



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
LOT471

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
SHELLY MURRAY 304-558-8801

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

LOTTERY COMMISSION
 900 PENNSYLVANIA AVE
 CHARLESTON, WV 25302 304-558-0500

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
03/10/2011				

BID OPENING DATE: 03/24/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
----- ADDENDUM NO. 2 -----						
THIS ADDENDUM IS ISSUED TO CLAIRIFY, ADD, AND MODIFY SPECIFICATIONS AND TO ADDRESS THE QUESTIONS SUBMITTED PRIOR TO THE QUESTION SUBMISSION DEADLINE OF 03/07/2011.						
NOTE: REVISED BID FORM IS ATTACHED TO THIS ADDENDUM						
THE BID OPENING DATE REMAINS: 03/24/2011						
----- END OF ADDENDUM NO. 2 -----						
0001	1	LS		968-42		
GENERAL CONSTRUCTION						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE	TELEPHONE	DATE	
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

LOT471

ADDENDUM #2

PROJECT CLARIFICATIONS

All new and existing penetrations and drywall edges should be sealed with a air-tight silicon sealant in rooms where FM200 system is installed, including edges at partition bottom, top, and all penetrations. Collars used around larger penetrations shall be airtight, or be used in concert with appropriate sealants to provide desired result. A door mounted blower test is required to verify that room is tight. GC is responsible for making existing rooms air tight.

GC to replace damaged glass pane on windows located on the front façade of 5, 6, and 8 levels. There is one damaged glass pane on each mentioned level. Field verify exact location with architect before installation. New 1" thick tempered Low 'E' insulated lites to match existing glass tint and reflective color.

Exterior light Fixture W4 to be mounted 10'-11" AFF. Centered on concrete panels adjacent from entrance storefront on each side.

QUESTIONS AND ANSWERS

Q1: Bid Form – Bids may be held for 90 days, Supplemental Instructions to Bidders, 4.4.1.1 – Bids may be held for 60 days.

A1: See attached revised Bid Form.

Q2: RFQ, Page 4, indicates Builder's Risk Insurance is not a requirement of the project, Supplemental General Conditions, Article 11.3.1 indicates the General Contractor is to provide Builder's Risk Insurance.

A2: Builders Risk is not required on this project.

Q3: Bid Documents were made available to contractors on February 23rd. The cutoff for questions is stated as March 3rd. This gives six working days to go through the documents. This is not sufficient time to thoroughly review the documents for questions. Please extend this deadline.

A3: Deadline for questions was the close of business on March 7, 2011 per Addendum No. 1.

Q4: RFQ, General Terms & Conditions, 7. – Vendor preference will be granted upon written request in accordance with the West Virginia Code. Will West Virginia contractors receive In State Vendor Preference? If so, what will the amount be?

A4: Vendor preference is not applicable on construction projects.

Q5: RFQ, General Terms & Conditions, 8. – The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes. Please provide tax exemption certificate.

A5: The State of West Virginia is exempt from federal and state taxes; contractors are not exempt. The State will not pay taxes as a line item on invoices. Contractor pricing is all inclusive.

Q6: My firm is interested in bidding on the casework package for the Lottery project. The specifications require AWI Quality Certification. My firm, nor any other local firms that I am aware of, are AWI certified. We request that you remove this requirement.

A6: Requirement of AWI Quality Certification shall be removed from specification. Specification Section 06402, Part 1, Section 1.4. Delete item C.

Q7: We would like to add **Automated Logic Corporation** to the list of "Acceptable Manufacturer's" specification # 15975, paragraph 2.1. for the Digital Control System.

A7: Request to add this manufacturer is denied.

Q8: Is Builders Risk Insurance required?

A8: Builders Risk is not required for this project.

Q9: Concrete testing is not addressed in the specification catalog. Is it required? Furnished by owner? Please advise.

A9: See 03300 Part 3.9.

Q10: Sheet S1 - under measurements of work. It describes for us to perform the concrete repair work for the parking garage structure. We are perform based on unit price. We are to keep a daily log verifying quantities and send to Engineer weekly. The bid form does not have description/unit price for this work and the plans do not have any indication on quantity of repair square footage. How will this item of work be addressed and how are we to bid this scope? Please advise.

A10: Reference Sheet S1 – Delete "Measurement of Work" notes entirely.

Corrective work associated with the existing precast concrete parking structure is quantified and qualified in the plans and photographic details on drawings S1 and S2. GC shall include in the Base Bid the Work indicated. No Unit Prices are required.

Q11: A8-0 General Note 1. States "doors and frames noted as removed on demolition drawings may be reused for new openings. Assuming existing doors and frames are in acceptable condition. G.C. shall be responsible for verifying quantity, handling and hardware and hardware preparation requirements to calculate new door and frame materials and reused door and frame materials." Assuming - who decides what doors are acceptable and what doors are not? This is impossible to calculate what will need to be new and what will be reused. Please clarify specifically what is expected in lieu of "Assuming".

A11: Reference Drawing A8-0. Replace "General Note 1" with the following:

In the "KEY NOTES" column of the door schedule, planned openings that use existing doors relocated from elsewhere within the building are noted as "Salvaged Door," and include the existing door number "E---" correlating to the door numbers indicated on the demolition plans. GC shall assume for bidding purposes that existing doors are in acceptable condition. GC shall protect these salvaged doors throughout construction duration as new material, and shall be responsible for required modifications for new hardware installation. GC shall verify prior to removal and relocation that door size and handing are appropriate for new planned locations.

Existing doors to remain in their current location are noted as such in the Door Schedule.

Q12: Is Caterpillar an acceptable manufacturer for the Automatic Transfer Switches provided that they meet the specifications?

A12: Yes, Caterpillar is an acceptable manufacturer.

Q13: Is ATS "SW-1" part of the existing UPS system or do we need to provide a new one?

A13: Drawing E4-2 shows SW-1 as new.

Q14: When will the temporary 175kW be needed, how long will it be needed, how is it going to be used, i.e., standby power or continuous power? How many cables (rated at 350A each) will be needed per phase and how long of a run will be needed?

A14: The temporary generator is intended to be used for standby power. Temporary cabling is shown on drawing E1-0. Coded notes 5 and 7 pertain to the rating of the temporary cabling. Reference drawing E4-3 for a suggested sequence of work.

Q15: Will there be an allotment for the existing 500kW generator trade-in?

A15: The existing Lottery location and 500KW generator have nothing to do with the contract scope or sum.

Q16: When will the 800kW generator need to be onsite? Does it need to be considered in the base bid and the alternate bid?

A16: The 800KW generator should be considered under the base and alternate bids.

Q17: Will there be a need for temporary power at the old location at anytime during this project?

A17: The existing Lottery location and 500KW generator have nothing to do with the contract scope or sum.

Q18: Section 2.10 states that the walkway and step system shall be around the perimeter of the generator enclosure. Drawing E1-0 shows that one end of the generator does not have a walkway, should we quote according to the specs or by the drawing?

A18: Walkway at three sides per diagrammatic drawing E1-0.

Q19: Will a fuel recycling system with a 12 VDC pump be acceptable?

A19: Fuel recycling system with a 12 VDC pump will not be acceptable.

Q20: The 3 cycle – 65KA withstand rating would require the 800 Amp switches be upsized to 1600 Amp according to Automatic Switch Company; would it be acceptable to quote 800 Amp switches with a 3 cycle 50KA withstand rating?

A20: A 50KA withstand rating is acceptable.

Q21: Are elevator switch controllers existing or new? And if new are they furnished by others or E.C. responsibility to purchase & install?

A21: Elevator controllers are new. Work required by E.C. is shown on the plans.

Q22: Where does Cable # 28 on Dwg. E7-1 from EMDP go to? And should it have a different cable # and description since Cable #28 on the cable schedule goes from EMB to EMB2?

A22: Cable 28 on E7-1 goes to the Fire Pump controller on the 6th floor. Reference coded note 21 on E7-1 and drawing E5-3 for continuation. Feeder 28 between EMB and EMB2 should be changed to feeder #42.

Q23: Plan notes indicate that E.C. is responsible for raceway, new outlets & blank covers, blank covers for existing telecom outlets. And all telecom wiring jacks & faceplates shall be the furnished & installed by the tenants contractor. My question after reading the specs. is what is the intent of this contract for E.C. as far as the purchase & installation of telecom equipment and what is E.C. responsible for in areas of the building not occupied by tenants but occupied by owner?

A23: Plan notes vary between sheets with each individual note applying only to the sheet on which it appears. The E.C. is responsible for all telecom rough-in (e.g. cable management tray, conduit, wall and floor boxes, blank covers, etc) shown on all Telecom floor plans, regardless of whether the space is occupied by owner or tenant. Additionally, E.C. is to provide all telecom equipment indicated in specification section 16741 and the E9 series telecom details (e.g. CAT6 cable, jacks, patch panels, racking, backbone cabling, etc). Note that only floor boxes or wall outlets with telecom subscripts (as shown on sheet E9-1) are to be cabled. A floor box or outlet box that has no telecom subscript is to be roughed-in only. Also note that specification section 16741 1.5.A "Installer Qualifications" requires that telecom cabling be installed by qualified personnel with applicable certifications for installing this equipment. Documentation for these qualifications is required with the telecom equipment shop drawings.

Q24: CCTV same question as with #23 Telecommunications.

A24: Plan notes vary between sheets with each individual note applying only to the sheet on which it appears. The E.C. is responsible for all telecom rough-in (e.g. cable management tray, conduit, wall and floor boxes, blank covers, etc) shown on all Telecom floor plans, regardless of whether the space is occupied by owner or tenant. Additionally, E.C. is to provide all telecom equipment indicated in specification section 16741 and the E9 series telecom details (e.g. CAT6 cable, jacks, patch panels, racking, backbone cabling, etc). Note that only floor boxes or wall outlets with telecom subscripts (as shown on sheet E9-1) are to be cabled. A floor box or outlet box that has no telecom subscript is to be roughed-in only. Also note that specification section 16741 1.5.A "Installer Qualifications" requires that telecom cabling be installed by qualified personnel with applicable certifications for installing this equipment. Documentation for these qualifications is required with the telecom equipment shop drawings.

Q25: Drawing E3-64 Plan note #1 refers to coded notes 7 & 8 but there are no coded notes 7 & 8, please clarify intent. Note 1 would imply that cabling to Lottery spaces is to be installed by E.C., however note 3 on E3-24 says it is the E.C.'s responsibility to provide all telecom cabling pathways, it does not say anything about cable itself.

A25: Disregard references to coded notes 7 & 8. The intent of this note is to point out that this particular floor contains owner-occupied, tenant-occupied and common spaces (utilized by both owner and tenant). Outlet boxes located in owner-occupied and common spaces are shown with telecom subscripts (as shown on sheet E9-1) and are to be cabled according to specification

section 16741 and the E9 series sheets. Outlet boxes located in tenant-occupied spaces have no telecom subscripsts and are rough-in only.

Q26: What is the Watt Stopper PN for S1?

A26: Part number is LMSW-101 as indicated in Specification 16140 2.2 G. e.

Q27: What is the wire size & type for security 5wire bus cable "B"?

A27: Cable "B" is a #24 gauge, single pair, low capacitance, twisted shielded cable for RS-485 application, non-plenum rated. Windy City #042002 or equivalent by Belden or West Penn.

Q28: The telecom riser shows emergency phones on 2nd, 3rd, 4th, 5th, 6th, 7th floors in main building but I don't see them spotted on the plan drawing, where are they located?

A28: Emergency phones in the main building are shown on the Telecom floor plans.

Q29: The telecom riser shows emergency phone on 7th floor parking building but I don't see it spotted on the plan drawing, where is it located?

A29: The quantity of emergency phones shown on the telecom riser and emergency phone conduit riser is correct. Parking garage levels do not line up with main building floors as shown on the telecom riser detail. The emergency phone shown by the garage stairwell on the telecom third floor plan (sheet E3-34) will have an additional emergency phone directly below it that is not shown.

Q30: Telecom riser also does not show wireless access point on the 10th floor but they are on the plan, riser shows wireless access points on 6th floor but I can't find them on the plan. I also find (2) wireless access points on 13th floor plan but only (1) on the riser.

A30: Telecom riser detail is a tool for illustrating the overall scope of the project. It is schematic in nature and does not indicate exact outlet or equipment quantities. Refer to telecom floor plans for outlet quantities.

Q31: On drawing E6-1 the fire alarm cable legend would indicate a West Penn # 975 for a voice cable which seems to differ with the cable legend which indicates a West Penn # 99, also cable "A" is a 2/c #18 West Penn # 980 in the cable legend which seems to be the same cable indicated in fire alarm cable legend as being West Penn # 975 2/c#18 shielded. Which is correct?

A31: Use the "Cable Legend" of the "Fire Alarm Riser Diagram".

Q32: Will the successful bidder (contractor) be required to list subcontractors/vendors immediately after or with the sealed bid?

A32: List of subcontractors/vendors will not be required immediately after or with the sealed bid.

Q33: What are the tests that the contractor will be responsible for during the demolition and abatement process?

A33: See answer to question #39.

Q34: In the quality control section it states the owner pays for all testing, who pays for the general commissioning requirements and who pays for the balancing of the HVAC?

A34: HVAC Balancing shall be performed as part of the HVAC contract. All tests and adjustments specified in Section 15010 shall be performed as part of the HVAC contract. Third party commissioning paid for by the Owner under a separate contract may be specified at a later date.

Q35: The owner is supposed to pay for quality control testing, but under unit masonry 04810, page 11, item number 3.14-A-1 it says contractor is responsible. Who is responsible?

A35: GC is responsible to pay for all quality testing.

Q36: Does the successful bidder strip and wax the new (VCT) resilient floor tile, Section 09651?

A36: Per 09651 Part 3.4, contractor shall strip and wax new (VCT) installations.

Q37: If the bid is extended will the questions time be extended also?

A37: Bid will not be extended.

Q38: Is Builder's Risk applicable for the Owner or the Contractor?

A38: Builders Risk is not required on this project.

Q39: The asbestos abatement section is a little confusing. The paragraph on page 1.1 of the Asbestos Inspection Report states "Fire doors, electrical switchgear, elevator doors, gaskets, firebrick, boiler muds, roofing materials and flashings, etc., which were not sampled, should be assumed to contain asbestos. All activities involving disturbance of these materials should be in strict accordance with current asbestos regulatory requirements, unless further testing proves these materials to be asbestos free." Who pays for this additional testing? Do we just assume the whole building contains asbestos?

A39: Contractor shall refer to spec section 01732 Part 1.4 subpart B. In terms of all of the environmental reports, the Contractor shall comply with and follow all local, state, and federal recommendations, guidelines, and requirements. This includes but is not limited to DEP, EPA, and OSHA. Items identified in the environmental reports that are hazardous and are shown in the drawings to be removed, modified, or disturbed, shall be removed with all associated costs and permits by the Contractor. The Contractor shall test anything suspected of being hazardous that needs to be removed which has not already been tested. The cost of testing materials to see if they are hazardous shall be paid for by the Contractor. If materials not previously tested are found to be hazardous then the Contractor shall notify the Architect in writing as required in Section 10.3 of the A201 General Conditions. Per the hazardous materials survey included in the Project Manual, Section 1, Page 1-1, material tested and found to be hazardous is limited to 12" Light brown floor tile and mastic (HA #9) – 156 square feet; and 12" beige floor tile and mastic (HA #21) – 120 square feet.

Q40: How do we reflect "Allowance Adjustment" or "Unit Price Adjustment" described on page 01250-2?

A40: In Spec. section 01250- Delete Part 1.4 in its entirety.

Q41: Is the ceiling type 2 to be as per Room finish Schedule or per Reflected Ceiling Plan?

A41: Ceiling type 2 should be as to per Interior Finish Schedule. See A3-12.

Q42: Are equal products of "CERTAINTEED" ceilings acceptable to specified tile?

A42: Equal products of "Certainteed" ceilings are acceptable for Tile #1. The Architect's preliminary review of Certainteed products did not find a visually equal product for Tile #2.

Q43: With experience from working in the building in the past, we know there are metal "map" walls in various spaces previously occupied by the gas company. Please provide a floor plan showing the location of these walls.

A43: On floors 3, 4, 5, 6, 10, 11, and 12, one (1) wall in each private office is constructed of metal studs with gypsum board both sides with one layer of sheet metal on one side, and painted. There are also metal "map" walls on corridors and open plan offices. GC shall acknowledge condition and include in the base bid costs associated with demolition, extension, modification, and new mechanical, electrical, plumbing, fire protection, and/or telecommunication work located on or within partitions. Cutting and patching requirements shall apply to sheet metal covering. GC has the ability to coordinate with the Owner's Representative, Mr. John Myers, prior to bid to identify exact locations of sheet metal covered partitions.

Q44: Note 1 on drawing FP2-1, FP2-2, FP2-3, states to remove existing sprinkler piping within this area and install new system as required to accommodate new wall and ceiling layout and to allow for the installation of plumbing and hvac equipment. After a walk thru was conducted it appears the existing sprinkler system could be left in place and selective demo could be done as needed to accommodate hvac duct. Please advise?

A44: Fire protection Work shall be as indicated on plans.

Q45: Note 28 on drawing FP2-1 states to remove existing 6" standpipe in shaft. Note 27 states to install 6" standpipe riser in chase. Route 2 1/2" piping from riser and connect to existing standpipe as required. With all of the new hvac duct and piping going in the chase it will be difficult to reconnect to the existing fire hose cabinet. Can the stand pipe be located in stair 128 along with new 2 1/2" hose valves? This would be a cost saving in labor and the fire department prefers for the standpipes to be in the stair wells.

A45: Installing the standpipe in the stairwell is acceptable provided the existing standpipe connections and associated hose cabinets are removed and the walls are patched to match existing.

Q46: Please verify that a new fire pump controller along with transfer switch is to be provided by the fire protection contractor.

A46: The fire pump controller and transfer switch are provided by the fire protection contractor.

Q47: 7413-2.5, clarify metal panel color: match sample? Should we assume custom color?

A47: Custom color, Kynar 500 painted finish.

Q48: 7620- clarify color selection: full range of standard, metallic, exotic?

A48: Full range of standard.

Q49: Soils report states that there is a petroleum smell present? No contaminated soils abatement is referenced in the documents.

A49: No soils abatement required in Contract.

Q50: Asbestos survey states that all roofing is to be assumed to contain asbestos. Drawing do not indicated complete roofing demo, please clarify intended scope of roofing abatement if required.

A50: See answer to question #39.

Q51: 8331-2.9- clarify color selection: full range of standard, metallic, exotic?

A51: Full range of standard.

Q52: 9310-please clarify if water membrane is required?

A52: Yes, install liquid applied membrane in shower that is located in warehouse.

Membrane shall be applied from top of curb down and across horizontal surface of shower and curb.

Q53: Is spray fireproofing required for the new steel, no specifications provided.

A53: Yes, see attached spec section 07250.

Q54: Please confirm that moisture mitigation of the existing concrete floor slabs, if required, will be performed as an owner directed change.

A54: Existing concrete slabs have been in service for many years and believed to be acceptable for installation of new systems as it relates to moisture content. It is understood that moisture mitigation will not be included in the Contract.

Q55: Since the existing floors are not available for inspections (existing floor covering) please provide an allowance for floor leveling if required.

A55: Leveling of the existing concrete floors as required to meet the requirements for new floor finishes shall be the responsibility of the GC and shall be included in the base bid.

Q56: 10155-2.2-G clarify color selection: full range of standard, metallic, exotic?

A56: Full range of standard.

Q57: A7-1, provide site plan/ floor plan showing extend of sloped asphalt milling and paving required at warehouse.

A57: GC shall be responsible for inclusion in the Contract the area of existing asphalt to be milled off per the spot elevations indicated on the floor plan and the detailed wall sections.

Q58: A3-6, verify all new food service equipment scheduled is to be provided/installed as part of this contract. Provide performance specifications for equipment.

A58: Yes, all new food service equipment scheduled or equal is to be provided/installed as part of this contract.

Q59: Section 15300 Page 15300-4 seems to be missing specifications for the new fire pump, jockey pump, etc. along with approved manufacturers. This Page includes Part 2, 2.1 and 2.5 but

seems to be missing 2.2, 2.3 and 2.4. Please review and provide the missing specifications as required.

A59: There are no pages missing the spec. The numbering of the subheadings in Part 2 is simply wrong. The fire pump and jockey pump are not replaced under this project. They are existing to remain.

Q60: Section 16728 CCTV System, 1.3 Vendor Requirements Item F. calls for a list of at least 3 Network Video recording references of similar size to be provided with the bid. Is it acceptable to provide these references after the bids have been submitted and a Contract award has been made? Please advise.

A60: Yes, it is acceptable to provide these references after the bids have been submitted and a Contract award has been made. The mandatory requirement in the original bidding document has been waived.

Q62: Drawing FP2-2 indicates that the requirement for a new wet pipe sprinkler system is limited to the elevator lobby area and toilet rooms of Floors 7, 8 and 9. Please confirm that the balance of these floors does not require a new wet pipe sprinkler system also.

A62: The sprinkler system in the balance of the floors is existing to remain.

Q63: Will Siemon be accepted for the Telecommunications Structured Wiring?

A63: Siemon is an acceptable manufacturer for this project.

Q64: What are the allowable hours and days of the week for construction?

A64: Work hours can be 24 hours per day and 7 days per week. However, there is a tenant in the building that must be considered. See specification 01140 -1 through 01140-3 for work restrictions.

Q65: Are there any salvageable material that the own needs to take possession of?

A65: See specifications on demolition. Other materials for salvage are included on the architectural drawings.

ADDITIONAL PROJECT SPECIFICATIONS

Item No. 1: Add attached spec section 01560- Asbestos Abatement.

Item No. 2: Add attached spec section 07250- Spray Fireproofing.

Item No.3: See attached Revised Bid Form.

ELECTRICAL:

The following drawings supersede drawings dated 2-1-2011.

Item 1: Drawing E0-1:

Revise the "Lighting Fixture Schedule" as noted.

a. Add H.E. Williams to the "Engineers Approved Equivalent Fixtures" for fixture types Symbol A1, A2, A3, A4, A5, A6, A7, A8, A10, A11, A12, S1, and W3.

- b. Remove the word “no equivalent” for fixture type Symbol A9 in the “Engineers Approved Equivalent Fixtures” and replace with the manufacturer “Pinnacle”.
- c. Add “Kenall” to the “Engineers Approved Equivalent Fixtures” for fixture type Symbol “S2”.
- d. Add “Nitbrites” to the “Engineers Approved Equivalent Fixtures” for fixture type Symbol “W1” and “W2”.
- e. Revise the first set of numbers in the “Fixture Catalogue No.” for fixture types Symbols A1, A2, A3, A4, A5, A11 and A12 from “2RT5” to 2RT5S”.

Item 2: Drawing E1-0:

- a. Add coded note marker 5 to the exterior temporary wiring between the temporary generator and temporary cable dead end rack and weatherhead.

Item 3: Drawing E3-13:

- a. Revise feeder #28 identification tag on feeder between “EMB” and “EMB2” to #42.

Item 4: Drawing E3-64:

- a. Revise coded note marker 10 at the south stair to plan note 9.

Item 5: Drawing E4-3:

- a. Revise feeder #28 identification tag on feeder between “EMB” and “EMB2” feeder identification tag #42.

Item 6: Drawing E4-4:

- a. Revise the “From” and “To” designations of feeder 28 to “EMDP” and “Fire Pump Controller” respectively.
- b. Add feeder 42 to the Power Riser Feeder Schedule. Feeder to be 1-1/2”C – 4#2, 1 #8G from “EMB” to “EMB2”.

Item 7: Specification Section 16140, 2.1 A:

- a. Add the manufacturer “Sensor Switch” for occupancy sensors.

MECHANICAL:

The following drawings and specifications supersede drawings dated 2-1-2011.

Item 1: Specification Section 15975:

- a. Add ASI Controls (Installed by Rigney Digital Systems, LTD) to the list of acceptable manufacturers in Section 2.1.

Item 2: Specification Section 15530:

- a. Revise Section 3.2 Pipe Applications to read Use Type L, or Type ACR hard drawn straight lengths for piping upstream of VRF system branch selector boxes (i.e. between outdoor units and branch selector boxes). Use Type L, Type ACR softannealed coil tubing downstream of branch selector box (i.e. between branch selector box and indoor units).

Item 3: Drawing P3-8:

a. Revise DCW pipe sizes, see attached sketch SKP1.

Item 4: Drawing P3-11:

a. Added water closet, lav, and floor drain and associated waste piping in Room 1320, see attached sketch SKP2.

Item 5: Drawing P3-11:

a. Added DCW, DHW piping for water closet and lav, and added shock stop and trap primer, see attached sketch SKP3.

TECHNICAL ASBESTOS ABATEMENT SPECIFICATIONS

PART 1 - WORK TO BE PERFORMED

1.1 DESCRIPTION OF WORK

This Project involves the removal of all specified asbestos-containing materials from the West Virginia Lottery building located at 900 Pennsylvania Avenue in Charleston, West Virginia as part of the planned renovation Project. Future use of the site will be the headquarters of the West Virginia Lottery. A summary of asbestos-containing materials to be removed as part of this renovation Project is outlined below:

Location	Material Description	Estimated Qty.
Penthouse - hall to HVAC and copy rooms	12" Light brown floor tile and mastic	156 SF
8 th Floor – HVAC room	12" beige floor tile and mastic	120 SF

All Work necessary to remove asbestos-containing materials shall be coordinated with the Owner, Architect, Environmental Project Manager and their designated representatives prior to performing the Work and shall be performed in accordance with applicable Federal, State and Local laws and regulations. All asbestos removal Work shall be conducted in accordance with this Specification and all applicable Federal, State and Local Laws and regulations.

1.2 OWNER'S REPRESENTATIVES

This part of the Project shall be coordinated through Pinnacle Environmental Consultants, Inc. located at 400D Prestige Park, Hurricane, West Virginia 25526. The Owner's Representative for this part of the Project is Mr. Christopher A. Belcher (513) 533-1823 for Pinnacle Environmental Consultants, Inc.

1.3 SUBSTANTIAL COMPLETION

The Contractor must comply with the Project schedule set in the Contract for this Project. For each day the Contractor exceeds the contractually agreed Substantial Completion Date, liquidated damages shall be assessed by the Owner in accordance with the Contract Documents, which shall include the fees of all Consultants and the Environmental Project Manager working on this Project per hour plus reimbursable and analytical expenses. This liquidated damage amount is in addition to those specified by the Owner in the Instructions to Bidders, General Conditions and Special Conditions.

PART 2 – GENERAL

2.1 SCOPE

This Specification covers the removal and proper disposal of all specified asbestos-containing materials from the West Virginia Lottery building prior to potential disturbance as part of the renovation Project. All asbestos removal Work shall require the Asbestos Contractor to coordinate said Work with the Owner, Architect and Environmental Project Manager for this Project.

2.2 DESCRIPTION OF WORK

2.2.1 Work Specified – The Contractor shall furnish all labor, materials, employee training, services, insurance, and equipment in accordance with requirements of this Specification to complete removal and

decontamination of the specified materials located within the building. All asbestos removal Work shall proceed as follows:

Removal and proper disposal of all specified asbestos-containing materials by total containment (negative pressure enclosure) removal methods as specified in Article 4.1.1. **NOTES:** 1) The Contractor shall provide the Consultant with ample electricity as necessary to collect final air samples in each work area; 2) The Consultant shall approve all work area preparation prior to allowing asbestos removal Work to begin. Prior to the start of asbestos removal Work in negative pressure enclosures, all wall and window or other cavities shall be completely sealed and protected from residual contamination, especially in vermiculite work areas; and 3) Based on the age of the building, some levels of lead are assumed to be present in paint, solder, piping, etc., and shall require compliance with OSHA 29 CFR 1926.62.

2.2.2 Work Not Specified – The Contractor shall remove all non-contaminated furniture and movable equipment from each work area before the asbestos abatement Work begins.

2.2.3 Contractor Responsibilities – Piping and/or ductwork shall not be used to support workers during the removal effort. The Contractor shall be held liable for injuries and/or damages that result from violation of these Specifications and applicable health and safety regulations. The Contractor shall comply with current Federal, State and Local laws and regulations.

2.2.3.1 Insurance Requirements – In addition to insurance requirements specified in the Special and General Conditions, the Contractor shall provide asbestos liability coverage in occurrence form with no exclusions of any type, in the minimum amount of \$2,000,000. The insurance carrier shall be licensed to offer insurance in the State of West Virginia and have a Best's rating of "A". The Contractor shall not commence Work until insurance requirements have been obtained with certificates being filed to evidence such coverage. Copies of the actual policy shall be provided to the Owner upon request.

2.2.3.2 Patent Indemnification – The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights held by others. The Contractor shall indemnify and hold harmless the Owner and Environmental Project Manager and anyone directly or indirectly employed by them from and against all claims, damages, losses and expenses, including attorneys' fees and court and arbitration costs, arising out of any infringement of patent rights incident to the use in performance of the Work of any invention, design, process, product or device specified or not specified in the contract documents, and shall defend all such claims in connection with any alleged infringement of such rights.

2.3 TERMINOLOGY AND DEFINITIONS

2.3.1 Abatement – Procedures to control fiber release from asbestos-containing materials, i.e., removal, encapsulation, or enclosure.

2.3.2 Air Lock – A system for permitting ingress or egress without permitting air movement between a contaminated area or an uncontaminated area, typically consisting of two contained doorways at least 6 feet (2 meters) apart.

2.3.3 Air Monitoring – The process of measuring the fiber content of a specific volume of air in a stated period of time. Phase contrast microscopy in accordance with NIOSH Method No. 7400 or OSHA Reference Method.

2.3.4 Air Sampling Technician – A person trained and experienced in air sampling techniques and schemes who performs air sampling under the direction of the Environmental Project Manager or C.I.H.

2.3.5 Amended Water – Water to which a surfactant has been added.

- 2.3.6 Asbestos Hazard Emergency Response Act (AHERA) - Congressional Act which requires local education agencies to identify friable and non-friable asbestos-containing building materials (ACBM) in public and private elementary and secondary schools; submit management plans to the Governor of their state; implement management plans in a timely manner; and maintain complete records of any action involving the disturbance of ACBM.
- 2.3.7 Authorized Visitor – The Building Owner or his representatives, air sampling technician, Environmental Project Manager, consultant, or a representative of any regulatory or other agency having jurisdiction over the Project.
- 2.3.8 Barrier – Plastic sheeting and/or other materials used along with the floors, ceilings, and walls of a structure to form an isolated work environment that separates the contaminated work area from the uncontaminated area.
- 2.3.9 Bridging Encapsulant – A liquid designed to form a tough membrane over the surface of asbestos-containing materials.
- 2.3.10 Building Owner (Owner) – West Virginia Lottery and their designated representatives.
- 2.3.11 Clean Room – An uncontaminated area or room that is part of the workers' decontamination enclosure system, with provisions for storage of workers' street clothes and protective equipment.
- 2.3.12 Competent Person – A Contractor's employee (typically the foreman or superintendent) by virtue of his education and experience who is capable of operating an asbestos hazard abatement project in accordance with current EPA, OSHA, and ODH regulations, and standard work practices established for asbestos removal. Duties of the competent person are as defined in 1926.1101.
- 2.3.13 Consultant – A Certified Industrial Hygienist (C.I.H.), the designated Environmental Project Manager, or an Industrial Hygiene Technician under the supervision of the C.I.H. or the Environmental Project Manager.
- 2.3.14 Contaminated – Containing or coated with asbestos.
- 2.3.15 Curtained Doorway – A device to allow ingress or egress from one room to another while minimizing air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily formed doorway, securing the vertical edge of one sheet along one vertical side of the doorway, and securing the vertical edge of the other sheet along the opposite vertical side of the doorway. Two curtained doorways spaced a minimum of 6 feet (2 meters) apart form an air lock.
- 2.3.16 Decontamination Enclosure System – A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers or of materials and equipment. A decontamination enclosure system always contains at least one airlock.
- 2.3.17 Encapsulant – A liquid material that can be applied to asbestos-containing materials or cleaned substrates following the removal of asbestos-containing materials to control the possible release of residual asbestos fibers from the material by creating a membrane over the surface.
- 2.3.18 Encapsulation – All herein specified procedures necessary to coat asbestos-containing materials with a penetrating or bridging encapsulant to control the possible release of asbestos fibers into the ambient air.
- 2.3.19 Environmental Project Manager – An individual qualified by virtue of experience, designated as the Owner's representative; and responsible for supervising the on-site consultant and ensuring compliance with the Project Specifications.

- 2.3.20 Equipment Decontamination Enclosure System – A decontamination enclosure system for materials and equipment, typically consisting of a designated area of the work area, a washroom, a holding area, and an uncontaminated area.
- 2.3.21 Equipment Room – A contaminated area or room that is part of the worker decontamination enclosure system, with provisions for storage of contaminated clothing and equipment.
- 2.3.22 Facility Component – Any pipe, duct, boiler, tank, fan, engines, or furnace at or in a facility, or any structural member of a facility.
- 2.3.23 Fixed Object – A piece of equipment or furniture in the work area that cannot be removed from the work area.
- 2.3.24 Glovebag Technique – A method with limited applications for removing small amounts of asbestos-containing material from HVAC ducts, piping runs, valves, joints, elbows, and other uneven surfaces in an uncontaminated (plasticized) work area. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of 6-mil transparent plastic); two inward-projecting, long-sleeve, rubber gloves; one inward-projecting water wand sleeve; an internal tool pouch; and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all asbestos fibers released during the removal process. All workers who are permitted to use the glovebag technique, must be highly trained, experienced, and skilled in this method.
- 2.3.25 HEPA Filter – A highly-efficiency particulate air (absolute) filter capable of trapping and retaining 99.97 percent of asbestos fibers greater than 0.3 micrometer in length or diameter.
- 2.3.26 HEPA Vacuum – High-efficiency particulate air (absolute) filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be 99.97 percent efficient for retaining 0.3-micrometer particles or larger.
- 2.3.27 Holding Area – A chamber between the washroom and an uncontaminated area in the equipment decontamination enclosure system. The holding area comprises an air lock.
- 2.3.28 Movable Object – A piece of equipment or furniture in the work area that can be removed from the work area.
- 2.3.29 Negative Pressure Ventilation System – A local exhaust system capable of maintaining a detectable pressure differential across containment barriers relative to adjacent unsealed areas.
- 2.3.30 NESHAPS – The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).
- 2.3.31 NIOSH – The National Institute for Occupational Safety and Health.
- 2.3.32 OSHA – Occupational Safety and Health Administration.
- 2.3.33 Penetrating Encapsulant – A liquid designed to saturate the material, thereby binding asbestos fibers to one another and to other substances in the material.
- 2.3.34 Plasticize – To cover floors, walls, etc., with plastic sheets as herein specified.
- 2.3.35 Removal – All herein specified procedures necessary to strip, clean-up or eliminate asbestos-containing or contaminated materials from designated areas and to dispose of these materials at an approved disposal facility.
- 2.3.36 Shower Room – A room between the clean room and the equipment room in the worker decontamination enclosure system, with hot, and cold or warm running water and suitably arranged for

complete showering during decontamination. The shower room comprises an airlock between contaminated and clean areas.

2.3.37 Staging Area – Either the holding area or an area near the waste-transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.

2.3.38 Stripping – All herein specified procedures necessary to remove asbestos-containing materials or asbestos-contaminated materials from their substrate or from any component of the facility.

2.3.39 Substrate – The underlying surface or material (piping, duct, boilers, tanks, chase floors, etc.) to which asbestos-containing material has been applied.

2.3.40 Surfactant – A chemical wetting agent added to water to improve penetration.

2.3.41 Thermal System Insulation – Insulation used to prevent heat loss from pipes, boilers, tanks, breeching, duct, heat exchangers, etc.

2.3.42 Washroom – A room between the work area and the holding area in the equipment decontamination enclosure system. A washroom comprises an air lock.

2.3.43 Wet Cleaning – The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with water, and then disposing of these cleaning tools as asbestos-contaminated waste.

2.3.44 Work Area – Designated rooms, spaces, or areas of the Project in which asbestos abatement actions are to be undertaken or which may be contaminated as a result of such abatement actions. A contained work area is one that has been sealed, plasticized, and equipped with a decontamination enclosure system. An isolated work area is a controlled-access work area that has been isolated by plastic curtains and in which the openings to the outside are sealed with plastic sheeting.

2.3.45 Worker Decontamination Enclosure System – A decontamination enclosure system for workers, typically consisting of a clean room, a shower room, and an equipment room.

2.4 APPLICABLE REFERENCE DOCUMENTS

The current issue of each document shall govern. If there is a conflict among regulatory requirements or with these Specifications, the more stringent requirement shall apply.

2.4.1 Regulations – Compliance is required in strict accordance with applicable Federal, State and Local regulations.

2.4.1.1 Title 29, Code of Federal Regulations, Section 1910.1001, General Industry Standard for Asbestos.

2.4.1.2 Title 29, Code of Federal Regulations Section 1926.1101, Construction Industry Standard for Asbestos.

2.4.1.3 Title 29, Code of Federal Regulations Section 1910.134, General Industry Standard for Respiratory Protection.

2.4.1.4 Title 29, Code of Federal Regulations Section 1910.145, General Industry Standard for Confined Space Entry.

2.4.1.5 Title 29, Code of Federal Regulations Section 1926.59, Construction Industry Standard for Hazard Communication.

- 2.4.1.6 Title 29, Code of Federal Regulations Section 1926.62, Interim Construction Industry Standard for Lead.
- 2.4.1.7 Title 29, Code of Federal Regulations Section 1910.1200, General Industry Standard for Hazard Communication.
- 2.4.1.8 Title 29, Section 1910.1000, Occupational Safety and Health Standards.
- 2.4.1.9 Title 29, Section 1910.120, Hazardous Waste Operations and Emergency Response.
- 2.4.1.10 Title 40, Code of Federal Regulations, Part 61, Subpart A.
- 2.4.1.11 Title 40, Code of Federal Regulations, Part 763, Asbestos.
- 2.4.1.12 West Virginia Code of State Regulations 64 CSR 63, May 1998.
- 2.4.1.13 Title 49, Code of Federal Regulations, Hazardous Materials Transportation Regulations, U.S. Department of Transportation (DOT).

2.4.2 Guidance Documents

- 2.4.2.1 Asbestos-Containing Materials in School Buildings: A Guidance Document, Part 1. Office of Toxic Substances, U.S. EPA, Washington, D.C. 1979.
- 2.4.2.2 Asbestos-Containing Materials in School Buildings: A Guidance Document, Part 2. Office of Toxic Substances, U.S. EPA, Washington, D.C. 1979.
- 2.4.2.3 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings: Washington, D.C. Office of Pesticides and Toxic Substances, U.S. EPA. 1983.
- 2.4.2.4 Recommended Specifications and Operating Procedures for the use of Negative Pressure Systems for Asbestos Abatement.
- 2.4.2.5 Guidance for Controlling Asbestos-Containing Materials in Buildings: Washington, D.C. Office of Pesticides and Toxic Substances, U.S. EPA. 1985.
- 2.4.2.6 Measuring Airborne Asbestos Following an Abatement Action: Washington, D. C., Office of Pesticides and Toxic Substances, U.S. EPA. 1985.
- 2.4.2.7 Asbestos Waste Management/Guidance: Generation, Transport, and Disposal: Washington, D.C., Office of Solid Waste, U.S. EPA. 1985.

2.4.3 Codes and Standards

- 2.4.3.1 ANSI – American National Standards Institute, ANSI Z 9.2, Fundamentals Governing the Design and Operation of Local Exhaust Systems.
- 2.4.3.2 NEC – National Electric Code. Any Work involving electrical equipment in a facility shall be performed in strict accordance with the National Electric Code.

2.5 AIR MONITORING

2.5.1 General

- 2.5.1.1 The performance and execution of the Work shall be closely monitored by the Owner and the Environmental Project Manager and their representatives. The surveillance shall be inside the

work area and the surroundings to ensure full compliance with this Specification and all applicable regulations. Full cooperation and support shall be provided to the Owner and the Environmental Project Manager and their technicians throughout the abatement process. Monitoring shall include data review from air samples collected inside the work area; personal exposure samples collected at the breathing zone of Contractor employees conducting asbestos removal; and environmental air samples collected outside the work area. Daily inspections shall include standard operating procedures, engineering control systems, respiratory protection devices, transportation and disposal of materials, decontamination facilities and procedures, and any other aspects of the abatement process that may impact the health and safety of people and quality of the environment.

- 2.5.1.2 The Contractor or his representative shall conduct personal exposure, excursion and area monitoring inside the work area throughout all phases of this Project as specified on Table I. Exposure air monitoring shall be conducted to ensure full compliance with 29 CFR 1926.1101 and 29 CFR 1926.62 and to evaluate the adequacy of 1) the type of respiratory protection used by workers, 2) work practices and engineering controls, and 3) containment barriers and decontamination procedures.

2.5.2 Exposure Monitoring Schedule and Sampling Strategy

At a Minimum, the Contractor's exposure monitoring schedule and sampling strategy for each distinct work area per facility shall be as indicated on the following Table:

TABLE II - EXPOSURE MONITORING SCHEDULE

Phase of Abatement Project	When to Sample	Type of Sample	Minimum # of Employees*	Location	
PREPARATION	During cleaning and preparation of work area	Each day of operation	Personal	1 *	Per work area
			Excursion	1 *	Per work area
			Inside Area	1	Per work area
REMOVAL	Each day of operation	Personal	1 *	Per work area	
		Excursion	1 *	Per work area	
		Inside Area	1	Per work area	
DECONTAMINATION	Each day of operation	Personal	1 *	Per work area	
		Excursion	1 *	Per work area	
		Inside Area	1	Per work area	

NOTE*: At a minimum, one out of four workers involved in asbestos abatement activities shall be monitored for asbestos and lead during all preparation, gross removal, decontamination and load-out phases of this project. Short-term excursion samples shall be also be collected for asbestos per activity and/or at the request of the Environmental Project Manager and his representatives. One inside environmental air sample for asbestos shall be collected in each work area undergoing asbestos abatement.

2.5.3 Methods of Collection and Analysis

- 2.5.3.1 All exposure monitoring shall be conducted in accordance with 29 CFR 1926.1101 and 29 CFR 1926.62. The recommended sampling period shall be 7 to 8 hours, except on abbreviated work shifts. The flow rate for the sampling pump shall be 0.5 to 2.5 liters/minute for asbestos and 1 to 4 liters/minute lead. Sampling pumps shall be checked daily by the Contractor at the beginning and end of each sample duration for proper flow-rate calibration.

- 2.5.3.2 All asbestos exposure samples collected by the Contractor or his representative shall be submitted daily to Pinnacle Environmental Consultants, Inc. for subsequent analysis. Completed data sheets must be submitted to the laboratory along with each day's filter samples. Sampling results will be reported to the Contractor within twenty-four hours upon laboratory receipt.
- 2.5.3.3 All lead exposure monitoring conducted by the Contractor or their representative(s) shall be submitted for analysis daily to a laboratory approved by the Environmental Project Manager. The laboratory(s) selected by the Contractor shall be an AIHA accredited laboratory utilizing AAS for lead analysis. Completed data sheets must be submitted to the laboratory along with each day's filter samples. Sampling results for asbestos related work shall be reported to the Contractor within forty-eight (48) hours upon collection.
- 2.5.3.4 The minimum number of employees/areas to monitor indicated on Table II shall not be interpreted as the total number of samples to be collected and analyzed each day. Multiple personal or area samples may have to be collected during the 7 to 8 hour workshift to accurately characterize a worker's exposure level. The number of samples collected shall depend on the degree of fiber contamination in the work area and the effectiveness of work practices and engineering controls. Overloaded filter samples or filter holder cassettes containing loose particulate matter are unacceptable. All air samples shall be properly collected and be representative of actual fiber concentrations in the work area.

NOTE: Failure to comply with the exposure monitoring per 29 CFR 1926.1101, 29 CFR 1926.62 **and** this Specification shall constitute non-conformance with this Specification and result in Work stoppage at the Contractor's expense or dismissal.

2.6 SUBMITTALS AND NOTICES

- 2.6.1 The following documents shall be submitted in DUPLICATE with the Bid.
- 2.6.1.1 Submit to the Owner a completed statement of Bidder's Qualifications and prior projects completed reference list. Contractors bidding on this Project must have successfully completed at least three similar asbestos abatement projects in which the total cost of the abatement portion of the work was in excess of \$10,000.00. Names, addresses, phone numbers and a brief description of the project shall be provided.
- 2.6.1.2 Submit proof that the Asbestos Contractor is licensed in the State of West Virginia as a Contractor and an Asbestos Contractor.
- 2.6.1.3 Submit specimen certificate of insurance showing evidence of specified asbestos liability insurance coverage and a current copy of State of West Virginia Workers' Compensation or Employers' Liability Certificate.
- 2.6.1.4 Submit descriptions of any asbestos hazard abatement activities conducted that have been prematurely terminated, including the circumstances surrounding the termination.
- 2.6.1.5 Submit a list of any contractual penalties that the applicant has paid for breach of or noncompliance with contract specifications for asbestos hazard abatement activities, such as overruns of completion time or liquidated damages.
- 2.6.1.6 Identify any citations levied against the applicant by any federal, state, or local government agencies for violations related to asbestos hazard abatement, including the name of location of the project, the date(s), and how the allegations were resolved. **NOTE:** Only include those citations received in the past 36 months from the bid closing date.

- 2.6.1.7 Submit a description, in detail, of all legal proceedings, lawsuits, or claims that have been filed or levied against or by the applicant or any of the applicant's past or present employees for asbestos-related activities, including change order requests, and how the allegations were resolved. A waiver from this Article shall not be considered.

NOTE: If submittals 2.6.1.4 through 2.6.1.7 do not apply, the Contractor shall provide a written statement expressing the same.

2.6.2 To be Submitted At Pre-Construction Meeting

- 2.6.2.1 Supply written notification of proposed asbestos Work, with copies to the Environmental Project Manager, the EPA State and Regional offices and the Bureau of Public Health, not fewer than ten business days before work commences of this project. Names and addresses of those receiving notification are as follows:

A. **Environmental Project Manager:**

Mr. Chris Belcher
Pinnacle Environmental Consultants, Inc.
400D Prestige Park
Hurricane, West Virginia 25526
Office: (304) 757-5204
Cell: (513) 383-4127

B. **State of West Virginia/EPA offices:**

**Division of Environmental Protection
Office of Air Quality**
601-57th Street, SE
Charleston, West Virginia 25304
Attn: Asbestos NESHAP Coordinator
Telephone: (304) 926-0475 or Fax (304) 926-0478

**Division of Environmental Protection
Solid Waste Management Office**
601-57th Street, SE
Charleston, West Virginia 25304
Attn: Mr. Sudhir Patel/Asbestos Coordinator
Telephone: (304) 926-0448

**West Virginia Bureau of Public Health
Environmental Health Services
Asbestos Compliance Program**
1 Davis Square, Suite 200
Charleston, West Virginia 25301-1798
Attn: Asbestos Coordinator
Telephone: (304) 558-2981 or Fax (304) 558-1291

**US Environmental Protection Agency
Region III**
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029
Attn: Asbestos Coordinator (3WC32)
Telephone: (215) 814-5797

- 2.6.2.2 Submit asbestos abatement project design showing the locations of each work area and engineering controls, as required by Code of State Regulations 64 CSR 63, to the

Environmental Project Manager for review and approval prior to the start of any abatement Work. The Environmental Project Manager must approve of the project design prior to the start of Work.

- 2.6.2.3. Submit satisfactory proof to the Owner that all required permits, site locations, and arrangements for transport and disposal of asbestos-containing or contaminated materials, supplies, and the like have been obtained (copy of landfill certificate).
- 2.6.2.4. Submit a detailed Construction Schedule indicating manpower allocation per phase of Work (i.e., mobilization, preparation, gross removal, decontamination, tear down and demobilization) to achieve Substantial Completion.
- 2.6.2.5. Submit name and West Virginia laboratory license for laboratory providing analysis of OSHA lead air samples.
- 2.6.2.6. Submit the name of the supervisor qualified to carry out the functions of competent person per 29 CFR 1926.1101 along with resume showing a minimum of 2 years experience supervising asbestos hazard abatement projects. Submit documentation demonstrating current West Virginia Bureau for Public Health license and satisfactory completion of an EPA approved Contractor/Supervisor Asbestos Abatement Practices training course for the foreman/competent persons assigned to this project. The original Contractor/Supervisor training certificate along with a valid refresher certificate (if applicable) shall be required for all competent persons supervising this project.
- 2.6.2.7. All asbestos abatement workers on this project must have completed an EPA approved Asbestos Worker training course and shall provide the original and valid refresher (if applicable) training certificates and West Virginia Bureau for Public Health license before engaging in any abatement activity (i.e., work area preparation, removal, or decontamination).
- 2.6.2.8. Submit insurance certificates showing coverage specified in Article 2.2.3.1.
- 2.6.2.9. Submit Material Safety Data Sheets (MSDS) for all encapsulants, amended water solutions, solvents, spray glue or any other material used on this project. MSDS sheets shall be required for all materials brought on-site by the Contractor.
- 2.6.2.10. Submit compliance program for lead in accordance with 29 CFR 1926.1101.
- 2.6.3. Condition of Facility – The Contractor and the Environmental Project Manager’s representatives shall agree in writing to the existing condition of the facility prior to commencement of the Work. **NOTE:** Inspections shall be performed at the pre-construction meetings for each work area.
- 2.6.4. Manufacturer’s Certification – A Manufacturer’s certification shall be submitted stating that vacuums, ventilation equipment, and other equipment required to contain airborne fibers conform to ANSI Z 9.2.

2.7 PERSONNEL PROTECTION

- 2.7.1. Worker Instruction – Prior to commencement of this Project, all workers shall be instructed and shall be made knowledgeable in the requirements of this specification.
- 2.7.2. Respiratory Equipment – All workers shall be provided with personally issued and marked respiratory equipment approved by NIOSH and suitable for the asbestos exposure level in each work area according to 29 CFR 1926.1101. All employees shall be **quantitatively** fit tested prior to the beginning of any abatement activities. At a minimum, all workers performing Class I asbestos abatement activities shall wear powered air-purifying respirators equipped with P-100 filter cartridges. Single use or reusable disposable respirators are not acceptable and shall not

be used on this Project. Sufficient filter cartridges or pads for replacement shall be provided as required by the worker, applicable regulations, or as bound into this Specification. If no exposure assessment for Class I Work is available, or if prevalent airborne fiber concentrations inside any asbestos work area exceed 1.0 f/cc over the TWA₈, the Contractor shall implement the following:

2.7.1 Use Full-Face Type "C" air supplied respirators in positive pressure demand or constant flow. All air hose connections shall be equipped with a HEPA filtered disconnect system in the event of compressor failure or the exhaustion of air in the reserve tanks. At the minimum, Type "C" air supply shall provide the following:

- A continuous sufficient supply of air.
- Supplied air that meets Grade D requirements as specified by Compressed Gas Association.
- An adequate volume of air to allow for escape from the work area.
- Worker comfort and safety.
- NIOSH approved respirators and supply hoses.

Compressed air systems shall be designed to provide air volumes and pressures to accommodate respirator manufacturer's specifications. Only breathing air compressors shall be used and may be either gasoline or electric powered; however, electric powered compressors are preferred. The compressor shall also be equipped with in-line air purifying sorbent beds and filters that remove moisture, odors, oils, hydrocarbons, heat, and carbon monoxide. The compressor shall be equipped with a carbon monoxide monitor and shall be checked daily as specified by the manufacturer. The carbon monoxide monitor should be equipped with a visible and audible alarm to alert the operator of a high carbon monoxide level in the supply air. The compressed air system shall also be equipped with a reserve tank or reservoir. The volume of air in the reserve tank should provide for adequate escape time for employees in the work area. All Type "C" air line respiratory equipment shall be approved as an entire unit by NIOSH. This includes respirator face piece, regulator, and airline. Any alterations of the respirator or subcomponents is strictly forbidden and voids any approval by NIOSH.

B. Engineering controls to reduce airborne fibers to below 1.0 f/cc.

2.7.3 Protective Clothing – Per 29 CFR 1926.1101, workers shall be provided with sufficient sets of protective full-body clothing. Such clothing shall consist of full-body coveralls, rubber gloves, face shields, vented goggles and headgear. Eye protection, full body harness and lanyard, steel toe safety shoes and hard hats shall be provided as required by applicable safety regulations. Non-disposable protective clothing and footwear shall be left in the contaminated equipment room until the end of the abatement Work, at which time such items shall be properly disposed. Disposable protective clothing, headgear, and footwear shall be provided as needed and/or requested by the Environmental Project Manager.

2.7.4 Visitor Protection – Authorized visitors shall be provided with suitable respirators with new filters or cartridges and protective clothing, headgear, eye protection, safety belts, and footwear, as described in Article 2.7.3, whenever they are required to enter the work area, to a maximum of three sets per day.

2.7.5 Protection Procedures – The Contractor shall provide and prominently post the decontamination and work practices to be followed by workers in the clean/change area as described in Article 2.7.6.

2.7.6 Worker Protection Procedures – All Abatement

- 2.7.6.1 Each worker and authorized visitor shall, prior to entering the work area: remove street clothes in the clean change room and don the required respiratory equipment and clean protective clothing before entering the decontamination chamber entrance to the work area; except workers that intend to re-wear contaminated protective clothing stored in the equipment room shall enter the equipment room wearing only respirators.
- 2.7.6.2 Each worker and authorized visitor shall, each time he leaves the work area: remove gross contamination from clothing before leaving the work area; proceed to the equipment room and remove all clothing except respirators; still wearing the respirator, proceed naked to the showers; clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly shampoo and wash himself; if the filters require replacement, remove filters, wet them, and dispose of them in the container provided for the purpose; and wash and rinse the inside of the respirator facepiece.
- 2.7.6.3 Following showering and drying off, each worker and authorized visitor shall proceed directly to the clean change room and dress in clean clothes at the end of each day's work, or before eating or drinking. Before re-entering the work area from the clean change room, each worker and authorized visitor shall put on a clean respirator with filters and shall dress in clean protective clothing; except workers that intend to re-wear contaminated protective clothing stored in the equipment room shall enter the equipment room wearing only respirators.
- 2.7.6.4 Contaminated work footwear shall be stored in the equipment room when not in use in the work area. After the asbestos and lead abatement process is completed, footwear shall be disposed of as contaminated waste or cleaned thoroughly inside and out with soap and water before being removed from the work area. Contaminated protective clothing shall be stored in the equipment room for reuse or placed in receptacles for disposal with other asbestos-contaminated materials.
- 2.7.6.5 Workers removing waste containers from the equipment decontamination enclosure shall enter the holding area from outside wearing a respirator and dressed in clean coveralls. Workers shall not use this system as a means to leave or enter the work area.
- 2.7.6.6 Workers shall be fully protected with respirators and protective clothing immediately prior to the first disturbance of asbestos or lead-containing or contaminated material, and until final cleanup is completed and approved.

2.8 EQUIPMENT REMOVAL PROCEDURES

2.8.1 Cleaning – Clean external surfaces of contaminated containers and equipment thoroughly by wet mopping, or using a HEPA-filtered vacuum before moving such items into the decontamination enclosure system washroom for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave work areas through the equipment decontamination enclosure system.

2.9 EMERGENCY PRECAUTIONS

2.9.1 The Contractor shall establish (and clearly mark) emergency and fire exits from the work area. Emergency procedures shall be in written form and prominently posted in the clean change room immediately outside the worker decontamination enclosure system.

2.9.2 Local Medical emergency personnel shall be notified prior to commencement of abatement activities for the potential of handling contaminated or injured workmen and shall be advised on safe decontamination.

2.9.3 Employees shall be trained in evacuation procedures in the event of work area emergencies.

2.9.3.1 For non-life-threatening situations, employees injured or otherwise incapacitated shall decontaminate themselves following normal procedures with assistance from fellow workers, if necessary, before exiting the work area to obtain proper medical treatment.

2.9.3.2 For life-threatening injury, worker decontamination shall take least priority after measures to stabilize the injured worker, remove him from the work area, and secure proper medical treatment.

2.9.4 Before the Contractor starts abatement activities, the local police and fire departments should be informed of the danger of entering a contaminated work area. The Contractor shall make every effort to help these agencies form plans of action should their personnel need to enter contaminated work areas, and to assist during emergencies.

2.9.5 Telephone numbers of all emergency response personnel shall be prominently posted in the clean/change room outside the worker decontamination enclosure system along with location of the nearest telephone.

2.10 SITE SECURITY

2.10.1 The Contractor shall post warning signs at designated entrances to each asbestos work area as required by 29 CFR 1926.1101.

2.10.2 Entry into the work area by unauthorized individuals shall be reported immediately to the Owner's representative by the Contractor. The Contractor shall maintain a sign-in sheet for all visitors to each abatement site.

2.10.3 The Contractor shall have control of site security at all times during abatement activities in order to protect work efforts and equipment.

2.10.4 The Contractor shall install plywood a minimum thickness of ½" over all window, door or other openings that have been created as a result of the asbestos abatement Work. At a minimum, all sub-grade, ground level or other opening that could be easily accessed by others shall be covered with plywood and secured with 2" x 4" studs or equivalent concurrently with the abatement Work. The Contractor shall be responsible overall site security during all phases of Work during this Project.

PART 3 – MATERIALS AND EQUIPMENT

3.1 MATERIALS

3.1.1 Material Delivery – All materials shall be delivered in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name. MSDS sheets shall be required for all materials brought on-site by the Contractor.

3.1.1.2 All materials subject to damage shall be stored off the ground, away from wet or damp surfaces, and under sufficient cover to prevent damage or contamination.

3.1.1.3 Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be disposed of in accordance with this Specification.

3.1.2 Plastic Sheeting – Plastic sheeting for all walls and stationary objects shall be a minimum of 6-mil thick. For floors and all other uses, sheeting of at least 6-mil thickness shall be used. All plastic sheeting shall be sized in appropriate lengths and widths to minimize the frequency of joints.

3.1.2.1 Plastic sheeting used for worker decontamination enclosure systems shall be black in color.

3.1.3 Tape – Must be capable of sealing joints of adjacent plastic sheets, capable of attaching plastic sheets to finished or unfinished surfaces of dissimilar materials, and capable of adhering under dry and wet conditions, including use of amended water.

3.1.4 Surfactant – A surfactant shall consist of 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of 1 ounce surfactant to 5 gallons of water, or according to manufacturer's Specifications.

3.1.5 Impermeable Containers – Must be suitable for receiving and retaining any asbestos-containing and/or contaminated materials. Metal or fiber drums with tight-fitting lids are required for all asbestos-containing wastes, i.e., metal lathe, wire, metal jackets, etc. Plastic bags, 6-mil thick, are acceptable for friable asbestos, fiberglass insulation without metal components that could tear the bags. All asbestos-containing waste shall be labeled in accordance with 29 CFR 1926.1101, 49 CFR Parts 171 and 172 and 40 CFR Part 61, Subpart M. All containers shall be both air and watertight.

3.1.6 Encapsulants – Encapsulating sealants shall be bridging or penetrating sealants.

3.1.6.1 The encapsulant shall not add any toxic substances and should not break down under direct flame impingement to release any toxic gases or an undue amount of smoke.

3.1.6.2 The encapsulant shall be capable of adhering to the substrate surface.

3.1.6.3 The encapsulant shall be applicable with minimum effort and skill.

3.1.6.4 The encapsulant shall have impact resistance, flexibility, and resistance to penetration in withstanding physical contact.

3.1.6.5 The encapsulant shall be water insoluble when cured.

3.1.6.6 The encapsulant shall be nontoxic and free of toxic fumes during application.

3.1.6.7 The encapsulant shall have sufficient aging characteristics to withstand normal atmospheric changes for a minimum of 6 years and still have sufficient surface integrity to allow recoating.

3.1.7 Warning Labels and Signs – As required by 29 CFR 1926.1101.

3.1.8 Glovebags – Glovebags shall be made of 6-mil thick plastic and shall be seamless at the bottom as specified in 29 CFR 1926.1101.

3.1.9 Plexiglass – The Contractor shall install plexiglass partitions in doorways or openings adjacent to an asbestos hazard abatement work area, when feasible, to enable asbestos hazard abatement activities to be observed by the Owner's representatives and/or other visitors without entering the work area. The plexiglass partitions shall be a minimum size of 2' x 2'. The number of plexiglass partitions shall be determined by the Owner and/or on-site Consultant.

3.1.10 Other Materials – The Contractor shall provide all other materials, such as lumber, nails, scaffolding and hardware, that may be required to construct and dismantle the decontamination units and the barriers that isolate the work area.

3.2 TOOLS AND EQUIPMENT

3.2.1 The Contractor shall provide suitable tools and equipment for all phases of Work for this Project.

3.2.2 Airless Sprayer – An airless sprayer shall be used for the application of amended water and encapsulants.

3.2.3 Scaffolding and Ladders – Scaffolding and ladders shall be used as required to accomplish Work specified and shall meet or exceed all applicable OSHA requirements and safety regulations.

3.2.4 Vacuums – All vacuums utilized to clean up asbestos-containing materials in the work area shall be equipped with HEPA filters.

3.2.5 Miscellaneous Tools and Equipment – The Contractor shall provide all other tools suitable for the stripping, removal, and encapsulation of asbestos-containing materials. These tools include, but are not limited to, scrapers, wire cutters, brushes, sprayers, sponges, utility knives, flexible wire saws, shovels, and brooms.

2.7.2 Digital Pressure Differential Meter – The Contractor shall install a digital pressure differential gauge with a strip chart recorder to continuously measure the pressure differential between the clean area and work area. A pressure differential meter shall be required for each work area.

3.2.7 Use of Owner's Tools and Equipment – Tools or equipment of the Owner shall not be used by the Contractor, unless permission in writing is granted by the Owner's representatives.

PART 4 – EXECUTION

4.1 SEQUENCE OF EXECUTION

4.1.1 Work Area Sequence – The sequence of execution for asbestos abatement inside contained work areas (negative pressure enclosure) shall occur in the following order:

4.1.1.1 Prepare the work area per Article 4.2.

4.1.1.2 Strip and remove asbestos-containing or contaminated materials in the specified areas per Articles 4.3.1 and 4.3.2.

4.1.1.3 Remove and discard asbestos-containing waste generated from abatement activities per Article 4.4. Removal and disposal of all asbestos-containing materials shall be performed concurrently with stripping.

4.1.1.4 Decontaminate and clean work area per Articles 4.5 and 4.6.

4.1.1.5 Encapsulate building surfaces with an approved sealant as specified per Article 4.7.

4.1.1.6 Establish final clearance criteria for each work area per Article 4.8.

4.1.1.7 Reestablish building systems in proper working order or as originally found per Article 4.9.

4.2 PREPARATION

4.2.1 Work Area Preparation – Prepare total containment (negative pressure enclosure) work areas in the order in which they are presented below:

4.2.1.1 Shut down and lock out electric power to all work areas where applicable. Provide temporary power and lighting and ensure safe installation of temporary power services and equipment,

as specified in applicable electrical code requirements. At a minimum, one (1) 200 watt halogen light per every 500 square feet shall be provided in common work space areas (i.e., offices, hallways, etc.) and (1) 200 watt halogen light per every 200 square feet for pipe chase, duct shaft and crawlspace work areas. Provide temporary lighting and ground-fault interrupt circuits as a power source for electrical equipment. All modifications to the building's electrical system shall be performed by a licensed electrician at the consent of the Owner.

- 4.2.1.2 Shut down and isolate heating, cooling, and ventilating air systems such as, but not limited to, fans, air handlers, and unit ventilators to prevent contamination of the units and fiber dispersal to other areas of the facility. Seal all electrical components and equipment tightly to prevent moisture or water damage. Ventilation duct vents within the work area shall be sealed with tape and 6-mil plastic sheeting.
- 4.2.1.3 The Contractor is responsible for removing all movable objects from the work area. The Contractor shall also be responsible for the removal and decontamination of any movable equipment that may be contaminated.
- 4.2.1.4 Preclean contaminated movable objects (such as desks and chairs, etc.) within the work area using HEPA-filtered vacuums and wet cleaning methods. Remove the decontaminated furniture from the work area and store in an uncontaminated part of the building.
- 4.2.1.5 Preclean fixed objects within the proposed work area (such as but not limited to shelving, bookcases, hot-water heaters, pumps, radiators, unit ventilators, fans, ductwork, and motors) using HEPA-filtered vacuums and/or wet cleaning methods as appropriate, and enclose with 6-mil (minimum) plastic sheeting sealed with tape.
- 4.2.1.6 Install HEPA-filtered air movement devices into the work area and vent exhaust ducts through openings to the outside of the building. Seal openings around exhaust ducts. Exhaust from the negative air movement equipment shall not be allowed to be released within the buildings. All HEPA filtered air movement equipment shall be maintained per Article 4.2.3.
- 4.2.1.7 Introduce scaffolding, ladders, and other large equipment into the work area and install the worker decontamination enclosure system per Article 4.2.2. Once the decontamination enclosure system is in place, it shall be used as specified for the entrance and exit of all personnel and equipment.
- 4.2.1.8 Seal off all openings (including but not limited to corridors, doorways, windows, skylight, ducts, grilles, diffusers, and any other penetrations of the work area) with 6-mil plastic sheeting sealed with tape. Doorways and corridors that will not be used for passage during the Work must be sealed with barriers per Article 4.2.2.4.
- 4.2.1.9 Remove, wet wipe and/or HEPA vacuum ceiling mounted objects (such as lights, speakers, and other items not previously sealed off) that interfere with asbestos-abatement activities. Any item remaining in the work area shall be enclosed with 6-mil plastic sheeting sealed with tape.
- 4.2.1.10 Cover all walls with 6-mil plastic sheeting and install 6-mil drop cloths in all staging areas and commonly traveled areas. Seal all joints with tape and/or spray adhesive. Location and methods of attachment of plastic sheeting to finished surfaces shall be approved by the Owner in advance.

4.2.3 Decontamination Enclosure Systems

4.2.3.1 General – Build suitable framing and/or use existing rooms connected with framed-in tunnels, if necessary, and line with plastic sealed with tape at all lap joints for all enclosures and decontamination enclosure systems rooms. Either existing rooms outside of the work area or specially framed and sealed temporary areas shall be used for the decontamination enclosure system. Convenience and proximity to the work area shall be the determining factors. In all cases, access between contaminated and uncontaminated rooms or areas shall be through an airlock, as described in Section 2.3.

4.2.3.2 Worker Decontamination Enclosure System – Construct a worker decontamination enclosure system contiguous to the work area that consists of three totally enclosed chambers as follows:

- An equipment room with two curtained doorways: one to the work area and one to the shower room.
- A shower room with two curtained doorways; one to the equipment room and one to the clean room. One shower shall be provided for every ten (10) workers or fraction thereof as required by 29 CFR 1910.141(d)(3) To ensure against potential leakage, a metal pan with a minimum three inch lip shall be installed underneath each shower facility. Ensure soap is available at all times in the shower room. The shower waste water shall be drained, collected, and filtered through a system with at least 5 to 10 micron particle size collection capability. **NOTE:** A system containing a series of several filters with progressively smaller pore sizes is recommended to avoid rapid clogging of filtration system by large particles. All expended filters shall be discarded as contaminated waste. Filtered water may be discharged to a sanitary or storm sewer drain.
- A clean room with one curtained doorway into the shower and one entrance or exit to uncontaminated areas of the building. The clean room shall have sufficient space for storage of workers' street clothes, towels, and other uncontaminated items.

Use black plastic for the walls and curtains of the worker decontamination enclosure system to ensure the privacy of the workers.

4.2.3.3 Equipment Decontamination Enclosure System – The purpose of this area is to provide a means of decontaminating drums, scaffolding, material containers, vacuum and spray equipment, and other tools and equipment for which the worker decontamination system is not suitable. The Contractor shall provide or construct an equipment decontamination enclosure system contiguous to the work area that consist of two totally enclosed chambers as follows:

- A washroom, constituting an airlock, with a curtained doorway to a designated area of the work area and a curtained doorway to the holding area. This area shall be the same as the equipment room in the worker decontamination enclosure system. The washroom waste water shall be drained, collected, and filtered through a system with at least 5 to 10 micron particle size collection capability. **NOTE:** A system containing a series of several filters with progressively smaller pore sizes is recommended to avoid rapid clogging of filtration system by large particles. All expended filters shall be discarded as contaminated waste. Filtered water may be discharged to a sanitary or storm sewer drain.
- A holding area, constituting an airlock, with curtained doorway to an uncontaminated area. This area shall be the same area as the shower room in the worker decontamination system.

4.2.3.4 Separation of Work Areas – The Contractor shall use air and watertight barriers to separate the parts of the facility required to remain free of contamination from the parts of the facility that shall undergo asbestos hazard abatement work. The barriers shall be constructed as follows:

- Build suitable wood or metal frame.
- Cover the inside and outside of the frame with plywood and/or 6-mil plastic sheeting sealed with tape as specified.
- Where applicable, plexiglass partitions shall be installed to enable asbestos hazard abatement activities to be observed in rooms adjacent to the work area.

4.2.3.6 Asbestos abatement Work shall not commence until:

- Arrangements have been made and approval granted for disposal of waste at an acceptable site.
- Work areas, decontamination enclosure systems and parts of the facility required to remain uncontaminated are effectively segregated. The Consultant shall inspect the work area enclosure system to ensure that it is air and watertight. Any deficiencies noted by the Consultant shall be immediately corrected.
- Tools, equipment, and material waste receptors are on hand.

4.2.4 Air Filtration System

4.2.4.1 The Contractor shall not deliver negative air filtration devices on the job-site with used or previously installed HEPA filters. New HEPA filters shall be installed, according to the manufacturer's instructions, once delivered on-site. Once the Project has been successfully completed with all final clearance criteria being met, all negative air filtration devices shall have the HEPA filters removed and disposed of as asbestos-containing waste.

4.2.4.2 A pressure differential for contained work areas shall be required per OSHA 29 CFR 1926.1101. At a minimum, the air filtration devices shall provide for a complete air change every ten minutes. Calculations used to determine the number of units required shall be based on current performance and not rated capacity. **NOTE***: If actual cfm's are not measured, seventy percent (70%) of the rated capacity shall be used.

4.2.4.2.1 The following formula shall be used for estimating the number of air filtration devices:

$$\text{Number of units needed} = \frac{\text{ft.}^2 \text{ of work area} \times \text{height of ceiling in ft.}}{10 \text{ minutes} \times \text{cfm}^* \text{ capacity of units}}$$

4.2.4.3 The pressure differential shall be maintained so that the movement of tools, equipment, employees and waste containers through the decontamination enclosure systems do not result in air flow out of the work area.

4.2.4.4 Air circulation throughout the work area shall be maintained by the air filtration devices to reduce dead air spaces and provide appropriate ventilation inside the work area. The Contractor shall install a pressure differential meter with a strip or dial chart recorder as described in Article 3.2.6. The meter and strip and/or dial chart recorder must show a measurable pressure differential between the work area and adjacent areas at a minimum of -0.02 inches of water. If the Contractor cannot maintain an adequate pressure differential inside the work area all Work shall be stopped until the problem is corrected.

4.2.4.5 The Consultant shall collect air samples outdoors where the air filtration devices discharge air. If the air sample analyses indicate that the air filtration devices are discharging fiber concentrations outside of the building in concentrations higher than typical outdoor ambient concentrations, the Contractor shall immediately repair or replace the defective unit or the defective components to eliminate the discharge of fibers from the work area.

4.2.4.6 Air filtration devices shall not discharge air outside the building near pedestrian walkways.

4.3 WORK AREA REMOVAL AND DECONTAMINATION PROCEDURES

4.3.1 Floor Tile and Mastic - After preparation of the work area is completed as specified, saturate the floor tile with amended water using equipment capable of providing a mist application. Once the floor tile has been thoroughly saturated, apply pressure to the underside of the tile with care taken to prevent unnecessary breakage. The floor tile shall remain wetted until placed into covered disposal containers. When specified, the Contractor shall use non-petroleum based solvent to dissolve floor tile mastic. If the solvent used requires extra ventilation, protective equipment and/or respiratory protection, according to the solvents MSDS, the Contractor shall furnish the necessary ventilation devices (i.e., additional air filtration devices), personal protective equipment and/or NIOSH approved cartridges. All residue/debris from using the solvent to dissolve the mastic shall be HEPA vacuumed and wet cleaned to remove all visible traces of mastic inside the work area. **NOTE:** Use of alternate removal methods shall be approved by the Owner and Environmental Project Manager in advance.

4.3.2 Asbestos Debris Clean-up/General - Large deposits of previously damaged asbestos-containing material shall be thoroughly wetted with amended water and placed into appropriate disposal containers. Smaller pieces of asbestos-containing debris shall be removed by using HEPA filtered vacuum equipment. Any asbestos-containing deposits ground into carpet shall be removed with HEPA filtered vacuum equipment and carpet removed as asbestos-containing material.

4.4 REMOVAL AND DISPOSAL OF REGULATED AND HAZARDOUS WASTE

4.4.1.1 Fill disposal containers to a level that workers can handle safely and with ease.

4.4.1.2 As disposal containers are filled, seal and move them to the staging area for decontamination.

4.4.1.3 In conventional total containment asbestos removal practices, clean external surfaces of containers thoroughly by wet sponging in the designated areas that is part of the equipment decontamination enclosure system. Move containers to the washroom, wet-clean each container thoroughly, and move them to the holding areas pending removal to uncontaminated areas. Place decontaminated, sealed plastic bags containing asbestos material into a second clean bag; twist the bag opening tightly, bend the twisted end downward, and seal with tape. Move all disposal containers to the holding area to await disposal at an approved landfill. If glovebag techniques are used, place the glove bag into a clean bag; twist the bag opening tightly, bend the twisted end downward, seal with tape, and then move it to the holding area. Place caution labels on containers in accordance with 29 CFR 1926.1101. Identification labels shall also be placed on the outside of the first bag in accordance with 40 CFR Part 61, Subpart A and 29 CFR 1926.1101. Ensure that containers are removed from the holding area by workers, dressed in clean coveralls, who have entered from uncontaminated areas. Ensure that workers do not enter from uncontaminated areas into the washroom of the work area; ensure that contaminated workers do not exit the work area through the equipment decontamination enclosure system.

4.4.1.4 To prevent exceeding available storage capacity on-site as the work progresses, remove sealed and labeled containers of asbestos waste and dispose of such containers at an authorized disposal site in accordance with disposal regulatory requirements. Submit documentation regarding disposal to the Owner and/or on-site Consultant upon landfill receipt.

- 4.4.1.5 After the waste containers are decontaminated, the Contractor may make arrangements for a hauler or truck driver from the waste disposal site to transport the asbestos waste and contaminated material to the disposal site. Transportation of all materials from each work area shall be in accordance with all applicable DOT and EPA regulations.
- 4.4.1.6 All asbestos-containing waste inside the work area shall be removed and items decontaminated before any cleanup work is started and before the isolation structures are dismantled.
- 4.4.1.7 The Contractor shall be responsible for determining current waste handling and disposal regulatory requirements and must comply with these regulations.
- 4.4.1.8 The Contractor shall ensure that all employees handling and discarding asbestos waste wear approved respiratory equipment and protective clothing.
- 4.4.1.9 In certain instances, plastic bags or fiber and metal drums may not be adequate or suitable to handle certain asbestos-containing materials. As an alternative, the Contractor may remove asbestos-containing material that is bulky or cumbersome in two layers of 6-mil plastic sheeting sealed tightly at all joints with tape and/or spray adhesive. The waste shall be properly labeled in accordance with current EPA, OSHA and DOT requirements before transportation to the approved disposal site. All metal and wood waste shall be deposited and disposed of in air and water tight drums. The drums shall be properly labeled before transportation to the appointed disposal site.

4.5 CLEANUP AND DECONTAMINATION OF THE WORK AREA

- 4.5.1 Asbestos Cleanup – Remove visible accumulations of asbestos material and debris. Wet-clean all surfaces within the work area.
- 4.5.1.2 Sealed containers and all equipment used in the work area shall be included in the cleanup and shall be removed from work areas, via the equipment decontamination enclosure system, at an appropriate time in the cleaning sequence.
- 4.5.1.3 If the Owner and/or Consultant finds visible accumulations of asbestos debris in the work area after cleaning, the Contractor shall repeat the wet-cleaning, at his expense, until the work area is in compliance.

4.6 DETERMINING ASBESTOS ABATEMENT COMPLETION

4.6.1 Visual Inspection

- 4.6.1.1 The Consultant shall conduct a thorough first visual inspection of each work area after the Contractor has indicated that all asbestos-containing materials have been completely removed. The first inspection shall be conducted before the plastic sheets have been cleaned with damp mops and cloths, but after all gross debris has been cleaned up and prior to the spray application of sealant to exposed surfaces.
- 4.6.1.2 Items to be checked during the first visual inspection include, but are not limited to, the following:
- The adequacy of the removal of asbestos-containing material and/or other contaminants from the substrates.
 - The presence of adhering material or accumulated material on exposed surfaces.

Only after the work area has passed the first visual inspection shall the Contractor be permitted to apply sealant materials.

- 4.6.1.3 After the work area has passed the first visual inspection, the Contractor shall apply an approved sealant to exposed surfaces per Section 4.7 and clean all surfaces in the work area and any other contaminated areas with water and/or with HEPA-filtered vacuum equipment. The Contractor shall wait for the sealant to dry and dust to settle.
- 4.6.1.4 The Consultant shall conduct a second visual inspection of the work area following application of the sealant. Items to be checked during the second visual inspection shall include, but are not limited to, the following:
- Cleanliness of the work area and decontamination areas; accumulations of loose dust or debris on plastic sheets covering surfaces and floors.
 - Complete coverage of the exposed surfaces by the sealant.
 - The Consultant shall, at their discretion, use an electric leaf blower during the inspection to dislodge or discover any hidden debris that should have been removed. The Contractor shall perform this procedure himself before notifying the Consultant that the area is clean and ready for inspection. If visible dust or debris is discovered during the inspection, the Contractor shall wet-clean the entire work area again until the Owner and Consultant is satisfied that all visible dust and debris has been removed.

If any accumulation of dust or debris is observed, the Contractor shall be required to wet-clean and/or HEPA vacuum the work area again and pass another visual inspection.

- 4.6.1.5 After the work area has passed the second visual inspection, the Contractor shall remove the plastic sheets from floors only. The windows, doors, and HVAC vents shall remain sealed. All HEPA-filtered air filtration and decontamination enclosure systems shall remain in service. After an adequate settling period of 12 to 24 hours, the Contractor shall wet-clean and/or HEPA vacuum all objects and substrates within the work area.
- 4.6.1.6 The Consultant shall conduct a third visual inspection of the work area to ensure that the walls, floors, and all exposed surfaces are dust free following the final cleaning procedure. After the work area has passed the third visual inspection, final air monitoring shall be performed by the Consultant as described in Article 4.8. Only after the work area has met the final air testing criteria shall the Contractor be permitted to proceed to the next phase of work.

4.7 SEALANT APPLICATION FOR LOCKDOWN

4.7.1 In all areas from where asbestos-containing materials were removed, an approved sealant shall be used to lock down any residual airborne asbestos fibers to the substrate in prevention of subsequent dispersion or resuspension.

4.7.2 The sealant shall be applied to unfinished walls, upper deck, plastic sheeting, and other applicable areas. No sealant shall be applied directly to finished walls, ceilings and floors, including bare concrete.

4.7.3 The sealant shall be applied with low pressure airless spray equipment.

4.7.4 The sealant shall be used and applied in strict accordance to manufacturer's specifications.

4.7.5 The Contractor shall apply a thin, visible, contiguous film of sealant to all areas specified. Additional applications shall be required if the first application does not adequately cover the substrates or lockdown residual airborne asbestos fibers.

4.8 FINAL AIR MONITORING

4.8.1 Final air tests shall be performed to determine and document air quality upon completion of all asbestos hazard abatement work areas. The Consultant shall perform the final air tests after the work area has passed the final visual inspection. Fans or blowers shall be used to circulate air in the work area during the final air tests to simulate building use conditions (aggressive sampling). Samples shall be collected by use of high-volume electric sampling pumps calibrated up to a maximum flow rate of 10 liters/minute. Final clearance air samples shall be collected and analyzed using phase contrast microscopy (PCM) and/or, at the Owner's option, transmission electron microscopy (TEM) as described below:

4.8.1.1 Acceptable final clearance concentrations by PCM – PCM final air samples shall be collected from several locations within the work area and in adjacent equipment and worker decontamination areas. Inside area samples shall be collected and analyzed by PCM using NIOSH Method No. 7400 Revision 3; 'A' rules in accordance with Code of State Regulations 64 CSR 63. The total airborne fiber concentrations for each sample location collected inside the work area must be less than or equal to 0.01 f/cc. If any air sample concentration within the work area is greater than 0.01 f/cc, the Contractor shall wait twenty-four hours from the end of the air sampling period and reclean the work area with HEPA-filtered vacuum equipment, damp cloths and mops. Additional sets of air samples for the entire work area shall be collected and analyzed by the Consultant at the Contractor's expense until the acceptable fiber concentration of 0.01 f/cc is achieved. If the fiber levels in the work area still exceed 0.01 f/cc, the Contractor shall be required to reclean and pay for the additional air monitoring.

4.8.1.2 Acceptable final clearance structures by TEM – Only after the work area has successfully passed the final clearance criteria by PCM, shall the TEM air samples be collected and analyzed. A minimum of five air samples from within the work area and five samples from outside the work area or affected functional space, plus three blanks shall be collected and analyzed by TEM in accordance with an EPA recommended protocol (40 CFR, Part 763, Appendix A, Mandatory TEM Method).

4.9 REESTABLISHMENT OF OBJECTS AND SYSTEMS

4.9.1 The Contractor shall ensure all floor drains in each former work area is not obstructed following asbestos hazard abatement activities. The Contractor shall be charged by the Owner for all drains found to be obstructed.

4.9.2 The Contractor shall sweep and mop all floor surfaces used during any phase of a project. All general construction waste and/or trash generated by the Project shall be removed by the Contractor prior to departure from the job-site. In the event the Contractor leaves the job-site prior to restoration of the effected area, the Owner shall charge the Contractor for all labor, material, equipment and disposal fees associated with proper clean-up.

4.10 PROJECT CLOSE-OUT DOCUMENTATION

4.10.1 The Contractor is responsible for submitting a final report to the Environmental Project Manager within thirty days from the date of Substantial Completion. The contents of this final report shall contain the following:

- Original waste disposal manifests for asbestos waste

- Original recycling receipts for PCB ballasts and mercy lamps and switches
- EPA and Bureau of Public Health Notifications (including all revisions)
- Worker training documentation, including medical examinations, fit tests, certifications and training courses relevant to the Project
- Contractor's daily containment log
- Competent Person's daily field notes

SECTION 07250 - SPRAYED-ON FIREPROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Concealed sprayed-on fireproofing. One hour rating on all new steel beam, column and joist construction.

1.2 DEFINITIONS

A. Concealed sprayed-on fireproofing refers to applications where sprayed-on materials are applied to surfaces which will be concealed from view behind other construction when the Work is completed.

1.3 SUBMITTALS

A. Product data for each sprayed-on fireproofing product indicated.

B. Test reports containing the following information:

1. Test results from an independent testing laboratory indicating compliance of sprayed-on fireproofing products with performance requirements indicated and UL Design designation.

1.4 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain sprayed-on fireproofing materials from a single manufacturer for each different product required.

B. Fire Performance Characteristics: Provide materials and construction which are identical to those tested for the following fire performance characteristics, per test method indicated, by UL or other testing and inspecting organizations acceptable to authorities having jurisdiction. Contractor shall submit UL design that meets the required fire rating for each type of construction to be protected.

1. Fire Resistance Ratings: As indicated by design designation in UL "Fire Resistance Directory" for fire-resistance-rated assemblies in which sprayed-on fireproofing serves as direct-applied protection, tested per ASTM E 119.
2. Surface Burning Characteristics: As indicated for each sprayed-on fireproofing product required, tested per ASTM E 84 and listed in UL "Building Materials Directory".

1.5 PROJECT CONDITIONS

A. Environmental Conditions: Do not install sprayed-on fireproofing when ambient or substrate temperatures are 40 deg F (4.4 deg C) and falling, unless temporary protection and heat can be

provided to maintain temperatures of both at or above this temperature level for 24 hours before, during, and for 24 hours after application of sprayed fireproofing.

- B. Ventilation: Ventilate spray fireproofing by means of natural or, where this is inadequate, of forced air circulation during and after application until it dries thoroughly.

1.6 SEQUENCING

- A. Sequence and coordinate application of sprayed-on fireproofing with other, related work specified in other sections to comply with the following requirements:
1. Provide temporary enclosures to prevent deterioration of sprayed-on fireproofing for interior applications due to exposure to unfavorable environmental conditions.
 2. Avoid unnecessary exposure of sprayed-on fireproofing to abrasion and other damage likely to occur during construction operations subsequent to its application.
 3. Do not apply fireproofing to metal roof decking substrates until application of roofing has been completed; prohibit roof traffic during application and drying of fireproofing.
 4. Do not install enclosing or concealing construction until after fireproofing has been applied, inspected, tested, and corrections made to any defective fireproofing.

PART 2 - PRODUCTS

2.1 CONCEALED SPRAYED-ON FIREPROOFING MATERIALS

- A. General: For concealed applications of sprayed-on fireproofing provide manufacturer's standard products complying with requirements indicated below for material composition and physical properties representative of installed products.
- C. Material Composition: As indicated below:
1. Cementitious Fireproofing: Factory-mixed dry formulation of inorganic binders and lightweight mineral aggregates mixed with water at project site to form a slurry for pumping and for dispersal by compressed air introduced at spray nozzle.
 2. Mineral Fiber Fireproofing: Factory-mixed dry formulation of inorganic binders, mineral fibers, fillers and additives for sprayed-on application by conveying dry mixture by low pressure air through hose and mixing it with water at spray nozzle.
- D. Physical Properties: Minimum values, unless otherwise indicated, measured per standard test methods referenced with each property, as follows:
1. Bond Strength: Greater than 100 lbf per sq. ft. per ASTM E 736.

2. Compressive Strength: Greater than 3.47 lbf per sq. inch per ASTM E 761.
 3. Deflection: No cracking, spalling, delamination or the like per ASTM E 759.
 4. Effect of Impact on Bonding: No cracking, spalling, delamination or the like per ASTM E 760.
 5. Dry Density: Values for average and individual densities as required for fire-resistance ratings indicated, per ASTM E 605.
 6. Surface Burning Characteristics: Maximum flame spread and smoke developed values of 10 and 0, respectively.
- E. Available Products: Subject to compliance with requirements, products which may be incorporated in the Work include, but are not limited to, the following:
- F. Products: Subject to compliance with requirements, provide one of the following:
1. Cementitious Fireproofing:
 - a. "Monokote"; Grace Construction Products Div., W.R. Grace & Co.
 2. Mineral Fiber Fireproofing:
 - a. "SprayDon Standard J"; American Energy Products Corp.
 - b. "Cafco Blaze-Shield"; Isolatek International Corp.

2.2 AUXILIARY FIREPROOFING MATERIALS

- A. General: Provide auxiliary fireproofing materials that are compatible with sprayed-on fireproofing products and substrates, are approved for use indicated by manufacturer of sprayed-on fireproofing, and are approved by UL or other testing and inspecting agency acceptable to authorities having jurisdiction for use in fire-resistance rated designs indicated.
- B. Adhesive for Bonding Fireproofing: Type recommended by manufacturer of sprayed-on fireproofing.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, to determine if they are in satisfactory condition to receive sprayed-on fireproofing. A substrate is in satisfactory condition if it complies with the following:
1. Substrate complies with requirements of the section in which the substrate and related

work is specified and is free of oil, grease, rolling compounds, incompatible primers, loose mill scale, dirt or other foreign substances capable of impairing bond of fireproofing with substrate under conditions of normal use or fire exposure.

2. Objects which will penetrate fireproofing, including clips, hangers, support sleeves and similar items have been securely attached to substrates.
 3. Substrates are not obstructed by ducts, piping, equipment and other suspended construction that could interfere with application of fireproofing.
- B. For steel substrates suspected of being coated with oil, rolling compounds or other substances not readily identifiable but potentially capable of impairing bond, conduct tests recommended by fireproofing manufacturer to determine their presence and effect on adhesion of fireproofing.
 - C. Do not proceed with installation of fireproofing until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of substances which could impair bond of fireproofing, including oil, grease, rolling compounds, incompatible primers, and loose mill scale.
- B. Cover other work which might be damaged by fall-out or overspray of fireproofing materials during application. Provide temporary enclosure as required to confine spraying operations, protect the environment, and to ensure adequate ambient conditions for temperature and ventilation.

3.3 INSTALLATION, GENERAL

- A. General: Comply with fireproofing manufacturer's instructions for mixing materials, for application procedures and for types of equipment used to convey and spray-on fireproofing materials; as applicable to the particular conditions of installation and as required to achieve fire-resistance ratings indicated.
- B. Coat substrates with adhesive prior to application of fireproofing where required to achieve fire-resistance rating or recommended by fireproofing manufacturer for material and application indicated.
- C. Extend fireproofing full thickness over entire area of each substrate to be protected. Unless otherwise recommended by fireproofing manufacturer, install body of fireproof covering in a single course.
- D. Apply fireproofing in thicknesses and densities indicated but not less than that required to achieve fire resistance ratings designated for each condition.
- E. Apply fireproofing materials by sprayed-on method to maximum extent possible. Following

spraying operation in each area, complete the coverage by trowel application or other placement method acceptable to manufacturer.

3.4 FIELD QUALITY CONTROL

- A. Testing Laboratory: Contractor shall employ and pay a qualified independent testing laboratory to perform field quality control testing.
- B. Extent and Testing Methodology: Arrange for testing of completed fireproofing in successive stages in areas of extent described below; do not proceed with fireproofing of next area until test results for previously completed work evidence compliance with requirements.
 - 1. Extent of Test Area: Not greater than 10,000 sq. ft. or once per floor whichever is greater.
 - 2. Within each area, testing laboratory shall randomly select one typical structural element of each type test fireproofing for cohesion/adhesion per ASTM E 736.
 - 3. Testing Laboratory shall report test results promptly and in writing to Contractor and Architect.
- D. Repair or replace fireproofing within areas where test results indicate fireproofing does not comply with requirements.

3.5 CLEANING, REPAIR, AND PROTECTION

- A. Cleaning: Immediately upon completion of spraying operations in each containable area of project, remove over-spray and fall-out of materials from surfaces of other work and clean exposed surfaces to remove evidence of soiling.
- B. Cure exposed cementitious fireproofing materials in compliance with fireproofing manufacturers recommendations to prevent premature drying.
- C. Protect fireproofing according to advice of fireproofing manufacturer and Installer from damage resulting from construction operations or other causes so that fireproofing will be without damage or deterioration at time of Substantial Completion.
- D. Coordinate installation of fireproofing with other work in order to minimize the need for other trades to cut or remove fireproofing. As other trades successively complete installation of their work, maintain protection of structure afforded by fireproofing by patching any areas which have been removed or damaged prior to concealment of fireproofing by other work.
- E. Repair or replace work which has not been successfully protected.

END OF SECTION 07250

WEST VIRGINIA LOTTERY HEADQUARTERS
RENOVATIONS & ADDITIONS
900 PENNSYLVANIA AVENUE
CHARLESTON, WV

LOT471 BID FORM

DATE: _____

TO THE OWNER: West Virginia Lottery Commission
312 MacCorkle Ave., SE
Charleston, WV 25305

PROJECT: Requisition No. _____
West Virginia Lottery Headquarters Renovations & Additions
900 Pennsylvania Avenue
Charleston, WV

The undersigned, hereinafter called the Bidder, being familiar with and understanding the Bidding Documents and also having examined the site and being familiar with all local conditions affecting the project hereby proposes to furnish all labor, material, equipment, supplies and transportation, and to perform all Work in accordance with the Bidding Documents within the time set forth below for the sum of:

I (We) acknowledge the following Addenda:

ADDENDUM

<u>NOS.</u>	<u>DATE</u>
_____	_____
_____	_____
_____	_____

I understand that failure to confirm the receipt of the addendum(s) is cause for rejection of bids.

BASE BID: General Construction

Dollars (\$ _____).

ADD ALTERNATE NO. 1 – CCTV for Parking Deck

Supply all labor and materials to install CCTV for the Parking Deck as indicated on the drawings.

Dollars (\$ _____).

ADD ALTERNATE NO. 2 – Reduction of Contract Time

Additional cost to reduce the contract time from 240 to 180 days for Substantial Completion of all Work on floors 1, 2, 6, 10, 11, 12, 13, and the New Warehouse. This 60 day reduction of contract time would also make Substantial Completion of the remaining Work on floors 3, 4, 5, 7, 8, and 9 and the elevators due in a total of 240 days instead of 300 days.

_____ Dollars (\$ _____).

ADD ALTERNATE NO. 3 – Remove and Replace Bathroom Ceramic Tile

Additional cost in Men’s Public Restrooms and Women’s Public Restrooms on floors 2 through 12, remove existing ceramic floor tile and base. Install new 2” x 2” ceramic tile floor with 6” tall ceramic tile base. Base to be made up with 2” x 2” bullnose top tile, 2” x 2” center tile, and 2” x 2” cove bottom tile.

_____ Dollars (\$ _____).

In the event of a difference between the written amount and the number amount, the written amount shall prevail.

It is expressly agreed that the Work shall be started within seven (7) days of the Owner’s Notice to Proceed. The Bidder, if successful and awarded a Contract, agrees that Work on floors 1, 2, 6, 10, 11, 12, 13, and the New Warehouse is to be Substantially Complete within 240 calendar days following receipt of the Owner's written Notice to Proceed and agrees to achieve Final Completion on the same areas of work as listed above within 30 consecutive calendar days thereafter. Contractor also agrees that Work on floors 3, 4, 5, 7, 8, 9, and the elevators is to be Substantially Complete within an additional 60 calendar days past the 240 days listed above and agrees to Final Completion on floors 3, 4, 5, 7, 8, 9, and the elevators within 30 consecutive calendar days thereafter. I (We) further agree to pay as liquidated damaged the sum of \$1,500 for each consecutive calendar day thereafter as herein provided in Article 9 of the Supplementary General Conditions and Division 1, Section 01100, Summary of Work.

Any work performed prior to receipt of the Owner's written Notice to Proceed and/or Purchase Order shall be at the Bidder's risk.

Upon receipt of the Owner's written notice of the acceptance of this Bid, the Bidder agrees that he shall execute and deliver the bonds and insurance certificates as set forth in the Bidding Documents to the Owner, or the Bidder shall forfeit the security deposited with this Bid.

The Bidder agrees that this Bid shall not be withdrawn for a period of sixty (60) consecutive calendar days following the date for receipt of Bids without forfeiture of the five percent (5%) bid security deposited with this Bid.

The Bidder shall also attach an executed State of WV Drug Free Workplace Conformance Affidavit to this proposal.

RESPECTFULLY SUBMITTED:

DATE: _____

WV VENDOR NO.: _____

CONTRACTOR LICENSE NO.: _____

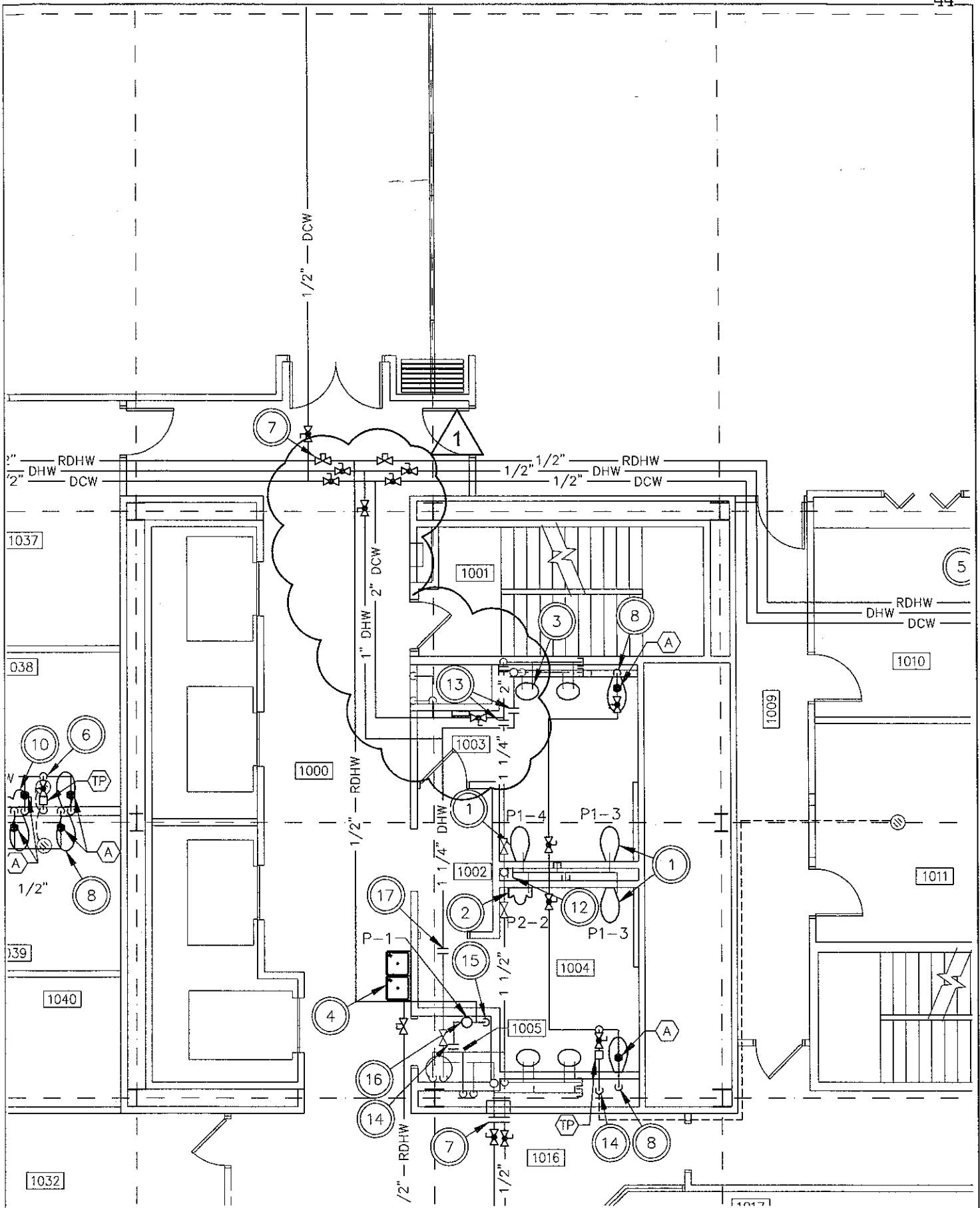
BY: _____
(SIGNATURE, IN INK)

TITLE: _____

FIRM NAME: _____ (CORPORATE SEAL
IF APPLICABLE)

ADDRESS: _____

END OF BID FORM

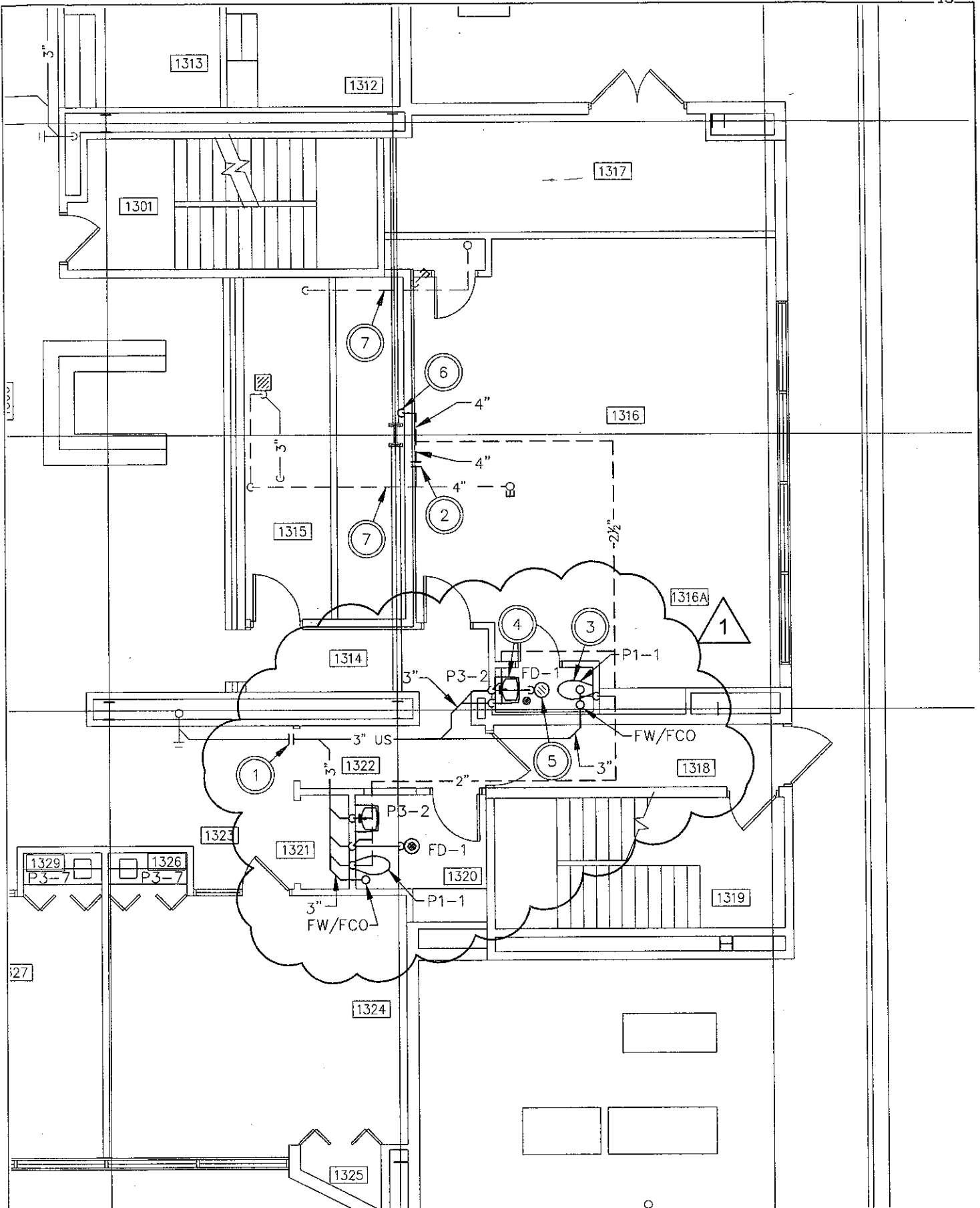


**SCHEESER BUCKLEY
MAYFIELD LLC**
CONSULTING ENGINEERS
1540 CORPORATE WOODS PARKWAY
UNIONTOWN, OHIO 44685-8797
PHONE: (330) 896-4664 FAX: 896-9180

JOB TITLE:
**WV LOTTERY HEADQUARTERS
RENOVATIONS & ADDITIONS**

REF. FILE: ?

ADDENDUM NO. 2	SKETCH NO. SKP1
SCALE: NTS	SHEET NO.
DATE: 03/09/11	P3-8
DRWN: KAS	



**SCHEESER BUCKLEY
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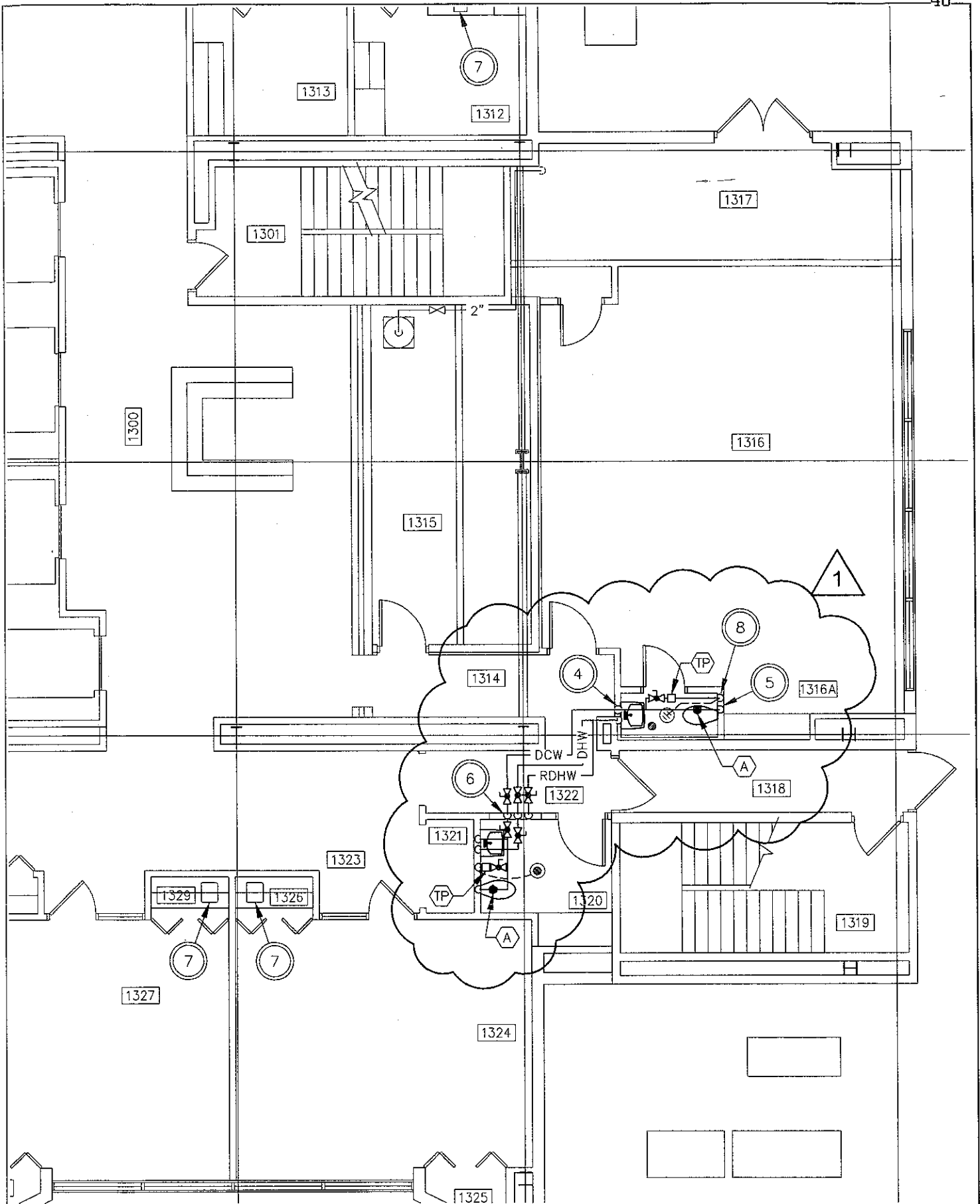
JOB TITLE:

**WV LOTTERY HEADQUARTERS
RENOVATIONS & ADDITIONS**

REF. FILE: ?

ADDENDUM NO.
2
SCALE:
NTS
DATE:
03/09/11
DRWN:
KAS

SKETCH NO.
SKP2
SHEET NO.
P3-11



SMB
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JOB TITLE:
WV LOTTERY HEADQUARTERS
RENOVATIONS & ADDITIONS
 REF. FILE: ?

ADDENDUM NO. 2	SKETCH NO. SKP3
SCALE: NTS	SHEET NO. P3-11
DATE: 03/09/11	
DRWN: KAS	