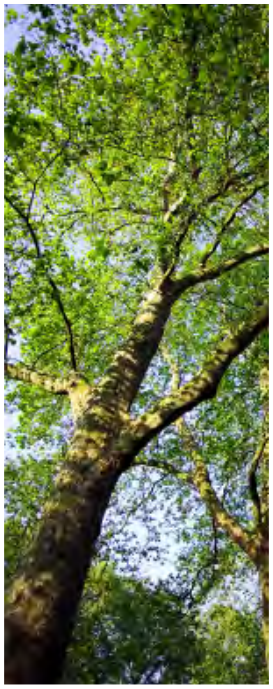




Kensington Street Precinct
Block 3B, 3C and 10

PA Stormwater Report

April 2012

Frasers Broadway Pty Ltd

Mott MacDonald
Hughes Trueman

Kensington Street Precinct
Block 3B, 3C and 10

PA Stormwater Report

April 2012

Frasers Broadway Pty Ltd

Mott MacDonald Hughes Trueman Pty Limited, Level 2, 60 Pacific Highway, St Leonards, NSW 2065, Australia
PO Box 151, St Leonards, NSW 1590, Australia
T +61 (0)2 9439 2633 F +61 (0)2 9438 4505, www.hughestrueman.com.au

Mott MacDonald
Hughes Trueman

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
01	21 March 2012	AN	CB	RPH	For PA Approval
02	11 April 2012	AN	CB	RPH	For PA Approval

Mott MacDonald Hughes Trueman Pty Limited, Level 2, 60 Pacific Highway, St Leonards, NSW 2065, Australia
PO Box 151, St Leonards, NSW 1590, Australia
T +61 (0)2 9439 2633 F +61 (0)2 9438 4505, www.hughestrueman.com.au

Mott MacDonald
Hughes Trueman

Content

Executive Summary

Frasers are currently redeveloping the former Carlton United Brewery site, Central Park into a mixed use precinct. Mott MacDonald Hughes Trueman has been engaged by Frasers to undertake the detailed design of the roads and stormwater for Central Park. This report relates specifically to the proposed Block 3B, 3C and 10 within the precinct, as indicated on the General Arrangement Plan (Drg. MMD-300830-S-DR-CD-0002).

Mott MacDonald Hughes Trueman has previously undertaken a stormwater quantity management study for the whole site. This report has been submitted and approved by the local council and DoPI. The site stormwater reticulation system has been designed as part of this study and has been designed to accommodate flows resulting from the development of all Blocks on the site.

Measures related to sediment and erosion control are also addressed within this report.

1. Introduction

1.1 Existing Site

The Frasers Broadway site is bounded by Broadway, Abercrombie Street, O'Connor Street, Wellington Street and Kensington Street in Chippendale. The site is situated within the Blackwattle Bay (SWC 17) catchment. Blocks 3B and 3C are located on the eastern edge of the site, and are bounded by Kensington street to the east, Kent Road to the west, Block 3A to the north and Outram street to the south. Block 10 is located on the eastern edge of the site, and is bounded by Kensington Street to the west, Goold Street to the east, Block 7 to the north and Outram Street to the south.

1.2 Data

A surface and underground services survey of the site and road reserves surrounding the site was undertaken by surveyors Degotardi, Smith and Partners as part of the project investigation. This survey includes details of the trunk lines and local street drainage.

The following surveys have been referenced or used to form the base survey:

- Blackwattle Bay SWC 17 Asset Survey by AWT – 1997
- Detail and Levels Survey of the Carlton & United Brewery Site by Degotardi, Smith & Partners – 6th July 2006
- Underground Services Survey of the Frasers Broadway Site by Degotardi, Smith & Partners – 12th February 2008
- Detail and Levels Survey of the Catchment Area South of Frasers Broadway Site by Degotardi, Smith & Partners – 25th February 2008

1.3 Existing Stormwater

An infrastructure package lodged as a separate PA (Main Park and Associated Infrastructure, Reference number MP08_0210) will be constructed prior to Blocks 3B, 3C and 10. Stormwater mains will run along O'Connor Street to the detention tank under the main park.

2. Proposed Development

2.1 Site Grading

Filling and grading of the site has been carefully considered and optimised respecting the following constraints:

- Proposed buildings and carpark entrances are above the 100 year ARI flood level including freeboard (where applicable);
- Flood depths on internal roads are safe for vehicles and pedestrians;
- Internal stormwater and kerb and gutter has sufficient grade to achieve self cleansing velocities; and
- Overland flow can be conveyed through the site without trapped low points.

2.2 Site Stormwater Reticulation

The site stormwater system has been designed to accept the 20 year and 100 year design flows (piped and overland respectively) from Blocks 3B 3C and 10 and will be detained in a detention tank beneath the main park prior to being discharged to Sydney Water's stormwater mains.

The proposed Stormwater Reticulation for the site is indicated on HT Stormwater and Sediment & Erosion Control Concept Plan Drg. MMD-300830-S-DR-CD-0003.

2.3 Water Quality

Water quality management, water storage and harvesting issues for the site are being addressed by WSP Lincolne Scott.

An erosion and sediment control plan has been developed for works associated with Blocks 3B 3C and 10. Refer drawing MMD-300830-S-DR-CD-0001.

3. Conclusion

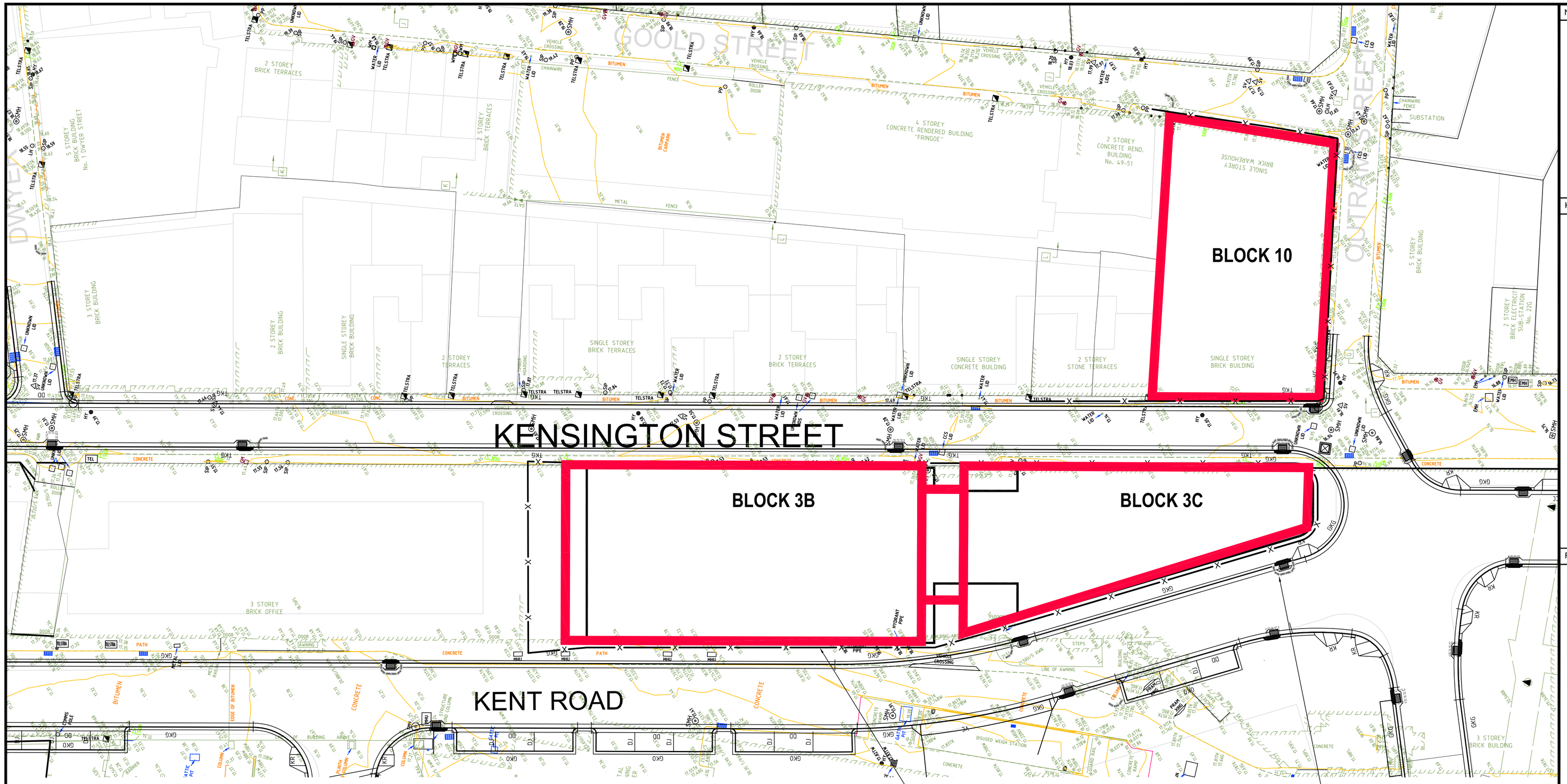
The site stormwater system has been designed to accommodate flows resulting from the development of all blocks within the site. Stormwater from Block 3B, 3C and 10 will reticulate to the site detention tank via a piped system along O'Connor Street.

Measures relating to erosion and sediment control will be implemented as part of the development works.

Appendices

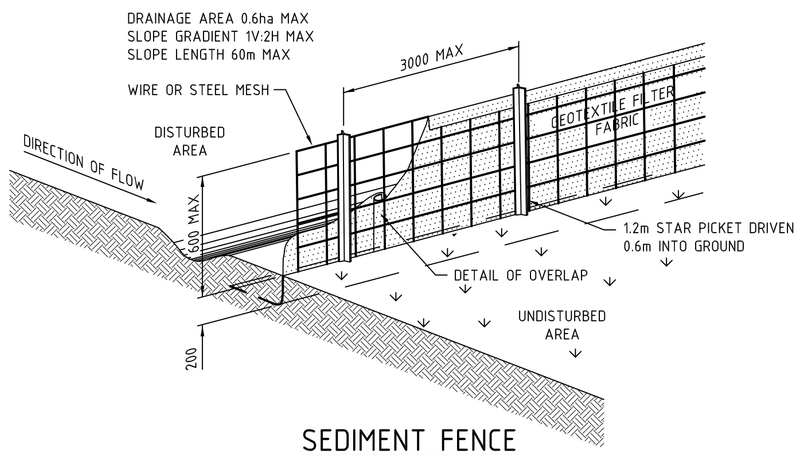
Appendix A. Drawings

- MMD-300830-C-DR-CD-0001 – Erosion and Sedimentation Control Plan for Blocks 3B, 3C and 10
- MMD-300830-S-DR-CD-0002 – General Arrangement Plan
- MMD-300830-S-DR-CD-0003 – Stormwater and Sediment & Erosion Control Concept Plan
- MMD-300830-S-DR-CD-0004 – Sediment and Erosion Control Notes



PLAN
SCALE 1:250

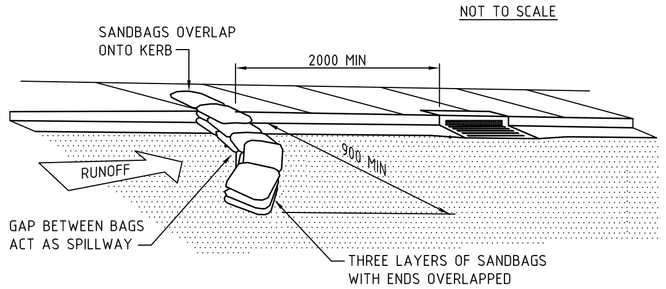
NOTE:
ALL INTERNAL DRAINAGE TO BE CO-ORDINATED AND RELEVANT EROSION AND SEDIMENT CONTROL DEVICES IMPLEMENTED.



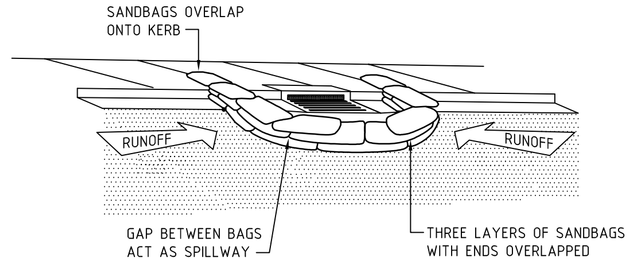
SEDIMENT FENCE
(GEOTEXTILE FILTER FABRIC)
NOT TO SCALE

EROSION & SEDIMENT CONTROL LEGEND

- CONSTRUCT TEMPORARY SEDIMENT FENCE
- INSTALL SANDBAG SEDIMENT TRAPS
- INSTALL TEMPORARY SITE ACCESS



SEDIMENT TRAP FOR KERB INLET
(ON GRADE - SANDBAG)
NOT TO SCALE



SEDIMENT TRAP FOR KERB INLET
(AT LOW POINT - SANDBAG)
NOT TO SCALE

SOIL AND WATER MANAGEMENT NOTES

SWM1 THIS IS A CONCEPTUAL SOIL AND WATER MANAGEMENT PLAN (SWMP) ONLY, AND SHOWS A POSSIBLE WAY OF MANAGING SOIL EROSION. THE CONTRACTOR SHALL PREPARE A DETAILED PLAN AND OBTAIN APPROVAL FROM THE RELEVANT AUTHORITY - PRIOR TO THE COMMENCEMENT OF ANY WORKS.

SWM2 THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS, WRITTEN INSTRUCTIONS, SPECIFICATION OR DOCUMENTATION THAT MAY BE ISSUED AND RELATING TO DEVELOPMENT OF THE SUBJECT SITE.

SWM3 THE CONTRACTOR WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE CONSISTENT WITH 'MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION' - ALSO KNOWN AS 'THE BLUE BOOK'.

SWM4 ALL BUILDERS AND SUB-CONTRACTORS SHALL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.

SWM5 WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, IE THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.

SWM6 "SEDIMENT" FENCING WILL BE INSTALLED AS INDICATED ON THE PLANS AND AT THE DIRECTION OF SITE SUPERINTENDENT TO ENSURE CONTAINMENT OF SEDIMENT. THE SEDIMENT FENCING WILL OUTLET OR OVERFLOW UNDER STABILISED CONDITIONS INTO THE SEDIMENT BASIN, TO SAFELY CONVEY WATER INTO A SUITABLE FILTERING SYSTEM SHOULD THE PORES IN THE FABRIC BLOCK.

SWM7 UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

SWM8 TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

SWM9 FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

SWM10 AT LEAST WEEKLY AND AFTER EVERY RAIN FALL EVENT, THE CONTRACTOR WILL INSPECT THE SITE AND ENSURE THAT -

DRAINS OPERATE EFFECTIVELY AND INITIATE REPAIR OR MAINTENANCE AS REQUIRED, SPILLED SAND (OR OTHER MATERIALS) IS REMOVED FROM HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS, GUTTERS, PAVED AREAS AND DRIVEWAYS, SEDIMENT IS REMOVED FROM BASINS AND/OR TRAPS WHEN LESS THAN 20m³ OF TRAPPING CAPACITY REMAIN PER 1000m² OF DISTURBED LANDS, AND/OR LESS THAN 500mm DEPTH REMAINS IN THE SETTLING ZONE. ANY COLLECTED SEDIMENT WILL BE DISPOSED IN AREAS WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS IS UNLIKELY. REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND INITIATE UPGRADING OR REPAIR AS APPROPRIATE.

Notes

Key to symbols

Reference drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
P3	11/04/12	JAB	ISSUED FOR PA APPROVAL	AN	SAW
P2	21/03/12	DGM	ISSUED FOR PA APPROVAL	AN	SAW
P1	21/12/11	MM	ISSUED FOR CLIENT REVIEW	DC	XXXX

Mott MacDonald
Level 2, 60 Pacific Highway
St leonards, NSW 2065
Australia
PO Box 151, St Leonards
NSW 1590, Australia
T T +61 (0) 9439 2633
F F +61 (0) 9438 4505
W W www.mottmac.com.au

Client
FRASERS BROADWAY PTY. LTD.

Title
KENSINGTON STREET PRECINCT
CONCEPT EROSION AND SEDIMENT CONTROL PLAN

Designed	DC		Eng check	AN	
Drawn	MMC		Coordination	AN	
Dwg check	DC		Approved	SAW	
Scale at A1	1:250.	Status	PRELIM	Rev	P3

Drawing Number
MMD-300830-S-DR-CD-0001

P:\St Leonards\Projects\30xxxx\300830\CAD\Working Files\Civil\Autocad\Drawings\MMD-300830-S-DR-CD-0001.dwg Apr 11, 2012 - 12:33PM
bra59835

SITEWORKS LEGEND

- LIMIT OF WORKS BOUNDARY
- PROPOSED ROAD CONTROL LINE & NAME
- GKG — PROPOSED GRANITE KERB & GUTTER
- GKO — PROPOSED GRANITE KERB ONLY
- FK — PROPOSED FLUSH KERB
- DD — PROPOSED DISH DRAIN - 0.9M WIDE
- 600DD 400DD — PROPOSED DISH DRAIN -0.6M/0.4M WIDE
- MK — PROPOSED MOUNTABLE KERB
- VCC — CITY OF SYDNEY COUNCIL SPECIFICATIONS. REFER TO DRAWING 1.1.10
- KR — PROPOSED KERB RAMP
- PROPOSED INLET PIT - ON GRADE, SAG & DISH DRAIN TYPE

ARCHITECTURAL LEGEND

- EXISTING HERITAGE BUILDING/ STRUCTURE
- PROPOSED BUILDING FOOTPRINT AT GROUND LEVEL
- Block — PROPOSED BUILDING BLOCK NUMBER
- PROPOSED BASEMENT ENVELOPE

STAGING OF CONSTRUCTION

- MAIN PARK PA.
- BASEMENT PA.
- INFRASTRUCTURE PA (BALFOUR, CHIPPEN, KENT, TOOTH (EAST) AND ASSOCIATED STORMWATER.
- BLOCK 2 PA/BLOCK 5 PA.

-PAS FOR OTHER BLOCKS AND INFRASTRUCTURE TO RUN INDEPENDENTLY (STAGING TO BE CONFIRMED).

STORMWATER LEGEND

- PROPOSED PIT
- SW — PROPOSED STORMWATER PIPE
- SWT — PROPOSED STORMWATER OUTLET PIPE FROM DETENTION TANK
- esw — EXISTING STORMWATER PIPE

PRELIMINARY - NOT FOR CONSTRUCTION

Rev	Amendment / Reason For Issue	Date	Drawing Completed by	Designed & Checked by	Verified by X = Not verified	Issue Authorised (*)
P3	ISSUED FOR PA APPROVAL	11.04.12	JAB	CB	X	RPH

PLAN SCALE 1:500 @ B1
10 5 0 10 20 30

North

Mott MacDonald
Hughes Trueman
ABN 53 831 529 091
Level 2, 60 Pacific Hwy, PO Box 151, ST LEONARDS NSW 2065
T +61 2 9439 2633 F +61 2 9438 4505 stleonards@hughestrueman.com.au

Project: FRASERS BROADWAY BLOCK 3B, 3C, 10 PA

Drawing Title: GENERAL ARRANGEMENT PLAN

Client: FRASERS BROADWAY PTY LTD

Architect/Project Manager

Drawing No. MMD-300830-S-DR-CD-0002

Sheet 02 of 04

Rev P3

Date 11-4-12 Time 12:27pm Plotted By brs69835 Filename P:\St Leonards\Projects\30xxxx\300830\CAD\Working Files\Civil\Autocad\Drawings\MMD-300830-S-DR-CD-0002.dwg

SITEWORKS LEGEND

- LIMIT OF WORKS BOUNDARY
- PROPOSED ROAD CONTROL LINE & NAME
- PROPOSED GRANITE KERB & GUTTER (GKG)
- PROPOSED GRANITE KERB ONLY (GKO)
- PROPOSED FLUSH KERB (FK)
- PROPOSED DISH DRAIN - 0.9M WIDE
- PROPOSED DISH DRAIN -0.6M/0.4M WIDE
- PROPOSED MOUNTABLE KERB (MK)
- CITY OF SYDNEY COUNCIL SPECIFICATIONS. REFER TO DRAWING 1.1.10 (VCC)
- PROPOSED KERB RAMP (KR)
- PROPOSED INLET PIT - ON GRADE, SAG & DISH DRAIN TYPE

ARCHITECTURAL LEGEND

- Existing Heritage Building/Structure
- Proposed Building Footprint at Ground Level
- Block — Proposed Building Block Number
- Proposed Basement Envelope
- Proposed work in block 5 PA

STORMWATER LEGEND

- PROPOSED PIT
- SW — PROPOSED STORMWATER PIPE
- SWT — PROPOSED STORMWATER OUTLET PIPE FROM DETENTION TANK
- esw — EXISTING STORMWATER PIPE

SEDIMENT & EROSION LEGEND

- X — CONSTRUCT TEMPORARY SEDIMENT FENCE
- INSTALL SANDBAG SEDIMENT TRAP
- CONSTRUCT TEMPORARY SITE ENTRY/EXIT

PRELIMINARY - NOT FOR CONSTRUCTION

Rev	Amendment / Reason For Issue	Date	Drawing Completed by	Designed & Checked by	Verified by X = Not verified	Issue Authorised (*)
P3	ISSUED FOR PA APPROVAL	11.04.12	JAB	CB	X	RPH

10 5 0 10 20 30
Plan Scale 1:500 @ B1

North

Mott MacDonald
Hughes Trueman
ABN 53 831 529 091
Level 2, 60 Pacific Hwy, PO Box 151, ST LEONARDS NSW 2065
T +61 2 9439 2633 F +61 2 9438 4505 stleonards@hughestrueman.com.au

Project: FRASERS BROADWAY BLOCK 3B, 3C, 10 PA
Client: FRASERS BROADWAY PTY LTD
Architect/Project Manager:

Drawing Title: STORMWATER AND SEDIMENT & EROSION CONTROL CONCEPT PLAN
Drawing No.: MMD-300830-S-DR-CD-0003
Sheet: 03 Of 04
Rev: P3

B1 SHEET 300mm 200mm 100mm 0

Filename P:\S1 Leonards\Projects\300xxx\300830\CAD\Working Files\Civil\AutoCad\Drawings\MMD-300830-S-DR-CD-0003.dwg
Plotted By br69835
Date 11.4.12 Time 12:25pm