

OCALITY
NOT TO SCAL PLAN

GENERAL NOTES

- ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS DRAWING HAVE BEEN PREPARED FOR DEVELOPMENT APPLICATION PURPOSES TO DEMONSTRATE FEASABILITY. ALL MEASURES WILL BE SUBJECT TO DETAIL DESIGN AT THE CONSTRUCTION CERTIFICATE STAGE AND MAY BISUBJECT TO VARIATION PROVIDED THAT THE DESIGN INTENT IS MAINTAINED. 먪
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH OTHER SUCH 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.

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- ALL DIMENSIONS ARE IN MILLIMETRES & ALL LEVELS ARE IN METRES, UNO (UNLESS NOTED OTHERWISE).
- NO DIMENSION SHALL BE OBTAINED BY SCALING THE DRAWINGS. DETAIL SURVEY DATA WAS OBTAINED FROM IAN SUTHERLAND ASSOCIATES SURVEYORS, DRAWING DATED DEC 2006. ဇ္ဇ

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EXISTING SERVICES WHERE SHOWN HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORK.

ORMWATER DRAINAGE

VERIFIER:

- ALL DRAINAGE LINES SHALL BE UPVC (CLASS DRAINAGE PIPE, U.N.O. SN4) SEWER GRADE
- ALL DRAINAGE LINES SHALL BE LAID AT 1% MIN. UNO.
- ALL LEVELS ARE AUSTRALIAN HEIGHT DATUM (AHD).

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- THE STORMWATER DRAINAGE DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500.3.2-2003 "STORMWATER DRAINAGE.
- ANY VARIATIONS TO THE NOMINATED LEVELS SHALL BE REFERRED TO ENGINEER IMMEDIATELY.

JOB MANAGER: S.FRYER

SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS EMBANKMENTS, WITH THE LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.

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- PIT COVERS AND GRATES TO BE CLASS Ċ,
- ALL GRATES TO BE GALVANISED PROOF LOCKS. STEEL WITH HINGES AND CHILD

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PIT COVERS TO BE CONCRETE,

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DESIGNED C.NOVATI

DRAWN: D.COUNTER

ISSUED FOR CO-ORDINATION
ISSUED FOR DEVELOPMENT APPLICATION
ISSUED FOR DEVELOPMENT APPLICATION

DRAINAGE CALCULATIONS

ABBREVIATED RUNOFF CALCULATIONS (USING RATIONAL METHOD) FOR STORMWATER DRAINAGE SYSTEM DESIGN.

- = 0.00028 C.I.A. = RUNOFF (L/s) = CATCHMENT AREA (m²) = 201 mm/hr RI = 1:20 YEAR c = 5 MINUTES c = 5 MINUTES 0.95 (PAVED AREAS) 0.60 (GRASSED AREAS)

DESIGN SUMMARY

SITE AREA = 5053m²
60% OF SITE AREA = 3031.8m²
CATCHMENT ZONE = BCI (COWAN'S CREEK)
IMPERVIOUS AREA BYPASSING OSD = 330m²
OSD VOLUME REQUIRED = 125.5m³ 29L/sec

RAINWATER RE-USE VOLUME F NO. OF UNITS = 61 RAINWATER RE-USE VOLUME F RAINWATER RE-USE VOLUME F REQUIRED = 1000L/UNIT $REQUIRED = 61m^3$ $PROVIDED = 62m^3$

OSD VOLUME ADJUSTMENT FOR RAINWATER STORAGE = ADJUSTED OSD VOLUME REQUIRED = 94.2m³
OSD VOLUME PROVIDED = 100m³

DESIGN STORM — EAVES, GUTTERS, DOWNPIPES, PIPES = 20 YEAR ARI, 5MIN DURATION (201mm/hr)ROOF AREA DRAINING TO RAINWATER TANK = $1930m^2$ (100%)

DESIGN STORM OVERLAND FLOW PATHS (257mm/hr) 100 YEAR ARI, 5MIN DURATION

NLET PH

KERB

CATCHMENT AREA TO KERB INLET PIT IS APPROXIMATELY 6982m2. PROPOSED KERB INLET PIT WITH 900mm LONG LINTEL

UPSTREAM FLOW RATE = 370L/sec (20Yr) / 475L/sec (100Yr) (REFER TO DRAINAGE CALCULATIONS FOR FLOW CALCULATION DETAILS)

PIT INLET CAPACITY @ 400L/sec = 223L/sec / 550L/sec = 248L/sec (CALCULATED USING DRAINS HEC22 KERB INLET CAPACITY SPREADSHEET)

SITE DISCHARGE = 29L/sec
TOTAL FLOW WITHIN ø375 = 252L/sec (20Yr) / 277L/sec (100Yr) < CAPACITY OF ø375 PIPE @ 8% (537L/sec)

SUBMERGED ORIFICE CHECK:

OSD OUTLET IL = 162.50 \$375 EXTENSTION IN WARRANGI ST - TOP WATER LEVEL OSD OUTLET IL > \$375 TOP WATER LEVEL

THEREFORE OSD ORIFICE FREELY DISCHARGES IN THE 100Yr STORM EVENT.

DA01 DRA **WING** SCHEDULE

- NOTES, AND

DA02

- DA04 DA03 CONCEPT STORMWATER MANAGEMENT PLAN —
 BASEMENT CARPARK LEVEL 3
 CONCEPT STORMWATER MANAGEMENT PLAN —
 BASEMENT CARPARK LEVEL 2
 CONCEPT STORMWATER MANAGEMENT PLAN —
 BASEMENT CARPARK LEVEL 1
 CONCEPT STORMWATER MANAGEMENT PLAN —
- PT STORMWATER MANAGEMENT SHEET STORMWATER MANAGEMENT PLAN PLAN ROOF

ETAIL

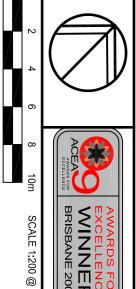
DA06

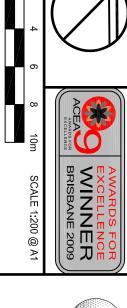
DA05

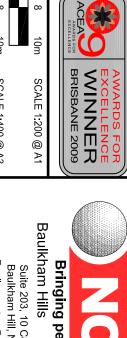
COVER SHEET, NOTES LOCALITY PLAN AND DRAWING SCHEDULE

DA01

C N C N 02/02/11 01/03/11 JIM SELIM & DIA GABRA CHENZSE









1179-1181 PACIFIC HWY & 2-6 WARRANGI ST TURRAMURRA

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