

COUNTY OF HENRICO  
VIRGINIA

INTER-OFFICE MEMORANDUM

TO:	Planning Office	SUBJECT:	Cool Lane Apartments – POD2021-00093
FROM:	Henrico County Police Division, Community Services Unit	DATE:	March 23, 2021

**POD2021-00093**

**<Preliminary Plan >**

**Zoning: R-6C**

Proffers: REZ2019-00002

PUP: PUP2019-00001

87 - apartments

5995 sqft - office

- Please provide a written description on the uses. Who will the tenants be?
- The PUP notes: “Prior to operation the applicant and the Crime Prevention Unit of the Division of Police shall conduct a security survey of the property. The applicant shall implement the mutually agreed upon security recommendations affecting the property.” Because this meeting will probably occur near the time you will request your certificate of occupancy, we ask that you budget for security items.
  - Prior to recommending approval, HPD needs specifics on the following items:
    - Hours of operation for the office use
    - Please explain how people will be vetted and enter the office’s main entrance
    - Building security
      - Access control measures for office and residential spaces
      - Alarm for the main entrance and office space
        - Will staff have panic buttons?
      - How will you keep individuals out of the office space when it is closed?
      - Will pharmaceuticals be stored in the facility?
      - Will individual units have security alarms? Panic buttons?
      - Other than just standard handles/locks, what access control will be in place for the apartments?
    - Site security
      - Landscaping (see best practices below)
      - Lighting (see best practices below)
      - Fence – the proposed fence is aluminum. Because this fence is partially used for security purposes, it should not be made of aluminum. If it is going to be a decorative metal fence it should be 16-gauge steel with 1” pickets and sturdy posts installed with concrete (minimum).
      - Will there be uniformed security services provided?
  - Please use the best practices noted below as you proceed with your project.

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**Landscaping Best Practices:**

1. Show light pole locations on the landscape plan in an attempt to avoid conflicts.
2. The location of the light poles in relation to the trees needs to be considered, especially in parking lots and areas along the building’s edge. The two should not be located in the same area, as illumination will be reduced as the tree matures.

3. All shrubs and trees should be trimmed to allow for maximum visibility to and from the site and from within the site. Shrubs should have a natural growth habit of no more than 2 ½ to 3 feet, or should be maintained at this height, especially when located along an entrance, walkway or in a parking area.
4. Trees located around the buildings, walkways and parking areas should have a natural growth habit that is a tree-form, non-pyramidal shaped tree. If this cannot be done, the canopy of the trees should be maintained at least 4 feet from the ground as the tree matures.

#### Lighting Best Practices:

5. The minimum maintained light level should be no lower than 1.0 foot-candles throughout the parking areas, walkways, building entrance and building edge.
6. The lamps throughout the site should be the same. The emphasis is to have the same color of light (white or orange/yellow) throughout. This will provide good color rendition, help with visibility and reduce contrasts. Metal Halide (white light) is preferred. Color rendition refers to how objects of various colors appear under a particular lamp.
7. All light fixtures need to be full cut-off. See Photo's A and B for examples of full cut-off wall packs and pole lights.
8. Should post top fixtures be used, these fixtures also need to be full cut-off so that the light will be directed down to the ground, versus horizontally and up in the air. If decorative fixtures are installed, they should have the lamp in the top casing of the fixture so that the light will be directed towards the ground (See Photo C). This will also avoid glare because you don't actually see the lamp. Glare is defined as horizontal light that hinders vision.



Photo A. Shielded wall pack.

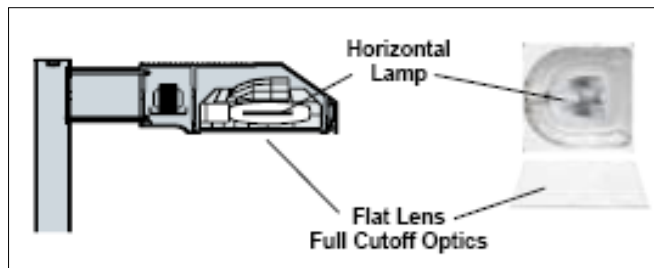


Photo B. Diagram of a full cut-off or concealed source fixture.



Photo C. The white globe visible to the eye in this post top fixture is decorative; the lamp is in the top of the fixture.

9. Lighting is one of the most economical and effective forms of crime prevention available. For lighting to be effective it must be uniformly distributed so that dark areas and areas of sharp contrast are not created. The Illuminating Engineer Society of North America defines uniformity as "the evenness of the distribution of light on the surface(s)"...which "aids security perception, while reducing the necessity for eye adjustment..." IESNA G-1-03, 5.4.
10. In creating uniform lighting, consider:
  - a) type of fixture
  - b) the height of poles
  - c) the direction of the light
  - d) spacing of fixtures
11. Routine maintenance of the lights is recommended.
  - a) A schedule should be established to review lights to determine if any need replacing.
  - b) Globes should be cleaned periodically to ensure full illumination from the light.

- c) A program should be established to relamp the complex, also known as *group relamping*. This method reduces cost by minimizing site visits for the purpose of relamping, and it ensures that the lamps being replaced are consistent with all surrounding lamps.
- d) A program should be established for the trimming and maintenance of tree canopies and other plant materials at or around the light poles so that illumination is not reduced.

**Multi-Family Residential Building Security Best Practices:**

- 12. Doors should be solid core construction and a minimum of 1 3/4 inches thick.
- 13. A solid core door should contain a security peephole for the users of the residence.
- 14. Strike plates must be solidly anchored through the doorframe, into the framing studs, using screws three inches or longer in length. Otherwise, a swift kick could break the doorframe.
- 15. Door hinges should be located on the inside of the door, as well as on any accessory structures. If this cannot be done, non-removable hinge pins or piano hinge/continuous hinge should be used.
- 16. *As applicable* - French doors, where one door is stationary, are often a vulnerable point in security. The doors should not have more than one-eighth (1/8) of an inch between them. Install a deadbolt-locking device (header and/or threshold bolts could be used) that meets fire code but can serve as both a key lock and a single cylinder deadbolt.
- 17. *As applicable* - Sliding glass doors are a particularly vulnerable point in security. Locking devices should be installed.
  - a) Install 'Charlie-bars' for the sliding glass doors.
  - b) Install two sheet metal screws inside the top of the track to eliminate someone from lifting the doors out of the tracks.
- 18. *As applicable* - A garage should have the following security measures in place:
  - a) Remote garage opener system that is not interchangeable where it will open other garage doors.
  - b) Bolt in the garage to lock the garage door in place if the resident chooses to.
  - c) Deadbolt locks for the doors separating the garage from the interior of the home
- 19. A rear door can offer an easy means of entry. When a multi-pane half glass, also known as a 9-lite door is used and identified as an egress point, a single cylinder thumb turn will be required. Entry can be easily gained by breaking the glass and turning the single cylinder deadbolt to gain access into the unit.
  - a) 7.3 Doors – 7.3.6.4 - If an exterior door has a glass panel within 40 in. (101.6 cm) of the lock, replace the glass with US-listed burglary-resisting glazing material, such as polycarbonate glazing. Alternatively, a piece of polycarbonate can be attached to the inside of the door behind the glass to provide backup protection, or the glass panel can be protected with a metal security screen. This will prevent a burglar from breaking the glass and reaching in to unlock the door.
  - b) 7.3.6.5 Glass panels or inserts, along with side panels, should be addressed when determining the appropriate locking mechanism. Glass panels can easily be broken by intruders. Consider covering the glass with a break-resistant panel, burglary-resistant glazing, or decorative grill.

*From National Fire Protection Association (NFPA) 730 Guide for Premises Security 2006 Edition*

- 20. The corridors/breezeways should be designed to allow natural light to enter or lighting will be needed 24-hours a day within these spaces. (See Photo D) Several design features need to be in place:
  - a) The siding should be lighter in color to reflect any light that is present.
  - b) Open up the stairs to allow light to pass through. Building code allows this with the exception as stated below.

IBC 1009.4.5 Profile. "...Risers shall be solid and vertical or sloped under the tread above from the underside of the nosing above at an angle not more than 30 degrees from the vertical. ..."

Exception #1. Solid risers are not required for stairways that are not required to comply with Section 1007.3, provided that the opening between treads does not permit the passage of a sphere with a diameter of 4".

21. The numbering for each building and the units within the building must be clearly displayed on the exterior of each side of the corridor/breezeway.

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The Henrico Police Division supports and implements Crime Prevention Through Environmental Design (CPTED), which is the theory that the proper design and effective use of the built environment can lead to a reduction in the incidence and fear of crime and an improvement in the quality of life.

The following characteristics need to be in place at this site.

1. **Natural Surveillance.** Provide natural surveillance throughout the site, especially to parking areas, buildings, building entrances, walkways, etc. Natural surveillance is the placement of physical features, activities and people in such a way as to maximize visibility.
2. **Natural Access Control.** Provide natural access control throughout the site. Natural access control is the physical guidance of people coming and going from a space by the judicious placement of entrances, exits, fencing, landscaping and lighting. The goal is to guide people where you want them to go and how you want them to get there.
3. **Territorial reinforcement.** Territorial reinforcement is the use of physical attributes that express ownership, such as fences, pavement treatments, art, signage and landscaping. The goal is to promote ownership and pride in where you live and work.
4. **Maintenance.** Allows for the continued use of space for its intended purpose. It also serves as an additional expression of ownership.

While our requirements for the endorsement of the plan does not guarantee a crime-free environment, it is our experience that the application of the concepts of Crime Prevention Through Environmental Design (CPTED) will reduce the opportunity for crime to occur and will enhance the quality of life. Should you have any questions or comments, please contact me at (804) 501-5370 or [van06@henrico.us](mailto:van06@henrico.us).



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