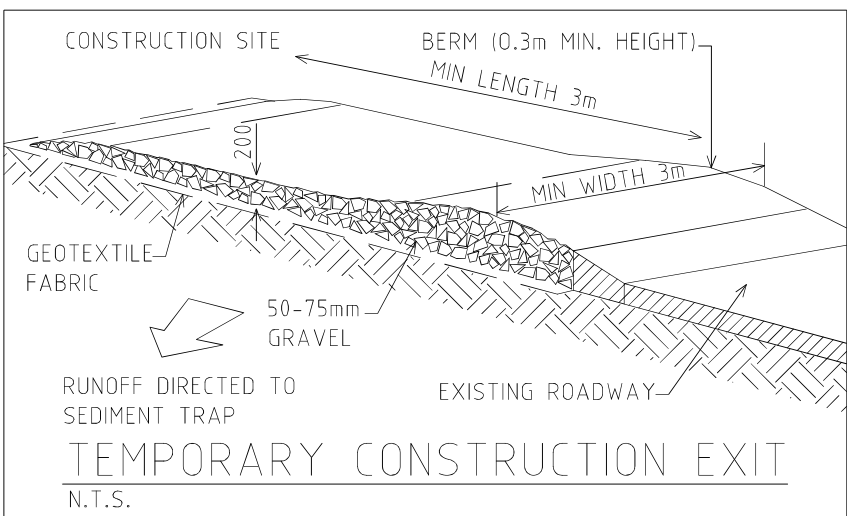
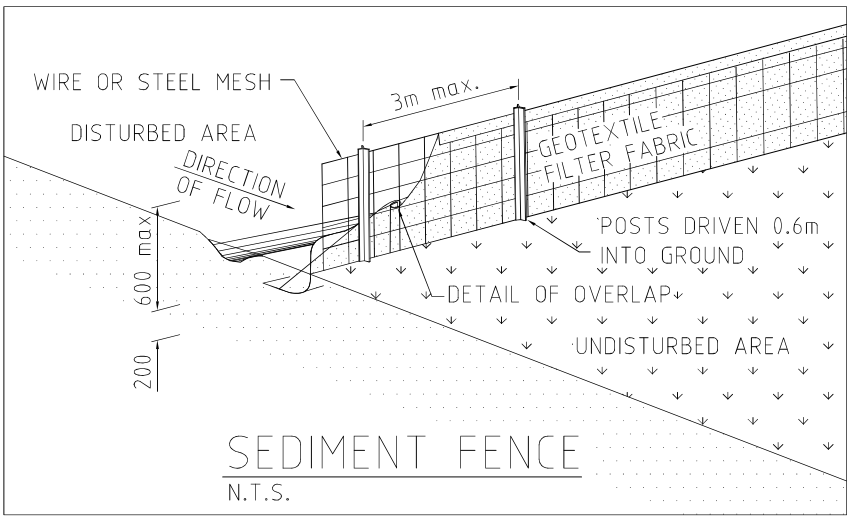


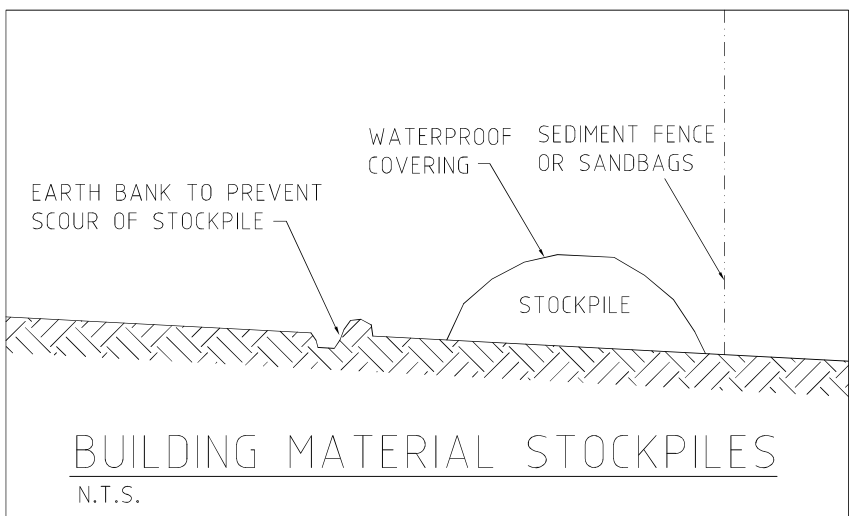
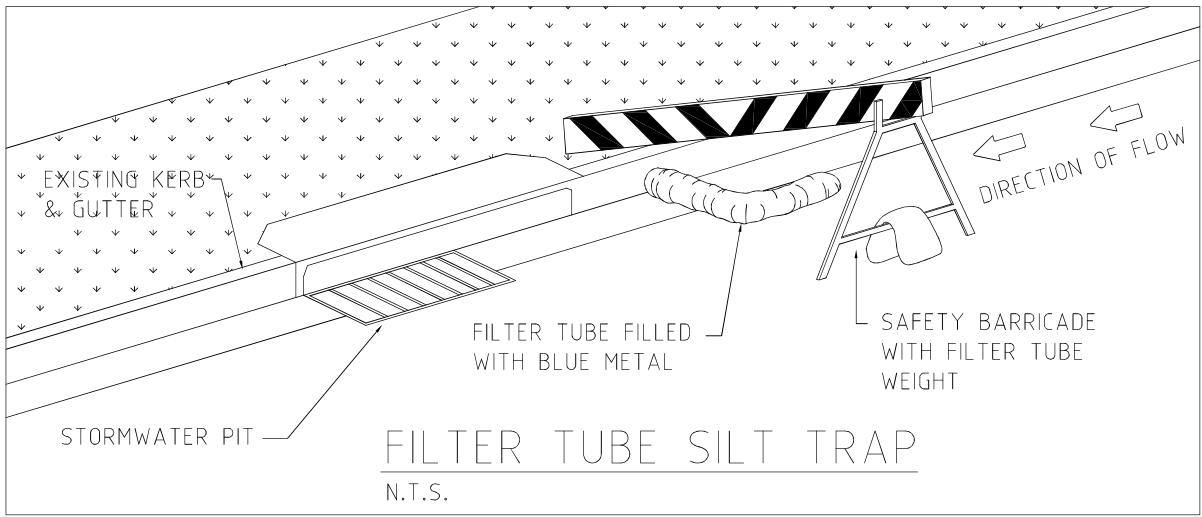
SOIL AND WATER MANAGEMENT PLAN

SCALE 1:200
NOTE: CONNECT DOWN PIPES AS SOON AS ROOF IS ON.



SEDIMENT CONTROL NOTES

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL, SHALL BE IMPLEMENTED TO THE STANDARDS OF SOIL CONSERVATION N.S.W.
- ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILIZED AS EARLY AS POSSIBLE DURING DEVELOPMENT.
- SEDIMENT TRAPS SHALL BE CONSTRUCTED AROUND ALL INLET PITS, CONSISTING OF 300mm WIDE x 300mm DEEP TRENCH.
- ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MINIMUM OF 80% FULL OF SOIL MATERIALS, INCLUDING DURING THE MAINTENANCE PERIOD.
- ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.
- SOIL AND STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE.
- FILTER SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR APPROVED EQUIVALENT BETWEEN POST AT 3.0M CENTERS. FABRIC SHALL BE BURIED 150 mm ALONG ITS LOWER EDGE.
- CONTROL SURFACE WATER FLOW IN A MANNER THAT:
A- DIVERTS RUN-OFF AROUND DISTURBED AREAS
B- MINIMISES SLOPE AND FLOW DISTANCE WITHIN DISTURBED AREAS
C- ENSURES SURFACE RUN-OFF OCCURS AT NON-ERODABLE VELOCITIES
D- ENSURES DISTURBED AREAS ARE PROMPTLY REHABILITATED



EROSION CONTROL NOTES

- ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORKS, AND ALL SILT TRAPS ARE TO HAVE DEPOSITED SILT REMOVED REGULARLY DURING CONSTRUCTION.
- ALL TREES ARE TO BE PRESERVED UNLESS INDICATED OTHERWISE ON THE ARCHITECT'S OR LANDSCAPE ARCHITECT'S DRAWINGS. EXISTING GRASS COVER SHALL BE MAINTAINED EXCEPT IN AREAS CLEARED FOR BUILDINGS, PAVEMENTS ETC.
- INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PITS LIKELY TO COLLECT SILT LADEN WATER, TO COUNCIL'S STANDARDS
- NOT WITHSTANDING DETAILS SHOWN IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO ENSURE THAT ALL SITE ACTIVITIES COMPLY WITH THE REQUIREMENTS OF THE CLEAN WATERS ACT.
- ALL TOPSOIL TO BE CONSERVED FOR RE-USE ON SITE

NOTES

- ALL LINES ARE TO BE Ø100 U.P.V.C @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWER GRADE & SEALED.
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- ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
- ALL EXTERNAL SLABS TO BE WATERPROOFED.
- ALL GRATES TO HAVE CHILD PROOF LOCKS.
- ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
- ALL DP'S TO HAVE LEAF GUARDS.
- ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
- ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
- COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
- ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.
- EXISTING STORMWATER PIPE LOCATIONS HAVE BEEN ASSUMED. PLUMBER TO INSPECT PRIOR TO WORKS AND UPGRADE PIPES AS NECESSARY.

SYMBOLS

F.F.L.	FINISHED FLOOR LEVEL
F.G.L.	FINISHED GARAGE LEVEL
T.K.	TOP OF KERB
* 11.0	FINISHED LEVEL
+ 11.0	EXISTING LEVEL
S.L.	SURFACE LEVEL
I.L.	INVERT LEVEL
20 R	ROOF CATCHMENT AREA (m2)
20 I	IMPERVIOUS CATCHMENT AREA (m2)
20 L	LANDSCAPED CATCHMENT AREA (m2)
• DP	Ø100 DOWN PIPE OR EQUIVALENT
• SP	SPREADER
• VD	VERTICAL DROP
• VR	VERTICAL RISER
• R	RAIN WATER HEAD & DOWN PIPE
• S	CLEAN OUT POINT
• SUMP	Ø150 SUMP
• J	CONCRETE COVER JUNCTION PIT
• I	GRATED INLET PIT 450x450
• D	200Wx100D GRATED DRAIN WITH 2% BTM SLOPE
• P	STORMWATER PIPE
• S	SUSPENDED STORMWATER PIPE
• C	CHARGED STORMWATER PIPE
• L	PUMP LINE
• S	Ø100 SUBSOIL PIPE
• S	SILT FENCE
• O	OVERLAND FLOW

ARCHITECT
MACKENZIE ARCHITECTS
INTERNATIONAL

PROJECT
PROPOSED DEVELOPMENT
364-374 CANTERBURY ROAD
CAMPSIE, NSW

TITLE
SOIL AND WATER
MANAGEMENT PLAN



UNITED CONSULTING ENGINEERS
PTY LTD
Civil/Structural Engineers

167-169 Hume Highway,
Burrendong NSW 2534
Telephone: (02) 9715 5111
Facsimile: (02) 9715 6222
Mobile: 0411 453 082
Email: united_eng@bigpond.com

Approved Mark Anthony Boudb.
ME Aust. CP Eng. NPEH

North	Designed	Date
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MAB	1:100 U.N.O.	
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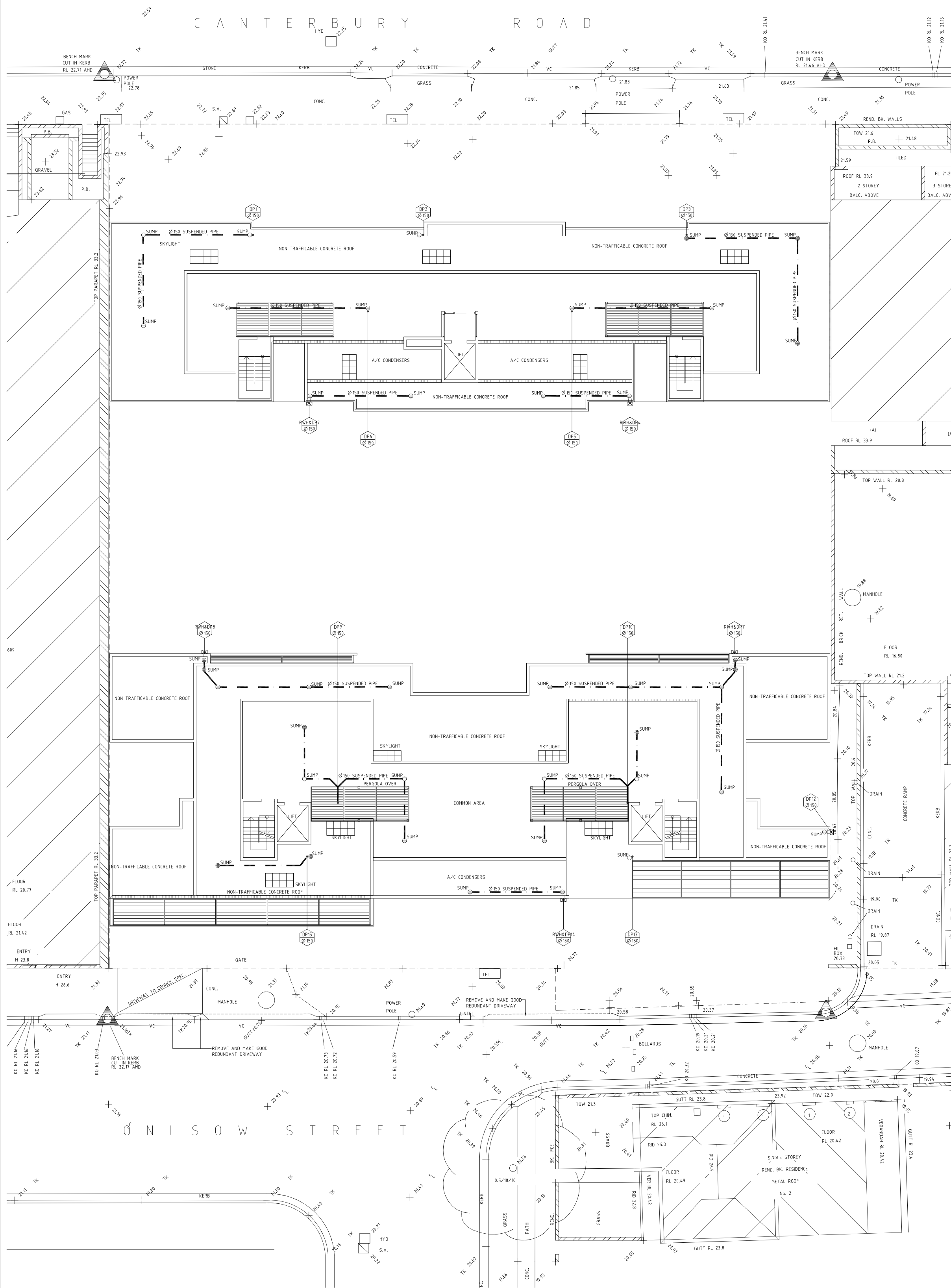


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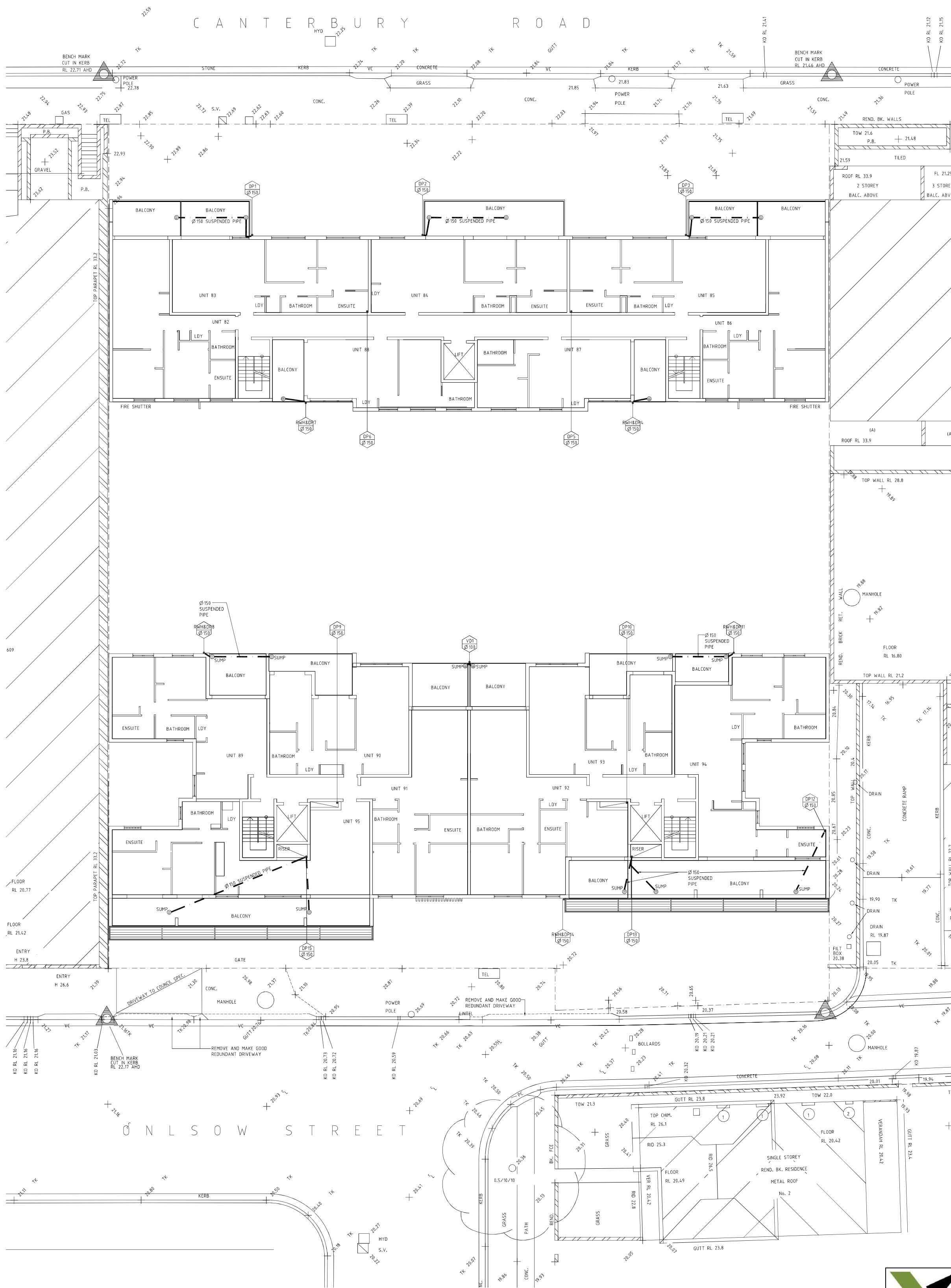
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CANTERBURY COUNCIL



DIAL 1100 BEFORE YOU DIG
NO SUBSURFACE INVESTIGATION HAS BEEN MADE
IT IS YOUR RESPONSIBILITY TO OBTAIN SERVICE
DIAGRAMS FROM RELEVANT AUTHORITIES



ROOF DRAINAGE PLAN
SCALE 1:200
NOTE:
1. MINIMUM ROOF FALL 1% TO OUTLETS
2. WATERPROOF ALL CONCRETE ROOFS
3. PROVIDE SAFETY OVERFLOW TO ALL ROOFS
4. ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW
5. ALL DRAINAGES TO BE CONSTRUCTED OF ONE MATERIAL FOR ALL METRIC REASONS
AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE



LEVEL 5 DRAINAGE PLAN
SCALE 1:200
NOTE:
1. ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW
2. ALL DRAINAGES TO BE CONSTRUCTED OF ONE MATERIAL FOR ALL METRIC REASONS
AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE

Revisions	
A/08/5/16 STAGE 1 C.C. ONLY	

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 - ALL TOPSOIL TO BE CONSERVED FOR RE-USE ON SITE

- NOTES**
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| F.G.L. | FINISHED GARAGE LEVEL |
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| I.L. | INVERT LEVEL |
| 20 R | ROOF CATCHMENT AREA (m2) |
| 20 I | IMPERVIOUS CATCHMENT AREA (m2) |
| 20 L | LANDSCAPED CATCHMENT AREA (m2) |
| DP | Ø100 DOWN PIPE OR EQUIVALENT |
| SP | SPREADER |
| VD | VERTICAL DROP |
| VR | VERTICAL RISER |
| RAIN WATER HEAD & DOWN PIPE | |
| CLEAN OUT POINT | |
| Ø150 SUMP | |
| CONCRETE COVER JUNCTION PIT | |
| GRATED INLET PIT 450x450 | |
| 200Wx100D GRATED DRAIN WITH 2% BTM SLOPE | |
| STORMWATER PIPE | |
| SUSPENDED STORMWATER PIPE | |
| CHARGED STORMWATER PIPE | |
| PUMP LINE | |
| Ø100 SUBSOIL PIPE | |
| SILT FENCE | |
| OVERLAND FLOW | |



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STAGE 1 C.C. ONLY
CANTERBURY COUNCIL

ARCHITECT
MACKENZIE ARCHITECTS
INTERNATIONAL

PROJECT
PROPOSED DEVELOPMENT
364-374 CANTERBURY ROAD
CAMPSIE, NSW

TITLE
ROOF & LEVEL 5
DRAINAGE PLAN

A.C.N. 090 572 973

UNITED

UNITED CONSULTING ENGINEERS
PTY LTD
Civil/Structural Engineers

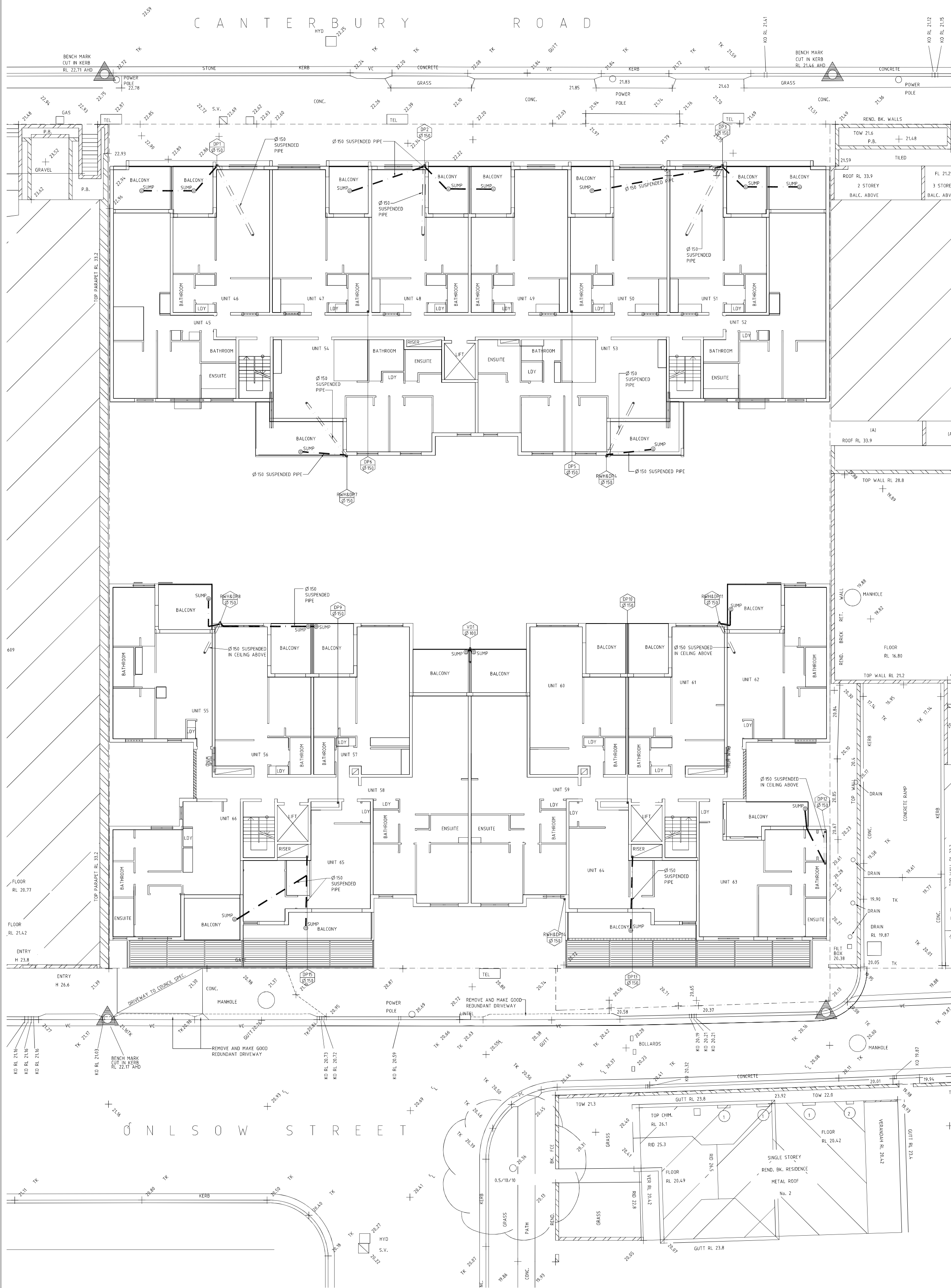
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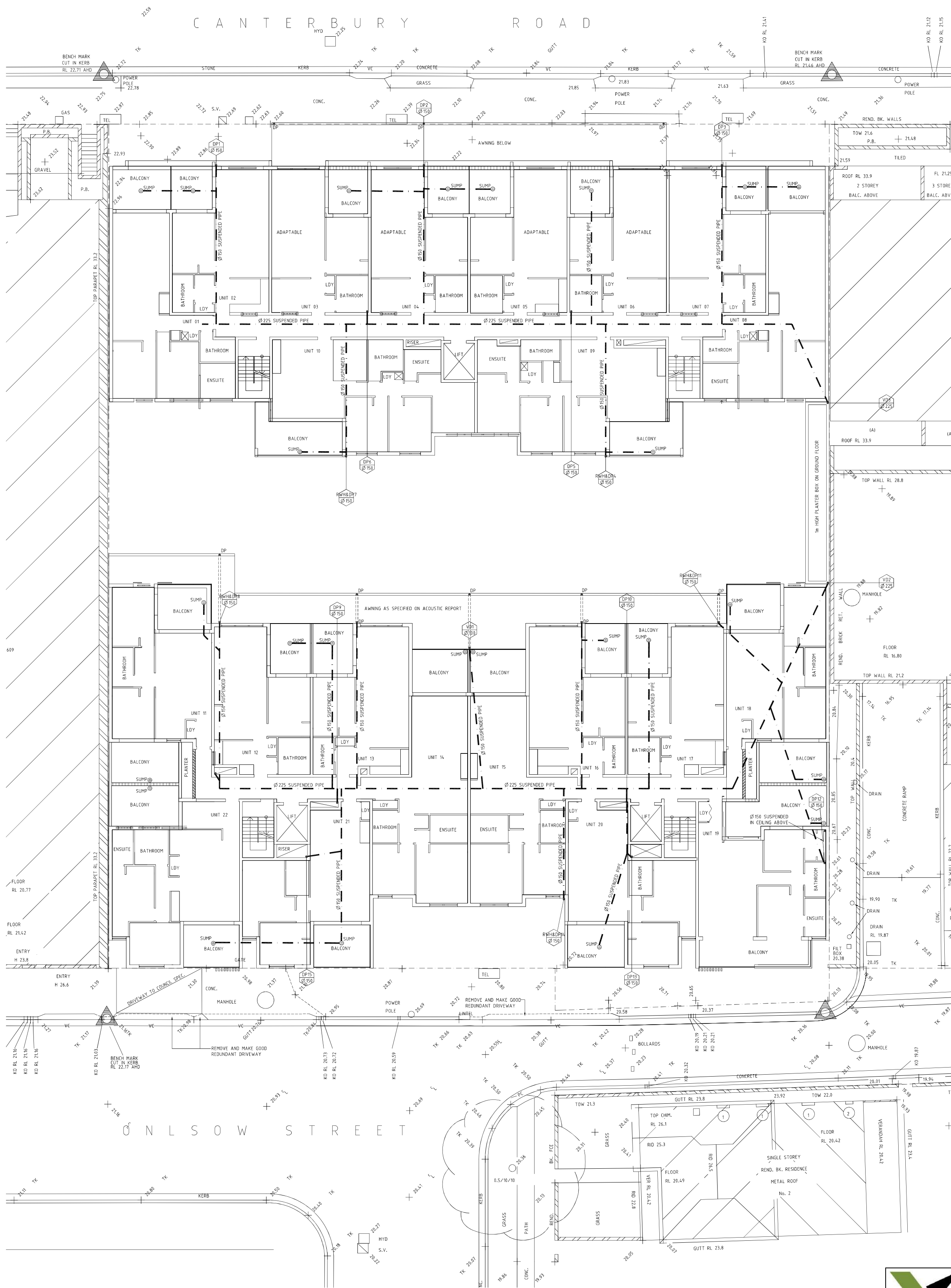
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DIAL 1100 BEFORE YOU DIG
NO SUBSURFACE INVESTIGATION HAS BEEN MADE IT IS YOUR RESPONSIBILITY TO OBTAIN SERVICE DIAGRAMS FROM RELEVANT AUTHORITIES



LEVEL 3 DRAINAGE PLAN

SCALE 1:200
NOTE:
1. ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW.
2. ALL DOWNPIPS TO BE CONSTRUCTED OF ONE MATERIAL, FOR AESTHETIC REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE.



LEVEL 1 DRAINAGE PLAN

SCALE 1:200
NOTE:
1. ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW.
2. ALL DOWNPIPS TO BE CONSTRUCTED OF ONE MATERIAL, FOR AESTHETIC REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE.

Revisions	
A/08/5/16 STAGE 1 C.C. ONLY	

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SYMBOLS

- | | |
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| F.G.L. | FINISHED GARAGE LEVEL |
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| 20 I | IMPERVIOUS CATCHMENT AREA (m2) |
| 20 L | LANDSCAPED CATCHMENT AREA (m2) |
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| SP | SPREADER |
| VR | VERTICAL DROP |
| VR | VERTICAL RISER |
| W | RAIN WATER HEAD & DOWN PIPE |
| C | CLEAN OUT POINT |
| S | Ø150 SUMP |
| ■ | CONCRETE COVER JUNCTION PIT |
| ■ | GRATED INLET PIT 450x450 |
| | 200Wx100D GRATED DRAIN WITH 2% BTM SLOPE |
| --- | STORMWATER PIPE |
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ARCHITECT
MACKENZIE ARCHITECTS
INTERNATIONAL

PROJECT
PROPOSED DEVELOPMENT
364-374 CANTERBURY ROAD
CAMPSIE, NSW

TITLE
LEVEL 3 & 1
DRAINAGE PLAN



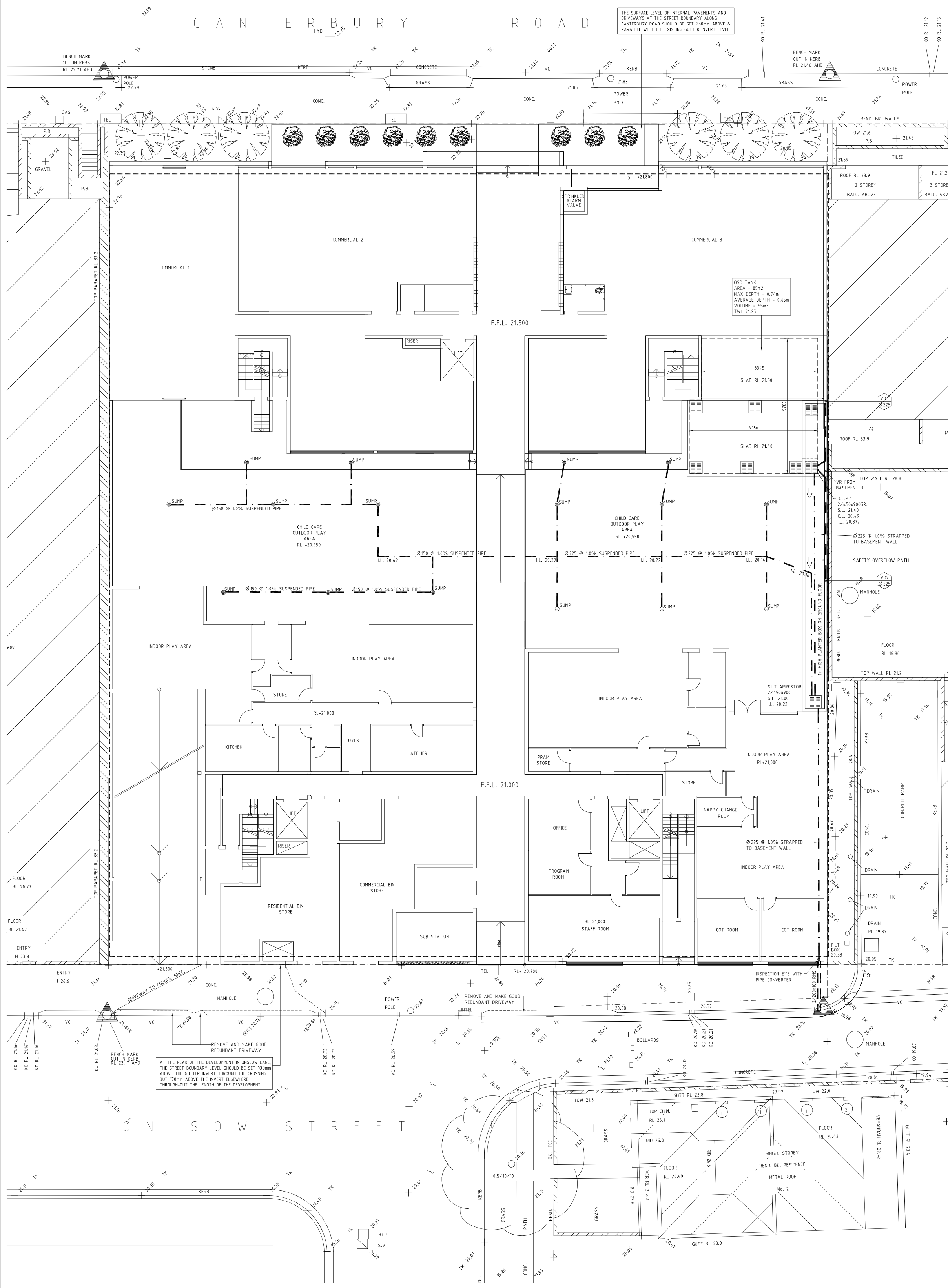
UNITED CONSULTING ENGINEERS
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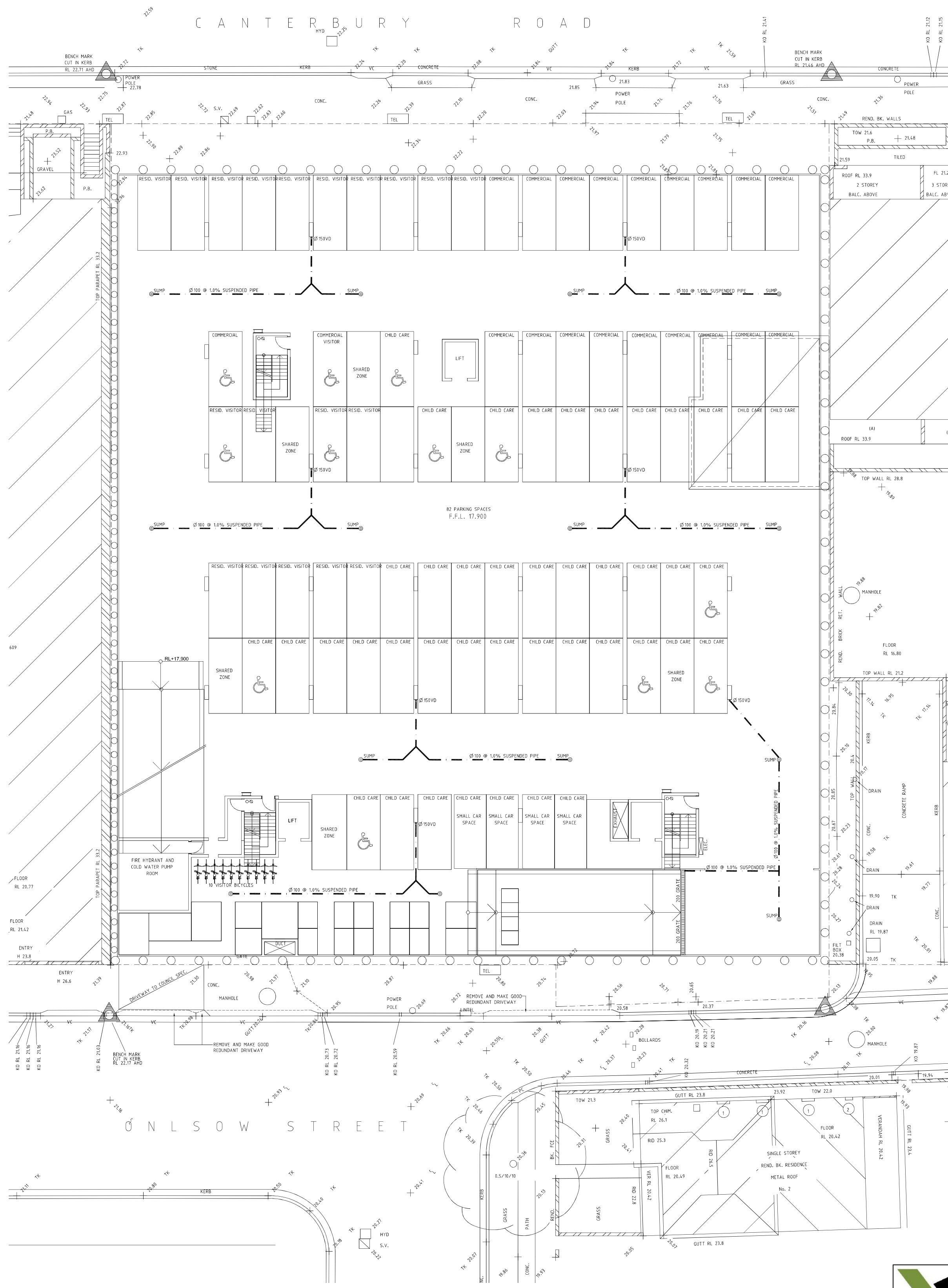


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GROUND FLOOR DRAINAGE PLAN

SCALE 1:100
NOTE:
1. ENGINEER TO INSPECT D.D.P. DURING CONSTRUCTION
2. ALL DRAINAGES TO BE CONSTRUCTED OF THE MATERIAL FOR AESTHETIC REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE.



BASEMENT 1 DRAINAGE PLAN

SCALE 1:100
NOTE: 1. MINIMUM BASEMENT FILL 6.7% TOWARD PIT

Revisions	
A/08/5/16 STAGE 1 C.C. ONLY	

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364-374 CANTERBURY ROAD
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TITLE
GF & BASEMENT 1
DRAINAGE PLAN



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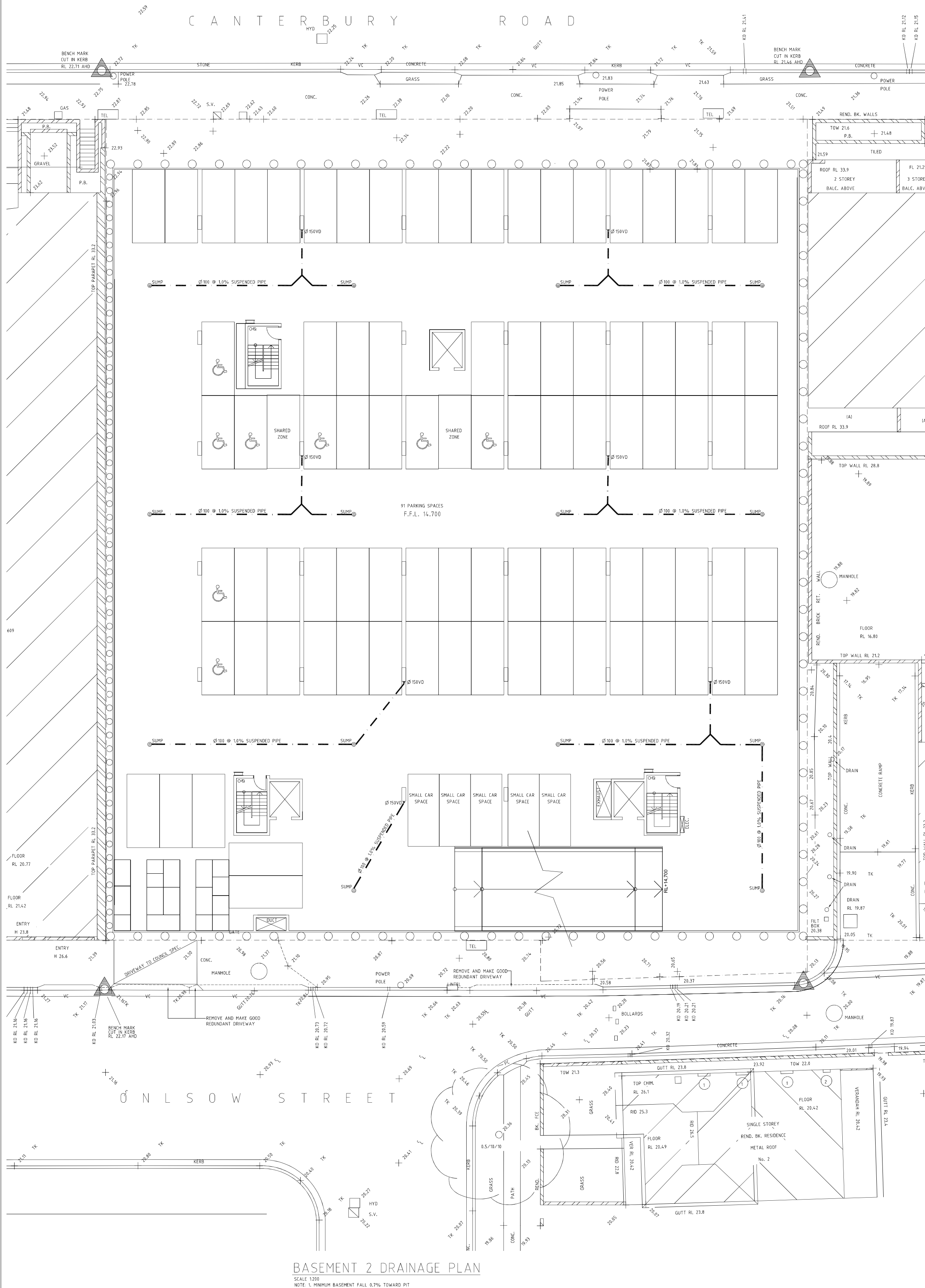


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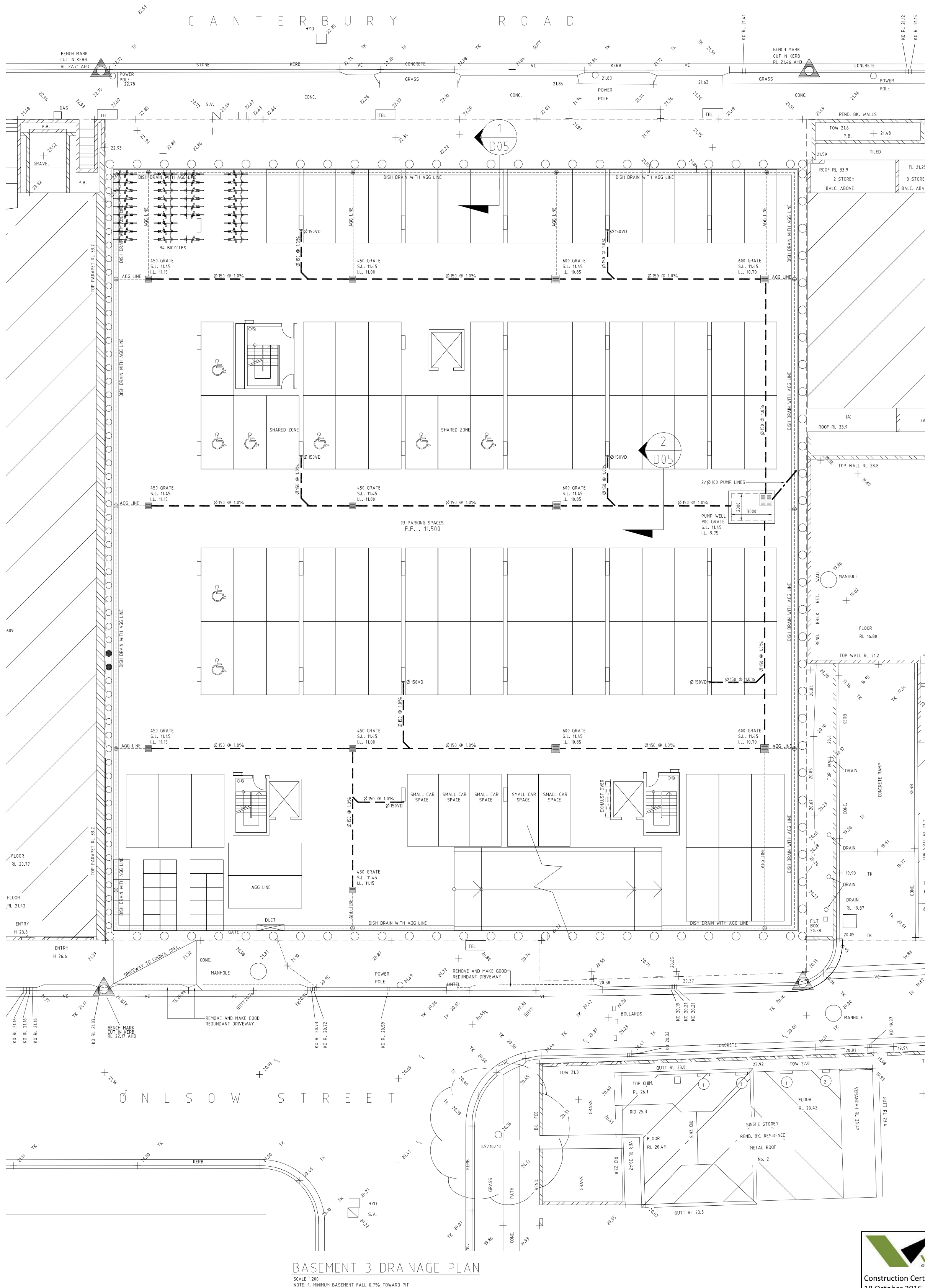
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BASEMENT 2 DRAINAGE PLAN
SCALE 1:200
NOTE: 1. MINIMUM BASEMENT FILL 0.7% TOWARD RT



BASEMENT 3 DRAINAGE PLAN
SCALE 1:200
NOTE: 1. MINIMUM BASEMENT FILL 0.7% TOWARD RT

Revisions	
A/08/5/16 STAGE 1 C.C. ONLY	

- EROSION CONTROL NOTES**
1. ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORKS, AND ALL SILT TRAPS ARE TO HAVE DEPOSITED SILT REMOVED REGULARLY DURING CONSTRUCTION.
 2. ALL TREES ARE TO BE PRESERVED UNLESS INDICATED OTHERWISE ON THE ARCHITECT'S OR LANDSCAPE ARCHITECT'S DRAWINGS. EXISTING GRASS COVER SHALL BE MAINTAINED EXCEPT IN AREAS CLEARED FOR BUILDINGS, PAVEMENTS ETC.
 3. INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PITS LIKELY TO COLLECT SILT LADEN WATER, TO COUNCIL'S STANDARDS
 4. NOT WITHSTANDING DETAILS SHOWN IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO ENSURE THAT ALL SITE ACTIVITIES COMPLY WITH THE REQUIREMENTS OF THE CLEAN WATERS ACT.
 5. ALL TOPSOIL TO BE CONSERVED FOR RE-USE ON SITE

- NOTES**
1. ALL LINES ARE TO BE Ø100 U.P.V.C. @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWER GRADE & SEALED.
 2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
 3. ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.
 4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.
 5. PITS LESS THAN 600 DEEP MAY BE BRICK, PRECAST OR CONCRETE.
 6. PITS DEEPER THAN 900 MUST BE 900x900 AND HAVE STEP RUNGS AT 300 CENTRES.
 7. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
 8. ALL EXTERNAL SLABS TO BE WATERPROOFED.
 9. ALL GRATES TO HAVE CHILD PROOF LOCKS.
 10. ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
 11. ALL DP'S TO HAVE LEAF GUARDS
 12. ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
 13. ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
 14. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
 15. ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.
 16. EXISTING STORMWATER PIPE LOCATIONS HAVE BEEN ASSUMED. PLUMBER TO INSPECT PRIOR TO WORKS AND UPGRADE PIPES AS NECESSARY.

- SYMBOLS**
- | | |
|------------------------------------------|--------------------------------|
| F.F.L. | FINISHED FLOOR LEVEL |
| F.G.L. | FINISHED GARAGE LEVEL |
| T.K. | TOP OF KERB |
| + 11.0 | FINISHED LEVEL |
| + 11.0 | EXISTING LEVEL |
| S.L. | SURFACE LEVEL |
| I.L. | INVERT LEVEL |
| 20 R | ROOF CATCHMENT AREA (m2) |
| 20 I | IMPERVIOUS CATCHMENT AREA (m2) |
| 20 L | LANDSCAPED CATCHMENT AREA (m2) |
| Ø100 D | Ø100 DOWN PIPE OR EQUIVALENT |
| SP | SPREADER |
| VD | VERTICAL DROP |
| VR | VERTICAL RISER |
| RAIN WATER HEAD & DOWN PIPE | |
| CLEAN OUT POINT | |
| Ø150 SUMP | Ø150 SUMP |
| CONCRETE COVER JUNCTION PIT | |
| GRATED INLET PIT 450x450 | |
| 200Wx100D GRATED DRAIN WITH 2% BTM SLOPE | |
| STORMWATER PIPE | |
| SUSPENDED STORMWATER PIPE | |
| CHARGED STORMWATER PIPE | |
| PUMP LINE | |
| Ø100 SUBSOIL PIPE | |
| SILT FENCE | |
| OVERLAND FLOW | |

ARCHITECT
MACKENZIE ARCHITECTS
INTERNATIONAL

PROJECT
PROPOSED DEVELOPMENT
364-374 CANTERBURY ROAD
CAMPSIE, NSW

TITLE
BASEMENT 2 & 3
DRAINAGE PLAN

A.C.N. 090 572 973

UNITED

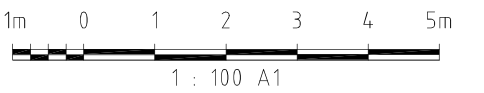
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Drawn by	Sheet	Rev
14MB6228/D04	4 of 5	A



STAGE 1 C.C. ONLY
CANTERBURY COUNCIL

DIAL 1100 BEFORE YOU DIG
NO SUBSURFACE INVESTIGATION HAS BEEN MADE
IT IS YOUR RESPONSIBILITY TO OBTAIN SERVICE
DIAGRAMS FROM RELEVANT AUTHORITIES

Approved		Mark Anthony Boubli MIEAust, CPeng, NPOR	
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	Drawing No 14MB6228/D05	Sheet 5 of 5	Issue A