1. Mobile App

1.1. Signing Up

1. **To create an account**, enter first name, last name, email, password, and optional Team Code (up to 6 alphanumeric characters). All users who wish to coordinate as part of the same team (and be visible to their account Team Admin or Ops Coordinator) must use the same team code.
2. **To approve a new team member**, the Team Admin or Ops Coordinator for the team will receive an email notice to approve or decline a user attempting to join their team. The Team Admin must log into their account at https://cert.disastersurveyor.com/ and approve or decline the requested user. Both on the home page after logging in, and in the 'Account' section of the website will appear a red notice with name, email and links to click for 'approve' or 'decline' (figure 3).
3. Upon creating an account, the top header of the home screen will display "Pending" following the requested Team Code, if the user has not yet been approved to join the team (figure 1). Upon approval, the top header will turn blue without the words "Pending" (figure 2).
4. If the user has not signed up with a Team Code, the top bar on the home screen will display "CERT Surveyor" instead of a Team Code. A welcome email is also sent to all users who sign up.
5. **To change your team code**, tap the "Team ID" bar at the top of the home screen to go to the Team Code screen. Here, the user can change their Team Code, and a new approval request will be sent to that Team Code's Team Admin.

Figure 1. Home screen pending

Figure 2. Home screen approved

Figure 3. New team member approvals

1.2. Logging in

1. **To log into the app**, enter email and password for your account to log in. If the account is associated with a Team Code, the app checks if that user has been approved, and if approved, simply shows “Team Code: xxx” at the home screen top bar, where ‘xxx’ is the Team Code (figure 2). If the user has a Team Code associated, but has not been approved, the top bar displays ‘Pending’ and the top bar color turns orange (figure 1). If the user

does not belong to any Team Code, the top bar simply displays “CERT Surveyor”.

1.3. Home Screen

1. **To change your Team Code**, tap the top bar of the home screen displayed as either “CERT Surveyor” or “Team Code: xxx” to enter the Team Code update screen (figure 4).
2. **To go to Settings, Team Code or Guidelines**, tap the “menu” link on the upper right to go to the CERT Guidelines, App Settings, Team Code, and logging out (figure 5).

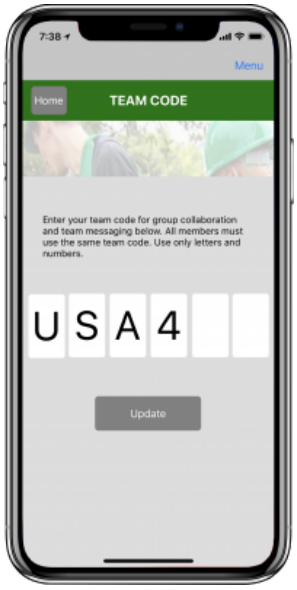


Figure 4. Team code screen

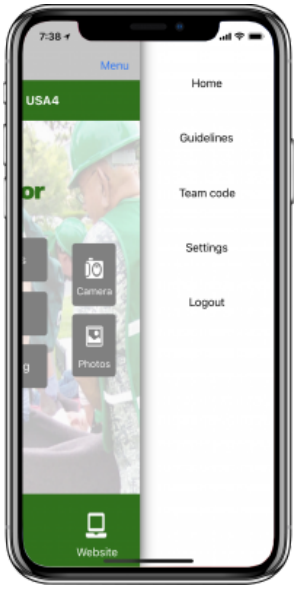


Figure 5. Side menu

1.4. GPS Tracking

1. **To access the GPS screen**, tap the”GPS Waypoints” button on the home screen (figure 28). The GPS home screen shows the current latitude and longitude, the current heading, USNG coordinates, altitude and accuracy numbers (figure 27). (IMPORTANT NOTE: It is highly recommended to use a smartphone or tablet device

that has Cellular Data capabilities, as some units without it do not include a dedicated Assisted GPS chip). The GPS data on the screen are in WGS84 datum and Decimal format (International Standards).

2. **To start GPS tracking**, tap the “Tracks on/off” button on the bottom left of the GPS screen. When you do, a green “Tracking On” indicator turns on, along with buttons for “Save Track” and “Reset Track” (figure 27). While Tracking is on, you may continue to use other features of the app. The same green indicator will display on the home screen of the app. The green “Tracking On” indicator can be tapped to pause tracking, which will turn the indicator orange (figure 28). Tapping the “Tracks on/off” button on the GPS screen will also toggle on/pause.
3. **To stop and save the current set of GPS tracks**, tap the “Save Track” button. This will save the current Track set and take you to the saved Track Sets screen with a default name (figure 29). To view your track set on a map, tap the name of the saved Track Set (figure 30).
4. **To turn off GPS Tracking and not save your tracks**, tap the “Reset Track” button after either pausing by tapping the green “Tracking On” Or “Tracks on/off” button on the bottom of the GPS screen (figure 27). The unsaved GPS Tracks will remain in memory until you tap “Save Track” or “Reset Track”.
5. **To rename a Track Set before uploading**, tap the Edit icon next to the Track Set name.
6. **To delete a Track Set**, tap the trash can icon next to the Track Set. To upload to the server, check the checkbox with the green checkmark (figure 29), then tap “Upload”.

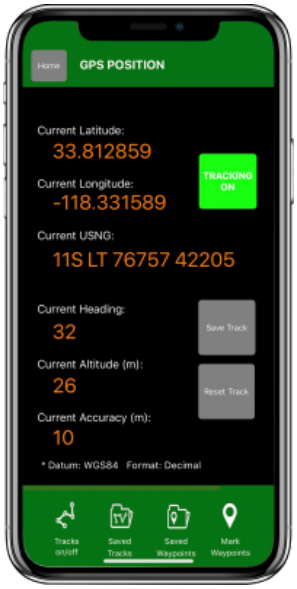


Figure 27. GPS screen

Figure 28. Home GPS indicator

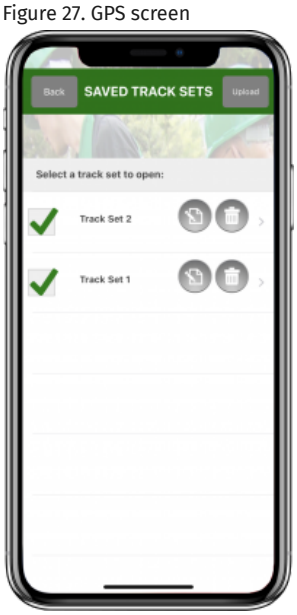


Figure 29. Saved tracks list

Figure 30. Tracks map

1.5. GPS Waypoints

1. **To save a GPS Waypoint**, tap the “Mark Waypoint” button on the bottom right of the GPS screen. This will take you to a screen with various GPS Waypoints to choose from (figure 31). Select the GPS Waypoint type and a detailed screen for the GPS Waypoint type appears (figure 32). This page will auto fill with the current GPS lat/lon, as well as the type of Waypoint and USNG coordinates. There are options to add notes in the “Waypoints Notes” field, as well as attaching photos to the Waypoint.

2. **To add a photo to the Waypoint**, tap the “Photo” button on the top of the Waypoint details screen (figure 32) or tap the empty photo icon. Once a photo is saved, tap “Save” to save your notes and/or photo, then tap “Done”.
3. **To add additional photos to the Waypoint**, tap the “Add Another Photo” button that appears below the thumbnail of the current photo thumbnail or tap the “Photo” button again at top.
4. **To manage your photos saved to the Waypoint**, tap the thumbnail of the photo. This will take you to the photo gallery screen, where you can delete photos by tapping the trash can icon for the photo thumbnail (figure 34b). To see a larger version of the photo, tap a photo thumbnail once to enlarge, then tap again to close. As a note, the last photo of the photo set is used as the current Waypoint photo thumbnail, but all photos in the photo gallery for the Waypoint are uploaded to the server, when you upload your Waypoints.
5. **To see a list of saved GPS Waypoints**, tap the “Saved Waypoints” button on the bottom of the main GPS screen (figure 27). This will display a list of all saved Waypoints in your device (figure 33). To see details of a saved Waypoint, tap the desired saved Waypoint. This will display the Waypoint details like figure 32.
6. **To see your saved Waypoints on a map**, tap the “Show on Map” button on the upper right of the “My Waypoints” screen (figure 33). Once on the map, you can tap an icon to delete via the trash can icon for it, or change the type of Waypoint by tapping the edit icon for the Waypoint, and picking a new Waypoint type (figure 34).
7. **To upload your saved Waypoints** to the server, check the checkboxes with the green checkmark for desired Waypoints and tap the “Upload” button (figure 33).
8. **To delete a Waypoint**, check the checkbox and tap the “Delete” button. (Important Note: if a Waypoint is currently assigned to a Sector form, you will first need to remove that Waypoint from the Sector Form it belongs to, before deleting from your list of Saved Waypoints). When finished, tap the “Done” button on the

upper left of the screen you are on to return to the GPS home screen (figure 27).

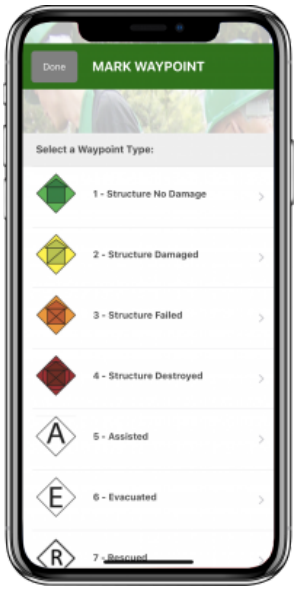


Figure 31. Waypoint select list

Figure 32. Add Waypoint screen

Figure 33. Saved waypoints list

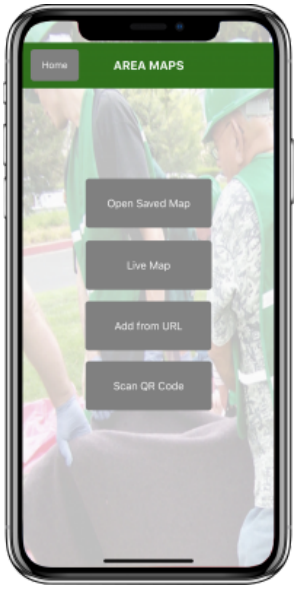
Figure 34. Waypoints map

Figure 34b. Waypoint photos

1.6. Maps

1. **To save a map for later use** (i.e. if you may be offline at your search and rescue site), tap “Live Map” from the Maps home screen (figure 35) to open a new live map (figure 36). If you zoom in to the areas of the map you will be using later, those objects and street names, buildings, and details will be saved for offline use if zoomed in and viewed, prior to saving the map. When done, tap “Save” at the top of the live map screen and your newly saved map will appear on the saved maps list screen (figure 37).
2. **To rename a map**, from the Saved Maps list screen (figure 37), tap the edit icon next to the map name.
3. **To delete a map**, tap the trash can icon next to the map name.
4. **To view a map**, tap the name of the saved map. This will open the saved map even in offline mode.
5. **To drop a map point**, on the saved map screen, tap and hold a point on the map and a pin will drop at that lat/lon point. Tapping the pin head will show details of the point created.
6. **To delete a map point**, tap the trash can icon for the point label that appears when you touch the pin.

7. **To toggle the map view**, tap the “Street” or “Satellite” button at the top of the map. (Note: For Android versions of the app, a “Terrain” option is also available.)
8. **To download a pdf map to use in the app**, tap the “Add from URL” button from the Maps home screen (figure 35). This will show a screen to enter a URL to a pdf map to download (figure 39). (Note: make sure to add http:// or https:// before your website address to make it a full URL). If your pdf map is very large in size, reducing the pdf map size to a smaller file is recommended. After download of the pdf file, the saved maps screen will be displayed with the name of your pdf map (figure 37). Tap the name of the pdf map to open (figure 40). If a map is left open and “Back” is tapped, followed by “Home”, Tapping on “Maps” from the home screen will directly go to the last opened map.
9. **To close a map**, tap “Close” on the upper right of the Map Details screen (figure 40).
10. **To scan a QR/bar code with a URL to a map to download**, tap the “Scan QR Code” button on the Maps main screen (figure 35). Put the QR/bar code in the red area of the camera view and the app will automatically detect and download the file if it is a valid pdf file. To open the map after saving, tap the name of the map in the Saved Maps screen in figure 37.



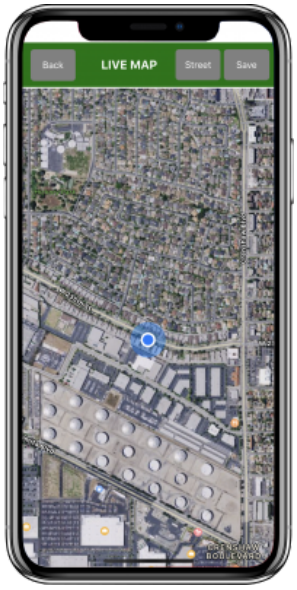


Figure 35. Maps home

Figure 36. Live map

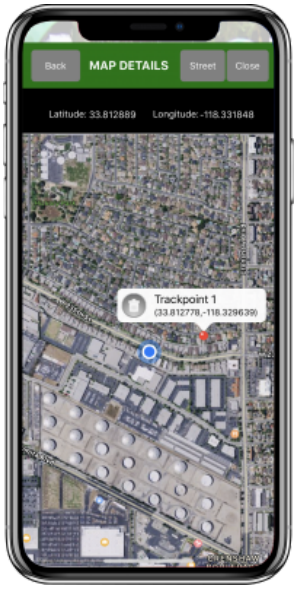


Figure 37. Saved maps

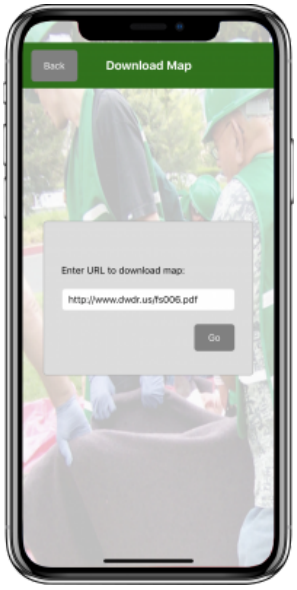


Figure 38. Saved map points

Figure 39. Download pdf map

Figure 40. View pdf map

Figure 42. Barcode scanner

1.7. Team Messaging

1. **To view team messages**, tap the “Team Messaging” button in the app home screen (figure 43). If a new team message exists, the icon will turn red to indicate a new unread message exists. Opening the team messages screen will remove the red indicator.
2. **To send a new team message**, enter your text message on the “Enter Message Here” line, then tap “Send” on the Team Messages screen (figure 44).
3. **To delete messages that belong to you**, tap the trash can icon next to your message. Your message will then be removed from the server and apps. (Note: The app checks for new messages upon opening or returning to the app home screen behind the scenes. All messages in your app are automatically refreshed to the latest set).

Figure 43. Message indicator

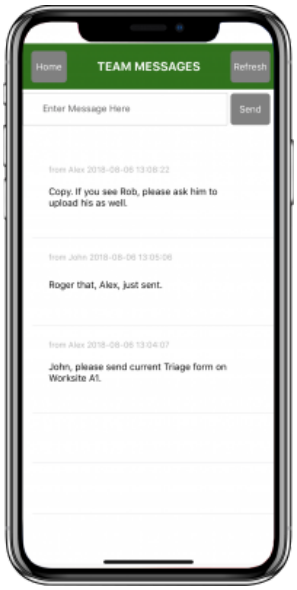


Figure 44. Team messaging

1.8. Team Code

1. **To view your Team code**, tap the top header bar of the app home screen (figure 43) or tap “menu” on the top right of the home screen and selecting “Team Code”. A screen with your current Team code will appear (figure 46).
2. **To change your Team code**, enter the team code on this screen and tap “Update”. The Team Admins and Ops Coordinators for the new team code will receive a notice to approve or deny your request. Until the request is processed, the top bar of your home screen will turn orange color with the words “Pending” attached (figure 1).

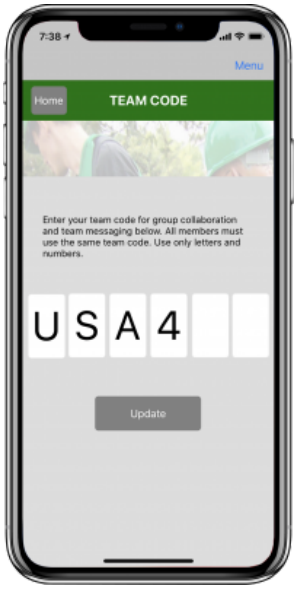


Figure 45. Team Code

1.9. App Settings

1. **To open the Settings screen**, from the app home screen, tap “menu” in the upper right, then choose “Settings”. You will be displayed the Settings screen (figure 47).
2. The **“Logged in as:”** displays which email address account is currently logged into the app.
3. **“Use Low Bandwidth”** setting: When set to “On”, the app will only upload minimal text based data for each of the forms to the

server to save on data. When set to “off”, any photos saved to forms or waypoints are also uploaded to the server.

4. **“Offline Mode”** setting: When set to “On”, the app will generate raw JSON code to share between devices for each form’s sharing option. Using Airdrop via Bluetooth or other device to device connection, the app can share form data directly to another user’s device with Disaster Surveyor installed. (Note: For iOS, offline sharing between devices is done through Airdrop. On the recipient side, the link shared should be opened in notes or an app that will show the link as a hyperlink, then tapping the link will automatically open the form in the app.)
5. **“Form Language”** setting: This change the interface Language to a different language. Currently supported languages are English and Spanish (figure 50).
6. **“GPS Tracking Interval”** setting: This is the GPS tracking interval time that the app waits before querying the location services of the app for the current geolocation coordinates.
7. **“GPS Tracking Distance”** setting: This is the minimum distance delta that the device geolocation services must report back to save a position during tracking.
8. **“Compass Calibration”** setting: When turned “On”, the device will display the compass calibration tool for each device platform when compass calibration is needed. This is turned “off” by default to prevent excess compass calibrations during most use cases.

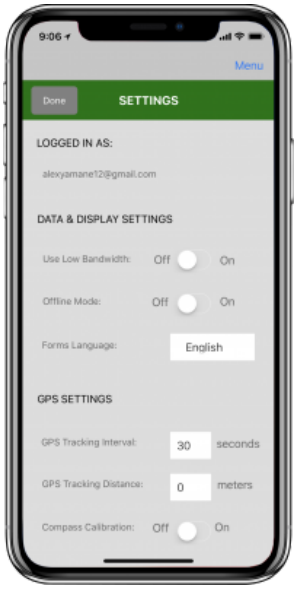


Figure 47. App Settings

Figure 50. Spanish interface

1.10. Photos and Cameras

1. **To view all photos in the app**, tap “Photos” on the right side of the app home screen (figure 48).
2. **To take an unassigned photo**, tap “Camera” on the right side of the home screen. This will add a photo to the app that is not yet assigned to any form or waypoint. To have a photo assigned automatically to a form or waypont, it is recommended to just take a photo on the Waypoint details screen, Add New Waypoint screen, or while a form is open using the “Camera” or “Photo” options in the menu bar of the form details.
3. **To delete a photo**, tap the trash can icon for the photo thumbnail.
4. **To disassociate a photo from a waypoint**, tap the “trash can” icon for the thumbnail. Please note that this will also delete the photo from the main photo gallery as well.
5. **To make the photo larger**, tap the photo thumbnail, then tap again to close (figure 48b).

Figure 48. Photo gallery

Figure 48b. Enlarged photo

1.11. Account Website + Tools

1. **To visit the account website from the app**, tap the “Website” icon on the bottom right of the home screen. This is the mobile friendly version of the website at https://cert.disastersurveyor.com. (Note 1: the mobile version of the website has a few management options removed due to space constraints. It is recommended to always use the full desktop browser version of the site for Team Admins and Ops Coordinators. Note 2: Users of organizations and countries with their own custom management website will open their websites.).

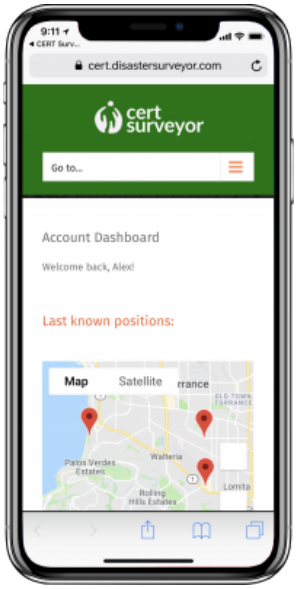


Figure 49. Account website

1.12. Other App Functionality

1. All GPS track sets and GPS waypoints reside in the app until they are uploaded to the server. All data always stays in the app, even if the uploaded data is deleted on the team management website. In the case of accidental deletions, simply re-upload the data from the mobile app again.
2. If a user logs out and a new user logs in, the data from all users still reside in the app. When any data is uploaded to the server, the currently logged in user is marked as the person associated to those GPS Track sets and GPS Waypoints.

2. Team Management Website

2.1. Account Home

1. **To view last known locations of your users**, log into the appropriate website with your Team Admin or Ops Coordinator account (https://cert.disastersurveyor.com).

Upon logging in, a list of all team members is listed below the map (figure 51). Clicking on the placemark on the map for each user displays their name, Team Code, date/time, and lat/lon coordinates. (Important Note: These points are saved when a team member opens the CERT Surveyor app and is viewing the app home screen.)

2. **To approve or decline new users to your team**, simply click either the 'approve' or 'decline' links at the top of the website home or in the 'Account' page (figure 51b). Only users who are approved are shown the contents of the Team Messaging feature and files, images, and waypoints data shown on the team account for Team Leaders and Ops Coordinators.

Figure 51. Team members map

Figure 51b. New user approvals

2.2. GPS Track Sets

1. **To view uploaded GPS Track sets**, click on the “Tracks” link in the top menu (figure 71). Team members whose data appears on this page is displayed at the top of the page and can be edited in the “Account” section of the website.
2. **To view individual tracks for a Track set**, click on the name of a Track set or the “View Tracks” link for the desired Track set on a map (figure 72).
3. **To download a GPX file of a Track set**, click the “GPX File” link for the desired Track set (figure 73).
4. **To download a KML file of a Track set**, click the “KML File” link for the desired Track set (figure 73).
5. **To delete a Track set**, click the “delete” link for the desired Track set.
6. **To sort the Track set display**, select sort by “Track sets name”, “Created datetime”, “Track set lat/lon” or “Saved by name” in the drop down at the top left of the screen.

Figure 71. GPS Tracks home

Figure 72. GPS Tracks map

Figure 73. GPX/KML download

2.3. Photos

1. **To view all photos for the team**, click on the “Photos” link in the top menu (figure 74). Photos are displayed for users that are currently selected for display in the “Account” section of the website. These users are listed at the top of the page.
2. **To view a preview of the thumbnail**, move the mouse over a thumbnail (figure 74).
3. **To view a full size of the photo**, click on the “Open” link under a photo.
4. **To delete a photo**, click the “Delete” link under a specific photo or check the checkbox above the thumbnails next to the title of the photo and click the “Delete checked photos” button above the rows of photos.
5. **To sort the Photo gallery display**, select an option for the “Show photos for:” drop down at the top. Options include “All Forms” or a specific form the photos belong to.

Figure 74. Photo gallery

2.4. GPS Waypoints

1. **To view GPS Waypoints uploaded by the team**, click on the "Waypts" link in the top menu (figure 75). GPS Waypoints are displayed for team members selected for display in the "Account" section of the website. A list of which team members' data is shown is displayed at the top of the page.
2. **To see a map of where the GPS Waypoints are located**, check the checkboxes next to the desired GPS Waypoints on the left most column, then click the "map" button above it (figure 76).
3. **To delete multiple GPS Waypoints**, check the checkboxes and click the "Del" button on the bottom of the list.
4. **To download a GPX file of the Waypoints**, select the checkboxes for desired Waypoints and click the "Download GPX" link on the upper right of the page.
5. **To download a KML file of the Waypoints**, select the checkboxes for desired Waypoints and click the "Download KML" link on the upper right of the page.
6. **To download an Excel file of the Waypoints**, select the checkboxes for desired Waypoints and click the "Download Excel" link or Excel icon on the upper right of the page. The Excel file will include both the Waypoint icons as well as thumbnails of any photos saved for each Waypoint (figure 77).

Figure 75. GPS Waypoints list

Figure 76. GPS Waypoints map

Figure 77. GPS Waypoints download

2.5. Team Messaging

1. **To view all team messages**, click on the “Msgs” link in the top menu (figure 78).
2. **To send a message to the entire team**, the Team Admin or Ops Commander can enter a new message to the entire team in the open box at the top of the page, and click “Send” to have it show as a pending message on the app home screen (i.e. the Messages icon on the bottom left of the app home screen will turn red).

3. **To delete a specific team message**, click on the “Delete” link next to that message.

Figure 78. Team messages

2.6. Account Settings

1. **To view the team account settings**, clicking on the “Account” link in the top menu (figure 79). Team Admins and Ops Coordinator users will see a list of their team members on this page. Standard users will only see a set of fields to update their account first and last names, email and password, as well as to update their Team Code.
2. **To select team members data to display**, check the checkbox next to the person’s name in the far-left column, then click “Save” at the bottom of the list. To confirm that those users are now appearing on your website account, click on the “CERT Surveyor” logo on the upper left, and confirm these team members are displayed below the “Last Known Location” map.
3. **To change the team member account level**, select the desired account level for that user in the “Account Type” drop down for that user. This option is only available to Team Admin accounts.

The options available are: “Standard User”, “Observer”, “Ops Coordinator”, and “Team Admin”. A “Standard User” can only see their own data when logged into the website. The “Ops Coordinator” account can see and manage all team member data with the exception of not being able to change the access levels for team members. The “Observer” account is just like “Ops Coordinator” but with “view only” restrictions on the entire website. The “Team Admin” account is the master account for your team that can change team member access levels as well as manage every aspect of their team account. After setting desired access level changes, click the “Save” button below the set of team member names.

4. **To share a team member’s data with an external team**, click the “Select Teams” button in the “Share with external team” column, and check the checkbox for one more Team Codes and click “Save”. Once set to share, those users will appear on the Account page for the team code they are shared to.
5. **To unshare a team member with an external team**, click the “unshare this user” link next to the drop down list of shared Team Codes.
6. **To remove a team member from your team**, click on the “Remove from my team” link. Once a member has been removed from your team, they will need to re-request being added back to your team by updating their Team Code in the app’s “Team Code” settings screen. When a user is removed from an existing team, their Team Code will be removed from their app, and the top bar of the home screen of the app will just display “CERT Surveyor” instead of the Team Code they belong to.
7. **To approve or decline a new member for your team**, click on the “approve” or “decline” link next to the new requesting member’s name. This section will appear at the top of both this “Account” page as well as on the website dashboard home.

Figure 79. Account settings