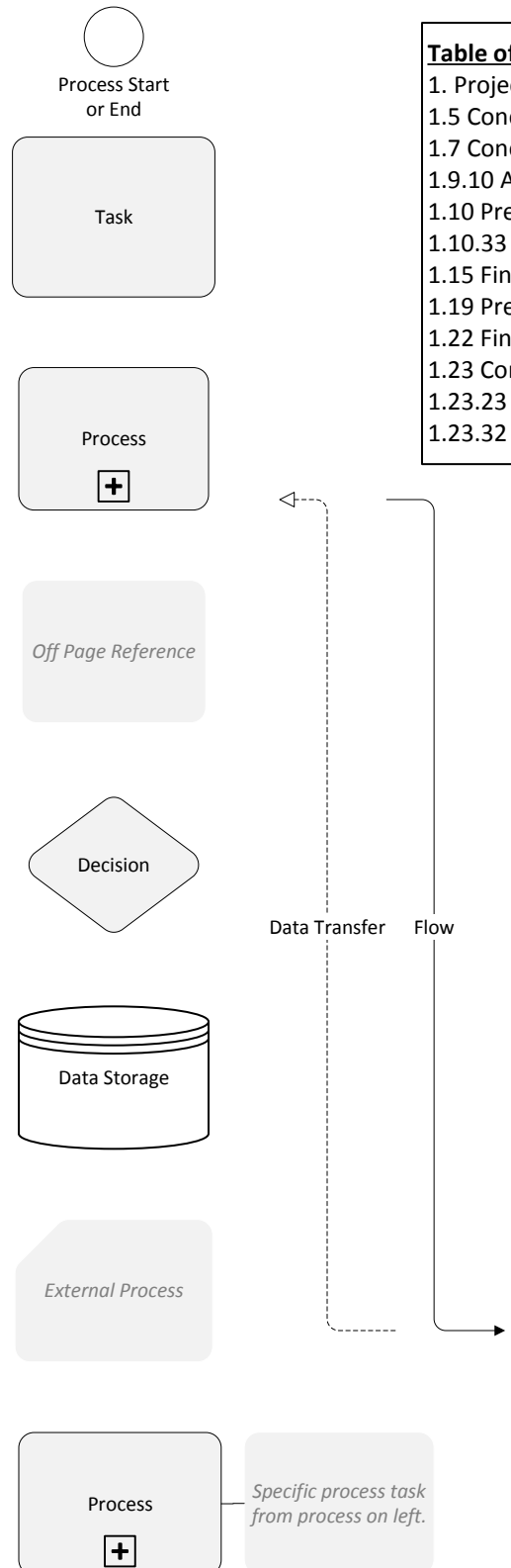


Phases

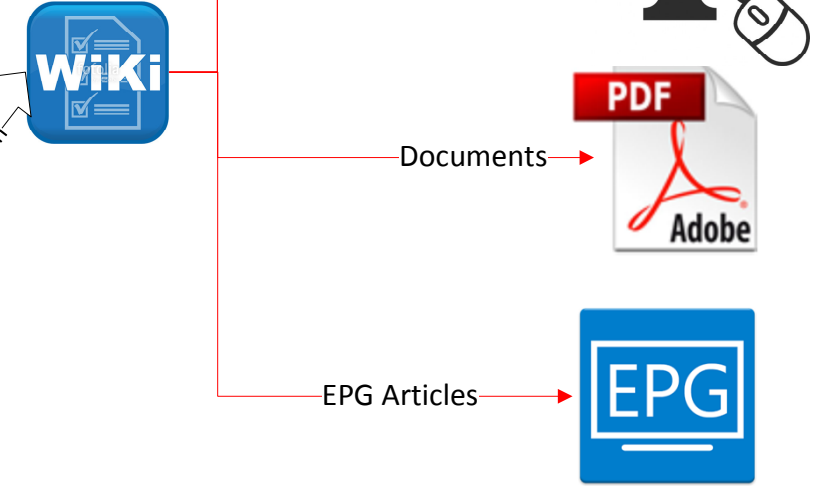
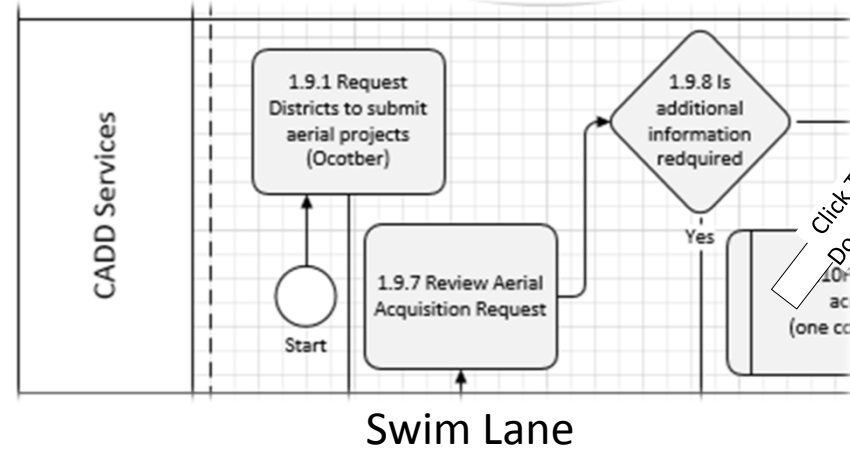
Phase Definitions
 Scoping and Conceptual Design: Beginning until aerial survey and initial field survey is delivered to the Project Team
 Preliminary Design: Ends when ROW plans are submitted to District Right of Way
 Final Design: Ends when the Electronic Design Checklist is complete and all files submitted to the Bidding and Contracts unit are accepted
 Construction: Ends when the project as-built plan markups are complete

Table of Contents

- 1. Project Development Process - CADD and Surveying
- 1.5 Conceptual Design Process
- 1.7 Conceptual Design Surveying Process
- 1.9.10 Aerial Acquisition Contract Process
- 1.10 Preliminary Design Process
- 1.10.33 Drainage Design Process
- 1.15 Final Design Process
- 1.19 Preliminary Design Surveying Process
- 1.22 Final Design Surveying Process
- 1.23 Construction Process
- 1.23.23 Project Design Issue Resolution Process
- 1.23.32 Surveying Quality Assurance and Quantities Process



Workflow Diagram Key

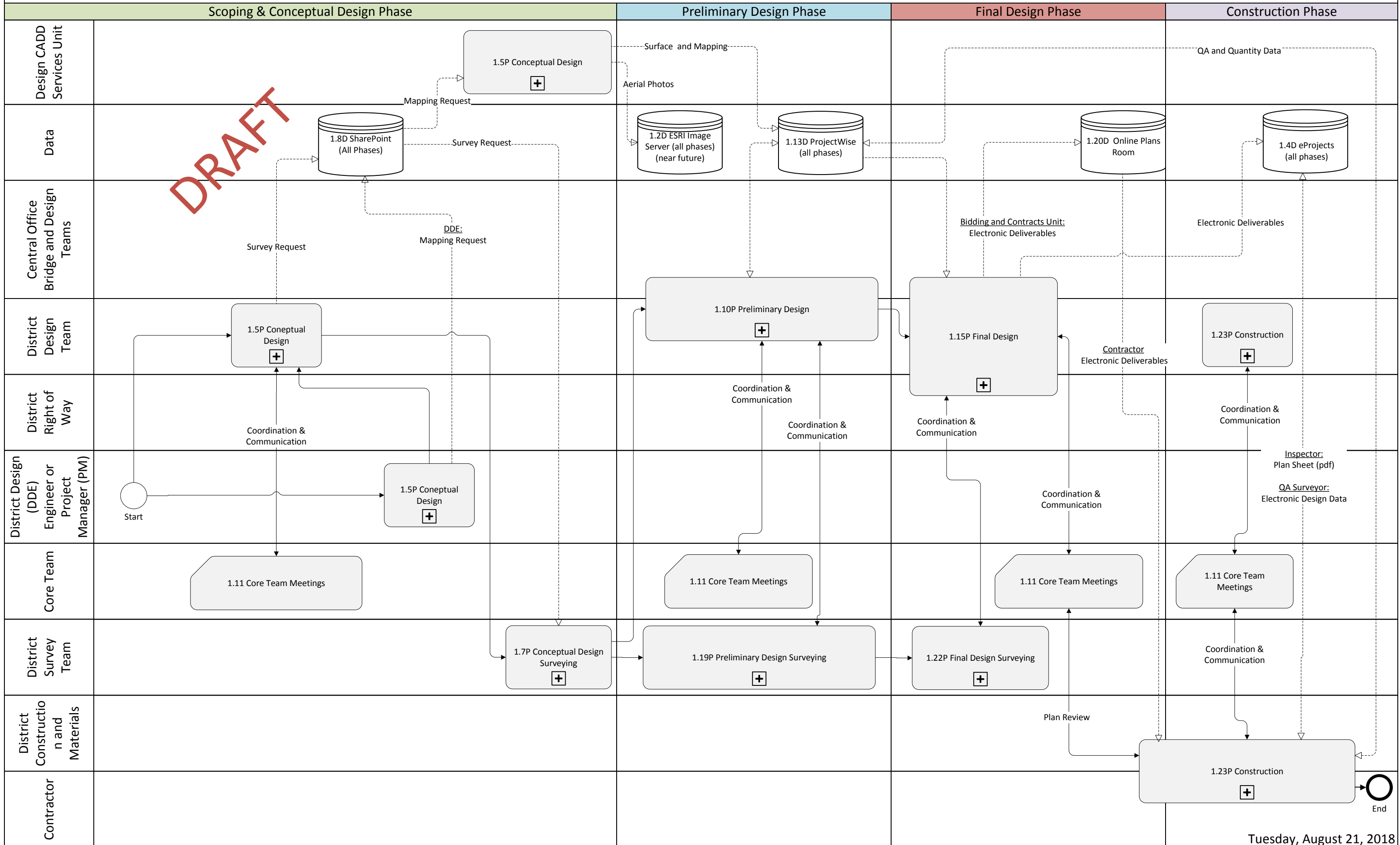


Notes:

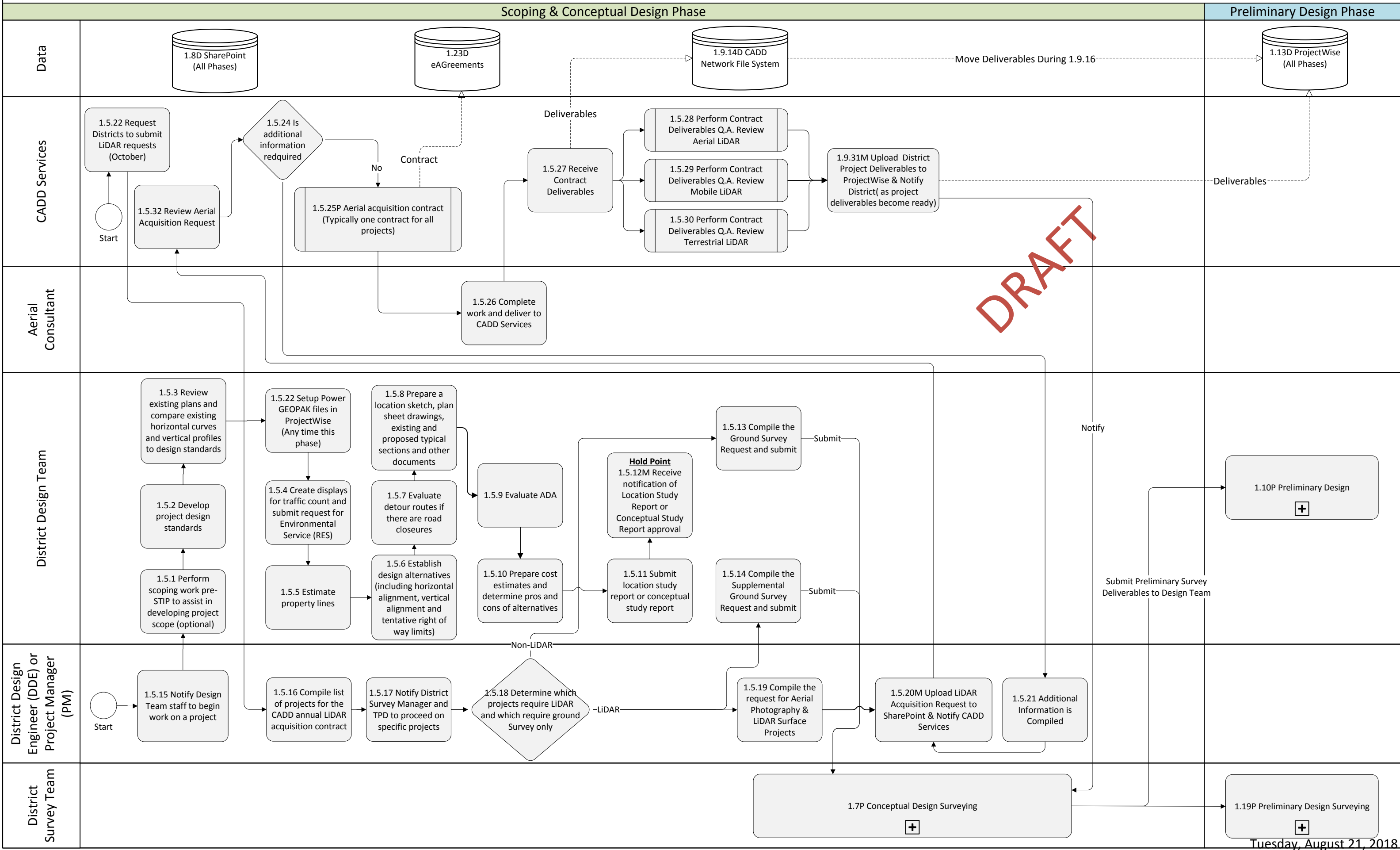
- Process diagrams (also called workflows or workflow diagrams) represents steps in a process and are primarily composed of tasks which represent units of work. Inputs, outputs and decisions are documented but timing and duration are not specifically addressed in the diagram.
- A complete Process Model is a series of steps and decisions involved in the way work is completed and consists of 4 major elements: “Steps and decisions”, “variability of work time and flow”, “timing and interdependence” and “assignment of resources.” The workflow diagram only addresses “Steps and Decisions”.
- The relative location of a task on the workflow diagram does not necessarily indicate relative start or end times compared to other swim lanes. Important time frames, due dates and durations may be supplied in the task documentation. Task number does not indicate order. Numbers may be missing as processes are changed and are refined over time.
- The goal of these workflow diagrams is: To track what actually happens during a process, define how a process should or could be performed, establish guidance and patterns which, if followed, would lead to desired performance and provide the rationale of why processes are completed. Process documentation is not meant to heavy handed and reduce the ability of staff to be flexible or create.
- Each shape contains a task or process name and a number that will link it to more documentation and procedures.
- The letter “M” after a task number indicates its completion is a milestone. The letter “C” indicates the task contains a checklist to be completed. The letter “D” indicates data storage. The letter “E” indicates an external process and is not documented. The letter “P” indicates a sub-process which is shown in greater detail on its own diagram.
- Milestones mark specific points along a project timeline that must be reached to achieve success.
- A checklist is used to reduce failure by compensating for potential limits of human memory, attention and training. It helps to ensure consistency and completeness in carrying out a task. They are often considered “hold points” meaning work should not proceed until they are complete.
- A swim lane groups activities under a category. Typically swim lane categories are based on staff role or workgroup. Information transfer to another swim lane is a frequent point of failure or generator of inefficiency. It is important that timely and complete information is provided in the format that is required.
- Each task is documented to provide additional detail in the Tasks and Procedures document. Some tasks are simple and require very little documentation. Some are more involved and include a significant amount of content. Bottom level tasks are where the majority of the work actually occurs. These tasks can require a high level of skill and training and may include procedures and links to detailed instructions, online training or other reference materials.
- All data flow and communication flow lines are not shown for clarity.

Workflow Diagram Shapes

1. Project Development Process - CADD and Surveying



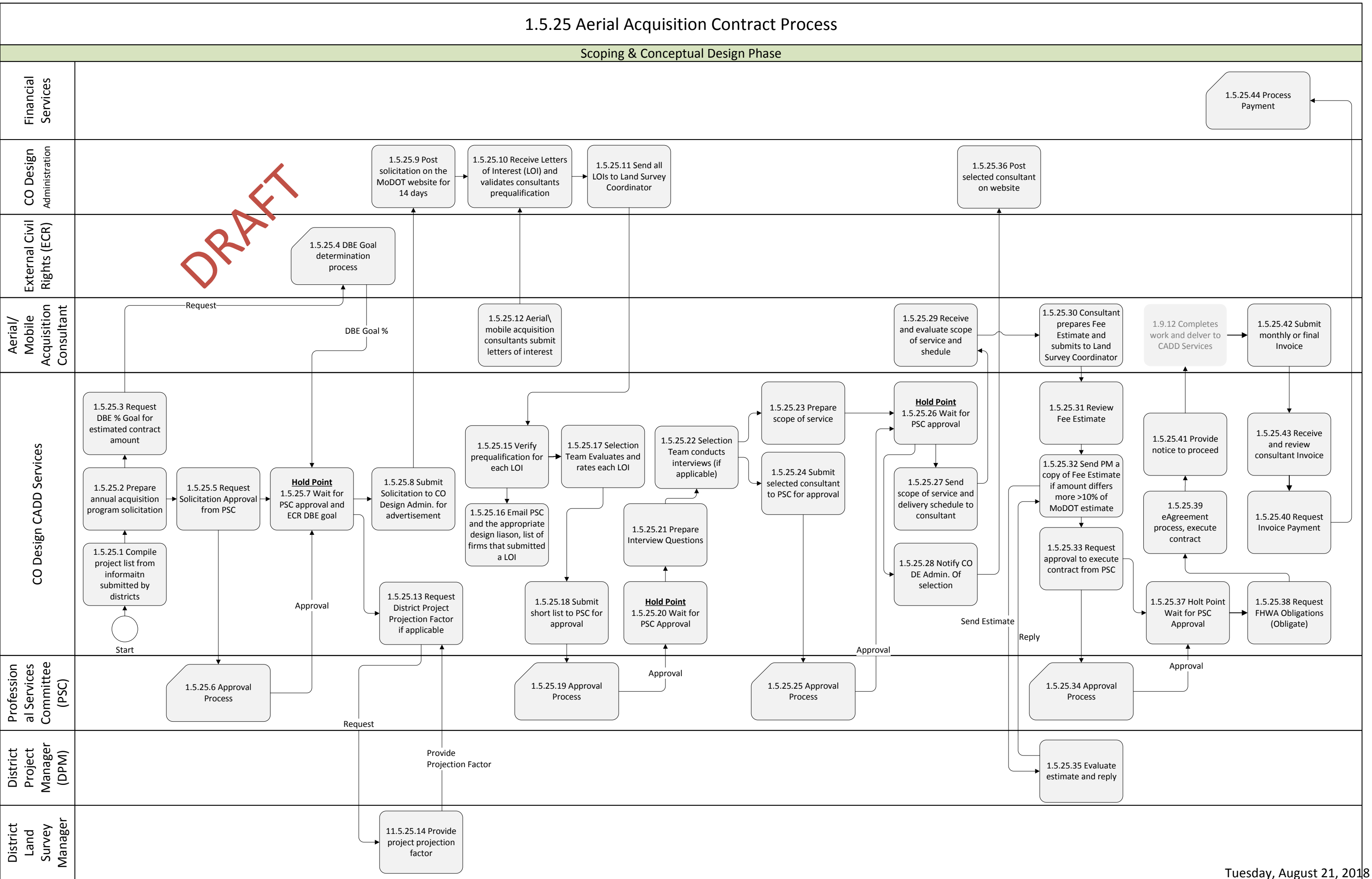
1.5 Conceptual Design Process



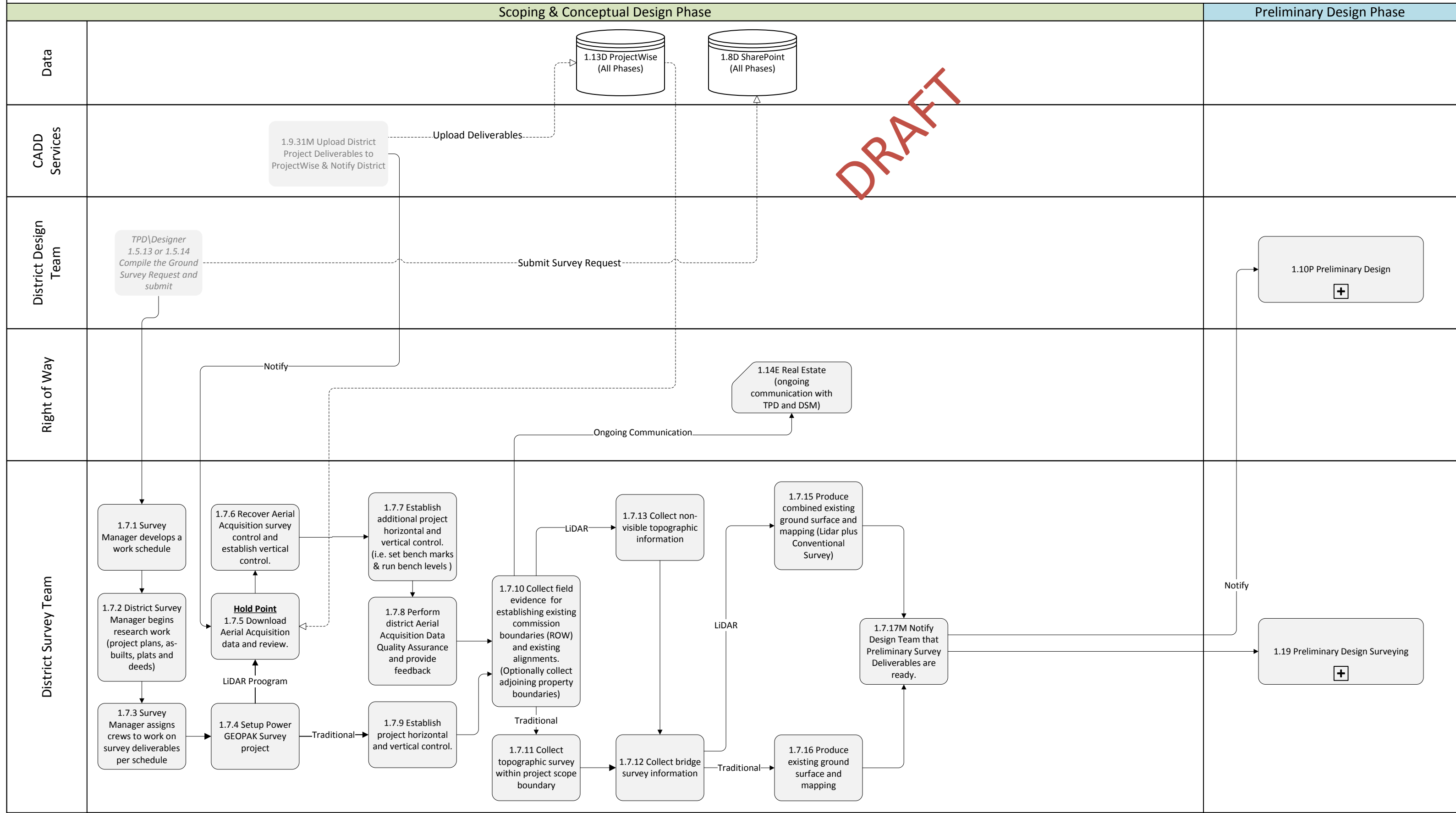
1.5.25 Aerial Acquisition Contract Process

Scoping & Conceptual Design Phase

DRAFT



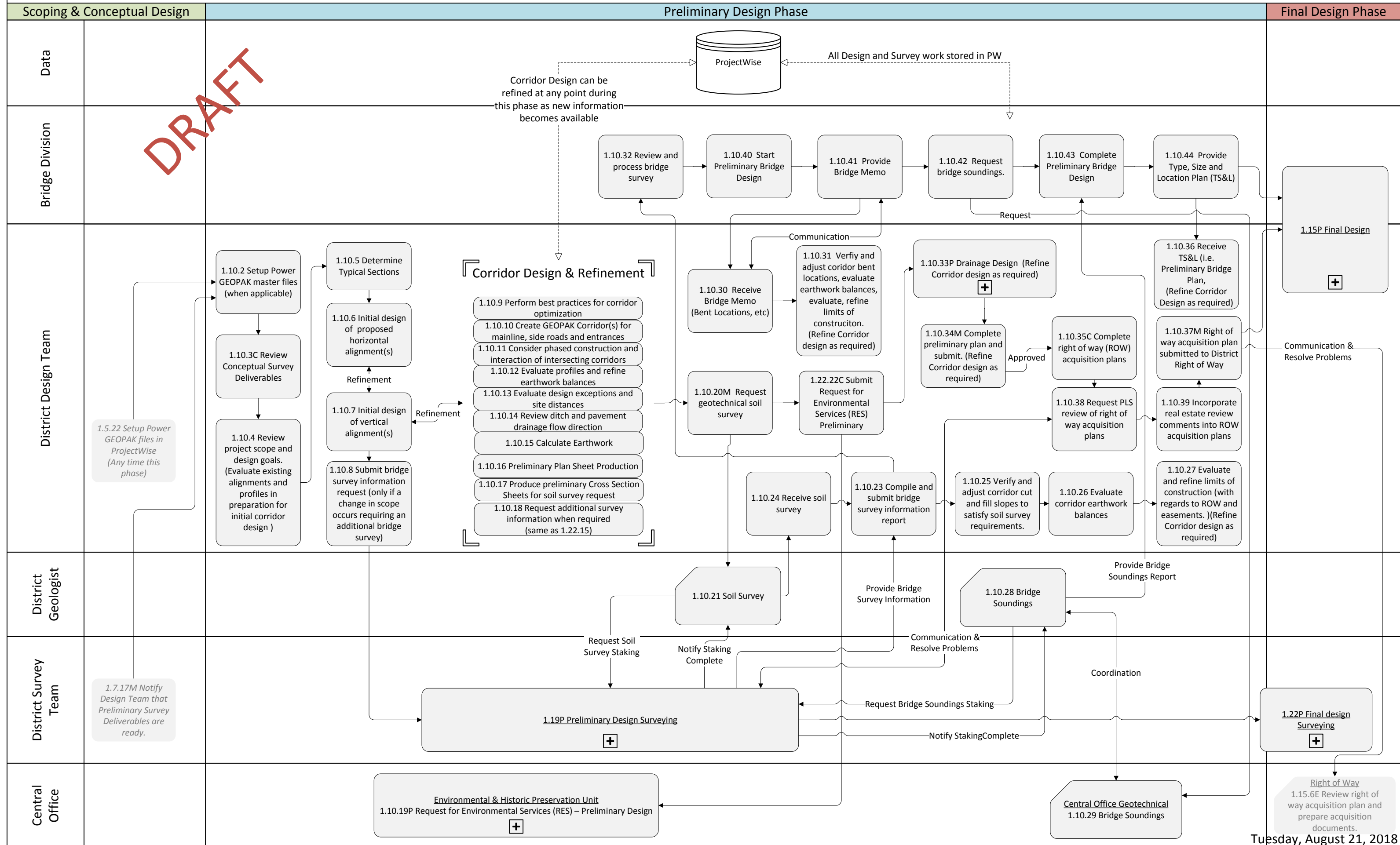
1.7 Conceptual Design Surveying Process



DRAFT

The Design Team is notified by the Survey Team when survey deliverables are updated. Likewise, the Survey Team is notified by the Design Team when any of the design data has been changed that may impact the survey workflow.

1.10 Preliminary Design Process



DRAFT

1.10.33 Drainage Design Process

Preliminary Design Phase

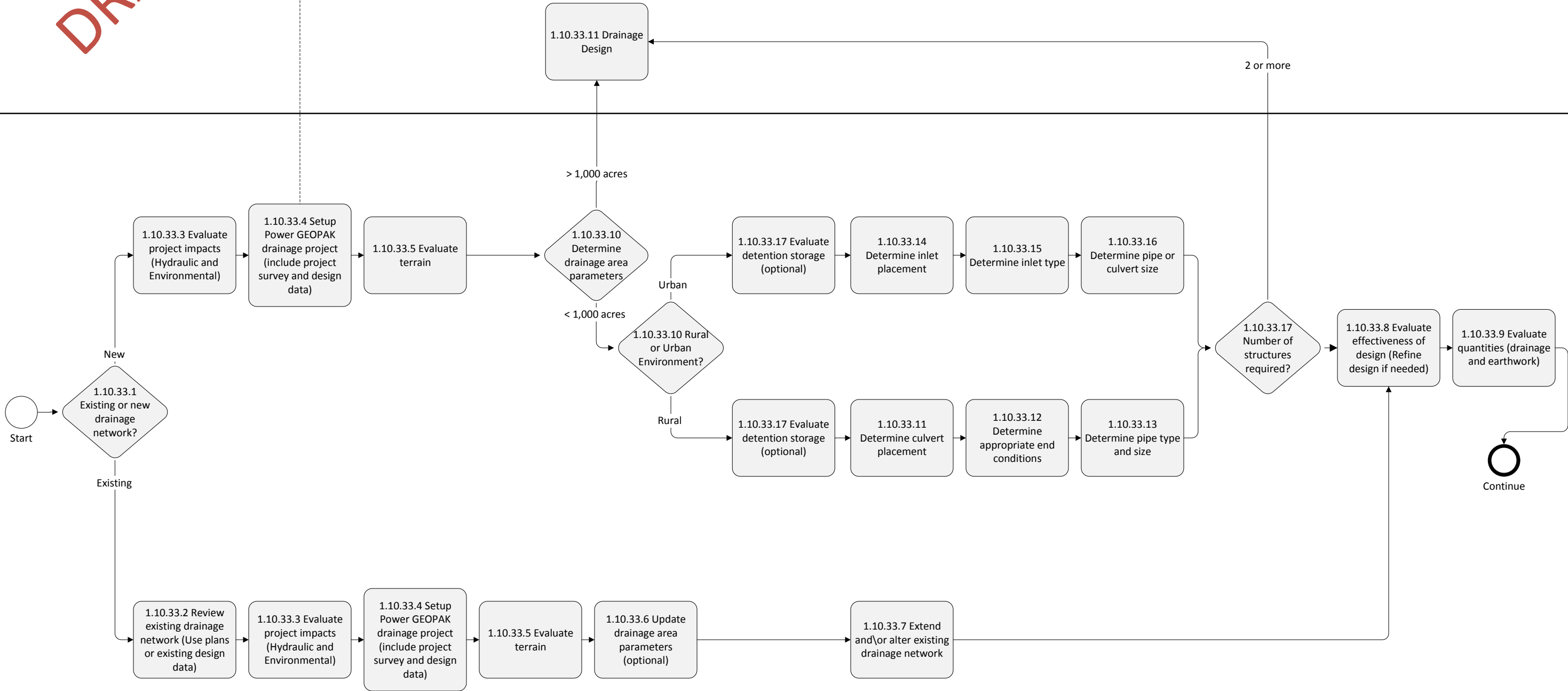
DRAFT



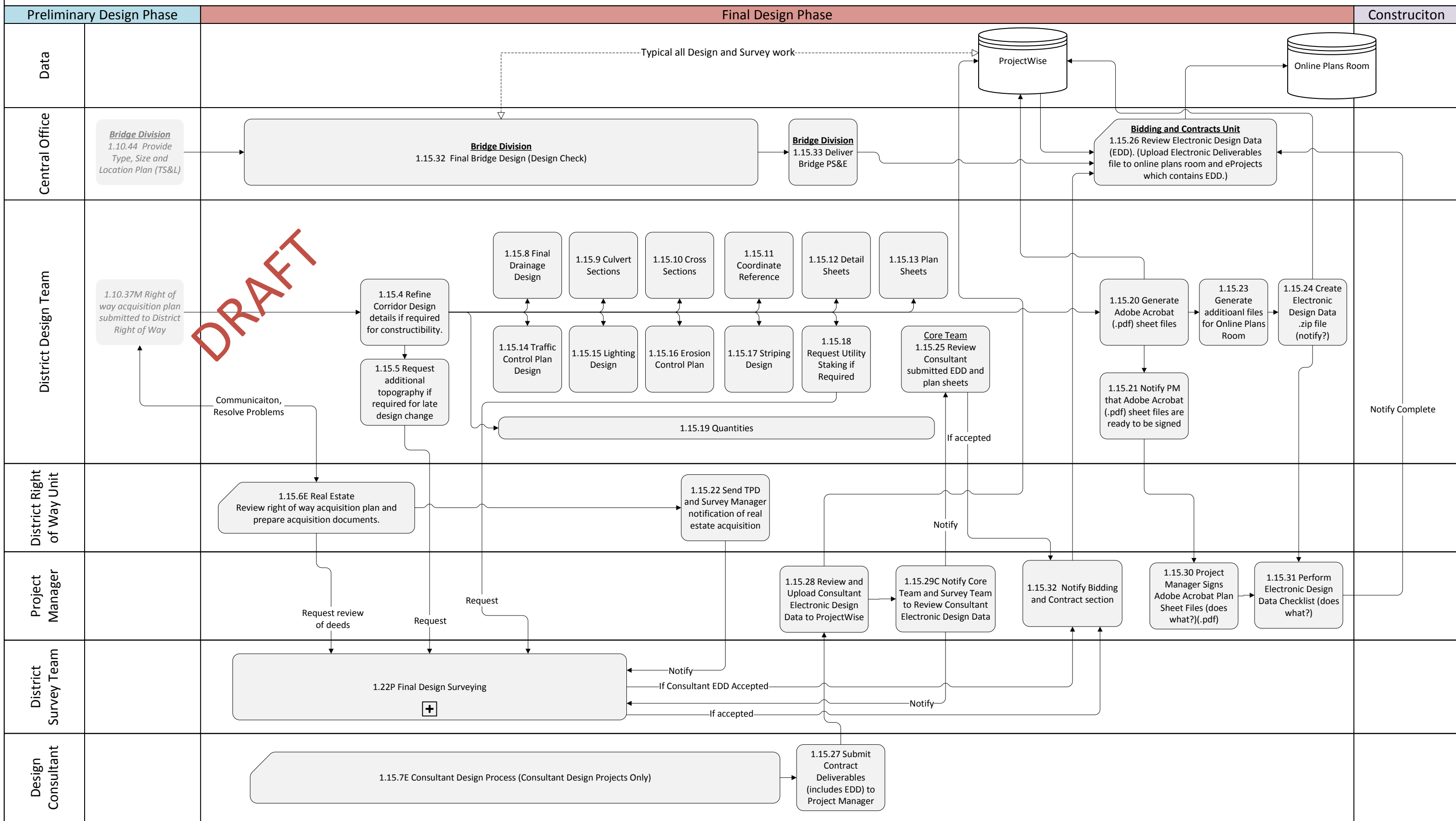
Data

Bridge Division

District Design Team

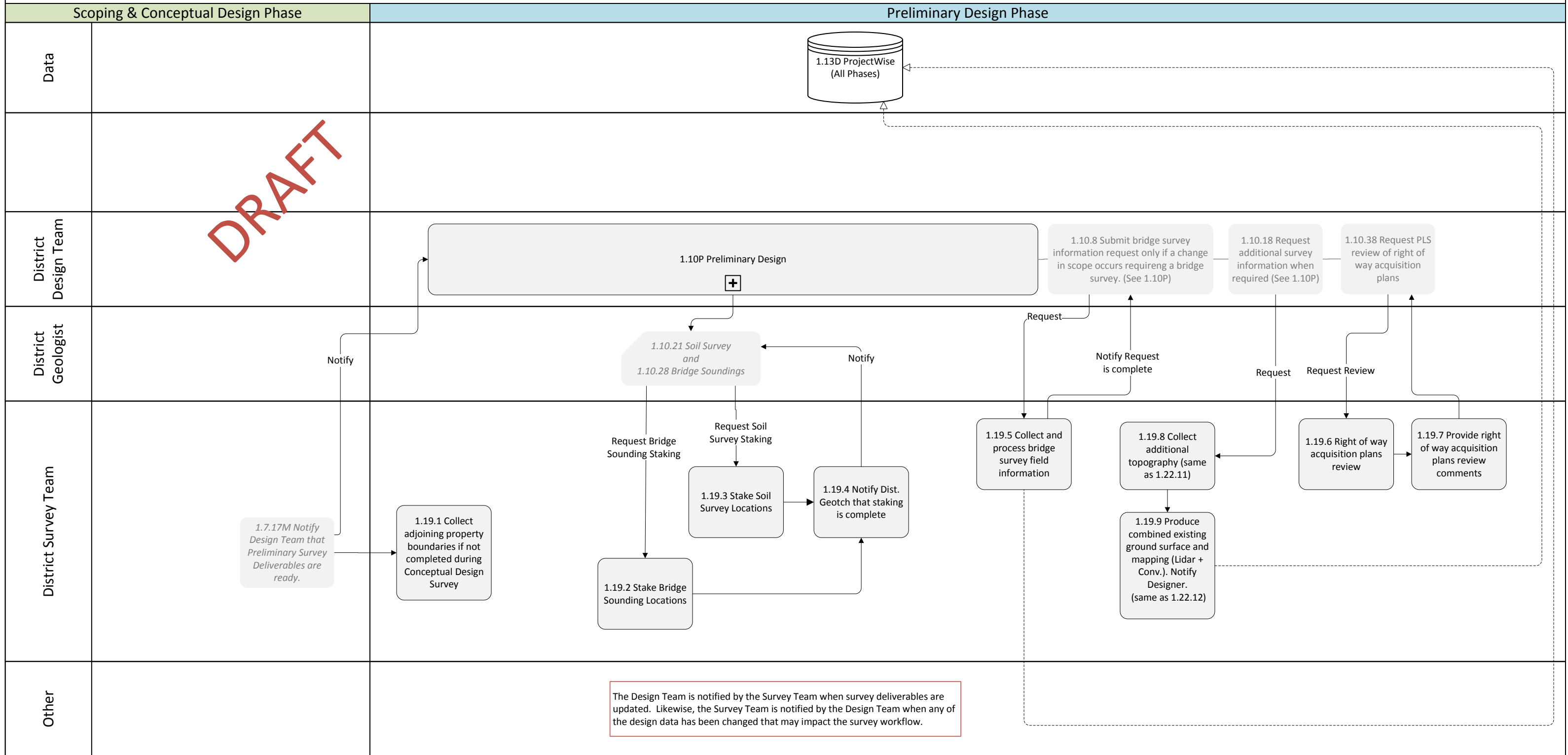


1.15 Final Design Process

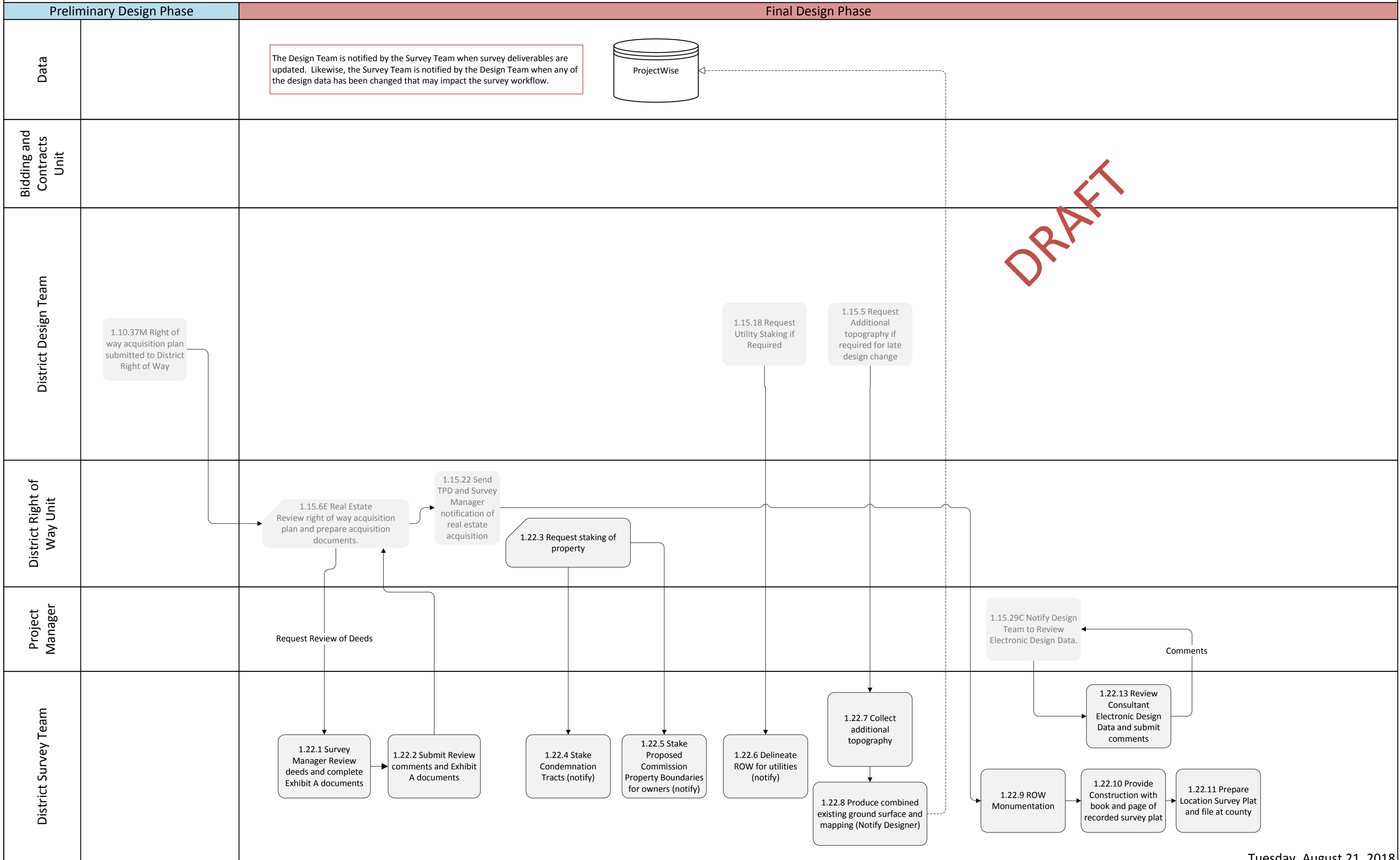


The Design Team is notified by the Survey Team when survey deliverables are updated. Likewise, the Survey Team is notified by the Design Team when any of the design data has been changed that may impact the survey workflow.

1.19 Preliminary Design Surveying Process

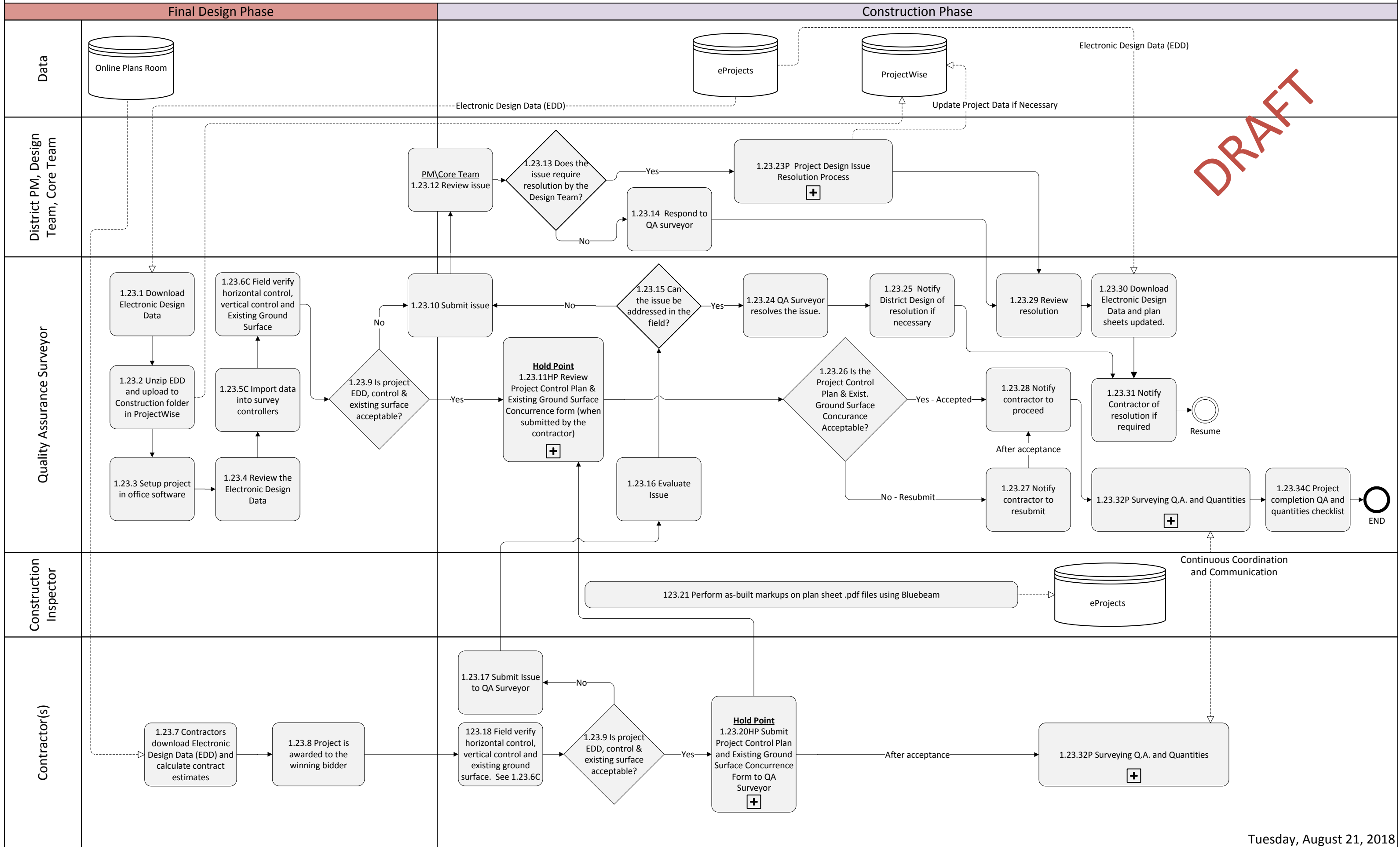


1.22 Final Design Surveying Process



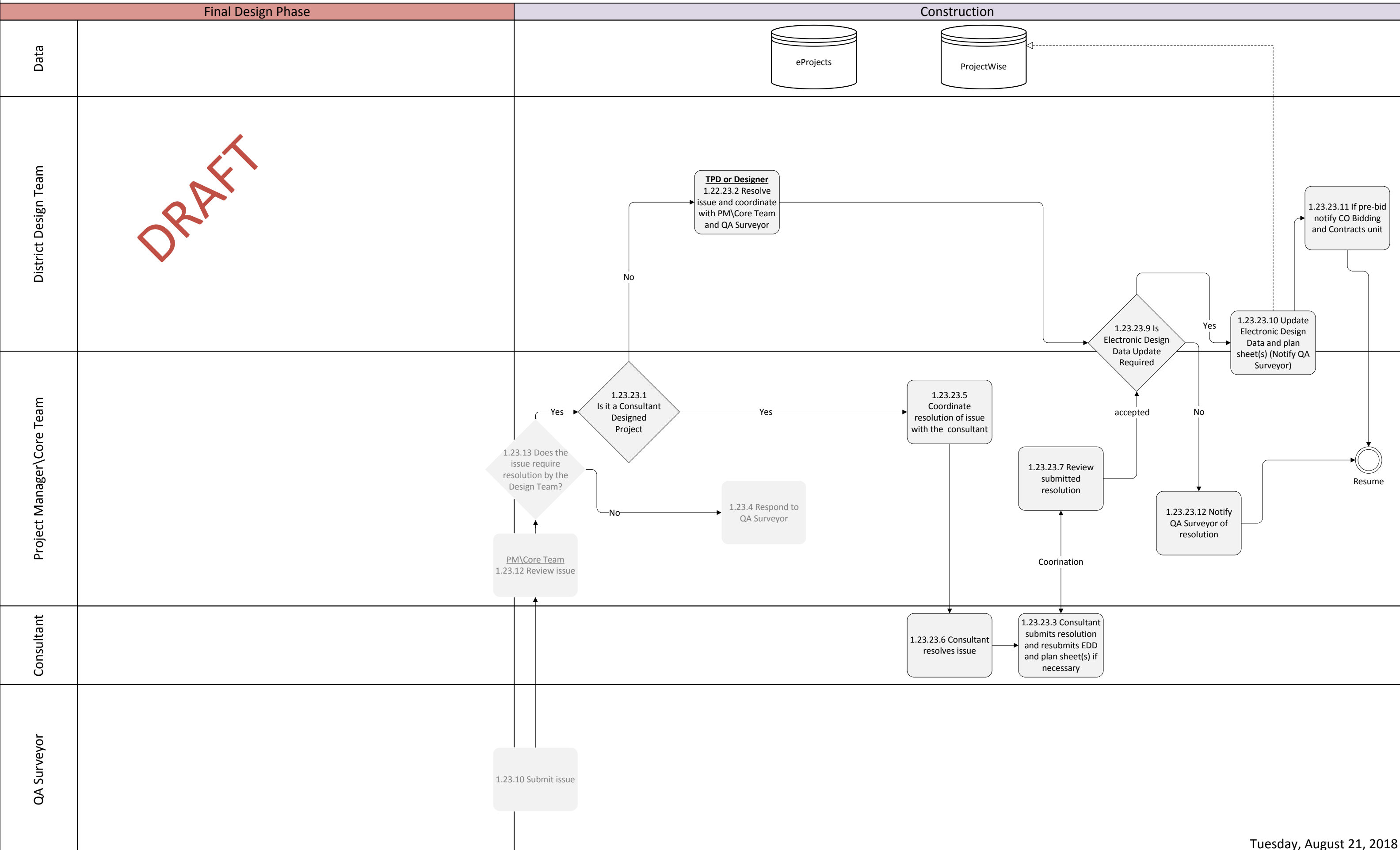
DRAFT

1.23 Construction Process



DRAFT

1.23.23 Project Design Issue Resolution Process



1.23.32 Surveying Quality Assurance and Quantities Process

Construction Phase

DRAFT

