

Standard Specification for Roadworks v5.3a– Schedules of Hold Points and Witness Points

Project information

Project Number:

RTF Number:

Project title:

Superintendent:

Name:

Phone number:

Contact person (Project Manager/Officer):

Name:

Phone number:

Schedule 1 – Hold Points

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
01 MISCELLANEOUS PROVISIONS				
VOLATILE SUBSTANCES MANAGEMENT Provide 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).	1.9	15		
PERMITS TO ACCESS LAND FOR WORKS ON ROADS The Contractor must provide documentary evidence of having been granted the required permission(s) to; <ul style="list-style-type: none"> – enter the land which is the site(s) of the works, and – 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	1.10	15 & 16		
PERMITS TO ACCESS LAND FOR WORKS ON ROADS Provide documented advice on sites to which surplus materials will be taken. Provide documentary evidence of permits, from the entity and/or organisations with jurisdiction over those sites, for the dumping of surplus materials at those sites.	1.10	15 & 16		
CAMP SITE/COMPOUND/WORKSHOP Provide 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.	1.11	16		
CAMP SITE/COMPOUND/WORKSHOP - FOOD PREPARATION FACILITIES Provide a copy of proof of registration with DoH of any camp food preparation area in accordance with the <i>Food Act 2004</i> .	1.11.1	16		
CAMP SITE/COMPOUND/WORKSHOP - EFFLUENT Provide a copy of written approval from Department of Health (DoH) for any proposed on-site effluent disposal system, before commencing works.	1.11.3	16		
CAMP SITE/COMPOUND/WORKSHOP - EFFLUENT Where 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.	1.11.3	16 & 17		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
CAMP SITE/COMPOUND/WORKSHOP - REHABILITATION Obtain approval from the Superintendent for the completed rehabilitation of the camp site/compound/workshop before final demobilisation.	1.11.4	17		
EXPLOSIVES Obtain approval from Superintendent before commencing blasting operations.	1.14	19		
SAFETY - WORK HEALTH AND SAFETY MANAGEMENT PLAN If 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.	1.16.2	20		
UTILITIES AND OTHER SERVICES PASSING UNDER EXISTING PAVEMENTS If the pavement is to be subjected to works, and open trenching for the routing of utilities or services is proposed, and has not been approved as part of the works, obtain approval from the Road Authority and the Superintendent before undertaking any excavation works for trenching across the existing pavement.	1.18	22		
WORK ON RAILWAY SITES Do not commence work until the work plan has been approved by the owner and operator of the rail system.	1.19	22		
WORK NEAR TRAFFIC COUNT STATIONS OR NEAR CULWEIGH STATIONS Prior to commencing any excavation, boring of holes, blasting, rock breaking, soil compaction or similar activity in the vicinity of traffic count station detector loops or Culweigh Station cabling, obtain the location of the cables from the Department of Infrastructure, Planning and Logistics, Transport Planning Division, Data Contracts Officer and pay all fees. Follow all directions and instructions issued by the Transport Planning Division in relation to work in the vicinity of such cables.	1.20	22		
AS CONSTRUCTED INFORMATION Provision of As Constructed information is a condition precedent to Practical Completion.	1.28	24		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
CONTRACTOR'S SUBMISSIONS – ROAD RESERVE, PERMITS AND APPROVALS Provide 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.	1.32.1	28		
CONTRACTOR'S SUBMISSIONS – DOCUMENTS TO BE SUBMITTED TO TECHNICAL RECORDS AND TO SUPERINTENDENT Provision of these documents will be required before the final payment can be processed, and for the final certificate (if applicable) to be issued.	1.32.2	28		
CONTRACTOR'S SUBMISSIONS – WARRANTIES – WARRANTY MARKINGS ON PRODUCTS Obtain Superintendent approval prior to the use of product markings as warranty certificate.	1.32.3.2	29		
02 PROVISION FOR TRAFFIC				
TEMPORARY TRAFFIC MANAGEMENT – SITE BASED WORKZONE TRAFFIC MANAGEMENT DESIGNER (TMD) Obtain approval from the Superintendent before making any substitution of staff by the Contractor. The Contractor shall provide to the Superintendent details of the proposed substitute staff including resume, length of time employed as TMD, and any other relevant information.	2.4.4	38		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
<p>TRAFFIC MANAGEMENT PLAN - SUBMISSION OF TRAFFIC MANAGEMENT PLAN Submit the Traffic Management Plan (TMP), with the Traffic Guidance Schemes. For contracts where audits of traffic control measures are required:</p> <ul style="list-style-type: none"> - 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. <p>For contracts where audits of traffic control measures are not required:</p> <ul style="list-style-type: none"> - 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. 	2.5.2	40		
<p>TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – INDEPENDENT THIRD PARTY TTM SUITABILITY AUDIT REQUIREMENTS The Traffic Management Plan must not be implemented before it is audited for suitability and found to be suitable.</p>	2.7.2	45		
<p>TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – INDEPENDENT THIRD PARTY TTM SUITABILITY AUDIT REQUIREMENTS Works must not commence before the Traffic Management Plan is audited for suitability and found to be suitable.</p>	2.7.2	45		
<p>AMENDMENTS TO TRAFFIC MANAGEMENT PLANS Modified TMPs and TGSs must be audited for suitability by a Panel Period Audit Consultant, and consent to use granted, before implementation of the modified TMP and/or TGSs, if audits are required under the contract. If Traffic Management audits are not required under the contract the modified TMPs and TGSs must be appraised by the Superintendent, and consent to use granted, before implementation of the modified TMPs and/or TGSs.</p>	2.10	46		

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CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
AMENDMENTS TO TRAFFIC MANAGEMENT PLANS Modified traffic management control measures must be audited for compliance by a Panel Period Audit Consultant, and consent to use granted, or appraised by the Superintendent, and consent to use granted, if Traffic Management audits are not required under the contract, before works resume.	2.10	46		
WORK IN RURAL AREAS Undertake work during daylight hours only unless approval is given by the Superintendent. Approval will only be granted in exceptional circumstances.	2.11	47		
WORK IN URBAN/BUILT-UP AREAS – WORKING TIMES Obtain Superintendent approval if proposing to work inside the restricted work hours.	2.12.1	47		
WORK IN URBAN/BUILT-UP AREAS – TRAFFIC LANES Obtain the written permission of the Superintendent if it is necessary to fully close a road.	2.12.2	47		
WORK IN URBAN/BUILT-UP AREAS – TRAFFIC LANES Obtain 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	47		
WORK IN URBAN/BUILT-UP AREAS – LANE CLOSURES Do not use bullnose or V type tapers unless no other option is available. Obtain permission from the Superintendent to use bullnose or V type tapers before placing them on site.	2.12.3	47		
NIGHT ILLUMINATION Sections of the roadway, including detours and side tracks, affected by Work Zone Traffic Management, must be illuminated at night to AS 1742.3, if <ul style="list-style-type: none"> – night works are in progress, and/or – if signage left on site overnight is not illuminated by the headlights of vehicles approaching the signs. Illumination to be 10 lux minimum at ground level.	2.13	47		
NT SPECIFIC DIRECTIONS FOR ROAD WORK SIGNS - NON-STANDARD SIGNS Obtain specific approval from the Superintendent before using signs not included in AS 1742.3.	2.15.4	49		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
<p>NT SPECIFIC DIRECTIONS FOR ROAD WORK SIGNS - PORTABLE VARIABLE MESSAGE SIGNS (VMS)</p> <ul style="list-style-type: none"> – Provide details of the messages to be displayed and the locations of the variable message signs. This information is to be included in TGSs for the project. – Provide wording for advance warning message(s) and wording for message(s) to be displayed during the works. This information is to be included in TGSs for the project. – 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	50		
<p>NT SPECIFIC DIRECTIONS FOR ROAD WORK SIGNS - TEMPORARY SPEED LIMITS</p> <p>Submit temporary speed limit authorisation applications to alter speed limits to the Superintendent, no later than 5 working days prior to the implementation of temporary speed limits, for approval under the Control of Roads Act.</p>	2.15.7	51		
<p>NT SPECIFIC DIRECTIONS FOR ROAD WORK SIGNS - ROAD SAFETY BARRIERS</p> <p>Provide 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.</p>	2.15.11	53 & 54		
<p>DETOURS, SIDE TRACKS, AND CROSSOVERS</p> <p>Obtain written approval from the Superintendent before commencing any works.</p>	2.18	56		
<p>TEMPORARY BRIDGING</p> <p>Obtain written approval from the Regional Manager, Road Projects prior to commencement of any such works.</p>	2.21	58		
<p>TEMPORARY BRIDGING</p> <p>Provide copies of approvals obtained by Contractor to the Superintendent prior to the commencement of the works</p>	2.21	58		

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CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
<p>CONTRACTOR'S PLANT AND EQUIPMENT</p> <p>On 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.</p>	2.22	58 & 59		
<p>TRAFFIC SIGNALS, INTELLIGENT TRANSPORT SYSTEMS (ITS), VARIABLE SPEED LIMIT ZONES, AND TRAFFIC COUNT STATIONS - TRAFFIC SIGNALS</p> <p>Obtain clearances from the Department's Traffic Section, ph. 8999 4402, prior to commencement of the works.</p> <p>Co-ordinate your works activities with the Department's Traffic Section for the duration of the works.</p>	2.24.1	60		
TRAFFIC SIGNALS, INTELLIGENT TRANSPORT SYSTEMS (ITS), VARIABLE SPEED LIMIT ZONES, AND TRAFFIC COUNT STATIONS - WORKS UNDERTAKEN DURING WORKING HOURS				
<p>Provide copies of the TGSs once consent for their use has been granted, and contact the Traffic Section, by phone on 8999 4402, not less than one working day prior to the commencement of work.</p>	2.24.2	60		
<p>If the traffic signals need to be re-mapped, or other traffic controls implemented, advise the Traffic Section not less than one working day prior to the commencement of work.</p> <p>Contact must be made by email to traffic.NTG@nt.gov.au or by phone.</p>	2.24.2	60		
<p>Advise the Traffic Section about the planned lane closures by phone immediately before installing traffic control on the day the works are to be carried out.</p> <p>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.</p>	2.24.2	60		
<p>Advise the Traffic Section immediately before traffic control is removed.</p> <p>Any failure to comply with this clause will render the Contractor liable to pay the costs incurred by the Department to procure any rectifications or repairs which become necessary.</p>	2.24.2	60		
TRAFFIC SIGNALS, INTELLIGENT TRANSPORT SYSTEMS (ITS), VARIABLE SPEED LIMIT ZONES, AND TRAFFIC COUNT STATIONS - WORKS UNDERTAKEN OUTSIDE WORKING HOURS				
<p>Provide copies of the TGSs once consent for their use has been granted, and contact the Traffic Section, not less than one working day prior to the commencement of work.</p>	2.24.3	60		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
If the traffic signals need to be re-mapped, or other traffic controls implemented, co-ordinate directly with the Traffic Section not less than one working day prior to the commencement of work.	2.24.3	60		
Advise the Traffic Section after-hours contact officer about the planned lane closures, using the after-hours phone number provided, immediately before installing traffic control, on the day the works are to be carried out. Contact the Traffic Section after-hours contact officer, on the after-hours phone number provided, immediately if unacceptable traffic congestion occurs during the works so that the Traffic Section after-hours contact officer 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.	2.24.3	60 & 61		
Advise the Traffic Section after-hours contact officer, on the after-hours phone number provided, immediately before traffic control is removed.	2.24.3	60 & 61		
TRAFFIC SIGNALS, INTELLIGENT TRANSPORT SYSTEMS (ITS), VARIABLE SPEED LIMIT ZONES, AND TRAFFIC COUNT STATIONS - VARIABLE SPEED LIMIT ZONES Obtain clearances from the Department's Traffic Section, ph. 8999 4402, not less than five working days prior to commencing works.	2.24.4	61		
TRAFFIC SIGNALS, INTELLIGENT TRANSPORT SYSTEMS (ITS), VARIABLE SPEED LIMIT ZONES, AND TRAFFIC COUNT STATIONS - TRAFFIC COUNT STATIONS AND CULWEIGH STATIONS Prior to the commencement of work within the trafficked lanes and within 50 m of traffic counters, or Culweigh stations, or within 20 m, in any direction, of any component of the traffic count or Culweigh 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 Maintenance Section for the region in which the works are located, and with either the Superintendent or with the Maintenance Manager (phone (08) 8999 4660). Co-ordinate works activities, with the Department's Maintenance Section for the region in which the works are located, for the duration of the works.	2.24.5	61		

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CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
PORTABLE TRAFFIC SIGNALS Complete 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	61 & 62		
PORTABLE TRAFFIC SIGNALS - TEMPORARY SPEED LIMITS Work zone speed limits require approval from the Superintendent prior to implementation.	2.25.1	62		
04 EARTHWORKS				
EARTHWORKS IN CUT - EXCESS MATERIAL Obtain approval from Superintendent prior to hauling, dumping and spreading excess material.	4.4.2	67		
EARTHWORKS IN CUT - ROCK IN SUBGRADE Obtain agreement from the Superintendent to the extent of the excavation.	4.4.3	67		
EARTHWORKS IN CUT - UNSUITABLE MATERIAL BELOW SUBGRADE SURFACE OTHER THAN ROCK Obtain directions from the Superintendent before works commence.	4.4.4	67		
EARTHWORKS IN FILL - PREPARATION PRIOR TO FILLING Once 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	68		
EARTHWORKS IN FILL - UNSUITABLE MATERIAL BENEATH FILL Obtain directions from the Superintendent before works commence.	4.5.4	68		
BRIDGE FOUNDATION – EXCAVATION - PREPARATION Obtain Superintendent’s agreement with inspection record of current conditions.	4.13.2.2	73		
BRIDGE FOUNDATION – EXCAVATION - PREPARATION Obtain the Superintendent’s approval for the foundation surface before placing the blinding concrete.	4.13.2.2	73 & 74		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
CONFORMANCE - PROOF ROLLING Submit 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	75		
CONFORMANCE - CONFORMANCE TESTING Obtain the Superintendent’s approval of subgrade conformance prior to placing further material.	4.16.4	76		
05 CONFORMANCE TESTING				
ITP SUBMISSION Submit ITPs, detailing all procedures and test plans to be undertaken to complete the project, before commencing work.	5.4	80		
06 PAVEMENTS AND SHOULDERS				
CONSTRUCTION OF PAVEMENT LAYERS - PROCESS CONTROL TESTING Provide 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	95		
PAVEMENT ACCEPTANCE – PAVEMENT - ACCEPTANCE REQUIREMENTS Obtain the Superintendent’s approval for pavement and shoulders acceptance prior to any surfacing work, including satisfying all requirements for: <ul style="list-style-type: none"> – Proof Rolling – Conformance Testing – Dry back – Final Pavement Layer Integrity – Surface Roughness – Other Tolerances For unsealed pavements, obtain the Superintendent’s approval for pavement conformance at conclusion of pavement works.	6.7.1	97		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
07 STABILISATION AND MODIFICATION				
IN SITU STABILISATION AND MODIFICATION - BINDER SPREADING - BINDER FIELD APPLICATION RATES Determine 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	103		
IN SITU STABILISATION AND MODIFICATION - GRANULAR MODIFICATION Determine blending ratios based on laboratory testing of materials. Obtain the Superintendent's approval of determined blending ratio.	7.4.6	104		
PLANT MIX STABILIZATION - BINDER CONTENT Assess the cement content based upon test results of materials to be stabilised. Obtain the Superintendent's approval for the cement content.	7.5.1	105		
CONFORMANCE - CONFORMANCE TESTING Superintendent to approve conformance of stabilised layer prior to commencing surfacing work.	7.6.2	107		
08 SPRAY SEALING				
MATERIAL REQUIREMENTS – BITUMEN EMULSION Proprietary products: Seek approval from Superintendent before use.	8.4.7	115		
BINDER COAT REQUIREMENTS – GENERAL – REQUIREMENTS Submit all relevant safety and property data for proprietary emulsion primes. Do not use proprietary emulsion primes unless approval for use is granted.	8.8.1.3	120		
SPRAYING - APPLICATION SPRAY RATES Do not commence spraying until the spray rates are advised by the Superintendent.	8.13.3	125		
APPLICATION OF GEOFABRIC Submit details of proposed machinery and method of application.	8.14	127		
APPLICATION OF AGGREGATE - SELF-PROPELLED MULTI RUBBER TYRED VIBRATING ROLLERS Obtain Superintendent's approval for the use of self-propelled multi rubber tyred vibrating rollers before using them.	8.15.4	129		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
WASTE MATERIAL Obtain 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	129		
09 DENSE GRADED ASPHALT				
ASPHALT MIX DESIGN - DESIGN MIX REQUIREMENTS No asphalt shall be supplied until the mix has been registered and the Superintendent has approved the mix for use	9.4.2	137		
ASPHALT MIX DESIGN – DESIGN MIX REQUIREMENTS Where 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 Registration of asphalt mix designs – Technical directive accessible via https://dipl.nt.gov.au/industry/technical-standards-guidelines-and-specifications/road-surfacing-standards .	9.4.2	137		
SURFACE PREPARATION - TEMPORARY WORKS This work must be approved by the Superintendent before the section is opened to traffic.	9.10.5	144		
SPREADING – LONGITUDINAL JOINTS Provide a plan showing all proposed longitudinal joints. The plan must be approved by the Superintendent prior to works depicted commencing.	9.13.7	146		
10 SLURRY SURFACING				
MATERIALS – BINDER Additives 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	153		
MIX REQUIREMENTS – MIX DESIGN – PROCESS TESTING AND ENDORSEMENT At least 14 days before commencing work, forward the details of the mix design, and copies of test reports to the Superintendent. Testing is to be carried out in a NATA accredited laboratory and is to be carried out at no cost to the Principal. Once the mix design is endorsed by the Superintendent it becomes the specified job mix.	10.7.2	155		
PREPARATION AND SET OUT - SWEEPING PAVEMENT Do not commence spreading of the slurry surfacing mix until the prepared pavement has been endorsed by the Superintendent.	10.8.1	156		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
11 MISCELLANEOUS CONCRETE WORKS				
MATERIAL - CHEMICAL ADMIXTURES Do not use admixtures without obtaining prior written approval from the Superintendent.	11.3.5	160		
MATERIAL - REINFORCEMENT Do not place concrete until the reinforcement has been inspected by the Superintendent.	11.3.6	160		
CONSTRUCTION - PLACING OF CONCRETE Provide verification that all constituent materials, formwork, falsework, reinforcement, reinforcement supports, and environmental conditions comply with all requirements. Do not cast any concrete without that verification.	11.6.3	161		
EXISTING SERVICES Obtain the Superintendent's approval before altering the line or level of existing services.	11.8	163		
12 DRAINAGE WORKS				
MATERIALS - PRECAST REINFORCED CONCRETE BOX CULVERTS Provide 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	167		
CONSTRUCTION OF CULVERTS AND STRUCTURES - SETTING OUT Obtain the Superintendent's approval for the setting out before construction.	12.6.1	168		
CONSTRUCTION OF CULVERTS AND STRUCTURES - BACKFILL Do 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	170		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
SUBSOIL DRAINAGE SYSTEMS – SUBSOIL DRAINS - LAYING AND BACKFILLING Obtain Superintendent's approval of the pipe installation before backfilling.	12.11.1.5	171		
13 PROTECTION WORKS				
STONE PITCHING - GROUTED STONE PITCHING Obtain Superintendent's approval before grouting.	13.5.2	176		
14 ROAD FURNITURE AND TRAFFIC CONTROL DEVICES				
PLASTIC FLEXIBLE GUIDE POSTS - SAMPLES Provide a sample flexible guide post from each batch purchased for this contract for inspection and approval before installing any posts.	14.6.4	186		
PLASTIC FLEXIBLE GUIDE POST – TESTS Test results are to be provided as detailed in Testing of Flexible Guide Posts clause in this work section. Submit test results to the Superintendent in respect to the following characteristics before ordering the guide posts: <ul style="list-style-type: none"> – Heat resistance. – Cold resistance. – Rigidity. – Vehicle impact. 	14.6.7	188		
STEEL FLEXIBLE GUIDE POSTS - SAMPLES Provide a sample flexible steel guide post from each batch purchased for this contract for inspection and approval before installing any posts.	14.7.4	188		
STEEL FLEXIBLE GUIDE POST – TESTS Test results are to be provided as detailed in Testing of Flexible Guide Posts clause in this work section. Submit test results to the Superintendent in respect to the following characteristics before ordering the guide posts: <ul style="list-style-type: none"> – Heat resistance. – Cold resistance. – Rigidity. – Vehicle impact. 	14.7.7	190		

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CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
TESTING OF FLEXIBLE GUIDE POSTS – TESTS This hold point is covered by the hold points in the clauses Plastic Flexible Guide Posts and Steel Flexible Guide Posts above. Submit test results to the Superintendent in respect to the following characteristics before ordering the guide posts: <ul style="list-style-type: none"> – Heat resistance – Cold resistance – Rigidity – Vehicle impact 	14.8.1	190	N/A	N/A
ROAD SIGNS - MATERIALS Obtain 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..	14.9.4	193		
ROAD SAFETY BARRIERS – STEEL WIRE ROPE SYSTEM Obtain Superintendent’s approval for any proposed Steel Wire Rope Road Safety Barrier System before ordering any components.	14.13	198		
15 BOAT RAMPS AND BARGE LANDINGS				
EARTHWORKS IN CUT - UNSUITABLE MATERIAL Obtain directions from the Superintendent before works commence.	15.7.2	204 & 205		
EARTHWORKS IN CUT - EXCAVATED MATERIAL - STOCKPILE MANAGEMENT Contractor to supply Sampling, Analytical and Quality Plan (SAQP), to the Superintendent for approval prior to commencing soil testing.	15.7.3.1	205		
EARTHWORKS IN CUT – ACCESS CHANNEL PROFILES Submit to the Superintendent a hydrographic survey demonstrating that the least depth, lines and levels of all navigation zones and re-profiling areas have been achieved. Do not disestablish plant required for the re-profiling works until approval from the Superintendent has been given.	15.7.6	206		
COMPACTION OF 75MM CRUSHED ROCK (UNDER SLABS) – COMPACTION Obtain Superintendent's approval before commencing alternative method of crushed rock compaction.	15.9.3	208		
CONCRETE COMPONENTS - TESTING FREQUENCY Submit all test results to the Superintendent.	15.11.5	209		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
SHOULDERS AND SHOULDER BATTERS – CAST INSITU CONCRETE AND FULLY GROUTED STONE PITCHED – FULLY GROUTED STONE PITCHED SHOULDERS AND SHOULDER BATTERS - CONSTRUCTION - Obtain Superintendent's approval before grouting.	15.15.4.2	212		
ROCK ARMOUR - ROCK TESTING REQUIREMENTS - Submit all test results to the Superintendent.	15.18.4	214		
ROCK ARMOUR – PLACEMENT - Before placing rock submit to the Superintendent a detailed Method Statements for approval. Method Statements to include: <ul style="list-style-type: none"> – Work methods. – Work sequences. – Proposed plant. – Safety measures. – Contingency plans for inclement weather. – Evidence that the excavator operator has experience in the construction of rock armour works. 	15.18.8	215		
NAVIGATIONAL AIDS - NAVIGATIONAL BUOYS - Submit to the Superintendent nominated buoy technical data for approval	15.21.1	216 & 217		
NAVIGATIONAL AIDS - SOLAR MARINE LANTERN - Submit to the Superintendent the nominated solar marine lantern technical data for approval.	15.21.3	217		
NAVIGATIONAL AIDS - SOLAR MARINE LANTERN POWER SUPPLY - Submit to the Superintendent nominated solar marine lantern power supply technical data for approval.	15.21.4	217 & 218		
NAVIGATIONAL AIDS - SECTOR LANTERN - Submit to the Superintendent nominated sector lantern technical data for approval.	15.21.5	218		
COMPLETION - OPERATION AND MAINTENANCE MANUALS - Submit to the Superintendent on completion operation and maintenance manuals and maintenance schedules for the following: <ul style="list-style-type: none"> – Boat Ramps and/or Barge Landings. – Rock armour protection. – Marine infrastructure. – Navigational aids 	15.22.1	219		
COMPLETION - AS-CONSTRUCTED DRAWINGS - Provision of as-constructed drawings is a condition precedent to Practical Completion.	15.22.2	219		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
COMPLETION – WARRANTIES - Submit to the Superintendent the manufacturer’s published product warranties in the name of the Principal for all navigational aids.	15.22.4	219		
16 PAVEMENT MARKING				
PAVEMENT MARKING PAINT Submit 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.	16.5	222		
GLASS BEADS Submit 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.	16.6	223		
PAVEMENT MARKING CONFORMANCE TOLERANCES Provide evidence that the pavement marking complies with the requirements of this specification.	16.9	224		
COLD APPLIED PLASTIC MATERIALS Approval from Project Director Civil Asset Management is required before cold applied plastic materials are used.	16.11	226		
AUDIO TACTILE LINE MARKING Approval from Project Director Civil Asset Management is required before audio tactile line marking materials are used.	16.12	226		
RAISED RETROREFLECTIVE PAVEMENT MARKERS Submit details in relation to the manufacturer’s warranties, performance, durability and maintenance of the raised retroreflective pavement markers.	16.13.1	227		
REMOVAL OF PAVEMENT MARKINGS Obtain approval from the Superintendent on the proposed method used for pavement marking removal before commencing removal operations.	16.14	228		
REMOVAL OF PAVEMENT MARKINGS - PAINT BLACKOUT Obtain Superintendent’s approval before using this methodology.	16.14.4	228		
17 LANDSCAPE				
MATERIALS - IMPORTED SOILS Advise the name of the proposed supplier. Do not order soils without Superintendent’s approval of the supplier.	17.3.4	232		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
MATERIALS - MULCH Advise the name of the proposed supplier. Do not order mulch without Superintendent’s approval of the supplier.	17.3.6	232		
PLANTING - SETTING OUT OF HOLES Obtain approval of the set out from the Superintendent before commencing any planting.	17.5.1	234		
IRRIGATION - IRRIGATION SYSTEM Backfill trenches only after inspection and approval of wiring.	17.8.1	243 & 244		
IRRIGATION - DESIGN PLANS Submit drawings to Superintendent for approval indicating design proposals showing all pipework, sprinklers, valves and control systems.	17.8.2	245		
IRRIGATION - TESTING Obtain Superintendent's approval to proceed with backfilling other than spot filling to retain pipework from movement during pressure testing.	17.8.7	247		
19 TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRANSPORT SYSTEMS				
TRAFFIC SIGNAL CABLING Submit documentation of proposed cable layout for approval prior to commencing installation of cabling.	19.5	254		
SCATS FACILITIES – CONNECTION TO TELSTRA PIT Provide documentary evidence that the installation is approved by Telstra.	19.8.3	256		
DOCUMENTS AND PLANS Submit 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.	19.9	256		
21 STREET LIGHTING				
UTILITIES AND OTHER SERVICES PASSING UNDER EXISTING PAVEMENT If the pavement is to be subjected to works, and open trenching for the routing of utilities or services is proposed, and has not been approved as part of the works, obtain approval from the Road Authority and the Superintendent before undertaking any excavation works for trenching across the existing pavement.	21.7	263 & 264		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
SOLAR STREET LIGHTING – MANUFACTURER’S SPECIFICATIONS Submit to the Superintendent manufacturer’s specifications for approval.	21.9.2	265		
EXISTING STREET LIGHTING – TEMPORARY LIGHTING Submit plans of the proposed temporary street lighting to the Superintendent for approval before removal of existing street lights.	21.15.2	267		
COMPLETION – OPERATION AND MAINTENANCE MANUALS Submit to the Superintendent Operation and Maintenance manuals for the installed lighting system.	21.18.1	268		
COMPLETION – WARRANTIES Submit to the Superintendent the manufacturer’s published product warranties in the name of the Principal for the installed lighting system.	21.18.2	268		
22 DIRECTIONAL BORING				
PROPOSED METHOD Submit 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.	22.4	269		
PROPOSED METHOD - DIRECTIONAL BORING WITHOUT PIPE CASING Obtain written permission from the Superintendent to use directional boring without pipe casing.	22.4.2	270		
23 PROTECTIVE COATINGS				
PROTECTIVE COATINGS Surface Preparation: To AS 1627. Provide a copy of the proposed specification for surface preparation as detailed in AS 1627.0 before commencing surface preparation works.	23.3	273		
PROTECTIVE COATINGS Complete and submit Site testing of protective coatings: To AS 3894.10 and AS 3894.11 and AS 3894.12.	23.3	273		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
SURFACE PREPERATION - ABRASIVE BLASTING At 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.	23.12.2	276 & 277		
SURFACE PREPERATION - ALTERNATE SURFACE PREPARATION Do 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.	23.12.4	277		
APPLICATION OF PROTECTIVE COATINGS - COATING Provide coating manufacturers’ written approval for use before using any other additives (eg promoters, accelerators etc).	23.13.2	278		
APPLICATION OF PROTECTIVE COATINGS - ALTERNATE COATING Do not use coating materials other than specified, without written permission from the Superintendent. Alternate coating materials must be included in the Contractor’s ITP.	23.13.6	278		
APPLICATION OF PROTECTIVE COATINGS - COATING DEFECTS Provide 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.	23.13.7	279		
ITP, JSA AND SWMS Provide 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.	23.15	279		
CONTRACTOR RECORDS Provide 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.	23.16	279		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE NO	INITIALS	DATE
CONTRACTOR RECORDS - FILM THICKNESS Final 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.	23.16.1	280		
CONTRACTOR RECORDS - INSPECTOR Provide the name and qualifications of the inspector prior to commencement of work.	23.16.2	280		

Schedule 2 – Witness Points

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
01 MISCELLANEOUS PROVISIONS				
<p>EXTRACTION AREAS AND WATER SOURCES- CRUSHING OR SCREENING</p> <p>Provide 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.</p>	1.13.3	18		
<p>SAFETY – SAFETY OFFICER</p> <p>Appoint a Safety Officer and notify the Superintendent of the Safety Officer’s name, and contact details, including an after-hours contact phone number.</p> <p>Ensure the Safety Officer is capable and available at all times as required.</p>	1.16.1	20		
<p>CONTROL STATION CHECK SURVEY</p> <p>Verify that the actual levels on site are the same as the levels shown on the contract drawings.</p> <p>Where results exceed the quoted tolerance notify the Superintendent and obtain directions.</p>	1.22	23		
<p>AS CONSTRUCTED INFORMATION</p> <p>Provide As Constructed drawings for all of the works.</p> <ul style="list-style-type: none"> – Show in red, on the Contract Drawings, as constructed information relating to works constructed beyond the various construction tolerances. The information includes, but is not limited to: <ul style="list-style-type: none"> - Setout co-ordinates, where applicable. - Design levels. - Detail dimensions. – Pavement, seal, line marking and protection extents. – 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/industry/technical-standards-guidelines-and-specifications/technical-records. – Drawings without changes shall also be included and labelled as “As Constructed” in the amendment description column. 	1.28	24		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
<p>AS CONSTRUCTED INFORMATION Before the work commences provide a proposed procedure for recording and submitting the amended drawings.</p>	1.28	24 & 25		
<p>CONTRACTOR'S SUBMISSIONS – WARRANTIES – WARRANTIES Provide the standard manufacturer's warranty certificates for manufactured plant, equipment, and other items. Provide installation warranties for the installation of plant, equipment, and other items, where specialized installation practices are a prerequisite for a manufacturer's warranty.</p>	1.32.3.1	28		
<p>CONTRACTOR'S SUBMISSIONS –CERTIFICATES OF COMPLIANCE Provide product Certificates of Compliance before Practical Completion. Provision of these will be required before the final payment can be processed.</p>	1.32.4	29		
<p>CONTRACTOR'S SUBMISSIONS – LIST OF PLANT AND EQUIPMENT INSTALLED On or before Practical Completion provide a list of plant and equipment installed as part of the project. Include the following details:</p> <ul style="list-style-type: none"> – Make – Model – Serial number (if applicable) – Year of manufacture – Capacity – Location. <p>Provide details of the maintenance and servicing regime that will be undertaken during the defects liability period. Provide a servicing schedule for each item of plant and equipment which will be serviced and maintained during the defects liability period. Provide a copy of Operations and Maintenance Manuals for each different type and model of plant and equipment. Also provide a copy to Technical Records in PDF format. Provision of these documents will be required before the final payment can be processed, and for the final certificate (if applicable) to be issued.</p>	1.32.6	31		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
02 PROVISION FOR TRAFFIC				
TRAFFIC MANAGEMENT PLAN Any decision to vary or not follow a requirement or recommendation must be based on sound traffic management judgement by a competent person and must be documented. Provide the documentation to the Superintendent.	2.5	39 & 40		
DETOURS, SIDETRACKS, AND CROSSOVERS - CONSTRUCTION Obtain 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	56		
DETOURS, SIDETRACKS, AND CROSSOVERS - CONSTRUCTION Provide not less than 5 days notice before opening any side track, detour, or crossover, to traffic.	2.18.1	56		
04 EARTHWORKS				
CONFORMANCE – EXISTING SURFACE LEVELS Obtain inspections of any disputed existing surface levels with the Superintendent prior to any stripping or earthworks operations.	4.16.1	75		
CONFORMANCE - PROOF ROLLING Give the Superintendent not less than 24 hours notice of the location and commencement time for the proof rolling. Give 48hrs notice for remote work (greater than 5hrs travel one way from regional centre)	4.16.3	75		
05 CONFORMANCE TESTING				
NOTICE OF TESTING Provide the Superintendent with a copy of the order for testing simultaneously with the order being sent to the Panel Period Contractor.	5.8	81		
NOTICE OF TESTING Notify the Superintendent prior to any rework of failed lots.	5.8	81		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
06 PAVEMENTS AND SHOULDERS				
PAVEMENT ACCEPTANCE – PROOF ROLLING REQUIREMENT Give the Superintendent not less than 24 hours notice of the location and commencement time for the proof rolling. Give 48hrs notice for remote work (greater than 5hrs travel one way from regional centre).	6.7.2	97		
PAVEMENT ACCEPTANCE - FINAL PAVEMENT LAYER INTEGRITY REQUIREMENT Give the Superintendent not less than 24 hours notice of the location and commencement time for the inspection of the prepared layer. Give 48hrs notice for remote work (greater than 5hrs travel one way from regional centre).	6.7.5	98		
08 SPRAY SEALING				
SAMPLING OF BINDER - COLLECTION OF SAMPLES Take 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. All sampling must be in accordance with Australian Standards and/or Austroads standards. The supplier is to perform the sampling. Ensure staff carrying out sampling are competent in sampling methods.	8.9.5	122 & 123		
SPRAYING Give the Superintendent 48 hours notice of intention to spray bitumen.	8.13	124		
SPRAYING – PREPERATION FOR SPRAYER RUN Record 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	126		
SPRAYING – PREPERATION FOR SPRAYER RUN Allow visual inspection when requested.	8.13.4	126		
SPRAYING – PREPERATION FOR SPRAYER RUN Check that the spray bar is at the correct height before spraying begins.	8.13.4	126		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
<p>REPORTING – SPRAYSHEETS</p> <p>Supply spraysheets (paper or electronic formats are acceptable) to the Superintendent at the end of each day’s production. Record the following information for all spray runs conducted.</p> <ul style="list-style-type: none"> – Contractors name – Project details – Contract number – Specification schedule number – Road name – Product type sprayed – Precoat type used, Precoat litres / m³ – Aggregate supplier, Aggregate type, Aggregate size – Run number, Start time of spray run – Pavement temperature, Ambient temperature – Start chainage of spray run - actual km of road – End chainage of spray run - actual km of road – Total length, Width of spray run – Total area of spray run – Temperature of product at spraying – Start dip, End dip – Total sprayed hot, Correction factor, Total sprayed cold – Application rate cold – Ordered application rate – Percent of application rate ordered – Number of rollers used – Bitumen sample number – Signature of contractor representative – Signature section for client representative 	8.18.1	130		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
<p>PRICE ADJUSTMENT FOR BITUMEN – GENERAL The claim must be supported by adequate information to substantiate the adjustment in Unit Rates. The Contractor must provide details of the relevant average bitumen price indexes from both the date of Tender Close, and the commencement date of application of the seal or the approved program date for the commencement of sealing application. The commencement of sealing date is to be confirmed by the Superintendent.</p>	8.21.1	133		
09 DENSE GRADED ASPHALT				
<p>SAMPLING OF BINDER – COLLECTION OF SAMPLES Take samples from the point of manufacture on transfer from the bulker to the asphalt plant.</p>	9.8.5	142		
<p>SURFACE PREPARATION – NEW CONSTRUCTION Give the Superintendent not less than 24 hours notice of the location and scheduled commencement time of surface preparation works.</p>	9.10.1	143		
<p>SPREADING – GENERAL Give at least 24 hours notice before commencement of asphalt material spreading.</p>	9.13.1	145		
<p>SPREADING – LAYING PATTERN Provide 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.</p>	9.13.4	146		
<p>COMPACTION – COMPACTION TEMPERATURES The Contractor must advise the Superintendent of temperature limits relating to compaction.</p>	9.14.2	147		
<p>PRICE ADJUSTMENT FOR BITUMEN – GENERAL The claim must be supported by adequate information to substantiate the adjustment in Unit Rates. The Contractor must provide details of the relevant average bitumen price indexes from both the date of Contract Award, and the commencement date of application of the seal or the approved program date for the commencement of sealing application. The commencement of sealing date is to be confirmed by the Superintendent.</p>	9.16.1	150 & 151		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
10 SLURRY SURFACING				
COMMENCEMENT OF WORK Give the Superintendent at least 7 days notice of the date and time of the commencement of work.	10.3	153		
RECORDS Forward a copy of the slurry surfacing Daily Record Sheet to the Superintendent daily.	10.13	158		
11 MISCELLANEOUS CONCRETE WORKS				
CONSTRUCTION – FORMWORK Do not place concrete until the formwork has been inspected by the Superintendent.	11.6.2	161		
CONSTRUCTION – PLACING OF CONCRETE Give the Superintendent sufficient notice so that inspection may be made before and during pouring concrete.	11.6.3	161		
12 DRAINAGE WORKS				
MATERIALS – PRECAST REINFORCED CONCRETE BOX CULVERTS Give the Superintendent notice prior to casting concrete.	12.5.3	167		
CONSTRUCTION OF CULVERTS AND STRUCTURES – EXCAVATION Excavate unsuitable material below specified level if directed by the Superintendent. Replace with select fill, compacted as specified.	12.6.2	168		
CONSTRUCTION OF CULVERTS AND STRUCTURES - CONNECTION TO EXISTING SYSTEMS Advise the Superintendent within 2 days when cleaning out is completed.	12.6.9	170		
CONSTRUCTION OF CULVERTS AND STRUCTURES - BACKFILL Notify the Superintendent before backfilling where holes or fissures occur in rock trenches.	12.6.10	170		
INLET AND OUTLET CHANNELS Advise the Superintendent within 2 days when cleaning out is completed.	12.8	170 & 171		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
SUBSOIL DRAINAGE SYSTEMS – SUBSOIL DRAINAGE - END WALLS Advise the Superintendent within 2 days of when cleaning out is completed.	12.11.1.6	172		
14 ROAD FURNITURE AND TRAFFIC CONTROL DEVICES				
TACTILE GROUND SURFACE INDICATORS Provide 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	183		
TACTILE GROUND SURFACE INDICATORS Provide documentary evidence that the TGSIs meet the minimum performance criteria.	14.4	183		
PLASTIC FLEXIBLE GUIDE POSTS – PRODUCT DATA Submit details of the proposed flexible guide post including the following: <ul style="list-style-type: none"> - Manufacturer’s details on the materials, and the properties of the materials, used in the manufacture of the guide posts. - Manufacturer’s recommended installation procedures. - Technical specifications. - Test results per the test sub-clauses 	14.6.2	186		
PLASTIC FLEXIBLE GUIDE POSTS – WARRANTIES Submit the manufacturer’s published product warranties in the name of the Principal.	14.6.3	186		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
<p>STEEL FLEXIBLE GUIDE POSTS – PRODUCT DATA Submit details of the proposed flexible guide post including the following:</p> <ul style="list-style-type: none"> - Manufacturer’s details on the materials, and the properties of the materials, used in the manufacture of the guide posts. - Manufacturer’s recommended installation procedures. - Technical specifications. 	14.7.2	188		
<p>STEEL FLEXIBLE GUIDE POSTS – WARRANTIES Submit the manufacturer’s published product warranties in the name of the Principal.</p>	14.7.3	188		
15 BOAT RAMPS AND BARGE LANDINGS				
<p>INSPECTIONS – NOTICE Give sufficient notice so that inspections may be made at the following stages:</p> <ul style="list-style-type: none"> – Notice to the Superintendent if unsuitable material is encountered. – Foundation inspection prior to geotextile and geogrid placement. – Compaction of 75 mm crushed rock. – Pre-pour inspections and placement of all concrete. – Manufacture of precast planks. – Before grouting of rock protection works. – Construction of fully grouted shoulders and shoulder batters. <ul style="list-style-type: none"> – <u>Rock armour sourcing.</u> 	15.2.1	201		
<p>CONTRACTOR SUBMISSIONS - DREDGING STRATEGY Provide details of any Dredging Strategies for all dredging works required during the execution of the works.</p>	15.3.1	201		
<p>CONTRACTOR SUBMISSIONS – SURVEY Provide copies of survey reports prepared for the works. This is not required for survey reports commissioned by the Principal or the Superintendent.</p>	15.3.2	201		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
CONTRACTOR SUBMISSIONS - GEOTECHNICAL INVESTIGATION Provide copies of geotechnical investigation reports prepared for the works. This is not required for geotechnical investigation reports commissioned by the Principal or the Superintendent.	15.3.3	201		
CONTRACTOR SUBMISSIONS - ACID SULFATE SOIL INVESTIGATION - Provide copies of acid sulfate soil investigation reports prepared for the works. This is not required for acid sulfate soil investigation reports commissioned by the Principal or the Superintendent.	15.3.4	202		
CONTRACTOR SUBMISSIONS – CONTAMINATED LAND INVESTIGATION Provide copies of contaminated land investigation reports prepared for the works. Appropriately scope contaminated land investigations with consideration of the past history and use of the site. Investigations may include, but not be limited to, reporting on hydrocarbons, asbestos, and Perfluoroalkyl and polyfluoroalkyl substances (PFAS) contamination. This is not required for contaminated land investigation reports addressing the listed contaminants or other identified contaminants commissioned by the Principal or the Superintendent.	15.3.5	202		
CONTRACTOR SUBMISSIONS – SAMPLES Submit to the Superintendent a 300 mm x 300 mm sample of the proposed geotextile, and geogrid. Do not commence work until the samples have been received by the Superintendent, and the type of geotextile, and geogrid have been approved.	15.3.6	202		
CONTRACTOR SUBMISSIONS - GEOTEXTILE AND GEOGRID PLACEMENT Before placement of the geotextile and geogrid submit to the Superintendent: <ul style="list-style-type: none"> – The geogrid layout, lapping and braiding plan. – The geotextile layout and lapping plan. 	15.3.7	202		
CONTRACTOR SUBMISSIONS - PRECAST PANEL LIFTING AND PLACEMENT PROCEDURE Submit to the Superintendent a precast panel lifting procedure for approval.	15.3.8	202		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
CONTRACTOR SUBMISSIONS - PRECAST PANEL LIFTING AND PLACEMENT PROCEDURE Submit to the Superintendent a precast panel placement procedure for approval.	15.3.8	202		
COMPONENTS AND MATERIALS - COFFER DAMS, TIMBERING, SHORING, AND SHEETING Provide details of coffer dams, timbering, shoring, and sheeting proposed to be used in the execution of the works.	15.6.1	203		
COMPONENTS AND MATERIALS - COFFER DAMS, TIMBERING, SHORING, AND SHEETING Provide copies of Safe Work Method Statements for the installation, use, and removal of any coffer dams, timbering, shoring and sheeting proposed to be used in the execution of the works.	15.6.1	203		
EARTHWORKS IN CUT – METHODOLOGY - EXCAVATION EQUIPMENT SELECTION Submit to the Superintendent a list of the type of equipment to be used to carry out the excavation.	15.7.1.2	204		
EARTHWORKS IN CUT – TREATMENT OF ACID SULFATE SOILS – TREATMENT If acid sulfate soils are confirmed, the contractor must develop an Acid Sulfate Soils Management Plan and submit to the Superintendent for review. Treat the acid sulfate soils as per the plan. The plan is to be developed, implemented, and monitored by a suitably qualified independent organization.	15.7.4.1	205		
EARTHWORKS IN CUT – TREATMENT OF ACID SULFATE SOILS - TEMPORARY BUNDING Advise the Superintendent of bunding location for approval.	15.7.4.2	205		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
<p>GEOTEXTILE AND GEOGRID - DELIVERY AND PRODUCT CERTIFICATION</p> <p>Provide to the Superintendent:</p> <ul style="list-style-type: none"> – A Certificate of Compliance that the geotextile and geogrid comply with all the requirements as specified. – Test results reported on NATA endorsed test documents. <p>The Certificate of Compliance to include:</p> <ul style="list-style-type: none"> – Quality control documentation for the relevant batch/ lots. – Physical properties sheet. – Manufacturer’s letter of certification stating compliance. – The certificate must not be more than 12 months old. 	15.8.4	207		
<p>GEOTEXTILE AND GEOGRID – PLACEMENT</p> <p>Contact the Superintendent at placement completion. Do not cover with construction materials until approval from the Superintendent.</p>	15.8.5	207		
<p>COMPACTION OF 75 MM CRUSHED ROCK (UNDER SLABS) – COMPACTION</p> <p>Contact the Superintendent so that each layer of 75 mm crushed rock can be witnessed.</p>	15.9.3	208		
<p>SHOULDERS AND SHOULDER BATTERS – CAST INSITU CONCRETE AND FULLY GROUTED STONE PITCHED - FULLY GROUTED STONE PITCHED SHOULDERS AND SHOULDER BATTERS – STONE</p> <p>Contractor to notify Superintendent if suitable stone is not available in reasonable proximity to the site(s) of the works.</p>	15.15.4.1	212		
<p>SHOULDERS AND SHOULDER BATTERS – STONE PITCHED – STONE</p> <p>Contractor to notify Superintendent if suitable stone is not available in reasonable proximity to the site(s) of the works.</p>	15.16.1	212		
<p>ROCK ARMOUR – PROPERTIES</p> <p>Provide to the Superintendent a list of nominated projects where rock from the proposed quarry source has performed well in similar applications.</p> <p>Alternatively submit a report from an experienced petrologist or geotechnical engineer to certify that rock used in the proposed manner will be durable in a marine environment.</p>	15.18.1	213		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
ROCK ARMOUR - SOURCE OF ROCK Before delivery of the rock submit to the Superintendent for approval documentation on the source of the rock. Include the following: <ul style="list-style-type: none"> – The location of the quarry. – A method statement outlining how the proposed quarry operations will produce the specified grading of rock and quarry materials for the works. – Demonstrable evidence that the proposed blasting pattern will minimise the production of latent fractures. – Evidence of a system for inspection and testing to identify rock which does not comply with the requirements of this specification. Nominate testing frequency. – Details of how non-compliant rock will be quarantined from stockpiles of rock proposed for incorporation in the works. 	15.18.2	213		
ROCK ARMOUR - SAMPLE PRODUCTION LOADS Submit all sample load test results to the Superintendent for conformance.	15.18.6	215		
16 PAVEMENT MARKING				
PAVEMENT MARKING APPLICATION Obtain approval from the Superintendent for the type of equipment to be used for applying pavement marking materials.	16.8	223		
PAVEMENT MARKING APPLICATION Produce 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.	16.8	223		
PAVEMENT MARKING APPLICATION Obtain Superintendent’s approval for variation to any of the above requirements.	16.8	223 & 224		
COLD APPLIED PLASTIC MATERIALS Provide evidence that all proprietary products such as epoxy or plastic products have demonstrated satisfactory field performance for a period of at least three years.	16.11	226		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
17 LANDSCAPE				
MATERIALS - IMPORTED SOILS Provide 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.	17.3.4	232		
MATERIALS - MULCH Provide 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.	17.3.6	232		
BATTER PROTECTION BY HYDROSEEDING - CONTRACTOR SUBMISSIONS Product Data: Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials and application rates	17.7.2	239		
BATTER PROTECTION BY HYDROSEEDING – SOIL TESTING Obtain 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.	17.7.7	241		
19 TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRAFFIC SYSTEMS				
TRAFFIC SIGNAL CABLING - INSPECTIONS Give 24 hours notice to the Superintendent for inspection of excavations for pedestals, bases and conduits.	19.5.8	255		
CHECKING AND TESTING Give 24 hours notice for checking and testing signal controllers, cabling and lanterns.	19.10	256		
20 TRAFFIC COUNTING STATIONS				
INSTALLATION - DETECTOR LOOP Provide 24 hours notice to the Superintendent prior to installation of vehicle detector loops.	20.8.1	260		
TESTING AND INSPECTION - GENERAL Test the installation in the presence of the Superintendent.	20.10.1	261		
TESTING AND INSPECTION - INSPECTION Provide 24 hours notice to the Superintendent for inspection of excavations for foundations and conduits.	20.10.3	261		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
21 STREET LIGHTING				
EXCAVATION – COLUMN FOOTINGS Notify the Superintendent immediately if rock is encountered.	21.10.2	266		
EXCAVATION – TRENCHES Notify the Superintendent when trench excavation is complete and before backfilling has commenced.	21.10.3	266		
BACKFILLING – MATERIAL Provide samples of bedding sand and select fill if requested by the Superintendent.	21.12.1	266		
TESTING AND COMMISSIONING – COMPLIANCE Submit a compliance certificate stating that all works have been completed as specified to this worksection and to Power and Water Corporation requirements.	21.16.3	268		
22 DIRECTIONAL BORING				
PROPOSED METHOD - DIRECTIONAL BORING WITH PIPE CASING Provide 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.	22.4.1	270		
23 PROTECTIVE COATINGS				
CONTRACTOR'S RESPONSIBILITIES Provide documentary evidence of PCCP accreditation before commencing protective coatings work.	23.5	274		
EQUIPMENT - EQUIPMENT Give notice so that the oil carry-over tests may be witnessed by the Superintendent or their nominated representative.	23.9.2	276		
APPLICATION OF PROTECTIVE COATINGS - COATING Provide 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.	23.13.2	278		

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	CLAUSE NUMBER	PAGE No	INITIALS	DATE
<p>APPLICATION OF PROTECTIVE COATINGS - COATING DEFECTS</p> <p>This compatibility between marker and coating is to be confirmed by the coating manufacturer. Provide written evidence of this compatibility if requested by the Superintendent.</p>	23.13.7	279		
<p>CONTRACTOR RECORDS</p> <p>Maintain 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.</p> <p>Maintain these reports on a daily basis. Submit them to the Superintendent when requested, or, if not specifically requested, at least weekly.</p>	23.16	279		
<p>CONTRACTOR RECORDS - FILM THICKNESS</p> <p>Provide 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.</p>	23.16.1	280		