

PROPOSED FREIGHT TRANSPORT, WAREHOUSE & DISTRIBUTION FACILITY TOLL IPEC BUNGARRIBEE INDUSTRIAL ESTATE BRABHAM DRIVE HUNTINGWOOD WEST, NSW

DRAWING LIST

DRAWING NO.	DRAWING TITLE
CO11809.00-DA10	DRAWING LIST & GENERAL NOTES
CO11809.00-DA21	EROSION AND SEDIMENT CONTROL PLAN
CO11809.00-DA25	EROSION AND SEDIMENT CONTROL DETAILS
CO11809.00-DA40	CIVIL KEY PLAN, PIT SCHEDULE & NOTES
CO11809.00-DA41	STORMWATER LAYOUT PLAN - SHEET 1
CO11809.00-DA42	STORMWATER LAYOUT PLAN - SHEET 2
CO11809.00-DA43	STORMWATER LAYOUT PLAN - SHEET 3
CO11809.00-DA44	STORMWATER LAYOUT PLAN - SHEET 4
CO11809.00-DA45	STORMWATER LAYOUT PLAN - SHEET 5
CO11809.00-DA46	STORMWATER LAYOUT PLAN - SHEET 6
CO11809.00-DA47	STORMWATER CATCHMENT PLAN
CO11809.00-DA48	STORMWATER DRAINAGE DETAILS
CO11809.00-DA51	FINISHED LEVELS PLAN - SHEET 1
CO11809.00-DA52	FINISHED LEVELS PLAN - SHEET 2
CO11809.00-DA65	RETAINING WALL DETAILS

GENERAL NOTES:

- G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- G2 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- G3 ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. ENGINEER'S DRAWINGS ISSUED IN ANY ELECTRONIC FORMAT MUST NOT BE USED FOR DIMENSIONAL SETOUT. REFER TO THE ARCHITECT'S DRAWINGS FOR ALL DIMENSIONAL SETOUT INFORMATION.
- G4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G5 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- G6 ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.



NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD12 - 570.5

granted on the 18.04.13

Signed SW

Sheet No. 25 of 39

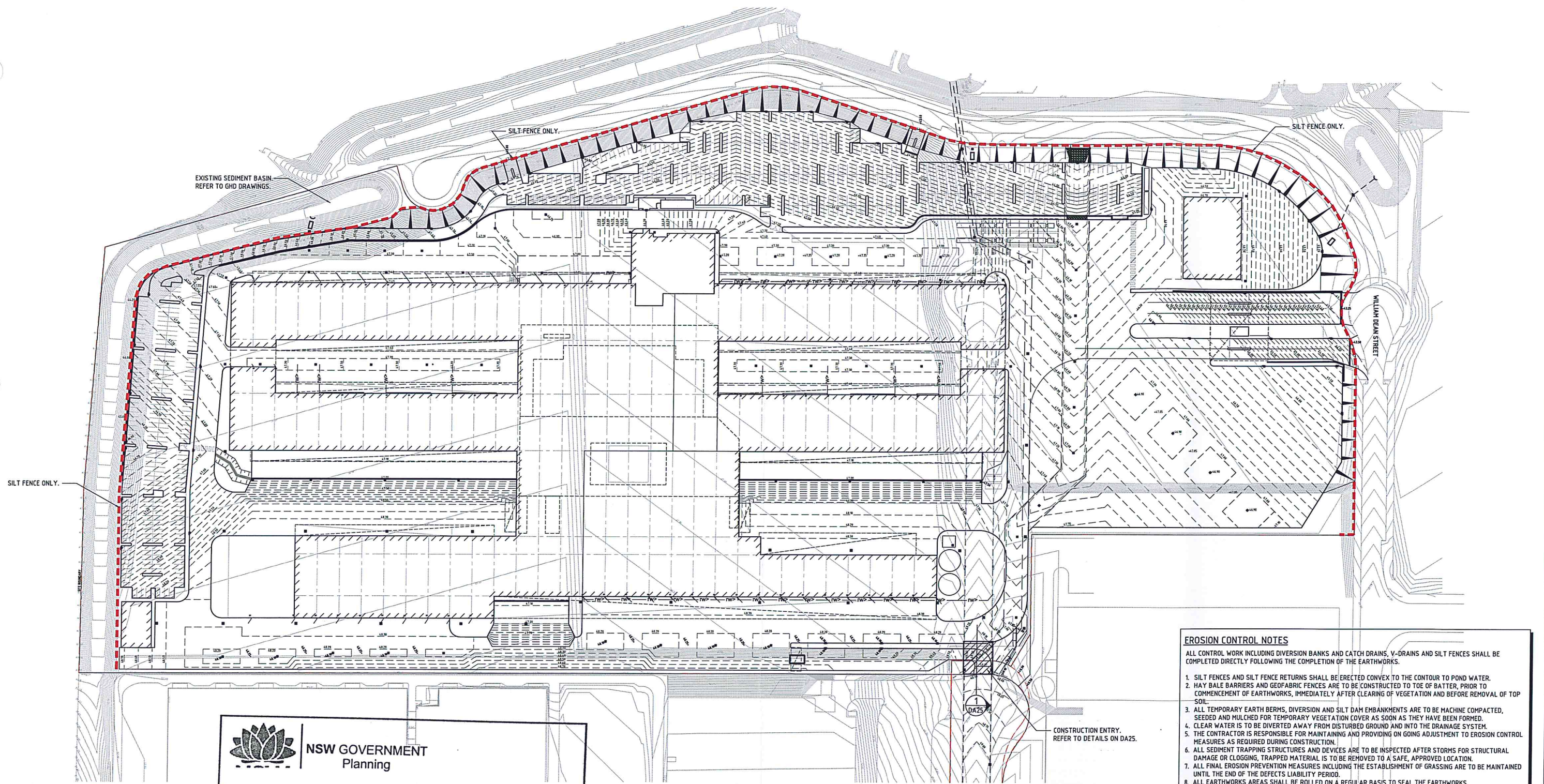


SITE PLAN
N.T.S.

FOR DEVELOPMENT
APPLICATION

Costin Roe Consulting

DRAWING TITLE
DRAWING LIST AND GENERAL
NOTES



- EROSION CONTROL NOTES**
- ALL CONTROL WORK INCLUDING DIVERSION BANKS AND CATCH DRAINS, V-DRAINS AND SILT FENCES SHALL BE COMPLETED DIRECTLY FOLLOWING THE COMPLETION OF THE EARTHWORKS.
1. SILT FENCES AND SILT FENCE RETURNS SHALL BE ERECTED CONVEX TO THE CONTOUR TO POND WATER.
 2. HAY BALE BARRIERS AND GEOFABRIC FENCES ARE TO BE CONSTRUCTED TO TOE OF BATTER, PRIOR TO COMMENCEMENT OF EARTHWORKS, IMMEDIATELY AFTER CLEARING OF VEGETATION AND BEFORE REMOVAL OF TOP SOIL.
 3. ALL TEMPORARY EARTH BERMS, DIVERSION AND SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDING AND MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
 4. CLEAR WATER IS TO BE DIVERTED AWAY FROM DISTURBED GROUND AND INTO THE DRAINAGE SYSTEM.
 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROVIDING ON GOING ADJUSTMENT TO EROSION CONTROL MEASURES AS REQUIRED DURING CONSTRUCTION.
 6. ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING, TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE, APPROVED LOCATION.
 7. ALL FINAL EROSION PREVENTION MEASURES INCLUDING THE ESTABLISHMENT OF GRASSING ARE TO BE MAINTAINED UNTIL THE END OF THE DEFECTS LIABILITY PERIOD.
 8. ALL EARTHWORKS AREAS SHALL BE ROLLED ON A REGULAR BASIS TO SEAL THE EARTHWORKS.
 9. ALL FILL AREAS ARE TO BE LEFT WITH A BUND AT THE TOP OF THE SLOPE AT THE END OF EACH DAYS EARTHWORKS. THE HEIGHT OF THE BUND SHALL BE A MINIMUM OF 200MM.
 10. ALL CUT AND FILL SLOPES ARE TO BE SEEDING AND HYDROMULCHED WITHIN 10 DAYS OF COMPLETION OF FORMATION.
 11. AFTER REVEGETATION OF THE SITE IS COMPLETE AND THE SITE IS STABLE IN THE OPINION OF A SUITABLY QUALIFIED PERSON ALL TEMPORARY WORK SUCH AS SILT FENCE, DIVERSION DRAINS ETC SHALL BE REMOVED.
 12. ALL TOPSOIL STOCKPILES ARE TO BE SUITABLY COVERED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR TO PREVENT WIND AND WATER EROSION.
 13. ANY AREA THAT IS NOT APPROVED BY THE CONTRACT ADMINISTRATOR FOR CLEARING OR DISTURBANCE BY THE CONTRACTOR'S ACTIVITIES SHALL BE CLEARLY MARKED AND SIGN POSTED, FENCED OFF OR OTHERWISE APPROPRIATELY PROTECTED AGAINST ANY SUCH DISTURBANCE.
 14. ALL STOCKPILE SITES SHALL BE SITUATED IN AREAS APPROVED FOR SUCH USE BY THE CONTRACT ADMINISTRATOR. A 6m BUFFER ZONE SHALL EXIST BETWEEN STOCKPILE SITES AND ANY STREAM OR FLOW PATH. ALL STOCKPILES SHALL BE ADEQUATELY PROTECTED FROM EROSION AND CONTAMINATION OF THE SURROUNDING AREA BY USE OF THE MEASURES APPROVED IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
 15. ACCESS AND EXIT AREAS SHALL INCLUDE SHAKE-DOWN OR OTHER METHODS APPROVED BY THE CONTRACT ADMINISTRATOR FOR THE REMOVAL OF SOIL MATERIALS FROM MOTOR VEHICLES.
 16. THE CONTRACTOR IS TO ENSURE RUNOFF FROM ALL AREAS WHERE THE NATURAL SURFACE IS DISTURBED BY CONSTRUCTION, INCLUDING ACCESS ROADS, DEPOT AND STOCKPILE SITES, SHALL BE FREE OF POLLUTANTS BEFORE IT IS EITHER DISPERSED TO STABLE AREAS OR DIRECTED TO NATURAL WATERCOURSES.
 17. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SLOPES, CROWNS AND DRAINS ON ALL EXCAVATIONS AND EMBANKMENTS TO ENSURE SATISFACTORY DRAINAGE AT ALL TIMES WATER SHALL NOT BE ALLOWED TO POND ON THE WORKS UNLESS SUCH PONDING IS PART OF AN APPROVED ESCP / SWMP.



NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD12-5703

granted on the 18.04.13

Signed SW

Sheet No. 26 of 39

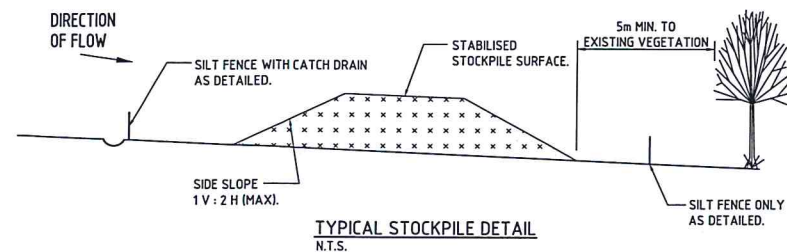
EROSION AND SEDIMENT CONTROL PLAN
SCALE 1:750

NOTE:
EROSION AND SEDIMENT CONTROL PLAN DENOTES SITE REQUIREMENTS ONLY.
REFER TO GHD DRAWINGS 21-18115-DA109 & DA110 FOR ESTATE EROSION AND SEDIMENT CONTROL BASIN, DIVERSION DRAINS, FENCES, ETC.

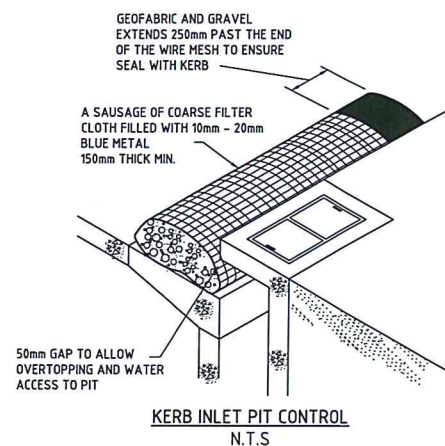
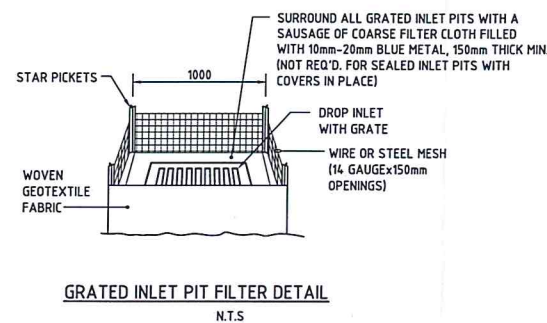
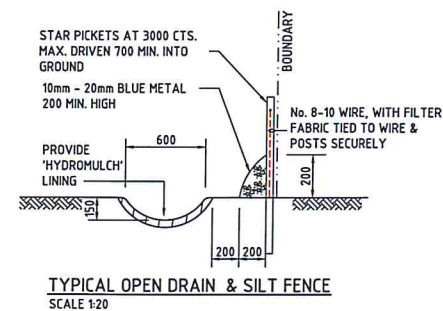
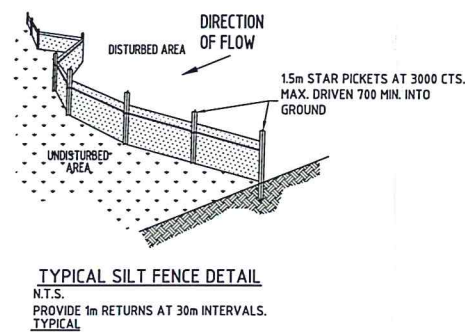
- LEGEND:**
PROVIDE 1m RETURNS TO SILT FENCE AT 30m MAX. INTERVALS. TYPICAL (N.S.O.P.)
- SILT FENCE WITH CATCH DRAIN.
 - SILT FENCE ONLY



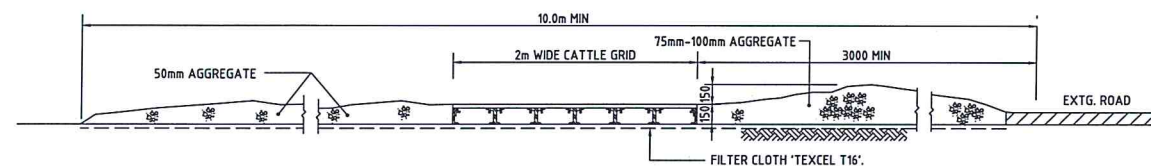
FOR DEVELOPMENT APPLICATION



- STOCKPILE NOTES**
1. PLACE ALL STOCKPILES IN LOCATIONS MORE THAN 5m FROM EXISTING VEGETATION, ROADS & HAZARD AREAS.
 2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT ELONGATED MOUNDS. SIDE SLOPE TO BE 1 V: 2 H MAX.
 3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
 4. WHERE STOCKPILES ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE USING WOOD CHIP MULCH - 16 TONNE/HA.
 5. CONSTRUCT SILT FENCE WITH CATCH DRAIN ON UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES & SILT FENCE ONLY 1 TO 2m DOWNSLOPE AS SHOWN.



NOTE: ADOPT ABOVE DETAILS AROUND ALL PITS WITHIN AREA ENCOMPASSED BY SILT FENCE & TO PITS THE ENTRANCE ROAD ADJACENT TO SITE BOUNDARY.



- NOTES:**
- ALL EROSION & SEDIMENT CONTROL MEASURES TO BE INSPECTED & MAINTAINED DAILY BY SITE MANAGER.
 - MINIMISE DISTURBED AREAS.
 - ROADS & FOOTPATHS TO BE SWEEP DAILY.
 - 12m TURF TO BE PLACED BEHIND KERBS.
 - DUST MINIMISATION CONTROL BY WATERING TO BE IMPLEMENTED BY SITE MANAGER AS REQUIRED OR AS DIRECTED BY BLACKTOWN CITY COUNCIL.



**NSW GOVERNMENT
Planning**

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. USD12-5705

granted on the 18.04.13

Signed SW

Sheet No. 27 of 39

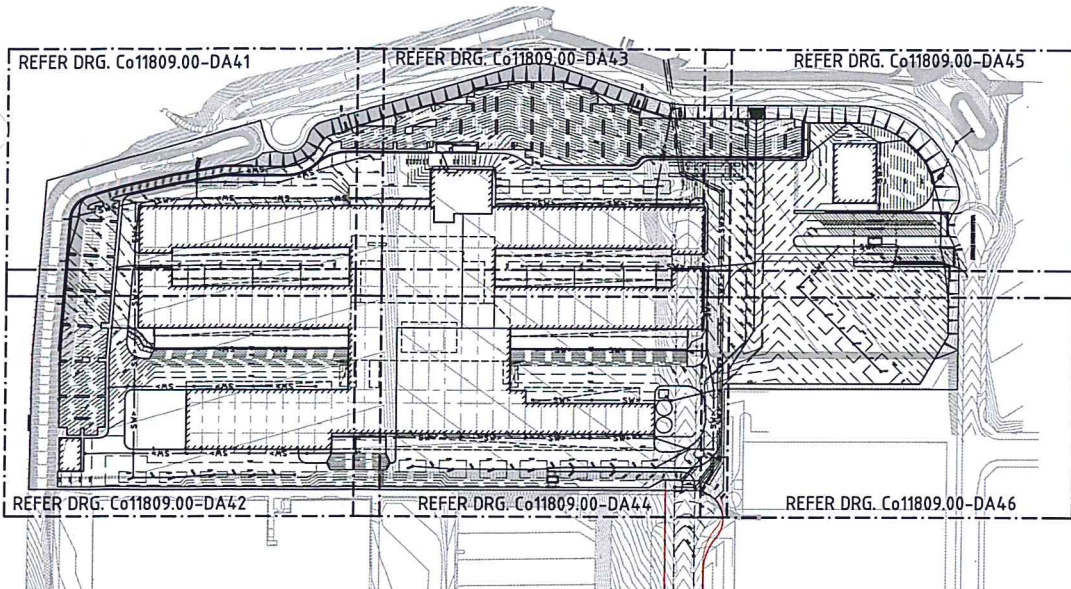
200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE PLOT

**FOR DEVELOPMENT
APPLICATION**

Costin Roe Consulting

**EROSION AND SEDIMENT
CONTROL DETAILS**

FOR DEVELOPMENT APPLICATION	21.11.12	A
ARCHITECT		
CLIENT		
PROJECT		
PROPOSED TOLL IPEC FACILITY GREAT WESTERN HWY/BRABHAM DRIVE HUNTINGWOOD WEST		
COSTIN ROE CONSULTING		
Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Widdowson Street Yahlab, Sydney NSW 2000 Tel: (02) 9521-7990 Fax: (02) 9521-2771		



STORMWATER KEY PLAN
SCALE 1:2000

STORMWATER DRAINAGE NOTES:

- ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS DA51 & DA52.
- PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
- EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
- ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
- ALL PIPES UP TO AND INCLUDING 300mm TO BE UPVC GRADE SBN.
- ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTRED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE Fc 25 MPA. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
- IN ADDITION TO ITEM 6 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
- PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
- WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 UPVC TO EACH SIDE OF PIPE.
- ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED UPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
- ALL PIPE GRADES 1 IN 100 MINIMUM UNO.
- PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
- MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
- PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY'. THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' UNO.
- PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
- DOWN PIPES TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE UNO. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
- PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.



Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SCD12-5705

granted on the 18.04.13

Signed

Sheet No. 28 of 39

PIT SCHEDULE - SYSTEM A

PIT No.	GRATE RL	DEPTH	TYPE	SIZE	COMMENT
PIT A1	48.10	930	SGGP	900x900	
PIT A2	48.10	1110	SGGP	900x900	
PIT A3	48.10	1290	SGGP	900x900	
PIT A4	48.10	1470	SGGP	900x900	
PIT A5	48.10	1650	SGGP	900x900	
PIT A6	48.32	3170	SJP	900x900	
PIT A7	48.10	3230	SJP	900x900	
PIT A8	48.40	3780	SJP	900x900	
PIT A9	47.32	2970	SGGP	900x900	
PIT A10	47.50	3760	SJP	900x900	
PIT A11	47.40	3920	SJP	900x900	
PIT A12	47.25	3860	SGGP	900x900	
PIT A13	46.30	3030	KIP	1800 LINTEL	
PIT A14	44.20	1850	SJP	900x900	
PIT A15	47.20	1100	SJP	900x900	
PIT A16	48.40	2510	SJP	900x900	
PIT A17	48.35	2710	SJP	900x900	
PIT A18	48.35	2970	SJP	900x900	
PIT A19	48.50	930	SJP	900x900	
PIT A20	48.35	860	SJP	900x900	
PIT A21	48.35	1130	SJP	900x900	
PIT A22	48.35	1380	SJP	900x900	
PIT A23	47.50	930	KIP	2400 LINTEL	
PIT A24	47.00	1000	SGGP	900x900	
PIT A25	47.00	1230	SGGP	900x900	
PIT A26	47.00	1460	SGGP	900x900	
PIT A27	47.00	1650	SGGP	900x900	
PIT A28	46.80	930	KIP-SAG	2400 LINTEL	
PIT A29	47.20	1000	SGGP	900x900	
PIT A30	47.20	1180	SGGP	900x900	
PIT A31	47.20	1360	SGGP	900x900	
PIT A32	47.20	1540	SGGP	900x900	
PIT A33	47.25	1780	SGGP	900x900	
PIT A34	47.20	930	KIP	2400 LINTEL	
PIT A35	47.30	930	KIP-SAG	1800 LINTEL	
PIT A36	46.40	960	KIP-SAG	1800 LINTEL	
PIT A37	46.00	1480	KIP-SAG	2400 LINTEL	
PIT A38	46.00	1530	KIP-SAG	2400 LINTEL	
PIT A39	46.40	2090	KIP-SAG	1800 LINTEL	
PIT A40	47.05	2900	KIP-SAG	1800 LINTEL	
PIT A41	47.30	3320	KIP	1800 LINTEL	
PIT A42	47.10	1090	SGGP	900x900	
PIT A43	47.40	1630	SJP	900x900	
PIT A44	47.40	1870	SJP	900x900	
PIT A45	47.25	1820	SGGP	900x900	
PIT A46	47.25	1950	SGGP	900x900	
PIT A47	47.25	2080	SGGP	900x900	
PIT A48	46.75	910	SGGP	1200x1200	
PIT A49	47.00	1330	SGGP	900x900	
PIT A50	45.15	960	KIP	1800 LINTEL	
PIT A51	45.38	1340	KIP	1800 LINTEL	
PIT A52	45.95	2170	KIP	1800 LINTEL	
PIT A53	46.80	930	KIP	1800 LINTEL	

PIT SCHEDULE - SYSTEM C

PIT No.	GRATE RL	DEPTH	TYPE	SIZE	COMMENT
PIT C1	46.90	930	SGGP	900x900	
PIT C2	46.90	1110	SGGP	900x900	
PIT C3	46.90	1290	SGGP	900x900	
PIT C4	46.90	1470	SGGP	900x900	
PIT C5	46.35	1170	KIP	2400	
PIT C6	45.20	1120	KIP	2400	
PIT C7	43.90	1240	KIP	2400	
PIT C8	43.20	1270	KIP	2400	
PIT C9	45.10	3320	KIP-SAG	1800	
PIT C10	45.40	2220	KIP	1800	
PIT C11	45.95	930	KIP	2400	
PIT C12	45.70	1010	KIP	2400	
PIT C13	45.30	2210	KIP-SAG	2400	
PIT C14	46.38	930	KIP	1800	
PIT C15	46.05	960	KIP-SAG	1800	
PIT C16	46.65	3210	SJP	900x900	
PIT C17	46.00	2680	KIP	1800	
PIT C18	44.70	930	KIP	2400	
PIT C19	46.65	2940	SJP	900x900	

PIT SCHEDULE - SYSTEM B

PIT No.	GRATE RL	DEPTH	TYPE	SIZE	COMMENT
PIT B1	48.10	930	SGGP	900x900	
PIT B2	48.10	1110	SGGP	900x900	
PIT B3	48.10	1290	SGGP	900x900	
PIT B4	48.10	1470	SGGP	900x900	
PIT B5	48.10	1650	KIP-SAG	1800 LINTEL	
PIT B6	48.10	1830	KIP-SAG	1800 LINTEL	
PIT B7	48.10	2010	KIP-SAG	1800 LINTEL	
PIT B8	48.10	2190	SJP	900x900	
PIT B9	47.80	2010	SGGP	900x900	
PIT B10	47.55	2020	SGGP	1200x1200	
PIT B11	47.60	2360	SJP	900x900	
PIT B12	47.03	2150	SJP	900x900	
PIT B13	46.50	1830	SGGP	1200x1200	
PIT B14	46.25	1740	SGGP	1200x1200	
PIT B15	46.00	1640	SGGP	1200x1200	
PIT B16	45.75	2940	SGGP	1200x1200	
PIT B17	43.65	2550	KIP-SAG	3000 LINTEL	
PIT B18	43.90	3110	KIP-SAG	1800 LINTEL	
PIT B19	44.15	3500	SJP	900x900	
PIT B20	TBC	TBC	SJP	900x900	
PIT B21	TBC	TBC	SJP	900x900	
PIT B22	46.35	1170	SJP	900x900	
PIT B23	46.35	1450	SJP	900x900	
PIT B24	46.35	1730	SJP	900x900	
PIT B25	46.35	2000	SJP	900x900	
PIT B26	46.35	2280	SJP	900x900	
PIT B27	46.35	860	SJP	900x900	
PIT B28	46.35	1110	SJP	900x900	
PIT B29	46.35	1430	SJP	900x900	
PIT B30	46.35	1000	SGGP	600x600	
PIT B31	47.00	1010	SGGP	900x900	
PIT B32	47.00	1240	SGGP	900x900	
PIT B33	47.00	1470	SGGP	900x900	
PIT B34	47.00	1660	SGGP	900x900	
PIT B35	47.20	1010	SGGP	900x900	
PIT B36	47.20	1190	SGGP	900x900	
PIT B37	47.20	1370	SGGP	900x900	
PIT B38	47.20	1550	SGGP	900x900	
PIT B39	44.85	930	KIP	1800 LINTEL	
PIT B40	44.70	960	KIP-SAG	1800 LINTEL	
PIT B41	44.80	1240	KIP-SAG	1800 LINTEL	
PIT B42	45.00	1630	KIP-SAG	1800 LINTEL	
PIT B43	44.80	1640	KIP-SAG	1800 LINTEL	
PIT B44	44.60	1650	KIP-SAG	1800 LINTEL	
PIT B45	44.20	1400	KIP-SAG	1800 LINTEL	
PIT B46	44.15	1480	KIP-SAG	1800 LINTEL	
PIT B47	44.45	1910	KIP-SAG	1800 LINTEL	
PIT B48	44.30	1850	KIP-SAG	1800 LINTEL	
PIT B49	44.25	2000	KIP-SAG	1800 LINTEL	
PIT B50	47.43	1090	SJP	900x900	
PIT B51	47.43	1340	SJP	900x900	
PIT B52	47.43	1680	SJP	900x900	
PIT B53	47.43	1010	SJP	900x900	
PIT B54	47.20	2310	SGGP	900x900	
PIT B55	47.10	1220	SJP	900x900	
PIT B56	46.50	1130	SJP	900x900	
PIT B57	48.40	3180	SJP	900x900	
PIT B58	48.40	3410	SJP	900x900	
PIT B59	47.20	2490	SGGP	900x900	
PIT B60	47.20	2670	SGGP	900x900	
PIT B61	47.20	2850	SGGP	900x900	
PIT B62	47.20	3030	SGGP	900x900	
PIT B63	47.35	930	SGGP	1200x1200	
PIT B64	47.00	1010	SGGP	1200x1200	
PIT B65	46.75	1090	SGGP	1200x1200	
PIT B66	46.30	990	KIP-SAG	2400 LINTEL	
PIT B67	48.10	860	KIP-SAG	1800 LINTEL	
PIT B68	48.10	860	KIP-SAG	1800 LINTEL	

PIPE SCHEDULE - SYSTEM A

From	To	Length (m)	U/S IL (m)	D/S IL (m)	Slope (%)	Dia (mm)
Pit A1	Pit A2	30.0	47.17	47.02	0.50	300
Pit A2	Pit A3	30.0	46.99	46.84	0.50	300
Pit A3	Pit A4	30.0	46.81	46.66	0.50	375
Pit A4	Pit A5	30.0	46.63	46.48	0.50	375
Pit A5	Pit A6	17.5	46.45	46.36	0.51	450
Pit A6	Pit A7	51.0	45.15	44.90	0.49	675
Pit A7	Pit A8	43.5	44.87	44.65	0.51	750
Pit A8	Pit A9	48.5	44.62	44.38	0.49	825
Pit A9	Pit A10	48.0	44.35	44.11	0.50	900
Pit A10	Pit A11	46.0	43.74	43.51	0.50	900
Pit A11	Pit A12	11.0	43.48	43.42	0.55	1050
Pit A12	Pit A13	5.0	43.39	43.30	1.80	1050
Pit A13	Pit A14	7.5	43.27	42.40	11.60	1050
Pit A14	Pit GPT A	5.0	42.35	42.30	1.00	1050
Pit A15	Pit A16	35.5	46.10	45.92	0.51	525
Pit A16	Pit A17	44.0	45.89	45.67	0.50	600
Pit A17	Pit A18	46.5	45.64	45.41	0.49	600
Pit A18	Pit A6	39.5	45.38	45.18	0.51	675
Pit A19	Pit A6	35.5	45.757	47.39	0.51	300
Pit A20	Pit A21	47.0	44.79	47.25	0.51	225
Pit A21	Pit A22	44.5	47.22	47.00	0.49	225
Pit A22	Pit A7	44.5	46.97	46.75	0.49	225
Pit A23	Pit A7	18.0	46.57	46.48	0.50	300
Pit A24	Pit A25	40.5	46.00	45.80	0.49	375
Pit A25	Pit A26	40.5	45.77	45.57	0.49	450
Pit A26	Pit A27	31.5	45.54	45.38	0.51	450
Pit A27	Pit A8	21.5	45.35	45.24	0.51	525
Pit A28	Pit A8	16.5	45.87	45.79	0.48	375
Pit A29	Pit A30	30.0	46.20	46.05	0.50	375
Pit A30	Pit A31	30.0	46.02	45.87	0.50	375
Pit A31	Pit A32	30.0	45.84	45.69	0.50	450
Pit A32	Pit A33	30.5	45.66	45.50	0.52	525
Pit A33	Pit A9	18.5	45.47	45.37	0.54	525
Pit A34	Pit A9	12.5	46.27	46.21	0.48	300
Pit A35	Pit A36	26.5	46.37	45.47	3.40	375
Pit A36	Pit A37	27.5	45.44	44.55	3.24	375
Pit A37	Pit A38	2.0	44.52	44.50	1.00	375
Pit A38	Pit A39	26.5	44.47	44.34	0.49	450
Pit A39	Pit A40	26.5	44.31	44.18	0.49	450
Pit A40	Pit A41	28.5	44.15	44.01	0.49	525
Pit A41	Pit A10	43.5	43.98	43.77	0.48	600
Pit A42	Pit A43	43.5	46.01	45.80	0.48	450
Pit A43	Pit A44	42.5	45.77	45.56	0.49	525
Pit A44	Pit A11	42.5	45.53	45.32	0.49	600
Pit A45	Pit A46	19.5	45.43	45.33	0.51	375
Pit A46	Pit A47	19.5	45.30	45.20	0.51	375
Pit A47	Pit A12	20.5	45.17	45.07	0.49	375
Pit A48	Pit A49	28.5	45.84	45.70	0.49	375
Pit A49	Pit A45	42.0	45.67	45.46	0.50	375
Pit A50	Pit A51	23.5	44.19	44.07	0.51	300
Pit A51	Pit A52	46.5	44.04	43.81	0.49	300
Pit A52	Pit A13	20.5	43.78	43.68	0.49	300
Pit A53	Pit A30	30.0	45.87	45.37	1.67	300
GPT A	OUTLET A	5.0	42.25	42.20	1.00	1050



NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD-5705

granted on the 18.04.12

Signed SW

Sheet No. 20 of 39

PERIMETER DRAIN.
REFER TO GHD
INFRASTRUCTURE DRAWINGS.

SITE BOUNDARY

STORMWATER OUTLET A
PROVIDE HEADWALL AND ENERGY
DISSIPATOR TO SUIT 1050 ϕ PIPE

GROSS POLLUTANT TRAP
ECOSOL RSF 4750 OR TO
EQUIVALENT STANDARDS

PROPOSED TOLL IPEC
FACILITY. FFL = 48.40
(BEL = 48.20)

DENOTES OVERLAND
FLOWPATH DIRECTION

STORMWATER PLAN NOTES:
REFER TO DRAWING DA 40 FOR STORMWATER DRAINAGE
NOTES, KEY PLAN, LEGEND, PIT & PIPE SCHEDULE.

BREAK LINE - REFER TO DRG. 42 (SHEET 2) FOR CONTINUATION
STORMWATER LAYOUT PLAN - SHEET 1
SCALE 1:250

FOR DEVELOPMENT
APPLICATION

2m 0 5 10 15 20 25m
SCALE 1:250 AT A0 SIZE PLOT

FOR DEVELOPMENT APPLICATION	21.11.12	B
PRELIMINARY-FOR INFORMATION	08.11.12	A

ARCHITECT

CLIENT



PROJECT
PROPOSED TOLL IPEC FACILITY
GREAT WESTERN HWY/BRABHAM DRIVE
HUNTINGWOOD WEST



Costin Roe Consulting Pty Ltd.
Consulting Engineers
Level 1, 8 Windmill Street
Wahai Bay, Sydney NSW 2000
Tel: (02) 9551-7000 Fax: (02) 9551-7071

Costin Roe Consulting

DRAWING TITLE
STORMWATER LAYOUT PLAN
SHEET 1