**STANDARD SPECIFICATION FOR ROADWORKS**

**V 4.0 - July 2019**

**SCHEDULES**

**HOLD POINTS**

**WITNESS POINTS**

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**SCHEDULES**

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**WITNESS POINTS**

**PROJECT INFORMATION**

Project Number; . . . . . . . . . . . . . . . .

RFT Number; . . . . . . . . . . . . . . . . . .

**Project title;**

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**Superintendent;**

Name; . . . . . . . . . . . . . . . . . . . . . . . . . .

Phone number; . . . . . . . . . . . . . . . . . . .

**Contact person** (Project Manager/Officer)

Name; . . . . . . . . . . . . . . . . . . . . . . . .

Phone number; . . . . . . . . . . . . . . . . . . .

# HOLD POINTS AND WITNESS POINTS SCHEDULES

## SCHEDULE 1 - HOLD POINTS

| **SCHEDULE 1 – HOLD POINTS** |
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| **CLAUSE TITLE** | **SECTION** | **PAGE** | **INITIALS** | **DATE** |
| **01 MISCELLANEOUS PROVISIONS** |
| VOLATILE SUBSTANCES MANAGEMENTProvide details of the volatile substances proposed to be brought in to the area(s) subject to Volatile Substance Abuse Management Plan(s) and provide details of the proposed methods for complying with the requirements of any applicable Volatile Substance Abuse Management Plan(s). | 1.7 | 10 & 11 |  |  |
| PERMITS TO ACCESS LAND FOR WORKS ON ROADSThe Contractor must provide documentary evidence of having been granted the required permission(s) to;* enter the land which is the site(s) of the works, and
* to enter any other lands for ancillary activities related to the works, and
* carry out the works and works related activities.

Do not enter the land until this evidence has been received by the Superintendent | 1.8 | 11 |  |  |
| PERMITS TO ACCESS LAND FOR WORKS ON ROADSProvide documented advice on sites to which surplus materials will be taken. Provide documentary evidence of permits, from the entity/entities with jurisdiction over those sites, for the dumping of surplus materials at those sites. | 1.8 | 11 |  |  |
| CAMP SITE/COMPOUND/WORKSHOPProvide a copy of written permission from the owner or lessee of the land permitting establishment and operation of a camp site, compound and/or workshop, before commencing works. | 1.9 | 12 |  |  |
| FOOD PREPARATION FACILITIESProvide a copy of proof of registration with DoH of any camp food preparation area in accordance with the Food Act. | 1.9.1 | 12 |  |  |
| EFFLUENTProvide a copy of written approval from Department of Health (DoH) for any proposed on-site effluent disposal system, before commencing works. | 1.9.3 | 12 |  |  |
| EFFLUENTWhere the use of septic tanks or portable toilets is not reasonable or practical, pit toilets may be used, but this requires the prior written approval of the Superintendent. | 1.9.3 | 12 |  |  |
| REHABILITATIONObtain approval from the Superintendent for the completed rehabilitation of the camp site/compound/workshop before final demobilisation. | 1.9.4 | 12 |  |  |
| OPERATION OF EXTRACTION AREASLIMIT OF EXCAVATIONObtain Superintendent approval to exceed 1ha pit size. | 1.11.5 | 13 & 14 |  |  |
| EXPLOSIVESObtain approval from Superintendent before commencing blasting operations. | 1.12 | 15 |  |  |
| WORK HEALTH AND SAFETY MANAGEMENT PLANIf the Act requires it, provide a Work Health and Safety Management Plan within 14 calendar days of award of the contract. Do not commence works until the Superintendent has advised that the Work Health and Safety Management Plan may be used. | 1.14.2 | 16 |  |  |
| WORK ON RAILWAY SITESDo not commence work until the work plan has been approved by the owner and operator of the rail system. | 1.16 | 17 & 18 |  |  |
| WORK NEAR TRAFFIC COUNTING STATIONSPrior to commencing any excavation, boring of holes, blasting, rock breaking, soil compaction or similar activity in the vicinity of traffic counter station detector loops, obtain the location of the cables from the Department, Transport Planning Division, Data Contracts Officer and pay all fees. | 1.17 | 18 |  |  |
| AS CONSTRUCTED INFORMATIONProvision of As Constructed information is a condition precedent to Practical Completion. | 1.23 | 19 |  |  |
| CONTRACTOR’S SUBMISSIONSProvide copies of permits, and approvals, for works, and associated activities, proposed to be carried out in areas not in the road reserve before commencing any proposed works, and activities. | 1.27 | 22 & 23 |  |  |
| **02 PROVISION FOR TRAFFIC** |
| SUBMISSION OF TRAFFIC MANAGEMENT PLANSubmit the Traffic Management Plan (TMP), with the Traffic Guidance Schemes.For contracts where audits of traffic control measures are required:* Do not commence implementing traffic control measures until the TMP has been audited by a Panel Period Audit Consultant and found to be suitable.
* Do not commence the works until the TMP has been audited by a Panel Period Audit Consultant and found to be suitable.

For contracts where audits of traffic control measures are not required:* Do not commence implementing traffic control measures until the TMP has been appraised by DIPL Road Operations and found to be suitable for use.
* Do not commence the works until the TMP has been appraised by DIPL Road Operations and found to be suitable for use.
 | 2.6.2 | 29 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – SUITABILITY AUDIT REQUIREMENTSThe Traffic Management Plan must not be implemented before it is audited for suitability and found to be suitable. | 2.8.2 | 33 & 34 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – SUITABILITY AUDIT REQUIREMENTSWorks must not commence before the Traffic Management Plan is audited for suitability and found to be suitable. | 2.8.2 | 33 & 34 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF IMPLEMENTATIONProvide the Superintendent with a copies of all audit reports confirming conformance, or indicating non-conformance, with specifications, Standards, and requirements for each implemented TGS within 24 hours of implementation. | 2.8.6 | 35 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF IMPLEMENTATIONProvide the Superintendent with a copies of all audit reports confirming conformance, or non-conformance, with specifications, Standards, and requirements for each significant change within 24 hours of implementation. | 2.8.6 | 35 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF IMPLEMENTATIONThe Contractor shall rectify the significant/urgent non-conformance in the time instructed by the Superintendent. If the Contractor fails to rectify the non-conformance the Superintendent may engage others to rectify the non-conformance, and the associated costs shall become a debt due and payable to the Principal. | 2.8.6 | 35 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF INDEPENDENT THIRD PARTY AUDITSNotify Superintendent and submit revised TGSs & TMPs to DIPL Road Operations for appraisal. | 2.8.7 | 35 |  |  |
| AMENDMENTS TO TRAFFIC MANAGEMENT PLANSModified TMPs must be audited for suitability by a Panel Period Audit Consultant, or appraised by DIPL Road Operations if Traffic Management audits are not required under the contract, before implementation of the modified TMP. | 2.10 | 38 |  |  |
| AMENDMENTS TO TRAFFIC MANAGEMENT PLANSModified traffic management control measures must be audited for compliance by a Panel Period Audit Consultant, or appraised by DIPL Road Operations if Traffic Management audits are not required under the contract, before works resume. | 2.10 | 38 |  |  |
| WORK IN RURAL AREASUndertake work during daylight hours only unless approval is given by the Superintendent. Approval will only be granted in exceptional circumstances. | 2.11 | 38 |  |  |
| WORK IN BUILT UP AREAS – WORKING TIMESObtain Superintendent approval if proposing to work inside the restricted work hours. | 2.12.1 | 38 |  |  |
| TRAFFIC LANESObtain prior written approval from the relevant Local Government or Council if traffic is to be detoured onto their road network or the proposed works affects their network/assets accordingly.Provide a copy of all relevant approvals with the Traffic Management Plan. | 2.12.2 | 39 |  |  |
| LANE CLOSURESDo not use bullnose or V type barriers unless no other option is available. Obtain permission from the Superintendent to use bullnose or V type barriers before placing them on site. | 2.12.3 | 39 |  |  |
| NIGHT ILLUMINATIONSections of the roadway, including detours and side tracks, affected by Work Zone Traffic Management, must be illuminated at night to AS 1742.3, irrespective of whether works are underway or not, at all times that traffic control measures are in place. Illumination to be 10 lux minimum at ground level. | 2.13 | 39 |  |  |
| NON-STANDARD SIGNSObtain specific approval from the Superintendent before using signs not included in AS 1742.3. | 2.15.4 | 41 |  |  |
| VARIABLE MESSAGE SIGNS (VMS)Provide details of the messages to be displayed and the locations of the variable message signs. Provide wording for advance warning message(s) and wording for message(s) to be displayed during the works. Do not use any VMS until the messages to be displayed have been approved. Do not use any VMS until the proposed location and orientation of the VMS has been approved. Provide this information not less than 5 working days before the VMSs are to be put in to service for the project. | 2.15.5 | 41 & 42 |  |  |
| TEMPORARY SPEED LIMITSSubmit temporary speed limit authorisation applications to alter speed limits to the Superintendent, 5 working days prior to the implementation of temporary speed limits, for approval under the Control of Roads Act. | 2.15.7 | 43 |  |  |
| ROAD SAFETY BARRIERSProvide a statement, signed by your engineer, and signed by the author of the Traffic Management Plan, which states that the Road Safety Barriers proposal complies with AS 1742.3, and with AS/NZS 3845.1, and with AS/NZS 3845.2, and with the specifications and installation manuals from the manufacturers of the components proposed to be used in the Road Safety Barriers system. Provide the Traffic Management Plan with this statement. | 2.15.8 | 43 & 44 |  |  |
| DETOURS, SIDE TRACKS, AND CROSSOVERSObtain written approval from the Superintendent before commencing any works. | 2.18 | 45 |  |  |
| TEMPORARY BRIDGINGObtain written approval from the Regional Manager, Road Projects prior to commencement of any such works. | 2.21 | 47 |  |  |
| TEMPORARY BRIDGINGProvide copies of approvals obtained by Contractor to the Superintendent prior to the commencement of the works | 2.21 | 47 |  |  |
| CONTRACTOR'S PLANT AND EQUIPMENTOn roads carrying significant traffic, floodlight the road and area within 50 m of the site when working at night, if approved by the Superintendent, to a ground level luminance of 10 lux minimum. | 2.22 | 48 |  |  |
| TRAFFIC SIGNALSObtain clearances from the Department’s Traffic Section, ph. 8999 4402, prior to commencement of the works.Co-ordinate your works activities with the Department's Traffic Section for the duration of the works. | 2.24.1 | 49 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURSProvide copies of the endorsed TGSs, and contact the Traffic Section, by phone on 8999 4402, not less than one working day prior to the commencement of work. | 2.24.1.1 | 49 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURSIf the traffic signals need to be re-mapped, advise the Traffic Section not less than one working day prior to the commencement of work.Contact should be made by email to traffic.NTG@nt.gov.au or by phone. | 2.24.1.1 | 49 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURSContact the Traffic Section by phone immediately before installing traffic control on the day the works are to be carried out to advise the Traffic Section about the planned lane closures.Contact the Traffic Section immediately if unacceptable traffic congestion occurs during the works so that the Traffic Section can assist by adjusting traffic signal timings. If traffic congestion cannot be relieved by adjusting traffic signal timings it may be necessary to remove lane closures. | 2.24.1.1 | 49 & 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURSAdvise the Traffic Section immediately before traffic control is removed | 2.24.1.1 | 49 & 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURSProvide copies of the endorsed TGSs, and contact the Traffic Section, not less than one working day prior to the commencement of work. | 2.24.1.2 | 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURSIf the traffic signals need to be re-mapped, advise the Traffic Section not less than one working day prior to the commencement of work. | 2.24.1.2 | 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURSContact the Traffic Section after-hours contact officer, on the after-hours phone number provided, immediately before installing traffic control on the day the works are to be carried out to advise the Traffic Section after-hours contact officer about the planned lane closures. | 2.24.1.2 | 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURSAdvise the Traffic Section after-hours contact officer, on the after-hours phone number provided, immediately before traffic control is removed. | 2.24.1.2 | 50 |  |  |
| VARIABLE SPEED LIMIT ZONESObtain clearances from the Department’s Traffic Section, ph. 8999 4402, not less than five working days prior to commencing works. | 2.24.2 | 50 |  |  |
| TRAFFIC COUNT STATIONSPrior to the commencement of work within the trafficked lanes and within 50 m of traffic signals or within 20 m, in any direction, of any component of the traffic count equipment, whether located in or on the trafficked lanes, shoulders, nature strips, and/or medians, or located in another type of area, obtain a clearance to commence the works from Department's Traffic Section for the region in which the works are located, and with either the Superintendent or with the Maintenance Manager (phone 8999 4660).Co-ordinate works activities, with the Department's Traffic Section for the region in which the works are located, for the duration of the works. | 2.24.3 | 50 & 51 |  |  |
| PORTABLE TRAFFIC SIGNALSComplete and provide the Portable Traffic Signal Authorisation (PTSA) form, included in the application for a Permit to Work in the Road Reserve document, to seek formal approval from the Superintendent to use the proposed portable traffic signals and the proposed time settings, not less than 5 working days prior to the intended use of the portable traffic signals. Do not use any PTSs on site until an authorised Departmental Officer has signed off the PTSA form. | 2.25 | 51 |  |  |
| TEMPORARY SPEED LIMITSWork zone speed limits require approval from the Superintendent prior to implementation. | 2.25.1 | 52 |  |  |
| **04 EARTHWORKS** |
| EXCESS MATERIALObtain approval from Superintendent prior to hauling, dumping and spreading excess material. | 4.4.2 | 57 |  |  |
| ROCK IN SUBGRADEObtain agreement from the Superintendent to the extent of the excavation. | 4.4.3 | 57 |  |  |
| UNSUITABLE MATERIAL BELOW SUBGRADE SURFACE OTHER THAN ROCKObtain directions from the Superintendent before works commence. | 4.4.4 | 57 |  |  |
| PREPARATION PRIOR TO FILLINGOnce moisture conditioned and compacted, subject each lot to a proof roll, with the Superintendent in attendance, as specified in the Proof Rolling sub-clause of the Conformance clause in this work section | 4.5.2 | 58 |  |  |
| UNSUITABLE MATERIAL BENEATH FILLObtain directions from the Superintendent before works commence. | 4.5.4 | 58 |  |  |
| EXCAVATIONObtain Superintendent’s agreement with inspection record of current conditions. | 4.13.2 | 64 |  |  |
| EXCAVATIONObtain the Superintendent’s approval for the foundation surface before placing the blinding concrete. | 4.13.2 | 64 |  |  |
| PROOF ROLLINGSubmit a proof rolling procedure to the Superintendent for approval including the proposed method of preparing the areas, the extent of proof rolling, and details of the plant and / or equipment proposed to be used. | 4.16.3 | 66 |  |  |
| CONFORMANCE TESTINGObtain the Superintendent’s approval of subgrade conformance prior to placing further material. | 4.16.4 | 66 |  |  |
| **05 CONFORMANCE TESTING** |
| ITP SUBMISSIONSubmit: ITPs, detailing all procedures and test plans to be undertaken to complete the project, before commencing work. | 5.4 | 69 |  |  |
| **06 PAVEMENTS AND SHOULDERS** |
| PROCESS CONTROL TESTINGProvide the Superintendent with a program and procedure for process control testing for the project within 14 days of the awarding of the contract and before work is commenced on site. Base the process control testing on lots and comply with the clause Conformance of Compaction of Soils in CONFORMANCE TESTING. | 6.4.1 | 86 |  |  |
| PAVEMENT ACCEPTANCE REQUIREMENTSObtain the Superintendent’s approval for pavement and shoulders acceptance prior to any surfacing work, including satisfying all requirements for:* Final Pavement Layer Integrity
* Dry back
* Proof Rolling
* Conformance testing
* Surface Roughness
* Other Tolerances

For unsealed pavements, obtain the Superintendent’s approval for pavement conformance at conclusion of pavement works. | 6.7.1 | 88 |  |  |
| **07 STABILISATION AND MODIFICATION** |
| BINDER FIELD APPLICATION RATESDetermine field application rate for spreading based on laboratory testing of materials. Obtain the Superintendent's approval of the field application rate for each source material for the project. | 7.4.4.1 | 93 |  |  |
| GRANULAR MODIFICATIONDetermine blending ratios based on laboratory testing of materials. Obtain the Superintendent's approval. | 7.4.6 | 94 |  |  |
| PLANT MIX STABILIZATION - BINDER CONTENTAssess the cement content based upon test results of materials to be stabilised. Obtain the Superintendent's approval for the cement content. | 7.5.1 | 95 |  |  |
| CONFORMANCE TESTINGSuperintendent to approve conformance of stabilised layer prior to commencing surfacing work. | 7.6.2 | 97 |  |  |
| **08 SPRAY SEALING** |
| APPLICATION SPRAY RATESDo not commence spraying until the spray rates are advised by the Superintendent. | 8.13.3 | 113 |  |  |
| APPLICATION OF GEOFABRICSubmit details of proposed machinery and method of application. | 8.14 | 114 |  |  |
| APPLICATION OF AGGREGATEObtain approval from the Superintendent for use of the proposed aggregate loader before commencing loading operations. | 8.15 | 114 |  |  |
| SELF-PROPELLED MULTI RUBBER TYRED VIBRATING ROLLERSObtain Superintendent’s approval for the use of self-propelled multi rubber tyred vibrating rollers before using them. | 8.15.4 | 116 |  |  |
| WASTE MATERIALObtain written approval from the Superintendent for use of rotary type brooms to windrow the loose aggregate in the urban area. Suction type brooms are still to be used to remove the waste aggregate. | 8.17 | 116 & 117 |  |  |
| **09 DENSE GRADED ASPHALT** |
| DESIGN MIX REQUIREMENTSNo asphalt shall be supplied until the mix has been registered and the Superintendent has approved the mix for use | 9.6.2 | 123 |  |  |
| DESIGN MIX REQUIREMENTSWhere it is proposed to change the source grading or nature of the components or binders, new mix designs must be carried out in accordance with the Department’s Code of Practice for Registration of Asphalt Mix Designs. | 9.6.2 | 123 |  |  |
| TEMPORARY WORKSThis work must be approved by the Superintendent before the section is opened to traffic. | 9.7.5 | 125 |  |  |
| LONGITUDINAL JOINTSProvide a plan showing all proposed longitudinal joints. The plan must be approved by the Superintendent prior to works depicted commencing. | 9.10.7 | 127 |  |  |
| **10 SLURRY SURFACING** |
| BINDERAdditives to improve the workability of the mix, or to accelerate or retard setting of the mix may be used with the approval of the Superintendent. | 10.5.1 | 132 |  |  |
| SAMPLE MIXESAt least 14 days before commencing work, forward the details of the mix design, carried out in a NATA registered laboratory and performed by a NATA accredited technician, to the Superintendent for endorsement. Once the mix design is endorsed by the Superintendent it becomes the specified job mix. | 10.7.2 | 134 |  |  |
| SWEEPING PAVEMENTDo not commence spreading of the slurry surfacing mix until the prepared pavement has been endorsed by the Superintendent. | 10.8.1 | 135 |  |  |
| **11 MISCELLANEOUS CONCRETE WORKS** |
| CHEMICAL ADMIXTURESDo not use admixtures without obtaining prior written approval from the Superintendent. | 11.3.5 | 138 |  |  |
| REINFORCEMENTDo not place concrete until the reinforcement has been inspected by the Superintendent. | 11.3.6 | 139 |  |  |
| PLACING OF CONCRETEProvide verification that all constituent materials, formwork, falsework, reinforcement, and environmental conditions comply with all requirements. Do not cast any concrete without that verification. | 11.6.3 | 140 |  |  |
| EXISTING SERVICESObtain the Superintendent's approval before altering the line or level of existing services. | 11.8 | 142 |  |  |
| **12 DRAINAGE WORKS** |
| PRECAST REINFORCED CONCRETE BOX CULVERTSProvide drawings showing complete reinforcement and dimensions with tolerances and obtain the Superintendent’s approval prior to fabricating any units. Provide manufacturer’s certification that the provided culverts comply with the applicable sections of AS 5100.5 and with AS 1597. Certify that the design is reflected accurately by the shop drawings and that the design is adequate to resist all specified loads and the soil loads pertaining to the site.Provide a table of construction axle loads versus minimum required cover for each box culvert size. | 12.5.3 | 146 |  |  |
| CONSTRUCTION OF CULVERTS AND STRUCTURES - SETTING OUTObtain the Superintendent's approval for the setting out before construction. | 12.6.1 | 147 |  |  |
| CONSTRUCTION OF CULVERTS AND STRUCTURES - BACKFILLDo not place backfill against any in‑situ concrete structure until the concrete has attained 80% characteristic strength and approval has been given. | 12.6.10 | 149 |  |  |
| INLET AND OUTLET STRUCTURES AND MAINTENANCE HOLES - LAYING AND BACKFILLINGObtain Superintendent's approval of the pipe installation before backfilling. | 12.11.5 | 150 |  |  |
| **13 PROTECTION WORKS** |
| GROUTED STONE PITCHINGObtain Superintendent's approval before grouting. | 13.5.2 | 155 |  |  |
| **14 ROAD FURNITURE AND TRAFFIC CONTROL DEVICES** |
| CERTIFICATION OF GUIDE POSTSProvide certification that guide posts conform to the following:* Where installed in normal working conditions, guide posts are capable of self erecting after 10 impacts head on, from an average sedan travelling at 60 kilometres per hour.
* After 2,000 hours of exposure in an Atlas Weatherometer the guide posts do not change colour by more than 10 points on a Delta E colour chart.
* The guide post material has a minimum vicat softening point of 120 °C.
* Physical testing as specified.
* Resistant to termites.
 | 14.6.2 | 163 |  |  |
| GUIDE POST CHARACTERISTICSProvide a sample guide post from each batch purchased for this contract for approval before installing any guide posts. | 14.6.3 | 164 |  |  |
| ROAD SIGNS - MATERIALSObtain Superintendent’s approval for the use of anti-graffiti film or coating products. Apply anti-graffiti products only to the new road signs specified by the Superintendent. | 14.7.3 | 165 |  |  |
| ROAD SAFETY BARRIERS – WIRE ROPE SYSTEMSObtain Superintendent’s approval for any proposed Steel Wire Rope Road Safety Barrier System before ordering any components. | 14.11 | 170 |  |  |
| **15 PAVEMENT MARKING** |
| PAVEMENT MARKING PAINTSubmit Certificates of Compliance, issued by an accredited testing authority, stating that all paints being used comply with, the relevant Australian Standards and/or APAS specifications. | 15.5 | 173 |  |  |
| GLASS BEADSSubmit Certificates of Compliance, issued by an accredited testing authority, stating that the glass beads being used comply with, the relevant Australian Standards and APAS specifications. | 15.6 | 174 |  |  |
| PAVEMENT MARKING CONFORMANCE TOLERANCESProvide evidence that the pavement marking complies with the requirements of this specification. | 15.9 | 175 |  |  |
| THERMOPLASTIC MATERIALSApproval from Director of Engineering and Environment Services is required before thermoplastic materials are used. | 15.11 | 177 |  |  |
| COLD APPLIED PLASTIC MATERIALSApproval from Director of Engineering and Environment Services is required before cold applied plastic materials are used. | 15.12 | 178 |  |  |
| AUDIO TACTILE LINE MARKINGApproval from Director of Engineering and Environment Services is required before audio tactile line marking materials are used. | 15.13 | 178 |  |  |
| RAISED RETROREFLECTIVE PAVEMENT MARKERSSubmit details in relation the manufacturer’s warranties, performance, durability and maintenance of the raised retroreflective pavement markers | 15.14.1 | 179 |  |  |
| REMOVAL OF PAVEMENT MARKINGSObtain approval from the Superintendent on the method used for pavement marking removal before commencing removal operations. | 15.15 | 180 |  |  |
| PAINT BLACKOUTObtain Superintendent’s approval before using this methodology. | 15.15.4 | 180 |  |  |
| REPORTINGSubmit to the Superintendent the following information, in Microsoft Excel spreadsheet format, every quarter, for all works carried out under this contract:* CSR number (for panel contract works)
* Contract number (for new works)
* Date
* Road number
* Chainages – start point and finish point of each section of works
* PRP numbers - start point and finish point of each section of works
* GPS coordinates in Decimal Degrees - start point and finish point of each section of works
* Type of carriageway – inbound outbound (for duel carriageways) and full width (for two way carriageway) and
* Bead size used and Paint application rate.
 | 15.17 | 182 |  |  |
| **16 LANDSCAPE** |
| IMPORTED SOILSAdvise the name of the proposed supplier. Do not order soils without Superintendent’s approval of the supplier. | 16.3.4 | 185 |  |  |
| MULCHAdvise the name of the proposed supplier. Do not order mulch without Superintendent’s approval of the supplier. | 16.3.6 | 185 |  |  |
| SETTING OUT OF HOLESObtain approval of the set out from the Superintendent before commencing any planting. | 16.5.1 | 187 |  |  |
| IRRIGATION SYSTEMBackfill trenches only after inspection and approval of wiring. | 16.8.1 | 197 & 198 |  |  |
| DESIGN PLANSSubmit drawings to Superintendent for approval indicating design proposals showing all pipework, sprinklers, valves and control systems. | 16.8.2 | 198 |  |  |
| TESTINGObtain Superintendent's approval to proceed with backfilling other than spot filling to retain pipework from movement during pressure testing. | 16.8.7 | 200 |  |  |
| **18 TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRANSPORT SYSTEMS** |
| TRAFFIC SIGNAL CABLINGSubmit documentation of proposed cable layout for approval prior to commencing installation of cabling. | 18.5 | 207 |  |  |
| CONNECTION TO TELSTRA PIT FROM COMMUNICATIONS ISOLATION PILLARProvide documentary evidence that the installation is approved by Telstra. | 18.8.3 | 209 |  |  |
| DOCUMENTS AND PLANSSubmit to the Superintendent one complete set of As Constructed Drawings and completed Cable Layout and Connection Chart before the issue of the Certificate of Practical Completion. | 18.9 | 209 |  |  |
| **20 STREET LIGHTING** |
| TEMPORARY LIGHTINGSubmit plans of the proposed temporary street lighting to the Superintendent for approval prior to removal of existing street lights. | 20.10.2 | 218 |  |  |
| **21 DIRECTIONAL BORING** |
| PROPOSED METHODSubmit details of the proposed method of directional boring not less than 14 days prior to commencement of construction using that method. Include details of proposed filling of cavities. No disruption or excavation of the surface is to take place over the length nominated. | 21.4 | 219 |  |  |
| DIRECTIONAL BORING WITHOUT PIPE CASINGObtain written permission from the Superintendent to use directional boring without pipe casing. | 21.4.2 | 220 |  |  |
| **22 PROTECTIVE COATINGS** |
| PROTECTIVE COATINGSSurface Preparation: To AS 1627. | 22.3 | 223 |  |  |
| PROTECTIVE COATINGSComplete and submitSite testing of protective coatings: To AS 3894.10 and AS 3894.11 and AS 3894.12. | 22.3 | 223 |  |  |
| ABRASIVE BLASTINGAt the completion of the final blast and prior to coating application, the surface profile of each item shall be measured according to Method A, Profile Replicating Tape, of AS 3894.5. Provide documentary confirmation that the surface is suitable for the application of the specified coatings. This shall be identified as a Hold Point in the contractor’s ITP. | 22.12.2 | 226 & 227 |  |  |
| ALTERNATE SURFACE PREPARATIONDo not use forms of surface preparation other than abrasive blasting, such as bristle blaster, needle guns, power tool cleaning and hand tool cleaning, without written permission from the Superintendent. Alternate methods of surface preparation must be included in the Contractor’s ITP. | 22.12.4 | 227 |  |  |
| COATINGProvide coating manufacturers’ written approval for use before using any other additives (eg promoters, accelerators etc). | 22.13.2 | 228 |  |  |
| ALTERNATE COATINGDo not use coating materials other than specified, without written permission from the Superintendent. Alternate coating materials must be included in the Contractor’s ITP. | 22.13.6 | 229 |  |  |
| COATING DEFECTSProvide details of repairs required and procedures and processes proposed for making the repairs to the Superintendent prior to making any repairs. Any requirements for the repair of protective coatings shall be identified as a Hold Point in the contractor's ITP. | 22.13.7 | 229 |  |  |
| ITP, JSA AND SWMSProvide ITPs, JSAs, a SWMS and other quality control procedures and documents to be used during protective coating systems application. These must be approved prior to commencement of work. | 22.15 | 229 |  |  |
| CONTRACTOR RECORDSProvide copies of all NCRs (Non Conformance Reports) immediately they are completed or received. The NCRs must detail the non-conformance and be accompanied by a Corrective Action Report (CAR) which is to detail the action proposed to be undertaken to rectify the non-conformance. | 22.16 | 230 |  |  |
| FILM THICKNESSFinal acceptance of each increment of work will not be made until the dry film thickness meets or exceeds the specified thickness. Regardless of the number of coats specified, additional coats shall be applied as may be necessary to achieve the specified thickness, at the contractor's expense. | 22.16.1 | 230 |  |  |
| INSPECTORProvide the name and qualifications of the inspector prior to commencement of work. | 22.16.2 | 230 |  |  |

## SCHEDULE 2 - WITNESS POINTS

| **SCHEDULE 2 – WITNESS POINTS** |
| --- |
| **CLAUSE TITLE** | **SECTION** | **PAGE** | **INITIALS** | **DATE** |
| **01 MISCELLANEOUS PROVISIONS** |
| CRUSHING OR SCREENINGProvide documentary evidence of the certification that the plant is fit for use issued by a competent person. Provide documentary evidence of that person’s skills and qualifications which indicate their competence as defined in the NT Work Safe Bulletin cited above. This evidence is to be provided within 2 weeks of the award of the contract. | 1.11.3 | 13 |  |  |
| SAFETY OFFICERAppoint a Safety Officer and notify the Superintendent of the Safety Officer’s name, and contact details, including an after-hours contact phone number.Ensure the Safety Officer is capable and available at all times as required. | 1.14.1 | 16 |  |  |
| CONTROL STATION CHECK SURVEYWhere results exceed the quoted tolerance notify the Superintendent and obtain directions. | 1.21 | 19 |  |  |
| AS CONSTRUCTED INFORMATIONProvide As Constructed drawings for all of the works.* Show co-ordinate dimensions where applicable.
* Show design levels and as constructed levels on the as constructed drawings. Clearly identify on the as constructed drawings which levels are design levels and which levels are as constructed levels.
* Clearly show set-out on the as constructed drawings. Show both design set-out and as constructed set-out. Show clearly which is design and which is as constructed.
* Refer to the specific deliverables in the NTG Technical Drawings Part 1 - Requirements for Technical Records Management document, which is accessible via <https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-records> .

Drawings without changes shall be described as "As Constructed - No Changes" in the amendment description column. | 1.23 | 19 & 20 |  |  |
| AS CONSTRUCTED INFORMATIONBefore the work commences provide a proposed procedure for recording and submitting the amended drawings. | 1.23 | 19 & 20 |  |  |
| **02 PROVISION FOR TRAFFIC** |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF INDEPENDENT THIRD PARTY AUDITSNotify the Superintendent prior to rework arising due to failed audits. | 2.8.7 | 35 |  |  |
| DETOURS, SIDETRACKS, AND CROSSOVERS - CONSTRUCTIONObtain advice from the Superintendent that all requirements for the construction of the detours, side tracks, and/or crossovers have been met on completion | 2.18.1 | 45 |  |  |
| DETOURS, SIDETRACKS, AND CROSSOVERS - CONSTRUCTIONProvide not less than 5 days notice before opening any side track, detour, or crossover, to traffic. | 2.18.1 | 45 |  |  |
| **04 EARTHWORKS** |
| EXISTING SURFACE LEVELSObtain inspections of any disputed existing surface levels with the Superintendent prior to any stripping or earthworks operations. | 4.16.1 | 65 |  |  |
| PROOF ROLLINGGive the Superintendent not less than 24 hours notice of the location and commencement time for the proof rolling. | 4.16.3 | 66 |  |  |
| **05 CONFORMANCE TESTING** |
| NOTICE OF TESTINGProvide the Superintendent with a copy of the order for testing simultaneously with the order being sent to the Panel Period Contractor. | 5.8 | 70 |  |  |
| NOTICE OF TESTINGNotify the Superintendent prior to any rework of failed lots. | 5.8 | 70 |  |  |
| **08 SPRAY SEALING** |
| SAMPLING OF BINDER - COLLECTION OF SAMPLESTake samples from the point of delivery on transfer from the bulker to the sprayer or as directed. Where transfer is for works in the urban area or for small works ensure that conformance testing is ordered and samples are taken at the point of transfer from bulker to sprayer. | 8.9.5 | 110 |  |  |
| SPRAYINGGive the Superintendent 48 hours notice of intention to spray bitumen. | 8.13 | 112 |  |  |
| PREPARATION FOR SPRAYER RUNRecord the volume and temperature of the sprayer contents before each run, while sprayer is on level ground. Dip Sprayer Tank before and after each sprayer run. Record the dip readings, and the temperature of the sprayer contents at the time the dip was done. Provide copies of records of Sprayer Tank dips and temperatures of tank contents within one day of the completion of a day’s work. | 8.13.4 | 113 |  |  |
| PREPARATION FOR SPRAYER RUNAllow visual inspection when requested. | 8.13.4 | 113 |  |  |
| PREPARATION FOR SPRAYER RUNCheck that the spray bar is at the correct height before spraying begins. | 8.13.4 | 113 |  |  |
| SPRAYSHEETSSupply spraysheets (paper or electronic formats are acceptable) to the Superintendent at the end of each day’s production. | 8.18.1 | 117 |  |  |
| **09 DENSE GRADED ASPHALT** |
| BITUMINOUS BINDERDemonstrate that the binder used for asphalt manufacture has been handled according to these requirements. | 9.5.4 | 122 |  |  |
| SURFACE PREPARATION - NEW CONSTRUCTIONGive the Superintendent not less than 24 hours notice of the location and scheduled commencement time of surface preparation works. | 9.7.1 | 124 |  |  |
| SPREADING - GENERALGive at least 24 hours notice before commencement of asphalt material spreading. | 9.10.1 | 126 |  |  |
| LAYING PATTERNProvide a construction program and paving plan at least 7 working days prior to commencement of works. Paving plans must be confirmed prior to the commencement of each shift. | 9.10.4 | 127 |  |  |
| COMPACTION TEMPERATURESThe Contractor must advise the Superintendent of temperature limits relating to compaction. | 9.11.2 | 128 |  |  |
| **10 SLURRY SURFACING** |
| COMMENCEMENT OF WORKGive the Superintendent at least 7 days notice of the date and time of the commencement of work. | 10.3 | 132 |  |  |
| RECORDSForward a copy of the slurry surfacing Daily Record Sheet to the Superintendent daily. | 10.13 | 137 |  |  |
| **11 MISCELLANEOUS CONCRETE WORKS** |
| FORMWORKDo not place concrete until the formwork has been inspected by the Superintendent. | 11.6.2 | 140 |  |  |
| PLACING OF CONCRETEGive the Superintendent sufficient notice so that inspection may be made before and during pouring concrete. | 11.6.3 | 140 |  |  |
| **12 DRAINAGE WORKS** |
| PRECAST REINFORCED CONCRETE BOX CULVERTSGive the Superintendent notice prior to casting concrete. | 12.5.3 | 146 |  |  |
| EXCAVATIONExcavate unsuitable material below specified level if directed by the Superintendent. | 12.6.2 | 147 |  |  |
| CONNECTION TO EXISTING SYSTEMSAdvise the Superintendent within 2 days when cleaning out is completed. | 12.6.9 | 148 |  |  |
| BACKFILLNotify the Superintendent before backfilling where holes or fissures occur in rock trenches. | 12.6.10 | 149 |  |  |
| INLET AND OUTLET CHANNELSAdvise the Superintendent within 2 days when cleaning out is completed. | 12.8 | 149 |  |  |
| END WALLSAdvise the Superintendent within 2 days of when cleaning out is completed. | 12.11.6 | 150 |  |  |
| **14 ROAD FURNITURE AND TRAFFIC CONTROL DEVICES** |
| TACTILE GROUND SURFACE INDICATORSProvide a 5 year warranty for the materials used, and for the devices installed as tactile ground surface indicators. Provide a 5 year warranty for the workmanship for the installation of the tactile ground surface indicators. Both warranties to be in the name of the Principal. | 14.4 | 161 |  |  |
| **15 PAVEMENT MARKING** |
| PAVEMENT MARKING APPLICATIONObtain approval from the Superintendent for the type of equipment to be used for applying pavement marking materials. | 15.8 | 174 |  |  |
| PAVEMENT MARKING APPLICATIONProduce documented evidence to show that the spraying equipment has been calibrated in accordance with PCCP requirements and is certified by PCCP as being suitable for the works to be carried out under this contract. | 15.8 | 174 |  |  |
| PAVEMENT MARKING APPLICATIONObtain Superintendent’s approval for variation to the any of the above requirements. | 15.8 | 174 |  |  |
| COLD APPLIED PLASTIC MATERIALSProvide evidence that all proprietary products such as epoxy or plastic products have demonstrated satisfactory field performance for a period of at least three years. | 15.12 | 178 |  |  |
| **16 LANDSCAPE** |
| IMPORTED SOILSProvide a 5 kg sample of topsoil proposed for the works. Do not order soils without Superintendent’s approval of the sample. Provide copies of delivery dockets for the topsoil delivered to site for the works. | 16.3.4 | 185 |  |  |
| MULCHProvide a 5 kg sample of mulch proposed for the works. Do not order mulch without Superintendent’s approval of the sample. Provide copies of delivery dockets for the mulch delivered to site for the works. | 16.3.6 | 185 |  |  |
| BATTER PROTECTION BY HYDROSEEDING - CONTRACTOR SUBMISSIONSProduct Data: Submit manufacturer’s product data and installation instructions. Include required substrate preparation, list of materials and application rates | 16.7.2 | 192 |  |  |
| BATTER PROTECTION BY HYDROSEEDING – SOIL TESTINGObtain Superintendent’s approval before using additives not listed above in Composition sub-clause. Approved additives are to be applied with the hydroseeding slurry at Manufacturer recommended rates based on soil test results. | 16.7.7 | 194 |  |  |
| **18 TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRAFFIC SYSTEMS** |
| INSPECTIONSGive 24 hours notice to the Superintendent for inspection of excavations for pedestals, bases and conduits. | 18.5.8 | 208 |  |  |
| CHECKING AND TESTINGGive 24 hours notice for checking and testing signal controller, cabling and lanterns. | 18.10 | 209 |  |  |
| **19 TRAFFIC COUNTING STATIONS** |
| DETECTOR LOOPProvide 24 hours notice to the Superintendent prior to installation of vehicle detector loops. | 19.8.1 | 212 & 213 |  |  |
| TESTING AND INSPECTION - GENERALTest the installation in the presence of the Superintendent. | 19.10.1 | 214 |  |  |
| TESTING AND INSPECTION - INSPECTIONProvide 24 hours notice to the Superintendent for inspection of excavations for foundations and conduits. | 19.10.3 | 214 |  |  |
| **20 STREET LIGHTING** |
| EXCAVATION - TRENCHESNotify the Superintendent when trench excavation is complete and before backfilling has commenced. | 20.5.2 | 216 |  |  |
| **21 DIRECTIONAL BORING** |
| DIRECTIONAL BORING WITH PIPE CASINGProvide documentary evidence of the certification that the pipe jacking equipment is fit for use issued by a competent person. Provide documentary evidence of that person’s skills and qualifications which indicate their competence as defined in the NT Work Safe Bulletin cited above. This evidence is to be provided within 2 weeks of the award of the contract. | 21.4.1 | 219 & 220 |  |  |
| **22 PROTECTIVE COATINGS** |
| CONTRACTOR’S RESPONSIBILITIESProvide documentary evidence of PCCP accreditation before commencing protective coatings work. | 22.5 | 224 |  |  |
| EQUIPMENTGive notice so that the oil carry-over tests may be witnessed by the Superintendent or their nominated representative. | 22.9.2 | 226 |  |  |
| COATINGProvide copies of specifications for application of protective coatings from the manufacturers of the products used. Provide copies of manufacturers’ product technical data sheets for all products used. | 22.13.2 | 228 |  |  |
| COATING DEFECTSThis compatibility between marker and coating is to be confirmed by the coating manufacturer. Provide written evidence of this compatibility if requested by the Superintendent. | 22.13.7 | 229 |  |  |
| CONTRACTOR RECORDSMaintain written records of the work so that complete traceability of all work and materials provided under this Specification is maintained. Use the relevant sections of AS 3894.10, AS 3894.11 & AS 3894.12 QA report forms as a basis of this record keeping format for all protective coating work under this contract. Use AS 3894.13 and AS 3894.14, in addition to the preceding Australian Standards, for structural steel work coated under this contract.Maintain these reports on a daily basis. Submit them to the Superintendent when requested, or, if not specifically requested, at least weekly. | 22.16 | 230 |  |  |
| FILM THICKNESSProvide and operate wet film and dry film thickness gauges of approved types to ensure the correct thickness of each coat and the full system is achieved. Provide details of the gauges proposed for use. | 22.16.1 | 230 |  |  |