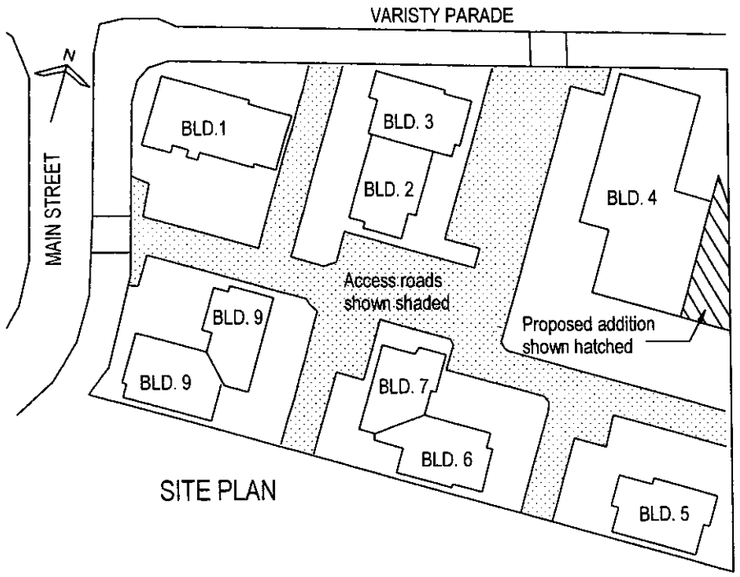
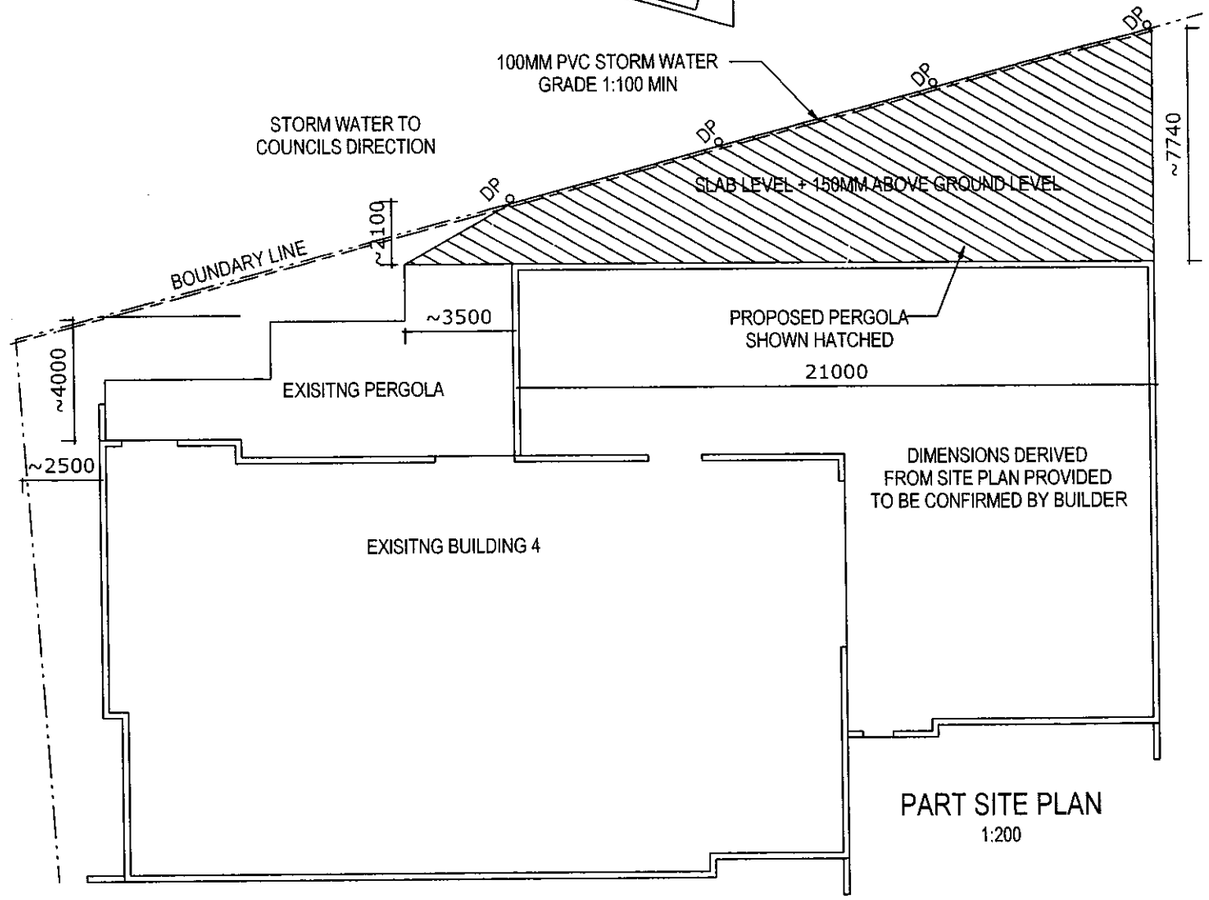


SITE PLAN



PART SITE PLAN
1:200

GENERAL NOTES:

Drawings are not to be scaled.
Bush Fire Management: Install screens as required.
All softwood timbers will require to be treated for termite resistance.
Stormwater: all stormwater shall be discharged as directed by local authority.
Guttering: Use slotted trimline, 6244 sq. mm
One 100mmx75mm downpipe per 25sq.metre of roof. One 90 diam.
drain pipe per 25 sq.m. of roof;r=251mm/hr;20ARI.
Concrete Slabs: 100mm concrete reinforced with F72 mesh, 30 cover top u.n.o.
Shower floor shall recessed by 75mm. Provide for 100mm cp floor wastes to each 'wet area'. Use 70x45 C.C.A. treated bottom plates around perimeter of wet areas.;U.N.O.
Garage Floor: 150 min. freeboard.
Patio Floors: Set-down 150 u.n.o.
Termite Treatment: Provide termite treatment prior to placing of concrete in full compliance with AS3660.1(USE BIFLEX SPRAY & termi-mesh around penetrations or preserved timber frame U.N.O.)
All slabs and footings to be designed by engineer based on a geotechnical report.
Brick: as selected by client-u.n.o. Brick piers and engaged piers to be 350x350 concrete core filled reinforced with 1Y12 central.
Masonry finish to be as directed.
All work shall be in strict compliance with current BCA. All relevant SAA codes referred to herein and Local Shire Council ordinances and By-laws, notwithstanding any specifications given in these drawings or omitted.
Linings: All interior walls and partitions are to be lined, set and finished with 10mm (or 13mm) plasterboard in accordance with the manufacturers 'specifications'.
Finish all interior ceilings with 75mm plasterboard cornices. Provide for w.r. plasterboard to 'wet areas', and finish as above. Line all patio ceilings with 'villaboard' or hardiflex, plastic moulding joins unless directed otherwise by client.
Builder shall verify the existence and or position of easements, sewer mains and flood levels with the local authority.

Smoke detectors to be installed adjacent to all bedrooms to comply with part 3.7.2 of BCA.
Smoke detector must be designed to comply with AS3786.
A certificate of installation from a licensed electrician is required at final inspection.
Builder to verify all levels and dimensions on site, and allow for adjustment of discrepancies should any be encountered. If you have queries, please contact us.
The following AS codes shall be observed where applicable.
AS 2057 Chemical treatment against termites.
AS1694-74 Physical barriers against termites.
AS3800 Concrete construction
AS1684-92 National timber framing code
AS3700 Masonry Code
AS1288-89 Glass in buildings code
AS2050-89 Roof tile fixing code.
AS1738-75 Roof sarking practice
AS2047-77 Aluminium window installation
AS2146-47 & 48
Installation of timber windows
AS1860-91 Particle board installation.
AS2183-89 Gypsum board installation
AS2904-86 Damp proof courses and flashings.
AS3740-89 Water-proofing of 'wet areas'.
AS3958-91 Installation of ceramic tiles
AS1562-80 Installation of metal roofing
AS3500 U.G. storm water systems.
AS2180 Above ground storm water systems.
AS2627 Thermal insulation.
AS4100 Steel Structures Code.
AS3786- Smoke alarms
Should you have any queries, please contact us.

B4/175 VARSITY PARADE, VARISTY LAKES QLD 4227
STORMWATER DOWNPPES, ROOF GUTTERS, DRAINAGE AND PITS
#Note: Stormwater, downpipes & gutters & site drainage to comply with BCA Part 3.1.2 & 3.5.2 incrp AS/NZ 3500
LOCALITY: BRISBANE/TWEED HEADS= 251/245 MM PER HOUR
Average recurrence interval= 20 years
Design rainall intensty = 251m/hr
Roof catcment per down pipe = 32 sq.m.
Gutter Size A- Sheerline -slotted 7600sq.mm.
Down Pipe selection 100x75mmor 100mm diam.
AREA OF ROOF = 107 SQ.M.
NO. OF DOWNPIPES= 4 OFF x 90 diam.
*GUTTER FALL= 1:250 MIN.; 1:100 MAX.
*Max. spacing of downpipes is 12M.
*Downpipes to be fixed as close as possible to valleygutters and if more than 1.2m away, from valley, provision for overflow is needed.
*Stormwater lines for two or more downpipes to be 100mm diam. and all braches to be 90mm diam.
*Stormwater lines shall be to a min. fall of 1:60 and where possible placed as shown.
*100mm cover to stormwater drainage.
*ROOF GUTTER ALTERNATIVES:
30 sq.m. roof= use 115mm D gutter
40 sq.m. roof= use 125mm D gutter
50 sq.m. roof= use 150mm D gutter
60 sq.m. roof= use 150mm D gutter

Wind Catergory Determination as per AS4055-2006
B4/175 VARSITY PARADE, VARISTY LAKES QLD 4227
Terrain Catergory Classification: Tc3.0
Shielding Classification: Full Shielding (FS)
...such as type suburban development.
Topographic Classification: T1
From Table 1- Wind Classification System
Region B, read N2

AREAS			
New pergola area	=	107.1	sq.m.
Existing building	=	620.7	sq.m.
Total area	=	727.8	sq.m.
Site coverage	=	52.2%	

PROPOSED PERGOLA

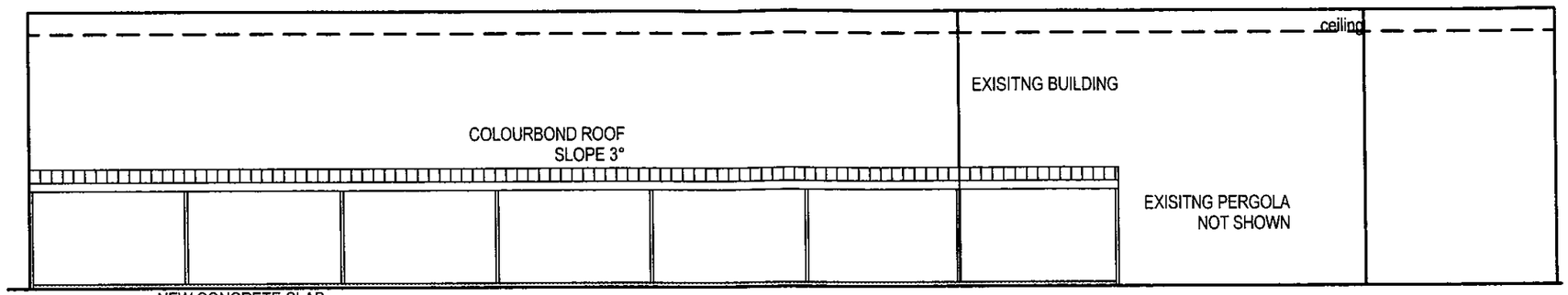
OWNER: HOPE CHURCH
ADDRESS: B4/175 LOT 4 SP165106 VARSITY PARADE
VARISTY LAKES QLD 4227; AREA 1392 SQU.M.

12OCT09 Ref. No. HOPE90916EJ SHEET 1 OF 5

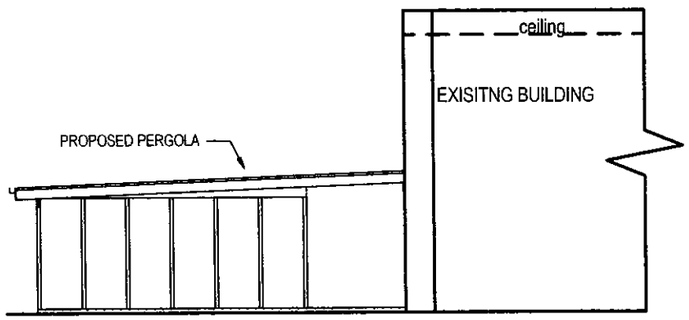
SITE PLAN & NOTES

Authorised by James Tayler R.P.E.Q. 1407
Builder to verify all dimensions and property description prior to construction.

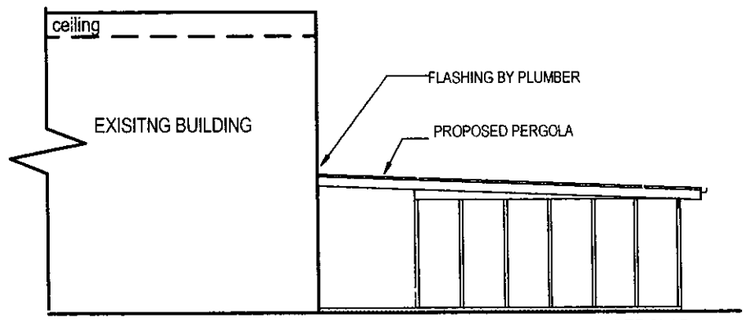
EARTHSOLVE
Trading name of the John Discretionary Trust
#171 SAN FERNANDO DR.
WORONGARY Q4213
email: earthsolve@bigpond.com
TEL:07-55-303948 FAX:07-55-304986



BACK ELEVATION 1:125



RIGHT ELEVATION 1:125



LEFT ELEVATION 1:125

FRONT ELEVATION UN-CHANGED

PROPOSED PERGOLA

OWNER:
ADDRESS:
HOPE CHURCH
B4/175 LOT 4 SP165106 VARSITY PARADE
VARISTY LAKES QLD 4227; AREA 1392 SQU.M.

12OCT09 Ref. No. HOPE90916EJ SHEET 2 OF 5

ELEVATIONS

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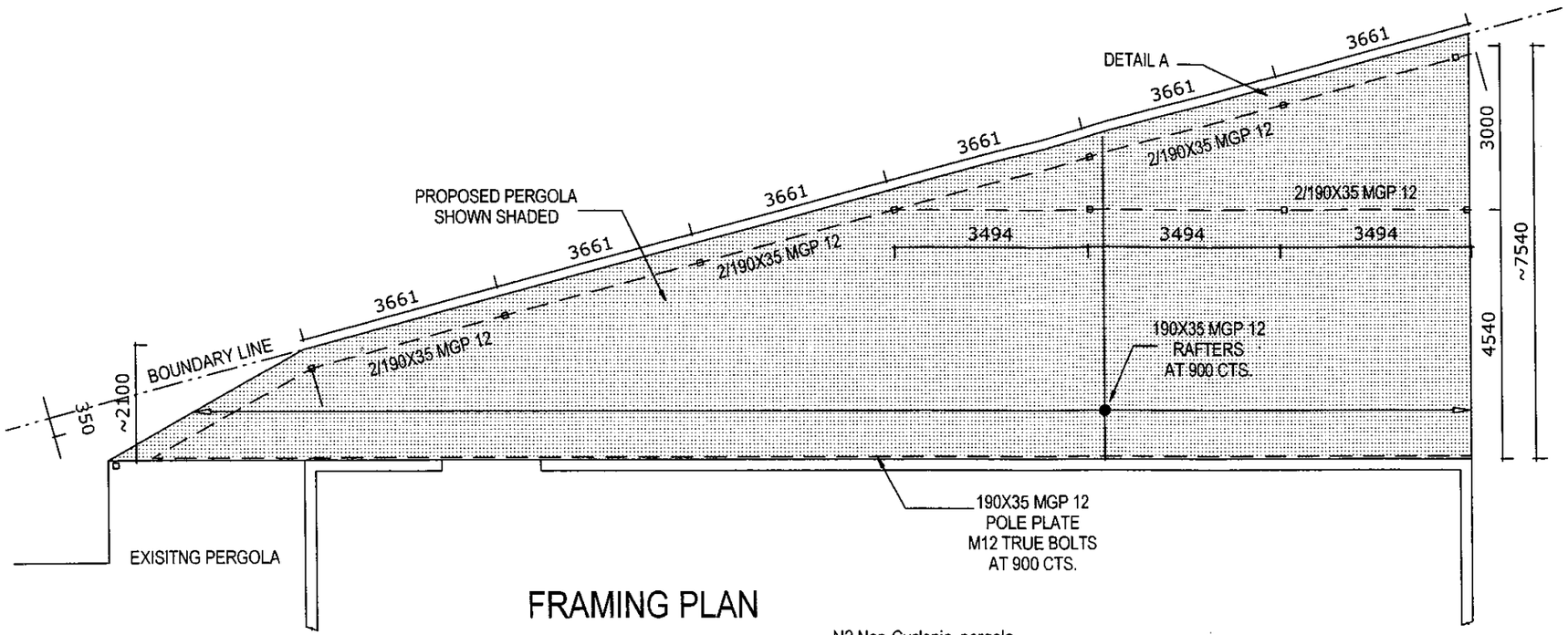
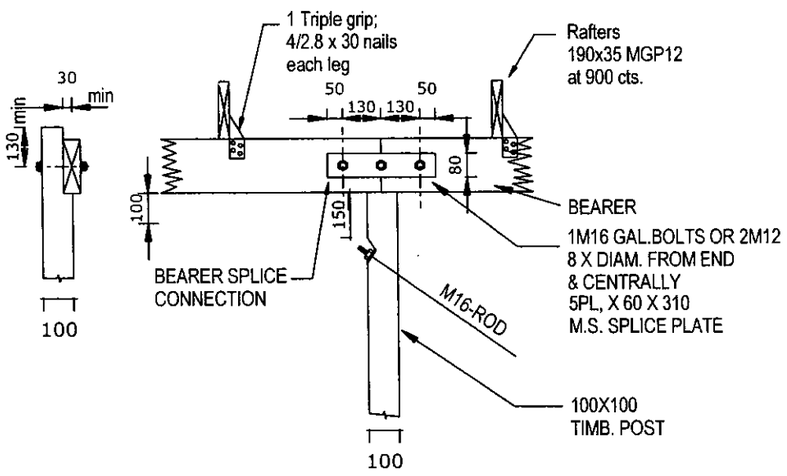


FRAMING PLAN

N2 Non-Cyclonic, pergola
ROOF LOAD WIDTH 3600mm, 3 DEGREE SHEET ROOF



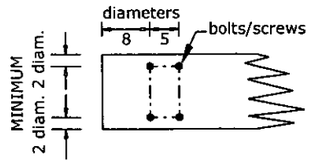
DETAIL A

RAFTERS:At 900 centres -ENGINEER CERTIFIED DESIGN
trusses to top plate:
Uplift Provided Size
2.4kn 3.5kn 1 triple-I-grip; 4-2.8 dia. x 30 nails each leg

BATTENS: 900 max. centres.& 450 centres at edges
75x38-F14 unseas.hardwood
UPLIFT PROVIDED SIZE
0.79 1.3 2 off 75mm x 3.05 deformed shank

NOMINAL FIXINGS:
PLATES TO STUDS - USE 2-3.15x75mm NAILS;
UPLIFT PROVIDED SIZE
3.4 3.5 1 STRAP AT 1.35RS & 2 NAILS EACH END
NOGGINGS TO STUDS - USE 2-3.15x75mm NAILS
BOTTOM PLATES TO JOISTS - PLATES UP TO 38 THICK USE 2/75MMx3.15 NAILS
AND AS REQD. BY HOLD-DOWN & BY BRACING PANELS.
JOISTS TO BEARERS - 2/75MM X 3.05MM DIA. NAILS.
RIBBON PLATE TO TOP PLATE - See figure 9.2 P160 as1684.2
POSTS TO BEAMS - USE 1-M12 OR 2-M10 U.N.O.

See AS1684.2 for further details.



TYPICAL MINIMUM EDGE DISTANCES
FOR SCREWS/BOLTS IN TIMBER
DETAIL Z

STRUCTURAL STEELWORK:

S1. WORKMANSHIP AND MATERIALS shall be in accordance with S.A.A. Codes AS 4100 & AS 1554 and ACSE specifications Doc 2 & Doc. 3. Cold formed structures to be in accordance with AS4600-1996. Steel shall be to AS 1204 Grade 300 generally (except for Cold formed structures). AS 1163 Grade 350 for C.H. Sections and 350 for R.H. Sections, except where noted otherwise or varied by Contract Documents.
S3. ALL BOLTS connecting steel members are to be full bearing and shall be of sufficient length that no threaded portion shall be within the thickness of the parts joined. Washers of suitable thickness shall be used under all nuts.
S5. SITE WORK including erection and site welding to be carried out by the Contractor. Make good all damaged surfaces. Contractor to carry out all necessary architectural works to maintain stability of structure during erection.
S6. CLEATS and holes for steel stud fixing as required by the Architect are to be allowed for.
S7. WELDS are to be 6mm continuous fillets unless otherwise detailed.
S8. ALL JOINTS are to be fully welded unless otherwise detailed.
S9. ALL GUSSETS, CLEATS & PLATES: Use 10mm thick plate unless otherwise detailed.
S10. ALL BOLTS are to be 20 mm diameter galvanised (including H.D. Bolt) unless otherwise detailed.
S11. CONNECTIONS TO BRACING 20 mm diameter galvanised bolts unless otherwise detailed.
S12. CLEARANCES for holes to be 1.0 mm for fitted bolts, 2.0mm for galvanised bolts, 3.0 mm for fixing to concrete or timber, 6.0 mm for H.D. bolts 25 mm diameter and above.
S15. SURFACE TREATMENTS: Seek spcialist advise. A guide for coatings shall be a minimum of a coat of zinc chromate primer unless otherwise detailed. All unlined metal surfaces to have heavy galvanised treatment (Z350). Builder should seek specialist advice from Lysagths or corrosion specialist for unlined structures in a marine enviroment or other where corrosion may be an issue based on distance from sea and industry.
S16. All galvanising to be in accordance with S.A.A. Code AS 1627.
S17. This office takes no responsibility and offers no warranty for surface treatments, and longevity of surface treatmentsof metal structural members unless specificly engaged to do so. The owner is responsible for maintenance against corrosion.

STRUCTURAL TIMBER

T1. MATERIALS and Workmanship for structural timber to be in accordance with latest S.A.A Timber AS 1720.1 & S.A.A. AS 1684. All unseasoned timber shall be joint group J2 and all seasoned timber shall be joint group JD4 unless noted otherwise.
T2. All external fasteners including nuts, bolts, washer and nails shall be hot dip galvanised.
T3. Nominal fix timber members in accordance with AS1684.2-1999 appropriate to N3 wind classification, unless noted otherwise. Fixings shown on drawings are additional to nominal fixing.
T4. Bolts shall be hexangonal head 4.6/S bolts, unless noted otherwise. Cup head bolts shall not be used unless specifically noted.
T5. Pre-drill timber to 80% of nail diameter where necessary to avoid splitting.
T6. Nails shall be of sufficient length such that the penetration into the receiving member is at least 10 nail diameters into side grain and 15 nail diameters into end grain.
T7. Studs, top & bottom plates shall not be notched or trenched.
T8. Connect all steelwork to timber framing with M12 at all corners and then at 0.9m crs. u.n.o.
T9. All bolts in contact with timber to have appropriate washers. eg. M12-50x50x3mm & M16- 65x65x5mm. Contact this office should you have queries.
T10- WEATHER EXPOSED BEAMS: Where softwood laminated beams are specified, such as Hynebeam 17, Edgebeam LGL or Hyne Bearer beam, Entire beam is to be LOSP H3 treated (Full Penetration). Once dry one coat of premium quality (oil based preferred) to be applied to all surfaces prior to erection of beam and to any cuts or holes drilled (or two coats of pignented oil based stain). Follow with two coats of light coloured premium paint as finishing coats. Oil based enamel or acrylic or oil based stain) Ensure a maintenance program is siputated. See manufacturers recommendations for further details.

PROPOSED PERGOLA

OWNER: HOPE CHURCH
ADDRESS: B4/175 LOT 4 SP165106 VARSITY PARADE
VARISTY LAKES QLD 4227; AREA 1392 SQU.M.

12OCT09 Ref. No. HOPE90916EJ SHEET 3 OF 5

FRAMING PLAN DETAIL A & NOTES

Authorised by James Tayler R.P.E.Q. 1407

Builder to verify all dimensions and property description prior to construction.

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email: earthsolve@bigpond.com
TEL:07-55-303948 FAX:07-55-304986

NOTES:

1) This drawing shall be read in conjunction with architectural drawings and specifications and other written instructions.
2) Dimensions shall not be obtained by scaling from drawings, refer to architects final drawings.
3) Builder to check all relevant dimensions on site.
4) Refer any discrepency to the engineer or architect as applicable.
5) If in doubt - ask.
6) Materials and workmanship shall comply with the appropriate SAA specifications or code and with requirements of the relevant authority.
7) During construction the structure shall be maintained in a stable condition and no part shall be overstressed. The builder shall be responsible for any damage to the works during construction.
8) All dimensions are in mm unless otherwise noted.
9) Concrete mix and quality shall be:Curing of concrete to be to A3600

	Slabs on grd.	Piers	Masonry Infill
F'c(u.n.o.)	20Mpa	20Mpa	20Mpa
Slump	100mm	80mm	120
Max. Agg.Size	20mm	20mm	10

Polypropylene-if specified

Fibre	'Fibreforce'
Fibre content:	0.9kg per cu.m.
Cement type:	Type 'A' (u.n.o.)

10)

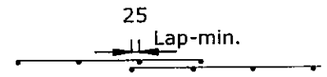
Reinforcement:	Mesh: 2 crosswires + 25mm
Laps	Bars: N12-450mm & N16-550mm(u.n.o.)

11) Cover to reinf. steel (u.n.o.)

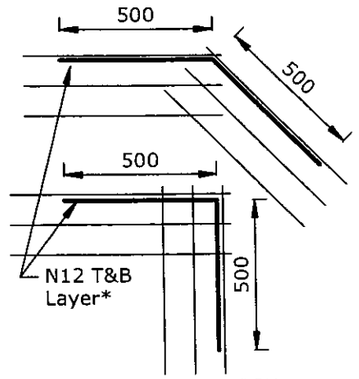
Slabs- Top:	20mm(inside) & 30mm(outside)
Bottom:	30mm(polythene under)
Internal beams:	30mm(polythene under)
Strip footings:	40mm (on ground)

12) All reinforcement to be adequately supported in its required position. Slab mesh supported 0.8m. grid minimum.
13) Construction joints where not shown shall be located to the approval of the engineer.
14) No holes or chases other than those shown on the structural drawings to be made in concrete members without prior approval of the engineer.
15) Internal and edge beams are designated to rest on natural ground or controlled fill with a safe bearing capacity of 50KPa.(u.n.o.)
16) Prior to construction of the slab or formation of a controlled cut & fill building platform:
(i) An area extending at least 1.0m beyond the edge of the slab and to the toe of any fill batters shall be stripped of all organic matter and associated topsoil.
(ii) The subgrade shall be thoroughly trimmed and consolidated.

17) For a non piered footing system all site filling shall be controlled and shall be placed in accordance with clause 6.4.2,3&4 AS2870-1996 and as outlined below:
(i) Sand fill- (less than 5% fines)
- less than 800mm deep need not be tested but shall be well compacted in 200mm layers by a vibrating roller.
- greater than 800mm deep shall be tested by a registered NATA laboratory and shall be compacted in 200mm layers to more than 65% density index (AS1289.E6.11 or to more than 7 blows per 300mm with a standard penetrometer - (as1289.F3.3)
(ii) Silts and sands (more than 5% fines) and clays.
- less than 300mm deep need not be tested but shall be well compacted in 150mm layers by a mechanical roller with at least 4 passes. Clay fill shall be moist during compaction
- greater than 300mm deep shall be tested by a registered NATA laboratory and shall be compacted to a standard dry density ratio (AS1289.E4.1) of >98% for silts and sands (more than 5% fines) or 95% for clays at a moisture content of +- 2% of optimium.
Compaction tests should be in accordance with AS1289.E1.1 (standard).
18) For piered footing systems fill placed in the building platform may need not be controlled (if in doubt please contact us).
19) Waffle slabs to be laid on maximum 50mm thickness of consolidated levelling with a 0.2mm thick polythene vapour barrier with all joints properly lapped and taped. Vapor barrier to be branded continuously 'Concrete underlay 0.2mm IR3.
20) The owners attention is drawn to appendix A of AS2870-1996 "PERFORMANCE REQUIREMENTS AND FOUNDATION MAINTAINENCE".
21) Slab and footing design has been based on principles as set out in AS2870-1996 " Residential Slabs and Footings".
22) All concrete to be mechanically vibrated and shall be carefully worked around the reinforcement and into corner of formwork.
23) DW10 means deformed wire bar, 10mm diameter (500MPa).
24) Use 2N12 x 2000 long across all re-entrant corners.

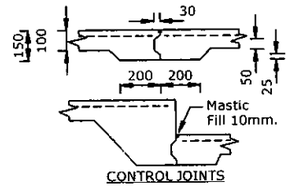


REINFORCING FABRIC LAPS

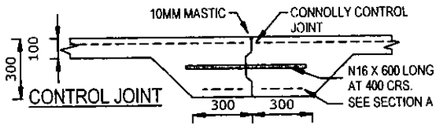


FOOTING TRENCH MESH
CORNER LAPS- N12X900

*-Pier & Beam footing details
2N12 top & bot. unless
instructed otherwise



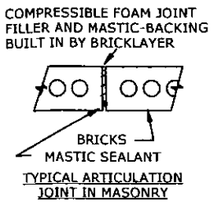
CONTROL JOINTS



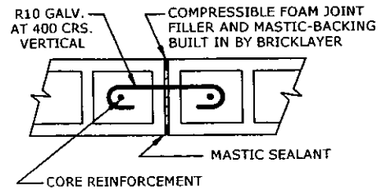
CONTROL JOINT

NOTES:-

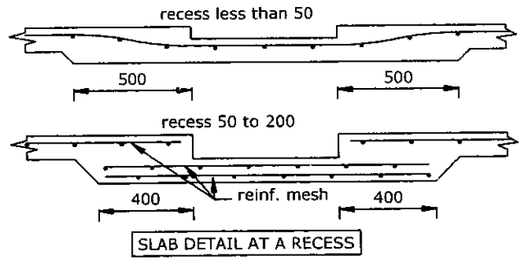
1. STRIP ALL VEGETATION PRIOR TO BUILDING
2. USE 0.2mm POLYTHENE UNDER SLABS
3. TERMITE CONTROL TO AS3660.
4. CONCRETE TO BE N20, U.N.O.
5. CONCRETE IN-FILL IN BLOCKS OR BRICKS TO BE 20MPa, 250mm SLUMP, 5MM AGG., U.N.O.
6. ALL FILL TO BE COMPACTED TO AN ENGINEERING STANDARD SEE CONCRETE NOTES AND AS2870-1996 SECTION 6.4



TYPICAL ARTICULATION
JOINT IN MASONRY



CONSTRUCTION JOINT (C.J.) AT 6M CENTRES U.N.O.

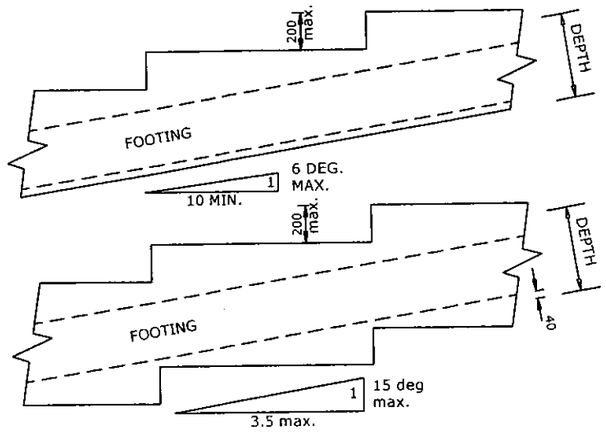


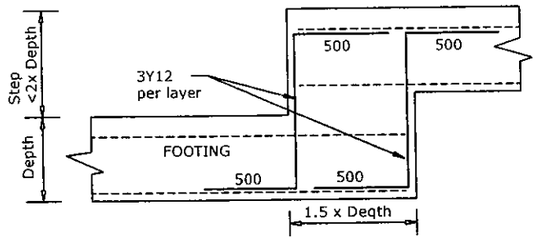
SLAB DETAIL AT A RECESS

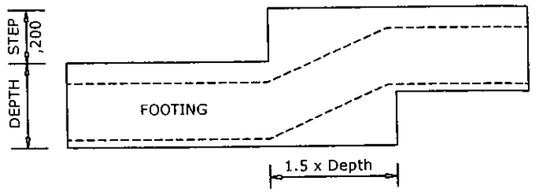
COVER:-

a) CONCRETE TO AIR FACE
=20mm INTERNAL, 40 EXTERNAL
b) CONCRETE TO GROUND FACE = 40mm
c) CONCRETE, 0.2mm POLYTHENE, GROUND = 30mm
d) USE BAR CHAIRS AT 0.8M max. GRID
e) ALL WORK TO BE IN ACCORDANCE WITH AS2870-1996 & AS3600
f) DW = DEFORMED WIRE

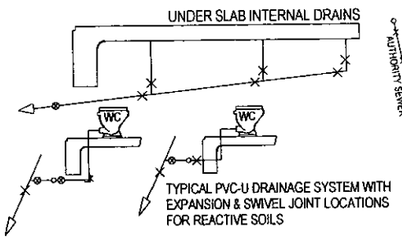
CONCRETE SHRINKAGE NOTES:
1)Concrete shall not be placed when ambient teperature exceeds 32D Cel. for ambient temperatures above 25d cel. reinforcement shall be cooled in water.
2) Concrete must be cured for 14 days. For first 7 days, all concrete shall be kept continuously wet and thoroughly protected from frosts and direct rays of sun and from drying winds. Membrane curing may be used 8-14 days to protect concrete from direct sun rays, drying winds. Concrete surfaces must be kept wet.
3) Concrete must be compacted.
4) Addition of polypropylene fibres to the concrete mix.
Type: Polypropylene; Fibre: 'Fibreforce'
Fibre content: 0.9kg per cu.m.; Cement type: Type 'A' (u.n.o.)

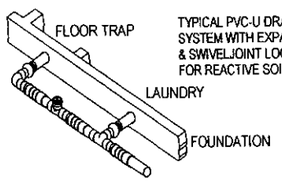


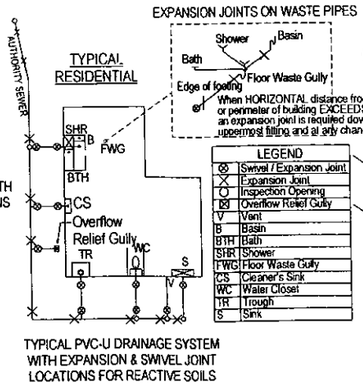




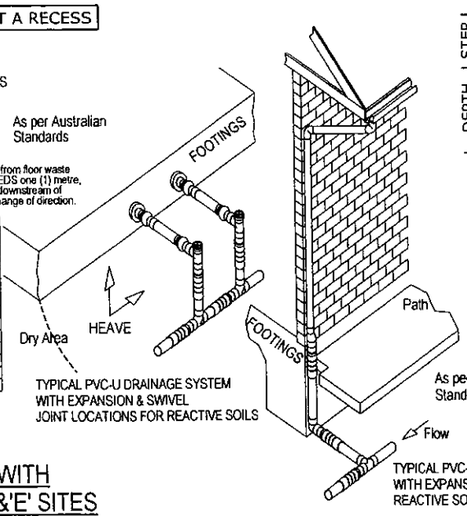
STEP-DOWN DETAIL FOR FOOTINGS







TYPICAL PVC-U DRAINAGE SYSTEM
WITH EXPANSION & SWIVEL JOINT
LOCATIONS FOR REACTIVE SOILS



TYPICAL PVC-U DRAINAGE SYSTEM
WITH EXPANSION & SWIVEL
JOINT LOCATIONS FOR REACTIVE SOILS

TYPICAL PVC-U STORMWATER SYSTEM
WITH EXPANSION JOINT LOCATIONS FOR
REACTIVE SOILS

TYPICAL PVC-U DRAINAGE SYSTEM WITH EXPANSION & SWIVEL FOR CLASS 'M','H' &'E' SITES

I, J.G. Tayler R.P.E.Q. 1407 hereby certify that the structure as shown on these drawings has been designed with observation to relevant standard codes of practice, engineering principles and proven performance and provided the structure is installed in accordance with good workmanship practices, should perform structurally satisfactorily, as per AS2870. This design is active for 18 months from the authorised date. See authorisation on this sheet.
12OCT09
James Tayler R.P.E.Q. 1407;EAust CpEng.,NPER.....

STEEL MESH FABRIC 'F' SERIES = 'RF', 'SL' & 'L' SERIES
'Y' BARS MAY BE REPLACED BY EQUIVALENT SIZE 'N' BARS

PROPOSED PERGOLA

OWNER: HOPE CHURCH
ADDRESS: B4/175 LOT 4 SP165106 VARSITY PARADE
VARISTY LAKES QLD 4227; AREA 1392 SQU.M.

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ISSUE & DATE	
FOR COUNCIL SUBMISSION & COSTING	
A	12OCT09

FOOTING SYSTEM DETAILS & BRACING PLAN

Site visited & authorised by
James Tayler R.P.E.Q. 1407

ISSUE DATE: 12OCT09

Construction Type:	*CLAD FRAME*	
Site Classification:	*P*	Site Slope: ~2°
Selected Footing System:	*H*	
Design by: *J.J.F*	Drafted by: *J.J.F*	Chk'd by *J.G.T*
Special Site Work:	*See drainage notes*	
Termite treat to AS3660.1	*See articulation notes*	

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