ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

Process Step	Reference documents	Criteria/Test Method/Spec	Record for conformity	Responsible Position	Type of Record	Acceptance/Comments ☐Completed ☐Not completed
1. Obtain conformance of granular foundation materials	R54.2.1, Annexure R54/L	**Select Fill Type U** must consist of a granular material with a particle size grading of 100% passing the 26.5 mm sieve and a Plasticity Index, determined by Test Method RMS T109, of between 2 and 12 (testing frequency 1 per 200m3 prior to placement) **Class 2 DGB** must comply with Specification RMS 3051.	Test report	Project engineer	TP	
2. Use approved concrete mix: Hold Point No.:…….. Mix ID:……..… Strength:……..…	R54.2.1.2 & R53.1.4	Refer to R53-MIX-lots for Concrete mix approvals (Hold Points)	Mix report	PV/PE	HP	
3. Obtain Certificate of conformity for reinforcement supply	R54.2.2 & R53.4	☐ Must comply with either AS/NZS 4671, AS1311 or the supplier is accredited with ACRS ☐ Galvanizing must comply with AS/NZS 4680 ☐ Welding must comply with AS 1554.3	Compliance certificate	PV/Project engineer	AP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

4. Tactile Indicator Tiles	R54.2.3	**Tactile indicators** must conform to AS/NZS 1428.4.1 and must be stain, slip, impact and UV resistant. Tactile indicators must have a colour contrast to surrounding surfaces and provide a luminance contrast to the surrounding surfaces of ≥ 0.3 (30%) as per Appendix E of AS/NZS 1428.4.1. **Adhesive** (proprietary bedding material, as per AS 3958.1) for bedding tactile indicator tiles must be either cement-based adhesive or modified mortar (refer R54 Cl 6.1) which is not susceptible to deterioration from water infiltration and can withstand pedestrian and maintenance vehicle traffic loads.	Compliance Certificate	Project engineer	AP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

5. Obtain Certificate of Compliance for Preformed Joint Fillers	R54.4.4.3	Provide a certificate of compliance verifying that proposed product complies with the requirements of 3204 and NATA endorsed test documents. Certification must relate only to the composition on which the tests were made and valid for ≤ three years. New certification will be required whenever changes in product composition are made.	Compliance Certificate	Project engineer	AP	
6. Designate concrete truck washout area (s)	R53.5	Impermeable plastic lined or approved equivalent bunded area	Verification Checklist	Project engineer	IP	
7. Excavation and Filling	**R54.3.1**	☐ Verify area is excavated or filled to the levels shown on the design drawings or as directed by the Project Verifier in accordance with R44. ☐ Surplus excavated material to go into general earthworks activities in accordance with R44. ☐ Top up low areas to required levels using Select Fill Type U complying with R54 Cl.2.1.1. ☐ Where filling at the sides of Paving or behind kerbs unless shown otherwise on the Design drawings or directed by the Project Verifier, fill these areas with Select Fill Type U complying with R54 Cl. 2.1.1.	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

8. Unsuitable material	R54.3.2 & R44	If any area of the foundation contains material that is unsuitable to support the proposed pavement, remove and replace this unsuitable material or use some other foundation treatment in accordance with RMS R44. *The Hold Point in RMS R44 regarding unsuitable material applies.* *Principal to be notified if found unsuitable materials*	Verification Checklist	PV/Project engineer	HP	
9. Notify the GDR that unsuitable materials has been removed as directed	R54.3.2 & R44.2.4.1	Notification to the GDR is done after the removal of unsuitable material. The Geotechnical Design Representative will inspect the excavation and may require removal of further material as unsuitable material prior to authorising the release of the Hold Point.	Hold point	PV/ Project engineer	HP	
10. Granular Subbase	R54.3.3	Unless shown otherwise on the Design drawings, construct a subbase layer comprising Class 2 DGB20 beneath the concrete paving as follows: ☐ Footpath: 75mm thick; ☐ Bicycle path/shared path: 150 mm thick.	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

11. Compaction	R54.3.4	Compact the subbase, foundation, etc to achieve the minimum characteristic value of relative compaction specified Table R54.1 hence: ☐ **Under footpath, bicycle path or shared path & median** - Subbase layer (where required) ≥100% - Top 150 mm of foundation ≥ 98% - Filling below a depth of 150 mm from top of foundation ≥ 95% ☐ Fill outside of footpath, bicycle path/shared path and fill at edge of paving and behind kerbs ≥ 95% ☐ Driveways to comply with the relevant Council's requirements, unless specified otherwise in the Deed documents. ☐ Testing in accordance with Q6	NATA Test Reports	Project engineer	TP	
12. Check finished surface levels	R54.3.5	☐ Construct top of foundation to the design surface levels, **with a tolerance of +5 mm and -10 mm**. ☐ The finish surface must not deviate from the bottom of a 3 m straight edge laid in any direction, by more than 10 mm, except at grade changes.	Survey Report	Project engineer	Surveyor	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

13. Install steel reinforcement	R54.4.2, R53.4	☐ Provide steel reinforcement for concrete paving ☐ Where the steel reinforcement is not shown on the Design drawings, provide the reinforcement as specified in Table R54.2. shown on the relevant Council's STD dwgs, unless specified otherwise deed documents. Reinforcement lap splices as per design drawings or R53 Cl4. ☐ Provide a minimum cover for the steel reinforcement in accordance with R53 Cl.4 hence 50 mm, unless shown otherwise in the Design drawings. ☐ For slab of thickness 120 mm and greater, fix the steel mesh within the top half of the slab. ☐ For slabs of thickness less than 120 mm, fix the steel mesh at the mid-depth of the slab. In this case, the minimum cover specified in R53 does not apply.	Verification Checklist	PV/Project engineer	HP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

14. Commence with pre pour planning activities	R54.4.3, R53.6.3 & Annexure R53/E	☐ Verify formed areas free of water, dirt, construction debris and any other foreign matter removed. ☐ Rain not imminent, air temperature between 5-38$_{o}$C ☐ Concrete tester arranged as required ☐ Bunded concrete washout area provided	Verification Checklist	Project engineer	IP	
15. Notification for Placement of Concrete	R54.4.3 & R53.6.1	*As required for the preceding Witness Point hence:* Notify the Project Verifier Representative, **not less than 24 hours and not more than 3 clear working days prior** to the intended time of commencing to place concrete, mortar or grout, when fixing of the formwork and reinforcement in position (if applicable) will be completed and when concrete, mortar or grout will be placed.	Hold point	PV/Project engineer	HP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

16. Carry out the concrete pour	R53.6.2, R53.6.4 & Annexure R53/EL	☐ Concrete docket checked for correct mix - Unreinforced paving N20, 80mm slump & 20mm aggregate - Reinforced paving N25, 80mm slump & 20mm aggregate ☐ **Ensure concrete is placed & finished to**: (a) limit segregation or loss of materials; (b) limit premature stiffening; (c) produce a dense homogeneous product which is monolithic between joints and edges; (d) expel entrapped air and closely surround all reinforcement and embedments; and (e) provide the specified thickness and surface finish. ☐ **Ensure the finishing unformed concrete surface** (a) has achieved the specified: (i) dimensions and grade; (ii) cover from the surface to reinforcement (iii) texture of the surface; and (b) has avoided plastic or drying shrinkage cracks.	NATA test report	PV/ Project engineer	HP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

17. Transverse joints in pavement	R54.4.4.1	☐ **Transverse joints** must be constructed at right angles ±6° to the longitudinal edge of the paving slab, otherwise the slab will be treated as odd shaped slabs. ☐ Avoid where possible creating odd shaped and mismatched slabs.	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

18. Movement joints in pavement	R54.4.4.3	**a) Footpaths and Medians** ☐ Provide contraction joints 3 mm wide and 25 mm deep at every 1.5 m length of footpath or median paving. ☐ Provide expansion joints at intervals not exceeding 6 m and at the location of expansion joints in adjacent kerbs. ☐ Provide isolation joints along median paving where the paving abuts against kerbs, gully pits, retaining walls and bridges. ☐ Expansion and isolation joints must be 10 mm in width for the full depth of the paving and filled with a preformed joint filler in accordance with Specification 3204 **(b) Bicycle Paths/Shared Path** Provide movement joints as shown on the Standard Drawings. **(c) Driveways** Provide movement joints in driveways at the locations shown on the relevant Council's	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

19. Finished paving surface	**R54.5.1**	☐ Provide on the top surface of concrete paving (except patterned concrete paving) the surface finish specified in Table R54.3 ☐ The finished paving surface must be uniform in colour and appearance. ☐ All edges, except for those abutting other paving or structures, must be neatly rounded to a radius of 10 mm. Edges abutting other paving or structures must be neatly rounded to 5 mm radius.	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

20. Curing & protection of concrete paving	R53.7.1, R53.7.2 & R53.7.3	☐ **Only approved curing compound to be used** *(refer to R53.7.3 for details)* ☐ After initial set of concrete; Surface is firm and free of bleed water, apply curing and cure for at least 7 days ☐ If **Moist Curing,** immediately after concrete has taken its initial set, spray all exposed surfaces with water and keep the concrete continually wet for at least seven (7) days. *The water used must be free from ingredients harmful to concrete.* ☐ For **Curing Compounds** apply in accordance with manufacturer's recommendations or at a spray rate min. 0.2L/m^2 whichever is the greater ☐ Ensure all exposed surfaces receive a uniform cover of the curing compound.	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

21. Submission of patterned concrete paving details	R54.5.2.1	Provide details of pattern, colour, class of finish and experience of personnel in producing patterns on concrete paving, **at least 5 working days prior**. The Project Verifier may require a sample panel to be prepared and submitted.	Hold point	PV/Project engineer	HP	
22. Procedure for constructing concrete paving	R54.5.2.2	☐ Apply the stencil only after the bleed water has evaporated from the concrete surface. ☐ Apply each coat of colour hardener at a consistent rate achieve a total thickness of between 3 mm and 4 mm. ☐ On removal of the stencil, the surface must exhibit a well defined pattern with no edge ravelling. ☐ Apply a suitable sealer to the finished surface within 24 hours of forming the pattern, followed by a second coat of sealer 3 days later	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

23. Finished surface levels	R54.5.3	☐ Verify finished surface of the concrete paving conforms to the design surface levels, with a tolerance of +10 mm, –5 mm. ☐ Verify the finish surface does not deviate from the bottom of a 3 m straight edge laid in any direction, by more than 5 mm, except at grade changes. ☐ Where the concrete paving abuts an adjacent structure, any vertical step across the joint must not exceed 5 mm unless shown otherwise on the Design drawings	Survey Report & Straight Edge Test Results Summary	Project engineer	Surveyor	
24. Submission of details of proposed tactile indicator tiles	R54.6.1	Provide details of proposed tactile indicator tiles, associated materials (such as adhesive), and installation method to the Project Verifier	Hold Point	PV/Project engineer	HP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

25. Installation of Tactile Indicators	R54.6 & AS 3958.1	☐ Ensure tactile indicators will be installed at locations as shown on the Design drawings. ☐ Performance level of Tactile indicators is "Commercial" and follow installation guidelines as detailed in AS 3958.1Cl.3.3.1.2 *(Exterior floors – General applications, using cement-based adhesive or modified mortar)* ☐ Prior to installing the tiles, allow the concrete to cure for 7 days (as per R53), or a duration recommended by the tile adhesive manufacturer to suit the adhesive used. ☐ Prior to placing tiles, clean concrete slab of dust using water jets, and any contamination using where necessary high pressure hydro-blasting, sand/grit blasting or mechanical scabbling. ☐ Install tiles so they are fully bedded, without any voids beneath them. ☐ Install tiles at the tile manufacturer's recommended spacing. Pack the spaces between tiles with grout, and free of all voids and ☐ Do not allow traffic over freshly grouted joints for at least 7 days, unless recommended otherwise	Verification Checklist	Project engineer	IP	

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

		by the manufacturer. ☐ Install movement joints at locations where: - tiles abut restraining surfaces; - joints exist in the concrete below the tiles; - a change of plane exists in the tiled surface ☐ Install the tactile indicator tiles such that the base surface is sitting flush with adjacent concrete surfaces. ☐ The finished surface level of the tiled surface must comply with the requirements of R54 Cl. 5.3 pits. Remove any excess grout or grout film.				

REVIEW BY PROJECT MANAGER

Have tests passed?	YES/NO	Test Report No: _____
Is all testing as per specified frequency?	YES/NO	
Are earthworks within location and level tolerances?	YES/NO	
Have all RMS Hold Points been released?	YES/NO	
Any nonconformances?	YES/NO	Sign: _____ For Closed Out: YES/NO
All work has been satisfactorily completed.	YES/NO	

_____ Project Manager _____ Date

Prepared By: **Mohammed Almalome** **Approved By:** _____ **Date Approved** _____

CLEARY BROS

ITP No:	R54 (Ed.3/Rev 3)	Process:	General concrete paving	Project:	Sydney Rd / Common St RAB, Goulburn	Job No:		Work Area / Lot No	

HP: Hold Point
AP: Approval Point
IP: Inspection point
TP: Test Point