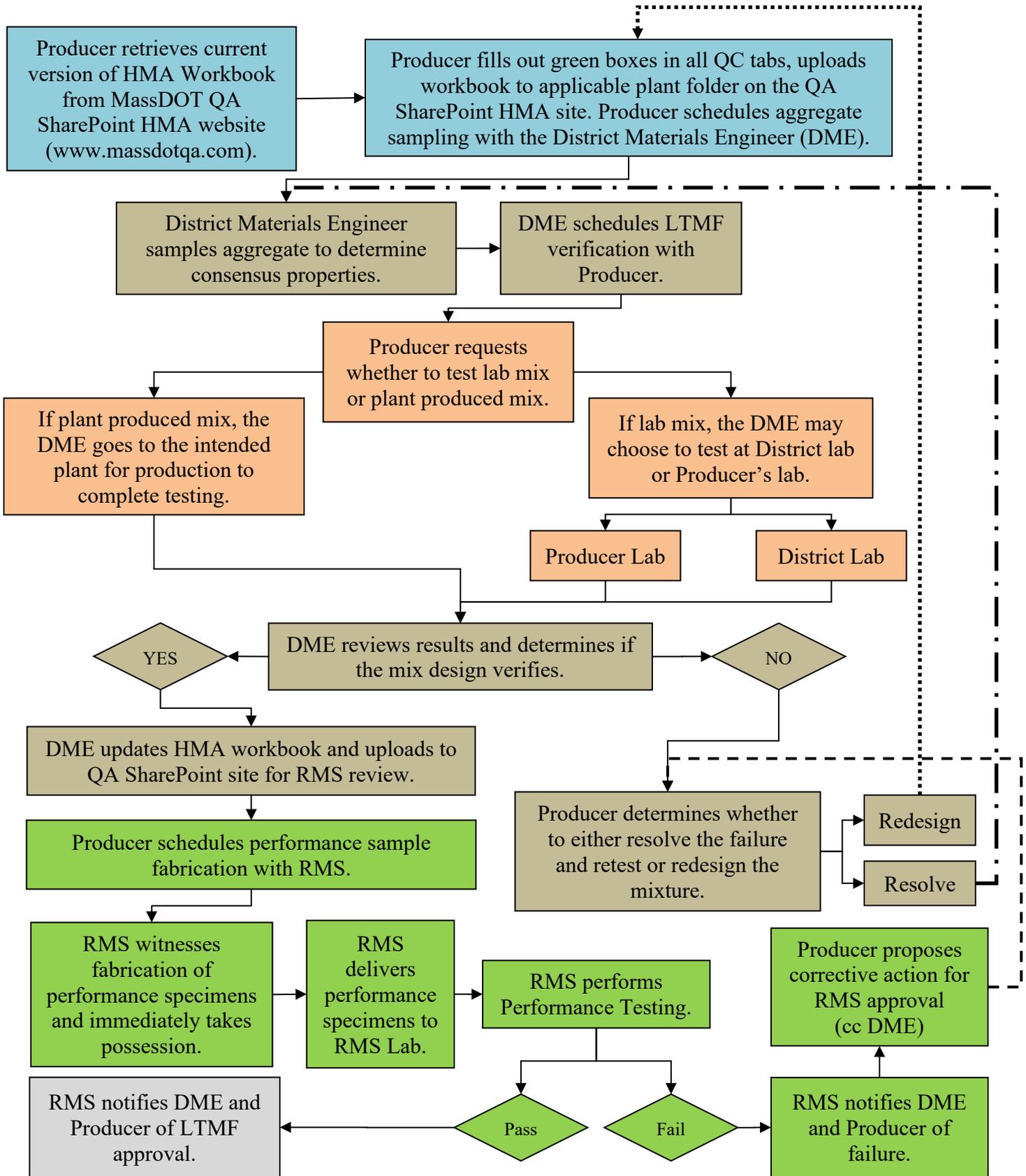
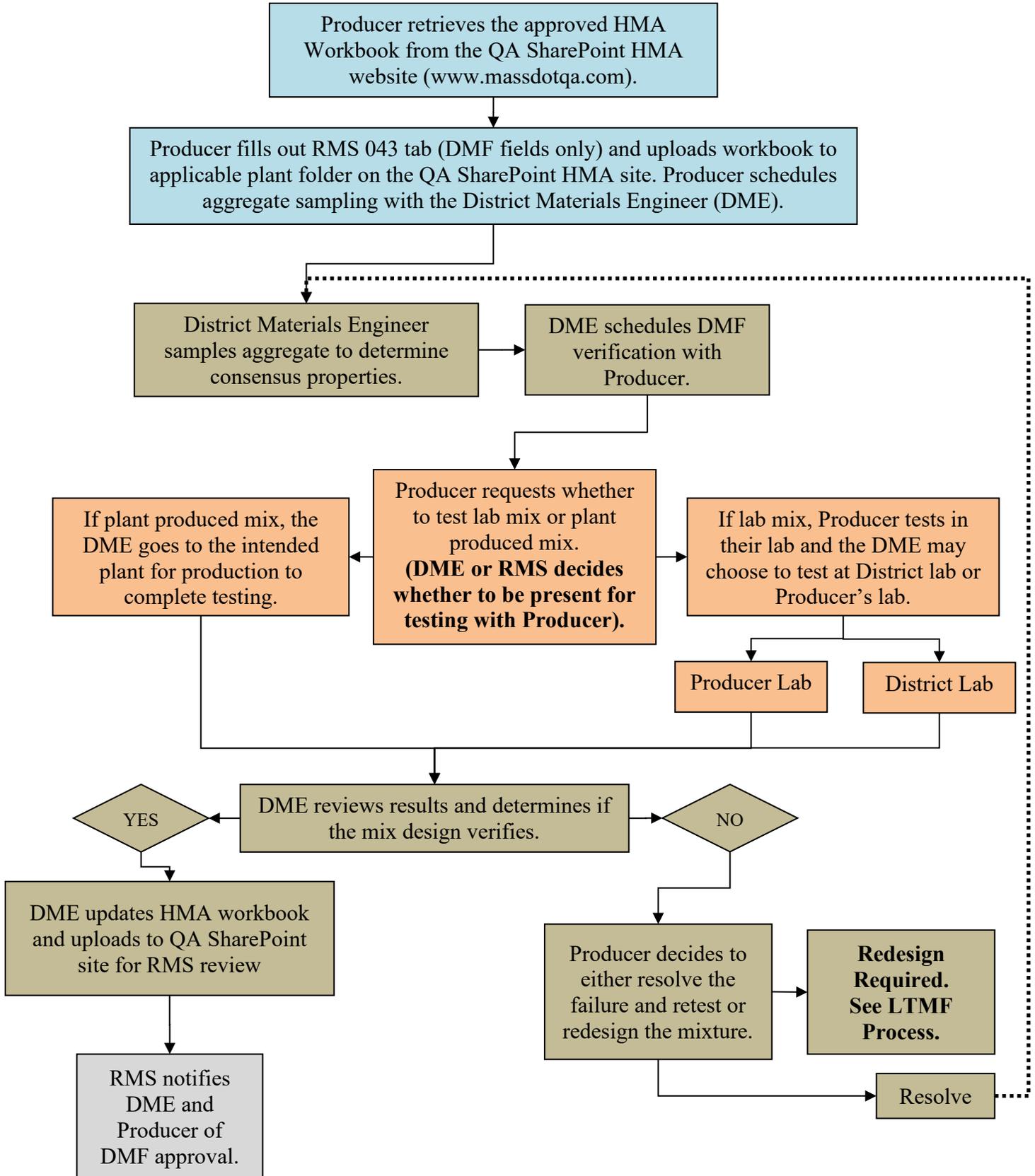


**MassDOT HMA Mix Design Prequalification Process  
Laboratory Trial Mix Formula (LTMF)  
FOR NEW MIX DESIGNS (YEAR 1)**



**MassDOT HMA Mix Design Prequalification Process**  
**Design Mix Formula (DMF)**  
**TO VERIFY PREVIOUSLY APPROVED MIX DESIGNS (YEAR 2+)**



### **Laboratory Trial Mix Formula (LTMF) – For new trial mix designs (Year 1)**

- 1) Producer retrieves current version of HMA Workbook from MassDOT QA SharePoint HMA website.
  - 2) Producer fills out green boxes in all QC tabs, uploads workbook to applicable plant folder on the QA SharePoint HMA site. Producer schedules aggregate sampling with the District Materials Engineer (DME).
  - 3) District Materials Engineer samples aggregate to determine consensus properties.
  - 4) DME schedules LTMF verification with Producer.
  - 5) Producer decides whether to test lab mix or plant produced mix.
    - 5.a If plant produced mix, the DME goes to the intended plant for production to complete testing.
    - 5.b If lab mix, the DME may choose to test at District lab or Producer's lab.
  - 6) DME reviews results and determines if the mix design verifies.
    - 6.a: If the mix design verifies: DME updates HMA workbook and uploads to QA SharePoint site for RMS review. DME schedules Hamburg fabrication with Producer, if necessary.
    - 6.b: If the mix design does not verify, producer decides to either resolve the failure and retest or redesign the mixture.
      - 6.b(I) If redesigning, start again at step 2.
      - 6.b(II) If resolving, start again at step 3.
  - 7) RMS witnesses fabrication of Hamburg specimens and immediately takes possession and delivers specimens to the RMS lab for Hamburg testing.
    - 7.a If the Hamburg test passes, RMS notifies DME and Producer of LTMF approval.
    - 7.b If the Hamburg test fails, RMS notifies DME and Producer of failure. Producer proposes corrective action for RMS approval (cc DME). (Start process again at step 6.b.)
- 5.7.b(I) If redesign required, see LTMF process.
- 5.7.b(II) If resolved, start again at step 3

## **Design Mix Formula (DMF) – To verify previously approved mix designs (Year 2+)**

- 1) Producer retrieves the approved HMA Workbook from the QA SharePoint HMA website.
- 2) Producer fills out RMS 043 tab (DMF fields only) and uploads workbook to applicable plant folder on the QA SharePoint HMA site. Producer schedules aggregate sampling with the District Materials Engineer (DME).
- 3) District Materials Engineer samples aggregate to determine consensus properties.
- 4) DME schedules DMF verification with Producer.
- 5) Producer decides whether to test lab mix or plant produced mix. (DME or RMS decides whether to be present for testing with Producer).
  - 5.a If plant produced mix, the DME goes to the intended plant for production to complete testing.
  - 5.b If lab mix, Producer tests in their lab and the DME may choose to test at District lab or Producer's lab.
- 7) DME reviews results and determines if the mix design verifies.
  - 7.a If the mix design verifies, DME updates HMA workbook and uploads to QA SharePoint site for RMS review.
  - 7.b If the mix design does not verify, Producer decides to either resolve the failure and retest or redesign the mixture.
- 8) Once the mix design is verified, RMS notifies DME and Producer of DMF approval.