

PROPOSED WAREHOUSE DEVELOPMENT
YARRUNGA ROAD, PRESTONS-LOGOS SITE
CIVIL DRAWINGS FOR PROPOSED DEVELOPMENT

DRAWING LIST

DRAWING NO.	DRAWING TITLE
C08753.21-C 10	DRAWING LIST & GENERAL NOTES
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C08753.21-C 25	EROSION AND SEDIMENT CONTROL DETAILS
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C08753.21-C 65	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.

SITE PREPARATION NOTES:

1. ALL EARTHWORKS SHALL BE COMPLETED GENERALLY IN ACCORDANCE WITH THE GUIDELINES SPECIFIED IN THE GEOTECHNICAL REPORT
2. EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED 5073596.000_DETAIL SURVEY.
3. STRIP ANY TOP SOIL OR DELETERIOUS MATERIAL AND DISPOSE OF FROM SITE OR STORE AS DIRECTED.
4. COMPLETE CUT TO FILL EARTHWORKS TO ACHIEVE THE REQUIRED LEVELS AS INDICATED ON THE DRAWINGS WITHIN A TOLERANCE OF +0mm/-10mm THROUGH BUILDING PADS/PAVEMENTS AND +0mm/-20mm ELSEWHERE.
5. PREPARE STEEP BATTERS TO RECEIVE FILL BY CONSTRUCTING BENCHING TO FACILITATE FILL PLACEMENT AND COMPACTION.
6. AREAS TO RECEIVE FILL (THAT ARE NOT ON BENCHED BATTERS) AND AREAS IN CUT SHALL BE PROOF ROLLED TO IDENTIFY ANY SOFT HEAVING MATERIAL. SOFT MATERIAL SHALL BE BOXED OUT AND REMOVED PRIOR TO FILL PLACEMENT. PROOF ROLLING TO BE INSPECTED BY A GEOTECHNICAL ENGINEER OR THE EARTHWORKS DESIGNER.
7. SITE WON FILL SHALL BE COMPACTED IN MAXIMUM 300mm LAYERS AND TO DRY OR HLIF DENSITY RATIOS (STANDARD COMPACTION) OF BETWEEN 98% AND 103%. THE PLACEMENT MOISTURE VARIATION OR HLIF MOISTURE VARIATION SHALL BE CONTROLLED TO BE BETWEEN 2% DRY AND 2% WET.
8. IMPORTED FILL SHALL BE COMPACTED IN MAXIMUM 300mm LAYERS AND TO DRY OR HLIF DENSITY RATIOS (STANDARD COMPACTION) OF BETWEEN 98% AND 103%. THE PLACEMENT MOISTURE VARIATION OR HLIF MOISTURE VARIATION SHALL BE CONTROLLED TO BE BETWEEN 2% DRY AND 2% WET.
9. ALL ENGINEERED FILL PARTICLES SHALL BE ABLE TO BE INCORPORATED WITHIN A SINGLE LAYER. FURTHER, LESS THAN 30% OF PARTICLES SHALL BE FINER THAN THE 37.5 μ SIEVE. ENGINEERED FILL SHALL BE ABLE TO BE TESTED IN ACCORDANCE WITH THE STANDARD COMPACTION METHOD (AS12895.4.1) OR HLIF TEST METHOD (AS12895.5). THESE METHODS REQUIRE LESS THAN 30% RETAINED ON THE 37.5 μ M SIEVE. WHERE BETWEEN 20% AND 30% OF PARTICLES ARE RETAINED ON THE 37.5 μ M SIEVE THE ABOVE TEST METHODS SHALL STILL BE ADOPTED AND TEST REPORTS ANNOTATED APPROPRIATELY. THESE REQUIREMENTS SHOULD BE MET BY THE MATERIAL AFTER PLACEMENT AND COMPACTION
10. ALL THE EARTHWORKS UNDERTAKEN AND THE SUBGRADE CONDITION IN THE CUT AREAS (IN THE STATED PERIOD) ARE DOCUMENTED IN THE REPORTS AND HAVE BEEN UNDERTAKEN IN ACCORDANCE WITH THE SPECIFICATION IGE COSTIN RDE SITE PREPARATION NOTES IN DWG C103003.01-EWC10)
11. PRIOR TO ANY EARTHWORKS, EROSION CONTROL AS OUTLINED IN THE EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE COMPLETED
12. EXPOSED ROCK, IF ANY, SHALL BE REMOVED BY HEAVY ROCK BREAKING OR RIPPING.
13. MATCH EXISTING LEVELS AT BATTER INTERFACE.
14. CONTRACTOR TO MATCH EXISTING LEVEL AT THE INTERFACE OF EARTHWORKS AND EXISTING SURFACE AT BATTER LOCATIONS OR WHERE NO RETAINING WALLS ARE PRESENT. ANY DISCREPANCY BETWEEN DESIGN AND EXISTING LEVELS TO BE REFERRED TO THE ENGINEER FOR DIRECTION OR ADJUSTMENTS TO DESIGN LEVELS.

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, SEEDED AND MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
4. ALL EXCESS 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 SEEDED 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 SITE MANAGER 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 SITE MANAGER. 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 SITE MANAGER FOR THE REMOVAL OF SOIL MATERIALS FORM 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 DISPOSED 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.

STORMWATER DRAINAGE NOTES:

1. ALL STORMWORK WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500 3:2003 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
2. THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
3. ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS C51 & C52.
4. PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
6. ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
7. ALL PIPES UP TO AND INCLUDING Ø300 TO BE uPVC GRADE S88 UNDO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED 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.
10. IN ADDITION TO ITEM 6 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
11. 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.
12. CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND/OR HAUNCH/SIDE SUPPORT.
13. WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 uPVC TO EACH SIDE OF PIT.
14. ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED uPVC uPVC WITH APPROVED FILTER WRAP AID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAID 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 AT ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
15. ALL PIPE GRADES 1 IN 100 MINIMUM UNDO.
16. PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
17. MIN. 400 COVER TO PIPE OVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
18. PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY', THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' UNDO.
19. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
20. DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE UNDO. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
21. 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.



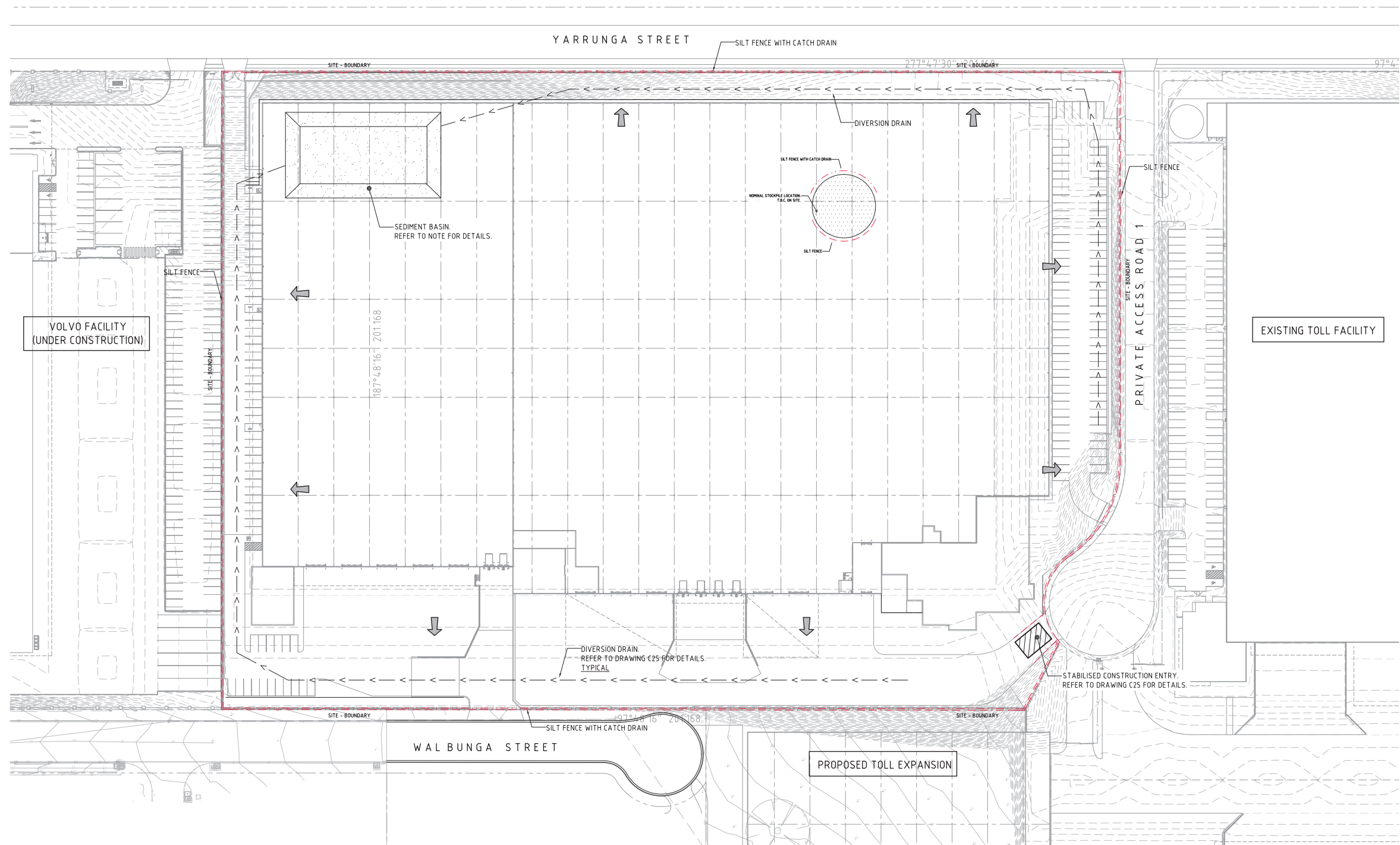
SITE PLAN
N.T.S

FINISHED LEVELS PLAN NOTES

1. LEVELS DATUM IS A.S.D.
2. ALL CONTOUR LINES & SPOT LEVELS INDICATE FINISHED PAVEMENT LEVELS U.N.O. ON PLAN.
3. THE MAJOR CONTOUR INTERVAL IS 0.5m
4. THE MINOR CONTOUR INTERVAL IS 0.1m.
5. MINIMUM PAVEMENT GRADE IS TO BE 1:100 (1%)
6. MAXIMUM PAVEMENT GRADE IS TO BE 1:20 (5%) IN CARPARKING AREAS AND 1:25 (4%) ELSEWHERE
7. MAXIMUM GRADE IS TO BE 1:12 (8.33%) U.N.O. ON PLAN
8. PROVIDE MINIMUM 3.0m LONG TRANSITION WHERE CHANGES GRADE EXCEED 1:20 (5%)
9. PERMANENT BATTER SLOPES ARE TO HAVE A MAXIMUM GRADE OF 1V:3H.
10. ALL BATTER SLOPE WITH GRADES AT OR EXCEEDING 1V:6H ARE TO BE TURFED IMMEDIATELY OR APPROPRIATE EROSION CONTROL IS TO BE PROVIDED TO THE SATISFACTION OF THE ENGINEER.
11. THE ACCESS ROAD TO THE HARDESTAND AREA IS TO HAVE A CROSSFALL OF 2% AS INDICATED ON PLAN.
12. ALL FOOTPATHS ARE TO FALL AWAY FROM THE BUILDING AT 25% NOMINAL GRADE.
13. ALL PAVEMENTS ARE TO BE SET AT 50mm BELOW THE FINISHED FLOOR LEVEL OF THE WAREHOUSE AND OFFICE AREAS.

FOR DEVELOPMENT APPLICATION

																				ARCHITECT										CLIENT LOGOS PROPERTY SUITE 02, LEVEL 12 167 MACQUARIE STREET SYDNEY NSW 2000										PROJECT PROPOSED WAREHOUSE YARRUNGA ROAD, PRESTONS-LOGOS SITE																				Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Windmill Street Rabb Day, Sydney NSW 2000 Tel: (02) 9551-7900 Fax: (02) 9541-3721 email: mail@costinroe.com.au ©																				DRAWING TITLE DRAWING LIST & GENERAL 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LEGEND:

- OVERLAND FLOW PATH
- SILT FENCING
- SILT FENCING WITH CATCH DRAIN

SEDIMENTATION BASIN NOTE:

FOR SEDIMENT & EROSION CONTROL DETAILS REFER TO DRAWING C08753.21-C25.

SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'. CAPACITY BASED UPON 5 DAY RAINFALL DEPTH AT 85th PERCENTILE INTENSITY (32.2mm).

APPROXIMATE AREA OF DISTURBED SITE = 2.18 Ha

SEDIMENTATION BASINS TO COLLECT RUN-OFF IN EXTREME RAINFALL EVENTS. COLLECTED RUN-OFF TO BE ASSESSED BY A QUALIFIED LABORATORY FOR DOUSING RATES OF ALUM OR GYPSUM TO ENSURE COAGULATION OF SEDIMENTS PRIOR TO WATER BEING DISCHARGED TO COUNCIL STORMWATER SYSTEM.

EACH BASIN IS TO HAVE A MARKER PLACED AS PER THE DETAIL TO INDICATE WHEN SEDIMENT IS TO BE REMOVED. REMOVED SEDIMENT IS TO BE CLASSED AND DEWATERED PRIOR TO REMOVAL FROM SITE.

ALLOWANCE TO BE MADE DURING BENCHING OF SITE TO ENSURE RUN-OFF IS DIRECTED TO SEDIMENTATION BASINS.

NOTES:

- ASSUME TYPE D SOIL (CLAY/SILTY CLAY)
- ASSUME GROUP D SOIL (HIGH PLASTICITY AND SHRINK/SWELL PROPERTIES)

SOIL TYPE ASSESSED FROM THE GEOTECHNICAL REPORT PROVIDED BY GROUND TECHNOLOGIES TITLED GTE549-GEOTECH DATED 27.10.15.

SEDIMENT BASIN:

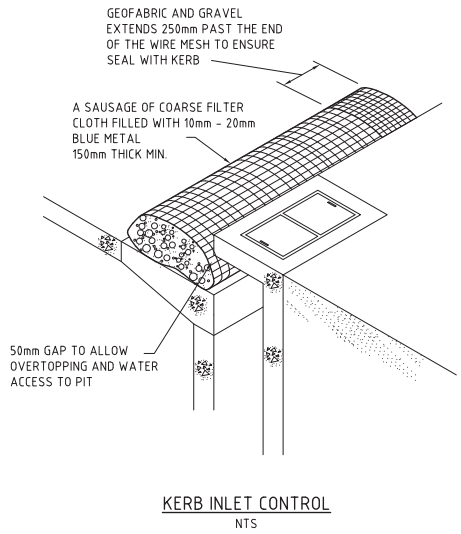
CATCHMENT AREA	= 5.58ha
REQUIRED BASIN VOLUME	= 1347m ³
BASE DIMENSION (LxB)	= 4.0m x 18.0m
TOP DIMENSION (LxB)	= 4.9m x 27.0m
MAX SIDE SLOPE	= 1V:3H
DEPTH	= 1.5m
PROVIDED BASIN VOLUME	= 1509m ³

EROSION & SEDIMENT CONTROL PLAN
1:250 SCALE

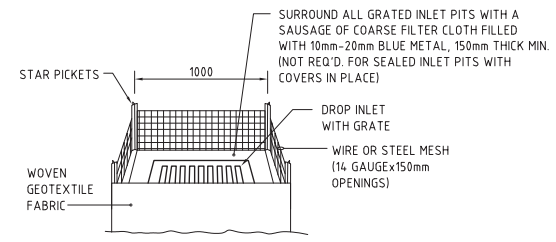
FOR DEVELOPMENT APPLICATION



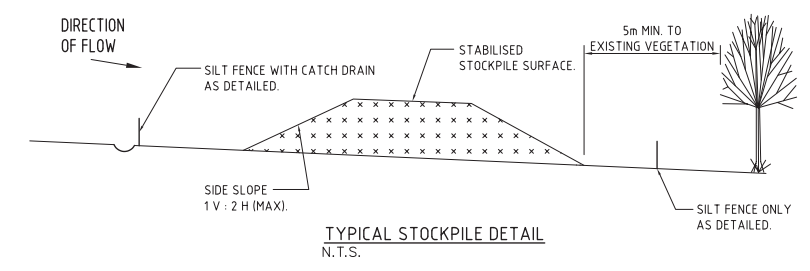
ISSUED FOR DEVELOPMENT APPLICATION			ARCHITECT			CLIENT			PROJECT			Costin Roe Consulting Pty Ltd.			DRAWING TITLE		
AMENDMENTS						LOGOS PROPERTY			PROPOSED WAREHOUSE			Consulting Engineers			EROSION & SEDIMENT CONTROL PLAN		
17.08.18						SUITE 02, LEVEL 12			YARRUNGA ROAD, PRESTONS-LOGOS SITE			Level 1, 8 Windmill Street			DRAWING No		
DATE			DATE			167 MACQUARIE STREET			C/O REF: C08753.21-C20			Wahab Bay, Sydney NSW 2000			C08753.21-C20		
ISSUE			ISSUE			SYDNEY NSW 2000			DESIGNED			Tel: (02) 8551-7899 Fax: (02) 8541-3721			PRECISION | COMMUNICATION | ACCOUNTABILITY		
AMENDMENTS			AMENDMENTS						CHECKED			email: mail@costinroe.com.au ©			ISSUE		
DATE			DATE						SIZE						A		
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KERB INLET CONTROL
N.T.S.



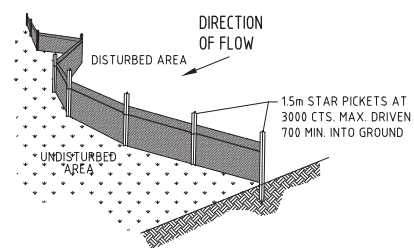
GRADED INLET PIT FILTER DETAIL
N.T.S.



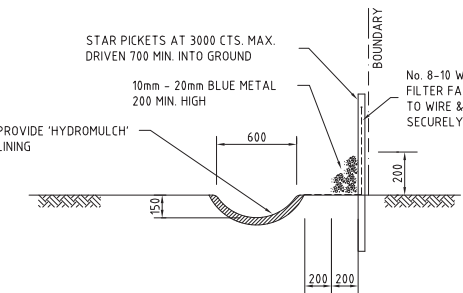
TYPICAL STOCKPILE DETAIL
N.T.S.

- 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.

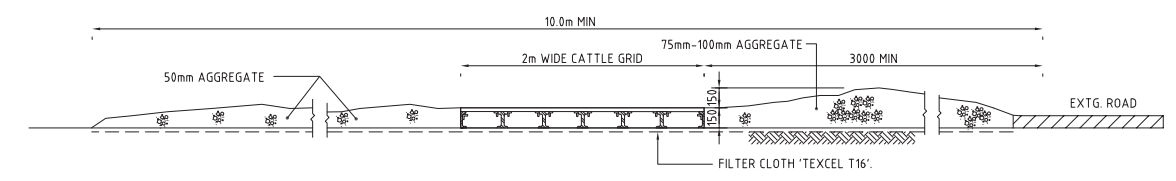
NOTE: ADOPT ABOVE DETAILS AROUND ALL PITS WITHIN AREA ENCOMPASSED BY SILT FENCE & TO PITS ON THE ROAD ADJACENT TO SITE BOUNDARY.



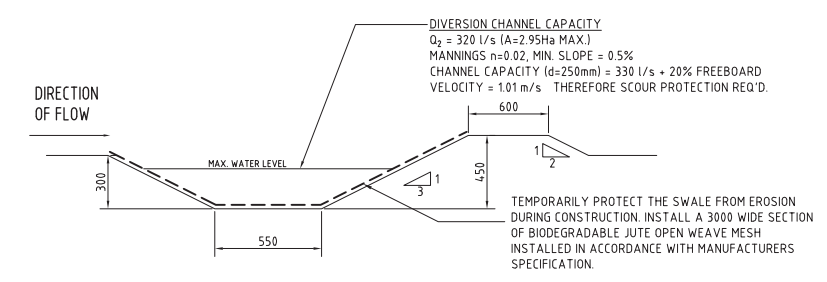
TYPICAL SILT FENCE DETAIL
N.T.S.
PROVIDE 1m RETURNS AT 30m INTERVALS.
TYPICAL



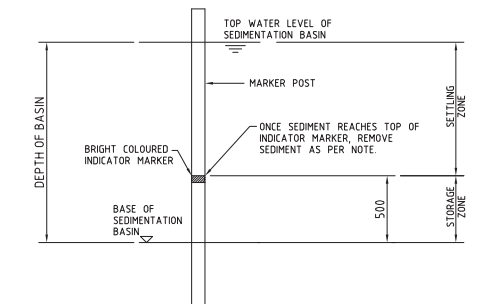
TYPICAL OPEN DRAIN & SILT FENCE
SCALE 1:20



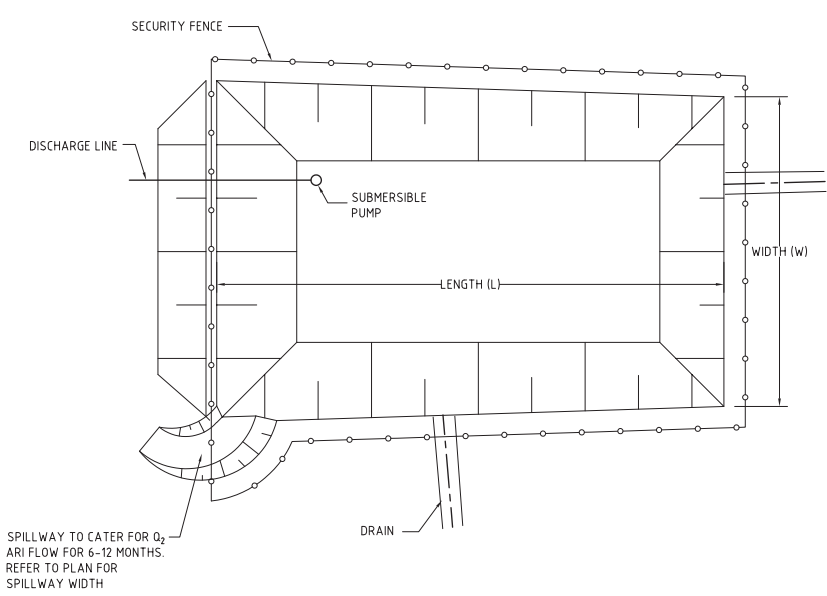
SECTION 1:20 : 1 : C20 : STABILISED CONSTRUCTION ENTRANCE 'TRUCK SHAKER'



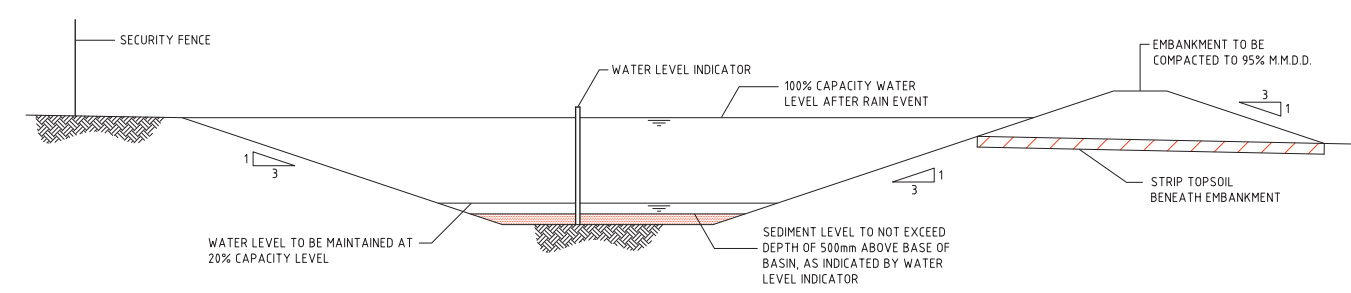
DIVERSION DRAIN SECTION
SCALE 1:20



SEDIMENT STORAGE MARKER
SCALE 1:20



TYPICAL SEDIMENT CONTROL POND PLAN
SCALE 1:250



TYPICAL SEDIMENT CONTROL BASIN SECTION
SCALE 1:50

NOTES:

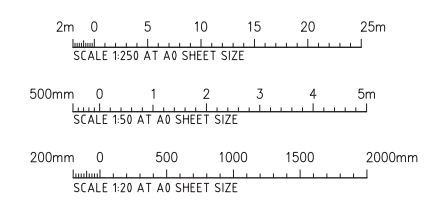
ALL EROSION & SEDIMENT CONTROL MEASURES TO BE INSPECTED & MAINTAINED DAILY BY SITE MANAGER.

MINIMISE DISTURBED AREAS.

ROADS & FOOTPATHS TO BE SWEEP DAILY.

1.2m TURF TO BE PLACED BEHIND KERBS.

DUST MINIMISATION CONTROL BY WATERING TO BE IMPLEMENTED BY SITE MANAGER AS REQUIRED OR AS DIRECTED BY THE EPA.



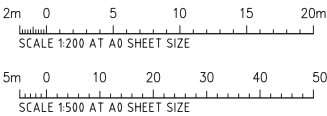
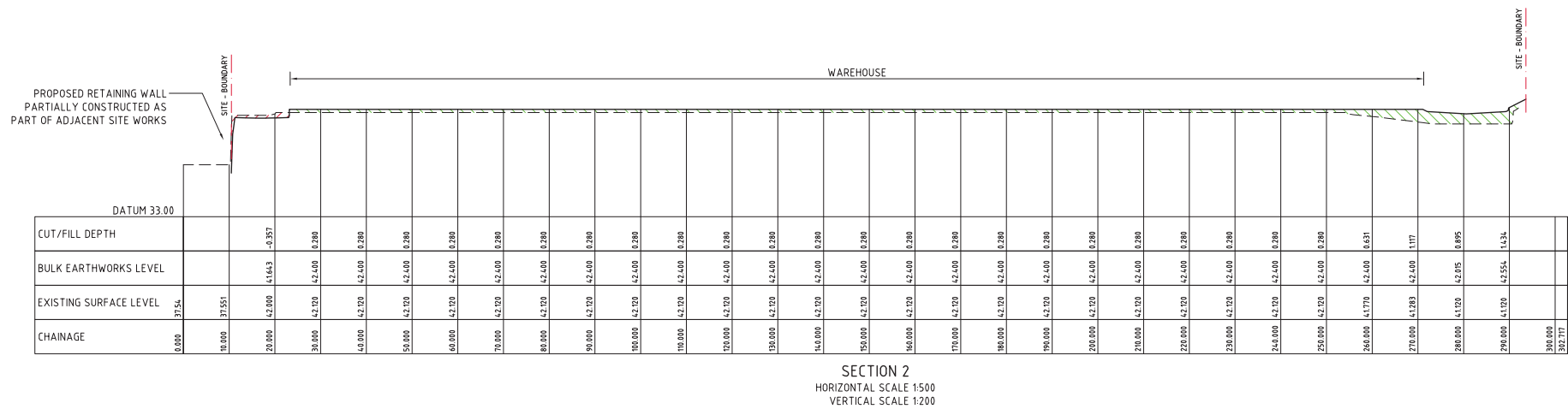
FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION			17.08.18			A			AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE		
AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE		
ARCHITECT			CLIENT			PROJECT			DRAWING TITLE			COSTIN ROE CONSULTING PTY LTD.			PRECISION | COMMUNICATION | ACCOUNTABILITY			DRAWING TITLE			C08753.21-C25			ISSUE		
LOGOS PROPERTY			SUITE 02, LEVEL 12			YARRUNGA ROAD, PRESTONS-LOGOS SITE			EROSION & SEDIMENT CONTROL DETAILS			Level 1, 8 Windmill Street, Wahah Bay, Sydney NSW 2000			17.08.18			A			17.08.18			A		
167 MACQUARIE STREET			SYDNEY NSW 2000			DESIGNED: MW			CHECKED: TW			DATE: AUGUST 18			SCALE: A0			CNO REF: C08753.21-C25			COSTIN ROE CONSULTING PTY LTD.			17.08.18		
SYDNEY NSW 2000			Level 1, 8 Windmill Street, Wahah Bay, Sydney NSW 2000			Tel: (02) 8551-7899 Fax: (02) 8541-3721			email: mail@costinroe.com.au			©														

LEVELS DATUM IS AHD.

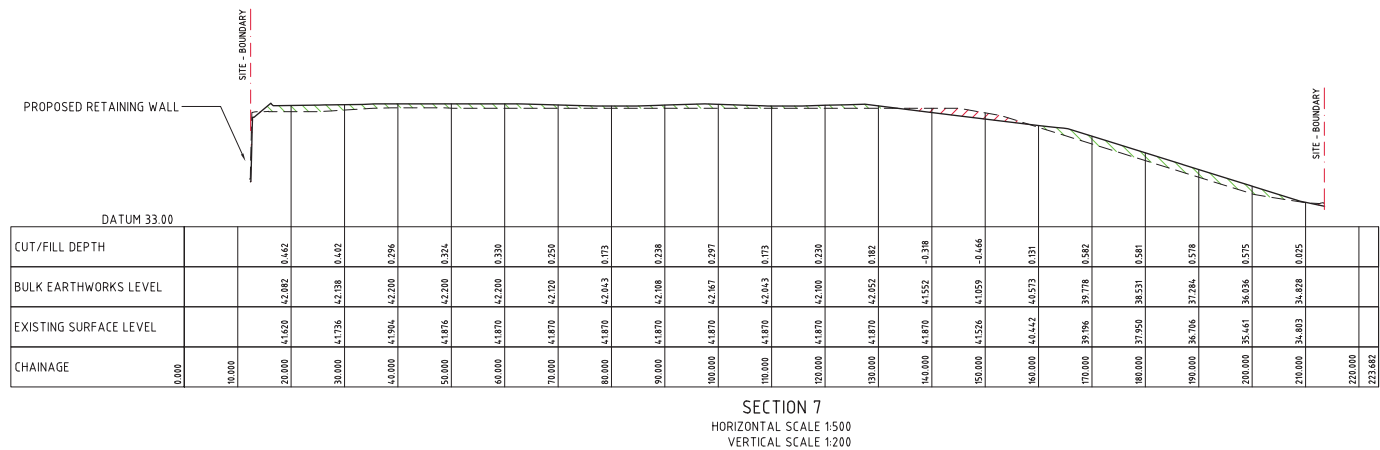
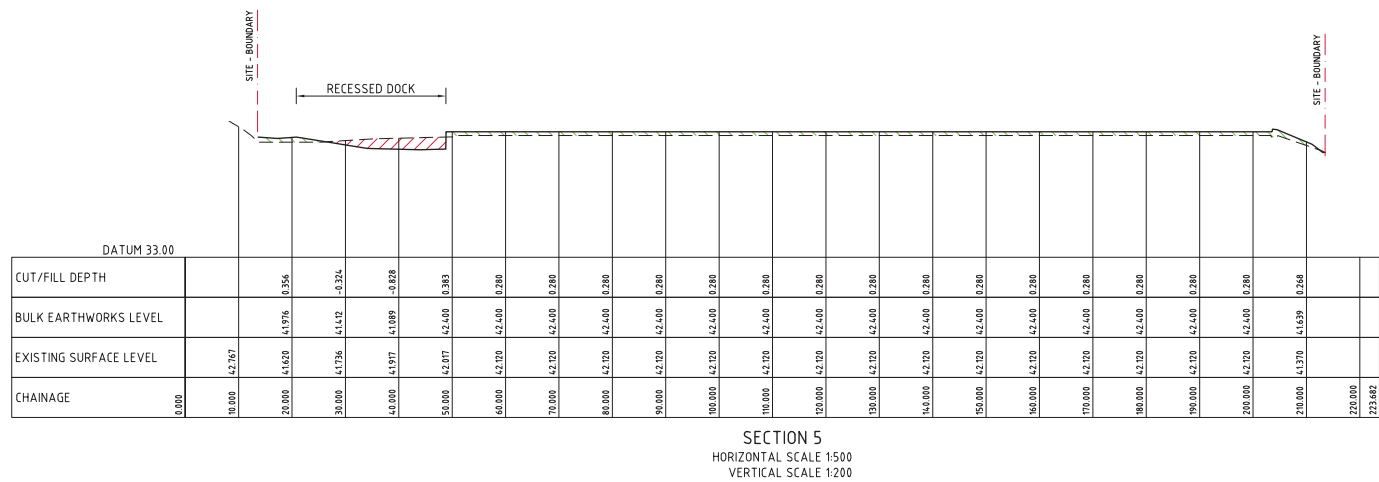
BULK EARTHWORKS LEVEL PROFILE

EXISTING LEVEL PROFILE

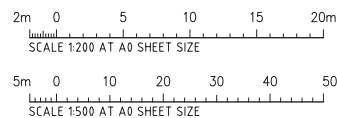
[illegible]

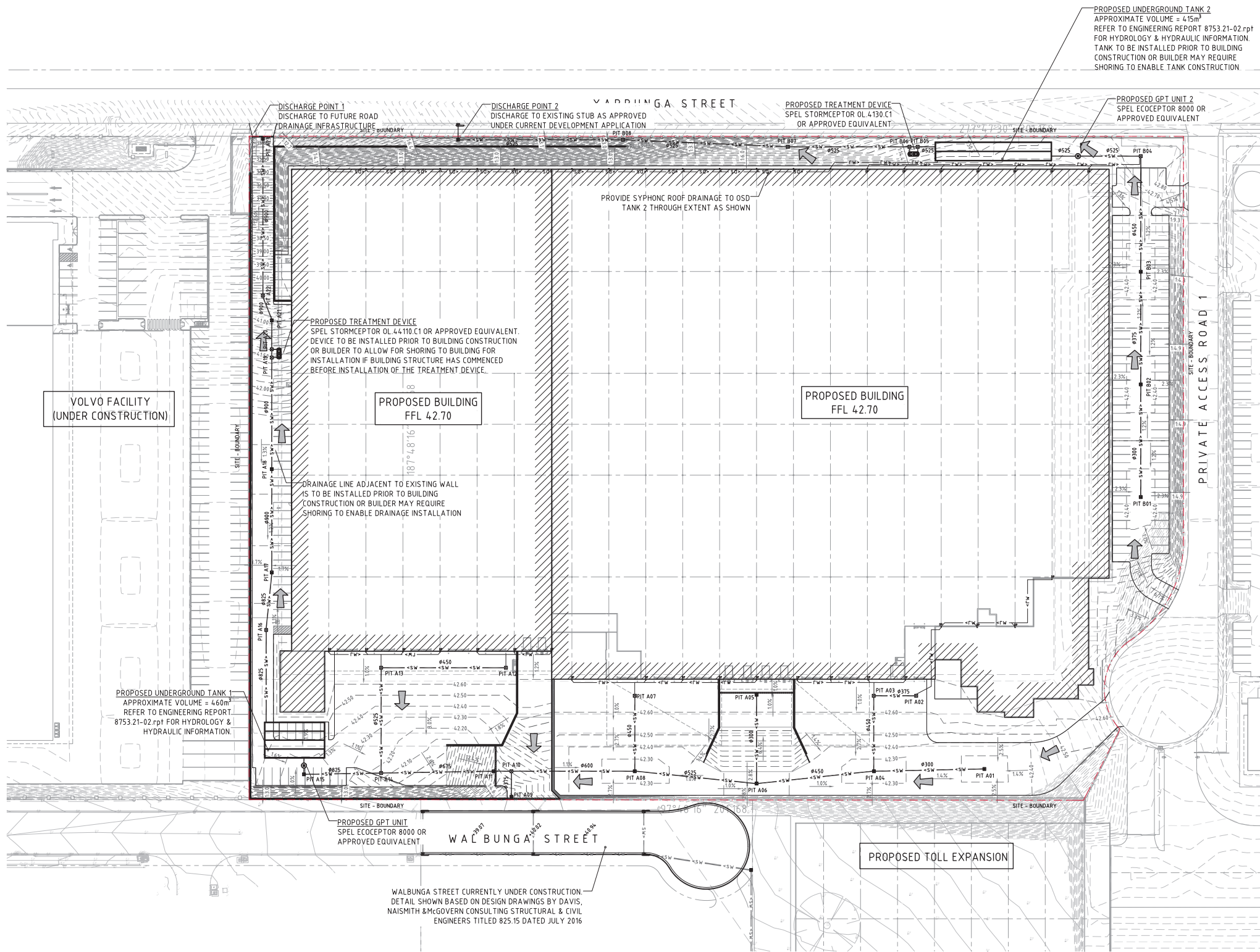
LEVELS DATUM IS AHD.

———— - BULK EARTHWORKS LEVEL PROFILE
 - - - - - EXISTING LEVEL PROFILE



FOR DEVELOPMENT APPLICATION

[illegible]



LEGEND:
LEVELS DATUM IS AHD.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EXISTING DRAINAGE LINE TO BE REMOVED
- EXISTING DRAINAGE LINE TO REMAIN
- ROOFWATER LINE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS

PIT SCHEDULE NETWORK A

PIT No.	GRATE RL	TYPE	SIZE	COMMENT
PIT A 01	42.20	S.G.G.P.	900x900	
PIT A 02	42.65	S.J.P.	900x900	
PIT A 03	42.65	S.J.P.	900x900	
PIT A 04	42.20	S.G.G.P.	900x900	
PIT A 05	41.35	S.G.G.P.	900x900	
PIT A 06	42.20	S.G.G.P.	900x900	
PIT A 07	42.65	S.J.P.	900x900	
PIT A 08	42.20	S.G.G.P.	900x900	
PIT A 09	39.70	S.G.G.P.	900x900	
PIT A 10	40.10	S.J.P.	1050x1050	
PIT A 11	40.10	S.G.G.P.	900x900	
PIT A 12	42.65	S.J.P.	900x900	
PIT A 13	42.65	S.J.P.	900x900	
PIT A 14	42.15	S.J.P.	1050x1050	
PIT A 15	42.20	S.G.G.P.	1050x1050	
PIT A 16	42.50	S.J.P.	1050x1050	
PIT A 17	42.30	S.G.G.P.	1050x1050	
PIT A 18	42.30	S.G.G.P.	1050x1050	
PIT A 19	41.51	S.J.P.	1050x1050	
PIT A 20	41.39	S.J.P.	1050x1050	
PIT A 21	40.95	S.G.G.P.	1050x1050	
PIT A 22	40.65	S.J.P.	1050x1050	
PIT A 23	34.90	S.G.G.P.	1050x1050	

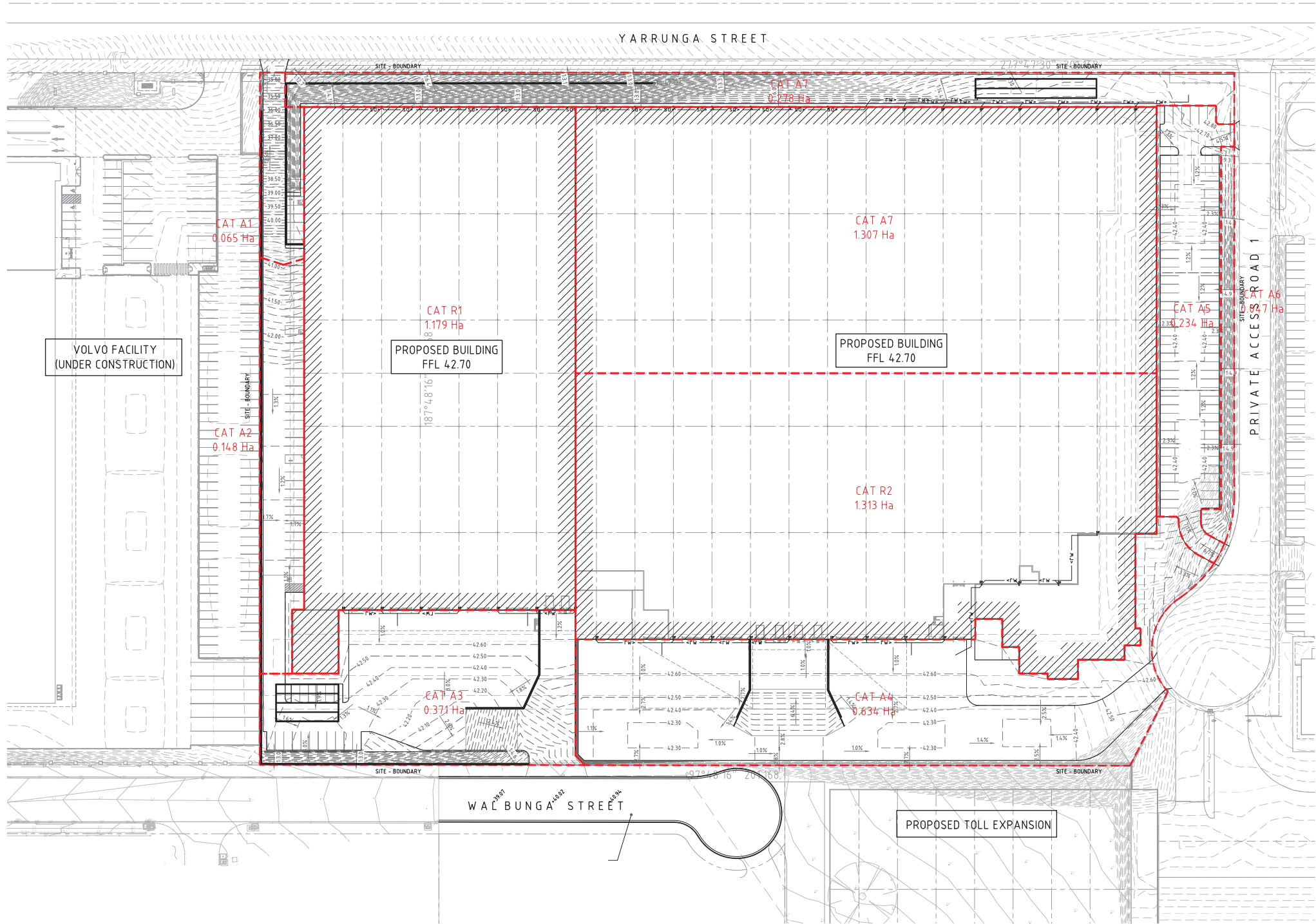
NETWORK B

PIT No.	GRATE RL	TYPE	SIZE	COMMENT
PIT B 01	42.30	S.G.G.P.	900x900	
PIT B 02	42.30	S.G.G.P.	900x900	
PIT B 03	42.30	S.G.G.P.	900x900	
PIT B 04	42.75	S.J.P.	900x900	
PIT B 05	42.18	S.J.P.	900x900	
PIT B 06	42.13	S.J.P.	900x900	
PIT B 07	41.68	S.J.P.	900x900	
PIT B 08	40.00	S.J.P.	900x900	

LEVELS NOTE:
LEVELS SHOWN TO BE ±500mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO MINOR VARIATIONS TO SUIT DETAILED DESIGN.

STORMWATER DRAINAGE NOTES:
REFER TO DRAWING C08753.21-C10 FOR STORMWATER DRAINAGE NOTES



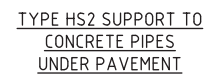
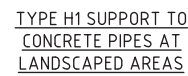
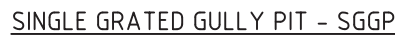


STORMWATER CATCHMENT PLAN
1:500 SCALE

FOR DEVELOPMENT APPLICATION

5m 0 10 20 30 40 50m
SCALE 1:500 AT A0 SHEET SIZE

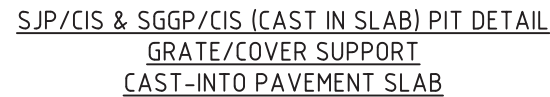
										ARCHITECT										CLIENT LOGOS PROPERTY SUITE 02, LEVEL 12 167 MACQUARIE STREET SYDNEY NSW 2000										PROJECT PROPOSED WAREHOUSE YARRUNGA ROAD, PRESTONS-LOGOS SITE										 Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Windmill Street Wahai Bay, Sydney NSW 2000 Tel: (02) 8281-7899 Fax: (02) 8241-3721 email: mail@costinroe.com.au										 Costin Roe Consulting										DRAWING TITLE STORMWATER CATCHMENT PLAN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				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SIDE ZONE WIDTH	
PIPE SIZE	l (mm)
$\leq 900\phi$	150
1050 ϕ	175
1200 ϕ	200
1350 ϕ	225
1500 ϕ	250
1650 ϕ	275
1800 ϕ	300

PIPE LAYING DETAILS

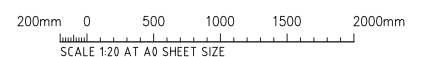
SCALE 1:20

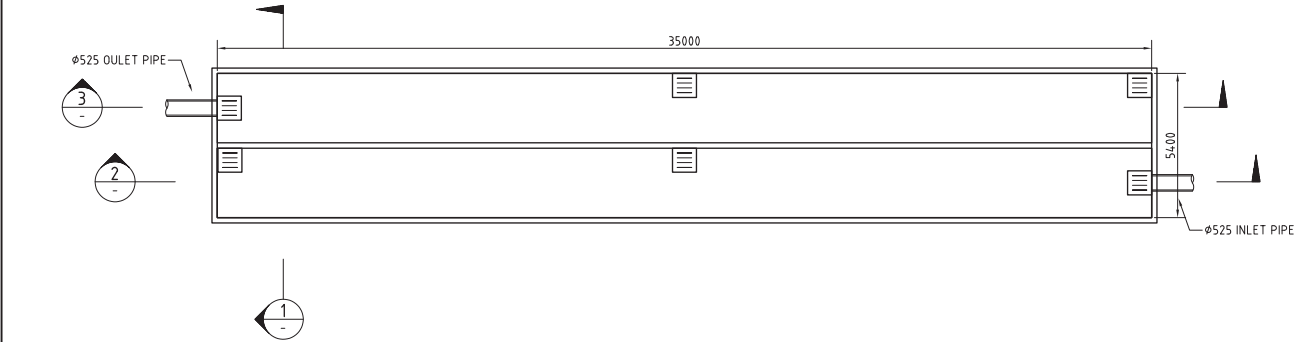


SJP/CIS & SGGP/CIS (CAST IN SLAB) PIT DETAIL
GRATE/COVER SUPPORT
CAST-INTO PAVEMENT SLAB

(ADOPT IN CONCRETE PAVEMENTS FOR SGGP's & SJP's, WHERE JOINTS ARE NOT LOCATED WITHIN PROXIMITY OF THE GRATE)

FOR DEVELOPMENT APPLICATION

[illegible]



OSD TANK 2 PLAN
SCALE 1:100

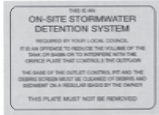
 - DENOTES 900SQ GRATED ACCESS



OSD WARNING SIGN
N.T.S
SUGGESTED SIZE 600mm x 450mm
TO BE PROVIDED ADJACENT TO OSD
TANKS IN SUITABLE AREA T.B.C ON SITE



CONFINED SPACE SIGN
N.T.S
SUGGESTED SIZE 300mm x 450mm
TO BE PROVIDED ADJACENT TO OSD
TANKS IN SUITABLE AREA T.B.C ON SITE



OSD SIGN
N.T.S
SUGGESTED SIZE 110mm x 80mm
TO BE PROVIDED ADJACENT TO OSD
TANKS IN SUITABLE AREA T.B.C ON SITE

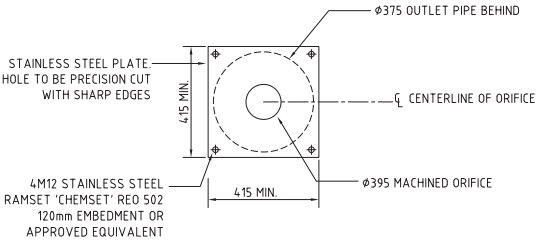
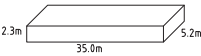
NOTE:
REFER TO APPENDIX 'N' IN VERSION 4 OF THE UPPER PARRAMATTA
RIVER CATCHMENT TRUST (UPRCT) FOR SIGN REQUIREMENTS.

OSD TANK 1 DETAILS

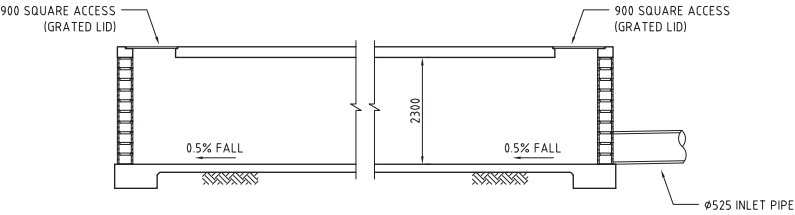
SITE AREA
TOTAL SITE AREA 55,760m²
TOTAL SITE AREA DRAINING TO STORAGE (100% IMPERVIOUS) 22,080m²

STORAGE
ORIFICE Ø 395

INTERNAL TANK DIMENSIONS (INCL. HIGH FLOW CHAMBER)

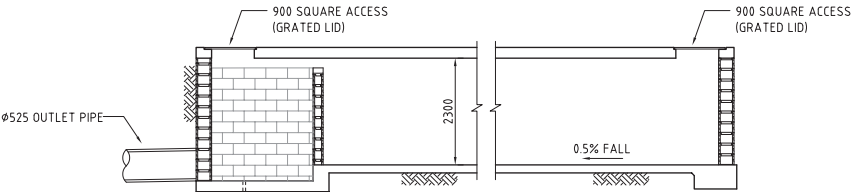


OUTLET- ORIFICE PLATE DETAIL
SCALE 1:10

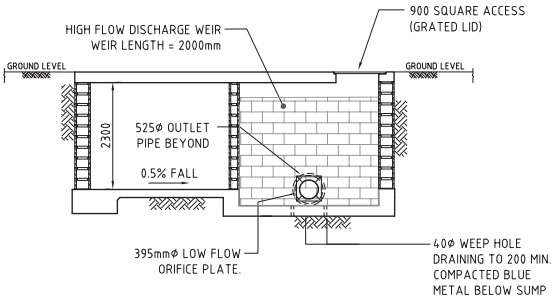


SECTION 1:50 3 : TYPICAL THRU' TANK

NOTE:
TANK TO BE DESIGNED
BY STRUCTURAL ENGINEER



SECTION 1:50 2 : TYPICAL THRU' TANK

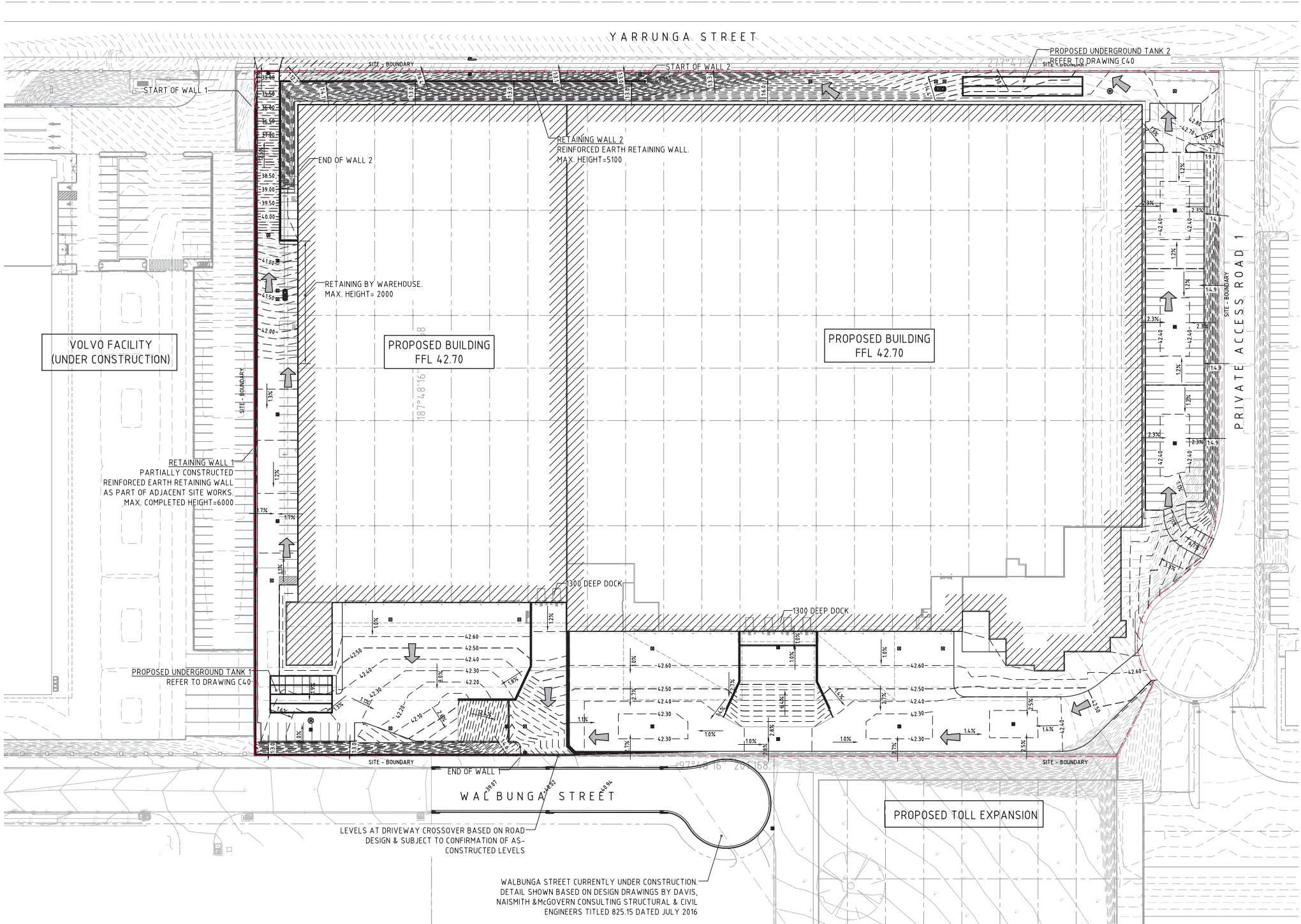


SECTION 1:50 1 : TYPICAL THRU' TANK



FOR DEVELOPMENT APPLICATION

			ARCHITECT			CLIENT LOGOS PROPERTY SUITE 02, LEVEL 12 167 MACQUARIE STREET SYDNEY NSW 2000			PROJECT PROPOSED WAREHOUSE YARRUNGA ROAD, PRESTONS-LOGOS SITE			Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Windmill Street Wahah Bay, Sydney NSW 2000 Tel: (02) 8551-7099 Fax: (02) 8541-3721 email: mail@costinroe.com.au			DRAWING TITLE OSD PLAN & DETAILS- SHEET 2		
ISSUED FOR DEVELOPMENT APPLICATION			17.08.18			A			DESIGNED MW			DRAWN TW			PRECISION | COMMUNICATION | ACCOUNTABILITY		
AMENDMENTS			DATE			ISSUE			CHECKED AS			SCALE A0			DRAWING No C08753.21-C 48		
AMENDMENTS			DATE			ISSUE			CNO REF: C08753.21-C			L8			ISSUE A		



LEGEND:
LEVELS DATUM IS AHD.

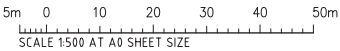
- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- 50.00 FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS

LEVELS NOTE:
LEVELS SHOWN TO BE ±500mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO MINOR VARIATIONS TO SUIT
DETAILED DESIGN.

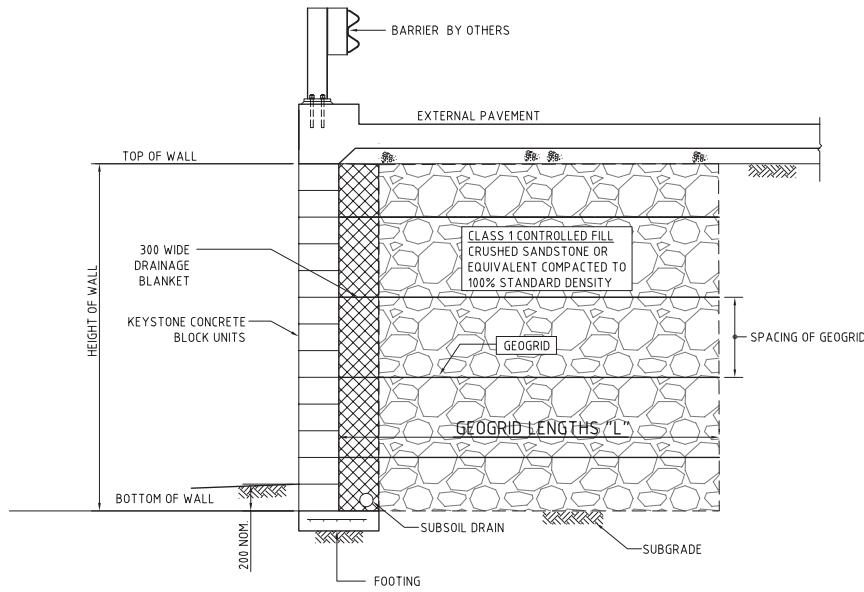
FINISHED LEVELS NOTES:
REFER TO DRAWING C08753.21-C10 FOR FINISHED LEVELS NOTES

FINISHED LEVELS PLAN
1:500 SCALE

FOR DEVELOPMENT APPLICATION



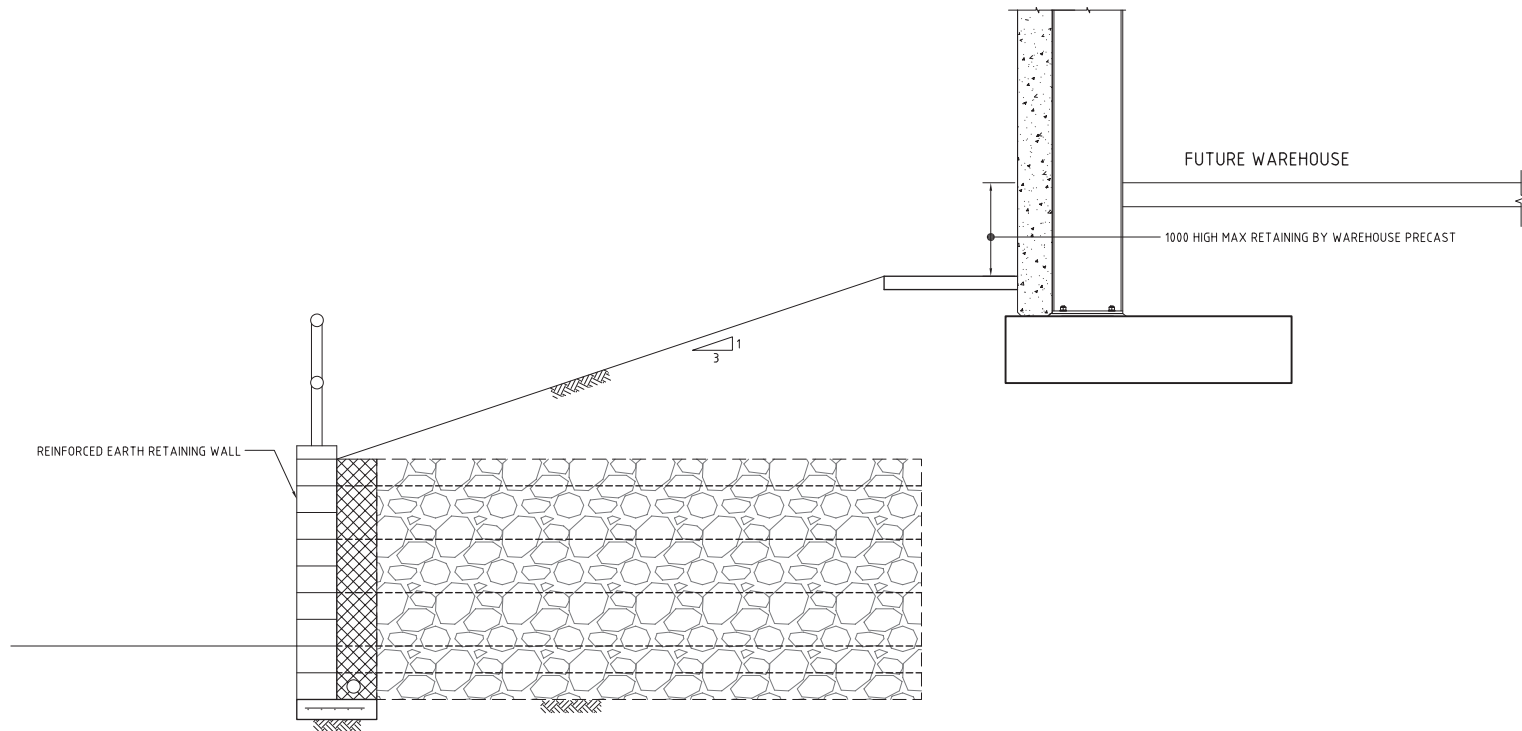
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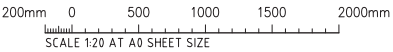
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SCALE 1:20

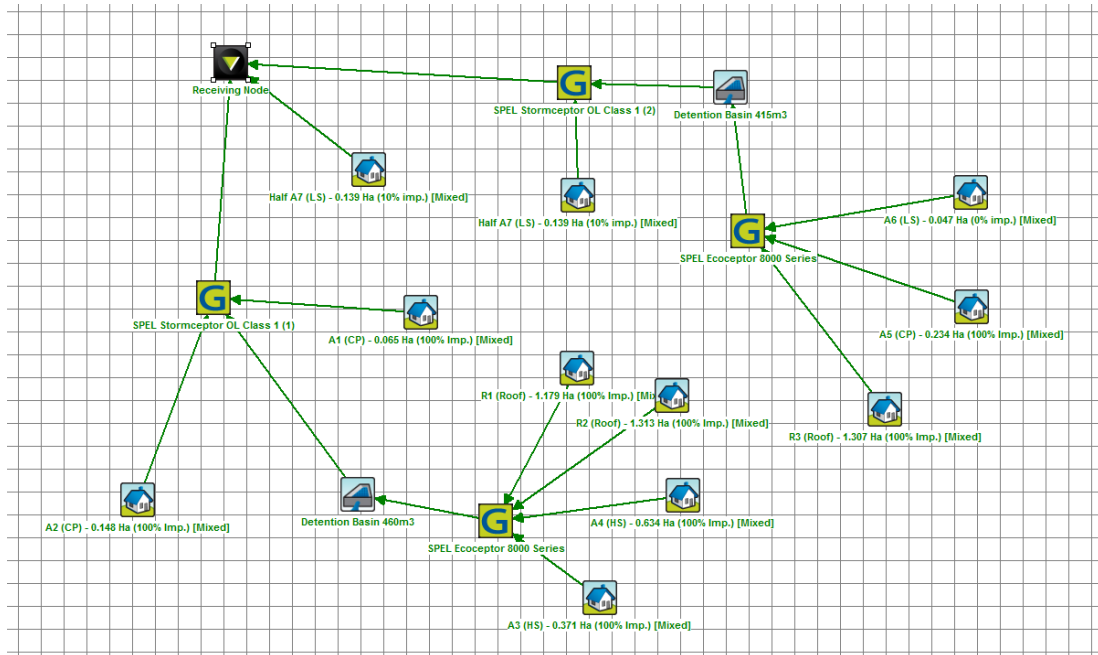
FOR DEVELOPMENT APPLICATION



										ARCHITECT										CLIENT LOGOS PROPERTY SUITE 02, LEVEL 12 167 MACQUARIE STREET SYDNEY NSW 2000										PROJECT PROPOSED WAREHOUSE YARRUNGA ROAD, PRESTONS-LOGOS SITE										 Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Windmill Street Wahbi Bay, Sydney NSW 2000 Tel: (02) 8551-7899 Fax: (02) 8541-3721 email: mail@costinroe.com.au ©																				DRAWING TITLE RETAINING WALL DETAILS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	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Appendix B

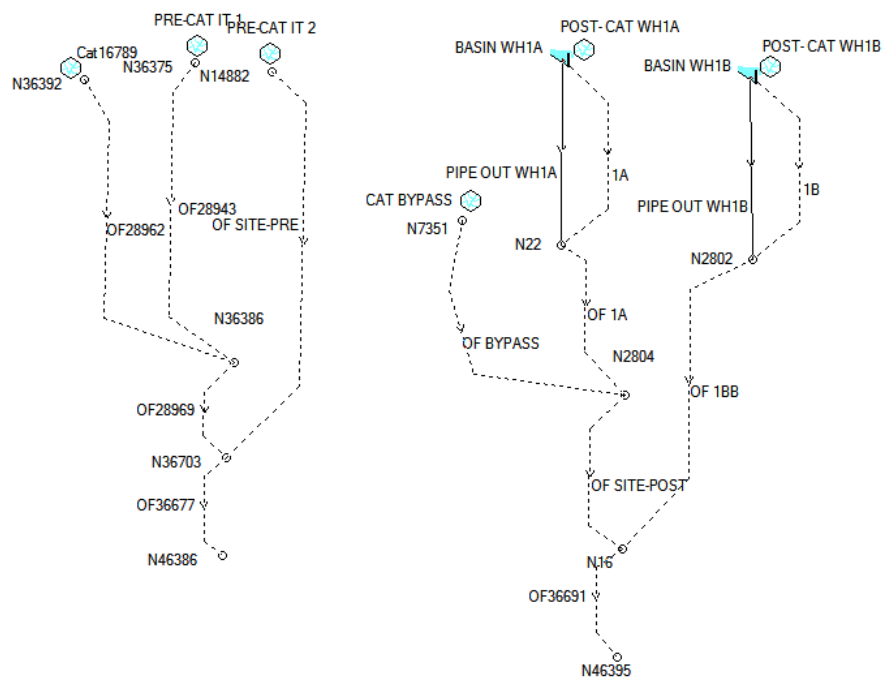
MUSIC MODEL CONFIGURATION



	Sources	Residual Load	% Reduction
Flow (ML/yr)	39.2	39.1	0.2
Total Suspended Solids (kg/yr)	4550	614	86.5
Total Phosphorus (kg/yr)	10.7	5.17	51.6
Total Nitrogen (kg/yr)	88.3	48.1	45.5
Gross Pollutants (kg/yr)	1010	8.16	99.2

Appendix C

DRAINS MODEL CONFIGURATION



Appendix D

EROSION CONTROL CHECK SHEET

EROSION AND SEDIMENT CONTROL WEEKLY SITE INSPECTION SHEET

LOCATION

INSPECTION OFFICER **DATE**

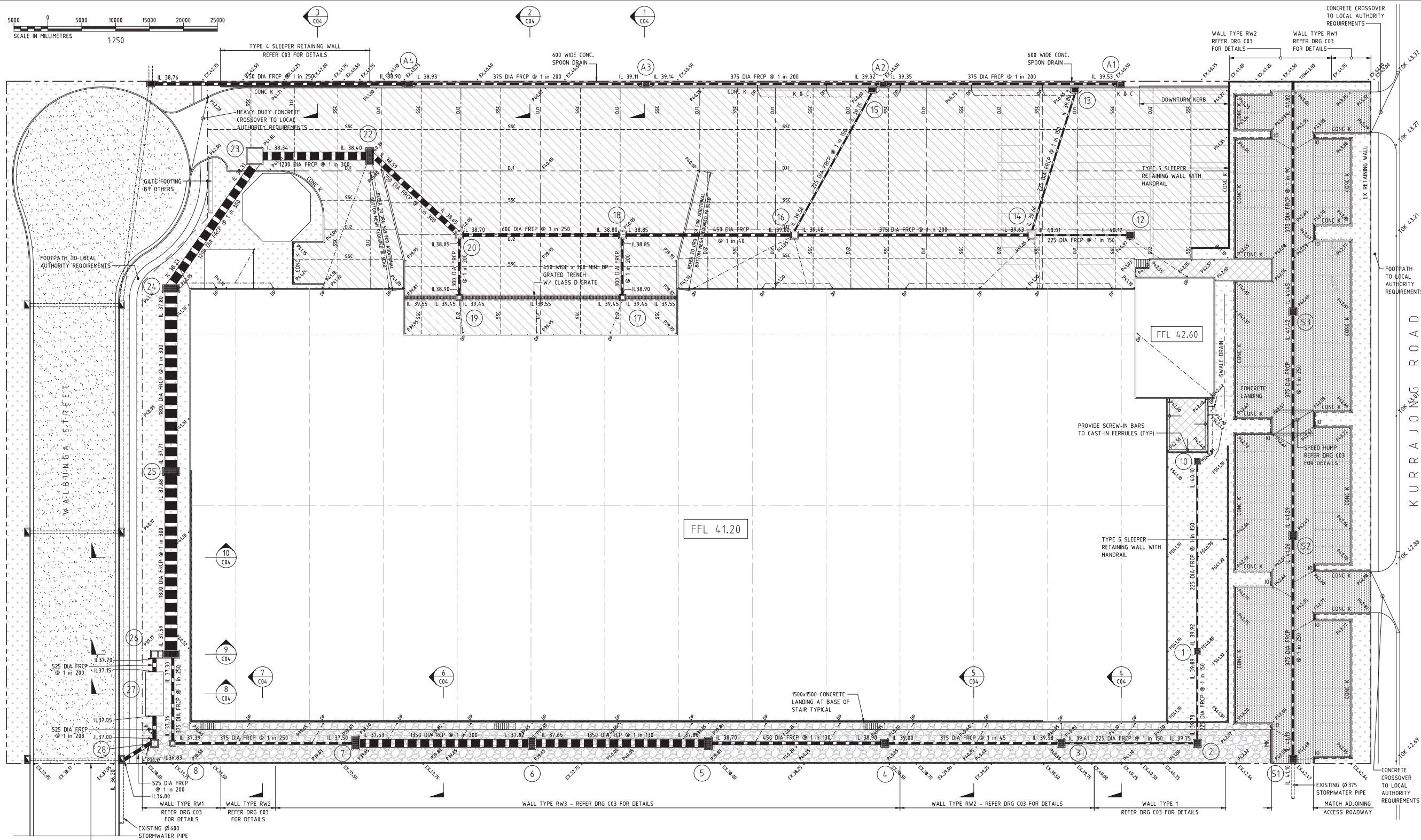
SIGNATURE

Legend: OK Not OK N/A Not applicable

Item	Consideration	Assessment
1	Public roadways clear of sediment.	.....
2	Entry/exit pads clear of excessive sediment deposition.	.....
3	Entry/exit pads have adequate void spacing to trap sediment.	.....
4	The construction site is clear of litter and unconfined rubbish.	.....
5	Adequate stockpiles of emergency ESC materials exist on site.	.....
6	Site dust is being adequately controlled.	.....
7	Appropriate drainage and sediment controls have been installed prior to new areas being cleared or disturbed.	.....
8	Up-slope “clean” water is being appropriately diverted around/through the site.	.....
9	Drainage lines are free of soil scour and sediment deposition.	.....
10	No areas of exposed soil are in need of erosion control.	.....
11	Earth batters are free of “rill” erosion.	.....
12	Erosion control mulch is not being displaced by wind or water.	.....
13	Long-term soil stockpiles are protected from wind, rain and stormwater flow with appropriate drainage and erosion controls.	.....
14	Sediment fences are free from damage.	.....
15	Sediment-laden stormwater is not simply flowing “around” the sediment fences or other sediment traps.	.....
16	Sediment controls placed up-slope/around stormwater inlets are appropriate for the type of inlet structure.	.....
17	All sediment traps are free of excessive sediment deposition.	.....
18	The settled sediment layer within a sediment basin is clearly visible through the supernatant prior to discharge such water.	.....
19	All reasonable and practicable measures are being taken to control sediment runoff from the site.	.....
20	All soil surfaces are being appropriately prepared (i.e. pH, nutrients, roughness and density) prior to revegetation.	.....
21	Stabilised surfaces have a minimum 70% soil coverage.	.....
22	The site is adequately prepared for imminent storms.	.....
23	All ESC measures are in proper working order.	.....

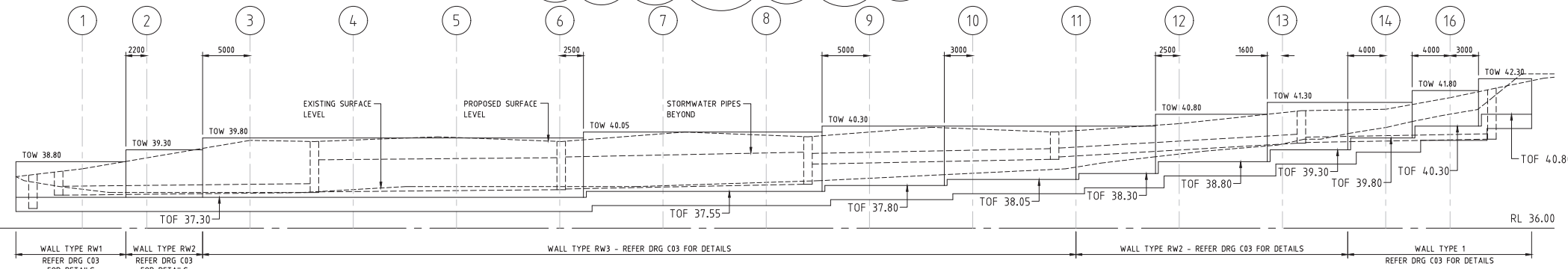
Appendix E

WALLBUNGA STREET DESIGN DRAWINGS



DRAINAGE AND PAVEMENT LAYOUT PLAN

ALL CIVIL TO BE IN ACCORDANCE WITH LIVERPOOL CITY COUNCILS DESIGN GUIDELINES AND CONSTRUCTION SPECIFICATION FOR CIVIL WORKS



WESTERN BOUNDARY RETAINING WALL

Amendments			
Rev	By	Date	Description
P2	A.B.	08.07.16	PIPE SIZES REVISED
P3	A.B.	13.07.16	WALL ELEVATION ADDED
P4	A.B.	18.07.16	JOINTS AND SECTIONS ADDED
P5	A.B.	03.08.16	ISSUED FOR CERTIFICATION
P6	A.B.	12.08.16	REVISED AS NOTED
P7	A.B.	18.11.16	RETAINING WALLS REVISED
A	A.B.	18.08.17	ISSUED FOR CONSTRUCTION
B	A.B.	15.12.17	ISSUED FOR CONSTRUCTION
C	A.B.	22.12.17	ISSUED FOR CONSTRUCTION

- LEGEND :**
- DOWNPIPE WITH BRANCH TO MATCH DOWNPIPE SIZE (150 DIA. MIN.) @ 1 in 100 (MIN) FALL (450 MIN COVER)
 - AG INSPECTION OPENING
 - 300 DIA RCP @ 1 in 100
 - 90 DIA AG DRAIN BEHIND ALL KERBS TYPICAL
 - EXIST REINFORCED CONC PIPE
 - NEW SIDE ENTRY PIT REFER DRG C02 FOR DETAIL
 - NEW GRATED PIT REFER DRG C02 FOR DETAIL
 - NEW JUNCTION PIT REFER DRG C02 FOR DETAIL
 - EXIST STORMWATER PIT
 - K & C NEW CONCRETE KERB & CHANNEL - REFER DRG C02 FOR DETAIL
 - CONC K NEW CONCRETE KERB - REFER DRG C02 FOR DETAIL
 - NEW FINISHED PAVEMENT LEVELS
- NOTE:**
ALL CONCRETE PIPES TO BE CLASS 2 (UNO)
ALL UPVC PIPES TO BE CLASS S8 (UNO)
- LIGHT DUTY CAR PARK BITUMEN REFER DRG C02 FOR DETAILS
 - HEAVY DUTY BITUMEN REFER DRG C02 FOR DETAILS
 - CRUSHED ROCK FIRE ACCESS ROCK REFER DRG C02 FOR DETAILS
 - HEAVY DUTY PAVEMENT REFER DRG C02 FOR DETAILS
 - FOOTPATH REFER DRG C02 FOR DETAILS

FOR GENERAL, CIVIL & ALL OTHER RELEVANT NOTES REFER TO DRG S01

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Consulting Structural and Civil Engineers
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AB N. 12 130 365595
JOB No.: 15/146

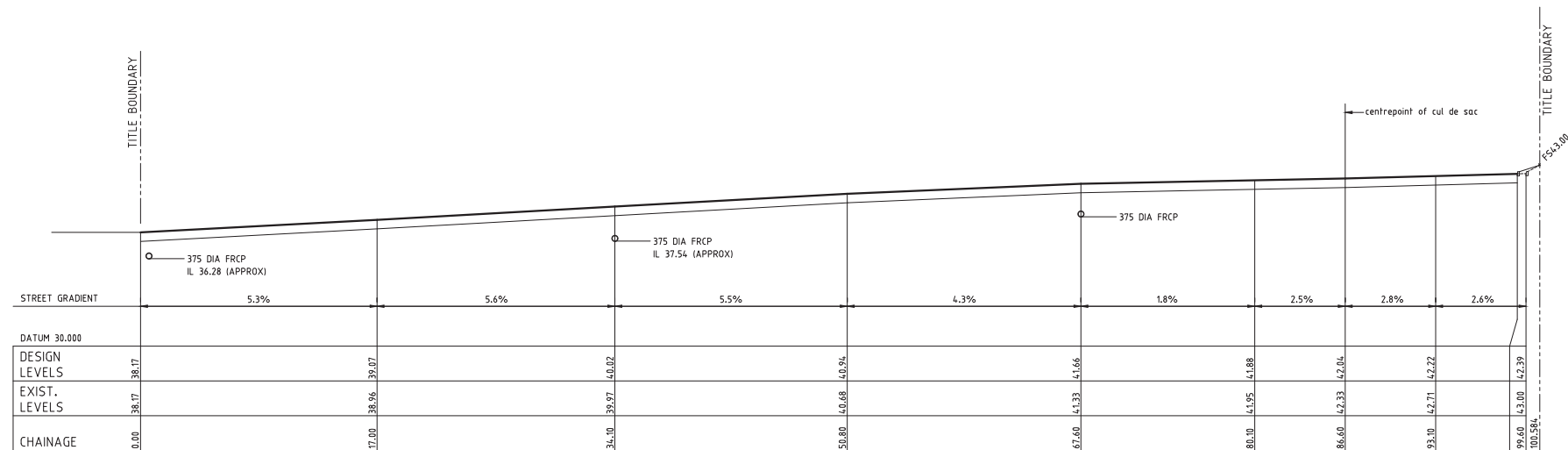
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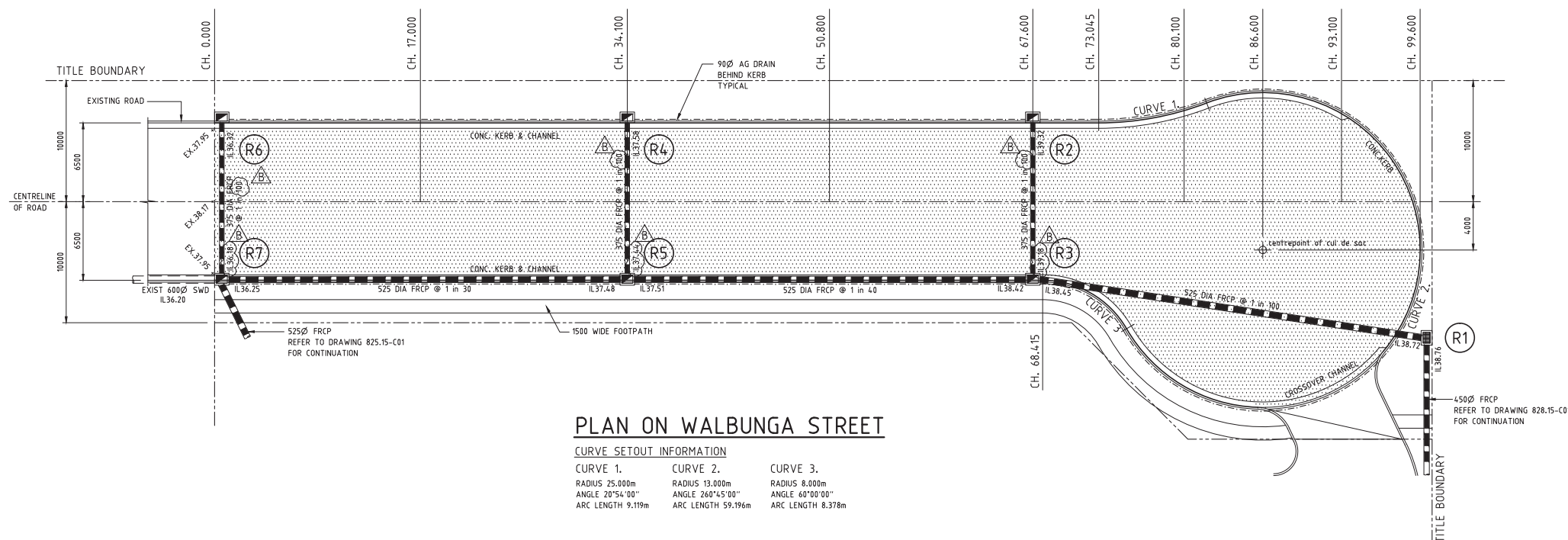
Project Title
WAREHOUSE AND OFFICE DEVELOPMENT
KURAJONG ROAD
PRESTONS, NSW
FOR : IFC GLOBAL

Drawing Title
DRAINAGE & PAVEMENT LAYOUT PLAN

North	Drawn A.L.	Approved A.B.
Date	JUN '16	
Scale	1:250 @ B1	
Project No	828.15	
Drawing No	828.15 - C01	Revision C



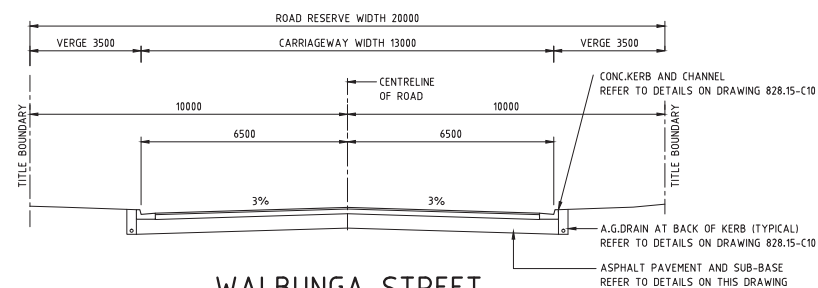
LONGITUDINAL SECTION



PLAN ON WALBUNGA STREET

CURVE SETOUT INFORMATION

CURVE 1.	CURVE 2.	CURVE 3.
RADIUS 25.000m	RADIUS 13.000m	RADIUS 8.000m
ANGLE 20°54'00"	ANGLE 260°45'00"	ANGLE 60°00'00"
ARC LENGTH 9.119m	ARC LENGTH 59.196m	ARC LENGTH 8.378m



WALBUNGA STREET
TYPICAL ROAD CROSS SECTION
CHAINAGE 0.000 TO CHAINAGE 68.415
SCALE 1:100

PIT SCHEDULE		NOTE: PROVIDE STEP IRONS FOR ALL PITS OVER 900mm DEEP.				
MARK	TYPE	SIZE	COVER TYPE	TOP OF PIT	DEPTH OF PIT	REMARKS
R1	GP	900 x 900	GALV STEEL GRATE CLASS C	42.60	3880	-
R2	SEP	900 x 680	GALV STEEL GRATE REFER DETAIL	41.48	2160	-
R3	SEP	900 x 680	GALV STEEL GRATE REFER DETAIL	41.48	3060	-
R4	SEP	900 x 680	GALV STEEL GRATE REFER DETAIL	39.84	2260	-
R5	SEP	900 x 680	GALV STEEL GRATE REFER DETAIL	39.84	2360	-
R6	SEP	900 x 680	GALV STEEL GRATE REFER DETAIL	37.95	1630	-
R7	SEP	900 x 750	GALV STEEL GRATE REFER DETAIL	37.95	1750	-

NOTE:
ALL FRCP/RCP SHALL BE CLASS 2 (UNO) WITH RUBBER RING JOINTS (RRJ)
ALL UPVC PIPES SHALL BE CLASS SN8 (UNO)



Amendments			
Rev	By	Date	Description
P1	A.B.	18.07.16	ISSUED FOR INFORMATION
P2	A.B.	03.08.16	ISSUED FOR CERTIFICATION
P3	A.B.	04.07.17	DIMENSIONS ADDED
A	A.B.	18.08.17	ISSUED FOR CONSTRUCTION
B	A.B.	22.12.17	ISSUED FOR CONSTRUCTION

LEGEND :

300 DIA FRCP
@ 1 m 150

NEW FIBRE REINFORCED CONCRETE PIPE
RCP FOR REINFORCED CONCRETE PIPE

90 DIA AG DRAIN
BEHIND ALL KERBS TYPICAL

EXIST EXIST REINFORCED CONCRETE PIPE

NEW SIDE ENTRY PIT -
REFER DRG C10 FOR DETAIL

NEW GRATED PIT -
REFER DRG C10 FOR DETAIL

NEW JUNCTION PIT -
REFER DRG C10 FOR DETAIL

EXIST STORMWATER PIT

NEW CONCRETE KERB & CHANNEL -
REFER DRG C10 FOR DETAIL

NEW CONCRETE KERB -
REFER DRG C10 FOR DETAIL

NEW FINISHED PAVEMENT LEVELS

BITUMEN ROAD PAVEMENT
REFER THIS DRG FOR DETAILS

FOR GENERAL, CONCRETE & ALL OTHER
RELEVANT NOTES REFER TO DRG S01



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A.B.N. 12 130 395595

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VAUGHAN
CONSTRUCTIONS
Established 1955

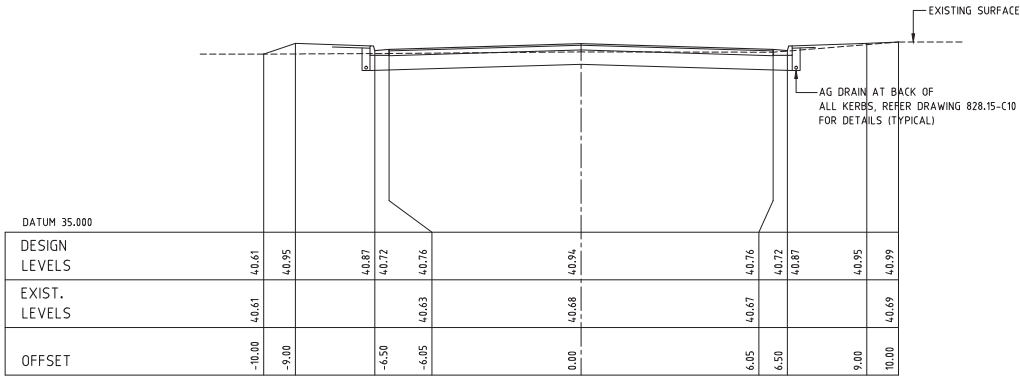
Melbourne	Sydney
880 Lorimer Street	9A Commercial Road
Port Melbourne VIC 3207	Kingsgrove NSW 2206
PO Box 320 Port Melbourne	PO Box 451 Kingsgrove
VIC 3207	NSW 2206
T 03 9362 9813	T 02 9502 4544
F 03 9362 9674	F 02 9502 4463

Project Title
WAREHOUSE AND OFFICE
DEVELOPMENT
KURRAJONG ROAD
PRESTONS, NSW
FOR : IFC GLOBAL

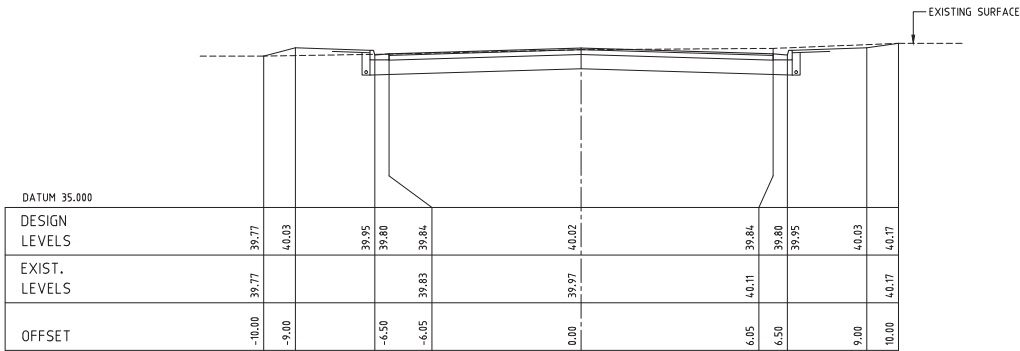
Drawing Title

WALBUNGA STREET - PLAN
AND LONGITUDINAL SECTION

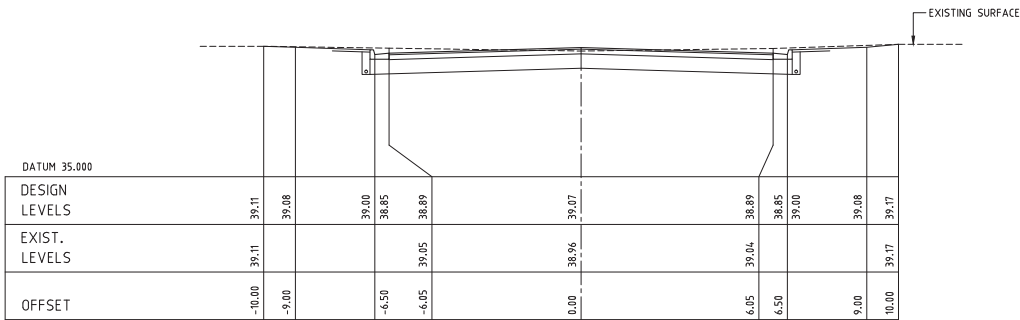
North	Drawn	K.B.	Approved	J.McG
	Date	JUL '16		
	Scale	1:200 @ B1		
	Project No	828.15		
	Drawing No			
828.15-C08			Revision	
			B	



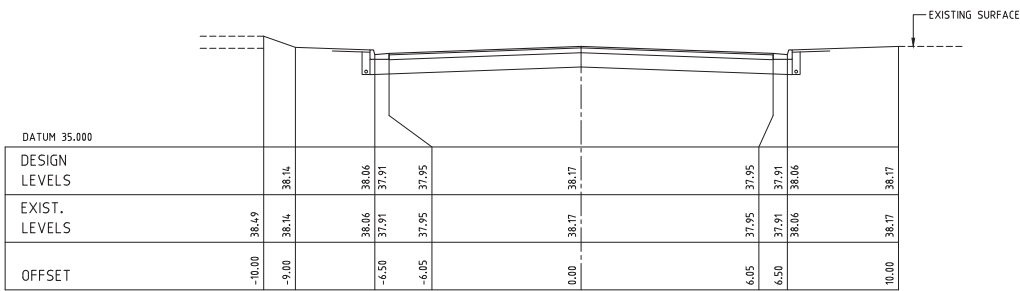
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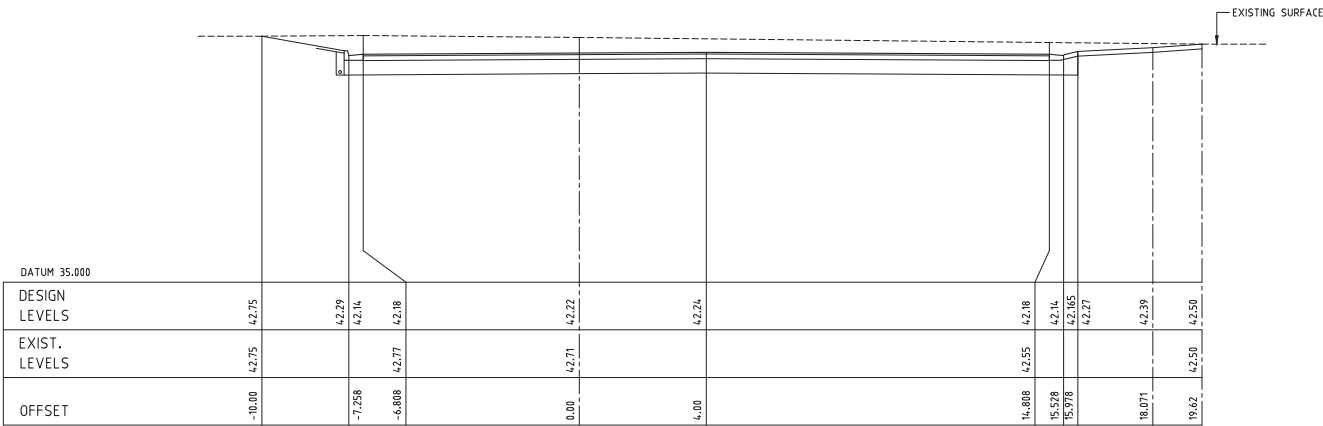
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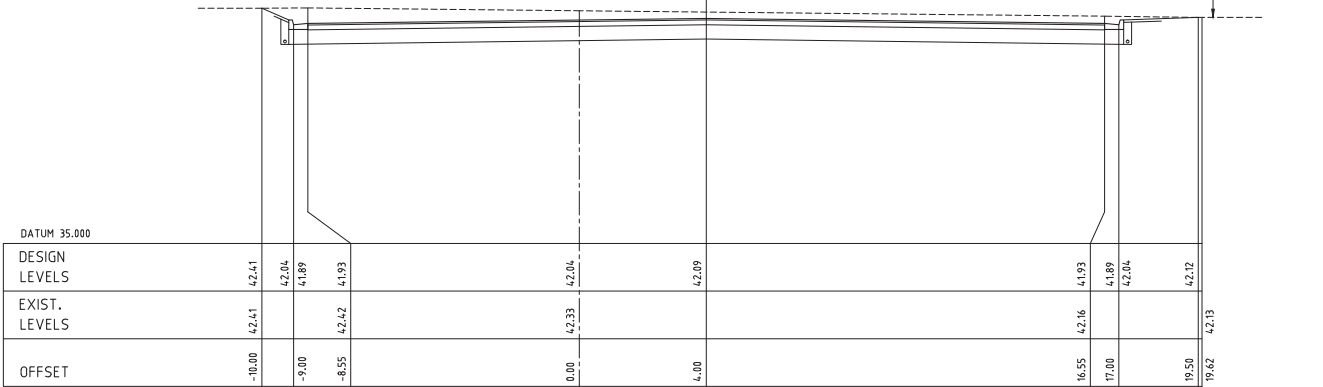
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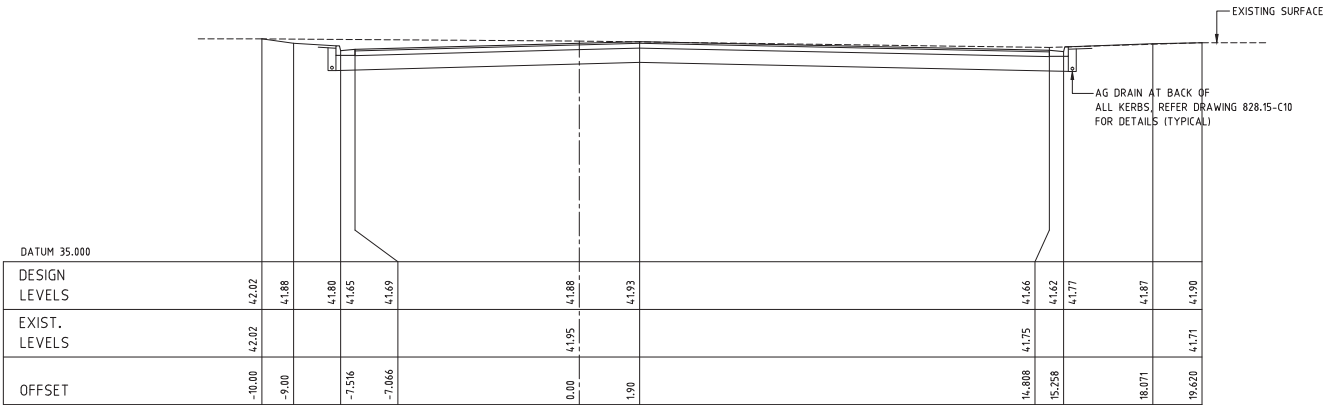
CH. 00.000
(MATCH EXISTING ROAD PROFILE)



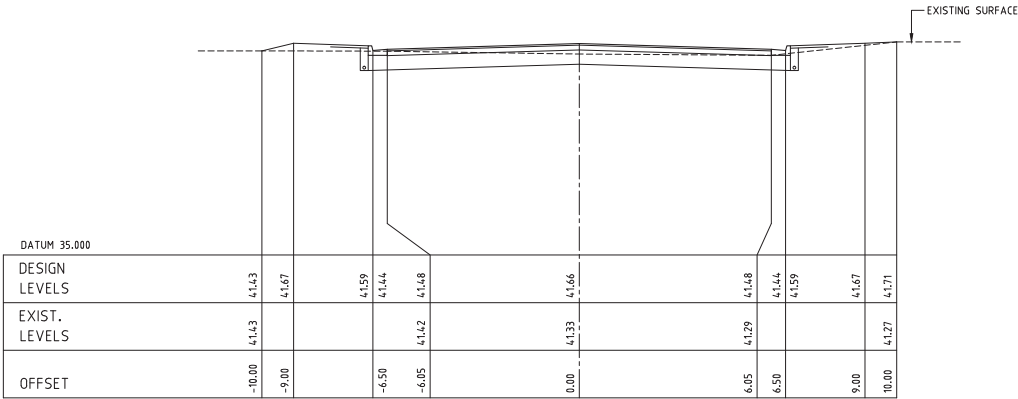
CH. 93.100



CH. 86.600



CH. 80.100



CH. 67.600



Amendments			
Rev	By	Date	Description
P1	A.B.	18.07.16	ISSUED FOR INFORMATION
P2	A.B.	03.08.16	ISSUED FOR CERTIFICATION
A	A.B.	18.08.17	ISSUED FOR CONSTRUCTION

FOR GENERAL, CONCRETE & ALL OTHER
RELEVANT NOTES REFER TO DRG S01

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A.B.N. 12 130 365595
JOB No. : 15/16

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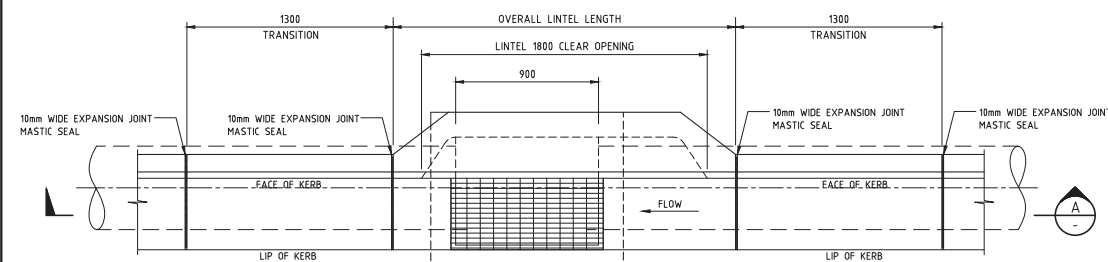
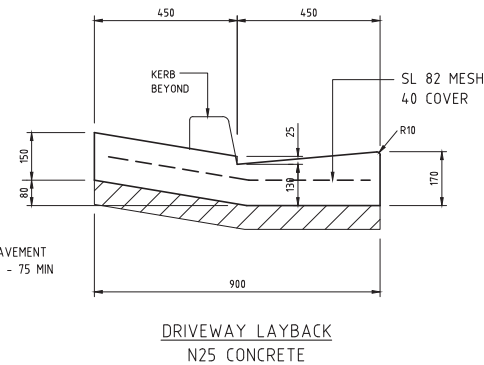
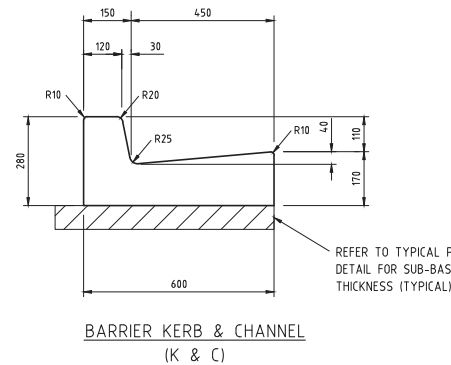
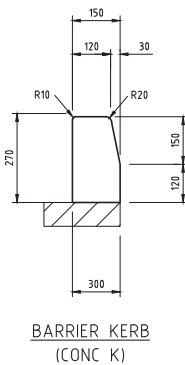
Project Title
**WAREHOUSE AND OFFICE
DEVELOPMENT
KURRAJONG ROAD
PRESTONS, NSW**
FOR : IFC GLOBAL

Drawing Title
**WALBUNGA STREET
CROSS SECTIONS**

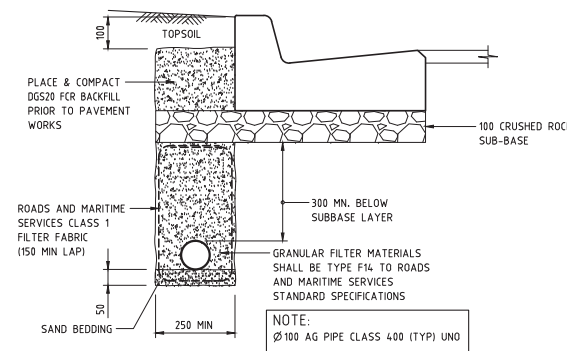
North	Drawn K.B.	Approved J.McG
Date	JUL '16	
Scale	1:100 @ B1	
Project No	828.15	
Drawing No	828.15-C09	Revision A



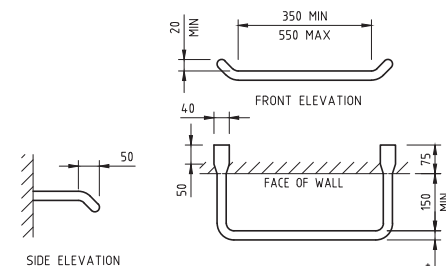
1. WIDTH OF TRENCH SHALL BE SUFFICIENT TO ALLOW THE ACHIEVEMENT OF THE REQUIRED COMPACTION.
2. ALL TRENCHES SHALL COMPLY WITH THE 'CODE OF PRACTICE FOR SAFETY PRECAUTIONS IN TRENCHING OPERATIONS' (OH&S ACT) AND IN PARTICULAR ALL TRENCHES GREATER THAN 1500 DEEP SHALL COMPLY WITH THE MINES ACT.
3. ALL SERVICE TRENCHES THAT PASS FROM EXTERNAL AREAS TO AREAS UNDER BUILDING SLABS SHALL BE "PLUGGED" BY IMPERVIOUS BACKFILL TO MINIMIZE MIGRATION OF MOISTURE.



REFER TO LIVERPOOL CITY COUNCIL
GRATED GULLY PIT WITH EXTENDED KERB INLET - STANDARD DRAWING D8
FOR ALL PIT DETAILS

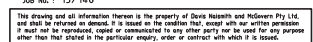


LOCATE SUB SOIL DRAINS TYPICALLY AT BACK OF ALL EXTERNAL KERB & CHANNELS AND KERBS AND ABUTTING ALL LANDSCAPE AREAS. PROVIDE INSPECTION OPENING/FLUSHING POINTS @ 40m. MAX. SPACING (TYPICAL)



1. STEP IRON MATERIAL : 24mm DIAMETER GRADE 250 STEEL TO AS 3679 (HOT DIPPED GALVANISED) OR APPROVED EQUIVALENT
2. MAX VERTICAL RISE OF 6m.
3. HARNESS BASED FALL ARREST SYSTEM SHALL BE USED FOR VERTICAL RISE GREATER THAN 3.5m
4. RUNGS SHALL BE SPACED AS PER AS 1657
5. RUNGS TO BE PLACED ON A WALL CLEAR OF FLOW WHERE POSSIBLE

FOR GENERAL, CONCRETE & ALL OTHER
RELEVANT NOTES REFER TO DRG S01



Project Title
WAREHOUSE AND OFFICE
DEVELOPMENT
KURRAJONG ROAD
PRESTONS, NSW
FOR : IFC GLOBAL

Drawing Title

WALBUNGA STREET
CIVIL DETAILS

North	Drawn K.B.	Approved J.McG
	Date JUL '16	
	Scale 1:10 @ B1	
	Project No 828.15	

Drawing No	Revision
828.15-C10	A