

SOPA FERRY WHARF WENTWORTH POINT MIXED USE DEVELOPMENT DA PACKAGE



LOCALITY MAP

SOURCE : MAPS.GOOGLE.COM (©2013)

DRAWING SCHEDULE	
DRG No.	DRAWING TITLE
C1.01	COVER SHEET, DRAWING SCHEDULE AND LOCALITY PLAN
C2.01	CONCEPT SEDIMENT AND EROSION CONTROL PLAN
C2.11	CONCEPT SEDIMENT AND EROSION CONTROL DETAILS
C4.01	ROAD AND CONCEPT DRAINAGE LAYOUT - SHEET 1
C4.02	ROAD AND CONCEPT DRAINAGE LAYOUT - SHEET 2
C4.11	LONGITUDINAL SECTION
C4.21	TYPICAL CROSS SECTIONS

GENERAL NOTES

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.

ALL DIMENSIONS ARE IN MILLIMETRES & ALL LEVELS ARE IN METRES, UNO (UNLESS NOTED OTHERWISE).

NO DIMENSION SHALL BE OBTAINED BY SCALING THE DRAWINGS.

ALL LEVELS AND SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORK.

DETAIL SURVEY DATA WAS SUPPLIED BY TEAM 2, DRAWING DATED 18TH FEBRUARY 2009.

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

ON COMPLETION OF STORMWATER INSTALLATION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS, UNLESS DIRECTED OTHERWISE.

ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THE DRAWINGS HAVE BEEN PREPARED FOR DEVELOPMENT APPLICATION PURPOSES TO DEMONSTRATE FEASIBILITY. ALL MEASURES WILL BE SUBJECT TO DETAIL DESIGN AT THE CONSTRUCTION CERTIFICATE STAGE AND MAY BE SUBJECT TO VARIATION PROVIDED THAT THE DESIGN INTENT IS MAINTAINED.

THE FOLLOWING DRAWINGS SHOULD BE REVIEWED IN CONJUNCTION WITH THE INTEGRATED WATER CYCLE MANAGEMENT REPORT PREPARED BY NORTHPROP ENGINEERS

STORMWATER DRAINAGE

- ALL DRAINAGE LINES SHALL BE UPVC (CLASS SN4) SEWER GRADE DRAINAGE PIPE, UNO.
- ALL DRAINAGE LINES SHALL BE LAID AT 1% MIN. FALL, UNO.
- ALL LEVELS ARE AUSTRALIAN HEIGHT DATUM (AHD).
- ALL DOWNPIPES/GUTTERS TO BE DESIGNED IN ACCORDANCE WITH AS/NZS 3500.3.2 - 2003 'STORMWATER' DRAINAGE.
- 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.
- SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS, WITH THE LINES FEEDING INTO THE 'STORMWATER' DRAINAGE SYSTEM.
- ALL GRATES TO BE GALVANISED STEEL WITH HINGES AND CHILD PROOF LOCK.

RAINWATER RE-USE

- PROVIDE RAINWATER RE-USE SYSTEM TO SUPPLY WATER FOR IRRIGATION AND TOILET FLUSHING.
- GUTTER GUARD TO BE INSTALLED ON ALL EAVES GUTTERS.
- A PERMANENT SIGN IS TO BE LOCATED IN THE VICINITY OF THE TANK STATING THE WATER IS "NON POTABLE WATER" WITH APPROPRIATE HAZARD IDENTIFICATION.
- PIPEWORK USED FOR RAINWATER SERVICES SHALL BE COLOURED LILAC IN ACCORDANCE WITH AS1345.
- ALL VALVES AND APERTURES SHALL BE CLEARLY AND PERMANENTLY LABELLED WITH SAFETY SIGNS TO COMPLY WITH AS1319.
- RAINWATER TANK RETICULATION SYSTEM AND MAINS WATER BYPASS ARRANGEMENT TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.12-2003 AND THE NSW CODE OF PRACTICE : PLUMBING AND DRAINING.
- A FIRST FLUSH FILTRATION DEVICE IS TO BE PROVIDED AT RAINWATER TANK.

VERIFIER:

JOB MANAGER: ----

DESIGNED: S. NAUMOSKI

DRAWN: R. GRIEVE

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14

CLIENT

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHPROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHPROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE

The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000
Ph (02) 9241 4188 Fax (02) 9241 4324
P.O. Box H171 Australia Square, NSW 1215
Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

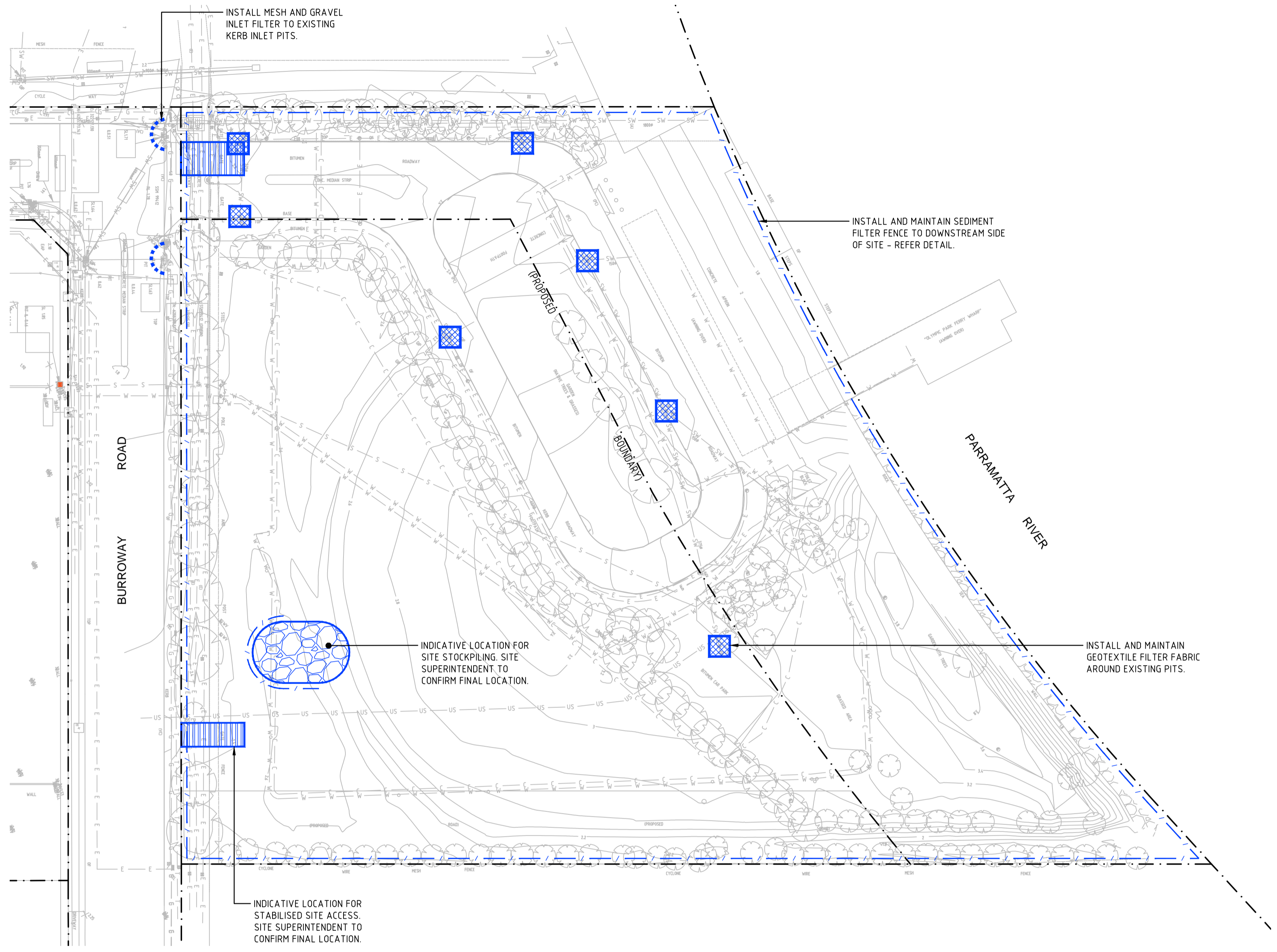
SOPA FERRY WHARF

DRAWING TITLE







**CIVIL DESIGN
COVER SHEET, DRAWING
SCHEDULE AND LOCALITY
PLAN**

JOB NUMBER	
130648	
DRAWING NUMBER	REVISION
C1.01	1
DRAWING SHEET SIZE = A1	

Plotted By: Robert.Grieve@found : C:\2013\Jobs\130648 - sopa ferry wharf, wentworth point - mixed use development\c-drawings\current\C-CIVIL\3-CURRENT\CAD FILES\130648_C1.DWG
 Date : 07-2-14 12:27pm



LEGEND

-  DENOTES SEDIMENT FILTER FENCE
-  DENOTES MESH AND GRAVEL FILTER ROLL
-  DENOTES GEOTEXTILE FILTER DROP INLET SEDIMENT TRAP
-  DENOTES STRAW BALE FILTER
-  DENOTES STABILISED SITE ACCESS / GRID
-  DENOTES SITE STOCKPILE

1. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE 'BLUE BOOK' MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION.

DRAWN R. GRIEVE DESIGNED S. NAUMOSKI JOB MANAGER VERIFIER

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14

CLIENT



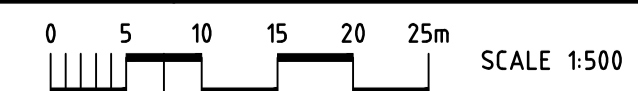
DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

ARCHITECT



THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.



SCALE 1:500



The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000
 Ph (02) 9241 4188 Fax (02) 9241 4324
 P.O. Box H171 Australia Square, NSW 1215
 Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

SOPA FERRY WHARF

DRAWING TITLE

CIVIL DESIGN

CONCEPT SEDIMENT AND EROSION CONTROL PLAN

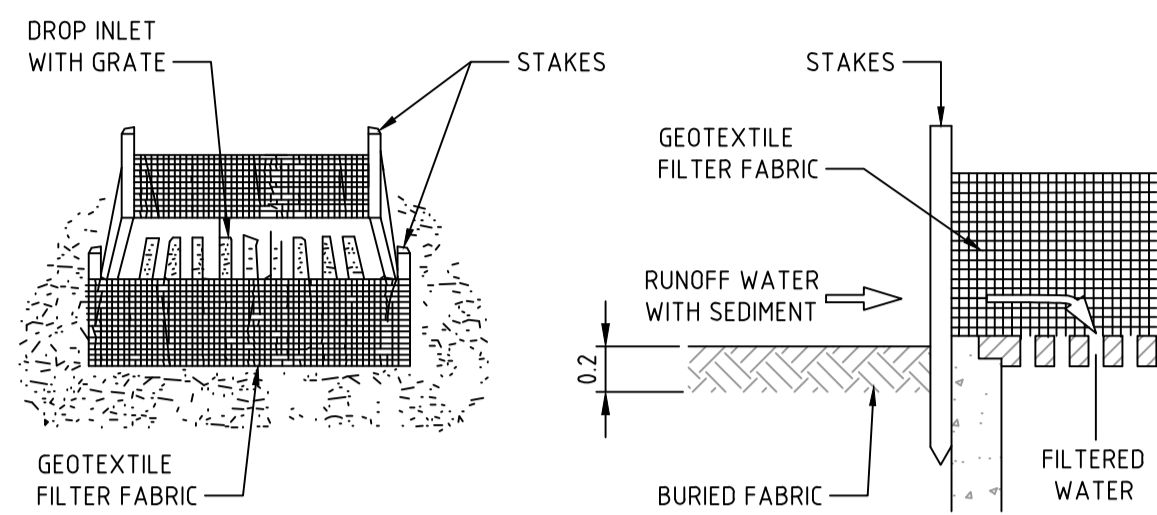
JOB NUMBER

130648

DRAWING NUMBER	REVISION
C2.01	1

DRAWING SHEET SIZE = A1

Plotted By: Robert.Grieve@found - 0:20:13 Job:1138648 - sopaferry wharf, wertworth point - mixed use development/c-drawings/northrop/c-civil/3-CURRENT CAD FILES/138648_C2.DWG Date: 07-2-14 12:38pm

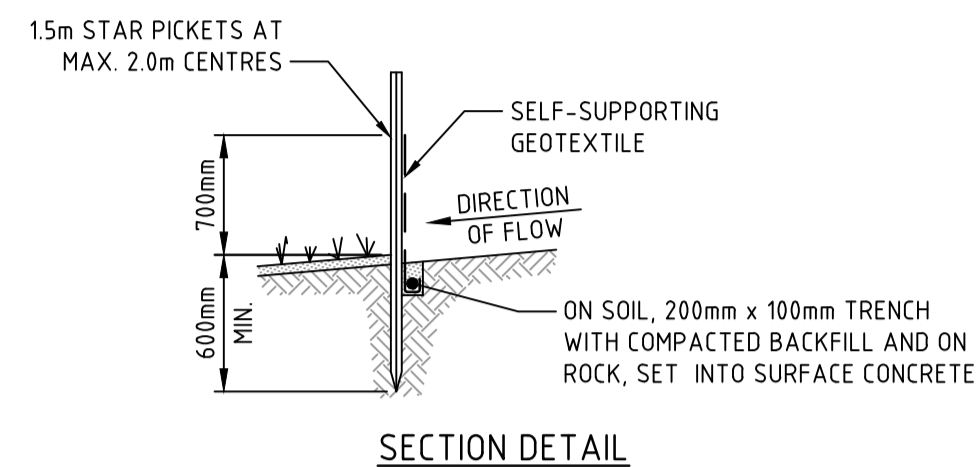


**GEOTEXTILE INLET FILTER
DROP INLET SEDIMENT TRAP**

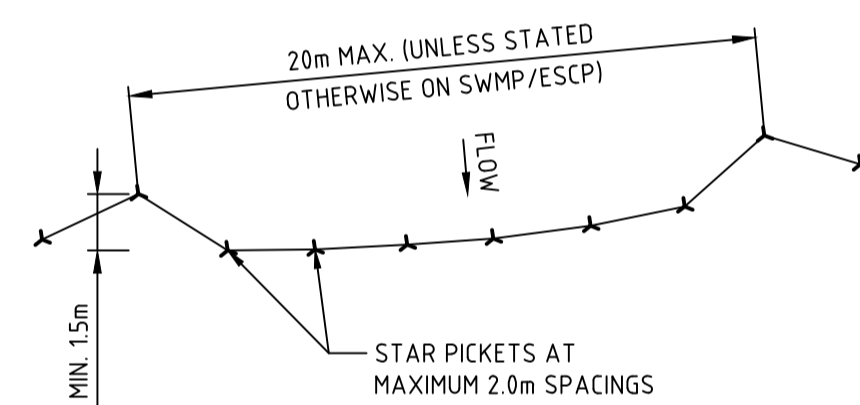
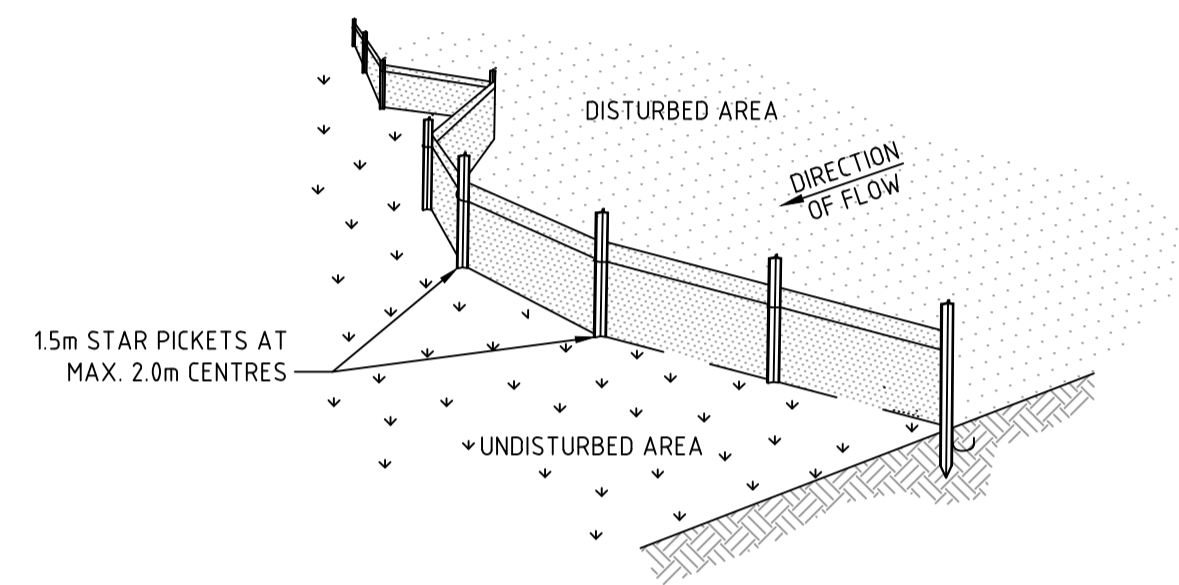
NOT TO SCALE

NOTES:

- FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
- CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- DRIVE 10m LONG STAR PICKETS INTO GROUND AT THE FOUR CORNERS OF PIT WALLS. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



SECTION DETAIL

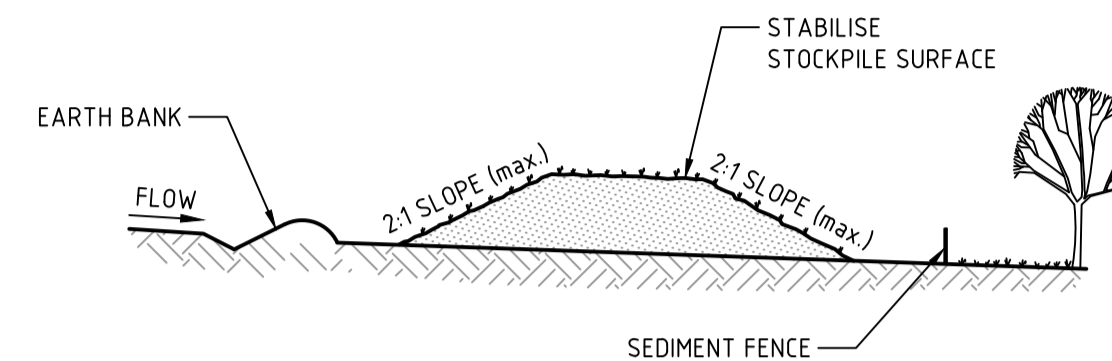


SEDIMENT FENCE

NOT TO SCALE

NOTES:

- CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50L/s IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
- CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- DRIVE 15m LONG STAR PICKETS INTO GROUND AT 2.0m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

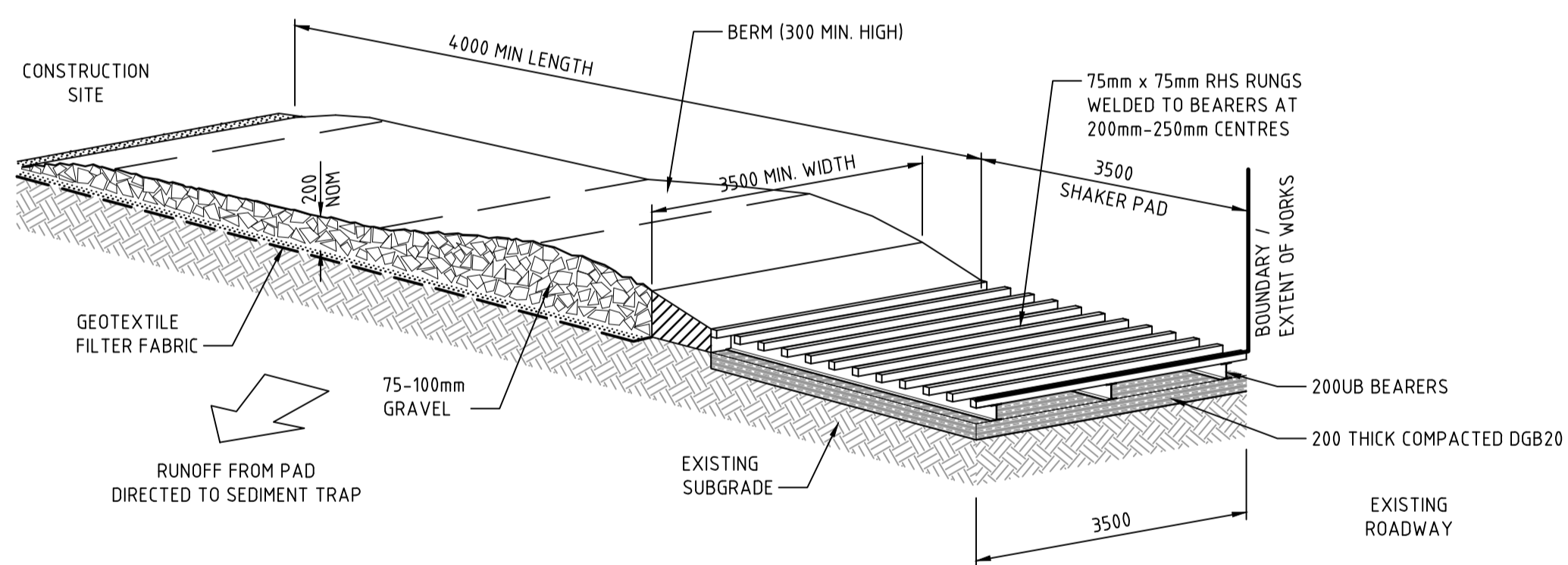


STOCKPILE

NOT TO SCALE

NOTES:

- PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
- CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
- WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT. 4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
- CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

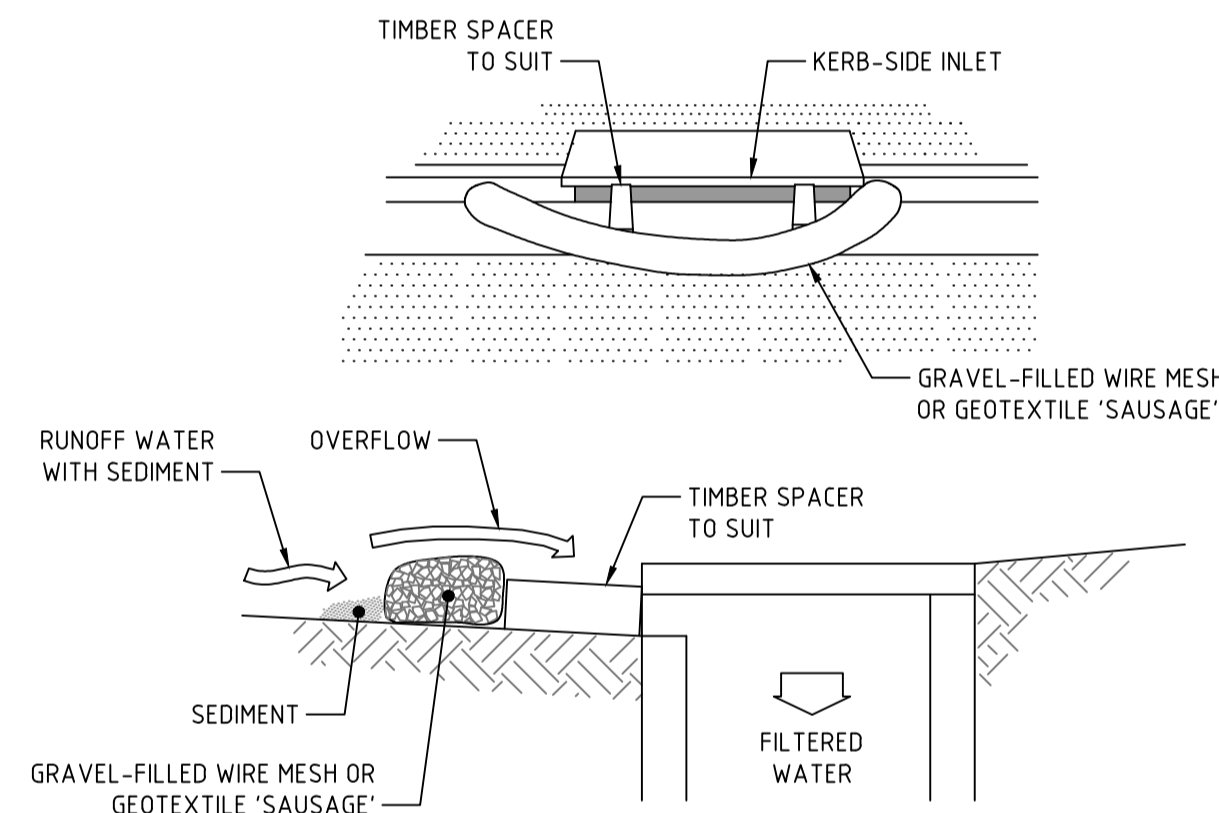


STABILISED SITE ACCESS

NOT TO SCALE

MAINTENANCE

- THE TEMPORARY ACCESS SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY.
- THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
- INSTALL BARRIER ON EITHER SIDE OF SHAKER PAD TO ENSURE VEHICLES ARE GUIDED ON TO THE PAD.
- INVERT OF SHAKER PAD TO BE DRAINED VIA AGRICULTURAL PIPE WRAPPED IN GEOTEXTILE FABRIC.



MESH AND GRAVEL INLET FILTER

NOT TO SCALE

NOTES:

- THIS PRACTICE ONLY TO BE USED WHERE SPECIFIED IN AN APPROVED SWMP/ESCP.
- INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
- FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
- FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
- PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100-mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACE BLOCKS.
- FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
- SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

VERIFIER:

JOB MANAGER: ----

DESIGNED: S. NAUMOSKI

DRAWN: R. GRIEVE

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14

CLIENT

ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000
Ph (02) 9241 4188 Fax (02) 9241 4324
P.O. Box H171 Australia Square, NSW 1215
Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

SOPA FERRY WHARF

DRAWING TITLE

CIVIL DESIGN

CONCEPT SEDIMENT AND EROSION CONTROL DETAILS

JOB NUMBER

130648

DRAWING NUMBER

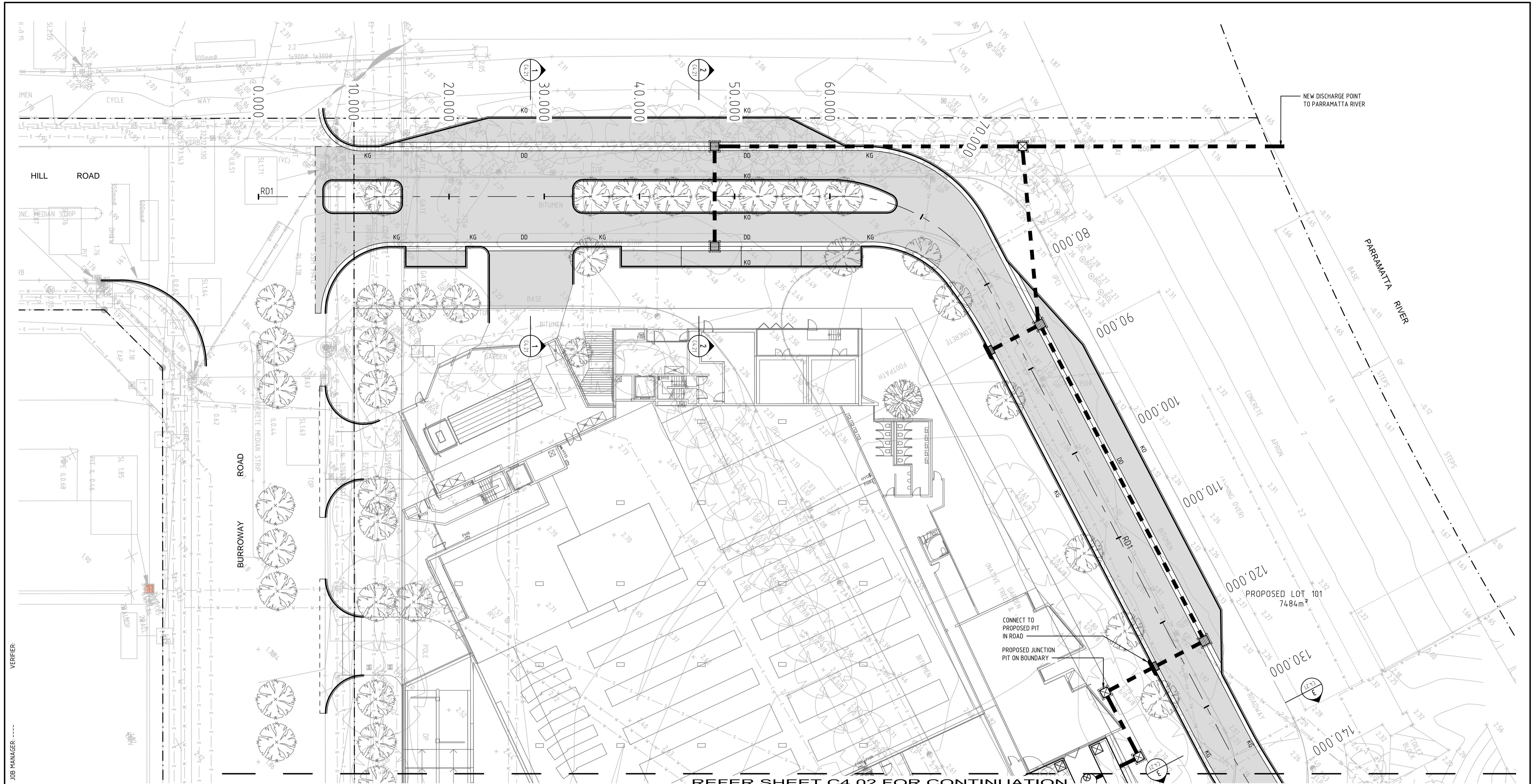
C2.11

REVISION

1

DRAWING SHEET SIZE = A1

Drawn By: Robert.Grieve@found - 0:2013 Job:113848 - 0:2013 Job:113848 - sopsa ferry wharf, wertworth point - mixed use development-drawings/northrop/c-civil3-current CAD FILE:130648_C2.11.dwg Date: 07-2-14 12:28pm



REFER SHEET C4.02 FOR CONTINUATION

LEGEND

- DENOTES PROPOSED SITE BOUNDARY LOCATION
- DENOTES PROPOSED KERB & GUTTER - REFER KERB DETAIL 'KG'
- DENOTES PROPOSED KERB ONLY - REFER KERB DETAIL 'KO'
- DENOTES PROPOSED 900mm WIDE DISH DRAIN - REFER KERB DETAIL 'DD'
- DENOTES PROPOSED ROAD PAVEMENT

- DENOTES PROPOSED STORMWATER DRAINAGE PIT(S)
- DENOTES PROPOSED STORMWATER DRAINAGE LINE
- RAINWATER HARVESTING TANK
- GROSS POLLUTANT TRAP (CDS0506 OR APPROVED EQUIVALENT)

NOTES

1. REFER C1.01 FOR DA AND STORMWATER NOTES.
2. ROOF AREA TO DRAIN TO PROPOSED RAINWATER TANK. INTERNAL SITE DRAINAGE TO DRAIN VIA STORMWATER TREATMENT TRAIN (GPT AND STORMFILTERS) PRIOR TO LEAVING SITE.
3. STORMWATER DRAINAGE AND ROADWORKS ARE TO BE IN ACCORDANCE WITH SOPA POLICY AND GUIDELINES.

DESIGNED: S. NAUMOSKI
 DRAWN: R. GRIEVE
 JOB MANAGER: ----
 VERIFIER:

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14

CLIENT

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:200

NORTHROP
Sydney

The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000
 Ph (02) 9241 4188 Fax (02) 9241 4324
 P.O. Box H171 Australia Square, NSW 1215
 Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

SOPA FERRY WHARF

DRAWING TITLE

CIVIL DESIGN
ROAD AND CONCEPT DRAINAGE LAYOUT - SHEET 1

JOB NUMBER

130648

DRAWING NUMBER

C4.01

REVISION

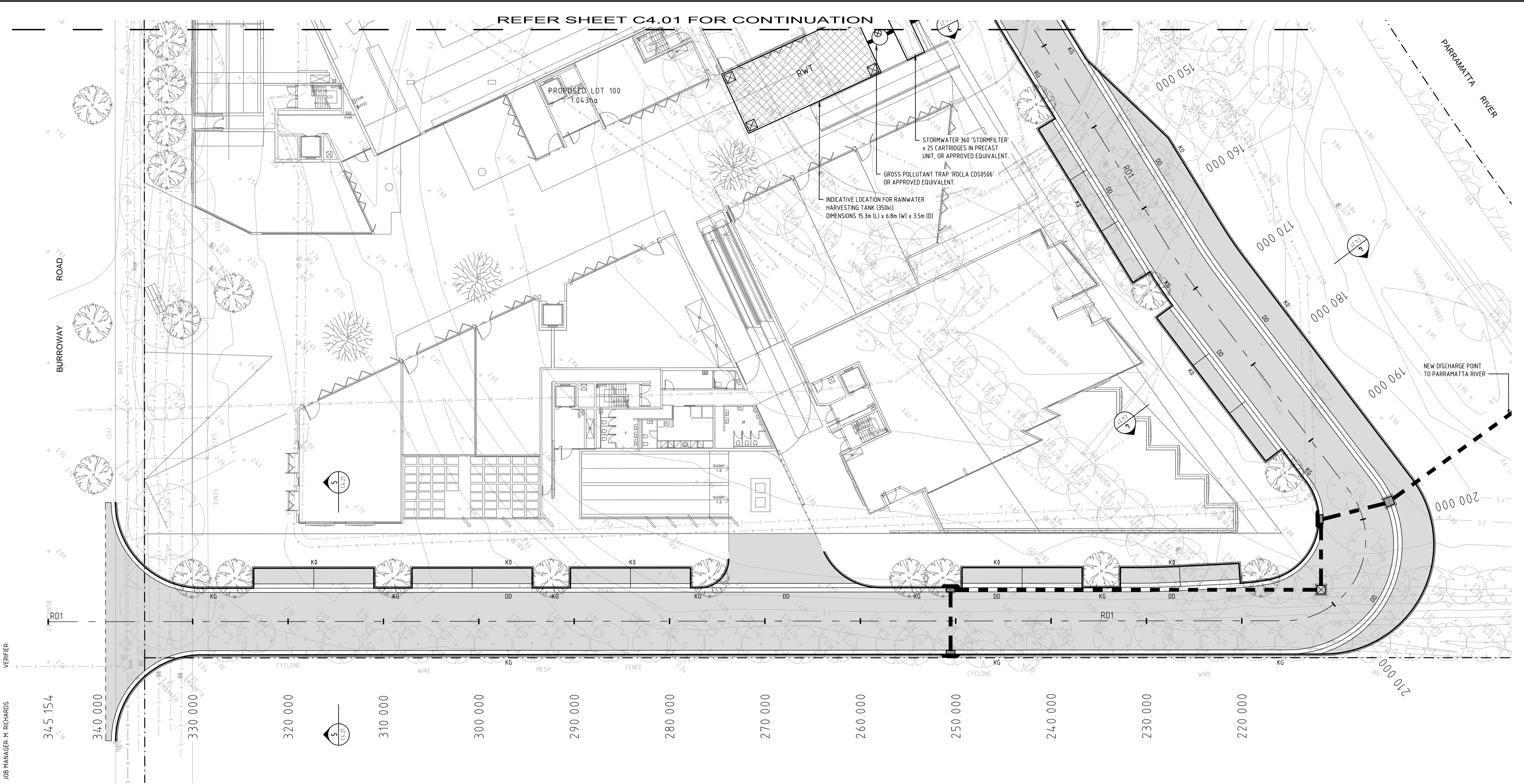
1

DRAWING SHEET SIZE = A1

NOT FOR CONSTRUCTION

Plotted By: Robert.Grieve@found.com.au : C:\2013 Jobs\130648 - sopa ferry wharf - mixed use development\c-drawings\current\C-CIVIL3-CURRENT CAD FILES\130648_C4.01-C4.02.dwg
 Date: 07-2-14 12:28pm

REFER SHEET C4.01 FOR CONTINUATION



DRAWN R. GRIEVE
DESIGNED S. NAUMOSKI
JOB MANAGER W. RICHARDS
VERIFIER

LEGEND

- DENOTES PROPOSED SITE BOUNDARY LOCATION
- DENOTES PROPOSED KERB & GUTTER - REFER KERB DETAIL 'KG'
- DENOTES PROPOSED KERB ONLY - REFER KERB DETAIL 'KO'
- DENOTES PROPOSED 900mm WIDE DISH DRAIN - REFER KERB DETAIL 'DD'
- DENOTES PROPOSED ROAD PAVEMENT

- DENOTES PROPOSED STORMWATER DRAINAGE PIT(S)
- DENOTES PROPOSED STORMWATER DRAINAGE LINE
- RAINWATER HARVESTING TANK
- GROSS POLLUTANT TRAP (CDS0506 OR APPROVED EQUIVALENT)

NOTES

1. REFER C1.01 FOR DA AND STORMWATER NOTES.
2. ROOF AREA TO DRAIN TO PROPOSED RAINWATER TANK. INTERNAL SITE DRAINAGE TO DRAIN VIA STORMWATER TREATMENT TRAIN (GPT AND STORMFILTERS) PRIOR TO LEAVING SITE.
3. STORMWATER DRAINAGE AND ROADWORKS ARE TO BE IN ACCORDANCE WITH SOPA POLICY AND GUIDELINES.

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14
2	REISSUED FOR DA APPROVAL	SW		SN	12.05.14

CLIENT

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:200

The Gratton Bond Store, 60 Hickson Road, Sydney NSW 2000
Ph (02) 9241 4188 Fax (02) 9241 4324
P.O. Box H171 Australia Square, NSW 1215
Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

SOPA WENTWORTH POINT

DRAWING TITLE

CIVIL DESIGN

ROAD AND CONCEPT DRAINAGE LAYOUT - SHEET 2

JOB NUMBER

130648

DRAWING NUMBER

C4.02

REVISION

2

DRAWING SHEET SIZE = A1

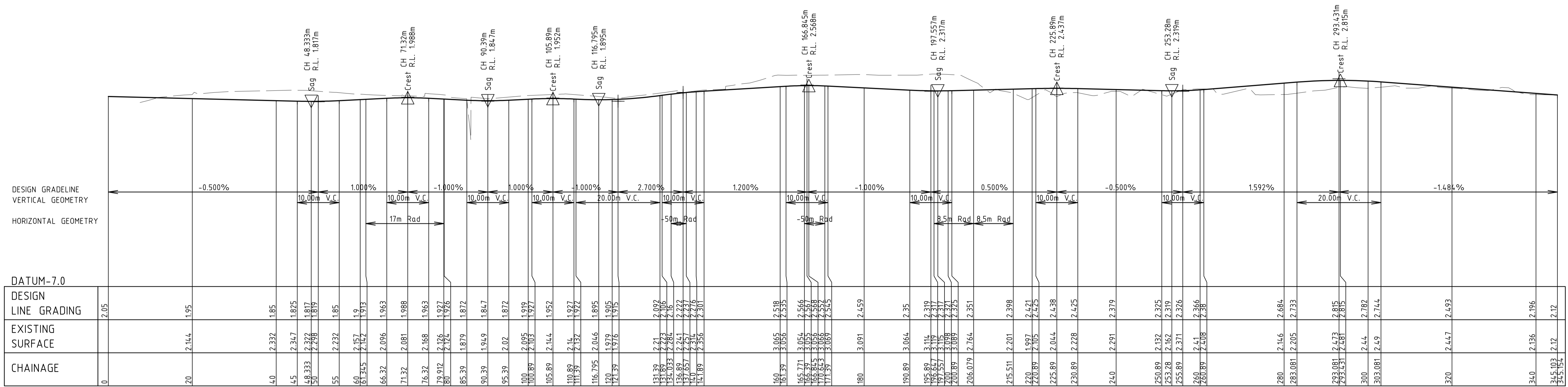
NOT FOR CONSTRUCTION

Found: C:\2013\Jobs\130648 - SOPA Ferry Wharf, Wentworth Point - Mixed Use Development\C-Drawings\C-CIVIL\CURRENT CAD FILES\130648_C4.01-C4.02.dwg
Plotted By: sward
Date: 12-5-14 2:43pm

DESIGNED: S. NAUMOSKI

JOB MANAGER: ----

VERIFIER:



LONGITUDINAL SECTION RD1
 Horizontal scale 1:500
 Vertical scale 1:100

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14

CLIENT

ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:500

The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000
 Ph (02) 9241 4188 Fax (02) 9241 4324
 P.O. Box H171 Australia Square, NSW 1215
 Email sydney@northrop.com.au ABN 81 084 433 100

PROJECT

SOPA FERRY WHARF

DRAWING TITLE

CIVIL DESIGN
LONGITUDINAL SECTION

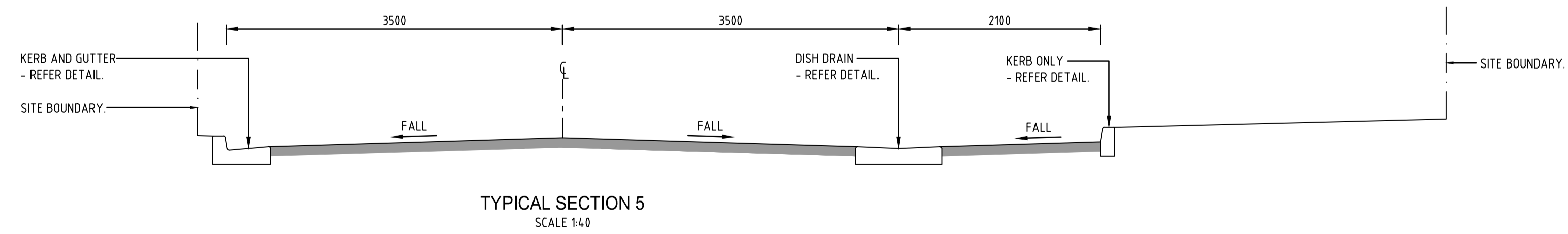
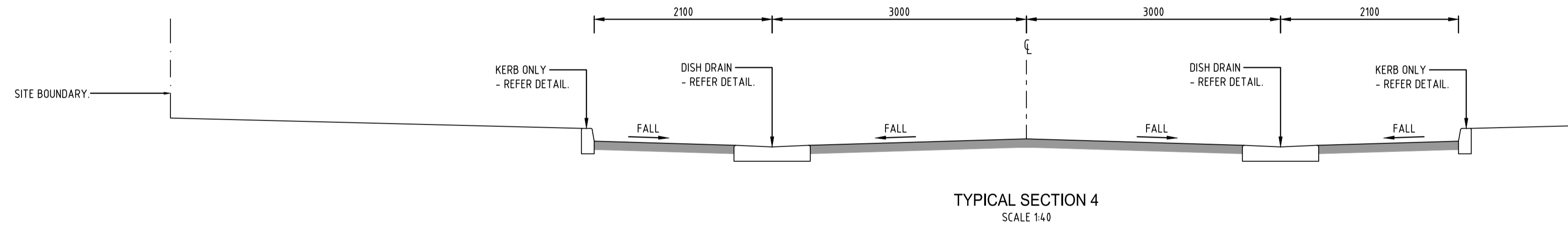
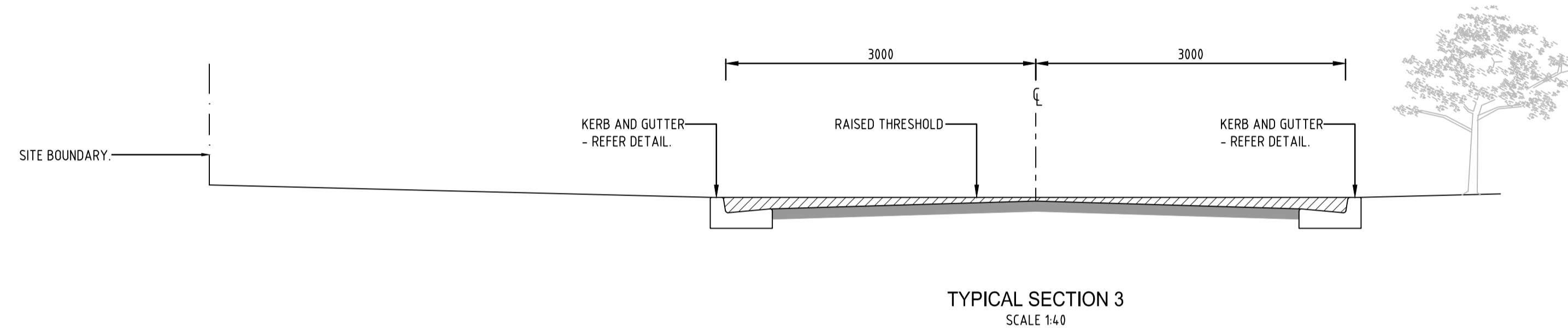
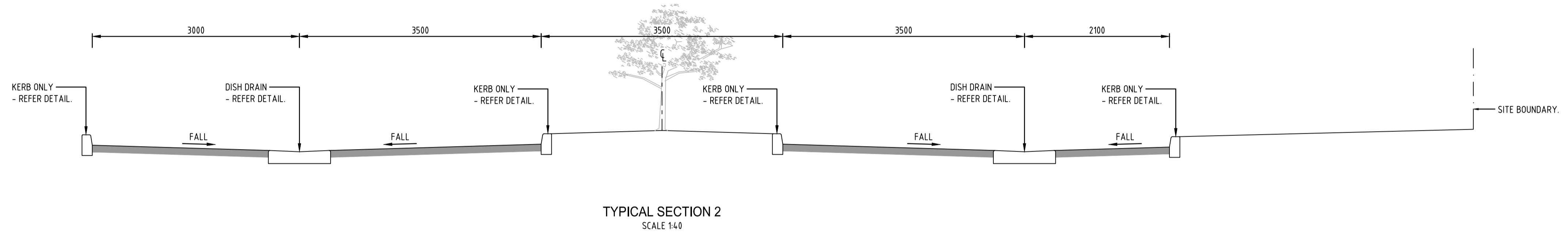
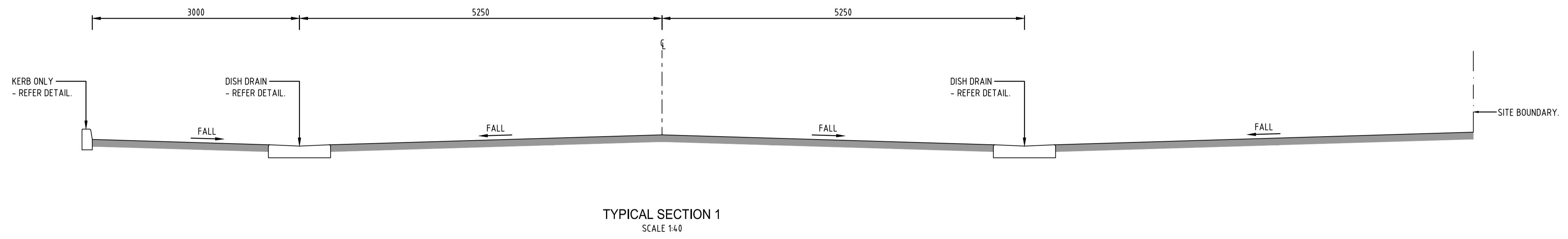
JOB NUMBER

130648

DRAWING NUMBER	REVISION
C4.11	1

DRAWING SHEET SIZE = A1

Drawn By: Robert.Grieve@found : 02013 Job:1138648 - SOPA FERRY WHARF, WENTWORTH POINT - mixed use development - drawings/northrop/civil/3-CURRENT CAD FILES/138648_C4.11.dwg
 Date : 07-2-14 12:28pm



NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR DA APPROVAL	RG		SN	07.02.14

CLIENT

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:40

The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000
Ph (02) 9241 4188 Fax (02) 9241 4324
P.O. Box H171 Australia Square, NSW 1215
Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

SOPA FERRY WHARF

DRAWING TITLE

CIVIL DESIGN
TYPICAL CROSS SECTIONS

JOB NUMBER

130648

DRAWING NUMBER	REVISION
C4.21	1

DRAWING SHEET SIZE = A1

VERIFIER:

JOB MANAGER: ----

DESIGNED: S. NAJOSKI

DRAWN: R. GRIEVE

Plotted By: Robert.Grieve@found - 0:20:13 Job:1138648 - sopa ferry wharf, wertworth print - mixed use development - drawings/northrop/c-civil/3-CURRENT CAD FILE:1138648_C4.21.dwg
 Date: 07-2-14 12:38pm