TACBOC STANDARD DETAILS

THESE DRAWINGS ILLUSTRATE SOME OF THE MINIMUM ONTARIO BUILDING CODE REQUIREMENTS WHICH TO TYPICAL RESIDENTIAL CONSTRUCTION IN THE GREATER TORONTO AREA, AND ARE PROVIDED FOR INFORMATION PURPOSES ONLY. THEY DO NOT NECESSARILY REPRESENT EVERY DETAIL OF BUILDING CONSTRUCTION, OR ALL MINIMUM STANDARDS WHICH APPLY. FOR MORE DETAILED INFORMATION ABOUT CONSTRUCTION REGULATIONS REFER TO THE ONTARIO BUILDING CODE, YOUR MUNICIPAL BUILDING DEPARTMENT, OR A QUALIFIED DESIGNER.

CLIMATIC DESIGN REQUIREMENTS

THESE DETAILS APPLY TO ZONE I NON-ELECTRIC SPACE HEATING ONLY. AREAS OUTSIDE GREATER TORONTO MAY BE SUBJECT TO DIFFERENT CLIMATIC CONDITIONS WHICH MAY SIGNIFICANTLY AFFECT CONSTRUCTION REQUIREMENTS. THE CLIMATIC DESIGN DATA WHICH APPLIES TO THE SPECIFIC BUILDING LOCATION SHOULD BE CONFIRMED BEFORE ADOPTING ANY OF THE DETAILS IN A PROPOSED DESIGN. CLIMATIC DESIGN INFORMATION MAY BE FOUND IN THE SUPPLEMENTARY STANDARD SB-I OF THE 2006 ONTARIO BUILDING CODE

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Plan & Section

Details

FOla

FOID

MASONRY FIREPLACE

MASONRY FIREPLACE



Section & Notes

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BASEMENT ACCESSORY APARTMENT Building Code Requirements - Existing

BASEMENT ACCESSORY APARTMENT

Sample Plans and Specifications

UNDERPINNING

BOID

B02a

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BUILDING PERMITS MUST BE OBTAINED BEFORE YOU START WORK ON A NEW HOUSE, AN ADDITION, OR ANY ALTERATIONS TO AN EXISTING HOUSE WHICH ARE SIGNIFICANT IN NATURE. PERMITS ARE GEARED TO THOSE PROJECTS WHERE HEALTH & SAFETY MATTERS ARE INVOLVED, AND EXIST TO PROTECT YOU, OTHER HOMEOWNERS, BUILDING OCCUPANTS, FUTURE OWNERS AND THE COMMUNITY.

WHEN DO I NEED A PERMIT ?

CONTACT YOUR LOCAL MUNICIPAL OFFICE FOR SPECIFIC PERMIT REQUIREMENTS FOR ANY PARTICULAR PROJECT.

PERMITS ARE NORMALLY REQUIRED FOR:

Building any detached structure larger than 10m^2 Building any addition to your home Raised porches or decks Carport's or garages Installing a wood stove or fireplace
Partitioning a basement or adding a basement entrance
Creating an apartment in your house
Alterina or adding any plusting in the place in Structural alterations Altering or adding any plumbing Demolishing a house

PERMITS ARE NOT NORMALLY REQUIRED FOR:

Detached structures IOm²or less in area Decks which are 600mm or less from grade Replacement of windows, doors, roofing or siding New interior wall, floor or ceiling finishes Repairs to chimneys, porches, decks or roofs

HOW DO I GET A PERMIT?

- I. Prepare drawings which accurately and to scale describe the construction you propose. Standard technical details are available at your local municipal office to assist in the preparation of your plans. The attached sample plans are an example of the scope of drawings usually required for an addition to a house. THESE DRAWINGS ARE NOT INTENDED FOR USE IN YOUR PERMIT APPLICATION. If you have someone else prepare your plans, ensure the designer has the appropriate qualifications required in the building code. It is usually advisable to verify with your local municipal office that your proposed site plan will meet local zoning standards before you prepare the complete construction plans.
- 2. Visit your local municipal office, and complete a building permit application.
- 3. Provide the required number of copies (usually 2 or 3) of the construction drawings, including a site plan.
- 4. Pay the permit fee.
- 5. If the approval of other agencies such as the Conservation Authority applies to your application, contact the agency and apply for approval. Your local municipality can advise you if any outside agency approvals apply to your application

WHEN WILL I GET THE PERMIT?

Your permit will usually be issued within 10 to 15 business days if your drawings are complete and the proposed construction meets local zoning standards and the Ontario Building Code. If the approval of other agencies is required due to the location of your construction, such as the Conservation Authority, the permit may be delayed.

WHAT DO I HAVE TO DO AFTER I GET THE PERMIT?

Review your approved permit drawings before you start work, and keep them on the project site at all times. Make working copies if necessary. The permit must be posted in a conspicuous place on your property prior to starting work. You can commence construction any time after obtaining the permit and your permit will remain valid for a minimum of six months. Local utilities such as hydro, gas and telephone operate independently from your municipality and should be contacted regarding their specific approval and inspection requirements. All utilities must be contacted prior to commencing any excavation to determine the location of any nearby underground services.

Inspection requirements are normally noted on your permit drawings or the permit itself and must be arranged by contacting the municipal building inspection office prior to covering the work. For a house addition, an inspection is usually required for footings & foundations, structural framing, plumbing, heating, insulation and vapour barriers and final inspections before using the new space. Smaller projects such as decks, garages and minor alterations will usually involve fewer inspections.

If changes to the approved work are anticipated, speak with the inspector to determine if a revision to your permit is required. PLEASE REMEMBER TO WORK SAFELY!



TITIF

BUILDING PERMIT Q & A



A small housing addition will usually require the submission of the following drawings. All drawings must be accurately drawn to scale, in ink. If the drawings are prepared by someone other than the owner, the designer must have the qualifications specified in the building code.

SITE PLAN

A SITE PLAN is a drawing showing the complete property and identifying all structures in relation to the property boundaries. A property survey is commonly used as a template for developing the site plan. The site plan should include:

- Scale
- North arrow
- Street location & name
- Lot lines & dimensions to all buildings
- Existing & proposed buildings
- Proposed changes to existing grade

FLOOR PLANS

A FLOOR PLAN is a drawing of the structure as seen as if it is cut horizontally a few feet above the floor line. One floor plan is required for every floor of the house which is affected by the new construction. Each plan shows the interior layout of the level in question as well as providing the structural framing information for the floor or roof above. Floor plans should include:

- Scale
- Use of rooms \$ spaces (label)
- Dimensions
- Extent of new construction including new work within existing building
- Size, type and location of exterior and interior walls and partitions
- Widths, locations and lintel sizes of all openings
- Location, dimensions and direction of stairs
- References to detailed drawings
- Material specifications or notes
- Heating and ventilation details
- Location of smoke alarms and carbon monoxide detectors

ELEVATIONS

ELEVATIONS show the exterior view of each side of the house. Each elevation is identified by the direction it is facing, and should include:

- Scale
- Extent of new & existing construction
- Dimensions of walls, windows \$ doors
- Grade level
- Exterior wall cladding, finishes & flashing
- Overhang dimensions
- Roof shape, slope \$ finish
- Rain water leader & eavestrough

SECTIONS and DETAILS

A SECTION represents a view of the house along an imaginary line at a particular location, \$ illustrates construction details. The extent of the section should correspond with the sectional arrow shown on the plans. Sections should indicate the following:

- Scale
- Details of footings, foundations, walls, floors \$ the roof
- Distance from grade to floor & underside of footing
- Attic \$ crawl space ventilation

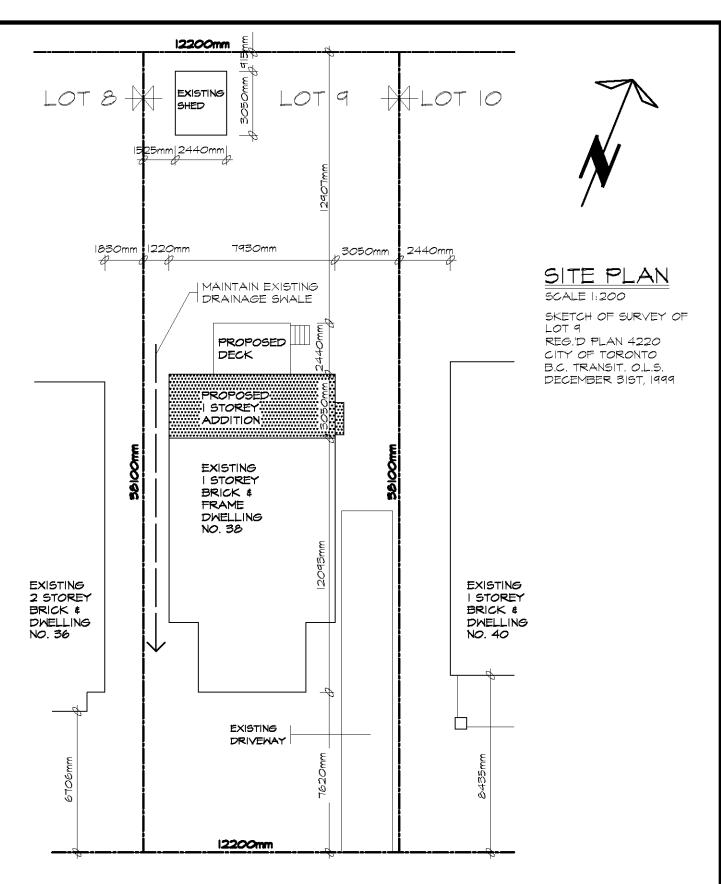
Some aspects of the project may require some specific details, such as engineered roof truss drawings. An inventory of standard construction details is available from your local municipal office, which can be used to augment your plans.



TITLE

DRAWING REQUIREMENTS FOR A RESIDENTIAL ADDITION DWG. NO.

A02



KHALMUR CRESCENT

ZONENG R2 ZO.6	LOT NO:		PLAN NO: 4220	L	OT AREA 580.64	4m.2	LOT FRONTAG	E OOmm	LOT DEPTH 38110mm
DESCRIPTION	EXISTING	ADDITION	TOTAL	x	ALLOWED	x	SETBACKS	EXISTIN	IG PROPOSED
LOT COVERAGE	86.52m2	24.15m2	110.65m2	19.0			FRONT YARD	7620mm	7620mm
GROSS FLOOR AREA	86.52m2	24.15m2	110.65m2	19.0	348.39m2	60.0	REAR		
LANDSCAPED AREA							YARD	18390mm	n 129 <i>0</i> 7mm
NO. OF STORIES HEIGHT	I STOREY 4550mm	STOREY 4550mm	STOREY 4550mm	•	10000mm	•	INTERIOR SIDE (east)	3050mm	3050mm
MDTH	7930mm	7930mm	7930mm				INTERIOR	Jane	220mm
DEPTH	12095mm	3050mm	15143mm		17000mm		SIDE (west)	1220mm	1220mm
PARKING							EXTERIOR		

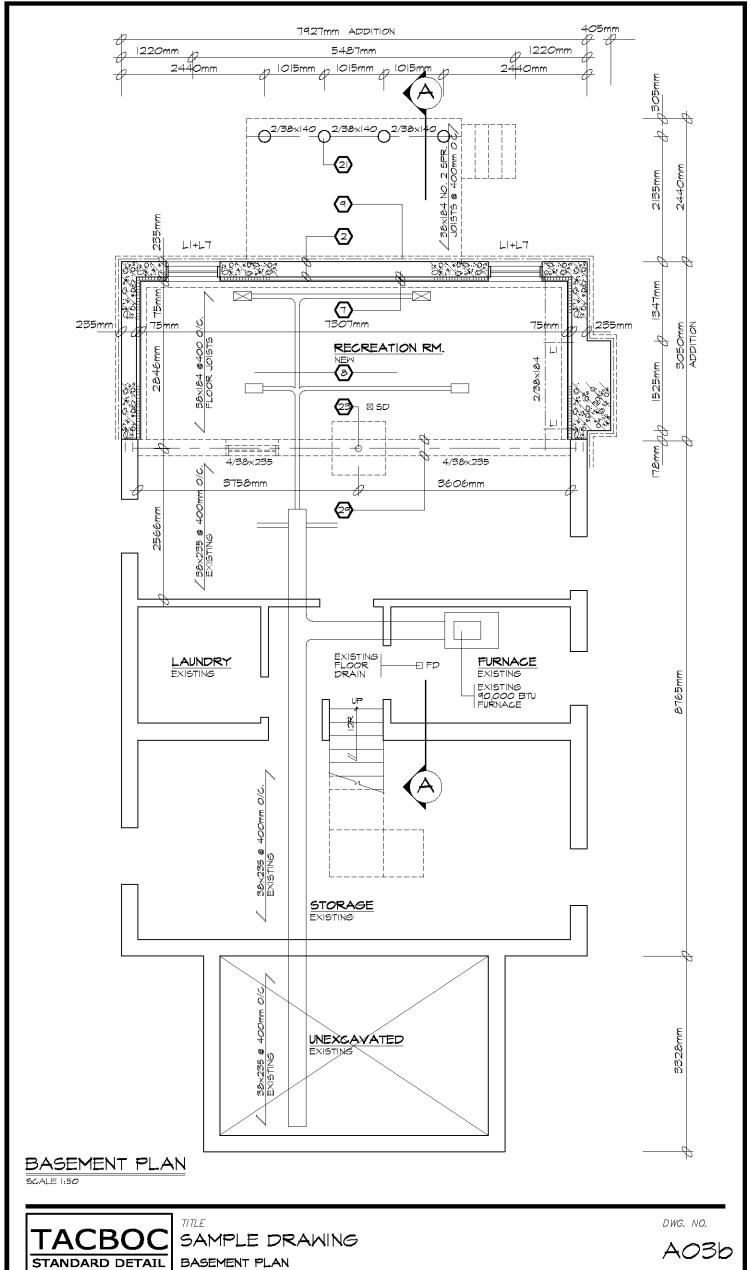
NOTE: ZONING RESTRICTIONS VARY IN EVERY MUNICIPALITY. CONTACT YOUR LOCAL MUNICIPAL OFFICE FOR SPECIFIC SETBACKS AND OTHER LIMITATIONS IN YOUR AREA.

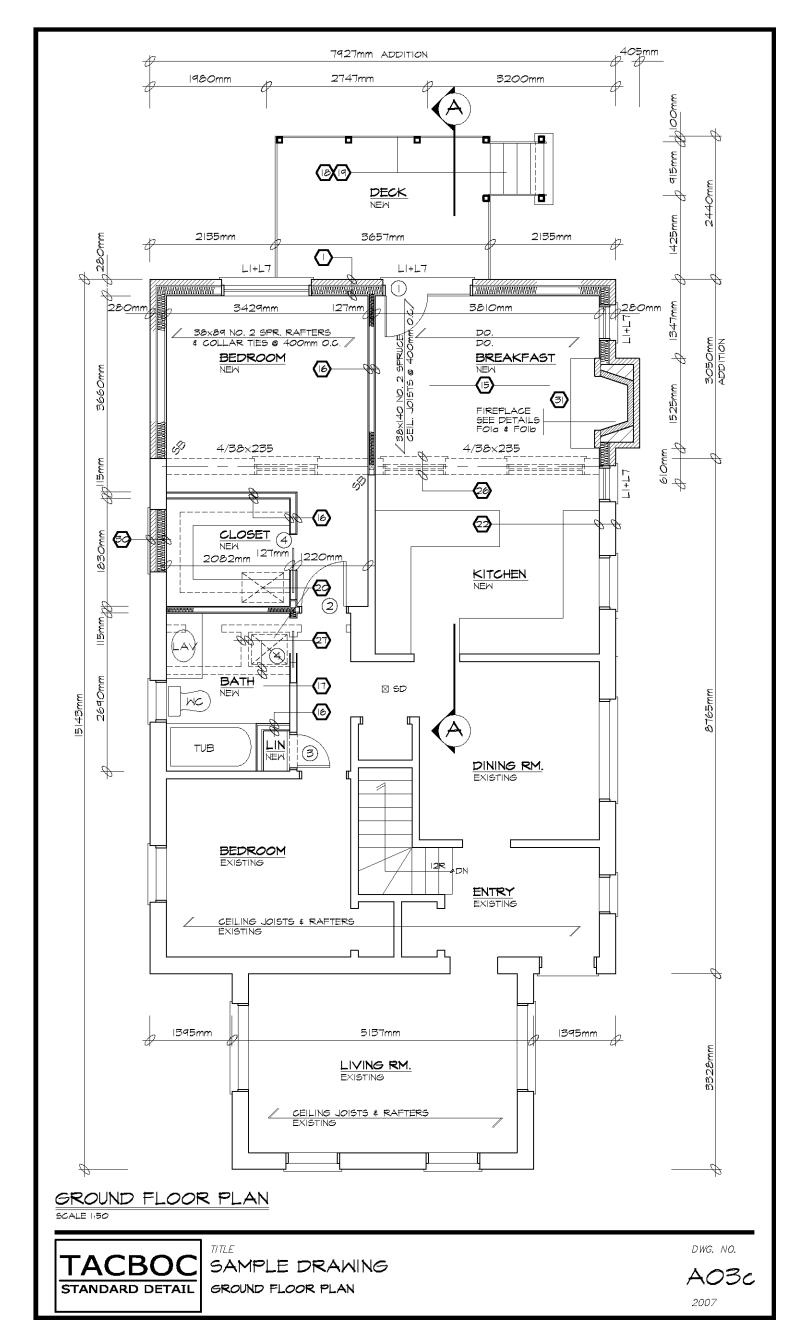


SAMPLE DRAWING SITE PLAN

DWG. NO.

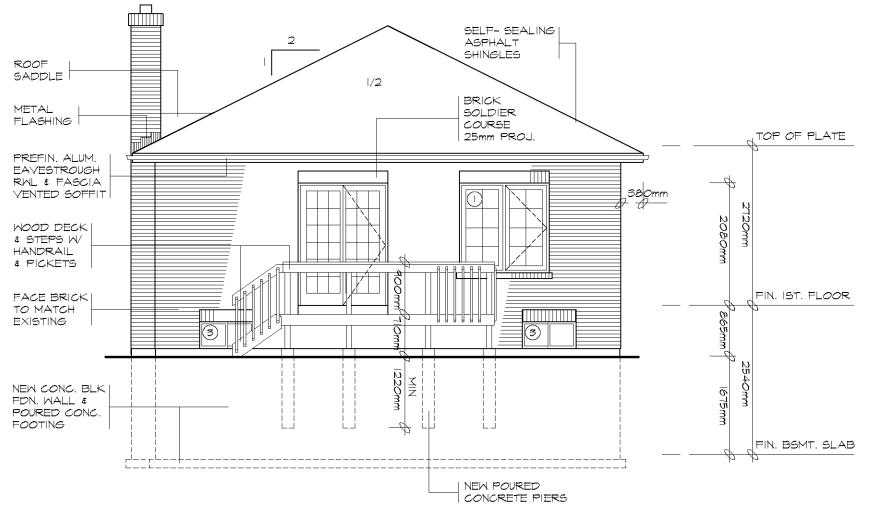








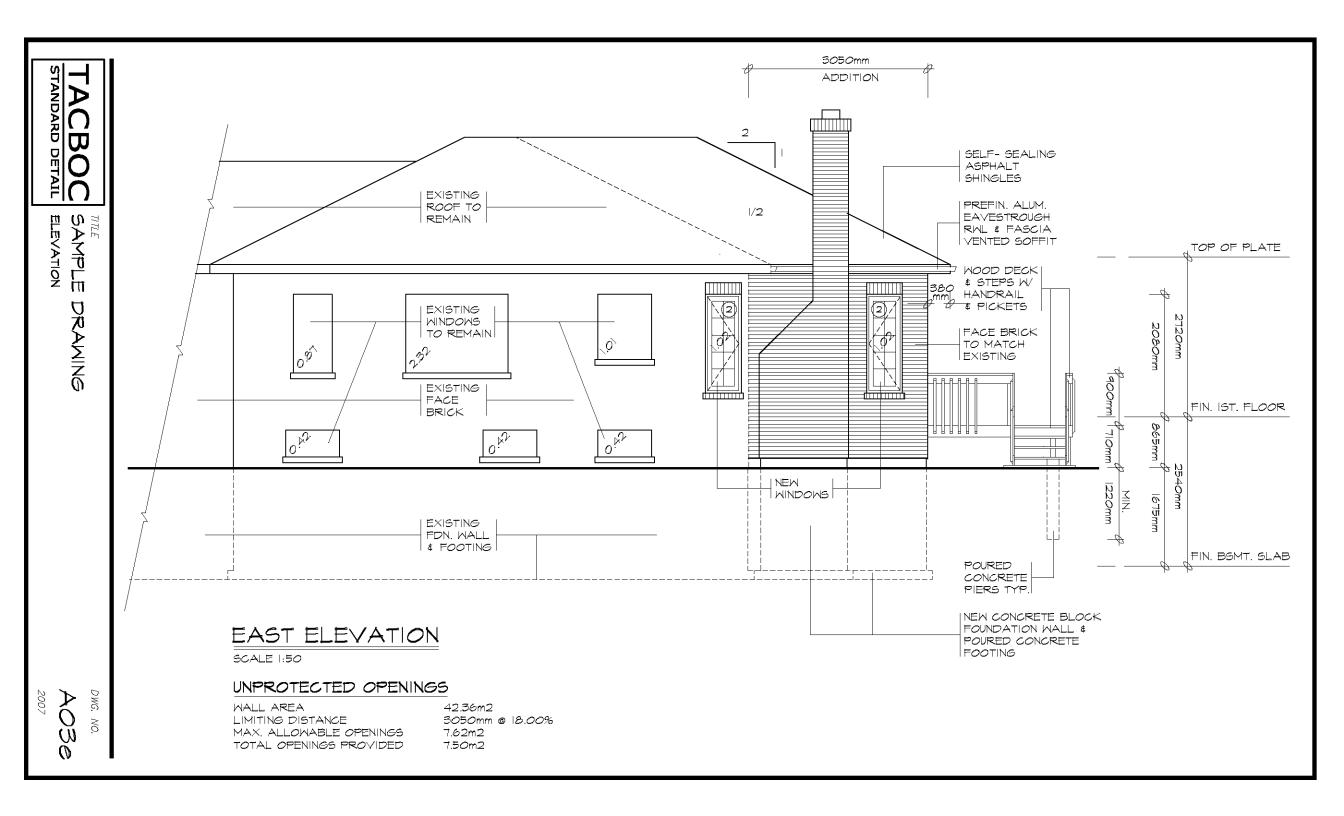
SAMPLE DRAMING

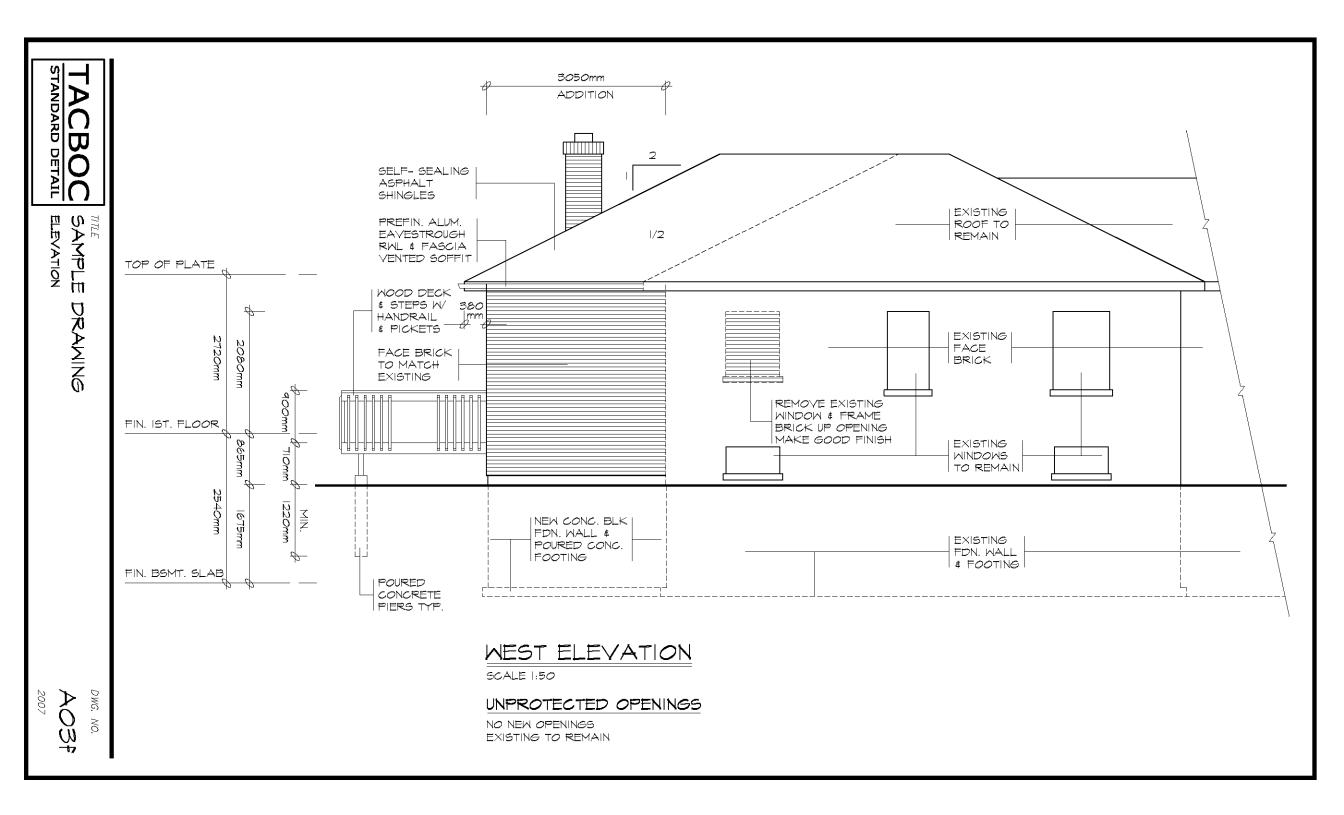


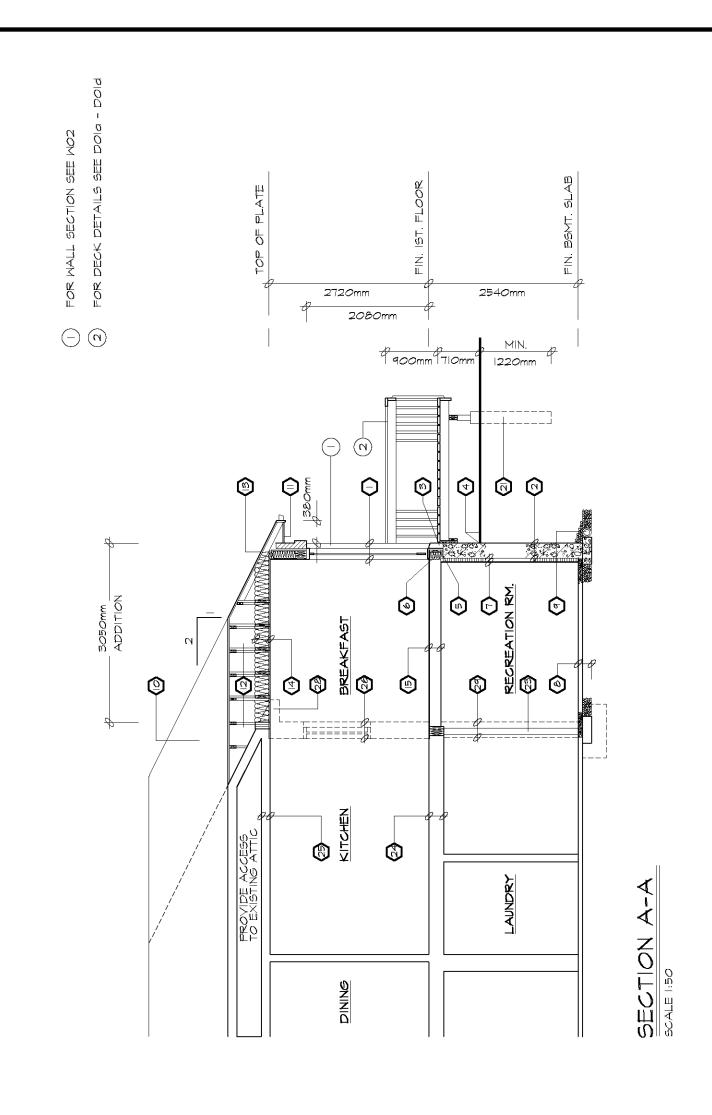
NORTH ELEVATION

SCALE 1:50











TITLE
SAMPLE DRAWING
CROSS SECTION

DWG. NO.



CONSTRUCTION SPECIFICATIONS

I)BRICK VENEER WALL

90mm FACE BRICK, 25mm AIR SPACE
0.76mm THICK x 22mm WIDE
6ALVANIZED METAL TIES
INSTALLED W GALVANIZED
SPIRAL NAILS OR SCREWS
400mm O.C. HORIZ., 600mm O.C. VERT.
AIR BARRIER, LAYERS
TO OVERLAP EACH OTHER
EXTERIOR TYPE SHEATHING
38x140 WOOD STUDS @ 400mm O.C.
RSI 4.23 BATT INSUL. IN CONTINUOUS
CONTACT W EXTERIOR SHEATHING RSI 4.25 BATT INSUL: IN CONTINUOUS CONTACT W EXTERIOR SHEATHING CONTINUOUS AIR / VAPOUR BARRIER 12.7mm INTERIOR DRYWALL FINISH DOUBLE PLATE @ TOP SOLE PLATE @ BOTTOM

 \langle 2angle foundation wall

BITUMINOUS DAMPPROOFING ON MINIMUM 6mm PARGING ON CONCRETE BLOCK FDN. WALL TOP BLOCK COURSE FILLED W MORTAR OR CONCRETE PROVIDE PARGING COVED OVER 450mmx150mm POURED CONC. FOOTING TO BEAR ON UNDISTURBED SOIL PROVIDE DRAINAGE LAYER - MIN. 19mm MINERAL FIBRE

- INSULATION W/ A DENSITY OF NOT LESS THAN 57kg/m3. OR - MIN. 100mm OF FREE DRAINING
- GRANULAR MATERIAL OR A B.M.E.C. APPROVED DRAINAGE LAYER MATERIAL

(3) BRICK VENEER @ FDN. WALL

O.5mm POLY FLASHING MINIMUM 150mm UP BEHIND SHEATHING PAPE WEEP HOLES @ MIN. 800mm APART

(4) GRADE

SLOPE GRADE AWAY FROM BUILDING FACE & PROVIDE SEMI-SOLID BLOCK COURSE AT OR BELOW GRADE LEVEL

(5)SILL PLATE

36x140 SILL PLATE FASTENED
TO FOUNDATION WALL WITH
MIN. 12.7mm DIA. ANCHOR BOLTS
EMBEDDED MIN. IOOMM IN CONCRETE
@ 2400mm O/C. MAX. & PROVIDE A
CONTINUOUS AIR BARRIER BETWEEN
THE FOUNDATION WALL & WOOD FRAME CONSTRUCTION

(6) FLOOR INSULATION

CONTINUOUS HEADER JOIST WITH RSI 5.46 BATT INSULATION, EXTEND VAPOUR / AIR BARRIER & SEAL TO JOIST AND SUBFLOOR

7) FOUNDATION INSULATION

12.7mm INTERIOR DRYWALL FINISH 38x89 WOOD STRAFPING @ 400mm O/C.
MIN. RSI 3.52 INSULATION W/ 0.15mm POLY
VAPOUR BARRIER FULL HEIGHT.
MOISTURE BARRIER TO HEIGHT OF
EXTERIOR GRADE BETWEEN

\$ WEATHER STRIPPING FOUNDATION WALL & WOOD FRAMING

(8) BASEMENT SLAB

75mm POURED CONCRETE SLAB (25 MPa CONC. STRENGTH) 100mm CRUSHED STONE BELOW

9 DRAINAGE

IOOMM DIA. WEEPING TILE W 150mm CRUSHED STONE COVER

(10) ROOF CONSTRUCTION

20 YEAR ASPHALT SHINGLES W EAVES PROTECTION ON MIN. 9.5mm EAVED PROTECTION ON MIN. 4.5mm EXTERIOR PLYWOOD SHEATHING ON APPROVED ROOF TRUSSES OR CONVENTIONAL FRAMING (SEE PLANS) USE 'H' CLIPS IF GOOMM O.C. SPACING

 $\langle \parallel \rangle$ overhang construction

PREFINISHED ALUMINUM FASCIA, EAVESTROUGH & RAIN WATER LEADERS TO MATCH EXISTING FINISHES. PROVIDE DRIP EDGE AT FASCIA & VENTED SOFFIT EXTEND DOWNSPOUTS TO GRADE LEVEL

(12) ROOF VENTILATION

1:300 OF THE INSULATED CEILING AREA UNIFORMLY DISTRIBUTED.

(13) EAVES PROTECTION

EAVES PROTECTION MEMBRANE TO EXTEND FROM THE EDGE OF THE ROOF, 900mm UP THE SLOPE BUT NOT LESS THAN 300mm BEYOND THE INTERIOR FACE OF THE EXTERIOR WALL TO REMAIN. EAVES PROTECTION MEMBRANE TO

(14) CEILING CONSTRUCTION

15.9mm INTERIOR DRYWALL FINISH CONTINUOUS AIR / VAPOUR BARRIER W/ MINIMUM RSI 8.81 BATT INSULATION

(15) FLOOR CONSTRUCTION

15.5mm T&G PLYWOOD SUBFLOOR 38x184 FLOOR JOISTS @ 400mm O/C. FLOOR JOISTS BRIDGED W/ CONTINUOUS 19mmx64mm STRAPPING OR 2 ROWS OF 38mmx38mm BRIDGING OR SOLID BLOCKING

(16) INTERIOR STUD PARTITION

12.7mm DRYWALL FINISH BOTH SIDES OF 33X89 WOOD STUDS @ 400mm O/C 2 TOP PLATES & I BOTTOM PLATE PROVIDE REINFORCEMENT FOR FUTURE GRAB BAR INSTALLATION IN BATHROOM

(17) MECHANICAL VENTILATION

PROVIDE MIN. 5 O L/S IN KITCHENS AND BATHROOMS, 37.5 L/S FOR PRINCIPAL EXHAUST FAN

(18) STAIRS INTERIOR/EXTERIOR

MAXIMUM RISE MINIMUM RISE 125mm MINIMUM RUN 210mm 355mm MAXIMUM RUN MAXIMUM TREAD MAXIMUM TREAD MAXIMUM NOSING 235mm = 355mm 25mm 860mm HTCIM MUMINIM MINIMUM HEADROOM 1950mm

(19) GUARDS

INTERIOR LANDINGS = 900mm EXTERIOR BALCONY = IOTOmm INTERIOR STAIRS EXTERIOR STAIRS 900mm = 900mmMAX. BETWEEN PICKETS

GUARD HEIGHT IE DECK TO GRADE IS: GREATER THAN 1800mm = 1070mm 1800mm OR LESS =
NO MEMBER OR ATTACHMENT
BETWEEN 140mm & 900mm HIGH = 900mm SHALL FACILITATE CLIMBING

PROVIDE ATTIC ACCESS MIN. 545mmx588mm W/ INSULATION & WEATHER STRIPPING

(21) PIERS

FROVIDE 200mm DIA. SONO TUBE FOR POURED CONCRETE PIERS MINIMUM 1200mm BELOW GRADE

EXISTING SOLID MASONRY EXTERIOR WALL TO REMAIN.

73mm DIA. PIPE COLUMN W/ 100mmx100mmx6.35mm TOP \$ BOTTOM PLATE ImxImx450mm CONCRETE FOOTING

 $\langle 26
angle$ remove existing exterior wall AS SHOWN DOTTED (27) REMOVE EXISTING INTERIOR STUD

PARTITIONS AS SHOWN DOTTED (28) REMOVE EXISTING ROOF OVERHANG

AS SHOWN DOTTED $\langle 29
angle$ remove existing foundation wall AS SHOWN DOTTED

(30) REMOVE EXISTING WINDOW & FRAME MAKE GOOD OPENING W BRICK TO MATCH EXISTING ON THE EXTERIOR

 $\langle 3 \rangle$ install a carbon monoxide DETECTOR CONFORMING TO CAN/CGA-6.19 OR UL 2034

TACBOO STANDARD DETAIL

SAMPLE DRAWING CONSTRUCTION SPECIFICATIONS

Ŋ	ROOM FINISH SCHEDULE										
RM. NO.	ROOM NAME	FLOOR		BASE	BASE		WALLS				REMARKS
MO.		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	
	FIRST FLOOR										
0	KITCHEN	CERAMIC TILE		MOOD	PÁINT	DRYMALL	PAINT	DRYWALL	PAINT	2720mm	
②	BREAKFAST	MOOD	STAIN	MOOD	PAINT	DRYMALL	PAINT	DRYMALL	PAINT	2720mm	MAPLE TO MATCH EXISTING
3	BEDROOM	MOOD	STAIN	MOOD	PAINT	DRYWALL	PAINT	DRYMALL	PAINT	2720mm	MAPLE TO MATCH EXISTING
4	CLOSET	MOOD	STAIN	MOOD	PAINT	DRYMALL	PAINT	DRYMALL	PAINT	2720mm	MAPLE TO MATCH EXISTING
⑤	BATH	CERAMIC TILE		MOOD	PAINT	DRYWALL	PAINT	DRYMALL	PAINT	2720mm	
	BASEMENT									 	
6.	REC. ROOM	CONC.	CERAMIC TILE	MOOD	PAINT	DRYMALL	PAINT			2340mm	
\vdash											
						<u> </u>					

D	DOOR SCHEDULE							
NO.	TYPE	SIZE	QTY.	REMARKS				
\odot	EXTERIOR	1525mmx 2030mm		FRENCH DOOR				
2	SLAB	760mmx 2030mm	1.	800 SERIES				
3	SLAB	610mmx 2030mm		800 SERIES				
4)	POCKET DOOR	610mmx 2030mm	2					

LII	LINTEL SCHEDULE						
NO.	DESCRIPTION						
Θ	2-38x184 SPRUCE						
(3)	3-38×184 SPRUCE						
(3)	2-38×235 SPRUCE						
(3-38×235 SPRUCE						
➂	2-38x286 5PRUCE						
(3-38×286 SPRUCE						
0	90mm× 90mm× 6mm L						
	90mmx 90mmx 8mm L						
0	100mmx 90mmx 6mm L						

ONE WINDOW PER FLOOR TO HAVE AN UNOBSTRUCTED OPEN WINDOW SCHEDULE ONE WINDOW PER FLOOR TO HAVE AN UNOBSTRUCTED OPEN FORTION W/ A MIN. AREA OF 0.35m2 W NO DIMENSION LESS THAN 380mm 4 MAXIMUM SILL HEIGHT OF IM ABOVE FLOOR						
NO.	TYPE	SIZE	QTY.	REMARKS		
0	CASEMENT	1525mm× 1525mm	1.	MAXIMUM U-VALUE I.8		
2	CASEMENT	610mmx 1525mm	2.	MAXIMUM U-VALUE I.8		
3.	SLIDER	915mm× 450mm	2.	MAXIMUM U-VALUE 1.8		

LEGEND

⇒ DUPLEX OUTLET (300mm ABOVE FLR.)
 → EXHAUST FAN
 → SWITCH

₩HB HOSE BIB

0

SMOKE DETECTOR HEAVY DUTY OUTLET

- LIGHT FIXTURE (WALL MOUNTED) LIGHT FIXTURE (CEILING MOUNTED)

P POT LIGHT FIXTURE

 $\ensuremath{\mathbb{R}}$ Light fixture (water resistant)

LIGHT FIXTURE (CAPPED) FL FLUORESCENT LIGHT FIXTURE

SOLID WOOD BEARING

FD FLOOR DRAIN

TV CABLE OUTLET

 \triangleleft TELEPHONE OUTLET

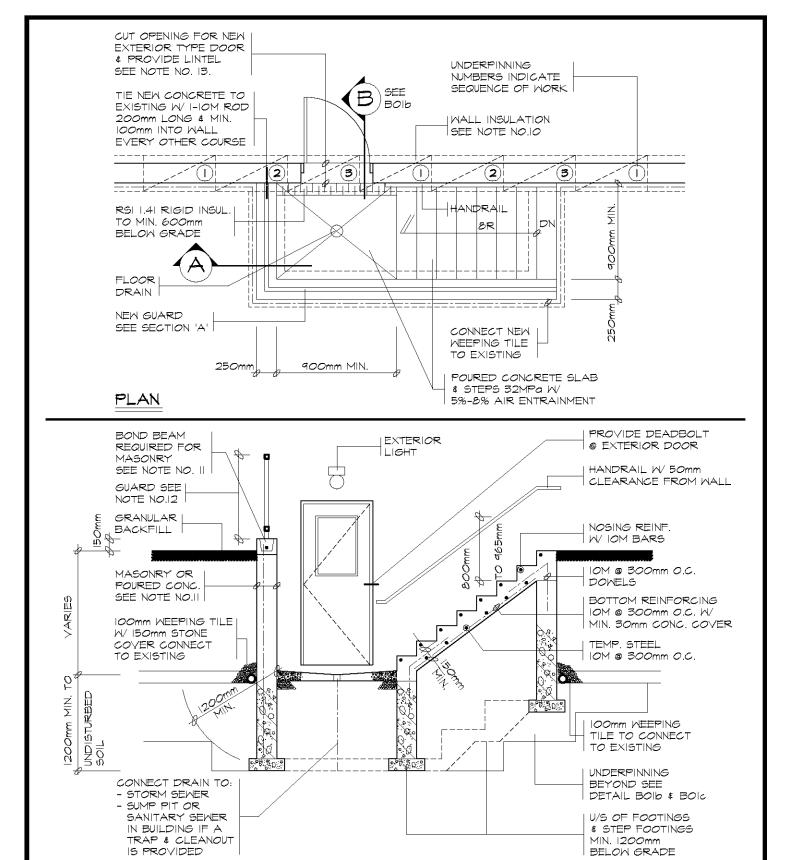
0 COMPUTER OUTLET

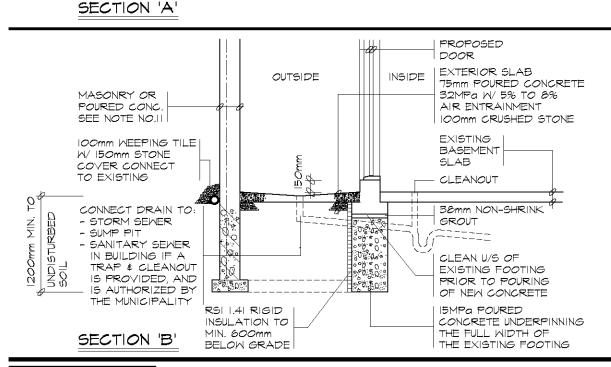
DE DRYER EXHAUST



TITLE SAMPLE DRAWING SCHEDULES



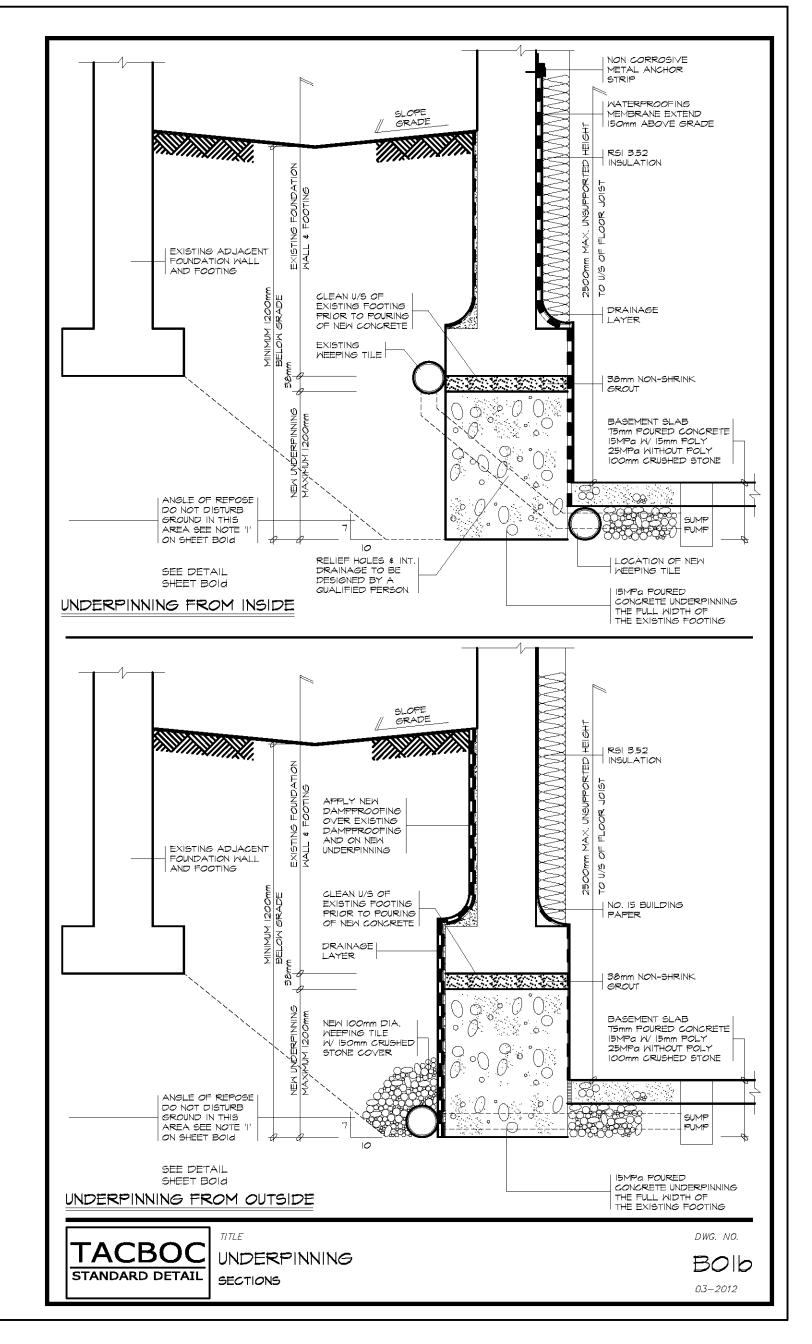


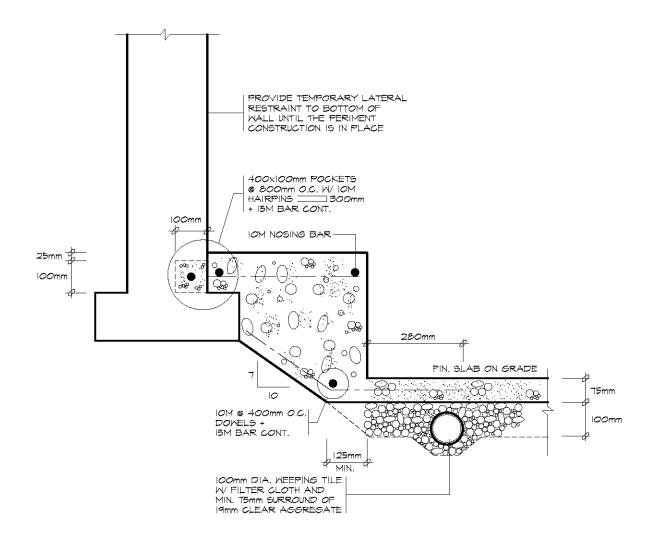




TITLE

BASEMENT WALKOUT PLAN & SECTIONS





GENERAL NOTES

- I. EXCAVATION FOR THE PROPOSED WORK SHOULD NOT UNDERMINE THE FOUNDATIONS OF ADJOINING BUILDINGS, OR CAUSE DAMAGE TO UTILITIES, ROADS AND SIDEWALKS, A MAXIMUM 7:10 ANGLE OF REPOSE SHALL BE MAINTAINED UNLESS OTHERWISE CERTIFIED BY A GEOTECHNICAL ENGINEER
- 2. PROVIDE ALL BRACING, SHORING AND NEEDLING NECESSARY FOR THE SAFE EXECUTION OF THIS WORK.
- 3. CONCRETE STRENGTH SHALL BE A MINIMUM 15MPa AT 28 DAYS

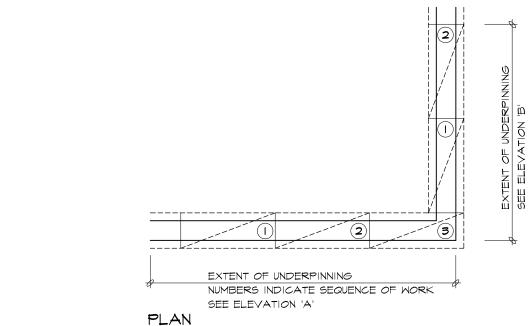
LOWERING OF BASEMENT FLOOR SLAB FROM INSIDE

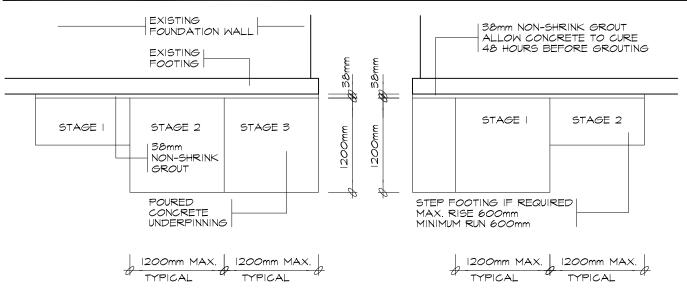


TITLE

BENCH-TYPE UNDERPINNING SECTIONS, NOTES







ELEVATION 'A'

ELEVATION 'B'

GENERAL NOTES

- WHERE THE FOUNDATIONS OF A BUILDING ARE TO BE CONSTRUCTED BELOW THE LEVEL OF THE FOOTINGS OF AN ADJACENT BUILDING AND WITHIN THE ANGLE OF REPOSE OF THE SOIL, OR THE UNDERPINNING EXCEEDS 1200MM OF LATERALLY UNSUPPORTED HEIGHT OR THE SOIL IS CLAY OR SILT, THE UNDERPINNING & RELATED CONSTRUCTION SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
- 2. EXCAVATION SHALL BE UNDERTAKEN IN A MANNER SO AS TO PREVENT MOVEMENT WHICH WOULD CAUSE DAMAGE TO ADJACENT PROPERTY, STRUCTURES, UTILITIES, ROADS & SIDEWALKS. CONTACT YOUR LOCAL UTILITIES PRIOR TO SIDEWALKS. COMMENCING EXCAVATION
- 3. MINIMUM CONCRETE STRENGTH FOR UNDERPINNING SHALL BE 15MPa AT 28 DAYS. ALL EXTERIOR CONCRETE SHALL BE 32MPa W/5%-8% AIR ENTRAINMENT.
- 4. CONCRETE SHALL BE CURED MINIMUM 48 HOURS BEFORE GROUTING AND PROCEEDING TO THE NEXT STAGE.
- 5. SHORE & BRACE WHERE NECESSARY TO ENSURE THE SAFETY & STABILITY OF THE EXISTING STRUCTURE DURING UNDERPINNING.
- 6. WEEPING TILE IS TO DRAIN TO THE STORM SEWER, DITCH, DRYWELL OR INSTALL COVERED SUMP PIT WITH AN AUTOMATIC PUMP
- 7. FOOTINGS

450mmx100mm POURED CONC. FOOTING ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OR COMPACTED GRANULAR FILL

8. CONCRETE

MINIMUM COMPRESSIVE STRENGTH OF 32MPa @ 28 DAYS W/ 5% TO 8% AIR ENTRAINMENT

9. EXTERIOR STAIRS

200mm RISE MAXIMUM 125mm MINIMUM 210mm RUN MINIMUM 355mm MAXIMU 355mm MAXIMUM 235mm TREAD MINIMUM 355mm MAXIMUM

- MIN. RSI 3.52 (R20) INSULATION \$ VAPOUR BARRIER ON THE INSIDE FACE OF THE EXPOSED FOUNDATION WALL
- MIN. RSI 1.76 (RIO) INSULATION FOR 600mm BELOW GRADE AT WALKOUT LANDING

II. RETAINING WALL

250mm MASONRY OR POURED CONCRETE
W/ NO REINFORCING REQUIRED FOR
WALL HEIGHTS TO A MAX. OF 1200mm
PROVIDE 25M VERTICAL REINFORCEMENT
@ 600mm O.C. AND A BOND BEAM CONTAINING AT LEAST ONE 15M REINFORCEMENT FOR BACKFILL HEIGHTS TO A MAX. OF 2400mm

12.PRE-ENGINEERED GUARDS

1070mm HIGH WHERE DISTANCE FROM GRADE TO BOTTOM OF WALKOUT EXCEEDS 1800mm; 900mm FOR LESSER HEIGHTS, MAXIMUM 100mm BETWEEN VERTICAL PICKETS

- 13.LINTELS (FOR MAX. 1200mm OPENINGS)
 - I. SOLID MASONRY: 2- 90mmx90mmx6mm ANGLES 2. BRICK VENEER: I- 90mmx90mmx6mm L + 2-38x184
 - 3. WOOD FRAME/SIDING: 2-38x184

TACBO STANDARD DETAIL TITLE

UNDERPINNING PLAN, ELEVATIONS & NOTES DWG. NO.



03-2012

MINIMUM ROOM AREAS

APARTMENTS FOR ONE OR TWO PERSONS WHERE SPACE IS NOT PARTITIONED						
REQUIRED SPACE	MINIMUM AREA					
LIVING, DINING, KITCHEN & SLEEPING SPACE	13.5M ² IN TOTAL					
OTH	ER PARTITIONED APARTMENTS					
LIVING AREA	13.5M ²					
LIVING AREA	II.OM ² IF LIVING AREA IS COMBINED W DINING \$ KITCHEN SPACE					
DINING AREA	7.0M ²					
DINING ARLA	3.25M ² IF DINING AREA IS COMBINED W/ ANOTHER SPACE					
KITCHEN	3.7M ²					
	9.8M ²					
AT LEAST ONE BEDROOM	8.8M ² IF A BUILT IN CLOSET IS PROVIDED					
	4.2M ² IF THE BEDROOM AREA IS COMBINED W ANOTHER SPACE					
	7.0M ²					
OTHER BEDROOMS	6.0M ² IF A BUILT IN CLOSET IS PROVIDED					
	4.2M ² IF THE BEDROOM AREA IS COMBINED W ANOTHER SPACE					

MINIMUM CEILING HEIGHT SHALL BE NOT LESS THAN 1950mm

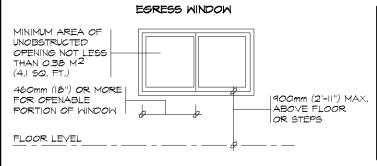
MINIMUM WINDOW AREAS FOR LIGHT

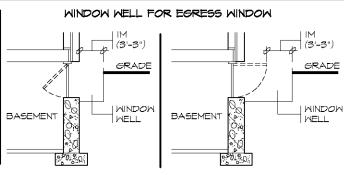
LOCATION	MINIMUM UNOBSTRUCTED GLASS AREA
LAUNDRY ROOM, KITCHEN, WATER CLOSET ROOM	MINDOMS NOT REQUIRED
LIVING/DINING ROOMS	5% OF FLOOR AREA
BEDROOMS AND OTHER FINISHED ROOMS	2 1/2% of floor area

- WHERE A DOOR ON THE SAME LEVEL AS A BEDROOM IS NOT PROVIDED, A WINDOW THAT IS ABLE TO BE OPENED FROM THE INSIDE WITHOUT THE USE OF TOOLS PROVIDING AN INDIVIDUAL UNOBSTRUCTED OPEN PORTION HAVING A MINIMUM AREA OF 0.35M2 WITH NO DIMENSION LESS THAN 380mm SHALL BE PROVIDED. IF THIS WINDOW OPENS INTO A WINDOW WELL, A CLEARANCE OF NOT LESS THAN 550mm SHALL BE PROVIDED IN FRONT OF THE OPERATING SASH.
- NEW OPENINGS IN EXTERIOR WALLS ARE NOT PERMITTED IF THE DISTANCE FROM THE WALL TO AN ADJACENT LOT LINE IS LESS THAN 1200mm

EGRESS REQUIREMENTS

EGRESS PROVIDED FROM APARTMENT	CONDITIONS
A SEPARATE DOOR LEADING DIRECTLY TO THE EXTERIOR FROM THE ACCESSORY APARTMENT	SMOKE ALARMS IN EACH DWELLING
A 'SHARED EXIT', SUCH AS A STAIRWAY USED BY BOTH UNITS	I/2 HOUR FIRE SEPARATION AROUND EXIT, AND INTERCONNECTED SMOKE ALARMS IN BOTH UNITS AND ALL COMMON AREAS.
EGRESS AVAILABLE ONLY THROUGH ANOTHER DWELLING	AN EGRESS WINDOW MUST BE PROVIDED. INTERCONNECTED SMOKE ALARMS MUST BE INSTALLED IN BOTH UNITS, AND ALL COMMON AREAS, OR THE ENTIRE BUILDING MUST BE SPRINKLERED, AND SMOKE ALARMS INSTALLED IN BOTH UNITS.





SEPARATION BETWEEN UNITS

REQUIRED FIRE SEPARATIONS/CLOSURES	CONDITIONS
30 MINUTE FIRE SEPARATION (12.7mm TYPE 'X' GYPSUM BD. CEILING)	SMOKE ALARM IN BOTH UNITS
15 MINUTE HORIZONTAL FIRE SEPARATION	INTERCONNECTED SMOKE ALARMS IN BOTH UNITS AND IN ALL COMMON AREAS
NO FIRE SEPARATIONS	THE ENTIRE BUILDING MUST BE SPRINKLERED
20 MINUTE LABELED DOORS, UNLABELED MINIMUM 45mm THICK SOLID CORE WOOD DOOR OR METAL CLAD	EQUIPPED WITH SELF CLOSERS
UNRATED CLOSURES	THE APARTMENT FLOOR AREA MUST BE SPRINKLERED

SMOKE ALARMS AND CARBON MONOXIDE DETECTORS

REQUIRED SMOKE ALARMS MITHIN EACH DWELLING UNIT	MAY BE BATTERY OPERATED EXCEPT WHERE SMOKE ALARMS ARE REQUIRED TO BE INTERCONNECTED DUE TO SEPARATION BETWEEN UNITS AND EGRESS REQUIREMENTS. ALARMS MUST BE LOCATED ON OR NEAR THE CEILING WITHIN 5M OF BEDROOM DOORS.
REQUIRED CARBON MONOXIDE DETECTORS WITHIN EACH DWELLING UNIT ADJACENT TO EACH SLEEPING AREA	MUST CONFORM TO CAN/CSA-6.19 OR UL 2034. CO DETECTORS MAY BE BATTERY OPERATED OR PLUGGED INTO AN ELECTRICAL OUTLET.

PLUMBING, HEATING AND VENTILATION

CENTRAL HEATING SYSTEM	EXISTING SYSTEM MAY SERVE BOTH UNITS PROVIDED 1) BOTH UNITS ARE EQUIPPED WITH SMOKE ALARMS, AND 11) A SMOKE DETECTOR IS INSTALLED IN THE SUPPLY OR RETURN AIR DUCT SYSTEM WHICH WOULD TURN OFF THE FUEL SUPPLY AND ELECTRICAL POWER TO THE HEATING SYSTEM UPON ACTIVATION.					
NATURAL VENTILATION (OPENABLE WINDOWS/DOORS) FOR LIVING/DINING ROOMS, BEDROOMS, KITCHEN	MINIMUM 0.26M ² (35Q. FT.) PER ROOM OR COMBINATION OF ROOMS					
NATURAL VENTILATION (OPENABLE WINDOW) FOR BATHROOMS OR WATER CLOSET ROOMS	MINIMUM 0.09M ² (0.975a. FT.)					
MECHANICAL VENTILATION, IF NATURAL VENTILATION IS NOT PROVIDED	ONE-HALF AIR CHANGE PER HOUR IF THE ROOM IS MECHANICALLY COOLED IN SUMMER, AND ONE AIR CHANGE PER HOUR IF IT IS NOT.					
REQUIRED	REQUIRED PLUMBING FACILITIES					
KITCHEN SINK LAUNDRY FACILITIES	● BATHROOM WITH LAVATORY, TOILET AND BATHTUB OR SHOWER STALL					

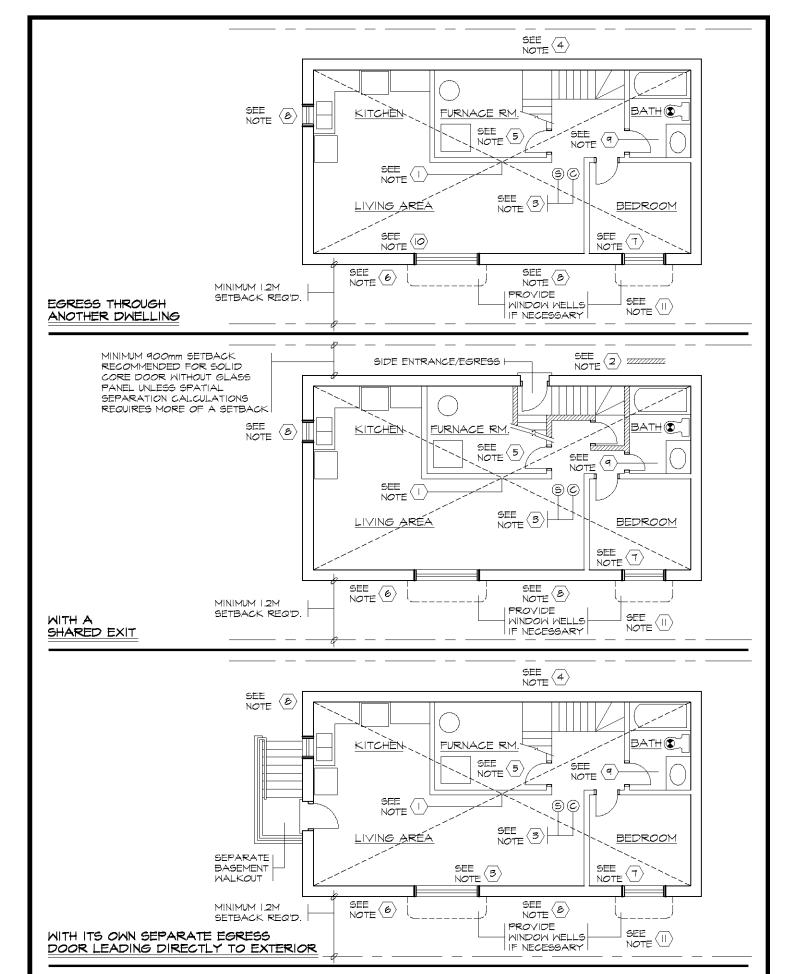


TITLE

BASEMENT ACCESSORY APARTMENT BUILDING CODE REQUIREMENTS - EXISTING BUILDING

DWG. NO.

B02a

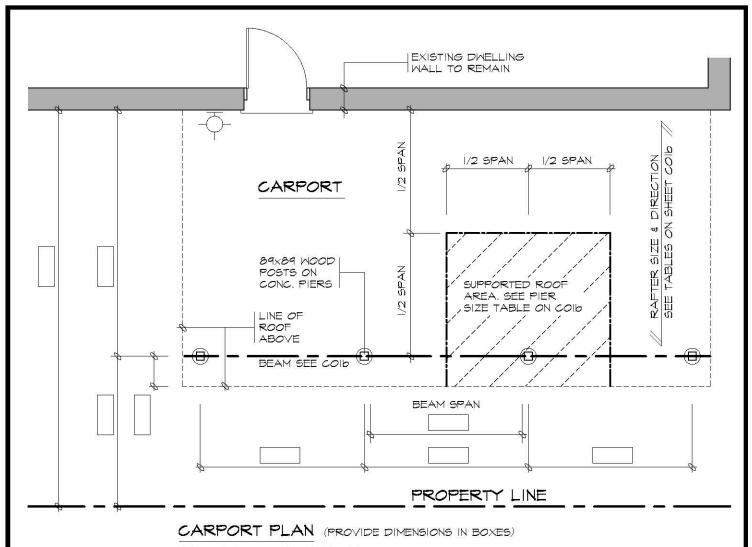


NOTES RELATING TO PLANS ABOVE (

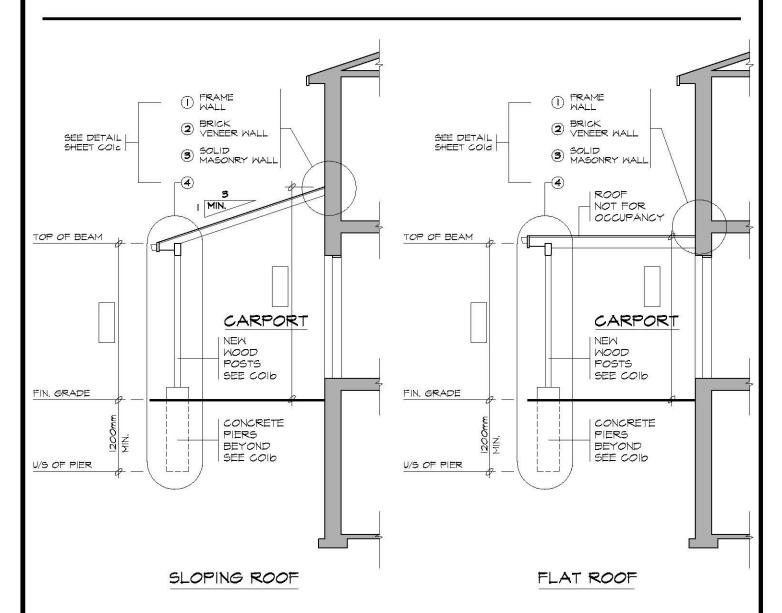
- I. MINIMUM 30 MINUTE FIRE SEPARATION UNLESS
 INTERCONNECTED SMOKE ALARMS ARE PROVIDED
 IN BOTH UNITS AND ALL COMMON AREAS, IN WHICH
 CASE, A 15 MINUTE FIRE SEPARATION WOULD ONLY BE
 REQUIRED. INSTALLING SPRINKLERS IN THE BUILDING
 WOULD WAIVE ALL FIRE SEPARATION REQUIREMENTS.
- 2. MIN. 30 MINUTE FIRE SEPARATION AROUND SHARED EXIT.
- 3. SEE REQUIRED INSTALLATION INFORMATION FOR SMOKE ALARMS & CARBON MONOXIDE DETECTORS ON ATTACHED SHEET BO2a.
- 4. STAIRWELL TO BE ENCLOSED AT TOP MOST, OR AT BOTTOM MOST LEVELS.
- 5. EXISTING FURNACE MAY SERVE BOTH UNITS PROVIDED A SMOKE DETECTOR IS INSTALLED IN THE SUPPLY OR RETURN AIR DUCT SYSTEM WHICH WOULD TURN OFF THE FUEL SUPPLY AND ELECTRICAL POWER TO THE HEATING SYSTEM UPON ACTIVATION OF SUCH DETECTOR.
- 6. MINIMUM 5% OF LIVING/DINING FLOOR AREA OF NATURAL LIGHT (GLASS AREA) TO BE PROVIDED.
- MINIMUM 2 1/2% OF BEDROOM AND OTHER FINISHED ROOMS FLOOR AREAS OF NATURAL LIGHT (GLASS AREA) TO BE PROVIDED.
- 8. 3 SQ. FT. CLEAR OPENING OF NATURAL VENTILATION REQUIRED FOR LIVING/DINING, BEDROOMS & KITCHEN
- I SQ. FT. CLEAR OPENING OF NATURAL VENTILATION REQUIRED FOR BATHROOMS. MECHANICAL VENT PROVIDING I AIR CHANGE PER HOUR IS ACCEPTABLE.
- IO. AN EGRESS WINDOW OR CASEMENT WINDOW, AS DESCRIBED ON ATTACHED SHEET, MUST BE PROVIDED IN THE ACCESSORY APARTMENT. OR, THE ENTIRE BUILDING IS TO BE SPRINKLERED AND SMOKE ALARMS INSTALLED IN BOTH UNITS.
- II. FOR WINDOWS USED AS MEANS OF ESCAPE, WITHIN WINDOW WELLS, SEE ATTACHED SHEET FOR CLEARANCES.



TITLE



SEE COID FOR STRUCTURAL SIZES



CARPORT SECTIONS



TITLE

ATTACHED CARPORT SLOPING OR FLAT ROOF PLAN & SECTIONS

DWG. NO.

COla

ROOF RAFTERS

(WHERE NO CEILING IS INSTALLED)

MAXIMUM CLEAR SPAN (M)							
	ROOF SNOW LOAD 1.0kPa			ROOF SNOW LOAD 1.5kPa			
RAFTER SIZE	RAFTER S	RAFTER SPACING (mm) O.C.			RAFTER SPACING (mm) O.C.		
J12L	300	400	600	300	400	600	
38×89	3.11	2.83	2.47	2.72	2.47	2.16	
38×140	4.90	4.45	3.89	4.28	3.89	3.40	
38×184	6.44	5. <i>8</i> 5	5.11	5.62	5.11	4.41	
38×235	8.22	7.47	6.38	7.18	6.52	5.39	

ROOF JOISTS

(WHERE CEILING IS INSTALLED)

MAXIMUM CLEAR SPAN (M)							
1-1	ROOF SNOW LOAD 1.0kPa			ROOF S	ROOF SNOW LOAD 1.5kPa		
JOIST SIZE	JOIST SP	ACING (mm)	0.0.	DOIST S	JOIST SPACING (mm) O.C.		
3,22	300	400	600	300	400	600	
38x89	2.47	2.24	1.96	2.16	1.96	1.71	
38×140	3.89	3.53	3.08	3.40	3.08	2.69	
38x 84	5.11	4.64	4. <i>0</i> 5	4.46	4.05	3.54	
38×235	6.52	5.93	5.18	5.70	5.18	4.52	

ROOFING

ROOF FRAMING (mm) O.C.	ROOF SHEATHING	
RAFTERS @ 300	7.5mm PLYWOOD W H-CLIPS OR	
RAFTERS @ 400	17mm LUMBER	
RAFTERS @ 600	9.5mm PLYWOOD W/ 'H'-CLIPS OR 19mm LUMBER	

MAXIMUM CLEAR SPAN (M)	MINIMUM BEAM SIZE	
ROOF SNO		
1.0kPa	1.5kPa	
2.35	2.02	2 - 38x184
2.88	2.47	2 - 38x235
3.34	2.87	2 - 38×286

PIERS

	SUPPORTED ROOF AREA (M2)						
PIER	ROOF SNO	N LOAD 1.0k	Pa	ROOF SNOW LOAD 1.5kPa			
SIZE (mm)		ALLOWABLE BEARING CAPACITY OF SOIL			ALLOWABLE BEARING CAPACITY OF SOIL		
	75kPa	120kPa	190kPa	75kPa	120kPa	190kPa	
200 DIA.	1.95	3.25	5.48	1.39	2.32	3.62	
250 DIA.	3.07	5.II	8.08	2.14	3.62	5.76	
300 DIA.	4.37	7.34	וד.וו	3.16	5.20	B.36	
350 DIA.	5.95	9.94	15.87	4.27	7.06	11.33	
400 DIA.	7.62	13.01	20.72	5.48	9.29	14.77	

POSTS

POST	MAX.		AREA (M2)			
SIZE (mm)	HEIGHT		(kPa)			
(SEE NOTE 5)	(M)	1.0	1.5	2.0	2.5	3.0
	1.0	17.19	12.98	10.43	8.71	7.48
89×89	1.5	9.39	7.09	5.69	4.76	4.09
	2.0	4.98	3.76	3.02	2.53	2.17
	2.0	21.65	16.35	13.13	10.98	9,43
140x140	2.5	14.77	11.15	8.96	7.48	6.43
	3.0	10.06	7.60	6.10	5.10	4.38
	3.5	6.98	5.27	4.23	3.54	3.04

GENERAL NOTES

- I. ALL LUMBER TO BE NO. 1 \$2 SPF OR BETTER
- 2. ALL PLYWOOD SHALL BE STAMPED EXTERIOR GRADE
- 4. WOOD POSTS TO BE MINIMUM 89mm×89mm
- 5. BEARING CAPACITY OF SOIL SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
- 3. WHERE SUPPORTED ROOF AREAS EXCEED THOSE LISTED IN THIS TABLE, THE POSTS SHALL BE BRACED AS SHOWN IN DOIC.

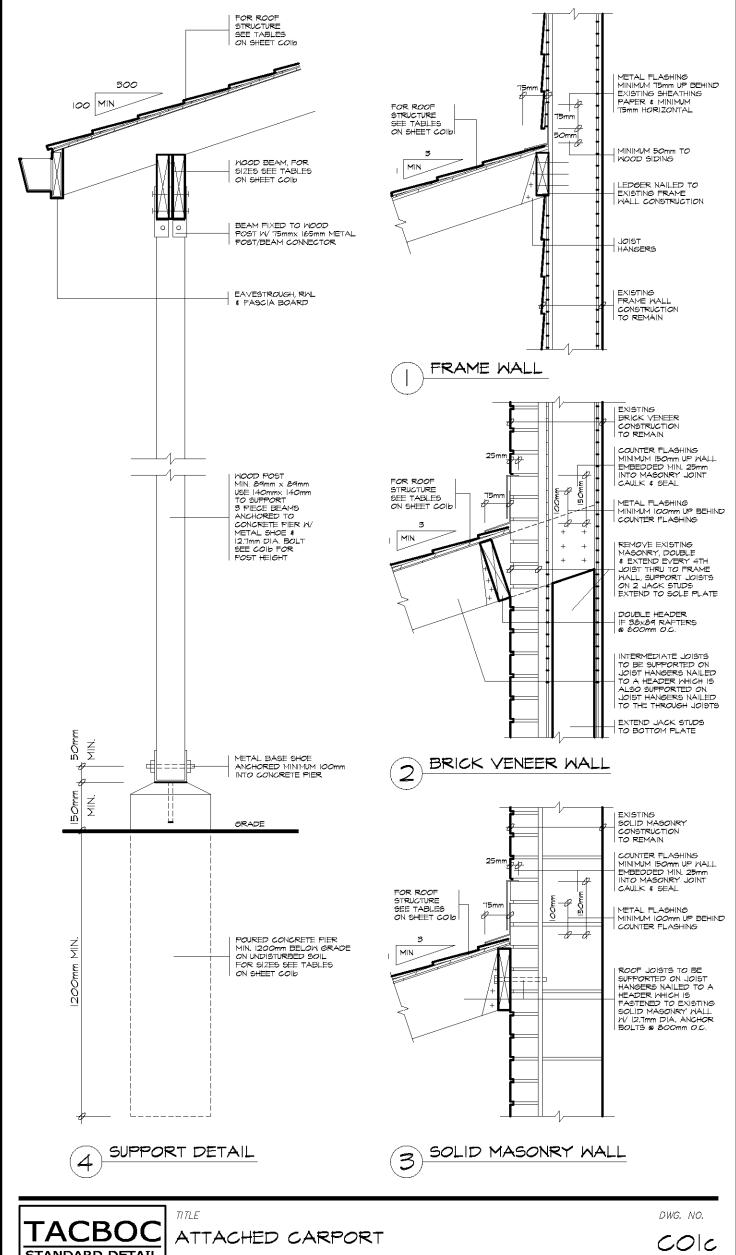


TITLE

ATTACHED CARPORT SLOPING OR FLAT ROOFS, TABLES & NOTES

DWG. NO.

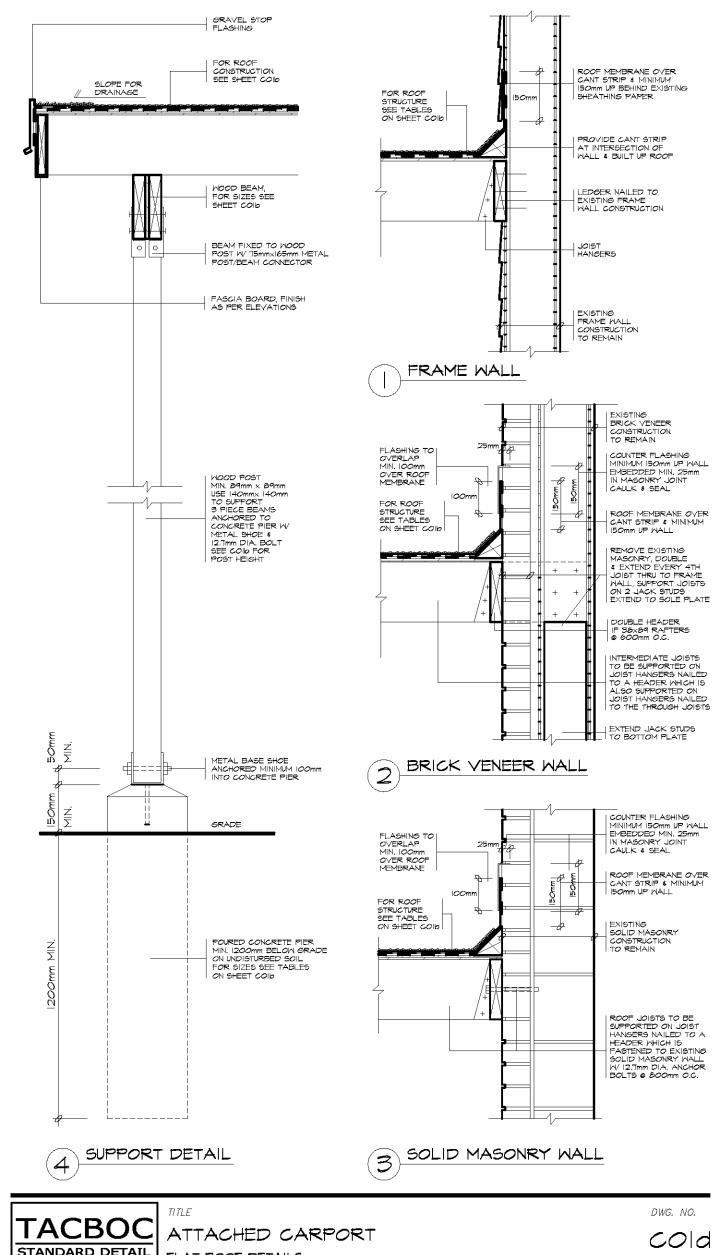




STANDARD DETAIL

SLOPING ROOF DETAILS

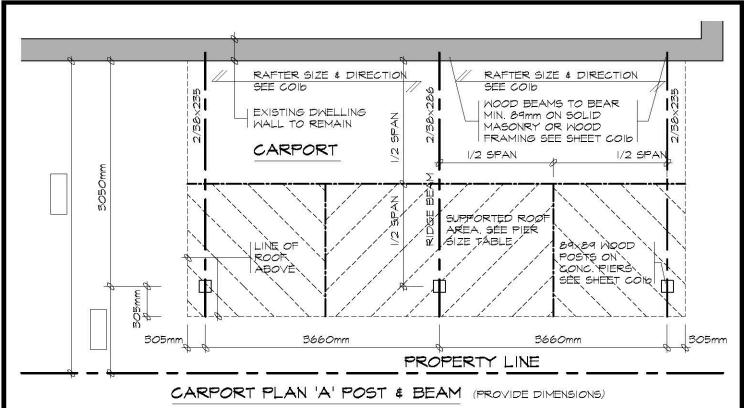




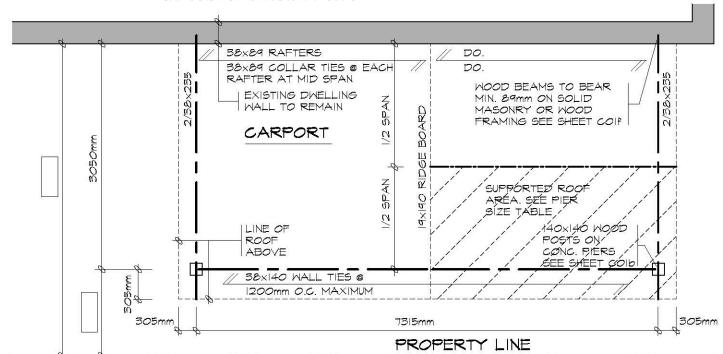
STANDARD DETAIL

FLAT ROOF DETAILS



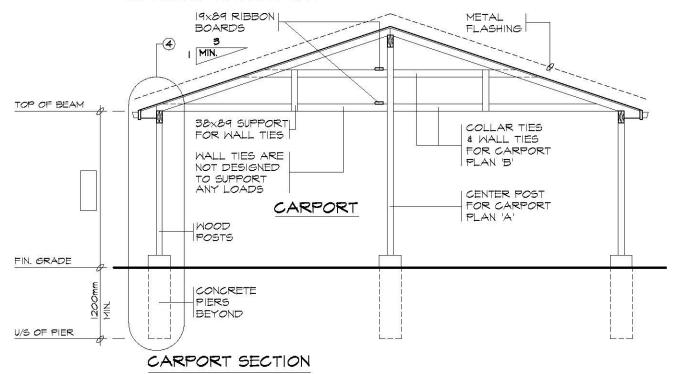


SEE COID FOR STRUCTURAL SIZES



CARPORT PLAN 'B' CONVENTIONAL FRAMING (PROVIDE DIMENSIONS)

SEE COID FOR STRUCTURAL SIZES



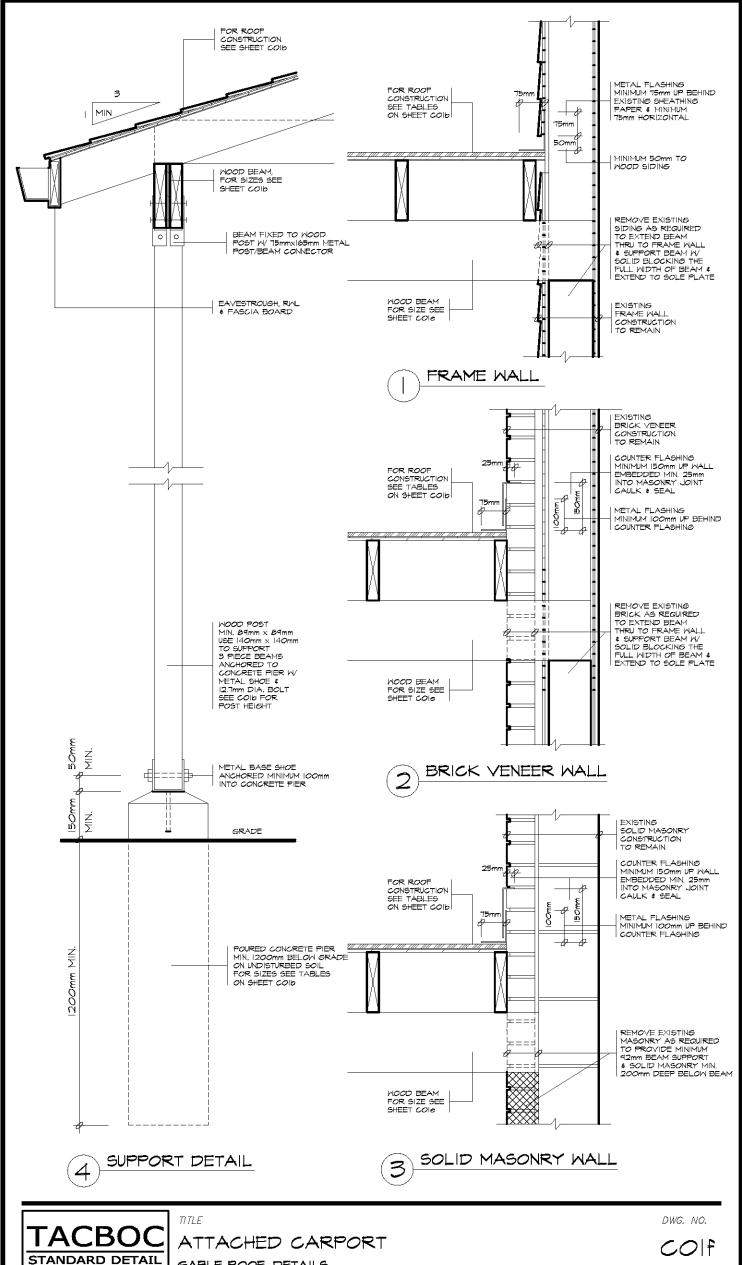
TACBOC STANDARD DETAIL

TITLE

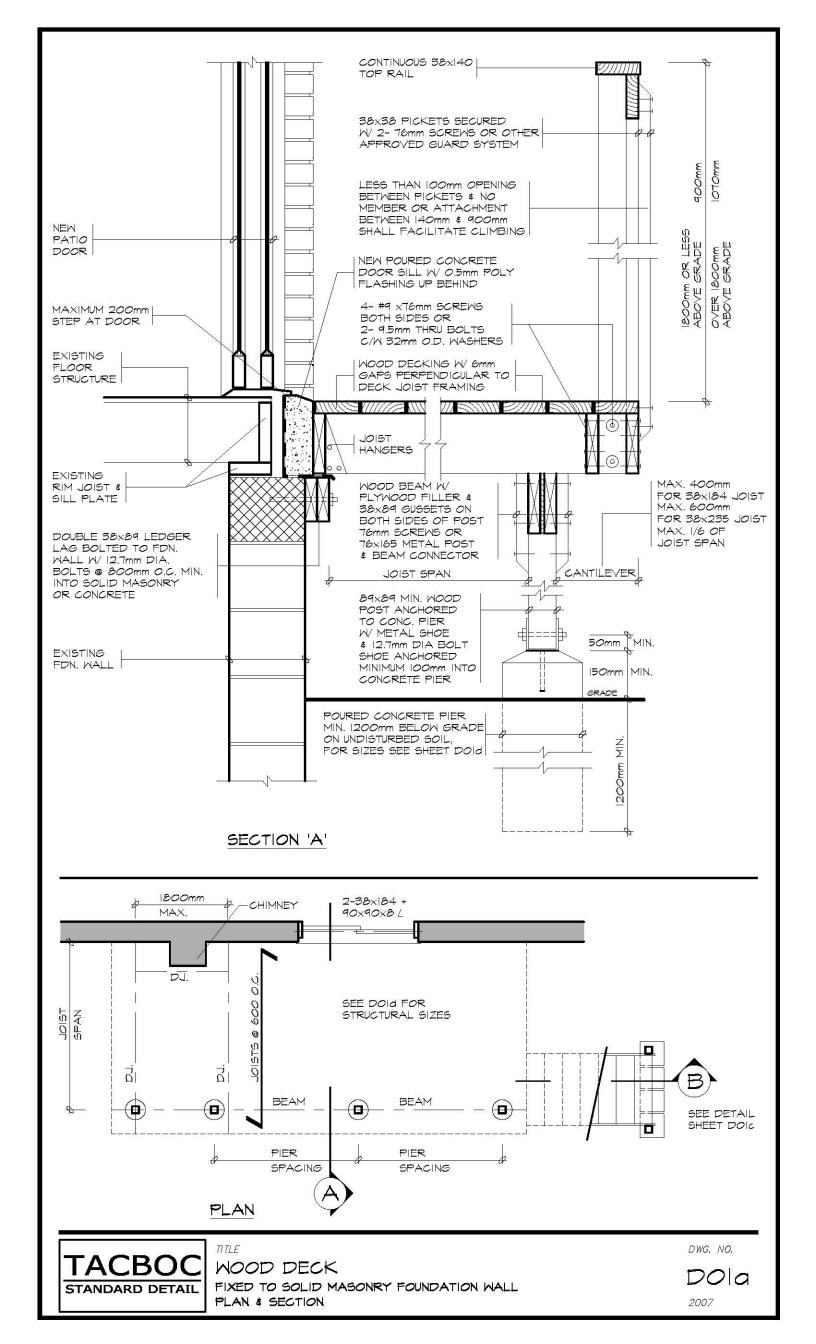
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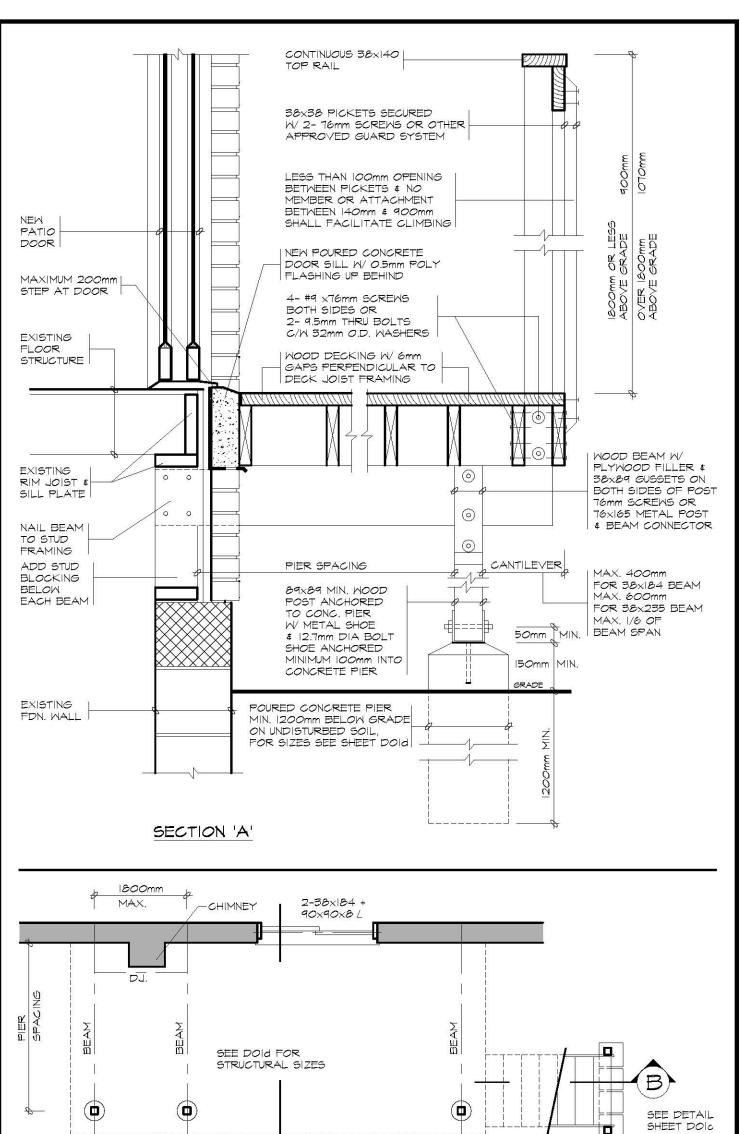
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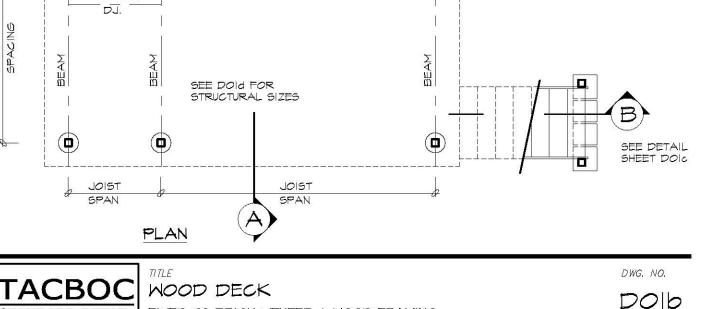
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GABLE ROOF, DETAILS





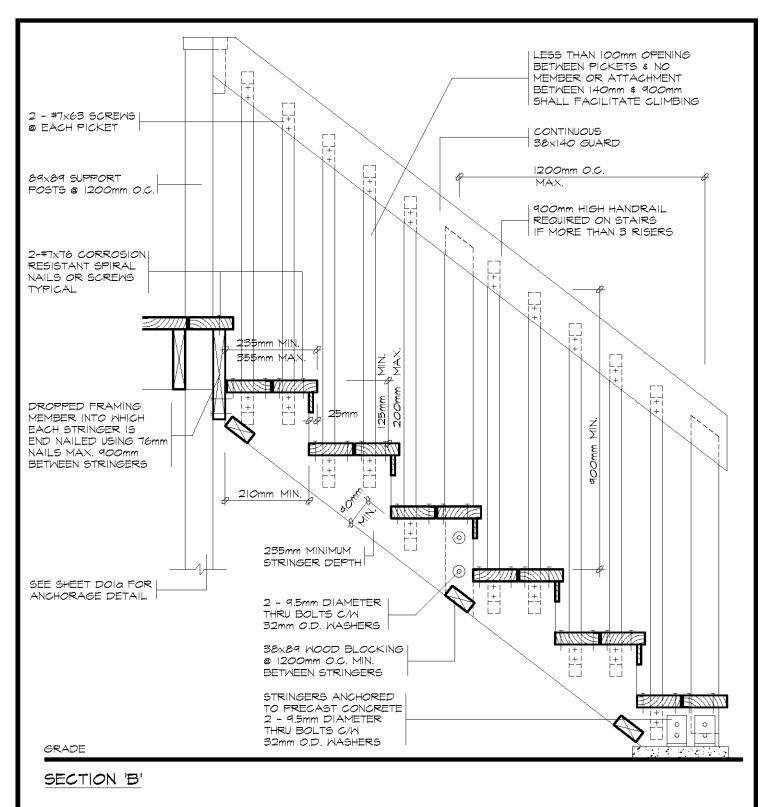


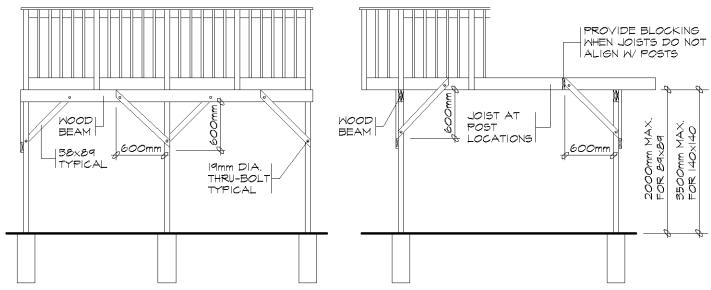
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FIXED TO BRICK VENEER & WOOD FRAMING

PLAN & SECTION

STANDARD DETAIL





BRACING PARALLEL TO BEAM

BRACING PERPENDICULAR TO BEAM

FREE STANDING DECKS GREATER THAN 600mm ABOVE GRADE SHALL RESIST LATERAL LOADING & MOVEMENT. ALL POSTS MUST BE BRACED WHERE THE SUPPORTED AREA EXCEEDS THOSE LISTED IN THE TABLE ON DOID



MOOD DECK

STAIR SECTION LATERAL SUPPORT FOR FREE STANDING DECKS DWG. NO.



				BEAM S	SIZING TA	BLE			
SUPPORTED	LIVE	LOAD 1.9 KF	°a	LIVE	LOAD 2.5 k	Pa	LIVE LOAD 3.0 kPa		
JOIST LENGTH	PIER SPACING (mm)		PIER	PIER SPACING (mm)		PIER SPACING (mm)			
(mm)	2000	3000	4000	2000	3000	4000	2000	3000	4000
1500	2/38×140	2/38×184	3/38×235	2/38×140	3/38×184	3/38×235	3/38×140	2/38×235	2/38×286
2000	2/38×140	3/38×184	3/38×235	2/38×184	2/38×235	3/38×286	2/38×184	2/38×235	3/38×286
2500	2/38×184	2/38×235	3/38×286	2/38×184	3/38×235	3/38×286	2/38x184	3/38×235	4/38×286
3000	2/38×184	2/38×235	3/38×286	2/38×184	3/38×235	4/38×286	2/38×184	3/38×235	4/38×286
3500	2/38×184	3/38×235	3/38×286	2/38x184	3/38×235	4/38×286	3/38×184	3/38×286	N/A
4000	2/38×184	3/38×235	4/38×286	2/38×184	3/38×286	N/A	3/38×184	3/38×286	N/A

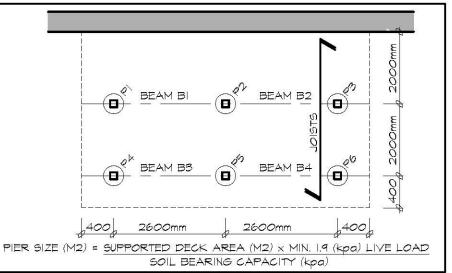
				JOIST S	SIZING TA	ABLE				
12/10/10/4/12/14/19	LIVE	LIVE LOAD 1.9 kPa		LIVE	LIVE LOAD 2.5 kPa			LIVE LOAD 3.0 kPa		
JOIST SPAN	JOIST SPACING (mm)		JOIST SPACING (mm)			JOIST SPACING (mm)				
(mm)	300	400	600	300	400	600	300	400	600	
2000	38×140	38×140	38×140	38×140	38×140	38×140	38×140	38×140	38×140	
25 <i>00</i>	38×140	38×140	38x184	38×140	38x140	38×184	38×140	38×184	38×184	
3000	38×140	38×184	38×184	38×184	38×184	38×235	38×184	38×184	38×235	
35 <i>00</i>	38×184	38×184	38×235	38×184	38×235	38×235	38×235	38×235	38×235	
4000	38×235	38×235	38×286	38×235	38×235	38×286	38×235	38×235	38×286	

FOOTING SIZES				
SOIL BEARING CAPACITIES (kPa)				
SOIL TYPE	BEARING PRESSURE (kPa)			
SOFT CLAY	40			
LOOSE SAND OR GRAVEL	50			
FIRM CLAY	75			
DENSE OR COMPACT SILT	100			
STIFF CLAY	150			
DENSE COMPACT SAND OR GRAVEL	150			
TILL	200			
CLAY SHALE	300			
SOUND ROCK	500			

PIER SIZES					
DIAMETER (mm)	M ²				
200	0.03				
25 <i>0</i>	0.05				
00%	0.08				
35 <i>0</i>	0.10				
400	O.13				
5 <i>00</i>	0.20				
600	0.30				

	POST SIZING TABLE						
BOST	MAXIMUM	MAX. SUPPORTED DECK AREA (M2)					
POST SIZE	HEIGHT	LI	VE LOAD (KF	°a)			
(mm)	(M)	1.9	2.5	3.0			
	1.0	10.86	8.71	7.48			
89×89	1.5	5.93	4.76	4.09			
	2.0	S.15	2.53	2.17			
	2.0	13.67	10.98	9.43			
140x140	2.5	9.32	7.48	6.43			
I I I I I I I I I I I I I I I I I I I	3.0	6.35	5.10	4.38			
	3.5	4.41	3.54	3.04			

	PIERS	SUPPORTED DECK AREA					
	PI	$2 \times 1.7 = 3.4 \text{m}^2$					
7	P2	$2 \times 2.6 = 5.2 \text{m}^2$					
PLAN	P3	$2 \times 1.7 = 3.4 \text{m}^2$					
EXAMPLE PL	P4	$1.4 \times 1.7 = 2.4 \text{m}^2$					
	P 5	$1.4 \times 2.6 = 3.6 \text{m}^2$					
	P6	$1.4 \times 1.7 = 2.4 \text{m}^2$					
	BEAMS	SUPPORTED JOIST LENGTH					
X	ВІ	2000mm					
***	B2	2 <i>000</i> mm					
	B3	14 <i>00</i> mm					
	B4	1400mm					
	BEAM	SPAN = 2600mm					
	JOIST	SPAN = 2000mm					
##4	B3 B4 BEAM	1400mm 1400mm SPAN = 2600mm					



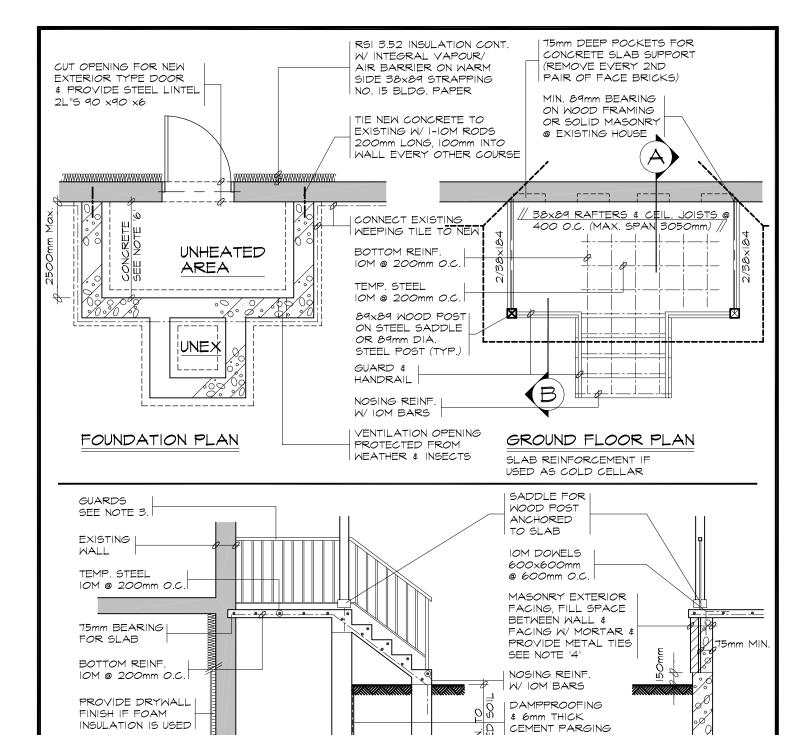
GENERAL NOTES

- A MINIMUM LIVE LOAD OF 1.9 (kPa) SHALL BE APPLIED IN ALL LOCATIONS.
- THE PRESCRIBED SNOW LOAD FOR 225 SELECTED ONTARIO LOCATIONS IS INDICATED IN COLUMN 12 OF TABLE 1.2 IN SUPPLEMENTARY GUIDELINE SB-I OF THE ONTARIO BUILDING CODE. THE SNOW LOAD SHALL BE APPLIED AS THE MINIMUM LIVE LOAD WHERE IT IS GREATER THAN 1.9 (KPG)
- 5. A SITE PLAN OR SURVEY IS REQUIRED SHOWING ALL LOT LINES & DIMENSIONS, SIZE & LOCATION OF ALL EXISTING BUILDINGS & DECKS.
- 4. LUMBER NO. 2 SPF OR BETTER WOOD POSTS MIN. 89x89 (SOLID). USE CORROSION RESISTANT SPIRAL NAILS OR SCREWS.
- A DECK IS NOT PERMITTED TO BE SUPPORTED ON BRICK VENEER.
- 6, CANTILEVERED JOISTS AND BEAMS ARE LIMITED TO 1/6 THE MEMBERS LENGTH.
- CONCRETE PIERS SHALL BEAR ON UNDISTURBED SOIL. THE BEARING CAPACITY OF THE SOIL SHALL BE DETERMINED PRIOR TO CONSTRUCTION.
- 8. MAXIMUM HEIGHT REFERS TO THE HEIGHT OF THE POST FROM THE TOP OF THE PIER TO THE DECK SURFACE.
- 9. BEAMS WITH MORE THAN 2 MEMBERS MUST BE SUPPORTED BY 140x140 POSTS.
- IO. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE REDUCED BY 50% WHILE THE WATER IS AT OR NEAR THE BOTTOM OF THE FOOTING EXCAVATION.
- II. CONTACT YOUR LOCAL BUILDING DEPARTMENT FOR FURTHER INFORMATION ABOUT LOCAL SOIL BEARING CAPACITIES.
- 12. JOIST'S SPANNING MORE THAN 2100mm ARE TO HAVE BRIDGING AT LEAST EVERY 2100mm O.C..



MOOD DECK





SECTION 'A'

SECTION 'A'

GENERAL NOTES

I. EXTERIOR STAIRS

IOOMM COMPACTED CRUSHED STONE

75mm CONCRETE

FLOOR SLAB

125mm - 200mm RISE 210mm - 355mm RUN 235mm - 355mm TREAD STEPS ARE TO BE UNIFORM THROUGHOUT FLIGHT

2. HANDRAILS

ARE REQUIRED WHERE STEPS HAVE MORE THAN 3 RISERS. HANDRAIL HEIGHT 800mm - 965mm

3. GUARDS

ARE REQUIRED AROUND CONCRETE
SLAB IF MORE THAN 600mm ABOVE
GRADE & ON BOTH SIDES OF STAIRS
MINIMUM 900mm HIGH FOR STAIRS
MINIMUM 900mm HIGH FOR PORCHES
UP TO 1800mm ABOVE GRADE.
MINIMUM 1070mm HIGH FOR GREATER HTS.
MAXIMUM 100mm BETWEEN PICKETS AND
NO MEMBER DESIGNED TO FACILITATE
CLIMBING BETWEEN 140mm & 900mm

4. MASONRY TIES

WHEN BRICK FACING IS USED ABOVE GROUND LEVEL, PROVIDE 0.76mm THICK \$ 22mm WIDE CORROSION RESISTANT METAL TIES @ 600mm HORIZ. \$ 500mm VERTICAL

200mm

9

5

5. FOUNDATION WALLS

THICKNESS OF UNREINFORCED FOUNDATION WALLS LATERALLY SUPPORTED AT THE TOP ARE DEPENDANT UPON HEIGHT OF FINISH GRADE ABOVE BASEMENT FLOOR

UNIT MASONRY THICKNESS 190mm - MAX. HEIGHT 1200mm UNIT MASONRY THICKNESS 240mm - MAX. HEIGHT 1800mm UNIT MASONRY THICKNESS 290mm - MAX. HEIGHT 2200mm

COVED @ FOOTING

200mm CONCRETE BLOCK

OR POURED CONCRETE FOUNDATION WALL

100mm×400mm POURED CONCRETE FOOTING

100mm DIA. WEEPING TILE W/ 150mm CRUSHED

6. CONCRETE

MINIMUM CONCRETE STRENGTH SHALL BE 32Mpa W/ 5%-8% AIR ENTRAINMENT CONCRETE SLAB THICKNESS 125mm PROVIDE MIN. 30mm CLEAR CONCRETE COVER TO REINFORCING BARS



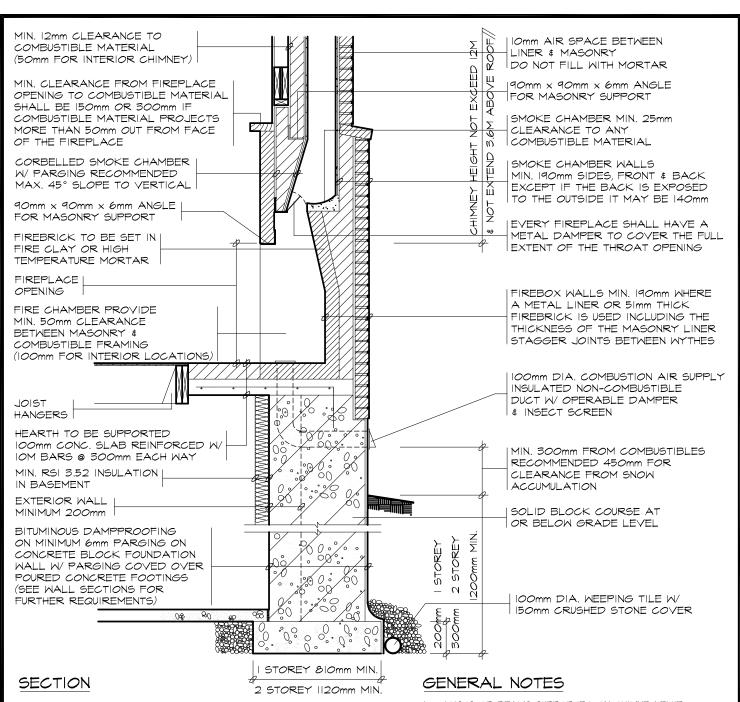
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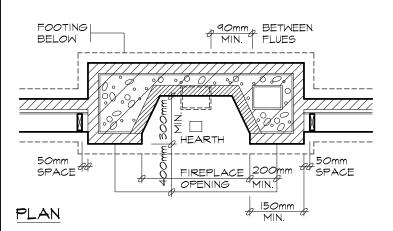
CONCRETE PORCH & COLD CELLAR PLANS, SECTIONS & NOTES

DWG. NO.

D02

03-2012





- JOISTS OR BEAMS SUPPORTED ON CHIMNEY FLUE SHALL BE SEPARATED BY 290mm OF SOLID MASONRY
- MAXIMUM ANGLE OF SLOPE FOR SMOKE CHAMBER IS 45° FROM VERTICAL
- COMBUSTIBLE FLOORING. SUB FLOORING & CEILING FINISHES SHALL HAVE A MINIMUM 12mm CLEARANCE TO MASONRY CHIMNEY.
- 5. EXCEPT AS REQUIRED IN SENTENCE (2) FIREPLACES SHALL HAVE A NONCOMBUSTIBLE HEARTH EXTENDING NOT LESS THAN 400mm IN FRONT OF THE FIREPLACE OPENING MEASURED FROM THE FACING & NOT LESS THAN 200mm BEYOND EACH SIDE OF THE FIREPLACE OPENING.
- 6. WHERE THE HEARTH IS ELEVATED MORE THAN ISOMM ABOVE THE HEARTH EXTENSION. THE WIDTH OF THE
 HEARTH EXTENSION SHALL BE INCREASED BY:

 (A) 50mm FOR AN ELEVATION ABOVE I50mm & NOT
 MORE THAN 300mm &

 (B) AN ADDITIONAL 25mm FOR EVERY 50mm IN

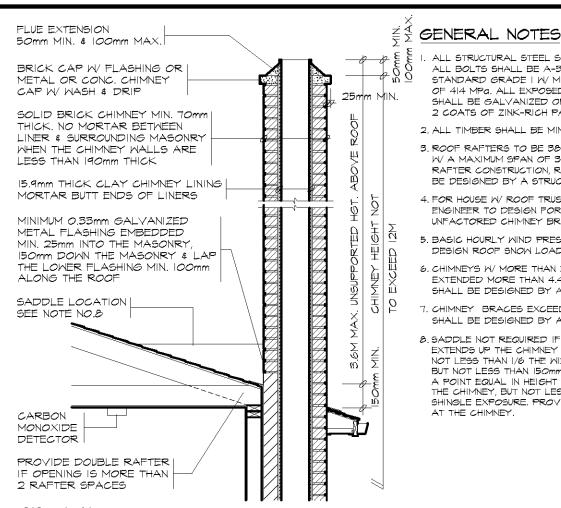
 - ELEVATION ABOVE 300mm
- 7. INSTALL A CARBON MONOXIDE DETECTOR CONFORMING TO CAN/CGA-6.19 OR UL 2034
- PROVIDE FIRESTOPPING BETWEEN FLOOR, CEILING LEVELS AND CHIMNEY

FIREPLACE OPENING (M2)	CHIMNEY HEIGHT (M)									
	3.0 - 4.5		>4.5 - 5.9		>5.9 - 8.9		>8.9 - 12.0			
	FLUE SIZES (mm)									
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
UP TO 0.15	200×200	200×200	100×200	100×200	100×200	100×200	100x200	100×200		
0.151 - 0.250	200×200	200×200	200x200	200×200	200×200	200×200	200×200	200×200		
0.25 - 0.350	200×300	200x300	200×200	200×300	200×200	200×200	200×200	200×200		
0.351 - 0.500	300×300	300×300	200×300	200×300	200×300	200×300	200×200	200×300		
0.501 - 0.650	300×300	300×400	300×300	300×300	300×300	300x300	200x300	200×300		
0.651 - 0.800	300×400	300×400	300x300	300×400	300×300	300x300	300×300	300×300		
0.801 - 1.00	400×400	400×400	300×400	300×400	300×400	300×400	300×300	300×300		
1.01 - 1.20	400×400	400×400	400x400	400×400	300×400	300×400	300×400	300×400		
1.21 - 1.40			400x400	400×400	400×400	400×400	300×400	300×400		
1.41 - 1.60					400×400	400×400	400×400	400×400		
1.61 - 1.80							400×400	400×400		
l.81 - 2.00							400×400	400×400		
COLUMN I.	2.	3.	4.	5.	6.	7.	8.	9.		



MASONRY FIREPLACE PLAN & SECTION





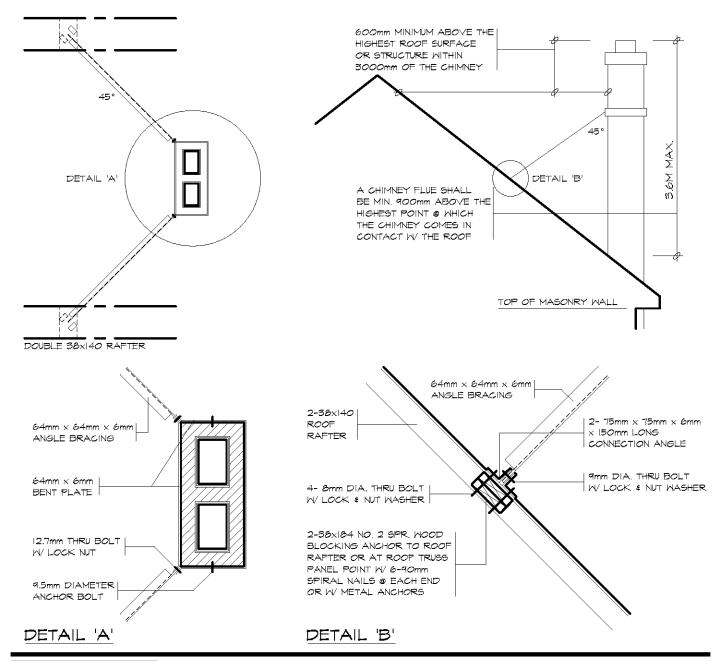
I. ALL STRUCTURAL STEEL SHALL BE 300M GRADE ALL BOLTS SHALL BE A-50T GRADE OR SAE STANDARD GRADE I W/ MINIMUM TENSILE STRENGTH OF 414 MPa. ALL EXPOSED STEEL & FASTENERS SHALL BE GALVANIZED OR PAINTED WITH 2 COATS OF ZINK-RICH PAINT.

2. ALL TIMBER SHALL BE MIN. SPRUCE NO. 2 GRADE.

- 3. ROOF RAFTERS TO BE 38x140 NO. 2 SPR. @ 400mm O.C. W/ A MAXIMUM SPAN OF 3900mm. FOR OTHER ROOF RAFTER CONSTRUCTION, ROOF REINFORCEMENT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
- 4. FOR HOUSE W/ ROOF TRUSS STRUCTURE, TRUSS DESIGN TO DESIGN FOR A MINIMUM ADDITIONAL UNFACTORED CHIMNEY BRACE LOAD OF 4.2KN
- 5. BASIC HOURLY WIND PRESSURE q= 0.52 kPa. DESIGN ROOF SNOW LOAD = 1.5 kPa.
- 6. CHIMNEYS W/ MORE THAN DOUBLE FLUE AND/OR EXTENDED MORE THAN 4.40M ABOVE ROOF SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
- 7. CHIMNEY BRACES EXCEEDING 2500mm IN LENGTH SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
- 8. SADDLE NOT REQUIRED IF FLASHING USED THAT EXTENDS UP THE CHIMNEY TO HEIGHT EQUAL TO NOT LESS THAN I/G THE WIDTH OF THE CHIMNEY BUT NOT LESS THAN ISOMM UP THE ROOF SLOPE TO A POINT EQUAL IN HEIGHT TO THE FLASHING ON THE CHIMNEY, BUT NOT LESS THAN I I/2 TIMES THE SHINGLE EXPOSURE, PROVIDE COUNTERFLASHING AT THE CHIMNEY AT THE CHIMNEY.

SECTION

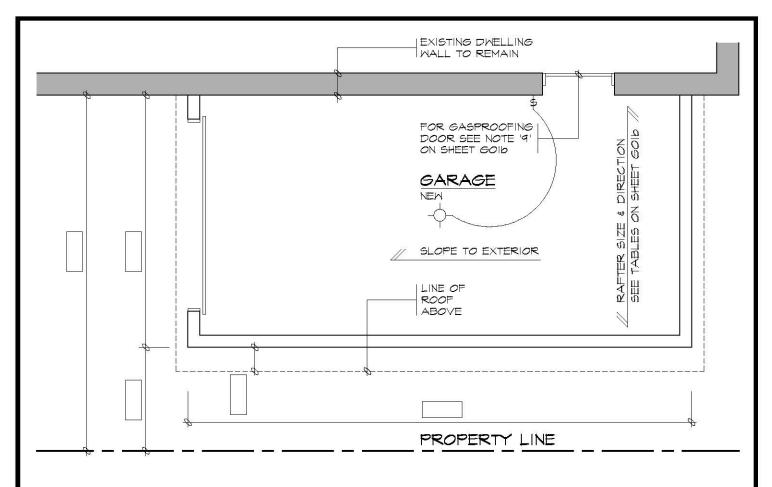
ATERAL BRACING FOR CHIMNEYS EXTENDING MORE THAN 3.6M ABOVE ROOF



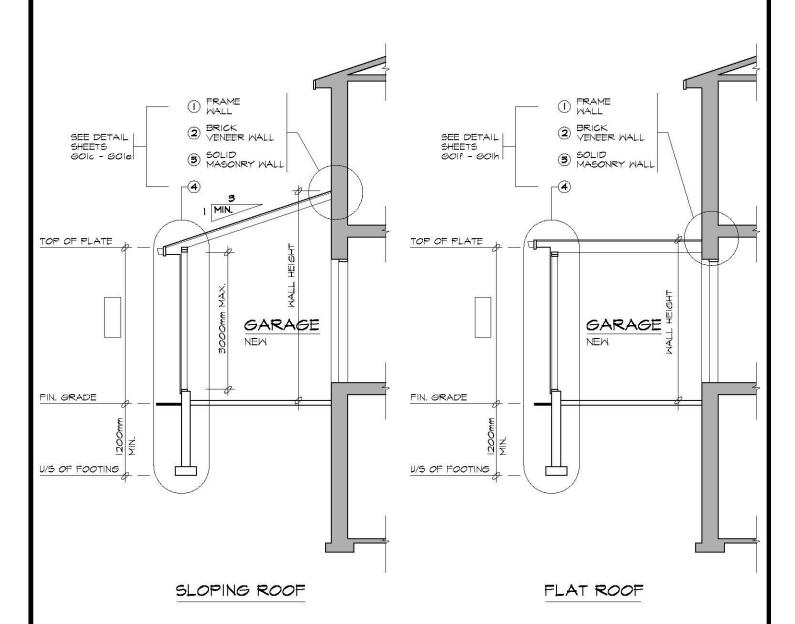


TITLE MASONRY FIREPLACE DETAILS





GARAGE PLAN (PROVIDE DIMENSIONS IN BOXES)



GARAGE SECTIONS



TITLE

ATTACHED GARAGE
PLAN & SECTIONS

DWG. NO.



ROOF RAFTERS

(WHERE NO CEILING IS INSTALLED)

MAXIMUM CLEAR SPAN (M)							
RAFTER SIZE	ROOF SNOW LOAD 1.0kPa			ROOF SNOW LOAD 1.5kPa			
	RAFTER SPACING (mm) O.C.			RAFTER SPACING (mm) O.C.			
	300	400	600	300	400	600	
38×89	3.11	2.83	2.47	2.72	2.47	2.16	
38×140	4.90	4.45	3.89	4.28	3.89	3.40	
38×184	6.44	5. <i>8</i> 5	5.11	5.62	5.11	4.41	
38×235	8.22	7.47	6.38	7.18	6.52	5.39	

ROOF JOISTS

(WHERE CEILING IS INSTALLED)

MAXIMUM CLEAR SPAN (M)							
JOIST SIZE	ROOF SNOW LOAD 1.0kPa			ROOF SNOW LOAD 1.5kPa			
	JOIST SPACING (mm) O.C.			JOIST SPACING (mm) O.C.			
	300	400	600	300	400	600	
38×140	3.89	3.53	3.08	3.40	3.08	2.69	
38×184	5.11	4.64	4.05	4.46	4.05	3.54	
38×235	6.52	5.93	5.18	5.70	5.18	4.52	

LINTELS

(MAXIMUM 1.5 kPa ROOF SNOW LOAD)

DOOR WIDTH	LINTELS FOR WOOD FRAMING		LINTELS FOR BRICK VENEE	R 90mm	LINTELS FOR SOLID MASONRY 200mm	
	NOT SUPPORTING THE ROOF	SUPPORTING THE ROOF	NOT SUPPORTING THE ROOF	SUPPORTING THE ROOF	NOT SUPPORTING THE ROOF	SUPPORTING THE ROOF
UP TO 3000mm	2/38×184	2/38×286	2/38x184 + ANGLE 125x90x8	2/38×286 + ANGLE 125×90×8	2 ANGLES I50xI00xI0	WI50x22 + PLATE 200x10
UP TO 4900mm	2/38×286	4/38×286 OR 2-45×300 1.9E LVL	W200x27 + PLATE 200x10	W200x27 + PLATE 200x10	MUST BE DESIGNED	MUST BE DESIGNED

GENERAL NOTES

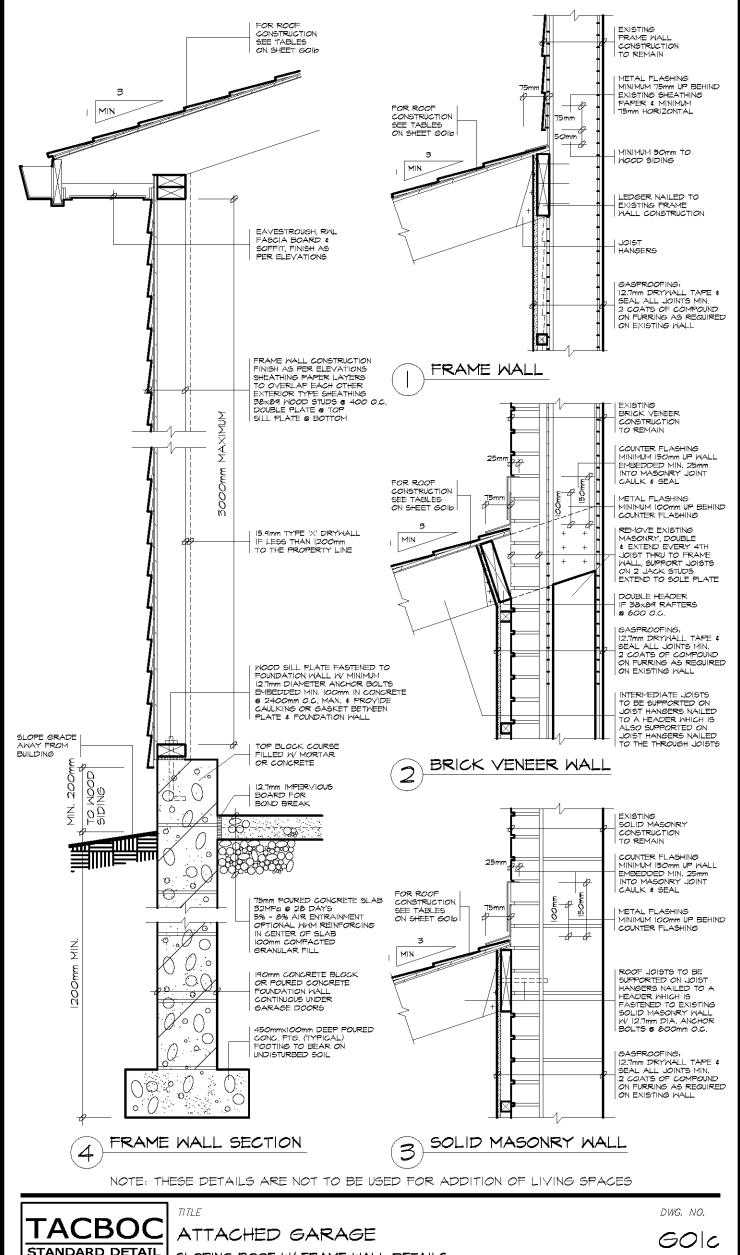
- I. ALL LUMBER TO BE NO. 1\$2 SPRUCE OR BETTER
- 2. ALL PLYWOOD SHALL BE STAMPED EXTERIOR GRADE
- 3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL
- 4. IF GARAGE WALL IS LESS THAN 1200mm TO THE PROPERTY LINE PROVIDE 15.9mm TYPE 'X' DRYWALL INTERIOR SHEATHING. NO WINDOWS ARE PERMITTED.
- 5. IF GARAGE WALL IS LESS THAN 600mm TO THE PROPERTY LINE NON-COMBUSTIBLE CLADDING OR VINYL SIDING W/ GYPSUM SHEATHING IS REQUIRED.
- 6. GARAGE WALLS ADJOINING DWELLING MUST BE COMPLETELY SEALED TO PREVENT ANY INFILTRATION OF GASES INTO THE DWELLING.
- 7. CAULK ALL PENETRATIONS SUCH AS HOSE BIB & JOINTS BETWEEN GYPSUM BD. & OTHER SURFACES W/ ACOUSTICAL SEALANT.
- 8. WHERE ATTACHED GARAGE IS ADJACENT TO AN ATTIC SPACE, CARRY GYPSUM BOARD UP TO ROOF SHEATHING & SEAL M/ FLEXIBLE CAULKING.
- 9. DOORS BETWEEN THE GARAGE & DWELLING MUST BE EXTERIOR TYPE, TIGHT FITTING, WEATHERSTRIPPED & PROVIDED W/ A SELF CLOSING DEVICE & A DEADBOLT LOCK. DOOR MUST NOT OPEN DIRECTLY INTO A BEDROOM.
- IO. GARAGE SLAB SHALL BE SLOPED TO DRAIN TO THE OUTSIDE. CONCRETE SHALL BE MIN. 32MPa $\,$ W/ 5%-8% AIR ENTRAINMENT.
- II. ALL ROOF SHEATHING TO BE 9.5mm PLYWOOD OR IImm OSB, FOR ROOF RAFTERS @ 300mm OR 400mm O.C. USE "H" CLIPS FOR ROOF RAFTERS @ 600mmO.C..
- 12. STEPPED FOOTINGS, IF REQUIRED, SHALL HAVE A MAXIMUM RISE OF 600mm & A MINIMUM RUN OF 600mm.
- 13. PROVIDE A LIGHT FIXTURE IN THE GARAGE.
- 14. STEEL BEAMS TO BE SUPPORTED BY SOLID MASONRY (190mm BEARING ON MASONRY OR 73mm DIA. STEEL COLUMN).
- 15. LINTELS AND BEAMS TO BE DESIGNED BY A QUALIFIED PERSON FOR SPANS GREATER THAN 4900mm



TITLE

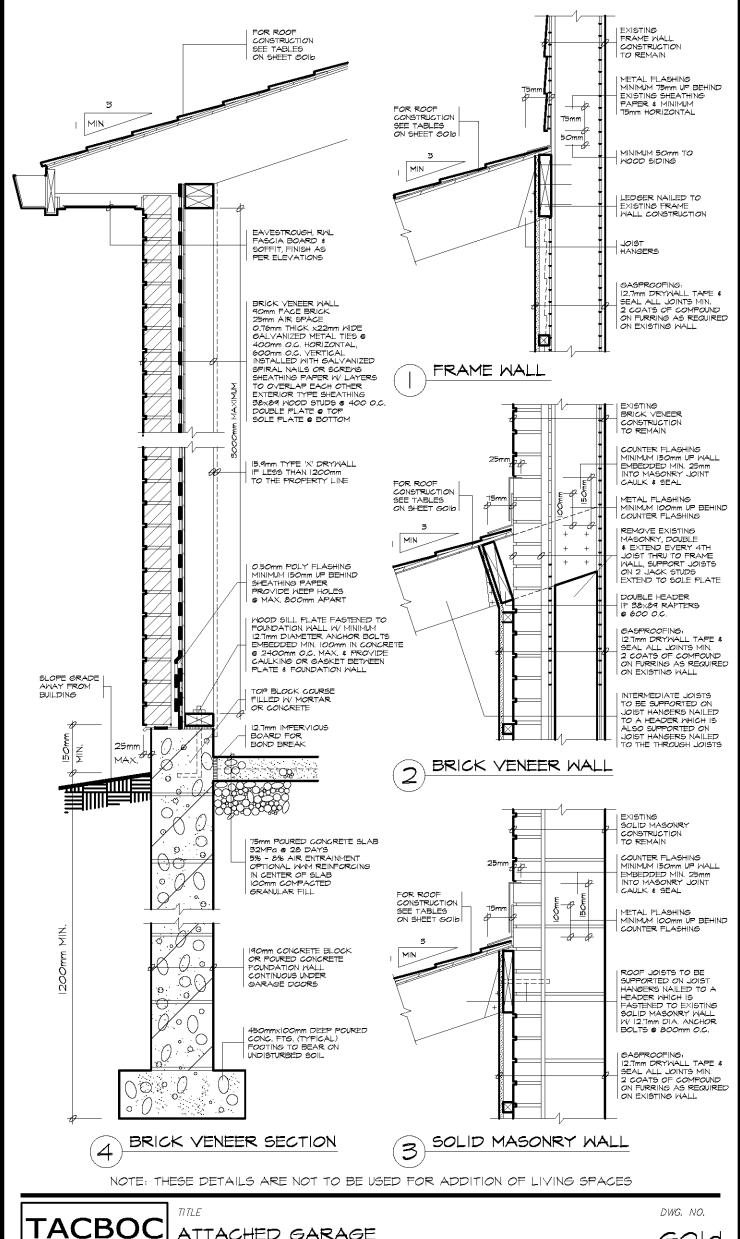
ATTACHED GARAGE TABLES & NOTES DWG. NO.





STANDARD DETAIL

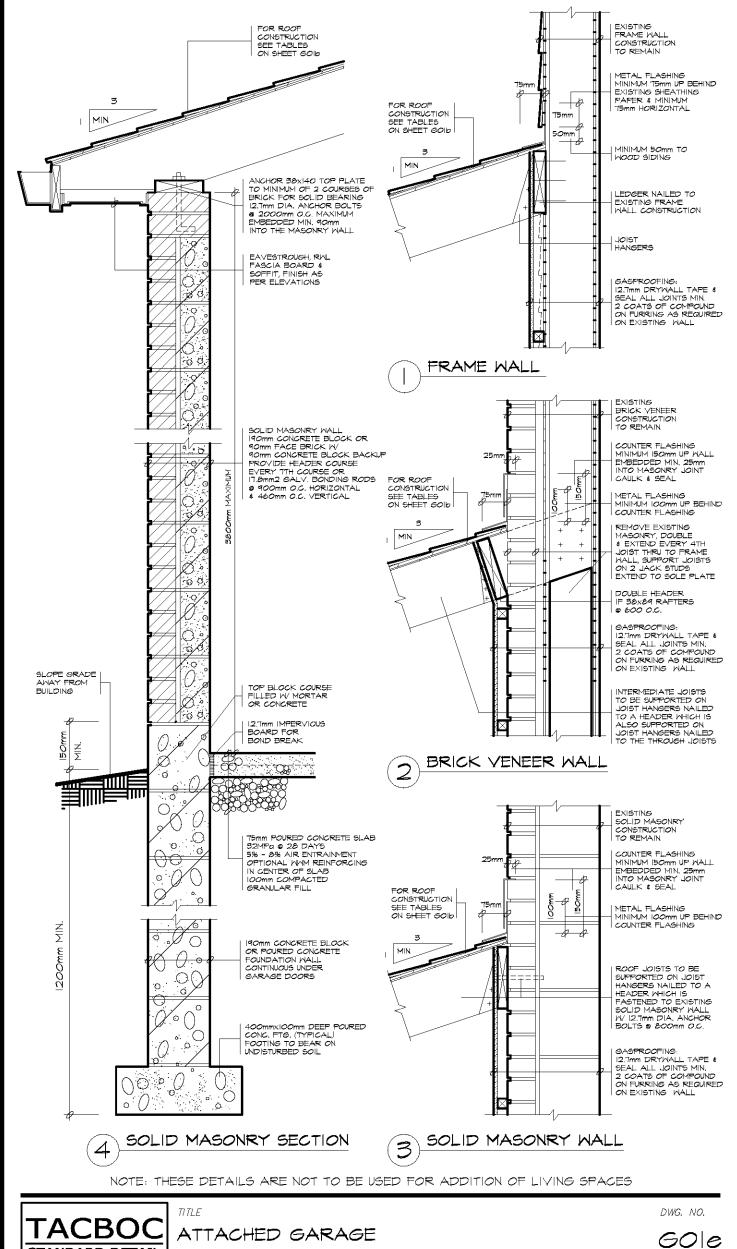
SLOPING ROOF W FRAME WALL DETAILS



TACBOO STANDARD DETAIL

ATTACHED GARAGE SLOPING ROOF & BRICK VENEER DETAILS

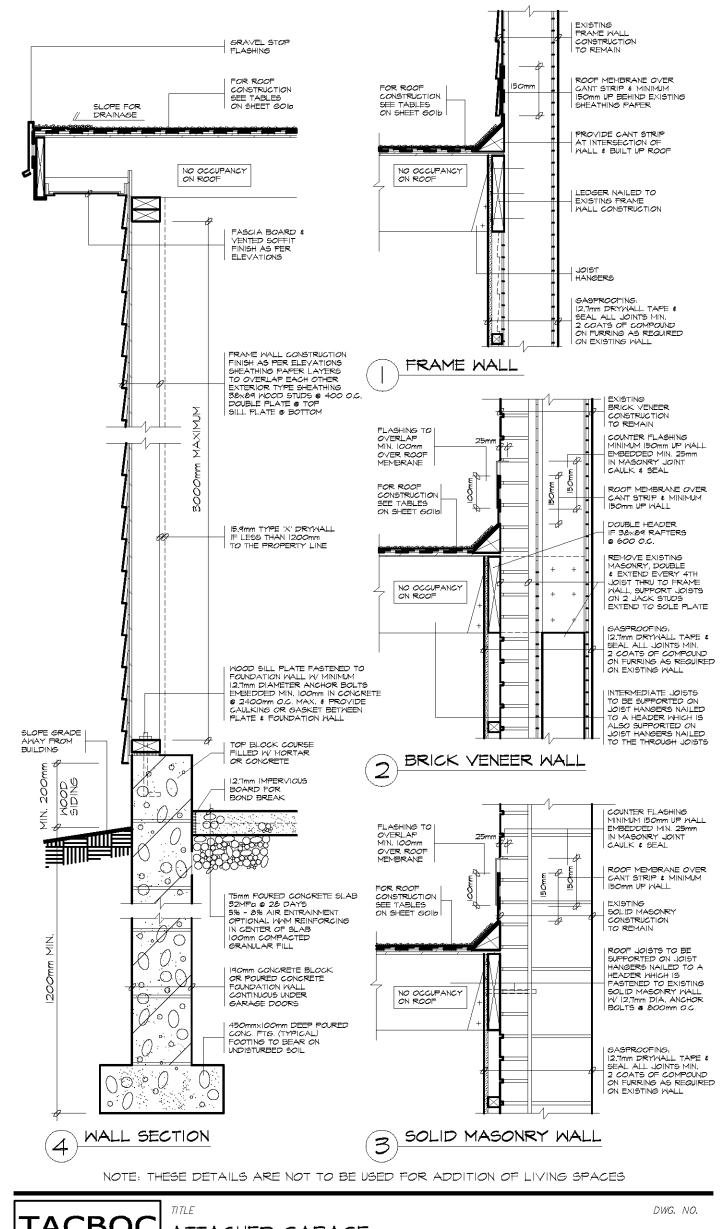




STANDARD DETAIL

SLOPING ROOF & SOLID MASONRY DETAILS

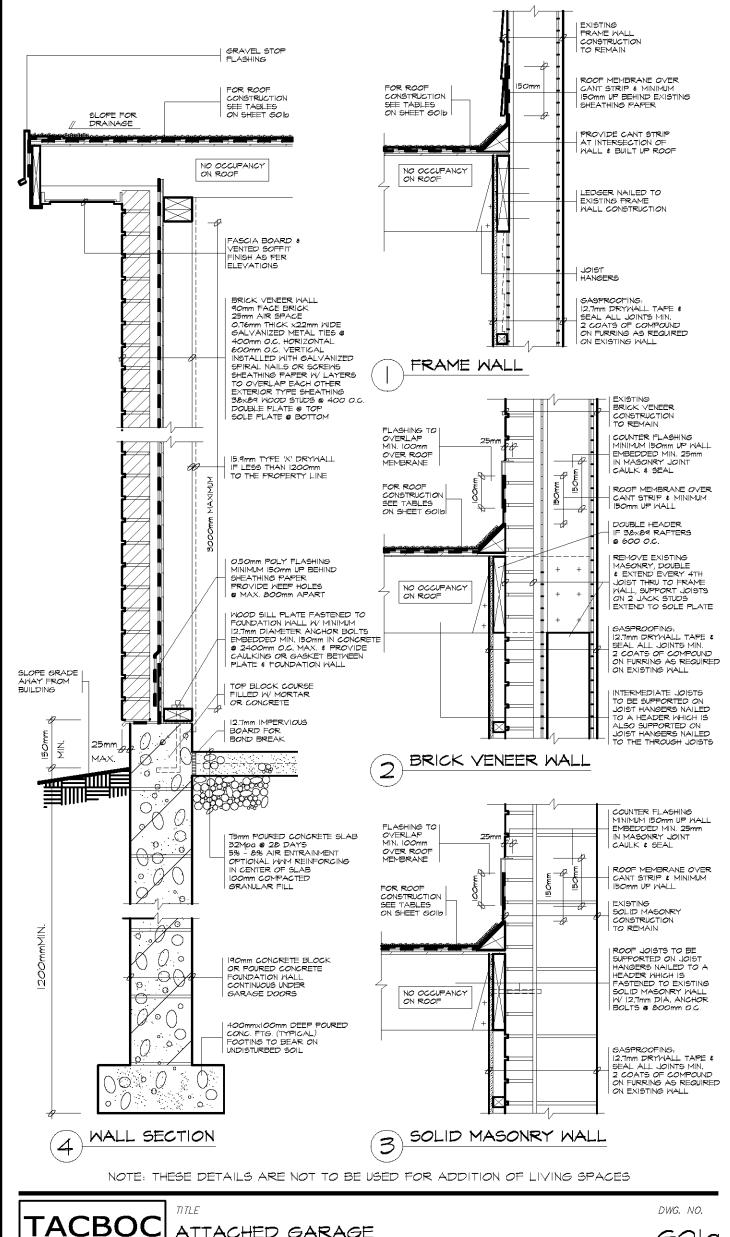




TACBOC STANDARD DETAIL

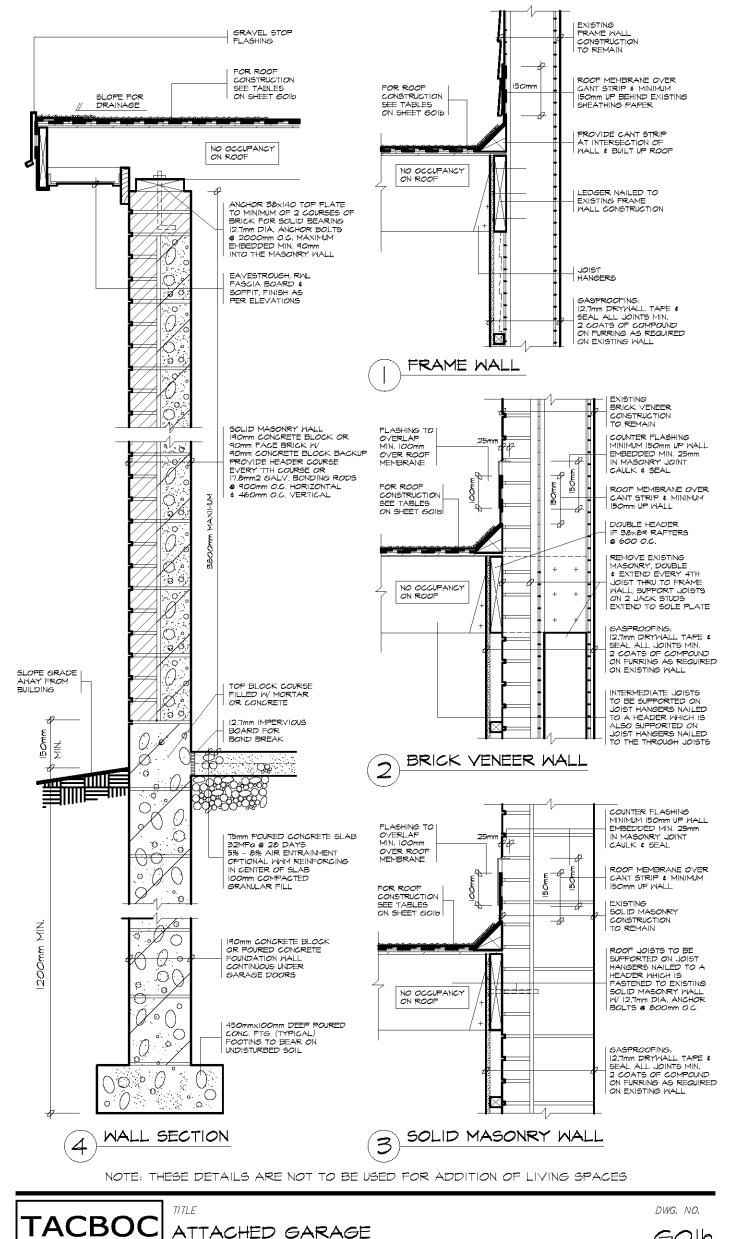
ATTACHED GARAGE FLAT ROOF & FRAME WALL DETAILS





ATTACHED GARAGE STANDARD DETAIL FLAT ROOF & BRICK VENEER DETAILS

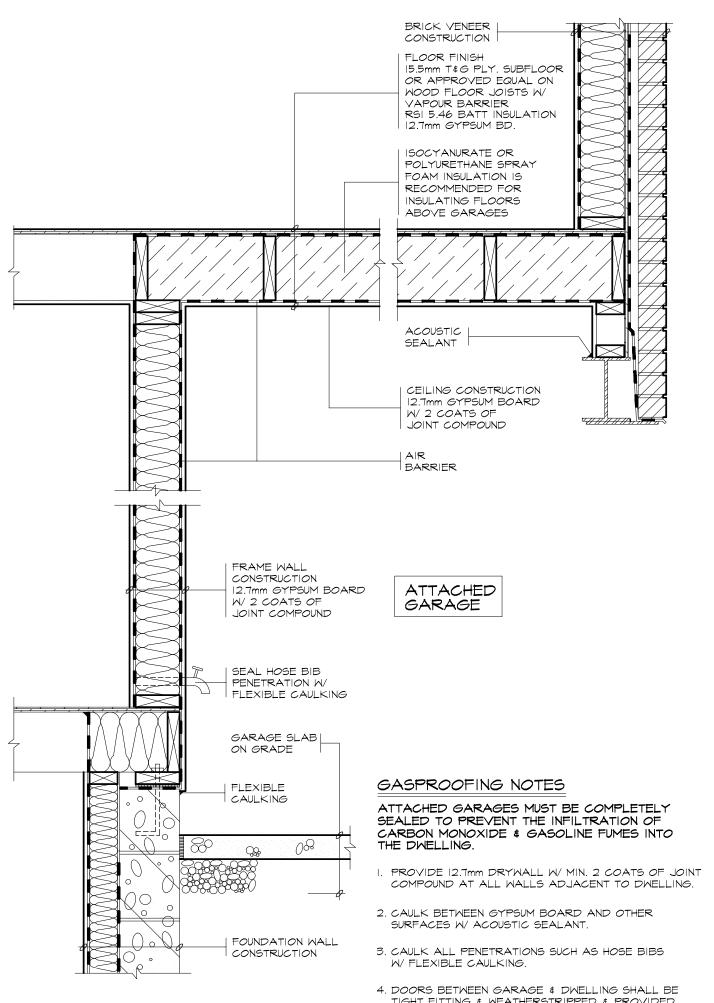




STANDARD DETAIL

ATTACHED GARAGE FLAT ROOF & SOLID MASONRY DETAILS





- 4. DOORS BETWEEN GARAGE & DWELLING SHALL BE TIGHT FITTING & WEATHERSTRIPPED & PROVIDED W/ A SELF CLOSING DEVICE. DOOR MUST NOT OPEN DIRECTLY INTO A ROOM INTENDED FOR SLEEPING.
- 5. GARAGE SLAB SHALL BE SLOPED TO DRAIN OUTDOORS
- 6. WHERE AN ATTACHED GARAGE IS ADJACENT TO AN ATTIC SPACE CARRY DRYWALL UP TO ROOF SHEATHING & CAULK W/ FLEXIBLE CAULKING.
- 7. UNIT MASONRY WALLS FORMING THE SEPARATION BETWEEN THE DWELLING & ATTACHED GARAGE SHALL BE PROVIDED W/ 2 COATS OF A SEALER OR COVERED W/ PLASTER OR GYPSUM BOARD ON THE GARAGE SIDE.

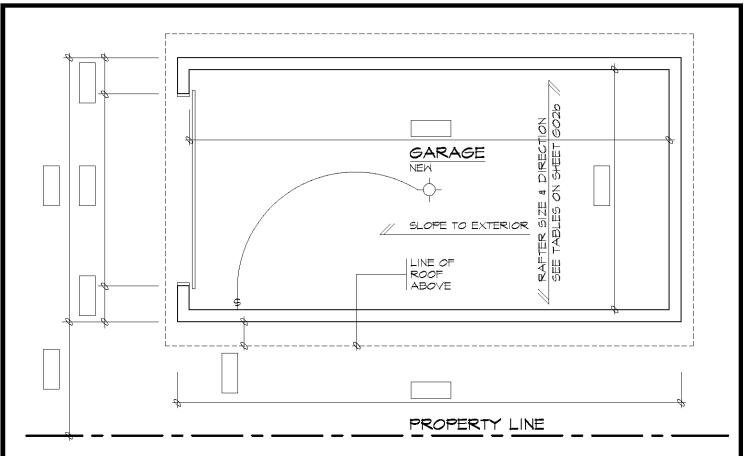


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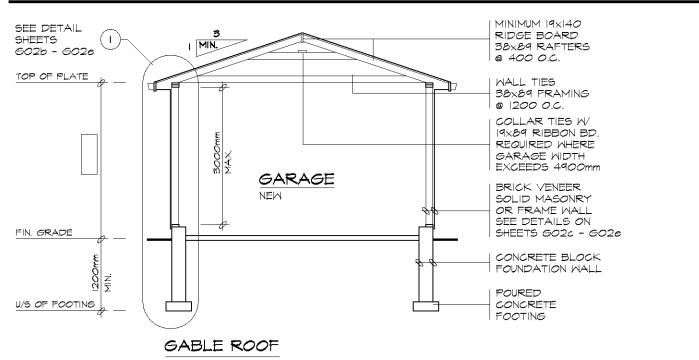
ATTACHED GARAGE
GASPROOFING & INSULATION DETAILS

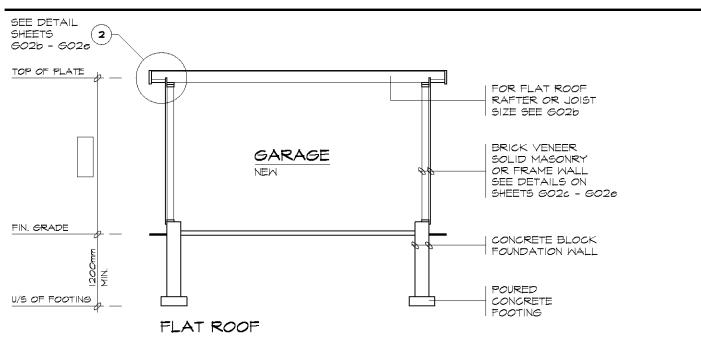
DWG. NO.





GARAGE PLAN (PROVIDE DIMENSIONS IN BOXES)







TITLE

DETACHED GARAGE SLOPING OR FLAT ROOF PLAN & SECTIONS DWG. NO.

G02a

ROOF RAFTERS (FLAT ROOF - WHERE NO CEILING IS INSTALLED)

MAXIMUM CLEAR SPAN (M)						
	ROOF SNO	W LOAD 1.0	kРа	ROOF SNOW LOAD 1.5kPa		
RAFTER SIZE	RAFTER S	PACING (mm) 0.0.	RAFTER SPACING (mm) O.C.		
	300	400	600	300	400	600
38×89	3.11	2.83	2.47	2.72	2.47	2.16
38×140	4.90	4.45	3.89	4.28	3.89	3.40
38×184	6.44	5. <i>8</i> 5	5.11	5.62	5.11	4.41
38×235	8.22	7.47	6.38	7.18	6.52	5.39

ROOF JOISTS

(FLAT ROOF - WHERE CEILING IS INSTALLED)

	MAXIMUM CLEAR SPAN (M)						
1-1	ROOF SNO	N LOAD 1.0	kPa	ROOF SNOW LOAD 1.5kPa			
JOIST SIZE	JOIST SPA	KCING (mm) (D.C.	JOIST SPACING (mm) O.C.			
	300	400	600	300	400	600	
38×140	3.89	3.53	3.08	3.40	3.08	2.69	
38×184	5.11	4.64	4.05	4.46	4.05	3.54	
38×235	6.52	5.93	5.18	5.70	5.18	4.52	
38×286	7.94	7.21	6.30	6.94	6.30	5.50	

LINTELS

DOOR	LINTELS FOR		LINTELS FOR		LINTELS FOR	
	WOOD FRAMING		BRICK VENEER 90mm		SOLID MASONRY 200mm	
WIDTH	NOT	SUPPORTING	NOT	SUPPORTING	NOT	SUPPORTING
	SUPPORTING	THE	SUPPORTING	THE	SUPPORTING	THE
	THE ROOF	ROOF	THE ROOF	ROOF	THE ROOF	ROOF
UP TO 3000mm	2/38×184	2/38×286	2/38x184 + ANGLE 125x90x8	2/38×286 + ANGLE 25×90×8	2 ANGLES 150x100x10	WI50x22 + PLATE 200x10
UP TO 4900mm	2/38×286	4/38×286 OR 2- 45×300 1.9E LVL	W200x27 + PLATE 200x10	W200x27 + PLATE 200x10	MUST BE DESIGNED	MUST BE DESIGNED

GENERAL NOTES

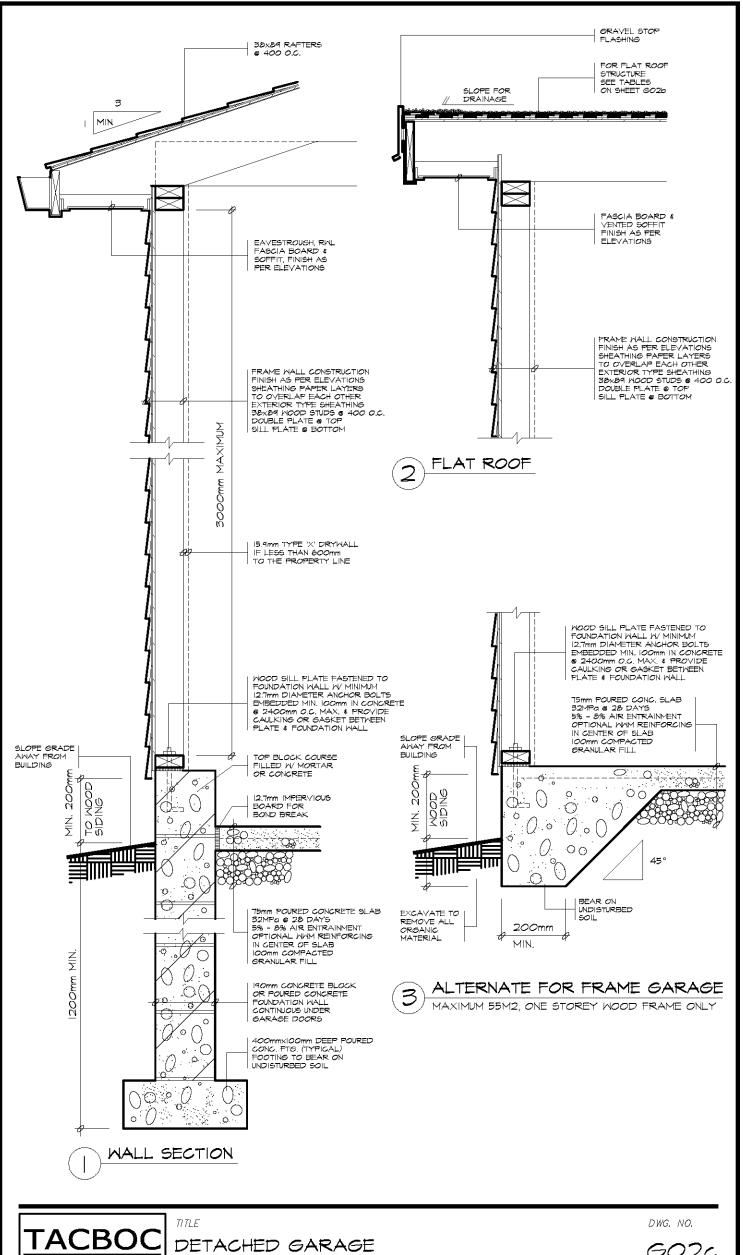
- I. ALL LUMBER TO BE NO. 1\$2 SPRUCE OR BETTER
- 2. ALL PLYWOOD SHALL BE STAMPED EXTERIOR GRADE
- 3. ROOF LOAD DESIGN I.O kPa OR I.5 kPa
- 4. ALL FOOTINGS TO BEAR ON UNDISTURBED SOIL.
- 5. IF GARAGE WALL IS LESS THAN 600mm TO THE PROPERTY LINE PROVIDE 15.9mm TYPE 'X' DRYWALL INTERIOR SHEATHING. NO WINDOWS ARE PERMITTED IN GARAGE WALLS LESS THAN 1200mm FROM PROPERTY LINE.
- 6. FOR ONE STOREY WOOD FRAME DETACHED GARAGES LESS THAN 55M2. AN ALTERNATE FOOTING MAY BE USED, SEE DETAIL SHEET GO26
- 7. GARAGE SLAB SHALL BE 32 Mpa CONCRETE W/ 5% 8% AIR ENTRAINMENT SLOPED TO DRAIN TO THE OUTSIDE.
- 8. ROOF SHEATHING SHALL BE MIN. 9.5mm PLYWOOD PROVIDE 'H' CLIPS IF RAFTERS OR JOISTS ARE SPACED GREATER THAN 400mm O.C.
- 9. PROVIDE A LIGHT FIXTURE IN THE GARAGE.
- IO. STEEL BEAMS TO BE SUPPORTED BY SOLID MASONRY (I90mm BEARING ON MASONRY OR 73mm DIA. STEEL COLUMN).
- II. LINTELS AND BEAMS TO BE DESIGNED BY A QUALIFIED PERSON FOR SPANS GREATER THAN 4900mm



TITLE

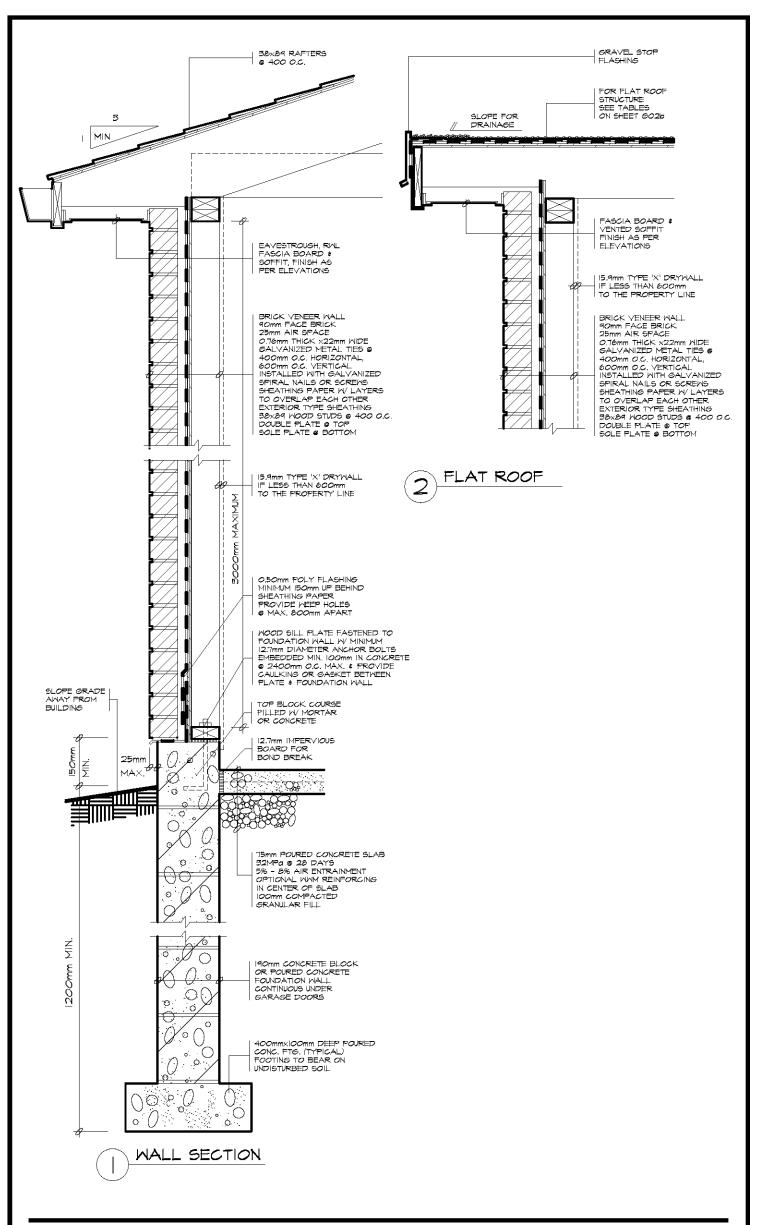
DETACHED GARAGE TABLES & NOTES





STANDARD DETAIL FRAME DETAILS

G02c

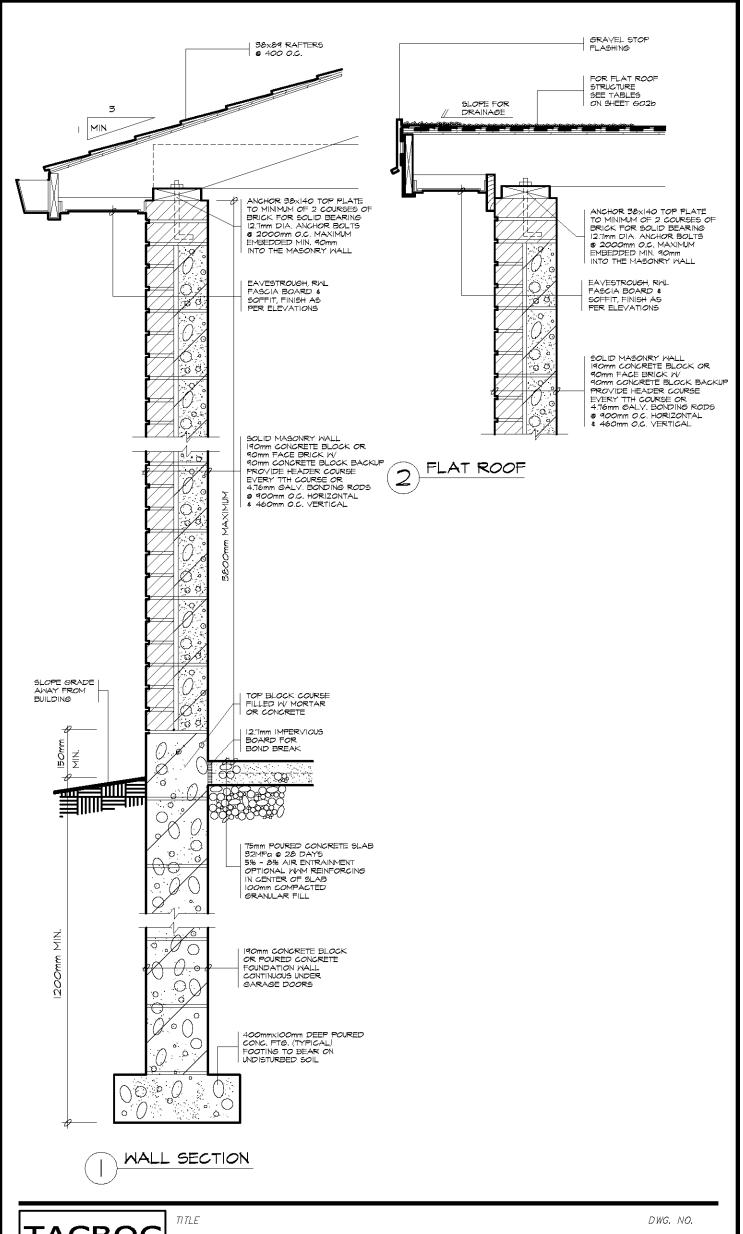




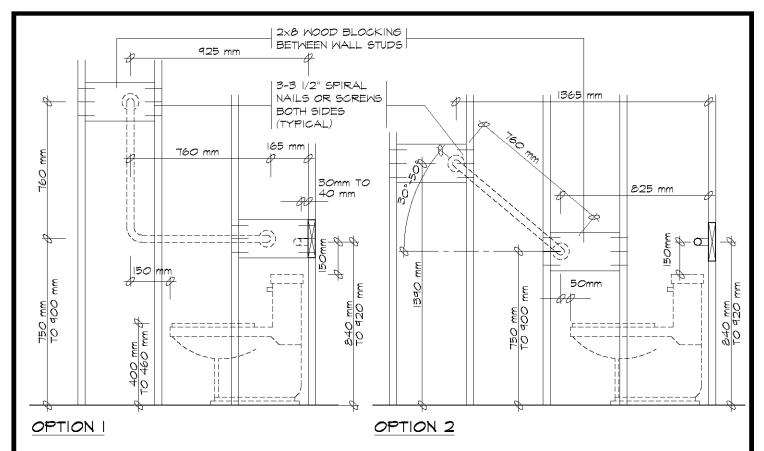
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DETACHED GARAGE BRICK VENEER DETAILS DWG. NO.

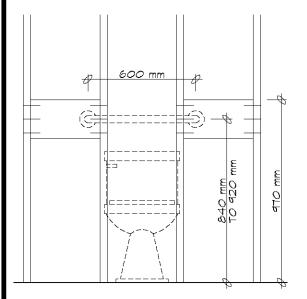
G02d



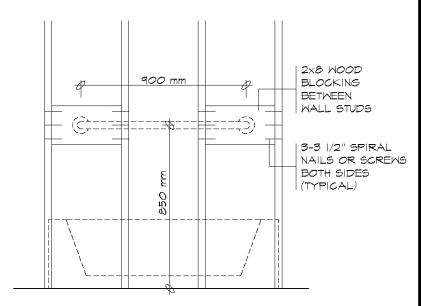
TACBOC DETACHED GARAGE SOLID MASONRY DETAILS



M.C. SIDE ELEVATION



W.C. FRONT ELEVATION



SHOWER/TUB WALL SIDE ELEVATION

GRAB BAR REINFORCEMENT

REINFORCEMENT SHALL BE INSTALLED TO PERMIT THE FUTURE INSTALLATION OF A GRAB BAR IN THE MAIN BATHROOM OF A DWELLING UNIT. IF GRAB BAR IS NOT INSTALLED AT TIME OF CONSTRUCTION, BLOCKING FOR BOTH CONFIGURATIONS AT SIDE OF WATER CLOSET IS REQUIRED.

GRAB BAR INSTALLATION SPECIFICATION

I. BESIDE WATER CLOSET

OPTION

L-SHAPED GRAB BAR WITH 760mm LONG HORIZ. AND VERT. COMPONENTS MOUNTED W/ HORIZ. COMPONENT 750mm TO 900mm A.F.F. AND THE VERTICAL COMPONENT I50mm IN FRONT OF TOILET BOWL.

OPTION 2

MIN. 760mm LONG GRAB BAR MOUNTED AT A 30° TO 50° ANGLE SLOPING UPWARDS AWAY FROM WATER CLOSET W/ LOWER END OF BAR MOUNTED 750mm TO 900mm A.F.F. AND 50mm IN FRONT OF TOILET BOWL.

2. BEHIND WATER CLOSET

MIN. 600mm LONG GRAB BAR MOUNTED HORIZONTALLY ON WALL 840mm TO 920mm ABOVE THE FLOOR AND 150mm ABOVE THE WATER TANK IF APPLICABLE.

3. BEHIND BATHTUB OR SHOWER

MIN. 900mm LONG GRAB BAR MOUNTED HORIZONTALLY ON WALL APPROXIMATELY 850mm ABOVE FINISHED FLOOR LOCATE OPPOSITE SHOWER ENTRANCE SO THAT NOT LESS THAN 300mm OF ITS LENGTH IS AT ONE SIDE OF THE SEAT.

4. GRAB BAR ATTACHMENT

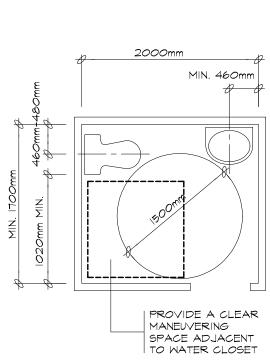
GRAB BAR MUST BE ATTACHED WITH SCREWS WHICH PENETRATE AT LEAST 32mm INTO THE SOLID BLOCKING.

TACBOC STANDARD DETAIL

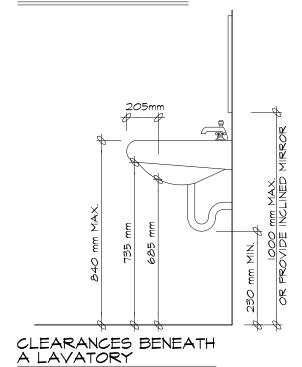
TITIE

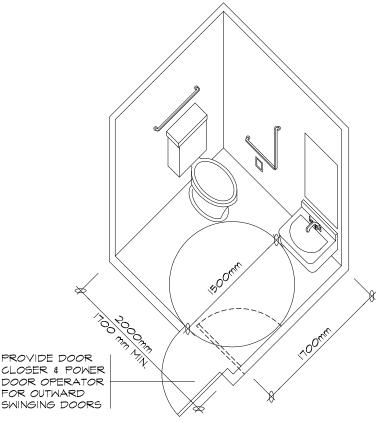
BARRIER FREE WASHROOM grab bar wall reinforcing DWG. NO.



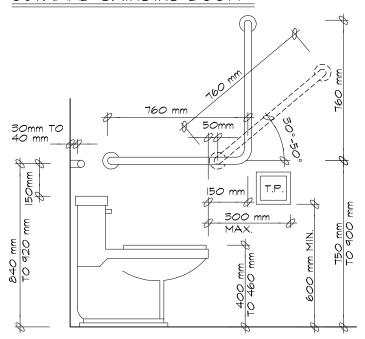


CLEARANCES FROM WALL TO FIXTURES





UNIVERSAL TOILET ROOM W/ OUTWARD SWINGING DOOR



WATER CLOSET & GRAB BARS

DOORS

A MINIMUM 900mm DOOR IS REQUIRED WITH A MINIMUM UNOBSTRUCTED CLEAR WIDTH OF 850mm. THE DOOR MUST SWING OUT, UNLESS ENOUGH AREA IS PROVIDED WITHIN THE WASHROOM TO PERMIT CLOSING THE DOOR WITHOUT INTERFERING WITH THE WHEELCHAIR. DOORS MAY BE LOCKABLE, BUT CAPABLE OF EMERGENCY RELEASE FROM THE OUTSIDE. DOOR OPENING DEVICES SHALL BE LEVER TYPE DESIGN THAT DOES NOT REQUIRE TIGHT GRASPING OR TWISTING OF THE WRIST. A DOOR CLOSER \$ A POWER OPERATOR IS REQUIRED WHERE THE DOOR OPENS OUTWARD.

WATER CLOSET

A SEAT HEIGHT OF 400mm TO 460mm IS REQUIRED.
FLUSHING CONTROLS MUST BE EASILY ACCESSIBLE TO A
WHEELCHAIR USER OR BE AUTOMATICALLY OPERABLE.
A BACK SUPPORT IS REQUIRED WHERE THERE IS NO SEAT
LID OR TANK. SEATS MUST NOT BE SPRING-ACTIVATED

<u>ACCESSORIES</u>

A COAT HOOK MUST BE PROVIDED. ALL ACCESSORIES, SUCH AS SOAP AND TOWEL DISPENSERS, MUST BE MOUNTED NOT MORE THAN 1200mm FROM THE FLOOR. TOILET PAPER DISPENSERS SHALL BE LOCATED (BELOW THE GRAB BAR) WITHIN 300mm IN FRONT OF THE TOILET SEAT AND MORE THAN 600mm ABOVE THE FLOOR

LAVATORIES

MUST BE NOT MORE THAN 840mm FROM THE TOP OF A BASIN OR VANITY TO THE FLOOR. A 760mm WIDE AREA REQUIRES THE FOLLOWING CLEARANCES BENEATH THE LAVATORY: 735mm UNDER THE FRONT EDGE: 685mm AT A POINT 205mm BACK FROM THE FRONT EDGE; 230mm OVER THE DISTANCE FROM A POINT 280mm TO A POINT 430mm BACK FROM THE FRONT EDGE. INSULATED PLUMBING OR WATER SUPPLY TEMPERATURE LIMITED TO 43° TO PREVENT BURNS. FAUCET HANDLES OF THE LEVER TYPE OR AUTOMATICALLY OPERABLE ARE REQUIRED, AND MUST NOT BE SPRING-LOADED NOR LOCATED NO FURTHER THAN 485mm FROM THE CENTRE LINE TO THE FRONT EDGE OF THE BASIN OR VANITY.

GRAB BARS

TWO ARE REQUIRED, ONE BEHIND THE WATER CLOSET, THE OTHER TO BE MOUNTED BESIDE THE WATER CLOSET. SEE THE ILLUSTRATION ABOVE FOR DIMENSIONING. GRAB BARS MUST BE SLIP RESISTANT, 30-40mm DIAMETER, AND MUST SUPPORT A LOAD UP TO 1.3kN APPLIED VERTICALLY & HORIZONTALLY. GRAB BARS MUST BE ATTACHED WITH SCREMS WHICH PENETRATE AT LEAST 32mm INTO THE SOLID BLOCKING.

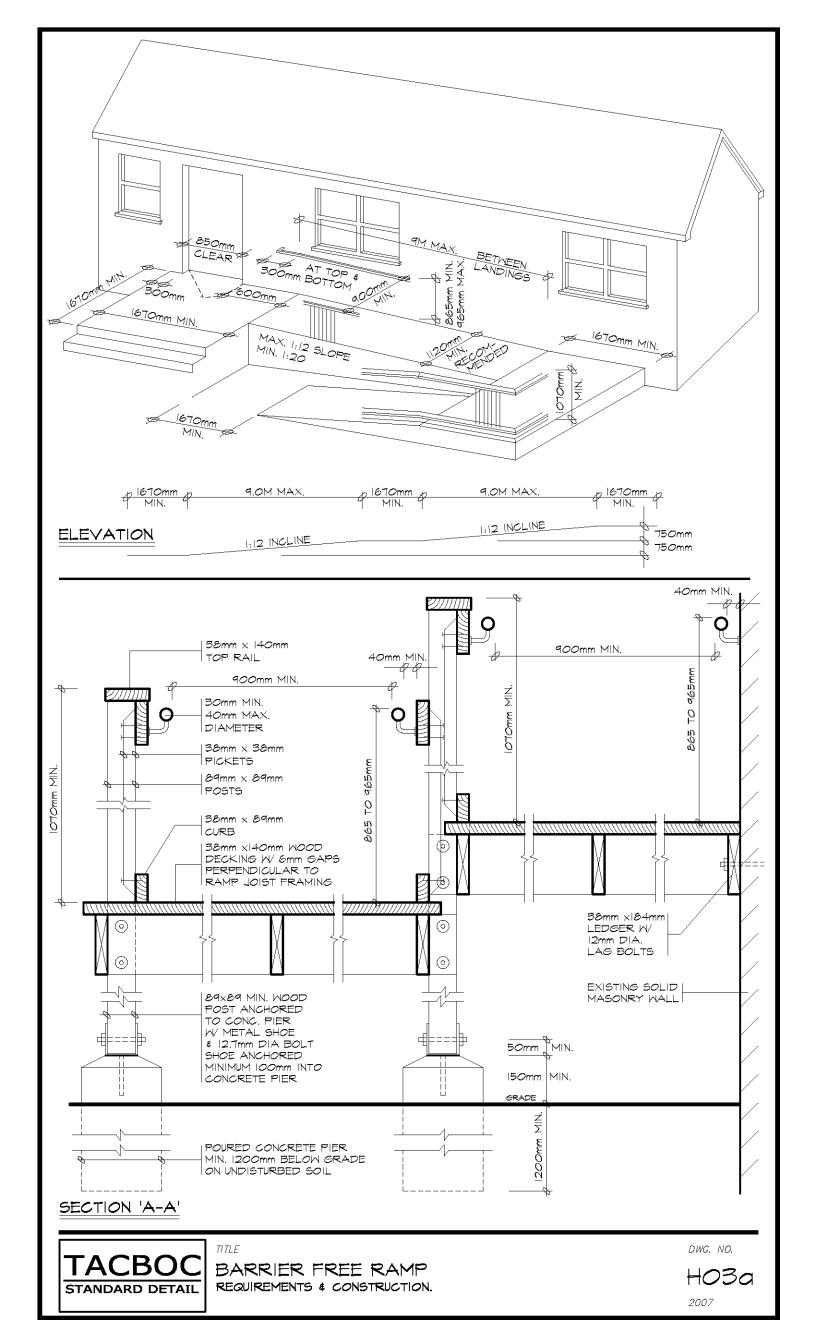
TACBOC STANDARD DETAIL

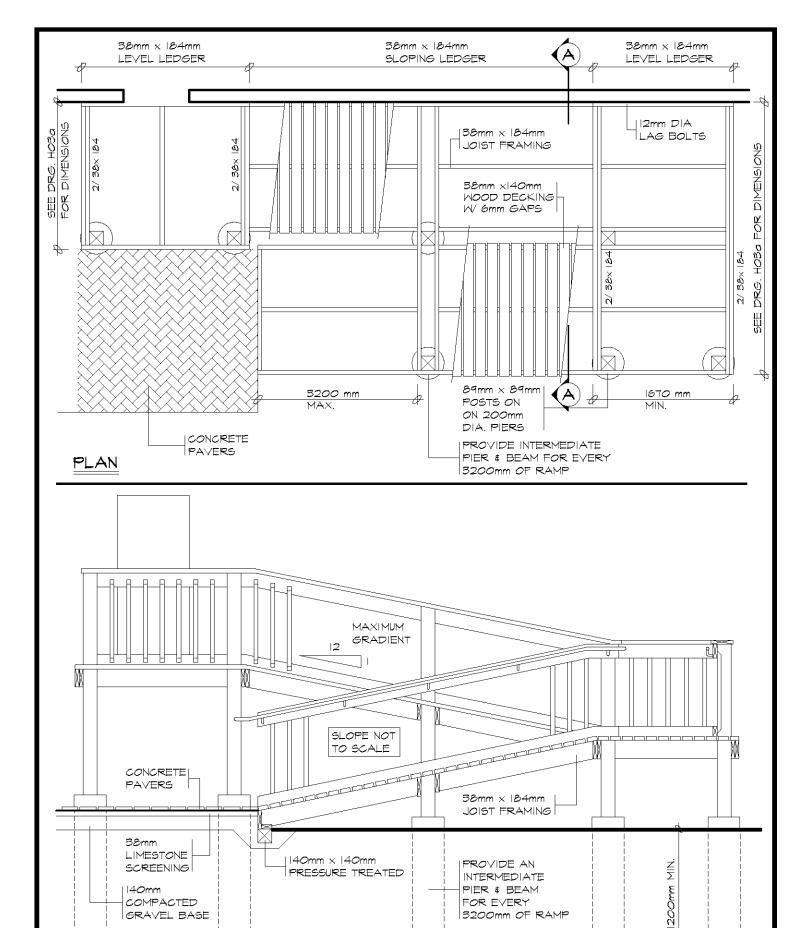
TITLE

UNIVERSAL BARRIER FREE TOILET ROOM

DWG. NO.

HO2





GENERAL NOTES

I. A SITE PLAN OR SURVEY IS REQUIRED SHOWING ALL LOT LINES & DIMENSIONS, SIZE & LOCATION OF ALL BUILDINGS, LOCATION & SIZE OF RAMP & LANDING.

ELEVATION / SECTION

- LUMBER NO. 2 SPF OR BETTER, WOOD POSTS MIN. 89x89 (SOLID). USE CORROSION RESISTANT SPIRAL NAILS OR SCREWS.
- CONCRETE PIERS SHALL BEAR ON UNDISTURBED SOIL. THE BEARING CAPACITY OF THE SOIL SHALL BE A MINIMUM 75kPa.
- 4. HANDRAILS, ON BOTH SIDES, W/ 30-40mm CIRCULAR CROSS SECTION OR 100-155mm NON-CIRCULAR PERIMETER W/ MAX. 57mm CROSS SECTIONAL DIMENSION.
- 5. HANDRAILS MUST BE TERMINATED IN A MANNER THAT MILL NOT OBSTRUCT PEDESTRIAN TRAVEL OR CREATE A HAZARD.
- 6. PROVIDE A MIN. 40mm CLEARANCE BETWEEN THE HANDRAIL AND THE MOUNTING SURFACE.
- 1. HANDRAILS/GUARDS SHALL BE
 DESIGNED AND CONSTRUCTED SUCH
 THAT THEY WILL WITHSTAND 0.9kN
 POINT LOADS AND 0.7kN/m UNIFORM
 LOADS FROM ANY DIRECTION.

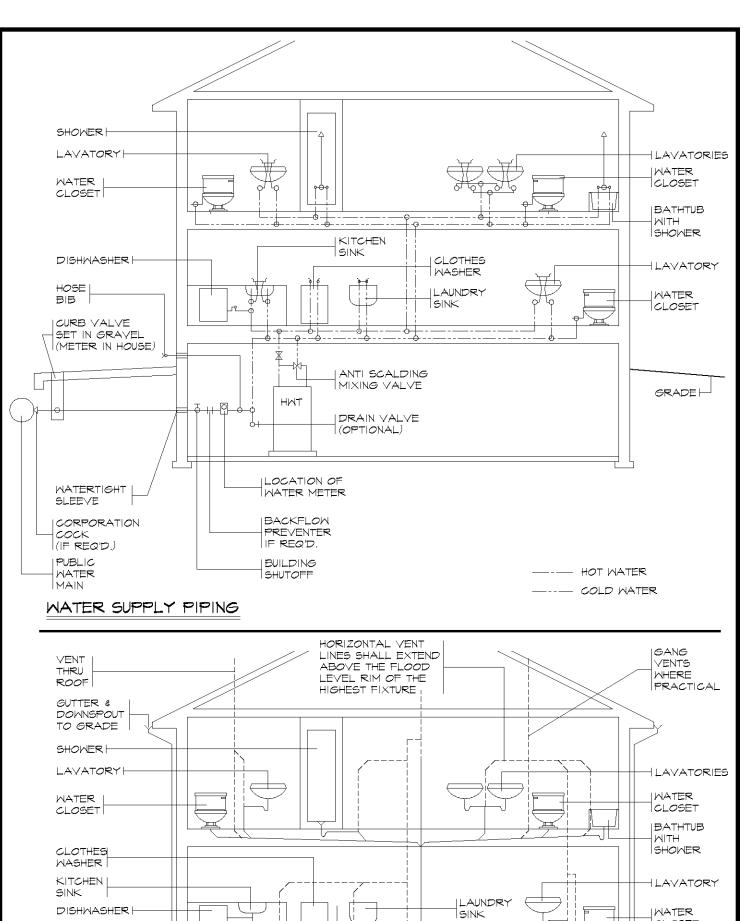


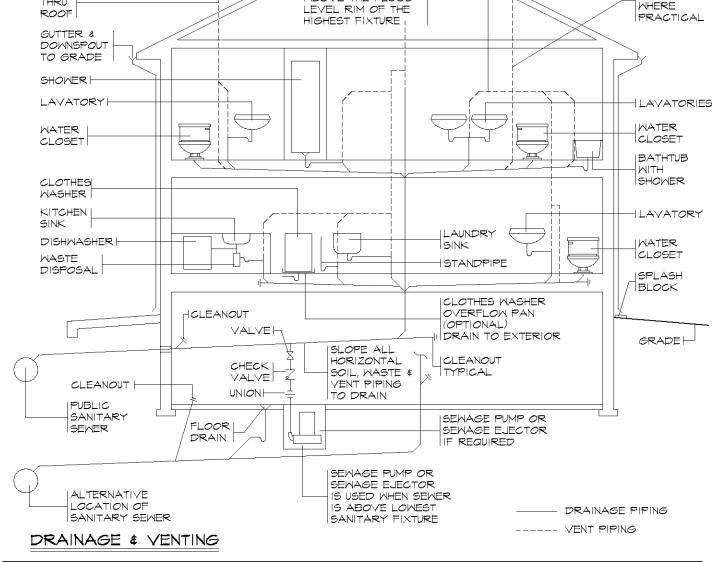
TITLE

BARRIER FREE RAMP CONSTRUCTION DETAILS.

DWG. NO.







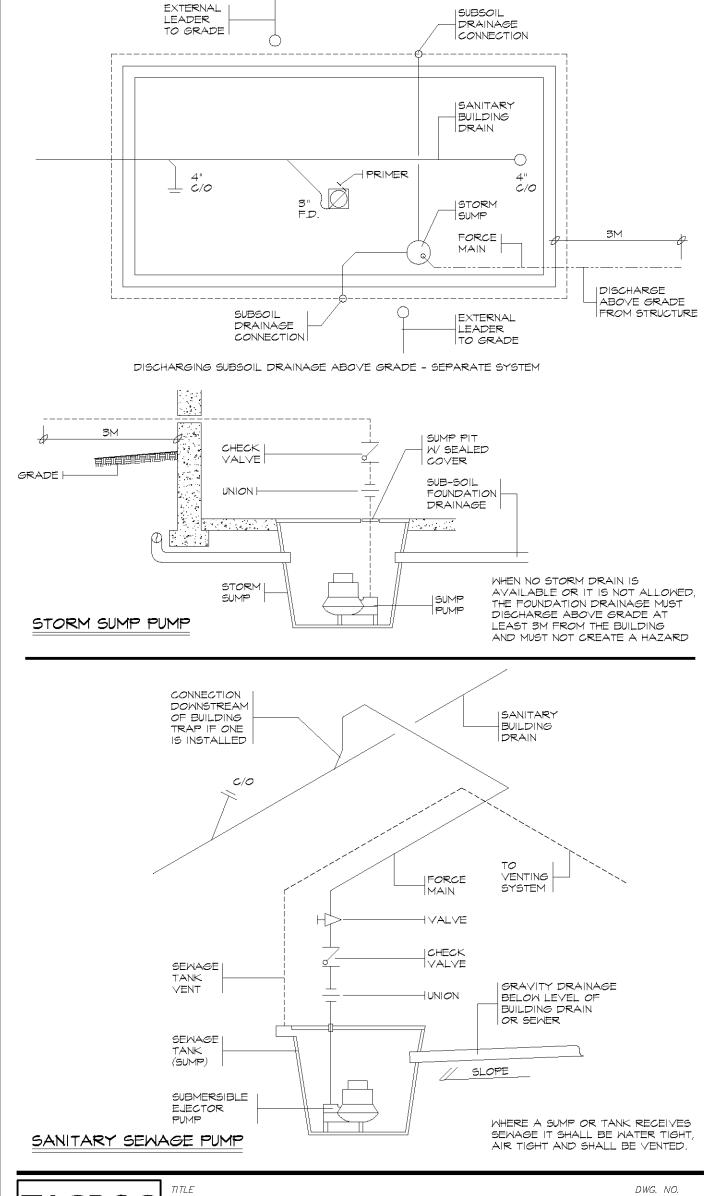
TACBOC STANDARD DETAIL

TITLE

RESIDENTIAL PLUMBING SCHEMATIC PLANS

DWG. NO.



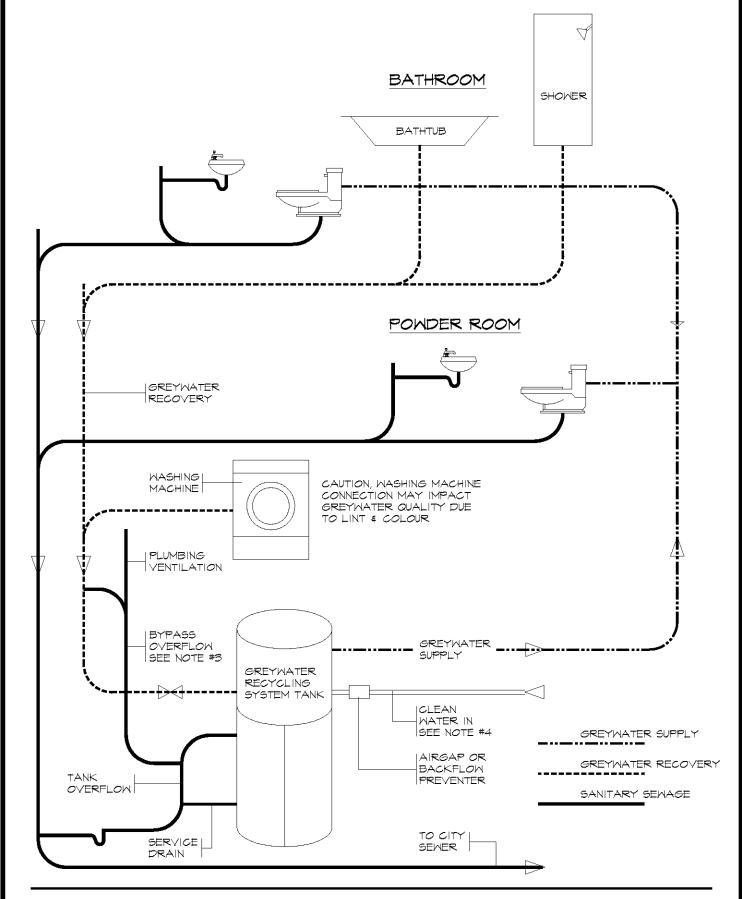


TACBOC STANDARD DETAIL STORM AND SANITARY SUMPS

SCHEMATIC PLANS

DWG. 141

P02



NOTES:

- THE BUILDING CODE PERMITS TOILETS, URINALS AND TRAP SEALS TO BE SUPPLIED BY RECYCLING GREYWATER RATHER THAN BY THE POTABLE WATER SUPPLY SYSTEM, GREYWATER IS THE DISCHARGE FROM FIXTURES OTHER THAN TOILETS, URINALS, BIDETS OR OTHER SANITARY UNITS.
- THE GREYMATER SYSTEM MUST BE COMPLETELY SEPARATED FROM THE SANITARY DRAINAGE SYSTEM USING INDEPENDENT GREYWATER SUPPLY AND DRAINAGE PIPING, AS SHOWN ON THE SCHEMATIC DIAGRAM. ALL CONNECTED FIXTURES MUST BE CONNECTED AND VENTED ACCORDING TO THE BUILDING CODE.
- 3. AN OVERFLOW PIPE CONNECTED TO A SANITARY DRAIN MUST BE INSTALLED FROM THE GREYWATER SUPPLY TANK WHICH INCORPORATES AN AIR GAP OR CHECK VALVE TO PREVENT CONTAMINATION IN THE EVENT OF A SANITARY SEMAGE BACKUP.
- 4. BACKUP POTABLE WATER SUPPLY TO THE GREYWATER SUPPLY TANK IS REQUIRED TO MAINTAIN SUPPLY IN THE EVENT CONNECTED FIXTURE DEMAND EXCEEDS THE TANK SUPPLY CAPACITY. THE POTABLE WATER SUPPLY PIPE MUST BE PROTECTED WITH AN AIR GAP OR TESTABLE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR.
- 5. A NON-POTABLE WATER SYSTEM SHALL NOT BE CONNECTED TO A POTABLE WATER SYSTEM
- 6. NON-POTABLE WATER SUPPLY PIPING SHALL BE IDENTIFIED BY MARKINGS THAT ARE PERMANENT, DISTINCT AND EASILY RECOGNIZED.
- AN OUTLET FROM A NON-POTABLE WATER SYSTEM SHALL NOT BE LOCATED WHERE IT CAN DISCHARGE INTO A SINK OR LAVATORY, A FIXTURE INTO WHICH AN OUTLET FROM A POTABLE WATER SYSTEM IS DISCHARGED OR A FIXTURE THAT IS USED FOR A PURPOSE RELATED TO THE PREPARATION, HANDLING OR DISPENSING OF FOOD, DRINK OR PRODUCTS THAT ARE INTENDED FOR HUMAN CONSUMPTION.



GREYWATER RECYCLING

SCHEMATIC PLAN, NOTES

DWG. NO.



MATERIALS AND EQUIPMENT

- · A 'T' FITTING SHALL NOT BE USED IN A DRAINAGE SYSTEM EXCEPT TO CONNECT A VENT PIPE.
- A CROSS FITTING SHALL NOT BE USED IN A DRAINAGE SYSTEM.
- NO 'Y', DOUBLE 'TY', DOUBLE 'T' OR DOUBLE WASTE FITTING SHALL BE INSTALLED IN A NOMINALLY HORIZONTAL SOIL OR WASTE PIPE.

2. DRAINAGE SYSTEM

- EVERY SANITARY DRAINAGE SYSTEM AND STORM DRAINAGE SYSTEM SHALL BE PROVIDED WITH CLEANOUTS THAT WILL PERMIT CLEANING OF THE ENTIRE SYSTEM
- A CLEANOUT FITTING SHALL BE PROVIDED ON THE UPSTREAM SIDE AND DIRECTLY OVER EVERY RUNNING TRAP. HORIZONTAL SOIL OR WASTE PIPE.
- WHERE THERE IS A CHANGE OF DIRECTION GREATER THAN 45 DEGREES IN A SANITARY BUILDING DRAIN OR SANITARY BUILDING SEWER, A CLEANOUT SHALL BE INSTALLED AT EACH CHANGE IN DIRECTION
- EVERY SANITARY BUILDING DRAIN OR STORM BUILDING DRAIN SHALL BE PROVIDED WITH A CLEANOUT FITTING THAT IS LOCATED AS CLOSE AS PRACTICAL TO THE PLACE WHERE THE DRAIN LEAVES THE BUILDING.
- EVERY SOIL OR WASTE STACK SHALL BE PROVIDED WITH A CLEANOUT FITTING AT THE BOTTOM OF THE STACK.
- A CLEANOUT SHALL BE INSTALLED ON A FIXTURE DRAIN SERVING A KITCHEN SINK.
- WHEN GRAVITY DRAINAGE TO A SANITARY DRAINAGE SYSTEM IS POSSIBLE, A FLOOR DRAIN SHALL BE INSTALLED IN A BASEMENT, FORMING PART OF A DWELLING UNIT
- SANITARY UNITS, BATHTUBS AND SHOWER BATHS SHALL NOT BE INSTALLED ADJACENT TO WALL AND FLOOR SURFACES THAT ARE PERVIOUS TO WATER.
- EVERY FIXTURE SHALL BE PROTECTED BY A SEPARATE TRAP.
- PROVISION SHALL BE MADE FOR MAINTAINING THE TRAP SEAL OF A FLOOR DRAIN BY THE USE OF A TRAP SEAL PRIMER.
- EVERY DRAINAGE PIPE THAT HAS A SIZE OF 3 INCHES (75mm) OR LESS, AND EVERY FIXTURE DRAIN SHALL HAVE A DOWNMARD SLOPE IN THE DIRECTION OF FLOW OF AT LEAST I IN 50 (1/4 INCH PER FOOT)
- WHERE IT IS NOT POSSIBLE TO COMPLY WITH I IN 50 SLOPE A LESSER SLOPE MAY BE USED IF IT WILL PROVIDE A GRAVITY FLOW OF NOT LESS THAN O.60M PER SECOND.
- EVERY SANITARY BUILDING DRAIN AND EVERY SANITARY BUILDING SEMER SHALL BE AT LEAST 4 INCHES IN SIZE.
- EVERY STORM BUILDING DRAIN AND EVERY STORM BUILDING SEWER SHALL BE AT LEAST 4 INCHES IN SIZE.
- INDIRECT CONNECTIONS OR ANY TRAP THAT MAY OVERFLOW SHALL NOT BE LOCATED IN A CRAWL SPACE OR ANY OTHER UNFREQUENTED AREA.
- THERE SHALL BE NO UNUSED OPEN ENDS IN A DRAINAGE SYSTEM AND DEAD ENDS SHALL BE SO GRADED THAT WATER WILL NOT COLLECT IN THEM.
- ONLY PIPING THAT IS TOO LOW TO DRAIN INTO A BUILDING SEWER BY GRAVITY SHALL BE DRAINED TO A SUMI OR RECEIVING TANK.
- WHERE THE SUMP OR TANK RECEIVES SANITARY SEWAGE IT SHALL BE WATER AND AIR-TIGHT AND SHALL BE VENTED.
- THE DISCHARGE PIPE FROM EVERY PUMPED SANITARY SEWAGE PUMP SHALL BE EQUIPPED WITH A UNION, A CHECK VALVE AND A SHUT-OFF VALVE INSTALLED IN THAT SEQUENCE IN THE DIRECTION OF DISCHARGE.
- A SUBSOIL DRAINAGE PIPE THAT DRAINS INTO A SANITARY DRAINAGE SYSTEM THAT IS SUBJECT TO SURCHARGE SHALL BE CONNECTED IN SUCH A MANNER THAT SEWAGE CANNOT BACK UP INTO THE SUBSOIL DRAINAGE PIPE.
- THE DEVELOPED LENGTH OF EVERY FIXTURE OUTLET PIPE SHALL NOT EXCEED 1200mm.
- WHERE CLOTHES WASHERS DO NOT DRAIN TO A LAUNDRY TRAY, THE TRAP INLET SHALL BE FITTED WITH A VERTICAL STANDPIPE THAT IS NOT LESS THAN 600mm LONG MEASURED FROM THE TRAP WEIR AND THE TOP OF THE STANDPIPE SHALL TERMINATE ABOVE THE FLOOD LEVEL RIM OF THE CLOTHES WASHER IT SERVES.

3. VENTING SYSTEM

- EVERY TRAP SHALL BE VENTED.
- EVERY SANITARY BUILDING DRAIN SHALL TERMINATE AT ITS UPSTREAM END IN A STACK OF AT LEAST 3 INCHES IN SIZE.
- A STACK SHALL BE A SOIL STACK IF ONE IS AVAILABLE AND MAY BE A VENT STACK OR WASTE STACK THAT PROVIDES AT LEAST 3 INCHES STACK VENT AND THAT GOES TO OPEN AIR ABOVE THE ROOF, EITHER DIRECTLY
- EVERY SUMP OR TANK THAT RECEIVES SANITARY SEWAGE SHALL BE PROVIDED WITH A VENT PIPE THAT IS CONNECTED TO THE TOP OF THE SUMP OR TANK
- THE MINIMUM SIZE OF THE VENT PIPE FOR A SANITARY SEMAGE PUMP OR TANK, OR DILUTION TANK SHALL BE ONE SIZE SMALLER THAN THE SIZE OF THE LARGEST BRANCH OR FIXTURE DRAIN DRAINING TO THE SUMP OR TANK.
- AIR ADMITTANCE VALVES SHALL ONY BE USED IN BUILDINGS UNDERGOING RENOVATION AND INSTALLATIONS WHERE CONNECTION TO A VENT MAY NOT BE PRACTICAL.
- INSTALLED AIR ADMITTANCE VALVES SHALL BE ACCESSABLE AND LOCATED IN A SPACE THAT ALLOWS AIR TO ENTER THE VALVE.

4. POTABLE WATER

- EVERY POTABLE WATER SYSTEM SHALL BE CAPABLE OF WITHSTANDING WITHOUT LEAKAGE A WATER PRESSURE THAT IS AT LEAST 1000 kPa (145 PSI) FOR AT LEAST I HOUR OR WITHSTANDING FOR AT LEAST 2 HOURS WITHOUT A DROP IN PRESSURE, AN AIR PRESSURE THAT IS AT LEAST 700 kPa (102 PSI).
- EVERY FIXTURE SUPPLIED WITH SEPARATE HOT AND COLD WATER CONTROLS SHALL HAVE THE HOT WATER CONTROL ON THE LEFT AND THE COLD ON THE RIGHT
- A BUILDING CONTROL VALVE SHALL BE PROVIDED ON EVERY WATER SERVICE PIPE AT THE LOCATION WHERE THE WATER SERVICE PIPE ENTERS THE BUILDING.
- EVERY WATER CLOSET SHALL BE PROVIDED WITH A SHUT-OFF VALVE ON ITS WATER SUPPLY PIPE.
- EVERY WATER PIPE THAT SUPPLIES A HOT WATER TANK, PRESSURE VESSEL, PLUMBING APPLIANCE OR WATER USING DEVICE SHALL BE PROVIDED WITH A SHUT OFF VALVE LOCATED CLOSE TO THE TANK, PRESSURE VESSEL, PLUMBING APPLIANCE OR WATER USING DEVICE.
- EVERY PIPE THAT PASSES THROUGH AN EXTERIOR WALL TO SUPPLY WATER TO THE EXTERIOR OF THE BUILDING SHALL BE PROVIDED WITH A FROST-PROOF HYDRANT WITH A SEPARATE SHUT-OFF VALVE OR A STOP-AND-WASTE COCK LOCATED INSIDE THE BUILDING AND CLOSE TO THE WALL
- WHERE A HOSE BIB IS INSTALLED OUTSIDE A BUILDING, INSIDE A GARAGE OR WHERE THERE IS AN IDENTIFIABLE RISK OF CONTAMINATION. THE POTABLE WATER SYSTEM SHALL BE PROTECTED AGAINST BACKFLOW BY A BACKFLOW PREVENTER
- NO MATER SYSTEM BETWEEN THE POINT OF CONNECTION WITH THE WATER SERVICE PIPE OR THE WATER METER AND THE FIRST BRANCH THAT SUPPLIES A WATER HEATER SHALL BE LESS THAN 3/4 INCH IN SIZE.
- EVERY MATER SERVICE PIPE SHALL NOT BE LESS THAN 3/4 INCH IN TRADE SIZE
- A CHECK VALVE SHALL BE INSTALLED AT THE BUILDING END OF THE WATER SERVICE PIPE WHERE THE PIPE IS MADE OF PLASTIC THAT IS SUITABLE FOR COLD WATER USE ONLY
- PROTECTION AGAINST THERMAL EXPANSION SHALL BE REQUIRED WHEN A CHECK VALVE, A BACKFLOW PREVENTER OR A PRESSURE REDUCING VALVE IS REQUIRED

5. HOT WATER TEMPERATURE CONTROL

SHOWER VALVES SHALL BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES, A PRESSURE BALANCED OR THERMOSTATIC MIXING VALVE SHALL NOT BE REQUIRED FOR SHOWERS WHERE THE HOT WATER SUPPLY FOR SHOWERS, ARE CONTROLLED BY A MASTER THERMOSTATIC MIXING VALVE. PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES SHALL BE DESIGNED SUCH THAT THE OUTLET TEMPERATURE DOES NOT EXCEED 49°C (120°F).



TITLE



Excavation and Backfill

- Excavation shall be undertaken in such a manner so as to prevent damage to existing structures, adjacent property and utilities
- The topsoil and vegetable matter in unexcavated areas under a building shall be removed. The bottom of excavations for foundations shall be free of all organic material
- If termites are known to exist, all stumps, roots and wood debris shall be removed to a minimum depth of 300mm in excavated areas under a building, and the clearance between untreated structural wood elements and the ground shall be no less than 450mm
- Backfill within 600mm of the foundation walls shall be free of deleterious debris and boulders over 250mm in diameter

Dampproofing and Drainage

- In normal soil conditions, the exterior surfaces of foundation walls enclosing basements and crawl spaces shall be dampproofed. Where hydrostatic pressure occurs, a waterproofing system is required
- Masonry foundation walls shall be parged with 6mm of mortar coved over the footing prior to dampproofing
- 100mm dia. foundation drains shall be laid on level, undisturbed ground adjacent to the footings at or below the top of the basement slab or crawl space floor, and shall be covered with 150mm of crushed stone. Foundation drains shall drain to a storm sewer, drainage ditch, dry well or sump
- Window wells shall be drained to the footing level or to a ditch or sump pump.
- Downspouts not directly connected to a storm sewer shall have extensions to carry water away from the building, and provisions shall be made to prevent soil erosion
- Concrete slabs in attached garages shall be sloped to drain to the exterior
- The building site shall be graded so that surface, sump and roof drainage will not accumulate at or near the building and will not adversely affect adjacent properties

Footings

- minimum 15MPa poured concrete
- minimum 1200mm below finished grade
- Footings shall be founded on natural undisturbed soil, rock or compacted granular fill with minimum bearing capacity of 15kPa 100kPa for ICF

Footing Size

floors	Supporting	Supporting	Column
Supported	Ext. Wall	Int. Mall	Area
' '	250mm	200mm	0.40m2
2	350mm	350mm	0.75m2
3	450mm	500mm	1.00m2

- Increase exterior footing width by 65mm for each storey of brick veneer supported, by 130mm for each storey of masonry and by 150mm for ICF
- Increase interior footing width by IOOmmfor each storey of masonry above footing, and by 100mm for each 2700mm of wall height above 5500mm
- The projection of an unreinforced footing beyond the wall supported shall not be greater than its thickness

Step Footings

600mm max. rise **600mm** min. run

Foundation Walls

- To be poured concrete, unit masonry, ICF or preserved wood (see drawings for type and thickness)
- Dampproofing shall be a heavy coat of bituminous material.
- Foundation wall to extend minimum 150mm above finished grade.
- A drainage layer is required on the outside of a foundation wall where the interior insulation extends more than 900mm below exterior grade. A drainage layer shall consist of
 - Min. $I\overline{9}$ mm mineral fibre insulation with min. Density of $57~kg/m^3$
 - Min. 100mm of free drainage granular material,
 - An approved system which provides equivalent performance
- Foundation walls shall be braced or have the floor joists installed before backfilling

Concrete Floor Slabs

- Garage, carport and exterior slabs and exterior steps shall be 32MPa concrete with 5-8% air entrainment
- Basement slab 25MPa concrete, minimum 75mm thick, placed on a minimum 100mm of coarse, clean, granular material
- All fill other than coarse clean material placed beneath concrete slabs shall be compacted to provide uniform support

Masonry Walls

- Where constructed of **90mm** brick, wall shall be bonded with a header course every 600mm o/c vertically and horizontally and 900mm o/c for block or tile.
- Provide **50mm** solid masonry, concrete filled top course or continuous 38x89 wood plate under all roof and floor framing members
- Provide 190mm solid masonry under beams and calumns
- Masonry wall to be tied to each tier of joists with 40mm x 4.76mm corrosion resistant steel straps, keyed minimum 100mm into masonry. When joists are parallel to wall, ties are to extend across at least 3 joists @ 2000mm o.c.
- Inside of wall to be parqed and covered with No. 15 breather-type asphalt paper
- For reduced foundation walls to allow a brick facing while maintaining lateral support, tie minimum 90mm brick to minimum 90mm backup block with corrosion resistant ties at least 17.8mm^2 in cross sectional area, spaced 200 mmvertically and 900mm horizontally, with joints completely filled with mortar
- Masonry over openings shall be supported on corrosion resistant or prime painted steel lintels with a minimum of 150mm end bearing

Masonry Veneer

- Minimum 70mm thick if joints are not raked and **90mm** thick if joints are raked
- Minimum 25mm air space to sheathing
- Provide weep holes @ 800mm o.c. at the bottom of the cavity and over doors and windows
- Direct drainage through weep holes with O.5mm poly flashing extending minimum 150mm up behind the sheathing paper
- Veneer ties minimum 0.76mm thick x 22mm wide corrosion resistant straps spaced @ 500mm vertically and 600mm horizontally
- Fasten ties with corrosion resistant 3.18mm diameter screws or spiral nails which penetrate at least **30mm** into studs



Wood Frame Construction

- All lumber shall be spruce-pine-fir No. 1 \$ 2, and shall be identified by a grade stamp
- Maximum moisture content 19% at time of installation
- Wood framing members which are supported on concrete in direct contact with soil shall be separated from the concrete with O.O5mmpolyethylene or type '5' roll roofing

Walls

- Exterior walls shall consist of:
 - cladding
 - air barrier system lapped 100mm at joints
 - lumber, plywood, OSB or gypsum sheathing
 - 38x140 studs @ 400mm o.c.
 - RSI 4.23 insulation
 - 38x140 bottom plate
 - 38x140 double top plate
- Interior loadbearing walls shall consist of:
 - 38x89 studs @ 400mm o.c.
 - 38x98 bottom plate and double 38x89 top plate
 - 38x89 mid-girts if not sheathed
 - 12.7mm gypsum board sheathing

- See SOld for floor joist size and spacing requirements
- Joists to have minimum 38mm of end bearing
- Joists shall bear on a sill plate fixed to foundation with 12.7mm anchor bolts @ 2400mm o.c
- Header joists between 1200mm and 3200mm in length shall be doubled. Header joists exceeding 3200mm shall be sized by calculations
- Trimmer joists shall be doubled when supported header is between 800mm and 2000mm. Trimmer joists shall be sized by calculations when supported header exceeds 2000mm
- 38x38 cross bridging required not more than 2100mm from each support and from other rows of bridging
- Joists shall be supported on joist hangers at all flush beams, trimmers, and headers.
- Non-loadbearing partitions shall be supported on a joist or on blocking between joists.
- See **SOId** for subflooring requirements

Roof & Ceilings

- See 501d for rafter, roof joist and ceiling joist size and spacing requirements
- Hip and valley rafter shall be 38mm deeper than common rafters
- 38x89 collar ties @ rafter spacing with 19x89 continuous brace at mid span if collar tie exceeds 2400mm in length
- See 501d for roof sheathing requirements

Notching & Drilling of Trusses, Joists, Rafters

- Holes in floor, roof and ceiling members to be not larger than 1/4 the actual depth of member and not less than 50mm from edges
- Notches in floor, roof and ceiling members to be located on top of the member within 1/2 the actual depth from the edge of bearing and not greater than 1/3 the joist depth
- Wall studs may be notched or drilled provided that no less than 2/3 the depth of the stud remains, if load bearing, and 40mm if non-load bearing
- Roof truss members shall not be notched, drilled or weakened unless accommodated in the design

- Fasteners for roofing shall be corrosion resistant. Roofing nails shall penetrate through or at least 12mm into roof sheathing
- Every asphalt shingle shall be fastened with at least 4 nails for 1000mm wide shingle (or 6 11mm staples)
 - Eave protection shall extend 900mm up the roof slope from the edge, and at least 300mm from the inside face of the exterior wall, and shall consist of Type M or Type S Roll Roofing laid with minimum 100mm head and end laps cemented together, or glass Fibre or Polyester Fibre coated base sheets, or self sealing composite membranes consisting of modified bituminous coated material or ${\it NO.15}$ saturated felt lapped and cemented. Eave protection is not required for unheated buildings, for roofs exceeding a slope of 1 in 1.5, or where a low slope asphalt shingle application is provided
- Open valleys shall be flashed with 2 layers of roll roofing, or I layer of sheet metal min. 600mm wide
- Flashing shall be provided at the intersection of shingle roofs with exterior walls and chimneys
- Sheet metal flashing shall consist of not less than 1.73mm sheet lead, 0.33mm galvanized steel, 0.33mm copper, 0.35mm zinc, or 0.48mm aluminum

Columns, Beams & Lintels

- Steel beams and columns shall be shop primed 350W steel.
- Minimum 89mm end bearing for wood and steel beams, with 190mm solid masonry beneath the
- Steel columns to have minimum outside diameter of 73mm and minimum wall thickness of 4.76mm
- Wood columns for carports and garages shall be minimum 89mm x 89mm; in all other cases either 140mm x 140mm or 184mm round, unless calculations based on actual loads show lesser sizes are adequate. All columns shall be not less than the width of the supported member
- Masonry columns shall be a minimum of 290mm x 290mm or 240mm x 380mm
- Provide solid blocking the full width of the supported member under all concentrated loads

Insulation & Weatherproofing

Ceiling with attic		RSI	8.81
Roof without attic		RSI	5.46
Exterior Wall		RSI	4.23
Foundation Wall		RSI	3.52
Foundation > 50% e>	kposed	RSI	4.23
Exposed Floor		RSI	5.46
Slabs on Grade	(unheated)	RSI	1.76
	(heated)	RSI	1.76

- Supply Ducts in unheated space RSI 2.11 Insulation shall be protected with gypsum board or an equivalent interior finish, except for unfinished basements where O.15mm poly is sufficient for fibreglass type insulations
- Ducts passing through unheated space shall be made airtight with tape or sealant
- Caulking shall be provided for all exterior doors and windows between the frame and the exterior cladding
- Weatherstripping shall be provided on all doors and access hatches to the exterior, except doors from a garage to the exterior
- Exterior walls, ceilings and floors shall be constructed so as to provide a continuous barrier to the passage of water vapour from the interior and to the leakage of air from the exterior





Natural Ventilation

- Every roof space above an insulated ceiling shall
- be ventilated with unobstructed openings equal to not less than 1/300 of the insulated ceiling area
- Insulated roof spaces not incorporating an attic shall be ventilated with unobstructed openings equal to not less than I/150 of the insulated ceiling area.
- Roof vents shall be uniformly distributed with min. 25% at top of the space and 25% at bottom of the space designed to prevent the entry of rain, snow or insects
- designed to prevent the entry of rain, snow or insects

 Unheated crawl spaces shall be provided with

 O.lm² of ventilation for each 50m²
- Minimum natural ventilation areas, where mechanical ventilation is not provided, are:

Bathrooms: 0.09m² other rooms: 0.28m²

Unfinished basement: 0.2% of floor area

Doors and Windows

- Every floor level containing a bedroom and not served by an exterior door shall contain at least I window having an unobstructed open area of 0.35m² and no dimension less than 380mm, which is openable from the inside without tools. Maximum sill height 1000mm for fin. floors above grade.
- Exterior house doors and windows within 2000mm from grade shall be constructed to resist forced entry. Doors shall have a deadbolt lock
- The principal entry door shall have either a door viewer, transparent glazing or a sidelight
- Maximum U-value 1.8 for windows & sliding glass doors

Exterior Walls

- No windows or other unprotected openings are permitted in exterior walls less than 1200mm from property lines
- 15.9mm type 'x' fire rated drywall shall be installed on the inside face of attached garage exterior walls and gable ends of roofs which are less than 1200mm and not less than 600mm from property lines
- Non combustible cladding shall be installed on all exterior walls less than 600mm from property lines

Ceramic Tile

 When ceramic tile is applied to a mortar bed with adhesive, the bed shall be a minimum of 12.5mm thick & reinforced with galvanized diamond mesh lath, applied over polyethylene on subflooring on joists at no more than 400mm o.c. with at least 2 rows cross bridging

Access to Attics and Crawl Spaces

- Access hatch minimum 545mmx 586mm to be provided to every roof space which is IOm² or more in area and more than 600mm in height
- Access hatch minimum 500mmx 700mm to be provided to every crawl space

Garage Gasproofing

- The walls and ceiling of an attached garage shall be constructed and sealed so as to provide an effective barrier to exhaust fumes
- All plumbing and other penetrations through the walls and ceiling shall be caulked
- Doors between the dwelling and attached garage may not open into a bedroom and shall be weatherstripped and have a self-closer

Alarms and Detectors

- At least one smoke alarm shall be installed on or near the ceiling on each floor and basement level
 900mm or more above an adjacent level
- Smoke alarms shall be interconnected and located such that one is within 5m of every bedroom door and no more than 15m travel distance from any point on a floor
- A carbon monoxide detector shall be installed adjacent to every sleeping area for dwellings with fuel burning fireplace or stove, or an attached garage

Stairs

 ■ Maximum Rise
 200mm

 ■ Minimum Run
 210mm

 ■ Minimum Tread
 235mm

 ■ Minimum Head Room
 1450mm

 ■ Minimum Width
 860mm

 Curved stairs shall have a min. run of 150mm at any point and a minimum average run of 200mm

- Winders which converge to a point in stairs must turn through an angle of no more than 90°, with no less than 30° or more than 45° per tread. Sets of winders must be separated by 1200mm along the run of the stair
- A landing is required at the top of any stair leading to the principal entrance to a dwelling and other exterior entrances with more than 3 risers
- Exterior concrete stairs with more than 2 risers require foundations

Handrails and Guards

- A handrail is required for interior stairs containing more than 2 risers and exterior stairs containing more than 3 risers
- Guards are required around every accessible surface which is more than 600mm above the adjacent level and where the adjacent surface has a slope more than 1:2
- Interior and exterior guards min. 900mm high.
 Exterior guards shall be 1070mm high where height above adjacent surface exceeds 1800mm
- Guards shall have openings smaller than IOOmm and no member between I4Omm and 9OOmm that will facilitate climbing

Plumbing

- Every dwelling requires a kitchen sink, lavatory, water closet, bathtub or shower stall and the installation or availability of laundry facilities
- A floor drain shall be installed in the basement, and connected to the sanitary sewer where gravity drainage is possible. In other cases, it shall be connected to a sewage ejection pump.

Electrical

- An exterior light controlled by an interior switch is required at every entrance
- A light controlled by a switch is required in every kitchen, bedroom, living room, utility room, laundry room, dining room, bathroom, vestibule, hallway, garage and carport. A switched receptacle may be provided instead of a light in bedrooms and living rooms
- Stairs shall be lighted, and except where serving an unfinished basement shall be controlled by a 3 way switch at the head and foot of the stairs
- Basements require a light for each 30m², controlled by a switch at the head of the stairs

Mechanical Ventilation

- A mechanical ventilation system is required with a total capacity at least equal to the sum of:
 - IO.O L/S each for basement and master bedroom
 - 5.0 L/S for each other room
- A principal dwelling exhaust fan shall be installed and controlled by a centrally located switch identified as such
- Supplemental exhaust shall be installed so that the total capacity of all kitchen, bathroom and other exhausts, less the principal exhaust, is not less than the total required capacity
- A Heat Recovery Ventilator may be employed in lieu of exhaust to provide ventilation. An HRV is required if any solid fuel burning appliances are installed
- Supply air intakes shall be located so as to avoid contamination from exhaust outlets



TITLE

SPECIFICATION - BUILDING CODE STANDARDS GENERAL INFORMATION, ELECTRICAL, MECHANICAL

DWG. NO.



ROOF RAFTERS (WHERE NO CEILING IS INSTALLED)

	MAXIMUM CLEAR SPAN (M)							
	ROOF S	SNOW LOAD 1.0	0 kPa	ROOF SNOW	LOAD 1.5 KP	я		
RAFTER	RAFTER SPACING (mm) O.C.			RAFTER SPACING (mm) O.C.		C.		
	300	400	600	300	400	600		
38×89	3.11	2.83	2.47	2.72	2.47	2.16		
38×140	4.90	4.45	3.89	4.28	3.89	3.40		
38x 84	6.44	5.85	5.II	5.62	5.11	4.41		
38×235	8.22	7.47	6.38	7.18	6.52	5.39		

ROOF JOISTS (WHERE CEILING IS INSTALLED)

	MAXIMUM CLEAR SPAN (M)								
	ROOF S	SNOW LOAD I.C	o kPa	ROOF SNOW LOAD 1.5 kPa					
JOIST SIZE	JOIST SPACING (mm) O.C.			JOIST SPACING (mm) O.C.					
	300	400	600	300	400	600			
38×89	2.47	2.24	1.96	2.16	1.96	1.71			
38×140	3.89	3.53	3.08	3.40	3.08	2.69			
38x184	5.11	4.64	4.05	4.46	4.05	3.54			
38×235	6.52	5.93	5.18	5.70	5.18	4.52			

FLOOR JOISTS

	MAXIMUM CLEAR SPAN (M)											
JOIST		M STRA YWALL						38-51mm CONCRETE TOPPING				
SIZE	JOIST	SPACIN	16 (mm)	JOIST	JOIST SPACING (mm)		JOIST	SPACIN	KG (mm)	JOIST SPACING (mm)		NG (mm)
	300	400	600	300	400	600	300	400	600	300	400	600
38×89	1.86	1.72	1.58	1.49	1.81	1.58	1.99	1.81	1.58	1.99	1.81	1.58
38x140	2.92	וד.2	2.49	3.14	2.85	2.49	3.14	2.85	2.49	3.14	2. 85	2.49
38x184	3.54	3.36	3.20	3.81	3.58	3.27	3.99	3.72	3.21	4.12	3.75	3.27
38×235	4.17	3.96	3.77	4.44	4.17	3.92	4.60	4.29	4.00	5.27	4.79	4.13
38×286	4.75	4.52	4.30	5.01	4.71	4.42	5.17	4.82	4.49	6.23	5.81	4.79

CEILING JOISTS

a		L00	NA
/_/	'L-1		

MA	MAXIMUM CLEAR SPAN (M)						
JOIST	2 TOIST	SPACING (n	nm) O.C.				
SIZE	300	400	600				
38x89	3.11	2.83	2.47				
38x140	4.90	4.45	3.89				
38x184	6. 44	5. <i>8</i> 5	5.11				
38×235	<i>8.</i> 22	T. 4 T	6.52				

FLOOR JOIST	SUBFLOORING MIN. THICKNESS (mm)				
UP TO (mm) O.C.	PLYWOOD	WAFER BD.	LUMBER		
400	15.5	15.9	17.0		
500	15.5	15.9	19.0		
600	18.5	19.0	19.0		

ROOF SHEATHING

ROOF FRAMING (mm) O.C.	ROOF SHEATHING MIN. THICKNESS UNSUPPORTED EDGES (MM)	ROOF SHEATHING MIN. THICKNESS TONGUE & GROOVE, 'H'-CLIPS (MM) OR OTHER EDGE SUPPORT
300	7.5 PLYWOOD, 9.5 WAFER BD. OR 17.0 LUMBER	7.5 PLYWOOD, 9.5 WAFER BD. OR 17.0 LUMBER
400	9.5 PLYWOOD, II.I WAFER BD. OR 17.0 LUMBER	7.5 PLYWOOD, 9.5 WAFER BD. OR 17.0 LUMBER
600	12.5 PLYWOOD OR 19.0 LUMBER	9.5 PLYWOOD, II.I WAFER BD. OR 19.0 LUMBER

GENERAL NOTES

- I. ALL LUMBER TO BE NO. I \$2 SPF OR BETTER
- STRAPPING & CROSS BRIDGING MAXIMUM 2100mm FROM END SUPPORT & OTHER ROWS OF STRAPPING & BRIDGING.
- 3. CEILING JOIST TABLE MAY BE APPLIED ONLY WHERE ATTIC IS NOT ACCESSIBLE BY A STAIRWAY.
- 4. WHERE FINISHED FLOORING CONSISTS OF 19mm WOOD STRIPS, SUBFLOOR MAY BE REDUCED TO 12.7mm.

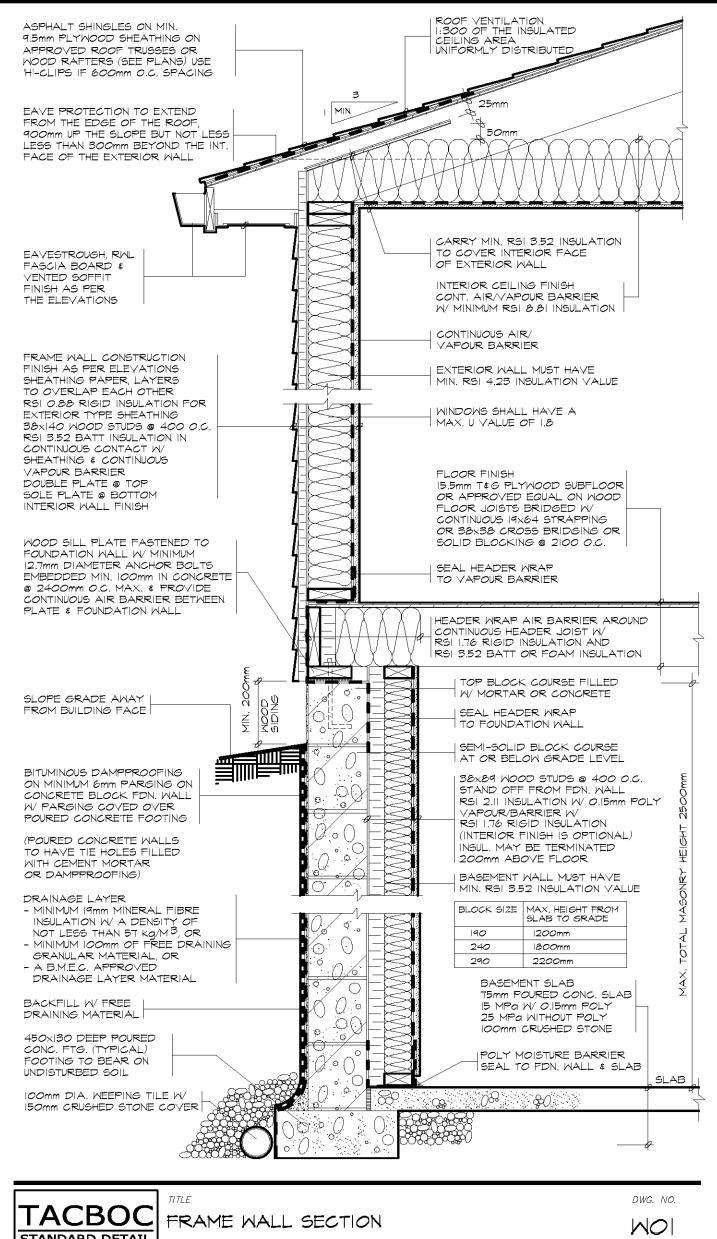


TITLE

SPECIFICATION - BUILDING CODE STANDARDS STRUCTURAL SPAN TABLES & NOTES

DWG. NO.

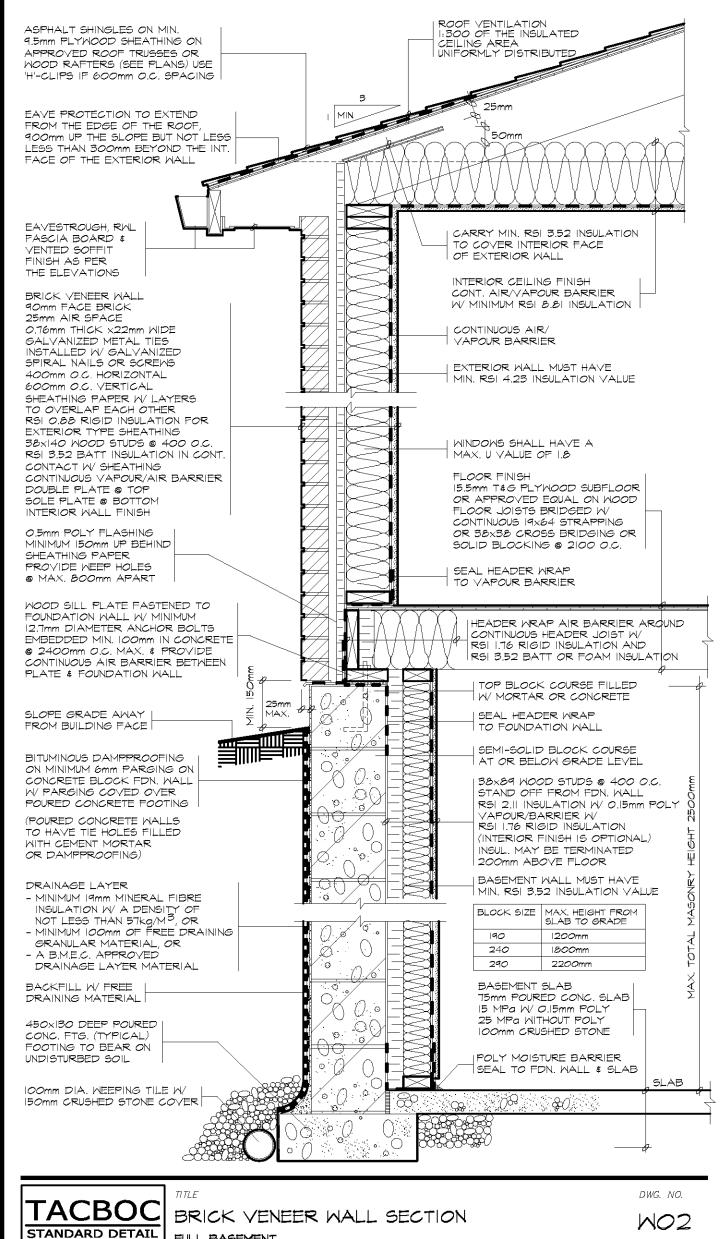
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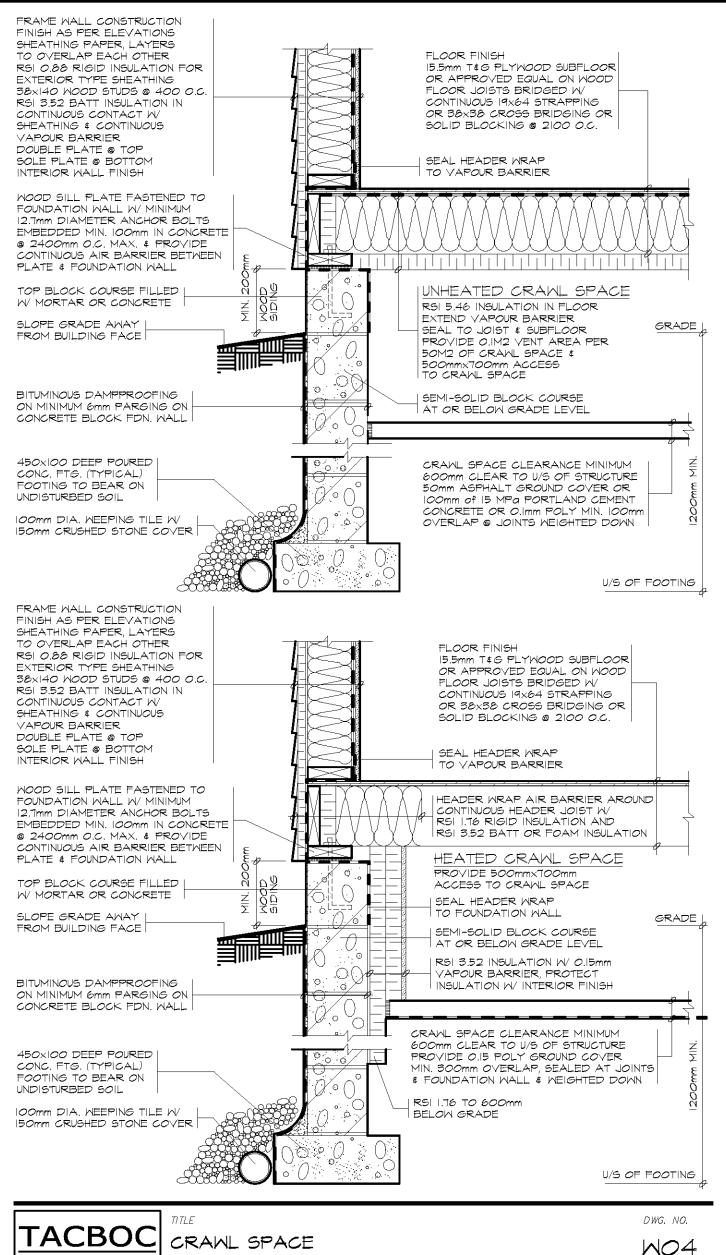


FULL BASEMENT



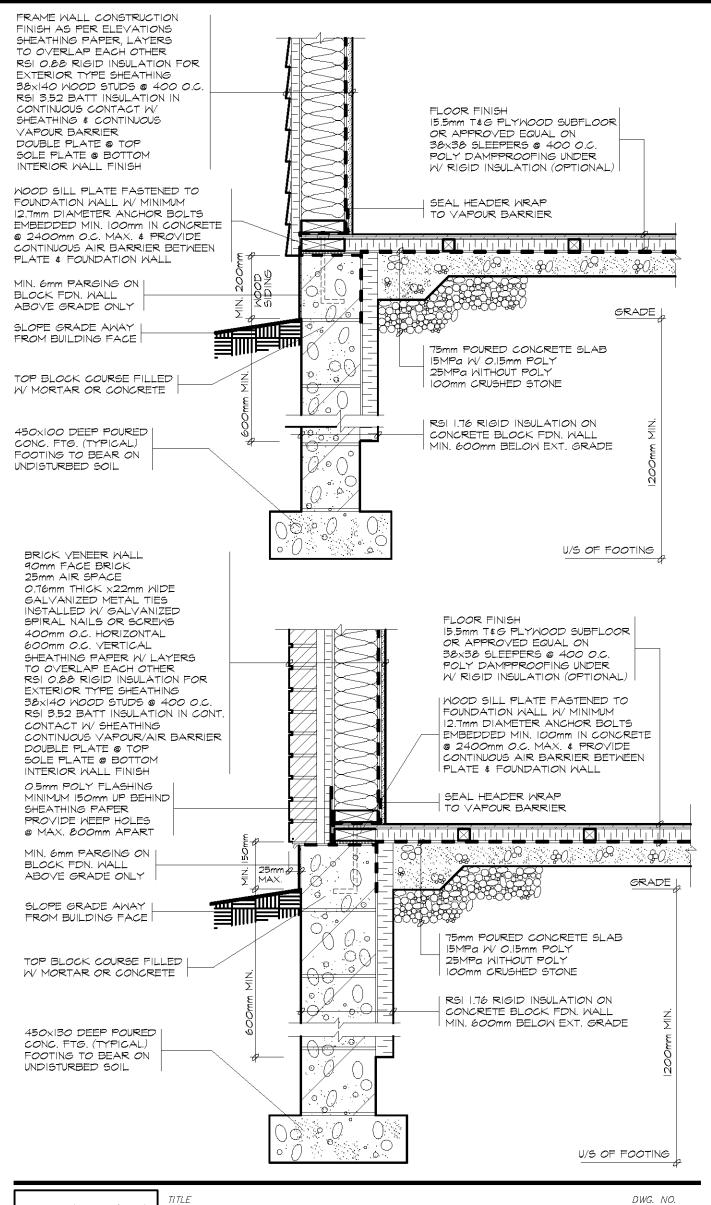


FULL BASEMENT



STANDARD DETAIL

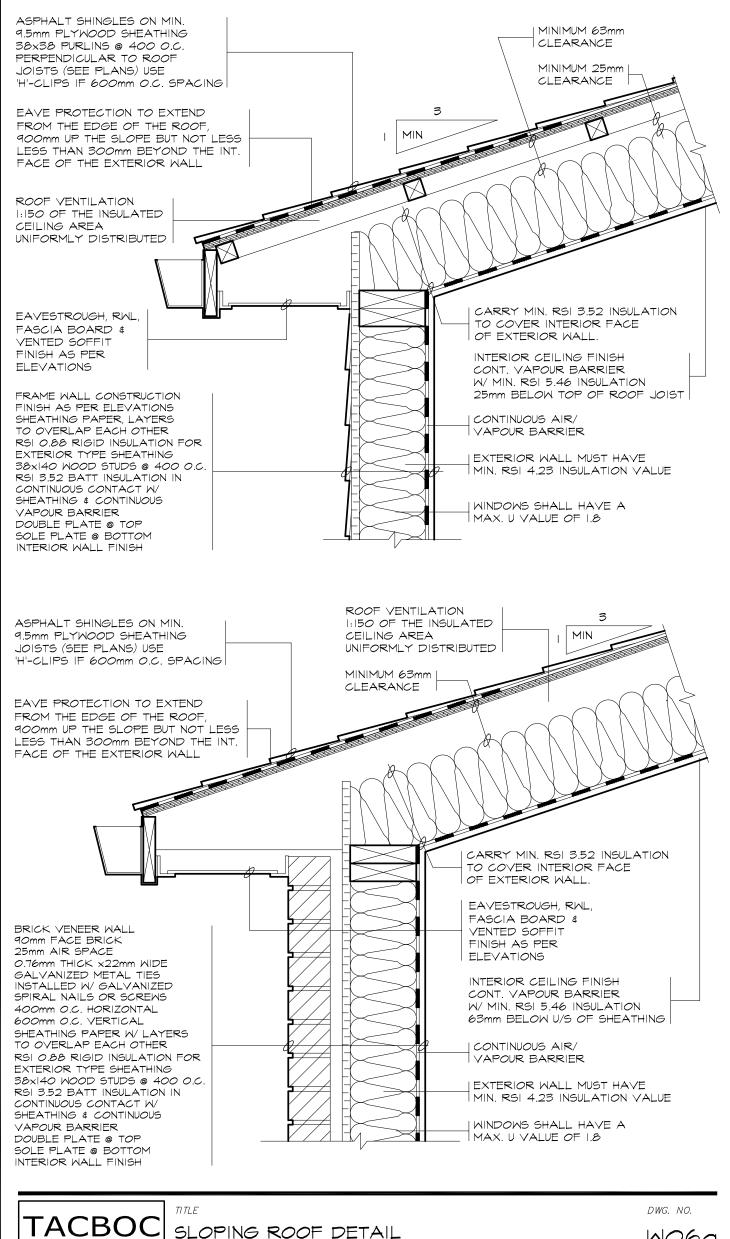
HEATED & UNHEATED





SLAB ON GRADE FRAME & BRICK VENEER WALLS

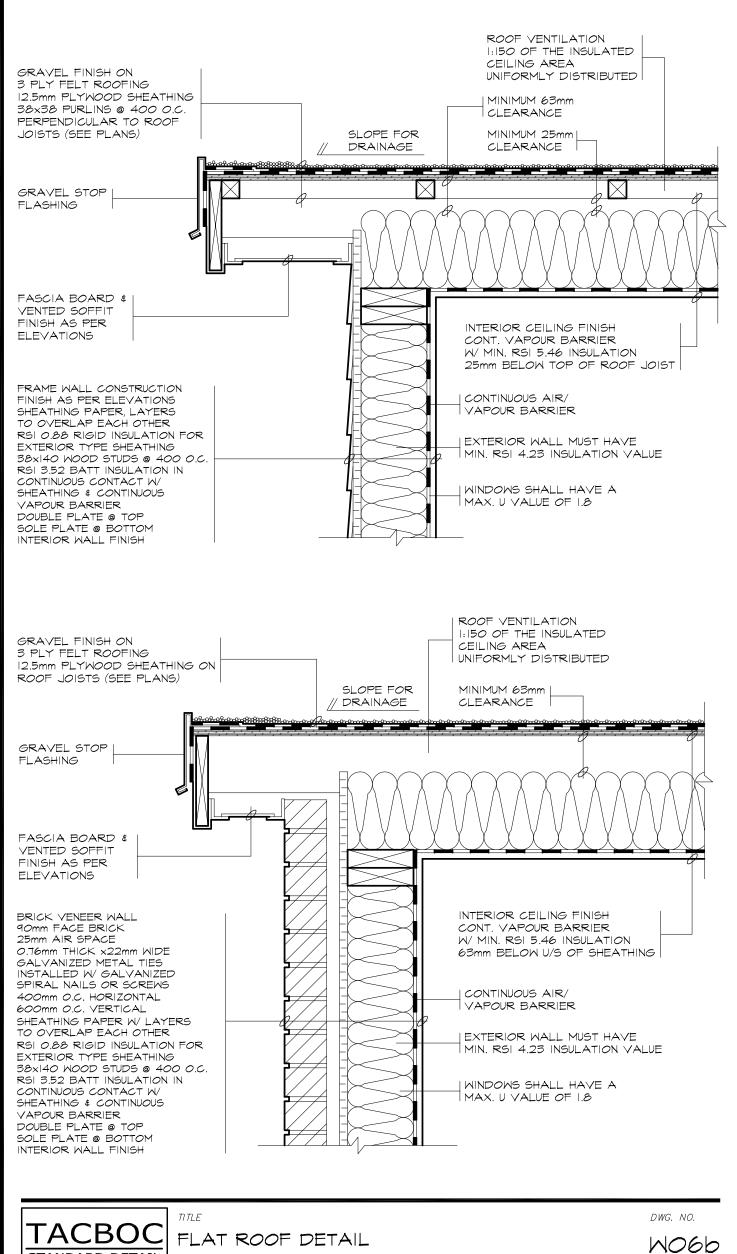






SLOPING ROOF DETAIL INSULATION & VENTILATION W/ ALTERNATIVE

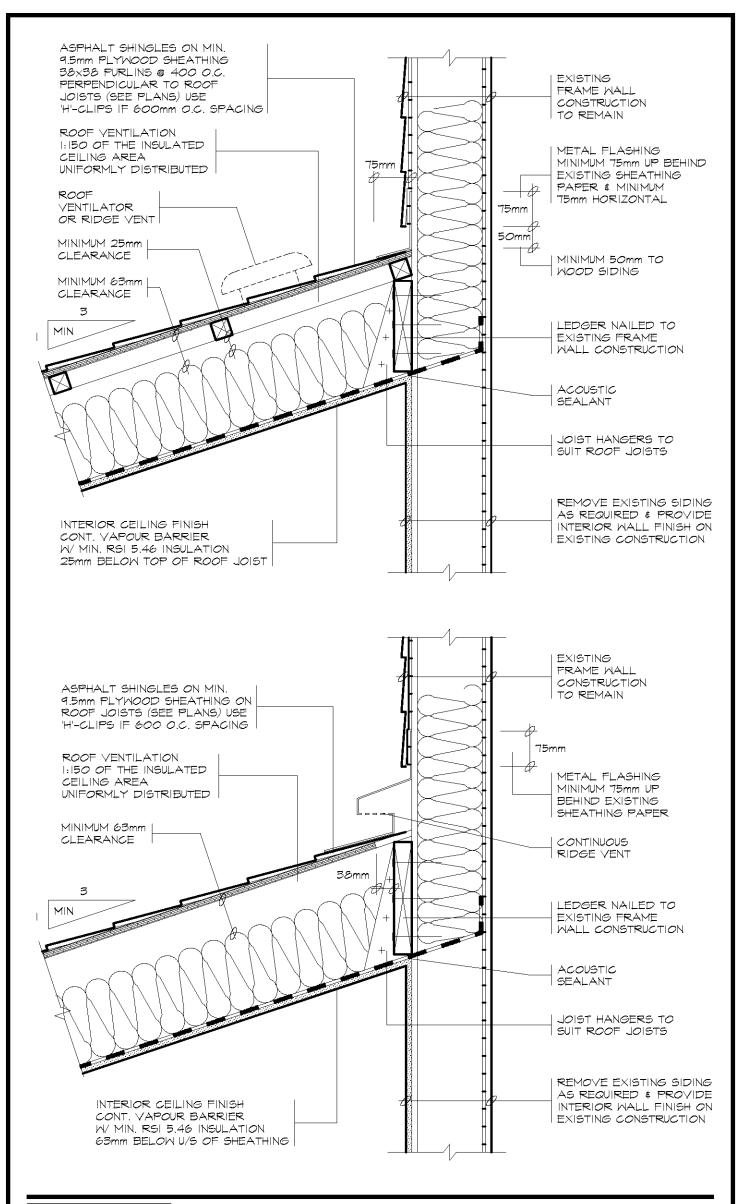




STANDARD DETAIL

INSULATION & VENTILATION W/ ALTERNATIVE

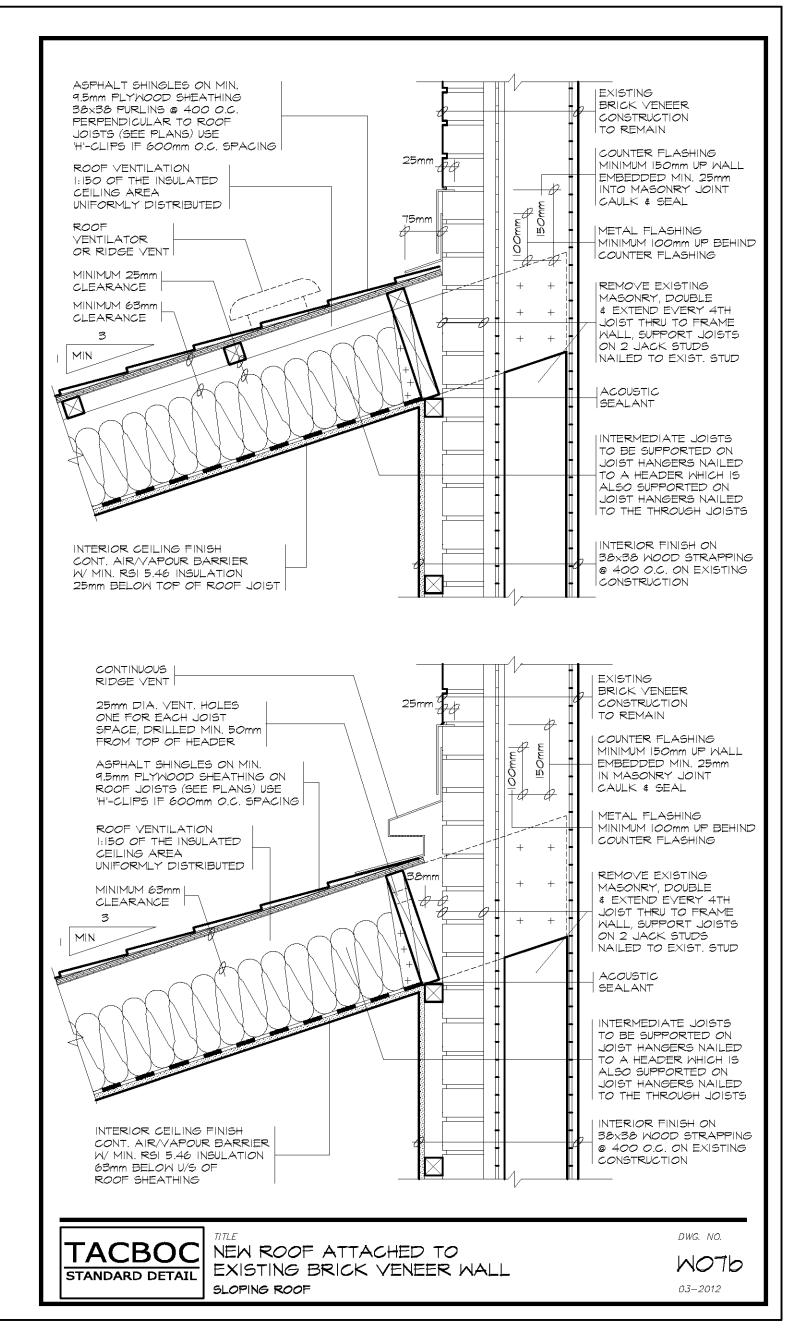


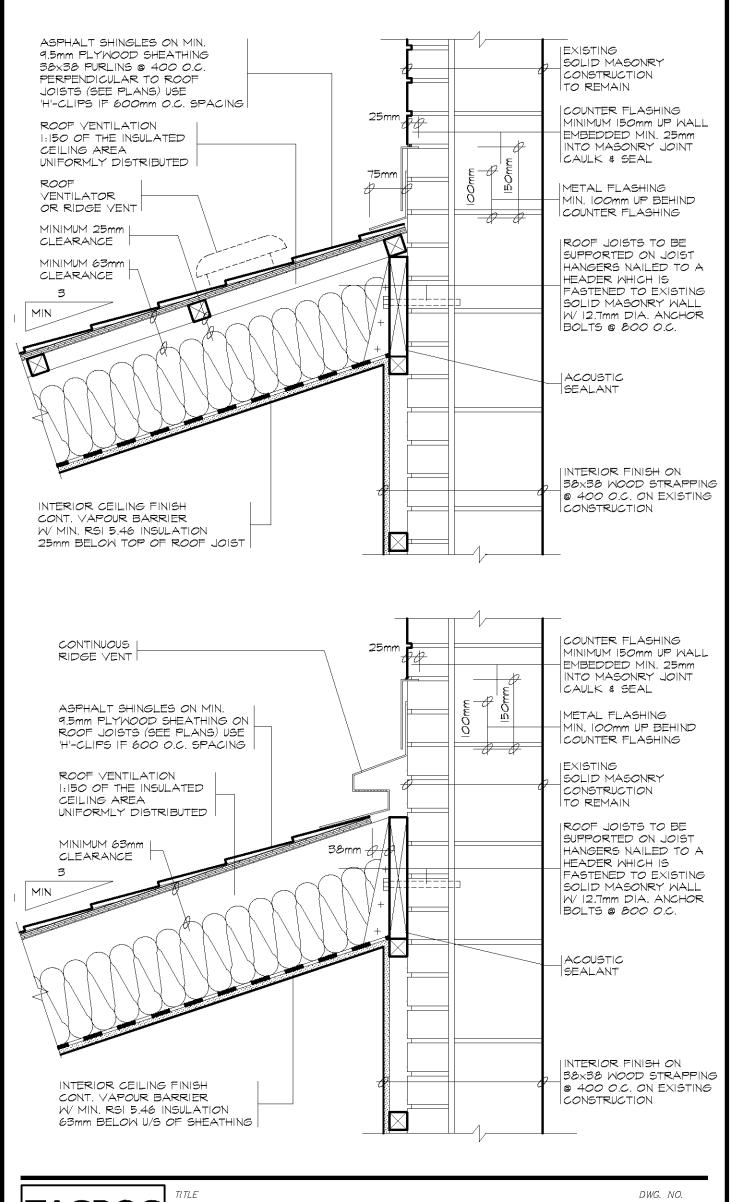




NEW ROOF ATTACHED TO EXISTING FRAME WALL SLOPING ROOF DWG. NO.



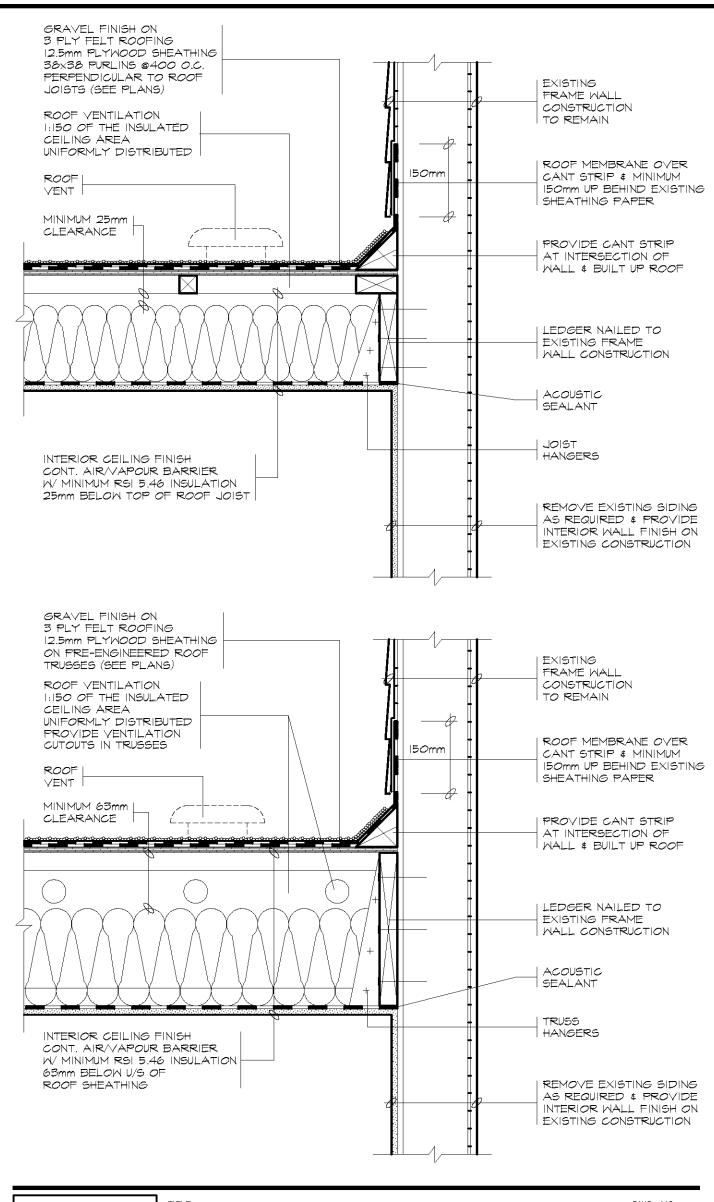






NEW ROOF ATTACHED TO EXISTING SOLID MASONRY WALL SLOPING ROOF

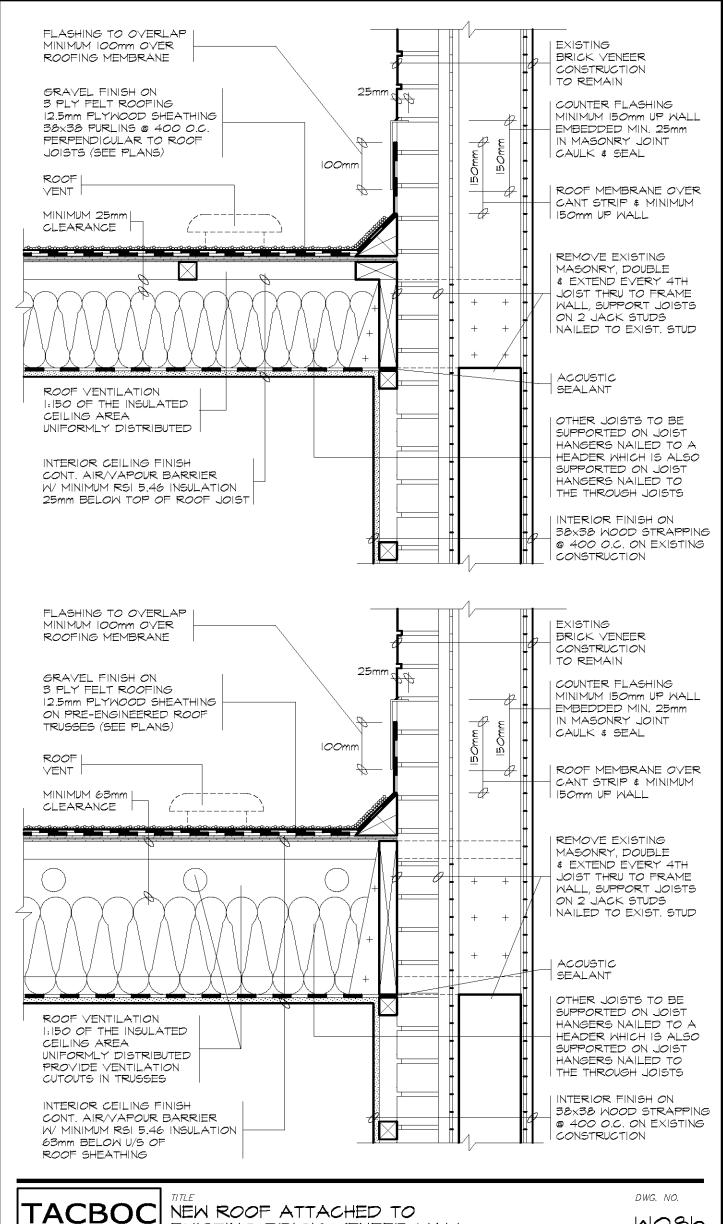






NEW ROOF ATTACHED TO EXISTING FRAME WALL FLAT ROOF DWG. NO.

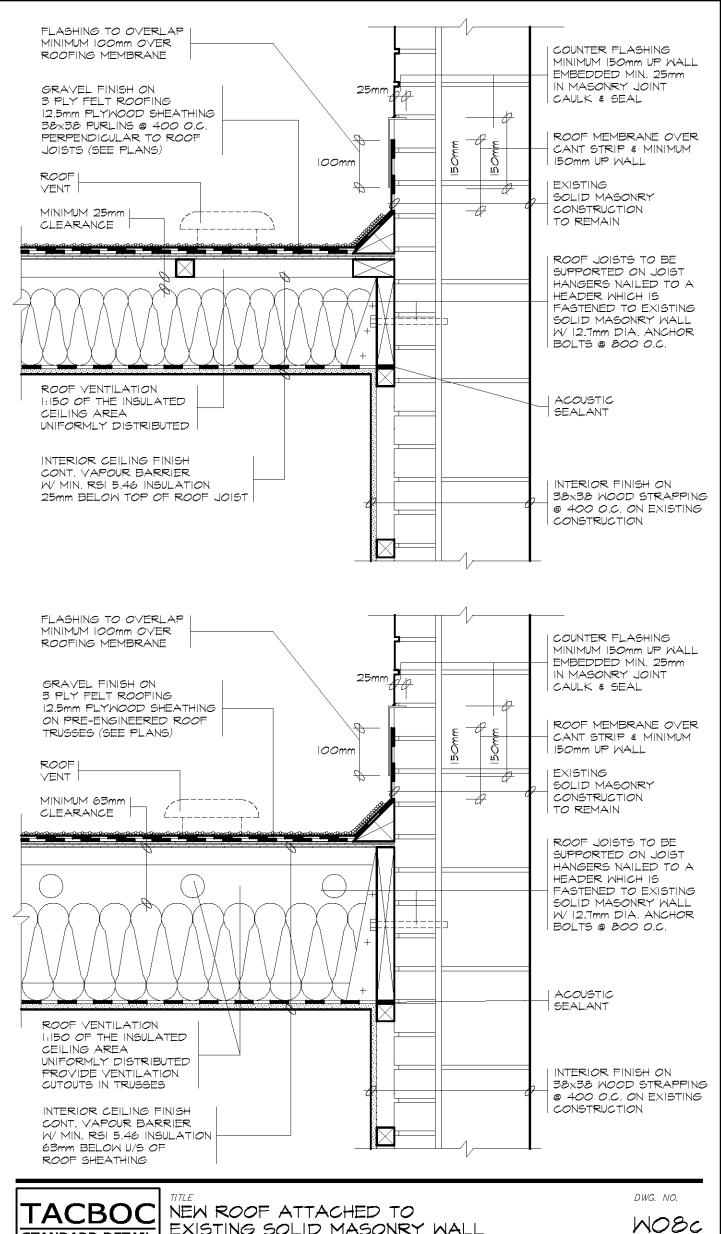






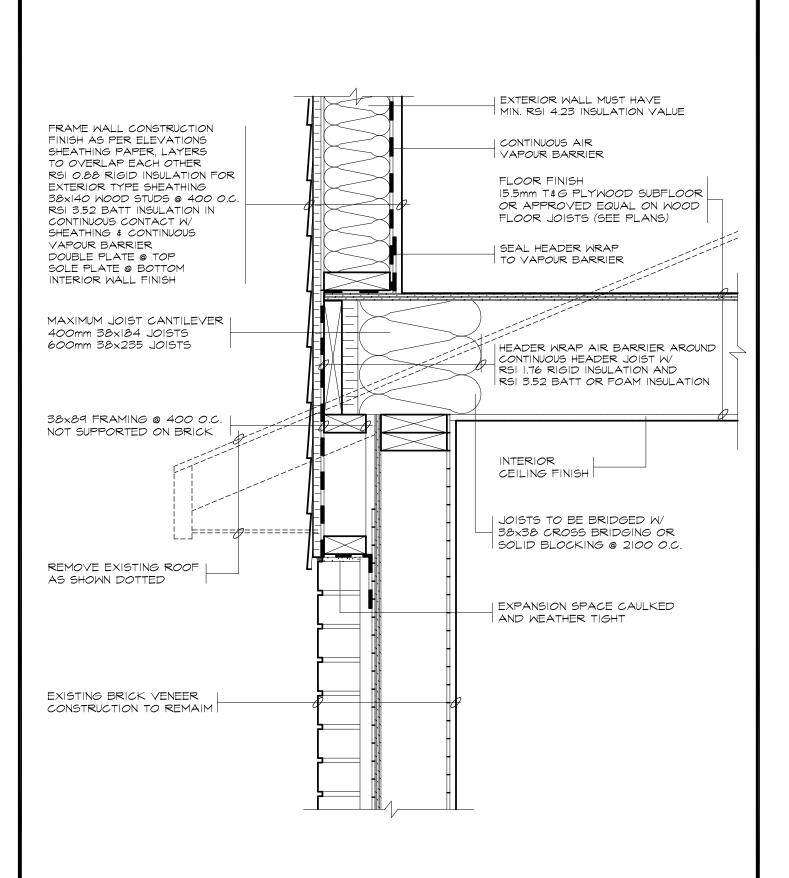
EXISTING BRICK VENEER WALL FLAT ROOF





STANDARD DETAIL

EXISTING SOLID MASONRY WALL FLAT ROOF

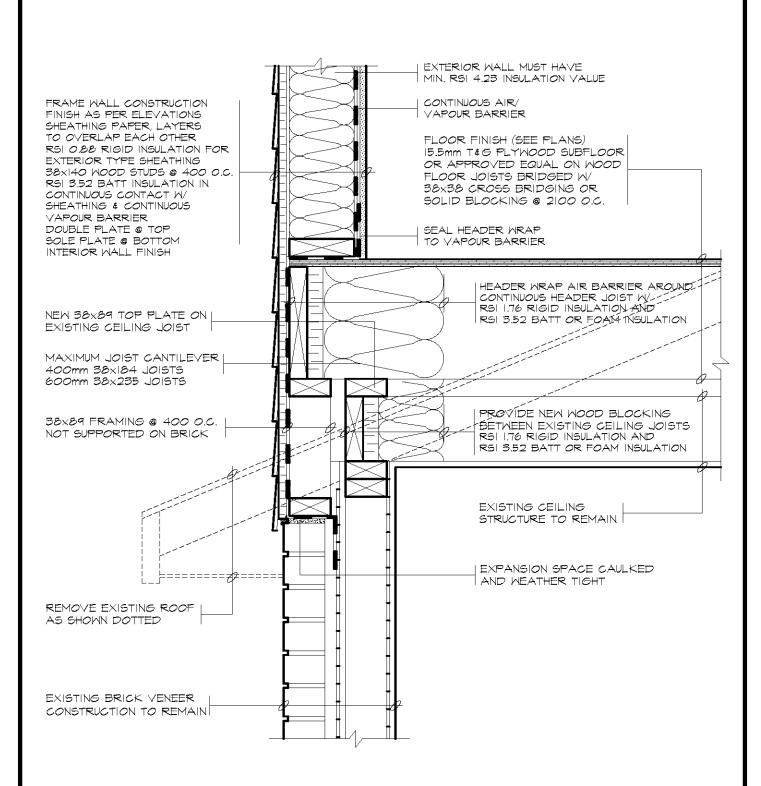




TITLE

SECOND STOREY ADDITION CEILING REPLACEMENT







TITLE

SECOND STOREY ADDITION MAINTAIN EXISTING CEILING

DWG. NO.



