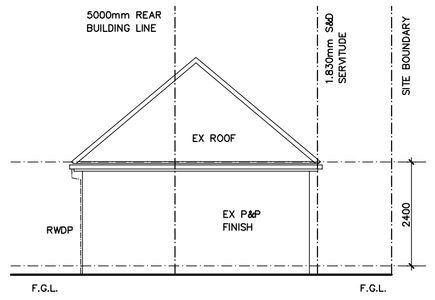
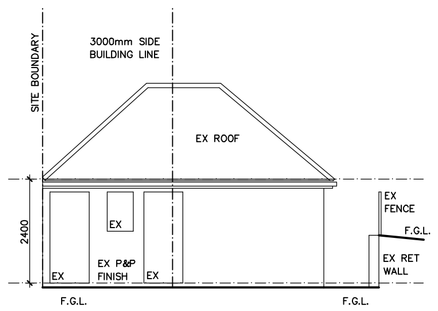
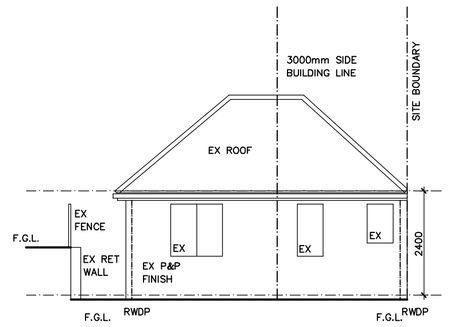


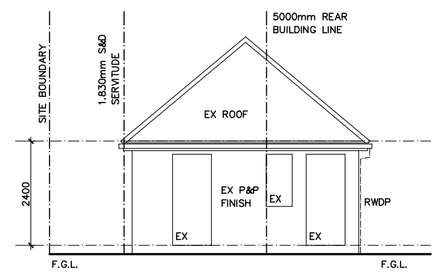
SOUTH EAST ELEVATION OF O/BLDG
SCALE 1:100



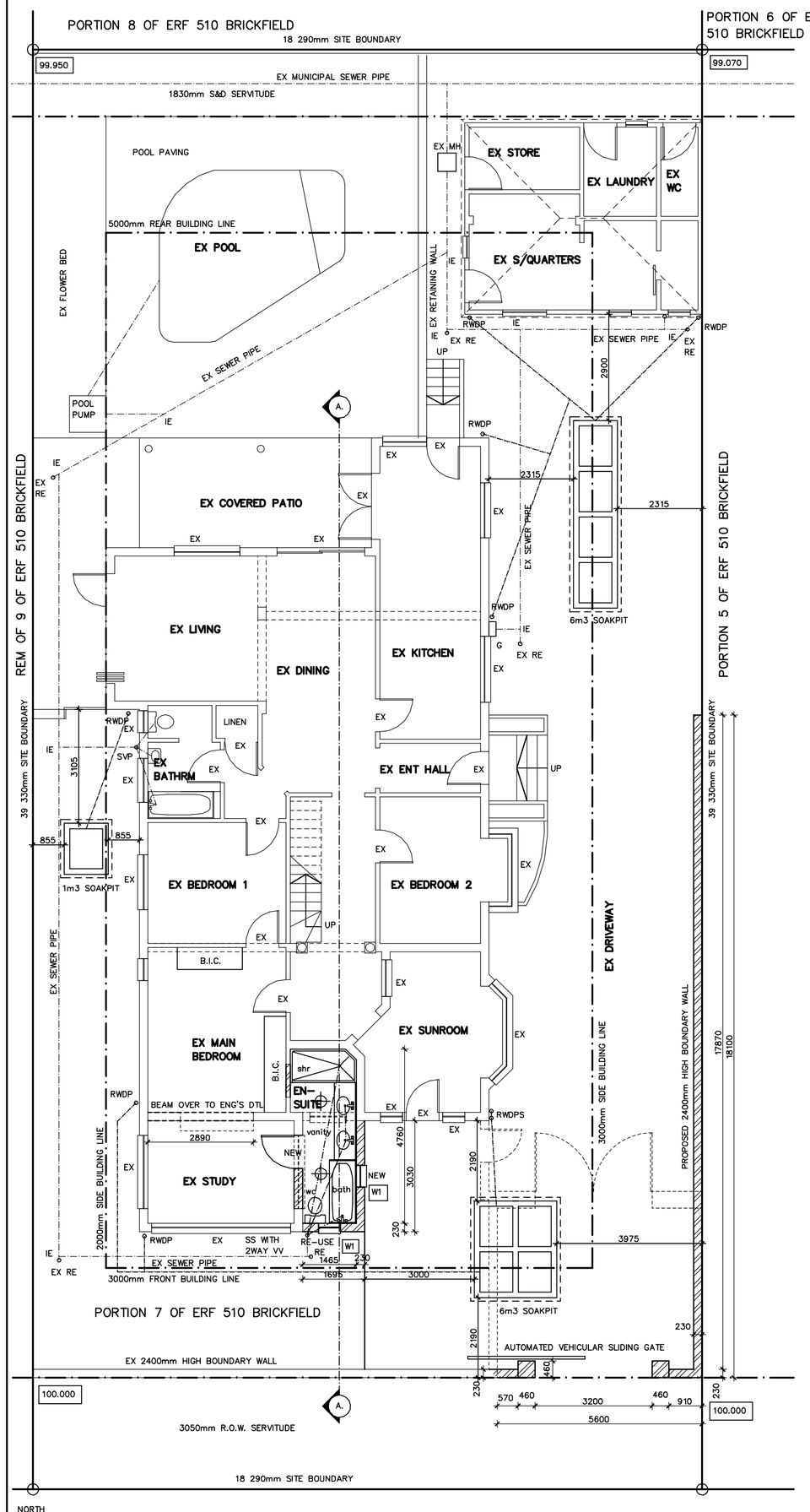
NORTH EAST ELEVATION OF O/BLDG
SCALE 1:100



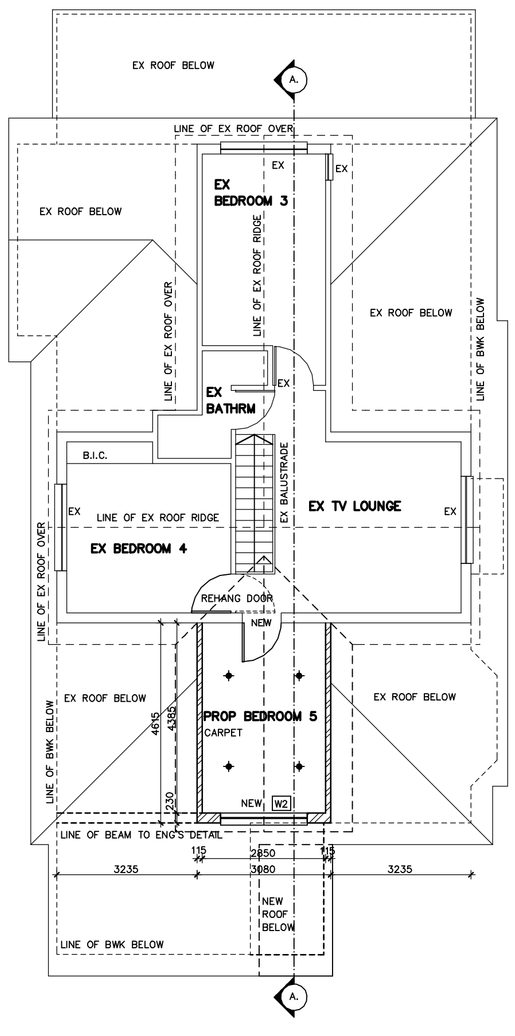
SOUTH WEST ELEVATION OF O/BLDG
SCALE 1:100



NORTH WEST ELEVATION OF O/BLDG
SCALE 1:100



SITE AND GROUND FLOOR PLAN
SCALE 1:100



FIRST FLOOR PLAN
SCALE 1:100

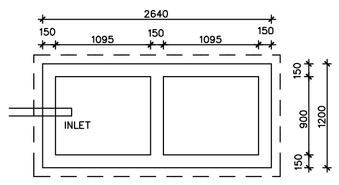
SOAKPIT CALCULATIONS: –

EX HOUSE + O/BUILDINGS = 234.75sqm
EX DRIVEWAY = 199.69sqm
EX POOL PAVING = 56.39sqm

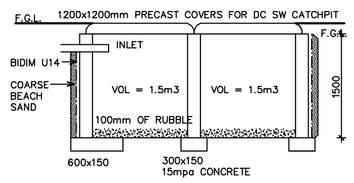
TOTAL = 490.83/40 = 12.27 = 13m3

1m3 FOR EVERY 40sqm OF HARDENED / COVERED AREA.

SOAKPITS TO BE A MIN OF 4.0m AWAY FROM BUILDINGS AND / OR SITE BOUNDARIES.

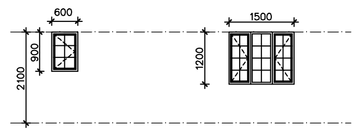


PLAN OF SOAKPIT AS PER MUN. DTL
SCALE 1:50



SECTION THU SOAKPIT AS PER MUN DTL
SCALE 1:50

WINDOW SCHEDULE
SCALE 1:100



XA CALCULATIONS: –

A. ENERGY EFFICIENCY IN BUILDINGS – PART XA OF SANS 10400.

W1
1. NET FLOOR AREA = 7.51sqm.

2. TOTAL GLAZING AREA = 1.08sqm.
2x W1 = 2x 0.54 = 1.08sqm.

3. 15% OF NET FLOOR AREA = 1.127sqm (MIN ALLOWABLE)

GLAZING AREA < MIN ALLOWABLE
1.08 < 1.127
COMPLIES, THEREFORE NO CALCULATION REQUIRED.

4. CLIMATIC ZONE IS 5.

W2
1. NET FLOOR AREA = 12.50sqm.

2. TOTAL GLAZING AREA = 1.80sqm.

3. 15% OF NET FLOOR AREA = 1.875sqm (MIN ALLOWABLE)

GLAZING AREA < MIN ALLOWABLE
1.80 < 1.875
COMPLIES, THEREFORE NO CALCULATION REQUIRED.

4. CLIMATIC ZONE IS 5.

B. LIGHTING – ENERGY DEMAND AND ENERGY CONSUMPTION.

EN-SUITE: –

1. CLASSIFICATION OF OCCUPPANCY = H4.

2. TOTAL FLOOR AREA = 10.41sqm.

3. MAX ENERGY DEMAND = 5WATTS/M2.

4. MAX ENERGY CONSUMPTION = 5KILOWATTS/HOUR/M2.

5. ENERGY DEMAND = 5WATTS/M2 x 10.41 = 52.05WATTS (MAX ENERGY DEMAND)

ASSUME EN-SUITE IS 12WATTS
2 x 12WATTS = 24WATTS

TOTAL WATTS = 24WATTS

ACHIEVED DEMAND 24WATTS < 52.05WATTS.

6. ENERGY CONSUMPTION = 5KILOWATT/HOUR/M2 x FLOOR AREA
5 x 10.41
= 52.05KILOWATT HOURS (ANNUAL)

ASSUME LIGHT USAGE
MORNINGS 5:30–6:30 = 1 HOUR
EVENINGS 7–9 = 2 HOURS
ANNUAL LIGHT USAGE = 3HRS x 7 DAYS x 52 WEEKS
= 1092 HOURS PER YEAR

ANNUAL CONSUMPTION = 24WATTS x 1092 HOURS = 26.208KILOWATT/HR

ACHIEVED DEMAND 26.208 < 52.05 KILOWATT/HR

BEDROOM 5: –

1. CLASSIFICATION OF OCCUPPANCY = H4.

2. TOTAL FLOOR AREA = 14.21sqm.

3. MAX ENERGY DEMAND = 5WATTS/M2.

4. MAX ENERGY CONSUMPTION = 5KILOWATTS/HOUR/M2.

5. ENERGY DEMAND = 5WATTS/M2 x 14.21 = 71.05WATTS (MAX ENERGY DEMAND)

ASSUME BEDROOM 5 IS 10WATTS
4 x 10WATTS = 40WATTS

TOTAL WATTS = 40WATTS

ACHIEVED DEMAND 40WATTS < 71.05WATTS.

6. ENERGY CONSUMPTION = 5KILOWATT/HOUR/M2 x FLOOR AREA
5 x 14.21
= 71.05KILOWATT HOURS (ANNUAL)

ASSUME LIGHT USAGE
MORNINGS 5:30–6:30 = 1 HOUR
EVENINGS 5:30–9 = 3.5 HOURS
ANNUAL LIGHT USAGE = 3.5HRS x 7 DAYS x 52 WEEKS
= 1638 HOURS PER YEAR

ANNUAL CONSUMPTION = 40WATTS x 1638 HOURS = 65.528KILOWATT/HR

ACHIEVED DEMAND 65.528 < 71.05 KILOWATT/HR

C. ROOF INSULATION.

1. OUTDOOR AIR FILM = R VALUE = 0.03.

2. ROOF MATERIAL = CLAY TILES = R VALUE = 0.02.

3. ROOF/CEILING AIR SPACE = R VALUE = 0.18.

4. 100mm AEROLITE INSULATION = R VALUE = 2.50.

5. RHINOBOARD CEILING = R VALUE = 0.06.

6. INDOOR AIR FILM = R VALUE = 0.11.

7. TOTAL R VALUE = 2.9KILOWATT.

8. MIN REQUIRED TO ACHIEVE IN CLIMATIC ZONE 5 = 2.7KILOWATT, THEREFORE COMPLIES.

D. HOT WATER SUPPLY.

No. OFF PEOPLE = 2

VOLUME OF HOT WATER USED: 120l/PERSON/DAY.

TOTAL VOLUME OF HOT WATER USED PER DAY: 2x120l = 240l.

ANNUAL HOT WATER USAGE: 240lx365 DAYS = 87600l (87.6kl).

50% OF 87.6kl (43.8kl) TO BE PROVIDED BY MEANS OF A HEAT PUMP.

E. EXTERNAL WALLS.

4.4.3.2 (a) DOUBLE SKIN MASONRY (230mm) COLLAR-JOINTED WALL WITH NO CAVITY, PLASTERED INTERNALLY AND EXTERNALLY.

GENERAL NOTES:

ALL WORK TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS SANS 10400–A: 2010, AND TO COMPLY WITH LOCAL AUTHORITY BY–LAWS.
NO DIMENSIONS TO BE SCALED.
ALL DIMENSIONS TO BE CHECKED ON SITE AND ANY DISCREPANCIES REPORTED TO THE ENGINEER/ ARCHITECT PRIOR TO ANY WORK BEING EXECUTED.
CONTRACTOR TO CONFIRM ENTRANCE LEVELS AND FLOOR LEVELS PHYSICALLY ON SITE AND TO ENSURE THAT ALL LEVELS ARE CORRECT BEFORE COMMENCING ANY BUILDING WORK.
ALL FOUNDATIONS AND STRUCTURAL ITEMS TO ENGINEER'S DETAIL.
ALL DRAINAGE TO COMPLY WITH SANS 10400–P: 2010, AND TO CONNECT INTO EXISTING SITE SEWER RETICULATION.
ALL STORMWATER TO COMPLY WITH SANS 10400–R: 2011, AND TO CONNECT INTO EXISTING STORMWATER RETICULATION ON SITE.
ALL GLAZING TO COMPLY WITH SANS 10400–N: 2010.

AREA SCHEDULE

SITE AREA	717.00sqm
ALLOWABLE F.A.R	N/A
PROPOSED F.A.R.	19.35sqm
EXISTING F.A.R.	277.12sqm
TOTAL F.A.R.	296.47sqm
AVAILABLE F.A.R.	N/A
ALLOWABLE COVERAGE (40%)	286.80sqm
PROPOSED COVERAGE	5.14sqm
EXISTING COVERAGE	233.12sqm
TOTAL COVERAGE	238.26sqm
AVAILABLE COVERAGE	48.54sqm
EX GROUND FLOOR	180.18sqm
EX FIRST FLOOR	63.02sqm
EX COVERED PATIO	19.02sqm
EX O/BUILDINGS	33.92sqm
PROP EN-SUITE	5.14sqm
PROP BEDROOM	14.21sqm

SHARON LABUSCAGNE
31 HYPATHIA ROAD
DURBAN NORTH
4051

CELL: 082 456 9986

JOB

PROP ADDS & ALTS TO PORTION 7 OF ERF 510 BRICKFIELD AT 54 PALM GROVE, OVERPORT FOR MR BJ & JCE BUNYAN

date : JULY 2013	scales :
drawn : SL	1 : 100
SACAP : PAT 20645	

DRAWING

RATE NO:

SUBMISSION DWG : SITE & FLOOR PLANS, SECTIONS & ELEVATIONS

JOB NO.	DRAWING NO.	REV. NO.
54PALM	SDPLAN1/2	*.