

THE MARYLAND

Winter 2000

ASPHALT PAVER



2000 State Paving Awards

FRONT COVER

Canal Parkway

IA Construction Corporation personnel are compacting graded aggregate base between newly constructed walls. CSX heavy rail line is visible adjacent to the new roadway. The greater Cumberland Regional Airport, West Virginia and the Allegany Mountains are all present in the area surrounding the terminus of the C&D Canal. A hiker biker trail will be constructed, the roadway pavement will be completed and this facility will be open to traffic in 2001.

INDEX

Hot Mix Asphalt Triumphs	3-4
Canal Parkway	5-7
MD 24 at MD 165 Roundabout	8-9
2000 Awards	10-11
Falls Road	12-15
Arundel Mills Mall	16-18

published for
Maryland Asphalt Association, Inc.
2408-G Pepper Mill Drive, Glen Burnie, MD 21061
410-761-2160 Fax 410-761-0339
Editor: Brian Dolan

published by
P/T Enterprises, Inc.
Fallston, MD 21047
410-879-7606 Fax 410-893-5721

printed by
E. John Schmitz & Sons, Inc.
Sparks, MD 21152
410-329-3000 Fax 410-771-4342

HOT MIX ASPHALT TRIUMPHS IN DURABILITY CHALLENGE



T.C. Simons crews remove 6 1/2" whitetopping at US 40 & Landing Road.

In 1993 the State Highway Administration of Maryland extended a durability challenge to both the asphalt industry and the concrete paving industry. Adjoining intersections were selected in Cecil County Maryland to permit an industry design build solution for two highly stressed intersections that suffered continual performance problems. The asphalt industry was selected to rebuild the intersection of US Rt. 40 and Md. Rt. 213. The concrete industry was selected to reconstruct the next intersection at Rt. 40 and Landing Road.

Each industry was free to select it's own solution without being constrained by existing specifications. Our industry selected a Superpave solution while the concrete industry selected whitetopping. Since this challenge, "Superpave" has been adopted nationally while "Whitetopping" has demonstrated that it rarely performs well.

Construction time, traffic delays, initial costs and durability were all significantly better with the asphalt product. Life cycle costs certainly favor superpave since the concrete has now been removed and the superpave has already outlasted the competition by over one full year. The superpave is still performing extremely well. Maintenance cost savings and user delays cost savings are a by-product of utilizing superpave.

HOT MIX ASPHALT TRIUMPHS IN DURABILITY CHALLENGE



Superpave replaces deteriorated concrete at Landing Road.

Performance of the superpave has been documented by SHA's Automatic Road Analyzer (ARAN). In six years, the most distressed areas are only deformed by $\pm .3$ of one inch. Photographs of the the whitetopping removal are shown in this article as are photos of the placement of the superpave used to replace the failing concrete.

The Maryland Asphalt Association, The Asphalt Institute, The National Asphalt Paving Association and T.C. Simons, Inc. worked cooperatively to provide a superior product. Polymer modified liquid asphalt was used in conjunction with 19mm and 25mm surface and base asphalts. Performance has been excellent, costs were low and our industry has clearly demonstrated the ability to excel when we are permitted to design, build and control the quality of our own product.

Additional information is available by contacting The Maryland Asphalt Association at 410-761-2160.

CANAL PARKWAY



Major retaining walls are used to support existing roadways in downtown Cumberland.

Canal Parkway will be an integral part of SHA's secondary highway system and will relieve the constraints caused by the existing railroad underpass near Virginia Avenue while improving access to South Cumberland, West Virginia and the Cumberland Airport. The 1.78 mile long 2 lane roadway project will be a closed section highway.

The nineteen million dollar project was awarded to the IA Construction Corporation and is being managed by Mark Polizzi for the contractor and Tom Geatz for the Highway Administration. Construction began almost two years ago and requires intricate management skills and complex schedules to complete the four large retaining walls on schedule. Over 200,000 cubic yards of earth have already been placed and approximately 4,500 tons of Superpave have been utilized. Future construction includes 9,000 linear feet of curb and gutter and an additional 10,000 tons of Superpave.

CANAL PARKWAY

Base courses are 19mm Superpave with surface courses of 12.5mm materials. Traffic volumes are as high as 14,000 vehicles on Virginia Avenue today of which 10,000 vehicles per day may ultimately shift to Canal Parkway. Additionally, the National Park Service will build a hiker/biker trail along the C&O Canal, police and rescue access will be improved and the project is a key element of the planned redevelopment around the Cumberland Airport terminals and the C&D Canal. All construction should be complete by the summer of 2001.



Retaining walls on project storage sites, drainage and major earthwork can be seen in the mountains of Western Maryland



ASPHALT
100% RECYCLABLE

CANAL PARKWAY



19 MM Superpave Base course is in place on the West Virginia end of the project.



Canal Parkway connection to existing highways and West Virginia.

MD 24 @ MD 165 ROUNDABOUT



Priceless Industries detoured traffic to install traffic circle.



Raised concrete islands direct traffic, accommodate signing and are used as landscape planters.

MD 24 @ MD 165 ROUNDABOUT



Benhoff Paving equipment can be seen in the view looking east on MD 165.

Priceless Industries, Inc. was the successful bidder for the reconstruction of the existing intersection of Md. 24 and Md. 165 in Harford County. This safety project substituted a traffic circle in lieu of a conventional intersection in this rural location. SHA has successfully utilized this concept in several other locations, including the five legged intersection of York Road, Joppa Road and Dulaney Valley Road in the heart of Towson, Maryland. The only area this technique has not performed acceptably is at the intersection of Seminary Avenue and Charles Street in Baltimore County. SHA is continuing to refine this site and believes that it will ultimately perform acceptably.

Priceless Industries has managed the contract, provided all necessary maintenance of traffic, performed all of the necessary concrete work including curb & gutter, traffic islands and the circle. Melvin Benhoff Sons, Inc. did the paving which required significant wedge & leveling, base material and a 12.5mm Superpave surface course. Other features of the project include landscaping, new traffic signing and significant community involvement including direct contact with elected officials. SHA's Project Manager is Howard Laudenklos and Bruce Bergeron managed the construction for Priceless Industries, Inc.

2000 State Paving Awards



NEW CONSTRUCTION

Allegheny County
US Route 220
Belt Paving



RECONSTRUCTION

Washington County
US Route 40
C. Wm. Hetzer, Inc.

Four Excellence In Paving awards will be presented at the Maryland Asphalt Association Paving Conference at Martins West.



SECONDARY RESURFACING

Kent County
Md 298
David A Bramble, Inc.



PRIMARY RESURFACING

Wicomico County
US Route 50
IA Construction Co,

Falls Road



Existing physical obstructions such as confined work areas were overcome by Gray & Son in order to deliver a quality project.

Gray & Son, Inc. was the successful bidder on Md 25 in Baltimore County. This North-South route parallels I-83 and although rural in nature carries heavy traffic commuter volumes. The 6 mile project starts at Stringtown Road and continues northward to Mt. Carmel Road (Md 137). Approximately 8,700 tons of 12.5 millimeter superpave was placed utilizing a Barber Greene material transfer device, a Caterpillar paver utilizing electronic grade controls with a 40' Ski and 3 Ingersoll-Rand rollers, 2 DD 110's and a high frequency DD90.

Falls Road



Older Barber Greene material transfer device feed HMA to the hopper of a new rubber tired CAT paver. This process improves ride and eliminates segregation.



Large Ingersoll-Rand D-110 rollers are used to achieve density on this project.

Falls Road



One way traffic controlled by radio equipped flagman and cones was used to manage traffic in excess of 7000 vehicles per day.

Donegal, Inc. a Pittsburg Pennsylvania based firm carbide ground the existing surface of Md 25 after it had been patched by Gray & Son, Inc. 25 millimeter superpave utilized for the patching was produced at Maryland Paving's Aztec double barrel drum plant located in Texas Maryland. The project was originally bid utilizing a 12.5 mm level II superpave surface with PG 64-22 binder. Jeff Graf the quality engineer and Vice President of Maryland Paving, Inc. suggested a change to PG 70-22 binder which was accepted by SHA at the pre-paving conference.

Paving Superintendent Ed Adams and Field Quality Control Technician Angie Poe were able to achieve average densities of 94% and total ride variations of 4.3 inches for the twisty rural road that did not include a wedge and level course. Project Engineer Donnie Schaffer was extremely pleased with the quality of work and the spirit of cooperation exhibited by both Gray & Son, Inc. and Maryland Paving, Inc.

Falls Road

This project was used as a shadow project for the proposed new Maryland Specification and compared well with SHA's data. VMA and VTA samples taken behind the paver in lieu of at the production plant where the QC is performed did not compare as favorably. The project has been nominated for a Maryland Asphalt Association resurfacing award.



Several historic sites are within the limits of the project. Temporary pavement tape is installed prior to final striping.



MD 25 at Stringtown Road begins this project and is near the home office of Gray & Son Inc.

ARUNDEL MILLS MALL

On November 17th, 2000 Maryland's largest mall opened its doors for the first time. The one million two hundred thousand square foot retail center is located in the southwest quadrant of the Md. 100, Md. 713 interchange. The modified diamond interchange discharges commuters to the new mall, BWI International business complexes, Fort Meade and Hanover Maryland.

The mall contains major retailers such as Off Saks 5th Avenue, Burlington Coat Factory and many others. A full service food court and twenty-four movie theaters are included within the site. The now standard dual ring road system was adopted by the designers and developers of this complex. Four major points of access to Arundel Mills Boulevard and Md. 713 were constructed prior to opening the mall. Relocation of Ridge Road and Md. 713 were both required to accomplish this along with construction of Arundel Mills Boulevard, Mills Road and Arundel Circle.

Over 6,500 parking spaces were complete on opening day and another 6,000 spaces were pressed into service on November 18th. Initial paving included over 100,000 tons of hot mix asphalt in the parking areas and access roads.



Cross walks are clearly delineated by colored pavement.

ARUNDEL MILLS MALL



Track Paver places initial base course of HMA.



Conventional fine grading techniques were utilized to insure positive drainage.

A monumental effort was made by both IA Construction Co., Inc. and Francis O. Day Company, Inc. to complete this project on schedule. Additional paving will be needed to complete the recently opened 6,000 spaces of supplemental parking. Traffic signal timing modifications, highway markings changes, and police assistance were needed to keep traffic flowing on the Mid-November opening week-end.

ARUNDEL MILLS MALL

Ultimately our industry met another significant challenge to deliver an extremely large retail center on a tight time schedule while maintaining the flexibility to make last minute adjustments to insure satisfactory traffic patterns that meet consumers needs.

This is another example of the versatility and speed of construction availed by the use of hot mix asphalt.



Elaborate entrance to the movie theater complex permits protected discharge of movie patrons during inclement weather.

ASSOCIATE MEMBERS

Company	Location	Phone No.	Fax No.
Advanced Asphalt Technologies, L.P.	Sterling, VA	703-444-4200	703-444-4368
Aggregate Industries Mid-Atlantic	Greenbelt, MD	301-982-1400	301-513-0013
Alban Tractor Company, Inc.	Baltimore, MD	410-686-7777	410-686-3729
American Express Tax Business Service	Rockville, MD	301-718-3600	301-718-2985
American Paving Fabrics, Inc.	Hanover, MD	410-379-2209	410-796-0272
American Tennis Courts, Inc.	Baltimore, MD	410-477-4400	410-477-4339
Aon Risk Services	Baltimore, MD	410-547-2915	410-547-2914
The Arundel Corporation	Sparks, MD	410-329-5000	410-329-3498
Baltimore Gas & Electric Co.	Baltimore, MD	410-265-4615	410-265-4150
Castrol Heavy Duty Lubricants	Baltimore, MD	800-777-1466	410-682-9485
Caterpillar, Inc.	Camp Hill, MD	717-761-8930	717-761-9475
Cellulose Filler Factory Corp.	Chestertown, MD	800-832-4662	410-810-0793
Chaney Enterprises	Waldorf, MD	301-843-6101	301-843-0306
Chemstation Mid Atlantic	Baltimore, MD	410-737-0885	410-787-0890
Chevron USA, Inc.	Baltimore, MD	410-879-2212	410-838-2111
Citgo Asphalt Refining Co.	Blue Bell, PA (800) 443-4232	215-542-4054	410-757-1471
Constellation Energy Source			
Cummins Power Systems, Inc.	Bristol, PA	410-644-6500	410-644-0167
U.S. Filter Recovery Services	Alexandria, VA	703-370-7306	703-370-8067
Financial Benefit Services	Kensington, MD	301-949-1000	301-949-7038
Fleet Transit, Inc.	Baltimore, MD	410-355-7910	410-355-2372
GE Capital Corporation	Blue Bell, PA	215-654-5272	215-654-7866
George Associates, Inc.	Silver Spring, MD	301-589-9490	310-588-6605
Hi Tech Asphalt Solutions	Mechanicsville, VA	804-730-4871	804-730-7789
Humbolt Manufacturing Co.	Raleigh, NC	919-833-3190	919-833-5283
Ingersoll-Rand Equipment Sales	Elkridge, MD	410-796-3200	410-796-3350
International Petroleum Corp.	Wilmington, DE	302-421-9306	302-421-9099
Kapejo, Inc.	New Castle, DE	800-342-3717	800-342-3750
Koch Materials Company	York, PA	717-843-0975	717-845-6322
L&J Construction Service, Inc.	Baltimore, MD	410-243-3844	410-243-2309
Luck Stone Corporation	Leesburg, VA	703-777-3177	703-779-4774
Martin Marietta Aggregates	Richmond, VA	804-674-9517	804-675-9261
Maryland Materials, Inc.	North East, MD	410-287-8177	410-287-3654
Mercantile Bank	Baltimore, MD	410-237-5370	410-237-5703
E. Stewart Mitchell, Inc.	Baltimore, MD	410-354-0600	410-354-3029
Priceless Industries, Inc.	Baltimore, MD	410-285-1900	410-282-8347
Roadtec, Inc.	Chattanooga, TN	423-265-0600	423-265-7521
Seaboard Asphalt Products Co.	Baltimore, MD	410-355-0330	410-355-5864
L. B. Smith, Inc.	Jessup, MD	410-799-9010	410-799-9042
Suit-Kote Corporation	Glen Allen, VA	804-755-7567	804-755-7569
Tarmac America	Hanover, PA	717-637-7121	717-637-1234
Teniseal Corporation	Baltimore, MD	410-675-5660	410-276-3179
Troxler Electronics	Rockville, MD	301-924-3336	301-299-1899
UltraPave, Div. Textile Rubber & Chemical Company	Richmond, VA	804-743-9226	804-271-8572
Valero Mkt. & Supply Co.	Lafayette Hill, PA	888-207-3727	610-567-3291
Vulcan Materials Company	Manassas, VA	703-631-9690	703-368-2139
WCD Enterprises	Crownsville, MD	410-923-6162	410-923-6506
Wildwood Environmental Engineering Consultants, Inc.	Baltimore, MD	410-780-9663	410-780-7094



ASPHALT
100% RECYCLABLE

MARYLAND ASPHALT ASSOCIATION, INC. PRODUCERS

The Maryland Asphalt Assoc.
2408-G Pepper Mill Drive
Glen Burnie, MD 21061
ADDRESS CORRECTION
REQUESTED
Return Postage Guaranteed

Company	Location	Phone No.	Fax No.
David A. Bramble, Inc.	Chestertown, MD	410-778-3023	410-778-3427
Francis O. Day Company, Inc.	Rockville, MD	301-652-2400	301-424-4443
The Driggs Corporation	Capitol Heights, MD	301-499-1900	301-499-1913
Edgemoor Materials of Maryland, Inc.	North East, MD	410-287-5555	410-287-3481
P. Flanigan & Sons, Inc.	Baltimore, MD	410-467-5900	410-467-3127
Fort Meyer Construction Corp.	Washington, DC	202-636-9535	202-832-7678
IA Construction Corporation	Concordville, PA	610-459-3136	610-459-2086
Kary Asphalt, Inc.	Salisbury, MD	410-742-8484	410-742-0504
Richard E Kline, Inc.	Frederick, MD	301-662-8211	301-662-0041
Laurel Sand & Gravel, Inc.	Laurel, MD	301-953-7650	301-470-4075
Maryland Paving, Inc.	Aberdeen, MD	410-879-6970	410-879-5478
Miller Asphalt Products, Inc.	Finksburg, MD	410-239-8006	410-239-4204
Patuxent Asphalt, LLC	Crofton, MD	410-793-0181	410-793-0741
Prince George's Contractors, Inc.	Clinton, MD	301-297-8760	301-297-5230
Quarry Ridge Asphalt Co.	Cumberland, MD	301-777-8825	301-777-8274
Redland Genstar, Inc.	Cockeysville, MD	410-847-3300	410-847-3308
Reliable Contracting Company, Inc.	Millersville, MD	410-987-0313	410-987-8020
T.C. Simons, Inc.	Fallston, MD	410-879-3055	410-893-2695
Superior Paving Corp.	Gainesville, VA	703-631-0004	703-257-1725
Tilcon Delaware, Inc.	Dover, Delaware	800-468-8649	302-678-3379
Union Equipment, Inc.	Warfordsburg, PA	717-294-3297	717-294-6400

CONTRACTORS

Asphalt General	Beltsville, MD	301-937-3900	301-937-3893
Melvin Benhoff Sons, Inc.	Baltimore, MD	410-477-5650	410-477-5091
Blacktop, Inc.	Capital Heights, MD	301-808-4800	301-808-4804
Central Maintenance Corp.	Baltimore, MD	410-355-8800	410-355-4847
College Park Paving Co., Inc.	Beltsville, MD	301-937-1447	301-937-6971
Cossentino Contracting Co., Inc.	Baltimore, MD	410-574-5800	410-574-9542
Dixie Construction Co., Inc.	Churchville, MD	410-879-8055	410-836-2838
Gray & Son, Inc.	Butler, MD	410-771-4311	410-771-8125
Iacoboni Site Specialists	Baltimore, MD	410-682-2100	410-686-8559

CONSULTING ENGINEER

EBA Engineering, Inc.	Baltimore, MD	410-358-7171	410-358-7213
Wallace Montgomery & Associates	Towson, MD	410-494-9093	410-825-5714



MARYLAND ASPHALT ASSOCIATION, INC.
2408-G Pepper Mill Drive
Glen Burnie, Maryland 21061
410-761-2160 • Fax 410-761-0339
E-mail: office@mdasphalt.org

BULK RATE
U.S. Postage
PAID
Permit No. 66
Lutherville, MD