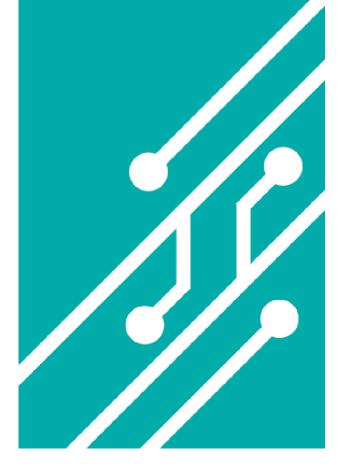


ATHENA ROUTING & PLANNING

Direction Overrides Training Resource Guide





Direction Overrides Training Resource Guide

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PURPOSE OF THIS GUIDE

The Direction Override Resource Guide will provide you with explanations of the basic tools within Athena, walk you through the procedure of creating and managing direction overrides within the software, as well as provide you with specific scenarios you may encounter as you begin to independently navigate the system within the User Stories section of this guide.

ATHENA DIRECTION OVERRIDE INTRODUCTION

Direction Overrides (DOs) allow users to create directional changes to your runs and routes in the event of construction or other temporary hazards—the goal of Direction Overrides is to help districts avoid making permanent and time-consuming adjustments to their routing. The Directions Override workflow takes place within multiple Athena modules:

- Routes in Data Management
- > Runs in Data Management
- Direction Override Utilities

Within each module the user will work through one element of the Direction Override Workflow. Users will create the DO in Routes in Data Management Module before navigating to the Direction Override Utilities Module to batch assign the new DOs to the appropriate routes. Users will finish the workflow within Runs in Data Management where they will apply the DO directly to the applicable runs.

NAVIGATING DIRECTION OVERRIDES IN ATHENA

1. Sign In:

You will first come to the Sign In page where you will enter your Username (email) and Password.



2. Athena Portal Home Page:

You will be brought to the Athena Portal Home Page; at the bottom of this screen are the Athena applications.



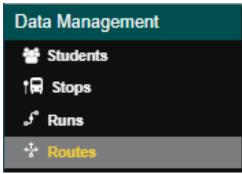
3. Routing Management:

Select the owl icon to enter the Routing Management application.



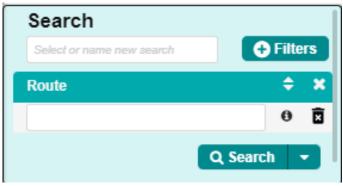
4. Routes in Data Management:

Navigate to Routes in Data Management.



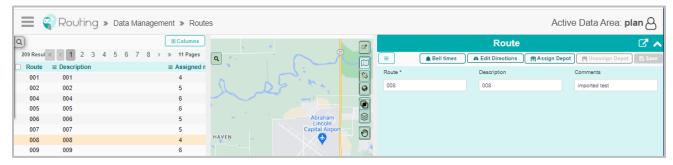
4.1. Route Search:

Search by Route ID, or choose from other filtering options to query for the Route that will need directional changes.



5. Route Card:

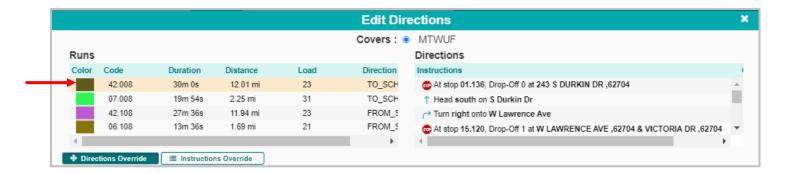
Select the route within the Data Panel and navigate to the Route card where you will find the "Edit Directions" tool.



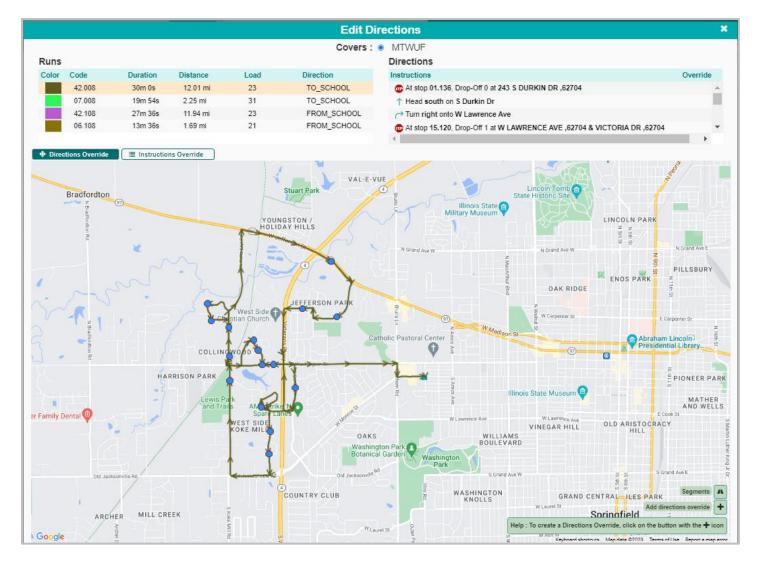


6. Edit Directions Tool:

Selecting the Edit Directions tool will bring you to a new window where you have the ability to view all runs on the route to choose from to make directional changes.



In this window you will see the directions within the upper data panel to the right, and the selected run displayed graphically on the map below.



6.1. Direction Override Tab vs. Instruction Override Tab:

The Direction Tab is where the actual turn by turn data is being altered on the run, while the Instruction tab is where the user is able to change the text of the instruction to add or adjust any key details that might populate within a direction report, or within the Instruction's panel.

6.2. Move Stop Location Tab:

The Move Stop Location workflow allows the user the ability to move a stop's google coordinates to a desired location in the event the stop and its point data cannot be relocated.

- This workflow is commonly used to address issues caused by a districts Athena geocode not being aligned with googles projections of the area.
- **6.3.** When a user is ready to make directional changes to a section of a run, they will refer to the hints in the upper right corner of the map.

Help : To create a Directions Override, click on the button with the + icon

7. Creating a Direction Override:

Following the selection of the Run, the user will navigate to the tools in the lower right corner of the map, and select the "Add Directions Override" tool.

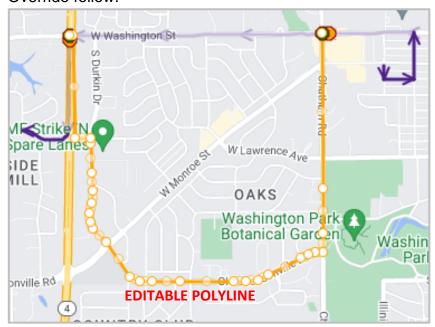


This will populate the following window where the user will select whether they will be creating a Regular or Manual Direction Override:



7.1. Manual DO:

Manual DO's allow the user create a Direction Override using editable polylines, or segments, that can be dragged and dropped to follow the path the user would like to see the Direction Override follow.

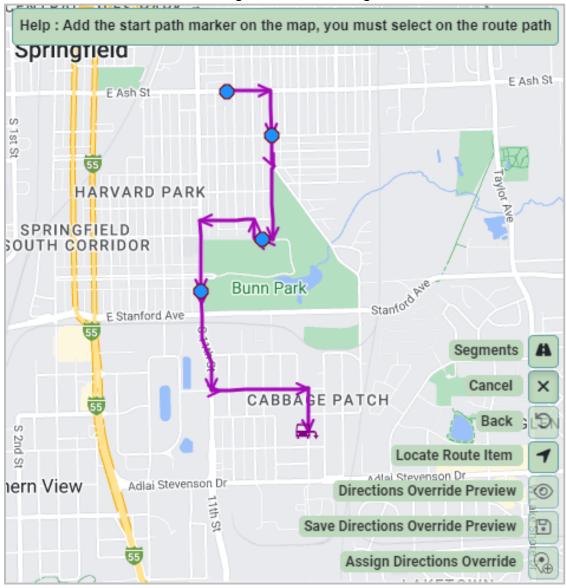


7.2. Regular DO:

Regular DO's employs the use of waypoint to create a directional override for a run or deadhead path. Following the selection of the Regular DO, the user will see the addition of more tools for the user to employ when editing a run's directions.

8. Breakdown of Available Tools for Regular DOs:

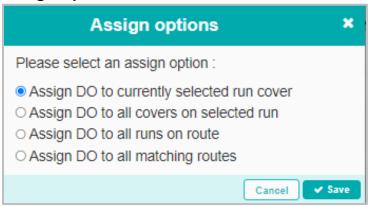
The tools that are displayed following the selection of the "Add Directions Override" tool, and following the selection of "Regular", are meant to guide the development of the DO. Refer to the screenshot below when reviewing the available Regular DO tools:



*Note: Notice the "Help" box in the upper right of the map continues to update as the user progresses through the workflow.

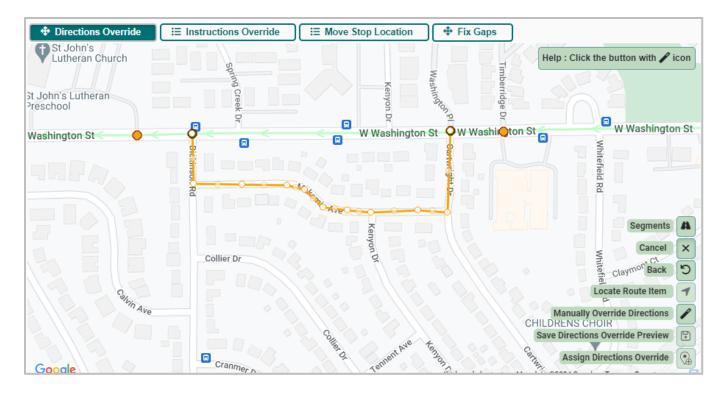
- ➤ **Segments:** Selecting the "Segments" tool will populate the Geocode Editor window where the user can add segments that might be missing within the geocode, that prevent the creation of a DO—this prevents the user from having to exit the Routes in DM module, and navigate into the Mapping application.
- ➤ Cancel: Selecting Cancel will remove any changes you have made to the run directions, and bring you back to step one.

- **Back:** Selecting back will delete/remove your most recent change.
- ➤ **Directions Override Preview:** This tool will ask the user to create a name for the DO, before allowing the user to preview how the DO will be employed on the run.
 - Following selecting the Preview tool, the user will have additional tools enabled for use:
 - Add/Remove Waypoint
 - Turnaround Enabled/Disabled
- ➤ Save Directions Override Preview: This tool will be available for use following the selection of the "DO Preview", and will save the DO and any additional changes made in the preview window (addition of Waypoints and Turnarounds).
 - The Direction Override will not be placed on the selected run until the user selects the "Assign Directions Override" tool.
- Assign Directions Override: This tool signifies the final step in the DO process where the user will then assign the new Direction Override to the run or runs of the user's choice.
 - Assign Options:



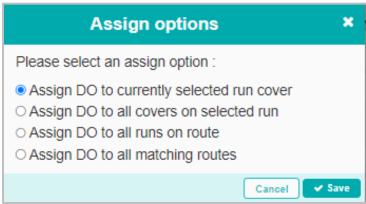
9. Breakdown of Available Tools for Manual DOs:

The tools that are displayed following the selection of the "Add Directions Override" tool, and following the selection of "Manual", are meant to guide the development of the DO. Refer to the screenshot below when reviewing the available DO tools:



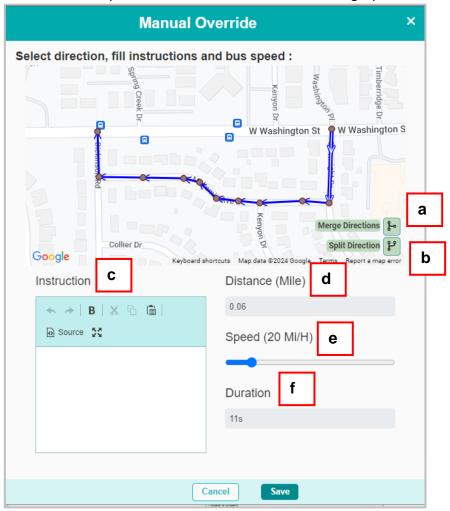
- ➤ **Segments:** Selecting the "Segments" tool will populate the Geocode Editor window where the user can add segments that might be missing within the geocode, that prevent the creation of a DO—this prevents the user from having to exit the Routes in DM module, and navigate into the Mapping application.
 - Note: Enabling the segments tool will open the Geocode Editor window, and will kick the user out of the Edit Directions window.
- ➤ Cancel: Selecting Cancel will remove any changes you have made to the run directions, and bring you back to step one.
- Back: Selecting back will delete/remove your most recent change.
- ➤ Manually Override Directions: This window will allow the user to tailor instructions for the new segment(s), as well as determine the speed of travel the bus will be taking upon the creation of the new DO.
- > Save Directions Override Preview: This tool will be available for use following the selection of the "DO Preview", and will save the DO and any additional changes made in the preview window (addition of Waypoints and Turnarounds).
 - The Direction Override will not be placed on the selected run until the user selects the "Assign Directions Override" tool.

- Assign Directions Override: This tool signifies the final step in the DO process where the user will then assign the new Direction Override to the run or runs of the user's choice.
 - Assign Options:



9.1. Manual Override Directions Window:

This window will allow the user to tailor instructions for the new segment(s), as well as determine the speed of travel the bus will be taking upon the creation of the new DO.



- **a.) Merge Directions:** The Merge Directions tool allows the user to combine two separate segments into one, and simultaneously combine any instructions included in the lower right hand window.
- **b.) Split Directions:** The Split Directions tool allows the user to split a single segment into two segments, by clicking on the larger segment where the user would like to see the segment split into two.
- c.) Instruction: The Instruction card allows the user to write out turn by turn instructions for the selected segment. The user will be required to write out instructions for all segments within a DO.
- **d.) Distance:** The Distance field will update based on the selected segment; this is not an editable field.
- **e.) Speed:** The user can identify the speed in which the bus should travel down the selected segment.
- **f.) Duration:** The Duration field will update based on the selected segments Distance and Speed; this is not an editable field.

10. Directions Override in Runs in Data Management

Navigate to the Runs in Data Management module and select a run in the Data Panel. Within the "Runs" card select the "Edit Directions" tool to view the 'Edit Directions' window.



The 'Edit Directions' window will look and function the same as the window within the Routes in Data Management module, however you will only be able to see the single run you have selected within the top left data panel.



DIRECTION OVERRIDES IN UTILITIES

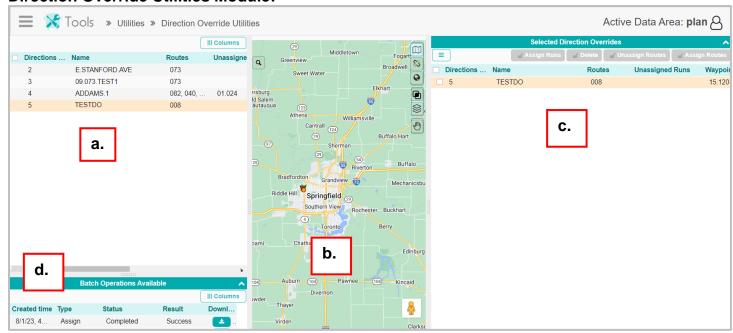
The Direction Override Utilities Module allows users to batch assign, unassign, and delete established DO's in the system.

1. From the Athena home screen navigate to the Tools application, into "Direction Override Utilities".





2. Direction Override Utilities Module:



- a. Data Panel: The data panel will house all DO's created within Athena.
- **b. Map Panel**: When a DO is selected in the data panel, that DO will populate graphically on the map.

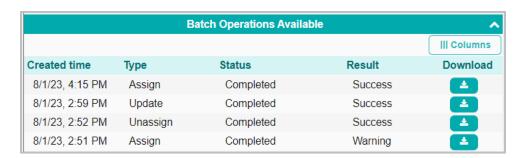


c. Workspace Panel: Selecting a DO will open the Workspace Panel, where the user will find the "Selected Directions Override" card. In this card, the user is able to perform individual or bulk operations.



d. Batch Operations Available:

Any batch operations that are performed within the "Selected Directions Override" will be recorded within the "Batch Operations Available" card.



ATHENA USER STORIES

The User Stories section of this guide will offer you scenarios that are applicable to some of the workflows you might encounter in your day-to-day tasks within Athena. Some scenarios that will be discussed include:

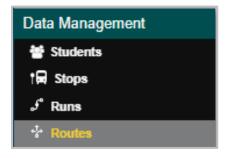
- Creating a Directional Override
- Unassign and Delete Direction Override
- Assign Direction Override
- Diagnose and Fix Gaps within Edit Directions Window
- Manually Draw a Direction Override

1. Creating a Directional Override

Run 42.008 on Route 8 has been identified to have faulty driver directions—the current Google directions have the bus drive the wrong way down a one-way street. The router will utilize the "Edit Directions" tool to create a directional override, and force the bus to turn right on the street following Victoria Dr to resolve the incorrect Google direction.

Here's How:

1. Navigate to Routes in Data Management, and select Route 8 within the Data Panel.

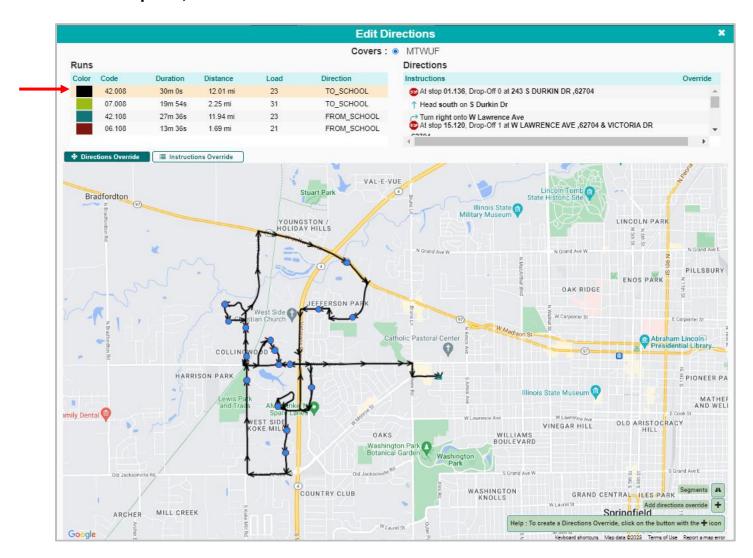




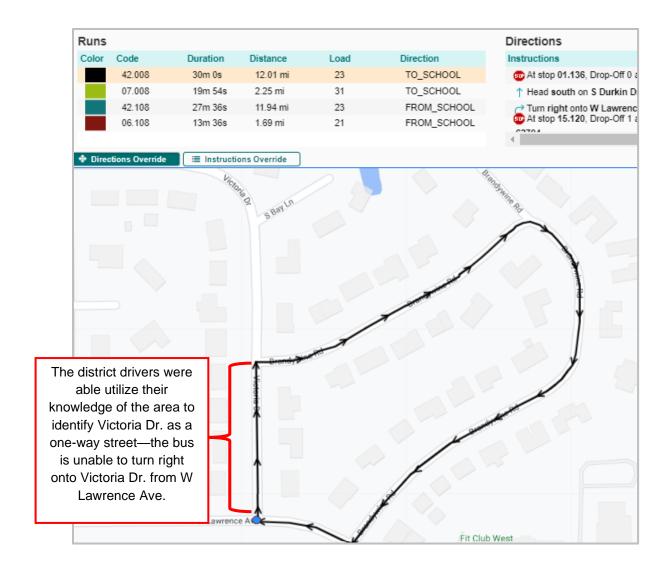
2. Within the "Route" card of the Workspace Panel, find and select the "Edit Directions" tool.



2.1 Selecting the "Edit Directions" tool will populate the "Edit Directions" window where you will choose the run that has been identified to need directional changes—in the top left data panel, select run 42.008.



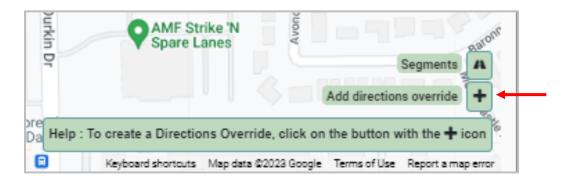
3. Following the selection of Run 42.008, the router will zoom to the section of the run that requires the Directions Override.



Using a Directions Override, the router will force the bus to turn right on Mill Bank Ln and travel down Victoria Dr. the correct way versus driving against the one-way.

4. Creating the Directions Override:

Following the hints at the bottom right of the map, first select the "Add Directions Override" button.



4.1 The Help box will then ask the router to "add the start path marker on the map".



The Start Path Marker is how the system determines the direction of travel. In this case the Start Path Marker should be placed before the stop on the corner of W Laurence Ave and Victoria Dr.

➤ The Start Path Marker is automatically attached to your curser following the selection of the "Add Directions Override" tool. Click directly on the run to place the marker—once placed you will see a green and yellow point.



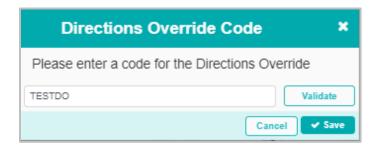
- **4.2** Once the Start Path Marker has been placed, the Help box will update and ask the router to place the "End Path Marker" to determine which section of this run path should be removed.
 - Following the same format as placing the start marker, the router will click directly on the corner of W Laurence Ave & Rickard Rd—this will tell the system to delete the right turn down Victoria Dr, and the loop down Brandywine Rd.
 - ➤ Once the "End Path Marke" is placed, red x's will populate on the portion of the run that will be removed.



4.3 The "Help" box will ask the router to preview the Directions Override.

Help : Click the button with @ icon

Selecting the preview tool will populate the "Directions Override Code" window where the router will name the DO, before being shown the preview of the DO.





The bold red line is what the system has determined the new path to be, so in some cases there is a need to use waypoint tools to help guide the Direction Override.





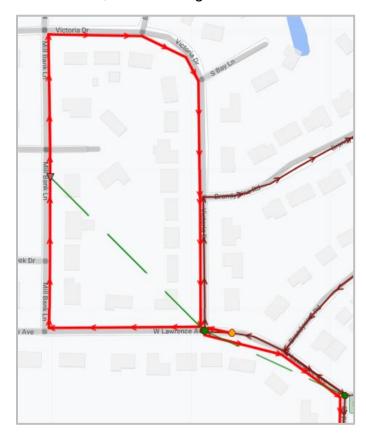
- ➤ The Waypoint and Turnaround tools have the same functionality as what user's see when working within the "Path Editor" tool of "Bell Time Run Covers".
- ➤ Reference the Bell Time Run Covers Training Resource Guide for guidance on how to add and remove waypoints.

4.4 Adding Waypoints:

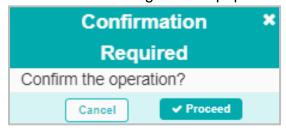
The router will select the "Add Waypoint" tool, and drag and drop the Waypoint on the center of Mill Bank Ln, therefore asking the system to redirect down that street.



Once the Waypoint is placed, the run directions will update to show the run turning right down Mill Bank Ln, and traveling down Victoria Dr the correct direction.



5. Once the DO has been created, the router will select the "Save Directions Override Preview", and will see the following window populate:

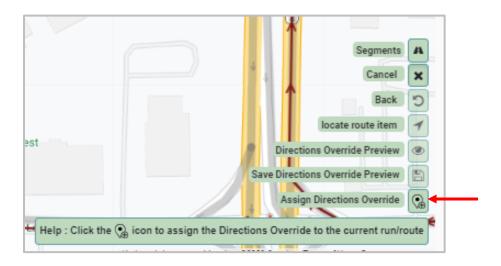


Once the save has been completed, the user will see the following pop-out as confirmation:

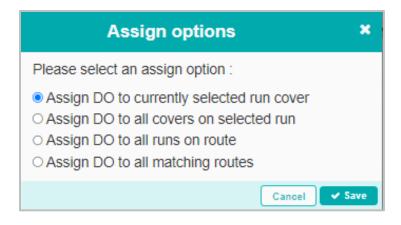


6. Assign Directions Override:

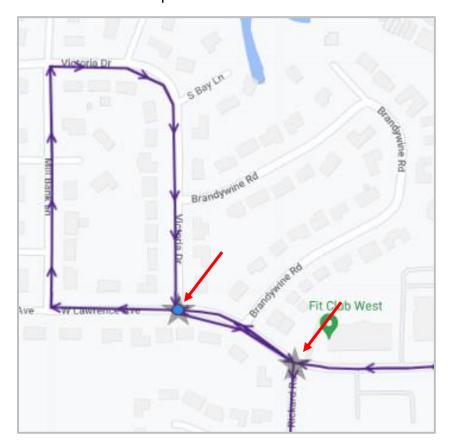
To assign the Directions Override to the run, the user will select the "Assign Directions Override" tool in the "Edit Directions Window".



Selecting the "Assign Directions Override" tool will populate the following screen where the router can then opt to "Assign the DO to [the] currently selected run cover".



The router will see the directional override assignment within the "Edit Directions" window following its completion—to large stars will be seen on the map where the original "Start" and "End Path Markers" were placed.



6.1 The Instructions will additionally update, and the user can identify the Directional Override Instructions by the star symbol next to the instruction.



2. Unassign and Delete Direction Override

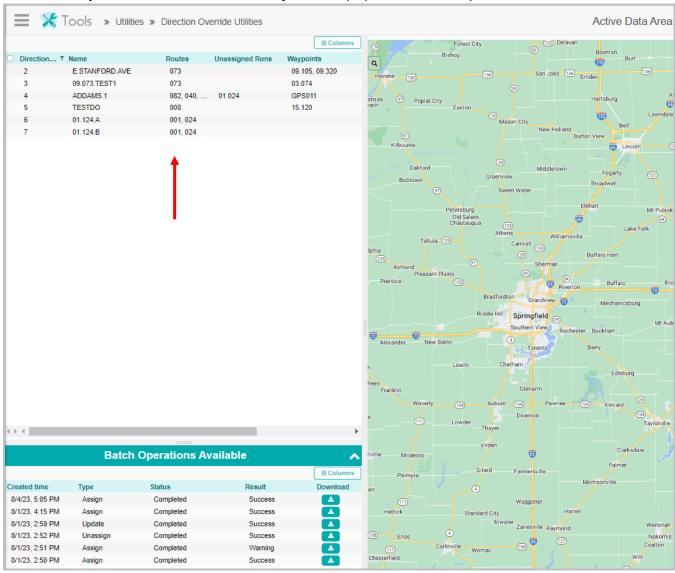
The direction overrides you had created to help your routes navigate around a neighborhood construction project is now no longer needed, as the project was completed over the winter break. You were tasked to delete the direction override, so your routes could return to their normal directional paths—within the "Direction Override Utilities" module you will first unassign the DO from any runs/routes before deleting.

1. Tools Application:

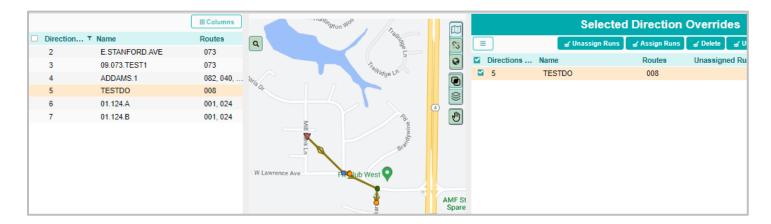
Navigate to the Tools application from the Athena home screen, and select "Direction Override Utilities".



2. Selecting the "Direction Override Utilities" module will bring you to a new screen where you will automatically see all DO's made within your site populate in the top Data Panel.

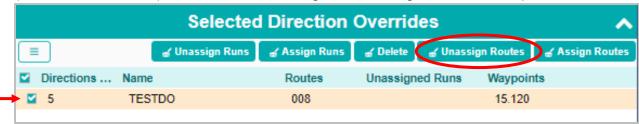


3. Within the upper Data Panel, select the DO you wish to unassign and delete—once selected, you will see the DO populate graphically on the map, as well as see the "Selected Direction Overrides" card populate in the Workspace Panel.



3.1 Unassign Direction Override:

Within the "Selected Direction Overrides" card, select the DO in the Workspace Panel (enable to checkbox), before then selecting the "Unassign" tool at the top of the card.



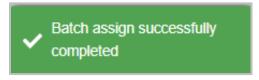
You will see the following confirmation window, because we are deleting this DO, we will want to select "All" to unassign the DO from all routes.



You will see the following confirmation window detailing how many routes the DO is being unassigned from—select "Proceed".



If the operation is successful, you will a pop-up confirmation, as well as see a record of the operation within the "Batch Operations Available" card.



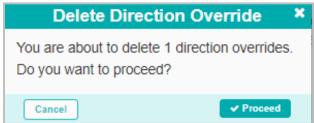


3.2 Delete Direction Override:

Following the unassignment of the Direction Override, still working within the "Selected Direction Override" card, the user will select the "Delete" tool at the top of the card.



Selecting the "Delete" tool, the user will see the following window—select "Proceed".



The user can confirm its deletion from the absence of the DO within the Data Panel.

3. Assign Direction Override

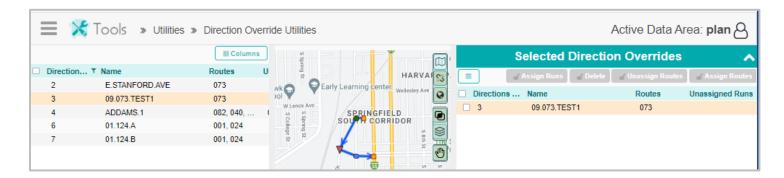
You were tasked to create a Direction Override to address a Google Direction error in Route 073's run directions—the previous run directions tried to send the bus the wrong way down a one-way street. You created the DO, and now you need to assign the DO to all applicable runs. Working within the Direction Override Utilities module, you are able to batch assign the DO to multiple runs at once.

1. Tools Application:

Navigate to the Tools application from the Athena home screen, and select "Direction Override Utilities".



2. Within the upper Data Panel, select the DO you wish to assign to multiple runs—once selected, you will see the DO populate graphically on the map, as well as see the "Selected Direction Overrides" card populate in the Workspace Panel.



3. Select the DO in the "Selected Direction Overrides" card, before selecting the "Assign Runs" tool at the top of the card.



3.1 Assign Direction Override:

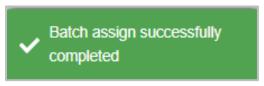
Selecting the "Assign Runs" tool will populate a window where you will choose to assign the DO to all applicable runs, or "Choose [a] Subset" of runs to assign—select "Proceed" when you are ready.



You will see the following window to confirm the assignment:



Once the assignment is completed you will see a green confirmation pop-up on your screen, as well as see a record of the assignment in the "Batch Operations Available" card.



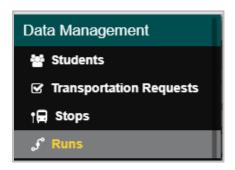


4. Diagnose and Fix Gaps within Edit Directions Window

Following the identification of the runs that contain no-travel gaps, you were tasked by your transportation manager to correct the no-travel gaps found within Run 01.024. Within Runs in Data Management, you will work within the "Edit Directions" window to correct the no-travel gaps found within the selected run.

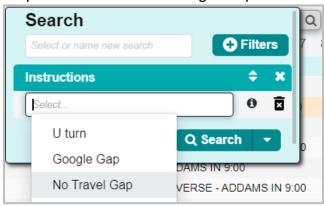
➤ Please reference the Runs in Data Management User Story "Search for No-Travel Gaps in a Run" prior to reviewing this user story.

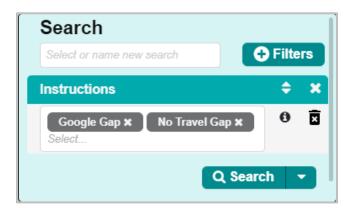
1. Navigate to Runs in Data Management:



1.1 Search for No-Travel Gaps:

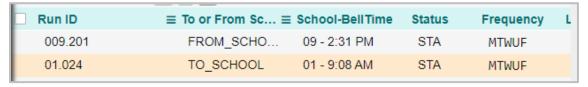
Within the search tray, add the "Instructions" filter and include the following fields from the drop-down selection—"Google Gaps" and "No Travel Gap".





1.2 Select a Run:

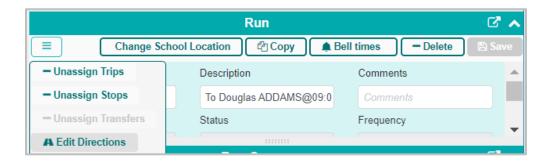
Within the Data Panel, select run 01.024.



2. Edit Directions:

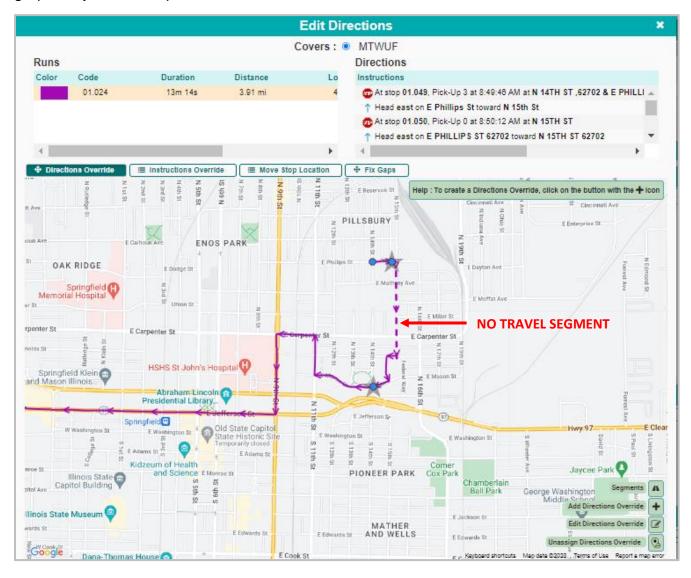
Once the run is selected, within the "Run" card, navigate to the 'Edit Directions' tool.





3. Fix Gaps:

Within the Edit Directions window, the user will see Run 01.024 populate in the upper left-hand data panel. Selecting the run will highlight it in the data panel, as well as populate the run graphically on the map.



The section of the run that displays a dotted line, is the section that is impacted by the notravel segment.

3.1 Navigate to the Fix Gaps Layer:

Following the selection of the run in the "Edit Directions" window, the user will navigate to the "Fix Gaps" Layer.



4. Help Box:

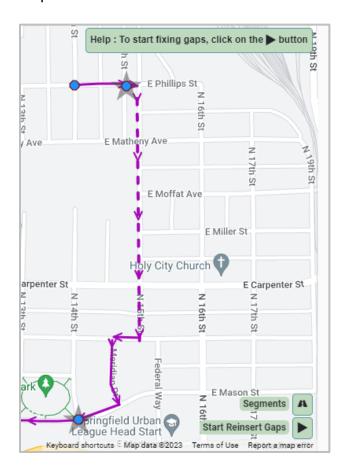
Once the user has navigated to the "Fix Gaps" layer, the user will refer to the help box in the upper right-hand corner of the Map.



As the user follows the help instructions, they will see the tools in the lower right of the map update based on their step in the process.

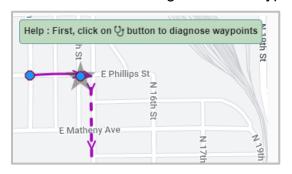
4.1 Start Reinsert Gaps:

The Help window will first ask the user "To Start fixing gaps, select the 'Start Reinsert Gaps' button".



4.2 Diagnose Waypoints:

Next the user will "Diagnose the Waypoint".

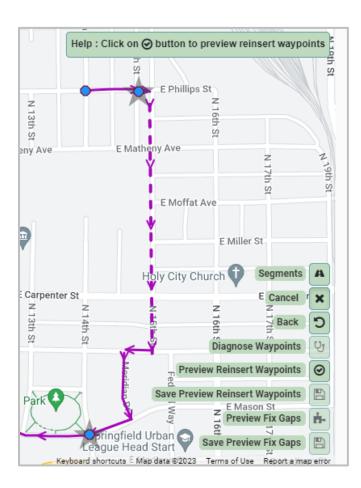




4.3 Preview Reinsert Waypoints:

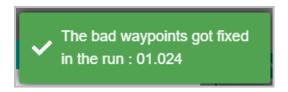
Following the successful diagnosis, the user will "Preview [the] Reinsert [of] Waypoints".



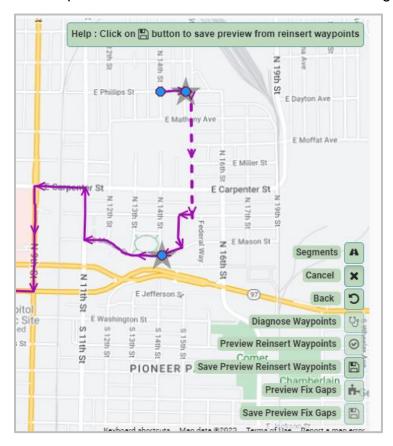


4.4 Save Changes:

Following the selection of the "Preview Reinsert Waypoints", the user should see the run update with the reinsertion of the waypoints, and the following notification:

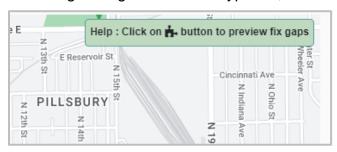


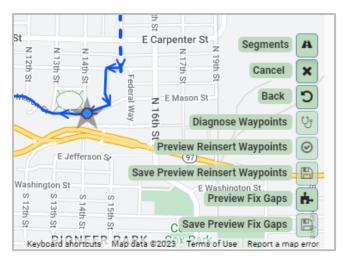
The help box will then ask the user to save the changes made in the preview:



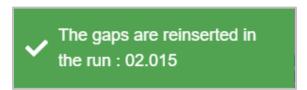
4.5 Preview Fix Gaps:

Following saving the added waypoints, the user will select the "Preview Fix Gaps" button.

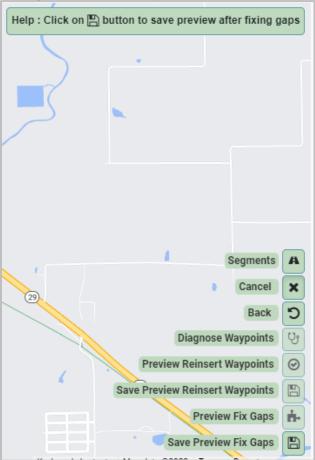




Once the step has finished processing, the user will see the following notification:



4.6 Following previewing the fixed gaps, the user will be asked to save and finalize the changes made in the preview:



When the operation is completed, the user will see the following populate on their screen:

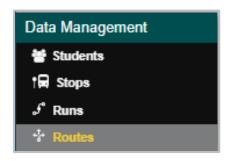


5. Manually Draw a Direction Override

Over the next few months, a portion of Deadhead 2's driver path will be under construction as N Amos Ave is being repaved, thus significantly affecting the run's duration. To avoid the construction, you were tasked to create a Manual DO to circumvent the construction on Amos Ave.

Here's How:

1. Navigate to Routes in Data Management, and select Route 8 within the Data Panel.

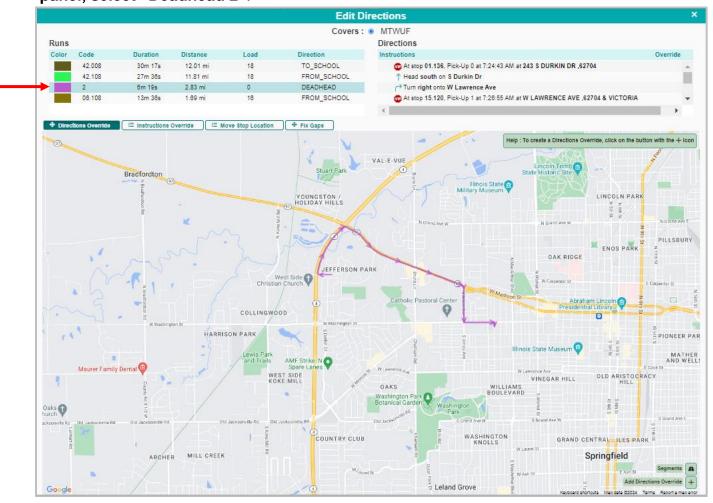




2. Within the "Route" card of the Workspace Panel, find and select the "Edit Directions" tool.



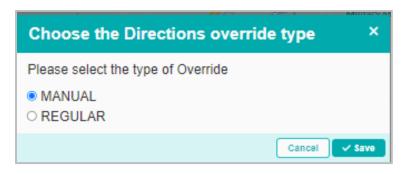
2.1. Selecting the Edit Directions tool will populate the Edit Directions window where you will choose the run that has been identified to need directional changes—in the top left data panel, select "Deadhead 2".



3. Select the "Add Directions Override" tool in the lower right-hand corner of the map.

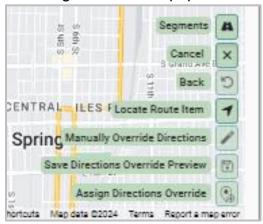


Upon it's selection the following window will populate, where the user will select "Manual".

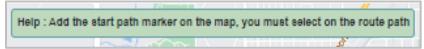


4. Creating a Manual DO:

Selecting "Manual" will populate the following tools in the lower right corner of the map.

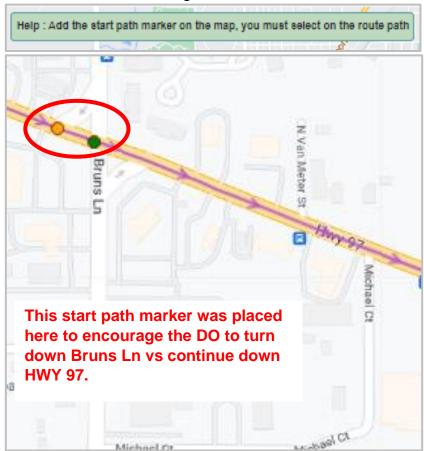


The user will refer to the Help box to guide their creation of the Manual Direction Override.



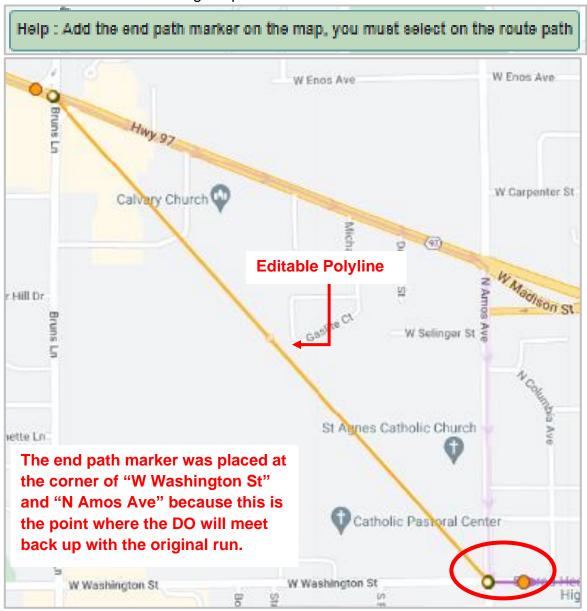
4.1. Add the Start Path Marker:

Upon the selection of the DO type, the user will be instructed to select the "start path marker"—following the direction of travel, this is the start of where the user would like to see the Direction Override begin.



4.2. Add the End Path Marker:

The user will then be asked to place the "end path marker" indicating where the DO ends, and reverts back to the runs original path and directions.



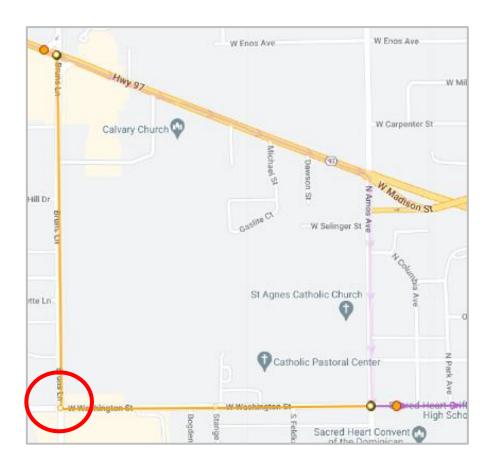
4.2.1. Editable Polyline:

Following the placement of the end path marker the user will see an orange line connect the start path to the end path marker—this is an editable polyline that allows the user to pull the line, or segment, to the path the user would like to see the DO follow.

4.3. Draw the DO:

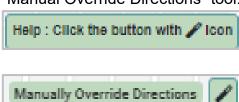
The user will drag the orange polyline to the street network the DO will follow. To drag the polyline, the user will click on the nodes—small circles connecting segments together—and drag and drop them to follow the desired path.



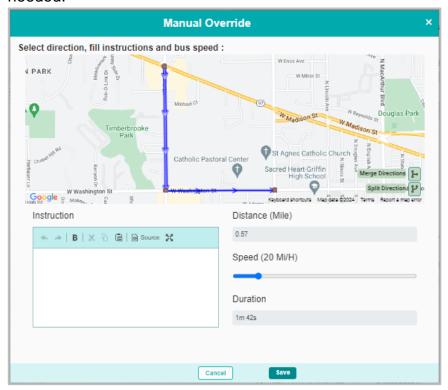


4.4. Manually Override Directions:

After drawing the DO using the editable polyline, the user will be instructed to select the "Manual Override Directions" tool.

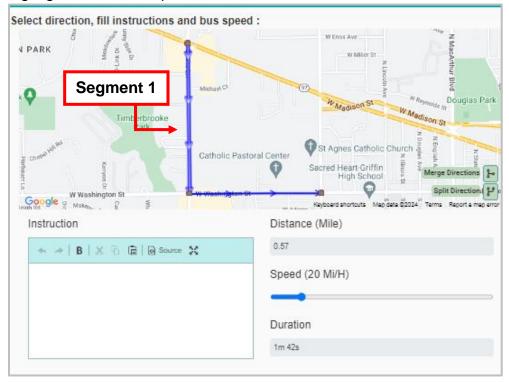


This will populate the Manual Override window where the user will select each segment on the map and create driver instructions for all turn-by-turn directions, and adjust the speed as needed.

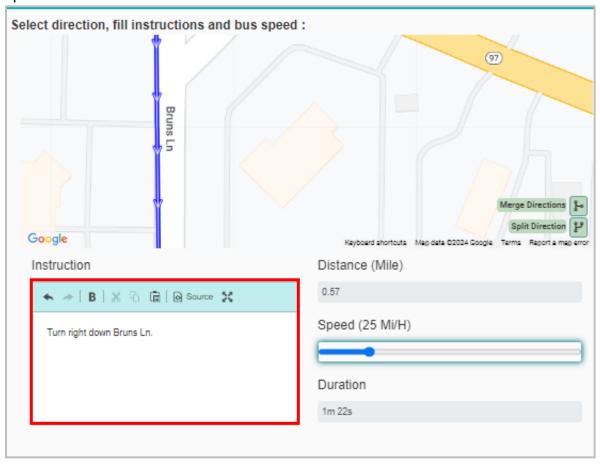


4.4.1. Add Instructions to Selected Segments:

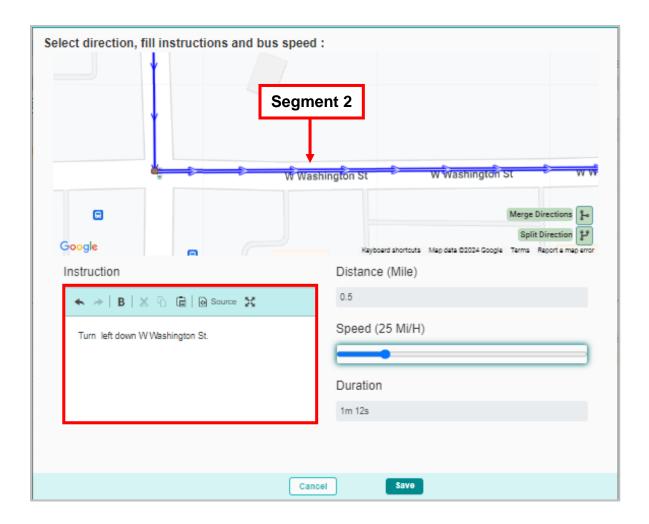
a. The first segment that follows the placed start path marker will automatically be highlighted on the map.



The user will add the following instructions for the selected segment, and adjust the speed to 25 mi/h:

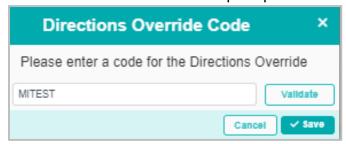


b. Select the second segment directly on the map, and follow the same process of adding the instructions displayed below, and adjust the speed to 25 mi/h:



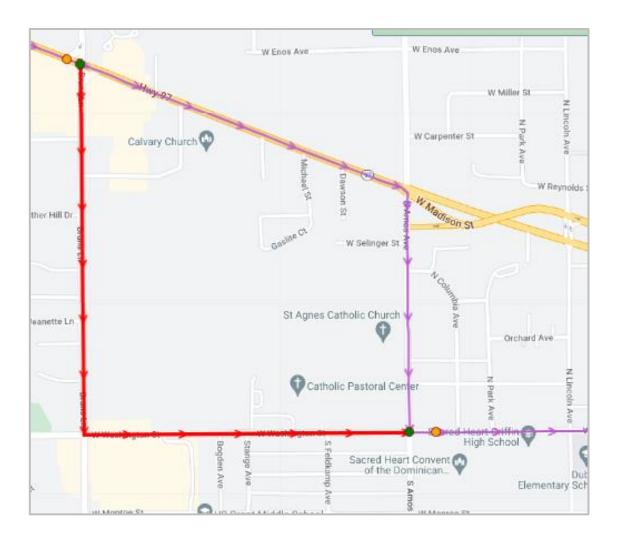
4.4.2. Save:

Once the instructions have been added for both segments, and the speed adjusted, select "Save". The user will be prompted to name the DO in the following window:

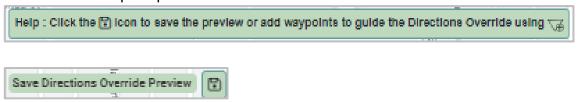


4.5. Saving the DO:

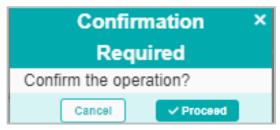
After naming the DO within the Directions Override Code window the user will see the map update to highlight the newly created DO in red.



The user will be prompted to select the "Save Directions Override Preview" tool.



4.5.1. Selecting the Save DO Preview window will populate the following window where the user will select "Proceed".



The user will see a confirmation message upon selecting "Proceed".



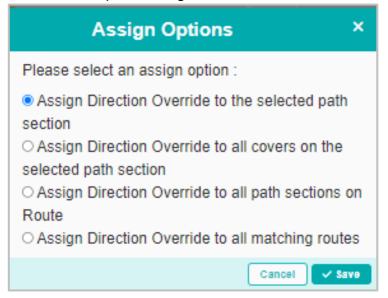
4.6. Assign Manual DO:

The Help box will prompt the user to assign the DO by selecting the "Assign Direction Override" tool.





Selecting the "Assign Directions Override" tool will populate the Assign Options window where the user will opt to "Assign Directions Override to the selected path section".



4.7. Verify Direction Override:

Saving within the Assign Options window, will display the applied DO on the map.

