

SITE PARTICULARS

Property address : 29 ADELONG CIRCUIT,
(Lot 1892) MERRIWA, WA 6030.

Local Auth : CITY OF WANNERO

GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL & OTHER CONSULTANTS DRAWING & SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT ANY DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.
- ALL DIMENSIONS RELEVANT TO SETTING OUT & OFF SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT NOTED ON ENGINEERING DRAWINGS-DO NOT SCALE ENGINEERING DRAWINGS.
- WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT RELEVANT CODES AND STATUTORY REQUIREMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- NO SUBSTITUTIONS ARE TO BE MADE FOR MATERIALS NOMINATED ON THE STRUCTURAL DRAWINGS.
- DURING CONSTRUCTION THE CONTRACTOR/BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING THAT NO PART IS OVER-STRESSED DURING CONSTRUCTION ACTIVITIES.
- THE BUILDER SHALL PROVIDE ALL TEMPORARY BRACING AS REQUIRED AND ALL TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL PERMANENT BRACING AND SUPPORTS ARE PLACED AND ANCHORED.
- NO RESPONSIBILITY IS ACCEPTED FOR THE WORKS AS CONSTRUCTED UNLESS THE WORKS ARE INSPECTED AND APPROVED BY THE ENGINEER DURING CONSTRUCTION ALL REQUIRED INSPECTIONS SHALL BE CONFIRMED 48 HOURS IN ADVANCE OF THE TIME REQUIRED. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.
- THE STRUCTURAL WORK SHOWN ON THESE DRAWING HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS.

AREA	LIVE LOADS	SUPERIMPOSED DEAD LOADS
PATIO		
ROOF	0.25 kPa	0.15 kPa

- ALL PROPS AND FORMWORK FOR BEAMS AND SLABS SHALL BE REMOVED BEFORE ANY MASONRY WALLS OR PARTITIONS ARE CONSTRUCTED ON THE BEAM OR SLAB.

ALL NON LOAD BEARING WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF THE SLABS AND BEAMS BY 20MM UNLESS OTHERWISE SHOWN.

- THE DESIGN WIND CRITERIA TO AS1170 2 IS AS FOLLOWS

REGION	A1
REGIONAL WIND SPEED	41 m/s
TERRAIN CATEGORY	2
WIND SITE CLASSIFICATION	N2

SITE PREPARATION

- REMOVE ALL TOPSOIL INCLUDING ANY ORGANIC, LOOSE OR SOFT MATERIAL AND ROOTS.
- FOUNDING SOILS, BOTH UNDER SLABS & FOOTINGS, TO BE COMPACTED TO A MINIMUM OF 7 BLOWS/300MM USING A STANDARD PERTH PENETROMETER. ALTERNATIVELY, COMPACTION IS TO ACHIEVE A MINIMUM OF 95% M.D.D. RATIO.
- SAND PAD SHALL BE CLEAN, WELL GRADED YELLOW SAND COMPACTED IN LAYERS NO THICKER THAN 300MM, COMPACTION TO COMPLY WITH NOTE 2.
- FOOTING SHALL BE LOCATED CENTRALLY BENEATH WALLS AND COLUMNS UNLESS NOTED OTHERWISE ON PROJECT DRAWINGS.
- ALL ROOF & SURFACE WATER TO BE DRAINED AWAY FROM STRUCTURE.
- ALL LOCATIONS WHERE PLUMBING PIPES PENETRATE FOOTING & GROUND SLABS, HAUNCHING REQUIRED TO ENSURE MINIMUM DEPTHS ARE MAINTAINED.

FOUNDATIONS

- FOUNDATION MATERIAL SHALL APPROVED BEFORE POURING CONCRETE OR PLACING REINFORCEMENT FOR AN ALLOWABLE BEARING PRESSURE OF 100 kPa UNLESS OTHERWISE NOTED
- FOUNDING MATERIAL IS TO BE CHECKED AND APPROVED BY THE ENGINEER AND/OR BUILDING SURVEYOR PRIOR TO POURING CONCRETED FOR SLABS FOR OR FOOTINGS
- STRIP AND PAD FOOTING ARE TO BE FOUNDED IN ORIGINAL UNDISTURBED GROUND WITH AN ALLOWABLE BEARING PRESSURE OF **150 kPa (SAND)**
- FOOTING AND GROUND SLAB HAVE BEEN DESIGNED FOR CLASS M CLASSIFICATION. IF SOIL CONDITION DIFFER FROM THIS THE ENGINEER MUST BE CONSULTED PROIR TO CONSTRUCTION.
- STRIP AND PAD FOOTINGS TO HAVE MINIMUM 600MM COMPACTED SAND FILL BENEATH THEM, TO DENSE CONDITIONS AS PER AS3798

CONCRETE

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600 ALL CONCRETE SHALL COMPLY WITH AS3600 AND SHALL HAVE A CHARACTERISTIC STRENGTH AS FOLLOWS.
- FOOTING AND GROUND SLAB
SLAB-ON-GROUND
MASS CONCRETE
PIER FOOTING
- SLUMP TO BE 75mm + 15mm. ADMIXTURES ARE NOT TO BE USED UNLESS APPROVED BY THE ENGINEER. ALL CONCRETE TO BE VIBRATED THEN MOIST CURED FOR 7 DAYS AFTER POUR.
- CONCRETE SHALL NOT BE LESS THAN 25 MPa GRADE. WITH 20mm NOMINAL MAXIMUM AGGREGATE SIZE AND 80mm SLUMP. ALL CONCRETE SHALL BE COMPACTED USING VIBRATION.
- CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR HOLLOWED IN ANY WAY WITHOUT THE ENGINEER'S APPROVAL..
- CONCRETE SECTIONS SHOWN ARE MINIMUM SIZES AND DO NOT INCLUDE FINISHES SIZES MUST NOT BE REDUCED IN ANYWAY FOR DUCT, PIPES, CONDUITS, CHASES ETC WITHOUT THE APPROVAL OF THE ENGINEER DEPTH OF BEAMS GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- MINIMUM COVER (mm) TO ALL REINFORCEMENT SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE :

ELEMENT	SURFACES IN CONTACT WITH GROUND	SURFACES IN INTERIOR ENVIRONMENT	ABOVE GROUND EXTERIOR ENVIRONMENT
FOOTINGS	75	-	-
SLABS ON GROUND	50 (40)	25	45
SUSPENDED SLABS	-	20	45

- CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE APPROVED BY THE ENGINEER.
- ALL FORMWORK (INCLUDING STRIPPING OF FORMWORK) SHALL CONFIRM TO AS1509
- CONCRETE MUST BE SEPARATED FROM SUPPORTING BRICK WORK BY TWO LAYERS OF A SUITABLE MEMBRANE (MALTHOID OR ALCOR) AND VERTICAL FACES SEPARATED FROM WALLS AND COLUMNS BY 12mm THICK BITUMINOUS CANE-ITE OR SIMILAR.
- SYMBOLS ON THE DRAWING FOR REINFORCEMENT ARE AS FOLLOWS :

N-	HOT ROLLED DEFORMED REBAR (500 PLUS REBAR)
R-	HOT ROLLED PLAIN ROUND REBAR
S-	HOT ROLLED DEFORMED REBAR
RW-	COLD ROLLED RIBBED WIRE
W-	COLD DRAWN ROUND WIRE

- THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETRES THE NUMBER FOLLOWING THE FABRIC SYMBOL F IS THE REFERENCE NUMBER FOR THE BAR DIAMETER AND SPACING TO AS1304.
- ALL REINFORCEMENT SHALL BE SUPPORTED BY APPROVED CHAIRS. SPACERS OR TIES AS REQUIRED TO PROVIDE ADEQUATE SUPPORT DURING CONCRETING.
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

SLABS-ON-GROUND AND FOOTINGS

- SLABS-ON-GROUND AND FOOTINGS SHALL BE IN ACCORDANCE WITH AS2870.
- THE SLAB SITE SHALL BE STRIPPED OF TOPSOIL CONTAINING SIGNIFICANT ORGANIC MATTER PRIOR TO BE BEAM EXCAVATION.
- A VAPOUR BARRIER OF 0.2MM MINIMUM THICKNESS SHALL BE PLACED UNDER THE SLAB AS SHOWN THE VAPOUR BARRIER SHALL BE LAPPED A MINIMUM OF 200MM AT JOINTS AND SHALL BE TAPED AROUND PIPES WHICH PENETRATE THE SLAB.
- CLEAN SAND BED FILLING TO 600MM IS REQUIRED TO PLACE UNDER THE SLAB FILLING SHALL BE COMPACTED IN 150MM THICK LAYERS.
- BEAM AND STRIP FOOTING REINFORCEMENT SHALL HAVE A NOMINAL COVER OF 50MM TRENCH MESH SHALL BE LAID CONTINUOUSLY AND SHALL BE SPLICED WHERE NECESSARY BY A LAP OF 500MM THE TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH OF FABRIC AT T- AND L-JUNCTIONS.
- SLAB REINFORCING FABRIC SHALL BE PLACED NEAR THE TOP OF SLAB AND SHALL HAVE A NOMINAL COVER OF 25MM, UNLESS SHOWN OTHERWISE REINFORCING FABRIC SHALL BE LAPPED A MINIMUM OF TWO WIRES PLUS 25MM AND SHALL BE SET OUT SUCH THAT NO MORE THAN THREE THICKNESSES OF FABRIC OCCUR AT ANY LOCATION.
- ALL RELEVANT CODES AND REGULATIONS MUST BE COMPLIED WITH INCLUDING AS 2870 AND AS 3600.
- ALL GRASS ROOTS, VEGETATION AND COMPRESSIBLE TOPSOIL MUST BE REMOVED FROM THE AREA OF THE SLAB PRIOR TO PROOF ROLLING AND FILLING.
- PRIOR TO ANY COMPACTED FILLING BEING PLACED THE GROUND BELOW THE SLAB SHALL BE PROOF ROLLED IN ACCORDANCE WITH AS 2870 WITH A 3 TONNE VIBRATING ROLLER OR SOIL REPORT RECOMMENDATIONS. ANY "SOFT SPOTS" ENCOUNTERED SHALL BE DUG OUT AND REPLACED WITH COMPACTED CRUSHED ROCK IN ACCORDANCE WITH AS 2870.
- REFER AS 2780 CL. 6. 4. 2 AND 6. 4. 3 FOR FILLING REQUIREMENTS GENERALLY CONTROLLED FILL BELOW SLAB PANELS MUST NOT EXCEED 800MM FOR SAND & 400MM FOR NON-SAND MATERIAL FILL. TO BE COMPACTED TO ENSURE A MINIMUM 98% AUSTRALIAN STANDARD COMPACTION AS DEFINED IN AS 1289 5. 1. 1. SAND FILL UP TO 800MM DEEP MUST BE WELL COMPACTED IN LAYERS NOT MORE THAN 300MM THICK BY A VIBRATING PLATE OR VIBRATING ROLLER. NON SAND MATERIAL MUST BE WELL COMPACTED IN LAYERS NOT MORE THAN 150MM THICK BY A MECHANICAL ROLLER.
- THE GROUND SURROUNDING THE SLAB SHALL HAVE ITS SURFACE AT LEAST 150MM BELOW THE SLAB SURFACE AND BE SLOPED AWAY FROM THE SLAB EDGE SO THAT SURFACE WATER WILL BE DRAINED VIA IMPERMEABLE SPOON DRAINS TO LEGAL POINT OF DISCHARGE.

STRUCTURAL STEELWORK

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS4100.
- FABRICATION AND ERECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROVISIONS OF AS4100 AND SAA/SNZHB62. AS APPROPRIATE. WHERE NO APPLICABLE PROVISIONS ARE CONTAINED IN AS 4100.
- ALL WELDS SHALL BE 6MM CFW SP CATEGORY U. N. O. CPBW TO BE SP USING E48XX CONSUMABLES UNLESS NOTED OTHERWISE WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554.
- BOLTS SHALL BE GALVANISED M20-8.8/S U. N. O. THREADS MAY BE INCLUDED IN SHEAR PLANES U. N. O.
- CONNECTIONS NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH THE AISC STANDARDIZED STRUCTURAL CONNECTIONS. PLATES TO BE 10MM THICK. EX-STANDARD SQUARE EDGE FLATS U. N. O.
- PURLINS AND GIRTS ARE TO BE BHP BUILDING PORCUCTS (BHP-BP), STRAMIT, OR OTHER SECTION APPROVED IN WRITING BY THE ENGINEER, COMPLYING WITH AS1397, & A MINIMUM GALVANISES COATING OF Z300 (300G/SQM). CLEAT CONNECTIONS SHALL BE IN ACCORDANCE WITH AISC STANDARDIZED CONNECTIONS OR MANUFACTURER'S RECOMMENDATIONS U. N. O. BOLTING AND BRIDGING TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PAINTING: THE STEELWORK IS TO BE CLEANED TO AN AS1627 CLASS PREPARATIONS IS GIVEN 2 NO COATS OF ZINC RICH PRIMER BEFORE DISPATCH TO THE SITE. UNLESS THE STEEL IS TO BE ENCASED AS DETAILED OTHERWISE BOLTS EXPOSED TO VIEW SHALL BE GALVANISED.
- CONCRETE ENCASED STRUCTURAL STEEL SHALL BE ENCLOSED BY F41 MESH PLACED 25 CLEAR OD STEEL ENCASING TO PROVIDE 50 MIN COVER.
- UNLESS OTHERWISE SPECIFIED ALL STEEL WORK SHALL BE PAINTED WITH SHOP COAT OF ALKYD PRIMER OR INORGANIC ZINC SILICATE MEMBERS ENCASED IN CONCRETE OR FIRE PROTECTION SPRAY, OR FRICTION GRIP BOLTED CONNECTIONS SHALL NOT BE PAINTED.
- THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH 3MM PLATE & CONTINUOUS FILLET WELD UNLESS OTHERWISE SHOWN.
- WHERE BOTH BASE/PARENT PLATE & SUPPORTED PLATES ARE THINNER THAN FILLET WELD THICKNESS, A "BACK UP" PLATE IS REQUIRED TO PREVENT OVERHEAT EFFECT TO THE THIN SURFACE. WELDER TO CONTROL BURN-THROUGH PROCESS TO MINIMIZE DISTORTION OF SURFACE AND EXERCISE PULSE TO PULSE METHOD. A SMALLER DIAMETER WELDING ROD IS PREFERRED.

DRAWING SCHEDULE

A/01 - STRUCTURAL NOTES
A/02 - PROPOSED SITE PLAN
- PROPOSED PATIO FOOTING PLAN
A/03 - ELEVATION 1 & 2
A/04 - SECTION A-A, B-B, C-C & FOOTING DETAILS
A/05 - DETAIL 1 & 2; TYPICAL BRACKET

DRAWING TITLE:

STRUCTURAL NOTES

DESCRIPTION OF WORK:

PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.

NOTE :

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- ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.
- CHECK ALL DIMENSIONS ON SITE. REPORT ALL DISCREPANCIES TO PROJECT MANAGER AND ENGINEER.
- ALL WORKMANSHIP TO COMPLY WITH ALL RELEVANT AUSTRALIAN STANDARDS.

SUBI SMARTZ
CONSULTANTS PTY LTD
ABN 81624578687

Chong S. Liew, Steve
M.Sc(Struct) MIEAust CPEng NER RPEQ



National Engineering Register

Signature

Date 29/05/20

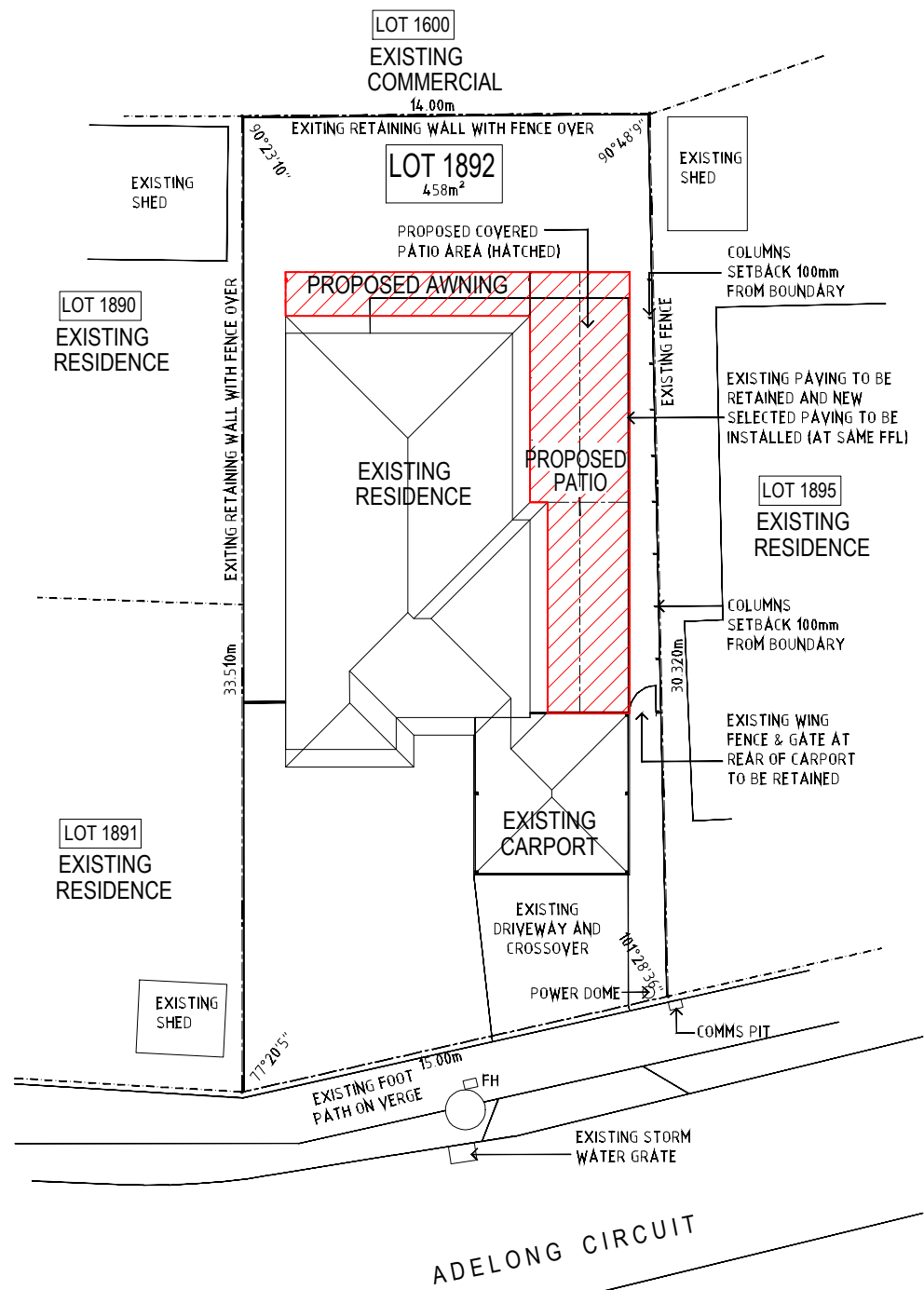
Registered on NER in the
of Civil and Structural Engineering

Membership No:
4512871

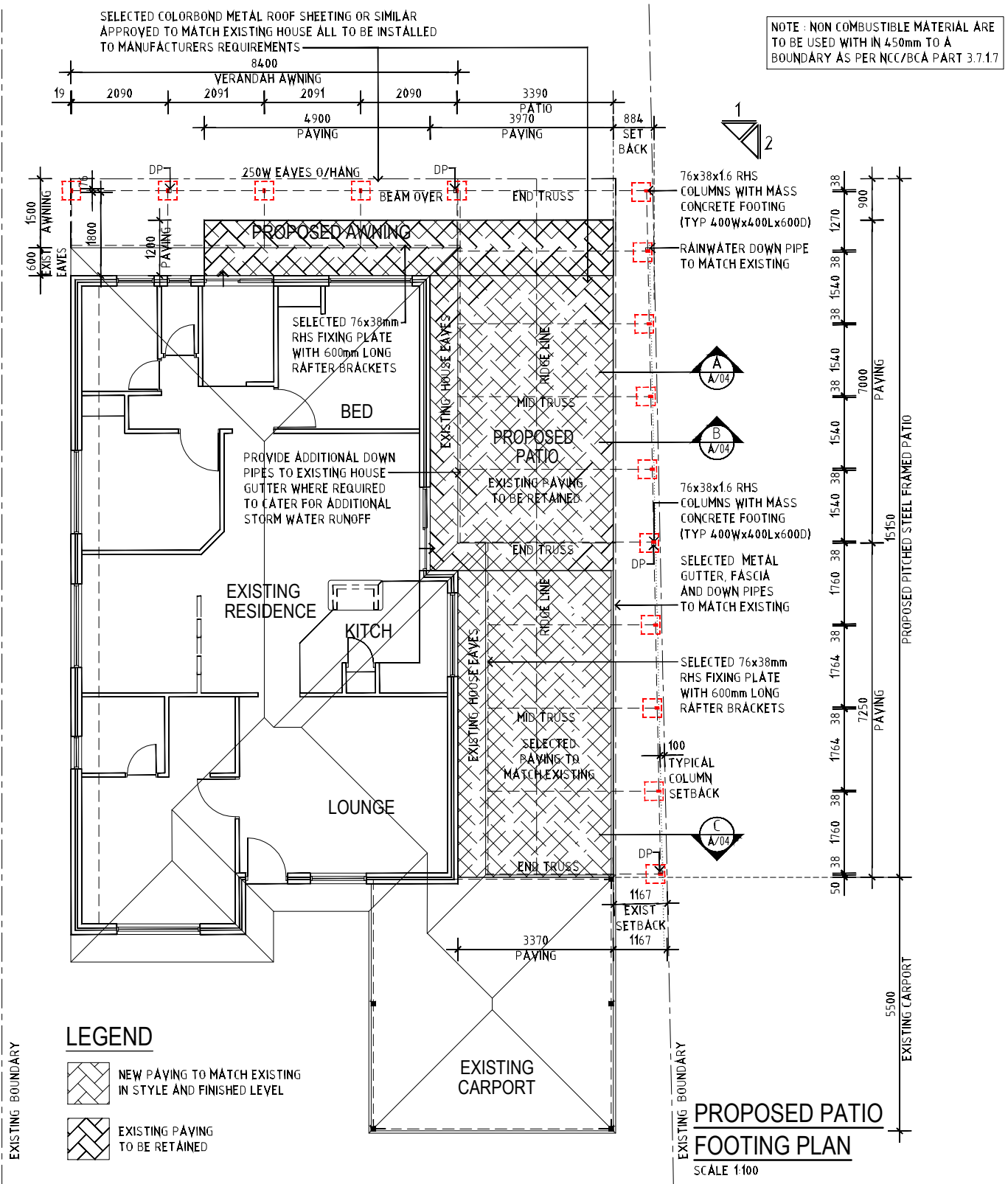
AMENDMENTS:

DWG.
A/01

TOTAL DWG.
05



PROPOSED SITE PLAN
SCALE 1:200



LEGEND

- NEW PAVING TO MATCH EXISTING IN STYLE AND FINISHED LEVEL
- EXISTING PAVING TO BE RETAINED

PROPOSED PATIO FOOTING PLAN
SCALE 1:100

DRAWING TITLE: PROPOSED SITE PLAN PROPOSED PATIO FOOTING PLAN	
DRAWN: vern	JOB NO: 98159
SCALE: AS SHOWN	DATE: 28/05/2020

DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.**

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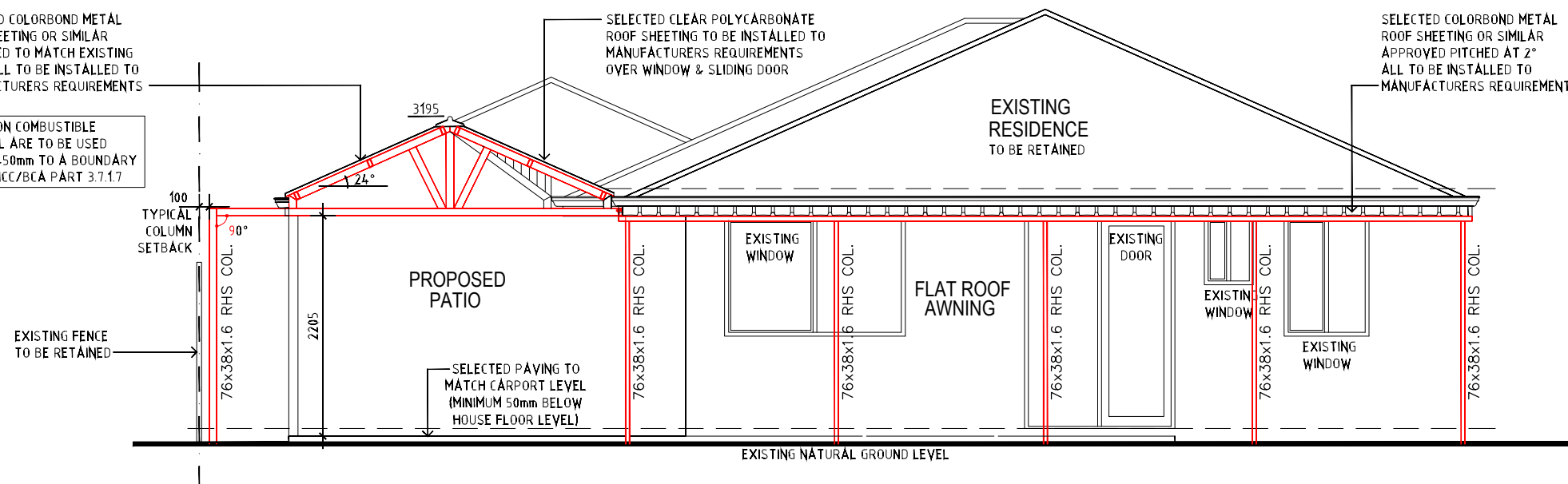
AMENDMENTS:	
DWG. A/02	TOTAL DWG. 05

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED TO MATCH EXISTING HOUSE ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS

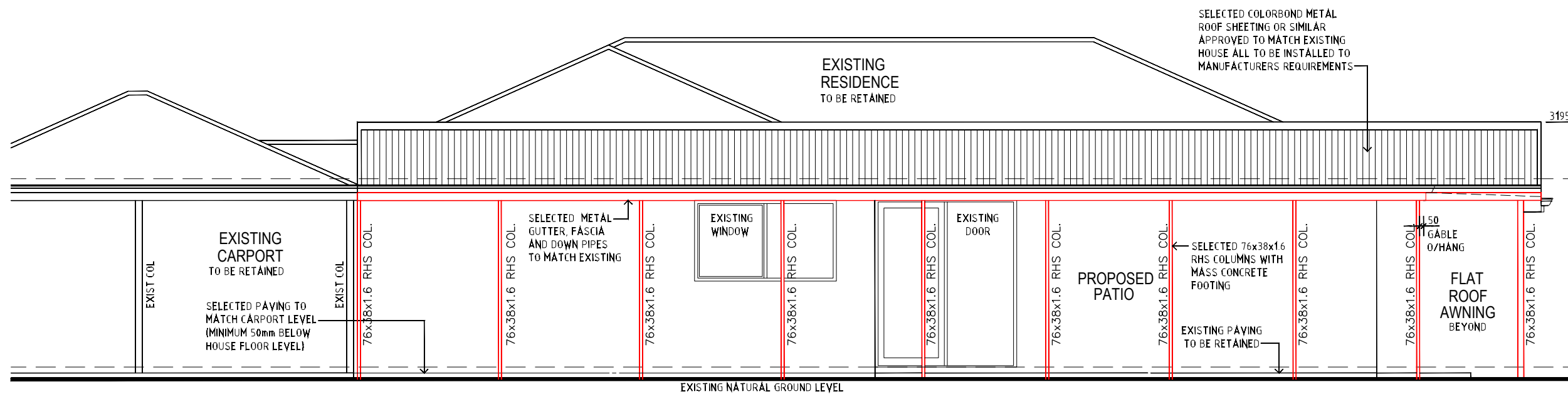
NOTE : NON COMBUSTIBLE MATERIAL ARE TO BE USED WITH IN 450mm TO A BOUNDARY AS PER NCC/BCA PART 3.7.1.7

SELECTED CLEAR POLYCARBONATE ROOF SHEETING TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS OVER WINDOW & SLIDING DOOR

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED PITCHED AT 2° ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS



ELEVATION 1
SCALE 1:50



ELEVATION 2
SCALE 1:50

DRAWING TITLE: ELEVATION 1 & 2	
DRAWN: vern	JOB NO: 98159
SCALE: AS SHOWN	DATE: 28/05/2020

DESCRIPTION OF WORK:

**PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.**

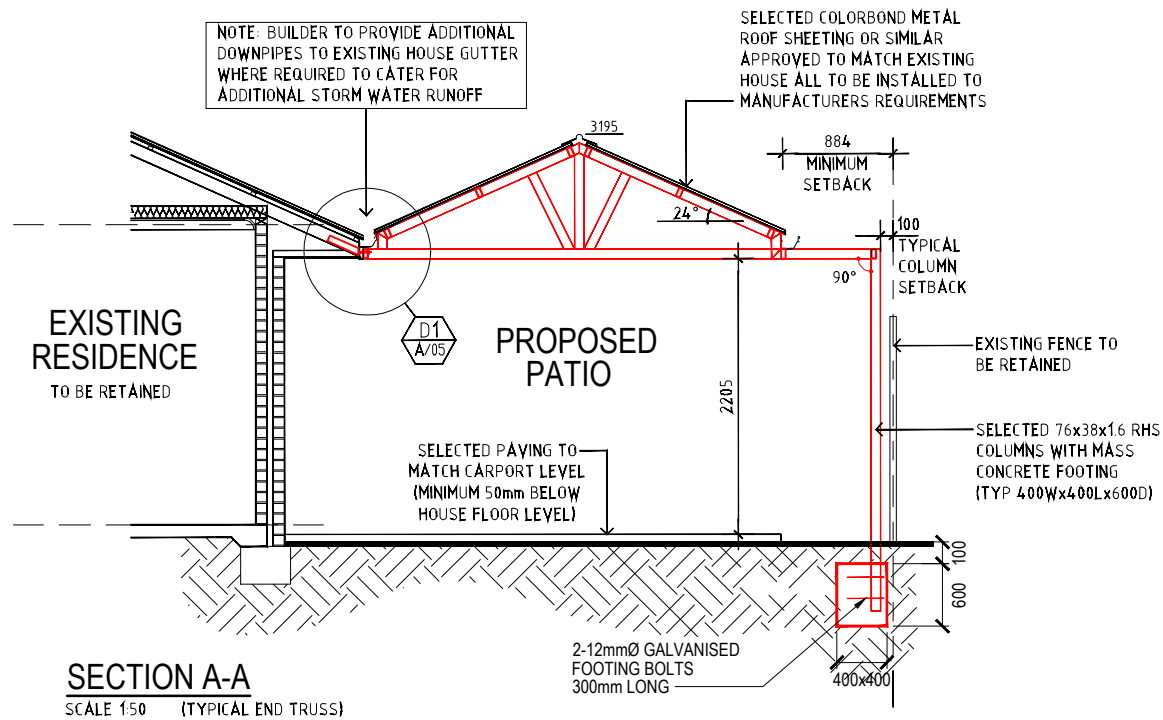
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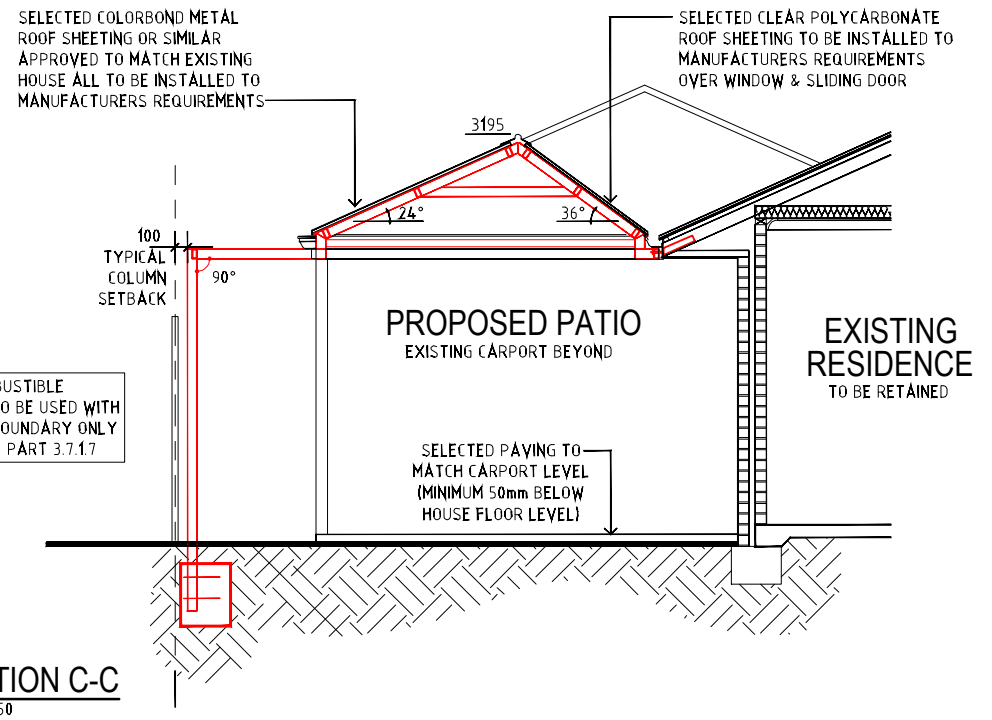
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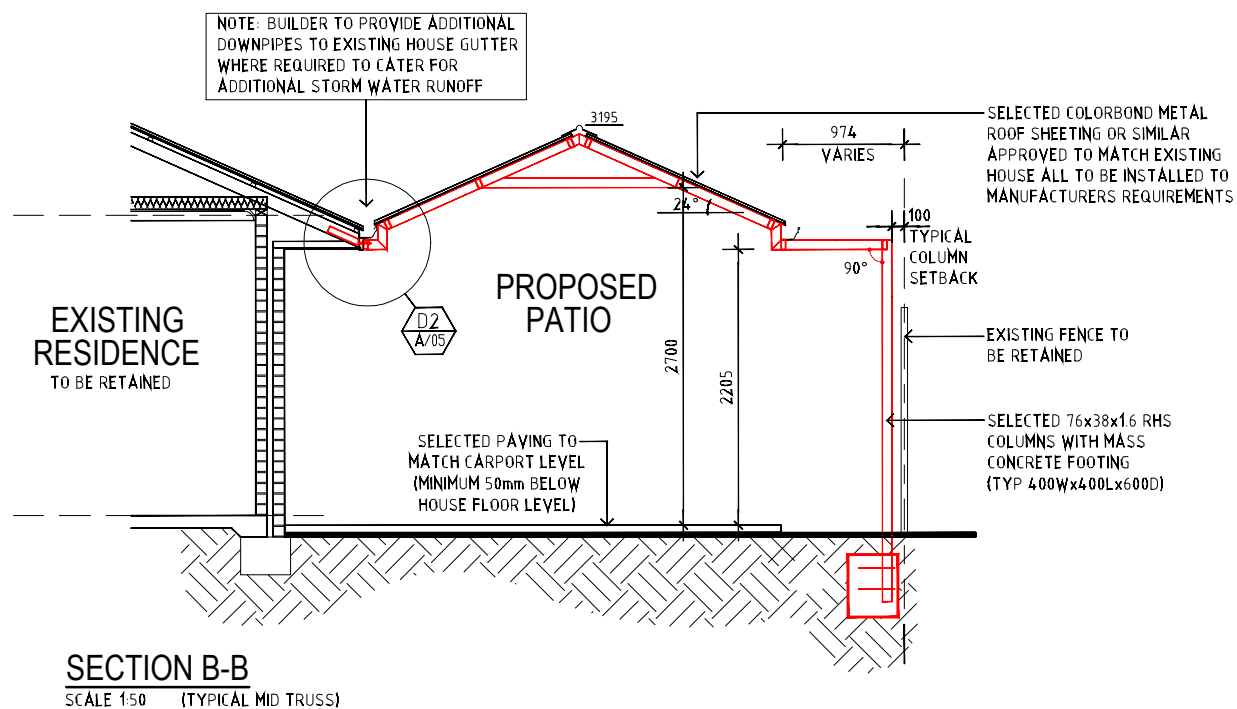
AMENDMENTS:	
DWG. A/03	TOTAL DWG. 05



SECTION A-A
SCALE 1:50 (TYPICAL END TRUSS)



SECTION C-C
SCALE 1:50



SECTION B-B
SCALE 1:50 (TYPICAL MID TRUSS)

MATERIAL SPECIFICATIONS	
MINIMUM REQUIREMENTS	
COLUMNS	UP TO 3.0m HIGH - 76x38x1.6 RHS (MIN)
TRUSSES	
TOP CORD	76x38x1.6 RHS
BOTTOM CORD	76x38x1.6 RHS
KING POST & STRUTS	76x38x1.6 RHS
PURLINS	UP TO 3.5m - 76x38x1.6 RHS UP TO 4.0m - 76x38x1.6 RHS
PURLIN SPACING	SPACE ROOF PURLIN TO SUIT SPAN OF ROOF SHEETING
ROOF CLADDING	FIXED TO MANUFACTURERS REQUIREMENTS
GUTTER	TO MATCH EXISTING
FLASHING	GUTTERS & DOWNPIPES TO BE RIVETED AND SILICONE SEALED
FOOTING	400 x 400 x 600 DEEP MASS CONCRETE
ALL MATERIALS TEK SCREWED USING INTERNAL PATIO BRACKETS OR FULLY WELDED, ALL WELDING TO CONFORM WITH RELEVANT AUSTRALIAN STANDARDS, PAINT ALL WELDS WITH SELECTED GALVANIZED PAINTS	

DRAWING TITLE:
**SECTION A-A, B-B, C-C
FOOTING DETAILS**

DRAWN:
vern

SCALE:
AS SHOWN

DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
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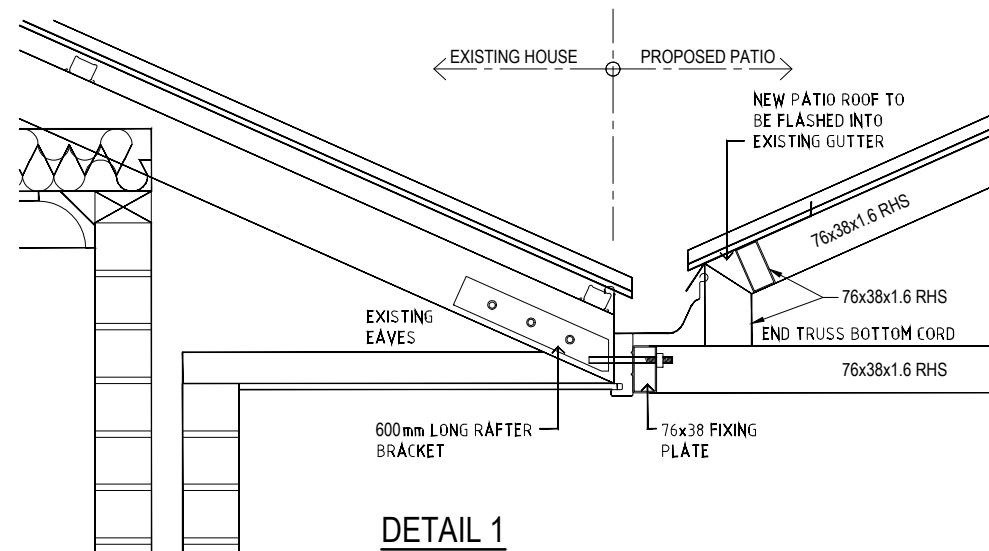
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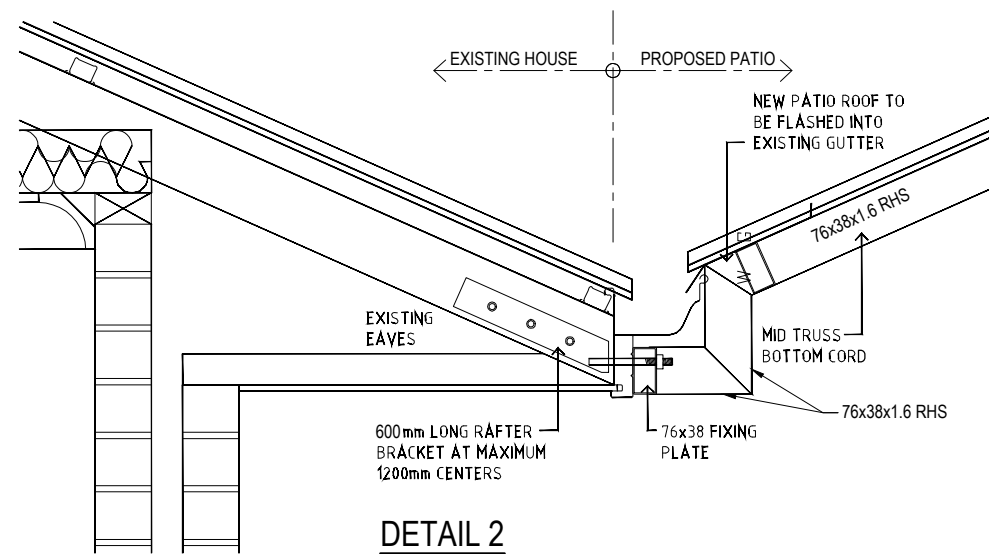
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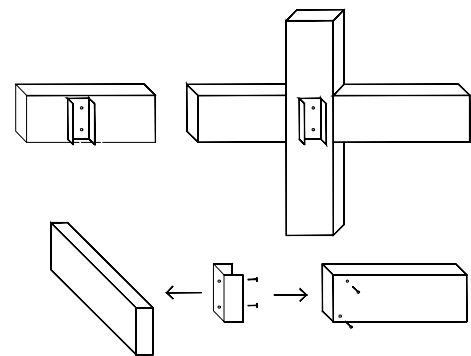
DWG.	TOTAL DWG.
A/04	05



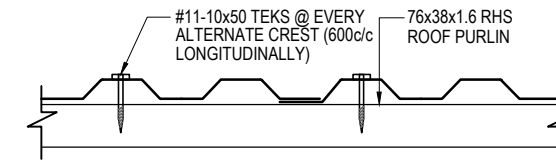
DETAIL 1
SCALE 1:10 (END TRUSS TO STANDARD EAVES CONNECTION)



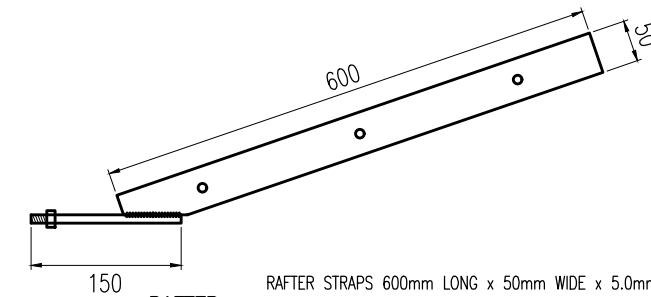
DETAIL 2
SCALE 1:10 (MID TRUSS TO STANDARD EAVES CONNECTION)



TYPICAL BRACKET - TUBE CONNECTIONS



METAL ROOF TO RHS PURLIN TIE DOWN
SCALE 1:10



RAFTER STRAPS
RAFTER STRAPS 600mm LONG x 50mm WIDE x 5.0mm THICK + 10mmØ FULLY WELDED BOLT HOT DIPPED GALVANISED. ATTACHED TO EVERY SECOND RAFTER AND FIXED WITH 3 x 10mmØ x 75mm LONG CUP HEAD GALVANISED BOLT.

BRACKET DETAIL

MINIMUM REQUIREMENTS	
COLUMNS	UP TO 3.0m HIGH - 76x38x1.6 RHS (MIN)
TRUSSES	
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ROOF CLADDING	FIXED TO MANUFACTURES REQUIREMENTS TO MATCH EXISTING
GUTTER	GUTTERS & DOWNPIPES TO BE RIVETED AND SILICONE SEALED
FLASHING	
FOOTING	400 x 400 x 600 DEEP MASS CONCRETE

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DRAWING TITLE:
**DETAIL 1 & 2
TYPICAL BRACKET**

DRAWN:
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SCALE:
AS SHOWN

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A/05	05

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- NO SUBSTITUTIONS ARE TO BE MADE FOR MATERIALS NOMINATED ON THE STRUCTURAL DRAWINGS.
- DURING CONSTRUCTION THE CONTRACTOR/BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING THAT NO PART IS OVER-STRESSED DURING CONSTRUCTION ACTIVITIES.
- THE BUILDER SHALL PROVIDE ALL TEMPORARY BRACING AS REQUIRED AND ALL TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL PERMANENT BRACING AND SUPPORTS ARE PLACED AND ANCHORED.
- NO RESPONSIBILITY IS ACCEPTED FOR THE WORKS AS CONSTRUCTED UNLESS THE WORKS ARE INSPECTED AND APPROVED BY THE ENGINEER DURING CONSTRUCTION ALL REQUIRED INSPECTIONS SHALL BE CONFIRMED 48 HOURS IN ADVANCE OF THE TIME REQUIRED. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.
- THE STRUCTURAL WORK SHOWN ON THESE DRAWING HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS.

AREA	LIVE LOADS	SUPERIMPOSED DEAD LOADS
PATIO		
ROOF	0.25 kPa	0.15 kPa

- ALL PROPS AND FORMWORK FOR BEAMS AND SLABS SHALL BE REMOVED BEFORE ANY MASONRY WALLS OR PARTITIONS ARE CONSTRUCTED ON THE BEAM OR SLAB.

ALL NON LOAD BEARING WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF THE SLABS AND BEAMS BY 20MM UNLESS OTHERWISE SHOWN.

- THE DESIGN WIND CRITERIA TO AS1170 2 IS AS FOLLOWS

REGION	A1
REGIONAL WIND SPEED	41 m/s
TERRAIN CATEGORY	2
WIND SITE CLASSIFICATION	N2

SITE PREPARATION

- REMOVE ALL TOPSOIL INCLUDING ANY ORGANIC, LOOSE OR SOFT MATERIAL AND ROOTS.
- FOUNDING SOILS, BOTH UNDER SLABS & FOOTINGS, TO BE COMPACTED TO A MINIMUM OF 7 BLOWS/300MM USING A STANDARD PERTH PENETROMETER. ALTERNATIVELY, COMPACTION IS TO ACHIEVE A MINIMUM OF 95% M.D.D. RATIO.
- SAND PAD SHALL BE CLEAN, WELL GRADED YELLOW SAND COMPACTED IN LAYERS NO THICKER THAN 300MM, COMPACTION TO COMPLY WITH NOTE 2.
- FOOTING SHALL BE LOCATED CENTRALLY BENEATH WALLS AND COLUMNS UNLESS NOTED OTHERWISE ON PROJECT DRAWINGS.
- ALL ROOF & SURFACE WATER TO BE DRAINED AWAY FROM STRUCTURE.
- ALL LOCATIONS WHERE PLUMBING PIPES PENETRATE FOOTING & GROUND SLABS, HAUNCHING REQUIRED TO ENSURE MINIMUM DEPTHS ARE MAINTAINED.

FOUNDATIONS

- FOUNDATION MATERIAL SHALL APPROVED BEFORE POURING CONCRETE OR PLACING REINFORCEMENT FOR AN ALLOWABLE BEARING PRESSURE OF 100 kPa UNLESS OTHERWISE NOTED
- FOUNDING MATERIAL IS TO BE CHECKED AND APPROVED BY THE ENGINEER AND/OR BUILDING SURVEYOR PRIOR TO POURING CONCRETED FOR SLABS FOR OR FOOTINGS
- STRIP AND PAD FOOTING ARE TO BE FOUNDED IN ORIGINAL UNDISTURBED GROUND WITH AN ALLOWABLE BEARING PRESSURE OF **150 kPa (SAND)**
- FOOTING AND GROUND SLAB HAVE BEEN DESIGNED FOR CLASS M CLASSIFICATION. IF SOIL CONDITION DIFFER FROM THIS THE ENGINEER MUST BE CONSULTED PROIR TO CONSTRUCTION.
- STRIP AND PAD FOOTINGS TO HAVE MINIMUM 600MM COMPACTED SAND FILL BENEATH THEM, TO DENSE CONDITIONS AS PER AS3798

CONCRETE

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600 ALL CONCRETE SHALL COMPLY WITH AS3600 AND SHALL HAVE A CHARACTERISTIC STRENGTH AS FOLLOWS.
- FOOTING AND GROUND SLAB
SLAB-ON-GROUND
MASS CONCRETE
PIER FOOTING
- SLUMP TO BE 75mm + 15mm. ADMIXTURES ARE NOT TO BE USED UNLESS APPROVED BY THE ENGINEER. ALL CONCRETE TO BE VIBRATED THEN MOIST CURED FOR 7 DAYS AFTER POUR.
- CONCRETE SHALL NOT BE LESS THAN 25 MPa GRADE. WITH 20mm NOMINAL MAXIMUM AGGREGATE SIZE AND 80mm SLUMP. ALL CONCRETE SHALL BE COMPACTED USING VIBRATION.
- CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR HOLLOWED IN ANY WAY WITHOUT THE ENGINEER'S APPROVAL..
- CONCRETE SECTIONS SHOWN ARE MINIMUM SIZES AND DO NOT INCLUDE FINISHES SIZES MUST NOT BE REDUCED IN ANYWAY FOR DUCT, PIPES, CONDUITS, CHASES ETC WITHOUT THE APPROVAL OF THE ENGINEER DEPTH OF BEAMS GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- MINIMUM COVER (mm) TO ALL REINFORCEMENT SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE :

ELEMENT	SURFACES IN CONTACT WITH GROUND	SURFACES IN INTERIOR ENVIRONMENT	ABOVE GROUND EXTERIOR ENVIRONMENT
FOOTINGS	75	-	-
SLABS ON GROUND	50 (40)	25	45
SUSPENDED SLABS	-	20	45

- CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE APPROVED BY THE ENGINEER.
- ALL FORMWORK (INCLUDING STRIPPING OF FORMWORK) SHALL CONFIRM TO AS1509
- CONCRETE MUST BE SEPARATED FROM SUPPORTING BRICK WORK BY TWO LAYERS OF A SUITABLE MEMBRANE (MALTHOID OR ALCOR) AND VERTICAL FACES SEPARATED FROM WALLS AND COLUMNS BY 12mm THICK BITUMINOUS CANE-ITE OR SIMILAR.
- SYMBOLS ON THE DRAWING FOR REINFORCEMENT ARE AS FOLLOWS :

N-	HOT ROLLED DEFORMED REBAR (500 PLUS REBAR)
R-	HOT ROLLED PLAIN ROUND REBAR
S-	HOT ROLLED DEFORMED REBAR
RW-	COLD ROLLED RIBBED WIRE
W-	COLD DRAWN ROUND WIRE

- THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETRES THE NUMBER FOLLOWING THE FABRIC SYMBOL F IS THE REFERENCE NUMBER FOR THE BAR DIAMETER AND SPACING TO AS1304.
- ALL REINFORCEMENT SHALL BE SUPPORTED BY APPROVED CHAIRS. SPACERS OR TIES AS REQUIRED TO PROVIDE ADEQUATE SUPPORT DURING CONCRETING.
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

SLABS-ON-GROUND AND FOOTINGS

- SLABS-ON-GROUND AND FOOTINGS SHALL BE IN ACCORDANCE WITH AS2870.
- THE SLAB SITE SHALL BE STRIPPED OF TOPSOIL CONTAINING SIGNIFICANT ORGANIC MATTER PRIOR TO BE BEAM EXCAVATION.
- A VAPOUR BARRIER OF 0.2MM MINIMUM THICKNESS SHALL BE PLACED UNDER THE SLAB AS SHOWN THE VAPOUR BARRIER SHALL BE LAPPED A MINIMUM OF 200MM AT JOINTS AND SHALL BE TAPED AROUND PIPES WHICH PENETRATE THE SLAB.
- CLEAN SAND BED FILLING TO 600MM IS REQUIRED TO PLACE UNDER THE SLAB FILLING SHALL BE COMPACTED IN 150MM THICK LAYERS.
- BEAM AND STRIP FOOTING REINFORCEMENT SHALL HAVE A NOMINAL COVER OF 50MM TRENCH MESH SHALL BE LAID CONTINUOUSLY AND SHALL BE SPLICED WHERE NECESSARY BY A LAP OF 500MM THE TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH OF FABRIC AT T- AND L-JUNCTIONS.
- SLAB REINFORCING FABRIC SHALL BE PLACED NEAR THE TOP OF SLAB AND SHALL HAVE A NOMINAL COVER OF 25MM, UNLESS SHOWN OTHERWISE REINFORCING FABRIC SHALL BE LAPPED A MINIMUM OF TWO WIRES PLUS 25MM AND SHALL BE SET OUT SUCH THAT NO MORE THAN THREE THICKNESSES OF FABRIC OCCUR AT ANY LOCATION.
- ALL RELEVANT CODES AND REGULATIONS MUST BE COMPLIED WITH INCLUDING AS 2870 AND AS 3600.
- ALL GRASS ROOTS, VEGETATION AND COMPRESSIBLE TOPSOIL MUST BE REMOVED FROM THE AREA OF THE SLAB PRIOR TO PROOF ROLLING AND FILLING.
- PRIOR TO ANY COMPACTED FILLING BEING PLACED THE GROUND BELOW THE SLAB SHALL BE PROOF ROLLED IN ACCORDANCE WITH AS 2870 WITH A 3 TONNE VIBRATING ROLLER OR SOIL REPORT RECOMMENDATIONS. ANY "SOFT SPOTS" ENCOUNTERED SHALL BE DUG OUT AND REPLACED WITH COMPACTED CRUSHED ROCK IN ACCORDANCE WITH AS 2870.
- REFER AS 2780 CL. 6. 4. 2 AND 6. 4. 3 FOR FILLING REQUIREMENTS GENERALLY CONTROLLED FILL BELOW SLAB PANELS MUST NOT EXCEED 800MM FOR SAND & 400MM FOR NON-SAND MATERIAL FILL. TO BE COMPACTED TO ENSURE A MINIMUM 98% AUSTRALIAN STANDARD COMPACTION AS DEFINED IN AS 1289 5. 1. 1. SAND FILL UP TO 800MM DEEP MUST BE WELL COMPACTED IN LAYERS NOT MORE THAN 300MM THICK BY A VIBRATING PLATE OR VIBRATING ROLLER. NON SAND MATERIAL MUST BE WELL COMPACTED IN LAYERS NOT MORE THAN 150MM THICK BY A MECHANICAL ROLLER.
- THE GROUND SURROUNDING THE SLAB SHALL HAVE ITS SURFACE AT LEAST 150MM BELOW THE SLAB SURFACE AND BE SLOPED AWAY FROM THE SLAB EDGE SO THAT SURFACE WATER WILL BE DRAINED VIA IMPERMEABLE SPOON DRAINS TO LEGAL POINT OF DISCHARGE.

STRUCTURAL STEELWORK

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS4100.
- FABRICATION AND ERECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROVISIONS OF AS4100 AND SAA/SNZHB62. AS APPROPRIATE. WHERE NO APPLICABLE PROVISIONS ARE CONTAINED IN AS 4100.
- ALL WELDS SHALL BE 6MM CFW SP CATEGORY U. N. O. CPBW TO BE SP USING E48XX CONSUMABLES UNLESS NOTED OTHERWISE WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554.
- BOLTS SHALL BE GALVANISED M20-8.8/S U. N. O. THREADS MAY BE INCLUDED IN SHEAR PLANES U. N. O.
- CONNECTIONS NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH THE AISC STANDARDIZED STRUCTURAL CONNECTIONS. PLATES TO BE 10MM THICK. EX-STANDARD SQUARE EDGE FLATS U. N. O.
- PURLINS AND GIRTS ARE TO BE BHP BUILDING PORCUCTS (BHP-BP), STRAMIT, OR OTHER SECTION APPROVED IN WRITING BY THE ENGINEER, COMPLYING WITH AS1397, & A MINIMUM GALVANISES COATING OF Z300 (300G/SQM). CLEAT CONNECTIONS SHALL BE IN ACCORDANCE WITH AISC STANDARDIZED CONNECTIONS OR MANUFACTURER'S RECOMMENDATIONS U. N. O. BOLTING AND BRIDGING TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PAINTING: THE STEELWORK IS TO BE CLEANED TO AN AS1627 CLASS PREPARATIONS IS GIVEN 2 NO COATS OF ZINC RICH PRIMER BEFORE DISPATCH TO THE SITE. UNLESS THE STEEL IS TO BE ENCASED AS DETAILED OTHERWISE BOLTS EXPOSED TO VIEW SHALL BE GALVANISED.
- CONCRETE ENCASED STRUCTURAL STEEL SHALL BE ENCLOSED BY F41 MESH PLACED 25 CLEAR OD STEEL ENCASING TO PROVIDE 50 MIN COVER.
- UNLESS OTHERWISE SPECIFIED ALL STEEL WORK SHALL BE PAINTED WITH SHOP COAT OF ALKYD PRIMER OR INORGANIC ZINC SILICATE MEMBERS ENCASED IN CONCRETE OR FIRE PROTECTION SPRAY, OR FRICTION GRIP BOLTED CONNECTIONS SHALL NOT BE PAINTED.
- THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH 3MM PLATE & CONTINUOUS FILLET WELD UNLESS OTHERWISE SHOWN.
- WHERE BOTH BASE/PARENT PLATE & SUPPORTED PLATES ARE THINNER THAN FILLET WELD THICKNESS, A "BACK UP" PLATE IS REQUIRED TO PREVENT OVERHEAT EFFECT TO THE THIN SURFACE. WELDER TO CONTROL BURN-THROUGH PROCESS TO MINIMIZE DISTORTION OF SURFACE AND EXERCISE PULSE TO PULSE METHOD. A SMALLER DIAMETER WELDING ROD IS PREFERRED.

DRAWING SCHEDULE

A/01 - STRUCTURAL NOTES
A/02 - PROPOSED SITE PLAN
- PROPOSED PATIO FOOTING PLAN
A/03 - ELEVATION 1 & 2
A/04 - SECTION A-A, B-B, C-C & FOOTING DETAILS
A/05 - DETAIL 1 & 2; TYPICAL BRACKET

DRAWING TITLE:

STRUCTURAL NOTES

DESCRIPTION OF WORK:

**PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.**

NOTE :

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- ALL WORKMANSHIP TO COMPLY WITH ALL RELEVANT AUSTRALIAN STANDARDS.

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National
Engineering
Register

Signature

Date 29/05/20

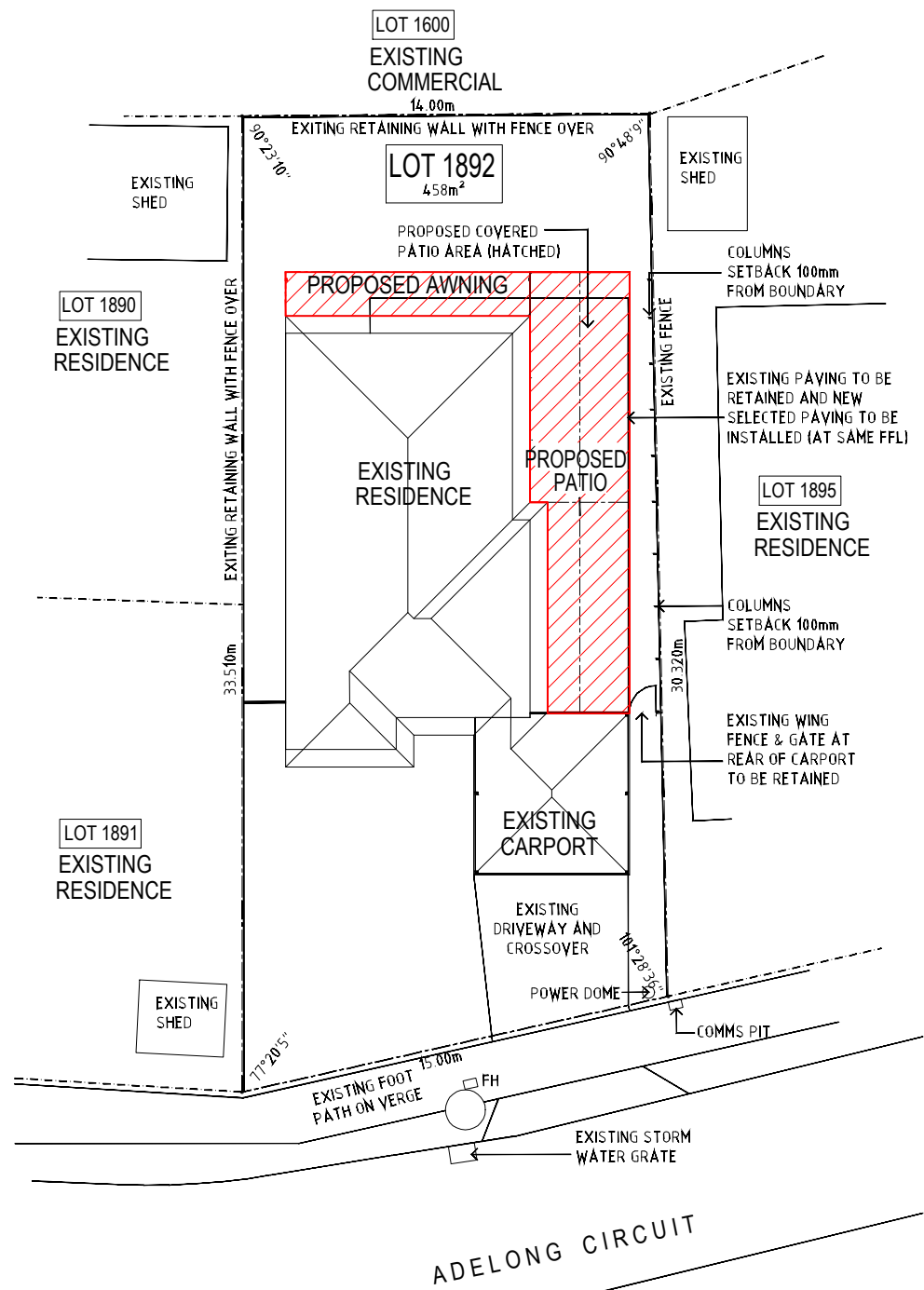
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Membership No:
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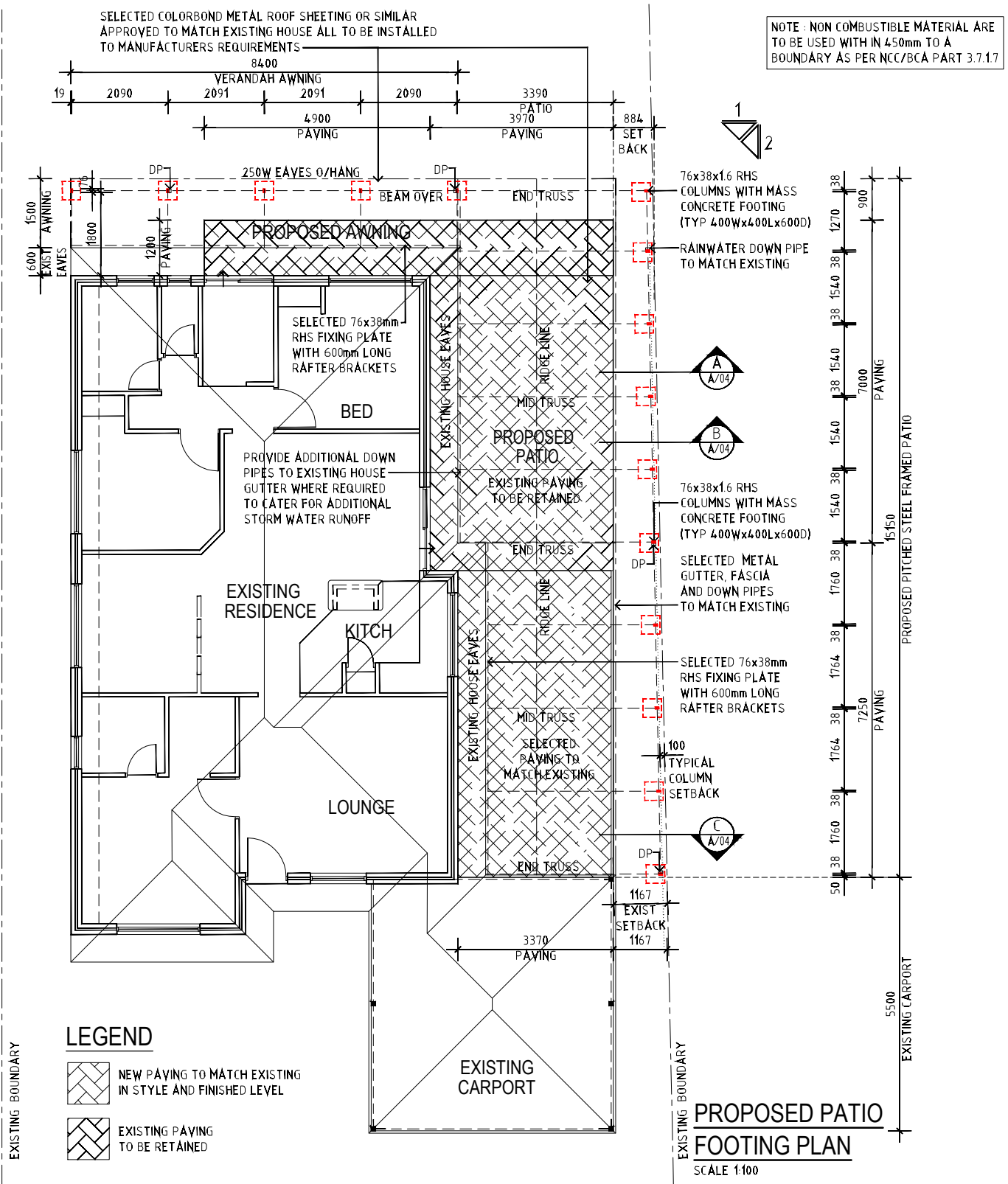
AMENDMENTS:

DWG.
A/01

TOTAL DWG.
05



PROPOSED SITE PLAN
SCALE 1:200



PROPOSED PATIO FOOTING PLAN
SCALE 1:100

DRAWING TITLE:
**PROPOSED SITE PLAN
PROPOSED PATIO
FOOTING PLAN**

DRAWN:
vern

SCALE:
AS SHOWN

DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
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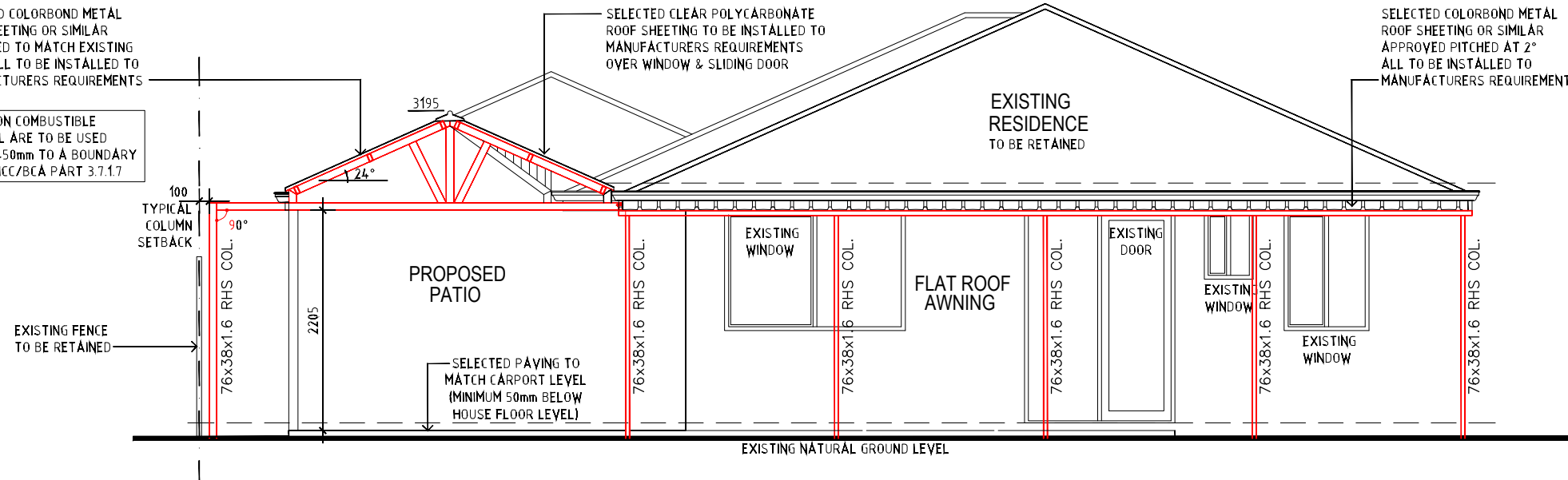
AMENDMENTS:	
DWG.	TOTAL DWG.
A/02	05

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED TO MATCH EXISTING HOUSE ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS

NOTE : NON COMBUSTIBLE MATERIAL ARE TO BE USED WITH IN 450mm TO A BOUNDARY AS PER NCC/BCA PART 3.7.1.7

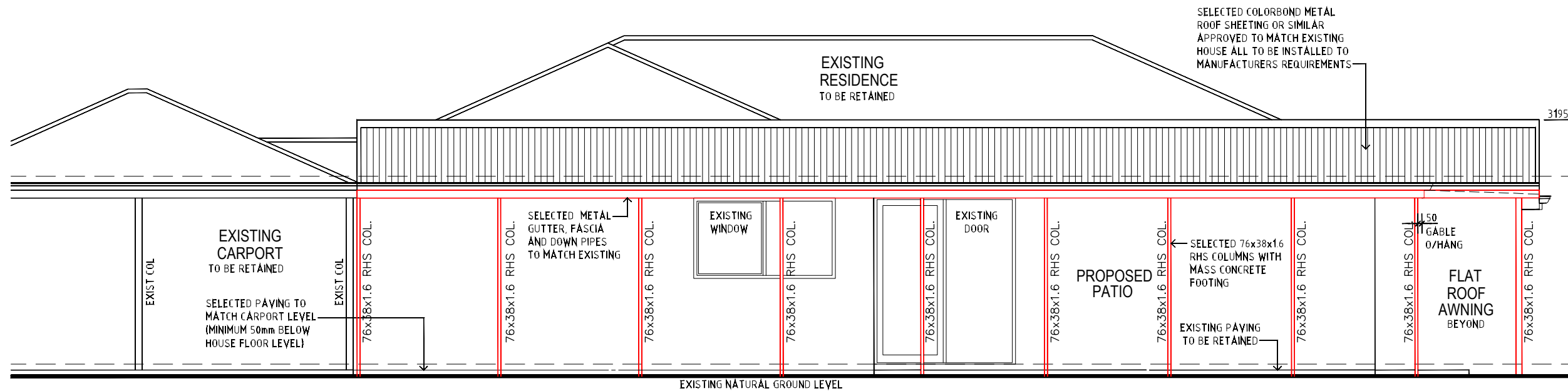
SELECTED CLEAR POLYCARBONATE ROOF SHEETING TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS OVER WINDOW & SLIDING DOOR

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED PITCHED AT 2° ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS



ELEVATION 1
SCALE 1:50

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED TO MATCH EXISTING HOUSE ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS



ELEVATION 2
SCALE 1:50

DRAWING TITLE: ELEVATION 1 & 2	
DRAWN: vern	JOB NO: 98159
SCALE: AS SHOWN	DATE: 28/05/2020

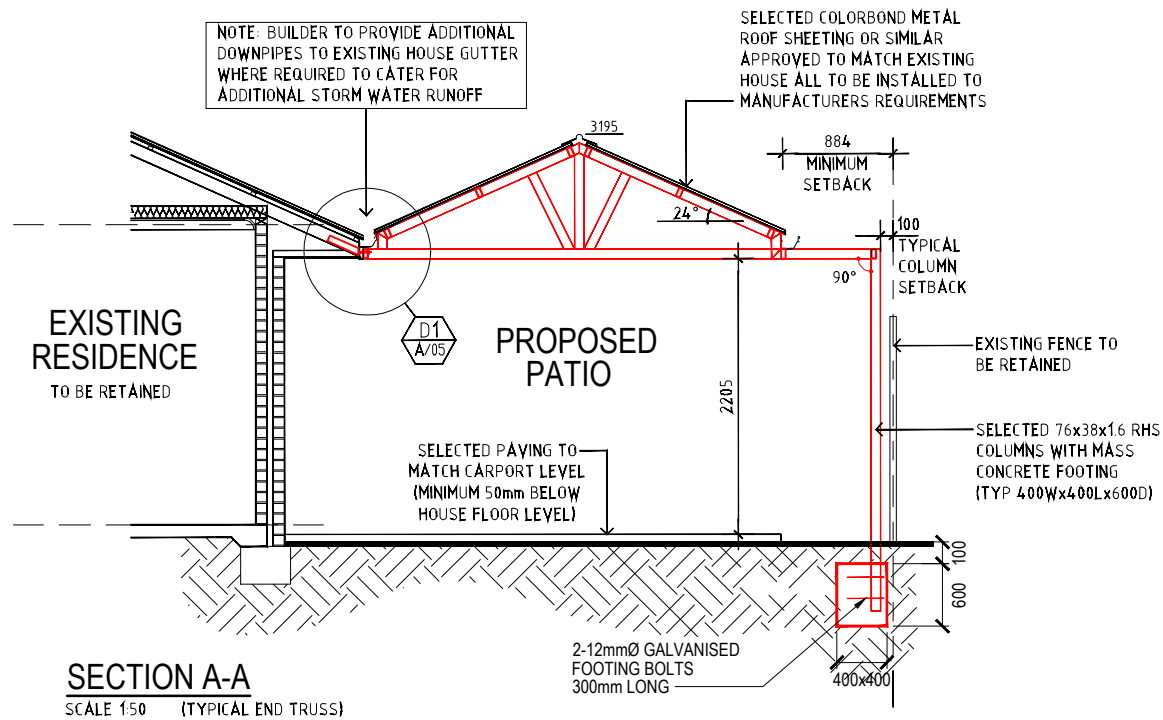
DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
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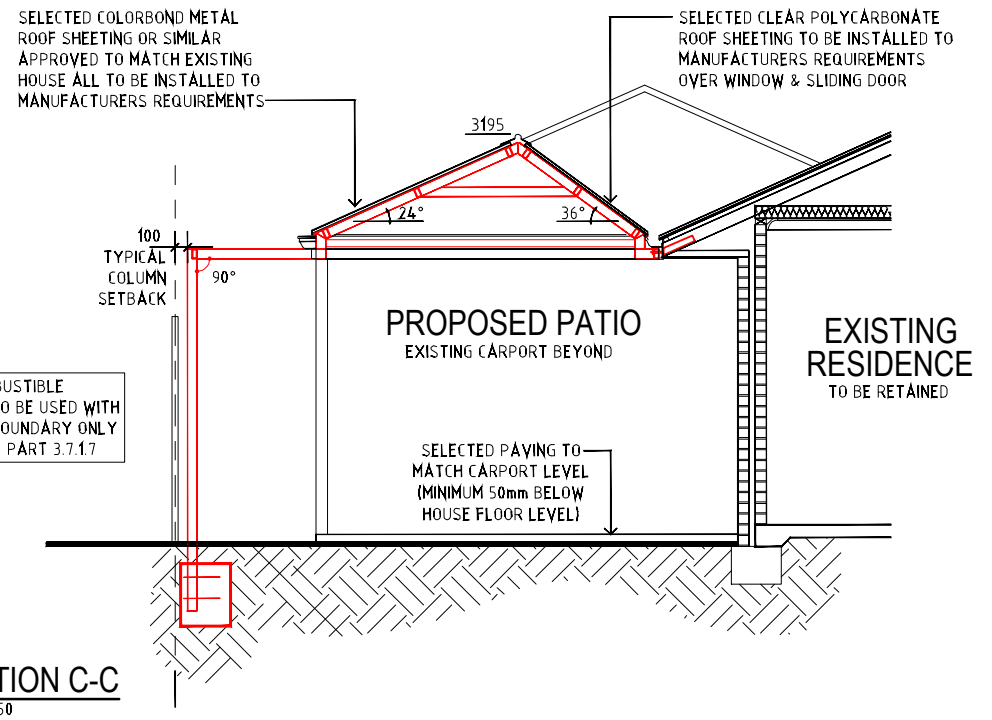
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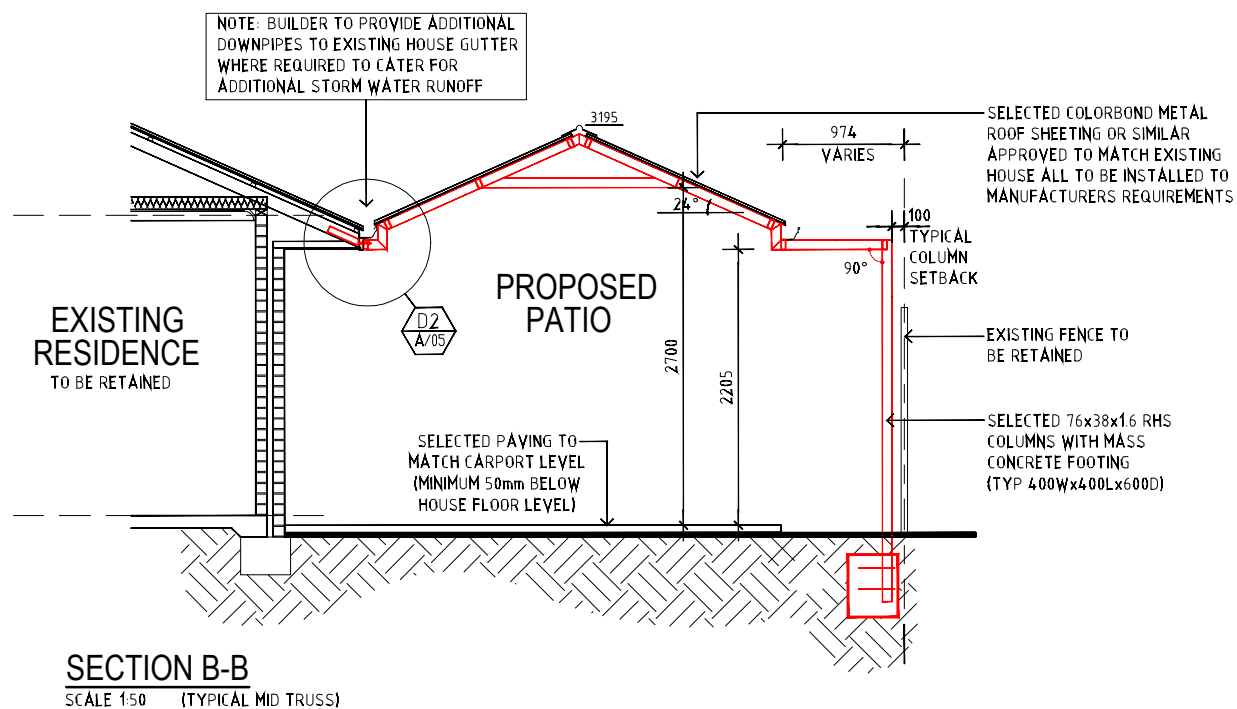
AMENDMENTS:	
DWG. A/03	TOTAL DWG. 05



SECTION A-A
SCALE 1:50 (TYPICAL END TRUSS)



SECTION C-C
SCALE 1:50



SECTION B-B
SCALE 1:50 (TYPICAL MID TRUSS)

MINIMUM REQUIREMENTS	
COLUMNS	UP TO 3.0m HIGH - 76x38x1.6 RHS (MIN)
TRUSSES	
TOP CORD	76x38x1.6 RHS
BOTTOM CORD	76x38x1.6 RHS
KING POST & STRUTS	76x38x1.6 RHS
PURLINS	UP TO 3.5m - 76x38x1.6 RHS UP TO 4.0m - 76x38x1.6 RHS
PURLIN SPACING	SPACE ROOF PURLIN TO SUIT SPAN OF ROOF SHEETING
ROOF CLADDING	FIXED TO MANUFACTURERS REQUIREMENTS
GUTTER	TO MATCH EXISTING
FLASHING	GUTTERS & DOWNPIPES TO BE RIVETED AND SILICONE SEALED
FOOTING	400 x 400 x 600 DEEP MASS CONCRETE

ALL MATERIALS TEK SCREWED USING INTERNAL PATIO BRACKETS OR FULLY WELDED, ALL WELDING TO CONFORM WITH RELEVANT AUSTRALIAN STANDARDS, PAINT ALL WELDS WITH SELECTED GALVANIZED PAINTS

DRAWING TITLE:
**SECTION A-A, B-B, C-C
FOOTING DETAILS**

DRAWN:
vern

SCALE:
AS SHOWN

JOB NO:
98159

DATE:
28/05/2020

DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.**

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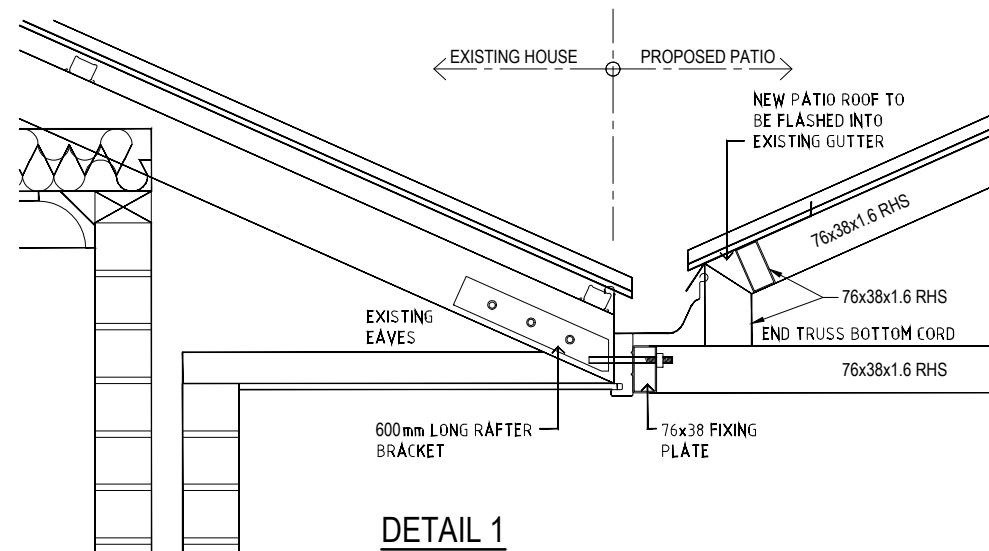
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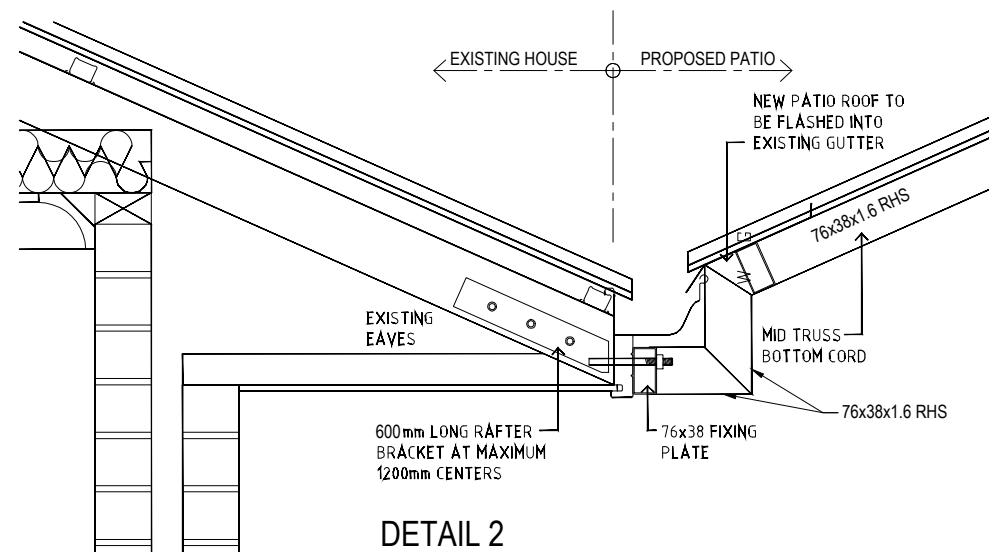
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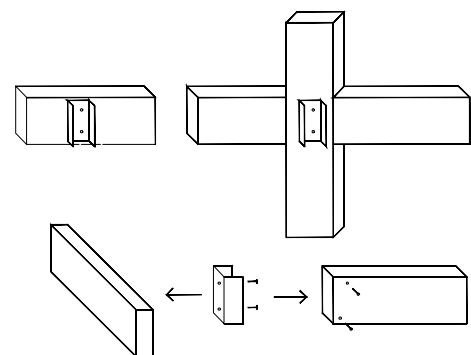
DWG.	TOTAL DWG.
A/04	05



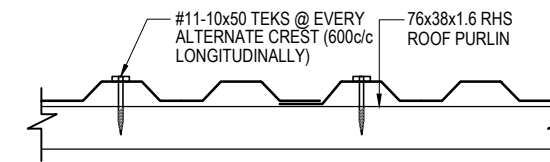
DETAIL 1
SCALE 1:10 (END TRUSS TO STANDARD EAVES CONNECTION)



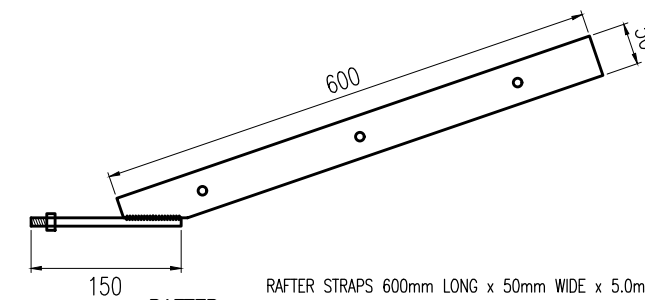
DETAIL 2
SCALE 1:10 (MID TRUSS TO STANDARD EAVES CONNECTION)



TYPICAL BRACKET - TUBE CONNECTIONS



METAL ROOF TO RHS PURLIN TIE DOWN
SCALE 1:10



RAFTER STRAPS
RAFTER STRAPS 600mm LONG x 50mm WIDE x 5.0mm THICK + 10mmØ FULLY WELDED BOLT HOT DIPPED GALVANISED. ATTACHED TO EVERY SECOND RAFTER AND FIXED WITH 3 x 10mmØ x 75mm LONG CUP HEAD GALVANISED BOLT.

BRACKET DETAIL

MINIMUM REQUIREMENTS	
COLUMNS	UP TO 3.0m HIGH - 76x38x1.6 RHS (MIN)
TRUSSES	
TOP CORD	76x38x1.6 RHS
BOTTOM CORD	76x38x1.6 RHS
KING POST & STRUTS	76x38x1.6 RHS
PURLINS	UP TO 3.5m - 76x38x1.6 RHS UP TO 4.0m - 76x38x1.6 RHS
PURLIN SPACING	SPACE ROOF PURLIN TO SUIT SPAN OF ROOF SHEETING
ROOF CLADDING	FIXED TO MANUFACTURES REQUIREMENTS TO MATCH EXISTING
GUTTER	GUTTERS & DOWNPIPES TO BE RIVETED AND SILICONE SEALED
FLASHING	
FOOTING	400 x 400 x 600 DEEP MASS CONCRETE

ALL MATERIALS TEK SCREWED USING INTERNAL PATIO BRACKETS OR FULLY WELDED, ALL WELDING TO CONFORM WITH RELEVANT AUSTRALIAN STANDARDS, PAINT ALL WELDS WITH SELECTED GALVANIZED PAINTS

DRAWING TITLE:
**DETAIL 1 & 2
TYPICAL BRACKET**

DRAWN:
vern

SCALE:
AS SHOWN

DESCRIPTION OF WORK:
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Membership No:
4512871

AMENDMENTS:

DWG.	TOTAL DWG.
A/05	05

SITE PARTICULARS

Property address : 29 ADELONG CIRCUIT,
(Lot 1892) MERRIWA, WA 6030.

Local Auth : CITY OF WANNERO

GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL & OTHER CONSULTANTS DRAWING & SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT ANY DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.
- ALL DIMENSIONS RELEVANT TO SETTING OUT & OFF SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT NOTED ON ENGINEERING DRAWINGS-DO NOT SCALE ENGINEERING DRAWINGS.
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- NO SUBSTITUTIONS ARE TO BE MADE FOR MATERIALS NOMINATED ON THE STRUCTURAL DRAWINGS.
- DURING CONSTRUCTION THE CONTRACTOR/BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING THAT NO PART IS OVER-STRESSED DURING CONSTRUCTION ACTIVITIES.
- THE BUILDER SHALL PROVIDE ALL TEMPORARY BRACING AS REQUIRED AND ALL TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL PERMANENT BRACING AND SUPPORTS ARE PLACED AND ANCHORED.
- NO RESPONSIBILITY IS ACCEPTED FOR THE WORKS AS CONSTRUCTED UNLESS THE WORKS ARE INSPECTED AND APPROVED BY THE ENGINEER DURING CONSTRUCTION ALL REQUIRED INSPECTIONS SHALL BE CONFIRMED 48 HOURS IN ADVANCE OF THE TIME REQUIRED. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.
- THE STRUCTURAL WORK SHOWN ON THESE DRAWING HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS.

AREA	LIVE LOADS	SUPERIMPOSED DEAD LOADS
PATIO		
ROOF	0.25 kPa	0.15 kPa

- ALL PROPS AND FORMWORK FOR BEAMS AND SLABS SHALL BE REMOVED BEFORE ANY MASONRY WALLS OR PARTITIONS ARE CONSTRUCTED ON THE BEAM OR SLAB.

ALL NON LOAD BEARING WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF THE SLABS AND BEAMS BY 20MM UNLESS OTHERWISE SHOWN.

- THE DESIGN WIND CRITERIA TO AS1170 2 IS AS FOLLOWS

REGION	A1
REGIONAL WIND SPEED	41 m/s
TERRAIN CATEGORY	2
WIND SITE CLASSIFICATION	N2

SITE PREPARATION

- REMOVE ALL TOPSOIL INCLUDING ANY ORGANIC, LOOSE OR SOFT MATERIAL AND ROOTS.
- FOUNDING SOILS, BOTH UNDER SLABS & FOOTINGS, TO BE COMPACTED TO A MINIMUM OF 7 BLOWS/300MM USING A STANDARD PERTH PENETROMETER. ALTERNATIVELY, COMPACTION IS TO ACHIEVE A MINIMUM OF 95% M.D.D. RATIO.
- SAND PAD SHALL BE CLEAN, WELL GRADED YELLOW SAND COMPACTED IN LAYERS NO THICKER THAN 300MM, COMPACTION TO COMPLY WITH NOTE 2.
- FOOTING SHALL BE LOCATED CENTRALLY BENEATH WALLS AND COLUMNS UNLESS NOTED OTHERWISE ON PROJECT DRAWINGS.
- ALL ROOF & SURFACE WATER TO BE DRAINED AWAY FROM STRUCTURE.
- ALL LOCATIONS WHERE PLUMBING PIPES PENETRATE FOOTING & GROUND SLABS, HAUNCHING REQUIRED TO ENSURE MINIMUM DEPTHS ARE MAINTAINED.

FOUNDATIONS

- FOUNDATION MATERIAL SHALL APPROVED BEFORE POURING CONCRETE OR PLACING REINFORCEMENT FOR AN ALLOWABLE BEARING PRESSURE OF 100 kPa UNLESS OTHERWISE NOTED
- FOUNDING MATERIAL IS TO BE CHECKED AND APPROVED BY THE ENGINEER AND/OR BUILDING SURVEYOR PRIOR TO POURING CONCRETED FOR SLABS FOR OR FOOTINGS
- STRIP AND PAD FOOTING ARE TO BE FOUNDED IN ORIGINAL UNDISTURBED GROUND WITH AN ALLOWABLE BEARING PRESSURE OF **150 kPa (SAND)**
- FOOTING AND GROUND SLAB HAVE BEEN DESIGNED FOR CLASS M CLASSIFICATION. IF SOIL CONDITION DIFFER FROM THIS THE ENGINEER MUST BE CONSULTED PROIR TO CONSTRUCTION.
- STRIP AND PAD FOOTINGS TO HAVE MINIMUM 600MM COMPACTED SAND FILL BENEATH THEM, TO DENSE CONDITIONS AS PER AS3798

CONCRETE

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600 ALL CONCRETE SHALL COMPLY WITH AS3600 AND SHALL HAVE A CHARACTERISTIC STRENGTH AS FOLLOWS.
- FOOTING AND GROUND SLAB
SLAB-ON-GROUND
MASS CONCRETE
PIER FOOTING
- SLUMP TO BE 75mm + 15mm. ADMIXTURES ARE NOT TO BE USED UNLESS APPROVED BY THE ENGINEER. ALL CONCRETE TO BE VIBRATED THEN MOIST CURED FOR 7 DAYS AFTER POUR.
- CONCRETE SHALL NOT BE LESS THAN 25 MPa GRADE. WITH 20mm NOMINAL MAXIMUM AGGREGATE SIZE AND 80mm SLUMP. ALL CONCRETE SHALL BE COMPACTED USING VIBRATION.
- CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR HOLLOWED IN ANY WAY WITHOUT THE ENGINEER'S APPROVAL..
- CONCRETE SECTIONS SHOWN ARE MINIMUM SIZES AND DO NOT INCLUDE FINISHES SIZES MUST NOT BE REDUCED IN ANYWAY FOR DUCT, PIPES, CONDUITS, CHASES ETC WITHOUT THE APPROVAL OF THE ENGINEER DEPTH OF BEAMS GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- MINIMUM COVER (mm) TO ALL REINFORCEMENT SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE :

ELEMENT	SURFACES IN CONTACT WITH GROUND	SURFACES IN INTERIOR ENVIRONMENT	ABOVE GROUND EXTERIOR ENVIRONMENT
FOOTINGS	75	-	-
SLABS ON GROUND	50 (40)	25	45
SUSPENDED SLABS	-	20	45

- CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE APPROVED BY THE ENGINEER.
- ALL FORMWORK (INCLUDING STRIPPING OF FORMWORK) SHALL CONFIRM TO AS1509
- CONCRETE MUST BE SEPARATED FROM SUPPORTING BRICK WORK BY TWO LAYERS OF A SUITABLE MEMBRANE (MALTHOID OR ALCOR) AND VERTICAL FACES SEPARATED FROM WALLS AND COLUMNS BY 12mm THICK BITUMINOUS CANE-ITE OR SIMILAR.
- SYMBOLS ON THE DRAWING FOR REINFORCEMENT ARE AS FOLLOWS :

N-	HOT ROLLED DEFORMED REBAR (500 PLUS REBAR)
R-	HOT ROLLED PLAIN ROUND REBAR
S-	HOT ROLLED DEFORMED REBAR
RW-	COLD ROLLED RIBBED WIRE
W-	COLD DRAWN ROUND WIRE

- THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETRES THE NUMBER FOLLOWING THE FABRIC SYMBOL F IS THE REFERENCE NUMBER FOR THE BAR DIAMETER AND SPACING TO AS1304.
- ALL REINFORCEMENT SHALL BE SUPPORTED BY APPROVED CHAIRS. SPACERS OR TIES AS REQUIRED TO PROVIDE ADEQUATE SUPPORT DURING CONCRETING.
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

SLABS-ON-GROUND AND FOOTINGS

- SLABS-ON-GROUND AND FOOTINGS SHALL BE IN ACCORDANCE WITH AS2870.
- THE SLAB SITE SHALL BE STRIPPED OF TOPSOIL CONTAINING SIGNIFICANT ORGANIC MATTER PRIOR TO BE BEAM EXCAVATION.
- A VAPOUR BARRIER OF 0.2MM MINIMUM THICKNESS SHALL BE PLACED UNDER THE SLAB AS SHOWN THE VAPOUR BARRIER SHALL BE LAPPED A MINIMUM OF 200MM AT JOINTS AND SHALL BE TAPED AROUND PIPES WHICH PENETRATE THE SLAB.
- CLEAN SAND BED FILLING TO 600MM IS REQUIRED TO PLACE UNDER THE SLAB FILLING SHALL BE COMPACTED IN 150MM THICK LAYERS.
- BEAM AND STRIP FOOTING REINFORCEMENT SHALL HAVE A NOMINAL COVER OF 50MM TRENCH MESH SHALL BE LAID CONTINUOUSLY AND SHALL BE SPLICED WHERE NECESSARY BY A LAP OF 500MM THE TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH OF FABRIC AT T- AND L-JUNCTIONS.
- SLAB REINFORCING FABRIC SHALL BE PLACED NEAR THE TOP OF SLAB AND SHALL HAVE A NOMINAL COVER OF 25MM, UNLESS SHOWN OTHERWISE REINFORCING FABRIC SHALL BE LAPPED A MINIMUM OF TWO WIRES PLUS 25MM AND SHALL BE SET OUT SUCH THAT NO MORE THAN THREE THICKNESSES OF FABRIC OCCUR AT ANY LOCATION.
- ALL RELEVANT CODES AND REGULATIONS MUST BE COMPLIED WITH INCLUDING AS 2870 AND AS 3600.
- ALL GRASS ROOTS, VEGETATION AND COMPRESSIBLE TOPSOIL MUST BE REMOVED FROM THE AREA OF THE SLAB PRIOR TO PROOF ROLLING AND FILLING.
- PRIOR TO ANY COMPACTED FILLING BEING PLACED THE GROUND BELOW THE SLAB SHALL BE PROOF ROLLED IN ACCORDANCE WITH AS 2870 WITH A 3 TONNE VIBRATING ROLLER OR SOIL REPORT RECOMMENDATIONS. ANY "SOFT SPOTS" ENCOUNTERED SHALL BE DUG OUT AND REPLACED WITH COMPACTED CRUSHED ROCK IN ACCORDANCE WITH AS 2870.
- REFER AS 2780 CL. 6. 4. 2 AND 6. 4. 3 FOR FILLING REQUIREMENTS GENERALLY CONTROLLED FILL BELOW SLAB PANELS MUST NOT EXCEED 800MM FOR SAND & 400MM FOR NON-SAND MATERIAL FILL. TO BE COMPACTED TO ENSURE A MINIMUM 98% AUSTRALIAN STANDARD COMPACTION AS DEFINED IN AS 1289 5. 1. 1. SAND FILL UP TO 800MM DEEP MUST BE WELL COMPACTED IN LAYERS NOT MORE THAN 300MM THICK BY A VIBRATING PLATE OR VIBRATING ROLLER. NON SAND MATERIAL MUST BE WELL COMPACTED IN LAYERS NOT MORE THAN 150MM THICK BY A MECHANICAL ROLLER.
- THE GROUND SURROUNDING THE SLAB SHALL HAVE ITS SURFACE AT LEAST 150MM BELOW THE SLAB SURFACE AND BE SLOPED AWAY FROM THE SLAB EDGE SO THAT SURFACE WATER WILL BE DRAINED VIA IMPERMEABLE SPOON DRAINS TO LEGAL POINT OF DISCHARGE.

STRUCTURAL STEELWORK

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS4100.
- FABRICATION AND ERECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROVISIONS OF AS4100 AND SAA/SNZHB62. AS APPROPRIATE. WHERE NO APPLICABLE PROVISIONS ARE CONTAINED IN AS 4100.
- ALL WELDS SHALL BE 6MM CFW SP CATEGORY U. N. O. CPBW TO BE SP USING E48XX CONSUMABLES UNLESS NOTED OTHERWISE WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554.
- BOLTS SHALL BE GALVANISED M20-8.8/S U. N. O. THREADS MAY BE INCLUDED IN SHEAR PLANES U. N. O.
- CONNECTIONS NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH THE AISC STANDARDIZED STRUCTURAL CONNECTIONS. PLATES TO BE 10MM THICK. EX-STANDARD SQUARE EDGE FLATS U. N. O.
- PURLINS AND GIRTS ARE TO BE BHP BUILDING PORCUCTS (BHP-BP), STRAMIT, OR OTHER SECTION APPROVED IN WRITING BY THE ENGINEER, COMPLYING WITH AS1397, & A MINIMUM GALVANISES COATING OF Z300 (300G/SQM). CLEAT CONNECTIONS SHALL BE IN ACCORDANCE WITH AISC STANDARDIZED CONNECTIONS OR MANUFACTURER'S RECOMMENDATIONS U. N. O. BOLTING AND BRIDGING TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PAINTING: THE STEELWORK IS TO BE CLEANED TO AN AS1627 CLASS PREPARATIONS IS GIVEN 2 NO COATS OF ZINC RICH PRIMER BEFORE DISPATCH TO THE SITE. UNLESS THE STEEL IS TO BE ENCASED AS DETAILED OTHERWISE BOLTS EXPOSED TO VIEW SHALL BE GALVANISED.
- CONCRETE ENCASED STRUCTURAL STEEL SHALL BE ENCLOSED BY F41 MESH PLACED 25 CLEAR OD STEEL ENCASING TO PROVIDE 50 MIN COVER.
- UNLESS OTHERWISE SPECIFIED ALL STEEL WORK SHALL BE PAINTED WITH SHOP COAT OF ALKYD PRIMER OR INORGANIC ZINC SILICATE MEMBERS ENCASED IN CONCRETE OR FIRE PROTECTION SPRAY, OR FRICTION GRIP BOLTED CONNECTIONS SHALL NOT BE PAINTED.
- THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH 3MM PLATE & CONTINUOUS FILLET WELD UNLESS OTHERWISE SHOWN.
- WHERE BOTH BASE/PARENT PLATE & SUPPORTED PLATES ARE THINNER THAN FILLET WELD THICKNESS, A "BACK UP" PLATE IS REQUIRED TO PREVENT OVERHEAT EFFECT TO THE THIN SURFACE. WELDER TO CONTROL BURN-THROUGH PROCESS TO MINIMIZE DISTORTION OF SURFACE AND EXERCISE PULSE TO PULSE METHOD. A SMALLER DIAMETER WELDING ROD IS PREFERRED.

DRAWING SCHEDULE

A/01 - STRUCTURAL NOTES
A/02 - PROPOSED SITE PLAN
- PROPOSED PATIO FOOTING PLAN
A/03 - ELEVATION 1 & 2
A/04 - SECTION A-A, B-B, C-C & FOOTING DETAILS
A/05 - DETAIL 1 & 2; TYPICAL BRACKET

DRAWING TITLE:

STRUCTURAL NOTES

DESCRIPTION OF WORK:

PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.

NOTE :

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- ALL WORKMANSHIP TO COMPLY WITH ALL RELEVANT AUSTRALIAN STANDARDS.

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Signature

Chong S. Liew

Date 29/05/20

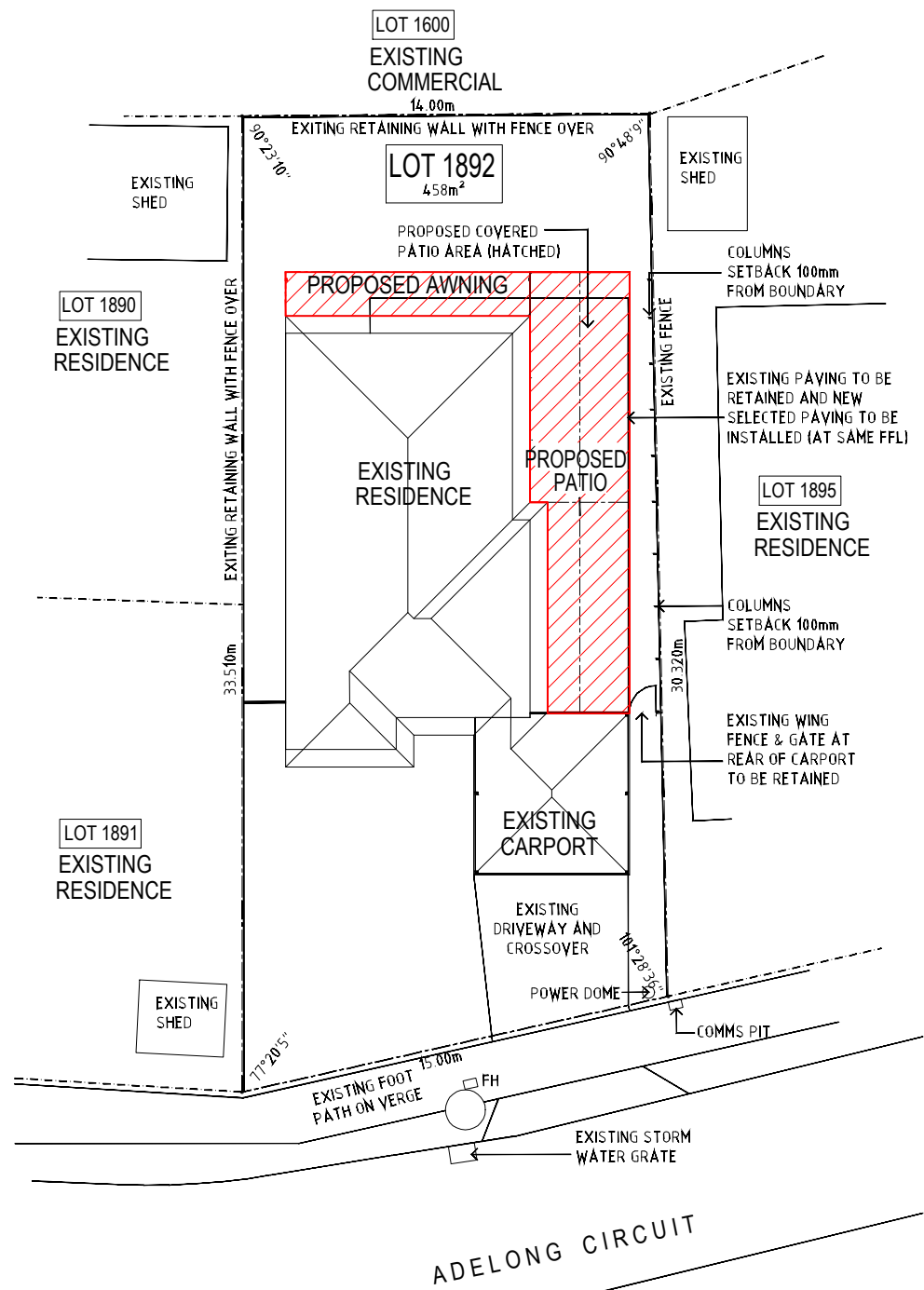
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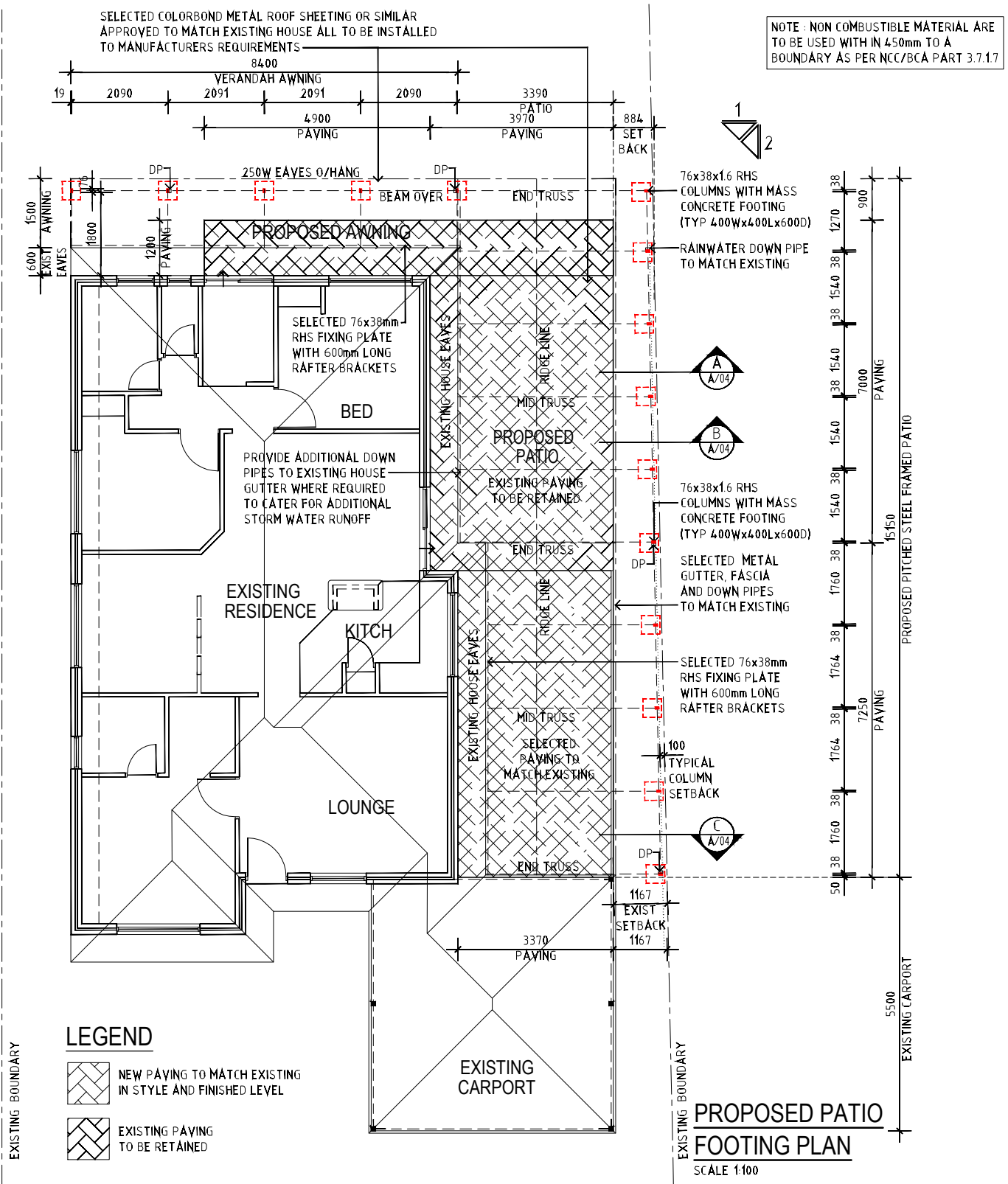
AMENDMENTS:

DWG.
A/01

TOTAL DWG.
05



PROPOSED SITE PLAN
SCALE 1:200



PROPOSED PATIO FOOTING PLAN
SCALE 1:100

DRAWING TITLE:
**PROPOSED SITE PLAN
PROPOSED PATIO
FOOTING PLAN**

DRAWN:
vern

SCALE:
AS SHOWN

DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
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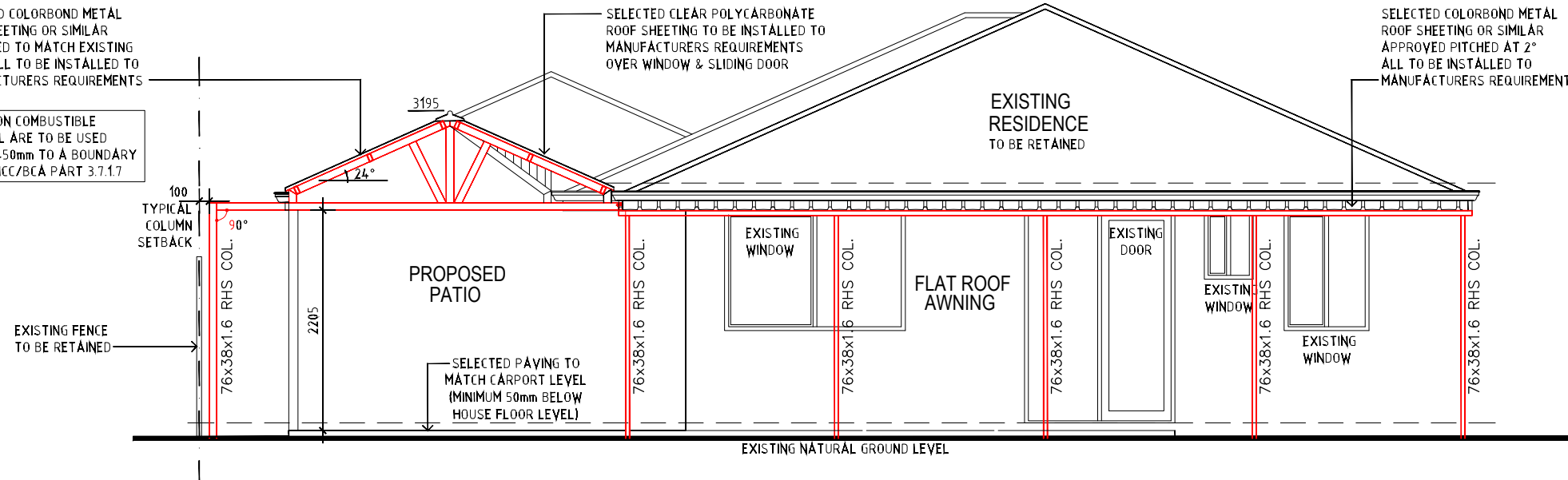
AMENDMENTS:	
DWG.	TOTAL DWG.
A/02	05

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED TO MATCH EXISTING HOUSE ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS

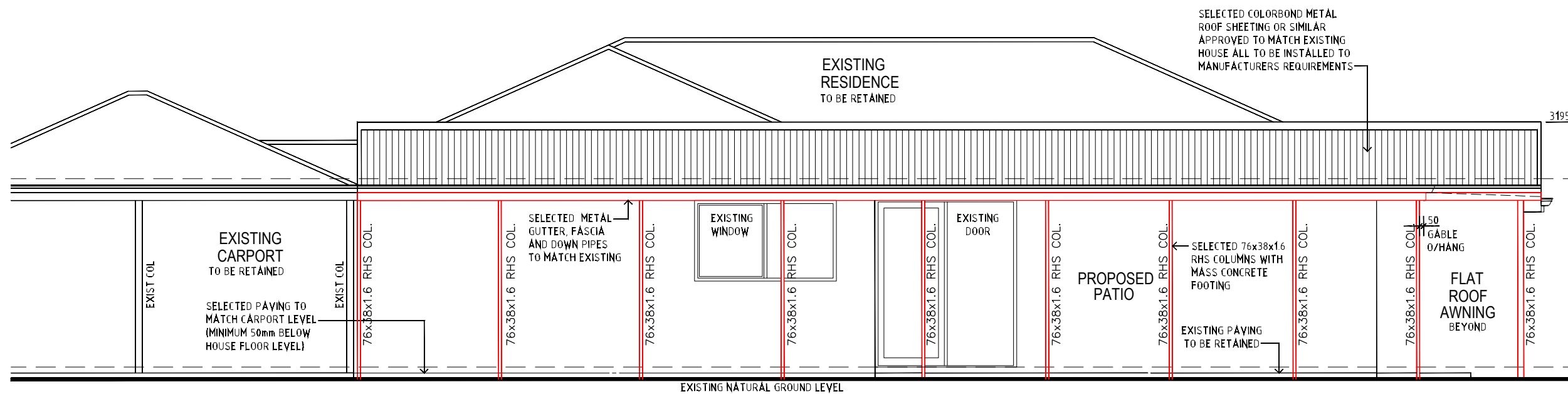
NOTE : NON COMBUSTIBLE MATERIAL ARE TO BE USED WITH IN 450mm TO A BOUNDARY AS PER NCC/BCA PART 3.7.1.7

SELECTED CLEAR POLYCARBONATE ROOF SHEETING TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS OVER WINDOW & SLIDING DOOR

SELECTED COLORBOND METAL ROOF SHEETING OR SIMILAR APPROVED PITCHED AT 2° ALL TO BE INSTALLED TO MANUFACTURERS REQUIREMENTS



ELEVATION 1
SCALE 1:50



ELEVATION 2
SCALE 1:50

DRAWING TITLE: ELEVATION 1 & 2	
DRAWN: vern	JOB NO: 98159
SCALE: AS SHOWN	DATE: 28/05/2020

DESCRIPTION OF WORK:

**PROPOSED GABLE PATIO AT
29 ADELONG CIRCUIT,
MERRIWA, WA 6030.**

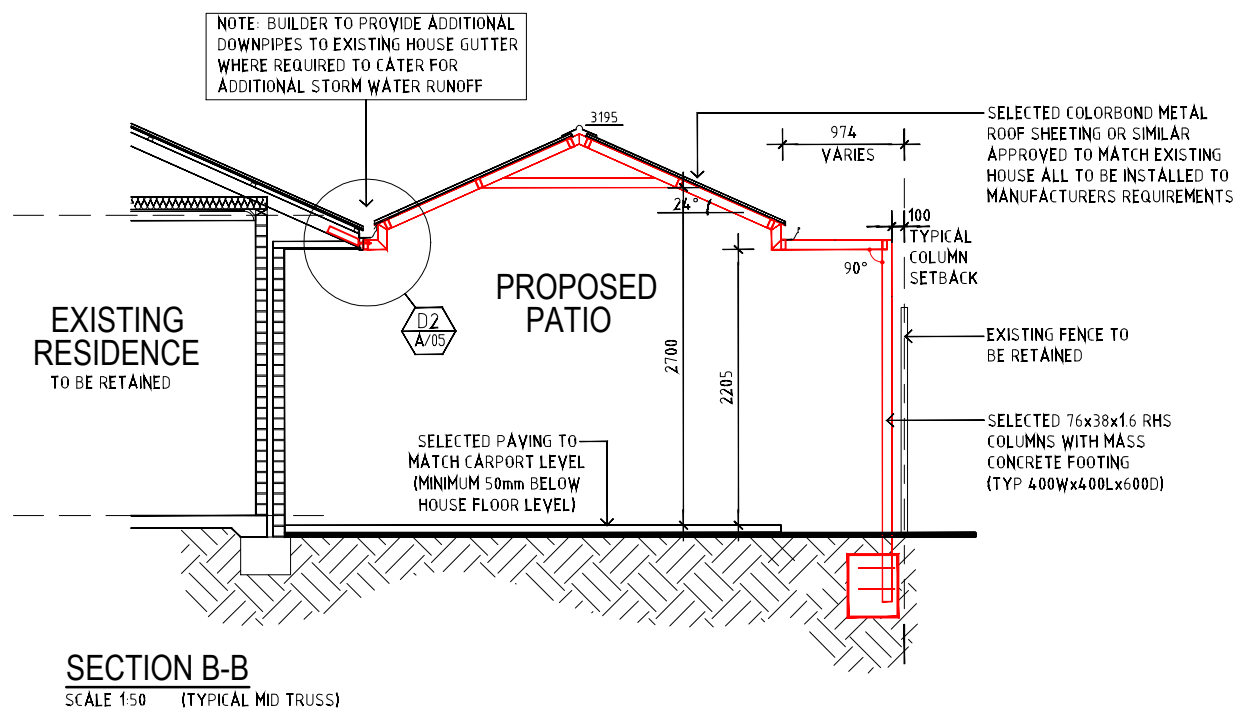
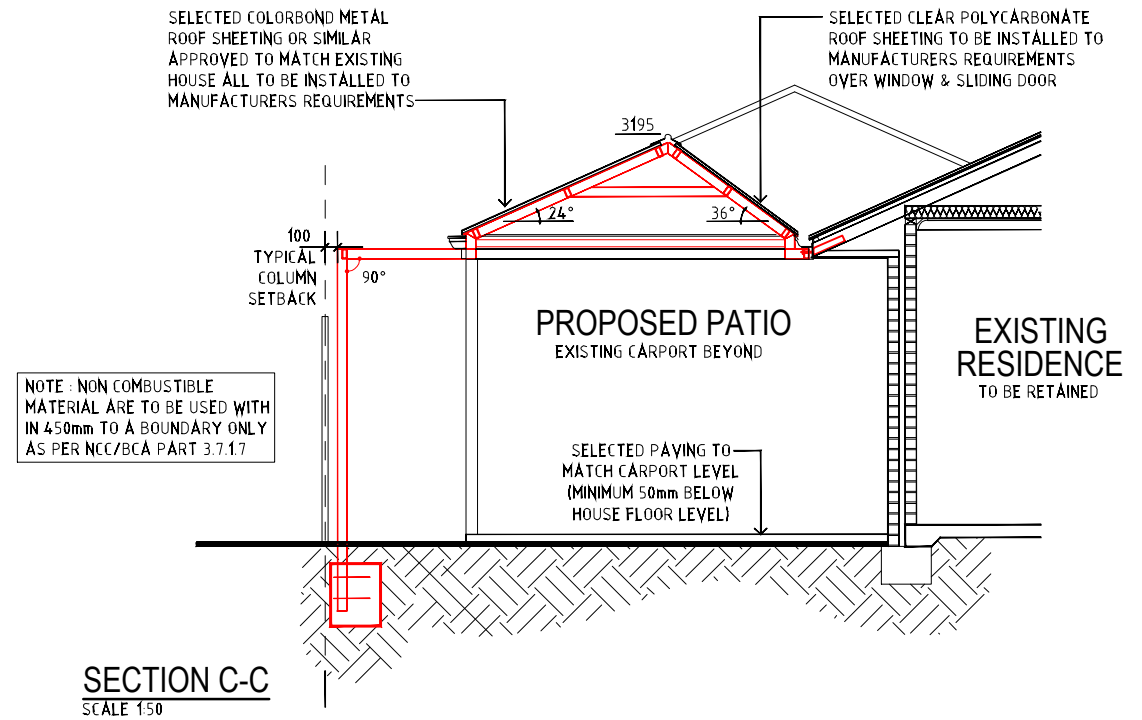
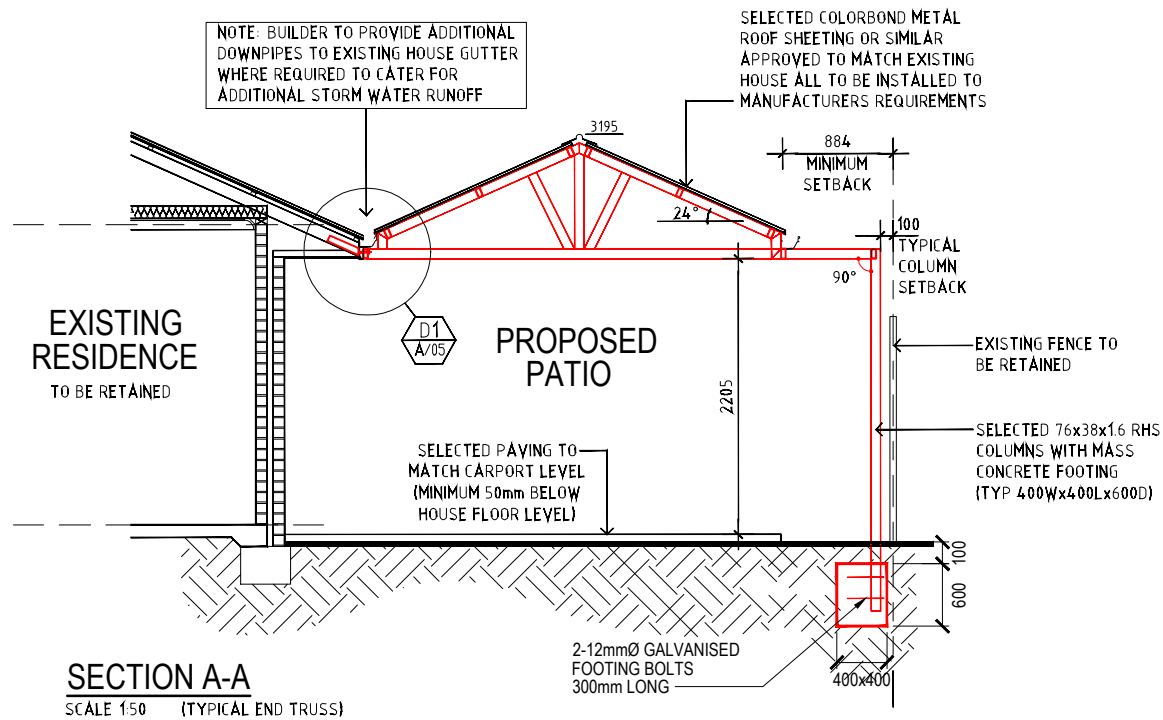
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AMENDMENTS:	
DWG. A/03	TOTAL DWG. 05



MATERIAL SPECIFICATIONS	
MINIMUM REQUIREMENTS	
COLUMNS	UP TO 3.0m HIGH - 76x38x1.6 RHS (MIN)
TRUSSES	
TOP CORD	76x38x1.6 RHS
BOTTOM CORD	76x38x1.6 RHS
KING POST & STRUTS	76x38x1.6 RHS
PURLINS	UP TO 3.5m - 76x38x1.6 RHS UP TO 4.0m - 76x38x1.6 RHS
PURLIN SPACING	SPACE ROOF PURLIN TO SUIT SPAN OF ROOF SHEETING
ROOF CLADDING	FIXED TO MANUFACTURERS REQUIREMENTS
GUTTER	TO MATCH EXISTING
FLASHING	GUTTERS & DOWNPIPES TO BE RIVETED AND SILICONE SEALED
FOOTING	400 x 400 x 600 DEEP MASS CONCRETE

ALL MATERIALS TEK SCREWED USING INTERNAL PATIO BRACKETS OR FULLY WELDED, ALL WELDING TO CONFORM WITH RELEVANT AUSTRALIAN STANDARDS, PAINT ALL WELDS WITH SELECTED GALVANIZED PAINTS

DRAWING TITLE:
**SECTION A-A, B-B, C-C
FOOTING DETAILS**

DRAWN:
vern

JOB NO:
98159

SCALE:
AS SHOWN

DATE:
28/05/2020

DESCRIPTION OF WORK:
**PROPOSED GABLE PATIO AT
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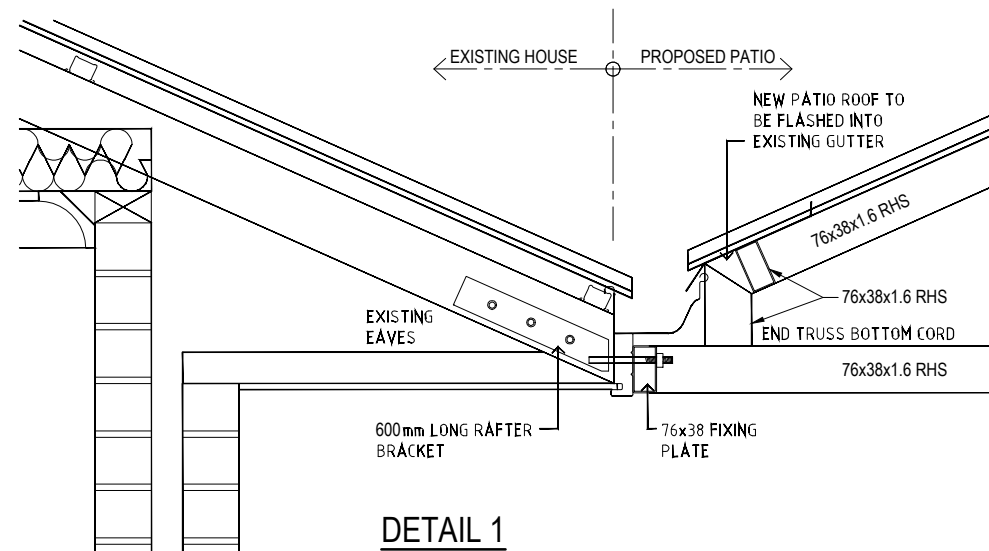
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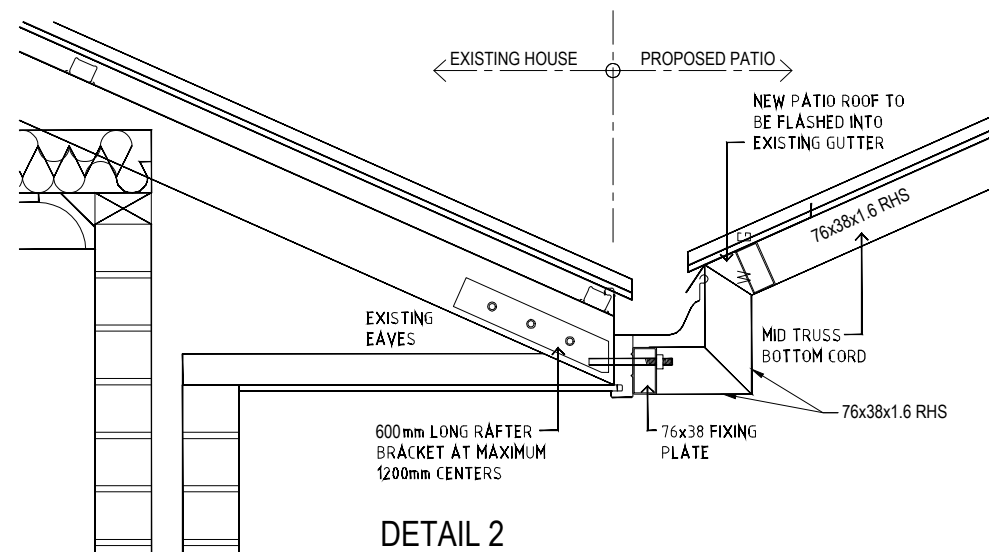
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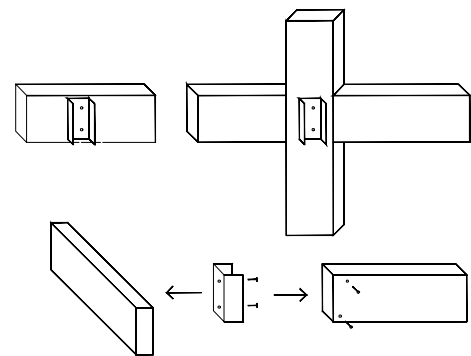
DWG.	TOTAL DWG.
A/04	05



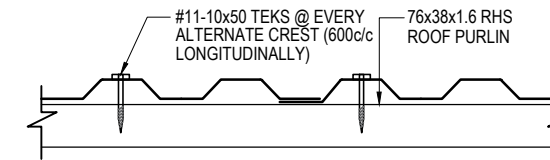
DETAIL 1
SCALE 1:10 (END TRUSS TO STANDARD EAVES CONNECTION)



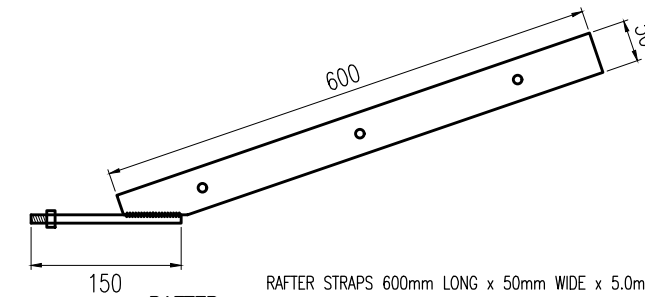
DETAIL 2
SCALE 1:10 (MID TRUSS TO STANDARD EAVES CONNECTION)



TYPICAL BRACKET - TUBE CONNECTIONS



METAL ROOF TO RHS PURLIN TIE DOWN
SCALE 1:10



RAFTER STRAPS
RAFTER STRAPS 600mm LONG x 50mm WIDE x 5.0mm THICK + 10mmØ FULLY WELDED BOLT HOT DIPPED GALVANISED. ATTACHED TO EVERY SECOND RAFTER AND FIXED WITH 3 x 10mmØ x 75mm LONG CUP HEAD GALVANISED BOLT.

BRACKET DETAIL

MINIMUM REQUIREMENTS	
COLUMNS	UP TO 3.0m HIGH - 76x38x1.6 RHS (MIN)
TRUSSES	
TOP CORD	76x38x1.6 RHS
BOTTOM CORD	76x38x1.6 RHS
KING POST & STRUTS	76x38x1.6 RHS
PURLINS	UP TO 3.5m - 76x38x1.6 RHS UP TO 4.0m - 76x38x1.6 RHS
PURLIN SPACING	SPACE ROOF PURLIN TO SUIT SPAN OF ROOF SHEETING
ROOF CLADDING	FIXED TO MANUFACTURES REQUIREMENTS TO MATCH EXISTING
GUTTER	GUTTERS & DOWNPIPES TO BE RIVETED AND SILICONE SEALED
FLASHING	
FOOTING	400 x 400 x 600 DEEP MASS CONCRETE

ALL MATERIALS TEK SCREWED USING INTERNAL PATIO BRACKETS OR FULLY WELDED, ALL WELDING TO CONFORM WITH RELEVANT AUSTRALIAN STANDARDS, PAINT ALL WELDS WITH SELECTED GALVANIZED PAINTS

DRAWING TITLE:
**DETAIL 1 & 2
TYPICAL BRACKET**

DRAWN:
vern

SCALE:
AS SHOWN

JOB NO:
98159

DATE:
28/05/2020

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DWG.	TOTAL DWG.
A/05	05