FORM CWM #61 PAGE 1 OF 4

NATIONAL ORGANIZATION

SONS OF UNION VETERANS OF THE CIVIL WAR

CIVIL WAR MEMORIAL ASSESSMENT FORM

PLEASE:

- Type or print, using a ball-point pen, when filling out this form. Legibility is critical.
- Do not guess at the information. An answer of, "Unknown," is more helpful.
- Include a photograph of each viewable side and label it with name & direction of view.

	- Thank You.	
Type of Memorial		
Monument with Sculpture	Monument with Cannon	
Monument without Sculpture	X Historical Marker Plaque	!
Affiliation		
G.A.R. (Post Name & No) _ M.O.L.L.U.\$	S.
W.R.C. (Corps Name & No		rder
) (Please describe b	elow)
DUVCW (Tent Name & No		,
	es - Division of State Parks Civil War Marker Program	
Original Dedication Date 2010	Please consult any/all newspaper archives	for a
	e first dedication ceremony and/or other facts on the memo	
Please submit a copy of your findings with full identific	ation of the paper & date of publication. Thank you.	
Location		
The Memorial is <i>currently</i> located at:		
Street/Pead address or site leastion St L	ouis Sq Park Broadway & Courtois. W90°15'33" N38°32'4	6"
City/Village St Louis City Township	County St Louis City	
City/village rownship _	County	
The front of the Memorial faces: No	orth South _X East West	
Name Department of Natural Resources	vner (of private cemetery that Memorial is located in Dept./Div. Division of State Parks	in)
Street Address PO Box 176		
City Jefferson City	State MO Zip Code 65102	
Contact Person	Telephone (573) 751-8566	
If the Memorial has been moved, please n/a	list former location(s)	
		_
Physical Details		
Material of Monument or base under a Sculpture or C	cannon =Stone Concrete _X Metal Undetern	nined
If known, name specific material (color of gra	anite, marble, etc.)	

SUVCW CIVIL WAR MEMORIAL ASSESSMENT FORM (CWM #61)	PAGE 2 OF 4
Material of the Sculpture = StoneConcrete Metal If known, name specific material (color of granite, marble, etc.) If the Sculpture is of metal, is it solid cast or "hollow?"	
Material of Plaque or Historical Marker / Tablet = Photo embedded pla	astic
Material of Cannon =BronzeIron - Consult known Ordna Markings on muzzle = Markings on Left Trunion Right Trunion Is inert ammunition a part of the Memorial? If so, describe	
Approximate Dimensions (indicate unit of measure) - taken from Monument or Base: Height Width Depth 3 ft Sculpture: Height Width Depth	or Diameter
For Memorials with multiple Sculptures, please record this informsheet of paper for each statue and attach to this form. Please deach statue and any weapons/implements involved (in case yeaparated from this form). Thank you!	escribe the "pose" of
Markings/Inscriptions (on stone-work / metal-work of monume Maker or Fabricator mark / name? If so, give name & location four	
The "Dedication Text" is formed: cut into material raised u	up from material face
Record the text (indicate any separation if on different sides) Please use addit See Attached	ional sheet if necessary.
Environmental Setting	
(The general vicinity and immediate locale surrounding a memorial can play a major role in Type of Location	its overall condition.)
Cemetery Park "Town Square" Post Office Municipal Building State Capitol Courthouse College Campus Traffic Circle Library	Plaza/Courtyard _ School Other: ^{Streetside}

General Vicinity Rural (low population, open land)	_ Suburban (residential, r	near city)	
Town	X Urban / Metropolitan		
Immediate Locale (check as many as may apply Industrial Commercial Street/Roadside within 20 feet Tree Composed Protected from the elements (canopy or enclosed Protected from the public (fence or other based Any other significant environmental factor	overed (overhanging branches) sure, indoors) arrier)		
Condition Information			
Structural Condition (check as many as may The following section applies to Monuments <i>with</i> Sculptur	• ,	ure -	
including the base for Monuments with <i>Cannon</i> . Instable by a number of factors. Indicators may be obvious of base.			
	Sculpture	Base	
If hollow, is the internal support unstable/exposed? (look for signs of exterior rust)			
Any evidence of structural instability? (look for cracked joints, missing mortar or caulking or plant	growth)		
Any broken or missing parts? (look for elements (i.e., sword, musket, hands, arms, etc due to vandalism, fluctuating weather conditions, etc.)	missing		
Any cracks, splits, breaks or holes? (also look for signs of uneven stress & weakness in the ma	terial)		
Surface Appearance (check as many as may	,	_	
Black crusting	Sculpture	Base	
White crusting			
Etched, pitted, or otherwise corroded (on meta	<i>-</i> -		
Metallic staining (run-off from copper, iron, etc. Organic growth (moss, algae, lichen or vines))		
Chalky or powdery stone			
Granular eroding of stone			
Spalling of stone (surface splitting off)	- -		
Droppings (bird, animal, insect remains)			
Other (e.g., spray paint graffiti) - Please describ	e		
Does water collect in recessed areas of the Memori	al? Yes No l	Jnable to tell	

Surface Coating
Does there appear to be a coating? $\underline{\times}$ Yes $\underline{\times}$ No $\underline{}$ Unable to determine If known, identify type of coating.
Gilded Painted Varnished Waxed _X Unable to determine Is the coating in good condition? Yes NoX Unable to determine
Is the coating in good condition? Yes NoX Unable to determine
Basic Surface Condition Assessment (check one)
In your opinion, what is the general appearance or condition of the Memorial? X Well maintained Would benefit from treatment In urgent need of treatment Unable to determine Overall Description
Briefly describe the Memorial (affiliation / overall condition & any concern not already touched on).

Supplemental Background Information In addition to your on-site survey, any additional information you can provide on the described Memorial will be welcomed. Please label each account with its source (author, title, publisher, date, pages). Topics include any reference to the points listed on this questionnaire, plus any previous conservation treatments - or efforts to raise money for treatment. Thank you.
Inspector Identification US Grant Camp 68 MO SUVCW
Date of On-site Survey 12/5/2010 Your Name Walter E Busch
Please send this completed form to:
r lease send this completed form to.
Bruce B. Butgereit, PDC, Chair
Thank you for your help, and attention to detail.

National Civil War Memorials Committee

SONS OF UNION VETERANS OF THE CIVIL WAR

EADS' IRONCLADS

A State Divided: The Civil War In Missouri Missouri Department of Natural Resources

[US Flag Shield on Right; Confederate Flag Shield on Left]

Carondelet and the Eads Ironclads

On Oct. 12, 1861, the ironclad gunboat USS Carondelet slid down the ways at James Eads' Union Iron Works in the village of Carondelet, south of St. Louis. It was the first ironclad warship built by the United States, launched more than three months before the famed USS Monitor. During the course of the Civil War, Eads' Union Iron Works would furnish the Union with more ironclad warships than any other boatyard in the West.

"The Key to the Whole Situation"

When war broke out in April 1861, the Union found its vital trade route down the Mississippi River blocked by Confederate forts and batteries. President Abraham Lincoln was aware of the river's importance. Reopening it would split the South and provide a highway of invasion into the Confederate heartland. "The Mississippi River," he declared, "is the backbone of the Rebellion; it is the key to the whole situation." To deal with the formidable Confederate forts, Lincoln sought advice from one of the most knowledgeable rivermen on the Mississippi – James Buchanan Eads of St. Louis.

[Inset Picture of Ironclad with insert text: Four ironclad gunboats, designed by Samuel Pook, were built by James Eads at Union Iron Works in Carondelet, including the USS Carondelet shown here. (United States Military History Institute)]

Eads, a 41-year-old, self-taught engineer, knew European navies were experimenting with ironclad warships. He advised building a fleet of armored gunboats to attack enemy forts at close range and overwhelm them with point-blank fire. Lincoln was enthusiastic, and soon government engineer Samuel Pook was developing a design for a river ironclad. In August 1861 Eads won a construction contract for seven gunboats with the low bid of \$89,600 per boat. He agreed to complete all seven in a little over two months, and to forfeit \$250 per boat for each day late.

Eads Builds Pook's Turtles

Eads faced a daunting task. The blockade of the Mississippi had forced Northern mills, machine shops and foundries to close, and their workers to disperse. Eads began telegraphing contracts for iron, lumber, boat stores and machinery to suppliers throughout the region. Businesses soon reopened and new ones were established; 13

sawmills in seven states began preparing timber for the gunboats, three of which were to be built at Mound City, Ill., and four at Carondelet.

[Insert Sidebars: The Pook Ironclads

The first seven ironclads were designed by engineer Samuel Pook. They looked like nothing else in the Navy; each was flat-bottomed, 175 feet long by 51 feet wide and drew no more than 6 feet of water. Atop the deck stood a low deck house, or casemate, with sloping sides. To protect the engines, the casemate was armored in front and amidships with 2 1/2 inches of iron over 26 inches of oak. Thirteen heavy guns were mounted in the casemate – three firing forward, four to each side and two aft. Each boat was operated by a crew of about 160 officers and men. One gunboat sailor described the vessels as "of the mud-turtle school of architecture, with just a dash of pollywog treatment." But, he added grimly, "they struck terror into every guilty soul."]

[Insert Picture of Pook's Ironclads with text: Three of Pook's Ironclads, the St. Louis, Cincinnati and Mound City, are shown anchored off the Union naval base at Cairo, Ill. (Courtesy Naval Historical Center)]

[Insert Map with text: Eads' Carondelet boatyard is shown as the Gunboat Yard between the Iron Mountain Rail Road and the Mississippi River on this map. The Steamboat Ways was the rail system used for moving the boats in and out of the water. (Courtesy National Archives)]

In Carondelet, Eads leased the construction yards of the Carondelet Marine Railway, a facility that featured a rail system for moving boats in and out of the water. He renamed it the Union Iron Works, and within two weeks employed 500 men. Work went on around the clock, but problems slowed construction: suitable iron was difficult to find; threats of sabotage caused security to be increased; workmen threatened to strike; and weaknesses in Pook's design required last-minute alterations. Eads' main problem, however, was financial. He had exhausted his personal fortune to begin the project and the government failed to pay when stipulated. Eads borrowed from banks and friends to complete the contract, but did not receive full payment until the following year.

In spite of setbacks, the first gunboat, USS Carondelet, was launched at Carondelet on Oct. 12, 1861; only two days past deadline. It was soon followed by the St. Louis, Louisville and Pittsburgh, then by the boats built at Mound City – the Cincinnati, Mound City and Cairo. Additional months were spent assembling crews and arming the odd-looking crafts, which were dubbed "Pook's Turtles" by the newspapers.

The seven ironclads first saw action in the spring of 1862 when the Union captured Forts Henry and Donelson, New Madrid and Island No. 10. Fort Pillow fell on June 4, and two days later the Confederate river fleet was destroyed in a naval battle off Memphis. Vicksburg, the final obstacle, surrendered in July 1863, leaving the Mississippi open to its mouth. The Eads ironclads contributed a great deal to the success of those campaigns.

"Give Me the Ironclads Built by Mr. Eads"

Despite his difficulty receiving payment for the Pook gunboats, Eads continued to win contracts and build ironclads. His Carondelet boatyard became the most complete facility of its kind in the country. Its 20 acres boasted a gas plant, engine shops, sawmills and machinery for shaping armor plate. Seventy forges were at work; blacksmiths flung still-glowing rivets to boys who caught them in cans and rushed them to be hammered home. Shelters protected the workmen from sun and rain and torches lighted their work at night.

Eads paid well, giving cash bonuses for overtime, but by 1864 war-weariness and inflation led to labor unrest throughout the North. In St. Louis, machinists, blacksmiths, tailors and shoemakers struck for higher wages and to end the hiring of less-experienced workers for lower pay. The government intervened, and in April placed the workers of St. Louis under martial law. Picketing was banned and unions were outlawed; infantry stood ready to enforce the order. The strikers had no choice but to return to their jobs.

[Insert Sidebar: James Buchanan Eads

James Eads was among the most important engineers and inventors of the 19th century. Born May 23, 1820, in Lawrenceburg, Ind., he came to St. Louis with his family in 1833. Although impoverished, he taught himself mathematics and engineering. He learned about the Mississippi River while clerking on a steamboat. At age 22, he invented a diving bell and entered the marine salvage business.

By 1857, he had earned a fortune, but too-rapid decompression while diving crippled his health, forcing him into early retirement. He recovered, and helped the Union win the Civil War by designing and building innovative ironclad warships. His greatest triumphs were the completion in 1874 of the Eads Bridge in St. Louis – the first bridge to span the Mississippi – and a jetty system to protect the Mississippi's mouth from silting over. He died on March 8, 1887 after a life of brilliant accomplishment.]

Work continued at the Carondelet yards, which produced 10 ironclads during the course of the war – the four Pook gunboats; the Essex (converted from a ferry boat);

the Neosho and Osage (shallow-draft, single-turret river monitors); and the Winnebago, Kickapoo and Milwaukee (large, propeller-driven monitors with twin turrets). In addition, the yards built 38 mortar boats (armored rafts mounting a 13-inch mortar) and converted numerous steamboats into "tinclads" (lightly armored patrol vessels). Other boatyards in St. Louis also produced ironclads and tinclads. In all, the Union deployed 22 ironclad warships on Western waters – more than half built at Carondelet or St. Louis.

Eads worked constantly to improve his vessels. For his monitors he designed a steam-powered turret, superior to the manually powered turret of the original Monitor. It allowed a faster rate of fire and required fewer crew. The Navy, however, insisted on the manual turret, but allowed Eads to equip two of his twin-turret monitors with one of his own turrets. He was to replace them at his own expense if they proved unacceptable. On Aug. 5, 1864, two of Eads' twin-turret monitors fought their way into Mobile Bay with the fleet of Adm. David Farragut and proved the superiority of the Eads turret. "Only give me the ironclads built by Mr. Eads," Farragut proclaimed, "and I will find out how far Providence is with us."

Eads fell ill early in 1864. His doctors believed he was beyond recovery, but he improved and took his family overseas for a rest. Not one to be idle, Eads, on behalf of the government, visited the navies of Europe, where he was hailed for his innovative work in naval engineering.

Eads Boatyard Today

James Eads' Carondelet boatyard furnished the Union Navy with the heart of its river fleet. The original ways were removed in 1933 and nothing now remains of the facility. The site, however, is still used for marine transportation, as it currently functions as a loading and off loading site for barge traffic.

[Insert Picture of Ironclads Under Construction with text: This photo of Eads' Union Iron Works was shown in Harper's Weekly on Oct. 5, 1861.]







