

ROOF & FIXING SPECIFICATIONS

SHEETING

The roof sheeting shall be double-interlocking concealed- fix GRS Klip-Tite™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified ZINCAL® 0.53mm steel. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centres not exceeding 230mm and a cover width not exceeding 300mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap, and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 4mm Klip-Tite shall be obtained from Global Roofing Solutions Tel: (082) 820 8627

MATERIAL AND FINISH FOR KLIP-TITE™ ROOF SHEETING

0.53mm GRS Klip-Tite ZINCAL® A2100 coated steel G550 with a Clean COLORPLUS™ colour coated finish to one side with a Mountain Hsl backing coat.

FIXINGS KLIP-TITE™

The Klip-Tite™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the sidelap and both centre ribs. The KL700 clips shall be manufactured from Galvanized steel and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins (see installation manual) OR with ZAP no. 10x45mm Watertight screws Type T1 to timber purlins.

KLIP-TITE™ FLASHINGS

Flashings specifications shall be to the Global Roofing Solutions standards and fixed to the sheeting with 5/8 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs of the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves and to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheetting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rules are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:  
a. The entire structure or the portion thereof to be sheathed has been correctly aligned, levelled and grouted.  
b. Purlins and girts are at the correct spacing and are within the specified tolerances.  
c. The corners of the roof are square and the wall framework is perpendicular or as specified.  
d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.  
e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.  
f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.  
g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry in all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer, Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mastic, from pop meets, off-cuts of sheeting, surplus flashing, roof packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially blocks the flow of water into the eutlets, down pipes, etc.

BARGE & RIDGE FLASHING

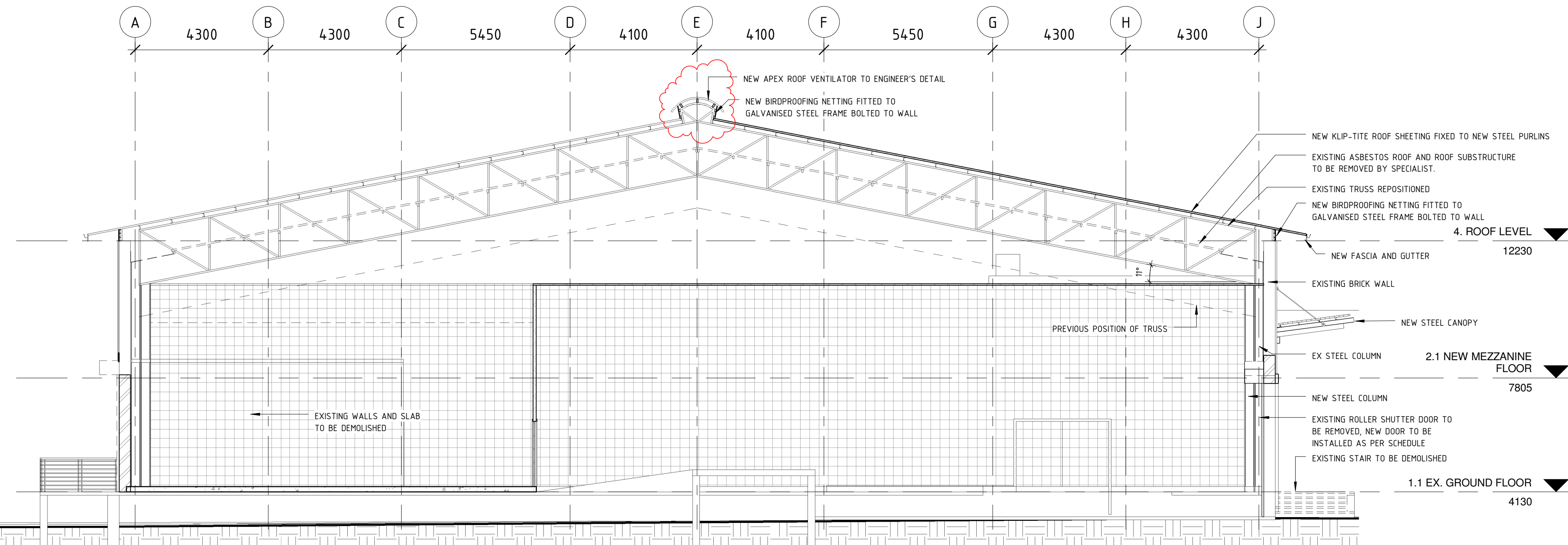
200mm x 80mm Fibre cement Socketless Nutec Barge Board

FASCIAS

225mm x 12mm Thick Plain (Medium Density) Grooved Nutec Fascia Board

STANDARD FLASHINGS

- Standard 90° Sidelap Flashing to suite Klip-Tite profile.
- Standard Counter Flashing to suite Klip-Tite profile.
- Standard 15° Head Wall Flashing to suite Klip-Tite profile.
- Standard 165° Valley Flashing to suite Klip-Tite profile.



SECTION A-A  
SCALE 1: 100

SIDE CLADDING  
Nu-Rib 762 PROFILED SHEETING AND ACCESSORIES

SHEETING PROFILE

The roof side cladding shall be Brownbilt Nu-Rib profile from certified ZINCAL® 0.53mm steel. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall have 5 trapezoidal ribs at 190.5mm centres giving a net cover of 162mm with each pan incorporating a stiffener rib. The rib height shall be 29mm. Nu-Rib shall be obtained from Global Roofing Solutions (082) 820 8627.

MATERIAL AND FINISH FOR NU-RIB ROOF SHEETING

0.53mm Brownbilt Nu-Rib 762 ZINCAL® A2100 coated steel G550 with a ColorPLUS® colour coated finish to one side with a Cool Grey backing coat.

FIXING NU-RIB

The sheeting shall be laid with side-laps on the leeward side of the prevailing wind direction. An approved side-lap sealant shall be incorporated on roofing with a pitch of less than 15 degrees. All fixing holes shall be drilled and not punched. Roof sheets shall be fixed by means of No. 14 Topped Hex Head screws 60mm long for steel purlins or 90mm long for timber purlins and shall incorporate 26mm diameter bonded washers. Side-lap stitching shall be effected at no more than 600mm centres with 25mm long Topped Hex Head screws and shall incorporate 19mm diameter bonded washers.

Side Cladding shall be fixed by means of No. 14 Hex Head screws 25mm long for steel girts or 60mm long for timber girts and shall incorporate 19mm diameter bonded washers. Side-lap stitching shall be effected at no more than 600mm centres with 25mm long Topped Hex Head screws and shall incorporate 19mm diameter bonded washers.

NU-RIB FLASHINGS

Stop ends must be formed at apex to form a dam and the pan turned down to form drip. The roof sheeting shall be closed as necessary with purpose made flashings and shall incorporate serrated closers and poly closers where necessary. Flashing shall be fixed to roofing by means of No. 14 Topped Hex head screws 25mm long with 26mm diameter bonded washers on roof and 19mm diameter bonded washers for side cladding.

POLYCARBONATE CLADDING

1.25mm Nu-Rib polycarbonate clear sheets supplied by Global Roofing Solutions. Sheets are to be fastened to supports through each crown of the profile (Primary fixings to be class 4 Land side stitched to adjacent sheet not exceeding 500mm (secondary fixings)).

All primary fixings to be used in conjunction with aluminium washers with suitable sealing ring or soft washer under. The diameter of washer to be minimum 20mm up to 30mm.

NO	REVISION	DATE
0	ISSUED FOR INFORMATION	09-07-2015
A	ROOF DESIGN REVISED TO EXCLUDE RAISED SECTIONS, APEX ROOF VENTILATOR ADDED TO COMPLY TO SANS 1040 NATURAL VENTILATION DESIGN	16-07-2015



CLIENT
SARS FACILITIES MANAGEMENT
OWNER'S SIGNATURE :
PROJECT
ADDITIONS & ALTERATIONS TO PIER STATE WAREHOUSE, GATE 5 BAYHEAD ROAD, BAYHEAD.

DRAWING	WORKING DRAWING
PROJECT	ROOF PLAN
SCALE	As indicated
DATE	02-10-2015
DRAWN	ENG
CHECKED	MMB
PROJECT NUMBER	K018
DRAWING NUMBER	WD 203
REVISION	