

DESIGN DELEGATION: A CAUTION FOR CONTRACTORS

CarolinasAGC
Summer Summit & Expo

Asheville, NC
July 27, 2019

Presented by:



Brian J. Schoolman
Safran Law Offices

WHAT IS “DESIGN DELEGATION”?

WHY DESIGN DELEGATION MATTERS

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?

WHY DESIGN DELEGATION MATTERS

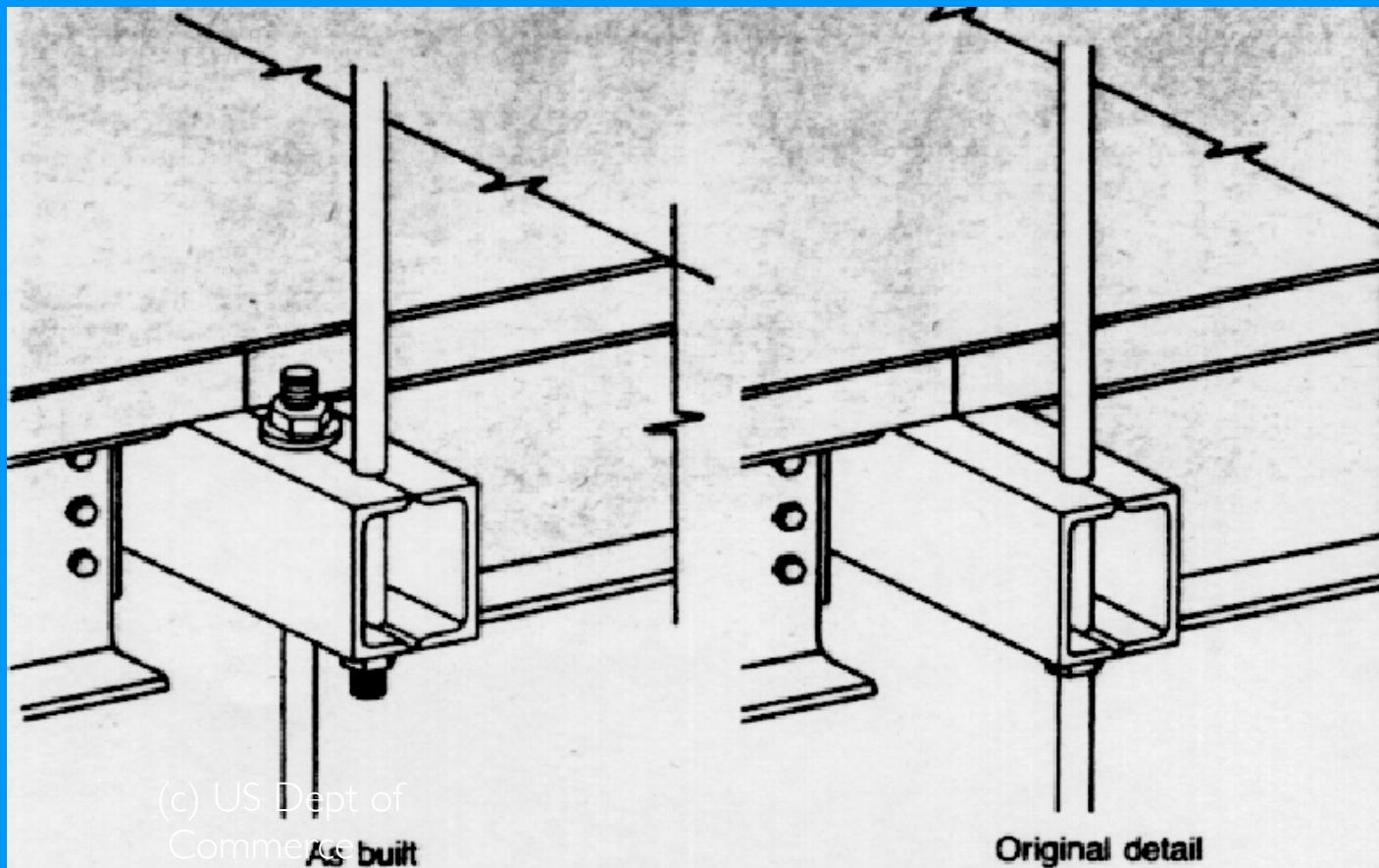
- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?
- Concern: Compliance with licensure laws
 - It is unlawful to engage, or assist in the engaging, in the unlicensed practice of architecture and/or engineering.
 - Could potentially put your GC license at risk.

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?
- *Duncan v. Missouri Bd. of Architects*, 744 S.W.2d 524 (1988) - Affirming findings of misconduct against architect for Hyatt Regency atrium walkway collapse, including delegation of non-delegable duty to fabricator.

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?



WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?
- Concern: Liability to others
 - Negligence by a contractor's sub-consultant can expose the GC to uninsured liability in the absence of additional coverage
 - If something goes wrong, will you face financial exposure with respect to the design element that was delegated?

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?
- Concern: Liability to others
 - The doctrine of contributory negligence may also prevent the GC from recovery from others if there is any responsibility on the GC's part.
 - OSHA will seek to determine who is the responsible party, even on "design" questions.

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?

WHY DESIGN DELEGATION MATTERS

- As a contractor, what are you most concerned with when the contract demands that some element of the design responsibility is placed on you and your subcontractors?
- Concern: Project Cost and Efficiency
 - The reason for design delegation is typically to improve efficiency and reduce cost. But for a particular project, will the added oversight responsibilities overwhelm those benefits?

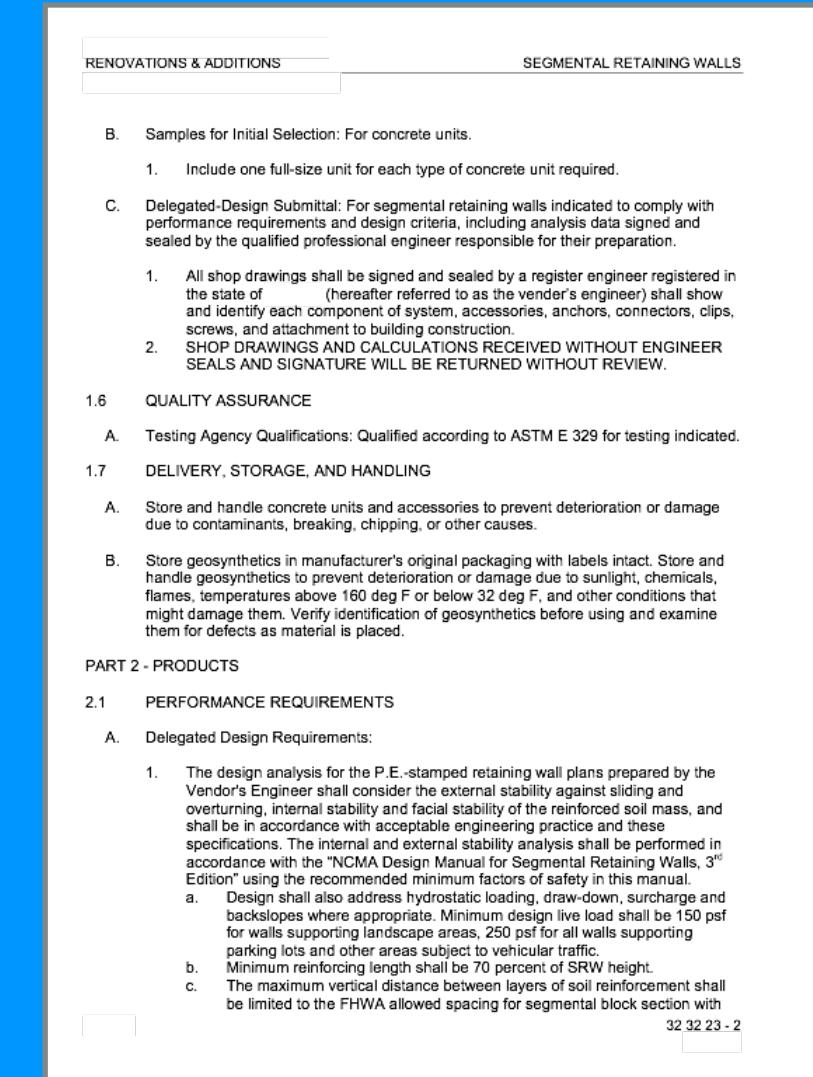
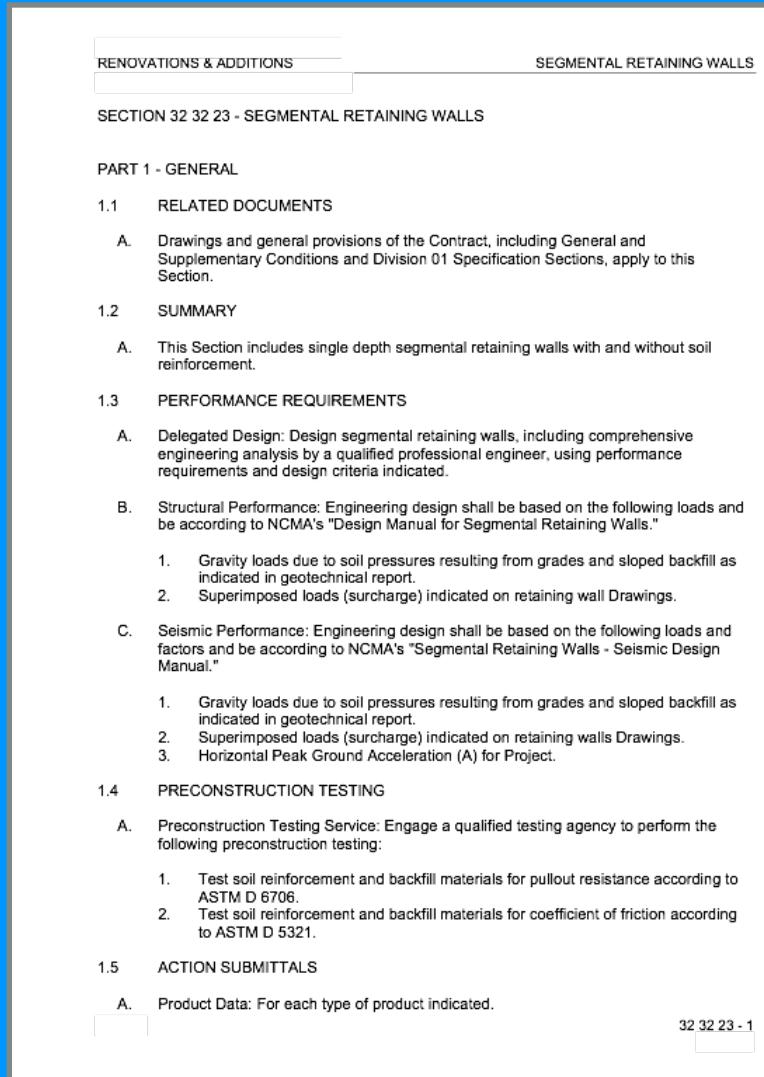
HOW IS “DESIGN DELEGATION” IMPLEMENTED?

EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified

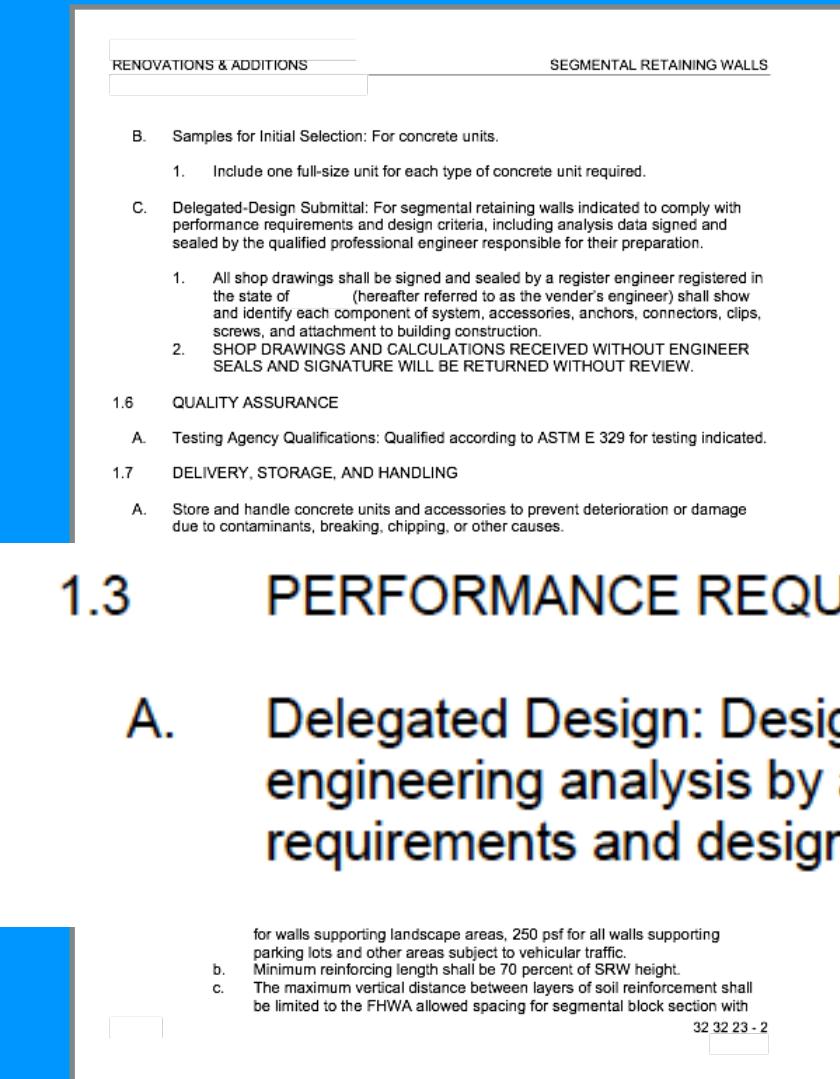
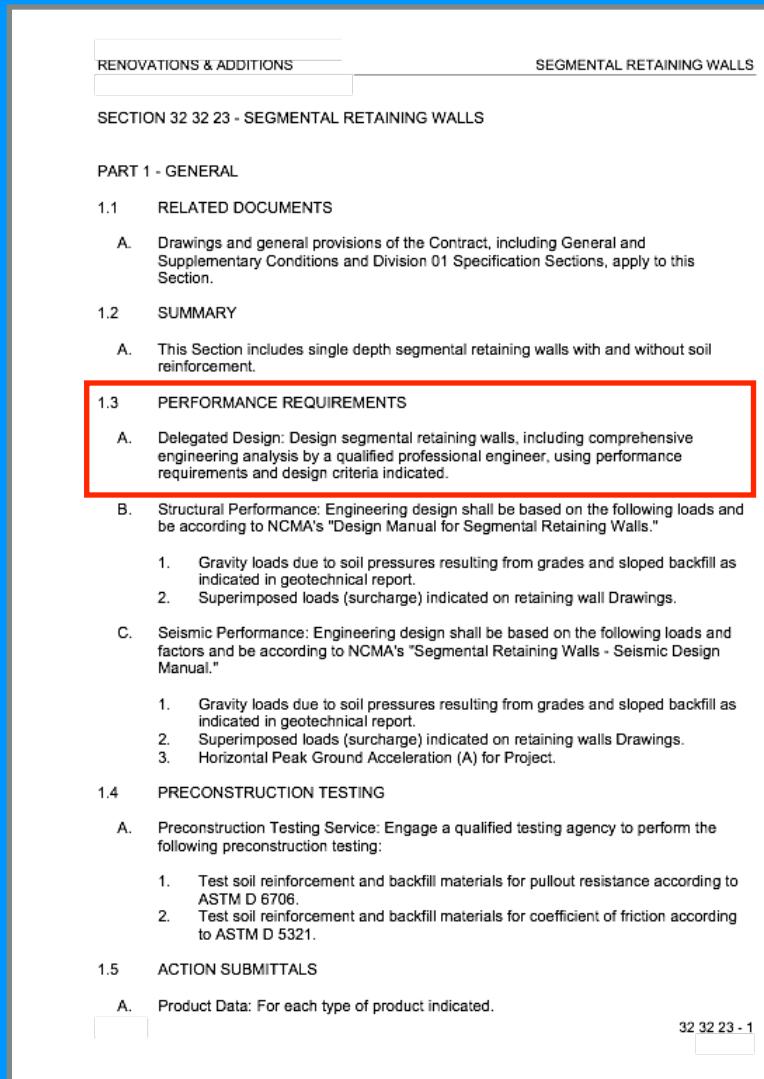
EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified



EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified



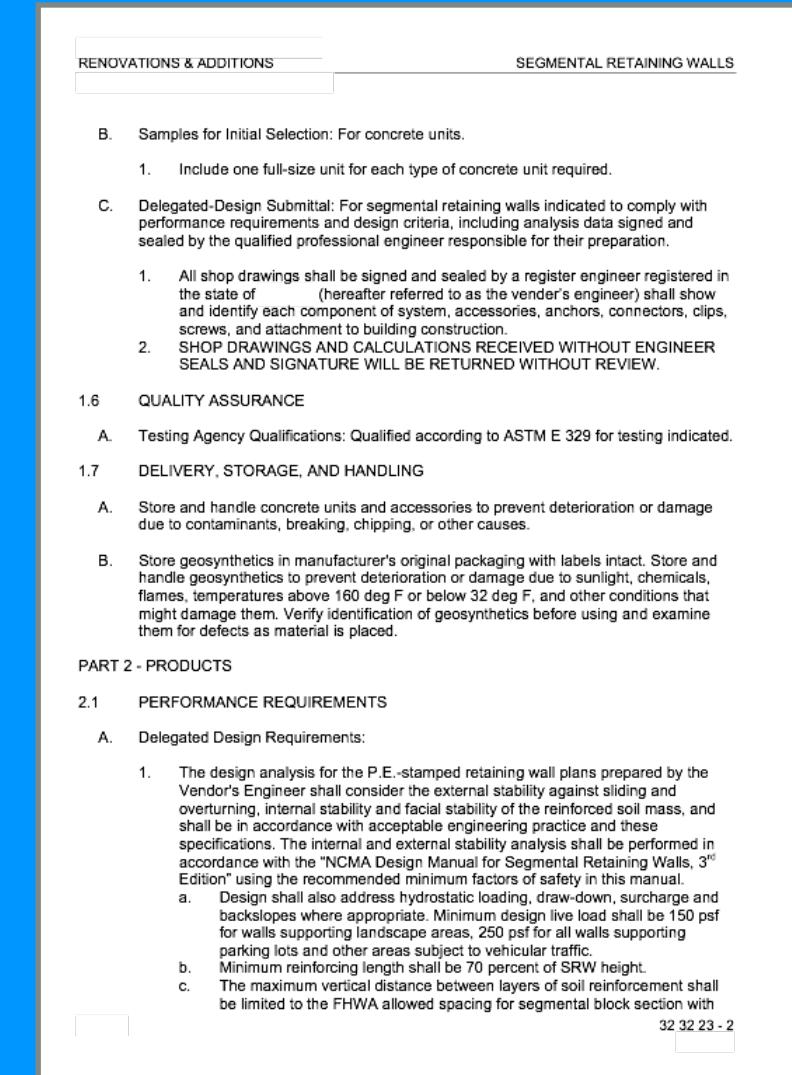
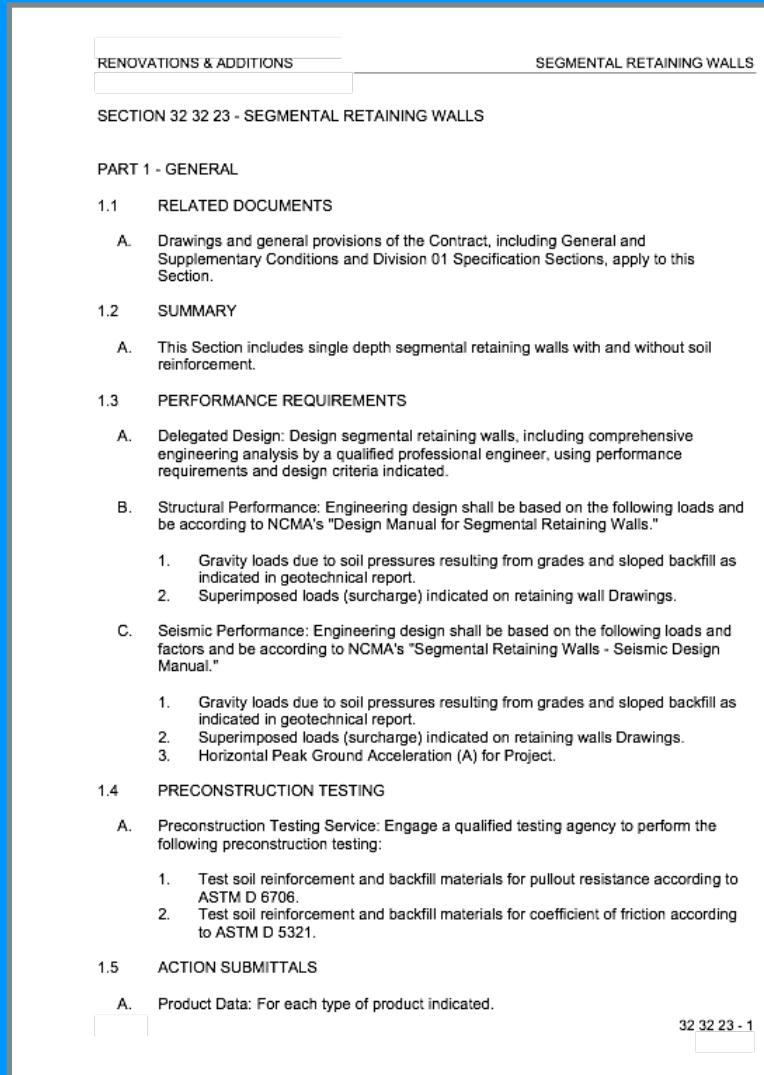
1.3 PERFORMANCE REQUIREMENTS

A. **Delegated Design: Design segmental retaining walls, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.**

for walls supporting landscape areas, 250 psf for all walls supporting parking lots and other areas subject to vehicular traffic.
b. Minimum reinforcing length shall be 70 percent of SRW height.
c. The maximum vertical distance between layers of soil reinforcement shall be limited to the FHWA allowed spacing for segmental block section with

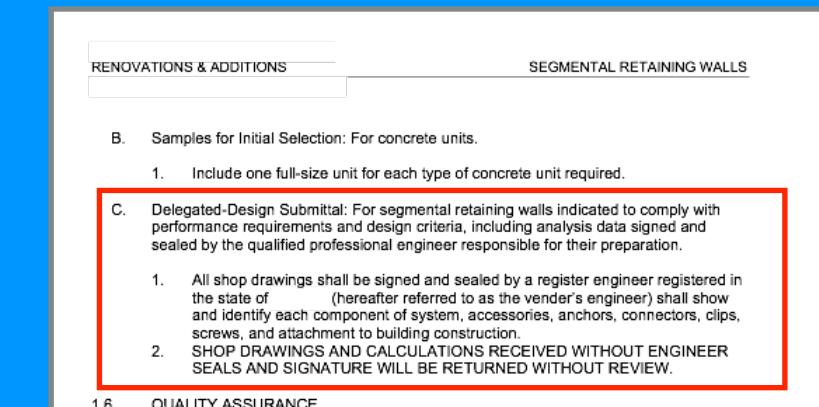
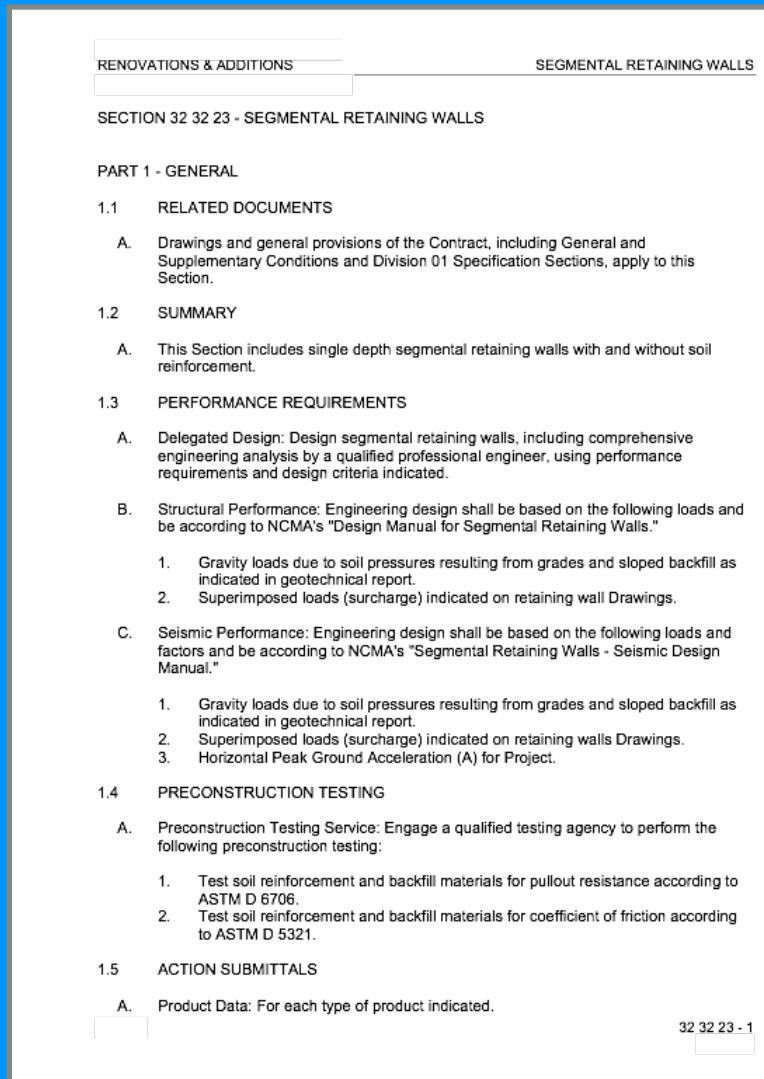
EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified



EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified



C. **Delegated-Design Submittal: For segmental retaining walls indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.**

1. **All shop drawings shall be signed and sealed by a register engineer registered in the state of (hereafter referred to as the vendor's engineer) shall show and identify each component of system, accessories, anchors, connectors, clips, screws, and attachment to building construction.**
2. **SHOP DRAWINGS AND CALCULATIONS RECEIVED WITHOUT ENGINEER SEALS AND SIGNATURE WILL BE RETURNED WITHOUT REVIEW.**

EXAMPLES OF DESIGN DELEGATION

EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified

EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified
 - Who is responsible for “designing” the wall?

EXAMPLES OF DESIGN DELEGATION

- Example 1: A Retaining Wall is specified
 - Who is responsible for “designing” the wall?
 - Who is responsible for “engineering” the wall?

EXAMPLES OF DESIGN DELEGATION

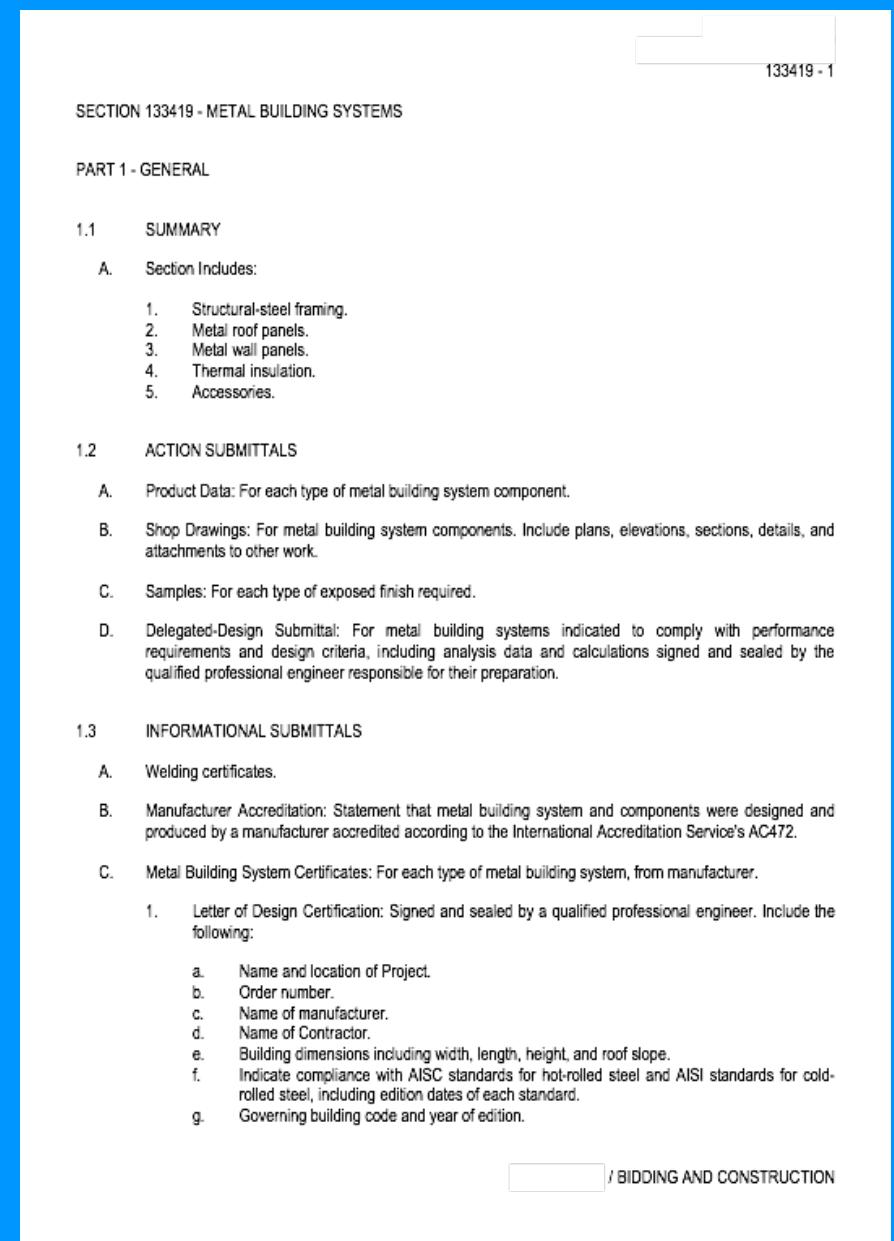
- Example 1: A Retaining Wall is specified
 - Who is responsible for “designing” the wall?
 - Who is responsible for “engineering” the wall?
 - What are the documents that will reflect the division of responsibilities?

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications



EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of metal building system component.
- B. Shop Drawings: For metal building system components. Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each type of exposed finish required.
- D. Delegated-Design Submittal: For metal building systems indicated to comply with performance requirements and design criteria, including analysis data and calculations signed and sealed by the qualified professional engineer responsible for their preparation.**

133419 - 1

SECTION 133419 - METAL BUILDING SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

Section Includes:

1. Structural-steel framing.
2. Metal roof panels.
3. Metal wall panels.
4. Thermal insulation.
5. Accessories.

ACTION SUBMITTALS

Product Data: For each type of metal building system component.

Shop Drawings: For metal building system components. Include plans, elevations, sections, details, and attachments to other work.

Samples: For each type of exposed finish required.

Delegated-Design Submittal: For metal building systems indicated to comply with performance requirements and design criteria, including analysis data and calculations signed and sealed by the qualified professional engineer responsible for their preparation.

INFORMATIONAL SUBMITTALS

Welding certificates.

Manufacturer Accreditation: Statement that metal building system and components were designed and produced by a manufacturer accredited according to the International Accreditation Service's AC472.

Metal Building System Certificates: For each type of metal building system, from manufacturer.

1. Letter of Design Certification: Signed and sealed by a qualified professional engineer. Include the following:
 - a. Name and location of Project.
 - b. Order number.
 - c. Name of manufacturer.
 - d. Name of Contractor.
 - e. Building dimensions including width, length, height, and roof slope.
 - f. Indicate compliance with AISC standards for hot-rolled steel and AISI standards for cold-rolled steel, including edition dates of each standard.
 - g. Governing building code and year of edition.

/ BIDDING AND CONSTRUCTION

EXAMPLES OF DESIGN DELEGATION

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications
- Who is responsible for “designing” the building?

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications
 - Who is responsible for “designing” the building?
 - Who is responsible for “engineering” the building?

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications
 - Who is responsible for “designing” the building?
 - Who is responsible for “engineering” the building?
 - What are the documents that will reflect the division of responsibilities?

EXAMPLES OF DESIGN DELEGATION

- Example 2: A Pre-Engineered Metal Building called out in specifications
- Who is responsible for the design?
- Who is responsible for the delegation?
- What are the responsibilities of the delegating party?
- What are the responsibilities of the delegated party?

DELEGATED DESIGN NOTES

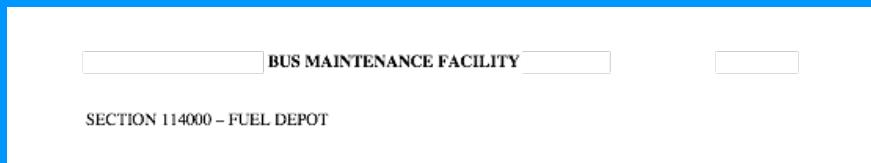
1. DESIGN RESPONSIBILITY FOR THE FOLLOWING ENGINEERED SYSTEMS AND COMPONENTS IS DELEGATED TO A QUALIFIED SPECIALTY STRUCTURAL ENGINEER SELECTED BY THE CONTRACTOR:
 - A. PRE-ENGINEERED METAL BUILDINGS
2. DELEGATED ENGINEERED SYSTEMS AND COMPONENTS SHALL SATISFY ASCE 7-05 LOAD COMBINATIONS.
3. COORDINATE WITH THE CONTRACT DOCUMENTS FOR PROFESSIONAL LICENSURE AND SEALING REQUIREMENTS, DESIGN CRITERIA, DETAILS OF THE SYSTEM/COMPONENT INTERFACE WITH THE PRIMARY STRUCTURE, SUBMITTAL REQUIREMENTS, AND CALCULATION REQUIREMENTS.

EXAMPLES OF DESIGN DELEGATION

- Example 3: A System is described / delegated by a Performance specification

EXAMPLES OF DESIGN DELEGATION

- Example 3: A System is described / delegated by a Performance specification



A. Provide integrated fuel storage and delivery systems. The specification requires the detailed system design, equipment, installation, startup, and training to be the responsibility of a single specialized fuel system supplier. The specification section includes responsibility for mechanical, electrical, and control systems. Furnish and install complete, in place fuel storage and delivery system as indicated on the drawings and specified herein, including but not necessarily limited to:

- 18. All required permits, certifications and inspections.
- 1.2 PERFORMANCE REQUIREMENTS
 - A. Delegated Design: Design fully operational Fuel Depot. Design required tanks and dispensers, including all equipment, parts and appurtenances necessary to ensure a satisfactory operating system. Equipment and installation necessary to accomplish the work herein shall comply with the latest revisions of the applicable federal, state, and local agencies', codes, requirements, regulations and standards concerning above ground fuel storage and dispensing systems.
- 1.3 SUBMITTALS
 - A. Shop drawings: Signed and sealed by a qualified professional engineer licensed in the State where project is located including the following:
 - 1. Product Data: Complete descriptions of product data for each type of product indicated; include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

EXAMPLES OF DESIGN DELEGATION

- Example 3: A System is described / delegated by a Performance specification

1. 12,000 gallon above ground diesel tank.
2. 12,000 gallon above ground B20 bio-diesel tank.
3. 10,000 gallon above ground gasoline tank.
4. Tank saddles and support.
5. Off-load jockey pumps and other transfer and control equipment.
6. Tank level and leak monitoring systems.
7. Required containment systems.
8. Access ladders and inspection platforms.
9. Fuel Filtration
10. Piping systems
11. Dispensers and nozzles.
12. Computer system & fuel consumption monitor.
13. Pump controls and alarms.
14. Emergency shut offs.
15. Valving, piping, pits, sensors, leak detection equipment.
16. Steel Canopy.
17. Canopy lighting.
18. All required permits, certifications and inspections.

EXAMPLES OF DESIGN DELEGATION

- Example 3: A System is described / delegated by a Performance specification

1.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design fully operational Fuel Depot. Design required tanks and dispensers, including all equipment, parts and appurtenances necessary to ensure a satisfactory operating system. Equipment and installation necessary to accomplish the work herein shall comply with the latest revisions of the applicable federal, state, and local agencies', codes, requirements, regulations and standards concerning above ground fuel storage and dispensing systems.

17. Canopy lighting.
18. All required permits, certifications and inspections.

1.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design fully operational Fuel Depot. Design required tanks and dispensers, including all equipment, parts and appurtenances necessary to ensure a satisfactory operating system. Equipment and installation necessary to accomplish the work herein shall comply with the latest revisions of the applicable federal, state, and local agencies', codes, requirements, regulations and standards concerning above ground fuel storage and dispensing systems.

1.3 SUBMITTALS

A. Shop drawings: Signed and sealed by a qualified professional engineer licensed in the State where project is located including the following:

1. Product Data: Complete descriptions of product data for each type of product indicated; include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

EXAMPLES OF DESIGN DELEGATION

EXAMPLES OF DESIGN DELEGATION

- Example 3: A System is described by a Performance specification

EXAMPLES OF DESIGN DELEGATION

- Example 3: A System is described by a Performance specification
 - Who is responsible for implementing the performance criteria?
 - Who is responsible for evaluating whether the performance criteria were met?
 - What specifies these responsibilities?

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”

1.1

SUMMARY

- A. This Section includes administrative and procedural requirements for Delegated Design components of the Work.
- B. Sections with delegated design components include but are not limited to the following:
 1. Section 05 50 00 - Metal Fabrication
 2. Section 05 51 00 - Metal Stairs
 3. Section 07 84 00 - Firestopping
 4. Section 08 44 13 - Glazed Aluminum Curtain Walls
 5. Section 09 51 00 - Acoustical Ceilings: Seismic Anchorage
 6. Division 21 - Fire Suppression
 7. Division 22 - Plumbing: Seismic Anchorage
 8. Division 23 - HVAC: Seismic Anchorage
 9. Division 26 - Electrical: Seismic Anchorage
 10. Division 28 - Electronic Safety and Security

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”
- What role are the shop drawings serving?

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”
- What role are the shop drawings serving?
 - A. **Delegated Design:** Certain components of the Work for which Contractor shall coordinate and assume or assign responsibility for design, engineering, calculations, permitting, submittals, fabrication, transportation, and installation. (Also called “Design-Build” components)
 1. Delegated Design components shall be complete systems that perform their intended functions.

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”
- What role are the shop drawings serving?

1.4 SUBMITTALS

- A. Comply with pertinent provisions of Section 01 30 00 - Administrative Requirements.
 1. Submit permit submittal to Architect for review prior to submitting to Permit Authority
 2. Architect will return copies to contractor for submittal to Permit Authority with “Reviewed” stamp.
 3. Delegated Design permit submittal is in addition to product data, shop drawing and sample submittals required for construction.
- B. Indicate design criteria, design assumptions, details, calculations, submittals, instructions for fabrication, assembly, installation and interface with other trades, unless noted otherwise in the specific Specification Section.
- C. Design and Calculations: Engineer's seal and calculations for that portion of Work by engineer licensed to practice in the State of
 1. Submittals without required calculations, without the Delegated Design Engineer's seal, or which have not been reviewed by Contractor will not be reviewed by Architect or Engineer of Record.

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”
- What role are the shop drawings serving?
- What role is the A/E serving by “approving” the shop drawings?

EXAMPLES OF DESIGN DELEGATION

- Example 4: When Shop Drawings are the only “design documents”
- What role are the shop drawings serving?
- What role is the A/E serving by “approving” the shop drawings?

E. Architect's or Engineer of Record's review of Delegated Design submittals will be for design intent and shall not lessen nor shift the responsibility from Contractor or the assigned subcontractor to Owner nor to the design professional. The Owner shall not be responsible for paying for any delays, additional products, additional hours of work, or overtime, restocking or rework required due to failure by the Contractor or the sub-contractor to coordinate their Work with the Work of other trades on the project requiring permit by agency

or to provide the Delegated Design portion or component in a timely manner to meet the schedule of the project.

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design

Stick system curtain wall / glass / aluminum
IGUZZINI ILLUMINAZIONE by Maurizio Varratta



(c) Stahlbau Pichler

http://img.archiexpo.com/images_ae/photo-g/85878-4616781.jpg

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design
 - Who is responsible for the transitions? (from AIA article)
 - Where undelegated field-installed insulation and delegated manufacturer-provided insulation transition at curtain walls and roof equipment curbs
 - Where delegated rain-screen subframing is anchored through undelegated sheathing and air barriers to delegated cold-formed wall framing

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design
- Who is responsible for the transitions? (from AIA article)
 - Where curtain wall, large window walls, or louvers are anchored through undelegated sheathing and air barriers to delegated cold-formed framing
 - Where seismic guiderail load connections from elevator systems are anchored to undelegated reinforced masonry or delegated metal fabrications

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design
- Who is responsible for the transitions? (from AIA article)
- Where undelegated foundations support delegated metal buildings, canopies, or towers

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design

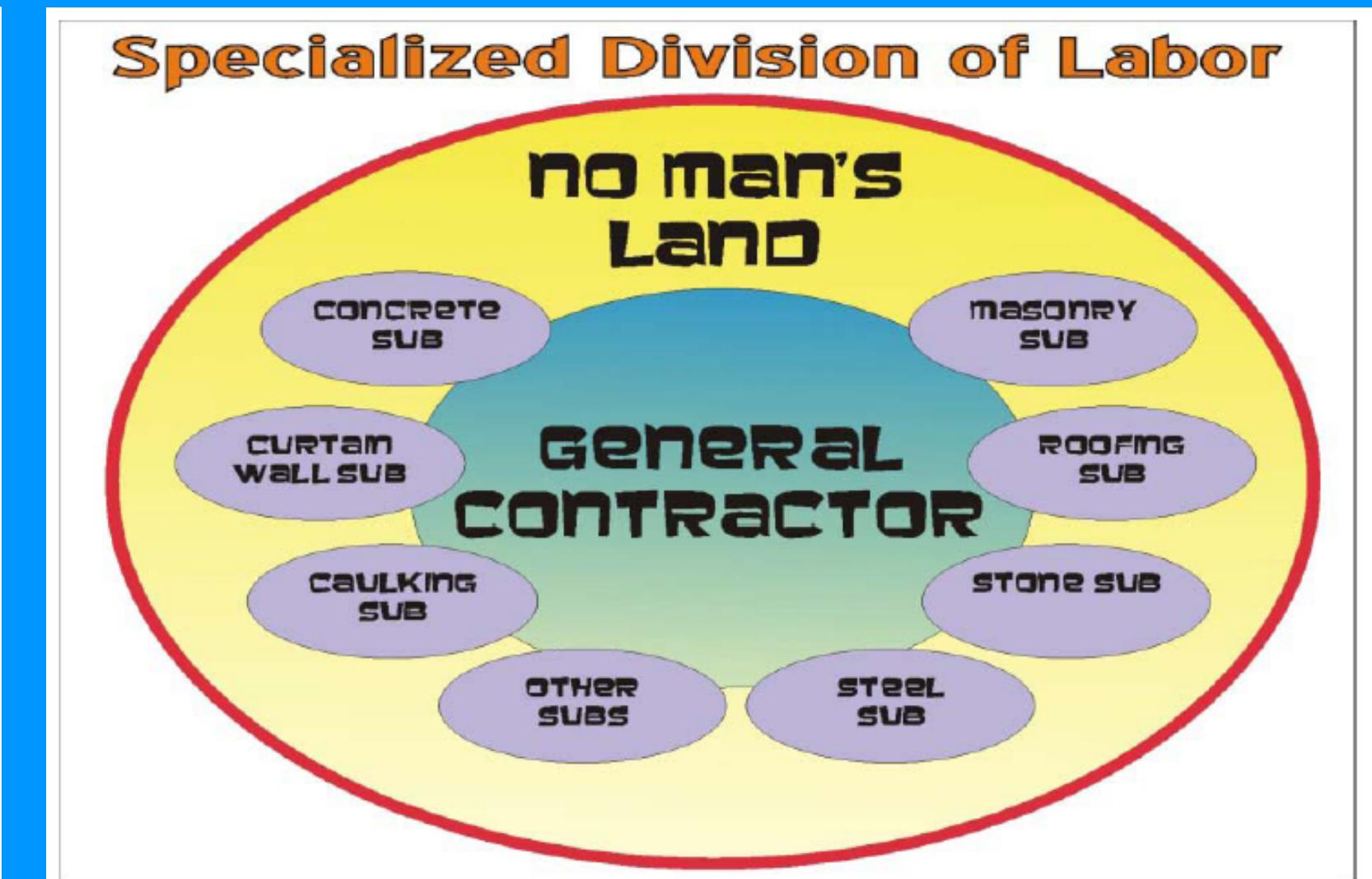
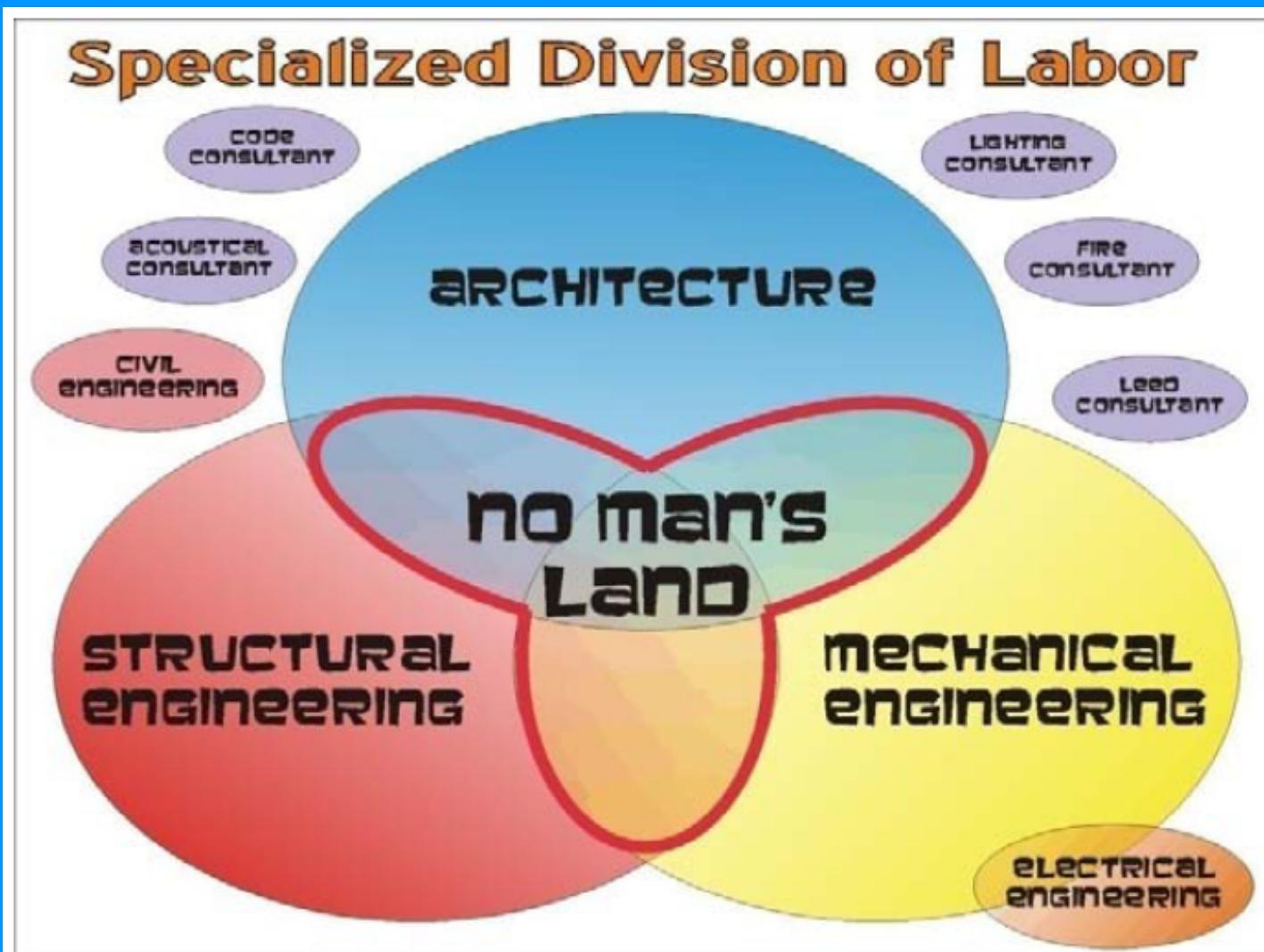


EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design



EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design

EXAMPLES OF DESIGN DELEGATION

- Example 5: Interface between delegated design and undelegated design

Figure 12. Exterior photograph of exterior wall. A spectacular, catastrophic collapse resulting from uncoordinated support of a curtain wall. Jamb aluminum mullions were exclusively supported onto adjacent CMU piers, which had insufficient load resistance to collect design reactions from the curtain wall. Photo credit – Mr. Alessandro Abate.



HOW IS DESIGN RESPONSIBILITY DELEGATED?

DELEGATION OF DESIGN - CONTRACT FORMS

- “Structural Design Delegation” by David J. Hatem, PC and Matthew P. Tuller, Esq., *Structure* magazine, November 2009
- “The proper delegation of design services from the structural engineer of record to specialty design professionals or to contractors requires an *express statement* of the intent of the parties to delegate these components. The delegation of design components must be done through the contractual language, specifications, and in compliance with local regulations.”

DELEGATION OF DESIGN - CONTRACT FORMS

- AIA General Conditions - AIA A201-2017, Section 3.12.10 (emphasis added)
 - The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

DELEGATION OF DESIGN - CONTRACT FORMS

- AIA General Conditions - AIA A201-2017, Section 3.12.10.1 (emphasis added)
 - If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy.... The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect.... Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

DELEGATION OF DESIGN - CONTRACT FORMS

- AIA General Conditions - AIA A201-2017, Section 3.12.10.2
 - If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

DELEGATION OF DESIGN - CONTRACT FORMS

- ConsensusDOCS 200 - Agreement and General Conditions between Owner and Constructor, Section 3.15 (2019 Revision)
 - DESIGN DELEGATION. If the Contract Documents specify that Constructor is responsible for the design of a particular system or component to be incorporated into the Project, then Owner shall specify all required performance and design criteria. Constructor shall not be responsible for the adequacy of such performance and design criteria.
 - As required by the Law, Constructor shall procure design services and certifications necessary to satisfactorily complete the Work from a licensed design professional. The signature and seal of Constructor's design professional shall appear on all drawings, calculations, specifications, certifications, shop drawings, and other submittals related to the Work designed or certified by Constructor's design professional.

DELEGATION OF DESIGN - CONTRACT FORMS

- EJCDC C-700 - Section 7.19 (2018 Revision) - Delegation of Professional Design Services
 - A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

DELEGATION OF DESIGN - CONTRACT FORMS

- EJCDC C-700 - Section 7.19 (2018 Revision) - Delegation of Professional Design Services
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

DELEGATION OF DESIGN - CONTRACT FORMS

- EJCDC C-700 - Section 7.19 (2018 Revision) - Delegation of Professional Design Services
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

DELEGATION OF DESIGN - CONTRACT FORMS

- EJCDC C-700 - Section 7.19 (2018 Revision) - Delegation of Professional Design Services
 - D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

DELEGATION OF DESIGN - CONTRACT FORMS

- EJCDC C-700 - Section 7.19 (2018 Revision) - Delegation of Professional Design Services
 - E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 1. Checking for **conformance** with the requirements of this **Paragraph 7.19**;
 2. Confirming that Contractor (through its design professionals) has **used the performance and design criteria** specified in the Contract Documents; and
 3. Establishing that the design furnished by Contractor is **consistent** with the design concept expressed in the Contract Documents.

DELEGATION OF DESIGN - CONTRACT FORMS

- EJCDC C-700 - Section 7.19 (2018 Revision) - Delegation of Professional Design Services
 - F. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.
 - G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

DELEGATION OF DESIGN - DEVELOPING ISSUES

- Integrated Project Delivery / Building Information Modeling
 - An IPD program is thought of as “collaborative design” because the owner, the contractor(s), and the designer(s) work together during the programming and design stages with the goal of minimizing certain types of conflicts and inefficiencies.
 - BIM involves use of modeling -- often through computer representations -- to present objects and attributes in conjunction. Multiple parties have the opportunity to input and influence the modeling.
 - Who is the “designer” if the structural design software makes changes in response to inputs from non-licensed (Contractor) parties?
 - What are the risks of BIM in a non-collaborative contract?

DELEGATION OF DESIGN - DEVELOPING ISSUES

- Generally specified building products
- There is a long history of “delegating” secondary structural items such as stairs, handrails, davits, and elevator support rails and beams
- More recently, there has been a greater move to delegating the design for primary structural elements also, including light gage trusses, wood trusses, structural precast concrete panels, post-tension concrete members, metal deck, and structural steel connections
- “Delegated Design” - *Structure* magazine, Sept. 2013, by CASE Guidelines Committee

DELEGATION OF DESIGN - DEVELOPING ISSUES

- Generally specified building products - *Structure* questions to consider:
 - What standards are going to be followed?
 - Do you understand the industry code of standard practice for the element being delegated? Does it even exist? Is it insurable?
 - If you don't like what is in the code of standard practice, you have the opportunity to change it via the contract documents. Do you know what needs to be changed? Does your understanding of the code enable you to be certain that a particular change does not impact other aspects of the code?

DELEGATION OF DESIGN - DEVELOPING ISSUES

- Generally specified building products - *Structure* questions to consider:
 - Is the SEOR responsible for specifying and also verifying the qualifications and experience of the Specialty Structural Engineer (SSE)?
 - Is there a means to ensure that the SSE has interpreted the SEOR's requirements properly during the bidding stage?
 - Who is responsible for the coordination and/or compatibility of the primary structure (designed by the SEOR) with the delegated design portion (designed by SSE)?

DELEGATION OF DESIGN - DEVELOPING ISSUES

- Generally specified building products - *Structure* questions to consider:
 - How are the material quantities, details and loadings of the delegated design portion being accounted for in the final design by the SEOR?
 - Who is responsible for the final product?
 - What is the impact of the elements designed by the SSE on the primary structural system?
 - Must SEOR review the results of the SSE's design to establish compliance with the governing codes and specifications?

DELEGATION OF DESIGN - DEVELOPING ISSUES

- Performance-Based Specifications
 - One commentator describes the difference between “design” specifications and “performance” specifications this way: The design is what the owner and design professional is responsible for, and the performance is what the contractor is obligated to fulfill.
 - The advantage, but also the risk, of performance specifications -- as compared to prescriptive specifications -- is that it gives the contractor flexibility in not only the means and methods, but also materials and sometimes even “design.”
 - Design professional is obligated only to review shop drawings / submittals for “conformity” to the performance criteria and design intent.
 - Contractor, by contrast, is obligated to **build** in compliance with performance spec and **furnish design** in compliance with same.

LAWS AND REGULATIONS REGARDING DESIGN DELEGATION

DELEGATION OF DESIGN - JURISDICTIONAL APPROACH

- North Carolina laws and regulations do not specifically address delegated design as such.
 - Chapter 89C governs engineering and land surveying.
 - Section 89C-23 makes it unlawful to practice engineering without a license.
 - 21 NCAC 56.1106 does discuss certification of “standard design plans” by a North Carolina licensed engineer: “Standard design plans that were initially prepared and certified by an individual who is a licensed engineer in the state of origin ... may then be reviewed by a North Carolina Professional Engineer for code conformance, design adequacy, and site adaptation for the specific application within North Carolina. The reviewing Professional Engineer who is licensed in North Carolina assumes responsibility for such standard designs. Standard plans ... shall be sealed by the reviewing [NC P.E.] who is assuming responsibility....”

DELEGATION OF DESIGN - JURISDICTIONAL APPROACH

- South Carolina laws and regulations do not specifically address delegated design as such.
- Title 40, Chapter 22 governs engineering and land surveying.
- Section 40-22-30 makes it unlawful to practice engineering without a license.

CASE LAW INVOLVING DESIGN DELEGATION ISSUES

DESIGN DELEGATION CASES - PERFORMANCE SPECS

- *Conner Brothers Construction Co., Inc. v. U.S.*, 65 Fed. Cl. 657 (2005)
 - Contractor sought equitable adjustment on federal building project based on claim that design specifications were incorrect, and led to mechanical subcontractor incurring \$246,000 in additional costs.
 - The particular issue was coordination between two drawings. There was a set of demolition drawings indicating the existing ceiling plan prior to demolition, and a second set of drawings informing bidders of the planned ceiling.
 - The Government argued that based on a reasonable review of the drawings, bidders should have known that new diffusers and grilles would be placed in different locations, and could not simply reconnect to existing HVAC system in same exact locations.

DESIGN DELEGATION CASES - PERFORMANCE SPECS

- *Conner Brothers Construction Co., Inc. v. U.S.*, 65 Fed. Cl. 657 (2005)
 - At deposition, the representative of the mechanical subcontractor admitted that he had not reviewed the drawings, that he had made an assumption the diffusers and grilles could connect to the existing HVAC system, and that he understood his company and the GC would be responsible for making the new diffusers and grilles operational.
 - The Court held that the lack of detail regarding location of the diffusers and grilles demonstrated these were performance specifications, that they granted the GC “a significant amount of discretion in making the system operational,” and therefore that the specifications were not “defective” in such a way to entitle payment for changed conditions.

DESIGN DELEGATION CASES - WAS THERE DELEGATION?

- *William Gordon Assoc., Inc. v. Heritage Fellowship United Church of Christ*, 291 Va. 122 (Va. 2016)
 - Engineer contracted with Owner (church) to design site plans for rain tank system.
 - Contractor installed stormwater system, including rain tank. Tank and parking lot above tank collapsed, delaying occupancy of church by several months.
 - Owner withheld payment to contractor. Contractor sued Owner for payment. Owner sued Engineer for potential indemnification.

DESIGN DELEGATION CASES - WAS THERE DELEGATION?

- *William Gordon Assoc., Inc. v. Heritage Fellowship United Church of Christ*, 291 Va. 122 (Va. 2016)
 - Engineer contended that contractor should be liable because of delegated design responsibility for rain tank.
 - Contractor defended that Engineer's design was prescriptive rather than performance spec, and did not actually delegate design obligation to contractor. Contractor did **not** have to furnish sealed submittals or shop drawings.
 - Court held construction contract did not shift design liability to contractor, and that flaws in design by Engineer were cause of tank failure.

DESIGN DELEGATION CASES - "TRUE" DELEGATION

- *Thomas J. McAdam Liquors, Inc. v. Senior Living Options, Inc.*, 2009 N.Y. Misc. LEXIS 6558 (N.Y. Sup. Ct. 2009)
 - Owner contracted with architectural firm to design, and contractor to build, high-rise senior-living residence. The architect hired a structural engineering firm.
 - The plaintiffs owned an adjacent building, and sued for damages allegedly caused by underpinning work on the senior center project.
 - One of the claims by plaintiffs was negligent design of the project against the architect.

DESIGN DELEGATION CASES - "TRUE" DELEGATION

- *Thomas J. McAdam Liquors, Inc. v. Senior Living Options, Inc.*, 2009 N.Y. Misc. LEXIS 6558 (N.Y. Sup. Ct. 2009)
 - Under the contract documents, all foundation work, including the underpinnings, was the responsibility of the contractor, and the plans stated that the underpinning work to be supervised by the contractor's engineer, AND that the "Contractor is solely responsible for the safety of all existing property and persons during underpinning operations."
 - The contractor admitted in deposition that neither the architect nor the architect's structural engineer consultant was the underpinning engineer, and that the contractor had retained its own independent engineer to design the underpinning, sheeting, and shoring.

DESIGN DELEGATION CASES - "TRUE" DELEGATION

- *Thomas J. McAdam Liquors, Inc. v. Senior Living Options, Inc.*, 2009 N.Y. Misc. LEXIS 6558 (N.Y. Sup. Ct. 2009)
 - The owner hired its own consultant to perform geotechnical review of the property, and the consultant recommended a survey be conducted for neighboring buildings and that each building should be inspected and photographed to record existing conditions.
 - The consultant also recommended a survey-monitoring program be implemented during implementation.
 - NO responsibility for subsurface conditions on the site conditions was placed on the architect by its own contract.

DESIGN DELEGATION CASES - "TRUE" DELEGATION

- *Thomas J. McAdam Liquors, Inc. v. Senior Living Options, Inc.*, 2009 N.Y. Misc. LEXIS 6558 (N.Y. Sup. Ct. 2009)
 - The owner's consultant signed a statement of responsibility form for underpinning, confirmed that it conducted controlled inspections of the underpinning work.
 - Notes from project meetings stated that the contractor was responsible for the design and underpinning, and shall submit shop drawings to the owner's consultant for review and approval.
 - The architect's structural engineer, in a field observation, reported that the underpinning engineer must review the site, make a determination on procedure for investigating existing column foundations, and advise contractor how to proceed.

DESIGN DELEGATION CASES - "TRUE" DELEGATION

- *Thomas J. McAdam Liquors, Inc. v. Senior Living Options, Inc.*, 2009 N.Y. Misc. LEXIS 6558 (N.Y. Sup. Ct. 2009)
 - But... the plaintiffs argued the following...
 - The architect had overall responsibility for the design of the project.
 - The underpinning was a component that was delegated to other design professionals as part of the overall scope of the design work, and therefore the architect still had statutory responsibilities.
 - As part of the architect's design documents, the underpinning detail states "the contractor shall retain the services of a Professional Engineer... to prepare, sign and seal design drawings and calculations for all required underpinning of adjacent structures...."

DESIGN DELEGATION CASES - "TRUE" DELEGATION

- *Thomas J. McAdam Liquors, Inc. v. Senior Living Options, Inc.*, 2009 N.Y. Misc. LEXIS 6558 (N.Y. Sup. Ct. 2009)
 - The result was that the court allowed the architect's motion for summary judgment, and dismissed the claim for negligent design.
 - The court found there was no evidence that the architect had breached its duty of care as to the overall design.
 - The court further found that the "delegated design" rules for engineers did not apply to the architectural firm.
 - Finally, the court agreed that under the contracts, the architect had no design responsibility for the foundations and no supervisory responsibility for the construction thereof.

DESIGN DELEGATION CASES - DELEGATION / INSURANCE

- *Travelers Indemnity Co. v. Zeff Design*, 60 A.D.3d 453 (N.Y. 2009)
 - A wall settled, resulting in damage to an adjoining property. The property owner filed an insurance claim, and was paid by Travelers.
 - Travelers filed a subrogation claim against, among others, the engineer for the project.
 - As in McAdam, the contract provided that the foundation and underpinning design was the responsibility of the contractor rather than the engineer.

DESIGN DELEGATION CASES - DELEGATION / INSURANCE

- *Travelers Indemnity Co. v. Zeff Design*, 60 A.D.3d 453 (N.Y. 2009)
 - The drawings and specifications also stated that all underpinning, sheeting, shoring or other similar required construction were the contractor's responsibility, that the contractor was to retain a licensed professional engineer to provide all necessary designs and required inspections, and that the contractor was to provide all measures and precautions necessary to prevent damage and settlement of existing or new construction.
 - The court found there was no negligence on the part of the engineer because its specifications were not followed, and the settling happened only after there was a deviation from the instructions.
 - In the absence of negligence, the claim was dismissed.

RISK MANAGEMENT FOR DESIGN DELEGATION

RISK MANAGEMENT

RISK MANAGEMENT

- What makes design delegation more risky for contractors than typical design?

RISK MANAGEMENT

- What makes design delegation more risky for contractors than typical design?
- What makes design delegation less risky?

RISK MANAGEMENT

- What makes design delegation more risky for contractors than typical design?
- What makes design delegation less risky?
- How can you control for the risks?

QUESTIONS?

Contact information:
bschoolman@safranlaw.com

Website:
www.safranlaw.com

Twitter:
[@safranlaw](https://twitter.com/safranlaw)
[@safranlawBJS](https://twitter.com/safranlawBJS)

Phone:
[\(919\) 828-1396](tel:(919)828-1396) / [\(800\) 326-3372](tel:(800)326-3372)