

ASPHALT GUIDELINES - ROADWAY VT

1. **READ CONTRACT DOCUMENTS:** QC PLAN, CONTRACT, SPECIFICATIONS, AND PLANS
 2. **COMMUNICATE:** WITH ROADWAY QC, PLANT VT, QC MANAGER, AND P.A.
 3. **MONITOR MILLING OPERATION:** RECORD CROSS SLOPE MEASUREMENTS 10 TIMES DAILY (327.3)
 4. MARK DENSITY QC AND IV CORE LOCATIONS, USING RANDOM NUMBERS RECEIVED FROM PLANT VT – (334-5.1 & 334-5.2)
DO NOT ALLOW QC TO SEE RANDOM NUMBERS
VERIFY NON-DENSITY AREA CORES - 3/DAY – (330-2.2)
IDENTIFY DENSITY AND NON-DENSITY CORES SO THEY ARE DISTINGUISHABLE FROM EACH OTHER.
 5. **COMPLETE ASPHALT ROADWAY VERIFICATION REPORT:**
 - a) VERIFY ASPHALT SPREAD RATE ONCE PER LAYER/DAY- (CPAM 5.10)
 - b) VERIFY ASPHALT TEMPERATURE ONCE PER DAY- (CPAM 5.10)
 - c) VERIFY TACK SPREAD RATE ONCE PER DAY- (CPAM 5.10)
 6. VERIFY CROSS SLOPE 10 TIMES/DAY- (330-12)
 7. **OBSERVE PAVING OPERATIONS, FOR COMPLIANCE WITH QC PLAN:** (SCO 24-03)
IF NON-COMPLIANCE OBSERVED - **NOTIFY QC MANAGER**
IF NON COMPLIANCE NOT CORRECTED - **NOTIFY P.A.**
PA WILL VOID THAT PORTION OF QC PLAN IF CONTRACTOR IS IN NON-COMPLIANCE.
 8. **COLLECT, REVIEW AND RETURN EACH DAYS PAPERWORK, DAILY**
 9. DENOTE ANY CORRECTIONS ON THE PAPERWORK RETURNED TO QC
 10. **COMPILE CONTRACTOR'S LOT SUBMITTAL PACKAGE AND DELIVER TO P.A. FOR REVIEW WHEN THE LOT IS COMPLETE:**
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ASPHALT GUIDELINES - ROADWAY QC

1. **READ CONTRACT DOCUMENTS:** QC PLAN, CONTRACT, SPECIFICATIONS, AND PLANS.
2. **COMMUNICATE:** WITH QC MANAGER, QC PLANT AND VT TECHS
COMMUNICATION BETWEEN QC PLANT AND QC ROADWAY IS **IMPERATIVE.**
3. **MONITOR MILLING OPERATION:** RECORD CROSS SLOPE MEASUREMENTS EVERY 250' (327-3)
4. **START ASPHALT ROADWAY:** DAILY REPORT OF QUALITY CONTROL
5. **MONITOR ASPHALT TEMPERATURE:** CHECK EACH TRUCK, FIRST 5 LOADS, CHECK EVERY 5TH LOAD THEREAFTER. (330-6.3)
VERIFY TACK SPREAD RATE AS NECESSARY TO MEET SPECS. (300-8.4)
6. **MONITOR ASPHALT SPREAD RATE:** AT BEGINNING OF EACH DAY TO ESTABLISH SPREAD RATE. CONTINUE CHECKING AT A MINIMUM OF ONCE/200 TONS
MAINTAIN WITHIN 5% OF TARGET SPREAD RATE. (330-2.2)
P.A. TO SET TARGET SPREAD RATE
8. **MONITOR PAVEMENT CROSS SLOPE:** ONCE EVERY 100 FEET. (330-12.5)
MAINLINE TOLERANCE - $\pm 0.2\%$ PER PLANS.
SHOULDER TOLERANCE - $\pm 0.5\%$ PER PLANS.
9. **CUT DENSITY CORES:** AT LOCATIONS MARKED BY VT ROADWAY. (330-2.2 & 334-4.3.2)
10. **CUT 3 NON-DENSITY CORES** PER DAY, AT RANDOM LOCATIONS DETERMINED BY QC. (330-2.2)
INFORM QC PLANT OF DENSITY AND NON-DENSITY TONNAGES DAILY
11. **PERFORM STRAIGHTEDGE:** *MINIMUM 48 HOUR NOTICE.* - (330-12.3.1)
 $\pm 3/8$ INCH FOR INTERMEDIATE LAYERS.
 $\pm 3/16$ INCH FOR FINAL LAYER (FRICTION & STRUCTURAL). (330-12)

- 1) RECEIVE QC PLANT REPORTS WITH ASPHALT DELIVERY TICKETS.
- 2) FORWARD QC PLANT AND ROADWAY REPORTS TO QC MANAGER DAILY.
- 3) QC MANAGER TO CHECK REPORTS AND ENTER INTO CQR WITHIN 24 HOURS.
- 4) SEND DAILY PACKAGE (COPIES OF THE QC ROADWAY/PLANT REPORTS WITH ORIGINAL PLANT DELIVERY TICKETS) TO ROADWAY VT.

ASPHALT GUIDELINES - PLANT VT

1. **READ CONTRACT DOCUMENTS:** QC PLAN, CONTRACT, SPECIFICATIONS, AND PLANS.
2. **COMMUNICATE:** WITH ROADWAY VT, DMO AND QC PERSONNEL
3. **GENERATE** RANDOM NUMBERS FOR PLANT AND ROADWAY QC, SEND ROADWAY RANDOM NUMBERS TO ROADWAY VT- (334-4 & 334-5, SCO MEMO 24-03)
DO NOT ALLOW QC TO SEE RANDOM NUMBERS (SCO MEMO 24-03)
4. **MONITOR** ALL QC PLANT TESTING. (SCO MEMO 24-03)
REPORT ANY RESULTS WITH A PAY FACTOR < 90% TO PA AND DMO IMMEDIATELY
PERFORM VERIFICATION TESTING ONCE PER LOT/RANDOM NUMBER. (334-4.5 & 334-5.3)
5. **COMPLETE ASPHALT PLANT VERIFICATION REPORT:** (675-030-18)
6. FAILING VT REQUIRES TESTING OF REMAINING SUBLOTS IN FAILED TEST TYPE
COMPLETE ADDITIONAL REPORTS. (334-5.3)
FORWARD NON-COMPAREING SAMPLES TO RESOLUTION. (334-4.5.1)
NOTIFY ROADWAY VT, PA, AND DMO OF ANY FAILURES IMMEDIATELY.
REPORT RESULTS TO CONTRACTOR WITHIN 1 DAY OF LOT COMPLETION. (334-5.3)
ENTER VT REPORT DATA INTO CQR/LIMS WITHIN 1 DAY OF COMPLETION.
VERIFY ALL QC REPORTS IN CQR/LIMS FOR THIS LOT.
7. **OBSERVE PLANT OPERATIONS, FOR COMPLIANCE WITH QC PLAN:**
IF NON-COMPLIANCE OBSERVED - NOTIFY QCM
IF NON COMPLIANCE NOT CORRECTED - NOTIFY PA AND DMO
DBE WILL VOID THAT PORTION OF QC PLANT PLAN IF CONTRACTOR IS IN NON-COMPLIANCE
8. **COLLECT AND REVIEW EACH DAYS PLANT PAPERWORK, DAILY** AND DOCUMENT/UPDATE THE **MIX DESIGN SUMMARY SPREADSHEET** IN ORDER TO MONITOR THE TRENDS OF CRITICAL MATERIAL PROPERTIES.
9. **RETURN** PAPERWORK TO PLANT QC FOR ANY CORRECTIONS - NOTIFY QCM & DMO OF ONGOING PROBLEMS
10. **COMPILE AND DELIVER LOT SUBMITTAL PACKAGE TO ROADWAY VT FOR REVIEW AS SOON AS LOT IS COMPLETE** (PLANS PREPARATION MANUAL, CHAPTER 9.3)

ASPHALT GUIDELINES – PLANT QC

1. **READ THE CONTRACT DOCUMENTS:** QC PLAN, CONTRACT, SPECIFICATIONS, AND PLANS.
2. **MAINTAIN COMMUNICATIONS:** WITH QC MANAGER, QC ROADWAY AND BOTH VT.
COMMUNICATION BETWEEN QC PLANT AND QC ROADWAY ARE IMPERATIVE.
3. **PREPARE - ASPHALT PLANT DAILY REPORT OF QUALITY CONTROL.**
4. **CHECK ASPHALT TEMPERATURE:** CHECK EACH TRUCK, FIRST 5 LOADS, CHECK EVERY 5TH LOAD THEREAFTER. (330-6.3)
5. **TEST HOT MIX ASPHALT:** SAMPLE MIX PER. (334-4.4, SCO MEMO 24-03)
TEST ASPHALT BINDER CONTENT, GRADATION AND VOLUMETRIC PROPERTIES A MINIMUM OF ONCE PER DAY, >1000 TONS A MINIMUM OF TWICE PER DAY. (330-2.2)
REPORT ANY RESULTS WITH A PAY FACTOR < 90% TO VT PLANT AND QC MANAGER
VERIFY MODIFIER ADDITION. (330-2.2)
VERIFY THAT ALL TEST RESULTS MEET CONTRACT SPECS.
INFORM QC MANAGER, PA, AND DBE OF **ANY FAILURES** IMMEDIATELY.
6. **TEST R.A.P. STOCKPILE AGGREGATE:** ONCE EVERY 1000 TONS OF INCOMING MATERIAL. TESTING SHALL INCLUDE BINDER CONTENT AND GRADATION OF EXTRACTED AGGREGATE. (330-2.2)
7. **TEST MOISTURE CONTENT:** STOCKPILES OR COMBINED COLD FEEDS ONCE PER DAY (330-2.2)
8. **TEST ROADWAY DENSITY CORES:** TEST PROCESS CONTROL CORES (INFORMATIONAL CORES ONLY). **INSURE DENSITY CORES AND INFORMATION CORES ARE NOT MIXED.** (330-2.2)
9. **FORWARD** ALL TEST RESULTS TO VT TECHNICIAN FOR COMPOSITE PAY FACTOR SHEET.

- 1) FORWARD QC PLANT REPORT AND PLANT TICKETS TO QC ROADWAY TECH. DAILY.
- 2) QC MANAGER TO CHECK AND ENTER REPORTS INTO CQR/LIMS WITHIN 24 HOURS.
- 3) MAINTAIN SAMPLE AND ROADWAY CORES UNTIL NEXT LOT COMPLETED.

ASPHALT GUIDELINES – PROJECT ADMINISTRATOR

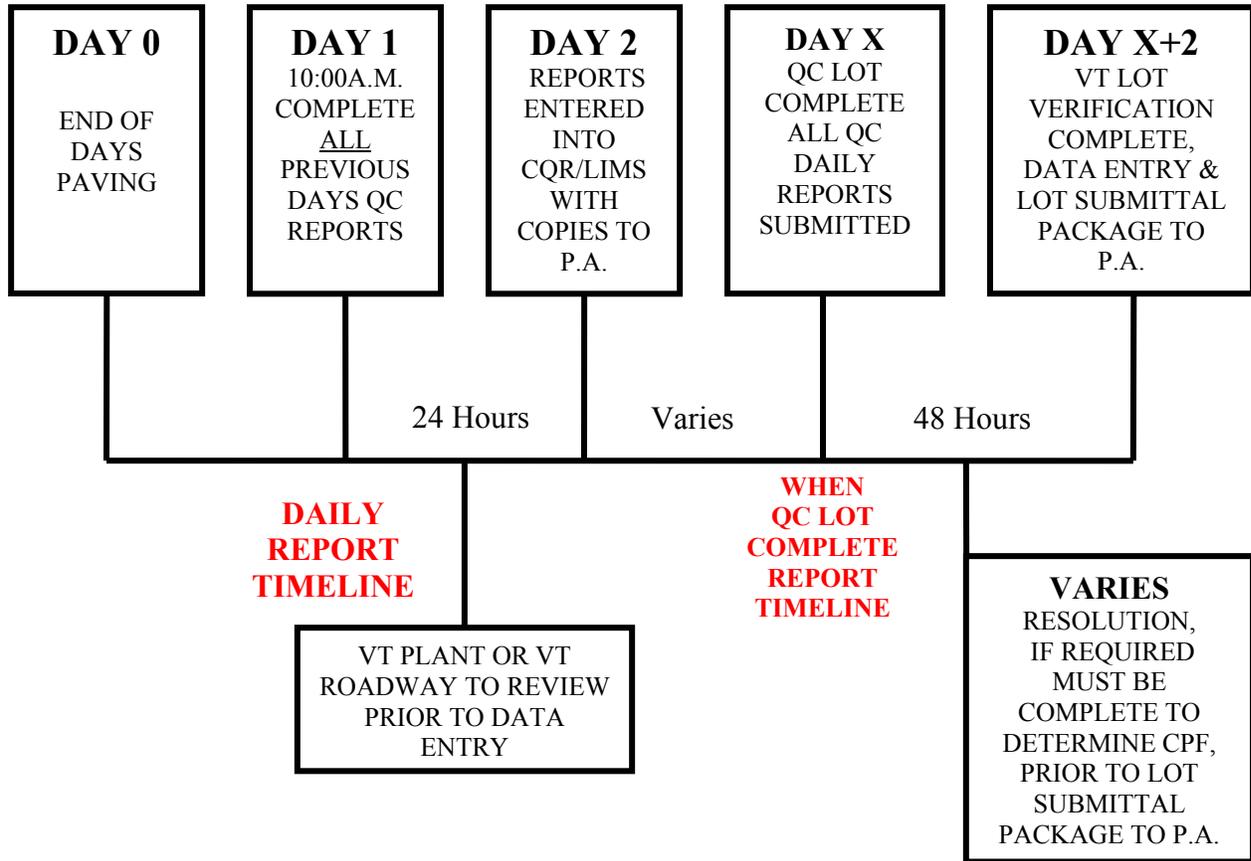
1. REVIEW PLANS AT 30%, 60%, 90% AND CONTRACT DOCUMENTS AT 100%.
2. REVIEW AND RECOMMEND APPROVAL OF QUALITY CONTROL PLAN.
3. READ THE CONTRACT DOCUMENTS: QC PLAN, CONTRACT, SPECIFICATIONS.
4. SETUP AND CONDUCT PRECON AND ASPHALT PREPAVING MEETINGS, ESTABLISH TARGET SPREAD RATE
DISTRIBUTE PREPAVING MINUTES TO ALL ATTENDEES
5. PERIODICALLY MONITOR MILLING AND PAVING OPERATIONS
6. MAINTAIN COMMUNICATIONS WITH CONTRACTOR, QC MANAGER, AND VERIFICATION TECHNICIANS.
7. RECEIVE AND REVIEW LOT SUBMITTAL PACKAGE FROM ROADWAY VT, WHEN LOT COMPLETE.
8. VERIFY QC/VT DATA ENTRY INTO CQR/LIMS, DAILY.
9. REVIEW CPF AND MAKE PAY ADJUSTMENTS AS NECESSARY.
10. INSURE ANY TYPE OF CONTRACT CHANGES VIA SA DWLS, DLS, STOP WORK ORDERS

ASPHALT GUIDELINES – QC MANAGER

1. PREPARE AND SUBMIT QUALITY CONTROL PLAN.
2. READ THE CONTRACT DOCUMENTS: QC PLAN, CONTRACT, SPECIFICATIONS, AND PLANS.
3. MONITOR QC PROCESS, **ADMINISTER**, ADJUST AND RESUBMIT QC PLAN AS NEEDED.
4. ATTEND PRECON AND ASPHALT PREPAVING MEETINGS
5. MONITOR MILLING AND PAVING OPERATIONS TO ENSURE THAT ALL OPERATIONS ARE IN COMPLIANCE WITH CONTRACT DOCUMENTS.
6. MAINTAIN COMMUNICATIONS WITH CONTRACTOR, PA, QC TECHS. AND VT TECHS.
7. RECEIVE AND REVIEW QC PLANT AND QC ROADWAY REPORTS DAILY. MAINTAIN ORIGINAL DOCUMENTATION FOR THREE YEARS.
8. ENSURE THAT QC DATA IS ENTERED INTO CQR/LIMS, DAILY. CHECK RESULTS DAILY FOR STATUS AND REVIEW THE MIX DESIGN SUMMARY SPREADSHEET DAILY TO MONITOR THE TRENDS OF CRITICAL MATERIAL PROPERTIES.
9. FORWARD COPIES OF REPORTS TO PA WITHIN 48 HOURS OF THE END OF THE DAYS PRODUCTION (IF REQUESTED)

- 1) QC MANAGER **MUST** SPEND WHATEVER TIME REQUIRED, ON THE PROJECT, TO ENSURE QUALITY CONTROL.
- 2) QC MANAGER IS RESPONSIBLE FOR ENSURING THAT CQR/LIMS DATA ENTRY **OCCURS ON TIME** AND IS ACCURATE.

ASPHALT - TIMELINE



AT COMPLETION OF PROJECT, P.A. TO SUBMIT LOT SUBMITTAL PACKAGES TO FINAL ESTIMATES