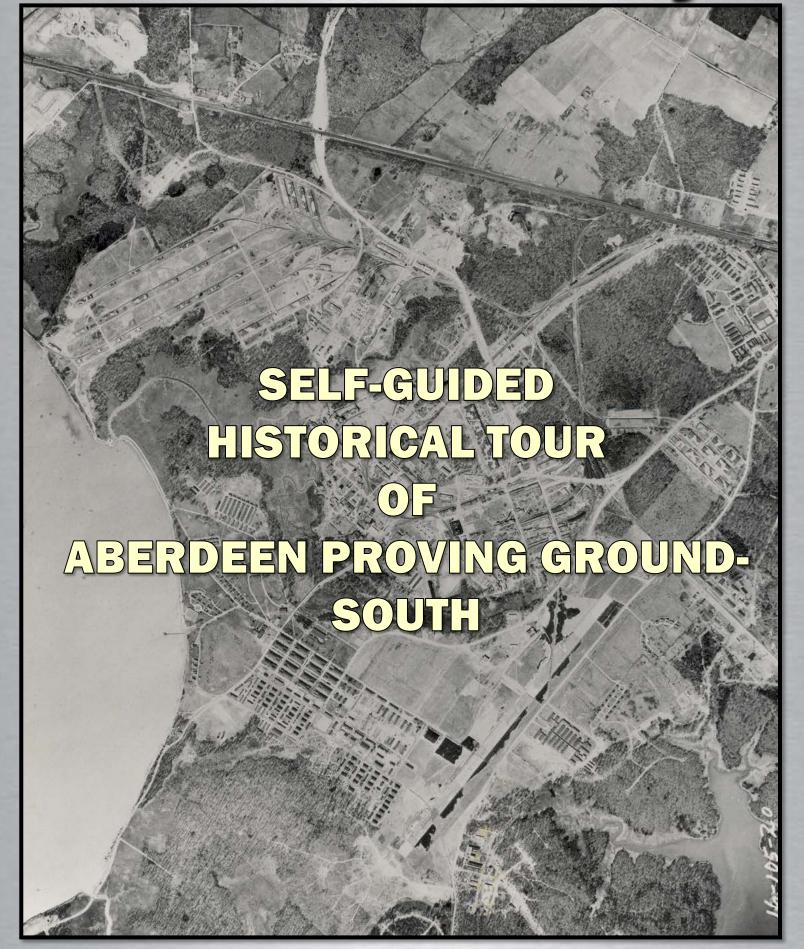
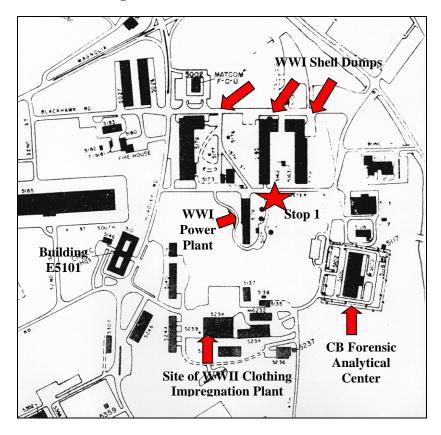
# 100th Anniversary



Disclaimer
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START IN FRONT OF BUILDING E5101; PROCEED NORTH ON HOADLEY ROAD AND TURN RIGHT ON WEBSTER ROAD; STOP ON FAR SIDE OF LARGE BUILDING ON RIGHT WITH TWO SMOKESTACKS.

STOP 1: WWI Chemical Shell Filling Plant

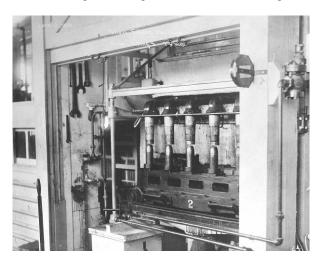




Captain Edwin Chance, a Philadelphia civil engineer, designed the first chemical shell filling plant built on this site. He copied the American bottling practices for the plant design. Actual construction began in November 1917 in what then was a wheat field. As completed, Shell Filling Plant No. 1 consisted of four wings in an "X" pattern with a central power house in the middle. One wing was designed to fill 155mm shells, one to fill 4.7-inch shells, and two to fill 75mm shells. The "X" design of the plant was to avoid destruction of the entire plant should an accident occur in one wing. The first part of the plant became operational in May 1918, less than six months from its start. Only 75mm shells were filled in the plant during the war.



**E5127 Central Power House**. The tall part of the building was the Boiler Room and the lower part the Engine Room. Note the reinforced concrete coalbunkers on the east side of the building that allowed coal cars to run up on top of the coalbunkers. The Power House was started 16 Nov 1917 and completed 1 Mar 1918, built during an extremely cold winter. The original four smokestacks were later replaced by just two. This building is thought to be the oldest government building in the Edgewood Area still standing.



#### **Shell Filling Process:**

- 1. Shells brought into the shell receiving room on narrow-gauge cars
- 2. The shells were placed nose down on slow-moving motor-driven conveyor
- 3. Shells passed through cooling room for thirty minutes and chilled to -5 degrees
- 4. Shells then placed upright on trucks in filling room
- 5. Shells filled similar to commercial bottles
- 6. Shells then closed

The plant had a capacity of 9,000 4.7-inch and 155mm shells per day and 15,000 75mm shells per day. Most of the 75mm shells were filled with a mixture of chloropicrin and tin tetrachloride during WWI. The four shell filling wings of the plant were torn down prior to WWII.

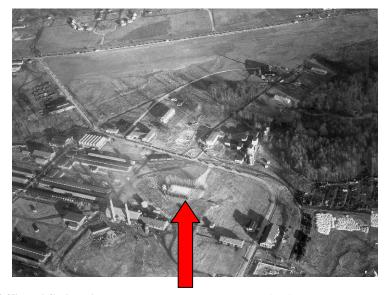




**Shell Dumps** (**L-shaped buildings on left**). Once filled, the shells were moved by narrow gauge railroad cars across the street to the three shell dumps where they were checked for leaks, painted, loaded in boxes, and prepared for shipment by railroad.



**E5158 WWII Explosion**. The shell dump on the far right was the site of an explosion in May 1945 that killed 12 female workers. The building at the time was being used for explosive work and the accident was not related to chemical weapons.



**Site of Old Officers' Swimming Pool**. Note the trees to the left of the power plant. This was the site of the first swimming pool on post. The reason for this particular site was that all requests for a swimming pool during the 1930s were rejected as too much of a luxury. The post then asked for an emergency emulsion pool adjacent to one of the filling plants. This request was approved and the swimming pool was placed in the middle of the shell filling plants where it remained for many years until replaced by one closer to officer housing.

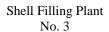
#### PROCEED TO NEXT INTERSECTION AND MAKE RIGHT ON FLEMING ROAD

#### **EN ROUTE:**

**E5103 Video Teleconferencing Center and Audiovisual Support Building**. It was built in 1965 and named after Colonel Frederick Gerhard. Gerhard was a former Commandant of the Chemical School and Commanding Officer of the Army Chemical Center.

*Architectural note*: You can normally tell the construction date of a building by its construction material. Most of the red brick buildings were constructed in the 1960s. The large blocks were generally WWI buildings, although blocks were also used for WWII warehouses. Most other WWII buildings had metal siding, although the WWI Shell Dumps also had metal siding.

**E5106 WWII Gauge Factory**. This WWII building was used to calibrate gauges. Originally it had metal siding, but the siding was recently replaced.





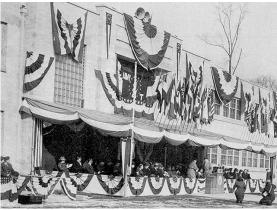
**E5100 CB Forensic Analytical Center**. This building was built on the site of Shell Filling Plant No. 3, designed for 75mm mustard agent shell filling. This plant was not completed and was converted to a white phosphorus filling plant during WWII. The small building to the left was the Compressor House for the WWI plant. The current building was completed in 1969 at a cost of \$2.3 million and at the time was the only quality assurance chemical testing laboratory. The plant was named after Colonel Harry C. Gilbert, a former commander of the Quality Assurance Technical Agency and Comptroller of the Chemical Corps. From 1994-1999, it was known as the Treaty Laboratory and supported the Chemical Weapons Convention signed by the United States.

**Site of WWII Clothing Impregnation Plant.** The grass field west of E5232 was the site of a WWII plant to treat protective clothing to make it resistant to chemical agents. It was designed to handle about 9,000 suits per day. The military term used for this process was initially called impregnation. When women began working in the plant, the Army changed the name to chemical processing.

#### PROCEED TO STOP SIGN ON HOADLEY ROAD

#### **EN ROUTE:**





**E5101 WWII Arsenal Operations Building**. This building was rumored to be located on the site of a former chemical weapons dump abandoned in the 1930s after accidental explosions. The building was completed in 1943 as an arsenal operations office building and then later became the post headquarters starting in 1956. It is named after Major General William Creasy, former Chief Chemical Officer (1954-58) who died in 1987.





**E5141 WWI Grenade Filling Plant**. This WWI building was designed as a stannic chloride hand grenade filling plant. It was started May 1918 and completed June 1918. During WWII, it was used as a dispensary.



**Site of First Chemical Laboratory**. The grass field on the far left corner was the site of the first chemical laboratory in the Edgewood Area. It was a two-story building built in 1918 at a cost of \$103,533.45. Building E5183 (later on the tour) is almost an exact copy of the building. The building was removed in the 1960s.

#### TURN LEFT ON HOADLEY ROAD

#### **EN ROUTE:**

**E5240 Emergency Operations Center**. On the left is the Emergency Operations Center dedicated in 1995 for the Edgewood Area.

#### Site of Shell Filling Plant No. 2.

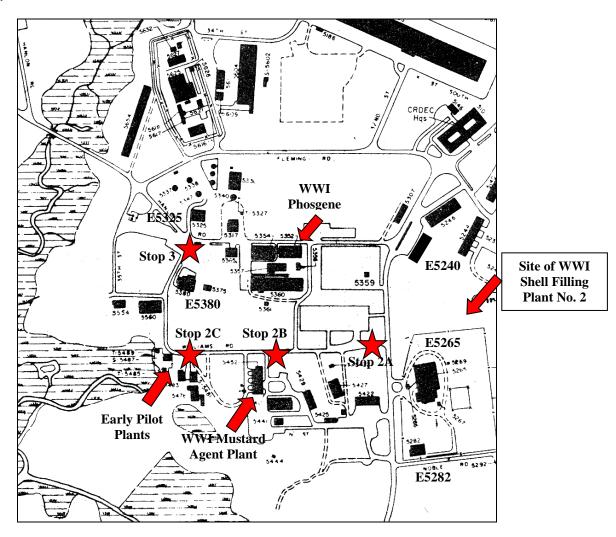


The grass field behind E5240 was the site of Shell Filling Plant No. 2, designed to fill 155mm, 6-inch, and 8-inch shells. It was similar in design to Shell Filling Plant No. 1, except it had a much smaller central power house. During WWI, the plant was used to fill 75mm shells with mustard agent. The plant was removed before WWII and only portions of the foundation remain.



**Site of Large Machine Shop**. The first large concrete pad, now a parking lot, on the right of Hoadley Road was the site of Edgewood Arsenal's Machine Shop.

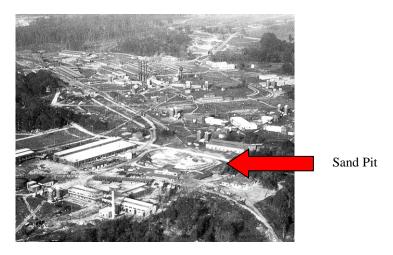
## TURN RIGHT ON WILLIAMS ROAD AND STOP SHORTLY AFTER INTERSECTION NEAR PINK POLES STOP 2A:





**E5265 WWI 8" and 9.2" Shell Filling Building for Mustard Gas**. This plant was started in November 1918, but stopped one month later. It was intended to fill the largest chemical projectiles with mustard agent. It was not finished before the end of WWI and the empty building was used for storage and as a garage. Before WWII, it was converted to an incendiary bomb filling plant designed to fill a million small incendiary bombs per month. The incendiary bombs for Colonel Jimmy Doolittle's raid on Tokyo in 1942 were produced in this building. In March 1943, it was converted to a smoke/obscurants equipment facility.

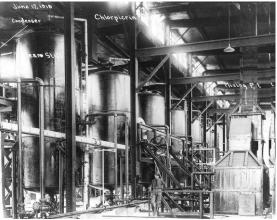
**Site of E5282 WWII Incendiary Bomb Warehouse.** This small storage building was built during WWII as a warehouse for incendiary bomb material. After the war, it was used for smoke work. In the 1960s, it was used as a laboratory for working with incapacitants and in the 1970s for bomb demilitarization work.



**Former Sand Pit.** The concrete wall on the left is the site of a large WWI sand pit that was used as a dump over the years. The Corps of Engineers capped the site to protect the ground water.

Hoadley Road is the dividing line between the shell filling plants area on the east side and the chemical agent production plants area on the west side. Located in this area were three of the four main chemical plants built at Edgewood Arsenal during WWI. The four agents were selected based upon their status at the time of designing the plant. By the time the plants were constructed, some of the agents were no longer considered important.





**Site of WWI Chlorpicrin (PS - Puking Stuff) Plant.** The parking lot on your right was the site of one of the largest WWI chemical agent production buildings. Chloropicrin was a WWI chemical agent that was important when the plant was started, but declined in importance as other chemical agents replaced it during the war and protective masks got better. After WWI, the building was used for other purposes and torn down in the 1960s.

## PROCEED ALONG WILLIAMS ROAD TO YELLOW FIRE HYDRANT ON LEFT SIDE JUST BEFORE STEAM PIPES CROSS THE ROAD

STOP 2B: WWI Mustard Agent Production Facility





Site of WWI and WWII Mustard Agent (HS - Hot Stuff) Plant. Mustard agent was first used by the Germans during WWI because it caused burns on the skin and troops needed more than just a protective mask. It earned the name "King of the Battlefield" due to its effectiveness. The name "Mustard Gas" came from the smell of the German agent. Our mustard agent actually smelled more like garlic. Mustard agent is not a gas. It is actually a liquid similar to motor oil. The plant was started in May 1918 and completed by August 1918, although one wing was never completed and was used as storage until it burned down shortly after the end of WWI. Two wings were used for other purposes after WWI. The fourth wing remained a mustard agent plant until just after WWII. It was designed to produce 24 tons of mustard agent per day. It was removed in the 1960s.

#### PROCEED TO THE NEXT FIRE HYDRANT ON THE RIGHT

**STOP 2C: Special Chemical Agent Production Plants** 

Lewisite Pilot Plant

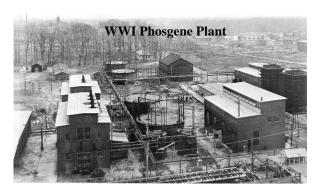


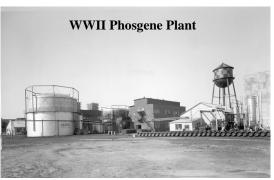
**Site of Early Pilot Plants**. These small buildings were used as "pilot plants." Pilot plants are small scale agent production facilities used to develop the process of making the agent. Once the process was developed, the actual full-scale plant was built elsewhere and the pilot plant was reused for another process. Prior to WWII, these buildings were used for the production of lewisite and adamsite, both discovered by US scientists during WWI. Lewisite was similar to mustard agent, but was never produced in as large amounts. Adamsite was used in riot control weapons up to the Vietnam War. After WWII, when the US discovered the German nerve agents, the plants were used to study the production process of nerve agents. The buildings were removed in 2007.

#### PROCEED AROUND CORNER AND STOP AT YIELD SIGN

#### **STOP 3: Phosgene Production Plant**

**Site of E5380 WWII Chloracetophenone (CN - Cry Now) Manufacturing Plant.** CN was a tear gas produced in large amounts after WWI. The building behind you was constructed in 1941 and was designed to produce one ton of CN per day. In 1959, the Army decided to produce a superior riot control agent called CS. The plant was converted to an emergency CS production facility until a large scale plant was built in Arkansas. CS was used extensively in Vietnam.





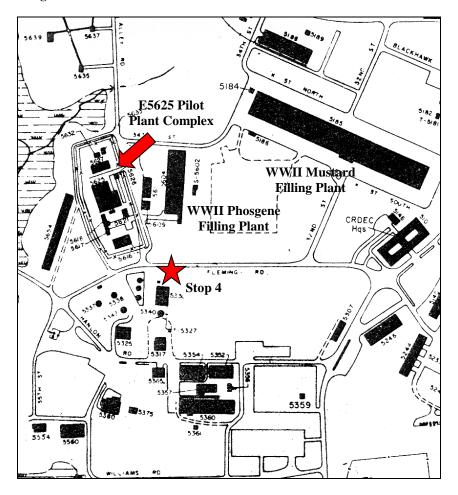
**Site of WWI and WWII Phosgene (CG - Choky-Gas) Plant.** After mustard agent, phosgene was the second most important chemical agent during WWI. Producing phosgene required several buildings that covered much of the area on your right. The buildings were: an oxygen plant, a carbon dioxide plant, a carbon monoxide plant, liquid chlorine, and mixing buildings. Today, only the mixing buildings remain standing. Originally, the

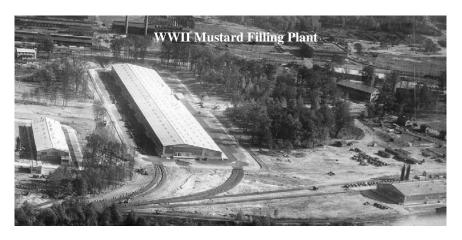
Army planned three phosgene "units" of four mixer buildings, however, only one mixer unit was completed. Phosgene remained important during WWII and a new production plant was built on the site. It has since been removed.

**Site of E5325 Liquid Chlorine Plant**. The Liquid Chlorine Plant provided liquid chlorine to the WWI phosgene production plant. It was later used as a toxic smoke assembly plant in 1941 and in 1943-45 to fill bombs with napalm and grenades with thickened gasoline.

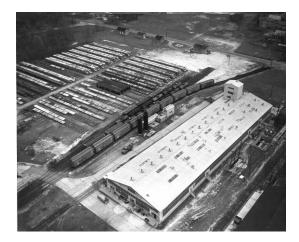
TURN RIGHT AT YIELD SIGN ONTO HANLON ROAD AND PROCEED TO HOADLEY ROAD. TURN LEFT ON HOADLEY ROAD AND THEN TURN LEFT ON FLEMING ROAD (NEXT INTERSECTION). STOP NEAR E5330 (LARGE CONCRETE BUILDING ON LEFT).

**STOP 4: WWII Filling Plants** 





**E5185 WWII Mustard Filling Plant**. Built in 1942, this plant was used to fill mustard bombs and shells. The building was divided into three sections: (1) the east end was for storing incoming empty shells; (2) the middle or filling section contained two shell filling lines; and (3) the west end was for storage of mustard filled shells and bombs. The plant had a capacity of 400,000 munitions per month at 3 shifts per day. After the war, it was converted to a training center for Ordnance School students. Currently, it is used for shipping and receiving.



**E5604 WWII Phosgene Filling Plant**. Built in 1941, it was designed to fill shells and bombs with phosgene. It was also used to fill various other size shells with smoke and tear gas. After the war, it was converted to a protective equipment plant and currently is a general purpose laboratory. Adjacent to the building was a storage area for ton containers of chlorine during WWI and the 1950s-1960s.



**Site of E5625 Pilot Plant**. Although there were many pilot plants on the post, this building complex was often referred to as "*The* Pilot Plant." It was constructed in 1941 as a clothing impregnation production plant and was a replica of a DuPont Plant located at Niagara Falls, NY. It had a production capacity of 5 tons of impregnite per day. In 1943, the plant shut down and was rehabilitated as a pilot plant for new agent process production. Much of the early work on nerve agents and incapacitating agents was accomplished in this plant during the 1950s and 1960s. During the 1970s, the plant supported the new binary weapons. In 1986, the plant was shut down after a spill incident that eventually led to the conviction of three Edgewood Area employees for various environmental violations. The complex was removed in 1999.

**Site of E5330 WWII Boiler House/Heating Plant**. The WWII heating plant was built in 1942. It was removed in 2014.

#### PROCEED ACROSS CANAL CREEK BRIDGE AND CONTINUE RIGHT ON STOKES ROAD

#### **EN ROUTE:**

Pilot Plant





**Site of WWI Chlorine Plant**. These grass fields were the site of a WWI chlorine plant. By WWII, all the buildings but one were gone. The remaining building had been converted to a gas mask factory and became the Army's main factory for producing protective masks until after WWII. It could produce about 4,000 masks per 8 hour shift.

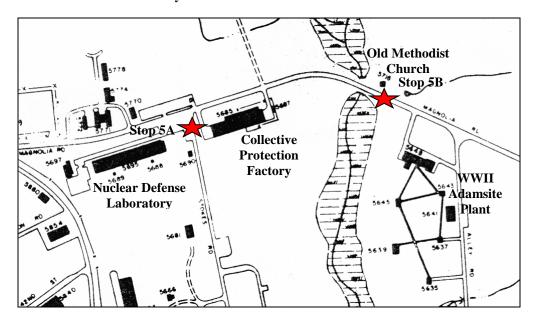


**WWII Ordnance Assembly Plant**. Off to the left is the WWII Ordnance Assembly Plant that assembled weapons during the war. Since WWII, the buildings have been used for many different projects.

**Site of Horse Mask Factory**. The Army's horse gas mask factory was built in 1941. It had a capacity of 25,000 masks per month. However, since there was little demand for horse gas masks during WWII, the building was used for other protection work throughout the war.

#### CONTINUE ON STOKES ROAD TO STOP SIGN

#### **STOP 5A: Nuclear Defense Laboratory**





**Site of E5695 Nuclear Defense Laboratory (NDL)**. Shortly after WWII, the Chemical Corps received portions of the Army's radiological warfare mission to include protection, detection, and non-nuclear weapons. Much of the work was accomplished in this building constructed in 1941 as a warehouse, but converted to a laboratory after the war. NDL moved to the Aberdeen Area in the 1970s and the laboratory was used for quality assurance work until it was abandoned in the 1980s and later destroyed.

**E5697** Hot Cell (concrete structure at far end of E5695). This structure was the Radioactive Hot Cell for NDL. It was built in 1964.

**E5685** Collection Protective Factory. This facility on the right was built in 1941 and was used to manufacture components and assemble collective protectors. During WWII, these were large, heavy units intended for forts and buildings. The plant had a capacity of 250 of these units per month. After WWII, it was used for smoke producing equipment and later for training.

#### TURN RIGHT ON MAGNOLIA ROAD AND PROCEED TO OLD METHODIST CHURCH ON LEFT

STOP 5B: Old Church



**E5715 Old Methodist Church**. Gunpowder Neck played a significant role in the early history of Methodism in Maryland. A church was started here in 1772 by order of Bishop Francis Asbury, one of the first Methodist bishops in America. The first structure was probably of wood and quite simple. The current structure was probably built c1820s. The mainline Methodist church abandoned the structure in 1886. In 1890, it was sold to the Negro Methodist Episcopal Church. In 1917, it was sold to the U.S. government for \$225 and used by the Army for explosive storage due to its brick construction. The Army saved it from destruction in 1972 and began an extensive restoration program that was completed in 1983.

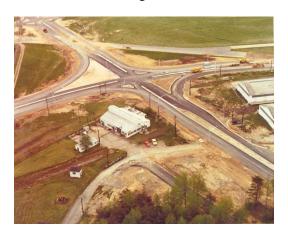
#### PROCEED ON MAGNOLIA ROAD TO MONUMENT ON RIGHT

#### **EN ROUTE:**



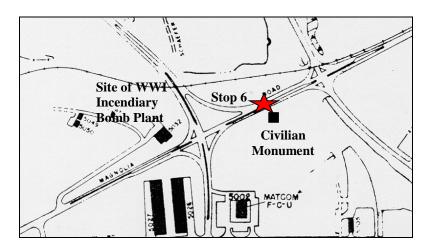
**Site of E5648 WWII Adamsite (DM - Dirty Mixture) Plant.** The Adamsite plant was constructed in 1941 and was designed to produce 25 tons of DM per month, but was not operated during the war. It was later used as a munitions assembly plant and for other purposes after 1950.

**E5188 WWII Miscellaneous Filling Plant**. This WWII filling plant was built in 1941 to fill munitions with smoke and tear gases. It had a capacity of 25,000 munitions per month. In 1944, the east end of the building was used as a pilot plant for plasticized white phosphorus (PWP), named from the plastic characteristics of rubber gel which coats the WP particles and make them burn longer.



**Site of WWI Incendiary Drop Bomb Filling Building.** Although chemical bombs were not used during WWI, incendiary bombs were. This plant was completed in 1918 on the corner of Hoadley and Magnolia Roads and was designed to fill 2,000 incendiary bombs per day. After the war, it was used for various purposes over the years.

#### STOP 6:



**Civilian Monument.** This monument was dedicated in 1946 to Edgewood Arsenal civilians who joined the military in WWII and were killed in action. It states: "In Honored memory of those civilian employees of Edgewood Arsenal who made the supreme sacrifice for their country." At least 20 former civilian employees were killed in action during the war. It was presented by the Employee Welfare Association and made from Port Deposit Granite. It used to be located opposite the old headquarters building near the Edgewood Gate, but was moved to its current site in 1987. When it was moved, it was rededicated to include 17 workers killed accidentally during WWII.

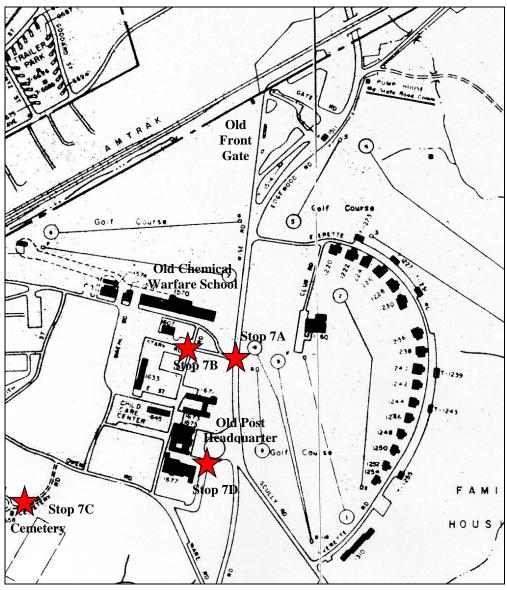
### TURN LEFT ON WISE ROAD, PROCEED TO STARK ROAD, STOP IN LEFT TURN LANE FOR MOMENT

#### **STOP 7A: Old Front Gate**









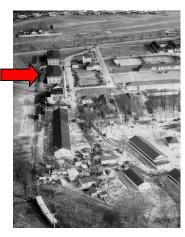
**Site of WWI Front Gate**. Directly in front is the original WWI front gate and main road. During WWI, guards armed with rifles and bayonets guarded the gates. In one case, a guard shot and killed a passenger in a car after the car passed through the gate. Although the passengers in the car claimed the guard fired intentionally, it was declared an accident. The underpass was added in the 1930s.

Officer's Quarters (across Golf Course). The houses across the golf course were built during the 1920s.

#### TURN LEFT ONTO STARK ROAD AND STOP AFTER A SHORT DISTANCE

#### **STOP 7B: The Chemical School Complex**

Chemical School Buildings





**E1570** Chemical School. During WWI, the chemical school was located at Camp Kendrick, near Lakehurst, NJ. In 1920, the school moved to Edgewood Arsenal in temporary quarters near the WWI Officers' Quarters. In 1924, two permanent school buildings were completed adjacent to each other. During WWII, the buildings were connected by a central section. In 1951, the Chemical School outgrew its facilities and moved to Fort McClellan, AL. The old school building has been used by various organizations since then for administrative offices.

**Exton Golf Course**. During WWI, the section of the golf course across Wise Road was the site of barracks for the black soldiers. The golf course was started in 1924 and then expanded over the years. The section behind the Chemical School buildings was used for training during WWII. The golf course was named after Colonel Charles W. Exton, a former commander, in 1994. The new Golf Club House was named after Pedro (Pete) Rivera, a former civilian employee at SBCCOM.

## TURN LEFT AND PROCEED TO END OF ROAD, TURN RIGHT AND THEN ENTER ROAD TO CEMETERY

#### STOP 7C: Edgewood Area Cemetery

**Cemetery**. This is the official post cemetery, although there are several private cemeteries around the peninsula. This cemetery was established in 1918 and inactivated in 1968. There are about 130 military and family members buried here.

PROCEED OUT OF CEMETERY, TURN RIGHT AND THEN TURN LEFT INTO PARKING LOT AND PROCEED TO FRONT OF E1675

#### STOP 7D: Old Post Headquarters/WWI Hospital Complex





**E1675 Old Post Headquarters**. This building was constructed in 1918 as the Administrative Building for the post hospital. The surrounding buildings were the wards and quarters for the doctors and nurses. Following WWI, it became the post headquarters and remained as such until the 1950s when most of the headquarters personnel moved to E5101. Since then, it has been used by various organizations. The surrounding buildings remained a hospital until WWII when a new complex was built near the airfield. The building to the left was used as the Officers Club during the 1920s and later. The building that used to stand on the right was used as a child care facility for many years until replaced by a new building.

#### PROCEED SOUTH ON WISE ROAD

#### **EN ROUTE:**

**E1901 Child Care Facility and E1902 Youth Center**. On the left facing Scully Road are the Child Care Center (1995) and the Youth Center (1991).

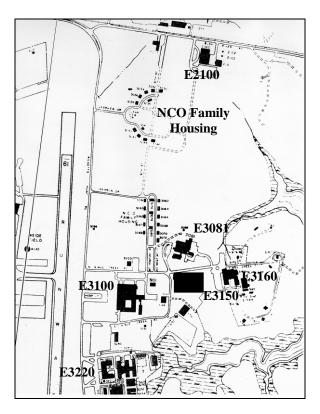


**Chemical Warfare Depot**. The remaining warehouses on the left were the WWI chemical depot for Edgewood Arsenal. Because the storage of dangerous chemicals so close to military housing was considered unsafe, the chemical agents were moved to the Bush River Area in 1931. Several of the buildings were converted to office buildings.

**E2800 JPEO NBC Defense Building**. This facility was started in 2009 and completed in 2011. In 2013 it was named after Dr. Billy Richardson.

## TURN LEFT ON MAGNOLIA ROAD WHICH BECOMES RICKETTS POINT ROAD AND PROCEED SOUTH ALONGSIDE AIRFIELD

#### **EN ROUTE:**



**E2100 Wesley C. Cox Laboratory Building**. Visible down Bush River Road, this red brick laboratory was built in 1967.



**Weide Airfield.** The earliest airfield here was a grass field used in the 1920s. At the beginning of WWII, the runway was paved. It was named after Major Edward J. Weide in 1955. Weide was a former commander of the 6572nd Chemical Test Squadron located at Edgewood Arsenal. The oldest hanger on the right, recently renovated, was built in the 1930's. The hanger on the left was built in the 1960s adjacent to a WWII hanger. The helicopters belong to the Maryland Army National Guard Aviation Brigade of the 29th Infantry Division (Light).

**Site of NCO Family Housing**. A series of small brick houses were built in 1933-34 for noncommissioned officers (NCOs) and their families. These were all removed by 2009.

**E2900 MRICD Building**. This facility was completed in 2015 for researching medical countermeasures to chemical warfare.

The following two facilities are visible down Kings Creek Road:

**E3081 Research Animal Isolation Facility**. The building on the left of Kings Creek Road is the Animal Care Facility, constructed in 1979.

**E3150** McNamara Life Sciences Building. The building on the right of Kings Creek Road is the new Life Sciences Building named after Bernard McNamara, former chief of the Toxicology Division. It was completed in 1997.

**E3160 Bio-Physics Laboratory**. This building, located behind the McNamara Building on Kings Creek Road, was constructed in 1945 for wound assessment research. After President Kennedy was assassinated, the facility was used to conduct tests on the weapon used by Lee Harvey Oswald.



**E3100 John R. Wood Building**. The John R. Wood Building was completed in 1968 on the site of the WWII hospital complex (above picture). The building was named after Wood who was a former Chief of the Chemical Corps Medical Division and later director of Walter Reed Army Institute. The building replaced the WWII Medical Research Laboratory (E3220) for research on medical countermeasures for chemical warfare agents.



**E3220 WWII Medical Research Laboratory**. Built in 1944, much of the medical research on protecting soldiers against chemical warfare was conducted in this complex. During the 1950s and 1960s, most of the human volunteer program was conducted here which included exposing volunteers to potential chemical warfare agents to

learn responses. Experimental work to include testing various incapacitants such as marijuana and LSD was also conducted here.

**E3300** Amos A. Fries Building. The Amos Fries Building was the first chemical laboratory building designed from the ground up as a chemical laboratory. It was completed in 1965 and was designed to handle advanced studies of chemical compounds, radioactive materials, and toxins. It cost \$3 million and was named after Major General Amos A. Fries, commander of the AEF Gas Service during WWI, Edgewood Arsenal (1919-20), and was Chief of the Chemical Warfare Service (1920-29). The stacks on the roof are part of the air filtration system.

#### STOP 8A: WWII Technical Command Headquarters



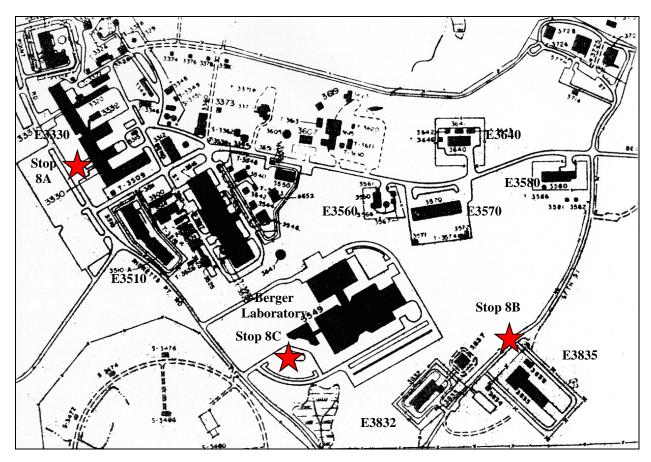
**E3330 WWII Laboratory and Offices**. During WWII, all chemical research activities were headquartered in this building. It was built in 1942 at a cost of \$1.5 million and included both offices and laboratories. Some of the early development work on nerve agents was accomplished in laboratories in this building. In 1954, the left wing or annex (E3331) was added.

**E3401 Sample Receipt Facility**. This building was funded by the FBI, DHS, and ECBC to receive samples of potential chemical weapons found around the world.

**E3400** Advanced Chemistry Laboratory. This laboratory was completed in 2005 and named after Edward Poziomek, a director of the Research Directorate until 1987.

TURN LEFT ON BEACH POINT ROAD

**EN ROUTE:** 





**E3510 Laboratory**. This building was constructed in 1953 as a protective equipment facility (see above picture). In 1983, the south wing was added and the entire building converted to a laboratory.

**E3516 Experimental Fabrication Building.** Built in 1943, this building has supported research and development by fabricating models and experimental designs in metal and woodworking workshops. Several wind tunnels are located in the back of the building.

**E3566 Hazardous Materials Testing Facility**. This circular test chamber was built in 1955 to safely test dangerous chemical warfare agents.



**E3570 Assembly Plant.** This facility was constructed in 1953 for assembling fire bomb clusters during the Korean War. During the 1960s it was used to assemble chemical warheads for rockets and then during the 1980s for decontamination projects.



**Site of E3640 Old Pilot Plant**. The facility was constructed in 1952 as a process laboratory or pilot plant. It is often called the "Old Pilot Plant." It was abandoned as a laboratory in 1978, but problems with storage of items here resulted in the conviction of one civilian supervisor in the 1980s for breaking environmental laws. It was removed in 2007.



**E3580 Pyrotechnic Loading Facility**. The building was constructed in the early 1950s to handle loading explosive materials into experimental weapons. The blast walls are visible on the roof line.

 $TURN\ RIGHT\ AFTER\ DEER\ CROSSING\ SIGN\ AND\ 25\ MPH\ SIGN\ AND\ PROCEED\ SOUTH\ WATCHING\ FOR\ DEER$ 

#### **STOP 8B: Chemical Facilities**

**E3835 Process Engineering Facility (PEF)**. The Process Engineering Facility or PEF was completed in 1991 for biotechnology research. It has a modular design for process studies and special projects. It also has a special ventilation system and waste holding system to handle the work being conducted in the facility.

**E3832** Chemical Transfer Facility. The Chemical Transfer Facility became operational in 1983 at a cost of \$1.2 million. It was designed to transfer chemical agents from larger containers to laboratory quantity containers. It has extensive air handling systems and liquid waste neutralization systems to meet all environmental and safety regulations.

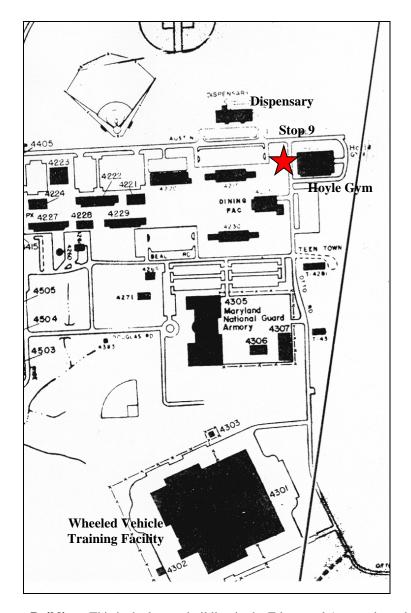
#### FOLLOW ROAD TO INTERSECTION AND TURN RIGHT ON RICKETTS POINT ROAD

#### **STOP 8C: Berger Laboratory**

**E3549 Berger Lab**. The Berger Chemical Defense Laboratory was completed in 1989 at a cost of \$23 million. It has 135,000 square feet of offices, laboratories, and work chambers. It was named after Dr. Bernard Berger who spent many years in chemical weapon development and retired as chief of the Munitions Division in 1980 and died in 1981.

#### TURN LEFT ON OTTO ROAD AND PROCEED AROUND AIRFIELD

#### **EN ROUTE:**



**E4301 Downer Building**. This is the largest building in the Edgewood Area and was built in 1990 by the Ordnance School for wheeled vehicle training. It was named after LTC Harry M. Downer, an Ordnance officer during the Korean War. After the Ordnance School moved to Fort Lee, VA, it was assigned to ECBC.

**E4305 National Guard Armory**. This facility supports multiple National Guard organizations. In 2005, it is named after MG Warren D. Hodges, a former commander of APG.

**Site of WWII Prisoner of War Camp** (behind National Guard Building). During WWII, Edgewood Arsenal had a German prisoner of war camp that held about 700 German soldiers. The POWs were used to provide support services to the post.

#### STOP 9: Hoyle Riding Hall



**Hoyle Gymnasium**. Following the end of WWI, the Chemical Warfare Service was reduced in size. Likewise, in 1922, a portion of Edgewood Arsenal was assigned to the Field Artillery for a training post designated Fort Hoyle. The 6th Field Artillery Regiment was the unit assigned to Fort Hoyle. Since field artillery units were horse drawn, Fort Hoyle constructed the necessary facilities for training and keeping horses. South of Hoyle Gym was a race track. Across the road where the red brick barracks are now were stables. Hoyle Gym was completed in 1938 as a horse riding hall used to instruct artillery officers in the management of horses. In 1940, with WWII pending, the Chemical Warfare Service asked for and received the land back to Edgewood Arsenal. In 1941, the riding hall was converted to a gym and recreation hall. In 1962, it was named after Brigadier General Eli Hoyle, a former commander of the 6th Field Artillery. Adjacent to the gym is the 6th Field Artillery monument put up by the veterans of the regiment to honor those who served in the unit.

#### TURN LEFT ON AUSTIN ROAD

#### **EN ROUTE:**

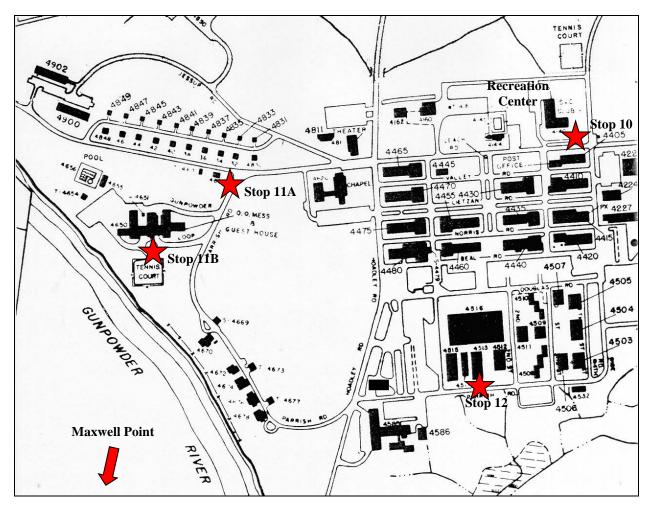
**E4110 Dispensary**. The Dispensary was built in 1963 and provides limited emergency response. A larger medical facility is located in the Aberdeen Area.



**Troop Barracks Area.** During WWII, this entire area was covered with wooden troop barracks and horse stables. The horse stables were replaced in the 1960s with the red brick troop barracks. The 1980s barracks are the ones with the green roofs. Some of the 1960s barracks have been converted to offices.

#### STOP IN FRONT OF THE RECREATION CENTER

**STOP 10: Historical WWI Troop Barracks** 



**E4140 Stark Recreation Center**. The Recreation Center was completed in 1960 as an enlisted men's club. It was named after Lieutenant Colonel Edgar D. Stark, commander of the 3rd Chemical Mortar Battalion, who was killed in action in 1944. Prior to WWII, he was the Chief, Safety and Inspection Division, Edgewood Arsenal.

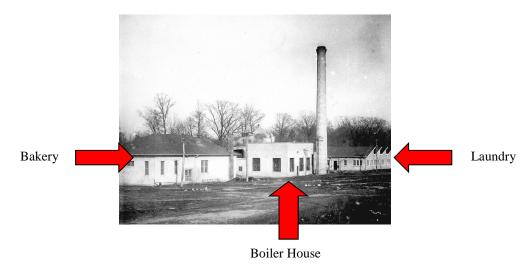


**E4405 Fort Hoyle Headquarters.** The building on the left is a WWI troop barrack that became the headquarters of Fort Hoyle during the 1920s-1930s. It was later converted to offices.





**WWI Troop Barracks**. Originally there were 16 permanent WWI barracks completed in 1918. Most had kitchens and showers and porches around three sides. Three were torn down over the years and all have been converted into office buildings.



**E4160 WWI Boiler House**. The second building from the corner was the WWI boiler house that had a coal trestle built of reinforced concrete which ran through the building so that two cars of coal could run in at one time and dump their loads into the fuel bins below. A Laundry building adjacent to the Boiler House burned down during WWII.

**E4162 WWI Bakery**. The building on the corner was the WWI bakery. Back in the 1920s, the Army used chemical warfare agents as pesticides in the building.

#### PROCEED THROUGH INTERSECTION ON AUSTIN ROAD

#### **EN ROUTE:**



**E4810 Conference Center**. The Conference Center on the right was the original Post Theater, completed in 1934. In 1985, the facility was renovated into a conference center. The Seminar Building was added in 1984.



**Chapel**. Some form of a religious institution has stood on this site since WWI. During WW1, religious services were held at the Y.M.C.A. on this site. A small chapel was then built on the site in the early 1920s. In 1941, a larger second chapel was built next to the older chapel. The new chapel was called the Main Chapel and the older one the East Chapel. After WWII, the East Chapel was removed. The current red brick chapel was completed in 1963 on the site of the East Chapel. The Old WWII Main Chapel was later removed.

#### TURN LEFT ON PARISH ROAD AND STOP IMMEDIATELY

#### STOP 11A: Quiet Lodge





**E4630 Quiet Lodge**. The oldest structure on post is the Presbury House, otherwise commonly referred to as Quiet Lodge. James Presbury was the High Sheriff of Baltimore County in the early 1700s (before Harford County existed). He built the brick house about 1720. One story was that the bricks for the house came from England as ballast from ships. Other accounts say the bricks were made locally. The original design was a 20'X40' two-story brick house with fireplaces on each end. The house played a significant role in the early history of Methodism. It was visited by Francis Asbury, first Methodist bishop, several times between 1772 and 1777. The house was sold to Etienne Raphel in 1799. He died in 1811 and was initially buried in a brick vault under what is now Weide Field. His body was later moved to St. Stephens Church in Bradshaw, MD. The Raphel family sold the house to General George Cadwalader in 1854. After the U.S. Army takeover in 1917, it was used as officers' quarters. A wooden 18'X20' two-story wing (kitchen and bedroom) was later added. The house has been renovated various times over the years and in 1974, it was declared a National Historic Site.

Officer's Quarters. These houses were built during the 1920s for those officers assigned to Fort Hoyle.

#### TURN INTO GUNPOWDER CLUB DRIVE AND STOP IN FRONT OF GUNPOWDER CLUB

#### STOP 11B: WWI Officers' Club

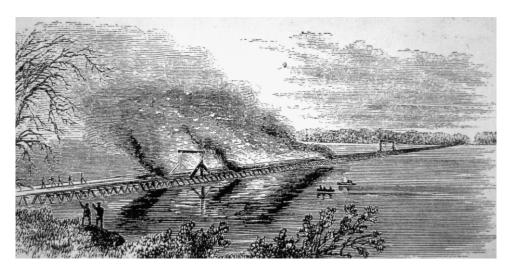


**E4650** Gunpowder Club. This WWI Officers' Club was completed in three months in 1918. At the time, it was fully equipped with a modern kitchen, showers, bathrooms, a fireplace in the main reception room, with reading and writing rooms. It was renovated several times over the years and continued to serve lunches until it was converted to a conference center.

#### PROCEED AROUND BUILDING AND STOP WITH VIEW OF WATER



**Maxwell Point**. Maxwell Point is visible to the south. It was the site of the George Cadwalader mansion until its removal in the 1920s. The peninsula was used for mortar testing during WWII and is therefore a restricted access area.



**Railroad Bridge**. Visible to the north is the AMTRAK railroad bridge across the Gunpowder River. This bridge is in approximately the same location of a railroad bridge owned by the Philadelphia, Wilmington, and Baltimore Railroad in the 1860s. In April 1861, just after the Baltimore Riot, a group from Baltimore came up and burned both the Bush River and Gunpowder Bridges to prevent more Union troops from entering the city. The bridge was again burned in 1864 by Confederate raider Harry Gilmor who also fought a small skirmish with Union bridge guards on the east bank (APG side) and raided some of Cadwalader's horses on the peninsula.

CONTINUE AROUND BUILDING, TURN LEFT AND RETRACE ROUTE TO HOADLEY ROAD. TURN RIGHT ON HOADLEY ROAD AND PROCEED TO PARRISH ROAD. TURN LEFT AND STOP SHORT DISTANCE DOWN ROAD

#### **EN ROUTE:**

**E4588 Treaty Office.** The United States ratified the Chemical Weapons Convention in 1997 which required extensive monitoring of chemical research facilities. This building held a portion of the personnel working on the treaty.



**E4585** Chemical Corps Board Building. This building was constructed during World War II for the Chemical Corps Board. This organization checked the quality of the equipment being developed for chemical defense.

#### STOP 12: Chemical Demilitarization Facility

**E4516** Chemical Demilitarization Training Facility. The large building visible on the left was the Chemical Demilitarization Training Facility intended to teach workers how to safely operate the demilitarization facilities to be constructed at the chemical storage sites. The facility did not use live agents and only trained future workers on the procedures of running a plant. Upon completion of its mission, the facility was converted to offices.

PROCEED TO CORNER AND FOLLOW ROAD (WHICH BECOMES WISE ROAD) TO AUSTIN ROAD. TURN LEFT AND THEN RIGHT ONTO HOADLEY ROAD AND RETURN TO E5101.

This completes the tour.