### Exhibit D INVITATION TO BID 21-0938

### SPECIFICATIONS AND DRAWINGS FOR PROVISION AND INSTALLATION OF RESTROOMS AND OTHER PRE-CAST BUILDINGS

LAKE COUNTY PARKS AND TRAILS

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Stucco



**Barn Board** 



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### **SECTION 2**

### **Precast Concrete Buildings**

**Specifications for the Precast Concrete Building** 

Drawing 1: 10' x 12' x 8'h storage building layout and elevation

Drawing 2: 30' x 8' x 8'h dugout layout and elevation

Drawing 3: 31' x 8' x 8'h dugout with storage layout and elevation

### PRECAST CONCRETE BUILDING

### **SPECIFICATION SHEET**

### PART 1 - GENERAL

### 1.01 SUMMARY

Contractor or manufacturer to furnish a turn-key precast concrete building to be brought to the site in assembled modules or site assembled depending on size and set upon a level and compacted granular rock sub-base with up to a 100 ton crane, all included in the bid price. All site clearing and rough grading to within 6 inches of level are done by owner, excavation for sub-base to be done by contractor or manufacturer. To be an EasiSet/EasiSpan Building as manufactured by Leesburg Concrete Company Incorporated. Contractor or Manufacturer will pull all permits and connect to utilities, if any, that are stubbed no more than 25' from the desired install location; utilities located further than 25' will be individually negotiated.

### 1.02 QUALITY ASSURANCE

- A. Florida DBPR Insignia required, Section 553, Part I F.S.
- B. ACI-318-08, "Building Code Requirements for Reinforced Concrete". Concrete Reinforcing Institute, "Manual of Standard Practice".
- C. ANSI/ASCE-7-10 "Building Code Requirement for Minimum Design Loads in Buildings and Other Structures".
- D. Florida Building Code 2014
- E. IBC 2012
- F. Concrete Reinforcing Institute, "Manual of Standard Practice".
- G. UL-752 test method level 5 for bullet resistance on concrete surfaces, certified by an independent ballistic laboratory.
- H. Fabricator must be a certified producer/member of The National Precast Concrete Association (NPCA).
- I. No alternate building designs to the pre-engineered building as produced by Leesburg Concrete will be allowed unless pre-approved by the owner 10 days prior to the bid date.

### 1.03 DESIGN REQUIREMENTS

### A. Design Loads

- 1. Seismic Design Category 'C', Importance Factor 1
- 2. Standard Live Roof Load 60 PSF
- 3. Standard Floor Load 250 PSF (if precast floor provided by building manufacturer)
- 4. Standard Wind Loading ASCE 7-10 conforming to geographic area.
- B. Roof: To be post tensioned. The roof shall extend 4" beyond the wall panel and have a turndown design which extends ½" below the top edge of the wall panels to prevent water migration into the building along the top of wall panels.
- C. Floor The floor is provided with the precast building and the walls sit on top of the floor with the floor extending to the edge of the walls for additional strength. Floor should be a minimum of 5 inches thick

and have a looped post tension cable. Floor will have a  $\frac{1}{2}$  recessed keyway around the perimeter to accept the walls so as to form a physical water barrier.

### 1.04 SUBMITTALS

- A. Drawings and calculations sealed by a professional engineer, licensed to practice in the state where the project is located, shall be submitted for approval.
- B. Manufacturer to provide cut sheets on all attached fixtures.

### PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Concrete: Steel-reinforced, 5000 PSI minimum 28-day compressive strength.
- B. Reinforcing Steel: ASTM A615, grade 60 unless otherwise specified.
- C. Post-tensioning Strand: Roof and floor shall be post-tensioned with a 41K polystrand CP50, .50", 270 KSI, 7-wire strand post tension cable, enclosed within a greased plastic sheath (ASTM A416).
- D. Caulking: All joints between panels shall be caulked on the exterior and interior surface of the joints. Caulking shall be SIKAFLEX-1A elastic sealant or equal. Exterior caulk joint to be 3/8" x 3/8" square so that sides of joint are parallel for correct caulk adhesion.
- E. Vents: Two screened aluminum vents to be cast in rear wall. Vents shall be SUNVENT 8"x16" with bug screen, or equal
- F. Panel Connections: All panel connections shall be welded together utilizing imbedded weld plates with Nelson anchors. Assembly shall be welded by a certified welder.

### 2.02 ACCESSORIES

Doors and Frames: Shall comply with Steel Door Institute "Recommended Specifications for Standard Steel Doors and Frames" (SDI-100), and as herein specified. The building may be equipped with double 3'-0" x 6'-8" x 1-3/4", 18-gauge galvanized/insulated CECO Imperial right hand reverse metal doors with 16-gauge galvanized frames, or equal. Doors and frames shall be bonderized and painted one coat of rust inhibitive primer and one finish coat of enamel paint.

### A. Door Hardware:

- 1. Handle: Yale 8822 Mortise Lever Lockset
- 2. Hinges: PB-31/NRP/26D 4  $\frac{1}{2}$ " x 4  $\frac{1}{2}$ " (chrome-plated with non-removable hinge pins), 3 per door or equal.
- 3. Lock Set: PDQ Industries KR116 32D (stainless steel finish) or equal.
- 4. Surface Bolt, Upper: Cal-Royal 045901426D (satin chrome finish) or equal.
- 5. Surface Bolt, Lower: Cal-Royal 045901426D (satin chrome finish) or equal.
- 6. Removable Astragal: A4441/68R or equal, optional.
- 7. Threshold: National Guard 897V60 raised interior, extruded aluminum threshold with neoprene seal or equal.

- 8. Door Holder: Glynn-Johnson 904H US32D (stainless steel finish), overhead slide type surface mounted door holder or equal.
- 9. Drip Cap: National Guard 15D72 or equal.
- 10. Door Stop: Ives 445B26D (Inactive leaf only) or equal.
- B. 1- Solatube 160 DS 10" skylight.

### 2.03 FINISHES

- A. Interior of Building: Smooth form finish on all interior panel surfaces.
- B. Exterior of Building shall be form lined finished in a pattern selected from the Lake County Building Finish Options page and noted on the drawings.
- C. Paint: 1 coat of Loxon primer and two coats of Duracraft paint in owner's choice of exterior color. Inside walls to be painted in white, floor to be painted in Sherwin Williams HC Silver Gray # 124.

### PART 3 - EXECUTION

### 3.01 SITE PREPARATION

- A. Building shall bear fully on a bed of crushed 3/8"stone base that is at least one foot larger in all directions than the footprint of the building.
- B. Stone shall be a minimum of 4" thick or down to firm sub grade. The vertical soil capacity under stone shall be compacted to have minimum bearing of 1,500 pounds per square foot. Stone shall be 3/8" or smaller and must be screeded level within 1/4" in both directions. Stone shall be placed within a perimeter form with flat and level top edge for screeding. Forming material shall remain around stone after the building is set.
- C. The crushed stone base shall be kept within the confines of the soil or perimeter form. Do not allow the base to become unconfined so that it may wash, erode, or otherwise be undermined.

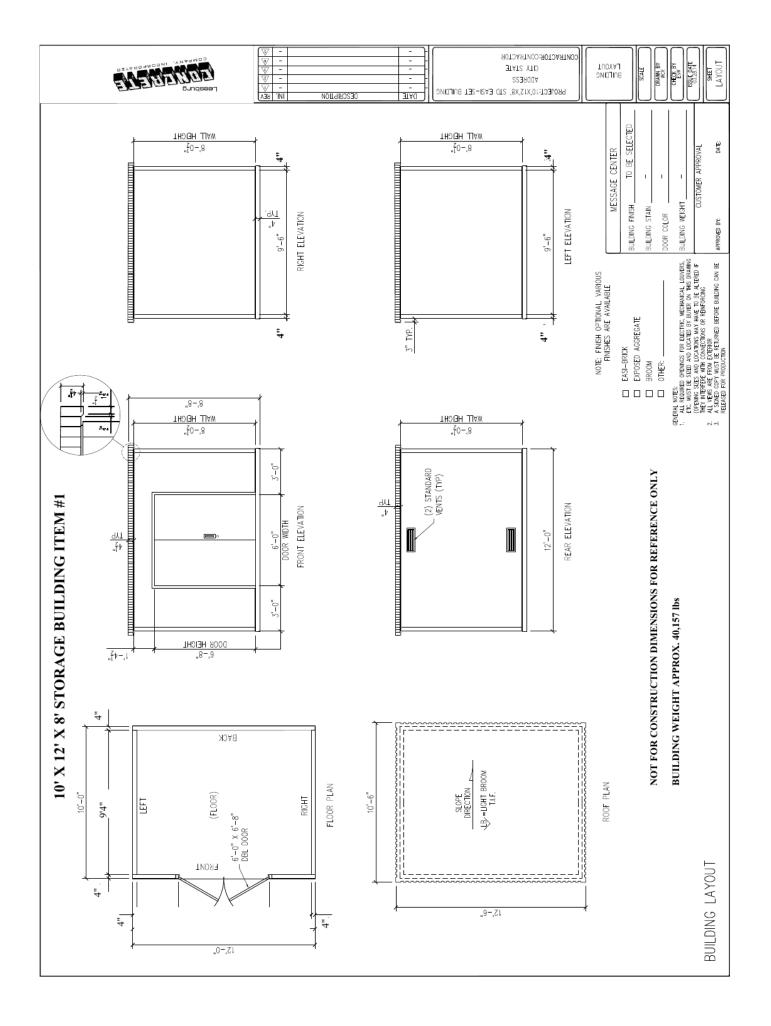
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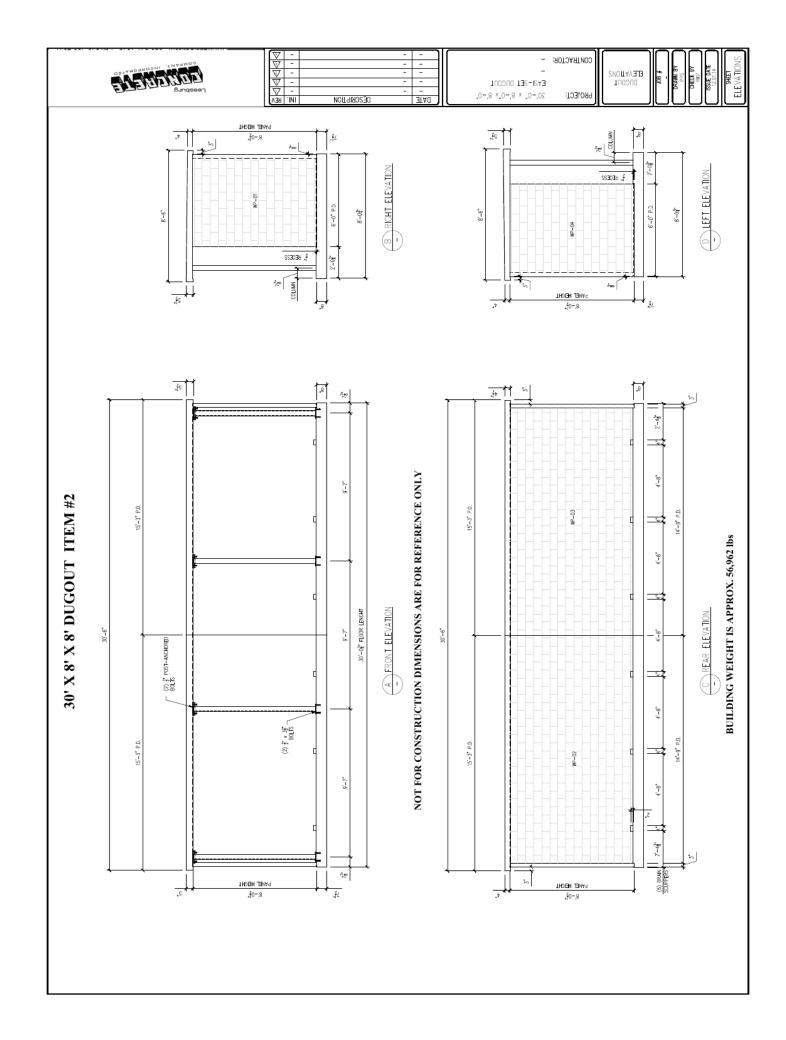
If building is placed on pavement or concrete slab, substrate below pavement or slab must have a vertical soil capacity of 1,500 pounds per square foot. Place stone or sand to 1" above highest point of area where building will be placed and at least 1'-0" wide all around the building footprint. Retain stone or sand with a perimeter form to prevent the material from washing out.

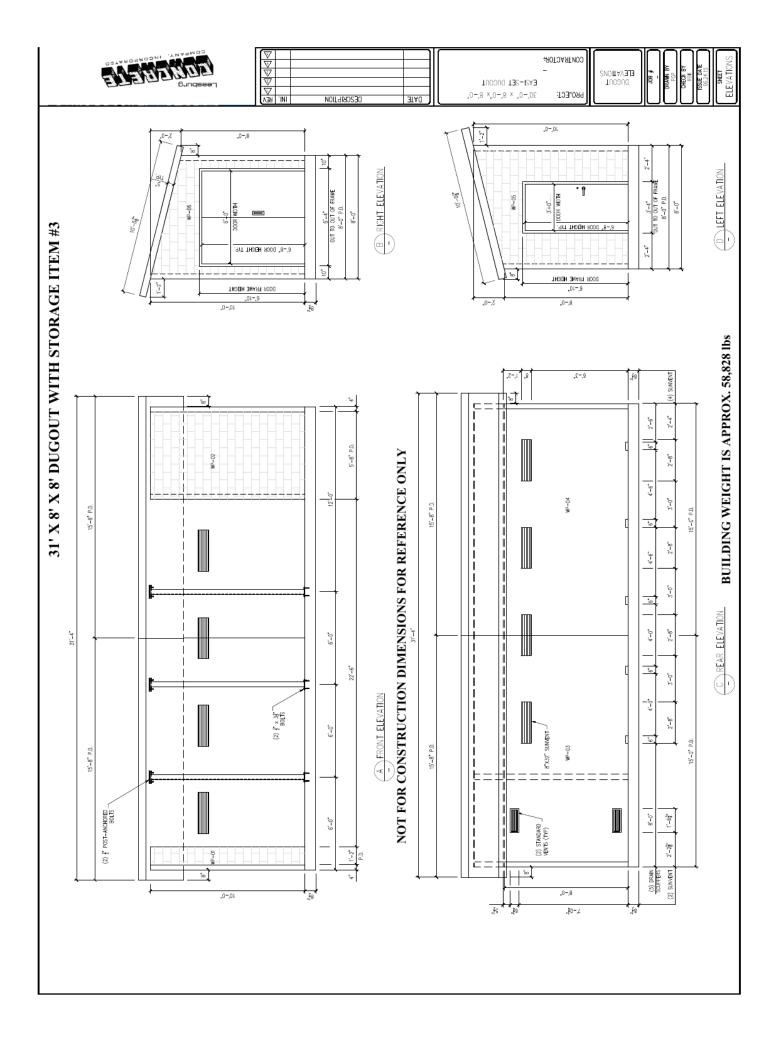
- D. Provide positive drainage for the fill, pad, or slab as required.
- E. Contractor or Manufacturer to haul off excess dirt from excavation for sub-base and sidewalk.

### **3.02 ACCESS**

The contractor must provide for a level, unobstructed area large enough for a 100 ton crane and a tractor-trailer to park adjacent to the pad. Crane must be able to place outriggers within 5'-0" of edge of pad, and truck and crane must be able to get side by side under their own power. No overhead obstructions may be within 75' radius of center of pad. Firm roadbed with turns that allow 65' lowbed tractor-trailer must be provided directly to site. No building shall be placed closer than 2'-0" to an existing structure.







### **SECTION 3**

### **Precast Concrete Dry Vault Restrooms**

Specifications for the Precast Concrete Dry Vault Restroom Drawing 4: Blue Ridge Single Dry Vault Restroom

**Drawing 5: Sierra Outback Double Dry Vault Restroom** 

### PRECAST CONCRETE DRY VAULT RESTROOM

### **SPECIFICATION SHEET**

### PART 1 - GENERAL

### 1.01 SUMMARY

Contractor or manufacturer to furnish a turn-key precast concrete dry vault restroom. Building to be brought to the site in assembled modules and set upon a level and compacted granular rock sub-base with up to a 100 ton crane, all included in the bid price All site clearing and rough grading to within 6 inches of level are done by owner, excavation for restroom vaults to be done by contractor or manufacturer. To be an EasiSet/EasiSpan Building as manufactured by Leesburg Concrete Company Incorporated. Contractor or Manufacturer will pull all permits and connect to utilities, if any, that are stubbed no more than 25' from the desired install location; utilities located further than 25' will be individually negotiated.

### 1.02 QUALITY ASSURANCE

- A. Florida DBPR Insignia required, Section 553, Part I F.S.
- B. ACI-318-08, "Building Code Requirements for Reinforced Concrete". Concrete Reinforcing Institute, "Manual of Standard Practice".
- C. ANSI/ASCE-7-10 "Building Code Requirement for Minimum Design Loads in Buildings and Other Structures".
- D. Florida Building Code 2014
- E. IBC 2012
- F. Concrete Reinforcing Institute, "Manual of Standard Practice".
- G. UL-752 test method level 5 for bullet resistance on concrete surfaces certified by an independent ballistic laboratory.
- H. Fabricator must be a certified producer/member of The National Precast Concrete Association (NPCA).
- I. No alternate building designs to the pre-engineered building as produced by Leesburg Concrete will be allowed unless pre-approved by the owner 10 days prior to the bid date.

### 1.03 DESIGN REQUIREMENTS

- A. Design Loads
  - 1. Seismic Design Category 'C', Importance Factor 1
  - 2. Standard Live Roof Load 60 PSF
  - 3. Standard Floor Load 250 PSF (if precast floor provided by building manufacturer)
  - 4. Standard Wind Loading ASCE 7-10 conforming to geographic area.
  - Designed to meet the requirements of the Americans
     With Disabilities Act Requirements and Uniform Federal Accessibility Standard including as of the
     date of these specifications.
  - 6. Incorporates all design aspects of Sweet Smelling Technology (SST) as outlined by Brian Cook for the U. S. Forest

Service. SST equals Fresh Air Naturally (FAN) by Easi-Set Industries. ("In Depth Design and Maintenance Manual for Vault Toilets" – July 1991 – Publication No. 9123 1601)

- 7. Has one or two, one-piece vault(s) unit(s) to support the entire building, with a one piece floor unit with a 150 p.s.f. load capacity.
- B. Roof: To be post tensioned. The roof shall extend 4" beyond the wall panel and have a turndown design which extends \( \frac{1}{2} \)" below the top edge of the wall panels to prevent water migration into the building along the top of wall panels.
- C. Floor The floor covers the entire footprint of the holding tanks and the walls sit on top of the floor with the floor extending to the edge of the walls for additional strength. Floor should be a minimum of 5 inches thick and have a looped post tension cable. Floor will have a ½" recessed keyway around the perimeter to accept the walls so as to form a physical water barrier.
- D. Vault Precast Concrete Vault
  - 1. Plate for vault cleanout cover will be ½" thick diamond plate steel. Lid will be configured so that it can be locked with a padlock. Lid will be designed to resist surface runoff penetration into the vault. A neoprene gasket will be provided around the entire perimeter of the lid to provide an airtight seal.
  - 2. Vault Coating A USFS approved black Bituthene coatings as outlined in the ("In Depth Design and Maintenance Manual for Vault Toilets" July 1991 Publication No. 9123 1601) will be applied to the interior walls and the bottom of the building floor which prevents hydrogen sulfite gas from attacking the concrete.
  - 3. Sealant between vault and toilet floor to be 1"x1" Butyl Rubber Sealant. A septic tank grade neoprene gasket is also applied in between the holding tanks and floor to seal the joint.

### 1.04 SUBMITTALS

- A. Drawings and calculations sealed by a professional engineer, licensed to practice in the state where the project is located, shall be submitted for approval.
- B. Manufacturer to provide cut sheets on all attached fixtures.

### **PART 2 - PRODUCTS**

### 2.01 MATERIALS

- A. Concrete: Steel-reinforced, 5000 PSI minimum 28-day compressive strength.
- B. Reinforcing Steel: ASTM A615, grade 60 unless otherwise specified.
- C. Post-tensioning Strand: Roof and floor shall be post-tensioned with a 41K polystrand CP50, .50", 270 KSI, 7-wire strand post tension cable, enclosed within a greased plastic sheath (ASTM A416).
- D. Caulking: All joints between panels shall be caulked on the exterior and interior surface of the joints. Caulking shall be SIKAFLEX-1A elastic sealant or equal. Exterior caulk joint to be 3/8" x 3/8" square so that sides of joint are parallel for correct caulk adhesion.
- E. Vents: Two screened aluminum vents to be cast in rear wall. Vents shall be SUNVENT 8"x16" with bug screen, or equal.
- F. Panel Connections: All panel connections shall be welded together utilizing imbedded weld plates with Nelson anchors. Assembly shall be welded by a certified welder.

### 2.02 ACCESSORIES

- Doors and Frames: 16 gauge galvanized 3068 HM door and frame, 4 7/8" throat, Schlage ND series heavy duty grade 1 cylindrical lockset and LCN series 1 Closer surface mounted. All doors and frames are in accordance with NOA 10-0209.07
- 2. ADA Stainless Steel Mirror
- 3. Toilet tissue dispenser Bobrick model # BOB-2740
- 4. Grab bar 36" Bobrick model # B 5806.99x36.
- 5. Grab bar 42" Bobrick model # B 5806.99x42.
- 6. Soap Dispenser by Bobrick model # BOB B-2112
- 7. Wall mounted trash can by Bobrick model # BOB-279
- 8. Door signs by Hillman with Braille, Men, Women, Unisex
- 9. ADA Compliant pit type toilet riser by Romtec Engineering 18" high, white cross linked polyethylene with heavy duty seat.
- 10. Solatube 160 DS 10" skylight in each restroom.

### 2.03 FINISHES

- A. Interior of Building: Smooth form finish on all interior panel surfaces.
- B. Exterior of Building shall be form lined finished in a pattern selected from the Lake County Building Finish Options page and noted on the drawings.
- C. Paint: 1 coat of Loxon primer and two coats of Duracraft paint in owner's choice of exterior color. Inside walls to be painted in white, floor to be painted in Sherwin Williams HC Silver Gray # 124.

### **PART 3 - EXECUTION**

### 3.01 SITE PREPARATION REQUIREMENTS

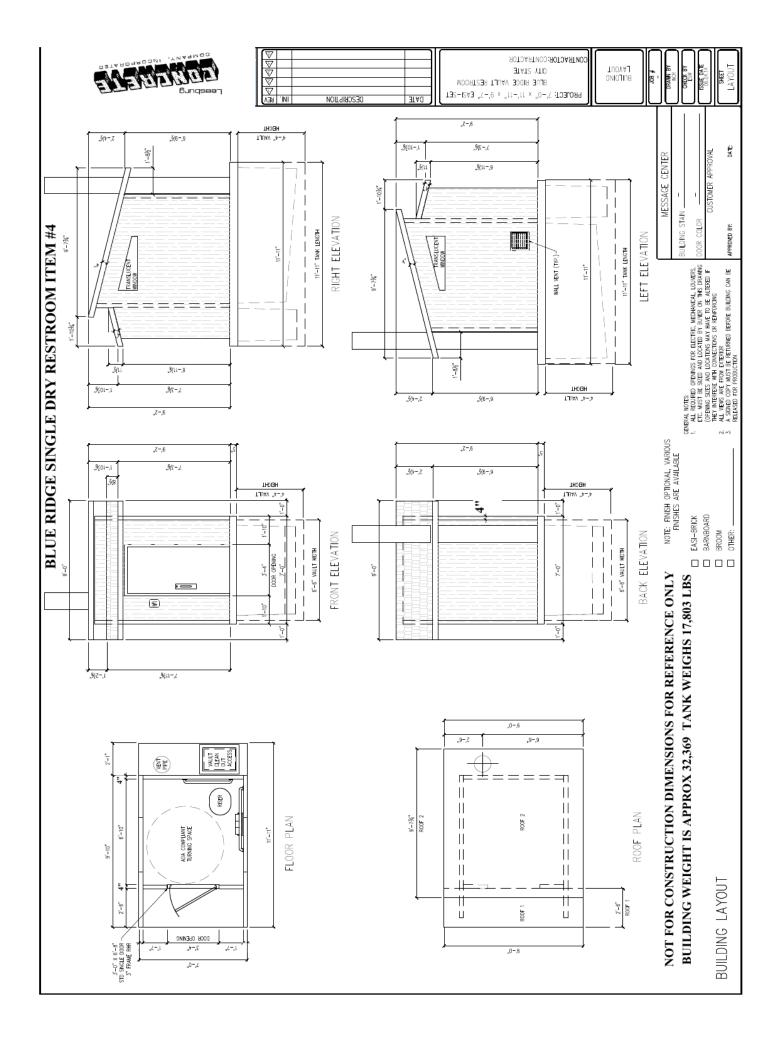
- A. Excavation and Elevation
  - 1. Comply with all applicable OSHA Standards for excavation.
  - 2. The double vault toilet requires a hole that is 16ft wide and 16ft long as measured at the bottom. Depth should be 4'-9" below desired finished floor elevation.
  - 3. Finish floor elevation will be 4-6 inches above natural grade measured at the front (entrance) of the exterior slab unless otherwise approved by the customer. The customer may specify a finish floor elevation for buildings at some sites. The contractor will install buildings at these sites with the floor elevation within  $\pm$  0.05 feet of the specified floor elevation. It is very important that the installation provides drainage away from the structure.

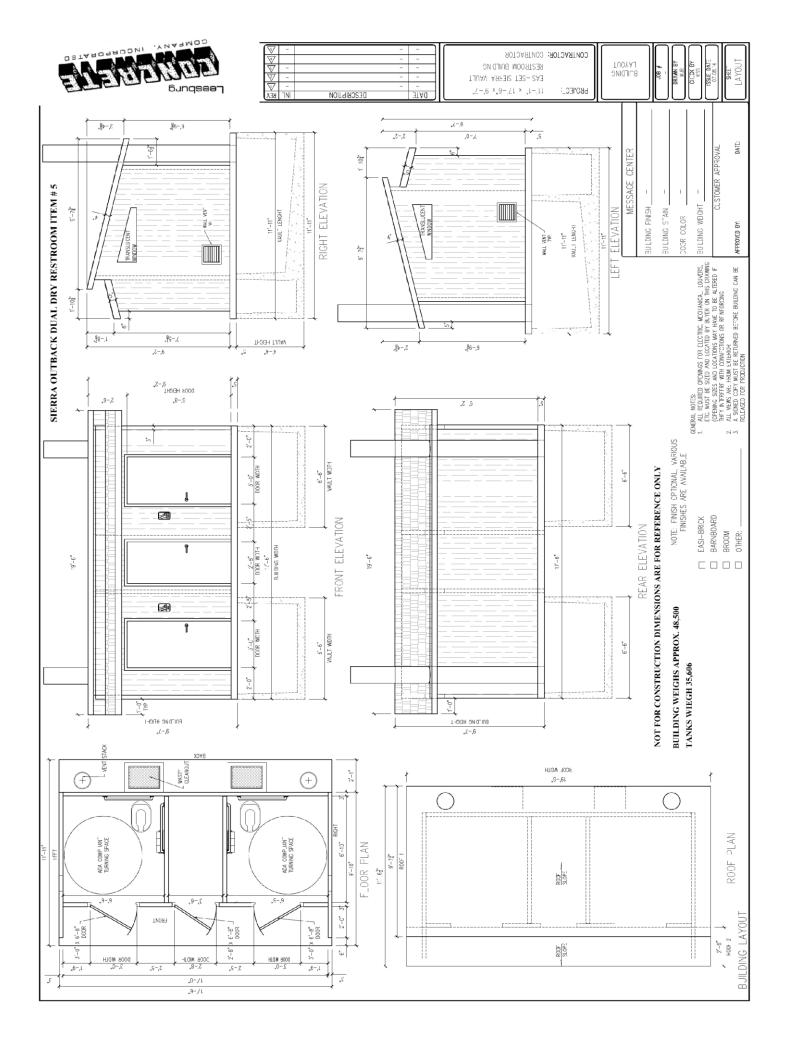
### **B.** Bedding and Compaction

- 1. Compact the natural ground at the bottom of the vault excavation with a minimum of three passes with a whacker-type mechanical compactor or equivalent approved by the customer.
- Install sand or aggregate bedding material for leveling course. Compact leveling course with one pass with a whacker-type mechanical tamper or equivalent approved by the customer. Grade leveling course so there will be no high spots in the middle of the vault bottom. Compact with a second pass with a whacker or approved equivalent tamper.
- 3. Set vault in place. Backfill around structure. Use excavation material for backfill except that rocks larger than six inches in maximum dimensions shall not be placed within six inches of the exterior vault walls.
- 4. Contractor or Manufacturer to haul off excess dirt from excavation for sub-base and sidewalk.

### 3.02 ACCESS

The contractor must provide for a level, unobstructed area large enough for a 100 ton crane and a tractor-trailer to park adjacent to the pad. Crane must be able to place outriggers within 5'-0" of edge of pad, and truck and crane must be able to get side by side under their own power. No overhead obstructions may be within 75' radius of center of pad. Firm roadbed with turns that allow 65' lowbed tractor-trailer must be provided directly to site. No building shall be placed closer than 2'-0" to an existing structure.





### **SECTION 4**

### **Precast Concrete Plumbed Restrooms**

**Specifications for the Precast Concrete Plumbed Restroom** 

Drawing 6: Logan Single Plumbed Restroom
Drawing 7: Carson Double Plumbed Restroom

**Drawing 8: Sierra Outback Double Plumbed Restroom** 

Drawing 9: Northlake Triple Plumbed Restroom
Drawing 10: The Volusia 6 stall Plumbed Restroom

Drawing 11: 20' x 24' x 8'h Concession with Four Stall Restroom Drawing 12: 24' x 30' x 8'h Concession with Eight Stall Restroom

### PRECAST CONCRETE PLUMBED RESTROOM

### **SPECIFICATION SHEET**

### PART 1 - GENERAL

### 1.01 SUMMARY

Contractor or manufacturer to furnish a turn-key precast concrete plumbed restroom to be brought to the site in assembled modules or site assembled depending on size and set upon a level and compacted granular rock sub-base with up to a 100 ton crane, all included in the bid price. All site clearing and rough grading to within 6 inches of level are done by owner, excavation for restroom sub-base to be done by contractor or manufacturer. To be an EasiSet/EasiSpan Building as manufactured by Leesburg Concrete Company Incorporated. Contractor or Manufacturer will pull all permits and connect to utilities, if any, that are stubbed no more than 25' from the desired install location; utilities located further than 25' will be individually negotiated.

### 1.02 QUALITY ASSURANCE

- A. Florida DBPR Insignia required, Section 553, Part I F.S.
- B. ACI-318-08, "Building Code Requirements for Reinforced Concrete". Concrete Reinforcing Institute, "Manual of Standard Practice".
- C. ANSI/ASCE-7-10 "Building Code Requirement for Minimum Design Loads in Buildings and Other Structures".
- D. Florida Building Code 2014
- E. IBC 2012
- F. Concrete Reinforcing Institute, "Manual of Standard Practice".
- G. UL-752 test method level 5 for bullet resistance on concrete surfaces, certified by an independent ballistic laboratory.
- H. Fabricator must be a certified producer/member of The National Precast Concrete Association (NPCA).
- I. No alternate building designs to the pre-engineered building as produced by Leesburg Concrete will be allowed unless pre-approved by the owner 10 days prior to the bid date.

### 1.03 DESIGN REQUIREMENTS

- A. Design Loads
  - 1. Seismic Design Category 'C', Importance Factor 1
  - 2. Standard Live Roof Load 60 PSF
  - 3. Standard Floor Load 250 PSF (if precast floor provided by building manufacturer)
  - 4. Standard Wind Loading ASCE 7-10 conforming to geographic area.
  - Designed to meet the requirements of the Americans
     With Disabilities Act Requirements and Uniform Federal Accessibility Standard including as of
     the date of these specifications.
- B. Roof: To be post tensioned. The roof shall extend 4" beyond the wall panel and have a turndown design which extends ½" below the top edge of the wall panels to prevent water migration into the building along the top of wall panels.

C. Floor – The floor is provided and the walls sit on top of the floor with the floor extending to the edge of the walls for additional strength. Floor should be a minimum of 5 inches thick and have a looped post tension cable. Floor will have a ½" recessed keyway around the perimeter to accept the walls so as to form a physical water barrier.

### 1.04 SUBMITTALS

- A. Drawings and calculations sealed by a professional engineer, licensed to practice in the state where the project is located, shall be submitted for approval.
- B. Manufacturer to provide cut sheets on all attached fixtures.

### **PART 2 - PRODUCTS**

### 2.01 MATERIALS

- A. Concrete: Steel-reinforced, 5000 PSI minimum 28-day compressive strength.
- B. Reinforcing Steel: ASTM A615, grade 60 unless otherwise specified.
- C. Post-tensioning Strand: Roof and floor shall be post-tensioned with a 41K polystrand CP50, .50", 270 KSI, 7-wire strand post tension cable, enclosed within a greased plastic sheath (ASTM A416).
- D. Caulking: All joints between panels shall be caulked on the exterior and interior surface of the joints. Caulking shall be SIKAFLEX-1A elastic sealant or equal. Exterior caulk joint to be 3/8" x 3/8" square so that sides of joint are parallel for correct caulk adhesion.
- E. Vents: Two screened aluminum vents to be cast in rear wall. Vents shall be SUNVENT 8"x16" with bug screen, or equal
- F. Panel Connections: All panel connections shall be welded together utilizing imbedded weld plates with Nelson anchors. Assembly shall be welded by a certified welder.

### 2.02 ACCESSORIES

- Doors and Frames: 16 gauge galvanized 3068 HM door and frame, 4 7/8" throat, Schlage ND series heavy duty grade 1 cylindrical lockset and LCN series 1 Closer surface mounted. All doors and frames are in accordance with NOA 10-0209.07
- 2. ADA Stainless Steel Mirror
- 3. Toilet tissue dispenser Bobrick model # BOB-2740
- 4. Grab bar 36" Bobrick model # B 5806.99x36.
- 5. Grab bar 42" Bobrick model # B 5806.99x42.
- 6. Soap Dispenser by Bobrick model # BOB B-2112
- 7. Wall mounted trash can by Bobrick model # BOB-279
- 8. Door signs by Hillman with Braille, Men, Women, Family
- 9. Stainless steel Acorn Engineering wall mounted rectangular lavatory sink 20" x 22" model # 1953-LC-09 without valves.
- 10. Chicago Faucet model number 857-E12-665PSHABCP.
- 11. Stainless steel Acorn Engineering wall mounted rear discharge toilet model # 1675
- 12. Sloan Royal Flushometer manual flush valve.
- 13. Solatube 160 DS 10" skylight in each restroom.

### 2.03 FINISHES

- A. Interior of Building: Smooth form finish on all interior panel surfaces.
- B. Exterior of Building shall be form lined finished in a pattern selected from the Lake County Building Finish Options page and noted on the drawings.

C. Paint: 1 coat of Loxon primer and two coats of Duracraft paint in owner's choice of exterior color. Inside walls to be painted in white, floor to be painted in Sherwin Williams HC Silver Gray # 124.

### PART 3 - EXECUTION

### 3.01 SITE PREPARATION

- A. Contractor or Manufacturer to bring all necessary utilities to a determined centralized point so as to align with an opening in the chase floor as called out in the manufacturer's provided plans.
- B. Building shall bear fully on a bed of crushed 3/8"stone base that is at least one foot larger in all directions than the footprint of the building.
- C. Stone shall be a minimum of 4" thick or down to firm sub grade. The vertical soil capacity under stone shall be compacted to have minimum bearing of 1,500 pounds per square foot. Stone shall be 3/8" or smaller and must be screeded level within 1/4" in both directions. Stone shall be placed within a perimeter form with flat and level top edge for screeding. Forming material shall remain around stone after the building is set.
- D. The crushed stone base shall be kept within the confines of the soil or perimeter form. Do not allow the base to become unconfined so that it may wash, erode, or otherwise be undermined.

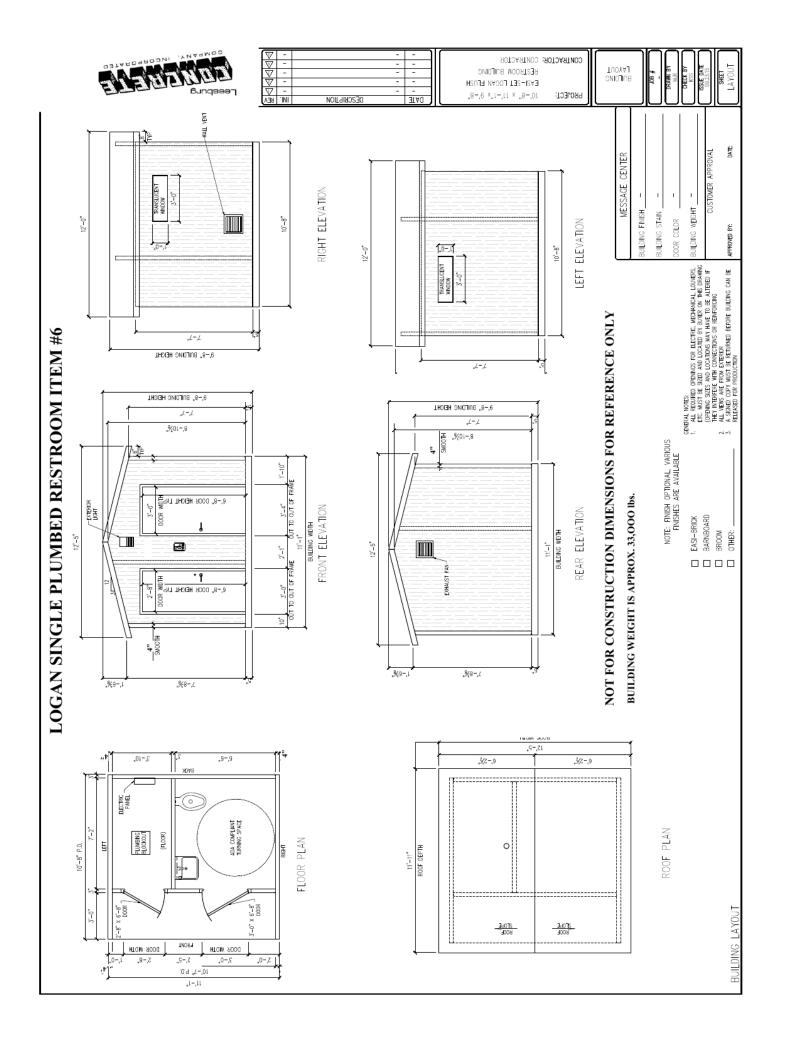
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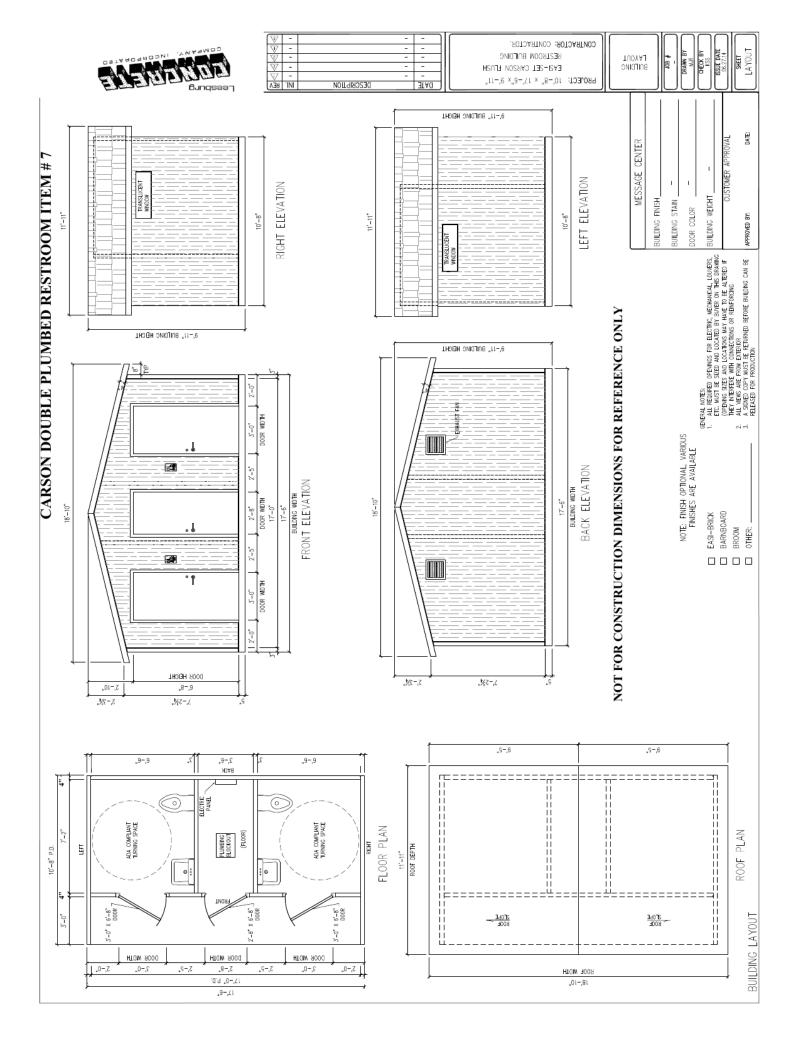
If building is placed on pavement or concrete slab, substrate below pavement or slab must have a vertical soil capacity of 1,500 pounds per square foot. Place stone or sand to 1" above highest point of area where building will be placed and at least 1'-0" wide all around the building footprint. Retain stone or sand with a perimeter form to prevent the material from washing out.

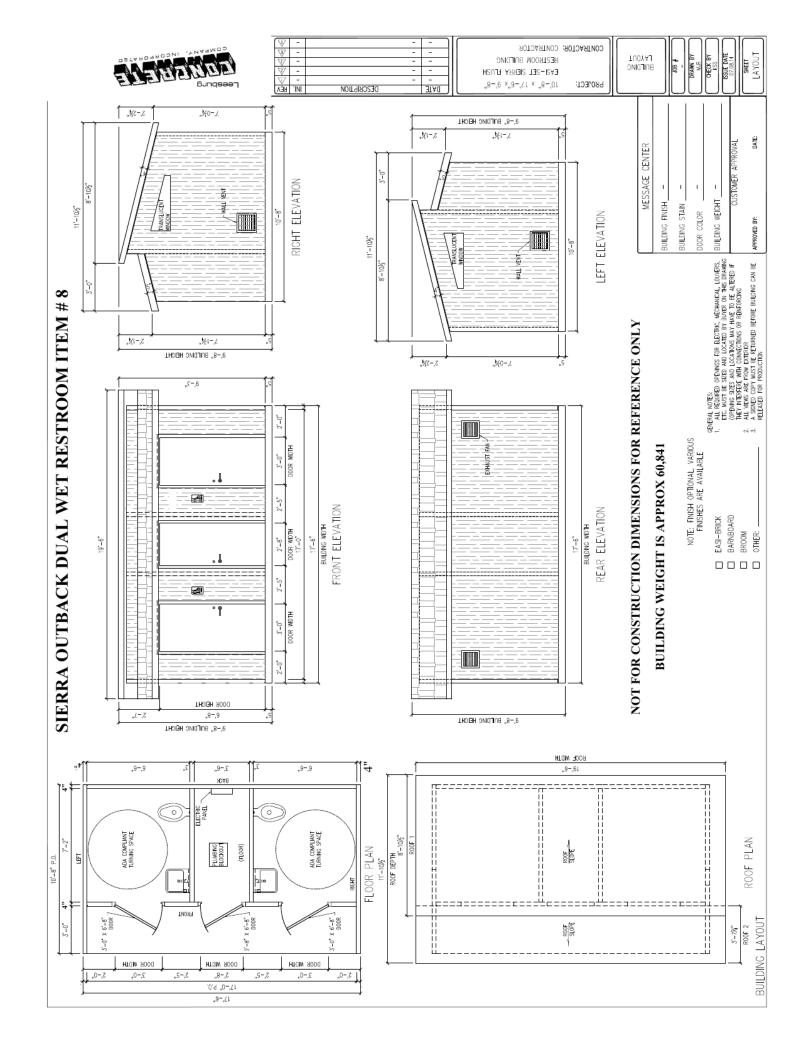
- E. Provide positive drainage for the fill, pad, or slab as required.
- F. Contractor or Manufacturer to haul off excess dirt from excavation for sub-base and sidewalk.

### 3.02 ACCESS

The contractor must provide for a level, unobstructed area large enough for a 100 ton crane and a tractor-trailer to park adjacent to the pad. Crane must be able to place outriggers within 5'-0" of edge of pad, and truck and crane must be able to get side by side under their own power. No overhead obstructions may be within 75' radius of center of pad. Firm roadbed with turns that allow 65' lowbed tractor-trailer must be provided directly to site. No building shall be placed closer than 2'-0" to an existing structure.

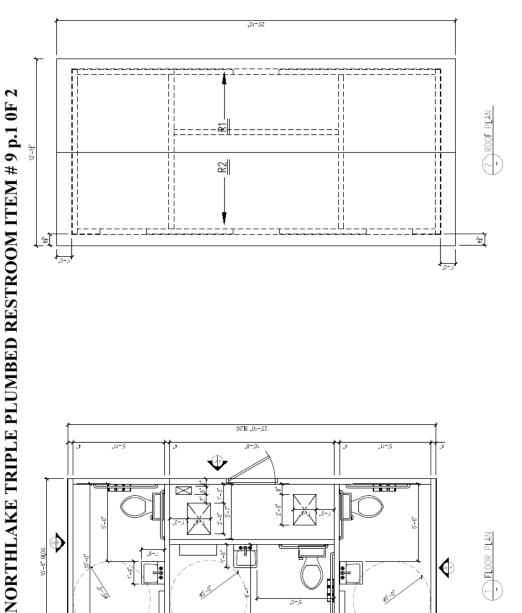


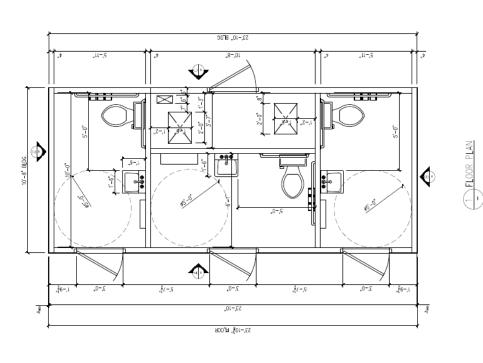






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# NOT FOR CONSTRUCTION DIMENSIONS FOR REFERENCE ONLY

MESSAGE

BUILDING FINISH BUILDING STAIN DOR COLOR

**BUILDING WEIGHT IS APPROX 74,590 lbs** 

NOTE: FINISH OPTIONAL, VARIOUS FINISHES ARE AVAILABLE

EASI-BRICK BARNBOARD

BROOM OTHER:

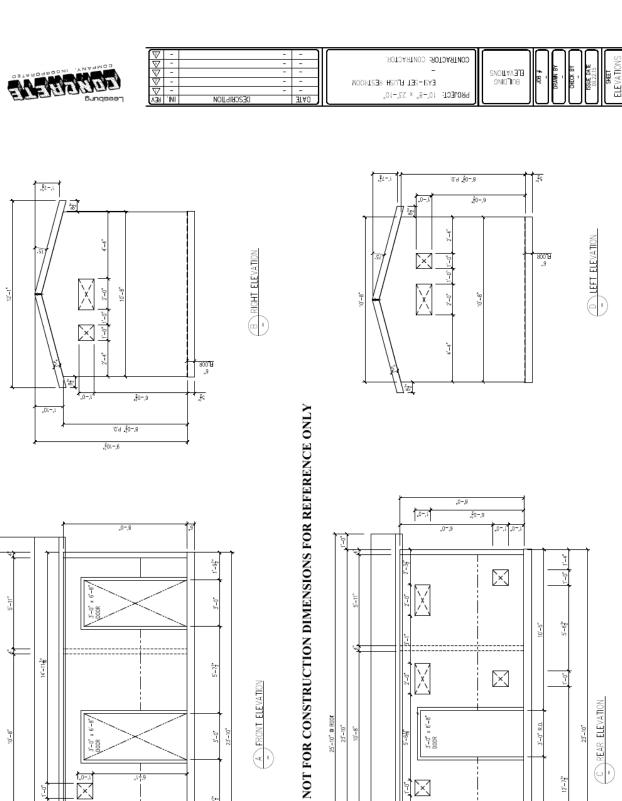
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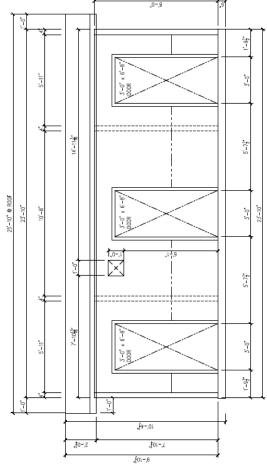
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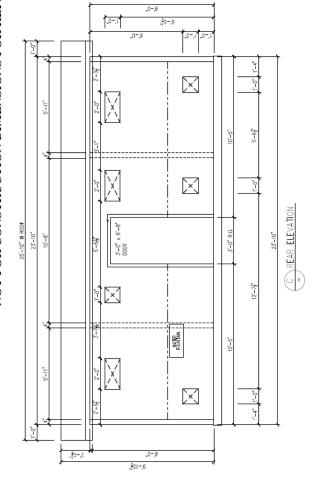
BUILDING WEIGHT



A FRONT ELEVATION



NORTHLAKE TRIPLE PLUMBED RESTROOM ITEM #9 p.2 of 2





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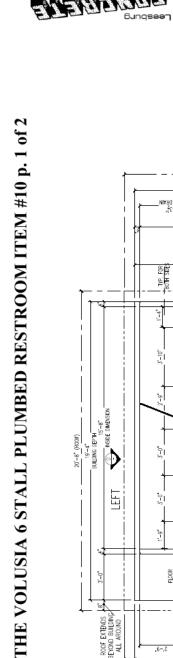
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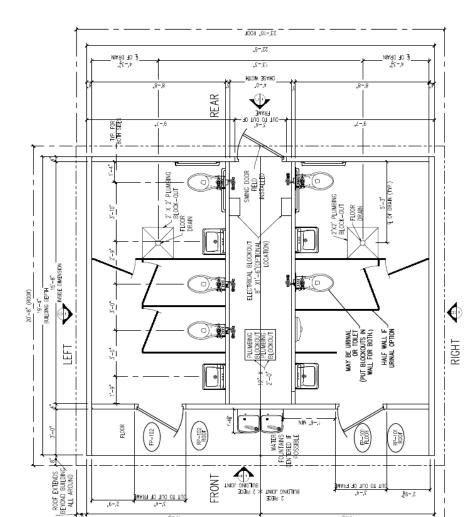
BUILDING WEIGHT



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11,-11, (HALF ROOF SECTION)





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11,-2, 11,-11, ( HALE ROOF SECTION)

### E-02 FLOOR PLAN

## NOT FOR CONSTRUCTION DIMENSIONS ARE FOR REFERENCE ONLY

**BUILDING WEIGHS APPROX 108,000 lbs** 

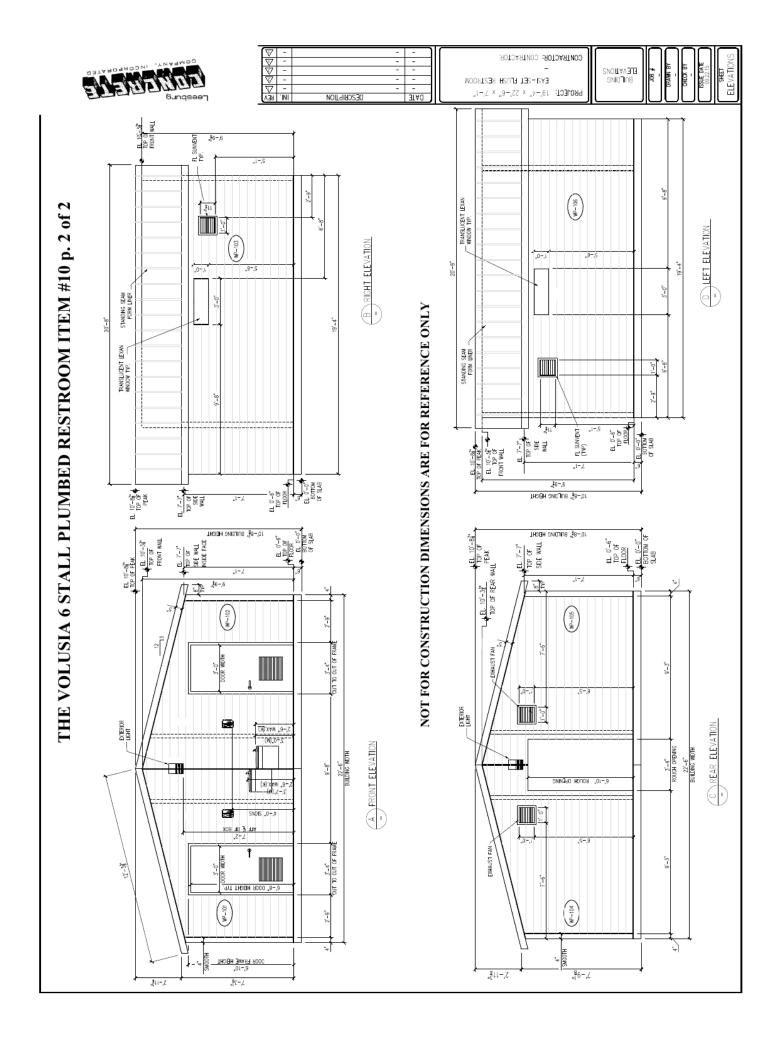
NOTE: FINISH OPTIONAL, VARIOUS FINISHES ARE AVAILABLE

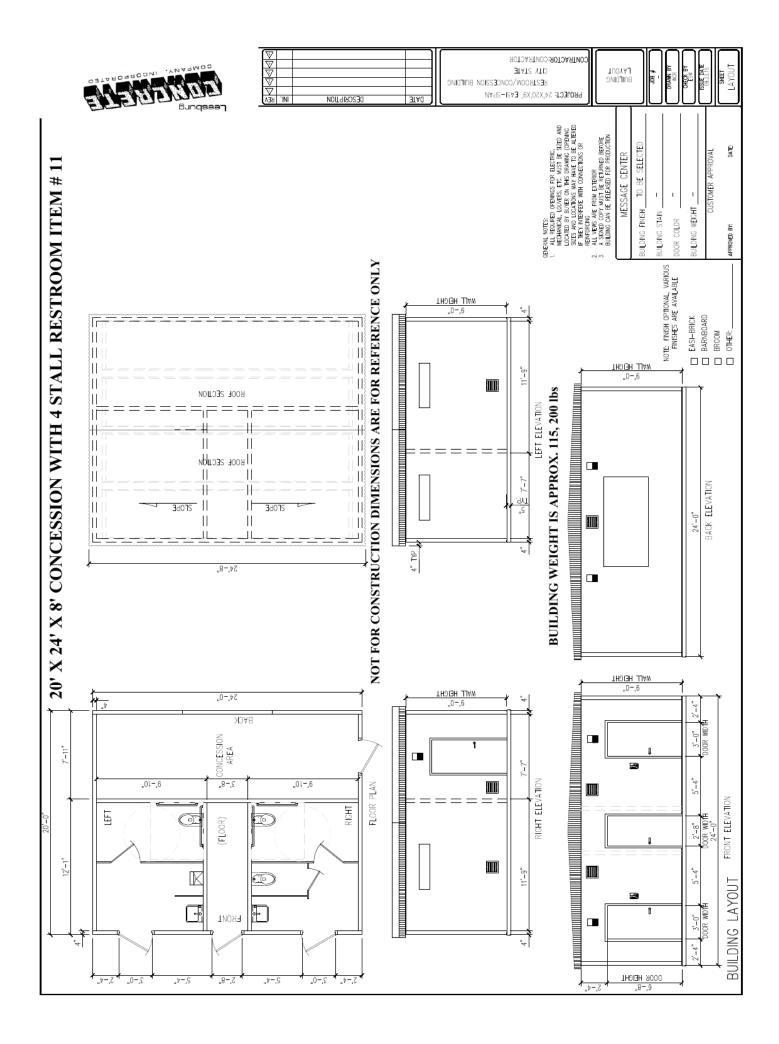
EASI-BRICK BARNBOARD

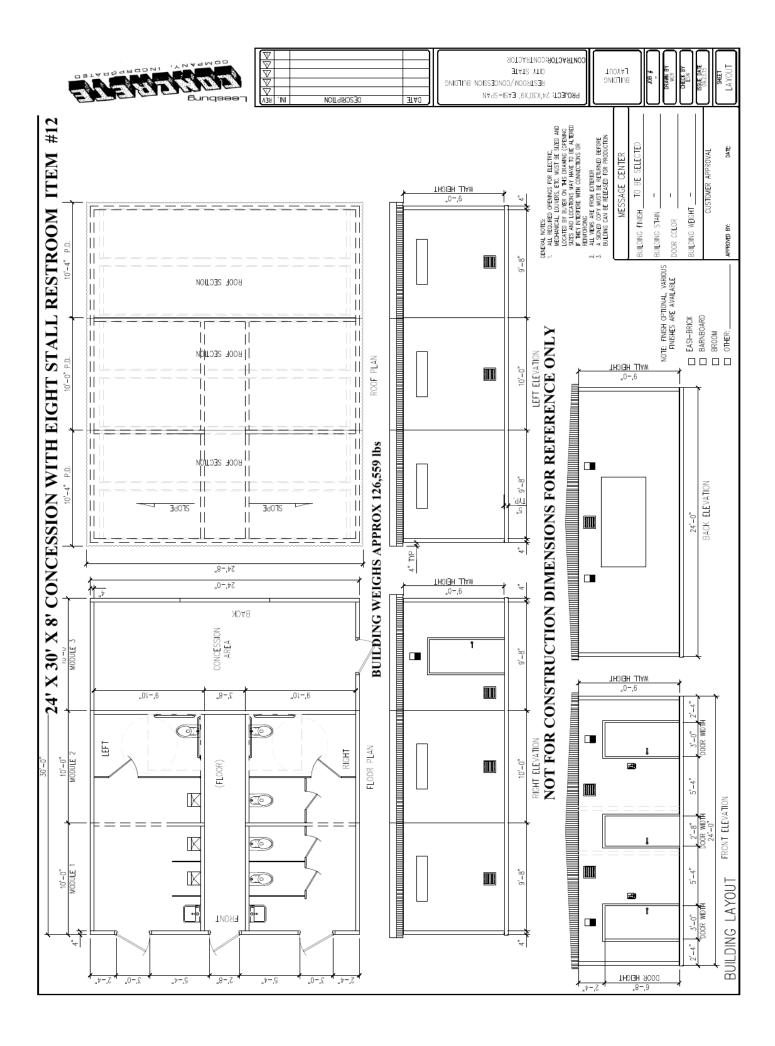
BROOM

OTHER

BUILDING LAYOUT







### **SECTION 5**

### **Site Assembled Precast Panelized Building**

**Specifications for the Site Assembled Precast Panelized Building** 

Drawing 13: 20' x 24' p.43 Drawing 14: 20' x 30' p.44

### SITE ASSEMBLED PRECAST CONCRETE BUILDING

### **SPECIFICATION SHEET**

### PART 1 - GENERAL

### 1.01 SUMMARY

Contractor or Manufacturer to furnish a turn-key site assembled precast concrete building and set it upon a level and compacted granular rock sub-base with up to a 100 ton crane, all included in the bid price. All site clearing and rough grading to within 6 inches of level are done by owner, excavation for sub-base to be done by contractor or manufacturer. To be an EasiSet/EasiSpan Building as manufactured by Leesburg Concrete Company Incorporated. Contractor or Manufacturer will pull all permits and connect to utilities, if any, that are stubbed no more than 25' from the desired install location; utilities located further than 25' will be individually negotiated.

### 1.02 QUALITY ASSURANCE

- A. ACI-318-08, "Building Code Requirements for Reinforced Concrete". Concrete Reinforcing Institute, "Manual of Standard Practice".
- B. ANSI/ASCE-7-10 "Building Code Requirement for Minimum Design Loads in Buildings and Other Structures".
- C. Florida Building Code 2014
- D. IBC 2012
- E. Concrete Reinforcing Institute, "Manual of Standard Practice".
- F. UL-752 test method level 5 for bullet resistance on concrete surfaces, certified by an independent ballistic laboratory.
- G. Fabricator must be a certified producer/member of The National Precast Concrete Association (NPCA).
- H. No alternate building designs to the pre-engineered building as produced by Leesburg Concrete will be allowed unless pre-approved by the owner 10 days prior to the bid date.

### 1.03 DESIGN REQUIREMENTS

Easi-Span roof and floor sections are fabricated in 10' widths and 20 or 24 foot lengths using a tri-beam post tensioning system.

- A. Design Loads
  - 1. Seismic Design Category 'C', Importance Factor 1
  - 2. Standard Live Roof Load 60 PSF
  - 3. Standard Floor Load 250 PSF (if precast floor provided by building manufacturer)
  - 4. Standard Wind Loading ASCE 7-10 conforming to geographic area.
- B. Roof: Roof panel incorporates a tri-beam post tensioned system that has a minimum of 8" slope from peak to edge. Each panel to be post tensioned. The roof shall extend 4" beyond the wall panel and have a turndown design which extends ½" below the top edge of the wall panels to prevent water migration into the building along top of wall panels. Roof shall also have an integral architectural ribbed edge.
  - 1. Option: If indicated on contract drawings, building can be made expandable with a removable ribbed fascia panel. End wall and roof must have imbeds to allow post-tensioning of additional

sections onto existing structure without de-tensioning the existing structure. Roof slabs must be designed to span the free area without internal support for intermediate modules without end walls.

C. Keyway Roof and Floor Joints: Grout in keyways above cast in rubber Durajoint water stop with SikaFlex Floor panel or contractor supplied C.I.P slab must have a ½" step-down around the entire perimeter to prevent water migration into the building along the bottom of wall panels.

### 1.04 SUBMITTALS

- A. Drawings and calculations sealed by a professional engineer, licensed to practice in the state where the project is located, shall be submitted for approval.
- B. Manufacturer to provide cut sheets on all attached fixtures.

### **PART 2 - PRODUCTS**

### 2.01 MATERIALS

- A. Concrete: Steel-reinforced, 5000 PSI minimum 28-day compressive strength.
- B. Reinforcing Steel: ASTM A615, grade 60 unless otherwise specified.
- C. Post-tensioning cable shall be 41K polystrand CP50, .50", 270 KSI, 7-wire strand, enclosed within a greased plastic sheath (ASTM A416). There will be a minimum of three post-tensioning cables connecting roofs and floors together to provide a watertight monolithic diaphragm.
- D. Caulking: All joints between panels shall be caulked on the exterior and interior surface of the joints. Caulking shall be SIKAFLEX-1A elastic sealant or equal. Exterior caulk joint to be 3/8" x 3/8" square so that sides of joint are parallel for correct caulk adhesion.
- E. Optional Vents: Two screened aluminum vents to be cast in rear wall. Vents shall be SUNVENT 8"x16" with bug screen, or equal
- F. Panel Connections: All panel connections shall be welded together utilizing imbedded weld plates with Nelson anchors. Assembly shall be welded by a certified welder.

### 2.02 ACCESSORIES

A. Doors and Frames: Shall comply with Steel Door Institute "Recommended Specifications for Standard Steel Doors and Frames" (SDI-100), and as herein specified. The building may be equipped with double 3'-0" x 6'-8" x 1-3/4", 18-gauge galvanized/insulated CECO Imperial right hand reverse metal doors with 16-gauge galvanized frames, or equal. Doors and frames shall be bonderized and painted one coat of rust inhibitive primer and one finish coat of enamel paint.

### B. Door Hardware:

- 1. Handle: Yale 8822 Mortise Lever Lockset
- 2. Hinges: PB-31/NRP/26D 4 ½" x 4 ½" (chrome-plated with non-removable hinge pins), 3 per door or equal.
- 3. Lock Set: PDQ Industries KR116 32D (stainless steel finish) or equal.
- 4. Surface Bolt, Upper: Cal-Royal 045901426D (satin chrome finish) or equal.
- 5. Surface Bolt, Lower: Cal-Royal 045901426D (satin chrome finish) or equal.

- 6. Removable Astragal: A4441/68R or equal, optional.
- 7. Threshold: National Guard 897V60 raised interior, extruded aluminum threshold with neoprene seal or equal.
- 8. Door Holder: Glynn-Johnson 904H US32D (stainless steel finish), overhead slide type surface mounted door holder or equal.
- 9. Drip Cap: National Guard 15D72 or equal.
- 10. Door Stop: Ives 445B26D (Inactive leaf only) or equal.
- C. (1) Solatube 160 DS 10" skylight.

### 2.03 FINISHES

- A. Interior of Building: Smooth form finish on all interior panel surfaces.
- B. Exterior of Building shall be form lined finished in a pattern selected from the Lake County Building Finish Options page and noted on the drawings.
- C. Paint: 1 coat of Loxon primer and two coats of Duracraft paint in owner's choice of exterior color. Inside walls to be painted in white, floor to be painted in Sherwin Williams HC Silver Gray # 124.

### PART 3 - EXECUTION

### 3.01 SITE PREPARATION REQUIREMENTS (Field assembled on cast-in-place floor)

OPTIONAL: Slab on grade to be designed by Engineer of Record and poured by others to a minimum 6" thick and 4,000 psi steel reinforced concrete. Slab to be level within 1/8" in both directions and capable of supporting loads imposed by the structure, with a 1/2" step-down along the perimeter edge.

### 3.02 SITE PREPARATION (Field assembled on precast floor system)

- A. EASI-SPAN® building shall bear fully on a crushed stone base that is at least one foot larger in all directions than the footprint of the building.
- B. Stone shall be a minimum of 4" thick or down to firm sub grade. The vertical soil capacity under stone shall be compacted to have minimum bearing of 1,500 pounds per square foot. Stone shall be 3/8" or smaller and must be screeded level within 1/4" in both directions. Stone shall be placed within a perimeter form with flat and level top edge for screeding. Forming material shall remain around stone after the building is set.
- C. The crushed stone base shall be kept within the confines of the soil or perimeter form. Do not allow the base to become unconfined so that it may wash, erode, or otherwise be undermined.

OR

If building is placed on pavement or concrete slab, substrate below pavement or slab must have a vertical soil capacity of 1,500 pounds per square foot. Place stone or sand to 1" above highest point of area where building will be placed and at least 1'-0" wide all around the building footprint. Retain stone or sand with a perimeter form to prevent the material from washing out.

- D. Provide positive drainage for the fill, pad, or slab as required.
- E. Contractor or Manufacturer to haul off excess dirt from excavation for sub-base and sidewalk.

### **3.03 ACCESS**

The contractor must provide for a level unobstructed area large enough for a 100 ton crane and a tractor-trailer to park adjacent to the pad. Crane must be able to place outriggers within 5'-0" of edge of pad, and truck and crane must be able to get side by side under their own power. No overhead lines may be within 75' radius of center of pad. Firm roadbed with turns that allow 65' lowbed tractor-trailer must be provided directly to site. No building shall be placed closer than 2'-0" to an existing structure.

