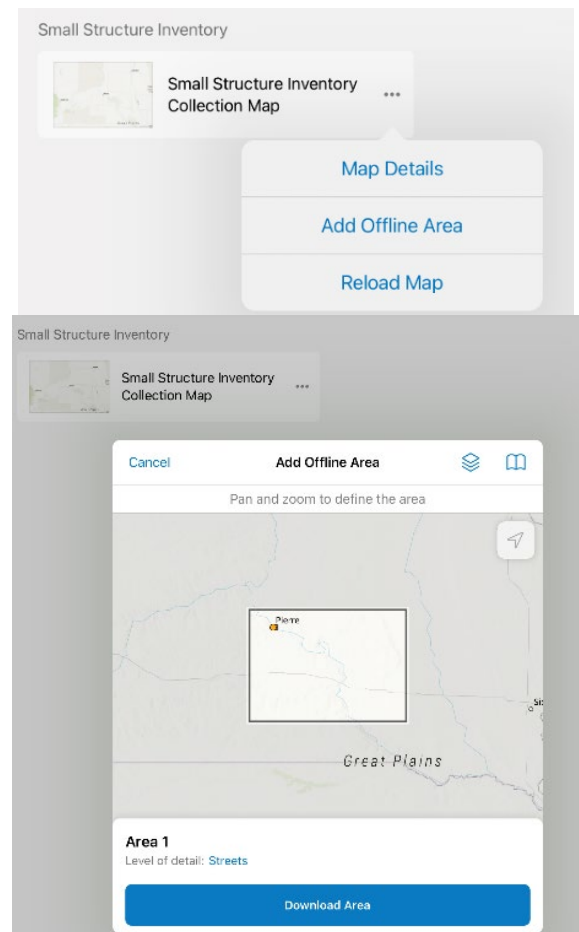**South Dakota Small Structure Inventory**
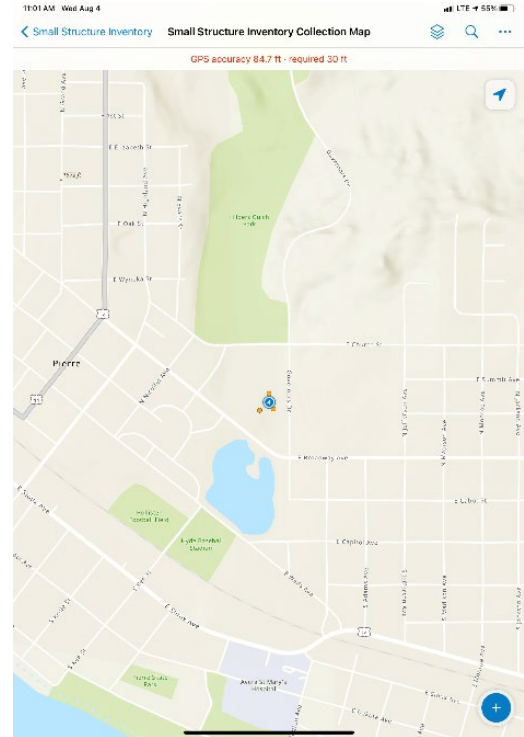**Mobile GIS Application Instructions**
August 16, 2021

ArcGIS Collector or ArcGIS Field Maps can be used for small structure inventory collection, if you have an ArcGIS Online account. Online accounts must be obtained from ESRI (https://www.esri.com/en-us/ arcgis/products/arcgis-online). The South Dakota Department of Transportation cannot provide ArcGIS Online accounts. The following instructions pertain to either Collector or Field Maps. The screens may vary depending on the app, device (iOS or Android), and orientation of the device.

1) If you have an ArcGIS Online account and want to collect via mobile app, please contact the SDDOT GIS Coordinator (kimberly.zerr@state.sd.us, 605.773.3278) to be added to the editing group.

2) After you receive notification from the SDDOT that you've been added to the group, use your account credentials to sign in to Collector or Field Maps. A new group called Small Structure Inventory should appear. Within that group, you should see a map called Small Structure Inventory Collection Map.

3) If you are collecting inventory data in a location with good cellular service, tap on the map tile and skip to Step 4 to work with the live map. If you are in a location that does not have good cellular service or if your device does not have cellular data capability, you must download a portion of the map to work offline.
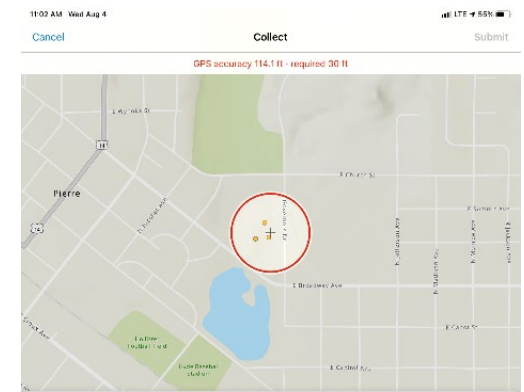

   a. To download a portion of the map, tap on the 3-dot button next to the Small Structure Inventory map tile and select Add Offline Area.

   b. Pan and zoom the map and adjust the level of detail to select the area you want to download. The inside square outlines what will be downloaded. Tap Download Area.

   c. When the area is downloaded, the map tile will say "On Device". Tap on the Area # map tile to open the map.

   d. If you are working with a downloaded area, please remember to sync. If Auto-Sync is not turned on in your settings, make sure you manually sync periodically. Go to the main map screen and tap on the double arrow on the right side of the top panel. Then tap the Sync button on the left panel. Make sure you have a strong data or wi-fi connection when syncing.

4) The map shows your location (blue dot) and locations of any culverts (orange circles) or small bridges (dark red squares). To add a new structure, tap on the plus button in the lower right corner, then select the type of small structure you would like to add.

5) Tap the Add Point button to add the feature where the crosshairs are showing on the map. The button will be red when the GPS accuracy is not within the tolerance specified in the app settings and blue when it is. You can also move the map to adjust where the crosshairs are pointing.

6) The app presents inventory data fields in the order listed in the Small Structure Inventory Handbook. Tap on each data field to enter inventory information. Select the best option if a list of choices is provided. Type in responses if no list is provided.

7) Tap the Take Photo button to use the device's camera to add photos. The Small Inventory Handbook recommends taking five photographs at specified locations, but others may be included.

8) When all data fields and photos have been added, tap on Submit in the upper right corner of the screen. If are working with the live map, tapping Submit sends the data directly to the Statewide Small Structure Database. If you downloaded the map, tapping Submit saves your edits locally on the device. Data will be transferred to the Small Structure Database when you sync later. (See section 3)d regarding syncing.)

9) To edit an existing small structure on the map, tap on the symbol representing the one you want to edit. Tap on the pencil icon at the bottom of the left panel. Then use the same process you used to add the structure to update the data or pictures.

10) If you have questions or problems with the map or app, please contact the SDDOT GIS Coordinator, Kimberly Zerr, at kimberly.zerr@state.sd.us, 605.773.3278.