THE AGGREGATE

4th Quarter 2011

International Concrete Repair Institute Baltimore Washington Chapter, Inc.
www.icribwchapter.org

IN THIS ISSUE

SPONSORS

BECOME AN ICRI-BWC SPONSOR

SEE PAGE 5 FOR A LIST OF OUR SPONSORS

SEE PAGE 16 FOR OUR BUSINESS CARD DIRECTORY

LAKE TOWNSEND DAM REPLACEMENT

Lake Townsend Dam impounds the primary water supply for the City of Greensboro, North Carolina. The original 44-year old concrete gated spillway is suffering from severe deterioration due to alkali silica reactivity (ASR) and has inadequate hydraulic capacity. After an analysis of repair and replacement options, the selected alternative consists of a new spillway designed with a hydraulic capacity similar to the existing spillway and allowance for embankment overtopping during high flows. The new replacement dam is being constructed immediately downstream of the existing dam. The new spillway consists of a reinforced concrete, seven cycle, 300-ft wide labyrinth with a weir height of 20 feet. Articulating concrete blocks (ACB) will be used to armor the earthen embankments. Underwater demolition of the existing spillway and portions of the embankments will be completed after commissioning of the new dam.

see Lake Townsend - page 7

THE AGGREGATE INSIDE

ICRI MISSION STATEMENT

The mission of the International Concrete Repair Institute is to be a leading resource for education and information to improve the quality of repair, restoration, and protection of concrete and other structures in accordance with consensus criteria.
ICRI is an organization composed of Engineers, Consultants, Contractors, Manufacturers and other Material Suppliers, Property Managers and Owners all working together for the betterment of the industry and of all involved. Providing an open forum to speak about our work, new technologies and methods, exchange ideas.
Creating and following standards to produce the best results for all involved.

PRESIDENT'S MESSAGE

The year is fast coming to a close and therefore this is my last entry in the Aggregate as the Chapter President. It has been a great year representing you and working with the Board and Officers has been very enjoyable. I thank the Board of Directors and Officers for their support and commitment this year. The membership should be proud of such a great group of fellow industry–mates who are willing to volunteer and keep our standing as the largest and most outstanding chapter intact.

The Board plans to finish strong this year. Our November 3, 2011 meeting at the College Park Holiday Inn will feature presentations of the local project of the year awardees. I always find it interesting to see the unusual things that we find ourselves doing and I am sure that this year's best projects will not disappoint. The November meeting will also be a time to award scholarships to deserving students and to those in our industry who are seeking to improve their skills.

The 20th Annual Golf Outing was a success with great weather, food, and fellowship at Glenn Dale Golf Course. Thank you, Jay Whitton, for pulling together another outstanding event. Thanks also go out to those that played and helped organize the tournament during the day. The golf outing helps fund our scholarship program, which is something that all of our members can be proud of.

Please register for the Fall Hands-On Seminar, which will take place on December 1 at the Concrete Protection and Restoration warehouse. You can register at our website www.icribwchapter.org. Our focus will be on green construction and sustainable design. Local experts and those from around the country will be on hand to present various topics. Tom Ouska may be able to squeeze one more speaker into the program. So please contact him if you have a case study or topic that you want to present.

This fall the Board will be focusing quite a bit of attention on obtaining more chapter sponsors. If you have not yet received a phone call, you will soon. We know that the economy has not been as robust as we would all like, but we ask that you be prepared to support our local chapter anyway. Your support will allow us to continue our rich tradition of giving back to the community and the industry through our expanded scholarship program and community service projects.

Ballots for Board of Director Elections have been sent out by email. Please fax your competed ballot back to Matt Nachman as soon as possible or bring the completed ballot to the November meeting. The new Board members will be announced at the meeting.

I hope to see all of you on November 3.

Chris Carlson
Engineering and Technical Consultants, Inc.

THE BALTIMORE WASHINGTON CHAPTER OF ICRI

Thursday, November 3, 2011
Holiday Inn College Park
10000 Baltimore Blvd.
College Park, MD
301-345-6700
Exit 25 (Baltimore Blvd. North US 1) off Beltway
Hotel on Left

Advance Reservations by 10-27-11:	$50
After 10-27-11 & Non Members:	$60

4:00	Board Meeting
5:30	Social Hour
6:30	Dinner & Presentation

2011 AWARDS DINNER AND BOARD MEETING

4:00	**Board Meeting**
5:30	**Social Hour**
6:30	**Dinner & Presentation**

Please join us on Thursday, November 3, 2011 for our Seventh Annual Outstanding Repair Projects Awards Program. Help us close the curtain and to celebrate a year of accomplishment when we honor our chosen contractors, engineers, consultants and materials suppliers for jobs well done. This year's program will feature unique projects completed within the last year. This event always has a large turnout from our membership as our local industry leaders showcase the award winning projects form this past year. There will be two awards and each recipient will have time to speak on their special project, challenges and what made the project a success. Projects under consideration as follows:

- **Canal House Metal Roof Rehabilitation and Masonry Restoration**
  Commercial Waterproofing, Inc. (CWI)
- **Huntington Club Condominium Foundation Underpinning Project**
  Engineering & Technical Consultants, Inc. (ETC)

Projects are currently being judged by a fine field of judges selected from our national pool of ICRI member companies. Judging is based on a number of criteria including, but not limited to: overall presentation of the project, innovative or difficult approach to making repairs, specialized materials or equipment required, difficulties during construction related to site issues or owner issues, tight construction deadlines or compressed schedules and that the project's success can be attributed to utilization of ICRI techniques and guidelines in the repairs.

The winners will be allowed to present their project: 1st Place - 30 minutes; 2nd Place - 15 minutes.

REGISTRATION DEADLINE IS **October 27, 2011** NO-SHOWS WILL BE BILLED

Please email (oscarv@skaengineers.com) or print this page and fax to ***Oscar Valenzuela***, Secretary, at 301-881-8066 no later than October 27, 2011. Checks to ICRI BWC may be turned in at the meeting or mailed with your form to:

Oscar Valenzuela, Secretary
ICRI BW Chapter
C/O Smislova, Kehnemui & Associates
12505 Park Potomac Avenue, Suite 200
Potomac, MD 20854
301-881-1441

You may also register and pay online at

www.ICRIBWChapter.org

Name: _____

Company: _____

Telephone: _____

Email: _____

Number of Guests: _____ Payment: ☐ Enclosed ☐ Online
(Please include receipt)

Guest Names: _____

_____

Guest's Company: _____

2011 GOLF TOURNAMENT

OUR WINNERS

1ST PLACE TEAM

Alan Rutherford, Ken Kosteva, Mike Horne

2ND PLACE TEAM

Ashton Cherubin, Joel Eiler, Elilberto Vasquez, John Kennedy

3RD PLACE TEAM

Mike O'Malley, Don Caple, Brian Hubber, Brian Greenbaum

CLOSEST TO THE PIN WINNER

Jonathan Smith

LONGEST DRIVE WINNER

Gary Trakas

STRAIGHEST DRIVE WINNER

Brian Hubbard

OUR SPONSORS

The Chapter would like to thank all of our SPONSORS:

LUNCHEON SPONSOR
Concrete Protection and Restoration

BEVERAGE CART SPONSOR
CA Lindman

BREAKFAST SPONSOR
Tools & Accessories

RANGE BALL SPONSOR
Choice Supply

COMPETITION SPONSORS
Closest to Pin
SIKA
Longest Drive
Restoration East
Straightest Drive
Kenseal

HOLE SPONSORS
Kenseal/Dow Corning
Metro Sealants/Evonik
Struc'tu'ral
Manganaro
Concrete Protection and Restoration
ETC
Allied Building Products
Miracote/Construction Specialties Group
Euclid Chemical
Hyload/Martin Rubber Company
Tremco
ABC Equipment
BASF
Choice
Commercial Waterproofing, Inc.
Prepcon
Watson Boman ACME

2011 CHAPTER SPONSORS

PLATINUM

KENSEAL CONSTRUCTION PRODUCTS

METRO SEALANT & WATERPROOFING SUPPLY INC. EVONIK INDUSTRIES

manganaro

structural

GOLD

CONCRETE PROTECTION & RESTORATION "SAVING THE LIFE OF CONCRETE"

ALLIED BUILDING PRODUCTS CORP. WWW.ALLIEDBUILDING.COM

ETC

SILVER

Construction Specialties Group, Inc. MIRACOTE

Upcoming Chapter Events

Nov. 3, 2011 **ICRI-BWC Annual Awards Banquet**
Holiday Inn,
College Park, MD

Dec. 1, 2011 **ICRI-BWC Fall Technical Seminars**
Location:
Concrete Protection & Restoration
Baltimore, MD

Upcoming National Events

Oct. 25-26, 2011 **CONCRETE SLAB MOISTURE TESTING PROGRAM**
Baltimore/Washington

April 18-20, 2012 **ICRI 2012 SPRING CONVENTION**
Theme: TBD
Hilton, Quebec
Quebec, QC, Canada

Nov. 7-9, 2012 **ICRI 2012 FALL CONVENTION**
Theme: TBD
Rancho Las Palmas Resort and Spa
Rancho Mirage, CA

Lake Townsend

continued from page 1

Contributers:

Robert Cannon, P.G., Tillman Marshall, Gerald Robblee, P.E., Frederic Snider, P.G., and Jerry Gardner, RPR
- Schnabel Engineering
Melinda King, P.E. and Allan Williams, P.E.
- City of Greenesboro, NC
Andrew R. Downs, P.E.
- Crowder Construction Company

Construction of the new replacement dam began in spring 2009, with an estimated duration of 30 months. Planned commissioning is in November, 2011. The Contractor has faced multiple challenges during construction. Working downstream of a full, operational reservoir entailed additional risk. Diversion of flood flows up to about 10,000 cfs was required. Extensive dewatering was necessary, as soft alluvial clays and loose alluvial sand had to be excavated in the floodplain below the footprint of the new dam. The foundation excavation exceeded 30 feet in the deepest parts. Foundation preparation also required removal of part of the downstream slope of the original embankment. Geotechnical instrumentation was installed to allow performance monitoring of the remaining embankment during foundation excavation and dewatering. Borrow area soils were too wet to achieve the stringent compaction requirements needed for the labyrinth spillway foundation. Several alternatives were tested, and ultimately, cement was added to the site soils at 5% by weight. This cement-modified soil, or CMS, provided numerous benefits during construction.

This paper is a follow-up to a paper entitled Lake Townsend Dam Replacement Project, Greensboro, NC, presented at the April, 2009 Annual USSD conference in Nashville, Tennessee (Cannon et al. 2009). The earlier paper provides a summary of the site investigations and alternatives assessment.

PROJECT DESCRIPTION

Lake Townsend Dam is located on Reedy Fork Creek in Guilford County, North Carolina, about 10 miles northeast of downtown Greensboro. Lake Townsend is a 1,635-acre impoundment with a storage capacity of 6,330 million gallons at normal pool. The City of Greensboro Water Department serves a population of approximately 250,000 people, with Lake Townsend providing approximately 70 percent of the City's raw water storage capacity. The drainage area at the dam is 105 square miles.

The existing Lake Townsend Dam is an earth embankment with a gated concrete spillway. The spillway consists of a concrete, ogee-shaped weir divided into nine, 25-ft wide bays and one 15-ft wide bay. Ten foot high vertical lift gates are located atop the concrete spillway in each of the 25-ft wide bays and a skimmer gate is located in the 15-ft wide bay. A 200-ft wide earthen emergency spillway is located at the north abutment.

The existing dam was constructed in 1966/1967 when testing of concrete aggregates for ASR was not common. Today, the existing concrete in the spillway is exhibiting expansion, cracking, and deterioration due to ASR, as shown in Figures 1 and 2.

Figure 1 - Pattern Cracking in Spillway

Figure 2 - Cracking in Ogee and Piers

Lake Townsend Dam is regulated by the North Carolina Department of Environment and Natural Resources (NC DENR) and classified as a Class C (high hazard), "large" dam. As such, the Spillway Design Flood (SDF) is the ¾ Probable Maximum Precipitation (PMP). The existing dam was designed and built prior to implementation of North Carolina dam safety laws. The original design reportedly considered "the

maximum storm for the area", which was computed to be 50,000 cfs (Papp, 1970). Several reports dating back to 1980 included hydrologic and hydraulic analyses that resulted in a computed ¾ PMP inflow greater than 115,000 cfs and noting that the project does not have adequate capacity to pass this inflow without overtopping of the embankment (Thomas, 1980; Hazen and Sawyer, 1988; Simons, 1989).

Therefore, the primary objectives for the new dam were to address 1) the ASR concrete deterioration through spillway repair or replacement and 2) the spillway's inadequate discharge capacity per NC DENR dam safety criteria. Because Lake Townsend is the City's primary water supply, it was imperative that the reservoir be maintained to provide uninterrupted water supply throughout construction.

The selected alternative was the design and construction of new labyrinth spillway immediately downstream of the existing dam, as illustrated on Figure 3. Interested Contractors were required to submit a qualifications package and only pre-qualified Contractors were issued bid documents. Crowder Construction Company of Charlotte, NC was the selected bidder, and construction began in the spring of 2009.

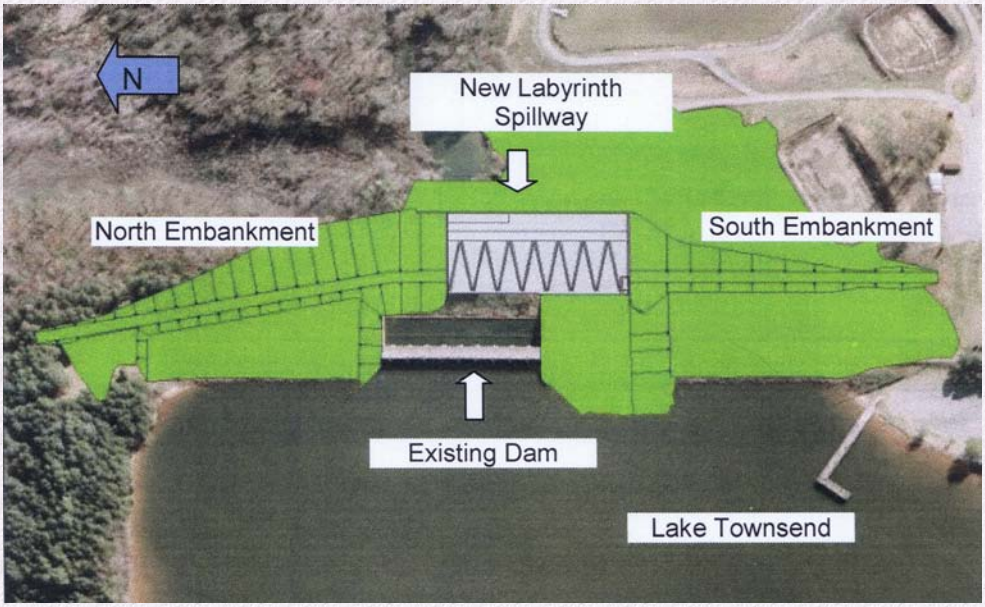

Figure 3 - Layout of new dam and labyrinth spillway. Once the new dam is completed, the existing spillway and excess embankment will be removed.

STREAM DIVERSION AND CONSTRUCTION SEQUENCING

Maintaining a nearly full reservoir during construction of the new dam resulted in a three stage diversion scheme. The Stage 1 diversion plan is shown on Figure 4. A steel diversion wall was designed to divert flows up to 10,000 cfs to the north of the entire labyrinth spillway, thereby allowing the spillway to be built in one stage.

The North Embankment would be constructed in Stage 2, when flood flows would be diverted through gaps in the labyrinth walls. During Stage 3 the gaps would be closed, the space between the two dams

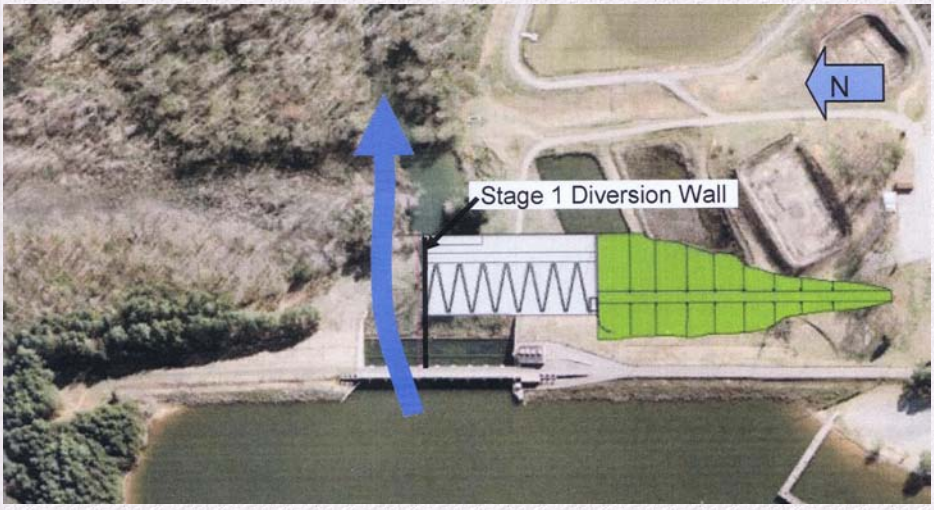

Figure 4 - Stage 1 Diversion, showing flow path and l`ocation of diversion wall

continued on page 10

continued from page 9

flooded, and part of the existing dam removed. Removal will include underwater demolition and debris removal.

DIVERSION WALL DESIGN, CONSTRUCTION & PERFORMANCE

The Stage-1 diversion wall was designed to meet the following criteria:

- Provide a physical and hydraulic barrier between the Stage 1 diversion channel and the Stage1 excavation and construction area.
- Support the lateral loads placed on the wall including lateral soil and water loads, compaction induced loads, and lateral loads due to the weight of the spillway structure and Stage 2 water loads.
- Be stiff enough that deformation due to structure induced loads does not adversely affect the future performance of the wall or the spillway structure.

The diversion wall was connected to the existing spillway structure and was to be connected to the contractor's downstream cofferdam. The structural design of the cofferdam was performed by the design engineer (Schnabel Engineering). The Contractor was responsible to review the diversion wall design and augment its hydraulic barrier properties to meet the specifications requirements for control of water and excavation dewatering.

To meet the structural design criteria and simplify construction, the diversion wall was designed as a cantilever wall without lateral bracing. The wall was designed using traditional methods for cantilever wall design and a finite element analysis performed to evaluate wall deformations at each construction stage. The major stages of construction analyzed included:

- Stage I excavation and dewatering south of the wall,
- Fill placement against the south side of the wall,
- Spillway slab construction (south of wall)
- Spillway endwall construction
- Rebound of groundwater after dewatering is completed
- Excavation for Stage II on the north side of the wall
- Activation of the new spillway while the Stage II excavation north of the wall is at its maximum depth (worst case loading)

To control lateral deformations, the diversion wall design included tying the diversion wall to the new spillway slab. The structural connection would restrict horizontal movement of the wall but allow differential vertical movements.

The final design configuration for the diversion wall included 25 soldier piles (H-piles) on 7 to 10 feet centers depending on the depth to rock. Piles were to be embedded 12 feet into rock and grouted in place. Six additional soldier piles were fastened to the concrete stilling basin slab of the existing spillway and diagonally braced. The 1inch- thick steel plate lagging was to be extended at least five feet below the excavation or to refusal then welded to the H-piles. All steel was specified to be 50 ksi grade. Total wall height ranged from 12 to 20 feet. A profile view of the diversion wall is shown in Figure 5.

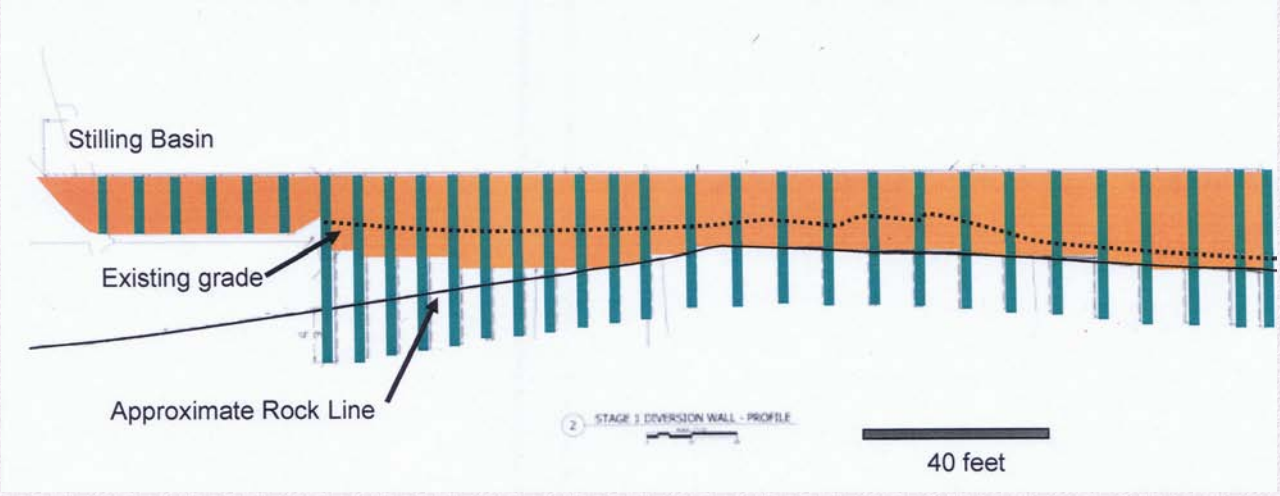

Figure 5 - Profile of Stage 1 diversion wall showing soldier piles and steel lagging.

The calculated deformation of the top of the diversion wall was 1.6 inches after placing fill. The calculated additional deformation due to weight of structure and water flowing though spillway during Stage II was 0.4 inches and this deformation would occur about at the mid-height location of the wall.

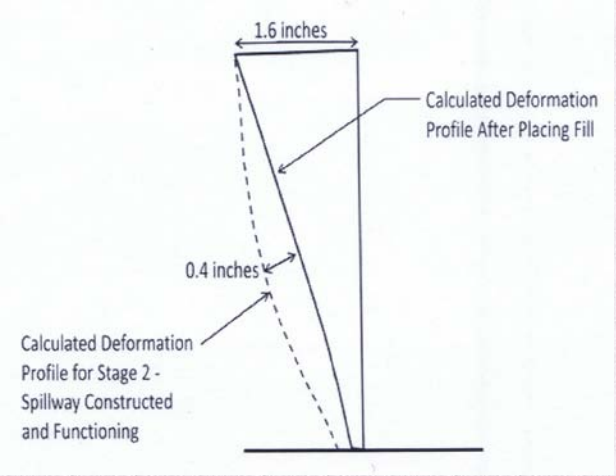

Figure 6 - Calculated Deformation Profile of Diversion Wall

The deformation profiles are shown in Figure 6.

The construction of the diversion wall included using a cluster drill with three 8-inch diameter down-the-hole hammers to drill the rock sockets through cased holes. The steel plate lagging was driven into place with a small vibratory hammer. There were areas where the steel plates were not advanced below the excavation subgrade due to rock or where the steel plates were only advanced a few feet below the excavation subgrade. In many of these areas, the contractor ether placed a concrete plug at the base of the wall on the diversion channel side of the excavation or attempted to grout the soil/rocks at the base of the steel plates. In November 2009, after heavy rains from the remnants of Hurricane Ida, stream diversion flow was high (estimated to be in excess of 4,000 cfs). After several hours of high differential head between the diversion channel and the excavation, a hydraulic failure (blowout) below the diversion wall occurred. The blowout resulted in the partially completed excavation filling with water.

Figure 7 - Excavating at base of diversion wall following blowout due to high flood flow.

After the stream flows subsided, the area where the blowout occurred was excavated. The steel plate in this area had extended about 2 to 3 feet below the excavation subgrade and refused on fractured and weathered rock. The area was excavated to sound rock and the weathering profile was observed to be very irregular. Figure 7 shows a photograph of the excavation along the base of the diversion wall that shows the variability in the rock surface. The soil profile and weathered rock in about a 3-foot wide strip on both sides of the diversion wall was excavated to expose hard rock. These strips were cleaned of loose material and were filled with lean concrete to at least 2 feet above the bottom of the steel plate lagging. The flooding and repairs resulted in a two week delay of the construction schedule.

The performance of the stream diversion wall since the remedial work was performed has been excellent. The project has had several storms that required large reservoir releases through the dam that created large differential heads between the diversion channel and the Stage 1 excavation with little leakage. The completed wall is shown on Figure 8.

Figure 8 - Photo of completed diversion wall, flow through diversion channel and cleaned rock surface in Stage 1 excavation. Sheet piles are downstream cofferdam.

The Contractor has performed some limited deformation monitoring of the soldier piles and the results of the deformation monitoring suggest that deformations have been small and within the precision and accuracy of the surveys. The better than expected deformation behavior of the diversion wall may be the result of the use of Cement Modified Soil for the spillway foundation.

STAGE 1 EXCAVATION AND DEWATERING

The Stage 1 excavation required the removal of fill and alluvial soils from below the footprint of the labyrinth spillway and south earth embankment. This resulted in an excavation about 450 feet by 200 feet at its base and extending about 20 to 25 feet below groundwater and being 25 to 30 feet deep. The Engineer established excavation contours and dewatering requirements based on the following design criteria:

- The reservoir will remain full.
- The calculated factor of safety of the excavation slopes should be 1.3 or higher.
- The excavation and dewatering system should be instrumented.

Borings performed through the embankment did not encounter alluvial soils. However, one of the borings performed at the toe of the embankment encountered about five feet of sandy alluvial soils. Observation wells installed at toe of the dam showed artesian foundation pressures at the toe of the dam. The blanket drain for the existing dam was to be intercepted, so the potential of excavating saturated drain fill was also a concern. The following excavation and dewatering criteria were established during design:

- Excavation slopes shall be 2H:1V or flatter.
- Dewatering systems shall pre-drain the soils such that the water table is drawn down to at least 10 feet below excavation slopes.
- The base of the excavation shall remain dry with water being drawn down three feet below the excavation grade.

A section through the existing embankment and excavation surface is shown on Figure 9.

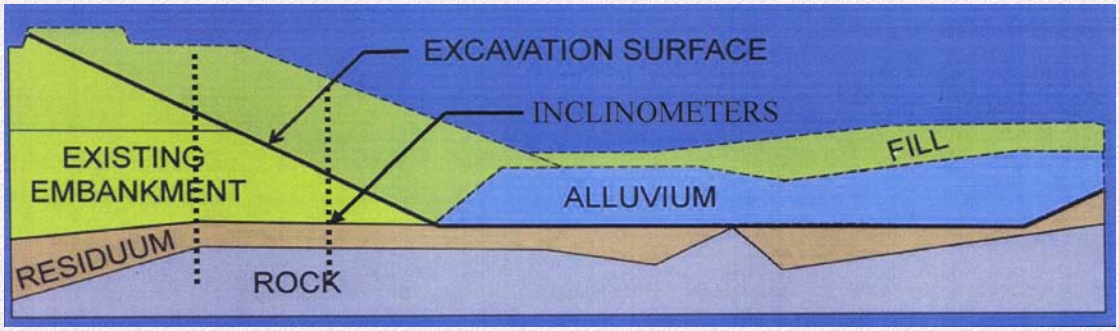

Figure 9 - Typical section through existing embankment

The excavation and dewatering systems were monitored with a series of inclinometers, vibrating wire piezometers, and observation wells. The observation wells installed during the design phase were maintained and read until they were either excavated or until the final excavation grade was reached and the performance of the dewatering system had been confirmed. New instrumentation included four inclinometer casings installed in the downstream slope of the existing dam and two inclinometer casings installed downstream of the dam in what would become the downstream slope of the excavation for the new spillway and embankment. The effectiveness of the dewatering system has been monitored with the vibrating wire piezometers in embankment fill, alluvial soils, residual soils and rock foundation materials.

The Contractor was required to design, install, operate and maintain the dewatering system. A preliminary concept for dewatering developed by the Engineer included:

- a two-stage dewatering system of closely spaced wells or well points,
- a series of groundwater collection trenches at the toe of the excavation slopes and in the center of the excavation, and
- a series of wells at the north end of the excavation near the Stage 1 diversion wall and downstream cofferdam to reduce upward gradients adjacent to the diversion wall and downstream cofferdam.

Please check out our WEBSITE for the remainder of this article!

3RD QUARTER MEETING WRAP-UP

Electronic Field Vector Mapping For Membrane Leak Detection

Dave Honza, Honza Group Incorporated
September 9, 2011

The September 2011 Program was presented by Dave Honza, a waterproofing consultant, addressing the timely topic of leak detection technologies for our building waterproofing. The DC market has experienced a significant increase in the use of green "vegetative" roofs, buried plaza deck waterproofing and underground structures. Roofing and waterproofing systems have struggled for years with topical damage and abuse to the critical membranes systems. Infra Red Thermography has been used in the past to identify the presence of moisture, but not locate the source of breach. Electron field vector mapping has become the equipment of choice in identifying breaches in our membrane systems to allow for effect leak repairs.

Dave Honza, Honza Group, Inc.

Low voltage (40 volts) and high voltage (160 volts) systems are selected depending on the membrane technology. The basic fundamental process is to create an electron field below and above the membrane, allowing the membrane to become the electrical insulator between the two charges. Be cautious of any electrical insulators like polyethylene or extruded insulation in the assembly, since they will interrupt the current. In these cases, the assembly must be thoroughly wet out.

Given the earthquakes, hurricanes and torrential downpours of the past few weeks, the topic of Electronic Field Vector Mapping proved to be a "charged" topic for the evening.

ICRI-BWC President Chris Carlson and ICRI-BWC Program Chair Tom Ouska presents our speaker, Dave Honza, with a plaque of Appreciation

Rick Edelson, Scott Harrison and Cynthia Nunn-Scotch smile for the camera!

Everyone enjoys dinner at the Holiday Inn!

Networking during ICRI-BWC Social Hour

ICRI-BWC Secretary Oscar Valenzuela waits for the meeting to start!

DON'T BE A NO-SHOW

Help us recognize the winners at the 7th Annual Outstanding Repair Projects Award Program!

Thursday
November 3, 2011
Holiday Inn College Park
10000 Baltimore Blvd.
College Park, MD

Details & Registration information on Page 3

2011 FALL TECHNICAL SEMINARS

The Baltimore-Washington Chapter of ICRI will be hosting a fall seminar on December 1st, with the theme centered on Green Construction and Sustainability Concepts in Restoration. Our line-up of speakers will present on a variety of topics, some of which are:

- Green Preservation – This presentation will focus on the requirements that the building contractor must meet in delivering successful green preservation and sustainability projects.
- Retrofitting and Modernization of Existing Buildings – This presentation by Paul Totten, PE, LEED AP, of Simpson Gumpertz & Heger, will focus on retrofitting versus new construction. The discussion will cover the potential effects of upgrading older structures, complete condition assessment, evaluating building enclosure for water tightness and assess risk of freeze/thaw damage. It will also involve a review of waterproofing, flashing and air barrier options.
- Historic Preservation = Sustainability – This presentation by Kristen Harbeson, Chief of Staff to Delegate Maggie McIntosh, Maryland General Assembly , and State Services Director at National Conference of State Historic Preservation, will introduce the participants to the concept of "green" and "sustainability" as it relates to historic preservation. This presentation gives an overview of how historic preservation supports not only the "green" of environmental sustainability, but also the "green" of economic sustainability.
- Two other presentations, one involving building and structural damage assessment following the August earthquake, plus a hands-on demonstration are planned for the seminar.

The seminar will be held at the offices of CP&R in Baltimore. The seminar has been hosted by Mike and Don for several years and we are deeply appreciative of their generosity in offering their time, offices and financial support to the chapter. Please plan on attending this year's event on December 1st.

Check out our websitefor more information!

WWW.ICRIBWCHAPTER.ORG

SAFETY COLUMN

National Fire Prevention Month

By David Caple
Pinnacle Safety Network

October is National Fire Prevention Month therefore we are going to cover some simple maintenance that employee's can perform to assure your fire protection devices and prevention plan is ready in case a fire occurs. Although there are many options on how to initiate a program I would like to cover the most popular.

Dry Chemical Fire Extinguishers are among the most popular models found on a jobsite. Anyone familiar with the discharge of these extinguishers can tell you a white powdery substance comes out of them. This powder can clump on the bottom of the cylinder over time making the extinguisher less effective in the case of an emergency. By regularly taking your extinguishers flipping it up side down and with a rubber mallet wrap on the bottom you can loosen the dry chemical and thereby allowing the fire extinguisher to fully discharge in the event of an emergency. In addition, if your fire extinguishers have not been serviced by a professional in a very long time or ever, schedule an appointment to have a service come and check your equipment.

Although the fire protection and prevention section of the OSHA standard is over 10 pages long and covers a wide variety of hazards employees should be aware of some basics such as:

A. Travel distance to the nearest fire extinguisher in a protected area should not exceed 100 feet.

B. Travel distance to the nearest fire extinguisher (10 B minimum) shall not exceed 50 feet from 5 gallons of flammable or 5 pounds of combustible liquids.

C. Fueling areas must have a 20 B-C extinguisher with in 75 feet of the dispenser.

Many other regulations in this standard may affect a jobsite. Following these few steps will point you in the right direction for compliance.

For further assistance or to recommend a topic for discussion in a future publication of The Aggregate contact me at d.p.caple@gmail.com

LEGAL COLUMN

Amendments to Bond Provisions in the Virginia Public Procurement Act

By Jennifer A. Mahar
Smith Pachter McWhorter PLC

The 2011 Session of the Virginia General Assembly resulted in several amendments to the Virginia Public Procurement Act requirements for payment and performance bonds on public construction projects in Virginia. VA Code § 2.2-4337 now requires general contractors on public construction projects exceeding $500,000 to provide payment and performance bonds. Prior to this amendment the threshold contract level for bond requirements was $100,000.

The notice period for second tier subcontractors seeking to assert claims against a general contractor's payment bond was shortened. Pursuant to VA Code § 2.2-4341 second tier subcontractors must now provide written notice to the general contractor within 90 days from when they last performed labor or supplied materials. Prior to this amendment the notice deadline was 180 days.

Do you have a legal issue you would like addressed in a future newsletter? Send me an email with your question to jmahar@smithpachter.com or contact me at 703-847-6300

2011 BUSINESS CARD SERVICE DIRECTORY