Chapter 4 – Submission Phase Guidelines

4.2 PROGRAM PHASE

4.2.2 PROGRAM REPORT CHECKLIST

A. GENERAL

1. The Program Report Checklist is an all encompassing checklist because many of OGS's projects can proceed directly to the 100% Submission Phase without interim submissions.

2. Many of the Design Guides contained in Chapter 9 provide useful information that complements this checklist.

B. STATE RECORDS / DOCUMENTATION

1. Review all available documentation that pertains to the project. OGS D&C possesses various forms of information on many of the existing State facilities and properties. Copies of this information may be made available to the Designer upon request. See *Chapter 9.6 State Records and Documentation Guide.*

C. FIELD SURVEY

1. The PM shall review the project intent and scope with the Client and the appropriate facility staff during the initial site visit.

2. The Consultant/Designer is responsible for all field investigations needed to confirm and document the existing conditions prior to design. The Consultant/Designer shall provide all information pertinent to the project design, including the articulation of all background and existing conditions relevant to the recommendations for the project. Information may include relevant history of a building, facility or site, the construction type, or the recent failure of a system, etc.

3. The PM shall invite OGS field staff to participate in the initial site visit and field investigation. Field surveys shall be taken by persons with appropriate knowledge to assess issues that affect the project scope and recommendations. Review work is to be completed in the proposed area and to insure familiarity with factors and restrictions that may affect the project. Sufficient field surveys shall be taken to identify issues that affect the proposed recommendations for the project.

4. The Consultant/Designers shall perform a detailed analysis of the project in order to identify all of its important or significant aspects. The Consultant/Designers shall Identify and assess all site features that affect the ability and cost of using the site for the project including identification of every possible problem. The Consultant/Designers shall document when the project site was visited, what

information was obtained as well as any other field surveys authorized, requested and/or as directed.

5. Access to materials or system components. The collection of information shall include, but not be limited to, information that can be gained in the following ways:
- **a.** Looking above ceilings that are accessible without destruction of existing materials
- **b.** Opening access doors
- **c.** Entering pipe chases
- **d.** Entering crawl spaces
- **e.** Removing manhole covers
- **f.** Accessing roof
- **g.** Performing measurement

6. Analyze the existing systems to meet project requirements:
- **a.** Size, age, condition, and adequacy of existing systems
- **b.** Heating and/or air conditioning system
- **c.** Electrical system
- **d.** Water distribution system
- **e.** Sanitary system
- **f.** Structural system adequacy to meet project requirements

7. Identify other related ongoing projects

8. Consider or indicate multiple options

9. Identify all project stakeholders and invite to the kick-off meeting

10. Indentify similar projects and reference them as a benchmark

D. SITE CONSIDERATIONS

1. Environmental Assessment:

- ❑ **SEQR** (State Environmental Quality Review) - type I action, unlisted action, type II action (air quality, surface or groundwater quality, noise levels, existing traffic patterns, solid waste production or disposal, erosion potential, drainage or flooding problems, archaeological, historic significance, vegetation or fauna, wildlife species and habitats, change in use or intensity of use of land)
- ❑ See *Chapter 9.12 Environmental Assessment and Permitting Guide*
- ❑ See Chapter 9.14 Historical Preservation Guide (reserved)

- ❑ **Involved Agencies / Permit Checklist:**
  - ❑ DEC (Department of Environmental Conservation) - joint application with ACOE (Army Corp of Engineers) - freshwater wetlands, tidal wetlands, protection of waters,
  - ❑ DEC - sanitary effluent, fuel storage tanks, SEQR, SPDES permit, air permit.
  - ❑ SHPO (State Historic Preservation Office)
    - Archaeological review

- Historical review including preliminary judgment of whether a structure has a historical significance
- For DOCCS projects: Confirm use of Memorandum of Understanding (MOU)

❑ DOS (Department of State)
- NYS Coastal Assessment
- Federal Consistency Assessment

❑ APA (Adirondack Park Agency)
- General Information Request
- Special Information Request

❑ DEP (Dept of Environment Protection)
- Projects within NYC watershed

❑ DOH (Department of Health) - water treatment facility, water storage and piping, septic system, swimming pool, sanitary discharge, kitchens, etc.
❑ EPA / NPDES (storm water management)
❑ ACOE (US Army Corps of Engineers) – nationwide and individual permit program
❑ EPA/DEC – NSPS – New Source Performance Standards (required for new boilers w/ input rating greater than 10 million BTU's)
❑ Office of Child and Family Services (OCFS) - day care facilities
❑ Local Authorities involvement

2. Subsurface Conditions:

❑ Coordinate review with the OGS Geotechnical Group - see *Chapter 9.15 Geotechnical Guide*
❑ Soil report (review seismic soils classification)
❑ Utilities and municipal services
❑ Ground contaminants – asbestos, fuel, oil, PCB's, chemicals, toxins
❑ Geotechnical information - water table, rock, soil conditions, soil borings, bearing capacities, fill, unsuitable material, radon
❑ Existing drill well logs
❑ Archeological information
❑ Abandoned structures – foundations, utilities, tanks, tunnels
❑ Septic systems
❑ Unknown conditions
❑ Sheeting / shoring
❑ Seismic evaluation
❑ Stockpiles
❑ No reuse of backfill

3. Topography and Drainage:

❑ Topographic survey
❑ Unusual design requirements (size, shape, topography)
❑ Stormwater Management and Sediment Control (1 acre or 5 acres?)
❑ Flood plain
❑ Wetlands
❑ Cut/fill

- ❑ Retaining walls
- ❑ Snowplowing

4. Zoning / Code Criteria:

- ❑ Property lines
- ❑ Zoning requirements
- ❑ Setbacks
- ❑ Distance separations
- ❑ Right of ways
- ❑ Easements
- ❑ Local municipality regulations / rules/ approvals
- ❑ Hydrant locations and requirements

5. Utility Connections (underground/overhead):
The Consultant/Designer is responsible for coordinating the utility design with local utility companies and/or other service providers. The Consultant/Designer must be sure the utility systems have sufficient capacity and reliability to meet the building design requirements. Utilities – determine if on site or to be provided by the Contractor

- ❑ Power – identify utility, if new building. On existing site, verify that capacity of existing service can handle load
- ❑ Sanitary
- ❑ Storm
- ❑ Gas – insure that pressure, pipe size, and capacity are available from main and branch lines
- ❑ Water
- ❑ Telephone
- ❑ Fiber optic
- ❑ Cable TV
- ❑ Steam lines / tunnels – determine both summer and winter steam pressure and flow capacity
- ❑ Central system tie-ins and upgrades
- ❑ Utility shut downs

E. CONSTRUCTION ISSUES

1. Site Concerns:

- ❑ Staging and laydown areas
- ❑ Phasing
- ❑ Access roads – usage and maintenance
- ❑ Temporary roads, sidewalks and parking
- ❑ Local road use
- ❑ Neighborhood impact
- ❑ Temporary power, fencing, heat, cooling, water, lighting, toilets
- ❑ Stockpiles
- ❑ Security
- ❑ Maintenance and protection of traffic (vehicle and pedestrian)

- ❑ Material lifts and hoists
- ❑ OGS project trailers and equipment
- ❑ Protection of properties
- ❑ Sedimentation and erosion control measures
- ❑ Sheeting / Shoring
- ❑ Fire truck access
- ❑ Dust, dirt, debris mitigation
- ❑ Contract limit lines
- ❑ Grading limit lines

2. Building Concerns:

- ❑ Occupied facility during construction
  - ❑ Restricted access
  - ❑ Restricted work hours
  - ❑ Associated phasing (cell takedown, office relocations, kitchen rehabs, etc.) due to security or access
- ❑ Are there security regulations?
- ❑ Maintain fire detection system
- ❑ Are there any facility regulations?
- ❑ Project Phasing (due to budget, schedule, cost, convenience, etc.)
- ❑ Ventilation
- ❑ Dust control measures
- ❑ Rubbish removal – rubbish chutes
  - ❑ Is Construction Waste Management specification (recycling) to be used?
- ❑ Use of existing elevator during renovations
- ❑ Temporary enclosures
- ❑ Temporary heat or cooling – facility tie ins
- ❑ Temporary ventilation of temporary heat combustion products, welding
- ❑ Temporary light and power – facility tie-ins
- ❑ Temporary water – facility tie-ins
- ❑ Temporary facilities
- ❑ Protection of properties
- ❑ OSHA standards
- ❑ Skill of local work force
- ❑ Hazardous Materials: Asbestos, Lead Paint / Lead, Radon, PCB's, Guano, Mold
- ❑ Existing asbestos and lead surveys
- ❑ Abatement analysis / request testing
- ❑ Air monitoring
- ❑ Mold growth / mold testing
- ❑ Construction loads - floor dead and live loads
- ❑ Roofing Considerations
  - ❑ Drainage capacity
  - ❑ Deck sloped or tapered insulation
  - ❑ Parapets
  - ❑ Edge protection
- ❑ Accessibility of installation for large equipment
- ❑ Occupied space renovations – determine removal of furnishings, phone, and data cabling, etc.

F. DEMOLITION WORK:

- ❑ See *Chapter 9.13 Demolition of Structures Guide*.
- ❑ Hazmat materials, see *Chapter 9.8 Hazardous Materials Guide*.
- ❑ Abatement analysis
- ❑ Salvaging items
- ❑ Recycling materials (LEED)
- ❑ Surplus building procedures
- ❑ Depth of foundation removal
- ❑ Air monitoring

G. APPLICABLE STANDARDS / CODES / REGULATIONS:

- ❑ Accreditation standards such as:
  - ❑ ACA (DOCCS)
  - ❑ ASCLAD (State Police)
  - ❑ JCAH (DOH)
  - ❑ etc.
- ❑ Agency requirements / standards: DOCCS, DOT, DMNA, etc.
  - ❑ Meet, exceed or deviate from, See *Chapter 9.7 Agency Specific Standards and Requirements.*
- ❑ Codes: NYS family of Codes, Energy Code, Health, NEC, NFPA, OSHA, ASHRAE, SMACNA, IES, AEIC, etc. See *Chapter 9.9 Codes Guide*.
- ❑ Government regulations such as Executive Order 88, Wicks Law, etc.

1. Executive Order 88:

- ❑ Refer to *Chapter 9.5 Energy Efficiency (EO88) Sustainable Design*
- ❑ Design approach to comply with LEED certification (only as directed by the OGS TL)
- ❑ Include design strategies to comply with or exceed EO88 and LEED (as required).
- ❑ Determine NYSERDA (New York State Energy Research and Development Authority) funding opportunities

2. Energy Code:

- ❑ Approach to design compliance for Construction, Mechanical and Electrical. *REScheck*, MECcheck, *COMcheck* software analysis.

3. LEED:

- ❑ Identify if LEED certification will be pursued (only as required by OGS TL)
- ❑ Identify potential green/sustainable measures that will be considered for example, low VOC materials, construction waste management; refrigeration mgmt., recycled content, Premium efficiency motors, Energy Star equipment or water efficiency.
- ❑ Construction Waste Management

4. NYC Projects:

- ❑ Sidewalk permit
- ❑ Sidewalk protection

- ❑ Coordination with FDNY
- ❑ Crane and scaffolding safety precautions

H. SITE DESCRIPTION:

- ❑ Site Security
- ❑ Parking
- ❑ Storm Water System
- ❑ Sewer System
- ❑ Water Supply System
- ❑ Hydrant flow tests
- ❑ Firefighting access
- ❑ Site Grading
- ❑ Retaining walls
- ❑ Site Lighting and security
- ❑ Paving
- ❑ Fencing
- ❑ Deliveries
- ❑ Trash Storage and Removal
- ❑ Above and below ground fuel tanks
- ❑ Planting
- ❑ ADA accessibility
- ❑ See Chapter 9.11 Civil and Site Guide (reserved)

I. BUILDING DESCRIPTION:

- ❑ Building context – character and massing of surrounding buildings
- ❑ Programmatic needs: building function, number of occupants, square feet per person, number of spaces, aesthetics, space relationships, space standards, design concepts
- ❑ Review ADA accessibility master plan for updating the structure
- ❑ ADA accessibility challenges
- ❑ Egress routes
- ❑ Code Review
- ❑ Architectural Elements – massing, form, exterior walls, roof, fireproofing, partitions, doors, windows, hardware, ceilings, finishes, miscellaneous steel, accessories, millwork/casework, specialties, raised flooring, furnishings, appliances, food service, elevator, lifts, etc.
- ❑ Structural Systems – foundation system, retaining walls, waterproofing, superstructure framing, floor decks, roof decks, slab-on-grade
- ❑ Design Loads: floor loads, roof loads (snow, wind), lateral loads (wind, seismic), and deflection limits
- ❑ Construction Material – steel, concrete, masonry
- ❑ Radon mitigation design – See Chapter 9.8 Hazardous Materials Guide
- ❑ See Chapter 9.17 Architectural Guide

J. HVAC SYSTEMS DESCRIPTIONS:

- ❑ Project requirements (size, age, condition and adequacy of existing systems
- ❑ Codes
- ❑ Standards
- ❑ Chase requirements
- ❑ Equipment size and coordination
- ❑ Heavy equipment loads – verify with structural engineer
- ❑ Locations of louvers and flue piping
- ❑ Air filtering requirements
- ❑ Specialized air flow / pressure relationships required (isolation rooms, clean agent fire suppression systems, smoke control, etc)
- ❑ Special temperature / humidity requirements
- ❑ Refrigerant monitoring / alarm system
- ❑ Boilers
- ❑ Chillers
- ❑ Air Handlers
- ❑ VAV Boxes
- ❑ Ductwork
- ❑ Humidification
- ❑ Baseboard heat
- ❑ Exhaust Systems
- ❑ Fuel Oil Tank
- ❑ DDC system – connecting to existing system or new system
- ❑ Emissions
- ❑ Seismic requirements
- ❑ See Chapter 9.18 HVAC Guide

K. PLUMBING SYSTEMS DESCRIPTIONS:

- ❑ Project requirements (size, age, condition and adequacy of existing systems)
- ❑ Codes
- ❑ Standards
- ❑ Chase requirements
- ❑ Fixture demand loads
- ❑ Domestic Water
- ❑ Sanitary Sewer/Vent
- ❑ Roof drainage capacity
- ❑ Natural gas piping
- ❑ Gas Systems
- ❑ Compressed air systems
- ❑ Hydraulic systems
- ❑ Seismic requirements
- ❑ Size, number and location of building drains
- ❑ Unusable combined sewer
- ❑ Electronic controls for fixtures
- ❑ See Chapter 9.19 Plumbing and Fire Protection Guide (reserved)

L. FIRE PROTECTION SYSTEMS DESCRIPTIONS:

- ❑ Project requirements (size, age, condition and adequacy of existing systems)
- ❑ Codes
- ❑ Standards
- ❑ Fire pump / tank
- ❑ Standpipe
- ❑ Sprinkler system – wet / dry
- ❑ Clean Agent Fire Suppression
- ❑ Fire Hose Cabinets
- ❑ Fire Extinguishers
- ❑ Seismic requirements
- ❑ Cold water capacity for new fire protection system
- ❑ Sprinkler system shutdown - firewatch
- ❑ Input from local Fire Department
- ❑ See Chapter 9.19 Plumbing and Fire Protection Guide (reserved)

M. ELECTRICAL SYSTEMS DESCRIPTIONS:

- ❑ Project requirements (size, age, condition and adequacy of existing systems)
- ❑ Codes
- ❑ Standards
- ❑ Site electric
- ❑ Site lighting
- ❑ Temporary electric
- ❑ Electrical Distribution –available floor space available for new equipment and capacity of existing equipment
- ❑ Cable Television
- ❑ Emergency Power (generator / tank)
- ❑ UPS
- ❑ Interior lighting
- ❑ Fire Alarm System – new or existing
- ❑ Fire alarm System shutdown - firewatch
- ❑ Lightning Protection
- ❑ Grounding
- ❑ Emergency Lighting
- ❑ Paging System
- ❑ Wireless System
- ❑ Access Control / Security Systems
- ❑ CCTV
- ❑ Antennae
- ❑ Cable tray
- ❑ Explosion proof fixtures / devices
- ❑ Perimeter and Landscape Lighting
- ❑ ADA Intercom
- ❑ Cabling
- ❑ Phone system – possible involvement with Office for Technologies
- ❑ Seismic requirements
- ❑ Chase requirements
- ❑ See Chapter 9.20 Electric Guide (reserved)

N. PROJECT SCHEDULE:

- ❑ Design schedule and milestones
  - ❑ Determine urgency of project for the client
  - ❑ State the anticipated design duration, construction start season and construction duration
- ❑ Construction schedule
  - ❑ Long lead times – See BDC 35.1 Duration Worksheet and Long Lead Items identified in the 100% Submission Phase
  - ❑ Material availability
  - ❑ Schedule critical – will a Critical Path Method (CPM) be required?

O. COST ESTIMATE / BUDGET:

- ❑ Adequacy of the budget
- ❑ Cost options for work
- ❑ Alternates
- ❑ Information in *Chapter 6 Cost Control*
- ❑ Consideration for special needs having a significant impact on costs
  - ❑ Allowances for proprietary systems
  - ❑ Security allowances
  - ❑ Construction Acceleration Incentives/Liquidated Damages
  - ❑ State field office / Construction Manager staffing
  - ❑ Design contingencies
  - ❑ Commissioning
  - ❑ Additional Design Fees for furnishings and equipment, field visits, etc.
  - ❑ Client furnished items or items that are procured through purchase order.

P. QUALITY IN CONSTRUCTION:

- ❑ Commissioning (see DPM Chapter 9.4 Commissioning Guide)
  - ❑ Mechanical: controls; equipment such as boilers, chillers, cooling towers, ductwork,
  - ❑ Plumbing/Fire Protection: sprinkler, plumbing controls
  - ❑ Electrical: low voltage, high voltage, emergency, lighting, communications, security, life safety
  - ❑ Architectural: exterior envelope, doors/hardware/keying
- ❑ Identify project Benchmarks or Mock-ups
- ❑ Pre-installation meetings for specific specifications
- ❑ CADD Coordination Drawings
- ❑ Building Information Modeling (BIM)
- ❑ Special Inspections (code mandated)

Revision History:

Rev	***Date***	***Description***	***Reviewed by:***	***Approved by:***
0	5/08/2013	Last revised date		
1	08/05/13	Added Quality in Construction and expanded permit checklist and other minor revisions	Parnett	Dostie
2	09/04/13	Minor revisions	Parnett	Parnett
3	05/20/14	Revisions to Section G	Parnett	Parnett
4	7/8/14	Section I revision	Campas	Parnett