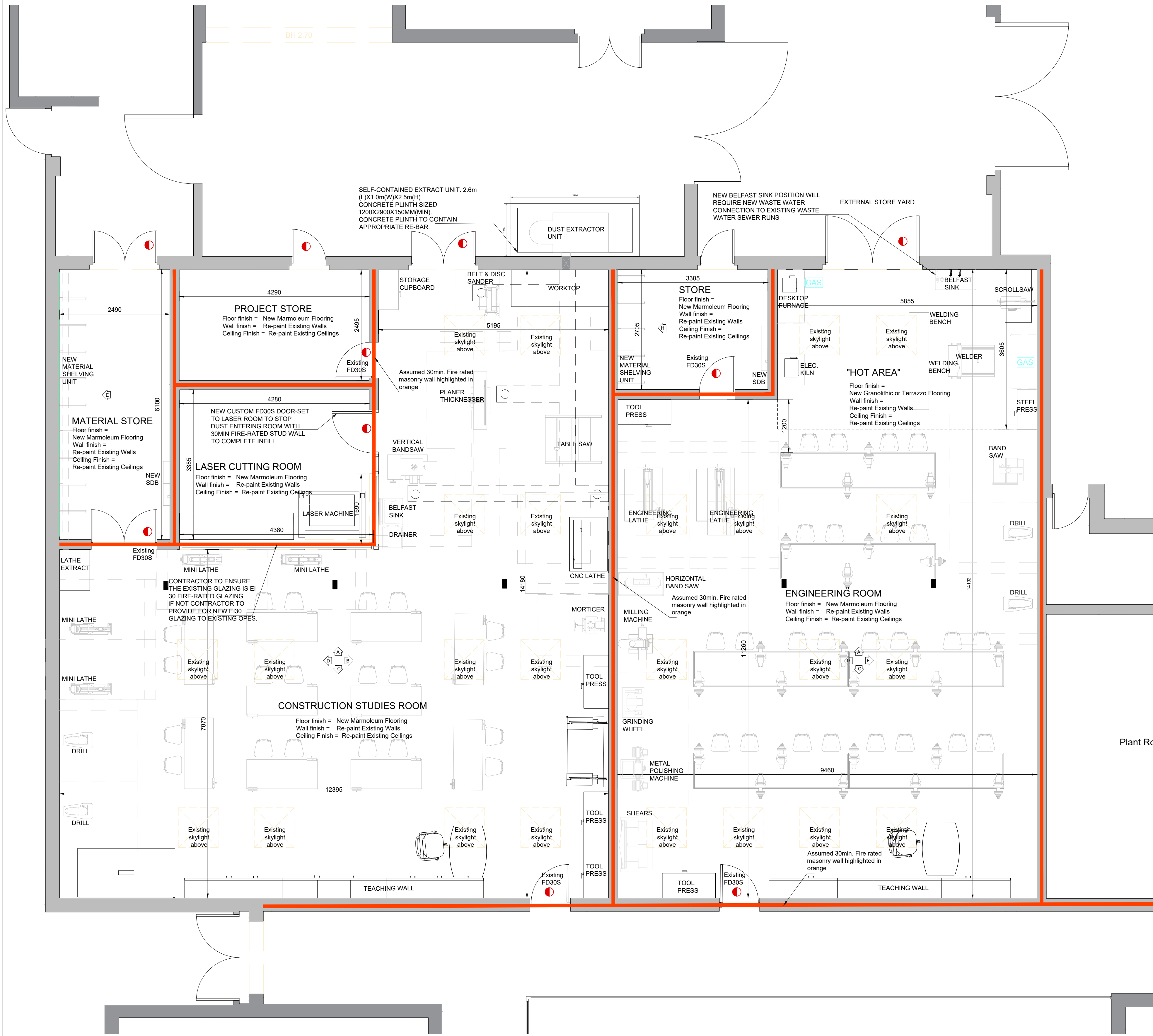




PROPOSED FLOOR PLAN - CONSTRUCTION & ENGINEERING ROOMS

SCALE : 1:50

- General Notes:
- Copyright of Dermot F. Geoghegan Architects.
 - All dimensions & levels to be checked on site before any work commences.
 - No dimensions to be scaled off drawing.
 - Any discrepancies to be brought to the attention of the Architect.
 - All materials, fittings & finishes to be approved by Architect before any work commences.
 - Installation of all materials in accordance with manufacturer's specifications.
 - All work to comply with relevant IS & BS standards and TGD current issue.
 - All electrical work in compliance with ESB standards & specs.

STAGE:TENDER

DRAWINGS FOR DESIGN PURPOSES ONLY.
DRAWINGS NOT TO BE USED FOR CONSTRUCTION

GENERAL SPECIFICATION

GENERAL REQUIREMENTS & SCOPE

All construction works, materials, and installations shall comply with current Irish Standards (IS), Eurocodes, and Building Regulations.

All dimensions and levels must be checked and verified on-site by the Contractor prior to commencing fabrication or installing any specialized workshop equipment.

All new materials, specialist fittings, and surface finishes are to be approved in advance by the Architect.

Contract Note (Fitted Furniture): The Contractor is responsible for the supply, secure floor-fixing, and containment integration of all heavy-duty student workbenches located within the Engineering Room. Scope also includes all peripheral shelving units, custom partitions, and teacher/storage walls. Exclusions (Loose Furniture & Machinery): The student workbenches located within the Construction Studies Room are classified as loose furniture and are excluded from this contract. All individual student/teacher desks, chairs, and specialist workshop machinery/equipment (e.g., CNC Lathes, Mini Lathes, Planers, Drills, Saws, and Hot Area equipment) are indicated for layout coordination purposes only and will be supplied/installed by others.

M&E SERVICES COORDINATION

M&E Specification & Works: All mechanical, electrical, data, plumbing, specialized machine containment, extraction systems (including dust and lathe extraction systems), and safety isolation loops/E-Stops are as specified by the M&E Consulting Engineer.

The Contractor must refer directly to the separate, dedicated M&E Tender Specification documents, layouts, and schedules for all service performance requirements, incoming utility connections, and infrastructure installation criteria.

The architectural layout plans are for coordination and spatial positioning purposes only

INTERNAL RECONFIGURATIONS & JOINERY

ACOUSTIC & DUST SEPARATION:

Supply and install a new custom FD30S fire and smoke-rated door set leading into the newly designated Laser Cutting Room. The door assembly must feature heavy-duty perimeter seals specifically detailed to prevent fine dust infiltration into the clean laser enclosure.

INFILL PARTITION WORK:

Contractor shall remove the existing temporary plywood panel and construct a new 30-minute fire-rated timber infill dust wall partition within that structural opening. The new partition must be tightly detailed to interface seamlessly with the adjacent glazed screen partition and overhead masonry, sheeted both sides with Firlene plasterboard, taped, skimmed, and decorated to match the surrounding wall surfaces.

SKIRTINGS:

Supply and install new 144mm x 18mm moisture-resistant MDF skirtings to all newly configured perimeter wall zones (excluding locations with coved vinyl or granolithic details). All MDF skirtings are to be factory-primed or knotted/primed on-site, countersunk-fixed to structural walls/plugs, filled flush, and finished with two coats of premium satinwood or gloss paint to match the approved school joinery color schedule.

FITTED FURNITURE:

See Fitted Furniture Drawing Nos: T-26-103-05 & 06

FLOOR & WALL FINISHES PERFORMANCE SPECIFICATION

ACOUSTIC LINOLEUM (MARMOLEUM):

Prepare structural sub-floors with an appropriate self-levelling smoothing compound. Supply and install heavy-duty, commercial-grade Forbo Marmoleum Decibel (or approved equivalent) to the main Construction Studies Room, Engineering Room, Laser Cutting Room, Project Store, and Material Store. Flooring must provide a minimum 18dB impact sound reduction to control acoustic reverberation across the active workshop environments. Finishes must achieve an R10 slip-resistance rating and be completed with hot-welded matching seams throughout.

HOT AREA FLOORING (GRANOLITHIC / TERRAZZO):

Supply and install a premium, heavy-duty poured resin or cementitious terrazzo flooring system, Resdev Pumazzo (or approved equivalent), specifically to the designated "Hot Area" in the Engineering Room. The system must be a minimum of 30mm in thickness, incorporating aggregate chips ground and polished under vacuum, then sealed with a low-porosity grout to provide maximum resistance to industrial oil, chemical staining, and thermal shock from dropped welding slag. The cured surface must feature an incorporated anti-slip texture profile ensuring safe operational footing around the welding bay and heat-treatment gear.

At the junction between the Forbo Marmoleum and the Resdev Terrazzo "Hot Area", the Contractor must supply and install a heavy-duty, flush-recessed Schlüter-RENO-U (or approved equivalent) stainless steel ramp profile. The profile must completely bridge the thickness differential between the two floor coverings, creating a smooth, sloped, Part M compliant transition that eliminates any vertical lip or trip hazards while fully protecting the exposed edge of the linoleum

WALL FINISHES:

All internal walls are to be prepared, primed, and finished with a minimum of two coats of durable, scrubable, anti-microbial emulsion paint suitable for commercial/educational kitchen environments.

EXISTING PLASTERBOARD CEILINGS:

Thoroughly prepare all existing plasterboard ceilings by scraping down any loose or flaking paint, filling all minor cracks or surface defects with a premium joint filler, and sanding flush. Apply one coat of stabilizing primer to repaired patches, followed by two full coats of premium, high-opacity, scrubable matte emulsion paint.

EXPOSED STEEL STRUCTURAL COLUMNS & ROOF TRUSSES:

Systematically prepare all existing exposed structural steel columns, perimeter stanchions, and overhead roof truss networks.

De-grease surfaces and wire-brush/sand down any localized rusted spots, loose paint flakes, or workshop residues back to bare metal.

Spot-prime all exposed steel or corroded areas immediately using an approved zinc-phosphate anti-corrosive primer.

Apply two full coats of a high-durability, specialist structural steel coating system (such as a premium gloss or satin metal paint) to achieve the specified fire-protection and aesthetic finish. Color choice to be approved in advance by the Architect.

FIRE SAFETY STRATEGY SPECIFICATION

STATUTORY COMPLIANCE & GENERAL GOVERNANCE:

All proposed alterations, materials, components, and installations shall comply strictly with Part B (Fire Safety) of the Irish Building Regulations, Technical Guidance Document B (TGD-B, latest edition), and relevant Department of Education & Youth / ETB Design Guidelines.

Fire detection and alarm modifications shall comply with IS 3218 / BS 5839. Emergency lighting and exit signage shall comply with IS 3217 / BS 5266.1.3

Site Verification: The Contractor shall verify all existing structural conditions, ceiling voids, and wall heads on site prior to installation to ensure full continuous fire-stopping.

COMPARTMENTATION & FIRE RESISTING CONSTRUCTION

High-Risk Enclosures (Laser Cutting Room & Stores): The perimeter walls enclosing the Laser

Cutting Room, Project Store, Material Store, and General Stores shall form a continuous 30-minute fire and smoke enclosure achieving an EI 30 performance rating (BS EN 13501-2 / BS 476: Part 22).

Partition Construction: Fire-rated partitions shall be constructed using a minimum 70mm steel stud framework clad on both sides with 1x15mm fire-rated plasterboard (or tested equivalent system), insulated with mineral wool, and extended full height to the underside of the structural slab/roof deck above.

Perimeter & Movement Joints: All joints between fire-resisting partitions and surrounding structural masonry, concrete soffits, or roof metal decks shall be densely packed with non-combustible mineral wool and finished with tested intumescent sealants to maintain continuous 30-minute integrity.

FIRE-RATED GLAZING & VISION PANELS

Laser Cutting Room Glazed Screens:

All internal observation windows and vision panels set within the Laser Cutting Room perimeter walls shall be certified EI 30 Fire-Rated Glazed Assemblies (providing a minimum 30 minutes of both Flame/Smoke Integrity 'E' and Radiant Insulation 'I').

Glazing Specification: Glass to be tested laminated fire glass (e.g., Pyrostop, Pyrobel, or approved equivalent) set within a certified steel or hardwood fire-rated framework using intumescent glazing gaskets and hardwood/steel glazing beads in accordance with the manufacturer's tested fire system. Standard annealed, toughened, or non-fire float glass is strictly prohibited.

FIRE DOORS & ARCHITECTURAL IRONMONGERY

Door Assemblies:

All new doors serving fire-rated enclosures (Laser Cutting Room, Project Stores, Material Stores) shall be certified FD30S fire and cold-smoke door assemblies (BS 476: Part 22 / BS EN 1634-1).

Perimeter Seals:

Doorsets shall be fitted with continuous combined intumescent strips and cold-smoke acoustic seals set into the timber frame rebate or door edge. Bottom clearance gap not to exceed 3mm above finished floor level or fitted with a drop-down smoke seal.

Door Ironmongery & Self-Closers:

All FD30S doors to be fitted with heavy-duty overhead hydraulic self-closing devices certified to BS EN 1154. Hinges to be Grade 13 stainless steel ball-bearing hinges (minimum 3 per leaf) certified to BS EN 1935. All locks, latches, handles, and cylinder escutcheons shall be fire-tested and certified for use on FD30 timber doorsets.

SERVICE PENETRATION FIRE-STOPPING & DAMPERING

Penetration Seals:

All mechanical ductwork, dust extraction pipework, electrical conduits, containment trays, and plumbing services passing through fire-resisting partitions (including the Laser Cutting Room) shall be fully fire-stopped as specified by M&E Consultant to achieve minimum 30min fire rating (BS EN 1366-3).

Fire Dampers:

Where mechanical ventilation or ductwork breaches a fire-rated partition, automatic fire/smoke dampers (certified to BS EN 1366-2) to be installed as specified by M&E Consultant.

HIGH-RISK EQUIPMENT & DUST EXTRACTION INTERLOCKS

System Interface:

The building's Master Fire Alarm System (IS 3218) shall interface directly with the power distribution boards (SDBs) feeding the Laser Cutter, Dust Extraction Plant, Welding/Hot Area Equipment, and gas solenoids.

Automatic Isolation:

Upon activation of any fire alarm zone or manual call point within the Construction Studies or Engineering Rooms, the main power supply to the dust extraction suction fans, laser cutting equipment, specialized workshop machinery, and local fuel/gas lines shall automatically shut down/isolate immediately to prevent flame spread, air feeding, or toxic smoke transport through ductwork.

MEANS OF ESCAPE & EMERGENCY LIGHTING

Escape Routes & Travel Distances:

Existing exit doors, escape corridors, and clear travel distances across both the Construction Studies and Engineering spaces shall be maintained completely unobstructed and unaltered during and after construction.

Emergency Lighting & Signage:

Existing emergency illumination and illuminated exit signs shall be inspected, upgraded, and extended to provide coverage within newly formed spaces (Laser Cutting Room, Stores) in strict accordance with IS 3217, providing a minimum 1 Lux illumination along escape paths and above exit doors.

Revision	Revision details	Issued by	Date
A			
B			
C			
D			
E			
F			
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DERMOT F. GEOGHEGAN ARCHITECTS LTD ARCHITECTS · DESIGNERS · PLANNING CONSULTANTS CASTLE HOUSE 18 CASTLE STREET CARLOW CO. CARLOW Project: ENGINEERING/CONSTRUCTION ROOM RE-MODELLING-SUMMER WORKS Client: DDLETB for RATH DARA COMMUNITY COLLEGE Drawing: PROP. CONSTRUCTION/ENGINEERING ROOM ELEVATIONS Scale: 1:50@A1 Date: JUNE 2026 Drawn by: EK Checked by: DFG T - 26 - 103 - 04	DERMOT F. GEOGHEGAN ARCHITECTS ARCHITECTS · DESIGNERS · PLANNING CONSULTANTS CASTLE HOUSE 18 CASTLE STREET CARLOW CO. CARLOW E: info@dfgarchitects.com www.dfgarchitects.com PRACTICE ACCREDITED IN CONSERVATION	THE ROYAL INSTITUTE OF THE ARCHITECTS FOUNDED 1834
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