



The mandate of University Planning, Design & Construction (UPDC) is to co-ordinate, integrate and successfully manage capital projects to deliver value and consistent levels of service for the University.

UPDC undertakes projects for a variety of Clients, including academic, administrative, shared services, Spaces & Experiences (S&E), Information Technology Services (ITS), Facilities & Services (F&S), and the University of Toronto Scarborough (UTSC) and Mississauga (UTM) campuses.

Led by the UPDC Chief, our department comprises  
four key teams:

- University Planning (UP)
- Project Development & Controls (PD&C)
- Project Management (PM)
- Design & Engineering (D&E)

three support groups:

- In-house Legal Services
- Facilities & Services (F&S)
- Finance Hub

UPDC executes Level 1 (Total Project Cost <\$10M) projects on the St. George Campus and all University of Toronto Level 2 (TPC \$10M-\$50M) and 3 (TPC >\$50M) projects.

UTSC's Design & Construction Management and UTM's Facilities Management and Planning teams manage their respective Level 1 projects.

In the delivery of its services, UPDC executes projects in compliance with the University policies and procedures; University of Toronto Design Standards; the Ontario Broader Public Sector (BPS) procurement directive; applicable laws, codes and trade agreements; and, when applicable, the University's Design Review Committee (DRC) Terms of Reference.

UPDC recognizes that time is of the essence on its capital projects and endeavours to respond to client requests within a business day.



## University Planning

UP leads the University's planning process that defines our major capital projects and a range of activities that impact the physical character of our campuses and other land holdings. UP guides the relationship between the University's buildings and open spaces, the planning for accommodating our teaching and research activities, and integration of ancillary uses including university housing, research and innovation space, with a focus on place-making and positive city building.

### Services:

#### Master Plan / Master Programming Exercises

- Campus master planning initiatives.
- Long-term strategic capital planning.
- Official Plan - Secondary Plan development.
- Public Realm initiatives.
- City infrastructure projects' coordination.
- Adjacent development application proposal monitoring.
- City-led and partnership working tables participation.

#### Space Planning

- Preparing the University's data for the Council of Ontario University (COU) triennial inventory of space submission to produce the COU Triennial Inventory of Physical Facilities of Ontario Universities.
- Maintaining Tri-campus building plans and space inventory.
- Advancing long-range faculty master plans/master programming on the St. George campus.
- Leading space utilization studies.
- Overseeing the application of space standards through the project planning process.
- Conducting space reviews and utilization and master programming studies to assess existing space.
- Providing recommendations to improve space efficiency and identifying future projects.

#### Governance of Capital Projects

- Serving as Secretariat to the Level 1 Capital Projects and Space Allocation Committee (CaPS).
- Serving as Secretariat to the Levels 2 and 3 Capital Projects Executive Committee (CaPS Exec).
- Facilitating and supporting tri-campus project governance and approvals through UofT Governance Committees and Boards.
- Serving as Secretariat to the University's Design Review Committee (DRC).
- Facilitating the DRC review of any project with an exterior design component or impact on the public realm or heritage buildings.



Planning of Major Capital Projects

- Leading the Project Planning Committee (PPC) to develop the Project Planning Report (PPR), which defines the scope of the University's Levels 2 and 3 projects.
- Providing project planning support for complex Level 1 projects.
- Developing the initial Risk Register for the project.
- Supporting feasibility studies to assess the scope, viability, and risk of a future capital project.
- Monitoring alignment to the PPR throughout design development.
- Overseeing the application of space and design standards through the project planning process.
- Consulting on signage and banner proposals, campus wayfinding, and outdoor landscape elements such as furniture, minor alterations to public realm and accessibility.
- Participating in the selection process for architects and other professionals.
- Guiding municipal approvals (e.g. SPA, heritage, etc.) for the University.
- Monitoring and reviewing municipal and provincial policy, legislative changes and development applications in consideration of impacts on the University.
- Representing the University and liaising with City of Toronto Planning, Heritage Planning and other City departments as well as the broader community.
- Co-administering with Government Relations, Councillor-led Community Liaison Committee (CLC).
- Apprising the CLC of upcoming and ongoing major capital projects and planning activities on the St George Campus.
- Supporting Central and Faculty Advancement to meet requirements for Donor Deliverables/scope as per Donor Agreement, as applicable.
- Leading the review and approval of all University messaging and media inquiries relating to capital projects on the St. George Campus.
- Leading capital project and other matters in front of the Ontario Land Tribunal.
- Consulting on heritage building matters and impacts.
- Transitioning the project to the PD&C team to prepare the project for governance approval.

**Cost Recovery:**

UP is funded from Project Management fees and Central.



## **Project Development & Controls**

PD&C facilitates the transition of projects from the Planning to the Design Stage through the expertise within its Project Development and Project Controls teams.

### **Services:**

#### Project Service Requests

- Managing the project intake process jointly with F&S Property Management.
- Reviewing Divisional project applications, triaging responsibility, and assigned to the right department for planning and execution.

#### Scope Verification

- Evaluating and clarifying the project scope as defined by the PPC or Client.
- Engaging with Client planners, and when required UP, to evaluate the scope of Level 1 projects.
- Developing the scope of Level 1 projects, when there is no Client planner available.
- Determining project-specific due diligence investigations (e.g. hazardous material testing, destructive testing, geoenvironmental soil conditions, etc.) required to derisk the project.
- Engaging F&S to complete a Building System Investigation (BSI) of available utility capacity available for the project.

#### Schedule Management

- Centralized scheduling expertise for consistent portfolio-wide support.
- Developing a preliminary milestone schedule based on experience with similar or typical projects.
- Critiquing construction schedules using UPDC's version of the DCMA 14-point analysis.
- Assisting with the baselining of construction schedules.
- Advising and reviewing construction progress schedules.
- Analyzing construction delay claims.

#### Quantity Surveying

- Centralized quantity surveying expertise for consistent portfolio-wide support.
- Maintaining a comprehensive UofT-specific project cost database for reference.
- Developing preliminary construction cost estimates based on experience with similar UofT projects or typical industry practices.
- Peer reviewing construction cost estimates, trade tenders, change quotes, progress draws, etc.
- Assessing the merit of a quantum of claims.

#### Approvals Documentation

- Preparing a draft overall Total Project Cost (TPC) and initial TPC request for governance approval.
- Peer reviewing governance materials for scope, cost, and schedule alignment.



#### Capital Project Procurement

- Centralized procurement expertise for consistent portfolio-wide support.
- Managing the procurement process for:
  - Architects, Engineers, and Specialty Consultants.
  - General Contractors (GC) for CCDC-2 design-bid-build (DBB) contracts.
  - Construction Managers (CM) for CCDC-5B construction management-at-risk contracts.
  - Design-Builders for CCDC-14 design-build (DB) contracts.
  - Integrated Project Delivery (IPD) partners for CCDC-30 contracts.
  - Customized Performance-based contracts.
  - Customized Developer Partnership contracts.
  - 3<sup>rd</sup> party Project Management and Architecture vendors of record (VOR).
  - 3<sup>rd</sup> party Inspection & Testing and Commissioning contracts.
  - Furniture, fixtures and equipment supplier contracts.
- Complying with University and BPS procurement requirements and established practices.
- Negotiating proposed contract language changes with the successful proponent.
- Smoothly transitioning the project to the PM team to execute the design stage.

#### Permit Management

- Centralized permitting expertise for consistent portfolio-wide support.
- Advising on procedures and communications related to municipal approvals.
- Reviewing permit application material completeness prior to submission.
- Submitting, managing and supporting approvals and permit applications (e.g. Planning dept, Buildings dept, Toronto Water, TTC, provincial EASR, provincial MECP, Occupancy, etc.).
- Maintaining strong relationships with AHJs to facilitate timely application reviews and approvals.
- Assisting with project-specific approvals issues.
- Advising on permitting processes and permit close-out procedures.

#### Document Management

- Maintains forms and templates critical to operational efficiency.
- Managing the completion and execution of all Letters of Award and Contract documents.
- Managing document retention policy and archiving protocols (both physical and digital).
- Advising on filing protocols and preparation for transition to SharePoint.
- Supporting digitization and electronic approvals process

#### **Cost Recovery:**

PD&C is primarily funded from Project Management fees with some Central support.



## **Project Management**

PM is involved with project delivery from PPR development in the planning stage to the design, construction, and close-out stages. Across the project lifecycle, PM collaboratively engages Clients, consultants, contractors, vendors, AHJs, subject matter experts, and a host of stakeholders to facilitate the successful execution of renovations, expansions, and new build projects.

### **Services:**

- Leading, advising, and/or overseeing programs and projects from planning to closeout.
- Acting as the single point of project contact, regularly proactively communicating with Client(s).
- Developing a plan for achieving approved project goals and objectives, and Client expectations.
- Managing all contractual relationships with consultants, contractors and other vendors.
- Holding parties accountable to the terms and conditions within their contracts.
- Issuing timely and informative Weekly Flash Reports for Level 2/3 and complex Level 1 projects.
- Issuing timely and accurate Monthly Project Status Reports.
- Maintaining complete, accurate and organized audit-ready project documentation.
- Ensuring UPDC expectations, policies, procedures, and methodologies are implemented.
- Presenting Project Updates to Business Board, CaPS Executive, and Planning & Budget Committee.

### Planning Stage

- Resourcing projects with a Project Executive and sufficiently skilled Project Managers.
- Leveraging expertise to foresee, minimize, track and mitigate potential risks on the project.
- Proactively troubleshooting and resolving issues while protecting the University's interests.
- Determining appropriate project contract delivery strategies.
- Conducting appropriate due diligence investigations to minimize found conditions.
- Aligning scope-schedule-budget-expectations within projects constraints.
- Preparing appropriate measures to control and manage cost and schedule.

### Design Stage

- Establishing an appropriate control budget and baseline schedule.
- Presenting to UPDC/F&S' Stage Gate Review Committee and promptly address concerns.
- Actively managing the design process and engaging stakeholders, as required.
- Guiding Consultants through UofT's DRC and promptly address concerns.
- Ensuring Consultants comply with UPDC's Building Information Model (BIM) Execution Plan (BEP), conduct BIM Clash Detection analyses, and integrate with contractor/trade BIMs.
- Ensuring compliance with UofT Deliverable, Design, and Sustainability Standards.
- Completing Design Peer Reviews on all Level 2/3 projects to minimize design errors and omissions.
- Leading value engineering/scope-budget re-alignment sessions.
- Collaborating with UP and our Permits Manager to obtain permits and approvals on time.



Construction Stage

- Preparing final overall TPC requests for governance approval.
- Defining, documenting, and controlling project scope and changes to the specified level of quality.
- Ensuring appropriately qualified contractors and trades bid University projects.
- Gauging qualified contractor interest in the project before commencing the procurement process.
- Actively participating in the construction procurement process.
- Ensuring a baseline construction schedule is established for monitoring, controlling, and reporting.
- Actively managing the construction process and engaging stakeholders, as required.
- Diligently managing contingencies; ensuring Clients are well informed of expenditures.
- Conducting construction progress payment audits to minimize over-billing.
- Conducting daily (Level 2/3) and weekly (Level 1) construction progress reviews to identify issues.
- Documenting construction progress and leveraging reality capture technology, when appropriate.
- Leading the review and approval of project changes, in consultation with Clients.
- Coordinating Owner-furnished FF&E with the Consultant's design and Construction progress.
- Supporting the User group move planning process.
- Planning for operational readiness on Level 2/3 projects, 1 year before Ready-for-Takeover (RFT)
- Obtaining and handing over an accurate BIM Record Model.
- Expediting the deficiency resolution process prior to RFT.
- Transitioning projects efficiently to UofT Operations at the RFT stage.

Close-out Stage

- Resolving claims.
- Finalizing outstanding payments.
- Collecting credits and refunds.
- Returning unused project funds to Clients.
- Closing out project financials, documentation, and permits.
- Obtaining client feedback and opportunities for continuous improvement.

**Cost Recovery:**

PM is funded entirely from its PM fees.





## **Design & Engineering**

D&E provides a variety of design and value-add Services to our Clients from feasibility to project close-out. D&E's in-house architects, mechanical and electrical engineers, and technologists provide full consulting services to the University primarily for Level 1 renovation projects undertaken within the University-owned buildings on the St. George campus.

### **Basic Services:**

D&E charges a percentage of the project construction cost to fund basic services that include architectural and structural, mechanical, and electrical engineering, Class D cost estimates, and a BIM Manager. Included within its percentage fee, D&E's basic services are:

#### Design Stage

- Evaluating project requirements to assess whether the necessary infrastructure is available to support the project scope and Client objectives.
- Developing Class "D" construction cost estimate at the end of schematic design (SD) and updated at the ends of design development (DD) and construction documents (CD), if requested.
- Receiving and reviewing project scope and budget documents against necessary infrastructure upgrades and advising client if scope and budget are in alignment.
- Designing to meet client objectives, timelines, and budgets, and in compliance with applicable Codes and Standards.
- Reviewing existing site conditions and available building information to determine whether additional due diligence investigations could minimize found condition changes in construction.
- Completing designs in BIM utilizing UPDC's BEP.
- Reviewing project design progress with clients and other stakeholders at established milestones.
- Aligning with scope and incorporating client and other stakeholder comments into the design.
- Coordinating construction documents with all required consultant disciplines.
- Creating well-coordinated designs by conducting BIM Clash Detection prior to issuing for tender.
- Preparing documents for building permit application.
- Assisting with the permitting process and responses to AHJ questions.
- Attending the construction bidder site tours.
- Assisting with responses to bidder questions.
- Contributing to tender addenda.

#### Construction Stage

- Administering the construction contract.
- Preparing and issuing RFI responses, Site Instructions, Proposed Change Notices, Change Directives and Change Orders.
- Reviewing Proposed Change Notice quotes for accuracy and good value to the University.
- Reviewing and approving shop drawings, submittals, alternatives, and substitutions.





- Undertaking construction review for general conformance with the contract documents.
- Participating in Owner/Architect/Contractor (OAC) meetings.
- Documenting site conditions using 3D reality capture technology.
- Certifying construction progress payments, Substantial Performance, and holdback release.
- Preparing General Review Conformance letters for submission to the AHJ for project completion and to obtain Occupancy Permits, if early occupancy of a portion of the project is required.

Close-Out Stage

- Preparing Deficiency Lists and review of deficiencies until completion.
- Receiving and reviewing construction close-out documents.
- Conducting warranty reviews.

**Additional Consulting Services:**

When required by project scope, the following additional consulting services can be competitively procured and funded as an additional fee:

Code	Landscape	Building Science/Envelope	Vertical Transportation
Cost	Security	Sustainability/Energy Modelling	Food Services
Heritage	AV/Data/IT	Fire Protection	Indigenous Design
Civil	Acoustics	Accessibility	External Air & Noise Emissions

**Value-Add Services:**

For an additional fee, D&E can complete the following value-add services:

- Feasibility Studies.
- Facility Programming.
- Building Systems Investigations.
- Renderings for promotional purposes, fundraising, etc.
- Meetings with City Officials or planning submissions to AHJs.
- Presentations to the Client community outside the Client user group.
- 3D site reality capture of non-D&E project construction progress
- Design Peer Review of non-D&E project designs
- BIM Clash Detection analysis of non-D&E project designs

**Cost Recovery:**

D&E is funded entirely from its Consulting fees.