



1171

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Abo Elementary School and Fallout Shelter

other names/site number Abo Elementary School

2. Location

street & number 1802 Center Avenue

not for publication

city or town Artesia

vicinity

state New Mexico code NM county Eddy code 015 zip code 88210

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Ryne Sebastian 8-13-99
Signature of certifying official Date

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

entered in the National Register
 See continuation sheet

Signature of Keeper Date of Action

Patrick Andrews 9/29/99

determined eligible for the National Register
 See continuation sheet.

determined not eligible for the National Register

removed from the National Register

other (explain): _____

Abo Elementary School and Fallout Shelter
Name of Property

Eddy County, New Mexico
County and State:

5. Classification

Ownership of Property)

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
4	1	buildings
0	0	sites
0	0	structures
0	0	objects
4	1	Total

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing.)

Number of contributing resources previously listed in the National Register

6. Function or Use

Historic Functions

(Enter categories from instructions)

Education/School
Other: Fallout Shelter

Current Functions

(Enter categories from instructions)

Education/Storage

7. Description

Architectural Classification

(Enter categories from instructions)

Modernistic

Materials

(Enter categories from instructions)

foundation Concrete
walls Concrete
roof Asphalt/Concrete
other Below Ground Walls and Roof: Concrete

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Located in the small southeastern New Mexico town of Artesia, the Abo Elementary School was built in 1962 to function as both a school and an underground fallout shelter for the community during the height of the Cold-War after plans by Roswell New Mexico architect, Frank M. Standhardt. With the exception of three, flat-roofed concrete block buildings (linked by a canopy to form a roughly shaped L in plan), the building is located completely underground and was engineered to withstand the effects of a thermonuclear blast. This was achieved by excavating below grade and constructing steel reinforced cast concrete walls and posts to support a 21-inch thick concrete slab roof. Heavy steel doors, designed to hold up under a nuclear explosion, were placed inside the three above ground entrances.

Rectangular in plan, 18 of the school's 28 rooms originally functioned as class space while the remaining rooms were devoted to storage, rest rooms, and housing mechanical equipment for the building. The below-ground floor space of the school/fallout shelter is 33,835 square feet. Three sets of stairs (each located in one of the three above ground stuccoed concrete block entrance buildings) provide access to the school/fallout shelter. The two buildings at the south end of the complex provided access for students, while the most northerly building functioned as a teachers entrance and was built with a (still extant) decontamination shower for use in the event of a nuclear strike. A freight elevator located in an ell extending from the entrance building at southeast corner of the property was designed to bring food and supplies into the school/fallout shelter.

The school grounds encompass 10 acres in area and are set in a middle-class suburban neighborhood of Artesia. The concrete roof of the school/fallout shelter above-ground functions as a playground. Other than the three small buildings linked by a canopy, there is little to indicate the property contains a large public school facility and fallout shelter. Original steel lettering on the south façade of the concrete block building closest to Centre Avenue reads, *Abo Elementary School and Fallout Shelter*. A flagpole is fixed to this façade and rises above the roof of the building. The above ground buildings are devoid of windows or any ornamentation and are most distinguished by the metal canopies (supported by steel posts) that link them.

The rectangular plan of the subterranean building includes two symmetrically placed corridors (running lengthwise) off of which are located classrooms. Stairs from the surface are located at the north and south ends of the west corridor. A large area originally intended for use as a multi-use room is located at the south end of the building and is accessed by both main corridors. Food and bed storage areas as well as rooms for mechanical equipment and a morgue were located at the southeast corner of the building off of the multi-use room. Spaces intended for use as administrative offices, toilets and classrooms occupy the central part of the building. A room designated for use as *tracking aids* is located at the northeast corner of the school. Original acoustical tile covers the ceilings and pegboard and blackboards survive in all of the classrooms. In addition to traditional school features like classrooms and a cafeteria, Abo Elementary School featured an emergency entrance equipped with a shower to remove fallout particles, rations and supplies for 2,080 for two weeks, an air-conditioning system that could filter out radioactivity, a generator to supply emergency power, and a morgue. The extant 150-kilowatt generator, powered by a 319 horsepower diesel engine, drew its fuel from an underground storage tank that could hold 10,000 gallons. The building was also features an auxiliary water system, designed to supply the shelter's inhabitants with water during an emergency; the school used the Artesia's regular municipal water during normal operations, and the auxiliary system was used in the air conditioning system.

The Abo Elementary School and Fallout Shelter has had few alterations and, as a result,

Abo Elementary School and Fallout Shelter

Name of Property

Eddy County, New Mexico

County and State:

retains a high degree of historic integrity. All of the original mechanical systems in the building remain including the generator, air filtration system, and water and sewer systems. Two above ground portable classrooms were later moved onto the grounds, but have already been removed. The emergency rations, obsolete drugs and medicines, and body bags were discarded in 1989 at the end of the cold war, and the morgue is now used as a storage space for cafeteria supplies. The Artesia Public School system recently oversaw the construction of a new, aboveground elementary school just west of Abo Elementary, called Yeso School. The new school (which opened in August 1995 and is located on the property just to the west of the original school) was designed to complement Abo Elementary, not to replace it. Abo Elementary School was closed in 1995 and is used only for storage at this time. Repairs to its air-conditioning, heating, plumbing and electrical systems are required. None of these repairs should affect the historic and architectural integrity of this important Cold-war era building.

Abo Elementary School and Fallout Shelter
Name of Property

Eddy County, New Mexico
County and State:

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations

(Mark "X" in all the boxes that apply.)

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or a grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

Constructed in 1962, the Abo Elementary School and Fallout Shelter is an unusual and important example of Cold-War era educational and civil defense design conceived and implemented at the local level. It is eligible for listing in the National Register of Historic Places under Criterion A for its national significance as a unique component of the civil defense system during the Cold-War. It is also being nominated under Criterion C for its exceptional significance as the first, and perhaps the only, building in the United States designed specifically for use as both an educational facility and fallout shelter. While the property is less than 50 years in age, it is eligible for listing under Criterion Consideration G for its exceptional importance to the State of New Mexico and the nation as a whole.

When Abo Elementary School and Fallout Shelter was completed in the spring of 1962, relations between the United States and the Soviet Union had deteriorated in the wake of the failed American invasion of Cuba at the Bay of Pigs in April of 1961. The sequence of events that culminated in the Cuban Missile Crisis of October 1962 prompted communities around the country to

Areas of Significance

(Enter categories from instructions)

- Military
- Education
- Social History
- Architecture
- _____
- _____
- _____

Period of Significance

1962 - 1989

Significant Dates

1962

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Frank Standhart/W.R. Bauske & Co.

improve their civil defense capabilities.

Located forty miles south of Walker Air Force Base in Roswell (and with Atlas missile sites dotting the surrounding area), the oil refinery town of Artesia felt particularly vulnerable to nuclear attack. As was the case in many other parts of the country at this time, private citizens in Artesia and surrounding communities were constructing bomb shelters that they hoped would save them in the event of a nuclear war. As stated outright in a brochure published by the School District about 1965, the stimulus for the construction of the school was a result of the fact that, "Artesians are influenced by the birth of the atomic age July 16, 1945, at neighboring Alamogordo, plus the proximity of the system of Atlas missile complexes surrounding Walker AFB, an arm of the Strategic Air Command."¹

The idea of an underground school that could double as a bomb shelter was first conceived of in a meeting between Roswell architect Frank Standhart and the Artesia Board of Education and School Superintendent Vernon Mills sometime in 1960. Standhart was known for his designs of above ground windowless schools in New Mexico and had been toying with idea of a school that could double as a bomb shelter since the late 1950's. The decision to build Abo Elementary was made by the Artesia School Board early in 1961 after many months of study and deliberation. Finances apparently played a part in the final decision, as the United States Office of Civil Defense offered to pay roughly one quarter of the construction costs in return for the chance to test new construction technologies and experiment with educational form/function in a subterranean setting. Standhart was interested in working on the project and realized that this building could very well serve as a prototype for other school/fallout shelters around the country. Ultimately, Standhart was chosen as project architect and W.R. Bauske & Co. of Clovis, New Mexico as the contractor.

Plans for the construction of the building called for an excavated building with an insulated 21-inch thick concrete slab roof and 7/8 inch thick doors. In addition to standard elementary school features of the time, the building was equipped with an emergency entrance with a shower to remove fallout particles, an air-conditioning system designed to filter out radioactivity, an emergency power generator, a sewage ejection system, medical facilities, a short wave communication system, and a morgue. The elaborate air filtration system apparently had the unintended effect of benefiting allergy and asthma sufferers. The design for the school also included several innovative educational amenities including full-sized video screens in each classroom with cable connections, sinks in each room with water fountains, a multi-use room (with fold-away tables and stage), and a two-way intercom system.

Construction of the building was completed on April 20, 1962, and dedication of Abo School and Fallout Shelter (named after a geological formation in the area responsible for major oil reserves), took place on June 12 of that year with over 3000 spectators in attendance. Office of Civil Defense Director Steuart L. Pitman officiated at the event and read a telegram from President Kennedy which gravely stated, "The inclusion of a fallout shelter in a school . . . is commendable and a necessary step towards ensuring the survival of this country." Press coverage of the dedication was heavy and included all the major television networks. The international media also picked up the story, including the Soviet newspaper, *Trud*, which commented that, "The nuclear madness which has hit the U.S. has even touched those working in the field of public education . . . the people of Artesia like to play war". There was criticism of Abo School in the U.S. press as well. In an editorial, the *St. Petersburg Florida Press* wrote, "That the Town of Artesia, NM will send 500 children to a school underground is petrifying . . . let us hope this experience turns out to be a damning boondoggle, a

¹ "Pilot Project for the Atomic Age...Abo Elementary School and Fallout Shelter", pamphlet published by Artesia Public School District no. 16 ca. 1966.

waste of taxpayers money".²

The final cost of construction for the project was \$468,623, of which the Office of Civil Defense paid \$131,943. The experimental status of the project was two-fold: the fallout shelter function was important but, apparently, secondary to the primary function of the facility as a public school. Lighting was a concern in a school with no windows. The New Mexico Ophthalmic Association expressed concerns over the effects that a lack of natural light might have on children's vision. Efforts were made by the architect to ensure that school's lighting was even throughout the classroom, and visuals were stressed in other phases of classroom design as well. The air-filtration delivered 15 cubic feet of filtered air per minute per person, of which 5 cubic feet was fresh, outside air--the air-filtration system would filter out any radioactive particles. In all, the design of the building for use as a school seems to have been quite successful despite an ongoing debate that developed regarding the potential psychological and physical effects of underground living.

In the first months of the school's opening, America experienced a tense period of nuclear brinkmanship with the Soviet Union during the Cuban missile crisis. In the event of a nuclear attack, the school was designed to quickly be converted from a school of 500 to a fallout shelter that could house 2000 people for two weeks. Beds kept in storage were to be set up in the classrooms and multi-purpose room. Interestingly, the town of Artesia appears not to have been unduly concerned about the possibility of nuclear attack. While students at the school had regular bomb drills, the community did not; the mere presence of a fully equipped bomb shelter seems to have alleviated fears. Civil Defense officials worked out a meticulous schedule for shelter inhabitants based on the time it took to carry out various functions. For example, if 2,000 people were housed in the shelter, each inhabitant would be allotted 5.75 minutes for their daily shower. Lists were also drawn up defining who the Civil Defense officials determined to be "necessary personnel" to carry on life underground. Rations stored in the shelter consisted of water, crackers, and dried/powdered and canned foods, and "survival kits" for 2,000 people were stored, containing soap, a toothbrush, toothpaste, a razor, a towel and washcloth, a comb, and a notebook and pencil.

Despite the great consideration and care that went into its design and construction, Abo Elementary School and Fallout Shelter would probably have failed in its capacity as a fallout shelter. Later tests indicated that the air-filtration system would not have successfully removed all radioactive particles from the shelter's air. While the shelter might have been successful in withstanding the direct effects of a nuclear attack in the short term, it was later recognized that the long-term effects of such a blast made its intended function useless.

From 1962 until 1995, the building functioned as a public elementary school. It continued to enjoy a degree of notoriety through the 1960s and 1970s. Various educational experts visited the school during the 1960s, including the noted St. Louis researcher, Frank Lutz, who concluded that students at the subterranean school performed as well academically as their counterparts in above ground schools. The town was proud of the school and marketed it as a tourist attraction. Directional signs to the school were installed around Artesia and guided tours were offered by the school administrative office and the police department until the end of the 1960's. With the end of the Cold-War in 1989, the shelter was officially "deactivated" by Civil Defense authorities and supplies relating to that function including, rations, beds, outdated medicines, and other supplies (including a few body bags) were removed from the facility. Abo Elementary School was closed in 1995 with the

² "A School Underground: Its Rise and Fallout" by Toby Smith, IMPACT--Albuquerque Journal Magazine March 16, 1982, pages 4, 5, 7.

construction of an adjacent public elementary school. The property is currently owned by the Artesia Public School District and used for storage.

The Abo Elementary School and Fallout Shelter has not been significantly altered since its completion in April 1962, and survives today as an exceptional example of Cold-War era fallout shelter and school construction. There are no other known examples of buildings in the United States designed to serve the dual function of educational facility and fallout shelter. While apparently never considered successful enough to replicate, Abo school is significant in terms of not only its innovative engineering and design, but as a unique expression of attendant attitudes and fears in America during the Cold-War period.

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary Location of Additional Data:

- State Historic Preservation Office
 - Other State agency
 - Federal agency
 - Local government
 - University
 - Other
- Name of repository: Drawings – Yeso Elem. School, Artesia

Bibliography.

“A School Underground: Its Rise and Fallout” by Toby Smith, IMPACT--Albuquerque Journal Magazine March 16, 1982, pages 4, 5, 7.

“Abo school turns 30--School’s past reflects the times” by Lynn Koenig, Artesia Daily Press April 26, 1992, section 1 pages 1, 10, 11.

“Going Underground--Artesia’s subterranean school survives the Cold War” by Judith Brown and Elaine Bonds, New Mexico Magazine April 1994, volume 72.

“Pilot Project for the Atomic Age...Abo Elementary School and Fallout Shelter,” pamphlet published by Artesia Public School District no. 16 ca. 1966.

Pratt, Boyd & Wilson, Chris, “Directory of New Mexico Architects.” 1988

“School board OKs new elementary” by Darrell J. Pehr, Artesia Daily Press February 15, 1994, section 1 page 1.

“The Abo School and Fallout Shelter,” special section of the Artesia Daily Press early June 1962.

“We couldn’t run, so we hoped we could hide” by Bruce Watson, Smithsonian April 1994, volume 25.

Abo Elementary School and Fallout Shelter
Name of Property

Eddy County, New Mexico
County and State:

Interviews

Elaine Bonds, Artesia New Mexico (former student at Abo Elementary)

Judith Brown, Artesia New Mexico (former teacher at Abo Elementary)

Marjorie Bunch, Albuquerque New Mexico (former President of Artesia School Board)

Dr. Glenn Stone, Artesia New Mexico (former ophthalmologist)

Invaluable assistance was provided by the following:

David Baker and Emma Salgado of the Eddy County Assessor's Office, Artesia New Mexico.

Ruth Eberle of the Artesia Public Schools Administration Office, Artesia New Mexico.

Judith Brown, teacher at Yeso Elementary School, Artesia New Mexico.

Principal Jim Hickerson and his staff at Yeso Elementary School, Artesia New Mexico.

Kathy Tidwell, teacher at Zia Intermediate School and member of the Artesia Historical Museum & Art Center Commission.

Abo Elementary School and Fallout Shelter
Name of Property

Eddy County, New Mexico
County and State:

10. Geographical Data

Acreage of Property Ten

UTM References (Place additional UTM references on a continuation sheet.)

- | | | | | | | | |
|----|------|---------|----------|----|------|---------|----------|
| 1. | 13 | 554210 | 3632740 | 2. | 13 | 554610 | 3632740 |
| | Zone | Easting | Northing | | Zone | Easting | Northing |
| 3. | 13 | 554370 | 3632590 | 4. | 13 | 554210 | 3632590 |
| | Zone | Easting | Northing | | Zone | Easting | Northing |

USDI/NPS NRHP Registration Form

Name of Property: Abo Elementary School and Fallout Shelter County and State: Eddy County, New Mexico

Verbal Boundary Description

The Abo Elementary School and Fallout Shelter property is a rectangular in shape (see map) and bordered by Center Street Street to the south, 17th Street on the east, and 19th Street on the west. The legal description of the property is Township 17, Range 6, Section 18, east ¾, south 2, nwse (less 130'x250+294'507.8'. The property is listed with the Eddy County Assessor's Office as Parcel #0008878

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

The boundary of the Abo School and Fallout Shelter property comprises the approximately ten acre parcel that was acquired by the Artesia School District for construction of the facility in 1961.

11. Form Prepared By

name/title Nancy Dunn & James Hewat (NMHPD)
organization Artesia Historical Museum and Art Center date June, 1999
street & number 505 West Richardson Avenue
city or town Artesia NM zip code 88210

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

- A **USGS map** (7.5 or 15 minute series) indicating the property's location.
- A **sketch map** for historic districts and properties having large acreage or numerous

resources.

Photographs

Representative **black and white photographs** of the property.

Additional items (Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name Artesia Public Schools
street & number 1106 W. Quay Avenue telephone _____
city or town Artesia state NM zip code 88210

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings.

USDI/NPS NRHP Registration Form

Name of Property: Abo Elementary School and Fallout Shelter County and State: Eddy County, New Mexico

Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reduction Project (1024-0018), Washington, DC 20503.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number:99001171

Date Listed: 9/29/99

Property Name:Abo Elementary School and Fallout Shelter

County: Eddy

State: NM

Multiple Name: N/A

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Patrick Andrews

Signature of the Keeper

9/29/99

Date of Action

Amended Items in Nomiantion:

In Section 3 of the form (Classification), the category of the property is not given. An amendment is made to note the category of the property as **building**.

This information was confirmed with James Hewat of the NM SHPO.

DISTRIBUTION:

National Register property file

Nominating Authority (without nomination attachment)