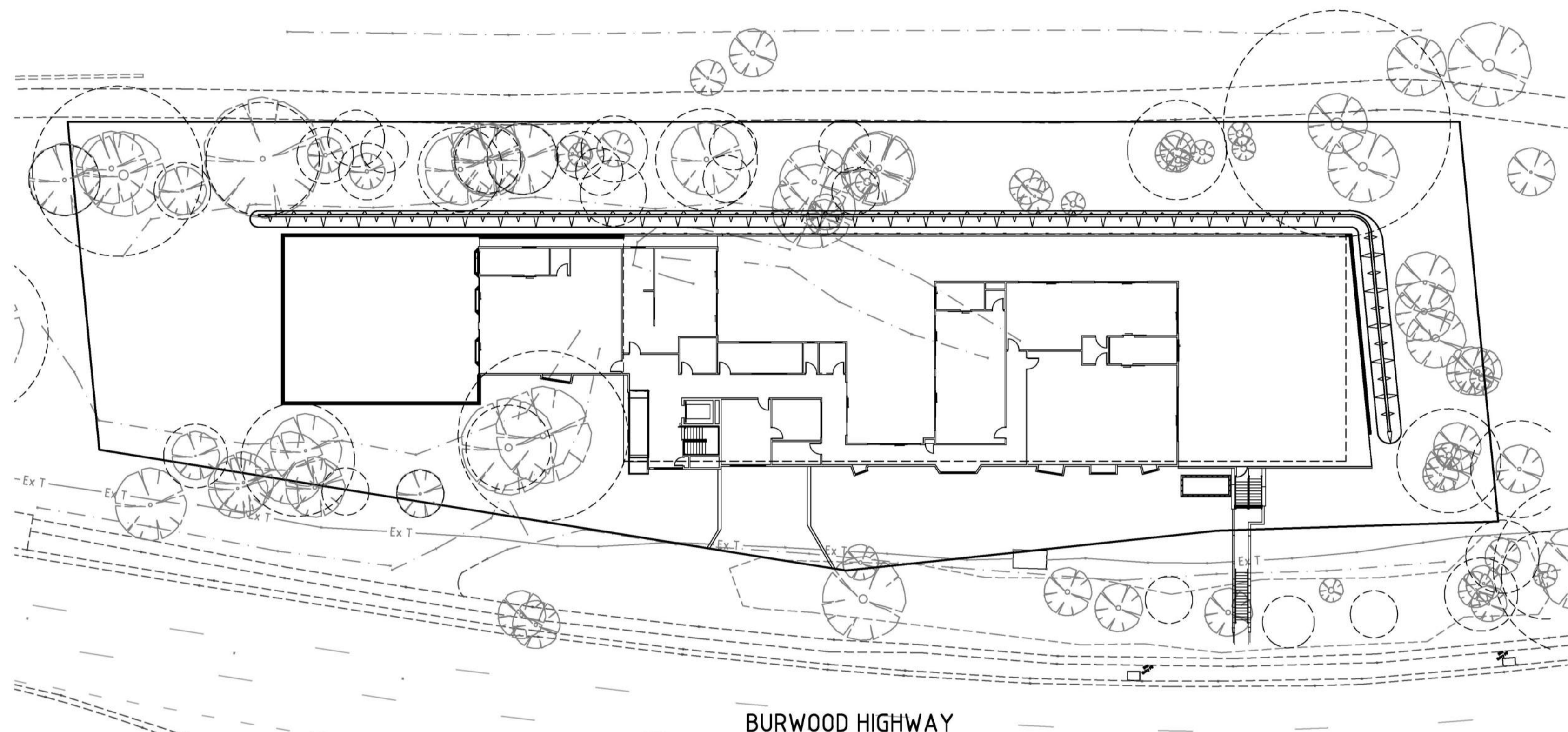


# PROPOSED CHILDCARE

## 1157-1165 BURWOOD HWY - UPPER FERNTREE GULLY

### LOCALITY PLAN & GENERAL NOTES - CIVIL

DRAWING NUMBER	DRAWING INDEX
	DESCRIPTION
C001	LOCALITY PLAN AND GENERAL NOTES
C002	BASEMENT SITEWORKS AND DRAINAGE PLAN
C003	OVERALL GROUND FLOOR SITE WORKS AND DRAINAGE PLAN
C004	GROUND FLOOR SITEWORKS AND DRAINAGE PLAN, SHEET 1 OF 2
C005	GROUND FLOOR SITEWORKS AND DRAINAGE PLAN, SHEET 2 OF 2
C006	STORMWATER TREATMENT TRIN CATCHMENT PLAN
C007	CIVIL DETAILS, SHEET 1 OF 2
C008	CIVIL DETAILS, SHEET 2 OF 2



**WARNING**  
NO DRAINAGE WORKS SHALL COMMENCE UNTIL THE CONTRACTOR CONFIRMS THE I.L. OF ALL EXISTING DRAINS, AND CONFIRMS IN WRITING WITH THE ENGINEERING SUPERVISOR.

- ATTENTION TO CONTRACTOR**
- IN ACCORDANCE WITH CLAUSE 15 OF AS2124-1992, THE CONTRACTOR MUST ENSURE THE SAFETY OF THE CONTRACTOR'S EMPLOYEES AND ALL OTHER PEOPLE WHO ARE ON OR ADJACENT TO THE SITE. THE CONTRACTOR MUST COMPLY WITH THE VICTORIAN OCCUPATIONAL HEALTH AND SAFETY ACT.
  - THE CONTRACTOR MUST ENSURE THAT ALL PEOPLE EMPLOYED ON THE SITE WEAR APPROVED SAFETY APPAREL. THIS INCLUDES SAFETY HELMETS, SAFETY BOOTS, EAR AND EYE PROTECTION, WHERE APPROPRIATE.
  - THE CONTRACTOR IS NOT PERMITTED TO BREAK-IN TO AN EXISTING LIVE PIPELINE, ENTER A LIVE ACCESS CHAMBER OR REMOVE THE COVER TO A LIVE ACCESS CHAMBER.
  - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EX. SERVICES IN WORKS AFFECTED AREAS PRIOR TO COMMENCING ANY WORKS.

ALL EXISTING PROPERTY SERVICES' LOCATIONS AND DEPTHS ARE APPROXIMATE AND MUST BE VERIFIED ON SITE. THE CONTRACTOR SHOULD SUPPLY PRECISE LOCATIONS AND DEPTHS TO THE ENGINEER FOR REVIEW PRIOR TO ANY WORKS THAT MAY AFFECT THESE SERVICES.

**HEALTH AND SAFETY**

- H1. THE OBLIGATION OF MRM GROUP AUSTRALIA PTY LTD (OR OTHER RELEVANT MRM GROUP ENTITY) (MRM GROUP) AS THE DESIGN ENGINEER IS LIMITED TO ENSURING THAT THOSE PARTS OF THE BUILDING OR STRUCTURE THAT ARE TO BE USED AS A WORKPLACE ARE, AS FAR AS REASONABLY PRACTICABLE, DESIGNED TO BE SAFE AND WITHOUT RISKS TO THE HEALTH OF THOSE PERSONS USING THE BUILDING OR STRUCTURE AS A WORKPLACE FOR THE PURPOSE FOR WHICH IT WAS DESIGNED IN ACCORDANCE WITH SECT. 28 OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004 (VIC).
- H2. MRM GROUP PTY LTD IS NOT RESPONSIBLE FOR THE OCCUPATIONAL HEALTH & SAFETY OF PERSONS AT THE SITE AS THOSE OBLIGATIONS RESIDE WITH THE CONTRACTORS AND/OR SUB-CONTRACTORS WHO OCCUPY OR HAVE CONTROL OF THE SITE IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL HEALTH AND SAFETY LEGISLATION, CODES OR PRACTICE, GUIDANCE NOTES, AUSTRALIAN STANDARDS AND OTHER RELEVANT DOCUMENTATION.
- H3. ANY ADVICE OR GUIDANCE CONCERNING OCCUPATIONAL HEALTH AND SAFETY ISSUES ARISING AT THE SITE SHOULD BE DIRECTED TO THE HEALTH AND SAFETY EXECUTIVE OR OFFICER NOMINATED FOR THE PROJECT.

LOCALITY PLAN

**STANDARD NOTES**

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND 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.
- MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT STANDARDS AUSTRALIA CODES AND AUTHORITY.
- THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORKS.
- THESE DRAWINGS MUST NOT BE SCALED.
- ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.
- SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
- ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.
- SERVICE INFORMATION SHOWN IS BASED ON PLANS SUPPLIED BY AUTHORITIES AND IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.
- EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE.
- UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.
- 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. ALL SUBGRADE PREPARATION MUST BE IN STRICT ACCORDANCE WITH THAT OUTLINED BY THE GEOTECHNICAL ENGINEER.
- ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN 200mm MAXIMUM LOOSE THICKNESS LAYERS TO THE DENSITIES SPECIFIED BELOW:
 

LANDSCAPED AREAS	90% STD.
FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE - FINE CRUSHED ROCK	95% MOD.
- OTHER FILL	95% SMDD
FILL UNDER ROAD PAVEMENTS	95% MOD.
- FINE CRUSHED ROCK	100% SMDD
- OTHER FILL	
ROAD PAVEMENT MATERIALS	95% MOD.
- SUB BASE	98% MOD.
- BASE COURSE	
- 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.
- UNLESS NOTED OTHERWISE, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH UPVC OR EARTHENWARE PIPES OF THE FOLLOWING SIZES LAID AT A MINIMUM GRADE OF 1 IN 100:
  - 100 DIA. FOR DOMESTIC CONSTRUCTION
  - 150 DIA. FOR COMMERCIAL/INDUSTRIAL CONSTRUCTION
  - 100 DIA. FOR BASEMENT GRATED INLETS
 FOR SYNPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS.
- UNLESS SPECIFIED ON PLANS OTHERWISE, ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING TYPES OF PIPES WITH RUBBER RING JOINTS:
  - MIN. CLASS 2 RCP UN.D. ON PLAN IN ACCORDANCE WITH A.S. 4058
  - SEWER CLASS U.P.V.C. S810 IN ACCORDANCE WITH A.S. 1260 FOR PIPES 100Ø
  - SEWER CLASS U.P.V.C. S818 IN ACCORDANCE WITH A.S. 1260 FOR PIPES 150Ø AND ABOVE
 NOTE: VINDEX STORMPRO S818 MAY BE USED IN LIEU OF ABOVE PIPE OPTIONS IF:
  - 300mm CLEAR COVER OVER TO TOP OF PIPE TO FINISHED SURFACE LEVEL IS ACHIEVED IN NON-TRAFFICABLE AREAS
  - 500mm CLEAR COVER TO TOP OF PIPE TO FINISHED SURFACE LEVEL IS ACHIEVED IN TRAFFICABLE AREAS
 ANY OTHER TYPES OF PIPE MUST BE REFERRED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
- IF STORMWATER PIPE IS NOTED 'CHARGED' ON THE DESIGN PLANS, THE FOLLOWING SHALL BE CONSTRUCTED:
  - CHARGED PIPE MATERIAL TO BE HIGH DENSITY POLYETHYLENE 'HDPE' (ISR26).
  - ALL JOINTS TO BE ELECTRO-FUSION WELDED.
- GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
  - COMPLY WITH THE GENERAL PROVISIONS OF SECTION 21 OF THE 'OCCUPATIONAL HEALTH AND SAFETY ACT'
  - COMPLY WITH WITH THE 'OCCUPATIONAL HEALTH AND SAFETY CODE OF PRACTISE FOR SAFETY PRECAUTIONS IN TRENCHING OPERATIONS'
- BEFORE COMMENCING WORK ON TRENCHES IN EXCESS OF 1.5m DEEP, NOTICE OF SUCH PROPOSAL IS TO BE SENT TO THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY IN ACCORDANCE WITH WORKSAFE REGULATIONS - 'SAFETY PRECAUTIONS IN TRENCHING OPERATIONS' CODE OF PRACTICE No. 1988. A FOREMAN QUALIFIED AS MINES MANAGER MUST BE IN ATTENDANCE AT ALL TIMES DURING SUCH EXCAVATIONS.
- ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTRE OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.
- REFER TO STRUCTURAL DRAWINGS FOR FOOTING AND FOUNDATION DETAILS.
- ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER
- CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.
- EXISTING SERVICES COVERS AFFECTED BY NEW WORKS TO BE ADJUSTED OR MODIFIED TO SUIT NEW SURFACE LEVELS.

**IMPORTANT NOTES**

- PRIOR TO THE COMMENCEMENT OF BUILDING WORKS ON SITE, THE CONTRACTOR MUST VERIFY THE FEASIBILITY OF THE OUTFALL STORMWATER DRAINAGE SYSTEM/S TO THE LEGAL POINT OF DISCHARGE AS DOCUMENTED BY:
  - VERIFICATION OF THE INVERT LEVEL OF THE DRAIN FORMING THE LEGAL POINT OF DISCHARGE
  - VERIFICATION THAT THE ROUTE FROM THE SITE TO THE LEGAL POINT/S OF DISCHARGE IS CLEAR OF ALL OTHER AUTHORITY SERVICES
 IF EITHER OF THE ABOVE CANNOT BE VERIFIED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT MANAGER OR CONSULTING CIVIL ENGINEER.
- PRIOR TO THE COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES, NOTIFY THE AUTHORITIES RESPONSIBLE FOR THOSE SERVICES AND COMPLY WITH ALL OF THE REQUIREMENTS OF THOSE AUTHORITIES.

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Revision Schedule			
Rev.	Description	Date	APP'D
P1	PRELIMINARY ISSUE	12.08.2024	MS

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Project	PROPOSED CHILDCARE 1157-1165 BURWOOD HWY UPPER FERNTREE GULLY
Title	LOCALITY PLAN AND GENERAL NOTES

PRELIMINARY			
Design		Project Identification No.	24052
Drawn		Drawing No	C001
Cert		Scale	N.T.S.
Sheet		Rev	P1

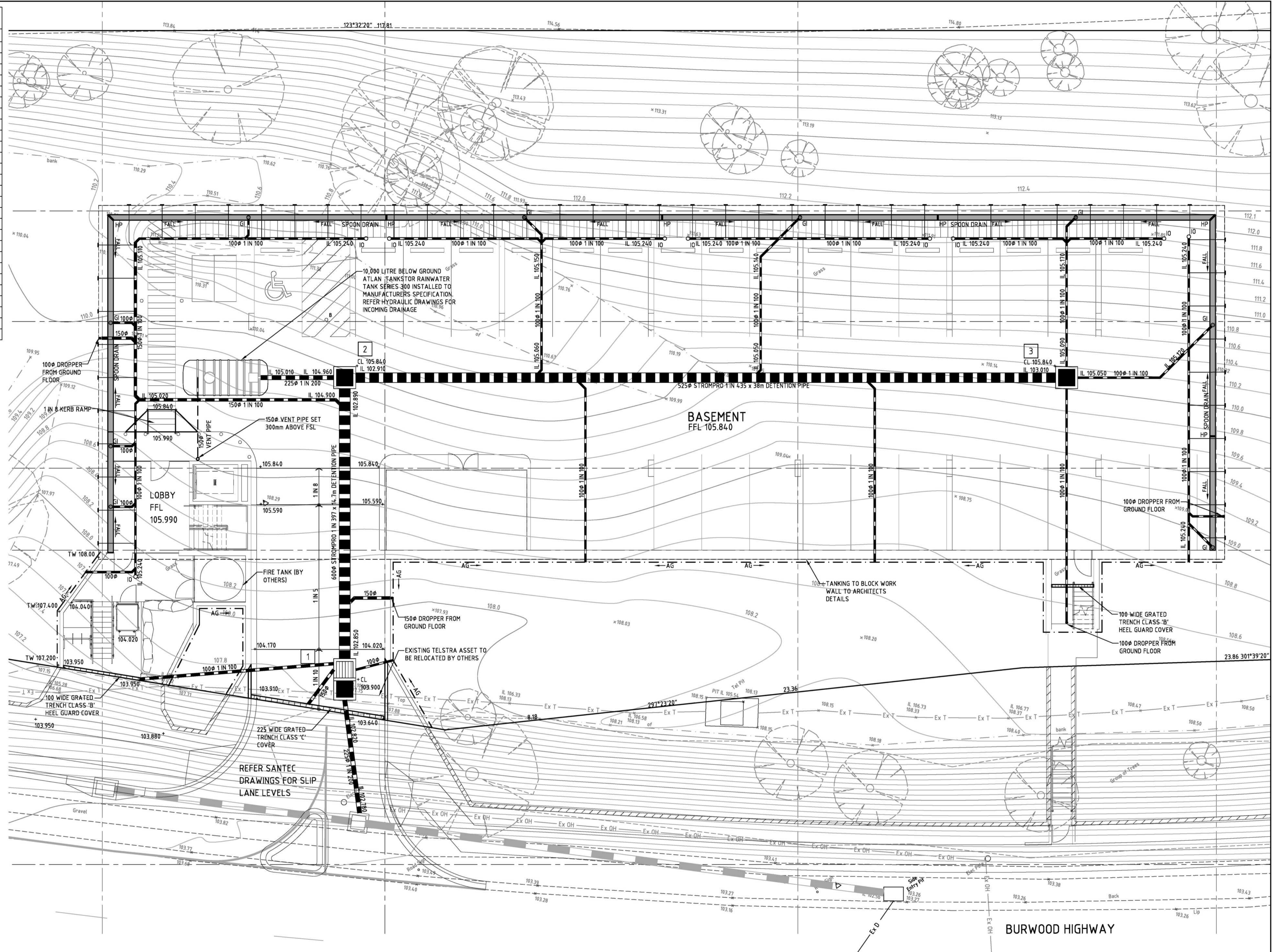


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LEGEND	
ITEM	DESCRIPTION
110.2	EXISTING SURFACE CONTOURS
156.6	NEW SURFACE CONTOURS
+ 110.29	EXISTING SURFACE SPOT LEVELS
+ 105.840	FINISHED SURFACE SPOT LEVELS
Ex D	EXISTING STORMWATER DRAIN
AG	PROPOSED STORMWATER DRAIN
AG	90 DIAMETER UPVC AGRICULTURAL DRAIN
□	EXISTING STORMWATER PIT
■	PROPOSED STORMWATER PIT
■	EXISTING STORMWATER PIT TO BE MODIFIED
Ex S	EXISTING SEWER
Ex G	EXISTING UNDERGROUND GAS PIPE
Ex W	EXISTING WATER PIPE
Ex E	EXISTING ELECTRICITY SUPPLY
Ex OH	EXISTING OVERHEAD ELECTRICITY SUPPLY
Ex T	EXISTING UNDERGROUND TELEGRAPH CABLE
Ex OF	EXISTING OPTIC CABLE
Ex NBN	EXISTING NBN CABLE
● DP	DOWNPIPE (PLAN LOCATION)
○ IO	INSPECTION OPENING
● GI	100φ GRATED INLET UNLESS NOTED OTHERWISE
● B	BOLLARD
▬	GRATED TRENCH
IL 102.930	INVERT LEVEL
CL 105.840	COVER LEVEL
TW 107.400	TOP OF RETAINING WALL LEVEL
1	PIT NUMBER

DETENTION VOLUME	
PITS	1.51m <sup>3</sup>
PIPE	12.38m <sup>3</sup>
TOTAL STORAGE PROVIDED	13.90m <sup>3</sup>
SSR	13.5m <sup>3</sup>
PSD	26 l/s

DETENTION VOLUME AND PSD SUBJECT TO COUNCIL APPROVAL



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Rev.	Description	Date	APP'D
P1	PRELIMINARY ISSUE	12.08.2024	HG

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Project PROPOSED CHILDCARE  
1157-1165 BURWOOD HWY  
UPPER FERNTREE GULLY

Title BASEMENT  
SITEWORKS AND  
DRAINAGE PLAN

PRELIMINARY

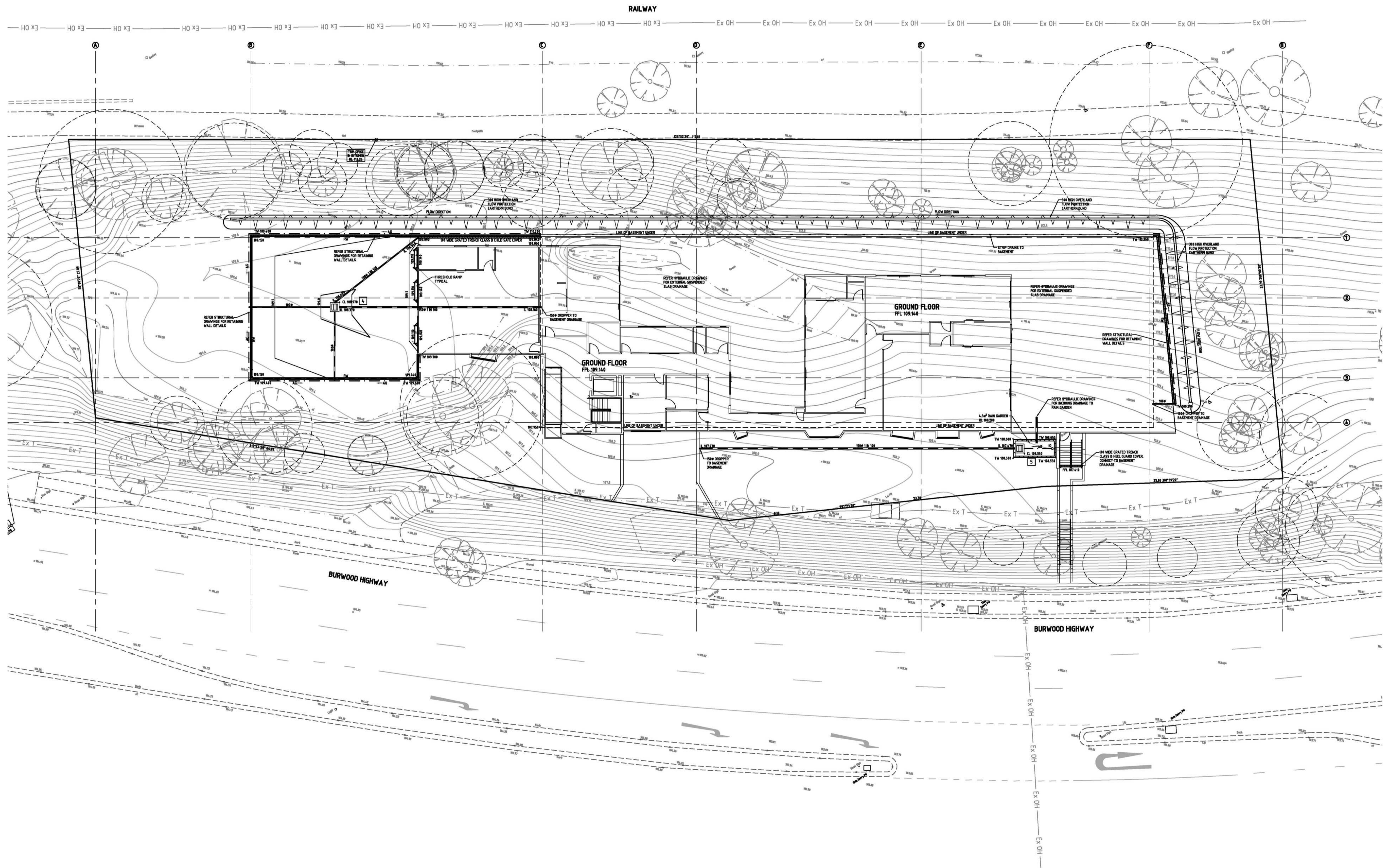
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Cert Project Identification No. 24052  
Drawing No. C002  
Sheet P1



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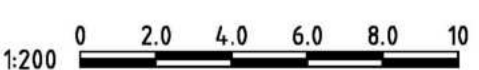
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Project PROPOSED CHILDCARE  
1157-1165 BURWOOD HWY  
UPPER FERNTREE GULLY

Title OVERALL GROUND FLOOR  
SITEWORKS AND  
DRAINAGE PLAN

PRELIMINARY

Design North

Drawn

Cert

Scale 1:200@A1

Sheet

Project Identification No. 24052

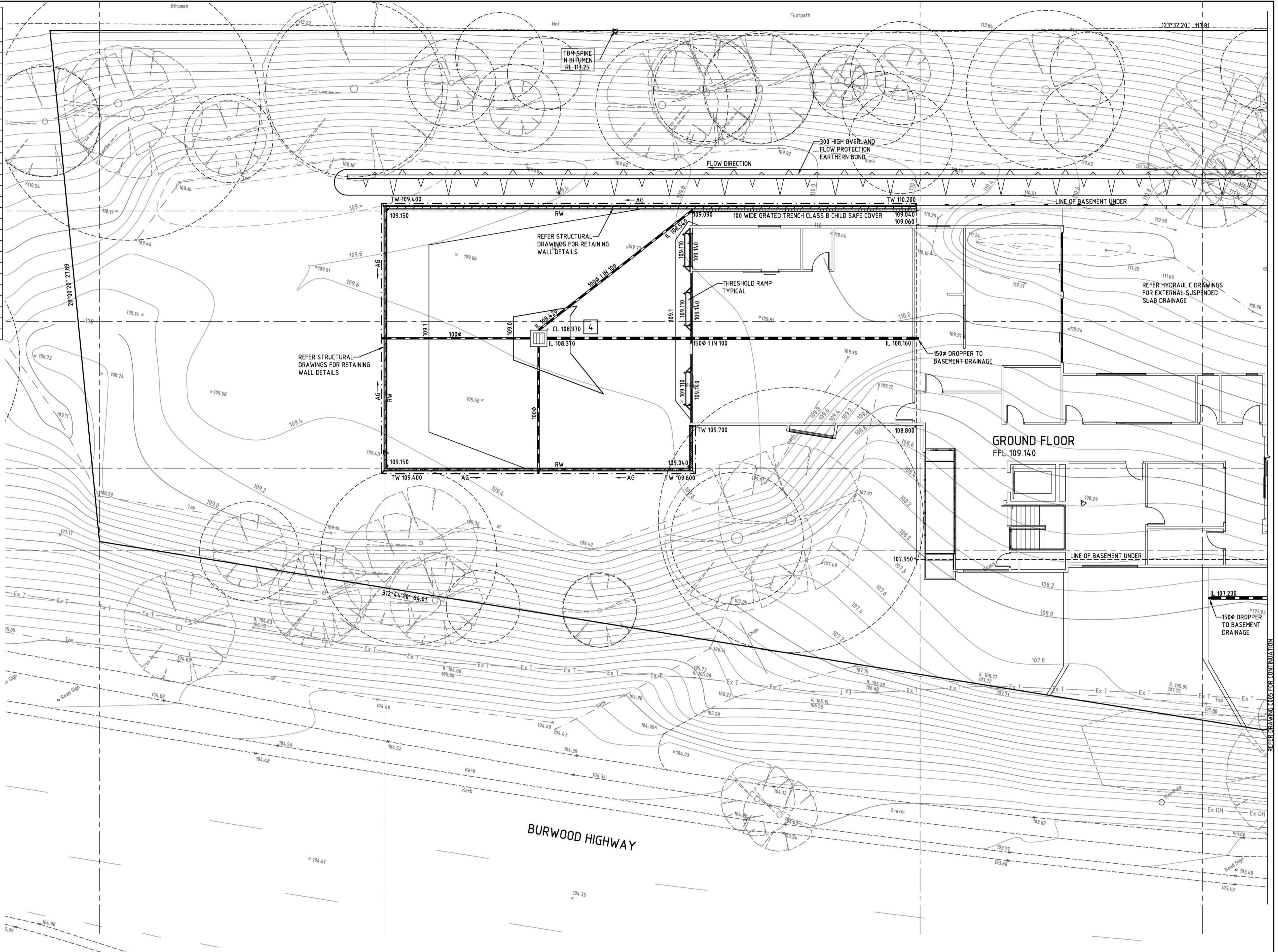
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Rev P1



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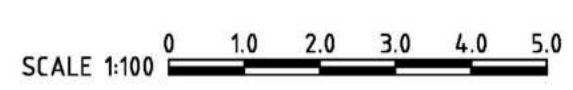
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Project: PROPOSED CHILDCARE  
1157-1165 BURWOOD HWY  
UPPER FERNTREE GULLY

Title: GROUND FLOOR  
SITEWORKS AND DRAINAGE PLAN  
SHEET 1 OF 2

PRELIMINARY

Design Drawn  
Cert Scale 1:100@A1  
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North

Project Identification No. 24052  
Drawing No. C004  
Rev. P1

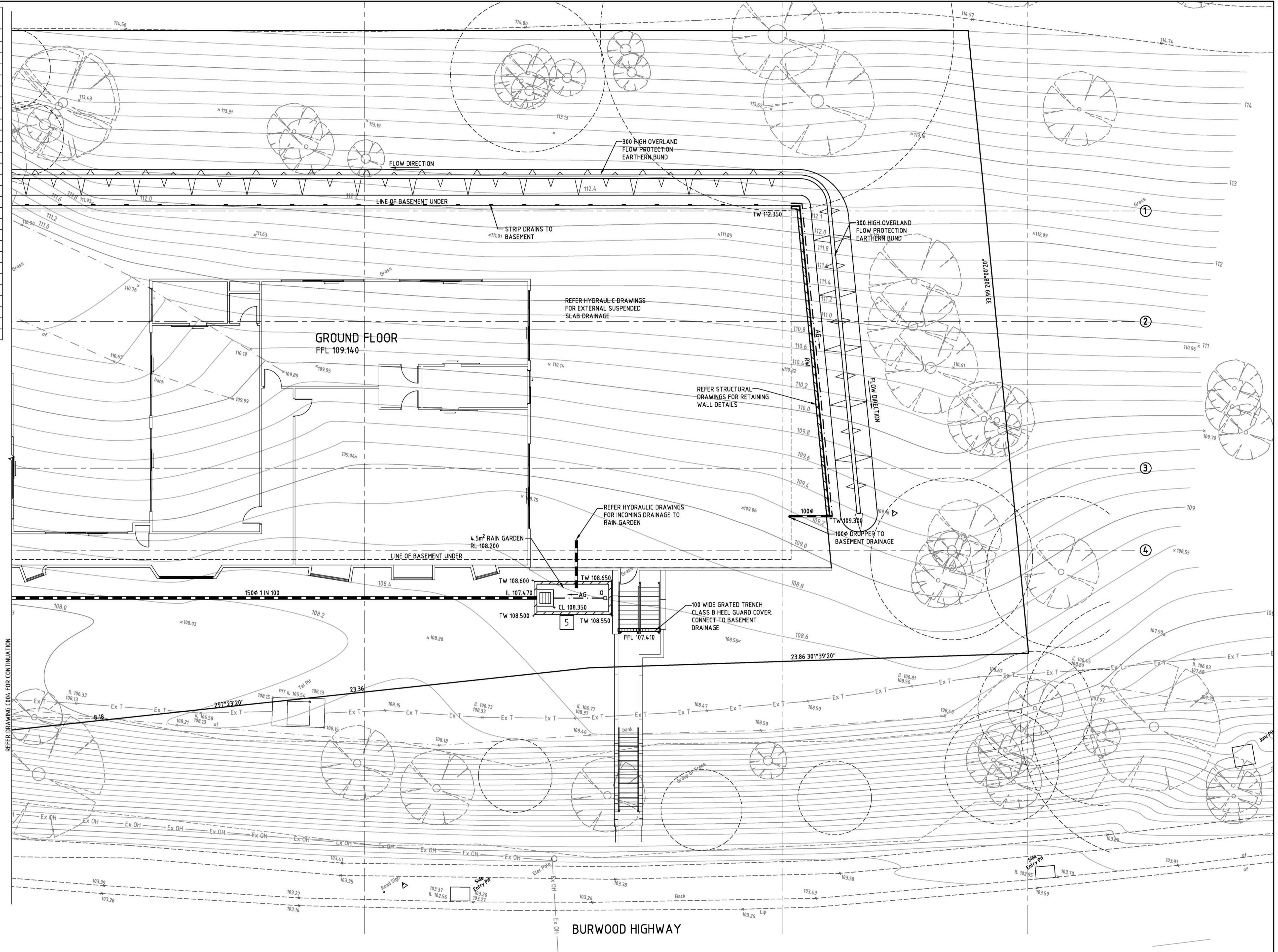
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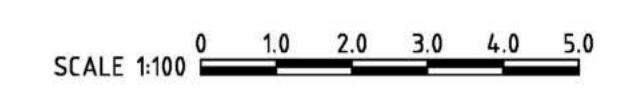
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Project: PROPOSED CHILDCARE  
1157-1165 BURWOOD HWY  
UPPER FERNTREE GULLY

Title: GROUND FLOOR  
SITEWORKS AND DRAINAGE PLAN  
SHEET 2 OF 2

PRELIMINARY

Design: [North Arrow]

Cert: 1:100@A1

Project Identification No. 24052

Drawing No. C005

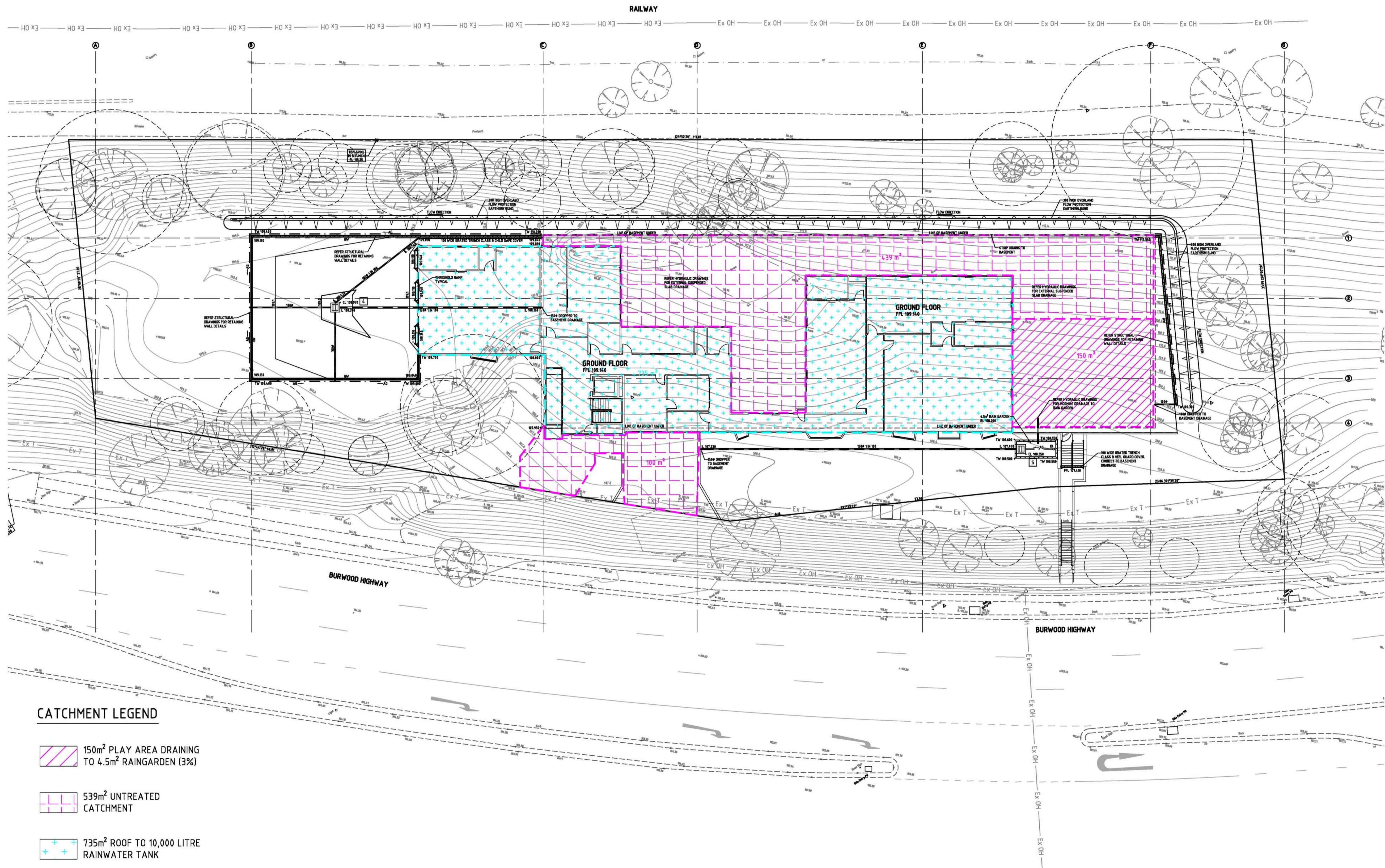
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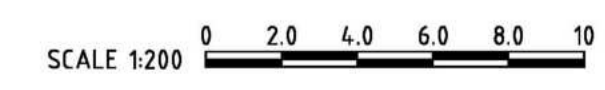
**CATCHMENT LEGEND**

- 150m<sup>2</sup> PLAY AREA DRAINING TO 4.5m<sup>2</sup> RAINGARDEN (3%)
- 539m<sup>2</sup> UNTREATED CATCHMENT
- 735m<sup>2</sup> ROOF TO 10,000 LITRE RAINWATER TANK

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Project: PROPOSED CHILDCARE  
 1157-1165 BURWOOD HWY  
 UPPER FERNTREE GULLY

Title: STORMWATER TREATMENT TRAIN  
 CATCHMENT PLAN

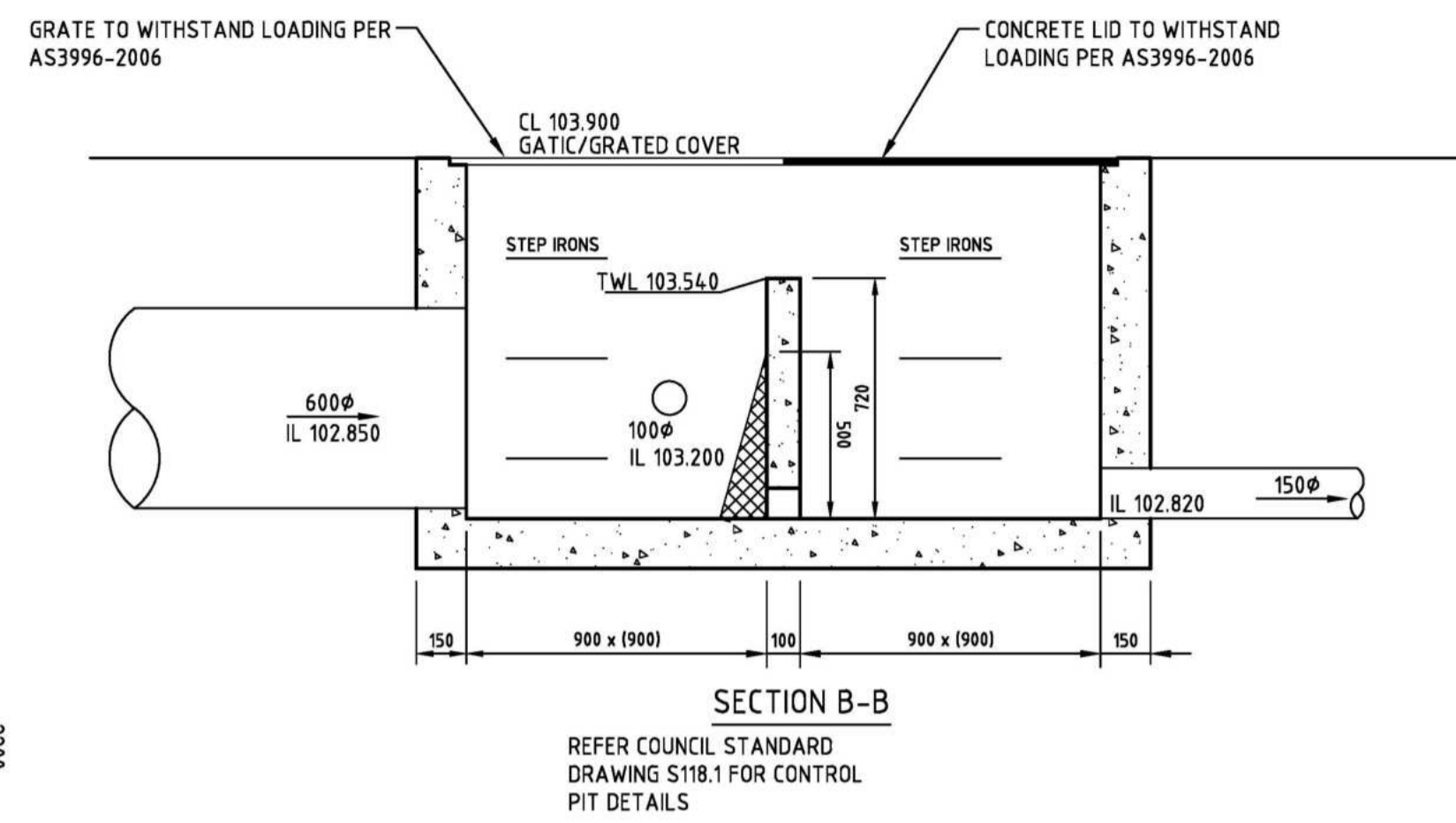
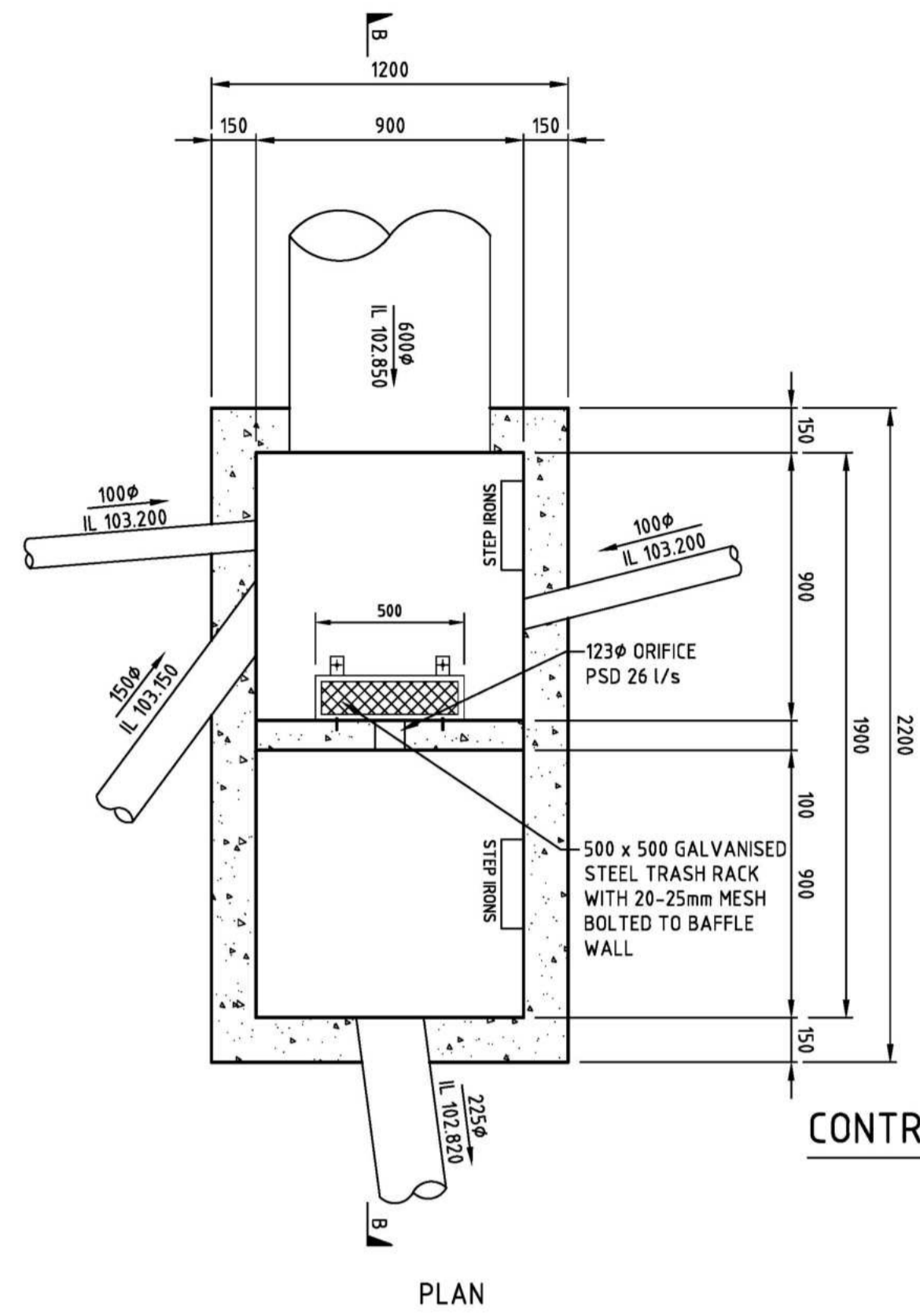
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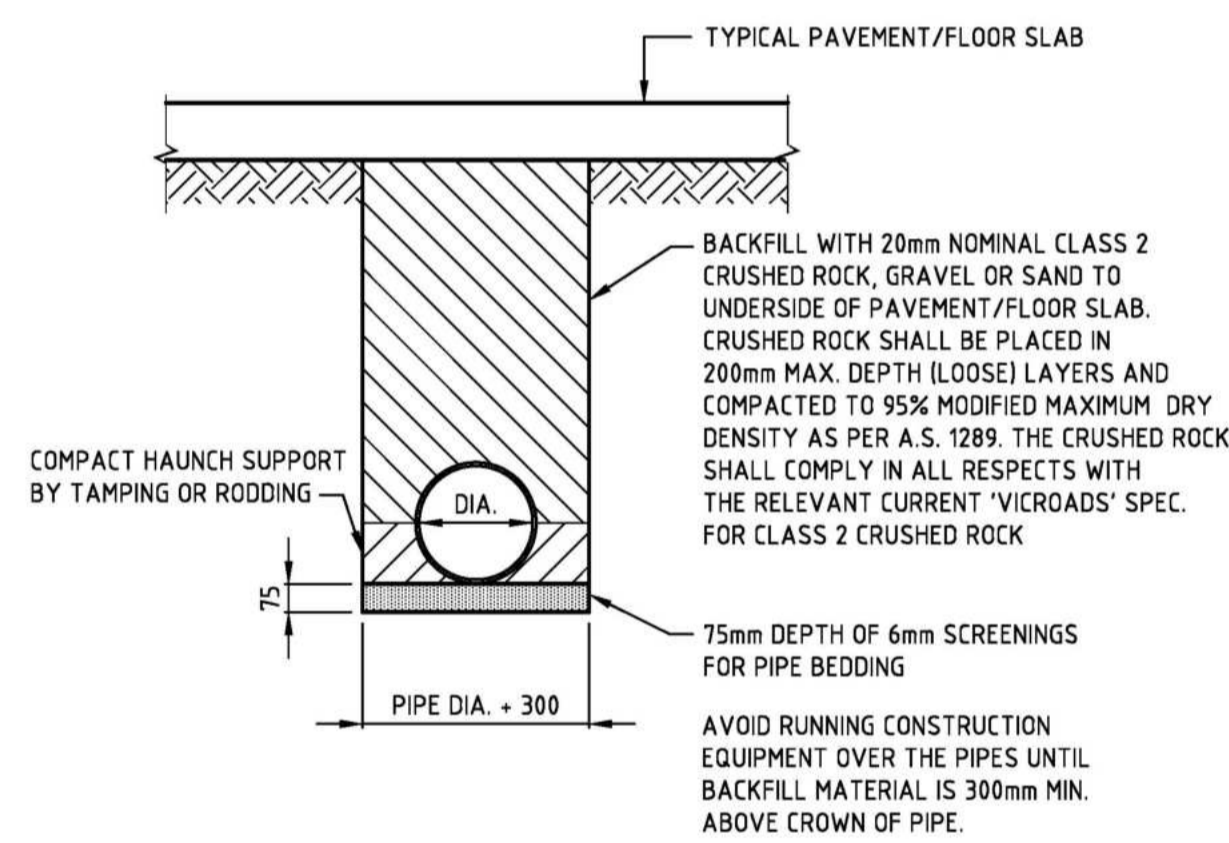
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 Rev. P1



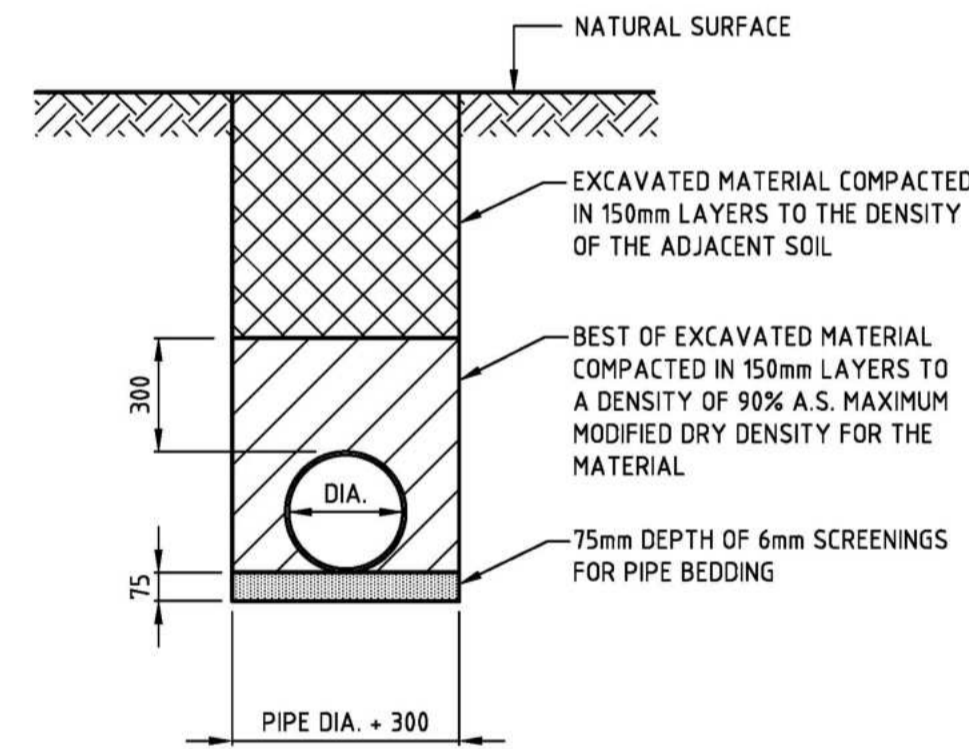
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CONTROL PIT 1 DETAIL

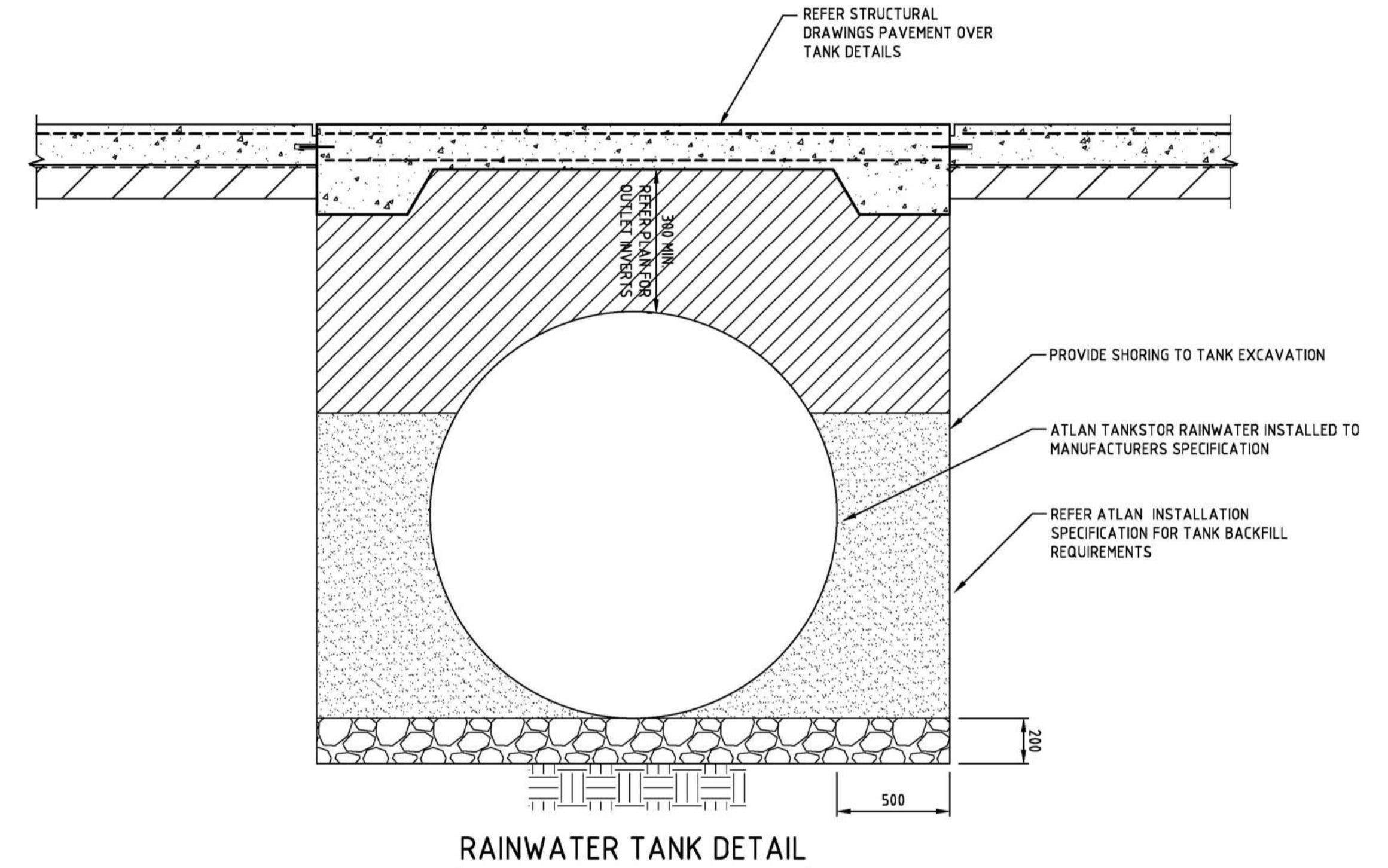


PIPE LAYING DETAILS (FLEXIBLE PIPES)  
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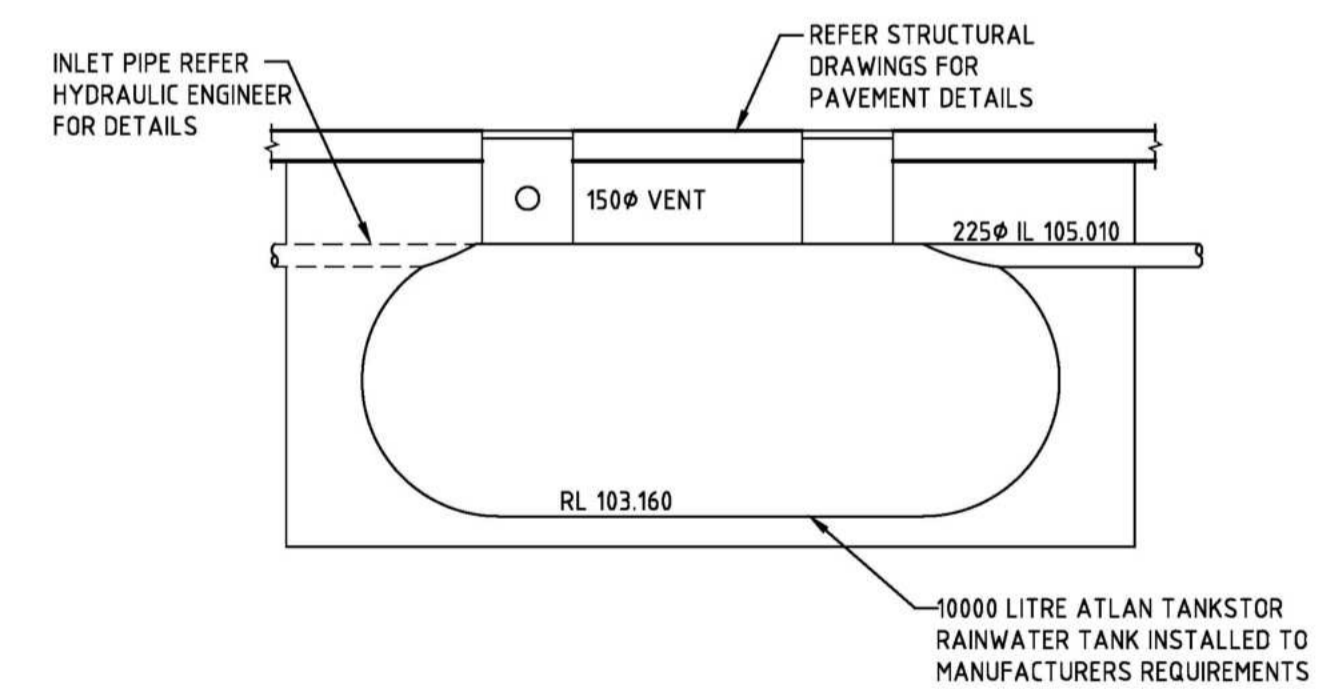


PIPE LAYING DETAILS (ALL PIPES)  
N.T.S.

STORMWATER PIT SCHEDULE							
NO	TYPE	INTERNAL DIM'S WxL	R.L TOP	DEPTH	COVER TYPE		REMARKS
					TYPE	CLASS	
1	CONTROL PIT	1900x900	103.900	1.080	GRATE/GATIC	C	REFER CONTROL PIT DETAIL
2	JUNCTION	900x900	105.840	2.950	GATIC	C	COVER TO MATCH BASEMENT FLOOR LEVEL
3	JUNCTION	900x900	105.840	2.830	GATIC	C	COVER TO MATCH BASEMENT FLOOR LEVEL
4	GRATE	450x450	108.970	0.600	GRATE (CHILD SAFE)	B	COVER TO MATCH LANDSCAPING LEVEL
5	GRATE	600x600	108.350	0.880	GRATE	B	REFER RAINGARDEN DETAILS



RAINWATER TANK DETAIL



RAINWATER TANK SCHEMATIC

NOTE:  
 REFER HYDRAULIC ENGINEERS FOR TANK PUMPS AND PLUMBING TO ALL TOILETS, LAUNDRY AND IRRIGATION FOR REUSE.

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Revision Schedule			
Rev.	Description	Date	APP'D
P1	PRELIMINARY ISSUE	12.08.2024	MG

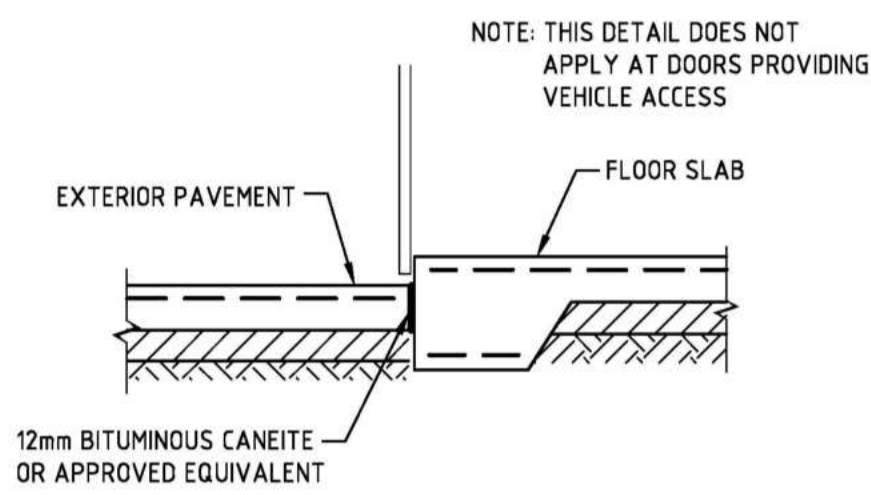
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Project: PROPOSED CHILDCARE  
 1157-1165 BURWOOD HWY  
 UPPER FERNTREE GULLY  
 Title: CIVIL DETAILS  
 SHEET 1 OF 2

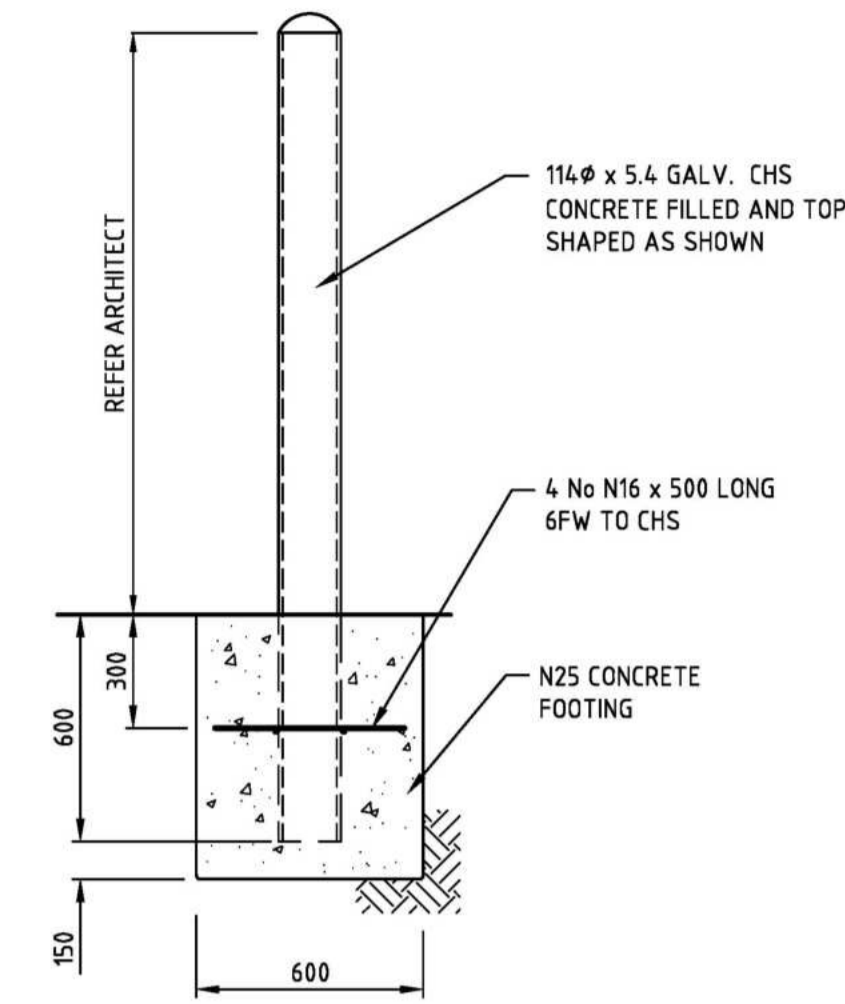
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 Drawing No. C007  
 Rev. P1



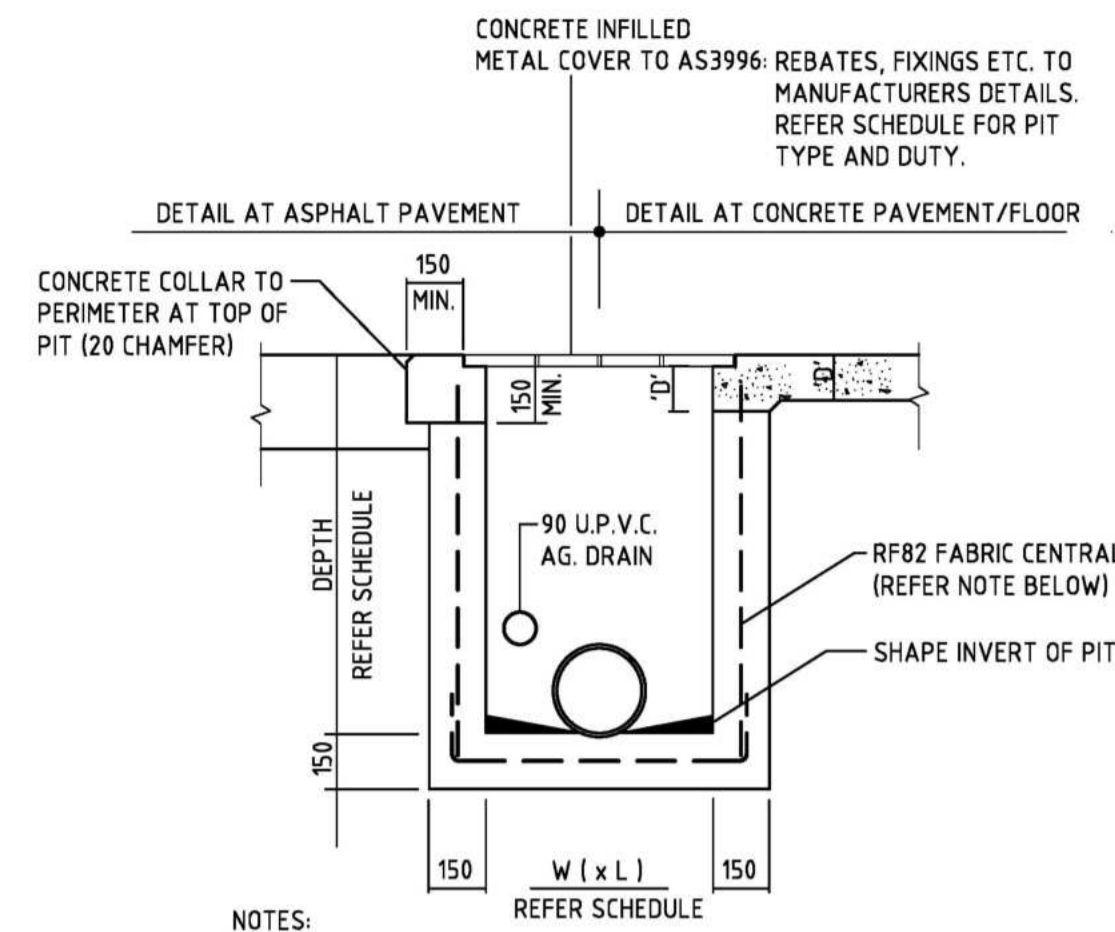
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**DETAIL AT PAVEMENT TO FLOOR SLAB**  
N.T.S.

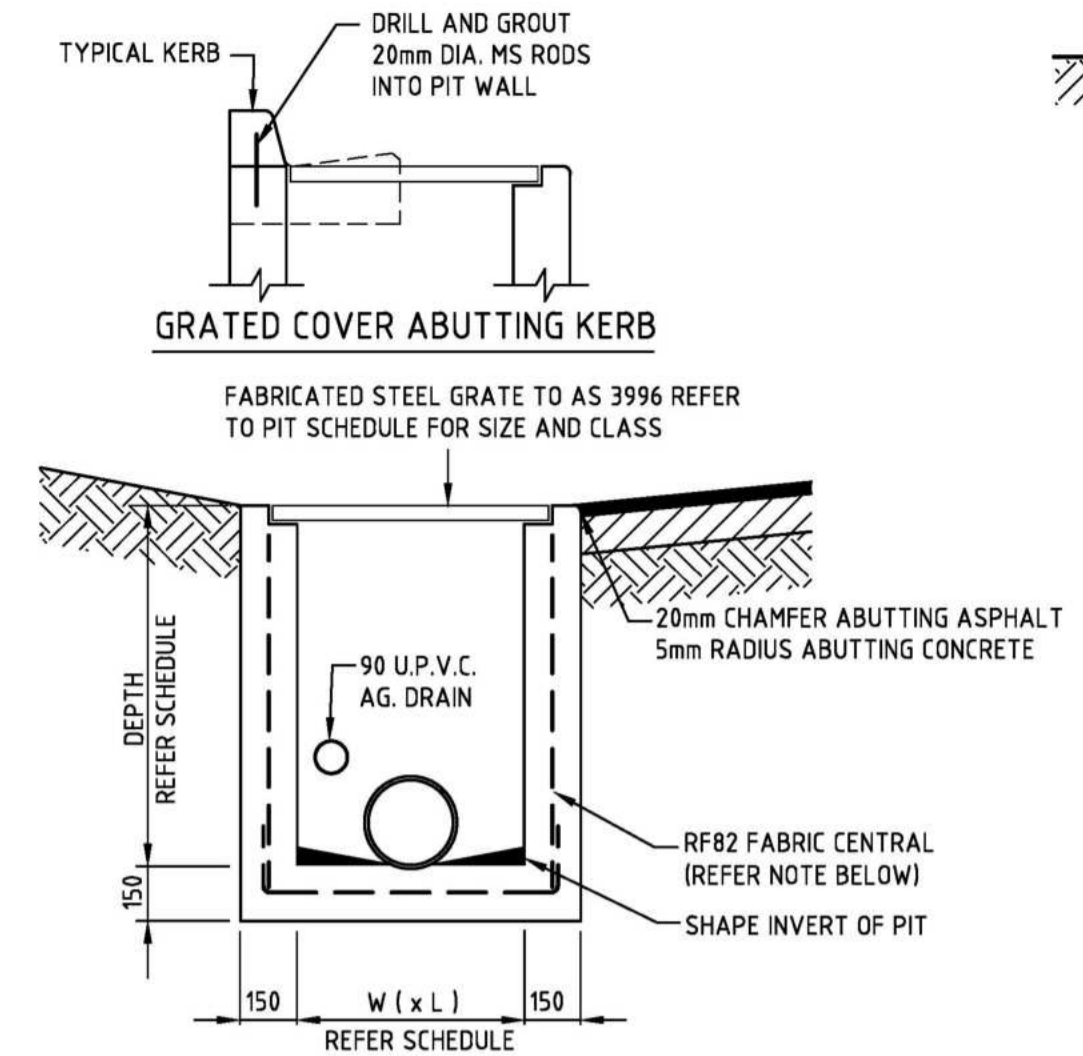


**TYPICAL BOLLARD DETAIL (B)**  
N.T.S.



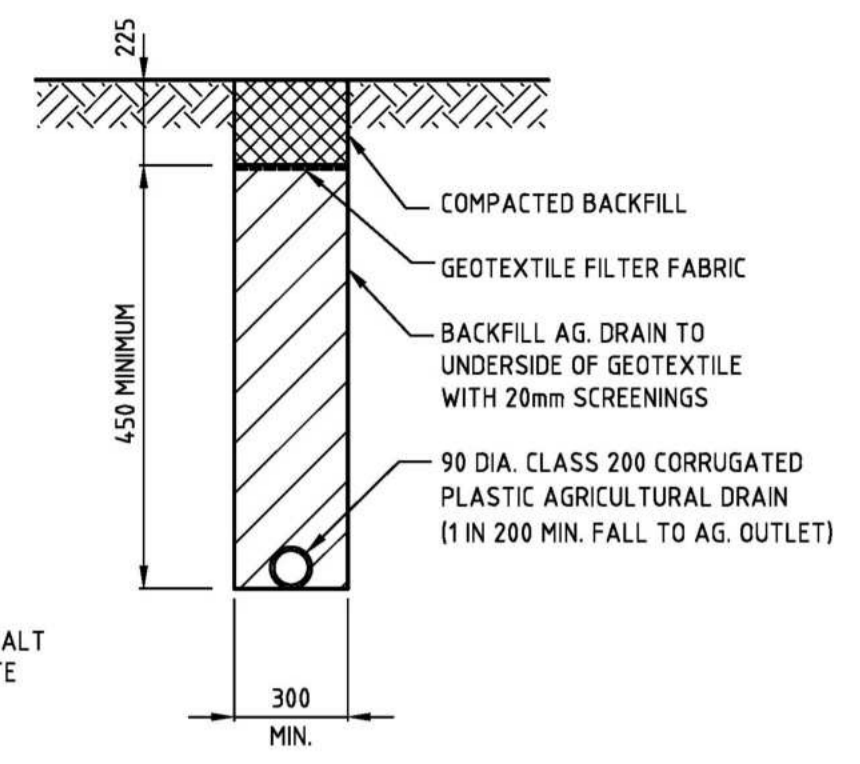
- NOTES:**
1. PROVIDE 600mm LENGTH OF 90mm DIA. AGRICULTURAL PIPE CAST THROUGH UPSTREAM WALL OF PIT WITH GEOTEXTILE OR SIMILAR FILTER OVER.
  2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 900mm.
  3. PROVIDE STEP IRONS AT 300mm MAX. CTS. IF DEPTH OF PIT EXCEEDS 900mm
  4. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.

**JUNCTION PIT (CONCRETE INFILLED METAL COVER)**  
N.T.S.

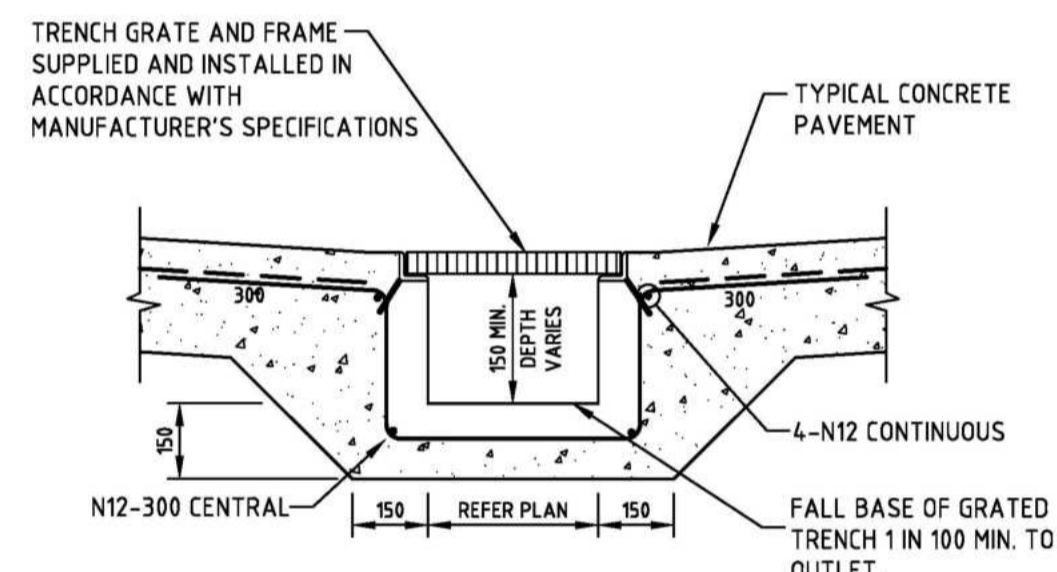


- NOTES:**
1. PROVIDE 600mm LENGTH OF 90mm DIA. AGRICULTURAL PIPE CAST THROUGH UPSTREAM WALL OF PIT WITH GEOTEXTILE OR SIMILAR FILTER OVER.
  2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm.
  3. PROVIDE STEP IRONS AT 300mm MAX. CTS. IF DEPTH OF PIT EXCEEDS 900mm
  4. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.

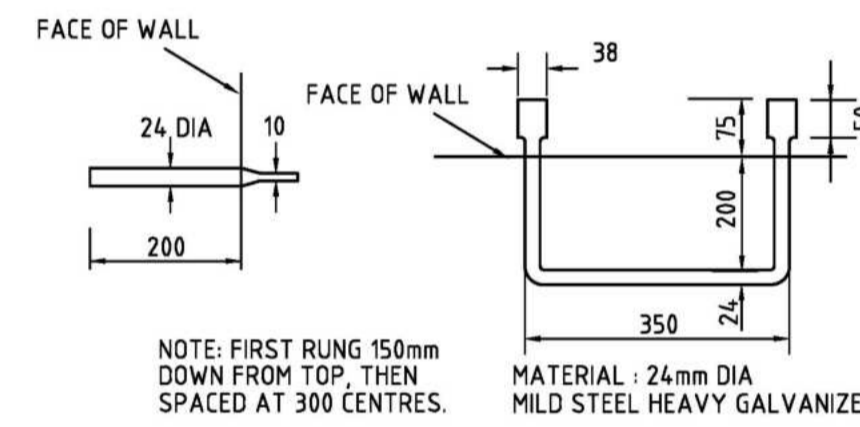
**GRADED PIT DETAIL**  
N.T.S.



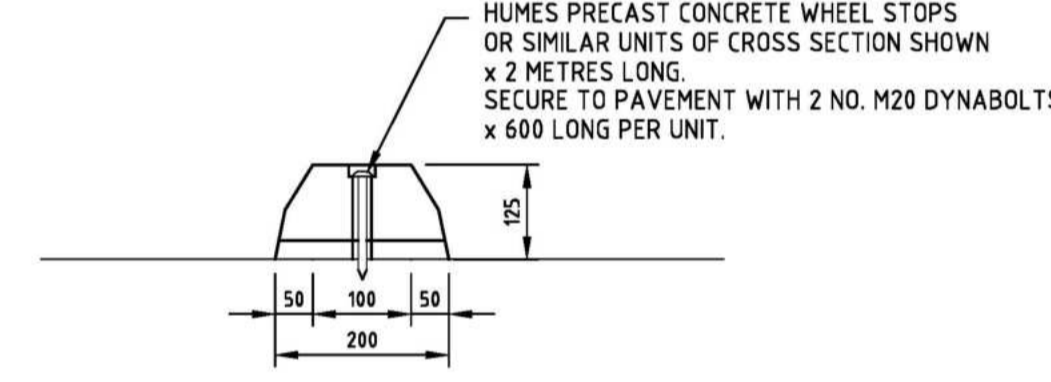
**AG. PIPE LAYING DETAILS UNDER LANDSCAPED AREAS**  
N.T.S.



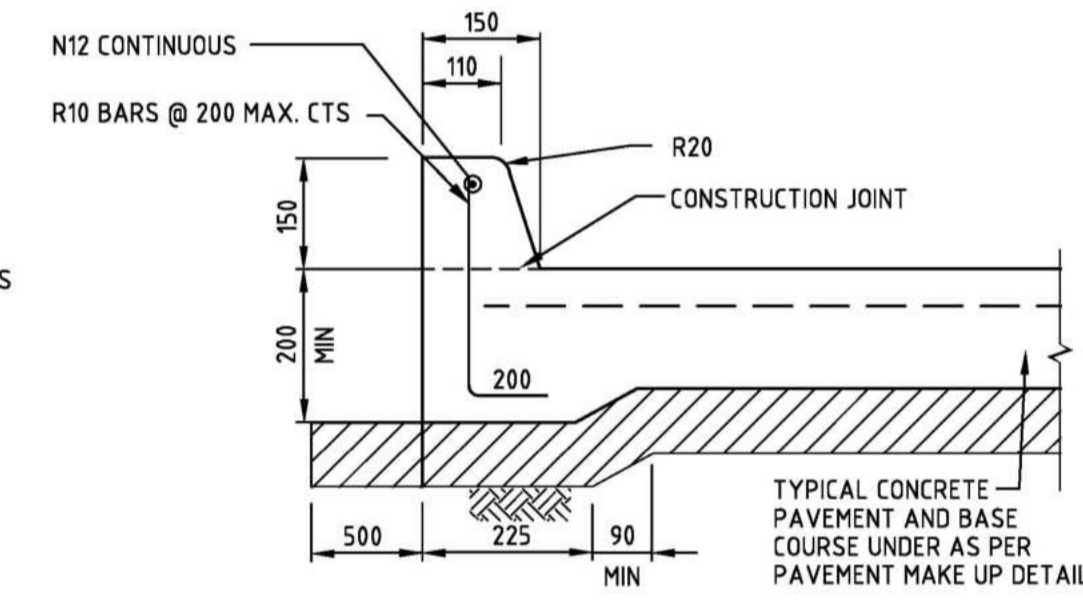
**GRADED TRENCH DETAIL**  
N.T.S.



**STEP IRONS FOR DRAINAGE PITS**  
N.T.S.

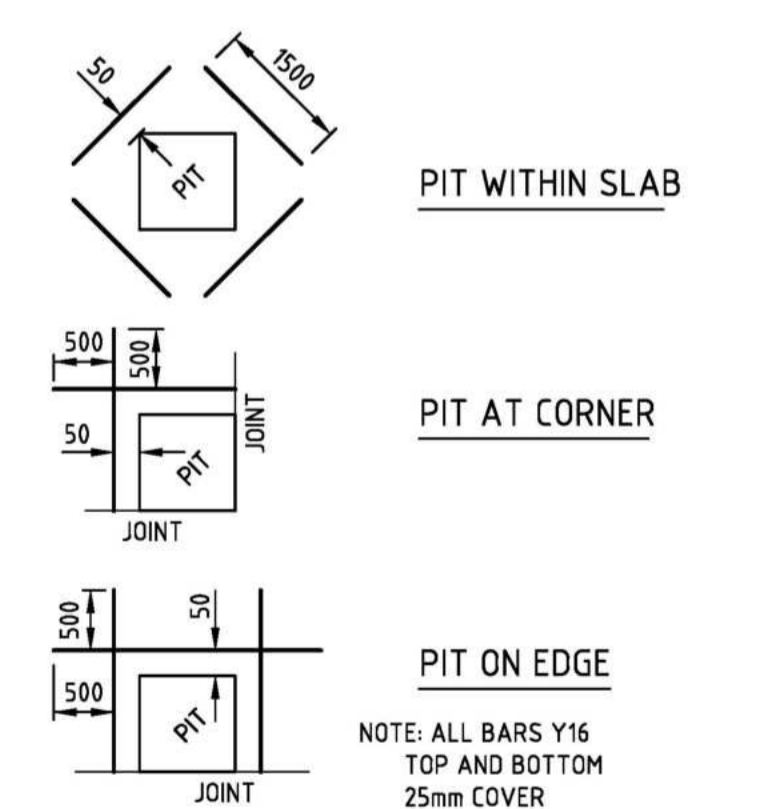


**PRECAST WHEEL STOP**  
N.T.S.

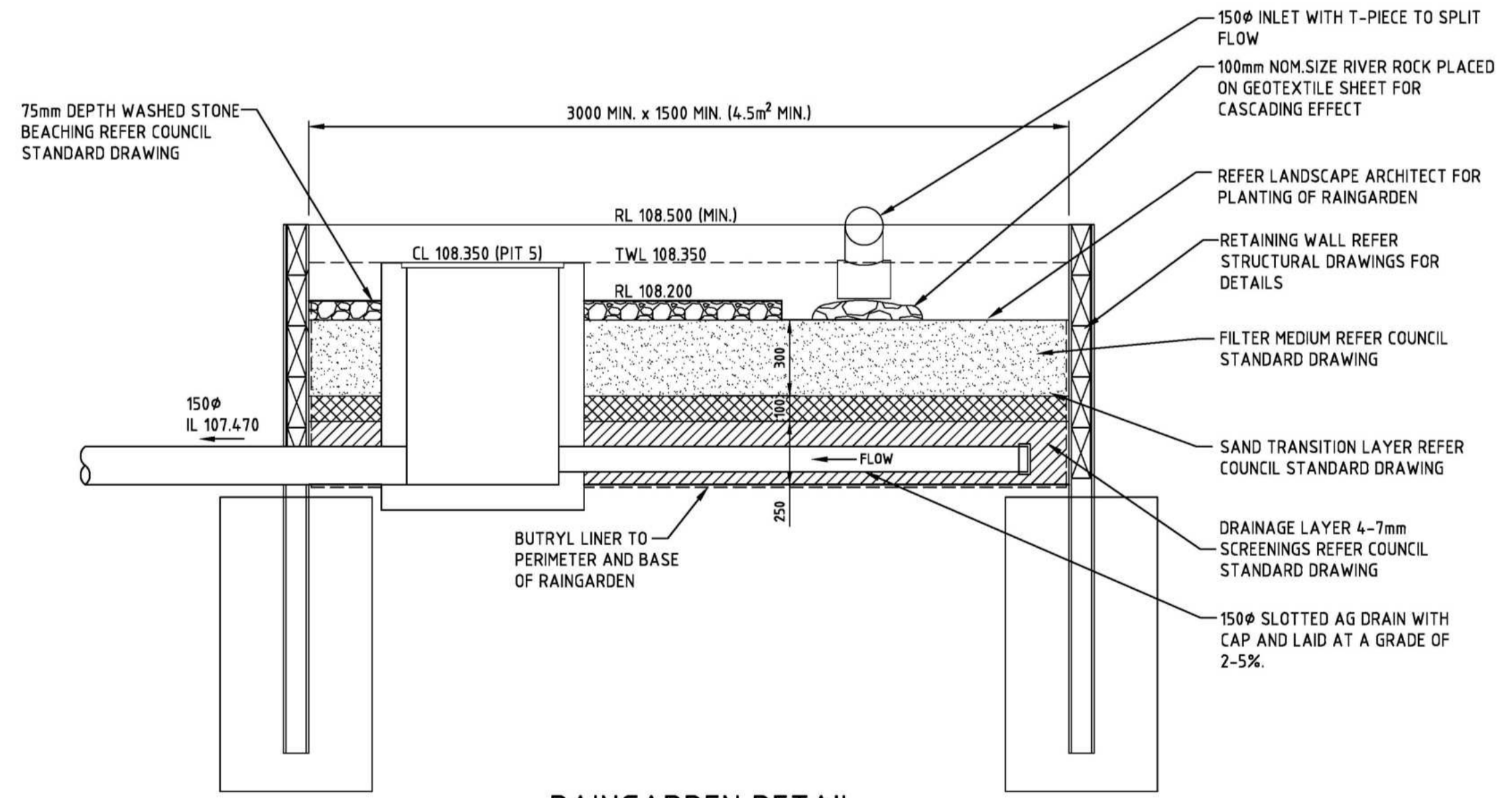


**KERB DETAIL (K)**  
N.T.S.

RAINGARDEN MAINTENANCE SCHEDULE		
ACTIVITY	FREQUENCY	MAINTENANCE DETAILS
VISUAL INSPECTION	EVERY 5 MONTHS	<ul style="list-style-type: none"> <li>ENSURE THERE IS NO EROSION AND SCOUR, WHICH WOULD RESULT IN UNEVEN FLOW.</li> <li>ENSURE THAT THE RAINGARDEN IS NOT HOLDING WATER ON THE SURFACE.</li> </ul>
PLANTS	EVERY 5 MONTHS	<ul style="list-style-type: none"> <li>ENSURE PLANTS ARE NOT DYING, AND IF SO REMOVE DISEASED SECTIONS, IRRIGATE AND/OR REPLACE DEAD PLANTS. IF PLANTS KEEP DYING REPLACE WITH DIFFERENT TYPE WHICH IS DOING WELL. DO NOT USE FERTILIZER TO IMPROVE PLANT HEALTH AS THIS WILL POLLUTE THE RAINGARDEN.</li> <li>PLANTS MAY REQUIRE IRRIGATION DURING DRY PERIOD.</li> </ul>
SEDIMENT REMOVAL	EVERY MONTH AND/OR AFTER HEAVY RAINFALL	<ul style="list-style-type: none"> <li>RUBBISH, LEAF LITTER OR SEDIMENT BLOCKING THE INLET OR SURFACE AREA SHOULD BE REMOVED BY HAND TOOLS AND DISPOSE OF RESPONSIBLY.</li> </ul>



**DETAIL OF SLAB REINFORCEMENT AT PITS IN CONCRETE PAVEMENT**  
SCALE: N.T.S.



**RAINGARDEN DETAIL**

- FILTER LAYER**
- | DESCRIPTION     | PROPORTION | GRADING     | TYPICAL PROPERTIES  |
|-----------------|------------|-------------|---|
| CLAY & SILT     | -3%        | -0.05%      | WASHED SAND MATERIAL (AS4419)                               |
| VERY FINE SAND  | 5-30%      | 0.05-0.15mm | SATURATED HYDRAULIC CONDUCTIVITY 150-250mm/h (ATSM 1815-06) |
| MED-COURSE SAND | 40-60%     | 0.25-1.00mm | ORGANIC MATTER - MORE THAN 5% (w/w) MAY LEACH NUTRIENTS     |
| COURSE SAND     | 7-10%      | 1.0-2.00mm  | 300-500-mm LAYER THICKNESS - LIGHTLY COMPACTED              |
| FINE GRAVEL     | -3%        | 2.0-3.4mm   | pH 5.5-7.7 ADD DOLOMITE AS REQUIRED                         |
- TRANSITION LAYER**
- SEPARATES FILTER MATERIAL FROM DRAINAGE LAYER
- DRAINAGE LAYER**
- HIGHEST HYDRAULIC CONDUCTIVITY AS DRAIN/SLOTTED PIPE - CONNECT TO DRAIN TYPICAL
- 150mm AG PIPE OR SLOTTED PVC
- 4-7 CLEAN WASHED GRAVEL
- 250-mm LAYER THICKNESS
- NEB SLOTS IN AG PIPE MUST NOT BE WIDER THAN SIZE OF GRAVEL USED IN DRAINAGE LAYER
- NOTE:**
- AVOID USING SCORIA AS IT CREATES FINES, WHICH BLOCK THE SYSTEM
  - DO NOT USE FILTER SOCKS OR GEOTEXTILE ON DRAINAGE PIPE AS IT CLOGS
  - DO NOT USE ORGANIC MULCH AS IT FLOATS AFTER RAIN AND BLOCKS OVERFLOW PIPE
  - CALL KNOX PLANNING 09298 8125 DURING CONSTRUCTION (WHEN TRANSITION LAYER IS BEING INSTALLED)

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Revision Schedule			
Rev.	Description	Date	APP'D
P1	PRELIMINARY ISSUE	12.08.2024	HG

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Project: **PROPOSED CHILDCARE  
1157-1165 BURWOOD HWY  
UPPER FERNTREE GULLY**

Title: **CIVIL DETAILS  
SHEET 2 OF 2**

**PRELIMINARY**

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Project Identification No. **24052**  
Drawing No. **C008**  
Rev. **P1**