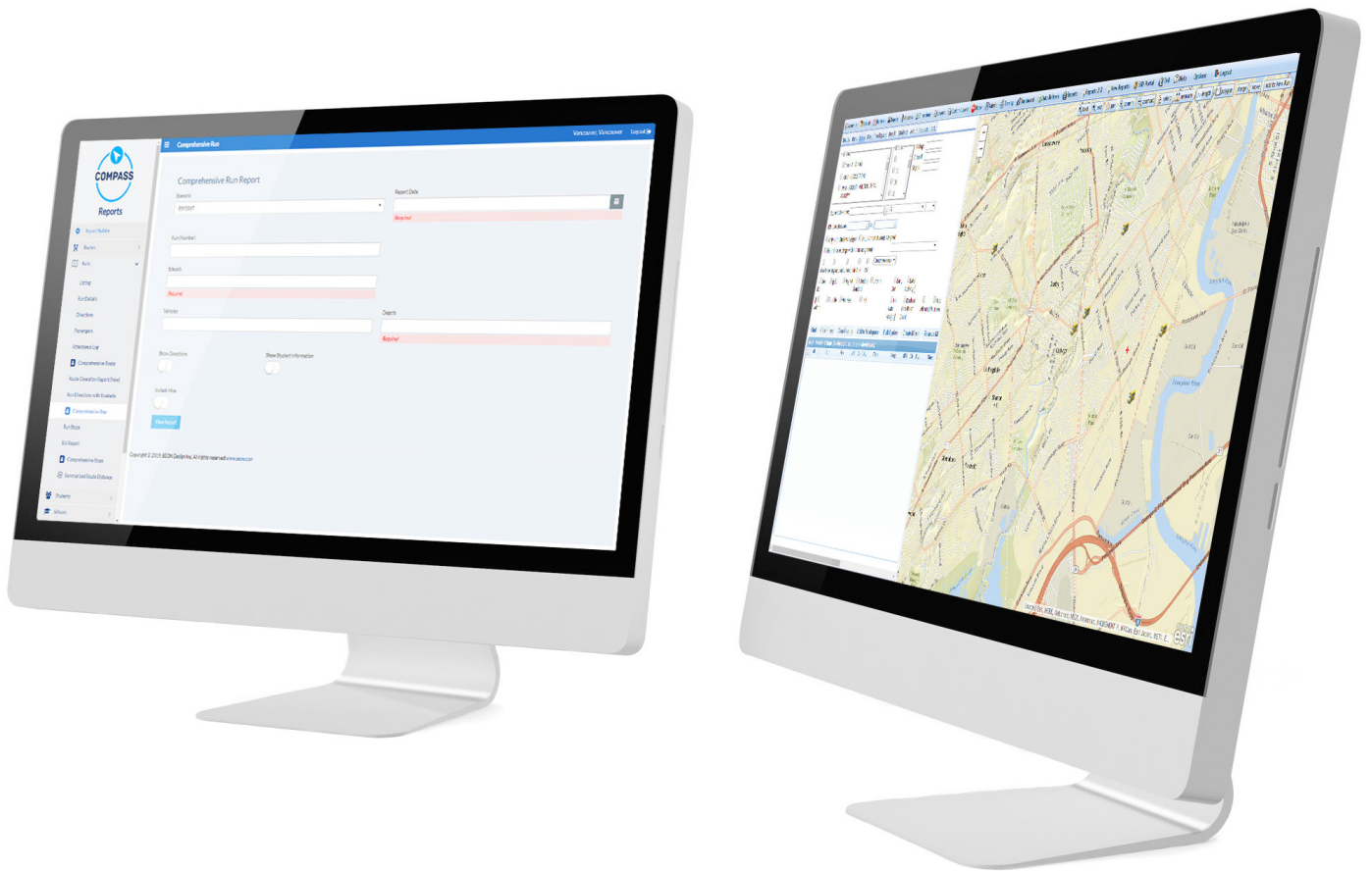


Compass Route Builder



User Guide

COMPASS ROUTE BUILDER USER GUIDE

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GET TO KNOW COMPASS

Introduction

Compass is a web-based solution for school transportation management that completely integrates routing, student tracking, and vehicle tracking and surveillance. Since Compass is truly web-based, users don't need to install any specific software or maintain their own servers for full functionality.

What does Compass do?

By simply logging in, users can start planning routes or tracking vehicles and students from their own web browser. Compass is a powerful routing software that features easy 2-step route building and automatic optimization.

Schools can easily synchronize student information systems to Compass. One Database holds student information offering users the best experience.

Users can monitor video surveillance in real time or learn about the vehicle data status. DVR health-check, panic alarms or even stop-arm deployment can be detected from any device that has access to the Internet.

Compass is based on ESRI Geographic Information Systems (GIS) for mapping and planning, and users have the ability to modify ESRI-based maps to suit their needs. Users don't need to import GPS data in order to see live vehicle tracks in a map or check the occupants of the vehicle at any time. By clicking a button, all this information is immediately available.

Get Familiar with Compass Terminology

It is important for customers to familiarize themselves with several concepts that are crucial to achieve a good understanding of how Compass works before they are able to take advantage of its capabilities.

Scenarios

Loading a scenario is the very first step for a user who has already logged in to the Compass Route Builder website. A **Scenario** is a version of the conditions that affect the routing events and it is determined by a complete set of data.

In other words, customers can create scenarios based on their needs and different scenarios will contain different data. For example, some customers might need to have different scenarios for different seasons throughout the school year. Since Compass Scenarios are associated to school districts, related data has to be available before a Scenario can be created.

Safe Fleet will initially provide its customers with one scenario but having this cloned before doing any work is recommended. This will allow the user to have two sets of the original data as a safety measure.

Maps

ESRI-based **Maps** are fundamental for customers to develop routes in Compass as they present valuable graphic information. However, it is important to understand that these maps are ineffective without data. It is necessary to build the dataset before using any of the map-related features and such dataset will be linked to the map once the user loads an existing scenario.

When data is available, the user may get information from those features displayed on the Map by clicking on them.

Runs

A Run is a set of directions used by a driver to drive the bus off a depot, pick up students at assigned stops, drop those students off at the selected place (generally a school) and then drive back to the depot or proceed to complete another Run. Of course, a different Run for the same driver could follow the inverse path, leaving the depot to pick up students at school, dropping them off at assigned stops (normally their residences) and then driving back the bus to the depot. Notice that for every Run, either pick up or drop off will generally be at the school.

Stops, Schools and Students

In order to plan Runs, users need to create **Stops** first, which will determine the course of the Run. Stops are those places where students are going to be picked up or dropped off by a bus every day, so they also require two more sets of data to have a real meaning, **Schools** and **Students**, which are linked to specific addresses. Such data has to be loaded into the database before the user starts working on the actual routing.

Furthermore, Stops always need to include pick up and drop off information to be created (i.e. when students get on the bus and when they finally get off).

It is also important to know that Compass allows the creation of two different types of Stops, depending on where these Stops are located relative to the students' residences. **Curb-to-Curb Stops** are situated by the students' residences and **Group Stops** may be planned to be at any place near the residences of several students who will be able to walk to such Stops from home.

Routes

We can describe **Routes** as Runs grouped together within a single programmed itinerary. A bus driver might need to do two or more Runs with different purposes before finally returning the bus to the depot. For example, there might be two groups of students going to school at different times in the morning, or one group might be taken to school and the other to a different location. The resulting combination of Runs is what we call a Route in Compass.

Vehicles

Compass uses the term **Vehicles** to refer to all the vehicles available for customers' route planning. Since vehicles are held in Depots, the location of these are an essential piece of information from the very beginning of any project.

Obviously, the size of any selected vehicle needs to be in accordance with the number of riders, but also options of equipment and aids must be taken into consideration when including vehicles in a run. Some examples are wheel chair adaptation, seat belts or safety vests availability.

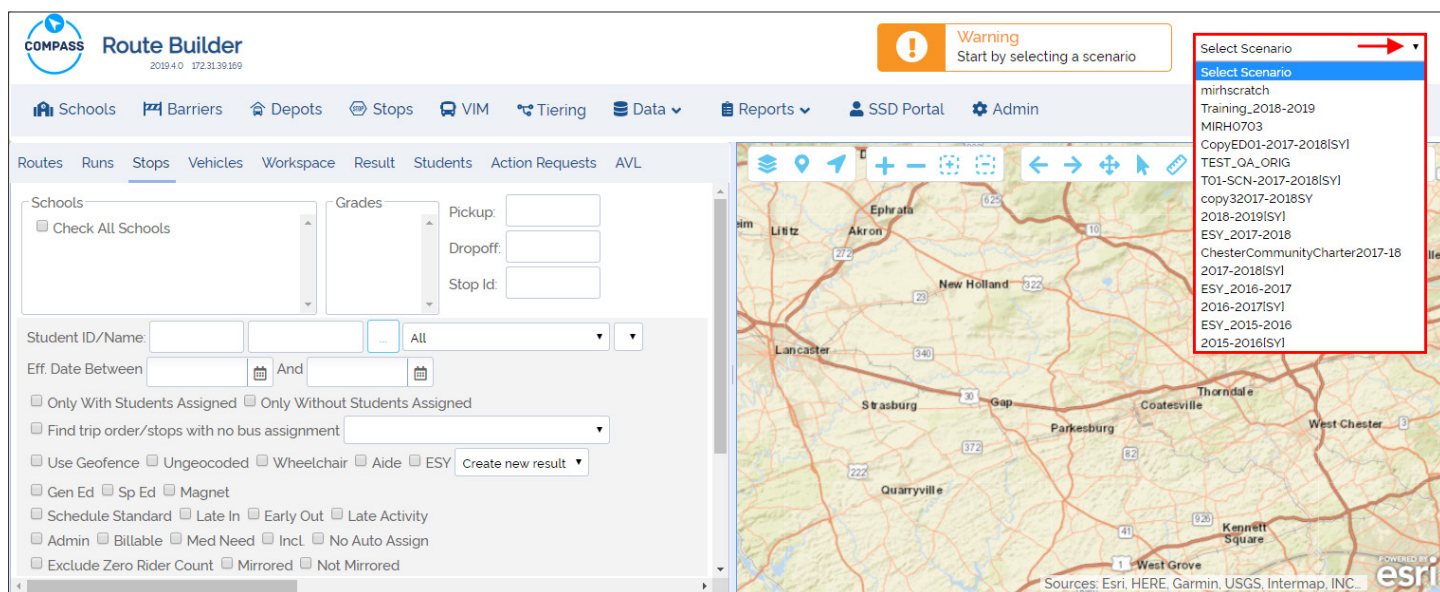
UNDERSTANDING SCENARIOS

A **Scenario** is a version of all the circumstances that affect the routing events and it is determined by a specific set of data.

Some Compass customers might need separate route plans for different seasons throughout the school year, and having various Scenarios allows users to edit them independently without affecting each other's data. Since Compass Scenarios are associated to school districts, related data have to be available before a Scenario can be created. These data can include addresses, bell times, programs, student enrollment, etc.

Safe Fleet initially provides customers with one Scenario with the required data for implementation but having this cloned before doing any work is recommended. This procedure will allow the user to keep two sets of the original data for safety reasons.

Once **logged in** to Compass Route Builder, users need to open an existing scenario or create a new one within the Scenarios window. To display the Scenarios drop-down menu click **Select Scenarios** tab on the upper-right corner of the screen.

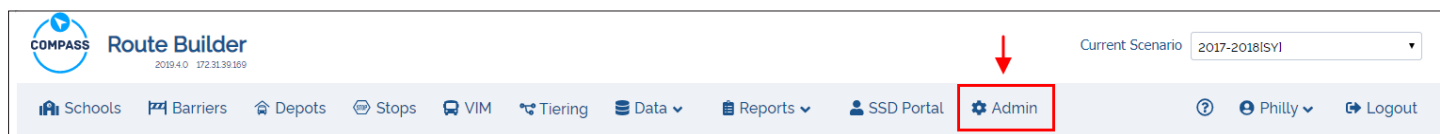


When you access Compass for the first time, a warning message informs you that selecting a Scenario is necessary before any routing tasks can be performed. This is displayed on the top-right section of the main screen next to the Scenarios drop-down menu (see previous image).

Once you select a Scenario, the warning message is replaced for a new dialog indicating that the Scenario is being loaded.



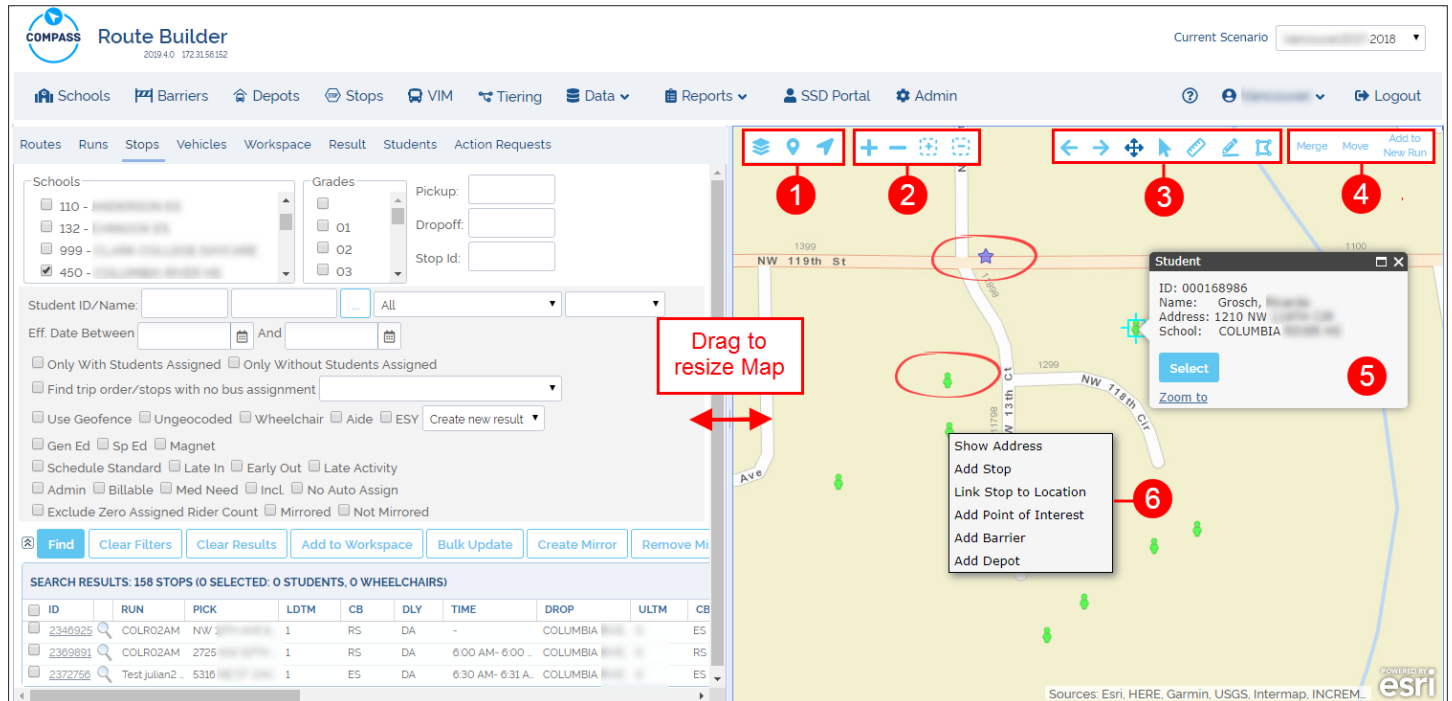
The Administration module holds the Scenarios tool, which allows users to edit existing Scenarios or create new ones. This module can be accessed by clicking **Admin** in the main toolbar. Visit the **Administration** section of this guide to learn more.



WORKING WITH THE MAP

One of the most important tools for Compass users is the Map. This is located on the right side of the main screen and can be manually expanded or reduced with the draggable separator (see image below).

Safe Fleet uses ESRI maps and Geographic Information System (GIS) software to offer the best experience.



There are many elements that can be seen within the Map's frame.

The toolbar is always visible in the Map and it is divided in 4 different sections, each one holding different tools:

1. The first section holds **Layers, Address or Street Finder** and **Location**.
2. The second section holds **Zoom In** and **Out** and **Marquee Zoom In** and **Out**.
3. The third section holds **Back View** (previous) and **Next View**, and **Select, Measurement, Length** and **Polygon** tools.
4. The fourth section includes tools to **Merge, Move** or **Add Stops** to a New Run.

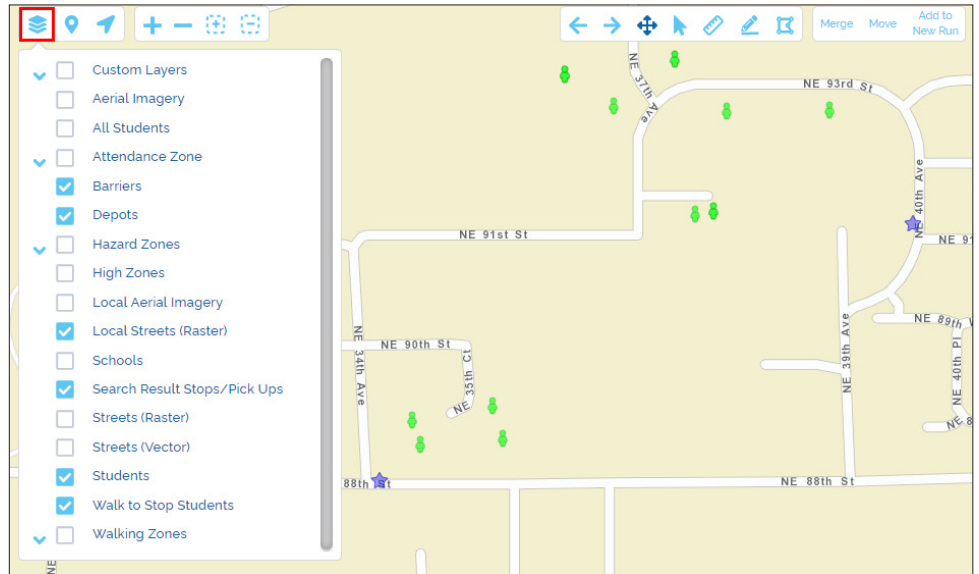
Other elements can be displayed as different icons during the routing process. The image above shows Students (green figures) and Stops (purple stars) as examples.

5. Clicking on any of the icons will disclose a window that shows the information related to that element and available optional tasks.
6. Right-clicking anywhere on the Map will open a window with other additional tasks. These are: **Show Address, Add Stop, Link Stop to Location, Add Point of Interest, Add Barrier** and **Add Depot**.

1 The first group of tools allows selecting layers, finding addresses and getting directions on the Map.

Clicking the **Layers** button displays the Layers menu from which you can select or deselect Layers to be included in the Map as preferred.

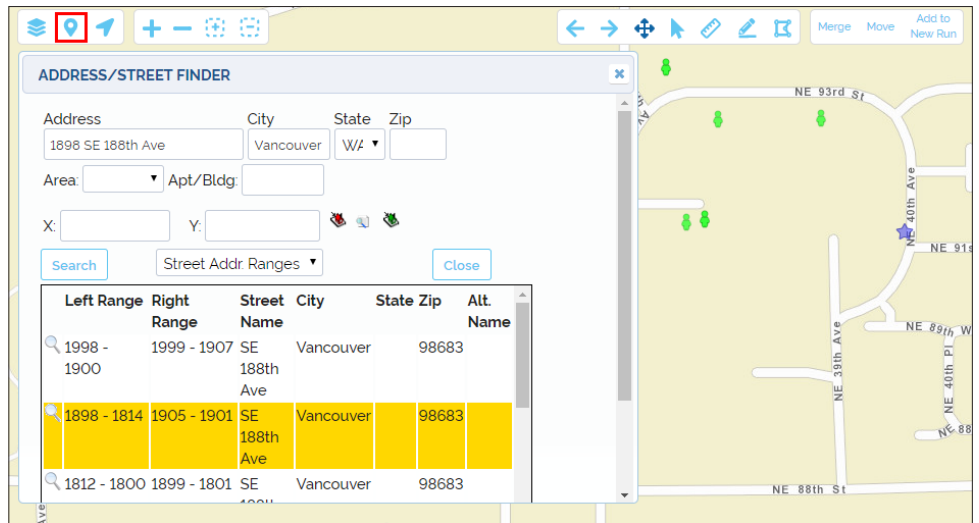
You will notice that some elements in this menu, such as Attendance or Hazard Zones, are drop-down menus themselves. You can expand these to see the available options.



Clicking the **Address** button displays an **Address/Street Finder** tool. When a specific address is entered and the Search button clicked, a table displays matching Streets and their number ranges.

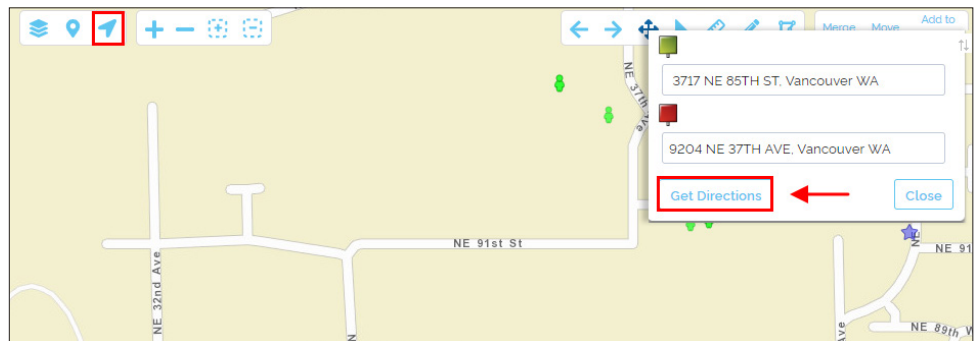
A magnifier button allows you to locate the selected entry in the Map.

Geocoding tools are also available to disclose addresses and coordinates on the Map. See the Geocoding section to learn more about these tools.



Clicking the **Directions** button pops up a window that allows the input of the initial and final addresses of a route of interest.

After clicking **Get Directions** below, the system resolves the route and displays the directions (see next section).

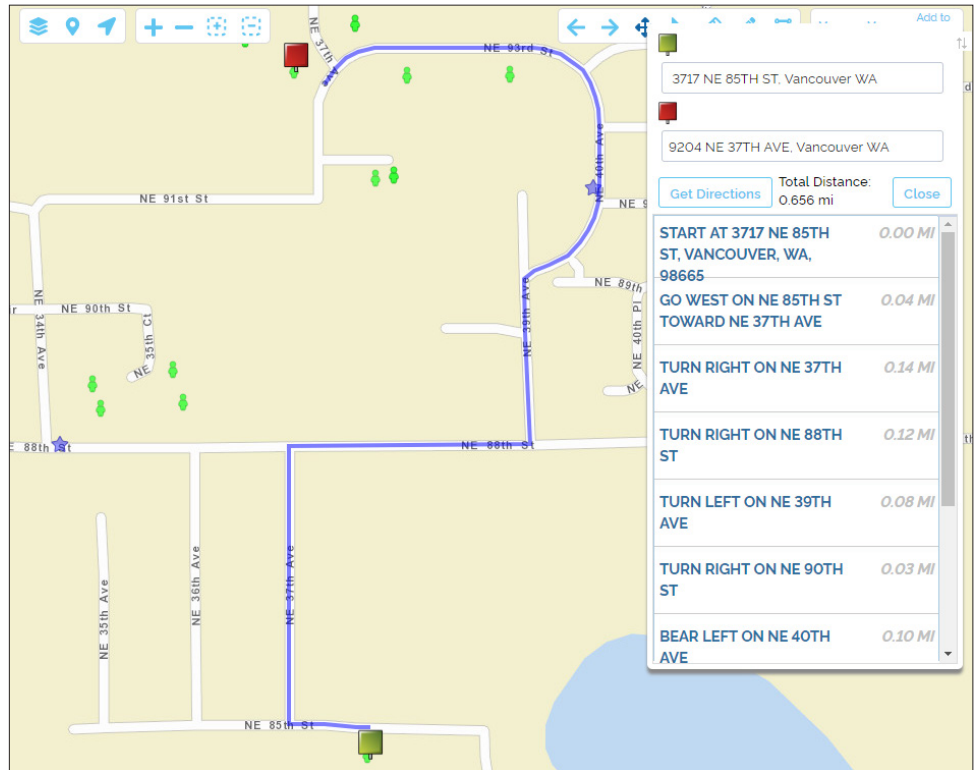


The resulting path is disclosed on the Map as a colored line.

Initial and final points are also displayed.

On the right of the Map, detailed directions are listed, including partial distances from one point to the next.

The Total Distance is shown on top of the Directions.

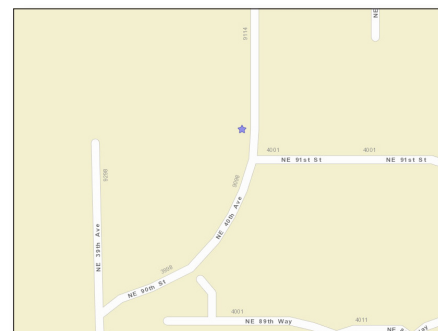
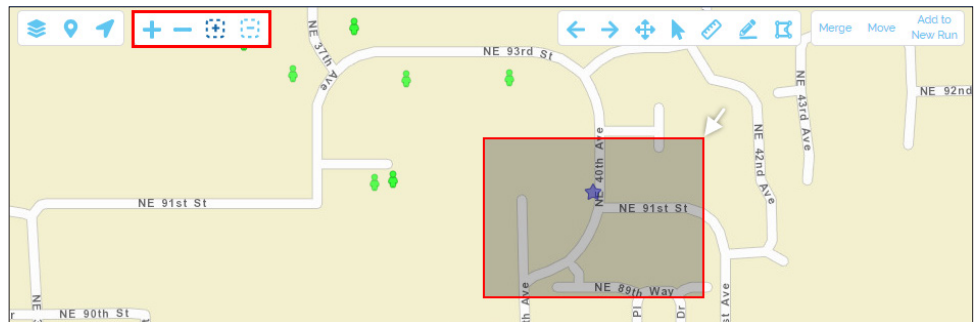


2 The second set of tools offers two ways of zooming in and out. The **Zoom** tool directly zooms in/out the complete Map after clicking the +/- buttons respectively. The **Marquee Zoom** allows the selection of a particular area in the Map. Let's see how this works:

After clicking that Marquee Zoom in or out, drag the mouse cursor over the Map while a red polygon displays to help you delimit the area of interest.

Once finished, release the mouse and the Zoom in/out will operate accordingly.

As a result, the selected area will occupy the whole Map.



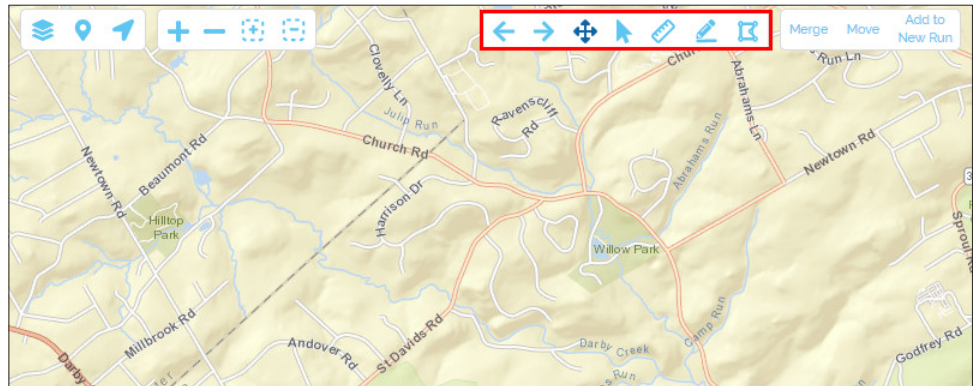
3 A third set of tools allows users to move, take measurements and draw polygons:

Use the **Back** and **Next** arrows to display the previous or next view in the Map.

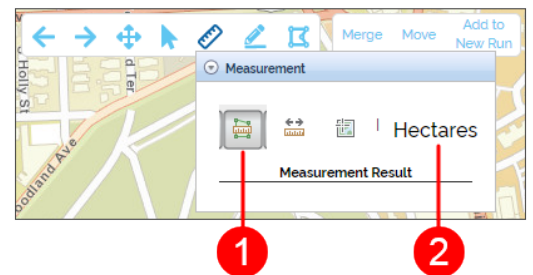
With the **Drag** tool, move the Map to position this on the screen as preferred by dragging it with the mouse cursor.

Use the **Select** tool to select features displayed on the Map.

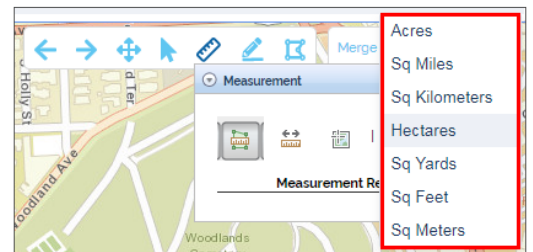
Use the **Measure** tool to make area and distance measurements, or disclose coordinates (latitude and longitude).



When you click the corresponding icons to select the tool, the current unit for that tool is displayed.

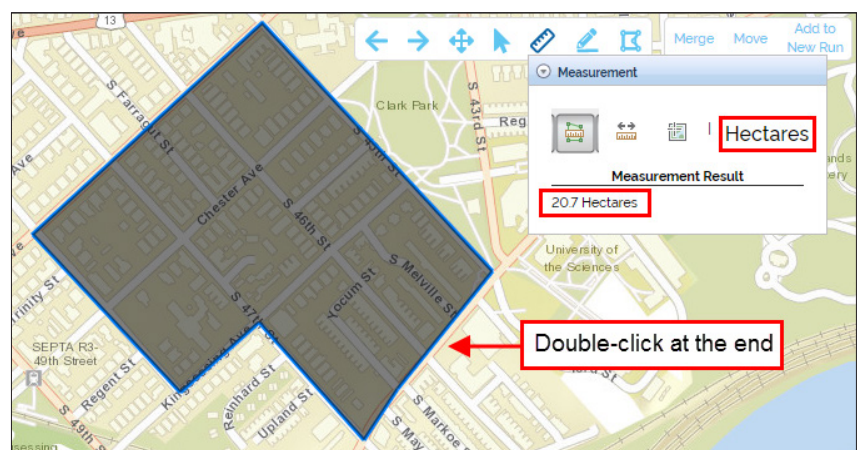


Keep the left button of the mouse pressed while the cursor is over the unit to disclose the unit selection menu. Then, select the preferred unit.

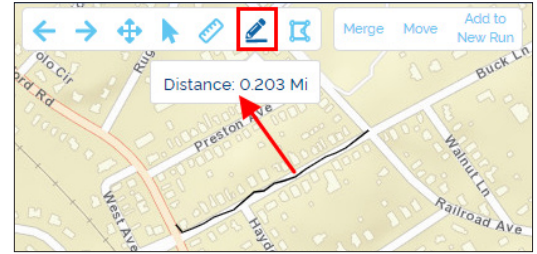


When measuring areas, hover the mouse over the map and click on each necessary point to delimit the polygon of interest. Then double-click to end the selection. The resulting measurement will be disclosed at the bottom of the window.

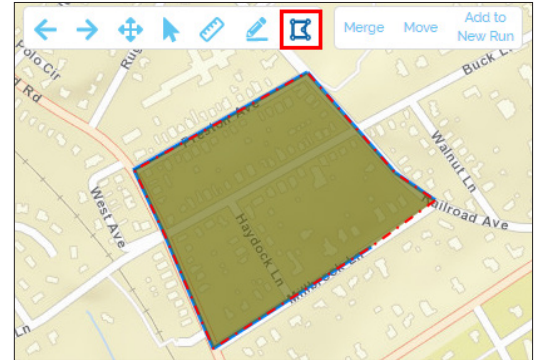
For distances, click on the selected points to draw a sequence of segments that constitute the route to be measured. Double click on the last point to end the measurement. The result will be disclosed at the bottom of the window.



Use the **Length** tool to draw a line on the Map and automatically measure the distance it represents.



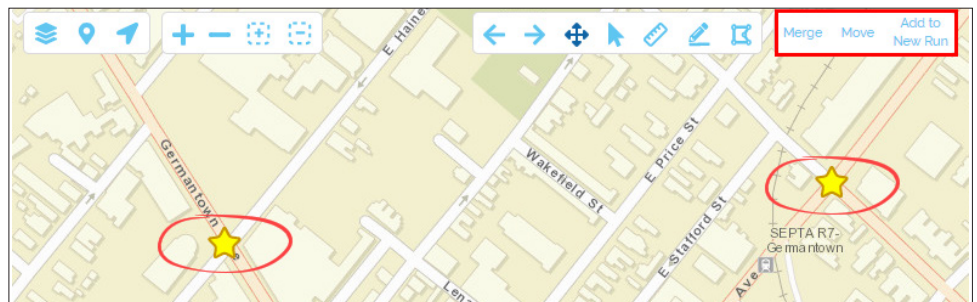
Use the **Polygon** tool to draw an area on the Map. Once you have selected the right number of corners, double click on the last one to end delimiting the area.



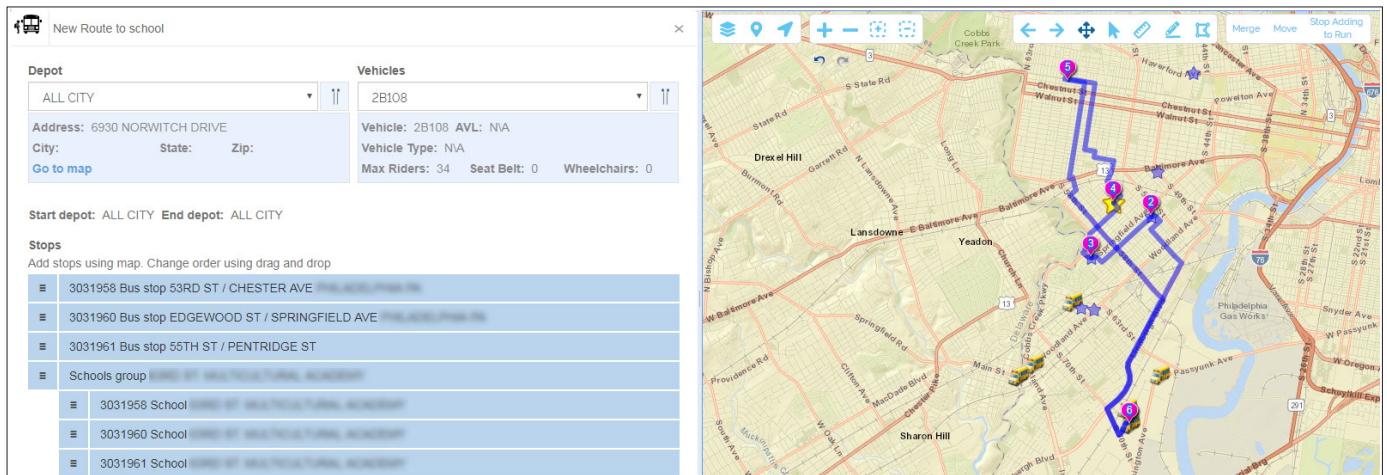
4 The fourth set of tools allows users to combine, move or add Stops to a new Run:

Use the **Merge** tool to group two or more previously selected Stops (displayed in yellow).

Use the **Move Stop** tool to relocate a Stop on the Map by selecting it and dragging it with the mouse cursor.



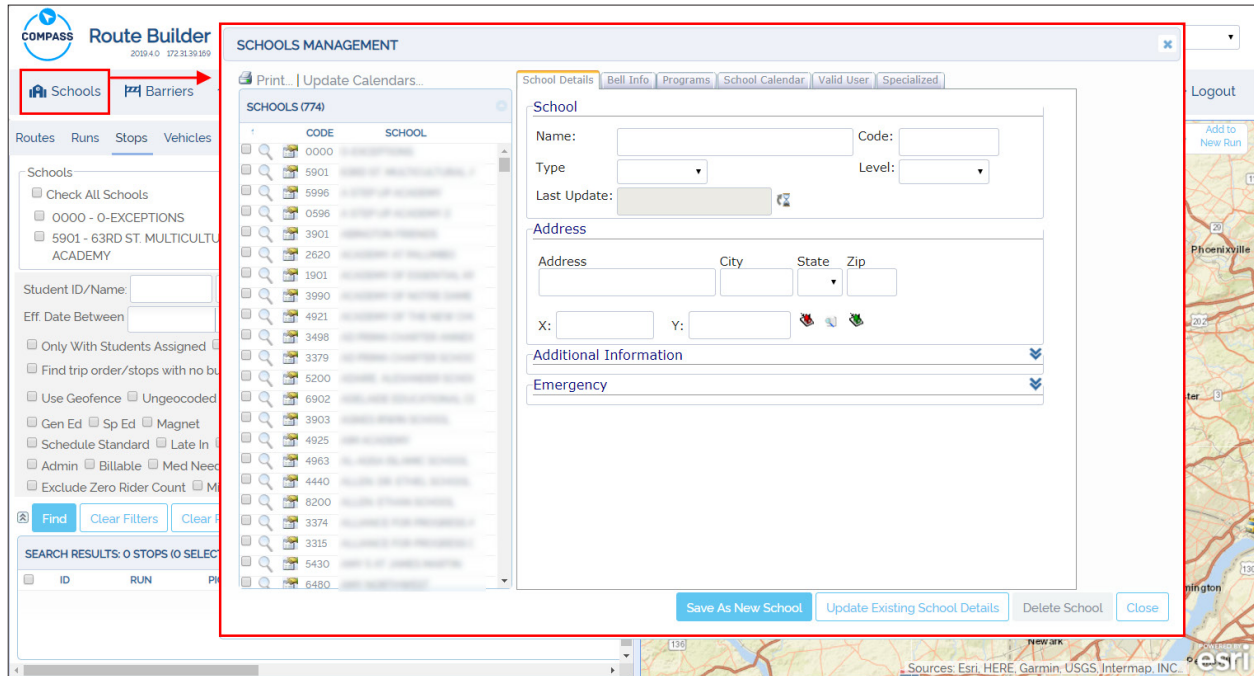
Use the **Stop Adding to Map** tool to generate a New Run while selecting School, Depot, Vehicles and the preferred Stops on the Map:



MANAGING SCHOOLS

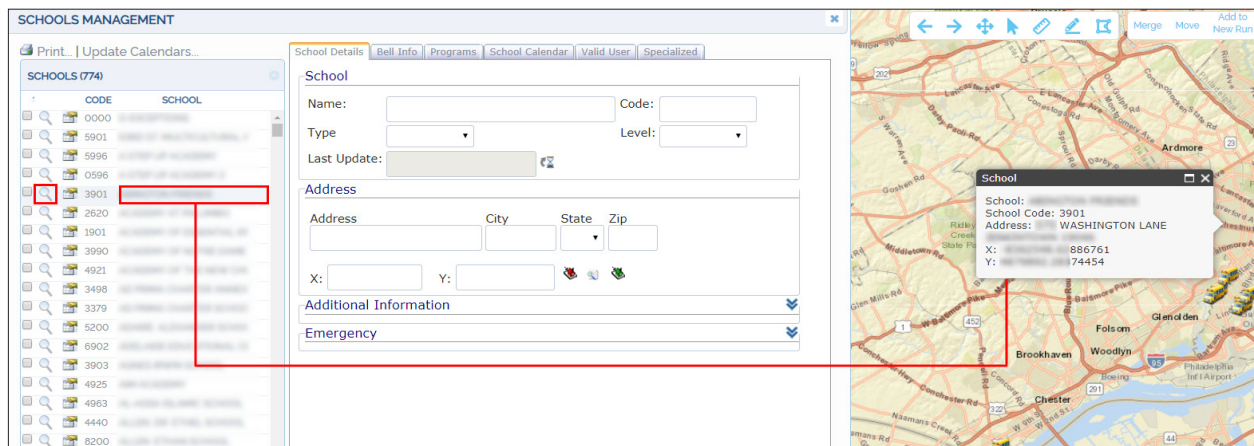
Understanding School Management

The **Schools Management** tool is accessible by clicking on the Schools tab in the upper left section of the screen. It holds three different kinds of information under separate tabs (School Details, Bell Information and School Programs).

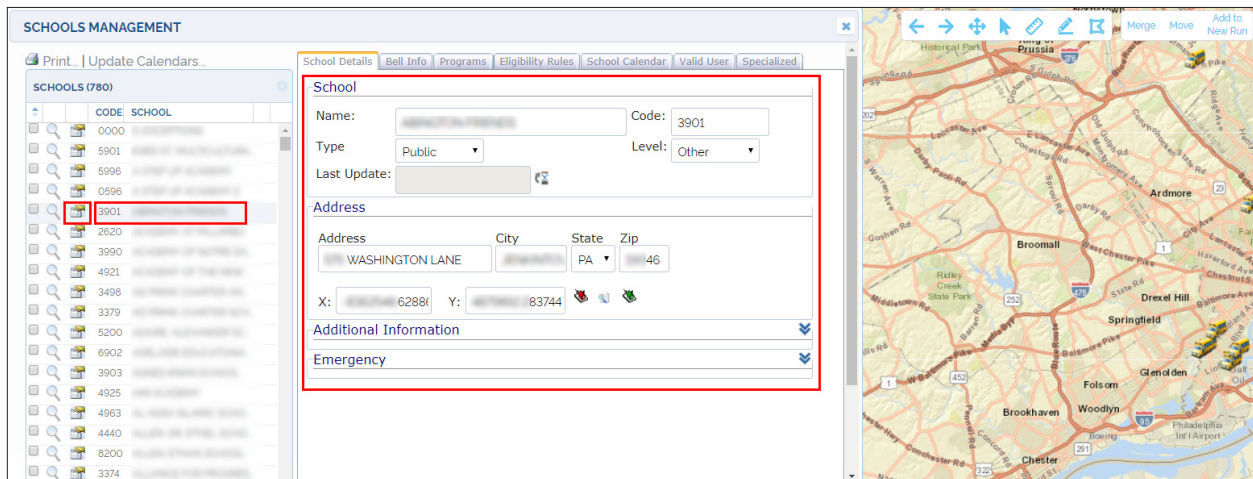


When users display the Schools Management window, a list of the Schools included in the database also becomes visible on the left. You will find two icons located right before each School name in the list that have different functionalities:

- You can click on the **magnifier icon** to display the **location window** of a specific school on the map. This shows the address and the associated geographic coordinates.



- You can click on the **record icon** to access the available **School's information** in the School Management window.
- School contact and general information is displayed under the **School Details** tab.
- Next to School Details, you will find another tab under which Bell Information is available. To learn about this, read the tutorial [Defining Bell Times](#).



Adding New Schools

You can add new Schools in the database with the Schools Management tool. First, click the **School Details** tab located in the upper left section of the screen. The School Details screen displays.

To add a **School** record:

1. Within the **School** area, enter **Name** and **Code**, select **Type** (APS, Charter, Non Public or Public) and **Level** (Elementary, Middle, High or Other).

2. Within the **Address** area, enter the necessary information in the corresponding text boxes.

Use the **Coordinates Tool** to disclose School's Coordinates (Geocoding).

To learn more about this tool read [Geocoding here](#).

3. In the Additional Information area, enter other specific information in the provided text boxes, including minimum and maximum walk distance to School and Stops as well as minimum and maximum distance between the School and the Stops.

4. Enter Student's Emergency Contact Name and phone number. For a clearer view of what's involved in steps 3 and 4, see the corresponding image in the next section Editing Existing Schools.

5. Click on **Save As New School** to save the School Details.

Editing Existing Schools

You can edit Schools existing in the database with the Schools Management tool. Once in the **School Details** screen, find and click the record icon on the left of the School that you want to edit. The School Details screen displays the information assigned to that School.

To edit the **School** record:

The screenshot shows the 'SCHOOLS MANAGEMENT' window with the 'School Details' tab selected. On the left, a list of schools is shown with '5901' selected. The main area displays the details for school 5901, including Name, Code, Type, Level, Last Update, Address, and Additional Information. Red callouts 1 through 5 highlight the following elements:

- 1: Name, Code, Type, and Level fields.
- 2: Address fields (Address, City, State, Zip).
- 3: X and Y coordinate fields.
- 4: Double arrow icon on the right of the Additional Information section.
- 5: 'Update Existing School Details' button at the bottom.

1. Within the **School** area, edit **Name**, **Code**, **Type** (APS, Charter, Non Public or Public) **Level** (Elementary, Middle, High or Other).

The **Last Update** field lets you see when the file was updated. To view a complete School Changes Report, click the hourglass button on the right.

2. Within the **Address** area, enter the necessary information in the corresponding text boxes.

Use the **Coordinates Tool** to disclose School's Coordinates (Geocoding).

To learn more about this tool read [Geocoding here](#).

The screenshot shows the 'Additional Information' and 'Emergency' sections of the School Details screen. The 'Additional Information' section includes the following fields:

- Phone: [] WAN: []
- Principal: [] Asst. Prin/Dean: []
- Office Mgr./Admin: [] FAX: []
- Walk to School (mi.): 150 Walk to Stop (mi.): 2
- All stops for this school will be within the following range:
- Minimum distance to stop (mi.): 0 Maximum distance to stop (mi.): 0
- Network: [] Asst. Superintendent: []
- Analyst: Morris, Joseph
- Hazard: xsis0907, xsis0907
- Hazard file: Select file (pdf, doc, x...) [] Add File

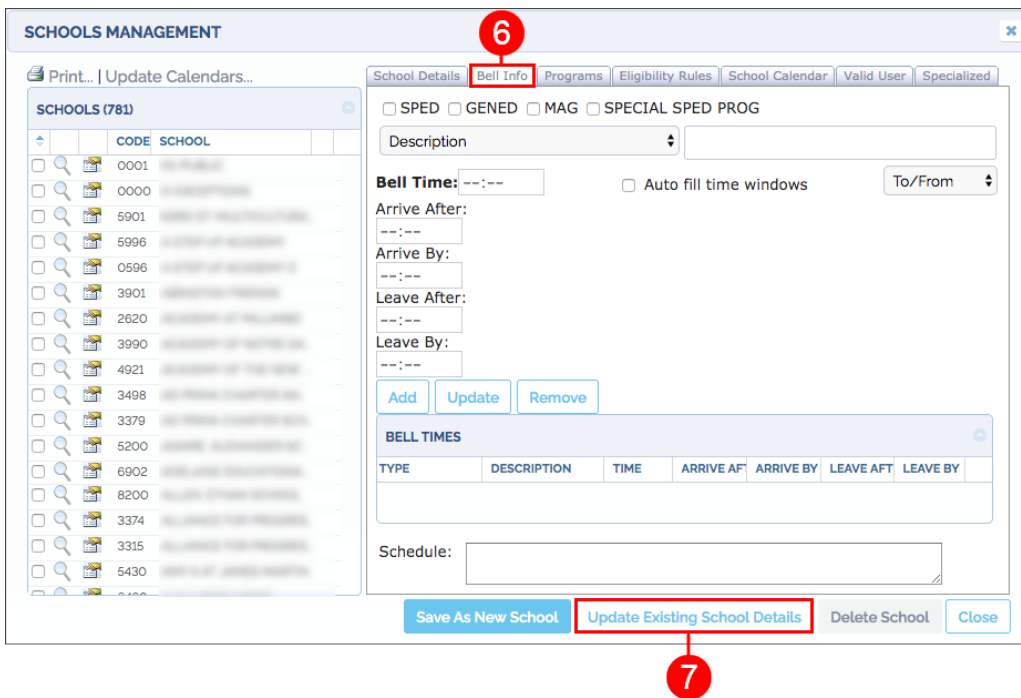
The 'Emergency' section includes the following fields:

- Contact Name: [] Phone Number: []

3. Click the double arrow to the right of the **Additional Information** tab to extend the dialog and enter other specific information in the provided text boxes, including minimum and maximum walk distance to School and Stops as well as minimum and maximum distance between the School and the Stops.

If a Hazard Zone has been established, the end of this dialog allows you to type related notes in the **Hazard** text box and upload the file by clicking the **Hazard File** browser to locate it in your computer, selecting it and clicking the **Add File** button.

4. Click the double arrow to the right of the **Emergency**, tab to display the dialog and enter Student's Emergency **Contact Name** and **Phone Number**.
5. Click on **Update Existing School Details**.



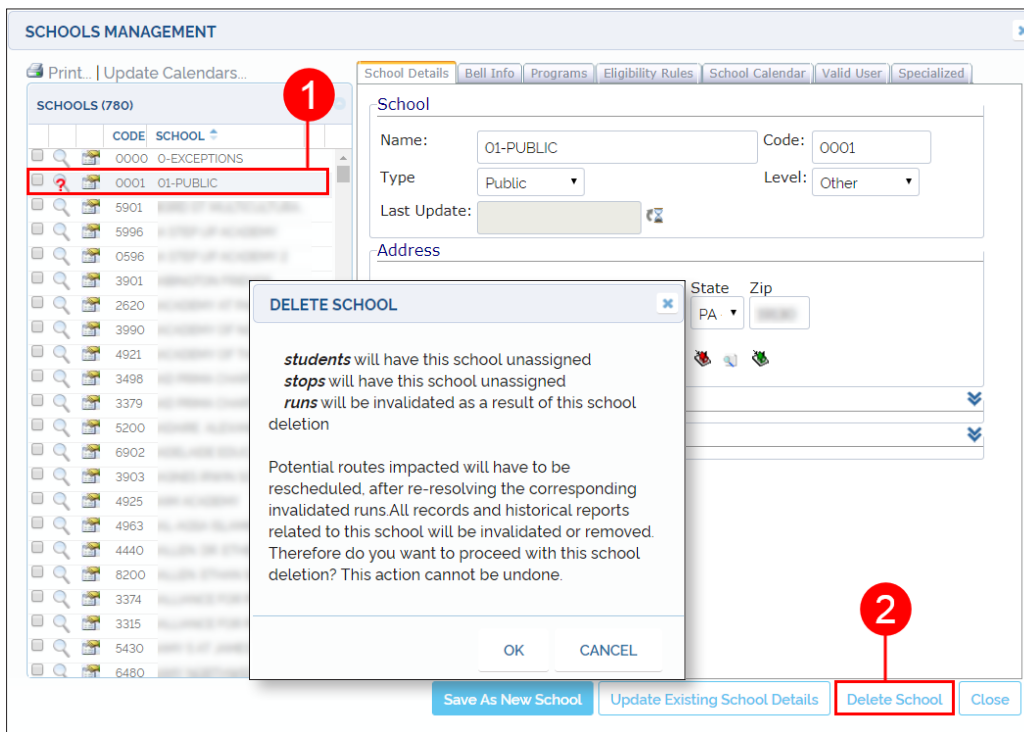
- Proceed to the **Bell Information** section by clicking on the Bell Info tab and edit Type of Education or Bell Information, including AM/PM Description, Bell Time and Time Windows, if needed.

Read the section [Defining Bell Times](#) to learn more about Bell Information.

- Finally, save by clicking on the **Update Existing School Details** tab.

Deleting Existing Schools

You can always delete an existing School record from the database with the School Management tool. To do so:



- Find the School to be removed in the scroll-down list and click on the **record icon** on the left of the School name. The selected School will be highlighted and its data will be displayed in the corresponding School Details text boxes.
- Click on the **Delete School** button. A new window will appear showing details of the impact of deleting the School record and warning you that the action can not be undone.
- If you are sure you want to delete the School record click **OK**. Otherwise click Cancel.

Geocoding

Geocoding is the process of transforming a specific address to a pair of geographic coordinates (x and y values).

Some common tasks in Compass Route Builder, such as adding new Students, adding new Schools, or creating Stops, require that addresses are converted into coordinates. Compass uses these coordinates to produce Runs and Routes. You can use the **Coordinates Tool** to disclose x and y values associated with an address or point on the Map. Let's take a look at **Schools Management** to illustrate how this is done in Compass:

There are three different tools available for Geocoding under the address text box: A red button that is used to disclose address and coordinates, a green button that can be used to disclose only coordinates and a white button that links an address to its associated coordinates.

1 If you know the exact location on the Map, you can disclose the address and coordinates at the same time with the **red Geocoding** button as follows:

- Click first on the red **Geocoding** button.
- Zoom in and click on the **exact location** on the Map. The **address and coordinates** will be displayed in the corresponding text boxes.

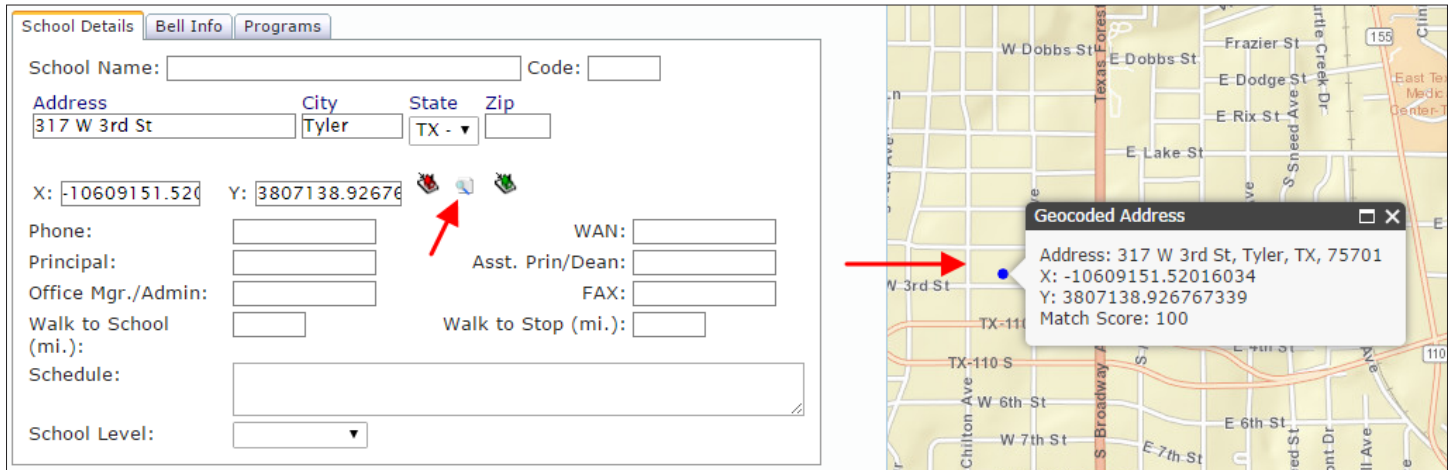
2 The green geocoding button gives the user the option to enter the address manually and even customize the way such address is displayed. To do so:

- Click on the green **Geocoding** button.
- Zoom in and click on the **exact location** on the Map. The **coordinates** associated with that location will be disclosed in the corresponding text boxes.
- Then, enter the **address information** as you want it to be displayed in the address text box.

3 The white geocoding button, depicted as a magnifier icon, allows the user to link an address to its corresponding coordinates.

- To link an address with its associated **coordinates**:
- Enter the **address** in its corresponding text boxes.
 - Click on the white **Geocoding** button. The coordinates will be disclosed below.

After an actual address is entered in its text box, if the user clicks on the white Geocoding button and the system recognizes its associated coordinates, a pop-up window with such address and geocoding information will be displayed on the Map on the corresponding location.



NOTE: Missing Street Layout

Sometimes, even an actual address already existing in the database can't be found in the Map. This often happens because it takes some time to update the map's information after recent developments. In that case, the system might be able to geolocate the address and assign coordinates to it, but no graphic information of the current street layout would be displayed.

This feature is specially useful when admin users find Students with missing Geocoding information in the database. When this occurs, a red warning question mark will be displayed on the left of the Student's ID. By following this method, the user can disclose the associated coordinates and save that information.

SEARCH RESULTS: 9 STUDENTS (0 SELECTED)								
<input type="checkbox"/>	STUDENT ID	LAST NAME	FIRST NAME	ADDRESS	SCHOOL	CHG. REQ	CHG DT	CARD ID
<input type="checkbox"/>	C0035479	BITENCOURT					5/30/2018 5:49:2...	
<input type="checkbox"/>	C0059417	BITENCOURT					9/7/2018 3:54:49 ..	
<input type="checkbox"/>	C0045679	CLEMENT					5/30/2018 5:49:2...	
<input type="checkbox"/>	C0059394	ENOCH					9/9/2018 2:46:36..	
<input type="checkbox"/>	C0021717	SLAWNYK					5/30/2018 5:49:2...	
<input type="checkbox"/>	C0034902	BOWMAN					10/30/2018 2:20...	
<input type="checkbox"/>	C0026049	GOLDEN DEVE...					10/30/2018 2:20...	

Defining Bell Times

Once a New School has been created, users will need to define the Bell Times. To do so:

1. Click on the **Bell Info** tab. The Bell Info window will appear.

2. Select the corresponding education type for this Bell Time. This can be Special Education, General Education, Magnet Programs or other Special Education Programs.

3. Select the preferred Bell Time type from the drop-down menu, generally classified as **AM/PM** and **IN/OUT** times.

4. Enter a **Bell Time** value followed by **AM** or **PM** in the Bell Time box and assign the allowed time windows (i.e., earliest and latest for the bus to Arrive Prior to In Bell Time and Depart After Out Bell Time) in the corresponding boxes.

5. If you selected **Auto Fill**, these times will automatically populate their corresponding boxes. Otherwise, you will have to manually enter each preferred time in the provided text boxes.

6. Click **Add**.

TYPE	DESCRIPTION	TIME	ARRIVE AFT	ARRIVE BY	LEAVE AFT	LEAVE BY
GENED	AM IN BELL TIME	7:58 AM	7:48 AM	7:53 AM	8:03 AM	8:08 AM

1. Click on the **Bell Info** tab. The Bell Info window will appear.
2. Select the corresponding education type for this Bell Time. This can be Special Education, General Education, Magnet Programs or other Special Education Programs.
3. Select the preferred Bell Time type from the drop-down menu, generally classified as **AM/PM** and **IN/OUT** times.
4. Enter a **Bell Time** value followed by **AM** or **PM** in the Bell Time box and assign the allowed time windows (i.e., earliest and latest for the bus to Arrive Prior to In Bell Time and Depart After Out Bell Time) in the corresponding boxes.
5. If you selected **Auto Fill**, these times will automatically populate their corresponding boxes. Otherwise, you will have to manually enter each preferred time in the provided text boxes.

7. Select the corresponding education type for this Bell Time. This can be Special Education, General Education, Magnet Programs or other Special Education Programs.

8. Select the preferred Bell Time type from the drop-down menu, generally classified as **AM/PM** and **IN/OUT** times.

9. Click **Save As New School** or **Update Existing School Details** as appropriate.

TYPE	DESCRIPTION	TIME	ARRIVE AFT	ARRIVE BY	LEAVE AFT	LEAVE BY
GENED	AM IN BELL TIME	7:58 AM	7:48 AM	7:53 AM	8:03 AM	8:08 AM
GENED	PM OUT BELL TIME	3:00 PM	2:50 PM	2:55 PM	3:05 PM	3:10 PM

7. Once the AM In Bell Time is ready, select **PM Out Bell Time** from the drop-down menu.
8. Then, follow the exact same steps as explained above for the AM In Bell Time.
9. Click **Save As New School** or **Update Existing School Details** as appropriate.

Editing and Removing Bell Times

You can modify and **Update** the existing Bell Times.

School Details | Bell Info | Programs | Eligibility Rules | School Calendar | Valid User | Specialized

SPED GENED MAG SPECIAL SPED PROG

PM OUT BELL TIME

Bell Time: 03:00 PM Auto fill time windows From School

Arrive Prior to Bell Time by:

no more than 10 minutes

no less than 5 minutes

Depart After Bell Time by:

no less than 5 minutes

no more than 10 minutes

Arrive After: 02:50 PM

Arrive By: 02:55 PM

Leave After: 03:05 PM

Leave By: 03:10 PM

Add Update Remove

BELL TIMES						
TYPE	DESCRIPTION	TIME	ARRIVE AF	ARRIVE BY	LEAVE AFT	LEAVE BY
GENED	AM IN BELL TIME	7:58 AM	7:48 AM	7:53 AM	8:03 AM	8:08 AM
GENED	PM OUT BELL TIME	3:00 PM	2:50 PM	2:55 PM	3:05 PM	3:10 PM

Schedule:

Save As New School Update Existing School Details Delete School Close

To edit Bell Times:

1. Edit the values in the corresponding Bell Time text boxes.
2. Click on the **Update** button below. The new values will be displayed.
3. Click on **Update Existing School Details**.

You can also **Remove** an existing Bell Time.

School Details | Bell Info | Programs | Eligibility Rules | School Calendar | Valid User | Specialized

SPED GENED MAG SPECIAL SPED PROG

PM OUT BELL TIME

Bell Time: 03:00 PM Auto fill time windows From School

Arrive Prior to Bell Time by:

no more than 10 minutes

no less than 5 minutes

Depart After Bell Time by:

no less than 5 minutes

no more than 10 minutes

Arrive After: 02:50 PM

Arrive By: 02:55 PM

Leave After: 03:05 PM

Leave By: 03:10 PM

Add Update Remove

BELL TIMES						
TYPE	DESCRIPTION	TIME	ARRIVE AF	ARRIVE BY	LEAVE AFT	LEAVE BY
GENED	AM IN BELL TIME	7:58 AM	7:48 AM	7:53 AM	8:03 AM	8:08 AM
GENED	PM OUT BELL TIME	3:00 PM	2:50 PM	2:55 PM	3:05 PM	3:10 PM

Schedule:

Save As New School Update Existing School Details Delete School Close

To remove a Bell Time:

1. **Select** the Bell Time to be deleted by clicking on its row in the table.
2. Click the **Remove** button. The selected Bell Time will disappear from the list. Now you can add a new one if needed.
3. Click on **Update Existing School Details** when you finish.

MANAGING STUDENTS

First Steps in Student Management

The Students Management tool allows customers to add new Students to the database and edit or delete existing student records.

The tool is displayed by clicking on the **Students** tab. This gives users access to the District's School list (Attending School window), Grades and Student's name and ID, which are search filters that can be used to narrow down Student search.

If you select one or more Schools and click on the **Find** button, a list of the enrolled Students that match the search criteria will be shown within the **Search Results** window. In addition, the resulting Students will be graphically displayed on the map.

You can select one or more Students by selecting the boxes next to them. The selected students' records will be highlighted and the student's location shown on the Map in the same color. A window with details of the last selected Student will also appear on the map.

The first column of the list also shows a search button (displayed as a magnifier) followed by Student ID, Last Name, First Name, Address and attending School. You can click search button to disclose the actual residence of each Student on the map.

COMPASS Route Builder
2019.4.0 172.31.56.152

Current Scenario 2017-2018(SY1)

Schools Barriers Depots Stops VIM Tiering Data Reports SSD Portal Admin

Routes Runs Stops Vehicles Workspace Result **Students** Action Requests AVL

Attending School: [Dropdown]
 Check All Schools
 0000 - 0-EXCEPTIONS
 5901 - MULTICULTURAL

Grades: [Dropdown]
 00
 01
 02

Student ID: [Text]
 Last Name: [Text]
 First Name: [Text]
 Card Id: [Text]

Find Clear Filters Clear Results Curb to Curb Stop New Student Bulk Update
 Assign Symbols ADA

Show all run revisions with student details. Print Results...

SEARCH RESULTS: 134 STUDENTS (0 SELECTED)

	STUDENT ID	LAST NAME	FIRST NAME	ADDRESS	SCHOOL	CHG. REC
<input type="checkbox"/>	C0047367				MULTICULT..	
<input type="checkbox"/>	C0008357				MULTICULT..	
<input checked="" type="checkbox"/>	C0008356				MULTICULT..	
<input type="checkbox"/>	C0042517				MULTICULT..	
<input type="checkbox"/>	C0047434				MULTICULT..	

Student ID: C0008356
 Name:
 Address:
 School:
 Select
 Zoom to

Users can also access a comprehensive set of **Search Filters** that are hidden by default. These allow searching based on certain parameters for more effectiveness. Some of them are:

- Special or General Education.
- Eligibility for Transportation.
- Riding with Siblings.
- Medical.
- Especial Needs.
- Safety Devices.
- Other District Field's specifications.

To access the Filters:

- Click the expand icon. A new area containing these filters is displayed above it.
- Click the collapse icon to hide the search filters if preferred.

Within the last group of search filters, you will find a drop-down menu named District Field. We will review this topic later in the **District Fields** section.

Understanding the Student Menu

If you click on a **Student's ID** within the Student Search Results list displayed after a search, the Student's record dialog pops-up.

The **Main** tab displays the Student **Entry Date** and **Last Update** at the top. In addition, an hourglass button can be clicked to disclose a **Record Change History Report**.

Next to it, **Locked** and **Inactive** status can be selected.

Other sections contain different kinds of information, such as:

- Student Name, personal data, and ID, District and Attending, Zoned, Enrolled or Summer School (if applicable).
- Program information.
- Special Needs options.
- Residence Address.
- Transportation Status.

Residence Address and **Transportation Status** are hidden by default and need to be extended.

Residence Address holds:

- Student's **Address** and coordinates. To know more about coordinates go to the [Geocoding](#) section included in School Management.
- **Copy as Pick Up/Drop Off**. Clicking these tools, automatically copies the Student's Residence Information to the corresponding fields in the Transportation dialog.
- **Phone**.
- **Distance** between Student's Address and Attending School.
- **Transportation Mode** and **Exception Reasons**.
- **Emergency Phone** and **E-mail**.

Transportation Status allows selecting a time frame when the Student requires (if eligible) transportation (AM, PM, Both, etc) as well as the number of days.

Transportation Status also allows **Notes** and the selection of other specific characteristics.

Understanding the District Fields Menu

Next to the Main tab you'll find the **District Fields** tab. This dialog allows customers to create personalized Fields, which are different from the available Special Needs Fields located within the Main menu, by clicking on the **Add New** tab in the upper left corner of the window (a).

Users can assign existing District Fields to New Students if required.

Users can always edit or remove existing District Fields by clicking the **Edit** or **Delete** icons respectively. These are located in the right column (b).

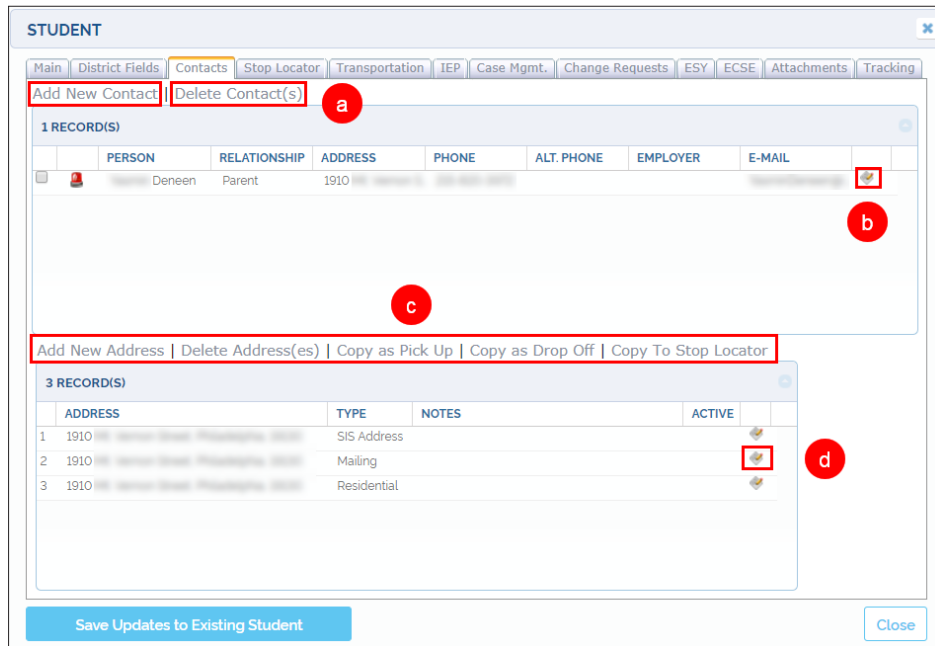
After clicking **Add New** (a) District Fields requests two kinds of information: A descriptive **Item** name (c) and a **Value** (d) for that Item. Most Values are Yes or No (Y/N).

For example, a Student may (Y) or may not (N) have Bleeding Problems.

Other District Fields might need more specific Values.

Understanding the Contacts Menu

Next to the District Fields tab you'll find the **Contacts** tab.

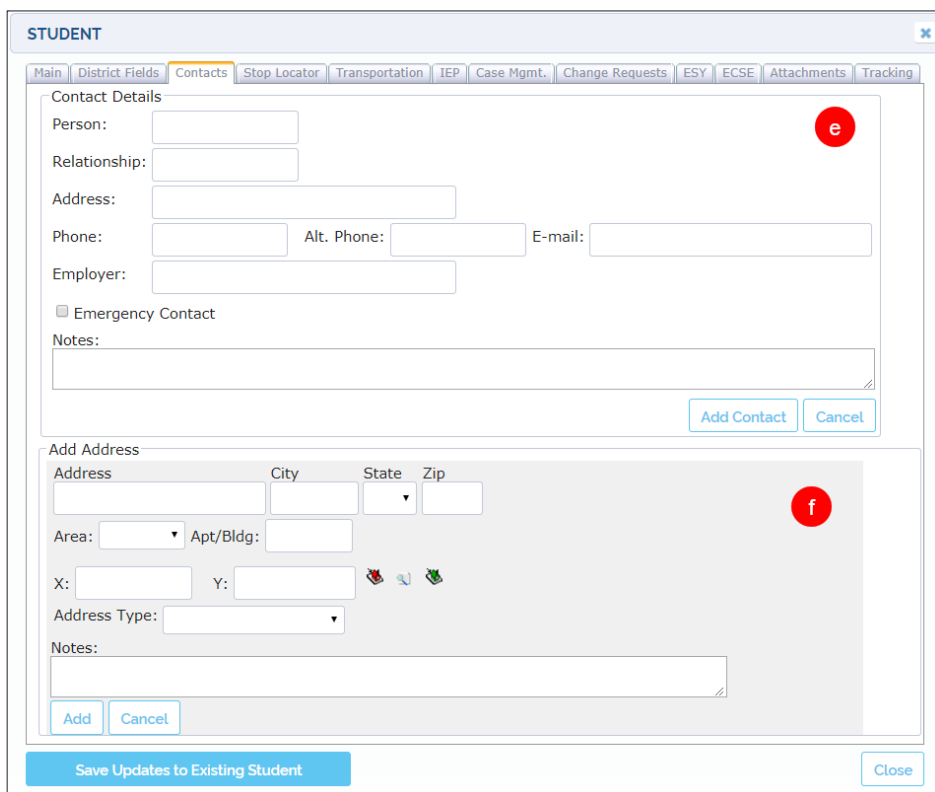


Within this dialog, you can access the existing Student Contact record on the upper sector and the Student Address details below.

You can **Add New Contact** or **Delete Contact** by clicking the corresponding labels (a) and edit the record by clicking the **Edit** button (b) located on the right of the table.

You can also **Add New Address**, **Delete Address**, copy an address as a **Pick Up** or **Drop Off** location, or copy any address to the **Stop Locator** (c).

Additionally, records can be Edited by clicking the corresponding Edit button (d).



After clicking the **Add New Contact** or the **Add New Address** labels (a and c in the previous figure), new dialogs display (e & f) allowing the input of Contact and Address details.

Finding Existing Students

The Students Management tool is disclosed in Compass by clicking on the Student tab and allows the user to find Student records or display their residence location on the map. It is essential to know how to find Students before their information can be used for any routing work.

Searching for Students in Compass involves the selection of search filters. Once the Students Management menu is available, a set of search filters, including Attending Schools, Grades and Student's Name and ID, become visible.

Another comprehensive set of filters remains hidden by default, but it can be disclosed by clicking the **Expand** button located next to the **Find** button, as shown below. Once used, these filters can be hidden again by clicking the **Collapse** button (this results from the expansion of the filter section).

To find existing Students:

1. Click **Students** in the secondary toolbar. The Student menu is displayed.

The screenshot shows the 'Students' management interface. A red box labeled '1' highlights the 'Students' tab in the top navigation bar. A red box labeled '2' highlights the 'Attending School' dropdown menu, which is expanded to show a list of schools, with '5901 - ...' selected. A red box labeled '3' highlights the 'Grades' dropdown menu, which is expanded to show '00', '01', and '02'. A red box labeled '4' highlights the input fields for 'Student ID', 'Last Name', 'First Name', and 'Card ID'. A red box labeled '5' highlights the 'Find' button, which has an expand/collapse icon to its left. A red box labeled '6' highlights the expanded search filters section, which includes various checkboxes for school types (Special Ed, General Ed, Magnet), student status (With Open SSD Request(s), Inactive, Locked, Ungeocoded), transportation eligibility, and other specific needs (Aide, Air Cond, Booster Seat, etc.). A red box labeled '7' highlights the 'Find' button again, indicating the final step in the process.

2. Select the appropriate **Attending School** on the left of the dialog.
3. Select the corresponding **Grade** if known.
4. Input the **Student ID** and **Name**, and **Card ID** if known.
5. To narrow down your search, click the **Expand** icon on the left of the **Find** button to display the comprehensive set of search filters.
6. Once available, select the appropriate boxes and/or select other preferred filters in the drop-down menus. You can also enter **Address** and **Zip Code** in the provided text boxes (District Field, Transportation Status and Attachment Type).
7. Click **Find**.

After clicking the **Find** button, a list of matching Students will be displayed below.

SEARCH RESULTS: 134 STUDENTS (0 SELECTED)								
<input type="checkbox"/>	STUDENT ID	LAST NAME	FIRST NAME	ADDRESS	SCHOOL	CHG. REQ	CHG DT	CARD ID
<input type="checkbox"/>	C0047360						4/30/2018 9:36...	
<input type="checkbox"/>	C0042569						5/19/2018 2:16:5...	
<input type="checkbox"/>	C0042568						5/19/2018 2:16:5...	
<input type="checkbox"/>	C0020726						5/19/2018 2:16:5...	
<input type="checkbox"/>	C0020207						5/19/2018 2:16:5...	
<input type="checkbox"/>	C0050570						3/2/2018 8:20:2...	
<input type="checkbox"/>	C0051148						9/7/2017 2:04:3...	
<input type="checkbox"/>	C0050569						3/2/2018 8:20:1...	

Depending on the search filters used and how specific these are, the resulting list can contain one or more students.

For example, if you input Student's ID, only one student should be in the list. But if you select Attending School and Grade, the list should display many Students.

Remember that you can disclose the Students' location on the map by clicking the search icon (shown as a magnifier) next to the Student ID.

Adding New Students

As you already know, the Students Management tool displayed in Compass under the Student tab allows users to find, view and edit Students' information, assign Stops, etc.

With this tool, users also have the option to create New Student records and Add them to the existing database.

To Add a New Student:

1. Click the **Students** label located in the secondary toolbar.
The Students menu appears.
2. Click **New Student** above the search results table to have the New Student window displayed.

The upper-right corner of the dialog allows you to select **Locked** or **Inactive** status if necessary. Then:

3. Enter personal and administrative data in the first section. You will find several drop-down menus that allow you to select **Attending School** as well as Zone School, Enrolled School and Summer School.
4. Enter the Student's **Program** information if needed.
5. Select **Special Needs** if required.
Click 6 and 7 to disclose and edit the information in those sections (see below).



6. Extend and Input the Student's Residence information including complete **Address, Coordinates and Phone**, and add **Emergency Phone and E-mail**.

If needed, use the **Coordinates Tool** to disclose the Student's Residence coordinates (Geocoding). To learn more about this tool, read the [Geocoding](#) section in School Management.

If necessary, select the **Transportation Modes** and **Exception Reasons** from the corresponding drop-down menus.

TIP: Copy as Pick-Up or Drop-Off

After you complete the Student's Residence information, you have the option to copy such data as Pick Up or Drop Off information as well. This will save you time when entering Transportation data.

To do so:

- Click **Copy as Pick Up** or **Drop Off** below the coordinates tool as preferred.
- Once copied, you will find the same data within the **Transportation** window.
To review, find the Transportation tab on top of the New Student window and click on it.

You can also check the **Distance to Attending School** by clicking on the **[?]** button in the bottom right corner of the Residence section.

7. Extend and select Transportation Status, add Notes and select the optional categories if needed.
8. At the bottom of the dialog, click **Save As New Student** to save the Student's Record.

The New Student Record dialog allows users to input a wide range of information, but not all the fields are required to create a New Student Record. If you try to save your data as a New Student but the information provided is not enough, the system will prompt you to fill in the necessary fields.

Adding District Fields

Once you have added the New Student, you can move on to **District Fields** by clicking the District Fields tab next to the Main tab.

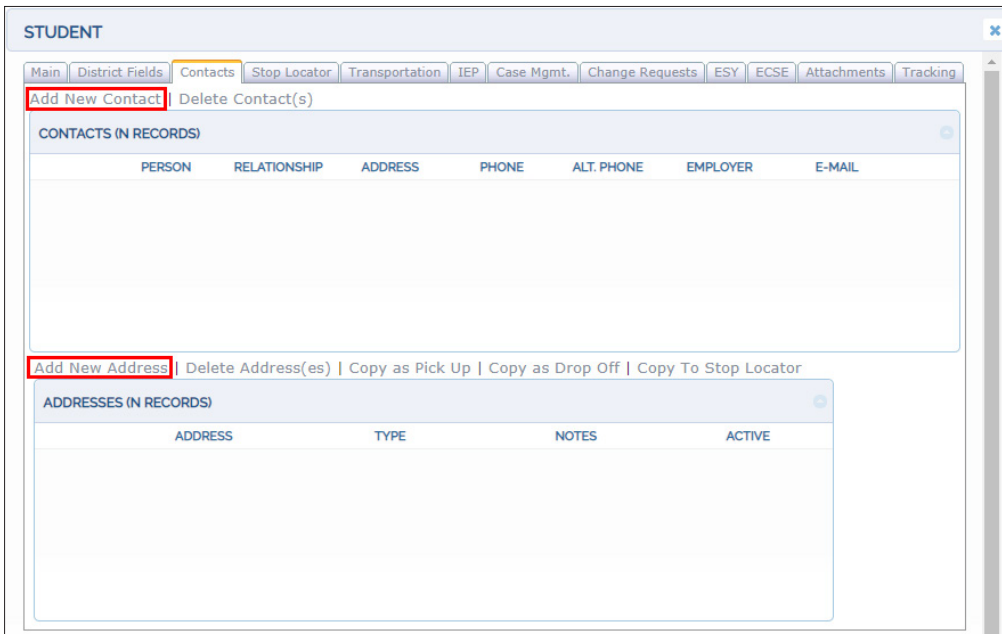
1. Then, click **Add New** if you want to create a New District Field for the Student. A Custom Attribute Details window appears.

2. Enter a descriptive name for the **Item**.
3. Enter the appropriate **Value**.
4. Click **Add**.
5. Finally, click **Save As New Student**.

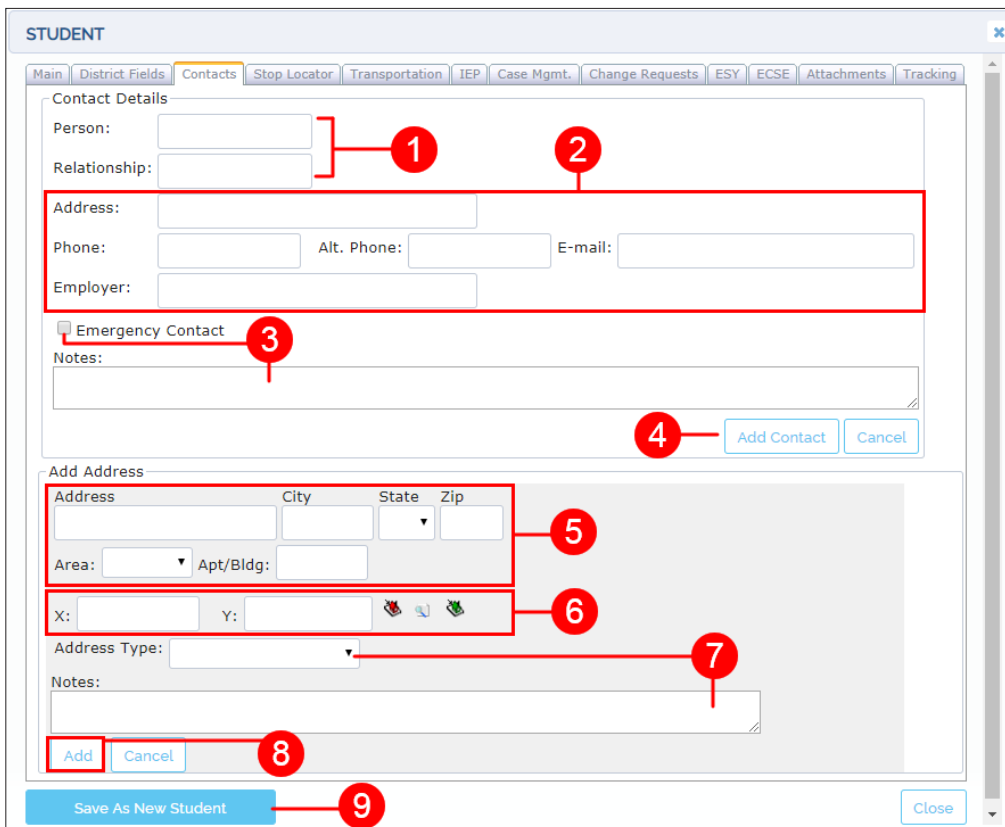
Once you do this, the New District Field will appear in the existing District Field list.

Adding Contacts

Move on to **Contacts** by clicking on the Contacts tab on the right of the Main tab if you want to Add Contacts to the New Student's record.



When the Contacts window appears: Click the **Add New Contact** and/or **Add New Address** labels to disclose the corresponding information.



Within the Contact Details window:

1. Enter Person and Relationship with the Student.
2. Enter the Address, Phone, E-mail and employer if required.
3. Check Emergency Contact if appropriate and enter any Notes if needed.
4. Click the **Add Contact** button. The Contact Details window will close and you will see the new Contacts added in the records table.

Within the Add Address window:

5. Enter Address, City, State and ZIP code.
6. Use the **Coordinates Tool** to disclose the address coordinates. To learn more about this tool, read the [Geocoding](#) section.
7. Select an address type and enter any necessary Notes.
8. Click **Add**.
9. Click **Save As New Student**. The Address window will close and you will see the new Address added in the records table.

Editing Student Information

Before editing any existing Student's information, you need to find the Student Record. Review [Finding Existing Students](#) for more details. Once you have found the Student whose information you want to edit, click the corresponding Student ID to disclose the **Student Record** dialog.

At the upper-right corner of the dialog you have the option to select or deselect the Locked and Inactive status of the Student. Then, similarly to what is explained in the Add New Student section, follow these steps:

The screenshot shows the 'STUDENT' dialog box with the following fields and annotations:

- 1:** 'Locked' and 'Inactive' checkboxes at the top right.
- 2:** 'Program' section including 'Acronym', 'Description', 'Pgm Notes', 'Eff. Date', and 'End Date'.
- 3:** 'Special Needs' section with checkboxes for Aide, Air Cond, Booster Seat, Care Plan, Nurse, Oxygen, Safety Vest, Seatbelt, Car seat as age/size appropriate, Service Animal, Tinted Windows, Walker, and Wheelchair.
- 4:** 'Residence Address information' dropdown menu.
- 5:** 'Transportation Status' dropdown menu.

1. Under the Main tab, edit personal and administrative data in the first section. You will find several drop-down menus that allow you to select **Attending** School as well as **Zone** School, **Enrolled** School or **Summer** School.
2. Edit the Student's **Program** information if needed.
3. Select or deselect any **Special Needs** if required.

Click 4 and 5 to disclose and edit the information in those sections (see below).



The screenshot shows the 'Residence Address information' dialog box with the following fields and annotations:

- 4:** 'Emergency Phone #' field in the 'Contact' section.

4. Extend and edit the Student's Residence information including complete **Address**, **coordinates** and **Phone**, and add **Emergency Phone** and **E-mail**.

Use the **Coordinates Tool** to disclose the Student's Residence coordinates (Geocoding). To learn more about this tool, read the [Geocoding](#) section in School Management.

If necessary, select the **Transportation Modes** and **Exception Reasons** from the corresponding drop-down menus.

TIP: Copy as Pick-Up or Drop-Off

After you complete the Student's Residence information, you have the option to copy such data as Pick Up or Drop Off information as well. This will save you time when entering Transportation data.

To do so:

- Click **Copy as Pick Up** or **Drop Off** as preferred.
- Once copied, you will find the same data within the **Transportation** window.
To review, find the Transportation tab on top of the New Student window and click on it.

5. Extend and select Transportation Status, add Notes and select the optional categories if needed.
6. Click Save Updates to Existing Student.

Adding, Editing or Deleting District Fields Menu

Move on to District Fields by clicking on the District Fields tab next to the Main tab if you need to add, edit or delete any of them.

1. Click on the **Add New**, **Edit** or **Delete** buttons as needed.

Clicking the Add New or the Edit buttons discloses the respective **Custom Attribute Details** dialogs.

2. To add or edit a District Field, enter a descriptive name for the **Item** and a **Value** in the Custom Attribute Details dialog and click **Add**, if you are adding a new District Field, or **Save**, if you are editing an existing one.
3. Finally, click **Save Updates to Existing Student**.

TIP: Items and Values

Remember that most Items have Yes or No Values (e.g. a Student will or will not have a particular health problem), although certain District Fields might need more specific Values.

Setting Student Records to Inactive

Student records can never be deleted. On the contrary, they are always kept in the database. However, users might want some Students to be temporarily or permanently removed from their workflows so that they don't affect the routing plans. In order to get this done, users have the option to set Student records to **Inactive**.

The screenshot shows the 'STUDENT' form with the following details:

- Student Entry Date: 6/13/2017 2:01:01 PM by
- Last Update: 10/30/2018 6:09:53 PM
- Locked:
- Inactive:** (highlighted with a red box and arrow)
- Last Name: Acton, First Name: Honey, Middle Name: , Date Of Birth: 09/04/2010
- Gender: Female, Ethnicity: , District:
- Student ID: 000167122, Attending School: 111 - FRANKLIN ES
- Grade: 01, Track: , Zone: , Zoned School: , Enrolled School: , Summer School:
- Program: Acronym: , Description: , Pgm Notes: , Eff. Date: , End Date:
- Special Needs:
 - Aide, Oxygen, Service Animal
 - Air Cond, Safety Vest, Tinted Windows
 - Booster Seat, Seatbelt, Walker
 - Care Plan, Car seat as age/size appropriate
 - Nurse, Wheelchair

To assign this status:

- **Find** the Student following the exact same steps described in the [Finding Existing Students](#) section.
- Click on the **Student Record** icon to display the Student window and
- Check the **Inactive** box on the upper right corner of the window.
- You can now **Save Updates to Existing Student** at the bottom of the window.

Notice that when **Inactive**, a Student won't be listed in any search results unless the Inactive filter is selected first within the comprehensive set of search filters.

Remember that these filters are hidden by default but you can always disclose them by clicking on the **Expand** icon next to the Find button. The complete set of filters will be displayed above.

The screenshot shows the search filters section with the following options:

- Created/Modified Since:
- Special Ed, General Ed, Magnet
- With Open SSD Request(s), **Inactive**, Locked, Ungeocoded
- Not Assigned Bus after: , Not Assigned Stop after:
- Eligible for Transportation, NOT Eligible for Transportation, Eligibility NOT Determined
- Admin, ESY, Transpass, Bus Pass, IEP, Inclusion, Joint Custody, Medical, Sibling Rider
- Aide, Air Cond, Booster Seat, Care Plan, Car seat as age/size appropriate, Nurse, Oxygen
- Safety Vest, Seatbelt, Service Animal, Wheelchair, Walker, Tinted Windows
- District Field: , Transportation Status:
- Address: , Zip Code: , Use Geofence, Exclude Transpass
- Attachment Type: All

Buttons at the bottom: Find, Clear Filters, Clear Results, Curb to Curb Stop, New Student, Bulk Update, Assign, Symbols, ADA

Show all run revisions with student details. [Print Results](#)

CREATING STOPS

Understanding Stops

As it is explained in the introductory tutorial *Get to Know Compass*, Stops are those places where Students will be picked up or dropped off on their way to or back from school. Users need to plan Stops carefully before they can generate Runs and Routes, since they will determine the course of these.

Compass contemplates two types of residential bus Stops (those different from Schools), depending on the number of Students assigned to them:

- There are Stops that service only one Student. Sometimes these are created next to the Student's residence and they are known as Curb-To-Curb Stops.
- There are also Group Stops, which can service several Students that live nearby and are able to walk to them.

Stop Management Tool

The Stop Management tool can be accessed by clicking on the **Stops** tab. This will display the Stops Management menu, where many different filters are available to narrow down the search of existing Stops.

Once the preferred filters have been selected, clicking on the **Find** button located underneath will return a list of the matching Stops. This list shows the Stop ID followed by a **Search** button that can be clicked to disclose the selected Stop on the map together with its Bus Stop location window.

The screenshot shows the Compass Route Builder interface. The 'Stops' tab is selected in the top navigation bar. Below the navigation bar, there are several filter sections: 'Schools' (with checkboxes for 0596, 3901, 2620, 3990), 'Grades' (with checkboxes for 00, 01, 02), and 'Pickup/Dropoff' fields. There are also checkboxes for 'Student ID/Name', 'Eff. Date Between', and various assignment filters like 'Only With Students Assigned', 'Use Geofence', etc. At the bottom left, there is a 'Find' button highlighted in red. Below the filters is a table of search results:

ID	RUN	PICK	LDTM	CB	DLY	TIME	DROP	ULTM
3067258	4209 AM	AUBREY AVE A..	0	ES	DA	-		0
3049312	4209 AM	FERDALE ST &..	0	ES	DA	5:00 AM- 8:20 ..		0
3068171	4209 AM	WOODRIDGE A..	0	ES	DA	-		0
3029344	4209 AM	ANNAPOLIS RD ..	0	NU	DA	5:00 AM- 8:20 ..		0
3051646	4209 AM	BUSTLETON AV..	0	ES	DA	5:00 AM- 8:20 ..		0

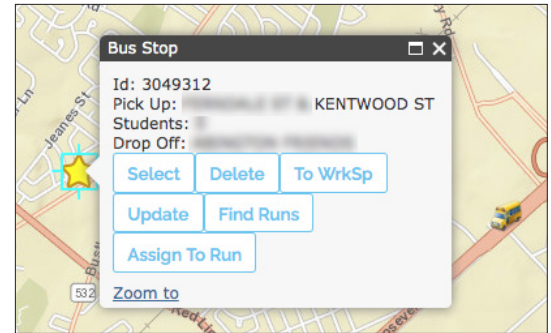
On the right side of the interface, a map shows a residential area. A yellow star icon marks a location, and a 'Bus Stop' information window is open over it. The window displays the following information:

- Id: 3049312
- Pick Up: FERDALE ST & KENTWOOD ST
- Students: 0
- Drop Off:
- Buttons: Select, Delete, To WrkSp, Update, Find Runs, Assign To Run, Zoom to

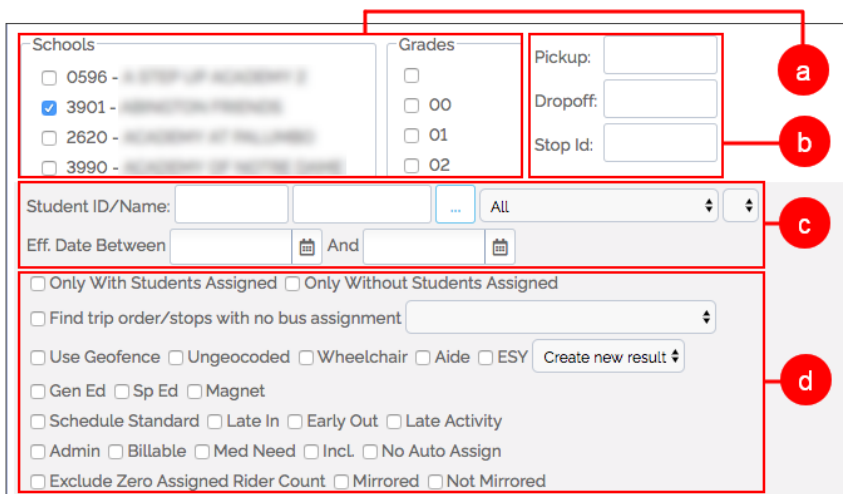
The Bus Stop location window shows Stop ID, Pick Up and Drop Off locations linked to the Stop, and several buttons users may use to:

- **Select** the Stop
- **Delete** the Stop
- Add the Stop to the **Workspace**
- **Update** the Stop's information
- Find Runs
- Assign to Runs

A quick **Zoom To** button is also available to get a closer view of the location on the Map.



A Closer Look at the Filters



The first two sets of filters are **Schools** and **Grades** (a) and they are displayed within separate sections.

Next to them, three new text boxes allow users to filter by **Pickup**, **Drop-off** or **Stop ID** (b).

Pick up and Drop-off allow the input of the address where this actions take place, or even just the street names at such locations. This also applies to intersections.

Located underneath, **Student ID** or **Name**, **Available Schools** (c) and a drop-down menu that presents additional specifications also provide filtering options.

More alternatives displayed below (d) include:

- Stops with/without Students assigned.
- Geofenced Stops (located within an area previously delimited by a polygon).
- Ungeocoded Stops.
To know more about this topic, read the [Geocoding](#) section.
- Stops with aides assigned.
- Stops for General Education, Special Education or Magnet programs.
- Different types of schedule.
- Administrative, Billable and Medical Needs classification.

Other Stop Related Buttons

In addition to Find and Clear, several other buttons are displayed under the search filters area.

Schools

 0596 - ...
 3901 - ...
 2620 - ...
 3990 - ...

Grades

 00
 01
 02

Pickup:

Dropoff:

Stop Id:

Student ID/Name: All ⌵

Eff. Date Between And

Only With Students Assigned
 Only Without Students Assigned

Find trip order/stops with no bus assignment ⌵

Use Geofence
 Ungeocoded
 Wheelchair
 Aide
 ESY
 Create new result ⌵

Gen Ed
 Sp Ed
 Magnet

Schedule Standard
 Late In
 Early Out
 Late Activity

Admin
 Billable
 Med Need
 Incl.
 No Auto Assign

Exclude Zero Assigned Rider Count
 Mirrored
 Not Mirrored

Find
Clear Filters
Clear Results
Add to Workspace
Bulk Update
Create Mirror
Remove Mirror
Svc. Time
New
Delete
Groups
Symbols

SEARCH RESULTS: 81 STOPS (1 SELECTED: 0 STUDENTS, 0 WHEELCHAIRS)

ID	RUN	PICK	LDTM	CB	DLY	TIME	DROP	ULTM	CB	DLY	TIME	TRTM	ASSIGNED RIDERS	WC
<input type="checkbox"/> 3067258	4209 AM	AUBREY AVE A.	0	ES	DA	-		0	ES	DA	7:50 AM- 7:55 A.		1	0
<input checked="" type="checkbox"/> 3049312	4209 AM	FERNDALE ST &.	0	ES	DA	5:00 AM- 8:20 ..		0	ES	DA	8:25 AM- 8:30 A.		0	0
<input type="checkbox"/> 3068171	4209 AM	WOODRIDGE A.	0	ES	DA	-		0	ES	DA	7:50 AM- 7:55 A.		1	0

These buttons include:

- **Add to Workspace:** Stops can be added to the Workspace when they are going to be used to generate a Run.
- **Bulk Update:** Used to apply an action to a set of selected Stops.
- **Create and Remove Mirror:** Mirroring Stops is the process of turning AM Stops into PM Stops to generate Reverse Runs.
- **New:** Users can always create New Stops by clicking this button.
- **Delete:** Selected Stops can be deleted by clicking the Delete button.
- **Groups:** Used to group Stops together under specific names.
- **Symbols:** Used to create and assign symbols.

Stop Tabs

Remember that after a Stop search is done, a table showing a list of the matching Stops is displayed under the filter sections.

If you click on any Stop ID, a new window containing the information related to that specific Stop will appear. This information is distributed in several menus under different tabs.

The first two tabs are called Pick Up and Drop Off. It is fundamental to understand that every Stop must be linked to a Pick Up location and a Drop Off location when it is created, since every Student picked up at a particular Stop is necessarily dropped off at another.

Generally, one of these two locations will be the Student's residence (or a location close to it) and the other one will be the School.

Then, if an existing Stop shows a specific address as a Pick Up location, the Drop Off location will generally be a School and vice versa.

Let's take a closer look at these tabs with the help of some illustrations:

1

Pick Up

Stop Address or School can be selected at the top of the dialog. Related fields display to allow the input of relevant information.

The lower half of this menu also allows users to:

- Input Pick Up time window, Assigned and Actual number of Riders, number of Wheel Chairs, Safe Vests and Seat Belts, and Load Time in minutes.
- Select Curb location. This drop-down menu specifies if U-Turns are allowed at this Stop and which side of the street the vehicle will be approaching from.
- Select Delay type. The Soft/Hard Time window drop-down menu is used to indicate if the scheduled time for the bus to reach the Stop is flexible or not. For example, Hard Time Window must be necessarily assigned to Schools because the arrival of the bus is determined by the Bell Time.
- Enter Maximum Ride Time in minutes.
- Select Specialties
- Add Notes as needed.

EXISTING STOP

Stop Id: 2311837 Alternate Stop #:

Pick Up Drop Off Date/Class Stop Students Find Students

Stop Address School

Address: City: State: Zip:

Area: Apt/Bldg:

Street 1: Street 2: Corner:

X: Y:

Pick Up Between: and:

Assigned Riders	Actual Riders	WC	SV	SB	Load Time
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="1"/> Min

Curb:

Delays:

Max Ride Time Min.

Specialties: AC Aide Boys

Notes:

ok close

2

Drop Off

The Drop Off Menu is very similar to the Pick Up Menu and, again, Stop Address or School can be selected at the top of the dialog, and related information input in the provided text boxes.

The lower half of this menu allows users to:

- Enter Drop Off time window and Unload Time in minutes.
- Select Curb location. Remember this drop-down menu specifies if U-Turns are allowed at this Stop and which side of the street the vehicle will be approaching from.
- Select Delay type. Remember that the Soft/Hard Time window drop-down menu is used to indicate if the scheduled time for the bus to reach the Stop is flexible or not.
- Add Notes as needed.

EXISTING STOP

Stop Id: 2311837 Alternate Stop #:

Pick Up Drop Off Date/Class Stop Students Find Students

Stop Address School

Address: City: State: Zip:

Area: Apt/Bldg:

Street 1: Street 2: Corner:

X: Y:

Drop Off Between: and:

Unload Time Min

Curb:

Delays:

Notes:

ok close

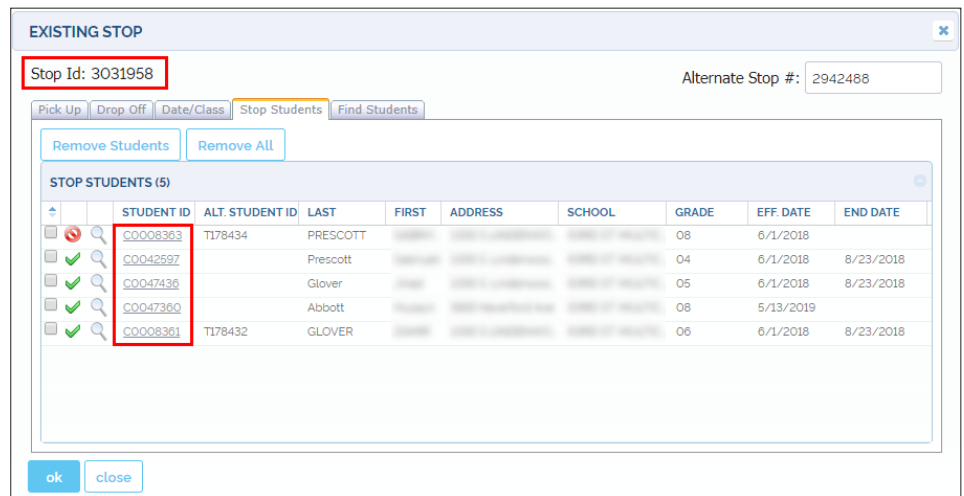
3 Stop Students Tab

The Stop Students tab displays a list of the Students that have been assigned to that Stop.

Each row shows Student ID, full Name, Address, School and Stop Effective Date.

Students can be selected and Removed whenever it is necessary.

In order to avoid mistakes, notice that Stop ID and Student ID are different.



NOTE: Stop ID vs Student ID

In order to avoid mistakes, be aware that Stop ID and Student ID are different.

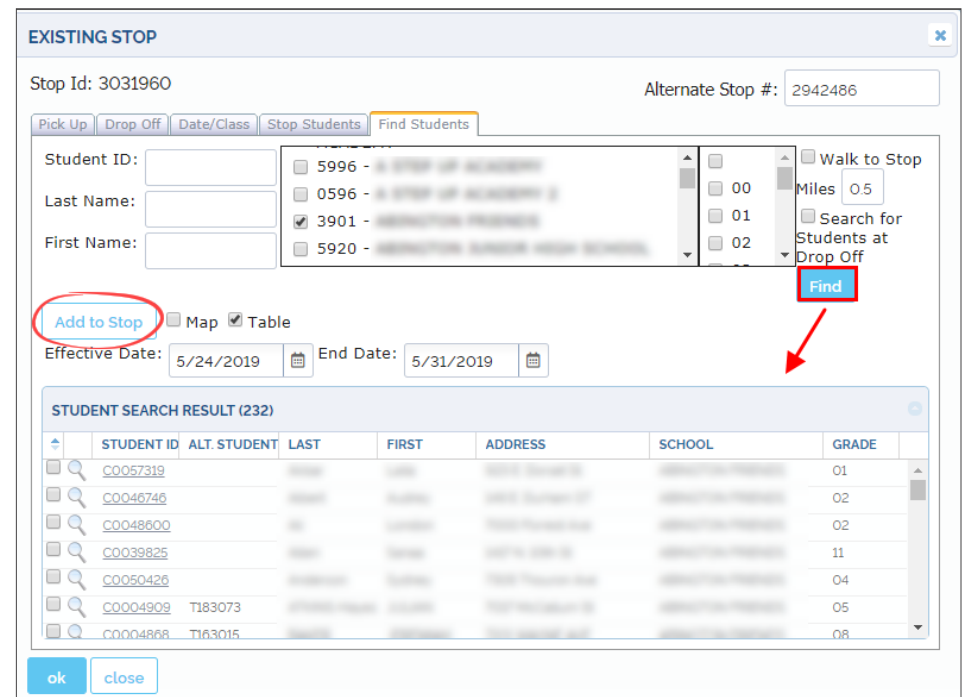
4 Find Students Tab

This Menu allows users to search Students by ID, Last Name, First Name, Schools, Grade and Walk Distance in order to assign such Students to the Stop.

The resulting Students can be listed in the Student Search Result table and/or disclosed on the Map as preferred.

Then, any matching Student can be selected and added to the Stop by clicking on the **Add to Stop** button.

Effective and End dates can also be specified.



Adding Stops in the Map

There are two main ways to create new Stops in Compass. The simplest method involves **Adding Stops** directly in the Map.

To Add a Stop in the Map,

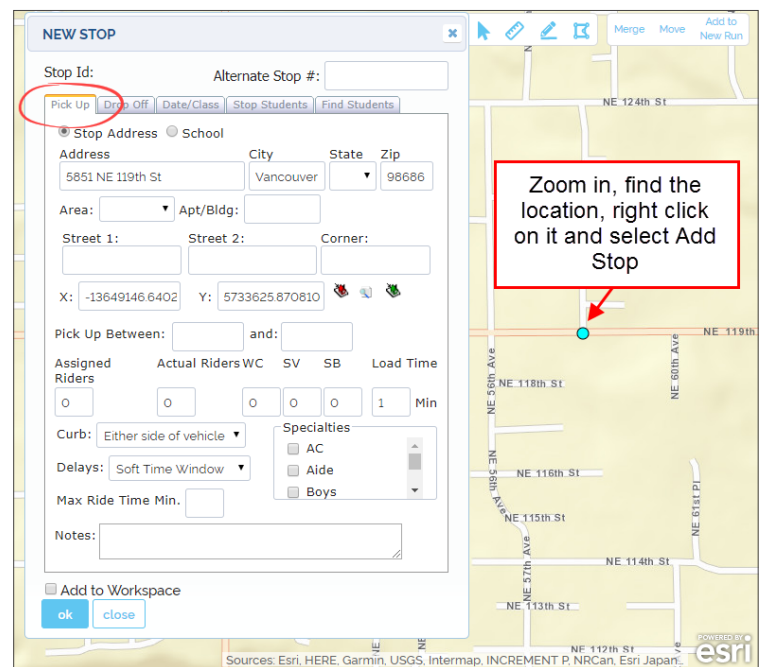
- Find the location where you want the Stop to be placed.
- Right click on it and select **Add Stop** in the displayed list of actions. A **New Stop** window will appear.
Remember that Stops must have Pick Up and Drop Off information associated.

TO SCHOOL

If you want to create an **AM Pick Up Stop** at a particular address (going to School in the morning), you need to start by selecting Stop Address (not School) in the Pick Up dialog.

However, notice that Stop Address is shown by default when creating a new Stop, and the Address information is provided in the corresponding fields.

- 1 Within the **Pick Up** tab:
- Input Pick Up Time Window limits.
 - If required, you can manually enter the number of Riders, and Students using Wheel Chairs, Safe Vests or Seat Belts. This information will be updated and shown in the corresponding text boxes if Students with such requirements are assigned to the Stop.
 - Enter Load Time in minutes.
 - Select Curb location.
 - Select the allowed type of Delays, i.e., Hard or Soft Time Window.
 - Enter Maximum Ride Time in minutes.
 - Select Aide, AC or other Specialties if required.
 - Type in any required Notes.



NOTE: Number of Riders

Be aware that, if no Students have been assigned to the Stop, the number of riders in the corresponding text box must be 0. Otherwise, a warning message will pop-up and the information won't be saved.

2

Once completed, move on to the **Drop Off** tab by clicking on it and:

- Click on the School selection button.
- Select the School in the drop-down menu located under the School selection button.
- If needed, select the Bell Time from the available drop-down menu.
- Enter the Drop Off Time Window limits in the corresponding text boxes.
- Enter expected Unload Time in minutes.
- Select Curb Specifications and Delay type (Hard or Soft Time Window).
- Type in any Notes and click OK below to save the Stop.

FROM SCHOOL

If you want to create a Stop for a **PM Drop Off Stop** (generally at the Student's address) the method will follow opposite Steps:

1

Within the **Pick Up** tab:

- Click the School selection button.
- Select the School in the drop-down menu under the School selection button.
- Choose Bell Time in the available drop-down menu (Generally PM Out for School Pick Up).
- Enter Pick Up Time Window limits in the corresponding text boxes.
- If required, you can manually enter the number of Riders and Students using Wheel Chairs, Safe Vests or Seat Belts. This information is updated and shown in the corresponding text boxes if Students with such requirements are assigned to the Stop.
- Enter Load Time in minutes.
- Select Curb Specifications.
- Select Delay type (Hard or Soft Time Window).
- Input Maximum Ride Time in minutes.
- Select other required Specialties.
- Type in any additional Notes.

NOTE: Number of Riders

Remember that, if no Students have been assigned to the Stop, the number of riders in the corresponding text box must be 0. Otherwise, a warning message will pop-up and the information won't be saved.

2 Once completed, move on to the **Drop Off** tab by clicking on it and:

- Click on the Stop Address selection button.
- Input Drop Off Time Window limits.
- Enter Unload Time in minutes.
- Select AC requirements if needed.
- Select Curb Specifications
- Select type of Delay (hard or soft Time Window).
- Type in any required Notes.
- Click OK to save the newly created Stop.

When you click on the Map to create a new Stop, the New Stop window displays an address with its associated geographic coordinates (X and Y values). If you have read the Geocoding section, you may remember that even an actual address already existing in the database can't be found in the Map sometimes. This often happens because it takes some time to update the map's information after recent developments. Then, the system might be able to geolocate the address and assign coordinates to it, but no graphic information of the current street layout would be displayed.

If you want to know more about this topic, read the [Geocoding](#) section.

Creating Stops for Returning Runs: Mirroring

If you have completed AM Stops, you can always use the Create Mirror Tool to create PM Stops so that Students can be picked up at School and returned to their residences following reverse Runs.

Mirroring is a quick way to turn AM Stops into PM Stops, specially when multiple Stops need to be included in the process.

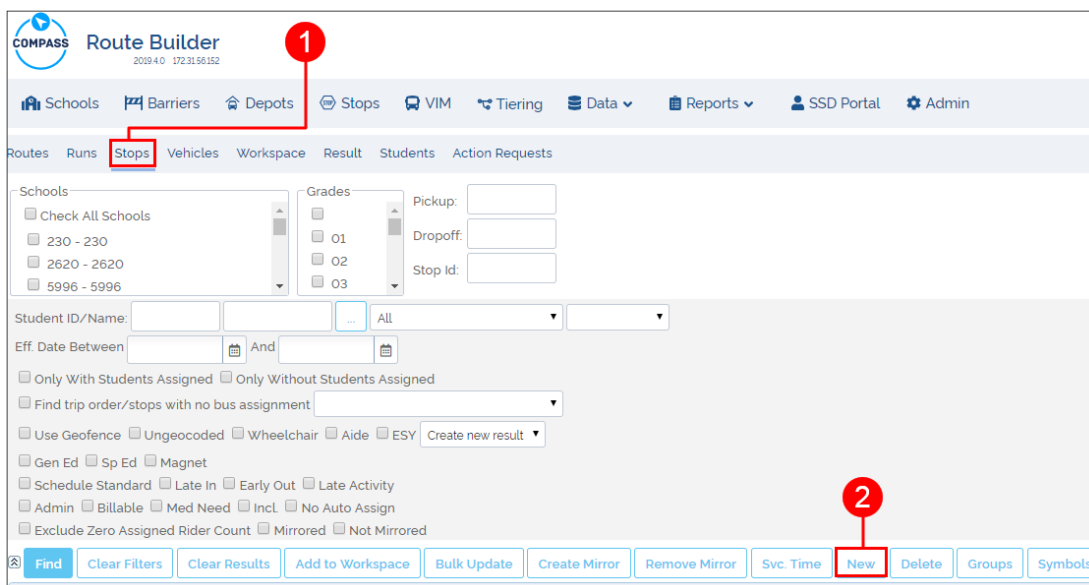
To learn about Mirroring, read the tutorial [Mirroring Stops](#).

Adding Stops with the New Stop Button

A different method to Add Stops during route building with Compass involves the use of the **New Stop** window. To do so:

- Click the Stops tab (1) first to operate the Stops Management tool.
- Click the New button (2). The New Stop window appears.

Identically to what happens when creating a New Stop in the Map, the New Stop window shows **Pick Up** and a **Drop Off** dialogs under separate tabs. Remember that every Stop needs to be associated to Pick Up and Drop Off information, since Students need to be Picked Up and Dropped Off at different locations, generally their residence and the School.



TO SCHOOL

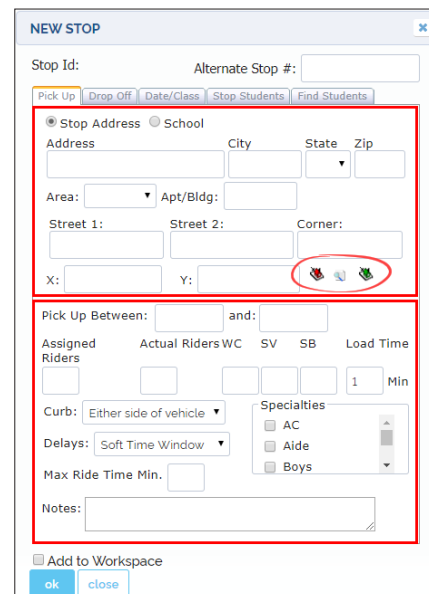
If you want to create an **AM Pick Up Stop** at a particular address (going to School in the morning), you need to start by selecting Stop Address (not School) in the Pick Up dialog. However, notice that Stop Address is shown by default when creating a Stop.

1 When the **New Stop** window is displayed, in the **Pick Up** dialog:

- Input Stop Address details.
- Disclose the associated coordinates (Geocoding) with the Coordinates Tool. To learn about this topic, read the [Geocoding](#) section.

Below:

- Enter Pick Up Time Window limits.
- If required, you can manually enter the number of Riders and Students using Wheel Chairs, Safe Vests or Seat Belts. This information is updated and shown in the corresponding text boxes if new Students with such requirements are assigned to the Stop.
- Input Load Time in minutes.
- Select Curb Specifications and Type of Delay (hard or soft Time Window).
- Select Aide, AC requirements or other available Specialties if necessary.
- Enter Maximum Ride Time in minutes.
- Type in any required Notes.



NOTE: Number of Riders

Remember that, if no Students have been assigned to the Stop, the number of riders in the corresponding text box must be 0. Otherwise, a warning message will pop-up and the information won't be saved.

2

Once completed, move on to the **Drop Off** tab by clicking on it and select School. Then:

- Select the School in the drop-down menu located under the School selection button.
- Select the Bell Time from the available drop-down menu.

Below:

- Enter the Drop Off Time Window limits in the corresponding text boxes.
- Enter expected Unload Time.
- Select Aide, AC requirements or other available Specialties if necessary.
- Select Curb Specifications and Delay type (usually hard Time Window).
- Type in any required Notes.
- At the bottom of the window Click OK to save the New Stop.

The screenshot shows the 'NEW STOP' dialog box with the 'Drop Off' tab selected. The 'Stop Address' section has the 'School' radio button selected. The 'Drop Off Between' field has two empty text boxes separated by 'and:'. Below it, the 'Unload Time' section has a 'Min' checkbox and a dropdown menu. The 'Curb' dropdown is set to 'Either side of vehicle' and the 'Delays' dropdown is set to 'Soft Time Window'. There is a 'Notes' text area at the bottom. At the very bottom, there is an 'Add to Workspace' checkbox and 'ok' and 'close' buttons.

FROM SCHOOL

If you want to create a **PM Drop Off Stop** (generally at the Student's address) the method will follow opposite Steps:

1

Within the **Pick Up** tab select School. Then:

- Select the School in the drop-down menu located under the School selection button.
- Select the Bell Time from the available drop-down menu.

Below:

- Enter Pick Up Time Window limits.
- You can enter the number of Riders and Students using Wheel Chairs, Safe Vests or Seat Belts. This information is updated and shown in the corresponding text boxes if new Students with such requirements are assigned to the Stop.
- Enter Load Time in minutes.
- Select Curb Specifications.
- Select type of Delay (usually hard Time Window).
- Select Aide and AC requirements if necessary.
- Input Maximum Ride Time in minutes.
- Type in any required Notes.

The screenshot shows the 'NEW STOP' dialog box with the 'Pick Up' tab selected. The 'Stop Address' section has the 'School' radio button selected, indicated by a red arrow. The 'Pick Up Between' field has two empty text boxes separated by 'and:'. Below it, there is a table for 'Assigned Riders' with columns for 'Actual Riders', 'WC', 'SV', 'SB', and 'Load Time'. The 'Load Time' column has a value of '1' and a 'Min' label. The 'Curb' dropdown is set to 'Either side of vehicle' and the 'Delays' dropdown is set to 'Soft Time Window'. There is a 'Specialties' section with checkboxes for 'AC', 'Aide', and 'Boys'. There is a 'Max Ride Time Min.' field and a 'Notes' text area at the bottom. At the very bottom, there is an 'Add to Workspace' checkbox and 'ok' and 'close' buttons.

NOTE: Number of Riders

Remember that, if no Students have been assigned to the Stop, the number of riders in the corresponding text box must be 0. Otherwise, a warning message will pop-up and the information won't be saved.

2

Once completed, move on to the **Drop Off** Menu by clicking on its tab and select **Stop Address**. Then:

- Input Stop Address details.
- Disclose the associated coordinates (Geocoding) with the Coordinates Tool.

To learn more about this topic, read the [Geocoding](#) section.

Below:

- Input Drop Off Time Window limits.
- Enter Unload Time in minutes.
- Select Curb Specifications
- Select type of Delay (usually soft Time Window).
- Type in any required Notes.
- Click OK to save the newly created Stop.

When you create a new Stop, the New Stop window displays an address with its associated geographic coordinates (X and Y values). However, sometimes an actual address at that specific location might not exist in the database. This often happens because it takes some time to update the map's information after recent developments. In that case, the system might be able to geolocate the address and assign coordinates to it (Geocoding), but the current street layout wouldn't be displayed.

If you want to review this concept, click and read the [Geocoding](#) section.

Creating Stops for Returning Runs: Mirroring

If you have completed AM Stops, you can always use the Create Mirror Tool to create PM Stops so that Students can be picked up at School and returned to their residences following reverse Runs.

Mirroring is a quick way to turn AM Stops into PM Stops, specially when multiple Stops need to be included in the process.

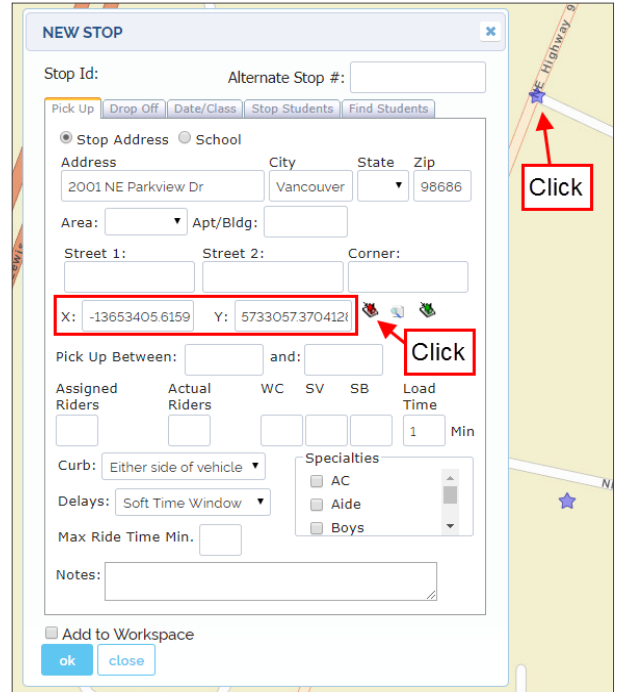
To learn about Mirroring, read the tutorial [Mirroring Stops](#).

Geocoding

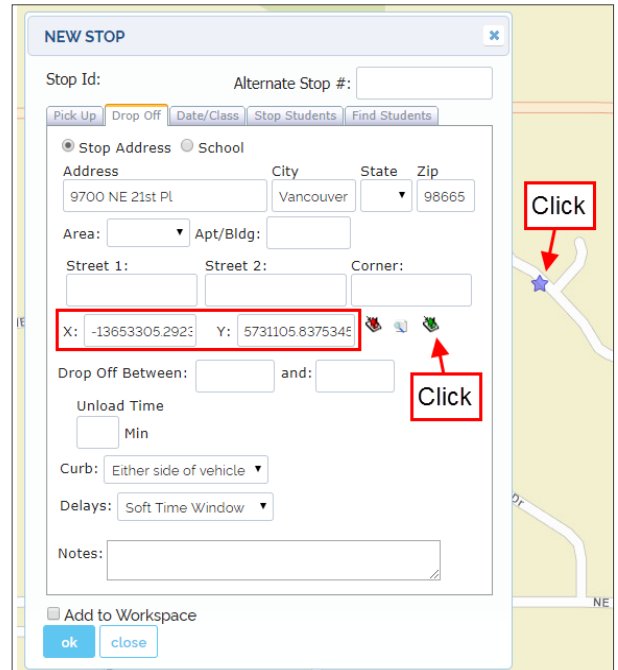
Remember that **Geocoding** is the process of transforming a specific address to a pair of geographic coordinates (X and Y values). Some common tasks in Compass Route Builder, such as adding new Students, adding new Schools, or creating Stops, require that addresses are converted into coordinates. Compass uses these coordinates to produce Runs and Routes and the **Coordinates Tool** can help users to disclose X and Y values associated with an address or point in the Map.

There are three different tools available for Geocoding next to the address text box: The red button is used to disclose address and coordinates, the green button can be used to disclose coordinates only and the white one links an address to associated coordinates.

- 1 If you know the exact location on the map, you can disclose the address and coordinates at the same time with the red Geocoding button as follows:
 - Click first the red Geocoding button.
 - Zoom in and click on the exact location on the map. The address and coordinates will be displayed in the corresponding text boxes.



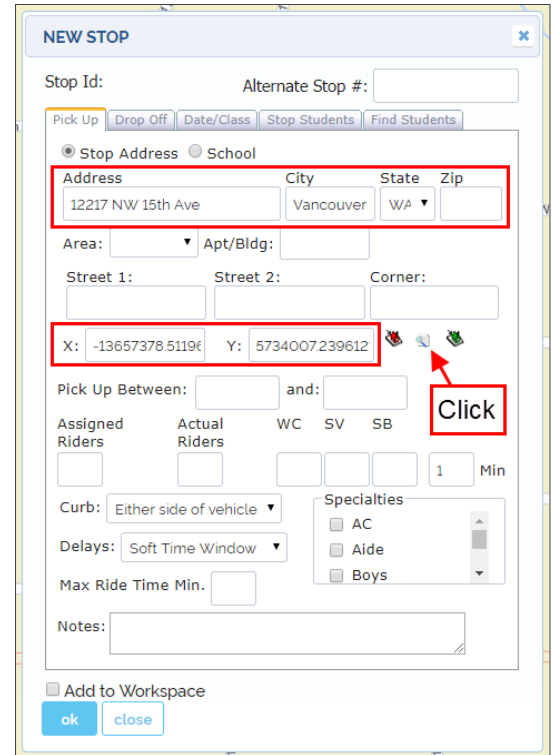
- 2 The green geocoding button gives the user the option to enter the address manually and even customize the way such address is displayed. To do so:
 - Click the green Geocoding button.
 - Zoom in and click on the exact location on the map. The coordinates associated with that location will be disclosed in the corresponding text boxes.
 - Then, enter the address information as you want it to be displayed in the address text box.



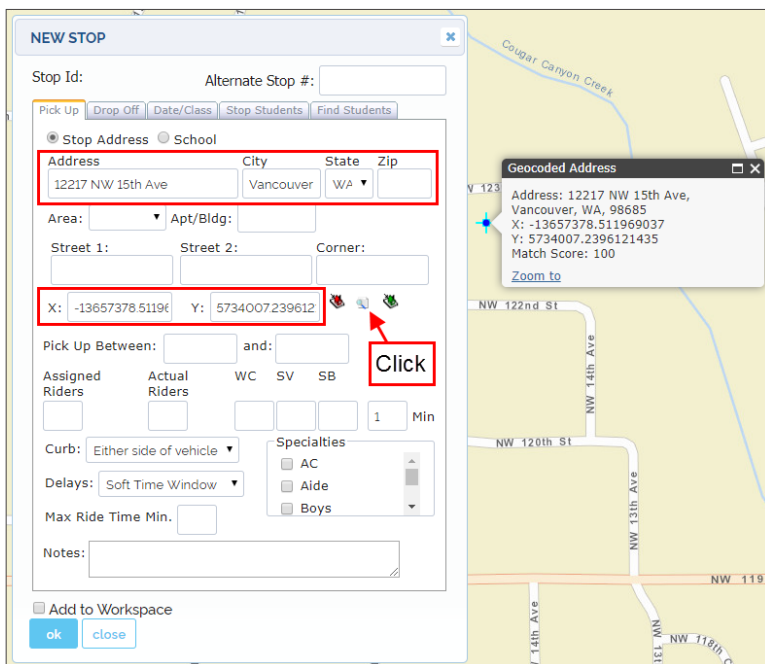
3 The white geocoding button, displayed as a magnifier icon, allows the user to link an address to its corresponding coordinates.

To link an address with its associated coordinates:

- Enter the address in its corresponding text boxes.
- Click the white Geocoding button. The coordinates will be disclosed below.



Disclosing Stop Locations on the Map



After an actual address is entered in its text box while creating New Stops, if the user clicks on the white Geocoding button and the system recognizes its associated coordinates, a pop-up window with such address and Geocoding information will be displayed in the Map on the corresponding location.

NOTE: Missing Street Layout

Sometimes, even an actual address already existing in the database can't be found in the Map. This often happens because it takes some time to update the map's information after recent developments. In that case, the system might be able to geolocate the address and assign coordinates to it, but no graphic information of the current street layout would be displayed.

Creating Curb-To-Curb Stops

A **Curb-To-Curb Stop** has to be set by a Student's residence. In other words, it is a Stop that has the same address as the Student's home. This is often due to the Student's special needs but there might be other reasons such as the isolation of residences in rural areas.

Compass customers have the option to quickly create Curb-To-Curb Stops with the Student Management tool, instead of the Stop Management tool as it might be expected. The Student Management tool is accessed by clicking on the **Students** tab.

Finding and Selecting Students

Before creating Curb-To-Curb Stops, users need to select the Students to whom such Stops will be assigned. To review how to find Students, read the tutorial [Finding Existing Students](#).

Once the search is done, users can **select** the Students from the resulting search list by checking off the selection box next to their Student ID. The selected Student will be highlighted in yellow. By clicking the search icon (magnifier) in the list, or the corresponding Student icon on the map, a window showing Student's information is displayed on the Student's residence location.

The screenshot displays the Compass Student Management interface. The top navigation bar includes tabs for Schools, Barriers, Depots, Stops, VIM, Tiering, Data, Reports, SSD Portal, and Admin. The 'Students' tab is selected. Below the navigation bar, there are filters for Attending School, Grades, and Student ID, along with buttons for Find, Clear Filters, Clear Results, Curb to Curb Stop, New Student, and Bulk Update. The search results table shows 231 students, with one student (ID: C0057895) selected and highlighted in yellow. A red box and arrow point to this student. On the map, a red box and arrow point to the 'Select tool' icon in the toolbar. A pop-up window for the selected student shows their ID, name, address, and school.

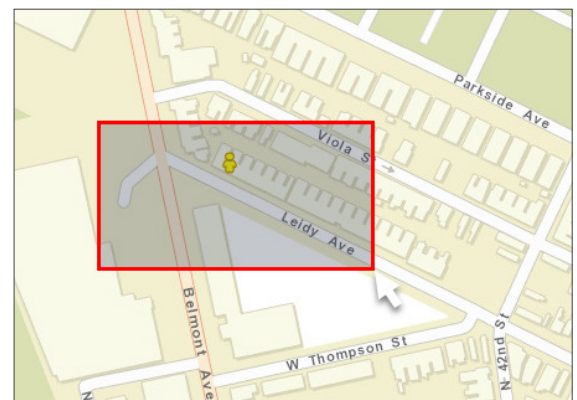
STUDENT ID	LAST NAME	FIRST NAME	ADDRESS	SCHOOL	CHG. REQ
<input type="checkbox"/>					
<input type="checkbox"/>					
<input checked="" type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

Since matching Students are disclosed on the map on their residence locations, these can also be selected there with the **Select** tool. To do so:

- You might need to zoom in first to isolate the Student and make the selection easier. Use the **Zoom in** or the **Marquee Zoom In** to isolate the Student.
- Select the Student in the Search Results list or click the **Select** tool in the Map toolbar and then click on the Student.

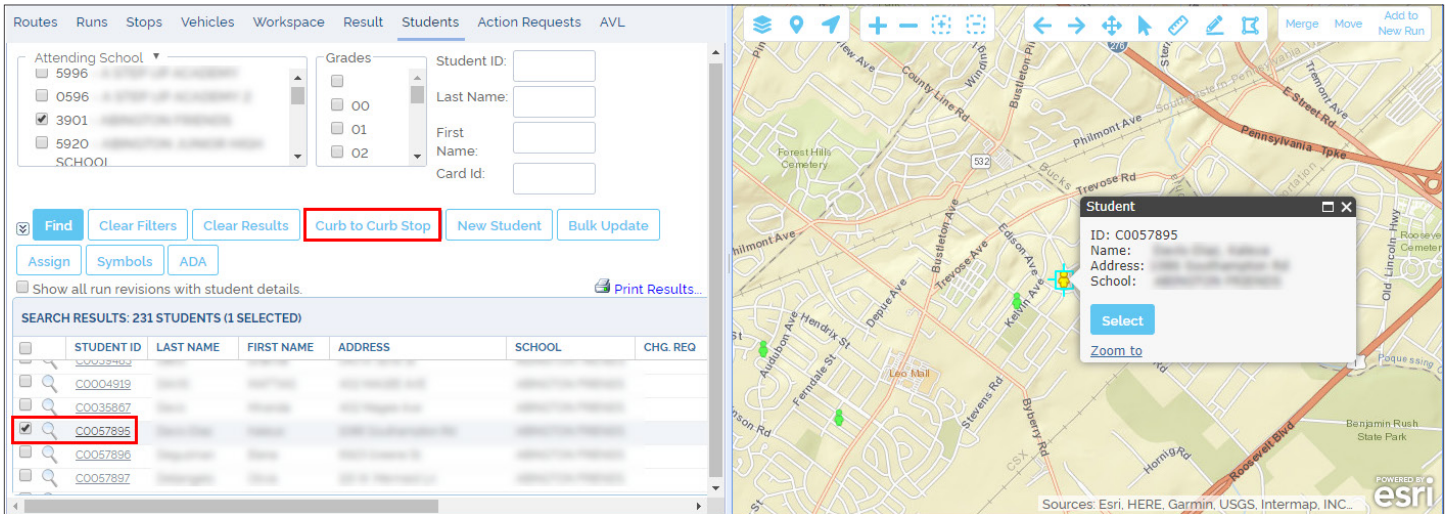
You can select multiple Students at the same time by dragging the cursor so that you draw a rectangle that includes those Students.

The color of the icon will switch from green to yellow in the Map to indicate that the Student has been selected.



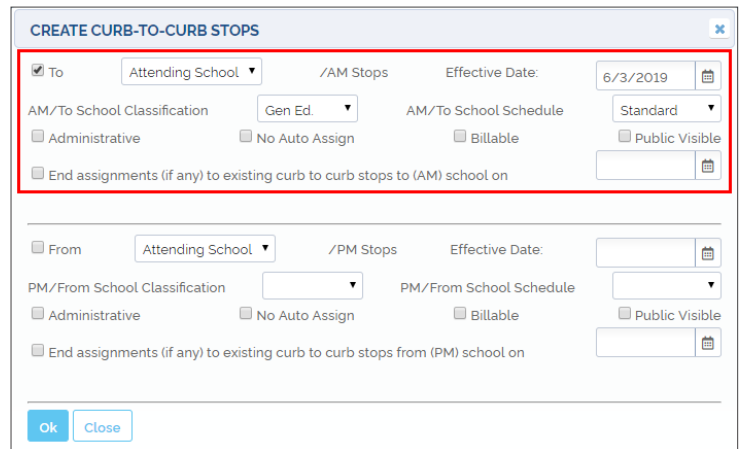
Adding a Curb-To-Curb Stop

To create the Stop, make sure that the Student you want the Stop to be assigned to, but not other undesired Students, is selected. You can easily see this by checking the yellow color of the icon on the Map and/or the Student record in the search list. Then, click on the **Curb-To-Curb Stop** button.



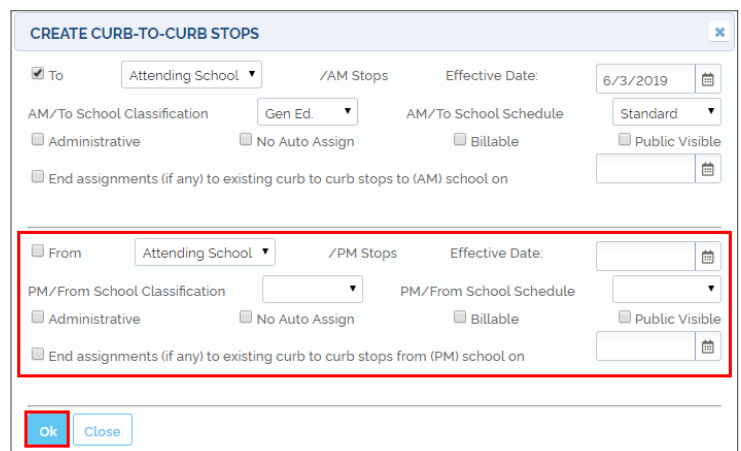
1 After you click on **Curb-To-Curb Stop**, a new window showing the fields required for the task appears. To complete this:

- Select **To/AM Stops** if the Student is going to be Picked Up at this Stop on the way to School.
- Enter the Effective date.
- Select Attending, Summer, Zone or Selected School from the drop-down menu.
- Select the appropriate type of Education (General, Especial or Magnet Programs).
- Check any additional information boxes if required.



2 Once finished with the first section, move on to the second one and:

- Select **To/PM Stops** if the Student is going to be Dropped Off at this Stop on the way back from School.
- Enter the Effective date.
- Select Attending, Summer, Zone or Selected School from the drop-down menu.
- Select the appropriate type of Education (General, Especial or Magnet Programs).
- Check any additional information boxes if required.
- Click **OK**. The new Curb-To-Curb Stop will be created and the selected Student assigned to it.



Assigning Pick Up and Drop Off Times: Bulk Update

Remember that every Stop must be linked to Pick Up and Drop Off locations, since every Student picked up at a particular Stop is necessarily dropped off at another. These locations are included in any Curb-To-Curb Stop that you create but you still need to add Pick Up and Drop Off times to the Stop afterwards. You can review Pick Up and Drop Off times and delay allowance (hard vs soft windows) in the Stops menu section of the tutorial [Understanding Stops](#).

To add Pick Up and Drop Off times to the Curb-To-Curb Stop, you can select the Stop on the Map, click Update within the pop-up Bus Stop window and enter the information in the Pick Up and Drop Off menus. To review this, read the tutorial [Adding Stops in the Map](#).

If for any reason you have created more than one Curb-To-Curb Stops, you can update this information with the **Bulk Update** tool. To do so, select the Stops on the Map or in the search results list and then click Bulk Update above this.

ID	RUN	PICK	LDTM	CB	DLY	TIME	DROP	ULTM	CB	DLY	TIME	TRTM	ASSIGNED RIDERS	WC
3144244	4209 AM	ALGARD AND L.	O	ES	DA	-		0	ES	DA	7:50 AM- 7:55 A.		1	0
3049312	4209 AM	FERNDAL ST & .	O	ES	DA	5:00 AM- 8:20 .		0	ES	DA	8:25 AM- 8:30 A.		0	0
3068171	4209 AM	WOODRIDGE A.	O	ES	DA	-		0	ES	DA	7:50 AM- 7:55 A.		1	0
3029349	4209 AM	ANNAPOLIS RD .	O	NU	DA	5:00 AM- 8:20 .		0	ES	ND	8:25 AM- 8:30 A.		0	0

A new **Stop Information Bulk Update** window will appear. Let's assume that these Curb-To-Curb Stops are created as AM Stops, which means the assigned Students are picked up by their residences in the morning and taken to School.

To add Pick Up and Drop Off times to the Stops, follow these steps:

1. Select the **School** from #2 drop-down menu (#1 menu is for School Pick Up).
2. On the right, select the corresponding **AM Bell Time**.
3. The **Drop Off Time Window** at School should be displayed below. Select both Drop Off boxes (After and By).
4. Select **Pick Up Time Delay**. If bus Delay is allowed, enter this in minutes. Remember that certain Delays may be reasonable (soft window) at Pick Up Stops.
5. Do the same for **Drop Off Time Delay**. Remember that arrival at School is subject to Bell Time and little flexibility is allowed (hard window).
6. Select curb side if necessary.
7. Click **OK**.

Update	Setting	Value
1		
	<input type="checkbox"/> Pick Up After	
	<input type="checkbox"/> Pick Up By	
2	5901	(To-School) AM IN BELL TIME 8:15
	<input checked="" type="checkbox"/> Drop Off After	7:50 AM
	<input checked="" type="checkbox"/> Drop Off By	7:55 AM
4	<input type="checkbox"/> Load Time	Min.
5	<input type="checkbox"/> Unload Time	Min.
6	<input type="checkbox"/> Max Transit Time	Min.
7	<input checked="" type="checkbox"/> Pick Up Time Delay	Allow delay of 10 Min.
8	<input checked="" type="checkbox"/> Drop Off Time Delay	No delays Min.
9	<input type="checkbox"/> Num Passengers	
10	<input checked="" type="checkbox"/> Pick Up Curb Approach	Either side of vehicle
11	<input checked="" type="checkbox"/> Drop Off Curb Approach	Right side of vehicle
12	<input type="checkbox"/> Pick Up School	
13	<input type="checkbox"/> Drop Off School	
14	<input type="checkbox"/> Preference	

Creating Stops for Returning Runs: Mirroring

If you have completed AM Stops, you can use the Create Mirror Tool to create PM Stops so that Students can be picked up at School and returned to their residences following reverse Runs.

Mirroring is a quick way to turn AM Stops into PM Stops, specially when multiple Stops need to be included in the process. To learn about Mirroring, read the tutorial [Mirroring Stops](#).

Assigning Students to Stops

Adding new Students to the database is a common event in Compass Routing. Occasionally, a new Stop has to be created to service those Students. In other cases, the Students have to be assigned to existing Stops.

Whatever the case may be, Students always need to be linked to Stops and, depending on the situation, users can follow different workflows to perform this task.

In the Map

Let's start by assuming that a new Student has been enrolled in a particular School. This Student has to be assigned to a Stop that is close enough to the Student's residence in order to provide effective transportation service. The Stop will often be an existing one but sometimes it may be necessary to create a new Stop. To review how to do this, read [Adding Stops in the Map](#).

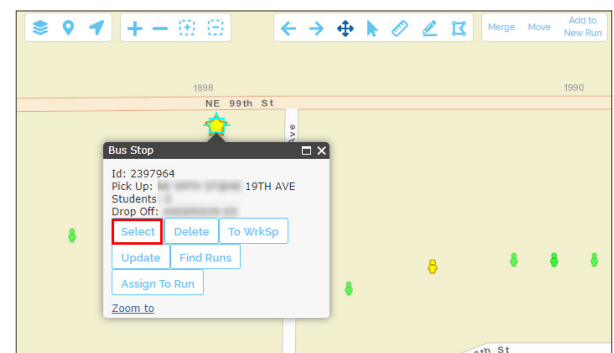
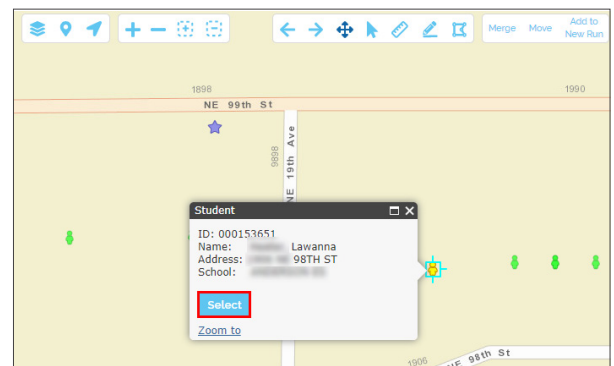
If the Student's record and the Stop have already been created and added with their corresponding addresses to the database, you can locate the Student and the Stop on the Map. To review how to find Students, read the tutorial [Finding Existing Students](#).

1 Selecting Students and Stops

Once the Student and the Stop have been located on the Map, you will need to select them both. There are two different ways to do this:

CLICK AND SELECT

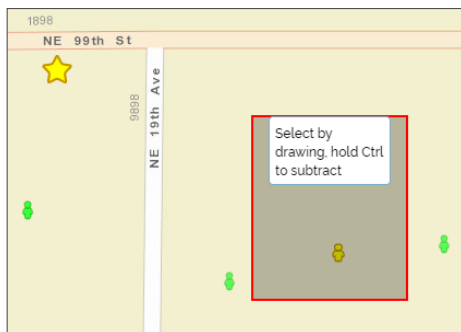
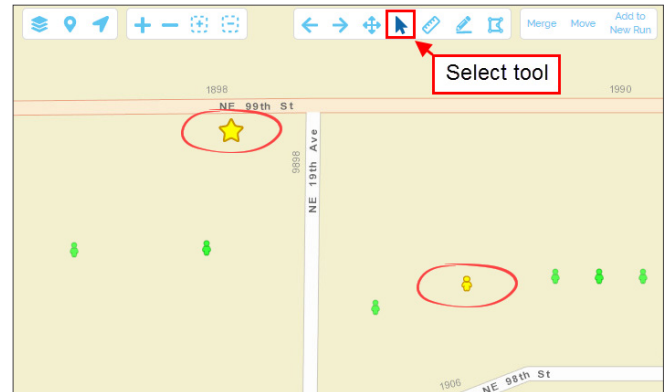
- Select the **Student** by clicking the icon on the Map. A Student information window will be displayed.
 - Click **Select**. You'll notice that the Student icon switches to yellow.
-
- Select the **Stop** by clicking the icon on the Map. A Bus Stop information window will be displayed.
 - Click the **Select** button. Again, you'll notice that the Stop icon switches to yellow.



USE THE SELECT TOOL

Remember that you can always use the **Select Tool** to select Students and Stops on the Map faster. To do so:

- Find and click on the **Select Tool** in the upper section of the Map.
- Click on the map close to the Student or the Stop to be selected and simultaneously drag the cursor from corner to corner to select the Student or the Stop before releasing the mouse button. A selection rectangle will be visible while dragging the cursor. You can also click on the icon and, when the corresponding pop-up window displays, click the **Select** button.

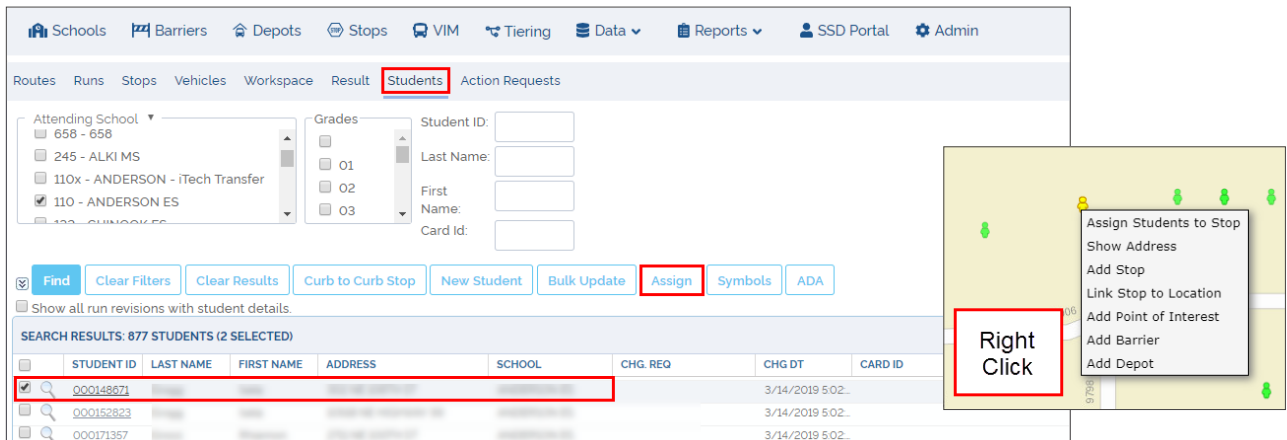


You might need to zoom in first to isolate the Student or the Stop and make the selection easier. The color of the icons will switch from green to yellow on the Map to indicate that they have been selected. Notice that you can select both (or more, in other cases) at the same time.

2 Assigning Students to Stops

Once you have selected the Student and the Stop, proceed to assign the Student to the selected Stop by following these steps:

- First, make sure you are in the Student Management Menu. If you are not, click the **Students tab** to display it.
- Click the **Assign button**.
- A message will appear at the bottom of the map prompting you to **right-click on the Map**. Do so (you can click anywhere on the Map).
- An action selection window will appear. Click **Assign Students to Stop** to complete the task.



In the Stop Window

Another way to assign Students to Stops involves using the **New** or **Existing Stop** dialogs. But first, users need to create a Stop or find the Existing Stop to which the Students will be assigned.

To review how to create a new Stop, read the tutorial [Adding Stops with the New Stop Button](#). To review how to find an existing Stop, read the tutorial [Understanding Stops](#).

1 Selecting Stops

When creating a New Stop, you can access the **Find Students** menu directly by clicking on its tab. On the contrary, if you have searched for an existing Stop, you will need to **select** it from the search results list by checking off the box next to it. Then:

- Click on the **Stop ID**. An Existing Stop window will appear.
- Click the **Find Students** tab. The Find Students menu will be displayed.

The screenshot shows the 'EXISTING STOP' dialog box with the following details:

- Stop Id:** 3031960
- Alternate Stop #:** 2942486
- Find Students** tab is selected and highlighted with a red circle.
- Search Fields:** Student ID, Last Name, First Name, Check All Schools, Walk to Stop (Miles: 0.5), Search for Students at Drop Off.
- Buttons:** Add to Stop, Map, Table, Effective Date, End Date, Find.
- STUDENTS SEARCH RESULTS (0)** table with columns: STUDENT ID, ALT. STUDENT, LAST, FIRST, ADDRESS, SCHOOL, GRADE.

The main interface shows a list of stops with the following data:

ID	RUN	PICK	LDTM	CB	DLY	TIME	DRO
3031957	4692 AM	49TH ST & FLOR.	O	NU	DA	-	63RD
3031958	4692 AM	53RD ST / CHES.	O	NU	DA	-	63RD
3031959	4692 AM	64TH ST & WOO.	O	NU	DA	-	63RD
<input checked="" type="checkbox"/> 3031960	4692 AM	EDGEWOOD ST.	O	NU	DA	-	63RD
3031961	4692 AM	55TH ST / PENT.	O	NU	DA	-	63RD
3051950	4692 AM	32ND ST & CUM.	O	ES	DA	-	63RD
3070055	4692 AM	N 46TH ST & HA.	O	ES	DA	-	63RD

2 Finding and Assigning Students to Stops

Depending on whether you have created a new Stop or searched for an existing one, a New or an Existing Stop dialog will appear. These dialogs look identical.

The **Find Students** tab within these two dialogs presents two search options. A first section allows users identify the Student by ID, Last Name and First Name, and a second section provides School and Grade search filters.

A **Find** button is located on the right of the Grade filter section.

To Find and Assign Students to the Stop from the Find Students tab:

1. Enter Student ID, Last Name and First Name if you know them. Otherwise, select the boxes next to the corresponding School and Grade. On the right, you have the option to filter the search by Students who live within the walk to Stop distance or by Students at Drop-off.
2. Select the **Map** or the **Table** option to display the matching Students as you prefer.
3. Click **Find**. A list with the matching Students will appear in the table below and/or the Map, depending on your previous selection.
4. Select the desired Student from the list.
5. Once you have selected the Student, enter the Dates when the assignment of the Stop should start being Effective and when it should End.
6. Click **Add to Stop**. A window asking you to confirm this action will pop-up. Click **OK** to confirm.
7. A new window confirming that the Students have been added to the Stop will appear. Click **OK** again.

EXISTING STOP

Stop Id: 3031960 Alternate Stop #: 2942486

Pick Up | Drop Off | Date/Class | Stop Students | **Find Students**

Student ID: 5996 - A STOP AT ACADEMY
 Last Name: 0596 - A STOP AT ACADEMY 2
 First Name: 3901 - ACADEMY PARK
 5920 - ACADEMY PARK HIGH SCHOOL

Walk to Stop
 Miles
 Search for Students at Drop Off

 Map Table

Effective Date: 5/24/2019 End Date: 5/31/2019

STUDENT ID	ALT. STUDENT	LAST	FIRST	ADDRESS	SCHOOL	GRADE
C0057319						01
C0046746						02
C0048600						02
C0039825						11
C0050426						04
C0004909	T183073					05
C0004868	T183015					08

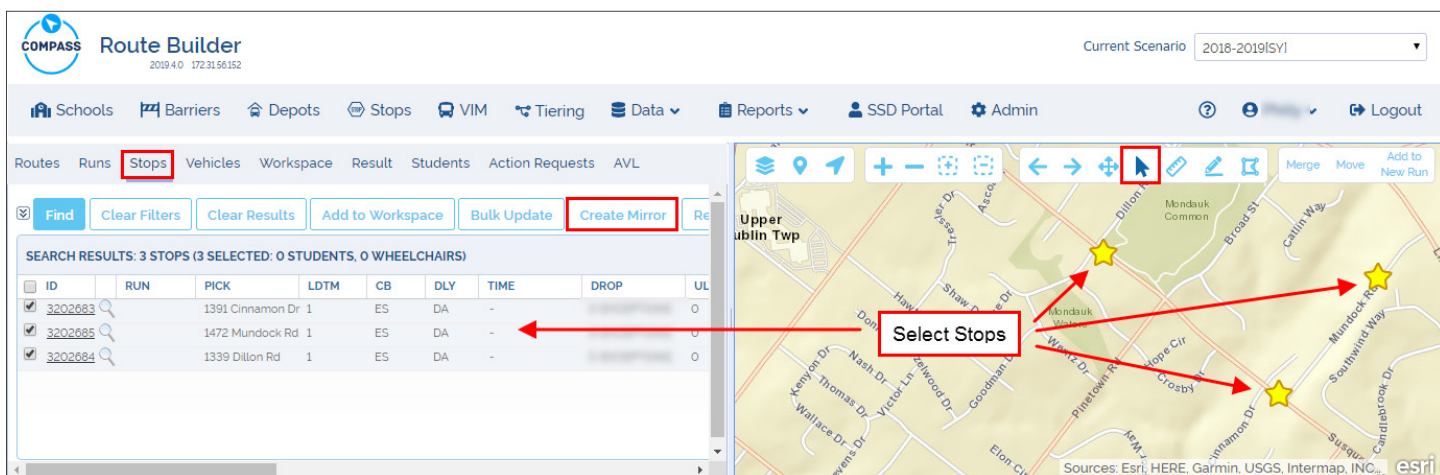
Mirroring Stops

Although there are exceptions, Stops are normally created for AM Runs because taking Students from home to School generally happens in the morning. However, once this is done, users will need to create reverse PM runs that buses follow to drive Students back to their residences. In other words, if Students are picked up at their residential Stop and dropped off at School in the morning, they will likely be picked up at School and dropped off at their residential Stops in the afternoon. This means that the corresponding Stops also need to be created.

A quick method to do this task in Compass, specially when multiple Stops are involved, is what we call **Mirroring**. This process turns Pick Up locations into Drop Off locations and vice-versa.

Finding and Selecting Stops

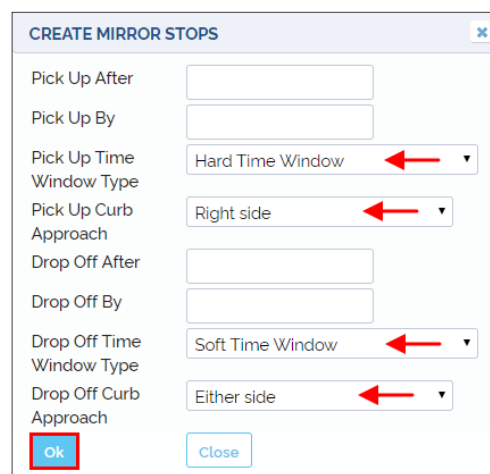
Before you can mirror any Stops, you have to find them and select them. You can either do this in the search results table or in the Map. Remember that, in the Map, you have the option to select the Stops by clicking on the icons or using the select tool as explained in the tutorial [Creating Curb-To-Curb Stops](#).



Create Mirror

Once you have selected the Stops, click the **Create Mirror** button above the search results table. The Create Mirror window will appear. Then:

1. Select Pick Up Time Window Type. If we assume that these Runs will go from School to the Student's residence, Pick Up should be at School and its Window Type should be Hard because it depends on the Bell Time.
2. Select Pick Up Curb Approach.
3. Select Drop Off Time Window Type. Since Drop Off should regularly be at the Student's residence, Window Type will normally be Soft.
4. Select Drop Off Curb Approach.
Notice that you can also add Pick Up and Drop Off Time Window limits if needed.
5. Click **OK**. A window showing a **Mirror Stops Created** message is displayed.



Entering Pick Up and Drop Off Times: Bulk Update

Once you have mirrored the AM Stops to create PM Stops for the reverse Run, you can quickly input time information with the Bulk Update tool. To do so, select the Stops you want to update on the Map or in the search results list and then click **Bulk Update** above.

ID	RUN	PICK	LDTM	CB	DLY	TIME	DROP	ULTM	CB	DLY	TIME	TRTM	ASSIGNED RIDERS
<input checked="" type="checkbox"/> 3202683		1391 Cinnamon Dr 1		ES	DA	-		0	ES	DA	-		0
<input checked="" type="checkbox"/> 3202685		1472 Mundock Rd 1		ES	DA	-		0	ES	DA	-		0
<input checked="" type="checkbox"/> 3202684		1339 Dillon Rd 1		ES	DA	-		0	ES	DA	-		0

A new **Stop Information Bulk Update** window will appear. To add Pick Up and Drop Off times to the Stops, follow these steps:

1. Select the **School** from #1 drop-down menu (#2 menu is for School Drop Off).
2. On the right, select the corresponding **PM Bell Time**.
3. The **Pick Up Time Window** at School should be displayed below. Select both Pick Up boxes (After and By).
4. Select **Pick Up Time Delay**. Since bus Delay is not allowed, enter No Delays. Remember that departure from School is subject to Bell Time and little flexibility is allowed (hard window).
5. Do the same for **Drop Off Time Delay**. Remember that certain Delays may be reasonable (soft window) at residential Drop Off Stops.
6. Select Pick Up and Drop Off **Curb Approach** and select what is appropriate from the drop-down menus.
7. Click **OK**. The information will be updated.

STOP INFORMATION BULK UPDATE ✕

Update	Setting	Value
1.	5901 - (From-School) PM OUT BELL TIME	(From-School) PM OUT BELL TIME ←
<input checked="" type="checkbox"/>	Pick Up After	3:35 PM ←
<input checked="" type="checkbox"/>	Pick Up By	3:40 PM ←
2.	(From-School) PM OUT BELL TIME	
<input type="checkbox"/>	Drop Off After	
<input type="checkbox"/>	Drop Off By	
4.	Load Time	<input type="text"/> Min.
5.	Unload Time	<input type="text"/> Min.
6.	Max Transit Time	<input type="text"/> Min.
7.	<input checked="" type="checkbox"/> Pick Up Time Delay	No delays ▼ <input type="text"/> Min. ←
8.	<input checked="" type="checkbox"/> Drop Off Time Delay	Allow delay of ▼ 15 <input type="text"/> Min. ←
9.	Num Passengers	<input type="text"/>
10.	<input checked="" type="checkbox"/> Pick Up Curb Approach	Either side of vehicle ▼ ←
11.	<input checked="" type="checkbox"/> Drop Off Curb Approach	Either side of vehicle ▼ ←
12.	<input type="checkbox"/> Pick Up School	(From-School) PM OUT BELL TIME ▼
13.	<input type="checkbox"/> Drop Off School	(From-School) PM OUT BELL TIME ▼
14.	<input type="checkbox"/> Preference	<input type="text"/>

Checking Mirrored Stops

You can make sure the Stops have been mirrored by selecting **Mirrored** in the search filter section of the screen. The mirrored Stops will be displayed in the search result list.

If you have completed the process correctly, you should be able to see **AM Stops** with residential Pick Up and School Drop Off as well as **PM Stops** with reversed Pick Up and Drop Off locations.

Student ID/Name: ... All ▼
Eff. Date Between And

Only With Students Assigned Only Without Students Assigned
 Find trip order/stops with no bus assignment ▼

Use Geofence Ungeocoded Wheelchair Aide ESY ▼ Create new result ▼

Gen Ed Sp Ed Magnet
 Schedule Standard Late In Early Out Late Activity
 Admin Billable Med Need Incl No Auto Assign
 Exclude Zero Assigned Rider Count **Mirrored** Not Mirrored

SEARCH RESULTS: 8 STOPS (0 SELECTED: 0 STUDENTS, 0 WHEELCHAIRS)

ID	RUN	PICK	LDTM	CB	DLY	TIME	DROP	ULTM	CB	DLY	TIME	TRTM	ASSIGNED RIDERS
<input type="checkbox"/> 1454447	AM		0	NU	DA	1:30 PM- 1:30 PM	Bend street PSL	2	NU	ND	2:00 PM- 2:00 P.	2	1
<input type="checkbox"/> 1454533		School	0	NU	ND	1:30 PM- 1:30 PM	Golden Ave PSL	2	NU	ND	2:00 PM- 2:00 P.	2	2
<input type="checkbox"/> 1454577			0	RS	DA	-	Rogers Ave PSL	0	RS	ND	-	-	0
<input type="checkbox"/> 1454651			0	RS	DA	-	United Bulevart .	0	RS	ND	-	-	0
<input type="checkbox"/> 1454448	PM	Bend street PSL	1	RS	DA	1:10 PM- 1:10 PM		0	RS	DA	1:20 PM- 1:20 PM	2	3
<input type="checkbox"/> 1454594		Rogers Ave PSL	1	RS	DA	1:05 PM- 1:05 PM	School	0	RS	ND	1:25 PM- 1:25 PM	2	2
<input type="checkbox"/> 1454695		United Bulevart .	1	RS	DA	1:05 PM- 1:05 PM		0	RS	ND	1:25 PM- 1:25 PM	0	0
<input type="checkbox"/> 1454520		Golden Ave PSL	1	RS	DA	1:05 PM- 1:05 PM		0	ES	ND	1:25 PM- 1:25 PM	1	1

MANAGING VEHICLES

Understanding Vehicle Management

Compass uses the term Vehicles to refer to all the vehicles available for route planning.

But these generally include several types of vehicles that have different characteristics and, depending on those, users will need to discriminate which vehicles are suitable for the routes they want to design.

Vehicle Properties

In general terms, vehicle types need to be selected in accordance with the maximum number of riders and occupancy allowance, but also options of equipment and aids must be taken into account when assigning vehicles to service a specific route.

Some of these options are technical. For example, the availability of AVL or GPS systems is crucial for tracking and location purposes. Others, including maximum route and drive times or maximum total distance, are related to vehicle safety. Seat belts, safe vests, wheelchairs or specialties such as air condition or aides assigned, depend on Students' needs.

Beyond that, customers can also consider operating costs per hour or per mile as additional options that address financial factors.

Fleets are held in depots and where these are located is an essential piece of information from the beginning of any routing project, since such locations will normally be the start and the final destination of every route. So, the location of those depots will also be decisive in the selection of vehicles.

Vehicle Management Tool

In order to undertake vehicle management tasks, users can access the Vehicle Management tool by clicking on the **Vehicles** tab located under the main toolbar, on the left section of the screen.

Vehicle search can be done with the aid of filters that are distributed in various sections:

- a. The first filter allows the selection of Vehicle Profiles from a drop-down menu. These Profiles are created to group vehicles with similar characteristics and equipment.
- b. The two following sections can be used to search for vehicles assigned to Schools or accessible at the existing depots by selecting the corresponding boxes in separate scroll-down menus.
- c. If needed, users can select vehicles with Wheelchairs, with Aide, with Air Condition, with Spare vehicle availability or AVL/GPS equipped.
- d. Vehicle Number and Attributes filters are also available.
- e. Finally, users can also search for Vehicles With No Runs during certain periods of time.

See the following figure to have a better understanding of the distribution of these features on your screen.

The Vehicle Management tool displays several buttons with different **functionalities** above the search result list:

- **Find:** Displays search results in the table below.
- **Clear Filters and Results:** Remove results from the table.
- **Add to Workspace:** Adds selected Vehicles to the Workspace so that they can be used to generate Runs.
- **Add to Watch.**
- **Profiles:** Gives access to the Vehicle Profile Management dialog.
- **New:** Adds a New Vehicle to the Scenario.
- **Bulk Update:** Updates the information of various Vehicles at the same time. To learn more, read the tutorial [Editing Vehicles](#).
- **Delete.** Removes a Vehicle from the scenario.

	VEHICLE NUMBER	VEHICLE CONF. TYPE	PROFILE	AFTER	BEFORE	DEPOT	USE TYPE	MAX. STOPS	MAX. TIME	RDR	WC	SV	BLT	AVL
<input type="checkbox"/>	8B648		Default Pro..	4.00 AM	6.00 PM	TRA..		30		71	0	0	0	
<input type="checkbox"/>	8B660		Default Pro..	4.00 AM	6.00 PM	TRA..		30		29	0	0	0	
<input type="checkbox"/>	8L190		Default Pro..	4.00 AM	6.00 PM	TRA..		30		18	1	0	0	20000..

The search results table shows the most relevant Vehicle Features of each of the listed Vehicles. These include:

- Vehicle Number, Configuration Type and Profile.
- Earliest time the Vehicle can leave the Depot and Latest time the Vehicle can leave the Depot.
- Assigned Depot.
- Use Type.
- Maximum number of Stops.
- Maximum ride Time.
- Number of Riders.
- Wheel Chair capacity.
- Number of Safe Vests and Seat Belts available.
- AVL equipped.

Editing Vehicles

You have the option to Edit any existing Vehicle within your Scenario if necessary. To find, select and edit existing vehicles:

1. Select the appropriate search filters as explained in the [Vehicle Management](#) tool section.
2. Click the **Find** button. A search result list with the matching Vehicles will be displayed below.
3. Click on the Vehicle record icon on the left of the Vehicle Number. A **Vehicle Details** window will appear.

VEHICLES (86)														
	VEHICLE NUMBER	VEHICLE CONF. TYPE	PROFILE	AFTER	BEFORE	DEPOT	USE TYPE	MAX STOPS	MAX TIME	RDR	WC	SV	BLT	AVL
	CB 13-101		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-106		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-108		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-110		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-111		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-113		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-118		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	
	CB 13-1180		Default Pro..	4:00 AM	6:00 PM	CITY CAB		30		0	0	0	0	

Within the Vehicle Details window, input the required information in the corresponding fields. These fields are displayed in various sections spotlighted in the figures to help you follow the instructions.

1

Within the first set of fields you can:

- Select **Spare Vehicle** if needed.
- Enter **AVL Device ID** if required.
- Select the appropriate **AVL Account**.
- Enter Notes, Stall number and Odometer data.

Notice that the **Vehicle Number** assigned to the selected vehicle, located on the upper-left corner, can't be modified.

2

Below you can:

- Enter the maximum number of **Riders** allowed.
- Enter the capacity for **Wheelchairs** on the vehicle.
- Enter the number of **Seat Belts** and **Safety Vests** available on the vehicle.

3

The screenshot shows the 'VEHICLE DETAILS' window with the following fields and values:

- Profile: Default Profile
- Vehicle #: CB 13-108
- Notes: [Empty]
- Stall #: [Empty]
- Odometer: [Empty]
- Spare Vehicle:
- AVL Device ID: [Empty]
- AVL Account: ** select one AVL Account **
- Max Riders: 0
- Wheelchairs: 0
- Seat Belt: 0
- Safety Vest: 0
- Max Stops: 30
- Max Route Time (Min.): [Empty]
- Max Drive Time (Min.): [Empty]
- Max Total Distance (Miles): [Empty]
- Start After: 4:00 AM
- Start Before: 6:00 PM
- Start Depot: CITY CAB
- End Depot: CITY CAB
- Max Occupy %: 100
- Time Weight: [Empty]
- Distance Weight: [Empty]
- Fixed Cost: [Empty]
- Vehicle Type: [Dropdown]
- Operating Cost/Hour: 0
- Operating Cost/Mile: 0
- Vehicle Configuration Type: [Dropdown]
- Vehicle Inspection Classification: [Dropdown]
- Specialties: AC, Aide
- VIN Number: [Empty]
- Year: [Dropdown]
- Type of Service: [Dropdown]

Under the previous fields:

- Enter the **Maximum Number of Stops** per Run the vehicle can make and maximum **Route Time** (allowed time on the road per day, including Stops and waits).
- Enter the **Maximum Drive Time** (allowed time on the road per day, excluding Stops and waits) and **Maximum Total Distance**.
- Enter **Start After** and **Start Before** (earliest and latest times at which the vehicle must leave the Depot).
- Select the **Depots** where the Run must Start and End.

4

This close-up shows the bottom half of the 'VEHICLE DETAILS' window with the following fields:

- Max Occupy %: 100
- Distance Weight: [Empty]
- Vehicle Type: [Dropdown]
- Operating Cost/Mile: 0
- Vehicle Inspection Classification: [Dropdown]
- VIN Number: [Empty]
- Year: [Dropdown]
- Type of Service: [Dropdown]
- Time Weight: [Empty]
- Fixed Cost: [Empty]
- Operating Cost/Hour: 0
- Vehicle Configuration Type: [Dropdown]
- Specialties: AC, Aide

In the second half of the Vehicle Details window, you will find several other fields where you can select more Vehicle Details, such as:

- **Maximum Occupancy.**
- **Operating Costs** per mile and per hour.
- **Vehicle Inspection Classification** and **Number (VIN).**
- **Type of Service.**
- **Vehicle Configuration Type** or VCT (codes describing capabilities and equipment).
- **AC or Aide Specialties.**

NOTE: Editing Vehicles is Specific to Scenarios

Editing existing Vehicles will update data only within a specific Scenario but this won't be automatically applied to other Scenarios.

Bulk Update

The Bulk Update tool provides another convenient way to edit the information of several Vehicles at the same time. To do this:

1. Make sure you select only the Vehicles to be updated in the result list after you have done the necessary search.
2. Click the **Bulk Update** button above the list. A Vehicle Bulk Settings window will appear.
3. Within this window, check the required bulk settings and enter the appropriate data in the corresponding fields.
If needed, review the terminology in the previous section.
4. Find the **Start From Depot** (depot at which the Route starts) **Finish at Depot** (depot at which the Route ends), and **Vehicle Usage Type** (general, special or multipurpose education) options in three different drop-down menus and select the correct options.
5. Click **OK**. The updated data will be saved.

Update Setting	Value
<input type="checkbox"/> Start Route After	<input type="text"/>
<input type="checkbox"/> Start Route Before	<input type="text"/>
<input type="checkbox"/> Max Route Time (includes stops and waits)	<input type="text"/>
<input type="checkbox"/> Max Travel/Drive Time	<input type="text"/>
<input type="checkbox"/> Max Route Distance	<input type="text"/>
<input type="checkbox"/> Max Stops	<input type="text"/>
<input type="checkbox"/> Passenger Capacity	<input type="text"/>
<input type="checkbox"/> Max Occupancy %	<input type="text"/>
<input type="checkbox"/> Wheelchairs	<input type="text"/>
<input type="checkbox"/> Harness/Car Seats	<input type="text"/>
<input type="checkbox"/> Seat Belts	<input type="text"/>
<input type="checkbox"/> Distance Cost	<input type="text"/>
<input type="checkbox"/> Time Cost	<input type="text"/>
<input type="checkbox"/> Fixed Cost	<input type="text"/>
<input type="checkbox"/> Start From Depot (Parking)	<input type="text"/>
<input type="checkbox"/> Finish at Depot (Parking)	<input type="text"/>
<input type="checkbox"/> Specialty	<input type="text"/>
<input type="checkbox"/> Operating Cost/Hr	<input type="text"/>
<input type="checkbox"/> Operating Cost/Mile	<input type="text"/>
<input type="checkbox"/> Vehicle Usage Type	<input type="text"/>

Adding Vehicles

You can Add New Vehicles to your Scenario. To do so, follow these steps:

1. Make sure you have selected the Vehicle Management Tool by clicking on the **Vehicles** tab.
2. Click on the **New** button. A Vehicle Details window will be displayed.
3. Enter the information as explained in the Editing Vehicles section. Not all the fields will be necessary.

VEHICLES (150)												
<input type="checkbox"/>	VEHICLE NUMBER	VEHICLE CONF. TYPE	PROFILE	AFTER	BEFORE	DEPOT	USE TYPE	MAX. STOPS	MAX. TIME	RDR	WC	SV

NOTE: Adding Vehicles is Specific to Scenarios

Adding new Vehicles will update data only within a specific Scenario but this won't be automatically applied to other Scenarios.

Deleting Vehicles

You can Delete Existing Vehicles from your Scenario. To do so, follow these steps:

1. Make sure you have selected the Vehicle Management Tool by clicking on the **Vehicles** tab.
2. Select appropriate search filters as previously explained in the Vehicle Management tool section.
3. Click on the **Find** button. A search result list with the matching Vehicles will be displayed below.
4. Select the Vehicles to be deleted.
5. Click on the **Delete** button. The Vehicle will be deleted from the Scenario.

The screenshot shows the 'Vehicles' tab in the Vehicle Management tool. The interface includes search filters for Schools, Depots, and Specialties, and a table of vehicles. The 'Delete' button is highlighted in red.

	VEHICLE NUMBER	VEHICLE CONF. TYPE	PROFILE	AFTER	BEFORE	DEPOT	USE TYPE	MAX. STOPS	MAX. TIME	RDR	WC	SV	BLT
<input type="checkbox"/>	YB 18-00		Default Pro.	4:00 AM	6:00 PM					72	0	0	0
<input checked="" type="checkbox"/>	YB 18-000		Default Pro.	4:00 AM	6:00 PM					48	0	0	0
<input type="checkbox"/>	YB 18-1		Default Pro.	4:00 AM	6:00 PM			30		72	0	0	0
<input type="checkbox"/>	YB 18-10		Default Pro.	4:00 AM	6:00 PM			30		72	0	0	0

NOTE: Deleting Vehicles is Specific to Scenarios

Deleting existing Vehicles will update data only within a specific Scenario but this won't be automatically applied to other Scenarios.

Managing Vehicle Profiles

Vehicles having different characteristics and configurations can be grouped in categories called Vehicle Profiles. The **Vehicle Profile Management** tool can be accessed by clicking on the **Profiles** button, located in the [Vehicle Management](#) screen above the Vehicle find/results table.

This tool allows:

- Deleting or selecting Existing Profiles for further Update.
- Adding New Profiles.

The screenshot shows the 'VEHICLE PROFILE MANAGEMENT' tool. It includes a table of profiles and buttons for Add New, Update, and Close.

ACTIONS	PROFILE NA	CREATED	CREATED
Select Delete	Default Pro.	6/5/2017..	USER-AD.

GENERATING RUNS

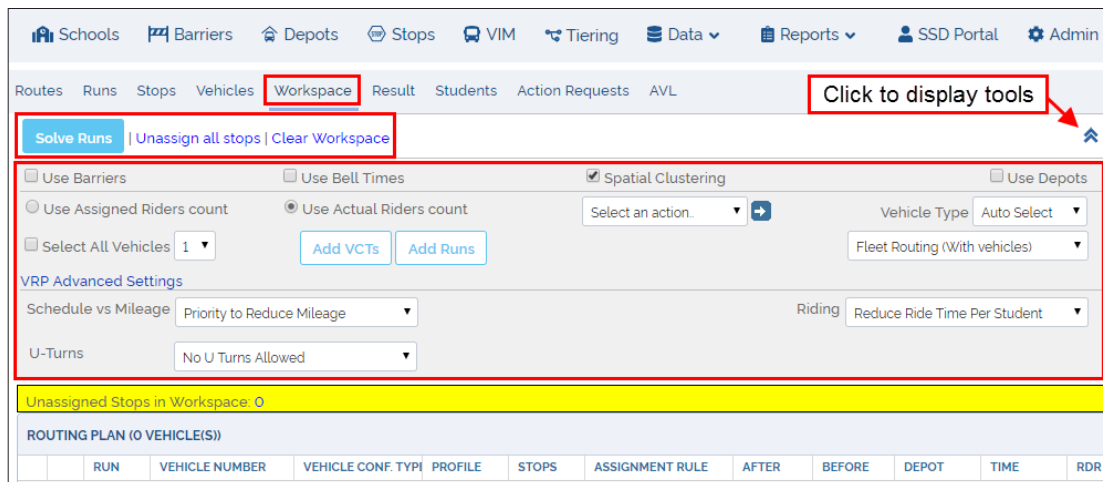
Understanding Workspace

Compass Route Builder uses the Workspace as a temporary storage area where selected Stops and Vehicles can be added to generate Runs. It also allows users to review and modify existing Runs. The Workspace is accessed by clicking on the Workspace tab.

There are three quick action buttons on the upper section of the Workspace menu:

- **Solve Runs** is used to generate a Run with the selected data (Stops and Vehicles) in the Workspace.
- **Unassign all Stops** is used to unlink Stops from Vehicles in the Workspace.
- **Clear Workspace** is used to remove all data from the Workspace.

Several other Workspace tools can be disclosed by clicking the Expand button, on the right of the previous tools.



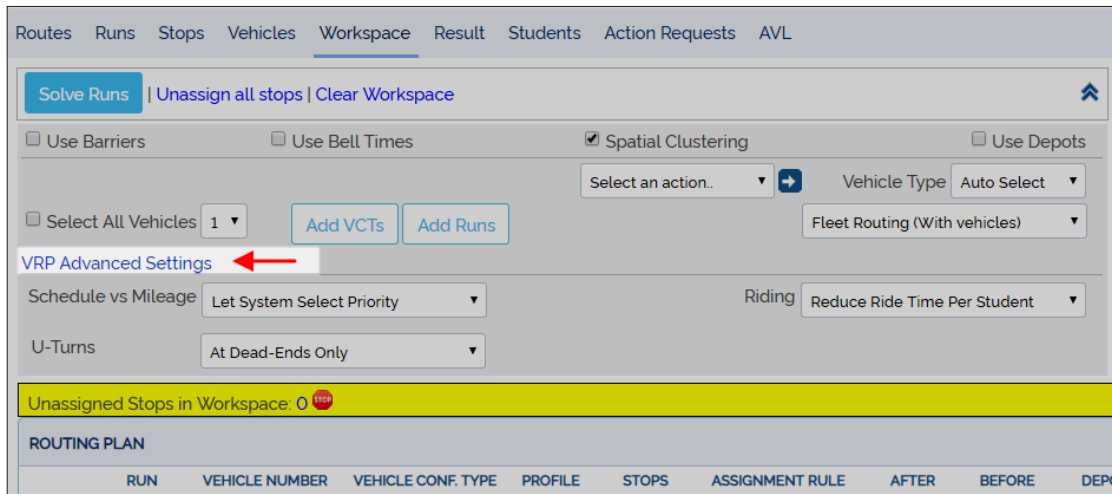
These functionalities can be described as follows:

- When **Use Barriers** is checked, Compass considers existing barriers to generate the Run. Barriers can be created and checked in the Workspace at users' discretion to prevent Vehicles from entering certain areas. For example, some roads might not be suitable for full-size vehicles and barriers bounding affected areas could be necessary.
- When **Use Bell Times** is checked, Compass considers those Bell Times linked to Stops added to the Workspace when generating the Run. Notice that any schedule or Time Window (soft vs hard) conflicts should be resolved before the system can generate the Run.
- Selecting **Spatial Clustering** forces the system to group Stops based on their location and link Routes to those groups (Spatial Clusters). By doing so, Compass attempts to generate efficient Routes, which cross each other as little as possible, making the best use of the selected Vehicles.
- If **Use Depots** is selected, the routing task considers the available Depots.
- In the **Fleet Routing** or **Simple Routing** drop-down menu users can choose to display the Routing with or without specific Vehicles. If Vehicles are not specified, the system will allocate an optimal Vehicle for each Run.
- The **Select an Action** new drop-down menu allows users to Unassign all Stops, Remove checked Vehicles from the Workspace and Unassign Stops, and Remove checked Vehicles and related Stops from the Workspace.

- **Vehicle Type.** This can be used to select the preferred Type of Vehicle.
- **Select all Vehicles.** Used to select all the Vehicles in the Workspace.

Vehicle Routing Problem

Within the Workspace dialog, Compass users can access additional Advanced Settings called VRP, or Vehicle Routing Problem.



VRP helps users modify several default parameters that affect the way buses operate. The tool presents three different drop-down menus that allow the selection of the preferred set up before Compass generates a Run. Let's see what these menus mean and the options they provide:

1. **Schedule vs Mileage.** Sometimes users may want to prioritize meeting time schedules over reducing mileage or vice versa. This tool allows the selection of:
 - Let System Select Priorities.
 - Priority to Meet Time Schedule.
 - Priority to Reduce Mileage of the Route.
2. **U-Turns.** Depending on their characteristics and other considerations, buses may or may not be allowed to do U-Turns. This tool displays four available options that users may select:
 - U-Turns allowed Everywhere.
 - U-Turns allowed at Dead-Ends.
 - U-Turns allowed at Intersections and Dead-Ends Only.
 - No U-Turns Allowed.
3. **Riding.** In a similar way, customers may want buses to pick up all the Students before dropping them off at School at the same time, or may prioritize reducing ride time per Student, which might require buses to stop at School to drop-off Students more than once to complete the Route. The menu offers three options to select:
 - Let System Select Priorities.
 - Stop at School Once.
 - Reduce Ride Time per Student.

Once the preferred options have selected, these can be saved by clicking **OK**. The system will notify the user that settings have been changed. The dialogue can be closed by clicking on **Close**.

Solving a Run

Remember that, in Compass, a Run is a set of directions used by a driver to drive the bus off a Depot, pick up Students at assigned Stops, drop those Students off at the selected place (generally a School) and then drive back to the Depot or proceed to complete another Run.

Adding Data to the Workspace

Before you can generate a Run in the Workspace, you need to add the Stops and the Vehicles that will be included in the Run.

1

To add Stops to the Workspace:

- Click on the **Stops** tab to access the Stops Management tool.
- Find and select the Stops. To review how you can do this, read [Understanding Stops](#).
- Click the **Add to Workspace** button.

ID	RUN	PICK	LDTM	CB	DLY	TIME	DROP	ULTM	CB	DLY	TIME	TRTM	ASSIGNED RIDERS
<input checked="" type="checkbox"/> 3031950	4692 AM	32ND ST / ALLE.	0	NU	DA	-	63RD ST. MULTL.	0	ES	ND	8:30 AM- 8:30 A.	0	0
<input checked="" type="checkbox"/> 3031953	4692 AM	27TH ST / YORK.	0	NU	DA	-	63RD ST. MULTL.	0	ES	ND	8:30 AM- 8:30 A.	0	0
<input checked="" type="checkbox"/> 3031955	4692 AM	39TH ST / HAVE.	0	NU	DA	-	63RD ST. MULTL.	0	ES	ND	8:30 AM- 8:30 A.	0	0
<input checked="" type="checkbox"/> 3031951	4692 AM	26TH ST / ALLE.	0	NU	DA	-	63RD ST. MULTL.	0	ES	ND	8:30 AM- 8:30 A.	0	0

2

To add Vehicles to the Workspace:

- Make sure you have accessed the Vehicle Management tool by clicking on the Vehicles tab first.
- Find and select the preferred Vehicle for the projected Run. To review how to do this, read [Understanding Vehicle Management](#).
- Once the Vehicles are selected, click on the Add to Workspace button.

VEHICLE NUMBER	VEHICLE CONF. TYPE	PROFILE	AFTER	BEFORE	DEPOT	USE TYPE	MAX STOPS	MAX TIME	RDR	WC	SV	BLT	AVL
<input type="checkbox"/> YB 18-00		Default Pro..	4:00 AM	6:00 PM	ASPIRA				72	0	0	0	
<input type="checkbox"/> YB 18-000		Default Pro..	4:00 AM	6:00 PM	ASPIRA				48	0	0	0	
<input checked="" type="checkbox"/> YB 18-1		Default Pro..	4:00 AM	6:00 PM	ASPIRA		30		72	0	0	0	
<input checked="" type="checkbox"/> YB 18-10		Default Pro..	4:00 AM	6:00 PM	ASPIRA		30		72	0	0	0	
<input checked="" type="checkbox"/> YB 18-2		Default Pro..	4:00 AM	6:00 PM	ASPIRA		30		72	0	0	0	

Selecting the Appropriate Settings and Solving the Run

Now that Stops and Vehicles have been added to the Workspace, they can be used to generate a Run.

The last step before the system can solve the Run is the selection of the appropriate options within the Workspace.

Make sure you have accessed the Workspace by clicking on its tab.

Then, chose the preferred options as follows:

1. Select your options from the main menu as explained in the [Understanding Workspace](#) section:
 - Select **Use Barriers, Bell Times, Spatial Clustering** or **Depots** as preferred.
 - Select **Use Assigned Riders count** or **Actual Riders count**.
 - If required, **Select an Action** from the drop-down menu, click the arrow on the right to apply the action.
 - Select **Vehicle Type** or keep the auto select in the provided drop-down menu.
 - Select **Fleet** or **Simple Routing**.
2. If Fleet Routing was selected, proceed to the **VRP** section below for Advanced Settings and select what is appropriate as explained in the [Vehicle Routing Problem](#) tutorial. Choose your settings for:
 - Meet Schedule vs Reduce Mileage.
 - U-Turns.
 - Riding.
3. If Simple Routing (without vehicles) was selected, proceed to the **Settings for Runs Without Vehicles** displayed below.
4. Finally, click the **Solve Runs** button to let the system solve the Run.

Routes Runs Stops Vehicles **Workspace** Result Students Action Requests AVL

Solve Runs | Unassign all stops | Clear Workspace

Use Barriers
 Use Bell Times
 Spatial Clustering
 Use Depots

Use Assigned Riders count
 Use Actual Riders count
 Select an action...
 Vehicle Type Auto Select

Select All Vehicles 1
 Add VCTs
 Add Runs
 Fleet Routing (With vehicles)

VRP Advanced Settings

Schedule vs Mileage Priority to Reduce Mileage
 Riding Reduce Ride Time Per Student

U-Turns No U Turns Allowed

Unassigned Stops in Workspace: 9

ROUTING PLAN (1 VEHICLE(S))

	RUN	VEHICLE NUMBER	VEHICLE CONF. TYPE	PROFILE	STOPS	ASSIGNMENT RULE	AFTER	BEFORE	DEPOT	TIME
		B102		Default Profile	0	1 - Preserve Stop Assign..	4:00 AM	6:00 PM	BROAD STRE...	

Understanding Results

Once Compass has solved the Run, a Results dialog and a Map displaying the corresponding Run automatically appear on the screen.

The Results Screen

A. RESULTS TABLE

Within the dialog, a Results Table discloses data pertaining to the generated Run, including Run ID, Vehicle Number, Vehicle Profile, Effective Date, Duration of Run, Distance of Run, Start and End Times at Depots and number of Stops projected for the Run.

Results Table Data:

RUN	VEHICLE NUMBER	PROFILE	EFFECTIVE DATE	DURATION	DISTANCE	START	END	STOPS
B102-R-06-	B102	Default Profile	01-41	58.47	4:00 AM	5:41 AM	9	

B. REPORTS

A Report Selection tool is located above as a drop-down menu. This allows the user to review different aspects of the Run when the appropriate Report type is selected. Among the available Report types you can find:

- Route Comparisons.
- Route Stops.
- Route Directions.
- Route Assignments.
- Stop Assign Status.
- Student Routes.
- Route Directions with Passengers.
- Route Stops with Passengers.
- Route Stops with User Times.
- Route Directions with User Times.
- Route Directions with Passengers and User Times.

If you want to create one of this Reports:

1. Select the **Run** in the Results table.
2. Select the preferred **Report** type from the Reports drop-down menu.
3. Click on the **Run** button on the left of the Reports drop-down menu.

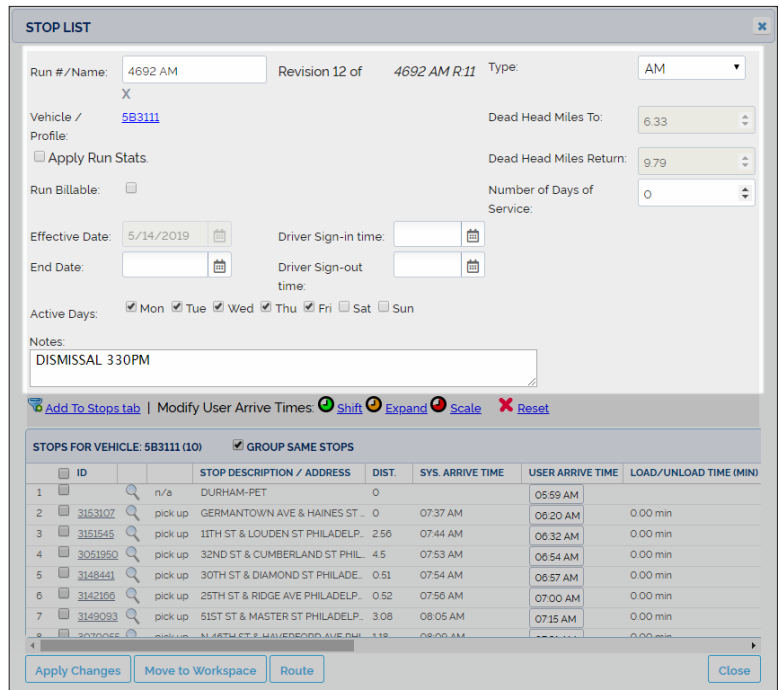
The Results Table also displays two icons (Stops List and Run Directions) and a color bar (Line Symbology Tool) preceding the actual data:

C. THE STOPS LIST

By clicking the first icon (on the left) users can access the **Stops List** of the Run.

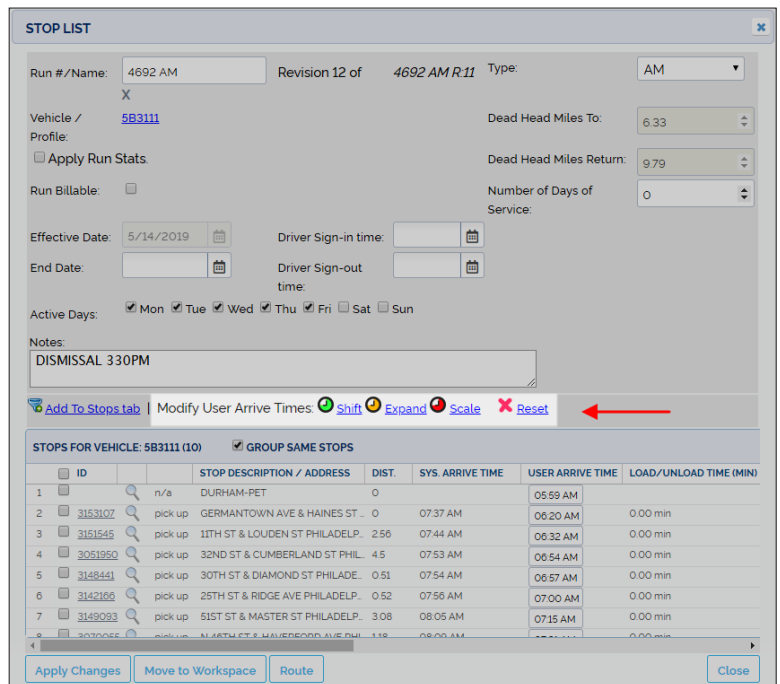
1 The upper section holds different functionalities that allow the user to:

- Visualize and replace automatically generated ID to meet customers' conventions.
- Visualize and re-assign Vehicle Profiles.
- Visualize and re-assign Run Types.
- Apply Statistics.
- Enter Effective and End Dates.
- Enter Driver Sign-in and Sign-out times.
- Specify Active weekdays.
- Add optional Notes.



2 The middle section of the window shows several buttons that allow the user to Modify Arrival Times in various ways:

- **Shift:** Time shift can be applied to all the applicable stops. Number of minutes can be negative for a negative time shift.
- **Expand:** Additional time can be added cumulatively to every stop interval. This has the effect of expanding (or contracting) the travel time between stops. The number of minutes can be negative to contract the travel time.
- **Scale:** Every travel interval between stops can be changed proportionally to its original length. Positive values will increase the run and negative values will reduce it.
- **Reset:** Initial values can be restored.

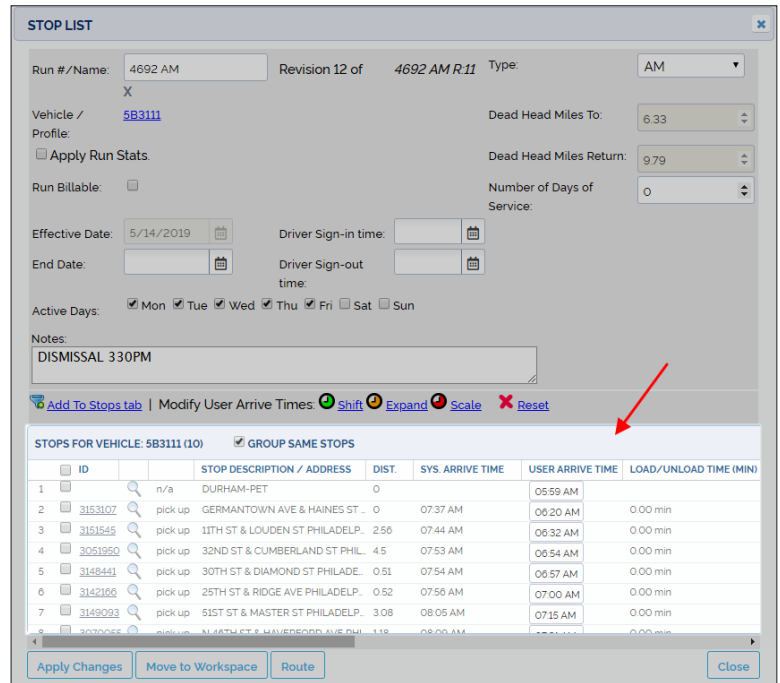


3 The lower section shows a table with the actual Stop List. Here, users will find:

- Sequence number of the Stop (including Depots and Schools).
- Stop ID. By clicking on it, a new existing Stop Window will disclose detailed information of the Stop.
- Action taking place at the Stop.
- Description or Address.
- Distance, arrival times set by the system and by the user, curb approach specifications, time windows, etc.

Any required changes should be saved by clicking on the **Apply Changes** button at the bottom of the Stop List window.

Stops can be disclosed on the map by clicking on the magnifier icon locate before the Stops ID.



D. RUN DIRECTIONS

By clicking on the second icon (on the right), users can get detailed **Run Directions**.

The Run Directions window discriminates each Run included in the same Route and specifies:

- Report Date and Time.
- Run ID.
- Assigned Vehicle.
- Effective Date.
- Stop Descriptions and IDs.
- Directions from every Stop of the Run including distance.
- Number of Students to be picked up and dropped off at every Stop.
- School Bell Time and Time Window.

Run Directions

Route:
1: RUN: LB 10-2017-R-04-07-17-12-28-PM Vehicle: LB 10-2017;
Effective Date: 04/24/2017

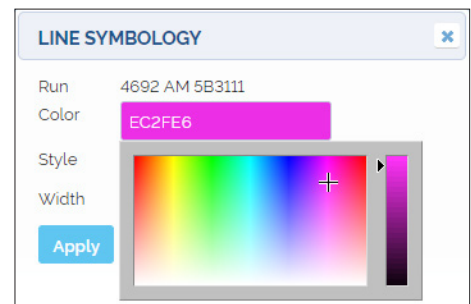
YELLOWBIRD	07:11 AM	Depot/Park
0-1 Go southeast on Belfield Ave toward E Penn St	go ~ 1.72 miles	
0-2 Bear right on Old York Rd	go ~ 0.15 miles	
0-3 Turn left on Roosevelt Expy	go ~ 0.3 miles	
0-4 At fork keep right on Roosevelt Expy	go ~ 0.07 miles	
0-5 Continue on W Roosevelt Blvd	go ~ 0.32 miles	
0-6 At fork keep left on W Roosevelt Blvd	go ~ 0.38 miles	
0-7 At fork keep right on W Roosevelt Blvd	go ~ 0.3 miles	
0-8 At fork keep left on W Roosevelt Blvd	go ~ 0.51 miles	
0-9 At fork keep left on W Roosevelt Blvd	go ~ 0.12 miles	
0-10 At fork keep right on W Roosevelt Blvd	go ~ 0.6 miles	
0-11 At fork keep left on W Roosevelt Blvd	go ~ 0.72 miles	
0-12 Turn right on Pratt St	go ~ 0.16 miles	
0-13 Turn left on Rutland St	go ~ 0.11 miles	
0-14 Turn left on Bridge St	go ~ 0.03 miles	
1019 BRIDGE STREET PHILADELPHIA PA 19124	07:23 AM	StopId: 3186245
Picked Up: 2 Dropped Off: 0 Total Onboard: 2		

E. LINE SYMBOLOGY

By clicking on the color bar, users can access the **Line Symbology tool**.

This tool allows the application of specific colors, style and width to each generated Run so that they can be easily viewed on the Map. To do so:

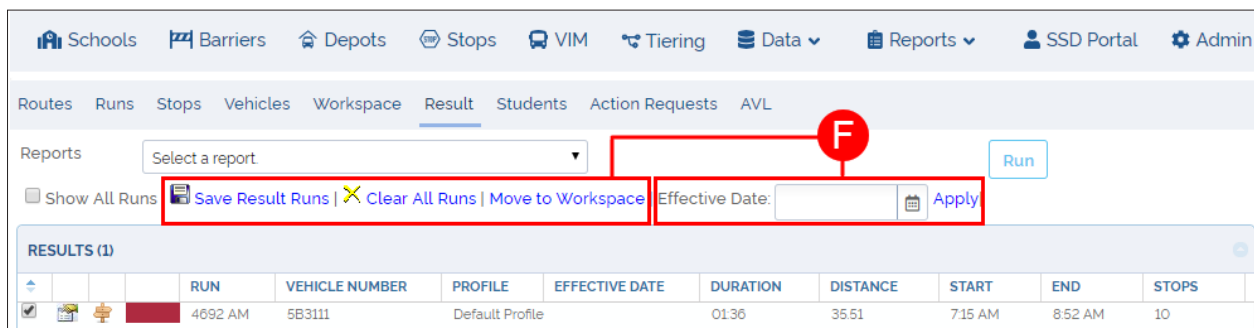
- Pick the **Colors** by clicking on the palette or set by entering the exact color code in the color text box.
- Select the preferred **Width** from the available drop-down menu.
- Once the line parameters are chosen, click on the **Apply** button located on the left.



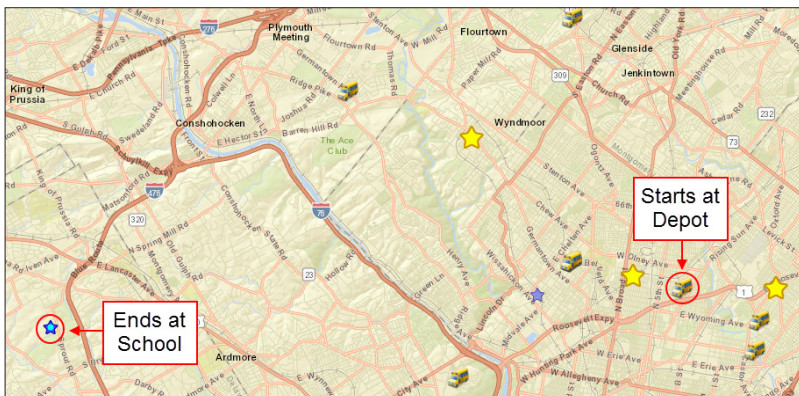
F. OTHER ACTIONS

Once the Run has been checked, other buttons allow additional tasks within the Result Menu (see figure below). Users can:

- Click **Save Results** to save the generated Run if it is satisfactory.
- Click **Clear All Runs** to remove Results from the Results Table.
- Click **Move to Workspace** to edit the Runs in the Workspace.
- Enter the preferred **Effective Date** to be assigned to the Runs in the text box, or select it from the corresponding drop-down menu, and click **Apply**.



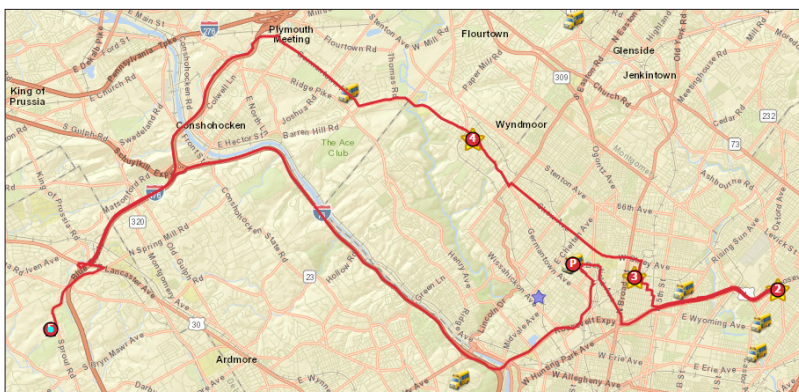
The Map



For an easier understanding, let's assume that a user wants to generate an AM Run that only includes a Depot, a School and three Stops.

The start location of the Run should be the selected Depot and the end of the Run should be the School.

The other three Stops are also selected (they turn yellow on the Map) and added to the Workspace.



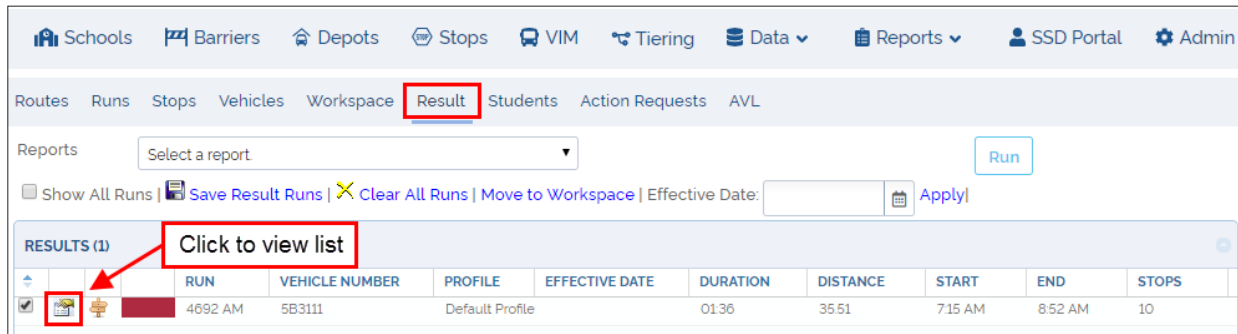
Once it is solved by the system (after clicking on the Route button within the Workspace), the Map will show a Run that starts at the Depot, stops at the other three Stops along the way to pick up the assigned Students, and ends at the School where those Students are dropped off.

The Depot and the School are marked as P and F respectively on the Map.

Sequenced numbers are assigned to each Stop so that the directions of the Run are easy to follow.

Saving The Run

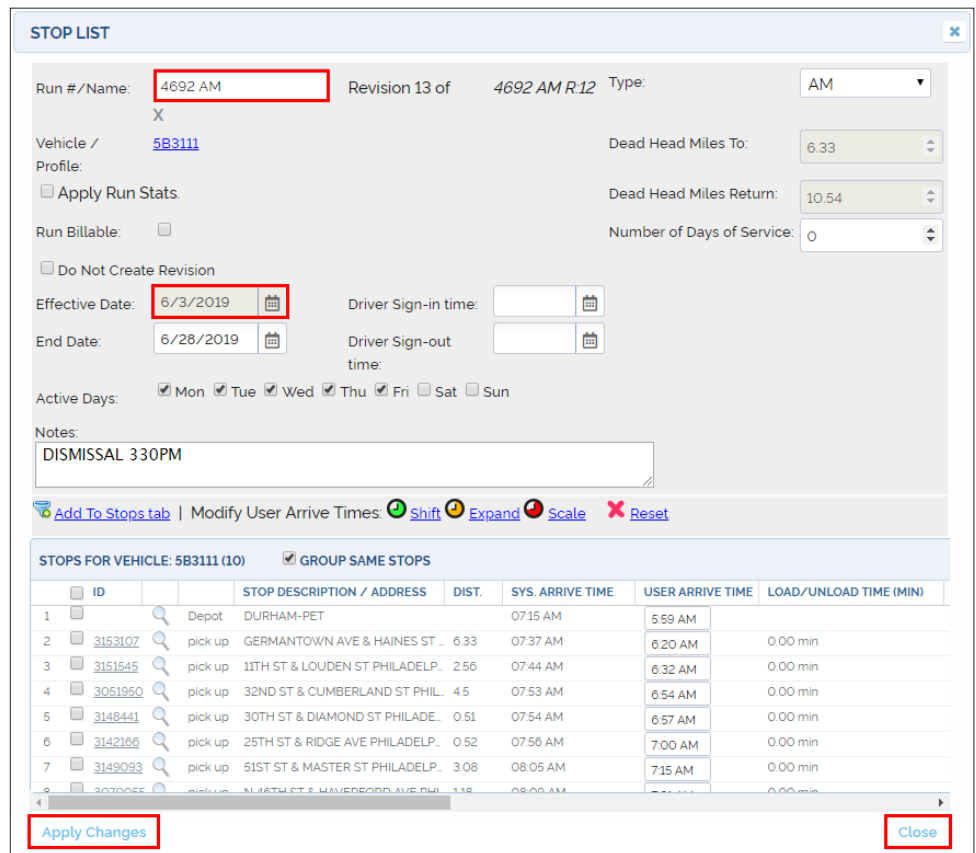
Once Compass has solved a Run, you need to follow the appropriate steps to save it.



There are two groups of actions needed to Save a Run. These take place in different menus, the Stops List window and the Results menu. First, click on the Stops List icon within the Results screen, as it is explained in the [Understanding Results](#) tutorial.

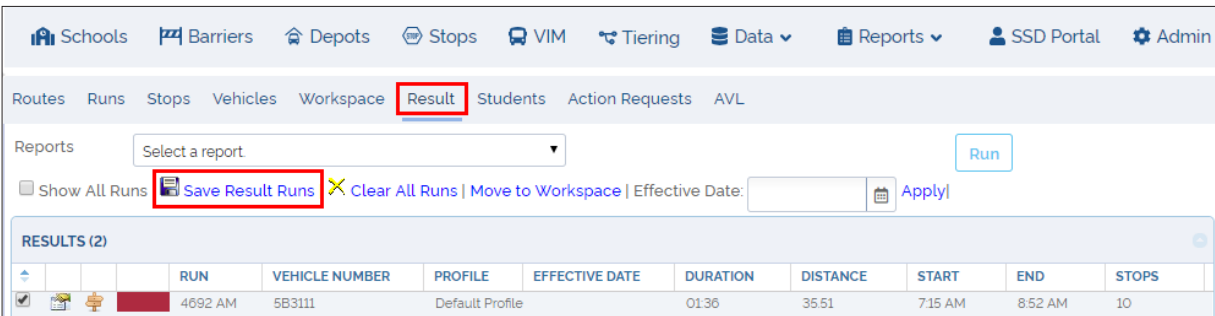
WITHIN THE STOP LIST WINDOW

- Change the **Run#/Name**, which is automatically generated by the system, following the required conventions.
- Enter an **Effective Date**. If you try to save the Run without an Effective Date, a warning message will be displayed.
- Click on **Apply Changes**.
- Click on **Close**.



WITHIN THE RESULTS SCREEN

- When the Results menu is displayed after you close the Stops List window, click on the **Save Results Run** button.



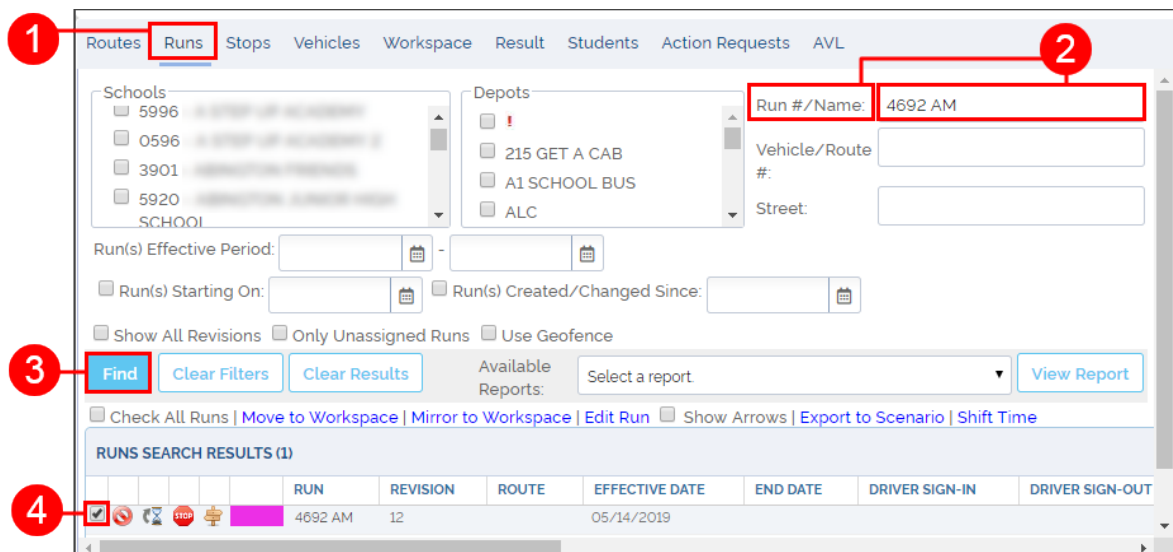
NOTE: New Stop List Icon

Observe that the Results table shows a new Stops List icon after applying the previous changes. You can check and edit the Run by clicking on the new Stops List icon to disclose its information details.

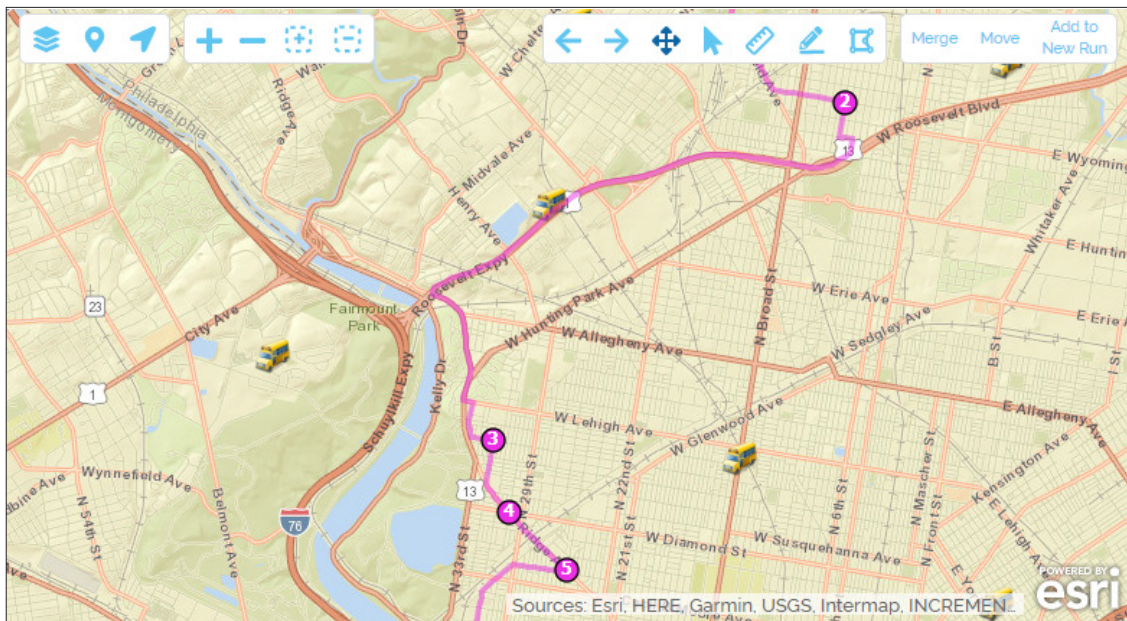
Viewing a Run

Sometimes users may want to check a previously generated Run. If you want to View an existing Run:

- Click on the **Runs** tab in the toolbar.
- If you know it, enter the **Run#/Name** in its text box, on the upper right group of search filters. You can always use the other filters, such as Schools or Depots, to search for the Run.
- Click **Find**. The Run will be displayed in the Runs Search Results table below.



- Select its corresponding box. The Run will also be disclosed on the Map.



Editing the Run Sequence

Occasionally, users may need to change the sequence of their Runs for various reasons. For example, Students with special needs might require more time to get ready for Pick Up and the user could decide to change the sequence number of the Stops in that Run to better suit those Students' needs.

You may be in two different situations when you want to change the sequence of a Run. Let's see how to proceed in each of them.

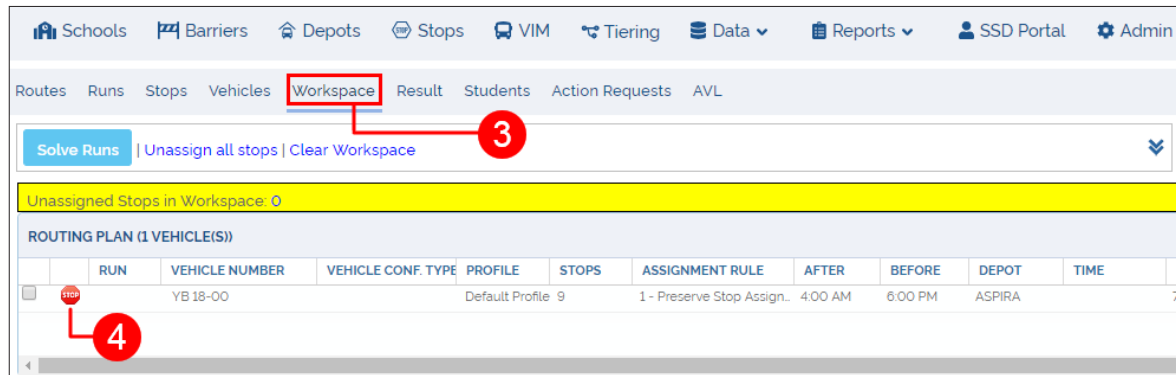
A If the system has just solved the Run and you are still in the Results menu:

- Select the **Run** by clicking its corresponding box.
- Click **Move to Workspace** to move the Run to the Workspace.

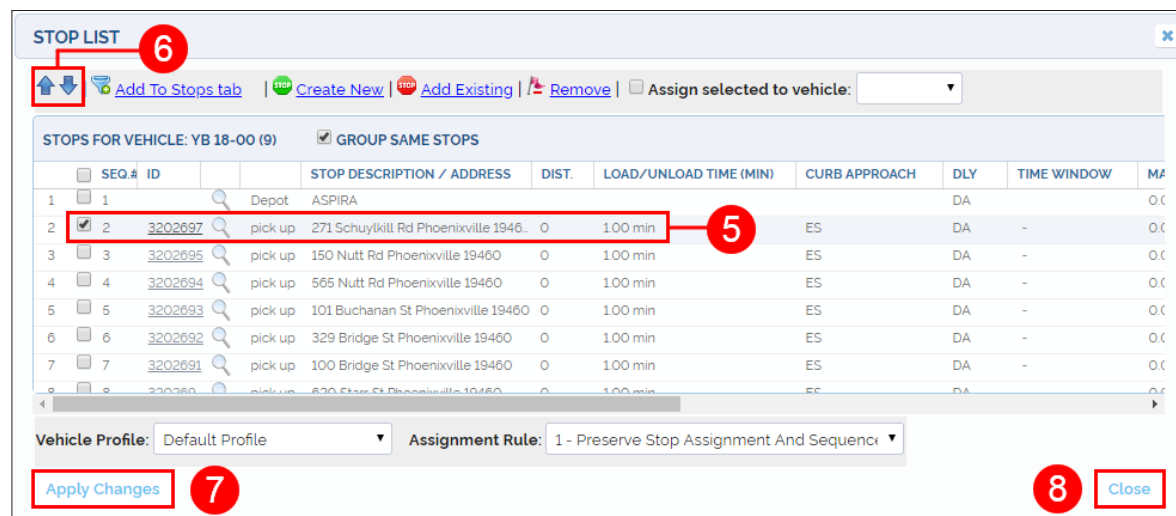
Results (1)

	RUN	VEHICLE NUMBER	PROFILE	EFFECTIVE DATE	DURATION	DISTANCE	START	END	STOPS
1	YB 18-00-R-..	YB 18-00	Default Profile		01:48	6758	4:00 AM	5:48 AM	9

- Proceed to the Workspace by clicking the **Workspace** tab.
- Click the **Stop List** icon on the left. The Stop List window appears.



- Select the **Stop** you want to change by clicking its corresponding box.
- Click the **Up** or **Down** arrow button on the upper left corner of the window to move the Stop to the preferred position in the list. By doing so, you will establish the appropriate Stop sequence.
- Click on the **Apply Changes** button.
- Click **Close**.



B If you need to find an existing Run to edit its sequence:

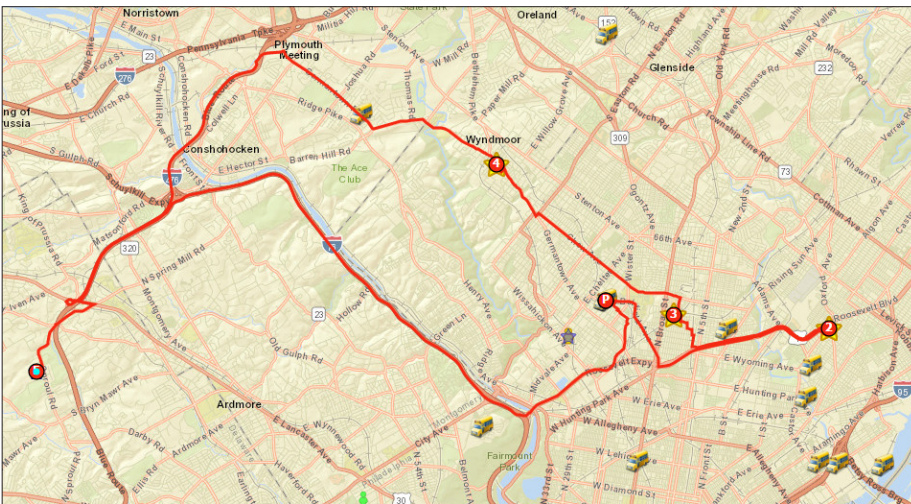
1. Click on the **Runs** tab.
2. Enter the **Run#/Name** on the upper right group of search filters.

You can always use the other filters, such as Schools or Depots, to search for the Run.

3. Click **Find**.
4. Select the appropriate **Run**.

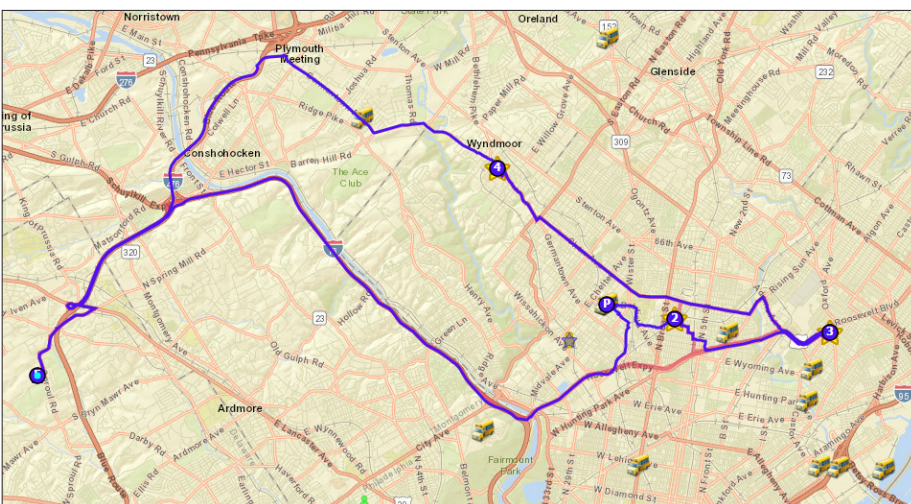
These are the same steps explained in the [Viewing a Run](#) section above. Once the Run is selected, repeat steps 2-8 explained for the first situation, when the system has just solved the Run and you are still in the Results menu (A).

Finally, to have a better overall understanding of these workflows, let's take a look at the Map and see how the resulting changes are displayed:



This generated Run (colored in red) shows the following sequence:

The bus leaves the Depot (P) to pick up a Student at Stop #2 first, (which is farther than Stop #3) and then it returns to Stop #3 and continues to Stop #4 to finally reach the School (F).



A newly modified Run (colored in blue) shows a different sequence:

The bus leaves the Depot (P) to pick up the Student that lives closer at Stop #2 (previously #3) following a different path, and then proceeds to pick up the rest of them at Stops 3 and 4 before reaching the School (F).

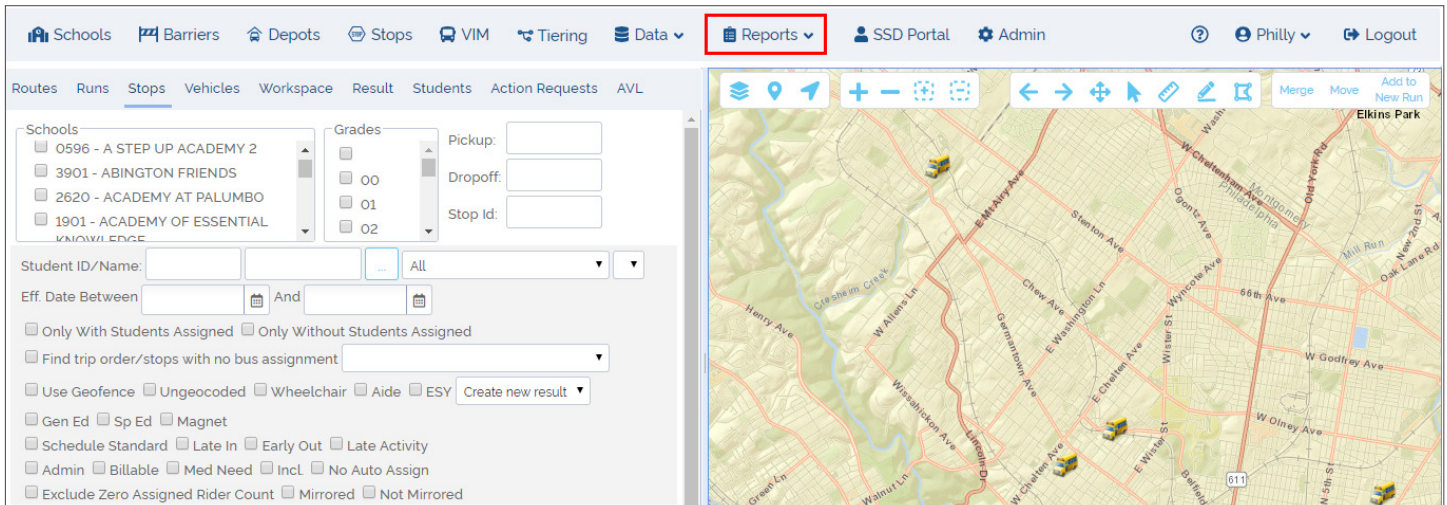
COMPASS REPORTS

1. COMPREHENSIVE REPORTS - p.75
 - Compass Reports Module - p.75
 - Creating Comprehensive Student Reports - p.75
 - Understanding Comprehensive Student Reports - p.77
 - Creating Comprehensive Stops, Run and Route Reports - p.78
 - Understanding Comprehensive Stop Reports - p.80
 - Understanding Comprehensive Run Reports - p.81
 - Understanding Comprehensive Route Reports - p.82
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2. PLANNED VS ACTUAL REPORTS - p.86
 - Generating Planned vs Actual Reports - p.86
 - Planned vs Actual Report Content - p.87
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COMPREHENSIVE REPORTS

Compass Reports Module

The Reports module allows Compass users to create, edit, export and print several types of Report. To access the module, log in to Compass Route Builder, find the **Reports** tab in the tool bar and click on it. Then, select Compass Reports from the drop-down menu.



Creating Comprehensive Student Reports

Access Comprehensive Students Reports

Once the Reports module becomes available, find the Students drop-down menu and click on it. This holds the Comprehensive Students Report tool. To create this report:

1. Click on the **Students** drop-down menu.
2. Click **Comprehensive Students**.



Information Input and View Options

1. Enter the information in the Required Fields. These fields show a Required tag highlighted in red underneath the text box and a star next to the name of the field. Data for these fields, such as scenarios or schools, is loaded from Compass Route Builder. Some fields, including the required fields, work as drop-down menus that show all the available options. If necessary, you can also manually enter additional information in other fields.
2. You can paginate your Comprehensive Student Reports by clicking **Paginated Display** as an Additional View Option.

The screenshot shows the 'Comprehensive Student Report' form. A red box labeled 'Required Fields' has arrows pointing to the 'Scenario *', 'Report Date *', and 'Schools *' fields. These fields have a red 'Required' tag below them. Other fields like 'Run (Number)', 'District Fields', and 'Grade' have a red 'No data on Server' tag. At the bottom left, a red box labeled 'Additional View Options' points to the 'Paginated Display' toggle switch. A blue 'View Report' button is located at the bottom center.

3. Click the **View Report** button below to generate your Report.

This screenshot shows a portion of the form with the 'View Report' button highlighted in red. A red box labeled 'View Report' has an arrow pointing to the button. The 'Paginated Display' toggle switch is also visible above the button.

Understanding Comprehensive Student Reports

The Comprehensive Students Report contains the following sections:

1. The first section shows specific information about the Student. This includes:
 - Student ID and Name.
 - School and Grade.
2. Two more sections show information about Pick Up and Drop Off Runs. This information includes:
 - Pick Up and Drop Off Run codes, addresses and Time. Pick Up and Drop Off Time represent the time window before and after Time Bells at School respectively.
 - Vehicle assigned to Pick Up and Drop Off Runs.
 - Distance to Pick Up and Drop Off Stops.
 - Routes in which Pick Up and Drop Off Runs are included.

ID	Name	School	Grade	Run	Address	Time	Run	Vehicle	Distance To Stop	Route	Address	Time	Run	Vehicle	Distance To Stop	Route	District Fields
5947730			08		4801 W. GIRARD AVE.	-				M	79TH ST / OGDONTZ	4:05 PM- 4:10 PM				M	
5947730			08	7582 AM	79TH ST / OGDONTZ AVE.	7:25 AM- 7:30 AM	7582 AM	YB 8-884		M	79TH ST / OGDONTZ	4:05 PM- 4:10 PM				M	
5981853			07		4801 W. GIRARD AVE.	-				M	4801 W. GIRARD	-				M	
5981853			07	7582 AM	28TH ST / NOKHIS ST	7:25 AM- 7:30 AM	7582 AM	YB 8-884		M	4801 W. GIRARD	-				M	

You can also generate a paginated version if you click **Paginated Display** before viewing the report.

School	Grade	Run #
	08	

Pick Up Information					
Pick up Time	Pick Up Address	Pick Up Vehicle	Distance To Pick Up Stop	Pick Up Run	Pick Up Route #
7:25 AM- 7:30 AM	ALGON AVE / FRIENDSHIP ST	YB 20-518003		7815 AM	

Drop Off Information					
Drop Off Time	Drop Off Address	Drop Off Vehicle #	Distance to Drop Off Stop	Drop Off Run #	Drop Off Route #
4:05 PM- 4:10 PM	ALGON AVE / FRIENDSHIP ST				

Creating Comprehensive Stops, Run and Route Reports

Access Comprehensive Stops, Run and Route Reports

The Runs drop-down menu holds the Comprehensive Route, Run and Stops Report tools. To create these Reports:

1. Click on the Runs drop-down menu.
2. Choose the Comprehensive Report you want to create, i.e., **Comprehensive Stops**, **Comprehensive Run** or **Comprehensive Route**, and click on it. All of them show the same comprehensive report icon.



Information Input and View Options

1. Enter the information in the Required Fields. These fields show a Required tag highlighted in red underneath the text box and a star next to the name of the field. Data for these fields, such as Scenarios or Schools, is loaded from Compass Route Builder. Some fields, including the required fields, work as drop-down menus that show all the available options. If necessary, you can also manually enter additional information in other fields.
2. You can select Additional View Options before viewing your Reports.
3. You can create Comprehensive Stop Reports with more detailed Student information presented in additional rows by clicking the **Show Student Information** button.

- 4. You can also **Show Directions** and **Student Information**, or **Include Map** in your reports by clicking the corresponding buttons on the lower-left corner of the Comprehensive Run and Route Report dialogs.

The screenshot shows the 'Comprehensive Route Report' form. It includes several input fields: Scenario (dropdown menu with '2017-2018[SY]'), Report Date (text field with a calendar icon), Route (Name / Number), Run (Number), Schools (text field), Vehicles, and Depots. Each of these fields has a red 'Required' label below it. At the bottom, there are three toggle switches: 'Show Directions', 'Show Student Information', and 'Include Map'. A blue 'View Report' button is located at the bottom left. Red arrows and boxes highlight the 'Required' labels and the toggle switches, with labels 'Required Fields' and 'Additional View Options' pointing to them.

View Report

- Click **View Report** below to generate your Report.

This screenshot is identical to the previous one, showing the 'Comprehensive Route Report' form. In this version, the blue 'View Report' button at the bottom left is highlighted with a red box, and a red arrow points to it from a label 'View Report' also enclosed in a red box.

Understanding Comprehensive Stop Reports

The Comprehensive Stops Report document displays two different sections:

1. The first section contains specific information about the Stop. This includes:
 - Run and Route codes.
 - Revision and number of students assigned to the stop.
 - Special equipment (if required).
 - Vehicle code.

2. A second section displays a table showing student information. This section is visible only if you select the option Show Student Information before viewing the report. Student Information includes:
 - Student ID.
 - Student Name.
 - Grade and Genre
 - Emergency Number.
 - Residence Address.
 - Attending School.
 - Special Needs.

Comprehensive Stop Report
Report Date: 09/25/2018

Stop Id: 2380893 Stop Name: NW LAKESHORE AVE & NW 99TH ST

Run : COLR02PM Revision: 7

Route: 151 Student Assigned To Stop: 4

Special Equipment: Vehicle: 151

Id	Name	Gra	Gen	Emer Number	Residence Address	Attending School	Special Needs
000124239	BLAKE BRYAN	12	M	(360) 936-2388	3014 NW 97TH CIR		
000176019	CAROLINE HANSEN	09	F	(360) 901-1189	3101 NW 97TH CIR		
000120050	MAKENNA JOHN	12	F	(360) 576-0394	9712 NW 31ST AVE		
000135389	ROAN TANOTO	09	M	(360) 984-5272	9018 NW STARKREST AVE		

1

2

Understanding Comprehensive Run Reports

The Comprehensive Run Report contains three different sections.

- The first section shows information about the Run that includes:
 - Run ID and Vehicle code and Run Revision.
 - Depot assigned.
 - Effective Date, End Date and Duration.
 - Total number of Stops in the Run and Total number of Students.
 - List of Schools included in the Run.

Comprehensive Run Report

Report Date: 06/19/2019

RUN	4208 AM	Depot	PHILLY TRANS-TACONY
Vehicle	9B676	Effective Date	10/24/17 12:00 AM
Run Revision	5	End Date	
Distance	25.79 miles	Duration	71 minutes
First/Last Dist	0 miles	First-Last Durat	72 minutes
Total Stops	17	Total Pupils	24
List of Schools	PHILLY TRANS-TACONY		

1

- The second section shows information about each Stop included in the Run:
 - Stop ID and Address.
 - Number of Students Picked Up and Dropped Off at the Stop, and Total Onboard.
 - Time planned for that Stop.
- A third section displays a table showing detailed information about the Students assigned to each Stop of the Run. This section will be visible only if you select the option Show Student Information before viewing the report. This information includes:
 - Student's ID, Name, Grade, Genre, Emergency Number and Address.
 - Attending School.
 - Special Needs.

3. Stop Id: 2380546 - NW 12TH AVE & NW 80TH ST **AT: 02:17:00 PM**

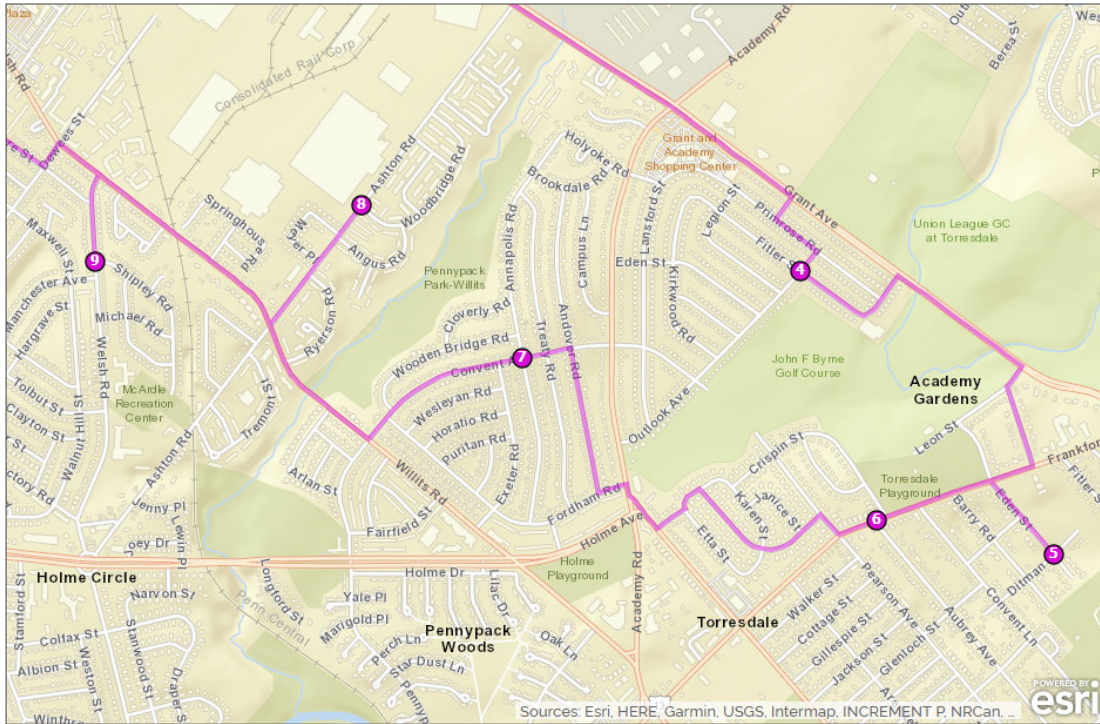
Picked Up: 0 - Dropped Off: 13 - Total Onboard: 187

Id	Name	Gra	Gen	Emer Number	Residence Address	Attending School	Special Needs
000134216	[REDACTED]	09	F	(360) 835-3007	1112 NW 79TH CIR	COLUMBIA RIVER HS	
000171267	[REDACTED]	09	M	(208) 244-4507	8004 NW 11TH CT	COLUMBIA RIVER HS	
000118436	[REDACTED]	12	F	(360) 571-5771	7913 NW 11TH CT	COLUMBIA RIVER HS	
000119392	[REDACTED]	12	M	(360) 433-0798	8212 NW 12TH AVE	COLUMBIA RIVER HS	
000171268	[REDACTED]	12	F	(208) 244-4507	8004 NW 11TH CT	COLUMBIA RIVER HS	
000159532	[REDACTED]	09	M	(360) 839-4947	1408 NW GREGORY DR VANCOUVER 98685-6036	COLUMBIA RIVER HS	

2

3

- If you choose the option **Include Map** before viewing the report, you will also get a map of the Run located between sections 1 and 2. This map shows numbers indicating the order of the Stops included in the Run.



Understanding Comprehensive Route Reports

The **Comprehensive Route Report** document contains **Route** information pages and more detailed **Run** information pages. The Run information pages also show details about each **Stop**.

Route Information

The Route information pages display two different sections:

- The first section includes the report header followed by Route name, Effective Date, Depot and Vehicle assigned to the Route.

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Comprehensive Route Report

Report Date: 06/19/2019 03:40 PM

ROUTE	0151	Garage/Depot	Yard
Effective Date	09/07/2018 12:00:00 AM	Vehicle	151



- The second section lists the Runs included in the Route and their specific IDs, First and Last Stop times, number of stops, deadhead duration and mileage, and total number of students, followed by school name, arrival times and duration.

Run	COLR02AM		
UAT First Stop	06:10:00 AM	User Deadhead Duration	0 minutes
UAT Last Stop	07:00:00 AM	Deadhead Mileage	21.71 miles
Total Stops	137	Total Pupils	208
FIRST STOP 6:25 - BE AT SCHOOL 6:55			
Schools Name	User Arrival Time	Duration	
COLUMBIA RIVER HS	06:55:00 AM	42 minutes	
Run	MGAM3004		
UAT First Stop	07:03:00 AM	User Deadhead Duration	26 minutes
UAT Last Stop	07:25:00 AM	Deadhead Mileage	20.87 miles
Total Stops	14	Total Pupils	0
WALKER			
Schools Name	User Arrival Time	Duration	
COLUMBIA RIVER HS	07:03:00 AM	10 minutes	
SKYVIEW HS	07:25:00 AM	26 minutes	

2

Run Information

The Run information pages can have different sections depending on the options you choose before viewing the document.

- The first section shows information about the Run that includes:
 - Run ID.
 - Vehicle ID.
 - Schools and total number of Stops included in the Run.
 - Duration.
 - Route name and Depot.
 - Distance between first and last Stops and total distance.
 - Total number of Students.

RUN	COLR02AM		
Vehicle	151	Route Name	0151
List of Schools	450	Garage/Depot	Yard
Run Revision	6	First/Last Dist	0 miles
First/Last Dur U	minutes	Total Distance	21.71 miles
Total Durat U	50 minutes	Total Pupils	208
Total Stops	137		
FIRST STOP 6:25 - BE AT SCHOOL 6:55			

1

- The second section shows information about each Stop included in the Run (see next page):
 - Stop address and ID.
 - Number of students picked up and dropped off at the Stop.
 - Time planned for that Stop.

- A third section displays a table showing detailed information about the Students assigned to each Stop of the Run. This section will be visible only if you select the option Show Student Information before viewing the report.

This information includes:

- Student’s ID, Name, Grade and Gender.
- Emergency Number.
- Residence Address.
- Attending School.
- Special Needs.
- Effective Date and End Date.
- Total Onboard Students.

- A fourth section shows the directions planned for that Run. This section will be visible only if you select the option Show Directions before viewing the report.

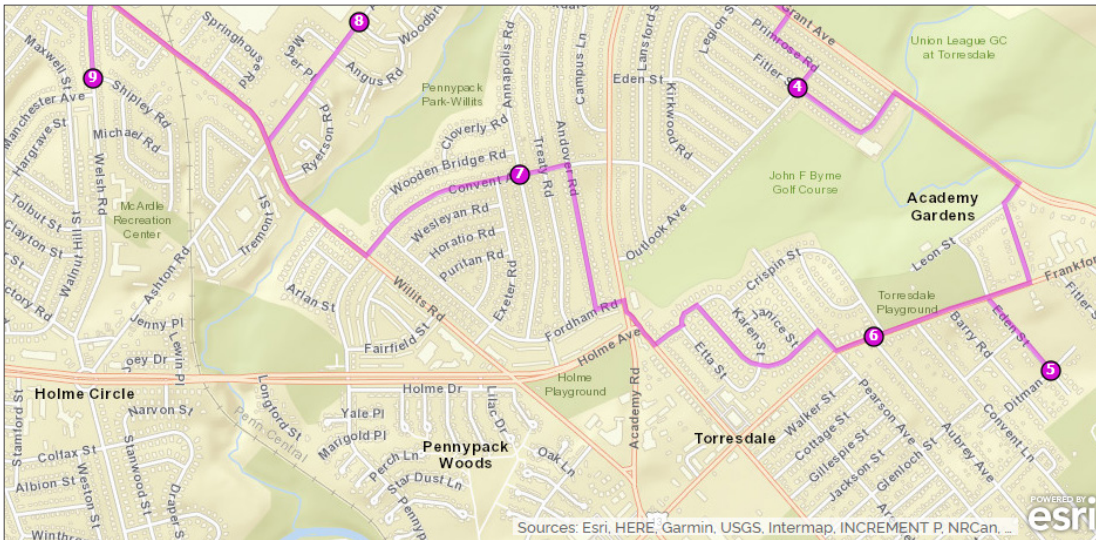
15. NW 26TH AV @ NW 112TH ST										
								Stop Id 2378845		
Picked Up: 10 Dropped Off: 0								AT: 06:25:00 AM		
Id	Name	Gr	Gen	Emer Num	Residence Address	Attending School	Special Needs	Effe Date	End Date	
00014783 8	[REDACTED]	09	M	(380) 580- 8244	11116 NW 28TH AVE	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00017214 4	[REDACTED]	11	M	(907) 727- 1513	2405 NW 112TH ST	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00013727 4	[REDACTED]	10	M		11513 NW 27TH AVE	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00011802 5	[REDACTED]	12	F	(317) 900- 0823	2409 NW 112TH ST	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00012231 9	[REDACTED]	10	M	(380) 548- 1803	11212 NW 24TH AVE	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00012838 8	[REDACTED]	10	M	(380) 896- 3046	11216 NW 25TH CT	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00013490 5	[REDACTED]	11	M	(388) 307- 4173	2418 NW 112TH ST	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00018789 7	[REDACTED]	11	M	(380) 574- 5442	2510 NW 115TH ST	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00013453 1	[REDACTED]	09	F	(380) 904- 4857	11212 NW 24TH AVE	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
00014154 4	[REDACTED]	11	M	(971) 254- 6146	2805 NW 115TH ST	[REDACTED]		07/27/201 8 12:00:00 AM	01/01/000 1 12:00:00 AM	
Total Onboard: 140										
1	Continue east on NW 112th St						go ~ 0.01 miles			
3	Turn right on NW 26th Ave						go ~ 0.13 miles			
5	Turn right on NW 109th St						go ~ 0.04 miles			

2

3

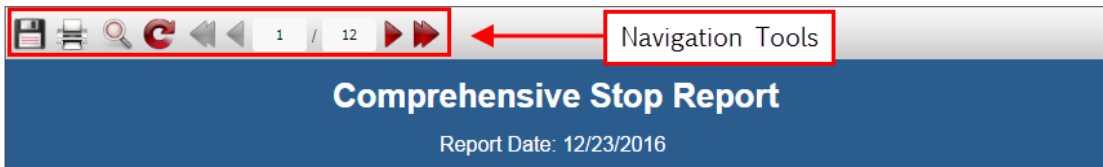
4

- If you choose the option **Include Map** before viewing the report, you will also get a map of the Run located between sections 1 and 2. This map shows numbers indicating the order of the Stops included in the Run.



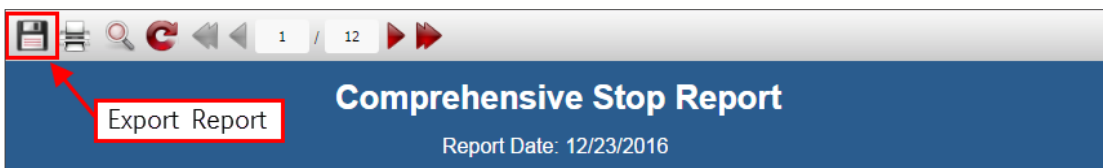
Viewing, Navigating and Exporting Comprehensive Reports

When you click on the **View Report** button you will find the Report Navigation Tools (export, print, zoom, refresh and page navigating buttons) on top of the report.



You can export your Reports to several formats. To export a Report:

- Click the **Export** button.
- Select the preferred format.



PLANNED VS ACTUAL REPORTS

Since users may want to monitor the performance of bus operators and their observance of schedule when servicing student transportation routes, Compass provides the option to generate **Planned vs Actual** reports that include originally planned schedules and data received from GPS/AVL showing actual arrival times at both Schools (Planned vs Actual at Schools) and bus Stops (Planned vs Actual at Stops). These reports allow customers to detect deviations from scheduled times in order to determine the compliance of the service providers.

Generating Planned vs Actual Reports

If you want to generate these reports, log in into Compass Route Builder and access the Reports module by clicking on its corresponding tab. Once the module is displayed, click on AVL/GPS Mobile and select the type of report to be generated, i.e. Planned vs Actual at Schools or Planned vs Actual at Stops.

When the **Planned vs Actual at Schools** Report tool is displayed:

1. Select a Scenario.
2. Select Start and End dates.
3. Enter Run number (code) if needed. Notice that this is not a required field if you select a specific school below.
4. Select School. This is not a required field if you select a specific Run above.
5. Select Arrival Status if needed. This can be early, on time, late or skipped. It is considered skipped if the vehicle is more than 30 minutes late or it never arrives.
6. Click on View Report.

When the **Planned vs Actual at Stops** Report tool is displayed:

1. Make Select a Scenario.
2. Select Start and End dates.
3. Enter Run number (code).
4. Select Arrival Status if needed. This can be early, on time, late or skipped. It is considered skipped if the vehicle is more than 30 minutes late or it never arrives.
5. Click on View Report.

Planned vs Actual Report Content

PLANNED VS ACTUAL AT SCHOOLS REPORT

These reports are designed to display Run, Route, Vendor, Bus and School information as well as:

- a. Planned Arrival Time at School based on the planned route.
- b. Actual Arrival Time at School based on GPS/AVL data.
- c. Delta values. These are the differences between Actual and Planned (A-P) or Actual and Limit (A-T) Arrival Times.

Planned vs Actual At Schools															
03/13/17															
Run Number	Run Type	Route Number	Vendor	Vendor Manager	Bus Number	Bus Status	School Name	School Type	School Unit Code	Planned Arrival Time (P)	School Bell Time	Limit Arrival Time (T)	Actual Arrival Time (A)	Delta (A-P)	Delta (A-T)
0112.051	BLANK				IC1439	Temporary	...	Other	610497-54286	07:45:00			(Skipped)		
0112.052	BLANK				AM858	Temporary	...	Other	610497-54286	07:45:00			(Skipped)		
0112.053	BLANK				IC1385	Temporary	...	Other	610497-54286	07:45:00			(Skipped)		
0112.054	BLANK				D187	Temporary	...	Other	610497-54286	07:45:00			(Skipped)		
0112.151	BLANK				IC1439	Temporary	...	Other	610497-54286	13:10:00			(Skipped)		

PLANNED VS ACTUAL AT STOPS REPORT

These reports are designed to display Run, Route, Vendor, Bus and Stop information as well as:

- a. Planned Arrival Time at Stops based on the planned route.
- b. Actual Arrival Time at Stops based on GPS/AVL data.
- c. Delta values. These are the differences between Actual and Planned Arrival Times (A-P).

Planned vs Actual At Stops													
03/13/17													
Run Number	Run Type	Route Number	Vendor	Vendor Manager	Bus Number	Bus Status	Stop Name	Stop Number	Stop Sequence	Planned Arrival Time (P)	Actual Arrival Time (A)	Delta (A-P)	
0112.051	BLANK				IC1439	Temporary	8011 S TALMAN AV, Chicago, IL 60629	532	1	07:05:00	(Skipped)		
0112.051	BLANK				IC1439	Temporary	2115 W 63RD ST, Chicago, IL 60638	530	2	07:10:00	(Skipped)		
0112.051	BLANK				IC1439	Temporary	7138 S SEELEY AV, Chicago, IL 60638	533	3	07:16:00	(Skipped)		
0112.051	BLANK				IC1439	Temporary	7158 S WOLCOTT AV, Chicago, IL 60638	531	4	07:18:00	(Skipped)		
0112.051	BLANK				IC1439	Temporary	7610 S SANGAMON ST, Chicago, IL 60620	529	5	07:26:00	(Skipped)		

REPORT BUILDER

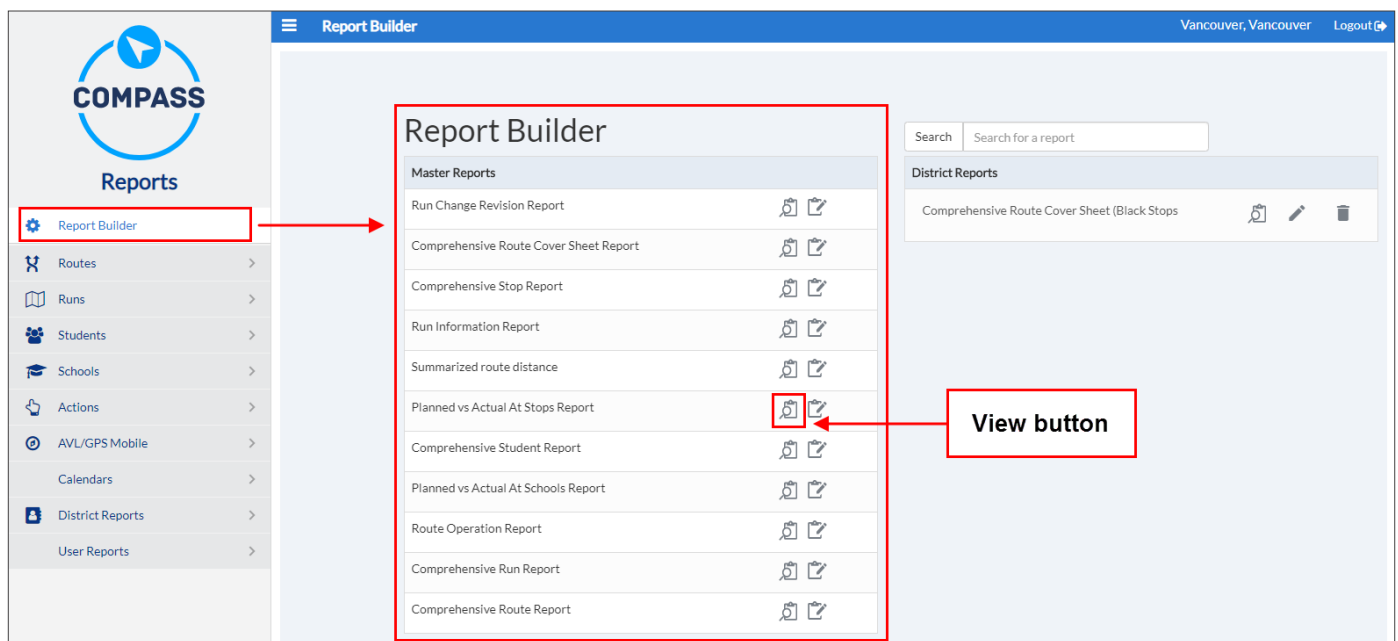
The Report Builder tool, accessible within the Compass **Reports** module, allows users to generate customized Reports based on available types known as Master Reports.

When accessed, the Report Builder menu displays two different areas: The **Master Reports** section shows the Comprehensive Reports and the **District Reports** section holds those reports that have been created by the users and may be customized.

Generating Reports with Report Builder

To create Reports through the Report Builder:

1. Click on the **Report Builder** tab on the left side of the screen.
2. Choose the Comprehensive Report type you want to create (Stop, Student, Run or Route Report) under Master Reports and click its corresponding View icon.



3. Enter the information in the Required Fields. These fields show a Required tag highlighted in red underneath the text box and a star next to the name of the field. Data for these fields, such as Scenarios or Schools, is loaded from Compass Route Builder.

Some fields, including the required fields, work as pull-down menus that show all the available options. If necessary, you can also manually enter additional information in other fields.

4. If preferred, select any available Additional View Options before viewing your Reports:
 - You can paginate your Comprehensive Student Reports by clicking on the Paginated Display.
 - You can create Comprehensive Stop Reports with student information presented in additional rows by clicking on the Show Student Information button.
 - You can add Directions and show Student Information and a Map in your Comprehensive Run and Route Reports by clicking on their respective buttons.

The screenshot shows the 'Comprehensive Route Report' form. It includes several input fields: 'Scenario *' (with a dropdown menu showing '2017-2018[SY]'), 'Report Date *', 'Route (Name / Number)', 'Run (Number)', 'Schools *', 'Vehicles', and 'Depots'. Each of these fields has a red 'Required' label below it. There are also three toggle switches: 'Show Directions', 'Show Student Information', and 'Include Map'. A blue 'View Report' button is at the bottom left. Red arrows point from a box labeled 'Required Fields' to the 'Scenario *', 'Report Date *', and 'Depots' fields. Another red arrow points from a box labeled 'Additional View Options' to the 'Show Directions', 'Show Student Information', and 'Include Map' toggle switches.

5. Click the **View Report** button located at the bottom to generate your Report.

This is a close-up of the bottom portion of the form. It shows the 'Schools *' and 'Depots' fields, both with red 'Required' labels. Below them are the 'Show Directions', 'Show Student Information', and 'Include Map' toggle switches. At the bottom left, the blue 'View Report' button is highlighted with a red box. A red arrow points from a box labeled 'View Report' to this button.

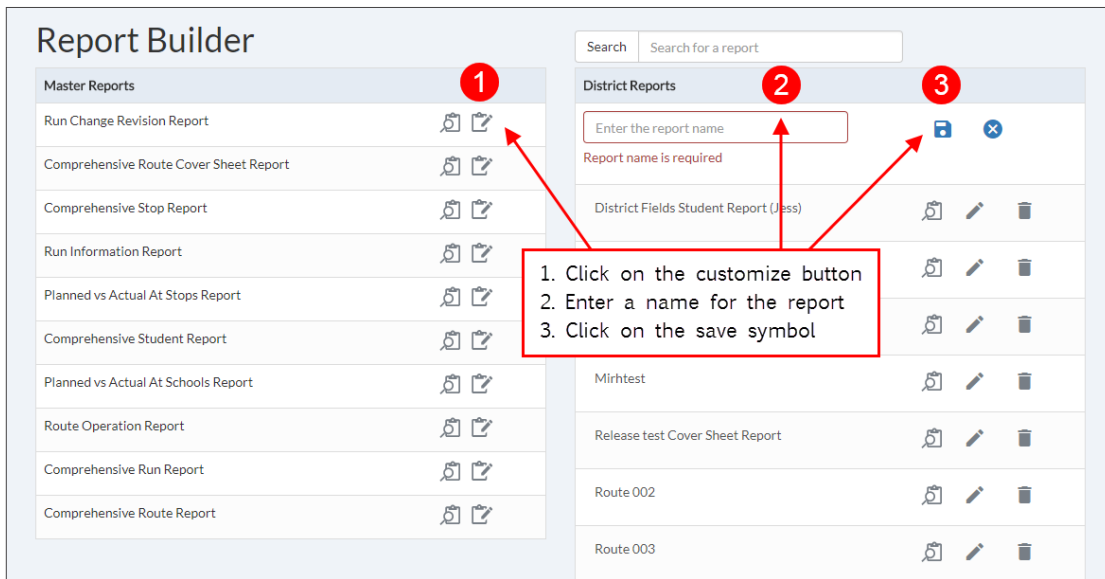
To review how the Reports are organized and how they display the information, visit the Understanding Reports tutorials:

- [Understanding Comprehensive Student Reports](#)
- [Understanding Comprehensive Run Reports](#)
- [Understanding Comprehensive Route Reports](#)
- [Understanding Comprehensive Stops Reports](#)

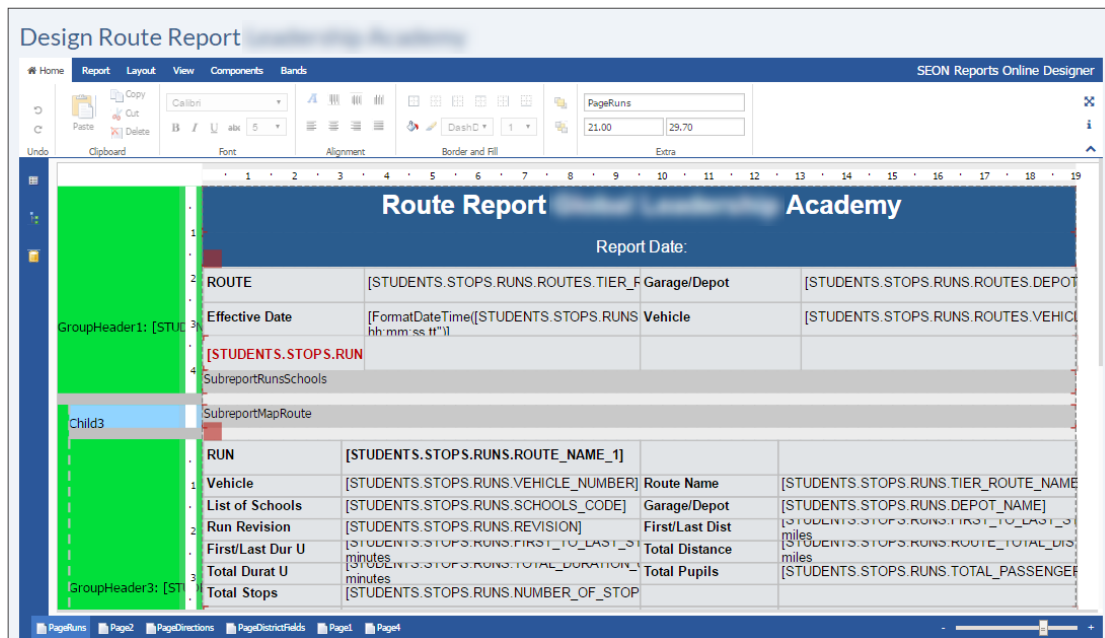
Creating Custom Reports

If necessary, the new Report Builder allows users to customize and then save their Reports by accessing the **Reports Online Designer** tool. To create a Custom Report:

1. Click the customize icon next to the Report type you want to customize within the **Master Reports** area.
2. Enter a name for your report in the text box within the **District Reports** area.
3. Click the **Save** icon next to the name text box.



4. After clicking the **Save** button the Reports Online Designer displays a template that can be edited by the user.



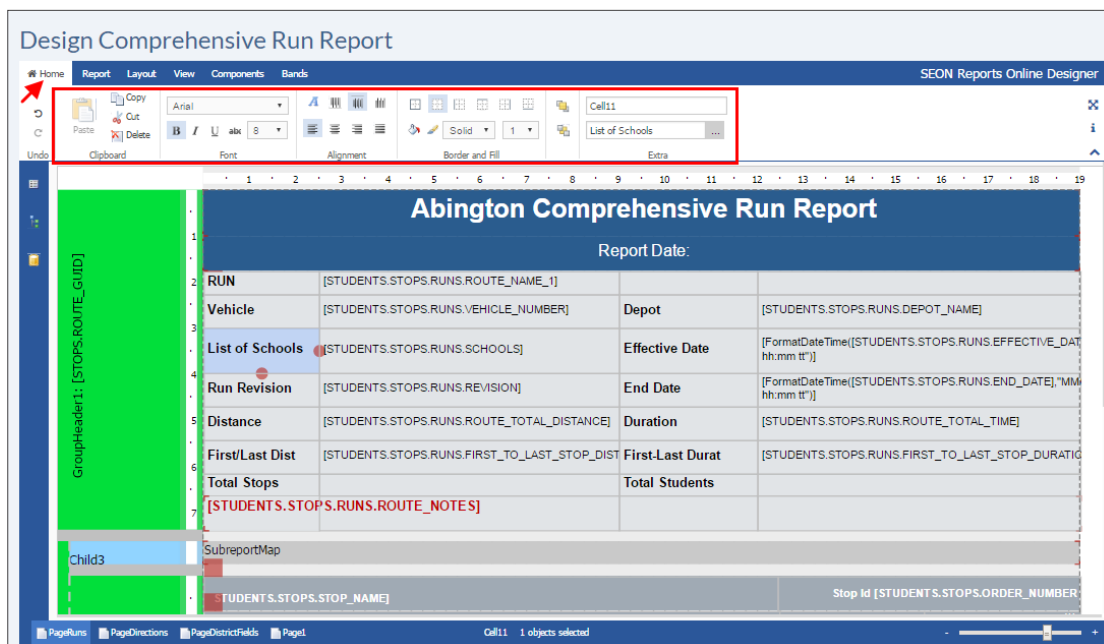
Editing Custom Reports

Your Reports can be customized through the Fast Report Online Designer tool. This tool gives you the chance to edit the visual aspects of your Report as well as the text content of its fields.

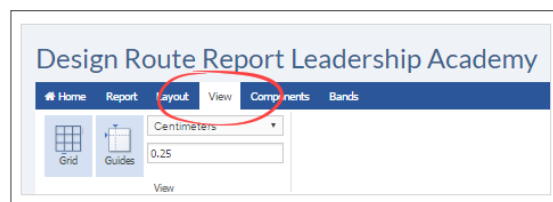
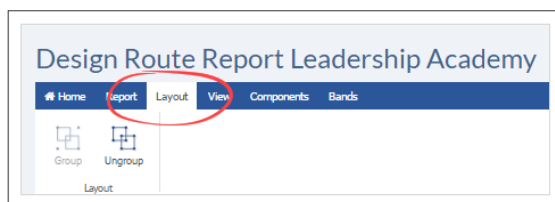
Editing Layout and Structure

The Online Designer shows six different toolbars which contain many elements that will help you customize the design of your Report.

- The **Home** toolbar allows you to add or remove columns and rows, edit fonts, alignment, borders and fill colour of cells. To do so, click on the section you want to edit and enter the preferred parameters in the toolbar.



- The **Layout** toolbar allows you to group or ungroup elements while the View toolbar provides the option to edit grids and guides in your document.

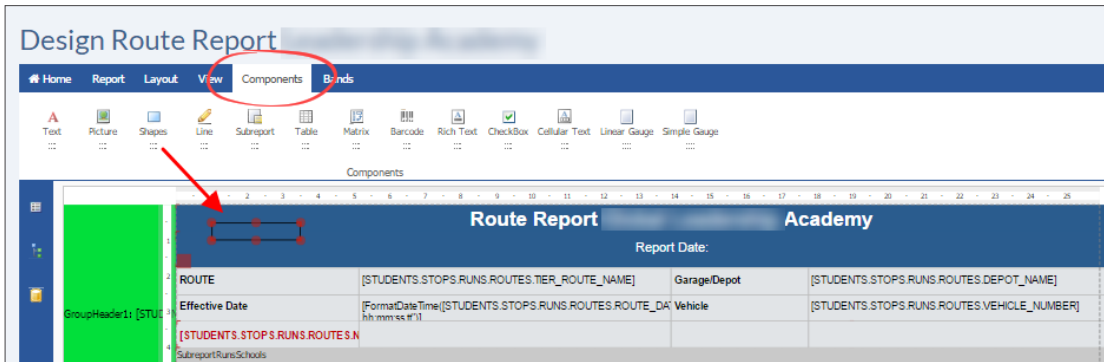


- The **Components** toolbar holds several objects such as pictures, shapes, lines, tables, check boxes, etc., that you can add to your report.

When you click on them, these objects appear on the upper-left corner of the visible area of the document but you can later drag them to the preferred position. If you right-click on the object, a window showing optional features is displayed.

You can also drag and drop objects from the tool bar onto the position you want.

Components placed in the template can be edited by clicking on them and selecting the preferred parameters on the Home tab.

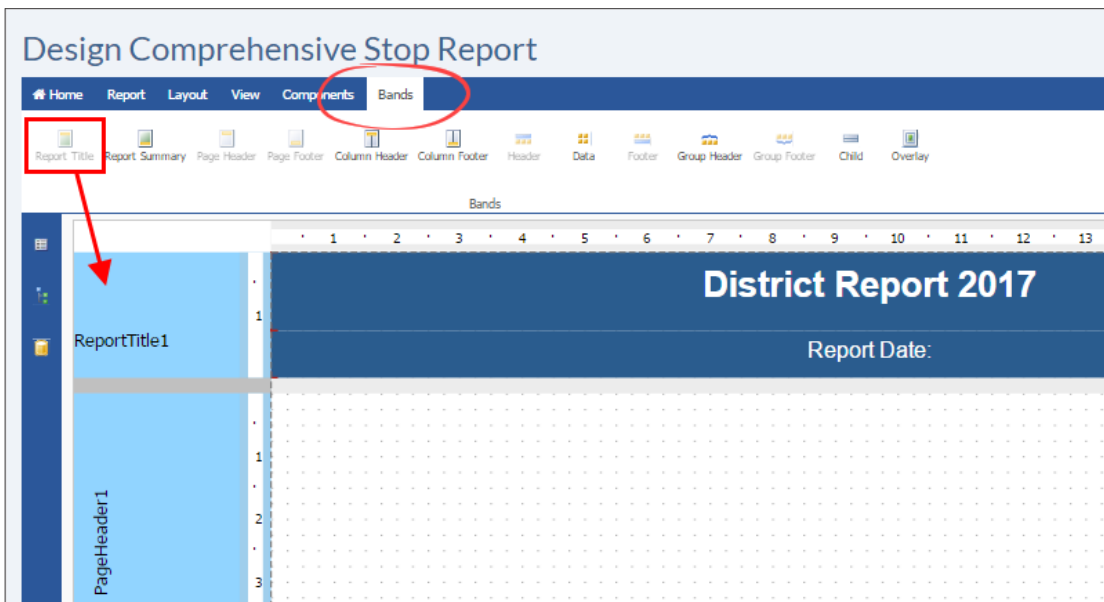


The **Bands** toolbar allows you to add structural sections, or Bands, such as Title, Summary, Header, Footer, etc., to your Report.

This toolbar is especially useful when you want to start your own Report from scratch since it automatically arranges the selected items following a hierarchical organization. This means you don't have to worry about deciding the location of your sections.

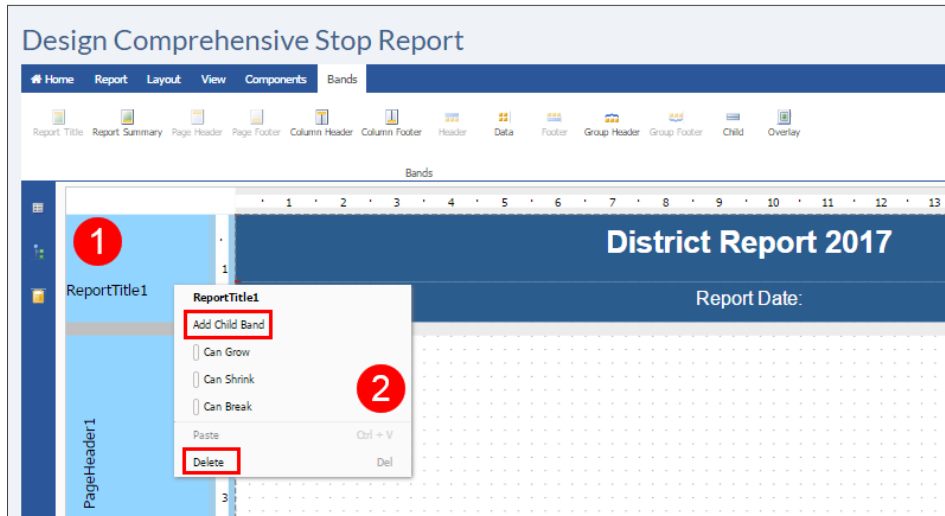
To add Bands to your Report:

1. Click on **Bands**.
2. Click on the preferred type of Band you want to add. You will notice how these Bands appear in the appropriate location.



You can also add Child Bands (dependent Bands located underneath other existing Bands) or delete existing Bands following identical steps. To add a Child Band or to delete an existing Band:

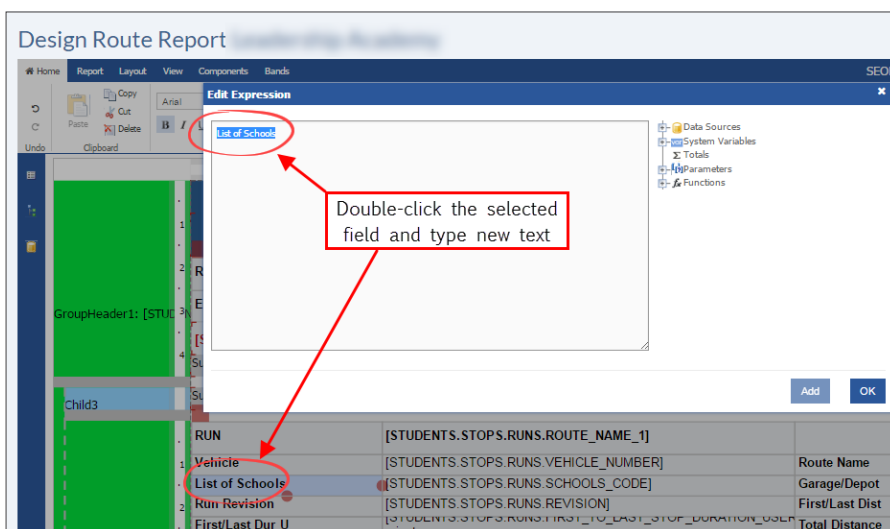
1. Right-click on the selected Band.
2. Click **Add Child Band** or Delete within the pop-up window as needed.



Editing Content

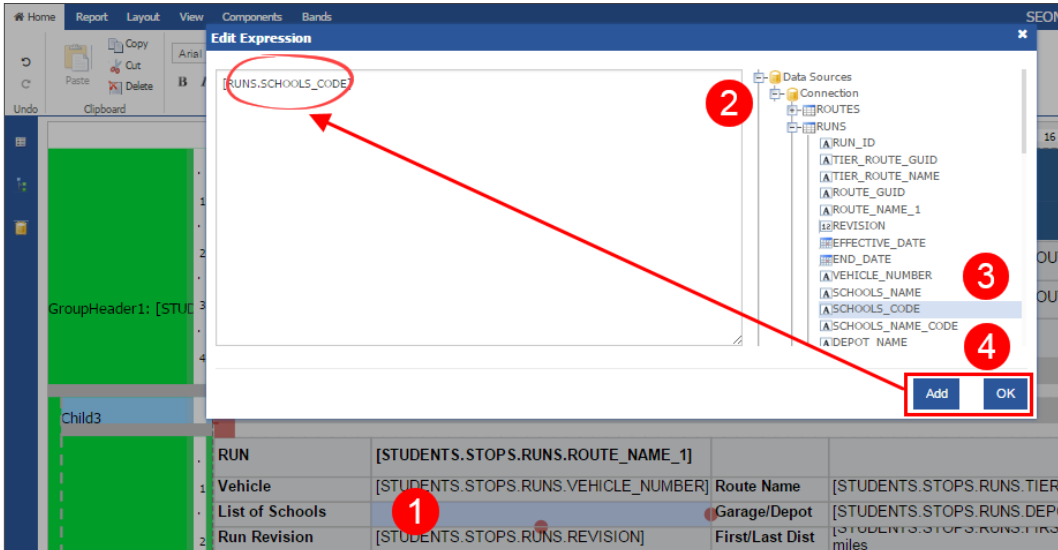
In addition to its structure and the way your report looks, the Online Designer also allows you to edit the content of the **Fields** as you need. To edit the content of a Field:

1. Double-click on the Field.
2. After the **Edit Expression** window appears, type the new text.



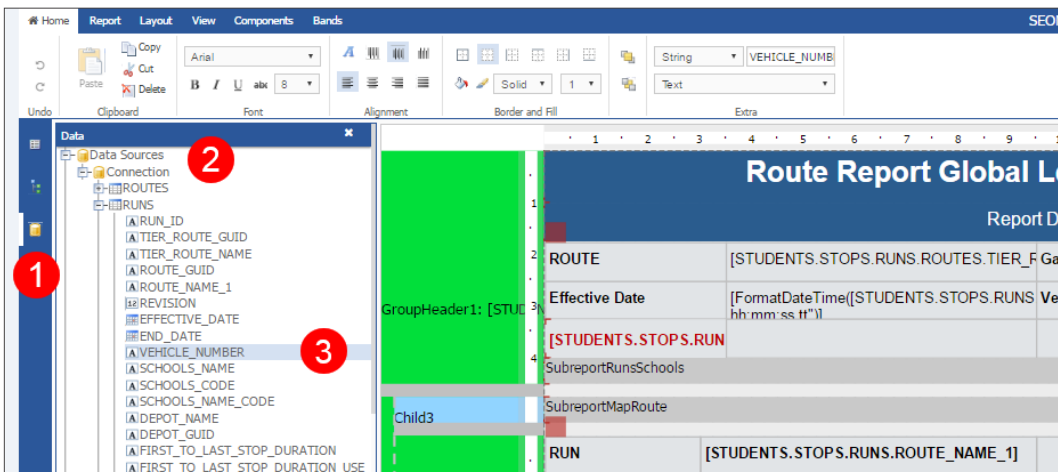
Data Cells need information loaded from the **Data Sources**. These are located on the left side of the online designer within the data tree, but they also appear by double-clicking on the Data cells. To input Data:

1. Double-click on the selected Data Cell. The **Edit Expression** window will appear.
2. Pull-down the **Data Sources** tree within the window by clicking on the **+** symbol next to it.
3. Find the appropriate Data Source and click on it.
4. Click **Add** and then **OK**. The Data Source will show in the selected cell.



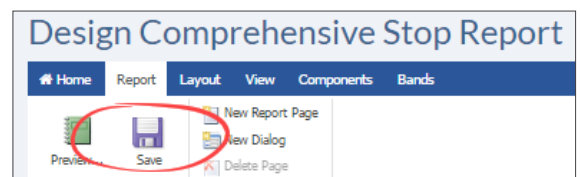
If the Data cell is already filled, you can still edit its content. The process is almost identical but you will need to delete the old source before adding a new one (between steps 2 and 3). You can also drag and drop a Data Source into a Data cell. To do so:

1. Click on the **Data** tree icon located on the left side of the online designer.
2. Pull-down the **Data Sources** tree by clicking on the **+** symbol next to it.
3. Find the appropriate Data Source and drag and drop it into the selected Data cell.



Previewing and Saving Your Report

You can always preview the report after editing any of its features by clicking on the Preview button on the Report tab. Once you have finished editing your report click the **Save** button on the same Report tab.



COMPASS ADMIN MODULE

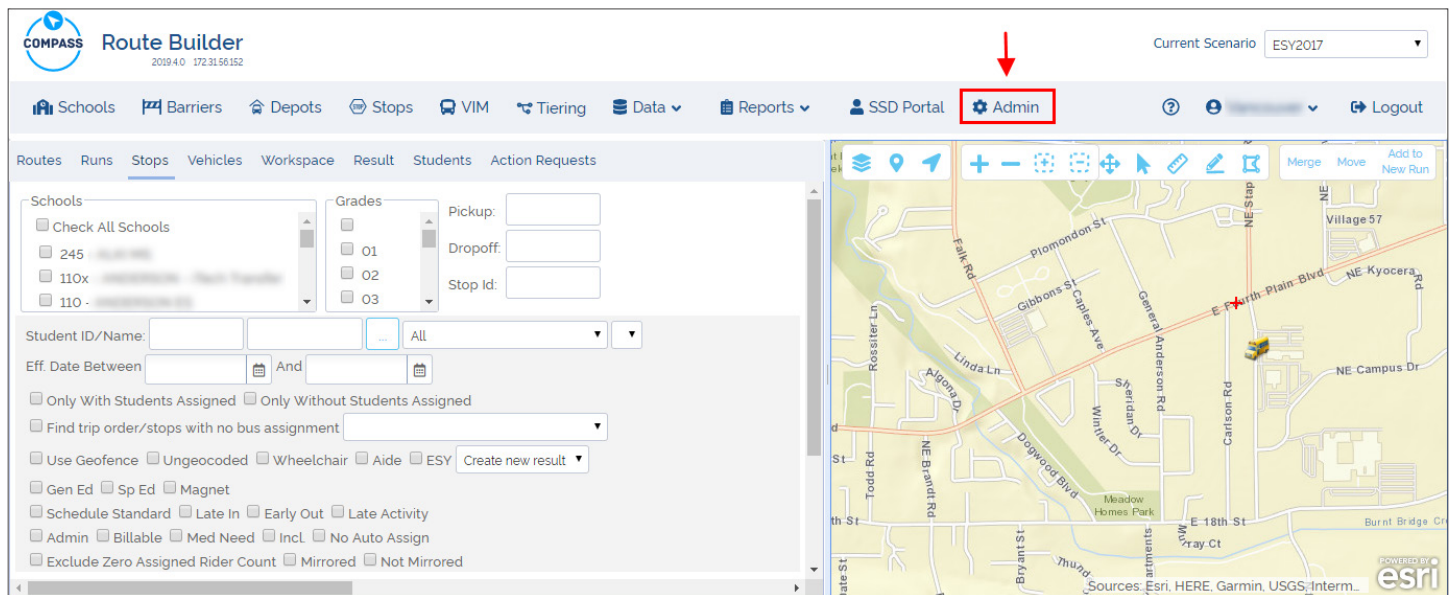
1. COMPASS ADMIN MODULE - p.96
2. USER ADMIN - p.96
 - Managing Users in Admin Module - p.96
 - Managing User Roles in Admin Module - p.101
 - Managing Reports in Admin Module - p.103
3. AUTOMATIC VEHICLE LOCATION - p.108
 - Configuring AVL in Compass - p.108
 - Tracking Vehicles in Real Time - p.110
 - Viewing AVL History - p.111
 - Applying History Filters - p.112

COMPASS ADMIN MODULE

The following tutorials illustrate how to use the Compass Admin Module to perform several administrative tasks.

The sections included here explain concepts such as Users, Roles, Profiles or AVL accounts, and exemplify relevant related workflows.

To access the Admin Module, log in to Compass Route Builder and click on the Admin tab. The Admin Module will be displayed.



USER ADMIN

Managing Users in Admin Module

The Admin Module allows customers to create and edit Compass Users, as well as to give Users permission to access different sets of features by assigning them User Roles. Customers can also edit existing Roles.

Similarly, the Report Profiles menu can be used to grant Users access to certain types of Reports within the Admin Module, and customers can easily edit previously created Report Profiles too.

To access the Admin Module, log in to vMax Compass Route Builder and click on the Admin tab. The Admin Module will be displayed.

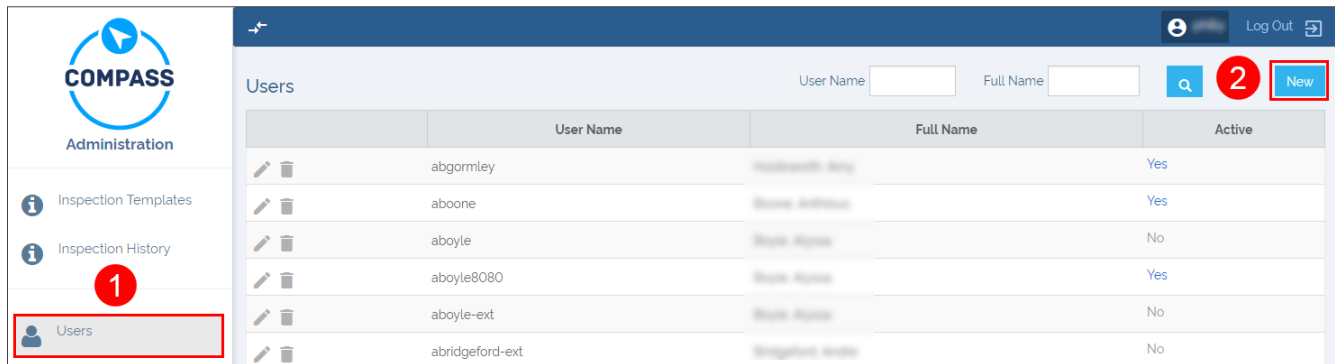
Creating a New User

When you click on the **Users** tab, a table with existing users is displayed. This table shows a list of User Names and their corresponding Full Names and Status (Active or Non-Active). Users can be set as Active or Non-Active but they can't be deleted from the system once they have been created.

Existing Users can be edited but you can also create New users.

To create a New User:

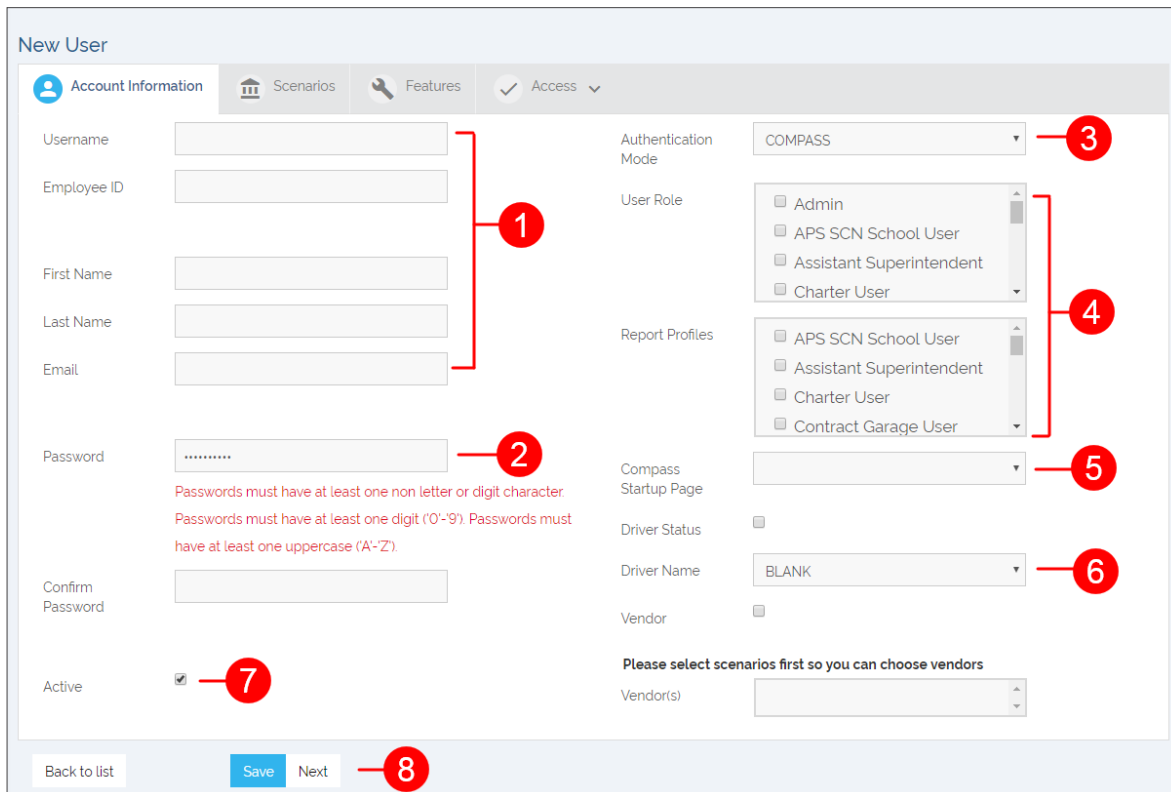
1. Click on the **Users** tab.
2. Click on the **New** button (see following figure).



The **Account Information** section is displayed first by default. Once there:

1. Input **Personal Data** such as Username, Employee ID, First and Last Name and Email in the corresponding text boxes.
2. Create a **Password**. Notice that Passwords must have, at least, one non letter or digit character and, at least, one digit ('0'-'9') and, at least, one uppercase ('A'-'Z'). Once created, proceed to confirm right below.
3. Select the **Authentication Mode** for the New User.

These Modes can be different depending on the customer. For Compass Cloud customers, you'll need to choose COMPASS from the drop-down menu.



4. Select the **User Role** and the **Report Profiles** assigned to the New User.
5. Select the preferred Compass **Start-Up Page**.
6. If the user is to have **Driver Status** check the corresponding box. Otherwise, assign a driver from the **Driver Name** drop-down menu.

(list continued)

7. Check the **Active** box close to the bottom of the screen.
8. Click **Save** and then **Next** to move on to **Scenarios**.

NOTE:

Users with Driver Status can only access Compass through a Mobile Data Terminal (MDT) such as vMax Navigator.

Once the Account Information has been completed:

1. Scroll down the **Scenarios** list and select the preferred Scenarios to be assigned to the User by checking the corresponding boxes. Notice that an Admin user can assign any combination of scenarios to a User Profile.

Click **Next** at the bottom of the screen and move on to Features.

2. Scroll down the **Features** list and select the preferred Features to be enabled for the User by checking the corresponding boxes.

Click **Next** at the bottom of the screen and move on to Access.

3. In the **Access** section click the Access tab to display a list of available Schools within three different categories (**Schools Access**, **TAR Schools** and **Analyst Responsible Schools**) and a list of **Depots**.

By default, all available Schools in each category and all Depots are selected. If necessary, deselect this option to view the complete lists and select Schools and Depots as required.

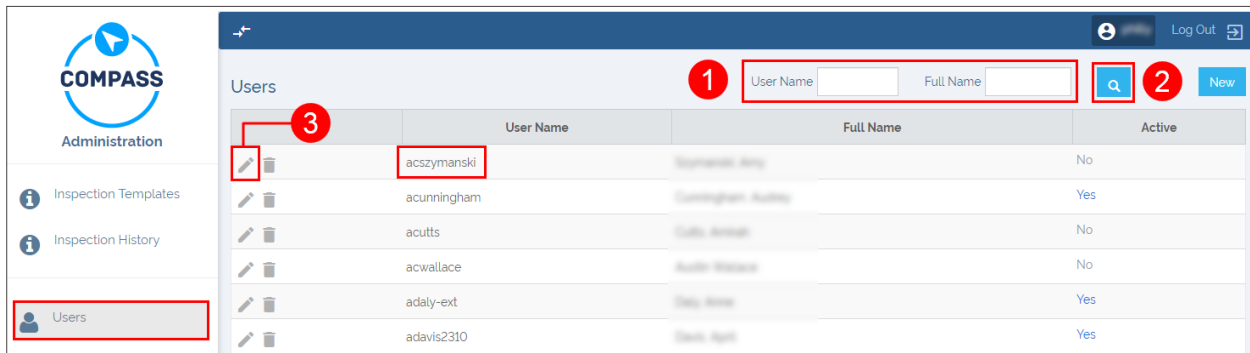
4. Click **Save**.

The screenshot displays the 'New User' configuration interface. At the top, there are four numbered red circles (1, 2, 3, 4) indicating the current step in the process. The interface includes a navigation bar with tabs for 'Account Information', 'Scenarios', 'Features', and 'Access'. The 'Access' tab is currently selected. Below the navigation bar, there are three main sections: 'All Schools Allowed' (with a red box around the checkbox), 'School Access' (with a 'Select All' button and a list of schools), and a dropdown menu for 'Access' (with 'Schools Access' selected). The 'Schools Access' list includes various schools such as 'A STEP UP ACADEMY 2', 'ABINGTON FRIENDS', 'ABINGTON JUNIOR HIGH SCHOOL', etc. At the bottom of the screen, there are 'Back to list', 'Save', and 'Next' buttons, with a red circle '4' next to the 'Next' button.

Editing Existing Users

Within the Users menu, customers can find existing users and edit their information and those permissions assigned to them, such as User Roles, Report Profiles, etc. To edit an Existing User:

1. Enter **User Name** in the text box. A list with matching Users appears.
2. Select the right User and click on the magnifier. You will see a table displaying the User Name, Full Name and activity status (Active or Non-Active).
3. To edit the information, click on the **Edit** button.



4. If necessary, enter new **Personal Data** such as Username, Employee ID, First and Last Name and Email in the corresponding fields.
5. Edit the **Authentication Mode** for the User if required. Remember that these Modes always depend on the customer type. For Compass Cloud customers, you'll need to select **COMPASS** from the drop-down menu.
6. Set User as **Active** or **Non-Active** by checking the corresponding box. Remember they can't be deleted once they have been created.

7. Select or deselect **User Roles** and **Report Profiles** assigned to the User.
8. Select the preferred Compass **Start-Up Page**.
9. If the user is to have **Driver Status** check the corresponding box. Otherwise, assign a driver from the **Driver Name** drop-down menu.
10. Click **Save** and then **Next**.

Once the Account Information has been edited, proceed to the other menus and complete the process as necessary.

The steps are very similar to those already explained in the previous *Creating a New User* section.

By clicking Next in the Account Information dialog, the Scenarios menu will be disclosed.

1. In the **Scenarios** dialog, Scroll down the list, check those Scenarios that need to be updated and enter the new information. Click **Next** to move on to Features.

2. Scroll down the **Features** list. If needed, update the Features that have to be enabled for the user.

Click **Next** to move on to Password.

3. Change the **Password** if required. Remember that Passwords must have, at least, one non letter or digit character and, at least, one digit ('0'-'9') and, at least, one uppercase ('A'-'Z').

Click **Next** and move on to Access.

4. The **Access** drop-down menu shows different School categories and a Depot list.

School categories are: **School Access**, **TAR Schools** and **Analyst Responsible Schools**. Edit the preferred School and Depot selections as required. To view the complete lists of Schools and Depots make sure the option "All Allowed" is unchecked.

5. Click **Save**.

The screenshot shows the 'Edit User' interface with the following elements:

- 1**: Scenarios tab selected.
- 2**: Features tab selected.
- 3**: Password field.
- 4**: Access dropdown menu open, showing 'Analyst Responsible Schools' selected.
- 5**: Save button.

Managing User Roles in Admin Module

The Admin Module allows customers to give users permission to access different sets of features by assigning them **User Roles**. Customers can also edit existing Roles.

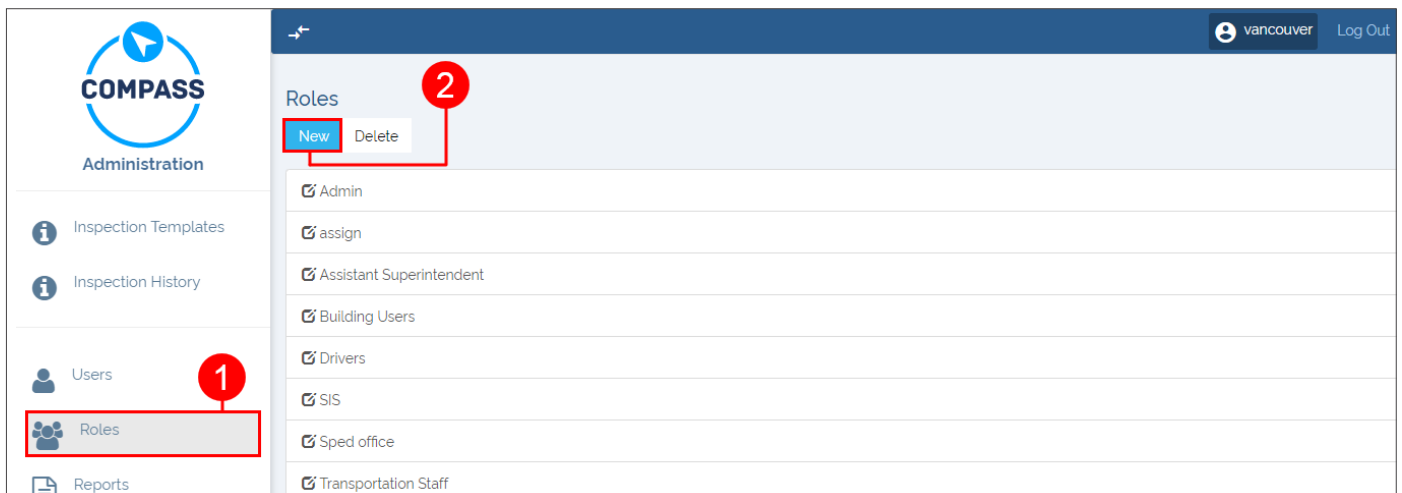
If you have read the previous tutorial, *Creating and Editing Users in Admin Module*, you already know that, in order to access the Admin Module, you need to log in to Compass first and then click on the Admin button.

Creating New User Roles

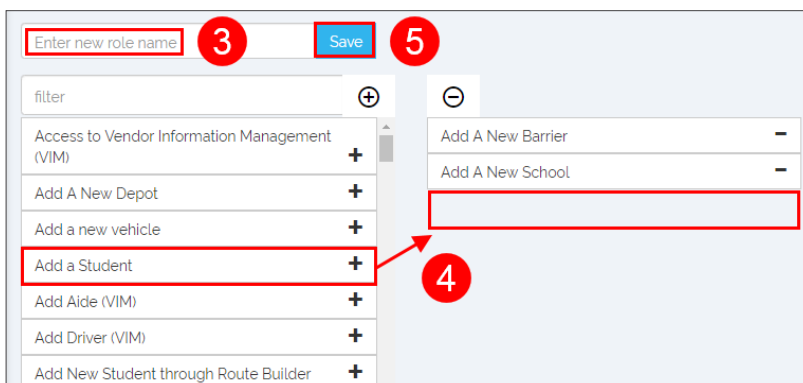
The Admin Module shows the **Roles** menu on the left of the screen. The Roles menu is a tool to create, edit or delete those Roles that can be assigned to users. Existing User Roles become visible once you access this menu.

To create a New Role:

1. Click on the **Roles** tab on the left of your screen. The new menu appears.
2. Click the **New** button. A new window showing the features that can be included in a Role is displayed below.



3. Enter a new **Role Name** in the corresponding text box.
4. Add those features to which the user will have access by clicking on them. The selected features will move to the right column. You can always deselect permissions by clicking the features back to the left column.
5. Click on the **Save** button.



Editing Existing User Roles

Existing User Roles are easily edited in the Roles menu. Features to which users have access can be added or removed with a simple click.

To Edit an Existing Role:

1. Click on the **Roles** tab on the left of your screen. The new menu appears.
2. Find the **Role** you want to edit in the list and click on it to select it. A new window showing the permitted (right column) and non-permitted (left column) features is displayed below.
3. Add features to the Role by clicking on them in the left column. The selected features will move to the right column.
Remove features by clicking on them in the right column. The selected features will move to the left column being removed from the Role's permissions.
4. Click on the **Save** button.

The screenshot displays the Compass Administration interface. On the left sidebar, the 'Roles' menu item is highlighted with a red box and a red circle containing the number '1'. The main content area shows a list of roles, with 'VIM User' selected and highlighted in blue, indicated by a red circle with the number '2'. Below the role list, the 'VIM User' configuration window is open, showing a 'Save' button highlighted with a red circle and the number '4'. The configuration window is divided into two columns: a left column for non-permitted features and a right column for permitted features. A red box and the number '3' highlight the left column, which contains a list of features with plus signs next to them. A red box and the number '4' highlight the right column, which contains a list of features with minus signs next to them. Red arrows indicate the movement of features between the two columns.

Non-permitted Features (Left Column)	Permitted Features (Right Column)
Access to Vendor Information Management (VIM) +	Add Vendor (VIM) -
Add A New Barrier +	Approve / Reject Updates on Aides (VIM) -
Add A New Depot +	Approve / Reject Updates on Drivers (VIM) -
Add A New School +	Approve / Reject Updates on Vehicles (VIM) -
Add a new vehicle +	Ban a Driver (VIM) -
Add a Student +	Ban an Aide (VIM) -
Add Aide (VIM) +	Edit Vendor (VIM) -

Managing Reports in Admin Module

Similarly to how it is explained for Roles, the Reports Profiles menu can be used to grant Users access to certain types of Reports within the Admin Module, and customers can easily edit previously created Report Profiles too.

In order to access the Admin Module, you need to log in to Compass first and then click the **Admin** button.

Within Reports, you'll find a Menu and a Profiles dialog under their corresponding tabs:

- **Menu** displays every Report available in Compass. Reports are grouped by category and users can disclose or hide each Report by clicking on the Expand/Collapse buttons (v/>) located beside the category name. Alternatively, users can disclose or hide all Reports by clicking on the **Expand All/Collapse All** button near the top for a friendlier display.

Add, Edit and Delete buttons are available to the right of each Report category. Additionally, **Edit** and **Delete** buttons are also located to the right of each existing Report.

The screenshot shows the Compass Admin Module interface. On the left is a navigation sidebar with the 'Reports' menu item highlighted. The main content area is titled 'Reports' and has two tabs: 'Menu' (selected) and 'Profiles'. Below the tabs are several report categories, each with a dropdown arrow on the left and a set of action buttons (+, edit, delete) on the right. Annotations with red boxes and arrows point to specific UI elements: 'Menu', 'Collapse All', 'Expand or collapse the report list', 'View as...' (with a dropdown arrow), 'View as specific profiles', 'Expand report categories to see existing report types', 'Add, Edit and Delete buttons', and the dropdown arrows for 'Schools' and 'Actions'.

Notice that a **View As** drop-down menu, located on the upper-right corner of the list, allows the selection of Profiles to directly display their corresponding view mode, i.e., disclosing the Report categories and Report types of interest only.

- To the right of Menu, the **Profiles** tab discloses a list of the available Profiles, allowing users to edit them, create new ones and assign the Report types each Profile will have access to.

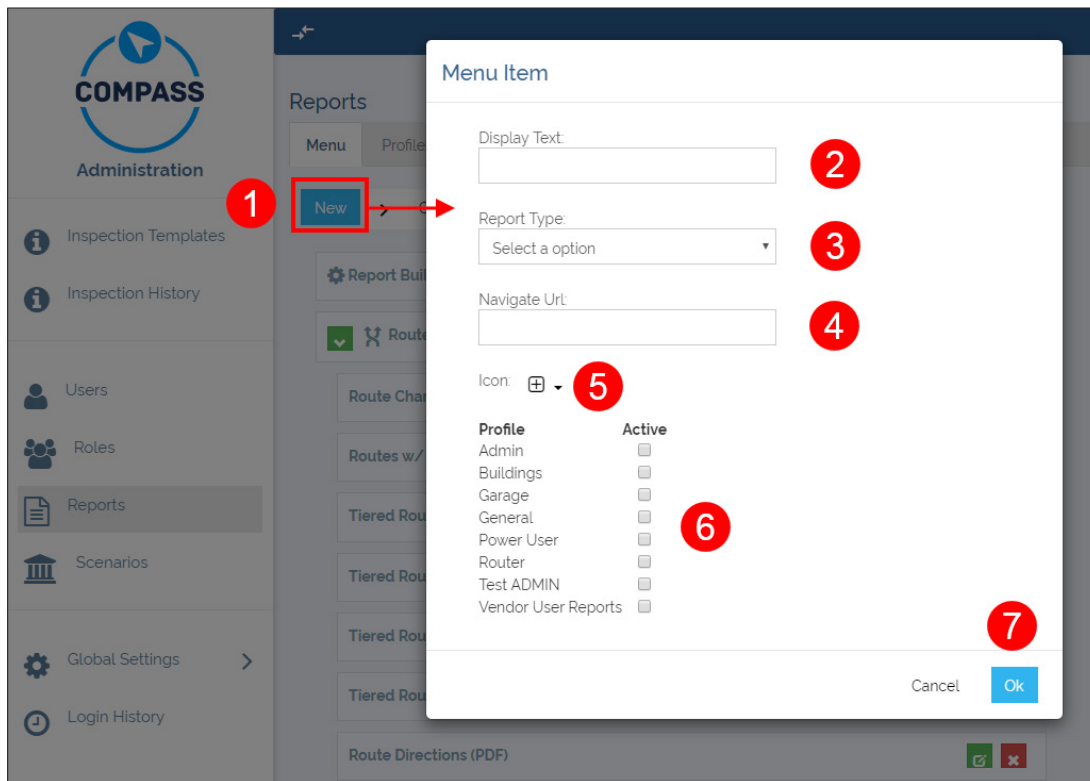
Creating New Reports

There are two ways to create new Reports by means of the Administration Reports tool: With the **+New button** located above the Reports list and with the **Add** button available to the right of each existing Report category.

Let's see the details of these workflows.

To create a New Report, once you have accessed the Reports tool:

1. Click on the **New** button on the left side of your screen. A new **Menu Item** window appears.
2. Enter the text you would like to be displayed in the **Display Text** box.
3. Select the **Report Type** that you need from the drop-down menu.
4. Insert the **URL** where the Report will be hosted.
5. Select the **Icon** you want to assign to the Report from the available icons drop-down menu.
6. Select the **Profiles** for which you want this New Report to be Active by checking off the boxes next to them.
7. Click on the **OK** button.



Remember that you can always create a New Report within a specific Report category by clicking the **Add** button to the right of this (see figure in previous section). Once the **Menu Item** dialog is displayed, the rest of the steps are identical to the ones described above.

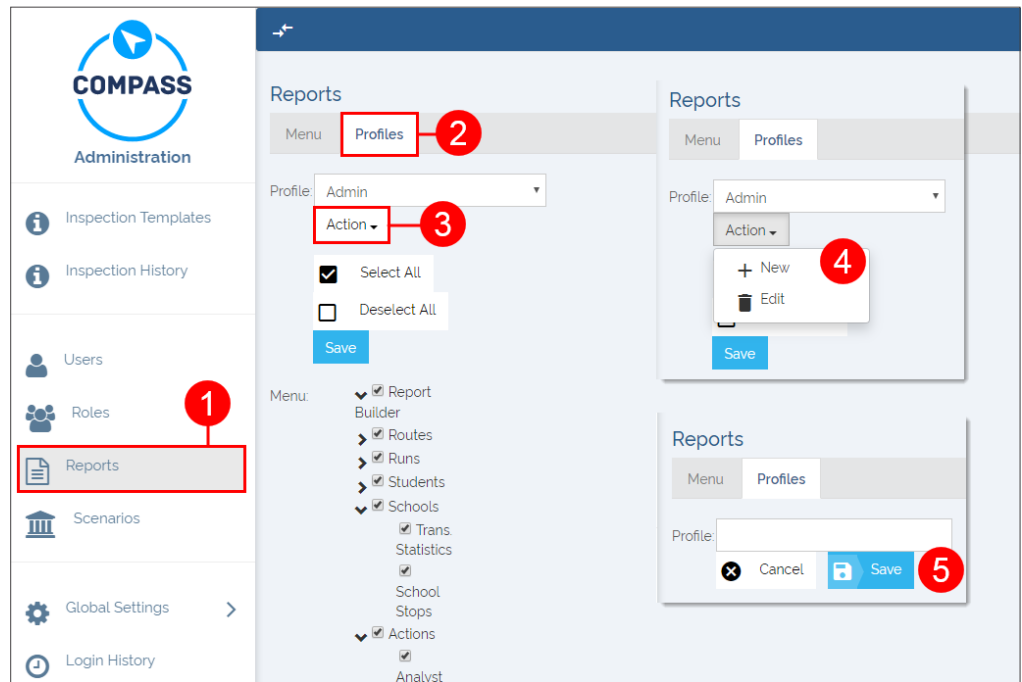
Creating New Report Profiles

Within the Profiles section, also included in the Reports tool, the user can create New Report Profiles, as well as view, edit the configuration or delete existing Profiles.

To create a New Report Profile:

1. Click **Reports** on the left of the screen to access the Reports Tool.
2. Click **Profiles** to access the Profiles section.
3. Expand the **Action** menu by clicking on it. New and Edit buttons are displayed.
4. Click **New**. A new window displays.
5. Enter a **Profile Name** and click on the **Save** button. The new Reports Profile has been created and now you will have to set the features you want to assign to it.

To learn how, read the next section *Editing Report Profiles*.



Editing Report Profiles

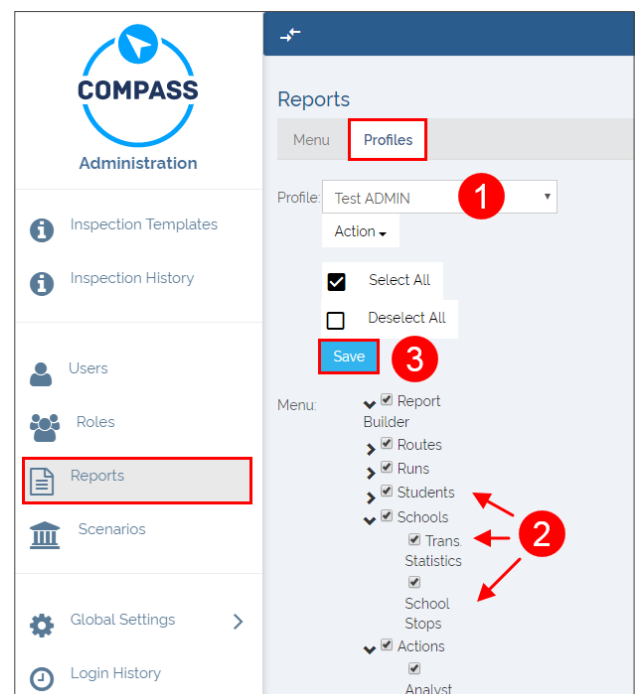
Once you have created a Report Profile, you need to edit its configuration by selecting those features you want to assign to the Profile.

To edit a Report Profile:

1. Select the Report Profile in the Profile drop-down menu.
2. Select the Report types to be assigned by checking the corresponding boxes. You can select or deselect types as desired.

Notice that types are grouped into several categories which can be expanded or collapsed by clicking on the v/> buttons next to them. For example: When you click on the > button, on the left of **Schools**, **Trans Statistics** and **School Stops** are displayed. You can select both at the same time by checking off the **Schools box**, or you can choose one or the other by clicking them separately.

3. When you finish, click **Save**.



Checking New Report Profiles in Menu

After you have created and saved a new Report Profile in the Profiles section, you can always review the Report Profile and the enabled features in **Menu**.

To do so:

1. Within the Reports menu, click on the **Menu** tab.
2. Select the **User Profile** that you have created from the drop-down menu on the right. You should see the same features that you enabled for your Profile in the Reports Profile section (checked off boxes).

As an example, the figures below show both sections. Report Builder, four features in the Students category and two in the Schools category were selected when a Profile named The User Profile (left) was created, and the same features are now displayed under the Menu tab (right).

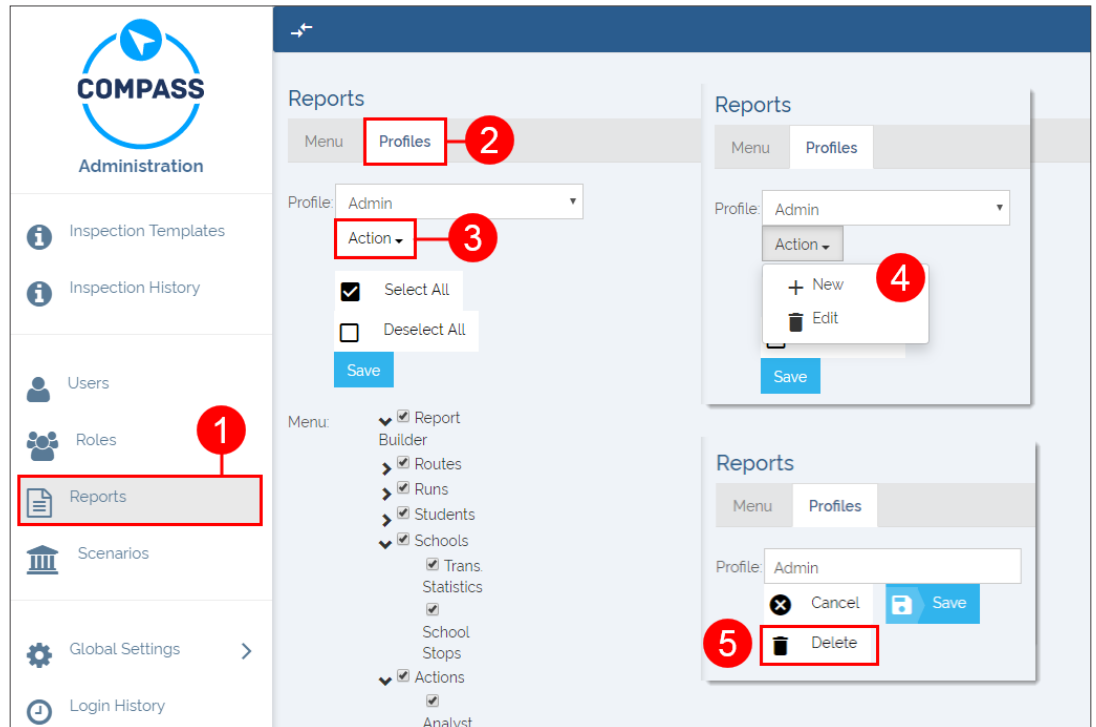
The image displays two side-by-side screenshots of the 'Reports' interface. The left screenshot shows the 'Profiles' tab selected, with 'The User Profile' chosen in the 'Profile' dropdown. Below this, there are 'Action' buttons for 'Select All' and 'Deselect All', and a 'Save' button. A 'Menu' section lists various features with checkboxes: Report Builder (checked), Students (checked), Student Trans. Roster (unchecked), Student Search (checked), Transpass (unchecked), Homeroom Transpass List (unchecked), General Transpass List (unchecked), All Students (checked), School Stop Variation (checked), Ridership Attendance Log (unchecked), Comprehensive Students (checked), Runs (unchecked), Schools (checked), Trans. Statistics (checked), and School Stops (checked). A red circle highlights the 'Profiles' tab, and a red arrow points to the right. The right screenshot shows the 'Menu' tab selected, with 'The User Profile' selected in a dropdown menu. A red circle highlights the 'Menu' tab, and another red circle highlights the 'The User Profile' dropdown. A red circle with the number '1' is next to the 'Profiles' tab, and a red circle with the number '2' is next to the 'The User Profile' dropdown. The main content area shows a 'Collapse All' button and a list of features: Report Builder, Students (checked), Student Search, All Students, School Stop Variation, Comprehensive Students, Schools (checked), Trans. Statistics, and School Stops.

Deleting Report Profiles

In addition to creating and editing, you can always delete an existing Report Profile.

To Delete an existing Report Profile (steps 1 to 3 are identical to those followed to create new Report Profiles):

1. Click on the **Reports** tab to access the Reports Tool.
2. Click on the **Profiles** tab to access the Profiles section.
3. Expand the **Action** menu by clicking on it. New and Edit buttons are displayed.
4. Click on the **Edit** button. A new window appears.
5. Click **Delete**. Be aware that, once you click Delete, the Profile is instantly removed without warning.



AUTOMATIC VEHICLE LOCATION

Configuring AVL in Compass

Adding an AVL Account

Before you can use the AVL module, you'll need to set up AVL for your vehicles in Compass Administration. To do this, you'll need to:

1. Go to Compass **Admin > AVL Accounts** and click **New**.
2. Enter details of your AVL account:
 - **Account Name:** enter any name to easily identify the AVL account. Typically the name is the GPS provider (i.e. Zonar).
 - **AVL Data Source:** pick your GPS provider from the list.
 - **AVL Account URL:** enter the web address given by your GPS provider here.
 - **AVL Login/Password:** enter the credentials given by your GPS provider.
3. Click **Save** to add the new AVL account, then close Compass Admin and return to Compass Route Builder

New AVL Account

AVL Account Name

AVL Data Source

AVL Account URL

AVL Account Login

AVL Account Password

[← Back to list](#) [Save](#)

NOTE: Zonar Data Source

If using Zonar as a Data Source, an extra Device ID Field option appears. Consult with your GPS provider (Zonar) as to whether you're using fleet or exsid, and select from the list.

New AVL Account

AVL Account Name

AVL Data Source

AVL Account URL

AVL Account Login

AVL Account Password

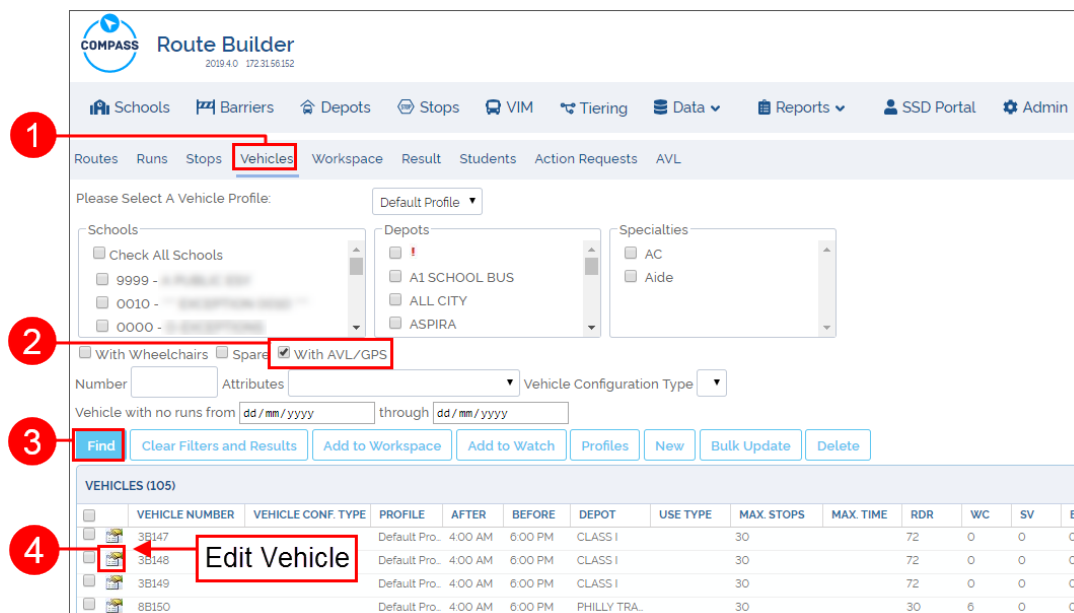
Device ID Field

[← Back to list](#) [Save](#)

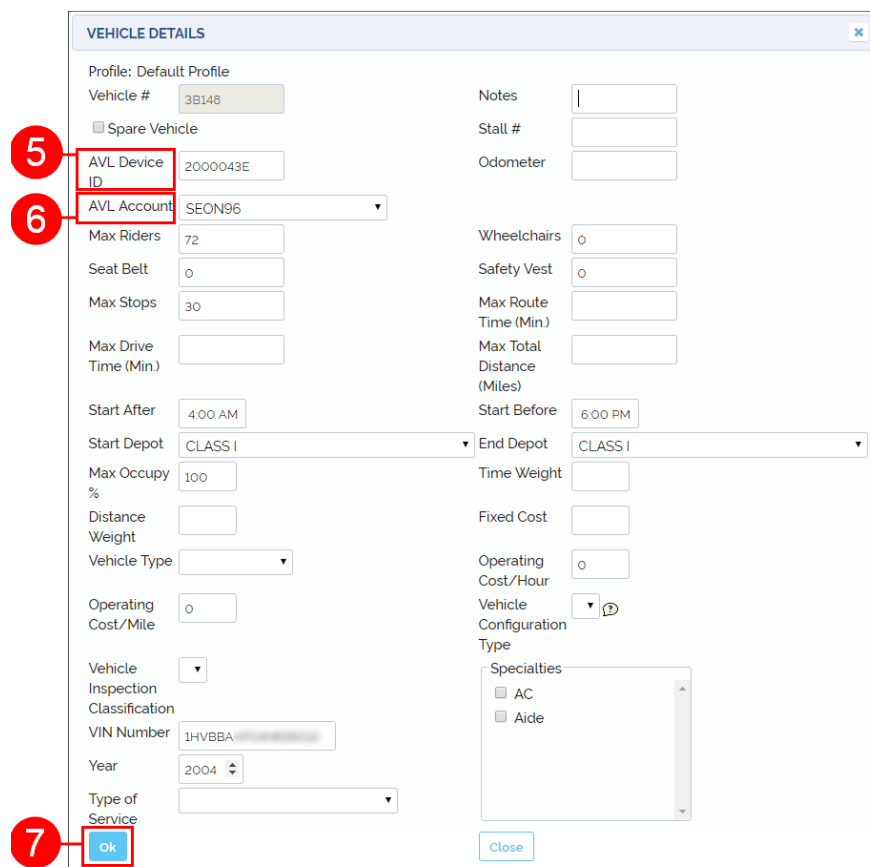
Appears if Zonar is Data Source

Linking AVL Account to Vehicle

Back in Compass Route Builder, you'll need to link the AVL Account you created to the vehicles in Compass. To do this:



1. Go to the **Vehicles** tab.
2. Select **With AVL/GPS**.
3. To find all vehicles that have AVL/GPS installed, click on the **Find** button.
4. Click the **Edit Vehicle** icon to open the Vehicle Details window.



5. In the **AVL Device ID** field, enter the device ID of your GPS unit. This needs to match the Device ID of the unit in your AVL provider's website. Refer to your AVL provider for more information.
6. In the **AVL Account** field, select the **AVL Account** you created in Compass Admin.
7. Click **OK** to associate AVL to this vehicle. Repeat this process for all vehicles that have GPS installed.

Tracking Vehicles in Real Time

To begin real-time tracking using AVL, log into the Compass Route Builder application and choose your Scenario. Then:

1. Click on the **Vehicles** tab.

2. Check the **With AVL/GPS** box.

3. Click **Find**. All vehicles that are equipped with AVL will appear in the list. Select the vehicle to be tracked.

4. Click **Add to Watch**. The vehicle(s) you selected will load in the AVL Module.

VEHICLE NUMBER	VEHICLE CONF TYPE	PROFILE	AFTER	BEFORE	DEPOT	USE TYPE	MAX. STOPS	MAX. TIME	RDR	WC	SV
24		Default Pro..	6:00 AM	8:00 PM	MAIN DEPOT		50		90	0	0
27		Default Pro..	6:00 AM	8:00 PM	MAIN DEPOT		50		90	0	0
35		Default Pro..	6:00 AM	8:00 PM	MAIN DEPOT		50		70	0	0
40		Default Pro..	6:00 AM	8:00 PM	MAIN DEPOT		50		9	0	0
58		Default Pro..	6:00 AM	8:00 PM	MAIN DEPOT		50		90	0	0

1. Click on the **Vehicles** tab.
2. Check the **With AVL/GPS** box.
3. Click **Find**. All vehicles that are equipped with AVL will appear in the list. Select the vehicle to be tracked.
4. Click **Add to Watch**. The vehicle(s) you selected will load in the AVL Module.

5. Click on the **AVL** tab. The vehicle(s) you selected will appear in the Vehicle Watch List.

6. Click the **Start** button to begin tracking vehicles in real time.

START	VEHICLE	IST RUN	ZONE	SPEED	TIME	POWER	HEADING	HAZARD	ODOM.	GPS ID	LAT	LON	UTC
	23									20000..			
	24									20000..			
	27									20000..			
	35									20000..			
	40									20000..			
	58									20000..			

5. Click on the **AVL** tab. The vehicle(s) you selected will appear in the Vehicle Watch List.
6. Click the **Start** button to begin tracking vehicles in real time.

7. The AVL module will show **Listening For Messages**, indicating that the system is monitoring for real-time activity.

Click **Stop** to stop tracking in real time.

AVL module tracking in real-time

START	VEHICLE	IST RUN	ZONE	SPEED	TIME	POWER	HEADING	HAZARD	ODOM.	GPS ID	LAT	LON	UTC
	23									20000..			
	24									20000..			
	27									20000..			

7. The AVL module will show **Listening For Messages**, indicating that the system is monitoring for real-time activity.
- Click **Stop** to stop tracking in real time.

Vehicles with real-time GPS activity will show up as yellow dots on the map. If you hover your mouse over a yellow dot, you'll see information about that vehicle, including the vehicle name, device ID and speed and direction of that vehicle.

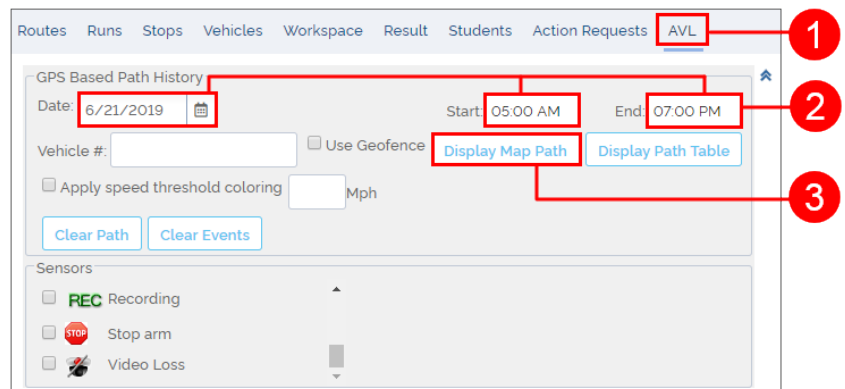
START	VEHICLE	IST RUN	ZONE	SPEED	TIME	POWER	HEAD
	23						
	24						
	27						

- Click the **Search** icon in the Vehicle Watch table to highlight the vehicle on the map. The vehicle icon will change to a red dot.

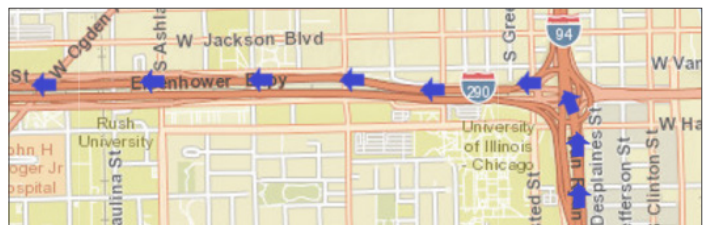
Viewing AVL History

In addition to real-time tracking, the AVL module let's you view a vehicle's complete travel history for a certain time period. To view a vehicle's AVL history:

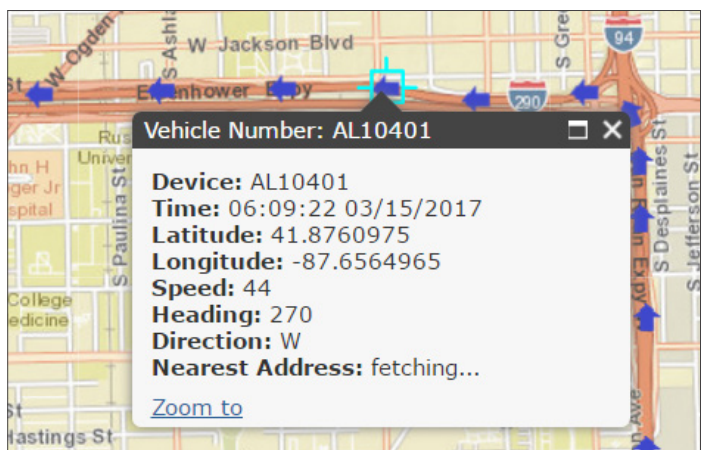
- Click on the **AVL** tab in Compass Route Builder.
- In the **GPS Based Path History** section of the options, select the Date, Start and End times, and the Vehicle number you wish to view AVL history for.
- Click **Display Map Path** or **Display Path Table**, depending on your preferences.



- The vehicle history will appear on the map as blue arrows. Each arrow represents a single GPS record.



- Click on the arrow to view information about that record, including the date and time of event, as well as speed and direction of the vehicle at that time.



Applying History Filters

About AVL Filters

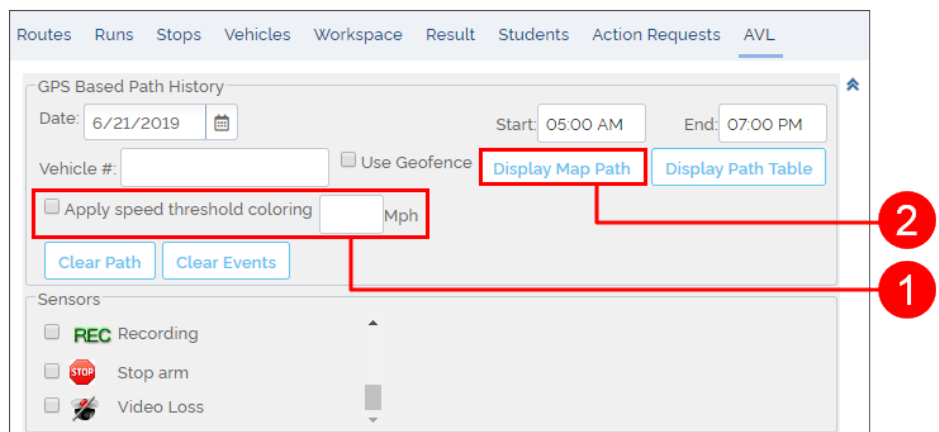
Running an AVL history can produce hundreds of records each day. With so many records, it might be difficult to pinpoint a specific event in time. By using filters you can easily identify when a specific event occurs.

There are two main types of filters in the AVL module: Speed and Sensor.

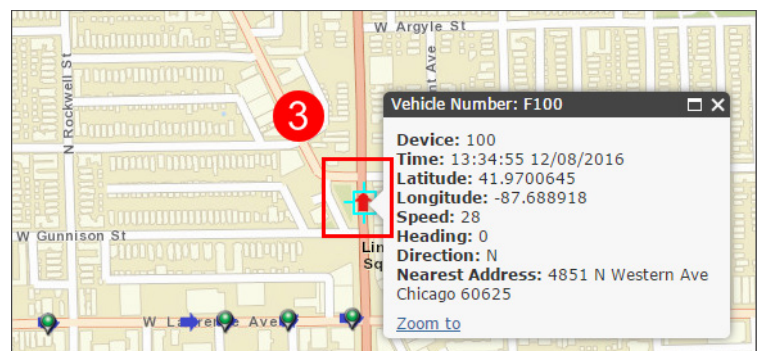
Identifying Speeding Events

The **Speed Threshold** filter can be used to identify whenever a bus travels above a safe speed limit previously determined. To identify a speeding vehicle:

1. Check the **Apply speed threshold coloring** box and enter a value in the threshold field.
2. Click **Display Map Path** to show the results on the map.



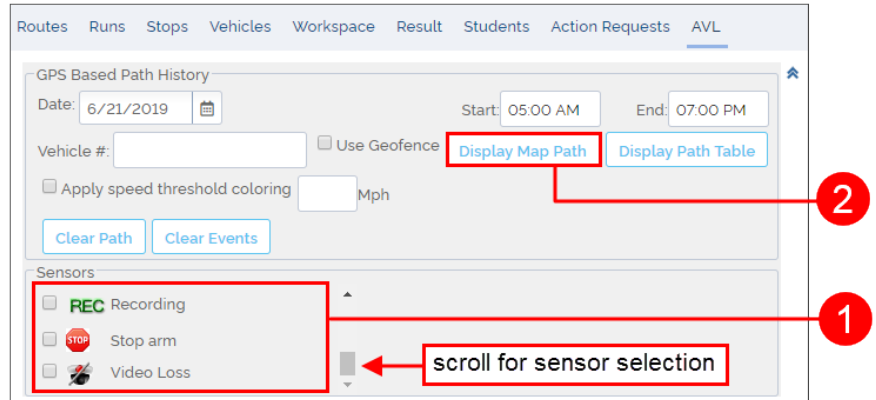
3. On the map, you'll see a red arrow indicating the speeding events. Click on a red arrow to see when and where the event occurred, as well as how fast the vehicle was going.



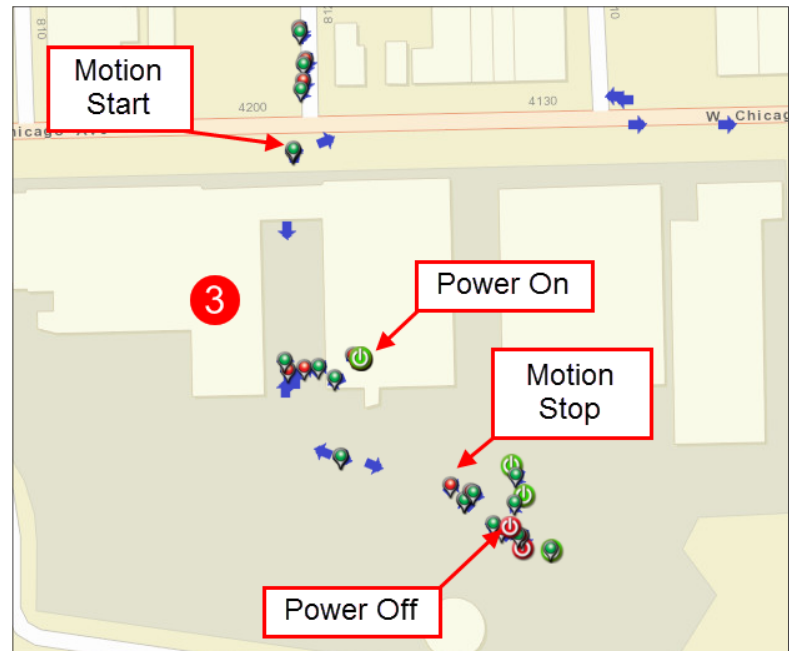
Viewing Sensor Events

Similar to speeding events, the Sensor Events filter allows you to view specific telematic with the AVL module. For example, you can view the times when the bus deploys a stop arm, opens the door, starts and stops movement, etc. To view sensor events:

1. Scroll up/down to select the sensors you want to include in the Path History from the **Sensors** menu.
2. Click **Display Map Path** to show the results on the map.



3. The sensor events appear on the map, each unique icon representing a specific event.



CUSTOMER SERVICE

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PRODUCT INFORMATION

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