**Checklist – CAC016M**

**MRTS73 *Manufacture of Prestressed Concrete Members and Stressing Units* incorporating MRTS70 *Concrete* and MRTS71 *Reinforcing Steel***

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| **Contractor** |  | **Date** |  | **Review No.** |  |
| **Contract No.** |  | **Project No.** |  | **Project Name** |  |
| **Unit Numbers** |  | **Unit Types** |  | **Date(s) Manufactured** |  |

| Reference | Documentation / Inspection | Addressed | Comments/Observations |
| --- | --- | --- | --- |
| MRTS73  Clause 5.3 | **HP1 Product and supplier details**   * Quality plan * Precast registration certificate   + Including stressing bed   + Including void restraint system * Casting programme * MRTS70 (HP8)   + Mix design approval certificate   + Project-specific requirements * MRTS71 (HP1)   + Reinforcing supplier’s registration certificate * MRTS71 (HP6)   + Welding procedure specification * MRTS71 (HP8)   + Certified lifting diagram for large reinforcing cage |  |  |
| MRTS73  Clause 5.4 | **HP2 Manufacturing procedures and Stressing Beds**   * *Check registration certificate* * Stressing and transfer of prestressing |  |  |
| MRTS73 Clause 7.4.9 | **HP3 Alternate void or tub lengths**   * *Possible RFI for Designer* |  |  |
| MRTS71 (ATS 5310) Clauses 5-7 | **Steel reinforcement**   * Delivery dockets/bundle tags   + Registered supplier   + Grade and ductility class * Visual inspection   + Surface condition   + Storage   + Shape/Size   + Welding |  |  |
| MRTS73  Clause 9.1 | **Prestressing strand**   * Delivery dockets/coil tags   + Registered supplier   + Test certificate * Visual inspection   + Surface condition   + Storage   + Size |  |  |
| MRTS73  Clause 10 | **Tensioning of prestressing strand**   * Correlation between force and elongation * Lift off test |  |  |
| MRTS73  Clause 11.3  MRTS70  Clause 16.3 | **HP4 Placement of concrete (first cast)**  **WP2 Placement of concrete**   * Pre-pour visual inspection   + Reinforcement position   + Stressing strands (and debonding)   + Void position   + Cover-to-reinforcement/Spacers   + No foreign material   + Thermocouples to monitor temperature   + Electrical conductivity of reinforcement (if necessary)   + Lifting anchor position   + Formwork secure   **MRTS71 HP4 Electrical Conductivity**   * If required |  |  |
| MRTS70 Clause 11  Clause 16.4 | **Concrete Delivery**   * Delivery docket (approved mix) * Field sheet   + Slump/spread result   + Batch/arrival times   + Concrete temperature   + Ambient conditions * Visual inspection   + No surprises |  |  |
| MRTS70 Clause 16.5 | **Placement and Compaction**   * Visual Inspection   + Concrete   + Placement   + Compaction   + Evaporation retardation   + Steam curing |  |  |
| MRTS73  Clause 12 | **Transfer of prestress**   * Concrete strength * Curing complete * Condition of strands |  |  |
| MRTS73 Clause 7.1  Clause 16 | **WP1 Dimension checks**   * Visual inspection   + Dimensions (hog, length etc)   **WP3 Product Inspection**   * Visual Inspection   + Surface finish   + Defects (e.g. cracks)   + Product marking * Storage   ***\*SAFETY CONSIDERATIONS ARE PARAMOUNT WHEN INSPECTING PRESTRESSED ELEMENTS*** |  |  |
| MRTS73 Clause 16 | **HP5 Material Data Record**   * Concrete strength report (NATA-endorsed) * Lot register * As-constructed dimensions * Heat-accelerated curing charts * Stressing records |  |  |

**Additional items for consideration**

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*Delete below section if not required*

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| Audited by: |  | |  | |  | |
| Name |  | Signature |  | Date |  |