- **Footprint**: 45' × 62' single-story clear-span metal building
- **Clear Height**: 17'
- **Roof**: Low-slope gable (~1:12, exact per design), ridge runs along 62' length
- **Interior**: Clear-span with partitions (Process Room, Chemical Room, Electrical Room, Lab, Restroom, etc.)
- **Openings**: Factory-framed openings for personnel doors, windows, louvers, overhead coiling door; aluminum sliding windows provided by manufacturer
- **Building Code**: 2014 Indiana Building Code (IBC 2012 basis with amendments)
- **Other Codes**: Indiana Mechanical 2011, Plumbing 2012, Fire 2011, Energy Code 2009/ASHRAE 90.1-2007, NEC 2011, NFPA 13 (sprinklers if required)
- **Design Standards**: ASCE 7-10, AISC 360, AISI S100, AWS D1.1/D1.3, MBMA Metal Building Systems Manual
- **Risk Category**: II (standard occupancy)
- **Design Release**: State of Indiana Design Release required before vertical construction
- **Loads**:
    - Roof Live Load: 20 psf (non-reducible)
    - Collateral Load: 20 psf uniformly distributed + two 200 lb point loads per frame
    - Ground Snow Load: 20 psf (flat roof snow ~14–16 psf)
    - Wind Load: 115 mph ultimate (Exposure C), equivalent to 90 mph ASD
    - Seismic: Site Class D, SDS ~0.1–0.2g, Seismic Design Category B
    - Rainfall: Design for ~3 in/hour (100-yr), ponding per IBC
- **Soil Bearing Capacity**: 2,000 psf allowable
- **Footings**: Minimum 30" below grade (typically 36" used), reinforced spread footings per structural plan
- **Concrete Strength**: 4000 psi @28 days
- **Rebar**: Grade 60 deformed bars
- **Anchor Bolts**: Typically ¾"–1" diameter galvanized rods per manufacturer's layout
- **Primary Framing**: Pre-engineered rigid frames, ASTM A992/A572 Grade 50 steel
- **Secondary Framing**: Cold-formed Z or C purlins/girts, ~55 ksi steel
- **Panels**:
    - Roof: Standing seam, 24 or 22 gauge, factory finish
    - Walls: Ribbed steel, 26 or 24 gauge, factory finish
    - Finish: 70% PVDF fluoropolymer (Kynar 500), 3-coat system, 35-year warranty
- **Insulation**: R-30 roof, R-19 walls, fiberglass blankets with vapor retarder
- **Doors**: Insulated hollow-metal personnel doors with frames, panic hardware as required
- **Windows**: Aluminum sliding, thermally broken

- **Overhead Door**: Framed opening by building manufacturer, door unit by others
- **Accessories**: Gutters, downspouts, soffit panels, trims, flashings, closures, foam strips
- **Steel Finish**: Shop primer on frames; galvanized secondary members; touch-up required in field
- **Approved Manufacturers**: Must be from spec-approved MBMA-certified list (e.g. Nucor, Butler, Varco-Pruden, Star)
- **Erection**: Follow manufacturer's manual, OSHA standards, pre-erection meeting required, non-shrink grout under column base plates
- **Inspections**: Concrete, bolt torque, steel certifications, weld inspections as required by code/spec
- **Coordination**: Penetrations for MEP systems, flashing for vents/stacks, coordination with adjacent tanks/pads