



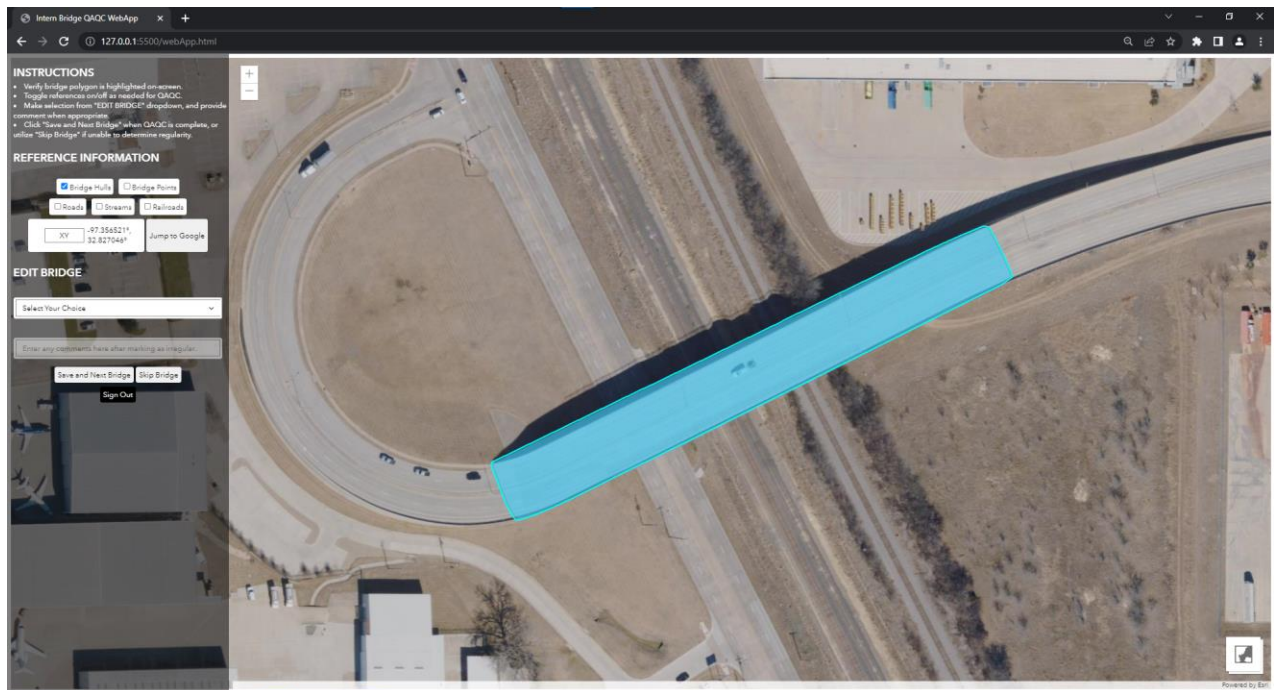
Bridge QA/QC Web App

User Guide

How to Use the Bridge QA/QC Web App:

Open page in Google Chrome –

Google Chrome is the recommended browser to run the Bridge QA/QC application



Side Bar Panel –

Side bar to the left of the screen contains brief instructions and an interface for operation.

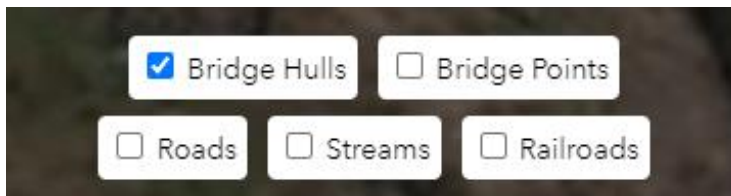
Bridge QA/QC instructions –

- Verify the app has zoomed to a bridge polygon requiring QC
- Toggle basemap and reference layers on/off (as required) to determine validity of polygon
- Move to Edit Bridge drop down menu, and select one option in either the Regular or Irregular categories
 - If Regular (Valid)
 - Choose option for “Regular Bridge”
 - If Irregular (Not Valid)
 - Choose appropriate option describing cause of irregularity
- Once category is determined and selected in drop down, click “Save and Next Bridge”
 - App will automatically zoom to the next polygon requiring QC
- If user is unable to determine cause of irregularity
 - Please use the “Skip Bridge” function
 - App will move on to the next available polygon requiring QC

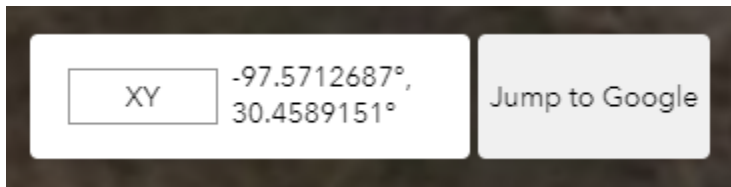
On Screen Instructions –

- Verify Bridge Polygon is highlighted on-screen
- Toggle references on/off as needed for QAQC
- Make selection from “EDIT BRIDGE” dropdown
 - Provide comment when appropriate
- Click “Save and Next Bridge” when QAQC is complete
- Utilize “Skip Bridge” if unable to determine regularity
- Sign out when finished with QAQC session

Buttons –



- Reference Layer Toggle Boxes
 - Allows user to turn on and off available feature layers references
 - “Bridge Hulls” layer renders as normally on (checked)



- Coordinate Readout
 - Provides user coordinate position of cursor while navigating basemap
 - Units adjustable
- Jump to Google Button
 - Opens new Google Maps browser tab correlating to on screen latitude/longitude
 - Street View can be utilized for improved familiarity of point of interest

Select Your Choice

Enter any comments here after marking as irregular.

Save and Next Bridge Skip Bridge

Sign Out

Select Your Choice

Regular Bridge

Regular Bridge

Irregular Bridge

Alignment

Complex

Culvert

Curved

Elevation

Newer

Tiny

Twoway

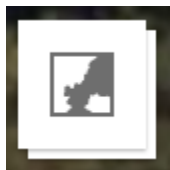
Vegetation

Other

- Edit Bridge Drop Down Menu
 - Contains QAQC determination outcomes for user selection
 - Regular
 - Irregular
 - Category of best fit
- User Comment Box
 - Space provided for user to give additional information supporting selection
 - Will be saved to “Comment” attribute in ArcGIS Pro
- Save and Next Bridge Button
 - Saves QAQC determination selection then zooms to and highlights next bridge requiring QC
- Skip Bridge
 - Zooms to and highlights next bridge requiring QC
 - Returns skipped bridge to queue for later determination



- Zoom
 - Adjusts user view in and out as required
 - Mouse scroll wheel provides same functionality



- Basemap Layer Toggle Selection
 - Upon click, changes basemap layer to TxDOT Vector Tile Layer basemap

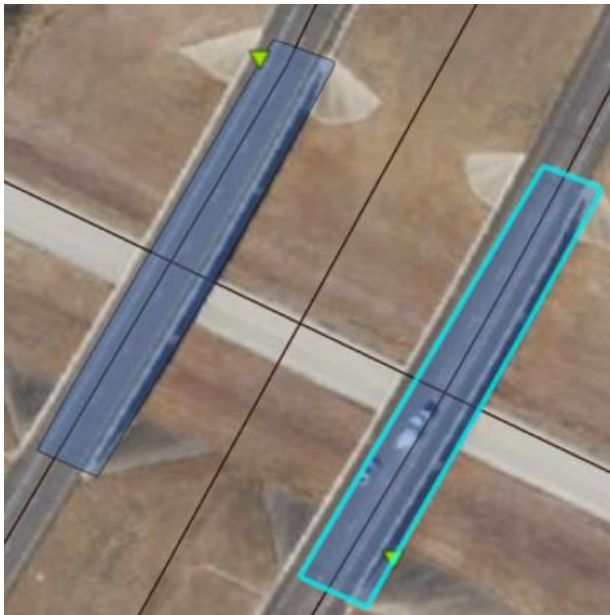
Determination Categories and Examples –

- Regular Bridge



- Length, width, and placement of polygon all accurately reflect bridge
- Intersects roadway
- Bridge point contained within polygon
- Transition between lower vegetation and elevated bridgeway clearly defined

- Alignment/Shadow



- Polygons not centered over road, shifted to the right
- Both polygons include shadows created by the elevated roadway

Determination Categories and Examples (Cont.) –

- Complex



- Where many overpasses or bridges converge in confined area
 - LiDAR unable to separate
- Polygon does not accurately represent intersections of multiple roadways
- Unable to distinguish between individual elevated roadways
- Each bridge needs to have its own separate polygon

- Culvert



- Polygon represents appropriate length of bridge, but not width or placement
- Not intersected by roadway
- Not within proximity of any NBI point

Determination Categories and Examples (Cont.) –

- Culvert



- Polygon generated does not reflect curvature of the road
- Additional area created within the convex hull

- Elevation



- Polygons not aligned with center line of elevated roadways
- Seem to be centered on shadows produced by elevated bridges

Determination Categories and Examples (Cont.) –

- Newer



- Bridges that have been built or altered since the LiDAR imagery was collected
- Creates bridge polygons that are representative of older bridges
 - No longer accurate
- Polygon does not intersect with correlating bridge in imagery

- Tiny



- Low area polygons generated by LiDAR
- Seemingly not representative of a bridge
- Usually found in proximity of legitimate bridge polygons
- Often found within patches of shadows and dark vegetation

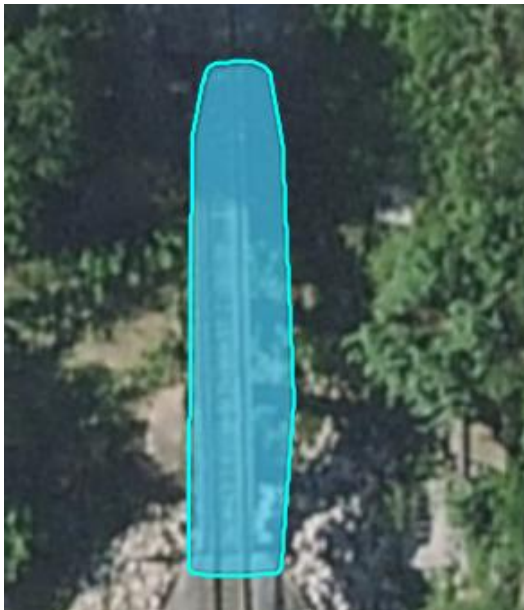
Determination Categories and Examples (Cont.) –

- Two-way Parallel Bridges



- Individual bridges not detected by LiDAR
- Single irregular polygon created
 - Created by inclusion of walking path along water below bridges

- Vegetation



- Polygon shape non-rectangular
 - Potentially caused by dense tree line surrounding bridge
- Dark vegetation and shadow obscure view of bridge extent

- Other

- Polygon phenomena not already described by existing categories
- Add comment when utilizing “Other” category