

MINUTES OF THE REGULAR MEETING OF THE
NEW YORK STATE BRIDGE AUTHORITY

HELD AT HEADQUARTERS, HIGHLAND, N.Y. ON
July 20, 2017

Business agenda documents/reports are mailed to the Board Members and General Counsel one week prior to the meeting. Board meetings are web cast and are available on-line.

IN ATTENDANCE:

BOARD MEMBERS:

Gerentine, Richard A., Chairman
Higgins, Roger P, Vice Chairman
Dressel, Roderick O., Commissioner
Jablonski, Diane, Commissioner
Stanton, J. Henry, Commissioner

OFFICERS:

Ruggiero, Joseph, Secretary
Bushek, Brian, Treasurer
Whitbeck, Carl G., Counsel

Chairman Gerentine called the meeting to order at 3:05 pm. Chairman Gerentine made a motion to recess to Attorney-Client Privilege session. The Board returned out of Attorney-Client Privilege session at 3:24 pm with Chairman Gerentine noting that no actions were taken in Attorney-Client Privilege session. Chairman Gerentine called for a motion to adopt the minutes of the June 15, 2017 Regular meeting. On a motion of Commissioner Dressel, seconded by Vice Chairman Higgins, the minutes of the June 15, 2017 Regular meetings were adopted unanimously.

ENGINEERING:1) NBB LED Streetlight Updates – BA-2017-RE-117-AC

Mr. Wright indicated that they advertised in the NYS Contract Reporter for cost proposals to furnish one hundred ninety (190) new CREE LED streetlight fixtures for the Newburgh-Beacon Bridge with nine (9) cost proposals received on June 29th. This update will be done using Central Hudson's Prescriptive program, which will provide the Authority a \$100.00 rebate per fixture on an anticipated \$400.00 purchase cost per fixture. Upon review of the cost proposals submitted, one bidder proposed an alternate, which was not allowed so that bid was excluded. The apparent low bidder, Ideal Electric of Washington, DC, an ESD-certified minority business, submitted a price of \$390.91/fixture for a total cost of \$74,272.90. Chairman Gerentine called for motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-079

Resolution Date: July 20, 2017

WHEREAS, the New York State Bridge Authority has determined it is in the public interest to update one hundred ninety (190) LED light fixtures at the Newburgh-Beacon Bridge as project BA-2017-RE-117-AC, "NBB LED Streetlight Updates" for the purposes of efficiency; and

WHEREAS, the Authority's Engineering and Maintenance department advertised for this opportunity in the New York State Contract Reporter with bids due June 29th and received nine (9) cost proposals; and

WHEREAS, the Authority's Engineering and Maintenance department has reviewed and approved Ideal Electric, a certified MBE, as the apparent low bidder; now therefore

BE IT RESOLVED that the Board of Commissioners of the New York State Bridge Authority approve issuing a purchase order to Ideal Electric, of Washington, DC for the furnishing of one hundred ninety (190) CREE BXSP-B-HT-3ME-B-57L-UH-SV (101w) Type III, 5700K 480v fixtures, silver in color with no photocell receptacle in an amount not to exceed \$74,272.90; and

BE IT FURTHER RESOLVED that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

2) KRB Solar Project Construction – BA-2017-RE-105-SU

This item was rescinded from the Agenda.

3) I-84 Over 9W Overpass Rehabilitation –BA-2016-RE-102-DE – Design Supplement

Mr. Wright reviewed the Design Supplement from Modjeski & Masters for the 9W Overpass which included the following scope of work changes:

- Expand the scope to include the \$2 million approach pavement project previously scheduled in the Capital Program for 2018.
- Replace the existing concrete median barrier with a new higher truck barrier from 9W to NBB as we have had a couple of truck accidents in this area in the recent past with one where the truck climbed up onto the existing concrete median barrier.
- During preliminary design it was found that the 9W NE widening performed in the 1980's was not on pile supports like the rest of the abutment and required extra design consideration and construction details.
- During the alternatives study it was determined that the vertical under clearance of the bridge had to be 16' in order to meet current specifications. The original Scope was to increase the clearance by 1'. The additional clearance required increasing the reconstruction of the piers and abutments as well as requiring additional construction needs at the North end of the bridge.
- The design changes involved the need for additional contract drawings approximately 3 times what was initially estimated by M&M.

The additional cost related to the changes in scope is \$368,047.70 for a total not-to-exceed cost of \$750,377.39 for design. The design cost is 6.3 - 5% of the estimated \$12 - 15 million construction cost, which is reasonable as design costs of this nature are in the 5 – 8% range. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-080

Resolution Date: July 20, 2017

WHEREAS, on November 19th, 2015 the Authority's Board of Commissioners authorized entering into a Supplemental Agreement with our General Consultant, Modjeski & Masters for the design of the "Redecking and Raising" of the I-84 Over 9W Overpass in the Town of Newburgh, known as BA-2016-RE-102-DE; and

WHEREAS, during the course of preliminary design the scope was expanded to replace the approach pavement to the Newburgh-Beacon Bridge to prepare for deck replacement and to also include a new truck median barrier from 9W to the NBB; and

WHEREAS, it was also discovered that the 9W NE widening was not on pile supports like the rest of the abutment and would require extra design; and

WHEREAS, Modjeski & Masters has provided a cost proposal for the additional design work, which has been reviewed and approved by the Engineering department; now therefore

BE IT RESOLVED that the Board of Commissioners of the New York State Bridge Authority authorize an additional \$368,047.70 for a total not-to-exceed cost of \$750,377.39 for design; and

BE IT FURTHER RESOLVED that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

4) RVWB Sidewalk and Railing Replacement Project BA-2014-RE-102-CM - Change Order #2

Mr. Wright reviewed the change order to the RVWB Sidewalk Replacement project. It will add railing on the concrete parapet, which separates the pedestrian walkway and the roadway traffic. This railing will enhance the safety of the pedestrian walkway and the Skywalk project. Piasecki Steel Construction Corp., the approved contractor performing the sidewalk and railing replacement, has provided their cost proposal of \$727,776.95. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-081

Resolution Date: July 20, 2017

WHEREAS, bids were solicited through the New York State Contract Reporter for the contract entitled Rip Van Winkle Bridge Sidewalk and Railing Replacement (BA2014-RE-102-CM) and two bids were received on November 5, 2015; the low bidder being the firm of Piasecki Steel Construction Corp.; and

WHEREAS, the Authority entered into a Memorandum of Agreement with Greene County for Phase 2 of their Hudson River Skywalk Project, the scenic pedestrian trail connecting Olana State Historic Site in the Town of Greenport and the Thomas Cole National Historic Site in the Village of Catskill; and

WHEREAS, the Authority has determined it is in the public interest to add railing to the concrete parapet, which separates the pedestrian walkway and the roadway traffic, which will enhance the safety of the pedestrian walkway and the Skywalk project; and

WHEREAS, Piasecki Steel Construction Corp.'s cost proposal to perform the work from this change order has been reviewed and approved by the Engineering department; now therefore

BE IT RESOLVED that the Board of Commissioners approve Piasecki's cost of \$727,776.95 to perform this work; and

BE IT FURTHER RESOLVED that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

5) Schupp's Contract Amount – BA-2012-OO-002-IT- System-Wide Fiber Maintenance Services

In 2015, the Authority extended the on-call system-wide fiber maintenance repair contract, BA-2012-OO-002-IT with Schupp's Line Construction, Inc., for two (2) additional years. Our experience with Schupp's has been a positive one, in which many fiber projects have been performed. The Authority has nearly exhausted funding last approved by the Board in October of 2016 and Mr. Wright recommended an additional \$25,000.00 to close out the contract through October 2017. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-082

Resolution Date: July 20, 2017

WHEREAS, on October 15, 2015 the Board of Commissioners of the New York State Bridge Authority authorized extending the contract for two (2) additional years with Schupp's Line Construction, Inc., for professional services in connection with on-call system-wide response to fiber optic cable damage (BA-2012-OO-002-IT); and

WHEREAS, the Authority maintains a positive working relationship with Schupp's and they have successfully performed numerous fiber projects throughout the life of the contract; and

WHEREAS, funding approved by the Board in October of 2016 has been nearly exhausted; now therefore

BE IT RESOLVED that the Board of Commissioners authorize awarding an additional \$25,000.00 to close out the contract through October 2017; and

BE IT FURTHER RESOLVED that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July 2017.

Joseph Ruggiero, Secretary

6) Second Quarter 2017 Traffic Accident Summary Report

Mr. Wright stated that he and the Manager of Maintenance reviewed all of the accidents in the second quarter to determine if something could be done to possibly prevent similar accidents from happening in the future. All of the accidents were believed to be from driver error: driving too fast for weather conditions, not paying attention and distracted driving. No action was required by the Board.

7) Office Furniture and Partition Replacement – Revision BA-2017-OO-003-AC

Mr. Wright indicated that in June, the Board approved Hudson Valley Office Furniture's bid of a total not-to-exceed amount of \$66,691.33 for this project to furnish and install new furniture and partitions and remove existing furniture and partitions. In order to utilize the NYS OGS contracts which are in place, purchase orders must be issued to each of Hudson Valley Office Furniture's three (3) suppliers, Global Industries, of Marlton, New Jersey in the amount of \$12,092.58, Affordable Interior Systems of Leominster, Massachusetts in the amount of \$21,045.35, Mobilier De Bureau Logiflex, Inc., of Sherbrooke Quebec, Canada in the amount of \$33,520.78. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-083

Resolution Date: July 20, 2017

WHEREAS, on June 15th, 2017, the New York State Bridge Authority authorized the purchase and installation of new furniture and partitions in the Administration and Operations Buildings at the Headquarters Campus as "Office Furniture and Partition Replacement," which was publicly advertised and bid as (BA-2017-OO-003-AC), to the apparent low bidder Hudson Valley Office Furniture at \$66,691.33; and

WHEREAS, to clarify the Hudson Valley Office Furniture bid acceptance; and

WHEREAS, in order to utilize NYS OGS contracts we require that separate purchase orders be issued to each of Hudson Valley Office Furniture's three (3) suppliers; now therefore

BE IT RESOLVED that the Board of Commissioners authorize purchase orders be issued to the following:

Global Industries, of Marlton, New Jersey in the amount of \$12,092.58;

Affordable Interior Systems of Leominster, Massachusetts in the amount of \$21,045.35;

Mobilier De Bureau Logiflex, Inc. of Sherbrooke, Quebec Canada in the amount of \$33,520.78; and

BE IT FURTHER RESOLVED that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July 2017.

Joseph Ruggiero, Secretary

8) Jobs in Progress

Mr. Wright advised the Board regarding the Engineering Jobs in Progress Report for the month. Mr. Wright reported that the sidewalk replacement at the Rip Van Winkle Bridge still continues. The Solar project continues waiting for agreement from Central Hudson. Steel repairs continue at the Newburgh-Beacon Bridge and are on schedule. Also mentioned were cable inspections at the Bear Mountain Bridge, which will begin this fall. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Stanton, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-084

Resolution Date: July 20, 2017

WHEREAS, the Board has reviewed the monthly Engineering Progress Report on Capital Project Status; and

BE IT RESOLVED that the Engineering Progress Report is accepted as an instrument documenting the Board's briefing of Capital Construction activities; and

BE IT FURTHER RESOLVED that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July 2017.

Joseph Ruggiero, Secretary

FINANCIAL:1) Investment Transaction Report

Mr. Bushek reviewed the Investment Report for the month noting eleven investments for the month. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-085

Resolution Date: July 20, 2017

WHEREAS, the investment control procedures for the New York State Bridge Authority provide that the Board shall review and approve the report of investment transactions completed since the meeting of the Board on June 15, 2017; now therefore and,

BE IT RESOLVED, that the Board of Commissioners of the New York State Bridge Authority the New York State Bridge Authority does hereby concur with and approve the investment report as filed with this body on this date for the purpose noted; and

BE IT FURTHER RESOLVED, that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

2) Insurance Renewals

The Authority insurance policies proposed here come up for renewal on August 1, 2017. The continuation of coverage for General Liability and Umbrella & Excess is under expired contracts and renewal is proposed based on claims activity. Normally the Authority issues an RFP for all insurance coverage. This year and two prior years for these two lines of coverage, Mr. Bushek recommended the Board approve the renewals without issuing an RFP. The recommendation is based on the ability to obtain a better premium being limited due to recent claims activity, specifically the two large claims that settled in 2017. It is recommended the Authority extend the existing contracts as these carriers close out recent Authority claims and they age from loss runs. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY BOARD RESOLUTION

Resolution No.: 017-086

Resolution Date: July 20, 2017

WHEREAS, the Board has reviewed the report relative to the August 1, 2017 purchase of insurance policies covering business automobile, commercial package, and police professional liability; now therefore

BE IT RESOLVED, BE IT RESOLVED that the award of the contracts for the purchase of these insurances is hereby approved at the following not to exceed costs:

\$190,376.44 for one year, subject to audit, extending Contract BA2011-OA002-IN General Liability with Lexington Insurance Co. through Risk Strategies, Inc.;

\$225,921.82 for one year, subject to audit, extending Contract BA2011-OA003-IN Umbrella and Excess Liability with Lexington Insurance Co. through Risk Strategies, Inc.;

\$81,085 for one year, subject to audit, for Contract BA2015-OA001-IN Business Automobile with American Alternative insurance Corp. (AAIC) through Salerno Brokerage;

\$30,207 for one year, subject to audit, for Contract BA2015-OA002-IN Commercial Package with the Harleysville Insurance Company, a division of Nationwide, through Associates of Glens Falls Inc.;

\$4,634 for one year, subject to audit, for Contract BA2015-OA003-IN Police Professional Liability with Allied World Specialty Insurance Co. through Risk Strategies, Inc.;

BE IT FURTHER RESOLVED, that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

3) Accident Review Committee Report – Second Quarter 2017

There were 86 accidents on Authority facilities in the second quarter of 2017, compared with 69 the previous year. During this period there were two accidents, none with injuries, involving Authority personnel as compared to four in the prior year. No action was required by the Board.

INFORMATION TECHNOLOGY:1) Command Center Switch Procurement

Mr. Herd indicated to the Board that the network switches (of which there are two) in the Command Center are reaching the end of their useful and supported life. With additional cameras being added at the bridges, the data requirements have been increasing. Mr. Herd recommended funds to replace the aging equipment. The new switches will allow systems to work more efficiently as well as provide power over our network cabling to reduce the complexity of equipment installs in the center. This cost is identified in the IT Departments Capital Improvement Program, project ID# SI-0023. Annese who is a WBE firm and on the NYS OGS Contract # PM20800 has provided the Authority with a price quote of \$16,045.10 for this switch. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Commissioner Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-087

Resolution Date: July 20, 2017

WHEREAS, the Board of Commissioners has reviewed the memorandum describing the need to replace current switches in the Command Center and,

WHEREAS, the Authority will participate in the NYS OGS Contract # PM20800 and a WBE firm, Annese, for the switch procurement; now therefore

BE IT RESOLVED, that the Board of Commissioners of the New York State Bridge Authority will award the procurement of a switch from Annese in an amount not-to-exceed \$16,045.10 and

BE IT FURTHER RESOLVED, that the Executive Director, or his designee, is hereby authorized and directed to take the necessary measures to implement this resolution.

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

REPORTS TO BOARD:

- 1) Monthly Activity Report of the Executive Director
The Monthly Activity Report was submitted by Executive Director Joseph Ruggiero noting sponsorships for “Hope Rocks Festival in Saugerties” and “Northern Dutchess NAACP Freedom Fund Banquet”.
- 2) June 2017 Traffic and Revenue Analysis
Mr. Ruggiero noted for the month of April traffic increased 0.73% and revenue decreased 0.70%. No action was required by the Board.
- 3) June 2017 E-ZPass Sales Analysis
Mr. Ruggiero indicated that year-to-date 2017 tag sales were 5,774, compared to 2,713 sold year-to-date 2016. No action was required by the Board.
- 4) Historic Bridges of the Hudson Valley (HBHV) Monthly Report for June 2017

Ms. Sullivan reviewed her HVHB report to the Board.

Expenditures for June 2017

Starting balance of HBHV bank account on 5/2/17: \$28,928.11

Payroll withdrawals: \$3279.45

Other expenditures:

Museum display materials: \$70.38

Director’s travel reimbursement \$93.99

Ending balance 7/3/17: \$25,484.29

Special notes:

1. Kathy Burke’s contract and the HBHV annual funding was renewed at the NYSBA Board’s June meeting.
2. Comprehensive insurance has been purchased to indemnify the Board members against liability and naming NYSBA additionally insured.

Tara Sullivan’s HBHV projects included:

1. Weekly meetings and reports with Kathy Burke
2. Project oversight and updates as follows

Skywalk

1. Phase three (connecting the bridge to Olana)
 - a. Consultant (Elan Planning and Design) has been hired by Columbia County to apply for a grant to design Phase three.--in the July round of CFA funding
2. Two events planned

- a. Arts Festival-in partnership with an annual event that Thomas Cole House sponsors, we will have an additional "festival site" at our bridge (the park area and overlook by our bridge buildings) to launch awareness of the Skywalk and its connections. Date is September 24th. **Kathy will have more details in our August report.
 - b. Skywalk ribbon cutting upon completion of the bump outs and historic interpretive signage installation. This would be an official and/or Governor's event orchestrated by Tom Scaglione.
3. Graphic artist working on a visual rendering pro bono for HBHV

Bear Mountain Bridge Museum

1. Master Teachers-second round planned for the fall
2. Security and clearance issues are being worked out for more ease of access for visitors
3. Bathroom being installed downstairs for access without going into secure areas of the bridge building
4. Meeting planned to discuss promotion and scheduling

Teaching the Hudson Valley

1. Theme this year: Building Bridges
2. HBHV Workshop is July 27th

Jackie Sparacino--is Interning again!

1. Traveling Museum is on the Road Again-she will be visiting valley libraries throughout the summer
2. She will be assisting Kathy in producing a brochure for HBHV and NYSBA

Promoting HBHV

1. Board member, Richie Vacek represented HBHV at the Newburgh Illuminated Event

MHB Museum

1. Core Committee set up and meeting every few weeks to actively move this project forward
 - a. Goals:
 - i. Vision statement by October
 - ii. Schematic plans by November

Interpretive signs

1. RVWB-will be delivered in September
2. MHB-design is underway for end of year completion
3. KRB and NBB will start in 2018

Fundraising

1. Master Teachers Program, projected total for 2017 \$6500

2. Columbia Memorial Hospital sponsorships
 - a. Interpretive signs proposal, projected total for 2017 \$15,000
 - b. Skywalk gates, projected total for 2018 TBD

Kathy Burke's additional projects include:

1. Extensive research for MHB interpretive signs underway including additional purchase of scans from the Smithsonian
2. Design started for HBHV and NYSBA brochures
3. Bear Mountain Bridge Museum-second round of Master Teachers and STEAM curriculum visit scheduled for September
4. Teaching the Hudson Valley
 - a. This year's theme: "Building Bridges"
 - b. Preparations underway for the summer workshop for July 26 and 27

NEW BUSINESS:1) Government Affairs Services

Alexander L. Betke, the Authority's attorney with the law firm of Jackson Lewis P.C. retained for the purpose of providing professional services involving legislation, transportation and homeland security issues, will be leaving Jackson Lewis P.C. to join the firm of Brown & Weinraub PLLC effective July 1, 2017. It is recommended that the Authority continues to retain Alexander L. Betke's new firm of Brown & Weinraub PLLC to provide these services. Chairman Gerentine called for a motion. On a motion of Vice Chairman Higgins, seconded by Vice Chairman Jablonski, the following resolution was adopted unanimously:

NEW YORK STATE BRIDGE AUTHORITY
BOARD RESOLUTION

Resolution No.: 017-088Resolution Date: July 20, 2017

WHEREAS, Alexander L. Betke has left the law firm of Jackson Lewis P.C. and has become a partner in the law firm of Brown & Weinraub, PLLC. effective July 1, 2017;

WHEREAS, Alexander L. Betke has performed well as the Authority's government affairs representative; and

WHEREAS, the authority wishes to continue to retain Alexander L. Betke and his new law firm as the government affairs representative for an additional year effective July 1, 2017 through June 30, 2018, upon the same terms and conditions as the retainer with Jackson Lewis P.C., at a not-to-exceed rate of \$3,000 per month, in addition to reasonable out-of-pocket expenses; now therefore

BE IT RESOLVED that the Executive Director is authorized and directed to execute a new retainer agreement with Brown & Weinraub PLLC. in the form annexed hereto as Exhibit "A".

IN WITNESS WHEREOF, this resolution has been duly adopted this 20th day of July, 2017.

Joseph Ruggiero, Secretary

This concluded the regular meeting. Chairman Gerentine asked for a motion to adjourn the meeting. On a motion of Vice Chairman Higgins, seconded by Commissioner Stanton and approved unanimously, the regular meeting adjourned at 4:00 P.M.

The next Regular Meeting of the Board of Commissioners meeting is scheduled for August 17th at 3:00 P.M. at Headquarters.