

# Part A: Administration and Design Process

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# Part A1: Administration

## A1.1 TDSB Policies, Procedures, and Guidelines

### .1 General

All members of the Consultant Design Team are required to comply with all relevant [TDSB policies, procedures, and guidelines](#).

The Consultant Design Team shall review the following specific policies, procedures, and guidelines, which pertain to their work:

[PO17 Purchasing](#)

[PO24 External Partnerships](#)

[PO26 Architect Selection](#)

[PO28 The Environment](#)

[PO31 Human Rights](#)

[PO34 Workplace Harassment](#)

[PO48 Occupational Health and Safety](#)

[PO51 Caring and Safe Schools](#)

[PO69 Accessibility](#)

[PR513 Architects and Engineering Consultants Selection](#)

[PR695 Threats to School Safety](#)

[GU.FAC.028 Consultant and Contractor Performance Evaluation](#)

[TDSB Guidelines for the Accommodation of Transgender and Gender Independent/Non-Conforming Students and Staff](#)

## **.2 Health and Safety**

The Consultant Design Team is required to review and comply with all relevant TDSB health and safety documents when reviewing, investigating, or accessing the building. The list can be found at: [TDSB Health and Safety Policies](#)

The Consultant Design Team must read, understand, and acknowledge the TDSB's [Asbestos Management Program \(AMP\)](#) and [Asbestos Building Materials Survey Guideline](#) and the [Confined Space Entry Guideline](#) (especially the Coordination Plan).

For security, all Consultants will be required to undergo a vulnerable person's screening/(police) reference check as well as provide a deposit for an ID badge, which must be always worn on TDSB property. All Consultants are also requested to sign in at the General Office Suite when visiting the school.

## **.3 appointment of prime consultant**

An Architect (the Prime Consultant) is selected for each project as follows:

- 1) The TDSB issues a request for proposal (RFP) to procure the consulting services for the project.
- 2) The proposals will be evaluated (using the proposal evaluation criteria scoring), and a shortlist of architects will be interviewed according to the criteria listed in the RFP.
- 3) The **Architect Selection Committee** will interview the shortlisted proponents and will score interviews separately. The interview scores are added on to the total of the proposal evaluation criteria scoring for each candidate.
  - Following the interview, the Architect Selection Committee will select one architectural firm, and submit the name for approval in accordance with TDSB purchasing policy.

## **.4 Prime Consultant Contract Terms**

The TDSB will sign a contract with the successful proponent (the Prime Consultant) to provide full consulting services as outlined in (a) the Royal Architectural Institute of Canada RAIC Client Architect Agreement Document 6 (2006) & Schedule B, Canadian Handbook of Practice for Architects, and (b) the TDSB Supplementary Conditions to RAIC Client Architect Agreement Document 6, 2006. Additional scope of work, if applicable, will be specified in the contract, per the RFP for each project.

## **.5 Subconsultants**

The Prime Consultant must assemble a group of experienced school design Sub Consultants to provide the full spectrum of professional services required to successfully complete the project as per the scope of the RFP. The Prime Consultant and the Sub Consultants form the Consultant Design Team.

The tasks of the Consultant Design Team may include but are not limited to the following:

- structural, mechanical, and electrical engineering
- landscape architecture (and arborist report if required)
- civil engineering, including supplying storm water management studies and reports required to obtain jurisdictional approvals
- traffic consulting services for the project, including a traffic impact study
- energy modelling
- building envelope, archaeological, heritage preservation, TRCA, LEED, noise and vibrations, air quality and/or Code consultants

The TDSB will engage land survey, geotechnical, environmental, and commissioning Consultants, as well as quantity surveyors. The Prime Consultant will be expected to coordinate with all Consultants for the project.

## **.6 Accessibility**

All members of the Consultant Design Team must be familiar with the [Accessibility for Ontarians with Disabilities Act, 2005](#). O. Reg 429/07 Accessibility Standards for Customer Service requires that every provider of goods and services (i.e., all Consultants and Contractors) shall have training regarding the provision of services to people with disabilities.

## **A1.2 Use and Operation of the School**

### **.1 Community**

TDSB schools are used actively by community groups, both during and outside of operating hours, and should be designed with community use in mind.

Community groups who use the school may require controlled access to specific facilities. The list of school facilities most frequently permitted or leased will be reviewed during the Schematic Design Phase.



## .2 Child Care

The Consultant Design Team will be required to coordinate with the TDSB, City of Toronto, and Ontario Ministry of Education for projects that contain a child care space so that child care programming needs are addressed in the design. Some of the design considerations for child care include secure access, vehicular drop-off, parking, signage, and fenced play areas.

## .3 Maintenance

The TDSB promotes the use of durable materials with low life-cycle costs that are readily available and proven to perform in an institutional setting, subject to project budget restraints.

For ease of building maintenance, the Consultant Design Team must:

- avoid labour-intensive finishes, materials, and features
- provide architectural and mechanical and electrical equipment designs, selections, and layouts that consider maintenance, removal or replacement (portions or entire units), and access by service representatives
- avoid elements and features that can be easily vandalized or allow access to unauthorized areas of the building

Caretaking and overall operations of the individual school facilities is performed by TDSB Operations staff.

## A1.3 Project Management

### .1 Roles

TDSB projects are managed by staff from the TDSB Design, Construction, and Maintenance departments.

**Design Coordinators** act as the owner's representative and manage the project during the design phase up to completion of tender documents.

**Project Supervisors** act as the owner's representative and manage the project during the tender and construction phase up to completion of construction.

Control of the project is transferred from the Design Coordinator to the Project Supervisor after completion of tender documents.

## **.2 Communications**

Refer to A3: Design Process—Phase-by-Phase Project Requirements for a more detailed description of communication requirements at each phase.

### **Communication during the Design Phase through to the Tender Phase**

Communication with the TDSB shall be directed through the appointed Design Coordinator.

The Design Coordinator is responsible for liaising with the Prime Consultant and the TDSB, including school staff and other departments.

### **Communication during the Construction Phase**

Communication with the TDSB shall be directed through the appointed Project Supervisor.

The Project Supervisor is responsible for liaising with the Prime Consultant and the TDSB, including school staff and other departments.

## **.3 Information Provided to the Prime Consultant**

The TDSB will provide the Prime Consultant with the following items, if available:

- existing building and site archive or electronic drawings
- legal and topographical survey
- preliminary geotechnical and environmental investigations
- available archive and electronic drawings
- asbestos and hazardous materials reports
- confined-space reports

The Prime Consultant is responsible for verifying existing conditions and information provided by the TDSB. The Prime Consultant shall conduct a site investigation of the existing school and provide a report to the Design Coordinator.

## **.4 Project Forms and Progress Reports**

At the outset of the Design Phase, a set of project forms shall be developed by the Prime Consultant and approved by the TDSB. The Prime Consultant shall maintain project forms for the duration of the project.

## **.5 Schedule Management**

The Prime Consultant shall develop a Project Schedule in consultation with the TDSB. The Prime Consultant shall maintain the schedule and report on it to the TDSB on a regular basis.

## **.6 Budget and Cost Management**

As outlined in A2.8: Quantity Surveys and Life-Cycle Costs, the design for each project will be approved through a series of professional cost estimates.

## **.7 Applicable Codes and Authorities Having Jurisdiction**

All TDSB projects shall meet or exceed all requirements of the Authorities Having Jurisdiction. Authorities Having Jurisdiction supersede the RFP, which supersedes this Guideline.

The Prime Consultant shall complete pre-consultation reviews with the municipal planning and building departments and report to the TDSB Design Coordinator.

## **A1.4 Resources**

### **TDSB Policies and Procedures**

[TDSB Policies and Procedures](#)

[PO17 Purchasing](#)

[PO24 External Partnerships](#)

[PO26 Architect Selection](#)

[PO28 The Environment](#)

[PO31 Human Rights](#)

[PO34 Workplace Harassment](#)

[PO48 Occupational Health and Safety](#)

[PO51 Caring and Safe Schools](#)

[PO69 Accessibility](#)

[PR513 Architects and Engineering Consultants Selection](#)

[PR695 Threats to School Safety](#)

[GU.FAC.028 Consultant and Contractor Performance Evaluation](#)

**Ontario Ministry of Education Benchmark Requirements**

[Building Our Schools, Building Our Future: A Report from the Expert Panel on Capital Standards](#)

**Ontario Ministry of Education Health and Safety Policies**

[Ontario Ministry of Education Safe Schools](#)

[Caring and Safe Schools in Ontario](#)

**RAIC Contract**

[Canadian Standard of Contract for Architectural Services Document 6](#)

**Ontario Ministry of Education Day Nurseries**

[Day Nurseries Act](#)

**City of Toronto Planning and Building**

[A Development Guide: Building Toronto Together](#)

[A Development Guide Section D Site Plan Control Applications](#)

**Ontario Ministry of the Environment and Climate Change Environmental Protection Act**

[Regulation 102/94 Waste Audit and Waste Reduction Work Plans](#)

**Accessibility**

[O. Reg. 191/11: Integrated Accessibility Standards](#)

**Occupational Health and Safety**

[R.R.O. 1990, Reg. 851: Industrial Establishments](#)

# Part A2: Design Process—Design Objectives and Project Requirements

## A2.1 Guideline Conformance and Innovation

As mentioned in the Introduction, this Guideline reflects the TDSB’s objective to build durable, environmentally sustainable schools that inspire teaching and learning and respect EDU benchmarks. To meet these requirements, the Consultant Design Team shall follow all aspects of this Guideline in the design of new elementary schools.

Site conditions, however, may affect how some of the parameters in the Guideline are applied to new schools. For renovation or addition projects, existing conditions may similarly affect how the Guideline is applied. In these cases, the Consultant Design Team, in conjunction with TDSB staff, shall recommend at the outset of the project what level of Guideline conformance is achievable.

For renovation projects, requirements that apply only to “new builds” may be omitted. Confirm these requirements in conjunction with the project RFP and any terms of reference issued at the outset of the project. Coordinate all sections of the Guideline with the particular requirements as needed.

The application of the Guideline is not intended to restrict creative solutions. The Consultant Design Team is encouraged to pursue any innovative design strategies that meet the objectives of the Guideline.

## A2.2 Meeting Teaching and Learning Objectives

Creating spaces that meet teaching and learning objectives is paramount to the success of each project. The Consultant Design Team must recognize that the TDSB objectives outlined in this Guideline are to be balanced with creating environments that support teaching and learning excellence.

## A2.3 Ontario Ministry of Education Benchmark Requirements

The TDSB intends to construct its new school facilities to EDU benchmark requirements. The TDSB recognizes that long-term operational cost savings can be achieved with the construction of an energy-efficient building. The Prime Consultant will be expected to illustrate the long-term cost savings from utility, maintenance, and operations that can be

realized with the proposed school design.

## **A2.4 Extraordinary Costs**

The TDSB will provide a space program and the benchmark net construction budget (excluding construction contingency) for each project. Extraordinary costs, which will be identified by the Prime Consultant during the Schematic Design Phase, are not included in this budget. Extraordinary costs may include but are not limited to the following:

- service disconnects to existing building
- site utility upgrades, if required
- site remediation
- demolition of existing structures
- site re-grading/levelling
- temporary parking
- others as identified during the design process

## **A2.5 Sustainability**

The TDSB supports using cost-effective, durable materials that can be demonstrated to be environmentally sustainable in construction, operation, maintenance, or deconstruction.

Energy conservation and life-cycle cost analysis—which are closely related to sustainability—are covered below.

## **A2.6 Energy Conservation**

The TDSB is interested in affordable and practical energy conservation measures for its buildings. All projects must meet the energy requirements set out in current codes and compliance standards, specifically Ontario Building Code (OBC) Supplementary Standard SB-10 Energy Efficiency Supplement (SB-10).

Currently, OBC SB-10 allows both prescriptive and performance-based compliance methods. Energy modelling can be used as a tool to inform cost-effective and energy-efficient design decisions and optimize the design. Review the requirements for multi-stage energy modelling with the Design Coordinator.

The Consultant Design Team is encouraged to investigate and discuss with the TDSB any energy conservation measures or incentives programs that have a clearly definable cost savings where energy costs can be reasonably estimated within a defined time frame.

In addition, the Prime Consultant should take advantage of the natural features of the site, such as topography, light, and orientation to maximize energy efficiency.

## **A2.7 Commissioning**

- Based on the project RFP terms of reference or direction from the Design Coordinator, confirm the scope of commissioning.
- Select a Commissioning Consultant acceptable to the TDSB and develop the scope of the Commissioning Plan.

## **A2.8 Quantity Surveys and Life-Cycle Costs**

### **.1 Cost Estimate**

The TDSB will engage a professional Quantity Surveyor. A cost estimate will be conducted for all major projects at key points in the design phases and Contract Documents phases.

The Prime Consultant is responsible for coordinating the cost estimate and providing the appropriate drawings and specifications to the Quantity Surveyor. For new school designs, the Quantity Surveyor's cost estimate is to be developed with consecutively updated cost estimates at a minimum of two stages, described below and listed in the phase-by-phase duties described in A3: Design Process—Phase-by-Phase Project Requirements.

- 4) Class C estimate at 25% Schematic Design Phase (for Sketch Plan Approval submission)
- 5) Class A estimate at 85% Contract Documents Phase (for EDU Approval to Proceed submission)

### **.2 Life-Cycle Cost Comparison**

To make long-term cost-saving design choices relative to EDU benchmarks, life-cycle costing shall be completed for any proposed materials or systems that show premium first costs and where less expensive alternatives are available. Typically, these life-cycle costs should be reviewed for major systems (e.g., HVAC) as early as the Class C estimate.

## **A2.9 Community Consultation**

At the outset of new projects, a New School Review Team (NSRT) will be formed to review the scope of the project, discuss site specific issues and examine schematic option(s) to be developed in accordance with the Elementary School Design Guideline. Specific terms of reference will be included in each project's RFP.

Two NSRT meetings are typical for most projects, with one community consultation meeting.

## **A2.10 Heritage Preservation**

If heritage designated, the proponent shall include a heritage sub-consultant (or in-house resource) on the consultant team to identify, when applicable, elements or features of the listed or designated existing building. The features include, but are not limited to, cornerstones, suitable for retention and incorporation into the new building or site development subject to approval by Authority Having Jurisdiction.

## **A2.11 Community Use Requirements**

TDSB schools are frequently available to the community. In the Schematic Design Phase, the Prime Consultant shall consider, in conjunction with the Design Coordinator and the NSRT, the extent to which the facility will need to accommodate community use.

Where identified in the approved building program, the following areas may be included:

- sports fields
- gymnasium or general purpose room and related facilities
- washrooms
- library
- staff rooms
- designated classrooms

Locations for access and security separation required to accommodate community use must be integrated into the school design.

## **A2.12 Universal (Barrier-Free) Design**

The TDSB supports the full inclusion of persons with disabilities and is committed to building barrier-free schools.

As part of implementing the Accessibility for Ontarians with Disabilities Act, the Ontario government has passed Regulation 332/12 updating the accessibility requirements of the Ontario Building Code, Part 3.8, effective January 1, 2015, and the Integrated Standard— Accessible Built Environment. In keeping with the TDSB policy of inclusiveness, the Consultant Design Team shall meet and may exceed the OBC requirements.

The TDSB supports designing spaces for the broadest range of people with a wide spectrum of human abilities. The Consultant Design Team shall strive to incorporate the principles of



Universal Design in the design of the indoor and outdoor spaces.

## A2.13 Design for Lockdown

A lockdown is defined by the Toronto Police Service as the restriction of movement during the time of a potentially serious violent incident that would endanger the lives of students and staff. The TDSB requires that all schools be designed to facilitate lockdown procedures.

The design elements to facilitate lockdown will be reviewed during Design Development and be included in the contract documents. Elements include:

- an integrated telephone and P.A. system
- blinds for all interior vision screens and exterior windows
- hardware for interior doors of occupied spaces that is capable of being locked from both inside and outside the room
- interior signage consistent with exterior signage per TDSB guidelines
- in the General Office Suite, a telephone capable of calling out of the school, a P.A. handset connected to a line seizure device (which frees up the outside line for emergency calls), and a P.A pushbutton used to initiate lockdown procedures (and which overrides all other communication)

Interior design shall feature clear sightlines in instructional and circulation spaces, including the Library Learning Commons. Do not create nooks and areas that give people the opportunity to hide.

## A2.14 Health and Safety

Note that the existing building is covered under Industrial Regulations, and adequate safeguards to ensure the safety of the building occupants must be implemented. No hoisting is permitted over occupied sections of the building.

Fire protection glazing and fire resistance glazing installed in fire windows or closures that are subject to human impact shall meet applicable safety standards.

Access to all roof blocks where equipment, including roof drains, is present shall be provided. Minimize the use of ship ladders with roof-hatch approach; horizontal access door is preferred. Review roof access with the **Design Coordinator**. Access to roofs from exterior at grade level via fixed ladder should not be considered.

## **A2.15 Crime Prevention through Environmental Design (CPTED)**

Crime Prevention through Environmental Design (CPTED) is a crime prevention approach supported by Toronto Police Service based on the theory that the built environment influences behaviour. The proper design and effective use of the built environment reduces criminal opportunities in and around the school property and reduces the fear of crime.

Consultants are encouraged to review the CPTED website and building design principles.

## **A2.16 Prime Consultant's Administration Duties**

Refer also to the specific requirements for each phase listed in A3: Design Process--Phase-by-Phase Project Requirements. The following is a typical scope of project administration work for the Prime Consultant for all project phases.

### **.1 Consultant Design Team**

The Prime Consultant will assemble a design team of Sub-consultants, as required by the scope of the RFP, to complete the tasks of the project, including but not limited to the following:

- structural, mechanical, and electrical engineering
- landscape architecture, including an arborist report if required
- civil engineering, including supplying storm water management studies and reports required to obtain jurisdictional approvals to complete the project
- traffic consulting services for the project, including a traffic impact study
- energy modelling
- building envelope, archaeological, heritage preservation, TRCA, LEED, noise and vibrations, air quality and/or code consultants

### **.2 General Project Administration**

- Provide a single point of contact between the Consultant Design Team and the TDSB's project representative throughout the term of the consulting services contract. The Prime Consultant's contact must be available during normal business hours.
- Chair coordination meetings with Subconsultants, Contractors, and the TDSB.
- Maintain and distribute minutes of all meetings. Minutes for distribution outside of TDSB Facility Services must be reviewed by the Design Coordinator.
- Advise the TDSB's project representative on all matters within the scope of the approved consulting services contract.

- Refer to the RAIC Canadian Handbook of Practice and the TDSB supplementary conditions as the guides for level of service expected.

### **.3 Municipal Approvals Assessment and Administration**

- Administer, on behalf of the TDSB, municipal approvals, including preparing and delivering all applications (e.g., zoning review, preliminary plan review, site plan review, building permits, storm water management, Toronto Green Standard, and others that may apply).
- Monitor the approvals process, including schedule and timelines.
- Arrange and attend meetings with, and provide follow-up reports to, jurisdictional authorities.
- Provide monthly status reports to the TDSB (from application to approval receipt).
- Obtain from the authorities the final permits/approvals documents and forward them to the TDSB.

### **.4 Topographic Survey, Geotechnical, and Environmental Investigations**

Based on the topographic survey, geotechnical\*, and environmental investigations made available by the TDSB-engaged specialist Consultants, the Prime Consultant must provide a thorough audit and review of the existing site conditions, including an existing facility when it is slated for demolition. (Land survey, geotechnical, and environmental Consultants are retained by the TDSB, not the Prime Consultant.)

The Consultant Design Team must assess and document any items to be relocated into the new facility unless otherwise stated in the RFP.

\*Typically the geotechnical report will be completed once the Prime Consultant has provided the terms of reference at an appropriate stage in the design phase.

### **.5 Reporting Requirements**

Submit monthly information packages as required, using project forms.

### **.6 Meetings: Schematic Design, Design Development, and Contract Documents Phases**

In accordance with the Project Schedule, meet with **Facility Services Design Review Team** to receive technical sign-off during Schematic Design, Design Development, and Contract Documents phases. At these meetings, the Prime Consultant shall:

- arrive with a presentation of drawings and specifications (including computer and projector)
- chair the meetings
- take minutes and record all concerns and issues
- respond to issues within five working days of the meeting

**.7 Submittals: Schematic Design, Design Development, and Contract Documents Phases**

- Submit to the TDSB three (3) hard copy sets (outline specification/specifications and drawings) and one (1) digital copy (PDF) of all documents submitted.
- This package is to be submitted by 1:30 PM five (5) working days before the Facility Services Design Review Team’s scheduled review meetings.

**A2.17 Approvals to Proceed**

The following is a chronological list of the minimum TDSB and municipal approvals required for a new school project, through to tender:

<b>Pre-design stage</b>	TDSB selection and approval of Prime Consultant
<b>Pre-design stage</b>	Execution of RAIC Client Architect Agreement Document 6
<b>Schematic Design Phase</b>	NSRT approval of preferred schematic design; TDSB approval of Program and Sketch Plan Submission
<b>Contract Documents Phase</b>	All approvals submissions for Authorities Having Jurisdiction, including Site Plan Approval and Building Permit
<b>Pre-tender</b>	EDU approval of 85% Class A cost estimate
<b>Tender Phase</b>	TDSB approval to tender

Refer also to the specific requirements for each phase listed in **A3: Design Process—Phase-by-Phase Project Requirements**.

## **A2.18 Project Forms**

For all major projects, the Prime Consultant shall develop the following standard templates for schedules and reports. The TDSB will review completion and maintenance of the forms at the outset of the project.

- Monthly Project Report Form
- Project Schedule
- Project Status Report

These forms shall be submitted on a monthly basis until tender.

The Prime Consultant shall maintain an up-to-date Project Checklist (based on the RAIC Canadian Handbook of Practice).

## **A2.19 Resources**

### **Ontario Ministry of Education Benchmark Requirements**

[Building Our Schools, Building Our Future: A Report from the Expert Panel on Capital Standards](#)

### **Ontario Ministry of Education Capital Programs Branch**

[Area per pupil benchmark calculator and facility space templates](#)

### **Sustainability**

[TDSB Go Green Climate Change Action Plan](#)

### **Energy Modelling**

[Natural Resources Canada RETScreen Software and Data](#)

[Natural Resources Canada EE4 OBC](#)

### **Barrier-Free Design**

[New Accessibility Amendments to Ontario's Building Code](#)

[Accessibility for Ontarians with Disabilities Act, 2005](#)

[Gov't of Ontario Accessibility Standard for the Design of Public Spaces](#)

City of Toronto Accessibility Design Guidelines

PO83 Accessibility

**Crime Prevention through Environmental Design (CPTED)**

CPTED Ontario

Toronto Police Service Crime Prevention

# Part A3: Design Process-Phase-by-Phase Project Requirements

## A3.1 Schematic Design Phase

### .1 Meetings and Administration

- Perform all applicable duties required by the Project Checklist and RAIC Handbook of Practice.
- Schedule all regular meetings into the Project Schedule.
- At all meetings, administer agenda and minutes, and distribute information as required in A.2.15: Prime Consultants Administration Duties.
- Attend meetings with the New School Review Team (NSRT).

### .2 Background Documents

At the outset of Schematic Design, review the list of background documents with the Design Coordinator. The Prime Consultant shall ensure that the Consultant Design Team receives and reviews all available background documents for accuracy and completeness of these documents and advises the Design Coordinator of any deficiencies, such as surveys that are missing or are not up to date. The Prime Consultant must advise if additional information is required in order to carry out the project.

### .3 Program Template

Review the TDSB space program with the Design Coordinator.

### .4 New School Review Team (NSRT)

At the outset of the design of a new school and for some renovation or addition projects, a New School Review Team (NSRT) will be formed to review the preferred schematic design option. Depending on the nature or scale of the project, the NSRT may comprise the following representatives:

- the local TDSB Trustee
- TDSB Superintendent of Education
- school Principal and designated teaching staff
- school parent representative(s), typically from the school council

- TDSB Design staff
- TDSB Family Team Leader
- Regional Manager
- school Caretaker

Community representation is optional and will vary at the discretion of the Superintendent of Schools based on each local community.

The Prime Consultant will typically meet with the NSRT twice during the Schematic Design Phase to review a preferred option. The NSRT will provide feedback and sign off on the design.

## **.5 Budget**

- Review the approved TDSB project budget with the Consultant Design Team.
- Review base budget and extraordinary costs information against schematic design options and report to the Design Coordinator.
- Provide the Quantity Surveyor with schematic design information pertinent to his or her scope of work.

## **.6 Design Elements**

Include, as a minimum, schematic exploration of options that address the following:

- site layout alternatives and description of how the building relates to the land
- building typology (e.g., form and massing, height, orientation on site)
- available daylighting opportunities
- structural systems (e.g., load-bearing masonry, steel frame, etc.)
- HVAC systems in conjunction with electrical and mechanical guidelines
- circulation systems (horizontal and vertical)
- layout of main areas (entrance, office, gym, etc.)
- probable relative cost and cost comparison to EDU benchmark
- probable floor area comparison to TDSB space program

## **.7 Energy Modelling**

- Prepare a clear scope of work for multi-stage energy modelling, if required.
- Coordinate the approved Energy Modeller to complete a schematic stage energy model report on viable options and compare it to TDSB targets and OBC requirements.
- Confirm if any government or commercial energy incentive programs may be applicable to the project.



## **.8 Cost Estimate**

- Prepare a clear scope of work for a cost estimate at the end of the Schematic Design Phase.
- Coordinate the approved Quantity Surveyor to complete a Class C cost estimate and relate it to EDU benchmarks.
- Review the life-cycle cost of any premium-cost major building systems or components for long-term cost savings.
- Revise schematics as required to maintain conformance to the TDSB space program and budget.

## **.9 Authorities Approvals**

- Prior to meeting with Authorities Having Jurisdiction, report on the scope of applicable approvals for the options being explored (e.g., variances, Site Plan Approval conditions, etc.).
- Conduct pre-consultation meetings with authorities.

## **.10 Renovations and Additions**

- Review and report on existing building and site conditions documentation.

## **.11 Project Forms**

- Maintain all project forms (Monthly Report, Project Schedule, Project Status Report, Project Checklist).
- Review the project forms with the Design Coordinator on a monthly basis at a minimum.

## **.12 TDSB Program and Sketch Plan Approval Package**

- Prepare a drawing package including but not limited to: site plan, floor plans, and building elevations, and include room uses labelled or numbered with a legend. Ensure legibility of items when reduced to letter-size.
- Prepare a design brief outlining the project. Summarize the architectural design, solution and materials, the site constraints, opportunities, urban design features, and building relationship to the community.

## **.13 TDSB Approvals**

- Provide a Schematic Design package for sign-off.
- Prepare and submit a Site Plan Approval application.
- Advance to the Design Development Phase upon approval by the Design Coordinator.

## **A3.2 Design Development Phase**

### **.1 Meetings and Administration**

- Perform all applicable duties required by the Project Checklist and RAIC Handbook of Practice.
- Conduct regular meetings in accordance with the Project Schedule.
- Administer agenda and minutes and distribute information as required in A.2.15: Prime Consultant's Administration Duties.
- Conduct Consultant Design Team meetings with the TDSB Design Coordinators as documents are updated.
- The TDSB Design Coordinator will, within the TDSB, circulate the design development package for review.

### **.2 Budget**

- Maintain the project budget aligned with the TDSB budget with input from the Consultant Design Team.
- Track changes that affect budget, including extraordinary costs information and life-cycle costs, and report to the Design Coordinator.

### **.3 Design Elements**

Include, at minimum:

- design development of the site plan and how the building relates to the land, floor plan layout, building form and massing, fenestration and elevation materials, and available daylighting opportunities.
- a Structural Design Brief and schematic layout of the structure.
- review of "constructability" (i.e., basic construction logic) and construction materials options.
- HVAC and electrical systems and schematic layout in conjunction with Parts D and E of Guideline.
- a Mechanical and Electrical Brief, which describes M&E systems, functions, and proposed design performance.
- vertical and horizontal circulation layout and effect on supervision, transparency, and daylighting.
- updated projected cost and cost comparison to EDU benchmarks.
- updated floor area comparison to EDU benchmarks. Revise as required to meet EDU benchmarks.

- supplementary studies as outlined in the RFP (e.g., traffic study, code report).
- confirmation that basic room layouts and sizes conform to the Guideline's Part C3 configurations and requirements.

#### **.4 Energy Modelling**

- Coordinate the approved Energy Modeller to complete an energy model report on developed design, including the Mechanical and Electrical Brief, and compare it to TDSB targets and OBC requirements.
- Revise building components and systems as required to meet OBC energy requirements.

#### **.5 Cost Estimate**

- Review with the Design Coordinator if a cost estimate (Class B) is required at the end of design development.
- Prepare a clear scope of work for a cost estimate.
- If required, coordinate the approved Quantity Surveyor to complete a Class B cost estimate and relate it to EDU benchmarks.
- Revise schematics as required to maintain conformance to the TDSB space program and budget.
- Review the life-cycle cost of any premium-cost major building systems or components for long-term cost savings.

#### **.6 Commissioning**

- Coordinate the Consultant Design Team work with the Commissioning Consultant as required by the Commissioning Plan.

#### **.7 Authorities Approvals**

- Report on the scope of all approvals as applicable, including but not limited to planning, building, and fire departments, conservation authorities, Ministry of the Environment and Climate Change (Waste Audit and Environmental Compliance Approval – Air) and advise on the findings.
- Update the Project Schedule to incorporate all approval critical dates and milestones.

#### **.8 Project Forms**

- Maintain all project forms (Monthly Report, Project Schedule, Project Status Report, Project Checklist).
- Review the project forms with the Design Coordinator on a monthly basis at a minimum.
- Incorporate findings from all topics above in a summary report, including conformance to

EDU benchmarks.

## **.9 TDSB Approvals**

- Prepare a design development package for sign-off.
- Advance to the Contract Documents Phase, upon approval by the Design Coordinator.

## **A3.3 Contract Documents Phase**

### **.1 Meetings and Administration**

- Perform all applicable duties required by the Project Checklist and RAIC Handbook of Practice.
- Conduct regular meetings in accordance with the Project Schedule.
- Administer agenda and minutes and distribute information as required in A2.15: Prime Consultant's Administration Duties.
- Conduct Consultant Design Team meetings with TDSB Design Coordinators as documents are updated.
- The TDSB Design Coordinator will, within the TDSB, circulate the contract packages for review.
- The Prime Consultant will attend internal review meetings with the Design Review Team.

### **.2 Contract Documents Format**

- Provide contract documents and specifications in a format suitable to the TDSB, typically the latest version of AutoCAD or a program that can be converted for use by the TDSB (e.g., Autodesk REVIT converted to AutoCAD).
- Prepare specifications in Microsoft Word using Master Format® current version as set out by National Master Specification (NMS), Construction Specifications Institute (CSI), and Construction Specifications Canada (CSC).
- Provide the Design Coordinator with a list of drawings and the proposed organization of the drawings set and the specifications index.

### **.3 Budget**

- Update project budget information against the TDSB budget with Consultant Design Team input.
- Update changes that affect budget and extraordinary cost information against the developed design and report to the Design Coordinator.
- Maintain all budget information to provide to the Quantity Surveyor for an updated cost estimate.

## **.4 Coordination of Contract Documents**

- For new schools or large renovations or additions, conduct a multidisciplinary progress review meeting with the Design Coordinator and other TDSB representatives at the 35% and 85% completion of contract documents. These meetings may be in conjunction with or in addition to regular all-disciplines Consultant Design Team meetings. The Prime Consultant shall provide written responses to comments provided on the comments tracking sheet.
- At 35% completion, update the Mechanical and Electrical Brief to further describe M&E systems, equipment types and capacities, and proposed design performance.
- At 85% completion, issue contract documents to the Quantity Surveyor to prepare a Class A cost estimate suitable for EDU Approval to Proceed submission.
- Provide a drawings and specifications package to the Design Coordinator for final TDSB technical review.
- Convene a review meeting with the Design Coordinator to review comments and the Class A estimate when complete.
- Update construction documents and specifications to suit input by TDSB staff.
- Specifications: include TDSB-specific clauses as may be required by Part C4: Architectural Standards of Acceptance.
- Specifications: include in Division 1 a Conflict-of-Interest clause as provided by the TDSB. Note that this policy is extended to all Consultants where any apparent gain from the use of materials, suppliers, or service providers shall be declared, in writing, prior to recommending their use.
- Specifications: include in Division 1 the TDSB Fair Wage Policy, copy as provided by the TDSB.
- Specifications: coordinate with the Project Supervisor for the Bonding and Insurance requirements to be outlined within the specifications.
- Specifications: coordinate all specification requirements with Part C4: Architectural Standards of Acceptance.

## **.5 Energy Modelling**

- Coordinate the Energy Modeller in completing an energy model updated report and compare it to TDSB targets and OBC requirements.
- Revise building components and HVAC systems as required to meet OBC energy requirements and TDSB performance targets.

## **.6 Cost Estimate**

- Adjust design as required to meet EDU benchmarks.

- At 85% completion of all Consultants' contract documents, coordinate the approved Quantity Surveyor to complete a Class A cost estimate.
- As part of the Class A cost estimate, review the life-cycle cost of all premium cost major building systems or components for sustainability or durability long-term cost savings.
- Submit the Class A estimate to the Design Coordinator for submission to EDU for Approval to Proceed to tender.

## **.7 Commissioning**

- Coordinate with the Consultant Design Team to work with the Commissioning Consultant as required by the Commissioning Plan.

## **.8 Authorities Approvals**

- Coordinate processing of contract documents with the Site Plan Approval application process.
- Prepare and submit documents for the Building Permit application in time to maintain scheduled construction start. Coordinate processing of the permit; incorporate comments into the tender documents.
- Per Ontario Regulation 419/05 and as applicable to the project, coordinate the application and processing of an Environmental Compliance Approval – Air or Noise (e.g., ECA– Air, and formerly Certificate of Approval) with the Ministry of the Environment and Climate Change for projects discharging contaminants into the air (e.g., generators, fume hoods, etc.)
- For new construction or demolition projects over 2000 square metres (21,500 square feet), include in the specifications the requirements for a Waste Audit and Waste Reduction Plan in accordance with Ontario Regulation 102/94.
- Coordinate the submission and processing of all other permits with appropriate Authorities Having Jurisdiction.
- Report on the scope of all approvals as applicable, including but not limited to: planning, building and fire departments, and conservation authorities, and advise on the findings.
- Update the Project Schedule to incorporate all approvals, critical dates, and milestones.
- At the conclusion of the Contract Document Phase, the Prime Consultant shall submit the Change to Building Room Areas and Space Use Form with the AutoCAD drawings to the Design Coordinator.

## **.9 Project Forms**

- Maintain all project forms (Monthly Report, Project Schedule, Project Status Report, Project Checklist).

- Review the project forms with the Design Coordinator on a monthly basis as a minimum.
- Incorporate findings from all topics above in a summary report including conformance to EDU benchmarks.

## **10. Pre-Qualification of Contractors**

- Ensure that the pre-qualification process is concluded prior to the start of the scheduled tender period.
- Ensure that the pre-qualification process meets the applicable terms of the Broader Public Sector Procurement Directive.
- In accordance with TDSB policy and project requirements, assist in the preparation of notice of pre-qualifications of General Contractors and Subcontractors.
- Review pre-qualification submissions in accordance with scoring criteria and provide recommendations to the Project Supervisor.

## **.11 TDSB Approvals**

- Prepare a Contract Documents package for sign-off.
- Advance to the Tender Phase upon approval by the Design Coordinator and Project Supervisor.

## **A3.4 Tender Phase**

### **.1 Meetings and Administration**

- Perform all applicable duties required by the Project Checklist and RAIC Handbook of Practice.
- Conduct regular meetings in accordance with the Project Schedule.
- Administer agenda and minutes and distribute information as required in A2.15: Prime Consultant's Administration Duties.

### **.2 Site Orientation Meeting**

- At an appropriate time during tender, conduct a site orientation meeting for bidders and review the project site conditions and scope.

### **.3 Coordination of Tender and Addenda**

- Coordinate the Consultant Design Team in preparation of tender documentation and coordinate responses to all inquiries by issuing formal Addenda.

#### **.4 Commissioning**

- Coordinate any tender information updates with Commissioning Consultant input as directed by the Project Supervisor and as required of the Commissioning Plan.

#### **.5 Authorities Approvals**

- Coordinate with the Project Supervisor the timing of tender with the Site Plan Approval and Building Permit processes.

#### **.6 Award of Contract**

- Upon TDSB award of contract, prepare the CCDC 2, 2008 Stipulated Price Contract for major projects. Include and coordinate with the TDSB Supplementary Conditions.

### **A3.5 Contract Administration Phase**

#### **.1 Meetings and Contract Administration**

- Perform all contract administration duties required by the Project Checklist and RAIC Handbook of Practice.

#### **.2 During Construction**

In accordance with the CCDC 2 contract and RAIC/OAA best practices, coordinate all office and field functions with the Project Supervisor and the Consultant Design Team, including but not limited to:

- periodic inspections and Field Review reports
- attendance at all site meetings and preparation of site meeting minutes
- review and issue of standard contract administration forms including Supplementary Instructions, Field Review reports, shop drawings, Change Notices, valuation of changes to the work, Change Orders, Contractor progress claims and Certificates of Payment, submissions to authorities for review, Certificate of General Compliance, etc.

#### **.3 Addition or Renovation to an Occupied Building**

- Coordinate with the Project Supervisor the health and safety requirements and protocols for work within an occupied building.

#### **.4 Commissioning**

- Coordinate the Consultant Design Team activities with the Commissioning Consultant



reviews as required by the Commissioning Plan.

### **.5 Close-out Procedures**

- final contract values
- Contractor's submission of completion of the Operation and Maintenance manuals
- review of Operation and Maintenance manuals

determination of Substantial In accordance with the CCDC 2 contract, TDSB Supplementary Conditions, and RAIC/OAA best practices, coordinate with the Project Supervisor and the Consultant Design Team the deliverables at the close-out, including but not limited to:

- a detailed deficiency documentation process involving all disciplines
- all final submissions by the Contractor, including warranties, as-built drawings, etc., and follow takeover procedures in accordance with specifications
- close-out of all outstanding claims or Changes to the Work and reconciliation of Performance and Total Completion
- receipt of as-built mark-up drawing and preparation of a comprehensive set of record specifications and as-built drawings by all disciplines in AutoCAD format, in hardcopy (for school, for future maintenance issues) and electronic (for Design, Construction, and Family Team Leader)
- all other close-out deliverables as per TDSB list
- review and revise the Changes to Building Room Area Use Form and resubmit to the Project Supervisor
- coordinate building systems and equipment demonstration with Operations

### **.6 Authorities Approvals**

- Coordinate final inspections and submission of required documentation to Authorities to obtain approval for occupancy.
- Obtain other approvals as per Project Checklist (e.g., TSSA, ESA, TFS)

## **A3.6 Post-Occupancy Phase**

### **.1 Administration**

- Perform all post-occupancy administration duties required by the Project Checklist and RAIC Handbook of Practice.

### **.2 Warranty Review**

- Confirm the one-year warranty period with the owner and Contractor.

- At least 60 days prior to one (1) year after the occupancy date, coordinate with the Project Supervisor to obtain a list of known or reported warranty issues.
- Coordinate the Consultant Design Team to complete a warranty inspection of the building and site within the one-year warranty period, attended by the Project Supervisor and General Contractor.
- Notify the Project Supervisor and General Contractor of warranty issues and assist the TDSB in obtaining warranty service.

Confirm with the Project Supervisor when all warranty issues are resolved.