Roads and Highways address management tools



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Address management

The address management tools are used to collect and manage address block ranges, site addresses, and related mailing address data. They can be used by planning, public safety, or land records organizations to streamline the collection, maintenance, and use of authoritative address information.

The Esri Roads and Highways address management tools support the ArcGIS for Local Government data model.

Address management tools

Esri Roads and Highways provides the following address management tools.

Create Route

You can add a new route in the system using the **Create Route** button on the **Roads And Highways Editing** toolbar available with desktop. For more information, see Creating a new route.



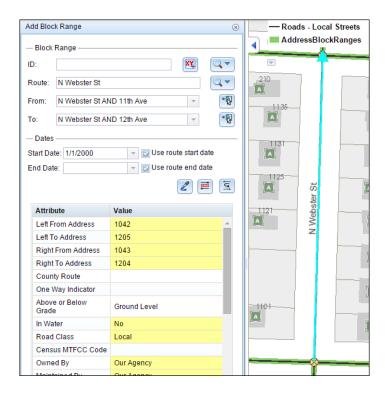
Add Street Names

You can add a new street name and related attributes to your master street table using the **Add Street Names** widget. For more information, see Adding street names.



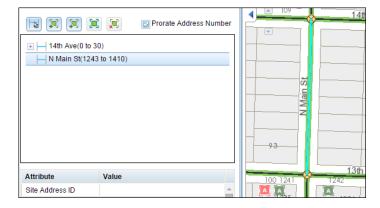
Add or Edit Block Range

You can add a new block range or edit the existing block range using the **Add Block Range** widget. For more information, see Adding block ranges.



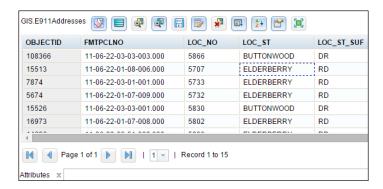
Add Site Address widget

You can add the site address points where block ranges are present, as well as where block ranges are not present, using the **Add Site Address widget**. For more information, see Adding site addresses.



Edit site address points

You can modify the attributes of site address points or the location of site address points using the event table. For more information, see Editing events in the selection table.



Requirements

- · ArcGIS for Desktop along with Esri Roads and Highways for Desktop is needed to manage the centerlines and editing routes.
- ArcGIS for Server along with Esri Roads and Highways for Server is needed to publish a linear referencing-enabled map service to consume it in the Roadway Characteristics Editor (RCE).
- Your existing address management data in the Esri Roads and Highways schema. For more information, see Preparing data for address management.
- You need to deploy the RCE application. The address management widgets are located in this web application. For more information, see Roadway Characteristics Editor (RCE) deployment guide.
- Configure the address management widgets in the Roadway characteristics Editor. For more information, see Configuring the address management widgets.

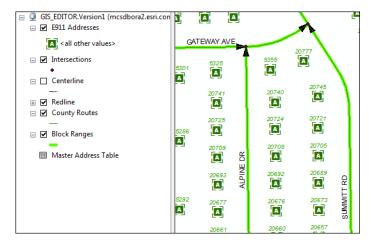
Preparing data for address management

Esri Roads and Highways provides tools to manage address data, including address block ranges, site address points, and street names on top of an LRS. If you are a member of a state or the federal government, these tools enable you to manage address data for geocoders for data provided by local government agencies on your LRS. If you are a member of a local government, you can use the LRS to not only manage roadway inventory data but also address data, thereby managing one centerline for both.

The following sections discuss how to model and load your address block ranges, site address points, and street names data into the data model used by Esri Roads and Highways.

Data model

The following screen shot shows the data model:



Address block ranges

Address block ranges are modeled as a linear event layer (event feature class) on a network, with referent columns that need to be populated with intersection referents.

If you're using the ArcGIS for Local Government data model, the RoadCenterline feature class should be used as the Address block range event layer. Add the missing columns from the list below.

For more information about LRS events, see Event types.

For more information, see Storing referent and offset information for event location.

The following table lists the required fields:

| Field | Data type | Length | IsNullable | Description | |
|----------------------|------------------|--|------------|--|--|
| EventID | String | Between 32 and 255 | Yes | Unique ID for each event record. | |
| RouteID | String | Length of the Network RouteID field or greater | Yes | Unique ID for each route in the network. | |
| FromDate | Date | 8 | Yes | The date the event became active on the route. | |
| ToDate | Date | 8 | Yes | The date the event was retired on the route. | |
| FromMeasure | Any Numeric | | Yes | The measure on the route where the beginning of the event will be located. | |
| ToMeasure | Any Numeric | | Yes | The measure on the route where the end of the event will be located. | |
| FromReferentMethod | Short Integer | 5 | Yes | Method of referencing the offset feature. This can be X,Y coordinates, Stationing, Length, LRS Network, Event, Intersection, or other point feature class. For the Block range event, it will be the Intersection feature class. | |
| FromReferentLocation | String | Between 50 and 255 | Yes | Location of the offsetting feature. This can be an X,Y coordinate, Feature/EventID, or IntersectionID. For the Block range event, it will be the IntersectionID. | |
| FromReferentOffset | String | Between 50 and 255 | Yes | The offset measure. Saved in the unit of measure configured when configuring offset fields. Since Block range goes from intersection to intersection, this value will be zero. | |

| ToReferentMethod | Short Integer | 5 | Yes | Method of referencing the offset feature. This can be X,Y coordinates, Stationing, Length, LRS Network, Event, Intersection, or other point feature class. For the Block range event, it will be the Intersection feature class. |
|--------------------|------------------|---|-----|--|
| ToReferentLocation | String | Between 50 and 255 | Yes | Location of the offsetting feature. This can be an X,Y coordinate, Feature/EventID, or IntersectionID. For the Block range event, it will be the IntersectionID. |
| ToReferentOffset | String | Between 50 and 255 | Yes | The offset measure. Saved in the unit of measure configured when configuring offset fields. Since Block range goes from intersection to intersection, this value will be zero. |
| RightFromAddress | Any Numeric | | Yes | Stores the lowest address value on the right side of the road. |
| RightToAddress | Any Numeric | | Yes | Stores the highest address value on the right side of the road. |
| LeftFromAddress | Any Numeric | | Yes | Stores the lowest address value on the left side of the road. |
| LeftToAddress | Any Numeric | | Yes | Stores the highest address value on the left side of the road. |
| FullStreetName | String | Length of the full street name from Master street table or greater | Yes | The full street name including its prefix or suffix. |

Site address points

Site address points are modeled as a point feature class that stores the rooftop location of an address.

If you're using the ArcGIS for Local Government data model, the SiteAddressPoint feature class should be used as the Site Address points layer. For more information, see Local Government Information Model.

The following table lists the required fields:

| Field | Data type | Length | IsNullable | Description |
|----------------|----------------|--|------------|---|
| addressNumber | Any Numeric | | Yes | Address number field that stores the address number. |
| FullStreetName | String | Length of the full street name from Master street table or greater | Yes | Street name field, which will save the full street name including its prefix or suffix. |

Master street table

The Master street table stores the unique street names along with other street name attributes.

If you're using the ArcGIS for Local Government data model, the MasterStreetName table should be used as the Master street table.

The following table lists the required field:

| Field | Data Type | Length | IsNullable | Description |
|----------------|--------------|--|------------|---|
| FullStreetName | String | Length of the full street name from Master street table or greater | Yes | Street name field, which will save the full street name including its prefix or suffix. |

The Address Management tools can be configured against the ArcGIS for Local Government data model or your own custom model, as long as your model contains the required fields mentioned above.

Additional information

For more information about the Esri Roads and Highways linear referencing model and data loading process, see ALRS Data Model and Creating and loading the ALRS.

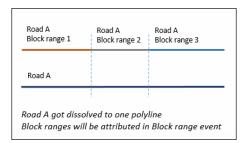
Setting up the address management data

Complete the following steps to set up the address management data using Esri Roads and Highways:

- 1. Create an ALRS in the enterprise geodatabase of your choice if you have not already done so. For more information, see Creating a new ALRS.
- Create an LRS network if you do not already have one. For more information, see Creating an LRS network.

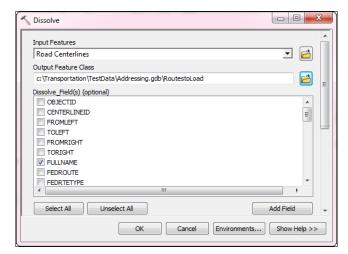
- Note: If you're using the ArcGIS for Local Government data model and do not currently use linear referencing as a means to manage roadway data, you may want to create an LRS network based on the spatial geometry length for measures.
- 3. Prepare the data to load as routes. If you're managing the block range information on a road centerline, dissolve the block ranges to get single polyline geometry for each route.

The following diagram explains the concept of dissolving the block ranges to the route, which is required by Esri Roads and Highways.

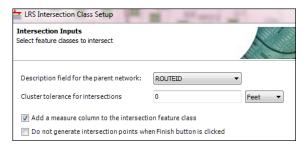


- a. Open the Dissolve geoprocessing tool.
- b. Choose a dissolve field.In this example, Route ID is used.
 - Note: If you're using the ArcGIS for Local Government data model, you can create a new field by concatenating the full road name with any other field that can help you identify the unique route, or use full road name if it is unique.
- c. Select Multipart feature as ${\tt True}.$

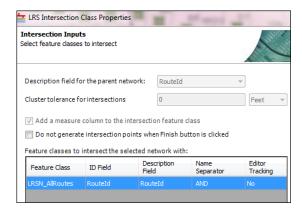
The following image shows a sample screen capture of the Dissolve geoprocessing tool:



- 4. Load the routes to the network.
 - For more information, see Loading Routes.
- 5. Create an LRS intersection class.
 - For more information, see Creating an LRS intersection class.
 - a. Check the Add a measure column to the intersection feature class box during generation or registration.



b. Use the same route network when creating an LRS intersection class.



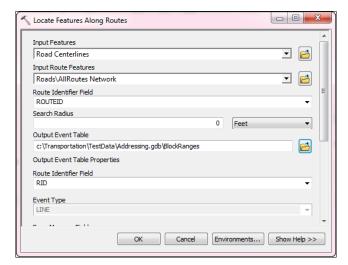
6. Prepare block range data to register as an event.

If your block range feature class does not have the measures associated with it, which will be the case if you do not use linear referencing as a means to manage roadway data, use the Locate Features Along Routes geoprocessing tool to populate the measures as follows. For more information, see Locate features along routes.

- a. Use your block range feature class as an event layer input.
- b. Use the network registered in step 2 as an input for the input route feature class. The route ID field should be populated and should match the routes you loaded.

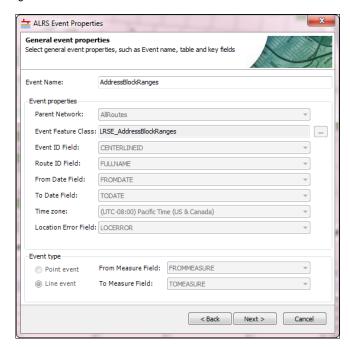
The output of the tool is a new feature class; use the output feature class from here on.

You can archive the existing block range feature class. The following image shows a screen capture of the Locate Features Along Routes geoprocessing tool:

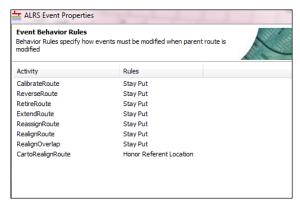


- 7. Register an LRS line event with referent location for the Block Range data.
 - a. Register an LRS event by route and measure.

For more information, see Registering an event by route and measure. The following screen capture shows the event registration:

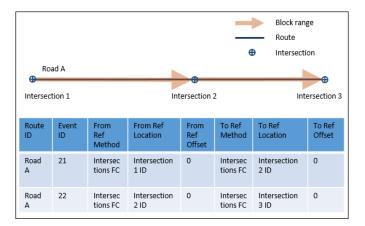


b. During registration, on the Event Behavior Rules dialog box, for the CartoRealign Route activity, choose the Honor Referent location behavior rule. For all other edit activities, choose the Stay Put behavior rule.
 For more information, see Event behaviors. The following screen capture shows the Event Behavior Rules dialog box:



8. For each block range event, populate **From** and **To** reference intersection information.

For more information about reference information, see <u>Storing referent and offset information</u> for event location. You need to do it manually using ArcGIS tools or a Python script. The following diagram shows the concept of populating **From** and **To** reference intersection information, which is required by Esri Roads and Highways.



- a. Intersect the start point of the block range line feature class with the intersection point feature class.
- b. From the intersect output, filter out the result that does not match the RouteID of the block range.
- c. When the event's EventID and RouteID match the intersect output derived from step b, populate the referent offset fields.
- d. Populate the code for your interaction class from the dReferentMethod domain into the From Referent method.
- e. Populate the IntersectionID into the From Referent Location field.
 Since block ranges go from intersection to intersection, the From Referent Offset is zero.
- f. Repeat steps a through e for the block range end point to populate the To Referent fields.
- 9. Once you have your data prepared, publish a map service.
 - a. Create a map document and minimally add the Route layer, Intersection layer, Block range event layer, Site address point feature layer, and Master street table.
 - b. Publish the map document with ArcGIS for Server and enable the Esri Roads and Highways for Server Linear Referencing and Feature Access capability.
- Deploy the Roadway Characteristics Editor (RCE).
 For more information, see the Roadway Characteristics Editor (RCE) deployment guide.
- Configure the Roadway Characteristics Editor (RCE).
 For more information, see Configuring the Roadway Characteristics Editor (RCE) web application.
- 12. Configure the Address Management widget.
 For more information, see Configuring the Address Management widgets.

Configuring the address management widgets

You can configure the Roadway Characteristics Editor (RCE) address management widgets in the address_management.json file in the Roadway Characteristics Editor web folder on the web server to modify and deploy.

The address management widgets are part of RCE. For them to work, RCE must be configured and deployed. For more information on deployment and configuring RCE, see RCE deployment guide.

Before configuring the address management widgets, you must first load your address data into Roads and Highways. For more information about preparing data for address management, see Preparing data for address management.

Properties

blockRangeLayer

- layerName
- rightFromAddressField
- rightToAddressField
- · leftFromAddressField
- leftToAddressField
- fullStreetNameField
- copyFields

Description

Specifies the setting for editing block ranges in RCE. The Block range layer is the linear event feature class that stores the block range data. These are the required configurations:

- · layerName—Name of the Block Range layer in the map service
- rightFromAddressField—Name of theRight From Address Field that stores the lowest address value on the right side of the road
- rightToAddressField—Name of the Right To Address Field that stores the highest address value on the right side of the road
- leftFromAddressField—Name of the Left From Address Field that stores the lowest address value on the left side of the road
- leftToAddressField—Name of the Left To Address Field that stores the highest address value on the left side of the road
- full StreetNameField—Name of the Street name field that saves the full street name including its prefix or suffix
- copyFields—List of fields that need to be copied from the exiting block range when a new block range is created in the upstream or downstream of existing blon same route

```
"blockRangeLayer" : {
    "layerName" : "BlockRanges",
    "rightFromAddressField" : "R LO ADD",
    "rightFromAddressField" : "R HT ADD",
    "leftFromAddressField" : "E HT ADD",
    "leftTromAddressField" : "LO ADD",
    "leftTromAddressField" : "FUL ADD",
    "leftTromAddressField" : "FUL ST"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "FUL ST"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "FUL ST"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "Type", "Claip"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "Type", "County", "FRETYPE", "CLAIP"
    "copyFields": "Type", "Claip"
    "copyFields":
```

Add or Edit Block Range

masterStreetNameTable

- tableName
- fullStreetNameField
- · attributeMapping
- Specifies the setting for adding streets to the master street name table in RCE. These are required configurations.
- tableName—Name of the master street name table in the map service
- fullStreetNameField—Name of the Street name field that saves the full street name including its prefix or suffix

"<Source Field Name 1>" : ["<Block Range Layer Name>.<Field Name 1>", "<Site Address Points Layer Name>.<Field Name 2

· attributeMapping— Mapping of a single source field from master street table to multiple destination fields. The format is the following:

```
"tableName": "GIS.MasterAddressTable",
"fullStreetMameField": "ROUTEID"
"attributeMapping":

{ "ROADPREMOD":["AddressBlockRange.STR_PRE"],
"ROADPREMOD":["AddressBlockRange.STR_TYPE", " Address_Points.STR_NAME"],
"ROADTYPE":["AddressBlockRange.STR_TYPE", " Address_Points.STR_TYPE"]
}

}

| "Address_Points.STR_TYPE", " Address_Points.STR_TYPE", " Address_Points.STR_
```

Add Site Addresses

siteAddressPoints

- layerName
- addressNumberField
- streetNameField
- Specifies the setting for managing the site address point in RCE. These are required configurations.
- layerName—Name of the Site Address Point layer in the map service
- addressNumberField—Name of the Address number field
- streetNameField—Name of the Street name field that saves the full street name, including its prefix or suffix

```
"siteAddressPoints" : {
    "layerName" : "GIS.E911Addresses",
    "addressNumberField" : "ADD NO",
    "streetNameField" : "FULL_ST",
}
```

Add Site Addresses

polygonLayers

- layerName
- · attributeMapping
- Polygon layres from the LRS map service that you want to use to map the fields from boundary layer to the block range and/or site address point layer.
- · layerName—Name of the layer, as present in the map service.
- attributeMapping—Mapping of a single source field from master street table to multiple destination fields. The format is the following:

 "<Source Field Name 1>": ["<Block Range Layer Name>.<Field Name 1>", "<Site Address Points Layer Name>.<Field Name 2>"]

```
"polygonLayers": [
"layerName": "CityBoundaries",
"attributMapping":
{ "CITY NAME": [ "AddressBlockRange.L CITY", "AddressBlockRange.R CITY", "Address Points.CITY"],
"COUNTY": [ "AddressBlockRange.L COUNTY", "AddressBlockRange.R COUNTY"," Address Points.COUNTY"],
"FIPS_CODE": [ "AddressBlockRange.L FIPS", "AddressBlockRange.R FIPS", "Address Points.FIPS_CODE"]
}
```

The non-LRS Map services that you want to use to map the fields from the boundary layer to the block range and/or site address point layer. • layerUrl • attributeMapping ** attributeMapping—Mapping of a single source field from master street table to multiple destination fields. The format is the following: ** "Source Field Name 1>" : ["Glock Range Layer Name>.<Field Name 1>", "Site Address Foints Layer Name>.<Field Name 2>"] ** "polygonServices": [** "layerUrl": "http://cyour arcgis server>/arcgis/rest/services/FranklinCountry_ZipCode/MapServer/1", ** "attributeMapping": ["AddressBlockRange.L_ZIP", "AddressPoints.ZIP"] ** "SiPCODE": ["AddressPoints.ZIP"] ** "SiPCODE": ["AddressPoints.ZIP"] ** "SiPCODE": ["AddressPoints.ZIP"] ** "SiPCODE": ["Siplie": "solid", "color": "#00ffff", "width": 3 }, ** "arrowlead": ["style": "solid", "color": "#00ffff", "width": 3 }, ** "arrowlead": ["style": "style": "triangle", "color": "#00ffff", "size": 20, "outline": ["style": "solid", "color": "#008080", "width": 2 }) ** Types of line symbols include solid, dash, dot, dashdot, and dashdotdo—the default style is solid. The color is specified as #RRGGBB in HTML hexadecimal color codes.

Address management configuration properties

Populating fields and attributes for block ranges or site address points widgets

Typically you manage multiple fields for block range or site address points like Street name, City, County, State, Zip, FIPS Code, and so on

Address management tools provides several ways to populate the fields and attributes so that you don't have to populate them every time you create new block range or create a new site address point. You can use one or more ways to help you auto populate the attributes: configure the fields to inherit from the polygon layer, configure the fields to copy from Master Street table, or copy fields from the adjacent block range.

Note: Make sure you configure a field with only one of the

The address management widget honors the defaults configured at a geodatabase level. The defaults will be overridden by these methods if you have them configured.

Configuring the fields to inherit from the polygon layer

A particular attribute could be populated based on the geographic position of your block range or site address point.

- 1. Publish a polygon boundary layer as a map service.
 - Note: You could add that layer in the LRS map service that you have or publish it as a separate map service. You can use layers from the LRS map service or from separate map services.
- 2. Configure the address management widgets to map the fields from the boundary layer to the block range and/or site address point layer.

To configure, see the polygonLayers and polygonServices properties in Configuring the address management widgets.

Configuring the fields to copy from the master street table

Some of the fields that are present in the master street table need to be copied to the block range or site address point fields when you map those to the particular street.

- Note: Fields will not be populated if more than one record is returned for the street name in the master street table.
 - Make sure you have the fullStreetNameField property configured for the blockRangeLayer siteAddressPoints and masterStreetNameTable properties in the address management configuration file.
 For more information, see Configuring the address management widgets.
 - 2. Configure the address management widgets to map the fields from the master street table to the block range and/or site address point layer.

To configure, see the attributeMapping property in Configuring the address management widgets.

Copying fields from the adjacent block range

When you create a new block range that is adjacent to existing block range, there could be some fields that you want to get by copying them

Configure the copyFields property for the blockRangeLayer.
 For more information see Configuring the address management widgets

The fields that get pre-populate using one of these methods will be highlighted in yellow color.

Adding or editing block ranges

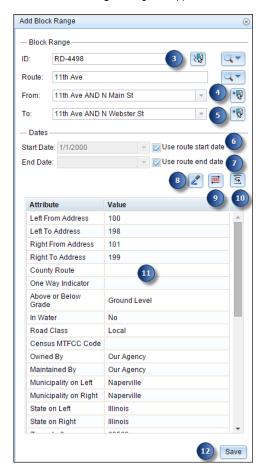
Block ranges represent the line segments that determine the address range for the block within the jurisdiction of a local government. A block range typically goes between intersections and is associated with a route. The **Add Block Range** widget allows you to add a new block range or edit an existing block range.

■ Note: To access this widget in Roadway Characteristics Editor (RCE), the address management configuration file needs to be configured. For more information, see Configuring the Address Management widgets.

- 1. Open a web browser and browse to RCE.
- 2. Click the Edit tab.
- 3. In the Edit Addresses group, click Block Range.



The Add Block Range dialog box appears.



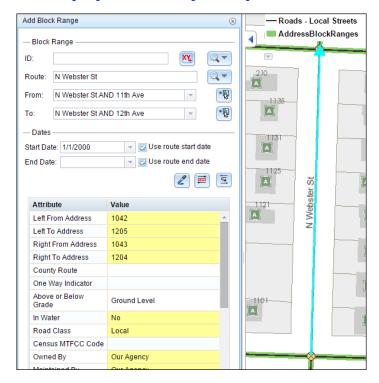
4. Click the Select a Block Range button and click the route where you want to add or edit the block range.

Note: If a message appears that is related to acquiring locks, the need to reconcile, or not being able to acquire locks, Roads and Highways conflict prevention is enabled. For more information about these messages, see Conflict prevention in the Roadway Characteristics Editor (RCE).

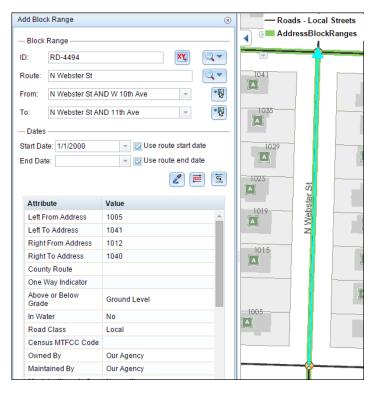
■ Note: If there is no block range present, a new block range is added at that location. If a block range is present, that block range is selected for editing.

When adding the new block range, the widget's dialog box is populated with the following information:

- · Route ID—The route ID where the block range will be located.
- From Intersection—The intersection that is located at the start of the block range and is present on the same route will be populated in the drop-down list. If more than one applicable intersection exists, you can choose one from the drop-down list. If it's the route start and no other intersection is present, the text Route Start is displayed.
- To Intersection—The intersection that is located at the end of the block range and is present on the same route will be populated in the drop-down list. If more than one applicable intersection exists, you can choose one from the drop-down list. If it's the route end and no other intersection is present, the text Route End is displayed.
- Address range attributes—The fields with address range attributes will be derived with a suggested address range if
 there are adjacent block range(s) present. The fields used for address range are configured in the configuration file. For
 more information about configuring address management, see Configuring the Address Management Widgets.
- All other Attributes—The other attributes get copied from adjacent block range if it is present. You can configure which
 fields get copied from the adjacent block range. For more information about configuring address management, see
 Configuring the Address Management widgets.



When editing the existing block range, the widget's dialog box is populated with existing information that you can edit.



- 5. Select the intersection where the block range will start by clicking the **From** drop-down arrow.
 - For the new block range, the drop-down list is populated with the intersections that are located at the start of the block range and are present on the same route.
 - For an existing block range, if there is no intersection populated automatically, the intersection can be selected using the drop-down list or the Select intersection tool.
 - For an existing block range, if the intersection is already populated, it can be modified using the Select intersection tool
 for the following conditions only:
 - You can choose from new intersections that are created within the existing block range due to route edits.
 - You can extend an existing block range when no block range currently exists in that location.
 - You can choose an adjacent intersection on the same route if no block range is present at that location. This is
 particularly helpful in cases where an existing intersection is deleted due to route edits.
- 6. Select the intersection where the block range will end by clicking the **To** drop-down arrow.
 - For the new block range, the drop-down list is populated with the intersections that are located at the end of the block range and are present on the same route.
 - For an existing block range, if there is no intersection populated automatically, the intersection can be selected using the drop-down list or the Select intersection tool.
 - For an existing block range, if the intersection is already populated, it can be modified using the Select intersection tool
 for the following conditions only:
 - You can choose from new intersections that are created within the existing block range due to route edits.
 - You can extend an existing block range when no block range currently exists in that location.
 - You can choose an adjacent intersection on the same route if no block range is present at that location. This is particularly helpful in cases where an existing intersection is deleted due to route edits.
- 7. Choose the start date that will define the start date of the block range.
 - Click the Start Date drop-down calendar to choose the start date.
 - Check the Use route start date check box to use the start date of the routes.

The start date defaults to today's date, but you can choose a date using the date picker. The end date is optional, and if it is not provided, the block range remains valid now and into the future.

- 8. Choose the end date that will define the end date of the block range.
 - Click the End Date drop-down calendar to choose the end date.
 - Check the **Use route end date** check box to use the end date of the routes.
- 9. To copy attributes from another block range, click the **Copy Attributes** button **≥** and click a block range on the map from which to copy the attributes.
 - Note:

The address range values are not copied.

- To flip the address range values of a selected block range, click the Flip Parity button ⊆.
 This does not change the direction of the block range.
- 11. To flip the direction of a selected block range, click the **Reverse Direction** button <u>≡</u>.
 - Note: This does not flip the address range values.
 - Note: Reversing the block range direction will reverse the geometrical direction of the block range event.
- 12. Provide or edit the attribute information for the block range you selected.
 - Note:
- If the cell is gray, the cell cannot be edited.
- · If the cell is white, the cell is editable.
- If the cell is red, the cell is non-nullable, which can be left blank.
- A yellow-colored cell shows that it has been edited in this edit session, but the edits have not been saved.
- 13. Click Save.

If you're creating a new block range, it's displayed on the map; otherwise, changes to an existing block range are saved.

Adding site addresses

Site address points represent the location of a site or service delivery address assigned by a local government. Typically, site address points are placed on top of the structure associated with the address or at the center of a parcel.

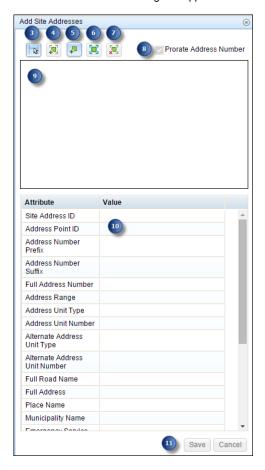
To access this widget in Roadway Characteristics Editor (RCE), the address management configuration file needs to be configured. For more information, see Configuring the Address Management widgets.

■ Note: To edit the existing site address points, select the address points using selection tools and then edit the attributes, location, or both in the selection table.

For more information about selection tools in RCE, see Selecting events by attribute and Selecting events by spatial geometry.

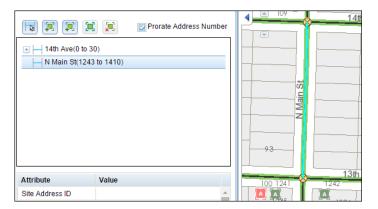
For more information, also see Editing events in the selection table.

- 1. Open a web browser and browse to RCE.
- 2. Click the Edit tab.
- 3. In the Edit Addresses group, click **Site Addresses**The **Add Site Addresses** dialog box appears.



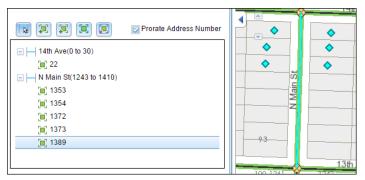
■ Note: Currently, the address management widgets do not support conflict prevention. For more information about conflict prevention, see Conflict prevention in the Roadway Characteristics Editor (RCE).

Click the Select Block Range button | s| and click a block range on the map.
 The selected block ranges are populated in a tree. The tree shows a hierarchical representation of the block range and site address points.



5. Click the **Add Site Addresses** button in and click the location along the block range from where the address should be assigned. Make sure the block range is highlighted on the map before you click it.

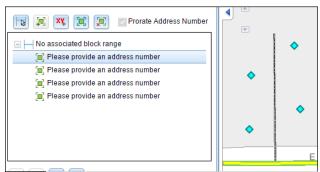
The site addresses are added in the tree as children of the respective block range. If the **Prorate Address Number** check box is checked, the suggested address number is populated. Otherwise, the site addresses do not have any suggested address number.



6. Click the Add Site Addresses without Block Range button . and click the location in the map where the address should be assigned.

You don't need to have an existing block range to use this tool.

The site addresses are added in the tree, but they are not associated with any of the block ranges. Note that it does not prorate the address, since there is no block range associated with it.



- ▼ Tip: You can only select or delete the site address points before saving them.
- 7. To select and move the added site address point, click the Select Site Addresses button , click the site address point graphic, and then drag the site address point to the new location.
 Click anywhere on the map to deselect the site address point.
 - Tip: You can only select the site address points before saving them.
- 8. To delete a site address point, highlight the node in the tree and click the Delete Site Address button

This will remove the node from the tree and remove the graphic from the map. The site address point is denoted by the **Site Address** icon .

▶ Note: If a block range is highlighted, the block range and all associated site address points are deleted.

This will remove the block range node and all child site address nodes from the tree and will remove the site address graphics from the map. The block range is denoted by the Block Range icon ⊢.

- 9. Choose whether you want the site address number to be prorated.
 - If the **Prorate Address Number** check box is checked, the suggested address number is prorated based on the location of the site address point with respect to the block range.
 - If the **Prorate Address Number** check box is not checked, the site addresses do not have any suggested address number. The address number can be added by editing in the feature attribute table.
- 10. The tree will show you block ranges and site addresses that you have added on that block range. Click the site address node to jump to its attributes in the attribute table.
- 11. Use the navigation tools to navigate to the site address you just added.
- 12. Click Save.

All the site addresses are saved.



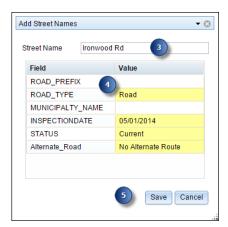
Adding street names

The MasterStreetName table is used to store a master list of valid street names. This table includes the unique elements of a road name direction, name, type, and so on. This master list of street names is used to populate full street names in the **Adding or Editing Block Range** widget and in the **Adding Site Addresses** widget.

Note: If you use the ArcGIS for Local government data model, you might have Full street name as the RouteID. In that case, the **Adding or Editing Block Range** widget will not allow you to populate the Full street name.

Note: To access this widget in Roadway Characteristics Editor (RCE), the address management configuration file needs to be configured. For more information, see Configuring the Address Management widgets.

- 1. Open a web browser and browse to RCE.
- 2. Click the Edit tab.
- In the Edit Addresses group, click Street Names.
 The Add Street Names dialog box appears.



- 4. Enter the new street name.

 If the entered street name does not exists already, you can add attributes for a new street name and save.
- 5. Enter the attributes for the street you are adding.
- 6. Click Save.

This will add a street name in the MasterStreetName table. You can use the newly added street in the **Adding or Editing Block Range** widget and in the **Adding Site Addresses** widget.

Displaying the fishbone diagram

The fishbone visual quality control tool generates lines between address points and the measured block range location to check the spatial sequencing of address number location. The following are the validations performed by the fishbone diagram:

- · In case there is no block range present at that location, no fishbone diagram will be drawn.
- In case there is no address related to the block range, the fishbone diagram will only draw a line on top of block range.
- · In case the address numbers are assigned out of order, the fishbone lines will cross or intersect each other.
- In case the address location is not correct, the fishbone lines will cross the street or route.
- In case the address numbers are out of block range's address range, the fishbone's line will be drawn from start or end of the block range.

To access this widget in Roadway Characteristics Editor (RCE), the address management configuration file needs to be configured. For more information, see Configuring the Address Management widgets.

- 1. Open a web browser and browse to RCE.
- 2. Click the Edit tab.
- 3. In the Edit Addresses group, click the **Display Fishbone Diagram** ** button.

 This will activate the tool and the **Display Fishbone Diagram** button will be in the selected mode.
 - Note: You do not need to have block ranges to be visible on the map. You need to have address management configured with block ranges and address points. For more information, see Configuring the Address Management widgets
- On the map, click on the block range for which you want to display the fishbone.
 The fishbone diagram will be drawn and it will clear the previous fishbone diagram if any present.
- 5. To explicitly, clear the fishbone diagram on the map, click the Clear Fishbone Diagram 👺 button.