

Scope of Services

Project: Proposed Site Improvements – Fort Myers Materials Lab

Location: Florida Department of Transportation – District 1

Address: 4051 Florida DOT Way, Fort Myers, FL 33905

Project Overview

FDOT District 1 seeks site preparation and construction of a **2,080 sq. ft. pre-engineered metal building (PEMB)** at the Fort Myers Materials Lab. The scope includes all required design, permitting, site work, grading, parking areas, and utility/pathway integration.

The base bid will include design, permitting **all site work and construction of the PEMB shell** only.

Interior build-out items will be priced separately as **bid options** to be considered based on available funding.

Base Scope of Work

1. Pre-Engineered Metal Building (PEMB)

- Provide complete design, engineering, and permitting for a 2,080 sq. ft. PEMB.
- Coordinate dimensions with the existing site layout (approx. 80' x 26' footprint).
 - Building is to include 2 – 36' access doors; 1 -8' rollup door, 4 – 4'x4' windows, and building must be R-16 insulated (see concept for location placement)
- Including slab thickness, wind load rating, anchoring, and hurricane code compliance (Building must meet local wind codes) with pre-engineered building.
- Submit building plans to the Florida State Fire Marshal for approval prior to fabrication.
- Integrate allowances for future interior layout and utilities (layout provided post-shell completion).

2. Site Preparation, Clearing & Grading

- A site survey was performed. Please see attached
- Remove designated trees and vegetation for the building footprint, parking areas, and loading zone.
- Clear, grub, and grade the building and parking areas for proper drainage.
- Protect existing utilities and coordinate any required relocations or adjustments.

3. Parking Areas (3 total)

- Construct three new parking areas (asphalt or concrete) with ADA compliance:

- o **North:** 28' x 16' (near loading zone)
 - o **East:** 12' x 60' (adjacent to structure, replaces gravel parking)
 - o **South:** 28' x 28' (along southern entrance curve)
- Include striping, wheel stops, proper base and sub-base per FDOT standards, and drainage.

4. Loading Zone

- Install 6" thick 12'x36' concrete loading area at the north end of the building.
- Provide positive drainage away from the structure.

5. General Requirements

- All work compliance with the current **Florida Building Code, FDOT Standards**, and applicable permits.
- Maintain site access and operational status during construction (phasing plan if required).
- Provide final grading, sodding, and restoration of disturbed areas.

Bid Options – Scope of Work

The following bid options shall be priced separately from the Base Bid. All pricing shall be turnkey and include labor, materials, equipment, permits, inspections, and coordination required to deliver a fully functional system or finish. Contractors are expected to include all items normally associated with the service being provided, even if not explicitly listed below.

Option A – Interior Partitions, Paint, and Drop Ceiling

Intent: Provide a turnkey interior build-out including partitions (with an 8'x7' unisex restroom), gypsum systems, paint/finish, and a 2'x2' ACT ceiling—and a code-compliant 2-hour fire-resistance-rated wall separating the office and lab.

1) Partitions & Framing (General)

- Interior partitions per plan, including the restroom (8'x7') and the office–lab demising wall
 - Studs/track: 3-5/8" metal studs @ 16" o.c.; 25 ga min (use 20 ga at door jambs/hardware and where required by listings).
 - Full-height to underside of roof deck unless noted; deflection head where required for PEMB movement.
 - Blocking/backing for accessories, grab bars, and door hardware.
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2) 2-Hour Fire-Rated Office–Lab Demising Wall

Provide a complete, listed 2-hour non-load-bearing steel-stud gypsum assembly, built full height from slab to underside of deck (rating shall not rely on the ceiling). Acceptable basis of design: UL U419, UL U465 (or equal). Meet the exact requirements of the chosen listing; minimum expectations include:

- **Layers:** Two layers 5/8" Type X gypsum each side (unless selected listing indicates otherwise).
- **Studs:** Steel studs and spacing per listing (typically 2"x4" @ 24" o.c.; heavier gauge where required).
- **Insulation:** Mineral wool in stud cavity to match listing.
- **Head-of-wall & base joints:** UL listed joint systems compatible with PEMB slip/deflection.
- **Continuity:** Maintain rating behind/above any ceilings, soffits, or casework; seal to deck and around flutes with listed details.
- **Penetrations:** Only UL-listed systems (pipes, conduits, cables). Fire-/smoke-seal both sides; no oversized openings.
- **Ducts:** Provide fire/smoke dampers where required by code/AHJ.
- **Back-to-back boxes:** Prohibited. Maintain 24" horizontal separation, or use listed fire-rated box covers/putty pads.

Door in the rated wall:

- (1) 36"×80" fire-rated hollow-metal door & frame, 90-minute label, self-closing and self-latching; smoke gasketing, thresholds/sweeps.
 - Vision lite only if directed by Owner; provide listed fire-rated glazing and labeled frame if used.
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3) Doors & Frames (Other Interior Doors)

- **Restroom door:** 36"×80" HM door & frame; ADA-compliant clear opening; privacy/indicator lever, closer, stop, kick plate.
 - Hardware finishes: satin chrome (or Owner standard). Provide ADA signage at restroom.
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4) Gypsum Board, Sound, and Wet Areas

- Standard walls: 5/8" Type X both sides, Level 4 finish.
- Restroom walls/ceiling: moisture/mold-resistant gypsum (cement board only if tile is added under Option D).

- **Sound attenuation:** R-11 mineral wool at restroom and office–lab demising wall (in addition to any required by UL listing).
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5) Acoustical Ceiling (ACT)

- 15/16" exposed grid; 2'×2' tiles $NRC \geq 0.60$, $CAC \geq 35$, $LR \geq 0.85$, 95% RH.
 - Moisture-resistant tiles at restroom.
 - Nominal finished ceiling 9'-0" AFF (coordinate uniformly with MEP).
 - Do not attach grid to PEMB roof skin; provide proper hangers/bridging.
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6) Painting & Finishes

- Substrates: Level 4 finish, caulk at dissimilar materials.
 - Coatings: Primer + 2 coats acrylic (eggshell/satin on walls; semi-gloss on doors/frames/trim).
 - Restroom: moisture-resistant epoxy or high-performance acrylic.
 - Colors: by Owner; submit draw-downs.
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7) Coordination Notes

- Coordinate device/fixture locations in the rated wall with Option B (Electrical) to avoid back-to-back boxes or provide listed protection.
 - Coordinate diffusers/returns and thermostats (Option B) and plumbing (Option C) so penetrations through the rated wall use listed firestop systems.
 - Maintain PEMB manufacturer's weather-tight details at all penetrations.
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8) Submittals & Closeout

- UL design number and full shop drawings for the 2-hour wall (stud gauge/spacing, board layering, joints, head-of-wall).
 - Door/frame/hardware schedule showing 90-min rated assembly in the demising wall.
 - Firestopping data sheets (listing numbers for each penetration/joint).
 - ACT/gypsum/paint data sheets; color/finish samples.
 - As-builts (PDF + native CAD) and 1-year warranty on labor/materials (manufacturer pass-throughs intact).
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Option B – Electrical

Intent: Provide a complete, code-compliant electrical package for the PEMB shell, including interior lighting, switching/controls, a main panelboard, and general-purpose receptacles. Turnkey: labor, materials, equipment, permits, inspections, testing, labeling, and as-builts included.

1) Interior Lighting & Controls

- **Luminaires:** Provide twenty-seven (27) 2'x2' LED lay-in troffers, universal 120–277V, 0–10V dimmable, $\geq 4,000$ K, ≥ 80 CRI, min. 5-year manufacturer warranty.
 - o **Mounting:** ACT lay-in (coordinate with Option A ceiling). *If Option A is not awarded, provide surface/suspended LED fixtures of equivalent output and efficacy as an alternate.*
- **Controls:**
 - o Two lighting zones for the main space.
 - o 3-way switching for each zone, with switch locations at the two personnel entries (north and south long walls).
 - o Florida Energy Code-compliant occupancy sensors (auto-OFF/manual-ON or auto-ON to $\leq 50\%$) and daylight/bi-level control if sidelight meets thresholds.
- **Code items:** Provide exit signs and emergency egress lighting as required by AHJ/Fire Marshal (battery packs or dedicated units acceptable).

2) Loading Area Lighting

- Three (3) LED high-bay/covered-area fixtures in the covered loading zone; IP-rated for exterior/covered use, 120–277V, min. $\sim 15,000$ –20,000 lumens each (final output per photometric).
- Provide local switching at the loading door and a photocell/timeclock or BAS contact if required by Energy Code.

3) Power Distribution

- Main Panelboard: 200A panel matched to service (120/208V 3Ø, 4W or 120/240V 1Ø, 3W, as provided). MCB, min. 42 circuit spaces, copper bus preferred, 10 kAIC min. (coordinate AIC with utility fault current).
- Feeder/conductors: Copper conductors, EMT in exposed interior; weather-rated where exterior. Bond building steel; provide grounding electrode system per NEC.

4) General-Purpose Receptacles

- 120V convenience outlets throughout the PEMB per commercial standards and NEC:
 - o Perimeter wall outlets at approx. 12 ft spacing (typ.), 18" AFF unless otherwise noted; at least one (1) duplex on each wall segment.
 - o GFCI at restroom and within 6 ft of sinks/wet areas.

- o Weather-resistant, in-use cover receptacle at the loading area.
- o Dedicated circuits for roll-up door operator, future equipment as noted on plans.
- o Provide 20% spare capacity in panel for future TI.

5) Submittals & Closeout

- Lighting cut sheets, panelboard/shop drawings, one-line diagram, panel schedule, circuiting.
- **Inspection/testing:** Functional tests of lighting controls; label all devices/circuits; provide ARC-flash and panel directories.
- **Deliverables:** O&M manuals, warranties, and as-built drawings (PDF + native CAD).

6) Materials & Installation Standards

- NEC, Florida Building Code/Energy Code, NFPA 70/101, and local utility requirements.
- Raceway: EMT in exposed interior; LFMC/rigid where required. Copper conductors THHN/THWN-2.
- Coordinate with other trades (Options A, C, D) and the PEMB manufacturer's framing for penetrations/supports.

Inclusions: All branch circuits, breakers, devices, cover plates, boxes, supports, labeling, and any ancillary hardware to deliver a fully functional system per this scope.

Option C – Plumbing

Intent: Provide a complete, code-compliant plumbing system for the PEMB shell, including one ADA-compliant unisex restroom, three wall-mounted sinks along one interior wall, and hose bibbs per commercial standards. Turnkey: labor, materials, equipment, penetrations/sleeves, permits, inspections, testing, labeling, and as-builts.

1) Fixtures & Quantities

- **Unisex Restroom (ADA):**
 - o (1) floor-mounted, elongated water closet, 1.28 gpf, ADA height, open-front seat with cover; flush valve or tank type acceptable per design.
 - o (1) lavatory (wall-hung or solid-surface with apron), ADA knee/toe clearances, trap cover, lever/ADA faucet (0.5 gpm) with ASSE 1070 mixing valve.
 - o **Accessories/ADA provisions:** 36" side and rear grab bars, accessible mirror, paper/towel/soap at compliant reach ranges, door clearances/turning space per Florida Accessibility Code.
 - o Floor drain with trap primer; GFCI receptacle by Electrical Option.
- **Interior Sinks (along one interior wall):**

- o (3) single-basin stainless, wall-hung or cabinet-mounted utility/work sinks with gooseneck faucets, aerators (1.5 gpm), hot/cold mixing, and individual shut-off valves.
 - o Mounting height and splash protection coordinated with Owner.
 - **Hose Bibbs (Commercial Standard):**
 - o **Exterior:** minimum two (2) ¾" anti-siphon hose bibbs with vacuum breakers (ASSE 1019), located on opposite sides of the building; lockable where exposed to public.
 - o **Interior:** one (1) ¾" hose connection in/near the covered loading area for wash-down (vacuum breaker, ASSE 1011).
 - o Spacing/layout to keep hose runs ≤100 ft where practical.
- *Frost-resistant model or Florida-appropriate exterior grade acceptable per AHJ.

2) Piping, Materials, Insulation

- **Domestic water:** Type L copper or PEX-A with manufacturer-listed fittings; full-port ball valves at mains/branches and at each fixture.
- **Sanitary/vent:** PVC Schedule 40 (above grade) or as permitted; solvent-welded joints; cleanouts at base of stacks, 100-ft intervals, and changes of direction ≥135°.
- **Condensate/primers:** Trap primers to restroom floor drain; route condensate (if any) per code.
- **Insulation: Domestic hot and recirculation** lines insulated per Florida Energy Code.

3) Drains, Vents, and Tie-Ins

- Provide complete waste/vent system for all fixtures; sizes per IPC/Florida Plumbing Code.
- Connect to existing site utilities at points indicated on plans (include sawcut/patch for slab penetrations, sleeves, and firestopping where required).
- Provide sediment/interceptor only if specifically required by AHJ or Owner (not included by default).

4) Coordination & Penetrations

- Coordinate exact sink wall, elevations, blocking, backing, and chase dimensions with architectural and electrical trades.
- Provide sleeves and flashing at all slab/wall penetrations; maintain PEMB manufacturer's weather-tight details.
- Provide accessible valve locations; label all valves and fixtures.

5) Testing, Commissioning, and Closeout

- Hydrostatic/air tests for water and DWV per code; verify trap primer operation.
- Flush, disinfect, and bacteriological test domestic water system (AWWA standard).
- Deliver O&M manuals, warranty certificates (min. 1-year labor/materials), fixture schedule, valve list, and as-built drawings (PDF + native CAD).

6) Submittals

- Fixture cut sheets (toilet, utility sinks/faucets), water heater, mixing valves, hose bibbs with vacuum breakers, pipe/valve materials, insulation data.
- Plumbing plans with fixture layout, isometric risers, pipe sizes, slopes, cleanout locations, and equipment schedules.

Inclusions: All rough-ins, carriers/brackets, traps, escutcheons, trap covers, stops/strainers, caulking/sealants, supports/hangers, and identification.

Exclusions (by this option): Specialty/process waste treatment, grease/oil interceptors (unless required by AHJ), eyewash/safety shower, irrigation systems.

Option D – Interior Finishes

Intent: Provide turnkey floor finishes, base, transitions, and related accessories per areas indicated below. Include all labor, materials, surface prep, mockups, protection, cleanup, and closeout.

1) Area Takeoff

- **Lab:** 1,352 SF – high-performance epoxy floor system.
- **Office:** 360 SF – 24"×24" (2'×2') carpet tile.
- **Bathroom:** 56 SF – high-performance epoxy floor system

Quantities are for bidding; contractor shall field-verify actual limits and provide unit prices for add/deduct per SF.

2) Lab – Epoxy Floor System (1,352 SF)

System: 100% solids, multi-coat trowel/roller-applied epoxy with optional broadcast for slip resistance.

Total dry film thickness: 20–30 mils (min.) across primer + body + topcoat.

Performance (typical minimums):

- Abrasion (ASTM D4060, CS-17, 1,000 cycles): ≤ 40 mg loss
- Adhesion to concrete (ASTM D4541): ≥ 300 psi (substrate failure acceptable)
- Chemical resistance (ASTM D1308): resistant to common oils, fuels, cleaners, and mild acids/alkalis

- Slip resistance: provide broadcast aggregate as needed to achieve $DCOF \geq 0.42$ (wet)
Color/finish: Owner to select from standard chart; low-sheen preferred to reduce glare.
Joints/terminations: Honor/control joints; key-in or pre-approved elastomeric joint filler. Provide metal reducer at transitions to carpet.
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3) Office – Carpet Tile (360 SF)

Tile: 24"×24" modular carpet tile, solution-dyed nylon (Type 6,6 or equal), commercial grade.

Performance/standards:

- Tuft bind ≥ 8 lbf; Static ≤ 3.5 kV; Flammability ASTM E648 Class I
 - Indoor air quality: CRI Green Label Plus/FloorScore
Backing: PVC-free or recycled content preferred; cushion or hardback acceptable (Owner to select).
Adhesive: Low-VOC, pressure-sensitive per manufacturer; releasable for tile replacement.
Pattern/lay: Quarter-turn (default) or as directed by Owner; provide attic stock (2% of installed).
Base: 4" rubber/vinyl cove base, color to match scheme; pre-mitered corners, continuous adhesive.
Transitions: ADA-compliant metal reducer where carpet meets epoxy; finish to match adjacent.
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4) Bathroom – Epoxy Floor System (56 SF)

System: 100% solids epoxy with integral 4" epoxy cove base; broadcast quartz for slip resistance.

Thickness: 40–60 mils (enhanced build for wet area).

Finish: Non-slip, chemical-resistant; color to coordinate with lab epoxy.

Drainage: Pitch to floor drain (if present); seal around penetrations; maintain watertight termination at door threshold.

Accessories: Color-matched epoxy cove, sanitary terminations at fixtures, and seamless returns.

5) Surface Preparation (All Resinous Areas)

- Mechanical prep: shot-blast or diamond-grind to ICRI CSP 3–5; remove curing compounds/contaminants.
- Crack/joint repair: route-and-fill non-moving cracks; rebuild spalls; honor structural/control joints.

- Moisture testing: ASTM F2170 and/or F1869; provide report and mitigation per §2 if required.
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6) Submittals & Mockups

- **Product data:** full system sheets (resin, hardener, aggregates, topcoat), carpet tile, adhesive, base, reducers.
 - **Mockups:**
 - Epoxy: 4'×4' sample area in lab showing texture and sheen.
 - Color selections, maintenance guides, and warranty certificates.
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7) Execution & Coordination

- Coordinate sawcuts/joints, thresholds, and door undercuts with **Option A** (partitions/doors).
 - Coordinate floor penetrations, drains, and cleanouts with **Option C** (Plumbing).
 - Coordinate device floor boxes (if any) with **Option B** (Electrical) *prior to resin work*.
 - Maintain required temperatures/humidity; protect finishes from traffic until cured; provide temporary ramps at transitions if needed.
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8) Closeout, Protection & Warranty

- **Cleaning:** Final clean; provide O&M and recommended cleaners.
 - **Training:** Brief owner staff on care of epoxy and carpet tile.
 - **Warranties:**
 - Epoxy systems: 5-year materials; 1-year labor.
 - Carpet tile: 10-year commercial wear; lifetime static; 1-year labor.
 - Cove base/transition metals: manufacturer standard; 1-year labor.
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9) Alternates / Unit Prices

- **UP-E1:** Add/deduct per **SF** for epoxy beyond plan quantity.
 - **UP-E2:** Moisture mitigation epoxy (per **SF**) when RH/MVER exceed limits.
 - **ALT-E1:** Change epoxy texture (fine/medium/coarse) for higher slip resistance (per **SF**).
 - **ALT-E2:** Upgrade carpet tile backing to cushion (per **SF**).
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Inclusions: Surface prep, primers, body/top coats, broadcast aggregate, integral cove at bathroom, carpet tile, adhesive, base, transitions, thresholds, touch-ups, protection, and all incidentals for a complete installation.

Exclusions (by

D): Floor leveling beyond minor patching (provide unit price if significant), specialty coatings (ESD, FDA/USDA), stair treads (if any), floor graphics/stripping unless specifically noted.

Vendor Qualifications

- Licensed in the State of Florida and/or county.
 - Valid Occupational License/Business Tax Receipt for scope-related work.
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Warranty

- Minimum 1-year warranty on all labor and materials.
- Support for all manufacturer warranties.