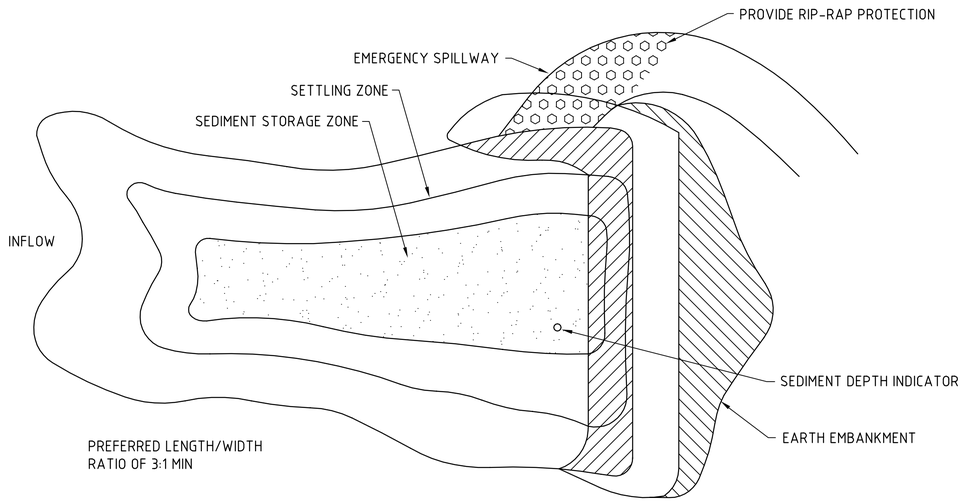
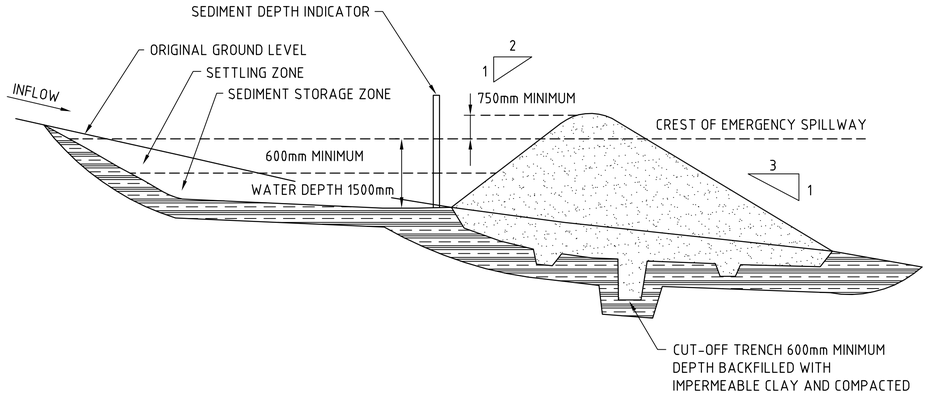


TYPICAL TEMPORARY SEDIMENT BASIN (PLAN)

NOT TO SCALE

CONTRACTOR TO UTILISE THE ULTIMATE BASIN / INLET ZONE FORMATIONS AS PER THE PROPOSED BULK EARTHWORKS DESIGN (REFER TO DRAWINGS 21-18115-DA102 TO DA104) AS MUCH AS POSSIBLE FOR THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASINS



TYPICAL TEMPORARY SEDIMENT BASIN (SECTION)

NOT TO SCALE

EROSION & SEDIMENTATION CONTROL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SOIL AND WATER MANAGEMENT PLAN.

2. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE IN ACCORDANCE WITH THE DEPARTMENT OF HOUSING MANAGING URBAN STORMWATER EDITION 2004 AND FAIRFIELD CITY COUNCIL SPECIFICATIONS. WHERE DISCREPANCY OCCURS BETWEEN THESE TWO, COUNCIL DCP12 WILL TAKE PRECEDENCE.

3. WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
   1 INSTALL ALL SILT FENCING.
   2 CONSTRUCT BASIN.
   2 CONSTRUCT CATCH DRAINS, DIVERSION DRAINS AND STRAW BALES.
   3 INSTALL OTHER EROSION AND SEDIMENT CONTROLS.
   4 STRIP AND STOCKPILE TOPSOIL AND CARRY OUT BULK EARTHWORKS
   5 TOPSOIL AND REHABILITATE BULK EARTHWORK AREAS IMMEDIATELY UPON COMPLETION.
   6 UNDERTAKE REMAINING SITE WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS.
   7 REHABILITATE THE REMAINING SITE.
   8 REMOVE SOIL AND WATER MANAGEMENT WORKS ONCE UPSTREAM SURFACES ARE STABILISED TO THE SATISFACTION OF THE SUPERINTENDENT AND COUNCIL.

4. THIS ORDER MAY BE CHANGED SUBJECT TO FIELD CONDITIONS BUT ANY SUCH CHANGE MUST ACHIEVE ALL ENVIRONMENTAL AND CONSTRUCTION GOALS.

5. CONTROLS AFFECTED BY WORKS ARE TO BE RE-ESTABLISHED PRIOR TO THE COMPLETION OF EACH DAYS WORK.

6. THE CONTRACTOR SHALL PROVIDE SHAKER GRIDS AT ALL SITE ACCESS / EGRESS POINTS.

7. STRIP TOPSOIL OVER THE SITE TO AN AVERAGE DEPTH OF 150mm UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT. TOP SOIL STOCKPILES SHALL NOT EXCEED 2m IN HEIGHT AND BATTER SLOPES TO BE 3H:1V MAXIMUM.

8. THE CONTRACTOR IS TO STABILISE TOPSOIL STOCKPILES AND ALL DISTURBED AREAS AS SOON AS THEY REACH FINAL LEVELS. STABILISATION TO BE BY HYDROSEEDING OR OTHER METHOD APPROVED BY SUPERINTENDENT AND COUNCIL ENGINEER. ALL SEEDED AREAS TO BE WATERED TWICE WEEKLY UNTIL GRASS IS ESTABLISHED OR COVERED WITH BITUMEN HAY MULCH.
   A RECOMMENDED LIST OF PLANT SPECIES FOR TEMPORARY COVER IS:
   - JAPANESE MILLET 25kg/ha (SPRING)
   - OATS (RYECORN) 25kg/ha (SUMMER)
   - JAPANESE MILLET 10kg/ha (AUTUMN)
   - OATS (RYECORN) 30kg/ha (WINTER)
   GYPSUM AND MULTIGROW/ ENRICH FERTILISER AT RATES TO BE DETERMINED BY SUBSOIL AND TOPSOIL TESTING.
   PERMANENT GRASSING TO BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

9. WHERE SURFACE SLOPES ARE STEEPER THAN 6H:1V BITUMEN STRAW MULCH SHALL BE APPLIED AFTER SEEDING AT THE FOLLOWING RATES, OR AS DIRECTED.
   - MULCH 0.5kg/m^2
   - BITUMEN EMULSION 0.25 l/m^2 (50% WATER, 50% SLOW BREAKING ANIONIC EMULSION MIX).

10. TOPSOIL SHALL BE RE SPREAD AND STABILISED AS SOON AS POSSIBLE. DISTURBED AREAS SHALL BE LEFT WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST KEYING IN TOPSOIL.

11. DUST CONTROL MEASURES SHALL BE IMPLEMENTED CONTINUOUSLY DURING CONSTRUCTION WORKS TO THE SATISFACTION OF THE SUPERINTENDENT AND COUNCIL.

12. THE CONTRACTOR SHALL TEMPORARILY REHABILITATE ANY DISTURBED AREAS WITHIN 20 DAYS. WHERE FINAL SHAPING HAS OCCURRED THE CONTRACTOR SHALL PROVIDE FINAL REHABILITATION WITHIN 10 DAYS.

13. DURING EARTHWORKS, TEMPORARY DIVERSION BANKS SHOULD BE CONSTRUCTED TO LIMIT SLOPE LENGTH, WHERE POSSIBLE, IN ACCORDANCE WITH THE FOLLOWING:

    RECOMMENDED MAXIMUM SPACING BETWEEN CROSS BANKS ON ALL ROADS.

SLOPE	MAXIMUM SPACING (m)
0 TO 1%	150
1 TO 3%	100
3 TO 5%	70
5 TO 10%	50
10 TO 17%	16

14. ALL STORMWATER PITS TO BE COVERED OR DROP INLET SEDIMENT TRAPS SHALL BE PROVIDED. KERB INLET TRAPS ARE TO BE INSTALLED AFTER COMPLETION OF PAVING.

15. TEMPORARY KERB INLET SEDIMENT TRAPS TO BE PROVIDED TO ALL EXISTING KERB INLETS IN THE VICINITY OF THE WORKS DURING CONSTRUCTION.

16. SEDIMENT TRAPS AND BASINS ARE TO BE MAINTAINED SUCH THAT:
    (A) SEDIMENT IS REMOVED SUCH THAT NO LESS THAN 70% OF THE DESIGN CAPACITY REMAINS AT ANY ONE TIME.
    (B) MATERIALS ARE REPLACED OR REPAIRED AS REQUIRED TO ENSURE SERVICEABILITY OF BOTH THE ELEMENT AND THE TRAP OR BASIN.

17. PERMANENT DRAINAGE STRUCTURES INCLUDING: PIPES, PITS ARE TO BE HANDED OVER IN A CLEAN CONDITION AT THE COMPLETION OF THE CONTRACT MAINTENANCE PERIOD.

18. FOLLOWING COMPLETION AND RESTORATION OF SITE: REMOVE ALL MATERIALS AND FILL DIVERSION DRAINS, WATERWAYS, SEDIMENT TRAPS, AND SEDIMENT BASINS AND COMPACT IN ACCORDANCE WITH THE SPECIFICATION TO MATCH FINAL LEVELS OF THE WORKS. PROVIDE 100mm TOPSOIL AND HYDROSEED.

19. ACCESS POINT TO ALLOW MACHINE ENTRY / EXIT ARE TO INCLUDE A ROUNDED DIVERSION BANK 0.3m HIGH WITH 10H:1V BATTERS TO DIVERT RUNOFF TO SEDIMENT FENCES EITHER SIDE OF ENTRY.

20. WHERE FLOCCULATION OF BASINS IS REQUIRED UNLESS OTHERWISE SPECIFIED THE RECOMMENDED INITIAL DOSING IS 0.32KG OF GYPSUM PER CUBIC METRES OF BASIN VOLUME. THE CONTRACTOR MAY VARY THIS RATE SUBJECT TO TESTING OF PREVIOUS WATER SAMPLES AND THE ACHIEVEMENTS OF THE REQUIRED WATER QUALITY STANDARDS. FLOCCULATION TO TAKE PLACE WITHIN 48 HOURS OF AN EVENT.

21. THE CONTRACTOR SHALL MAINTAIN A LOG BOOK DETAILING
    - RECORDS OF ALL RAINFALL
    - CONDITION OF SOIL AND WATER MANAGEMENT STRUCTURES
    - ANY APPLICATION OF FLOCCULATING AGENTS TO SEDIMENT BASIN
    - VOLUMES OF ALL WATER DISCHARGED FROM SEDIMENT BASINS - ANY ADDITIONAL REMEDIAL WORKS REQUIRED
    THE LOG BOOK SHALL BE MAINTAINED ON A WEEKLY BASIS AND BE MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. THE ORIGINAL LOG BOOK SHALL BE ISSUED TO THE PROJECT MANAGER AT THE COMPLETION OF THE WORKS.

22. THE CONTRACTOR SHALL AT ALL TIMES RESTRICT CONSTRUCTION EQUIPMENT MOVEMENT TO THE ESSENTIAL CONSTRUCTION AREAS. THE CONTRACTOR SHALL NOT EXTEND LAND DISTURBANCE BEYOND 2m FROM THE EDGE OF ANY ESSENTIAL CONSTRUCTION ACTIVITY.

OPERATIONAL POLICY FOR TEMPORARY SEDIMENT BASIN

1. SETTLING ZONE SHOULD BE PUMPED OUT WITHIN 5 DAYS FOLLOWING RAINFALL EVENT.

2. PUMPING OF SETTLED WATER SHOULD BE:
   (a) FIRSTLY RE-USE FOR PROCESS WATER IF DEMAND EXISTS
   (b) SECONDLY RE-USE FOR ONSITE DUST SUPPRESSION
   (c) LASTLY DISPOSE TO STORMWATER IF WATER QUALITY APPROPRIATE

3. FLOCCULATION SHOULD BE USED WHERE EXTENDED SETTLING IS LIKELY TO FAIL.

4. FOR CONSTRUCTION NOTES REFER TO THE DEPARTMENT OF HOUSING MANAGING URBAN STORMWATER HANDBOOK EDITION 2004 DETAIL SD6-4.

5. TEMPORARY SEDIMENT BASINS ARE TO BE CONSTRUCTED TO THE FOLLOWING VOLUMES:

BASIN NUMBER	SEDIMENT STORAGE ZONE (m^3)	SETTLING ZONE (m^3)
1	1242	1754
2	2012	2842
3	761	1074

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
C	CONCEPT DESIGN TO ACCOMPANY S75W APPLICATION		SA	AM*	CM*	13.11.12
B	CONCEPT DESIGN REVISED TO REFERENCE METCASH APPLICATION		SA	CM*	CM*	15.09.10
A	CONCEPT DESIGN TO ACCOMPANY DEVELOPMENT APPLICATION		SA	FC*	CM*	08.07.09

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Drawn S. ATKINS		Designer F. CARROZZA	
Drafting Check		Design Check	
Approved (Project Director)			
Date			
Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	Original Size A1	

Client GOODMAN
Project BUNGARRIBEE ESTATE - HUNTINGWOOD WEST
Title BULK EARTHWORKS - SEDIMENTATION & EROSION CONTROL DETAILS - SHEET 1 OF 2

Drawing No: 21-18115-DA112 **Rev:** C

Plot Date: 13 November 2012 - 3:30 PM Plotted by: Luke Schlitter Cad File No: G:\21\18115\CADD\Drawings\21-18115-DA112.dwg