PLAN REVIEW INSTRUCTIONS

Table of Contents

Title

Plan Review Perspective

Instructions for Submitting Plans

Outline of Information Required on Documents

Requirements for Each Plan Phase Submission

Building Code Information (Attachment #1)

New Jersey Department of Treasury
Division of Property Management and Construction
Office of Code Review/Quality Control
P.O. Box 235
20 W. State St.
Trenton, New Jersey
P (609) 984-5573
F (609) 984-1750

Plan Review Perspective

This office reviews documents for code, design, scope of work, procurement, constructability, quality and quantity of information, details, and coordination between site, architectural, electrical, fire, mechanical, plumbing drawings and specifications. The reviews also look for problems that consistently reoccur from one project to another and any other issues that may result in change orders during construction.

It shall be understood however, that the review and approval process shall in no way relieve or reduce the responsibility and liability of the project designers to execute construction documents in compliance with all applicable codes, regulations and standards.

It is important for the consultant to understand that this office reviews documents for buildings and structures that are owned, leased and operated by the State of New Jersey and as such become the State's responsibility to maintain, repair and renovate. Buildings and structures that are inadequately designed and constructed become costly to run, maintain and repair and add undue burden to the State's budget. Not to mention the negative effects of life safety and environmental concerns for the building's occupants.

It is our intent to work hand-in-hand with our consultants to develop the best possible design solutions within the budgetary constraints placed upon us. We invite our consultants to have an open dialogue with the review staff and we encourage phone calls and meetings as may be necessary to promote a smooth and timely review process. The quality and time of the review process is directly proportional to the quality of the submission. A more complete submission and a more detailed response to plan review comments will result in fewer comments and a shorter review time.

(End of Plan Review Prospective)

INSTRUCTIONS FOR SUBMITTING PLANS

Initial Submission Document Requirements:

The first submission for any project (the first time that a DPMC project number is submitted to plan review) is considered initial.

1. A submission transmittal shall be provided by the DPMC design manager. All items shall be clearly checked (including phase) and any special notes/instructions listed at the bottom. If a phase is not checked, the submission will be logged in as a final review.
2. Submit 2 sets of plans and specifications for review. If the submission is for only 1 or 2 disciplines, 1 set of plans and specifications is acceptable. For all other documentation submitted, one copy is acceptable. Plans and specifications need not be signed and sealed at this time.
3. Plans shall be stapled and collated, and specifications shall be bound. No paper clips or binder clips will be accepted.
4. When submitted, calculations, reports, cut sheets and other documentation submitted in support of the plans and specifications for structural, soil, energy, HVAC, plumbing, electric, sprinkler hydraulics, etc., shall be stand alone and individually stapled. Do not submit documentation as a package either bound or in a loose leaf binder. Engineering reports and calculations shall be signed and sealed.
5. Any changes to the approved Scope of Work shall be documented in writing by the DPMC design manager and included with the submission.
6. The consultant(s) shall provide a letter on company letterhead confirming that the consultant and any sub-consultants as applicable have visited the site and reviewed and documented all existing conditions as may be applicable to the project.
7. Attachment #1 of this booklet shall be completely filled out and submitted.

Re-submission Document Requirements:

Once a project has been submitted for the first time, see above, any additional submissions under the same DPMC number no matter what the phase, is considered a re-submission.

1. See items 1 thru 5 above under initial submission.
2. Separate stand alone response letter(s) to the latest set of plan review comments shall accompany all re-submissions. The letter shall be on company letterhead with the name and phone number of the individual(s) responsible for its contents. Any consultant or sub-consultant responsible for the documents submitted shall respond to those comments referring to that discipline. All responses shall identify how the comment is being resolved and specifically where on the plans or in the specification the changes can be found. "Will Comply" or "See Drawings" is not an acceptable response.
3. If comments are minor and refer to a specific detail, diagram, table, plan, specification section, etc., and the changes can be clearly shown on individual sheet(s) or page(s), it is not necessary to resubmit the entire set of drawings or specification. Submit just those sheets and pages necessary to show compliance.
4. At the final phase submission, the consultant shall provide a complete permit application and

subcode technical sections. If multiple buildings are involved, a separate application and tech sections shall be provided for each.

5. At the final phase submission, the consultant shall provide a copy of the detailed cost estimate.

6. When the project plan review is complete and approved, 6 sets of signed and sealed plans, specifications and hydraulic calculations, as well as other items, as applicable, will be requested for stamping and distribution. Each sheet of the plans as well as the cover sheet of the specification and calculations shall be signed and sealed.

Construction Document Requirements:

Once a project has been issued a permit, any additional submissions under the same DPMC number are considered construction phase documents.

1. A submission transmittal shall be provided by the DPMC construction manager. All items shall be clearly checked and any special notes/instructions shall be listed at the bottom.
2. Submit signed and sealed shop drawings, amended design drawings, specifications, calculations, etc., as applicable. All documents shall be collated and stapled. No paper clips or binder clips.
3. Shop drawings prepared by people other than the architect or engineer of record must have a shop drawing stamp(s) affixed by both the architect and engineer, as applicable, with the appropriate action checked off ("approved" or "approved as noted") to confirm that they have been reviewed and found to be in conformance with the regulations and intended design of the building.
4. Drawings and specifications that are amended from the original approved documents shall be clouded with a revision date and accompanied by an explanation of the changes. This will make it clear to the plan reviewer exactly what changes are being submitted.
5. When a permit update is required, submit applicable subcode technical section(s) showing only that work which is part of the update.

Meeting requirements:

1. If a meeting is requested by the consultant, the DPMC design manager or construction manager shall be contacted to set up the meeting through Outlook and notify all individuals required to attend.
2. If the meeting is being requested to review specific code or design issues that relate to a specific discipline, the consultant representing that discipline shall be present to discuss his or her particular issues.

DCA plan review for health care facilities:

At the final plan review phase, once DPMC approves the documents for procurement, SOW and design issues, the consultant shall be notified by DPMC to send e-drawings to the DCA Health Care Plan Review group for their review and approval.

On the DCA Project Review Application:

- Section #2 - Under Filing Type – check off "complete plan release".

- Section #5 - Under Owner's Designated Agent - include;
  Mark Connolly
  20 W. State St., Trenton, NJ 08625
  Mark.connolly@treas.nj.gov
  (609) 984-5573

DCA will review the documents and issue comments or an approval as applicable.

When DCA approves the drawings, the consultant shall print 6 copies of the plans and specifications, sign and seal them, and submit them to the DPMC design manager along with a permit application and subcode technical sections. The DPMC design manager shall submit the permit application, subcode technical sections and one copy of the plans and specification to plan review.

DCA plan review for elevators:

Upon submission of final drawings to DPMC for review, the consultant shall be notified by DPMC to send e-drawings to DCA for their review.

On the DCA Project Review Application:

- Section #2 - check off partial plan release.
- Section #4 - Check off elevator.
- Section #5 - Under Owner's Designated Agent - include;
  Mark Connolly
  20 W. State St., Trenton, NJ 08625
  Mark.connolly@treas.nj.gov
  (609) 984-5573

DCA will review the elevator only and issue comments or an approval pending shop drawings. Please submit to DCA a detailed elevator specification, hoist way drawings, car layout drawings and machine room drawings. Also, where a machine room is not located at the top of the shaft, provide a detail of the top of the shaft including clearances and venting.

When DCA releases the drawings, the consultant shall print 6 copies, sign and seal them, and submit them to the DPMC design manager.

Miscellaneous:

1. The consultant shall show compliance with the codes through plans, specifications, details, sections, diagrams, schedules, etc. To simply site a specific code section as a means of design is not acceptable.
2. The building design submitted to DPMC shall be the responsibility of the consultant and sub-consultant(s). Other than for typical shop drawings such as pre-engineered trusses, metal buildings, pole barns, etc., the consultants shall be responsible for all design work. Providing notes on drawings that the design shall meet specific codes or referencing the contractor to show compliance rather than actually providing a detail for the design is not acceptable.
3. The consultants shall coordinate between architectural and engineering drawings and between the drawings and specifications. For example, conflicting plan layouts, conflicting location of

4. Equipment, reference to details that are not provided, reference to drawings or specification sections that do not exist will result in the submission being rejected.
5. The DPMC Office of Code and Quality Control Review encourage consultants to call or request meetings when needed to discuss plan review comments or other issues pertinent to the project.

(End of Instructions for Submitting Plans)

OUTLINE OF INFORMATION REQUIRED ON DOCUMENTS

General Instructions

The following pages contain a general outline that indicates the typical kinds of information to be submitted on plans and specifications. In no way should they be considered all inclusive; nor should it be assumed that every project requires all of the items included below. As a reminder, all structural, energy, hydraulic, HVAC, electrical, etc. calculations, engineering reports, soil reports, etc., submitted for review must be signed and sealed by a New Jersey registered architect or licensed engineer as per the Building Design Services Act. Plans and specifications need not be signed and sealed until the final documents are submitted for approval.

Site plan

1. Provide an accurate boundary line survey.
2. Locate new and existing construction. Show distances to property lines, fire separation distances, topography and accessible routes.
3. Show barrier free accessible parking, routes of travel from parking lots, pubic ways and between buildings to all accessible building entrances. Including slopes, ramps, clearances, etc.

Footings and foundations

1. Soil engineer's report for foundation investigation that provides recommendations for bearing capacity and includes certified test pit / boring location plans shall be provided.
2. For pile foundations, enclose details for pile type, installed capacity, driving criteria, load test details for piles, as required by the building subcode.
3. Foundation plans, foundation sections, and specifications of materials to be used shall be provided.
4. A site diagram, showing to scale the location of the new construction shall be provided.
5. For basements or other retaining walls below grade, provide structural calculations and details of wall thickness, reinforcement, etc.

Site utilities

1. Provide details of plumbing and/or electrical installations for site including those within and beneath the main foundation slab.
2. For electrical installations, specify the following items:
    - Depth of cover from top surface of conductor, cable, conduit, or other raceway, to finished grade
    - Indicate grounding details as appropriate for slab installation
    - Specify under slab conductor sizes/types, and breaker sizes being supplied by them.
3. For plumbing installations, provide the following:
    - Show all sanitary and storm drainage lines including site storm drainage, indicating pipe size(s), slope, and materials used.
    - Indicate point of discharge for storm drainage systems.
    - Show details of under slab piping for domestic water and fire suppression systems, including pipe size(s) and materials.
4. For fire protection system piping and equipment:
    - Show all piping. Note depth of cover (top of pipe to finish grade).

- Show locations of fire hydrants and show required details on the site drawings.
- Show all hot boxes and valve pits. Show plan view and elevation details on the plans.
- If F.D.C. are site located and not attached to the building, all required details and information shall be supplied in the site plans.

Structural framework

1. Structural floor plans, roof plan showing sizes of members fully dimensioned, and structural computations shall be provided.
2. Drawings showing connection details and other technical data shall be provided.
3. For trusses/floor joists, enclose drawings showing details of sizes, design criteria for live load/dead load, truss diagrams, forces in member, specifications for lumber, size of lateral braces, size of purlins, their maximum spacing, and maximum deflection of members under working load.
4. For outer walls, provide calculations for horizontal wind load, justifying thickness of wall and size of reinforcement, if any.
5. Provide details for design criteria (live load/dead load, snow load, earthquake load, wind load) and specifications of material (steel, lumber, concrete, reinforcing steel bars, etc.), indicating allowable stress.

Exterior building

1. Provide the fire rating of exterior walls in hours; specify design/UL number (if rating is required).
2. Provide elevations, exterior wall/building sections, and details on all exterior doors and windows.
3. Large scale roofing details for all conditions.
4. Show compliance with the envelope requirements of the energy code.

Interior building

1. If mixed use, identify use groups and indicate exact location, occupancy load, and square footage for these uses. Also show incidental uses, if appropriate.
2. Indicate on plans all construction types, number of stories, and building heights.
3. Indicate door, window, and finish schedules on plans.
4. Provide thermal ratings of walls, ceilings, etc.
5. Provide the fire rating of corridor walls, floors, ceilings, exit stairways, shafts, columns, girders, beams, and roofs in hours; specify design/UL number (if rating is required).
6. Show exit calculations; indicate the number of exits provided per floor, and specify the maximum travel distance in feet. Also provide occupant load of all spaces and overall building and the required egress widths.
7. Indicate interior accessible routes of travel and details of ramps with indicated slopes, for compliance with the barrier–free subcode.
8. Indicate how required structural and fire-resistance rating will be maintained for penetrations made for electrical, mechanical, plumbing and communication conduits, pipes and systems.
9. Provide details on the location of telephones, water fountains, toilet rooms, laboratory and shop facilities, etc., for compliance with the barrier-free subcode.

Plumbing

1. A site plan shall be provided showing plumbing lines to site and into and out of the building.
2. Include an isometric sanitary riser diagram.
3. Include a fixture schedule listing each fixture, description, trap, vent sizes, DFU valve, SFU valves,

hot and cold water connection sizes.

4. Include materials specifications, or reference on the drawings for piping materials.
5. Show an isometric storm water riser diagram, noting square foot area served by each roof drain, piping size and slope. Plans must show piping from building to approved discharge.
6. Include an isometric water riser diagram, showing sizes & total supply fixture units.
7. Cleanouts must be indicated on the sanitary riser diagram.
8. Wall penetration sleeves should be indicated and details shown.
9. If a multi-story building, riser diagram for cold water must correspond in format and contain information shown in Appendix B of the plumbing subcode.
10. Plumbing fixtures and elevations/details shall conform to the barrier–free subcode - specifically fixture heights, spacing, etc.

Mechanical

1. Provide a complete ventilation schedule (refer to the mechanical subcode).
2. Include COP/EER value of HVAC units, boiler efficiency, etc. Supply the required energy calculations.
3. Include specifications on duct construction and installation, such as supports, loads, etc.
4. Include schematics and details of hazardous exhaust in units such as laboratory hoods.
5. Provide manufacturer's recommendation information for laundry/dryer exhaust.
6. Show locations of all fire dampers.
7. Include drawings for kitchen exhaust hood, duct and hood fire suppression system. Drawings must contain information required by the mechanical subcode and the fire protection subcode.
8. Include all details, specifications, and calculations (building, volume, air change, riser diagram) for smoke exhaust/control, stair pressurizations, etc., as applicable per building and fire protection subcodes.
9. Show details of all hydronic, gas, and fuel oil piping.
10. Include calculations for combustion air requirement.
11. Show all details of chimneys and vents.
12. Show machinery layout plan, equipment schedule, and details of the processes involved.
13. Show height of all mechanical controls, for compliance with the barrier–free subcode.

Electrical

1. Provide layout plans for power and lighting systems, site plan for electric & telephone service locations, etc.
2. Provide riser diagrams, load calculations, short circuit ratings of service equipment, overcurrent devices and panels, etc.
3. Show details of all grounding, including:
    a. System grounding & bonding;
    b. Equipment grounding;
    c. Transformer grounding — if needed, show how neutral is established from transformer;
    d. All wire sizes.
4. Show all over current protection — indicate whether breakers are inverse, instantaneous, non-adjustable, adjustable, or fuses indicating type and rating.
5. Indicate specific wiring methods to be used in various areas. Indicate any hazardous locations and include class/division/zone and all boundaries.
6. Show circuitry of all emergency systems and emergency lighting, including fire pumps, elevators, transfer switches and exit discharge. Indicate which type of power backup system is being

installed. Emergency, legally required standby, optional standby or critical operations system.

7. Show details of all the wiring and bonding for pools, spas, hot tubs, etc.
8. Indicate type of conductors to be used, copper or aluminum with their type of insulation and temperature rating.
9. Indicate all wire and conduit sizes/types.
10. If neutral is reduced, provide calculations.
11. Show all panel locations; indicate working clearances about all electrical equipment, switch boards and panel boards.
12. Provide panel schedules. Indicate AIC rating of panels and overcurrent devices and identify all circuits on the layout plans.
13. Show circuitry, wire size, type of insulation, conduit size and type of fire alarm systems. Indicate type of system, NPLFA or PLFA that is being installed.
14. Show height of all controls, for compliance with the barrier–free subcode.

Fire protection

- **Note**: When fire protection sprinkler systems are included in a project, the A/E shall provide complete construction drawings, specifications and calculations. Line and dot drawings are not accepted.

1. A water flow test shall be provided that was conducted within one year of the date that the plans are submitted for review. If one is not available, a flow test shall be performed and shall be witnessed by the DPMC fire subcode.
2. For sprinkler and standpipe systems, specify system type, water supply information, and pipe sizes. Also indicate type of piping and fittings used throughout.
3. Provide hydraulic calculations for sprinklers; indicate hydraulic reference points.
4. Show measurements between branch lines and heads on lines, and indicate type of sprinkler heads used throughout the system.
5. Indicate height and location of all standpipe hose connections.
6. Provide a complete sprinkler system riser diagram with all parts identified.
7. For storage areas, provide hazardous material data sheets on commodities stored as appropriate, including quantity(s) stored.
8. Show installation details and location of fire department siamese connection to sprinkler/standpipe systems.
9. For all suppression and alarm systems, show location of control panel, control valves, detectors, pull stations, strobe lights, abort switches, fusible links, alarm bells, warning lights, signs, etc.
10. If fire pump is to be used, specify capacity and type. Indicate whether electric or diesel powered, and provide all details on diesel fuel supply. Provide details of all piping, fittings, control and relief valves, as well as test header details. Indicate method of temperature maintenance for pump and associated equipment.
11. For Halon/CO2 systems, show location and type of detectors and nozzles. Show location and size of agent container and piping, as well as types of piping and fittings. Provide system calculations.
12. Show details and schematics on all electrical connections for all fire protection systems, including information on emergency power supplies.
13. For barrier–free accessibility, show height of pull stations.
14. Indicate all fire alarm area zones.
15. For dry chemical systems, indicate type of chemical being used. Show size and location of agent containers.
16. Provide a copy of the installation manual for the system. Provide details on discharge alarms,

pipe sizes, and types of materials.

17. For range hood systems, refer to Mechanical outline of information, Item no. 7.
18. Provide details on smoke control system as required in Mechanical outline of information, Item no. 8.

Elevator

1. The building subcode utilizes Standard A17.1 of the American Society of Mechanical Engineers (ASME) as its elevator referenced standard. All elevator related drawings must comply with this.
2. Specify elevator type (passenger, freight —specify class of loading, wheel chair man lift, private residence, other).
3. Show elevator capacity and loading.
4. Show size of buffer.
5. Indicate speed, travel length, number of landings.
6. Show cab details, dimensions, door operation, hand rail and control locations to comply with the above noted referenced standard and the barrier–free subcode.
7. Show type of drive, giving details of suspension.
8. Provide details of emergency operation — firefighter's service.
9. Show all clearances and guide rail details.
10. Provide details of hoistway venting.
11. Provide pit details — light, accessibility, etc.
12. Show equipment layout in the elevator machine room — also show light and ventilation.

Barrier Free

See sections above for barrier free issues. The following is a reference to those applicable sections:

Site Plan	Item #3
Interior Building	Items #7 and 9
Plumbing	Item #10
Mechanical	Item #13
Electrical	Item #14
Fire Protection	Item #13
Elevator	Item #6

Specification

1. Combined cover and title page.
2. Table of contents.
3. Instruction to Bidders and general Conditions. (Check with DPMC design manager for most current edition).
4. List of drawings.
5. Divisions 1 thru 48 as applicable, including;
    a. General.
    b. Products.
    c. Execution.
6. Geotechnical evaluation report.

NOTE: Design documents shall provide specific drawings, specifications, details, diagrams, schedules, etc. The act of siting a specific code section as a means for compliance is not acceptable. In addition, design details shall not be left to the discretion of the contractor. The consultant shall provide complete design documents so there is no interpretation as to the design intent.

(End of Outline of Information Required on Documents)

REQUIREMENTS FOR EACH PLAN PHASE SUBMISSION

General Instructions

The following pages contain a general outline that indicates the typical kinds of information to be submitted at each phase. In no way should they be considered all inclusive; nor should it be assumed that every project requires all of the items included below. (Consider all items below as "if applicable"). Not all phases are required for all projects. The phases submitted shall be as required by the Scope of Work and the DPMC design manager.

Schematic Phase Submission;

1. **Documentation**
    a. A project narrative describing the scope of work shall be provided. The narrative shall, for the purpose of plan review, describe the project so the plan reviewer has a clear idea of the nature of the work proposed. The narrative shall include existing use, proposed use, description and nature of work proposed and any information and special design requirements or issues that the plan reviewer should be aware of.
    b. Building code information;
        See attachment #1. Complete and submit with plan review submission.
    c. A written list of and verification that off-site utility facilities exist and can service the project from the applicable authorities shall be provided.
    d. A list of all State permits and other prior approvals that may be required.
    e. Verification by the consultant(s) that they have visited the site and are familiar with all existing conditions. See Initial Submission Document Requirements, item #6.
    f. Pictures that will aid the plan reviewer at understanding existing conditions and provide insight into the area(s) in which the work is being performed.
    g. Boring data and soil report.
    h. The DPMC project number shall be provided on the cover of all documentations submitted for plan review.
    i. Written verification by the DPMC design manager shall be provided to approve all changes from the original DPMC Scope of Work.

2. **Plans**
    a. Site drawings
        i. Property and/or lot lines, contract limit lines, retaining walls (existing or required), seeded areas, fencing, required screening, etc., to illustrate extent of improvements intended to the entire site.
        ii. Location of each building (new and existing) on the site with appropriate ground floor elevations. Buildings and site work to be demolished shall also be shown.
        iii. General layout of systems of on-site roads, curbs, walks, parking areas, fire lanes, loading docks and easements.
        iv. Orientation on site including North arrow.
        v. Main traffic arteries (access to site).
        vi. Barrier free parking, accessible routes, curb cuts, drop offs, etc.
        vii. Existing & proposed contour lines.

    b. Site utility drawings
        i. All utility systems shall be shown on one drawing. The scale shall be the same

as the site plan. The plan shall show all building(s), roads, walks, etc., and there relationship to the proposed utility runs. Existing utilities having a bearing on the project shall also be shown.

c. Architectural drawings, elevations and sections.
   i. Floor plans of each floor. Identify new, existing and demolition.
      1. For additions, show the relationship to the existing building to which it is attached.
      2. For renovations, provide a plan of the existing floor on which the renovation is proposed.
   ii. Show all rated construction as applicable in accordance with attachment #1.
   iii. Each room shall be labeled with regard to its use and shall be numerically identified for reference purposes. The intended number of occupants for each room shall also be provided.
   iv. Delineate and identify barrier free entrances, toilet rooms, elevators, etc. All required clearances at doors, built-in furniture, toilet room fixtures, drinking fountains, etc. shall be thought out and demonstrated.
   v. Delineate fire rated construction and egress, identifying fire rated walls and smoke partitions, occupant loads, exit units, travel distances and exit discharge. For major new construction, additions and renovation projects, separate fire and egress plans of each floor shall be provide. Provide a legend for fire rated walls to include, as applicable, fire walls, corridors, shaft enclosures, stair enclosures, exit passageways, horizontal exits, elevator lobbies, smoke barriers, and any other fire rated wall enclosures.
   vi. Provide a schedule of design loads and other information pertinent to the structural design per IBC 2015 Section 1603.
      1. Floor live load.
      2. Roof live load.
      3. Roof snow load.
      4. Wind design data.
      5. Earthquake design data.
      6. Flood design data.
   vii. Provide building elevations to illustrate the design elements including the size, types and relationship of materials.
   viii. Provide a typical building section, as may be applicable, from the footing to the top of the structure. The section shall show the relationship of the floors to grade, to each other and any existing or proposed offsets in elevation. The section shall also demonstrate proposed framing, plenums, hung ceilings, etc.

d. Mechanical/electrical/plumbing/fire drawings.
   i. Narrative description of all systems and controls in sufficient detail to allow a proper understanding of their operation.
   ii. Schematic plans, sections and details to adequately define the proposed systems. Include recommended systems, controls, zones, fuel supply, mechanical distribution system(s), etc.
   iii. Verify that existing electrical panel(s) and power supply(s) are adequate for additional anticipated circuits and loads as may be applicable.
   iv. A narrative description of any emergency smoke control system, if provided, including its sequence of operation.

3. **Specification**
    a. An outline specification shall be provided from the latest proposed design. The specification shall follow the CSI format.
    b. Elaborate and describe any special features of the project such as: communication systems, security systems, fire protection systems, special structural systems, etc.

Design Development Phase Submission;

Design development documents if submitted as the initial review phase shall follow the guidelines set forth as described in the schematic review phase above. They shall however be developed and amplified to completely satisfy the scope, budget and intent of the project. All design concepts and systems (i.e., Site, building, structural, mechanical, plumbing, electrical, fire protection, etc.) shall be sufficiently defined so that a detailed cost breakdown can be provided by the A/E. All specialty items must be defined and incorporated into the design.

1. **Documentation**
    a. Any changes to the approved scope of work or to the schematic design shall be documented in writing and approved by the DPMC design manager.
    b. A final signed and sealed soils report with analysis and recommendations shall be provided.
    c. Approvals from off-site utilities shall be updated. Letters pertaining to sanitary, storm, domestic water, fire protection, gas, electric and telephone service shall be provided.
    d. The progress for obtaining State permits and prior approvals from all regulatory agencies having jurisdiction shall be updated.
    e. Provide signed and sealed structural calculations incorporating all applicable design loads as required by IBC 2015, section 1603.
    f. Responses to all outstanding previous phase plan review comments shall be submitted in accordance with the attached "Instructions for Submitting Plans, Re-Submission Document Requirements", item #2.

2. **Plans**
    a. Site drawings
    Provide additional detail from that required by the schematic review. Show final existing and proposed grades, adjacent drainage and finish floor elevations. Existing and proposed grades within the construction area shall be by either spot elevations or contours to adequately show the intended concept and extent of grading proposed for proper drainage and barrier free regulations.

    b. Site Utility drawings
    The plan shall show the complete development of the intended site utility systems. All inverts and pipe sizes shall be included. All utility systems shall be shown on one drawing. The scale shall be the same as the site plan to identify relationships. The drawings must show the building(s), roads, walks, etc., and the run of the proposed utilities. Existing utilities that have a bearing on the project shall be included.

    c. Architectural drawings, elevations and sections
    All plans, elevations and sections shall be developed beyond that of the schematic phase requirements.
        i. Plans
            1. Plans shall indicate overall building and room dimensions.

2. Doors, windows and sizes.
3. Room finish schedule.
4. Location of all fire walls and fire separation walls and U.L. numbers.
5. Design data for required flame spread and smoke development ratings of materials.
6. Barrier free requirements.
7. Structural plans of all foundations, floors and roof framing systems including fire protection requirements and required U.L. numbers.

ii. Elevations
1. Mass relationships, wall heights, architectural design treatment and use of materials.
2. Show the design flood elevation where applicable.

iii. Wall sections
1. Provide overall and large scale sections to demonstrate construction requirements for foundations, floor systems, wall construction, windows, ceiling systems, structural elements. U.L. numbers shall be shown for all assemblies.

d. Mechanical/Electrical/ Plumbing/Fire

i. Heating, Ventilating and Air Conditioning drawings
1. Detailed heating and cooling calculations.
2. Boiler and chiller sizing calculations.
3. Floor plans including all utility rooms, chases, etc. Indicate location of all HVAC equipment and all major piping and all duct runs in the utility rooms and all floors. All major ducts shall be sized. All unusual and non-standard arrangements shall be shown.
4. Include a roof plan showing location of roof mounted equipment such as exhaust fans, cooling towers, HVAC equipment, etc.
5. Include equipment schedules indication all HVAC equipment by symbol designation, name and estimated size or capacity in BTU, GPM, gallons, etc. The boilers must be completely defined. Further development of these schedules will be a requirement of the Final Document Phase.
6. Indicate any seismic considerations if applicable.
7. Provide a piping distribution and riser schematic to show concept. All equipment must be conceptually indicated. Also provide conceptually complete duct riser diagrams (supply and exhaust); sizes are required.
8. Provide calculations and a narrative description of the operation of any exhaust system designed into the HVAC system. If the smoke exhaust system is a stand-alone system their information shall be included in the fire protection drawings.

ii. Plumbing drawings
1. Provide floor plans including all utility rooms, chases, etc. Indicate the location of all equipment associated with plumbing and all piping in the utility room and all floors. Pipe sizes and location of piping. Indicate

connections of the site utility piping. Also, indicate all unusual or non-standard piping arrangements.

2. Separate riser diagrams shall be shown for fuel oil/gas service, sanitary drain and vent system, hot and cold water distribution system and storm drainage system. Applicable equipment connections shall be identified on all schematic and riser diagrams. BTUH input, pipe sizes, WSFU's, DFU's, slope, valves, drainage points, area, distance, etc., as it relates with each riser. For natural gas and LPG services include specific gravity and maximum permitted pressure drop.
3. Include a fixture schedule listing each fixture, description, trap & vent sizes, DFU values, WSFU values, and hot and cold water connection pipe sizes.
4. Plumbing fixture and detail elevations conforming to the NJ Barrier free regulations.
5. Installation details of fuel oil storage tanks including ground cover, venting, tie down, etc. in sufficient detail to ensure compliance with regulatory agencies.

iii. Fire protection Drawings

1. Provide plans, details, etc. of all fire protection drawings in accordance with the Uniform Construction Code and the attached Plan Submission Checklist. Sprinkler drawings must be on separate drawings unless they are a limited area sprinkler system. Provide calculations and water pressure data to support the design.
2. Provide signed and sealed hydraulic calculations.
3. Provide plans and a narrative of all smoke evacuation systems if they are stand alone systems not incorporated into the projects HVAC system.

iv. Electrical Drawings

1. Electrical drawings shall include lighting, power, communications, fire alarm and specialized systems. Lighting fixtures must indicate typical lighting arrangements, types of fixtures, proposed light intensities, emergency and egress lighting.
2. Power, communication and specialized systems arrangement must be provided in sufficient detail to clearly identify requirements and to indicate the means of satisfying the design criteria.
3. Riser diagrams, showing service equipment, feeders and panels other than branch circuits, must be shown; however, wire sizes current demand factors, and switch and panelboard descriptions need not be given at the time.
4. Location, capacity, space requirements of all major items or equipment must be indicated.
5. Indicate the estimated size of the service equipment (switch board), main disconnect.
6. Panel schedules will be a requirement of the final document phase.
7. Indicate the location and/or method of emergency power equipment and source.

v. Specification
Design development specifications shall provide the type and character of materials to be utilized, and any other data not indicated on the design development plans but required to properly provide engineering and architectural clarification. Outline specifications shall be in the CSI format and shall include;

1. Brief specifications outlining the technical sections to be included in final specifications.
2. Any substitutions of items of finishes shall be listed as proposed alternatives.
3. Any proprietary or sole-source equipment, materials or items must be specifically identified with reasons sufficiently detailed to support its uniqueness and warrant approval. (Please refer to the "Procedures for Architects and Engineers, Design Guidelines 8.4.11" for additional information).

Final Phase Submission;

Final documents if submitted as the initial review phase shall follow the guidelines set forth as described in the schematic review phase above. All documents shall be complete, outlining in sufficient detail all aspects of the work. The documents must be in accordance with the standards described in the design development phase listed above and in the attached "Outline of Information Required On Documents", complete to the point that they are 100% working drawings and ready for bidding purposes.

1. Documentation

a. Any changes to the approved scope of work or to the Design development phase design shall be documented in writing and approved by the DPMC design manager.
b. If approvals from off-site utilities have not been furnished during previous phases or if modifications have been made requiring further approval, the A/E must submit letters or signed statements confirming availability and/or approval. Letters pertaining to sanitary, storm, domestic water, fire protection, gas, electric and telephone service shall be provided.
c. If the necessary State permits and prior approvals from all regulatory agencies having jurisdiction have not been furnished during previous phases or if modifications have been made requiring further approval, the A/E must submit updated documentation at this time.
d. Responses to all outstanding previous phase plan review comments shall be submitted in accordance with the attached "Instructions for Submitting Plans, Re-Submission Requirements", item #2.
e. Any changes or additions to previously submitted structural calculations or soils reports shall be submitted at this time signed and sealed.
f. Where "high performance green building" standards are required (see building code information, attachment #1) a letter is required at this time. It shall be on the architect's letterhead and shall identify all requirements incorporated into the design for meeting the appropriate certification level standard.
g. Where special inspections are required per IBC, Chapter 17, the consultant shall submit a statement of all special inspections that will be required for this project. The statement of special inspections shall be submitted on the consultant's letterhead, display the consultants raised seal and signature and shall also contain a list of the individuals or approved agencies retained for conducting such inspections, per (IBC)

1705. The list shall specify all special inspections that are required under UCC Bulletin 03-5.

h. A permit application and subcode technical sections shall be submitted. The consultant shall complete all sections except those sections noted for office use and those required to be completed and signed by the contractor. The consultant shall sign the agent sections of the application and building subcode technical section. The person responsible for calling DCA for inspections shall be listed as the Responsible Person-in-Charge on the application cover.

(End of Requirements For Each Plan Phase Submission)

Building Code Information
Attachment #1

(To be provided with the 1st plan review submission)

Use Group Classification (2015 IBC, NJ Edition) 302.1. _____

Construction Type (2015 IBC, NJ Edition) 602.0. _____
(If more than one type please lists each & delineate on the plans).

Building Area (See definition, 2015 IBC, NJ Edition) 503.

New Construction _____ sq. ft.
Renovation _____ sq. ft.

(If more than one area or floor, note size of each & delineate on the plans).

Building Height (2015 IBC, NJ Edition) 503 & 504. _____ Stories
_____ Feet

Automatic Fire Suppression System.

Throughout (2015 IBC, NJ Edition) 903.0 _____
Limited Area (2015 IBC, NJ Edition) 903.3.8 _____
None _____

Fire Alarm System.

Complete automatic system throughout _____
Limited Automatic System _____
Manual System _____
None _____

Street Frontage Increase. (2015 IBC, NJ Edition) 506.3

_____ Yes
(If, yes, complete the following) _____ No

Total Open Perimeter _____ Feet
Total Building Perimeter _____ Feet
Percent Open Perimeter _____ %

Mixed Use and Occupancy. _____ Yes
(If yes, note each use group, the location of each on a small scale key plan, and the applicable paragraph of 2015 IBC, NJ Edition 508, which describes the proposed design conditions). _____ No

Building Code Information
Attachment #1
(Continued)

Will atriums be incorporated in this project? _____ Yes
(2015 IBC, NJ Edition) 404 _____ No

Will any new construction be designed as an addition to the existing building? _____ Yes
(If yes) _____ No
Will the new additions(s) be designed as a separate building? _____ Yes
(If yes, show the location of the fire wall on the plans. _____ No
(2015 IBC, NJ Edition) 706)?

Will corridors be enclosed in one hour fire rated walls? _____ Yes
(If no, please explain why). _____ No

Are exterior walls. _____ Load Bearing
_____ Nonbearing

Will any of the following fire rated construction be incorporated?
(If yes, please clearly delineate on the plans).

Exterior walls (2015 IBC, NJ Edition) Table 602. _____ Yes
_____ No

Fire walls (2015 IBC, NJ Edition) 706. _____ Yes
_____ No

Fire Barriers (2015 IBC, NJ Edition) 707. _____ Yes
_____ No

Fire partitions (2015 IBC, NJ Edition) 718. _____ Yes
_____ No

Smoke barriers (2015 IBC, NJ Edition) 709. _____ Yes
_____ No

Smoke partitions (2015 IBC, NJ Edition) 710. _____ Yes
_____ No

Horizontal Assemblies (2015 IBC, NJ Edition) 711. _____ Yes
_____ No

Will any special locking arrangements be incorporated? (2015 IBC, _____ Yes
NJ Edition) 1010.1.9.3, 1010.1.9.7, 1010.1.9.8, 1010.1.9.9, 1010.1.9.10, _____ No
and/or 1010.1.9.11.

If yes, please provide a separate sheet explaining the type of locking, the reason the special locking is required and the location of each.

Building Code Information
Attachment #1
(Continued)

Will Mezzanines be incorporated in this project? _____ Yes
_____ No

Is a public water system available at this site? _____ Yes
_____ No

Is public sewage available at this site? _____ Yes
_____ No

Have any plenums been incorporated as part of the HVAC system? _____ Yes
_____ No

Are underground oil storage tanks being installed? _____ Yes
_____ No

Are LPG tanks being installed? _____ Yes
_____ No

Will special inspections be required per the 2015 IBC, Chapter 17? _____ Yes
_____ No

Will this be a new building of at least 15,000 square feet in total floor area which is to be constructed for the sole use of a State governmental entity? _____ Yes
_____ No

If yes, which rating system will be used to produce a high performance green building? NJSA 52:32-5.3.

- ☐ Silver rating.
- ☐ Two globe rating.
- ☐ Comparable numeric rating.

Will this project incorporate any access control doors per the 2015 IBC? _____ Yes
_____ No

If yes, which system(s) will be incorporated?

- ☐ Main exit doors (1010.1.9.3)
- ☐ Delayed egress locks (1010.1.9.7)
- ☐ Sensor released electronically locked (1010.1.9.8)
- ☐ Electromagnetic locks (1010.1.9.9)
- ☐ Correction facility locking (1010.1.9.10)
- ☐ Stairway door locks (1010.1.9.11)

Building Code Information
Attachment #1
(Continued)

Is this a Class I building (NJAC 5:23-4.3A) _____ Yes
_____ No

(End of Building Code Information, Attachment #1)