

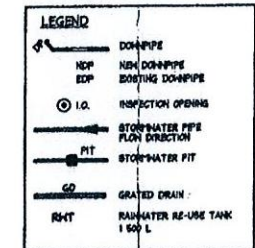
STORMWATER MANAGEMENT PLAN
SCALE = 1 : 100

- RAINWATER RE-USE TANKS:**
1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN BEDS RECOMMEND PROVIDING A RAINWATER TANK FOR THE FOLLOWING USES:
 - a) TO WATER GARDEN AREAS
 - b) CONNECT TO M.C. 4) CONNECT TO WASHING MACHINE.
 2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
 3. REFERENCES:
 - COOCHES P.J. & KUCERA G. (2001), 'RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT', STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE.
 - PATRICK DUPONT & STEVE SHACKEL, 'RAINWATER', AUSTRALIAN GOVERNMENT (2004), 'GUIDANCE ON USE OF RAINWATER TANKS' AVAILABLE AT www.sydneywater.com.au
 4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE 'INSTALLING A RAINWATER TANK' AVAILABLE AT www.sydneywater.com.au
 5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIS-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES.

- STORMWATER NOTES:**
1. ALL PIPES TO BE 100mm Ø UNLESS NOTED OTHERWISE.
 2. ALL PIPES TO BE UPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
 3. ALL PIPES TO BE LAYED AT 1 : 8 MINIMUM GRADE UNLESS NOTED OTHERWISE.
 4. ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 95% M.D.D. BELOW PAVEMENTS. (NO COMPACTED REQUIRED BELOW LANDSCAPING)
 5. COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMPING AND MATING IN TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
 6. ALL DOWN PIPES TO BE 100mm Ø UNLESS NOTED OTHERWISE.
 7. DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO CONSTRUCTION WITH WORK.
 8. PROVIDE CLEANING EYES AT ALL DOWNPIPES.
 9. ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 10mm TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 500 DEEP TO BE MINIMUM 1000mm AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 10mm TOP TIE UNLESS NOTED OTHERWISE.
 10. ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
 11. ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
 12. PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APPROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
 13. ALL LEVELS SHOWN ARE TO AHD.
 14. ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREES ROOT SYSTEMS.
 15. ALL EXISTING EARTHWORK PIPES TO BE UPGRADED TO UPVC.
 16. ALL WORKS TO BE IN ACCORDANCE WITH AS 1905-2005 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

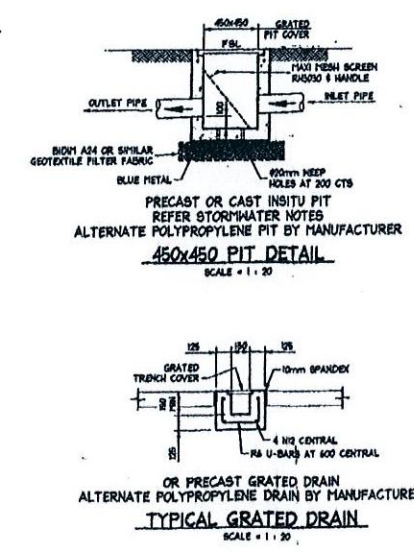
NOTE: ALL EXISTING DOWNPIPES, GUTTERS & STORMWATER PIPES TO BE CLEANED, CHECKED & REPLACED IF REQUIRED.

NOTE: RAINWATER TANK & DRAINAGE LINES ARE INDICATIVE ONLY AND MAY VARY DUE TO CONSTRUCTION. IF IN DOUBT CONTACT THE ENGINEER.



SUMMARY

TOTAL SITE AREA	605.7 m ²
EXISTING IMPERVIOUS AREA	407.7 m ² (67.3%)
PROPOSED IMPERVIOUS AREA	528.4 m ² (87.2%)

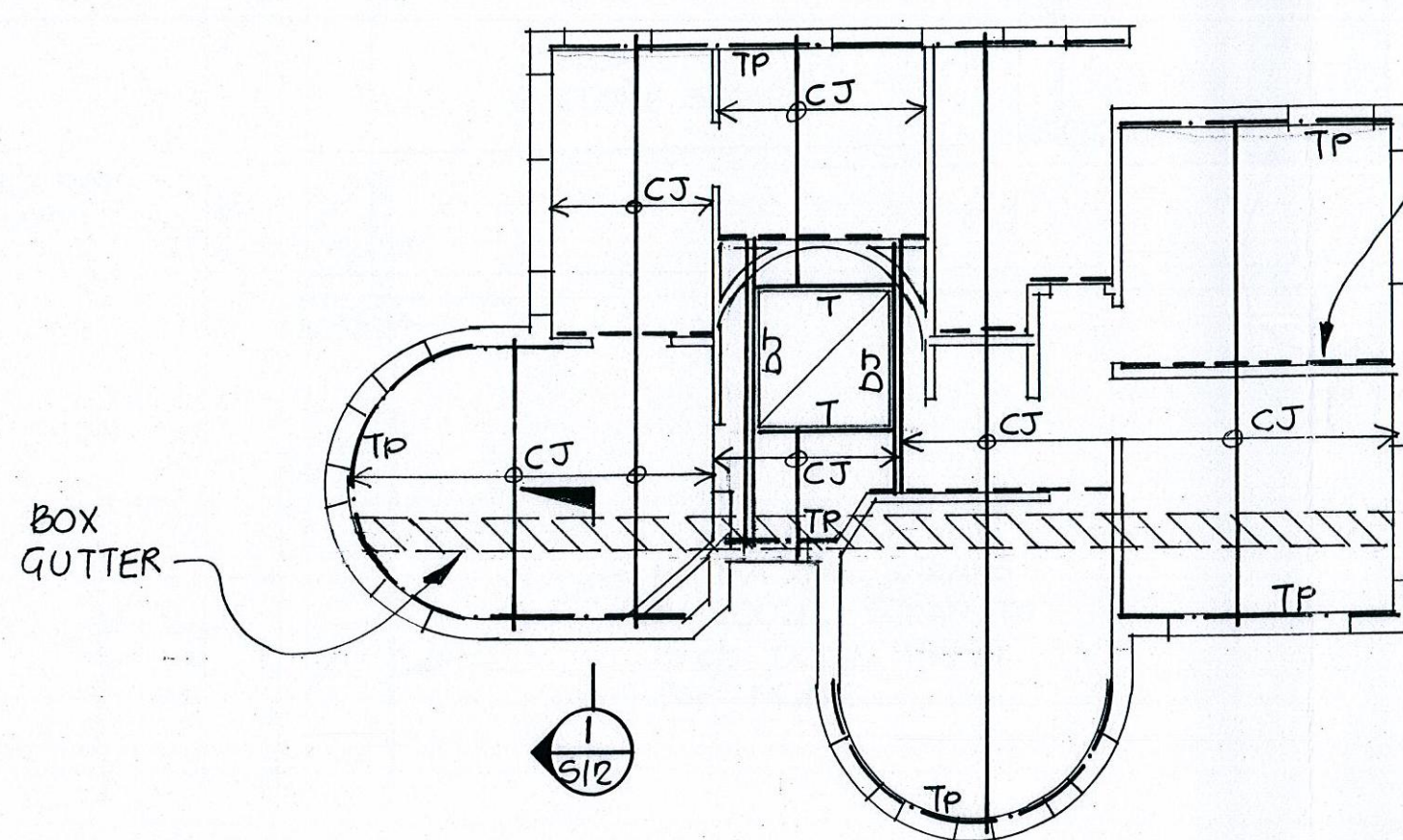


DOCUMENT CERTIFICATION Date: 24/07/2009 Stewart McGeehey S.E.(CNS) / M.Eng. P.Eng. (Director Northern Beaches Consulting Engineers)		NORTHERN BEACHES Consulting Engineers P/L 1/11-11/12/11 (M.Eng. P.Eng. S.E.(CNS)) 1/11-11/12/11 (M.Eng. P.Eng. S.E.(CNS)) 1/11-11/12/11 (M.Eng. P.Eng. S.E.(CNS)) 1/11-11/12/11 (M.Eng. P.Eng. S.E.(CNS))		Author: Anthony Sweeney Check: Rebecca & Matt Cook		Project: ALTERATIONS & ADDITIONS 45 EUROBIN AVE MANLY		Date: AUG 08 Design: BS/RH Drawn: MC		Job No: 080552 Drawing No: D01 Rev: A	
24/07/2009	A	REVISED TO SUIT NEW ARCH LAYOUT	Revised	Amendments							

THIS PLAN / DOCUMENT FORMS
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NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: S01.



WALL TIE DOWN AS PER DETAIL

C.J: HJ 200 45 HYJOIST @ 600cts OR
130 x 45 LVL HYSpan @ 600cts OR
190x 45 F7 KD @ 600cts

DJ: DOUBLE CEILING JOIST

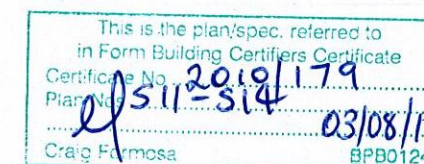
T: 2/HJ 200 45 (BLOCK OUT WEBS)

TP: 90x45 F7 KD TOP PLATE
WITH PRYDA GAL STRAPS @ 1200cts.
ANCHOR STRAPS 15c/s DOWN WALL.

ROOF FRAMING PLAN

1:100

NOTE: PROVIDE FRAMING AT 1200 cts
TO SUPPORT ROOF SHEETING
AT FALL IN ACCORDANCE WITH
ARCHITECTURAL PLANS.



A3

DOCUMENT CERTIFICATION				NORTHERN BEACHES Consulting Engineers P/L		Architect:	ANTHONY SWEENEY	Project:	45 EUROBIN AVE MANLY	Date:	FEB '10	Design:	R.T.	Drawn:	LFC	Checked:	
Date: 23/2/10				A.C.N. 076 121 616 A.B.N. 24 076 121 616		Client:		Drawing Title:		Job No:		Drawing No:		Rev:			
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Amendment:																	
By:																	

DOCUMENT CERTIFICATION

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Architect:

ANTHONY SWEENEY

Client:

M. & R. COOK

Project:

45 EUROBIN AVE
MANLY

Drawing Title:

ROOF FRAMING PLAN

Date:

FEB '10

Design:

R.T.

Drawn:

LFC

Checked:

Job No:

080552

Drawing No:

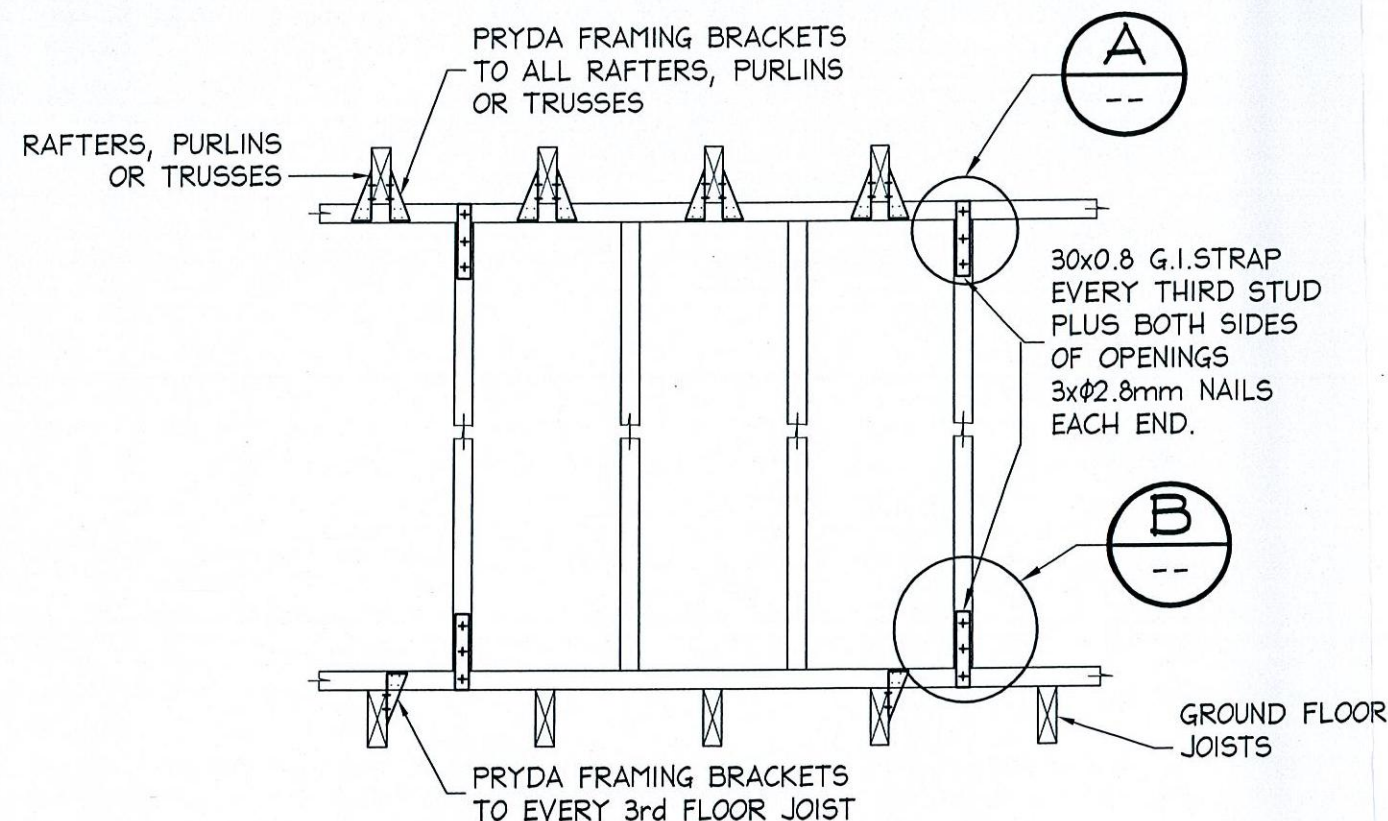
S11

Rev:

NB Northern Beaches Consulting Engineers Pty Ltd.

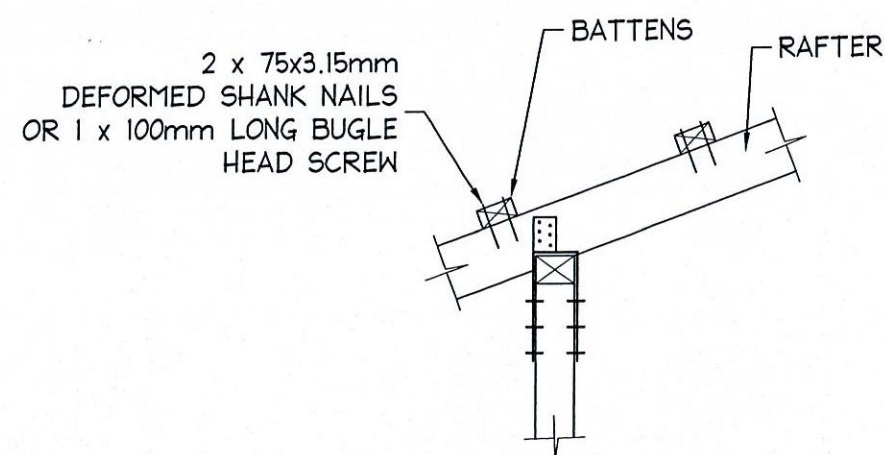
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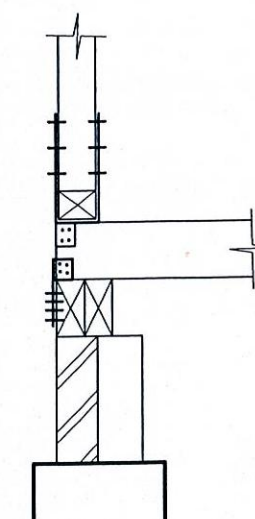
TYPICAL TIE DOWN DETAIL

SCALE = 1 : 20



DETAIL A

SCALE = 1:20



DETAIL B

SCALE = 1:20

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IF IN DOUBT ASK

NB Northern Beaches Consulting Engineers Pty Ltd.

A3

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Date: 23/2/10				A.C.N. 076 121 616 A.B.N. 24 076 121 616				Client: M. & R. COOK				Drawing Title: TYPICAL TIE DOWN DETAIL				Job No: 080552			
By: Stewart McGeady				Suite 207, 30 FISHER ROAD												Drawing No: 514			
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