



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  
**COR61332**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**JOHN ABBOTT**  
**304-558-2544**

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE

SHIP TO

DIVISION OF CORRECTIONS  
 617 LEON SULLIVAN WAY  
 CHARLESTON, WV  
 25301 304-558-8045

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
03/07/2007				

BID OPENING DATE: **03/28/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<b>ADDENDUM #02</b>						
THIS ADDENDUM IS ISSUED TO ADD TO, MODIFY, AND/OR DELETE THE REQUIRMENTS OF THE ORIGINAL REQUEST FOR QUOTATION SPECIFICATIONS.						
ATTACHMENTS: 1. MEMORANDUM ADDENDUM 2. SECTION 07410 - METAL ROOFING - MASTER SPECIFICATION						

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. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125.00 registration fee.
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, 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.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.
14. **HIPAA Business Associate Addendum -** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

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**INSTRUCTIONS TO BIDDERS**

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** 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. Complete all sections of the quotation form.
4. Unit prices shall prevail in cases of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** 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.

**SIGNED BID TO:**

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

## MEMORANDUM

**TO:** John Abbott, Buyer  
West Virginia Division of Purchasing

**FROM:** Bill Wimer, Construction Manager  
West Virginia Division of Corrections

**DATE:** March 6, 2007

**RE:** COR61332

The following information consists of the addendum to the Pruntytown Correctional Center Roof Replacement Project.

- Item #1 Shingles to be 40 year Owens Corning 3-D (or equal)
- Item #2 Existing gutters to be relined with 60mil EPDM. Install ½” insulation board to cover copper bottom. Install aluminum gravel stop to face of existing to extend height by 2” to prevent rainwater from splash over.
- Item #3 Contractor to submit price per square foot for decking replacement.
- Item #4 Contractor may use both ends of building to place scrap dumpsters and must coordinate with owner for use of dump truck at back of building.
- Item #5 Contractor must coordinate shingle replacement with Asbestos Abatement Contractor who is under Statewide Contract and will be assigned by owner.
- Item #6 Timeline for project will be 90 Calendar Days from to Notice to Proceed.
- Item #7 Alternate #1 – Contractor to price installing metal roofing over existing shingle roofing. Roofing to comply with attached specifications. Gutters to be relined as per item #2. Color by owner.

# SECTION 07410

## METAL ROOFING - MASTER SPECIFICATION

### PART I - GENERAL REQUIREMENTS

#### 1.01 DESCRIPTION OF WORK:

##### A. Section Includes:

The extent of each type of preformed metal roofing panel as indicated on the drawings and by the provisions of this section. The scope of work includes, but shall not be limited to: preformed metal roof panels, flashing required to weatherproof the system (ridge, hip, valley, cleat, eave, rake wall, rake edge, apron, inside corner, outside corner, gutter, downspout, drip sill, end wall, and other miscellaneous flashing), related accessories necessary for attachment of the roofing system, all butyl tape and sealant used in conjunction with the roofing system, and necessary attachment hardware as required to meet the performance standards and complete the roofing enclosure as indicated by Contract Documents.

#### 1.02 RELATED SECTIONS:

- A. Section 05120: Structural Steel Framing
- B. Section 05310: Steel Roof Deck
- C. Section 05500: Miscellaneous Metal Fabrication
- D. Section 06100: Rough Carpentry
- E. Section 07210: Building Insulation
- F. Section 07600: Flashing and Sheet Metal
- G. Section 07900: Sealant

#### 1.03 REFERENCES:

- A. American Iron and Steel Institute (AISI), Specification for the Design of Cold-Formed Steel Structural Members (August 1996).
- B. American Institute of Steel Construction (AISC) Manual of Steel Construction (Current Edition).
- C. American Society for Testing and Materials (ASTM):
  - 1. ASTM A792: Specification for Sheet Steel, Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  - 2. ASTM E283-91: Test Method for Rate of Air Leakage over Solid Substrate.
  - 3. ASTM E331-93: Test Method for Rate of Water Penetration over Solid Substrate.
  - 4. ASTM E1680-95: Test Method for Rate of Air Leakage over Open Framed Structure.

5. ASTM E1646-95: Test Method for Rate of Water Penetration over Open Framed Structure.
  6. ASTM E1592-95: Standard Test Method for Structural Performance of Sheet Metal and Siding Systems by Uniform Static Air Pressure Difference.
- D. Sheet Metal and Air Conditioning Contractors National Association (SMACNA):
1. Architectural Sheet Metal Manual (1987 edition).
- E. Underwriter's Laboratory (UL) Roofing Materials and Systems Directory:
1. Roofing Materials and Systems Directory (1997 edition) listings and classifications of Underwriter's Laboratory roofing construction assemblies.

#### 1.04 SYSTEM DESCRIPTION:

- A. Design Requirements:
1. Continuous, one-piece, preformed, prefinished single length roof panels.
  2. Panels, clips, and other components required for specific project conditions.
  3. Manufacturer is responsible for providing evidence acceptable to Architect that manufacturer's specified roof system is capable of meeting thermal, wind uplift, and performance requirements specified.
- B. Thermal Movement:
1. Complete metal roofing and flashing system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling, producing excess stress on structure, anchors or fasteners, or reducing performance ability.
  2. Interface between panel and expansion clip shall provide for applicable thermal movement in each direction along longitudinal direction.
- C. Performance Requirements:
1. Underwriter's Laboratories, Inc. (UL) Wind Uplift Resistance Classification for Roof Assembly shall be Class 90, as installed, pursuant to Construction Number (selected from available assemblies in technical section of architectural binder) 431, 431A, 432, 433, 498, 498A, or 498B as defined by UL 580. Certified statements from manufacturer without proper UL classification will not be acceptable.\*\* Open frame assembly requires 30" on center maximum w/16 gage hat channels per UL testing criteria.
  2. Complete metal roof system shall have maximum static pressure air infiltration of 0.046 cfm / square foot with 1.57 psf air pressure differential when tested in accordance with ASTM E283-91 or 0.014 cfm / square foot with 1.57 psf air pressure differential when tested in accordance with ASTM E1680-95.

3. Complete metal roof system shall have no uncontrolled water penetration (dynamic water pressure), other than condensation, when exposed to dynamic rain at 6.24 psf differential static pressure when tested for not less than fifteen (15) minutes in duration in accordance with ASTM E331-93 or ASTM E1646-95.
4. Entire roofing system (metal panels, flashing, expansion joints, and penetrations), are to be detailed to provide watertight roof under peak weather conditions.

#### 1.05 SUBMITTALS

##### A. Shop Drawings Submittals:

1. Manufacturer of the metal roof system shall provide complete shop drawings in accordance with the requirements specified in Section 01340.
2. Shop drawings must be submitted and returned as acceptable prior to the beginning of product production.

##### B. Product Data Submittals:

1. Submit manufacturer's detailed product literature including the system profile sheet, system description including: material base-sheet gauge, seam height, panel on-center, finish, and sealant as required.
2. Submit manufacturer's installation guidelines of the specified product.
3. Submit a sample of each type of roof panel, complete with factory finish. In the case where custom color is specified, send a custom color chip for written approval along with a standard color product sample for review.

##### C. Quality Control Submittals:

1. Submit shop drawings signed by a registered engineer licensed to practice in the State where the project is located certifying the design of the roof system meets the specified performance criteria.

#### 1.06 QUALITY ASSURANCE:

##### A. Qualification of installers:

1. Competent and skilled sheet metal applicators familiar with Manufacturer's products, standard details and recommendations. Applicator shall have at least two (2) years experience applying these types of materials with successful completion of projects with similar scope.
2. Installers shall be thoroughly trained and experienced in the necessary crafts and who are completely familiar with and comply with the recommendations and details of the manufacturer and the "Architectural Sheet Metal Manual" published by SMACNA.
3. Installers shall follow the manufacturers' installation details without exception unless written authorization from the manufacturer and architect are provided on an installation detail revision. Detail revision authorization must be made in advance of product installation.

B. Qualification of the product manufacturer:

1. Manufacturer shall be a company specializing in Architectural Sheet Metal Products with at least ten (10) years experience. Being listed as a prequalified manufacturer does not release manufacturer from providing complete, current and acceptable test data for each performance, thermal, and wind load requirement specified for specific profile proposed.
2. Manufacturer shall operate a permanent, full-time, manufacturing facility where the metal roof panels are produced on fixed-based, multi-station roll forming machines with a minimum of 18 stations and included in the Underwriter's Laboratory field inspection services. These facilities must be currently under inspection at least four times per year by Underwriter's Laboratory personnel to verify compliance that the products fabricated are in accordance with the specifications of the products which were originally tested.

C. Product Substitutions:

1. Substitutions to the specified systems shall be submitted to the Architect no later than ten (10) days prior to the official bid date. Acceptance of any substitutions shall be put forth in written addendum within seven (7) days prior to the official bid date.
2. No product substitutions will be permitted without meeting all of the performance criteria set forth in this specification.
3. No product substitutions shall be submitted after the official bid date.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver roof system components to project site in manufacturer's unopened original containers.
- B. Protect roof system components during shipment, storage, handling and erection from mechanical abuse, stains, discoloration and corrosion.
- C. Provide strippable plastic film on all painted surfaces between contact areas to prevent abrasion during shipping, storage and handling.
- D. Store materials off the ground, providing for drainage, under protective cover which allows for air circulation and protection from foreign material contamination, mechanical damage, cement, lime, or other corrosive materials.
- E. Handle materials to prevent damage to surfaces, edges and ends of roofing components. Damaged material shall be rejected and removed from site.
- F. Examine materials upon delivery to jobsite. Reject and remove physically damaged, stained or marred material from project site.
- G. Metal roof components with strippable film must not be stored with exposure to direct sunlight.

- H. Stack material to prevent damage and allow for adequate ventilation and drainage.

#### 1.08 SITE CONDITIONS

- A. Determine that work of other trades will not hamper or conflict with necessary fabrication and storage requirements for preformed metal roofing system.
- B. Protection:
  - 1. Provide protection or avoid traffic on completed roof surfaces.
  - 2. Do not overload roof with stored materials.
  - 3. Support no roof-mounted equipment directly on roofing system.
- C. Determine that work of other trades which penetrates roof or is to be made watertight by roof is coordinated by location, in place, and accepted prior to installation of roofing system.

#### 1.09 WARRANTIES

- A. Furnish manufacturer's Standard Twenty (20) Year Warranty stating the architectural fluorocarbon coating will:
  - 1. Not crack, chip, peel or exhibit any other mechanical failure of paint to adhere to the substrate.
  - 2. Not exhibit fading or color change in excess of five (5) hunter delta E units as determined by ASTM D2244-79.
  - 3. Not chalk in excess of a numerical rating of eight (8) as determined by ASTM D4214-89
- B. Furnish manufacturer's Standard (20) Year 6 month Limited Galvalume Sheet Material Warranty against rupture, structural failure, or perforation.
- C. Furnish manufacturer's Standard Watertightness Warranty for a period of (20) years after the date of substantial completion. Entire source of material and labor shall be the sole responsibility of one subcontractor.
  - 1. Warranty shall be limited to the value of the installed metal roof assembly.
  - 2. Warranty shall be signed by the manufacturer of the metal roof system and his authorized installer, agreeing at their option to replace or repair defective materials and workmanship as required to maintain the metal roof system in watertight condition.
  - 3. Warranty shall not exclude any conditions such as flashing, valleys, interior gutters, penetrations, etc. that are an integral part of the roof system.
  - 4. The manufacturer of the metal roof system shall review installation details and perform on site inspections as required to certify proper watertight roofing material installation.



## PART 2 - PRODUCT

### 2.01 MANUFACTURERS:

- A. **Dimensional Metals, Inc (DMI)**
- B. **Approved Equal**
- C. Being listed as a prequalified manufacturer does not release the manufacturer from providing a similar product that meets the performance criteria as listed in this specification. It is the responsibility of the manufacturers to provide evidence of meeting the specification parameters.

### 2.02 SHEET MATERIALS

- A. Prefinished base sheet material shall be 24 Gauge (.024") Galvalume Aluminum-Zinc Alloy Coated Steel Grade C meeting ASTM A792.
- B. Finish shall be 70% Kynar 500 or Hylar 5000 Fluorocarbon coating, applied on a continuous coil coating line, with top side dry film thickness of 1.1 +/- .01 mil dry film thickness and on the reverse side a wash coat and primer of .04 +/- .01 mil total dry film thickness.
- C. Finish color shall be selected by the architect from the manufacturer's current standard color selection guide. Unless otherwise noted all products shall be of the same finish and color.
- D. Strippable film shall be applied to the topside of the painted coil to protect the finish during fabrication, shipping and field handling. This strippable film must be removed during installation.

### 2.03 PREFORMED METAL ROOFING SYSTEM

- A. Preformed Metal Panels: Based on the Following Design:
  - 1. System Name: DMI IL20
  - 2. Model Number: IL 2018
  - 3. Seam Height: 1.75"
  - 4. Seam On-center: 18"
  - 5. Stiffeners: 2 High Bead Stiffeners Equidistantly Placed in Flat of Pan; or Striation Pattern
- B. Standing seams shall incorporate a continuous engineered interlocking connection with concealed passage that prevents the entrance of water.
- C. Standing seams shall contain factory injected butyl sealant that runs continuously throughout the panel length as job conditions dictate.
- D. Panel clips shall be as recommended by the manufacturer to meet the performance criteria of this specification.

- E. All exposed adjacent flashing shall be of the same material and finish as the roof panels.
- F. Fasteners:
1. Exposed screw fasteners shall be 300 series alloy stainless steel with integrally bonded neoprene washers or Zinc Aluminum Cast head covers with integral neoprene gaskets.
  2. Exposed pop rivets shall be stainless steel, rivet and mandrel, self plugging type #44 - 1/8" diameter 1/4" grip range minimum. Exposed pop rivets shall be painted to match the metal roof system.
  3. Concealed fasteners for anchor clips shall be #10 -12 - 1" long pancake head #2 Phillips drive screw as required to meet the performance criteria in this specification.
  4. Concealed fasteners for flashing attachment shall be #8 -15 - 1 1/4" long truss head #2 Phillips drive screw as required to meet the performance criteria in this specification.
  5. There shall be no exposed fasteners except to fasten flashing, at fixing points, or as indicated on the shop drawings.
- G. Closures:
1. Hip and ridge closures shall be factory fabricated from similar material to the roof panels. Hip and ridge closures shall be field cut to fit properly between the panel seams.
- H. Sealant:
1. Factory-applied seam sealant shall be non-curing butyl designed for metal to metal connection in concealed joints, if specified.
  2. Field applied sealant and/or butyl tape shall be as recommended by the manufacturer of the metal roof system.

## 2.04 FABRICATION

- A. Panels shall be fabricated in permanent fabrication facilities in continuous lengths as required. No horizontal end lap joints will be accepted, unless panels exceed 65' in length or jobsite conditions dictate.
- B. Panel design shall incorporate concealed clips and fasteners. Exposed fasteners in roofing panels will not be accepted.
- C. Standing seam design shall prevent water infiltration by utilizing a capillary break to prevent siphoning.
- D. Fabricate roofing and related sheet metal work in accordance with approved shop drawings and applicable standards set forth in the Sheet Metal and Air Conditioning Contractors National Association - Architectural Sheet Metal Manual (1987 edition).
- E. All roofing and sheet metal flashing shall be fabricated in minimum 10'-0" lengths except as noted otherwise. All flashing shall have a minimum 1/2" hemmed edges in exposed locations. Provide field fabricated miters for components that change

direction on the project.

### **PART 3 - EXECUTION**

#### **3.01 INSPECTION:**

- A. Examine alignment and placement of building roof structure before proceeding with installation of preformed metal roofing.
- B. Examine metal roof deck before starting installation. Deck must be clear, clean and smooth, free of depressions, waves, or projections, dry and must remain dry and free of ice and snow, after roofing application commences. Deck flutes must be clean and dry.
- C. Field check dimensions and check support alignment with taut string or wire. Support misalignment may cause additional stresses in the panels and contribute to oil canning.
- D. Do not proceed with installation until conditions are satisfactory. Notify the architect in writing of unsatisfactory conditions.
- E. Felting:
  - 1. Verify #30 unperforated asphalt saturated roofing felt underlayment has been installed over solid substrate.
  - 2. Tri-Flex, Roof Top Guard, or Titanium Underlayments—All Poly 30# substitutes for 30# felt must be submitted for approval as equal during submittals.
  - 3. Ensure felt or Poly substitute is installed horizontally, starting at the eave working to the ridge with a 6" minimum overlap.
  - 4. Ensure that all fasteners are totally flush with the substrate.

#### **3.02 INSTALLATION:**

- A. General Requirements:
  - 1. Install roofing and flashing in accordance with approved shop drawings and manufacturer's product data, within specified tolerances.
  - 2. Isolate dissimilar metals, masonry and concrete from metal roof system with bituminous coating.
  - 3. Anchorage shall allow for thermal expansion and contraction without stress or elongation of panels, clips or anchors. Coordinate flashing and sheet metal work to provide watertight conditions at roof terminations. Fabricate and install in accordance with standards set forth in the SMACNA Manual using continuous cleats at all exposed edges.
- B. Underlayment:

1. Rigid Insulation board: Approved Isocyanurate Foam Insulation Board with minimum 1.5 pound density.
2. Install proper protection to finished substrate to prevent moisture infiltration to roofing assembly prior to placement of panels. Cover complete roof area to receive metal roof panels with a self adhered ice and water underlayment membrane or a combination of #30 roofing felt and self adhered ice and water underlayment at the eaves, ridges, hips, valleys, rake walls, rake edges, and around all penetrations.

C. Preformed Metal Panels:

1. Fasten anchor clips with fasteners as recommended by the manufacturer as required to meet the performance criteria specified.
2. Install starter and edge trim before installing roof panels.
3. Remove strippable plastic film prior to installation of roof panels.
4. Erect metal roofing with lines, planes, rises and angles sharp and true, and plane surfaces free from objectionable warp, dents, buckle or other physical defects.
5. Do not allow traffic on completed roof.
6. Protect installed roof panels and trim from damage caused by adjacent construction until completion of installation.
7. Remove and replace any panels or flashing components that are damaged beyond successful repair.

D. Flashing:

1. Comply with SMACNA "Architectural Sheet Metal Manual" recommendations for installation work where the manufacturer's approved shop drawings do not define a specific detail.
2. Conceal fasteners and expansion provisions wherever possible.
3. Hem all exposed edges of sheet metal flashing that are exposed with at least 1/2" fold under.
4. Insert metal flashing into reglets, anchor with wedges and seal all joints.
5. Set sheet metal items level, true to line and plumb.
6. Secure all metal flashing to wood nailers with screws as indicated on the approved shop drawings.
7. Use cleats to keep flashing endlaps closed when face width exceeds eight (8) inches.

### 3.03 FIELD QUALITY CONTROL

- A. Tolerances:
  - 1. Applicable erection tolerances: Maximum variation from true planes or lines shall be 1/4" in 20'-0" or 3/8" in 40'-0".
  - 2. Metal roof systems can not correct any previously installed support or wood nailer problems that do not meet the above tolerances; this includes substructure hat channels for open framing of panel assembly.
  
- B. Manufacturer's Field Service:
  - 1. Manufacturer's representative shall inspect all Watertight Warranted projects during the installation of the metal roof system.
  - 2. Inspections shall be scheduled as required by the manufacturer of the roofing system.
  - 3. Three mandatory visits are required:
    - a. Inspection of substrate and proper underlayment.
    - b. Inspection of proper panel and flashing installation.
    - c. Final inspection upon completion of the metal roof installation.
  - 4. Upon final inspection a report will be issued to the installer of any discrepancies and requirements for additional work. If additional work required the manufacturer will provide another final inspection to verify acceptance of completed work.

### 3.04 CLEANING

- A. Clean exposed surfaces of work promptly after completion of installation. To prevent rust from staining the painted finish immediately remove filings produced by drilling or cutting.
- B. Clean roof in accordance with manufacturer's recommendations.
- C. Touch up minor abrasions and scratches in finish.
- D. Remove all scrap and construction debris from the site.

**END OF SECTION**