



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

FREEDOM OF INFORMATION ACT/PRIVACY PROGRAM

February 13, 2024

In reply refer to: FOIA BPA-2024-00838-F

SENT VIA EMAIL ONLY TO: rick.knostman@portlandoregon.gov

Rick Knostman
Design Services Supervisor
City of Portland – Office of Management and Finance
1120 SW 5th Avenue, Suite 1040
Portland OR 97204

Dear Mr. Knostman,

The Bonneville Power Administration (BPA) received your request for agency records made under the Freedom of Information Act, 5 U.S.C. § 552 (FOIA). The agency received your request on January 23, 2024, and assigned tracking number BPA-2024-00838-F to your request. Please use that tracking number in any correspondence with the agency regarding your FOIA request. This communication is the agency's formal acknowledgment and response to your information request.

Request

You seek, “[1] ...any request for proposal documents for the design portion of the BPA Fleet Services Building that was awarded to Hennebery Eddy Architects in [or around] 2018. And [2] ...contact information for the project manager or the RFP documents themselves for the design of the [BPA Fleet Services Building].”

Limit on Scope/Clarification

Via February 5, 2024, email exchanges with BPA FOIA office personnel, you agreed to limit the scope of your request to exclude 16 pages of gathered records identified as: “RFP 3967 2013 Ross Topo Sheets” and “RFP 3967 Ross Civil Improvements - Areas of Development.”

Acknowledgement

BPA reviewed your request and clarification determined that they fulfill all criteria of a proper request under the FOIA and the U.S. Department of Energy's (DOE) FOIA regulations at Title 10, Code of Federal Regulations, Part 1004.

Response

BPA searched for and gathered the agency records and information you seek. Subject matter experts (SME) in the agency's Supply Chain Services office, specifically the Facilities Projects

Team in Contracts & Strategic Sourcing, gathered 338 pages of records directly responsive to your request. Those 338 pages accompany this communication with no redactions applied. As noted above, BPA SMEs also identified 16 pages of additional records responsive to your request, but those sixteen pages have been excluded from this records release package in accord with your February 5, 2024, clarification, above.

Fees

There are no fees associated with processing your FOIA request.

Certification

Pursuant to 10 C.F.R. § 1004.7, I am the individual responsible for the records search and release described above. Your FOIA request BPA-2024-00838-F is now closed.

Appeal

Note that the records release certified above is final. Pursuant to 10 C.F.R. § 1004.8, you may appeal the adequacy of the records search, and the completeness of this final records release, within 90 calendar days from the date of this communication. Appeals should be addressed to:

Director, Office of Hearings and Appeals
HG-1, L'Enfant Plaza
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585-1615

The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line. (The Office of Hearings and Appeals prefers to receive appeals by email.) The appeal must contain all the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review will be available to you in the Federal District Court either (1) in the district where you reside, (2) where you have your principal place of business, (3) where DOE's records are situated, or (4) in the District of Columbia.

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road-OGIS
College Park, Maryland 20740-6001
E-mail: ogis@nara.gov

Phone: 202-741-5770
Toll-free: 1-877-684-6448
Fax: 202-741-5769

Questions about this communication may be directed to James King, FOIA Public Liaison, at jjking@bpa.gov or 503-230-7621.

Sincerely,

Candice D. Palen
Freedom of Information/Privacy Act Officer

Section Four Basis for Design

Introduction

The purpose of this chapter is to document and define the functional and operational characteristics of the BPA Ross HMEM Fleet Administration and Fleet Maintenance groups that will be operating in the new Ross HMEM Facility. This Basis for Design is an important element in developing the requirements and space needs for the new Ross HMEM Facility. The understanding gained by the Planning Team during the programming interview sessions greatly influences the master plan, concept design, and layout of the new facility. A summary of operational characteristics is included for each group.

The base programming data provided by BPA and the programming questionnaires completed by representatives from each group served as the basis for the programming discussions. The information they provided included functional characteristics, hours of operation, staffing levels, vehicle parking requirements, and key planning issues for each group.

The Planning Team held detailed programming interviews with BPA staff. During these programming interviews the goal was to collect the essential information that would direct the space needs for the Ross HMEM Garage. During this effort, the Planning Team met with key staff from the Fleet Administration and Fleet Maintenance groups to gather key information pertinent to each group.

Functional and Operational Design Data

Fleet Administration

Function

The Fleet Administration staff provides support for the Ross HMEM facility. Support functions include, but are not limited to, administration of the fleet budget, specifying and purchasing equipment, customer service, and managing all fleet personnel.

Staffing

The current hours of operation for Fleet Administration staff are from 7:00 a.m. to 4:00 p.m., Monday through Friday. The following staffing levels for the program are summarized in Table 4.A.



Table 4.A - Fleet Administration Staffing

Position	Current	Program
Fleet Manager (NSF)	1	1
NSFE Manager	0	1
NSFS Manager	1	1
NSFN Manager	1	1
Transportation Assistant	2	2
Transportation Specialist	1	0
Fleet Administrator	0	1
Equipment Specialist (HMEM)	1	1
Admin/Analysis (Contractor)	1	1
Admin/Scheduler/Analysis (Contractor)	1	1
Data Input/Research (Contractor)	1	0
Equipment Specialists (Procurement)	1	1
Transportation Policy Manager	1	0
Total	12	11

Vehicle Parking

Fleet Administrative staff utilizes non-revenue support vehicles for supervisors. Table 4.B is a list of non-revenue vehicles.

Table 4.B - Fleet Administrative Non-Revenue Parking Requirements

Non-revenue Support Vehicle	Current	Space Size	Program
Service Trucks	2	10' x 20'	2
Electric Car	1	9' x 18'	1
Manager Truck	1	9' x 18'	1
Total	4		4

Key Planning Issues

The following key planning issues need to be considered during the design of the Fleet Administrative staff spaces:

Office Areas

- The offices for the Fleet Manager, NSFS Manager, and NSFN Manager, shall be open workstations sized to include a chair, desk, binder bin, shelf, guest chair, with the option of one to three storage cabinets and a table and two chairs. (Reference *Appendix A- BPA Space Standards*)
- The offices for the Transportation Assistants, Contractor, Equipment Specialists (NSFE), Equipment Specialists (POOL), and Transportation Policy Manager shall be open workstations sized to include a chair, desk, binder bin, shelf, guest chair, with the option of one or two storage cabinets and a table and chair. (Reference *Appendix A - BPA Space Standards*)



Support Areas

- Provide a Conference/Training Room to accommodate 15 to 20 people. This room shall be used for staff training, staff meetings, and/or one-on-one personal meetings.
- Provide a Library (Technical Manual) Room adjacent to the Service Writer.
- Provide a Service Writer workspace adjacent to the maintenance entrance to Shop for easy access and availability to control the communication between fleet customers and mechanics.
- Provide a Kitchenette/Coffee Bar centrally located to be used by all Fleet staff.
- Provide a Copy/File Room adjacent to the office spaces to accommodate 15 file cabinets and a multifunction copier.

Fleet Maintenance

Function

The Fleet Maintenance staff provides maintenance on all mobile equipment for BPA. Maintenance includes preventive maintenance, warranty work, brakes, engine repair, transmission repair, vehicle build-up, and A through D-level services. D-level services include overhaul, inspection, and repair of the boom and bucket systems on the personnel lift trucks.

Staffing

The current hours of operation for Fleet Maintenance staff are from 7:00 a.m. to 4:00 p.m., Monday through Friday. The following table indicates staffing levels for the program are summarized in Table 4.C.

Table 4.C - Fleet Maintenance Staffing

Position	Current	Program
Foreman III/Foreman I	1	1
Maintenance Controller/ Service Writer	0	1
HMEM Field Mechanic	4	5
HMEM (Contractor)	3	3
Totals	8	10

Vehicle Parking

Fleet Maintenance will require 10 Down/Ready Line Parking spaces.

Key Planning Issues

The following issues should be considered in planning and design efforts for a facility to support the projected new Ross HMEM. These issues will need to be considered during the future efforts:

Shop Areas

- Provide a Hose Fabrication Room with space for a jib crane and ample space for equipment that can be

separately ventilated and environmentally controlled. Include a bench with a built in drain for containment of fluids.

- Provide a Paint Area to include the existing paint booth and bead blast cabinet adjacent or within the Common Work Area.
- Provide a Parts Cleaning Room adjacent to the Wash Bay.
- Dedicated Common Work Areas are required to support bench work and machine shop activities. Locate centrally and open to all Repair Bays and Shop Areas. This area includes fixed shop equipment such as drill presses, buffer/grinders, workbenches with a vise, abrasive blast cabinets, etc.
- Provide separate storage areas for portable equipment centrally located throughout the facility. Equipment in this area will include jack stands, floor jacks, battery charges, etc.
- The Tool Crib shall be a secured area that is centrally located in the Fleet Shop with room to expand when needed.
- Provide a Consumables Area centrally located (on the shop floor) for quick pick of nuts and bolt.
- Provide a space to drain hydraulic hoses adjacent to the used oil pump and filter crusher.
- Provide a Machine Shop with overhead bridge crane or jib crane capabilities. As well as ample storage of steel and proper clearance for all fixed shop equipment needed.
- Lube/Compressor Room will be sized to include bulk fluid storage tanks with air-operated pumps, fluid storage drums with wall mounted air-operated pumps, compressor, and a refrigerated air dryer. Provide double door exterior access for deliveries.

Repair Areas

- The HMEM Service Work Bays to be sized at 20 by 55 feet to maintain the projected fleet with access to an overhead bridge crane. Each bay shall be equipped with vehicle exhaust reels. Lubrication reels (shared between two bays), vehicle lifts, and a workbench and vise.
- The D-level Service Work Bays to be sized at 30 by 120 feet to repair the boom and have access to overhead bridge cranes. Each bay shall be equipped with vehicle exhaust hoses, a workbench, and vise.
- A Chassis Wash Bay is to be sized 25 feet by 60 feet. The bay to be drive-through if possible. Provide a Chassis Wash equipment room adjacent to the Chassis Wash bay for the high-pressure/hot water washers.



Parts Storeroom

Function The Parts staff provides all parts and supplies for mobile equipment for BPA.

Staffing The current hours of operation for Fleet Parts staff are from 7:00 a.m. to 4:00 p.m., Monday through Friday. The following table indicates staffing levels for the program are summarized in Table 4.D.

Table 4.D - Fleet Parts Staffing

Position	Current	Program
Parts Supervisor	1	1
Parts Clerk	1	1
Warehouse Clerk	0	1
Totals	2	3

Vehicle Parking Fleet Parts will require two parking spaces.

Key Planning Issues The following issues should be considered in planning and design efforts for a facility to support the projected new Ross HMEM. These issues will need to be considered during the future efforts:

Parts Areas

The Parts Storage Area shall be a secure area (currently contract operated by NAPA) with limited access that is located central to the repair areas. This area includes the following spaces:

- A dedicated work area for the Storekeeper
- Provide a Parts Issue Window for Mechanics to access the parts storage. Provide a counter and access for a forklift.
- Small Parts Storage with drawer cabinets, cabinets, and a vertical lift module (VLM). Large/Bulk Parts Storage with bulk storage racks and pallet racks for palletized large parts.
- Provide a mezzanine storage area for slow moving, infrequently used parts.
- Provide dedicated area for the Shipping and Receiving Area. This area shall be accessed via an overhead door and loading dock.

Loan Pool

Function The Loan Pool staff provides vehicle services for BPA.

Staffing The current hours of operation for Loan Pool staff are from 7:00 a.m. to 4:00 p.m., Monday through Friday. The following table indicates staffing levels for the program are summarized in Table 4.E.



Table 4.E - Loan Pool Staffing

Position	Current	Program
NSFP Manager	1	1
Equipment Specialist	2	2
Line Equipment Operator	2	2
Totals	5	5

Vehicle Parking

Loan Pool vehicles are controlled by Fleet for shared use by BPA departments. Table 4.F is a list of Loan Pool vehicles.

Table 4.F - Loan Pool Vehicles

Position	Current	Program
Back-hoe	9	9
Dozer	2	2
Excavator	1	1
Forklift	7	7
Heavy Truck	12	12
Large Trailer	3	3
Light Trucks	1	1
Light Utility	3	3
Medium Truck	11	11
Mounted Equipment	20	20
Skid Steer Loader	6	6
Small excavator	10	10
Small Trailer	41	41
Towed Equipment	17	17
Tractor, Agriculture	2	2
Totals	145	145

Key Planning Issues

The following key planning issues need to be considered during the design of the Loan Pool staff spaces:

Office Areas

- The offices for the NSFP Manager shall be open workstations sized to include a chair, desk, binder bin, shelf, guest chair, with the option of one to three storage cabinets and a table and two chairs (Reference *Appendix A- BPA Space Standards*).
- The offices for the Equipment Specialists shall be open work areas sized to include a chair, desk, computer, binder bin, shelf, guest chair, with the option of one or two storage cabinets and a table and chair (Reference *Appendix A- BPA Space Standards*).

Shop Areas

- Provide a storage area for loan pool small equipment storage.



Enclosed Vehicle Parking Areas

- Provide enclosed vehicle parking areas for the Loan Pool vehicles that require heated storage to protect equipment.

Covered Vehicle Parking Areas

- Provide covered vehicle parking areas for the Loan Pool vehicles to be stored.

Small Equipment

Function

Small Equipment staff provides all maintenance to the small equipment for BPA.

Staffing

The current hours of operation for Small Equipment staff are from 7:00 a.m. to 4:00 p.m., Monday through Friday. Staffing levels for the program are summarized in Table 4.G.

Table 4.G - Small Equipment Staffing

Position	Current	Program
General Tool & Equipment Mechanic	1	1
Totals	1	1

Key Planning Issues

The following key planning issues need to be considered during the design of the Small Equipment staff spaces:

Shop/Storage Areas

- Provide a storage area for the equipment and parts storage.
- Provide a shop area for machine tool equipment to maintain small equipment.
- Provide a staging area for small equipment to be staged for repair or processing.

General Site Requirements

There are specific site requirements necessary to ensure a safe, efficient, and functional facility. These specific requirements include the following:

- Adequate and efficient employee/visitor parking.
- Down/Ready Line parking spaces.
- Site lighting should provide efficient and even light throughout the site.
- Appropriate site signage.
- Pedestrian circulation areas.
- Recycle/scrap/trash enclosures.



Section Five Space Needs Program

Introduction

This chapter presents the Space Needs Program for the BPA Ross HMEM facility. This program is based on industry standards, programming interviews the BPA Fleet staff, and the Findings Report prepared by Fleet Counselor Services. The Space Needs Program presents the space requirements necessary for a new Ross HMEM Facility, including all building spaces, covered areas, and parking areas necessary to meet the current and future fleet needs.

The new Ross HMEM facility program is a “right sizing” of the current operation, a consolidation of vehicles from regional facilities to be repaired at Ross, and moving contracted maintenance back in-house. The current facility is identified in the program to establish a baseline for a comparison of the programmed space needs requirements.

The program information is summarized in a summary table at the end of this section. This summary table details include projected square footage needs for building areas, covered areas, exterior areas, and parking areas. These projected space needs are subtotaled into net square footage requirements and converted to the total site acreage requirements for the Ross HMEM Facility and any potential residual land area.

Staff Summary

Facility staffing levels are crucial to the Planning Team when determining the number of parking spaces, size of support facilities, and developing occupancy levels. Table 5.A is a summary of the projected staffing levels for each group. These staffing levels were taken directly from interview sessions and questionnaires. Refer to *Section Three - Basis for Design* and the Program for a more detailed breakdown for each group’s employees.

Table 5.A - Staff Summary

Department	Current	Program
Fleet Administration	12	11
Fleet Maintenance	8	10
Fleet Parts	2	3
Loan Pool	5	5
Small Equipment	1	1
Totals	28	30

Vehicle Summary

The number of vehicles, equipment, and employee vehicle quantities are essential to the Planning Team when determining the site of the required parking facilities.



Quantities have been taken directly from the interviews and information given from BPA.

Table 5.B summarizes program vehicle maintenance requirements for the Ross HMEM facility.

Table 5.B - Vehicle Maintenance Summary

Type	Current	Program
All-Terrain Vehicle	41	41
Backhoe	21	21
Dozer	10	10
Excavator	1	1
Forklift	67	67
Heavy Equipment	11	11
Heavy Truck 38K CVW and Up- Tandem Axle	53	53
Large Trailer 25 Tons Plus	18	18
Light Trucks to 10k GVW	32	32
Light Utility	48	48
Medium Truck 10k GVW to 38 GVW Single Axle	54	54
Mounted Equipment (Compressors, Welders, Generators)	95	95
Skid Steer Loader	16	16
Small Excavator Less Than 100 HP	10	10
Small Trailer Single and Tandem Axle to 25 Tons	193	193
Staff Sedan	2	2
Sweeper	1	1
Towed Equipment (Compressors, Generators, Pumps)	30	30
Tractor, Agricultural	4	4
Utility Truck, Single Axle to 16k GVW	3	3
Totals	710	710

**Rule-of-Thumb
Planning Ratio**

Methods of applying planning ratio to vehicle quantities has always been an effective way to calculate the number of repair bays required to maintain those vehicles. These ratios are derived from data and space utilization information gathered from numerous other successful maintenance facilities analyzed throughout the country by Maintenance Design



Group (MDG) and its staff over a 20-year period. The repair bay ratios are represented in Table 5.C:

Table 5.C - Rule-of-Thumb Planning Ratios

Space	Ratio or Space Standard	Program
Repair Bays, Heavy Duty (20 feet x 55 feet)	1 bay for every 10 vehicles to be maintained	181 vehicles/10 vehicles per bay = 18 bays* (13 bays)
Repair Bays, Medium Duty (20 feet x 55 feet)	1 bay for every 35 vehicles to be maintained	213 vehicles/35 vehicles per bay = 6 bays* (4 bays)
Repair Bays, Light Duty (16 feet x 35 feet)	1 bay for every 75 vehicles to be maintained	316 vehicles/75 vehicles per bay = 4 bays
Materials Handling (Parts Storage)	5 SF per vehicle (based on fleet mix and use of some high density storage systems and mezzanine area)	710 vehicles x 5 SF = 3,550SF

**On heavy and medium vehicles there is a low usage factor applied to the ratio to determine the proper number of repair bays.*

Space Standards

Space standards were applied to the Space Needs Program and generally apply to the office and vehicle parking areas. Area requirements in Shop and Storage Areas were derived from functional requirements and equipment space needs. The space standards listed below were utilized to develop the Master Plan Program and overall area requirements. The space standards area based on functional needs and requirements established through the design of other facilities, rules of thumb, and specific requirements of each functional group, provided by BPA.

Office Areas (Reference Appendix A - BPA Space Standards)

Fleet Manager	108-square-foot work station
NSFS Manager	108-square-foot work station
NSFN Manager	108-square-foot work station
NFSP Manager	108-square-foot work station
Transportation Assistants	72-square-foot work station
Contractor	72-square-foot work station
Equipment Specialist (NSFE)	72-square-foot work station
Equipment Specialist (POOL)	72-square-foot work station
Transportation Policy Manager	72-square-foot work station

Shop and Service Areas

Light Duty Service Bays	560 square feet (16' x 35')
Medium/Heavy Duty Service Bays	1,000 square feet (20' x 55')
D-level Service Bays	1,500 square feet (25' x 120')



Vehicle Parking

Service Truck	200 square feet (10' x 20')
Support Vehicles	200 square feet (10' x 20')
Employee Parking	162 square feet (9' x 18')

Circulation Factors

The space requirements shown for each function are net usable areas. The Planning Team will work to minimize the amount of circulation necessary for an efficient site and facility. There are three Circulation Factors utilized in the Space Needs Program. These factors are:

- **Interior or Building Circulation:** This factor is applied to the program as a percentage of the total building square footage. It accounts for miscellaneous building spaces such as hallways, stairwells, janitor closets, mechanical, plumbing, and electrical rooms, wall thickness, structure (Circ./Mech./Elec./Struct. - Net: Gross), and access requirements. The following is a list of the factors (in general) that have been applied to the program but may or may not directly reflect actual design:
 - ✓ Administrative Office areas 40%
 - ✓ Maintenance Support areas 20%
 - ✓ Shop and Bay areas 25%
 - ✓ Covered Service areas 10%
- **Parking Circulation:** This factor is included to account for the drive aisles, walkways, islands, and other areas created by site and access requirements. This factor can vary from 15 percent to 100 percent of the actual space occupied by a certain functional requirement or vehicle. For this project the following factors were applied:
 - ✓ BPA Vehicle Parking Areas 100%
 - ✓ Employee Parking areas 100%
- **Site Circulation Factor:** This factor is also applied to the program as a percentage of the total program square footage. It accounts for areas around buildings, site drive aisles, building access, and site access. For new construction, a 100 percent factor is normally applied to account for all site inefficiencies. As such, the better the site conditions, access, easement, etc., the more efficient the site layout can become, reducing this factor to as low as 50 percent. It will be the goal of the Planning Team to reduce this percentile figure as the site is further developed and site constraints are dealt with through efficient site design.

Space Needs Program

A summary of the Space Needs Program for the newly developed BPA Ross HMEM is included in detail. This summary includes all building and site areas of each agency including Fleet Administration and Fleet



Maintenance. Site circulation, setbacks, landscaping requirements, and total acres required are also shown.

The Space Needs Program included in this chapter begins with the identification of each space by name and a Space Standards (if applicable). The “Current” column represents the space utilized by the Ross HMEM Facility. The “Program” heading represents spaces required to accommodate the full build-out of the combined fleet facilities operations on the new site of the Ross HMEM Facility. The “Remarks” heading represents listed notes about each space if required.

The Space Needs Program will be used by the Planning Team to develop the selected master plan and the conceptual building plans for the Ross HMEM Facility.

Table 5.D - Space Needs Program

Fleet Program Summary		
February 24, 2013		
	Building Areas	
	Existing	Program
Fleet Administration	3,171	5,188
Fleet Shop	19,821	39,736
Covered Areas	0	575
Subtotal	22,992	45,500
	Site Areas	
	Existing	Program
Exterior Areas	990	2,376
Uncovered Vehicle Parking	21,120	34,560
Employee/Visitor Parking	8,748	2,268
Subtotal	30,858	39,204
TOTAL Square Feet		84,704
Site Circulation, Landscaping and Setbacks @ 75%		63,528
TOTAL Square Feet		148,231
TOTAL Acreage		3.40



SECTION SEVEN - DESIGN CRITERIA

Introduction

This section presents the Design Criteria for the proposed Ross HMEM Facility by providing both micro and macro level design requirements. Functional relationship information for these spaces can be found in *Section Two - Basis of Design*. The Design Criteria format found in this chapter consists of Functional Area Modules. The Functional Area Module represents a detailed description of specific design issues for each of the areas listed in the Preliminary Space Needs Program. *All Modules and related equipment are for representation purposes only and do not necessarily depict strict design conformance*

Sustainable Design

There are several sustainable design opportunities which can be approached at the new Ross HMEM Facility. Regardless of whether the BPA chooses to achieve LEED rating or not, these are good design practices. The Sustainable Design section outlines potential sustainable design opportunities appropriate for this type of facility. These options are broken into Building Design and Materials, Mechanical Systems, Plumbing Systems, and Electrical Systems.

Modules

Each of the building space modules contains information regarding the function of the space, affinities, critical dimension (if any), equipment, furnishings, and finishes related to this operation. Technical considerations for architectural, structural, mechanical, plumbing, and electrical systems are delineated on the facing page. The space is graphically illustrated. Specific layouts of each area will be developed during detailed design. Note that the equipment and furnishings listed are not intended to be all-inclusive. A detailed equipment list is developed which provides the all-inclusive list of equipment. They are separated into groups based upon function. A listing of the abbreviations utilized in the text is listed below.

Maintenance Facility Modules

All spaces associated with Maintenance are included with separate models.

Offices

All spaces associated with Office facilities are included with separate models.

Maintenance

All spaces associated with the Maintenance Facility are included with separate models.

Abbreviations

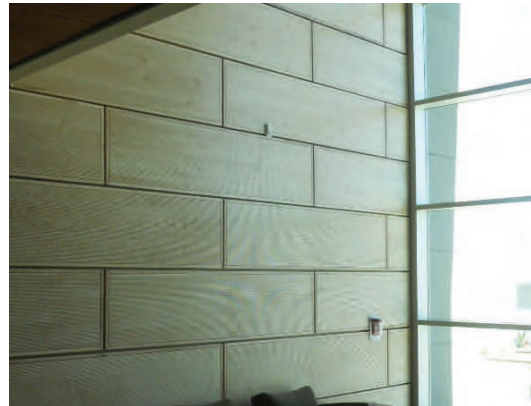
A	=	Amperes
AFF	=	Above Finished Floor
ATF	=	Automatic Transmission Fluid
CA	=	Compressed Air
CG	=	Chassis Grease
CNG	=	Compressed Natural Gas
fc	=	Foot Candles
GFI	=	Ground Fault Interrupter
EC	=	Engine Coolant
EO	=	Engine Oil
GO	=	Gear Oil
HO	=	Hydraulic Oil
NG	=	Natural Gas
SF	=	Square Feet
UC	=	Used Coolant
UO	=	Used Oil
VAC	=	Volts AC
VCT	=	Vinyl composite tile
W	=	Water
WWF	=	Windshield Washer Fluid
K	=	1,000 Pounds
lb	=	Pound
PSI	=	Pounds per Square Inch



SUSTAINABLE DESIGN



Photovoltaic shade structure



Sustainable forest wood paneling



Insulated translucent sectional door

Building Design and Materials

- Use long durable long lasting building materials
- Day lighting: skylights/ clearstories/roof monitors/ windows in bay doors
- Operable windows for natural ventilation (Office Areas)
- Low VOC finish materials
- Use of local building products
- Use of recycled content of Materials
- High R value roof and wall insulation
- High R value bay doors
- In floor ventilation/heating systems (Administration)

Mechanical Systems

- Radiant Floor Slab Heating
- Solar ventilation to preheat ventilation air
- Variable air volume make up air units with heat recovery
- Variable frequency drive motors
- Air quality sensors for exhaust fan controls
- Low flow and automatic plumbing fixtures
- De-stratification fans in high bay areas

Plumbing Systems

- Capture rain water for use in other plumbing systems
- Recycle vehicle wash water

Electrical Systems

- Use of solar panels
- Maximize lighting controls with daylighting and occupancy sensors
- Fluorescent lighting
- Task lighting in Repair Bays
- Efficient process equipment

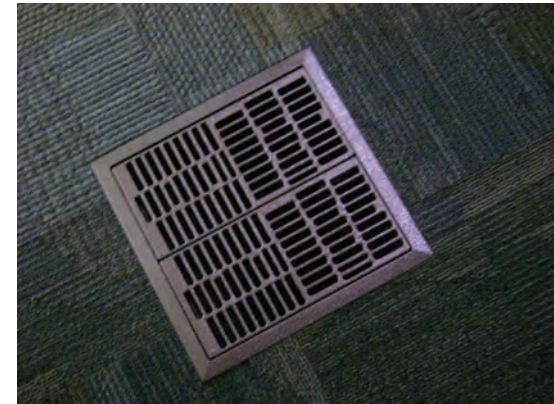
SUSTAINABLE DESIGN



Solar tube day lighting strategy



Bicycle rack



Underfloor air distribution vent



Translucent clerestory windows day lighting



Propeller fan



Radiant floor system

SUSTAINABLE DESIGN



Wash water reclaim system



CNG fueling for buses and public vehicles



Light reflective floor



Passive solar wall panel



Durable tilt-up wall



Parking bioswale

SUSTAINABLE DESIGN



Roof mounted photovoltaic panels



Heat recovery piping

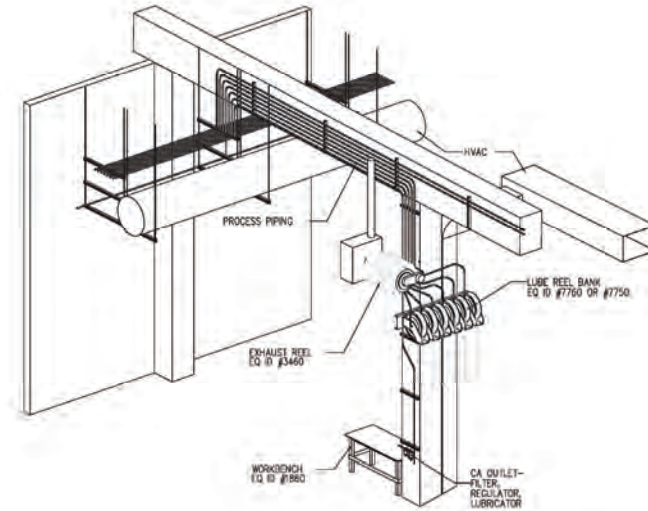
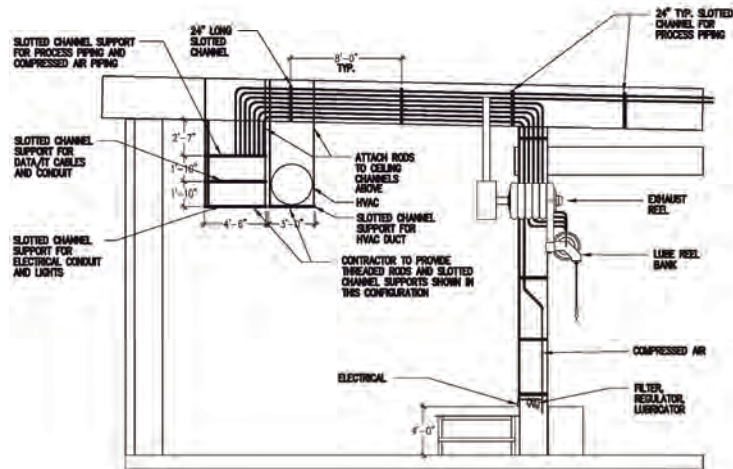


Daylighting - Repair bays



Dual flush toilet

UTILITIES DESIGN



Architectural/Structural

- Coordinate routing, support systems, and clearances for mechanical ductwork, plumbing piping and electrical conduit.
- Routing shall run above forklift and walk aisles
- Group wherever possible

Mechanical Systems

- Route main ventilation ductwork above walk/forklift aisles
- Use mezzanines for mechanical units

Plumbing Systems

- Route incoming water, gas, service equipment piping above ground and above walk/forklift aisles

Electrical Systems

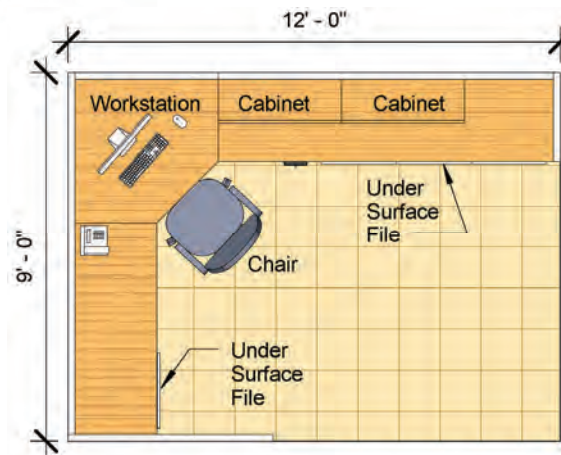
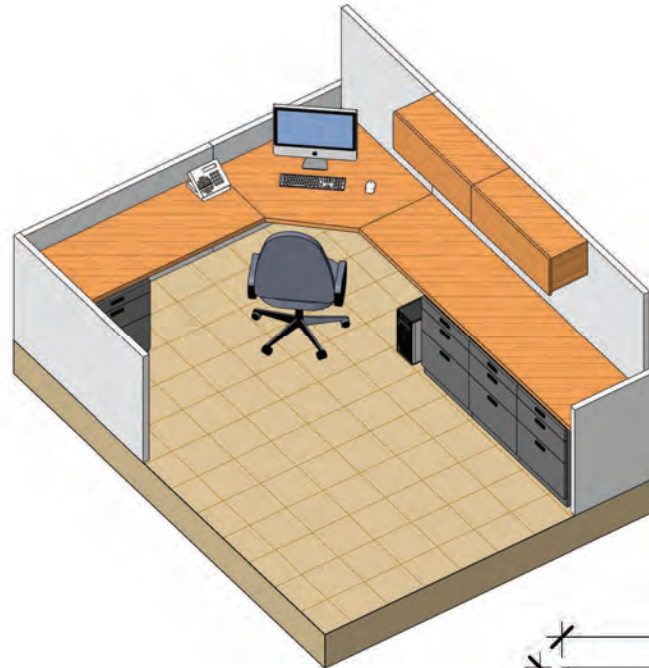
- Route main conduit runs above ground and above walk/forklift aisles.
- Communication systems



OFFICES



108 SQUARE FOOT WORKSTATION



FUNCTIONAL CHARACTERISTICS

Function: Open office workstation.

Relationship to Other Areas

- Case specific. Reference office descriptions.

Critical Dimensions

- 9'- 0" vertical clearance

Equipment/Furnishings

- Task chair
- 24" work surfaces
- 42" x 42" corner work surface
- Under surface vertical files

Design Features

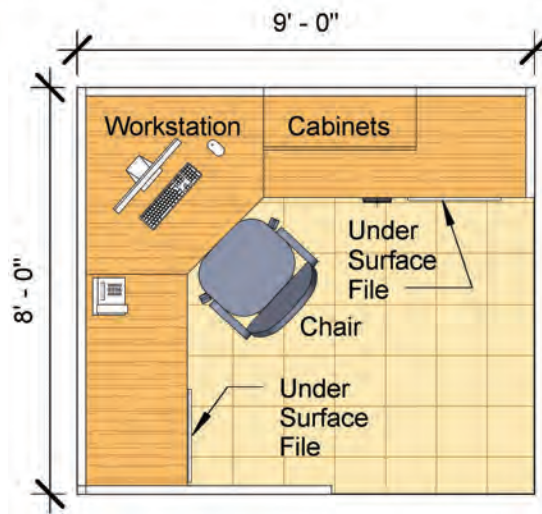
- Carpet floor covering (Administration/Operations)
- VCT floor covering (Maintenance) or finished concrete floor
- Acrylic latex-painted masonry and/or metal stud and gypsum board walls
- Suspended tile ceiling with fluorescent lighting
- Systems furniture
- Data and telephone receptacles
- General purpose duplex receptacles, 120 VAC, 20 A

Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors



72 SQUARE FOOT WORKSTATION



FUNCTIONAL CHARACTERISTICS

Function: Open office workstation.

Relationship to Other Areas

- Case specific. Reference office descriptions.

Critical Dimensions

- 9'- 0" vertical clearance

Equipment/Furnishings

- Task chair
- 24" work surfaces
- 42" x 42" corner work surface
- Under surface vertical files

Design Features

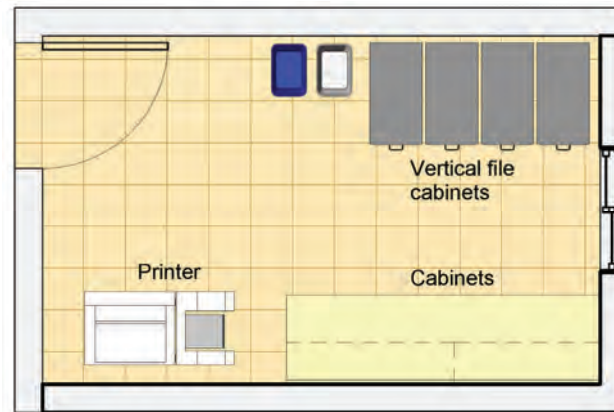
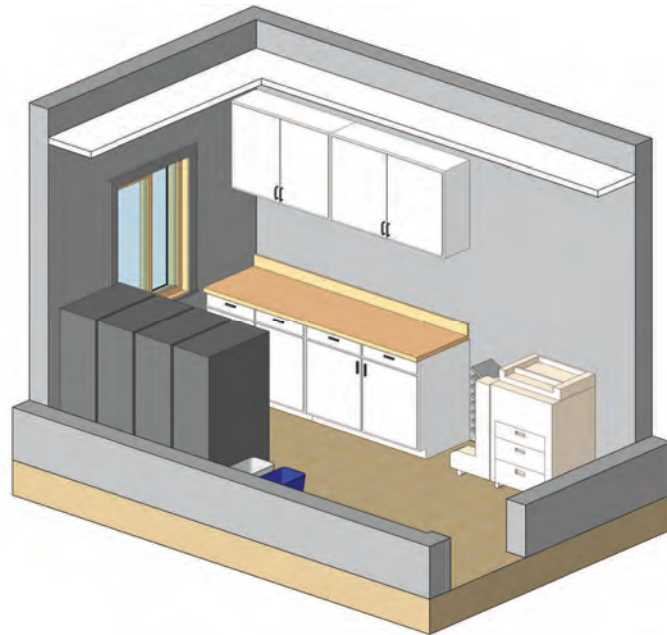
- Carpet floor covering (Administration/Operations)
- VCT floor covering (Maintenance) or finished concrete floor
- Acrylic latex-painted masonry and/or metal stud and gypsum board walls
- Suspended tile ceiling with fluorescent lighting
- Systems furniture
- Data and telephone receptacles
- General purpose duplex receptacles, 120 VAC, 20 A

Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors



COPY / FILE / STORAGE AREA



FUNCTIONAL CHARACTERISTICS

Function: Dedicated alcove or room for copier/printer/scanner/fax machine and storage for office supplies

Relationship to Other Areas

- Access to all office areas

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Copier/printer/scanner/fax machine
- Work surface with cabinets below
- Filing cabinets
- Shelving

Design Features

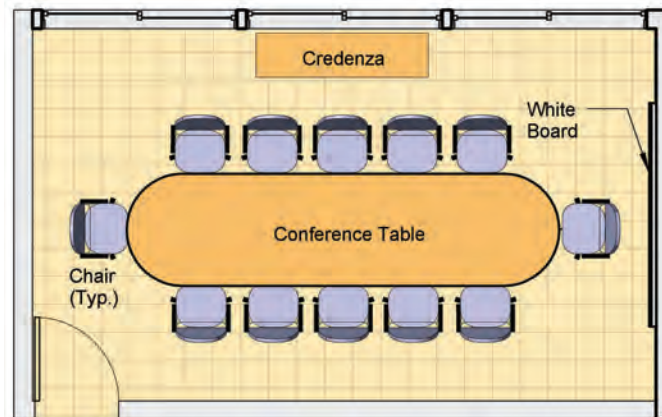
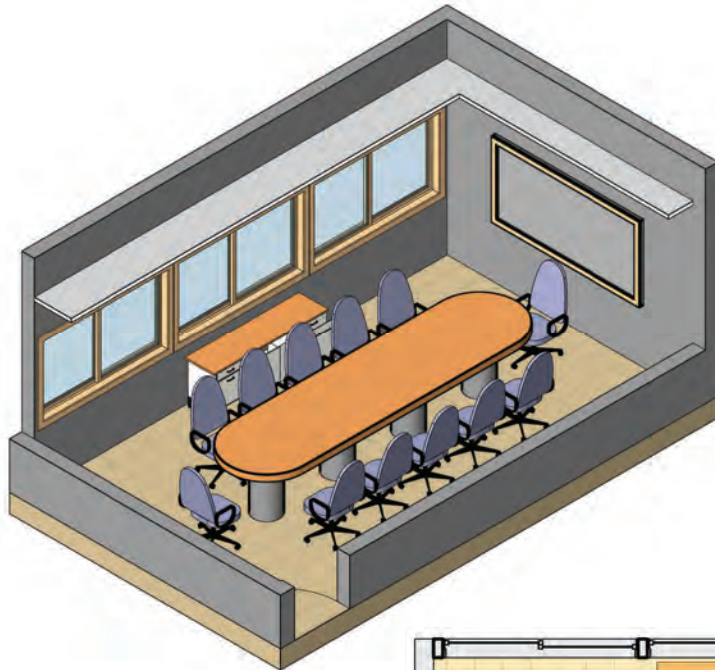
- Carpet floor covering Fleet Administrative areas or VCT or finished concrete in maintenance areas
- Acrylic latex-painted masonry and/or metal stud/gypsum board walls
- Suspended tile ceiling
- Electrical
 - ◆ Fluorescent lighting
 - ◆ Computer and telephone receptacles
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A as required by code
 - ◆ As required by equipment

Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors



CONFERENCE / TRAINING ROOM



FUNCTIONAL CHARACTERISTICS

Function: Separate room for meetings of # to # people. 500 square foot space.

Relationship to Other Areas

- Access to all administrative areas

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Conference table
- Conference chairs
- Credenza
- A/V equipment

Design Features

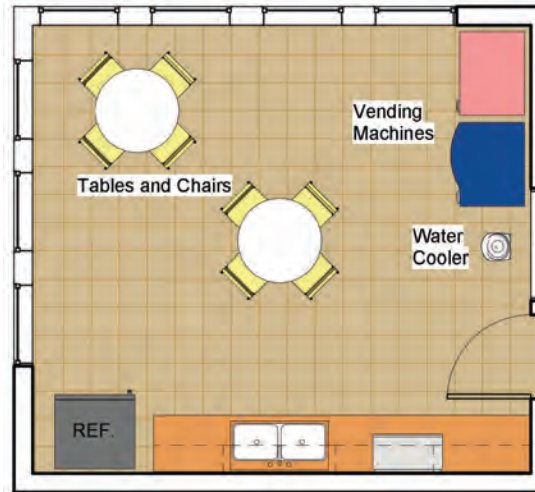
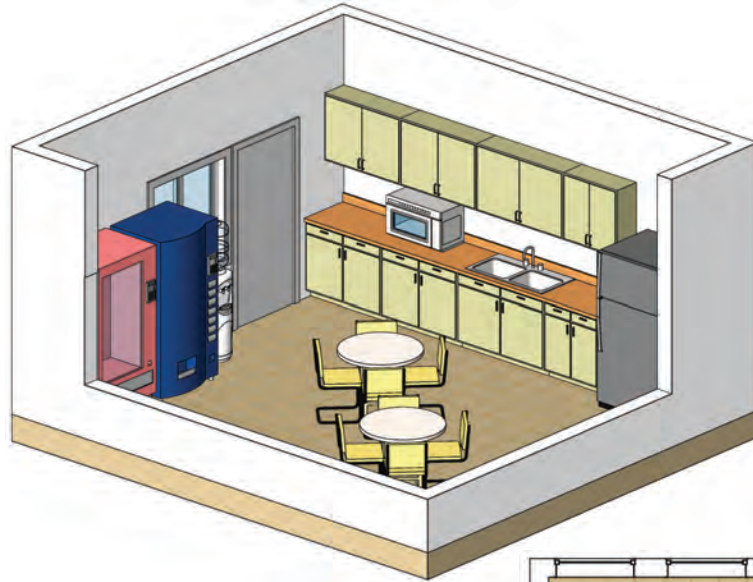
- Carpet floor covering transportation areas or VCT in maintenance areas
- Acrylic latex-painted masonry and/or metal stud/ gypsum board walls
- Suspended tile ceiling with fluorescent lighting
- Single 3'-0" door
- Computer and telephone receptacles
- Exterior windows required
- General purpose duplex receptacles, 120 VAC, 20 A as required by code

Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors



BREAK ROOM



FUNCTIONAL CHARACTERISTICS

Function: Enclosed room used as a break area for staff assigned to the building.

Relationship to Other Areas

- Access to all office areas
- Access to the repair areas
- Access to the Restrooms

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Counter space, upper and lower cabinets, sink, w/ disposal, microwaves, refrigerators, vending machines, water coolers, and tables and chairs

Design Features

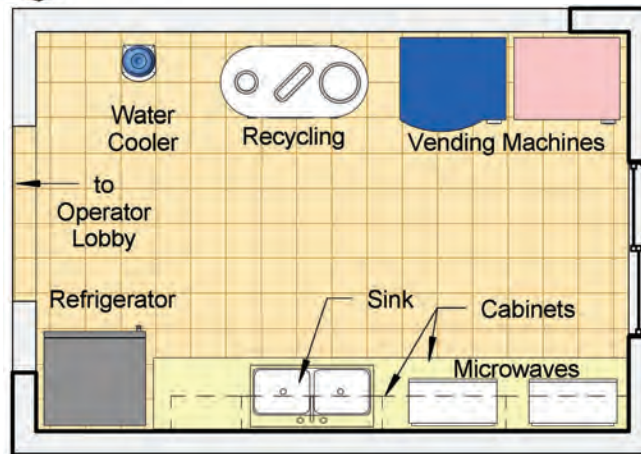
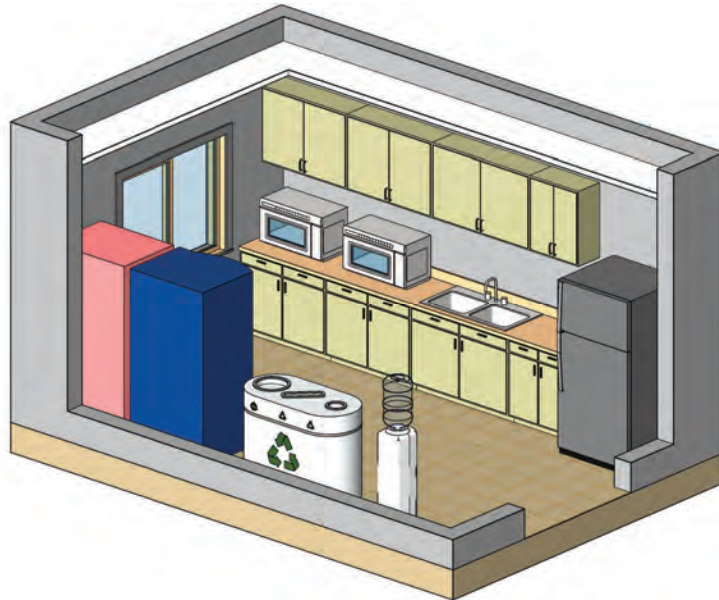
- VCT floor covering or finished concrete
- Acrylic latex-painted masonry and/or metal stud and gypsum board walls
- Suspended tile ceiling
- Mechanical: As required by equipment
- Plumbing: Water for sink and refrigerator
- Electrical:
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A, as required by code
 - ◆ Computer and telephone receptacles
 - ◆ Fluorescent lighting, bi-level switching
 - ◆ As required for equipment

Sustainable Design Criteria

- Operable windows/natural ventilation
- In floor ventilation (Administration/Operations only)
- Lighting controls: Occupancy sensors



KITCHENETTE / COFFEE BAR / VENDING AREA



FUNCTIONAL CHARACTERISTICS

Function: Area for a refrigerator, microwave, sink, and storage

Relationship to Other Areas

- Adjacent to the Maintenance Areas or Administrative Areas

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Refrigerator, microwave, water cooler, vending machines
- Sink, counters, and storage cabinets

Design Features

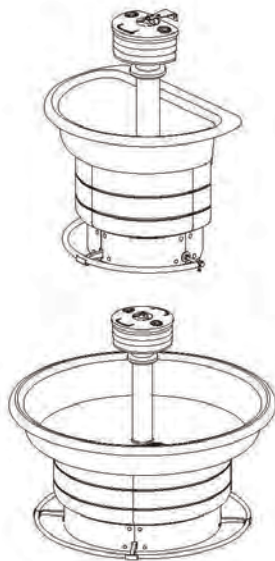
- VCT floor covering
- Acrylic latex-painted masonry and/or metal stud and gypsum board walls
- Suspended tile ceiling
- Mechanical: As required by equipment
- Plumbing: Water for sink and refrigerator
- Electrical:
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A, as required by code
 - ◆ Computer and telephone receptacles
 - ◆ Fluorescent lighting
 - ◆ As required for equipment

Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors



RESTROOM WITH SHOWERS AND LOCKERS



FUNCTIONAL CHARACTERISTICS

Function: Separate restrooms for male and female employees including a separate shower and lockers for changing

Relationship to Other Areas

- Access by Repair and Shop Areas

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Toilet, urinal
- Deep hand wash sinks
- Mirror
- Hand dryer
- Shower with bench and wall hooks
- Full height 18" x 18" lockers

Design Features

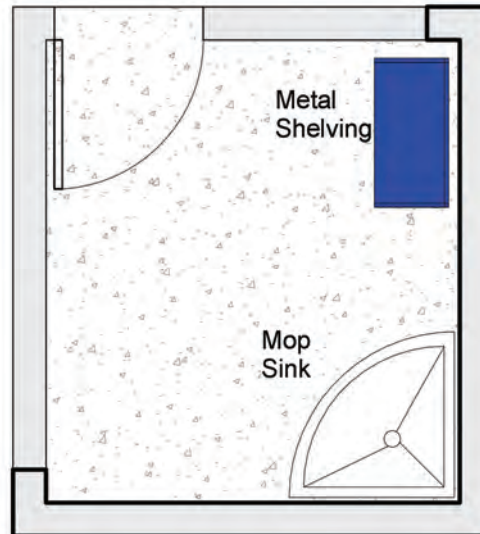
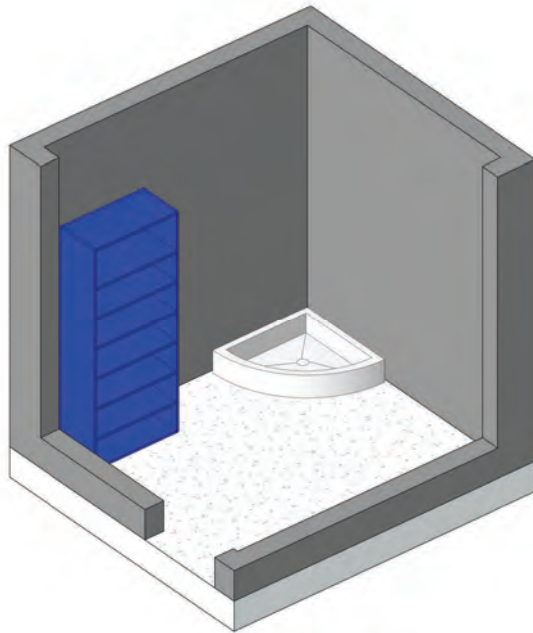
- Ceramic tile floor covering and wall coverings
- Epoxy painted drywall ceiling
- Plumbing: Toilets, urinals, and wash sinks; as required by code
- Shower to be separate room with changing area
- Electrical
 - ◆ Fluorescent lighting, bi-level switching, task lighting over counters
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A, GFI protected where required by Electrical Code
 - ◆ As required by equipment

Sustainable Design Criteria

- Lighting controls: Occupancy sensors



JANITOR CLOSET



FUNCTIONAL CHARACTERISTICS

Function: Enclosed area for janitorial supplies and mop sink

Relationship to Other Areas

- Adjacent to restrooms

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Mop sink and metal shelving

Design Features

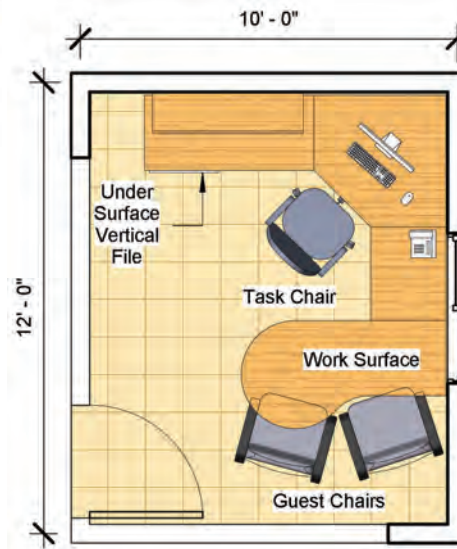
- Floor: Exposed concrete slab
- Walls: Soil and grease resistant
- Ceiling: Painted exposed structure
- Secure area
- Plumbing: Water supply to mop sink
- Electrical:
 - ◆ Fluorescent lighting
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A, GFI protected as required by Electrical Code

Sustainable Design Criteria

- Lighting controls: occupancy sensor



SHOP OFFICE (FOREMAN III)



FUNCTIONAL CHARACTERISTICS

Function: Enclosed private office.

Relationship to Other Areas

- Case specific. Reference office descriptions.

Critical Dimensions

- 9'-0"

Equipment/Furnishings

- Task chair
- 24" deep work surfaces
- 42" x 42" corner work surface
- Under surface vertical files
- Two guest chairs

Design Features

- VCT floor covering or finished concrete (Maintenance)
- Acrylic latex-painted masonry and/or metal stud and gypsum board walls
- Suspended tile ceiling with fluorescent lighting
- Secured entry; single 3'-0" door
- Systems furniture
- Data and telephone receptacles
- General purpose duplex receptacles, 120 VAC, 20 A

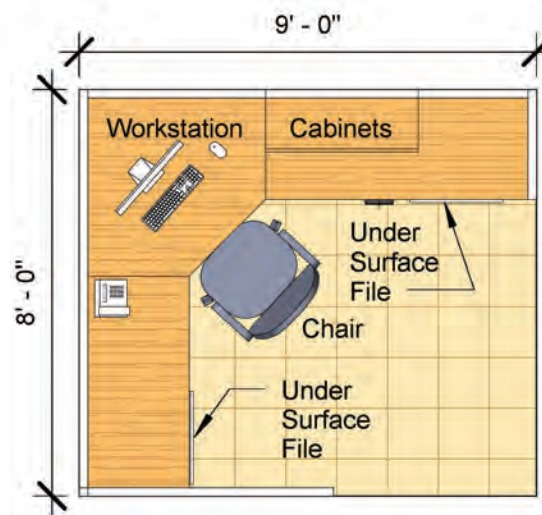
Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors





FOREMAN I (SERVICE WRITER)



FUNCTIONAL CHARACTERISTICS

Function: Enclosed private office.

Relationship to Other Areas

- Case specific. Reference office descriptions.

Critical Dimensions

- 9' -0"

Equipment/Furnishings

- Task chair
- 24" deep work surfaces
- 42" x 42" corner work surface
- Under surface vertical files

Design Features

- VCT floor covering or finished concrete (Maintenance)
- Acrylic latex-painted masonry and/or metal stud and gypsum board walls
- Suspended tile ceiling with fluorescent lighting
- Secured entry; single 3'-0" door
- Systems furniture
- Data and telephone receptacles
- General purpose duplex receptacles, 120 VAC, 20 A

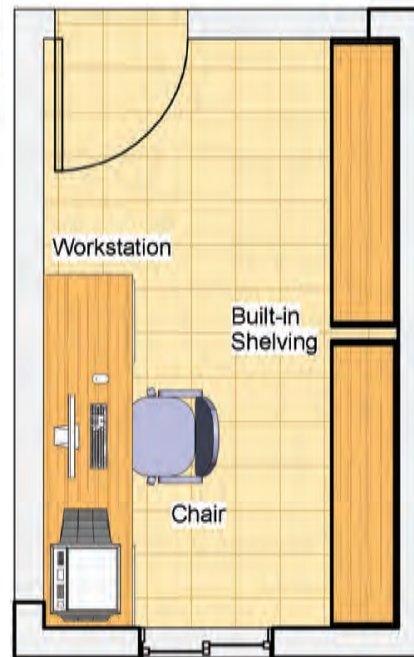
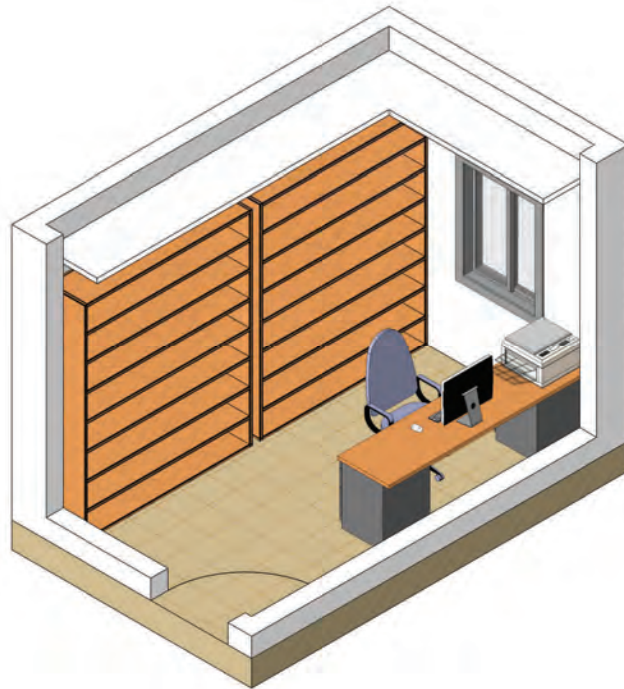
Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors





MANUALS LIBRARY



FUNCTIONAL CHARACTERISTICS

Function: Enclosed area for storage and reference of vehicle maintenance reference manuals.

Relationship to Other Areas

- Adjacent to the Foreperson Work Area

Critical Dimensions

- 9'-0" vertical clearance

Equipment/Furnishings

- Workstation w/computer and copier/printer
- Built-in shelving for reference manuals

Design Features

- VCT floor covering or finished concrete
- Acrylic latex-painted masonry and/or metal stud/ gypsum board walls
- Suspended tile ceiling
- Fluorescent lighting
- Computer and telephone receptacles
- General purpose duplex receptacles, 120 VAC, 20 A to meet code requirements

Sustainable Design Criteria

- Operable windows/natural ventilation
- Lighting controls: Occupancy sensors



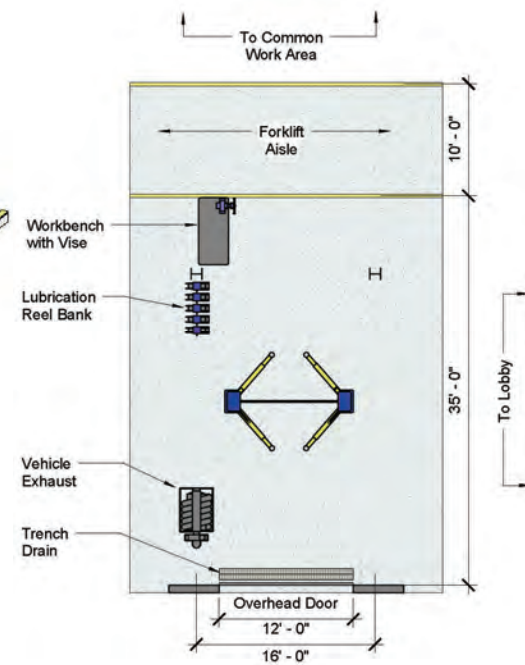
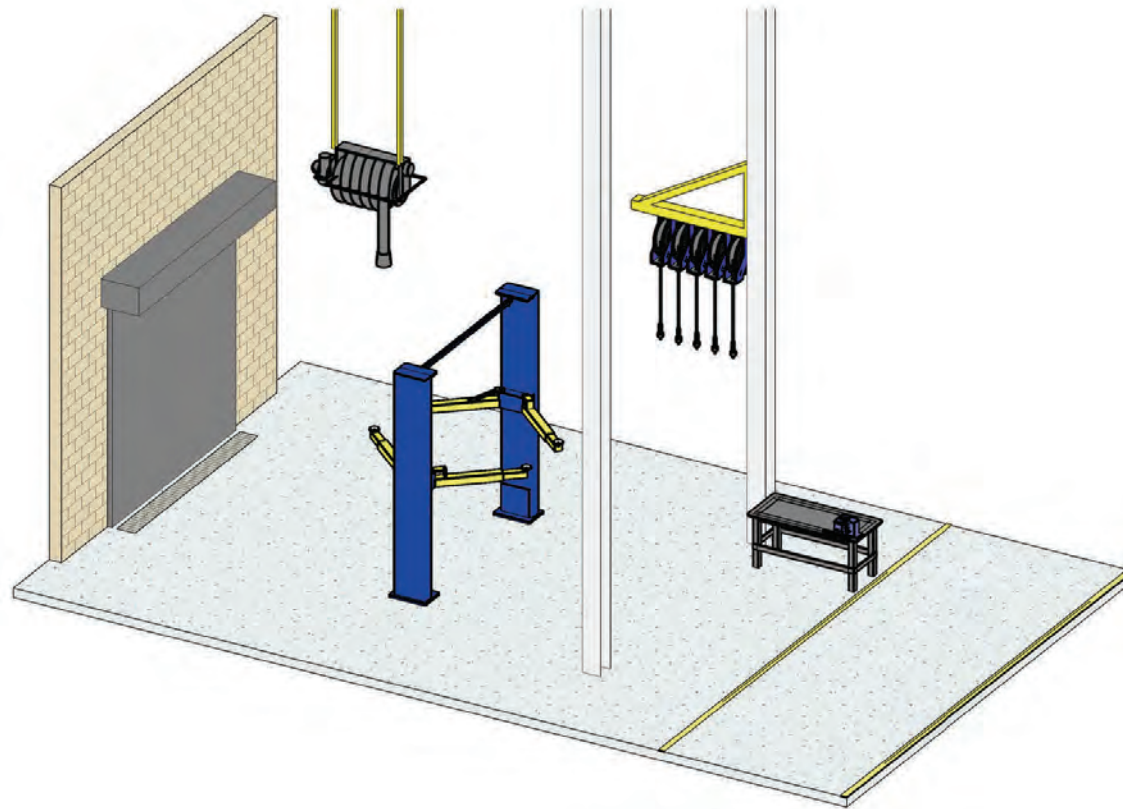


MAINTENANCE





LIGHT DUTY SERVICE BAY





LIGHT DUTY SERVICE BAY

FUNCTIONAL CHARACTERISTICS

Function: Perform A-C level service and inspections on vehicles..

Relationship to Other Areas

- Access to Common Work Area, Parts Room, Portable Equipment Storage Areas
- Access to Maintenance Office areas Manuals Library

Critical Dimensions

- 19'-0" vertical clearance
- 16'-0" wide by 35'-0" long

Equipment/Furnishings

- Severe use workbench with vise (1 per bay)
- Parts cleaning tank (shared)
- Lubrication reel bank (shared 1 per 2 bays)
- Air/electric trapeze (1 per bay)
- Vehicle Exhaust (1 per bay)
- Two-post in ground lift, mobile column lift (1 per bay)

Design Features

- Pull-in/back-out configuration

Sustainable Design Criteria

- Utilize day lighting strategies
- Radiant in-floor heat

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with integral non-metallic light reflective hardener, and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements.
 - ◆ Exterior overhead doors: high lifting sectional , steel, insulated, 12'-0" x 12'-0" feet with view panels, automatic operator, interior and exterior push button controls with lockout on exterior
 - ◆ Bollards on exterior at jambs of overhead door (2 each)

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment
- Structure as needed to support lubrication reels, exhaust reels, and air/electric trapeze

Mechanical

- Wall mounted or overhead vehicle exhaust system with exhaust hose on a motorized reel with integral exhaust fan and automatic fan switch
- As required by equipment
- Six air changes per hour continuous exhausted at ceiling to clear any natural gas accumulation; ten air changes per hour activated by gas detection system or manually for emergency ventilation (used for alternative fuels only)
- No heating devices with open flame or heaters with temperatures greater than 800 degrees F Class 1 Division 2 rated (used for alternative fuels only)
- Radiant heating system (each bay)
- General ventilation with sufficient ventilation in lower level areas and as required by codes to prevent accumulation of explosive mixtures

Plumbing

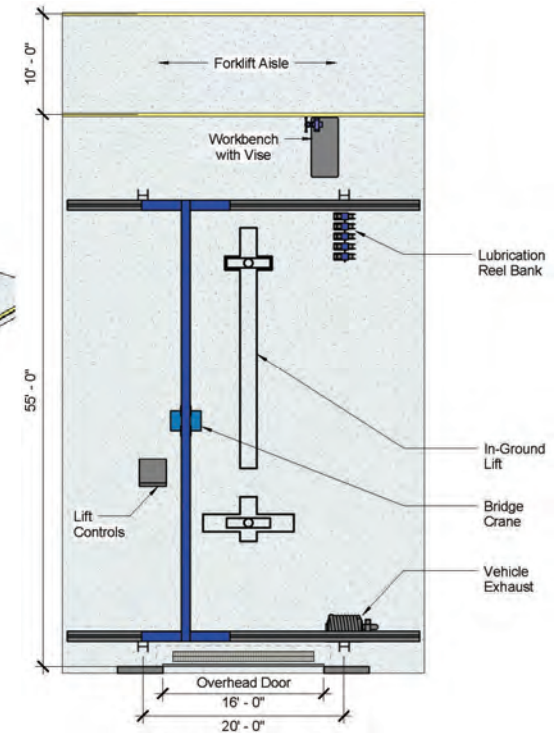
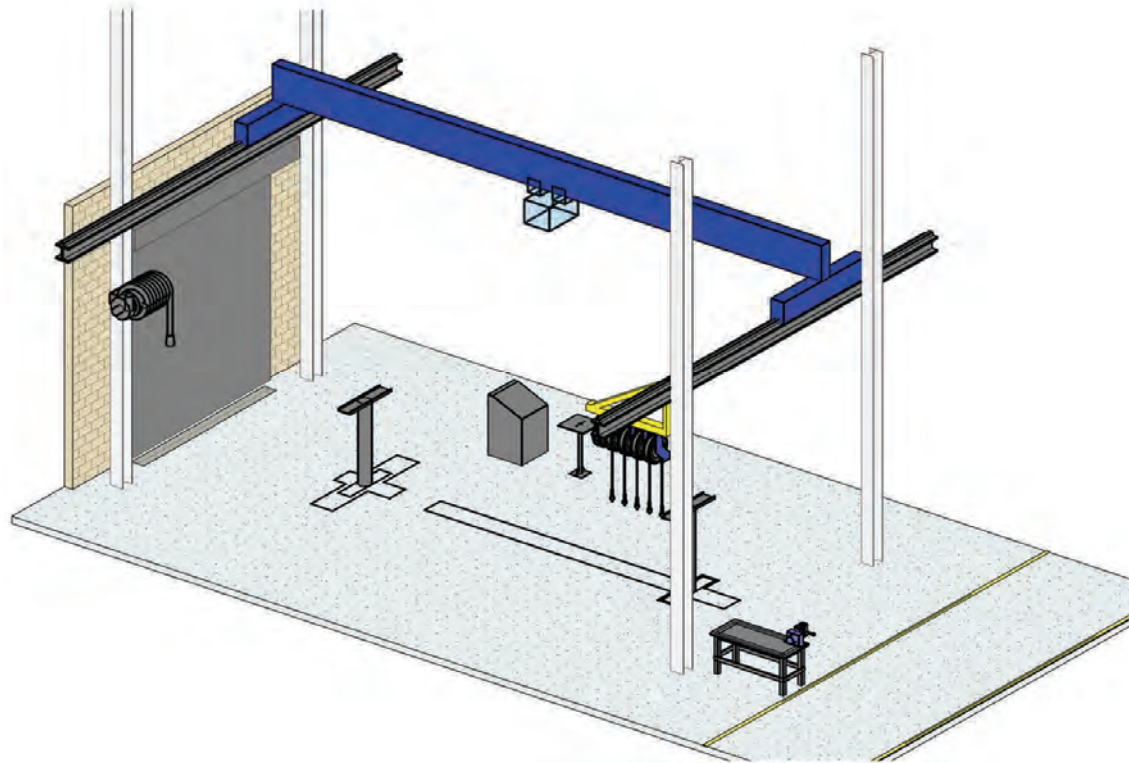
- Trench drain at overhead door with removable cover to sediment and oil interceptor (1 each)
- Lubrication reel bank with ATF, CA , EO, GO, HO at mid bay (shared 1 per two bays bay)
- 3/4" water hose bibb with standard faucet at rear of bay 2'-0" AFF (1 per 3 bays)
- Compressed air
 - ◆ Main line lopped
 - ◆ Compressed air drops with cut-off valve, union separator, regulator with gauge, lubricator, and quick disconnects on 4'-0" AFF
 - ◆ Provide disconnects for 1/2" and 1" impact tools at locations to be determined during detailed design
 - ◆ As required by equipment
- As required by equipment

Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, fixtures located to illuminate work spaces and around the vehicles.
- Power
 - ◆ All receptacles and outlets at 3'-6" AFF
 - ◆ General-purpose duplex receptacles, 120 VAC, 20A, GFI protected, on walls, columns, and bet. OH doors
 - ◆ Welding outlet centrally located 208 VAC, 1 phase, 50 A and 480 VAC, 3 phase, 30 A (shared 1 per 3 bays)
 - ◆ Air/electric drop "trapeze" mounted double duplex receptacles, 120 VAC, 20 A GFI protected, between bays (at mid bay)
 - ◆ Dedicated computer receptacle, 120 VAC, 20 A adj. to computer conduit
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers
 - ◆ Computer conduit on columns at each bay



MEDIUM / HEAVY DUTY SERVICE BAY





MEDIUM / HEAVY DUTY SERVICE BAY

FUNCTIONAL CHARACTERISTICS

Function: Perform A-C level service repair and maintenance on vehicles.

Relationship to Other Areas

- Access to Common Work Area, Parts Room, Portable Equipment Storage Areas
- Access to Maintenance Office areas Manuals Library

Critical Dimensions

- 19'-0" vertical clearance
- 20'-0" wide by 55'-0" long

Equipment/Furnishings

- Severe use workbench with vise (1 per bay)
- Parts cleaning tank (shared)
- Lubrication reel bank (shared 1 per 2 bays)
- Air/electric trapeze (1 per bay)
- Vehicle Exhaust (1 per bay)
- Two-post in ground lift, mobile column lift (1 per bay)

Design Features

- Drive through configuration or pull-in/back-out configuration

Sustainable Design Criteria

- Utilize day lighting strategies
- Radiant in-floor heat

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with integral non-metallic light reflective hardener, and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements.
 - ◆ Exterior overhead doors: high lifting sectional , steel, insulated, 16'-0" x 16'-0" feet with view panels, automatic operator, interior and exterior push button controls with lockout on exterior
 - ◆ Bollards on exterior at jambs of overhead door (2 each)

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment
- Structure as needed to support lubrication reels, exhaust reels, and air/electric trapeze

Mechanical

- Wall mounted or overhead vehicle exhaust system with exhaust hose on a motorized reel with integral exhaust fan and automatic fan switch
- As required by equipment
- Six air changes per hour continuous exhausted at ceiling to clear any natural gas accumulation; ten air changes per hour activated by gas detection system or manually for emergency ventilation (used for alternative fuels only)
- No heating devices with open flame or heaters with temperatures greater than 800 degrees F Class 1 Division 2 rated (used for alternative fuels only)
- Radiant heating system (each bay)
- General ventilation with sufficient ventilation in lower level areas and as required by codes to prevent accumulation of explosive mixtures

Plumbing

- Trench drain at overhead door with removable cover to sediment and oil interceptor (1 each)
- Lubrication reel bank with ATF, CA, EO, GO, HO (shared 1 per two bays bay)
- 3/4" water hose bibb with standard faucet at rear of bay 2'-0" AFF (1 per 3 bays)
- Compressed air
 - ◆ Main line lopped
 - ◆ Compressed air drops with cut-off valve, union separator, regulator with gauge, lubricator, and quick disconnects on 4'-0" AFF
 - ◆ Provide disconnects for 1/2" and 1" impact tools at locations to be determined during detailed design
 - ◆ As required by equipment
- As required by equipment

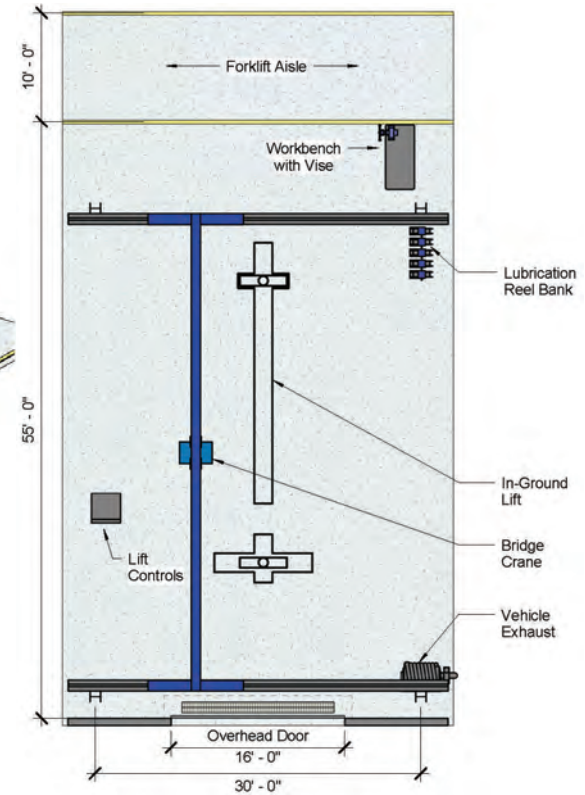
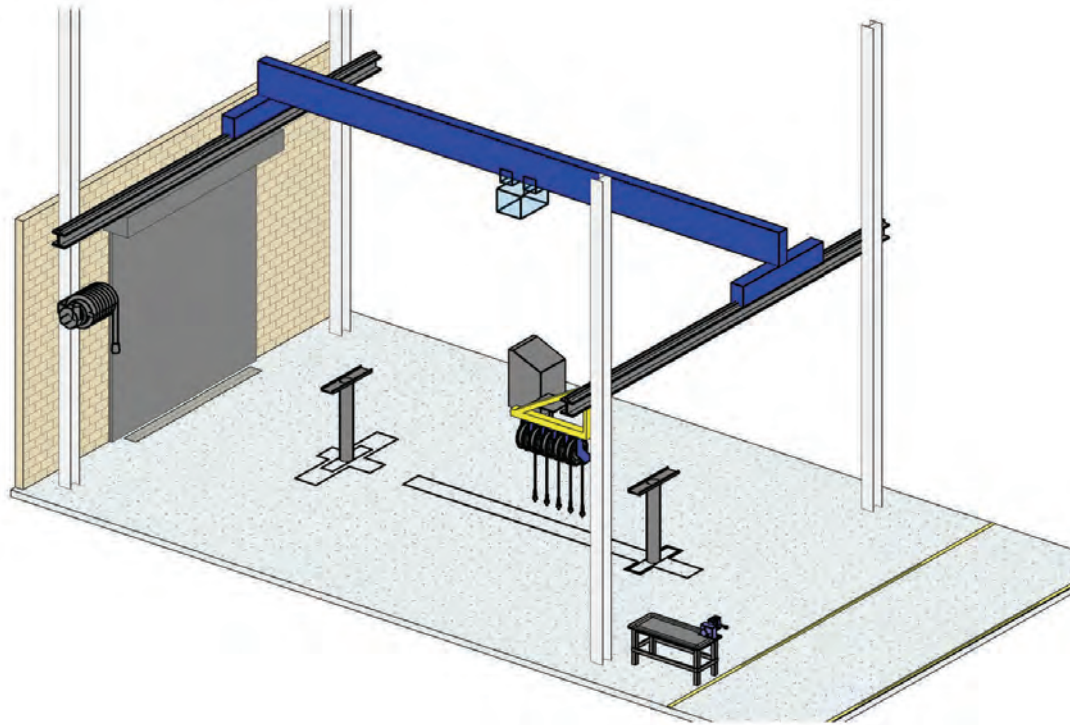
Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, fixtures located to illuminate work spaces and around the vehicles.
- Power
 - ◆ All receptacles and outlets at 3'-6" AFF
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls, columns, and bet. OH doors
 - ◆ Welding outlet centrally located 208 VAC, 1 phase, 50 A and 480 VAC, 3 phase, 30 A (shared 1 per 3 bays)
 - ◆ Air/electric drop "trapeze" mounted double duplex receptacles, 120 VAC, 20 A GFI protected, between bays (at mid bay)
 - ◆ Dedicated computer receptacle, 120 VAC, 20 A adj. to computer conduit
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers
 - ◆ Computer conduit on columns at each bay





D-LEVEL SERVICE BAY





D-LEVEL SERVICE BAY

FUNCTIONAL CHARACTERISTICS

Function: Perform D-level service and inspection on vehicles.

Relationship to Other Areas

- Access to Common Work Area, Parts Room, Portable Equipment Storage Areas
- Access to Maintenance Office areas Manuals Library

Critical Dimensions

- 19'-0" vertical clearance
- 30'-0" wide by 55'-0" long

Equipment/Furnishings

- Severe use workbench with vise (1 per bay)
- Parts cleaning tank (shared)
- Lubrication reel bank (shared 1 per 2 bays)
- Air/electric trapeze (1 per bay)
- Vehicle Exhaust (1 per bay)
- Bridge crane

Design Features

- Drive through configuration or pull-in/back-out configuration

Sustainable Design Criteria

- Utilize day lighting strategies
- Radiant in-floor heat

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with integral non-metallic light reflective hardener, and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements.
 - ◆ Exterior overhead doors: high lifting sectional , steel, insulated, 16'-0" x 16'-0" feet with view panels, automatic operator, interior and exterior push button controls with lockout on exterior
 - ◆ Bollards on exterior at jambs of overhead door (2 each)

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment
- Structure as needed to support lubrication reels, exhaust reels, and air/electric trapeze

Mechanical

- Wall mounted or overhead vehicle exhaust system with exhaust hose on a motorized reel with integral exhaust fan and automatic fan switch
- As required by equipment
- Six air changes per hour continuous exhausted at ceiling to clear any natural gas accumulation; ten air changes per hour activated by gas detection system or manually for emergency ventilation (used for alternative fuels only)
- No heating devices with open flame or heaters with temperatures greater than 800 degrees F Class 1 Division 2 rated (used for alternative fuels only)
- Radiant heating system (each bay)
- General ventilation with sufficient ventilation in lower level areas and as required by codes to prevent accumulation of explosive mixtures

Plumbing

- Trench drain at overhead door with removable cover to sediment and oil interceptor (1 each)
- Lubrication reel bank with ATF, CA, EO, GO, HO (shared 1 per two bays bay)
- 3/4" water hose bibb with standard faucet at rear of bay 2'-0" AFF (1 per 3 bays)
- Compressed air
 - ◆ Main line lopped
 - ◆ Compressed air drops with cut-off valve, union separator, regulator with gauge, lubricator, and quick disconnects on 4'-0" AFF
 - ◆ Provide disconnects for 1/2" and 1" impact tools at locations to be determined during detailed design
 - ◆ As required by equipment
- As required by equipment

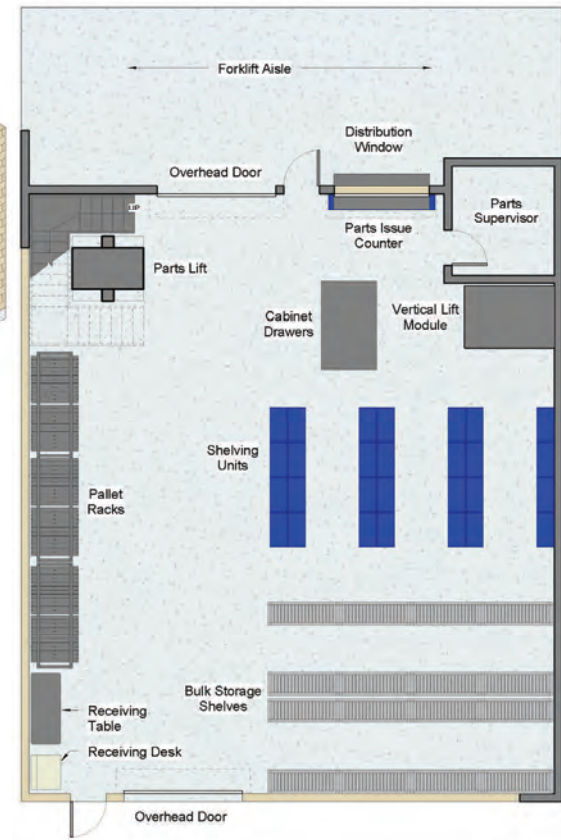
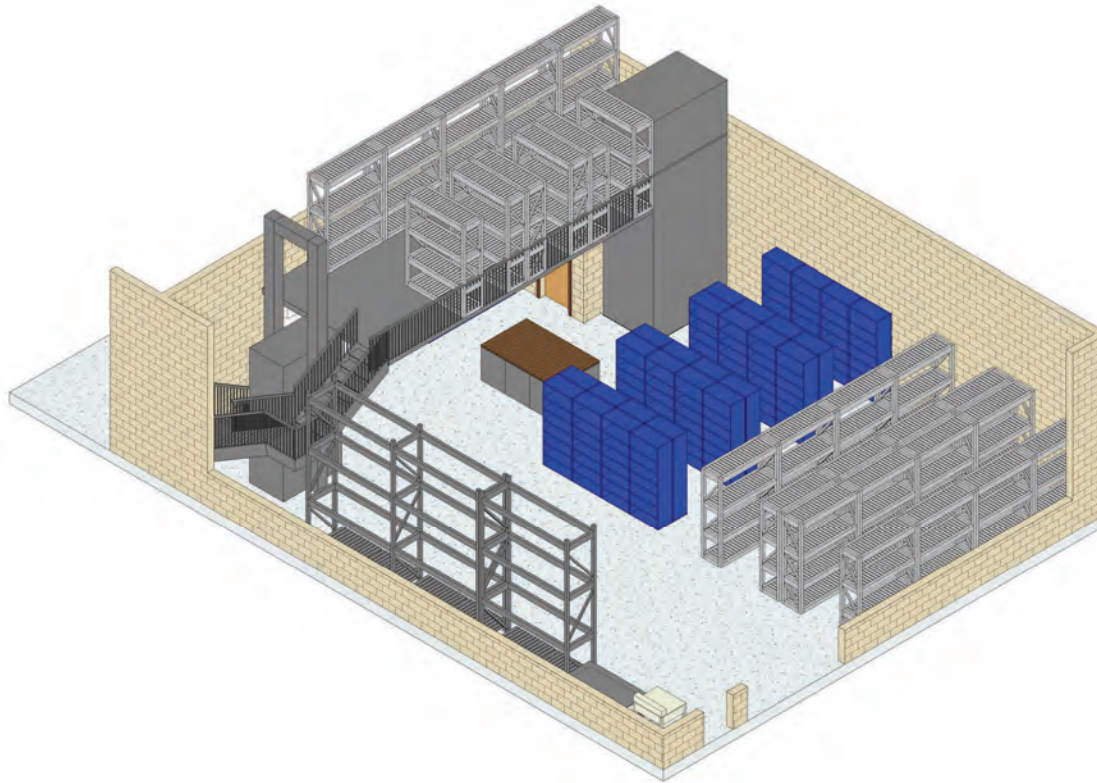
Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, fixtures located to illuminate work spaces and around the vehicles.
- Power
 - ◆ All receptacles and outlets at 3'-6" AFF
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls, columns, and bet. OH doors
 - ◆ Welding outlet centrally located 208 VAC, 1 phase, 50 A and 480 VAC, 3 phase, 30 A (shared 1 per 3 bays)
 - ◆ Air/electric drop "trapeze" mounted double duplex receptacles, 120 VAC, 20 A GFI protected, between bays (at mid bay)
 - ◆ Dedicated computer receptacle, 120 VAC, 20 A adj. to computer conduit
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers
 - ◆ Computer conduit on columns at each bay





PARTS STORAGE





PARTS STORAGE

FUNCTIONAL CHARACTERISTICS

Function: Dedicated secure area for receiving, storage, and issuing of parts, materials, and specialized tools.

Relationship to Other Areas

- Adjacent to the Repair Bays and shops
- Access to the exterior for deliveries/distribution

Critical Dimensions

- 12'-0" vertical clearance below mezzanine
- 10'-0" vertical clearance on mezzanine
- 16'-0" - 24'-0" clear for high bay (pallet storage)

Equipment/Furnishings

- Layout table and desk at receiving
- Storage shelving, racks, and cabinets
- Storage cabinets
- Marker board (at Parts Issue Counter)
- Parts Lift, 3,000 lb. capacity
- Storage system, automated, vertical tray

Design Features

- Provide issue counter with stainless steel top and locking slide window
- Provide staging area for shipping/receiving with an overhead door to the exterior of the building
- Forklift access
- Oxygen and acetylene tank storage and battery storage must be provided

Sustainable Design Criteria

- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- In-floor radiant heating

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements
 - ◆ Exterior overhead door: High-lifting sectional, steel, insulated, 12'-0" x 12'-0", with view panels, automatic operator, interior and exterior push button controls, and lockout on exterior
 - ◆ Interior overhead door: coiling steel, 10'-0" x 12'-0" door, automatic operator, push button controls

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment

Mechanical

- Heat 70 degree F and air conditioned
- In-floor radiant heat
- As required by equipment

Plumbing

- None

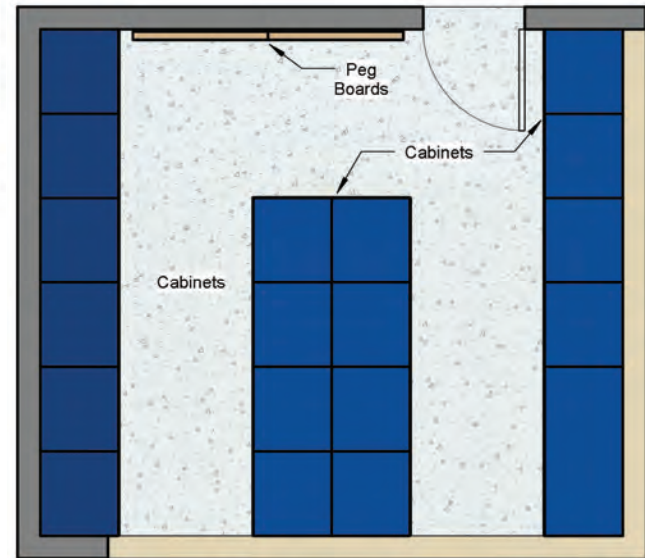
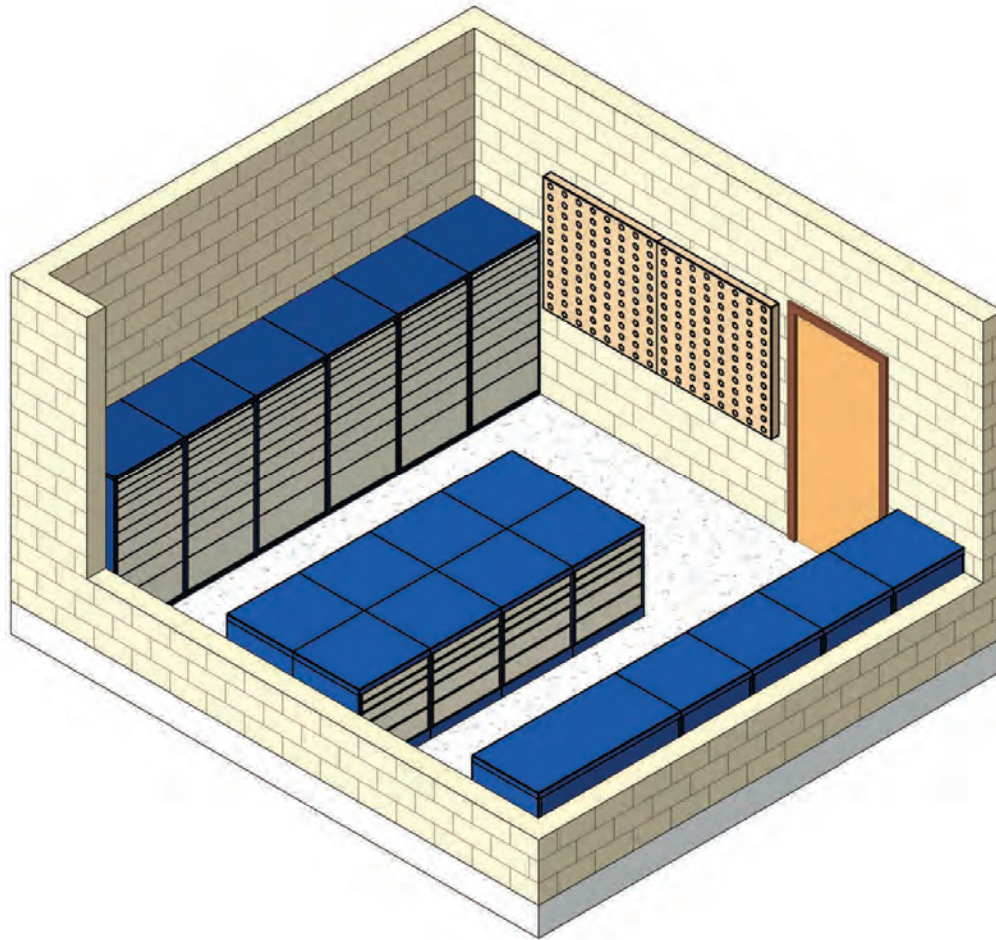
Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, local switching, fixture located to illuminate work spaces
- Power
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls at 3'-6" AFF
 - ◆ Dedicated computer receptacle, 120 VAC, 20 A, adjacent to computer cable conduit at parts window and receiving door
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers
 - ◆ Data outlet and conduit for computer at parts window and receiving door
 - ◆ Buzzer at Parts Window and shipping/receiving door





TOOL CRIB





TOOL CRIB

FUNCTIONAL CHARACTERISTICS

Function: Secure area for storing specialized tools and equipment owned by the BPA.

Relationship to Other Areas

- Adjacent to the Parts Room
- Adjacent to Maintenance Supervisor's Office
- Access to the Repair Bays and Shops

Critical Dimensions

- 12'-0" vertical clearance

Equipment/Furnishings

- Peg board
- Storage shelving
- Storage cabinets

Design Features

- Limited personnel access
- Secured access

Sustainable Design Criteria

- Utilize day lighting strategies
- Lighting controls: Occupancy sensors
- In-floor radiant heating

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish,
 - ◆ Ceiling: Painted exposed structure, light colored finish

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment

Mechanical

- Heat 70 degree F and air conditioned
- In-floor radiant heat
- As required by equipment

Plumbing

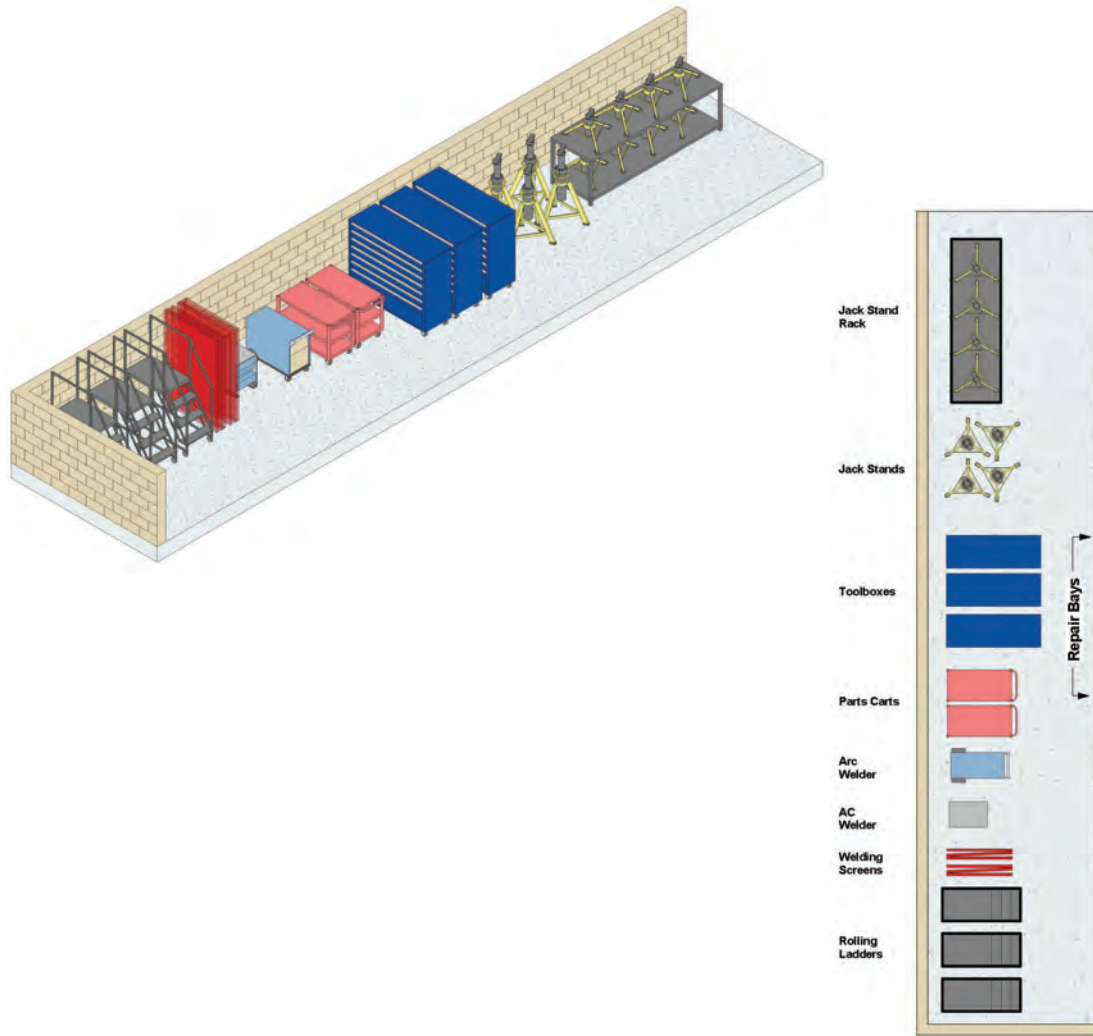
- None

Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, local switching, fixture located to illuminate work spaces
- Power
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls at 3'-6" AFF
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers



PORTABLE EQUIPMENT STORAGE



FUNCTIONAL CHARACTERISTICS

Function: A dedicated area for storage of portable shop equipment

Relationship to Other Areas

- Access to all shop areas

Critical Dimensions

- 12'-0" vertical clearance

Equipment/Furnishings

- Portable equipment including but no limited to: service jacks, bottle jacks, jacks stands, ladders, diagnostic equipment, used fluid drain pans, battery chargers, work platforms, welders

Design Features

- Soil, grease, water, slip resistant concrete with integral non-metallic light reflective hardener and chemical bonded concrete sealer
- Electrical
 - ◆ Mounted at 3'-6" AFF
 - ◆ Route conduit from above
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls

Sustainable Design Criteria

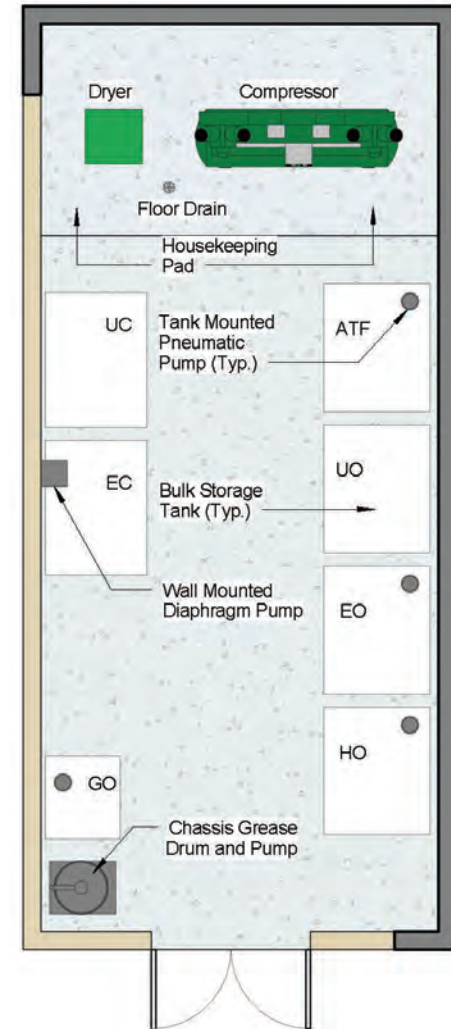
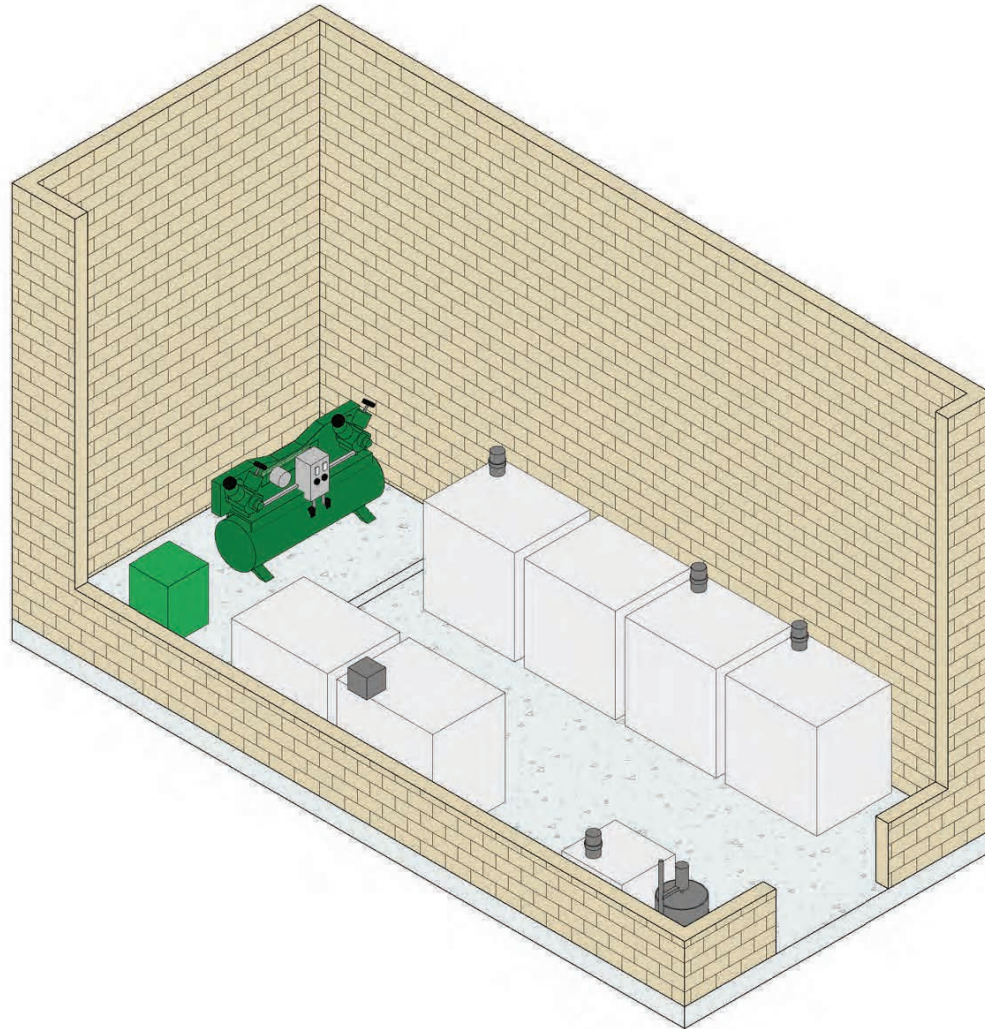
- Utilize day lighting strategies
- In-floor radiant heating





This Page Intentionally Left Blank

LUBE / COMPRESSOR ROOM





LUBE / COMPRESSOR ROOM

FUNCTIONAL CHARACTERISTICS

Function: Enclosed room for storage and central distribution of lubricants, including, automatic transmission fluid (ATF), compressed air (CA), engine oil (EO), gear oil (GO), hydraulic oil (HO) and used oil (UO). Space shall include a compressor(s) and refrigerated air dryer(s). Space for a water deionization area.

Relationship to Other Areas

- Access to exterior for deliveries
- Acoustically and physically separated from other areas to prevent migration of noise, dirt, and fumes

Critical Dimensions

- 14'-0" to any obstruction

Equipment/Furnishings

- Above grade double wall fluid storage tanks with air piston and diaphragm pumps.
- Duplex air compressor
- Refrigerated air dryer
- Water deionization station

Design Features

- Exterior access for deliveries

Sustainable Design Criteria

- Provide user-adjustable comfort and lighting controls
- Lighting controls: Occupancy sensors

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door to meet applicable code exit requirements
 - ◆ Double 3'-0" wide hollow metal door with interior exit device
 - ◆ No thresholds

Structural

- Control joints in floor slab at adequate spacing
- Housekeeping pad for both the air compressor and refrigerated air dryer
- Structure as needed to support equipment

Mechanical

- Maintain temperature range at 60 to 80 degrees, Fahrenheit
- As required by equipment

Plumbing

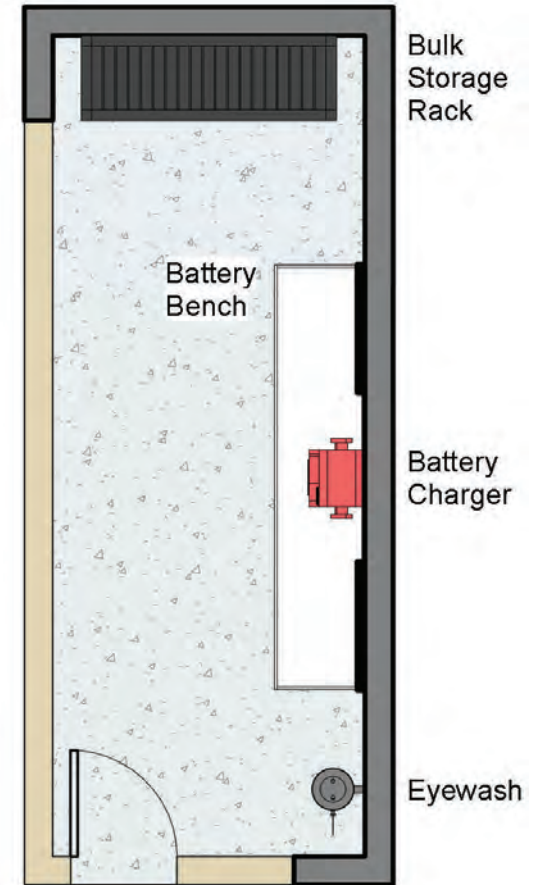
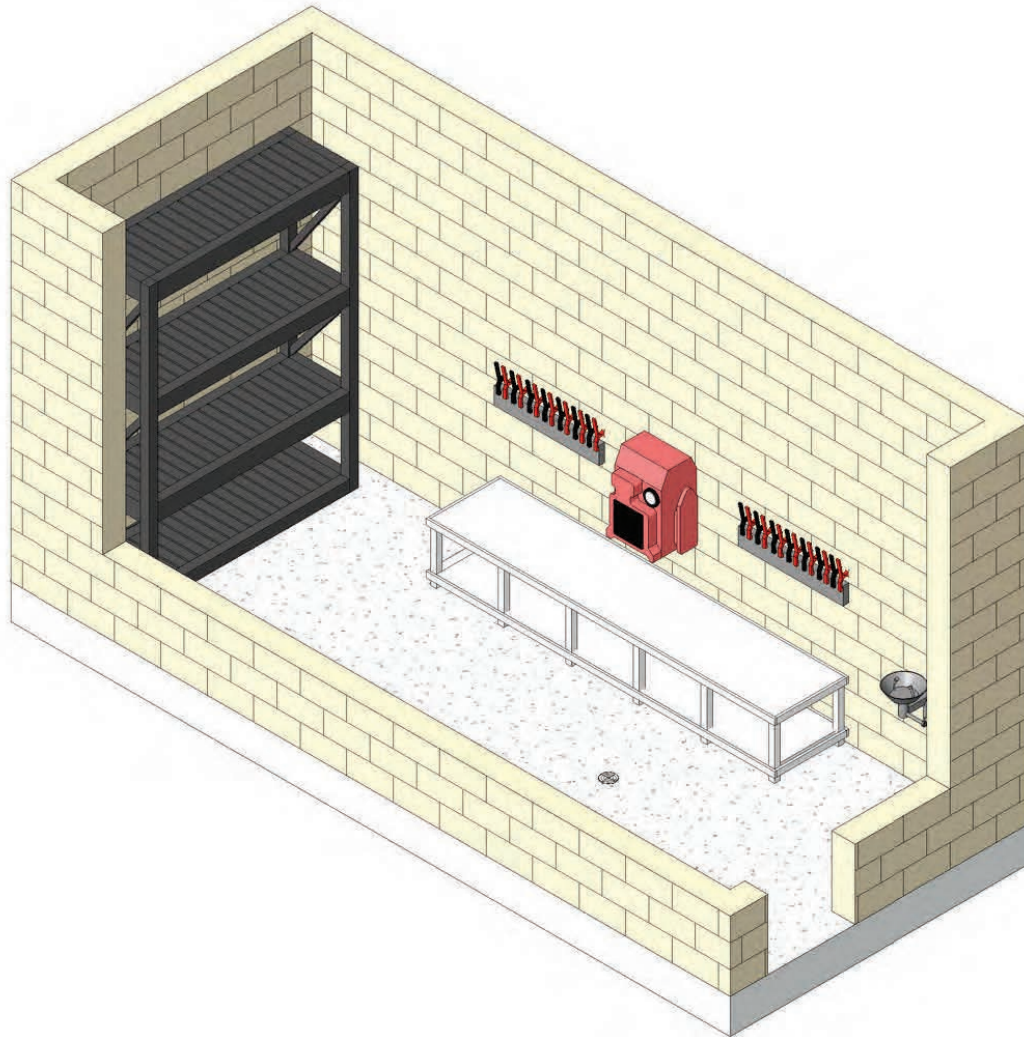
- 3/4" water hose bib with standard faucet 2'-0" AFF
- Compressed air line with cut-off valve, separator, regulator with gauge, lubricator, and quick disconnect on wall at 4'-0" AFF for each lubricant pump
- Tank mount all piston lubricant pump
- Wall mount all diaphragm pumps
- Chassis Grease pump mounted to an air operated hoist
- Plumb ATF, CA, CG, EO, GO, HO tanks to corresponding lube reel banks located in the Repair Bays; Size for two reels to be used at the same time.
- Plumb UO and UC tanks to corresponding pumps located in the Repair Bays
- Fluid monitoring system for ATF, EO, GO, HO, UC, and UO fluids

Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, local switching
- Power
 - ◆ General purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls at 3'-6" AFF
 - ◆ As required by equipment



BATTERY ROOM





BATTERY ROOM

FUNCTIONAL CHARACTERISTICS

Function: Enclosed and secure area for storage and charging of vehicle batteries

Relationship to Other Areas

- Adjacent to Repair Bays

Critical Dimensions

- 12'-0" vertical clearance

Equipment/Furnishings

- Hardwood battery bench
- Battery charger with bar for 4-8 batteries
- Storage shelving

Design Features

- Provide charging area for 4 to 8 batteries and storage for 10.

Sustainable Design Criteria

- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- Lighting control: Occupancy sensors

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Smooth finish concrete with acid resistant epoxy paint
 - ◆ Walls: Smooth finish masonry with acid resistant epoxy paint
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors: Sliding wire mesh or 3'-0" door

Structural

- As required to support equipment

Mechanical

- Adequate ventilation (15 air changes per hour minimum)
- Duct work and fans to be stainless steel

Plumbing

- Water connection to emergency eye wash/shower
- Combination emergency shower/eye wash with flow switch activated audible alarm
- Acid resistant floor drain and piping to acid dilution tank (if required)

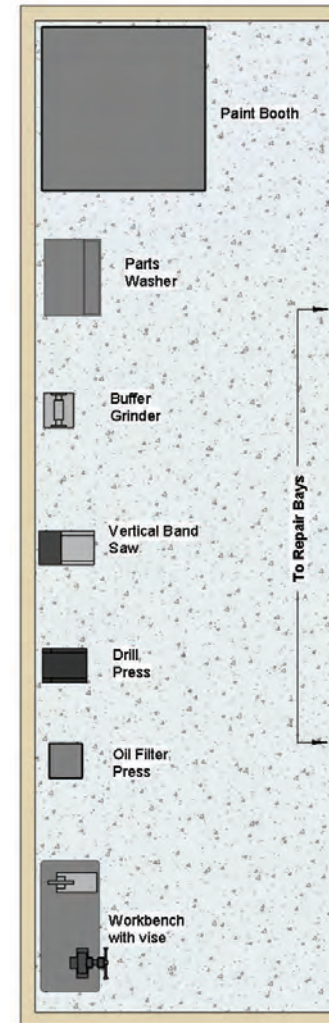
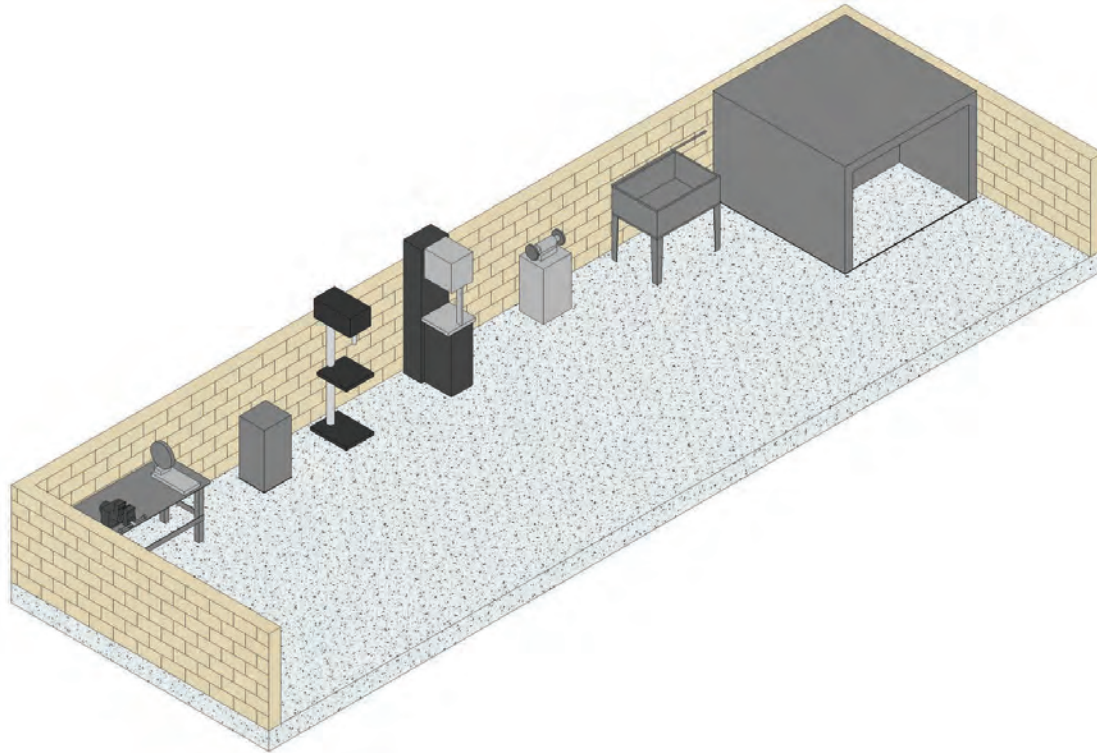
Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc local switching, fixtures to illuminate workspace
- Power
 - ◆ Weatherproof duplex receptacle, 120 VAC, GFI protected at 3'-6" AFF
 - ◆ As required by equipment





COMMON WORK AREA





COMMON WORK AREA

FUNCTIONAL CHARACTERISTICS

Function: Designated area for common fixed shop which supports all repair bays and associated shop areas.

Relationship to Other Areas

- Adjacent to Repair Bays
- Access to Parts Storeroom, Welding Shop/Storage, and Portable Equipment Storage
- Access from Maintenance Office areas

Critical Dimensions

- 14'-0" to any obstruction

Equipment/Furnishings

- Severe use workbench(s) with vise and parts washer
- Buffer grinder with dust collector
- Hydraulic press
- Drill press
- Abrasive blast cabinet
- Horizontal bandsaw
- Cut-off saw

Design Features

- Half height 54" walls on 3 sides for utilities and to prevent blocking vision of shop from office areas
- Forklift access

Sustainable Design Criteria

- Day lighting
- Natural ventilation
- In-floor radiant heat

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with integral non-metallic, light reflective hardener, and chemical bonded sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors: None

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment

Mechanical

- General ventilation
- In-floor radiant heat
- As required by equipment

Plumbing

- Compressed air drop
 - ◆ Cut-off valve, union, filter, regulator with gauge, lubricator, and quick disconnect at 4'-0" AFF
 - ◆ Provide disconnects for 1/2" and 1" impact tools
- Water 3/4" water hose bib with standard hose bibb at 24" AFF
- As required by equipment

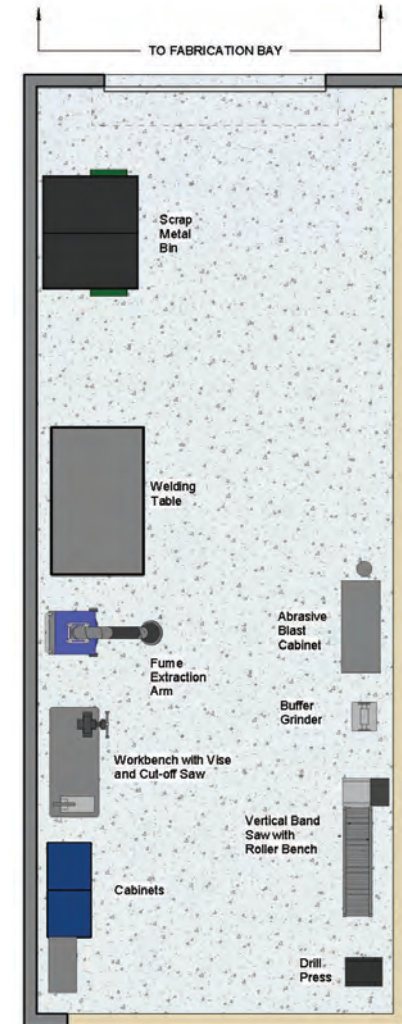
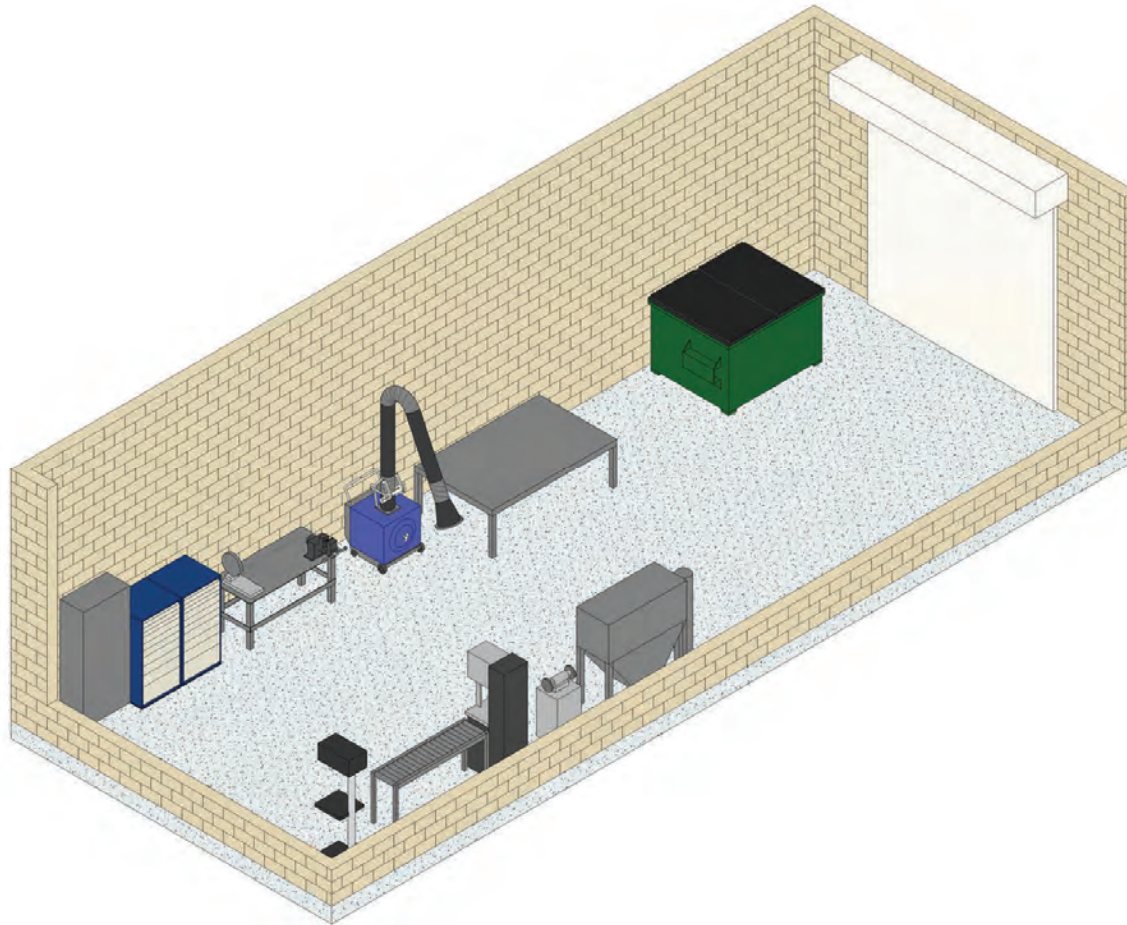
Electrical

- Lighting
 - ◆ Fluorescent lighting, 50 fc average, local switching, fixture located to illuminate work spaces
- Power
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls at 3'-6" AFF
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers





FABRICATION / MACHINE SHOP





FABRICATION / MACHINE SHOP

FUNCTIONAL CHARACTERISTICS

Function: Dedicated, enclosed space for fabricating and welding activities

Relationship to Other Areas

- Adjacent to Fabrication Bay

Critical Dimensions

- 14'-0" vertical clearance

Equipment/Furnishings

- Severe use workbench with vise
- Storage shelving and racks
- Arm racks
- Welding equipment:
- Buffer/grinder
- Drill press

Design Features

- Forklift access

Sustainable Design Criteria

- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- In-floor radiant heating

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with integral non-metallic light reflective hardener, and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements
 - ◆ Exterior overhead doors: high speed roll up, 12'-0" x 12'-0", automatic operator, interior and exterior push button controls with lockout on exterior.

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment

Mechanical

- As required by equipment
- In-floor radiant heat

Plumbing

- Water hose bib, 3/4" with standard faucet, 2'-0" AFF
- Compressed air
 - ◆ Main line looped
 - ◆ Compressed air drops; cut off valve, union, separator, and regulator with gauge, 4'-0" AFF

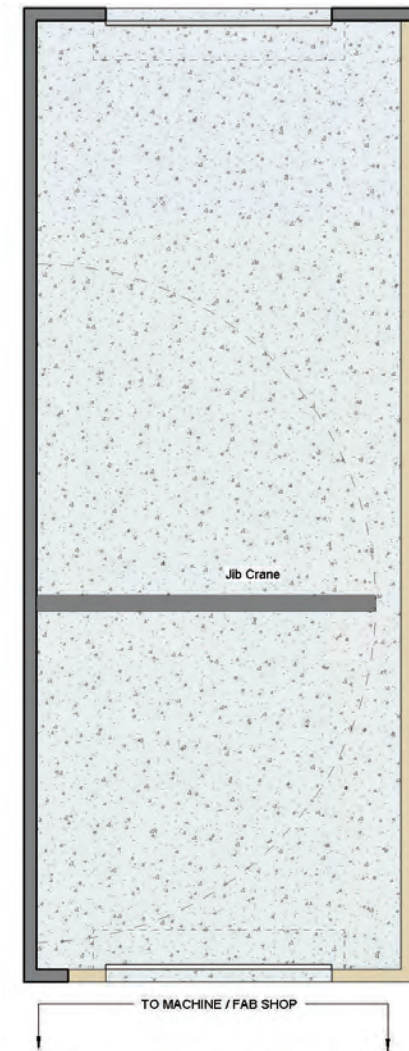
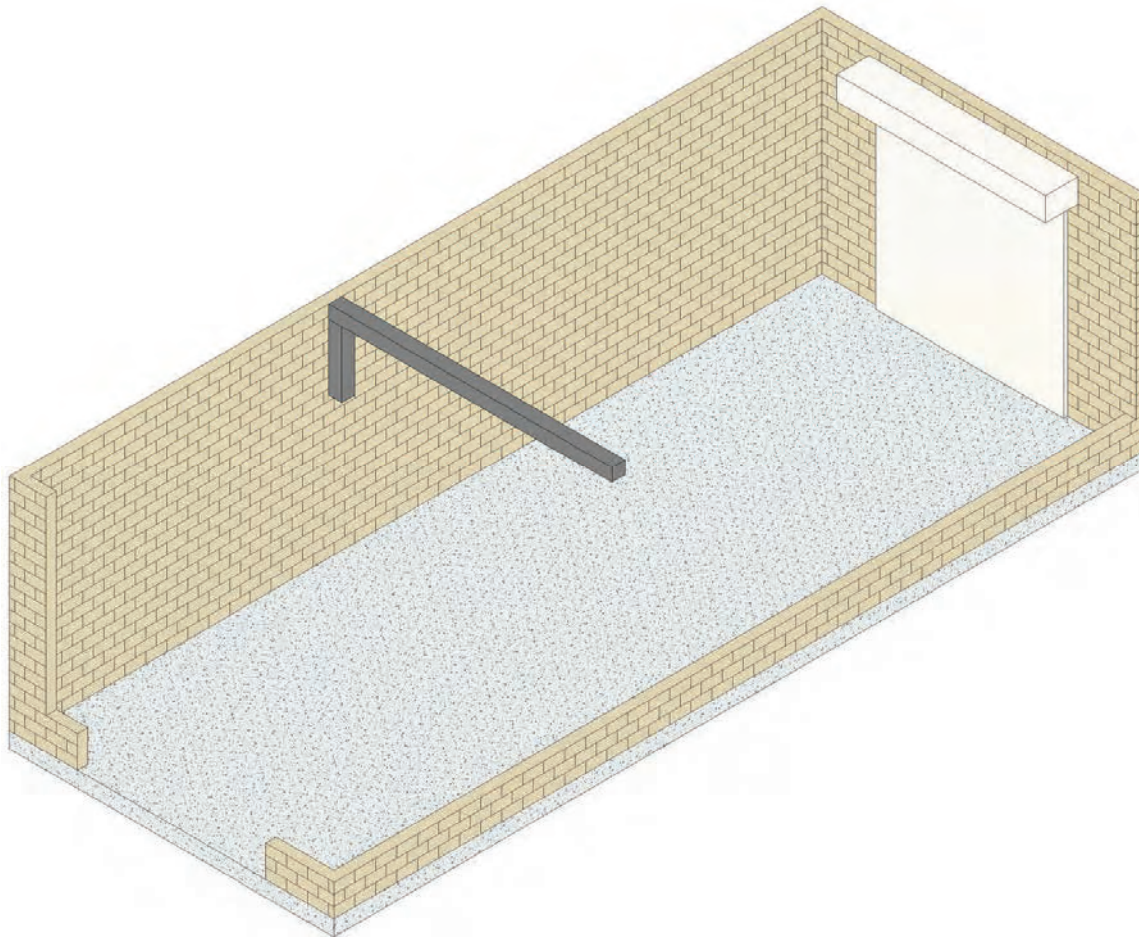
Electrical

- Lighting
 - ◆ Fluorescent lighting, 30 fc average, fixtures located to illuminate work spaces and storage area.
- Power
 - ◆ All receptacles and outlets at 3'-6" AFF
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls, columns, and bet. OH doors.
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers





FABRICATION BAY





FABRICATION BAY

FUNCTIONAL CHARACTERISTICS

Function: Dedicated, enclosed space for fabricating and welding activities

Relationship to Other Areas

- Adjacent to Fabrication/Machine Shop

Critical Dimensions

- 14'-0" vertical clearance

Equipment/Furnishings

- Severe use workbench with vise
- Storage shelving and racks
- Arm racks
- Buffer/grinder
- Drill press
- Jib crane

Design Features

- Forklift access
- Secure entry
- Access to exterior for deliveries

Sustainable Design Criteria

- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- In-floor radiant heating

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with integral non-metallic light reflective hardener, and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements
 - ◆ Exterior overhead doors: high speed roll up, 12'-0" x 12'-0", automatic operator, interior and exterior push button controls with lockout on exterior.
- Bollards on exterior at jambs of overhead door (2 each)

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment

Mechanical

- As required by equipment
- In-floor radiant heat

Plumbing

- Water hose bib, 3/4" with standard faucet, 2'-0" AFF
- Compressed air:
 - ◆ Main line looped
 - ◆ Compressed air drops; cut off valve, union, separator, and regulator with gauge, 4'-0" AFF

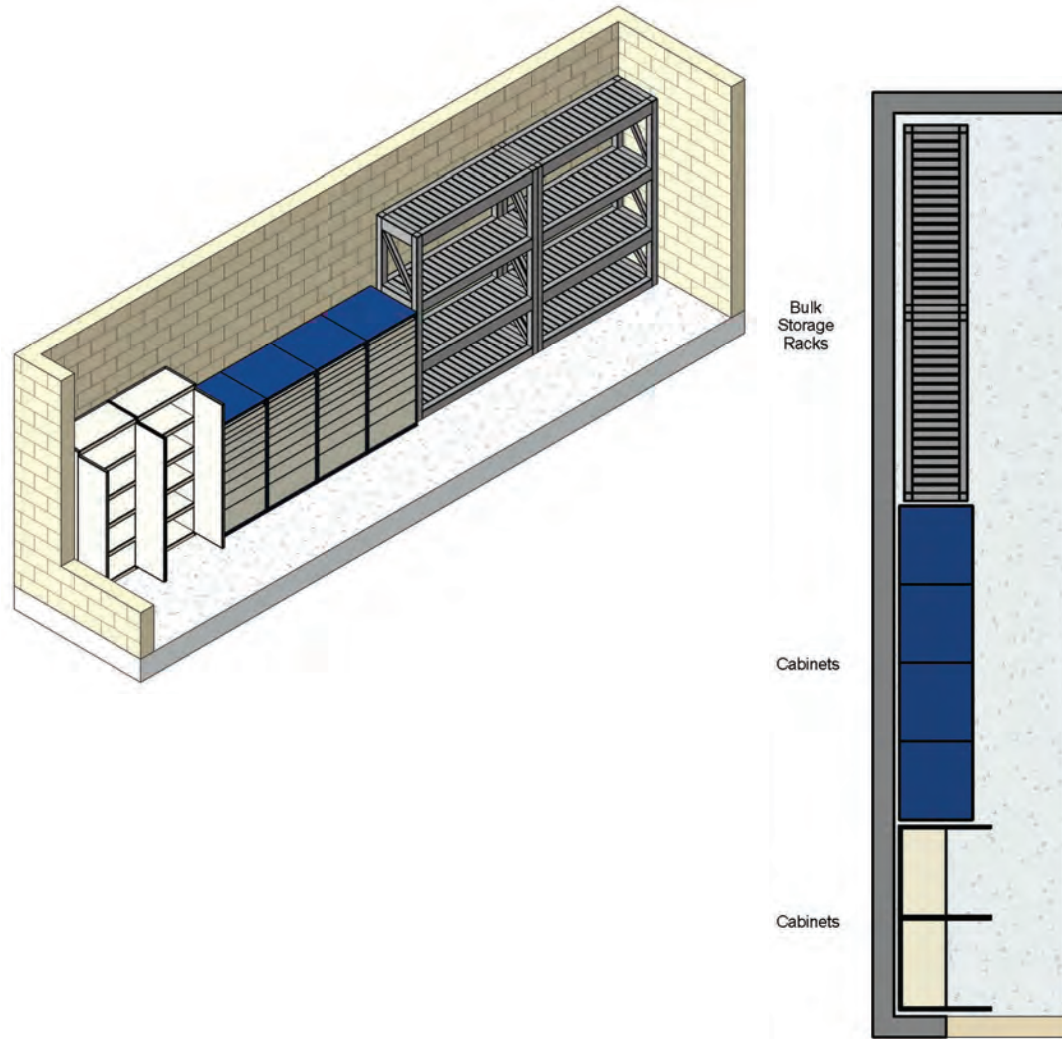
Electrical

- Lighting
 - ◆ Fluorescent lighting, 30 fc average, fixtures located to illuminate work spaces and storage area.
- Power
 - ◆ All receptacles and outlets at 3'-6" AFF
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls, columns, and bet. OH doors.
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers





CONSUMABLES AREA



FUNCTIONAL CHARACTERISTICS

Function: Secure area for storing specialized tools and equipment owned by the Agency. Are for storing small items.

Relationship to Other Areas

- Adjacent to the Parts Room
- Access to the Repair Bays and Shops

Critical Dimensions

- 12'-0" vertical clearance

Equipment/Furnishings

- Storage shelving
- Storage cabinets

Design Features

- Architectural
 - ◆ Finishes: Floor - Soil, grease, water, slip resistant concrete and chemically bonded concrete sealer
 - ◆ Walls - Soil and grease resistant, light colored finish
- Electrical
 - ◆ Lighting - Florescent lighting, 50 fc average, local switching, fixture located to illuminate work stpaces
 - ◆ Power - General purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on-walls, at 3'-6" AFF

Sustainable Design Criteria

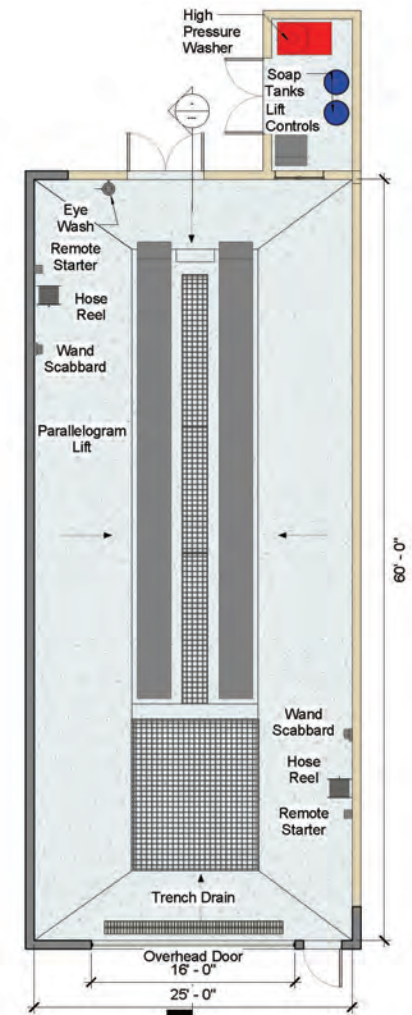
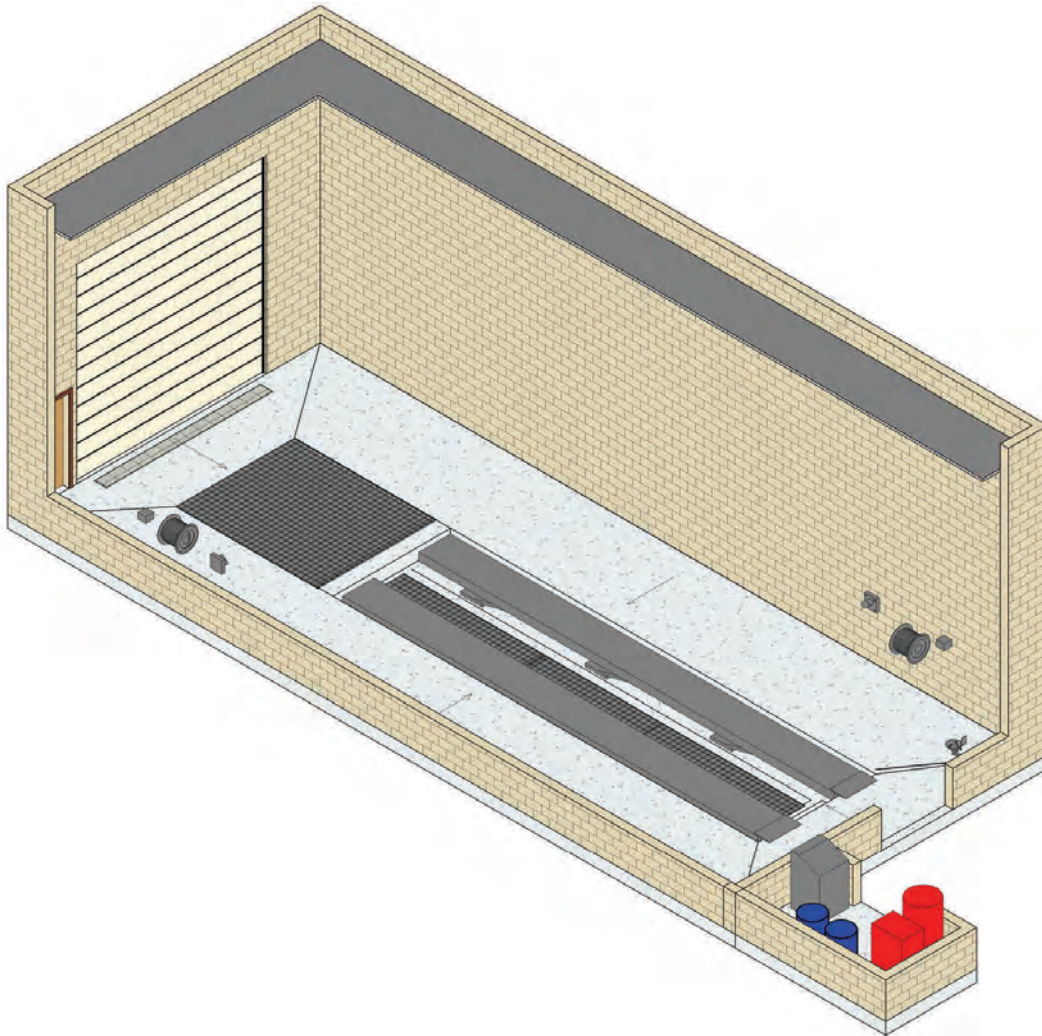
- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- In-floor radiant heating



This Page Intentionally Left Blank



CHASSIS WASH BAY





BOOM / CHASSIS WASH BAY

FUNCTIONAL CHARACTERISTICS

Function: Enclosed bay for washing of vehicle undercarriages, engine compartments, and components and booms

Relationship to Other Areas

- Adjacent to Repair Bays
- Access to all other maintenance areas

Critical Dimensions

- 19' - 0" vertical clearance
- 25'-0" wide by 65'-0" long

Equipment/Furnishings

- Wash system with hand lances
- Emergency safety shower/eyewash
- Parallelogram lift
- High pressure washer and soap

Design Features

- Drive-through or back-in pull-out configuration
- Recessed area for parallelogram lift
- Physically separated from other areas to prevent migration of noise, dirt, and fumes if possible
- Over sized sump pit for collection of sediment and oil

Sustainable Design Criteria

- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- In-floor radiant heating
- Water reclamation system
- Use of rain water for vehicle washing

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete with chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel doors with view panels to meet applicable code exit requirements
 - ◆ Exterior overhead door: Air operated, high lifting sectional, polycarbonate, 16'-0" x 16'-0" with view panels, automatic operator, interior and exterior push button controls and lockout on exterior
 - ◆ Double 3'-0" wide hollow metal doors with interior exit device
- Bollards on exterior jambs of overhead door (2 each)

Structural

- Control joints in floor slab at adequate spacing
- Recessed slab for parallelogram lift
- Structural grating over sump pit to accommodate H-20 loading
- Large 10'-0" x 12'-0" grated sump with side drain box for overflow
- Slope floor to trench drain and sump pit
- Structure as needed to support equipment

Mechanical

- Special ventilation to remove moisture, low air supply to eliminate steam
- Water resistant heating system
- As required by equipment

Plumbing

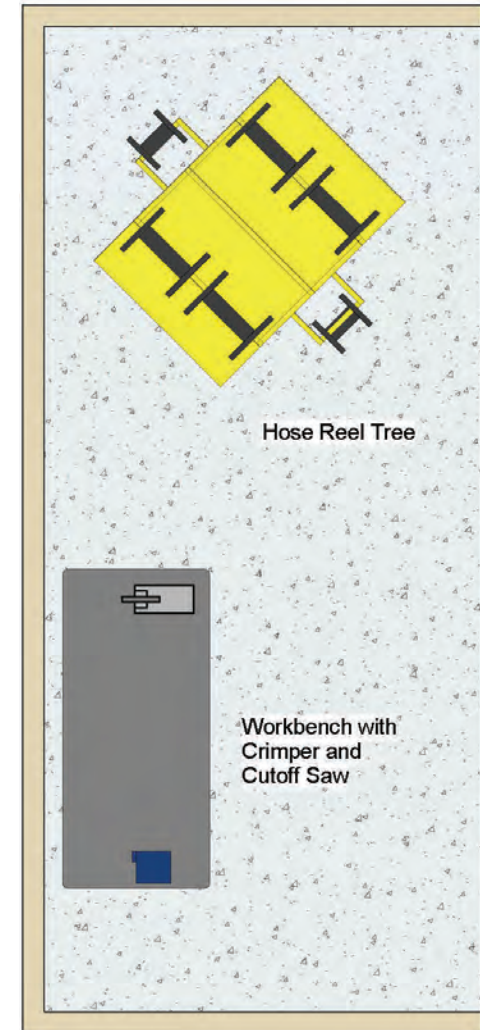
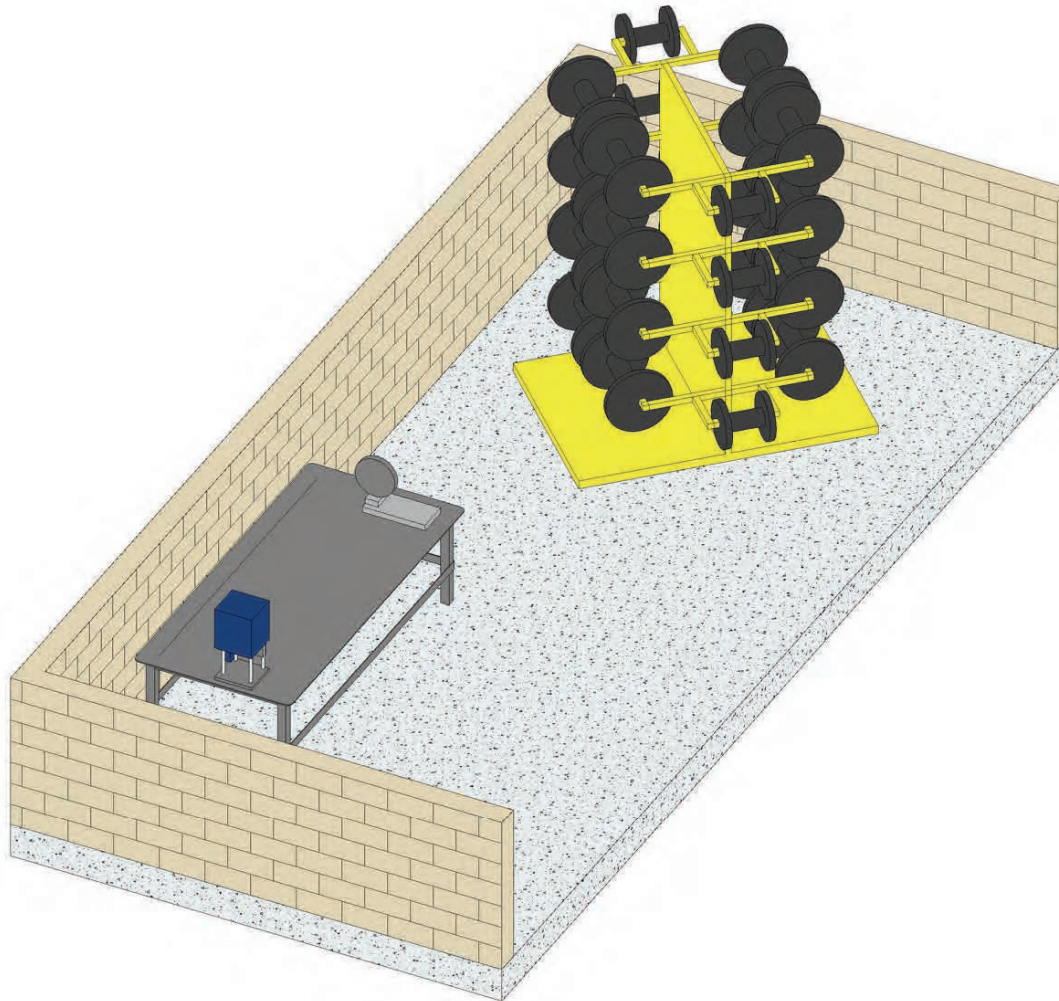
- Compressed air line with cut-off valve, regulator with gauge and quick disconnect at 4'-0" AFF
- Wash connections to hand lance on both sides of bay
- Water connection to emergency eye wash/shower
- Trench drain area (with removable cover) to sediment and oil inceptor
- Trench drains to overhead doors
- Large 10'-0" x 12'-0" grated sump with side drain overflow to sediment and oil inceptor
- As required by equipment

Electrical

- Lighting
 - ◆ Sealed metal halide water tight lighting fixtures with no external reset device on walls, 50 fc average, local switching OR fluorescent water tight lighting, 50 fc average, local switching, fixtures to illuminate workspaces around vehicle
 - ◆ Metal halide task lighting located as low level to illuminate underside of vehicles, 20 fc average, local switching
- Power: Waterproof duplex receptacles, 120 VAC, 20 A, GFI protected, on walls at 3'-6" AFF
- Communications:
 - ◆ Paging/intercom system speakers



HOSE FABRICATION ROOM





HOSE FABRICATION ROOM

FUNCTIONAL CHARACTERISTICS

Function: Enclosed, clean environment for hose work

Relationship to Other Areas

- Access to Service Bays
- Adjacent to Hydraulic Hose Storage

Critical Dimensions

- 14'-0" vertical clearance

Equipment/Furnishings

- Hose fabrication bench
- Hose reel tree
- Storage cabinets

Design Features

- Easily cleanable environment

Sustainable Design Criteria

- Utilize day lighting strategies
- Provide user-adjustable comfort and lighting controls
- In-floor radiant heating

TECHNICAL CONSIDERATIONS

Architectural

- Finishes
 - ◆ Floor: Soil, grease, water, slip resistant concrete and chemical bonded concrete sealer
 - ◆ Walls: Soil and grease resistant, light colored finish
 - ◆ Ceiling: Painted exposed structure, light colored finish
- Doors
 - ◆ Personnel door with view panel to meet applicable code exit requirements

Structural

- Control joints in floor slab at adequate spacing
- Structure as needed to support equipment

Mechanical

- As required by equipment
- In-floor radiant heat

Plumbing

- Water hose bib, 3/4" with standard faucet, 2'-0" AFF
- Compressed air
 - ◆ Main line looped
 - ◆ Compressed air drops; cut off valve, union, separator, and regulator with gauge, 4'-0" AFF

Electrical

- Lighting
 - ◆ Fluorescent lighting, 30 fc average, fixtures located to illuminate work spaces and storage area.
- Power
 - ◆ All receptacles and outlets at 3'-6" AFF
 - ◆ General-purpose duplex receptacles, 120 VAC, 20 A, GFI protected, on walls, columns, and bet. OH doors.
 - ◆ As required by equipment
- Communications
 - ◆ Paging/intercom system speakers



ARCHITECT-ENGINEER QUALIFICATIONS

OMB Control Number: 9000-0157
Expiration Date: 11/30/2017

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 USC § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0157. We estimate that it will take 29 hours (25 hours for part 1 and 4 hours for Part 2) to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

PURPOSE

Federal agencies use this form to obtain information from architect-engineer (A-E) firms about their professional qualifications. Federal agencies select firms for A-E contracts on the basis of professional qualifications as required by 40 U.S.C. chapter 11, Selection of Architects Engineers, and Part 36 of the Federal Acquisition Regulation (FAR).

The Selection of Architects and Engineers statute requires the public announcement of requirements for A-E services (with some exceptions provided by other statutes), and the selection of at least three of the most highly qualified firms based on demonstrated competence and professional qualifications according to specific criteria published in the announcement. The Act then requires the negotiation of a contract at a fair and reasonable price starting first with the most highly qualified firm.

The information used to evaluate firms is from this form and other sources, including performance evaluations, any additional data requested by the agency, and interviews with the most highly qualified firms and their references.

GENERAL INSTRUCTIONS

Part I presents the qualifications for a specific contract.

Part II presents the general qualifications of a firm or a specific branch office of a firm. Part II has two uses:

1. An A-E firm may submit Part II to the appropriate central, regional or local office of each Federal agency to be kept on file. A public announcement is not required for certain contracts, and agencies may use Part II as a basis for selecting at least three of the most highly qualified firms for discussions prior to requesting submission of Part I. Firms are encouraged to update Part II on file with agency offices, as appropriate, according to FAR Part 36. If a firm has branch offices, submit a separate Part II for each branch office seeking work.

2. Prepare a separate Part II for each firm that will be part of the team proposed for a specific contract and submitted with Part I. If a firm has branch offices, submit a separate Part II for each branch office that has a key role on the team.

INDIVIDUAL AGENCY INSTRUCTIONS

Individual agencies may supplement these instructions. For example, they may limit the number of projects or number of pages submitted in Part I in response to a public announcement for a particular project. Carefully comply with any agency instructions when preparing and submitting this form. Be as concise as possible and provide only the information requested by the agency.

DEFINITIONS

Architect-Engineer Services: Defined in FAR 2.101.

Branch Office: A geographically distinct place of business or subsidiary office of a firm that has a key role on the team.

Discipline: Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

Firm: Defined in FAR 36.102.

Key Personnel: Individuals who will have major contract responsibilities and/or provide unusual or unique expertise.

SPECIFIC INSTRUCTIONS

Part I - Contract-Specific Qualifications

Section A. Contract Information.

1. Title and Location. Enter the title and location of the contract for which this form is being submitted, exactly as shown in the public announcement or agency request.

2. Public Notice Date. Enter the posted date of the agency's notice on the Federal Business Opportunity website (FedBizOpps), other form of public announcement or agency request for this contract.

3. Solicitation or Project Number. Enter the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request for this contract.

Section B. Architect-Engineer Point of Contact.

4-8. Name, Title, Name of Firm, Telephone Number, Fax (Facsimile) Number and E-mail (Electronic Mail) Address. Provide information for a representative of the prime contractor or joint venture that the agency can contact for additional information.

Section C. Proposed Team.

9-11. Firm Name, Address, and Role in This Contract. Provide the contractual relationship, name, full mailing address, and a brief description of the role of each firm that will be involved in performance of this contract. List the prime contractor or joint venture partners first. If a firm has branch offices, indicate each individual branch office that will have a key role on the team. The named subcontractors and outside associates or consultants must be used, and any change must be approved by the contracting officer. (See FAR Part 52 Clause "Subcontractors and Outside Associates and Consultants (Architect-Engineer Services)"). Attach an additional sheet in the same format as Section C if needed.

Section D. Organizational Chart of Proposed Team.

As an attachment after Section C, present an organizational chart of the proposed team showing the names and roles of all key personnel listed in Section E and the firm they are associated with as listed in Section C.

Section E. Resumes of Key Personnel Proposed for this Contract.

Complete this section for each key person who will participate in this contract. Group by firm, with personnel of the prime contractor or joint venture partner firms first. The following blocks must be completed for each resume:

12. Name. Self-explanatory.

13. Role in this contract. Self-explanatory.

14. Years Experience. Total years of relevant experience (block 14a), and years of relevant experience with current firm, but not necessarily the same branch office (block 14b).

15. Firm Name and Location. Name, city and state of the firm where the person currently works, which must correspond with one of the firms (or branch office of a firm, if appropriate) listed in Section C.

16. Education. Provide information on the highest relevant academic degree(s) received. Indicate the area(s) of specialization for each degree.

17. Current Professional Registration. Provide information on current relevant professional registration(s) in a State or possession of the United States, Puerto Rico, or the District of Columbia according to FAR Part 36.

18. Other Professional Qualifications. Provide information on any other professional qualifications relating to this contract, such as education, professional registration, publications, organizational memberships, certifications, training, awards, and foreign language capabilities.

19. Relevant Projects. Provide information on up to five projects in which the person had a significant role that demonstrates the person's capability relevant to her/his proposed role in this contract. These projects do not necessarily have to be any of the projects presented in Section F for the project team if the person was not involved in any of those projects or the person worked on other projects that were more relevant than the team projects in Section F. Use the check box provided to indicate if the project was performed with any office of the current firm. If any of the professional services or construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description and Specific Role (block (3)).

Section F. Example Projects Which Best Illustrate Proposed Team's Qualifications for this Contract.

Select projects where multiple team members worked together, if possible, that demonstrate the team's capability to perform work similar to that required for this contract. Complete one Section F for each project. Present ten projects, unless otherwise specified by the agency. Complete the following blocks for each project:

20. Example Project Key Number. Start with "1" for the first project and number consecutively.

21. Title and Location. Title and location of project or contract. For an indefinite delivery contract, the location is the geographic scope of the contract.

22. Year Completed. Enter the year completed of the professional services (such as planning, engineering study, design, or surveying), and/or the year completed of construction, if applicable. If any of the professional services or the construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description of Project and Relevance to this Contract (block 24).

23a. Project Owner. Project owner or user, such as a government agency or installation, an institution, a corporation or private individual.

23b. Point of Contact Name. Provide name of a person associated with the project owner or the organization which contracted for the professional services, who is very familiar with the project and the firm's (or firms') performance.

23c. Point of Contact Telephone Number. Self-explanatory.

24. Brief Description of Project and Relevance to this Contract. Indicate scope, size, cost, principal elements and special features of the project. Discuss the relevance of the example project to this contract. Enter any other information requested by the agency for each example project.

25. Firms from Section C Involved with this Project. Indicate which firms (or branch offices, if appropriate) on the project team were involved in the example project, and their roles. List in the same order as Section C.

Section G. Key Personnel Participation in Example Projects.

This matrix is intended to graphically depict which key personnel identified in Section E worked on the example projects listed in Section F. Complete the following blocks (see example below).

26. and 27. Names of Key Personnel and Role in this Contract. List the names of the key personnel and their proposed roles in this contract in the same order as they appear in Section E.

28. Example Projects Listed in Section F. In the column under each project key number (see block 29) and for each key person, place an "X" under the project key number for participation in the same or similar role.

29. Example Projects Key. List the key numbers and titles of the example projects in the same order as they appear in Section F.

Section H. Additional Information.

30. Use this section to provide additional information specifically requested by the agency or to address selection criteria that are not covered by the information provided in Sections A-G.

Section I. Authorized Representative.

31. and 32. Signature of Authorized Representative and Date. An authorized representative of a joint venture or the prime contractor must sign and date the completed form. Signing attests that the information provided is current and factual, and that all firms on the proposed team agree to work on the project. Joint ventures selected for negotiations must make available a statement of participation by a principal of each member of the joint venture.

33. Name and Title. Self-explanatory.

SAMPLE ENTRIES FOR SECTION G (MATRIX)

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below first, before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Jane A. Smith	Chief Architect	X		X							
Joseph B. Williams	Chief Mechanical Engineer	X	X	X	X						
Tara C. Donovan	Chief Electrical Engineer	X	X		X						

29. EXAMPLE PROJECTS KEY

NUMBER	TITLE OF EXAMPLE PROJECT (From Section F)	NUMBER	TITLE OF EXAMPLE PROJECT (From Section F)
1	Federal Courthouse, Denver, CO	6	XYZ Corporation Headquarters, Boston, MA
2	Justin J. Wilson Federal Building, Baton Rouge, LA	7	Founder's Museum, Newport, RI

Part II - General Qualifications

See the "**General Instructions**" on page 1 for firms with branch offices. Prepare Part II for the specific branch office seeking work if the firm has branch offices.

1. **Solicitation Number.** If Part II is submitted for a specific contract, insert the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request.

2a-2e. **Firm (or Branch Office) Name and Address.** Self-explanatory.

3. **Year Established.** Enter the year the firm (or branch office, if appropriate) was established under the current name.

4. **Unique Entity Identifier.** Insert the unique entity identifier issued by the entity designated at SAM. See FAR part 4.6.

5. **Ownership.**

a. **Type.** Enter the type of ownership or legal structure of the firm (sole proprietor, partnership, corporation, joint venture, etc.).

b. **Small Business Status.** Refer to the North American Industry Classification System (NAICS) code in the public announcement, and indicate if the firm is a small business according to the current size standard for that NAICS code (for example, Engineering Services (part of NAICS 541330), Architectural Services (NAICS 541310), Surveying and Mapping Services (NAICS 541370)). The small business categories and the internet website for the NAICS codes appear in FAR part 19. Contact the requesting agency for any questions. Contact your local U.S. Small Business Administration office for any questions regarding Business Status.

6a-6c. **Point of Contact.** Provide this information for a representative of the firm that the agency can contact for additional information. The representative must be empowered to speak on contractual and policy matters.

7. **Name of Firm.** Enter the name of the firm if Part II is prepared for a branch office.

8a-8c. **Former Firm Names.** Indicate any other previous names for the firm (or branch office) during the last six years. Insert the year that this corporate name change was effective and the associated unique entity identifier. This information is used to review past performance on Federal contracts.

9. **Employees by Discipline.** Use the relevant disciplines and associated function codes shown at the end of these instructions and list in the same numerical order. After the listed disciplines, write in any additional disciplines and leave the function code blank. List no more than 20 disciplines. Group remaining employees under "Other Employees" in column b. Each person can be counted only once according to his/her primary function. If Part II is prepared for a firm (including all branch offices), enter the number of employees by disciplines in column c(1). If Part II is prepared for a branch office, enter the number of employees by discipline in column c(2) and for the firm in column c(1).

10. **Profile of Firm's Experience and Annual Average Revenue for Last 5 Years.** Complete this block for the firm or branch office for which this Part II is prepared. Enter the experience categories which most accurately reflect the firm's technical capabilities and project experience. Use the relevant experience categories and associated profile codes shown at the end of these instructions, and list in the same numerical order. After the listed experience categories, write in any unlisted relevant project experience categories and leave the profile codes blank. For each type of experience, enter the appropriate revenue index number to reflect the professional services revenues received annually (averaged over the last 5 years) by the firm or branch office for performing that type of work. A particular project may be identified with one experience category or it may be broken into components, as best reflects the capabilities and types of work performed by the firm. However, do not double count the revenues received on a particular project.

11. **Annual Average Professional Services Revenues of Firm for Last 3 Years.** Complete this block for the firm or branch office for which this Part II is prepared. Enter the appropriate revenue index numbers to reflect the professional services revenues received annually (averaged over the last 3 years) by the firm or branch office. Indicate Federal work (performed directly for the Federal Government, either as the prime contractor or subcontractor), non-Federal work (all other domestic and foreign work, including Federally-assisted projects), and the total. If the firm has been in existence for less than 3 years, see the definition for "Annual Receipts" under FAR 19.101.

12. **Authorized Representative.** An authorized representative of the firm or branch office must sign and date the completed form. Signing attests that the information provided is current and factual. Provide the name and title of the authorized representative who signed the form.

List of Disciplines (*Function Codes*)

Code	Description	Code	Description
01	Acoustical Engineer	32	Hydraulic Engineer
02	Administrative	33	Hydrographic Surveyor
03	Aerial Photographer	34	Hydrologist
04	Aeronautical Engineer	35	Industrial Engineer
05	Archeologist	36	Industrial Hygienist
06	Architect	37	Interior Designer
07	Biologist	38	Land Surveyor
08	CADD Technician	39	Landscape Architect
09	Cartographer	40	Materials Engineer
10	Chemical Engineer	41	Materials Handling Engineer
11	Chemist	42	Mechanical Engineer
12	Civil Engineer	43	Mining Engineer
13	Communications Engineer	44	Oceanographer
14	Computer Programmer	45	Photo Interpreter
15	Construction Inspector	46	Photogrammetrist
16	Construction Manager	47	Planner: Urban/Regional
17	Corrosion Engineer	48	Project Manager
18	Cost Engineer/Estimator	49	Remote Sensing Specialist
19	Ecologist	50	Risk Assessor
20	Economist	51	Safety/Occupational Health Engineer
21	Electrical Engineer	52	Sanitary Engineer
22	Electronics Engineer	53	Scheduler
23	Environmental Engineer	54	Security Specialist
24	Environmental Scientist	55	Soils Engineer
25	Fire Protection Engineer	56	Specifications Writer
26	Forensic Engineer	57	Structural Engineer
27	Foundation/Geotechnical Engineer	58	Technician/Analyst
28	Geodetic Surveyor	59	Toxicologist
29	Geographic Information System Specialist	60	Transportation Engineer
30	Geologist	61	Value Engineer
31	Health Facility Planner	62	Water Resources Engineer

List of Experience Categories (*Profile Codes*)

Code	Description	Code	Description
A01	Acoustics, Noise Abatement	E01	Ecological & Archeological Investigations
A02	Aerial Photography; Airborne Data and Imagery Collection and Analysis	E02	Educational Facilities; Classrooms
A03	Agricultural Development; Grain Storage; Farm Mechanization	E03	Electrical Studies and Design
A04	Air Pollution Control	E04	Electronics
A05	Airports; Navaids; Airport Lighting; Aircraft Fueling	E05	Elevators; Escalators; People-Movers
A06	Airports; Terminals and Hangars; Freight Handling	E06	Embassies and Chanceries
A07	Arctic Facilities	E07	Energy Conservation; New Energy Sources
A08	Animal Facilities	E08	Engineering Economics
A09	Anti-Terrorism/Force Protection	E09	Environmental Impact Studies, Assessments or Statements
A10	Asbestos Abatement	E10	Environmental and Natural Resource Mapping
A11	Auditoriums & Theaters	E11	Environmental Planning
A12	Automation; Controls; Instrumentation	E12	Environmental Remediation
B01	Barracks; Dormitories	E13	Environmental Testing and Analysis
B02	Bridges	F01	Fallout Shelters; Blast-Resistant Design
C01	Cartography	F02	Field Houses; Gyms; Stadiums
C02	Cemeteries (<i>Planning & Relocation</i>)	F03	Fire Protection
C03	Charting: Nautical and Aeronautical	F04	Fisheries; Fish ladders
C04	Chemical Processing & Storage	F05	Forensic Engineering
C05	Child Care/Development Facilities	F06	Forestry & Forest products
C06	Churches; Chapels	G01	Garages; Vehicle Maintenance Facilities; Parking Decks
C07	Coastal Engineering	G02	Gas Systems (Propane; Natural, Etc.)
C08	Codes; Standards; Ordinances	G03	Geodetic Surveying: Ground and Air-borne
C09	Cold Storage; Refrigeration and Fast Freeze	G04	Geographic Information System Services: Development, Analysis, and Data Collection
C10	Commercial Building (<i>low rise</i>) ; Shopping Centers	G05	Geospatial Data Conversion: Scanning, Digitizing, Compilation, Attributing, Scribing, Drafting
C11	Community Facilities	G06	Graphic Design
C12	Communications Systems; TV; Microwave	H01	Harbors; Jetties; Piers, Ship Terminal Facilities
C13	Computer Facilities; Computer Service	H02	Hazardous Materials Handling and Storage
C14	Conservation and Resource Management	H03	Hazardous, Toxic, Radioactive Waste Remediation
C15	Construction Management	H04	Heating; Ventilating; Air Conditioning
C16	Construction Surveying	H05	Health Systems Planning
C17	Corrosion Control; Cathodic Protection; Electrolysis	H06	Highrise; Air-Rights-Type Buildings
C18	Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting	H07	Highways; Streets; Airfield Paving; Parking Lots
C19	Cryogenic Facilities	H08	Historical Preservation
D01	Dams (<i>Concrete; Arch</i>)	H09	Hospital & Medical Facilities
D02	Dams (<i>Earth; Rock</i>); Dikes; Levees	H10	Hotels; Motels
D03	Desalinization (<i>Process & Facilities</i>)	H11	Housing (<i>Residential, Multi-Family; Apartments; Condominiums</i>)
D04	Design-Build - Preparation of Requests for Proposals	H12	Hydraulics & Pneumatics
D05	Digital Elevation and Terrain Model Development	H13	Hydrographic Surveying
D06	Digital Orthophotography		
D07	Dining Halls; Clubs; Restaurants		
D08	Dredging Studies and Design		

List of Experience Categories (*Profile Codes continued*)

Code	Description	Code	Description
I01	Industrial Buildings; Manufacturing Plants	P09	Product, Machine Equipment Design
I02	Industrial Processes; Quality Control	P10	Pneumatic Structures, Air-Support Buildings
I03	Industrial Waste Treatment	P11	Postal Facilities
I04	Intelligent Transportation Systems	P12	Power Generation, Transmission, Distribution
I05	Interior Design; Space Planning	P13	Public Safety Facilities
I06	Irrigation; Drainage	R01	Radar; Sonar; Radio & Radar Telescopes
J01	Judicial and Courtroom Facilities	R02	Radio Frequency Systems & Shieldings
L01	Laboratories; Medical Research Facilities	R03	Railroad; Rapid Transit
L02	Land Surveying	R04	Recreation Facilities (Parks, Marinas, Etc.)
L03	Landscape Architecture	R05	Refrigeration Plants/Systems
L04	Libraries; Museums; Galleries	R06	Rehabilitation (Buildings; Structures; Facilities)
L05	Lighting (Interior; Display; Theater, Etc.)	R07	Remote Sensing
L06	Lighting (Exteriors; Streets; Memorials; Athletic Fields, Etc.)	R08	Research Facilities
M01	Mapping Location/Addressing Systems	R09	Resources Recovery; Recycling
M02	Materials Handling Systems; Conveyors; Sorters	R10	Risk Analysis
M03	Metallurgy	R11	Rivers; Canals; Waterways; Flood Control
M04	Microclimatology; Tropical Engineering	R12	Roofing
M05	Military Design Standards	S01	Safety Engineering; Accident Studies; OSHA Studies
M06	Mining & Mineralogy	S02	Security Systems; Intruder & Smoke Detection
M07	Missile Facilities (Silos; Fuels; Transport)	S03	Seismic Designs & Studies
M08	Modular Systems Design; Pre-Fabricated Structures or Components	S04	Sewage Collection, Treatment and Disposal
N01	Naval Architecture; Off-Shore Platforms	S05	Soils & Geologic Studies; Foundations
N02	Navigation Structures; Locks	S06	Solar Energy Utilization
N03	Nuclear Facilities; Nuclear Shielding	S07	Solid Wastes; Incineration; Landfill
O01	Office Buildings; Industrial Parks	S08	Special Environments; Clean Rooms, Etc.
O02	Oceanographic Engineering	S09	Structural Design; Special Structures
O03	Ordnance; Munitions; Special Weapons	S10	Surveying; Platting; Mapping; Flood Plain Studies
P01	Petroleum Exploration; Refining	S11	Sustainable Design
P02	Petroleum and Fuel (Storage and Distribution)	S12	Swimming Pools
P03	Photogrammetry	S13	Storm Water Handling & Facilities
P04	Pipelines (Cross-Country - Liquid & Gas)	T01	Telephone Systems (<i>Rural; Mobile; Intercom, Etc.</i>)
P05	Planning (Community, Regional, Areawide and State)	T02	Testing & Inspection Services
P06	Planning (Site, Installation, and Project)	T03	Traffic & Transportation Engineering
P07	Plumbing & Piping Design	T04	Topographic Surveying and Mapping
P08	Prisons & Correctional Facilities	T05	Towers (<i>Self-Supporting & Guyed Systems</i>)
		T06	Tunnels & Subways

List of Experience Categories (*Profile Codes continued*)

Code	Description
U01	Unexploded Ordnance Remediation
U02	Urban Renewals; Community Development
U03	Utilities (Gas and Steam)
V01	Value Analysis; Life-Cycle Costing
W01	Warehouses & Depots
W02	Water Resources; Hydrology; Ground Water
W03	Water Supply; Treatment and Distribution
W04	Wind Tunnels; Research/Testing Facilities Design
Z01	Zoning; Land Use Studies

ATTACHMENT 1 -- INSTRUCTIONS TO OFFERORS & EVALUATION PROCESS

TABLE OF CONTENTS

INSTRUCTIONS	1
INSTRUCTIONS TO OFFERORS - COMPETITIVE ACQUISITION (11-2M)	1
SUBCONTRACTING PLAN REQUIREMENT (8-4)	3
SITE TOUR (11-6)	4
EVALUATION	4
AWARD DECISION - TRADE-OFF (11-4)	4
GENERAL	5
PURCHASING STANDARDS OF CONDUCT (3-1)	5
PROTESTS AGAINST AWARD (21-1)	5
DEBRIEFING REQUEST (12-1)	6

INSTRUCTIONS

INSTRUCTIONS TO OFFERORS - COMPETITIVE ACQUISITION (11-2M) (JUL 2013)(BPI 11.10.2.1)

(a) Submission of Offers.

- (1) Offers shall be valid for a minimum of 60 days from the date offers are due.
- (2) All offers and resultant contracts are subject to the conditions set forth in this solicitation and the BPI. By submission of this offer, the offeror agrees to be bound to the Protest procedures specified in the BPI in [BPI 21.3](#).
- (3) BPA may reject late offers. BPA reserves the right to not consider proposals from potential offerors other than those solicited by the CO.
- (4) Offerors shall submit their proposals in a timely manner, using either electronic format or hard copy, as identified in the solicitation cover letter. The CO may disqualify offers which do not include the materials as set forth below, or which fail to adhere to any content restrictions herein.
- (5) After initial evaluation of offerors, BPA may elect to hold interviews. Interviews may be held with as few as none or up to three of the highest rated offerors.

(b) Required materials. Offerors shall submit the following materials subject to the formatting, content, and restrictions set forth below.

- (1) **Business/Pricing Proposal:** Submit 1 CD. The CD shall include a complete copy of the business proposal in a static format (Adobe PDF) and the schedule of prices in both an static format and editable format (Microsoft Excel).

Offeror shall submit a Business Proposal that shall show all price proposed to fulfill the requirements of the solicitation. The Business Proposal shall provide the price information which shall be used to assess whether the price proposed is fair and reasonable. Price shall be addressed only in this Business Proposal section, and in any transition/phase-out proposals if applicable, and nowhere else.

- (i) Completed and sign the Request for Proposal.

(ii) Completed Representations and Certifications (Attachment 2).

(iii) The offeror's price proposal shall consist of a completed Schedule of Prices. There are three tabs in the excel spreadsheet. All vendors need to complete tab 1, Schedule of Price, and tab 2, Data Sheet for Mods. Only the winning vendor will be required to complete tab 3, Data Sheet for Ross FSB.

(iv) All Large businesses are required to complete a subcontracting plan, (attachment 4).

(v) All vendors need to ensure that a least three past performance work sheets are returned to BPA by their clients, see evaluation factors below in clause 11-4 factor 4, (attachment 5). Vendors need to fill out the top of portion of page 2, include your name, name of your client and the contract you want your client to rate you for etc.

- (2) **Technical/Management (Non-Price) Proposal** Submit 6 hard copies, 1 each in a 3-ring binder and 1 CD. The binder size shall not exceed 1/2 inch and shall have labeled section tabs that corresponded to the evaluation factors. **The hard copy proposals shall have your company's name redacted**, (i.e. No logo's, trademarks, pictures that include your name on shirts or helmets ... etc.) The CD shall include a complete copy of the proposal, un-redacted, (include your company's name), in a static format (Adobe PDF).

The technical/management proposal shall include the following items, which will be evaluated against the non-price evaluation factors identified in the Award Decision [Clause 11-4](#), identified in this Attachment 1 to the RFP. No reference to specific prices shall be made in the technical proposal.

(i) Materials addressing offeror's ability to provide the quality and specifications of the products or services as identified in the Statement of Work or requirements document. Unnecessarily elaborate proposals, brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the offeror's lack of price consciousness. Elaborate art work, letters of commendation, expensive paper and bindings, and expensive visual and other presentations are neither necessary nor wanted. Additionally, copies of BPA provided materials are not needed.

(ii) Special Instructions:

(A). Complete the SF 330 Form. For section F you must include at least 3 examples and no more than 10.

(B).The SF 330 Instructions have also been included. These are for reference only as all FAR language does not apply to BPA. Specifically on page one (1) the Purpose and General Instructions are to be ignored as well as any references to FedBizOpps.

(C).Staffing-Key Personnel Resumes (2 page maximum; failure to adhere to this restriction shall disqualify all resumes from consideration.)

(3) **Past Performance**.

A Past Performance Reference Form (attachment 4) is included as an attachment to this RFP. Offeror will send this questionnaire to their clients, who in turn will complete the form and send directly to BPA as instructed in the questionnaire. Completed forms from clients that are received directly from the offeror will not be considered, as well as forms received after the date of proposal submission..

No submission is required for firms having no relevant experience. However, in the proposal transmittal letter, the offeror shall attest to the fact that neither the firm nor its principals possess experience relevant to the RFP requirements and that no proposal section on Past Performance was included in the proposal submission. See section (4)(c) of this attachment for evaluation of offerors without relevant experience.

(c) Evaluation of Offers.

(1) Evaluation Team. Proposals shall be reviewed by a panel of evaluators, if appropriate, or by the Contracting Officer as the source selection official. Each proposal shall be evaluated in accordance with the evaluation factors as identified in the Award Decision [Clause 11-4](#), included in this Attachment 1 to the RFP. BPA may award a contract on the basis of initial proposals received, without negotiations or any opportunity for oral presentations. Therefore, each initial offer should contain the offeror's best terms from a price and technical standpoint. Note that all scoring by an evaluation team is considered advisory only, and is not binding on the Contracting Officer.

(2) Business Proposal.

The Price Proposal shall be evaluated to determine the reasonableness of the offerors' proposed price. The offerors' price proposal shall be evaluated using price analysis as well as cost analysis, if appropriate. See BPI 12.5.2. Price must be reasonable and will not be scored.

(3) Technical Proposal.

Tradeoff. Under a tradeoff procurement, the non-price evaluation factors may be traded for pricing resulting in a best buy for BPA which is not the lowest price technically acceptable offer. The CO may award, without a tradeoff analysis, to the lowest price technically acceptable offer under a tradeoff procurement, if after evaluation, that offer represents both the lowest evaluated price and the highest technical/management offer.

(4) Past Performance.

- (i) BPA focuses on information that demonstrates quality of performance relative to the complexity of the procurement under consideration. The offeror's references will assist BPA in collecting this information. Submission of past performance references utilizing the attached Past Performance Reference Form is required. References other than those identified by the offeror may be used by BPA. All such information may be used in the evaluation of the offeror's past performance.
- (ii) BPA reserves the right not to contact all the references provided by the offeror. Names of individuals providing reference information about an offeror's past performance shall not be disclosed.
- (iii) A firm without a record of relevant past performance and past effectiveness shall not be evaluated favorably or unfavorably for this category.

(d) Selection for Award.

- (1) Award shall be made to the offeror who has submitted an offer which provides the best buy to BPA as evaluated in accordance with the basis identified in the Award Decision [Clause 11-4](#), included in this Attachment 1 to the RFP.
- (2) Unsuccessful offerors must request a debriefing within three calendar days of receipt of notification of elimination from consideration, or of award notice, per [BPI 12.8.3](#).

**SUBCONTRACTING PLAN REQUIREMENT (8-4)
(JUN 2016)(BPI 8.3.3.1)**

Offerors who are not small businesses as defined in Clause 8-1, Supplier Diversity Award Representation, shall:

(a) Submit with their offer, either

- (1) an estimate of the dollar amounts they plan to award to subcontractors who are one of the supplier diversity program categories, or
- (2) a statement, with supporting reasons, that the nature of the contract does not offer subcontracting possibilities.

- (b) Negotiate a detailed subcontracting plan as described in BPI 8.3.3 prior to award if the nature of the contract offers subcontracting possibilities. The plan shall provide maximum practicable opportunity for small businesses, disadvantaged small businesses, veteran-owned small businesses, disabled veteran-owned small businesses, and women-owned small businesses to participate in performance of the contract. The plan will be incorporated into the contract.

**SITE TOUR (11-6)
(SEP 1998) (BPI 11.11.8.1)**

Interested offerors should visit the site where the work is to be performed to ascertain the nature and location of services to be performed and the conditions which can affect the services or safe performance or the price thereof. Failure to do so will not relieve offerors from responsibility for estimating properly the difficulty or price of successfully performing the services. A formal tour and site visit is scheduled for **5/1/2017 at 1:00 PM**.

Contact the contracting officer identified below to register for this tour. The meeting location will be on the Ross complex, in the Mods East/West conference room. If you plan to attend the site visit registration is mandatory, your contact information must be submitted by 4/27/2017.

Contact the CO, Dan Guffey, to register for this tour by sending an e-mail to: daguffey@bpa.gov. You will need to include your company name and if you are a US citizen.

EVALUATION

**AWARD DECISION - TRADE-OFF (11-4)
(JUN 2012) (BPI 11.11.4.2)**

- (a) BPA is seeking offers that provide the best combination of attributes in order to select the "best buy" offer. BPA shall determine which offer represents the best buy based on a tradeoff analysis between price and the evaluation factors identified below.

(1) Summary of Scope (20%):

Provide a narrative of your teams overall experience with CM/GC procurement methods and understanding of the services required during the phases identified below;

- Phase 1 - Preconstruction
- Phase 2 - Construction
- Phase 3 - Post Construction

(2) Work Plan (40%):

In detail, describe the overall management of the work and project approach. Include the following as a minimum;

1. Experience participating with the review and selection of a CM/GC entity.
2. Your team's critical design expertise and knowledge equity with the operations and maintenance of heavy equipment maintenance and repair facilities.
3. Quality Management Planning (QMP)
4. BIM Implementation
5. LEED Implementation and certification
6. Project price, schedule and document management controls.
7. Value engineering and constructability reviews.
8. Document control strategies to manage multiple bid packages.
9. Design schedule coordination.
10. CM/GC support services
11. Design coordination of regulatory requirements
12. Development of performance specifications
13. Construction administration services

- (3) Key Personnel & Experience (20%): Complete the SF 330 minimum of 3 examples (section F) no more than 10. Also,

1. Provide a project organization chart showing the proposed staff for this project including all professional staff in the following areas: Project management, administration, project architect, Civil, Structural, Mechanical, Electrical, Plumbing and Fire Life Safety engineers, LEED consultant, Quality Control Manager and Fleet Services Consultant.
2. Identify corporate resources which will be providing support to this project, and identify key personnel responsible for overseeing these resources' performance.
3. Describe your experience with BIM and how the BIM process will be implemented in working with BPA, design consultant and sub-contractors.

(4) Past Performance (20%)

Minimum of three questionnaires returned with all rating of at least good or higher that demonstrate your teams experience with federal projects and with project of this size and complexity.

- (b) In the tradeoff analysis, the combination of all of the above identified non-price evaluation factors are, relative to price, significantly more important than price;
- (c) BPA may conduct a tradeoff analysis and may select other than the lowest price offer.
- (d) BPA may award a contract on the basis of initial offers received, without negotiations. Therefore, each initial offer should contain the offeror's best terms from a price and technical standpoint.
- (e) A written award or acceptance of offer mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer may result in a binding contract without further action by either party.

GENERAL

PURCHASING STANDARDS OF CONDUCT (3-1) (JUL 2013)(BPI 3.1.6.1)

- (a) No person, other than as provided by law or authorized by the CO, shall knowingly obtain contractor proposal information or source selection information before award of a BPA purchase to which the information relates.
- (b) "Competing contractor," as used in this clause, means any entity that is, or is likely to become, a competitor for or a recipient of a contract or subcontract under a BPA purchase, and includes any other person acting on behalf of such an entity.
- (c) During the conduct of any BPA purchase of property or services, no competing contractor or any officer, employee, representative, agent, or consultant of any competing contractor shall knowingly:
 - (1) Make, directly or indirectly, any offer or promise of future employment or business opportunity to any BPA employee participating personally and substantially during the conduct of a BPA purchase, except as provided in BPI 3.1.4;
 - (2) Offer, give, or promise to offer or give, directly or indirectly any money, gratuity, or other thing of value to any BPA employee participating personally and substantially during the conduct of a BPA purchase; or
 - (3) Solicit or obtain, directly or indirectly, from any BPA officer or employee, prior to the award of a contract any contractor proposal information or source selection information regarding such purchase.

PROTESTS AGAINST AWARD (21-1) (AUG 2011)(BPI 21.2.10.1)

- (a) Interested parties agree that any protest against award will be filed with the BPA Head of the Contracting Activity prior to filing with any other forum, pursuant to 16 U.S.C. § 832a(f) and Subpart 21.2 of the Bonneville Purchasing Instructions.

- (b) Interested parties who are unable to resolve disagreements informally with the Contracting Officer may send a formal, written protest to the Head of the Contracting Activity. In order to be considered by the Head of the Contracting Activity, a protest based on alleged apparent improprieties in a solicitation shall be received before the closing date for receipt of proposals. In all other cases, protests shall be received no later than 10 calendar days after the basis of protest is known or should have been known, whichever is earlier.
- (c) The protest shall contain: (1) the name and address of the protester, (2) the identity of the contracting officer and the solicitation or contract involved, (3) all facts relevant to and grounds in support of the protest, and (4) a request for a specific ruling by BPA. It shall be sent to: Head of the Contracting Activity, Bonneville Power Administration, P. O. Box 3621, Portland, Oregon 97208 (Street Address: 905 N. E. 11th Avenue, Portland, OR 97232).
- (d) For protests filed with the General Accountability Office (GAO), two copies shall be served on the BPA by obtaining written and dated acknowledgement of receipt. The copies of the protest and all other materials filed shall be received in the BPA CO's office and in the HCA's office, respectively, within one day of filing a protest with the GAO.

DEBRIEFING REQUEST (12-1)
(JUN 2012)(BPI 12.8.4.2)

Unsuccessful offerors shall request a debriefing within three calendar days of receipt of notice of contract award.

ATTACHMENT 2 -- REPRESENTATIONS AND CERTIFICATIONS

TABLE OF CONTENTS

TAXPAYER IDENTIFICATION NUMBER (4-1M)	1
TYPE OF BUSINESS ORGANIZATION (11-1)	1
SUPPLIER DIVERSITY AWARD REPRESENTATION (8-1)	2
OFFEROR REPRESENTATIONS AND CERTIFICATIONS – PROHIBITED FOREIGN TRANSACTIONS (9-9)	2

TAXPAYER IDENTIFICATION NUMBER (4-1M) (DEC 1998)(BPI 4.1.2.1)

NOTE:

- (1) Taxpayer Identification Number (TIN) reporting does not apply to a Federal agency, a foreign government or a foreign business not engaged in business or trade or without an agent capable of receiving payment within the United States.
- (2) The TIN for BPA is 93-0334712.

All offerors, other than noted above, are required to submit its Taxpayer Identification Number requested below in order to comply with the Department of Treasury payment processing requirements of 31 U.S.C. 3332 and 7701, and the reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service. If the resulting contract is subject to those requirements, the failure or refusal by the offeror to furnish the information may result in a suspension of payment and a thirty-one (31) percent reduction of payments otherwise due under the contract.

Taxpayer Identification Number _____.

DUNS Number _____.

TYPE OF BUSINESS ORGANIZATION (11-1) (SEP 2002)(BPI 11.10.2.1)

The offeror, by checking the applicable box, represents that-

- (a) It operates as / / a corporation incorporated under the laws of the State of _____, / / an individual, / / a partnership, / / a nonprofit organization, or / / a joint venture; or
- (b) It is a / / local, / / state, / / federally recognized Indian tribe, or / / other governmental entity, (*describe* _____); or
- (c) If the offeror is a foreign entity, it operates as / / an individual, / / a partnership, / / a nonprofit organization, / / a joint venture, or / / a corporation, registered for business in _____ (country) and / / does / / does not have an office or fiscal paying agent in the United States; or
- (d) It is / / a type of business organization not otherwise listed above (*describe* _____).

**SUPPLIER DIVERSITY AWARD REPRESENTATION (8-1)
(FEB 2016)(BPI 8.1.1)**

(a) CO Fill-in:

NAICS CODE	Size Standard in Millions of Dollars OR _Size Standards in Number of Employees
541310	\$7,500,000

(b) The offeror represents that:

- (1) it is / , is not / a small business concern.
- (2) it is / , is not / a disadvantaged small business concern (this includes Native American owned small business, 8-A Certified or Hub-zone and any other disadvantaged small business concerns).
- (3) it is / , is not / a women-owned small business concern.
- (4) it is / , is not / a veteran-owned small business concern.
- (5) it is / , is not / a disabled veteran-owned small business concern.

**OFFEROR REPRESENTATIONS AND CERTIFICATIONS – PROHIBITED FOREIGN TRANSACTIONS (9-9)
(OCT 2013)(BPI 9.3.2.1)**

(a) The representations in (b)(1) and certifications in (b)(2) and b(3) do not apply if the procurement is covered by a trade agreement as defined in BPI 9.4.2 and the offeror has certified that all the offered products are designated country end products or designated country material.

(b) By submission of its offer, the offeror:

- (1) Represents, to the best of its knowledge that the offeror does not export any sensitive technology as defined in Pub. L. 111-195 Section 106 to the government of Iran or any entities or individuals owned or controlled by, or acting on the behalf of the government of Iran.
- (2) Certifies that the offeror, or any person owned of controlled by the offeror, does not engage in activities that may result in sanctions under Section 5 of the Iran Sanctions Act (Pub. L. 111-195 et seq.).
- (3) Certifies that the offeror, and any person owned or controlled by the offeror, does not knowingly engage in any transaction that exceeds \$3,000 with Iran's Revolutionary Guard Corps or any of its officials, agents, or affiliates, the property and interests in property of which are blocked pursuant to the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.)
- (4) Certifies that the offeror does not conduct any restricted business operations in Sudan as defined in in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174).

ATTACHMENT 3
DRAFT CONTRACT
TABLE OF CONTENTS

UNIT 1 — SCHEDULE	3
CONTRACT TYPE (7-1)	3
LIMITATION ON TRAVEL COSTS (22-50)	3
SCHEDULE OF PRICES (22-51)	3
OPTION FOR INCREASED QUANTITY (7-8M)	3
KEY PERSONNEL (23-2)	3
UNIT 2 — CONTRACT CLAUSES	4
PAYMENT AND TAXES	4
ELECTRONIC FUNDS TRANSFER PAYMENT (22-20)	4
ACCELERATION OF PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (22-21)	4
BASIS OF PAYMENT -- PROGRESS PAYMENTS (22-3)	5
PAYMENT (22-12)	5
DISCOUNTS FOR PROMPT PAYMENT (22-10)	6
WITHHOLDING (22-9)	6
FEDERAL, STATE, AND LOCAL TAXES (22-15)	6
INTEREST ON AMOUNTS DUE BPA (22-13)	6
GENERAL CONTRACT ADMINISTRATION	7
APPLICABLE REGULATIONS (1-1)	7
PRINTING (6-2)	7
CONTRACT ADMINISTRATION REPRESENTATIVES (14-2)	8
ORDER OF PRECEDENCE (14-3)	8
SUBCONTRACTS (14-7)	8
CHANGES - FIXED-PRICE (14-8)	8
STOP WORK ORDER (14-14)	9
HOMELAND SECURITY (14-17)	9
BANKRUPTCY (14-18)	9
POST AWARD ORIENTATION (14-19)	10
RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR (14-51)	10
REQUIREMENTS FOR REGISTRATION OF DESIGNERS (14-52)	11
DESIGN WITHIN FUNDING LIMITATIONS (14-100)	11
SCREENING REQUIREMENTS FOR PERSONNEL HAVING ACCESS TO BPA FACILITIES (15-15)	11
ACCESS TO BPA FACILITIES AND COMPUTER SYSTEMS (15-16)	12
STANDARDS OF CONDUCT AND BUSINESS PRACTICES	13
ORGANIZATIONAL CONFLICTS OF INTEREST (3-2)	13
CERTIFICATION, DISCLOSURE, AND LIMITATION REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (3-3)	13
DRUG-FREE WORKPLACE (15-2)	15
CONTRACTOR POLICY TO BAN TEXT MESSAGING WHILE DRIVING (15-14)	16
CONTRACTOR COMPLIANCE WITH BPA POLICIES (15-4)	17
RESTRICTION ON COMMERCIAL ADVERTISING (3-9)	18
CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS (3-10)	18
PRIVACY ASSURANCE (5-1)	18
SOCIO-ECONOMIC ISSUES	18
*** LARGE BUSINESSES ONLY *** UTILIZATION OF SUPPLIER DIVERSITY PROGRAM CATEGORIES (8-3)	18

*** LARGE BUSINESSES ONLY *** LIQUIDATED DAMAGES -- SMALL BUSINESS	
SUBCONTRACTING PLAN (8-5)	19
BUY AMERICAN ACT - SUPPLIES (9-3)	19
RESTRICTION ON CERTAIN FOREIGN PURCHASES (9-8)	20
EQUAL OPPORTUNITY (10-1)	20
AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (10-2)	22
SERVICE CONTRACT LABOR STANDARDS (10-3)	23
FAIR LABOR AND SERVICE CONTRACT LABOR STANDARDS-PRICE ADJUSTMENT (10-4)	28
SERVICE CONTRACT WAGE DETERMINATION (10-5)	29
NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (10-6)	29
EMPLOYMENT ELIGIBILITY VERIFICATION (10-18)	29
EQUAL OPPORTUNITY FOR VETERANS (10-19)	31
EMPLOYMENT REPORTS ON VETERANS (10-20)	31
COMBATING TRAFFICKING IN PERSONS (10-25)	32
MINIMUM WAGE FOR FEDERAL CONTRACTS (10-28)	34
SUBCONTRACTING WITH DEBARRED OR SUSPENDED ENTITIES (11-7)	35
ENVIRONMENT AND SAFETY	35
HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (15-6)	35
OZONE DEPLETING SUBSTANCES (15-7)	36
REFRIGERATION EQUIPMENT (15-8)	36
ENERGY EFFICIENCY IN ENERGY CONSUMING PRODUCTS (15-9)	36
RECOVERED MATERIALS (15-10)	37
BIO-BASED PRODUCTS (15-11)	37
CONTRACTOR SAFETY AND HEALTH (15-12)	37
BONDS AND INSURANCE	39
INSURANCE (16-2)	39
PATENTS, DATA, AND COPYRIGHTS	40
INFORMATION ASSURANCE (6-3)	40
INSPECTION AND WARRANTY	40
WARRANTY - SERVICES (18-11)	41
TERMINATION	41
TERMINATION FOR THE CONVENIENCE OF BPA (20-2)	41
TERMINATION FOR DEFAULT (20-3.1) ALTERNATE I	41
DISPUTES	41
APPLICABLE LAW (21-5)	42
RELEASE OF CLAIMS (21-4)	42
DISPUTES (21-2)	42

UNIT 1 — SCHEDULE

CONTRACT TYPE (7-1) (JUL 2013)(BPI 7.1.10)

This is a Firm Fixed Price, Architect and Engineering (A&E) type contract.

LIMITATION ON TRAVEL COSTS (22-50) (SEP 2010)

Costs incurred for lodging, meals, and incidental expenses shall be reimbursed on an actual cost basis to the extent that they do not exceed, on a daily basis, the per diem rates in effect at the time of travel as set forth in the Federal Travel Regulation, prescribed by the General Services Administration, for travel in the conterminous 48 United States. Per Diem shall be authorized for travel in excess of 12 hours and shall not exceed 75% of the daily rate for the first and last day of official travel. Lodging and other expenses exceeding \$75.00 must be supported with receipts, which shall be submitted with the request for payment.

Airline costs will be reimbursed on an actual cost basis to the extent determined reasonable and allocable under Part 13 of the Bonneville Purchasing Instructions. Generally, airline costs will be limited to coach or economy class. Any variation from these requirements must be approved by the Contracting Officer. Contractors may request a letter from the Contracting Officer, authorizing access to an airline, lodging, or other rates negotiated for government travel to the extent such authorization is honored by the service providers.

Per Diem rates are available at: <http://www.gsa.gov/portal/category/21287>

The Federal Travel Regulations are available at: <http://www.gsa.gov/portal/content/102886>

SCHEDULE OF PRICES (22-51) (MAY 2008)

See attached Schedule of Prices.

OPTION FOR INCREASED QUANTITY (7-8M) (SEP 1998)(BPI 7.2.7.1)

BPA may acquire the option quantity listed in the Schedule of Items at the lump sum price(s) specified. The Contracting Officer may exercise the option by written notice to the Contractor not later than 30 days prior to the end of the contract.

KEY PERSONNEL (23-2) (SEP 1998)(BPI 23.1.5.2)

The personnel listed below are considered to be essential to the work being performed hereunder. No diversion shall be made by the Contractor without the written consent of the Contracting Officer. (List key personnel below)

Use attached SF 330.

UNIT 2 — CONTRACT CLAUSES

PAYMENT AND TAXES

ELECTRONIC FUNDS TRANSFER PAYMENT (22-20) (JUL 2013)(BPI 22.6.2)

- (a) Payment Method. Payments under this contract, including invoice and contract financing payments, will be made by electronic funds transfer (EFT). Contractors are required to provide its taxpayer identification number (TIN) and other necessary banking information as per paragraph (c) of this clause to receive EFT payment.
- (b) Contractor EFT arrangement with a financial institution or authorized payment agent. The Contractor shall designate to BPA, as per paragraph (c) of this clause, and maintain at its own expense, a single financial institution or authorized payment agent capable of receiving and processing EFT using the Automated Clearing House (ACH) transfer method. The most current designation and EFT information will be used for all payments under all BPA contracts, unless the BPA Vendor File Maintenance Team is notified of a change as per paragraph (d) of this clause. An initial designation should be submitted after award, but no later than three weeks before an invoice or contract financing request is submitted for payment.
- (c) Submission of EFT banking information to BPA. The Contractor shall submit EFT enrollment banking information directly to BPA Vendor File Maintenance Team, using Substitute IRS Form w9e, Request for Taxpayer Identification Number and Certification. This form is available either from the Contracting Officer(CO) or from the Vendor File Maintenance Team. Submit completed enrollment form to the Vendor Team. Contact and mailing information:
- Bonneville Power Administration
PO Box 491
ATTN: NSTS - MODW Vendor Maint.
Vancouver, WA 98666-0491
- E-mail Address: VendorMaintenance@BPA.gov
Phone: (360) 418-2800
Fax: (360) 418-8904
- (d) Change in EFT information. In the event that EFT information changes or the Contractor elects to designate a different financial institution for the receipt of any payment made using EFT procedures, the Contractor shall be responsible for providing the changed information to the BPA Vendor File Maintenance Team office. The Vendor Maintenance Team must be notified 30 days prior to the date such change is to become effective.
- (e) Suspension of Payment. BPA is not required to make any payment under this contract until receipt of the correct EFT payment information from the Contractor.
- (f) EFT and prompt payment. BPA shall pay no penalty on delay of payment resulting from defective EFT information. BPA will notify the Contractor within 7 days of its receipt of EFT information which it determines to be defective.
- (g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the Assignment of Claims clause of this contract, the assignee shall provide the assignee's EFT information required by paragraph (c) of this clause.

ACCELERATION OF PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (22-21) (OCT 2014)(BPI 22.7.2)

- (a) Upon receipt of accelerated payments from BPA, the Contractor shall make accelerated payments to its small business subcontractors under this contract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable contract or subcontract, after receipt of a proper invoice and all other required documentation from the small business subcontractor.

- (b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.
- (c) Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including subcontracts with small business concerns for the acquisition of commercial items.

**BASIS OF PAYMENT -- PROGRESS PAYMENTS (22-3)
(JUL 2013)(BPI 22.1.3)**

- (a) Progress payments. BPA shall make progress payments as the work proceeds based on the stage or percentage of work accomplished. The Contractor shall furnish a breakdown of the work as a percentage of the total contract price, in such detail as required by the CO.
- (b) Title to all material and work covered by progress payments shall pass to BPA at the time of payment. This shall not be construed as--
 - (1) Relieving the Contractor from the sole responsibility for all work upon which payments have been made or the restoration of any damaged work; or
 - (2) Waiving the right of BPA to require the fulfillment of all of the terms of the contract.
- (c) Partial Payments. Unless otherwise specified, payment shall be made after acceptance of any portion of the work delivered or rendered for which a price is separately stated in the contract.
- (d) Final Payment. BPA shall pay the amount due the Contractor under this contract after completion and acceptance of all work and after presentation of a release of all claims against BPA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of any assignee if the Contractor's claim to amounts payable under this contract has been assigned.

**PAYMENT (22-12)
(JUL 2013)(BPI 22.2.5)**

- (a) Payment Due Date. Payment (including partial payments or progress payments, if authorized, shall be due not later than thirty (30) calendar days after the later of the date on which BPA actually receives a proper invoice in the designated billing office or the date when the items delivered or completed services are accepted by BPA. According to the Prompt Payment Act, a proper invoice to a Federal Agency is to include bank account information requisite to enable Electronic Funds Transfer (EFT) as method of payment. For purposes of payment only, items will be deemed accepted not later than seven (7) calendar days after proper delivery. If delivered items or completed services are found defective, the provisions of this paragraph will be reapplied upon receipt of a corrected item or service.
- (b) Billing Instructions.
 - (1) Invoices must include the contractor's name and address, invoice date, contract number, task order number (if applicable), contract line item number, description of products delivered or work performed, price and quantity of item(s) actually delivered or rendered (amounts billed for work performed under a task order must be separately identified by task order number), and the name and address of the person to whom payment will be made, and name (where practicable), title, phone number, mailing address of person to be notified in event of a defective invoice and bank account information required to enable Electronic Funds Transfer (EFT) as method of payment (Invoices will not require banking information if the contractor has that information on file at BPA). Failure to submit a proper invoice may result in a delay in payment including a rejection of invoice pending receipt of a properly amended invoice.
 - (2) Contractors may bill monthly, or at more frequent intervals as may be agreed to by the CO. The contractor may submit invoices electronically (e-mail, fax, etc.).
- (c) Payment Method. Payments under this contract will be made by electronic funds transfer whenever possible, or by check in very limited circumstances, at the option of BPA.

- (d) Prompt Payment Act. This contract is subject to the provisions of the Prompt Payment Act (31 U.S.C. 3901 et seq.), and regulations at 5 CFR Part 1315.
- (e) Interest Penalty Payments. If interest penalty payments are determined due under the provisions of the Prompt Payment Act, payment shall be made at the rates determined by the U.S. Treasury Section 611 of the Contract Disputes Act of 1978 (PL 95-56341 U.S.C. § 7109).

DISCOUNTS FOR PROMPT PAYMENT (22-10)
(JUL 2013)(BPI 22.2.5)

In connection with any discount offered for prompt payment, time shall be computed from the date shown on the invoice or if no date is shown then from the date BPA receives the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the date on which an electronic funds transfer was made.

WITHHOLDING (22-9)
(JUL 2013)(BPI 22.1.5.1)

- (a) The CO reserves the right to withhold an amount not to exceed 10% percent of the contract price if determined necessary to protect BPA's interests.
- (b) Upon completion and acceptance of each severable item of work for which the price is stated separately in the contract, payment shall be made for the completed work, less liquidated damages (if any), without withholding of a percentage.

FEDERAL, STATE, AND LOCAL TAXES (22-15)
(JUL 2013)(BPI 22.5.6)

- (a) The contract price shall include all applicable Federal, State, and local taxes and duties.
- (b) The contract price shall be increased by the amount of any after-imposed Federal excise tax or duty, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price.
- (c) The contract price shall be decreased by the amount of any after-relieved Federal excise tax or duty.
- (d) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the CO.
- (e) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.
- (f) Notwithstanding any of the above provisions for adjustment of the contract price in the event of a change in a Federal excise tax or duty after the contract date, no increase in the contract price shall be made for any duty imposed under the Tariff Act of 1930, as amended, (19 U.S.C. 1303) or the Anti-dumping Act of 1921, as amended (19 U.S.C. 160-171).

INTEREST ON AMOUNTS DUE BPA (22-13)
(JUL 2013)(BPI 22.3.1)

- (a) Notwithstanding any other clause of this contract, all amounts that become payable by the Contractor to BPA under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall

bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six month period as fixed by the Secretary until the amount is paid.

(b) Amounts shall be due at the earliest of the following dates:

- (1) The date fixed under this contract;
- (2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination;
- (3) The date BPA transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt; and
- (4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification;

(c) Payment will be due within 30 days of the date of the invoice. The collection actions available under the Debt Collection Act of 1982 (Public Law 97-365), as amended, and the revised Federal Claims Collections Standards (4 CFR 102), will be utilized. Administrative charges and penalties will be charged in accordance with 31 USC 3717, except where prohibited or explicitly provided for by statute or regulation required by statute.

GENERAL CONTRACT ADMINISTRATION

APPLICABLE REGULATIONS (1-1) (JAN 2016)(BPI 1.4.1)

Purchases made by the Bonneville Power Administration are subject to the policies and procedures outlined in the Bonneville Purchasing Instructions. The BPI is available without charge on the Internet at <http://www.bpa.gov>. Copies are available from the Head of the Contracting Activity - DGP, Bonneville Power Administration, P.O. Box 3621, Portland, Oregon 97208. Subscriptions are not available.

PRINTING (6-2) (OCT 1993)(BPI 6.8.3.1)

The contractor shall not engage in, nor subcontract for, any printing (as that term is defined in Title I of the U.S. Government Printing and Binding Regulations in effect on the effective date of this contract) in connection with the performance of work under this contract: Provided, however, that performance of a requirement under this contract involving the duplication of less than 5,000 copies of a single unit, or no more than 25,000 units in the aggregate of multiple units, will not be deemed to be printing. A unit is defined as one sheet, size 8-1/2 by 11 inches, one side only, one color.

- (a) The term "printing" includes the following processes: composition, plate making, presswork, binding, microform publishing, silk screening, or the end items produced by such processes.
- (b) If fulfillment of the contract will necessitate reproduction in excess of the limits set forth above, the contractor shall notify the Contracting Officer in writing and obtain the Contracting Officer's approval prior to acquiring on BPA's behalf production, purchase, and dissemination of printed matter.
- (c) Printing services not obtained in compliance with this guidance may result in the cost of such printing being disallowed.
- (d) The contractor shall include in each subcontract hereunder a provision substantially the same as this clause including this paragraph (d).

CONTRACT ADMINISTRATION REPRESENTATIVES (14-2)
(FEB 2016)(BPI 14.3.1)

- (a) In the administration of this contract, the Contracting Officer may be represented by one or more of the following: Contracting Officer's Representative for administrative matters, and Contracting Officer's Technical Representative, Receiving Inspector, and/or Field Inspector for technical matters.
- (b) These representatives are authorized to act on behalf of the Contracting Officer in all matters pertaining to the contract, except: (1) contract modifications that change the contract price, technical requirements or time for performance; (2) suspension or termination of the Contractor's right to proceed, either for default or for convenience of BPA; and (3) final decisions on any matters subject to appeal, as provided in a disputes clause. In addition, Field Inspectors may not make final acceptance under the contract.

ORDER OF PRECEDENCE (14-3)
(JUL 2013)(BPI 14.4.3)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order: (a) the Schedule (excluding the specifications or statement of work); (b) contract clauses; (c) the specifications or statement of work; and (d) other documents, exhibits, and attachments.

SUBCONTRACTS (14-7)
(SEP 1998)(BPI 14.9.1)

The Contractor shall not subcontract any work without prior approval of the Contracting Officer, except work specifically agreed upon at the time of award. BPA reserves the right to approve specific subcontractors for work considered to be particularly sensitive. Consent to subcontract any portion of the contract shall not relieve the contractor of any responsibility under the contract.

CHANGES - FIXED-PRICE (14-8)
(JUL 2013)(BPI 14.10.5.1.2)

- (a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract to any one or more of the following:
 - (1) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for BPA in accordance with the drawings, designs, or specifications.
 - (2) Method of shipment or packing.
 - (3) Place of delivery or performance.
 - (4) Description of services to be performed.
 - (5) Time of performance (i.e., hours of the day, days of the week, etc.).
 - (6) BPA-furnished property.
 - (7) Place of inspection or acceptance.
- (b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

- (c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order, but not later than final payment.
- (d) Failure to agree to any adjustment shall be a dispute under a disputes clause if one is included in this contract. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.
- (e) Constructive Changes. If the Contractor considers that a BPA action or inaction constitutes a change to the contract (constructive change), and the change is not identified as such in writing and signed by the CO, the Contractor shall promptly notify the CO in writing. No equitable adjustment will be made for costs incurred more than 20 days before the Contractor gives written notice of the constructive change.
- (f) Notwithstanding other provisions herein, only the Contracting Officer, or persons specifically delegated authority to do so by the Contracting Officer, are authorized to orally modify or affect the terms of this contract. Contractor response to oral direction from any other source is at its own risk of liability.

**STOP WORK ORDER (14-14)
(JUL 2013)(BPI 14.12.7)**

- (a) The Contracting Officer may order the Contractor to suspend all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of BPA.
- (b) The contractor shall immediately comply with the Contracting Officer's order and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order.
- (c) If a stop work order is issued for the convenience of BPA, the Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, if the order results in a change in the time required for, or the costs properly allocable to, the performance of any part of this contract.
- (d) A claim under this clause shall not be allowed (1) for any cost incurred more than 20 days before the Contractor notified the Contracting Officer of the basis of the claim in writing, and (2) unless the claim stating the amount of time or money requested, is asserted in writing as soon as practicable after the termination of the delay or interruption, but not later than the day of final payment under the contract.

**HOMELAND SECURITY (14-17)
(DEC 2012)(BPI 14. 9.3)(BPI 17.4.1.1)**

- (a) If any portion of the Contractor's maintenance or support service is located in a foreign country, then the Contractor will disclose those foreign countries to BPA to determine if the foreign country is on the Sensitive Country List or is a Terrorist Country as determined by the United States Department of State. BPA will notify the Contractor in writing whether or not it can allow an intangible export of BPA's Critical Information or if a Deemed Export License is required.
- (b) The Contractor shall notify the CO in writing in advance of any consultation with a foreign national or other third party that would expose them to BPA Critical Information. BPA will approve or reject consultation with the third party.
- (c) Notification of Security Incident. The Contractor shall immediately notify BPA's Office of the Chief Information Officer (OCIO) Chief Information Security Officer (CISO) of any security incident and cooperate with BPA in investigating and resolving the security incident. In the event of a security incident, the Contractor shall notify the CISO by telephone at 503-230-5088 and ask for a Cyber Security Officer. BPA may also provide in writing to the Contractor alternate phone numbers for contacting Cyber Security Officers. A call back voice message may be left but not the details of the Security Incident.

BANKRUPTCY (14-18)

(OCT 2005)(BPI 14.19.1)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting officers for all Government contracts against final payment has not been made. This obligation remains in effect until final payment under this contract.

**POST AWARD ORIENTATION (14-19)
(SEP 2007)(BPI 14.5.3)**

The successful offeror will be required to participate in a post award orientation as designated by the Contracting Officer.

**RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR (14-51)
(JAN 2004)**

- (a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, and other services.
- (b) Neither BPA's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the Contractor shall be and remain liable to BPA in accordance with applicable law for all damages to BPA caused by the Contractor's negligent performance of any of the services furnished under this contract.
- (c) The rights and remedies of BPA provided for under this contract are in addition to any other rights and remedies provided by law.
- (d) If the Contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

**REQUIREMENTS FOR REGISTRATION OF DESIGNERS (14-52)
(JAN 2004)**

The design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work shall be accomplished or reviewed and approved by architects or engineers registered to practice in the particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia.

**DESIGN WITHIN FUNDING LIMITATIONS (14-100)
(MAR 2017)**

(a) The Contractor shall accomplish the design services required under this contract so as to permit the award of a contract, for the construction of the facilities designed at a price that does not exceed the estimated construction contract price as set forth in paragraph (c) below. When bids or proposals for the construction contract are received that exceed the estimated price, the contractor shall perform such redesign and other services as are necessary to permit contract award within the funding limitation. These additional services shall be performed at no increase in the price of this contract. However, the Contractor shall not be required to perform such additional services at no cost to the Government if the unfavorable bids or proposals are the result of conditions beyond its reasonable control.

(b) The Contractor will promptly advise the Contracting Officer if it finds that the project being designed will exceed or is likely to exceed the funding limitations and it is unable to design a usable facility within these limitations. Upon receipt of such information, the Contracting Officer will review the Contractor's revised estimate of construction cost. The Government may, if it determines that the estimated construction contract price set forth in this contract is so low that award of a construction contract not in excess of such estimate is improbable, authorize a change in scope or materials as required to reduce the estimated construction cost to an amount within the estimated construction contract price set forth in paragraph (c) below, or the Government may adjust such estimated construction contract price. When bids or proposals are not solicited or are unreasonably delayed, the Government shall prepare an estimate of constructing the design submitted and such estimate shall be used in lieu of bids or proposals to determine compliance with the funding limitation.

(c) The estimated construction contract price for the projects described in this contract are:

Ross, FSB: \$21,700,000
Ross, Central Circulation Upgrade CIP: \$2,880,000
Ross, Cold Creek Bridge Approach CIP: \$1,090,00
Ross, Warehouse Area CIP: \$4,340,000
Dittmer Area Parking CIP: \$820,000

**SCREENING REQUIREMENTS FOR PERSONNEL HAVING ACCESS TO BPA FACILITIES (15-15)
(FEB 2016) (BPI 15.7.2.1)**

(a) The following definitions shall apply to this contract:

- (1) "Access" means the ability to enter BPA facilities as a direct or indirect result of the work required under this contract.
- (2) "Sensitive unclassified information" means information requiring a degree of protection due to the risk and magnitude of loss or harm that could result from inadvertent or deliberate disclosures, alteration, or restriction. Sensitive unclassified information may include, but is not limited to: personnel data maintained in systems or records subject to the Privacy Act of 1974, Pub. L. 93-579 (5 U.S.C. 552a); proprietary business data (18 U.S.C. 1905) and the Freedom of Information Act (5 U.S.C. 552); unclassified controlled information (42 U.S.C. 2168, DOE Order 471.3), and critical infrastructure information, energy supply data; economic forecasts; and financial data.

(b) BPA personnel screening activities are based on the Homeland Security Presidential Directive 12 (HSPD-12), and DOE rules and guidance as implemented at BPA. The background screening process to be conducted by the Office of Personnel Management is called a National Agency Check with Inquiries (NACI). The results of the NACI process will provide BPA with information to determine an individual's initial eligibility or continued eligibility for access to BPA facilities including IT access. Such a determination shall not be construed as a substitute for determining whether an individual is technically suitable for employment.

- (c) The contractor is responsible for protecting BPA property during contract performance, including sensitive unclassified data. Effective October 27, 2005, all new-hire contract employees expected to work at federal facilities for six or more consecutive months must be screened according to HSPD-12. To initiate the federal screening process discussed in paragraph (b) above, the contractor shall ensure that all prospective contract employees present the required forms of personal identification and complete SF85 - Questionnaire for Non Sensitive Positions and submit it to BPA for processing. All contract employees on board prior to that date will be screened in phases according to length of service. Rescreenings of longer term contract employees will occur at periodic intervals, generally of five years.
- (d) As part of the NACI, the government's determination of approval for an individual's access shall be at least based upon criteria listed below. However, the contractor also has a responsibility to affirm that permitting the individual access to BPA facilities and/or computer systems is an acceptable risk which will not lead to improper use, manipulation, alteration, or destruction of BPA property or data, including unauthorized disclosure. Positive findings in any of these areas shall be sufficient grounds to deny access.
 - (1) Any behavior, activities, or associations which may show the individual is not reliable or trustworthy;
 - (2) Any deliberate misrepresentations, falsifications, or omissions of material facts;
 - (3) Any criminal, dishonest or immoral conduct (as defined by local Law), or substance abuse; or
 - (4) Any illness, including any mental condition, of a nature which, in the opinion of competent medical authority, may cause significant defect in the judgment or reliability of the employee, with due regard to the transient or continuing effect of the illness and the medical findings in such case.
- (e) If the NACI screening process described above prompts a determination to disapprove access, BPA shall notify the contractor, who will then inform the individual of the determination and the reasons therefore. The contractor shall afford the individual an opportunity to refute or rebut the information that has formed the basis for the initial determination, according to the appeal process prescribed by HSPD-12 and supplemental implementing guidance.
- (f) If the individual is granted access, the individual's employment records or personnel file shall contain a copy of the final determination as described in paragraph (e) above and the basis for the determination. The contractor shall conduct periodic reviews of the individual's employment records or personnel file to reaffirm the individual's continued suitability for access. The reviews should occur annually, or more often as appropriate or necessary. If the contractor becomes aware of any new information that could alter the individuals' continued eligibility for approved access, the contractor shall notify the COTR immediately.
- (g) If a security clearance is required, then the applicant's job qualifications and suitability must be established prior to the submission of a security clearance request to DOE. In the event that an applicant is specifically hired for a position that requires a security clearance, then the applicant shall not be placed in that position until a security clearance is granted by DOE.
- (h) In addition to the requirements described elsewhere in this clause, all contractor employees who may be accessing any of BPA's information resources must participate annually in a BPA-furnished information resources security training course.
- (i) The contractor is responsible for obtaining from its employees any BPA-issued identification and/or access cards immediately upon termination of an employee's employment with the contractor, and for returning it to the COTR, who will forward it to Security Management.
- (j) The substance of this clause shall be included in any subcontracts in which the subcontractor employees will have access to BPA facilities and/ or computer systems

**ACCESS TO BPA FACILITIES AND COMPUTER SYSTEMS (15-16)
(FEB 2016)(BPI15.8.3)**

- (a) Contract workers with unescorted physical access to a BPA facility and/ or computer system shall follow the applicable procedures and requirements:
 - (1) BPA Policy 434-1: Cyber Security Program

- (2) BPA Control Center document, Dittmer Control Center Access – Frequently Asked Questions.
- (3) If unescorted access to energized facilities, BPA Substation Operations Rules of Conduct Handbook: Policies and Procedures, Permits, Energized Access, and Clearance Certifications
- (4) Additional requirements and procedures may be included in the statement of work and the technical specifications.

(b) Notifying BPA of Contractor Personnel Changes:

- (1) The Contractor shall notify BPA within four (4) hours when a worker with unescorted physical access to a BPA facility or computer system is re-assigned to non-BPA work, terminates their employment with the contractor, or is removed for cause.
- (2) The Contractor shall send notification to BPA Security Services by email to Revoke@bpa.gov or call (503) 230-3779 to provide notification.
- (3) The Contractor shall provide written notification to the COTR and the CO confirming that notification required in the above subsection (2) occurred and surrender the physical badge and computer access assets within 24 hours.

- (c) The provisions of this clause shall be included in all subcontracts where workers have unescorted access to BPA facilities or computer system access.

STANDARDS OF CONDUCT AND BUSINESS PRACTICES

ORGANIZATIONAL CONFLICTS OF INTEREST (3-2) (JUL 2013)(BPI 3.4.2.1)

- (a) The offeror or contractor warrants that, to the best of its knowledge and belief, and except as otherwise disclosed, there are no relevant facts which could give rise to organizational conflicts of interest, as defined in BPI 3.4.1, and that the offeror or contractor has disclosed all relevant information to the Contracting Officer.
- (b) The offeror or contractor agrees that, if after award, an organizational conflict of interest with respect to this contract is discovered, an immediate and full disclosure in writing shall be made to the Contracting Officer which shall include a description of the action which the contractor has taken, or proposes to take, to avoid or mitigate such conflicts.
- (c) In the event that the contractor was aware of an organizational conflict of interest prior to the award of this contract and did not disclose the conflict to the Contracting Officer, BPA may terminate the contract for default.
- (d) The provisions of this clause shall be included in all subcontracts for work to be performed in aid of the services provided by the prime contractor, and the terms "contract," "contractor," "Contracting Officer" modified appropriately.

CERTIFICATION, DISCLOSURE, AND LIMITATION REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (3-3) (JUL 2013)(BPI 3.5.5.1)

- (a) As used in this clause:

"Covered Federal action" means:

- (1) The awarding of any Federal contract.
- (2) The extension, continuation, renewal, amendment, or modification of any Federal contract.

"Indian tribe" and "tribal organization" have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and includes Alaskan Natives.

"Influencing or attempting to influence" means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government" means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, includes a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Person" means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation" means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment" means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient" includes all contractors and subcontractors. The term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed" means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State" means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and a multi-State, regional, or interstate entity having governmental duties and powers.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that:

- (1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract or the extension, continuation, renewal, amendment, or modification of any Federal contract.
- (2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, Standard Form-LLL, Disclosure of Lobbying Activities, to the Contracting Officer.
- (3) He or she will include the language of this certification in all subcontract awards at any tier and that all sub-recipients of subcontract awards in excess of \$150,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, U.S. Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10, 000 and not more than \$100,000 for each such failure.

- (d) A contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using non appropriated funds (to include profits from any covered Federal action), which would be prohibited under this clause if paid for with appropriated funds.
- (e) The contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under paragraph (b) of this clause. An event that materially affects the accuracy of the information reported includes--
 - (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
 - (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or
 - (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.
- (f) The contractor shall require the submittal of a certification, and if required, a disclosure form, by any person who requests or receives any subcontract exceeding \$150,000 under the Federal contract.
- (g) All subcontractor disclosure forms (but not certifications), shall be forwarded from tier to tier until received by the prime contractor. The prime contractor shall submit all disclosure forms to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding contractor.
- (h) Any person who makes an expenditure prohibited under this clause or who fails to file or amend the disclosure form to be filed or amended by this clause shall be subject to a civil penalty as provided by 31 U. S. Code 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

DRUG-FREE WORKPLACE (15-2)
(FEB 2016)(BPI 15.2.3.1)

- (a) The contractor agrees that with respect to all employees to be employed under this contract it will provide a drug-free workplace as described in this clause.
- (b) Definitions. As used in this clause "Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812), as from time to time amended, and as further defined in regulation at 21 CFR 1308.11-1308.15, as amended.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the contractor in connection with a specific contract at which employees of the contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other contractor employees who have other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

- (c) The Contractor, if other than an individual, shall -- within 30 calendar days after award (unless a longer period is agreed to in writing for contracts of 30 calendar days or more performance duration); or as soon as possible for contracts of less than 30 calendar days performance duration--
- (1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
 - (2) Establish an on-going drug-free awareness program to inform such employees about--
 - (A) The dangers of drug abuse in the workplace;
 - (B) The contractor's policy of maintaining a drug-free workplace;
 - (C) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (D) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
 - (3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (c)(1) of this clause;
 - (4) Notify such employees in writing in the statement required by subparagraph (c)(1) of this clause that, as a condition of continued employment on this contract, the employee will--
 - (A) Abide by the terms of the statement; and
 - (B) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than five (5) days after such conviction.
 - (5) Notify the Contracting Officer in writing within ten (10) days after receiving notice under subdivision (c)(4)(B) of this clause, from an employee, or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
 - (6) Within 30 days after receiving notice under subparagraph (c)(4)(B) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
 - (A) Taking appropriate personnel action against such employee, up to and including termination; and/or
 - (B) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.
 - (7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (c)(1) through (c)(6) of this clause.
- (d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (c) of this clause may, pursuant to BPI 3.6.3 render the contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.
- (e) The requirements of this clause shall not apply to
- (1) Solicitations and contracts for the acquisition of commercial items and services.
 - (2) Subcontracts at any tier for the acquisition of commercial items or commercial components at any tier.

CONTRACTOR POLICY TO BAN TEXT MESSAGING WHILE DRIVING (15-14)

(FEB 2016) (BPI 15.3.1.1)

(a) Definitions. As used in this clause--

“Driving”—(1) Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise. (2) Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

“Text messaging” means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.

(b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging while driving, dated October 1, 2009.

(c) The Contractor should adopt and enforce policies that ban text messaging while driving —(1) Company-owned or -rented vehicles or Government-owned vehicles; or (2) Privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts that exceed \$10,000.

**CONTRACTOR COMPLIANCE WITH BPA POLICIES (15-4)
(FEB 2016)(BPI 15.3.1.1)**

(a) The contractor shall comply with all BPA policies affecting the BPA workplace environment. Examples of specific policies are:

- (1) BPA Smoking Policy (BPAM 165),
- (2) Use of Alcoholic Beverages, Narcotics, or Illegal Drug Substances on BPA Property or When in Duty Station (BPAM 400/792C),
- (3) Firearms and Other Weapons (BPAM 1086),
- (4) Standards of conduct regarding transmission information (BPI 3.2),
- (5) Identification Badge Program (BPA Security Standards Manual, Chapter 200-3),
- (6) Information Protection (BPA Security Standards Manual, Chapter 300-2),
- (7) Cyber Security Program (BPA Policy 434-1),
- (8) Business Use of BPA Technology Services (BPAM Chapter 1110),
- (9) Prohibition on soliciting or receiving donations for a political campaign while on federal property ([18 U.S.C. § 607](#)),
- (10) Guidance on Violence and Threatening Behavior in the Workplace ([DOE G 444-1-1](#)),
- (11) Inspection of persons, personal property and vehicles ([41 CFR § 102-74.370](#)),
- (12) Preservation of property ([41 CFR § 102-74.380](#)),
- (13) Compliance with Signs and Directions ([41 CFR § 102-74.385](#)),
- (14) Disturbances ([41 CFR § 102-74.390](#)),
- (15) Gambling Prohibited ([41 CFR § 102-74.395](#)),
- (16) Soliciting, Vending and Debt Collection Prohibited ([41 CFR § 102-74.410](#)),
- (17) Posting and Distributing Materials ([41 CFR § 102-74.415](#))
- (18) Photographs for News, Advertising or Commercial Purposes ([41 CFR § 102-74.420](#)), and
- (19) [Dogs and Other Animals Prohibited \(41 CFR § 102-74.425\)](#)

(b) The contractor shall obtain from the CO information describing the policy requirements. A contractor who fails to enforce workplace policies is subject to suspension or default termination of the contract.

RESTRICTION ON COMMERCIAL ADVERTISING (3-9)
(OCT 2005) (BPI 3.8.1.1)

The Contractor agrees that without the Bonneville Power Administration's (BPA) prior written consent, the Contractor shall not use the names, visual representations, service marks and/or trademarks of the BPA or any of its affiliated entities, or reveal the terms and conditions, specifications, or statement of work, in any manner, including, but not limited to, in any advertising, publicity release or sales presentation. The Contractor will not state or imply that the BPA endorses a product, project or commercial line of endeavor.

CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS (3-10)
(APR 2014)(BPI 3.9.4.1)

- (a) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the Contractor employee whistleblower protections established at 41 U.S.C. § 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239).
- (b) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. § 4712.
- (c) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts that exceed \$150,000.

PRIVACY ASSURANCE (5-1)
(FEB 2016)(BPI 5.1.4)

The contractor acknowledges and agrees that, in the course of its contract with BPA, contractor may receive or access personally identifiable information (PII) belonging to BPA. Contractor represents and warrants that its collection, access, use, storage, disposal, and disclosure of PII will comply with all applicable privacy laws and regulations, including the Privacy Act (5 U.S.C. § 552a), the E-Government Act (44 U.S.C. § 101), and DOE regulations (10 CFR § 1008, et seq.). Contractor is responsible for the actions and omissions of its employees for the handling of PII. The contractor agrees not to share PII with any entity not explicitly authorized by the contract. The contractor agrees to report any security breach of PII within 24 hours of discovery of the breach. The contractor shall seek express consent from BPA before storing any PII on data servers, including redundant servers, which reside outside of the United States.

Businesses only

SOCIO-ECONOMIC ISSUES

***** LARGE BUSINESSES ONLY *** UTILIZATION OF SUPPLIER DIVERSITY PROGRAM CATEGORIES (8-3)**
(OCT 2013)(BPI 8.1.1)

- (a) It is the policy of the United States that supplier diversity program categories; small businesses, disadvantaged small businesses, women-owned small businesses, veteran-owned small businesses, and disabled veteran-owned small businesses shall have the maximum practicable opportunity to participate in the performance of contracts let by any Federal agency, including contracts and subcontracts.
- (b) Prime contractors shall establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with these supplier diversity program categories.
- (c) The Contractor hereby agrees to carry out the policies in (a) and (b) in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the

Department of Energy as may be necessary to determine the extent of the Contractor's compliance with this clause.

- (d) As used in this contract, the terms "small business " and " disadvantaged small business", "veteran owned small business", and "disabled veteran-owned small business" shall mean a business as defined in this BPI Part 8, pursuant to section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

***** LARGE BUSINESSES ONLY *** LIQUIDATED DAMAGES -- SMALL BUSINESS SUBCONTRACTING PLAN (8-5) (OCT 2013)(BPI 8.3.3.1)**

- (a) "Failure to make a good faith effort to comply with the subcontracting plan," as used in this clause, means a willful or intentional failure to perform in accordance with the subcontracting plan approved under this contract, or willful or intentional action to frustrate the plan.
- (b) If the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides that the Contractor failed to make a good faith effort to comply with its subcontracting plan, the Contractor shall pay BPA liquidated damages in an amount stated. The amount of damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the contractor failed to achieve each subcontract goal, or in the case of a commercial products plan, that portion of the dollar amount allocable to the BPA contract by which the Contractor failed to achieve each subcontract goal.
- (c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If the Contracting Officer finds that the contractor failed to made a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.
- (d) With respect to approved commercial products plans, i.e., company-wide or division-wide subcontracting plans, the Contracting Officer of the agency that originally approved the plan will exercise the functions of the Contracting Officer under this clause on behalf of all agencies that awarded contracts covered by that commercial products plan.
- (e) The Contractor shall have the right of appeal, under the clause in this contract entitled Disputes, from any final decision of the Contracting Officer.
- (f) Liquidated damages shall be in addition to any other remedies that the Government may have.

BUY AMERICAN ACT - SUPPLIES (9-3) (JUL 2013)(BPI 9.1.6)

- (a) The Buy American Act (41 U.S. Code §8301-8305) provides that the Government give preference to domestic source end products.

"Commercially available off-the-shelf (COTS item)"

- (1) Means any item of a supply (including construction material) that is:
 - (i) A commercial item (as defined in BPI 1.8);
 - (ii) Sold in substantial quantities in the commercial marketplace; and
 - (iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

- (2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 (46 USC App 1702) such as agricultural products and petroleum products.

"Components" means those articles, materials, and supplies, which are incorporated directly into the end products.

"End products" means those articles, materials, and supplies to be acquired for public use under this contract.

"Domestic end product" means (1) an unmanufactured end product mined or produced in the United States or (2) an end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as the products referred to in (b) (2) or (3) of this clause shall be treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

(b) The Contractor shall deliver only domestic end products, except those

- (1) That BPA determines are not mined, produced or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality;
- (2) For which BPA determines that domestic preference would be inconsistent with the public interest; or
- (3) For which BPA determines the cost to be unreasonable.

(c) In accordance with 41 U.S.C. 431, the component test of the Buy American Act is waived for an end product that is a COTS item.

(The foregoing requirements are administered in accordance with Executive Order No. 10582, as amended, and Part 9 of the BPI.)

RESTRICTION ON CERTAIN FOREIGN PURCHASES (9-8) (JUL 2013) (BPI 9.3.2.1)

- (a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR Chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.
- (b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from Burma or North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at <http://www.treas.gov/offices/enforcement/ofac/sdn>. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR Chapter V and/or on OFAC's website at <http://www.treas.gov/offices/enforcement/ofac>.
- (c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

EQUAL OPPORTUNITY (10-1) (JUN 2016)(BPI 10.1.4.3)

As prescribed in 10.1.4.3, insert the following clause in all solicitations and contracts

(a) Definition. As used in this clause.

"Gender identity" has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at https://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

"Sexual orientation" has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at https://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html

“United States,” as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b)

- (1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.
- (2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a particular religion to perform work connected with the carrying on of the Contractor’s activities (41 CFR 60-1.5).

(c)

- (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.
- (2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to –
 - (i) Employment;
 - (ii) Upgrading;
 - (iii) Demolition;
 - (iv) Transfer;
 - (v) Recruitment or recruitment advertising;
 - (vi) Layoff or termination;
 - (vii) Rates of pay or other forms of compensation; and
 - (viii) Selection for training, including apprenticeship.
- (3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.
- (4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers’ representative of the Contractor’s commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.
- (6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
- (7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR Part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.
- (8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the (OFCCP) for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance

with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

- (9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, in the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.
- (10) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.
- (11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(d) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

**AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (10-2)
(OCT 2014)(BPI 10.1.5.3)**

(a) General.

- (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as --
 - (i) Recruitment, advertising, and job application procedures;
 - (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;
 - (iii) Rates of pay or any other form of compensation and changes in compensation;
 - (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 - (v) Leaves of absence, sick leave, or any other leave;
 - (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
 - (vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 - (viii) Activities sponsored by the Contractor, including social or recreational programs; and
 - (ix) Any other term, condition, or privilege of employment.
- (2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings.

- (1) The Contractor agrees to post employment notices stating --
 - (i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and
 - (ii) The rights of applicants and employees.

- (2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.
 - (3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.
- (c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.
- (d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$15,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

**SERVICE CONTRACT LABOR STANDARDS (10-3)
(OCT 2014)(BPI 10.2.2.3)**

- (a) Definitions. As used in this clause-

"Act" means the Service Contract Labor Standards statute (41 U.S.C. 6701-6707, et seq.).

"Contractor" when used in any subcontract, shall include the subcontractor, except in the term "BPA Prime Contractor."

"Service employee" means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all service persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

- (b) Applicability. This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 6702, as interpreted in Subpart C of 29 CFR Part 4.

- (c) Compensation.

- (1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

- (2)

- (i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee not listed therein which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits which are determined pursuant to the procedures in this paragraph (c).

- (ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444,

Request for Authorization of Additional Classification and Rate, to the Contracting Officer (CO) no later than 30 days after the unlisted class of employee performs any contract work. The CO shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the CO within 30 days of receipt that additional time is necessary.

- (iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.
 - (iv) Establishing rates.
 - (A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination, depending upon the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.
 - (B) In the case of a contract modification, an exercise of an option or extension of an existing contract, or in any other case where a contract succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to such conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the CO of the action taken, but the other procedures in paragraph (c)(2)(ii) of this section need not be followed.
 - (C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.
 - (v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.
 - (vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits, which shall be retroactive to the date such class or classes of employees commenced contract work.
- (3) Adjustment of compensation. If the term of this contract is more than one year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after one year and not less often than once every two years, under wage determinations issued by the Wage and Hour Division.

- (d) Obligation to furnish fringe benefits. The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments only in accordance with Subpart D of 29 CFR Part 4.
- (e) Minimum wage. In the absence of a wage determination for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.
- (f) Successor contracts. If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality, and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the wage determination for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreements, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR Part 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR Part 4.10, that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR Part 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for similar services in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Administrative Review Board, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.
- (g) Notification to employees. The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this contract.
- (h) Safe and sanitary working conditions. The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health and safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.
- (i) Records.
- (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for three years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:
- (i) For each employee subject to the Act:

(A) Name, address and social security number;

- (B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payment in lieu of fringe benefits and total daily and weekly compensation;
 - (C) Daily and weekly hours worked by each employee; and
 - (D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.
- (ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative under the terms of paragraph (iii) of this clause. A copy of the report required by subdivision (c)(2)(iv)(B) of this clause will fulfill this requirement.
 - (iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.
- (2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.
 - (3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the CO, upon direction of the Department of Labor and notification of the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases.
 - (4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.
- (j) Pay periods. The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.
 - (k) Withholding of payments and termination of contract. The CO shall withhold or cause to be withheld from the BPA prime contractor under this or any other Government contract with the prime contractor such sums as an appropriate official of the Department of Labor requests, or such sums as the CO decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the CO may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the BPA may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.
 - (l) Subcontracts. The Contractor agrees to include this clause in all subcontracts subject to the Act.
 - (m) Collective bargaining agreements applicable to service employees. If wages to be paid or fringe benefits to be furnished any service employees employed by the BPA prime contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the BPA prime contractor shall report such fact to the CO, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance on the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance, such agreements shall be reported promptly after negotiation thereof.
 - (n) Seniority Lists. Not less than ten days prior to completion of any contract being performed at a BPA facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a contractor (predecessor) or successor (29 CFR Part 4.173), the incumbent prime contractor shall furnish to

the CO a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor contractors of each such service employee. The CO shall provide this list to the successor contractor at the commencement of the succeeding contract.

- (o) Rulings and interpretations. Rulings and interpretations of the Act are contained in 29 CFR Part 4.
- (p) Contractor's certification
 - (1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.
 - (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.
 - (3) The penalty for making false statements is prescribed in the U.S. Criminal Code. 18 U.S.C. 1001.
- (q) Variations, tolerances and exemptions involving employment. Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business.
 - (1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).
 - (2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).
 - (3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.
- (r) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Office of Apprenticeship Training, Employer, and Labor Services (OATELS) U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.
- (s) Tips. An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the amount of these tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and regulations, 29 CFR Part 531. However, the amount of the credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision—
 - (1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;

- (2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received):
 - (3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and
 - (4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.
- (t) Disputes concerning labor standards. The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes concerning labor standards requirements within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U. S. Department of Labor, or the employees or their representatives.

FAIR LABOR AND SERVICE CONTRACT LABOR STANDARDS–PRICE ADJUSTMENT (10-4)
(OCT 2014)([BPI 10.2.3.3.3](#))

- (a) The Contractor warrants that the prices in this contract do not include any allowance for any contingency to cover increased costs for which adjustment is provided under paragraph (d) below.
- (b) The minimum monetary wages and fringe benefits required to be paid or furnished to service employees under this contract as set forth in the wage determination, shall be subject to adjustment if (1) the period of performance of this contract exceeds two years, (2) the contract contains option provisions specifying that a differing wage determination shall apply thereto, (3) an amendment to the Fair Labor Standards Act is enacted revising the minimum wage rate, (4) a contract modification significantly changes the nature of the work, or, (5) the Department of Labor otherwise directs.
- (c) The contract price or contract unit priced labor rates will be adjusted to reflect the Contractor's actual increase or decrease in applicable wages and fringe benefits to the extent that the increase is made to comply with the new rates, or the decrease is voluntarily made by the Contractor.
- (d) Any such adjustment shall be limited to increases or decreases in wages and fringe benefits as described in paragraph (c) of this clause, and the accompanying increases or decreases in social security and unemployment taxes and workers' compensation insurance, but shall not otherwise include any amount for general and administrative costs, material costs, overhead, or profit. (For example, the prior year wage determination required a minimum wage rate of \$4.00 per hour. The Contractor chose to pay \$4.10. The new wage determination increases the minimum rate to \$4.50 per hour. Even if the Contractor voluntarily increases the rate to \$4.75 per hour, the allowable price adjustment is \$.40 per hour.)
- (e) The Contractor shall notify the Contracting Officer (CO) of any increase claimed under this clause within 30 days after receiving a new wage determination unless this notification period is extended in writing by the CO. The Contractor shall promptly notify the CO of any decrease under this clause, but nothing in the clause shall preclude the BPA from asserting a claim within the period permitted by law. The notice shall contain a statement of the amount claimed and any relevant supporting data, including payroll records that the CO may reasonably require. Upon agreement of the parties, the contract price or contract unit price labor rates shall be modified in writing. The Contractor shall continue performance pending agreement on, or determination of, any such adjustment and its effective date.
- (f) The CO or an authorized representative shall have access to and the right to examine any pertinent books, documents, papers and records of the Contractor until the expiration of 3 years after final payment under the contract.

**SERVICE CONTRACT WAGE DETERMINATION (10-5)
(OCT 2014) (BPI 10.2.2.3)**

The wage determination(s) referred to in the clause 10-3, Service Contract Labor Standards, are incorporated into the contract, and are identified as follows:

Decision Number: 2015-5563 Date: 01/17/2017

Last Modifications Number: 1 Date: 01/12/2017

**NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (10-6)
(OCT 2014) (BPI 10.1.7.2)**

- (a) During the term of this contract, the contractor agrees to post a notice, of such size and in such form, and containing such content as the Secretary of Labor shall prescribe, in conspicuous places in and about its plants and offices where employees covered by the National Labor Relations Act engage in activities relating to the performance of the contract, including all places where notices to employees are customarily posted both physically and electronically. The notice shall include the information contained in the notice published by the Secretary of Labor in the Federal Register (Secretary's Notice).
- (b) The contractor will comply with all provisions of the Secretary's Notice, and related rules, regulations, and orders of the Secretary of Labor.
- (c) In the event that the contractor does not comply with any of the requirements set forth in paragraphs (a) or (b) above, this contract may be cancelled, terminated, or suspended in whole or in part, and the contractor maybe declared ineligible for future Government contracts in accordance with procedures authorized in or adopted pursuant to Executive Order 13496. Such other sanctions or remedies may be imposed as are provided in Executive Order 13496, or by rule, regulation, or order of the Secretary of Labor, or as are otherwise provided by law.
- (d) The contractor will include the provisions of paragraphs (a) through (c) above in every subcontract entered into in connection with this contract (unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 3 of Executive Order 13496 of January 30, 2009), so that such provision will be binding upon each subcontractor. The contractor will take such action with respect to any such contract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance: Provided, however, that if the contractor becomes involved in litigation with a subcontractor, or is threatened with such involvement, as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

**EMPLOYMENT ELIGIBILITY VERIFICATION (10-18)
(OCT 2014) (BPI 10.1.8.3)**

- (a) "Employee assigned to the contract," as used in this clause, means an employee who was hired after November 6, 1986, who is directly performing work, in the United States, under a contract that is required to include the clause as prescribed by 10.7.3. An employee is not considered to be directly performing work under a contract if the employee—
 - (1) Normally performs support work, such as indirect or overhead functions; and
 - (2) Does not perform any substantial duties applicable to the contract.
- (b) E-Verify enrollment and verification requirements.
 - (1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at the time of the contract award, the Contractor shall:

- (i) Enroll. Enroll as a Federal Contractor in the E-Verify program within 30 calendar days of contract award;
 - (ii) Verify all new employees. Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (a) (3) of this section); and
 - (iii) Verify employees assigned to the contract. For each employee assigned to the contract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee's assignment to the contract, whichever date is later (but see paragraph (a)(4) of this section).
- (2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of—
- (i) All new employees.
 - (A) Enrolled 90 calendar days or more. The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract within 3 business days after the date of hire (but see paragraph (a)(3) of this section); or
 - (B) Enrolled less than 90 calendar days. Within 90 calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph)(3) of this section); or
 - (ii) Employees assigned to the contract. For each employee assigned to the contract, the Contractor shall initiate verification within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever date is later (but see paragraph (4) of this section).
- (3) If the Contractor is an institution of higher education; a state or local government, or the government of a federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract. The Contractor shall follow the applicable verification requirements at (a)(1) or (a)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.
- (4) Option to verify employment eligibility of all employees. The Contractor may elect to verify all existing employees hired after November 6, 1986, rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986, within 180 calendar days of—
- (i) Enrollment in the E-Verify program; or
 - (ii) Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding (MOU).
- (5) The Contractor shall comply, for the period of performance of this contract, with the requirement of the E-Verify program MOU.
- (i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor will be referred to a Department of Energy suspension or debarment official.
 - (ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.

- (c) Web site. Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify>.
- (d) Individuals previously verified. The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee—
- (1) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;
 - (2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or
 - (3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD) -12, Policy for a Common Identification Standard for Federal Employees and Contractors.
- (e) Subcontracts. The contractor shall include the requirements of this clause, including this paragraph (d) (appropriately modified for identification of the parties), in each subcontract that—
- (1) Is for:
 - (i) Services other than commercial services that are part of the purchase of a commercial-off-the-shelf (COTS) item, performed by the COTS provider and are normally provided for that COTS item;
 - (ii) Construction.
 - (2) Has a value of more than \$3,000; and
 - (3) Includes work performed in the United States.

EQUAL OPPORTUNITY FOR VETERANS (10-19)
(JUN 2016) (BPI 10.1.9.4)

(a) Definitions. As used in this clause –

“Active duty wartime or campaign badge veteran,” “Armed Forces service medal veteran,” “disabled veteran,” “protected veteran,” “qualified disabled veteran,” and “recently separated veteran” have the meanings given at BPI 10.1.9.1.

(b) Equal Opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

(c) Subcontracts. The Contractor shall insert the terms of this clause in subcontracts of \$150,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

EMPLOYMENT REPORTS ON VETERANS (10-20)
(JUN 2016) (BPI 10.1.9.4)

(a) Definitions. As used in this clause –

“Active duty wartime or campaign badge veteran,” “Armed Forces service medal veteran,” “disabled veteran,” “protected veteran,” “qualified disabled veteran,” and “recently separated veteran” have the meanings given at BPI 10.1.9.1.

- (b) The Contractor shall report annually, as required by the Secretary of Labor, on—
- (1) *The total number of employees in the contractor's workforce, by job category and hiring location, who are disabled veterans, other protected veterans, Armed Forces service medal veterans, and recently separated veterans.*
 - (2) The total number of new employees hired during the period covered by the report, and of the total, the number of disabled veterans, other protected veterans, Armed Forces service medal veterans, and recently separated veterans; and
 - (3) The maximum number and minimum number of employees of the Contractor or subcontractor at each hiring location during the period covered by the report.
- (c) The Contractor shall report the above items by filing the VETS-4212 "Federal Contractor Veterans' Employment Report (see "VETS-4212 Federal Contractor Reporting" and "Filing Your VETS-4212 Report" at <http://www.dol.gov/vets/vets4212.htm>).".
- (d) The Contractor shall submit VETS-4212 Reports no later than September 30 of each year.
- (e) The employment activity report required by paragraphs (b)(2) and (b)(3) of this clause shall reflect total new hires, and maximum and minimum number of employees, during the most the most recent 12-month period preceding the ending date selected for the report. Contractors may select an ending date—
- (1) As of the end of any pay period between July 1 and August 31 of the year the report is due; or
 - (2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).
- (f) The number of veterans reported must be based on data known to the contractor when completing the VETS-4212. The contractor's knowledge of veterans status may be obtained in a variety of ways, including an invitation to applicants to self-identify (in accordance with 41 CFR 60-300.42), voluntary self-disclosure by employees, or actual knowledge of veteran status by the contractor. This paragraph does not relieve an employer of liability for discrimination under 38 U.S.C. § 4212.
- (g) The Contractor shall insert the terms of this clause in subcontracts of \$150,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

**COMBATING TRAFFICKING IN PERSONS (10-25)
(OCT 2014) (BPI 10.1.10.3)**

(a) Definitions. As used in this clause:

"Coercion" means:

- (1) Threats of serious harm to or physical restraint against any person;
- (2) Any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or
- (3) The abuse or threatened abuse of the legal process.

"Commercial sex act" means any sex act on account of which anything of value is given to or received by any person.

"Debt bondage" means the status or condition of a debtor arising from a pledge by the debtor of his or her personal services or of those of a person under his or her control as a security for debt, if the value of those services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of those services are not respectively limited and defined.

"Employee" means an employee of the Contractor directly engaged in the performance of work under the contract who has other than a minimal impact or involvement in contract performance.

"Forced labor" means knowingly providing or obtaining the labor or services of a person:

- (1) By threats of serious harm to, or physical restraint against, that person or another person;
- (2) By means of any scheme, plan, or pattern intended to cause the person to believe that, if the person did not perform such labor or services, that person or another person would suffer serious harm or physical restraint; or
- (3) By means of the abuse or threatened abuse of law or the legal process.

“Involuntary servitude” includes a condition of servitude induced by means of:

- (1) Any scheme, plan, or pattern intended to cause a person to believe that, if the person did not enter into or continue in such conditions, that person or another person would suffer serious harm or physical restraint; or
- (2) The abuse or threatened abuse of the legal process.

“Severe forms of trafficking in persons” means:

- (1) Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or
- (2) The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

“Sex trafficking” means the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act.

(b) Policy. The United States Government has adopted a zero tolerance policy regarding trafficking in persons. Contractors and contractor employees shall not:

- (1) Engage in severe forms of trafficking in persons during the period of performance of the contract;
- (2) Procure commercial sex acts during the period of performance of the contract; or
- (3) Use forced labor in the performance of the contract.

(c) Contractor requirements. The Contractor shall:

- (1) Notify its employees of:
 - (i) The United States Government's zero tolerance policy described in paragraph (b) of this clause; and
 - (ii) The actions that will be taken against employees for violations of this policy. Such actions may include, but are not limited to, removal from the contract, reduction in benefits, or termination of employment; and
- (2) Take appropriate action, up to and including termination, against employees or subcontractors that violate the policy in paragraph (b) of this clause.

(d) Notification. The Contractor shall inform the Contracting Officer immediately of:

- (1) Any information it receives from any source (including host country law enforcement) that alleges a Contractor employee, subcontractor, or subcontractor employee has engaged in conduct that violates this policy; and
- (2) Any actions taken against Contractor employees, subcontractors, or subcontractor employees pursuant to this clause.

- (e) Remedies. In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (c), (d), or (f) of this clause may result in:
- (1) Requiring the Contractor to remove a Contractor employee or employees from the performance of the contract;
 - (2) Requiring the Contractor to terminate a subcontract;
 - (3) Suspension of contract payments;
 - (4) Loss of award fee, consistent with the award fee plan, for the performance period in which the Government determined Contractor non-compliance;
 - (5) Termination of the contract for default or cause, in accordance with the termination clause of this contract; or
 - (6) Suspension or debarment.
- (f) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts.
- (g) Mitigating Factor. The Contracting Officer may consider whether the Contractor had a Trafficking in Persons awareness program at the time of the violation as a mitigating factor when determining remedies. Additional information about Trafficking in Persons and examples of awareness programs can be found at the website for the Department of State's Office to Monitor and Combat Trafficking in Persons at <http://www.state.gov/g/tip>.

**MINIMUM WAGE FOR FEDERAL CONTRACTS (10-28)
(OCT 2014)(BPI 10.2.3.1.3; 10.3.4.1.3)**

This clause implements Executive Order 13658, Establishing a Minimum Wage for Contractors, dated February 12, 2014, and OMB Policy Memorandum M-14-09, dated June 12, 2014.

- (a) Each service employee, laborer, or mechanic employed in the United States (the 50 States and the District of Columbia) in the performance of this contract by the prime Contractor or any subcontractor, regardless of any contractual relationship which may be alleged to exist between the Contractor and service employee, laborer, or mechanic, shall be paid not less than the applicable minimum wage under Executive Order 13658. The minimum wage required to be paid to each service employee, laborer, or mechanic performing work on this contract between January 1, 2015, and December 31, 2015, shall be \$10.10 per hour.
- (b) The Contractor shall adjust the minimum wage paid under this contract each time the Secretary of Labor's annual determination of the applicable minimum wage under section 2(a)(ii) of Executive Order 13658 results in a higher minimum wage. Adjustments to the Executive Order minimum wage under section 2(a)(ii) of Executive Order 13658 will be effective for all service employees, laborers, or mechanics subject to the Executive Order beginning January 1 of the following year. The Secretary of Labor will publish annual determinations in the Federal Register no later than 90 days before such new wage is to take effect. The Secretary will also publish the applicable minimum wage on www.wdol.gov (or any successor website). The applicable published minimum wage is incorporated by reference into this contract.
- (c) The Contracting Officer will adjust the contract price or contract unit price under this clause only for the increase in labor costs resulting from the annual inflation increases in the Executive Order 13658 minimum wage beginning on January 1, 2016. The Contracting Officer shall consider documentation as to the specific costs and workers impacted in determining the amount of the adjustment.
- (d) The Contracting Officer will not adjust the contract price under this clause for any costs other than those identified in paragraph (c) of this clause, and will not provide price adjustments under this clause that result in duplicate price adjustments with the respective clause of this contract implementing the Service Contract Labor Standards statute (formerly known as the Service Contract Act) or the Wage Rate Requirements (Construction) statute (formerly known as the Davis Bacon Act).

(e) The Contractor shall include the substance of this clause, including this paragraph (e) in all subcontracts.

**SUBCONTRACTING WITH DEBARRED OR SUSPENDED ENTITIES (11-7)
(JUL 2013) (BPI 11.8.1; BPI 25.1.1)**

- (a) "Commercially available off-the-shelf (COTS) item," as used in this clause means any item of supply (including construction material) that is:
- (1) A commercial item (as defined in BPI 1.8);
 - (2) Sold in substantial quantities in the commercial marketplace; and
 - (3) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace.
- (b) The Government suspends or debar Contractors to protect the Government's interests. Other than a subcontract for a commercially available off-the-shelf item, the Contractor shall not enter into any subcontract in excess of \$30,000 with a Contractor that is debarred, suspended, by any executive agency unless there is a compelling reason to do so.
- (c) The Contractor shall require each proposed subcontractor whose subcontract will exceed \$30,000, other than a subcontractor providing a commercially available off-the-shelf item, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended by the Federal Government.
- (d) The Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party (other than a subcontractor providing a commercially available off-the-shelf item) that is debarred, suspended (see www.sam.gov).
- (e) Subcontracts. Unless this is a contract for the acquisition of commercial items, the Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for the identification of the parties), in each subcontract that exceed \$30,000 in value and is not a subcontract for commercially available off-the-shelf items

ENVIRONMENT AND SAFETY

**HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (15-6)
(SEP 1998)(BPI 15.4.2)**

- (a) The Contractor agrees to submit a Material Safety Data Sheet (Department of Labor Form OSHA-20), as prescribed in Federal Standard No. 313C, for all hazardous material 5 days before delivery of the material whether or not it is listed in Appendix A of the Standard. This obligation applies to all materials delivered under this contract which will involve exposure to hazardous materials or items containing these materials.
- (b) "Hazardous material," as used in this clause, is as defined in Federal Standard No. 313C, in effect on the date of this contract.
- (c) Neither the requirements of this clause nor any act or failure to act by BPA shall relieve the Contractor of any responsibility or liability for the safety of BPA, Contractor, or subcontractor personnel or property.
- (d) The Contractor shall comply with applicable Federal, state, and local laws, codes, ordinances, and with regulations (including the obtaining of licenses and permits) in connection with hazardous material.
- (e) The Contractor shall insert this clause, including this Paragraph (e), with appropriate changes in the designation of the parties, in subcontracts at any tier (including purchase orders) under this contract involving hazardous material.

OZONE DEPLETING SUBSTANCES (15-7)
(JUL 2013)(BPI 15.5.2.3)

- (a) In the performance of this contract, the Contractor shall advance the use of non-ozone depleting products that are Environmental Protection Agency (EPA)-designated items unless—
- (1) The product cannot be acquired—
- (i) Competitively within a time frame providing for compliance with the contract performance schedule;
- (A) Meeting contract performance requirements; or
- (B) At a reasonable price.
- (b) “Ozone-depleting substance,” as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as—
- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to, hydrochlorofluorocarbons.
- (c) The Contractor shall label products which contain, or are manufactured with, ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

Warning
Contains (or manufactured with, if applicable) * _____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

- The Contractor shall insert the name of the substance(s).

REFRIGERATION EQUIPMENT (15-8)
(JUL 2013)(BPI 15.5.2.3)

The Contractor should make every effort to comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act ([42 U.S.C. 7671g](#) and [7671h](#)) as each or both apply to this contract. For more information on Section 608 (general refrigeration), and Section 609 (motor vehicle air conditioning), see <http://www.epa.gov/ozone/title6/index.html>

ENERGY EFFICIENCY IN ENERGY CONSUMING PRODUCTS (15-9)
(JUL 2013)(BPI 15.5.3.3)

- (a) “Energy-Efficient Product” means a product that meets Department of Energy and Environmental Protection Agency criteria for use of the Energy Star trademark label; or is in the upper 25 percent of efficiency for all similar products as designated by the Department of Energy’s Federal Energy Management Program.
- (b) Unless otherwise approved in writing by the CO, the Contractor and its subcontractors shall make every effort to ensure that energy-consuming products are Energy-Efficient Products at the time of contract award, for products that are—
- (1) Delivered; or acquired by the Contractor for BPA use or for performing services at a BPA facility; or
- (2) Specified in the design of a building or work, or incorporated during its construction, renovation, or maintenance.

(c) Information about these products is available for—

- (1) ENERGY STAR® at <http://www.energystar.gov/products>; and
- (2) FEMP at <http://www.energy.gov/eere/femp/energy-efficient-products-and-energy-saving-technologies>.

RECOVERED MATERIALS (15-10)
(JUL 2013)(BPI 15.5.4.2)

(a) In the performance of this contract, the Contractor shall advance the use of products containing recovered materials that are designated by the EPA's CPG program unless the product cannot be acquired—

- (1) Competitively within a timeframe providing for compliance with the contract performance schedule;
- (2) Meeting contract performance requirements; or
- (3) At a reasonable price.

(b) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, <http://www.epa.gov/wastes/conserves/tools/cpg/index.htm> . The list of EPA designated items is available at <http://www.epa.gov/osw/conserves/tools/cpg/index.htm> .

BIO-BASED PRODUCTS (15-11)
(JUL 2013)(BPI 15.5.4.2)

(a) In the performance of this contract, the Contractor shall advance the use of bio-based products that are United States Department of Agriculture (USDA)-designated items unless—

- (1) The product cannot be acquired—
 - (i) Competitively within a time frame providing for compliance with the contract performance schedule;
 - (ii) Meeting contract performance requirements; or
 - (iii) At a reasonable price.

(b) Information about this requirement and these products is available at www.usda.gov/biopreferred.

CONTRACTOR SAFETY AND HEALTH (15-12)
(APR 2014)(BPI 15.6.4.1)

a) The Contractor shall furnish a place of employment that is free from recognized hazards that cause or have the potential to cause death or serious physical harm to employees; and shall comply with occupational safety and health standards promulgated under the Occupational Safety and Health Act of 1970 (Public Law 91-598). Contractor employees shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to their own actions and conduct.

- (1) All construction contractors working on contracts in excess of \$100,000 shall comply with Department of Labor Contract Work Hours and Safety Standards (40 U.S.C. § 3701 et seq.).
- (2) The Contractor shall comply with

- (i) National Fire Protection Association (NFPA) National Fire Codes for fire prevention and protection applicable to the work or facility being occupied or constructed;
- (ii) NFPA 70E, *Standard for Electrical Safety in the Workplace*;
- (iii) American Conference of Governmental Industrial Hygiene *Threshold Limit Values for Chemical Substances and Physical Agents* and Biological Exposure Indices; and,
- (iv) Any additional safety and health measures identified by the Contracting Officer.

This clause does not relieve the Contractor from complying with any additional specific or corporate safety and health requirements that it determines to be necessary to protect the safety and health of employees.

- (b) The Contractor bears sole responsibility for ensuring that all contractor's workers performing contract work possess the necessary knowledge and skills to perform the work correctly and safely. The Contractor shall make any training and certification records necessary to demonstrate compliance with this requirement available for review upon request by BPA.
- (c) The Contractor shall hold BPA and any other owners of the site of work harmless from any and all suits, actions, and claims for injuries to or death of persons arising from any act or omission of the Contractor, its subcontractors, or any employee of the Contractor or subcontractors, in any way related to the work under this contract.
- (d) The Contractor shall immediately notify the Contracting Officer (CO), the Contracting Officer's Technical Representative (COTR), and the Safety Office by telephone at (360) 418-2397 of any death, injury, occupational disease or near miss arising from or incident to performance of work under this contract.
 - (1) The BPA Safety Office business hours are 7:00 AM to 4:00 PM Pacific Time. If the Safety Office Officials are not available to take the phone call the contractor shall leave a voicemail that includes the details of the event, and the Contractor's contact information. The Contractor shall periodically repeat the phone call to the Safety Office until the Contractor is able to speak directly with a BPA Safety Official.
 - (2) The Contractor shall follow up each phone call notification with an email to SafetyNotification@BPA.gov immediately for any fatality or within 24 hours for non-fatal events.
 - (3) The Contractor shall complete BPA form 6410.15e Contractor's Report of Personal Injury, Illness, or Property Damage Accident and submit the form to the CO, COTR, and Safety Office within five (5) working days of such an occurrence. The Contractor shall include photographs and witness statements with the report.
 - (4) In the case of a Near Miss Incident that does not involve injury, illness, or property damage, the Contractor shall complete BPA Form 6410.18e Contractor's Report of Incident/Near Miss and submit the form to the CO, COTR, and Safety Office within five (5) working days of such an occurrence. The Contractor shall include photographs and witness statements with the report.
- (e) Notification of Imminent Danger and Workers Right to Decline Work
 - (1) All workers, including contractors and BPA employees, are responsible for identifying and notifying other workers in the affected area of imminent danger at the site of work. Imminent danger is any condition or practice that poses a danger that could reasonably be expected to cause death or severe physical hardship before the imminence of such danger could be eliminated through normal procedures.
 - (2) A contract worker has the right to ask, without reprisal, their onsite management and other workers to review safe work procedures and consider other alternatives before proceeding with a work procedure. Reprisal means any action taken against an employee in response to, or in revenge for, the employee having raised, in good faith, reasonable concerns about a safety and health aspect of the work required by the contract.
 - (3) A contract worker has the right to decline to perform tasks, without reprisal, that will endanger the safety and health of themselves or of other workers.

- (4) The Contractor shall establish procedures that allow workers to cease or decline work that may threaten the safety and health of the worker or other workers.
- (f) BPA encourages all contractor workers to raise safety and health concerns as a way to identify and control safety hazards. The Contractor shall develop and communicate a formal procedure for submittal, resolution, and communication of resolution and corrective action to the worker submitting the concern. The procedure shall 1.) encourage workers to identify safety and health concerns directly to their supervisor and employer using the employer's reporting process; and 2.) inform workers that they may raise safety concerns to BPA or the State OSHA. Workers may notify the Safety Office at (360) 418-2397 if the employer's work process does not resolve the worker's safety and health concern. BPA may coordinate the response to a contractor worker's health and safety concerns with the State OSHA when necessary to facilitate resolution.
- (g) BPA employees may direct the contractor to stop a work activity due to safety and health concerns. The BPA employee shall notify the Contractor orally with written confirmation, and request immediate initiation of corrective action. After receipt of the notice the Contractor shall immediately take corrective action to eliminate or mitigate the safety and health concern. When a BPA employee stops a work activity due to a safety and health concern the Contractor shall immediately notify the CO, provide a description of the event, and identify the BPA employee that halted the work activity. The Contractor shall not resume the stopped work activity until authorization to resume work is issued by a BPA Safety Official. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule when BPA stops a work activity due to safety and health concerns that occurred under the Contractor's control.
- (h) The Contractor shall keep a record of total monthly labor hours worked at the site of work. The Contractor shall include a separate calculation of the monthly total labor hours for each subcontractor in the contractor's monthly data. Upon request by the CO, COTR or BPA Safety Office, the Contractor shall provide the total labor hours for a completed month to BPA no later than the 15th calendar day of the following month. The requestor shall identify the required reporting format and procedures.
- (i) The Contractor shall include this clause, including paragraph (i) in subcontracts. The Contractor may make appropriate changes in the designation of the parties to reflect the prime contractor--subcontractor arrangement. The Contractor is responsible for enforcing subcontractor compliance with this clause.

BONDS AND INSURANCE

INSURANCE (16-2) (APR 2014)(BPI 16.3.5)

- (a) Before commencing work under this contract, the Contractor shall provide to the Contracting Officer certificates of insurance from the insurance company, or an authorized insurance agent, stating the required insurance has been obtained and is in force. The certificate(s) shall identify the Contractor and name BPA as the named insured as follows:

Bonneville Power Administration
Attention: Contracting Officer – Daniel A Guffey

The certificate shall also identify the contract number(s) for which coverage is provided. Should any of the policies required by this clause be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

- (b) Throughout the period of the contract the Contractor shall deliver a new certificate of insurance to the Contracting Officer prior to existing policy expiration, changes, and changes to insurance providers. The Contractor shall notify BPA immediately if at any time any one of Contractor's insurers issues a notice of cancellation for any reason. The Contractor shall provide proof of replacement insurance prior to the effective date of cancellation. A certificate of insurance shall be furnished to BPA confirming the issuance of such insurance prior to Contractor's continuation of access to the Site of work. If the Contractor's insurance does not cover the subcontractors involved in the work, the Contractor shall provide the Contracting Officer with certificates of insurance stating that the required insurance has been obtained by the subcontractors.
- (c) The Contractor may, with the approval of the Contracting Officer, maintain a self-insurance program; provided that, with respect to workers' compensation, the Contractor is qualified pursuant to statutory authority.

- (d) The following minimum kinds and amounts of insurance are applicable in the performance of the work under this contract. All insurance required by this paragraph shall be in a form and amount and for those periods as the Contracting Officer may require or approve and with insurers approved by the Contracting Officer.
- (1) Workers' compensation and employer's liability. Contractors are required to comply with applicable Federal and State workers' compensation and occupational disease statutes. Employer's liability coverage of at least \$1,000,000 shall be required. BPA may require Contractors who are individuals (whether incorporated or not) to carry workers' compensation to protect agency interests. The Contracting Officer shall advise the Contractor regarding specific requirements.
 - (2) Commercial General liability. The contractor shall provide commercial general liability (CGL) insurance of at least \$1,000,000 per occurrence. Any policy aggregate limits which apply shall be modified to apply to each location and project. The policy shall name BPA, its officials, officers, employees and agents, as additional insureds with respect to the contractor's performance of services under the contract. The contractor's policy shall be primary and shall not seek any contribution from any insurance or self-insurance programs of BPA. The Contractor's CGL policy shall be issued on an occurrence basis.
 - (3) Automobile liability. The contractor shall provide automobile liability insurance covering the operation of all automobiles used in performing the contract. Policies shall provide limits of at least \$1,000,000 per accident and include coverage for all owned, non-owned and hired automobiles.
 - (4) Professional liability. The contractor shall provide professional liability insurance. Coverage shall be at least \$5,000,000 per occurrence for claims arising out of negligent acts, errors or omissions.

PATENTS, DATA, AND COPYRIGHTS

INFORMATION ASSURANCE (6-3) (FEB 2016)(BPI 6.13.4)

- (a) In performance of this contract, the contractor shall protect all information, data and information systems under its management and control at all times commensurate with the risk and magnitude of harm that could result to Federal security interests and BPA's missions and programs resulting from a loss or unauthorized disclosure of confidentiality, availability, and integrity of information, data or systems.
- (b) At a minimum, contractor shall safeguard BPA's information, data or systems commensurate with the minimum protection requirements set forth by the National Institute of Standards and Technology (NIST) for a "low" categorization as described in the Federal Information Processing Standard (FIPS) Publication 199. If the contract statement of work or specifications document identifies a higher categorization of either "moderate" or "high", the contractor shall additionally comply with the requirements identified for the higher categorization in the statement of work or specification document.
- (c) The contractor shall maintain controls aligning with applicable controls in the current version of the National Institute of Standards and Technology (NIST) Special Publication 800-53, or ISO-27001:2005/2013, consistent with the risk and magnitude of harm to BPA resulting from a loss confidentiality, integrity or availability as required by the E-Government Act (Public Law 107-347) of 2002, Title III Federal Information Security Management Act (FISMA).
- (d) The BPA Chief Information Officer (CIO), or representative, shall have the right to examine, audit, and reproduce any of the contractor's pertinent information security and/or data security plan or program.
- (e) The contractor, at its sole expense, shall address and correct any deficiencies and/or noncompliance with the terms of the contract as identified by BPA.
- (f) The contractor shall include the requirements of this Clause 6-3 in all subcontracts.

INSPECTION AND WARRANTY

WARRANTY - SERVICES (18-11)
(JUL 2013)(BPI 18.5.1)

- (a) The Contractor warrants that all services performed under this contract will be performed in a professional manner, be free from defects in workmanship and conform to the requirements of this contract. The Contractor further warrants that any materials provided will be free from defects. This warranty is valid for 1 year from date of acceptance by BPA. The Contracting Officer will give written notice of any defect or nonconformance to the Contractor within a reasonable period of time after discovery.
- (b) Corrections shall be at no cost to BPA, and any services or materials corrected or reperfomed by the Contractor shall be subject to this clause to the same extent as work initially performed.

TERMINATION

TERMINATION FOR THE CONVENIENCE OF BPA (20-2)
(JUL 2013)(BPI 20.4.1)

- (a) BPA may terminate all or any part of this contract, at any time, upon written notice to the contractor. Upon receipt of the termination notice, the contractor shall stop work on the terminated portion of the contract.
- (b) The contract amount shall be revised as a result of termination under this clause. On fixed-price contracts the revised amount shall not exceed the pre-termination contract price, excluding payments already received, plus reasonable termination expenses. On cost-reimbursement contracts it will not exceed the total of allowable and allocable costs of performance prior to termination, excluding payments already received, plus reasonable termination expenses, plus an adjustment of the fee on the terminated portion of the contract. No payment will be made for anticipated profits on the terminated portion, or consequential damages, of the contract. The contractor shall submit a settlement proposal within 30 days of the notice of termination.
- (c) The Contracting Officer may direct the disposition of material produced or acquired for the work terminated, or any completed or partially completed items.

TERMINATION FOR DEFAULT (20-3.1) ALTERNATE I
(MAY 2011)(BPI 20.5.1)

- (a) BPA reserves the right to terminate any or all of any undelivered or unexecuted portion of this contract for cause if the contractor fails to make any delivery, fails to prosecute the work, or to perform as scheduled, or if any of the contract terms are breached. However, the contractor shall not be terminated for default if the failure to perform arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, provided that the Contractor provides notice to the Contracting Officer that a force majeure event has occurred within a reasonable period of time after occurrence. Examples of those events are: (1) acts of God or of the public enemy, (2) acts of the Government in its sovereign or BPA in its contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes and (9) unusually severe weather.
- (b) The Contracting Officer may direct the disposition of material produced or acquired for the work terminated, and the disposition of any completed or partially completed items.
- (c) BPA may acquire, under the terms and in the manner the Contracting Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to BPA for any excess costs for those supplies or services, including administrative costs.

DISPUTES

APPLICABLE LAW (21-5)
(JUL 2013)(BPI 21.1.2.1 : 25.4.1)

United States law will apply to resolve any claim of breach of this contract.

RELEASE OF CLAIMS (21-4)
(JUL 2013)(BPI 21.3.10.1)

After completion of work, and prior to final payment, the Contracting Officer may, at his or her option, require the Contractor to furnish a release of claims against BPA arising out of the contract, other than claims specifically excepted from the operation of the release.

DISPUTES (21-2)
(JUL 2013)(BPI 21.3.15.1 ; 25.4.1)

- (a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. § 7101-7109).
- (b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.
- (c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- (d)
 - (1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within six years after accrual of the claim to the Contracting Officer for a written decision. A claim by BPA against the Contractor shall be subject to a written decision by the Contracting Officer.
 - (2)
 - (i) The Contractor shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding \$100,000.
 - (ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.
 - (iii) The certification shall state as follows:
"I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes BPA is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."
 - (iv) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.
- (e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.
- (f) The Contracting Officer's decision shall be final unless the Contractor appeals or files suit as provided in the Act.
- (g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by BPA is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.

- (h) BPA shall pay interest on the amount found due and unpaid from (1) the date that the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if the date is later, until the date of payment. With regard to claims having defective certifications, as defined in BPI 21.3.1, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Secretary of the Treasury during the pendency of the claim.
- (i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

(Attach additional sheets if necessary.)

E. Methods used to develop the subcontracting goals for small business and small disadvantaged business concerns (i.e., explain how the product and service areas to be subcontracted were established, how the areas to be subcontracted to small and small disadvantaged business concerns were determined, and how the capabilities of small and small disadvantaged businesses were determined--include any source lists used in the determination process).

F. Indirect and overhead costs have been _____ have not been _____ included in the dollar and percentage subcontracting goals stated above. (check one)

G. If indirect and overhead costs have been included, explain the method used to determine the proportionate share of such costs to be allocated as subcontracts to small business and small disadvantaged business concerns.

II. Program Administrator

Name, title, position within the corporate structure, and duties of. the employee who will administer the contractor's subcontracting program (BPI 8.3).

Name:

Title:

Address:

Telephone:

Position:

Duties: General overall responsibility for the contractor's subcontracting programs, i.e., developing, preparing, and executing individual subcontracting plans and monitoring performance relative to the requirements of this particular plan. These duties include, but are not limited to, the following activities;

A. Developing and promoting company/division policy statements that demonstrate the company's/division's support for awarding contracts and subcontracts to small and small disadvantaged business concerns;

B. Developing and maintaining offerors' lists of small and small disadvantaged business concerns from all possible sources;

C. Ensuring periodic rotation of potential subcontractors on offerors' lists;

D. Assuring that small and small disadvantaged businesses are included on the offerors' list for every solicitation for items they are capable of providing;

E. Ensuring that procurement "packages" are designed to permit the maximum possible participation of small, small disadvantages, and women-owned small businesses;

F. Reviewing solicitations to remove statements, clauses, etc., which tend to restrict or prohibit small and small disadvantaged business participation;

G. Ensuring that the bid review findings will document the reasons for not selecting any low bids submitted by small and small disadvantaged business concerns;

H. Overseeing the establishment and maintenance of contract and subcontract award records;

- I. Attending or arranging for the attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.;
- J. Directly or indirectly counseling small and small disadvantaged business concerns on subcontracting opportunities and how to prepare solicitation responses;
- K. Conducting or arranging for the conduct of training for purchasing personnel regarding the intent and impact of Public Law 95-507 on purchasing procedures;
- L. Developing and maintaining an incentive program for buyers which supports the subcontracting program;
- M. Monitoring the company's performance and making any adjustments necessary to achieve the subcontract plan goals;
- N. Preparing, and submitting timely, required subcontract reports;
- O. Coordinating the company's activities during the conduct of compliance reviews; and
- P. Encouraging subcontracting when consistent with the efficient performance of the contract.

III. EQUITABLE OPPORTUNITY

Describe efforts the offeror will make to ensure that small and small disadvantaged business concerns will have an equitable opportunity to compete for subcontracts (BPI 8.3). These efforts include, but are not limited to, the following activities:

- A. Outreach efforts to obtain sources:
 - 1. Contacting minority and small business trade associations;
 - 2. Contacting business development organizations;
 - 3. Attending small and minority business procurement conferences and trade fairs; and
 - 4. Requesting sources from the Small Business-Administration's. PRO-NET
- B. Internal efforts to guide and encourage purchasing personnel:
 - 1. Presenting workshops, seminars, and training programs;
 - 2. Establishing, maintaining, and using, small and small disadvantaged business source lists, guides, and other data for soliciting subcontracts; and
 - 3. Monitoring activities to evaluate compliance with the subcontracting plan.
- C. Additional efforts:

IV. Clause Flow-Down

Including BPI 8.3, "Utilization of Small Business Concerns and Small Disadvantaged Business Concerns", in all subcontracts that offer further subcontracting opportunities. All subcontractors, except small business- concerns, that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction) must adopt and comply with a plan similar to the plan required by BPI 8-3."Small Disadvantaged Business Subcontracting Plan."

The contractor agrees that the clause will be included and that the plans will be reviewed against the minimum requirements for such plans. The acceptability of percentage goals for small business and small disadvantaged business concerns will be determined on a case-by case basis depending on the supplies and services involved, the availability of potential small and small disadvantaged subcontractors and prior experience. Once the plans are negotiated, approved, and implemented, the plans must be monitored through the submission of periodic reports.

V. Reporting and Cooperation

Assure that contractors (1) cooperate in any studies or surveys as may be required; (2) submit periodic reports which show compliance with the subcontracting plan; (3) submit Standard Form (SF) 294. "Subcontracting Reports for Individual Contracts," in accordance with the instructions on the form; and (4) ensure that subcontractors submit Standard Form 294. This means that both the BPA and the (Contractor Name) must receive the report within 25 days after the close of each quarter.

Additional records

Additional subcontracting plan information:

Attachments to the subcontracting plan:

Concurrences:

This subcontracting plan was submitted by:

Contractor Signature/Date: _____

Contractor Typed/Printed Name: _____

Title: _____

Reviewed/Approved by Contracting Officer:

CO Signature/Date: _____

CO Typed/Printed Name: _____

Reviewed by BPA Small Business Specialist:

Signature/Date: _____

SB Specialist Type/Printed Name: _____

Past Performance Rating Questionnaire

Title: Ross Fleet Services Building (FSB) and Civil Infrastructure Improvements

PRIME CONTRACTOR (OFFEROR) WILL SEND THIS QUESTIONNAIRE TO CLIENTS, WHO IN TURN WILL COMPLETE AND SEND DIRECTLY TO THE EMAIL ADDRESS BELOW. COMPLETED FORMS FROM CLIENTS THAT ARE RECEIVED DIRECTLY FROM THE PRIME CONTRACTOR WILL NOT BE CONSIDERED, AS WELL AS FORMS RECEIVED AFTER THE DATE/TIME OF PROPOSAL SUBMISSION.

Bonneville Power Administration

Attn: Dan Guffey, Contract Specialist

Phone: (360) 619- 6083

Email: daguffey@bpa.gov

PAST PERFORMANCE QUESTIONNAIRE

SOURCE SELECTION SENSITIVE INFORMATION

RFP No. 3967 Ross Fleet Services Building (FSB) and Civil Infrastructure Improvements

Name of Offeror: _____

Client/Contract Information (Supplied by offeror)

Name of Client: _____ Contract Number: _____

Contract Title: _____

Contract Value: _____

Type of Contract: _____ Period of Performance: _____

The ratings below are supplied by the contractor identified above, NOT the offeror.

Performance Elements	Unsatisfactory 0	Acceptable 1	Good 2	Excellent 3
1. Quality of Product or Service				
2. Cost Control				
3. Timeliness of Performance				
4. Business Relations				

5. Remarks on outstanding performance:

Provide data supporting this observation; you may continue on a separate sheet if needed.

6. Remarks on unsatisfactory performance:

Provide data supporting this observation; you may continue on a separate sheet if needed.

7. Please identify any corporate affiliations with the offeror.

RFP No. 3967 Ross Fleet Services Building (FSB) and Civil Infrastructure Improvements

8. Other comments that you wish to make:

9. Would you do business with _____ again?
(insert offeror's name)

10. Questionnaire completed by:

Name:

Title: _____

Mailing Address (Street and P.O. Box): _____

City, State and Zip Code: _____

Telephone Number: _____

Fax Number: _____

Date Information provided: _____

RFP No. 3967 Ross Fleet Services Building (FSB) and Civil Infrastructure Improvements

PAST PERFORMANCE QUESTIONNAIRE Ratings and Performance Categories

The offeror shall be evaluated based on the following ratings and performance categories:

Ratings:

- 0 = unsatisfactory
- 1 = acceptable
- 2 = good
- 3 = excellent

Quality of Product or Service

Unsatisfactory: Non-conformances are jeopardizing the achievement of contract requirements, despite use of client resources. Recovery is not likely. If performance cannot be substantially corrected, it constitutes a significant impediment in consideration for future awards containing similar requirements.

OR

Overall compliance requires significant client resources to ensure achievement of contract requirements.

Acceptable: There are no, or very minimal, quality problems, and the offeror has met the contract requirements.

Good: There are no quality issues, and the offeror has substantially exceeded the contract performance requirements without commensurate additional costs to the client.

Excellent: The offeror has demonstrated an outstanding performance level that was significantly in excess of anticipated achievements and is commendable as an example for others, so that it justifies adding a point to the score. It is expected that this rating will be used in those rare circumstances where offeror performance clearly exceeds the performance levels described as "Good".

Cost Control

Unsatisfactory: Ability to manage cost issues is jeopardizing performance of contract requirements, despite use of client resources. Recovery is not likely. If performance cannot be substantially corrected, this level of ability to manage cost issues constitutes a significant impediment in consideration for future awards.

OR

Ability to manage cost issues requires significant client resources to ensure achievement of contract requirements.

Acceptable: There are no, or very minimal, cost management issues and the offeror has met the contract requirements.

Good: There are no cost management issues and the offeror has exceeded the contract requirements, achieving cost savings to the client.

Excellent: The offeror has demonstrated an outstanding performance level that justifies adding a point to the score. It is expected that this rating will be used in those rare circumstances where the offeror achieved cost savings and performance clearly exceeds the performance levels described as "Good".

Timeliness of Performance

Unsatisfactory: Delays are jeopardizing the achievement of contract requirements, despite use of client resources. Recovery is not likely. If performance cannot be substantially corrected, it constitutes a significant impediment in consideration for future awards.

OR

Delays require significant client resources to ensure achievement of contract requirements.

Acceptable: There are no, or minimal, delays that impact achievement of contract requirements.

Good: There are no delays and the offeror has exceeded the agreed upon time schedule.

RFP No. 3967 Ross Fleet Services Building (FSB) and Civil Infrastructure Improvements

Excellent: the offeror has demonstrated an outstanding performance level that justifies adding a point to the score. It is expected that the rating will be used in those rare circumstances where offeror performance clearly exceeds the performance levels described as “Good”.

Business Relations

Unsatisfactory: Response to inquires and/or technical, service, administrative issues are not effective. If not substantially mitigated or corrected it should constitute a significant impediment in considerations for future awards.

OR

Response to inquires and/or technical, service, administrative issues are marginally effective.

Acceptable: Response to inquiries and/or technical, service, administrative issues are somewhat effective.

Good: Response to inquiries and/or technical, services administrative issues exceeds client expectation.

Excellent: The offeror has demonstrated an outstanding performance level that justifies adding a point to the score. It is expected that this rating will be used in those rare circumstances where offeror performance clearly exceeds the performance levels described as “Good”.

Bonneville

POWER ADMINISTRATION



ROSS CIVIL INFRASTRUCTURE IMPROVEMENTS

Statement of Work

for

Architectural and Engineering (A/E) (CM/GC) Services

BPA Ross Complex
Vancouver, Washington

THIS PAGE INTENTIONALLY LEFT BLANK

BPA
Architectural and Engineering Services
Table of Contents

PART A	PART A - GENERAL	
A.01.	GOAL OF THIS CONTRACT	5
A.02.	PROJECT BACKGROUND	5
A.03.	BPA FURNISHED PROPERTY AND SERVICES	9
A.04.	WORK PERFORMED BY THE A/E	9
A.05.	DEFINITIONS.....	11
A.06.	DOCUMENTATION	13
A.07.	SITE ACCESS AND RESTRICTIONS	14
PART B	PART B - TECHNICAL APPROACH / TASKS	
B.01.	GENERAL	15
B.02.	METHODS TO BE USED	15
B.03.	SPECIFIC REQUIREMENTS.....	16
B.04.	DELIVERABLES	20
B.05.	TIME SCHEDULE.....	22
PART C	PART C - INSPECTION AND ACCEPTANCE (QUALITY ASSURANCE)	
C.01.	PURPOSE	26
C.02.	SCOPE	26
C.03.	QUALITY ASSURANCE DOCUMENTATION	27
PART D	PART D - TECHNICAL EXHIBITS	
D.04.	EXHIBIT A – ROSS STRATEGIC FRAMEWORK PLAN.....	58
D.05.	EXHIBIT B - ROSS CIVIL IMPROVEMENTS LOCATIONS MAP	60
D.06.	EXHIBIT C – ROSS COMPLEX PROJECTS UNDER DEVELOPMENT	62
D.07.	EXHIBIT D – 52’ RIGHT OF WAY MODEL DESIGN STANDARD	64
D.08.	EXHIBIT E – STORMWATER MANAGEMENT.....	66
D.09.	EXHIBIT F – SPILL PREVENTION CONTROL AND COUNTERMEASURES	68

Revision History

The following table provides the history of versions of this document. It shows the issue date for each version and describes the related revisions.

Rev	Date Revised	Revised by	Description of Changes Made
0	01/24/2017	Doug Siu, NWM	Initial Issue
1	02/02/2017	Doug Siu, NWM	30%
2	02/27/2017	Doug Siu, NWM	90%
3	03/21/2017	Doug Siu, NWM	Final
4	04/03/2017	Doug Siu, NWM	Language revisions per NSSV
5	04/19/2017	Doug Siu, NWM	Language revisions per NSSV and BPA Legal
6	04/20/2017	Doug Siu, NWM	revisions per NSSV

PART A - GENERAL

A.01. GOAL OF THIS CONTRACT

This contract consists of civil improvement projects at Bonneville Power Administration's (BPA) Ross Complex in Vancouver, Washington. The work described in this contract ("the Work") advances prior planning efforts undertaken by BPA to define a long term asset management strategy for the Ross Complex. The primary goal of this contract is to provide design and engineering services utilizing the CM/GC procurement method for civil infrastructure improvements in alignment with BPA's 20-year vision for the Ross Complex.

The Work covers full engineering services from programming/research through construction documents issued for construction. The contractor shall develop the civil upgrades as a series of separate, guaranteed maximum price construction packages that may be executed under a multi-year phasing plan.

A.02. PROJECT BACKGROUND

02.1 Bonneville Power Administration

Headquartered in Portland, Oregon, Bonneville Power Administration (BPA) is a federal agency under the U.S. Department of Energy. BPA serves the Pacific Northwest by operating an extensive electricity transmission system with facilities in Oregon, Washington, Idaho, Montana, Wyoming, and California. BPA is charged with delivering power supply to the Pacific Northwest that is adequate, efficient, affordable and reliable.

02.2 BPA Ross Complex

A) General

The Ross Complex, established in 1939, is BPA's largest industrial service hub supporting transmission network maintenance, system-wide grid control, logistics operations and other functions associated with maintaining the reliability and robustness of the Pacific Northwest electrical grid. The Ross Complex was built out organically, without a consistent long-term vision or guidance for planning, design and development standards. As a result, site circulation underdeveloped and not planned for optimal workflow.

B) Ross Complex Strategic Framework Plan

In 2013 BPA commissioned development of the Ross Complex Strategic Framework Plan (*Ross SFP*, [Section A.04](#)) to address longstanding facility and civil infrastructure constraints. The first development phase at the Ross Complex has resulted in several civil and facility improvement projects that are actively in planning or construction.

The Ross SFP serves as supplemental guidance for subsequent investments at Ross by:

- Detailing a series of design standards and recommended guidelines that ensure future projects at the Ross Complex achieve the goals established under the Ross SFP.
- Providing information on how BPA civil assets are used and operated

- 3. Providing contextual information to serve as a supplemental research guide for development of the A/E's Basis of Design
- Providing goals and objectives of each investment recommendation for tangible benchmarks by which the project design success may be measured.

C) **Ross Complex Civil Improvement**

The Ross Complex houses over 700 office staff dispersed at various parts of the Complex in addition to a number of research, construction and logistics personnel. This overlap in land use has created undesirable conditions in which large vehicles and heavy machinery share the road with personal vehicles. Additionally, utility runs have not been coordinated with road infrastructure or with each other and a comprehensive stormwater management plan has not been undertaken. All of these conditions have been identified as areas of needed improvement under the *Ross SFP*. The existing paved road section at Ross is approximately 22' wide in most areas which is considered too narrow to achieve the goals of greater traffic segregation, dedicated lanes for specific circulation and integrated stormwater.

02.3 COMPONENTS OF THE WORK

The Ross Civil Improvements Projects (CIP) consists of design and engineering support for a phased series of civil improvements (4 total) on the Ross Complex. Civil design services shall provide conceptual design options which inform a preferred design alternative in alignment with the goals and objectives of the *Ross SFP*. **The first of these improvement projects is the Central Circulation Upgrade CIP. This is a high priority project to be designed and implemented in concurrence with the Fleet Services Building as part of this contract. The remaining 3 civil improvement actions shall be prepared as GMP bid-alternates for implementation as phased standalone projects, following execution of the Central Circulation Upgrade CIP.**

The goal of this multi-phase approach is to provide flexible delivery of readily implementable solutions which actualize the long term vision of the *Ross SFP* while maintaining alignment with more recent planning decisions and projects in-flight.

A) **CIP: Common Objectives:**

1. Deliver integrated set of designs whereby individual construction activities are coordinated among one another and with investments already in progress.
2. Expand road sections starting with base development guidelines set forth in the *Ross SFP* civil guidelines ([Section A.03](#))
3. Plan and design for safe concurrence of multiple modes of travel including passenger vehicle, logistics vehicles, bicycle and pedestrian traffic.
4. Integrate on site stormwater management in accordance with Federal, BPA and municipal stormwater code requirements.
5. Align parking solutions with anticipated future state of facility development.
6. Align civil design scheme with existing and planned facility developments to maximize outdoor workflows, site utilization and operational efficiencies for critical business functions.

7. Propose final implementation strategy for all civil construction actions with a focus towards the maintenance of business continuity for the duration of work.
- B) **CIP: Project Specific Objectives** ([Depicted in Exhibit C](#))
1. Action 1: Central Circulation Upgrade CIP
 - a) High priority investment requiring coordination with Fleet Service Building project to integrate ingress and egress of the site with building placement and outdoor workflow.
 - b) Promote a safe work environment for site circulation between BPA Fleet Services, the BPA General Shops (existing) and general circulation on the Ross Complex.
 - c) Redesign existing circulation scheme to achieve more direct travel route between east and west sides of the Ross Complex.
 - d) Redesign existing circulation scheme to avoid unsafe “pinch points” and ambiguous right of way between through traffic and adjacent work zones.
 - e) Maintain overall site continuity for existing BPA General Shops located in the Plant Services Building. Coordinate logistics circulation into and out of the Plant Services General shop in association with new sally port gate (under construction).
 2. Action 2: Ross-Cold Creek Bridge approach CIP

The Ross-Cold Creek Bridge is in development and slated for completion in 2018.

 - a) Provide plans for new road connection between existing Ross circulation and new Cold Creek Bridge.
 3. Action 3: Ross Warehouse Area CIP
 - a) Assess capacity for widened street section at North Canyon Road and Warehouse.
 - b) Mitigate line of sight constraints at North Canyon Road and NE corner of Ross Warehouse building.
 4. Action 4: Dittmer Area Parking CIP
 - a) Evaluate existing parking, establishing a baseline for parking demand and providing a path for more efficient parking layout which satisfies current and projected needs. The proposed solution may involve additional parking area; however the emphasis shall be on optimizing the existing space surrounding the Dittmer building.
 - b) Provide plans for improved integration of existing off-site parking (ABC Lot) to Ross Complex. Strategies may include, but not be limited to, improved lighting, pedestrian path and landscaping.

C) **Construction Budget**

Each civil improvement project is to be priced as separate executed projects. For each work component, BPA will not pay more than the Guaranteed Maximum Price (GMP) unless the excess results from material changes to work scope agreed to in writing by both parties. Maximum construction budgets including contractor overheads and profit are as follows:

1. Action 1: Ross Central Circulation Upgrade CIP
Maximum: \$2,880,000
2. Action 2: Ross-Cold Creek Bridge approach CIP
Maximum: \$1,090,000
3. Action 3: Ross Warehouse Area CIP
Maximum: \$4,340,000
4. Action 4: Dittmer Area Parking CIP
Maximum: \$820,000

02.4 Alignment with Fleet Services Building

Unless specifically noted, the milestones shall follow the schedule set forth in Section A.06 of the Fleet Services Building Statement of Work.

A.03. BPA FURNISHED PROPERTY AND SERVICES

03.1 BPA Deliverables

<u>Description</u>	<u>Point of Delivery</u>	<u>Date</u>
Ross Strategic Framework Plan	Post-Award	As indicated in B.05
Ross Civil Improv. Areas of Development	Pre-Award	As indicated in B.05
Ross Complex topographic survey (PDF)	Pre-Award	As indicated in B.05
Ross Complex topographic survey (CAD)	Post-Award	As indicated in B.05
Corridors of Power, Historic Context Statement	Post-Award	As indicated in B.05
Spill Prevention Control and Countermeasures	Post-Award	As indicated in B.05
BPA Stormwater Management Design	Post-Award	As indicated in B.05
Pollinator Friendly Best Management Practices for Federal Facilities	Post-Award	As indicated in B.05
Plants for Pollinators in the Inland NW	Post-Award	As indicated in B.05
Coordination and Collaboration	As required	As required
BPA Project Management Support	As required	As required
Site Access and Escort Access	As required	As required
Meeting rooms and A/V connectivity	As required	As required
Additional BPA documents, as appropriate	As required	As required
Additional Digital Site and Facility Information	Post-Award	As indicated in B.05
BPA Drawing Criteria and Revision Practices	Pre-Award	As indicated in B.05
BPA Stormwater Management Design	Pre-Award	As indicated in B.05
BPA Stormwater Drainage	Pre-Award	As indicated in B.05

03.2 Support Services:

BPA will hire the following independent consultants to represent their interests. These consultants are outside the scope of this contract and will be hired in a separate procurement action. To maintain independence, members serving on this consultant team cannot also serve on the design team. BPA will coordinate all project requirements, schedules, design reviews and construction efforts with this team.

- A) Commissioning Agent (Cx)
- B) Independent Cost Estimating Consultant (ICE)
- C) Code Review Consultant
- D) Special Inspections and Testing Agency

A.04. WORK PERFORMED BY THE A/E

04.1 General

The Architect/Engineer (A/E) shall provide all property and services in support of this contract, except those mentioned under A.03 above.

The A/E shall develop the project in accordance with governing federal, state and local agencies and as required by BPA. The A/E shall perform work in a professional manner and maintain clear and well organized information while meeting all deliverable and format requirements set forth in this document.

BPA will provide site access to the A/E and their associates who have met the BPA Security requirement prior to meetings and site visits. A/E shall provide full legal names, citizenship, contact information and company name for of all attending personnel 48-hours in advance of all meetings and site visits throughout the project. Requests for access and clearance for A/E's employees with foreign citizenship will require approximately six weeks for processing.

The A/E shall perform work in a safe, efficient manner and in accordance with BPA's Safety and Health Program. In addition to expertise in the area of integrated design and sequencing of civil investments, the A/E shall apply knowledge and experience in the areas of biddability, constructability, operations and maintenance.

The A/E shall be required to maintain accurate records of project meetings, observations, investigations and derived project findings. Milestone report events will be identified when the A/E's work plan is developed with BPA.

04.2 A/E Service Phases

The A/E shall align the work covered under this contract with the phases called out in Section B.05 of the Fleet Services Building Statement of Work. The project phases and scheduling of the Fleet Services Building shall govern the phasing of work covered under this document.

04.3 Project Meetings

The A/E shall be available to meet with the BPA Project Manager upon request to discuss progress, present deliverables, exchange information, and resolve emergent challenges or obstacles. Meetings shall be held at BPA Headquarters or the Ross Complex.

Meetings shall be held at BPA Headquarters (Portland, OR), or at the Ross Complex (Vancouver, WA).

It is anticipated that a total of 26 meetings will be required through the duration of the contract in the following stages:

CIP Actions 1-4 Project Milestone	# Meetings
PHASE 1 – Preconstruction Services	12
PHASE 2 – Construction Services	6
<u>PHASE 3 – Post Construction Services</u>	<u>2</u>
Total CIP Meetings	20

Meetings shall be held on a weekly basis unless determined otherwise by BPA. The schedule, duration, and frequency of projects meetings are subject to amendment at BPA's discretion.

The A/E shall deliver progress reports and inform BPA of project challenges through bi-weekly meetings, reports, on-site discussions, and email. The A/E shall bring such matters to the attention of the COTR as soon as issues are identified.

The A/E shall notify the COTR of any immediate life-threatening or property-damaging situation encountered within one hour of discovery.

04.4 Administrative Record

Meetings shall be held on a bi-weekly basis unless determined otherwise by BPA. The schedule, duration, and frequency of projects meetings are subject to amendment at BPA's discretion.

The A/E shall maintain an Administrative Record (the Record) of all activities carried out under this contract, and shall make the Record available to the COTR upon request.

The Record shall include copies of all correspondence, meeting notes, and key telephone conversations. The Record shall include all comments received from any source on all draft and final documents prepared under this scope.

The A/E shall prepare and distribute a copy of the Meeting Report (minutes) within three (3) working days following all regular meetings, presentations, or other important but informal meetings with BPA for review.

04.5 Project Work Plan

After mobilization and scoping, a work plan shall be furnished describing the duration and sequence in which the consultant intends to orchestrate resources and activities in order to complete the required work. The work plan includes (but is not limited to) meetings, planning, required BPA feedback/data, project milestones and deliverables as referenced in [B.04](#).

The A/E shall track changes to the work plan and reissue to CO, COTR and BPA management as necessary.

A.05. DEFINITIONS

05.1 BPA Organizational Codes

- A) **Facilities Project and Planning (NWM):** Responsible for the planning and management oversight of non-electrified facilities and BPA owned infrastructure as well as complex site-development.
- B) **Transmission Services (T):** Tenant and primary user of various non-electrified facilities on the Ross Complex.

05.2 Facility Definitions

- A) **Current Replacement Value (CRV):** The amount that an entity would have to pay to replace an asset at the present time, according to its current worth.
- B) **Deferred Maintenance:** Deferred maintenance is unperformed routine maintenance, repairs, replacement, or renewal projects, which results in a progressive deterioration of the facility condition or performance.

- C) **Expected Useful Life (EUL):** EUL is the average amount of time in years that an item, component or system is estimated to function when installed new and assuming routine maintenance is practiced.
- D) **Facility Condition Index (FCI):** The ratio of current year required renewal cost to current building replacement value, which is used as an objective indicator of condition.
- E) **Non-Electric Facilities (NEF):** Non-electric facilities are defined as all site buildings, their associated mechanical, structural, and non-building assets such as utility systems, surrounding grounds and other fixed improvements upon the land within the sites controlled by the agency.
- F) **Program Management Team (PgMT):** NWM managers responsible for the development of asset management strategies, plans, and capital/expense work plan forecasting and execution.
- G) **Project Site:** The project site refers comprehensively to non-building assets, e.g., parking lots, sidewalks, and exterior lighting on a facility complex.
- H) **Real Plant Property:** Real plant property refers to all buildings, structures, non-building assets and utilities (and their integral components/systems) on a site.
- I) **Remaining Useful Life (RUL):** EUL is the estimated number of remaining years that an item, component, or system is deemed to be able to function in accordance with its intended purpose before warranting replacement. RUL may be calculated as the EUL (in years) minus the Age (in years). RUL values should be adjusted to reflect actual conditions observed during visual evaluations

05.3 BPA Project Roles

- A) **Project Manager (PM):** Primary POC for all PM tasks for the duration of the project. Oversees and coordinates functional tasks of the PAE and CM. The PM obtains key decisions regarding cost, schedule and scope from the project Sponsor.
- B) **Architect/Engineer (A/E):** Functional lead for management of project design
- C) **Construction Manager (CM):** Functional lead for management of construction services.
- D) **Sponsor (SP):** Program and project owner whom is providing funding and project requirements
- E) **CM/GC:** Construction Manager General Contractor service provider
- F) **Contracting Officer (CO):** Responsible for creation, implementation, and oversight of the service contract and all items define therein
- G) **Contracting Officer's Representative (COR):** Delegated specific responsibilities by the CO for non-technical matters.
- H) **Contracting Officer's Technical Representative (COTR):** Provides recommendations and expertise on technical matter that effect the contract execution
- I) **Project Liaison (PL):** Provides project oversight on all matter that affects the projects scope, budget, schedule, and risk management

05.4 General Definitions

- A) **Executive Order (E.O.):** An Executive Order is a presidential policy directive that implements or interprets a federal statute, a constitutional provision, or a treaty.
- B) **Project Requirements Document (PRD):** Comprehensive schematic design documents with narrative summary, drawings, technical specifications, and cost estimates sufficient to provide scope and direction for the further development of Design Development Documents and Construction Documents.
- C) **Basis of Design (BOD):** The BOD records the concepts, assumptions, calculations, decisions, rationale(s), and product selections used to satisfy applicable regulations, standards, and guidelines and to otherwise meet BPA's goals and requirements. The BOD is a "living document" that is to be updated at each phase of design, and throughout construction as needed, the items delineated in the BOD should evolve from suggested, proposed, or estimated components to actual components.
- D) **Owner's Project Requirements (OPR):** Comprehensive schematic design documents with narrative summary, drawings, technical specifications, and cost estimates sufficient to provide scope and direction for the further development of Design Development Documents and Construction Documents.
- E) **Point of Contact (POC):** Serves as the conduit for all communications with the contractor and is responsible for the dissemination of messaging/communication.
- F) **Project Coordinator (PC):** The Project Coordinator administers day-to-day project execution under the PM.
- G) **Stakeholder:** BPA employee or business group whose work or knowledge impacts or may be impacted by the scope of this Project.
- H) **PS&E: Plans, Specifications and Engineering**

A.06. DOCUMENTATION

06.1 Federal Codes

All design work proposed on Federal property should be compatible with the adopted technical requirements of the nationally recognized codes and standards identified below. The technical requirements of these codes and standards are supplemented by mandates of Federal law and Executive Orders, as well other Federal agency criteria. Standards and specifications for performance of the work shall include, but not limited to the following:

- A) **ICC Family of Codes (most current edition)**
- B) **AASHTO** – American Association of State highway and Transportation Officials
- C) **NFPA 101** – Life Safety Code (most current edition)
- D) **NFPA 70** – National Electrical Code (most current edition)
- E) **ASTM Standard E1557 – UNIFORMAT II**
- F) **Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management**
- G) **United States National CAD Standard, Version 5**
- H) **Section 438 of the Energy Independence and Security Act - Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects.**

06.2 National Standards

Organizations writing voluntary national standards, including: T

- A) **IEEE** - The Institute of Electrical and Electronics Engineers
- B) **AASHTO** - American Association of State highway and Transportation Officials
- C) **MUTCD** – Manual on Uniform Traffic Control Devices
- D) **ASCE** – America Society of Civil Engineers

06.3 BPA Manuals & Standards

- A) **BPA Drawing Criteria and Revision Practices, STD-D-000001-00-01, December 2010**
- B) **BPA Stormwater Management Design, STD-DS-000043-00-00, April 2013**
- C) **BPA Stormwater Drainage, STD-DS-000050-00-00, August 2015**
- D) **BPA Civil Engineering Design Manual, 2nd Ed.**

06.4 Conflicts between Codes or Standards and BPA Requirements

To ensure flexibility, BPA's policy is to make maximum use of equivalency clauses in all codes and standards. If a conflict exists between BPA requirements and the BPA-adopted codes or standards, the BPA requirements take precedence. All such conflicts must be brought to the attention of the Program Manager for resolution. BPA is the Authority Having Jurisdiction (AHJ).

A.07. SITE ACCESS AND RESTRICTIONS

07.1 Restricted Access

All BPA sites and facilities have restricted access which requires a BPA escort or Safety Watcher at all times. If a BPA escort cannot provide access, the A/E shall be required to hire a Safety Watcher from BPA's list of approved Safety Watchers. This request will be determined prior to site visits and will be a direct reimbursable cost by BPA.

07.2 Substation Access

Entry into the JD Ross Substation and Control House (if necessary) require a BPA escort or Safety Watcher for all persons performing work in and around the building at all times. A/E shall coordinate work and equipment access with the COTR to ensure continuous operations of BPA systems and equipment at all times. BPA and contract construction crews may be on-site during the performance period.

07.3 Security

Protect and properly secure site, equipment and materials from theft, vandalism and unauthorized entry. Promptly report to the COTR and BPA security at (360) 418-2080 all cases of criminal activity that occur in the work area. Should circumstances warrant immediate police, fire, or medical response, call 911 emergency.

07.4 Safety

Teams shall adhere to BPA Safety requirements applicable to the location of each visit.

PART B - TECHNICAL APPROACH / TASKS

B.01. GENERAL

Construction Documents, Specifications, Calculations and Reports for construction are required to be stamped and signed by a Professional Engineer licensed in the State of Washington. The Engineer of Record has the sole responsibility to ensure the “Issued for Construction” documents includes all scope required for construction of the Ross FSB.\

Hardcopy and electronic formats to facilitate deliverable legibility and coherence, and deviations from stated format may be acceptable with COTR approval. Include all drawings, specifications and reports for each submittal requirement.

Project expectations are described in detail in the attached documents listed here and referenced elsewhere. These documents outline expectations of the A/E’s deliverables, process and the desired performance of designed facility. The Design Submittal Requirements (DSR) clearly defines the quality expectations of the A/E at each of the milestones described within. BPA requires specific review criteria at each milestone and often at intermediate stages, documentation deliverables such as hard- copy or electronic must be met to aid in the success of this project.

B.02. METHODS TO BE USED

The basis of payment for the Work shall be partial disbursements made upon receipt of complete deliverables (distinct items of service), called for, delivered, and accepted by BPA. Deliverables and their corresponding levels of completion are described in B.04 and deliverable acceptance criteria are indicated in [C.03](#).

The A/E shall use professional approaches, procedures, and technical expertise for the evaluation, analysis, programming, sustainability, and documentation of proposed solutions. The Work shall provide “recommended alternatives” and “next best alternative options.”

The A/E shall perform fact finding and frequent interactive discussions with BPA staff and the City of Vancouver as needed. The A/E shall verify information on existing documentation and note any major discrepancies. BPA comments shall be incorporated into final deliverables.

The proposed solutions will be subject to BPA review and acceptance after each phase is complete. The A/E is responsible for responding to all BPA comments using whatever means necessary to support a complete response which BPA deems satisfactory.

B.03. SPECIFIC REQUIREMENTS

03.1 Civil Improvement Design

A) Project Management and Administrative Services:

1. Maintain the Administrative Record, available for review upon request
2. Maintain project budget and schedules within limits
3. Identify and resolve technical and management problems
4. Maintain communication with all parties and as required
5. Weekly Status Reports: Weekly written status updates to the COTR, PM and PC, including accomplishments that week, work planned for the next two weeks, expected completion, project schedule updates and any issues or risk.

B) General Engineering Services:

1. Conduct multi-disciplinary data collection efforts, including a review of existing site information and completion of additional investigations as needed to complete the designs.
2. Provide CAD resources for all phases of design and engineering services as necessary.
3. Provide graphic information, reports and data as required to fully communicate the basis of design and the recommendations and conclusions of the A/E team.
4. Conduct multi-disciplinary studies and reports which formulate and compare the relative value of various design alternatives.
5. Provide or acquire design services which are not specifically defined in the outline as the A/E deems necessary to complete tasks.
6. Prepare design development and construction documents on the basis of this contract and supplemental BPA guidance. Successful fulfillment of all project requirements will result in finished engineered documents issued for construction (PS&E Package).
 - a) Provide documentation sufficiently clear and complete for the CM/GC to prepare a GMP and to construct each civil project. The documentation includes drawings, reference documents, specifications, and administrative requirements for the project.
 - b) Finalize Construction Drawings: The A/E will prepare and issue to the CM/GC and ICE the final IFC Drawings and Specification for distribution to subcontractors.
 - c) CM/GC support services
 - The A/E will actively participate in Value Engineering studies anticipated to be held at the end of Construction Document phase and to actively participate in ongoing value engineering and constructability reviews to ensure the project budget and design standards are maintained.
 - Prepare in-progress design documents and provide timely input and advice on design and engineering alternatives. Provide formal and informal construction review documents as part of the design development process.
 - Coordinate the development of a bid package strategy with the CM/GC and provide support documentation that identifies the division of the work to facilitate subcontracting bidding and the award of trade contracts.

- C) **Architectural Activities:**
1. Coordination with Fleet Services Building project (Action 1): ensure civil design is aligned with the preferred schematic layout of the Fleet Services Building.
- D) **Services During Construction**
1. Provide Construction Administration and Technical Support will be provided throughout all phases of the work and require technically qualified staff to respond to the following:
 - a) General Construction Administration: Assist with obtaining jurisdictional permits and special inspections as required.
 - b) Design and specification questions / clarification. Participate in the review of technical proposals and pre-construction meeting.
 - c) Process shop drawings, material submittals and other submittals required by the Contract Documents. Respond to all requests for information (RFIs) and provide detailed references to drawings and specifications to support responses.
 - d) Change Orders Request: Coordinate the review all COR's with the ICE consultant and provide backup documentation to justify the reason for scope change, equitable adjustment to cost and schedule and if the price is fair and reasonable.
 - e) Construction Field Observations: Perform site visits to observe and report on the progress of work, quality and compliance with the Contract Documents.
 - f) Record Drawings: Issue Record Drawings reflecting changes or alterations to the Contract Documents.
 - g) Warranty: Review vendor warranty relating to materials, systems and equipment to ensure compliance with the Contract Documents.
 - h) Project Closeout: Provide support, including punch list, final inspections and review of testing and commissioning reports. Incorporate all as-builts for Record Drawings and submit all changes or alterations of the Contract Documents to BPA per requirements to Record Drawing revisions.
- E) **Traffic Engineering Activities:**
1. Data Collection Report: The A/E shall analyze BPA functions, traffic flow and physical conditions as required to undertake civil improvement design. At a minimum, information shall include:
 - a) Traffic Flow and Type: Determine number of daily vehicles trips at primary road segments and vehicle type, include turning radius analysis and loading requirements.
 - b) Vehicle Incompatibilities: Identify areas of incompatibility due to overlap of different classes of vehicles and uses.
 - c) Parking Survey: Identify number of parking spaces and average duration of parking and adequacy at peak hours for Dittmer Area parking.
 - d) Pedestrian Circulation: Identify common foot traffic routes used on the Complex.
 - e) Line of Sight Constraints: Identify unsafe or suboptimal visibility, both within the Complex and at ingress/egress points around the Complex.

2. **Implementation:** The A/E shall plan for the logistical coordination among all civil actions to optimize construction activities and minimize impacts to BPA operations:
 - a) **Phasing Plan:** The A/E shall prepare a construction sequencing strategy which recommends project priority and maintains continuity of BPA operations at Ross.
 - b) **Traffic Control:** The A/E shall determine the need for construction traffic control and prepare a traffic control plan for each phase of construction as needed. For each phase, the A/E shall define the area of construction as part of the traffic control plan.
- F) **Roadway Design Activities:**
1. **Composite Roadway Plan:** Provide conceptual and schematic design options for new civil actions and associated road components. Services for design and quantity calculations of the roadway components may include but are not limited to:
 - a) **Roadway Plan:** The A/E shall prepare roadway plans towards the goal of introducing new road section standards as called out in the *Ross SFP*.
 - b) **Pedestrian & Bike Plan:** The A/E shall prescribe pedestrian and bike routes for travel on the Ross Complex to include exterior pedestrian meeting spaces and bike storage.
 - c) **EV Charging station locations** – The A/E shall recommend EV charging locations in support of *BPA Draft Policy 440-73-2* (See A.04). The A/E shall develop an EV charging strategy which supports BPA EV policy by balancing the present needs of the Ross workforce with the anticipated increase in future demand for charging stations.
 - d) **Traffic Signage Plan:** The A/E shall mark the signage, controls and devices for effective traffic control that will be visible to motorists and support secure access at BPA’s entry points.
 - e) **Pavement Markings Plan:** The A/E shall prepare markings plans for the roadways within the project limits showing, at a minimum, center, edge and lane line striping, stop lines, crosswalks, arrows, legends and symbols.
 - f) **Municipal Traffic Planning and Coordination:** Determine roadway development standards and submittal requirements in cooperation with the City of Vancouver.
- G) **Utility Development Standards and Placement:** The A/E shall present strategies for utility placement and buried utility standards. The A/E shall provide details, specifications and preliminary cost information for the preferred utility placement strategy in accordance with the objectives of the *Ross SFP*.
- H) **Geotechnical Services for Design:**
The A/E shall prepare and execute a geotechnical work plan and report for pavement sections, grading, retaining walls and stormwater design as necessary to supplement existing site subsurface information.

- I) **Landscape Design Activities:**
The A/E shall be responsible for all landscape design in areas targeted for civil improvement. Landscape design shall estimate the vegetation supporting stormwater management goals at the Ross Complex. An emphasis shall be given towards xeriscaping strategies, which support native pollinators and migratory bird species.
- The extent of landscaping shall include:
1. Area 10' beyond the edge of curb on either side of the right-of-way
 2. All disturbed areas on slopes.
 3. All area dedicated to stormwater management facilities
- J) **Stormwater Management Activities:**
1. Existing Conditions: Record existing conditions and collect historical drainage data. Incorporate available storm drainage studies, geotechnical analysis, design and planning documents prepared for the BPA Ross Complex and surrounding area to allow for comprehensive understanding of existing site conditions and restrictions.
 2. Flow Control: Perform hydrology and hydraulics analysis required to define the flow control requirements for stormwater and drainage.
 3. Stormwater Management Plan: Develop integrated stormwater management plan in accordance with Federal, municipal and BPA stormwater requirements and stormwater management objectives of the *Ross SFP*.
- K) **Environmental Services:**
BPA is currently performing a NEPA (National Environmental Policy Act) review of the proposed investment. The A/E shall be responsible for incorporating identified mitigation measures into the project designs.
- L) **Surveying:**
BPA shall provide utilities and topographic survey data of the Ross Complex ([see A.04](#)) for context purposes only. The A/E shall be responsible for supplementing BPA supplied data with additional survey data required for completion of the work.
- M) **Cost Estimates:**
BPA will hire a qualified Independent Cost Estimating Consultant (ICE) to progressively estimate the cost for the proposed design. This Consultant shall provide construction estimates at the completion of BOD (15%), Schematic Design (30%), Design Development (60%) and Construction Documents (90%). If the estimated construction cost exceeds the budget by amounts prescribed in the Risk Register, a Value Engineering Exercise will be initiated. If the Value Engineering Exercise requires a change to the scope, budget or schedule, BPA will request a proposal from the Consultant. The ICE shall be hired before the completion of the BOD documents.

B.04. DELIVERABLES

The A/E shall provide Deliverables to BPA for review and approval prior to proceeding with the next Deliverable. Hardcopy formats should facilitate deliverable legibility and coherence. Deviations from stated format may be acceptable with COTR approval. Deliverables are as follows:

04.1 Civil Improvement Delivery Items

Project Phase							
	CIP Phase 1A: Basis of Design	CIP Phase 1B: Concept Design	CIP Phase 1C: Schematic Design	CIP Phase 1D: Design Development	CIP Phase 1E: Construction Documents	CIP Phase 1F: Construction Documents	CIP Phase 1G: Issued for Construction
Value							
% Completion	5%	15%	30%	60%	90%	100%	
Deliverable							
Digital/Email Copies							
<i>MS Word (.DOC)</i>	1	1	1	1	1	1	1
<i>AutoCAD (.DWG)</i>	1	1	1	1	1	1	1
<i>PDF Copies (.PDF)</i>	1	1	1	1	1	1	
<i>PDF Scan (.PDF) of stamped drawings</i>							1
<i>Complete Ross Complex Sketchup Model (.SKP)</i>			1				
Hardcopies							
<i>A1</i>	10	10	10	10	10	10	1
<i>11 x 17</i>	10	10	10	10	10	10	1
<i>Specifications*</i>	-	-	10	10	10	10	1
<i>Calculations</i>	5	5	5	5	5	5	1
<i>Reports</i>	10	10	10	10	10	10	1
<i>Cost Estimate</i>			Yes	Yes	Yes		
<i>Review Comments Disposition Checklist</i>				Yes	Yes	Yes	Yes
<i>Stamped 100% Drawings</i>						1	

* Specifications to be delivered in CSI Master Format 2014

THIS SHEET INTENTIONALLY LEFT BLANK

B.05. TIME SCHEDULE

A/E shall meet with BPA within ten (10) days of Notice to Proceed for a Project Initiation Meeting. The A/E shall provide a plan for the Work, proposed schedule and any foreseeable issues impacting the work. The following milestones shall serve as a guide for the deliverables and any clarifications to the Work schedule shall be made prior to commencement.

05.1 A/E Service Phases

- A) The A/E will work collaboratively and proactively with the BPA and CM/GC to proceed with planning, design and development of the work in a manner which supports the efforts to keep costs within the Owner's budget. The A/E shall provide Design and Engineering services throughout the project, from the preconstruction phase through the construction phase and shall closely coordinate such work with the BPA, PM, OR, ICE and CM/GC.
- B) The project documentation referenced in this SOW has been developed with substantial internal BPA review and input. These documents are meant to define a preliminary program and inform the design, not to predetermine the design. The validation, analysis and interpretation of these documents will be an early focus and continuum throughout the preconstruction phase of the project.
- C) The services requested of the A/E shall be provided in three general phases:
 - 1. Phase - 1 Preconstruction Services: During the planning and design phases of the project, advise BPA and provide other services such as assistance with selection of CM/GC entity, sub-consultants and subcontractors, conceptual design, schematic design, design development and construction documentation.
 - 2. Phase - 2 Construction Services: Management and execution of construction administration services, construction closeout and quality assurance documentation. Award of phase two will be contingent upon successful partnering and performance during the preconstruction phase and a successful construction (GMP) contract negotiation.
 - 3. Phase - 3 Post Construction Services: Participate in on-site meeting 10 months after Substantial Completion date to review performance and quality of the facility. CM/GC, A/E and Sub-consultants are required to attend this meeting.

05.2 Civil Improvement Project Milestones

Construction Documents, Specifications, Calculations and Reports: The A/E shall provide Deliverables to BPA for review and approval prior to proceeding with the next Deliverable. The "Issued for Construction" documents shall be completed within twelve (12) months after Contract Award date. Days are shown as business working days. The Geotechnical Investigation is required prior to starting CIP Phase 2. The work shall be performed in the following phases:

05.3 Approximate A/E Submittal Schedule

Timeframes listed in the A/E Submittal Schedule represent the sequencing and approximate durations for each project phase. The actual submittal dates and durations, including appropriate float times shall be integrated within the official project schedule and formalized after contract award.

- A) **Phase 1 - Preconstruction**
1. Phase 1A: Basis of Design 5%
 - a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - b) BPA Submittal Acceptance/Distribution: Two (2) days
 - c) BPA Submittal Review: Three (3) days
 - d) BPA/A/E Design Submittal Review Meeting: One (1) day
 - e) BPA QA/QC Review: One (1) day
 - f) BPA Comments to A/E: One (1) day
 2. Phase 1B: Conceptual Design 15%
 - a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - b) BPA Submittal Acceptance/Distribution: Three (3) days
 - c) BPA Submittal Review: Five (5) days
 - d) BPA/A/E Design Submittal Review Meeting: One (1) day
 - e) BPA QA/QC Review: Three (3) days
 - f) BPA Comments to A/E: One (1) day
 3. Phase 1C: Schematic Design 30%
 - a) A/E Estimated Submittal Schedule: Twenty (20) days
 - b) BPA Submittal Acceptance/Distribution: Three (3) days
 - c) BPA Submittal Review: Ten (10) days
 - d) BPA Review and Incorporation of Support Services Comments: Five (5) days
 - e) BPA/A/E Design Submittal Review Meeting: (1) da
 - f) BPA QA/QC Review: Three (3) days
 - g) BPA Comments to A/E: One (1) day
 4. Phase 1D: Design Development 60%
 - a) A/E Estimated Submittal Schedule: Twenty (20) days
 - b) BPA Submittal Acceptance/Distribution: Three (3) days
 - c) BPA Submittal Review: Ten (10) working days
 - d) BPA Review and Incorporation of Support Services Comments: Ten (10) days
 - e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - f) BPA QA/QC Review: Three (3) days
 - g) BPA Comments to A/E: One (1) day
 5. Phase 1E: Construction Documents 90%

For the Site, Civil, Structural, MEP and Building Enclosure construction packages the review periods will be integrated, phased and allow the following:

 - a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - b) BPA Submittal Acceptance/Distribution: Three (3) days
 - c) BPA Submittal Review: Ten (10) days
 - d) BPA Review and Incorporation of Support Services Comments: Ten (10) days
 - e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - f) BPA QA/QC Review: Three (3) days

- g) BPA Comments to A/E: One (1) day
- 6. Phase 1F: Construction Documents 100%
 - a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - b) BPA Submittal Acceptance/Distribution: Three (3) days
 - c) BPA Submittal Review: Ten (10) days
 - d) BPA Review and Incorporation of Support Services Comments: Ten (10) days
 - e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - f) BPA QA/QC Review: Three (3) days
 - g) BPA Comments to A/E: One (1) day
- 7. Phase 1G: Design “Issue for Construction” documents
For the Site, Demolition, Civil, Structural, MEP and Building Enclosure construction packages the review periods will be integrated, phased and allow the following:
 - a) A/E Estimated Submittal Schedule: Ten (10) days
 - b) BPA Submittal Acceptance/Distribution: Three (3) days
 - c) BPA Submittal Review: Five (5) days
 - d) BPA Review of Support Services Comments: Five (5) days
 - e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - f) BPA QA/QC Review: Five (5) days BPA Comments to A/E: One (1) day

- B) **Phase 2 - Construction**
 - 1. Phase 2A: Construction/Construction FSB and Technical Support
 - a) BPA Construction Procurement Schedule: Ninety (90) days
 - b) BPA Construction Schedule: Three Hundred Sixty Five (365) days

- C) **Phase 3 - Post Construction**
 - a) Project Closeout: Two (2) months

THIS SHEET INTENTIONALLY LEFT BLANK

PART C - INSPECTION AND ACCEPTANCE (QUALITY ASSURANCE)

C.01. PURPOSE

This section outlines the Quality Management Program (QMP) criteria, standards, and practices for the delivery of design services and construction projects to facility customers. This program is broken into four goals, which should permeate each phase (Design and Construction).

C.02. SCOPE

02.1 Goals

The goals of Quality Management are to ensure:

- A) Technical Completeness and Coordination
- B) As a component of quality, technical completeness and coordination is the evaluation of both the design and construction work product exhibiting high levels of craft. The quality management plan should address how this will be evaluated. Technical completeness and coordination includes, but is not limited to, peer review of architectural, mechanical, electrical, civil and structural systems.
- C) Code Compliance
- D) Assets built on Federal property are exempt from state and local codes. It is recognized that the national codes are typically the foundation of state and local building codes, and that state and local codes represent important regional interests and conditions. As such, BPA will endeavor to design and construct buildings in compliance with local building codes. BPA is the Authority Having Jurisdiction (AHJ). As the AHJ and as a component of quality management, BPA will assume the responsibility of plans examination, and review of construction progress (building inspection) and final review of all relevant documentation culminating in the Certificate of Occupancy. To the extent possible, it is BPA's intent to mirror standard construction practice. Code compliance includes, but is not limited to building codes, safety codes (OSHA), pollution and abatement, NEPA analysis and SHPO standards, etc.
- E) Compliance with BPA Standards
- F) Beyond published design codes, standards and construction practices, BPA has its own set of standards. Where applicable, design and construction reviews should include the review of BPA Standards. BPA Standards include, but are not limited to, Fencing Standards, Lavatory Standards, MAD requirements, furniture standards, etc. See Referenced Standards for a list of BPA Standards applicable to this project.
- G) Compliance with Program Requirements
- H) The Quality Management Program will review for conformance with the program requirements. Program requirements include, but are not limited to, project specific needs and requirements outlined in this SOW, cost control, approved business case, etc.

02.2 QMP Preparation

- A) The QMP defines the approach to ensure that the Project Design Team's quality control program is being undertaken properly.
- B) At a minimum, the QMP shall describe how quality control and assurance will be performed and list the team members responsible for QA reviews.

- C) The plan will be prepared by the Project Design Team and reviewed by BPA. The QMP will be implemented prior to design start.
- D) The QMP will be prepared with the following instructions:
- E) Within 10 calendar days after award of the contract release, the Project Design Team will submit to BPA for review and approval, the firm's QMP. The QMP will effectively maintain a quality-control program which will assure that all services, designs, drawings, and specifications required by this contract are performed and provided in a manner that meets professional architectural and engineering quality standards. The Project Design Team's QMP will require the organization's personnel to perform, or cause to be performed, reviews of the scope and character necessary to achieve the quality of design and to substantiate that all services conform to the contract requirements. At a minimum, all documents will be reviewed by competent independent reviewers. Errors and deficiencies in the design documents will be corrected prior to submitting them to BPA. The QMP will include the names and contact numbers for each involved design engineer and architect.
- F) As a point of departure, the Project Design Team is encouraged to adopt and adapt the Design Submittal Requirements (DSR) Checklist for the purposes of their Quality Control review. Proposed alterations should be included with the QMP submittal.
- G) The Project Design Team will include in the QMP a design schedule showing the sequence of events involved in carrying out the project tasks within the specific period of service. This should be at a detailed level of scheduling sufficient to identify all major tasks including those that control the flow of work. The schedule will include design submittal reviews and correction periods appropriate to the submittal of each item. When a modification to the contract occurs, the Project Design Team will submit a revised schedule reflecting the change within one week of the receipt of the change.
- H) The QMP will be implemented by an assigned person within the Project Design Team's organization. This individual will be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Project Design Team will notify BPA of the name of the individual.
- I) BPA will notify the Project Design Team, in writing, of the acceptance of the QMP. After acceptance, any changes proposed by the Project Design Team are subject to the acceptance of BPA.

C.03. QUALITY ASSURANCE DOCUMENTATION

For every design submittal review required in this Contract, the following cycle(s) shall apply:

03.1 Feedback Loop

- A) The Project Design Team will complete the work required by phase.
- B) The Project Design Team will evaluate the completeness and conduct a quality control review. This review may be aided by the Design Submittal Review (DSR) Checklist along with the completed signature page. See Technical Exhibits.
- C) The submittal will be sent to the BPA PM along with the DSR Checklist.
- D) It will be distributed to BPA's Design Review Team(s).
- E) The submittal will be reviewed for technical completeness by BPA's. Design Review Team(s). If complete to the level of expectations for the development

- phase, then Design Review Team will conduct an Independent Technical Review. If deemed incomplete, see Reject Loop below.
- F) Independent Technical Review will be conducted at specific design phases identified in this SOW. The Subject Matter Expert (SME) will evaluate the project against the Traceability Matrix and provide comments recorded on the SME Comment Form.
 - G) Design Review Team comments, attestations and traceability matrix will be completed returned to the BPA PM.
 - H) Comments will be aggregated and vetted by the BPA PM.
 - I) When BPA has completed its review, the submittal is accepted and the COTR will also sign the submittal attestation form. A copy of this form will be returned to the Project Design Team, signaling authorization to proceed with the next phase of the work. The Project Design Team will retain on file a copy of the following:
 - J) Design Submittal Requirements Checklist
 - K) COTR signature page
 - L) Design Review Team signature page
 - M) All Design Review Team review comments
 - N) Fully vetted comments will be returned to the Project Design Team.
 - O) Project Design Team will respond to all comments. The Project Design Team will furnish the disposition of all comments in writing with the next scheduled submittal. The disposition will clearly indicate the specific actions taken in response to each comment. Comment annotations will indicate where and how the comment is completed in the design documents for back check purposes.
 - P) Acceptable responses include:
 - Q) Accept
 - R) Dismiss
 - S) Clarify/Discuss: If the Project Design Team disagrees technically with any comment and does not intend to comply with it, the Project Design Team will clearly outline, with justification, the reasons for noncompliance within seven days after receipt in order that the comment can be resolved. For comments that are not accepted, the Project Design Team will coordinate an acceptable solution through the BPA PM.
 - T) Design Review Team will conduct a back check of comments and annotations

03.2 Reject Loop

- A) If, after a review for technical completeness, the submittal is deemed incomplete, BPA will return it to the Project Design Team. It is the responsibility of the Project Design Team to revise and re-submit the documents for review.

03.3 Internal Feedback Loop

- A) During the comment vetting process, some comments made will not be forwarded to the Project Design Team, as addressing these issues is not the responsibility of the Project Design Team. These comments will be addressed by the BPA PM. The goal is for all comments to be addressed either by the Project Design Team or the BPA PM.

03.4 Change Loop

- A) If the Project Design Team believes the action required by any comment exceeds the requirements of the SOW, no action will be taken on the comment; the Contracting Officer and COTR will be immediately notified in

writing. No work or services will be performed for which an additional cost of fee will be charged without prior written authorization of the CO.

03.5 Design Completion

- A) At the completion of the design cycle, the Project Design Team will certify that design documents are complete and code compliant by sealing and signing the documents.
- B) Plans examination will evaluate the documents and issue concurrence of code compliance.

03.6 Design Submittal Requirements Checklist

- | | |
|--|----|
| A) Phase 1A: Basis of Design | 30 |
| B) Phase 1B: Conceptual Design | 34 |
| C) Phase 2: Schematic Design | 36 |
| D) Phase 3: Design Development | 40 |
| E) Phase 4A: 90% Construction Documents | 44 |
| F) Phase 4B: 100% Construction Documents | 48 |
| G) Phase 5: Issued for Construction | 52 |

03.7 Phase 1A: Basis of Design

(BOD) document [approx. 5% design definition]

No.	Quality Item	(Y/N)
Technical Completeness and Coordination		
0.00	Administrative/General	
0.01	Listing of all construction elements or systems proposed to be design-delegated or partially design-delegated to the Builder.	
1.00	Site Analysis	
1.01	Qualitative and quantitative description of existing site conditions and constraints	
1.02	Topographic Narrative - Discussion and Identification of Site Survey Requirements	
1.03	Geotechnical Narrative – Discussion and Identification of Requirements.	
1.04	Hydrologic/Hydrographic Narrative – Discussion and Identification of Requirements	
1.05	Hazardous Materials Narrative – Discussion and Investigations of Requirements	
2.00	Site Design, Circulation and Transportation	
2.01	Design approach for site work, traffic & circulation, parking, landscaping, hardscape and exterior lighting	
2.02	Existing conditions site plans and assessments	
3.00	Utility Service (Water/Wastewater/Stormwater)	
3.01	Utility requirements narrative and identification of required permits	
3.02	Verification of existing utilities (Pressure, Flow, Capacity).	

Code Compliance		
0.00	Administrative/General	
0.01	A listing of environmental permits that will be required	
	Data, reports, drawings, and other documents related to BPA Realty land rights actions.	
1.00	Site Analysis	
2.00	Site Circulation and Transportation	
3.00	Utility Service (Water/Wastewater/Stormwater)	

Compliance with BPA Standards		
0.00	Administrative/General	
0.01	Verify distribution of applicable BPA Standards including	
0.0101	<ul style="list-style-type: none"> BPA Stormwater Management Design, STD-DS-000043-00-00, April 2013 	
0.0102	<ul style="list-style-type: none"> BPA Stormwater Drainage, STD-DS-000050-00-00, August 2015 	
0.0103	<ul style="list-style-type: none"> BPA Civil Engineering Design Manual, 2nd Ed. 	
0.0104	<ul style="list-style-type: none"> BPA Drawing Criteria and Revision Practices, STD-D-000001-00-01, Dec. 2010 	

Compliance with Program Requirements		
0.00	Administrative/General	
0.01	General project description, including major components and end-user stakeholders	
1.00	Site Analysis	

1.01	Provide design approach and review for consistency with concepts defined in the Ross Strategic Framework Plan with respect to:	
1.0101	<ul style="list-style-type: none"> • Site/Roadway Layout 	
1.0102	<ul style="list-style-type: none"> • Open Space 	
1.0103	<ul style="list-style-type: none"> • Stormwater Management including LID principles and techniques 	
1.0104	<ul style="list-style-type: none"> • Wayfinding 	
1.02	Narrative summary of the requirements and strategies, inclusive of support for xeriscaping, pollinators and migratory bird species.	

No. Other Quality Items		Y/N

No. Explanation for "No" Responses*		

*Additional pages as required

Submittal Signatures
A/E Contractor

Company Name Principal in Charge

A/E Contractor Signature Date

BPA Acceptance

COTR Name

COTR Signature Date

Quality Assurance Review Signatures **Tech** **Code** **BPA** **PgM**

Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THIS SHEET INTENTIONALLY LEFT BLANK

03.8 Phase 1B: Conceptual Design
(CD) [15% design definition]

0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>initial or updated from Program Planning phase if one was developed</i>)	
0.02	Quality Control statement confirming QC actions taken in Phase 1B	
0.03	Estimate Work Breakdown Structure summarized by individual asset-entity and detailed to the Group Element level (UNIFORMAT II, Level 2).	
1.00	Site Analysis	
1.01	Review and ensure completeness of preliminary Hydrologic/Hydrographic calculations.	
1.02	Review and ensure completeness of preliminary Geotechnical Investigation	
1.03	Review and ensure completeness of Topographic Survey	
1.04	Review and ensure completeness of Hazardous Materials requirements	
1.05	Identify and notate any access or utility easements	
2.00	Site Design, Circulation and Transportation	
2.01	Conceptual site plan, including:	
2.0101	<ul style="list-style-type: none"> • General concepts for site demolition and tree impact, site uses, and site development • Conceptual road layout 	
2.0102	<ul style="list-style-type: none"> • Conceptual layout for accessibility, pedestrian circulation and parking 	
2.103	<ul style="list-style-type: none"> • Relevant information from the survey, including existing trees and utilities 	
2.02	Conceptual transportation continuity plan	
4.00	Utility Service (Water/Wastewater/Stormwater)	
4.01	Updated utility requirements narrative including locations of existing utilities and required permits (if applicable)	
4.02	Projected paths for utilities infrastructure and stormwater management facilities	
4.03	Conceptual grading plan	
4.04	Conceptual stormwater management plan	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	A listing of codes with which the project design will comply	
0.02	Data, reports, drawings, and other documents related to environmental permitting requirements	
0.03	Data, reports, drawings, and other documents related to BPA Realty land rights actions.	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	Annotate in appendix Facility users directives, meeting minutes and correspondence, graphical data, functional diagrams, benchmarking data (if any), current design schedule and other relevant information or documents from the CD phase	
0.02		
1.00	Site Analysis	
1.01	Review and ensure consistency with concepts defined in the Ross Strategic Framework Plan with respect to:	
1.0101	<ul style="list-style-type: none"> • Site/Roadway Layout 	
1.0102	<ul style="list-style-type: none"> • Open Space 	
1.0103	<ul style="list-style-type: none"> • Stormwater Management 	
1.0104	<ul style="list-style-type: none"> • Wayfinding 	

03.9 Phase 2: Schematic Design
(SD) [30% design definition]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from CD phase</i>)	
0.02	Quality Control statement confirming QC actions taken in Phase 2	
0.03	SME Drawing Review Comments from previous phase	
0.04	Cost Estimate	
1.00	Site Analysis	
1.01	Topographic and geotechnical surveys if not included with concept design submittal	
1.02	Geotechnical Investigation Report	
1.03	Schematic landscaping/planting plan	
1.04	Verify universal design principles are incorporated where applicable	
1.05	Verify natural drainages are identified and preserved.	
2.00	Site Design, Circulation and Transportation	
2.01	Updated schematic site plan, including:	
2.0101	<ul style="list-style-type: none"> Updated demolition plan, tree impacts, site uses, and site development 	
2.0102	<ul style="list-style-type: none"> 30% roadway plan 	
	<ul style="list-style-type: none"> 30% design plan for accessibility, pedestrian circulation, and parking including relevant contextual information such as building footprints, orientation, etc. 	
2.0103	<ul style="list-style-type: none"> Relevant information from the survey, including existing trees and utilities 	
2.0104	<ul style="list-style-type: none"> 30% landscape plan 	
	<ul style="list-style-type: none"> 30% Site lighting plan 	
2.03	Identification of any site-driven special conditions or provisions	
2.04	Updated circulation continuity plan	
3.00	Utility Service (Water/Wastewater/Stormwater)	
3.01	30% Utility service plans including changes to pipe layout, size and types of utility distribution and existing infrastructure to remain	
3.02	30% Stormwater management plans	
3.03	30% Grading and drainage plan	
	30% Site electrical plan	
3.04	All relevant land use items identified and notated (e.g. access or utility easements)	
7.00	Specifications	
7.01	Table of Contents identifying all contemplated technical and non-technical specs in CSI format	
7.02	Draft outline of technical specifications for materials, systems, and equipment	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	Data, reports, drawings, and other documents related to environmental permitting requirements.	
	Data, reports, drawings, and other documents related to BPA Realty land rights actions.	
0.02	Verify intent to comply with all Federal Codes listed in A.06.1 of the Statement of Work.	
1.00	Site Analysis	
2.00	Site Design, Circulation and Transportation	
3.00	Utility Service (Water/Wastewater/Stormwater)	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	SME Drawing Review Comments from previous phase	
0.02	Quality Control statement confirming QC actions taken	
0.03	Updated Master Plan checklist (where applicable)	
0.04	Appendix – User directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule and other relevant information or documents from the SD phase	
0.05	Phase 2 project cost estimate	
1.00	Site Analysis	
1.01	Review and ensure consistency with concepts defined in the Ross Strategic Framework Plan with respect to:	
1.0101	<ul style="list-style-type: none"> • Site/Roadway Layout 	
1.0102	<ul style="list-style-type: none"> • Open Space 	
1.0103	<ul style="list-style-type: none"> • Stormwater Management 	
1.0104	<ul style="list-style-type: none"> • Wayfinding 	
2.00	Site Design, Circulation and Transportation	
3.00	Utility Service (Water/Wastewater/Stormwater)	

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
A/E Contractor

Company Name

Principal in Charge

A/E Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
-------------------------------------	--	--	------	------	-----	-----

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------	------	------	--------------------------	--------------------------	--------------------------	--------------------------

03.10 Phase 3: Design Development
(DD) [60% design effort]

	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from SD phase</i>)	
0.02	Quality Control statement confirming QC actions taken in Phase 3	
0.03	SME Drawing Review Comments from previous phase	
0.04	Cost Estimate	
1.00	Site Analysis	
1.01	Verify developed area is same as that cleared by (EA), all utility requirements within site cleared by NEPA document.	
1.02	Verify that limits of construction are coordinated among landscape, civil, plumbing, and electrical site plans	
2.00	Site Design, Circulation and Transportation	
2.01	Updated design development site design including:	
2.0101	<ul style="list-style-type: none"> 60% Site demolition and tree impact plans, if applicable, that illustrate removal of natural or manmade features; include an updated tree removal table that itemizes the quantity, , size trees proposed to be removed 	
2.0102	<ul style="list-style-type: none"> 60% roadway plan including dimensioning, cross-sections and profiles Preliminary signage plan 	
2.0103	<ul style="list-style-type: none"> 60% parking plan including dimensioning, cross-sections and profiles 	
2.0104	<ul style="list-style-type: none"> 60% paving for accessibility, pedestrian circulation, and parking including contextual information such as building footprints, orientation, etc. 	
2.0105	<ul style="list-style-type: none"> 60% landscape plan 	
2.0106	<ul style="list-style-type: none"> 60% lighting plan 	
2.04	Identify traffic control requirements	
2.05	Signage plan and details	
2.06	Surface materials (asphalt, concrete, gravel, etc.) sections and details	
2.07	Updated circulation continuity plan	
3.00	Utility Service (Water/Wastewater/Stormwater)	
3.01	60% Utility service plans including existing infrastructure to remain)	
3.02	60% Grading and drainage plans	
3.03	60%c Water and electrical plans	
3.04	60% Sanitary sewer plans	
3.05	60% Stormwater management plans	
3.06	Erosion and sedimentation control plans	
7.00	Specifications	
7.01	Table of Contents identifying all contemplated technical and non-technical specs in CSI format	
7.02	Draft technical specifications for materials, systems, and equipment	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	Provide data, reports, drawings, and other documents related to environmental permitting requirements	
0.02	Provide stormwater management report in accordance with City of Vancouver review requirements.	
0.03	All relevant land use items identified and notated (e.g. access or utility easements)	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule, project team roster, and other relevant information or documents from the DD phase	

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures

A/E Contractor

A/E Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date

Quality Assurance Review Signatures

Tech Code BPA PgM

Org/Company Name Name Date

Org/Company Name Name Date

Org/Company Name Name Date

Org/Company Name Name Date

Org/Company Name Name Date

Org/Company Name Name Date

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

03.11 Phase 4A: 90% Construction Documents
(CD90) [90% design effort]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from DD phase</i>)	
0.02	Quality Control statement confirming QC actions taken in Phase 4A	
0.03	SME Drawing Review Comments from previous phase	
0.04	Cost Estimate	
1.00	Site Analysis	
2.00	Site Design, Circulation and Transportation	
2.01	Updated construction document site design including:	
2.0101	<ul style="list-style-type: none"> 90% Site demolition and tree impact plans, if applicable, that illustrate removal of natural or manmade features; include an updated tree removal table that itemizes the quantity, , size trees proposed to be removed 	
2.0102	<ul style="list-style-type: none"> 90% roadway plan including dimensioning, cross-sections and profiles 	
2.0103	<ul style="list-style-type: none"> 90% traffic signage layout 	
2.0104	<ul style="list-style-type: none"> 90% parking plan including dimensioning, cross-sections and profiles 	
2.0105	<ul style="list-style-type: none"> 90% paving for accessibility, pedestrian circulation, and parking 	
2.0106	<ul style="list-style-type: none"> 90% landscape plan with hardscape materials, site features and fixates indicated 	
2.0107	<ul style="list-style-type: none"> Preliminary landscape irrigation plan, with connection(s) to water source(s) indicated 	
2.0107	<ul style="list-style-type: none"> 90% site lighting plan 	
2.0108	<ul style="list-style-type: none"> Traffic control plan 	
	<ul style="list-style-type: none"> Surface materials (asphalt, concrete, gravel, etc.) sections and details 	
	<ul style="list-style-type: none"> Traffic continuity plan 	
3.00	Utility Service (Water/Wastewater/Stormwater)	
3.01	Updated plans for erosion and sedimentation control and compliance	
3.02	90% Utility service plans that include existing utilities to remain and indicate material/structure type, size, depth, and conflicts. Complex areas with multiple utilities, stacked piping, and/or conflicts shall be illustrated using plan & profile drawings.	
3.03	90% Grading and drainage plans	
3.04	90%c Water and electrical plans	
3.05	90% Sanitary sewer plans	
3.05	90% Stormwater management plans	
5.00	Specifications	
5.01	Table of Contents identifying all contemplated technical and non-technical spec	
5.02	Project technical and non-technical specifications	

5.03	Updated project-specific list of O&M documents, BPA training, attic stock, and other closeout requirements to be specified in the CDs using BPA "Project Closeout RACI and Deliverables Matrix"	
------	---	--

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule, project team roster, and other relevant information or documents from the 90% CD phase	

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
A/E Contractor

Company Name Principal in Charge

A/E Signature Date

BPA Acceptance

COTR Name

COTR Signature Date

Quality Assurance Review Signatures

Tech Code BPA PgM

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

03.12 Phase 4B: 100% Construction Documents
 (CD100) [100% design effort]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from 90% CDs phase</i>)	
0.02	Quality Control statement confirming QC actions taken in Phase 4B	
0.03	SME Drawing Review Comments from previous phase	
	Estimates?	
1.00	Site Analysis	
2.00	Site Design, Circulation and Transportation	
1.01	Finalized site plan (see above)	
1.02	Finalized site demolition and tree impact plans, if applicable	
1.03	Finalized roadway plans	
1.04	Finalized traffic signage layout	
1.05	Finalized parking plan	
1.06	Finalized traffic continuity plan	
1.07	Finalized traffic control plan	
1.08	Finalized site lighting plan, plus photometric analysis	
1.09	Finalized paving plan	
1.10	Finalized landscaping plan	
1.11	Finalized landscaping/planting plan, with hardscape materials and site features & fixtures indicated	
1.12	Finalized and fully detailed landscape irrigation plan, coordinated with electrical for irrigation controller power	
1.13	Finalized site development details	
3.00	Utility Service (Water/Wastewater/Stormwater)	
	Finalized erosion and sedimentation control and compliance	
	Finalized site utilities plans	
	Finalized grading and drainage plans	
	Finalized water and electrical plans	
	Finalized sanitary sewer plans	
	Finalized stormwater management plans	
7.00	Specifications	
7.01	Revised and finalized technical and non-technical spec, including identification of closeout deliverable requirements from "Project Closeout RACI and Deliverables Matrix"	
7.02	Finalized project-specific list of O&M documents, BPA training, attic stock, and other closeout requirements specified in the CDs using "Project Closeout RACI and Deliverables Matrix"	

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
0.01	Verify drawing deliverables in accordance with <i>BPA Drawing Criteria and Revision Practices Standards</i> .	
0.02	Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule, project team roster, and other relevant information or documents from the 100% CD phase	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	Draft Stormwater Commissioning Plan	

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures

A/E Contractor

Company Name

Principal in Charge

A/E Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
-------------------------------------	--	--	------	------	-----	-----

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--	--	--------------------------	--------------------------	--------------------------	--------------------------

Org/Company Name	Name	Date				
---------------------	------	------	--	--	--	--

**03.13 Phase 5: Issued for Construction
(IFC)**

0.0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Documents corrected for any annotations for 100% CD review	
0.02	Final printed documents signed and sealed by a registered design professional	
1.00	Site Analysis	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	SME Drawing Review Comments from previous phase	
0.02	Distribute digital and hard copies	
0.03	Submitted drawings archived in the vault and ProjectWise property attribute files update	

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures

A/E Contractor

Company Name

Principal in Charge

A/E Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date

Quality Assurance Review Signatures

Tech Code BPA PgM

Org/Company
Name

Name

Date

Org/Company
Name

Name

Date

Org/Company
Name

Name

Date

Org/Company
Name

Name

Date

Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THIS SHEET INTENTIONALLY LEFT BLANK

PART D - TECHNICAL EXHIBITS

Technical Exhibits under this contract are those BPA provided standards, codes, policies, statutes and laws which define parameters for which the A/E shall consider as a precursor to professional advice.

EXHIBIT A ROSS STRATEGIC FRAMEWORK PLAN.....	61
EXHIBIT B ROSS CIVIL IMPROVEMENTS LOCATIONS MAP.....	63
EXHIBIT C ROSS COMPLEX PROJECTS UNDER DEVELOPMENT MAP	65
EXHIBIT D 52' RIGHT OF WAY MODEL DESIGN STANDARD.....	67
EXHIBIT E STORMWATER MANAGEMENT.....	69
EXHIBIT F SPILL PREVENTIN CONTROL AND COUNTERMEASURES.....	71

THIS SHEET INTENTIONALLY LEFT BLANK

D.04. EXHIBIT A – ROSS STRATEGIC FRAMEWORK PLAN

Findings of the Ross Strategic Framework Plan are organized into five sections. Together, these provide a structured approach to future development on the Ross Complex and outline a methodology which should be understood by the A/E prior to providing professional advice. The subject headings referenced below call out areas of particular relevance to the scope of work in this contract.

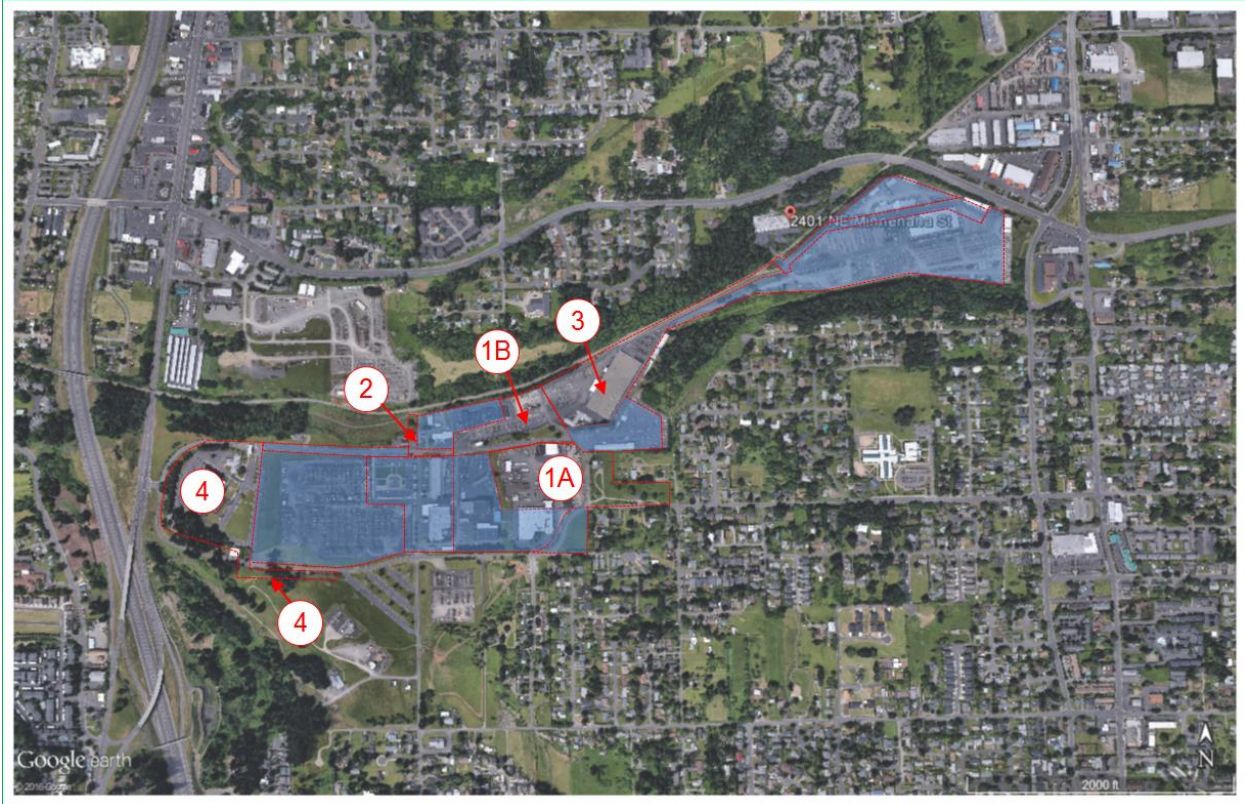
PHASE 1	Programming Report
PHASE 2	Concept Report
PHASE 3	Implementation Report
PHASE 4	Design Standards, Guidelines and Policies

Objectives Summary:

Vision, Guiding Principles & Program Priorities	Phase 1 Programming Report	Pages 5-10
Existing Conditions:		
Transportation and Circulation Access	Phase 1 Programming Report	Pages 24-27
Utilities and Infrastructure	Phase 1 Programming Report	Pages 30-36
Detail Maps		
Primary Site Constraints, Fig. 4.7	Phase 1 Programming Report	Pages 38-39
Dittmer Area Existing Conditions	Phase 1 Programming Report	Pages 42-43
Ampere Area Existing Conditions	Phase 1 Programming Report	Pages 44-45
Logistics Area Existing Conditions	Phase 1 Programming Report	Pages 46-47
Circulation Plan, Fig 4.4	Phase 1 Programming Report	Pages 26-27
Underground Utilities, Fig. 4.5	Phase 1 Programming Report	Pages 31
Proposed Stormwater Basin Locations	Phase 2 Concept Report	Page 64
Existing Baseline, Fig 3.1 (Map of functional locations)	Phase 2 Concept Report	Page 25
Recommended Concept Plan		
Executive Summary	Phase 2 Concept Report	Page 1-5
Goals and Evaluation Criteria	Phase 2 Concept Report	Pages 15-20
Recommended Concept Plan Analysis	Phase 2 Concept Report	Pages 46-74
Circulation and Transportation Concepts	Phase 2 Concept Report	Pages 76-82
Recommended Concept Plan Circulation	Phase 3 Implementation Plan	Page 33
Action Plans	Phase 3 Implementation Plan	Pages 45-56
Design Standards, Guidelines and Policies		
Building and Site Design Standards	Phase 4 Design Standards	21-53
Environmental Quality and Resource Efficiency	Phase 4 Design Standards	55-84

THIS SHEET INTENTIONALLY LEFT BLANK

D.05. EXHIBIT B - ROSS CIVIL IMPROVEMENTS LOCATIONS MAP



Civil Improvement Action

Action 1A: Site Location of Fleet Services Building

Action 1B: Ross Central Circulation Upgrade

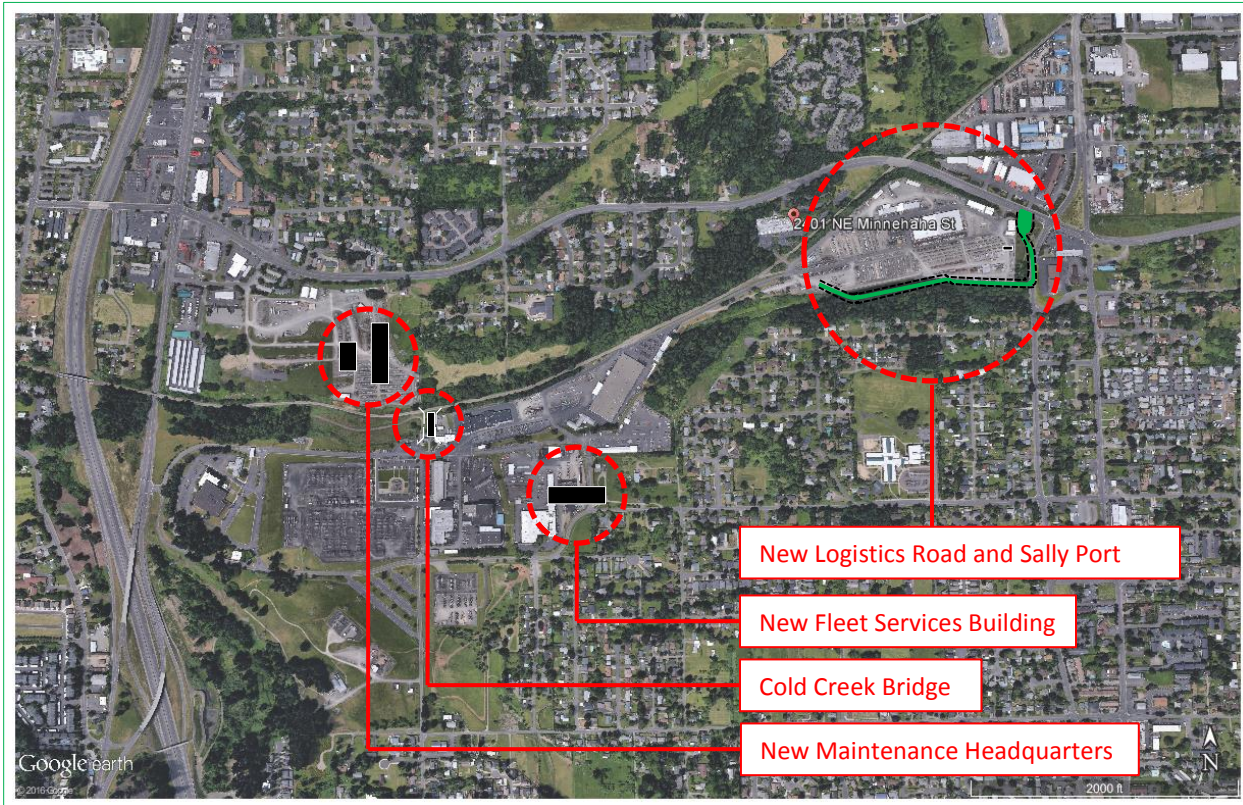
Action 2: Ross-Cold Creek Bridge Approach

Action 3: Warehouse Area Civil Improvement

Action 4: Dittmer Area Parking

THIS SHEET INTENTIONALLY LEFT BLANK

D.06. EXHIBIT C – ROSS COMPLEX PROJECTS UNDER DEVELOPMENT



THIS SHEET INTENTIONALLY LEFT BLANK

D.07. EXHIBIT D – 52’ RIGHT OF WAY MODEL DESIGN STANDARD

The excerpted illustration from Page 22 of the *Ross SFP Phase 4B Design Standard* depicts the model standard for segregation of different modes of traffic and integration of stormwater. This standard, or equal variant is proposed to be applied where feasible at all civil improvements in this contract.

SITE LAYOUT>>SEPARATED PATHS—OFF-ROAD PEDESTRIAN AND BICYCLE ROUTE

STANDARD	<i>Provide a clear distinction between pedestrian routes, POV routes, and forklift and truck routes. Provide physical separation between bicycles and pedestrians and vehicular traffic.</i>	CRITERIA SERVED EFFICIENCY: <i>Separating circulation paths improves the efficiency of the site by enhancing wayfinding for visitors/staff and channelizing appropriate travel modes throughout the complex. This allows all staff to concentrate on the job at hand.</i> SAFETY: <i>Separating potentially dangerous circulation from the staff not directly involved in that work effort will reduce both vehicular and pedestrian conflicts.</i>
GUIDELINE	<i>At all primary roads, provide separated pedestrian and bicycle path. Provide integrated swales to manage stormwater at roadways, and to separate vehicles from pedestrian/bike travel. (See Figure 3.1)</i>	
EXISTING	<i>In several key areas, pedestrian circulation occurs in the same paved areas as all forms of vehicular flow, including large trucks, forklifts, and personally operated vehicles.</i>	
<p>Goal: Reduce potential safety issues and inefficiencies arising from conflicts between truck and forklift travel with POVs and pedestrians.</p> <p>Description: Currently, the lack of clear pedestrian or bicycle designated areas creates an undesirable and/or confusing environment for those modes of travel when users are traveling from one location to another on-site among the mix of motor vehicles and heavy freight users. Separating paths of travel is critical to providing safe and efficient circulation around the Complex.</p> <p>Benefits: A complete pedestrian network will allow staff to access the entire Complex at significantly reduced risk from all forms of vehicle traffic.</p>		<p><i>A complete pedestrian network will allow staff to access the entire Complex at significantly reduced risk from all forms of vehicle traffic.</i></p>

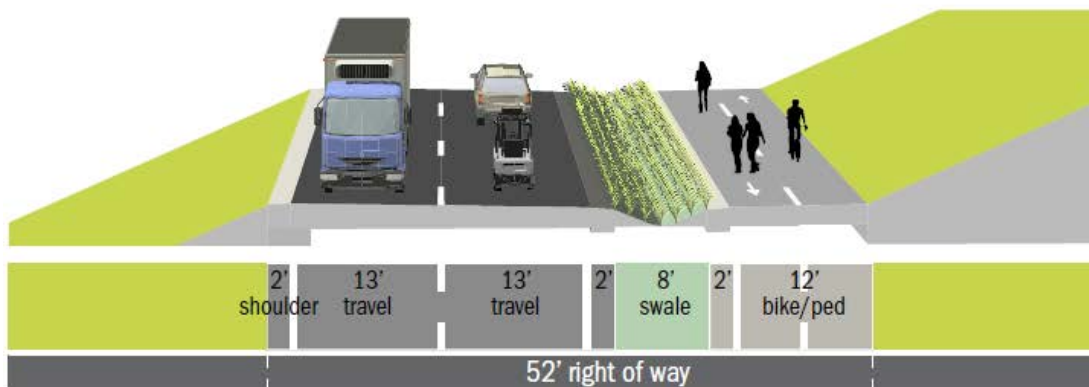


Figure 3.1: Separated Paths—Off-Road Pedestrian and Bicycle Route

THIS SHEET INTENTIONALLY LEFT BLANK

D.08. EXHIBIT E – STORMWATER MANAGEMENT

EISA, Sec. 438, *Storm water Management for Federal Facilities* and BPA Stormwater Management Design Policy (STD-DS-000043-00-00) will guide the overarching performance goals of storm water management for all development at the Ross Complex. NWM's objective is to incrementally upgrade BPA's storm water compliance level over time on a project by project basis to ensure that all future development falls within the Agency's own goals and the standards set forth by the Federal Clean Water Act.

Please refer to the *Spill Prevention Control and Countermeasures* diagrams and the *BPA Stormwater Management Design* for information on containment, storm water inlets and storm sewer locations.

THIS SHEET INTENTIONALLY LEFT BLANK

D.09. EXHIBIT F – SPILL PREVENTION CONTROL AND COUNTERMEASURES

Federal Regulations (40 CFR Part 112) requires the preparation of Spill Prevention Control and Countermeasures (SPCC) plans in accordance with good engineering practices to prevent and control oil spills. Plans are developed and maintained by the BPA Pollution, Prevention and Abatement (EP) organization. Please refer to the SPCC attachment for containment areas on the Ross Complex.

END OF DOCUMENT

Bonneville

POWER ADMINISTRATION



Fleet Services Building

Statement of Work

for

Architectural & Engineering Services

BPA Ross Complex
Vancouver, Washington

04/19/2017

Prepared by; Bruce Arnold, TESF Architect

This page intentionally left blank

Table of Contents

Part A: PROJECT OVERVIEW	1
A.01 Background	1
A.02 Description	1
A.03 Goals of this Contract	2
A.04 Construction Budget	3
A.05 Objectives.....	3
A.06 Schedule Milestones.....	5
A.07 Location of Project and BPA Contact.....	5
A.08 BPA Furnished Property and Services.....	5
A.09 A/E Furnished Property and Services	6
A.10 Definitions.....	8
A.11 Documentation	9
A.12 Site Access and Restrictions	11
Part B: PROJECT GUIDELINES.....	11
B.01 General.....	11
B.02 Building Codes, Regulations and Permits	11
B.03 Administrative Requirements	12
B.04 Work Provided / Performed by BPA.....	12
B.05 Work Performed by A/E	13
B.06 Phase 1 - Preconstruction Services	14
B.07 Phase 2 - Construction Services.....	17
B.08 Phase 3 - Post Construction Services.....	18
Part C: OWNERS PROJECT REQUIREMENTS	18
C.01 General.....	18
C.02 Occupancy and Use	18
C.03 Site Design	19
C.04 Transportation and Parking.....	19
C.05 Building Envelope	19
C.06 Sustainability and Energy Efficiency	20
C.07 Operation and Maintenance.....	21
C.08 Owner Training	21
C.09 Commissioning, Inspection and Quality Assurance	21
Part D: TECHNICAL APPROACH / TASKS	22
D.01 General.....	22
D.02 Methods to be Used.....	23
D.03 Requirements	23
D.04 Civil	23
D.05 Landscape Operation and Maintenance:.....	26
D.06 Architectural	27
D.07 Interiors	32
D.08 Structural	40
D.09 Mechanical	41
D.10 Electrical.....	42
D.11 Technology Overview	46
D.12 Data Communications	47
D.13 Cable Television	49
D.14 Audio/Visual and Video Conference	49

D.15	Security	50
D.16	Fire Protection	50
D.17	Fire Alarm.....	51
D.18	Deliverables.....	51
D.19	Deliverables by Phase	52
D.20	Electronic Copies of Contract Documents	55
D.21	Revisions to Contract Documents.....	56
D.22	Submittal Schedule.....	57
Part E:	INSPECTION AND ACCEPTANCE (Quality Assurance).....	59
E.01	Purpose.....	59
E.02	Scope	59
E.03	Quality Assurance Documentation.....	61
Part F:	TECHNICAL EXHIBITS	63
F.01	Exhibit A - BPA Ross HMEM Facility Feasibility Study, MDG 2013.....	63
F.03	Exhibit C - FISMA Requirement - Low.....	66
F.04	Exhibit D- Historic Preservation Requirements	66
F.05	Exhibit E - Electromagnetic Considerations	67
F.06	Exhibit F - Storm water Management.....	67
F.07	Exhibit G - Spill Prevention Control and Countermeasures.....	67
F.08	Exhibit H - Code Compliance for new facilities.....	68
F.09	Exhibit I - BPA Quality Management Planning Templates.....	68

Part A: PROJECT OVERVIEW

A.01 Background

- a. The Bonneville Power Administration (BPA), headquartered in Portland, Oregon is a federal agency under the U.S. Department of Energy. BPA serves the Pacific Northwest by operating and maintaining an extensive bulk electricity transmission system. To maintain the agency's assets and to ensure reliability BPA employs a regional maintenance resource strategy. BPA has identified the need for geographically and regionally based facility to support the maintenance, repair and service of BPA fleet vehicles.
- b. The Ross Fleet Services Building (FSB) project will provide significant facility improvements to promote immediate operational efficiencies for the Agency via a code-compliant, safer, highly energy efficient facility.
- c. The site and building will be designed to support these areas in their efforts to maintain and repair service vehicles throughout the Pacific Northwest. The building design will also incorporate the systems and structures necessary to maintain immediate occupancy and functionality during and after a major seismic event.

A.02 Description

- a. The Ross FSB project will consist of a new facility design, demolition, hazardous materials survey and abatement of existing structures, and complete site development of approximately 5 acres to include;
 1. Site Development ~ 4.9 acres
 2. FSB (42,300 SF indoor and 6,600 SF covered areas) ~ 49,000 sf
 3. Entry Gates
 4. Incoming and outgoing parking
 5. Loan Pool Parking
 6. Employee Parking
 7. Pedestrian, bicycle and traffic circulation
 8. Segregated exterior work zones
 9. Laydown space for the PSB shops
 10. Coordination with the Ross Central Circulation Upgrade Improvements. See Part F: Technical Exhibits of this SOW and Ross Civil Infrastructure Improvements SOW for additional clarification.
- b. The new FSB is currently conceived as a pre-engineered metal structure. Daylighting and ventilation are provided at raised clerestory roof areas in the vehicle bays. Interior low ceiling areas (toilets, lockers and storage) are designed to accommodate mezzanines which provide storage spaces and Fleet Administrative offices.

- c. Structures to be surveyed for hazardous materials abatement and possible demolition include:
 - 1. The Bronto Building Z-1449: 5,040 SF
 - 2. The PSB Annex Building Z-765: 8,210 SF
 - 3. The PSB Shot Blasting Booth Z-671: 500 SF
 - 4. NWP Storage Building Z-1369: 2000 SF
- d. As a federal development project that disturbs more than 5,000 square feet, the site will require comprehensive storm water management and related site improvements. New storm water quality and treatment facilities will treat drainage on site.
- e. Site circulation will separate personal and service vehicles in parking and service yard areas.
- f. The FSB site will be accessed by a new entrance off NE Ross St. This new entry will serve as the primary site access and the current access from NE North Road will remain as the secondary access to the site. The design and construction of the new entrance and roadway improvements along NE North Road will be coordinated with the Civil Improvements Projects.
- g. The Ross Strategic Framework Plan and Future Facility Developments projects; Civil Improvements Projects (CIP) will include the development of four separate but coordinated civil improvements executed under a multi-year phasing plan.
- h. Physical Security: The FSB site will require new security fencing and gates meeting current BPA standards to maintain the physical boundary of the Ross Complex.
- i. Electronic Security: The FSB will require networked electronic access controls at main entry points incorporating a proprietary security design with a medium grade motorized security gate with networked electronic access controls, ground loops and surveillance devices. Facility communications services will be supplied by BPA communications network. New fiber service for phones, data and field intranet communications will require a connection from the Ross Complex Communications Building (Z-992) to the FSB. The A/E will hire a BPA sole source security company firm to survey, design, engineer and complete all portions of the communications network for the FSB site from the source connection (provided by BPA on the Ross Complex) to the FSB.

A.03 Goals of this Contract

- a. The goal of this project is to design and construct a new Fleet Services Building (FSB) to better service BPA from the Ross Complex. BPA intends to utilize the CM/GC procurement method to develop and manage the project.
- b. Additional project goals include, but are not limited to:
 - 1. A safe working environment with no accidents or injuries.
 - 2. Minimal disruption to BPA operations, users and visiting public.
 - 3. Construction, construction practices, and end product consistent with BPA's sustainability policy.

4. Utilize best practices with respect to energy efficiency and conservation.
5. Obtain LEED Gold certification.
6. Project to be delivered on time, within budget and as specified.
7. Maintain the security of the site.
8. Promote workplace diversity and utilization of small business.

A.04 Construction Budget

- a. The total project construction budget is required between \$19,700,000 and \$21,700,000 dollars. BPA will not pay more than the Guaranteed Maximum Price (GMP) unless the excess results from material changes to work scope agreed to in writing by both parties.

A.05 Objectives

- a. Compliance: Meet or exceed DOE Executive Orders for guidance in building design.
- b. Life-Cycle Cost: Durability in material selection and assembly detailing to maximize life and minimize maintenance costs. The methods and procedures for performance level determination and life-cycle cost-effectiveness determinations are prescribed in Chapter II of Title 10 of the Code of Federal Regulations, Part 433.
- c. Health & Safety: Replace inadequate facilities with facilities capable of supporting safe work practices and providing healthier work environments. Configure the work place to support user friendly and livable workspaces to the extent possible. Site circulation and vehicle storage space requirements relate directly to safety, providing adequate design parameters to account for work patterns supports a safe workplace.
- d. Reliability & Responsiveness: Improve facility layout, and parts and materials storage enabling more efficient operations.
- e. Efficiency & Productivity: Enable greater shop throughput via right-sized shop capacity relative to the type and number of fleet maintenance actions. Support greater mechanic productivity through industry standard shop floor clearances and pick heights.
- f. Co-Location: Storage of materials and resources that is located in direct proximity and related to activities of the user group's increases responsiveness and safety during emergencies.
- g. Storm Water Management: The A/E will review policies and guidelines of the City of Vancouver storm water management requirements and demonstrate requirement compliance.
- h. Sustainability: BPA is committed to incorporating principles of sustainable design and energy efficiency into all of its building projects. The FSB will be designed to achieve a LEED NC V4 Gold rating. The FSB and site shall be designed to a Net-Zero Ready standard, integrating a high performance building skin, LED lighting systems for low energy use. Aim to achieve lowest cost of ownership within the U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) framework.

- i. Net Zero Ready Design Building requirements: All provisions should be incorporated into the base design as needed to meet net zero energy performance with the exception of the following items: PV panels and mounting rails, invertors, 2way utility meter. (Net zero is defined as a building that on average annual basis produces as much energy as it consumes.) Specific design criteria would include:
 - 1. Allow adequate space in the electrical room to accommodate the future install of multiple inverters as needed to meet PV system design load.
 - 2. Provide all conduit runs, roof penetrations and adequate roof loading considerations as needed to support a PV array on the building roof of the size required to offset the entire annual energy load.
 - 3. Provide all breakers, busses runs, and other miscellaneous electrical equipment needed to complete the install of a future PV with the exception of the PV panels, mounting rails, invertors and two way meters.

- j. Net Zero Energy requirements:
 - 1. Provide an equal amount of power from a building mounted PV array as the total consumed energy by the building on an average annual basis.
 - 2. Provide PV mounting rails that do not penetrate the roof assembly
 - 3. Provide a true two way metering system – virtual metering will not be allowed.
 - 4. Provide multiple inverters instead of one large inverter to meet total load requirements.
 - 5. Prioritize building orientation to maximize the solar potential.

- k. Alternative Energy: The FSB shall be designed with add alternate options to accommodate PV arrays of varying size to meet the following percentages of building energy load offset: 50%, and 100%.

- l. Bring Ross Garage production in-line with Fleet Management target levels: An approximate 20% increase in maintenance actions from 2015 levels.

- m. Enable safer site conditions through segregation of exterior work areas from general circulation on the Ross Complex.

- n. Enable safer facility conditions through right-sized work spaces and industry standard work bay clearances, minimum 22' ceiling pick heights, dedicated circulation routes and improved facility support for major shop equipment (bridge cranes and vehicle lifts).

- o. Eliminate Ross Garage work backlog for planned maintenance and inspection items.

- p. Improved environmental stewardship through onsite storm water management and improved hazardous materials containment systems.

- q. Improved business continuity and resiliency through code compliant, seismically braced facilities designed to maintain operability in the event of natural disaster.

- r. Substantially reduce or eliminate shop mechanic overtime accruals for non-emergency repairs.

- s. Achieve co-location for Fleet administrative functions.
- t. Streamline east-west circulation at and around the Ross Complex in accordance with the Ross Strategic Framework Plan.

A.06 Schedule Milestones

- a. Procurement for Owners Representative Services -Completed
- b. Procurement for Architectural and Engineering Services -May 2017
- c. Procurement for CM/GC Services - August 2017
- d. Procurement for Independent Cost Estimator (ICE) -July 2017
- e. Preconstruction (Design) -May 2017 through April 2018
- f. Construction -Jan 2018 through April 2019
- g. Occupancy -July 2019
- h. Project Closeout -September 2019
- i. Post Occupancy -January 2020

A.07 Location of Project and BPA Contact

- a. BPA Ross Complex, 1300 NE Minnehaha St, Vancouver, Washington 98662, Clark County. The site selected for this project is on the south portion of the Ross Complex. Access to the site is restricted and must be coordinated with the BPA Contracting Officer's Technical Representative (COTR). See Part F, Technical Exhibits, F.02 Proposed Site location.
- b. BPA Point of Contact:
 Bonneville Power FSB Facilities Engineering
 Rebecca Duoos-Bourgazas-COTR
 Phone: 1 . 360.619.6745
 Email: rdbourgazas@bpa.gov

A.08 BPA Furnished Property and Services

- a. BPA will provide all relevant information and data pertaining to the BPA requirements, proposed site and existing facilities as needed in support of the project.
 - 1. Site Access Design
 - 2. Environmental Clearance Memorandum
 - 3. Preliminary Site Survey
 - 4. BPA Geotechnical investigation SSSP requirements.
 - 5. Physical and Electronic Security Requirements

6. Space Planning Requirements
 7. Energy Efficiency Custom Project Requirements
- b. Support Services: BPA will hire the following independent consultants to represent their interests. These consultants are outside the scope of this contract and will be hired in a separate procurement action. BPA will coordinate all project requirements, schedules, design reviews and construction efforts with this team.
1. Commissioning Agent (Cx)
 2. Independent Cost Estimating Consultant (ICE)
 3. Code Review Consultant
 4. Special Inspections and Testing Agency

A.09 A/E Furnished Property and Services

- a. The A/E shall provide all property and services in support of this contract, except those mentioned above.
- b. The A/E shall develop the project in accordance with governing federal, state and local agencies and as required by BPA. The A/E shall perform work in a professional manner and maintain clear and well organized information while meeting all deliverable and format requirements set forth in this document.
- c. BPA will provide site access to the A/E and their associates who have met the BPA Security requirement prior to meetings and site visits. A/E shall provide full legal names, citizenship, contact information and company name for of all attending personnel 48-hours in advance of all meetings and site visits throughout the project. Requests for access and clearance for A/E employees with foreign citizenship will require approximately six weeks for processing.
- d. The A/E shall perform work in a safe, efficient manner and in accordance with BPA's Safety and Health Program. The A/E shall apply expertise, knowledge and experience in the areas of:
 1. Public agency and complex master planning.
 2. Application and development of prescriptive standards, guidelines, and performance specifications for facility and site projects.
 3. Implementation of program strategies.
 4. Provide environmental stewardship and sustainable design.
 5. Comprehensive regulatory compliance at the municipal, state and federal levels.
 6. Operations and Maintenance
 7. Asset governance
 8. Facilities of a similar operational nature
 9. Project teaming and alternate procurement methods
- e. The A/E shall maintain accurate records of project meetings, observations, investigations and derived Project findings. Milestone report events will be identified

when the A/E's work plan is developed with BPA. FSB shall include, but is not limited to:

f. Project Meetings

1. The A/E shall be available to meet with the BPA Facilities (TESF) Project Manager and/or Project Coordinator upon request to discuss progress, present deliverables, exchange information, and resolve emergent challenges or obstacles.
2. Meetings shall be held at BPA Headquarters (Portland, OR), or at the Ross Complex (Vancouver, WA).
3. It is anticipated that at minimum 38 meetings will be required though the duration of the contract in the following stages:
 - (a) PHASE 1 – Preconstruction Services = 20
 - (b) PHASE 2 – Construction Services = 12
 - (c) PHASE 3 – Post Construction Services = 6
4. Phase 1 Meetings shall be held on a weekly basis unless determined otherwise by BPA. Changes to the schedule, duration, and frequency of projects meetings are subject to change at BPA's discretion.
5. The A/E shall inform BPA through weekly meetings, reports, on-site discussions, and email, to report progress and potential challenges. The A/E shall bring such matters to the attention of the COTR as soon as issues are identified.
6. The A/E shall notify the COTR of any immediate life-threatening or property-damaging situation identified within one hour of discovery.

g. Administrative Record

1. The A/E shall maintain an Administrative Record (the Record) of all activities carried out under this contract, and shall make the Record available to the COTR upon request.
2. The Record shall include copies of all correspondence, meeting notes, and key telephone conversations. The Record shall include all comments received from any source on all draft and final documents prepared under this scope.
3. The A/E shall prepare and distribute a copy of the Meeting Report (minutes) within three (3) working days following all regular meetings, presentations, or other important but informal meetings with BPA for review.

h. Project Work Plan

1. After mobilization and scoping, a work plan shall be furnished describing the duration and sequence in which the A/E intends to orchestrate resources and activities in order to complete the required work. The work plan includes (but not limited to) meetings, programming, required BPA feedback/data, project milestones and deliverables as referenced.
2. The A/E shall track changes to the work plan and reissue to CO, COTR and BPA management as necessary.

A.10 Definitions

a. BPA Organizational Codes

(FC): Finance Committee. The FC serves as the final level of review and authorization for capital projects that are large or strategically sensitive, or that meet other criteria set forth by the FC.

Facilities Project and Planning (NWM): Responsible for the planning and management oversight of non-electrified facilities and BPA owned infrastructure as well as complex site-development.

Transmission Services (T): Owner of various non-electrified facilities on the Ross Complex.

TEP: Transmission Engineering Project Management.

TESF: Transmission Engineering A/E

TETQ: Transmission Engineering Construction Management

b. Facility Definitions

1. **Deferred Maintenance:** Deferred maintenance is unperformed routine maintenance, repairs, replacement, or renewal projects, which results in a progressive deterioration of the facility condition or performance.
2. **Expected Useful Life (EUL):** EUL is the average amount of time in years that an item, component or system is estimated to function when installed new and assuming routine maintenance is practiced.
3. **Non-Electric Facilities (NEF):** Non-electric facilities are defined as all site buildings, their associated mechanical, structural, and non-building assets such as utility systems, surrounding grounds and other fixed improvements upon the land within the sites controlled by the agency. The associated electrical equipment that is not directly used for Transmission system operation (station service) is also included.
4. **Project Site:** The project site refers comprehensively to non-building assets, e.g., parking lots, sidewalks, and exterior lighting on a facility.
5. **Real Plant Property:** Real plant property refers to all buildings, structures, non-building assets and utilities (and their integral components/systems) on a site.

c. General Definitions

1. **Executive Order (E.O.):** An Executive Order is a presidential policy directive that implements or interprets a federal statute, a constitutional provision, or a treaty.
2. **Project Requirements Document (PRD):** Comprehensive schematic design documents with narrative summary, drawings, technical specifications, and cost estimates sufficient to provide scope and direction for the further development of Design Development Documents and Construction Documents.

d. Contract Definitions

A/E:	Architectural and Engineering service providers
CO:	Contract Officer
COTR:	Contracting Officer's Technical Representative
CM/GC:	Construction Manager General Contractor service providers
GMP:	Guaranteed Maximum Price
Interim GMP:	Guaranteed Maximum Price for an early portion or phase of the project scope of work.
ICE:	Independent Cost Estimator
OR:	Owners Representative
OPR:	Owners Project Requirements
PC:	The Project Coordinator administers day-to-day project execution under the PM.
PM:	The Project Manager is responsible for overseeing project execution, key decision points affecting scope and risk management.
PMP:	Project Management Plan
Stakeholder:	BPA employee or business group whose work or knowledge impacts or may be impacted by the scope of this Project.
SFG	Strategic Frame Work Guide
SME:	Subject Matter Expert

A.11 Documentation

- a. All design work proposed for Federal Buildings should be compatible with the adopted technical requirements of the nationally recognized codes and standards identified below. The technical requirements of these codes and standards are supplemented by mandates of Federal law and Executive Orders, as well other Federal agency criteria. Standards and specifications for performance of the work shall include, but not limited to the following:
1. ICC Family of Codes (2016 editions)
 2. NFPA 101 - Life Safety Code (2015 edition)
 3. NFPA 70 - National Electrical Code (2017 edition)
 4. SEI/ASCE 11-99 - Guideline for Structural Condition Assessment of Existing Building

5. ASHRAE Procedures for Commercial Building Energy Audits, 2nd Edition
6. ASTM Standard E1557 - UNIFORMAT II
7. National Energy Conservation Policy Act (NECPA)
8. Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings
9. Executive Order 13696; Federal Leadership in Environmental, Energy, and Economic performance
10. Energy Independence and Security Act of 2007 (EISA 2007)
11. Technical Guidance for Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act.
12. Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management
13. Energy Policy Act of 2005 (EP Act 2005)
14. U.S. Code Title 42, Chapter 91, Subchapter III, Part B (Federal Energy Management)
15. National Historic Preservation Act of 1966 (16 USC 470 et. seq.)
16. Architectural Barriers Act of 1968
17. United States National CAD Standard, Version 5
18. National Standards
19. Organizations writing voluntary national standards, including NFPA, the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), the Sheet Metal and Air Conditioning A/E's National Association (SMACNA), the Institute of Electrical and Electronics Engineers (IEEE), and the American Society of Mechanical Engineers (ASME), publish standards on health, safety, welfare, and security that are recognized by BPA. Conflicts between Codes or Standards and BPA Requirements
20. State and Local Codes:
 - b. Facilities built on Federal property are exempt from state and local building codes. It is recognized that the national building codes are typically the foundation of state and local building codes, and that state and local codes represent important regional interests and conditions. It is BPA's policy to comply with state and local building codes to the maximum extent practicable; however, the BPA has the final authority to accept or reject any recommendation from state and/or local government officials.
 - c. To ensure flexibility, BPA's policy is to make maximum use of equivalency clauses in all codes and standards. If a conflict exists between BPA requirements and the BPA-adopted codes or standards, the BPA requirements take precedence. All such conflicts must be brought to the attention of the Program Manager as appropriate for resolution. BPA is the Authority Having Jurisdiction (AHJ).
 1. BPA Manual, Chapter 1037, Office, Workstation and Furniture Standards, 11 / 2007

2. BPA Drawing Criteria and Revision Practices, *STD-D-000001-00-01, December 2010*
3. BPA Storm water Management Design, STD-DS-000043-00-00, April 2013
4. BPA Storm water Drainage, STD-DS-000050-00-00, August 2015
5. BPA Civil Engineering Design Manual, Second Addition, October, 2015
6. Seismic Policy, STD - DS - 000001-00-05, March 2016
7. BPA Code Compliance Evaluation for Existing Buildings, *Code Manual, 01 / 2011*

A.12 Site Access and Restrictions

- a. Restricted Access: All BPA sites and facilities have restricted access which requires contractors to have badged access or a BPA escort or Safety Watcher at all times. If a BPA escort cannot provide access, the A/E shall be required to hire a Safety Watcher from BPA's list of approved Safety Watchers. This request will be determined prior to site visits and will be a direct reimbursable cost by BPA.
- b. Security: Protect and properly secure site, equipment and materials from theft, vandalism and unauthorized entry. Promptly report to the COTR and BPA security at (360) 418-2080 all cases of criminal activity that occur in the work area. Should circumstances warrant immediate police, fire, or medical response, call 911 emergency.
- c. Safety: Teams shall adhere to BPA Safety requirements applicable to the location of each visit.

Part B: PROJECT GUIDELINES

B.01 General

- a. Develop the project in accordance with this document, governing federal, state and local agencies and as required by BPA. The A/E is required to provide all property and services in support of this project under the terms and conditions of the contract.
- b. Information Assurance: The data that will be provided to the A/E has a rating of low under the FIPS 199 Standards for Security Categorization of Federal Information and Information Systems. This requires the A/E to protect BPA data using either the NIST 800-53rev4 Security and Privacy Controls for Federal Information Systems and Organizations for a low rated system or the ISO-27001:2005/2013 (ISO/IEC 27001:2005/2013 – Information Technology – Security Techniques – Information Security management Systems – Requirements). The A/E will be required to provide yearly attestation of the protection of BPA information in their IT infrastructure against the NIST 800-53rev4 security control catalog or ISO-27001:2005/2013. Attestations can be in the form of a formal memorandum, letter, or email and must state under which standard.

B.02 Building Codes, Regulations and Permits

- a. This project will have coordination and permit requirements with a number of regulatory agencies. Some of the agency coordination requirements include, but are not limited to:

- b. Design to “Risk Category IV “Essential Facility” criteria and comply with the following;
 - 1. International Building Code 2015 (IBC) with Washington Amendments
 - 2. National Electric Code 2014 (NEC) with Washington Amendments
 - 3. International Fire Code 2012 with Washington Amendments
 - 4. Uniform Plumbing Code 2012 (UPC) with Washington Amendments
 - 5. International Mechanical Code 2012 (IMC) with Washington Amendments
 - 6. Washington State Energy Code 2012
 - 7. Americans with Disabilities Act (ADA)
 - 8. Code of Federal Regulations
- c. This project will require utility and similar permits for access; the A/E will obtain all required permits not limited to but including:
 - 1. Water: City of Vancouver, WA
 - 2. Sewer: City of Vancouver, WA
 - 3. Storm Water Pollution Prevention Plan: WA Dept. of Ecology
 - 4. Gas: Northwest Natural Gas

B.03 Administrative Requirements

- a. The work shall be performed in a professional manner, have clear and well organized information while meeting all submittal and format requirements set forth in this document.
- b. The A/E shall be available to meet with the COTR upon request to discuss progress, present deliverables and address major issues that could impact the program, schedule or budget.
- c. The Review Comments Disposition Checklist will be a document created by the A/E and will contain all these and other relevant comments received at and in-between reviews to track general and review comments with a disposition of whether the comments was addressed or not and if so, why.
- d. A compiled review comment and meeting record in the form of a Comments Disposition Checklist shall be provided at each submittal reflecting meetings, discussion, and clarifications leading up to that submittal and including all previous review comments.

B.04 Work Provided / Performed by BPA

- a. Provide all relevant information and data pertaining to the BPA requirements, proposed site and existing facilities as needed in support of the project.
 - 1. Operational and maintenance equipment lists.

B.05 Work Performed by A/E

a. General

1. The A/E is being selected early in the project schedule in order to provide BPA with expertise and experience that will assist in project decision making, and to ensure that procedures are implemented to aggressively manage the construction costs and schedule requirements. The design shall allow for economical and efficient methods of construction. BPA seeks an A/E who can best provide the services needed to achieve these goals.
2. Critical expertise with the operations and maintenance aspects of this building type (Heavy Machine and Equipment Maintenance) is required and may be provided by a consult to the A/E.
3. Evidence of a Quality Management Plan and demonstration of historical project implementation records are a condition of hire.
4. Provide Geotechnical Engineering services during the preconstruction and construction phases as required.
5. Coordinate development of FSB site design with Ross Central Circulation upgrades

b. A/E Service Phases

1. The A/E will work collaboratively and proactively with the BPA and CM/GC to proceed with planning, design and development of the work in a manner which supports the efforts to keep costs within the Owner's budget. The A/E shall provide Design and Engineering services throughout each project phase including preconstruction, construction, post construction and shall closely coordinate such work with the BPA, PM, OR, ICE and CM/GC.
2. The project documentation referenced in this SOW (i.e., the OPR, PMP, SFG and BPA Ross HMEM Facility Feasibility Study prepared by MDG in 2013(i.e., see excerpts from feasibility study, Technical Exhibit A, item F.01) have been developed with substantial internal BPA review and input. These documents are meant to define a preliminary program (BOD) and inform the design, not to predetermine the design. The validation, analysis and interpretation of these documents will be an early focus and continuum throughout the preconstruction phase of the project.
3. The services requested of the A/E shall be provided in three general phases:
 - (a) Phase - 1 Preconstruction Services: During the planning and design phases of the project, advise BPA and provide other services such as assistance with selection of CM/GC entity, sub-consultants and subcontractors, BIM Model management, conceptual design, schematic design, design development, construction documentation and hazardous material survey.
 - (b) Phase - 2 Construction Services: Management and execution of construction administration services, construction closeout and quality assurance documentation.
 - (c) Phase - 3 Post Construction Services: Participate in on-site meetings 10 months after Substantial Completion date to review performance and

quality of the facility. CM/GC, A/E and Sub-consultants are required to attend this meeting.

B.06 Phase 1 - Preconstruction Services

- a. Selection of CM/GC Entity: Assist BPA in the review and selection process of hiring a CM/GC.
- b. Sub Consultants and Subcontractors: Assist BPA and the CM/GC in the review and selection process of project sub-consultants.
- c. Design Schedule Coordination: Continuously monitor and update the project design schedule and coordinate with the CM/GC construction schedule to ensure completion of the project on time. Advise BPA immediately of any concerns or issues that could affect or change project completion date.
- d. CM/GC support services: The A/E will actively participate in Value Engineering studies and to actively participate in ongoing value engineering and constructability reviews to ensure the project budget and design standards are maintained.
- e. Phase 1A - Basis of Design & Program Validation: Review, evaluate and identify any conflicts within or between the OPR, PMP and SFG that could affect the project construction schedule, budget or quality.
 1. Owner Project Requirements (OPR): Review, evaluate and identify any opportunities for design innovation and cost savings.
 2. Basis of Design (BOD): Study and utilize the BPA Ross HMEM Facility Feasibility study prepared by MDG in 2013 (See Part F, Technical Exhibits, F.01 Exhibit A) as a preliminary definition of a program BOD. Update with stakeholders input and identify opportunities for further design innovation and cost savings.
 3. LEED Requirements: Define the LEED implementation plan, and strategy for attaining the required points to achieve targeted certification level. Coordinate with CM/GC to identify the projected costs and schedule.
 4. Construction Budget: Coordinate with CM/GC to align project budget.
 5. BIM: Define and present a BIM Execution Plan to BPA. Identify roles and responsibilities, project directory, internal and external BIM goals, modeling protocol, Process Plan and level of development (LOD).
 6. CM/GC support services: The A/E will provide the BOD to the GM/GC and the ICE for Value Engineering and cost estimations and make adjustments as required to align the BOD definitions with the construction budget and schedule.
 7. Hazardous Material surveys for the PSB Annex Building, the PSB shot blasting booth and the NWP Storage Building.
- f. Phase 1B - Conceptual Designs
 1. The A/E will schedule and coordinate a series of three design charrettes with BPA, OR, CM/GC and ICE to leverage the team's creativity, innovation and problem solving capabilities. The focus of the charrettes will be as follows:
 - (a) The first design charrette will focus on site analysis and circulation.

- (b) The second charrette will focus on the integration of the preferred site circulation concept and building massing configurations.
 - (c) The third charrette with focus on the integration of the civil, landscape, structural, architectural and MEP systems into the site and building design.
- 2. Building MEP System Concepts - Performance requirements. The A/E will identify the preferred MEP systems from the design charrettes above and develop operational performance requirements or specifications for each system and deliver these requirements to the CM/GC and ICE for pricing.
- 3. CM/GC support services
 - (a) The A/E will document the preferred conceptual designs and provide documents to the CM/GC and ICE for Value Engineering studies.
- 4. Develop BIM Management Plan
- 5. BPA intends to use BIM throughout the design and construction process. The A/E shall have substantial and relevant experience with BIM modeling and be able to easily use the BIM processes to execute the project design. BPA expectations with respect to BIM modeling usage include the following:
 - (a) Quicker turnaround on development and evaluation of alternatives.
 - (b) Improved visualization and communication for the project team, stakeholders and subcontractors.
 - (c) Clash detection.
 - (d) Reduction of change orders.
 - (e) Quicker and more accurate material takeoffs.
 - (f) Improved cost estimating.
 - (g) Improved construction coordination and sequencing.
 - (h) All planning, design phase and charrette presentations.
- g. Phase 1C - Schematic Design
 - 1. Through exploration of alternatives, the A/E will establish the generative design logic that will be used through the subsequent phases, and refine the fundamental components of the project and their interrelationships. In addition, multiple adjacency and spatial relationships and organizational strategies will be explored and aesthetic values defined.
 - 2. Provide a written narrative and list of major material components, systems and assemblies. Tabulate the building areas relative to the building program.
 - 3. Coordinate Building Structural & MEP system requirements: The A/E will define and analyze the preliminary structural, mechanical, electrical and enclosure systems concepts with respect to construction costs, schedule and alignment with the sustainability targets.
 - 4. Coordinate Regulatory Requirements: The A/E will coordinate with the BPA code consultant to define compliance strategies with all regulatory requirements.
 - 5. Develop Performance Specifications: The A/E will develop the outline performance specifications for all of the building systems to include structural, mechanical, electrical, and enclosure systems concepts and deliver to the CM/GC for value engineering and construction cost estimation.

6. Refine Design Schedule: Coordinate and align the design schedule with the CM/GC Critical Path Method (CPM) schedule and update as required.
 7. Identify Unique Conditions: Identify any unique condition's that pose risks to the project schedule, budget and quality and report to BPA COTR immediately.
 8. BIM Model: Update and present the BIM Execution Plan to BPA. Clarify roles and responsibilities, project directory, Internal and External BIM Goals, modeling protocol, Process Plan and describe current level of development (LOD).
 9. CM/GC support services:
 - (a) The A/E will actively participate in Value Engineering studies and constructability reviews to ensure the project budget and design standards are maintained.
 - (b) Prepare in-progress design documents and provide timely input and advice on design and engineering alternatives. Provide formal and informal construction review documents as part of the schematic design development process.
 - (c) The A/E will provide drawings, specifications and support the CM/GC with additional requests as required to define a preliminary GMP.
- h. Phase 1D - Design Development
1. Validate: the generative design logic that was defined in the schematic design phase and confirm that the systems descriptions for structural, mechanical, electrical and enclosure system concepts remain in alignment with the project construction costs, schedule and quality.
 2. Site Plan: Refine the Site Plan to indicate Site access, pedestrian and vehicular circulation, parking, pavement curbs, parameter security fencing and gates, site signage, building entrances, landscaping, lighting and storage.
 3. Building Envelope: Define primary exterior wall assemblies, building details, integration of parameter wall building systems and coordinate.
 4. Building Structural & MEP Building Systems: The A/E will finalize and integrate the structural, mechanical, electrical and enclosure systems concepts and confirm alignment with construction costs, schedule and the sustainability targets.
 5. Develop Performance Specifications: The A/E will develop performance specifications for all of the building systems to include structural, mechanical, electrical, and enclosure systems concepts and deliver to the CM/GC for value engineering and construction cost estimation.
 6. Verify OPR and BOD Compliance: The A/E will verify that the design direction and definitions are in alignment with the OPR and BOD and will notify BPA of discrepancies and adjustments required.
 7. BIM Management: Update and present the BIM Execution Plan to BPA. Clarify roles and responsibilities, project directory, Internal and External BIM Goals, modeling protocol, Process Plan and describe current level of development (LOD).
 8. Regulatory Compliance Review: The A/E will coordinate with the BPA code consultant to define compliance strategies with all regulatory requirements.

9. Value Engineering: The A/E will actively participate in formal Value Engineering studies constructability reviews to ensure the project budget and design standards are maintained.
 10. Construction Bidding: Provide assistance relating to design and specification questions/clarification during GMP negotiations. Participate in the review of technical proposals and pre-construction meeting.
- i. Phase 1E - Construction Documents
1. Provide documentation sufficiently clear and complete for the CM/GC to prepare a GMP and to construct the building. The documentation includes drawings, reference documents, specifications, and administrative requirements for the project.
 2. Finalize Construction Drawings: The A/E will prepare and issue to the CM/GC and ICE the final IFC Drawings and Specification for Value Engineering and distribution to subcontractors.
 - (a) For the Site, Civil, Structural, MEP and Building Enclosure construction packages the review periods will be integrated, and phased.
 3. The A/E will develop performance specifications for all of the building systems to include structural, mechanical, electrical, and enclosure systems concepts and deliver to the CM/GC for value engineering and construction cost estimation.
 4. BIM Model: Update and present the Final BIM document to BPA. Clarify, project directory, Internal and External BIM Goals, modeling protocol, Process Plan and describe current level of development (LOD).
 5. CM/GC support services
 - (a) The A/E will actively participate in Value Engineering studies anticipated to be held at the end of Construction Document phase and to actively participate in ongoing value engineering and constructability reviews to ensure the project budget and design standards are maintained.
 - (b) Prepare in-progress design documents and provide timely input and advice on design and engineering alternatives.
 - (c) Provide formal and informal construction review documents as part of the design development process.
 - (d) Coordinate the development of a bid package strategy with the CM/GC and provide support documentation that identifies the division of the work to facilitate subcontracting bidding and the award of trade contracts.

B.07 Phase 2 - Construction Services

- a. Construction Administration and Technical Support will be provided throughout all phases of the work and require technically qualified staff to respond to the following:
 1. General Construction Administration: Assist with obtaining jurisdictional permits and special inspections as required.
 2. Provide assistance relating to design and specification questions / clarification. Participate in the review of technical proposals and pre-construction meeting.
 3. Construction Administration: Process shop drawings, material submittals and other submittals required by the Contract Documents. Respond to all requests

for information (RFIs) and provide detailed references to drawings and specifications to support responses.

4. Change Orders Request: Coordinate the review all COR's with the ICE consultant and provide backup documentation to justify the reason for scope change, equitable adjustment to cost and schedule and if the price is fair and reasonable.
5. Construction Field Observations: Perform site visits to observe and report on the progress of work, quality and compliance with the Contract Documents.
6. Record Drawings: Issue Architects Supplemental Information (ASI) and revise Record Drawings relating to changes or alterations to the Contract Documents by GC.
7. Warranty: Review vendor warranty relating to materials, systems and equipment to ensure compliance with the Contract Documents.
8. Project Closeout: Provide support, including punch list, final inspections and review of testing and commissioning reports. Incorporate all as-builts for Record Drawings and submit all changes or alterations of the Contract Documents to BPA per requirements to Record Drawing revisions.

B.08 Phase 3 - Post Construction Services

- a. Participate in on-site meetings 10 months after Substantial Completion to review performance and quality of the facility. A/E and Sub-consultants are required to attend this meeting. The POE shall address the following areas:
 1. Physical measurements of indoor environmental quality (acoustics, air quality, lighting, thermal conditions) are made during actual business hours.
 2. Evaluation tools such as space utilization surveys, floor plan analysis, and social network analysis objectively record as-occupied use of space.
 3. "As operating" conditions are assessed by evaluating systems, controls, energy use, and water use, and by interviewing facility managers.
- b. The A/E is responsible for developing the POE plan for BPA review and approval after facility occupancy and for completing the POE report for BPA review and approval.

Part C: OWNERS PROJECT REQUIREMENTS

C.01 General

- a. This section outlines the primary functional requirements of the project and expectations of how the FSB and its systems will be used, operated and expected to perform. This section along with the supporting documents provides the design team with information necessary to develop the Basis of Design (BOD) during program verification and schematic design, which serves as a "road map" for development of the final design and subsequent construction documents.

C.02 Occupancy and Use

- a. The FSB workday begins officially at 7am, although many personnel arrive between 6:30 and 6:45am. The workday officially ends at 4pm, although some employees will

work either four 10-hour days while others may work five 8-hour days. On typical days, the FSB will be occupied between approximately 8am and 4pm.

C.03 Site Design

- a. The FSB site is approximately 5 acres of land owned, operated and controlled by BPA as part of the Ross Complex. Primary access to the FSB site will be from NE Ross and NE North Road.
- b. Storm water: Permits are not required from the City of Vancouver or any other authority governing such matters. However, demonstration of storm water compliance is intended to enable BPA to pursue storm water management fee credits from City of Vancouver.
- c. Site Utilities: Follow local regulations regarding requirements for water, fire protection, sanitary sewer, and storm drainage services. Coordinate location of utilities with other site features/elements.
 1. Provide connections to public utilities including:
 - (a) Sanitary Sewer
 - (b) Water
 - (c) Gas
- d. Geotechnical Investigation: This project will require the Consultant to perform a complete geotechnical investigation to determine final design recommendations. After Contract Award, the A/E will provide BPA with a Site Specific Safety Plan (SSSP) that must be submitted to BPA for review and approved (estimated 2 weeks) prior to BPA issuing a "Notice to Proceed" for geotechnical work. The SSSP describes the potential hazards of the work site, along with the Consultants policies; controls, work practices, and personal protective equipment (PPE) selected to minimize those hazards. This is a specific requirement for all work associated with the geotechnical investigation on site.

C.04 Transportation and Parking

- a. Explore and provide for alternate and available modes of transportation for building users and visitors (auto, bus, and bicycle, pedestrian).
- b. Define sustainable / LEED parking goals, such as number of spaces dedicated to alternative fuels vehicles, if any. Engineer and design for installation of infrastructure for future installation of electric vehicle charging stations for BPA owned vehicles.

C.05 Building Envelope

- a. The exterior shall be designed to endure for at least 50 years. Selection of materials and detailing of envelope systems shall be consistent with:
 1. The ICC family of codes, current edition with Washington Amendments.
 2. Exterior building materials and finishes will be within the Ross Complex SFP Design Standards.

- b. Prevention of moisture intrusion is a high-priority goal applicable to all project team disciplines.
- c. Solar transmission shall be controlled and designed in accordance with ASHRAE Standard 90.1-2013 through high-performance, low-e glazing, overhangs and external shading, and other techniques to minimize solar heat gain and maximize light transmittance for daylighting where functionally practical.

C.06 Sustainability and Energy Efficiency

- a. As part of an overall commitment to sustainability and a goal of achieving “carbon neutrality” by the year 2025, BPA builds its facilities to last and promotes environmental quality and resource conservation through sustainable design and construction. As part of that commitment and to demonstrate through energy modeling that the facility was designed and constructed to be energy-efficient and environmentally sustainable, BPA projects must be certified by the U.S. Green Building Council (USGBC) through its Leadership in Energy and Environmental Design (LEED) process.
- b. A Green Building Certification Coordinator or equivalent is required to be part of the A/E’s team. It is the A/E’s responsibility to register, design, document and secure LEED Gold certification in its entirety.
- c. This project shall achieve LEED-NC V4 certification at no lower than Gold level. Specific, high priority goals for this project include:
 - 1. Maximization of the HVAC credits under the Energy and Atmosphere section of the LEED rating system as a first priority. The facility shall operate at a minimum of 30% higher efficiency than ASHRAE Standard 90.1-2012.
 - 2. Incorporation of strategies, measures, and systems to conserve energy, such as heat/enthalpy wheels, energy recovery units, “setback” modes, etc.
 - 3. Utilization of the Building Automation System and other controls to efficiently maintain and track performance of key building systems, particularly HVAC and lighting.
 - 4. Use of low-VOC, regionally-available, and high recycled content materials.
 - 5. Adoption of "daylight harvesting" to minimize electric lighting usage where functionally practical.
 - 6. Review and consideration to incorporate solar energy and passive cooling techniques, strategies, and products.
 - 7. Utilization of FSC-certified wood.
 - 8. During program verification and/or schematic design, the project team will review and update this checklist in order to firmly establish sustainability goals for the project. The matrix will be continuously maintained and be available to BPA for review throughout design and construction as a guideline for achieving LEED Gold certification and tracking progress and action items.
- d. The FSB shall demonstrate Net-Zero Ready energy performance, infrastructure and space requirements for future photovoltaic and all associated equipment and installation.
 - 1. Future photovoltaic system is to be bid as an alternate.

- e. Meet E.O. 13514 and associated Guiding Principle for New Construction.

C.07 Operation and Maintenance

- a. The entity responsible for management of the facility is NWP. The entity responsible for maintenance and operation of the building and its systems is NWFR. Management, maintenance and operations begin on the date of Substantial Completion.

C.08 Owner Training

- a. Observe onsite training for the Owner (i.e., whether operators/maintainers or users / occupants) and insure a description overview of systems, not just the components, is completed for equipment that comprise each system. The training, which is ideally held in conjunction with commissioning, should include general orientation and reviews of the written O&M instructions, relevant health and safety issues or concerns, operation in all possible modes, preventive maintenance, and common troubleshooting problems & solutions.
- b. The NWFR shall be trained on all building systems including but not limited to:
 - 1. HVAC systems – 8 hrs.
 - 2. Passive systems – 4 hrs.
 - 3. BAS/controls – 8 hrs.
 - 4. Electrical systems – 4 hrs.
 - 5. Lighting controls – 4 hrs.
 - 6. Security systems - 4 hrs.
- c. Building systems that the occupants/users shall be trained on include:
 - 1. HVAC Systems - 2 hrs.
 - 2. Passive systems - 1 hr.
 - 3. Lighting controls - 2 hrs.
 - 4. Audio/Visual (A/V) systems - 2 hrs.
- d. Most training shall be completed prior to Substantial Completion, and all sessions shall be videotaped and converted to DVD format for the Owner's use.

C.09 Commissioning, Inspection and Quality Assurance

- a. This section describes work that will be performed in parallel and in support of the design effort. This description is intended to outline a specific design team requirement as well as internal oversight review efforts by BPA to support and confirm the quality of design coordination with the A/E.
- b. Onsite inspections will be conducted by the BPA Construction Management and Inspection Office. Onsite inspection of life safety, code compliance, and ADA-related items will be conducted by the BPA Safety Office.
- c. BPA will hire a qualified Commissioning Consultant. The Commissioning (Cx) Consultant will be independent of the design and construction teams.

1. The Commissioning (Cx) consultant will be responsible for
 - (a) Peer review of the design and construction documents
 - (b) Development of the project-specific Cx specification
 - (c) Development of the project-specific Cx Plan
 - (d) Construction and acceptance phase commissioning and documentation
 - (e) Development of the facility's Systems Manual
 - (f) Post-occupancy commissioning, testing, and documentation
 2. It is anticipated that the following building systems will be commissioned:
 - (a) Mechanical and HVAC systems
 - (b) Electrical and lighting systems
 - (c) Domestic hot water systems
 - (d) Building envelope systems
 - (e) Renewable energy systems
- d. BPA will hire a qualified Special Inspection and Testing Agency meeting ASTM E329 directly to perform the onsite inspection and oversight services required by code.
- e. BPA will hire a qualified Independent Cost Estimating Consultant (ICE) to progressively estimate the cost for the proposed design. This Consultant shall provide construction estimates at the completion of BOD (15%), Schematic Design (30%), Design Development (60%) and Construction Documents (90%). If the estimated construction cost exceeds the budget by amounts prescribed in the Risk Register, a Value Engineering Exercise will be initiated. If the Value Engineering Exercise requires a change to the scope, budget or schedule, BPA will request a proposal from the Consultant. The ICE shall be hired before the completion of the BOD documents.
- f. BPA will hire a Code Consultant to review the documents for code compliance.

Part D: TECHNICAL APPROACH / TASKS

D.01 General

- a. Construction Documents, Specifications, Calculations and Reports for construction are required to be stamped and signed by an Architect and/or Professional Engineer licensed in the State of Washington. The A/E has the sole responsibility to ensure the "Issued for Construction" documents includes all scope required for construction of the Ross FSB.
- b. Hardcopy and electronic formats to facilitate deliverable legibility and coherence, and deviations from stated format may be acceptable with COTR approval. Include all drawings, specifications and reports for each submittal requirement.
- c. Project expectations are described in detail in the attached documents listed here and referenced elsewhere. These documents outline expectations of the A/E's deliverables, process and the desired performance of designed facility. The Design Submittal Requirements (DSR) clearly defines the quality expectations of the A/E at each of the milestones described within. BPA requires specific review criteria at each milestone and often at intermediate stages, documentation deliverables such as hard-copy or electronic must be met to aid in the success of this project.

D.02 Methods to be Used

- a. The basis of payment for the Work shall be partial payments made upon completion of the delivery of complete deliverables called for, delivered, and accepted by BPA. Deliverables and their corresponding values are described in D.19.
- b. The A/E shall use professional approaches, procedures, and technical expertise for the evaluation, analysis, programming, sustainability, and documentation of proposed solutions. The Work shall provide “recommended options” and “best alternative options.”
- c. The A/E shall perform fact finding and frequent interactive discussion with BPA staff and City of Vancouver, WA as needed. The A/E shall verify information on existing documentation and note any major discrepancies. BPA comments shall be incorporated into final deliverables.
- d. The proposed solutions will be subject to BPA review and acceptance after each phase is complete. The BPA shall provide responses to each submission. The A/E is responsible to respond to all comments provided by BPA staff or provide adequate justification to solutions to BPA’s satisfaction.

D.03 Requirements

- a. This section outlines, in further detail, the primary functional requirements of the project and expectations of how the facility and its systems will be used, operated and expected to perform.

D.04 Civil

Coordinate the FSB Site civil engineering and design with the Ross Central Circulation Upgrade as described in a separate Ross Civil Infrastructure Implementation SOW.

- a. Utility Location
 1. Locate equipment such as transformers, meters, backflow preventers, etc. to be readily accessible. To minimize visual impact, integrate equipment in the landscape design whenever feasible.
 2. Water, sewer, and storm lines to be located in unpaved areas where possible. Do not locate these in drives to avoid disruption of access to, from, and within the site. Provide fire hydrants in accordance with NFPA 24 and the local fire marshal’s requirements.
- b. Water
 1. The site water utility distribution piping, at minimum, to be provided in accordance with the American Water Works Association (AWWA) and ASTM Standard Specifications, unless otherwise identified in the program requirements.
- c. Sanitary Sewer
 1. Offset inlets from main lines to prevent clogging. Provide cleanouts on all services lines five feet from the building and at all bends without manholes. Manhole lid and frame shall be cast iron construction with hinged lid.

d. Storm Drainage:

1. Storm water run-off to be collected and treated on site to the maximum extent feasible. Storm water management to be designed in accordance with the requirements of the BPA standards, BPA Civil Engineering Design Manual, City of Vancouver, and Storm water Management Manual for Western Washington.
2. *Best Management Practices* shall address construction and post-construction activities. A list of BMPs can be found at the EPA National Pollutant Discharge Elimination System (NPDES), National Menu of Storm water BMPs, as well as Storm water Management Manual for Western Washington.

e. Rainwater harvesting

1. This solution may be considered as an alternative source for irrigation. Such systems shall comply with local codes and standards.

f. Site Lighting

1. Illumination of work yard is preferred by fixtures on buildings. Supplement yard lighting with pole lights as necessary to achieve minimum required foot candles throughout site. Provide switching for areas of lower use.
2. Select fixtures and design lighting layout to control light pollution by minimizing light trespass and sky-glow.
3. Provide ample lighting in parking and between parking and building entry for personnel security.
4. Parking AND area/site lighting: 20-foot parking lot pole mounted LED lamps with high output area lights. Additional lighting to illuminate building entrances, signs, the flagpole, and all vehicle entrances.

g. Grading

1. Design the slopes of planted areas to control runoff, as well as convenience of grounds maintenance.
2. Recommended Grading Approach: Slope paved areas adjacent to buildings a minimum two percent away from structure to move water away from the building and to avoid standing water. Slope landscape areas adjacent to buildings a minimum two percent for the first 10 feet away from building to provide positive drainage and to avoid standing water around foundations.
3. Recommended slopes to be as follows:

Turf Areas:	3:1 max., 2 percent min.
Landscape Areas:	3:1 max., 2 percent is ideal.
Walkways:	5 percent maximum with maximum cross-slope of 2 percent. Slopes greater than 5 percent will require ramp construction to address accessibility.
Parking:	1 percent min., 5 percent max.

h. Site Access and Circulation

1. Explore and provide for alternative modes of transportation for building users and visitors (auto, bus, bicycle, pedestrian). BPA will assist with coordination of the entrance to ensure this requirement is incorporated in the design.
2. Vehicle Parking:
 - (a) Staff and visitor parking areas to be located on the site away from the street entrance. Encourage parking locations to enable staff and visitors to conveniently park and circulate on foot for most activities. In high vehicle traffic and loading areas protect the building and building elements with use of concrete filled bollards.
3. Pedestrian Circulation:
 - (a) Provide pedestrian walkways to link the parking area with the building entrance. Identify pedestrian crossings of traffic lanes by painted crosswalks and signage. Prevent vehicle encroachment to walkways with curbs, wheel stops, or other means.
 - (b) At all primary roads provide separated pedestrian and bicycle path.
 - (c) Locate building entries to provide convenient access from main sidewalks and other pedestrian paths.
4. Bicycle Parking:
 - (a) Bicycle racks promote alternate means of transportation in keeping with sustainability goals to reduce personal automobile use. Locate bicycle racks convenient to main entrance to encourage use and for visible means of security, preferably covered. Bicycle racks to be compatible with building and landscape design.
5. Pavements and Curbs
 - (a) Although first cost is a factor, pavements and curbs to be designed for long-term maintenance. Surface applied, precast concrete curbs, or asphalt-type curbs are not acceptable for long term installations.
 - (b) Entry drives to meet local code requirements for design, construction, and materials.
 - (c) Where areas for truck maneuvering require pavement, asphalt has historically been most cost effective solution for maintenance facilities. Concrete pavement has a lower solar reflective index and may provide a longer term solution over asphalt; however, first cost implications necessitate a feasibility analysis by the design team for consideration of this alternative.

i. Site Fencing and Gates

1. Provide Medium grade security fencing per BPA standard.
2. The main entrance gates will be motorized swing gate and require two-way voice communication with the site clerk or other administrative personnel, and a proximity card reader for gate control, camera and exit loops.
3. Secondary gates will be manual swing gates.

- j. Site Storage
 - 1. A hazardous materials storage prefabricated enclosure is required.

D.05 Landscape Operation and Maintenance:

- a. Provide mowing strips around building exterior where grass is to be planted in proximity to the building wall.
- b. Planting and Materials:
 - 1. Material of any kind (rock, stone, shavings, etc.) in sizes large enough to be thrown or carried by persons, vehicles, or winds may result in damage to windows, walls, doors, concrete slabs and mowing equipment.
 - 2. Plants selected for landscaping to be of low maintenance varieties that are resistant to damage, such as heavy foot traffic, and to be limited to the areas around the main site entrance and main building entrance.
 - 3. Native trees and shrubs are desired for natural and minimal water consumption. Plant selections to require no chemical fertilizers in order to maintain plant.
 - 4. Select plants for consideration of future growth. Shade trees to be at least two times the estimated height of the tree from buildings or roof overhangs (i.e. a tree estimated to grow to a height of 30 feet to be planted 60 feet from the building). Set plantings back from structures for building maintenance, security considerations, and to deter place of refuge for rodents.
 - 5. Conform to the landscape guidelines from the Municipal Code of the local municipality; for the Ross Complex, the City of Vancouver Municipal Code Chapter 20.925 Landscaping identifies local requirements for protection of existing vegetation, buffering and screening, parking lot landscape, native plant restoration, water conservation and approved plant material lists:
 - 6. Provide appropriate screening at the campus perimeter- Meet community screening standards for parking lots and industrial sites.
 - 7. Select appropriate plant material to allow for internal security practices - Meet current CPTED (Crime Prevention through Environment Design) guidelines
 - 8. Use low maintenance, native and climate adapted landscape material-Conform to approved community and state plant material lists.
 - 9. Create wildlife habitat in identified areas - Conform to local, state and federal guidelines.
 - 10. Provide detention and treatment of site storm water with natural means where possible-Conform to state guidelines
 - 11. Landscape visitor and office parking lots to provide storm water treatment, shade and screening-Conform to local guidelines on form to the landscape guidelines from the Municipal Code of the local municipality; for the Ross Complex, the City of Vancouver Municipal Code Chapter 20.925 Landscaping identifies local requirements for protection of existing vegetation, buffering and screening, parking lot landscape, native plant restoration, water conservation and approved plant material lists:
 - 12. Provide appropriate screening at the site perimeter.

13. Select appropriate plant material to allow for internal security practices-Meet current CPTED (Crime Prevention through Environment Design) guidelines
 14. Use low maintenance, native and climate adapted landscape material - Conform to approved community and state plant material lists.
 15. Create wildlife habitat in identified areas - Conform to local, state and federal guidelines.
 16. Provide detention and treatment of site storm water with natural means where possible.
 17. Landscape parking lots to provide storm water treatment if feasible
- c. Irrigation:
1. Design with the goal to reduce water consumption by 50 percent over conventional means. The primary goal in the design of an irrigation system is to establish the plants installed at construction to a suitable time or two years whichever is shorter to allow the planting to thrive in the naturally occurring local climate.
 2. Irrigated, controlled landscaping to be limited to the areas around the main site entrance and main building entrance. All turf areas to include underground irrigation on a master controller system. Irrigation to be extended to planted areas, as well or as determined to be the most water efficient strategy.
- d. Irrigation Controls:
1. Install quick coupling valves throughout system and locate drain valves to permit periodic draining of system. Provide automatic programmable controller capable to maximize effectiveness of watering times and reduce water losses through evaporation. The irrigation system shall be part of the commissioning plan.

D.06 Architectural

- a. FSB Design:
1. Roof System:
 - (a) High quality standing seam roof systems, 22 ga., field seamed, with a 20-year roof coating such as Kynar or similar. Roofing and flashings to conform to NRCA Roofing and Waterproofing Manual and SMACNA standards. Roof drainage to consist of metal gutters with piped downspouts to storm systems. In heated areas, provide minimum R-38 insulation, secured in place with a high tensile strength vapor retarder. Insulation to be non-formaldehyde content.
 2. Cast in place reinforced concrete foundations:
 - (a) Minimum of 5000 psi, with a minimum 6- inch floor slab depth depending on interior vehicle loads. A chemically adhering under slab vapor barrier to be used, with sub slab preparation requirements developed by a soils geotechnical engineer. In site conditions with high sub- slab moisture, a bentonite or self-adhering waterproofing membrane to be used under the slab.

3. Overhead Bay Doors:
 - (a) Insulated (to R-8 minimum) steel overhead coiling or 'scissors type' upward acting doors minimum with perimeter air seals and electrical operators are typical: Glazing if used to be insulated, tempered glass. Fire rating of doors is to be provided when required by local code.
 - (b) Daylighting: This type of building will benefit from ample daylighting, achieved through high windows, clerestories or skylights. Skylights, if used are to be of an insulated sandwich type fiberglass panel. Maximizing daylighting to reduce artificial lighting use is encouraged.
4. Service Doors:
 - (a) Exterior service doors are to be 14 ga. galvanized steel with 14ga, heavy duty steel frames, painted with urethane paint or powder coated.
5. Special requirements:
 - (a) Storage Racks: These are to be designed to meet seismic restraint requirements and sprinkled where required by code. Racks are to bear on floor slabs.
 - (b) Storage Cabinets: These are to be designed to meet seismic restraint requirements and braced to structure. Cabinets are to bear on floor slabs.
 - (c) Cranes and supports: These, where required by program, are to be floor supported, and braced for seismic restraint. Detailed engineering may require special foundations for floor mounted cranes.
 - (d) Safety Accommodations: Provide eyewash stations, first aid equipment, fire extinguishers and appropriate alarm systems as required by building code and OSHA requirements.
 - (e) Storage mezzanines (High Bay areas): These are to be floor bearing, with steel column and floor systems. Pre-fabricated, floor bearing mezzanines allow for re-configuration and greater flexibility.
6. Foundation Systems
 - (a) Ground Water Control
 - (1) Slab drainage design in wet site areas are to relieve hydrostatic pressure on substructure walls and allow water drainage away from the structure. Foremost, buildings are to be located above 500 year flood flow elevations in any site. Foundation drains are to be provided around the perimeter of buildings. Drainage system piping is to be rigid PVC. Pipes will not slope less than 1:200. Subsurface drainage is to discharge into storm drains dry wells or retention basins by gravity. Cleanouts must be provided at grade to facilitate washing out the system.
 - (2) Membrane waterproofing is to be provided at below grade foundation walls, sumps, and equipment pits. Follow the recommendations of the national roofing Contractors Association (NRCA) Waterproofing Manual. Membrane waterproofing must be fully bonded and seamless.
 - (b) Membrane Protection
 - (1) Below-grade waterproofing at foundation walls must be applied to the positive pressure side and must be covered by a protection mat to shield the waterproofing membrane.

- (c) Water stops
 - (1) Water stops must be used at construction joints in concrete below-grade walls, footings and other elements where a water-proof system is required.
 - (d) Under Slab Insulation
 - (1) Provide insulation under concrete slabs on grade where a ground - freezing condition exists or where slabs are heated.
 - (e) Substructure
 - (1) If soil radon or contaminant levels are a concern, a substructure depressurization system may be necessary. If a passive system is designed, it must have the capability to accommodate future active depressurization. Lower levels of radon below slabs on grade can be mitigated by use of a radon barrier/waterproofing membrane under the slab.
7. Concrete, Cast in Place
- (a) All concrete used in FSB construction to be a minimum of 4000 psi compressive strength. Fly ash may be used as an additive up to 15% of concrete materials by weight.
 - (b) Concrete Slabs
 - (1) A chemically bonding under slab vapor retarder to be provided in contact with underside of slab. A sand course under the slab is not recommended as it will retain water and concrete placement on the sand will result in an uneven layer. Insulation board to be provided under heated slabs.
 - (c) Curing compounds, if used, are to be compatible with flooring adhesives.
 - (d) Slab joints are to be sawn at intervals to avoid cracking.
- b. Wall Systems
- 1. Metals Exposed to Weather
 - (a) Steel exposed to weather or high moisture must be protected by a galvanic zinc coating of at least 460 grams per m² (1.5 ounces per sq. ft.) or other equivalent protection.
 - (b) Cold-formed metal framing to be selected based on the type of construction and seismic requirements for the building. Metal framing systems shall meet ASTM C955 for studs and track; and ASTM A653/A653M for joists, purlins, and framing connectors. Fiber-faced glass-mat gypsum sheathing board installation shall meet ASTM C1177/C1177M. Allow for structural deflection and building settlement.
 - 2. Ventilate any thermally broken walls/spaces to address moisture and condensation. A parapet wall, for example, becomes thermally broken from the wall below when it is set on top of the roof structure.
 - 3. Avoid use of wood materials in exterior applications where exposed to wear and degradation from weather exposure that would result in high life cycle cost.
 - 4. Exterior Sheathing
 - (a) Use glass fiber faced gypsum board at all locations requiring gypsum board. Use pressure treated plywood only where structural board sheathing is required.

5. Masonry Walls
 - (a) Brick masonry design shall follow the recommendations of Technical Notes on Brick Construction as published by the Brick Institute of America (BIA) as contained in. Concrete masonry unit design shall follow the recommendations of TEK Notes as published by the National Concrete Masonry Association (NCMA).
 - (b) Provide appropriate layer(s) of permeable air/moisture barrier on exterior sheathing for cavity wall systems.
 - (c) Provide the means to catch mortar droppings in air space during masonry veneer placement or provide means to remove mortar droppings at base of wall.
 6. Flexible flashings shall be copper bonded to fiber reinforced sheet. Metal flashings shall be copper or stainless steel. Avoid use of 'short life' materials such as sheet metal that are susceptible to degradation.
 7. Concrete Walls, Cast in Place
 - (a) Concrete Walls may be used to provide vehicular protection, or for high moisture applications such as the vehicle wash bay. Seal concrete walls with penetrating high- build sealants or with elastomeric coatings appropriate for levels of moisture anticipated.
- c. Building Envelope
1. The building envelope provides environmental enclosure, for thermal, moisture, air, acoustic, and structural protection from blast, seismic, and wind hazards, and provides a security barrier in many cases.
 2. The building envelope design is tied to energy conservation and HVAC systems design to optimize energy performance. Envelope performance criteria to follow ASHRAE 90.1 and local energy codes.
 3. Moisture Control
 - (a) Design of the above-grade building enclosure to follow ASHRAE 160, Criteria for Moisture Control
 - (b) Design Analysis in Buildings. Design against water penetration and air infiltration and leakage is fundamental to best practice in building envelope design.
 - (c) Rain screen system with continuous outboard insulation for the exterior envelope design.
 4. Weather Barrier System
 - (a) An air/moisture barrier is required of all new construction. The weather barrier system must be continuous over all exterior surfaces and elements, and protected during the construction process.
 - (b) The Design will provide a complete weather barrier system at the building exterior envelope consisting of weather barrier sheet or sprayed on membrane, joint tape, caulking and self-adhesive membrane at transitions at windows, doors and other openings in the weather barrier. Provide a complete system from a single manufacturer. Penetrations of the air barrier system must be sealed to the air barrier system in an airtight manner.

- (c) Shelf-adhered membranes (SAM) to be high temperature (HT) resistant when in close proximity to sheet metal. Provide HTSAM moisture barrier over top of all parapets prior to installation of coping
- (d) Provide foil-faced self-adhered membranes (FFSAM) at window/door openings and all penetrations of the exterior envelope.
- (e) Provide sealant products only that have a lower VOC content than required by South Coast Air Quality Management District Rule No. 1168. Sealants shall be compatible with adhesives, fluid-applied and self-adhesive membranes, and other substrates/materials that may affect the bond or integrity of the sealant.
- (f) Portions of the air barrier may require regular maintenance and an allowance is to be made within the design to accommodate this maintenance.

5. Weather Barrier Performance Criteria

- (a) The weather barrier systems and assemblies used must not exceed 0.004 cfm/ft² at 0.3 in. wg (0.02 L/s.m² at 75 Pa) when tested in accordance with ASTM E 2178 standard test Method for Air Permeance of Building Materials.
- (b) Air leakage rate of the air barrier system must not exceed 0.04 cfm/ft² at 0.3 in. wg (0.2 L/s.m² at 75 Pa) when tested in accordance with ASTM E2357 standard test Method for Determining Air Leakage of Air Barrier Assemblies. ASTM E283 standard test Method for Determining Rate of Air Leakage through exterior Windows, Curtain Walls, and Doors is to apply to openings in exterior walls of office buildings.
- (c) For office buildings, the overall building must not have an air leakage rate of more than 0.4 cfm/ft² (2.0 L/s/m²) at a pressure differential of 0.3 in. w.g. (75 Pa).
- (d) Methods such as ASTM E779, Determining Air Tightness of Buildings Air Leakage rate by single Zone Air Pressurization; ASTM E-1827, standard test Methods for Determining Air Tightness of Buildings using an orifice Blower Door are suggested to verify building performance.

6. Air Barrier Testing

- (a) For the new FSB construction, demonstrate performance of the air barrier system for the building enclosure by the following:
 - (1) Test the completed building and demonstrate that the air leakage rate of the building enclosure does not exceed 0.4 cfm/ft² (2.0 L/s/m²) at a pressure differential of 0.3 in. w.g. (75 Pa). The test methodology used is to be selected and tailored for each specific project by the testing agency, and approved by BPA.
- (b) Acceptable test methods include:
 - (1) ASTM E779, Determining Airtightness of Buildings Air Leakage rate by single Zone Air Pressurization
 - (2) ASTM E-1827, standard test Methods for Determining Airtightness of Buildings using an orifice Blower Door.

7. Thermal Insulation

- (a) Thermal insulation shall be provided at a minimum as follows (refer to Roof Systems for insulation at roof):

Under Concrete Slabs	Extruded polystyrene board. R 5
Perimeter of Foundation	Extruded polystyrene board. R 4
Inside Masonry Cavity Walls	Extruded polystyrene board. R 4
Metal Framed Walls	Batt w. interior vapor retarder, continuous board over sheathing. R 22 minimum
Wood Framed Walls	Batt w. interior vapor retarder, continuous board over sheathing. R 22 minimum

D.07 Interiors

- a. Minimum Standards for Finishes
 1. Consultant will specify finishes that contain recycled, renewable, and/or reusable materials and that eliminate or minimize the release of harmful substances during installation and use. Finishes must be specified based on the value they provide over their useful life; considerations include maintenance and disposal costs in addition to first cost.
 2. Finishes are to be resistant to mold growth, and provide low emitting materials to reduce the quantity of indoor air pollutants.
- b. Finish Selections for Indoor Air Quality: All interior paints and coatings used on the project must meet the following standards for volatile organic compound (VOC) off-gassing:
- c. Topcoat Paints: All other architectural coatings, primers, and undercoats: South Coast Air Quality Management District (SCAQMD) rule 1113, Architectural Coatings, effective January 1, 2004.
- d. Adhesives and Sealants
 1. All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) must comply with the requirements of the following reference standards.
 2. Bio based adhesives and sealants in accordance with USDA's Bio Preferred guidelines.
 3. Adhesives, sealants, and sealant primers: SCAQMD rule 1168 with a corresponding effective date of July 1, 2005, and rule amendment date of January 7, 2005.
 4. Aerosol adhesives: Green Seal standard for Commercial Adhesives
- e. Finish Selections for Indoor Air Quality
 1. A building flush-out before occupancy to use the following parameters:
 - (a) After construction ends and with all interior finishes installed, new filtration media must be installed and the building flushed out by supplying a total air volume of 14,000 ft³ of outdoor air per ft² of floor area while maintaining an internal temperature of at least 60° F and, where mechanical cooling is operated, relative humidity no higher than 60 percent.

- f. Interior Material Selection
 - 1. As a best practice for the FSB design, do not to specify any products containing any of these materials or chemicals:
 - (a) No added formaldehyde, HCFCs; halogenated flame; Neoprene (chloroprene) retardants (halogenated flame)
 - (b) Cadmium retardants including PBDE, Chlorinated polyethylene TBBPA, HBCD, DECA-BDE, and chlorosulfonated TCPP , TCEP, Dichloride Plus; polyethylene HDPE ; bromine or chlorine.
 - (c) Wood treatments containing : PVC (an exception is made for creosote), arsenic, or pentafor ; PVC in wiring applications; chlorophenol (except where it is mandated by code) ; Mercury (except for low-mercury for solder and off-grid solar fluorescent lighting- battery systems only) ; CFCs; Phthalates

- g. Bio based and Rapidly Renewable Content in Construction Materials
 - 1. FSB material selections will prioritize and specify bio based and rapidly renewable content in construction materials. For other products, the designer to specify bio based products made from rapidly renewable resources and certified sustainable wood products either through FSC (Forest stewardship Council) or SFI (sustainable Forestry Initiative) or from salvaged sources.

- h. Recycled Content in Construction Materials
 - 1. The project material selection to prioritize recycled content materials (postconsumer preferred) per Executive Order 13423.

- i. Walls
 - 1. Partitions
 - (a) Partitions to be selected for use based on the type of space and the anticipated activity within that space.
 - 2. Metal stud systems must meet the requirements ASTM C754. The application and finishing of gypsum board to follow standard ASTM C840. Adequate tolerances to be designed where the top of a partition abuts the underside of the building structure; allow for deflection and long-term building settlement.
 - 3. Provide acoustic insulation between offices, conference/break rooms, toilet rooms and adjacent areas.
 - 4. Partitions used to enclose a humidified space must include a vapor barrier.

- j. Wall Finishes
 - 1. Provide high-impact gypsum wallboard in high-traffic areas. Use of corner guards inside building to be considered.
 - 2. Walls to be finished smooth in accordance to GA 214, Recommended Levels of Gypsum Board as published by the Gypsum Association to a Level 4 finish typical and Level 5 finish for walls in wet areas such as toilet/shower rooms, etc. All wall surfaces must be finished with easily maintained and cleanable paint or surfacing. Walls in rooms with high humidity to incorporate a vapor barrier.

- k. Corridors
 - 1. Corridors that carry significant foot traffic and provide major circulation pathways throughout the building must have materials selected that are extremely durable and require low maintenance. To improve acoustic control in corridors adjacent to work spaces, avoid specifying all hard, reflective surfaces.
- l. Floor Perimeter Base for interior walls
 - 1. Where specified, floor perimeters must use a wall base made of materials that provide long-term durability for the use intended. Preferred base includes a low-emitting, natural, and recyclable material such as, recycled vinyl or rubber.
- m. Finishes for Training and Conference Rooms
 - 1. These areas to be finished at levels of quality equivalent to but differentiated from the adjacent office areas. The material choices and spatial configurations to be appropriate for the use of the space. In addition, the application of tackable acoustic wall panels, whiteboard wall coverings and rails for the display of presentation materials within these spaces is appropriate. Coordinate all lighting, audiovisual, communication, and technology requirements with the building systems.
- n. Ceramic Tile Wall Finishes
 - 1. Ceramic wall tile details, specification, and installation shall be in accordance with the current Handbook for Ceramic Tile Installation as published by the Tile Council of North America (TCNA). Provide cementitious backer unit or glass mat gypsum board substrate with waterproof membrane and epoxy grout for walls in all wet areas.
- o. Acoustics:
 - 1. Provide acoustic separation on all hard walled offices, conference rooms and break rooms.
 - 2. Acoustical ceiling with NRC rating of 0.70 or higher to be installed in all spaces.
 - 3. Provide an STC of 44 minimum between offices or other normally occupied or acoustically disruptive spaces.
 - 4. Provide an STC of 35 minimum between offices & corridors or rooms which are not normally occupied and present no acoustical challenge.
 - 5. Place noisy equipment away from sensitive areas to minimize disruptions.
 - 6. The maximum noise from HVAC equipment shall not exceed 45dBA.
- p. Floor Finishes
 - 1. 80 percent of the soil in a building comes in at the entrance areas of a building. Provide special carpet tiles, entry mats, or other similar materials/methods to catch the soil at the entries.
 - 2. Concrete curing compounds and sealers must be compatible with flooring finish adhesives.
 - 3. Care to be taken to specify carpet that can be recycled in the future, but must also meet the criteria for intended use and level of foot traffic.

4. Floor finishes selection to account for wear, durability, and maintenance when assessing the life cycle of the product. Use of sealed concrete floors in lieu of a floor finish product is encouraged for high traffic interior areas. Sealed concrete floors are required for all interior vehicle shop, vehicle storage, and equipment storage areas.
 5. Provide slip resistant fluid-applied coating on concrete slab of enclosed vehicle storage. This coating shall be urethane, two component, thermosetting, colored base coat with mineral filler and aggregate embedded in base coat, and with clear top coat.
 6. Use of wood floor base is not recommended based on durability/maintenance concerns.
- q. Ceramic Tile Flooring
1. Details, specification, and installation shall be in accordance with the current Handbook for Ceramic Tile Installation as published by the Tile Council of North America (TCNA). An uncoupling membrane is required under all floor tiles. Concrete substrates may not require an uncoupling membrane, but must be reviewed on a case by case basis. Provide epoxy grout for all wet areas and areas where chemical resistance is needed.
- r. Carpet
1. Carpet selections to meet the NSF/ANSI 140 Standard, USDA Bio based carpet recommendations, and Use the Carpet and Rug Institute (CRI) criteria with the "Green Label" test program for off-gassing of carpet, cushion, and adhesives
 2. Anti-static carpet to be used in all office and office support areas.
- s. Resilient Floor
1. Resilient flooring materials include products such as linoleum, rubber, cork, and vinyl. All linoleum products must be made with either recycled or renewable ingredients, linseed oil, cork dust, natural jute fiber, or wood powder salvaged from sawdust. Adhesives used to install resilient flooring must be 100 percent solvent-free and meet low-VOC requirements. Avoid surfaces that require extensive use of volatile cleaning and waxing compounds. Resilient flooring may be used in office spaces to support occupant requirements and promote improved indoor air quality, and in offices adjacent to utilitarian spaces such as loading docks or storage/service rooms.
- t. Ceilings
1. Ceiling Suspension Systems
 - (a) The design of suspension systems for acoustical ceilings must meet the requirements of ASTM C.635 for heavy-duty systems and ASTM C.636 and local codes.
 - (b) The following general criteria to be used for ceiling finish selection:

Office and Office Support Areas:	Acoustical lay-in ceiling panels, NRC 70.
Toilet, Shower, and Dry Room Areas:	Gypsum board, painted.

Vehicle Accessed Shops, Vehicle Storage, and Equipment Storage Areas:	Painted structural members and roof decking. Screening must be incorporated in open bays to inhibit bird nesting.
---	---

2. Acoustical Lay-in Ceiling Panels
 - (a) Ceiling panels will be mineral fiber complying with ASTM E 1264, Type III, 0.61 x 1.22 meters (2 x 4 feet). Exposed steel suspension systems shall be die cut interlocking components complying with ASTM C 635, commercial quality cold rolled, intermediate duty. Design grid layout to achieve a symmetrical appearance in intended space, unless design considerations dictate otherwise.
 3. Gypsum Board Ceilings
 - (a) Gypsum board ceilings to be finished smooth in accordance to GA 214, Recommended Levels of Gypsum Board as published by the Gypsum Association to a Level 4 finish typical and Level 5 finish for ceilings in wet areas such as toilet/shower rooms, etc. All ceiling surfaces must be finished with easily maintained and cleanable paint or surfacing. Avoid exterior application of gypsum board.
- u. Interior Doors and Hardware
1. Interior door frames typically to be of hollow metal, Level 2, performance Level B, model 1, seamless.
 2. 5-ply flush, 1 ¾-inch thickness wood veneer doors with matching edge veneers are acceptable for offices, conference/training rooms, and other non-shop or storage related rooms. These to have an STC rating of 30 minimum.
 3. Hardware shall be per program requirements and in accordance with BPA standards.
 4. Interior door frames to be welded type hollow metal at toilet/shower rooms, mechanical/equipment rooms, and shops/vehicle storage areas. Grout framed with cement grout in wet areas. 'Knock-down' frames are acceptable at office and conference/break room areas.
 5. Provide door frame sound and smoke gaskets as required per program and local building codes.
- v. Finishes for Building Support Spaces
1. Locker Rooms
 - (a) Use epoxy coating or porcelain tile for the floors and walls in locker rooms. Ceilings must be solid, non-paper gypsum board with water resistant finishes.
 2. Storage Rooms
 - (a) Storage rooms to have painted walls and VCT flooring.
 3. Mechanical, Electrical, and Communication Spaces
 - (a) Walls and ceilings of all equipment and maintenance shops to be gypsum board, concrete masonry surfaces or other durable surfaces; exposed batt or other forms of insulation are not to be used at wall surfaces. Paint walls

and ceilings in mechanical and electrical spaces. Floors must be sealed or painted concrete.

4. Custodial Spaces

- (a) Janitor's closets to have painted walls and porcelain tile or epoxy floor and base.

5. Maintenance Shops

- (a) Concrete or metal panel is an acceptable finish in shop, vehicle storage, and enclosed storage areas.
- (b) Maintenance shops to have painted walls and waterproof floor finishes over concrete slabs. Concrete for exposed floors shall be specified to minimize cracks/cracking and may require additional expansion/control joints than typical for non-exposed floors.
- (c) Concrete for vehicle storage, service and/or equipment shall be designed and specified for additional vehicular loads. Slope floors to properly drain, but assure level floors at walls for equipment.

w. Casework

- 1. Comply with the standards of Architectural Woodwork Institute (AWI) for Custom Grade quality. Provide manufacturer's standard Builders Hardware Manufacturers Association ANSI/BHMA 626 finish over solid brass construction, unless otherwise directed.
- 2. Particleboard to be formaldehyde free. Particleboard is not recommended for storage shelving or other heavy storage use that may result in settlement of shelving over time.
- 3. Insofar as possible, cabinets and shelving to be standardized throughout the building.
- 4. Book shelving is not to exceed 3-feet in length between vertical supports. Shelving to be adjustable.
- 5. Design shelving depth for expected use. Shelving to be in self-contained cabinets that can be detached from walls and moved, not permanently built into structure, for flexibility.
- 6. Hinges to be five-knuckle, 2 ½-inches high, steel fixed pin pivot attached to the back, not the edge of, cabinet doors. The use of offset, semi-concealed hinges shall be reviewed with project manager prior to specifying. Drawer glides shall be heavy-duty, steel ball bearings, full extension, and progressive action sized for double the expected load. Drawer pulls shall comply with UFAS/ADAAG requirements.
- 7. Seal countertops where backsplash meets countertop.
- 8. Lower cabinet door leaf width to not exceed 22- inches without use of continuous piano hinge and plywood substrate to secure fasteners.
- 9. Provide locked storage for personal items and where instructed.

x. Finish Carpentry

- 1. Comply with the standards of Architectural Woodwork Institute (AWI) for Custom Grade quality.

2. Use of wood materials in traffic areas or similar that are susceptible to damage is not recommended.
 3. The use of wood-based materials and products which are certified in accordance with the Forest Stewardship Council's (FSC) criteria and permanently installed is encouraged.
- y. Painting and Coating
1. Use durable, high quality finishes, premium grade systems (2 top coats) as defined in Master Painters Institute Architectural Painting Specification Manual, unless otherwise indicated in building program. Where a specified paint system does not have a Premium grade, provide Custom grade system. Selection of paints and other interior topcoats to meet Green Seal standards, and comply with SCAQMD rule 1113 requirements.
 - (a) Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
 - (b) Selected finishes must be easily maintained and cleanable.
- z. Toilet Room Design
1. Toilets are part of the permanent building core and must be designed with good quality, long-lived finishes. Provide a large, continuous mirror on at least one wall of each toilet room.
 2. Continuous vanities of artificial stone or solid surface material to be designed for lavatories. Sinks to be under-mounted.
 3. Toilet Compartments
 - (a) Provide solid molded plastic panel or stainless steel toilet compartments, ceiling mounted. Urinal screens shall be wall mounted with two panel brackets.
 - (b) Toilet Accessories
 - (1) Provide stainless steel toilet accessories integrated into toilet room design. Recessed and multifunctional accessories are preferred. If toilet room door swings in, locate waste receptacles near door for paper towel disposal.
 4. The following toilet room accessories to be provided. Verify and get approval from BPA for the selection and placement of the following commercial grade products:
 - (a) Toilet paper dispensers,
 - (b) Toilet seat cover dispensers,
 - (c) Paper towel dispensers and/or hand dryers,
 - (d) Soap dispensers,
 - (e) Waste receptacles,
 - (f) Feminine hygiene product dispensers and disposal receptacles (only for women's restrooms)
 - (g) Grab bars and clothing hooks,
 5. Locker and Shower Room Accessories
 - (a) Lockers to be raised off of the floor for cleaning.

- (b) Locker rooms to have the following elements:
 - (1) Lockers with integrated combination locks or padlocks (by employees)
 - (2) Benches
 - (3) Floor drains
 - (4) Shower stall curtains

- aa. Drinking Fountains
 - 1. At least one water fountain to be provided near toilet rooms .50 percent of all fountains in the facility must be accessible to disabled persons per ABAAS.

- bb. Window Coverings
 - 1. All buildings to be equipped with manually adjustable window blinds. Automated blinds may be appropriate in some instances for sun/thermal control but require prior review/approval on a case by case basis for cost and long term maintenance/replacement value.

- cc. Signage
 - 1. Refer to Accessible Design Guidelines. Provide a sign for every doorway, whether it has a door or not, not including corridors, lobbies, and similar open spaces.

- dd. Furnishings and Equipment
 - 1. Building systems furniture layouts for all employee workstations will be consistent with BPA Manual, Chapter 1037 Office, Workstation and Furniture Standards in addition to finish standards.
 - 2. BPA scope;
 - (a) Purchase and install systems furniture
 - (b) Conduct review with employee Union
 - (c) Coordinate move (procure move team)
 - (d) Coordinate move of industrial equipment and wares
 - (e) Coordinate telecom
 - (f) Address post occupancy user concerns
 - (g) Coordinate and provide user training on FFE and facility features if required.
 - 3. A / E Scope;
 - (a) Provide space planning and interior design
 - (b) Conduct employee interviews (design and move), BPA to provide criteria
 - (c) Inventory industrial equipment and wares, furniture, fixtures and equipment (FFE)
 - (d) Coordinate with BPA Space Planner to provide a move phasing plan for use in overall project schedule to call out general move tasks and timelines
 - (e) Create pre/post condition package for Union review
 - (f) Provide furniture install and move support to BPA move team if required
 - (g) Develop punch list and fine tune documents/drawings (as built)
 - (h) Create facility/workspace "Welcome Package", BPA to provide criteria

- (i) Conduct post occupancy evaluations and interviews, BPA to provide criteria
- (j) Coordinate power connections to the systems furniture.
- (k) Compare BPA inventory with proposed project requirements to determine final BPA needs.

D.08 Structural

- a. During the life span of a typical building, many minor and major alterations are necessary as the missions of the agency and departments change. The capability to accommodate alterations must be incorporated into the building from the outset. In some cases structural systems to be designed to provide some allowance for increase in load concentrations in the future. Design materials and systems to achieve a fifty year life cycle cost analysis.
- b. Codes and Standards: The structural design of new buildings, structures and portions thereof shall be in accordance with the Code (ICC), and any local code enhancements or supplements The structural design and analysis of buildings, structures and portions thereof shall be in accordance with the International Building Code (IBC), and any local code enhancements or supplements.
- c. The BPA Seismic Policy sets the overall seismic requirements for BPA buildings, structural and non-structural: STD-DS-000001-00-05. The non-structural elements, components, and equipment, which are to be seismically mitigated, consist of, but are not limited to, cable trays, equipment racks, and termination frames.
- d. Structural Considerations: BPA facilities are comprised of different functions that may be subject to change over time. The U.S. General Services Administration recommends an "office" floor live load of 3.8 kPa (80 pounds per square foot) in lieu of tabulated uniform live load in the ICC. Other spaces may require special high live loads above that of an "office" live load. In all cases, the structural design at minimum shall be in accordance with all applicable codes.
- e. Seismic Anchoring: All nonstructural elements, components, and equipment to be anchored to resist wind and seismic loads of the local region.
- f. Structural Systems
 - 1. Cast-in-place concrete systems to be limited to foundations and slab-on-grade floors, vehicle barriers bollards and column 'wraps'. Cast-in-place above grade walls to not limit future flexibility of the facility.
 - 2. Structural steel frame systems to be designed with similar bay spacing, roof heights, etc. that maximize the economy of the system and make possible future alterations or additions. Recycled content in the steel is recommended where structural design permits.
 - 3. Brick and concrete masonry unit veneer systems shall be designed in accordance with the ICC and regional/local codes.
 - 4. Reinforced concrete masonry unit systems (CMU) to be placed in courses to a uniform dimension with special units for bond beams, lintels, corners and solid caps. Type I moisture controlled, medium weight is recommended for most reinforced unit masonry assemblies per ASTM C90, Standard Specification for

Load bearing Concrete Masonry Units and Type 'S' mortar. 'High build' penetrating water repellent additives to be provided.

- g. Vibration Isolation
 - 1. Base isolation and floor vibration isolation design are not considerations for the FSB unless otherwise determined during the investigative/design process, or a need generated by special tools, repair processes, or equipment calibration processes.
- h. Non-Structural Anchoring
 - 1. All non-structural elements, components, and equipment to be anchored to resist wind and seismic loads of the local region. Refer to section 2.3.6.2.2 and BPA Seismic Policy STD-DS-000001-00-05 for specific seismic requirements.

D.09 Mechanical

- a. Heating, Ventilation and Air Conditioning General
 - 1. Primary heating systems serving major space areas to include at least two source heat equipment so as to avoid facility shutdown upon single equipment failure.
 - 2. HVAC equipment to be sound isolated and not be located over training or conference rooms, where low noise level is important.
- b. Heating and Cooling: Heating and cooling systems to be selected and designed for maximum efficiency, appropriate levels of conditioning relative to types of use, and local climate.
 - 1. Office areas: Air or water source, active or passive heating, cooling and ventilation system.
 - (a) Temperature ranges:
 - (1) Summer 75°F ± 2°F
 - (2) Winter 68°F ± 2°F
 - 2. Shop areas: Heating system to maintain the occupied space at minimum temperature.
 - (a) Temperature ranges:
 - (1) Winter 65°F minimum.
- c. Ventilation and Filtration:
 - 1. Local exhaust hood or snorkel for soldering in SPC shop area.
 - 2. Exhaust and ventilation for garages facilities.
- d. Zoning and Controls
 - 1. If operable windows are used in the design, window sensors and electronic controls logic may be used to prevent the delivery of conditioned air in those spaces which have open windows.

- (a) Zoning for HVAC systems shall be based on space exposure to exterior/interior adjacencies, function, occupancy and fresh air requirements.
 - (b) Air supply intakes shall be located in areas designated to be safe from exhaust air discharge and vehicle equipment exhaust, and protected from tampering.
- e. Additional HVAC Requirements.
 - 1. Conference rooms with more than six occupants will be provided with a dedicated zone.
 - 2. The Server Room, Security Room and Continuity of Operations room requires a dedicated system to provide cooling 24 hours a day, 7 days a week separately from the main AHU that serves the rest of the building.
- f. Building Management System
 - 1. The Building Management System shall be a complete system designed for use to monitor all site and facility equipment/systems with networking interface as follow;
 - (a) Mechanical/HVAC
 - (b) Electrical
 - (c) Engine Generator
 - (d) Fueling Station
 - (e) Lighting control system
 - (f) Fire Detection/Protection
 - (g) Building Envelope Systems
 - (h) Renewable Energy Systems
 - (i) Controls and Alarms

D.10 Electrical

- a. Electrical Distribution: Power to the FSB facility will be extended from a station service source on site.
- b. Grounding: Provide equipment grounding conductor where required by code. Maintain continuity of grounding system throughout. Adhere to BPA grounding standards.
- c. Emergency Backup Power
 - 1. Provide backup power for all site lighting, site security, all buildings and systems, 24-hr min duration.
 - 2. FSB is designated as a Continuity of Operations site with provision in accordance with BPA standards. Provide space in the large conference room for emergency supplies and an additional outlet for marshaling emergency response teams. Provide additional power outlets, IT/VOIP infrastructure and a redundant HVAC system for this space.
 - 3. Provide subterranean, capped conduit for future connection to station service. This shall extend beyond all hardscaping in the direction of anticipated station service availability from the BPA Ross Complex Substation.

d. Power

1. Provide grounding and lightning protection in accordance with the National Electrical Code.
2. Locate 110 VAC outlets as follows, unless noted otherwise in the space program:

All Shop Areas:	3.66 meters (12 feet) on center at all walls typical; outlet strips built into work benches or at 111.8 cm (44 inches) above finished floor at wall adjacent to work benches.
Office Spaces:	3.66 meters (12 feet) on center at wall typical; 4-plex outlets at each desk location.
Kitchen:	3.66 meters (12 feet) on center minimum with a minimum of two (2) outlets per space.
Corridors:	15.24 meters (50 feet) on center and 7.62 meters (25 feet) from corridor ends.
All Other Spaces:	3.66 meters (12 feet) on center minimum with a minimum of two (2) outlets per space.
GFI Receptacles:	Locate adjacent to sinks (2 minimum in restrooms, 1 minimum in kitchen area).
Computer Circuits:	Dedicated required.

3. A 10 percent reserve is required for specialized areas requiring greater electrical service.
4. Provide 240 VAC, 40 amp, 3 phase, 4-wire service for each shop and vehicle area. Location of these outlets will be determined by the space users for their particular equipment requirements.
5. Provide a 480 V, 400 amp power panel for the shop and vehicle areas. This panel will provide access for specialized power requirements and capacity is intended to provide long range flexibility.
6. Each shop and vehicle area shall have an individual electrical panel providing 40 circuits. Connected load to be assumed at 150 amps.
7. Direct access to emergency shut-off of power is required in each shop and vehicle area.
8. Properly ground all buildings and equipment in accordance with applicable codes and regulations. In addition, ground building in accordance with all BPA requirements and regulations. Ensure all electrical grounding requirements are provided by BPA and fully understood by the design contractor.
9. Consider location of alarm system cutoffs based on need for building access at various points. More than one location may be desirable.
10. All buildings on site shall be on same alarm system as main headquarters building.

e. Lighting

1. Indoor Lighting: Lighting to be selected to compliment daylighting, and be designed to provide only necessary light levels for the work tasks by areas. Indirect LED lighting and/or task lighting is suggested for office areas.

f. Site Electrical:

1. The following list identifies potentially non-standard design items that are requirements.
 - (a) Provide photoelectric switch and electronic time switch control for exterior lighting.
 - (b) Provide transformer pad per utility requirements.
 - (c) Provide one 4 inch telephone conduit from telecom vault to point of demarcation in FSB.
2. Provide LED pole mounted fixtures in parking and storage areas.
3. BPA has established the following general lighting level criteria in lumens per square meter and fixture types to be used in the FSB facility design:

Office and Office Support Areas:	(60 foot candles) at 76.2 cm (30 inches AFF)
Conference Rooms:	(30 footcandles) at 76.2 cm (30 inches AFF)
Storage Areas and Janitor Closets:	(30 footcandles) at 76.2 cm (30 inches AFF)
Hallways and Exit Corridors:	(30 foot candles) at 76.2 cm (30 inches AFF)
Locker and Toilet Rooms:	(50 footcandles) at 76.2 cm (30 inches AFF)
High Bay Shops:	(75 footcandles) at 76.2 cm (36 inches AFF)
Vehicle Storage Bays:	(20 foot candles) at ground level.
Exterior Walkways, Parking Areas, and Material Storage Yards:	(2 foot candles) at ground level.

4. Office light fixtures to be lay-in type with parabolic reflectors, 0.61 x 1.22 meters (2 x 4 feet) , 1.22 x 1.22 meters (4 x 4 feet) , or linear indirect with a design layout to achieve an even level of illumination.
5. Highlighting will be achieved with recessed LED downlights or similar energy efficient fixture.
6. Meeting rooms to have a LED linear type and LED dimmable recessed downlights.

7. Equip hazardous and flammable storage areas with explosion proof lighting fixtures, power outlets, and switches, grounded to prevent static build-up.
 8. Provide emergency and exit lighting on battery packs. Units shall be located in hallways, large meeting room, shop and vehicle bays to illuminate clear paths and exits in the event of power failure.
 9. Provide occupancy sensors for lighting which turns off lights no more than 30 minutes following vacancy, or automatic light timers that turn lights off during non-occupied hours, along with accessible manual override switching device.
 10. Lighting in special use areas, such as a multipurpose room, locker and shower room, to be sensor controlled to shut off and conserve energy when the areas are not in use.
 11. Shop lighting with ceilings above 4.88 meters (16 feet) to be LED
- g. Lighting Controls
1. Lighting Controls: Daylight and occupancy sensors with manually controlled task lighting available.
 2. Private offices will have wall-mounted infrared vacancy sensors with override "on" function.
 3. In open office areas, ceiling-mount, combination-type infrared/ultrasonic-type occupancy sensors. Daylight controls (within 15 feet of the exterior perimeter window walls) via photocell daylight sensors connected to dimmable fixtures or equivalent system will be provided.
 4. In corridors, install occupancy sensors designed for hallways or install a programmable timer.
 5. In stairwells and restrooms, install ultrasonic-type occupancy sensors.
 6. Switching via occupancy sensor in janitor rooms.
 7. Wall switch in electrical rooms.
 8. Occupancy sensors in all storage rooms.
 9. Dimmable controls in all conference rooms.
- h. Emergency Power, Lighting and Exit Signage
1. Emergency power, lighting and exit signage shall meet the performance requirements of NFPA 101, NFPA 110, and as required by code.
 2. Provide emergency and exit lighting on central inverter system. Units shall be located in hallways, large meeting room, shop and vehicle bays, as required to illuminate clear paths and exits in the event of power failure.
 3. Provide fire alarm and security systems on their own battery back-up.
- i. Lightning Protection
1. Provide lightning protection in areas of frequent lightning storms. These systems to be designed specifically for the building complex and special areas (such as IT Rooms), and grounded to the structure of the building and to earth grounding systems.

- j. Uninterruptible Power Systems (UPS)
 - 1. An uninterruptible power supply shall be provided for the data/telecommunication equipment and sized in accordance with project specific requirements as defined by BPA.
 - 2. A UPS system to have 25 percent spare capacity.

D.11 Technology Overview

- a. The A/E will coordinate the BPA technology design requirements and standards with the BPA Project COTR and relevant BPA J Organizations as required prior to start of work. The design for all listed systems for this project will include pathway, cable type, outlet/device locations on the drawings, block and wiring diagrams, detailed installation drawings, and specifications. Technology design for this project includes the following systems:
 - 1. Data and Telecommunications
 - 2. Cable Television
 - 3. Audio-Visual and Video Conference
 - 4. Public Address System
 - 5. Security
- b. The following referenced standards will be used in the design:
 - 1. All applicable State and Local Codes
 - 2. NFPA 70 National Electrical Code.
 - 3. BICSI TDMM (Telecommunications Distribution Methods Manual).
 - 4. ANSI/TIA/EIA-568-B.1 Commercial Building Telecommunications Cabling Standard
 - 5. ANSI/TIA/EIA-568-B.2 100 Ohm Twisted Pair Cabling Standard
 - 6. ANSI/TIA/EIA-568-B.3 Optical Fiber Standard
 - 7. ANSI/TIA/EIA-569-A Commercial Building Standard for Telecommunications Pathways and Spaces.
 - 8. ANSI/TIA/EIA-569-A-1 Commercial Building Standard for Telecommunications Pathways and Spaces Addendum 1 – Surface Raceways.
 - 9. ANSI/TIA/EIA-569-A-2 Commercial Building Standard for Telecommunications Pathways and Spaces Addendum 2 – Furniture Pathways and Spaces.
 - 10. ANSI/TIA/EIA-569-A-3 Commercial Building Standard for Telecommunications Pathways and Spaces Addendum 3 – Access Floors.
 - 11. ANSI/TIA/EIA-569-A-4 Commercial Building Standard for Telecommunications Pathways and Spaces Addendum 4 – Poke-Thru Fittings.
 - 12. ANSI/TIA/EIA-570-A Residential Telecommunications Cabling Standard.

13. ANSI/TIA/EIA-606 The Administration Standard for the Telecommunications Infrastructure of Commercial Building.
14. ANSI/TIA/EIA-607 Commercial Building Grounding and Bonding Requirements for Telecommunications.
15. TIA/EIA TSB-67 Transmission Performance Specifications for Field Testing of Unshielded Twisted-Pair Cabling Systems.
16. TIA/EIA TSB-72 Centralized Optical Fiber Cabling Guidelines.

D.12 Data Communications

- a. Voice, Data, and CATV Horizontal Cabling Infrastructure. Provide Data and Telecommunications requirements as outlined here and in the standards listed. Provide point of connection for data and telecommunications services and BPA network connectivity (Ross Z-992 building to FSB). Wireless access shall be provided throughout the building and at any defined outdoor gathering spaces. Provide VoIP phone system per BPA standards with UPS.
 1. The FSB will be cabled with 4-pair unshielded twisted pair (UTP) Category 6a voice and data network cabling.
 2. Each telecommunications outlet (TO) will consist of four 8-pin connector modules.
 3. Provide (2) voice and (2) data at each outlet location.
 4. Provide 8 conductor modular jack and a four pair unshielded Cat6a cable connecting the jack to the cross-connection in the MDF.
 5. Provide patch cables, jacks and connectors of the same category as the wiring. Each outlet will be capable of delivering voice or data as selected by BPA. These TO locations will be coordinated with BPA to ensure exact placement as needed.
 6. Conduit will be indicated as running from the device back box locations to the nearest accessible ceiling or other space suitable for running data/telecom cable.
 7. Facility spaces will have one telephone outlet located within them, office spaces will have one tele/data outlet located at each workstation, printer, or fax location.
 8. Provide cable tray sized to allow for future expansion.
 9. The data cabling requirements for the other buildings in the project will be determined in coordination with BPA.
- b. Backbone Cabling: Backbone cabling (fiber and copper) will use the existing fiber spares from the Ross Complex. Backbone cabling consisting of both fiber and copper will be routed underground.
- c. Telecommunications Room (TR's): Racks, Each TR (also identified as MDF/IDF) will consist of a minimum of three (3) 7' x 19" standalone equipment racks to support backbone and horizontal cable installation as well as BPA furnished and installed network equipment. Final quantities to be determined during design phase based on total number of cables and the amount of BPA furnished and installed equipment. All racks will be seismically braced with overhead ladder racking and properly anchored floor hardware.

- d. Wire Management: All equipment racks will have one 8-inch vertical wire manager on each end and in between each equipment rack. All equipment racks will have one single unit horizontal wire manager at the top and bottom of each column of patch panels and equipment, and one double unit horizontal wire manager in between each patch panel. Additional horizontal wire managers will also be provided for BPA installed equipment. The recommended finish for all TR racks and wire management is black.
- e. Conduit or cable trays to be sized to allow for room of any expected future expansion for all three types of circuits. Provide breakout boxes periodically in tray/conduit runs to allow access to the wiring.
- f. Provide a local area network (LAN) room with distributed IDF closets. The LAN room and closets to be adequately sized to accommodate multiple vendor equipment and for ease of maintenance of the equipment.
- g. A horizontal run of a LAN line cannot exceed 100 meters (328 feet) without equipment closets at outer limits. This length consists of 90 meters (300 feet) of solid horizontal cabling between the patch panel and the wall jack, plus 10 meters (33 feet) of patch cable between each jack and the device.
- h. Each workspace, office space, or workstation to have access to wiring for telephone and data telecommunications. The wiring provided for each space or workstation to be as follows:
 - 1. Three identical modules, one voice and two for data. Each module shall consist of an eight conductor miniature modular jack and a four pair, unshielded twisted pair cable connecting the jack to suitable cross-connectors in the communications room, or communications closet, if any.
 - 2. Modular jacks shall be installed in wall mounted outlet boxes with cover plates.
 - 3. Provide separate outlet boxes for voice and data wiring.
 - 4. Cabling, jacks, and connectors shall be EIA/TIA Standard 568 compliant of Category as determined by BPA at time of installation.
 - 5. Provide patch cables, jacks, and connectors of same Category as wiring to avoid degradation of performance of the wiring.
 - 6. The standard cluster of one voice and two data outlets per workstation is intended to support the needs of a typical user as one telephone, one data device, and an additional special data device, if needed.
- i. Provide adequate, dedicated, 24 hour ventilation of communications room/closet in order to maintain proper operating conditions of equipment.
- j. Microwave telecommunications to support activities in the facility may be required per site-specific space program and/or as determined by BPA project manager.
- k. Design excess capacity in each system to allow for future expansion of services.
- l. Ample outlets and conduit for data drops to be provided to ensure flexible use of technology.

- m. Spaces to be proactively routed for technological innovation, including mounted data projector and Smart Board(s) in main meeting room. Provide wireless Internet access throughout building.
- n. Provide capability in meeting rooms to connect digital devices to ceiling mounted projectors.
- o. A public address (PA) paging system is required for the facility that will broadcast into such areas as the shops, offices, meeting rooms, locker and toilet rooms, and the yard. The PA system will be accessed from via the telephone system.
- p. Floor receptacles to be located carefully since fixed locations may not be conducive to future flexibility of open office workstations, etc.

D.13 Cable Television

- a. Conduit will be indicated as running from the device back box locations to the nearest accessible ceiling or other space suitable for running CATV cable.
- b. Device location and cabling type will be indicated in the drawings and specifications.
- c. At each indicated location, (1) RG-6 cable will be terminated on 'F' connectors and run back to the telecom room.

D.14 Audio/Visual and Video Conference

- a. Audio/Visual System components will include:
 - 1. Projectors
 - 2. Televisions
 - 3. A/V components (DVD, CD, PC, etc.)
 - 4. Microphones
 - 5. Speakers
 - 6. User Interface
 - 7. Control Systems
 - 8. Cable and Wiring
- b. Conduit will be indicated as running from the equipment locations to the nearest accessible ceiling or other space suitable for running A/V cable.
- c. Provide audio/visual video conferencing capabilities in all conference rooms. All conference rooms will show a floor box location beneath the conference table and conduit to the nearest accessible space.
- d. Provide central Public Address system located in the FSB, broadcast through all rooms in each FSB area and site. The PA system is to be accessed by the telephone system.

D.15 Security

- a. The facility will require security measures specific to BPA to include but not limited to electronic access controls at all gates and main entry points to the buildings connected to network communications. Security design will be an integral design element.
- b. BPA approved security vendor: BPA sole source provider for security system design and installation is Convergent Technologies, (503.891.8836). This security vendor is required to be contracted as a sub-consultant to the design Consultant to ensure compliance with BPA security requirements. Specific requirements are outlined in HSPD-12 Physical Security measures.
- c. Site Lighting: Sufficient to support CCTV and other surveillance.
- d. Landscaping: Avoid vegetation/plantings that permit concealment or obstruct views.
- e. Door Locks: Provide locks on all doors. Cylinders shall be keyed with a master and sub-master key system directed by BPA.
- f. Security Room; Site-specific design of the security room to house enclosed locking security data equipment rack. One (1) room located in the FSB, minimum 8' x 8' in dimension. All security equipment shall be connected to battery backup.
- g. The Security System components will include:
 1. Security Data Equipment Rack and Electronic Components
 2. Proximity Card Readers
 3. Power Openers/Closers
 4. Electric Locks or Door Strikes
 5. Door Contacts
 6. Request to Exit Devices
 7. Motion/Intrusion Detection
 8. Cameras
 9. Key Pad for Alarm (de)activation
 10. Power Supplies

D.16 Fire Protection

- a. Buildings will be protected with wet/dry pipe sprinkler systems designed per NFPA 13, local building codes, and Fire Marshal requirements. Sprinkler systems water supply to be provided by city water mains.
- b. Portable Fire Extinguishers
 1. Dry chemical fire extinguishers shall be provided in all areas throughout the facility as required by code and prominently located.
 2. Comply with product requirements of NFPA 10, Standard for Portable Fire Extinguishers and applicable codes, whichever is more stringent. Cabinet configuration shall be recessed type.

D.17 Fire Alarm

- a. Fire Alarm Signaling System; An automatic, addressable, fire alarm system will be provided in accordance with the adopted editions of the Washington Fire Code (IFC with Washington Amendments), and NFPA 72.
- b. A fire detection and alarm system will be installed to provide protection for both the buildings' occupants and the property. The system will utilize ADA compliant visual annunciation with Temporal-3 audible alert.
- c. The system will have batteries to provide a secondary power source in case of primary power loss to the control panel or any remote power supply. The system will have emergency generator backup as well as 24 hours of battery backup power in normal mode, five minutes of battery backup in alarm mode.
- d. Activation of system smoke detectors, manual pull stations, sprinkler water flow switches and suppression systems will initiate alarm signals on the fire alarm control panel (FACP) and fire alarm annunciator (FAA), and activate the audible and visual notification appliances throughout the FSB.
- e. Activation of sprinkler tamper switches and HVAC duct smoke detectors will initiate supervisory signals, which will annunciate on the FACP and the FAA.
- f. Automatic smoke detection will be provided in corridors, common areas open to corridors, electrical rooms, telecommunication rooms and janitor closets. Manual pull stations will be provided at the building exits. Audible and/or visual alarm devices will be provided throughout the buildings. Control outputs will be provided for fire safety functions, such as air handler shut down, fire smoke damper closure, fire door release.
- g. Detection and Alarms
 1. The FSB is to receive CO2 sensors with local audible alarms, also all doors and walls separating shops areas from other occupied interior spaces must incorporate gaskets and sweeps to prevent smoke or fumes from inadvertently entering the adjacent space.

D.18 Deliverables

- a. General
 1. Hardcopy and electronic formats to facilitate deliverable legibility and coherence, and deviations from stated format may be acceptable with COTR approval. Include all drawings, specifications and reports for each submittal requirement.
 2. Project expectations are described in detail in the attached documents listed here and referenced elsewhere. These documents outline expectations of the A/E's deliverables, process and the desired performance of designed facility. The Design Submittal Requirements (DSR) clearly defines the quality expectations of the A/E at each of the milestones described within. BPA requires specific review criteria at each milestone and often at intermediate stages, documentation deliverables such as hard-copy or electronic must be met to aid in the success of this project.

3. Deliverable Acceptance
 - (a) The purpose of this Section is to provide the A/E with the review requirements required for the quality of all design deliverables. The Design Submittal Requirements (DSR) will act as a checklist and will assist in evaluating how well the design submittal meets the expectations, requirements and responds to the review comments.
 - (b) Completion of the DSR (Checklist) with any and all "No" responses requires a written explanation from the A/E including what is necessary to provide the quality item listed. In all situations Documents that cover this design contract will govern and this checklist does not relieve the A/E of any responsibility for the work performance.
 - (c) Deliverable Acceptance Criteria
 - (1) All deliverables shall be labeled with the correct name, date, and status of deliverable (i.e. draft vs. final)
 - (2) All items listed in this deliverables section shall be included as described
 - (3) Each deliverable shall be accompanied by a signed DSR
 - (4) BPA acceptance/rejection of deliverables will be documented with the DSR
4. Submit the complete set of documents required to the following:

Bonneville Power FSB
Bruce Arnold: CSB/TESF-NHT-1 5411 NE Highway 99
Vancouver, WA 98663
Phone:1.360.619.6921
Email: bcarmold@bpa.gov
5. All correspondence shall include the following:
 - (a) Project Title
 - (b) Contract Number
 - (c) Subject
 - (d) Date
 - (e) Introduction of Contents
6. Documentation formatting shall be presented and organized in a professional structure as follows and provided in electronic MS Word, CD and hard copy formats. All drawings shall be in BIM format.
 - (a) Full size drawings shall use industry standard A1 sheet size.
 - (b) Photos, charts, and schedules shall be in color.
 - (c) Reports shall be 8 ½ x 11, bound with cover sheet and tabs as required.
 - (d) Drawing inserts shall be 11 x 17 sheet size.
 - (e) Electronic presentations shall be compatible with industry standard software.

D.19 Deliverables by Phase

Phase 1 - Preconstruction

- a. Phase 1A: Basis of Design 5%

1. (1) Complete Electronic set in MS Word, AutoCAD and .pdf formats
 2. (1) Design Submittal Requirements-Checklist
 3. (1) LEED Scorecard
 4. (10) A1 hardcopies
 5. (10) 11 x17 hardcopies
 6. (15) Outline of performance Specifications
 7. (5) Calculations
 8. (10) Reports: BOD, BIM Execution Plan, Design Schedule, hazardous materials surveys
- b. Phase 1B: Conceptual Design 15%
1. (1) Complete Electronic set in MS Word, AutoCAD and .pdf formats
 2. (1) Design Submittal Requirements-Checklist
 3. (1) LEED Scorecard
 4. (10) A1 hardcopies
 5. (10) 11 x17 hardcopies
 6. (15) Final Outline of Performance Specifications
 7. (5) Calculations
 8. (10) Reports: Charrette Summary, VE of BOD, MEP Systems Descriptions
 9. Review Comments Disposition Checklist
- c. Phase 1C: Schematic Design 30%
1. (1) Complete Electronic set in MS Word, AutoCAD and .pdf formats
 2. (1) Design Submittal Requirements-Checklist
 3. (1) LEED Scorecard
 4. (4) Architectural Renderings/Presentation Boards w/PDF.
 5. (10) A1 hardcopies
 6. (10) 11 x17 hardcopies
 7. (15) Performance Specifications for Structural & MEP systems
 8. (5) Calculations
 9. (10) Reports: VE of Structural and MEP systems, BIM execution plan, code analysis, design schedule update, unique conditions
 10. Review Comments Disposition Checklist
- d. Phase 1D: Design Development 60%
1. (1) Complete Electronic set in MS Word, AutoCAD and .pdf formats
 2. (1) Design Submittal Requirements-Checklist
 3. (1) LEED Scorecard

4. (4) Architectural Renderings/Presentation Boards w/PDF.
 5. (4) Material Boards
 6. (10) A1 hardcopies
 7. (10) 11 x17 hardcopies
 8. (15) Final draft of performance specifications
 9. (5) Calculations
 10. (10) Reports: VE of building enclosure alternatives, final code analysis / diagrams
 11. Review Comments Disposition Checklist
- e. Phase 1E: Construction Documents 90%
1. (1) Complete Electronic set in MS Word, AutoCAD and .pdf formats
 2. (1) Design Submittal Requirements-Checklist
 3. (1) LEED Scorecard
 4. (4) Architectural Renderings/Presentation Boards w/PDF.
 5. (2) Material Boards
 6. (10) A1 hardcopies
 7. (10) 11 x17 hardcopies
 8. (15) Final Performance Specifications
 9. (5) Calculations
 10. (10) Reports: VE and Constructability Summaries, Construction Package Structure and Issue Schedule
 11. Review Comments Disposition Checklist
- f. Phase 1F: Construction Documents 100%
1. (1) Complete Electronic set in MS Word, AutoCAD and .pdf formats
 2. (1) Design Submittal Requirements-Checklist
 3. (1) LEED Scorecard
 4. (4) Architectural Renderings/Presentation Boards w/PDF.
 5. (2) Material Boards
 6. (10) A1 hardcopies
 7. (10) 11 x17 hardcopies
 8. (15) Final Performance Specifications
 9. (5) Calculations
 10. (10) Reports: Construction Package Structure and Issue Schedule
 11. Review Comments Disposition Checklist
- g. Phase 1G: "Issued for Construction" Document packages.

1. The "Construction Documents 100%" shall consist of all related stamped and signed documents with accompanying individual .pdf scans of signed documents.
2. For the Site Civil, Demolition and Abatement, Structural, MEP and Building Enclosure construction packages provide the following:
 - (a) (1) Design Submittal Requirements-Checklist
 - (b) (1) LEED Scorecard
 - (c) (10) A1 hardcopies
 - (d) (10) 11 x17 hardcopies
 - (e) (15) Performance Specifications
 - (f) (5) Calculations
 - (g) (10) Reports:
 - (h) Review Comments Disposition Checklist
3. The "Issued for Construction" Documents shall consist of all related electronic files in MS Word and AutoCAD with scanned set of .pdf stamped and signed drawings individually named. A compiled .pdf of those drawings and .pdf copies of all related documentation, and (1) complete original hardcopy set of each of all of the deliverables.
4. Review Comments Disposition Checklist
5. (1) LEED Scorecard

Phase 2 - Construction

- a. Phase 2A: Construction
 1. Provide management and execution of construction administration services construction closeout and quality assurance documentation.
 2. Revise construction packages as directed by CMGC to meet schedule and alignment with GMP budget.
- b. Phase 3A: Post Occupancy Evaluations
 1. Participate in on-site meeting 10 months after Substantial Completion date to review performance and quality of the facility.
 2. Compare actual building performance to design energy model.
 3. Develop mitigation plan to address all identified deficiencies.

D.20 Electronic Copies of Contract Documents

- a. CAD: The software package used to create the Serialized Drawings is not restricted. The following requirements shall be met.
 1. Provide the native or Central File (Revit or Bentley's AECOSim Building Designer) file if utilizing BIM.
 2. If working in Revit, also provide an exported "i-Model".
 3. Provide a .dwg or dgn for each drawing sheet with included attachments.
 4. Provide a .pdf file for each sheet issued.

5. Serialized drawing file naming convention to follow format:
 - (a) Serial number - Drawing sheet number in series - Revision number.dwg (or .dgn).
 6. Resource file names: Shall follow drawing naming convention:
 - (a) TRED Id – Asset # - resource file #. dwg (or dgn).
 7. CAD files shall use the provided BPA title block and border. There shall be only one title block and border per serialized drawing sheet file.
 8. Include company logo on each sheet layout adjacent to the title block, but do not include an individual project contact.
 9. Include an electronic copy of engineer's or architect's stamp on each sheet layout adjacent to the title block, but do not include a signature.
- b. Specifications (CSI Master Format 2014)
 1. Provide a compiled pdf file. Include stamped signed and scanned cover sheet with all relevant parties included.
 - (a) Provide a Microsoft Word file for: each section, cover, and table of contents.
 - c. Calculations
 1. Provide a compiled pdf file.
 2. Where Microsoft "Word", "Excel" or other has been used, provide the electronic file in addition.

D.21 Revisions to Contract Documents

- a. Drawings
 1. Provide full-size sheet in pdf format for each sheet re-issued.
 - (a) Include revision block to BPA title block.
 - (b) Cloud and track all design revisions by sheet, not change.
 - (c) Maintain company logo sans project contact.
 - (d) Maintain engineer's or architect's stamp and signature.
 - (e) Hard copy with wet stamp and signature not required, electronic only.
 2. Provide CAD files and BIM model
 - (a) Include revision block to BPA title block.
 - (b) Include company logo sans project contact.
 - (c) Include engineer's or architect's stamp sans signature.
- b. Specifications
 1. Provide pdf file.
 2. Provide Microsoft Word file.

D.22 Approximate Submittal Schedule

- a. Timeframes listed in the A/E Submittal Schedule represent the sequencing and approximate durations for each project phase. The actual submittal dates and durations, including appropriate float times shall be integrated within the official project schedule and formalized after contract award.
- b. Construction Documents, Specifications, Calculations and Reports: The A/E shall provide Deliverables to BPA for review and approval prior to proceeding with the next Deliverable. The "Issued for Construction" documents shall be completed within twelve (12) months after Contract Award date. Days are shown as business working days. The Geotechnical Investigation is required prior to starting Phase 2. The work shall be performed in the following phases; (Shown Sequential)
- c. Phase 1 - Preconstruction
 1. Phase 1A: Basis of Design 5 %
 - (a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - (b) BPA Submittal Acceptance/Distribution: Two (2) days
 - (c) BPA Submittal Review: Three (3) days
 - (d) BPA/A/E Design Submittal Review Meeting: One (1) day
 - (e) BPA QA/QC Review: One (1) day
 - (f) BPA Comments to A/E: One (1) day
 2. Phase 1B: Conceptual Design 15 %
 - (a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - (b) BPA Submittal Acceptance/Distribution: Three (3) days
 - (c) BPA Submittal Review: Five (5) days
 - (d) BPA/A/E Design Submittal Review Meeting: One (1) day
 - (e) BPA QA/QC Review: Three (3) days
 - (f) BPA Comments to A/E: One (1) day
 3. Phase 1C: Schematic Design 30%
 - (a) A/E Estimated Submittal Schedule: Twenty (20) days
 - (b) BPA Submittal Acceptance/Distribution: Three (3) days
 - (c) BPA Submittal Review: Ten (10) days
 - (d) BPA Review and Incorporation of Support Services Comments: Five (5) days
 - (e) BPA/A/E Design Submittal Review Meeting: (1) day
 - (f) BPA QA/QC Review: Three (3) days
 - (g) BPA Comments to A/E: One (1) day
 4. Phase 1D: Design Development 60%
 - (a) A/E Estimated Submittal Schedule: Twenty (20) days
 - (b) BPA Submittal Acceptance/Distribution: Three (3) days
 - (c) BPA Submittal Review: Ten (10) working days
 - (d) BPA Review and Incorporation of Support Services Comments: Ten (10) days

- (e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - (f) BPA QA/QC Review: Three (3) days
 - (g) BPA Comments to A/E: One (1) day
5. Phase 1E: Construction Documents 90%
- For the Site, Civil, Structural, MEP and Building Enclosure construction packages the review periods will be integrated, phased and allow the following:
- (a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - (b) BPA Submittal Acceptance/Distribution: Three (3) days
 - (c) BPA Submittal Review: Ten (10) days
 - (d) BPA Review and Incorporation of Support Services Comments: Ten (10) days
 - (e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - (f) BPA QA/QC Review: Three (3) days
 - (g) BPA Comments to A/E: One (1) day
6. Phase 1F: Construction Documents 100%
- (a) A/E Estimated Submittal Schedule: Fifteen (15) days
 - (b) BPA Submittal Acceptance/Distribution: Three (3) days
 - (c) BPA Submittal Review: Ten (10) days
 - (d) BPA Review and Incorporation of Support Services Comments: Ten (10) days
 - (e) BPA/A/E Design Submittal Review Meeting: One (1) day
 - (f) BPA QA/QC Review: Three (3) days
 - (g) BPA Comments to A/E: One (1) day
7. Phase 1G: Design "Issue For Construction" documents
- For the Site, Demolition, Civil, Structural, MEP and Building Enclosure construction packages the review periods will be integrated, phased and allow the following:
- (1) A/E Estimated Submittal Schedule: Ten (10) days
 - (2) BPA Submittal Acceptance/Distribution: Three (3) days
 - (3) BPA Submittal Review: Five (5) days
 - (4) BPA Review of Support Services Comments: Five (5) days
 - (5) BPA/A/E Design Submittal Review Meeting: One (1) day
 - (6) BPA QA/QC Review: Five (5) days
 - (7) BPA Comments to A/E: One (1) day
- d. Phase 2 - Construction
- 1. Phase 2A: Construction/Construction FSB and Technical Support
 - (a) BPA Construction Procurement Schedule: Three (3) months
 - (b) BPA Construction Schedule: Fifteen (15) months
- e. Phase 3 - Post Construction

1. Phase 3A: Post Occupancy Evaluations
 - (a) POE: Begins Ten (10) Months after Substantial Completion
 - (b) Project Closeout: Two (2) months

Part E: INSPECTION AND ACCEPTANCE (Quality Assurance)

E.01 Purpose

- a. This section outlines the Quality Management Program (QMP) criteria, standards, and practices for the delivery of design services and construction projects to facility customers. This program is broken into four goals, which should permeate each phase (Design and Construction).

E.02 Scope

- a. The goals of Quality Management are to ensure:

1. Technical Completeness and Coordination

As a component of quality, technical completeness and coordination is the evaluation of both the design and construction work product exhibiting high levels of craft. The quality management plan should address how this will be evaluated. Technical completeness and coordination includes, but is not limited to, peer review of architectural, mechanical, electrical, civil and structural systems.

2. Code Compliance

Facilities built on Federal property are exempt from state and local building codes. It is recognized that the national building codes (IBC) are typically the foundation of state and local building codes, and that state and local codes represent important regional interests and conditions. As such, BPA will endeavor to design and construction buildings in compliance to local building codes. BPA is the AHJ. As the AHJ and as a component of quality management, BPA will assume the responsibility plans examination, permissions to build (permitting), and review of construction progress (building inspection) and final review of all relevant documentation culminating in the Certificate of Occupancy. To the extent possible, it is BPA's intent to mirror standard construction practice. Code compliance includes, but is not limited to building codes, safety codes (OSHA), pollution and abatement, NEPA analysis and SHPO standards, etc.

3. Compliance with BPA Standards

Beyond published design codes, standards and construction practices, BPA has its own set of standards. Where applicable, design and construction reviews should include the review of BPA Standards. BPA Standards include, but are not limited to, Fencing Standards, Lavatory Standards, MAD requirements, furniture standards, etc. See Referenced Standards for a list of BPA Standards applicable to this project.

4. Compliance with Program Requirements

The Quality Management Program will review for conformance with the program requirements. Program requirements include, but are not limited to, project specific needs and requirements outlined in this SOW, cost control, approved business case, etc.

b. QMP Preparation

1. The QMP defines the approach to ensure that the Project Design Team's quality control program is being undertaken properly.
2. At a minimum, the QMP shall describe how quality control and assurance will be performed and list the team members responsible for QA reviews.
3. The plan will be prepared by the Project Design Team and reviewed by BPA. The QMP will be implemented prior to design start.
4. The QMP will be prepared with the following instructions:
5. Within 10 calendar days after award of the contract release, the Project Design Team will submit to BPA for review and approval, the firm's QMP. The QMP will effectively maintain a quality-control program which will assure that all services, designs, drawings, and specifications required by this contract are performed and provided in a manner that meets professional architectural and engineering quality standards. The Project Design Team's QMP will require the organization's personnel to perform, or cause to be performed, reviews of the scope and character necessary to achieve the quality of design and to substantiate that all services conform to the contract requirements. At a minimum, all documents will be reviewed by competent independent reviewers. Errors and deficiencies in the design documents will be corrected prior to submitting them to BPA. The QMP will include the names and contact numbers for each involved design engineer and architect.
6. As a point of departure, the Project Design Team is encouraged to adopt and adapt the Design Submittal Requirements (DSR) Checklist for the purposes of their Quality Control review. Proposed alterations should be included with the QMP submittal.
7. The Project Design Team will include in the QMP a design schedule showing the sequence of events involved in carrying out the project tasks within the specific period of service. This should be at a detailed level of scheduling sufficient to identify all major tasks including those that control the flow of work. The schedule will include design submittal reviews and correction periods appropriate to the submittal of each item. When a modification to the contract occurs, the Project Design Team will submit a revised schedule reflecting the change within one week of the receipt of the change.
8. The QMP will be implemented by an assigned person within the Project Design Team's organization. This individual will be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Project Design Team will notify BPA of the name of the individual.
9. BPA will notify the Project Design Team, in writing, of the acceptance of the QMP. After acceptance, any changes proposed by the Project Design Team are subject to the acceptance of BPA.

E.03 Quality Assurance Documentation

1. For every design submittal review required (for NWN QMP Templates see Exhibit I in this SOW) I in this Contract, the following cycle(s) shall apply:
 - (a) The Project Design Team will complete the work required by phase.
 - (b) The Project Design Team will evaluate the completeness and conduct a quality control review. This review may be aided by the Design Submittal Review (DSR) Checklist along with the completed signature page. See Technical Exhibits.
 - (c) The submittal will be sent to the BPA PM along with the DSR Checklist.
 - (d) It will be distributed to BPA's Design Review Team(s).
 - (e) The submittal will be reviewed for technical completeness by BPA's Design Review Team(s). If complete to the level of expectations for the development phase, then Design Review Team will conduct an Independent Technical Review. If deemed incomplete, see Reject Loop below.
 - (f) Independent Technical Review will be conducted at specific design phases identified in this SOW. The Subject Matter Expert (SME) will evaluate the project against the Traceability Matrix and provide comments recorded on the SME Comment Form .
 - (g) Design Review Team comments, attestations and traceability matrix will be completed returned to the BPA PM.
 - (h) Comments will be aggregated and vetted by the BPA PM.
2. When BPA has completed its review, the submittal is accepted and the COTR will also sign the submittal attestation form. A copy of this form will be returned to the Project Design Team, signaling authorization to proceed with the next phase of the work. The Project Design Team will retain on file a copy of the following:
 - (a) Design Submittal Requirements Checklist
 - (b) COTR signature page
 - (c) Design Review Team review signature page
 - (d) All Design Review Team review comments
 - (e) Fully vetted comments will be returned to the Project Design Team.
 - (f) Project Design Team will respond to all comments. The Project Design Team will furnish the disposition of all comments in writing with the next scheduled submittal. The disposition will clearly indicate the specific actions taken in response to each comment. Comment annotations will indicate where and how the comment is completed in the design documents for back check purposes.
 - (g) Acceptable responses include:
 - (h) Accept
 - (i) Dismiss
 - (j) Clarify/Discuss: If the Project Design Team disagrees technically with any comment and does not intend to comply with it, the Project Design Team will clearly outline, with justification, the reasons for noncompliance within seven days after receipt in order that the comment can be resolved. For

comments that are not accepted, the Project Design Team will coordinate an acceptable solution through the BPA PM.

- (k) Design Review Team will conduct a back check of comments and annotations.

3. Reject Loop

If, after a review for technical completeness, the submittal is deemed incomplete, BPA will return it to the Project Design Team. It is the responsibility of the Project Design Team to revise and re-submit the documents for review.

4. Internal Feedback Loop

During the comment vetting process, some comments made will not be forwarded to the Project Design Team, as addressing these issues is not the responsibility of the Project Design Team. These comments will be addressed by the BPA PM. The goal is for all comments to be addressed either by the Project Design Team or the BPA PM.

5. Change Loop

If the Project Design Team believes the action required by any comment exceeds the requirements of the SOW, no action will be taken on the comment; the Contracting Officer and COTR will be immediately notified in writing. No work or services will be performed for which an additional cost of fee will be charged without prior written authorization of the CO.

6. Design Completion

At the completion of the design cycle, the Project Design Team will certify that design documents are complete and code compliant by sealing and signing the documents.

Part F: TECHNICAL EXHIBITS

Technical Exhibits under this contract are those BPA provided standards, codes, policies, statutes and laws which define parameters for which the A/E shall consider as a precursor to professional advice.

F.01 Exhibit A - BPA Ross HMEM (FSB) Facility Feasibility Study, MDG 2013

Reference Sections 4, 5 and 7 (see attached PDF files)

F.02 Exhibit B - Proposed Site Development

Reference Ross Central Circulation Upgrades

(See attached PDF files for further civil improvement SOW definitions)

Ross Civil Improvements

Site Key



Ross Civil Improvements

Fleet Services Building (1A) & Ross Central Circulation Upgrade (1B)



Ross Civil Improvements

Fleet Services Building (1A) & Ross Central Circulation Upgrade (1B)

1A: Fleet Services Building

Area of Consideration: 179,000 SF (~4.1 Acres)

Estimated area of disturbance: 179,000 SF (~4.1 Acres)

General Site Development Objectives:

- Construct new xoxo SF HMEM Garage with administrative office and support spaces.
- Develop internal circulation for optimized workflow and safety between existing BPA General Services shops and new Fleet HMEM operations
- Right size site development for co-location of Fleet Loan Pool Operations
- Integrate onsite stormwater management facilities

1B: Ross Central Circulation Upgrade

Area of Consideration: 200,000 SF (~4.6 Acres)

Estimated area of disturbance: 67,000 SF (~1.5 Acres)

General Site Development Objectives:

- Coordinate with Fleet Service Building project to integrate ingress and egress to the site, optimize outdoor workflow and maintain a safe work environment.
- Redesign existing circulation scheme to achieve more direct travel between NE North Road and Ross Canyon Road on the Ross Complex via a new 52' road section which integrates wider travel lanes with stormwater management facilities and pedestrian/bike circulation.
- Redesign existing circulation scheme to avoid unsafe "pinch points" and ambiguous right of way between through traffic and adjacent logistics work zones.
- Maintain overall site continuity for existing BPA General Shops located in the Plant Services Building. Coordinate logistics circulation into and out of the Plant Services General shop in

F.03 Exhibit C - FISMA Requirement - Low

Applicable to all work in this contract

The information will be rated as “low” under FIPS 199 Standards for Security Categorization of Federal Information and Information Systems. The RFO/P/contract will need to include language that specifically calls this rating out. Please see the example below:

The data that will be provided to the vendor or the vendor is collecting on BPA’s behalf, has a rating of **low** under the FIPS 199 Standards for Security Categorization of Federal Information and Information Systems. This requires the vendor to protect BPA data using the NIST 800-53rev4 Security and Privacy Controls for Federal Information Systems and Organizations for a **low** rated system.

The attestation must include that they are protecting BPA information commensurate with NIST 800-53rev4; security controls for a low data categorization. If the vendor is using this standard, please provide attestation to NIST 800-53rev4. The attestation must be provided on a yearly basis.

Many private organizations use ISO-27001:2005/2013 (ISO/IEC 27001:2005/2013 – Information technology – Security techniques – Information security management systems – Requirements). If the vendor is using this standard, please provide attestation to ISO-27001:2005/2013.

Attestations can be in the form of a formal memorandum, letter, or email.

F.04 Exhibit D- Historic Preservation Requirements

Applicable to building demolition mitigation measures

The BPA transmission network is associated with several significant themes in American history and to-date is one of this country’s largest infrastructure investments. As such, those parts of the original *Master Grid* development (1938-1945) and subsequent *System Expansion* period of BPA history (1946-1974) have been designated by State Historic Preservation Offices of the Pacific NW Region as culturally significant and therefore subject to Section 106 of the National Historic Preservation Act.

Together, these periods of development extend to unique infrastructure and facilities built prior to 1974. In order to streamline the process of reviewing and categorizing historically significant assets, the BPA commissioned Kramer & Company to provide (a) background justification of historic significance (b) categorize asset types and their relative significance (c) prioritize their relative importance and (d) provide guidelines for preservation, alteration and removal of culturally significant structures.

Please refer to the following attachments for BPA’s historic preservation requirements and a categorical list of historic facilities (1974 and prior) on the Ross Complex:

- 1.) Corridors of Power
The Bonneville Power Administration Transmission Network Historic Context Statement
Kramer & Company April 2010
- 2.) Bonneville Power Administration Transmission System
National Regional Multiple Property Submittal
Kramer & Company May 2010

F.05 Exhibit E - Electromagnetic Considerations

Applicable to the Facility Construction and Operations

The Ross Complex serves as a major electrical transmission hub as well as an industrial logistics and staffing center. High voltage transmission lines are located adjacent or in proximity to the most functions on the Starr Complex. These adjacencies place two distinct restrictions on facility development: Electrostatic conduction and electromagnetic (EMF) exposure. For the purposes of facility planning, EMF exposure governs.

Large-scale studies have been conducted by the Department of Energy, the National Institute of Health, the World Health Organization and the National Cancer Foundation Institute. None have found conclusive evidence that building structure proximity to EMFs emitted from high voltage conductors negatively impacts human health. Furthermore, there are no Federal guidelines regulating the proximity of occupied structures to high voltage lines. The BPA does not dismiss the potential risk that future EMF research may find definitive health concern and therefore the Agency conducts its own internal assessments on facility location relative to conductor lines. The allowable offsets depend on the use of the structure, construction assembly and the voltage of the conductor lines. Minimum conductor clearances are determined on a case-by-case basis.

Please refer to the Ross Complex Development Constraints Map provided as supporting documentation. The map serves as reference for existing transmission line location and a general planning guide. It is not to be used as a scalable design aid for EMF offsets or other uses.

F.06 Exhibit F - Storm water Management

Applicable to all work in this contract

Technical Guidance on Implementing the Storm water Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, the BPA Civil Engineering Design Manual and related standards will guide the overarching performance goals of storm water management for all development at the Ross Complex. NWM's objective is to incrementally upgrade BPA's storm water compliance level over time on a project by project basis to ensure that all future development falls within the Agency's own goals and the standards set forth by the Federal Clean Water Act.

Please refer to the Spill Prevention Control and Countermeasures diagrams and the BPA Storm water plan for information on containment, storm water inlets and storm sewer locations.

F.07 Exhibit G - Spill Prevention Control and Countermeasures

Applicable to the Civil Infrastructure Improvements

Federal Regulations (40 CFR Part 112) requires the preparation of Spill Prevention Control and Countermeasures (SPCC) plans in accordance with good engineering practices to prevent and control oil spills. Plans are developed and maintained by the BPA Pollution, Prevention and Abatement (EP) organization. Please refer to the SPCC attachment for containment areas on the Ross Complex.

F.08 Exhibit H - Code Compliance for new facilities
Applicable to the New FSB Design and Construction

As a federal agency, BPA is not required to comply with local code but instead follows the best-practice approach, which includes a comprehensive code program that meets or exceeds local code requirements. The majorities of BPA facilities were built prior to the adoption of Universal Building Codes by local jurisdictions and as such, are in the process of being evaluated and prioritized for life-safety upgrades. Planning studies that recommend reinvestment in existing facilities must also weigh the requirement for code compliance.

Please see attached BPA Existing Building Code Manual for BPA adopted code and standards.

F.09 Exhibit I - BPA Quality Management Planning Templates

- a. This section outlines the Quality Management Program (QMP) criteria, standards, and practices for the delivery of design services and construction projects to facility customers. This program is broken into four goals, which should permeate each phase Preconstruction, Construction and Post Construction. (See attached PDF examples)

End of SOW

REQUEST FOR PROPOSAL

Bonneville
Power Administration

Request for Proposal

Return RFP Responses to:

Attn: Daniel A. Guffey, NSSV-4400-2
daguffey@bpa.gov

RFP: 3967

Due Date: May 17, 2017

Due Time: 3:00 P.M. Pacific Time

Issued: April 19, 2017

Issued by:

U.S. Department of Energy
Bonneville Power Administration
PO Box 3621
Portland, OR 97208-3621

Please Direct Inquiries to:

Daniel Guffey
Phone: (360) 619-6083
Email: daguffey@bpa.gov

TITLE: Ross Fleet Services Building (FSB) and Civil Infrastructure Improvements

Offer Value: \$

Offer Expiration Date:

OFFER

To be completed by Offeror:

Offeror hereby offers to Bonneville Power Administration the services at the prices stated in the attached offer.

Offeror's Name

Signature

Address

Name/Title of Authorized person to sign offer
(Type or print)

State

9 Digit Zip Code

Date Signed

RFP 3967 Ross FSB and Civil Schedule of Prices		
Item No.	Description	Price
Ross, FSB		
Phase 1 - Pre Construction Services		
001	Basis of Design 5%	\$ -
002	Conceptual Design 15%	\$ -
003	Schematic Design 30%	\$ -
004	Design Development 60%	\$ -
005	Construction Documents 90%	\$ -
006	Construction Documents 100% and Permit Documents	\$ -
007	Design "Issued for Construction" Documents	\$ -
Price for Pre Construction Services		\$ -
008	Phase 2 - Construction Administration and Tech Support	\$ -
009	Phase 3 - Post Occupancy and Warranty Evaluations	\$ -
Price: Ross FSB		\$ -
Ross, Central Circulation Upgrade CIP		
Phase 1 - Pre Construction Services		
010	Design 15%	\$ -
011	Design 30%	\$ -
012	Design 60%	\$ -
013	Design 90%	\$ -
014	Design 100%	\$ -
Price for Pre Construction Services		\$ -
015	Phase 2 - Construction Administration and Tech Support	\$ -
Price: Central Circulation Upgrade CIP		\$ -
Ross, Cold Creek Bridge Approach CIP		
016	Design 30%	\$ -
017	Design 60%	\$ -
018	Design 90%	\$ -
019	Design 100%	\$ -
Price: Ross, Cold Creek Bridge Approach CIP		\$ -
Ross, Warehouse Area CIP		
020	Design 30%	\$ -
021	Design 60%	\$ -
022	Design 90%	\$ -
023	Design 100%	\$ -
Price: Ross, Warehouse Area CIP		\$ -
Dittmer Area Parking CIP		
024	Design 30%	\$ -
025	Design 60%	\$ -
026	Design 90%	\$ -
027	Design 100%	\$ -
Price: Dittmer Area Parking CIP		\$ -
Total Price		\$ -

Options		
101	Construction Administration and Tech Support for Ross, Cold Creek Bridge Approach CIP	\$ -
102	Construction Administration and Tech Support for Ross, Warehouse Area CIP	\$ -
103	Construction Administration and Tech Support for Dittmer Area Parking CIP	\$ -
104	\$10,000,000 in Professional Liability Insurance	\$ -
<p>Instruction to Offerors:</p> <p>1. Line item 104 would replace the \$5,000,000 of Professional Liability Insurance required by clause 16-2. If this options is selected, the clause would be updated to reflect the correct amount.</p> <p>2. All reimbursale cost are to be incorportated into the above table.</p>		

The below data will be used with any Modifications. Please fill the position based on the Key Personnel from the SF 330, you may add or remove lines as needed. Rates should be fully burdened labor rates.

Item No.	Position	Unit	Rate
001		HR	
002		HR	
003		HR	
004		HR	
005		HR	
006		HR	
007		HR	
008		HR	
009		HR	
010		HR	
011		HR	
012		HR	
013		HR	
014		HR	

Note: If you plan to use subcontractors, please have each of them submit a similar table.

The below datasheet is to be completed within 10 days after award

Bonneville Power Administration - Ross FSB P

Schedule of Prices	Phase 1	Phase 2
Service Description	Design, Pre-Construction Services	Construction Services
Geotechnical		
Landscaping		
Survey For Design Documents		
Architectural and Interiors		
Green Building Consultant		
Acoustics		
Space Planning and Furniture Design		
Equipment Planning/Design		
Civil		
Structural		
Mechanical		
Plumbing		
Fire Protection		
Electrical		
Lighting with Lighting Control System		
Information Technology		
Audio/Video		
Telecommunications		
Security		
Phase Sub-Total	\$0.00	\$0.00

Note: All reimbursable costs are to be incorporated into the above table. This table



Phase 1A: Basis of Design

No.	Quality Item	Y/N
Technical Completeness and Coordination		
0.00	Administrative/General	
0.01	Listing of all building elements or systems proposed to be design-delegated or partially design-delegated to the Builder.	
0.02	Initial Program estimate supplied by FPP (using asset type and quantity based, Judgment or analogy methods) reviewed and updated as necessary	
1.00	Master Plan / Site / Utilities	
1.01	Qualitative and quantitative description of existing site conditions and constraints	
1.02	Design strategies for sitework, traffic & circulation, parking, site utilities, landscaping, hardscape, exterior lighting	
1.03	General design approach for storm-water management, including Low-Impact Development principles & techniques	
1.04	Utilities demand schedule that indicates the design (maximum) demand, estimated peak demand, and estimated daily usage (as applicable) for the following utilities, using the units indicated:	
	▪ Electricity KVA and estimated monthly consumption	
	▪ Steam lbs/hr	
	▪ Chilled Water gpm and tons	
	▪ Natural Gas CFH	
	▪ Fire Flow (interior) gpm	
	▪ Fire Flow (exterior) gpm	
	▪ Irrigation gpd	
	▪ Sanitary gpm (peak flow and average daily flow)	
	▪ Domestic Water gpm (peak flow and average daily flow)	
	▪ Stormwater SF or Acres of net new impervious area	
	Also provide:	
	▪ confirmation of sufficient source and distribution capacity & pressure to serve the facility being designed	
	▪ supporting documentation, such assumptions, calculations, and load analysis table(s)	
2.00	Architectural and Building Envelope	
2.01	Description of the style and character of the exterior architecture	



Ross FSB

Design Submittal Requirements

February 2017

2.02	Description of building envelope system types & materials – including walls, roofs, and floors-at-grade – with associated R-values for each	
2.03	Narrative overview of the interior architectural character, including a description of major interior architectural materials, assemblies, and finishes	
3.00	Structural	
3.01	Outline of existing conditions, design loads, and other relevant assumptions, information, or special conditions or requirements	
3.02	Description of major structural systems – foundations, slabs, framing, roof, etc. – and their respective materials and components	
3.03	Analysis of existing geotechnical survey results and design strategies for adhering to the survey’s findings and recommendations	
4.0	Systems – M/E/P, Fire Protection, BAS	
4.01	Summary of the means and strategies for maximizing energy conservation, efficiency, and cost savings; implementing sustainable design measures; and obtaining LEED certification ... including ideas considered, but not pursued or implemented.	
4.02	General design approach for serving the building with chilled water, steam and/or heating hot water, potable and fire water, sanitary sewer, telecommunications, as needed	
4.03	Assumptions and strategies for usage, demand, diversification, energy efficiency, and acoustic control	
4.04	Strategies for efficiently cooling elevator equipment rooms, telecomm/server rooms, and other spaces with unusual cooling or heating demands	
4.05	Special needs – grease traps, e.g.	
4.06	Descriptions of – and design parameters for – heating, air conditioning, ventilation/exhaust, piping, plumbing, waste, fire sprinkler, power (primary and emergent), fire alarm, lighting (interior and exterior), grounding, and lightning protection systems. For <u>example</u> :	
	<ul style="list-style-type: none"> ▪ indoor and wet/dry bulb design temperatures (summer and winter) 	
	<ul style="list-style-type: none"> ▪ relative humidity requirements 	
	<ul style="list-style-type: none"> ▪ outdoor air requirements 	
	<ul style="list-style-type: none"> ▪ ventilation, filtration, and dehumidification requirements 	
	<ul style="list-style-type: none"> ▪ watts per SF for lighting 	
	<ul style="list-style-type: none"> ▪ BTU per SF for overall energy consumption 	
	<ul style="list-style-type: none"> ▪ electric load and characteristics for building equipment, lighting, convenience outlets, special tools & equipment 	
	<ul style="list-style-type: none"> ▪ essential or emergency power loads, requirements 	



Ross FSB

Design Submittal Requirements

February 2017

	<ul style="list-style-type: none"> ▪ uses and demand for hot water 	
	<ul style="list-style-type: none"> ▪ water supply and demand figures for fire sprinkler system 	
	<ul style="list-style-type: none"> ▪ “U” / “R” factor for building envelope components 	
4.07	General design approach for each system. For <u>example</u> :	
	<ul style="list-style-type: none"> ▪ medium and means for building heating (steam, hot water, forced warm air, unit heaters, etc.) and cooling (chilled water, direct expansion, etc.) 	
	<ul style="list-style-type: none"> ▪ description of proposed air conditioning system(s), such as custom air handling units, variable air volume (VAV), fan coil units, etc. 	
	<ul style="list-style-type: none"> ▪ HVAC zoning requirements 	
	<ul style="list-style-type: none"> ▪ means of complying with the requirements for ventilation and thermal comfort 	
	<ul style="list-style-type: none"> ▪ means of supplying hot water (steam conversion, HHW, solar, etc.) 	
	<ul style="list-style-type: none"> ▪ fire detection and alarm system(s) 	
5.00	Systems – Telecommunications, Audio/Visual, Security	

	Code Compliance	
0.00	Administrative/General	
0.01	A listing of environmental permits that will be required	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
2.01	General description of building circulation, egress, and means of horizontal & vertical conveyance	
2.02	Complete listing of – and strategies for compliance with – applicable building, life safety, and accessibility codes, standards, and policies	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	Narrative description of sprinkler system type (wet or dry), plus volume & pressure criteria and identification of special systems (carbon dioxide, foam, etc.)	
5.00	Systems – Telecommunications, Audio/Visual, Security	

	Compliance with BPA Standards	
0.00	Administrative/General	
0.01	Itemization of applicable FPP codes & standards	
1.00	Master Plan / Site / Utilities	



Ross FSB

Design Submittal Requirements

February 2017

2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	Narrative description of security needs, including access control, CCTV, and special requirements such as NERC-CIP requirements	

	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	General project description, including functions and users to be housed in the facility	
0.02	Relevant user and occupancy data - # of occupants, # of users, hours of operation, special needs, etc.	
0.03	Special needs or conditions related to the facility's use, function, or performance and the means of meeting those needs or dealing with those conditions	
0.04	Other narratives, data, or other documentation as needed to convey design strategies that will satisfy the goals & requirements outlined in Facility Asset Strategies or Plans	
0.05	Acknowledgement of relevant any Master Plan or Program elements & policies and site/building design strategies for compliance therewith	
0.06	Future expansion or construction to be accommodated, if any	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	Narrative summary of the requirements and strategies for metering and Building Automation System controls, including reporting, measurement & verification, sequence(s) of operations, and estimated # of points	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	Narrative summary of needs for voice and data outlets for both occupants & users and building systems; wireless access goals & requirements;	
5.02	Narrative description of the structured cabling system; general strategies and requirements for entrance and "satellite" telecomm rooms; delineation of contractor-furnished and BPA-furnished equipment	
5.03	Outline of CATV needs and available/proposed source(s)	
5.04	Narrative description of audio/visual requirements, equipment, and controls by space type, along with confirmation of equipment & systems to be provided and installed as part of construction	



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Phase 1B: Conceptual Design

(CD) [15% design definition]

0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>initial or updated from Program Planning phase if one was developed</i>)	
0.02	Quality Control statement confirming QC actions taken	
0.03	Updated Master Plan checklist (where applicable)	
1.00	Master Plan / Site / Utilities	
1.01	Topographic survey of the site, Survey shall illustrate and identify:	
1.0101	▪ existing benchmarks and horizontal control on site	
1.0102	▪ existing grades/contours and key spot elevations.	
1.0103	▪ elevation of bodies of water with date of observation listed.	
1.0104	▪ adjacent buildings, circulation paths, curb & gutter, hardscape, light fixtures, site furnishings, signage, and other above-ground structures and features within survey project limits or that are anticipated to effect design of the project site	
1.0105	▪ location, size, type of all piping, mains, sewers, poles, wires, hydrants, and manholes upon, over, or beneath the site.	
1.0106	▪ existing trees 3" or more in diameter, with size (DBH in inches) and illustrate full canopy to "drip line." (a single canopy line is sufficient for tree groupings with a continuous canopy around the perimeter of the grouping)	
1.0107	▪ areas of significant landscaping.	
1.0108	▪ existing conservation areas, areas of archeological significance, and other environmental constraints based on existing information.	
1.0200	Conceptual site plan, including:	
1.0201	▪ (for each preliminary concept) building footprint and orientation, or alternatives for same that illustrate optimization of accessibility, shading, and other building performance measures	
1.0202	▪ general concepts for site demolition and tree impact, site use, and site development	
1.0203	▪ conceptual provisions for accessibility, circulation of pedestrians and service & emergency access, parking (if any), and waste management & recycling facilities	



1.0204	▪ projected paths for utilities infrastructure and stormwater management structures	
1.0204	▪ relevant information from the survey, including existing trees and utilities	
2.00	Architectural and Building Envelope	
2.01	For each preliminary concept, floor plans – or floor plan options – for each level NOTE: For renovations, illustrate existing to remain and to be removed or renovated	
2.02	For each preliminary concept, identification of all stairs, elevators, and equipment/support spaces	
2.03	For each preliminary concept, at least two sections, perpendicular to each other at same scale as plan/block diagrams, to establish vertical control	
2.04	Exterior elevations and/or renderings to illustrate massing, scale, and context	
2.05	For additions or renovations, measured drawings showing existing and proposed facilities in their relative arrangement and relationship	
3.00	Structural	
3.01	{CD requirements covered by BOD}	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	{CD requirements covered by BOD and “Master Plan / Site / Utilities”}	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	{CD requirements covered by BOD and “Master Plan / Site / Utilities”}	
6.00	Furnishings	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	A listing of codes with which the project design will comply	
0.02	Data, reports, drawings, and other documents related to environmental permitting requirements	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	



Ross FSB

Design Submittal Requirements

February 2017

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	Space Summary and Area Calculation – Validation of the Program Summary	
0.02	If conservation or historical interests apply confirmation that the SHPO has been contacted and that any conflicts between the project and conservation or historical interests are being resolved	
0.03	Appendix – Facility users directives, meeting minutes and correspondence, graphical data, functional diagrams, benchmarking data (if any), current design schedule and other relevant information or documents from the CD phase	
0.04	Updated project cost estimate including all internal (BPA) and external costs associated with Design, Constructing, Furnishing and Occupying the building.	
1.00	Master Plan / Site / Utilities	
1.01	A map or drawing to illustrate the Future Land Use and Future Building Sites identified in the Master Plan where applicable relative to the site and design concept.	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	
6.01	Tabular or narrative description of the types of furnishings & equipment to be:	
6.0101	▪ furnished & installed by the builder or BPA-furnished, builder-installed	
6.0102	▪ BPA-furnished and BPA-installed	



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Ross FSB

Design Submittal Requirements

February 2017

THIS SHEET INTENTIONALLY LEFT BLANK



Phase 2: Schematic Design

(SD) [30% design definition]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from CD phase</i>)	
0.02	Space Summary and Area Calculation	
0.03	Geotechnical Survey	
1.00	Master Plan / Site / Utilities	
1.01	Topographic and geotechnical surveys if not included with CD submittal – see above	
1.0200	Updated site plan, including:	
1.0201	▪ building footprint & orientation	
1.0202	▪ existing and proposed grades/contours	
1.0203	▪ provisions for accessibility, circulation, and parking (if any)	
1.0204	▪ site development work related to service & loading; traffic, circulation, and parking of emergency, service, and other vehicles & pedestrian facilities; disability accessibility; and waste management	
1.0205	▪ relevant information from the survey, including existing trees and utilities	
1.03	Schematic site demolition and tree impact plans, if applicable, that illustrate all removals of natural or manmade features; include a tree removal table that itemizes the quantity and size of all trees proposed to be removed	
1.04	Schematic site utilities plan(s) to illustrate the routing, size, and types of utility distribution and stormwater collection structures	
1.05	Schematic landscaping/planting plan	
1.06	Updated map or drawing to illustrate Master Plan Future Land Use and Future Building Sites – see above	
2.00	Architectural and Building Envelope	
2.01	Updated floor plans for each level indicating all net assignable and net non-assignable spaces, including horizontal and vertical circulation, M/E/P/FP/T support spaces, janitorial and waste/recycling areas, and loading areas/docks	
2.02	Preliminary roof plan(s) to generally illustrate slopes, materials, drainage, etc.	



Ross FSB

Design Submittal Requirements

February 2017

2.03	Preliminary life safety plans indicating class of construction, occupancy classification(s), paths of egress, exit widths, smoke partitions, fire ratings for walls, doors, and other openings, smoke control systems, rated assembly details, and a listing of codes with which the design will comply	
2.04	At least two sections, transverse and longitudinal to establish vertical control and illustrate interior spaces and volumetric proportions	
2.05	Preliminary definition of interior partition types and materials	
2.06	Exterior elevations of all building sides to establish vertical control and illustrate materials, fenestrations, and openings	
2.07	Updated exterior renderings and/or perspectives to illustrate massing, scale, context, materials, and general appearance	
2.08	Schematic demolition plans for renovation/rehabilitation projects	
3.00	Structural	
3.01	Structural framing plans that indicate primary vertical and horizontal structure, including schematic foundation plan	
3.02	Identification of any special conditions or provisions, such as deep (pile) foundations	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	Mechanical plans showing the size, material, and routing of HVAC and piping systems, plus the schematic layout of primary equipment and mechanical rooms	
4.02	Preliminary/outline sequence(s) of operations for BAS/EMCS controls	
4.03	Electrical (power) plans showing primary and secondary power distribution, locations and schematic arrangement of primary equipment (transformers, switchgear, etc.), and location and layout of electrical rooms and panelboards	
4.04	Schematic electrical plans for fire alarm and lighting systems	
4.05	Plumbing plans showing horizontal and vertical collection and distribution systems (including roof drains), primary equipment, and chases	
4.06	Fire protection plans showing pipe entry to building and major equipment, such as fire pump and backflow preventers. <i>NOTE: Design Professional shall determine source, availability, and adequacy of fire protection water supply</i>	
4.07	Sprinkler system design criteria	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	Telecommunications floor plans showing primary (entrance) and secondary telecomm rooms, vertical and horizontal distribution, and work area outlets	
5.02	Preliminary audio/visual plans and equipment schedules/details	



Ross FSB

Design Submittal Requirements

February 2017

5.03	Preliminary security plans and equipment schedules/details	
6.00	Furnishings	
6.01	Preliminary furnishings plan(s)	
6.02	Updated tabular or narrative descriptions of F&E to be contractor-installed and those to be BPA-installed	
7.00	Specifications	
7.01	Table of Contents identifying all contemplated technical and non-technical specs in CSI format	
7.02	Draft technical specifications for materials, systems, and equipment known to be settled ... for example, elevators	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	Data, reports, drawings, and other documents related to environmental permitting requirements	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	<applicable standard>-compliant energy models for baseline and proposed facility, including executive summary and all output & input data	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	SME Drawing Review Comments from previous phase	
0.02	Quality Control statement confirming QC actions taken	



Ross FSB

Design Submittal Requirements

February 2017

0.03	Updated Master Plan checklist (where applicable)	
0.04	Appendix – User directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule and other relevant information or documents from the SD phase	
0.05	Updated project cost estimate including all internal (BPA) and external costs associated with Design, Constructing, Furnishing and Occupying the building.	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Phase 3: Design Development

(DD) [60% design effort]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from SD phase</i>)	
0.02	Space Summary and Area Calculation	
1.00	Master Plan / Site / Utilities	
1.0100	Updated site plan, including:	
1.0101	▪ building footprint & orientation	
1.0102	▪ provisions for pedestrian circulation and facilities; disability accessibility; traffic, circulation, and parking of emergency, service, and other vehicles; building service & loading; and waste management	
1.0103	▪ hardscaping (sidewalks, pavers, etc.), and other site amenities & furnishings	
1.0104	▪ relevant information from the survey, including existing trees and utilities	
1.02	Site demolition and tree impact plans, if applicable, that illustrate all removals of natural or manmade features; include an updated tree removal table that itemizes the quantity, , size trees proposed to be removed	
1.03	Site utilities plan(s) to illustrate the routing from point of connection, size, and types of utility distribution structures, including fire protection specialties (hydrants, post indicator valves, fire department connections, etc.)	
1.04	Preliminary site lighting plan	
1.05	Schematic paving, grading, and drainage plan	
1.06	Updated landscaping/planting plan	
1.07	Preliminary plans for erosion and sedimentation control and compliance	
1.08	Updated map or drawing to illustrate the Future Land Use and Future Building Sites – see above	
2.00	Architectural and Building Envelope	
2.01	Updated floor plans for each proposed level	
2.02	Roof plans showing all slopes, drainage, materials, and roof-mounted equipment (if any)	
2.03	Updated exterior elevations of all building sides	
2.04	Updated exterior renderings, perspectives, and/or models	



Ross FSB

Design Submittal Requirements

February 2017

2.05	Renderings of all significant public spaces, including exterior public plazas and primary entry lobbies to accurately portray scale, context, finishes, and light sources	
2.06	Transverse and lateral building sections indicating finished floor elevation of each level, floor-to-floor heights, vertical circulation, and interior space relationships	
2.07	Preliminary sections through stairs and elevator shafts	
2.08	Preliminary roof details	
2.09	Preliminary wall sections and details as needed to identify building envelope materials, waterproofing and fireproofing, and construction	
2.10	Updated and refined details & definitions for interior partitions	
2.11	Preliminary schedules and details for interior and exterior openings (windows, doors, louvers)	
2.12	Preliminary reflected ceiling plans to illustrate ceiling heights and materials	
2.13	Preliminary finish schedule to identify wall, ceiling, floor, and base materials by room	
2.14	Preliminary color/finishes boards to illustrate the color and type of interior finishes	
2.15	Updated demolition plans for renovation/rehabilitation projects	
3.00	Structural	
3.01	Structural "title sheet" with design criteria and loads, construction notes, etc.	
3.02	Revised and further detailed foundation plan, including preliminary schedule(s) for footings, grade beams, stem walls, piles, etc.	
3.03	Revised and further detailed horizontal framing/slab plans that indicate type, size, length, and spacing of principal members; size and elevation of slabs; size and framing details for slab openings, etc.	
3.04	Revised and further detailed vertical framing plans that indicate type, size, length, and spacing of principal members and components	
3.05	Preliminary roof framing plans, including draft truss schedule if applicable	
3.06	Preliminary structural building sections, transverse and longitudinal	
3.07	Schedules for columns, beams, shear walls	
3.08	Typical/standard construction details for structural systems, components, connections	
3.09	Further development of any special conditions such as moment connections	
4.00	Systems – M/E/P, Fire Protection, BAS	



Ross FSB

Design Submittal Requirements

February 2017

4.01	Revised and further detailed mechanical plans for HVAC and piping systems, equipment, and mechanical rooms	
4.02	Preliminary riser diagrams	
4.03	Preliminary mechanical schedules for equipment (AHUs, FCUs, fans, etc.) and fixtures (diffusers, louvers, etc.)	
4.04	Refined sequence(s) of operations for BAS/EMCS controls	
4.05	Revised and further detailed electrical (power) plans and riser diagrams to illustrate primary and secondary power distribution, equipment, panelboards, and electrical rooms	
4.06	Preliminary power plans to indicate convenience, equipment, floor boxes, and special-purpose receptacles	
4.07	Revised and further detailed electrical plans for fire alarm, lighting, and lighting control systems	
4.08	Preliminary schedules for panelboards, lighting fixtures, other electrical equipment	
4.09	Preliminary details for grounding, lightning protection, and emergency power systems	
4.10	Revised and further detailed plumbing plans illustrating waste, domestic hot and cold water, (roof) stormwater, equipment, and chases	
4.11	Revised and further detailed fire sprinkler plans, including fire pump, backflow preventer(s), risers, standpipes, hose cabinets	
4.12	Revised sprinkler system design criteria and preliminary hydraulic calculations	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	Revised and further detailed telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, work area outlets, and floor boxes	
5.02	Updated and further detailed audio/visual plans and equipment schedules/details	
5.03	Updated and further detailed security plans and equipment schedules/details	
6.00	Furnishings	
6.01	Updated furnishings plan(s), with distinctions made between fixed and moveable, and between those to be provided and installed (or BPA-furnished, builder-installed) as part of construction and those provided by the BPA after construction	
7.00	Specifications	



Ross FSB

Design Submittal Requirements

February 2017

7.01	Updated Table of Contents identifying all contemplated technical and non-technical specs	
7.02	Draft (outline) technical specifications in 3-part, CSI format	
7.03	Draft project-specific list of O&M documents, Owner training, attic stock, and other closeout requirements to be specified in the CDs using FPP's "Closeout RACI and Deliverables Matrix"	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	Data, reports, drawings, and other documents related to environmental permitting requirements	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
2.01	Updated life safety plans – see above	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	SME Drawing Review Comments from previous phase	
0.02	Quality Control statement confirming QC actions taken	
0.03	Updated Campus Master Plan checklist	
0.04	Draft Measurement & Verification Plan (if applicable)	
0.05	Appendix – Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule, project team roster, and other relevant information or documents from the DD phase	



Ross FSB

Design Submittal Requirements

February 2017

0.06	Updated project cost estimate including all internal (BPA) and external costs associated with Design, Constructing, Furnishing and Occupying the building.	
0.07	Life-Cycle Cost Analysis	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Ross FSB

Design Submittal Requirements

February 2017

THIS SHEET INTENTIONALLY LEFT BLANK



Phase 4A: 90% Construction Documents

(CD90) [90% design effort]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from DD phase</i>)	
0.02	Space Summary and Area Calculation	
1.00	Master Plan / Site / Utilities	
1.01	Finalized site plan (see above)	
1.02	Site demolition and tree impact plans, if applicable, that illustrate all removals of natural or manmade features; include an updated tree removal table that itemizes the quantity, species, size, and health of all trees proposed to be removed	
1.03	Updated site utilities plan(s) that indicate material/structure type, size, depth, and conflicts. Complex areas with multiple utilities, stacked piping, and/or conflicts shall be illustrated using plan & profile drawings.	
1.04	Updated site lighting plan, coordinated with landscape plan	
1.05	Updated paving, grading, and drainage plan, including schedule of stormwater structures (new and existing)	
1.06	Updated landscaping/planting plan, with hardscape materials and site features & fixtures indicated	
1.07	Preliminary landscape irrigation plan, with connection(s) to water source(s) indicated	
2.00	Architectural and Building Envelope	
2.01	Updated floor plans for each proposed level	
2.02	Dimensioned roof plans showing all slopes, drainage, materials, roof-mounted equipment (if any), penetrations, hatches or ladders	
2.04	Updated exterior elevations of all building sides	
2.05	Updated exterior renderings, perspectives, and/or models	
2.06	Renderings of all significant public spaces, including exterior public plazas and primary entry lobbies to accurately portray scale, context, finishes, and light sources	
2.07	Transverse and lateral building sections indicating finished floor elevation of each level, floor-to-floor heights, vertical circulation, and interior space relationships	
2.08	Updated sections through stairs and elevator shafts (both directions), plus floor-by-floor plans for each stair	



Ross FSB

Design Submittal Requirements

February 2017

2.09	Updated roof details	
2.10	Updated building envelope sections and details as needed to identify the composition, dimensions, and construction of all exterior walls	
2.11	Details for flashing, waterproofing, damp-proofing, and fireproofing	
2.12	Details and enlarged elevations for cast stone or architectural precast, stucco, metal wall panels, and other exterior finishes	
2.13	Updated schedules and details for openings (windows, doors)	
2.14	Updated and refined details & definitions for interior partitions	
2.15	Updated reflected ceiling plans to illustrate ceiling heights, materials, and M/E/P/AV fixtures	
2.16	Updated finish schedule to identify wall, ceiling, floor, and base materials by room	
2.17	Dimensioned interior elevations and fixture/accessory schedules for all restrooms	
2.18	Casework and millwork details	
2.19	Updated color/finishes boards to illustrate the color and type of interior finishes	
2.20	Finalized demolition plans for renovation/rehabilitation projects	
3.00	Structural	
3.01	Structural "title sheet" with design criteria and loads, construction notes, etc.	
3.02	Revised and further detailed foundation plan, including schedule(s) for footings, grade beams, stem walls, piles, etc.	
3.03	Revised and further detailed horizontal framing/slab plans that indicate type, size, length, and spacing of principal members; size and elevation of slabs; size and framing details for slab openings, etc.	
3.04	Revised and further detailed vertical framing plans that indicate type, size, length, and spacing of principal members and components	
3.05	Updated roof framing plans, including truss schedule if applicable	
3.06	Updated structural building sections, transverse and longitudinal	
3.07	Updated schedules for columns, beams, shear walls	
3.08	Refined construction details for structural systems, components, connections	
3.09	Further development of any special conditions such as moment connections	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	Revised and further detailed mechanical plans for HVAC and piping systems, equipment, and mechanical rooms, including ductwork	



Ross FSB

Design Submittal Requirements

February 2017

4.02	Updated mechanical schedules for equipment (AHUs, FCUs, fans, etc.) and fixtures (diffusers, louvers, etc.)	
4.03	Above-ceiling sections for typical and congested areas to illustrate ceiling, structure (including fireproofing), piping (including insulation), ductwork, and other utilities and systems	
4.04	Refined sequence(s) of operations for BAS/EMCS controls	
4.05	Revised and further detailed electrical (power) plans and riser diagrams to illustrate primary and secondary power distribution, equipment, panelboards, and electrical rooms	
4.06	Preliminary power plans to indicate convenience, equipment, and special-purpose receptacles	
4.07	Details, enlarged plans, and schedules as needed to illustrate circuitry, pathways, wiring system(s), conductors, receptacles, switches, and exit signs	
4.08	Revised and further detailed electrical plans for fire alarm, lighting, and lighting control systems	
4.09	Updated schedules for panelboards, lighting fixtures, other electrical equipment	
4.10	Refined details for grounding, lightning protection, and emergency power systems	
4.11	Revised and further detailed plumbing plans illustrating waste, domestic hot and cold water, (roof) stormwater, equipment, and chases	
4.12	Plumbing fixture schedule	
4.13	Revised and further detailed fire sprinkler plans, including fire pump, backflow preventer(s), risers, standpipes, hose cabinets, sprinkler coverage, and protection for sprinkler pipes and heads located in unconditioned spaces	
4.14	Illustration(s) showing typical mounting heights for switches, receptacles, alarm devices, card readers, thermostats, and other wall-mounted devices	
4.15	Updated hydraulic calculations	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	Revised and further detailed telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, floor boxes, and work area outlets	
5.02	Updated and further detailed audio/visual plans and equipment schedules/details	
5.03	Updated and further detailed security plans and equipment schedules/details	



Ross FSB

Design Submittal Requirements

February 2017

6.00	Furnishings	
6.01	Updated furnishings plan(s), with distinctions made between fixed and moveable, and between those to be provided and installed (or BPA-furnished, builder-installed) as part of construction and those provided by the BPA after construction	
6.02	For Transmission System Building and spaces, clear indication of tools and equipment	
7.00	Specifications	
7.01	Table of Contents identifying all contemplated technical and non-technical specs	
7.02	Project-specific technical and non-technical specs	
7.03	Updated project-specific list of O&M documents, BPA training, attic stock, and other closeout requirements to be specified in the CDs using BPA "Project Closeout RACI and Deliverables Matrix"	
7.04	Draft special/threshold inspection plan for threshold buildings	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	Data, reports, drawings, and other documents related to environmental permitting requirements	
1.00	Master Plan / Site / Utilities	
1.01	Updated plans for erosion and sedimentation control and compliance	
2.00	Architectural and Building Envelope	
2.01	Updated life safety plans – see above	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	



Ross FSB

Design Submittal Requirements

February 2017

0.00 Compliance with Program Requirements

0.00 Administrative/General

- 0.01 SME Drawing Review Comments from previous phase
- 0.02 Quality Control statement confirming QC actions taken
- 0.03 Finalized Master Plan checklist (if applicable)
- 0.04 Updated Measurement & Verification Plan (if applicable)
- 0.05 Quality Control statement confirming QC actions taken

1.00 Master Plan / Site / Utilities

2.00 Architectural and Building Envelope

3.00 Structural

4.00 Systems – M/E/P, Fire Protection, BAS

- 4.01 Finalized project-specific list of closeout deliverables, including O&M documents, Owner training, and attic stock

5.00 Systems – Telecommunications, Audio/Visual, Security

6.00 Furnishings



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Ross FSB

Design Submittal Requirements

February 2017

THIS SHEET INTENTIONALLY LEFT BLANK



Phase 4B: 100% Construction Documents

(CD100) [100% design effort]

0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Basis of Design (<i>updated from 90% CDs phase</i>)	
0.02	Space Summary and Area Calculation	
0.03	Statement of Work and Specifications for bidding	
1.00	Master Plan / Site / Utilities	
1.01	Finalized site plan (see above)	
1.02	Finalized site demolition and tree impact plans, if applicable (see above)	
1.03	Finalized site utilities plan(s) – see above	
1.04	Finalized site lighting plan, plus photometric analysis	
1.05	Finalized paving, grading, and drainage plan (see above)	
1.06	Finalized landscaping/planting plan, with hardscape materials and site features & fixtures indicated	
1.07	Finalized and fully detailed landscape irrigation plan, coordinated with electrical for irrigation controller power	
2.00	Architectural and Building Envelope	
2.01	Finalized dimensioned floor plans (see above), including dimensions of any non-right angles, spring points for arcs, radii, etc.	
2.02	Finalized roof plans (see above)	
2.03	Signage and graphics plans including room identification and numbering, directional, way-finding, HAZMAT, and Disability or other signage required by code, standards or policy	
2.04	Finalized exterior elevations	
2.05	Finalized exterior renderings, perspectives, and/or models	
2.06	Finalized renderings of all significant public spaces, including exterior public plazas and primary entry lobbies to accurately portray scale, context, finishes, and light sources	
2.07	Finalized building sections (see above)	
2.08	Finalized sections through stairs and elevator shafts	
2.09	Finalized floor-by-floor stair plans, dimensioned	
2.10	Finalized roof details	
2.11	Final exterior wall sections and details, fully dimensioned	
2.12	Finalized details and enlarged elevations for all exterior finishes, such as cast stone, architectural precast, stucco, and metal wall panels	



Ross FSB

Design Submittal Requirements

February 2017

2.13	Finalized details for flashings, waterproofing, damp-proofing, and fireproofing	
2.14	Finalized schedules and details for openings (windows, doors)	
2.15	Finalized details & definitions for interior partitions	
2.16	Finalized reflected ceiling plans (see above)	
2.17	Finalized finish schedule to identify wall, ceiling, floor, and base materials by room	
2.18	Dimensioned interior elevations and fixture/accessory schedules for all restrooms	
2.19	Casework and millwork details	
2.20	Updated color/finishes boards to illustrate the color and type of interior finishes	
2.21	Finalized demolition plans for renovation/rehabilitation projects	
3.00	Structural	
3.01	Structural "title sheet" with design criteria and loads, construction notes, etc.	
3.02	Finalized foundation plan, including complete schedule(s) for footings, grade beams, stem walls, piles, etc.	
3.03	Finalized horizontal framing/slab plans that indicate type, size, length, and spacing of principal members; size and elevation of slabs; size and framing details for slab openings, etc.	
3.04	Final detailed vertical framing plans that indicate type, size, length, and spacing of principal members and components	
3.05	Finalized roof framing plans, including draft truss schedule if applicable	
3.06	Finalized schedules for columns, beams, shear walls	
3.07	Finalized structural building sections, transverse and longitudinal	
3.08	Finalized construction details for structural systems, components, connections	
3.09	Complete development and detailing of any special conditions such as moment connections	
3.10	Illustration of control joints	
3.11	Identification and detailing of sleeves through structure, if any	
4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	Revised and further detailed mechanical plans for HVAC and piping systems, equipment, and mechanical rooms, including ductwork	
4.02	Updated mechanical schedules for equipment (AHUs, FCUs, fans, etc.) and fixtures (diffusers, louvers, etc.)	



Ross FSB

Design Submittal Requirements

February 2017

4.03	Finalized above-ceiling sections for typical and congested areas (see above)	
4.04	Refined sequence(s) of operations for BAS/EMCS controls	
4.05	Revised and further detailed electrical (power) plans and riser diagrams to illustrate primary and secondary power distribution, equipment, panelboards, and electrical rooms	
4.06	Finalized power plans to indicate convenience, equipment, and special-purpose receptacles	
4.07	Details, enlarged plans, and schedules as needed to illustrate circuitry, pathways, wiring system(s), conductors, receptacles, switches, and exit signs	
4.08	Finalized and further detailed electrical plans for fire alarm, lighting, and lighting control systems	
4.09	Finalized schedules for panelboards, lighting fixtures, other electrical equipment	
4.10	Finalized details for grounding, lightning protection, and emergency power systems	
4.11	Finalized plumbing (see above)	
4.12	Finalized plumbing fixture schedule	
4.13	Complete and finalized fire sprinkler plans, plus finalized hydraulic calculations	
5.00	Systems – Telecommunications, Audio/Visual, Security	
5.01	Finalized telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, and work area outlets	
5.02	Finalized audio/visual plans and equipment schedules/details	
5.03	Finalized security plans and equipment schedules/details	
6.00	Furnishings	
6.01	Finalized furnishings plan(s), with distinctions made between fixed and moveable, and between those to be provided and installed (or BPA-furnished, builder-installed) as part of construction and those provided by BPA after construction	
6.02	For Transmission System Buildings and spaces, clear indication of tools and equipment	
7.00	Specifications	
7.01	Table of Contents identifying all technical and non-technical specs	
7.02	Revised and finalized technical and non-technical specs, including identification of closeout deliverable requirements from “Project Closeout RACI and Deliverables Matrix”	



Ross FSB

Design Submittal Requirements

February 2017

7.03	Finalized project-specific list of O&M documents, BPA training, attic stock, and other closeout requirements specified in the CDs using "Project Closeout RACI and Deliverables Matrix"	
7.04	Finalized special/threshold inspection plan for threshold buildings	

0.00	Code Compliance	
0.00	Administrative/General	
0.01	Data, reports, drawings, and other documents related to environmental permitting requirements	
1.00	Master Plan / Site / Utilities	
1.01	Updated plans for erosion and sedimentation control and compliance	
2.00	Architectural and Building Envelope	
2.01	Finalized life safety plans (see above), along with UL-listed fire rating details	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	SME Drawing Review Comments from previous phase	
0.02	Quality Control statement confirming QC actions taken	
0.03	Updated Measurement & Verification Plan (if applicable)	
0.04	Draft Commissioning Plan	
0.05	AutoCAD copies of the site plan and floor plans	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	



Ross FSB

Design Submittal Requirements

February 2017

4.00	Systems – M/E/P, Fire Protection, BAS	
4.01	BPA-provided Facilities Classification for Energy Consumption form – completed and signed by the (mechanical) engineer of record	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Ross FSB

Design Submittal Requirements

February 2017

THIS SHEET INTENTIONALLY LEFT BLANK



Phase 5: Issued for Construction

(IFC)

0.0	Quality Item	Y/N
0.00	Technical Completeness and Coordination	
0.00	Administrative/General	
0.01	Documents corrected for any annotations for 100% CD review	
0.02	Final printed documents signed and sealed by a registered design professional	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Code Compliance	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with BPA Standards	
0.00	Administrative/General	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	

0.00	Compliance with Program Requirements	
0.00	Administrative/General	
0.01	SME Drawing Review Comments from previous phase	
0.02	Distribute digital and hard copies	



Ross FSB

Design Submittal Requirements

February 2017

0.03	Submitted drawings archived in the vault and ProjectWise property attribute files update	
1.00	Master Plan / Site / Utilities	
2.00	Architectural and Building Envelope	
3.00	Structural	
4.00	Systems – M/E/P, Fire Protection, BAS	
5.00	Systems – Telecommunications, Audio/Visual, Security	
6.00	Furnishings	



Ross FSB

Design Submittal Requirements

February 2017

No.	Other Quality Items	Y/N

No.	Explanation for "No" Responses*	

*Additional pages as required

Submittal Signatures
Contractor

Company Name

Principal in Charge

Contractor Signature

Date

BPA Acceptance

COTR Name

COTR Signature

Date



Ross FSB

Design Submittal Requirements

February 2017

Quality Assurance Review Signatures			Tech	Code	BPA	PgM
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Org/Company Name	Name	Date				
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WD 15-5563 (Rev.-1) was first posted on www.wdol.gov on 01/17/2017

REGISTER OF WAGE DETERMINATIONS UNDER		U.S. DEPARTMENT OF LABOR
THE SERVICE CONTRACT ACT		EMPLOYMENT STANDARDS ADMINISTRATION
By direction of the Secretary of Labor		WAGE AND HOUR DIVISION
		WASHINGTON D.C. 20210

Daniel W. Simms	Division of	Wage Determination No.: 2015-5563
Director	Wage Determinations	Revision No.: 1
		Date Of Revision: 01/12/2017

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

States: Oregon, Washington

Area: Oregon Counties of Clackamas, Columbia, Multnomah, Washington, Yamhill
Washington Counties of Clark, Skamania

Fringe Benefits Required Follow the Occupational Listing		
OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		14.96
01012 - Accounting Clerk II		16.80
01013 - Accounting Clerk III		19.91
01020 - Administrative Assistant		23.84
01035 - Court Reporter		19.88
01041 - Customer Service Representative I		13.73
01042 - Customer Service Representative II		15.43
01043 - Customer Service Representative III		16.83
01051 - Data Entry Operator I		13.02
01052 - Data Entry Operator II		14.28
01060 - Dispatcher, Motor Vehicle		19.88
01070 - Document Preparation Clerk		14.71
01090 - Duplicating Machine Operator		14.71
01111 - General Clerk I		13.18
01112 - General Clerk II		14.37
01113 - General Clerk III		17.33
01120 - Housing Referral Assistant		20.42
01141 - Messenger Courier		15.53
01191 - Order Clerk I		14.32
01192 - Order Clerk II		16.53
01261 - Personnel Assistant (Employment) I		15.71
01262 - Personnel Assistant (Employment) II		19.59
01263 - Personnel Assistant (Employment) III		20.55
01270 - Production Control Clerk		22.23
01290 - Rental Clerk		15.98
01300 - Scheduler, Maintenance		16.38
01311 - Secretary I		16.38
01312 - Secretary II		18.32

01313 - Secretary III	20.42
01320 - Service Order Dispatcher	17.40
01410 - Supply Technician	23.84
01420 - Survey Worker	19.88
01460 - Switchboard Operator/Receptionist	14.41
01531 - Travel Clerk I	13.60
01532 - Travel Clerk II	16.64
01533 - Travel Clerk III	15.93
01611 - Word Processor I	14.37
01612 - Word Processor II	16.14
01613 - Word Processor III	19.59
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	19.95
05010 - Automotive Electrician	19.90
05040 - Automotive Glass Installer	18.97
05070 - Automotive Worker	18.97
05110 - Mobile Equipment Servicer	17.05
05130 - Motor Equipment Metal Mechanic	21.03
05160 - Motor Equipment Metal Worker	18.97
05190 - Motor Vehicle Mechanic	21.03
05220 - Motor Vehicle Mechanic Helper	16.04
05250 - Motor Vehicle Upholstery Worker	18.04
05280 - Motor Vehicle Wrecker	18.97
05310 - Painter, Automotive	19.90
05340 - Radiator Repair Specialist	18.97
05370 - Tire Repairer	14.74
05400 - Transmission Repair Specialist	21.03
07000 - Food Preparation And Service Occupations	
07010 - Baker	13.87
07041 - Cook I	14.02
07042 - Cook II	15.74
07070 - Dishwasher	9.93
07130 - Food Service Worker	11.06
07210 - Meat Cutter	17.81
07260 - Waiter/Waitress	10.50
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	16.58
09040 - Furniture Handler	11.96
09080 - Furniture Refinisher	16.85
09090 - Furniture Refinisher Helper	13.62
09110 - Furniture Repairer, Minor	15.32
09130 - Upholsterer	16.58
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	11.67
11060 - Elevator Operator	12.49
11090 - Gardener	16.58
11122 - Housekeeping Aide	12.49
11150 - Janitor	12.49
11210 - Laborer, Grounds Maintenance	13.16
11240 - Maid or Houseman	11.47
11260 - Pruner	12.06
11270 - Tractor Operator	16.04
11330 - Trail Maintenance Worker	13.16
11360 - Window Cleaner	13.68
12000 - Health Occupations	
12010 - Ambulance Driver	20.59
12011 - Breath Alcohol Technician	20.59
12012 - Certified Occupational Therapist Assistant	24.78
12015 - Certified Physical Therapist Assistant	24.18
12020 - Dental Assistant	19.49
12025 - Dental Hygienist	36.69

12030 - EKG Technician	32.62
12035 - Electroneurodiagnostic Technologist	32.62
12040 - Emergency Medical Technician	20.59
12071 - Licensed Practical Nurse I	19.65
12072 - Licensed Practical Nurse II	21.98
12073 - Licensed Practical Nurse III	24.51
12100 - Medical Assistant	16.70
12130 - Medical Laboratory Technician	20.05
12160 - Medical Record Clerk	15.75
12190 - Medical Record Technician	17.62
12195 - Medical Transcriptionist	19.98
12210 - Nuclear Medicine Technologist	41.69
12221 - Nursing Assistant I	10.35
12222 - Nursing Assistant II	11.63
12223 - Nursing Assistant III	12.68
12224 - Nursing Assistant IV	14.25
12235 - Optical Dispenser	17.51
12236 - Optical Technician	15.09
12250 - Pharmacy Technician	17.09
12280 - Phlebotomist	14.25
12305 - Radiologic Technologist	33.05
12311 - Registered Nurse I	29.04
12312 - Registered Nurse II	35.53
12313 - Registered Nurse II, Specialist	35.53
12314 - Registered Nurse III	42.99
12315 - Registered Nurse III, Anesthetist	42.99
12316 - Registered Nurse IV	51.52
12317 - Scheduler (Drug and Alcohol Testing)	25.52
12320 - Substance Abuse Treatment Counselor	20.16
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	21.73
13012 - Exhibits Specialist II	26.93
13013 - Exhibits Specialist III	31.53
13041 - Illustrator I	18.35
13042 - Illustrator II	22.74
13043 - Illustrator III	27.81
13047 - Librarian	28.75
13050 - Library Aide/Clerk	14.88
13054 - Library Information Technology Systems Administrator	25.96
13058 - Library Technician	17.07
13061 - Media Specialist I	18.74
13062 - Media Specialist II	20.97
13063 - Media Specialist III	23.36
13071 - Photographer I	16.64
13072 - Photographer II	18.61
13073 - Photographer III	23.06
13074 - Photographer IV	28.20
13075 - Photographer V	34.12
13090 - Technical Order Library Clerk	19.68
13110 - Video Teleconference Technician	19.06
14000 - Information Technology Occupations	
14041 - Computer Operator I	16.61
14042 - Computer Operator II	18.58
14043 - Computer Operator III	20.71
14044 - Computer Operator IV	23.01
14045 - Computer Operator V	25.49
14071 - Computer Programmer I	(see 1) 21.11
14072 - Computer Programmer II	(see 1) 26.16
14073 - Computer Programmer III	(see 1)
14074 - Computer Programmer IV	(see 1)

14101 - Computer Systems Analyst I	(see 1)	
14102 - Computer Systems Analyst II	(see 1)	
14103 - Computer Systems Analyst III	(see 1)	
14150 - Peripheral Equipment Operator		16.61
14160 - Personal Computer Support Technician		23.01
14170 - System Support Specialist		28.19
15000 - Instructional Occupations		
15010 - Aircrew Training Devices Instructor (Non-Rated)		28.93
15020 - Aircrew Training Devices Instructor (Rated)		35.01
15030 - Air Crew Training Devices Instructor (Pilot)		41.96
15050 - Computer Based Training Specialist / Instructor		28.93
15060 - Educational Technologist		33.06
15070 - Flight Instructor (Pilot)		41.96
15080 - Graphic Artist		22.85
15085 - Maintenance Test Pilot, Fixed, Jet/Prop		41.96
15086 - Maintenance Test Pilot, Rotary Wing		41.96
15088 - Non-Maintenance Test/Co-Pilot		41.96
15090 - Technical Instructor		22.43
15095 - Technical Instructor/Course Developer		27.45
15110 - Test Proctor		18.92
15120 - Tutor		18.92
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations		
16010 - Assembler		10.86
16030 - Counter Attendant		10.86
16040 - Dry Cleaner		13.64
16070 - Finisher, Flatwork, Machine		10.86
16090 - Presser, Hand		10.86
16110 - Presser, Machine, Drycleaning		10.86
16130 - Presser, Machine, Shirts		10.86
16160 - Presser, Machine, Wearing Apparel, Laundry		10.86
16190 - Sewing Machine Operator		14.51
16220 - Tailor		15.09
16250 - Washer, Machine		11.77
19000 - Machine Tool Operation And Repair Occupations		
19010 - Machine-Tool Operator (Tool Room)		21.40
19040 - Tool And Die Maker		26.82
21000 - Materials Handling And Packing Occupations		
21020 - Forklift Operator		16.38
21030 - Material Coordinator		21.65
21040 - Material Expediter		21.65
21050 - Material Handling Laborer		13.22
21071 - Order Filler		13.85
21080 - Production Line Worker (Food Processing)		16.38
21110 - Shipping Packer		15.30
21130 - Shipping/Receiving Clerk		15.30
21140 - Store Worker I		13.72
21150 - Stock Clerk		18.05
21210 - Tools And Parts Attendant		16.38
21410 - Warehouse Specialist		16.38
23000 - Mechanics And Maintenance And Repair Occupations		
23010 - Aerospace Structural Welder		28.39
23019 - Aircraft Logs and Records Technician		23.70
23021 - Aircraft Mechanic I		26.93
23022 - Aircraft Mechanic II		28.39
23023 - Aircraft Mechanic III		29.84
23040 - Aircraft Mechanic Helper		20.63
23050 - Aircraft, Painter		24.87
23060 - Aircraft Servicer		23.70
23070 - Aircraft Survival Flight Equipment Technician		24.87
23080 - Aircraft Worker		25.18
23091 - Aircrew Life Support Equipment (ALSE) Mechanic		25.18

I		
23092	- Aircrew Life Support Equipment (ALSE) Mechanic	26.93
II		
23110	- Appliance Mechanic	17.48
23120	- Bicycle Repairer	13.76
23125	- Cable Splicer	34.74
23130	- Carpenter, Maintenance	22.31
23140	- Carpet Layer	21.76
23160	- Electrician, Maintenance	32.99
23181	- Electronics Technician Maintenance I	23.63
23182	- Electronics Technician Maintenance II	26.87
23183	- Electronics Technician Maintenance III	28.38
23260	- Fabric Worker	22.59
23290	- Fire Alarm System Mechanic	23.07
23310	- Fire Extinguisher Repairer	20.85
23311	- Fuel Distribution System Mechanic	26.01
23312	- Fuel Distribution System Operator	20.38
23370	- General Maintenance Worker	19.49
23380	- Ground Support Equipment Mechanic	26.93
23381	- Ground Support Equipment Servicer	23.70
23382	- Ground Support Equipment Worker	25.18
23391	- Gunsmith I	20.85
23392	- Gunsmith II	23.70
23393	- Gunsmith III	26.61
23410	- Heating, Ventilation And Air-Conditioning Mechanic	23.42
23411	- Heating, Ventilation And Air Contditioning Mechanic (Research Facility)	24.70
23430	- Heavy Equipment Mechanic	24.02
23440	- Heavy Equipment Operator	25.84
23460	- Instrument Mechanic	29.44
23465	- Laboratory/Shelter Mechanic	25.18
23470	- Laborer	12.87
23510	- Locksmith	18.24
23530	- Machinery Maintenance Mechanic	25.29
23550	- Machinist, Maintenance	25.12
23580	- Maintenance Trades Helper	14.74
23591	- Metrology Technician I	29.44
23592	- Metrology Technician II	31.01
23593	- Metrology Technician III	32.60
23640	- Millwright	28.28
23710	- Office Appliance Repairer	20.53
23760	- Painter, Maintenance	18.24
23790	- Pipefitter, Maintenance	34.05
23810	- Plumber, Maintenance	30.39
23820	- Pneudraulic Systems Mechanic	26.61
23850	- Rigger	24.74
23870	- Scale Mechanic	23.70
23890	- Sheet-Metal Worker, Maintenance	24.40
23910	- Small Engine Mechanic	16.36
23931	- Telecommunications Mechanic I	28.57
23932	- Telecommunications Mechanic II	30.12
23950	- Telephone Lineman	24.08
23960	- Welder, Combination, Maintenance	21.08
23965	- Well Driller	24.60
23970	- Woodcraft Worker	26.61
23980	- Woodworker	16.06
24000	- Personal Needs Occupations	
24550	- Case Manager	15.33
24570	- Child Care Attendant	11.08
24580	- Child Care Center Clerk	14.34

24610 - Chore Aide	11.10
24620 - Family Readiness And Support Services Coordinator	15.33
24630 - Homemaker	16.21
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	28.70
25040 - Sewage Plant Operator	24.43
25070 - Stationary Engineer	28.70
25190 - Ventilation Equipment Tender	20.98
25210 - Water Treatment Plant Operator	24.43
27000 - Protective Service Occupations	
27004 - Alarm Monitor	23.43
27007 - Baggage Inspector	13.41
27008 - Corrections Officer	26.05
27010 - Court Security Officer	28.02
27030 - Detection Dog Handler	16.79
27040 - Detention Officer	26.05
27070 - Firefighter	26.29
27101 - Guard I	13.41
27102 - Guard II	16.79
27131 - Police Officer I	30.39
27132 - Police Officer II	33.77
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	13.01
28042 - Carnival Equipment Repairer	13.82
28043 - Carnival Worker	10.60
28210 - Gate Attendant/Gate Tender	16.16
28310 - Lifeguard	12.65
28350 - Park Attendant (Aide)	18.07
28510 - Recreation Aide/Health Facility Attendant	12.93
28515 - Recreation Specialist	19.47
28630 - Sports Official	14.40
28690 - Swimming Pool Operator	19.18
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	24.97
29020 - Hatch Tender	24.97
29030 - Line Handler	24.97
29041 - Stevedore I	23.50
29042 - Stevedore II	26.53
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (see 2)	38.97
30011 - Air Traffic Control Specialist, Station (HFO) (see 2)	26.87
30012 - Air Traffic Control Specialist, Terminal (HFO) (see 2)	29.59
30021 - Archeological Technician I	16.79
30022 - Archeological Technician II	18.78
30023 - Archeological Technician III	23.28
30030 - Cartographic Technician	23.28
30040 - Civil Engineering Technician	27.79
30051 - Cryogenic Technician I	25.77
30052 - Cryogenic Technician II	28.46
30061 - Drafter/CAD Operator I	16.79
30062 - Drafter/CAD Operator II	18.78
30063 - Drafter/CAD Operator III	20.94
30064 - Drafter/CAD Operator IV	25.77
30081 - Engineering Technician I	16.14
30082 - Engineering Technician II	18.13
30083 - Engineering Technician III	20.29
30084 - Engineering Technician IV	25.76
30085 - Engineering Technician V	31.76
30086 - Engineering Technician VI	37.19
30090 - Environmental Technician	24.40

30095 - Evidence Control Specialist	23.28
30210 - Laboratory Technician	19.18
30221 - Latent Fingerprint Technician I	29.13
30222 - Latent Fingerprint Technician II	32.17
30240 - Mathematical Technician	23.28
30361 - Paralegal/Legal Assistant I	17.68
30362 - Paralegal/Legal Assistant II	22.18
30363 - Paralegal/Legal Assistant III	27.13
30364 - Paralegal/Legal Assistant IV	32.84
30375 - Petroleum Supply Specialist	28.46
30390 - Photo-Optics Technician	23.28
30395 - Radiation Control Technician	28.46
30461 - Technical Writer I	24.08
30462 - Technical Writer II	30.48
30463 - Technical Writer III	35.64
30491 - Unexploded Ordnance (UXO) Technician I	24.76
30492 - Unexploded Ordnance (UXO) Technician II	29.96
30493 - Unexploded Ordnance (UXO) Technician III	35.91
30494 - Unexploded (UXO) Safety Escort	24.76
30495 - Unexploded (UXO) Sweep Personnel	24.76
30501 - Weather Forecaster I	25.77
30502 - Weather Forecaster II	31.34
30620 - Weather Observer, Combined Upper Air Or Surface Programs	(see 2) 20.94
30621 - Weather Observer, Senior	(see 2) 23.28
31000 - Transportation/Mobile Equipment Operation Occupations	
31010 - Airplane Pilot	29.96
31020 - Bus Aide	13.95
31030 - Bus Driver	19.68
31043 - Driver Courier	14.29
31260 - Parking and Lot Attendant	10.48
31290 - Shuttle Bus Driver	15.36
31310 - Taxi Driver	11.15
31361 - Truckdriver, Light	15.29
31362 - Truckdriver, Medium	18.77
31363 - Truckdriver, Heavy	20.76
31364 - Truckdriver, Tractor-Trailer	20.76
99000 - Miscellaneous Occupations	
99020 - Cabin Safety Specialist	14.61
99030 - Cashier	12.12
99050 - Desk Clerk	11.50
99095 - Embalmer	27.05
99130 - Flight Follower	24.76
99251 - Laboratory Animal Caretaker I	12.31
99252 - Laboratory Animal Caretaker II	13.21
99260 - Marketing Analyst	28.22
99310 - Mortician	27.05
99410 - Pest Controller	17.26
99510 - Photofinishing Worker	16.29
99710 - Recycling Laborer	21.33
99711 - Recycling Specialist	25.00
99730 - Refuse Collector	19.43
99810 - Sales Clerk	13.43
99820 - School Crossing Guard	13.99
99830 - Survey Party Chief	28.66
99831 - Surveying Aide	16.90
99832 - Surveying Technician	23.14
99840 - Vending Machine Attendant	16.64
99841 - Vending Machine Repairer	19.64
99842 - Vending Machine Repairer Helper	16.94

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors, applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is the victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$4.27 per hour or \$170.80 per week or \$740.13 per month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor, 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) COMPUTER EMPLOYEES: Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour conformances may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

- (1) The application of systems analysis techniques and procedures, including

consulting with users, to determine hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

**** HAZARDOUS PAY DIFFERENTIAL ****

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder.

All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving re-grading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in

those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition (Revision 1), dated September 2015, unless otherwise indicated.

** REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE, Standard Form 1444 (SF-1444) **

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be paid to all employees performing in the classification from the first day of work on which contract work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or fully determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract. (See 29 CFR 4.6(b)(2)(v)). When multiple wage determinations are included in a contract, a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award, the contractor prepares a written report listing in order the proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the U.S. Department of Labor, Wage and Hour Division, for review (See 29 CFR 4.6(b)(2)(ii)).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour Division's decision to the contractor.

6) Each affected employee shall be furnished by the contractor with a written copy of such determination or it shall be posted as a part of the wage determination (See 29 CFR 4.6(b)(2)(iii)).

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination (See 29 CFR 4.152(c)(1)).

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

2. PUBLIC NOTICE DATE

3. SOLICITATION OR PROJECT NUMBER

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

5. NAME OF FIRM

6. TELEPHONE NUMBER

7. FAX NUMBER

8. E-MAIL ADDRESS

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	<i>(Check)</i>			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCONTRACTOR			
a.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
b.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
c.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
d.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
e.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
f.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

(Attached)

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
15. FIRM NAME AND LOCATION <i>(City and State)</i>			
16. EDUCATION <i>(Degree and Specialization)</i>	17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i>		
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>			

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
a. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
b. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
c. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
d. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
e. (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER
21. TITLE AND LOCATION <i>(City and State)</i>	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>		

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
b.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
f.	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE

32. DATE

33. NAME AND TITLE

