



PURCHASING DEPARTMENT
1772 County Services Parkway
Marietta, Georgia 30008-4012
(770) 528-8400/FAX (770) 528-1154

Mark Kohntopp
INTERIM DIRECTOR

ADDENDUM No. 1

Sealed Bid # 12-5658
Mountain View Aquatic Center Air Quality Improvements and Interior Renovations
Cobb County Parks, Recreation and Cultural Affairs Department

DATE: April 2, 2012

Page 1 of 36

The following addendum hereby amends and/or modifies the Proposal Documents and specifications as originally issued for this project. All proposers are subject to the provisions of this Addendum.

Proposers shall acknowledge receipt of this addendum.

Include this original form inside your proposal package.

This Addendum consists of:

- **Minutes from Pre-Bid Meeting held on March 27, 2012**
- **Clarifications to specifications**
- **Questions submitted in writing to date**
- **Sign In Sheet from the Pre-Bid Meeting**

All bids must be received before 12:00 (noon) by the Bid Opening date. Bids shall be delivered to Cobb County Purchasing Department, 1772 County Services Parkway, Marietta, GA 30008.

Electronic / faxed bid response will not be considered.

I acknowledge that I have received Addendum No. 1

Sealed Bid # 12-5658
Mountain View Aquatic Center Air Quality Improvements and Interior Renovations
Cobb County Parks, Recreations and Cultural Affairs Department

Company Name

Signature

Date Sent to Purchasing

Please Print Name

Please sign, date, and return this form ONLY to:
Cobb County Purchasing Department
Fax #: 770-528-1154
E-Mail: purchasing@cobbcounty.org

Please note: The deadline for questions is: April 3, 2012 by 5:00 pm
Any questions received after this deadline will not be considered.

Addendum 1
Cobb County Sealed Bid #12-5658
Mountain View Aquatic Center Air Quality Improvements and Interior Renovations

A. Pre-Bid Meeting - March 27, 2012, 9:00 am, Mountain View Aquatic Center

1. General Project Notes Presented During the Meeting:
 - General Scope – Pool (Natatorium)
 - 1) New marcite finish in both pools (50 meter and instructional pools)
 - 2) Ground main drain covers
 - 3) Remove paint from curb around pools and apply clear sealer.
 - 4) Remove, clean and replace existing gutter grating
 - 5) Apply waterproofing material to inside of gutter
 - 6) Saw cut critical areas in a diamond pattern to provide slip resistance
 - 7) Refurbish the bulkhead at the 50 meter pool.
 - 8) Repaint all existing painted surfaces. Rusted areas require primer per specifications.
 - 9) New return duct, painted.
 - 10) Replace lane markers
 - 11) Pressure wash and clean entire pool deck.
 - General Scope – Mechanical
 - 1) Replace existing PoolPak units. New dehumidifiers are being purchased from Seresco by the County. Contractor responsible for everything else associated with the delivery and installation except ordering the units and paying for them.
 - 2) Install Paddock Bench Evacuators on pool deck in locations shown. Evacuators are being purchased from Paddock by the County. Contractor is responsible for everything else associated with the delivery and installation except ordering and paying for them. A Purchase Order has been issued for both the Seresco and Paddock units.
 - 3) Mechanical demolition including removal of three boilers.
 - 4) Install new boiler, heat exchangers, pumps, piping and all other work on the drawings.
 - 5) New dehumidifiers to provide heated pool water and preheat for the remainder of the facility. Piping arrangement is shown on the drawings.
 - 6) Electrical demolition and new work associated with new systems.
 - 7) New duct work and exhaust fans
 - General Information
 - 1) As built drawings A1.1, A1.2 and P5.1 provided as part of the bid package are for reference only. Scale is not correct on these drawings. Field verify existing conditions as needed during bidding process.
 - 2) If bidder prints drawings from the Purchasing website, bidder is responsible for confirming that the drawings are printed to the correct scale. The Owner

will not be responsible for incorrect information (take offs, quantities, etc.) due to drawings being printed improperly from the website.

- 3) Qualification forms are included for General Contractor, Mechanical Subcontractor, Plumbing Subcontractor, Electrical Subcontractor and Pool Subcontractor. Qualification information must be submitted with the bid.
 - 4) The schedule for the project is critical due to activities scheduled for the facility after the scheduled completion date. Contractor shall have access to the building July 11, 2012. Project must be substantially complete and functional by October 8 and final completion must be by October 15, 2012. Failure to complete on time is not an option and liquidated damages defined in the bid documents will be assessed if project is not completed as scheduled.
 - 5) The \$10,000.00 allowance on the bid form is for changes and additions to the work and not to be used at the discretion of the Contractor. Any additional costs must be submitted and approved, through the change order procedure, to be used against the allowance.
 - 6) The scope of work discussed at the preconstruction meeting is very general. Refer to the plans and specifications for additional information. Any work defined in the plans, but not in the specifications or in the specifications and not on the plans is to be treated as if it is included in both and shall be included in the bid price.
 - 7) All questions must be submitted in writing to Cobb County Purchasing at purchasing@cobbcounty.org
- Alternates – Refer to the specifications for specific information
 - 1) Alternate #1 – Painting in areas outside the natatorium
 - 2) Alternate #2 – Replace existing toilet partitions and urinal screens in both restrooms.
 - 3) Alternate #3 – Replace wall and floor tile grout in all tiled areas
 - 4) Alternate #4 – Replace carpet and install new base in offices and staff areas behind the front counter.
 - 5) Alternate #5 – Replace the front counter
 - 6) Alternate #6 – Paint the front canopy
 - 7) Alternate #7 – Replace the 3 filters for the 50 meter pool with one specified filter (design /build).
 - 8) Alternate #8 – Replace the filter for the instructional pool with specified filter (design/build).
 - Questions and Clarifications from prebid conference
 - 1) What is the budget? Answer: It will be provided in the addendum. The **construction** budget for the project is in the range of \$625,000 to \$725,000. The cost of the Seresco dehumidifiers, Paddock Evacuators, design fees and program management fees are in addition to the \$625,000 to \$725,000 range. The County reserves the right to adjust the budget, up or down, as deemed appropriate by the County for the project.
 - 2) On the filter alternates, is there a modification to the electrical subpanel on the electrical drawings? Answer: The filter replacement is to be bid as a

design/build scope, including any electrical work associated with the filter replacement.

- 3) When is the cut off for questions? Answer: April 3, 2012 at 5:00 PM.
- 4) The County plans to salvage some controls on the existing PoolPak units prior to demolition.
- 5) The existing concrete pads are to be used for the new dehumidification units. Note, they will have to be expanded and modified as necessary to accommodate the new units and associated piping.
- 6) What kind of glycol is to be used in the dry coolers? Answer: Propylene glycol.
- 7) Are we to remove the grout at the pool curb? Answer: replace or repair broken or loose caulking at the curb.
- 8) Are we to replace the storage reels with the lane line markers? Answer: No
- 9) A walk-behind mini-groover may be used to cut the ½ inch diamond slip resistant pattern.
- 10) Will facility be completely closed to the public during construction? Answer: Yes
- 11) When complete all gutter grates must look like new. There are examples of new recently replaced grate sections currently in the gutter.
- 12) Do we need to replace corroded wiring at the bulkhead? Answer: No. Bulkhead wiring may be removed.
- 13) When complete, the bulkhead surface must be non-slip, similar to existing surface.
- 14) Does the contract include painting in storage areas at north end of building? Answer: No.
- 15) The new grout in the locker room floor and cove will be grey in color.
- 16) Will we replace the grout in the blue tile in the locker room walls? Answer: Under Alternate #3, the **wall tile and grout** will be cleaned and the grout replaced only as necessary, primarily in the men's and women's shower areas. Replace **all floor tile grout** in the areas specified under Alternate #3. This shall include the replacement of the grout in the **tile base** in these areas.
- 17) During the walk through, it was incorrectly stated that all ballasts in the light fixtures in the natatorium are to be replaced. Per specification section 26 51 00, the Contractor shall clean, re-lamp and repair all fixtures in Natatorium 129. Provide new ballasts where required to make the fixtures operational.

B. Project Manual

1. Table of Contents – The table of contents lists section 23 0502 Miscellaneous HVAC Equipment as a section in Division 23 Mechanical. This section was not included and is not a part of the bid documents. Eliminate the reference to Section 23 0502 in the table of contents.
2. Section 01015 – Paragraph 1.02.4.b currently reads “b. Dismantle panels, hydroblast and re-surface per manufacturer’s (Neptune Benson) recommendations.” Eliminate that paragraph and replace it with the following “b. Dismantle deck and side panels, prepare painted surfaces to be resurfaced per manufacturer’s (Neptune Benson) recommendations. Switch swimming target marker panels to replace untargeted panels

on opposite side of bulkhead. Resurface targets on untargeted panels and replace on competition side of pool. Resurface existing targeted panels to plain solid color panels matching existing and reinstall on bulkhead side opposite the competition side of the bulkhead. Prepare the deck panels and resurface per manufacturer's (Neptune Benson) recommendations. (See section 13000 Pool Work for additional information)."

3. Section 13000 – Miscellaneous Pool and Pool Related Work
 - a. Pages 13000-8 through 13000-15 did not print properly in the printed version of the specifications. The original version available at <http://purchasing.cobbcountyga.gov/> is correct. To eliminate the discrepancy, a revised version of section 13000 is attached.
 - b. On page 13000-1, the approximate quantities provided for the total surface area for the pools is incorrect. Page 13000-1 of the attached revised version of Section 13000 has corrected approximate quantities for both pools. Bidders shall verify the quantities prior to bidding and prepare bids based on their own calculations.
 - c. Under "Refurbish Stainless Steel Bulkhead" on page 13000-2, the 3rd paragraph reads: "Remove, prep and repaint all decking panels per manufacturer's instructions. The paint material shall be Tnemec Epoxoline 66 two component epoxy. Colors to match existing panels." This paragraph has been eliminated and replaced with the revised paragraphs in revised section 13000 attached.
4. Section 13150-B2
 - a. Delete paragraph 2.1.A and replace it with the following: "A. The filter system for the instructional pool under this section shall be a Defender Model SP-27-48-487."
 - b. Delete paragraph 2.2.A and replace it with the following: "A. The filter system shall have a capacity of filtering 110,000 gallons in 6 hours at a rate of 305 gallons per minute."
 - c. Delete paragraph 2.2.B and replace it with the following; "B. The system shall consist of One Defender filter tank(s) with a total effective filter surface area of 381 square feet and shall operate at a rate consistent with the manufacturer's recommended flow rate range (per minute per square foot of filter area) for the specified model number.
 - d. Delete paragraph 2.3.A and replace it with the following: "A. The filter tank shall not be less than 27" in diameter with a 60" side shell, suitable for 50 psi working pressure and hydrostatically tested to 75 psi. Tank shell shall be not less than 1/4" thick. Bottom dished head shall be not less than 1/4" thick. Top flat head shall be not less than 1 1/4" thick. All material shall be Type A-36 carbon steel."
5. Section 23 2100 – MISCELLANEOUS HYDRONIC COMPONENTS. Delete this section in its entirety and replace it with the attached revised section 23 21000 – MISCELLANEOUS HYDRONIC COMPONENTS.
6. Section 23 3101 – Paddock Evacuators was not included in the project manual. Add attached section 23 3101 to the project manual.

C. Drawings

1. Drawing M-5
 - a. The exhaust fan schedule on sheet M-5 indicates all exhaust fans will be by the Owner. The Owner will furnish exhaust fans 2 and 6 only. The Owner will also furnish exhaust fan curbs, variable frequency drive and 50 tubes of marine grade caulk. All other accessories required for the complete installation and operation of exhaust fans 2 and 6 shall be furnished and installed by the contractor. This includes all ducts shown on the drawings. Exhaust fans 3, 4 and 5 and all accessories, including duct, required for the complete installation and operation shall be furnished and installed by the Contractor.

D. Clarifications

1. All bidders who print the mechanical and electrical plans from the Purchasing website are responsible for ensuring that the plans are printed to scale. The Owner will not be responsible for any costs resulting from drawings printed by the Contractor that are not to scale. As-Built Drawings A-1, A-2 and PF-5 (printed and electronic) are not to scale and shall not be scaled to determine dimensions.
2. Various sections of the project manual indicate that the Seresco dehumidification units will be delivered in August. The units are scheduled to be delivered no later than August 1. The manufacturer may make the units available for delivery as early as mid July. The contractor shall coordinate the exact delivery date of the units with the manufacturer and be prepared to handle the units as specified and required upon arrival at the site.
3. See attached drawing ESK-1 for clarifications concerning electrical outlets at exhaust fans 3 & 4.
4. See attached drawing MSK-1 for additional information concerning flue through the roof detail.
5. See attached drawing MSK-2 showing an elevation and/or sections for evacuator benches and exhaust fans EF-2, EF-3 and EF-4.
6. See attached drawing MSK-3 for a return air grill section near the Seresco units.

E. Questions submitted in writing to date:

Question: During the prebid meeting yesterday, we were told to clean the gutter grating to remove stains or replace badly stained pieces if they did not come clean. The manufacturer is Lawson Aquatics (formerly known as Grate Technologies). They informed us that the "pattern" on their current grating is slightly different than the grating that was installed when the pools were originally built. If the grating that is replaced does not match the existing grating, will the owner be OK with that or do they want all the grating replaced? Answer: The pattern on the grating may be slightly different than the pattern on the existing grating if the existing pattern is not available. Provide a product data submittal and a sample of the proposed grating for review by the Owner prior to ordering the material.

Question: Alternate 7 and 8 are for filter replacements for the two pools. The specs for the instructional pool filter replacement (Alt 8) and the 50 meter pool (Alt 7) list the same filter and capacity. Can the owner provide the corrected model number for the filter for the instructional pool please? Answer: The revised model number can be found in the revisions to paragraph 4 in “B. *Project Manual*” above.

END OF ADDENDUM

Attachments:

Revised Section 13000

Revised Section 23 2100

Added Section 23 3101

Drawing ESK-1

Drawing MSK-1

Drawing MSK-2

Drawing MSK-3

SECTION 13000

MISCELLANEOUS POOL AND POOL RELATED WORK

Re-marcite and pool work specification

Remove and/or scarify existing marcite surface of 50 meter and instructional pool to prepare for marcite (white Portland and Pool Mix marble) resurfacing.

Approximate total surface area: 50 meter pool 15,700 sq.ft. ; Instructional Pool 4,400 sq.ft. Bidders shall verify quantity prior to bidding.

- Draining the pool and refilling by Cobb County.
- Remove and reinstall existing defective tile, install matching tiles. Matching tiles believed to be Dal-Tile Mosaic tile.
- Cut out any metal fasteners and/or rebar causing rust stain at a minimum depth of 1" below concrete surface and patch area with hydraulic cement
- Scarify the pool surface and prep for adhesive

Saw cut around main drains, returns and tile providing a 1" – 2" true saw cut to taper marcite transition to the same.

Apply Kover Krete Pre-Kote System or equal product acceptable to County. See attached product data sheet for product information and application guidelines. Refer to www.koverkrete.com for additional information.

Before plastering pool a representative from the County and Pool Company will inspect and sign off on all prep work

Apply white plaster mix (minimum 3/8" thick) and trowel to a smooth finish. Plaster mix will be a 3 to 5 ratio, Portland to pool mix marble.

Other pool related work:

- Ground stainless steel main drain covers (6) to pool rebar framework. Attach underground rated lug to rebar and connect copper ground wire to lug on drain cover frame to rebar lug as required by the drain cover manufacturer. Completely encase rebar connection and ground wire in hydraulic cement and finish with marcite.
- Completely remove paint off of concrete curbing around the perimeter of pools with a high pressure washer. Remove all paint to substrate without damaging the concrete surface. Seal concrete curb with a clear slip resistant concrete sealer, Sherwin Williams H&C Concrete Sealer Wet Look with Shark Grip™ or approved equivalent. Contractor shall seal a ten ft. long section of curb for review and approval by the Owner prior to proceeding with the work.
- Remove gutter grating around the perimeter for both pools and clean interior gutter surface with TSP (Trisodium Phosphate), rinse thoroughly and apply muriatic acid in water 1:5 ratio solution and pressure wash as to receive BASF "Thoroseal" Waterproof cement-based coating mixed with BASF Acryl 60 Water-based acrylic bonding and modifying admixture per the manufacturer's recommendation. Manufacturer's recommendations and product data sheets are attached at the end of this section.
- Completely clean gutter grating stains and re-install; replace grates broken or damaged as a result of the removal, cleaning, handling or any reason associated with the construction, with new grating material. If stains are not completely removed, replace with new grating material. New material to be equal to existing grating material. Manufacturer of grates, Grate Technology, was purchased by Neptune – Benson pool equipment manufacturer. The item is called "I – bar perpendicular".

- Clean surge tanks surface with TSP, rinse thoroughly and use muriatic acid in water 1:5 ratio solution so to receive BASF “Thoroseal” Waterproof cement-based coating mixed with BASF Acryl60 Water-based acrylic bonding and modifying admixture per the manufacturer recommendation.
- Saw cut a ½” diamond shape pattern approximately ¼” deep by ¼” wide in the deck in locations indicated by using a multi-blade track saw. This can be accomplished using a walk behind mini-groover saw manufactured by Diamond Products (or equivalent). Drawing showing locations of areas to be saw cut is included at the end of this specification section. Assume a quantity of 2039 square feet of surface area to be cut. An outline of each area shown shall be cut prior to cutting diamond shaped patterns.
- Refurbish Stainless Steel Bulkhead. Existing bulkhead was manufactured by Neptune-Benson. Thoroughly visually inspect all bulkhead welds. Review proposed welds for Owner concurrence prior to proceeding with welding. Make appropriate repairs to welds as needed; assume that the project will require a certified welder (stainless tig) for a minimum of three days. Hydro-blast rust areas with a high pressure hydro blast washer (20,000 to 40,000 psi) to remove all rust. Clean all stainless with one of the following products (or equal): CitriSurf 77 Stainless Steel cleaner and passivation system; Nitric Acid (20%) solution. Please refer to MSDS requirements for handling of materials.

Coat exposed internal stainless with Bitumastic 300M Coal Epoxy or equivalent. See Link: <http://www.farwestcorrosion.com/ccp/protect/carbolin/bitumastic300M.htm>

Remove and/or prep and resurface all decking panels, targeted side panels and un-targeted side panels per manufacturer’s instructions. The paint material shall be Tnemec Epoxoline 66 two component epoxy. Colors to match existing panels.

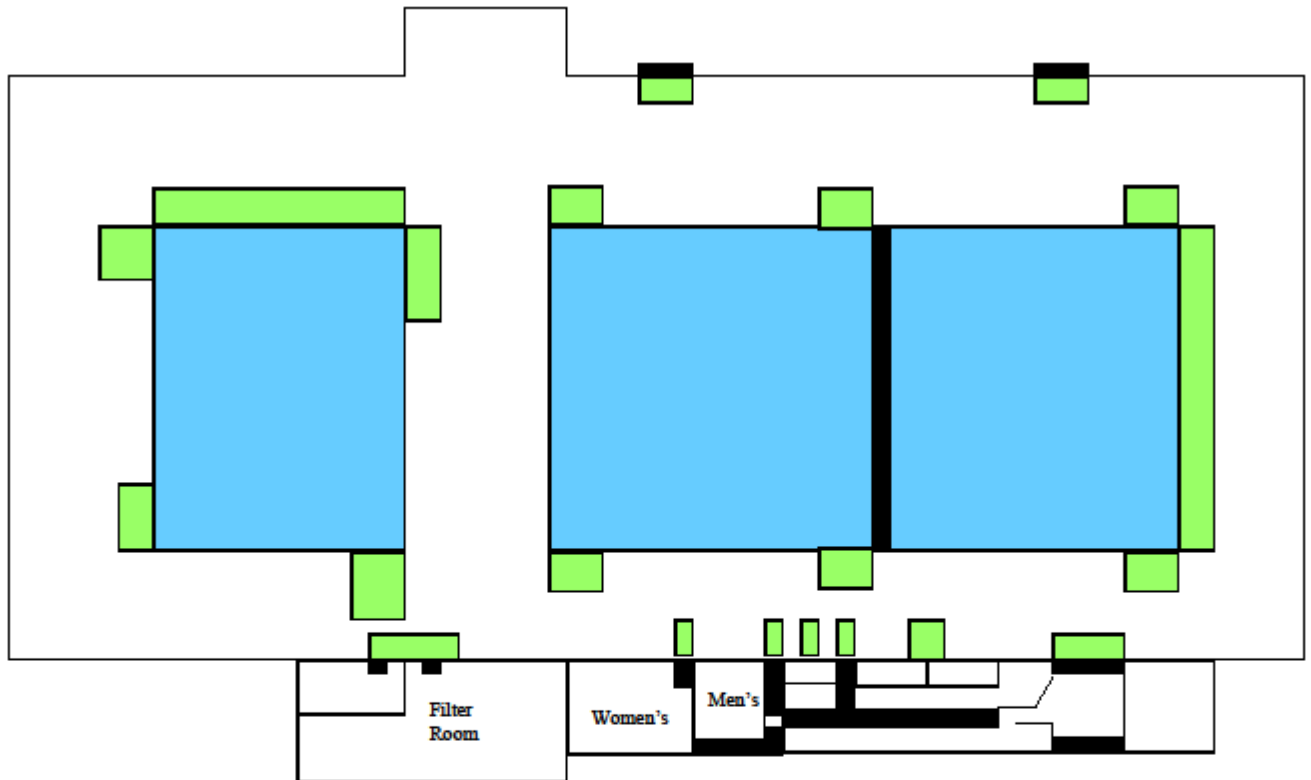
Dismantle panels, prepare painted surfaces to be resurfaced per manufacturer’s (Neptune Benson) recommendations. Switch swimming target marker panels to replace untargeted panels on opposite side of bulkhead. Resurface untargeted solid side panels to be targeted panels to match existing and replace on competition side on pool. Resurface existing targeted panels to be plain solid panels matching color and reinstall on bulkhead side opposite the competition side of the bulkhead. Prepare the deck panels and resurface per manufacture’s (Neptune Benson) recommendations.

- Replace 10 – 50 meter lane lines with 6” Competitor/ Gold Medal brand lane lines with 10 - 25 yard disconnect sections. See attached specification for additional information. Refer to the product data sheet at the end of this specification and this link for additional information: http://www.competitorswim.com/racing_lanes.html

Minimum warranty on material and workmanship 1 year.


Cobb County will maintain proper water chemistry for 30 days

Cobb County will brush pool for approximately 2-3 weeks to ensure proper curing of new plaster.



Mountain View Aquatic Center

Deck Areas that need attention to reduce slippage

 Primary Areas

Note: The areas of highest priority are those where swimmers enter and exit the pool water and/or wet areas where swimmers enter and exit the natatorium.

PRODUCT DATA

7.07.16 00 Cementitious Waterproofing

THOROSEAL®

Waterproof cement-based coating for concrete and masonry

Description

Thoroseal® is a Portland-cement-based coating for concrete and masonry that resists both positive and negative hydrostatic pressure. Polymer-modified with Acryl 60®, Thoroseal® creates a low-maintenance and highly durable waterproof barrier.

Yield

225 ft²/50 lb (20.9 m²/22.7 kg) bag as a base coat at 1/16" (1.6 mm) dry-film thickness.

450 ft²/50 lb (41.8 m²/22.7 kg) bag as a topcoat at 1/32" (0.8 mm) dry-film thickness.

Coverage will vary depending on surface texture and porosity.

Packaging

THOROSEAL®

10 lb (4.5 kg) cans for Thoroseal® white and standard gray only

30 lb (13.6 kg) polyethylene-lined bags for Thoroseal® white and standard gray only

50 lb (22.7 kg) polyethylene-lined bags for Thoroseal® white, standard gray, all landscape colors and custom colors

60 lb (27.2 kg) pails for Thoroseal® white, standard gray, landscape colors, and custom colors

ACRYL 60®

1 quart (0.9 L) bottles

1 gallon (3.8 L) bottles

5 gallon (18.9 L) pails

30 gallon (113 L) drums

55 gallon (208 L) drums

Features

- Waterproof
- Resistant to both positive and negative hydrostatic pressure
- Breathable
- Compatible with high-performance coatings
- Aesthetically beneficial
- Aesthetically superior

Benefits

- Protects building interiors from dampness and moisture damage
- Suitable for use below grade interior and exterior and in water-treatment construction
- Allows interior moisture to escape without damaging coating
- Accepts a wide range of architectural coatings and textured finishes
- Hides minor surface defects and blemishes in architectural concrete
- Available in 10 landscape colors and in custom colors (with minimum order quantities)

Color

White and standard gray (this color is not uniform)

Custom and landscape colors are available for 5,000 lbs (2,268 kg) minimum order.

Ten landscape colors : bone, dijon, French vanilla, good earth, light khaki, Thoro® gray, Navajo white, parchment, pearl gray, and putty tan

Shelf Life

1 year when properly stored

Storage

Transport and store in unopened containers and keep in a clean, dry condition protected from rain, dew and humidity. Do not stack bags more than 2 pallets high. If dry onsite storage of bags is unavailable or if project is located in a very wet, humid climate zone, then specify Thoroseal® packaged in 60 lb (27.2 kg) metal pails. Store Acryl 60® in similar conditions. Do not allow Acryl 60® to freeze.

Where to Use

APPLICATION

- Alternative to mechanical finishing or rubbing of concrete
- Waterproofing basement and retaining walls
- Foundations
- Bridges and tunnels
- Water cisterns

LOCATION

- Vertical and light-pedestrian horizontal surfaces
- Interior and exterior
- Above and below grade

SUBSTRATE

- Cast-in-place and precast concrete
- Block, brick and porous stone



Technical Data

Composition

Thoroseal® contains cement, graded sand, and proprietary additives.

Test Data

PROPERTY	RESULTS	TEST METHODS
Initial Set , min, at 70° F (21° C), 50% rh	10	Lab Method
Final Set , at 70° F (21° C), 50% rh	90	Lab Method
Density , (cured), lbs/ft ³ (kg/m ³)	129 (2,080)	Lab Method
Positive resistance to hydrostatic pressure , hrs, at 200 psi (1.4 MPa), 461 head ft, air cured at 70° F (21° C), 50% rh	752 No leakage, no softening	CRD C 48, modified
Negative resistance to hydrostatic pressure , hrs, at 200 psi (1.4 MPa), 461 head ft, air cured at 70° F (21° C), 50% rh	664 Limited dampness	CRD C 48, modified
Water absorption , %, boiling water submersion at 24 hours	3.6	ASTM C 67 (Section 7.3)
Compressive strength , psi (MPa) 7 days 28 days	4,200 (29) 6,030 (42)	ASTM C 109
Flexural strength , psi (MPa) 7 days 28 days	360 (2.5) 1,027 (7)	ASTM C 348
Tensile strength , psi (MPa) 7 days 28 days	250 (2) 440 (3)	ASTM C 190
Modulus of elasticity , psi (MPa) 28 days	2.72 x 10 ⁶ (1.87 x 10 ⁵)	ASTM C 469
Artificial weathering , hrs Xenon Arc Carbon Arc	5,000 = No failure 500 = No failure	ASTM G 26 ASTM G 23
Adhesion strength , psi (MPa)	418 (2.9)	Test by tensile bond
Artificial weathering ,	No cracking, loss of adhesion, checking, or other defect	Atlas Type DMC weatherometer
Freeze/thaw resistance , 200 cycles	No change	ASTM C 666 (Procedure B)
Salt spray resistance , 300 hours	No defect	ASTM B 117
Carbon Dioxide (CO₂) , in (mm)	1/16 (1.6) Equivalent to 3/4" (19 mm) new concrete	Lab Method Diffusion
Permeance , permis (metric permeability)	12 (0.10698) 18 x 10 ⁹ resistance	ASTM E 96 (water-vapor transmission) Swedish standard SS-02-15-82

Test Data, continued

PROPERTY	RESULTS	TEST METHODS
Wind-driven rain, hrs	8 = excellent	Fed. Spec. TT-P-0035 (Para 4.4.7)
Coefficient of thermal expansion, in/in ² F (mm/mm ² C), at 28 days	6.99 x 10 ⁻⁶ (5 x 10 ⁻⁶)	ASTM C 531
Impact strength (Gardener impact tester)	No chipping	Fed. Spec. TT-P-0035 (Cement paints para. 3.4.8)
Hardness, (Barber Coleman Impressor) Requirement min = 30, max = 60		Fed. Spec. TT-P-0035 (para 4.4.9)
7 days	35	
14 days	47	
21 days	52	
Abrasion resistance, 3,000 L sand	Passed	Fed. Spec. TT-P-141B
Reflectance		ASTM D 2244 using Hunterlab D-25 meter
Gray Thoroseal®	64.2	
White Thoroseal®	88.1	
Fungus resistance, at 21 days	No growth; meets all requirements	Fed. Spec. TT-P-293
Surface burning characteristics		ASTM E 84
Flame Spread	0	
Smoke developed	5	
Fire Propagation	Index = 1.5	BS476: Part 6:1981
Flame spread	Class 1	BS476: Part 7:1971

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

How to Apply

Surface Preparation

1. Surface preparation is extremely important for proper adhesion. Substrates must be sound and free of dust, dirt, laitance, paints, oils, grease, curing compounds or any other contaminants. Verify substrate has properly cured. Concrete should obtain 80% of design strength, typically achieved within 3 – 14 days. If efflorescence is present, mechanically remove it before proceeding. For extreme cases where this is not adequate, contact Technical Service.
2. Patch all holes and cracks before installation.
3. Relieve hydrostatic pressure in concrete block with weep holes.
4. Roughen or brush blast extremely smooth surfaces such as precast and cast-in-place concrete to ensure good mechanical adhesion of Thoroseal®.

Mixing

1. Mix Thoroseal® with a mixing liquid consisting of a blend of Acryl 60® diluted with water. Maximum dilution ratio is 1 part Acryl 60® to 3 parts water. Approximately 6 quarts of mixing liquid is needed per 50 lbs of Thoroseal® powder. Up to 2 additional quarts of mixing liquid may be added when using as a rubbing compound.
2. For best results, mechanically mix Thoroseal® with a slow-speed drill and mixing paddle. Gradually add the powder to the mixing liquid while drill is running.
3. When properly blended, Thoroseal® will have the lump-free consistency of smooth, heavy batter.
4. Allow the Thoroseal® and Acryl 60® mixture to rest undisturbed for a minimum of 10 minutes to fully wet out all the powder. Then remix the wet mixture and apply. A small amount of mixing liquid can be added to this remixing.
5. Pot life is 60 – 90 minutes at 70° F (21° C). At high temperatures and low relative humidity, pot life can be significantly less.

Application

1. Apply Thoroseal® with a Thoro® brush or broom or equivalent stiff fiber brush or by textured spray equipment. Spray applications of the first coat require back brushing or brooming to properly fill voids and achieve uniformity.
2. Completely dampen the substrate with water before application starts. Do not saturate the substrate, but keep it cool and damp throughout the application.
3. It is essential to work first coat thoroughly into the substrate to completely fill and cover all voids, holes and nonmoving cracks. Finish with a horizontal stroke for an even coat.
4. Allow to cure 24 hours, then apply the second coat and finish with a vertical stroke. Above grade, the second coat can be replaced with a Thoro® high-build architectural coating to achieve better color uniformity.
5. On block or masonry walls, allow 5 – 7 days before applying second coat to eliminate joint read through.

Specific Applications

Above-grade interior or exterior applications in positive pressure situations (direct contact with rain or standing water with a low head of pressure)

1. A 50 lb (22.7 kg) bag of Thoroseal® will provide the following coverage at the designated material usage.

Recommended coverage:

- First Coat: 2 lbs/yd² (1.1 kg/m²) = 225 ft²/50 lb bag (20.9 m²/22.7 kg bag)
- Second Coat: 1 lb/yd² (0.54 kg/m²) = 450 ft²/50 lb bag (41.8 m²/22.7 kg bag)
- Total: 3 lbs/yd² (1.6 kg/m²), cured nominal thickness of 1/16" (1.6 mm).

Coverage will vary depending on surface texture and porosity.

2. A 3 lbs/yd² (1.6 kg/m²) application rate does not eliminate surface irregularities such as struck mortar joints. To hide surface irregularities, spray and back-brush a base coat of Thoroseal® at 2 lbs/yd² (1.1 kg/m²) and allow it to cure for 5 – 7 days. Then spray apply and back trowel a topcoat of Thoroseal® Plaster Mix (see Form No. 1019908) at application rate of 9 lbs/yd² (4.9 kg/m²).

BELOW-GRADE INTERIOR APPLICATIONS:

1. The standard application is 3 lbs/yd² (1.6 kg/m²).
2. For high hydrostatic pressure conditions (over 15 psi [0.10 MPa]), increase application rate to 4 lbs/yd² (2.2 kg/m²) and waterproof from the positive side wherever possible.

BELOW-GRADE EXTERIOR APPLICATIONS

1. Use Thoroseal® Foundation Coating (see Form No. 1019907) For high hydrostatic pressure conditions (over 15 psi [0.10 MPa]), apply a base coat of Thoroseal® Foundation Coating at 2 lbs/yd² (1.1 kg/m²) and allow to cure for 5 – 7 days.
2. Then apply a topcoat of Thoroseal® Plaster Mix at 12 lbs/yd² (6.5 kg/m²). A steel trowel finish is recommended.
3. For both below-grade interior and below-grade exterior applications where water might move between vertical walls and slab or footer, it is recommended to cut out and place a Waterplug® cove at the wall and floor junction prior to the application of the Thoroseal® base coat.

4. Thoroseal® can be covered with extruded polystyrene insulation board during the second coat application. The board must be fully coated with Thoroseal® and embedded into the still-wet coating already in place on the walls. Exercise care when placing the coated board because it should not be moved or slipped. Once placed, do not move the board. After curing, prepare the above-grade portions of the boards by roughening or removing the surface skin and then coating with Thoroseal® to protect them from UV light degradation.

WATERPROOFING POTABLE WATER TANKS OR RESERVOIRS

1. Install Thoroseal® as directed in the general Application instructions.
2. After Thoroseal® has fully cured, wash down the Thoroseal® surface with saline solution (salt brine, 1 lb salt per 1 gallon water).
3. Leave saline solution on the entire Thoroseal® surface for at least 24 hours.
4. Rinse off saline solution completely. If needed, reapply saline solution until final rinse water is completely clean and clear.

Color Uniformity

With any cementitious product, such as Thoroseal®, it may be difficult to achieve color uniformity due to weather and substrate variability. For this reason, it may be necessary to apply a topcoat of a Thoro® architectural coating.

Clean Up

Promptly clean hands and all tools with warm water while product is still wet. Cured material may only be removed mechanically.

For Best Performance

- Thoroseal® must be modified with Acryl 60® to achieve the properties listed in the technical data section.
- Do not apply to substrates with active water leaks or moving cracks; patch all leaking static cracks and holes with Waterplug®. Repair any other nonmoving cracks or voids with the appropriate Thoro® repair product and repair all moving cracks or voids with appropriate sealant.
- Maintain or place expansion and control joints as necessary.

- Do not apply in rain or when rain is expected within 24 hours. Do not apply above 90° F (32° C) or below 40° F (4° C) or when temperatures are expected to fall below 40° F (4° C) within 24 hours. For hot and cold temperature applications, store Thoroseal®, Acryl 60® and water at 50° F (10° C) to 70° F (21° C) before use.
- Hot substrates will effect working time and material strength.
- Variations between inside and outside temperatures may result in condensation on below-grade walls treated with Thoroseal®. This can be alleviated by assuring that adequate ventilation exists.
- Windy, dry or hot conditions may require rewetting of Thoroseal® during cure and the use of polyethylene barriers.
- Before specifying Thoroseal® for water-retaining structures, conduct tests to determine water quality. Thoroseal® is not intended for continuous contact with acid or sulfate-containing water. Very soft water will have an adverse effect on Thoroseal®.
- Service temperatures: Immersion, up to 140° F (60° C); cleaning water, up to 200° F (93° C); dry air, up to 220° F (104° C).
- On all projects, it is recommended that a sample be prepared on site and approved prior to the commencement of the work. The site sample should confirm the color, texture and workmanship required until the job is finished and accepted. Retain the sample until final approval is secured.
- Allow Thoroseal® to cure 7 – 10 days before immersion in water.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

THOROSEAL®

Warning!

Thoroseal® contains Portland cement; silica, crystalline quartz; iron oxide; magnesium oxide; limestone; gypsum; calcium hydroxide; calcium oxide and anhydrite.

Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains material listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

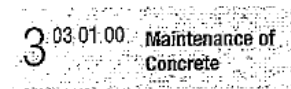
0 lbs/gal or 0 g/L, less water and exempt solvents.

For medical emergencies only,
call ChemTrac (1-800-424-9300).



The Chemical Company

PRODUCT DATA



ACRYL 60®

Water-based acrylic bonding and modifying admixture

Description

Acryl 60® is an acrylic-polymer emulsion mixed with Portland cement mortars, plasters, stucco, and concrete mixes to enhance their physical properties, adhesion to substrates, and durability.

Packaging

- 1 quart (0.9 L) bottles
18 month shelf life
- 1 gallon (3.8 L) bottles
18 month shelf life
- 5 gallon (18.9 L) pails
18 month shelf life
- 55 gallon (208 L) drums
12 month shelf life

Color

Milky white

Storage

Transport and store in unopened containers between 40 and 100° F (4 and 38° C). Protect from freezing.

Features

- Acrylic polymer
- Excellent chemical and UV resistance
- Improved freeze/thaw stability of Portland-cement-based materials
- Stable

Benefits

- Significantly improves adhesion, cohesion, tensile, compressive, and flexural strengths of cement-based materials
- Promotes long-lasting repairs
- Suitable for cold-temperature applications
- Will not re-emulsify when exposed to water

Where to Use

APPLICATION

- Cement-based mixes to improve their adhesion, and durability
- As gauging liquid for BASF waterproofing and repair products, such as Thoroseal® and Thorite®
- Walkways
- Ramps and structural beams

LOCATION

- Interior or exterior
- Above or below grade

SUBSTRATE

- Columns

How to Apply

Surface Preparation

1. The methods required for preparation will vary depending on the end product to be applied and the site and substrate conditions.
2. In all cases the surface must be clean and sound. Remove all loose and disintegrated material. Remove any and all traces of oil, grease, dirt, dust, efflorescence, biological, mold or mildew, and release or curing agents.
3. Vacuum, sweep, or blow out the areas to be patched with clean, oil-free air.
4. Surface profile is a key to successful concrete & masonry repairs (reference ICRI guide 03732) to find the recommended profile for a repair area.

CONCRETE/CML/MASONRY SURFACES

Predampen the area to be patched or coated with potable water to a saturated surface-dry (SSD) condition. Do not leave standing water on surface. Proper surface preparation and cleanliness are extremely important.

OTHER SURFACES

For other surface preparation guidelines, refer to the specific BASF product data guide for information.

Mixing

1. The normal ratio of Acryl 60® to clean potable water is 1 part Acryl 60® to 3 parts water (1 to 3). Where increased physical and chemical resistance are required, increase the Acryl 60® content in the mixing liquid to a 1 to 2 or 1 to 1 Acryl 60® to water ratio (see chart above).
2. Always mechanically mix. Do not overmix or mix at a high speed.



Technical Data

Composition

Acryl 60® is an acrylic-polymer emulsion.

Typical Properties

PROPERTY	VALUE
Density, lbs/gal (kg/L), Lab Method	8.66 (1.04)
Solids content, by volume, %, Lab Method	28
Maximum water dilution, Parts Acryl 60® to H ₂ O, Lab Method	1:3

Test Data

The following properties are for sand/cement mortar samples:

PROPERTY	RESULTS		TEST METHODS
	With Water	With 1 to 1 Acryl 60® and Water	
Compressive strength, psi (MPa) 28 days	3,800 (26.2)	4,500 (31)	ASTM C 109
Tensile strength, psi (MPa) 28 days	225 (1.6)	350 (2.4)	ASTM C 190
Flexural strength, psi (MPa) 28 days	1,000 (6.9)	1,800 (12.4)	ASTM C 348
Freeze/thaw durability	11 at 98 cycles	102 at 300 cycles	Method A

Test results are averages obtained under laboratory conditions at 70° F (21° C) and 50% rh. Reasonable variations can be expected.

Mixing Ratios

APPLICATION	RATIOS
For scrub coats applied before patching or overlays	Use straight Acryl 60®
To improve the adhesion properties of pointing mortars and to reduce cracking in cement plaster	Use 1 part Acryl 60® to 3 parts water
For large overlays or topping	Use 2 parts Acryl 60® to 1 part water
For bonding cement plaster no thicker than 1/4 – 3/8" (6 – 10 mm)	Use 1 part Acryl 60® to 3 parts water

NOTE: The above ratios are for normal conditions. Where bonding is more critical, increase the Acryl 60® content of the mixing liquid. A TEST PATCH IS ALWAYS RECOMMENDED.

For detailed application instructions for Thoro® products, see specific product data sheets.

Application

SAND/CEMENT MORTAR

1. Thoroughly mix all cement and sand first. The sand must be clean, free of clay, and dry.
2. Make up mixing liquid from a 1 to 3 or 1 to 2 Acryl 60® water ratio depending upon requirements.
3. Slowly add the mixing liquid to the cement/sand mixture and mix with a slow-speed mixer for 1 – 2 minutes to avoid entrapping air. After preparing, cleaning, and predampening the surface, brush apply a scrub coat (not diluted) of the Acryl 60®-modified cement/sand. Scrub vigorously into the surface to displace any air pockets.

4. Place the mix into the scrub-coated repair area while the scrub coat is still wet or tacky. Place the mix and avoid overtroweling. The trowel should be cleaned frequently, kept wet, and used with minimal pressure.
5. Maximum time for placement should not exceed 20 minutes. Higher air & surface temperatures or the use of fast setting repair materials will decrease working and placement time.

Curing

1. When rapid drying is expected due to high temperatures, rapid air movement, or wind, it is recommended that the surface be covered with wet burlap to retain moisture.
2. For normal use, allow a 24-hour curing period.
3. For heavy wheeled traffic, allow a 4-day curing period.

Clean Up

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means only.

For Best Performance

- Do not use Acryl 60® modified mixes when the ambient air or surface temperature is below 40° F (4° C) or when the temperature is expected to fall below 40° F (4° C) within 24 hours. High relative humidity, excessive moisture, and low temperatures will retard the curing of Acryl 60® modified mixes.
- Caution is needed when using the Acryl 60® in a mix that already has air entrained, consult technical support for it's proper use.
- Do not overmix or aerate mixes.
- Use with proper ventilation.
- Do not use Acryl 60® as a surface-applied external bonding agent or as a primer.
- Do not expose cement-based mixes modified with Acryl 60® to water immersion service for a minimum of 24 hours at 73° F (23° C).
- Not recommended for exposure to soft water or immersion where contact with water-treatment chemicals is present without a protective top coat.
- Caution should be used when a highly solvent material is being used over a base system that contains Acryl 60®.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

ACRYL 60®

Caution

Acryl 60® contains no hazardous ingredients as defined by 29 CFR 1910.1200 WHMIS.

Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation.

Precautions

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Proposition 65

This product contains material listed by the state of California as known as to cause cancer, birth defects, or other reproductive harm.

VOC Content

1 g/L or 0.01 lbs/gal less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

Pre-Kote System
Cementitious Pre-coating System



PRODUCT INFORMATION

DESCRIPTION

PRE-KOTE™ SYSTEM is a cementitious coating system for swimming pool re-plastering and pebble finishes. PRE-KOTE™ SYSTEM is a high quality, factory prepared, cementitious pre-coating system that forms a hard, rough textured base coat that is tightly bonded to the interior walls and floors of concrete swimming pools and spas. PRE-KOTE™ is available as a two-component system or as an all-in-one "JUST ADD WATER" mix. The two-component system is composed of a specially formulated PRE-KOTE™ LIQUID resin and a blend of dry powder cement ingredients. The PRE-KOTE™ INSTANT has the resin already mixed in the bag of dry cement ingredients.

The PRE-KOTE™ actually becomes an integral part of the concrete pool or spa construction increasing the surface adhesion and strength of the marcite and pebble finishes.

ADVANTAGES

- "Pop-offs" virtually eliminated
- No expensive heavy sandblasting
- Reduces labor cost
- Increase profit
- Unmatched warranty
- Eliminates long repair down time
- Eliminates removing existing plaster
- Becomes an integral component of concrete pool and spa construction
- Increases surface adhesion
- Increases strength of marcite and pebble finishes

LIMITATIONS

Substrates must be clean, sound, and properly prepared. Ambient temperature while applying and curing the Pre-KOTE™ SYSTEM needs to be within the range of 50 to 90°F (10.0° to 32. 2°C). DO NOT APPLY when the pool shell temperature is below the dew point and the relative humidity is above 90%. Never apply PRE-KOTE™ SYSTEM where mineral salts (efflorescence) are present. The salts break down the bond properties of cement products. PRE-KOTE™ is a proven system as packaged. It is not for use in conjunction with other dry cement mixes or with other concrete bonding agents.

LIMITED WARRANTY NOTICE

Contract Packaging Inc. products are designed to be used in the

construction industry and should be applied by competent persons in accordance with current published instructions. We cannot be held responsible for difficulty caused by other materials and conditions, or by inferior workmanship. Seller reserves the right to have the true cause of any difficulty determined by accepted test methods by an independent party. Any claim regarding product defect must be received in writing (1) year from day of shipment. No claim will be considered without such written notice or after the specified time interval.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY

Contract Packaging Inc. (Seller) warrants that if any goods supplied prove defective in workmanship or material that Seller shall replace them or refund their purchase price. This warranty is made in lieu of any and all other warranties, expressed or implied. Including the warranties of merchantability and/or fitness, which are hereby disclaimed. It is understood and agreed that buyer's sole remedy, and therefore Seller's liability, whether in contract, tort, under any warranty, in negligence, or otherwise shall be limited to the return of the purchase price paid by purchaser or replacement of any defective goods sold by Seller and under no circumstances shall Seller be liable for special, indirect or consequential damages. The price stated for the goods is a consideration in limiting Seller's liability. Any liability or risk resulting from the use of this product is assumed by the purchaser/user except where a specific warranty is provided by the manufacturer in writing. Before application, the purchaser/user shall determine the suitability of the product for his intended use and purchaser/user assumes all liabilities and risk, whatsoever in connection therewith. The terms of this warranty notice may not be orally modified. Applicator is required to use the complete Kover Krete™ Pre-Kote System for warranty. Any substitutions will void warranty.

PACKAGING	
Pre-Kote™ Instant / Gray Base	50 lb bags
Pre-Kote™ Original 2-Part / Gray Base	50 lb bags
Pre-Kote™ Liquid	5 gallon pail 55 gallon drum
PRODUCT COVERAGE	
Pre-Kote™ Instant 1 Kit: (3) 50-lb bags & Potable Water	350-500 sq. ft.
Pre-Kote™ System (2-part) 1 Kit: (3) 50-lb bag & (1) 5-Gal. Pre-Kote™ Liquid	350-500 sq. ft.

Manufactured by
CONTRACT PACKAGING INC.
22 N. Dollins Avenue - Orlando, FL 32805
Tel. (407) 246-7797 - Fax. (407) 481-2261 - www.koverkrete.com

Pre-Kote System

Cementitious Pre-Coating System



APPLICATION GUIDE

INSTALLATION

Before using this product, refer to the MATERIAL SAFETY DATA SHEET for additional handling instructions. Proper handling precautions MUST be taken.

There are three key steps to the successful installation of PRE-KOTE™ SYSTEM:

1. Proper surface preparation.
2. Proper liquid/powder ratio.
3. Uniform application.

Always install test areas to determine the suitability of the product for the intended use prior to full scale application. The conditions of your use and application of our product and information (whether verbal or written), including any suggested recommendations are beyond our control. Therefore it is imperative that you test our product and information to determine to your own satisfaction whether they are suitable for your intended use and application. This application and specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoint.

SURFACE PREPARATION

Clean and degrease first by using Kover Krete™ Citra-Klean SB, pressure wash off residue, next etch old plaster by acid etching, followed by an aggressive pressure washing off entire area using a 3000-3500 psi (4-10 GPM) pressure washer.

Improper surface preparation can result in less than acceptable PRE-KOTE™ SYSTEM performance. It is very easy to blame adhesion problems that occur on the product that is used when poor surface preparation is really where the fault lies.

To insure proper PRE-KOTE™ adhesion and maximum durability, the concrete surface must be sound-free of laitance, cleaned of all dirt, dust, salts, loose plaster, mold, mildew, algae, etc. Surface must be at least 30 days old to allow for proper cement hydration and release of mineral salts. Salts break down the bond of cement products such as PRE-KOTE™. These salt areas need to be water blasted, sandblasted, or acid etched to produce an acceptable sound and open surface for bonding. Deep holes, cavities, and cracks must be filled prior to placing.

Acid etching has been used widely to remove salts, laitance and dirt from concrete. If acid etching is to be used, the surface should be pre-cleaned to remove any build-up of dirt or other contaminants. Acid will not penetrate a build-up of these materials.

Correct acid etching procedure is as follows: Mix one part by volume muriatic or phosphoric acid into 10 parts water. Apply acid with plastic sprinkling container to a pre-dampened surface. After application immediately brush with a stiff bristle street broom or brush to spread the acid solution evenly over the surface. Wait 10 minutes or until foaming stops, then thoroughly rinse/flush with clean water. The rinse/flush operations is most important in order to remove reactive products and loose cement/aggregate.

If hard/smooth concrete exists a stronger acid solution may be required. Where strong acid solutions are used it is imperative that surface be rinsed thoroughly with a Tri-sodium Phosphate Solution wash to ensure proper neutralization.

NOTE: ACID, if not neutralized, will bleed through and may cause delamination or deterioration of the PRE-KOTE™ SYSTEM.

The final pH of the cleaned, etched surface should be neutral (7) or slightly alkaline. Properly etched concrete produces a sandpaper finish that has the "teeth" to form a successful bond. If this is not achieved, repeat etching process. Proper protective clothing such as goggles, rubber gloves and boots are recommended when handling acids.

If the pool is the resurfacing of a previously painted surface, the surface should be sandblasted to remove all paint.

MIXING EQUIPMENT

A ½" (13 mm) drill and a mixing paddle with a 5 gallon (19L) pail is sufficient. The ½" (13mm) drill must be a slow or variable speed drill to control the shear and mixing speed.

MIXING

When mixing or applying this product, use waterproof gloves, adequate eye protectors and a respirator that has been approved by the U.S. Bureau of Mines for toxic nuisance and pneumoconiosis producing dusts.

Add PRE-KOTE™ POWDER or PRE-KOTE™ INSTANT to PRE-KOTE™ LIQUID in the mixing container. Add only enough PRE-KOTE™ LIQUID to bring the mix to a smooth, lump-free consistency; approximately 50 pounds of dry mix to 1 to 1.5 gallons of PRE-KOTE™ LIQUID. DO NOT ADD MORE THAN TWO GALLONS OF WATER TO PRE-KOTE™ INSTANT.

Manufactured by
CONTRACT PACKAGING INC.
22 N. Dollins Avenue - Orlando, FL 32805
Tel. (407) 246-7797 - Fax. (407) 481-2261 - www.koverkrete.com

Mix for 3 to 5 minutes until the material is fluid and free of lumps. If the sides of the mixer develop powder buildup, scrape sides and continue mixing until powder and lumps break up into the mix.

APPLICATION
PUSH BROOM, ROLLER, OR
HOPPER GUN SPRAY EQUIPMENT

The pool walls and floor should be misted with PRE-KOTE™ LIQUID prior to the application of the mixed PRE-KOTE™ to cut down the substrate suction and to allow for equal absorption so that the applied material can cure naturally.

Apply mixed PRE-KOTE™ with push broom, roller, or hopper gun spray equipment. If substrate becomes dry, mist area with PRE-KOTE™ LIQUID again. Apply a light, thin coat and then double back again with another coat building to the thickness of 1/8" to 1/4" (3.2 mm to 6.4mm). Allow applied PRE-KOTE™ to stiffen sufficiently and let the moisture leave surface. Finish to desired texture. Allow drying overnight before applying final interior finish.

HOPPER GUN SPRAY EQUIPMENT - The hopper gun is filed with mixed PRE-KOTE™ material. The hopper gun use is similar to that in the drywall industry. Since the air pressure setting can be regulated and the dial on the gun face can be regulated, texture and roughness can be controlled. Follow the equipment manufacturer's instructions.

CLEAN UP

In case of spillage, flush area with large amounts of water, place into appropriate container, and dispose of in accordance with local regulations. Uncured PRE-KOTE™ LIQUID can be removed with water.

Cured PRE-KOTE™ LIQUID can be liquefied with lacquer thinner.

PRE-KOTE™ DRY POWDER or freshly mixed concrete may cause skin injury. Avoid contact with skin and wash exposed skin areas promptly with water. If any cement powder or mixture gets into eyes, rinse immediately and repeatedly with water and get prompt medical attention. PRE-KOTE™ DRY POWDER Contains some silica sand that can cause Silicosis. Avoid overexposure to the airborne dust. Practice good housekeeping, protect food and drink.

FOR BEST PERFORMANCE

- Do not install PRE-KOTE™ below 50°F (10°C). Do not apply when the pool shell temperature is below the dew point and the relative humidity is above 90%.
- PRE-KOTE™ is not for use in conjunction with other dry cement mixes or with other concrete bonding agents.
- Test installation is encouraged and highly recommended.
- Store in a cool, dry place. Keep all materials from freezing.
- Never apply PRE-KOTE™ where mineral salts (efflorescence) are present. The salts break down the bond properties of cement products.
- Pre-Kote Liquid can be added to Pre-Kote Instant to add strength.
-

KEEP OUT OF REACH OF CHILDREN
NOT FOR INTERNAL CONSUMPTION
FOR INDUSTRIAL USE ONLY

Manufactured by
CONTRACT PACKAGING INC.
22 N. Dollins Avenue - Orlando, FL 32805
Tel. (407) 246-7797 - Fax. (407) 481-2261 - www.koverkrete.com

Competitor Gold Medal Racing Lanes

Gold Medal 6" Competitor Racing Lanes

Designed for optimum control of the water surface, our patented flow thru design allows the waves to be dispersed along the channel of revolving disks. COMPETITOR lanes have been selected and used in numerous Olympic Games, World Championships and National swimming events. Each lane comes completely assembled and is offered in a variety of colors and lengths to meet any needs.

Each COMPETITOR lane consists of a series of 6" plastic disks and donuts strung on a vinyl coated 3/16ths inch stainless steel cable. Each disk is designed to rotate independently of the others allowing the swimmers wake energy to be absorbed and dispersed along the channel provided within the lane. This feature allows for a consistency of wave quelling from one lane to another, a unique feature not found in other products on the market.

COMPETITOR Racing Lanes are attached to the pool wall using a stainless steel tension spring at one end and a stainless steel ratchet reel at the other end allowing for customized tension.



Photo shows 6" Gold Medal and 4" COMPETITOR Lanes

Specifications for the Gold Medal 6" COMPETITOR Racing Lane—

Use these detail specification when submitting specifications to architects and design consultants.

Covers products starting with COMPETITOR Part No# 200371 through 200387.

Each individual disc measures 6 inches in diameter and consists of a series of 5 fins projecting from the center hub. Mid way on the length of the disc hub is a radially extended web member, which supports an annular-section ring-shaped flanges in co-axial relationship with the central bore. To assist in damping the longitudinal wave forces, the web member is formed with a multiplicity of circular openings. The web in conjunction with the multiple fins combine to impede, aerate, dampen and break up the other. Both the web and the fins functions are very important in that most waves will not intersect the lane in a perpendicular manner.

Each disc has the capability to revolve independently from any other disk mounted on the 3/16th inch braided stainless steel cable. Which has a clear vinyl coating to protect the disks from excessive wear. Flotation is aided by the introduction of a hollow toroidally-shaped body, having a central radial web and a co-axial opening to position the float for freely sliding movement on the cable. These floats are deployed in an uniformly spaced interval and surrounded by a pair of modified discs on either side to accommodate the float without substantially altering the wave quelling properties of the lane as an assembled unit.

Assembly for each lane is completed at one end with a bronze nickel plated spool encased in a stainless steel tension mechanism to provide customized adjustment of lane torque. The other end has a stainless steel spring assembly to maintain equal pressure during use.

Color combinations are limited to any or all groupings of the following: Black, Blue, Green, Maroon, Orange, Purple, Red, White and Yellow. It is suggested that at least two colors be used, with 5 meters from each end of the pool being distinct in color pattern from the remainder of the lane. FINA requires a backstroke turn marking of a contrasting color 15 meters from each end of the lane.

Manufactured by:
Competitor Swim Products a Division of Richey Industries, Inc.
910 Lake Road
Medina, Ohio 44256
Tel: 330 - 725 - 4997 Fax: 330 - 722 - 3288 E-Mail: sales@richeyind.com

SECTION 23 2100 - MISCELLANEOUS HYDRONIC COMPONENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.2 WORK INCLUDED:

- A. Provide all labor, materials, necessary equipment and services to complete hydronic systems as indicated on the drawings, as specified herein or both, except as for items specifically indicated as "NIC ITEMS".

1.3 REFERENCES:

ASTM, ANSI/ASME, and ASME standards and codes as specifically referred to under PART 2 PRODUCTS and PART 3 EXECUTION.

1.4 SUBMITTALS:

- A. Shop Drawings and Product Data: Submit in accordance with Section 23 0500 and include manufacturer's installation instructions:

PART 2 - PRODUCTS

2.1 WATER PRESSURE REDUCING VALVE

- A. Water pressure regulator shall be field adjustable, self contained, single seated, direct acting, spring loaded type with a diaphragm. Valve body and spring shall be bronze and all other parts shall have a corrosion resistance equal to bronze. All valves must be seated against leakage including a top cover over the adjusting screw.

2.2 THERMOMETERS:

- A. Description: Liquid filled, 3-1/2" dial type, adjustable angle, accurate within one scale division. Stainless steel case construction with removable ring and plastic crystal cover. White dial face with black markings and red tipped adjustable pointer. Brass thermometer wells with 2" extension necks for installation in threaded openings with screwed well caps chained to each well.
- B. Ranges: Manufacturer's standard comparable to:

Hot Water: 30 to 300 degrees F

- C. Thermometer Test Wells: Brass wells as specified in A above designed to accept either dial thermometer or test thermometer.
- D. Provide equal products by Ashcroft, Dwyer, Omega

2.3 PRESSURE GAUGES:

- A. Description: Bourdon tube type with bronze bushed, stainless steel movement, stainless steel case less back flange, pressed steel rings, 1% accuracy, 3-1/2" white dial with black lines and figures, and adjustable pointer.
- B. Ranges: Manufacturer's standard comparable to:

Pump Suction	30" Hq = 0 = 60 PSI
Pump Discharge	0 = 100 PSI
- C. Accessories: Brass needle valve gauge cocks (Tetric #735-2).
- D. Provide equal products by Ashcroft, Dwyer, Omega

2.4 FLEXIBLE PIPE CONNECTIONS:

- A. Description: Spool type rubber connectors designed for flanged connections and used on water service.
- B. Connectors of concentric spool type with not less than 1 arch and designed to be secured between two pipe flanges. Leak proof lining smooth and unaffected by fluid. Fabric and rubber body with metal reinforcement. Neoprene cover with manufacturer's name and model displayed. Provide metal retaining rings and control rods. In addition comply with requirements of Section 15140 with that section taking precedence in case of conflict.
- C. Minimum Service Requirements:

Pipe Size	Working Pressure	Temperature
thru 4"	150 PSIG	250 degrees F
5" thru 12"	125 PSIG	250 degrees F

- D. Manufacturers:
 - (1) Garlock.
 - (2) Mercer.
 - (3) Metraflex.
 - (4) Uniroyal.
 - (5) Approved Substitute.

2.5 COMBINATION TEMPERATURE AND PRESSURE TEST PORTS

- A. Provide test plugs with gasketed caps equal to Pete's Plug as manufactured by Peterson Equipment Company.

2.6 AUTOMATIC AIR ELIMINATOR

- A. Maximum temperature operating range shall be 250 deg. F, air elimination range shall be 2 to 133 psi, Cast Iron body and cover, stainless steel control portion, carbon steel bolts and Vitron valve seat. Automatic air eliminator shall be equal to Armstrong Model AAE - 750.

2.7 VORTEX AIR SEPARATOR

- A. Furnish and install a (line sized) Vortex Air Separator as shown on the drawings. Unit shall be Armstrong Model VAS with system strainer with additional tap for air separator to facilitate blow down. Air separator shall be equipped with a system strainer with free area of not less than four times the cross sectional area of the connecting piping.

2.8 PRE-CHARGED VERTICAL EXPANSION TANK

- A. Furnish and install an Armstrong AX200V ASMEP Pre-Charged Diaphragm Expansion tank, stamped 125 psi working pressure. Tank shall be equipped with a heavy-duty butyl diaphragm. Tank shall be supplied with a ring base and NPT system connection and an air charging valve connection shall be provided to facilitate adjusting pressure to meet actual system conditions.

2.9 PUMP SUCTION GUIDES

- A. Cast iron body with ANSI or PN16 flanges, stabilizing vanes to reduce turbulence and create optimum flow conditions. Strainer perforated stainless steel, star shaped for strength and designed to provide large flow area to reduce pressure drop. Armstrong Model SG or equal.

2.10 FLO-TREX VALVES

- A. Furnish and install on the discharge of each primary pump an Armstrong Model FTV Flow-Trex Combination Valve. Each valve shall incorporate three functions: Tight shut-off, spring enclosure type silent non-slam check valve and effective throttling of flow measurement capability valve. Equal to Armstrong Model FTV Flo-Trex.

2.11 PLATE AND FRAME HEAT EXCHANGER

- A. The Plate and Frame Heat Exchanger shall be designed, fabricated and tested in accordance with the requirements of Section VIII, Division 1 of the ASME code, and shall be code stamped for 125 psig design pressure.
- B. Plates shall be 316 stainless steel and gaskets shall be Nitril Rubber, one piece construction.
- C. Units shall be sized for capacities as shown on drawings and shall be equal to Sondex A/S PHE, Alpha Lavel, Mueller, ACCU-THERM.

2.12 GLASS LINED STORAGE TANK WITH HEAT EXCHANGER

- A. Provide Insulated 80 gallon, glass lined storage tank with a single stainless steel, Cupronickel or copper coil heat exchanger located in lower part of tank without electric backup heater. Unit shall be designed for domestic hot water storage. Provide T&P valve. Heat-Flo Products, HTP, Laars, A.O. Smith, State Industries or approved equal.

PART 3 - EXECUTION

3.1 PIPE INSTALLATION:

- A. General: Be responsible for fitting of materials and equipment, perform all dimensional layout of work and establish lines and grades. Install pipe lines to conform to conditions encountered, off-setting to clear structural members and ducts. Coupled short sections of pipe, bushings, close nipples, long screws, bullhead tees, and crosses prohibited. Install without springing or forcing, and clear windows, doors and other openings. Cutting or other weakening of building structure to facilitate piping installation not permitted. Provide sufficient swing joints, anchors, expansion loops necessary to permit free expansion and contraction without causing undue stresses. Make changes in direction with fittings. Support piping independently at equipment so its weight not supported by equipment. Install vertical risers plumb and straight, horizontal lines parallel with walls and partitions. Conceal piping above ceilings and within furring, chases, or walls wherever possible.
- B. Preparation: Remove scale, welding slag, dirt, or foreign material inside and outside, before assembly. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe for welding.
- C. Routes and Grades:
 - (1) Route piping in general locations indicated, in an orderly manner and to maintain required grades. Coordinate with other piping, conduits, ducts and equipment and make necessary offsets to accommodate same. Install piping to conserve headroom and interfere as little as possible with use of available space. Group piping wherever possible at common

elevation. Install concealed pipes close to building structure to keep furring to minimum.

- (2) Slope piping 1" in forty feet and arrange to drain at low points. Equip low points with drain valves except where underground. At high points where water flow turns down, provide collecting chambers and automatic air vents equipped with cut-off valve in connection line; air relief and drain line run to drain, service sink, plumbing vent stack, or to building exterior.

D. Supports and Expansion:

- (1) Install pipe supports and hangers to provide piping systems which are self-supporting and not dependent upon connection to equipment for support and stability. Refer to Section 23 2113.
- (2) Install to permit free expansion and contraction, except where drawings specifically indicate an anchor or guide.

E. Buried Piping:

- (1) Excavate and backfill in accordance with General Conditions
- (2) Steel and copper pipe bedded on 4" minimum of clean sand and covered with minimum of 6" of sand.

F. Automatic Control Devices: Install valves furnished under Fan Coil section and provide for insertion wells required for temperature sensing and thermometers.

G. Valves: Where indicated or specified, provide shut-off valves and unions or flanges suitably located, to isolate each item of equipment, branch circuit or section of piping. Lug type butterfly valves do not require additional set of matched flanges.

H. Clearance: Provide clearance for proper installation of insulation and for access to valves, air vents, drains, unions, etc. Provide minimum 1/2" clearance between pipes after insulation or application of escutcheons.

I. Size Changes:

- (1) Make changes in pipe sizes for horizontal pipe lines with eccentric reducing couplings, except that reducing tees and reducing elbows will be allowed for connections for pressure gauges and gauge cocks, for thermometers and test wells, and for pipe mounted insertion-type temperature control devices.
- (2) In chilled water lines and space heating hot water lines install eccentric reducing couplings with flat side on top to maintain top of pipe line flush and facilitate flow of air to automatic air vent locations. In condensate drain and other drain lines, install eccentric reducing couplings with flat

side on bottom to maintain bottom of pipe line flush and allow line to drain clear.

- (3) Reducing tees, reducing elbows and concentric reducing couplings allowed for changing pipe sizes in vertical risers and for making connections to equipment from vertical risers. In pump suction lines at horizontal pump connection, only eccentric reducing couplings allowed with flat side of coupling on top.

J. Elbows: Use long radius type for 2-1/2" and larger and at pump suction connections.

K. Dissimilar Metals: Use dielectric unions, couplings, or insulating flanges with isolating bushings for bolts.

L. Connections:

- (1) Screw join steel piping up to and including 2". Weld piping 2-1/2" and larger including branch connections.
- (2) For steel piping, factory fabricated forged steel shaped fittings may be used in lieu of welding tees if main is two pipe sizes or more larger than branch takeoff; shaped fittings shall be weldolets for branch sizes 2-1/2" and larger and threadolets for branch sizes 2" and smaller; branch takeoffs at 45 degrees to mains shall be made with factory fabricated latrolets.
- (3) Use grooved mechanical couplings and mechanical fasteners only in accessible locations.
- (4) Make connections to equipment, control valves, and branch mains with unions, flanges or grooved mechanical couplings to allow disassembly of piping for removal and maintenance. Each coil, pump, and control valve to have one union or flange per pipe connection.

3.2 PIPE CONNECTIONS:

A. Welded Joints:

- (1) Welding techniques and practices follow recommendations contained in Welding Handbook of American Welding Society, particularly Chapter 57, "Industrial Piping" and Code for Pressure Piping ANSI B31.
- (2) Welding done by metal-arc welding process.
- (3) Carbon steel welding rods conform to ASTM A233, Class E60 Series.

- B. Screwed Joints: Cut threads accurately with axis of threads so that not more than 4 threads show beyond fitting. Joints made by applying non-toxic commercial grade, oil based pipe joint compound to male thread and then screwing tight into fitting. Teflon joint tape may be used as an alternate to joint compound.
- C. Mechanical Joints for Grooved End Pipe and Fittings: Designed to mechanically engage and lock grooved or shouldered pipe and fitting ends in positive couple and to allow for some degree of angular deflection and contraction-expansion. Each coupling consist of metal housing-clamps in 2 or more parts, a single C-shaped composition sealing gasket with internal sealing lips projecting diagonally inward so that internal pressure serves to increase tightness of seal, and bolted or pinned in place.
- D. Sweat Joints: Solder joints in copper pipe made by first cleaning tube end and socket in fitting with sand cloth and then by evenly applying heat to joint and using Sil Fos solder for sealing.
- E. Flanged Joints: Flanged connections made up with gaskets, full face or ring type to match flanges, properly tightened.

3.3 INSTALLATION OF FLEXIBLE PIPE CONNECTIONS:

- A. Install in accordance with manufacturer's instructions. Align so that no stress is placed on control rods and that under normal operation, the control rods are loose.
- B. Provide flexible connections for:
 - (1) Base Mounted Pumps.
 - (2) In-line Pumps

3.4 LEAK AND PRESSURE TESTS:

- A. General: Be responsible for testing of piping systems. Maintain records of tests made and provide instruments required for testing. Defects in piping reworked, repaired, and retested until proven tight. Concealed work tested as partial system before being concealed or insulated. Insure that test pressure which might damage equipment does not reach such units by valving them off or otherwise isolating them during test. Keep field records and submit to Architect.
- B. Water Piping for HVAC Water Systems: Subject to hydrostatic test of not less than 100 PSIG for duration of 1 hour without loss of pressure with pressure source disconnected.

- C. Drain Lines (including air conditioning condensate drain lines): Temporarily cap or plug and fill with water (before insulation is applied) and visually inspect for leaks.

3.5 CLEANING:

- A. Clean and flush piping in accordance with Section 2302513–HVAC Water Treatment.

END OF SECTION

SECTION 23 3101

PADDOCK EVACUATORS

PART 1- GENERAL

1.01 DESCRIPTION

- A. **Paddock Evacuators shall be furnished by the Owner and installed by the Contractor.** The Contractor shall coordinate delivery, inspect, receive, unload, protect and completely install the units including all ductwork, piping, electrical, etc. as required for a complete system. All necessary appurtenances such as materials, roof curbs, wall brackets, ductwork, anchors, controls, etc. shall be provided by the Contractor.

1.02 PADDOCK DESCRIPTION, SCOPE OF WORK AND SPECIFICATIONS

MOUNTAIN VIEW AQUATIC CENTER DESIGN SOLUTION / SCOPE OF WORK

Issue:

- Poor air quality as result of high bather load creating high levels of off-gassing of Disinfectant by Products.
- When the production rate of off-gassing Disinfectant by Products (trichloramines) exceeds the mechanical systems ability to dilute them, bad air quality conditions develop.

Solution:

The Paddock Evacuator design solution is based on source capturing the low hanging, heavy DBP laden air before it can be swept into the facilities mechanical system.

The Evacuator equipment package has been purchased directly by Cobb County and the material will be turned over to the successful contactors for installation. The required duct work, hanger, mounting and accessories needed, and shown on the contract drawings will be supplied and installed by the Contractor.

Paddock Evacuator System:

	Location	# Bench System	Max. Design
Exhaust			
System 1	South instructional pool corner	Duel Bench, 2 connection boxes	3200cfm
System 2	Middle of 50 meter	Bench, 2 connection boxes	4400 cfm
System 3	End of 50 meter	Bench, 2 connection boxes	4400 cfm

Evacuator Bench Installation:

- Install(3) independent Paddock Evacuator™ Bench systems as defined in the Design Solution drawing:

- System 1 is a fiberglass bench system consisting of 8' interlocking 16" x 16" molded benches with 8' fiberglass bottoms, and (2) exhaust connection boxes which are leveled and secured to deck with stainless steel fasteners
- System 2 is a fiberglass bench system consisting of 8' interlocking 16" x 16" molded benches with 8' fiberglass bottoms, and (2) exhaust connection boxes which are leveled and secured to deck with stainless steel fasteners.
- System 3 is a fiberglass bench system consisting of 8' interlocking 16" x 16" molded benches with 8' fiberglass bottoms, and (2) exhaust connection boxes which are leveled and secured to deck with stainless steel fasteners

Exhaust Plenum Installation - supplied and installed by Contractor

- Install independent exhaust plenums from Evacuator Connection Box through side walls to exhaust system fans as defined on Design Solution Drawing and contract drawings.
 - System 1 – install a 20" duct pipe from (2) Connection Boxes through side wall to custom fan curb box connection point
 - System 2 – install a 16" duct pipe from (2) Connection Boxes through side wall to custom fan curb box connection point
 - System 3 – install a 16" duct pipe from (2) Connection Boxes through side wall to custom fan curb box connection point

Exhaust Fans Installation

- Install Evacuator Exhaust Fan at designated location to include equipment pad and security barrier:
 - System 1 – Secure Custom Curb Box to equipment pad. Connect PVC exhaust plenum to fan curb
 - System 2 – Secure Custom Curb Box to equipment pad. Connect PVC exhaust plenum to fan curb
 - System 3 – Secure Custom Curb Box to equipment pad. Connect PVC exhaust plenum to fan curb
- Electrical Connections by contractor
 - Needed power requirements , disconnects, switches ,and system control locations

Paddock Evacuator Company will provide the following thru the owner

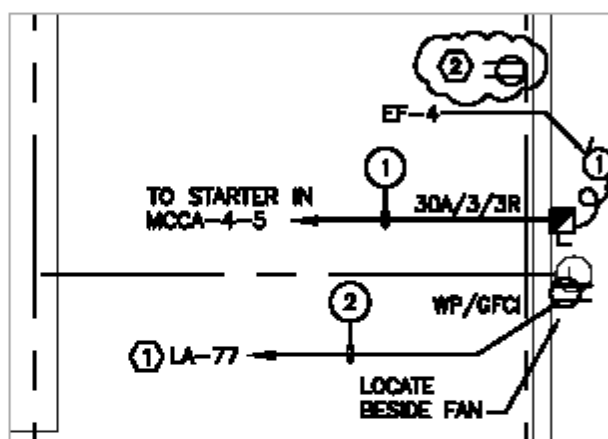
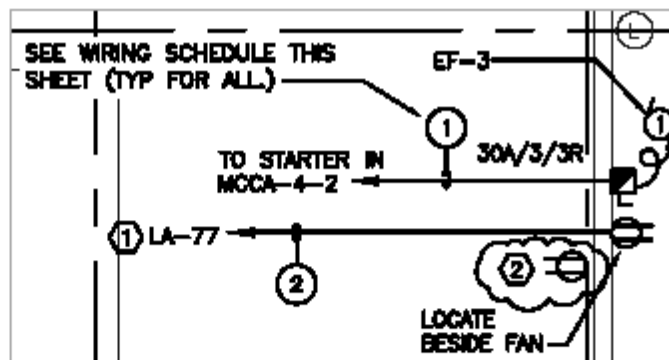
- Paddock Evacuator Design Solution
- Engineering support for final design and system balance (Contractor shall balance systems)
- Paddock Evacuator Equipment to include:

- Paddock Evacuator Source Capture Bench System
 - (3) Paddock Evacuator Bench Systems as described above
 - (2) Exhaust Fans (EF-2 and EF-6) and custom mounting curb boxes

CONTRACTOR INSTALLATION RESPONSIBILITIES:

- Coordinating delivery, inspecting, accepting, unloading and protecting of materials identified to be purchased by the Owner
- Installation of evacuator system
- Supply and install PVC duct materials, accessories, and concrete pad if required
- Balance systems with facility mechanical system
- Provide and install electrical service , connections, disconnects, and switches
- Provide and install controls and integration with HVAC system
- Evacuator should operate 24/7

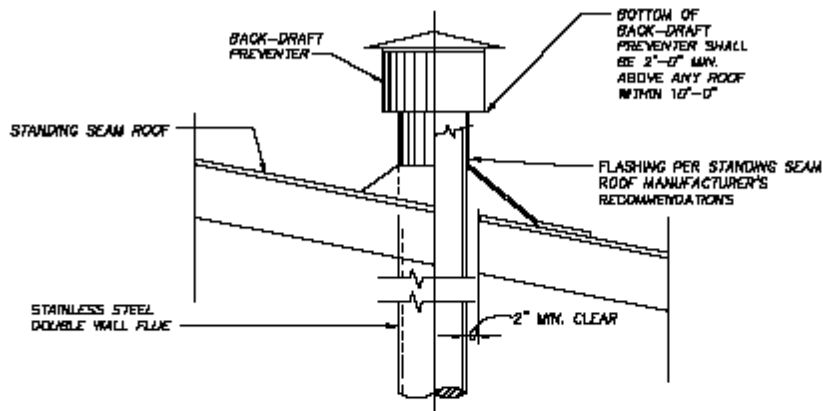
END of SECTION



KEYNOTES:

② EXISTING OUTLET TO BE REPLACED AND RELOCATED TO 48" AFF. PROVIDE AND INSTALL BOX EXTENSION AT THE EXISTING OUTLET BOX LOCATION, EXTEND CIRCUIT WITH 2#8 AND 1#8 GROUND IN 1/2" CONDUIT TO NEW LOCATION DIRECTLY ABOVE THE EXISTING LOCATION. PROVIDE AND INSTALL FD CAST BOX AT THE NEW LOCATION WITH 20A, DUPLEX, GFCI RECEPTACLE WITH WEATHERPROOF EXTRA DUTY COVER.

<p style="text-align: center;">WOMACK & ASSOCIATES <small>CONTRACT DOCUMENTS</small> 4200 Perimeter Park South, Suite 225 Atlanta, Georgia 30341 Voice 770-458-3005 Fax 770-458-8388</p>		SKETCH #
		ESK-1
MOUNTAIN VIEW PARK AQUATIC CENTER 2850 GORDY PARKWAY MARIETTA, GEORGIA 30066		DATE: 3/29/12
DWG REFERENCED: E-2	W&A # 12013	SCALE: 1/8"=1'



FLUE THRU ROOF DETAIL
NOT TO SCALE

ALL OPENINGS THROUGH ROOF REMAINING FROM REMOVAL OF EXISTING STACKS SHALL BE PATCHED AND SEALED BY A STANDING SEAM ROOF CONTRACTOR.

STANDING SEAM ROOF CONTRACTOR SHALL INSTALL FLASHING THROUGH ROOF FOR NEW STACKS.

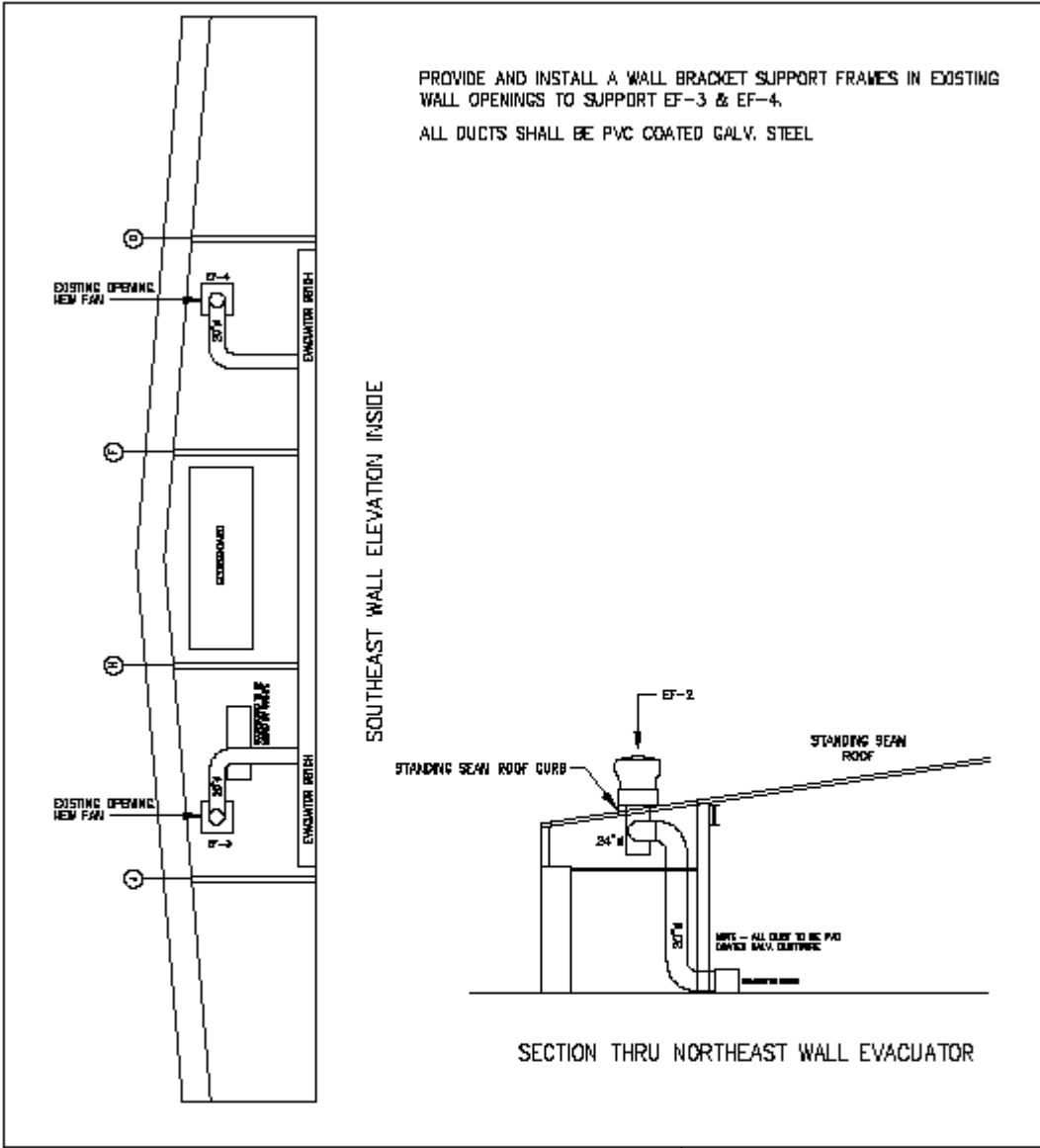
COBB COUNTY MAINTAIN VIEW
AQUATIC CENTER

KIRKPATRICK ENGINEERS
2141 WINGSTON CT., SUITE 111
MARIETTA, GEORGIA 30067
PHONE (770) 933-8842

ADDENDUM NO. 1

4/2/2012

MSK-1

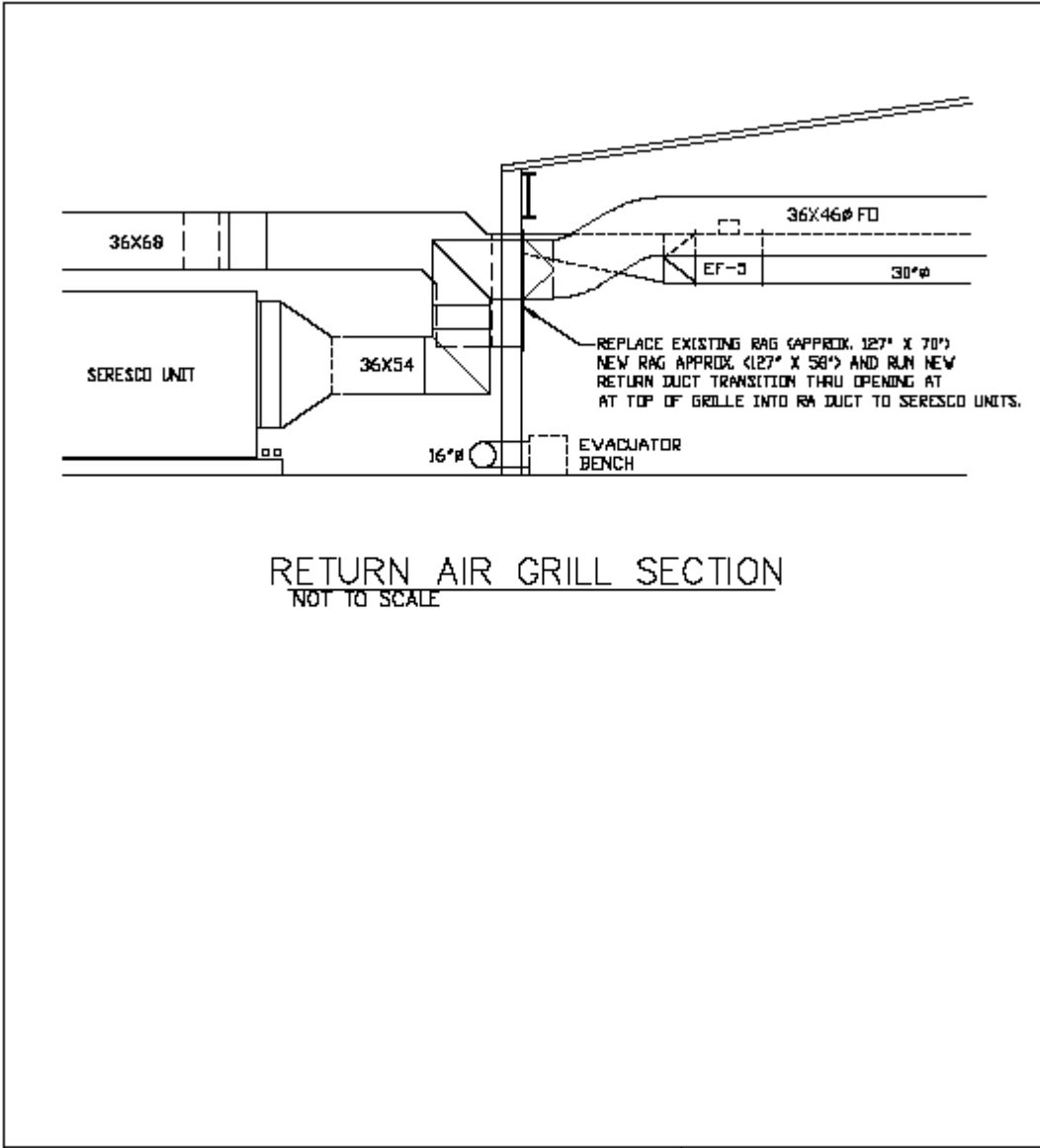


COBB COUNTY MAINTAIN VIEW
 AQUATIC CENTER

ADDENDUM NO. 1 4/2/2012

KIRKPATRICK ENGINEERS
 2141 WINGSTON CT., SUITE 111
 MARIETTA, GEORGIA 30067
 PHONE (770) 933-8842

MSK-2



RETURN AIR GRILL SECTION
NOT TO SCALE

COBB COUNTY MAINTAIN VIEW
AQUATIC CENTER

KIRKPATRICK ENGINEERS
2141 WINGSTON CT., SUITE 111
MARIETTA, GEORGIA 30067
PHONE (770) 933-8842

ADDENDUM NO. 1

4/2/2012

MSK-3

PRE- PROPOSAL CONFERENCE

SEALED BID # 12-5658
 MOUNTAIN VIEW AQUATIC CENTER
 AIR QUALITY IMPROVEMENTS AND INTERIOR RENOVATIONS
 MARCH 27, 2012

REPRESENTATIVE NAME	COMPANY NAME & COMPLETE ADDRESS	PHONE (INCLUDE AREA CODE)	FAX # (INCLUDE AREA CODE)	E-MAIL ADDRESS
JOHN FLOOD	COBB COUNTY Purchasing 1772 COUNTY SERVICES MARIETTA, GA 30008	770-528-8418	770-528-1154	JOHN.FLOOD@ COBBCOUNTY.ORG
Annette Nordhoff	Cobb Co. Purchasing	770-528-8424		Annette.nordhoff @cobbcounty.org
Pat Baltzell	C+W Contracting Services 1385 S. Marietta PKWY. Marietta 30067 Bld. 100, ST 124	678-412-0011	678-412-0015	pbaltzell@cwcontracting.com
J.L. Brooks	J.L. Brooks Const Inc. 5454 Malone Court Powder Springs GA 30127	404-557 3565	770- 424-3016	brooksconst@ bellsouth.net
Rob Williams	SWOFFORD Construction, Inc 6030 Oak Ridge Commerce Way DUSTY, GA 30168	678-945-8988	770-945-8989	RWilliams@SwoffordConstruction.com
Trey Morris	SouthCore Const inc 6095 Pine Mountain Kennesaw Ga 30152	770-499-1393	770-499-1394	Trey@SouthCore.com
Craig Blackley	Waterworks ATL 997 Mansell Rd Roswell GA 30076	770.310.1737	770-594-9190	Craig@waterworksatl.com

*Please note that contact information provided to a government agency may be subject to public release as required by Georgia's open records law.

PRE- PROPOSAL CONFERENCE

SEALED BID # 12-5658
MOUNTAIN VIEW AQUATIC CENTER
AIR QUALITY IMPROVEMENTS AND INTERIOR RENOVATIONS
MARCH 27, 2012

REPRESENTATIVE NAME	COMPANY NAME & COMPLETE ADDRESS	PHONE (INCLUDE AREA CODE)	FAX # (INCLUDE AREA CODE)	E-MAIL ADDRESS
J HOWARD BACH	2211 BEAVER RUN RD NORCROSS, GA 30071 MORELAND ALTOBELLI / COBB	404 931-3738	770 263-5955	HBACH@MAAFI.NET
MARK HENDRIX	W.E. CONTRACTING 6928 N. MAIN ACWORTH GA	7-975-7544	7-975-7545	WECCIE@AH.NET
MICHAEL MCDUFFIE	PADDOCK CONSTRUCTION 555 PADDOCK PARKWAY ROCK HILL, SC 29730	803 980 1901	803 980 -1902	MCDUFFIE@PADDOCKPOOL.COM
Vernon Broadway	EW Smith Hwy & MC Marietta Ga	770-294-4257	678-344-9470	Vernonbroadway1@bellsouth.net
Roger Crew	Ricks Contractors 5161 Bellwood Court Buford GA 30518	678-546-8230	678-546-8235	Ricks Contractors@Bellsouth.net
Russell Small	MORELAND ALTOBELLI, PROGRAM MANAGER, 1792 COUNTY SERVICE BLVD MARIETTA, GA	770-528-8818		Russell.Small@CobbCounty.org
Tom Bills	CC PRCA	7) 528-8807	7) 528-8814	tom.bills@cobbcounty.org
Bill English	WE CONTRACTING	7-975-7544	7-975-7545	WECCIE@AH.NET

*Please note that contact information provided to a government agency may be subject to public release as required by Georgia's open records law.

PRE- PROPOSAL CONFERENCE

SEALED BID # 12-5658
 MOUNTAIN VIEW AQUATIC CENTER
 AIR QUALITY IMPROVEMENTS AND INTERIOR RENOVATIONS
 MARCH 27, 2012

REPRESENTATIVE NAME	COMPANY NAME & COMPLETE ADDRESS	PHONE (INCLUDE AREA CODE)	FAX # (INCLUDE AREA CODE)	E-MAIL ADDRESS
SCOTT TACKETT	CLASSIC PLAINS CONSTRUCTION 3225 SHALLOWFORD RD, SUITE 630 MARIETTA, GA 30062	770 977-8945	770 977-8946	STACKETT@CLASSICPLAINS.COM
Carmon White	Mooney Construction, Inc. 251 Heritage Walk, Ste 100 Woodstock, GA 30188	770-516-8860	770-516-0877	Kevin@mooneyconstructioninc.com

*Please note that contact information provided to a government agency may be subject to public release as required by Georgia's open records law.

PRE- PROPOSAL CONFERENCE

SEALED BID # 12-5658
 MOUNTAIN VIEW AQUATIC CENTER
 AIR QUALITY IMPROVEMENTS AND INTERIOR RENOVATIONS
 MARCH 27, 2012

REPRESENTATIVE NAME	COMPANY NAME & COMPLETE ADDRESS	PHONE (INCLUDE AREA CODE)	FAX # (INCLUDE AREA CODE)	E-MAIL ADDRESS
JERRY KIRKPATRICK	KIRKPATRICK ENGINEERS	(770) 933-8842	(770) 983 984-2817	Jerryk@a1nweb.net
LES SAUNDERS	" "	" "	" "	" "
Benjie Brumbeloe	Cobb Co. Parks & Rec & CA	770-528-8827	770-528-8813	Benjie.Brumbeloe@cobbcounty.org

*Please note that contact information provided to a government agency may be subject to public release as required by Georgia's open records law.