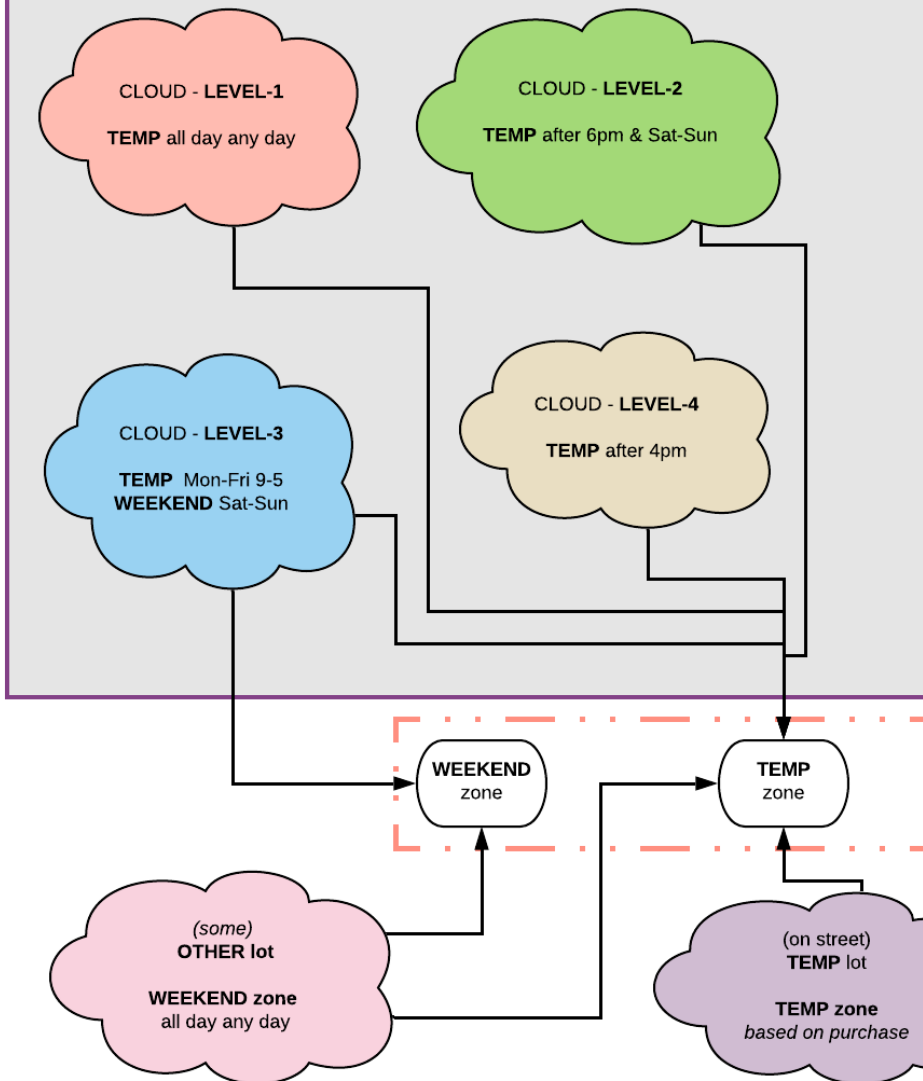


Planning Lot Groups and Lot Zones

Overview

PARKING GARAGE EXAMPLE

Lot Group: CLOUD



Working Example

A parking garage is broken into 4 virtual lots. Each virtual lot represents a level in the garage.

Each virtual lot (or level) has a specific allocation based on user type or time allocation. So on each level we can validate all the cars on that level are valid.

Using LPR we want to quickly validate vehicles at any of the levels of the parking garage.

By grouping all of the virtual lots in a LPR Lot Group (let's call it CLOUD) we are able to validate using the group membership.

eg. A permit in Lot 1 is valid in Lot 1 and is therefore also considered "valid" within the CLOUD group.

Note: Specify the lot for a strict parking policy, or a select the group for quick validation.

Lot Zones only exist to serve validation on the handheld devices.

**T2, CALE, ...
Temporary Parking**
Supplies TEMP as zone

Using a Zone

OTHER Lot is a lot that is not part of the CLOUD group.

If we wanted to allow users of this lot the ability to park on CLOUD - Level 3 Saturday to Sunday, we would define that relationship.

If the OTHER lot is available to all users in the CLOUD parking group, then it would need to be added to all lots.

In short... If you have a permit for LEVEL-3 or you have a permit for OTHER, you are valid in both lots since both have a WEEKEND zone. Each lot however can define the parameters around that validity.

Zone Setup

Temp Parking Kiosk could be a CALE or T2 terminal.

Within the settings of the device would be a zone designation.

In this example the zone may be called "TEMP"

Any lots that allow parkers with "TEMP" passes should add the zone TEMP to their Zone & Location configuration.

NOTE: notice that ever lot can limit TEMP zone users based on day and time.

Using Groups

A lot may only belong to one group and there are no parameters around validity beyond the grouping.

An example of using a group might be a physical parking lot that is chopped up into virtual smaller lots. Consider we have a huge parking lot that we don't want to put physical barriers into and the lot can accommodate 100 staff and 500 students.

In summary, one big physical lot with 600 parking stalls:

- Virtual lot #1: Red staff - 100 permits
- Virtual lot #2: Red student - 500 permits

When we are doing enforcement, if we select either of these lots we will get misses or "valid permit but wrong lot" type messages. This will slow down enforcement and is unusable in a automatic chalking scenario. We want to be able to group these lots so that anyone parked in this large area with a valid permit in the listed lots, is seen as valid. We'll call the group "**RED Group**".

We can call the group whatever we want, it is just a way to link lots as a textual category.

Create a Lot Group

Adding the group designation is easy, as we just type the words as seen here...

The screenshot shows a web form for creating a parking lot group. At the top, there is a dropdown menu labeled "Applies to" with the value "[Y] Red Student Lot West". Below this are three tabs: "General", "Temporary Parking", and "Statistics". The "General" tab is active. The form contains several fields and checkboxes:

- ☐ This lot is archived
- ☒ This lot is visible to site users
- Lot Name:
- Lot Short Name:
- Default Cost:
- ☒ This lot can be used for a second permit
- ☒ Allow the use of a waiting list with this lot
- Group Lot Category:

At the bottom, there is a "Lot Types" section with a dropdown menu.

Once the text has been recorded, the next one (here we see the Red Staff lot) prompts with text that is already in the database.

Applies to [Y] Red Staff Lot West

Zone & Location Temporary Parking Statistics

☐ This lot is archived

☒ This lot is visible to site users

Lot Name: Red Staff Lot West

Lot Short Name: TL1

Default Cost: 350.00

☐ This lot can be used for a second permit

☒ Allow the use of a waiting list with this lot

Group Lot Category: RED

Lot Types: RED Group

Common Lot 1

Common Lot 2

Street Parking

User Type Lot

That's it. Now we have our Red lots grouped on the system.

Notice that grouping is just a very simple way to group lots, there is no validation around day or time. It allows an enforcement patrol to select the group of lots that they are patrolling.

There is definite similarity to Groups and Zones. Groups are a simple grouping mechanism, while Zones offer more flexibility.

Please Note:

- groups and zones are free text and not bound by the items they group
- a lot can only be a member of one group
- a lot can have many zones
- grouping is a method to track similar lots

Enforcement allows the selection of: lot group, specific lot, zone or a mix of lot group and zone designation

Visual: Adding Groups to a Lot

Applies to [Y] After 4PM ▼

General Zone & Location Temporary Parking Statistics

☐ This lot is archived

☒ This lot is visible to site users

Lot Name: After 4PM

Lot Short Name: AFT4

Default Cost: 150.00

Lot group

☒ This lot can be used for a second permit

☐ Allow the use of a waiting list with this lot

Group Lot Category: STREET

Lot Times: - - - - -

Using Zones

- Generally use is tied directly to enforcement and the handhelds
- A lot may belong to many zones
- Different zones can supply different time/date validation parameters (ie. after-4pm, day care, weekend, evenings,...)
- Zones are not required and are unnecessary if a permit is valid all day every day with no other validation requirement

It is important to keep in mind that **zones** are useful to designate times and days and/or a date range when a zone is valid; or really when a lot is valid in a zone.

When creating a lot, the administrator can ***specify what zones a permit is valid in.***

Please note that permits must have one, and only one lot.

This discussion refers to permits and lots interchangeably, but keep in mind that a 'parker' owns a permit, not a lot. Therefore when a lot has a zone, it implies that a permit has a zone since a permit is one of many entities within a lot.

Zones allow us to solve a complex issue such as:

- Different zones can supply different time/date validation parameters (ie. after-4pm, day care, weekend, evenings,...)

- Zones are not required and are unnecessary if a permit is valid all day every day with no other validation requirement

Example:

- Permit #1234 belongs to the **Green Lot** (we'll call these users Green Parkers)
- Green Parkers can park in the **Green Lot** any day of the week
- Green Parkers may also park in the **Red Lot** on Fridays

So we could create a zone and understand that it refers to the **Red Lot** .

We can call this the "**RED Zone**" to allow admins, patrols, etc. to connect its use to the Red lot.

We can add the "**RED Zone**" to the **Green Lot's** zones through the lot admin tool. We can also specify the days, date range or time when Green Parkers can use this zone.

Create a Zone

At this point, our **Green Lot** has no zones. This is completely valid since the lot would simply fall under a "Any zone" type designation.



On the handheld during enforcement, there is no requirement to select a zone, as "**Any Zone**" can be selected. Perhaps validation is at the specific lot or lot group level, with no concern around zoning.

Now since we want users to be able to park in the "**Red Zone**" on Fridays, let's add it to the zone list.

Zone & LocationTemporary ParkingStatistics

Location:Beside Green field

Lot Allocation:[M] Monthly

Zone	Days or Range within Allocation	Start Time	End Time	
RED Zone	[S][M][T][W][T][F][S]	00:00	23:59	 

Add Zone by Days

Add Zone by Date Range

Lot Administration

Applies to [M] Green Staff Lot East

General
Zone & Location
Temporary Parking
Statistics

Location:

Beside Green field

Lot Allocation: [M] Monthly

Zone	Days or Range within Allocation	Start Time	End Time
<div style="display: flex; justify-content: center; gap: 10px;"> Add Zone by Days Add Zone by Date Range </div>			

So for completeness, we should also add the **"RED Zone"** to the Red lot, and select that anyone in that zone can park any day all day.

Remember the name **"RED Zone"** has no real connection other than the word "RED" to the Red lot.

Applies to [Y] Red Student Lot West

Zone & Location
Temporary Parking
Statistics

Location:

West side of campus. Access from Bridge Street

Lot Allocation: [Y] Yearly

Zone	Days or Range within Allocation	Start Time	End Time
<div style="border: 1px solid gray; padding: 2px; display: inline-block;">RED Zone</div>	<div style="display: flex; gap: 5px;"> [S] [M] [T] [W] [T] [F] [S] </div>	<div style="display: flex; gap: 10px;"> <div>00 ▾ : 00 ▾</div> <div>23 ▾ : 59 ▾</div> </div>	<div style="display: flex; gap: 5px;"> + - </div>
<div style="display: flex; justify-content: center; gap: 10px;"> Add Zone by Days Add Zone by Date Range </div>			

We also have a RED staff lot, so we should add the zone to that lot as well.

Applies to [Y] Red Staff Lot West ▼

Zone & Location Temporary Parking Statistics

Location:

Lot Allocation: [Y] Yearly ▼

Zone	Days or Range within Allocation	Start Time	End Time
RED Zone ▼	[S][M][T][W][T][F][S]	00 ▼ : 00 ▼	23 ▼ : 59 ▼

Add Zone by Days Add Zone by Date Range

In Summary

- users with RED permits (Student and Staff) are allowed to park in the **"RED Zone"** any day of the week all day
- Green Staff permit holders can also park in the **"RED Zone"** but only on Fridays

Visual: Adding Zones to a Lot

Zone & Location Temporary Parking Statistics

Location:

Lot Allocation: [M] Monthly ▼

Lot zone

Zone	Days or Range within Allocation	Start Time	End Time
RED Zone ▼	[S][M][T][W][T][F][S]	00 ▼ : 00 ▼	23 ▼ : 59 ▼

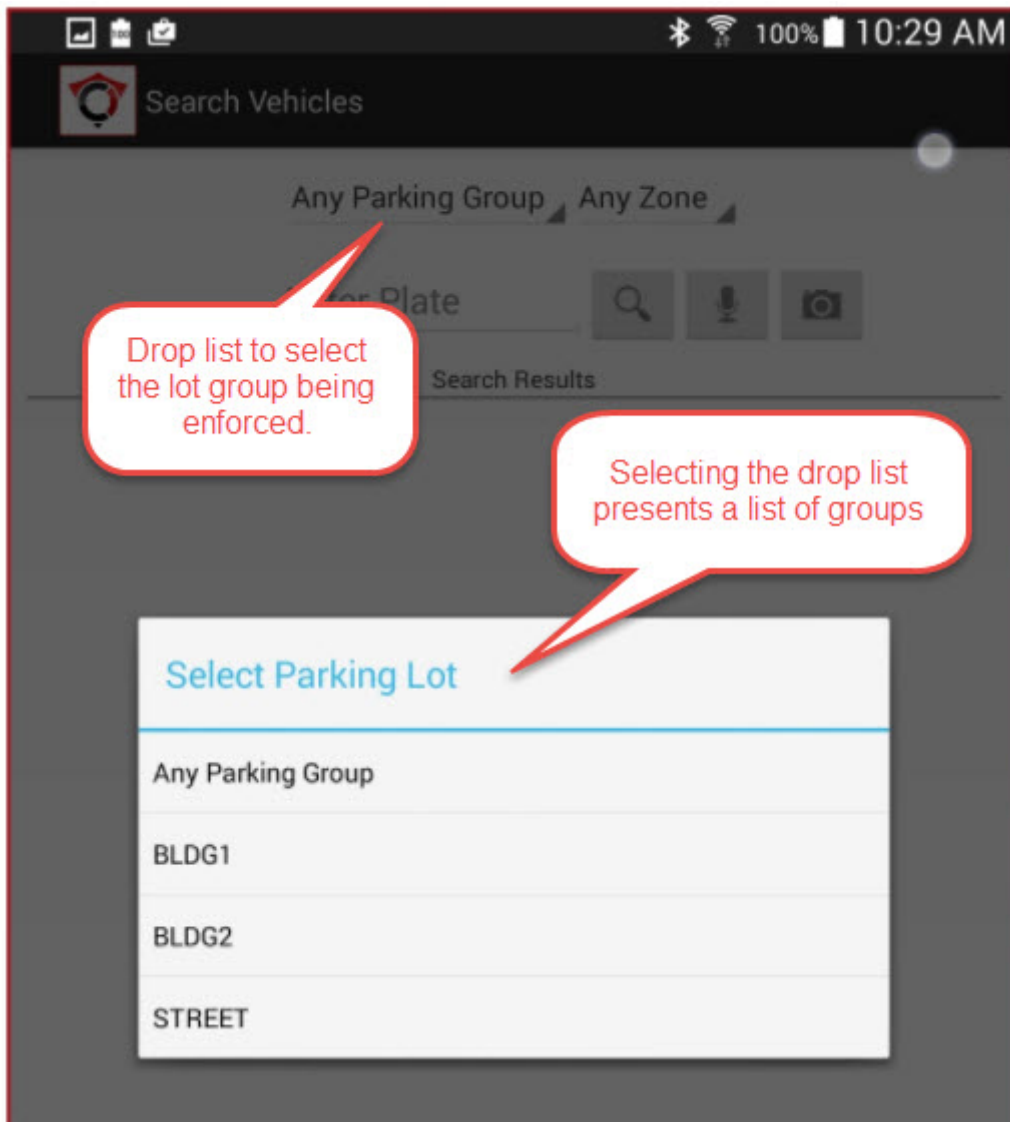
Add Zone by Days Add Zone by Date Range

Supporting Zones in Other Lots

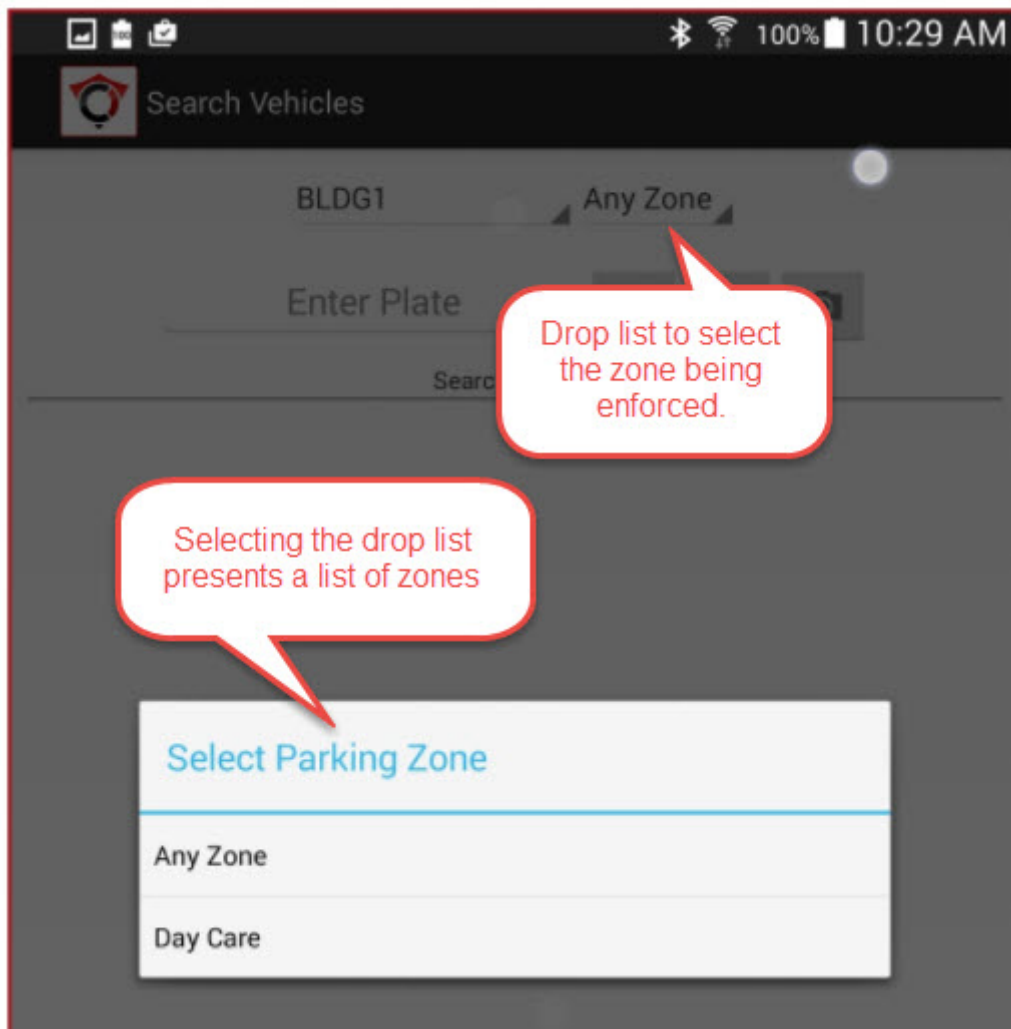
<div>Lot 5</div>	<div>Support a zone in other lots but not in the current lot.</div> <div><table><thead><tr><th>Zone</th><th>Days or Range within Sales Window</th><th>Start Time</th><th>End Time</th></tr></thead><tbody><tr><td>Day Care</td><td><div>S</div><div>M</div><div>T</div><div>W</div><div>T</div><div>F</div><div>S</div></td><td>00:00</td><td>23:59</td></tr><tr><td colspan="4"><div>Add Zone by Days</div><div>Add Zone by Date Range</div></td></tr></tbody></table></div> <div><div>This configuration shows Lot 5 supports the zone elsewhere and not in this lot.</div><div>This stops Lot 6 permit holders from having access to Lot 5 due to zone configuration.</div></div>	Zone	Days or Range within Sales Window	Start Time	End Time	Day Care	<div>S</div> <div>M</div> <div>T</div> <div>W</div> <div>T</div> <div>F</div> <div>S</div>	00:00	23:59	<div>Add Zone by Days</div> <div>Add Zone by Date Range</div>							
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<div>Add Zone by Days</div> <div>Add Zone by Date Range</div>																	
<div>Lot6</div>	<div>Support a zone that is linked with another lot.</div> <div><table><thead><tr><th>Zone</th><th>Days or Range within Sales Window</th><th>Start Time</th><th>End Time</th></tr></thead><tbody><tr><td>Day Care</td><td><div>S</div><div>M</div><div>T</div><div>W</div><div>T</div><div>F</div><div>S</div></td><td>16:00</td><td>23:59</td></tr><tr><td>Day Care</td><td><div>S</div><div>M</div><div>T</div><div>W</div><div>T</div><div>F</div><div>S</div></td><td>00:00</td><td>23:59</td></tr><tr><td colspan="4"><div>Add Zone by Days</div><div>Add Zone by Date Range</div></td></tr></tbody></table></div> <div><div>Since Lot 5 supports "Day Care", Lot 5 permit holders can park in this lot on evenings and weekends.</div></div>	Zone	Days or Range within Sales Window	Start Time	End Time	Day Care	<div>S</div> <div>M</div> <div>T</div> <div>W</div> <div>T</div> <div>F</div> <div>S</div>	16:00	23:59	Day Care	<div>S</div> <div>M</div> <div>T</div> <div>W</div> <div>T</div> <div>F</div> <div>S</div>	00:00	23:59	<div>Add Zone by Days</div> <div>Add Zone by Date Range</div>			
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Usage During Enforcement

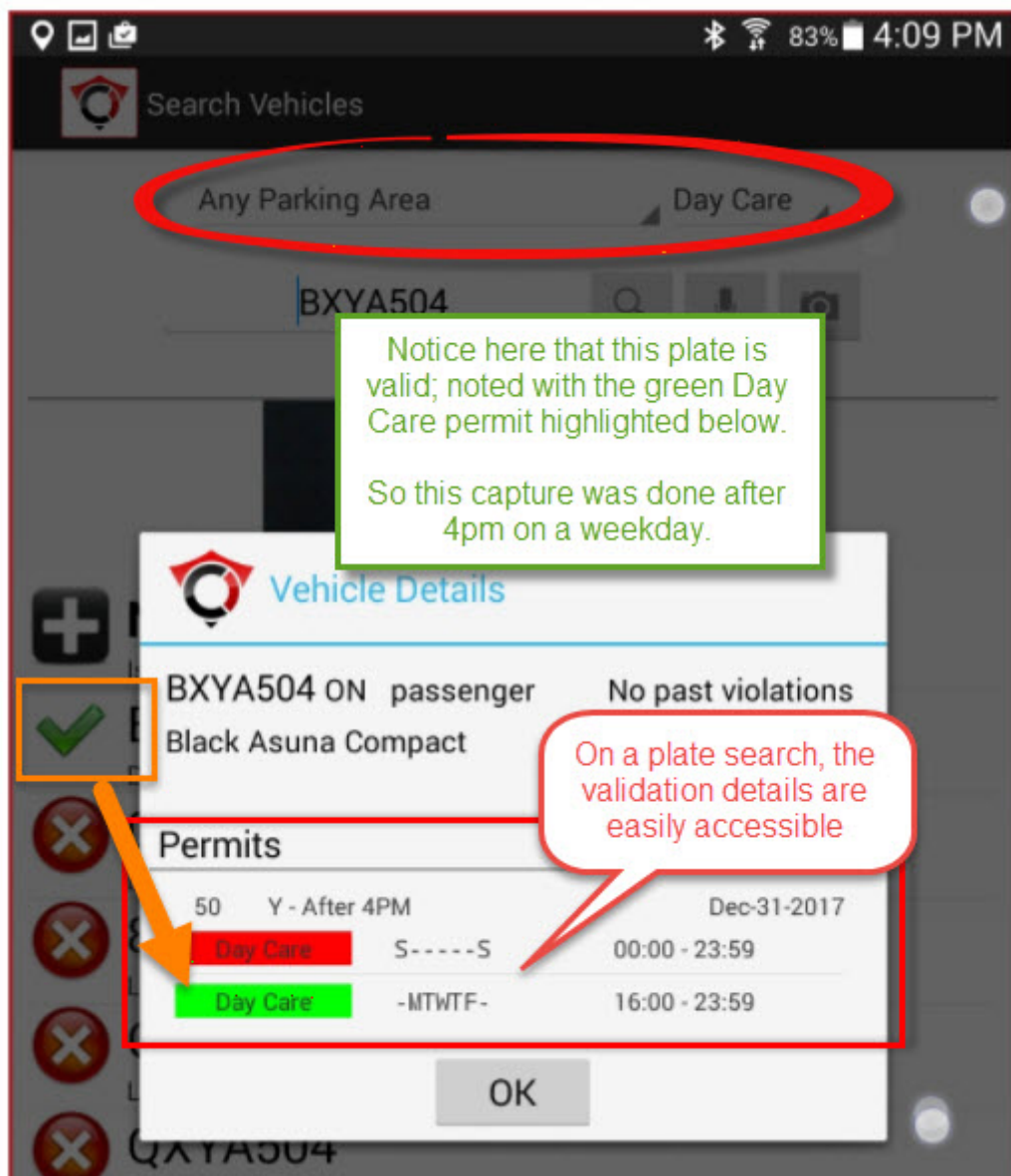
Group Selection on the Handheld



Zone Selection on The Handheld



Enforcement on the Handheld



Revision #2

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