1004501C - 71-75 CABRAMATTA AV. MILLER NSW 2168

DRAWING REGISTER AND CONSTRUCTION NOTES - CIVIL & STORMWATER

DRAWING No.	DESCRIPTION
1004501C-C001	DRAWING REGISTER AND CONSTRUCTION NOTES
1004501C-C005	SEDIMENT AND EROSION CONTROL PLAN
1004501C-C006	SEDIMENT AND EROSION CONTROL DETAILS
1004501C-C025	PROPOSED STORMWATER DRAINAGE CATCHMENT PLAN
1004501C-C030	SITEWORKS AND STORMWATER DRAINAGE PLAN
1004501C-C050	SITEWORKS AND STORMWATER DRAINAGE DETAILS - SHEET 1
1004501C-C051	SITEWORKS AND STORMWATER DRAINAGE DETAILS - SHEET 2
1004501C-C060	PAVEMENT PLAN
1004501C-C070	PAVEMENT DETAILS

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.

G2 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION, CURRENT SAA CODES, BUILDING REGULATIONS AND THE REQUIREMENTS OF ANY OTHER RELEVANT STATUTORY AUTHORITIES.

G3 THESE DRAWINGS MUST NOT BE SCALED. ALL DIMENSIONS ARE IN METERS. ALL SET OUT DIMENSIONS AND LEVELS, INCLUDING THOSE SHOWN ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE ARCHITECT'S DRAWINGS AND VERIFIED ON SITE.

G4 ALL SETOUT AND DIMENSIONS OF THE STRUCTURE INCLUDING KERBS AND RETAINING WALLS, AND BULK EARTHWORKS MUST BE TAKEN FROM THE ARCHITECT'S DRAWINGS. SETOUT OF THE STORMWATER PITS BY OTHERS. CONTRACTOR TO CONFIRM SETOUT OF SERVICE TRENCHING INCLUDING SUBSOIL ON SITE.

G5 THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTON OVER THE WORKS.

G6 ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.

G7 THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT BUT IS NOT AN AUTHORISATION OF A COST VARIATION. THE SUPERINTENDENT MUST APPROVE ANY COST VARIATION INVOLVED BEFORE ANY WORK STARTS.

G8 ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.

G9 SERVICE INFORMATION SHOWN IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.

G10 EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE.

G11 UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.

G12 MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.

SITEWORKS NOTES

S1 PRIOR TO THE PLACEMENT OF ANY PAVEMENTS, BUILDINGS OR DRAINS THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E1.1' OF A.S. 1289 FOR THE TOP 300mm. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL TO THE ENGINEERS APPROVAL AND COMPACTED IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS SET OUT BELOW. ON HIGHLY REACTIVE CLAY AREAS SITE EXCAVATED MATERIAL MAY BE USED WITH THE PRIOR AUTHORISATION OF THE ENGINEER.

S2 ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH IDEALGEOTECH GEOTECHNICAL REPORT REFERENCE "REPORT ON GEOTECHNICAL ASSESSMENT", DATED MARCH 2017. MOISTURE CONTENT TO BE MAINTAINED AT +/- 2% OMC. MINIMUM COMPACTION REQUIREMENTS ARE DETAILED BELOW FOR (ALL REQUIREMENTS ARE TO VERIFIED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER):

- LANDSCAPED AREAS 98% STD.
- FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE TO SUBGRADE LEVEL;
  - FINE CRUSHED ROCK 98% STD.
  - SELECTED FILL WITHOUT CONSPICUOUS CLAY CONTENT 98% STD.
- BUILDING BASECOURSE 98% MOD
- FILL UNDER ROAD PAVEMENTS;
  - TO WITHIN 500mm OF FINISHED SUBGRADE LEVEL 98% STD.
  - UP TO FINISHED SUBGRADE LEVEL 98% STD.
- ROAD PAVEMENT MATERIALS;
  - SUB BASE 98% MOD.
  - BASE COURSE 98% MOD.

THE MAXIMUM COMPACTION IS TO BE NO GREAT THAN 4% ON TOP OF THE ABOVE MENTION VALUES.

S3 GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.

S4 ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTER OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.

S5 ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.

S6 ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER / GEOTECHNICAL CONSULTANT

S7 CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.

S8 ALL FINISHES AND COLOURS TO BE IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.

S9 REFER TO STRUCTURAL DRAWINGS FOR CONCRETE, REINFORCEMENT AND RETAINING WALL DETAILS.

S10 GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
A) COMPLY WITH THE GENERAL PROVISIONS OF PART 3.1 "MANAGING RISKS TO HEALTH AND SAFETY" OF NSW WORK AND HEALTH AND SAFETY REGULATION 2011

B) COMPLY PART 6.3 DIVISION 3 "EXCAVATION WORK" OF NSW WORK HEALTH AND SAFETY REGULATION NSW 2011

S11 PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 1.5 METRES THE CONTRACTOR MUST:
A) NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE APPROPRIATE FORM.

STORMWATER DRAINAGE NOTES

SW1 UNLESS NOTED OTHERWISE BY HYDRAULIC ENGINEERS DRAWINGS, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH 150 DIA. UPVC PIPES LAID AT A MINIMUM GRADE OF 1 IN 100. FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS.

SW2 ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING MATERIALS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE A.S. IF NOT SPECIFIED THEN CLASS 2 RRJ RCP SHALL BE USED FOR DIAMETERS > 225mm. SEWER CLASS SEH UPVC IN ACCORDANCE WITH AS1260 SHALL BE USED FOR Ø225mm OR SMALLER.

SW3 ALL PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS3725 FOR RCP AND AS2032 FOR PVC. ALL BEDDING TO BE TYPE H2 UNLESS NOTED OTHERWISE.

SW4 FOR ALL PITS > 1.2m DEEP, STEP IRONS SHALL BE INSTALLED.

SW5 PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY BONACCI GROUP.

SW6 ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

SW7 WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.

SW8 GRATES AND COVERS SHALL CONFORM WITH AS 3996 AND AS 1428.1 FOR ACCESS REQUIREMENTS.

SW9 CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES ARE NOT TO BE REDUCED WITHOUT APPROVAL.

SW10 AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.

SW11 ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

KERBING NOTES

K1 ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O.

K2 ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 75mm GRANULAR BASECOURSE COMPACTED TO A MINIMUM 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1.

K3 EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.

K4 WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.

K5 BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.

K6 IN THE REPLACEMENT OF KERBS:-
- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O. FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
- EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

JOINTING NOTES

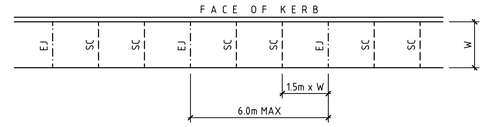
PEDESTRIAN FOOTPATH JOINTS

J1 EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT 6m CENTRES.

J2 SAWCUT JOINTS (SC) ARE TO BE LOCATED AT A MAX 1.5m x WIDTH OF PAVEMENT.

J3 WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.

J4 ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS (U.N.O.).



VEHICULAR PAVEMENT JOINTS

J5 ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS.

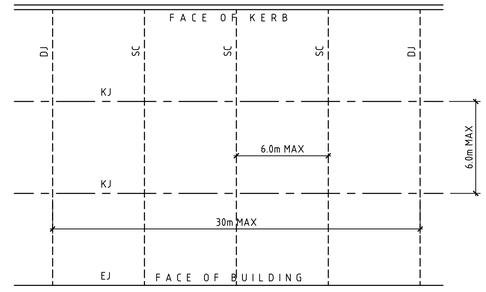
J6 KEYED CONSTRUCTION JOINTS (KJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES.

J7 SAWCUT JOINTS (SC) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES OR 1.5 x THE SPACING OF KEYED JOINTS, WHERE KEYED JOINT SPACING IS LESS THAN 4m, WITH DOWELLED EXPANSION JOINTS (DJ) AT MAXIMUM OF 30m CENTRES.

J8 PROVIDE 10mm WIDE FULL DEPTH EXPANSION JOINTS (EJ) BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS.

J9 VEHICULAR PAVEMENT JOINTING AS FOLLOWS (U.N.O.)

J10 THE TIMING OF THE SAW CUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMMENCED.



LOCALITY PLAN

NOT TO SCALE

Rev	Description	Date	By	App
P1	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-

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Project Name	ST GEORGE COMMUNITY HOUSING 71-75 CABRAMATTA AVENUE MILLER NSW 2168
Drawing Title	DRAWING REGISTER AND CONSTRUCTION NOTES

DEVELOPMENT APPLICATION

Designed	JH
Drawn	MM
Scale	NOTED
Date	AUG 17
Sheet	A1

Project Director Approved Date North

Project Ref 20 10045 01 | Drawing No C001 | Rev P1

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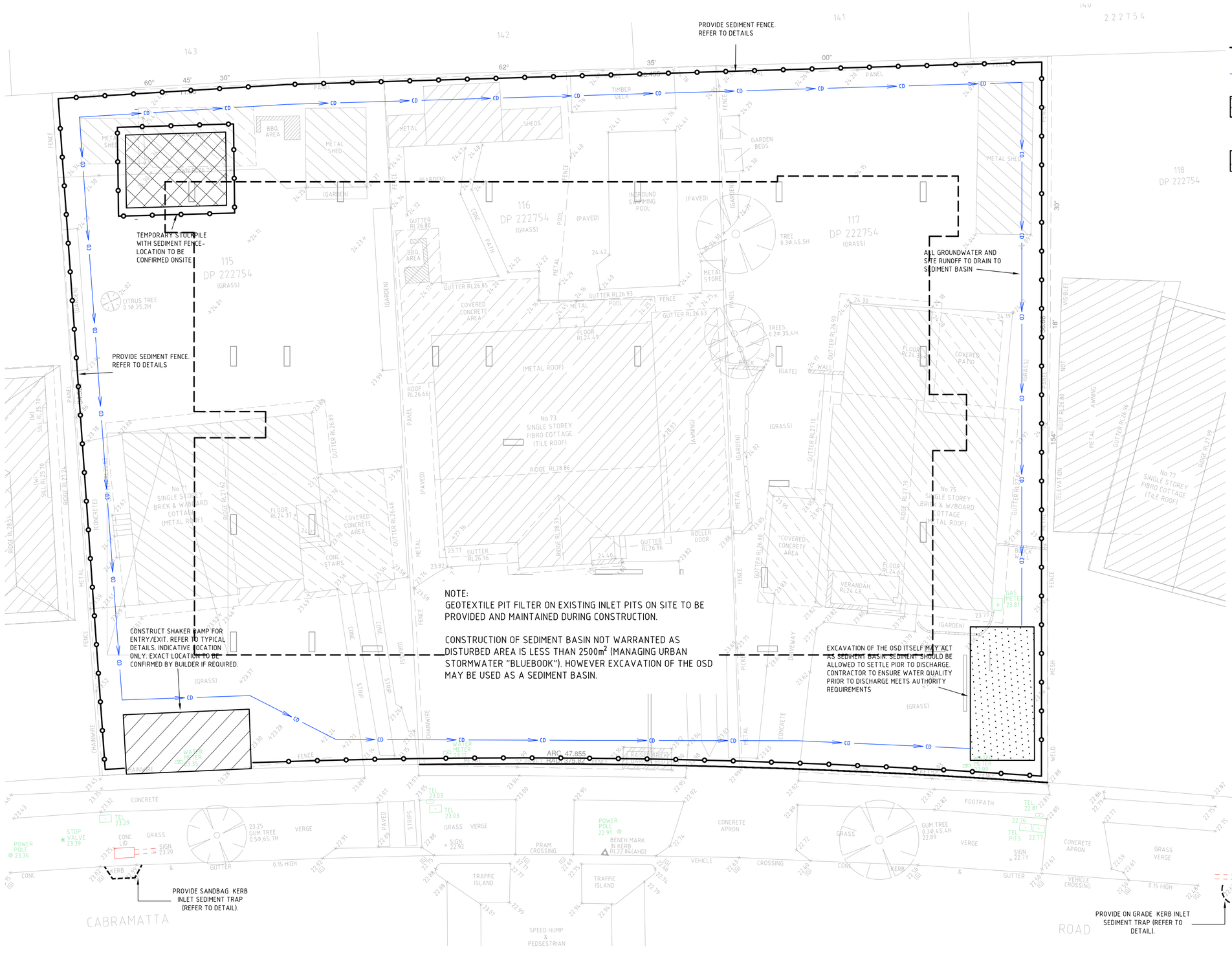

SOIL AND WATER MANAGEMENT LEGEND

- SEDIMENT FENCE
- CD — CATCH DRAIN
- TEMPORARY SHAKER RAMP FOR ENTRY/EXIT
- OVERLAND FLOW
- SEDIMENT BASIN
- TEMPORARY STOCKPILE (LOCATION TBC ON-SITE)
- GEOTEXTILE PIT FILTER / FILTER SURROUND INSTALLED ON EXISTING PIT
- SANDBAGS INSTALLED ON EXISTING PIT

SOIL AND WATER MANAGEMENT NOTES

1. IT HAS BEEN ASSUMED THAT SEDIMENT FENCING WILL BE PROVIDED TO THE STAGE BOUNDARY SUFFICIENT TO PREVENT SEDIMENT RUNOFF FROM LEAVING SITE (EXCEPT IN THE CASE OF ENTRY/EXIT LOCATIONS WHERE TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP ARE PROVIDED). IF THIS IS NOT THE CASE, PROVIDE SEDIMENT FENCE TO STANDARD DETAIL BELOW AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING SITE, DIRECT RUNOFF TO SEDIMENT BASIN.
2. ALL SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH LANDCOM MANAGING URBAN STORMWATER "BLUE BOOK".
3. MINIMISE CLEARING OUTSIDE BASEMENT EXTENT.
4. SEDIMENT CONTROL FOR LANDSCAPED WORKS DOWNSTREAM OF THE BUILDING TO INCLUDE A SILTFENCE AND SANDBAGS AS REQUIRED. TO BE MANAGED AT A RATE OF 50L/S BY THE CONTRACTOR ON SITE. INSTALL CATCH DRAIN TO DIVERT UPSTREAM CATCHMENT AWAY FROM DISTURBED SOIL AREA.

SEDIMENT CONTROL CONDITIONS

1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN AND ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER TO CONTAIN COARSER SEDIMENT FRACTIONS INCLUDING AGGREGATED FINES) AS NEAR AS POSSIBLE TO THEIR SOURCE.
2. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS & WATERWAYS CANNOT OCCUR.
3. STOCKPILES WILL BE PLACED WHERE SHOWN ON DRAWING OR ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER AND NOT WITHIN 5m OF HAZARD AREAS INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS & DRIVEWAYS.
4. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM WITH INLET FILTERS (SEE DETAILS) UNLESS IT IS SEDIMENT FREE.
5. TEMPORARY SEDIMENT TRAPS WILL BE RETAINED UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
6. CONTRACTOR TO DESIGN/SIZE/CONSTRUCT TEMPORARY SEDIMENT BASIN, WATER SHOULD BE ALLOWED TO SETTLE BEFORE DISCHARGE. CONTRACTOR MUST VERIFY THAT WATER QUALITY MEETS AUTHORITIES REQUIREMENTS PRIOR TO DISCHARGE . ACCUMULATED SEDIMENT SHOULD THEN BE REMOVED & DISPOSED OF IN ACCORDANCE WITH ENVIRONMENTAL MANAGEMENT PROCEDURES.

SEDIMENT AND EROSION CONTROL PLAN

SCALE 1:100 (0m 1m 2m 4m 6m)

Rev	Description	Date	By	App
P2	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-
P1	ISSUED FOR DEVELOPMENT APPLICATION	07.09.17	MM	-

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Project Name: ST GEORGE COMMUNITY HOUSING
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Drawing Title: SEDIMENT AND EROSION CONTROL PLAN

DEVELOPMENT APPLICATION

Designed	JH	Project Director Approved	Date
Drawn	MM		
Scale	NOTED		
Date	AUG 17		
Sheet	A1		

North

Project Ref	Drawing No	Rev
20 10045 01	C005	P2

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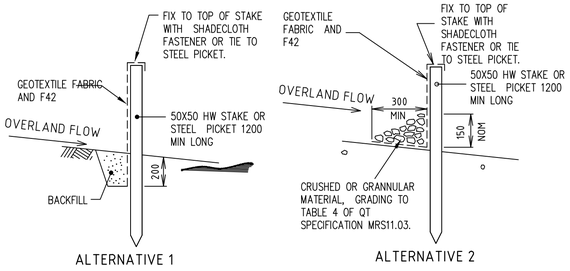
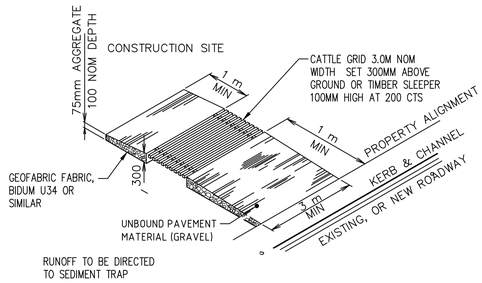


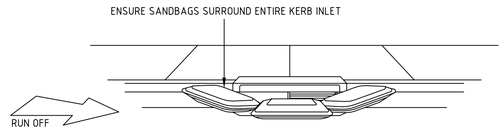
TEMPORARY CONSTRUCTION VEHICLE ENTRY/EXIT SEDIMENT TRAP

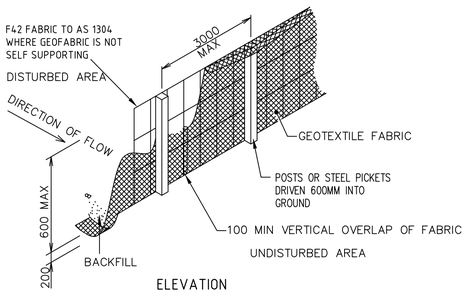
NOT TO SCALE



SANDBAG KERB INLET SEDIMENT TRAP

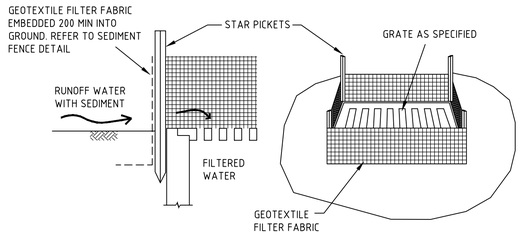
NOT TO SCALE





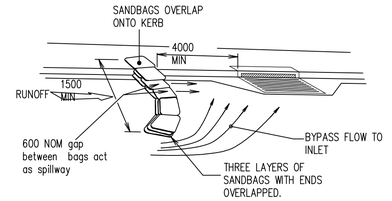
SEDIMENT FENCE

NOT TO SCALE



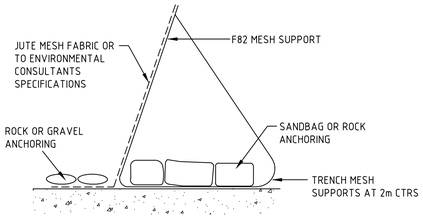
GEOTEXTILE PIT FILTER 1

NOT TO SCALE



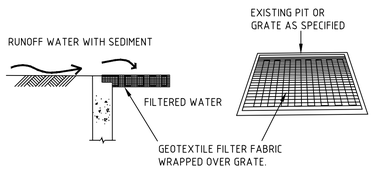
ON GRADE KERB INLET SEDIMENT TRAP

NOT TO SCALE



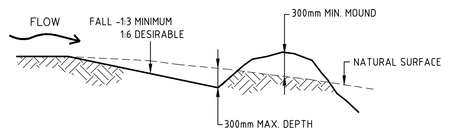
ALTERNATIVE SEDIMENT FENCE

NOT TO SCALE



GEOTEXTILE PIT FILTER 2

NOT TO SCALE



CATCH DRAIN

NOT TO SCALE

ALTERNATIVE SEDIMENT FENCE NOTES

1. INSTALL THIS TYPE OF SEDIMENT FENCE WHEN USE OF SUPPORT POSTS IS NOT DESIRABLE OR NOT POSSIBLE. SUCH CONDITIONS MIGHT APPLY, FOR EXAMPLE, WHERE APPROVAL IS GRANTED FROM THE APPROPRIATE AUTHORITIES TO PLACE THESE FENCES IN HIGHLY SENSITIVE ESTUARINE AREAS.
2. USE BENT TRENCH MESH TO SUPPORT THE F82 WELDED MESH FACING AS SHOWN ON THE DRAWING ABOVE. ATTACH THE JUTE MESH TO THE WELDED MESH FACING USING UV-RESISTANT CABLE TIES.
3. STABILISE THE WHOLE STRUCTURE WITH SANDBAG OR ROCK ANCHORING OVER THE TRENCH MESH AND THE LEADING EDGE OF THE JUTE MESH. THE ANCHORING SHOULD BE SUFFICIENTLY LARGE TO ENSURE STABILITY OF THE STRUCTURE IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.

SEDIMENT AND EROSION CONTROL DETAILS

Rev	Description	Date	By	App
P1	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-

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Drawing Title	SEDIMENT AND EROSION CONTROL DETAILS

DEVELOPMENT APPLICATION

Designed	JH
Drawn	MM
Scale	NOTED
Date	AUG 17
Sheet	A1

Project Director Approved	Date	North

Project Ref	Drawing No	Rev
20 10045 01	C006	P1

LEGEND

DESIGN CATCHMENT AREA 1

DESIGN CATCHMENT AREA 2 (ROOF)

B4
TOTAL AREA: 275 m²
IMP. AREA: 37%
100YR FLOW: 14 l/s

RWT
TOTAL AREA: 899 m²
IMP. AREA: 100%
100YR FLOW: 55 l/s

B2
TOTAL AREA: 68 m²
IMP. AREA: 33.5%
100YR FLOW: 3 l/s

B1
TOTAL AREA: 47 m²
IMP. AREA: 34%
100YR FLOW: 2 l/s

A6
TOTAL AREA: 179 m²
IMP. AREA: 72%
100YR FLOW: 10 l/s

A5
TOTAL AREA: 138 m²
IMP. AREA: 15%
100YR FLOW: 7 l/s

A4
TOTAL AREA: 79 m²
IMP. AREA: 8%
100YR FLOW: 4 l/s

A2
TOTAL AREA: 42 m²
IMP. AREA:100%

SEWER
CAR PARKING
COMMUNAL OPEN SPACE
LIFT
LIFT
LOBBY
CABRAMATTA AVENUE

PROPOSED STORMWATER CATCHMENT PLAN

SCALE 1:100 0m 1m 2m 4m 6m

Rev	Description	Date	By	App
P2	ISSUED FOR DEVELOPMENT APPLICATION	26.10.17	MM	-
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Drawing Title: PROPOSED STORMWATER CATCHMENT PLAN

DEVELOPMENT APPLICATION

Designed	JH	Project Director Approved	Date
Drawn	MM		
Scale	NOTED		
Date	AUG 17		
Sheet	A1		

North

Project Ref	Drawing No	Rev
20 10045 01	C025	P2

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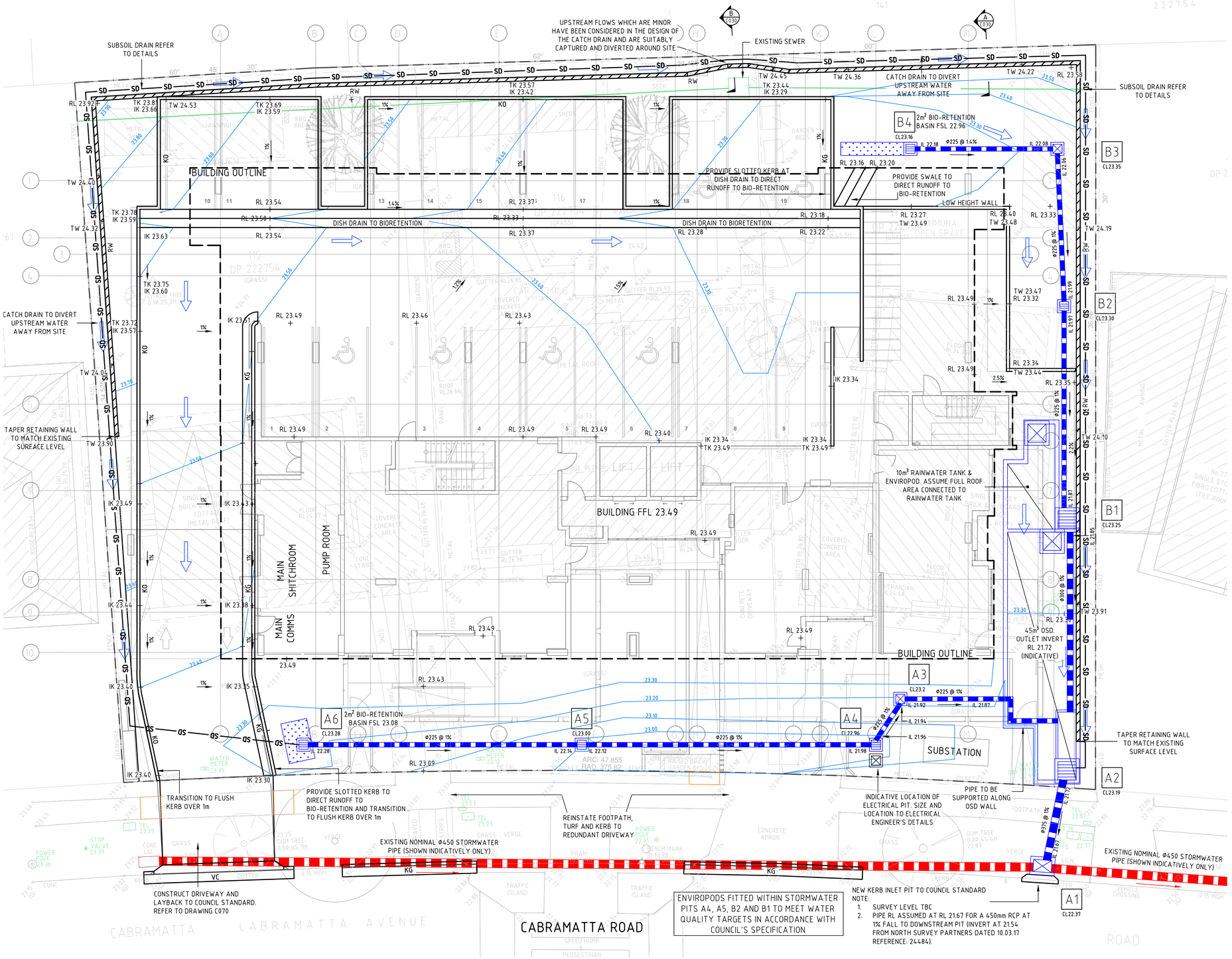
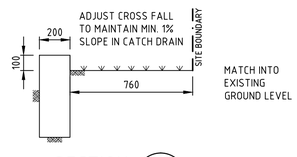


SITEWORKS AND STORMWATER DRAINAGE PLAN

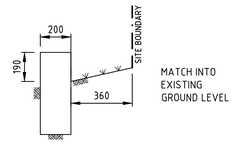
SCALE 1:100 0m 1m 2m 4m 6m

SITEWORKS LEGEND

- SITE BOUNDARY
- RL 7.25 — FINISHED SURFACE LEVEL
- KO — KERB ONLY
- DISH DRAIN
- 5.00 — DESIGN SURFACE CONTOUR (INDICATIVE)
- STORMWATER LINE.
- EXISTING STORMWATER LINE (INDICATIVE NOT SURVEYED)
- SD — KERB INLET PIT
- KERB INLET PIT
- 450 GRATED PIT.
- JUNCTION PIT
- IL 47.25 — PIPE INVERT LEVEL.
- G6 SL 49.15 — PIT N° SURFACE LEVEL
- BIO-RETENTION BASIN
- RW — RETAINING WALL
- EMERGENCY OVERLAND FLOW



SECTION A
SCALE 1:20



SECTION B
SCALE 1:20

FOR SITEWORKS AND DRAINAGE STANDARD DETAILS REFER TO SHEET C050

NOTE:
STORMWATER NETWORK HAS BEEN DESIGNED TO CAPTURE AND CONCEY 100YR DESIGN FLOW

Rev	Description	Date	By	App
P5	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-
P4	AMENDED FOR COODINATION	21.09.17	JH	-
P3	ISSUED FOR DEVELOPMENT APPLICATION	12.09.17	JH	-
P2	ISSUED FOR DEVELOPMENT APPLICATION	08.09.17	JH	-
P1	ISSUED FOR DEVELOPMENT APPLICATION	30.08.17	MM	-
P7	ISSUED FOR DEVELOPMENT APPLICATION	10.11.17	JH	-
P6	ISSUED FOR DEVELOPMENT APPLICATION	26.10.17	MM	-

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Project Name	ST GEORGE COMMUNITY HOUSING 71-75 CABRAMATTA AVENUE MILLER NSW 2168
Drawing Title	SITEWORKS AND STORMWATER DRAINAGE PLAN

DEVELOPMENT APPLICATION

Designed	JH	Project Director Approved	Date
Drawn	MM		
Scale	NOTED		
Date	AUG 17		
Sheet	A1		

North

Project Ref	Drawing No	Rev
20 10045 01	C030	P7

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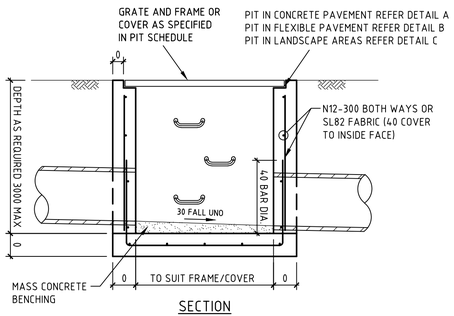
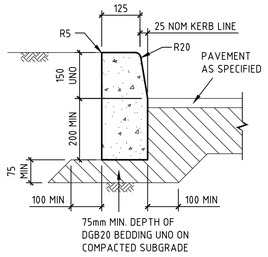
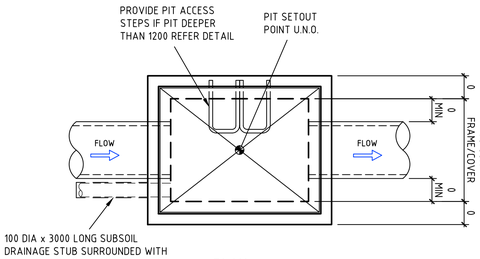


SECTION

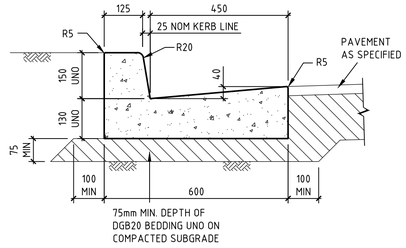


KERB ONLY (KO)

SCALE 1:10



PLAN



KERB AND GUTTER (K&G)

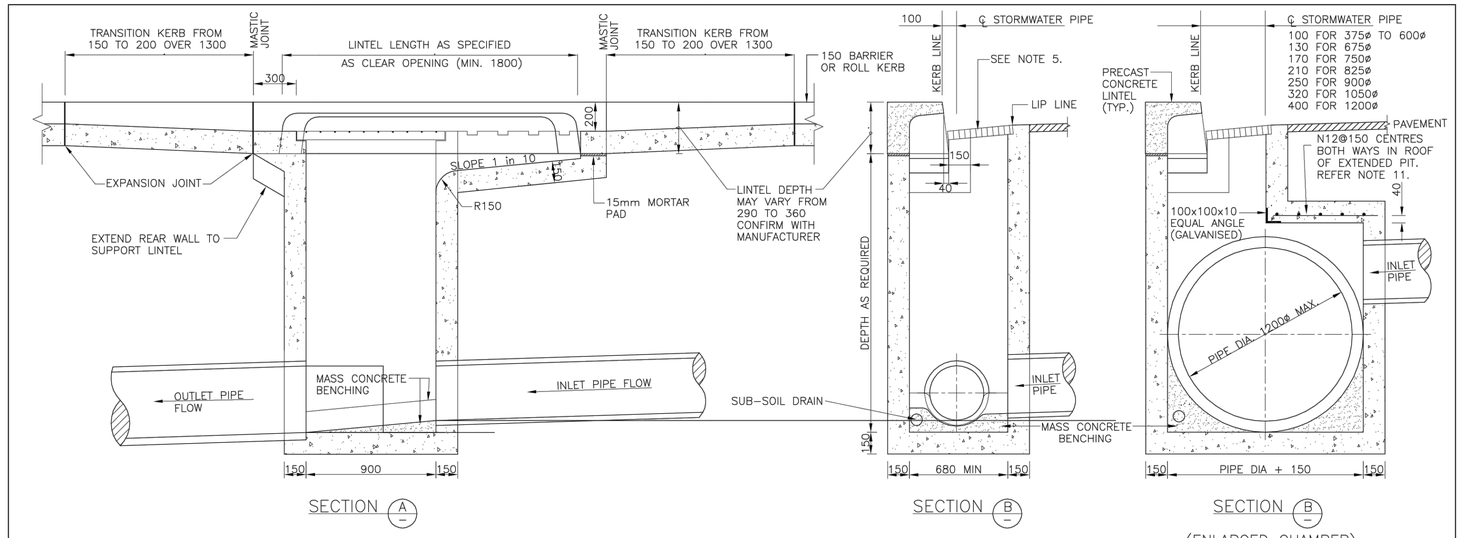
SCALE 1:10

SURFACE INLET/JUNCTION PIT DETAIL (INTERNAL)

SCALE 1:20

STORMWATER PIT NOTES

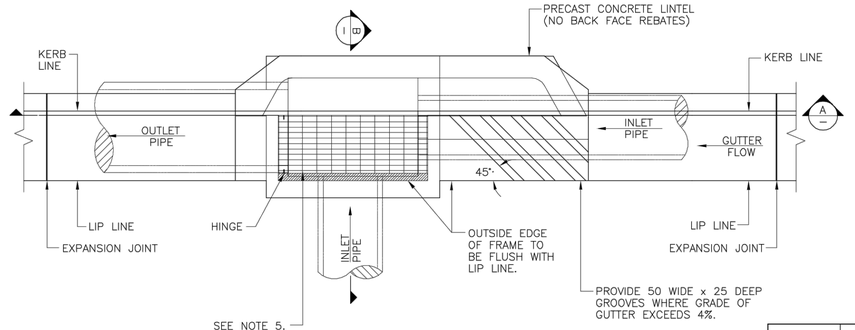
1. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH (F'c) OF 25 MPa AT 28 DAYS.
2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm. PITS GREATER THAN 3000mm DEEP TO HAVE WALL AND BASE 200mm THICK REINFORCED WITH N12-250 EACH WAY EACH FACE WITH CONCRETE STRENGTH F'c = 40 MPa.
3. PROVIDE STEP IRONS AT MAX 350mm CTRS IF DEPTH OF PIT EXCEEDS 1200mm.
4. IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS
5. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.
6. PRECAST PIT MAY BE USED SUBJECT TO ENGINEERS APPROVAL.
7. ALL PITS TO BE LOCKABLE.
8. FINAL INTERNAL PIT DIMENSIONS ARE TO COMPLY WITH AS 3500.



SECTION A

SECTION B

SECTION B (ENLARGED CHAMBER)



PLAN

NOTES

1. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH (F'c) OF 20 MPa AT 28 DAYS.
2. TOP OF BENCHING TO BE 1/2 OF OUTLET PIPE DIAMETER.
3. PROVIDE 3m LENGTH OF 100mmø SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK ADJACENT TO INLET PIPE INVERTS AND DRAINING TO THE PIT.
4. LOCATE LINTELS CENTRALLY IN SAG PITS.
5. PROVIDE WELDLOK HOT DIPPED GALVANISED GULLY GRATE GG78-50 (OR APPROVED EQUIVALENT) SET PARALLEL TO ADJACENT GUTTER AND 10 LOWER FOR RESIDENTIAL ROADS. FOR INDUSTRIAL ROADS USE WELDLOK HEAVY DUTY HOT DIPPED GALVANISED GULLY GRATE GG78-42A (OR APPROVED EQUIVALENT) INSTALLED AS ABOVE. NOTE: IN THIS INSTANCE THE OUTSIDE EDGE OF THE FRAME NEED NOT BE FLUSH WITH THE LIP LINE.
6. ALL GRATES TO BE PROVIDED WITH A LOCKING CLIP.
7. ALL GRATES TO BE HOT DIP GALVANISED.
8. ALL PITS GREATER THAN 1.2m DEPTH (FROM GRATE TO INVERT) ARE TO PROVIDE STEP IRONS.
9. FOR PIT DEPTHS BETWEEN 1.8m AND 3.0m DEPTH, PROVIDE N12 @ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED.
10. DURING INSTALLATION OF THE GRATE AND FRAME, THE CONTRACTOR IS TO ENSURE A MINIMUM CLEARANCE OF 40mm BETWEEN THE LINTEL AND OPENED GRATE.
11. WHERE EXTENDED CHAMBER WIDTH EXCEEDS 1.2m, ROOF REINFORCEMENT TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
12. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

SCALE	AS SHOWN	ISSUE NO.	B	LIVERPOOL CITY COUNCIL	Std Dwg No.
DRAWN	R.N	DATUM	ASSUMED	GRATED GULLY PIT WITH EXTENDED KERB INLET	D8
CHECKED	P.M.	DATE	MAY 2006		

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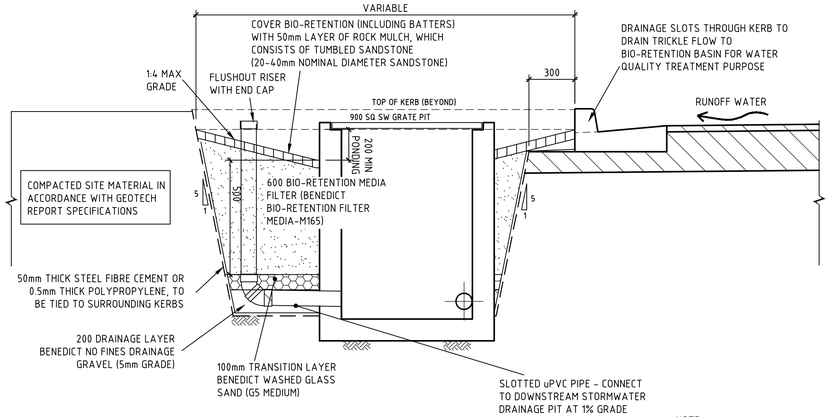
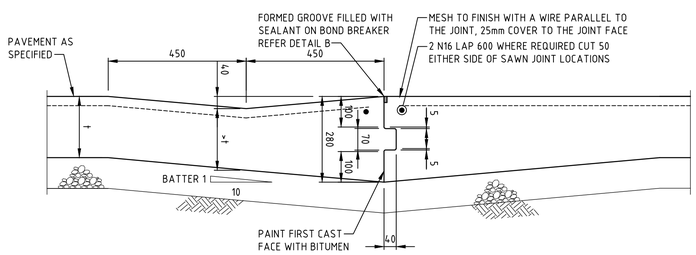
ORIGINAL = A3 SHEET



TYPICAL STREET BIO-RETENTION PLANTER DETAILS (PROPOSED 2 BIO-RETENTION)

SCALE 1:20

NOTE:
USE EITHER STEEL FIBRE AND SAND OR POLYPROPOLYNE AND NO FINES



CONCRETE DISH DRAIN (CDD)

SCALE 1:10

NOTE: CONFIRM DIMENSIONS AND DETAILS WITH LOCAL AUTHORITY HAVING JURISDICTION OVER THE WORKS, PARTICULARLY WHEN CONSTRUCTED OFF-SITE.

Rev	Description	Date	By	App
P1	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-

Rev	Description	Date	By	App

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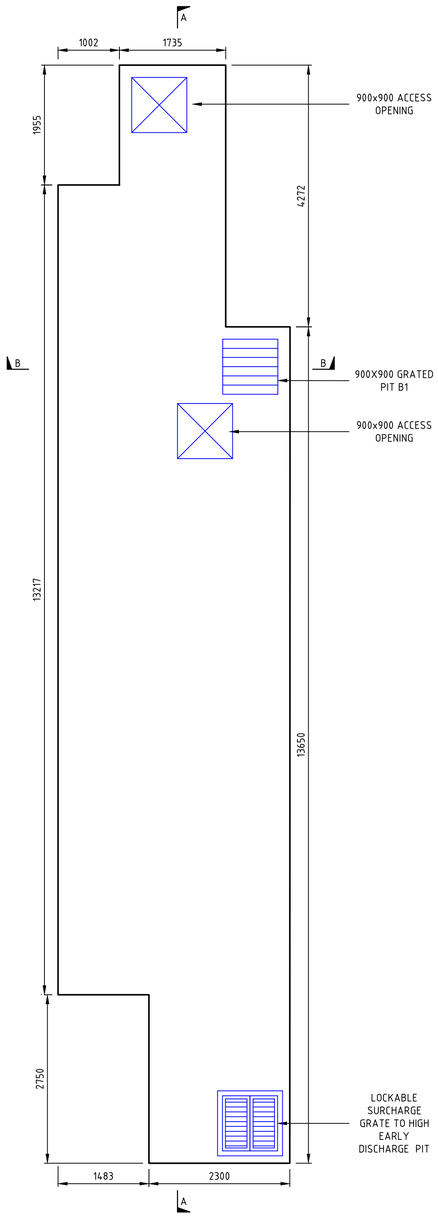
Project Name	ST GEORGE COMMUNITY HOUSING 71-75 CABRAMATTA AVENUE MILLER NSW 2168
Drawing Title	SITEWORKS AND STORMWATER DRAINAGE DETAILS SHEET 1

DEVELOPMENT APPLICATION

Designed	MM	Project Director Approved	Date
Drawn	MM		
Scale	NOTED		
Date	AUG 17		
Sheet	A1		

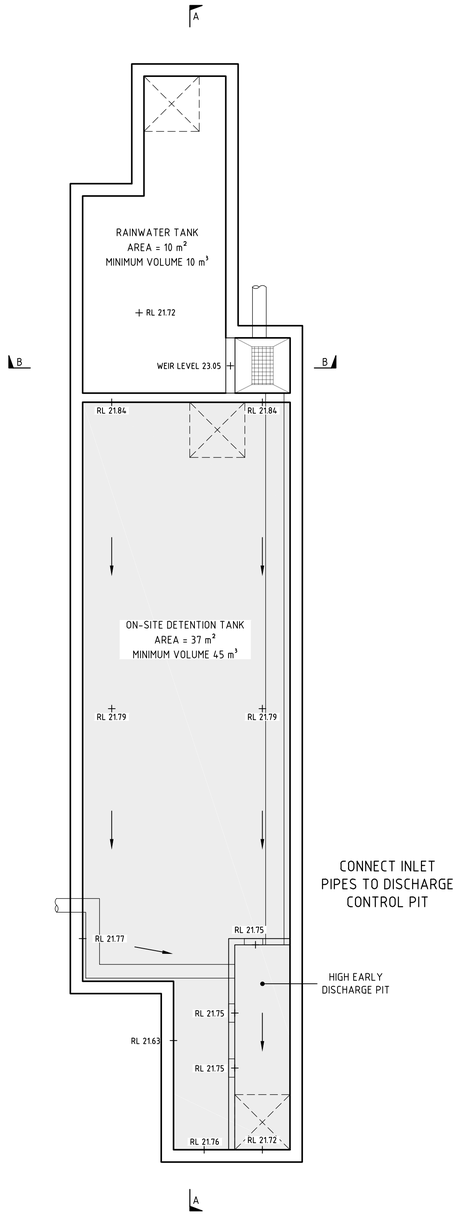
North

Project Ref	Drawing No	Rev
20 10045 01	C050	P1



ON-SITE DETENTION TANK DETAIL PLAN - GROUND LEVEL

SCALE 1:50

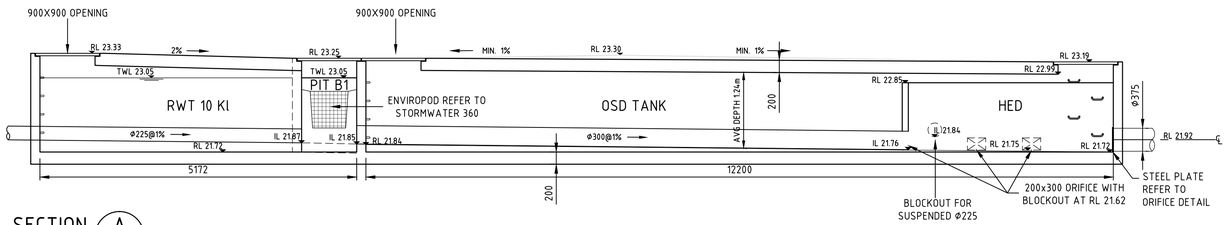


ON-SITE DETENTION TANK DETAIL PLAN - BELOW GROUND

SCALE 1:50

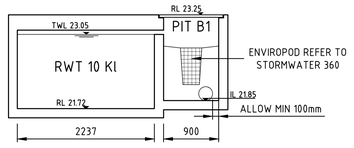
CONSTRUCTION NOTES

1. WATERPROOFING OF TANK TO ARCHITECTS SPECIFICATIONS AND REQUIREMENTS.
2. ON-SITE DETENTION TANK TO BE IN ACCORDANCE WITH STRUCTURAL ENGINEERS DRAWINGS.
3. DENOTED MASS CONCRETE TOPPING PROVIDING A MIN 1% FALL



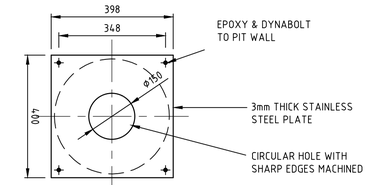
SECTION A

SCALE 1:50



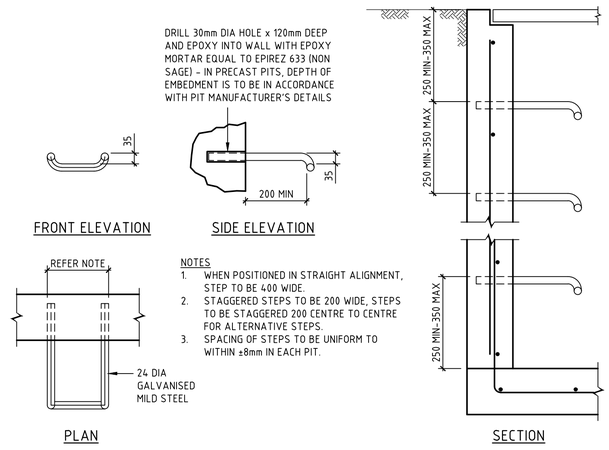
SECTION B

SCALE 1:50



ORIFICE DETAIL

SCALE 1:10



PIT ACCESS STEP DETAIL

SCALE 1:10

Rev	Description	Date	By	App
P1	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-

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Project Name	ST GEORGE COMMUNITY HOUSING 71-75 CABRAMATTA AVENUE MILLER NSW 2168
Drawing Title	SITEWORKS AND STORMWATER DRAINAGE DETAILS SHEET 2

DEVELOPMENT APPLICATION

Designed	MM	Project Director Approved	Date
Drawn	MM		North
Scale	NOTED	Project Ref	Drawing No / Rev
Date	AUG 17	20 10045 01	C051 P1
Sheet	A1		

PAVEMENT LEGEND

- SITE BOUNDARY
- PAVEMENT TYPE 1 - CONCRETE PAVEMENT
- DRIVEWAY CROSSOVER IN ACCORDANCE WITH LIVERPOOL CITY COUNCIL SPECIFICATIONS
- CONCRETE FOOTHPATH IN ACCORDANCE WITH LIVERPOOL CITY COUNCIL SPECIFICATIONS
- REINSTATE TURF TO REDUNDANT CROSSOVER
- CONCRETE DISH DRAIN
- KO — KERB ONLY
- KG — KERB AND GUTTER
- VC — VEHICULAR CROSSING

NOTE:
REFER TO DRAWING C001 FOR JOINTING NOTES(INTERNAL TO SITE) AND DRAWING C070 FOR TYPICAL DETAILS

PAVEMENT PLAN

SCALE 1:100 (0m 1m 2m 4m 6m)

Rev	Description	Date	By	App
P3	ISSUED FOR DEVELOPMENT APPLICATION	10.11.17	JH	-
P2	ISSUED FOR DEVELOPMENT APPLICATION	26.10.17	MM	-
P1	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-

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Project Name: ST GEORGE COMMUNITY HOUSING
71-75 CABRAMATTA AVENUE
MILLER NSW 2168

Drawing Title: PAVEMENT PLAN

DEVELOPMENT APPLICATION

Designed	MM	Project Director Approved	Date
Drawn	MM		
Scale	NOTED		
Date	AUG 17		
Sheet	A1		

North

Project Ref	Drawing No	Rev
20 10045 01	C060	P3

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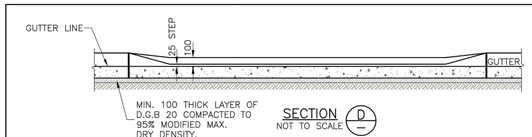

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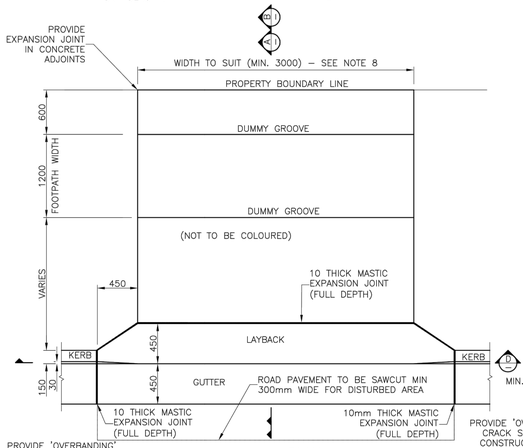
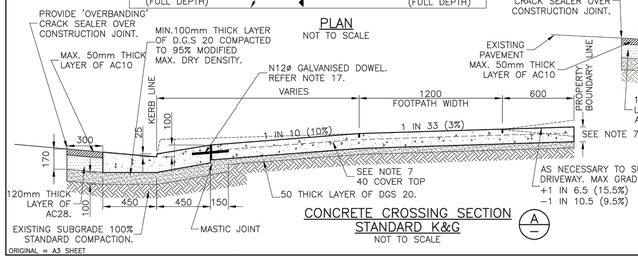
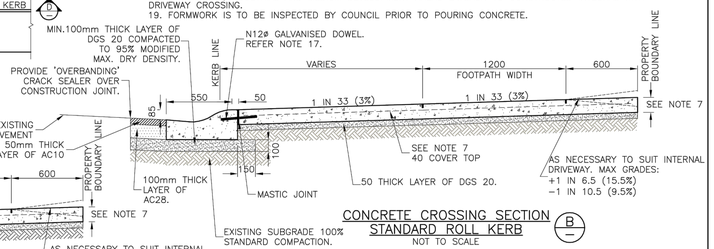


PLAN NOT TO SCALE



CONCRETE CROSSING SECTION STANDARD K&G (A) NOT TO SCALE



CONCRETE CROSSING SECTION STANDARD ROLL KERB (B) NOT TO SCALE

NOTES:
1. ALL CONCRETE TO HAVE A MIN COMPRESSIVE STRENGTH (F'c) OF 25MPa AT 28 DAYS.
2. DRIVEWAYS ARE TO BE NO CLOSER THAN:
   - 6m FROM TANGENT POINT OF CORNER
   - 0.5m FROM STORMWATER LINTELS
   - 0.5m FROM ELECTRICAL TURRETS
   - 0.5m FROM TELSTRA PITS.
   - 0.5m FROM ELECTRICAL POLES

   FOR SERVICE PITS TO BE CONTAINED WITHIN DRIVEWAY, WRITTEN APPROVAL FROM THE RELEVANT SERVICE AUTHORITY MUST BE OBTAINED AND SUBMITTED TO COUNCIL WITH THE CROSSING APPLICATION.
3. GAS MARKERS, WATER HYDRANTS AND STOP VALVES CAN REMAIN IN THE NEW DRIVEWAY BUT MUST BE ACCESSIBLE AT ALL TIMES.
4. ALL CROSSFALLS ARE TO BE STRICTLY ADHERED TO.
5. ALL REDUNDANT LAYBACKS TO BE REPLACED WITH KERB AND GUTTER AT NO COST TO COUNCIL.
6. WHERE A LAYBACK IS TO BE EXTENDED, CONSTRUCTED OR REMOVED, THE ENTIRE LAYBACK/KERB & GUTTERSECTION AND 300mm WIDE OF ADJACENT ROAD PAVEMENT ARE TO BE SAWCUT AND REMOVED FOR THE FULL LENGTH OF PROPOSED VEHICULAR CROSSING. (THE ROAD PAVEMENT IS TO BE RESTORED TO THE SATISFACTION OF COUNCIL'S CROSSING INSPECTOR. THE FINAL RESTORATION FOR THE DAMAGED PAVEMENT WILL BE CARRIED OUT BY COUNCIL AT THE APPLICANT/OWNERS COST)
7.

DEVELOPMENT TYPE	SLAB THICKNESS	REINFORCEMENT MESH
RESIDENTIAL	125mm	SL62 NO MESH REQUIRED IN LAYBACK
MEDUIM DENSITY(VILLAS/TOWNHOUSES)	150mm	SL82 INCLUDING LAYBACK
COMMERICIAL	225mm	SL82 INCLUDING LAYBACK

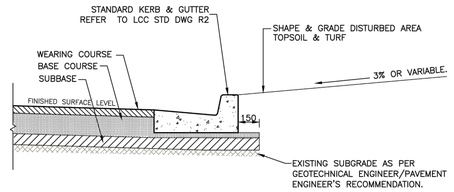
8. THE WIDTH OF RESIDENTIAL DRIVEWAYS SHALL BE
   - MIN 3.0M AT PROPERTY BOUNDARY
   - MAX 4.0m AT PROPERTY BOUNDARY FOR SINGLE GARAGE
   - MAX 5.0m AT PROPERTY BOUNDARY FOR DOUBLE GARAGE
9. ALL STORMWATER RELOCATIONS ARE TO BE 100 UPVC SEWER GRADE PIPE WITH A 'CORDINA' TYPE GALVANISED STEEL OUTLET TO KERB & GUTTER. REFER TO LIVERPOOL CITY COUNCIL STANDARD DRAWING NO D17 FOR STANDARD ROOF WATER OUTLET AND ADOPTER DETAILS. NO OUTLET WILL BE PERMITTED WITHIN THE LAYBACK .
10. WHEN ALL WORKS ARE COMPLETED, THE EDGES OF THE DRIVEWAY CROSSING ARE TO BE BACKFILLED AND COMPACTED WITH SUITABLE SOIL AND TURFED TO MATCH DRIVEWAY LEVELS.
11. ALL EXISTING FOOTPATHS AFFECTED BY THE WORKS ARE TO BE SAWCUT AND REMOVED. THE DRIVEWAY CROSSING IS TO BE CONNECTED TO THE FOOTPATH WITH NO GAPS OR STEP.
12. DRIVEWAY CROSSING MUST BE FENCED OFF UNTIL COMPLETED FOR PUBLIC SAFETY.
13. DAMAGE TO EXISTING FOOTPATHS REQUIRES FULL PANEL REPLACEMENT TO THE NEAREST TRANSVERSE DUMMY JOINT TO MATCH EXISTING.
14. GULLY PITS ARE NOT TO BE LOCATED WITHIN PROPOSED DRIVEWAYS.
15. ALL DRIVEWAYS LOCATIONS ARE TO COMPLY WITH CLAUSE 3.2.3 OF AS2890.1–1993 – PARKING FACILITIES.
16. ALL SURFACES MUST BE INSTALLED AND MAINTAINED TO COMPLY WITH AUSTRALIAN STANDARD AS/NZS 4586:1999, AS/NZS 4663.2004, AS/NZS 3661.2;1994.
17. DOWELING OF LAYBACK TO DRIVEWAY WITH GALVANISED N12ø DOWELS PLACED 350mm IN FROM EDGES OF CROSSING AND AT 900mm SPACING IS OPTIONAL BUT RECOMMENDED WHERE EXPANSIVE/REACTIVE CLAYS EXIST. COAT ONE HALF OF DOWEL WITH PETROLEUM JELLY IMPREGNATED TAPE TO ENSURE SLIP JOINT. ALL DOWELS TO BE 300mm LONG WITH 150mm PENETRATION INTO EACH SLAB.
18. COMMERCIAL/INDUSTRIAL AND MEDIUM DEVELOPMENT AREAS LAYBACK TO CONSTRUCTED INTEGRAL WITH DRIVEWAY CROSSING.
19. FORMWORK IS TO BE INSPECTED BY COUNCIL PRIOR TO POURING CONCRETE.

ORIGINAL = A3 SHEET

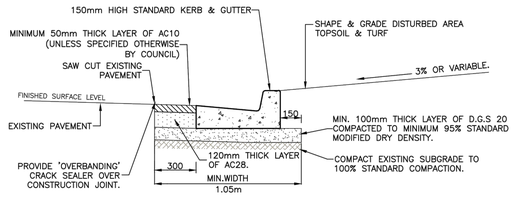
SCALE	AS SHOWN	ISSUE NO.	B	LIVERPOOL CITY COUNCIL	Std Dwg No.
DRAWN	P.S	DATUM	ASSUMED	CONCRETE VEHICULAR CROSSINGS FOR URBAN AREAS	R25
CHECKED	B.P	DATE	OCT 2014		

NOTES FOR FOOTPATH CONSTRUCTION

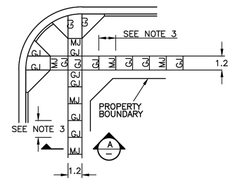
1. FOOTPATH PAVING TO BE 75mm THICK LAID ON A MINIMUM 25mm THICK SAND BASE ON SUITABLE COMPACTED SUBGRADE. AT VEHICLE CROSSINGS THE PAVING TO BE THICKENED IN ACCORDANCE WITH COUNCIL'S DRIVEWAY STANDARD AND SPECIFICATION. REFER TO STANDARD DRAWING NO R25.
2. CONCRETE TO BE MINIMUM COMPRESSIVE STRENGTH F'c 25MPa AT 28 DAYS.
3. PROVIDE MASTIC JOINTS (MJ) 10mm IN WIDTH FOR THE FULL DEPTH OF FOOTPATH AT INTERVALS NOT EXCEEDING 6m AND GROOVED JOINTS (GJ) NARROW VERTICAL 20mm DEEP NOT EXCEEDING 2m INTERVALS.
4. IN HIGHLY REACTIVE SUBGRADE AREAS FOOTPATH AND PAVING TO BE LAID ON A MINIMUM OF 100mm THICK DGS20 ON A SUITABLE COMPACTED SUBGRADE
5. INSTALL TRIP STOP (IF REQUIRED) IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATION.
6. IF THE DISTURBED AREA WIDTH IS GREATER THAN 0.5m PLACE TOP SOIL OF MINIMUM 50mm DEPTH AND TURF AREA.



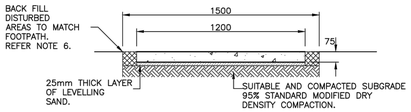
NEW KERB & GUTTER DETAIL NOT TO SCALE



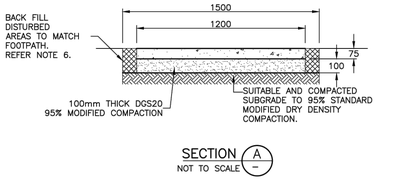
KERB & GUTTER RECONSTRUCTION DETAIL NOT TO SCALE



FOOTPATH PLAN NOT TO SCALE



SECTION (A) NOT TO SCALE

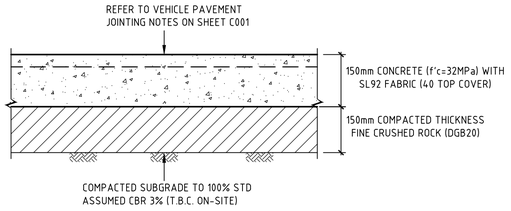


SECTION (A) NOT TO SCALE

(ALTERNATIVE DETAIL FOR HIGHLY REACTIVE SUBGRADE AREA ONLY)

ORIGINAL = A3 SHEET

SCALE	AS SHOWN	ISSUE NO.	D	LIVERPOOL CITY COUNCIL	Std Dwg No.
DRAWN	J.H.	DATUM	ASSUMED	FOOTPATH AND KERB & GUTTER DETAIL	R23
CHECKED	B.P.	DATE	APR. 2013		



PAVEMENT TYPE 1 – CONCRETE PAVEMENT

SCALE 1:10

DENOTED ON PLAN

Rev	Description	Date	By	App
P1	ISSUED FOR DEVELOPMENT APPLICATION	23.10.17	MM	-

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Project Name	ST GEORGE COMMUNITY HOUSING 71-75 CABRAMATTA AVENUE MILLER NSW 2168
Drawing Title	PAVEMENT PLAN DETAILS AND COUNCIL STANDARD DETAILS

DEVELOPMENT APPLICATION

Designed	MM	Project Director Approved	Date
Drawn	MM		North
Scale	NOTED	Project Ref	Drawing No / Rev
Date	AUG 17	20 10045 01	C070 / P1
Sheet	A1		