PURPOSE & SCOPE

The purpose of this document is to clearly define all requirements for parking facilities related to Parking Services technology, ADA considerations, facility design, and security considerations. The following standards and security considerations are to be applied across the entire Cleveland Clinic Enterprise as the standard for Cleveland Clinic Protective Services and Parking Services.

This standard:
- Creates a documented protocol so that every aspect related to Parking Services is considered during the planning and design phases of the operation.
- Ensures all key stakeholders are aware of the standard configurations when designing a new parking facility.
- Ensures architects and construction planners are aware of security considerations and recommendations.

If any part of these standards conflicts with local code, contact Parking Services for resolution.

Parking Facility Design Standards:

1. Space Configuration: (City of Cleveland requirement is 180 square feet)
   a. General parking space 9.5' wide x 19' long
   b. Compact car spaces 8.5' wide x 17' long
      i. Compact cars spaces must have a line across the back of the space to represent where the vehicle should not exceed.
   d. Oversize vehicle space size 10.5' wide x 22' long.
   e. All Measurements are taken from the center of the space line to center of space line.
   f. ADA requirements: See #4
   g. LEED Credit Programs: See #5

2. Striping:
   a. All space striping is yellow
   b. All cross hashes, no parking curbs, lane delineators, and directional arrows are yellow
   c. All cross walks are white and stop bars are white.

3. Traffic Flow:
   a. All configurations must have thru traffic throughout the lot: lanes are not to have any dead-ends.
   b. Drive lanes must be at least 12 feet wide for one-way and 24 feet wide for two-way.
   c. Center lane striping is required in high traffic areas (>1000 cars per day).
   d. Lane delineators (4’ tall yellow with reflective material) must be used around tight turns in two-way traffic.
   e. Corner drive lanes should have a 25'-30' turn radius, as shown below:

![Diagram of turn radii]
4. ADA Parking Spaces
   a. Americans with Disabilities Act (ADA). The Department of Justice published revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 "ADA" in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design "2010 Standards" or "Standards".
   b. On or after March 15th, 2012, parking facilities should comply with the 2010 ADA Standards. For information about the ADA, including the revised 2010 ADA regulations, please contact Cleveland Clinic Parking Services or by visiting the ADA’s website http://www.ada.gov/2010ADAstandards_index.htm.
   c. **ADA, section 502** Section 502 provides general site and building requirements for parking spaces (2010 ADA Standards, page 149-151). Car and van parking spaces shall comply with section 502. Parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings. *(Exhibit A)*
   d. Parking spaces shall be provided in accordance with 2010 ADA Standards, section 208, "Parking Spaces". Exception: Parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with section 208 provided that lots accessed by the public are provided with a passenger loading zone.
   e. Parking spaces shall be provided in accordance with Table 208.2 *(Exhibit B)* except as required by the below sections 208.2.1 and 208.2.2. Where more than one parking facility is provided on a site, the number of accessible spaces provided on the site shall be calculated according to the number of spaces required for each parking facility.
   f. Hospital Outpatient Facilities (Family Health Centers), section 208.2.1: Ten percent of patient and visitor spaces provided to serve the outpatient facility.
   g. Rehabilitation Facilities and Outpatient Physical Therapy Facilities, section 208.2.2: Twenty percent (20%) of patient and visitor spaces provided to serve rehabilitation facilities specializing in treating conditions that affect mobility and outpatient physical therapy facilities.
   h. Van Parking Spaces, section 208.2.4: For every six or fraction of six parking spaces are required. *(Change from the 1991 Standards, previously was “for every eight or fraction of eight parking spaces were required.”)*
   i. Review number of ADA spaces required with Parking Services during schematic design to cross-check with city zoning requirements.
Exhibit A (ADA)

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

501 General

501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

Figure 502.2
Vehicle Parking Spaces

Department of Justice 2010 Standards: Titles II and III - 149
Exhibit A (cont.)

Table 208.2 Parking Spaces

<table>
<thead>
<tr>
<th>Total Number of Parking Spaces Provided in Parking Facility</th>
<th>Minimum Number of Required Accessible Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 25</td>
<td>1</td>
</tr>
<tr>
<td>26 to 50</td>
<td>2</td>
</tr>
<tr>
<td>51 to 75</td>
<td>3</td>
</tr>
<tr>
<td>76 to 100</td>
<td>4</td>
</tr>
<tr>
<td>101 to 150</td>
<td>5</td>
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<tr>
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</tr>
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<td>7</td>
</tr>
<tr>
<td>301 to 400</td>
<td>8</td>
</tr>
<tr>
<td>401 to 500</td>
<td>9</td>
</tr>
<tr>
<td>501 to 1000</td>
<td>2 percent of total</td>
</tr>
<tr>
<td>1001 and over</td>
<td>20, plus 1 for each 100, or fraction thereof, over 1000</td>
</tr>
</tbody>
</table>

Advisory 208.2 Minimum Number. The term “parking facility” is used Section 208.2 instead of the term “parking lot” so that it is clear that both parking lots and parking structures are required to comply with this section. The number of parking spaces required to be accessible is to be calculated separately for each parking facility; the required number is not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.
5. **LEED Parking Program:** Leadership in Energy and Environmental Design (LEED) certification establishes a healthier and more efficient environment for all employees to operate within.

   a. Through rating systems, LEED recognizes projects that implement strategies for better environmental and health performance. Points are awarded on a 100-point scale and are weighted by environmental impact.

   b. **LEED Criteria** The rating system and credits addresses 7 topics: Sustainable Sites (SS), Water Efficiency (WE), Energy and Atmosphere (EA), Materials and Resources (MR), Indoor Environmental Quality (IEQ), Innovation in Design (ID), and Regional Priority (RP).

   c. **LEED Levels:** Various levels of LEED are: Certified 40–49 points; Silver 50–59 points; Gold 60–79 points; Platinum 80 points and above.

   d. Parking Services Optional Programs to Support LEED Certification in order to obtain points for the SS Credit 4.3: *(in preferred order)*

      1. **LEED Discount:** Provide discount parking for low-emitting and fuel efficient vehicles in employee areas at any locations that charge employee parking fees. LEED listed vehicle Reference at: [www.greenercars.org](http://www.greenercars.org)

         a. Requestor must then complete the LEED Vehicle Discount Registration form at the Cleveland Clinic Parking Intranet webpage and return the form in to the Parking Services customer service office in JNJ-Basement.

         b. Employees who qualify for the LEED discount will receive a 20% percent reduction in their monthly parking rate.

         c. Employees will also receive preferred parking in designated parking lots for having low-emitting and fuel efficient vehicles.

      2. **Preferred Spaces:** Reserved parking spaces for low-emitting and fuel efficient vehicles in the employee parking lot(s). 5% of all employee parking spaces. Does NOT include any patient/visitor spaces or locations.

      3. **Rebate Program** (employees will receive a $1,000 rebate for purchasing a new EPA SmartWay Elite vehicle, and $5,000 rebate for purchasing a used EPA SmartWay Elite vehicle)

6. **Parking Technology:**

   a. Automated barrier gate must be used to gate parking facilities.

   b. Intercom required at every device in every lane. Video intercom is preferred. Analog intercom may be used if video intercom is not available.

   c. Video intercoms and Employee Badge Card Readers will be installed on a dual-headed goose neck pedestal, within industry standards relative to the height of vehicle entering or exiting facility.

   d. Bollards must be placed strategically to protect all equipment and will align with exterior curbs of island.

   e. Must saw-cut, in-ground magnetic loops. Free exit or free entrance loops not permitted.

   f. Gate arms must be at least 12’ in length

      1. Both edges must be clean-cut and sanded to ensure smooth edges.

      2. Every gate arm must have a warning sticker on both sides in the center of the arm.

      3. No pads will be used on gate arms (bottom pads or gate arm pads).

      4. If a gate arm breaks, it can be re-purposed, but cannot be shorter than 9’ feet long.

      5. At locations where a wall or building is not adjacent within 4’ of gate arm, a bollard must be placed to ensure security of entrance or exit.

   g. All parking technology must be networked on Cleveland Clinic IT server.

   h. For Employee Access Lanes:

      1. Automated Vehicle Identification (AVI) reader

      2. Employee badge card reader. Must read CC ID Badge and utilize track 3.

   i. For Transient Access Lanes:

      1. Entry Lane: Ticket Dispenser (EXHIBIT)

      2. Exit Lane: Exit Verifier (EXHIBIT)
3. Pay on Foot located in Lobby Area (EXHIBIT)

j. Overhead doors are to be placed on exterior walls to campus, relative to building’s position within campus. Overhead doors are closed weeknights from 9pm until 5am and all day on Saturdays and Sundays.

k. Configuration for Technology Set-ups:
   1. Employee Lane (Exhibit B)
   2. Visitor and Employee Lane (Exhibit C)
   3. Visitor Only Lane (Exhibit D)

l. Lane Configuration Notes:
   1. All conduits to be 1” unless noted.
   2. Detector loop conduits to stub out 6” into drive lane and turn up 2” above finished surface.
   3. Equipment conduits to stub up 2” above finished island.
   4. Keep power and control conduits 18” from detector loops.

EXHIBIT B
(Employee Only Lane Configuration)
### EXHIBIT C

(Employee and Visitor Lane Configuration)

#### NOTES
1. ALL CONDUITS TO BE 1" UNLESS NOTED
2. DETECTOR LOOP CONDUITS TO STAY OUT 6" INTO DRIVE LANE AND TURN UP 2" ABOVE FINISHED ISLAND
3. EQUIPMENT CONDUITS TO STAY UP 2" ABOVE FINISHED ISLAND
4. KEEP POWER AND CONTROL CONDUITS 18" FROM DETECTOR LOOPS

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**SIGNATURE CONTROL SYSTEMS LLC**
465 NORTH BRICE ROAD
BLACKLICK, OHIO 43004

THE CLEVELAND CLINIC FOUNDATION PARKING CONTROL EQUIPMENT STANDARD LANE CONFIGURATION VISITOR AND EMPLOYEE

K.W. 11/1/10  NONE  1 OF 1
EXHIBIT D
(Visitor Only Lane Configuration)
7. Electric Vehicle Charging Stations
   a. All new parking facilities should have at least one electric vehicle charging station. The Cleveland Clinic contract with Signature Control Systems has locked in pricing for units, installation, and service of the Easton product. Contact Parking Services for installation details and cost estimates.

   ![Dual Level 2 Charging Station](image)

   The Dual AC Level 2 electric vehicle charger delivers an affordable, adaptable, and easy-to-use charging solution. Eaton’s dual connector charging station supports simultaneous, independent charge sessions and is available with multiple power output options. It can concurrently charge two vehicles’ batteries in as little as four hours.

8. Blue Light Emergency Intercoms (EIS)- Gaitronics (hardwired or cellular-cellular can be used where a hard wire is not economically feasible)
   a. General application in parking lots: emergency blue light intercom devices shall be placed such that the maximum travel distance from any point within a parking lot is approximately 150’ maximum. Other environmental conditions, such as high crime areas, or oddly-shaped parking areas, may require additional emergency blue light intercoms. Consult TSD for exact placement during the Design phase.
   b. Must be installed near a walkway around perimeter of lot
   c. High pedestrian traffic areas
   d. Remote locations (interior & exterior where applicable)
   e. Must be ADA compliant, and positioned on an ADA accessible concrete or paved pad (6’x6’)

9. Cashier Booth Drawing Specifications (Exhibit E)
   b. Swing door will be substituted with sliding door to booth.
   c. If booth is within a garage setting, booth height will be reviewed for each specific location.
   d. **Booth Interior must include:**
      1. Standard power
      2. Panic Button (underneath the counter)
      3. Overhead fixed camera
      4. Lane configuration panel
      5. Electrical Outlet (Quadplex)
      6. Overhead light
      7. PowerPad (with data port) (EXHIBIT)
      8. Drop safe (bolted to the floor): Economical Top Loading Depository Safe, (Exhibit F).
      9. A/C and Heat Unit
      10. Chair: Stool with backrest.
      11. Lockable sliding window and door.
      12. Counter: 22” deep painted galvanized steel mounted 32” above floor.
      13. Storage Drawer mounted below counter.
e. **Booth Exterior:**

1. Size: 5' 4" x 7' 6"
2. Color: Cirrus Gray (Parkut # 1637)
3. Concrete (foundation or slab):
   4. Minimum 6" deep 3,000 PSI minimum reinforced.
   5. Minimum 12" wider than the roof line dimensions to allow a 6" concrete border on each side of the building roof line.
4. Windows: Clear, non-tinted
5. ADA: 1 x booth per campus

**EXHIBIT E**
(PARKUT Cashier Booth 08-082/3 Model)
10. Valet Podium:
   a. Podium specifications:
      1. Size: Wide 47” x Deep 24” x Height 48”
      2. Lettering: No additions of lettering added anywhere on the podium
      3. Signage: Simplified signage should be a bent easel on the counter of the podium
      4. Color: Light oak or black
      5. Key Hook Capacity: Minimum of 100 key hooks
      6. Locks: 4 Metal slam-action locks w/ 8 keys
      7. Wheels: 6 Heavy duty locking casters, ball bearing wheels with synthetic rubber
      8. Metal key boards w/ staggered loop-back hooks and white printed numbers
      9. Cable routing slots
      10. Lockable Drawers: Two pull-out drawers
      11. Lockable Cabinet with two doors
      12. Working surface: Consistent wood based surface
         a. Level surface
         b. Room for cash register, clipboard, valet tickets, and credit card machine
      13. Customer working surface:
         a. Level surface
         b. Room for customer to complete their financial transaction
   b. Area surrounding considerations:
      1. Data port for credit card swipe
      2. Twin Electrical outlet
      3. Overhead protection from inclement weather
      4. Standard lighting
      5. Level ground surface
6. Recommended: overhead camera
11. Valet Desk:
   a. Desk specifications:
      1. Size: Standard Height and Width of informational desk
      2. Lettering: No additions of lettering added anywhere on the desk
      3. Signage: Simplified signage should be a bent easel on the counter of the desk
      4. Color: In accordance with Cleveland Clinic facilities.
      5. Key Hook Capacity: Minimum of 100 key hooks, maximum of 300 key hooks
      6. Lockable Drawers: Two pull-out drawers
      7. Working surface: Consistent wood based surface
         a. Level surface
         b. Room for cash register, clipboard, valet tickets, and credit card machine
   b. Area surrounding considerations:
      1. Data port for credit card swipe
      2. Twin Electrical outlet
      3. Standard lighting
      4. Recommended: overhead camera
      5. Recommended: panic button

**TRANSPORTATION SHELTERS**

1. Shuttle Shelters should be built as a cohesive component of a new facility/building, with architecture included as part of the design; to be approved by the Buildings and Properties Department. After-market Shelters are permitted at remote employee parking lots when not adjacent to or near new or existing Cleveland Clinic architecture. For other types of locations, review with the Building and Properties Department.

2. Exhibits A & B illustrate possible after-market Shelters.

3. Typical Requirements:
   a. Patient & Visitor stops typically will use indoor lobbies/vestibules for patients/visitors waiting on shuttles.
   b. Employee stops are typically associated with off-campus parking accommodations.
   c. Site selection: Shelters will be located to enable right side boarding of the shuttle (e.g., patrons will not be required to cross in front of or behind the shuttle when exiting the shelter with intent to board.)
   d. Shelters will typically have the following requirements:
      1. Electrical connections for lighting and limited heating
      2. Data connection for Blue Light Panic Alarm and/or phone (as/when required for security reasons).
      3. Unrestricted visibility into and out of the shuttle to promote security and passenger line of sight to shuttle approach paths.
      4. Located behind public walkways, where applicable.
      5. In locations requiring multiple shelters, shelters will be located to provide continuous one-way traffic between shelters that support right side shuttle boarding from the shelters.
Exhibit G
Exhibit H
PRE-CONSTRUCTION CONSIDERATIONS

1. Drawings-Vehicle Schematics should not be required but are available on request.

2. Messaging and Traffic Alerts due to Construction Activity:
   a. Transportation Services requires notification 10-14 days prior to the construction activity, or impending closing/access restrictions to roads, drives, entrances, parking facilities or other locations used by shuttles in the performance of service not less than.
   b. Transportation communicates information regarding shuttle services to patients, visitors and employees. Many of these customers rely on knowledge of our programs to manage their commute between main campus appointments and to/from off campus parking.
   c. To ensure that these patients, visitors and employees have sufficient time to adjust their schedules, messages are published no later than 7 days prior to the expected construction activity.

3. Shuttle Dimensions and Performance. While the shuttle body styles provide a consistent look, the lengths and heights of shuttles vary considerably based on wheelbase and seating capacity.
   a. Shuttle Height: 132 Inches (11 feet); recommended overhead clearance not less than 144 inches (12 feet).
   b. Shuttle Width: 119.5 inches (includes exterior mirrors); recommended minimum single lane width of 126 inches in parking lots/Cleveland Clinic owned streets.
   c. Shuttle Length (bumper to bumper): i. On Campus Shuttle maximum length: 384 inches  
      ii. Employee Lot Shuttle maximum: 444 inches (37 feet) – Note: While employee shuttles make scheduled pick-ups from various locations on main campus, routes are planned to mitigate the turning limitations of these larger shuttles.

4. Turning Radii by Wheelbase. Used in the placement of shuttle stops and for turning lanes at building entrances and in parking lots.
   a. On campus shuttle (wb 233”)
      i. Curb to Curb: 59.7 feet
      ii. Wall to Wall: 62.9 feet
   b. Emp. Lot shuttle (wb 259”)
      i. Curb to Curb: 65.6 feet
      ii. Wall to Wall: 68.8 feet

5. Shuttle Stops-All entrances and exits that are designed for patient use and which shuttle service is desired, recommend providing overhead awning/protection from inclement weather.
   a. For enterprise shuttle services, there are generally two types of shuttle stops
      i. Stops on a thoroughfare
         1. Will not be programmed along Chester, Euclid, Carnegie, Cedar Avenues or E 105th, E 93rd or E 89th Streets.
         2. Must be placed along one of these avenues/streets, it will be necessary to construct a cut-out along the side of the road that permits the shuttle to pull out of traffic during passenger loading and unloading.
            a. Cut-outs should be approximately 15 feet longer and 1 foot wider than the shuttle programmed to service the stop – see shuttle lengths.
      ii. Stops out of traffic in a drive or parking lot.
         1. Drives and circular drives should be of sufficient size to enable right side of bus curbside loading and unloading of passengers
         2. Enable the shuttle to maneuver the drive
         3. Support the simultaneous use by patient/visitor, valet, other public/private transport providers and emergency vehicles (See Shuttle Dimensions and Turning Radii by wheelbase above).