PROPOSED NEW GARAGE -DESIGN PACK

WILCANNIA CENTRAL SCHOOL, NSW, 2880

1 SITE LOCALITY

DRAWING SCHEDULE

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG | METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

COVER PAGE

DESIGNED :	A.M.	SCALE : N.T.S.	@A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A01

GENERAL:

G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER OR ARCHITECT BEFORE PROCEEDING WITH THE WORK.

G2. ALL DIMENSIONS ARE TO BE OBTAINED FROM THE ARCHITECT'S/SHED PROVIDER'S DRAWINGS OR FROM SITE. ENGINEERS DRAWINGS MUST NOT BE SCALED.

G3. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.

G4. MATERIAL AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS/CODES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATIONS.

G5. THE STRUCTURAL WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING:

AREA	CLASS
WIND CLASS	N-1
SITE CLASS	TBC

G6. ALL CARE SHALL BE TAKEN TO ENSURE ADEQUATE SITE DRAINAGE IS PROVIDED TO ENSURE THAT WATER IS DIVERTED AWAY FROM THE BUILDING DURING AND AFTER CONSTRUCTION.

G7. ALL FORM WORK SHALL BE IN ACCORDANCE WITH AS3610-1995.

G8. PREPOUR INSPECTIONS FOR ALL FOOTINGS AND SLABS SHALL BE CARRIED OUT BY METALINE ENGINEERING GROUP PTY LTD OR THE CERTIFYING AUTHORITY.

G9. FOR SLABS ON GROUND, FINISHED SLAB HEIGHTS ABOVE EXTERNAL FINISHED SURFACES MUST NOT BE LESS THAN:
- a) 150mm ABOVE FINISHED GROUND LEVEL
- b) 100mm ABOVE SANDY, WELL DRAINED AREAS
- c) 50mm ABOVE EXTERNAL SEALED AREAS THAT HAVE A SLOPE OF NOT LESS THAN 50mm OVER THE FIRST 1m FROM THE BUILDING.

G10. SLABS AND FOOTINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH DESIGNS CONTAINED IN SECTION 3 AND ENGINEERING PRINCIPALS CONTAINED IN SECTION 4 OF AS2870 - 2011, AND ENGINEERING PRINCIPALS FROM AS3600-2009.

G11. DIMENSIONS GIVEN FOR BEAMS AND STRIP FOOTINGS ARE THE MINIMUM REQUIRED AS PER DESIGN PRINCIPLES NOTED ABOVE. IF THERE ARE SITE SPECIFIC REQUIREMENTS TO WIDEN OR DEEPEN BEAMS OR STRIP FOOTINGS, IT SHALL BE PERFORMED AS FOLLOWS:
- a) WHERE STRIP FOOTINGS ARE WIDER THAN THAT SPECIFIED, AN EXTRA BOTTOM BAR OR EQUIVALENT OF THE SAME BAR SIZE REQUIRED FOR EACH 100mm ADDITIONAL WIDTH.
- b) WHERE STRIP FOOTINGS OR SLAB BEAM ARE DEEPER THAN THAT SPECIFIED, THE BOTTOM REINFORCEMENT SPECIFIED IN AS2870 FOR THE GREATER BEAM OR STRIP FOOTING DEPTH IS TO BE USED.
- c) WHERE ADJUSTMENTS IN WIDTH FOR WAFFLE POD SLAB BEAMS REINFORCED WITH BARS ARE REQUIRED.

CONCRETE:

C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600.

C2. CONCRETE COVER TO ALL REINFORCEMENT (FINISHES NOT INCLUDED).

ELEMENT	FORMED AND SHELTERED	FORMED AND EXPOSED	NO FORM WORK
SLABS AND WALLS	30mm	30mm	65mm
BEAMS	30mm	40mm	65mm
COLUMNS	40mm	50mm	75mm
FOOTINGS		65mm	75mm

C3. CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR HOLED IN ANY WAY WITHOUT THE ENGINEER APPROVAL.

C4. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS WHERE NOT SHOWN ON DRAWINGS.

C5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE PROPERLY FORMED AND LOCATED AS PER THE APPROVAL OF THE ENGINEER.

C6. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN THE TRUE PROJECTION.

C7. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

C8. ALL CONCRETE SHALL BE GRADE 25MPa - 100mm SLUMP (U.N.O).

C9. ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION SO AS NOT TO BE DISPLACED DURING CONCRETING ON APPROVED BAR CHAIRS AT 0.8m MAX CRS BOTH WAYS. WHERE REQUIRED PROVIDE SUPPORT BATS N16 AT 0.8m MAX CRS.

C10. ALL REINFORCEMENT FOR ANY ONE POUR SHALL BE COMPLETELY PLACED AND TIED PRIOR TO INSPECTION BY THE ENGINEER. NO CONCRETE SHALL BE POURED UNTIL REINFORCEMENT HAS BEEN INSPECTED AND APPROVED.

C11. WHERE SLABS AND BEAMS ARE TO SUPPORT BRICKWORK OVER, BRICKWORK AND PROPS MUST BE REMOVED BEFORE COMMENCEMENT OF BRICKWORK.

C12. TRENCH MESH IN BEAMS TO BE LAID CONTINUOUSLY WITH EACH LAYER BEING LAPPED FOR ITS FULL WIDTH AT INTERSECTIONS AND FOR A MINIMUM OF 500mm AT SPLICES. THE TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH OF THE FABRIC AT T & L JUNCTIONS.

C13. AS A GENERAL POLICY, METALINE ENGINEERING GROUP DO NOT RECOMMEND THE USE OF POLISHED CONCRETE. THE OWNER SHOULD BE MADE AWARE BY THE BUILDING DESIGNER AND BUILDER THAT CONCRETE IS A NATURAL MATERIAL AND THE POSSIBILITY OF SURFACE CRACK FORMATION MAY OCCUR AND CANNOT BE GUARANTEED EITHER IN THE SHORT OR LONG TERM, WE HIGHLY RECOMMEND CURING THE SLAB USING AN APPROVED SPRAYED MEMBRANE.

C14. ALL CONCRETE TO BE VIBRATED

REINFORCEMENT:

R1. ALL REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS4671-2001.

R2. REINFORCEMENT IS PRESENTED DIAGRAMMATICALLY ONLY, AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.

R3. REINFORCEMENT DESIGNATION AS FOLLOWS:
- A) N-GRADE 500N HS DEFORMED BARS
- B) R-GRADE 250R HOT ROLLED BAR
- C) SL-GRADE 500L SQUARE MESH
- D) TM-GRADE 500L TRENCH MESH

R4. TRENCH MESH SHALL BE SPLICED WHERE NECESSARY BY A LAP OF 500mm.

R5. REINFORCEMENT BARS SHALL BE LAPPED AS FOLLOWS:
- A) MESH-2 OUTER BARS OVERLAPPED WITH 2-OUTER BARS + 20mm
- B) N12 BARS = 500mm MIN
- C) N16 BARS = 700mm MIN

R6. ALL REINFORCEMENT TO BE ADEQUATELY SUPPORTED IN ITS REQUIRED POSITION. CHAIRS TO BE 800mm MAX CENTERS, BOTH DIRECTIONS.

R7. SERVICE PENETRATIONS SHALL BE APPROVED BY METALINE ENGINEERING GROUP PTY LTD PRIOR TO POURING. ALL SERVICES THAT PENETRATE CONCRETE MEMBERS SHALL BE LAGGED OR SLEEVED.

R8. WHERE THERE ARE SITE SPECIFIC REQUIREMENTS TO WIDEN SLAB BEAMS OR STEM WIDTHS, ADDITIONAL REINFORCEMENT TO THAT SHOWN IN THE DETAILS SHALL BE PROVIDED TOP AND BOTTOM, ACCORDING TO THE TABLE AND DIAGRAMS BELOW. BAR SIZES IS TO MATCH THE EXISTING SPECIFIED TOP AND BOTTOM BAR SIZE SHOWN IN THE DETAILS.

ADDITIONAL WAFFLE POD BEAM WIDTH REINFORCEMENT		
STEM WIDTH OR BASE BEAM WIDTH (mm)	QTY TOP REINFORCEMENT BARS FOR STEM WIDTH	QTY BOTTOM REINFORCEMENT BARS FOR BASE BEAM WIDTH
110-150	0 STD, 1 OVER PIERS	1
151-220	1	2
221-330	2	3
331-440	3	4

BASE PREPARATION - FILL:

F1. FILLING USED IN THE CONSTRUCTION OF A SLAB, EXCEPT WHERE THE SLAB IS SUSPENDED, SHALL CONSIST OF CONTROLLED FILL AS FOLLOWS:
CONTROLLED FILL:
- a) MINIMUM 100mm DEEP MAXIMUM 300mm DEEP UNDER PERIMETER OF FOOTINGS. IT SHALL BE WELL COMPACTED IN 150mm LAYERS BY A MECHANICAL ROLLER TO A MINIMUM 95% STANDARD COMPACTION FOR A SINGLE STORY DWELLING, AND 98% STANDARD COMPACTION FOR A DOUBLE STORY DWELLING. FILL SHALL BE OF LESS REACTIVITY THAN NATURAL SOIL.

F2. FILL WITH A GREATER DEPTH THAN THAT SPECIFIED ABOVE SHALL BE TESTED AND BE CERTIFIED.

F3. FILL SHALL BE EXTENDED PAST THE EDGE OF THE RESIDENCE AND SHALL BE RETAINED OR BATTERED BY AN APPROPRIATE SLOPE.

BASE PREPARATION - FOUNDATION:

B1. FOUNDATION MATERIALS, WHETHER NATURAL OR FILL, SHALL HAVE A MINIMUM UNIFORM ALLOWABLE BEARING CAPACITY OF 100kPa.

B2. THE ATTACHED PROJECT SPECIFIC FOOTING DESIGN, HAS BEEN BASED ON A SITE CLASSIFICATION CARRIED OUT IN ACCORDANCE WITH AS2870-2011.

B3. INTERNAL BEAMS/RIBS AND SLAB PANELS SHALL BE FOUNDED ON CONTROLLED OR ROLLED FILL.

B4. ALL EDGE BEAMS SHALL BE FOUNDED IN NATURAL SOIL OR CONTROLLED FILL, UNLESS SUPPORTED BY PIERS.

EXCAVATION:

E1. TOPSOIL CONTAINING GRASS ROOTS OR VEGETATION SHALL BE REMOVED FROM FROM THE FOUNDATION AREA. IT SHALL THEN BE PROOF ROLLED PRIOR TO FILLING.

E2. FOOTING EXCAVATION MUST BE FREE OF LOOSE EARTH, TREE ROOTS, MUD OR DEBRIS IMMEDIATELY BEFORE POURING CONCRETE.

E3. EXCAVATION FOR FOOTINGS, INCLUDING THICKENINGS FOR SLABS AND PADS MUST BE CLEAN CUT WITH VERTICAL SIDES, WHEREVER POSSIBLE.

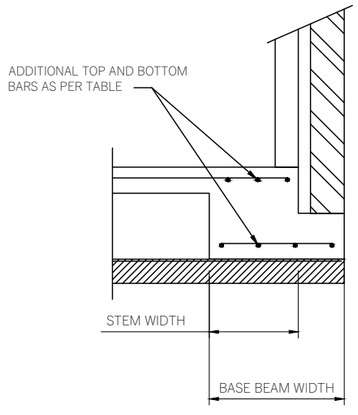
E4. METALINE ENGINEERING GROUP PTY LTD SHOULD BE CONSULTED BEFORE COMMENCING ANY EXCAVATION NEAR THE EDGE OF THE BUILDING.

DAMP-PROOF MEMBRANE:

D1. A DAMP PROOF MEMBRANE CONSISTING OF 0.2mm NOMINAL THICKNESS POLYETHYLENE FILM, SHALL BE PLACED UNDER ALL SLABS AND BEAMS AND EXTENDED TO A FINISH GROUND LEVEL TO THE SLAB PERIMETER U.N.O.

D2. IT SHALL BE HIGH IMPACT RESISTANT IN ACCORDANCE WITH CLAUSES 5.3.3.2 AND 5.3.3.3 OF "AS2870-2011 CONCRETE UNDERLAY, 0.2mm HIGH IMPACT RESISTANCE".

D3. IT SHALL BE INSTALLED WITH MIN 200mm LAPS AT ALL JOINTS, TAPED OR SEALED WITH A CLOSE FITTING SLEEVE AROUND SERVICES PENETRATIONS.



Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

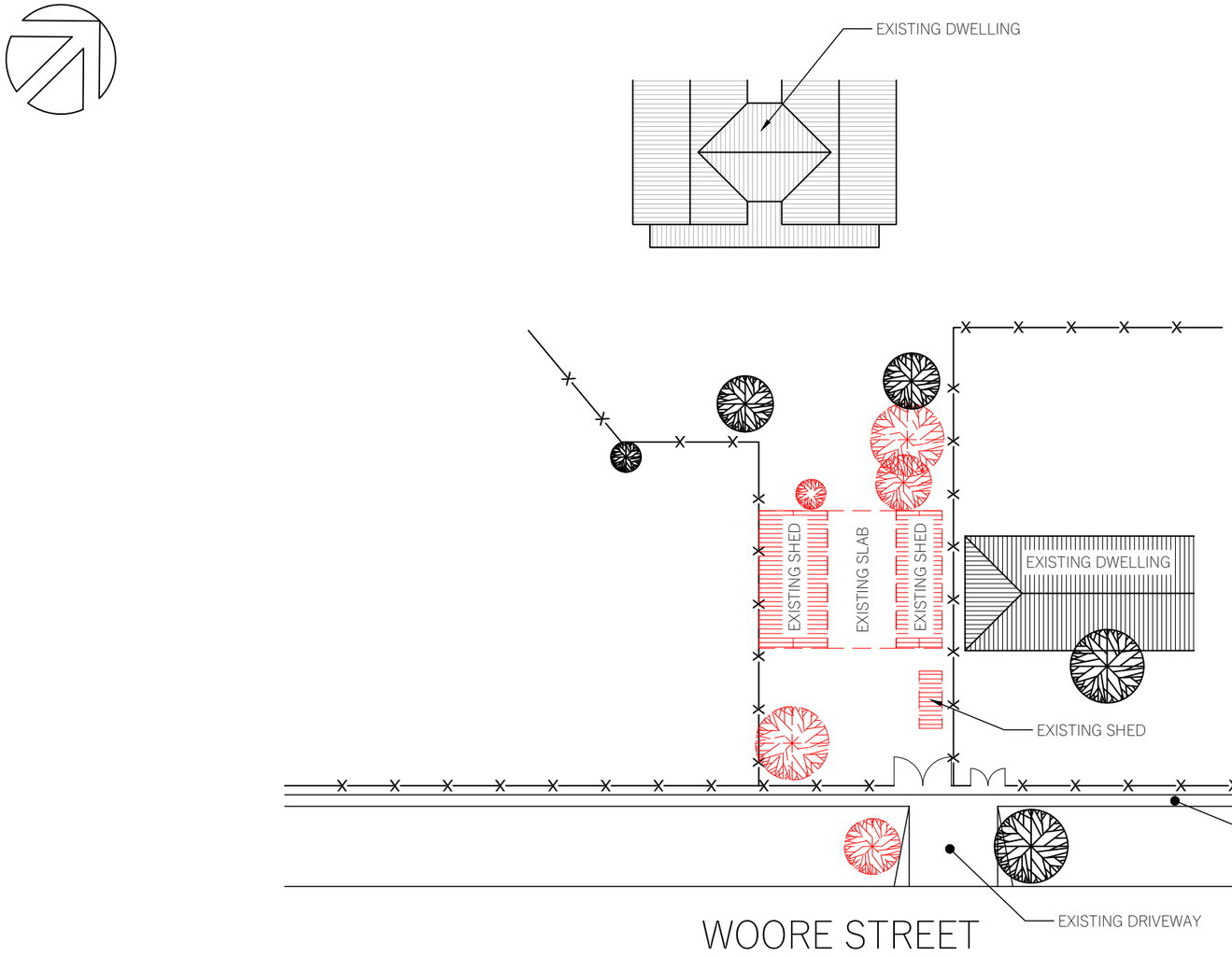
FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

GENERAL NOTES

DESIGNED :	A.M.	SCALE : N.T.S.	@A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A02



LEGEND

- TO BE DEMOLISHED / REMOVED
- EXISTING FENCE
- EXISTING TREES
- TREES TO BE REMOVED

2 EXISTING SITE / DEMOLITION PLAN

Scale: 1:500

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

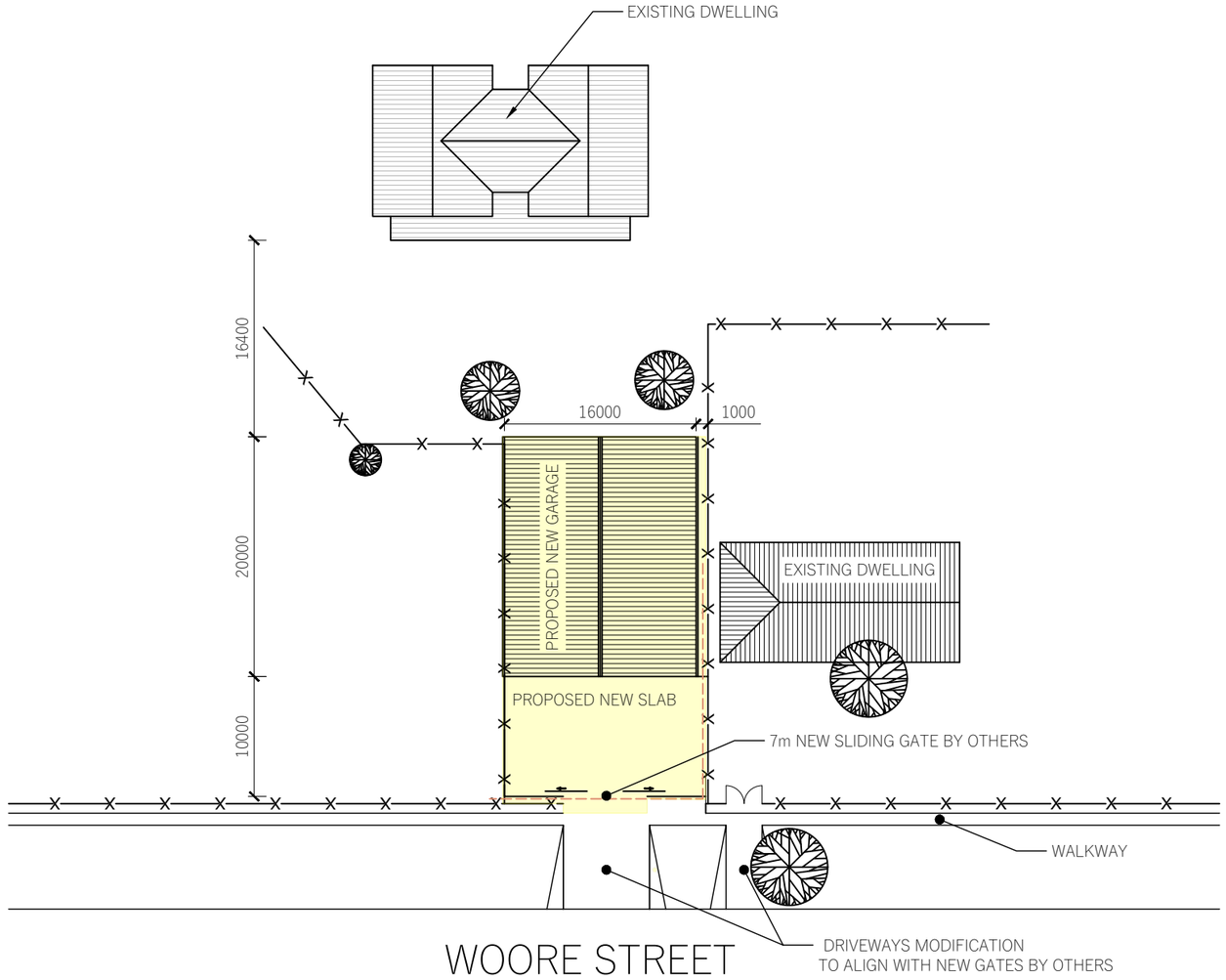
FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

EXISTING SITE - DEMOLITION PLAN

DESIGNED :	A.M.	SCALE : 1:500 @A3	
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A03



LEGEND

- PROPOSED ADDITIONS / ALTERATIONS
- EXISTING FENCE
- SEDIMENTATION FENCE
- EXISTING TREES

DEVELOPMENT DATA

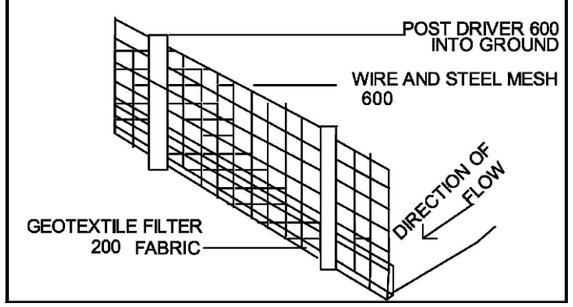
COVERAGE (AREA m²)
SURFACE AREA: 480m²

BUILDING COVERAGE (AREA m²)
GARAGE: 320m2

3 SITE MANAGEMENT / PROPOSED SITE PLAN

Scale: 1:500

TEMPORARY SEDIMENT FENCE



Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP
331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

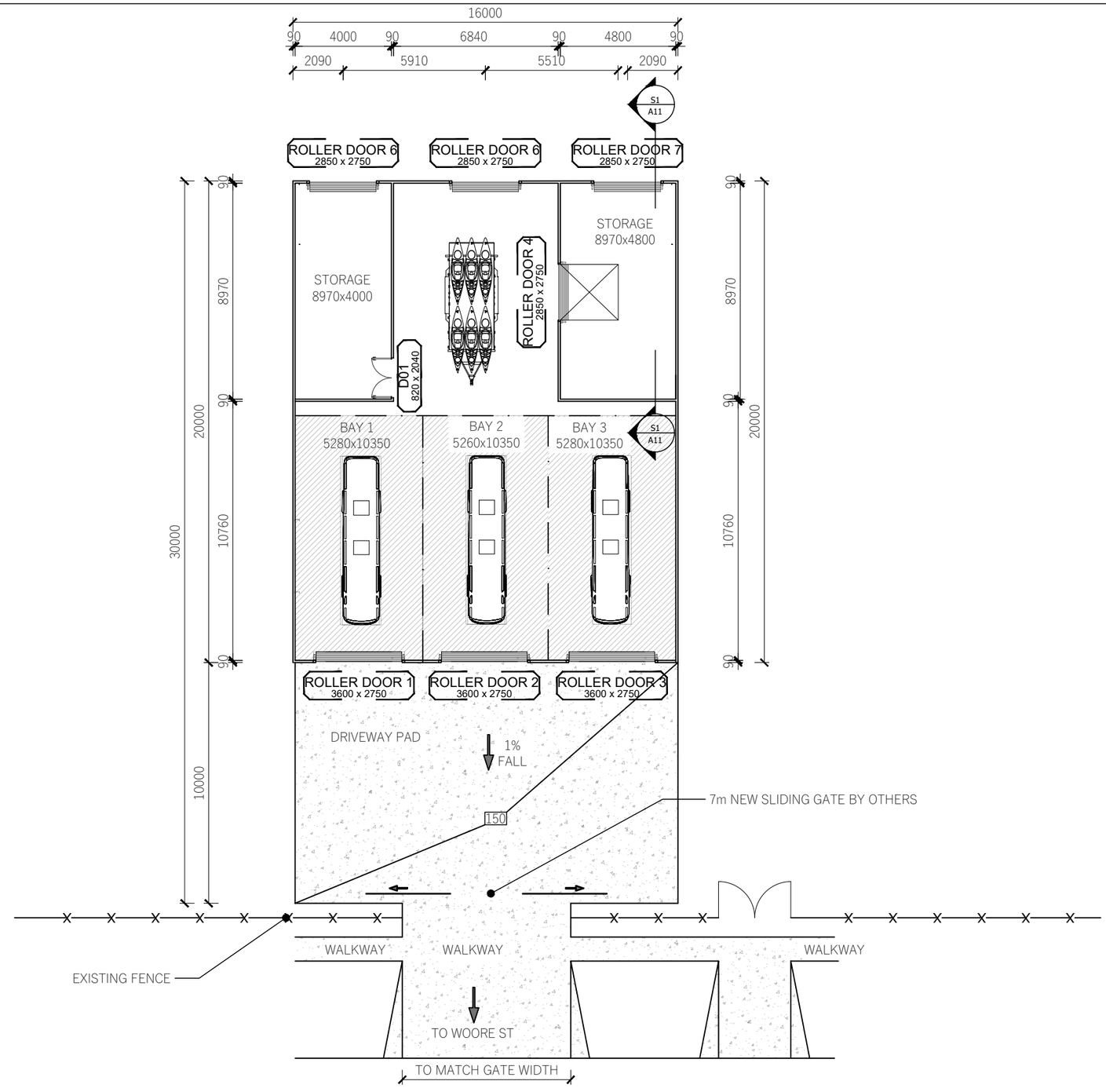
FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

SITE MANAGEMENT - PROPOSED SITE PLAN

DESIGNED :	A.M.	SCALE : 1:500 @A3	
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A04



4 FLOOR PLAN

Scale: 1:200

NOTE:

ALLOW FOR ROLLER DOORS 1, 2, 3, 6, TO BE ELECTRIC MOTOR OPERATED (REMOTE)

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG | METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

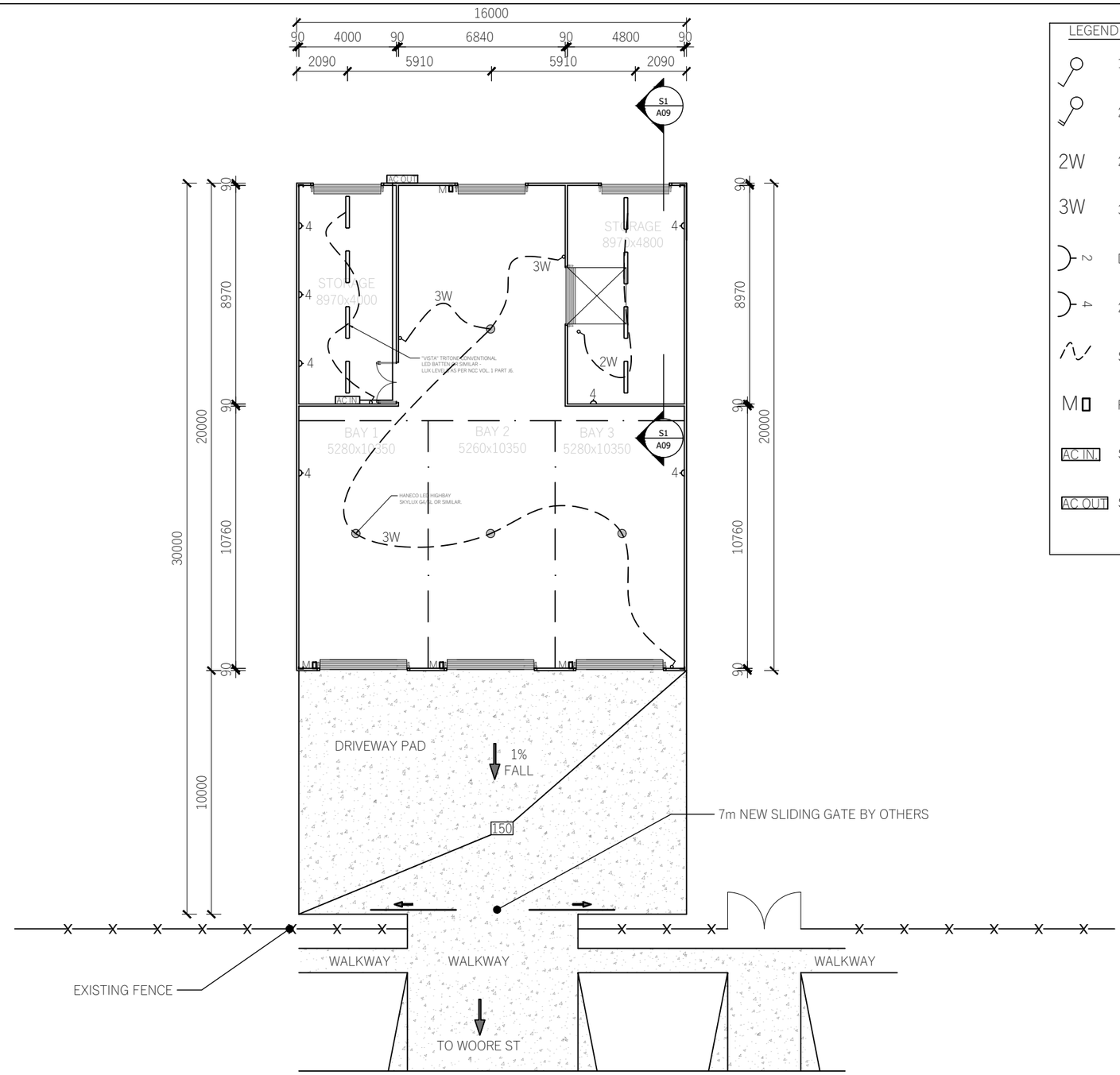
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

FLOOR PLAN

DESIGNED :	A.M.	SCALE :	1:200 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

A05



5 ELECTRICAL PLAN

Scale: 1:200

LEGEND & NOTES:

- 1 GANG SWITCH
- 2 GANG SWITCH
- 2W — 2 WAYS LIGHT SWITCH
- 3W — 3 WAYS LIGHT SWITCH
- 2 — DOUBLE GPO
- 4 — 2 X DOUBLE GPO.
- SWITCH WIRING
- M — ROLLER DOOR ELECTRIC MOTOR
- AC IN. — SPLIT SYSTEM INDOOR UNIT AIR CONDITIONING 5KW
- AC OUT — SPLIT SYSTEM OUTDOOR UNIT AIR CONDITIONING 5KW

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

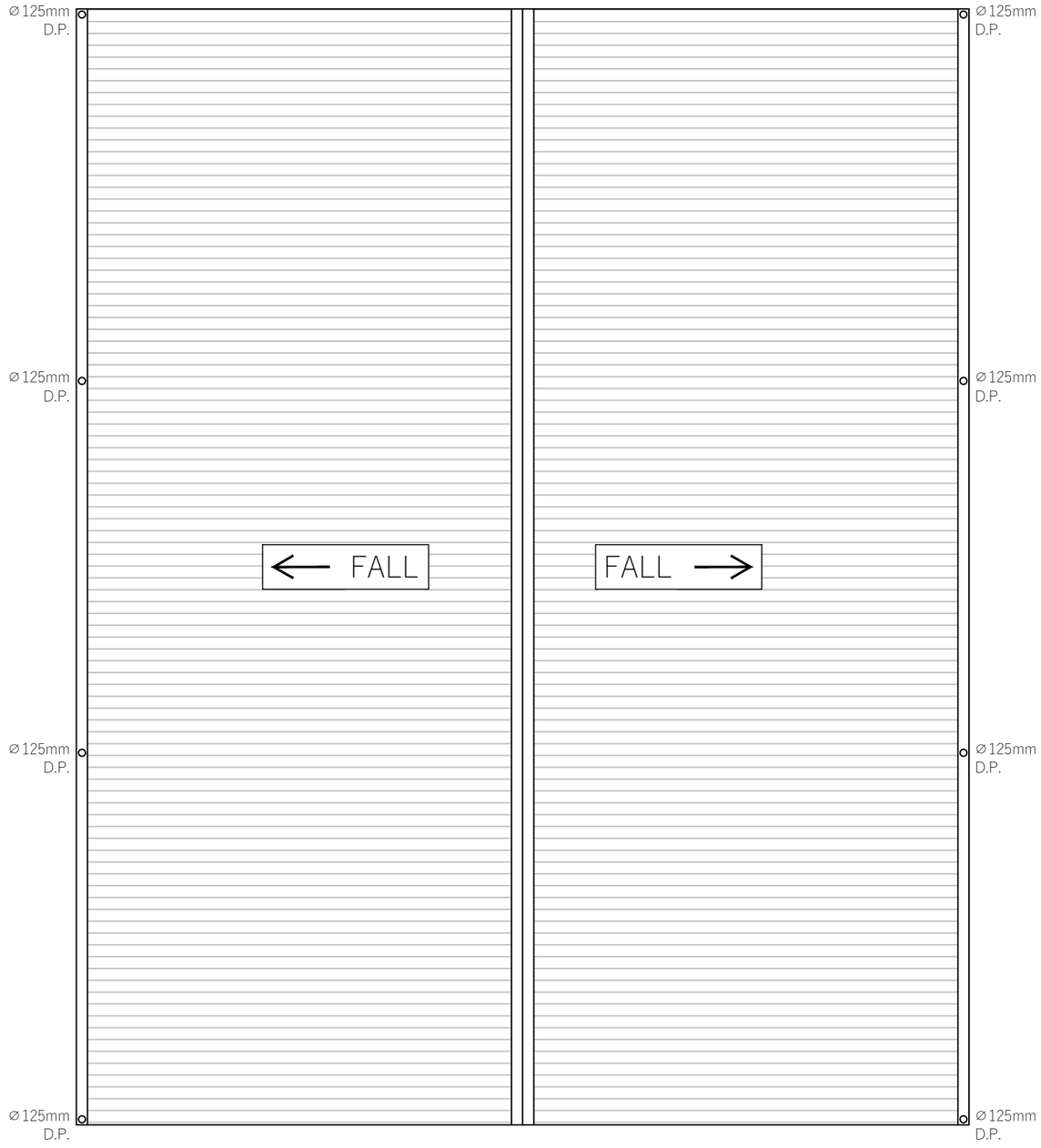
FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

ELECTRICAL PLAN

DESIGNED :	A.M.	SCALE : 1:200 @A3	
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A06



6 ROOF PLAN

Scale: 1:100

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

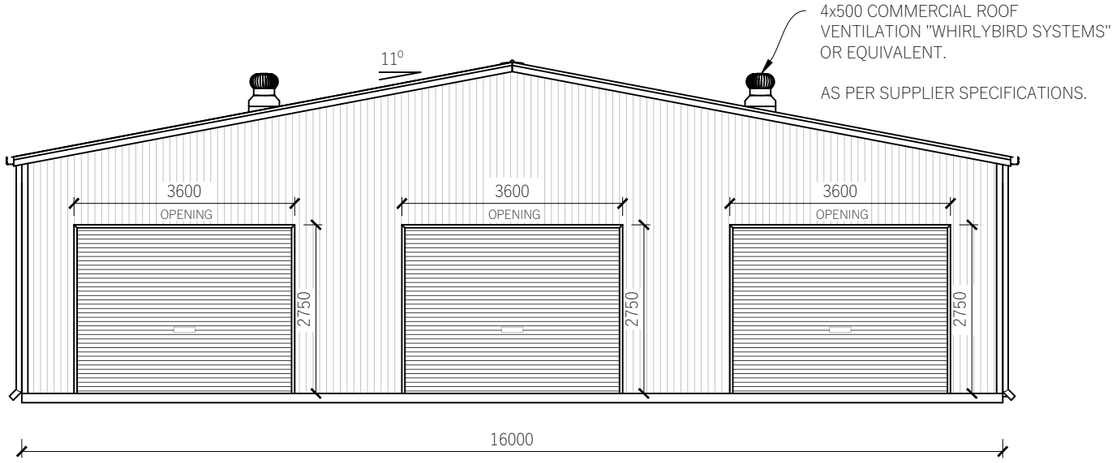
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

ROOF PLAN

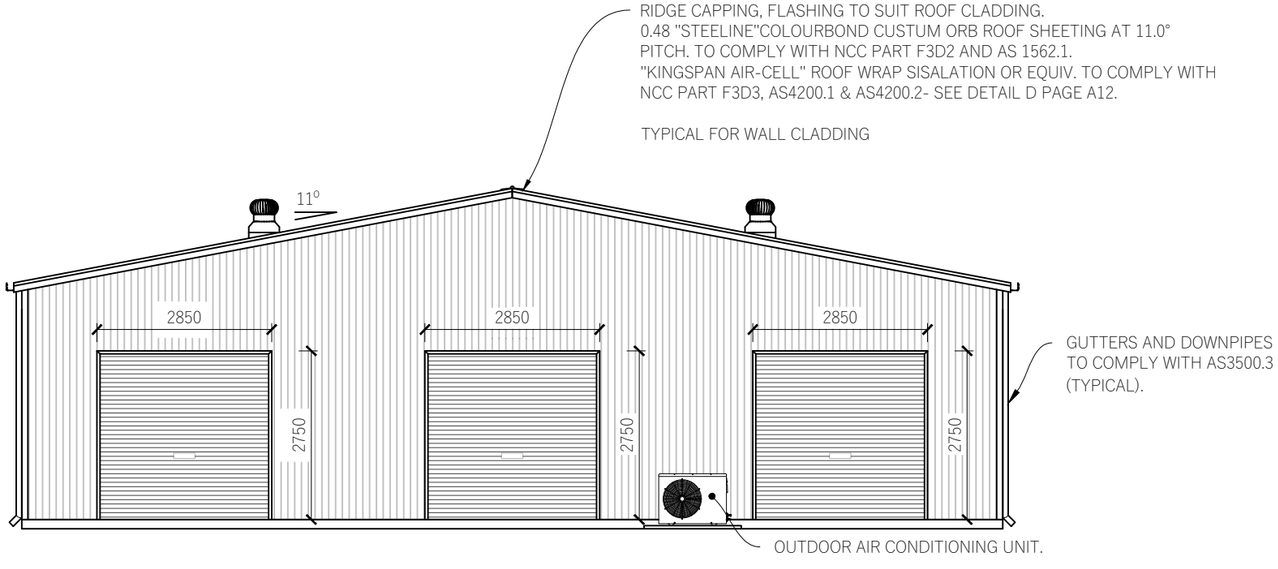
DESIGNED :	A.M.	SCALE :	1:100 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

A07



7 SOUTH EAST ELEVATION

Scale: 1:100



8 NORTH WEST ELEVATION

Scale: 1:100

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG | METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

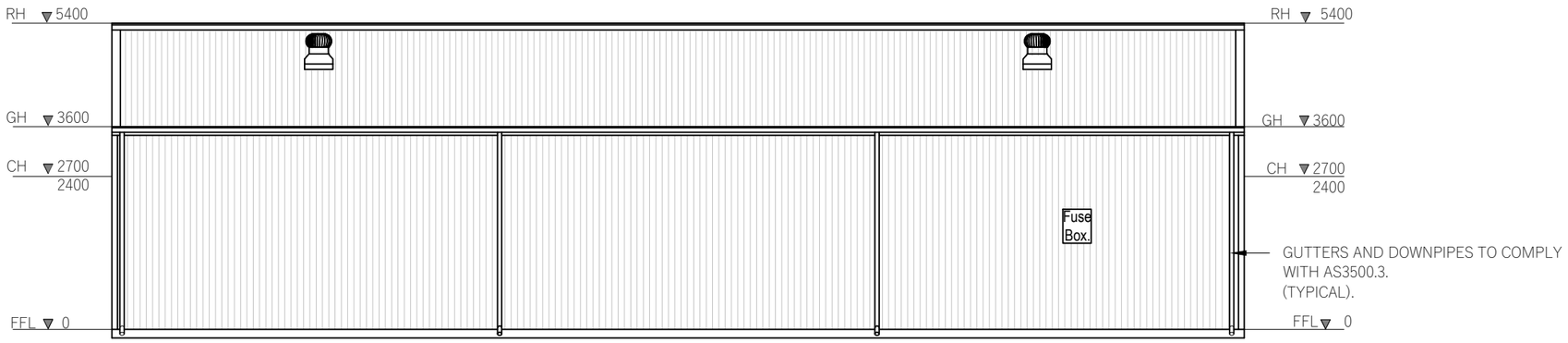
PROJECT N° : 6601

ELEVATIONS SHEET 1

DESIGNED :	A.M.	SCALE :	1:100 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A08

9 SOUTH WEST ELEVATION

Scale: 1:100



10 NORTH EAST ELEVATION

Scale: 1:100

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

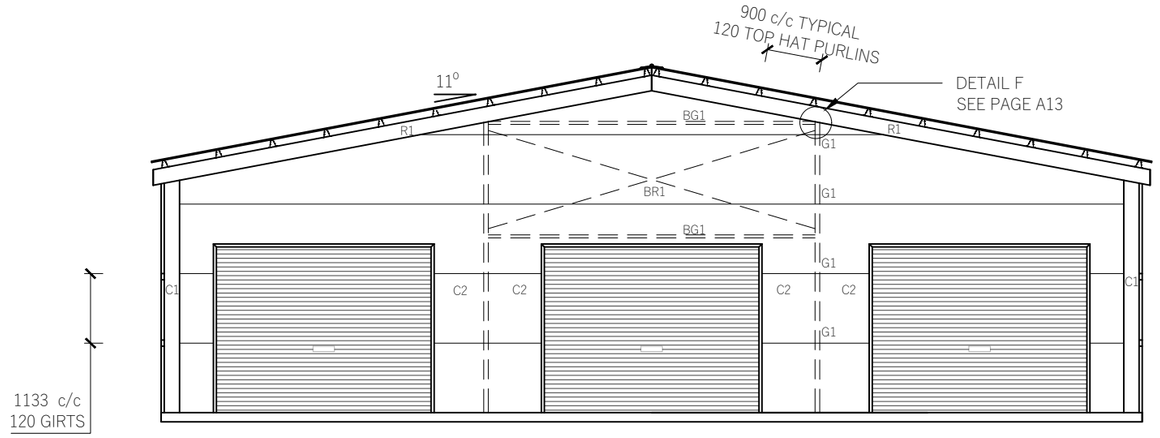
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

ELEVATIONS SHEET 2

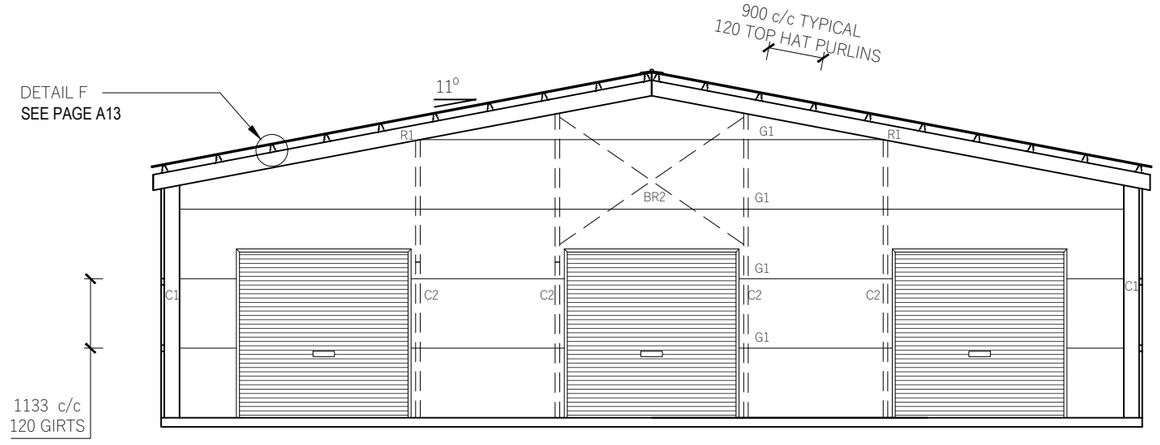
DESIGNED :	A.M.	SCALE :	1:100 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

A09



11 SOUTH EAST ELEVATION

Scale: 1:100



12 NORTH WEST ELEVATION

Scale: 1:100

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

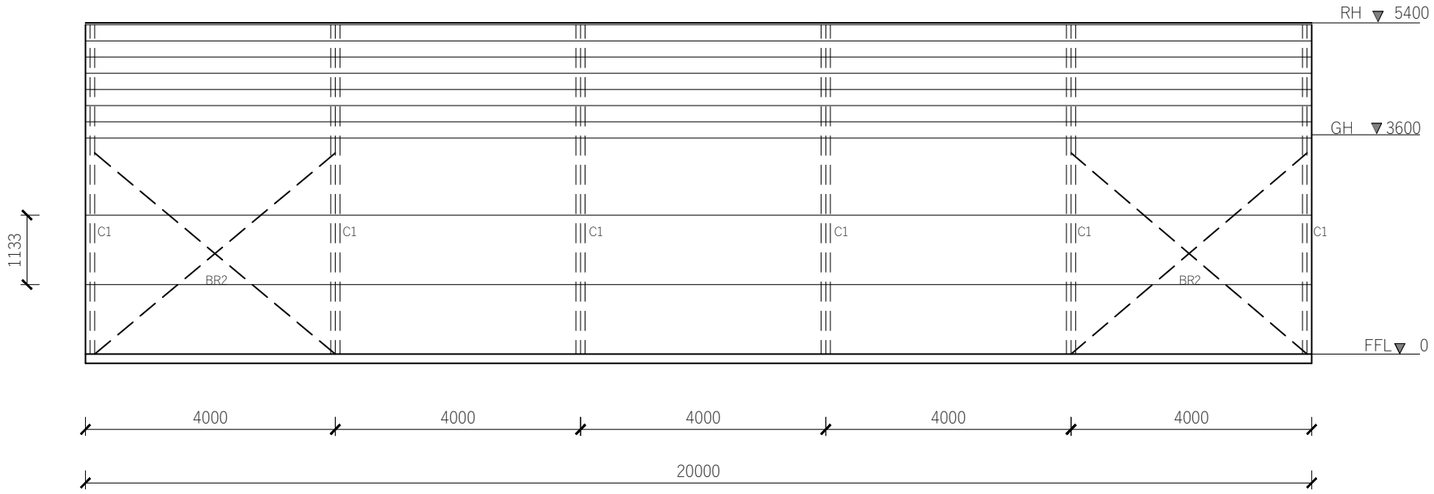
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

STEEL FRAME ELEVATIONS -SHEET 1

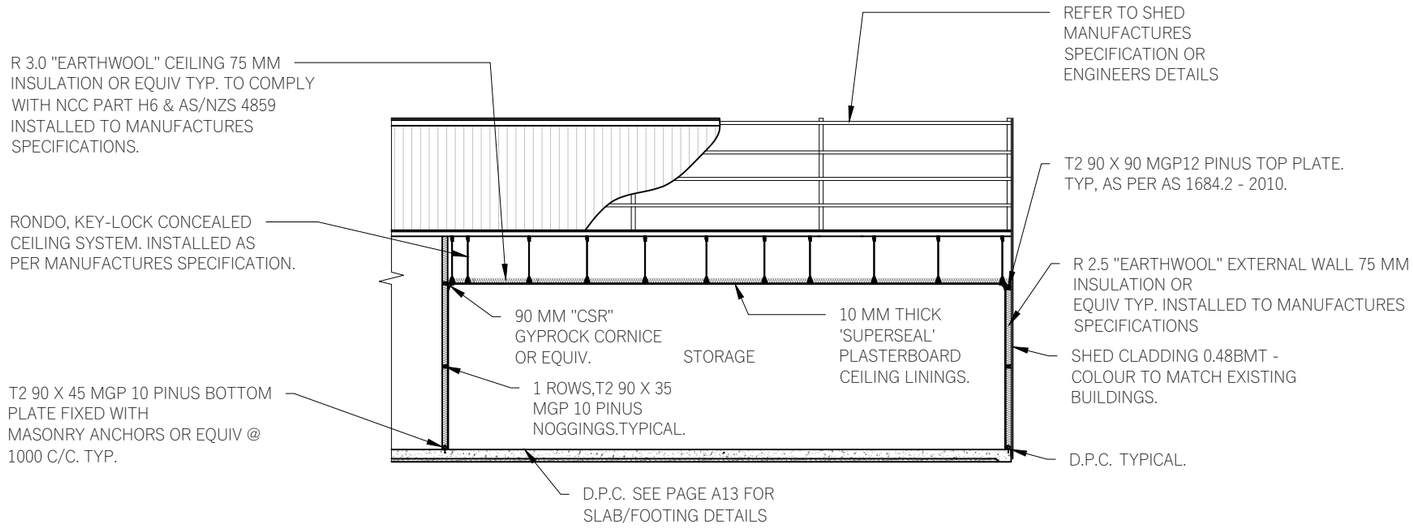
DESIGNED :	A.M.	SCALE : 1:100 @A3	
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

A10



13 SOUTH WEST & NORTH EAST ELEVATION

Scale: 1:100



S1 / A05 TYPICAL SECTION S1 (STORAGE ROOM SIMILAR)

Scale: 1:100

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

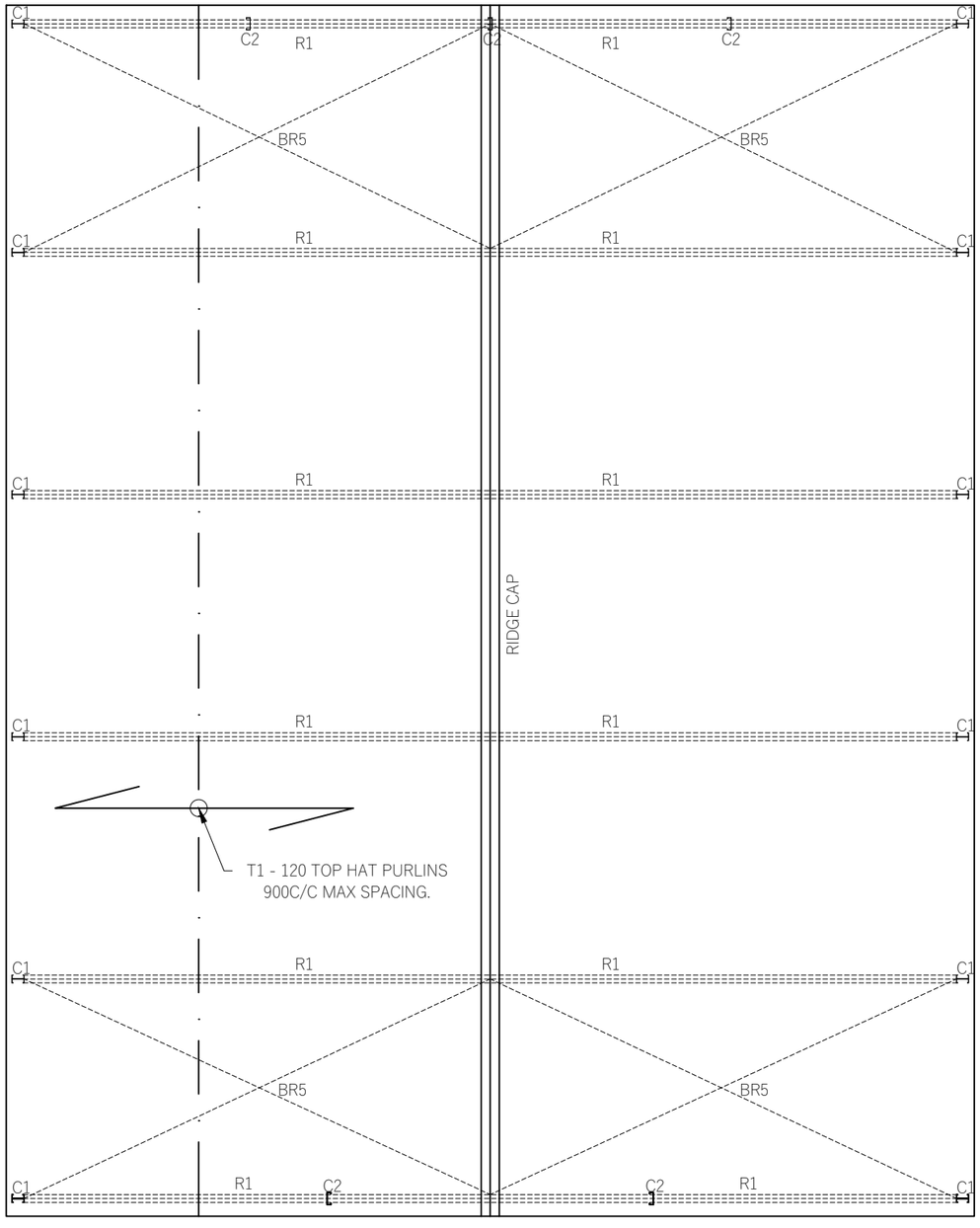
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

STEEL FRAME ELEVATIONS -SHEET 2

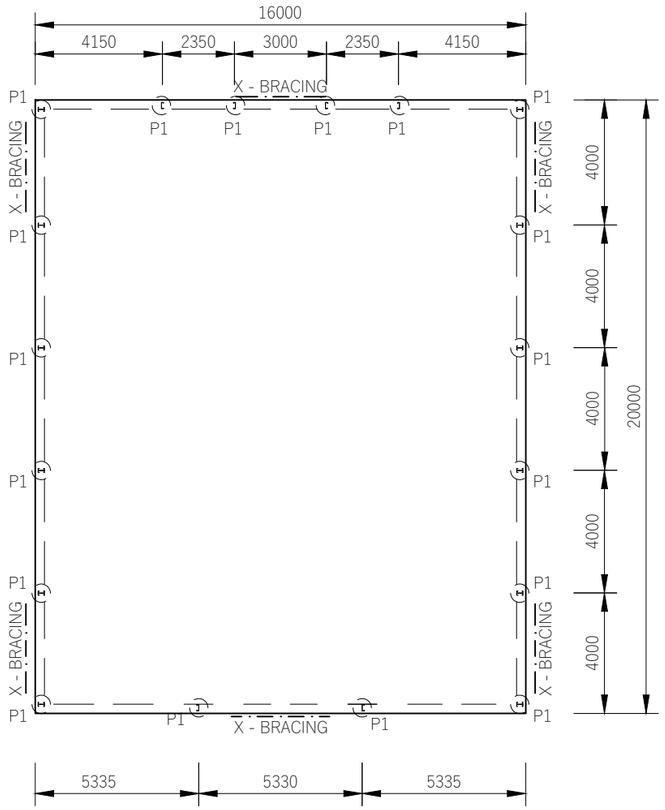
DESIGNED :	A.M.	SCALE : 1:100 @A3	
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

A11



14 ROOF BRACING PLAN

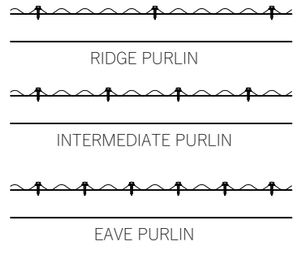
Scale: 1:100



15 COLUMN LAYOUT

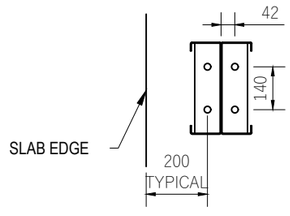
Scale: 1:200

STEEL MEMBER		
MEMBER CODE	MEMBER SECTION	NOTE
C1	2C30024	
C2	C30024	
G1	TOP-HAT 120	
T1	TOP-HAT 120	
R1	2C30024	
BR1	Ø10mm ROD	
BR2	32mm x 1.2 STRAP	CROSS BRACING STRAP
BR3	2C15015	KNEE BRACE
BR4	2C15015	APEX BRACE
BR5	32mm x 1.2 STRAP	CROSS BRACING STRAP



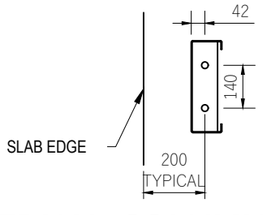
18 ROOF SHEETING SCREW LAYOUT

N.T.S.



15 INTERNAL COLUMN BASE (C1)

Scale: 1:5



17 INTERNAL COLUMN BASE (C2)

Scale: 1:5

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

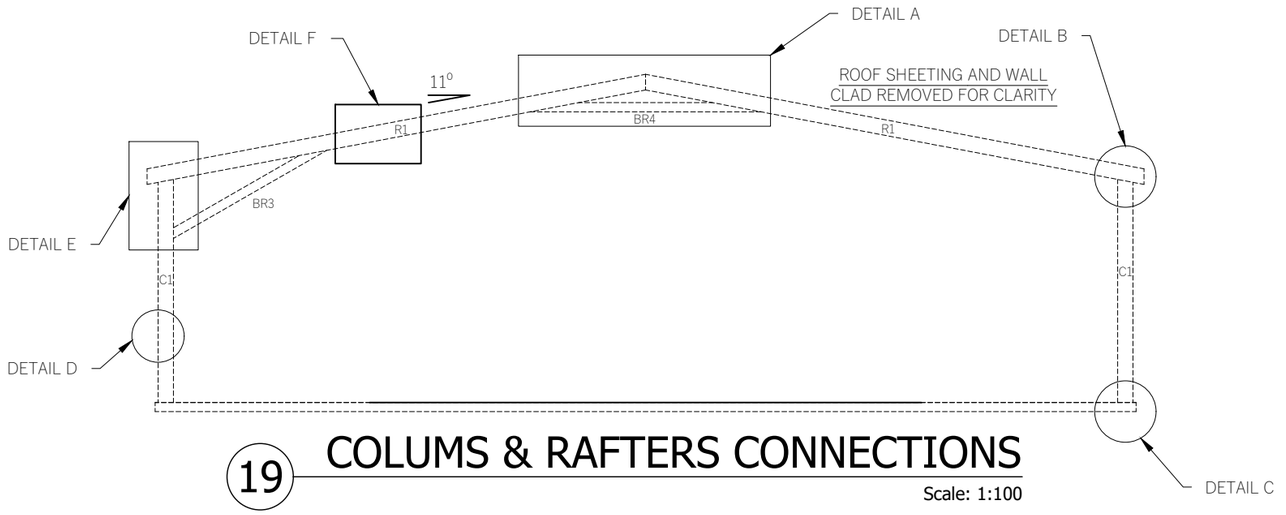
FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

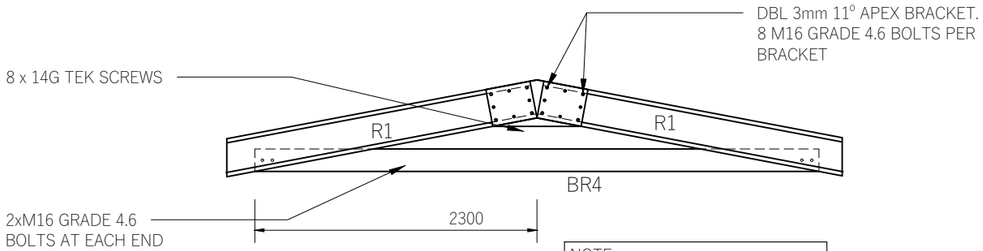
STEEL DETAILS -SHEET 1

DESIGNED :	A.M.	SCALE :	@A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A12



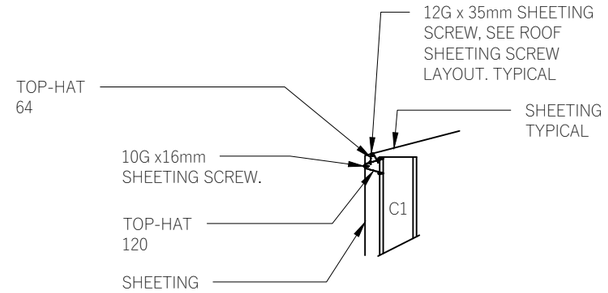
19 COLUMS & RAFTERS CONNECTIONS

Scale: 1:100

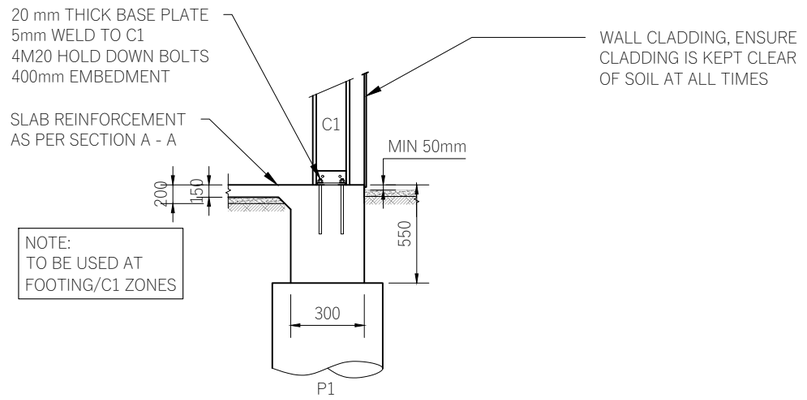


A DETAIL A
Scale: 1:50

NOTE:
ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS



B DETAIL B
Scale: 1:50



NOTE:
TO BE USED AT FOOTING/C1 ZONES

C DETAIL C
Scale: 1:50

NOTE:

- LEVELS, DIMENSIONS AND MEASUREMENTS ARE APPROXIMATE ONLY AND ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR. SEE GENERAL NOTES.
- DIMENSIONED SIZES OF MATERIAL ARE NOMINAL ONLY AND MAY DIFFER SLIGHTLY TO ON SITE MEASUREMENTS DUE TO VARIANCE IN MANUFACTURERS PROCESSES.
- IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT THE BUILDINGS ARE WITHIN THE DESIGNATED BOUNDARIES AND VERIFY THAT THE SITE SHOWN IS CORRECT.
- ALL WORK IS TO BE IN STRICT COMPLIANCE WITH THE PROVISIONS OF THE BUILDING CODE OF AUSTRALIA, STATE BUILDING REGULATIONS & LOCAL AUTHORITIES REQUIREMENTS.
- FOOTINGS/FOUNDATION AND STEEL WORK TO BE INSPECTED BY THE ENGINEER/CERTIFYING OFFICER PRIOR TO POUR.
- SOIL BEARING CAPACITY TO BE A MINIMUM OF 150kPa. GEOTECHNICAL ENGINEER TO CONFIRM
- DESIGN WELD CATEGORY "SP" AS PER AS4100 T3.4
- DESIGN REVIEW IS AS PER AS4100: 1998
- ALL FABRICATION AND WORKMANSHIP AS PER AS1554.1
- NO DYNAMIC FACTOR APPLIED
- LIVE LOAD FACTOR OF 1.5 AND DEAD LOAD FACTOR OF 1.2, AS PER T3.4 AS1170.1, HAS BEEN APPLIED.
- DRAWINGS ARE INDICATIVE ONLY, AND IS TO SHOW WELDS SIZE, BASIC DIMENSIONS, MEMBER SIZE ETC.
- SHOP DRAWINGS ARE TO BE DEVELOPED IN HOUSE UNLESS REQUESTED FROM THE ENGINEER.
- HOT DIP GALVANIZED WITH A MINIMUM AVERAGE COATING THICKNESS OF 300 G/M2; OR STAINLESS STEEL 316L. ANY MEMBER WITH A COATING THAT IS MODIFIED, I.E. BY CUTTING, WELDING, OR WHERE DAMAGED, MUST HAVE THE COATING RESTORED TO PROVIDE AN EQUIVALENT LEVEL OF PROTECTION PROVIDED BY THE ORIGINAL COATING I.E. GALVANIZING.
- ADDITIONAL DECORATIVE COATINGS CAN BE APPLIED, SUCH AS PAINT, BUT MUST NOT BE CONSIDERED FOR THE PURPOSE OF SATISFYING THE REQUIREMENTS OF GALVANIZING.
- PAINT COLOR TO BE DECIDED BY CLIENT/OWNER.

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP

331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

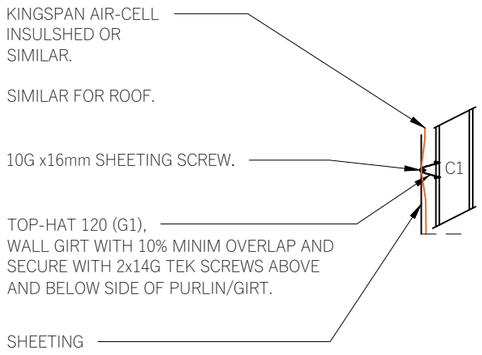
FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

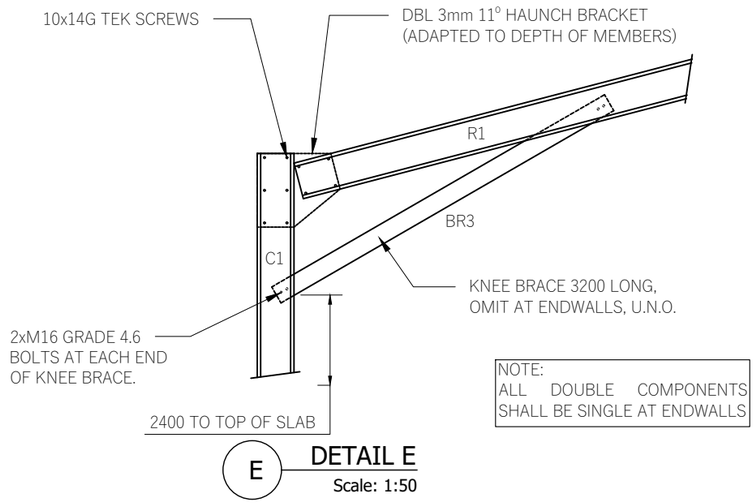
PROJECT N° : 6601

STEEL DETAILS - SHEET 2

DESIGNED :	A.M.	SCALE :	1:100, 1:50 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		A13

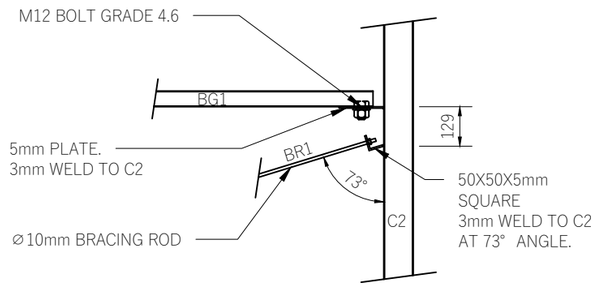


D **DETAIL D**
Scale: 1:50

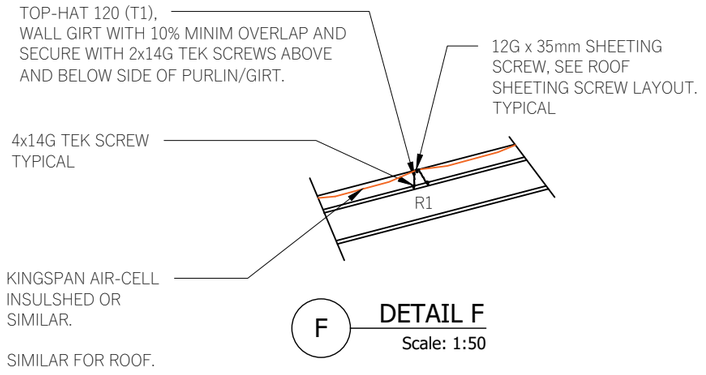


NOTE:
ALL DOUBLE COMPONENTS
SHALL BE SINGLE AT ENDWALLS

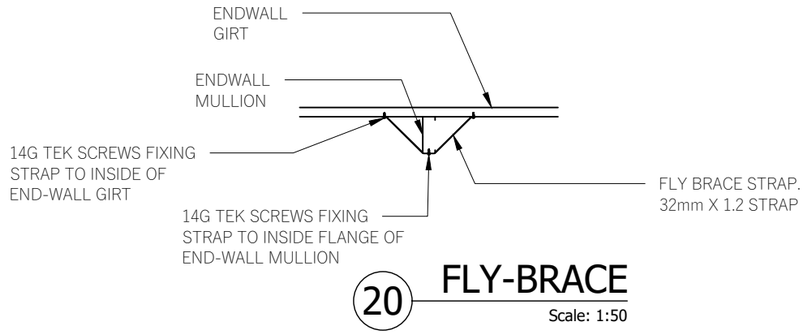
E **DETAIL E**
Scale: 1:50



G **DETAIL G**
Scale: 1:20



F **DETAIL F**
Scale: 1:50



20 **FLY-BRACE**
Scale: 1:50

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

NSW GOVERNMENT

MEG METALINE ENGINEERING GROUP
331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

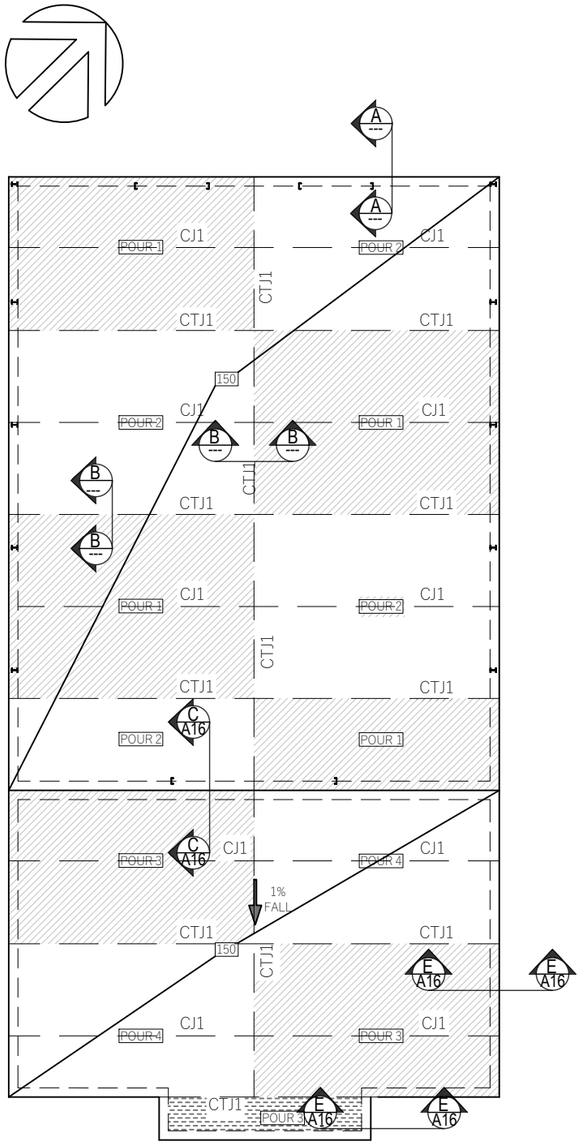
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

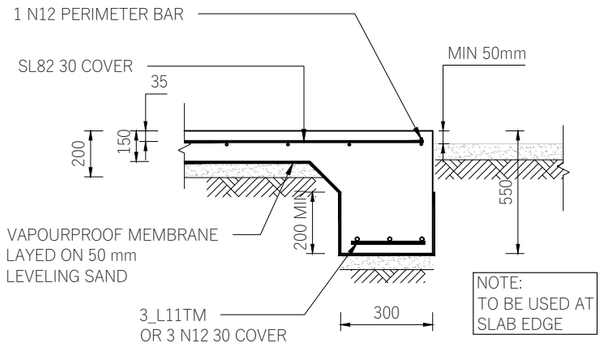
STEEL DETAILS - SHEET 3

DESIGNED :	A.M.	SCALE :	1:50, 1:20 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

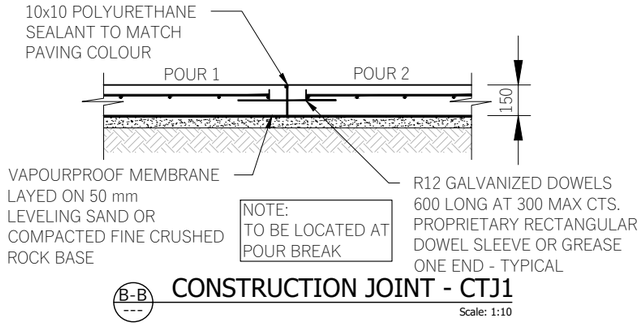
A14



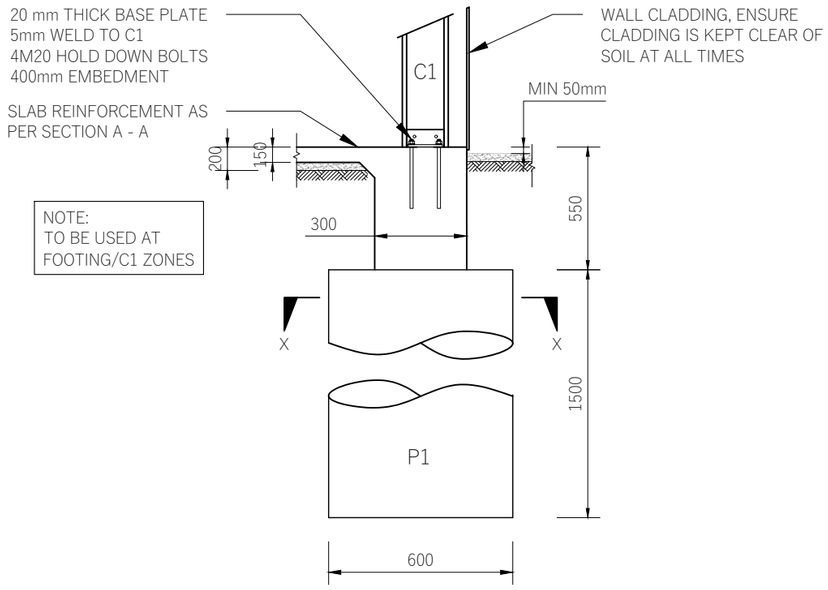
21 **PROPOSED NEW SLAB**
Scale: 1:100



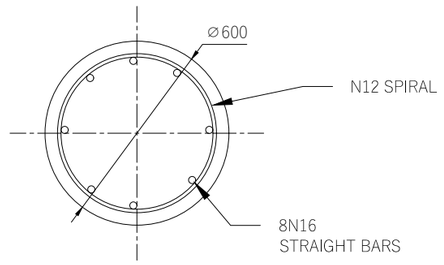
A-A **EDGE THICKENING**
Scale: 1:10



B-B **CONSTRUCTION JOINT - CTJ1**
Scale: 1:10



A **DETAIL A: PILE FOOTING**
Scale: 1:10



X-X

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP
331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

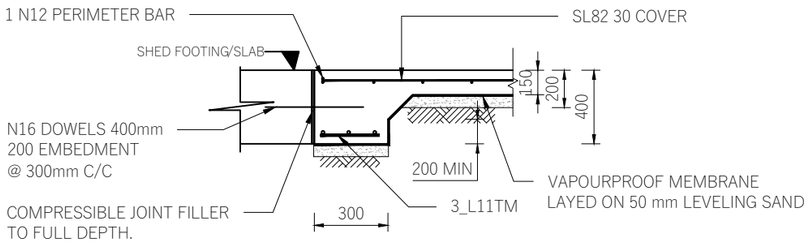
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

SLAB LAYOUT - SHEET 1

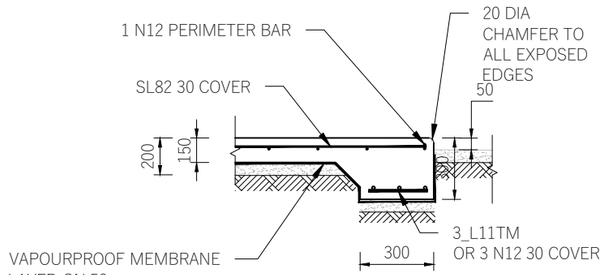
DESIGNED :	A.M.	SCALE :	1:100, 1:10 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

A15



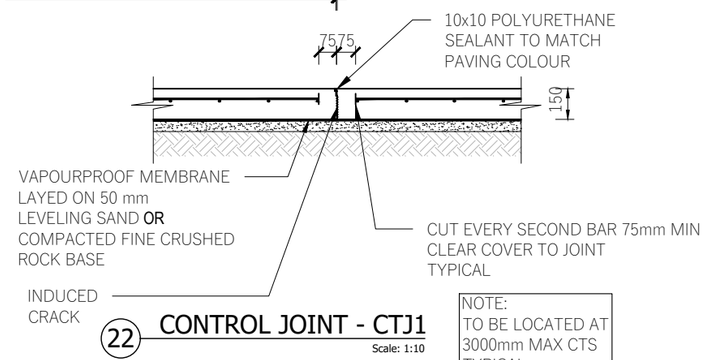
C-C A15 **DRIVEWAY PAD TO SHED**

Scale: 1:10



E-E A15 **DRIVEWAY EDGE THICKENING**

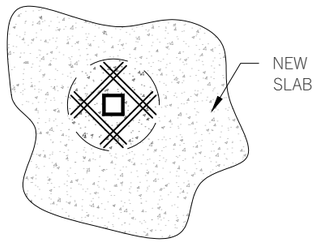
Scale: 1:10



22 **CONTROL JOINT - CTJ1**

Scale: 1:10

NOTE:
TO BE LOCATED AT
3000mm MAX CTS
TYPICAL



23 **TYPICAL SLAB PENETRATION VIEW**

Scale: 1:100

NOTE:

DENOTES 2-N12 TRIMMER BARS TOP 1200 LONG FIXED TO UNDERSIDE OFF FABRIC AT NON CONTINUOUS JOINTS AND REENTRANT CORNERS TYPICAL.

DENOTES SLAB PENETRATION (150SHS). IT IS PREFERABLE TO HAVE JOINTS ALIGN WITH PENETRATIONS.

NOTES

1. ALL WORKMANSHIP AND MATERIAL SHALL COMPLY WITH THE CURRENT AUSTRALIAN STANDARDS IN PARTICULAR AS3600 AND AS3727 AS WELL AS ANY REQUIREMENTS OF THE RELEVANT AUTHORITIES.
2. PAVEMENT IS TO BE FOUNDED ON FIRM NATURAL CUT GROUND OR COMPACTED FILL. ANY SOFT AREAS ARE TO BE REMOVED AND REPLACED WITH COMPACTED FILL TO MEET A MINIMUM OF 100KPa ALLOWABLE BEARING PRESSURE.
3. ANY FILL MUST BE PLACED IN 150mm THICK MAXIMUM LAYERS AND COMPACTED TO A RELATIVE DRY DENSITY OF 98% TO AS1289.5.1.1.
4. THE BASE COURSE IS TO BE GRANULAR GRADED MATERIAL, SUCH AS FINE CRUSHED ROCK.
5. HARDSTANDS GENERALLY TO BE DESIGNED TO HAVE A 2.5% MAX CROSS FALL. POORLY DRAINED SITES MAY REQUIRE SUB SURFACE DRAINAGE TO PROTECT THE PAVEMENT.
6. THE FINISHED LEVEL OF ANY PAVEMENT ABUTTING A WALL MUST BE BELOW THE DAMP PROOF COURSE AND MUST NOT OBSCURE ANY WEEP HOLES OR DRAINAGE OPENINGS.
7. DOWELS ARE TO BE ACCURATELY ALIGNED PARALLEL TO THE PAVEMENT SURFACE AND THE PAVEMENT CENTRE LINE. ALL DOWELS AND JOINT FORMERS ARE TO BE GALVANISED.
8. POLYURETHANE / SILICONE SEALANT TO MATCH PAVING COLOUR TO TOP 10mm JOINT.
9. CONCRETE THICKNESS, GRADE, REINFORCEMENT AND COVER IS AS DETAILED IN TABLE 1
10. TO ASSIST IN THE CURING AND DURABILITY OF HARDSTAND SLABS:
- THE SUB BASE SHOULD BE THOROUGHLY MOISTENED PRIOR TO PLACING CONCRETE (RESULTING IN REDUCED LOSS OF MOISTURE);
- AS SOON AS THE TEXTURING VIA EITHER A SPECIFIED DECORATIVE FINISH, WOOD FLOAT OR BROOMING HAS BEEN DONE, CURING SHOULD INITIATED BY APPLYING A CURING COMPOUND AT THE RATE OF 0.3 L/MIN^2.
- WATER SHOULD NOT BE ADDED TO THE AS-DELIVERED MIX.
11. RUN SURFACE TEXTURE TO EDGE ALL ROUND INCLUDING STEEL TROWELLED SURFACE EDGES.
12. TOLERANCE 3mm MAX CHANGE IN HEIGHT EACH SIDE OF JOINT.
13. PAVING COLOUR AS SPECIFIED.
14. HARDSTAND PAVEMENT IS DESIGNED FOR LIGHT DUTY TRAFFIC LOADING (OPERATION OF VEHICLES NOT EXCEEDING 3 TONNES) OR MEDIUM DUTY TRAFFIC LOADING (OPERATION OF VEHICLES NOT EXCEEDING 10 TONNES)

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG | METALINE ENGINEERING GROUP
331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

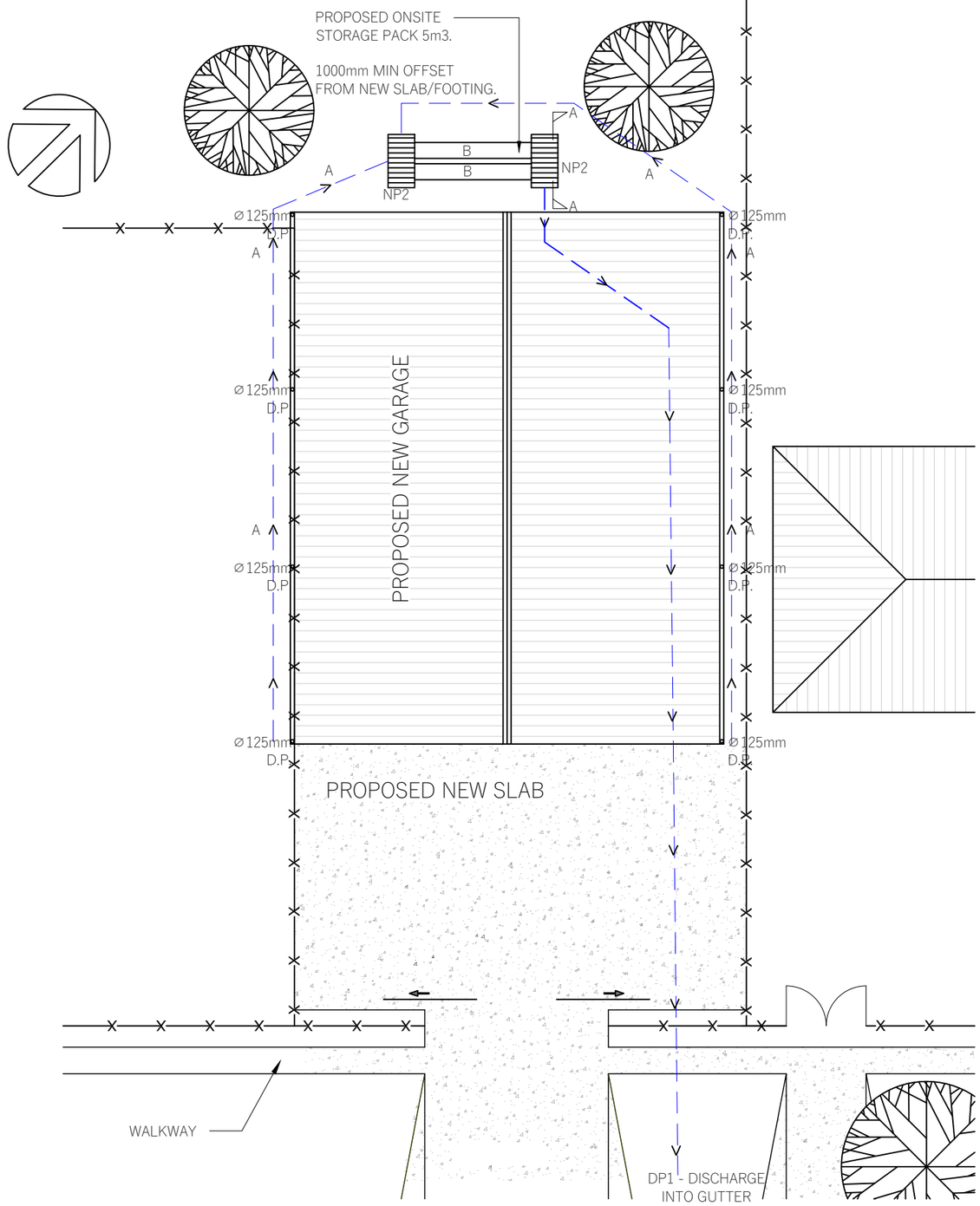
PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

SLAB LAYOUT - SHEET 2

DESIGNED :	A.M.	SCALE :	1:10 @A3
DRAWN :	W.B.	DATE :	11/03/2024
CHECKED :	A.M.		
REV :	04A		

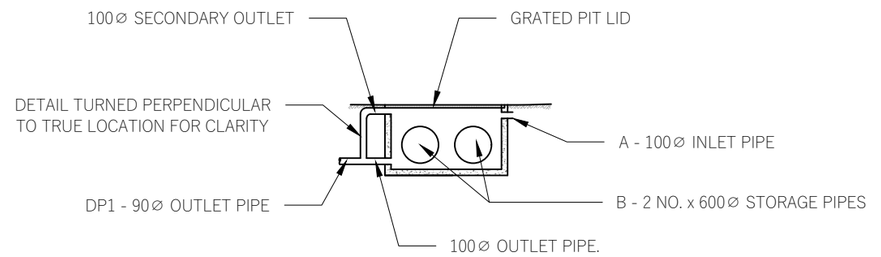
A16



24 **STORM WATER MANAGEMENT**
Scale: 1:200

PIT SCHEDULE	
PIT	SIZE
NP1	650 x 650 x 1000 D
NP2	2000 x 1000 x 1000 D

PIPE SCHEDULE				
TAG	SIZE	MATERIAL	GRADE	DESCRIPTION
A	100 Ø	P.V.C	1 % MIN	REGULAR GRAVITY PIPE
B	600 Ø	REINFORCED CONCRETE (RCP)	1 % MIN	PIPE PACKAGE AS BELOW-GROUND STORAGE
DP1	90 Ø	P.V.C	1 % MIN	DISCHARGE PIPE



A **SECTION A**
Scale: 1:50

STORMWATER LAYOUT NOTES

1) ALL PIPES TO HAVE 1% MIN. GRADE U.N.O.
2) EAVES GUTTER GRADIENT STEEPER THAN 1:500
3) EAVES GUTTER WITH AN EFFECTIVE CROSS-SECTIONAL AREA OF 13500 mm2 IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
4) ALL DOWNPIPIES TO BE 125 X 100 BOX OR 150 Ø.
5) PIPES TO BE U.P.V.C OR STORMWATER PIPE TO A.S.1254.
6) PITS TO BE STANDARD PRECAST CONCRETE PITS OR BRICK RENDERED WITH CONCRETE HEAVY DUTY GATES SIZED AS PITS PER PLAN.
7) NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS.
8) PERSONS UTILISING THIS PLAN FOR ANY PURPOSES SHALL VERIFY THE DATUM & RESPECTIVE LEVELS PRIOR TO COMMENCING ANY WORKS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
9) THE LEVELS PROVIDED FOR DRAINAGE DESIGN PURPOSES ONLY. LEVELS MAY BE ADJUSTED TO SUIT FINAL DEVELOPMENT CUT/FILL CONDITIONS, BUT NEED TO MAINTAIN INTENT OF DRAINAGE SYSTEM. ENGINEER TO BE CONSULTED PRIOR TO CONSTRUCTION TO ENSURE INTENT MAINTAINED.
10) THE EXISTING DRAINAGE SYSTEM TO BE CONFIRMED PRIOR TO COMMENCEMENT OF WORKS.
11) END OF EXISTING DRAINAGE LINE TO BE EXPOSED & LEVELS CONFIRMED BY BUILDER PRIOR TO COMMENCEMENT OF WORKS.
12) BUILDERS TO ENSURE SERVICES CONNECTIONS TO BUILDINGS DO NOT CONFLICT WITH DRAINAGE DESIGN REQUIREMENTS.
13) ALL WORKS TO BE CONSTRUCTED TO GOOD BUILDING PRACTICE & MATERIALS TO MEET ACCEPTED SPECIFICATIONS.

Rev.	Remark/Comment	Date
04A	FOR REVIEW	11/03/2024
03A	FOR REVIEW	05/03/2024
02A	FOR REVIEW	21/02/2024
01A	1ST DRAFT	15/01/2024

CLIENT:

WILCANNIA CENTRAL SCHOOL

NSW DEPARTMENT OF EDUCATION

MEG METALINE ENGINEERING GROUP
331 Cummins Street, BROKEN HILL, NSW, 2880
MOB: 0484 770 935
A.C.N. 63 7312951
www.metaline-engineering.com

CIVIL
STRUCTURAL
COMMERCIAL
RESIDENTIAL
GEOTECHNICAL
BUILDING SERVICES
PROJECT MANAGEMENT
RAIL/ROLLINGSTOCK
AUTOMOTIVE

FOR REVIEW

PROJECT : PROPOSED NEW GARAGE

PROJECT N° : 6601

STORMWATER

DESIGNED : A.M. SCALE : 1:200 @A3

DRAWN : W.B. DATE : 11/03/2024

CHECKED : A.M.

REV : 04A

A17