



StEER
STRUCTURAL
EXTREME EVENTS
RECONNAISSANCE

Using the Mobile App

Quick Reference Sheet

Version 1.0

Released Mar 3, 2023

StEER currently utilizes Fulcrum, a commercial form-builder and data collection platform produced by Spatial Networks Inc., for its structured assessments. The StEER Fulcrum apps are designed to provide a standardized, step-by-step process for capturing post-disaster data and metadata. Users must install the Fulcrum mobile app from the Apple or Google Play store. Users can also access collected data through the Fulcrum web platform (www.fulcrumapp.com).

GETTING STARTED

- Log into the Fulcrum app with the email and password you created.
- Go into Fulcrum App's setting menu set Photo Quality = Native, Photos Save to Camera Roll/Gallery = Enabled, Auto-Sync After Launch = Enabled and:
 - **Weak Connectivity/Limited Data Plan:** Auto-Sync Record Edits = WiFi Only, Sync Settings to WiFi Only for Videos, Audio and Photos
 - **Strong Connectivity/Unlimited Data Plan:** Auto-Sync Record Edits = Always, Sync Settings to Always for Photos and WiFi Only for Videos and Audio

USING StEER APPS IN FULCRUM

- Click the symbol that looks like a circular pair of arrows (at any time) to synchronize your app with the cloud database; arrows will spin while synchronizing.
- From the Home menu (House Icon) in the app, users can tap the Apps menu to access all the Apps available to them.
- Access any app by clicking on an app from the list.
- The app can display the existing records (if present) through one of two views: 1) **List View** sorted by date updated or 2) **Map View** showing the geolocated points.
- Within the app, create a new record by pressing the "+" icon.
- Each app consists of a series of high-level sections and drill-down sections, with numeric, text, single/multiple-choice fields, as well as media capture (photos, audio dictations, videos). Clicking on Save in the upper right corner will save the record.
- The app intelligently presents the necessary fields and guidance based on responses to **Required Fields** denoted by red asterisks (*)
- Clicking on the **More Information** icon launches a pop up with explanations.
- Clicking on the **Layers** icon, users can access available basemaps such as aerial maps, polygons, or points that can help to guide the assessor.
- **Convention:** Start at front of structure = slide 1, walk counterclockwise to right side = side 2, walk to the rear = side 3, walk to other (left) side = slide 4. Designate the side in the caption field of the app associated with collected photos (or can include a placard in the photo with this number).



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- First time users should create some practice records to become familiar with the app.

APP STRUCTURE (see organization of app in the table below)

- To increase efficiency in the field, the app is sequenced to prioritize the following:
 - capturing clear photographs of the site and structure from all sides;
 - accurately geolocating the structure by tapping the **crosshair symbol** and moving it over the center of the structure being assessed.
- Users then select from three primary survey classes, most commonly the **Performance Assessment**, which can be conducted at one of three levels of detail.
- Users should at minimum complete the app fields labeled as “**(Field Priority)**”
- Users are encouraged to also note any unusual or unique characteristics of the structure that would affect its performance through freeform notes and added media.

| | |
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| App Selection | Desired survey and assessment type, based on hazard & structure |
| General Information | Survey parameters, spatial data |
| Supplementary Media Attachment | Media on structure, site |
| Survey Classes | <i>(adapts based on choices in App Selection)</i> |
| Hazard Survey | Select to document evidence of hazard intensity. |
| Geotechnical Survey | Select to document evidence of geotechnical impacts |
| Performance Assessment | Select to document evidence of hazard impacts to built environment |
| Facility Information | Basic structure information, typology |
| Damage Information | <i>(adapts based on choices in App Selection)</i> |
| Basic Assessment (BA) | Photo documentation, overall conditions, global damage rating |
| Load Path Assessment (LPA) | Documentation and evaluation of critical load path elements |
| Direct Component Assessment (DCA) | Detailed component information, dimensional data, specifications |
| Facility Information | Documents functional recovery/recovery state |
| Record Update Tracking | Notes on quality control, record updating |



- Synchronize at the start and end of each day in the field (use WiFi).
- Ensure device GPS is enabled & precision settings are set to high accuracy (positioning by GPS, WiFi & Mobile); verify GPS capability at all times.

