

LEADVILLE MAIN STREET – HISTORICAL DOWNTOWN RESTROOM PROJECT

SECTION 13 34 23 - PRE-ENGINEERED ROMTEC BUILDING

Specification Date: 8/18/2021

SECTION 1: BUILDING PACKAGE OVERVIEW

1.1 SUMMARY

- A. **Owner** will provide a pre-engineered **Romtec** building package for onsite installation by the **building installer** and/or **contractor** (see definitions and scope of work in sections below).
- B. The following is an overview of the scope and products included in the **Romtec** building package.

1.2 OVERVIEW

- A. Building package design, engineering, and furnishing all specified building package components shall be provided by Romtec, Inc.
- B. The building and its concrete footings, foundation, and slab shall be engineered by **Romtec** to meet site specific conditions including wind and snow loading, local frost depth, and ground conditions.
- C. Building shall be designed to meet local codes and permitting authority approvals for permanent structures.
- D. The reviewing authority reserves the right to review or reject all submittals at its sole discretion.
- E. All work and materials shall comply with the latest industry building codes and regulations for the state of Colorado.
- F. Americans with Disabilities Act Accessibility Guidelines (ADAAG) will be followed in design, manufacture, and construction.

1.3 DESIGN & SUBMITTAL DOCUMENTATION

- A. **Romtec's** work shall include the design of the architectural, mechanical, structural, and electrical components that will be required for this building.
- B. The building will be designed as a complete building package to be delivered to the job site for construction on-site by the **building installer** and/or **contractor**.
- C. **Romtec** shall submit the packaged restroom building preliminary Scope of Supply and Design Submittal (SSDS), including the building plan view and elevation drawings.
- D. **Romtec** will provide complete submittal documentation in the **Romtec's** standard electronic submittal format for review.
- E. The preliminary SSDS will be reviewed by relevant parties and returned to **Romtec** with any required revisions to the terms, product data sheets, and/or building plan view and elevation drawings noted as comments.
- F. **Romtec** shall make any required corrections or revisions and resubmit the preliminary SSDS until the preliminary SSDS is approved by the relevant parties.
- G. Once the preliminary SSDS has been approved, **Romtec** will provide full sealed plan sets stamped by an engineer licensed in the state that the building is located for review by the permitting authority.
- H. Up to three (3) wet stamped sets of the plans and structural calculations shall be provided by **Romtec** before any additional fees apply. Standard plan set size is 11" x 17".
- I. Permitting authority will review the full sealed plan set and return with any required revisions or corrections noted as comments.
- J. **Romtec** shall provide one full round of sealed plan revisions in response to permitting authority comments before any additional fees are allowed.
- K. The following sections shall be included in **Romtec's** preliminary Scope of Supply and Design Submittal. Incomplete submittals will be rejected and returned for revision.
 - 1. INTRODUCTION
 - 2. BUILDING DESIGN,
 - (a) SUPPLIED ITEMS
 - (b) EXCLUDED ITEMS
 - (c) PLAN VIEW AND ELEVATION DRAWINGS
 - 3. PRODUCT DATA
 - 4. WARRANTY & LIMITATIONS

*Note: Overall site plan is not part of **Romtec's** scope.*

1.4 DELIVERY, STORAGE, AND HANDLING

- A. **Romtec's** freight shall be based on delivering the product on a 48' to 53' flatbed or van truck and trailers, or as close to those dimensions as can legally access the site. Overall dimensions of the truck and trailers allowed to access the site are: 70' overall length, 102" wide and 168" high.

- B. **Romtec** shall deliver organized building package components in stages as shrink-wrapped pallets that correspond to a typical sequence of construction. A bill of material stating the stages of palletized components shall be included with every delivery.
 1. Stage 1 pallets shall include structural components such as block, frames, vents, beams, connectors, trusses, etc.
 2. Stage 2 pallets shall include second stage structural components such as filler wall material, windows, skylights, roofing, etc.
 3. Stage 3 pallets shall include structural finish components such as siding material, tile, doors etc.
 4. Stage 4 pallets shall include plumbing and electrical fixtures and other finish materials such as toilets, sinks, drinking fountains, electrical fixtures, accessories, etc.
- C. **Romtec** shall coordinate the delivery with the receiving entity (**owner, building installer, and/or contractor**) as appropriate.

1.5 WARRANTY

- A. The building package and all associated components provided by **Romtec** shall be warranted against defects in materials and workmanship for a period of not less than one (1) year from the date of acceptance. Acceptance is the date of delivery of the building package, or, if delivery is delayed for any reason beyond **Romtec's** control, the date that the building and all its associated components were ready to deliver.
- B. **Romtec** shall pass through to owner all relevant manufacturers warranties for individual products and components of the building package.

SECTION 2: BUILDING PACKAGE PRODUCTS

2.1 MANUFACTURER

- A. Romtec, Inc.,
18240 North Bank Road, Roseburg, OR 97470
Tel: 541-496-3541; Fax: 541-496-0803; Email: travis.olson@romtec.com
Web: www.Romtec.com

2.2 BUILDING DESCRIPTION

- A. Refer to plans for quantities, dimensions, locations, and installation methods for the materials and items described in this section.
- B. Building dimensions shall match what is indicated on drawings.
- C. **Romtec** will supply the building package products to **owner**.
- D. **Owner** will supply the Romtec building package products to **building installer** and/or **contractor**.

2.3 WALLS

- A. Concrete Masonry Units (CMU).
 1. Walls shall be constructed of 8"W x 8"L x 8"H smooth-face mortar joint concrete masonry units (concrete blocks) with rounded corner blocks.
 2. Blocks shall be manufactured to ASTM C90 designation for load bearing concrete masonry units.
 3. Block color to be **gray**.
- B. Exterior walls to have insulation finished with fiber cement lap siding.
- C. Sanitary tile cove base on interior restroom walls.
- D. Door system components
 1. Doors shall be Steelcraft® SL18 standard laminated honeycomb core and 18-gauge galvanized steel.
 2. Door frame shall be pre-welded Steelcraft® 3-Sided flush frame, 16-gauge galvanized A-60 steel.
 3. Masonry door clips (3/16" dia.) for door frame shall be fitted between the doorframe and concrete blocks to bond frame to wall. Door clips allow full internal grouting of the frame during installation.
 4. Hinges shall meet ANSI A5112 with non-removable pin and two ball bearings.
 5. Hager 5100 Series Grade 1 door closer is constructed of cast iron, which makes it ideal for heavy duty, high use and abusive environments.
 6. Door to have 0.038" gauge, stainless steel protection plates.
 7. Doors to have aluminum alloy 6063, T5 temper mill finish saddle thresholds, model 424E.
 8. Doors to have aluminum alloy 6063, T5 temper synthetic rubber polymer blend neoprene sweeps, model 200NA, anodized aluminum finish.
 9. Restroom doors to have Hager 3700 series interconnected locks with occupancy indicator and latch guard.
 10. Mechanical room door to have grade 2, lever lock with latch guard.

2.4 ROOFING

- A. Roof system.
 1. Pre-engineered wood Hip trussed roof system with accent gable on front of building.

- (i) Exterior of accent gable to be finished with fiber cement lap siding.
- (ii) Ceiling insulation.
- B. Architectural Composition roofing shall have a 5-5/8 in. exposure and a nominal size of 13-1/4 in. x 39-3/8 in.
 - 1. Roofing color to be selected by the **owner** from the manufacturers standard color chart.

2.5 PLUMBING FIXTURES & ACCESSORIES

- A. Plumbing fixtures and accessories
- B. Toilet shall be floor mount, top supply, white vitreous china.
 - 1. Flush valve shall be exposed, battery powered, sensor operated G2 model water closet flushometer for floor mounted or wall hung top spud bowls.
- C. Lavatory shall be 19 in. x 17 in. white vitreous china and wall hung with anti-splash rim and concealed front overflow.
 - 1. Faucets shall be deck mounted single hole E-tronic 40 traditional sink faucet with dual beam infrared sensor with transformer hard-wire.
- D. Toilet paper dispenser shall be stainless steel, wall mount with two-roll capacity.
- E. Surface mounted, stainless steel, motion activated paper towel dispensers.
- F. Surface mounted, stainless steel, motion activated soap dispensers.

2.6 ELECTRICAL

- A. Interior and exterior light fixtures
 - 1. Exterior lights to be LED downlights with cast-aluminum housing with corrosion-resistant paint in dark bronze. Polycarbonate lens protects the LED from moisture, dirt and other contaminants.
 - 2. Interior surface mount, 48" LED light fixtures.
 - 3. Lights controlled by motion sensor.
- B. Single point, 4.8kw, tankless electric water heater for restroom sinks.
- C. Surface mount, 1000-2750 Watt wall heaters in each room.
- D. Mechanical exhaust system with mechanical heated intake air.
- E. Main breaker panel shall be supplied by **building supplier**.
 - 1. Breaker Panel shall be 200 Amp, single-phase, indoor.

*Note: Breaker panel shall be sized to accept only the loads of the **building supplier** electrical fixture package. The **building supplier** should modify the main breaker panel as needed to be most efficient based on any design changes.*

SECTION 3: BUILDING INSTALLER SCOPE

The installing contractor or subcontractor, hereafter designated as the **building installer**, is responsible for building package installation. **Building installer** work will generally include foundation/pad construction and building package assembly/construction.

*Note: Romtec's scope is separate from the **building installer's** scope. Romtec, Inc., is the approved building package supplier, not a designated **building installer**.*

3.1 CONSTRUCTION SUBMITTALS

- A. If required by **owner** and/or reviewing authority, **building installer** shall submit product data sheets and relevant information about the specified **building installer** supplied products below for review and approval.

3.2 CAST IN-PLACE CONCRETE FOR BUILDING PACKAGE

- A. All equipment, labor, trades, and materials for cast-in-place concrete shall be provided by **building installer**.
 - 1. Includes all materials and labor for building package foundations/footings and interior slabs.
- B. Footings for the building package are to be dug by the **building installer** and poured on-site to meet local code for permanent structures. A prefabricated, modular mat placed on compacted base is not an accepted equal to a site specific, site poured, engineered foundation.
- C. Engineered fill shall be ¾" minus crushed aggregate around footings, foundations, and slabs, or as required in the final approved plans.
- D. Slab vapor barrier shall be 6-mil continuous plastic under the concrete slab, or as required in the final approved plans.
- E. The foundation shall be installed as designed with all cast in-place concrete poured to dimensions specified, or as required in the final plans.
 - 1. Footings will be built to 24" depth.
 - 2. Minimum compressive strength of foundation concrete shall be 3,000 psi at 28 days, 4" +/-1" slump, with max ¾" aggregate, cured in accordance with ACI 308, or as required in approved final plans.
 - 3. Slabs shall have a fine broom finish with joints required in flat work as shown on plans.

4. Steel rebar shall be installed as specified in final plans.
- F. **Building installer** shall supply and install concrete slab sealer.
1. Concrete slab sealer shall be a water-based, transparent curing, sealing and dust proofing compound with two (2) coats to be applied per manufacturer's instructions.

3.3 STRUCTURE

- A. Masonry (concrete) grout shall be supplied and installed by **building installer**.
1. Grout shall have a minimum compressive strength of 2,500 psi at 28 days, 9+/-1" slump, with max ½" aggregate, or as required in final approved plans.
 2. Fine or coarse grout may be used in accordance with 2009 UBC.
 3. All CMU block must be fully grouted and may not be wetted.

*Note: If required for installation, **building installer** will be responsible for providing appropriate equipment and labor for notching CMU block for bond beams, cutting CMU block to make any required shapes, and/or grinding CMU block for fixture mounting.*

- A. Rebar for walls shall be supplied and installed by **building installer**.
1. All walls shall have # 4 and # 5 rebar. See final approved plans for spacing.
 2. All rebar used in the building must meet ASTM A615 manufacturing standards and is to be placed per the final approved plans.
- B. Interior block wall finish shall be latex epoxy paint supplied and installed by **building installer**.
- C. Gypsum board ceiling finish shall be supplied and installed by **building installer** per the final approved plans.
- D. Interior floors to be sealed concrete finish supplied by **building installer**.
- E. Sealant for all exposed wood shall be supplied and installed by **building installer**.
- F. Sealant for all exterior CMU block is required, to be supplied and installed by **building installer**.
- G. Doors and frames are factory primed to be painted on-site by **building installer**.
- H. Fiber cement siding is primed to be painted on-site by **building installer**.

3.2 PLUMBING

- A. Plumbing rough-in, installation and trim within 10' of the building footprint shall be provided by **building installer**.
1. All underground water service and sewer drain(s) from building to be as specified in final approved site plan.
 2. Building water shutoff valve, drain, and all rough piping shall be as shown on final building plans. Final installation location to be determined onsite.
 3. Install the building package plumbing fixtures per the final approved plans.
 4. Piping shall be installed per the final approved plans with minimum pipe sizing per 2009 Uniform Plumbing Code Section 610.
- B. Floor drains in the building shall be supplied and installed by **building installer**.
1. All floor drains shall be as shown on final approved plans.

3.3 ELECTRICAL

- A. Electrical rough-in, installation and trim shall be provided by **building installer**.
1. All underground and/or overhead service to building shall be as specified in the final site plan.
 2. **Building installer** is responsible for all necessary wire, connectors, grounding, conduit, and related items to install the building package electrical components and meet all relevant national, state, and local codes.
 3. **Building installer** shall supply and install all switches and outlets required to complete the building package installation.

3.4 OTHER MATERIALS & EQUIPMENT

- A. Unless otherwise specified, the following products and materials are supplied by **building installer** (if applicable).
1. Building package installation
 2. Cast-in-place concrete foundations, footings, interior slabs
 3. Concrete slab sealer
 4. Mortar
 5. Concrete grout
 6. Rebar
 7. Latex epoxy paint
 8. Caulk for siding
 9. Plumbing rough in, installation and trim
 10. Electrical rough in, installation and trim
 11. Switches & outlets

12. Typical fasteners; for example: roofing nails, staples, etc.
13. Fasteners not included in product packaging
14. Wood sealant for all decking, glulam beams, posts, and extensions
15. All other items within the building footprint indicated on final plans or required by building codes to complete installation of the building package which are not specifically stated as supplied by **owner** or **contractor**.

3.5 DELIVERY, STORAGE, AND HANDLING

- A. The **building installer** will coordinate with **owner** and/or **Romtec** to receive delivery of the building package onsite. This includes all equipment and labor required for off-loading of the delivered building package.
- B. The **building installer** will assume responsibility for adequate protection and maintenance of delivered building package materials from weather, damage, and pilferage during installation work. Any failure to adequately protect building package materials that affects the warranty of those materials will be at **building installer's** expense.
- C. **Building installer** shall collect and maintain for final delivery to owner any operation & maintenance manuals included by individual product manufacturers with their respective product packaging. Any failure to collect, maintain, and/or deliver these O&M manuals to the **owner** that results in fees from **Romtec** for additional copies shall be at **building installer's** expense.

3.6 WARRANTY

- A. **Building installer's** work shall be warranted against defects in materials and workmanship for a period of not less than one (1) year from the date of acceptance. Acceptance is the date that installation work for the building package is completed, including any relevant final punch list. If final acceptance of the completed building is delayed for reasons beyond **building installer's** control, the warranty shall be one (1) year from the completion of **building installer's** installation work and demobilization.
- B. **Building installer** shall pass through to owner all relevant manufacturers warranties for individual products and components supplied by **building installer**.

SECTION 4: CONTRACTOR SCOPE ITEMS

The items in this section may be provided by the same **building installer** as defined in Section 3 above (typically when a single entity is acting as both the **building installer** and **contractor**), or the items in this section may be provided by a separate entity such as a general contractor or site contractor, hereafter designated as **contractor** (typically when the **building installer** is a separate subcontractor). **Contractor** work will generally include site preparation and grading, excavations for structures, backfill and/or structural backfill, and any site or utility work outside the building package footprint.

Items in this section are generally to be completed prior to **building installer** beginning its installation work described in Section 3 above.

4.1 CONSTRUCTION SUBMITTALS

- A. If required by **owner** and/or reviewing authority, **contractor** shall submit product data sheets and relevant information about the specified **contractor** supplied products below for review and approval.

4.2 CAST IN-PLACE CONCRETE FOR BUILDING EXTERIOR

- B. All equipment, labor, trades, and materials shall be supplied by **contractor**.
 1. Includes all materials and labor for exterior/entry slabs and sidewalks.
- C. Refer to drawings for sidewalks and entry slabs.
 1. Minimum concrete compressive strength of 2,500 psi at 28 days.
 2. Remesh or rebar reinforcement shall be used in sidewalks.
 3. All sidewalks shall be finished with a fine broom with control joints installed per the final approved site plan.

4.3 PLUMBING

- A. Incoming plumbing to within approximately 10' of the building shall be provided by **contractor**.
 1. All underground water service and sewer drain(s) from building to be as specified in final approved site plan.
 2. Building water shutoff valve is to be supplied and installed by **contractor**.
 3. **Contractor** is responsible to ensure that incoming water pressure is sufficient to meet building package fixture demands.
 4. Minimum water pressure at toilet and urinal flush valves shall be 40 psi with minimum pipe sizing as per 2009 Uniform Plumbing Code Section 610, or as required in final approved plans.

- B. Water line drain valve shall be supplied and installed by **contractor**.
- D. Sewer line backflow check valve shall be supplied and installed by **contractor**.

4.4 ELECTRICAL

- A. Incoming electrical utility lines to within approximately 10' of the building shall be provided by **contractor**.
 - 1. All underground and/or overhead service to building shall be as specified in the final site plan.
 - 2. Electric meter base and all rough wiring, switches, plugs and circuit breakers shall be as shown on final plans.
 - 3. **Contractor** supplies and installs the meter base and meter.

4.5 OTHER MATERIALS & EQUIPMENT

- A. Unless otherwise specified, the following products and materials are supplied by **contractor**.
 - 1. All items not specifically listed as supplied by **owner** or **building installer**.
 - 2. Any item listed as supplied by "contractor" or "others".
- B. Unless specified in the plans or submittals, **contractor** supplies the following (if applicable):
 - 1. Incoming electrical, water, sewer, and gas utilities.
 - 2. Asphalt paving
 - 3. Masonry pavers
 - 4. Sidewalks
 - 5. Landscaping
 - 6. Site grading
 - 7. Exterior/entry slabs
 - 8. Drain valves and backflow check valves
 - 9. Branch circuit breakers
 - 10. Irrigation Equipment
 - 11. Gutters and downspouts
 - 12. Fire alarm and fire suppression equipment
 - 13. Lighting equipment not attached to the building.
 - 14. All other items exterior of the building footprint indicated on final plans or required by building codes which are not specifically stated as supplied by **owner** or **building installer**.

4.6 DELIVERY, STORAGE, AND HANDLING

- A. The **contractor** will assume responsibility for adequate protection and maintenance of the installed building package materials after completion of installation work by **building installer**. Any failure to adequately protect building package materials that affects the warranty of those materials will be at **contractor's** expense.

4.7 WARRANTY

- C. **Building installer's** work shall be warranted against defects in materials and workmanship for a period of not less than one (1) year from the date of acceptance. Acceptance is the date that installation work for the building package is completed, including any relevant final punch list. If final acceptance of the completed building is delayed for reasons beyond **building installer's** control, the warranty shall be one (1) year from the completion of **building installer's** installation work and demobilization.
- B. **Building installer** shall pass through to owner all relevant manufacturers warranties for individual products and components supplied by **building installer**.

SECTION 5: OWNER'S SCOPE

5.1 ONGOING MAINTENANCE

- A. **Owner** is responsible for ongoing maintenance of the completed restroom building after completion of work by building installer and contractor.

5.2 SITE PLAN

- A. **Owner** (or owner's site engineer) is responsible for providing the final approved site plan to **Romtec** and/or **building installer**.

5.3 SPECIAL INSPECTION

- A. If required, special inspection(s) services shall be provided by **owner**.
- B. If special inspection(s) are required by the permitting authority or relevant agency(ies), then **Romtec, building installer**, and/or **contractor** shall provide reasonable assistance to the **owner** to accommodate the special inspection(s).

5.4 DELIVERY, STORAGE, AND HANDLING

- C. **Owner** will coordinate with **Romtec, building installer,** and/or **contractor** to receive delivery of the building package onsite.