

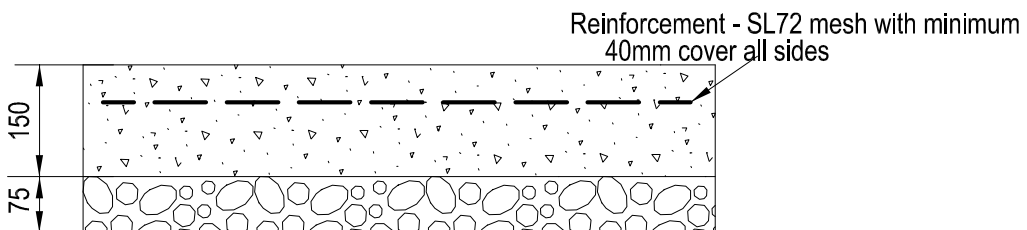
St Andrews Mix Exposed Aggregate Concrete
125mm compacted depth minimum, 32 Mpa,
Off-white cement.



Class 2 Crushed Rock - Size 20mm
(75mm compacted depth)

Typical Cross Section - Exposed Aggregate Concrete Pedestrian Only Areas

See Notes for construction & finish requirements



St Andrews Mix Exposed Aggregate Concrete
150mm compacted depth minimum, 32 Mpa,
Off-white cement.



Class 2 Crushed Rock - Size 20mm
(75mm compacted depth)

Typical Cross Section - Exposed Aggregate Concrete Trafficable & Pedestrian Areas

See Notes for construction & finish requirements



NOT TO SCALE

DRAWN: P.J.D.

DATE: Dec 2012

CHECKED: DS

APPROVED:

INFRASTRUCTURE MANAGER

LAST AMENDED:

June 2013



EXPOSED AGGREGATE PAVEMENTS

SD 331

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NOTES - CONSTRUCTION & FINISH REQUIREMENTS

1. Aggregate mix will be project specific Eg:-10mm and 7mm size rock, predominantly (80%) white or cream coloured, rounded river pebble style with a maximum of 20% darker aggregate of similar properties (10mm maximum size) mixed through.
2. A dry sample of the proposed aggregate mix is to be viewed & approved by FCC representatives for each project prior to the pouring of the 2000mm x 2000mm sample.
3. This sample is to be viewed and approved by FCC representatives prior to start of on site pours.
4. The crushed rock base depths may only be varied if in-situ conditions are favourable (sufficient depth of existing rock is available). Appropriate compaction of crushed rock must be undertaken by whacker plate and/or light roller as required for specific project to gain not less than 98% of the maximum value obtained in the Modified Compaction Test carried out in accordance with AS1289-5.2.1:1993.
5. All reinforcement must be placed on correct size bar chairs to gain the cover required on all sides.
6. Any re-entrant corners or thinned corners must have galvanised steel deformed bars run across it at 45 degrees - minimum length is 750mm.
7. All concrete to be placed on polythene sheets to ensure appropriate curing is undertaken. This must be trimmed off neatly at the completion of the pours.
8. A vibrating screed should be used to assist curing on pavement of this thickness.
9. Bleed water is not to be worked back into the concrete under any circumstances.
10. If ambient temperatures are less than 12 degrees celcius or greater than 32 degrees celcius - pours are to be delayed.
11. Expansion joints are to be Darnley, Connelly or similar pre-fabricated dowelling system - mesh to abut to metal joint profile (where applicable).
12. Construction joints are to be set up using the 12mm sleeved bars - nailed to timber formwork (or similar). Position is project dependent in conjunction with expansion joint spacings.
13. Ableflex (or similar) is to be used against building lines and/or back of kerb to assist with crack control. This product must be kept taut and straight during placement of concrete to maintain lines.
14. Sawcut joints are to be at least 1/3 of the pavement overall thickness in depth - 30-40mm generally. Pattern is project specific.
15. Interruptions in pours by pits, light poles, bollards etc require isolation joints to be cut around penetration. Sawcut 300mm around perimeter of lid to same depth as Item 12 and run 45 degree sawcuts from corner to corner.
16. All products are to be installed as per manufacturers specifications.
17. All exposed finishes to be achieved by undertaking the following on-site process - this is critical to maintain similar outcomes by different contractors in various locations:-
 - Concrete batch plant delivery dockets to be passed onto FCC construction supervisor .
 - Slump of concrete to be 80mm with a 10mm tolerance - this is to be tested on site prior to placement of concrete .
 - Slump tests to be taken at 1/3 and 2/3 mark of each truck load delivered .
 - Rugasol '90' (horizontal surfaces) or Rugasol 'MH' (vertical and horizontal surfaces) or similar approved product) is to be used as surface retarder product. 1 Litre of Rugasol to 1 Litre of water is standard mix but must be confirmed with on-site conditions to meet manufacturers specifications .
 - Aggregate to be exposed by use of pressured water after a period of 5 to 12 hours - depending on wind exposure, shade and ambient temperatures. A medium pressure setting of 1500 psi (maximum) is to be used to ensure aggregate 'blow out' does not occur .
 - An aggregate exposure depth of 1/3 the size of the smallest aggregate (generally 4-5mm) should be attained unless otherwise stated .
 - All exposed concrete surfaces are to be acid washed (1 part hydrochloric acid to 10-20 parts water) to brighten rock and remove cement film. All surfaces should be thoroughly wetted down prior to acid being applied and after acid application. Note - all curing compounds must be completely removed prior to acid washing. Acid wash should be mixed and applied to meet manufacturers specifications .
 - A matte finish surface sealer must be applied (unless otherwise stated) to all surfaces as per manufacturers specifications. CCS Hardseal matte (low gloss) or CCS Hardseal regular (higher gloss) or similar approved product should be used on the 2m sample to allow approval. Ph (03)9311-9225 .
18. Any finished exposed aggregate surfaces that do not meet FCC satisfaction are to be sawcut at the nearest construction joint (unless otherwise agreed upon with FCC) and replaced. Aggregate 'blow-out' on horizontal and vertical faces and varying depths of exposure are key considerations for Council .
19. Frankston City Council Hold-points:-
 - Approval of 2m x 2m sample concrete.
 - Excavation depth and subgrade approval .
 - Base (crushed rock) approval .
 - Verification of joint type and positions
 - Verification of retarder product and delay period prior to exposure process .
 - Approval of finished surface prior to sawcutting, acid washing and sealing .

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	<h1 style="text-align: center; margin: 0;">EXPOSED AGGREGATE PAVEMENTS</h1>		LAST AMENDED: June 2013
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