1 GENERAL

1.01 REFERENCE STANDARDS

.1 Canadian Standards Association (CSA)
- .1 CAN/CSA-A23.1, Concrete Materials and Methods of Concrete Construction.
- .2 CAN/CSA-S16, Limit States Design of Steel Structures.
- .3 CSA-S269.1, Falsework for Construction Purposes.
- .4 CAN/CSA-S269.3, Concrete Formwork.
- .5 CSA-O86, Engineering Design in Wood.

.2 American Concrete Institute (ACI)
- .1 ACI 347R, Guide to Formwork for Concrete.

1.02 SUBMITTALS

.1 For "Record Purposes Only," copies of the formwork design drawings as specified in clause 1.03 at least 15 days prior to erection.

.2 Written documentation from the formwork design engineer certifying that the formwork construction complies with the design at least 1 day prior to mortar placement.

1.03 QUALITY CONTROL

.1 Design of Formwork and Shoring by the Contractor
- .1 Provide the design for all formwork and shoring. Design formwork to safely support all vertical and lateral loads, and so all mortar members will be of correct dimension, shape, alignment, elevation, position, and have a surface finish within specified tolerances. In general, design formwork in accordance with the applicable requirements of ACI 347R, CSA-O86, CAN/CSA-S16, CSA-S269.1, and CAN/CSA-S269.3.
- .2 Provide formwork and shoring that has been designed and stamped by a Professional Engineer registered with Engineers Geoscientists Manitoba.

.2 Regulatory Requirements
- .1 Comply with the requirements of all applicable codes and regulations respecting safety in the design and construction of formwork and shoring.

1.04 DELIVERY, STORAGE AND HANDLING

.1 Store formwork with the forming surfaces off the ground, and keep the forming surfaces clean.

2 PRODUCTS

2.01 MATERIALS

.1 Provide new forms consisting of lumber, steel, or other materials

specifically designed for use as formwork, that are capable of consistently providing the specified lines, shapes, and finishes. Do not use modular forms such as basement wall forming systems.

.2 Provide internal form ties consisting of metal rods or bars of a type authorized by the Departmental Representative. Use ties that remain in the finished mortar and are designed to break off at least 25 mm inside the final surface after the forms are removed. Provide ties with removable cones.

.3 Provide break-off type hangers with removable cones or removable thread type hangers for deck forms.

.4 Provide non-volatile form release agent type that does not cause chemical deterioration or discoloration of the mortar surface. Obtain the Departmental Representative's authorization for the proposed form release agent prior to its use.

3 EXECUTION

3.01 PREPARATION

.1 Thoroughly clean forms of all dirt, mortar, and foreign matter before use.

.2 Remove and replace formwork that is damaged, warped, distorted, or otherwise flawed as directed by the Departmental Representative.

.3 Apply form release agent before placing reinforcing steel. Do not allow form release agent to coat reinforcing steel, or concrete/mortar surfaces at construction joints.

3.02 INSTALLATION

.1 Provide forms wherever required to confine and shape concrete to the lines specified in the Contract Documents.

.2 Provide forms that are sufficiently tight to prevent loss of mortar.

.3 Securely tie and brace the forms to maintain their shape and position, and to avoid warping and bulging. Minimize the number of form joints.

.4 Fill joints between panels and depressions with sealant, and smooth off projections.

.5 Provide 25 mm chamfers at all permanently exposed edges or as specified in the Drawings.

.6 Arrange formwork for ease of dismantling and stripping, and so that removal of the forms does not damage the concrete. For blocking and supports which are to be left permanently in the concrete, fabricate the formwork blocking and supports from steel.

.7 Do not use reinforcing steel or embedded parts to support the forms.

.8 Provide access panels at the bottom of wall forms to facilitate thorough inspection and removal of deleterious materials before mortar placement.

.9 Properly identify, position, and secure blockouts, inserts, sleeves,

anchors, conduits and other embedded items.

.10 Fabricate and erect falsework in accordance with CSA-S269.1.

.11 Install form liner in accordance with the manufacturer's written instructions where required for desired finish.

3.03 TOLERANCES

.1 Design, construct, and maintain formwork so that the completed mortar work is within the specified structural tolerances for lines, levels and dimensions.

.2 Tolerances are not cumulative and the most stringent requirements apply.

.3 Structural tolerances, except at stoplog insert and gate locations as specified elsewhere:
- .1 Variation from plumb, batter, or level: +/-12 mm.
- .2 Rate of variation from plumb or batter: 1H:500V.
- .3 Rate of variation from level or slopes: 1H:500V.
- .4 Variation in cross sectional dimensions of slabs, footings and walls: −6 mm and +12 mm.
- .5 Variation of protective mortar cover for reinforcing steel: +/-12 mm.

.4 Structural tolerances at stoplog insert:
- .1 For stoplog seal plate and guide slot embedments refer to Section 05 50 00 – Metal Fabrications.

.5 Reference System Tolerances which are actual dimensions measured from a horizontal and vertical reference grid system: to be within the tolerances specified in CAN/CSA-A23.1 Clause 10.6.

3.04 MORTAR PLACEMENT

.1 Provide measures and means authorized by the Departmental Representative for checking alignment and elevations of forms, and to detect movements of formwork and shoring during concrete placement.

.2 Immediately prior to mortar placement, inspect the forms and verify that they are properly located, sufficiently rigid and tight, and clean and free of foreign material.

.3 Provide experienced personnel to continuously inspect formwork and shoring for early detection of possible displacements, abnormal deflections, or other signs of distress during mortar placement. Provide additional bracing, wedges, shoring, and other materials as necessary to facilitate immediate adjustments as required.

.4 Keep vibrators at least 50 mm away from the face of the formwork. Avoid excessive vibration of mortar.

.5 Repair any mortar defects caused by faulty or inaccurate formwork.

3.05 FORMWORK REMOVAL

.1 Maintain formwork and shoring in place until the mortar has attained sufficient strength to support its own weight, construction loads, and other

imposed loads.

.2 Obtain authorization from the Departmental Representative prior to removing forms or shoring. Authorization by the Departmental Representative to remove forms does not in any way relieve the Contractor of its obligations to delay the removal of forms and shoring until the concrete has attained sufficient strength to support its own weight, construction loads, and other imposed loads.

.3 Without limiting the Contractor's responsibilities, maintain forms or shoring in place for at least the following times after completion of mortar placement and obtain the Minister's confirmation that these times have been reached.

.1	Footings and slabs on grade	24 hours
.2	Vertical forms of walls	48 hours

.4 Remove formwork with care to avoid damage to the mortar, and to produce sharp clean joints and edges.

.5 After removal, carefully clean and repair forms to be reused so the specified quality of the formed surface is achieved. Thoroughly remove film or splatter of hardened mortar.

3.06 CLEAN-UP

.1 Clean-up and properly dispose of all formwork, temporary supports, tie rods and construction debris.

END OF SECTION

1 GENERAL

1.01 REFERENCE STANDARDS

.1 Provide reinforcing steel in accordance with the following standards (latest revision) except where specified otherwise.

.2 American Concrete Institute (ACI).
- .1 ACI 318, Building Code Requirements for Reinforced Concrete.

.3 Canadian Standards Association (CSA).
- .1 CAN/CSA-A23.1, Concrete Materials and Methods of Concrete Construction.
- .2 CSA-A23.3, Design of Concrete Structures.
- .3 CSA-G30.3, Cold-Drawn Steel Wire for Concrete Reinforcement.
- .4 CAN/CSA-G30.18, Billet-Steel Bars for Concrete Reinforcement.
- .5 CSA-W186, Welding of Reinforcing Bars in Reinforced Concrete Construction.

.4 Reinforcing Steel Institute of Canada (RSIC).
- .1 RSIC Manual of Standard Practice (latest edition).

1.02 SUBMITTALS

.1 Provide shop drawings at least 30 days prior to fabrication. Do not commence fabrication until the shop drawings have been reviewed by the Departmental Representative. Indicate lists of quantities and weights of reinforcing steel; details of bent bars; diameters, spacings, and locations of reinforcing steel with identifying code marks to permit correct placement without reference to the Drawings; and locations and details of splices. Prepare reinforcing steel shop drawings in accordance with the RSIC Manual of Standard Practice.

.2 Provide certified copy of mill test reports of reinforcing steel showing physical and chemical analysis results at least 30 days prior to fabrication.

1.03 DELIVERY, STORAGE AND HANDLING

.1 Inspect each shipment of material and timely replace any damaged materials.

.2 Store reinforcing steel above ground on racks or sills in separate bundles with identifying tags or marks that permit easy identification and handling. Prevent the reinforcing steel from becoming coated with materials that would adversely affect the bond.

2 PRODUCTS

2.01 MATERIALS

.1 Reinforcing steel: billet-steel deformed bars in accordance with CAN/CSA G30.18, Grade 400W.

.2 Tie wire: cold-drawn annealed steel wire ties in accordance with CSA-G30.3. Minimum gauge no. 16.

.3 Chairs, bolsters, bar supports and spacers in accordance with CAN/CSA-A23.1.

.4 Mechanical splices, if required, in accordance with ACI 318, capable of developing a minimum of 125% of the yield strength of the reinforcing bar.

2.02 FABRICATION

.1 Fabricate reinforcing steel in accordance with the applicable clauses of CAN/CSA-A23.1 and the RSIC Manual of Standard Practice.

.2 Obtain the Departmental Representative's authorization for locations or additions of splices other than those specified in the Drawings.

.3 Detail lap lengths and bar development lengths in accordance with CSA-A23.3. Provide Class B tension lap splices unless otherwise specified in the Contract Documents.

3 EXECUTION

3.01 PLACEMENT

.1 Place reinforcing steel in accordance with CAN/CSA-A23.1.

.2 Co-ordinate and schedule the installation of inserts, sleeves, anchors, conduits, concrete accessories and other items to be embedded in mortar to avoid interference and delays with the placement of reinforcing steel.

.3 Before placement, clean the surface of the reinforcing steel and the surface of any metal supports of dirt, grease, and heavy, flaky rust and mill scale that can be removed by firm rubbing or equivalent treatment, or other foreign substances, which, in the opinion of the Departmental Representative, are objectionable. After placement, maintain the reinforcing steel in a clean condition until completely embedded in concrete.

.4 Accurately place and secure reinforcing steel and any other items in position so they are not displaced during concrete placement. Prevent disturbance of the reinforcing steel in mortar that has already been placed.

.5 Do not use reinforcing steel as support for ramps, runways, walks, platforms or other such purposes during construction.

.6 Provide metal chairs, metal hangers, metal spacers, or other satisfactory metal supports for supporting reinforcing steel for walls and the underside of exposed slabs. Use plastic-coated supports and spacers to minimize the potential for staining of permanently exposed concrete. In slabs placed on grade where the underside is not to be exposed, use concrete blocks that are specifically constructed for this purpose with the same properties as the concrete required at this location and properly cured. Use other types of supports subject to the authorization of the Departmental Representative.

.7 Provide clear mortar cover as follows:
.1 Mortar cast directly against earth: 100 mm.
.2 Mortar along water passages or exposed to weather: 75 mm.

.8 Maintain the specified mortar cover for the reinforcing steel during mortar placement.

.9 Obtain the Departmental Representative's authorization prior to incorporating any reinforcing steel splices that are not specified in the Contract Documents.

.10 Where required, and as approved by the Departmental Representative, install mechanical splices in strict accordance with the manufacturer's written instructions.

3.02 FIELD BENDING AND WELDING

.1 Do not field bend or field weld reinforcing steel without authorization from the Departmental Representative.

.2 When field bending is authorized by the Departmental Representative, use a bending machine without heat, applying a slow steady pressure.

.3 When field welding is authorized by the Departmental Representative, weld in accordance with CSA-W186.

.4 Replace reinforcing steel that develops cracks or splits.

END OF SECTION

1 GENERAL

1.01 REFERENCE STANDARDS

.1 Canadian Standards Association (CSA).
  .1 CAN/CSA-A23.1, Concrete Materials and Methods of Concrete Construction.

.2 ASTM International (ASTM)
  .1 ASTM C39-13, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
  .2 ASTM C109-16a, Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.
  .3 ASTM C138-17a, Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete.
  .4 ASTM C191, Standard Test Methods for Time of Settling of Hydraulic Cement by Vicat Needle.
  .5 ASTM C666-15, Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
  .6 ASTM C672-12, Standard Test Method for Scaling resistance of Concrete Surfaces Exposed to Deicing Chemicals.
  .7 ASTM C928-13, Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repairs.
  .8 ASTM C1202-17a, Standard Test Method for Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration.
  .9 ASTM D638-14, Standard Test Method for Tensile Properties of Plastics.
  .10 ASTM D2369-10(2015)e1, Standard Test Method for Volatile Content of Coatings.
  .11 ASTM D1042-12(2017), Standard Test Method for Linear Dimensional Changes of Plastics Caused by Exposure to Heat and Moisture.
  .12 ASTM D1622-14, Standard Test Method for Apparent Density of Rigid Cellular Plastics.
  .13 ASTM D1638-74, Method of Testing Urethane Foam Isocyanate Raw Materials (Withdrawn 1989).
  .14 ASTM D2842-12, Standard Test Method for Water Absorption of Rigid Cellular Plastics.

.3 International Concrete Repair Institute (ICRI)
  .1 Guideline No. 310.2R-2013, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repairs.

1.02 SUBMITTALS

.1 Submit a Mortar Placement and Repair Plan two weeks prior to commencing repair work. Indicate materials, products, product data sheets, manufacturer's qualifications, manufacturer's written recommendations, demonstrate crew's experience and qualifications to perform such work, methodology, curing, heating and hoarding measures, timeframes, supervisory staff, list of pumps and equipment, and quality control procedures.

.2 Submit a Polyurethane Injection Grout Plan two weeks prior to commencing crack filling activities. Indicate materials, products, product data sheets, manufacturer's qualifications, manufacturer's written recommendations, demonstrate crew's experience and qualifications,

methodology, curing, heating and hoarding measures, timeframes, supervisory staff, list of pumps and equipment, and quality control procedures.

.3 Submit copies of test cylinder compression test results.

1.03 GENERAL REQUIREMENTS

.1 Prepare mortar and crack filling products in strict accordance with the manufacturer's written instructions as per approved placement procedures within the Mortar Placement and Repair Plan and Polyurethane Injection Grout Plan.

.2 Crack Filling:
- .1 Supply and maintain during all phases of injection grouting, a backup system, repair parts, or reserve equipment to maintain grouting operations in the event of an equipment failure, or during a time critical operation.
- .2 Provide crew with polyurethane injection grouting experience, including the supply and operation of grout pumps.
- .3 All drilling and grouting equipment used will be of a type, capacity and mechanical condition suitable for performing the work, as approved by the Departmental Representative.
- .4 Provide a satisfactory means of communication, such as a radio or other suitable device for communication between the grouting location and the batch location.

1.04 DELIVERY, STORAGE AND HANDLING

.1 Inspect each shipment of products and material and timely replace any faulty or damaged items.

.2 Unload, handle and store products and materials in accordance with the manufacturer's written instructions.

2 PRODUCTS

2.01 MATERIALS

.1 All products and materials to be new, free of defects and supplied in their original manufacturer's packaging.

.2 Provide rapid-setting cement-based mortar with the following properties:
- .1 Flowable.
- .2 Fresh wet density of 2082 kg/m^3 ±50, ASTM C138.
- .3 Set time of < 1 hour, ASTM C191.
- .4 Minimum compressive strength of 50 MPa at 28 days, ASTM C39.
- .5 Minimum compressive strength of 40 Mpa at 1 day, ASTM C109.
- .6 Non-shrink with a minimum length change of -0.05% and wetting expansion less than 0.03%, ASTM C928.
- .7 No scaling at 25 cycles, ASTM C672.
- .8 Rapid chloride permeability < 300, ASTM C1202.
- .9 Freeze-thaw resistance of 100% relative dynamic modulus (RDM) at 300 cycles, ASTM C666 (Procedure A).

.3 Provide two component repair mortar with the following properties:
- .1 Flowable.

.2 Minimum compressive strength of 70 MPa at 28 days.
.3 Minimum compressive strength of 40 MPa at 1 day.
.4 Set time of < 20 minutes at 20°C.
.5 No flash point.
.6 Application temperature of -10°C (with low temperature accelerator).
.7 Two component mix.
.8 Waterproof.
.9 Approved by Agriculture Canada for incidental food contact.

.4 Provide polyurethane injection grout for crack filling with the following properties:
.1 Low-viscosity, expanding, flexible and potable water compatible hydrophobic polyurethane injection grout.
.2 Uncured product properties:
.1 100% uncured solids, 100%, ASTM D2369.
.2 Flashpoint > 93°C.
.3 Non-corrosive.
.4 Viscosity of 500 cps, ASTM D1638.
.3 Cured product properties:
.1 Specific gravity of 1.8 kg/L, ASTM D1622.
.2 Tensile strength of 0.02 MPa, ASTM D638.
.3 Elongation of 44%.
.4 Shrinkage < 1%, ASTM D1042.
.5 Absorption < 1%, ASTM D2842.

3 EXECUTION

3.01 EXAMINATION

.1 Prior to commencement of concrete demolition for new mortar placement or crack filling operations, inspect, visually identify and mark in the field, and sketch on a hard copy of Drawings all areas identified for demolition, repair and crack filling, including estimated quantities. Review proposed repair and crack filling areas with the Departmental Representative on-Site for approval at least 4 days prior to commencing repair activities. Add or delete any repair areas as directed by the Departmental Representative and re-submit a sketch of the repair areas as part of the Mortar Placement and Repair Plan and Polyurethane Injection Grout Plan, respectively. Only proceed with demolition, mortar placement, concrete repairs and crack filling once written authorization by the Departmental Representative is received.

.2 Inform Departmental Representative of unacceptable existing conditions immediately upon discovery. Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

.3 Beginning of installation means acceptance of substrate.

3.02 CONCRETE DEMOLITION AND PREPARATION

.1 Strictly adhere to the manufacturer’s written instructions for the product specific surface preparation requirements.

.2 Completely remove all damaged, deteriorated, loosened or unbonded concrete down to sound concrete. Remove micro-fractured surfaces resulting from the initial concrete removal process.

.3 Sawcut the perimeter of areas requiring concrete removal and replacement perpendicular to the surface to a minimum depth of 25 mm and maximum depth of 40 mm. Do not use any demolition or repair method that produces a featheredge. Minimum repair depth without reinforcing steel is 25 mm or depth of saw cut utilized.

.4 Demonstrate that tools for demolition are of suitable size, and are being used in a manner that does not result in damage of adjacent concrete or other structural features.

.5 Clean exposed reinforcing steel surfaces of dirt, laitance, corrosion or other contamination by wire brush or using water jets.

.6 Construct formwork to shape mortar to the lines and dimensions provided in the Drawings, match adjacent surfaces and achieve a desired smooth surface, as required, or as deemed required by the Departmental Representative. Provide vent holes in formwork to ensure air release and confirmation that mortar has filled the void.

.7 Prior to placement, provide a concrete substrate surface that is clean and saturated surface dry, except where the repair products require a dry surface. Apply bonding agent only as recommended by the repair product Manufacturer.

.8 Completely remove honeycombed areas down to sound concrete or to the required depth behind the reinforcing steel, whichever is greater. The depth required beyond the reinforcing steel is 1.5 times the maximum aggregate size of the replacement concrete or 25 mm, whichever is greater. Place new mortar slightly proud of the adjoining surfaces and then grind it to match within the specified tolerances.

3.03 MORTAR PLACEMENT AND CONCRETE REPAIR

.1 Strictly adhere to the manufacturer’s written instructions for the product mix design, supplemental aggregate requirements, placement method, temperature placement requirements, product additives, curing procedures, curing temperatures and durations, and quality control measures; and as per the approved Mortar Placement and Repair Plan. As a minimum, supplemental aggregates cannot be limestone and must be inert, non-reactive aggregate, that eliminate the potential for Alkali-Aggregate Reactivity (AAR).

.2 Use two component repair mortar for repair volumes $\leq 0.025\ m^3$.

.3 Use rapid rapid-setting cement-based mortar for new placement or repair volumes $> 0.025\ m^3$.

.4 Place mortar in one continuous operation to full depth required. Provide sufficient supply of mortar to complete pour without interruption. Use a placement rate that ensures each layer is placed while the previous layer is soft or plastic; the two layers become monolithic by penetration of the vibrators; and cold joints are not produced.

.5 Do not place mortar faster than the rate for which the forms have been designed or at which the mortar can be properly consolidated.

.6 Limit the unrestricted drop of mortar to less than 1500 mm. Use tremies, hoses, chutes or trunks to limit the unrestricted drop of mortar to less than 1500 mm.

.7 Use a product that provides a finish colour that approximately matches the surrounding concrete surfaces in areas that are permanently exposed.

.8 Do not schedule or place mortar during periods that have high probability of rain. Provide adequate materials on-Site to protect mortar from the harmful effects of rain or snow during placement or curing.

.9 Do not place mortar underwater unless authorized by the Departmental Representative.

.10 Placing mortar by pumping methods may be permitted.

.11 Uniformly and thoroughly consolidate mortar as it is being placed. Use vibrators of the proper size, frequency and amplitude, supplemented by hand spading, tamping and tapping on forms when required, to secure a dense, homogeneous product, a good bond with the reinforcing steel and embedded items, and a smooth formed surface free of air pockets and surface blemishes.

.12 Where construction joints are requested by the Contractor, and authorized by the Departmental Representative, roughen the construction joint interface to an amplitude of 5 mm. Use sandblasting or other authorized means to remove all laitance, unsound mortar, and to expose clean, sound, fine aggregate without undercutting the edges of coarse aggregate particles. Wash or air-blow the joint surface after sandblasting and just prior to placing the succeeding lift to remove all dirt, debris, or other foreign material.

.13 Provide finished mortar surfaces that:
- .1 Limit the height of abrupt irregularities to no more than 3 mm.
- .2 Limit the height of gradual irregularities to no more than 6 mm and the ratio of height to length to no steeper than 1:16.

.14 Use dry pack mortar for filling holes left by the removal of form ties and for repair of small honeycombed areas where lateral restraint can’t be obtained.

.15 Minimum testing requirements:
- .1 Cast four 150 mm diameter by 300 mm cylinders at the point of placement, for each mortar product, for compressive strength testing. No less than four cylinders per 10 m^3 of mortar placed. Cast additional cylinders as requested by the Departmental Representative.
- .2 Cure test cylinders at Site, near the point of placement, and under the same environmental, temperature and moisture conditions as the cast-in-place mortar.
- .3 Conduct compressive strength tests on two cylinders at 2 days and two at 28 days.
- .4 Evaluate test results in accordance with CAN/CSA-A23.1.

3.04 CRACK FILLING

.1 Strictly adhere to the manufacturer's written instructions for the product mix design, placement method, pump and equipment requirements, injection hole sizes, hole arrangements and spacing, packers and grout tubes, crack surface cleaning and preparation, temperature placement requirements, product additives, curing procedures, curing temperatures and durations, and quality control measures; and as per the approved Polyurethane Injection Grout Plan.

.2 Fill all concrete cracks larger than 0.4 mm, cracks seeping water, or as directed by the Departmental Representative.

.3 Provide single component polyurethane injection pumps capable of pressures to 3000 psi and flow rate of greater than 0.5 gpm, unless otherwise requested by the polyurethane injection grout manufacturer and approved by the Departmental Representative.

.4 Use high pressure water jets to flush out the cracks and clean all surfaces along the repair area to remove all loose concrete, laitance, dirt, oil, grease, and all bond-inhibiting materials from surface.

.5 Trim cured polyurethane injection grout protruding from cracks so that it is flush with the adjoining concrete surfaces.

.6 For exposed cracks large enough that the polyurethane injection grout is visible after installation and subsequent trimming, route the surface of the crack minimum 15 mm deep by 15 mm wide and fill with rapid-setting cement-based mortar or approved dry-pack mortar.

.7 Remove packers or injection ports once polyurethane injection grout has completely cured and fill with suitable repair or dry-pack mortar as recommended by the polyurethane injection grout manufacturer.

3.05 ENVIRONMNETAL CONSIDERATIONS

.1 Contain all wastewater including that from washing truck or stationary mixers.

.2 Collect and dispose of waste rejected mortar, wastewater and waste materials at an off-Site disposal area.

END OF SECTION