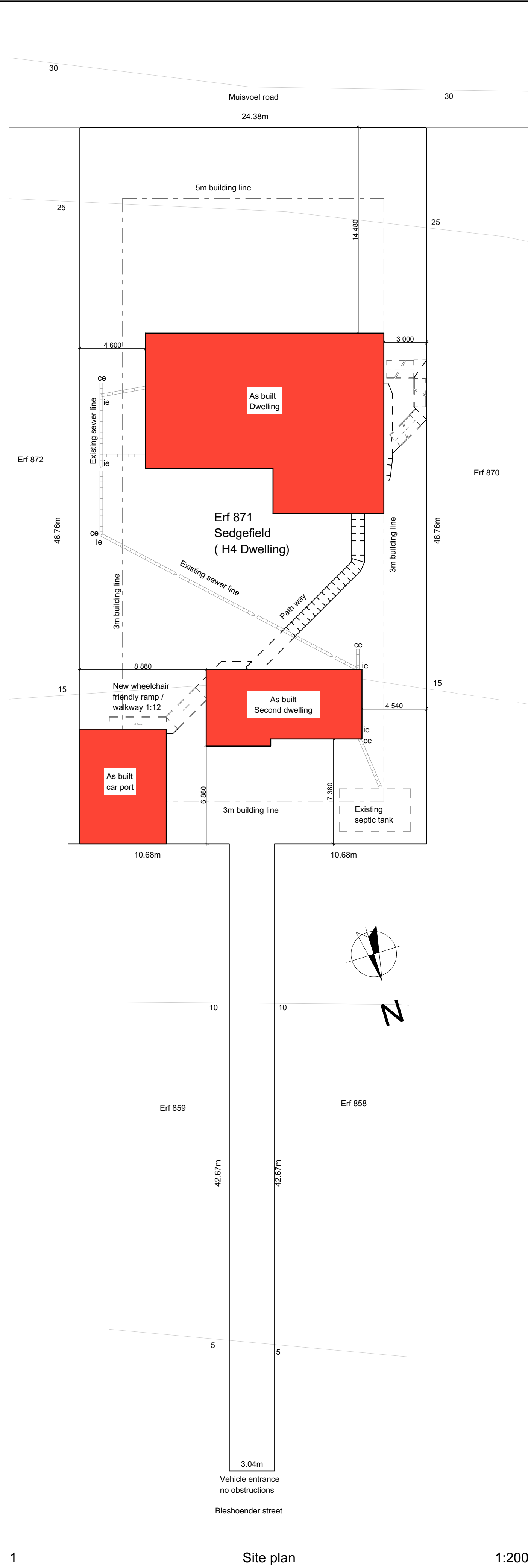
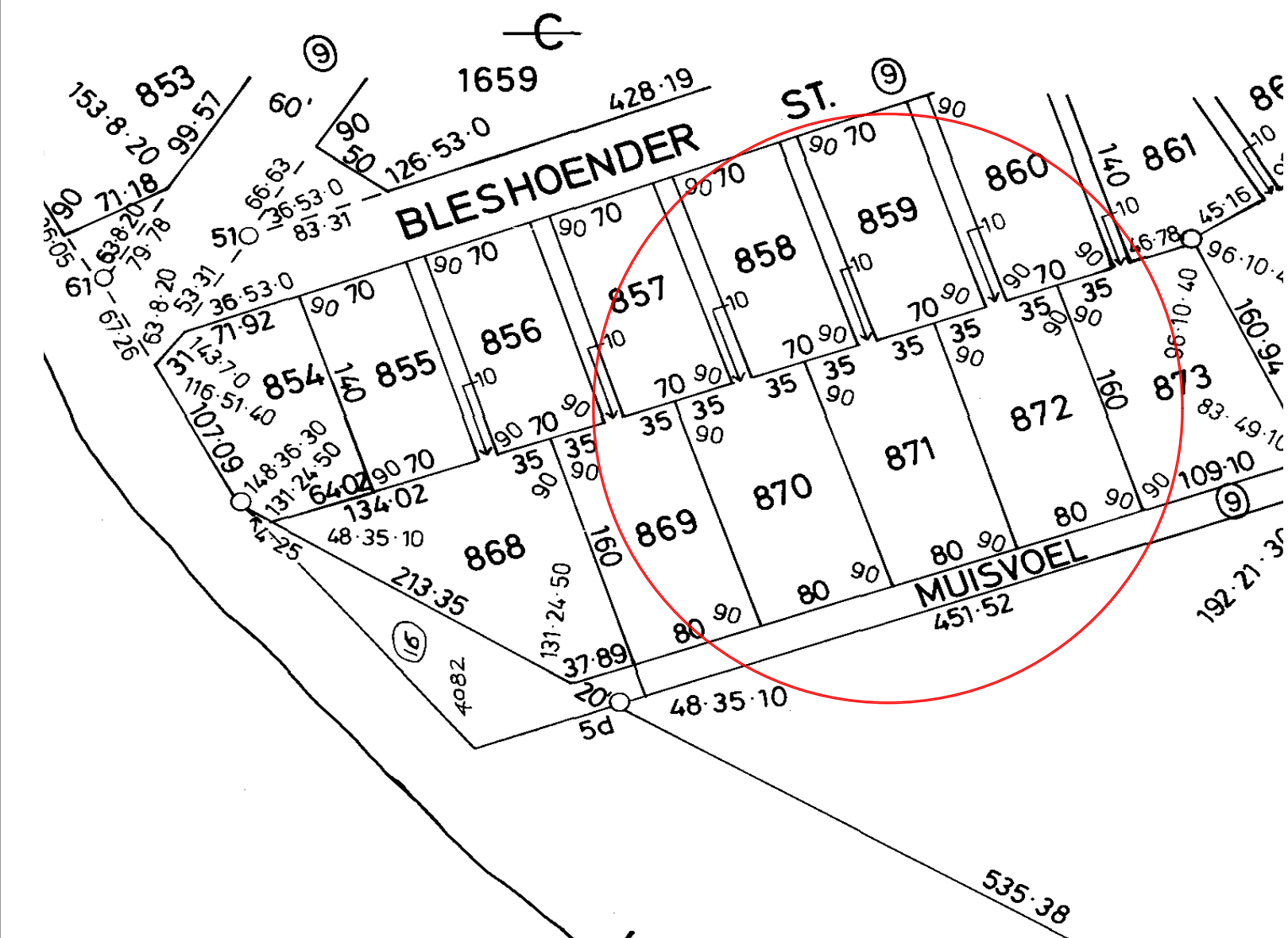


Typical Drainage Layout 1:50



ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400

GENERAL NOTES:
All work to comply with National Building Regulations SANS 10400. No measurements to be scaled. All levels and dimensions to be verified on site. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / DESIGNER IMMEDIATELY. Read drawings in conjunction with Engineer's detail. ALL REINFORCED CONCRETE WORK TO BE ACCORDING TO STRUCTURAL ENGINEER'S DESIGN AND DETAIL. The building owner is responsible for ensuring that their project is SANS compliant and signed off by a qualified Engineer.

STAIRS AND RAILING: A NON COMPLIANT BALUSTRADE IS A SAFETY RISK. ENSURE THE BALUSTRADE SYSTEM IS INSTALLED CORRECTLY. SANS 10400 Part S, Part D and Part M, SANS 10160-2:2011. Steps and risers as shown. Risers as indicated on drawing and run as indicated on drawing, minimum balustrade height 1000mm. Opening between rails and / or droppers not to exceed 100mm. Any balustrade or wall provided to protect a change in level shall comply with the requirements of SANS 10400-S.

FIRE PROTECTION: SANS 10400 Part T:
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.

STORM WATER: SANS 10400 Part R:
The owner of any site shall provide suitable means for the control and disposal of accumulated stormwater which may run off from any earthworks, building or paving. CONTRACTOR MUST ENSURE THAT STORM WATER DOES NOT DAMAGE EXISTING BUILDING WORK OR NEIGHBOURING PROPERTIES DURING CONSTRUCTION AND THAT STORMWATER DRAINAGE IS SUFFICIENT.

RAINWATER DISPOSAL:
Provide 1m paving around building with fall away from structure where practical. GUTTERS & DOWN PIPES TO BE INSTALLED WHERE PRACTICAL. We highly recommend installing as many rainwater tanks as practically possible.

SEWERAGE: All sanitary appliances to be supplied with antisuction traps and/or ventilated according to NBR requirements. -ie's at all bends, connections and changes of gradient with marked covers on ground level. Sufficient access panels to be installed in all shafts over 1m - all sanitary pipes to be accessible. Sewage pipes under floors or buildings not to change direction and must be encased in 100mm concrete.

SITE PREPARATION:
Remove top-soil and organic material within interior footprint of building and paving. Above material not to be used as backfill. Keep site dry. Stockpile top-soil and re-use where possible.

FOUNDATION: SANS 10400 Part H:
All foundations concrete strip foundations unless specified. Concrete minimum 15MPa after 28 days.

FILLING: SANS 10400 Part J (J2.3):
Backfill to be compacted in layers not more than 150mm layers to minimum. Compact to min. 98% MOD. AASHTO or otherwise as specified by Engineer.

SURFACE BEDS:
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m² max.

WATERPROOFING: SANS 10400 Part J(JJ3) and Sec. K(KK15): Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Brickgrip" DPC underneath all window sills. All joints according to specifications.

BRICKWORK: SANS 10400 Part K: Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide brickforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm brickforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm brickforce in each course every 4 layers for 110mm and 220mm brick walls.

PLASTER WORK:
One layer plaster minimum 12mm thick.

ROOF:
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009

GLAZING:
SANS 10400 Part N, SABS 0137-200, SABS 1263. Clear Glass unless specified. Mark all sliding doors visible. SAFETY GLASS IN ALL DOORS AND WINDOWS LOWER THAN 300mm FROM GROUND LEVEL AND LARGER THAN 1 m².

SKIRTING AND CORNICING:
Skirting & cornicing where required as specified.

GEYSERS: SABS 0254
With drip-tray.

SPACE HEATING & CHIMNEYS:
To comply with SANS 10400: Part V.

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5cm on original A1 drawing

0 1 2 3 4 5

STAMPS / SIGNATURES:

AREAS:		TOWN PLANING SCHEDULE:	
NAME	LEVEL	AREA	STAND: 871 SEDGEFIELD
Existing main house groundfloor	Ground floor	150.71m	SITE AREA: 7777 m
Existing main house basement	Basement	71.34m	ZONING: H4 dwelling
Existing main house U/Dock	Basement	66.84m	
Existing outbuilding	Ground floor	25.44m	
New additions outbuilding	Ground floor	48.39m	HEIGHT: 2 STOREYS
Existing carport	Ground floor	48.07m	FIRST FLOOR REST: N/A
TOTAL		379.73m	COVERAGE: 50%
			FAR: N/A

DRAWN BY: Franco Henegan

REVISION **DATE** **REVISION DETAILS**

0 2019/02/22 Issued for approval

PROJECT: As build plans, Erf 871 Sedgefield for Mr de Groot

DRAWING TITLE: Layout plan

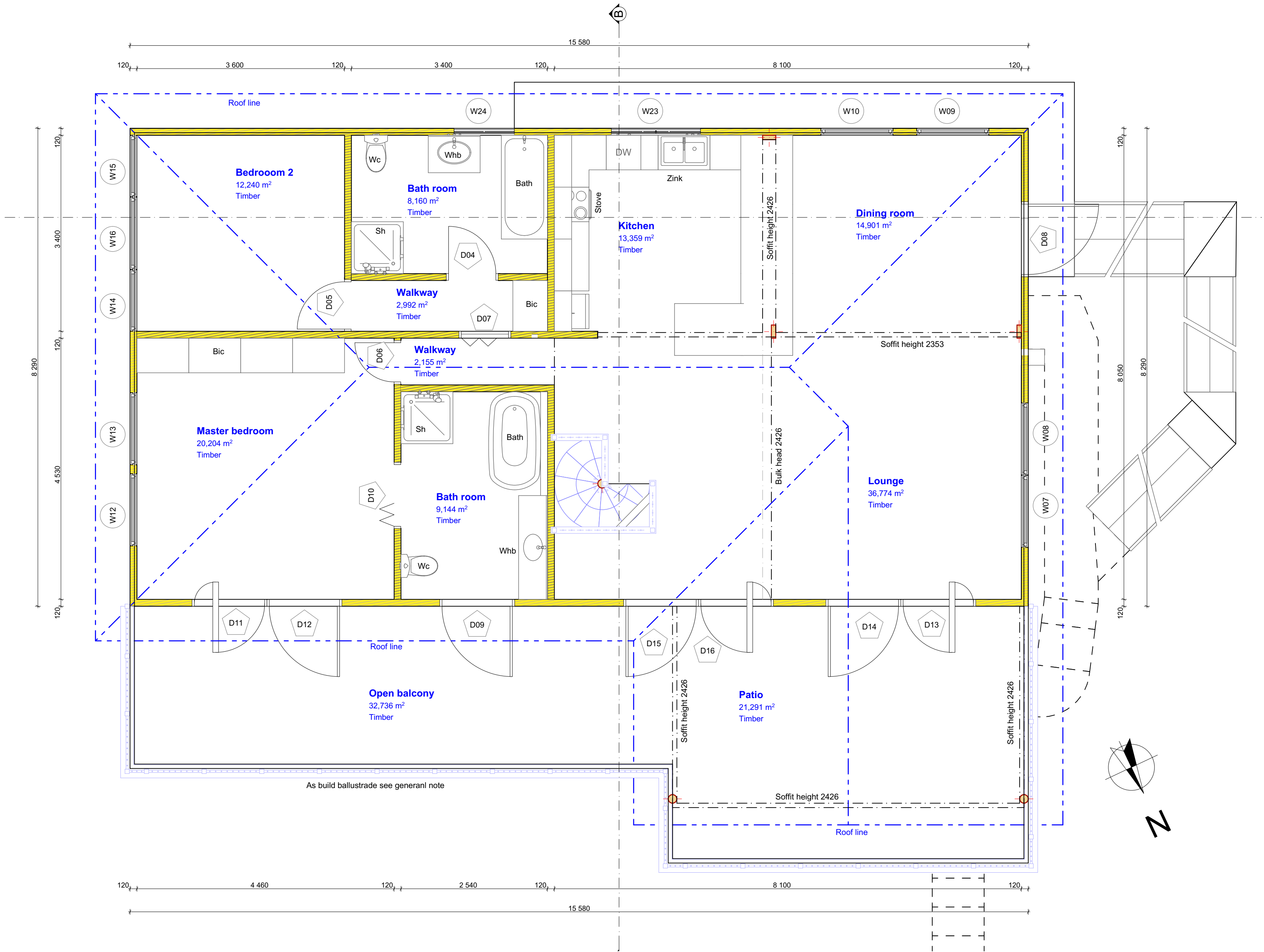
DRAWING: SED871_De Groot_rev 0

SCALE: as shown

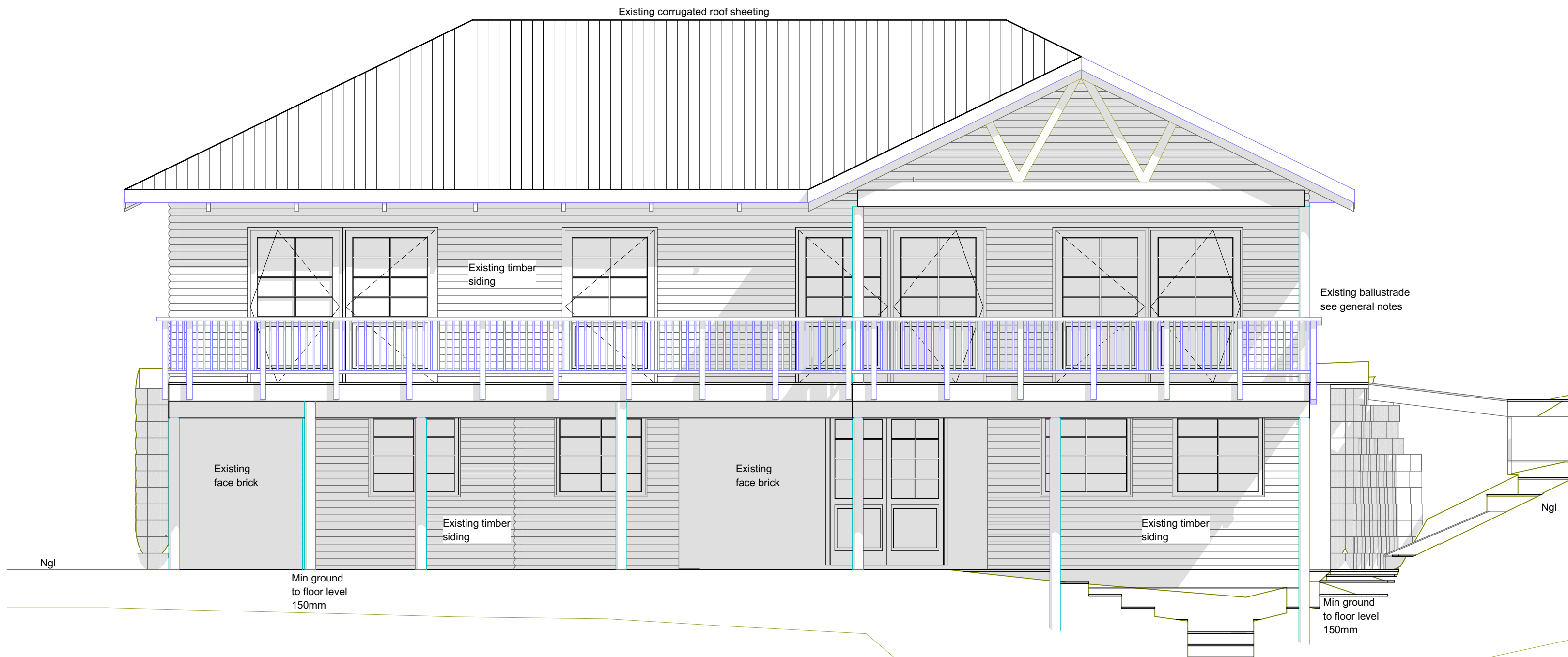
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REVISION **SHEET:** 1 of 9

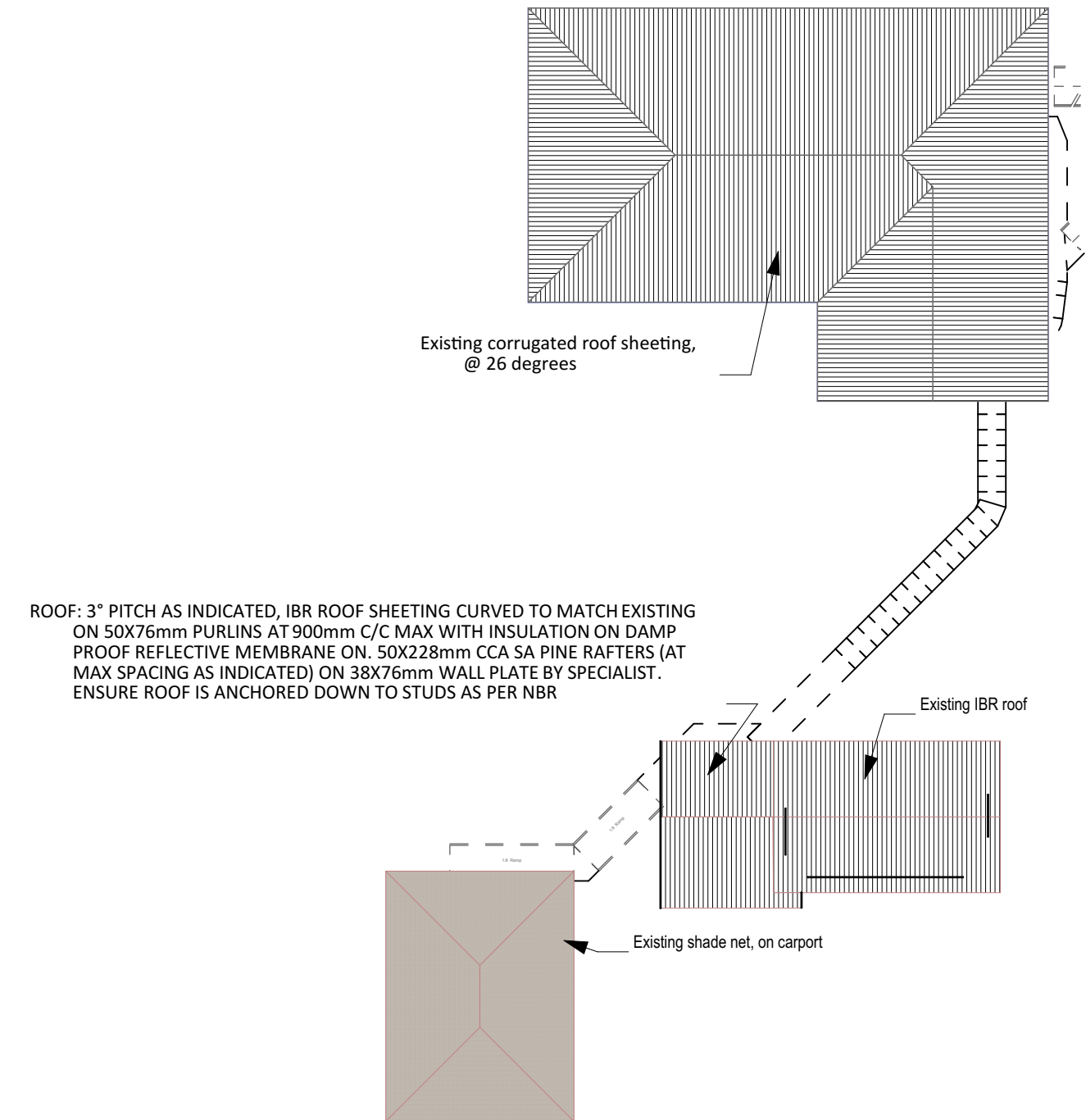
HG Architectural Design & Drafting
SH Greyling - registered SACAP D2253 | 22398 (SAIAT)
044 343 2206 | 071 382 3566
office@hgdesign.co.za | www.hgdesign.co.za
Office 15, Forest Lodge Complex, Sedgefield, WC, South Africa



2 Main house ground floor 1:50



Main House North Elevation 1:50



Main house roof plan 1:200

ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400

GENERAL NOTES:
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STAIRS AND RAILING: A NON COMPLIANT BALUSTRADE IS A SAFETY RISK. ENSURE THE BALUSTRADE SYSTEM IS INSTALLED CORRECTLY. SANS 10400 Part S, Part D and Part M, SANS 10160-2:2011. Steps and risers as shown. Risers as indicated on drawing and run as indicated on drawing, minimum balustrade height 1000mm. Opening between rails and / or droppers not to exceed 100mm. Any balustrade or wall provided to protect a change in level shall comply with the requirements of SANS 10400-S.

FIRE PROTECTION: SANS 10400 Part T:
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.

STORM WATER: SANS 10400 Part R:
The owner of any site shall provide suitable means for the control and disposal of accumulated stormwater which may run off from any earthworks, building or paving. CONTRACTOR MUST ENSURE THAT STORM WATER DOES NOT DAMAGE EXISTING BUILDING WORK OR NEIGHBOURING PROPERTIES DURING CONSTRUCTION AND THAT STORMWATER DRAINAGE IS SUFFICIENT.

RAINFALL DISPOSAL:
Provide 1m paving around building with fall away from structure where practical. GUTTERS & DOWN PIPES TO BE INSTALLED WHERE PRACTICAL. We highly recommend installing as many rainwater tanks as practically possible.

SEWERAGE: All sanitary appliances to be supplied with antisuction traps and/or ventilated according to NBR requirements. -1% at all bends, connections and changes of gradient with marked covers on ground level. Sufficient access panels to be installed in all shafts over 1m - all sanitary pipes to be accessible. Sewage pipes under floors or buildings not to change direction and must be encased in 100mm concrete.

SITE PREPARATION:
Remove top-soil and organic material within interior footprint of building and paving. Above material not to be used as backfill. Keep site dry. Slopple top-soil and re-use where possible.

FOUNDATION: SANS 10400 Part H:
All foundations concrete strip foundations unless specified. Concrete minimum 15MPa after 28 days.

FILLING: SANS 10400 Part J (J2.3):
Backfill to be compacted in layers not more than 150mm layers to minimum. Compact to min. 98% MOD. AASHTO or otherwise as specified by Engineer.

SURFACE BEDS:
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m max.

WATERPROOFING: SANS 10400 Part J(J2.3) and Sec. K(KK15): Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Brickgrip" DPC underneath all window sills. All joints according to specifications.

BRICKWORK: SANS 10400 Part K: Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide bricforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm bricforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm bricforce in each course every 4 layers for 110mm and 220mm brick walls.

PLASTER WORK:
One layer plaster minimum 12mm thick.

ROOF:
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009

GLAZING:
SANS 10400 Part N, SABS 0137-200, SABS 1263. Clear Glass unless specified. Mark all sliding doors visible. SAFETY GLASS IN ALL DOORS AND WINDOWS LOWER THAN 300mm FROM GROUND LEVEL AND LARGER THAN 1 m².

SKIRTING AND CORNICING:
Skirting & cornicing where required as specified.

GEYSERS: SABS 0254
With drip-tray.

SPACE HEATING & CHIMNEYS:
To comply with SANS 10400: Part V.

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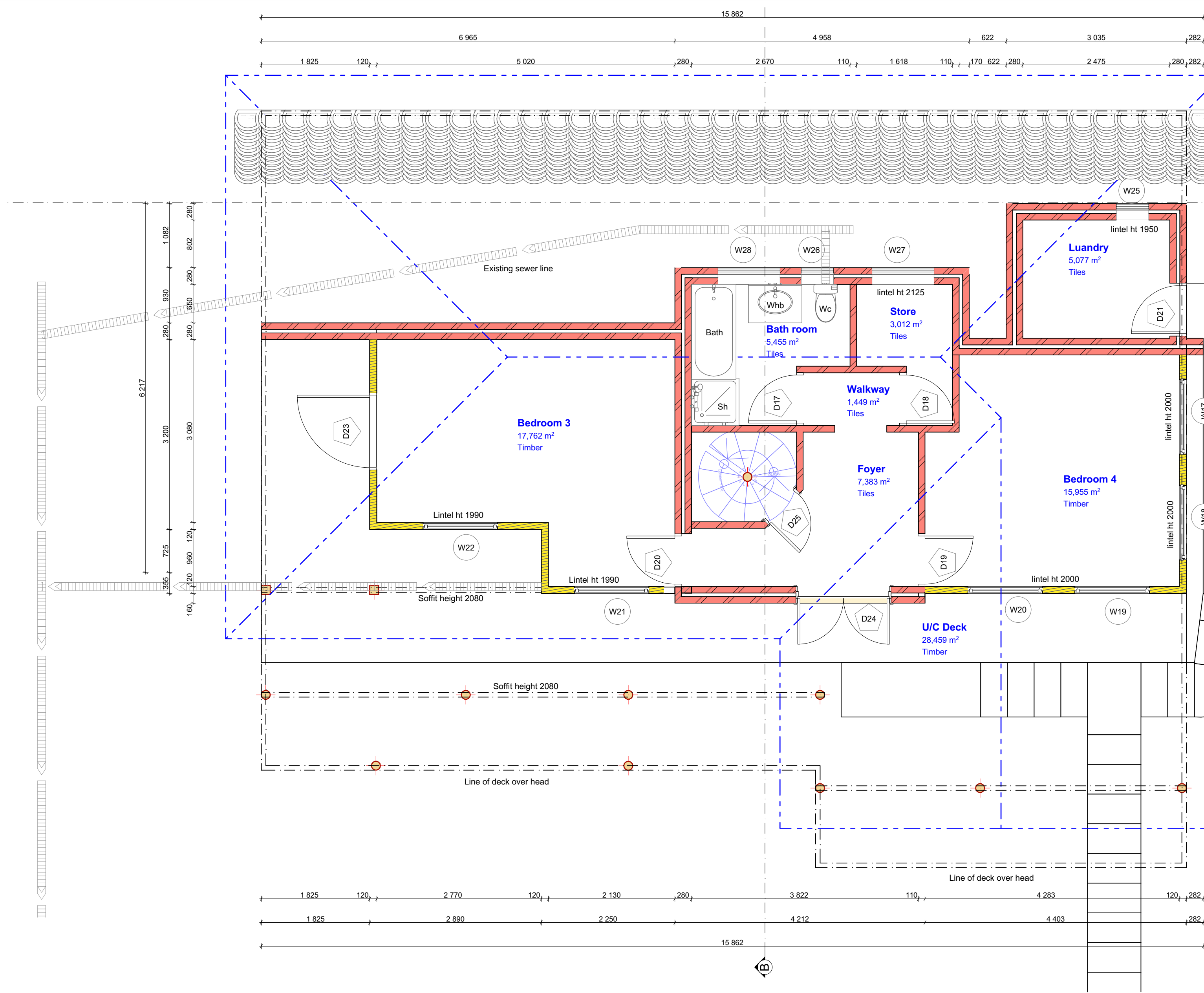
STAMPS / SIGNATURES:

Area for stamps and signatures.

AREAS:			TOWN PLANING SCHEDULE:		
NAME	LEVEL	AREA	STAND: TOWNSHIP:	STAND 871 SEDGEFIELD	
Existing main house ground floor	Ground floor	150.71m	SITE AREA:	???? m	
Existing main house basement	Basement	71.34m	ZONING:	144 dwelling	
Existing main house J/lock	Basement	66.84m			
Existing outbuilding	Ground floor	25.44m			
New additions outbuilding	Ground floor	16.39 m			
Existing carport	Ground floor	48.07m	HEIGHT: FIRST FLOOR REST: COVERAGE:	2 STOREYS N/A 50% N/A	2 STOREY N/A 28.77% N/A
TOTAL		379.73m	FAR:		

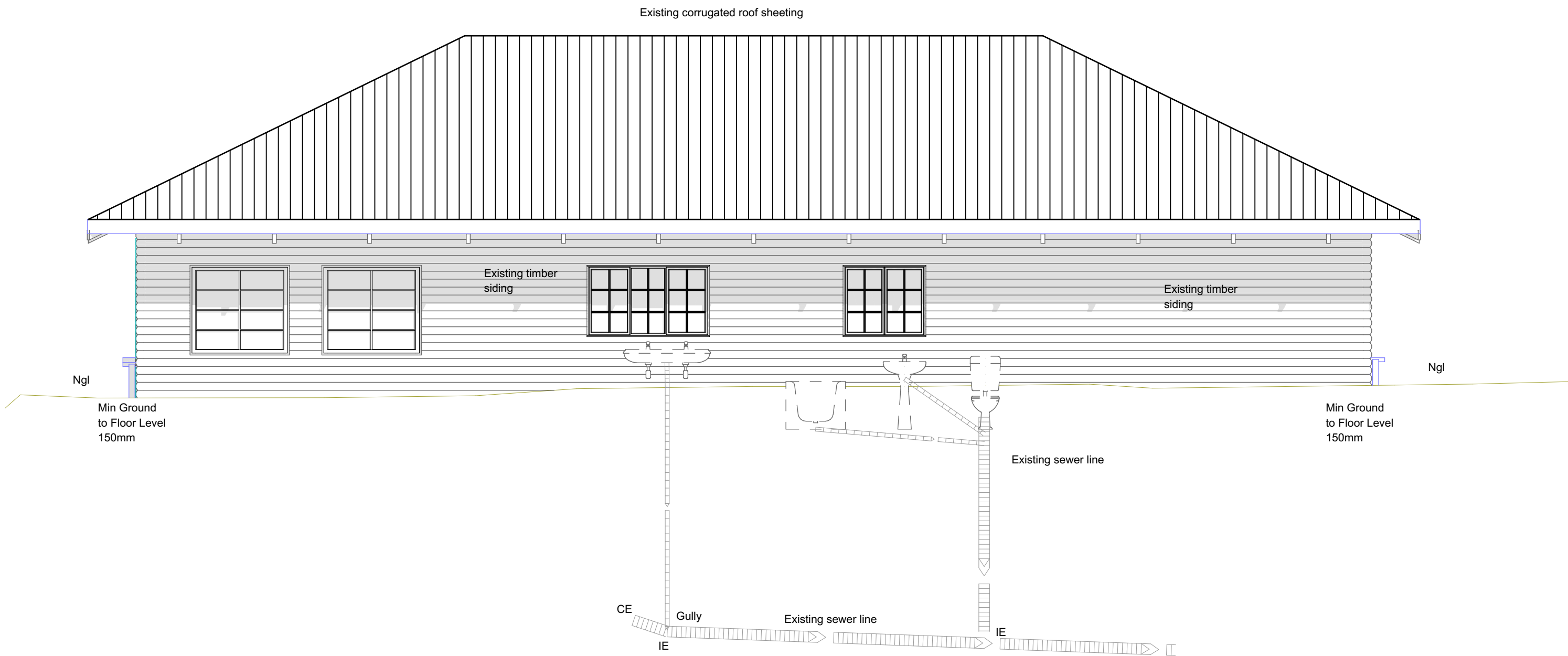
DRAWN BY	Franco Henegan	REVISION DETAILS	
REVISION	DATE	ISSUED FOR APPROVAL	
0	2019/02/22		

PROJECT:	As build plans, Erf 871 Sedgefield for Mr de Groot	
DRAWING TITLE:	Layout plan	SHEET: (2) of 9
DRAWING:	SED871_De Groot_rev 0	SCALE: as shown PAPER SIZE: A1 REVISION: 0



4 Main house basement floor

1:50



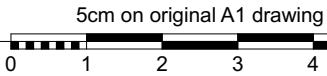
Main House South

Elevation

1:50

- ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400**
- GENERAL NOTES:**
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- STAIRS AND RAILING: A NON COMPLIANT BALUSTRADE IS A SAFETY RISK. ENSURE THE BALUSTRADE SYSTEM IS INSTALLED CORRECTLY. SANS 10400 Part S, Part D and Part M, SANS 10160-2:2011.** Steps and risers as shown. Risers as indicated on drawing and run as indicated on drawing, minimum balustrade height 1000mm. Opening between rails and / or droppers not to exceed 100mm. Any balustrade or wall provided to protect a change in level shall comply with the requirements of SANS 10400-S.
- FIRE PROTECTION: SANS 10400 Part T:**
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.
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- RAINFALL DISPOSAL:**
Provide 1m paving around building with fall away from structure where practical. GUTTERS & DOWN PIPES TO BE INSTALLED WHERE PRACTICAL. We highly recommend installing as many rainwater tanks as practically possible.
- SEWERAGE:** All sanitary appliances to be supplied with antisuction traps and/or ventilated according to NBR requirements. -1% at all bends, connections and changes of gradient with marked covers on ground level. Sufficient access panels to be installed in all shafts over 1m. -all sanitary pipes to be accessible. Sewage pipes under floors or buildings not to change direction and must be encased in 100mm concrete.
- SITE PREPARATION:**
Remove top-soil and organic material within interior footprint of building and paving. Above material not to be used as backfill. Keep site dry. Stockpile top-soil and re-use where possible.
- FOUNDATION: SANS 10400 Part H:**
Provide 1m paving around building with fall away from structure where practical. GUTTERS & DOWN PIPES TO BE INSTALLED WHERE PRACTICAL. We highly recommend installing as many rainwater tanks as practically possible.
- FILLING: SANS 10400 Part J (J4.2.3):**
Backfill to be compacted in layers not more than 150mm layers to minimum. Compact to min. 98% MOD. AASHTO or otherwise as specified by Engineer.
- SURFACE BEDS:**
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m² max.
- WATERPROOFING: SANS 10400 Part J (J4.2.3) and Sec. K(KK15):** Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Briqgrip" DPC underneath all window sills. All joints according to specifications.
- BRICKWORK: SANS 10400 Part K:** Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide brickforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm brickforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm brickforce in each course every 4 layers for 110mm and 220mm brick walls.
- PLASTER WORK:**
One layer plaster minimum 12mm thick.
- ROOF:**
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009
- GLAZING:**
SANS 10400 Part N, SABS 0137:200, SABS 1263. Clear Glass unless specified. Mark all sliding doors visible. SAFETY GLASS IN ALL DOORS AND WINDOWS LOWER THAN 300mm FROM GROUND LEVEL AND LARGER THAN 1 m².
- SKIRTING AND CORNICING:**
Skirting & cornicing where required as specified.
- GEYSERS: SABS 0254**
With drip-tray.
- SPACE HEATING & CHIMNEYS:**
To comply with SANS 10400: Part V.

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STAMPS / SIGNATURES:

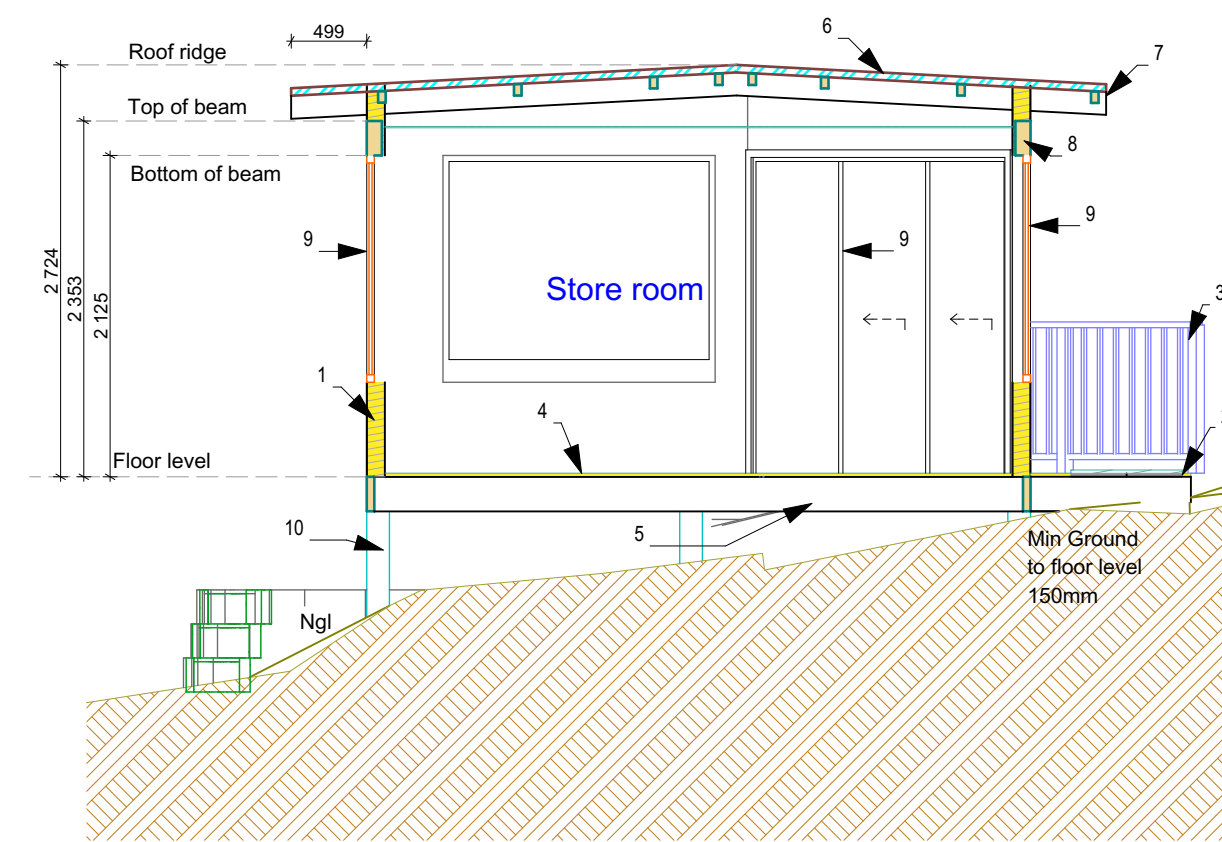
AREAS:			TOWN PLANING SCHEDULE:		
NAME	LEVEL	AREA	STAND: TOWNSHIP:	STAND 871 SEDGEFIELD	
Existing main house groundfloor	Ground floor	150.71m	SITE AREA: 7777 m ZONING: H4 dwelling	HEIGHT: 2 STOREYS 2 STOREY FIRST FLOOR REST: N/A COVERAGE: 50% FAR: N/A	
Existing main house basement	Basement	71.34m			
Existing main house U/C Deck	Basement	68.84m			
Existing outbuilding	Ground floor	25.44m			
New additions outbuilding	Ground floor	16.39 m			
Existing carport	Ground floor	48.07m			
TOTAL		379.73m			

DRAWN BY: Franco Henegan		
REVISION	DATE	REVISION DETAILS
0	2019/02/22	Issued for approval

PROJECT: As build plans, Erf 871 Sedgefield for Mr de Groot		
DRAWING TITLE: Layout plan		
DRAWING: SED871_De Groot_rev 0		
SCALE: as shown	PAPER SIZE: A1	REVISION: 0

HG Architectural Design & Draughting

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044 343 2206 | 071 382 3566
office@hgdesign.co.za | www.hgdesign.co.za
Office 15, Forest Lodge Complex, Sedgefield, WC, South Africa



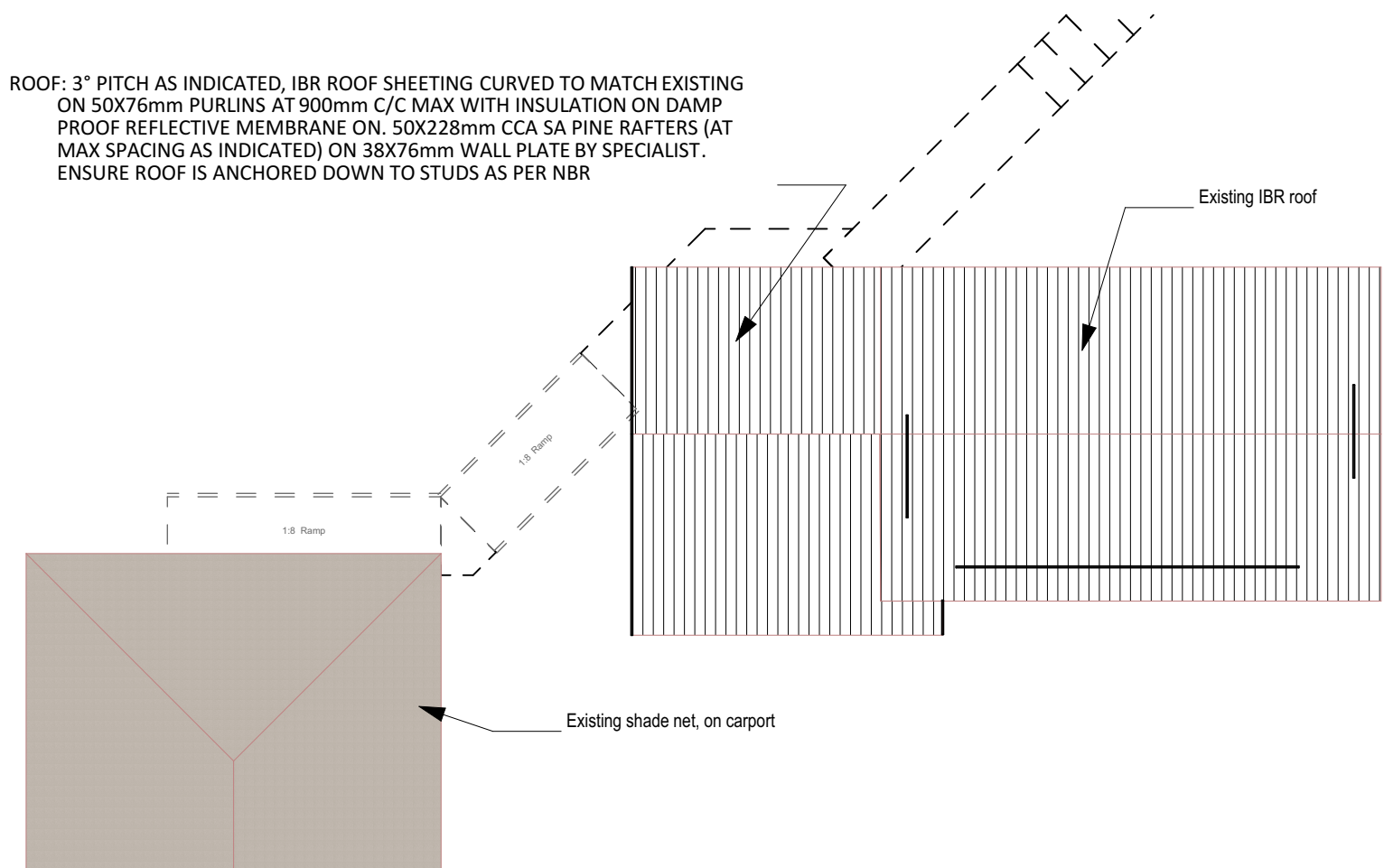
A Building Section 1:50

SECTION LEGEND:

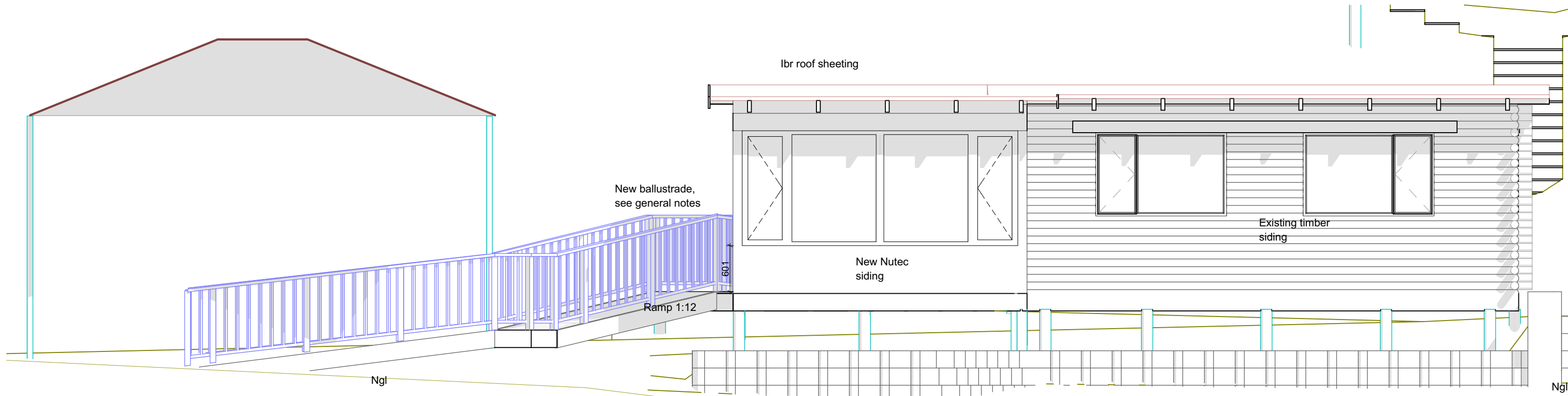
FFL - FINAL FLOOR LEVEL, NGL - NATURAL GROUND LEVEL, TOC - TOP OF CONCRETE, DPC - DAMP PROOF COURSE.

POST AND BEAM SPACING AND SIZING AND ALL STRUCTURAL TIMBER MINIMUM GRADE 5 CCA SA PINE AS SPECIFIED OTHERWISE BY ENGINEER.

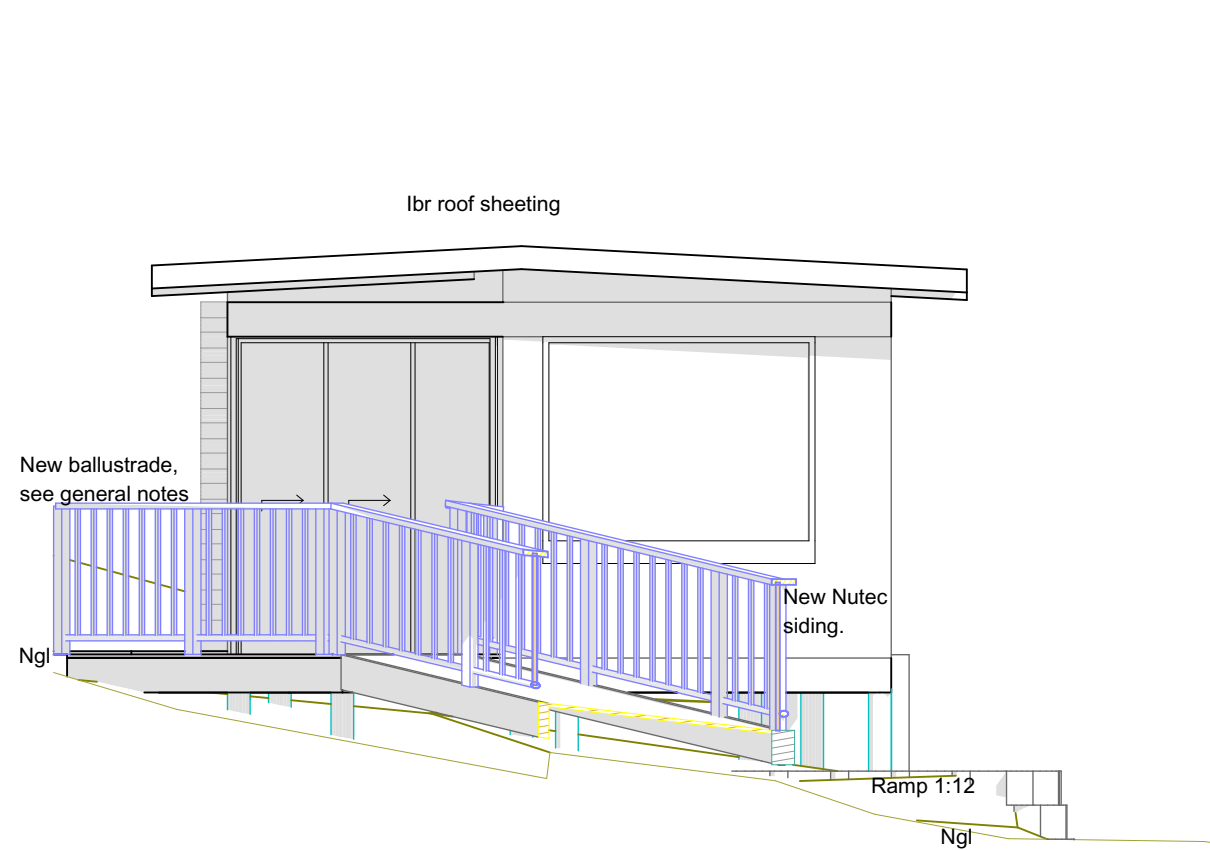
- 1 - EXTERIOR WALL - TIMBER CLADDING TO TYVEK HOMEWRAP OR OTHER BREATHEABLE WATERPROOF MEMBRANE TO 9mm OSB BOARD (OR SIMILAR) TO 38X114mm FRAME WALL WITH STUDS @ 400mm C/C (AS PER SANS 10082:2007) WITH THERMAL INSULATION AS PER SANS 10400, WITH 9mm RHINOBOARD TO INSIDE. INTERIOR WALL: 38X114mm FRAME WALL WITH STUDS @ 400mm C/C (AS PER SANS 10082:2007) WITH THERMAL INSULATION CLAD WITH 9mm RHINO BOARD ON BOTH SIDES.
- 2 - WHEELCHAIR FRIENDLY WALKWAYS AS PER SANS.
- 3 - BALLUSTRADES AND HANDRAILS TO OWNER'S DESIGN. HANDRAIL MINIMUM 1000mm ABOVE FLOOR / STEP WITH DROPPERS OR RAILS MAXIMUM 100mm APART. SEE GENERAL NOTES.
- 4 - TIMBER FLOOR TO OWNER'S DESIGN ON 18mm PLY SUBFLOOR ON 38X228mm JOISTS AT MAX 400mm C/C BY ENGINEER.
- 5 - TIMBER FRAME, 50X228mm TIMBER JOISTS @ MAX. 400mm C/C BY ENGINEER.
- 6 - ROOF: 3° PITCH AS INDICATED, IBR ROOF SHEETING CURVED TO MATCH EXISTING ON 50X76mm PURLINS AT 900mm C/C MAX WITH INSULATION ON DAMP PROOF REFLECTIVE MEMBRANE ON. 50X228mm CCA SA PINE RAFTERS (AT MAX SPACING AS INDICATED) ON 38X76mm WALL PLATE BY SPECIALIST. ENSURE ROOF IS ANCHORED DOWN TO STUDS AS PER NBR.
- 7 - 10x150mm NUTEC FACIAS
- 8 - 76X228mm TIMBER BEARER BEAM BY ENGINEER.
- 9 - ALL DOORS TO OWNER'S SPECIFICATION - SEE DOOR SCHEDULE
- 10 - ALL WINDOWS TO OWNER'S SPECIFICATION - SEE WINDOW SCHEDULE



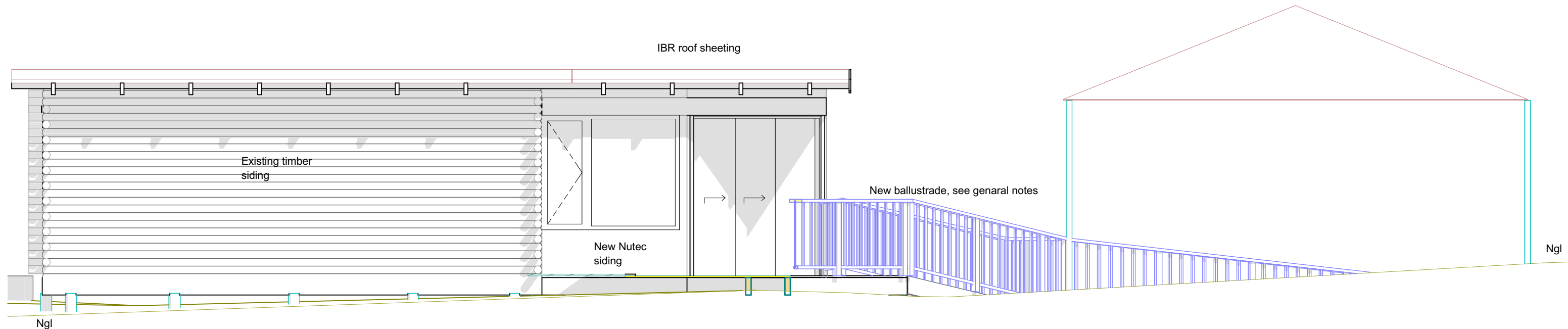
2 Second dwelling roof plan 1:100



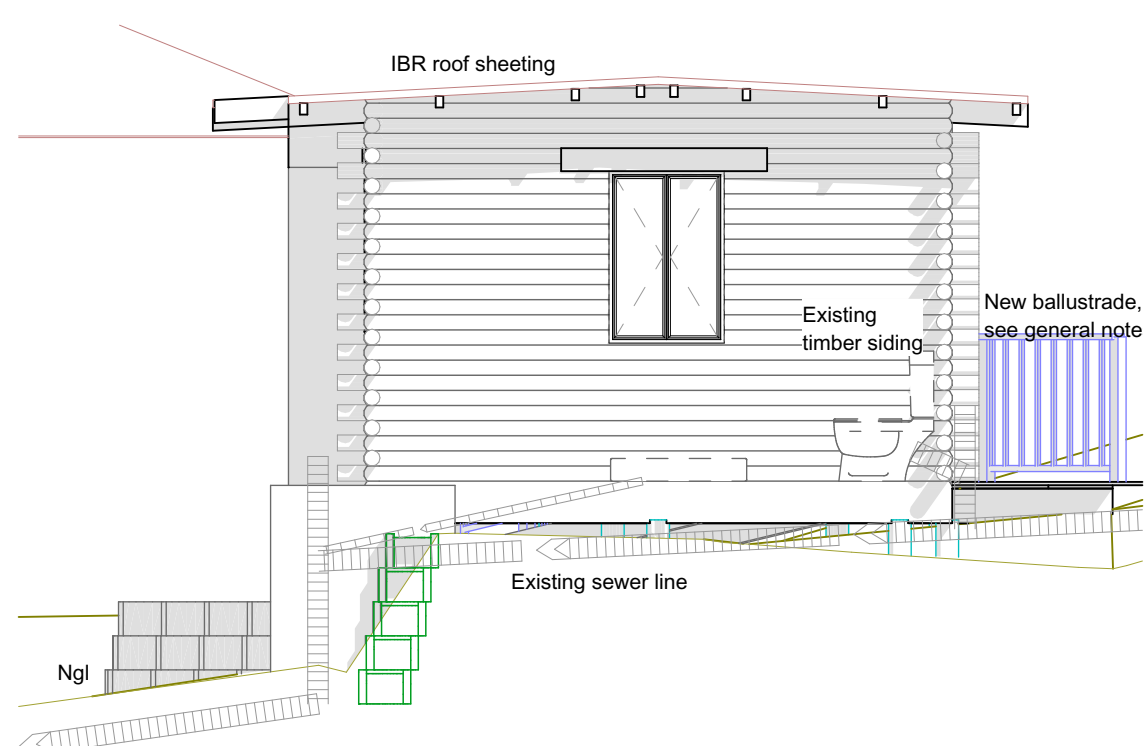
Outbuilding North Elevation 1:50



Outbuilding East Elevation 1:50



Outbuilding South Elevation 1:50



Outbuilding West Elevation 1:50

ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400

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FIRE PROTECTION: SANS 10400 Part T:
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.

STORM WATER: SANS 10400 Part R:
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RAINFALL DISPOSAL:
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SEWERAGE: All sanitary appliances to be supplied with antisuction traps and/or ventilated according to NBR requirements. -1% at all bends, connections and changes of gradient with marked covers on ground level. Sufficient access panels to be installed in all shafts over 1m - all sanitary pipes to be accessible. Sewage pipes under floors or foundations not to change direction and must be encased in 100mm concrete.

SITE PREPARATION:
Remove top-soil and organic material within interior footprint of building and paving. Above material not to be used as backfill. Keep site dry. Sloppable top-soil and re-use where possible.

FOUNDATION: SANS 10400 Part H:
All foundations concrete strip foundations unless specified. Concrete minimum 15MPa after 28 days.

FILLING: SANS 10400 Part J (J2.3):
Backfill to be compacted in layers not more than 150mm layers to minimum. Compact to min. 98% MOD. AASHTO or otherwise as specified by Engineer.

SURFACE BEDS:
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m² max.

WATERPROOFING: SANS 10400 Part J(J2.3) and Sec. K(KK15): Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Brickgrip" DPC underneath all window sills. All joints according to specifications.

BRICKWORK: SANS 10400 Part K: Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide brickforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm brickforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm brickforce in each course every 4 layers for 110mm and 220mm brick walls.

PLASTER WORK:
One layer plaster minimum 12mm thick.

ROOF:
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009

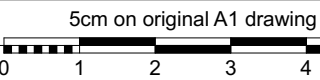
GLAZING:
SANS 10400 Part N, SABS 0137-200, SABS 1263. Clear Glass unless specified. Mark all sliding doors visible. SAFETY GLASS IN ALL DOORS AND WINDOWS LOWER THAN 300mm FROM GROUND LEVEL AND LARGER THAN 1 m².

SKIRTING AND CORNICING:
Skirting & cornicing where required as specified.

GEYSERS: SABS 0254
With drip-tray.

SPACE HEATING & CHIMNEYS:
To comply with SANS 10400: Part V.

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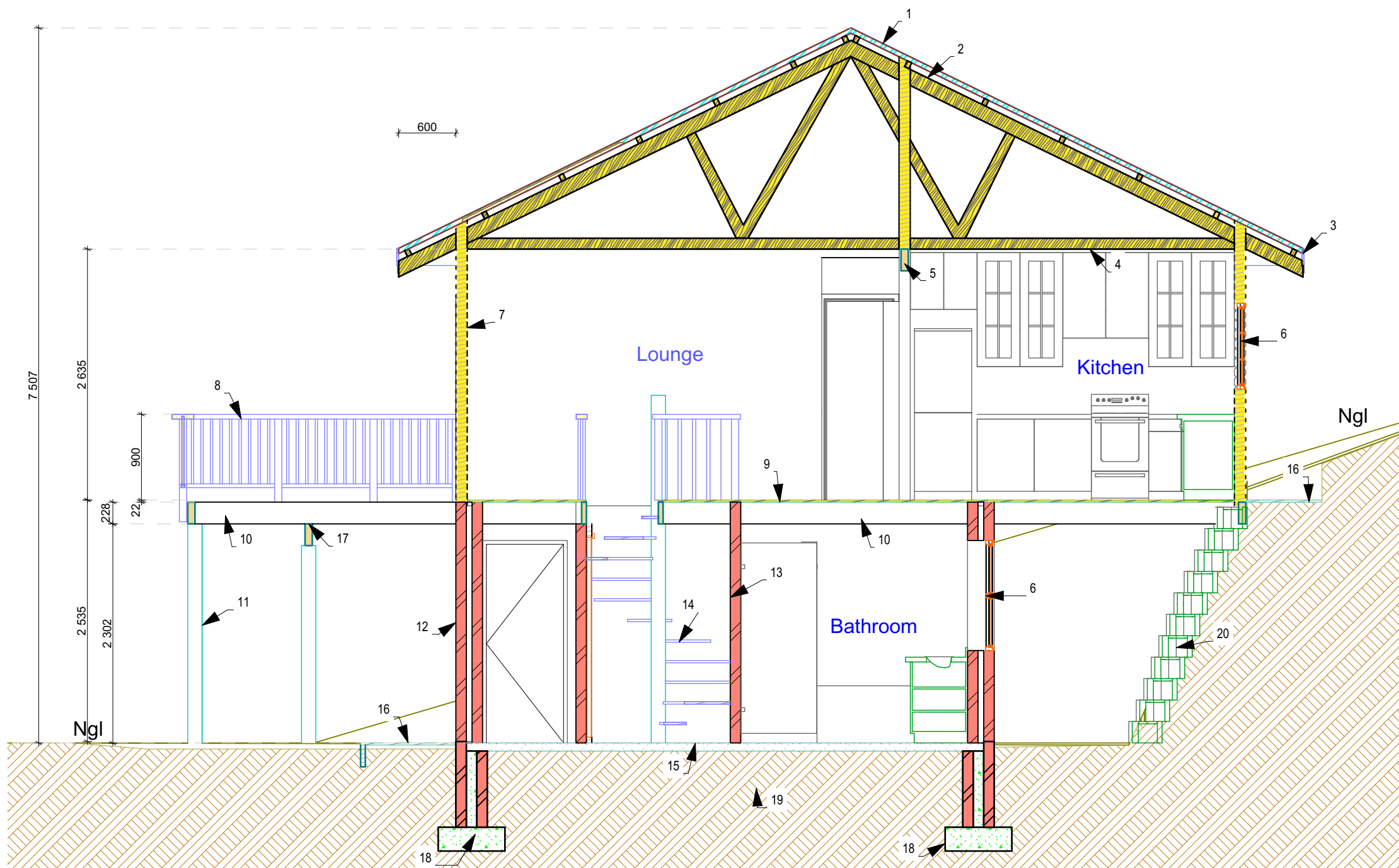


STAMPS / SIGNATURES:

AREAS:		TOWN PLANING SCHEDULE:	
NAME	LEVEL	AREA	STAND: 871 SEDGEFIELD
Existing main house groundfloor	Ground floor	150.71m	
Existing main house basement	Basement	71.34m	
Existing main house U/Ock	Basement	66.84m	
Existing outbuilding	Ground floor	25.44m	
New additions outbuilding	Ground floor	16.39 m	
Existing carport	Ground floor	48.07m	
TOTAL		379.73m	
		SITE AREA: 7777 m	
		ZONING: 144 dwelling	
		HEIGHT: 2 STOREYS	2 STOREY
		FIRST FLOOR REST: N/A	N/A
		COVERAGE: 50%	28.77%
		FAR: N/A	N/A

DRAWN BY		Franco Henegan	
REVISION	DATE	REVISION DETAILS	
0	2019/02/22	Issued for approval	

PROJECT: As build plans, Erf 871 Sedgefield for Mr de Groot	
DRAWING TITLE: Elevations & sections	
DRAWING: SED871_De Groot_rev 0	SCALE: as shown
PAPER SIZE: A1	REVISION: 0



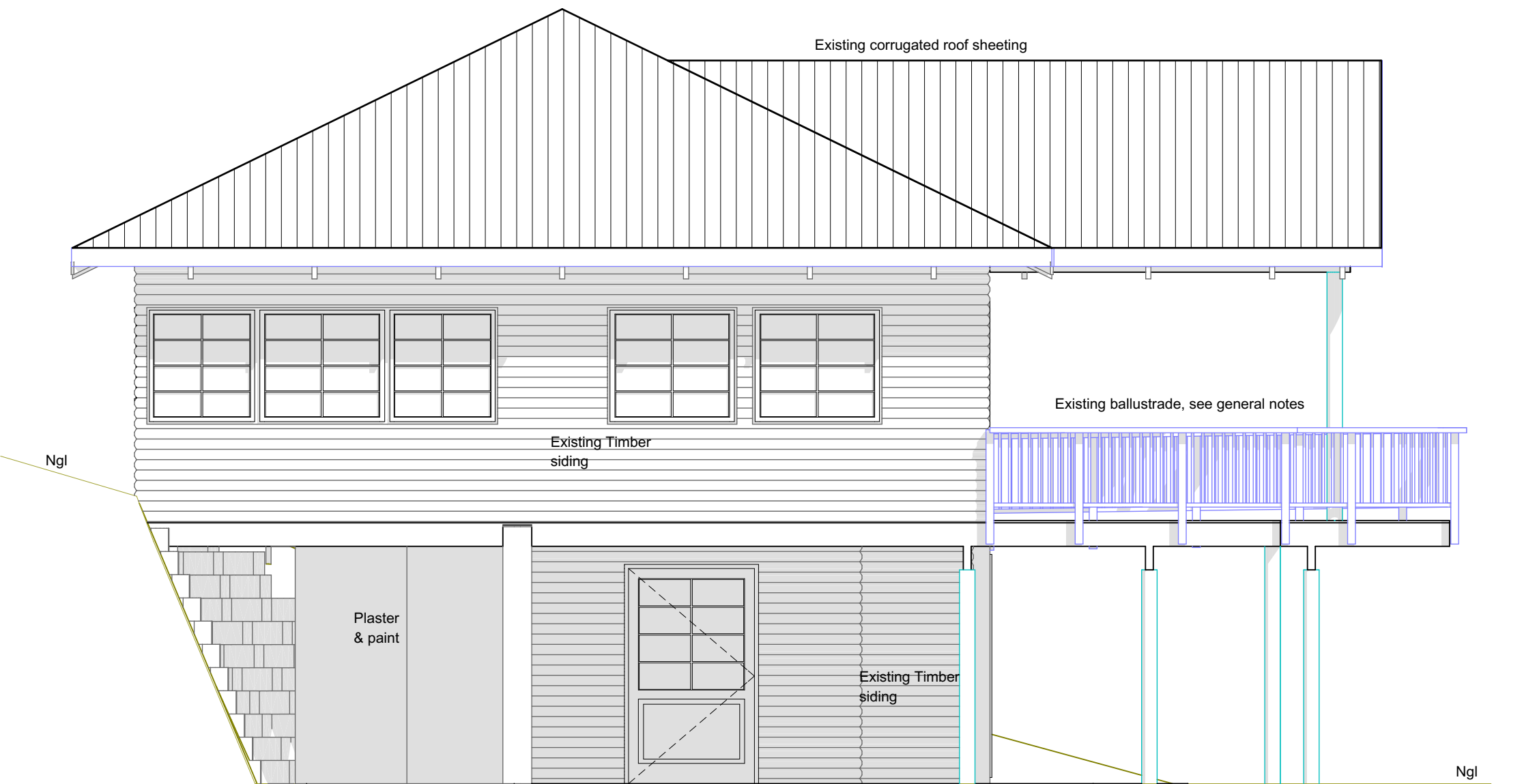
B Building Section 1:50

SECTION LEGEND:

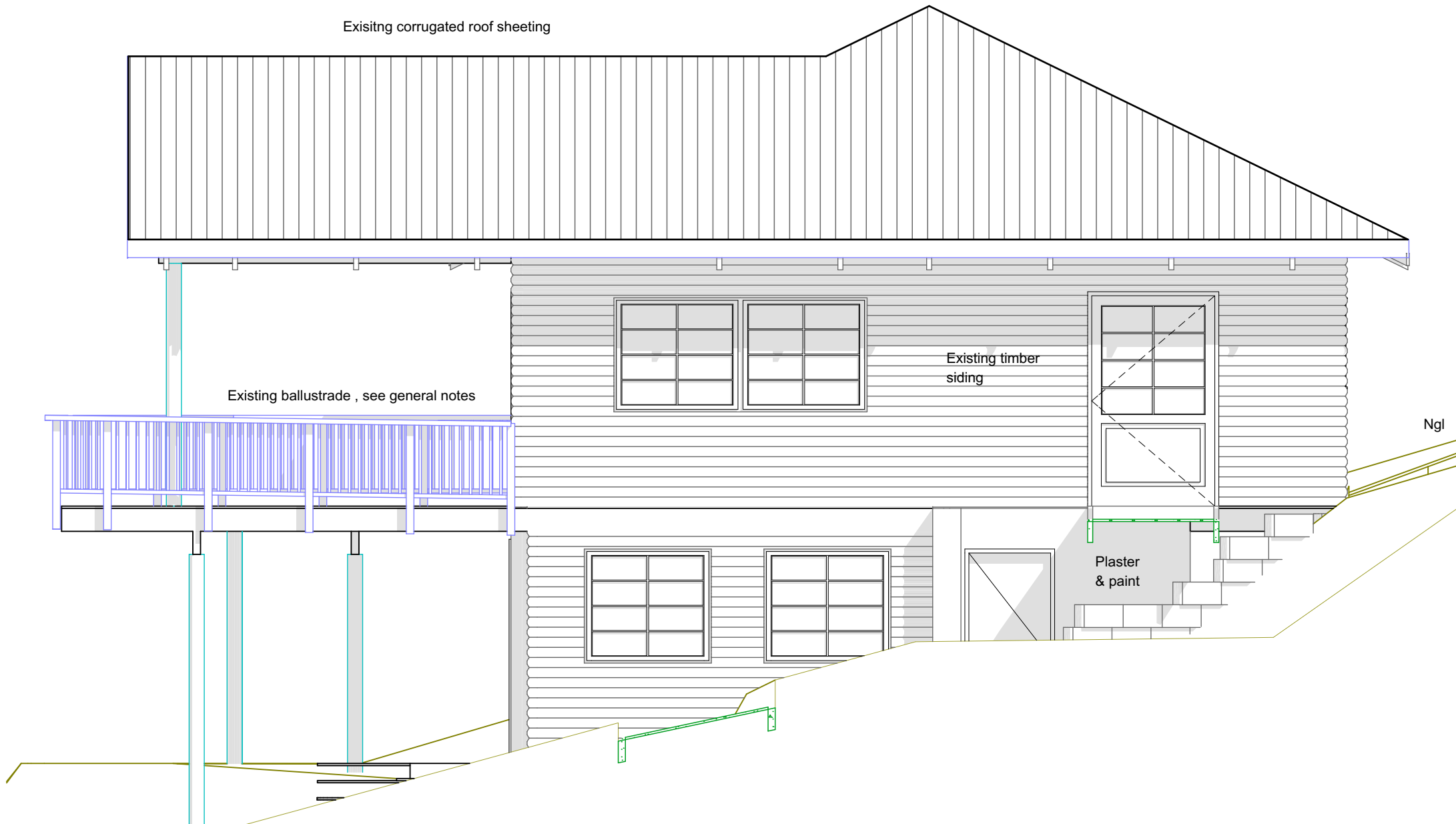
FFL - FINAL FLOOR LEVEL, NGL - NATURAL GROUND LEVEL, TOC - TOP OF CONCRETE, DPC - DAMP PROOF COURSE.

POST AND BEAM SPACING AND SIZING AND ALL STRUCTURAL TIMBER MINIMUM GRADE 5 CCA SA PINE AS SPECIFIED OTHERWISE BY ENGINEER.

- 1 - EXISTING ROOF, IBR ROOF SHEETING @ 26 DEGREES
- 2 - EXISTING ROOF TRUSSES.
- 3 - 10x150mm NUTEC FACIAS
- 4 - EXISTING CEILING
- 5 - EXISTING 76X228mm TIMBER BEARER BEAM BY ENGINEER
- 6 - ALL EXISTING DOORS TO OWNER'S SPECIFICATION - SEE DOOR SCHEDULE
- 6 - ALL EXISTING WINDOWS TO OWNER'S SPECIFICATION - SEE WINDOW SCHEDULE
- 7 - EXISTING EXTERIOR WALL - TIMBER CLADDING TO TYVEK HOMEWRAP OR OTHER BREATHEABLE WATERPROOF MEMBRANE TO 9mm OSB BOARD (OR SIMILAR) TO 38X114mm FRAME WALL WITH STUDS @ 400mm C/C (AS PER SANS 10082:2007) WITH THERMAL INSULATION AS PER SANS 10400, WITH 9mm RHINOBOARD TO INSIDE. INTERIOR WALL: 38X114mm FRAME WALL WITH STUDS @ 400mm C/C (AS PER SANS 10082:2007) WITH THERMAL INSULATION CLAD WITH 9mm RHINO BOARD ON BOTH SIDES.
- 8 - EXISTING BALLUSTRADES AND HANDRAILS TO OWNER'S DESIGN. HANDRAIL MINIMUM 1000mm ABOVE FLOOR / STEP WITH DROPPERS OR RAILS MAXIMUM 100mm APART. SEE GENERAL NOTES.
- 9 - EXISTING TIMBER FLOOR TO OWNER'S DESIGN ON 18mm PLY SUBFLOOR ON 38X228mm JOISTS AT MAX 400mm C/C BY ENGINEER
- 10 - EXISTING TIMBER FRAME, 50X228mm TIMBER JOISTS @ MAX. 400mm C/C BY ENGINEER.
- 11 - MIN. 180mm DIA. EXISTING TIMBER POLES.
- 12 - EXISTING 280mm CAVITY MASONARY WALL
- 13 - EXISTING 110mm MASONARY WALL, PLASTER & PAINT
- 14 - EXISTING SPIRAL STAIRCASE, 1.8m HEAD HEIGHT
- 15 - EXISTING CONCRETE SURFACE BED
- 16 - EXISTING TIMBER DECK
- 17 - EXISTING 76X228mm TIMBER BEARER BEAM BY ENGINEER.
- 18 - EXISTING FOUNDATIONS
- 19 - EXISTING GROUND FILL
- 20 - EXISTING RETAINING BLOCKS



Main House East Elevation 1:50



Main House West Elevation 1:50

ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400

GENERAL NOTES:
All work to comply with National Building Regulations SANS 10400. No measurements to be scaled. All levels and dimensions to be verified on site. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / DESIGNER IMMEDIATELY. Read drawings in conjunction with Engineer's detail. ALL REINFORCED CONCRETE WORK TO BE ACCORDING TO STRUCTURAL ENGINEER'S DESIGN AND DETAIL. The building owner is responsible for ensuring that their project is SANS compliant and signed off by a qualified Engineer.

STAIRS AND RAILING: A NON COMPLIANT BALUSTRADE IS A SAFETY RISK. ENSURE THE BALUSTRADE SYSTEM IS INSTALLED CORRECTLY. SANS 10400 Part 8, Part D and Part M, SANS 10160-2:2011. Steps and risers as shown. Risers as indicated on drawing and run as indicated on drawing, minimum balustrade height 1000mm. Opening between rails and / or droppers not to exceed 100mm. Any balustrade or wall provided to protect a change in level shall comply with the requirements of SANS 10400-8.

FIRE PROTECTION: SANS 10400 Part T:
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.

STORM WATER: SANS 10400 Part R:
The owner of any site shall provide suitable means for the control and disposal of accumulated stormwater which may run off from any earthworks, building or paving. CONTRACTOR MUST ENSURE THAT STORM WATER DOES NOT DAMAGE EXISTING BUILDING WORK OR NEIGHBOURING PROPERTIES DURING CONSTRUCTION AND THAT STORMWATER DRAINAGE IS SUFFICIENT.

RAINWATER DISPOSAL:
Provide 1m paving around building with fall away from structure where practical. GUTTERS & DOWN PIPES TO BE INSTALLED WHERE PRACTICAL. We highly recommend installing as many rainwater tanks as practically possible.

SEWERAGE: All sanitary appliances to be supplied with antisuction traps and/or ventilated according to NBR requirements. -1% at all bends, connections and changes of gradient with marked covers on ground level. Sufficient access panels to be installed in all shafts over 1m. All sanitary pipes to be accessible. Sewage pipes under floors or buildings not to change direction and must be encased in 100mm concrete.

SITE PREPARATION:
Remove top-soil and organic material within interior footprint of building and paving. Above material not to be used as backfill. Keep site dry. Stockpile top-soil and re-use where possible.

FOUNDATION: SANS 10400 Part H:
All foundations concrete strip foundations unless specified. Concrete minimum 15MPa after 28 days.

FILLING: SANS 10400 Part J (J2.3):
Backfill to be compacted in layers not more than 150mm layers to minimum. Compact to min. 98% MOD. AASHTO or otherwise as specified by Engineer.

SURFACE BEDS:
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m² max.

WATERPROOFING: SANS 10400 Part J(J2.3) and Sec. K(KK15): Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Brickgrip" DPC underneath all window sills. All joints according to specifications.

BRICKWORK: SANS 10400 Part K: Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide bricforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm bricforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm bricforce in each course every 4 layers for 110mm and 220mm brick walls.

PLASTER WORK:
One layer plaster minimum 12mm thick.

ROOF:
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009

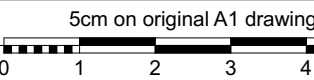
GLAZING:
SANS 10400 Part N, SABS 0137:200, SABS 1263. Clear Glass unless specified. Mark all sliding doors visible. SAFETY GLASS IN ALL DOORS AND WINDOWS LOWER THAN 300mm FROM GROUND LEVEL AND LARGER THAN 1 m².

SKIRTING AND CORNICING:
Skirting & cornicing where required as specified.

GEYSERS: SABS 0254
With drip-tray.

SPACE HEATING & CHIMNEYS:
To comply with SANS 10400: Part V.

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STAMPS / SIGNATURES:

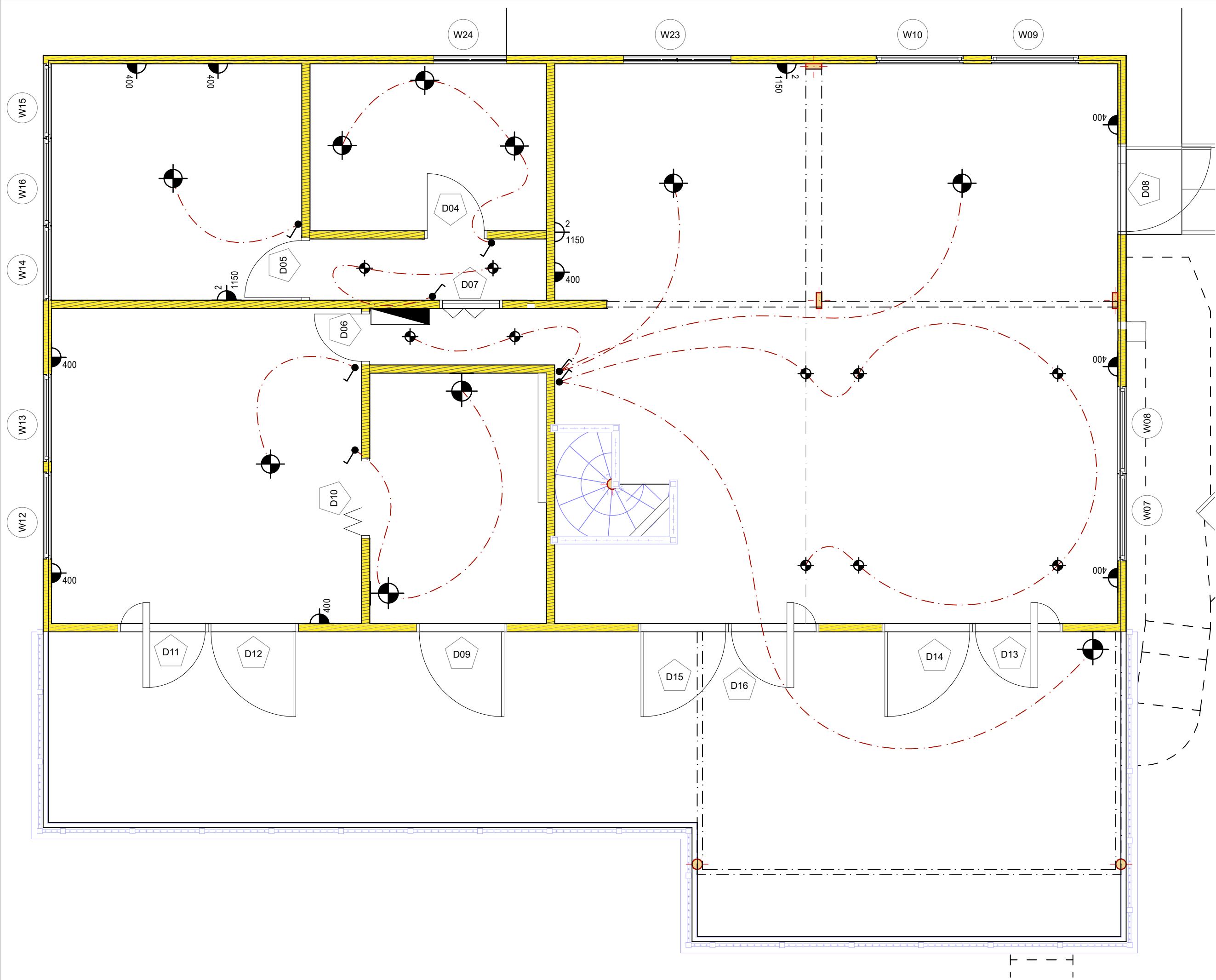
AREAS:			TOWN PLANING SCHEDULE:		
NAME:	LEVEL	AREA	STAND: TOWNSHIP:	STAND 871 SEDGEFIELD	
Existing main house groundfloor	Ground floor	150.71m	SITE AREA: ZONING:	????? m H4 dwelling	
Existing main house basement	Basement	71.34m			
Existing main house UDeck	Basement	68.84m			
Existing outbuilding	Ground floor	25.44m			
New additions outbuilding	Ground floor	16.39 m	HEIGHT: FIRST FLOOR REST: COVERAGE: FAR:	2 STOREYS N/A 50% N/A 28.77% N/A	
Existing carport	Ground floor	48.07m			
TOTAL		379.73m			

DRAWN BY	Franco Henegan	
REVISION	DATE	REVISION DETAILS
0	2019/02/22	Issued for approval

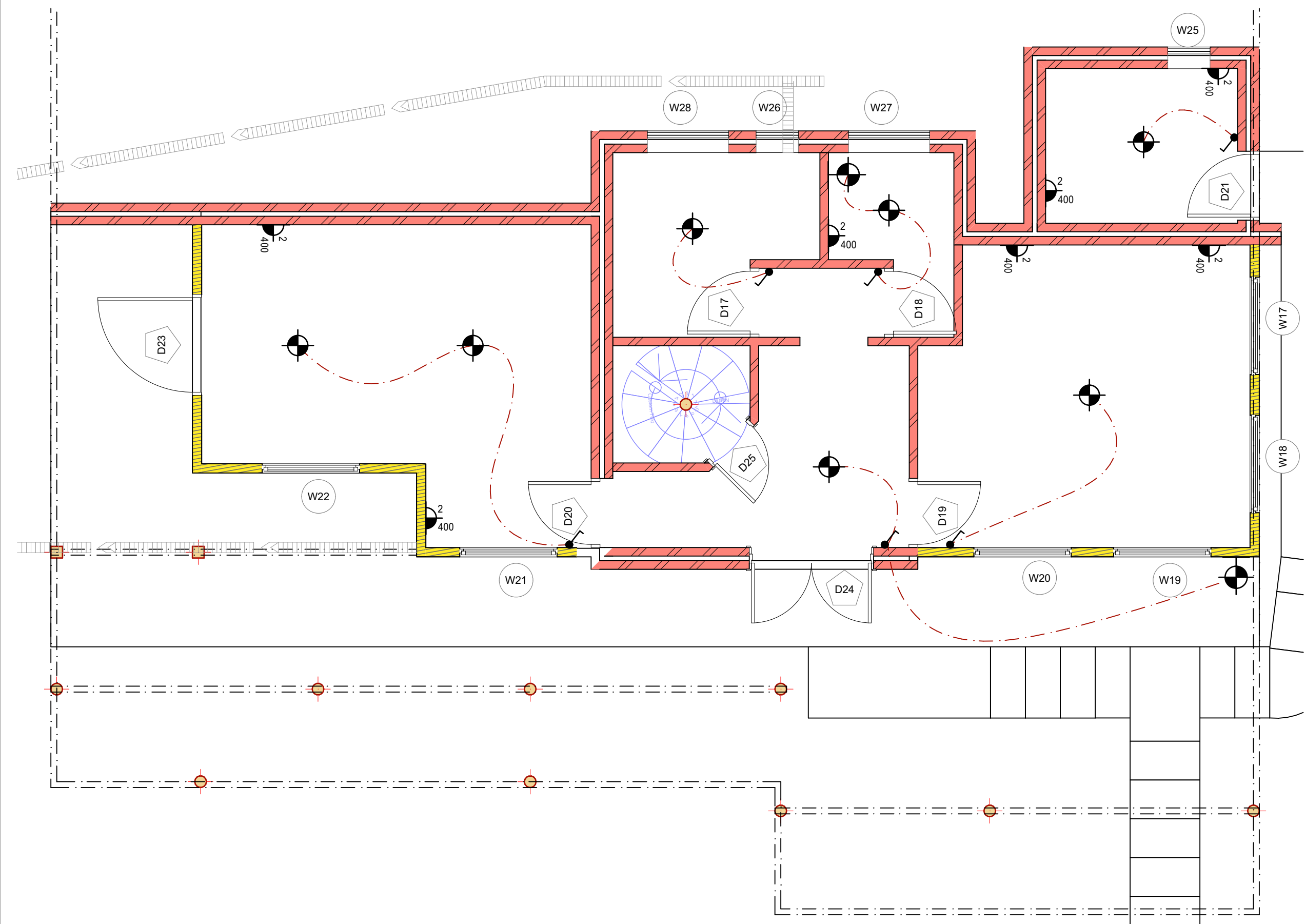
PROJECT: As build plans, Erf 871 Sedgefield for Mr de Groot		
DRAWING TITLE: Elevations & sections		
DRAWING: SED871_De Groot_rev 0	SCALE: as shown	PAPER SIZE: A1
		REVISION: 0



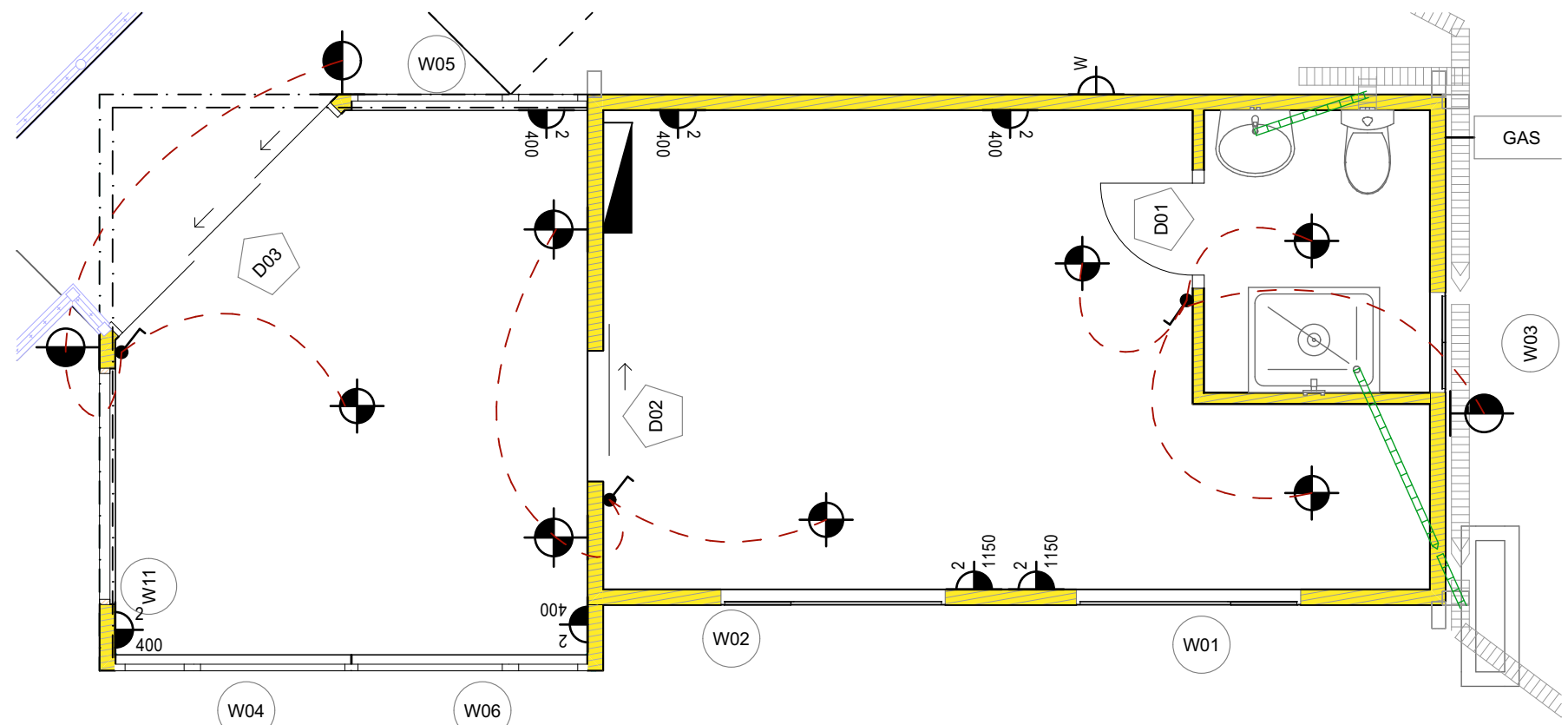
HG Architectural Design & Drafting
SH Greyling - registered SACAP D2253 | 22398 (SAIAT)
044 343 2206 | 071 382 3566
office@hgdesign.co.za | www.hgdesign.co.za
Office 15, Forest Lodge Complex, Sedgefield, WC, South Africa



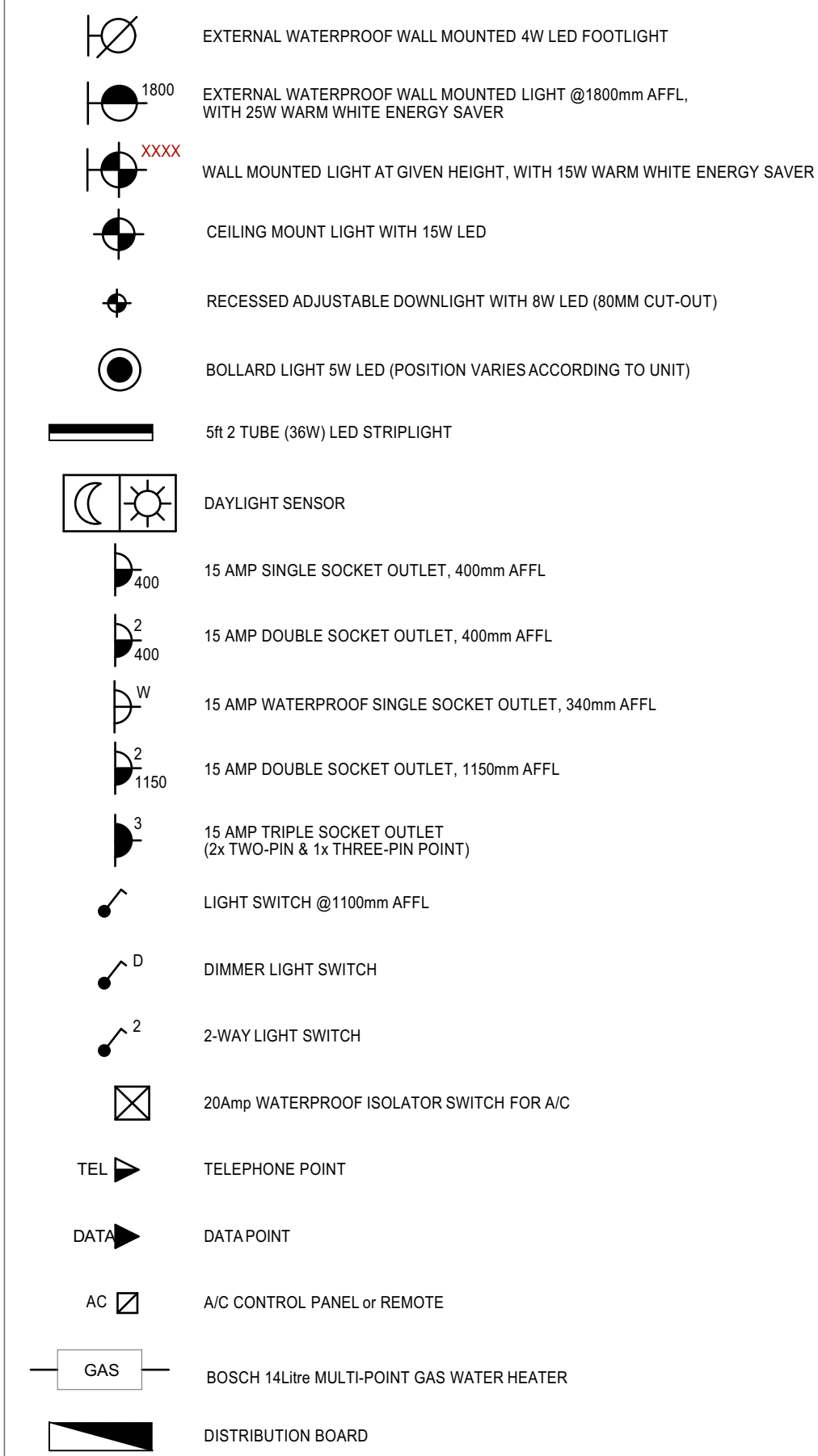
8 Main house ground floor MEP 1:50



6 Main house basement floor MEP 1:50



7 Out building ground floor MEP 1:50



ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400

GENERAL NOTES:
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FIRE PROTECTION: SANS 10400 Part T:
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.

STORM WATER: SANS 10400 Part R:
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FILLING: SANS 10400 Part J (J2.3):
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SURFACE BEDS:
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m² max.

WATERPROOFING: SANS 10400 Part J(JJ3) and Sec. K(KK15): Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Brickgrip" DPC underneath all window sills. All joints according to specifications.

BRICKWORK: SANS 10400 Part K: Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide brickforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm brickforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm brickforce in each course every 4 layers for 110mm and 220mm brick walls.

PLASTER WORK:
One layer plaster minimum 12mm thick.

ROOF:
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009

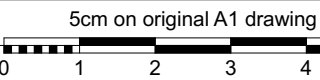
GLAZING:
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SKIRTING AND CORNICING:
Skirting & cornicing where required as specified.

GEYSERS: SABS 0254
With drip-tray.

SPACE HEATING & CHIMNEYS:
To comply with SANS 10400: Part V.

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STAMPS / SIGNATURES:

AREAS:		TOWN PLANING SCHEDULE:	
NAME	LEVEL	AREA	STAND 871 SEDGEFIELD
Existing main house groundfloor	Ground floor	150.71m	
Existing main house basement	Basement	71.34m	
Existing main house U/Ock	Basement	68.84m	
Existing outbuilding	Ground floor	25.44m	
New additions outbuilding	Ground floor	16.39 m	
Existing carport	Ground floor	48.07m	
TOTAL		379.73m	
		SITE AREA: 144 dwelling	7777 m
		ZONING:	
		HEIGHT: 2 STOREYS	2 STOREY
		FIRST FLOOR REST: N/A	N/A
		COVERAGE: 50%	28.77%
		FAR: N/A	N/A

DRAWN BY	Franco Henegan	
REVISION	DATE	REVISION DETAILS
0	2019/02/22	Issued for approval

PROJECT:	As build plans, Erf 871 Sedgefield for Mr de Groot		
DRAWING TITLE:	MEP		SHEET: 6 of 9
DRAWING:	SED871_De Groot_rev 0	SCALE as shown	PAPER SIZE A1



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office@hgdesign.co.za | www.hgdesign.co.za
Office 15, Forest Lodge Complex, Sedgefield, WC, South Africa

Window Schedule																
Label on plan	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14	W15	W16
Quantity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
W x H Size	1 709×1 088	1 709×1 088	762×1 137	1 800×1 500	1 800×1 500	1 800×1 500	1 255×1 131	1 255×1 131	1 255×1 131	1 255×1 131	1 800×1 500	1 255×1 131	1 255×1 131	1 070×1 131	1 070×1 131	1 260×1 131
View from Reveal Side																
Lintel height (m) above floor	2.10	2.10	2.10	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13
Glass specification																
Frame	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber
Finish	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber
Home Story Name	Out building ground floor	Out building ground floor	Out building groun...	Out building ground floor	Out building ground floor	Out building ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Out building ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor
From Zone	Bedroom	Bedroom	Bath room	Store Room	Store Room	Store Room	Lounge	Lounge	Dining room	Dining room	Store Room	Master bedroom	Master bedroom	Bedroom 2	Bedroom 2	Bedroom 2

Window Schedule												
Label on plan	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28
Quantity	1	1	1	1	1	1	1	1	1	1	1	1
W x H Size	1 260×1 131	1 260×1 131	1 260×1 131	1 260×1 131	1 260×1 131	1 260×1 131	1 545×900	1 045×900	545×600	545×600	1 045×1 155	1 045×1 155
View from Reveal Side												
Lintel height (m) abo...	2,13	2,13	2,13	2,13	2,13	2,13	2,13	2,13	2,13	2,13	2,13	2,13
Glass specification												
Frame	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber
Finish	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber
Home Story Name	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house ground floor	Main house ground floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor
From Zone	Bedroom 4	Bedroom 4	Bedroom 4	Bedroom 4	Bedroom 3	Bedroom 3	Kitchen	Bath room	Laundry	Bath room	Store	Bath room

Window Schedule HGD

1:1

Door List																	
Label on plan	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11	D12	D13	D14	D15	D16	D17
Quantity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
W x H Size	900×2 100	1 000×2 100	2 400×2 125	900×2 125	900×2 125	760×2 125	900×2 125	1 300×2 125	1 300×2 125	1 150×2 125	1 300×2 125	1 300×2 125	1 300×2 125	1 300×2 125	1 300×2 125	1 300×2 125	890×2 125
View																	
Glass specification	n/a	n/a		n/a	n/a	n/a	n/a			n/a							n/a
Frame	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber
Finish	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber	Natural timber
Home Story	Out building ground floor	Out building ground floor	Out building ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house ground floor	Main house basement floor
From Zone	Bath room	Store Room	---	Walkway	Walkway	Walkway	Walkway	Dining room	Bath room	Bath room	Master bedroom	Master bedroom	Lounge	Lounge	Lounge	Lounge	Walkway

Door List								
Label on plan	D18	D19	D20	D21	D22	D23	D24	D25
Quantity	1	1	1	1	1	1	1	1
W x H Size	890×2 125	890×2 125	890×2 125	890×2 125	876×1 979	1 300×2 125	1 600×2 125	750×2 100
View								
Glass specification	n/a	n/a	n/a	n/a	n/a			n/a
Frame	Natural timber	Natural timber	Natural timber	Natural timber	None	Natural timber	Natural timber	Natural timber
Finish	Natural timber	Natural timber	Natural timber	Natural timber	None	Natural timber	Natural timber	Natural timber
Home Story	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor	Main house basement floor
From Zone	Walkway	Foyer	Foyer	---	Foyer	Bedroom 3	Foyer	---

Door schedule HGD

1:1

ALL WORK TO BE PERFORMED TO MUNICIPAL & NATIONAL BUILDING REGULATIONS SANS 10400

GENERAL NOTES:
All work to comply with National Building Regulations SANS 10400. No measurements to be scaled. All levels and dimensions to be verified on site. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / DESIGNER IMMEDIATELY. Read drawings in conjunction with Engineer's detail. ALL REINFORCED CONCRETE WORK TO BE ACCORDING TO STRUCTURAL ENGINEER'S DESIGN AND DETAIL. The building owner is responsible for ensuring that their project is SANS compliant and signed off by a qualified Engineer.

STAIRS AND RAILING: A NON COMPLIANT BALUSTRADE IS A SAFETY RISK. ENSURE THE BALUSTRADE SYSTEM IS INSTALLED CORRECTLY. SANS 10400 Part S, Part D and Part M, SANS 10160-2:2011. Steps and risers as shown. Risers as indicated on drawing and run as indicated on drawing, minimum balustrade height 1000mm. Opening between rails and / or droppers not to exceed 100mm. Any balustrade or wall provided to protect a change in level shall comply with the requirements of SANS 10400-S.

FIRE PROTECTION: SANS 10400 Part T:
The requirements of the Act will be deemed to have been satisfied if the design, construction and equipment of buildings complies with SANS 10400 Part T and satisfies the local authority.

STORM WATER: SANS 10400 Part R:
The owner of any site shall provide suitable means for the control and disposal of accumulated stormwater which may run off from any earthworks, building or paving. CONTRACTOR MUST ENSURE THAT STORM WATER DOES NOT DAMAGE EXISTING BUILDING WORK OR NEIGHBOURING PROPERTIES DURING CONSTRUCTION AND THAT STORMWATER DRAINAGE IS SUFFICIENT.

RAINFALL DISPOSAL:
Provide 1m paving around building with fall away from structure where practical. GUTTERS & DOWN PIPES TO BE INSTALLED WHERE PRACTICAL. We highly recommend installing as many rainwater tanks as practically possible.

SEWERAGE: All sanitary appliances to be supplied with antisuction traps and/or ventilated according to NBR requirements. -ie's at all bends, connections and changes of gradient with marked covers on ground level. Sufficient access panels to be installed in all shafts over 1m - all sanitary pipes to be accessible. Sewage pipes under floors or buildings not to change direction and must be encased in 100mm concrete.

SITE PREPARATION:
Remove top-soil and organic material within interior footprint of building and paving. Above material not to be used as backfill. Keep site dry. Stockpile top-soil and re-use where possible.

FOUNDATION: SANS 10400 Part H:
All foundations concrete strip foundations unless specified. Concrete minimum 15MPa after 28 days.

FILLING: SANS 10400 Part J (J4.2.3):
Backfill to be compacted in layers not more than 150mm layers to minimum. Compact to min. 98% MOD. AASHTO or otherwise as specified by Engineer.

SURFACE BEDS:
Minimum 100mm thick 15MPa on DPC. Expansion joints to be provided 20m² max.

WATERPROOFING: SANS 10400 Part J(J4.3) and Sec. K(KK15): Provide 250 micron USB DPC underneath all surface beds and 375 micron Black DPC in walls with min. 100mm overlap at joints. Provide "Brickgrit" DPC underneath all window sills. All joints according to specifications.

BRICKWORK: SANS 10400 Part K: Brickwork in stretching bond with minimum joint thickness of 10mm. Interior walls minimum 110mm thick. Brick as indicated. Stock bricks to be kept clean of mortar. Provide brickforce in each layer for foundation walls, (5 layers minimum), each layer above windows and doors and at 4 course intervals: use alternate layer of 75mm brickforce and butterfly lie-wires for all other 280mm brickwork. Use 75mm brickforce in each course every 4 layers for 110mm and 220mm brick walls.

PLASTER WORK:
One layer plaster minimum 12mm thick.

ROOF:
Construction & Material to comply with SANS 10400 Part L and SANS 1900:2009

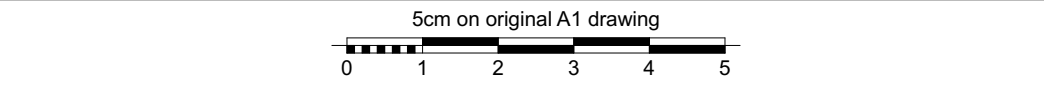
GLAZING:
SANS 10400 Part N, SABS 0137-200, SABS 1263. Clear Glass unless specified. Mark all sliding doors visible. SAFETY GLASS IN ALL DOORS AND WINDOWS LOWER THAN 300mm FROM GROUND LEVEL AND LARGER THAN 1 m².

SKIRTING AND CORNICING:
Skirting & cornicing where required as specified.

GEYSERS: SABS 0254
With drip-tray.

SPACE HEATING & CHIMNEYS:
To comply with SANS 10400: Part V.

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STAMPS / SIGNATURES:

AREAS:			TOWN PLANING SCHEDULE:		
NAME	LEVEL	AREA	STAND: TOWNSHIP:	STAND 871: SEDGEFIELD	
Existing main house groundfloor	Ground floor	150.71m	SITE AREA:	???? m	
Existing main house basement	Basement	71.34m	ZONING:	144 dwelling	
Existing main house UDock	Basement	66.84m			
Existing outbuilding	Ground floor	25.44m			
New additions outbuilding	Ground floor	16.39 m	HEIGHT:	2 STOREYS	2 STOREY
Existing carport	Ground floor	48.07m	FIRST FLOOR REST:	N/A	N/A
			COVERAGE:	50%	28.77%
			FAR:	N/A	N/A
TOTAL		379.73m			

DRAWN BY: Franco Henegan

REVISION	DATE	REVISION DETAILS
0	2019/02/22	Issued for approval

PROJECT: As build plans, Erf 871 Sedgefield for Mr de Groot

DRAWING TITLE: Schedules & Energy calculations

DRAWING: SED871_De Groot_rev 0

GLAZING CALCULATIONS FOR NATURAL-VENTILATED BUILDINGS

Project Name:	SED871_de Groot	Climatic Zone:	4	Temperate Coastal
Town:	George	Occupancy Classification:	H4	Dwelling Houses
Storey (Floor Number):	1 - Ground Floor	Conductance $C_{g,i}$	1,4	(Table 5)
Nett Floor Area (m ²):	4,183 m ²	SHGC C_{solar}	0,13	(Table 5)
Window Area (m ²):	4,585 m ²			
% Window Area to Nett Floor Area:	11,0%			



FENESTRATION CALCULATION RESULTS									
CONDUCTANCE	Max Conductance:	58,56							
	Achieved Conductance:	11,05							
	Result:	Conductance Acceptable							
SOLAR HEAT GAIN	Max Solar Heat Gain:	5,44							
	Achieved SHG:	1,43							
	Result:	Solar Heat Gain Acceptable							

Windows / Doors									
ID	Code	Location	Orientation	Width (mm)	Height (mm)	Area (m ²)	Frame Material	Glazing Type	Description
1	W01	Bedroom	North	1709	1088	1,859 m ²	Timber	Tinted double Low E	
2	W02	Bedroom	North	1709	1088	1,859 m ²	Timber	Tinted double Low E	
3	W03	Bathroom	West	762	1137	0,866 m ²	Timber	Tinted double Low E	

ENERGY EFFICIENCY AND FENESTRATION CALCULATIONS
IN ACCORDANCE WITH SANS 10400-XA:2011
(NATIONAL BUILDING REGULATIONS)

FOR

SED871_de Groot

December 2018



This design complies with the requirements and guidelines for Energy Efficiency as detailed in SANS 10400-XA:2011

NOTE: All dimensions & existing roof pitches, materials and finishes to be checked on site before any material is ordered.

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Tel: 044 343 2206
Cell: 071 382 3566



ARCHITECTURAL Draughtman

DATE

SED871_de Groot

SANS 10400-XA:2011

REQUIREMENTS FOR PART XA OF THE NATIONAL BUILDING REGULATIONS (SANS 10400-XA:2011 4.2)

The functional requirements contained in part XA of the National Building Regulations shall be deemed to be satisfied where in any building of occupancy classified in terms of Regulation A20 at A1, A2, A3, A4, C1, C2, E1, E2, E3, E4, F1, F2, F3, G1, H1, H2, H3, H4 and H5:

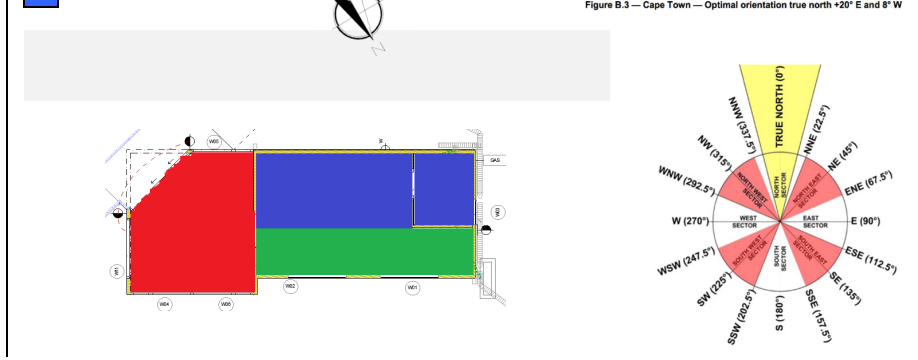
- The orientation and shading are in accordance with the requirements of SANS2004
- External walls are in accordance with the requirements of SANS 10400-XA:2011 - 4.4.3
- Fenestrations in accordance with the requirements of SANS 10400-XA:2011 - 4.4.4
- Roof assembly construction in accordance with the requirements of SANS 10400-XA:2011 - 4.4.5
- If underfloor heating is installed, it is in accordance with the requirements of SANS 10400-XA:2011 - 4.4.2
- Services that use energy or control the use of energy including heating, air-conditioning and mechanical ventilation are in accordance with SANS204, and hot water systems are in accordance with the requirements of SANS10252-1 - 4.1

FACILITY INFORMATION AND BUILDING DETAILS

Project Description:	SED871_de Groot
Design Date:	#####
Occupancy Classification:	H4 - Dwelling Houses
Total Floor Area:	115,0 m ²
First Storey Nett Area:	41,8 m ²
Climate Zone (Table A.1):	4 - George

1 - ORIENTATION AND SHADING

SANS 204:2011 4.4 The layout shall enable buildings to be designed for optimal orientation given in figures 8.1 to 8.6 or approximately True North.
SANS 204:2011 4.4 Buildings should be oriented in accordance with figures 8.1 to 8.6 or approximately True North. If buildings cannot be thus orientated, they shall be orientated to achieve the lowest net energy use.



1.B - SHADING

SANS 204:2011 4.5 Where shading is used, the building shall:

- have permanent features such as a veranda, balcony, fixed canopy, eaves or shading hood, which:
 - extends horizontally on both sides of the glazing for the same projection distance P
 - provides the equivalent shading with a reveal or other shading element.
- have an external shading device, such as a shutter, blind, vertical or horizontal building screen with blades, battens or slats, which:
 - is capable of restricting at least 80% of summer solar radiation, and
 - if adjustable, is readily operated either manually, mechanically or electronically by the building occupants.

Note: Windows on East and West Facade to be shaded according to SANS 204:2011 - 4.3.5

For shading details, see fenestration schedule, plans, sections and elevations.

2 - EXTERNAL WALLS

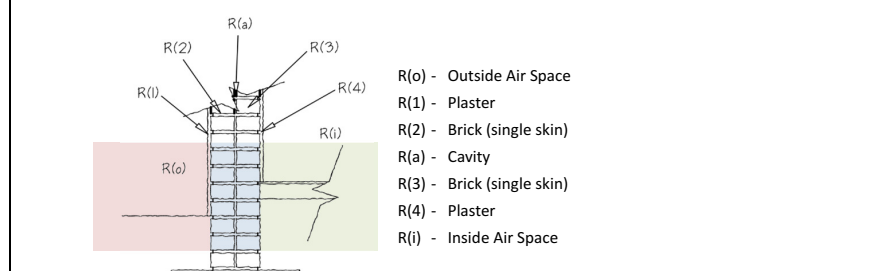
In accordance with the requirements of 4.4.3 of SANS 10400-XA:2011

Note: Walls to be endorsed by the Engineer

Occupancy Classification: H4 - Dwelling Houses

Climate Zone (Table A.1): 4 - George

Wall Type Used: Double-skin masonry with no cavity, plastered internally and externally



	Reference	Material	R-Value (m ² K/W)	Thickness (m)	Thickness / R-Value
External	R(0)	Outside Air Space	0,05	n/a	0,05
	R(1)	Plaster	0,5	0,015	0,03
	R(2)	Brick (single skin)	0,62	0,105	0,17
Core	R(3)	Cavity	0,1	0,06	0,60
	R(4)	Brick (single skin)	0,62	0,105	0,17
	R(5)	Plaster	0,5	0,015	0,03
Internal	R(6)	Inside Air Space	0,16	n/a	0,16
	TOTAL R-Value (R _{total})		1,21		

SANS 10400-XA:2011 - 4.4.3.2

- The following types of masonry walling comply with the R-value requirements:
 - Double-skin masonry with no cavity, plastered internally, or rendered externally; or
 - Note: The cavity and plastered cavity walling systems used the minimum R-value of 0,15
- Single-leaf masonry walls with a nominal wall thickness greater than or equal to 140mm (excluding plastering and rendering), plastered internally and rendered externally.

The requirements refer to the external walls of the habitable portions of the building fabric only.

3 - FENESTRATION

In accordance with the requirements of 4.4.4 of SANS 10400-XA:2011

SANS 10400-XA:2011 4.4.4

4.4.4.1 Buildings with up to 15% fenestration area to nett floor area per storey comply with the minimum performance requirements.

4.4.4.2 Buildings with a fenestration area to nett floor area per storey that exceeds 15% shall comply with the requirements for fenestration in accordance with SANS 204.

4.4.4.3 All fenestration air infiltration shall be in accordance with SANS 613

FIRST STOREY		
Total Elements (net):	3	
Total Glass Area:	4,59 m ²	
Nett Floor Area:	41,8 m ²	
Glass / Floor Ratio:	10,96%	
Achieved Conductance:	11,05	Comply
MAX. Conductance:	58,56	
Achieved Solar Heat Gain:	1,43	Comply
MAX. Solar Heat Gain:	5,44	
<input checked="" type="checkbox"/> Permissible		
<input type="checkbox"/> NOT Permissible		

4 - ROOF ASSEMBLY CONSTRUCTION

In accordance with the requirements of 4.4.5 of SANS 10400-XA:2011

4.4.5.1 A roof assembly shall achieve the minimum total R-value specified in Table 7 for the direction of heat flow.

TABLE 7 - Minimum Total R-Values of Roof Assemblies		Climatic Zones					
Description		1	2	3	4	5	6
Minimum Required Total R-Value (R _{total})		3,7	3,2	2,7	2,7	2,7	3,5
Direction of Heat Flow		up	up	down	down	down	up

Roof 22° - 45° / Horizontal Ceiling / Clay Tiles (11mm)		
Description	Material	R-Value
R(0)	Outside Air Film	0,03
R(1)	Roof Tiles	0,03
R(2)	Roof Tiles	0,03
R(3)	Roof Tiles	0,03
R(4)	Roof Tiles	0,03
R(5)	Roof Tiles	0,03
R(6)	Roof Tiles	0,03
R(7)	Roof Tiles	0,03
R(8)	Roof Tiles	0,03
R(9)	Roof Tiles	0,03
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