



Architectural Design Competition

**Urban Primary School,
Harcourt Terrace, Dublin 2
Republic of Ireland
for the
Department of Education & Skills**

Pedagogical Brief

Architectural Design Competition for a New Primary School in an Urban Setting 2014

Competition Brief and Schedule of Accommodation for a 24 classroom Primary School Based on a Projected Long-term Enrolment of 672 pupils plus 12 pupils with Special Educational Needs in 2 Special Classes

Introduction:

The architectural design competition for a new primary school in an urban setting is premised upon the same principles which underpinned the brief of the Ideas Competition for a Primary School Design for 21st century learners held by the Planning and Building Unit of the Department of Education and Skills in 2013. Both competition briefs are informed by the findings of current national and international research into school design.

This briefing document is specific to this competition. It outlines the pedagogical aims that should be achieved in the execution of the design and incorporates the schedule of accommodation. Designs which do not take sufficient cognisance of the educational aims included in this Brief may not be considered.

This design should aim:

- to facilitate peer to peer work and collaborative project-based work among pupils with ease
- to complement the range of learning styles among learners as much as possible, so that teachers can provide for an educational experience that is personalised more than ever before to the needs of the individual learner
- to help pupils develop strong interpersonal skills, self-confidence and self-knowledge
- to help pupils develop their ability to change and adapt
- to make it easy for school management and for teachers to identify and share good pedagogical practice
- to support and help to foster teachers' reflection and self-evaluation about professional activity
- to support teachers' professional development through learning from one another's best practice and from learners.

The technical guidance documents that are to be consulted during the design process are provided in the competition pack.

Contextual Information about Irish primary education:

- Irish primary school education is an eight-year cycle with a pupil spending one school year, from the beginning of September to the end of June the following year, in each grade. The eight grades are: junior infants (pupils commencing primary school must be no younger than 4 years, most are 4 or 5 years old in this grade), senior infants (typically 5 or 6 years old in this grade) and 1st through 6th classes (typically pupils in 6th class are 12 to 13 years old). One school year is spent in each of the grades of primary school. In the 2013-14 school year the average class size in Irish primary schools is 29 pupils, however the actual numbers of pupils and the physical size of the pupils in classes vary. The brief for a 24 classroom school means that there will be three of each grade of classes in the design.
- The Primary School Curriculum is a learner-centred curriculum and is taught in all Irish national primary schools. The curriculum is progressive and objective based. During their primary school education pupils learn Irish (Gaeilge); English; Mathematics; Social, Environmental and Scientific Education (SESE) (which comprises History, Geography & Science); Music; Visual Arts; Drama; Social, Personal and Health Education (SPHE) and Physical Education (a subject

with wide-ranging strands: not simply sports and games)¹. All subjects are taught at all grades. Structured play is being facilitated in many junior and senior infant classrooms through the implementation of the *Aistear Framework Curriculum*². Literacy and Numeracy for Learning and Life: The National Literacy and Numeracy Strategy³ is also being implemented in schools to enhance pupils' literacy and numeracy skills.

Overarching principles:

- The school design must be a place that is physically, psychologically and socially safe, promoting the child's growth, health, learning and wellbeing as well as their positive interaction with teachers and fellow pupils. The teacher's role in the school is to facilitate interactions among children and between children and the teacher within an overall well-structured school framework.
- Irish primary teachers are *in loco parentis* in respect of daily supervision. In order to develop confident learners encouraging an atmosphere of mutual trust is a key aim of the most successful primary schools. Physical features of the layout that create concerns about managing pupils and knowing where each pupil is at all times should be minimised to allow teachers focus upon creating successful learning. To achieve this, the design should seek to make supervision less about restricting pupils' access to different areas of the school and more about enabling pupils to know that they are safe and cared for by facilitating as much line of sight as possible for teachers from their classrooms. Pupils also should have as much line of sight as possible so they can see they are safe and minded, allowing their confidence to build naturally.

Classrooms:

| No. of spaces | Area m ² | Description of Space | Total Area m ² |
|---------------|---------------------|--|---------------------------|
| 24 | 80 | Classroom Base including Storage (Minimum 58 m ²) | 1,920 |
| | | Pupil Toilets (5m ² allowance per class, may be grouped adjacent to Classroom Base) | |
| | | Pupils Coat storage (adjacent to groups of classrooms) | |
| | | Less formal learning space (literacy, ICT, wet, & storage) adjacent to Classroom Base. (See potential of remaining area in overall 80 m ² per classroom allowance) | |

- Completely open plan areas as the only area for teaching and learning for a number of classes should be avoided.
- There are 24 mainstream classrooms in the design brief for this competition. At the present time mainstream classrooms in primary schools are, in reality, self-contained cellular units, with each having an overall area of 80m². However, the useable learning and teaching space for teachers and pupils in current classrooms is much lower at only 53m². It is intended to optimise that learning and teaching space in the classroom base to 58 m². This provides for an increase in useable area and facilitates full disabled access.

¹ The Primary School Curriculum is available online at www.ncca.ie

² The Aistear Framework Curriculum is available online at www.ncca.ie > Early Childhood Education (note: 'Aistear' is the Irish-language word for 'Journey')

³ The National Literacy and Numeracy Strategy is available online at www.education.ie

- It is important not only that the classrooms' design meets the current expectations of Irish primary teachers fully, but that the design can also seek to anticipate developing pedagogical trends and teaching competencies. Flexibility in how classrooms are configured is welcomed and the concept of the classroom as a fully self-contained cellular unit should be challenged in this design.
- The classroom as a base for teaching and learning that facilitates access to other spaces is strongly encouraged. Teachers should feel comfortable in their classrooms but should also be facilitated naturally to observe the potential in other educational spaces, allowing educational innovation to emerge organically. Classrooms should not be overly designed and should allow for teachers and pupils to make them their own. Storage should be fully recessed where possible.
- The display of illustrative materials and of pupils' work, giving learners ownership over their educational space, is important. Innovative solutions should be explored to maximise display locations, while at the same time optimising the use of glazing for day lighting, views and visual transparency in the external and internal walls of class bases.
- Areas at times underused in classrooms, such as the sink and wet areas, computer space, cloaks and access to en-suite toilets, should be released out of the classroom into other parts of the building's design to optimise use for educational purposes. The classroom should be capable of being used comfortably as a main base for learning for an average class size of 29 pupils. It should also be a springboard into adjacent spaces outside of the room, both inside the building and without: encouraging teachers and pupils to move into and out of these places to use them for learning.
- Each classroom should incorporate an interactive whiteboard with a short-throw digital projector. Care should be taken in the selection of its location to minimise glare from natural light.
- Almost all use of ICT use will be facilitated through wireless infrastructure in classrooms with tablets and laptops and complemented by a few computer points in shared areas. A wireless network access point and one cabled network point, near to the interactive whiteboard, should be provided in classrooms.
- In the case of most classrooms architects should consider the option of toilet solutions outside of classrooms shared by pairs or more classes. En-suite toilets may continue to feature in classrooms for infant pupils. Alternatively, other innovative solutions very close by may also be considered. Toilets should be separate for boys and girls. To allay teacher anxieties about supervision and to minimise unnecessary disruption to lessons and the school day, pupils' access to toilets should be within view of the teachers at all times. To allay pupils' anxieties about being away from the care of their teacher and fears about potential bullying toilets should be close to their class base. Wash hand basins may be off circulation and adjacent to toilets.
- Cloakrooms or storage for coats should not generally be within the classrooms. Their locations should be carefully considered and close to entrances and exits for the purposes of dressing for external play and education. Supervision of the space should be easy.
- Access to the external school environment should be rendered as easy as possible by the design. The importance of the connection between internal and external learning spaces should be clear from the design.
- The energy profile of the school building and the sustainability of the design should be considered carefully to ensure that the design constitutes an appropriate exemplar for primary school pupils. In further developing pupils' awareness of the environment the design should act to illuminate the importance of energy conservation and use of sustainable materials.

Less formal spaces for education beyond classrooms:

- There are no subject-specific rooms required in primary schools. Innovative areas or learning centres (outside of classrooms) to enhance learning in particular clusters of subjects should be explored e.g. literacy/ numeracy activity zones; science/visual arts wet area.
- The current configuration of circulation space as corridors mostly operates to move teachers and pupils to and from self-contained cellular classrooms. These circulation spaces should be re-envisioned as potential teaching and learning spaces. These spaces should enable pupils to work collaboratively engaging in knowledge-building and group discussions, or as a place for quiet reading and reflection, supporting pupils' literacy development. Less formal areas outside of the classroom base could include spaces for wet play or science experiments, infant play, exploration of the arts and quiet areas for reflective activity. A re-interpretation of the space used as traditional circulation space combined with the potential of remaining area (from the overall 80 m² per classroom allowance) should provide architects with adequate floor area to realise this educational objective innovatively within this 24 classroom design.
- Less formal learning spaces should have potential for multiple uses: for small group teaching, small group work with children working together with their peers or with pupils younger and older than them, research, quiet ICT work, space for reading on their own or in a group etc.
- The use of these spaces should also facilitate simple everyday social experiences that lead to a child's development but where the care and attention of the teacher is not far away. The aim is to enable the child build responsibility and independence from a young age.
- Less formal learning spaces beyond the classroom base should 'invite' teachers to use them: visual supervision should be possible. Furniture provided within these spaces should provide for active learning approaches and collaborative approaches among pupils.
- Notwithstanding the need for overall line of sight, less formal learning spaces should provide for semi-private nooks where pupils independently or in small groups can reflect, test and respond to new knowledge in comfort and safety.

School Leadership and Professional Formation:

- All education spaces, both internal and external, including the classrooms should be readily accessible to the principal as the primary leader of teaching and learning in the school.
- Successful school management teams lead innovation in curriculum delivery to support the implementation of the Primary School Curriculum and the professional development of teachers. This should be facilitated by introducing more visual transparency in the internal walls of the design.
- The design should be capable of meeting the expectations of teachers in terms of their current pedagogical practice but also enable teachers in extending that expertise naturally. It is therefore important that the design entices and empowers - rather than forces - teachers and pupils to use a range of places for learning and teaching. Teachers should be able to perceive that other spaces have great potential to be used for education. They should be able to readily see their peers and their peers' classes using them.

Inclusive education:

- Irish primary schools are inclusive schools in respect of special education provision. Some pupils are educated in mainstream classes with additional support provided in special tuition rooms, Multi-Purpose Rooms and others in special classes, according to their degree of need.

| No. of spaces | Area m ² | Description of Space | Total Area m ² |
|---------------|---------------------|---------------------------------|---------------------------|
| 2 | 20 | Multi-Purpose Room | 40 |
| 4 | 15 | Special Education Tuition Rooms | 60 |

- Special education tuition rooms are rooms of 15m² each where pupils who have general and specific learning disabilities and English language needs receive additional tuition from support teachers, in addition to the support they receive from their mainstream teacher. Innovative features should be sought for these rooms enabling connection with other potential areas for learning. Space should be used productively to allow for pair and small group learning, while acknowledging that they should also be calming places for the pupils. It is also anticipated that additional tuition for pupils with learning needs will also take place in the less formal locations for education in the school.
- The Brief for this competition has a full special needs unit (SNU) of two special classes included. The full guidance document - Primary School Specialist Accommodation for Pupils with Special Educational Needs (TGD 026) – is included in the competition pack.

| No. of spaces | Area m ² | Accommodation suite for a Primary School for 12 pupils with SEN based on a pupil/teacher ratio of 6:1 | Total Area m ² |
|---------------|---------------------|---|---------------------------|
| 1 | 80 | Central Activities Space | 80 |
| 2 | 70 | Classroom - Safe Base (excluding toilets and storage) | 140 |
| 2 | 12 | Small Safe Space 1 associated with Classroom - Safe Base | 24 |
| 2 | 15 | En-Suite Toilets & Shower Area | 30 |
| 1 | 20 | Multi-Sensory Room | 20 |
| 1 | 15 | Para-Educational Room | 15 |
| 1 | 10 | Staff Toilets | 10 |
| 1 | 10 | Linen/Sluice Room | 10 |
| 1 | 30 | Storage | 30 |
| 1 | 15 | Office | 20 |
| | | Subtotal Special Needs Unit (SNU) | 379 |

- Special educational needs are defined in The Education for Persons with Special Educational Needs (EPSEN) Act (Ireland, 2004) as: “a restriction in the capacity of the person to participate in and benefit from education on account of an enduring physical, sensory, mental health or learning disability, or any other condition which results in a person learning differently from a person without that condition.” Children with special educational needs are educated, wherever possible, in an inclusive environment with children who do not have special educational needs. The key principles to uphold in the design to ensure an inclusive environment are outlined in the SNU guide. An inclusive environment provides for integration of pupils with special educational needs in mainstream classes, and reverse integration - where pupils without special educational needs work and socialise with their peers in the special classes.

Other spaces:

- In the context of developing pupils’ literacy skills the library should continue to feature prominently in the design of the primary school. It should inspire reading and love of books and other media. Innovative ideas regarding the location and design of the library in the school could be explored. In the 24 classroom school schedule of accommodation the school has a Library and Media area, plus a Resource Area. The Resource area may be used for a range of supplementary teaching and learning purposes and other uses, including working with ICT.

| No. of spaces | Area m ² | Description of Space | Total Area m ² |
|---------------|---------------------|----------------------|---------------------------|
| 1 | 66 | Library & Media Area | 66 |
| 1 | 33 | Resource Area | 33 |

- The 24 mainstream classroom design school has two interlinked large general purpose rooms of 195m², totalling 390m². The general purpose room is typically used for physical education, but increasingly for other subjects, and for performances and gatherings. Innovative solutions for the use of this room are welcome. Storage should be maximised. This area should be accessible to the community when the school day is ended, with toilets nearby and capable of being used independently of the main body of the school. The proportions of this largest space in the school are important. Given the restrictions on the site the use of clerestorey or roof lights might assist site planning and massing.

| No. of spaces | Area m ² | Description of Space | Total Area m ² |
|---------------|---------------------|--|---------------------------|
| 2 | 195 | General Purpose Room - interlinked | 390 |
| 2 | 8 | General Purpose Room Servery – combined | 16 |
| 2 | 20 | Physical Education Equipment Store | 40 |
| 2 | 15 | Pupil Toilets (4 no. wc's) associated with each General Purpose Room | 30 |

- The 24 mainstream classroom design has a teachers and staffroom of 75m². Teachers should be able to see that thought has been given to staffroom design. It should be a room worthy of professional dialogue and consideration should be given to the potential of the space for professional discourse, not only rest. The potential of the space being subdivided to create breakout areas could be explored. There should be toilets for teachers nearby.
- The school has three offices: a general office, a principal's office and a deputy principal's office. These offices should be located near to, though not necessarily adjacent to, one another. All should be located on the storey where the entrance is located. The general office should be located immediately adjacent to the main entrance for the purpose of welcoming visitors and security.

| No. of spaces | Area m ² | Description of Space | Total Area m ² |
|---------------|---------------------|-------------------------------|---------------------------|
| 1 | 25 | Administration/General Office | 25 |
| 1 | 15 | Principal's Office | 15 |
| 1 | 15 | Deputy Principal's Office | 15 |

- The acoustic profiles of all spaces need to be considered very carefully. Guidance in this regard can be found in the Acoustic Performance in Schools document included in the competition pack.

External school environment:

- Architects should give as much thought as possible to the design of the external environment surrounding the school building as a potential site for high-quality learning. Greater connectivity with the outdoor space of the school, directly or indirectly, should facilitate learning and teaching externally more frequently. The external environment of the school should be viewed as potential learning environments and not only for recreational purposes. High-quality perimeter security should allow pupils to learn more regularly outside the building and within the grounds and while engaged in this activity should facilitate pupils' safety and security. Movement

between the internal and external environments should be facilitated as readily as possible, while at the same time considering the comfort levels in the building and energy usage.

- In the design of external spaces architects should consider the breadth of the Irish primary school curriculum, not just the physical education curriculum, in exploring how learning its various subjects, where appropriate could be facilitated in the environment surrounding the school buildings. Given the physical limitations of the site it is of great importance that innovative solutions are explored to provide as much as possible of the following external spaces. The use of external roof top and covered space may be considered.

| No. of spaces | Area m ² | External Spaces | Total Area m ² |
|---------------|---------------------|------------------------------------|---------------------------|
| 3 | 585 | External Ball Courts | 1,755 |
| 2 | 300 | Junior Play Area | 600 |
| 1 | 200 | SNU Secure hard and soft play area | 200 |
| 1 | 100 | SNU Sensory garden | 100 |
| | | | |

- Due recognition should be given to the inclement Irish weather in seeking to maximise the use of the external environment for both recreation and learning.
- External recreation areas for pupils should encourage group and team play on a range of surfaces.
- The orientation, aspect and active and passive supervision of play space should be considered carefully.

Appendix

Schedule of Accommodation for a 24 classroom Primary School with Special Educational Needs Unit

| No. of spaces | Area m ² | Description of Space | Total Area m ² |
|---------------|---------------------|---|---------------------------|
| 24 | 80 | Classroom Base including Storage (Minimum 58 m ²) Pupil Toilets (5m ² allowance per class, may be grouped adjacent to Classroom Base) Pupils Coat storage (may be grouped adjacent to classrooms) Less formal learning space (literacy, ICT, wet, & storage) adjacent Classroom Base. (See potential of remaining area in overall 80 m ² per classroom allowance) | 1,920 |
| 2 | 195 | General Purpose Room - interlinked | 390 |
| 2 | 8 | General Purpose Room Servery – combined | 16 |
| 2 | 20 | P.E. Equipment Store | 40 |
| 2 | 15 | Pupil Toilets (4 no. wc's) associated with each General Purpose Room | 30 |
| 1 | 66 | Library & Media Area | 66 |
| 1 | 33 | Resource Area | 33 |
| 2 | 20 | Multi-Purpose Room | 40 |
| 4 | 15 | Special Education Tuition Rooms | 60 |
| 1 | 25 | Administration/General Office | 25 |
| 1 | 75 | Teachers & Staff Room | 75 |
| 1 | 15 | Principal's Office | 15 |
| 1 | 15 | Deputy Principal's Office | 15 |
| 4 | 10.5 | Toilet/Shower for Assisted Users | 42 |
| 2 | 4.5 | Universal Accessible Toilet for Independent Users | 9 |
| 4 | 3.5 | Adult Toilet (Staff & Public users) | 14 |
| 1 | 50 | General Storage (including secure, cleaner's & external) | 50 |
| 1 | 6 | Electrical Switchboard | 6 |
| 1 | 8 | Data Communications Centre | 5 |
| | | Sub-Total School | 2,851 |
| | | Plus Two Classroom Special Needs Unit (SNU) (as detailed next page) | 379 |
| | | Total Net Area | 3,230 |
| | | Internal Walls/Partitions @ 7% | 226 |
| | | Internal Circulation @ 21% | 678 |
| 1 | 25 | Boiler House | 25 |
| | | GROSS FLOOR AREA (excluding stairs & lift) | 4,159 |
| | | Plus 25m ² per stairs per floor | |
| | | Plus 10m ² for a Lift per floor | |
| | | GROSS FLOOR AREA (including stairs & lift) | |

| | | Accommodation suite for a Primary School for 12 pupils with SEN based on a pupil/teacher ratio of 6:1 | Total Area m ² |
|---|----|--|------------------------------|
| 1 | 80 | Central Activities Space | 80 |
| 2 | 70 | Classroom - Safe Base (excluding toilets and storage) | 140 |
| 2 | 12 | Small Safe Space 1 associated with Classroom - Safe Base | 24 |
| 2 | 15 | En-Suite Toilets & Shower Area | 30 |
| 1 | 20 | Multi-Sensory Room | 20 |
| 1 | 15 | Para-Educational Room | 15 |
| 1 | 10 | Staff Toilets | 10 |
| 1 | 10 | Linen/Sluice Room | 10 |
| 1 | 30 | Storage | 30 |
| 1 | 20 | Office | 20 |
| | | Subtotal Special Needs Unit (SNU) | 379 |

| | | External: | Total Area m ² |
|---|-----|--|------------------------------|
| 3 | 585 | External Ball Courts | 1,755 |
| 2 | 300 | Junior Play Area | 600 |
| 1 | 200 | SNU Secure hard and soft play area | 200 |
| 1 | 100 | SNU Sensory garden | 100 |
| | 16 | Car Parking Spaces for Teaching staff & visitors | |