Planning & Building Unit

Technical Guidance Document TGD-023

Post-primary School Design Guidelines

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DEPARTMENT OF EDUCATION AND SCIENCE

PLANNING AND BUILDING UNIT

Contents

1.0 Introduction

1.1 Purpose of this document

(a) The Post-primary School Guidelines state the specific design requirements and room inter-relationships applicable to the design of Post-primary schools.

(b) The general design principles of School Design (including Post-primary school design) are described in TGD-020 General Design Guidelines for Schools.

(c) This document, in conjunction with the other relevant design guidance (see below), is intended both as a design tool-kit for the *Client* & Design Team and as part of a set of reference documents for the evaluation of design submissions.

* *In the case of Community and Comprehensive Schools the Minister for Education and Science is the Client, but for the purposes of this document the term "Client" shall also encompass the School Authorities.*

1.2 Design Guidance Suite

(a) The Post-primary School Design Guidelines are part of a suite of Department of Education and Science [DoES] design guidance documents for Primary and Post-primary schools including:

DoES Technical Guidance Document	DoES –TGD
General Design Guidelines for Schools	020
Construction Standards for Schools	021
Primary School Design Guidelines	022
Post-primary School Design Guidelines	023
Post-primary Fixed furniture layouts	
Post-primary Room Layouts	
Mechanical & Electrical Building Services Engineering Guidelines for Temporary Accommodation School Buildings	001
Mechanical & Electrical Building Services Engineering Guidelines for Primary School Buildings	002
Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings	003
Information & Communication Technology (ICT) Infrastructure Guidelines for Primary Schools	004
Information & Communication Technology (ICT) Infrastructure Guidelines for Post-primary Schools	005

All the above Guidance Documents are available on the Department of Education & Science web-site at www.education.ie

(b) This Suite of Design Guidance documents is intended to assist in the design and proper planning of buildings in response to the educational needs of a particular school as determined in the brief formulation process.

Continued overleaf

1.0 Introduction (continued)

1.2 Design Guidance Suite (continued)

(c) These Guidelines and the other relevant documents in the Design Guidance suite should be read in conjunction with
- The Brief,
- The Design Team Procedures and
- All other DoES Technical Guidance Documents published on the Department's web-site.

Always check the Department's web-site for the most up-to-date version.

(d) In applying these guidelines to projects, clients and design teams will be obliged to comply in full with the current Design Team Procedures, DoES Technical Guidance Documents and other guidance issued by the Department, except as stated in 1.4 Application below.

(e) The above Suite of Design guidance documents replace all previous Design Guidelines both Primary and Post primary.

1.3 Design Team Procedures

(a) The Design Team Procedures [DTPs] set out the scope of service for all consultants individually and collectively for all construction projects stating the requirements and principles for each stage of the design and construction process starting with Preliminary Design, and proceeding through the design stages to Tender Documents, obtaining tenders, Construction and Final Account

(b) The DTPs apply to all construction projects funded in part or in total by the Department of Education & Science unless otherwise stated. For small scale devolved projects including Summer Works projects designers should refer to Technical Guidance Document TGD007.

1.4 Application

(a) These Post-primary School Design Guidelines together with TGD-020 General Design Guidelines for Schools and TGD-021 Construction Standards for Schools apply to all Post-primary construction projects funded in part or in total by the Department of Education & Science (unless otherwise directed by the Department in writing) where a decision to commence architectural design and planning has been confirmed in writing by the Planning and Building Unit.

(b) The scope of the building project will be the schedule(s) of accommodation and other briefing instructions as agreed between the Client and the PBU.

(c) Where it is proposed to construct a new school these guidelines and all associated documents in the suite of Design Guidance should be applied in full.

(d) In the case of existing school buildings, where an extension, conversion or renovation is proposed, a flexible pragmatic approach will be required. The dimensions and areas stated in this document and the Post-primary Room Layouts will apply in full to the new build portion of the project.

(e) The dimensions and areas of spaces in an existing building will be retained except where the PBU specify otherwise. In existing buildings the room designation, dimensions, and areas will normally be as specified in the brief (Future Use of Existing Accommodation).

1.0 Introduction (continued)

1.5 Further information

This document and all other Guidance Documents mentioned above are available on the Department of Education & Science web-site at www.education.gov.ie.

Always check the Department's web-site for the most up-to-date version.

(a) For further advice on these guidelines or any other matters relating to this document, contact:

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1.6 Comments & Suggestions

(a) The Department of Education & Science welcomes comments and suggestions on how to improve these guidelines. Such comments and suggestions should be sent by email to technical_staff@education.gov.ie

(b) All comments and suggestions will be considered when revising this document.

2.0 Project Brief

2.1 Brief

(a) Each project will have an agreed written Brief setting out the scope of works and the Client's requirements for that project. Every brief will comprise (where applicable):

(i) A Schedule of Overall Accommodation
(ii) A Schedule of Future Use of Existing Accommodation (with room areas)
(iii) A Schedule of Residual Accommodation (extensions to existing buildings)
(iv) A schedule of alterations to existing accommodation, where necessary for the implementation of that project only (if required)
(v) A provisional Schedule of essential remedial works applicable to that project only (see also Design Team Procedures)
(vi) A Cost Limit per square metre for New Build.

(b) For Post-primary School projects, the brief is determined by the Planning and Building Unit [PBU], in agreement with the relevant School Management Authorities (SMA) as follows:

(i) The School Planning Section of the Planning and Building Unit [PBU] first determines the long-term projected enrolment (LTPE) for the school.
(ii) An Educational Worksheet (EWS) is then issued to the SMA for completion. The EWS should be viewed as an integral part of long-term planning where the School presents its vision of its future curriculum with an enrolment equal to the LTPE, in the form of a summary of a projected timetable. Factors that influence the school educational policy and hence the completion of the EWS include the following:
- School Development Plan;
- Curriculum Policy Objectives;
- Projected enrolment;
- Type of course (TYP, LC, LCVP, LCA, PLC etc.);
- Special needs;
- Student/Teacher ratio;
- Ex-Quota Teachers;
- Teacher working week;
- Length of school week;
- Timetabling policy.

(iii) Then based on the current design guidelines, completed Educational Worksheets (Post-primary Schools only), staffing levels, and current area norms, the School Planning Section determines a Schedule of Overall Accommodation.
(iv) The PBU then assesses the Educational Suitability of existing accommodation and prepares both a Schedule of Future Use of Existing Accommodation and a Provisional Schedule of Alterations & Remedial works (if applicable).
(v) The deficit in accommodation (i.e. the difference between the Schedule of Overall Accommodation and the Schedule of Future Use of Existing Accommodation) is called the Schedule of Residual Accommodation and defines the Total Floor Area (area limit) of new build to be funded.
(vi) The above schedules are issued to the Client for comments /acceptance at appropriate times resulting in agreement of schedule/s between the Client and the School Planning Section.
(vii) The Schedule of Residual Accommodation plus the Schedule of Future Use of Existing Accommodation, plus the Provisional Schedule of Alterations & Remedial works (if applicable) and the applicable cost limit all form part of the brief for the project.

(c) The Project Brief setting out the scope of works must be agreed in writing between the Client and the Department before the appointment of Design Consultants, and before commencement of PRELIMINARY DESIGN.

3.0 Post-primary Area Norms

3.1 Rooms and Spaces

(a) A school building may be broadly divided into a number of spaces: - teaching, administrative, ancillary, physical education and external. Further detail on each category is given below.

3.2 Teaching Spaces

(a) The number & type of teaching spaces will for a particular project be based on the Educational Worksheet requirements. The full range of possible teaching spaces is listed below:

Type of Space	Students	Dimensions	Area
General Classroom	(30)	7 x 7 m	49 m^2
Lecture Rooms (interconnected)	(90)	15.6 x 7 m	109 m^2
Group Room	(15)	7 x 4.2 m	29 m^2
Music/Drama Area	(30)	11.4 x 7 m	80 m^2
Learning Support Room and Store	(30)	7 x 7 m + 2.4 x 2.4 m	55 m^2
Guidance Suite: (1 classroom + 1 office)	(30)	9 x 7 m + 4.8 x 3.2 m	78 m^2
Guidance Suite: (1 classroom + 2 offices + waiting)	(30)	9 x 7 m + 2 x 4.8 x 3.2 m + 3 x 2 m	100 m^2
Religion Room, Meditation Area and Chaplain's Office	(30)	7 x 7 m + 7 x 4.2 m + 4.8 x 3.2 m	94 m^2
Mathematics Room	(30)	9 x 7 m	63 m^2
Social Studies Room	(30)	9 x 7 m	63 m^2
Home School Community Liaison (classroom + office)	(24)	7 x 7 m + 4.8 x 3.2 m	64 m^2
Language Room	(30)	9 x 7 m	63 m^2
Multimedia Learning Laboratory	(30)	11.4 x 7 m	80 m^2
Science Laboratory and Preparation Area	(24)	11.4 x 7 m + 7 x 2.9 m	100 m^2
Demonstration Room (tiered)	(48)	9 x 7 m	63 m^2
Art/Craft Room and Store	(30)	14.2 x 7 m	100 m^2
Home Economics Room and Stores	(24)	14.2 x 7 m	100 m^2
Dress Design Room	(24)	11.4 x 7 m	80 m^2
Business/Computer Room	(30)	11.4 x 7 m	80 m^2
Commerce/Computer Room	(30)	9 x 7 m	63 m^2
Word Processing/Keyboard Skills Room	(30)	11.4 x 7 m	80 m^2
Business Studies/Commerce Room	(30)		80 m^2
Business/Commerce Room	(30)		63 m^2
Design and Communication Graphics/Technical Graphics	(24)		80 m^2
Architectural Technology/Materials Technology (Wood) Room and Store (Construction Studies)	(24)		136 m^2
Technology Room	(30)		136 m^2
Wood/Technology Machining and Preparation Area	-		65 m^2
Engineering Technology/Metalwork Room and Store	(24)		136 m^2
Library and Ancillary Stores (200 – 499 students)	-		100 m^2
Library and Ancillary Stores (500 + students)	-		136 m^2

3.0 Post-primary Area Norms (continued)

3.3 Administrative Spaces

(a) The range of possible administrative spaces is listed below. The actual schedule of spaces and their size will depend on the particular project.

Type of Space	Dimensions	Area
Principal's Office	7 x 3.2 m	22 m²
Deputy Principal's Office	7 x 3.2 m	22 m²
General Office (schools < 500 students)	5 x 4 m	20 m²
General Office (schools >= 500 students)	6 x 5 m	30 m²
Pastoral Offices (Number as per schedule)	3.2 x 3.2 m	10 m²
Staff Room (area as per schedule)	variable	
Meeting Room	7 x 4.8 m	34 m²
First Aid Room	4.8 x 3.2 m	15 m²
Caretaker's Work Area	4.2 x 3.2 m	13 m²
Photocopy Room	3 x 2 m	6 m²

Note:(Staff Toilets within total WC allocation)

3.4 Ancillary Spaces

(a) The area of toilets is based on an allocation of 20 m² per 100 persons including staff and to include universal disabled person's sanitary suite with shower. For small areas the allocation increases to a maximum of 25 m².

(b) The ancillary spaces are as follows

Type of Space	Dimensions	Area
General Purpose/Dining Area (0.3 m² per pupil. Minimum 100 m².)	As per Schedule	
Kitchenette and Store		25 m²
Project Storage	As Schedule	
General Storage (< 350 students)		20 m²
General Storage (For 350 – 699 students)		40 m²
General Storage (For > = 700 students)		60 m²
Cloaks (7 m² per 100 Pupils.)	As Schedule	
Lockers (9 m² per 100 Pupils.) (If off corridors, recess by 0.9 m minimum)	As Schedule	
Toilets (20 m² per 100 pupils and staff) (including Universal access)	As Schedule	
Boiler Plant Room		40 m²
Electrical Switch Room		10 m²
Data Communication Centre	2 x 2 m	4 m²
Social Areas (3% of net area)	As Schedule	
Circulation (15% of net area excluding PE facility) (Minimum Clear Width of Corridors 2.4 m)	As Schedule	
Internal Division (6% of net area excluding PE facility)	As Schedule	
Stairs (including lift) 25 m² per staircase per floor	For agreed design	

3.0 Post-primary Area Norms (Continued)

3.5 Physical Education Spaces

(a) The range of Physical Education spaces is listed below. The actual schedule of spaces will depend on the particular project.

Type of Space	Dimensions	Area
Smaller PE Hall – Court Size 24 m x 13 m (200 to 449 students)	15.6 m x 26.0 m	406 m^2
Larger PE Hall – Court size 28 m x 15 m (For 450 + students)	18.0 m x 33.0 m	594 m^2
Changing rooms	2 x 32 m^2	64 m^2
Showers (2 x 4 No. with cubicle dividers)	2 x 6 m^2	12 m^2
Toilet Cubicles (opening off Changing Rooms)	2 x 2 m^2	4 m^2
Toilets (off main circulation) (1 Male + 1 Female + Universal including shower 5 m^2)	(2 x 2 m^2) + 5 m^2	9 m^2
Control Centre (includes Teacher's facility)		9 m^2
Equipment Store		20 m^2
General Store		18 m^2
Circulation & Internal Division (including foyer stairs & future lift)		64 m^2
Fitness Suite + Store + Universal access WC	120m^2 + 10m^2 + 6m^2	136 m^2
Boiler Plant Room (Standalone PE hall only)		10 m^2
Switch Room (Standalone PE hall only)		2 m^2

3.6 External Spaces

(a) The range of External spaces and sizes is as follows. The actual requirements may depend on the particular project:

Covered area, Store and Yard

Type of Space	Dimensions	Area
External store	10 x 5 m.	50 m^2
Covered area for Construction Studies	6 x 5 m.	30 m^2
Yard	Min 50 m^2	

Car Parking (minimum requirements)

1 per **full time staff** member + **3** per **100** pupils (For guests/visitors etc.). Total includes two or more spaces for the disabled. 6 additional spaces to be provided for 'stand-alone' PE Hall only.

Hard Play area - Overall Court size 30 m x 17 m (Playing area per court 28 m x 15 m)

Pupils	Number	Total Area
less than 250	2	1020 m^2
250 – 349	3	1530 m^2
350 – 499	4	2040 m^2
500 – 799	5	2550 m^2
800 +	6	3060 m^2

Soft play areas (Not part of schedule - for information only):

Playing Pitches	Playing area
Gaelic Games	130 – 145 x 80 – 90 m
Soccer	90 – 120 x 45 – 90 m
Hockey	91.44 x 54.86 m
Rugby	144 x 69 m (Playing + in-goal area)

4.0 Planning a Post-primary school

4.1 Introduction

(a) This guidance document, together with TGD-020 General Design Guidelines for Schools and the schedules of accommodation, should be used as a starting point for developing a design specific to the school.

(b) The Schedule of Overall Accommodation, Schedule of Future Use of Existing Accommodation and Schedule of Residual Accommodation (extensions to existing) lists the accommodation to be provided (refer to 2.0 the Brief for description of how these schedules are determined).

(c) TGD-020 General Design Guidelines for Schools describes the general design principles for school (both Primary and Post-primary) including the Design Philosophy, the Built Environment, Health & Safety, Building Location & Orientation, Universal Access, Security, External Circulation and the general principles applying to the internal layout.

(d) This document provides detailed information on the spaces required (both internal and external), their area, height and any special requirements applicable to those spaces.

4.2 Overall Development

(a) The overall development should maximise the potential of the site in relation to:

i. Site access, with the main school entrance being visible and easily reachable from the point of site entry
ii. Location and orientation of the building(s).
iii. Allowance for expansion by way of an extension (at least 33%) to the school.
iv. Location and extent of car parking.
v. Location and extent of hard play area
vi. Allowance for the provision of grass playing pitches where site area and configuration permits.
vii. Location of hard play area and grass playing pitches in relation to P.E. Hall.

4.3 Construction programme

(a) Where construction work is being carried out on the same site as an operational school, or portion of that school, and such work is unavoidable, particular care should be taken to minimise disruption to the school curriculum.

(b) The construction programme must also take account of the school timetable. Tasks that are likely to be disruptive should be programmed to be carried out outside school hours or during holidays.

(c) Refer also to General Design Guidelines for Schools (Primary & Post-primary) Section 5.0 Health and Safety, and to the Health and Safety sections in the Design Team Procedures 2007

4.0 Planning a Post-primary school (continued)

4.4 Areas and heights

(a) The areas of all spaces in the Schedules of Accommodation are net areas, measured to the internal faces of the enclosing walls.

(b) The Total Floor Area (area limit) in the schedules is the "total of all enclosed floor space measured to the internal faces of the enclosing walls" and corresponds with the National Standard Building Elements definition.

(c) Ceiling heights should be considered in the context of the size and function of the space and should take into account the physical environment within that space. The minimum finished floor to ceiling height for all teaching spaces is **3.15m** except those shown in the room data sheets and room layouts or as required for the proportion of a room.

(d) In larger rooms such as specialist rooms and assembly areas the height should be in proportion to the size and take into account the function and any specialist requirements such as ventilation.

4.5 Wall to floor ratio

(a) The wall to floor ratio is one measure of the cost efficiency of a building layout (the lower the wall to floor ratio the more cost efficient the building layout).

(b) Designers should balance the need to minimise the wall to floor ratio (for efficiency of layout and cost reasons) with the educational, planning and design requirements as set out in this document and TGD-020 General Design Guidelines for Schools.

4.6 Grouping of spaces

(a) Spaces can be broadly divided into Teaching spaces, Administrative spaces, and Ancillary spaces. Teaching spaces can be in turn divided into general teaching spaces, specialist rooms (e.g. Science room, Arts room, etc.) and Physical Education spaces.

(b) The General Purpose/Dining area is the social heart of the school, and it should provide a focal point for the school community while at the same time enhancing general circulation by its relationship to the rest of the building

(c) The following rooms/spaces are frequently used by visitors/community and should be located so that they can be accessed without entering the general teaching area used by students:

- General Office
- Principal's Office
- GP area
- PE hall
- Meeting Room
- Home School Community Liaison Facility

Continued overleaf

4.0 Planning a Post-primary school (continued)

4.6 Grouping of spaces (continued)

(d) Some administrative spaces may be grouped together (e.g. general office, meeting room, Principal's room) but others such as the Deputy Principal's room and pastoral rooms should be distributed throughout the school to assist in the provision of supervision.

(e) Careful consideration should be given to grouping of rooms to minimise traffic at each change of class. While as a general principle specialist teaching rooms of a particular type (e.g. Science rooms and demonstration room) should be grouped together, consideration should also be given to locating some general classrooms nearby.

(f) Ancillary spaces such as toilets should be distributed throughout the school so to allow ease of access and to minimise travel distances.

4.7 Circulation

(a) The design solution for the school should ensure ease of circulation and orientation for students, staff and visitors.

(b) On accessing the school via any entrance, it should be possible to move to any point in the school without meeting an area of congestion.

(c) Schools generally operate a (circa) 42 period week, each of 40 minutes duration. Some schools operate a teacher-based system resulting in the movement of all students every 40 minutes. So careful consideration must be given to circulation routes and the location of General Purpose and Social areas.

(d) Minimum clear unobstructed width of corridors shall be 2.4 m. Lockers should be recessed by 0.9 m, effectively increasing corridor width.

4.8 Room Layouts

(a) Standard Room Layouts for all of the teaching spaces are available on the Department of Education and Science website at Post-primary Room Layouts. Many of the specialist rooms require fixed furniture and the specifications are available from the School Buildings Section and/or Department's Website.

(b) For new build schools and extensions, where a standard room layout is available on the web, these layouts (which are deemed to satisfy the Client's requirements) must be used. In the case of alterations to existing rooms as identified in the Schedule of Future Use of Existing, the layouts should normally be as close to those layouts as is practicable.

(c) Where a Departmental layout is not available, and where room dimensions are not stated, the width to length ratio shall provide comfortable and flexible usage of the space. Where there are specific requirements for Post Leaving Certificate Rooms, as indicated in the Schedules of Accommodation, then layouts should be developed by the Client and the Design Team and submitted for the approval of the SBS at an early Stage of the design process. These layouts should fully take into account any fixed furniture needs.

(d) In all cases the guidance in the Room Data Sheets (below) shall apply.

5.0 Room Data Sheets (General Considerations)

5.1 Application

(a) Room data sheets are provided in the following sections of this document for all Teaching Spaces, Administrative spaces, Ancillary spaces and PE Education spaces.

(b) The general requirements applicable to all or most rooms are also listed. These requirements are deemed to apply unless otherwise stated in the relevant data sheet.

5.2 Schedule of Room Layouts

(a) The following room layouts are available on the Department of Education and Science website www.education.ie :

Drawing	Room Description	Area
RT - 001	General Classroom	49 m^2
RT - 002	Lecture Rooms	109 m^2
RT - 003	Group Room	29 m^2
RT - 004	Music/Drama	80 m^2
RT - 005.1	Learning Support Room & Store	55 m^2
RT - 005.2	Alternative Learning Support Room & Store	69 m^2
RT - 006	Guidance /Language/Business & Commerce Room	63 m^2
RT - 007	Religion Room and Meditation Area	78 m^2
RT – 008	Mathematics/Social Studies	63 m^2
RT - 009	Home School/ Community Liaison Room	49 m^2
RT - 010	Multi-Media Learning Laboratory/ Business Computer Room/ Word Processing Room	80 m^2
RT - 011.1	Science Laboratory	80 m^2
RT - 011.2	Science Preparation Area (single)	20 m^2
RT - 012	Demonstration Room	63 m^2
RT - 013	Art/Craft Room	100 m^2
RT - 014	Home Economics Room	100 m^2
RT - 015	Dress Design Room	80 m^2
RT - 016	Commerce Computer Room	63 m^2
RT - 017	Business Studies Room	80 m^2
RT - 018	Design and Communication Graphics/Technical Graphics	80 m^2
RT - 019	Architectural Technology/ Materials Technology(Wood)	136 m^2
RT - 020	Technology Room	136 m^2
RT - 021	Wood/Technology Machining & Preparation Area	65 m^2
RT - 022	Engineering Technology/ Metalwork Room	136 m^2
RT - 023.1	Library & Ancillary Stores	100 m^2
RT - 023.2	Library & Ancillary Stores	136 m^2
RT - 024	Alternative Science Laboratory & Preparation Area(single)	100 m^2

5.0 Room Data Sheets (General Considerations continued)

5.3 General requirements

Design Considerations

(a) Natural day lighting should be exploited when designing rooms, to minimise the dependence on artificial lighting. Windows for teaching spaces should have a horizontal vista.

(b) Glare must be avoided. Roller blinds used on elevations receiving direct sunlight to reduce glare should be translucent to minimise light reduction. If required, these should be supplied and fitted as part of the construction contract.

(c) Ventilation where possible should be natural ventilation by means of permanent wall vents and windows with opening sections. Vents should contain baffles for noise, wind and rain.

(d) The ventilation area provided through permanent vents (whether in walls or windows) and opening sashes shall exceed the current Technical Guidance Documents to the Building Regulations, and shall be designed to suit the class environment having regard to the high levels of occupancy generally.

(e) For further information on natural day-lighting and ventilation see also TGD-020 General Design Guidelines for Schools (Primary and Post-primary) and TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

(f) Windows generally should be double glazed, easy to clean and maintain, and have high and low level opening sashes.

(g) The position and size of opening window sashes must take into account ease of operation, natural ventilation requirements, and Health and Safety. Stays or restrictors should be used on all opening windows both high and low level.

(h) Doors should be easy to open and close. Care should be taken in the design of the door, frame, and opening mechanism to minimise the risk of injury to fingers, etc.

(i) A glazed viewing panel should be provided in the solid core door from teaching areas, offices and pastoral rooms to the corridor. For privacy, blinds may be required for viewing panels in offices/pastoral rooms.

Acoustics

(j) Good acoustic separation (min 45dB) is required for all teaching spaces and noise sensitive rooms. Where a higher level of acoustic separation is required this is indicated in the relevant room data sheet.

(k) Special consideration should be give to ensuring that there is good acoustic separation for rooms adjacent to sound producing rooms such as music, engineering technology.

(l) The shape, size, and acoustic characteristics of the surface materials must also be considered to ensure ease of communication and speech intelligibility.

Continued overleaf

5.0 Room Data Sheets (General Considerations continued)

5.3 General requirements (Continued)

Finishes

(m) Floor finishes must safe, hardwearing and suitable for their intended use.

(n) Designers should consider the health and safety implications of the selected flooring (e.g. non-slip, etc.) and in particular the risks associated with junctions between surfaces with different slip resistances.

(o) Floor finishes will normally be a sheet material or anti-static contract carpet consistent with the room's use and health & safety considerations.

(p) Wall finishes generally should be durable, resistant to wear and easily cleaned.

(q) Refer also to TGD-021 Construction Standards for Schools.

Mechanical & Electrical Building Services Engineering

(r) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006, and the relevant Room Layout for the Mechanical & Electrical Building Services required.

Fitted Furniture

(s) Fixed Furniture and associated fittings are part of the main building contract. Refer to individual Room Data Sheets and the applicable standard room layouts at www.education.ie.

(t) Sanitary fittings, traps, dilution pots, taps and other items which are part of special room fittings are deemed to be fixed furniture.

Loose Furniture, & Equipment

(u) Refer to individual Room Data Sheets and the applicable standard room layouts at www.education.ie.

(v) Loose furniture and equipment is to be procured directly by the Client and is outside the Building Contract.

(w) Heavy items of equipment, e.g. lathes, may have specific requirements in relation to installation and power supply. Co-ordination is required with the Client as it is essential that the specific requirements of such individual items are fully known before the services are installed.

Individual room data sheets overleaf

6.0 Room Data Sheets (Teaching Spaces)

6.1 General Classroom (30 students)

Room Layout Number	Depth x Width	Area	Minimum clear height
RT001	**7.0 m x 7.0 m**	**49 m^2**	**3.15 m**

Design Considerations

(a) General classrooms are used for the teaching of general subjects and the theoretical aspects of specialist subjects.

(b) One or more classrooms should be associated with each of the specialist teaching spaces providing classrooms for subject departments and an interdisciplinary link between related subject areas.

(c) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003,005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(e) Refer to relevant Room Layout at www.education.ie.

6.2 Lecture Rooms (inter-connected) (60 students)

Room Layout Number	Depth x Width	Area	Minimum clear height
RT002	**7.0 m x 15.6 m**	**109 m^2**	**3.15 m**

Design Considerations

(a) These are two large interconnected classrooms capable of seating a total of 60 students.

(b) A folding partition should be provided between the two rooms, which must provide reasonable acoustic security (minimum 45dB).

(c) Lecture Rooms should be located in a quiet area of the school.

(d) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003,005 and 006.

Fitted Furniture

(g) 1 no. Projector mount.

Loose Furniture, Fittings, Equipment

(h) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.3 Group Room
(15 students)

Room Layout Number	Depth x Width	Area	Minimum clear height
RT003	**7.0 m x 4.2 m**	**29 m^2**	**3.00 m**

Design Considerations

(a) A group room is a small classroom.

(b) Refer to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(c) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(d) Refer to relevant Room Layout at www.education.ie.

6.4 Music/Drama Room
(30 students)

Room Layout Number	Depth x Width	Area	Minimum clear height
RT004	**7.0 m x 11.4 m**	**80 m^2**	**3.60 m**

Design Considerations

(a) The activities that will be take place in this area will depend on the emphasis on music and/or drama in the school. The room should be capable of accommodating a class of 30 students, facilitating choir, instrumental work, drama presentation, etc.

(b) The music/drama room should be an adjoining space to the GP/Dining area. The floor level must be at the same level as all other adjoining spaces. Provision for a demountable stage is made in the Loose Furniture Lists. The height of both the door and the room must allow for the height of a stage up to maximum of 750mm. The back wall of room should be free of fixed furniture or fittings to facilitate the stage (see room layout).

(c) A folding partition shall be provided between the Music/Drama room and the GP/Dining area, which must provide reasonable (45 dB minimum) acoustic security. The opening should ideally be located centrally onto the GP/Dining space and should be big enough to allow for the stage.

(d) Windows with an outside view are essential with black-out blinds required to all windows.

(e) Durable non-slip sheet flooring or other equal consistent with room use. The Music/Drama room may be used as an overflow for the general purpose/dining area, and the floor covering should be identical and suitable for both purposes.

(f) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(g) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003,005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(h) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.5 Learning Support Room and Store

(30 students)

Small

Layout Nº	Dimensions (Depth x Width)	Area	Min height
RT005.1	**7.0 m x 7.0 m + 2.4 m x 2.4 m**	**55 m²**	**3.15 m**

Large

Layout Nº	Dimensions (Depth x Width)	Area	Min height
RT005.2	**7.0 m x 9.0 m + 2.4 m x 2.4 m**	**69 m²**	**3.15 m**

Design Considerations

(a) Learning Support Rooms should be located in a quiet part of the school. The Learning Support Room should be adjacent to, or closely associated with, one or two general classrooms. It is also be desirable to have the location of the Learning Support Room reasonably close to the Library.

(b) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(f) Refer to relevant Room Layout at www.education.ie.

6.6 Guidance Suite

(30 students)

Small (1 classroom + 1 office)

Layout Nº	Dimensions (Depth x Width)	Area	Min height
RT006	**9 m x 7 m + 4.8 m x 3.2 m**	**78 m²**	**3.15 m**

Large (1 classroom + 2 offices + waiting area)

Layout Nº	Dimensions (Depth x Width)	Area	Min height
RT006	**9 m x 7 m + 2 x 4.8 m x 3.2 m + 3 m x 2 m**	**100 m²**	**3.15 m**

Design Considerations

(a) The Guidance Suite should be seen to be separate from administration, and should be located off one of the main arteries of student circulation. Preferably, it should be close to the library and conveniently reached from one of the school's entrances.

(b) The small Guidance suite consists of a Guidance Office of 15 m2 with an associated classroom, but with no interconnecting door. The larger Guidance suite consists of 2 Guidance Offices of 15 m2 with an associated classroom. A waiting area of 6 m2 should be provided for the larger guidance suite (off general circulation) adjacent to the offices.

(c) A glazed viewing panel between the corridor and the offices should be provided.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(e) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.7 Religion and Meditation area + Chaplain's Office

(30 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT007	**7 m x 7 m + 7m x 4.2 m + 4.8 m x 3.2 m**	**94 m²**	**3.15 m**

Design Considerations

(a) The Religion and Meditation area should be located in a quiet area.

(b) The Religion and Meditation area will normally comprise one standard General Classroom of 49 m2 separated from the meditation area of 30 m2 by an acoustic partition. An adjoining chaplain's office of 15 m2, (with no interconnecting door), shall be provided.

(c) Refer also to 5.3 General Requirements

Special Requirements

(d) Lighting with dimmer switches and blinds for the windows should be provided.

(e) A high level of acoustic security will be required to the Chaplain's office (45 dB minimum rating). The acoustically secure folding partition between the Religion room and mediations area shall also have a minimum 45dB rating.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(g) Refer to relevant Room Layout at www.education.ie.

6.8 Mathematics/ Social Studies Rooms

(30 students)

Room Layout Number	Depth x Width	Area	Minimum clear height
RT008	**7.0 m x 9.0 m**	**63 m²**	**3.15 m**

Design Considerations

Mathematics room

(a) Although much of the mathematics teaching will be conducted in general classrooms, a Mathematics Room may be provided.

Social Studies room

(b) Audio visual aids are in frequent use in Social Studies rooms which, together with the relatively high reference demands of history teaching, would suggest the need for easy access to the library from a Social Studies room.

(c) The Geography room shall have south facing eye level windows to facilitate shadow measurements. It should also be provided with blackout blinds.

(d) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(i) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.9 Home School Community Liaison

Classroom (24 students) + office)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT009	**7.0 m x 7.0 m + 4.8 m x 3.2 m**	**64 m^2**	**3.15 m**

Design Considerations

(a) This facility, if provided, consists of a classroom-sized room and an adjacent office not interconnected

(b) It should be located so that it is not necessary to pass by the teaching areas to reach it (i.e. close to the main or other entrance).

(c) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(e) Refer to relevant Room Layout at www.education.ie.

6.10 Language Room

(30 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT006	**7.0 m x 9.0 m**	**63 m^2**	**3.15 m**

Design Considerations

(a) The language room, while being equipped to provide specialist teaching/learning language facilities, should not be considered as being a self-sufficient or independent unit on the one hand or the sole language learning/teaching facility on the other.

(b) Portable equipment will be used at the teacher's position, or elsewhere in the room.

(c) In general, a language room will be associated with one or more classrooms thus forming a languages suite.

Note: Larger schools are provided with a Multimedia Learning Laboratory

(d) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(f) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.11 Multi-Media Learning Laboratory/ Business Computer Room/ Word Processing Room

(30 students)

Layout N^{o}	Dimensions(Depth x Width)	Area	Min height
RT010	**7.0 m x 11.4 m**	**80 m^2**	**3.15 m**

Design Considerations

(a) This room shall be equipped with network points as per room layout. The room can be used for all subjects where access to computers is necessary. Ideally the room should be designed north facing to provide a high level of natural light without glare or solar gain and should have a high level of natural ventilation.

(b) A satellite connection directly to the laboratory or via the data communication centre is normally required and is part of the equipment for the room.

(c) The room should be designed to take account of the internal heat gain from users and equipment thus eliminating the need for mechanical ventilation and cooling (e.g. use of exposed structure to absorb heat).

(d) Special consideration should also be given to the need for security in this room. Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(f) Refer to relevant Room Layout at www.education.ie.

6.12 Demonstration Room

(48 students)

Layout N^{o}	Dimensions(Depth x Width)	Area	Min height
RT012	**7.0 m x 9.0 m**	**63 m^2**	**3.15 m**

Design Considerations

(a) The demonstration room should be tiered to provide seating for 48 students. Due to the high occupancy good ventilation to this room is essential.

(b) The demonstration room should normally be linked to one science preparation area to facilitate preparation of demonstration material and ease of transfer of prepared material/equipment to the demonstration room. This room may also be required for other subjects requiring demonstration facilities. Blackout facilities must be provided.

(c) Non-slip, hard wearing, floor covering required consistent with the room use and traffic. Carpet is not appropriate due to risk of spillages.

(d) Refer to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(f) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.13 Science Laboratory & Preparation Area

(24 students)

Science Laboratory

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT011.1	**7.0 m x 11.4 m**	**80 m^2**	**3.15 m**

Science Laboratory (Alternative Layout)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT024	**7.0 m x 11.4 m**	**80 m^2**	**3.15 m**

Preparation Area (single laboratory)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT011.2	**7.0 m x 2.9 m**	**20 m^2**	**3.15 m**

Design Considerations

(a) A science laboratory should be furnished to enable 24 students to follow courses of a general science character. In all cases it should be connected to a preparation area.

(b) To facilitate window box experiments and shadow measurements at least one of the laboratories shall have south facing eye level windows.

(c) The preparation area, besides facilitating preparation of class material, will contain or store equipment of a more specialised nature in the fields of Physics, Chemistry, Biology and Agricultural Science. A secure chemical store in the preparation area without windows should be provided with good permanent natural ventilation, to ensure that there is no build up of vapours.

(d) Adjacent laboratories should share a common preparation area of proportionate size (i.e. 40 m^2 for 2 no. labs.) with one secure chemical store. Provision for additional storage to be provided in centre of room.

(e) Refer also to 5.3 General Requirements

(f) A non-slip, hard wearing floor is required. Refer also to 5.3 General Requirements and TGD-021.

Special Requirements

(g) Fume cupboards in accordance with room layouts, relevant Irish, European and British Standards and the Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003 shall be provided with gas, water and electrical services.

(h) Windows with an outside view are essential. Blackout facilities should be provided in at least one of the Science laboratories.

(i) A glazed viewing panel should be provided to Preparation Room.

Mechanical & Electrical Building Services Engineering

(j) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(k) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.14 Art and Crafts Room
(30 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT013	**7.0 m x 14.2 m**	**100 m²**	**3.15 m**

Design Considerations

(a) Art/Craft rooms should preferably be located at ground floor level. They should have windows that provide a view of the external landscape and where possible should have direct access to the outside. Consideration may be given to the display of artwork so that it is visible from the main circulation.

(b) The "Wet Area" should be appropriately tiled, have a floor drain and silt trap, and will be required to house a kiln with associated drying racks and trough. A typical kiln has a mass of 400 kg with plan dimensions 900x700 mm .So a suitably supported floor is required. A protective cage will be supplied with the kiln. A clear door opening of 900 mm is required for the delivery of the kiln.

(c) Where two or more Art Rooms are provided, one kiln only is supplied.

(d) **Where the location of this room on an upper floor is unavoidable, it must be possible to install/replace the kiln without removing windows or using a crane.**

(e) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(g) Refer to relevant Room Layout at www.education.ie.

6.15 Home Economics Room
(24 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT014	**7.0 m x 14.2 m**	**100 m²**	**3.15 m**

Design Considerations

(a) The Home Economics rooms and Dress Design room (where applicable) should be located near to each other. The Home Economics rooms should also if possible be located close to the Science rooms and the Arts and Crafts rooms.

(b) The floor finish should be durable non-slip and consistent with the room use and easily cleaned.

(c) Refer also to 5.3 General Requirements

Mechanical & Electrical Building Services Engineering

(d) A reasonable level of mechanical ventilation may be required. This ventilation should be quiet in operation and sufficient to prevent the occurrence of condensation of steam from cooker use.

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(f) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.16 Dress Design Room and store
(24 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT015	**7 m x 11.4 m (incl. store)**	**80 m²**	**3.15 m**

Design Considerations

(a) The Home Economics rooms and Dress Design rooms should be located near to each other and if possible close to the Science rooms and the Arts and Crafts rooms.

(b) The Dress Design room should have a durable non-slip floor covering consistent with the room use. It should not be carpeted.

(c) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(e) Refer to relevant Room Layout at www.education.ie.

6.17 Design and Communication Graphics/ Technical Graphics
(24 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT018	**7.0 m x 11.40 m**	**80 m²**	**3.15 m**

Design Considerations

(a) This room should be located in proximity to the Architectural Technology, Engineering Technology and Technology rooms to facilitate interchange of drawing equipment within these areas.

(b) It will be equipped with a number of networked points for computer use. Refer to Information & Communication Technology (ICT) Infrastructure Guidelines for Post-primary Schools DoES TGD-005 and Room Layout

(c) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(e) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.18 Construction Studies (Architectural Technology / Material Technology (wood))

(24 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT019	**14.2 m x 9.6 m**	**136 m²**	**3.15 m**

Design Considerations

(a) This room is used for the teaching of Architectural Technology at Leaving Certificate Level and for Materials Technology (Wood) at Junior Certificate level. It should be located on the ground floor and designed to accommodate 24 students.

(b) The minimum height of 3.15 is an absolute minimum. A greater floor to ceiling height may be required to achieve the day-lighting and ventilation requirements.

(c) For its relationship with other rooms see Room Layout RT021

(d) The Covered Area for this subject should be located in the yard and directly accessible from this room. See Schedule of External Requirements in Schedules of Accommodation.

(e) Refer also to 5.3 General Requirements.

Special Requirements

(f) Dust extraction requirements for this room shall be in accordance with the Department's current guidelines and circulars on Dust Extraction. See also Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings DoES TGD-003.

Acoustics

(g) Certain activities in this room can result in high noise levels and it is therefore necessary to ensure that either it is located away from noise sensitive spaces such as the Library, Music Room, Meditation Area, or that adequate acoustic insulation is provided.

Finishes

(h) Durable non-slip flooring consistent with the room use and traffic. Subject to Health & Safety considerations and Manufacturers' recommendations, a sealed concrete or resin finished floor may be suitable.

(i) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(j) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(k) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.19 Technology Room
(30 students)

Layout N^{o}	Dimensions(Depth x Width)	Area	Min height
RT020	**14.2 m x 9.6 m**	**136 m^2**	**3.15 m**

Design Considerations

(a) This room should be located on the Ground Floor. It should have direct access to the Wood/Technology Machining and Preparation area and also a direct view to the Preparation area by means of a glazed viewing panel.

(b) The minimum height of 3.15 is an absolute minimum. A greater floor to ceiling height may be required to achieve the day-lighting and ventilation requirements.

(c) For its relationship with other rooms see Room Layout RT021

(d) Refer also to 5.3 General Requirements.

Special Requirements

(e) Dust extraction requirements for this room shall be in accordance with the Department's current guidelines and circulars on Dust Extraction. See also Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings DoES TGD-003.

Acoustics

(f) Certain activities in this room can result in high noise levels and it is therefore necessary to ensure that either it is located away from noise sensitive spaces such as the Library, Music Room, Meditation Area or adequate acoustic insulation is provided.

Finishes

(g) Durable non-slip flooring consistent with the room use and traffic. Subject to Health & Safety considerations and Manufacturers' recommendations, a sealed concrete or resin finished floor may be suitable.

(h) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(i) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(j) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.20 Wood/ Technology Machining and Preparation

Layout N^{o}	Dimensions(Depth x Width)	Area	Min height
RT021	**14.2 m x 4.6 m**	**65 m^2**	**3.15 m**

Design Considerations

(a) As a single preparation area, this space should be located adjacent to the Construction Studies Rooms, with direct access to it and also a direct view to each by means of glazed viewing panel.

(b) For its relationship with other technological rooms, where there are two or more such rooms, see Room Layout RT021

(c) The Preparation area should be located on the ground floor with direct access to the outside yard so as to facilitate the delivery of materials and machinery.

(d) Refer also to 5.3 General Requirements.

Special Requirements

(e) Dust extraction requirements for this room shall be in accordance with the Department's current guidelines and circulars on Dust Extraction. See also Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings DoES TGD-003.

Acoustics

(l) Certain activities in this room can result in high noise levels and it is therefore necessary to ensure that either it is located away from noise sensitive spaces such as the Library, Music Room, Meditation Area or adequate additional acoustic insulation is provided. Adequate acoustic separation is also required for adjacent technological rooms.

Finishes

(f) Durable non-slip flooring consistent with the room use and traffic. Subject to Health & Safety considerations and Manufacturers' recommendations, a sealed concrete or resin finished floor may be suitable.

(g) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(i) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.21 Engineering/ Metalwork Room

(24 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT022	**14.2 m x 9.6 m**	**136 m²**	**3.15 m**

Design Considerations

(a) This room is used for the teaching of Engineering Technology at Leaving Certificate level and Metalwork at Junior Certificate level. It is designed to accommodate 24 students.

(b) It should be located on the Ground Floor and also be directly accessible from the outside via the yard.

(c) The minimum height of 3.15 is an absolute minimum. A greater floor to ceiling height may be required to achieve the day-lighting and ventilation requirements.

(d) Refer also to 5.3 General Requirements.

Acoustics

(m) Certain activities in this room can result in high noise levels and it is therefore necessary to ensure that either it is located away from noise sensitive spaces such as the Library, Music Room, Meditation Area or adequate additional acoustic insulation is provided.

Finishes

(e) Durable non-slip, oil resistant floor finishes to be provided consistent with the room use. Consideration should be given to the raw materials, the process and the waste generated from the activities performed in the room. Subject to Health & Safety considerations and Manufacturers' recommendations, a sealed concrete or resin finished floor may be suitable.

(f) The "hot metal area" of this room requires a granolithic or terrazzo floor finish and a wash-down gulley with a silt trap.

Mechanical & Electrical Building Services Engineering

(g) Mechanical extraction is required from the "hot metal area" for the brazing hearth, welding, soldering and kiln.

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(i) Refer to relevant Room Layout at www.education.ie.

6.0 Room Data Sheets (Teaching Spaces continued)

6.22 Library

Small (200 – 499 students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT023.1	**7.0 m x 14.2 m (incl. stores)**	**100 m^2**	**3.15 m**

Large (500 + students)

Layout Nº	Dimensions(Depth x Width)	Area	Min height
RT023.2	**9.6 m x 14.2 m (incl. stores)**	**136 m^2**	**3.15 m**

Design Considerations

(a) The Library is one of the most important areas in the school. It is a dual-purpose resource area and teaching space and will be used for referencing, computer surfing and group discussions as well as teaching. The room layout is designed to allow for a number of different activities simultaneously.

(b) It should therefore be conveniently related to all other learning/teaching areas but particularly to the Social Studies area and to a number of general classrooms and group rooms.

(c) It should be located in a quiet area of the school.

(d) The Library should include two stores - a bookstore and a secure store for audio-visual equipment or other functions - as room layouts RT023.1 and RT023.2.

(e) The Library should be glazed onto the circulation area to provide informal supervision. Windows with an outside view are essential. A high level of natural light is required without glare and should also facilitate work at computer stations.

(f) The library is a quiet area. Consideration may be given to a heavy duty anti-static contract carpet, or other suitable finish, consistent with the room's use and health & safety considerations.

(g) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(i) Refer to relevant Room Layout at www.education.ie.

7.0 Room Data Sheets (Administrative Spaces)

7.1 General Office, reception and Waiting area

For less than 500 students

Layout Nº	Dimensions(Depth x Width)	Area	Min height
n/a	**5.0 x 4.0 m (variable)**	**20 m²**	**2.7 m**

For more than 500 students

Layout Nº	Dimensions(Depth x Width)	Area	Min height
n/a	**6.0 x 5.0 (variable)**	**30 m²**	**2.7 m**

Design Considerations

(a) The General Office should be located near the main entrance and easily visible from the entrance doors. There should be a glazed panel with a clear line of vision to the main entrance from the office. Access to the building through the main entrance should be controlled from the General Office.

(b) The General Office should also be located beside the Principal's Office with easy access to it. A Waiting Area should be provided off the main circulation and adjacent to the General Office.

(c) It should have a counter or hatch opening directly to the Entrance Foyer for queries from visitors or students.

(d) The counter or hatch should be located so that a group of people waiting at the hatch/counter are out of the main circulation route and will not obstruct circulation through the school.

(e) Refer also to 5.3 General Requirements and TGD-020 General Design Guidelines for Schools.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(g) See list on website at www.education.ie.

7.2 Photocopy Room

Layout Nº	Dimensions(Depth x Width)	Area	Min height
n/a	**3.0 x 2.0 m (variable)**	**6 m²**	**2.7 m**

Design Considerations

(a) The photocopier should be located near the General Office and easily accessible from it (but not within the office). It should also be easily accessible from the main circulation area by staff and authorised students.

(b) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(i) See list on website at www.education.ie.

7.0 Room Data Sheets (Administrative Spaces continued)

7.3 Principal / Deputy Principal Office

Layout Nº	Dimensions(Depth x Width)	Area	Min height
n/a	**7.0 m x 3.2 m**	**22 m^2**	**2.7 m**

Design Considerations

(a) The Principal's Office and the Deputy Principal's Office are multifunctional and should be capable of being used as an office; an interview room; a meeting room; and a study. They may be used for meetings with parents. The office should be comfortable and private with good sound insulation.

(b) The Principal's Office should be located beside the general office with easy access to that office. It should also have a separate access door to the main circulation.

(c) Access to the Principal's Office for visitors should be regulated by the general office/administrative staff.

(d) The Deputy Principal's Office may be located near the General Office, but consideration should be given to locating it elsewhere in the school to facilitate school supervision. The Client's preference should be followed.

(e) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(j) See list on website at www.education.ie.

7.4 Pastoral Offices

Layout Nº	Dimensions(Depth x Width)	Area	Min height
n/a	**varies**	**10 m^2**	**2.7 m**

Design Considerations

(a) Pastoral Offices have multiple uses. They may serve, for example as rooms for teachers with year-head responsibilities or student tuition.

(b) Pastoral Offices should be distributed throughout the school and located off main circulation or social areas.

(c) There should be a glazed screen in the wall between the social area/circulation and the Pastoral Office to give a view of the area. Blinds should be provided.

(d) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(f) See list on website at www.education.ie.

7.0 Room Data Sheets (Administrative Spaces continued)

7.5 Staff Accommodation

Layout Nº	Depth x Width	Area	Min height
n/a	**varies**	**As schedule**	**2.7 m**

Design Considerations

(a) The staff room should have social and work areas, in a ratio of c. 2:1. The separation of the areas can be achieved by appropriate arrangement of furniture.

(b) An area for computers should be integrated with the normal work area. Refer also to DoES TGD 005 Information and Communication Technology (ICT) Infrastructure Guidelines for Post-primary Schools.

(c) Access to kitchenette facilities (comprising sink, worktop and cupboards at high and low level) is required, either within the staff room or the General Purpose room/Dining kitchenette.

(d) Lockers should not be intrusive.

(e) Members of the public should not be able to gain direct access to this room without first reporting to the reception.

(f) Provision for a staff telephone should be included.

(g) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(i) See list on website at www.education.ie.

7.6 First Aid Room

Layout Nº	Depth x Width	Area	Min height
n/a	**4.8 x 3.2 m (variable)**	**15 m^2**	**2.7 m**

Design Considerations

(a) This is intended for the administration of first aid and as a rest room for sick students. It should be located close to the General Office for the purposes of care and monitoring.

(b) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(c) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(d) See list on website at www.education.ie.

7.0 Room Data Sheets (Administrative Spaces continued)

7.7 Meeting Room

Layout Nº	Depth x Width	Area	Min height
n/a	**varies**	**34 m²**	**2.7 m**

Design Considerations

(a) A meeting room, where provided, should be located near the administrative area and may be used by Boards of Management, staff, parent groups or students.

(b) It should be located so that it can be easily reached from the main entrance and so that it is not necessary to pass by the teaching areas to reach it.

(c) The Meeting Room should be fitted out with a worktop and sink and have facilities for making tea and coffee.

(d) It should be comfortable and private with good acoustic separation (Minimum 45 dB).

(e) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(g) See list on website at www.education.ie.

7.8 Caretaker's Work Area

Layout Nº	Depth x Width	Area	Min height
n/a	**3.2 x 4.2 m (variable)**	**13 m²**	**2.7 m**

Design Considerations

(a) The caretaker's work area should be located within the school but with good access to the outside through a nearby door. It should be located near the external store.

(b) Refer also to 5.3 General Requirements.

Finishes

(c) Durable non-slip flooring consistent with the room's use. Subject to Health & Safety considerations and Manufacturers' recommendations, a sealed concrete floor may be suitable.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(e) See list on website at www.education.ie.

8.0 Room Data Sheets - Ancillary Spaces

8.1 General Purpose Room/Dining Area and Kitchenette

General Purpose/Dining Area

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**As schedule**	**varies**

Kitchenette

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**25 m^2**	**2.7 m**

Design Considerations

(a) The General Purpose/Dining Area should be the social heart of the school. It should provide a sense of openness within the school, enhancing general circulation. This area should not be separated from the general circulation. The Music/Drama room may be used as an overflow for the dining area so the floor covering should be the same in both areas.

(b) The General Purpose/Dining area, besides providing a dining/study area, may also be used by both school and community for social events such as plays or school assemblies both within and outside of normal school hours. Toilet facilities should also be located near the General Purpose/Dining area to facilitate their use outside of school hours.

(c) It should have easy access from the main entrance without having to open the whole school and it should be possible to isolate a zone including the GP Room, associated toilets and entrance area and all necessary building services within these spaces.

(d) The height of the General Purpose/Dining Area should be suitable to its proposed function taking into account an even distribution of natural light and natural ventilation across the whole floor area. It should not be less than 3.15 at any point.

(e) The kitchenette is used to prepare and dispense light refreshments and should be equipped with a cooker, a water boiler, a fridge, a dish-washer and a suitable sink. It should be divided from the general purpose dining area by a counter not less than 3 m long, fitted with a roller shutter.

(f) The kitchenette should be located so as to allow orderly queuing and minimise congestion. It may also have a small store attached. **This room is not intended to be a kitchen where food is prepared or cooked**.

(g) Durable non-slip flooring consistent with the room's use and traffic.

(h) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(i) Services should be provided for a drinking fount or 'chilled water' in the General Purpose Area near the kitchenette.

(j) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(k) See list on website at www.education.ie.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.2 General Storage

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**As schedule**	**2.7 m**

Design Considerations

(a) The area allocated for storage will vary depending on the size of the school (Under 350 students - 20 m^2; 350 - 699 students - 40 m^2; and 700 + students - 60 m^2).

(b) The area allocated should include a secure store, cleaner's store(s) and general storage. Storage may be provided either in dedicated storage rooms or as recessed cupboards to the circulation (e.g. Cleaner's store).

(c) The number, designation, and arrangement of storage areas or rooms, is at the discretion of the Board of Management in consultation with their Design Team. However the design should ensure that adequate storage is provided within the area limits.

(d) The areas given may be grouped together or spread over a range of uses and dispersed throughout the school. In larger schools it will be necessary to distribute the storage in different locations. The number and type of stores to be provided and their general location should be agreed with the Client before architectural planning commences.

(e) Storage areas that contain chemicals, cleaning agents, etc., for school maintenance, must be suitable for the intended purpose, provide adequate security, and be properly ventilated.

(f) Where a Safe Store or Secure Store is provided the door and frame should be of a sufficient standard to safeguard the contents, i.e. steel sheeted security door and frame. It should not be on an external wall and should have suitable security protection to floors, walls, and ceiling. The level of physical protection should take into consideration the presence or otherwise of a monitored intruder alarm system.

Note: There is a secure store within the library and a separate project store.

(g) Durable non-slip flooring consistent with use. Subject to Health & Safety considerations and Manufacturer's recommendations a sealed concrete floor may be suitable.

(h) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(i) Provision of low temperature protection in stores should be provided via distributor pipes or pipe coils only. Radiators are not to be located in stores. Lighting provision should reflect the use of the space.

(j) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Furniture – Fitted and Loose, Fittings, Equipment

(k) Appropriate shelving, where required by the Client, should be provided (e.g. for a book store.) as part of the Contract. Supplementary shelving may be added later by School Authorities.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.3 Project Storage

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**As schedule**	**2.7 m**

Design Considerations

(a) This storage area is for the storage and assessment of examination projects, so it should be designed as a secure store. For larger schools, depending on the area allocated, it may be divided into a maximum of two areas provided each project storage area is sufficiently large to permit efficient storage of the projects.

(b) It should be located near to the practical subjects teaching areas, i.e. Construction Studies (Architectural Technology), Art/Craft, Engineering Technology & Technology to facilitate day-to-day use.

(c) Adequate ventilation for the intended purpose is required with appropriate location of light fittings. Windows "with a view" are not required or desirable.

(d) Durable non-slip flooring consistent with use. Subject to Health & Safety considerations and Manufacturer's recommendations a sealed concrete floor may be suitable.

(e) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(f) Provision of low temperature protection in stores should be provided via distributor pipes or pipe coils only. Radiators are not to be located in stores. Lighting provision should reflect the use of the space.

(g) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006

Furniture – Fitted and Loose, Fittings, Equipment

(h) Floor to ceiling shelving is to be provided as part of the construction contract.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.4 Toilets

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**As schedule**	**2.7 m**

Design Considerations

(a) The allowable area is as stated in the Schedule of Accommodation. The normal allocation is approximately 20 m^2 per 100 pupils and staff, to include for a universal access sanitary suite with shower.

(b) WCs/Urinals should be provided in the ratio of 1:19 for staff & pupils. The ratio of Urinals to WCs in male toilets shouldn't exceed 2:1. Wash-hand basins should be provided in the ratio of 2 WHBs to 3 WCs or urinals.

(c) Toilets should be located in areas that can be easily supervised and in multiple locations in the school so as to minimise unnecessary circulation. Toilets should be provided on each floor and in a multi-storey building should have a stacked configuration.

(d) At least one universal access sanitary suite with shower shall be provided, opening off the main circulation. It shall be wheelchair accessible and shall include a universal access shower base. The floor area should be sufficient to allow for a changing bench and mobile hoist if required. This should be a multi-user suite available to all. The universal access sanitary suite with shower may also act as staff shower.

(e) Where extensive accommodation is provided at upper floor levels, provision should also be made for universal access WC facilities on each of those floors. See General Design Guidelines for Schools for further details on Universal Access sanitary facilities.

(f) As the school may be used in the evenings for community use, access to some toilet facilities is required within a restricted area (near the main entrance and General Purpose/Dining area) without allowing access to the whole building.

(g) Design of sanitary fittings and their fixings should be robust and appropriate to the school environment.

(h) A suitable non-slip easy clean floor finish should be used in all WC areas and lobbies.

(i) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(j) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Furniture – Fitted and Loose, Fittings, Equipment

(k) Toilet roll holders and mirrors are provided as part of the Construction Contract

(l) Paper towel or cotton/linen towel hand drying facilities, soap dispensers, refuse bins etc., are part of loose furniture and not part of the construction contract.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.5 Cloaks/ Lockers

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**As schedule**	**2.7 m**

Design Considerations

(a) The allowable areas for both lockers and cloaks are as stated in the Schedule of Accommodation.

(b) Cloaks and locker areas **must** be located and designed in such a way as to avoid circulation congestion. Consideration should be given to accessibility to students in relation to student entrance(s) etc. Cloaks and lockers should not be located on ramps or at circulation pinch points.

(c) The preferred arrangement is that cloaks and lockers be located within the general social/circulation area to provide ready access. A minimum recess of 0.9 m off corridors is required for lockers. Some schools may wish to have heavy duty hangers in social areas instead of cloakrooms.

(d) If cloakrooms or locker rooms are provided they should be easily supervised and should each have separate entrances and exits in order to avoid congestion.

(e) Lockers areas should be well and evenly lit with no dark recesses.

(f) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(f) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Loose Furniture, Fittings, Equipment

(g) 1 no. locker unit (overall size 1900mm x 300mm x 450mm) in 3 compartments to be provided per 3 pupils (I compartment per pupil), to be manufactured from 1.2mm cold rolled mild steel, folded, reinforced and fabricated to give adequate rigidity with single point lockable catch on each compartment door. See loose furniture list on website at www.education.ie for detail specification.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.6 Circulation/ Social Areas/ Internal Divisions

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**As schedule**	**2.7 m**

Design Considerations

(a) The design solution for all schools should ensure ease of circulation and orientation/way-finding for students, staff and visitors including those with special needs. On accessing the school via any entrance, it should be possible to move to any point in the school without meeting an area of congestion.

(b) Social areas provide for social dialogue and relaxation for students. The design should combine the use of the social area with circulation to avoid congestion.

(c) All rooms should be accessed from a circulation route, except store rooms accessed directly from learning spaces. The minimum clear width of corridors must be 2.4m. A minimum recess of 0.9 m off corridors is required for lockers [see 8.5]

(d) Refer also to section on Universal Access, and Internal Layout in TGD-020 General Design Guidelines for Schools.

(e) The area of internal walls will occupy an area equivalent to at least 3% of the net area, and up to 6% if the walls are thicker to allow for acoustic separation and/or to provide thermal mass. Where less than 6% of the net area is used for internal divisions, the unused area can be allocated to circulation.

(f) A suitable durable non-slip easy clean floor finish should be used in circulation and social areas.

(g) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Furniture, Fitted and loose

(i) To create social areas a limited number of fixed or loose seats may be provided as long as the through circulation is not less than 2.4m width.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.7 Heating Centre (Boiler house)

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**40 m^2**	**2.7 m**

Design Considerations

(a) The heating centre plant room shall be located at ground level within the building with external doors only, opening outward. It shall be of an approximately square shape (not L shaped or rectangular).

(b) It shall be reasonably convenient to an access road and shall be positioned centrally within the building so as to minimise distribution runs and it must not be annexed to or positioned on the extremities of the building.

(c) It should not be necessary to construct an access route particularly for the Heating Centre.

(d) The building design in the vicinity of the heating centre plant room shall allow for appropriate sized and accessible distribution zones for the primary services to and from the heating centre on more than one side and must also include reasonable capacity to accommodate future additional services.

(e) Where the Electrical Distribution Centre, metering enclosure or substation is located close to the heating centre plant room, care must be taken to ensure that their location does not restrict the distribution zones for primary services from the heating centre plant room.

Mechanical & Electrical Building Services Engineering

(a) Refer to DoES TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.8 Electrical Metering and Electrical Distribution Centre

Layout Nº	Depth x Width	Area	Min height
N/A	**varies**	**10 m²**	**2.7 m**

Design Considerations

(b) Location of electrical switchgear must conform to the latest edition of National Rules for Electrical Installations as published by the Electro Technical Council of Ireland Ltd.

(c) The Electrical Utility Provider is ESB Networks, and its requirements are set out in the latest edition of its National Code of Practice for Customer Interface. Any particular solution must be in conformity with this code.

(d) The above facilities should be centrally located to optimise the electrical services distribution and should not present difficulties for services distribution from adjoining plant spaces or rooms.

(e) The electrical sub-distribution boards should not protrude into circulation or other similar spaces and should not be located either within the teaching space or an associated store.

(f) The particular solution will be determined by the size of the building and its electrical load level. For large electrical loads ESB Networks may require a dedicated ESB Sub-station and adjoining Customer (School's) Switch Room.

(g) However it is envisaged that smaller Post-primary Schools will not require a dedicated ESB Sub-station. Such schools will require a location for ESB equipment and Customer's Main Isolator to conform to the above mentioned regulations and Code of Practice.

Mechanical & Electrical Building Services Engineering

(h) Refer to DoES TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

8.0 Room Data Sheets (Ancillary Spaces continued)

8.9 Data Communications Centre

Layout Nº	Depth x Width	Area	Min height
N/A	**2.0 x 2.0 m**	**4 m^2**	**2.7 m**

Design Considerations

(a) A dedicated Data Communication Centre (DCC) shall be provided, size 2 m x 2 m x full ceiling height (min 2.7 m). This room shall house the Main Distribution Facility (MDF).

(b) The room door shall be fitted with a key operated lock as part of the master key suite of keys.

(c) The DCC shall be naturally ventilated with air inlets at low level and air outlets at high-level opening to the corridor or to the store. Ventilation needs should take into consideration the heat output from proposed servers and switches. Ventilation to the outside is generally not required. The DCC should not have any windows.

(d) The enclosure to this room should give a 30-minute fire rating; intumescent passive fire protection shall be used where necessary.

(e) The DCC should, as far as practicable, be situated in the main building where the Principal's and General offices are located and should be within the 90 m cable run of both offices.

(f) This location should, as far as practicable, be such that the cable run (actual cable length) to all network points is within the limit of 90 m.

(g) Where this is not possible an Intermediate Distribution Facility (IDF) shall be provided as detailed in TGD-005 Information & Communication Technology (ICT) Infrastructure Guidelines for Post-primary Schools.

(h) Where an Intermediate Distribution Facility (IDF) is required the IDF will be mounted at high level in a suitable position such as a store (not a teaching or habitable space).

Mechanical & Electrical Building Services Engineering

(i) Refer also to DoES TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

9.0 Room Data Sheets - (Physical Education spaces)

9.1 Physical Education Hall

Smaller - 200 to 449 students

Layout Nº	Depth x Width	Area	Min Clear height
N/A	**15.6 m x 26.0 m**	**406 m^2**	**7.0 m**

Larger - 500 + students

Layout Nº	Depth x Width	Area	Min Clear height
N/A	**18.0 m x 33.0 m**	**594 m^2**	**7.0 m**

Design Considerations

(a) The PE Hall is a teaching area that caters for the teaching and learning of appropriate PE skills. It may also be used occasionally as an examination hall or for functions requiring a large assembly area.

(b) The PE Hall normally should be physically integrated with the main school building where a new school is being built. The building design should facilitate its isolation for independent use after school hours. Mechanical and Electrical services should be designed and zoned to facilitate such separation

(c) The location and configuration of windows/roof glazing shall be such as to provide a minimum of 5.5% natural daylight throughout the activity zone while eliminating glare.

(d) Co-ordination between PE equipment supplier and main contractor is essential in order to ensure that provision is made in the building contract for services connections and/or structural fixings, where these are required. Structural drawings of the roof must be made available to the PE equipment supplier

Structural Requirements

(e) The Design Team must ensure that adequate support is provided for basketball boards. The roof/ceiling structures must be capable of supporting the loads required for the listed furniture.

(f) Refer to the Equipment Lists on the Department's Website for details of equipment and related requirements.

(g) The equipment loads for the main basket ball goals are as follows:

- The weight of a ceiling mounted basketball goal as specified ranges from 250 kg to a maximum of 300 kg depending on height of ceiling and span of main roof supporting members. This weight to be spread over 2 such members.
- If the position of the basketball court, in relation to the roof supporting members, is such that the additional steelwork spans 3 main roof supporting members, then the total weight will be increased by 75 kg giving a total of 325 kg or a maximum of 375 kg.

(h) Where wall mounted 'practice' basketball goals are to be installed, then the wall must be of suitable strength to support a load of 200 kg on a cantilever arm of 4 m extension from the wall at a height of 4 m. The goals must be **sideway-folding** for safety reasons.

(i) As a matter of policy the Department of Education & Science does not promote or encourage the use of climbing walls or similar artificial climbing structures within PE Halls in second level schools.

9.0 Room Data Sheets – PE Spaces (Continued)

9.1 Physical Education Hall (Continued)

(j) Accordingly there is no requirement to reinforce or strengthen walls or other structural elements of the building in order to facilitate the installation of such climbing walls or similar structures.

(k) Should a Client wish to install such a facility, the Client must enter into separate appropriate arrangements with the design team. The Department of Education and Science will not be a party to such arrangements and will not be responsible for any costs whatsoever arising. Where a Design Team has been requested to enter into such an arrangement, all associated costs, including professional fees, must be separately identified in all cost plans.

Special Requirements

(l) Sharp and potentially dangerous corners must be avoided in the activity zone. Care should be taken to ensure that there are no projections that would prove hazardous while the hall is in use. All surfaces shall be free of projections and sharp edges e.g. at columns, service conduits, switches, power sockets, door openings, etc., from finished floor level to a minimum of 2.25 m above finished floor level. Ledges should be avoided or where unavoidable shall be sloped.

(m) Doors should open outwards (away from P.E. Hall). Doors and jambs should be brought flush with adjacent wall surfaces. Door furniture should be flush or recessed. Where it is not possible to have doors and jambs flush with the walls, then the sharp corners may be rounded by a hardwood fillet or by a bull-nose brick. Rebound panels should be fitted above and below the panic bolts to protect players' shoulders and heads from striking exposed doorframes. Jambs and architraves must be rounded when a flush face to the rebound zone cannot be achieved. Door saddles shall be avoided in all areas.

(n) Floor Anchors and wall anchors (where required) should be fitted with due consideration given to the floor materials specified.

(o) Viewing windows must be of safety glass, without projections, and located so as to minimise glare.

Acoustics

(p) The PE Hall should not be located beside noise sensitive rooms e.g. teaching spaces. Consideration should be given to the internal acoustics of the hall so that it may be used as an examination hall (i.e. break-in noise, reverberation, etc.).

Finishes (including Floor)

(q) The floor should be sprung maple or other suitable material (See PE equipment lists). For general PE activities, apposite floor resilience, and finishes to ensure appropriate traction and slip resistance are required (DIN 18032 and BS 7044)

(r) Wall finishes must be durable, impact resistant, and easily cleaned. All surfaces shall be non-abrasive (unfinished concrete is not suitable) for a height of 2.25 m above finished floor level.

(s) Ceiling finishes must be consistent with acoustic requirements and be impact resistant as necessary.

Continued overleaf

9.0 Room Data Sheets – PE Spaces (Continued)

9.1 Physical Education Hall (Continued)

Mechanical & Electrical Building Services Engineering

(t) All Mechanical and Electrical services and other fittings shall be free of sharp edges. All Mechanical and Electrical services from finished floor level to a minimum of 2.25m above finished floor level shall be flush mounted (i.e. recessed).

(u) Electrical switchgear shall be mounted in a dedicated area and shall not be installed in the PE Hall, the Control Centre or the Equipment Store.

(v) Light fittings shall be placed where they will not hinder vision. The level of lighting shall not be less than 400 lux, measured 1.5 m above the playing court.

(w) A zone free of all Mechanical and Electrical services and other fittings shall be provided above the basketball court so as to allow the basketball units to fold flat in the UP position. See diagram under Basketball markings and Dimensions below.

(x) A dedicated single phase 220 V, 50 Hz supply is required for the main scoreboard, shot clocks and ceiling mounted basketball units, controlled by a switch placed at a convenient position in the teacher's office.

(y) For the basketball units, provide 2 No. 65 x 65 x 50 mm boxes for the mounting of the motor controllers provided by the PE equipment supplier. Connect a supply from the switch in the teacher's office and terminate in both boxes. These boxes should be positioned so that it is possible to observe the operation of both basketball units.

(z) Provide a four core plus earth cable from the above boxes to roof level for both ceiling mounted units. Each motor for the units has a rating typically not exceeding 250 W.

(aa) A 3 Amp fused spur outlet is required for the main scoreboard and a shot clock at one end and a second 3 Amp fused spur outlet for the shot clock at the opposite end. Heights of spur units to be 6 m.

(bb) Final connections from the spur outlets to the scoreboard and shot clocks, together with the supply, fitting, connections and commissioning of the controllers and the connections to both motors, will be carried out by the PE equipment supplier.

(cc) Refer also to DoES TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

Continued overleaf

9.0 Room Data Sheets – PE Spaces (Continued)

9.1 Physical Education Hall (Continued)

Furniture & Fittings

(dd) A (semi-transparent) divisional net is required, normally positioned at the centre of the hall. It is preferable to install it under a main roof beam and free of all Mechanical and electrical services. See diagram under Basketball markings and Dimensions below

(ee) See Basketball markings and Dimensions below for PE Hall court layout markings and dimensions.

(ff) For Volleyball/Badminton Posts, wall anchors may be necessary at 2.4 m high on each side of the hall at the centre line.

(gg) For 5-a-side Football Goals anchor points are required in the floor or at each gable end, at a low level.

(hh) For Competition Volleyball Posts, at a minimum, floor anchor points are required which will be approximately 150 mm deep for the basic anchor and approximately 400 mm deep for the full international specification. This work can be completed after the main contractor is finished but the mortises should be formed in the sub-floor before the floor covering is laid.

(ii) Fitting of ground anchors shall be carried out in conjunction with the flooring contractor using the following guidelines:-

- Where timber floors are laid without careful control of temperature and humidity, then the anchors should not be fitted for many weeks or longer after the floor is laid. Periodic measurements should be taken which monitors movement and anchors should only be fitted after all movements have ceased. Anchors which are finished flush with the finished floor level should only be fitted when the timber floor is considered stable. In all other cases, the anchors should be finished below the level of the timber strip and a stainless steel or brass cover, a minimum of 5 mm thick, used to conceal the anchor.
- For sprung timber floors with limited movement possible after the floor is laid or for fully or semi-sprung timber floor where uniform temperature and humidity control can be assured, the anchors should be fitted with the floor.
- Anchors in solid concrete floors should be fitted, where possible, before the final floor covering is laid in order to avoid drilling the slab afterwards and destroying the adhesive bond in the vicinity of the drilled hole.

(jj) For proper co-ordination of court marking and installation of equipment it is essential that the same supplier be chosen for both.

(kk) The court markings should be complete before the final sealing coats are applied to the floor. The Client should tender and select a PE supplier in sufficient time for this to be achieved.

(ll) It will be necessary for the Client to liaise with both the architect and the main contractor to ensure that the court markings are completed at the correct time.

(mm) For all floor types a compatibility test between floor and line marking paint is required before work commences.

Equipment List

(nn) Refer to the Equipment List on the Department's Website.

9.0 Room Data Sheets – PE Spaces (Continued)

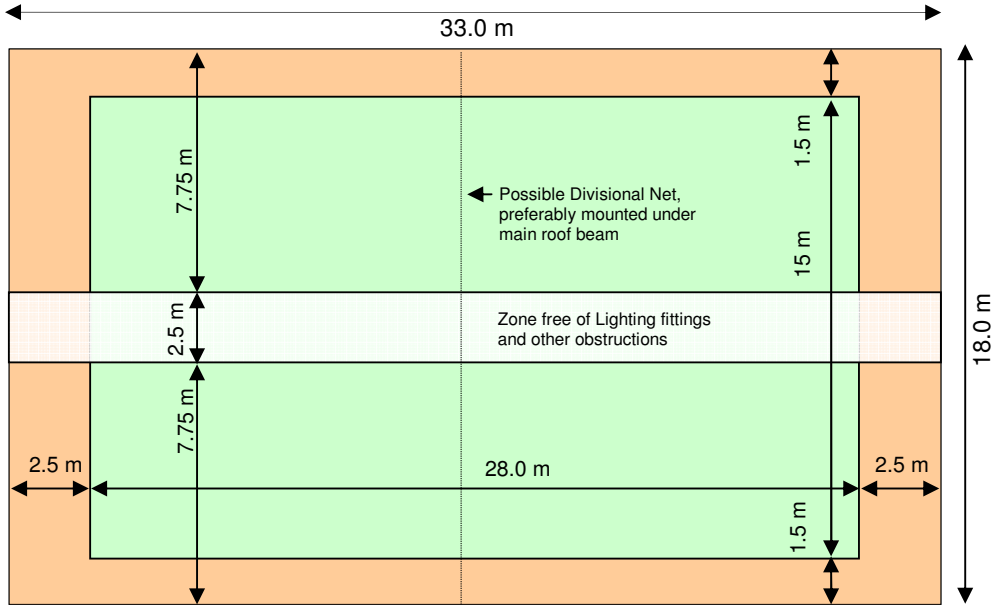
9.1 Physical Education Hall (Continued)

Basketball Court layout markings and dimensions:

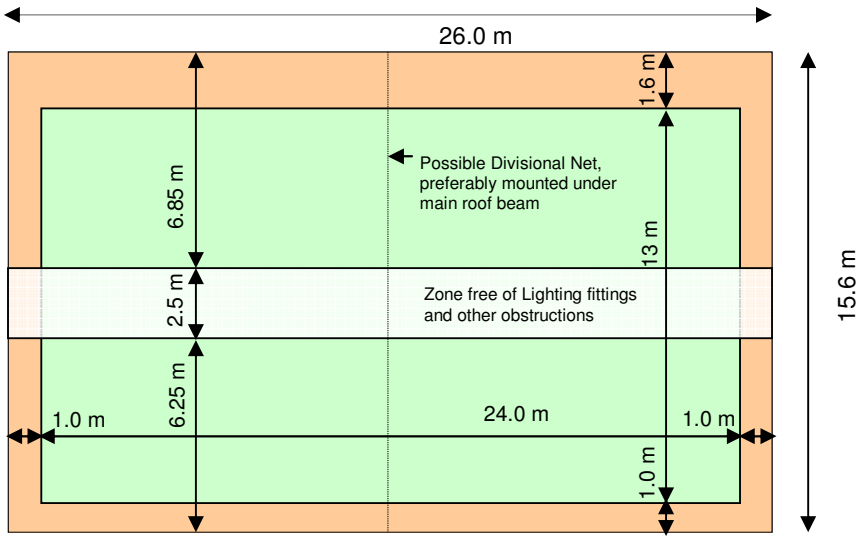
PE Hall	406 m^2	594 m^2
Court Size:	24 x 13 m^2	28 x 15 m^2
Distance between each end line and end wall:	1 m	1.5 m
Distance between one sideline and one side wall:	1.m	1.5 m
Distance between second sideline and second side wall	1.6 m	2.5 m
Minimum height of ceiling or the lowest obstruction:	7.0 m	7.0 m

Note:
The basketball goals shall be ceiling mounted and electrically operated. The backboards shall be made of suitable transparent material. One scoreboard and 2 shot clocks shall be provided.

594 m^2 PE Hall



406 m^2 PE Hall (Note: Courts offset in Hall by 0.6 m)

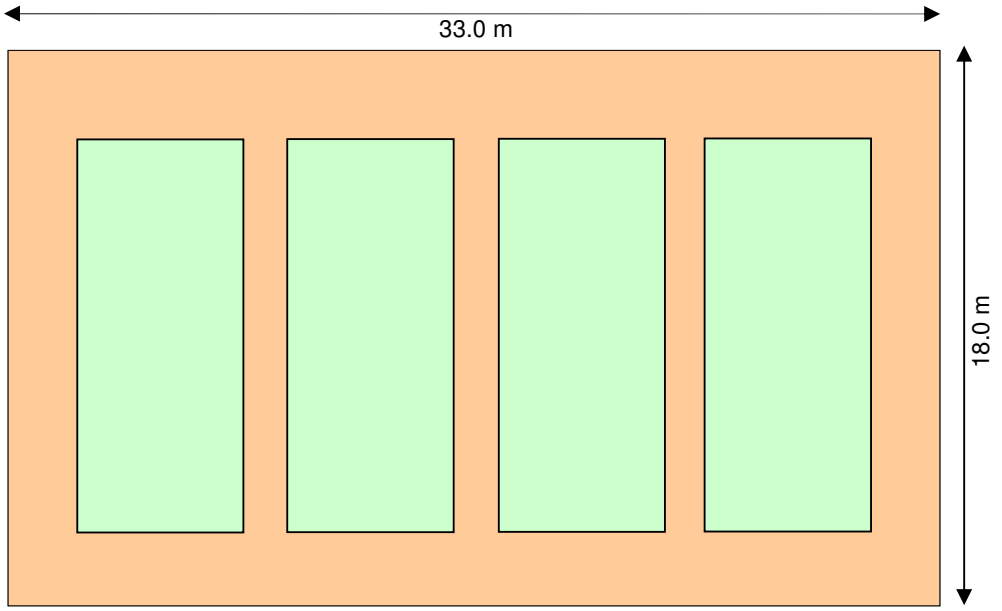


9.0 Room Data Sheets – PE Spaces (Continued)

9.1 Physical Education Hall (Continued)

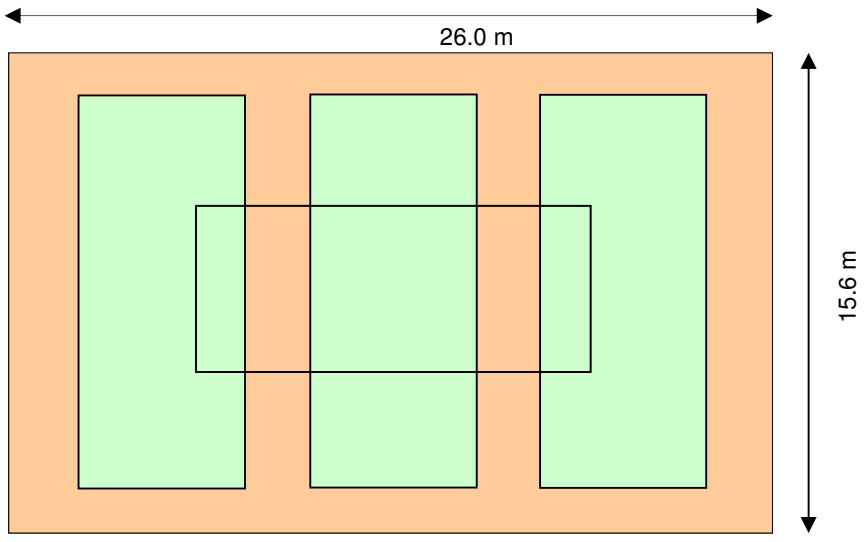
Badminton Courts layout markings and dimensions (594 m^2 Hall):

	Leisure	National Competition
Number of Courts	4 across hall	alternate courts
Court Size	12.6 m x 6.1 m.	12.6 m x 6.1 m.
Wall from base-line	2.3 m	-
Wall from sideline	2.2 m	-
Between parallel courts	1.4 m	-



Badminton Courts layout markings and dimensions (406 m2 Hall):

	Leisure	National Competition
Number of Courts	3 across hall	1 lengthwise, centred in hall
Court Size	12.6 m x 6.1 m.	13.4 m x 6.1 m.
Wall from base-line	1.5 m	6.3 m centered
Wall from sideline	2.0 m	4.75 centered
Between parallel courts	1.85 m	N/A



9.0 Room Data Sheets – PE Spaces (Continued)

9.1 Physical Education Hall (Continued)

Summary Playing Court Sizes

(oo) The following is provided for information purposes only so that the Client can decide on the games that can be played safely within the Provision of the PE facilities.

(pp) The following sizes are the overall playing sizes including run-offs, but not including provision for spectators.

(qq) All court sizes are International except where otherwise stated.

Sport	Hall Size	Court Size	Clear Height
Basketball	33 x 18 m (min.)	28 x 15 m	7.0 m
Volleyball	24 x 15 m (recreational)	18 x 9 m	7.0 m
Football	25x15 m (recreational)	25 - 42 x 15 - 25 m	7.0 m
Badminton	18 x 10.5 m	13.4 x 6.1 m	9.1 m
Hockey	42 - 50 x 22.2 - 26.2 m	36 - 44 x 18 - 22 m	7.6 m
Netball	34.5 x 18.25 m	30.5 x 15.25 m	7.6 m
Tennis	39 x 20.73 m	23.77 x 10.97 m	9.0 m
Football International	44 - 48 x 24 - 28 m	38 - 42 x 18 - 22 m	7.0 m
Handball	42 x 24 m	40 x 20 m	9.0 m
Handball Olympic	42 x 25 m	40 x 20 m	12.5 m
Volleyball International	40 x 25 m	18 x 9 m	12.5 m

9.0 Room Data Sheets – PE Spaces (Continued)

9.2 Changing Rooms and showers

(30 students per room)

Changing Rooms and showers

Layout Nº	Depth x Width	Area	Min height
N/A	**n/a**	**70 m²**	**3.0 m**

Toilet Cubicles (opening off Changing Rooms)

Layout Nº	Depth x Width	Area	Min height
n/a	**2 Number @ 2 m²**	**4.0 m²**	**2.7 m**

Design Considerations

(a) The PE Ancillary area should have access from the playing fields and hard play area as well as from circulation within the school, and each of the Changing Rooms should be capable of comfortably seating 30 people.

(b) As the community may use the PE hall in the evenings, the changing rooms should be capable of being used as either male or female changing rooms. 4 No. showers with cubicle dividers should be provided opening directly off each Changing Room. Mirrors should not allow vision into cubicles.

(c) One directly accessible WC should be provided in each changing area (opening directly off the changing room without having to pass through the foyer).

(d) The layout of the changing areas, WCs and showers should be designed to minimise the likelihood of vandalism and/or bullying.

(e) Refer to Section 9.6 WC facilities for information on public access WCs and universal access WC & shower. (These WC facilities should open directly off main circulation.)

(f) Refer also to 5.3 General Requirements.

Special Requirements

(g) Designers must use the appropriate materials to ensure durability, safety and a hygienic environment. Design of sanitary fittings and their fixings should be robust and appropriate to the school environment.

(h) The windows should have opaque glass, and when opened should not provide a view into the shower area.

Finishes

(i) Floor finishes should be tiled or other / water resistant non-slip flooring especially when wet, and consistent with room use.

(j) Walls should be resistant to wear, and easily cleaned. The wall finish must be durable and water resistant consistent with room use.

(k) The ceiling and any exposed Mechanical & Electrical pipes, conduit of equipment must be moisture resistant consistent with room use.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture

(i) Changing benches and coat hooks for 30 pupils in each changing room

9.0 Room Data Sheets – PE Spaces (Continued)

9.3 P.E. Equipment, and General Stores

P.E. Equipment Store

Layout Nº	Depth x Width	Area	Min Clear height
n/a	**varies**	**20.0 m²**	**2.7 m**

General Store

Layout Nº	Depth x Width	Area	Min Clear height
n/a	**varies**	**18.0 m²**	**2.7 m**

Design Considerations

(a) The PE store should be provided directly off the PE hall for the storage of PE equipment. The room should be rectangular in shape with no recesses. The depth of the store should not exceed 4.0 m.

(b) The P.E. store doors should be located to minimise circulation and maximise storage and should be flush to the walls of the hall to minimise injury risk. Normally the doors should not be directly behind goals. The opening width of this store should be adequate to allow the transfer of large pieces of equipment in and out of the store without difficulty. The PE store should be secure and lockable.

(c) A general store(s) including a cleaner's area shall be provided for the storage of furniture etc. The Cleaner's storage area should be easily accessible from the foyer. It is not necessary that the general storage area(s) open directly off the P.E. Hall, but it should be easy to transport furniture to and from the P.E. Hall to this storage area.

(d) The P.E. Equipment Store and the general store must not be combined

(e) Refer also to 5.3 General Requirements.

Finishes

(f) Floor finishes should be consistent with the room use. Subject to Health & Safety considerations and Manufacturer's recommendations a sealed concrete floor may be suitable.

(g) No ceilings are required.

Mechanical & Electrical Building Services Engineering

(h) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Furniture Fitted and Loose, Fittings, Equipment

(i) None.

9.0 Room Data Sheets – PE Spaces (Continued)

9.4 Control Centre (includes teacher's facility)

Layout Nº	Depth x Width	Area	Min height
n/a	**3.0 x 3.0 m (variable)**	**9.0 m²**	**2.7 m**

Design Considerations

(a) PE teacher's office/control centre will be the main control and supervisory point for everyone entering and using the PE facility. It will also be used as a base for the PE teacher.

(b) It must be located off the foyer and directly on entry from the main circulation of the school. It must also be associated with a reception counter.

(c) The PE teacher's office/control centre must have a direct view by means of a glazed panel to the PE hall. Where practicable it should also have a view along the circulation routes by means of glazed viewing panels.

(d) The teacher's Shower and WC facilities are shared with the Universal Access WC and shower in the foyer and should not be provided separately.

(e) Floor finishes should be anti-static carpet, sheet flooring or other equal materials consistent with the room use.

(f) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(g) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Fitted Furniture, Loose Furniture, Fittings, Equipment

(h) See list on website at www.education.ie.

9.5 Circulation & Internal Divisions

Layout Nº	Depth x Width	Area	Min height
n/a	**varies**	**64.0 m²**	**2.7 m**

Circulation/ Internal Divisions

(a) The overall circulation/Internal Divisions area includes the foyer, the stairs and space for a future lift. The design solution should ensure ease of circulation between the P.E. Hall and the changing areas, and should ensure that the changing areas can be accessed without passing through the PE Hall first.

(b) Refer also to 5.3 General Requirements.

Finishes

(c) A suitable durable non-slip easy clean floor finish should be used in circulation and social areas.

Mechanical & Electrical Building Services Engineering

(d) Services should be provided for a drinking font or 'chilled water' in the foyer.

(e) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Furniture Fitted and Loose, Fittings, Equipment

(f) None.

9.0 Room Data Sheets – PE Spaces (Continued)

9.6 WC facilities (off main circulation)

Layout N°	Depth x Width	Area	Min height
n/a	**2 Number @ 2 m^2 + 5.0 m^2**	**9.0 m^2**	**2.7 m**

Design Considerations

(a) Two separate WCs (1 male and 1 female) and one Universal Access sanitary suite including shower should be provided off the entrance foyer. They should be accessible from the general circulation and not directly from the changing areas.

(b) The Universal Access sanitary suite shall be wheelchair accessible and shall include a universal access shower base. The floor area should be sufficient to allow for a changing bench and mobile hoist if required. This should be a multi-user suite available to all.

(c) The universal access sanitary suite with shower can also be used as shower and WC facilities for the teacher/instructor.

(d) Refer also to Section 9.2 Changing Rooms and showers for information on Toilet cubicles within changing areas.

Special Requirements

(e) Design of sanitary fittings and their fixings should be robust and appropriate to the school environment.

Finishes

(f) A suitable non-slip easy clean floor finish should be used in all W.C. areas and lobbies. Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(g) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006

Furniture – Fitted and Loose, Fittings, Equipment

(h) Toilet roll holders and mirrors are provided as part of the Construction Contract

(i) Paper towel or cotton/linen towel hand drying facilities, soap dispensers, refuse bins etc., are part of loose furniture and not part of the construction contract.

9.0 Room Data Sheets – PE Spaces (Continued)

9.7 Fitness Suite + Store + Universal Access WC

Layout Nº	Depth x Width	Area	Min Clear height
N/A	**Min depth 7.0 m**	**120m² + 10m² + 6 m²**	**3.15 m**

Design Considerations

(a) A Fitness suite must be provided, generally within the balcony area (see below) or if there is no balcony then on the ground floor. The total Fitness suite area is additional to the overall PE Hall and ancillary area.

(b) The room must be of a rectangular shape with no part less than 7.0 m depth. The height of the room should be suitable for the function of the room and the day-lighting/ventilation requirements. The store shall be 10m² with no part less than 2.4m width.

(c) As the Fitness suite may be used outside school hours, the location and access should facilitate controlled access while the PE Hall is closed. It should be possible to remove or install equipment without hoists or the removal or windows.

(d) Refer also to 5.3 General Requirements

Mechanical & Electrical Building Services Engineering

(e) Adequate natural ventilation should be provided.

(f) Services should be provided for a drinking font or 'chilled water'.

(g) Refer also to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006.

Furniture Fitted and loose, Fittings, Equipment

(h) See list on website at www.education.ie. The equipment list, provided on the Department's Website, includes a number of machines which may require an electrical supply.

9.8 Balcony

Layout Nº	Depth x Width	Area	Min Clear height
N/A	**varies**	**n/a**	**3.0 m**

Design Considerations

(a) A balcony should normally be provided over the ancillary area. The area is not calculated as part of the overall P.E. Hall and ancillary area, but is deemed to be included in the overall cost. Where a balcony is provided the structural design should allow for a wide variety of possible uses. A full height partition shall be provided between balcony and PE hall with glazed panels for eye level viewing of the playing area. Where a balcony is provided the Fitness suite (see 9.7 Fitness Suite above) may be located within the balcony area.

(b) The stairs shall be a minimum of 1200mm width and provision should be made in the design for the future installation of a platform type lift if universal access to the balcony is not otherwise available (e.g. where the PE Hall is integrated into a two storey school).

(c) Refer also to 5.3 General Requirements.

Mechanical & Electrical Building Services Engineering

(d) Refer to Mechanical & Electrical Building Services Engineering Guidelines DoES TGD-003, 005 and 006

9.0 Room Data Sheets – PE Spaces (Continued)

9.9 Heating Centre (Boiler house)

(Standalone PE hall only)

Layout Nº	Depth x Width	Area	Min height
n/a	**varies**	**10 m²**	**2.7 m**

Design Considerations

(a) Refer to Section 8.7 Heating Centre and also to TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

(b) The heating centre plant room shall be located at ground level within the building with external doors only, opening outward. It shall be of an approximately square shape (not L shaped or rectangular).

(c) It shall be reasonably convenient to an access road and shall be positioned centrally so as to minimise distribution runs and it must not be annexed to or positioned at the extremities of the building.

9.10 Switch Room

(stand alone PE Hall only)

Layout Nº	Depth x Width	Area	Min height
n/a	**varies**	**2 m²**	**2.7 m**

Design Considerations

(a) Refer to Section 8.8 Electrical Metering and Electrical Distribution Centre and also to DoES TGD-003 Mechanical & Electrical Building Services Engineering Guidelines for Post-primary School Buildings.

(b) Electrical switchgear shall be mounted in a dedicated area and shall not be installed in the PE Hall, the Control Centre or the Equipment Store.

(c) A dedicated single phase 220 V, 50 Hz supply is required for the main scoreboard, shot clocks and ceiling mounted basketball units, controlled by a switch placed at a convenient position in the instructor's office.

10.0 External Facilities

10.1 Site

(a) The designers should make the maximum use of the site provided which should be reflected in their design proposal. The layout should be designed to minimise the need to dispose of excavated material off-site. See also TGD-020 General Design Guidelines for Schools (Primary and Post-primary) Construction & Demolition Waste Management.

(b) The site constitutes the building, playing fields, any agreed supplementary area, and access which should be designed to ease the management of the school. Sites should generally be of regular shape, reasonably level, have good road frontage, be without obstruction and have reasonable space for developing a set-down/pick-up area.

(c) In assessing site suitability, the location and adequacy of public utilities, which include Gas, Mains Water, Telecom, Electricity, Foul & Surface Water drains, and the cost of connecting into them, shall be taken into account.

10.2 Landscaping

(a) Provision should be made for the preparation and landscaping of the area around the school and between the school and the site entrance.

(b) Such landscaping should be simple, cost effective and easy to maintain. The Design Team should consider the natural paths and routes through the site to the school entrances in determining the appropriate location and the extent of paths provided. Large areas of hard landscaping should be avoided.

(c) Design Teams should consider the design of landscaping elements to promote more imaginative play and complement the teaching environment in their design proposals. External space for planting, weather recording, sundials etc., should all be explored.

(d) An allowance for planting of trees and shrubs should be made. Such shrubs and trees should help define the site boundaries and external circulation routes, and should be hardy, durable and low maintenance.

(e) In a new school site, the cost of the main entrance gates and front boundary treatment is included in the External Works Allowance. The provision of other boundary fencing and walls does not form part of the External Works Allowance. Where for security reasons, boundary protection is required, the cost should be minimised, subject to the suitability of the boundary treatment for the location. If such boundary protection is still required, the nature, cost and scope of the works should be indicated at the earliest stage and a submission made to the Department justifying the additional cost of such works.

10.3 Traffic Management

(a) Refer to TGD-020 General Design Guidelines for Schools (Primary and Post-primary) - External Circulation.

10.0 External Facilities (continued)

10.4 Bicycles

(a) The use of bicycles is encouraged and secure and covered cycle parking facilities should be provided if requested by the individual schools. If bicycle racks are provided, these should be adjacent to the student entrances.

(b) Refer also to TGD-020 General Design Guidelines for Schools (Primary and Post-primary) - External Circulation.

10.5 Car-parking

(a) Refer to TGD-020 General Design Guidelines for Schools (Primary and Post-primary) - External Circulation for guidance on Car-parking & Set-down/Pick up areas.

(b) Provision of car parking should be as per schedule of accommodation.

(c) At least two designated car-parking space to be provided for disabled users (i.e. holders of disabled permit) from the allocated number and the total number of such spaces should be in accordance with the Building Regulations and the National Disability Authority guidelines.

(d) Car parking should be designed to utilise as far as possible existing site access roads or in a new school the access road to the main entrance. Spaces should be designed in a cost-effective manner.

(e) Car parking should be located adjacent to the staff and visitor entrances to the school. If a separate staff entrance is provided, the location of this access should be convenient to the car park. Separate car parks for staff and visitors are not recommended.

10.6 External Store, Covered Area and Yard

External Store (10 x 5 m = 50 m^2)

(a) An external store should be provided adjacent to the practical subject rooms and accessible from within the school yard. This store should be provided with lighting and natural ventilation.

Covered Area (6 x 5 m = 30 m^2)

(b) Where an Architectural Technology Room is to be provided, a covered area in the enclosed yard adjacent to the Architectural Technology Room (Construction Studies) shall also be provided.

Yard

(c) An enclosed yard shall be provided. The area is dependent on the approved design solution, with a minimum area of 50 m2.

(d) Where practicable this shall enclose the external entrances to:

- Architectural Technology/Material Technology (Wood) Room
- Technology Room
- Engineering Technology/Metalwork Room.

(e) If practicable, fuel storage shall be located in the enclosed yard and the boiler plant room should be accessed from it.

(f) Minimisation of external vehicular circulation should be a consideration in locating the enclosed yard.

10.0 External Facilities (continued)

10.7 Hard Play Area - Basketball Courts

(a) The area of a basketball court per court is:

Overall area per Court	510 m^2	30 x 17 m^2	[Playing Size	28 x 15 m^2]

(b) The overall area includes a 1m run-off space (2 m between adjacent courts) around the playing area (28 x 15 m^2). If site restrictions apply. It may be necessary to reduce the number of courts or possibly their size. If the latter is necessary then proportionality should be conserved.

(c) The number of courts for each range of number of pupils is given below:

Pupils	Number	Total Area
less than 250	2	1020 m^2
250 – 349	3	1530 m^2
350 – 499	4	2040 m^2
500 – 799	5	2550 m^2
800 +	6	3060 m^2

(d) All courts shall be properly graded, drained and appropriately lined. Adequate surface water drainage shall be provided from all hard play areas without compromising the safety of the user during play. In providing such drainage, consideration must be given to the possibility of some games being played across the basketball courts.

(e) In an existing school, the existing hard courts should be retained where possible. If additional courts are required to provide the total specified in the Schedule of Overall Accommodation, the cost of these courts should be assigned to the External Works Allowance.

(f) Laying out a variety of courts within a single multi-use games area makes supervision easier and extends the range of games. The location of the hard play area should be considered in the context of future expansion of the school in order to eliminate future disruption, nugatory expenditure, and rebuilding at a later stage.

(g) The hard courts should be located adjacent to the external vehicular circulation and also to the changing rooms associated with the PE facility. Access from the changing rooms to external play facilities should be possible without going through the PE hall or the school.

(h) Hard-play areas may also be designed to cater for occasional use as overflow car parking and should be located adjacent to the external vehicular circulation. A 2.5 m high plastic coated chain link fence around the courts, with lockable access gates should be provided.

(i) A 150 mm duct with draw wire should be provided to allow for possible future services to hard play areas from the nearest internal services position (e.g. plant room/switch room/store, etc.).

10.0 External Facilities (continued)

10.8 Playing Pitches

(a) Where site area and configuration permits, an area should be reserved suitable for use as a practice playing field. The levelling and preparation of this area is not covered by any of the cost limits.

(b) An All-in Grant, on application, may be considered subject to a maximum lump sum which will be determined from time to time.

(c) Access from the changing rooms to the pitch should be possible without going through the PE Hall or the school.

(d) The following data on sizes of playing areas are given for information purposes. (An Appropriate Safety Zone around the playing area for each game should be allowed.)

Playing Pitches (Not part of schedule - for information only):

Playing Pitches	Playing area
Gaelic Games.	130 – 145 x 80 – 90 m.
Soccer.	90 – 120 x 45 – 90 m.
Hockey.	91.44 x 54.86 m
Rugby.	144 x 69 m (Playing + in-goal area)