**INDIANA DEPARTMENT OF TRANSPORTATION**
*Driving Indiana's Economic Growth*

100 North Senate Avenue
Room N925CM
Indianapolis, Indiana 46204

PHONE: (317) 232-5456
FAX: (317) 232-5551

**Michael R. Pence, Governor**
**Brandye L. Hendrickson, Commissioner**

October 1, 2015

**CONSTRUCTION MEMORANDUM**
**14-12**
**REVISED**

TO: District Deputy Commissioners
District Construction Directors
District Technical Services Directors
District Area Engineers
District Traffic Engineers
District LPA Coordinators
Project Engineers/Supervisors
Field Engineers
Office of Material Management

FROM: Mark A. Miller, Director
Division of Construction Management and District Support

SUBJECT: Implementation of the SM-652 Field Assistant Application for Concrete Test Methods of Relative Yield, Slump, and Air Content

The purpose of this memorandum is to notify all field personnel of the implementation of the SM-652 Field Assistant application for concrete test methods of T-121 relative yield, T-119 slump, and T-152 air content.

Effective Tuesday, October 14th, all field personnel performing a concrete test method listed above that requires a SM-652 record must use the SM-652 Field Assistant application either via an iPad or computer to enter test information into SiteManager. Paper SM-652 records are no longer an acceptable method of documenting concrete tests but can be used temporarily when a device is not available to be used in the field. The intent of this application is to minimize the amount of field hand calculations, potential errors, and to give more functionality and versatility to the field personnel that are taking the concrete test. Furthermore, this application is to be used as a resource for getting the test record information to SiteManager without being logged into the Citrix application, authenticating thru Phone Factor, or having internet connectivity. However, test record information can be modified at a future time by logging into SiteManager directly.

This field application does not serve as a replacement for concrete test certifications or understanding of concepts. When Independent Assurance personnel perform their annual testing procedure inspection, field personnel will be able to utilize the application without needing to perform hand calculations. The purpose of annual testing procedure inspections is to confirm that field personnel have an acceptable level of understanding of the testing concepts and not to confirm the ability to perform hand calculations.

For more information and training material regarding the SM-530 Field Assistant application, please refer to the training manual found on the SharePoint website under *Shared Documents/Field Assistant Training Documents* or by clicking the following hyperlink (Training Manuals).

Any questions or SharePoint access requests should be directed to Ellis Holder at 317-232-0678, eholder@indot.in.gov or through assigned to your District Field Engineer of the Division of Construction Management.

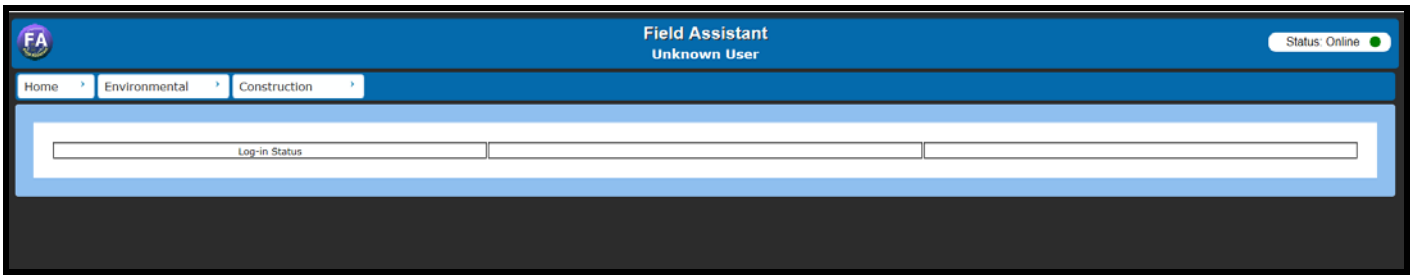
MAM/GGP/ekh

# Field Assistant 652

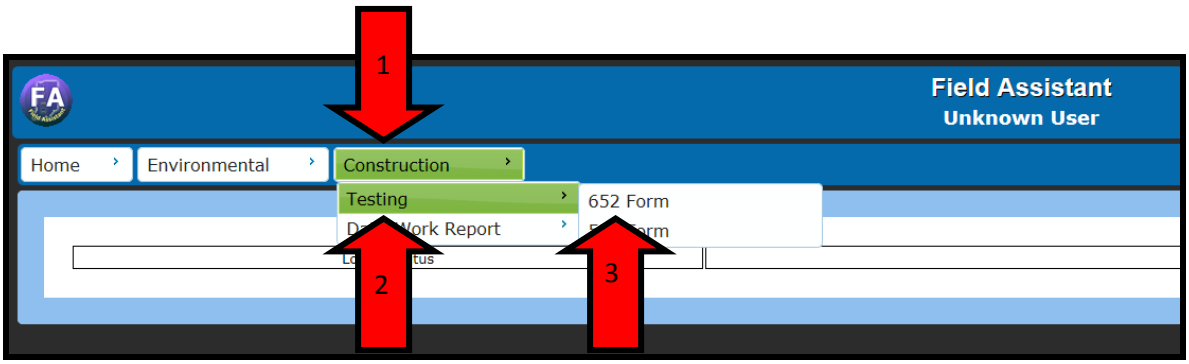
## *https://fieldassistant.indot.in.gov*

Enter the above URL into your browser or Google search INDOT Field Assistant to navigate to the Field Assistant website.

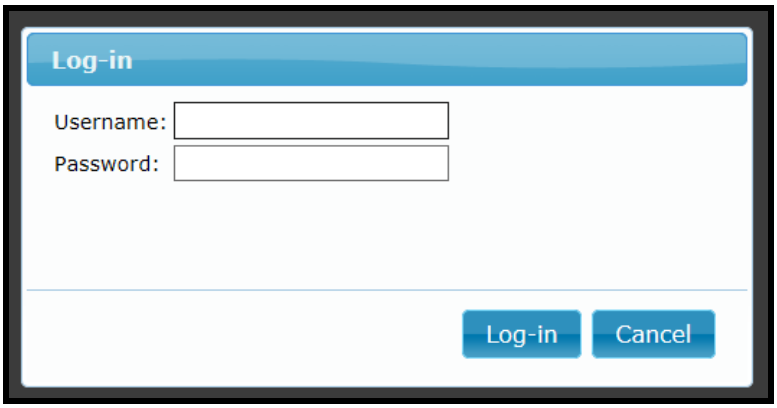
The below image is the Field Assistant Homepage.



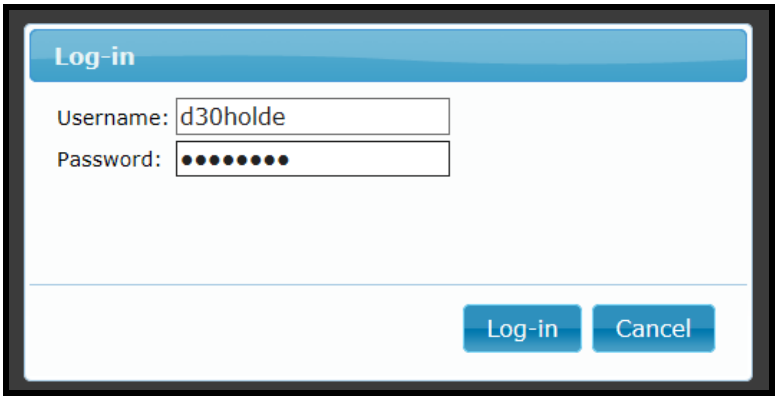

1. Hover over or touch the Construction tab
2. Click or touch the Testing option
3. Finally click or touch the 652 Form option



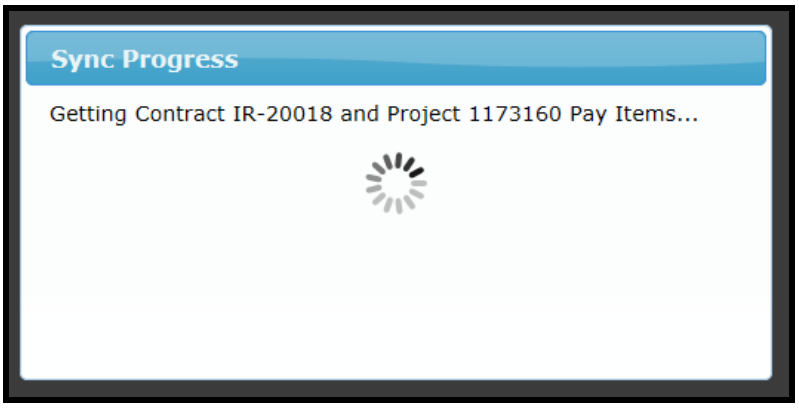
The Field Assistant validates who you are by your SiteManager user ID and password.




Please enter your SiteManager user ID and password then click or touch Log-in.

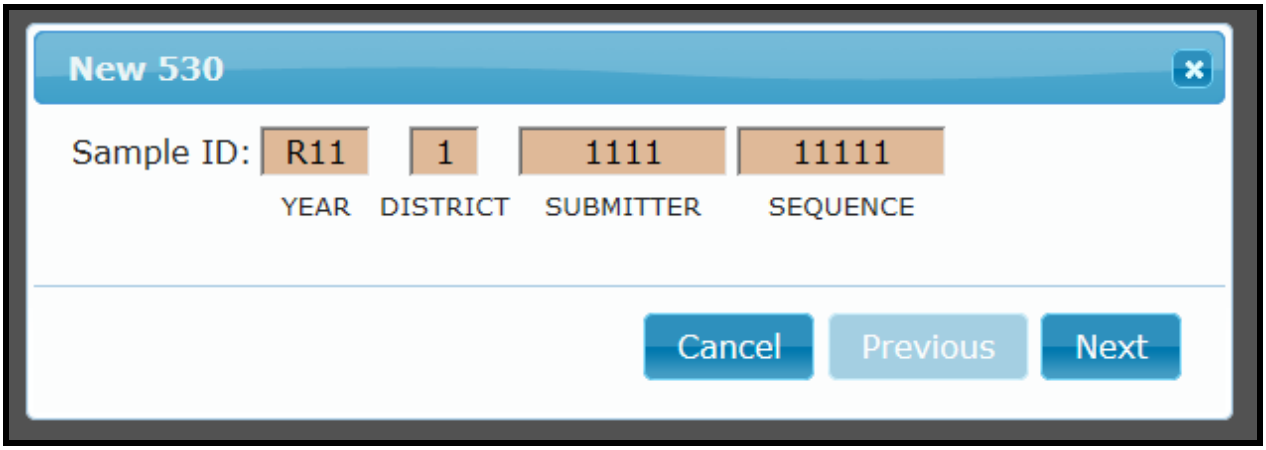


The Sync Progress screen will appear and indicates that the Field Assistant is downloading all Contract information from SiteManager that you have Contract Authority on.

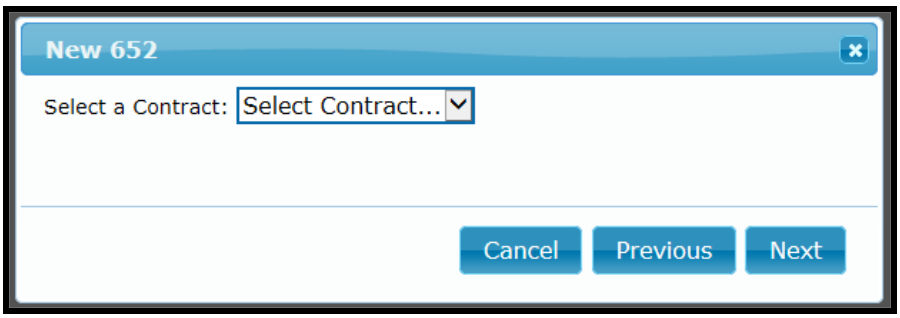



The Sample ID wizard will appear, Sample ID's must contain a capital R and 12 numbers. To build a Sample ID follow the steps below. Once the Sample ID is built click or touch Next.

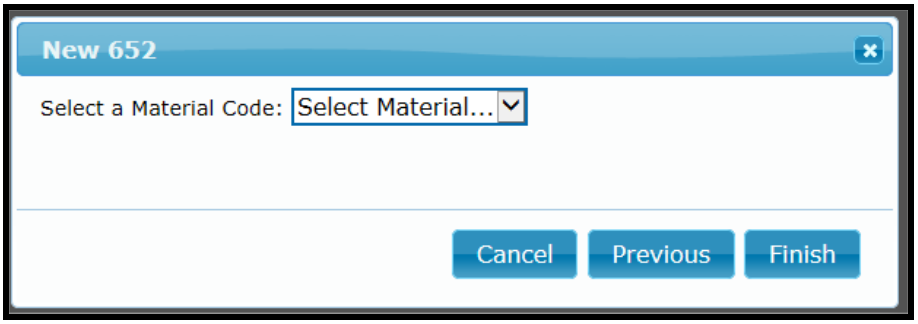
- R = Report
- First two number indicate the year the Sample was made
- Third number indicates the District the Sample was taken in
- Numbers Four through Seven indicates the submitter number of the person entering the Sample. The submitter number to be used will be at the discretion of the PE/S on all Samples submitted for each specific contract.
- Numbers Eight through Twelve can be any sequence of numbers at the discretion of the PE/S.



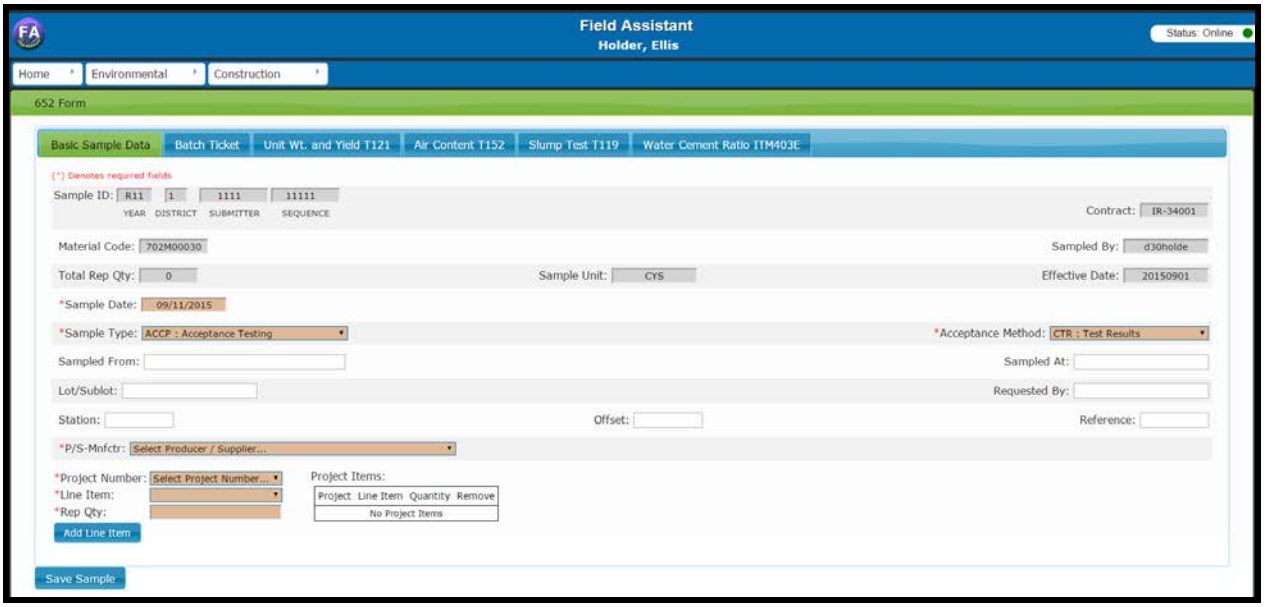
Select the Contract ID from the dropdown provided you want to associate the Sample to then click or touch Next.



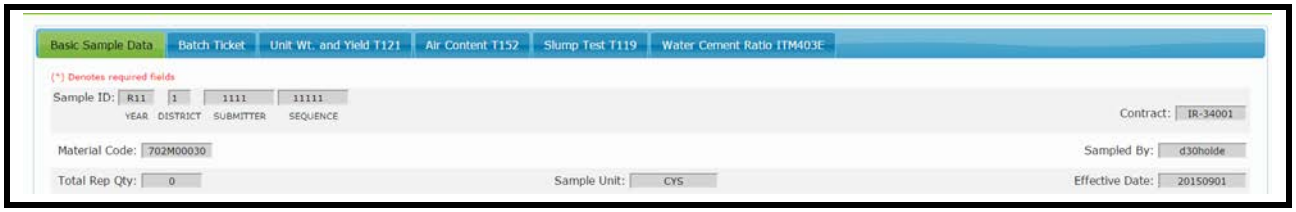

Select the Material Code from the dropdown provided that the Sample being submitted is relevant to then click or touch Finish.




The 652 form will then appear



Any fields shaded in gray are auto populated and cannot be changed unless the current Sample ID is deleted and a new ID is created.

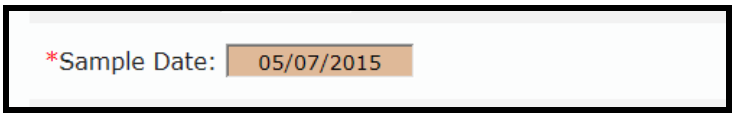



Any fields that are shaded in peach and have an (*) are required fields and must be populated to push the Sample to SiteManager. Any fields that are white are optional fields and are not required to push the Sample to SiteManager. Material Codes for 501, 502 and 506 concrete must have a Concrete Mix Design (CMD) recorded.

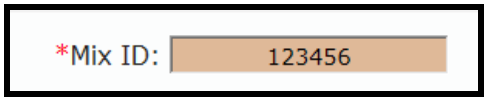
To fill out the 652 Form please follow the steps listed below.

- The Tab key on the keyboard of the PC or iPad work to move from field to field. On the iPad you can use the touch screen to move in between fields as well.

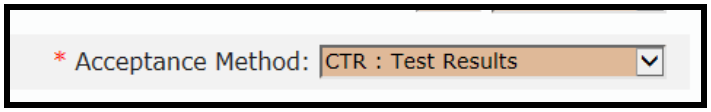
1. Sample Date auto populates with the date the Sample was created but can be changed to a day prior to that date. SiteManager Data Entry Policy still applies; all samples should be entered within two days of taking the sample. The Log Date in SiteManager will be the date the sample is pushed to SiteManager.



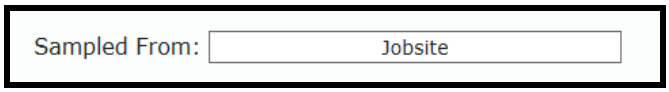

2. Mix ID is required when entering a 652 for all 501, 502 and 506 material codes. On all other material codes this field will not appear.



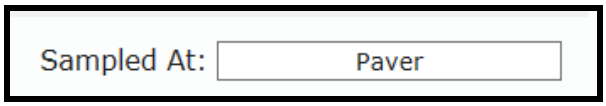

3. Sample Type and Acceptance Method are defaulted to Acceptance Testing and Test Results but can be changed by selecting different options on each dropdown provided.

4. Sampled From is optional but represents where the sample was taken from in general (Jobsite, Plant).



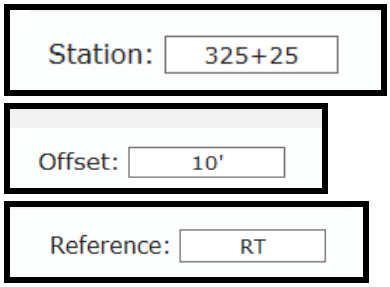

5. Sampled At is optional but represents where the sample was taken from specifically (Paver, Truck, Stockpile).



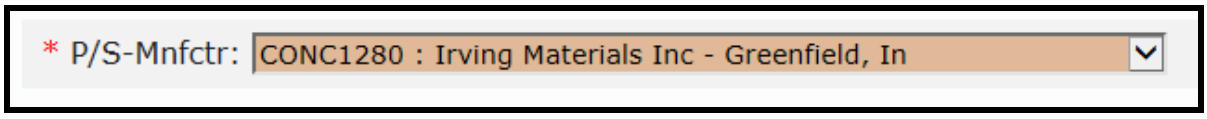

6. Lot/Sublot is required when entering a 652 for QC/QA PCCP only. Any other samples this field will appear white and the asterisk will disappear.


7. Requested By is optional but represents who asked you to pull a sample for testing.

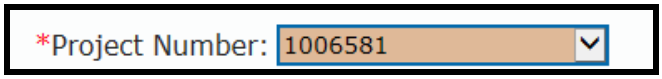
8. Station, Offset and Reference are all listed as not required but is strongly recommended to be filled out when submitting a QC/QA PCCP sample.



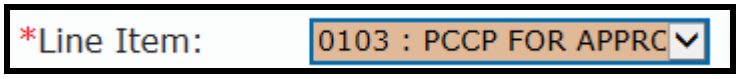

9. P/S Mnfctr is required on every sample submitted for testing and represents who manufactured the material being tested. Select the P/S Mnfctr from the dropdown provided.



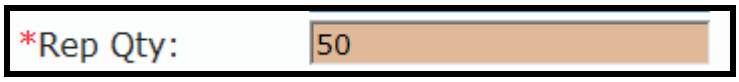

10. Project Number is required on every sample submitted for testing and represents what project the item is listed on in the Pay Item List. Select the Project Number from the dropdown provided.




11. Line Item is required on every sample submitted for testing and represents what Pay Item this sample is associated with. Select the Item Number from the dropdown provided.

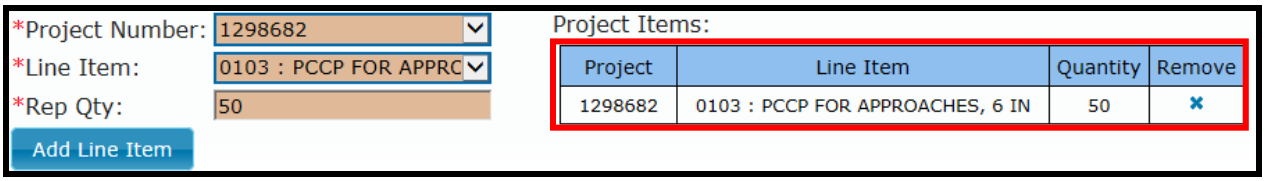


12. Rep Qty is required on every sample submitted for testing and represents the quantity this sample represents per the Frequency Manual.



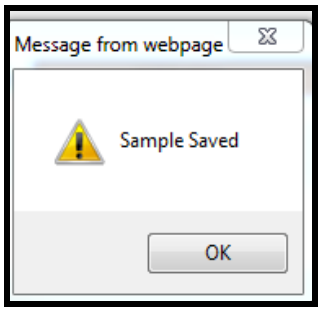

13. At this point you must click or touch Add Line Item for the Field Assistant to save the Project, Lin Item and Rep. Qty. You can add additional Items to the sample by repeating steps 11 – 14.


14. Once you have clicked or touched Add Line Item the Contract Line Items grid will populate with all Pay Items that have been associated with this sample. You can remove a Pay Item by clicking or touching the X located under remove in the grid.



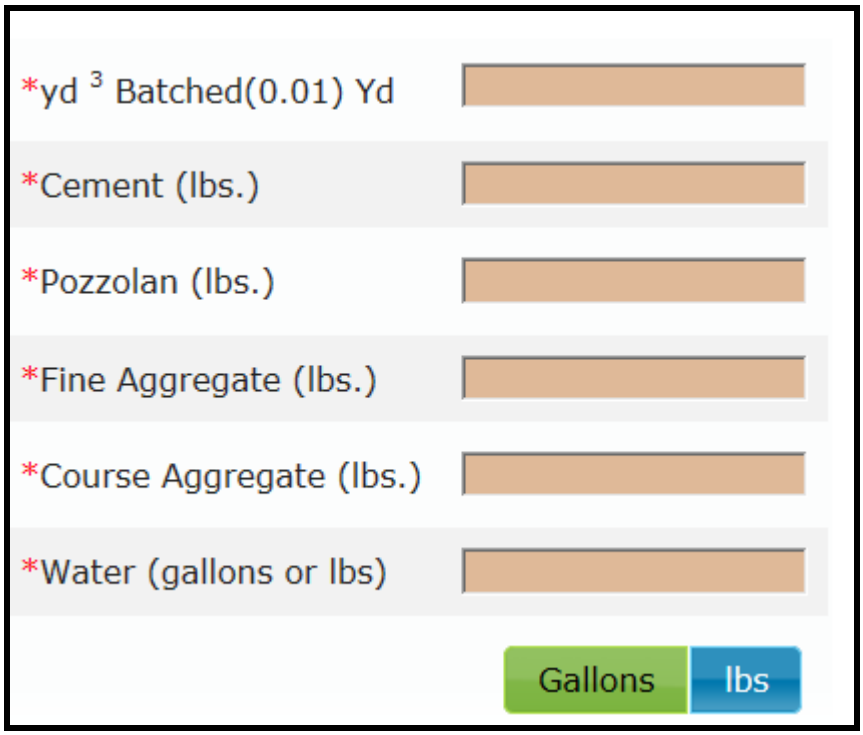

15. Now you must click or touch Save Sample in order for the Field Assistant to save the sample to whatever device you are using to submit the sample from.

16. Once you have saved the sample this message will appear confirming the save click or touch OK.

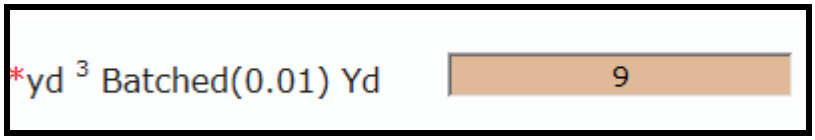



17. Now that you have completed the Basic Sample Data tab and saved the sample it is time to enter your test information. Click or touch the Batch Ticket tab.


***This screen will appear***



18. Enter the total cubic yards on the truck.

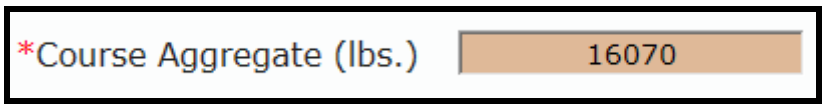



19. Enter the total lbs. of cement on the truck.


20. Enter the total lbs. of Pozzolan (Fly Ash) on the truck if applicable.

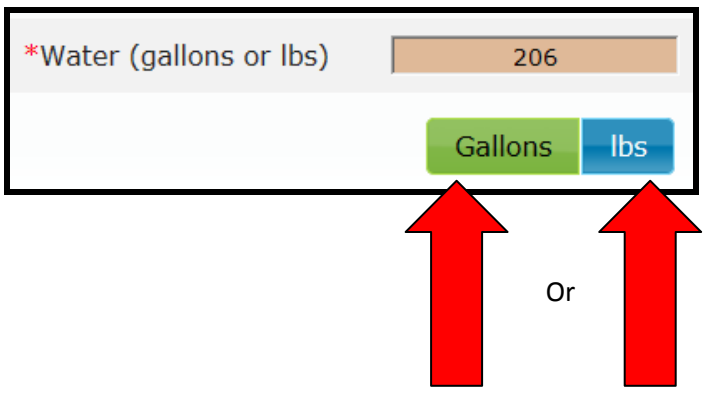

21. Enter the total lbs. of Fine Aggregate (Sand) on the truck.


22. Enter the total lbs. of Course Aggregate (Stone) on the truck.



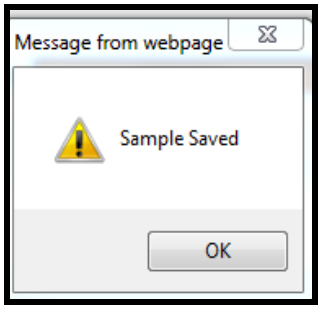

23. Enter the total Gallons or lbs. of Water on the truck.

- Select the unit of measure by clicking or touching the Gallons or lbs. button.



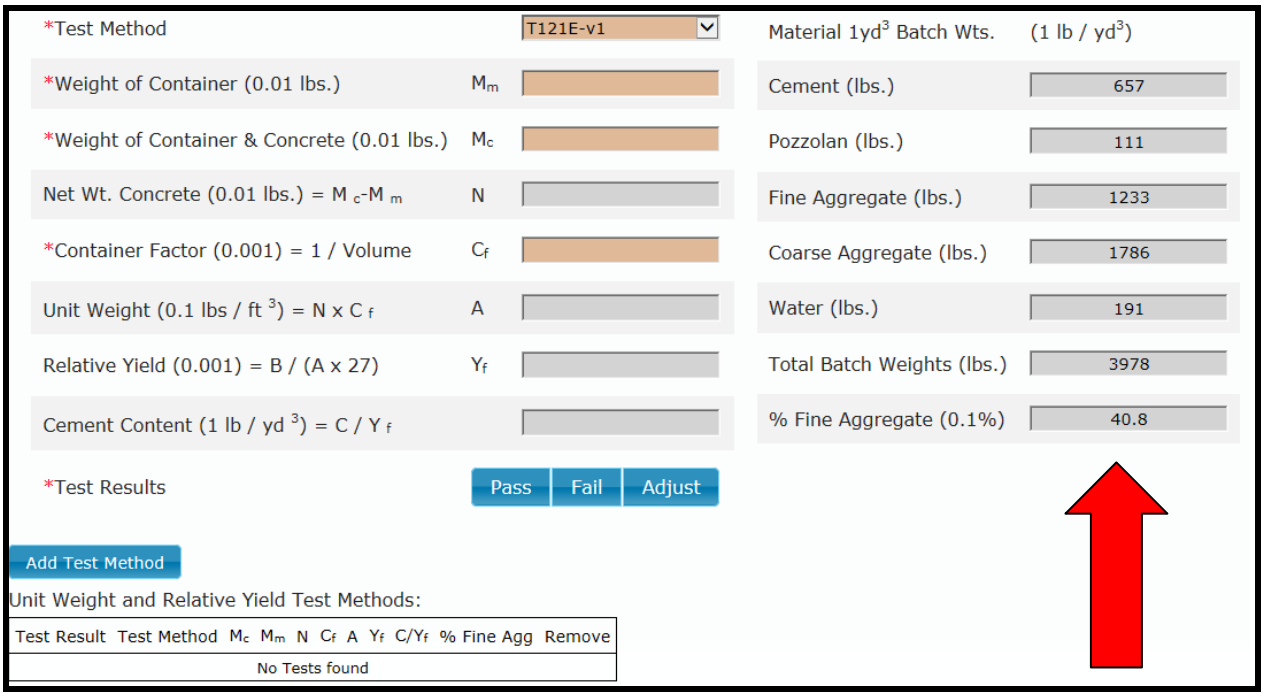
24. Now you must click or touch Save Sample in order for the Field Assistant to save the sample to whatever device you are using to submit the sample from.


25. Once you have saved the sample this message will appear confirming the save click or touch OK.




26. Now that you have completed the Batch Ticket tab and saved the sample it is time to enter test method information. Click or touch the Unit Wt. and Yield T121 tab.

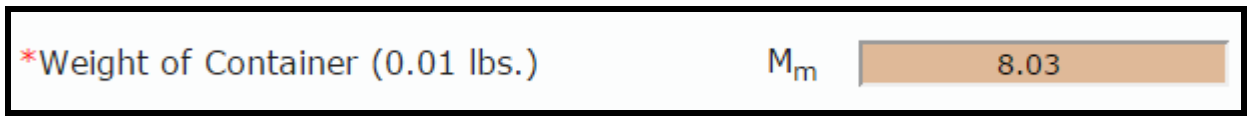
***This screen will appear***



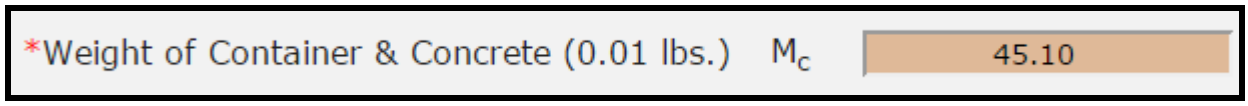

- *Notice how the Batch Weights have been divided out and populated in the correct fields for your review.*
- *Notice that there are only five fields required on this page*
    - *Test Method*
    - *Weight of Container & Concrete*
    - *Weight of Container*
    - *Container Factor*
    - *Pass/Fail/Adjust*

27. Select the Test Method that applies to the test being performed. T121E-v1 will be defaulted, select from the dropdown if Test Method is different than default.

28. Enter the Weight of Container empty.




29. Enter the weight of the concrete bucket full of concrete.

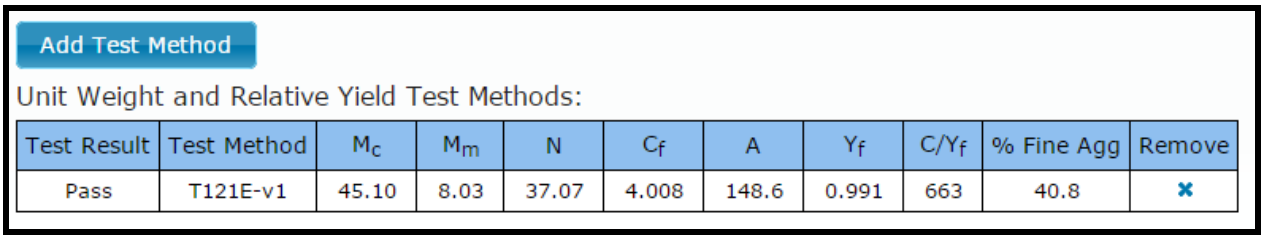



30. Enter the Container Factor for the concrete bucket being used to take the test.


31. Select if the test results Pass/Fail/Adjust required specifications.

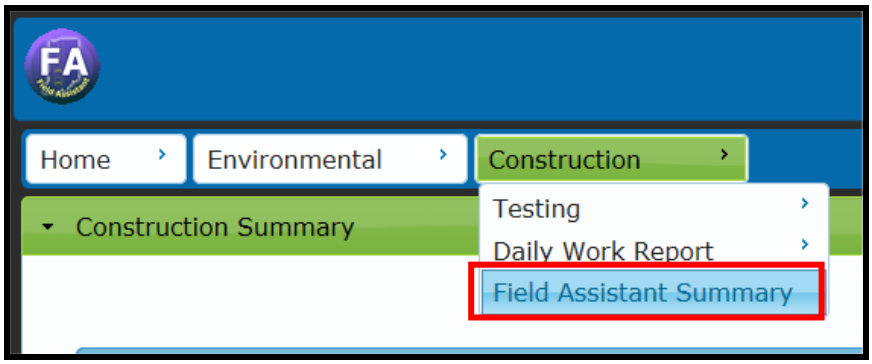

32. Once you have reviewed you test data and have ensured its accuracy you MUST select Add Test Method.

33. Field Assistant will not see your test data until you select this button. Once you have added the test method the test results will populate in a grid format under the Add Test Method button.

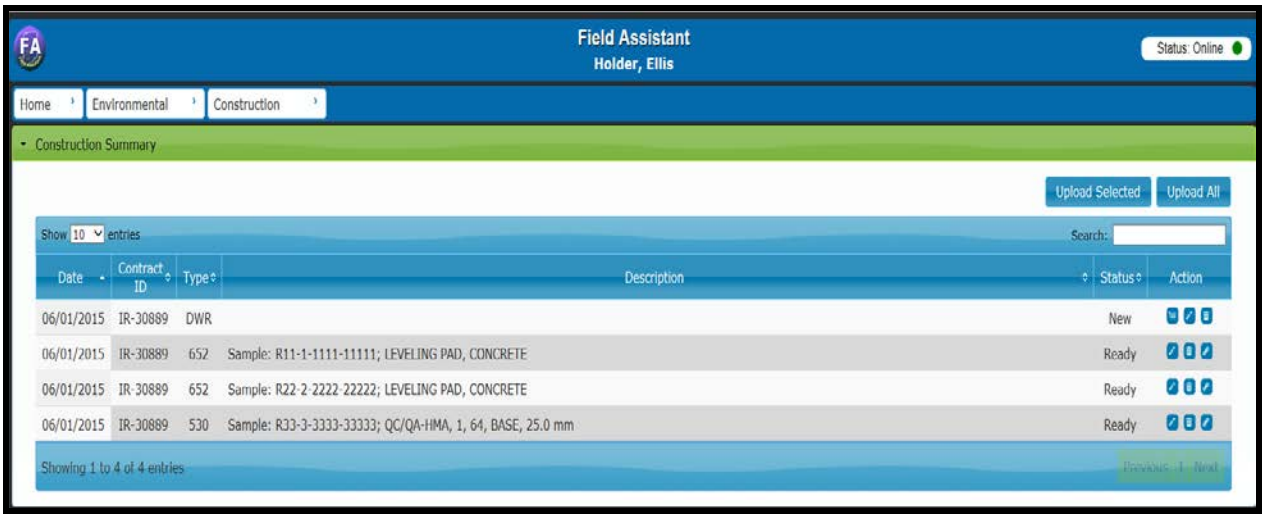



- *Multiple tests can be added to one sample ID by repeating steps 27-32. Please refer to Construction Memo 15-02 for details.*

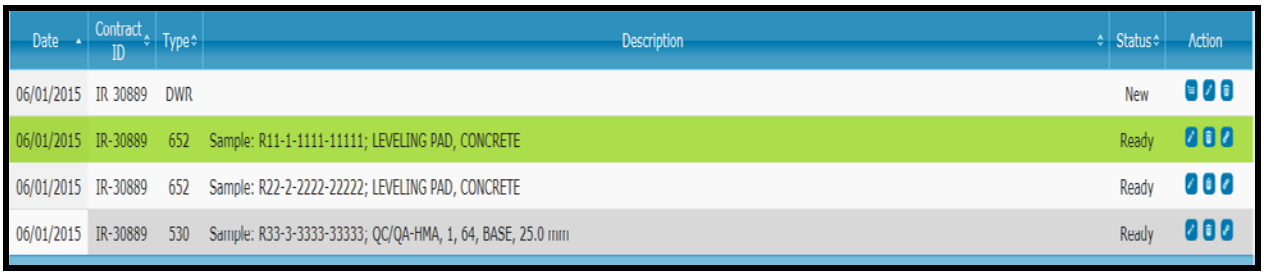
34. At this point if you are only completing a Yield Test you are ready to push the sample to SiteManager. Steps 35 thru 45 are the same if you want to complete just an Air or a Slump Test. Click or touch Construction then Field Assistant Summary. The Field Assistant will then open the summary grid.



35. The Summary Grid contains all Test Forms/DWR's that have not been pushed to SiteMananger yet. The Summary Grid allows you to edit or delete Test Forms/DWR's.

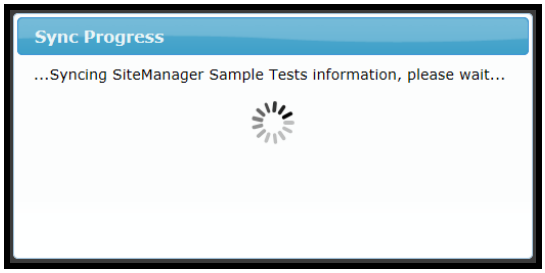



36. To push a single Sample to SiteManager Click or Touch the Sample you would like to push turning it green.

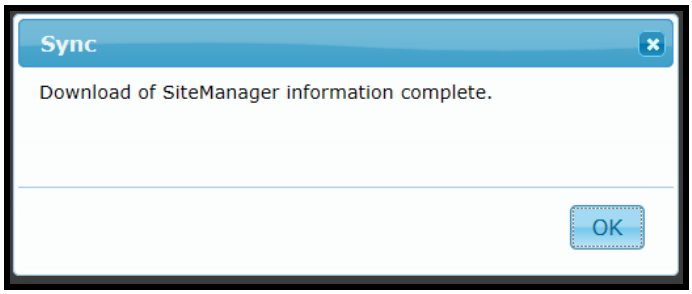


37. Then Click or touch Upload Selected.


38. This screen will appear and indicates that Field Assistant is pushing the Sample to SiteManager.

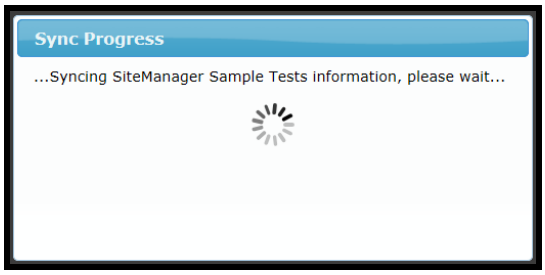



39. The Sync screen will appear if the Sample was successfully uploaded to SiteManager, click or touch Ok

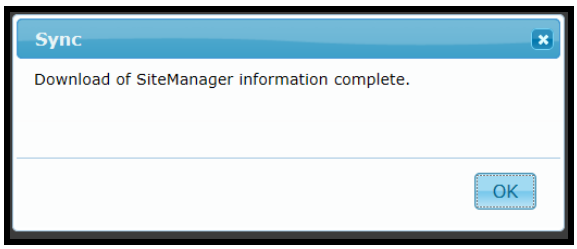



40. To push all Samples and DWR's to SiteManager you do not have to select each form separately. Click or Touch Upload All to upload all forms to SiteManager.

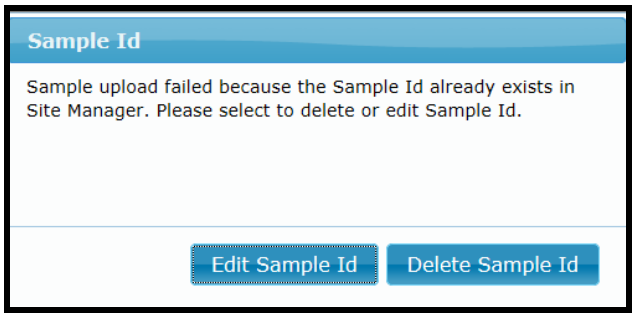
41. This screen will appear and indicates that Field Assistant is pushing the Sample to SiteManager.



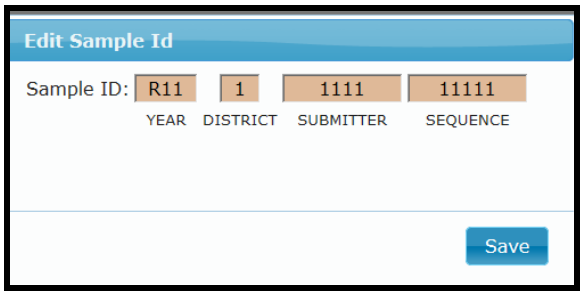

42. The Sync screen will appear if the Sample was successfully uploaded to SiteManager, click or touch Ok



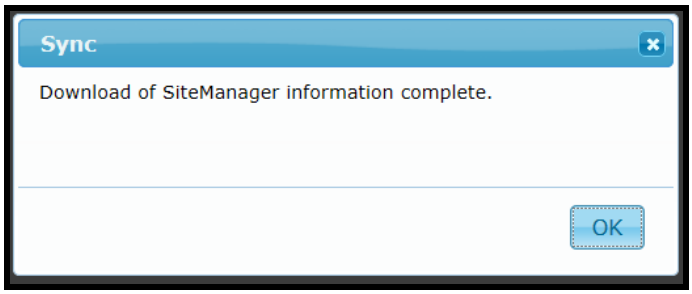

43. If the Field Assistant sees a duplicate Sample ID this warning will be generated. You can then Edit the Sample ID or Delete the Sample ID.



44. If you select Edit Sample ID the Sample ID wizard will appear to allow changes to be made and saved. Once changed you must repeat steps 36 thru 39.

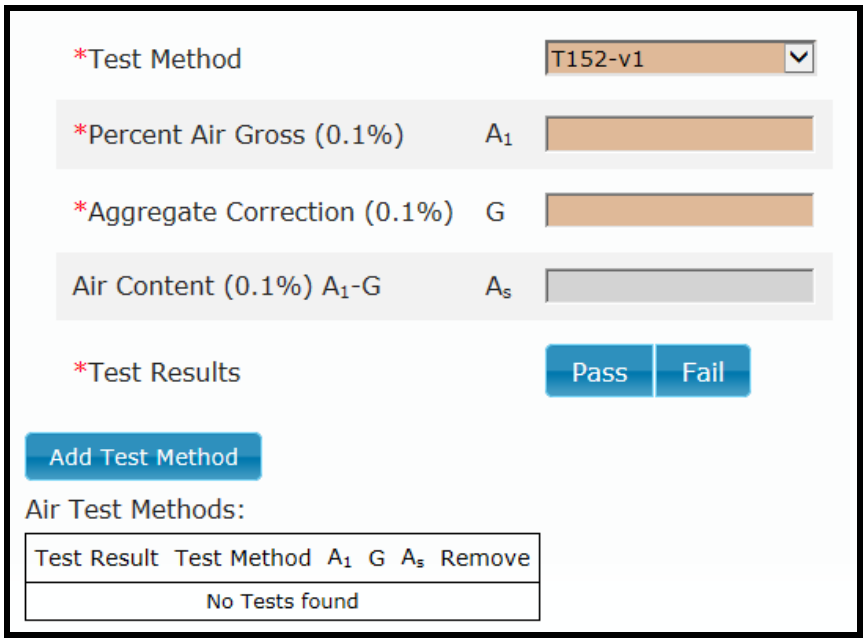



45. If the Sample has been uploaded to SiteManager successfully you will see this message appear.




46. If you need to add additional tests click or touch Air Content T152.

***This screen will appear***

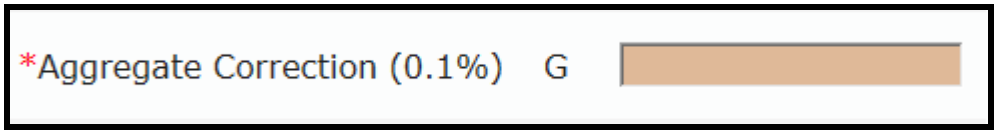



- *Notice that there are only four fields required on this page*
  - *Test Method*
  - *Percent Air Gross*
  - *Aggregate Correction*
  - *Pass/Fail*

47. Select the Test Method that applies to the test being performed. T152E-v1 will be defaulted, select from the dropdown if Test Method is different than default.


48. Enter the Percent Air Gross.

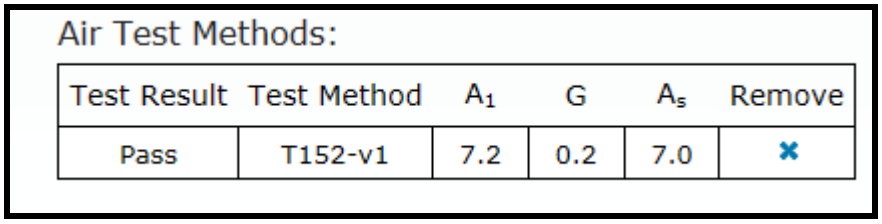
49. Enter the Aggregate Correction.




50. Select if the test results Pass/Fail required specifications.


51. Once you have reviewed you test data and have ensured its accuracy you MUST select Add Test Method.


52. Field Assistant will not see your test data until you select this button. Once you have added the test method the test results will populate in a grid format under the Add Test Method button.

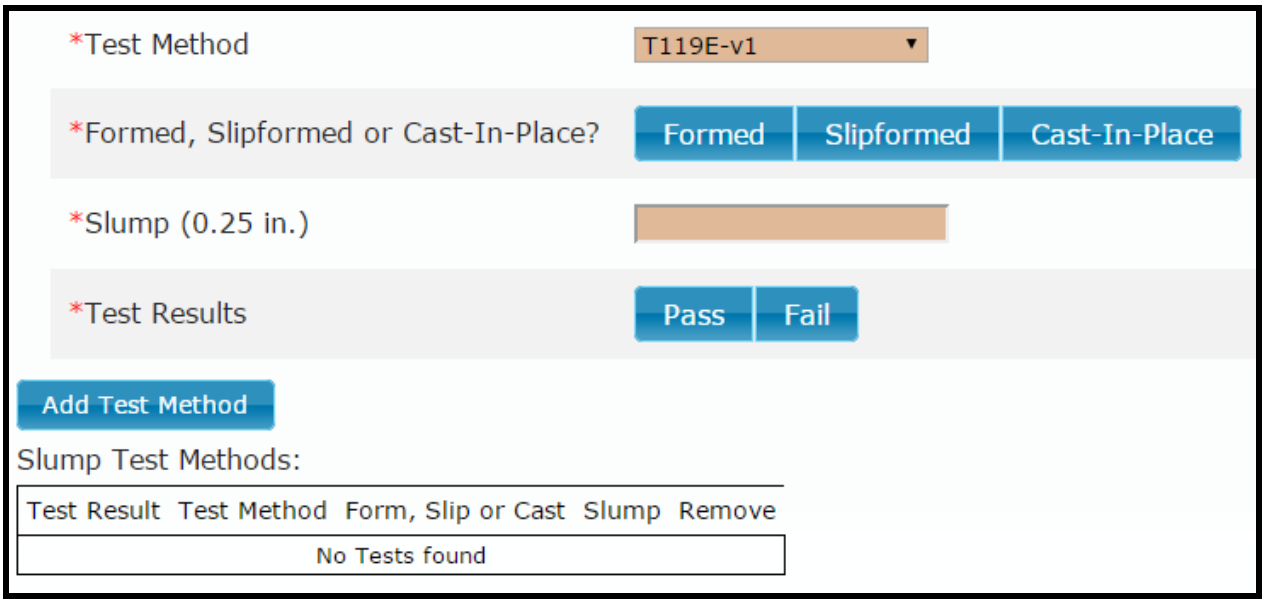



- *Multiple tests can be added to one sample ID by repeating steps 47-51. Please refer to Construction Memo 15-02 for details.*

53. Repeat steps 34-45 if your only entering a T152 Air Test

54. If you need to add additional tests click or touch Slump Test T119.


***This screen will appear***




*Notice that there are only four fields required on this page.*

- *Test Method*
- *Formed/Slipformed/Cast-in-place*
- *Slump*
- *Pass/Fail*

55. Select the Test Method that applies to the test being performed. T119E-v1 will be defaulted, select from the dropdown if Test Method is different than default.

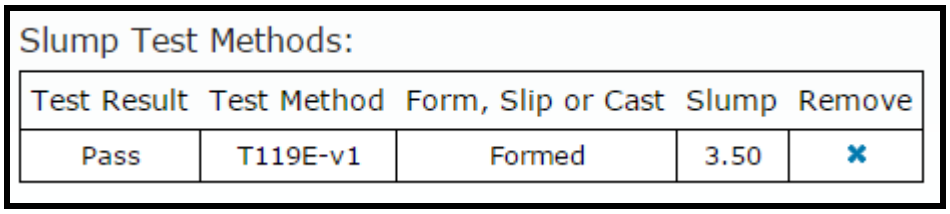

56. Enter if the concrete is being Formed/Slipformed/Cast-In-Place by clicking or touching the correct response.

57. Enter the slump to the nearest quarter of a inch.


58. Select if the test results Pass/Fail required specifications.


59. Once you have reviewed you test data and have ensured its accuracy you MUST select Add Test Method.


60. Field Assistant will not see your test data until you select this button. Once you have added the test method the test results will populate in a grid format under the Add Test Method button.

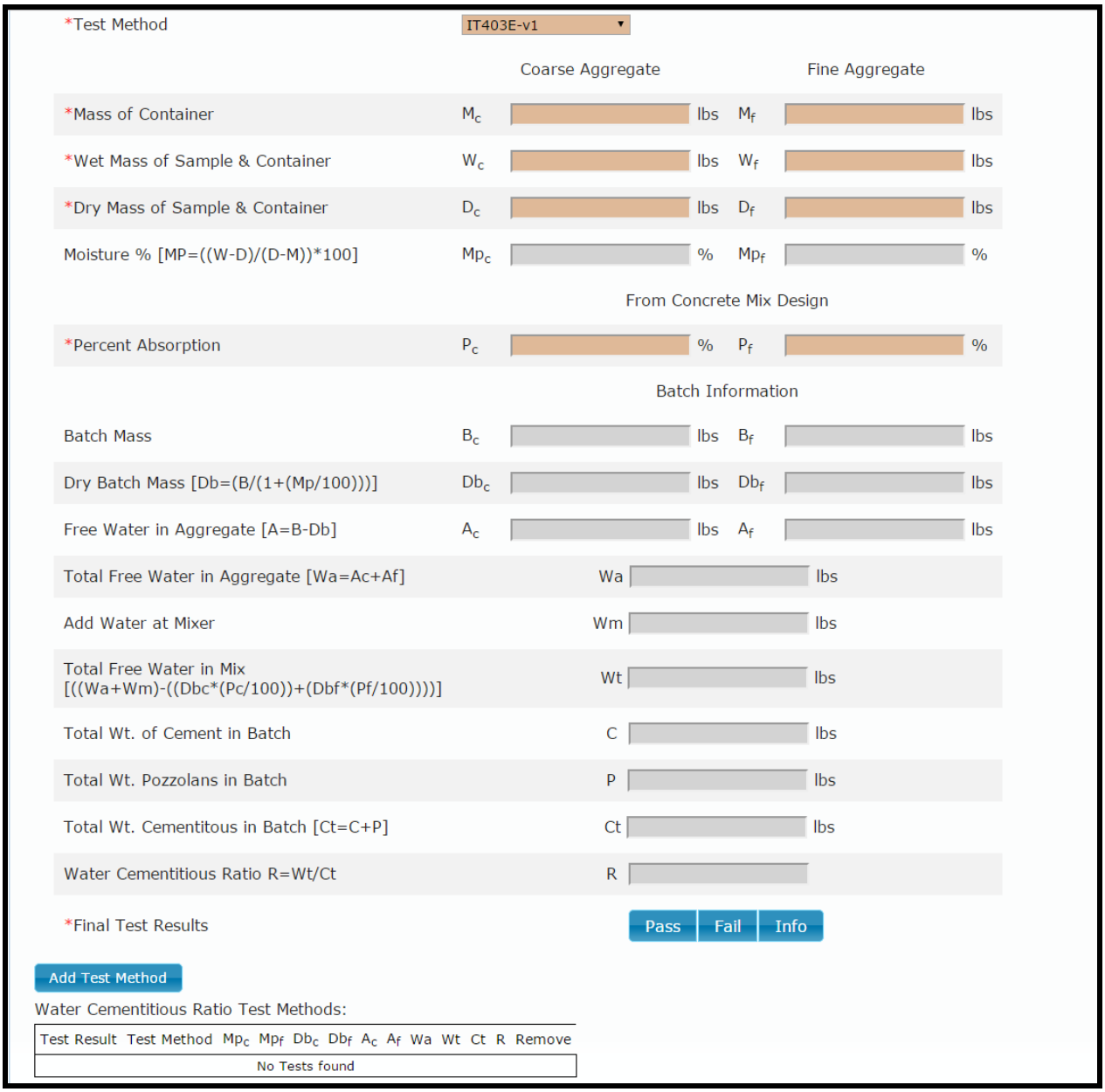



- *Multiple tests can be added to one sample ID by repeating steps 55-59. Please refer to Construction Memo 15-02 for details.*

61. Repeat steps 34-45 if your only entering a T119 Slump Test

62. If you need to add additional tests click or touch Water Cement Ratio ITM 403E.


***This screen will appear***



*Notice that there are only 9 fields required on the pervious page.*

- *Test Method*
- *Mass of Container (Coarse and Fine Aggregates)*
- *Wet Mass of Sample and Container (Coarse and Fine Aggregates)*
- *Dry Mass of Sample and Container (Coarse and Fine Aggregates)*
- *Percent Absorption (From CMD for Coarse and Fine Aggregates)*

63. Select the Test Method that applies to the test being performed. ITM 403E will be defaulted, select from the dropdown if Test Method is different than default.


64. Enter Weight of the empty container for Coarse Aggregate.


65. Enter Weight of wet sample and container for Coarse Aggregate.


66. Enter Weight of dry sample and container for Coarse Aggregate.

67. Enter the Percent Absorption for the Coarse Aggregate from the CMD or contact your District Testing Engineer for Producer Supplier Absorption rates.

| *Percent Absorption | | % |
|---|---|---|

68. Enter Weight of the empty container for Fine Aggregate.

| *Mass of Container | | lbs |
|---|---|---|

69. Enter Weight of wet sample and container for Fine Aggregate.

| *Wet Mass of Sample & Container | | lbs |
|---|---|---|

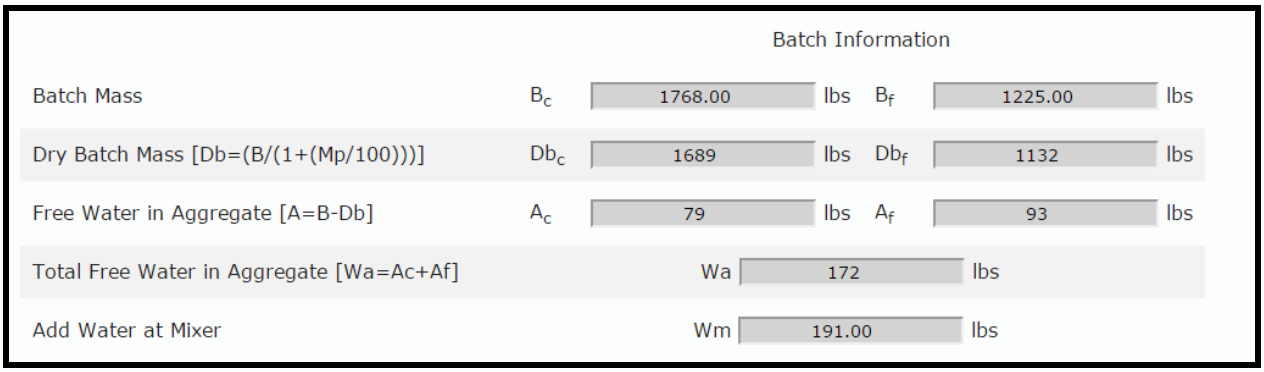
70. Enter Weight of dry sample and container for Fine Aggregate.

| *Dry Mass of Sample & Container | | lbs |
|---|---|---|

71. Enter the Percent Absorption for the Fine Aggregate from the CMD or contact your District Testing Engineer for Producer Supplier Absorption rates.

| *Percent Absorption | | % |
|---|---|---|

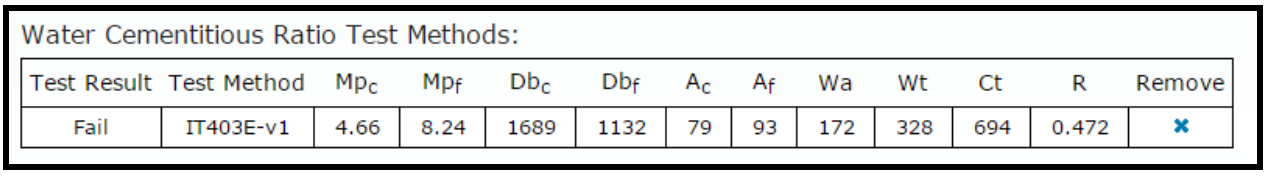
72. Batch weight information is pulled from the Batch Ticket Tab, follow steps 17-24 to enter these weights.




73. The Field Assistant will automatically calculate your Water Cement Ratio for you. Review the calculations and mark the sample accordingly (Pass, Fail or Info).


74. Once you have reviewed you test data and have ensured its accuracy you MUST select Add Test Method.


75. Field Assistant will not see your test data until you select this button. Once you have added the test method the test results will populate in a grid format under the Add Test Method button.




| Test Result | Test Method | $Mp_c$ | $Mp_f$ | $Db_c$ | $Db_f$ | $A_c$ | $A_f$ | Wa | Wt | Ct | R | Remove |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fail | IT403E-v1 | 4.66 | 8.24 | 1689 | 1132 | 79 | 93 | 172 | 328 | 694 | 0.472 | ✖ |

- *Multiple tests can be added to one sample ID by repeating steps 63-74. Please refer to Construction Memo 15-02 for details.*

76. Repeat steps 34-45 if you're only entering a ITM 403E Water Cement Ratio test.