BASIX & SITE INFORMATION

BASIX CERTIFICATE NUMBER:	---
CONSTRUCTION CERTIFICATE NUMBER:	5489/09

SITE DETAILS

LOT NUMBER:	A No.23
DP NUMBER:	345655
UBD REFERENCE:	---
SITE AREA:	430.00m²
HOUSE AREAS: (MEASURED TO EXTERNAL WALLS)	
GROUND FLOOR:	148.91m²
FIRST FLOOR:	148.64m²
GARAGE:	33.63m²
BALCONY:	10.89m²
PATIO/ALFRESCO:	23.28m²
DRIVEWAY/PATHS TO BOUNDARY:	45.78m²

PROJECT DETAILS

NO. OF BEDROOMS:	4
ROOF AREA: (TOTAL AREA OF ROOF MEASURED TO THE OUTSIDE OF GUTTERS EXCLUDES PARAPETS & TRAFFICABLE TERRACES (GUTTER WIDTH 150mm))	230.51m²
GARDEN & LAWNS (AREA OF PROPOSED GARDENS & LAWN)	178.40m²

STORMWATER

RAINWATER TANK SIZE:	2 x 3500 litre
ROOF AREA CONNECTED TO RAINWATER:	115.00m²
RAINWATER USES:	GARDENS, LAUNDRY & ALL TOILETS
REMAINDER OF ROOFWATER & OVERFLOW TO:	STREET
HYDRAULIC DESIGN REQUIRED:	YES

WATER

KITCHEN TAP FITTING RATING:	4 STAR
SHOWERHEAD RATING:	3 STAR
TOILET RATING: -DUAL FLUSH (3/6 litre)	3 STAR
BATHROOM TAP FITTING RATING:	3 STAR

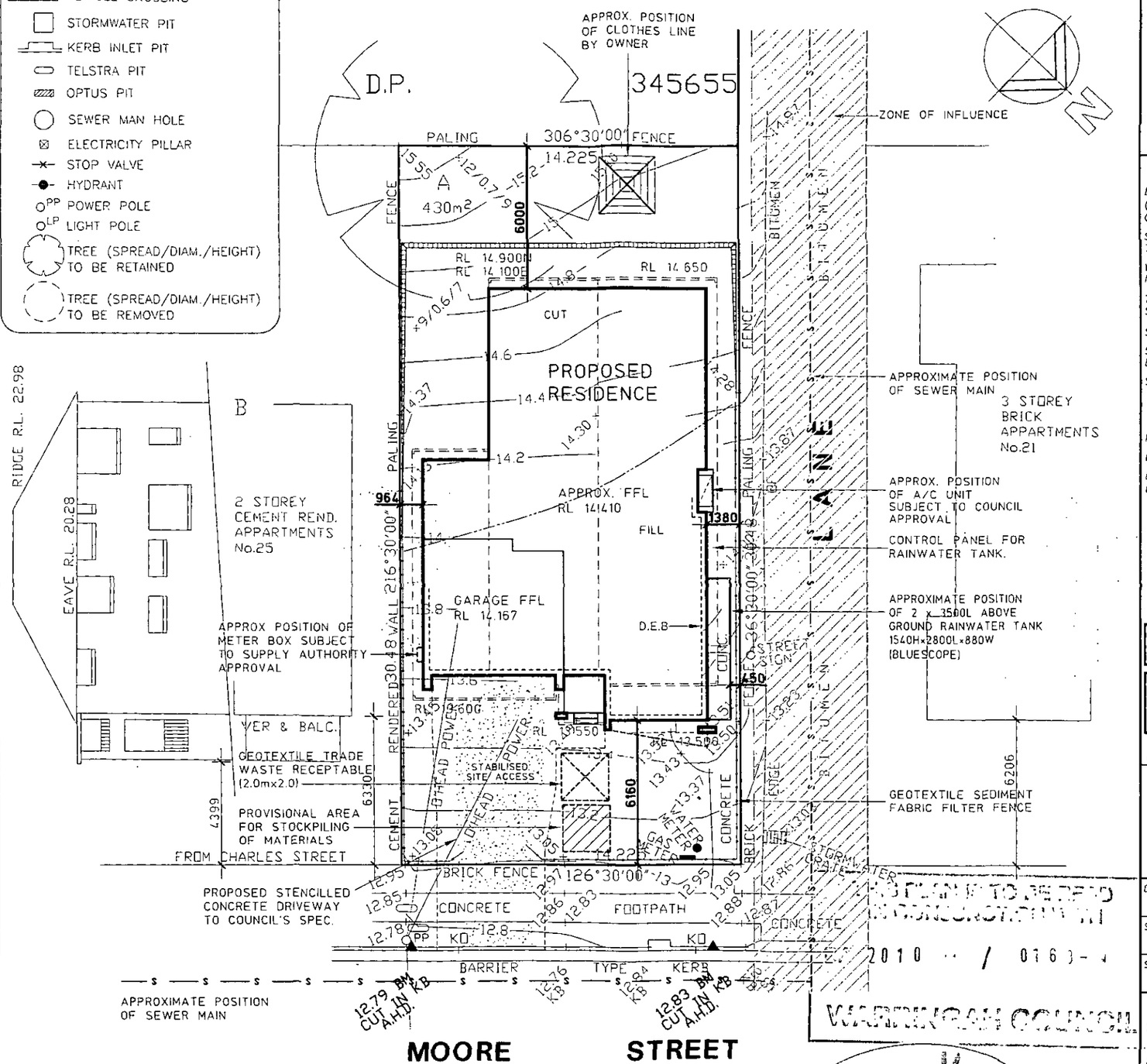
THERMAL COMFORT/ENERGY

EXTERNAL WALL SURFACE:	BRICK
EXTERNAL WALL INSULATION:	R1.5
WALL COLOUR	LIGHT
ROOFING MATERIAL:	METAL
ROOF INSULATION:	---
ROOF COLOUR	DARK
CEILING INSULATION:	R3.5
AIR CONDITIONING INCLUDED:	YES
EER:	2.5-3.0
HOT WATER SYSTEM:	GAS INSTANTANEOUS
STAR RATING:	5
COMPACT FLUORESCENT LIGHTING :	AS PER BASIX
COOKING APPLIANCES:	GAS C/TOP & ELECTRIC OVEN
CLOTHES DRYING LINE REQUIRED:	AS PER BASIX
WIND DRIVEN VENTILATORS REQUIRED/QTY:	NO

CEILING HEIGHT		PRIVATE OPEN SPACE	
MAXIMUM:	7.20m	REQUIRED:	60.00m²
PROPOSED:	6.26m	PROVIDED:	68.42m²
CARPARKING		**RIDGE HEIGHT**	
REQUIRED:	2 SPACES	MAXIMUM:	8.50m
PROVIDED:	2 SPACES	PROPOSED:	7.76m
LANDSCAPING			
REQUIRED:	40%		
PROVIDED:	46%		

KEY TO SYMBOLS

- VEHICLE CROSSING
- STORMWATER PIT
- KERB INLET PIT
- TELSTRA PIT
- OPTUS PIT
- SEWER MAN HOLE
- ELECTRICITY PILLAR
- STOP VALVE
- HYDRANT
- PP POWER POLE
- LP LIGHT POLE
- TREE (SPREAD/DIAM./HEIGHT) TO BE RETAINED
- TREE (SPREAD/DIAM./HEIGHT) TO BE REMOVED



Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH

EXCAVATION & SITE NOTES

EXCAVATE TO FORM DATUM APPROX. 800mm (EXTENT OF EXCAVATION & BATTER TO BE DETERMINED ON SITE. BACKFILL 150mm AGAINST FOOT OF SLAB).

SEWER CONNECTION TO AUTHORITIES REQUIREMENTS TO WITHIN 8.0m

WATER SERVICE CONNECTION FROM EXISTING METER/SERVICE TO NEW HOME IN 25mm DIAMETER PIPE.

TEMPORARY PROTECTIVE FENCING TO BLOCK TO MEET SAFETY REQUIREMENTS.

SITE LEVELS SUBJECT TO SECOND SITE INSPECTION.

SUBJECT TO RESULTS OF A SURVEY TO CONFIRM HOUSE & BOUNDARY POSITIONS, SITE LEVELS & CUT/FILL PROPOSAL

SUBJECT TO POSITION OF SERVICES

ITEMS BY OWNER

RETAINING WALLS TO BE COMPLETED TO ENG'S DETAILS (IF REQUIRED).

DISH DRAINS (IF NEEDED) TO AUTHORITIES' REQUIREMENTS.

EXISTING TREES, STUMPS, CONC. PATHS, BUILDINGS, ETC., TO BE DEMOLISHED FROM BUILDING AREA PRIOR TO 2ND SITE INSPECTION.

NOT IN ZONE

MASTERTON'S NEW MANSION PACKAGE

CID: 36870 - Saul.dwg 30-09-2009/14.10 1:100 - GOCED

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY:	DATE:	JOB No
C.R.	09-08-09	36870
SHEET TITLE: SITE PLAN		SHEET No. 1/6
SCALE: 1:200 ~~1:100~~	FINAL PLAN ISSUE:	FINAL PLAN

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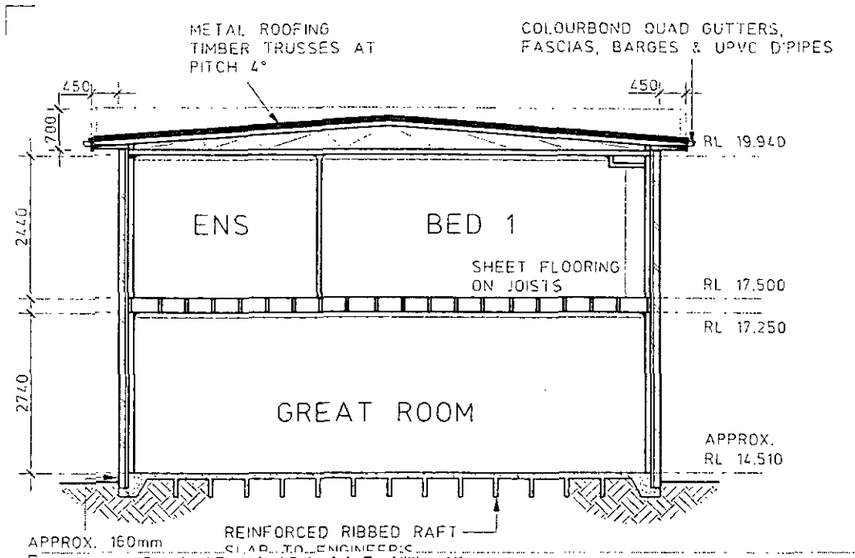
	DRAWING:	DRAWN:		TENDER:	
1	PRESENTATION	C.R.	09.08.09	2	03.07.09
2	ZONE OF INFLUENCE	J.U.	04.09.09		
3	COUNCIL SUBMISSION	G.D.	15.09.09	-	-
4					
5					
6					
7					
8					
9					
10					

NOTE:
ANY TREES APPROVED TO BE REMOVED THAT IS WITHIN THREE METRES OF THE BUILDING FOOTPRINT MUST BE REMOVED COMPLETELY BY OWNER, INCLUDING THE ROOT STRUCTURE. THE GROUND AFFECTED BY THE REMOVAL OF THE TREES MUST BE REINSTATED TO THE ORIGINAL LEVEL USING AN ACCEPTABLE FILLING MATERIAL COMPACTED IN 150mm LAYERS.

PLAN TO BE READ IN CONJUNCTION WITH DA 2010 / 0163
WARRINGAH COUNCIL

ABSA
Assr # 20134 Cert # 18317714
Sign Stephen Hardy
Date 26-Oct-2009

VILLINA - Nouveau
2440 CEILINGS - B.C. 10.12.08



D.E.

Standard Electrical Schedule For Villina-Alfresco

ROOM	SP	DPP	LIGHT	W/LIGHT	SD	EX FAN	2/WAY	3/WAY	WPP	TEL	TV
Living		2	1								
Dining		1	1								
Great Room		3	2								
Study		1	1								
Lounge		2	2		1						
Bed 1		2	2								
Bed 2		1	1								
Bed 3		1	1								
Bed 4		1	1								
Kitchen	6	2	1								
Bathroom		1	1			1					
Powder		1	1			1					
Ensuite		1	1			1					
Laundry		1	1								
Garage		1	2								
Entry			2								
Hallway 1			1		1						
Hallway 2			1		1						
Stairs				2			1				
Front Patio			1								
External			1	1							
			1								
Misc								1		2	2
TOTAL	6	21	26	3	3	3	1	0	0	2	2

LEGEND

SP	Single Power Point
DPP	Double Power Point
LIGHT	Light Point
W/LIGHT	Wall Light Point
SD	Smoke Detector
EX FAN	Exhaust Fan
2/WAY	2 Way Switch
3/WAY	3 Way Switch
WPP	Weather Proof Power Point
TEL	Telephone Point
TV	TV Point

Note: All Variations, Additions & Amendments to the standard Masterton plan do not include Electrical Upgrades. All Upgrades & Amendments to be made at Electrical Selection Stage

WINDOW SCHEDULE

No	TYPE	HEIGHT	WIDTH	GLAZING/REMARK
1	DF1	2090	1261	TEF/TO SUIT 1200Wx2040H DOOR
2	LO520	2033	500	SPECIAL 500W LOUVRE
3	LO520	2033	500	SPECIAL 500W LOUVRE
4	FO505	500	500	SPECIAL
5	FO505	500	500	SPECIAL
6	FO505	500	500	SPECIAL
7	XO/DO1818	1800	1810	
8	DF1	2090	890	T. E. F.
9	XO/DO1812	1800	1210	
10	OXO2136	2100	3590	
11	XO/DO1812	1800	1210	
12	XXO2127	2100	2690	STACKER DOOR
13	DBF CAFE LH1215	1150	1510	CAFE WINDOW
14	XO/DO1812	1800	1210	
15	FO505	500	500	SPECIAL
16	FO505	500	500	SPECIAL
17	LO515	1474	500	SPECIAL 500W LOUVRE
18	LO515	1474	500	SPECIAL 500W LOUVRE
19	2132(3L)	2100	3230	A. S. D.
20	FF1812	1800	1210	
21	XOO618	600	1810	TOUGH. GLASS
22	XO1216	1200	1570	
23	XO1216	1200	1570	
24	XOO618	600	1810	TOUGH. GLASS
25	XOO918	860	1810	
26	XOO918	860	1810	

Assessor # 20134 Certificate # 18317714 Issued: 26-Oct-09

Thermal Performance Specifications

These are the Specifications upon which the Certified Assessment is based. If details not identified in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M²	Detail
Generic GGG-05-001a		Single clear	Aluminium	6.46	0.76	48.2	As per Window Schedule

Skylights	Product ID	Glass	Frame	U Value	SHGC	Area M²	Detail

Any U and SHGC values specified on Certificates issued after 1 May 2007 are according to NFRC 100. All values prior to this date are ANAC. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls	Construction	Insulation	Colour - Solar absorptance	Detail
Brick Veneer		R1.5	Light -SA <0.475	As per detail on plans
Fibro Cement		R1.5	Light -SA <0.475	As per detail on plans

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs		None	As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete		None	Ceramic Tile	As per detail on plans
Timber		None	Carpet	As per detail on plans

Ceilings	Construction	Insulation	Detail
Plasterboard		R3.5	As per detail on plans

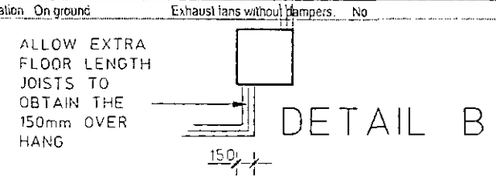
Roof	Construction	Insulation	Colour	Detail
Metal Deck		None	Dark - SA > 0.7	As per detail on plans

Window cover	Internal (curtains)	External (awnings, shutters, etc)
default	for assessment only	None

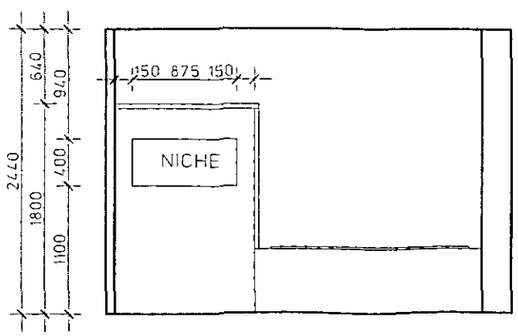
Fixed shading	Eaves (width - inc. gutters)	height above windows	Verandahs, Pergolas (type, descriptio	
450	200	varying as per plans	Patio	As per detail on plans
			Balcony	As per detail on plans

Overshadowing	Overshadowing structures	Overshadowing trees

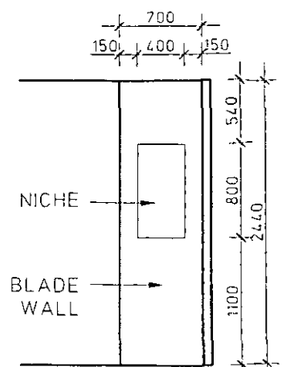
Orientation, Exposure, Ventilation and Infiltration					
Orientation of nominal north:	50	Living area open to entry:	Yes	Ventilated skylights:	No
Terrain category:	Suburban	Living areas separated by doors:	No	Open fire or unflued gas heater	No
Roof ventilation:	Unventilated	Stair open to heated areas:	Yes	Vented downlights:	No
Cross ventilation:	Standard	Seals to windows and doors:	Yes	Wall and ceiling vents:	No
Subfloor ventilation	On ground	Exhaust fans without dampers.	No		



DETAIL B



DETAIL C ENSUITE SHOWER



DETAIL D BLADE WALL IN BATHROOM

Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH

FRAMING NOTES

SQ. SET OPENINGS TO GROUND FLOOR 2240mm HIGH (UNLESS SPECIFIED ON FLOOR PLANS)

SQ. SET OPENINGS TO FIRST FLOOR 2100mm HIGH (UNLESS SPECIFIED ON FLOOR PLANS)

STRENGTHENING OF ROOF TRUSSES AS REQUIRED DUE TO AIR CONDITIONING

H2 TREATED TIMBER TO FRAME & TRUSSES

INSULATION REQUIREMENTS

R1.5 BRADFORD INSULATION BATTS TO EXTERNAL FRAMED WALLS OF LIVING AREAS & INCLUDING WALLS BETWEEN GARAGE & LIVING AREAS

R3.5 BRADFORD INSULATION BATTS TO CEILINGS OF LIVING AREAS (EXCLUDING GARAGE)

ABSA
Assr # 20134 Cert # 18317714
Sign Stephen Hardy
Date 26-Oct-2009

TO BE READ IN CONJUNCTION WITH
D/A 2010 / 0163
WARRINGAH COUNCIL

H2 TREATED TIMBER TO FRAME & TRUSSES

CID: 36870 - .Saul.dwg 30-09-2009/14.10 1:100 - GOCED

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY:	DATE:	JOB No.
C.R.	09-08-09	36870
SHEET TITLE: SECTION		SHEET No. 4/6
SCALE: 1:100	FINAL PLAN ISSUE:	FINAL PLAN

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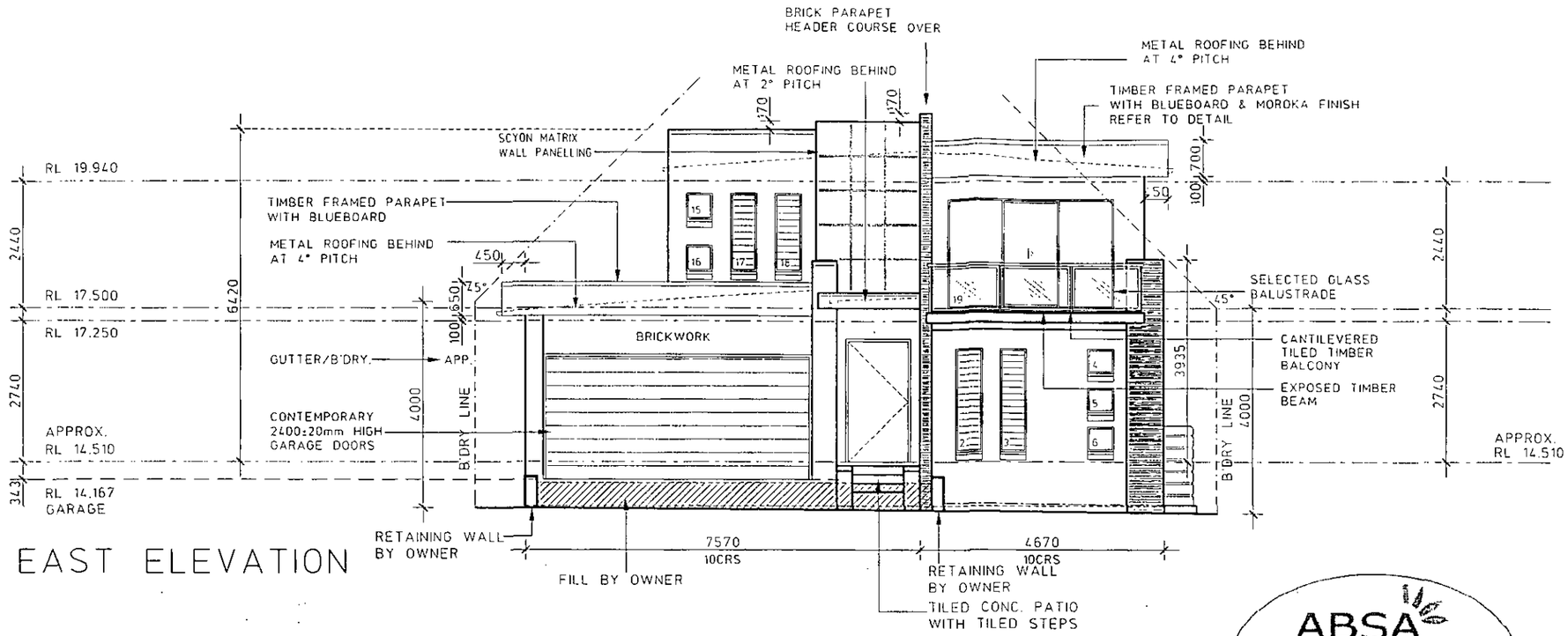
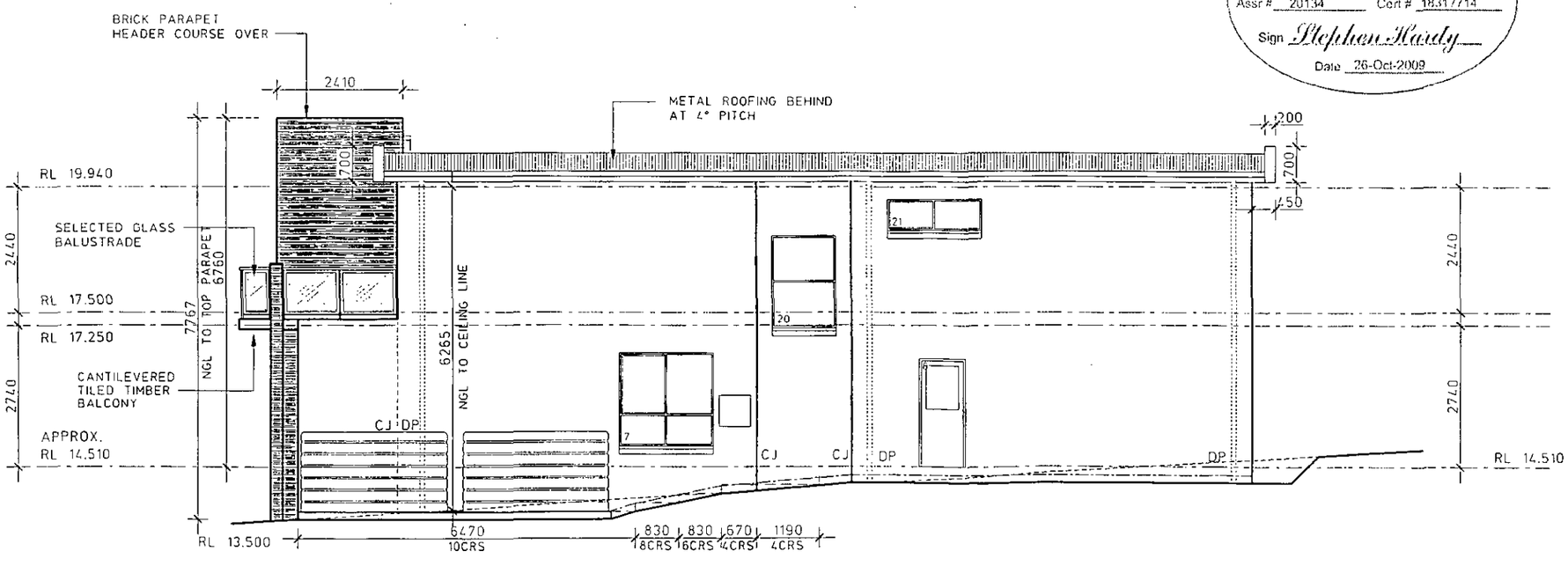


EAST ELEVATION



NORTH ELEVATION

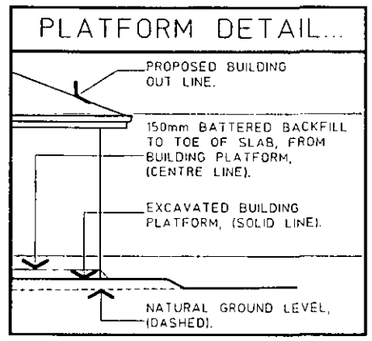
ABSA
Assr # 20134 Cert # 18317714
Sign Stephen Hardy
Date 26-Oct-2009

Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH

PLATFORM DETAIL...



"FLASHING TO DAMPCOURSE LEVEL TO BE FINISHED FLUSH WITH OUTSIDE FACE OF BRICKWORK"

THIS PLAN IS TO BE READ IN CONJUNCTION WITH
D.A. 2010 / 0163
WARRINGAH COUNCIL

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Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

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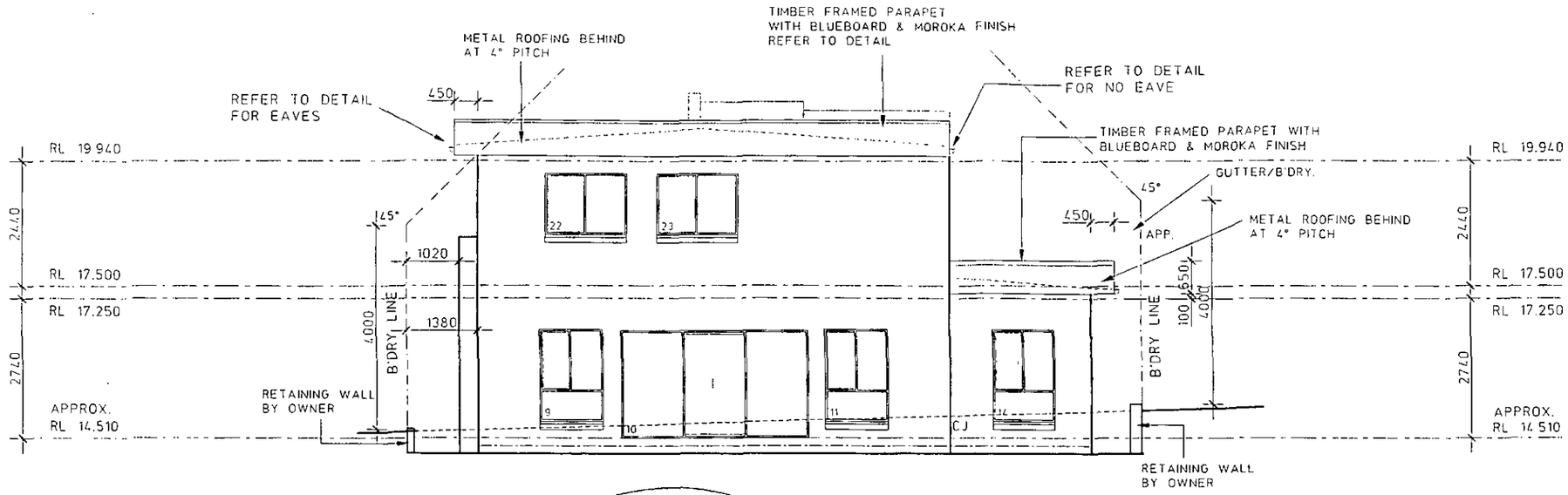

WEST ELEVATION

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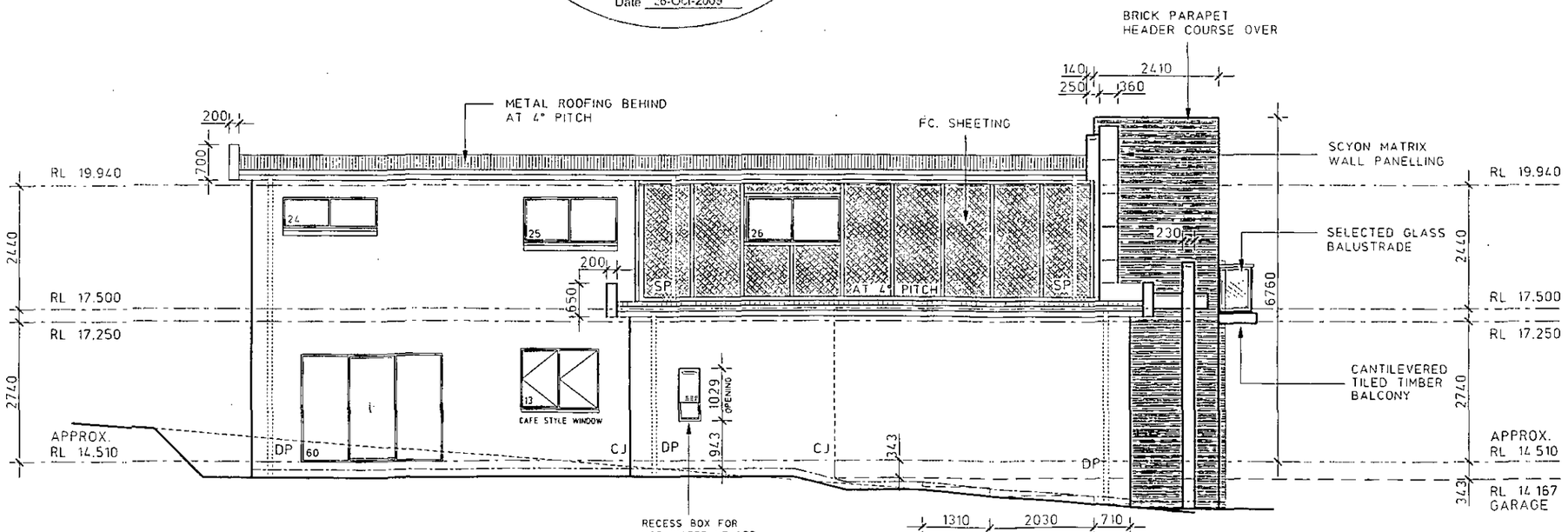
Date 26-Oct-2009

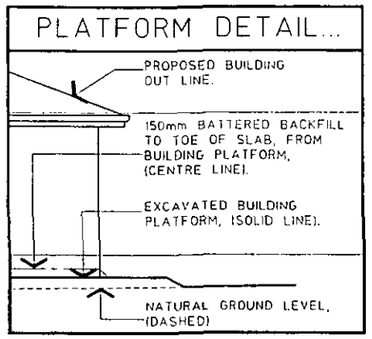


SOUTH ELEVATION

Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



"FLASHING TO DAMPCOURSE LEVEL TO BE FINISHED FLUSH WITH OUTSIDE FACE OF BRICKWORK"

THIS PLAN IS TO BE READ IN CONJUNCTION WITH
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Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

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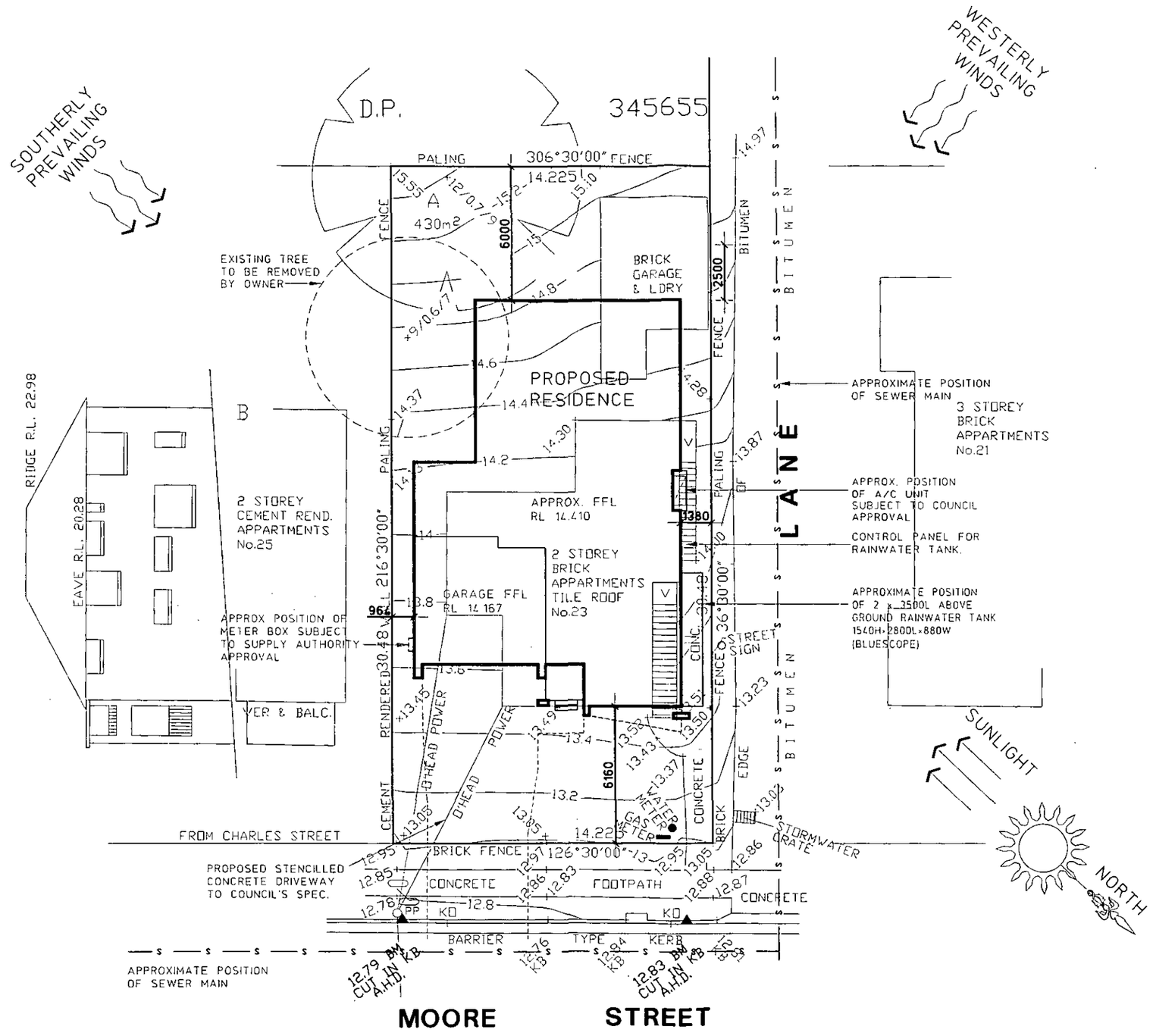

Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH

THIS PLAN IS APPROVED IN CONJUNCTION WITH

DA. 2010 / 0163

WARRINGAH COUNCIL

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 22.09.09	JOB No 36870
SHEET TITLE: SITE ANALYSIS		SHEET No 1/1
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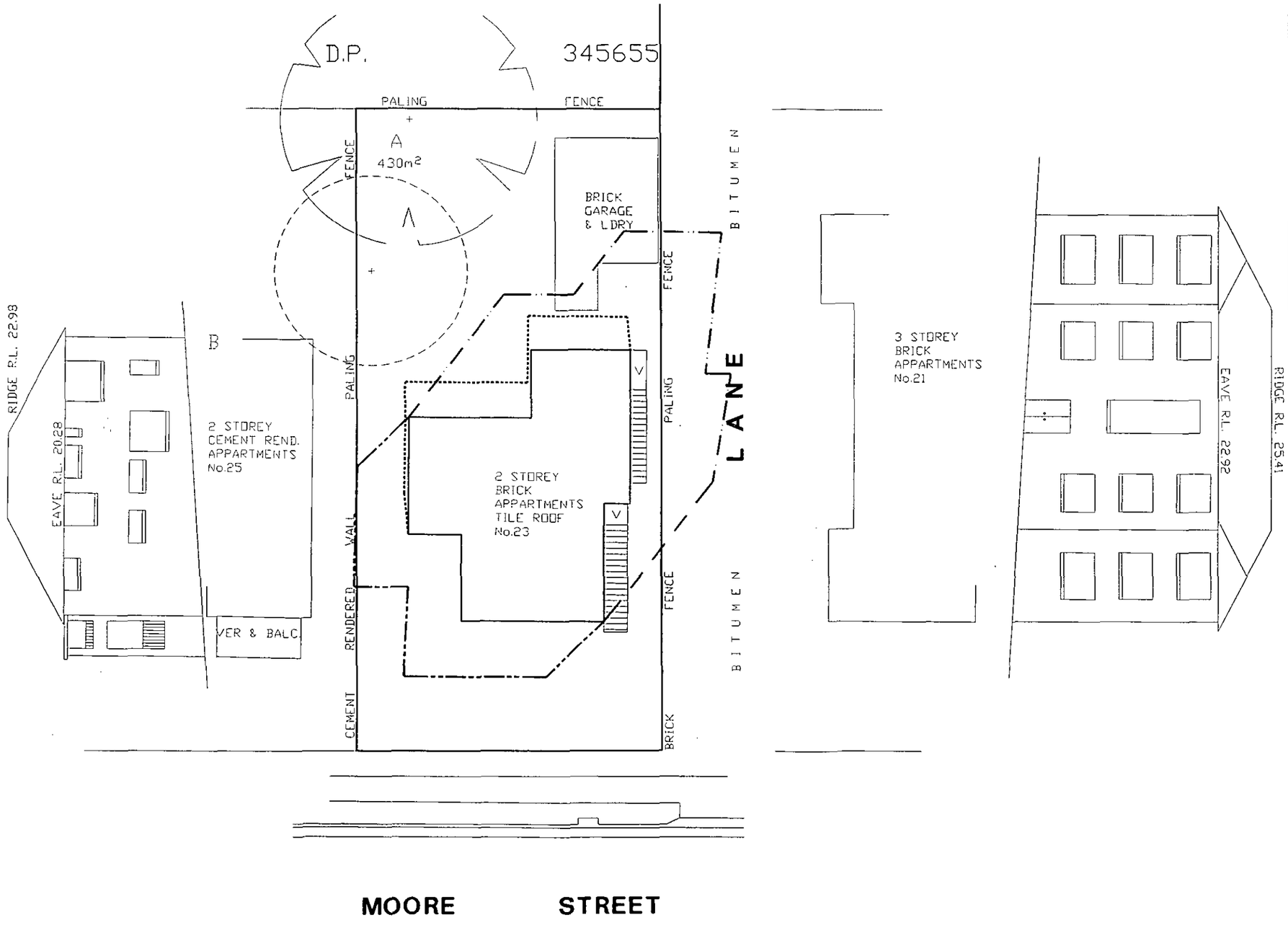
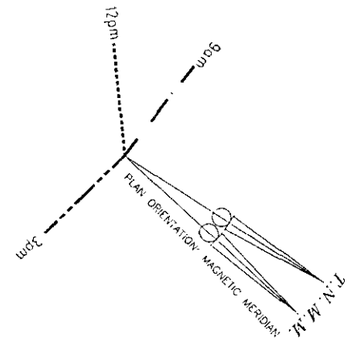


Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



Shadow outline for
Dec 22 Mid Summer

DA 2010 / 0163-4

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 29.09.09	JOB No. 36870
SHEET TITLE: EXISTING SHADOWS		SHEET No. 1/1
SCALE: 1:200	FINAL PLAN ISSUE.	FINAL PLAN

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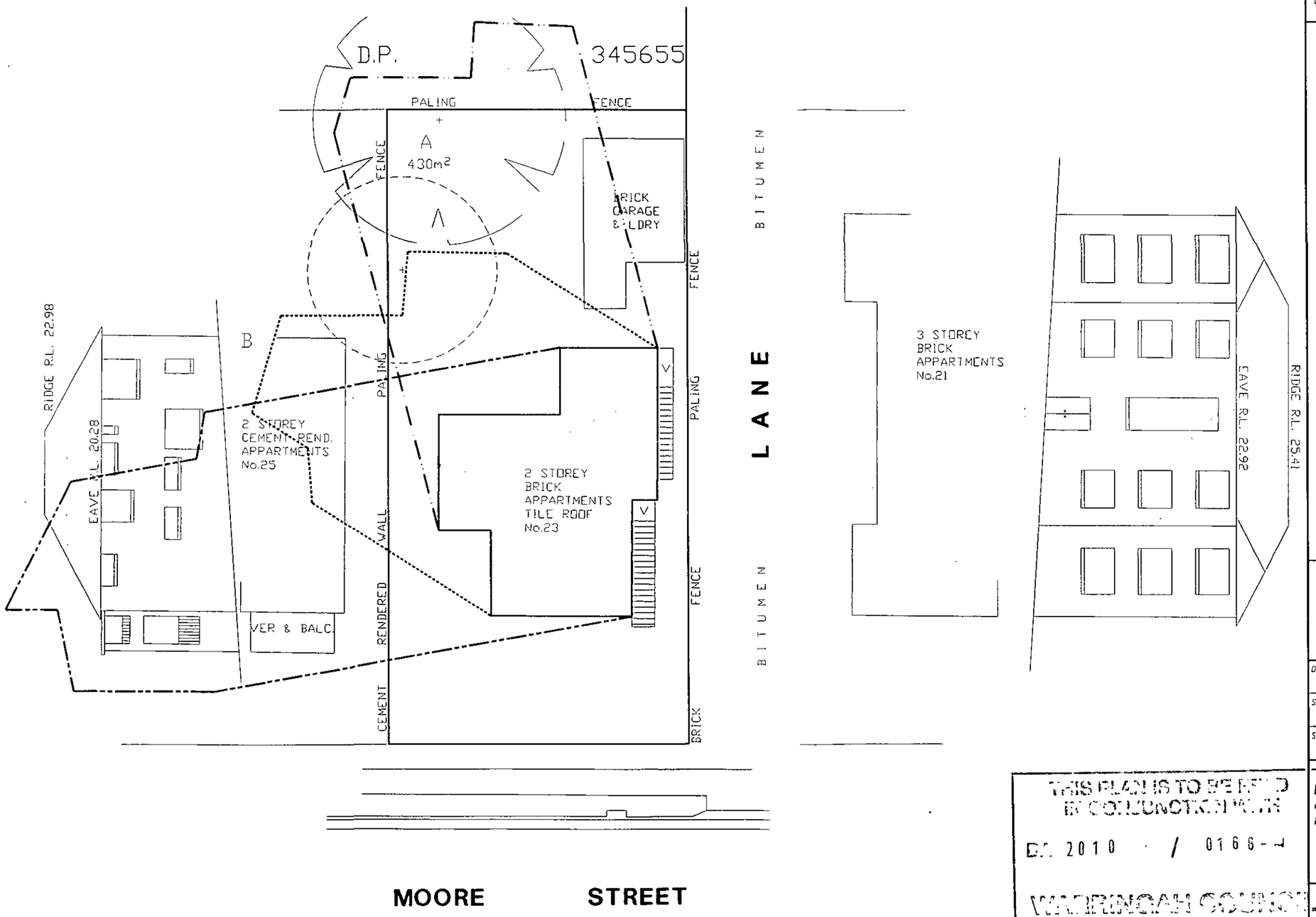

THIS PLAN IS TO BE READ IN CONJUNCTION WITH
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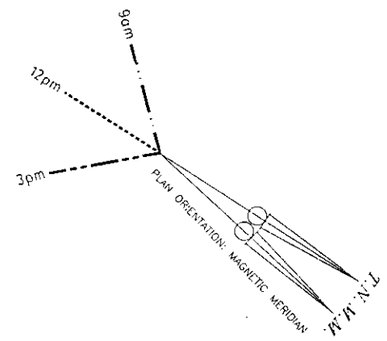
WARRINGAH COUNCIL

Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



Shadow outline for June 22 Mid Winter

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 29.09.09	JOB No. 36870
SHEET TITLE: EXISTING SHADOWS		SHEET No 1/1
SCALE: 1:200	FINAL PLAN ISSUE.	FINAL PLAN

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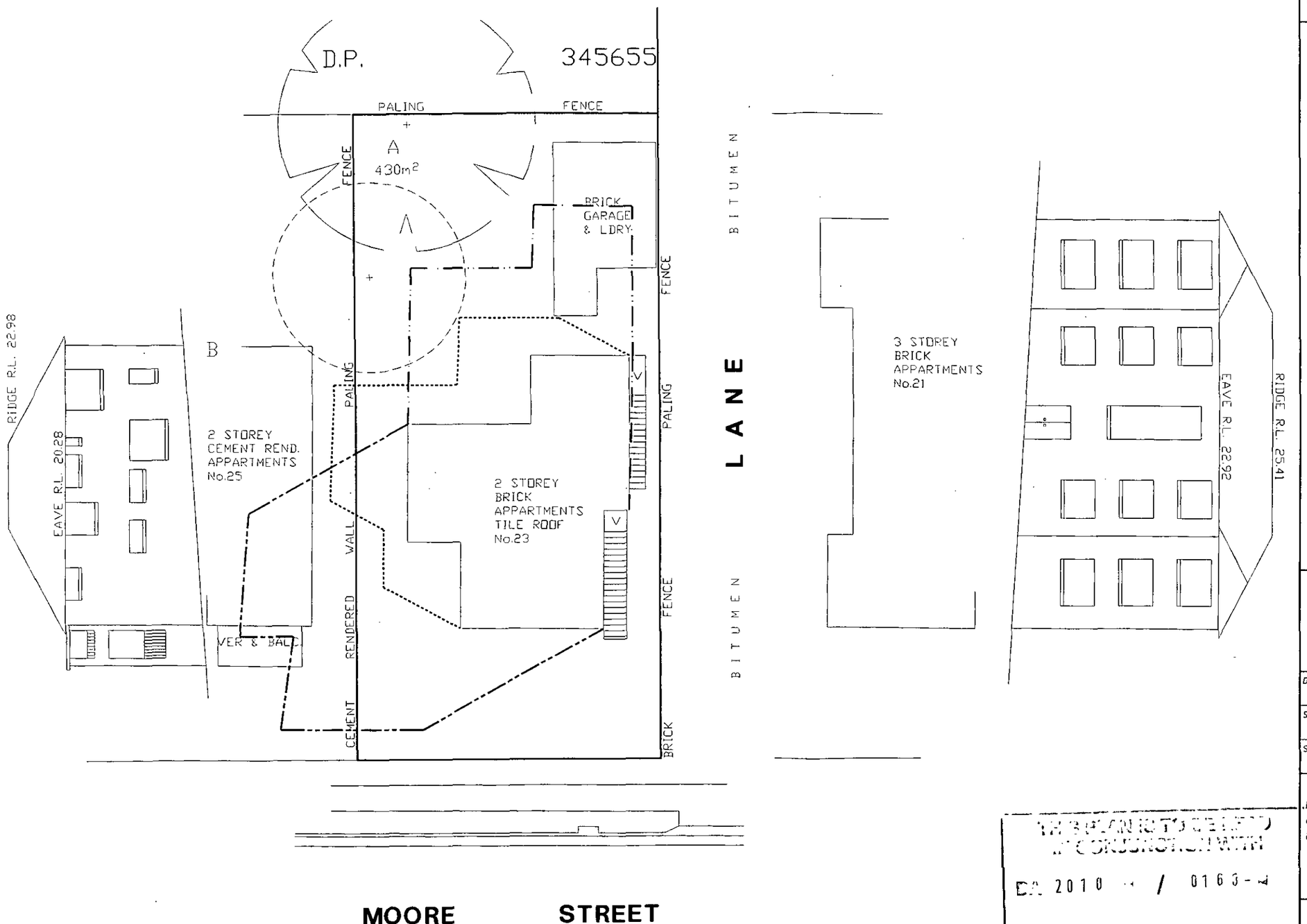
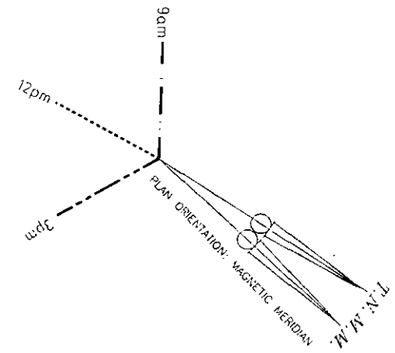


Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



Shadow outline for March21/Sep22 Equinox

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 29.09.09	JOB No. 36870
SHEET TITLE: EXISTING DIAGRAM		SHEET No. 1/1
SCALE: 1:200	FINAL PLAN ISSUE:	FINAL PLAN

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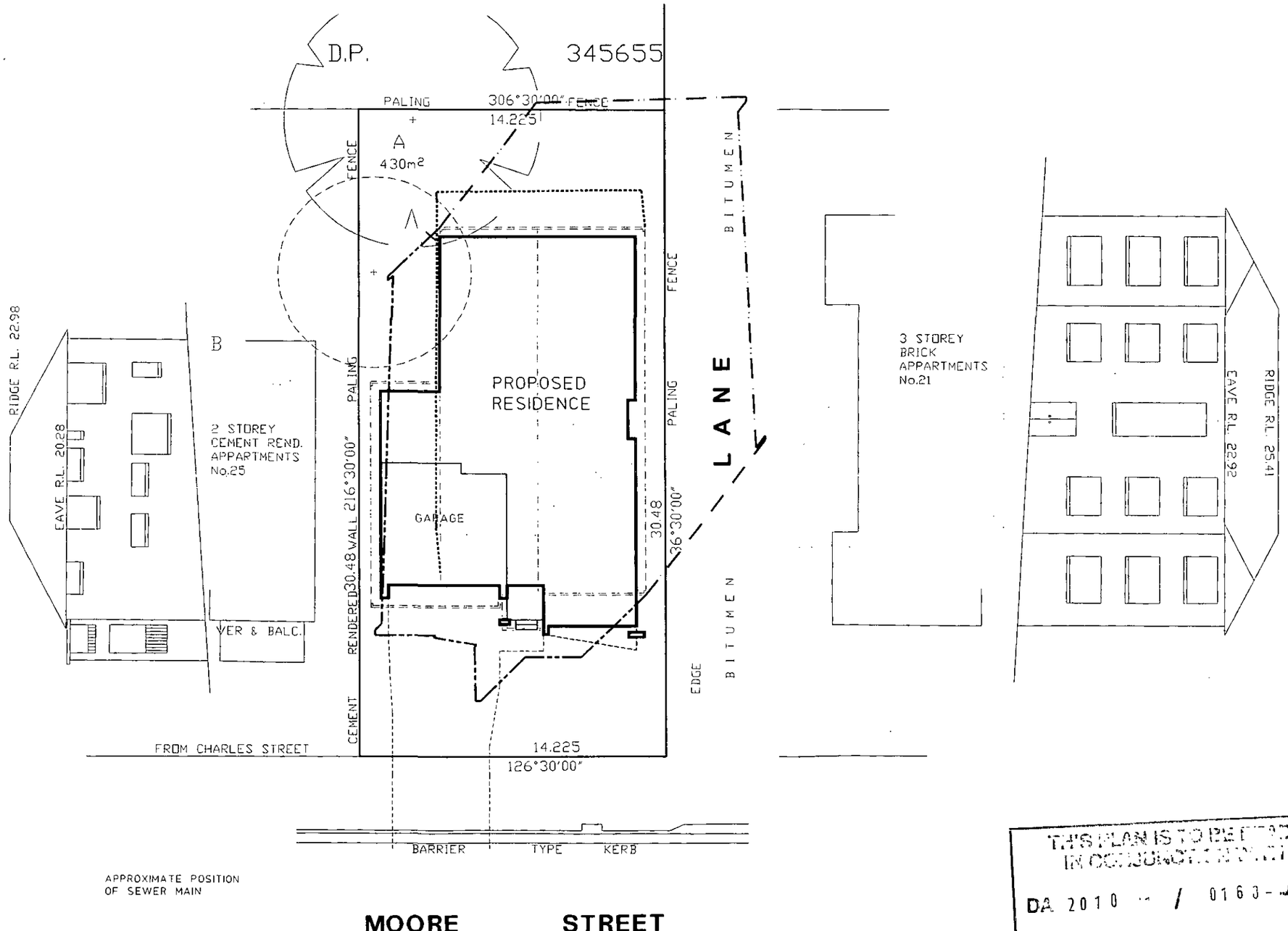
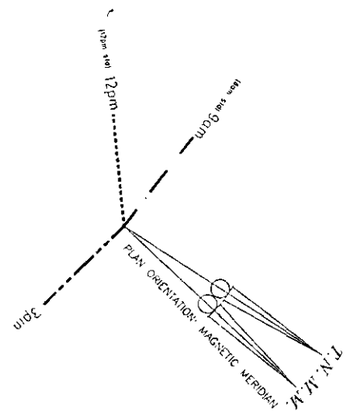


Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



Shadow outline for Dec 22 Mid Summer

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY:	DATE:	JOB No.
C.R.	29.09.09	36870
SHEET TITLE: PROPOSED SHADOWS		SHEET No 1/1
SCALE: 1:200	FINAL PLAN ISSUE:	FINAL PLAN

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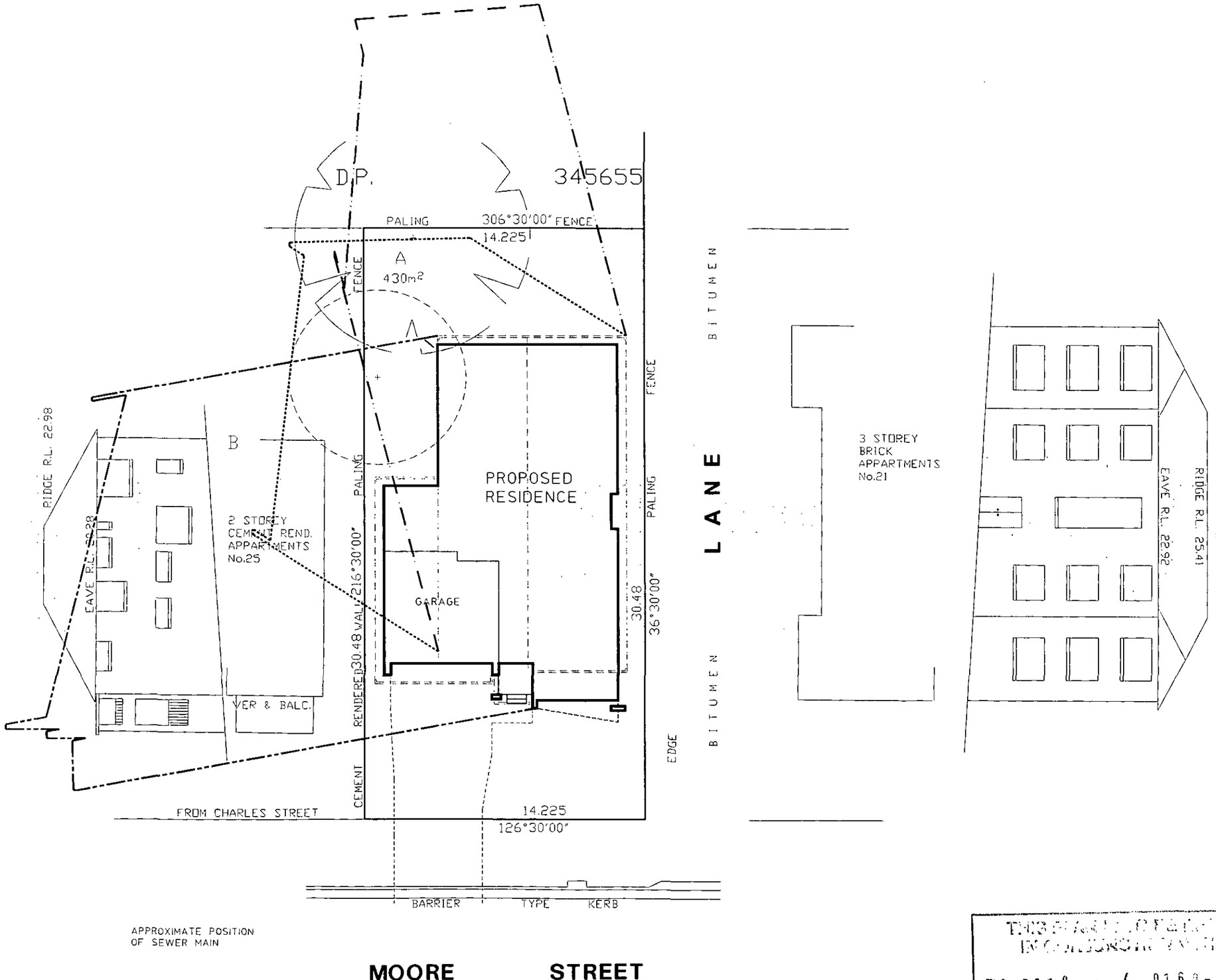
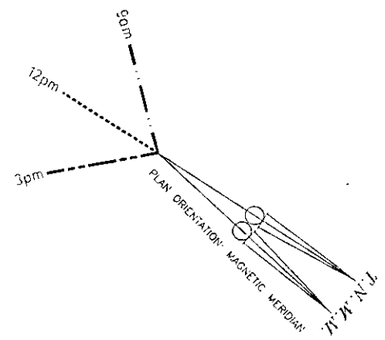


Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



Shadow outline for June 22 Mid Winter

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 29.09.09	JOB No 36870
SHEET TITLE: PROPOSED SHADOWS		SHEET No. 1/1
SCALE: 1:200	FINAL PLAN ISSUE:	FINAL PLAN

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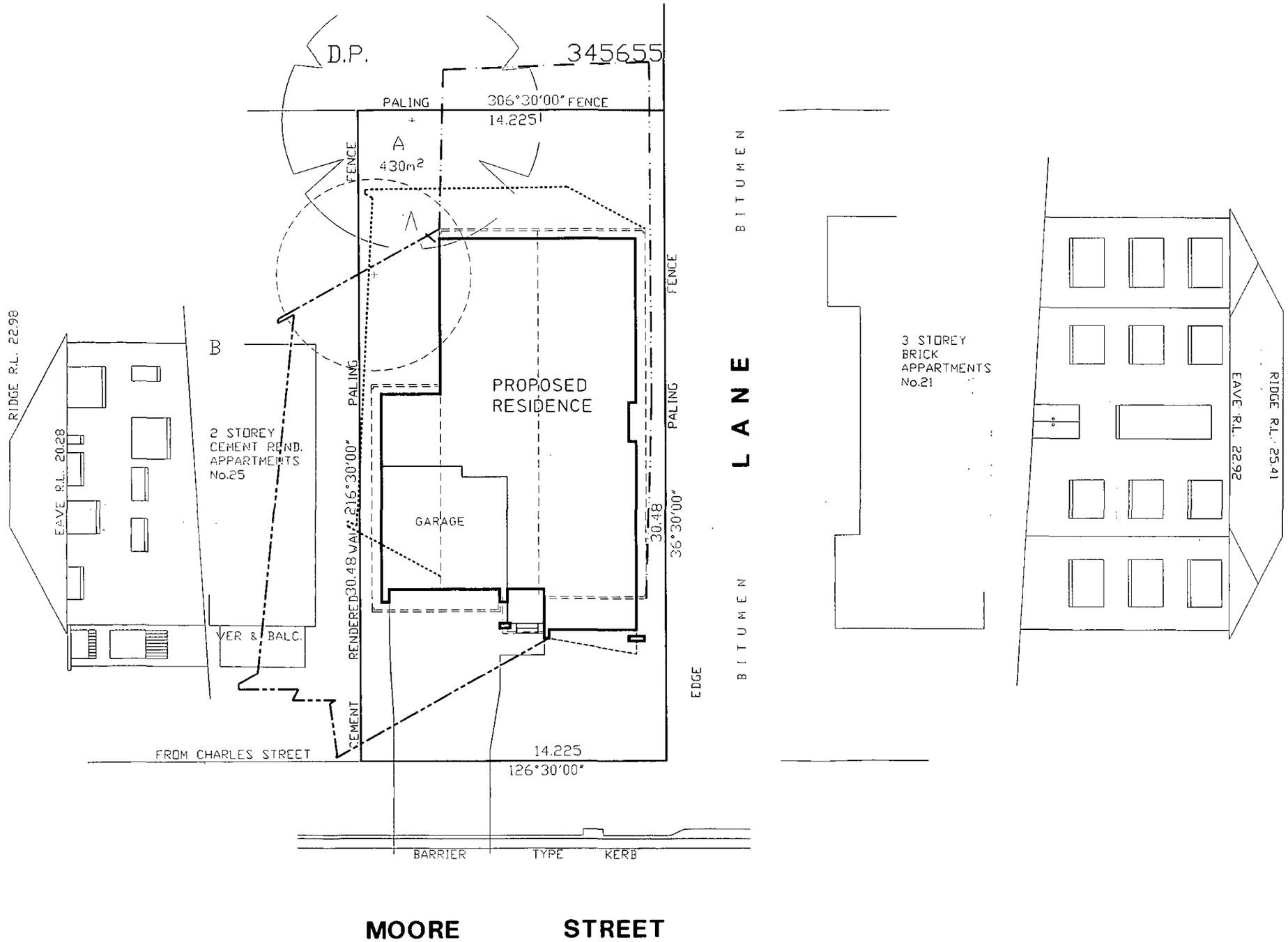
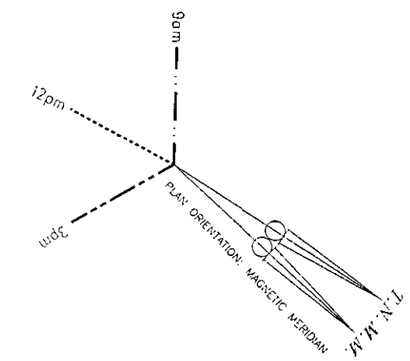


Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH



Shadow outline for March21/Sep22 Equinox

DA 2010 / 0160

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 29.09.09	JOB No. 36870
SHEET TITLE: PROPOSED DIAGRAM		SHEET No. 1/1
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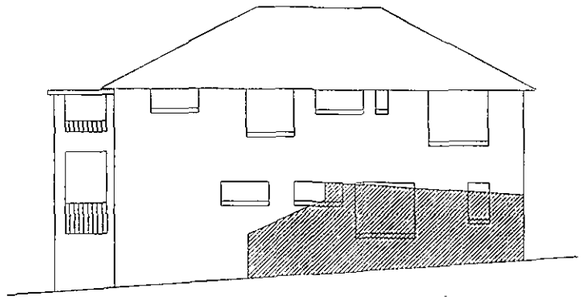
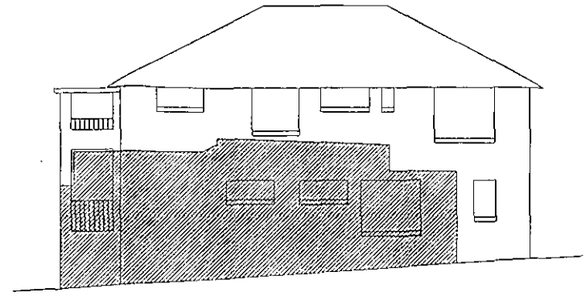
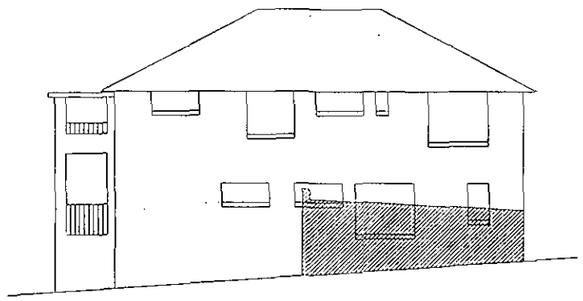


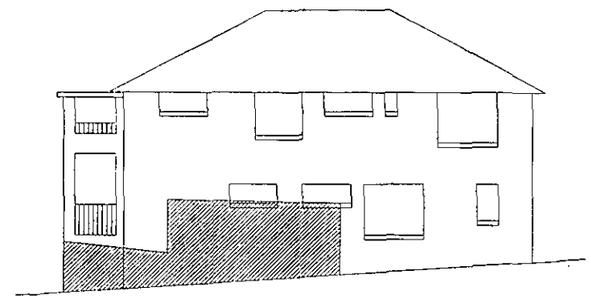
EXISTING SHADOW IN
WINTER AT 12PM



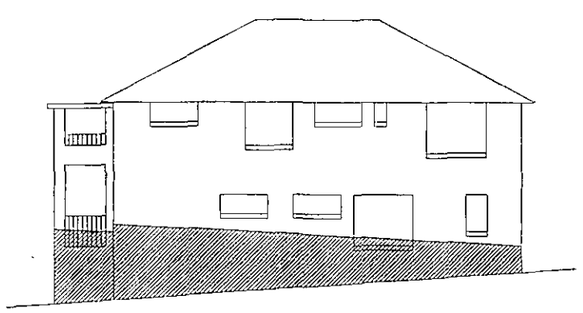
EXISTING SHADOW IN
WINTER AT 9AM



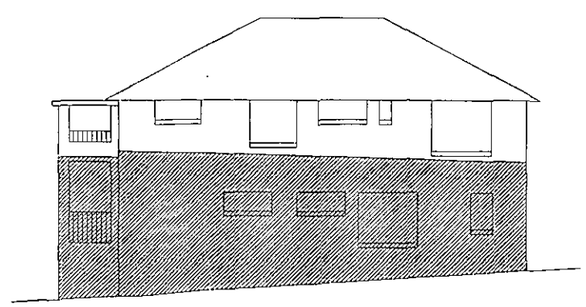
PROPOSED SHADOW IN
WINTER AT 12PM



EXISTING SHADOW IN
EQUINOX AT 3PM



PROPOSED SHADOW IN
EQUINOX AT 3PM



PROPOSED SHADOW IN
WINTER AT 3PM

Proposed Residence

For: Mrs M. SAUL

Lot No: A No.23 Moore Road,
Suburb: HARBORD
Council: WARRINGAH

D/ 2010 / 0168-1

Design: VILLINA

Facade: NOUVEAU

Edition: PLATINUM

DRAWN BY: C.R.	DATE: 29.09.09	JOB No. 36870
SHEET TITLE: ELEVATIONAL SHADOWS		SHEET No. 1/1
SCALE: 1:200	FINAL PLAN ISSUE:	FINAL PLAN

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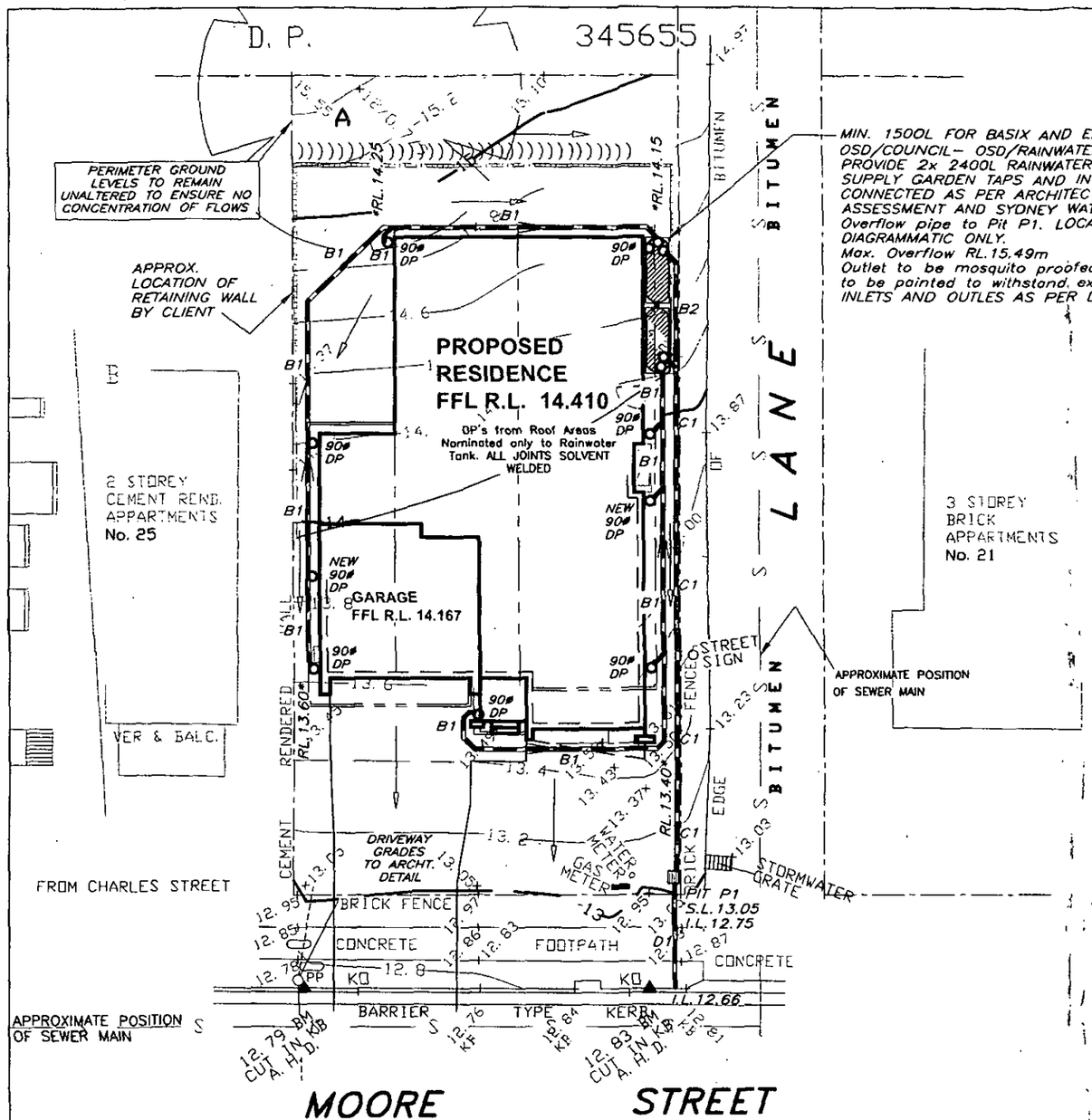

MIN. 1500L FOR BASIX AND EFFECTIVE 2129L FOR OSD/COUNCIL– OSD/RAINWATER TANK
PROVIDE 2x 2400L RAINWATER TANK WITH PUMPS TO SUPPLY GARDEN TAPS AND INTERNAL RE-USE TO BE CONNECTED AS PER ARCHITECTURAL DETAILS, BASIX ASSESSMENT AND SYDNEY WATER GUIDELINES.
Overflow pipe to Pit P1. LOCATION SHOWN DIAGRAMMATIC ONLY.
Max. Overflow RL.15.49m
Outlet to be mosquito proofed. All exposed pipework to be painted to withstand external elements. PIPE INLETS AND OUTLES AS PER DETAILS ON SHEET 2.

THE ON-SITE STORMWATER DETENTION SYSTEM AND/OR DRAINAGE WORKS HAVE BEEN ASSESSED BY THE DEVELOPMENT ENGINEERING SECTION AND ARE:
☑ SATISFACTORY ☐ UNSATISFACTORY
☐ SATISFACTORY SUBJECT TO AMENDMENTS/ADDITIONS SHOWN IN RED
DEVELOPMENT ENGINEER 5/3/10 DATE

GROUND FLOOR LAYOUT

REFER TO SHEET 2 FOR RAINWATER TANK DETAILS.
LEAF GUTTER GUARDS OR SIMILAR SCREENING RECOMMENDED TO ALL GUTTERS.

ALL RETAINING WALLS WHERE REQUIRED TO BE WHOLLY CONTAINED WITH SITE BOUNDARIES INCLUDING AG-LINES. STRUCTURAL DESIGN BY OTHERS. CONNECTION OF AGLINE TO BE CONNECTED TO PIT P1 OR ADDITIONAL SILT ARRESTOR PITS BY OWNER AS REQUIRED TO BE APPROVED BY COUNCIL/PCA PRIOR TO DOING SO.

PROVIDE GUTTER GUARDS TO ALL GUTTERS

PIPE SCHEDULE

REFER TO NOTES FOR PIPE CLASS

TAG	PIPE DIA.	MIN.GRADE
B1	100	CHARGED
B2	100	3%
C1	150	2%
D1	150x100 GAL. PIPE	2%

ALL OTHER SURFACE WATERS TO BE STRICTLY CONNECTED TO A SEPARATE SYSTEM BY OWNER IN ACCORDANCE WITH AS 3500:.3:2003 AND BCA PART 3.1.2.3.

RAINWATER TANKS WITH PUMPS TO SUPPLY GARDEN TAPS AND INTERNAL RE-USE AS PER BASIX ASSESSMENT

LEGEND

R.L. 0.00	NEW REDUCED LEVEL
(NEW FINISHED GROUND LEVEL)	
+00.00	EXISTING LEVEL
S.L. 0.00	SURFACE LEVEL
I.L. 0.00	INVERT LEVEL
T.O.W.	TOP OF WALL LEVEL
G.F.L.0.00	GARAGE FLOOR LEVEL
F.F.L.0.00	FINISHED FLOOR LEVEL
A,B,C etc.	SEE PIPE SCHEDULE
L1	PIPE LABEL
PIT P1	SURFACE INLET PIT
PIT OP1	OVERLAND FLOW PIT
—o—'—o—	90mm. AG. LINE
DP	DOWNPIPE-SIZE
REFER TO NOTES FOR DP SIZE	
GP	GULLY PIT
GP	GARDEN GULLY PIT
O/F	OVERFLOW-200x100
RWH	RAIN WATER HEAD
SP	DP WITH SPREADER
BG	BALCONY GULLY PIT
CE	CLEANING EYE
——→	GROUND FALL
))))	100 HIGH EARTH MOUNDING

STORMWATER LAYOUT NOTES

-PITS UP TO 600 DEEP TO BE 450 x 450 U.N.O., PITS UP TO 900 DEEP TO BE 600 x 600 U.N.O., PITS UP TO 1200 DEEP TO BE 900 x 600 U.N.O., PITS EXCEEDING 1200 DEEP TO BE 900 SQ. U.N.O. PITS TO BE PRECAST CONCRETE OR RENDERED BRICK WITH CONCRETE HEAVY DUTY GRATES. U.N.O. LIGHT DUTY PITS AND GRATES MAY BE USED ONLY IN LIGHT/FOOT TRAFFICABLE AREAS. U.N.O. ALL PITS TO BE BENCHED TO DISCHARGE PIPES U.N.O. GAL. STEP IRONS TO ALL PITS EXCEEDING 900 DEPTH.
-COVER AND SUMP GRATES SHALL COMPLY WITH AS2733 & AS4198.
-DOWNPIPES TO BE 90 DIA IF CHARGED AND 100 x 50 BOX IF GRAVITY. U.N.O. DP'S SHALL BE INSTALLED IN ACCORDANCE WITH AS3500.3.2:4.11 & AS4198. MAX. ROOF AREA PER DOWNPIPE IS 30SQM. WITH A QUAD 115 HI-FRONT GUTTER U.N.O.
-PIPES TO HAVE 1% MIN.GRADE U.N.O. BY PIT INVERTS. PIPES TO BE V.C. CLASS 'X' OR U.P.V.C. CLASS STORMWATER PIPE TO AS1254,1260,1273,1477,2179.2 AND WHERE EXPOSED TO DIRECT SUNLIGHT TO HAVE ADEQUATE PROTECTION TO U.V. RADIATION IN ACCORDANCE WITH AS2032. SEWER GRADE/GAL. PIPES TO BE USED WHERE COUNCIL POLICY OR CONSENT REQUIRE SUCH.
-GUTTER OUTLETS SHALL BE FITTED VERTICALLY TO THE SOLE OF THE EAVE GUTTERS. RAINHEADS TO HAVE AN OVERFLOW DUCT OR WEIR 50mm BELOW THEIR CREST.
-PROVIDE OVERFLOW SPITTERS TO ALL COVERED BALCONIES/ TERRACES. NOT TO BE DIRECTED ON TO ROOF SURFACES
-RISING MAINS (PRESSURE PIPE) TO BE IN ACCORDANCE WITH AS3500.1:2.
-SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS2439.1 CLASS 100 TO BE USED ONLY IN SINGLE DWELLINGS.
-ALL PIPE JOINTS TO BE IN ACCORDANCE WITH AS3500.3.2:2.7
-ALL VALVES TO BE IN ACCORDANCE WITH AS3500.3.2
-EXPANSION JOINTS SHALL COMPLY WITH AS3500.3.2:TABLE 4.1 PVC JOINTS AND ACCESSORIES TO COMPLY WITH AS2179.2 & AS4198.
-ALL TRENCHES TO BE IN ACCORDANCE WITH AS3500.3.2:7.2.8-14. EMBEDMENT MATERIAL AND TRENCH FILL TO ALL PIPES & SUBSOIL,DRAINS TO BE IN ACCORDANCE WITH AS3500.3.2:7, ALL WORKS TO BE IN ACCORDANCE WITH AS1254, 1741, 2032, 2733, 2865, 3996, 1260, 1477, 2179.1 & 2,2566, 6367, 8301, ARR97 & BCA.
-IT IS THE BUILDER'S RESPONSIBILITY TO CONFIRM THAT LEVELS AND SURVEYS ARE IN ACCORDANCE WITH LEVELS ON SITE & ARE APPROVED BY COUNCIL & ARCHITECT BEFORE COMMENCING WORK.
-NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS. ALL BASIN WALLS TO BE WATERTIGHT & STRUCTURALLY DESIGNED BY A STRUCTURAL ENGINEER.
-ALL FENCES WHICH MAY DIVERT FLOW FROM PROPOSED DIRECTION TO BE RAISED 100mm.
-BUILDER TO ENSURE ALL DRAINAGE AREAS INCLUDING EXPOSED BALCONIES TO HAVE OVERFLOW MECHANISM IN PLACE IN THE EVENT OF BLOCKAGE WITH ADEQUATE OVERFLOW SECTION THROUGH PLANTERS, PARAPETS ETC.
-ALL EXTERIOR FINISHED GROUND LEVELS TO BE SLOPING AWAY FROM PERIMETER WALLS IN ALL CASES.
-ALL HEADROOM CLEARANCES TO BE COORDINATED BETWEEN BUILDER & ARCHITECT. NOTIFY ENGINEER FOR APPROVAL IF ANY CHANGES OCCUR.
-ALL GULLY POSITIONS ARE DIAGRAMMATIC ONLY- BUILDER SHOULD CONSULT ARCHITECTURALS FOR DIMENSIONS TO LOCATE STORMWATER ELEMENTS U.N.O.
-FIRE RATING TO ARCHITECT'S SPECIFICATION.
-ALL FINISHED FLOOR LEVELS ARE NOMINATED BY ARCHITECT.
-ALL SITE SAFETY MEASURES AND WORK METHOD STATEMENTS PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNTIL ALL WORKERS CARRY OUT SITE INDUCTION, PREPARED AND CARRIED OUT BY BUILDER. ANY HAZARD IDENTIFICATION TO BE REPORTED IMMEDIATELY TO SITE SUPERVISOR TO CARRY OUT NECESSARY PROCEDURES TO ELIMINATE HAZARD, PRIOR TO PROCEEDING WITH WORK. STRUCTURAL AND GEOTECHNICAL ADVICE SHOULD BE SOUGHT IN ALL CASES.
-CONFINED SPACES SIGNAGE TO BE INSTALLED IN ACCESSIBLE UNDERGROUND TANKS TO WORK COVER SPECIFICATIONS. ALL PITS EXCEEDING 600mm DEPTH TO HAVE 'J' BOLTS INSTALLED TO GRATES.
-MAINTENANCE DEVICES REQ'D BY AUTHORITIES ARE NOT TO BE ASSUMED SHOWN ON DRAWINGS.
-EARTH MOUNDING SHOWN AS TEMPORARY MEASURE UNTIL LANDSCAPING COMPLETED TO DIRECT FLOWS AS SHOWN.

NORTH

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REVISIONS

ISSUE	PRINTS	ISSUED TO	DATE
1	EMAIL	BUILDER/CLIENT	11-12-09

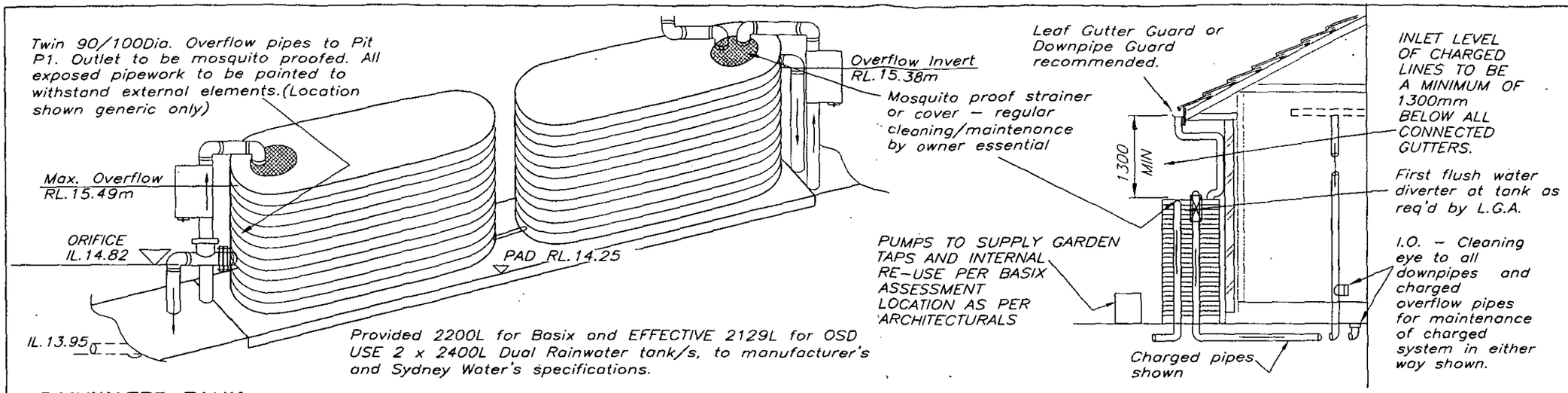
SCALE(A3) 1:200, 100 u.n.o.
SCALE BAR - 1m INTERVALS
DATE DEC. 2009
DRAWN M.I.
DESIGNED M.I.
APPROVED

IBRAHIM STORMWATER CONSULTANTS
CONSULTING CIVIL ENGINEERS
P.O. BOX 400 CHERRYBROOK NSW 2126
TELEPHONE: (02) 9980 5515 FAX: (02) 9980 6114
www.stormwater.net.au

PROJECT
PROPOSED RESIDENCE AT 23 MOORE ROAD HARBORD. FOR MRS SAUL.

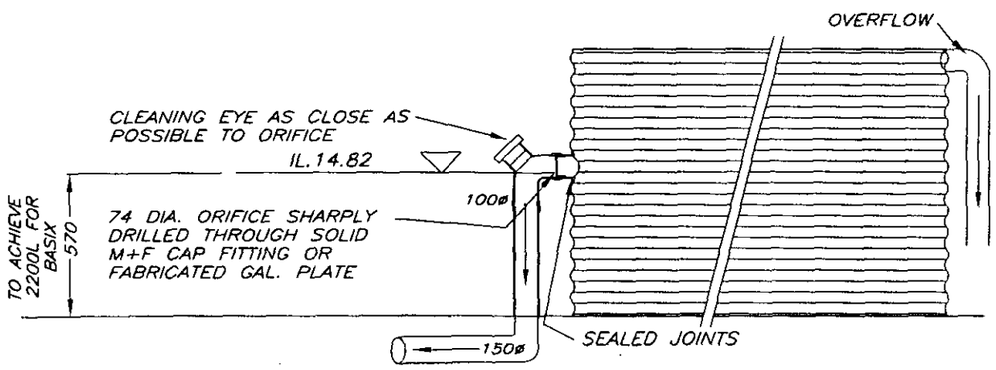
THIS DRAWING
STORMWATER LAYOUT SH.1
BUILDER
MASTERTON HOMES

JOB NUMBER
M2196-36870
SHEET No. 1 of 2
REVISION .



RAINWATER TANK

TANK DETAILS SHOWN ARE A SUGGESTED CONFIGURATION ONLY. ANY MODIFICATIONS TO TANK VOLUME OR INLET AND OUTLET LEVELS MUST BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. TANK SHAPE, & DEVICES SHOWN ARE DIAGRAMMATIC ONLY. MINIMUM OF 450 CLEARANCE (UNLESS L.G.A. REQUIRES LARGER SETBACK) TO SIDE BOUNDARIES MUST BE MAINTAINED. CLIENT IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS IN THE INSTALLED STATE.
Charged stormwater lines from Roof Areas ONLY to rainwater tank.
All joints to be solvent welded. All exposed pipework to be painted to withstand external elements.
First flush water diverter at tank to comply with Sydney Water and council DCP's. An approved switch system similar to 'Rainbank' to be used via mains. Pumps to manuf. specs.
Rain Tank to be installed and maintainted to manufacturers specifications and to comply with all Sydney Water Guidelines.
Client to be responsible for maintenance system of charged pipelines. Debris accumulation significantly affects systems performance. Maintenance program essential.
Structural details for tank base by manufacturer or others.



OSD OUTLET DETAIL

THIS IS AN
ON-SITE STORMWATER DETENTION SYSTEM
REQUIRED BY YOUR LOCAL COUNCIL

IT IS AN OFFENSE TO REDUCE THE VOLUME OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROLS THE OUTFLOW
THE BASE OF THE OUTLET CONTROL PIT AND DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIS BY THE OWNER.

THIS PLATE MUST NOT BE REMOVED

Signange to be provided adjacent tanks Size: 110 mm 80mm

THE ON-SITE STORMWATER DETENTION SYSTEM AND/OR DRAINAGE WORKS HAVE BEEN ASSESSED BY THE DEVELOPMENT ENGINEERING SECTION AND ARE:
☑ SATISFACTORY ☐ UNSATISFACTORY
☐ SATISFACTORY SUBJECT TO AMENDMENTS/ADDITIONS SHOWN IN RED
5/3/10
DEVELOPMENT ENGINEER DATE

CALCULATIONS NOTES

Total Site Area Assessed	430 sqm
Design Method	Ilsax/Drains
Area to be routed through OSD	230 sqm
Pre Impervious Area	192 sqm
Post Impervious Area	275.78 sqm
Percentage of Impervious Area Routed Through OSD	83.4 %
Percentage of Impervious Area Bypassing OSD	16.6 %
Pre Development PSD's	
5yr ARI Discharge	14 L/s
100yr ARI Discharge	26 L/s
Post Development Discharge	
5yr ARI Discharge	14 L/s
100yr ARI Discharge	24 L/s
Orifice Diameter	74 mm
Volume of storage required	4.26 cu.m
50% volume of storage rebated for Raintank	2.129 cu.m

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BUILDER/CLIENT TO ENSURE THAT ALL SAFETY MEASURES ARE TAKEN DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, SAFETY FENCING, SIGNAGE, OBTAINING STRUCTURAL AND GEOTECHNICAL ADVICE WHERE EXCAVATIONS ARE NEAR STRUCTURES OR SERVICES, SAFETY MEASURES RECOMMENDED BY PRODUCT SUPPLIERS ETC.

REVISIONS

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1	EMAIL	BUILDER/CLIENT	11-12-09

SCALE(A3) 1:200,100 u.n.o.
SCALE BAR – 1m INTERVALS
DATE DEC. 2009
DRAWN M.I.
DESIGNED M.I.
APPROVED

IBRAHIM STORMWATER CONSULTANTS
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PROJECT
PROPOSED RESIDENCE AT 23 MOORE ROAD HARBORD. FOR MRS SAUL.

THIS DRAWING
STORMWATER DETAILS SH.1
BUILDER
MASTERTON HOMES

JOB NUMBER
M2196-36870
SHEET No. **2 of 2**
REVISION