

SECTION - C02361: TERMITES CONTROL		DIVISION 03 - CONCRETE		Masonry Joint Reinforcement: ASTM A 951; mill galvanized, carbon-steel wire for interior walls and hot-dip galvanized, carbon-steel wire for exterior walls.		Interrupt joint reinforcement at control and expansion joints, unless otherwise indicated.	
PART I - GENERAL		SECTION - C03000: FOOTING / SLAB ON GRADE		1. Wire Size for Side Rods: W1.7 or 0.150-inch diameter.		C. Provide continuity at wall intersections by using prefabricated T-shaped units.	
1.1 SUMMARY		Refer to structural drawings for section C03000.		2. Wire Size for Cross Rods: W1.7 or 0.150-inch diameter.		D. Provide continuity at corners by using prefabricated L-shaped units.	
A. All products and services shall be provided by the Owner's National Account Vendor, refer to National Accounts List.		DIVISION 04 - MASONRY		3. Wire Size for Veneer Ties: W1.7 or 0.150-inch diameter.		3.4 ANCHORING SEISMIC MASONRY VENEERS	
B. This Section includes the following:		SECTION - C04810: UNIT MASONRY ASSEMBLIES		4. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches (407 mm) o.c.		A. Anchor masonry veneers to wall framing with seismic masonry-veneer anchors to comply with the following requirements:	
1. Soil treatment with termiticide.		PART I - GENERAL		5. Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.		1. Fasten screw-attached and seismic anchors through sheathing to wall framing with metal fasteners of type indicated. Use two fasteners.	
2. Wood treatment with borate.		1.1 SUMMARY		2.5 TIES AND ANCHORS		2. Embed tie sections in masonry joints. Provide not less than 2 inches (50 mm) of air space between back of masonry veneer and face of sheathing.	
3. Metal mesh barrier system.		A. This Section includes unit masonry assemblies consisting of the following:		A. Materials:		3. Locate anchor sections to allow maximum vertical differential movement of ties up and down.	
1.2 RELATED SECTIONS		1. Concrete masonry units (CMUs).		1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82; with ASTM A 153/A 153M, Class B-2 coating.		4. Space anchors as indicated, but not more than 16 inches (406 mm) o.c. vertically and 24 inches (610 mm) o.c. horizontally with not less than 1 anchor for each 2.67 sq. ft. (0.25 sq. m) of wall area. Install additional anchors within 12 inches (305 mm) of openings and at intervals, not exceeding 36 inches (914 mm), around perimeter.	
A. Rough Carpentry: SECTION C06100		2. Face brick.		2. Steel Sheet, Galvanized after Fabrication: ASTM A 1008/A 1008M, Commercial Steel, hot-dip galvanized after fabrication to comply with ASTM A 153/A 153M.		3.5 FLASHING, WEEP HOLES, CAVITY DRAINAGE, AND VENTS	
B. Flexible and Sheet Metal Flashing: SECTION C07600		1.2 SUBMITTALS		3. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M, primed.		A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.	
1.3 SUBMITTALS		A. Product Data: For each type of product indicated.		4. Corrugated Wall Ties: Provide anchors that are a minimum .22 gauge x7/8-inch wide with a corrugation wave length of between 0.3 to 0.5 inches and an amplitude of 0.06 to 0.1 inches. Installed with screws or ring-shanked nails. The fastener shall be located no more than 1/2-inch from the 90-degree bend in the anchor.		1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bend of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing as recommended by flashing manufacturer.	
A. Product Data: For each type of product indicated. Include the EPA-Registered Label. Product certificates.		B. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.		5. Wire Ties: Unless otherwise indicated, size wire ties to extend at least halfway through veneer but with at least 5/8-inch (16 mm) cover on outside face. Outer ends of wires are bent 90 degrees and extend 2 inches (50 mm) parallel to face of veneer.		2. At lintels and shelf angles, extend flashing a minimum of 6 inches (150 mm) into masonry at each end. At heads and sills, extend flashing 6 inches (150 mm) at ends and turn up not less than 2 inches (50 mm) to form end dams.	
C. Soil Treatment Application Report: Include the following:		1.3 RELATED WORK		D. Individual Wire Ties: Rectangular units with closed ends and not less than 4 inches (100 mm) wide. Fabricate from 1/4-inch- (6.4-mm) diameter, hot-dip galvanized steel wire.		3. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal drip edge.	
1. Date and time of application.		A. Structural Steel and Miscellaneous Steel: C05000 (See Structural Drawings)		E. Partition Top Anchors: 0.097-inch- (2.5-mm) thick metal plate with 3/8-inch- (10-mm) diameter metal rod end 6 inches (150 mm) long welded to plate and with closed-end plastic tube fitted over rod that allows rod to move in and out of tube. Fabricate from steel.		4. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal flashing termination.	
2. Moisture content of soil before application.		B. Flexible and Sheet Metal Flashings: C07600		F. Rigid Anchors: Fabricate from steel bars 1-1/2 inches (38 mm) wide by 1/4 inch (6.4 mm) thick by 24 inches (600 mm) long, with ends turned up 2 inches (50 mm) or with cross pins.		1. Use specified weep/vent products to form weep holes.	
3. Brand name and manufacturer of termiticide.		1.4 PROJECT CONDITIONS		G. Adjustable Masonry-Veneer Anchors		2. Space weep holes 24 inches (600 mm) o.c., unless otherwise indicated.	
4. Quantity of undiluted termiticide used.		A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.		1. General: Provide anchors that allow vertical adjustment but resist tension and compression forces perpendicular to plane of wall, for attachment over sheathing to wood or metal studs, and as follows:		3. Cover cavity side of weep holes with plastic insect screening at cavities insulated with loose-fill insulation.	
5. Dilutions, methods, volumes, and rates of application used.		B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.		a. Structural Performance Characteristics: Capable of withstanding a 100-lbf (445-N) load in both tension and compression without deforming or developing play in excess of 0.05 inch (1.3 mm).		D. Place cavity drainage material in cavities to comply with configuration requirements for cavity drainage material in Part 2 "Miscellaneous Masonry Accessories" Article.	
6. Areas of application.		END OF SECTION C02361		2. Wire Ties: Triangular, rectangular, or T-shaped wire ties fabricated from 0.25-inch (6.4-mm) diameter steel wire.		E. Insect vents in head joints in exterior wythes at spacing indicated. Use specified weep/vent products to form vents.	
7. Water source for application.		SECTION - C02831: CHAIN LINK FENCES AND GATES (SECURITY)		3. Seismic Masonry-Veneer Anchors: Units consisting of a metal anchor section and a connector section designed to engage a continuous wire embedded in the veneer mortar joint.		1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.	
D. Wood Treatment Application Report: Include the following:		PART I - GENERAL		4. Anchor Section: Rib-stiffened, sheet metal plate with screw holes top and bottom, and slotted holes for inserting connector section.		3.6 REINFORCED UNIT MASONRY INSTALLATION	
1. Date and time of application.		1.1 SUMMARY		b. Connector Section: Rib-stiffened, sheet metal bent plate; sheet metal clip; or wire tie and rigid extruded vinyl clip designed to engage continuous wire. Size connector to extend at least halfway through veneer but with at least 5/8-inch (16 mm) cover on outside face.		A. Temporary Formwork and Shores: Construct formwork and shores as needed to support and brace masonry elements during construction.	
2. Brand name and manufacturer of borate.		A. Provide a 6-foot high chain link fence as may be required by the municipality or required for security reasons.		c. Fabricate sheet metal anchor sections and other sheet metal parts from 0.097-inch- (2.5-mm) thick, steel sheet.		1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.	
3. Quantity of undiluted borate used.		PART II - PRODUCTS		d. Fabricate wire connector sections from 0.25-inch- (6.4-mm) diameter, carbon-steel wire.		2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other temporary loads that may be placed on them during construction.	
4. Dilutions, methods, volumes and rates of application used.		2.1 BASIC MATERIALS		2.6 EMBEDDED FLASHING MATERIALS		3.7 FIELD QUALITY CONTROL	
5. Areas of application.		A. Framework: Schedule 40 steel pipe, standard weight, one piece without joints; ASTM A120.		A. Metal Flashing: Provide metal flashing, where flashing is exposed or partly exposed and where indicated, complying with Division 7 Section "Sheet Metal Flashing and Trim."		A. Inspectors: Owner will engage qualified independent inspectors to perform inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform inspections.	
6. Schedule of inspections for one-year from date of Substantial Completion.		1. Line Posts: 1.9 inch diameter, length required for 8 feet height.		1. Metal Drip Edges: Fabricate from stainless steel. Extend at least 3 inches (75 mm) into wall and 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed.		1. Place grout only after inspectors have verified compliance of ground spaces and grades, sizes, and locations of reinforcement.	
1.4 QUALITY ASSURANCE		2. Corner and Terminal Posts: 2.38 inch diameter (min.); size to be determined by use and engineering design. Length as for line posts.		2. Metal Flashing Terminations: Fabricate from stainless steel. Extend at least 3 inches (75 mm) into wall and out to exterior face of wall. At exterior face of wall, bend metal back on itself for 3/4 inch (19 mm) and down into joint 3/8 inch (10 mm) to form a stop for retaining sealant backer rod.		B. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections indicated below and prepare test reports.	
A. Installer Qualifications: A specialist who is licensed according to regulations of authorities having jurisdiction to apply termite control treatment and products in jurisdiction where Project is located.		3. Gate Posts: 3.5 inch diameter (min.) for gates 5 feet wide and less and 6.0 inch diameter (min) for gates 5 feet wide and over; size to be determined by use and engineering design. Length as for line posts.		3. Metal Expansion-Joint Strips: Fabricate from stainless steel to shapes indicated.		3.8 CLEANING	
B. Regulatory Requirements: Formulate and apply termiticide according to the EPA-Registered Label.		4. Top, Bottom and Brace Rails: 1.66 inch diameter, plain end, sleeve coupled.		2.7 MISCELLANEOUS MASONRY ACCESSORIES		A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.	
1.5 WARRANTY		5. Gates: 1.66 inch diameter (min.) for gates 5 feet wide and less, and 3 inch diameter (min) for gates 5 feet wide and over, for fittings and truss rod fabrication; size to be determined by engineering design.		A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; formulated from neoprene or PVC.		B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:	
A. Special Warranty: Manufacturer's standard form, signed by Applicator and Contractor certifying that termite control work, consisting of applied soil termiticide treatment, will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during warranty period, re-treat soil and repair or replace damage caused by termite infestation.		B. Fabric: Three inch 9-gauge diamond mesh steel wire, interwoven, top selvage twisted tight, bottom selvage knuckle end closed. Zinc coated. FS RR-F-191 Type I.		B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D 2000, Designation M2AA-805 and designed to fit standard sash block and to maintain lateral stability in masonry wall.		1. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes.	
1. Warranty Period: Five years from date of Substantial Completion.		C. Fittings: Steel; sleeves, bands, clips, rail ends, tension bars, fasteners and fittings.		C. Bond Breaker Rings: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).		2. Protect adjacent surfaces from contact with cleaner.	
1.6 MAINTENANCE SERVICE		D. Concrete: Portland Cement; 2500 psi at 28 days; 3 inch slump; ASTM C94.		D. Weep/Vent Products: Use the following, unless otherwise indicated:		3. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.	
A. Continuing Service: Beginning at Substantial Completion, provide 12 months' continuing service including monitoring, inspection, and re-treatment for occurrences of termite activity. Provide a standard continuing service agreement. State services, obligations, conditions, and terms for agreement period; and terms for future renewal options.		E. Caps: Cast steel or malleable iron; sized to post dimension, set screw retained.		1. Wickling Material: Absorbent rope made from cotton or UV resistant synthetic fiber, 1/4-inch to 3/8-inch (6 mm to 10 mm) in diameter, in length required to provide 2 inch (50 mm) exposure on exterior and 18-inches (450 mm) in cavity between wythes. Use only for weeps.		4. Bucket-and-brush: hand-cleaning method described in BIA Technical Notes 20.	
PART II - PRODUCTS		PART III - EXECUTION		2. Cavity Drainage System: As manufactured by Mortar Net.		5. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.	
2.1 TERMITES CONTROL COMPANIES		A. General: Install framework, fabric, accessories and gates in accord with ANSI/ASTM F567 and accepted shop drawings.		2.8 MASONRY CLEANERS		6. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.	
A. Terminix, Phone: (901) 597-1312, ATTN: Aspatia Presley		B. Framework:		A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains from new masonry without damaging masonry. Use product approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.		END OF SECTION C04810	
2.2 COMPONENTS		1. Posts: Space line posts at intervals of 10 feet (max.). Set terminal, gate and line posts plumb, in concrete footings with top of footing 6 inches below finish grade. Footing depth below finish grade: ANSI/ASTM F567.		PART III - EXECUTION			
A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:		2. Braces and Rails: Provide top rail through line post tops and splice with 7-inch long rail sleeves. Brace each gate and corner post back to adjacent line post with horizontal center brace rail and diagonal truss rods. Install brace rail, one bay from end and gate posts. Install center and bottom brace rail on corner and gate leaves.		3.1 INSTALLATION, GENERAL			
1. Termiticides:		C. Fabric: Stretch between terminal posts or at intervals of 100 feet, whichever is less. Position bottom 2 inches above finished grade. Fasten to top rail, line posts, braces, and bottom tension wire with wire ties 15 inches o.c. max. Attach to end, corner, and gate posts with tension bars and tension bar clips. Install continuous bottom rail between terminal posts.		A. Use full-size units without cutting if possible. If cutting is required, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.			
a. Aventis Environmental Science USA LP; Terimidor		D. Accessories: Install caps and roof fabric support arms and attach fabric; tension and secure. Install slats in service yard gates only.		B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.			
b. Bayer Corporation; Premise 75		E. Gates: Install in accord with manufacturer's instructions, including: hardware and concrete work required for locking devices for center of double gate openings.		C. Comply with tolerances in ACI 530.1/ASCE 6/TMS 602 and with the following:			
3. Dow AgroSciences LLC; Dursban TC, Equity		END OF SECTION C02831		1. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2 inch (12 mm) maximum.			
4. FMC Corporation, Agricultural Products Group; Talstar, Prevail FT, Torpedo		SECTION - C02920: LANDSCAPING		2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2 inch (12 mm) maximum.			
5. Syngenta; Demon TC		PART I - GENERAL		3.2 LAYING MASONRY WALLS			
5. Borates:		LANDSCAPING BY OWNER		A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.			
a. Nisus Corp.; Bora-Care, Jecta.		SCOPE OF WORK		B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch (100-mm) horizontal face dimensions at corners or jambs.			
b. NovaGuard Technologies, Inc.; Armor-Guard, Shell-Guard.		A. Landscape work, including the furnishing and installation of the irrigation (sprinkler) system, seeding, sodding, and the planting of trees, shrubs and vines.		C. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.			
c. U.S. Borax Inc.; Tim-Bor.		B. General Contractor shall furnish and install at applicable depth, 6 inch diameter, schedule 40 PVC sleeves as required to provide access to all site planting areas to receive irrigation system and/or controls. Mark site for exact locations.		D. Fill space between steel frames and masonry solidly with mortar, unless otherwise indicated.			
6. Metal Mesh Barrier System:		C. Top soil: Coordinate with landscaper for distribution or 6 inches of top soil.		E. Fill cores in hollow concrete masonry units with grout 24 inches (600 mm) under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.			
a. TERMIMESH, Inc.; TERMIMESH		D. Recommendation: Include a regional materials preference that calls out a preference for landscaping sourced within 500 miles of the project site and include a reference to the Landscape Standard.		3.3 MASONRY JOINT REINFORCEMENT			
2.3 SOIL TREATMENT		1.2 NOTE		A. General: Install in mortar with a minimum cover of 5/8 inch (16 mm) on exterior side of walls, 1/2 inch (13 mm) elsewhere. Lap reinforcement a minimum of 6 inches (150 mm).			
A. Termiticide: Provide an EPA-registered termiticide complying with requirements of authorities having jurisdiction, in an aqueous solution formulated to prevent termite infestation. Provide quantity required for application at the label volume and rate for the maximum termiticide concentration allowed for each specific use, according to product's EPA-Registered Label.		A. Landscape contractor shall be responsible for cleaning the sidewalks and parking lot areas of dirt and debris specifically caused by their portion of this work.					
2.4 WOOD TREATMENT		B. General Contractor shall coordinate installation of landscaping with owner's schedule.					
A. Borate: Provide an EPA-registered borate complying with requirements of authorities having jurisdiction, in an aqueous solution for spray application and a gel solution for pressure injection, formulated to prevent termite infestation in wood. Provide quantity required for application at the label volume and rate for the maximum diffusible borate concentration allowed for each specific use, according to product's EPA-Registered Label.		PART II - PRODUCTS					
2.5 METAL MESH BARRIER SYSTEM		Not Used					
A. Product: Subject to compliance with requirements, provide "TERMIMESH" by TERMIMESH, Inc.		PART III - EXECUTION					
B. Stainless-Steel Mesh: 0.025-by-0.018-inch (0.64-by-0.45-mm) mesh of 0.08-inch- (2.0-mm)-diameter, stainless-steel wire, Type 316.		Refer to landscape drawings for landscaping specifications					
PART III - EXECUTION		END OF SECTION C02920					
3.1 PREPARATION							
A. General: Remove all extraneous sources of wood cellulose and other edible materials such as wood debris, tree stumps and roots, stakes, formwork, and construction waste wood from soil within and around foundations.							
B. Soil Treatment Preparation: Loosen, rake, and level soil to be treated except previously compacted areas under slabs and footings. Termiticides may be applied before placing compacted fill under slabs if recommended in writing by termiticide manufacturer.							
3.2 APPLYING SOIL TREATMENT							
A. Application: Mix soil treatment termiticide solution to a uniform consistency. Provide quantity required for application at the label volume and rate for the maximum specified concentration of termiticide, according to manufacturer's EPA-Registered Label, to the following so that a continuous horizontal and vertical termiticidal barrier or treated zone is established around and under building construction. Distribute treatment evenly.							
1. Slabs-on-Grade and Basement Slabs: Under ground-supported slab construction, including footings, building slabs, and attached slabs as an overall treatment. Treat soil materials before concrete footings and slabs are placed.							