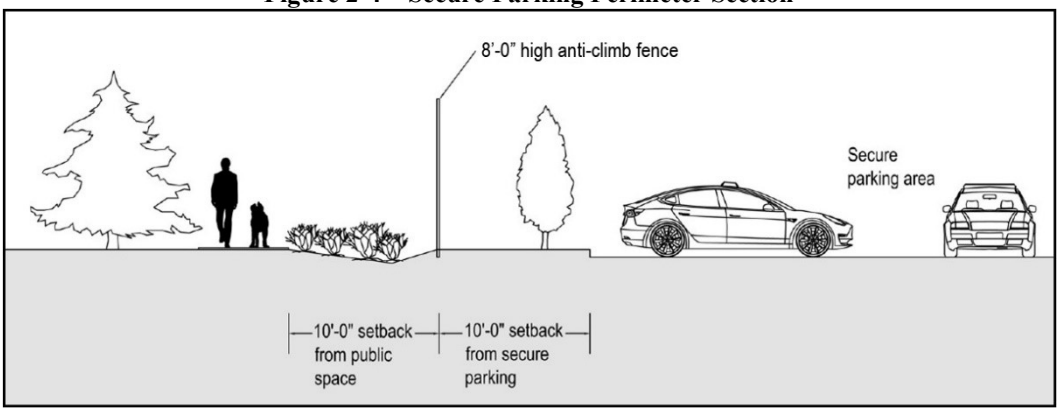
4. Sally Port

5. Secure Gate

- Secure Vehicle Parking:
  The secure parking area includes parking for police vehicles, police bicycle traffic, and Police Department vehicles arriving at the sally port with individuals in custody. The secure parking area should adhere to the following criteria:

  - Surrounded by secure fencing, vehicular gate, and personnel gates. The preferred method of access control incorporates bi-folding speed gates for both exit and entry. Refer to Section 4 "Equipment Standards" for details on site gates and access control bollards. Vehicular gates need to be able to remain open for a group of exiting police vehicles during emergency situations rather than requiring each vehicle to open gate separately.
  - Pedestrian control gates should be included at each vehicle security gate with card reader access control to enter/exit and fail secure locking hardware (no maglocks).
  - Secured parking for police should be screened from public view by use of appropriate landscape elements as well as a hardscape wall or fencing with appropriate privacy windscreen material
  - The secure police parking should be surrounded by a minimum eight-foot (8') tall screen – preferably a hardscape wall with material that matches the exterior cladding of the facility. If a wall is not feasible, a minimum eight-foot (8') high fence (ten-foot (10') high preferred), outfitted with climb-resistant fabric and privacy screening should be incorporated. If fencing is used, the fence should be comprised of 1-inch by 1-inch black vinyl coated nine-gauge chain link mesh with anti-climb toppers. The fence should be buried a minimum of six (6) inches into the ground to prevent access underneath the fence. There should be picket fence or appropriate privacy screening for areas highly visible to the public. (See Figure 2-4)
  - Landscaping around secure fence should include a ten-foot (10') planting setback; public side of fence should consist of swale planted with thorny plants (e.g. - barberry, holly)
  - At least two distinct entrances, opening onto different thoroughfares or areas of the site. The location of the two gates should be as far apart as practical to prevent one incident from impacting both locations simultaneously.
  - A sally port and vehicle preparation bay situated to provide an easy vehicular flow driving in and out of the lot. Fuel pumps should NOT be located near sally ports if possible.
  - Located in the rear or secure side of the building
  - Parking lot signage to reserve parking for command staff or special units should not indicate specific information to disclose identity.

Figure 2-4 – Secure Parking Perimeter Section



- Covered/Parking Garage:
  A facility may require a multi-level deck for parking. A parking structure is the preferred type of parking IF the adjacent properties have significant high ground overview of the stations and/or secure parking areas.

The parking garage should be near the public entrance to the facility. The parking garage should not provide contiguous connection should be possible between the public parking lot and the secured police parking lot. If a structure is not feasible, the addition of covered parking would be acceptable. The canopy of the covered parking area may be used for photovoltaic panels. The purpose of covered parking is to ameliorate the potential hostile surveillance threat posed by adjacent high-rise facilities. Visibility into the garage should be screened and slats or louvers can be used to achieve this, while maintaining visual appeal of the structure. An example of a parking garage on a sloped/small site is shown in Figure 2-5, with an example of the use of architectural screening elements for a parking garage in Figure 2-6.

Figure 2-5 – Aerial view of a sloped/small site with parking garage

Key:

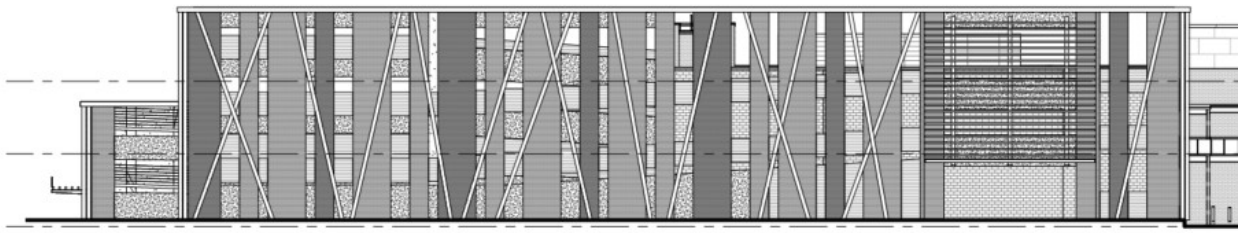
1. Public Entrance

2. Public Parking

3. Staff Parking Entrance

4. Sally Port

Figure 2-6 – Example of Architectural Screening Elements for Parking Garage



LANDSCAPING

Landscaping shall follow Division 300000 "Site Work" of the Fairfax County Architect Engineer Guidelines and Chapter 12 of the Public Facilities Manual. The Fairfax County Natural Landscaping Policy, as well as Article 5, Section 5108 "Landscaping and Screening" shall also be incorporated into all Police facility projects containing landscape elements.

EXTERIOR SIGNAGE

The following criteria should apply for design of exterior signage:

- Doors must be numbered following the Architect and Engineer guidelines for Fairfax County, where each exterior door is clearly labeled with an identifying letter and number at the interior, exterior, and aerial.
- All gates must be labeled in clockwise order from the main front door with letters in similar fashion.

- "Restricted Access Area – Authorized Personnel Only" with "No Trespassing" Sign placed directly below shall be placed on all fences, spaced every 100 feet. Signs shall be in red font. Restricted Access Area sign should be 14 inches wide by 10 inches tall. Authorized Personnel sign should be 12 inches wide by 6 inches tall.
- "Police Vehicles Only" signs should be placed at the entrances leading to secure access gates. Sign should be 12 inches wide by 18 inches tall.

SITE LIGHTING

Site lighting shall meet requirements of Article 5, Section 5109 "Outdoor Lighting" of the Fairfax County Zoning Ordinance. The following criteria should also be incorporated into the design of site lighting:

- Secure parking lot lighting should be designed to have an illumination level of no less than 2 foot candles throughout.
- Dimmable lighting around the building perimeter providing 2 to 3 foot candles of illumination, with automatic photo sensors and manual override controlled from central control post inside the facility. Lighting at exterior doors should be dimmable to reduce visibility of departing officers at night.

UTILITIES

The exact type, size, and location of the requisite stormwater management facilities will be determined during the design of individual facilities. The following criteria should apply for design of site utilities:

- Storm drain access – ensure that storm drain openings in areas accessible to the public do not provide access under the fence to secure areas. Install bars and secure manhole covers to limit access to the drains. Ensure that CCTV field of view covers these areas.
- Exterior utility feeds/connections at the building should be located within the secure area of the site and should be locked. If the utility connections are required to be outside the secure police area, they should be located in controlled access points away from the public visitor area. The utility areas should be monitored by CCTV.

FUELING STATION

The fueling station serves as a satellite fueling station for County vehicles from various agencies, and is located outside of the secure parking lot to preserve the security of that lot and to reduce wear and tear on the vehicle gates (Figure 2-7).

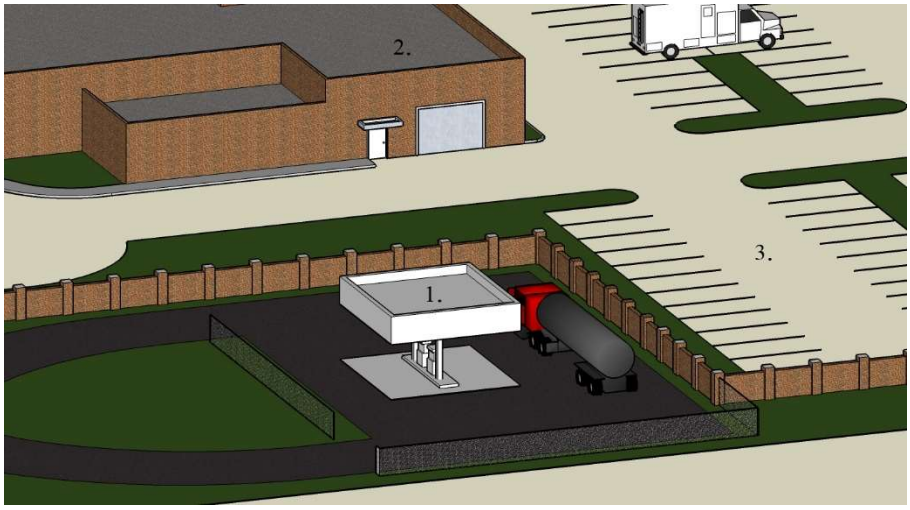
- Fueling stations should be designed with a CPTED-based element of protection from hostile surveillance for county employees engaged in the refueling operation. This would include landscaping elements (evergreen and deciduous) of varying heights and habit, as well as elements such as a canopy and screening placed at locations to break up the line of sight for any hostile surveillance being conducted or for any potential sniper attack from multiple vantage points.
- It should have access points which allow a tanker to easily enter the station, unload fuel, and exit without encountering severe turns or obstacles. There should always be two exits available to the tanker in the event of an accident or a deliberate attempt to damage the tanker (Figure 2-8).
- The turning radii within the fuel island should accommodate a tanker truck, school bus, and fire apparatus vehicles, and should be verified during the design. The turning area should be outfitted with No Parking signage and should be covered by actively monitored CCTV.
- The exact fuel island requirements, number and type of fuel dispensers, and additional details should be coordinated with the Fairfax County Division of Vehicle Services during the design.

Figure 2-7 – Organizational Site Plan - View from the rear of the site showing the fueling station, sally port, and maintenance bay

Key:

1. Public Entrance
2. Public Parking
3. Secure Parking
4. Staff Entrance
5. Vehicle Maintenance Bay
6. Sally Port
7. County Vehicle Fueling Station
8. Secure Gate

Figure 2-8 – Organizational Site Plan - View of fueling station control gates and maintenance bay



Key:

1. County Vehicle Fueling Station
2. Vehicle Maintenance Bay
3. Secure Parking