

P O Box 40 -651  
Upper Hutt 5140

Phone (04) 526-7711  
Cell 021- 427.347  
Email [ian@irbuild.co.nz](mailto:ian@irbuild.co.nz)  
Web [www.irbuild.co.nz](http://www.irbuild.co.nz)



## KAPITI COLLEGE

### Temporary Relocatable Classroom

***Prepared for:***  
Kapiti College  
Margaret Road  
Raumati Beach

# **Kapiti College**

## **Relocatable Classroom Blocks**

### **Scope of Work**

This contract is for the associated work relating to the relocation of three relocatable classroom blocks to Kapiti College, Margaret Road, Raumati Beach, in accordance with the attached plans and specifications and as described below.

All work is to be carried out to the best of trade practise and in accordance with all relevant standards, manufacturer's instructions and the NZ Building Code.

Construction to be as detailed in the attached drawings and engineer's calculations & details .

Please check all dimensions on site.

Allow to complete the following items of work:

### **RELOCATION OF CLASSROOM BLOCKS**

#### ***Building Mover***

- 1) Uplift 3 classroom blocks from the Upper Hutt College site at Moonshine Road, Upper Hutt , transport, and unload relocatable classrooms at the Kapiti College site at Margaret Road, Raumati Beach, as indicated in t
- 2) he attached drawings.
- 3) Pile foundations in accordance with the attached drawings and engineer's details, using SED driven timber piles and temporary foundations, to suit bearer layout. Notify the local Council at least 24 hours before foundations are laid, so that they can inspect the works.
- 4) Jack down level, and tie down foundations in accordance NZS 3604 using wire dogs and anchor fixing plates.
- 5) Reinstate all fences and grounds to their original condition.
- 6) Take all necessary permits and permission's for the removal works except a building consent, which will be arranged by the owner.

#### **Carpentry**

##### **Base Boards and Weed Bands**

Provide 140x19 sawn H3.1 baseboards evenly spaced to all exterior surfaces of the foundations, maintain a 25mm gap between the boards to provide subfloor

ventilation. At one place where directed on site, provide one screw fixed access panels between piles to provide future subfloor access.  
Provide new H3.2 ply wood exterior facings where classroom blocks TR2 & TR3 are joined, as detailed in drawings.

Remove section of wall to 2.0m high to form opening between classrooms TR2 & TR3. Install new 240x63 hySPAN LVL timber lintels over new openings as detailed in drawings.

Finish new opening between classrooms with new 15mm clear finished ply wood trim as detailed in drawings.

Remove wall linings at interior wing walls in classroom blocks TR2 & TR3, and line with 7mm ply wood to form bracing element. Install new 10mm Gib Board over, stop to F4 finish & paint.

### **Roofing**

Remove existing roofing from classroom blocks TR1, TR2 & TR3, and replace with new 0.55mm Steel & Tube Plumbdek Colour Steel Maxx profiled roofing over new Thermakraft Covertex 405 fire retardant roof under lay.

### **Timber Steps and Landings**

Provide new timber steps and landings using 90x45 H3.2 joists on 90x90 H3.2 bearers, with piles in accordance with the attached drawings and engineer's details, using SED driven timber piles and temporary foundations

### **Floor Coverings**

Uplift existing carpet from classrooms TR1, TR2 & TR3 and replace with new Autex Images carpet, (carpet colour to be advised).

### **Interior Wall Coverings**

Supply & install new Autex Dado carpet and Autex Composition Board over existing wall linings, with timber trim to suit as detailed in drawings.

### **Painting**

*Interior:* Allow to paint ceiling, walls, doors & frames, window & door sills & facings, dado rails and all miscellaneous interior exterior trim, (interior colours to be advised).

*Exterior:* Allow to paint exterior cladding, pelmet, entry doors & frames, window & door sills & facings, fascias & barges and all new & existing exterior trim, (exterior colours to be advised).

### **Stormwater**

Downpipes are to discharge onto asphalt.

### **Generally**

- 1) Ease all doors and windows once the buildings are tied down to the new foundations.
- 2) Remove all arises from all exposed timbers.

## **Electrical**

### **1) Scope of Work**

- 1) Provide a new 3 phase mains cable from the classroom block switchboard in the block to the switchboard in the relocatable classroom. Run the sub-main sub-floor clip where required.
- 2) Provide one new double external sensor activated security lights to be fitted on site where directed.
- 3) Extend the school class change and evacuation bell system into the new classroom block and provide a exterior bell and internal manual call point in the foyer of the toilet block.

### **2) General**

- 1) Supply all gear and materials necessary to carry out the works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified without the supervisors approval.

### **3) Existing Services**

The existing services are poorly recorded. Exercise extreme care during excavations and work to existing buildings . Any underground or internal services broken or damaged during excavation and or other work shall be rectified at this subcontractors expense.

### **4) Earthing**

Earth continuity conductors shall be installed with the wiring to all outlets.

### **5) Workmanship and Regulations**

a) The electrician shall visit the site in order to understand the nature and scope of the work. No claims will be allowed on the grounds of insufficient knowledge of existing conditions.

b) The electrical installation shall be carried out in strict accordance with the New Zealand Electrical Regulations and Codes of Practice 1993, and interpretations and amendments thereto, the rules of the Fire Underwriters Association, notwithstanding any omissions herein, and to the complete satisfaction of the local power board's inspector and the supervisor.

- c) All wiring shall be concealed, unless otherwise stated, and only new, first class materials and workmanship will be allowed.
- d) The electrician shall obtain all necessary permits for the work and allow to pay all associated charges.
- e) The electrician shall visit the site and accurately assess the size of the existing main, submains, and all other cables required to complete the wiring in accordance with this specification and to comply with the local body and national regulations.
- f) The complete electrical system shall be checked by the local authority power supplier on completion of the contract. Any wiring not accepted and passed shall be replaced by the electrician at no extra cost.
- g) The electrician shall carry out all necessary cutting away, drilling etc. When cutting into timber only sufficient to permit the bare entry of the wiring is to be removed. No joists are to be cut away for cables more than 100mm out from a support, except with the approval of the supervisor.

## **7) Wiring**

Wiring of sub-circuits shall be TPS insulated cables. All cables shall be concealed in wall, ceiling and floor cavities.

## **Siteworks**

Allow to carry out the following items of work in accordance with the attached specification and the best of trade practice.

- 1) Allow to prepare the area to receive the new building. Remove surplus material off site.
- 2) Repair grass/paved areas affected by the construction process, and make good with new as necessary.

## **WORK AT THE UPPER HUTT COLLEGE SITE**

- 1) Disconnect services to allow for the removal for the classroom blocks at locations shown in drawings.
- 2) Uplift 3 classroom blocks, (TR1, TR2 & TR3) and transport to Kapiti College as described above.
- 3) Uplift Portacom building from current location and relocate to new location on site as indicated in drawings.
- 4) Remove pipe & mesh fence and concrete block wall at locations shown in drawings.
- 5) Remove pile foundations where classrooms have been removed.
- 6) Uplift concrete paving from areas indicated in drawings to allow for new top soil & grass.
- 7) *Concrete Paving:* Excavate area to allow for 100mm thick concrete over 150mm compacted base course. Concrete to be 17.5mpa.
- 8) *New Grass Areas:* Excavate area to 100mm. Import new screened top soil to fill area to 100mm. Top soil shall be graded & compacted to achieve the correct contours. The final surface shall be evenly graded with no irregularities.
- 9) Remove all debris and rubbish from site on a regular basis. Leave site in a clean and tidy condition at the completion of the project.

## **Preliminary and General**

### **1) Extent of Work**

Refer to the attached page(s).

### **2) General**

The following documents shall form part of the Contract:

- a) The attached Ministry of Education Conditions of Contract.
- b) The accompanying Tender Forms.
- c) The accompanying Specification.
- d) The accompanying Drawings with any subsequent Drawings.
- e) Any written correspondence, instructions and variations issued subsequent to the signing of the contract.
- f) The letter of acceptance.
- g) Any written notice to tenderers recording adjustments to drawings and or specification prior to the signing of the contract.

### **3) Examine the Site**

Tenderers shall examine the site and building before tendering. The submitting of a tender will be taken as an indication that the tenderer has visited the site and made himself familiar with any matters that might affect the fulfilment of his part of the contract and has made due allowance in his tender for these. No consideration shall be granted for any misunderstandings as to the work to be performed or the materials used.

### **4) Temporary Services**

#### Water

The contractor may draw water from the employers existing reticulation.

#### Latrine

The contractor may use an existing toilet at the discretion of the employer, and must keep it in a clean and tidy condition.

#### Electric Power

The contractor may use the existing power supply during the course of the contract, unless special loadings are required, in which case the contractor shall make the necessary arrangements and pay all costs.

### **5) Work Programme**

The successful contractor is to arrange with the school and supervisor, approved dates and times within the specified time when work can be actioned.

### **6) Insurances**

As per the conditions of contract, the Contractor is to carry a General Public Liability Insurance policy with a minimum cover of \$2,000,000.00.

The contractor shall insure separately the Contractors Plant and Equipment.

**7) Noise**

No radio or other noise not strictly associated with the works shall be audible in any room outside the contractors working and storage area.

**8) Scaffolding and Hoarding**

The contractor shall provide for the erection of all necessary gantries, cranes, staging, ladders, moving sections, chutes and any other scaffolding to permit the proper and efficient erection of the work.

**9) Dimensions and Setting Out**

Check and confirm all building dimensions on site. The contractor shall accept full responsibility for the final dimensions. All work shall be set out accurately and in accordance with the plans. Any errors shall be made good at the contractors expense.

**10) Existing Services**

Any damage incurred to existing services shall be made good to the supervisors approval and at no cost to the employer.

**11) Care of the Site**

The contractor shall regularly remove all debris, rubbish, and surplus materials, including that of subcontractors as they accumulate. The site shall be as tidy as possible at all times.

Upon completion of the contract works, the contractor shall take down and remove all plant, gear, temporary work, rubbish, debris and surplus materials from the site, and make good.

At the conclusion of the contract, the contractor shall leave the site in such a condition, as new, and to the supervisors approval.

**12) Workmanship**

Workmanship shall be consistent with good trade practice to produce sound and well finished work, and to the requirements and standards demanded by the supervisor.

**13) New Zealand Standards**

It is the sole responsibility of the main contractor to ensure that the complete contract works are executed according to the relevant New Zealand standards, and local and national regulations.

**14) Protection**

The contractor shall be held responsible for the protection of persons or property in the immediate vicinity of, or liable to be affected by his operations. To that end, he shall provide a suitable temporary fence around the entire construction zone, at a minimum orange plastic safety mesh supported on tensioned wire over waratah stays and all necessary coverings, guards and the like, and display suitable and sufficient warning notices. The fences and signs shall be maintained throughout the contract.



**15) Bylaws and Regulations**

The whole of the operations shall be carried out in compliance with regulations of all public bodies having jurisdiction in the matter, and the contractor shall pay all and any fees which may be payable in respect thereof.

**16) Labour and Materials**

The contractor is to supply all labour, plant and sundry items as later detailed which are the best of their respective kinds.

Only first class tradesman are to be employed on this contract and any defective or improper workmanship shall be reinstated by the contractor in an approved manner at the contractors expense.

**17) Damage**

The Contractor shall be responsible for the loss or damage which may be caused to the property of the employer in his carrying out of this contract and the contractor shall make good such loss or damage at his own expense, to the satisfaction of the employer.

**18) Behaviour Generally**

Any behaviour by workers on the site that could be considered sexist, racist, obscene or beyond the limits of normal, acceptable behaviour will not be tolerated.

The supervisor reserves the right to exclude any such offending persons from the site area.

Wherever possible, contact between workers and school children should be kept to an absolute minimum. If the contractor finds that the school children are being a nuisance within the building site area, he is to notify the supervisor and the principal immediately in order that steps be taken to remedy the situation.

Under no circumstances whatsoever is the contractor and or employees thereof, permitted to have physical contact with, admonish or discipline any children that may from time to time enter the site area and or act in a manner that is a nuisance to the contractor and his staff. Report any such incidence to the principal immediately.

**19) Smoking**

Smoking is not permitted on any school site unless in a designated area as indicated by each individual school.

**20) Foreman**

The contractor shall provide at all times an efficient foreman who shall have the power to receive and carry out the instructions of the supervisor or his agent.

**21) Compliance Certificate**

The contractor shall complete the enclosed compliance certificate, stating that the all work carried out in the execution of the contract works by all contractors involved in such work, has been carried out in accordance with the contract documentation. This certificate shall be delivered to the employer or his agent before the issuing of the completion certificate.

**22) Health & Safety In Employment Act**

The contractor shall confirm in writing to the employer or his agent that all practical steps have been taken to ensure the requirements of the Health & Safety in Employment Act are complied with, in particular the contractor is required to:

- a) Provide and maintain a safe working environment.
- b) Provide and maintain facilities for the safety and health of employees at work.
- c) Ensure that machinery and equipment in the work place is designed, made, set up, and maintained to be safe.
- d) Ensure that employees are not exposed to hazards in the course of performing their work.
- e) Develop procedures for dealing with emergencies that may arise while employees are at work.

**A copy of the Contractors Health and Safety Policy shall be kept on site in a prominent position at all times.**

The Contractor is required to seek a copy of the owners health and safety policy and make himself aware of any hazards that may be present on the site.

**23) Defects Liability Period**

The defects liability period is 12 months.

Complete all defects liability and remedial work identified by the supervisor within the time period stated.

A Maintenance retention of 5% of the contract sum may be held by the employer to cover the work required over this period. The retention will be released upon final completion at the end of the maintenance period.

**24) Building Consent Fees**

The building consent shall be uplifted and paid for by the employer prior to the awarding of this contract. **Tenderers do not need to allow for building consent fees in their tender price.**

**25) Liaison with the Territorial Authority During the Contract**

It shall be the responsibility of the main contractor to liaise fully with the local Territorial Authority (TA) on all matters that require the involvement of the TA during the execution of this contract. This shall include for example, notifying the TA when the following work is ready for inspection:

- Foundations
- Pre-lining
- Plumbing and drainage
- Completions.

The main contractor is also to inform the TA any variations that may have arisen during the contract. The main contractor is to inform the supervisor when the TA inspections are to be carried out.

It shall be the responsibility of the main contractor to secure a Code Compliance Certificate from the TA upon completion of the work.

**26) Asbestos**

The contractor is required to immediately notify the supervisor, if the presence of asbestos is suspected or detected during construction.

**27) Contractors Animals**

Due to a number of problems having been experienced in the past in relation to contractors pets, particularly dogs, on site during the course of the project, The Ministry of Education Central South Office requests that all contractors and related persons refrain from bringing animals on to the school site at all times during the contract.

**28) Police Vetting**

As a result of an amendment to The Education Act 1989, Boards of Trustees are now required to obtain a police vet from the NZ Teachers Council on all persons working on a school site that are not registered teachers.

This requirement applies to all contractors and their employees who will be on site regularly, as well as your subcontractors and their employees.

You will be required to furnish a list of all workers that will be on site throughout the execution of the work, and distribute Police vet forms to these persons and return the forms to the school to enable the vetting process to be completed.

Any person who turns up on site to work and is not on the list will not be allowed on site.

All information received by the school will be treated in the strictest confidence and will be held in a secure file by the school.

## **Carpentry**

### **1) References**

Refer to the general conditions of contract and the preliminary and general sections of the contract documents which are equally binding on this trade section.

Read this trade section of the specification with all other contract documents.

### **2) Scope of Work**

Refer to the extent of work section of this specification.

### **3) General**

- 1) Supply all gear and materials necessary to carry out the Works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified with out the supervisors approval.
- 3) Set out the Works symmetrically unless stated otherwise.

### **4) Workmanship**

Use workmanship and materials in accordance with the best trade practice by competent tradesman conforming with the relevant New Zealand Standards. Carry out all work in accordance with The New Zealand Building Code, Acceptable Solutions E2/AS1 & E3/AS1, and any relevant manufacturers instructions.

### **5) Timber Grading**

- 1) Timber to grades in accordance with NZS 3604: 2011 and NZS 3631:1988
- 2) Use dry timber with the following equilibrium moisture content:

a)	External	Sawn Timber	20% average max 22% at 17.5 deg c.
		Machine gauged	19% average max 22% at 17.5 deg c.
b)	Internal	Sawn	18% average max 20% at 17.5 deg c.
		Dressed	12% average

max 15% at 17.5 deg c.

**6) Timber framing**

- 1) Unless otherwise detailed, timber framing to comply with NZS 3604:2011. Generally all framing to be H1.2 SG8 grade Pinus Radiata. Studs for walls up to 2.4 m high: 90 x 45 studs @ 600 centres.
- 2) Dpc to be fitted between all concrete and timber.
- 3) Dwangs to be provided @ 800 crs max to all timber framed walls. Fit additional dwangs as required for upstands, joinery units, light fittings, hardware, and the like.
- 4) Provide all lintels, trimmers and blocking in accordance with NZS 3604:3011

**7) Exterior Timber**

- 1) Use H3.2 SG8 grade framing grade pinus radiata for all exposed exterior timber.
- 2) Use H5 SG8 grade framing grade pinus radiata for all timber in contact with the ground.

**8) Exterior Finishing Timber**

Use finger jointed or clear H3.1 SG8 grade pinus radiata for all exterior finishing timbers. Profiles to match existing where necessary.

**9) Interior Finishing Timber**

- 1) Finishing timber to match existing except where noted otherwise.
- 2) Use selected or Dressing A Rimu for all clear finished interior trim unless noted otherwise.
- 3) Use selected, clear or finger jointed pinus radiata or MDF for all painted interior trim.

**10) Fixings**

- 1) Nail fix timber work in accordance with NZS 3604:2011.
- 2) Punch all finishing nail fixings and leave ready for stopping.

- 3) Use non ferrous or galvanised fixings for exposed external timber work.
- 4) All hardware is to fixed with appropriate fixings of matching finish to the item being fixed. Use non ferrous screws in external situations.
- 5) Use galvanised fixings where fitting into concrete.

**11) Priming**

Preprime all surfaces of exterior painted timberwork prior to fixing. Prime all cuts and joints as necessary.

**12) Building paper**

Fix fire resistant breather type building paper complying with NZS 2295:2006 over exterior framed surfaces in accordance with NZS 3604:2011

**13) Exterior Cladding**

As per extent of work or to match existing as required, supply, store and fix in accordance with the manufacturers instructions.

**14) Interior Linings**

As per extent of work or to match existing as required, supply, store and fix in accordance with manufacturers instructions.

## **Building Mover**

### **1) Extent of Work**

Refer to the attached page(s)

### **2) Permits**

The contractor shall arrange for, obtain and pay for all transport related permits required by all local authorities involved in the transport of the buildings, including agreements for reserve and footpath crossings and where any services such as overhead electric of telephone cables may be affected. Applications for transport permits must be sought immediately the tender price is accepted. The contractor shall if required produce copies of all permits to the Ministry of Education on request before work has commenced.

Note : It is the responsibility of the Ministry of Education or it's appointed representative to obtain all building consents from the appropriate territorial authorities for the removal and resiting of buildings.

### **3) Insurance**

The contractor shall insure the works against loss or damage from the time the removal work commences until it has reached practical completion. Such insurance shall not only cover the building/s before, during and after transportation but shall also cover damage or loss to other property arising from the work unless otherwise agreed.

The contractor shall also be insured for public liability for not less than \$2,000,000.00. This policy shall indemnify the Ministry and the contractor against any claims in respect of damage to any other property arising out of the operations of the contractor. The contractor shall if required produce evidence of insurance cover for the works as described above.

### **4) Construction Hazards**

The contractor shall comply with the Health and Safety in Employment Act 1992. The Construction Act 1959 becomes the Health and Safety in Employment (Construction) Regulations which form part of this Act.

Identified hazards for Building Removal Construction include; but are not limited to:

- a) Danger from overhead loads

- b) Jack failure
- c) Existing services.
- d) Traffic.
- e) People, equipment etc falling into excavations, trenches etc.
- g) Major plant operation.
- h) Water ponding.
- l) Noise.
- j) Lifting heavy items.

Contractors should note that penalties for not complying with the Health and Safety in Employment Act 1993 could be applied by the judicial system to the extent of \$100,000.00 fines or one years imprisonment.

#### **5) Inspection by Tenderer**

The contractor shall be deemed to have inspected the building/s prior to removal and siting at both the host and donor sites, and be familiar with all access routes, hazards and site conditions.

#### **6) Plant and Equipment**

The Contractor shall ensure that major plant (Jacks, winches cables, shackles, excavators, loaders, trucks, compressors, pneumatic drills, pavement cutters, lasers etc) are operated by fully trained operators. All workers in the construction site shall be educated about the hazards of working alongside the major plant.

The Contractor shall ensure that all plant, equipment and tools necessary to carry out the work are in first class order.

Plant shall be of sufficient capacity to carry out the construction procedures described herein.

#### **7) Noise Control**

The Contractor shall comply with the Resource Management Act 1991.

The Contractor shall adopt the best practical means of reducing the noise of continuous equipment to affected people.

#### **8) Workers Safety Equipment**

The Contractor shall ensure that all workers are provided with the necessary equipment which shall be always used when workers are placed in hazardous situations requiring their use. This safety equipment shall include as a minimum standard for routine work:



- a) Safety boots.
- b) Hard hat.
- c) Overalls or jeans.
- d) Wet weather gear.
- e) Face masks.
- f) Ear muffs.
- g) Gloves.

The Contractor shall ensure that items c) and d) should be easily seen where construction is on or near a roadway or alternatively high visibility gear shall be provided.

The Contractor shall provide disinfectant, antiseptic soap and water in the site workers facilities.

The Contractor shall provide first aid equipment in the site workers facilities to comply with the Health and Safety in Employment (Construction) Regulations. All requirements in regard to accident reporting shall also be complied with.

## **9) Protection & Damage**

The contractor shall take all precautions to protect against damage to the buildings being removed and to adjacent buildings, paths, paved and grassed areas, services, fences, shrubs and trees and the like on the school and other properties crossed during the removal process. The contractor shall protect with planking all paving not designed for heavy vehicles. Any damaged caused shall be noted and reported to the Ministry representative within 24 hours. Damage to public reserves shall be reported to both the Ministry and the appropriate local body.

To avoid unnecessary damage, vehicle movement shall be kept to a minimum inside school sites and where practical, vehicles shall leave the school by the same route used as entry. The contractor shall not be liable for damage to school property caused by unforeseen circumstances and where it is not the failure of the contractor to take all reasonable care.

## **10) Default**

The Ministry may delay or determine the contract on grounds of default for any of the following reasons:

- a) If the contractor fails to perform the work within the contract time or an agreed time.
- b) If the contractor fails to remedy unsatisfactory equipment or defective operations promptly after notice from the Ministry.

- c) If the contractor's operations are causing or likely to cause danger or excessive damage. This could be as a result of severe weather conditions.

Determination of the contract on any of the above grounds shall be by written or oral notice from the Ministry to the contractor. The Ministry shall if necessary be entitled to negotiate with the contractor to employ others to assist or complete the work at the contractor's expense. This may involve the use of any equipment and plant that may be on school sites or involved in the transportation of the building/s at the time of notice of determination of the contract.

## **Standard Specification for Roofing in Corrugated Colorsteel**

### **1) Site**

All tenderers shall visit the site of the proposed works before submitting their tenders as no extra payment will be authorised on the grounds of insufficient knowledge of existing buildings and services.

### **2) Access**

The contractor shall restrict access by his own, his subcontractors and his suppliers vehicles to the main school entrance, unless otherwise notified by the employer.

### **3) Order of work**

The work shall be carried out in stages so that a minimum of roof is exposed to the weather at any one time.

### **4) Building Paper**

Prior to fixing the new roofing materials, cover the timber roof structure with new standard weight building paper, laid horizontally with a minimum lap of 150mm well tacked down.

### **5) Corrugated Coil Coated Steel Roofing**

Provide and fix 'Colorsteel Endura' ( or as directed in the Extent of Work attached) continuously coil coated steel roofing in accordance with the manufacturers instructions.

Alternative brands may be considered with prior approval of the employer.

#### **a) Material**

Corrugated iron shall be .40mm BMT grade G250 with Zinalum galvanised coating.

#### **b) Fixing**

Corrugated roofing shall be fixed with 65 x 4mm dia. 'weather seal' pre-painted or similar approved hot dip galvanised spiral shanked nails or self drilling screws as specified in the Extent of Work. Nails shall be spaced to leave one corrugation between fixings at the end of sheets and two corrugations between fixings at all other purlins below the ridge and above the eaves. Fix sheets with one and a half corrugations side lap. Stainless Steel fixings required with Zinalume.

Sheets shall be in single lengths where possible, but where joints are necessary they shall be lapped 300mm.

The 'colorsteel' shall be inspected when it arrives on site by the contractor and the supervisor, damaged or unsatisfactory sheets will not be accepted.

## **6) Workmanship**

### **a) General**

All work shall be carried out by tradesman experienced in sheet metal work, more particularly in the handling, fixing and flashing of the materials specified. The workman should be equipped with adequate tools and equipment to ensure a first class job.

Fix all roofing and accessories strictly in accordance with the manufacturers instructions. Where such instructions conflict with this specification seek clarification with the supervisor before proceeding.

### **b) Handling**

Care is to be taken when handling colorsteel.

Products are to be lifted directly into position and must not be dragged or slid over rough surfaces or other colorsteel products.

All workers employed on roofing jobs must wear suitable rubber soled footwear and all tools and ladders must be suitably protected from damaging the painted surfaces.

Long lengths of roofing iron are to be lifted by crane directly on to the roof. The use of a lifting boom is recommended.

Any damage to the 'colorsteel' caused by failure to follow these procedures shall be replaced at the contractors expense.

### **c) Storage**

Products delivered to the site must be stored off the ground in sheltered positions. Where undercover storage is not practical or where products are lifted in bundles directly on to the roof, they must be covered with a loose fitting tarpaulin until ready for use. Plastic covers must not be used.

If for any reason the products become wet, they must be separated to allow drainage and air circulation. Timber fillets

must be kiln dried seasoned timber. Treated timber must not be used

Contact with wet cement is to be avoided.

**d) Sealants**

Under no circumstances shall 'colorsteel' be joined by soldering, welding or brazing.

Joints shall be made using an approved type of blind rivet and sealant.

Sealant shall be approved transparent, neutral curing silicone rubber type.

Surfaces must be clean, dry and free from oil.

The sparing use of a solvent such as Toluol or xylol is recommended, sealant should be applied the same day the surface is cleaned.

Sealants should be laid in a continuous 3mm wide line covering the fastening holes and finished as soon as possible after application.

Excess sealant is to be removed before it cures. Remove all rivet shanks and drillings following the completion of the work.

Refer to the colorsteel technical bulletin No. 5.

**e) Cutting and Drilling**

Colorsteel products shall be cut or drilled with the colour side down where ever possible. Products should be cut using sharp tin snips or a power saw fitted with a friction blade.

**f) Flashings and Roof Penetrations (see section 10 for lead on Zinc alum)**

All flashings and roof penetrations shall be manufactured from coil coated materials and in long lengths where available.

To all ridge and hips fix lead edged ridging to follow the line of the roof with the lead moulded down into the corrugations. Seal all joints as above.

Where required sheet lead shall be used. All lead edging and all sheet lead shall be primed on all surfaces before fixing. Exterior

surfaces shall be painted with Colorsteel touch up paint, colour to match roof.

On roof penetrations 'aquaseal' type flashings shall be used. Aluminium shall be painted to match the roofing.

**7) Cleaning Up**

To prevent Staining or the surface it is essential that all metal off cuts, filings, fastener shanks etc, are removed from the work area as work progresses. A soft broom may be used, followed by hosing down at the end of each day. Removal of particles from gutters is also important to prevent premature corrosion.

**8) Completion**

On completion of new roofing etc, fit all new flashings required to make the roofs completely watertight.

**9) Guarantee**

The contractor shall furnish a written guarantee in the form required by the employer that the roofing will remain weatherproof for a period of five years after the expiry date of the maintenance period. This guarantee shall cover the making good of any defects which may appear and rectifying any damage to the interior or exterior of the building due to defective materials or workmanship.

**10) Lead and Zinc alum Coatings**

Avoid using lead flashings in contact with zinc alum products as excessive corrosion will occur. Use an alternative product such as "flashgard" or fully encapsulate the lead in an approved paint system.

## **Electrical**

### **1) References**

Refer to the general conditions of contract and the preliminary and general sections of the contract documents which are equally binding on this trade section.

Read this trade section of the specification with all other contract documents.

### **2) Scope of Work**

Refer to the extent of work section of the specification.

### **3) General**

- 1) Supply all gear and materials necessary to carry out the Works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified with out the supervisors approval.

### **4) Existing Services**

The existing services are poorly recorded. Exercise extreme care during excavations and work to existing buildings . Any underground or internal services broken or damaged during excavation and or other work shall be rectified at this subcontractors expense.

### **5) Earthing**

Earth continuity conductors shall be installed with the wiring to all outlets.

### **6) Workmanship and Regulations**

a) The electrician shall visit the site in order to understand the nature and scope of the work. No claims will be allowed on the grounds of insufficient knowledge of existing conditions.

b) The electrical installation shall be carried out in strict accordance with the New Zealand Electrical Regulations and Codes of Practice 1993, and interpretations and amendments thereto, the rules of the Fire Underwriters Association, notwithstanding any omissions herein, and to the complete satisfaction of the local power board's inspector and the supervisor.



c) All wiring shall be concealed, unless otherwise stated, and only new, first class materials and workmanship will be allowed.

d) The electrician shall obtain all necessary permits for the work and allow to pay all associated charges.

e) The electrician shall visit the site and accurately assess the size of the existing main, submains, and all other cables required to complete the wiring in accordance with this specification and to comply with the local body and national regulations.

f) The complete electrical system shall be checked by the local authority power supplier on completion of the contract. Any wiring not accepted and passed shall be replaced by the electrician at no extra cost.

g) The electrician shall carry out all necessary cutting away, drilling etc. When cutting into timber only sufficient to permit the bare entry of the wiring is to be removed. No joists are to be cut away for cables **more than 100mm out from a support**, except with the approval of the supervisor.

h) All stainless steel bench tops are to be earthed.

## **7) Wiring**

Wiring of sub-circuits shall be TPS insulated cables. All cables shall be concealed in wall, ceiling and floor cavities.

Wire to plug sockets	- 3x 2.5mm <sup>2</sup> and earthed.
Wire to lights	- 3x 1.5mm <sup>2</sup> and earthed.
Wire to electric heaters	- 3x 2.5mm <sup>2</sup> and earthed.

## **8) School Class Change / Evacuation System**

Allow to reticulate the existing school class change / evacuation bell system to the new reloc classrooms. Allow to fit two external bells on site where directed.

## **Concrete Paving**

### **1) References**

Refer to the general conditions of contract and the preliminary and general sections of the contract documents which are equally binding on this trade section.

Read this trade section of the specification with all other contract documents.

### **2) Scope of Work**

Refer to the extent of work section of this specification.

### **3) General**

- 1) Supply all gear and materials necessary to carry out the Works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified with out the supervisors approval.
- 3) Set out the Works symmetrically unless stated otherwise.

### **4) Workmanship**

Use workmanship and materials in accordance with the best trade practice by competent tradesman conforming with the relevant New Zealand Standards. Carry out all work in accordance with The New Zealand Building Code, and any relevant manufacturers instructions.

### **5) Concrete Paving**

Provide new concrete paving; concrete to be 17.5mpa, 100mm thick, on 150mm compacted base course. Broom finish. Saw cut at regular intervals.

## **PAINTING**

### **1) General**

Refer to all the general and specific conditions, the tender drawings and preliminaries section of this specification, all of which shall apply to this section of the works.

### **2) Extent of works**

Refer to the extent of work section of the specification.

### **3) Colours**

Colours will be selected during the contract, generally to match the existing School colour scheme.

### **4) Workmanship and materials**

All painting shall be in accordance with good sound trade practice, in accordance with NZS 2311:2009, and only premium grade paint systems are permitted. The only paint products approved for this contract are for paints manufactured by **Resene** and **ICI Dulux**. Unless prior dispensation is given for an alternative manufacturers product, all tenderers must price this work using paints supplied by either Resene or Dulux.

Only first class premium paints may be used on these contract works and all paint brought on to the site must be in the original manufacturers tins and must be available for inspection by the supervisor at all times during the contract. The supervisor reserves the right to take samples for testing. Any materials which do not conform to the manufacturer's formulae or the requirements of this specification will be rejected.

Unless specified otherwise all paint materials shall be lead free. An exception may be for galvanised steel priming, unless specified lead free for roof water collection areas.

All paint materials in thermal areas shall be of a suitable formula.

#### **a) Paint systems**

It is intended that, unless specified otherwise a "paint system" is used on all works involved in this contract. That is, only the same manufacturer's primer, undercoat and finishing coats are to be used in any given situation. Use the correct type of each as recommended by the manufacturer for the materials to be

painted and their situation. The painting for this contract shall require the application of a complete "paint system"

b) Cutting In

Only first class cutting in work will be accepted on this contract. The requirement for, and the importance of, a top class cutting in job cannot be stressed enough. It is therefore brought to the attention of all tenderer in this specific clause and reiterated that any poor cutting in work will be completely rejected by the supervisor and the work will be required to be completely redone.

c) Protection of work

Take adequate precautions during and after painting operations to protect your own work, and the work of other trades and adjacent existing surfaces, from damage or disfigurement, The Contractor must ensure adequate protection for all grassed, concrete or sealed areas during preparation, mixing and application, including cleaning and washing of brushes and applicators.

The contractor must ensure that all brick veneer work is adequately protected from the possibility of paint damage.

Provide pans or trays in which to keep materials and carry out all necessary floor and wall protection, for both new and existing areas.

External work shall not be done during frosty or inclement weather and in the likelihood of frost, work in shaded positions shall cease at least four hours before sunset.

Protect factory finishes from paint disfiguration.

Protect floor finishes from paint spillage or disfiguration. Any paint damaged by frost, rain, and dust or through inadequate protection shall be rubbed down and recoated at the painter's expense.

Any damage done to persons or property by the painting contractor or his workmen during the progress of the contract is to be made good at the expense of this contractor.

d) Conditions when paint is not to be applied

Paint is not to be applied when any one of the following conditions exist:

- The surface is less than 5 degrees Celsius above dew point.
- The ambient air temperature is below 5 degrees Celsius, or 10 degrees Celsius in the case of water based paints.
- The relative humidity exceeds 85%.
- There is moisture or ice on the substrate.
- If any of the above are likely to occur before the paint dries.
- Any condition stipulated by the paint manufacturer more restrictive than above.

5) **Colours**

The colour scheme will be chosen before the contract starts and forwarded to all tenderers.

Tenderers are to note that all work to be painted **white**, will require:

- **three** finishing coats over the undercoat.

6) **Preparation of surfaces**

It shall be the responsibility of the painter to ensure that all surfaces, including surfaces of each successive coat, are in a suitable condition to produce a first class job. Apply "Moss & Mould Killer" to areas where required, wash down and apply such sealers, neutralisers, etc., as are necessary and in accordance with sound trade practice, Similarly wash or brush down prepared surfaces immediately before painting to effectively remove dust, deposits or loose material. Such preparatory work being deemed to form part of this contract.

No paint shall be applied to damp surfaces. All timbers exposed to view or contact by the hand shall be smooth finished and the painter shall not apply to such surfaces if still rough.

It shall be the responsibility of this sub-contractor to make good, to the supervisor's satisfaction, any paint failures or blemishes caused by insufficient or incorrect preparation of surfaces to be painted.

Where appropriate all existing wallpaper shall be stripped off in preparation for the new wallpaper. Prepare the existing wall surface to recommended trade practice.

## **7) Cleaning down of existing surfaces**

Where existing surfaces require re-painting in this contract, the following conditions shall also apply:

### **a) Generally**

Rigid attention must be paid to the "PREPARATION OF SURFACES" clause as above. Existing surfaces shall be repaired as called for and the painter must allow for filling as required.

Remove sufficient to provide a good key for new paint. Prime any existing bare timber or steel shown up by old paint removal.

### **b) Removal of moss and mould infestation**

This must be applied to any porous surface, the contractor must ensure that all moss and mould is removed prior to the application of any paint system.

Treat all infested areas with Resene, or equal approved, Moss and Mould Killer, at a rate of 100 grams to 1 litre of clean water, or as required by the alternative manufacturer. Leave for 48 hours to achieve a full kill, then wash down the affected surfaces.

### **c) Sanding**

The use of disk sanding equipment is not permitted on this contract.

## **8) Priming**

### **a) Generally**

Prime all faces, edges backs, joints and abutting surfaces of all exterior finishing timbers.

### **b) Galvanised steel**

Thoroughly degrease all surfaces before priming. Apply "Galvo One" or equal approved, steel primer.

### **c) Other priming**

Shall be as recommended by the manufacturer of the finishing paint.

## 9) Undercoats

Undercoats shall be the same brand as the finishing coats and shall be as recommended by the manufacturer of the finishing paints for use with his paint in the situations specified. **Tint the undercoats to closely match the colour of the finishing coats to give additional covering power to paint.** Undercoats on exterior, exposed more than 8 weeks to weather, shall be sanded down and recoated without extra charge. The minimum number of paint coats required in each particular case is specified in later clauses, but not withstanding this, undercoats shall be sufficient to provide a full bodied, even colouration to the finished job.

## 10) Application of paint

### a) Exterior Painting

Shall be applied by BRUSH ONLY. Airless spraying is **NOT** permitted.

### b) Interior Painting

The undercoat shall be applied by BRUSH ONLY. The finishing coat may be applied by brush or roller.

## 11) Painting schedule

### a) Timber Doors

NOTE: Both the tops and bottoms of all doors are to be painted.

Prime (if new):	One coat of pigmented sealer
Undercoat:	One coat of alkyd undercoat
Paint:	Two coats of satin enamel

### b) Door and Window Frames and/or Liners

Prime:	One coat of pigmented sealer
Undercoat:	One coat of alkyd undercoat
Paint:	Three coats of gloss enamel (white)

c) Exterior Sheathing and Concrete Blocks and C P Plaster Finishes

Prime: One coat of exterior acrylic primer  
Paint: Two coats of exterior acrylic "Lumbersider"

d) Existing Galvanised Steel Roofs, Flashings, Spouting, Downpipes & Metalwork

Refer to previous clauses for the preparation of existing surfaces. Ensure all rust, blisters and loose or perished paint has been removed. Recoat in zinc rich paint any ungalvanised metal exposed during preparation.

Prime: One coat of galvanised steel primer  
Paint: Two coats of exterior full gloss acrylic or enamel

e) Painted Metalwork

Prime: One coat of galvanised steel primer  
Paint: Two coats of exterior full gloss enamel  
(3 coats if white)

f) Exterior Trim, Facings etc.

Prime: One coat of exterior acrylic primer  
Undercoat: One coat of exterior acrylic undercoat  
Paint: Two coats of exterior acrylic paint

g) Gibraltar Board

Sealer: One coat of Gib Sealer  
Undercoat: One coat of acrylic undercoat  
Paint: Two coats of acrylic (satin)  
Three coats for white ceilings (matt)

h) Particle Board Linings

Undercoat: One coat of sealer  
Paint: Three coats of clear polyurethane

k) All Interior Finishing Trim and Hardboard Linings

Prime: One coat of acrylic primer (satin)  
Paint: Two coats of acrylic (satin)



**12) Left over paint**

All cans of partially used paint left over at the completion of the contract shall become the property of the Board of Trustees. The contractor shall clearly label each can with the paint colour and the block on which the paint was used.

Hand all left over paint to the school caretaker at the completion of the contract. This paint shall be available for use by the contractor at the conclusion of the maintenance period if it is required.

**13) Completion**

Clean all glass, flooring, fittings etc. of any paint spots and leave the site in a clean and tidy condition.