DSA 20/20
FOCUS ON THE FUTURE
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES

ACCURATE + COMPLETE DOCUMENTS = APPROVED PROJECT

COMMON SUBMISSION & INTAKE ISSUES

1. Incomplete Submittal at Project Intake
    - Missing sheets compared with sheet index.
    - Inaccurate scope definition on application.
    - Missing Geohazard/Geotechnical reports and calculations.
    - Incomplete T24 Energy reports.
    - Missing material product data sheets.
    - Show complete scope on application.
2. Inadequate Oversite by Responsible Design Professional
    - Repeated errors without updating office standards and details.
    - Senior engineers not transferring knowledge to junior engineers.
    - Junior engineers perform design and backcheck with little quality control.
3. Submittal of Incomplete or Incorrect Drawings and Specifications
    - Not referencing specific details on plans.
    - Relying on typical details when specific details are required.
    - Reuse of outdated specifications.

- Lack of coordination between drawings and specifications, including site plans.
- Non-structural material details must accommodate story drifts.

4. Coordinate Structural Design with Non-Structural Disciplines
    - Geotechnical design and site preparation.
    - Site structures and building finish materials.
    - Mechanical, Electrical, Plumbing layout and anchorage of equipment and systems, including solar systems.
    - Fire rated construction, sprinkler and suppression systems.
    - CALGreen features.
5. Submittal of Incomplete Calculations
    - Provide narratives describing design and analysis assumptions.
    - Provide electronic output for structural software computer models.
    - Include product evaluation reports.
6. Comments Not Addressed at Back Check
    - Argue about comments at back check.
    - Resolve issues between original plan review and back check.

7. Alteration/Relocation of “Uncertified” Buildings

    - See IR A-20: New Projects Associated with Existing Uncertified Projects for when required.
    - Certify prior to final back check.
    - Common for relocatable buildings, especially with over-the-counter (OTC) plans.

8. Over-the-Counter Projects for New Construction or Relocations

    - Mix original with pre-check (PC) drawings.
    - Submit significant building changes from approved plans.

9. Submittal of Construction Change Documents (CCD) or Addenda

    - Provide justifying calculations and product data sheets.

COMMON FIRE & LIFE SAFETY ISSUES

1. Project description (scope of work) inconsistent with plans.

    - Scope of work statement to be descriptive, rather than broadly worded.
    - Should outline primary work associated with the project.
    - Generic vs. extensive.
    - Be consistent with project intent.
    - Campus designation (New Campus vs. Existing Campus) not indicated.
    - Project funding source not indicated (State [OPSC] or local bond funds).

2. Building code analysis incomplete or inaccurate
    - All information not provided; California Building Code (CBC) Chapter 5 elements.
    - CBC equations not reflected.
    - Area calculations incorrect.
    - Failure to account for/include California Fire Code (CFC) Chapter 5 provisions.
3. Application of CBC height, story and area tables incorrect
    - International Building Code (IBC) change from text to tabular format confusion. Rules and requirements are the same; no change in intent.
    - Footnote directives not applied.
    - Cannot combine height and area increases using fire sprinklers per State Fire Marshal (SFM) amendments.
4. Interaction between building and fire codes, and amendments thereto not applied consistently
    - CBC and CFC are companion regulations.
    - More restrictive provisions apply.
    - Amendments in chapters 35 (CBC) and 80 (CFC) modify standards.
5. Application of the fire-resistance-rated construction provisions incorrect or incomplete.
    - Chapter 7 provisions critical to life safety; intricate and confusing.
    - Construction differences between types of rated walls misunderstood.

- Detail information incomplete; application (function), hourly rating, tested assembly number.
- Use of “typical” details rather than listed construction details.

6. Exterior projection requirements applied incorrectly
   - Table 705.2 different between IBC and CBC.
   - Measurements from building to assumed property line, rather than from assumed property line back towards the building.
   - Incorrect application affects exterior wall construction and construction of combustible projections.

7. Misapplication of code requirements when multiple buildings considered as one
   - Buildings under consideration don’t meet the more restrictive of the requirements for each building and use.
   - Location of new buildings or an addition to an existing building cannot place an adjacent building in jeopardy.
   - Frontage (side yards), exterior wall construction, opening protection.

8. The three component egress system misunderstood
   - Separate provisions for each; each component must meet their specific criteria.
   - Must still be compatible.
   - Common path-of-travel provisions considered separate from travel distance criteria.
   - Interior exit stairways vs. interior access stairways.

9. Documentation for fire alarm and fire sprinkler systems missing or incomplete

    - Missing, incomplete or expired data sheets.
    - State Fire Marshal listing sheets missing or expired.
    - Hydraulic calculations incorrect.
    - DSA Guidelines:
        - GL 1: Automatic Fire Sprinkler Systems
        - GL 2: Fire Alarm and Detection Systems

10. Architectural plans and consultant plans (Mechanical, Electrical, Plumbing) not coordinated, or poorly coordinated

    - Floor plans and sectional details inconsistent with architectural plans.
    - Locations of fire rated elements not shown or inconsistent with architectural plans (different versions).
    - Use of “typical” or “generic” membrane- and through-penetration fire stop details.

11. Project code references incorrect or outdated

    - Codes and standards revised on an on-going basis; some annually, some triennially. Section numbers often changed.
    - Referenced outdated codes and standards leads to incorrect interpretation and application of requirements.
    - Fosters inconsistencies between plans and specifications.

12. Use of generic or 'typical' construction details instead of manufacturer's listed details

    - Equipment and materials that are required to be tested and listed to specific standards must be constructed/installed per the manufacturer's directions.
    - Incorrect construction or installation can be costly to correct.

13. Project specifications contain references or directions that are inconsistent with California codes

    - Referenced code sections outdated or incorrect.
    - Directives inconsistent with California codes and amendments.

14. Continual use of company standard layouts that reflect incorrect information

    - Creates confusion and increases plan review time.
    - More time to review, longer to receive approval.

15. General notes that are not applicable to the project

    - Reflect only those notes that are appropriate.
    - Ensure that direction and references are consistent with applicable code or standard.

COMMON ACCESS ISSUES

1. Misunderstanding the difference between “Accessible Route” and “Path of Travel Improvements”

    - ACCESSIBLE ROUTE A continuous unobstructed path connecting accessible elements and spaces of an accessible site, building or facility that can be negotiated by a person with a disability using a wheelchair and that is also safe for and usable by persons with other disabilities.

    - PATH OF TRAVEL IMPROVEMENTS An accessible route which connects the alteration with elements that serve the area of work, and includes:
        - An exterior approach (sidewalks, parking areas, bus stops).
        - An entrance to the facility.
        - Other parts of the facility.
        - Toilet and bathing facilities.
        - Telephones.
        - Drinking fountains.
        - Signs.

2. Issues on accessible routes

    - Tree uproot of walks.
    - Deficiency and wear of materials.
    - Obstructions placed in required clear spaces and maneuvering clearances.

3. Inattention to the accessible elements connected by POTIs
    - Facility maintenance issues.
    - Replacement of equipment and accessories that are not installed correctly.
    - Regulatory changes that provide increased accessibility.
4. Missing path of travel documentation.
    - Required documentation includes:
        - Site plan showing the extent of the property.
        - Indication of area of work.
        - Indication of project-specific accessible route from site arrival points to area of work entrance.
        - Indication of interior accessible route when the area of work is within an existing building.
        - Indication of non-compliant path of travel elements to be improved.
        - Plans and details for POTIs.
        - Architect's POTIs statement.