

OUTLINE SPECIFICATION

Additive Manufacturing Building at Oregon Manufacturing Innovation Center R & D

SITE WORK

Existing Conditions

Existing site is a filled area of a reclaimed gravel-pit. Per the PSI geotech report a surcharge gravel (crushed concrete) pile will be placed on site for site consolidation (not part of this scope of work).

As part of a previous design project not part of this project (soon to be put out for bid) a parking lot and access driveway aisles will be constructed to the west of the proposed building location.

All topsoil for any new landscaping will be imported.

Site Improvements:

Per the Geotech report all drive aisles, parking area, and building area will be excavated to 36" below grade and filled with compacted gravel.

New parking spaces along "existing" (soon to be constructed) drive lane on west side of building, new parking lot at north side of building with drive aisle to access shop, fire lane around the east side of the building, new curb cut and driveway to access south end of shop and fire lane.

Outdoor plaza at north end of building, walkways, landscaping, and trees around site.

Utilities:

Site Fire hydrants: New water main connected to street water main routed up east property line under service lane to site fire hydrant.

Fire Sprinklers: Connect to city water main in street near building.

Domestic Water: water will connect to "existing" 3" main installed during Phase 1 (in front of building).

Sanitary Sewer: Sanitary waste drains will connect to existing sanitary stub.

Storm Drainage: Connect to "existing" storm drain system installed during phase 1 and existing connection south of building.

Landscaping: Trees, shrubs, and other landscaping to be determined. Concept generally shown on site plan, special ground cover and water feature as yet to be determined.

Bollards to match existing (phase 1)

BUILDING

General:

To the greatest extent possible the building will be a pre-engineered steel building with a sheet metal exterior. The east section is a large open shop space consisting of steel moment frame construction. The steel moment frame will support a bridge crane running the length of the shop. In the west portion of the building are offices and other spaces, the steel grid has been shifted to conform to the varying room sizes.

The foundation is anticipated to consist of isolated footings at columns with slab on grade floor construction.

Shop Exterior/Interior:

Typical metal building construction, with a sheet metal exterior.

- Roof: Sheet metal 2" ribs with hidden fasteners.
- Walls: Horizontal ribs, exposed fasteners.

Interior:

- Floor: Industrial Epoxy w/ non-slip coating
- Base: Rubber
- Walls: Painted drywall over fire treated plywood up to 8' AFF
- Walls & Ceiling over 8'AFF : exposed tri-directional reinforced white vapor barrier banded double insulation system – fiberglass insulation supported w/ steel bands over compressed fiberglass insulation and compression blocks.
- Doors: insulated hollow metal man doors
- Windows: translucent wall system
- Skylights: curb mounted 4x4 skylights
- Equipment Doors : Vertical Bi-Fold Doors with translucent panels

Garbage / Recycle/Compressor/Electric rooms

- Finishes:
 - Floor: Industrial Epoxy over concrete
 - Walls: Painted Fire treated plywood
 - Ceilings: Exposed
- Doors: insulated hollow metal man doors

Office Exterior:

- Roof 80 mil. TPO over protection board over 6" Polyiso insulation, on 3" acoustical metal deck.
- Walls: predominately sheet metal siding similar to shop. Phenolic panels at Meeting room / plaza west wall.

- Openings
 - Offices and Entry airlock - glazed aluminum thermally broken storefront system.
 - North meeting rooms – Vertical Bi-Fold Doors
 - South Powdered Metal Handling - Insulated Hollow metal doors
 - Skylights: curb mounted 4x4 skylights in office areas
 - Skylight at Entry Hall: vertical translucent wall system.

Office Interiors

Multipurpose Rooms #1 & #2 (each room)

Finishes:

Floor: Carpet Tile

Base: Rubber

Walls: Painted drywall, with chair rail.

Ceiling: Suspended Ceiling Grid w/ Acoustical Ceiling Tiles

Doors: Hollow metal frame, hardwood doors w/ clear finish

Equipment:

- 75" overhead operable presentation screen
- Ceiling Mounted ultra-short throw projector w/ network/usb/hdmi connectivity.
- (2) wall mounted frosted glass dry erase board (48x96)
- (1) Tack board,
- (2) ceiling mounted 50" LED monitors connected to presentation screen
- (2) 240V outlets on south wall,
- (2) compressed air outlets on south wall,
- VOIP phone system w/ ceiling mounted microphone and speaker array to capture room audio for conference room
- (3) Ceiling mounted cameras connected to conference room control station
- Retractable wall system between the two rooms – Moderfold or Skyfold

Entry:

- Finishes:
 - Floor: LVT, walk-off mat at airlock entrance
 - Base: Rubber
 - Walls:
 - Alum Storefront at Entrance
 - Painted drywall, with chair rail
 - Interior Aluminum/Glass Interior Partition system - Avanti or Moderfold (others Wilson Partitions, Western Integrated materials)
 - Ceiling: Sloped Drywall ceiling
- Custom Reception Desk w/ storage for safety supplies (hard hats, vests, badges)
- (4) Multiple Smart / Touch TV's for industry 4.0 integration and videos.
- Display case
- Custom "Member Board" for up to 100 members
- Controls for entry access, video monitor for access control
- Network connectivity access point

Entry Hall & Corridor:

- Finishes:
 - Floor: LVT
 - Base: Rubber
 - Walls: Painted drywall, with chair rail
 - Interior Aluminum/Glass Interior Partition system - Avanti or Moderfold
(others Wison Partitions, Western Integrated materials)
 - Graphic / Special wall treatments
 - Ceiling: Sloped Drywall ceiling
 - Restroom Doors: Solid Core wood
- Other
 - drinking fountain with bottle filler

Dining/ Kitchenette:

- Finishes:
 - Floor: LVT
 - Base: Rubber
 - Walls: Painted drywall, with chair rail.
 - Graphic Vinyl and Acoustic wall treatment at east and south walls.
 - Ceiling: Exposed roof deck, and acoustic baffles.
 - Doors: Solid Core Wood in HM frame
- Kitchenette:
 - Custom Laminate Cabinets, Solid Surface Countertop, Two (2) Dishwashers, (1) Residential Range and Range Hood, (2) Commercial Refrigerators, [and (2) vending machines (probably by concession vendor)]

Open Office Areas

- Finishes:
 - Floor: Carpet Tile
 - Base: Rubber
 - Walls: Painted drywall, with chair rail. Interior Aluminum/Glass Partition system - Avanti
(other Wison Partitions or Western Integrated materials)
 - Ceiling: Exposed deck and acoustic / sound Baffles,
 - Doors: part of glass partition system, or Solid Core Wood in HM frames

Private Offices:

- Finishes:
 - Floor: Carpet Tile
 - Base: Rubber
 - Walls: Painted drywall, with chair rail. Interior Aluminum/Glass Partition system - Avanti
 - Ceiling: Acoustic Ceiling Tile System
 - Doors: part of glass partition system, or Solid Core Wood in HM frames
- Other
 - (1) wall mounted frosted glass dry erase board (48x96)

Meeting / Conference Rooms:

- Finishes:
 - Floor: Carpet Tile
 - Base: Rubber
 - Walls: Painted drywall, with chair rail. Interior Aluminum system with LED Privacy Glazing - Avanti "Lunar"
 - Ceiling: Acoustic Ceiling Tile System
 - Doors: part of glass partition system, or Solid Core Wood in HM frames
- Other
 - (1) wall mounted 50" LED monitor with usb / hdmi / network connection
 - (1) wall mounted frosted glass dry erase board (48x96)

Powdered Metal Rooms:

Airlock:

- Finishes:
 - Floor: Rubber anti-static
 - Base: Rubber
 - Walls: Painted drywall
 - Ceiling: Painted Drywall
 - Doors: Stanley Stanley Dura-Glide 2000/3000, activated with card-reader (cleanroom certified).
- Other
 - Storage Cabinets [for Tyvec Suits, Face Masks, Respirators and Supplied Air Breathing Hoods (3M Versaflow System) etc.]
 - Emergency Eyewash Station

Powder Metal Handling:

- Finishes:
 - Floor: Rubber anti-static
 - Base: Rubber
 - Walls: Painted drywall
 - Ceiling: Painted Drywall
- Other
 - Floor-Mounted Pass-Thru for Carts (42W x 60H x 54D) to Power Metal Storage (Cleanair Products CAP18FHF-SST-42Wx60Hx54D) (Touchless would be nice, Terra Universal)
 - Explosion / Smoke Hatch in Ceiling/Roof, BILCO Type SV and Type DSH with explosion release latch.
 - Open Storage Shelves??

Powder Metal Storage:

- Finishes:
 - Floor: Rubber anti-static
 - Base: Rubber
 - Walls: Painted drywall

Door: Solid Core Wood, w/ adjustable perimeter air/sound seals.
Ceiling: Painted Drywall

- Other
 - Explosion / Smoke Hatch in Ceiling/Roof BILCO Type SV and Type DSH with explosion release latch.
 - Open Storage Shelves??

Staff Corridor (south corridor)

- Blast resistant wall between corridor and powder metal rooms. Designed to withstand 100 psf (verify). ["SEB-Wall"]
- Blast Resistant & 1-hour rated windows from corridor into powder metal rooms. (verify).

Restrooms:

- Finishes:
 - Floor: LVT
 - Base: Rubber
 - Walls: FRP up to 48" min Crane Composites "Designs Collection"
 - Painted drywall above
 - Ceilings: Painted drywall
 - Doors: Solid Core Wood
 - Fixtures: all fixtures with automated touchless actuation at toilets, low-flow urinals, and low flow faucets, SST ADA grab bars.
 - Solid Surface countertops
 - ADA accessible Showers at Staff Restroom

Other Fixtures:

- Emergency Shower / Eyewash in Shop
- Emergency Eyewash in Air Lock to Powered Metal Storage

Lab and Measuring

- Finishes:
 - Floor: Industrial Epoxy over concrete
 - Base: Rubber
 - Walls: Painted drywall
 - Ceilings: Exposed

Janitor closet

- Finishes:
 - Floor: Industrial Epoxy over concrete
 - Base: Rubber
 - Walls: FRP up to 48" min / Painted Drywall
 - Ceilings: Painted drywall
- Mop Sink

Electrical & Data Room:

- Finishes:
 - Floor: Industrial Epoxy over concrete
 - Base: Rubber

Walls Painted drywall
Ceiling- ACT

Printing / Office Supply

- Finishes:
Floor: Industrial Epoxy over concrete
Base: Rubber
Walls Painted drywall
Ceiling- ACT