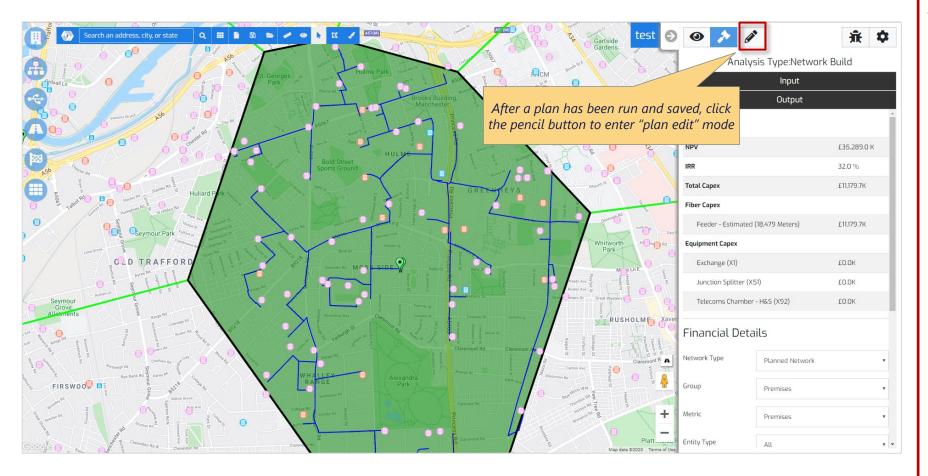
# Arrow Platform

Plan Edit





### Editing Plans – Overview When a plan completes running, you can enter manual edit mode



#### **Editing Functionality**

- Equipment you can edit equipment location, location to equipment assignment, add or delete equipment, adjust Fiber Distribution Hub and Remote Terminal coverage boundaries, and add notes to equipment
- Routes you can adjust fiber routes by using Route Adjusters to avoid or prefer a specific path, you can add Anchors to ensure Feeder Fiber passes through a specific point and add notes on Feeder Fiber path segments. Note, feeder and distribution fiber routes are recalculated after adjusting equipment locations and boundaries and clicking Recalculate or Commit.
- Plan Types you can edit Hub and Spoke plans (both Hub only split and Direct Routing) and Ring plans, in addition you can create an empty Hub and Spoke plan and manually add equipment to cover locations.

### Editing Plans – Hub and Spoke Plans

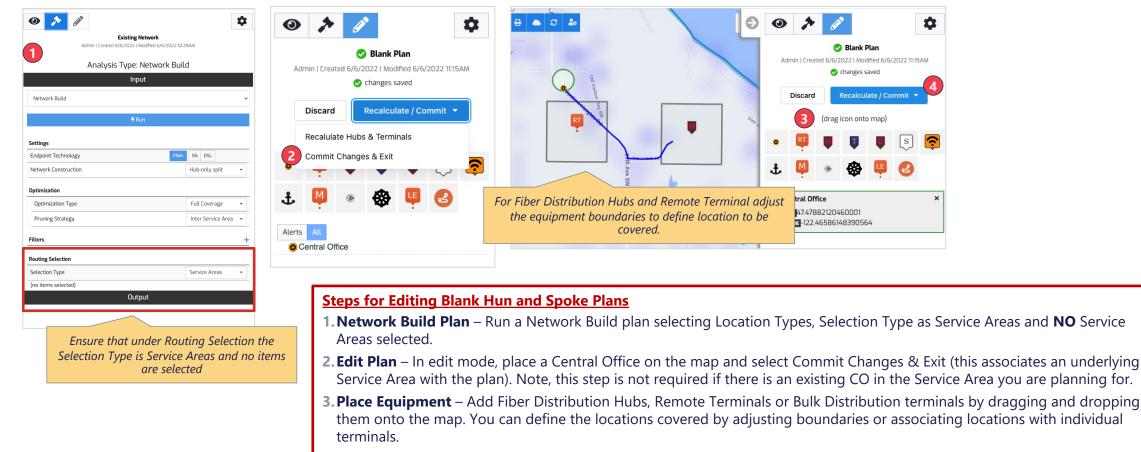
## Editing is supported for Hub and Spoke plans run using Direct Routing and Hub Only Split Network Construction



| ◙ 🏞 🖉  |  | <b>新</b>                             | <b>P</b>                        |
|--|--|--------------------------------------|---------------------------------|
|  |  | SHNWAXB - VSN Edit                   |                                 |
|  | Admin  Created 5   | /25/2022   Modified 5/26/2022 9:10AM |                                 |
|  | •  | Changes saved                        |                                 |
|  | Discard  | Recalculate / Commit 👻               |                                 |
|  | (dr  | Recalulate Hubs & Terminals          |                                 |
| <b>•••</b>   |  | Commit Changes & Exit                |                                 |
| • 🏺 🛡  | V V  | V 🗣 🕶 🛨 🔍                            | - 9                             |
|  |  |                                      |                                 |
| ÷ 3  |  |                                      |                                 |
|  |  |                                      |                                 |
| Fiber Distribution   | Hub (FDH)  | _                                    |                                 |
| <ul> <li>ocation connections</li> </ul>  | - 205  | 3                                    |                                 |
| ATITUDE 47.4800358573  |  | 9                                    |                                 |
| ONGITUDE -122.4684970  |  |                                      |                                 |
|  |  |                                      |                                 |
| Fiber Distribution Hub   | (FDH)  |                                      |                                 |
| llerts All   | (FDH)  | 7                                    | 12                              |
| All All  |  | 7                                    | _                               |
| llerts All   | Hub  | 7                                    | 12                              |
| Alerts All<br>Central Office   | Hub<br>tion: 1   | 7                                    | _                               |
| Allerts All<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1  | Hub<br>tion: 1<br>Hub  | 7                                    | 1                               |
| All<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1<br>Abandoned Locat   | Hub<br>tion: 1<br><u>Hub</u><br>tion: 1  | 7                                    | 1                               |
| Iterts All<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1<br>Abandoned Locat  | Hub<br>tion: 1<br><u>Hub</u><br>tion: 1  | 7                                    | 1                               |
| All<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1<br>Abandoned Locat   | Hub<br>tion: 1<br>Hub<br>tion: 1<br>h Exceeded: 7  | 7                                    | 1                               |
| terts AL<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Central Office<br>Tiber Distribution<br>Link Error: 1<br>Abandoned Locat<br>Drop Cable Lengt  | Hub<br>tion: 1<br>Hub<br>tion: 1<br>h Exceeded: 7  | 7                                    | 1<br>9<br>1                     |
| Iterts AlL<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1<br>Abandoned Locat<br>Drop Cable Lengt<br>Fiber Distributio<br>Cotation   | Hub<br>tion: 1<br>Hub<br>tion: 1<br>h Exceeded: 7  | 7                                    | 1                               |
| Kerts AL<br>Central Office<br>Fiber Distribution<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1<br>Abandoned Locat<br>Drop Cable Lengt<br>Fiber Distributio<br>Cocation   | Hub<br>tion: 1<br>Hub<br>tion: 1<br>h Exceeded: 7<br>n Terminal<br>ength Exceeded  | 7                                    | 1<br>9<br>1                     |
| Netts         AL           Central Office         Fiber Distribution 1           Abandoned Locat         Fiber Distribution 1           Link Error: 1         Abandoned Locat           Drop Cable Lengt         Fiber Distribution           Image: Specific Control of | Hub<br>tion: 1<br>Hub<br>tion: 1<br>h Exceeded: 7<br>n Terminal<br>ength Exceeded<br>n Terminal                            | 7                                    | 1<br>9<br>1                     |
| terts AL<br>Central Office<br>Fiber Distribution i<br>Abandoned Locat<br>Fiber Distribution<br>Link Error: 1<br>Abandoned Locat<br>Drop Cable Lengt<br>Cocation<br>Drop Cable L<br>Briber Distributio<br>Cation<br>Drop Cable L<br>Briber Distributio  | Hub<br>tion: 1<br>Hub<br>ion: 1<br>h Exceeded: 7<br>n Terminal<br>ength Exceeded<br>n Terminal<br>n Terminal               | 7<br>I                               | 1<br>9<br>1<br>1                |
| Iterts     AL       Central Office       Fiber Distribution       Abandoned Locat       Drop Cable Lengt       Drop Cable Locat       Drop Cable Location       Drop Cable Location       Drop Cable Location       Drop Cable Lingt       Image: Striber Distribution       Image: Striber Distribution       Image: Striber Distribution       Image: Striber Distribution   | Hub<br>tion: 1<br>Hub<br>ion: 1<br>h Exceeded: 7<br>n Terminal<br>ength Exceeded<br>n Terminal<br>n Terminal               | 7                                    | 1<br>9<br>1<br>1<br>1           |
| Nerts     AL       Central Office       Fiber Distribution       Abandoned Locat       Fiber Distribution       Link Error: 1       Abandoned Locat       Drop Cable Lengt       Fiber Distribution       Prop Cable Lengt       Fiber Distribution  | Hub<br>tion: 1<br>Hub<br>ion: 1<br>h Exceeded: 7<br>n Terminal<br>ength Exceeded<br>n Terminal<br>n Terminal<br>n Terminal | 7                                    | 1<br>9<br>1<br>1<br>1<br>1<br>5 |
|  | Hub<br>tion: 1<br>Hub<br>ion: 1<br>h Exceeded: 7<br>n Terminal<br>ength Exceeded<br>n Terminal<br>n Terminal<br>n Terminal | 7                                    | 1<br>9<br>1<br>1<br>1<br>1<br>5 |

#### **Hub and Spoke Edits 1. Equipment Location** – move equipment to a new location by selecting it and dragging it (note, CO locations are not editable in edit mode) 2. Location Assignment – assign or unassign locations from Fiber Distribution Terminal or Bulk Distribution Terminals 3. Fiber Distribution Hub Boundary – adjust the boundary to exclude or include locations served. Note, Fiber Distribution Terminals and Distribution fiber will be re-optimizing after recalculating or committing boundary edits. 4. Merge Bulk Distribution Terminals – merge Bulk Distribution Terminals that are in proximity into one and all locations will connect to it 5. Recalculate / Commit – after making edits Recalculate Hubs & Terminals re-optimizes fiber routes based on equipment and boundary changes. Commit will recalculate, update the plan outputs including reports and exit edit mode. **6. Location Connections** – you can view the number of locations served by a Fiber Distribution Hub or Terminal 7. Alerts – highlight abandoned locations and violations of network architecture rules (e.g., max locations served, drop cable length)

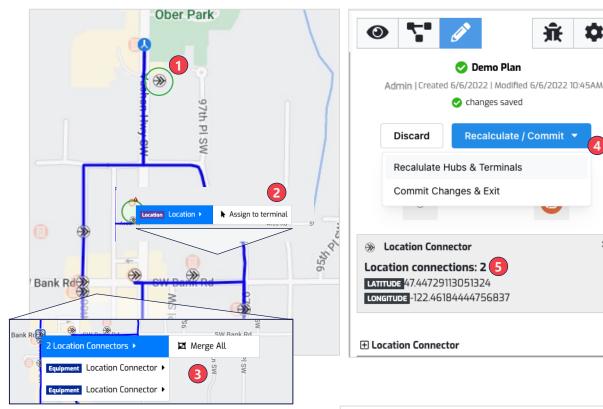
### Editing Plans – Hub and Spoke Plans Creating and editing blank Hub and Spoke plans



 Recalculate /Commit – after making edits Recalculate Hubs & Terminals optimizes fiber routes based on equipment locations and boundaries. Commit will recalculate, update the plan outputs including reports and exit edit mode.



### Editing Plans – Ring Plans **Editing Ring Plans**





#### **Ring Plan Edits**

- 1. Equipment Location move Location Connectors or Route Adjusters to a new location (note, Subnet Node locations are not editable in Edit mode)
- 2. Location Assignment assign or unassign locations from Location Connector
- 3. Merge Location Connectors-merge Location Connectors that are in proximity into one and all locations will connect to it
- 4. Recalculate / Commit after making edits Recalculate Hubs & Terminals will re-optimize fiber routes based on equipment and boundary changes. Commit will recalculate, update the plan outputs including reports and exit edit mode.
- **5. Location Connections** you can view the number of locations served by a Location Connector (aka Terminal)
- 6. Alerts highlight abandoned locations and violations of network architecture rules (e.g., max locations served, drop cable length)



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### Editing Plans – Route Adjustments and Annotations Adjust the fiber route and add additional detail on equipment and route segments

| Θ                      |  | 豪 🌣 |
|------------------------|--|-----|
| n Ward                 | 📀 VSHNWAXA - Adjust Route  |     |
| *                      | Admin   Created 6/6/2022   Modified 6/6/2022 1:19PM                          |     |
| tage                   | Discard Recalculate / Commit 🔻   |     |
| SW Maury Par           | (drag icon onto map)   |     |
| 1 SW Point Robinson Rd | <ul> <li></li></ul>  | *   |
| Als any UL             | 🛃 Route Adjuster   | ×   |
| Rabbs Lagoon           | Adjust the polygon to 'include' or 'avoid' areas in fiber route calculation. |     |
| SW 237th DI            | Include<br>Alerts All  |     |
|                        |  |     |

Avoid or Include apply a multiplier to the cost of underlying conduit making it financially more or less expensive

| тире 47.38457448246121<br>атире -122.48027690817258 |  |   |  |
|---|--|---|--|
| ber Distribution Hub (FDH)                          |  |   |  |
| 2<br>Site Info                                      |  |   |  |
| Site Name   |  |   |  |
| Site CLLI   |  |   |  |
| Deployment Date                                     | mm/dd/yyyy   |   |  |
| Address   |  |   |  |
| Dpi Environment                                     |  |   |  |
| Hsi Office Code                                     |  |   |  |
| Hsi Enabled   | Image: A start of the start |   |  |
| т1  |  |   |  |
| Physically Linked                                   |  |   |  |
| Fiber Available                                     |  |   |  |
| Fiber Capacity                                      | 512  |   |  |
| Route   |  |   |  |
| Fiber Size  | 0  | 0 |  |
| Fiber Count   |  |   |  |

#### **Plan Edits**

- Route Adjusters route adjusters enable you to change the fiber route by placing them over an area and selecting avoid or include. Clicking Recalculate Hubs & Terminal after placing a Route Adjuster reoptimizes the fiber route
- 2. Equipment Annotation Add additional detail to equipment (e.g., Fiber Distribution Hub, Splice Points)
- **3. Feeder Fiber Annotation** –Add additional detail to Feeder Fiber route segments. Note, when Arrow recalculates routes in Edit mode or by Modifying a plan the Feeder Fiber segments are reconstituted and all annotations are lost.

|                     | Fiber Route ×          |   |  |
|---------------------|------------------------|---|--|
| Star Ve sy Burton t | Route                  |   |  |
| SW 240th PI         | Fiber Size Fiber Count | To avoid losing Feeder Fiber annotations,   | Tip:   |
| 3                   | BuildType              | make edits only after equipment locations<br>and FDH boundaries and Fiber routes have | Please contact Arrow team member to configur |
| 11 Sth Ave St       | Save                   | been finalized  | financial multipliers for Route Adjusters    |

Tip: Please contact Arrow team member to configure financial multipliers for Route Adjusters

