# General

## Summary

* + 1. The Work of this Section includes, but is not limited to the following:
       1. Administrative and procedural requirements for portions of the Work the design of which is delegated to the Contractor.

## References

* + 1. Definitions:
       1. Delegated: Means transferred by the Consultant to the Contractor.
       2. Design: Means the complete planning, arrangement, and coordination of a discrete portion of the work, along with its graphic and written communication, including determination and engineering of the item's organization and structure in response to aesthetic requirements, functional requirements, dimensional and geometric limits, and the arrangement, performance, and other criteria indicated in the Contract Documents.
       3. Engineering services: Means structural engineering services performed for the design, fabrication, and installation of systems, assemblies, and components similar in material, design, complexity and extent to that indicated for this Project.

## Administrative requirements

* + 1. Portions of the Contract Documents may delegate the design of certain items to the Contractor, or may otherwise specify "delegated design requirements" in individual Specification Sections.
    2. The Contractor is professionally liable for delegated design work, including design, engineering, and conformance to specified performance requirements.
    3. Drawings of delegated design portions of Work are diagrammatic; they do not identify or imply solutions to engineering issues, and are intended to only show:
       1. The design intent of finished materials, profiles, shapes and forms;
       2. Relationships between items;
       3. Location, identification, dimension and size of components, assemblies, accessories, and other items; and
       4. Schematic attachment details and diagrams of fasteners and connections.
    4. Specifications for delegated design portions of the Work are the performance type, and establish the minimum criteria for materials, fabrications, products, systems, assemblies, and methods of execution, along with the minimum performance requirements for indicated portions of the Work.
    5. The Consultant reviews and determines whether or not the Contractor's designs:
       1. Conform to the overall project design;
       2. Conform to the specified performance requirements, including subsequent modifications; and;
       3. Are appropriately integrated into the overall design of the project.
    6. In the event of a dispute regarding the Contractor's proposed delegated design solutions and the design intent of the Contract Documents, the decision of the Consultant is final.

## Procedural requirements

* + 1. Design requirements: Proposed delegated design solutions must demonstrate conformance to the original design intent of the Contract Documents, as determined by the Consultant.
       1. Unless otherwise defined by the Contract Documents, the appearance of exposed elements, including member sizes, profiles, and alignment of components must be:
          1. Within the dimensional limits and section profiles indicated; and
          2. Consistent throughout the Project.
       2. Deviation from the profiles, layouts, dimensional locations, or arrangements indicated is not permitted without prior written consent from the Consultant.
       3. Contractor-proposed delegated design solutions that exactly follow the details indicated on the Drawings do not relieve the Contractor from liability for the design and performance of the delegated design portions of the Work.
    2. Engineering requirements: Engineer delegated design portions of the Work:
       1. Will meet or exceed the specified performance criteria;
       2. Will conform to the profiles indicated and to other requirements of the Contract Documents;
       3. Will satisfy the requirements of the authorities having jurisdiction; and;
       4. Will provide structurally sound, leak-proof, non-corroding, and weather tight assemblies, as applicable, that accommodate, resist, distribute, or transfer, as applicable, the minimum specified in-service loads, and thermal, seismic, and wind sway, or other types of movement, without incipient or catastrophic failure.
    3. Regulatory requirements: Delegated design items must be engineered in conformance with the latest edition of the OBC.

## Submittals

* + 1. General: Coordinate and process submittals for delegated design portions of Work in same manner as for other portions of Work.
    2. Professional Engineer's qualifications:
       1. In all cases where delegated design services are specified to be performed under the Contract or where Work is specified to be performed by a “Professional Engineer” or “Engineer”, including but not limited to sealed shop drawings and quality verification services.
       2. The person providing such Work shall be a Professional Engineer, licensed by in the Province of the Work, providing such services under a certificate of authorization issued by the PEO and who carries errors and omissions (professional liability) insurance coverage.
    3. Design data: Submit structural engineering calculations demonstrating conformance to the requirements of the Contract Documents and of the authorities having jurisdiction.
       1. Calculations must be legible and incorporate sufficient cross-references to shop drawings to make calculations readily understandable and reviewable.
       2. At a minimum, structural calculations must contain:
          1. An analysis of framing members;
          2. Section property computations for framing members;
          3. An analysis of anchors, including anchors embedded in concrete; and
          4. The signature and seal of the Professional Structural Engineer, licensed in the Province of the Work, and responsible for their preparation.
       3. Test reports are not an acceptable substitute for calculations.

## Quality assurance

* + 1. Professional Structural Engineer's qualifications: Must be legally qualified to practice in the Province of the Work, with at least five (5) consecutive years' experience providing engineering services for projects similar in material, design, complexity, and extent to this Project.

# Products

## Materials

* + 1. Provide materials, fabrications, products, components, and accessories required for a complete design, whether or not such items are indicated on the Drawings or in the Specifications.
    2. Provide anchors, attachments, inserts, fasteners, clips, bracing, framework, and similar items as required to meet specified design and performance requirements, and to securely attach delegated design Work to adjacent supports, or to related adjoining work, whether or not such items are indicated on the Drawings or in the Specifications.

# Execution

## Design

* + 1. Unless otherwise indicated or specified, maintain the design intent and conform to the performance requirements indicated on the Drawings and in the Specifications, as determined by the Consultant.
       1. In the interest of certain fabrication or erection methods, minor dimensional changes and detailing adjustments to the original design communicated in the Contract Documents may become necessary.
       2. Obtain written approval from the Consultant for proposed changes and adjustments before procurement, fabrication, manufacture, assembly, or installation, as applicable.
    2. Engage a qualified professional structural engineer to design connection details and determine fastener types and sizes.
       1. Fasteners or connections may neither conflict with nor require revision to the finish profiles indicated or the supporting work.
       2. Connections may not impose eccentric loading, nor induce twisting or warping to the supporting structure.
       3. Connections must be designed to accommodate potential and actual misalignment of adjacent work within tolerances specified in other Sections.

**RoD SPEC NOTE:** List the Section and identify for what the Delegated Design is for. Three examples below. Delete items that are not required on the Project.

## Delegated design schedule

* + 1. Section 05 40 00 Cold-formed metal framing; For load-bearing metal stud framing.
    2. Section 08 80 00 Glazing; For glass wall panels and stair glass guards.
    3. Section 09 22 16 Non-structural metal framing; For light gauge metal framing of gypsum board partitions and ceilings.

End of section