CAPITAL ASSET PLANNING SYSTEM
Scope Detail for Procurement
(as of June 13, 2019)

CAPITAL PROJECT REQUEST

1. Ability to create/read/edit/delete (**CRUD) capital projects** that are associated with **major programs** (e.g. seismic, expansion, replacement, rural district), capturing detailed project data to support the project request.
2. Ability to capture detailed budget model components (design capacity, space allocations, construction unit rates) and known and unknown budgetary costs (construction items, owner's cost items, identified supplemental items, identified risk items) from **Schedule B**, to develop estimated capital project budgets for new schools, full replacement schools, additions, partial replacements, partial replacement/seismic upgrades and seismic structural upgrades
3. Ability to capture detailed **design aid sheet** calculations to support development of the budget model components of Schedule B
4. Ability to **access supporting rate tables** (e.g. allowances, rates and costing factors) and utilize complex calculations in building budgets and Design Aid Sheets
5. Ability to **CRUD capital projects** that are associated with **minor programs** (e.g. school enhancement, bus acquisition, carbon neutral capital, playground equipment, building envelop), capturing detailed project data to support the project request
6. Ability to **CRUD additional programs and related project data fields**, allowing for future flexibility in the system
7. Ability to **schedule the anticipated annual cash flow** (up to 10 years) for selected projects over the life of the project
8. Ability to **compare scheduled cash flow against estimated budget** (from schedule B) and prompt the user when cash flow does not balance
9. Ability to **CRUD** detailed **Project Request Fact Sheets** associated with major programs (e.g. seismic, expansion, replacement) and minor programs (e.g. demolition) …not mandatory until submission, for high priority projects
10. Ability to select a **pre-existing facility** (if applicable) from the inventory, to pre-populate facility data in the project request
11. Ability to create projects with **status "planned"** at any point in the fiscal year (not tied to the capital plan submission process)
12. Ability to prompt for and **upload documents** from multiple sources and stakeholders at different stages of the project (e.g. CVSE bus reports, consultant

reports, mechanical reports, condition reports, bus route maps, SPIR seismic project identification report, lifecycle analysis) and attach them to a project

13. Ability to **assign project numbers** at creation of project, for tracking throughout the life of the project
14. Ability to automatically update projects in planning, when base tables are updated
15. Ability to select SD for review
16. Ability to view projects in **list view** and sort and filter the list and select a project
17. Ability to **link related projects** to each other (e.g. BEP, SEP)
18. Ability to produce detailed and roll up **capital project request reports** by school district, program and province
19. Ability for SD to **flag (and submit) an emergent project** (e.g. site purchase) for action by the Ministry outside of the regular capital plan submission cycle
20. Ability to track job creation numbers and maintain job multiplier tables

KEY BUSINESS RULES

1. Functionality to CRUD projects will be open all year long
2. Projects are not visible to the ministry until "published" by SD
3. Only the Ministry can create projects with status "supported" or "approved" (e.g. for emergent project, AFG project, site purchase opportunity)

CAPITAL PLAN SUBMISSION

1. Ability for the Ministry to **initiate the annual capital plan submission process** (creating a new capital plan year) and upload capital plan instructions and supporting templates (e.g. PRFS, SPRFS, bylaw, resolution)
2. Ability to **select SD's and capital plan year** for review
3. Ability for school districts to **select projects to include in their capital plan submission** (by program) from the list of available capital projects with status "planning"
4. Ability to **prompt the user** to ensure project data is complete before submitting
5. Ability to **rank the selected capital projects** (by program), in order from 1 to n
6. Ability to view capital plan submission in **list view** and sort and filter the list
7. Ability for SD to place submission in a **staging area** (status "published") for viewing by the ministry, if required
8. Ability for **SD to officially submit** the 5-year capital plan for review (by program and date) with auto-responses generated by the system
9. Ability for the ministry to initiate a **second call for projects** within a single capital plan year
10. Ability for the **ministry to un-submit** the plan to allow for revisions by SDs

11. Ability for the **ministry to select the projects to support** in an annual capital plan submission cycle; an auto response will be sent to the SD when the list of supported projects has been finalized (for the capital plan response letter)
12. Ability for **un-supported projects** within a submission to be changed to "planned" as required for future consideration
13. Ability to **store capital plan submissions,** for future use and reporting by capital plan year; note, previous submissions are not updated to reflect current tables, but rather, stay as a snapshot in time
14. Ability to **upload documents** from multiple sources and stakeholders (e.g. Board Resolution);
15. Ability to check for completion of **Fact Sheets** for applicable projects on submission
16. Ability to produce **detailed and roll up capital plan submission reports** by school district, program and province
17. Ability for school districts to submit separate **AFG expenditure plan submissions**, on a separate cycle, tied to AFG projects created by the Ministry
18. Ability to flag receipt of the **capital plan bylaw** associated with the capital plan response letter; also required for bylaw amendments

KEY BUSINESS RULES
1. the board resolution and ten-year enrolment projection are a mandatory requirement for the submission
2. Only projects projected to start within the 5-year capital plan (based on anticipated annual cash flow) can be submitted as part of the plan.

CAPITAL PLAN ANALYSIS

Major Programs – Enrolment Projections

1. Ability for SDs to **CRUD** facility level 10-year **enrolment projections** (using current capital plan year plus 9) by grade configuration (K/E/S); note, only facilities with capacity have enrolment projections and will be included; note, international students should also be captured (totals only)
2. Ability to **select SD's and capital plan year** for review
3. Ability to capture **general facility data** (including nominal capacity) from the inventory
4. Ability for SD's to add **operating capacity** to facilities, allowing for operating capacity utilization calculations for SD use
5. Ability to capture **the prior five school year's actual enrolments** (imported from SLDC) by facility, for comparison to the projections
6. Ability to capture **facility level comments** associated with each projection
7. Ability to capture **ministry enrolment projections** (e.g. from Baragar or other source) at the SD level, for comparison to SD totals

8. Ability to **summarize SD enrolment projections** (by K/E/S) and compare to Ministry enrolment projections and analyze district variances.
9. Ability to **copy projections forward** from one capital plan year to the next, eliminating the need to re-enter data
10. Ability to produce a **school district summary of capacity and projected enrolment report**, by facility
11. Ability for **SD to officially submit** the 10-year enrolment projection for review, and the **ministry to un-submit** the projection for revisions
12. Ability to **store the annual enrolment projections,** for future use and reporting, by capital plan year

KEY BUSINESS RULES

1. The 10-year enrolment projection is a mandatory requirement for the **Major Program capital plan submissions**

Major Programs – Capacity Utilization

1. Ability to conduct detailed facility level **capacity utilization analysis,** by school district, for all facilities with nominal capacity
2. Ability to **select SDs, capital plan year and school year** for review
3. Ability to capture **general facility data** (including nominal capacity) from the inventory
4. Ability to capture **actual enrolment data** (from SLDC?) for the selected school year, and to retain the enrolment data for future use
5. Ability to calculate detailed **capacity utilization rates** for K/E/S, based on nominal capacity; note, only show total utilization, not the breakdown
6. Ability to select up to **five school years** for capacity utilization comparisons for individual facilities
7. Ability to produce detailed and roll up capacity **utilization analysis reports** and extracts

KEY BUSINESS RULES

1. Nominal capacity utilization functionality is internal to the Ministry

Major Programs – Family of Schools

1. Ability to conduct detailed **family of schools' analysis** (for multiple years) on neighbouring schools within a school district
2. Ability to **select SDs and capital plan year** for review
3. Ability to **select an existing facility** within a school district and have the default neighbours populated, with the option to add or remove neighbours
4. Ability to **add a new facility** and select the neighbours for comparison

5. Ability to capture **actual and projected enrolment data** for the selected school years and calculate detailed nominal capacity utilization rates for K/E/S (amalgamated)
6. Ability to capture **facility inventory data** to support the capacity utilization analysis
7. Ability to **access multi layer mapping functionality** and save polygon data associated with neighbourhoods and catchment data
8. Ability to allow for two different kinds of **neighbourhood data** (Ministry and SD)
9. Ability to calculate **current and projected space shortages** for the neighbourhood
10. Ability to produce a detailed **capacity and enrolment report** for the neighbourhood

Minor Programs - Analysis

1. The ability to export the annual capital plan submissions (by program) from the system into excel for review.

PROJECT IMPLEMENTATION AND TRACKING

1. Further to the original capital project data fields, ability to **CRUD additional project data fields** associated with supported projects
2. Ability to view capital projects in **list view** and sort and filter the list
3. Ability to **approve projects for implementation** and update/finalize the schedule, budget (Schedule B) and projected spending. i.e. make all approved capital project funding agreement (CPFA) changes
4. Ability to capture **original project request data** for future comparison
5. Ability to track and manage detailed project **schedule** updates (SD/Ministry), at each milestone gate throughout the life of a project (e.g. design development, construction documents, contract award, occupancy, completion)
6. Ability to track and manage detailed project **budget** (schedule B) updates against the original approved capital project funding agreement, at each milestone gate throughout the life of a project
7. Ability for SDs to submit **risk reserve** requests as part of the project update process, and initiate the COA amendment process
8. Ability to update and manage detailed **project cash flow** (forecasted provincial and agency expenditures) spanning multiple fiscal years
9. Ability to track and measure **current year projected total cash flow** against the planned total cash flow for the year (at Q3 of previous year) to analyze potential project slippage or over spending during the current year
10. Ability to track and measure **current year actual spending** against the current year projected total cash flow, to analyze project burn rates and monitor progress against the projection

11. Ability to **track COA status** (number, expiry, amount, balance) for COAs and their amendments
12. Ability for SDs to **submit regularly scheduled progress report updates for major projects** (e.g. schedule, budget, cash flow projections,) to the ministry and both SDs and the ministry to receive prompts/emails when reporting deadlines and stage gates are missed
13. Ability for PO's to **auto update** projects with SD progress report data
14. Ability to store detailed **historic project records** and search/sort/filter thousands of projects for trend analysis on such things as project schedules, forecasting and actual spending over multiple fiscal years
15. Ability to **upload documents** from multiple sources and stakeholders (e.g. CPFA, project closure form, pre-tender estimates, construction documents)
16. Ability to produce various **detail and summary progress/cash flow reports** on the status of projects, by project, school district, program and province
17. Ability to produce seismic mitigation program **(SMP) summary status reports** on the completion rates of school districts
18. Ability to produce **detailed SMP progress reports** on the status of projects (completed, under construction, proceeding to construction, in business case development or future priorities)
19. Ability to produce **SD profile reports** on the completion of major and minor projects, by project type and fiscal year
20. Ability to produce **executive dashboard reports** (by SD, province) on major capital projects, emphasizing variances from original approved schedule
21. Ability to produce **project schedule dashboards** (by SD, PO) for approved major capital projects, emphasizing and mapping process time periods for the approved CPFA and the actual/estimated time periods during the life of the project
22. Ability to produce **upcoming announcement reports** for project approvals, ground breaking and occupancy
23. Ability to export project tracking and cash flow data for comparison to **CPS**, and transfer data to CPS
24. Ability to **CRUD project closure forms** for SDs to complete and submit to the Ministry
25. Ability to create provincial **SD99** projects for tracking unallocated program envelopes
26. Ability to **flag projects for review** by ministry
27. Ability to produce **data maintenance reports** for completion of minor program projects during the year

COAs

1. Ability to CRUD **Certificates of Approval (COA)** for capital project funding (for projects with status supported or higher), utilizing general project and budget data from the system; allow for manual override of project data
2. Ability to CRUD **amendments** to existing approved COAs, capturing the reason for the amendment
3. Ability to generate **unique COA numbers** (ministry number + project number)
4. Ability to search/sort/filter COA lists by SD, facility name, project number, COA status etc., and conduct queries
5. Ability to **track and approve COAs** at various access levels throughout the system (e.g. PO/RD/D/ED/ADM), based on approved workflow
6. Ability to **submit scanned/signed COAs** and **amendments** to the Ministry of Finance for registration, allowing for SDs to do COA draws; note, investigate the option to do e-approval and electronic submission, rather than having to scan signed COA's
7. Ability to flag COAs as **registered**, via feedback from Ministry of Finance system
8. Ability to summarize COAs and Amendments (in list form) for selected projects
9. Ability to CRUD **secure banking information** for school districts, that updates COAs and feeds to the Ministry of Finance
10. Ability for SD to request a **bank account change** and upload a void cheque with banking information
11. Ability to **flag COAs for closure** (linked to project closure form) and notify Ministry of Finance
12. Ability to **import COA draw** amounts from the Ministry of Finance COA system on scheduled draw dates
13. Ability to create periodic (e.g. monthly, quarterly, yearly) **COA summary reports/extracts** for internal analysis and submission to Funding and Financial Accountability Branch
14. Ability to **produce charts of COA draw rates** (by month/quarter/year), by project, program, SD, Ministry
15. Ability to **upload documents** from multiple sources and stakeholders (e.g. signed COA, bylaw)
16. Ability for the system to flag upcoming **COA expiry dates** and potential underspending
17. Ability to tag **multiple COAs** to a project (e.g. if a COA was inadvertently closed and a new one needed)

KEY BUSINESS RULES

1. Only 1 active bank account per SD
2. A COA can be cancelled up to the point of registration with the Ministry of Finance
3. COA Amendment name changes must be approved by the Ministry of Finance
4. Cannot create a CoA without a Capital Plan Bylaw (or amendment) received

BUDGET MANAGEMENT

1. Ability to **CRUD program and branch level budgets** for analysis and dynamic reporting
2. Ability to **CRUD additional budget data** fields associated with specific programs
3. Ability to import data from the Ministry of Finance **CPS system** to measure spending against current targets, at the detail and roll up level
4. Ability to create **multiple views and/or budget management reports** by project, school district, program and province, at the summary and detail level
5. Ability to create **COA draw rate** dashboards

CAPITAL INVENTORY

1. Ability to CRUD detailed **facility records**, capturing key tombstone data, facility identifiers, dates, capacity, area, for various facility types (e.g. elementary, secondary, middle)
2. Ability to CRUD detailed **bus records**, for multiple bus types (current, new and replacement)
3. Ability to CRUD detailed **Portable** records capturing key tombstone data (e.g. facility location)
4. Ability to CRUD additional capital **inventory data fields** as required
5. Ability to **access multi layer mapping functionality** for applicable asset types
6. Ability to calculate **facility replacement values** (for Risk Management Branch, BC Assessment and executive) using detailed Schedule B Budget tables, and facility inventory data
7. Ability to attach **strong start centres** to facilities and adjust capacity by 25E
8. Ability to capture key **milestone dates** and track changes in capacity and area for facilities, for historic reporting
9. Ability to produce detailed **facility master list reports**, identifying key data points, such as facility identifiers, capacity, area etc.
10. Ability to produce detailed **Bus inventory reports**, identifying key data points for current, new and replacement buses
11. Ability to produce **portable inventory** reports
12. Ability to produce detailed facility **replacement value reports**, identifying key site, building, equipment and contingency costs, as well as generic facility, area, unit cost data
13. Ability to produce detailed **strong start centre inventory reports**
14. Ability to import facility data from **SLDC**
15. Ability to link to the **SIS** (real estate) database to view facility data
16. Ability for SDs to provide **feedback** on the condition of tombstone data (e.g. grade config, name, capacity) within the system and flag the discrepancies for

the ministry; SD's should also be able to update data fields that they own (e.g. grade configuration)

SYSTEM ADMINISTRATION

1. Ability to manage access **roles/permissions** for external and internal users
2. Ability to CRUD **supporting base tables** (e.g. allowances, rates and costing factors) used in complex calculations throughout the system (e.g. in building budgets and design aid sheets) … and provide updates to users when tables change
3. Ability to manage **fiscal year roll over** and create new capital plan years
4. Ability to manage and update **workflow** and associated business rules
5. Ability to include **audit functionality** for tracking changes in the system
6. Ability to produce **maintenance and base table reports** to support creation of projects and budget development
7. Ability to export **workflow diagrams**

REPORTING AND DASHBOARDS

1. Ability to produce **detailed reports** and **dashboards** to highlight project/SD/program/Ministry activity, filtered by user need.
2. Ability for users to create **customised reports** within the system and be able to use system data without having to extract it first.
3. Ability to do **trend analysis** on collected data to help drive better current and future project decisions

GENERAL SYSTEM FUNCTIONALITY

1. Ability to **upload documents** from multiple sources and stakeholders (store in database or SharePoint site. Accessible to ministry and SD)
2. Ability to easily **import/export data** through external system linkages (e.g. SLDC system, COA system)
3. Ability to perform complex **validations and calculations** on user entered data
4. Ability to guide the users with **prompts** when entering data and provide feedback
5. Ability to send automated **emails/reminders** to users when stage gates/project deadlines are missed
6. Ability to **submit changes for approval** before they are loaded into the system
7. Ability to **lock down** (prevent data entry) different parts of the system at different times
8. Ability to generate any **report** in a PDF, Word or Excel format