

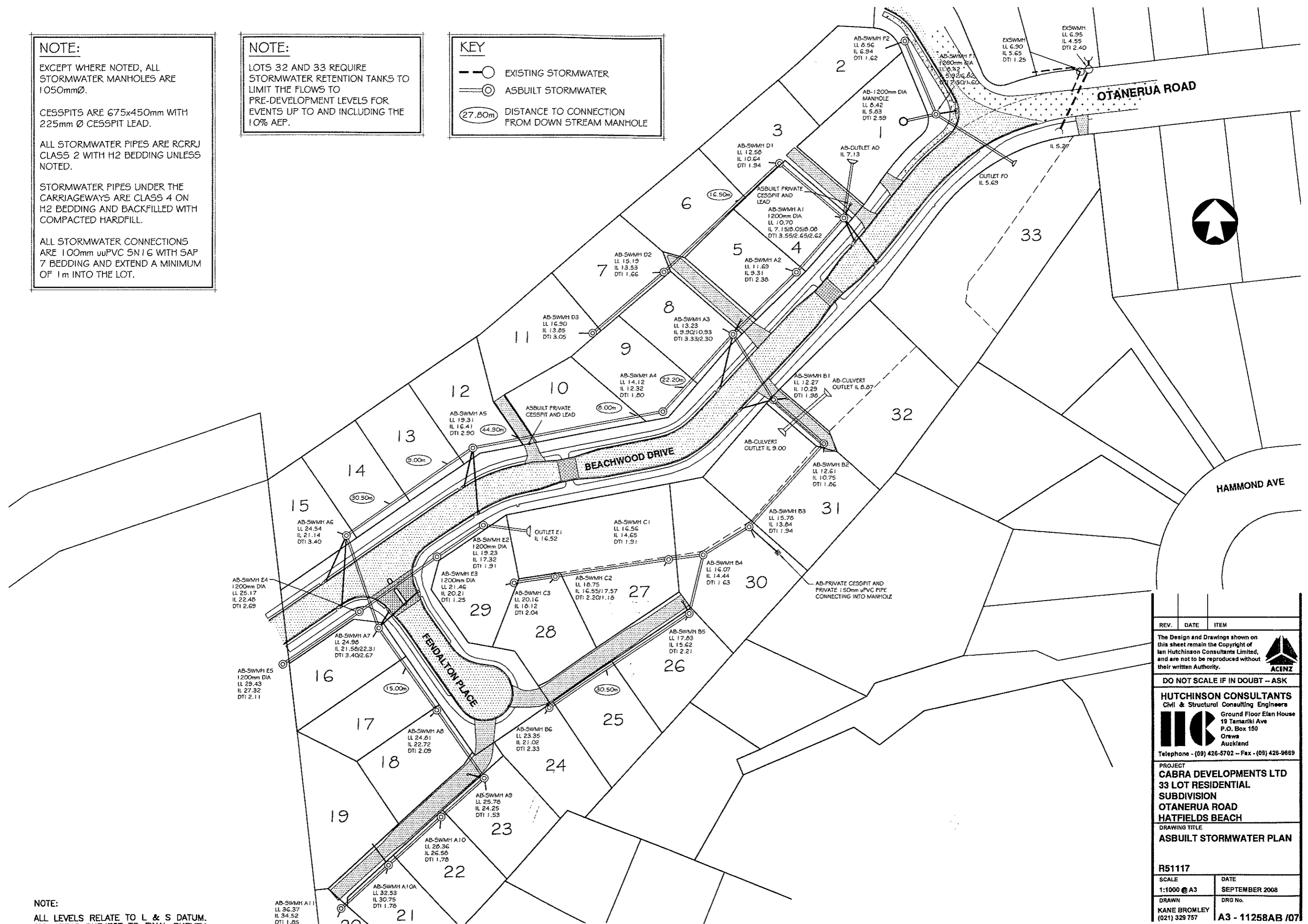
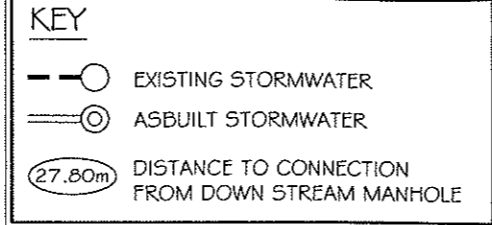


NOTE:
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 ALL AREAS SUBJECT TO FINAL SURVEY

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<p>Ground Floor Elan House 19 Tamariki Ave P.O. Box 150 Orewa Auckland Telephone - (09) 426-5702 - Fax - (09) 426-9669</p>		
<p>PROJECT CABRA DEVELOPMENTS LTD 33 LOT RESIDENTIAL SUBDIVISION OTANERUA ROAD HATFIELDS BEACH</p>		
<p>DRAWING TITLE ASBUILT CONTOUR PLAN</p>		
<p>R51117</p>		
SCALE	DATE	
1:1500 @ A3	SEPTEMBER 2008	
DRAWN	DRG No.	
KANE BROMLEY (021) 329 757 kane@hc.co.nz		A3 - 11258AB /03

NOTE:
 EXCEPT WHERE NOTED, ALL STORMWATER MANHOLES ARE 1050mmØ.
 CESSPITS ARE 675x450mm WITH 225mm Ø CESSPIT LEAD.
 ALL STORMWATER PIPES ARE RCRRJ CLASS 2 WITH H2 BEDDING UNLESS NOTED.
 STORMWATER PIPES UNDER THE CARRIAGEWAYS ARE CLASS 4 ON H2 BEDDING AND BACKFILLED WITH COMPACTED HARDFILL.
 ALL STORMWATER CONNECTIONS ARE 100mm uPVC SN 16 WITH SAP 7 BEDDING AND EXTEND A MINIMUM OF 1m INTO THE LOT.

NOTE:
 LOTS 32 AND 33 REQUIRE STORMWATER RETENTION TANKS TO LIMIT THE FLOWS TO PRE-DEVELOPMENT LEVELS FOR EVENTS UP TO AND INCLUDING THE 10% AEP.



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PROJECT CABRA DEVELOPMENTS LTD 33 LOT RESIDENTIAL SUBDIVISION OTANERUA ROAD HATFIELDS BEACH		
DRAWING TITLE ASBUILT STORMWATER PLAN		
R51117		
SCALE	DATE	
1:1000 @ A3	SEPTEMBER 2008	
DRAWN	DRG No.	
KANE BROMLEY (021) 329 757	A3 - 11258AB /07	




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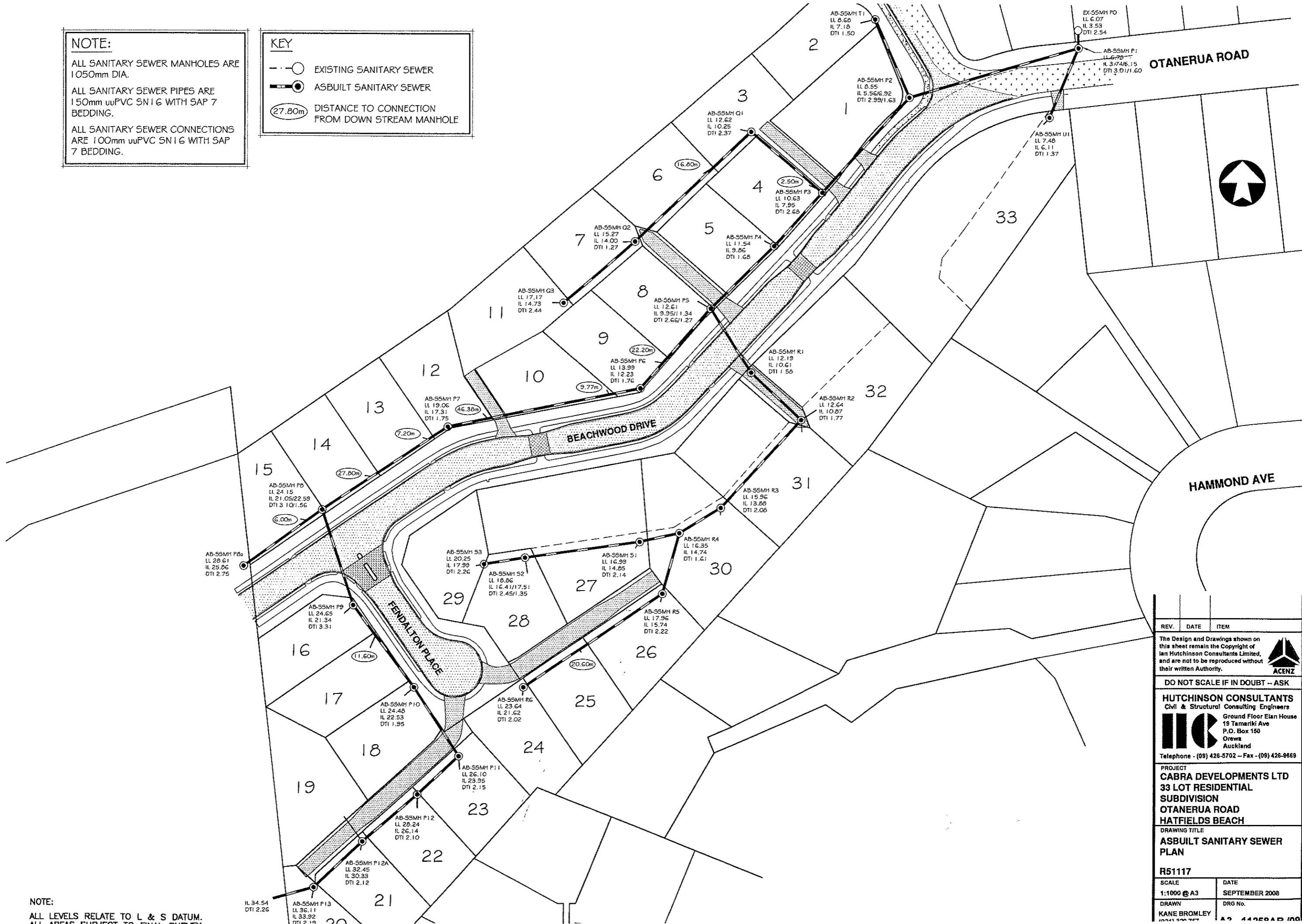
ALL SANITARY SEWER MANHOLES ARE 1050mm DIA.

ALL SANITARY SEWER PIPES ARE 150mm uuPVC SNI 6 WITH SAP 7 BEDDING.

ALL SANITARY SEWER CONNECTIONS ARE 100mm uuPVC SNI 6 WITH SAP 7 BEDDING.

KEY

-  EXISTING SANITARY SEWER
-  ASBUILT SANITARY SEWER
-  DISTANCE TO CONNECTION FROM DOWN STREAM MANHOLE



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PROJECT
CABRA DEVELOPMENTS LTD
33 LOT RESIDENTIAL
SUBDIVISION
OTANERUA ROAD
HATFIELDS BEACH

DRAWING TITLE
ASBUILT SANITARY SEWER
PLAN

R51117

SCALE 1:1000 @ A3	DATE SEPTEMBER 2008
DRAWN KANE BROMLEY	DRG No. A3 4495AD /A0

LEGEND:



CONSENT NOTICE AREA FOR
STORMWATER AND SANITARY
SEWER SERVICES.

NOTE:

THE CONSENT NOTICE AREA INDICATES THE
LOCATION AND EXTENT OF ZONES OF INFLUENCE
OF SW & SS SERVICES. BUILDING WITHIN THIS
ZONE WILL REQUIRE SPECIFIC ENGINEERING.



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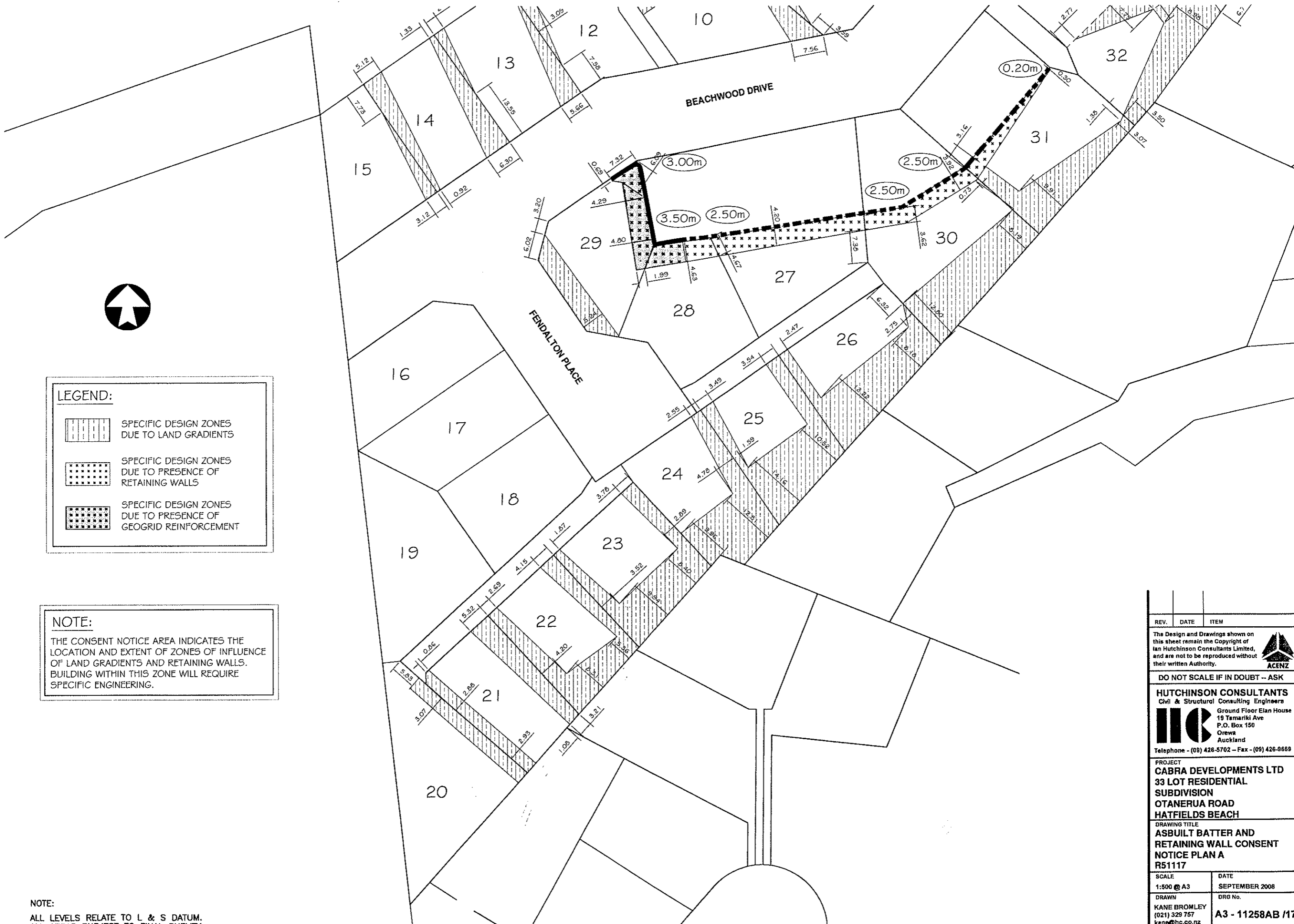
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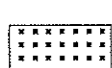

PROJECT
CABRA DEVELOPMENTS LTD
33 LOT RESIDENTIAL
SUBDIVISION
OTANERUA ROAD
HATFIELDS BEACH

DRAWING TITLE
**ASBUILT STORMWATER AND
SANITARY SEWER CONSENT
NOTICE PLAN**
R51117

SCALE 1:1000 @ A3	DATE SEPTEMBER 2008
DRAWN KANE BROMLEY (021) 328 757 kane@hc.co.nz	DRG No. A3 - 11258AB /16



LEGEND:

-  SPECIFIC DESIGN ZONES DUE TO LAND GRADIENTS
-  SPECIFIC DESIGN ZONES DUE TO PRESENCE OF RETAINING WALLS
-  SPECIFIC DESIGN ZONES DUE TO PRESENCE OF GEOGRID REINFORCEMENT




NOTE:

THE CONSENT NOTICE AREA INDICATES THE LOCATION AND EXTENT OF ZONES OF INFLUENCE OF LAND GRADIENTS AND RETAINING WALLS. BUILDING WITHIN THIS ZONE WILL REQUIRE SPECIFIC ENGINEERING.

NOTE:
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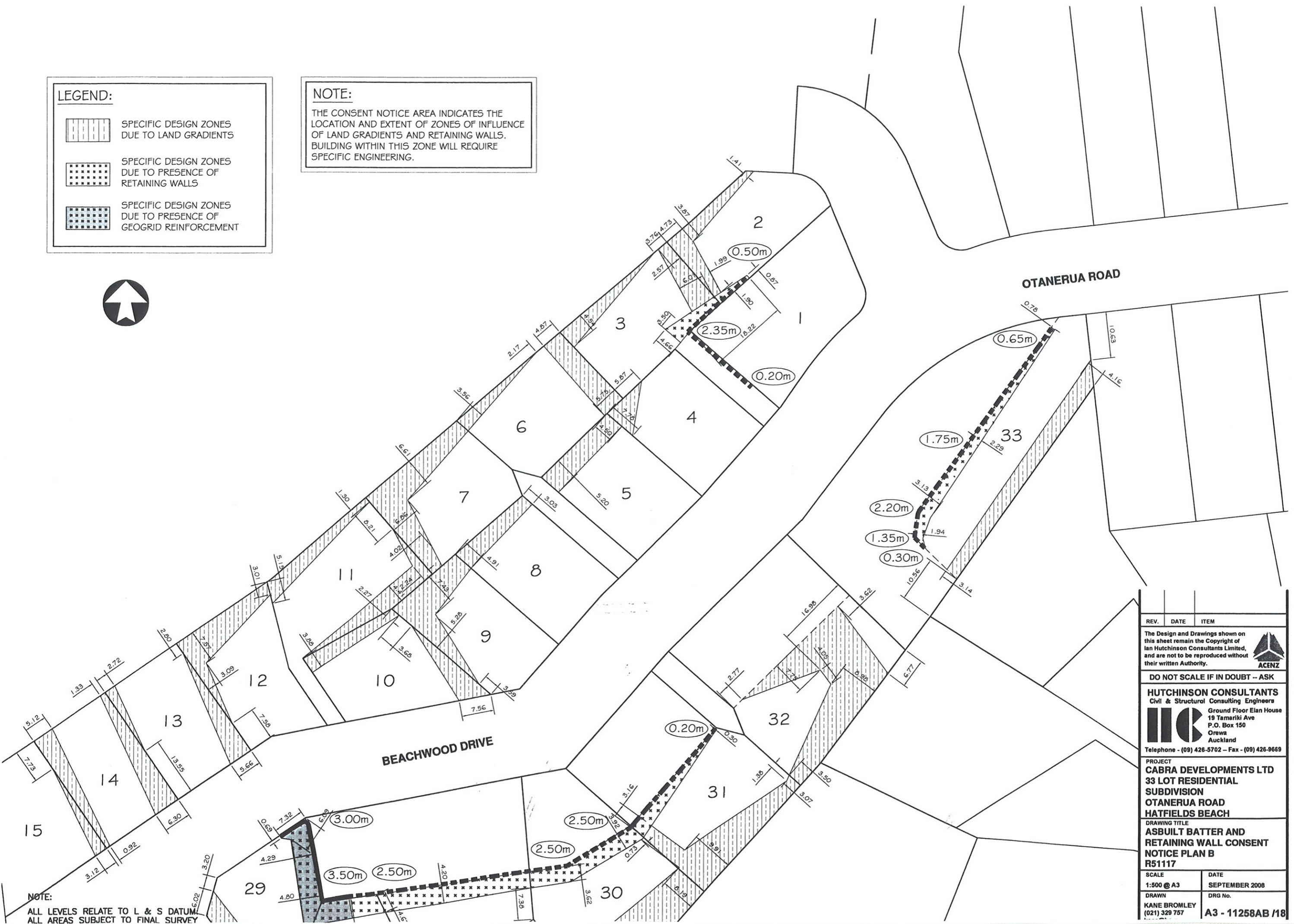
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Telephone - (09) 426-5702 -- Fax - (09) 426-9669		
<p>PROJECT CABRA DEVELOPMENTS LTD 33 LOT RESIDENTIAL SUBDIVISION OTANERUA ROAD HATFIELDS BEACH</p>		
<p>DRAWING TITLE ASBUILT BATTER AND RETAINING WALL CONSENT NOTICE PLAN A R51117</p>		
SCALE	DATE	
1:500 @ A3	SEPTEMBER 2008	
DRAWN	DRG No.	
KANE BROMLEY (021) 329 757 kane@hc.co.nz	A3 - 11258AB /17	

LEGEND:

-  SPECIFIC DESIGN ZONES DUE TO LAND GRADIENTS
-  SPECIFIC DESIGN ZONES DUE TO PRESENCE OF RETAINING WALLS
-  SPECIFIC DESIGN ZONES DUE TO PRESENCE OF GEOGRID REINFORCEMENT

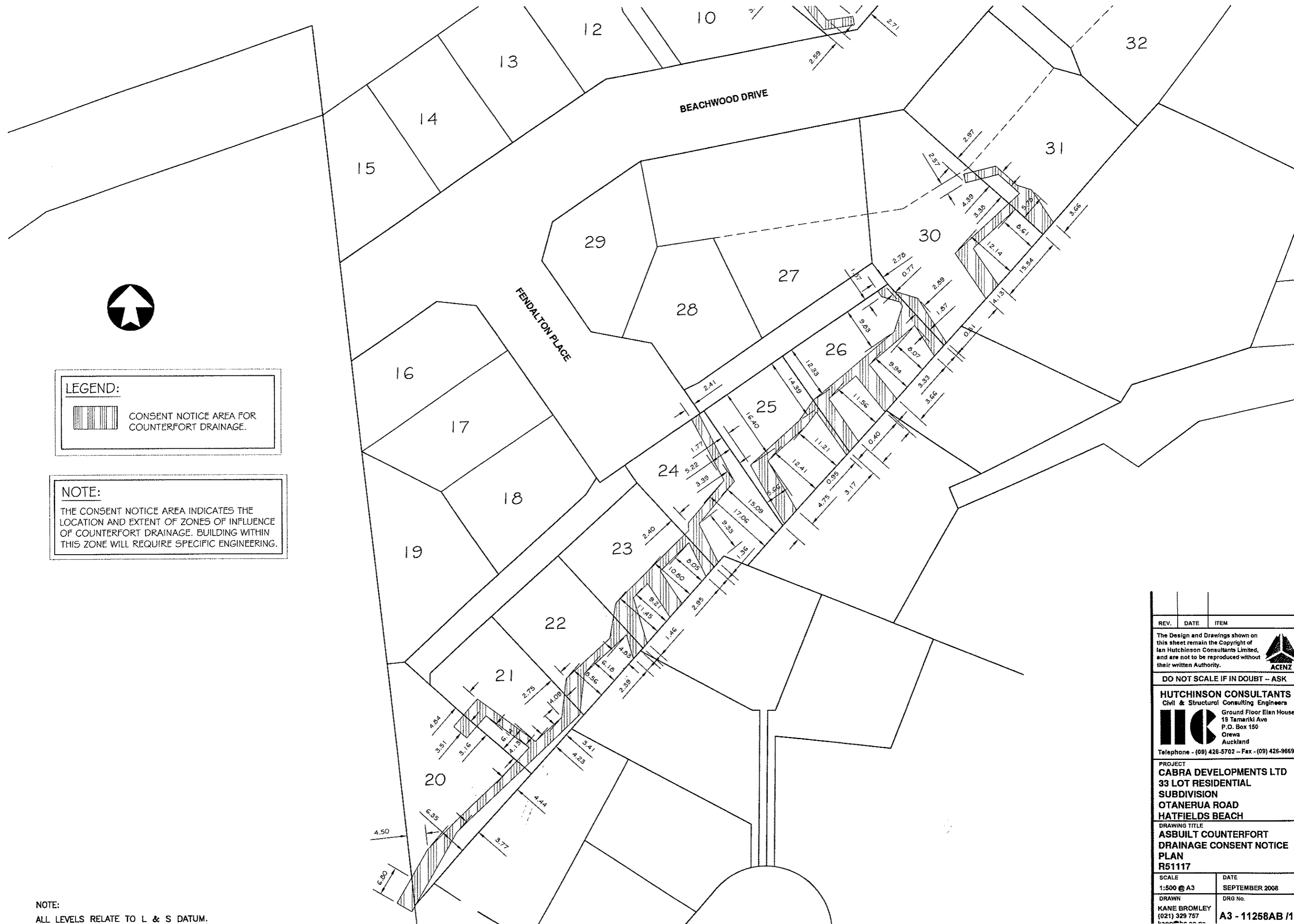
NOTE:

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<p>Telephone - (09) 426-5702 - Fax - (09) 426-9669</p>		
<p>PROJECT CABRA DEVELOPMENTS LTD 33 LOT RESIDENTIAL SUBDIVISION OTANERUA ROAD HATFIELDS BEACH</p>		
<p>DRAWING TITLE ASBUILT BATTER AND RETAINING WALL CONSENT NOTICE PLAN B R51117</p>		
SCALE	DATE	
1:500 @ A3	SEPTEMBER 2008	
DRAWN	DRG No.	
KANE BROMLEY (021) 329 757		
	A3 - 11258AB /18	



LEGEND:

 CONSENT NOTICE AREA FOR COUNTERFORT DRAINAGE.

NOTE:

THE CONSENT NOTICE AREA INDICATES THE LOCATION AND EXTENT OF ZONES OF INFLUENCE OF COUNTERFORT DRAINAGE. BUILDING WITHIN THIS ZONE WILL REQUIRE SPECIFIC ENGINEERING.

NOTE:

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<p>PROJECT CABRA DEVELOPMENTS LTD 33 LOT RESIDENTIAL SUBDIVISION OTANERUA ROAD HATFIELDS BEACH</p>		
<p>DRAWING TITLE ASBULT COUNTERFORT DRAINAGE CONSENT NOTICE PLAN R51117</p>		
SCALE	DATE	
1:500 @ A3	SEPTEMBER 2008	
DRAWN	DRG No.	
KANE BROMLEY (021) 329 757	A3 - 11258AB /19	

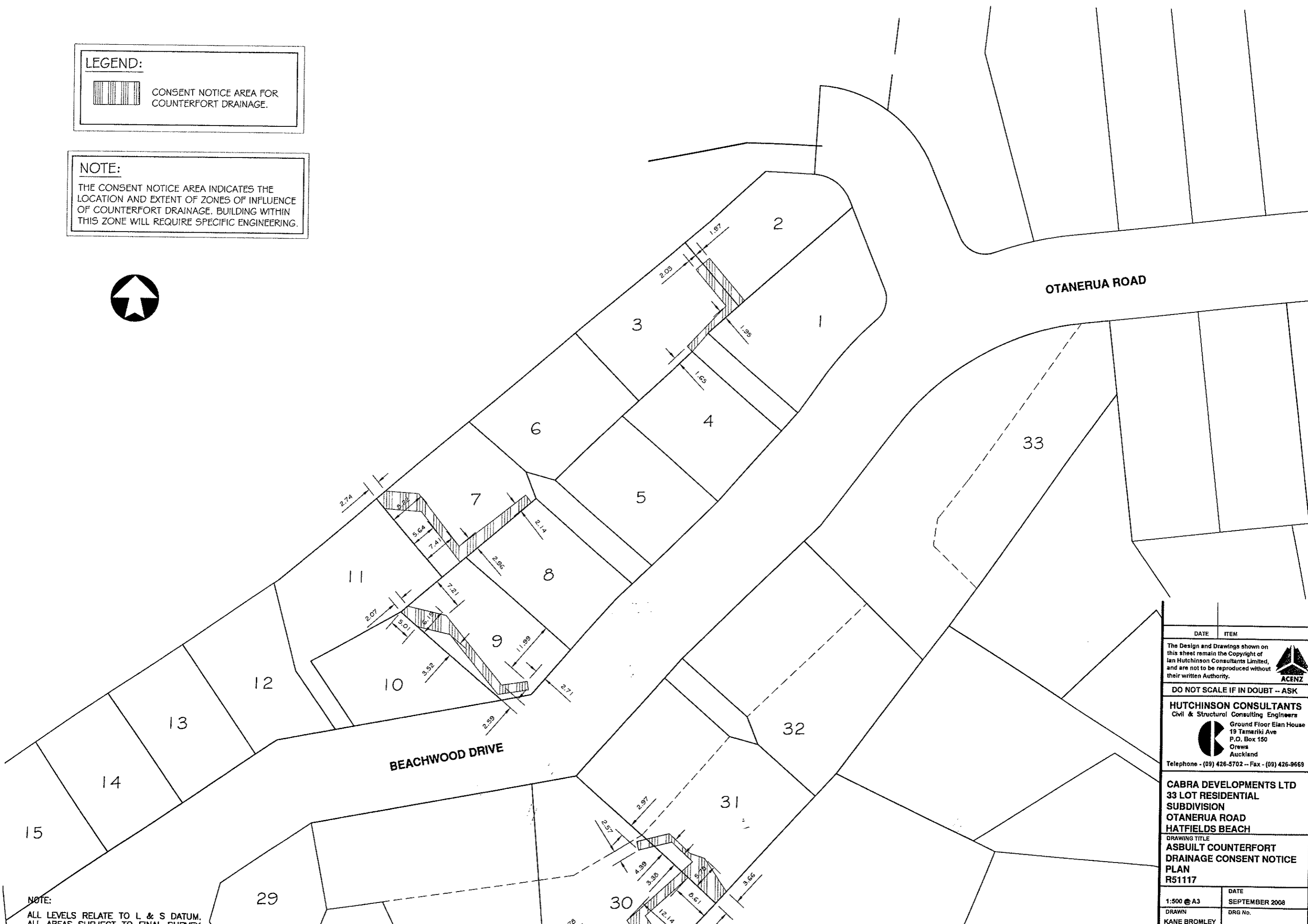
LEGEND:



CONSENT NOTICE AREA FOR COUNTERFORT DRAINAGE.

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<p>CABRA DEVELOPMENTS LTD 33 LOT RESIDENTIAL SUBDIVISION OTANERUA ROAD HATFIELDS BEACH</p>	
<p>DRAWING TITLE ASBUILT COUNTERFORT DRAINAGE CONSENT NOTICE PLAN R51117</p>	
1:500 @ A3	DATE SEPTEMBER 2008
DRAWN KANE BROMLEY	DRG No.