

US EPA ARCHIVE DOCUMENT

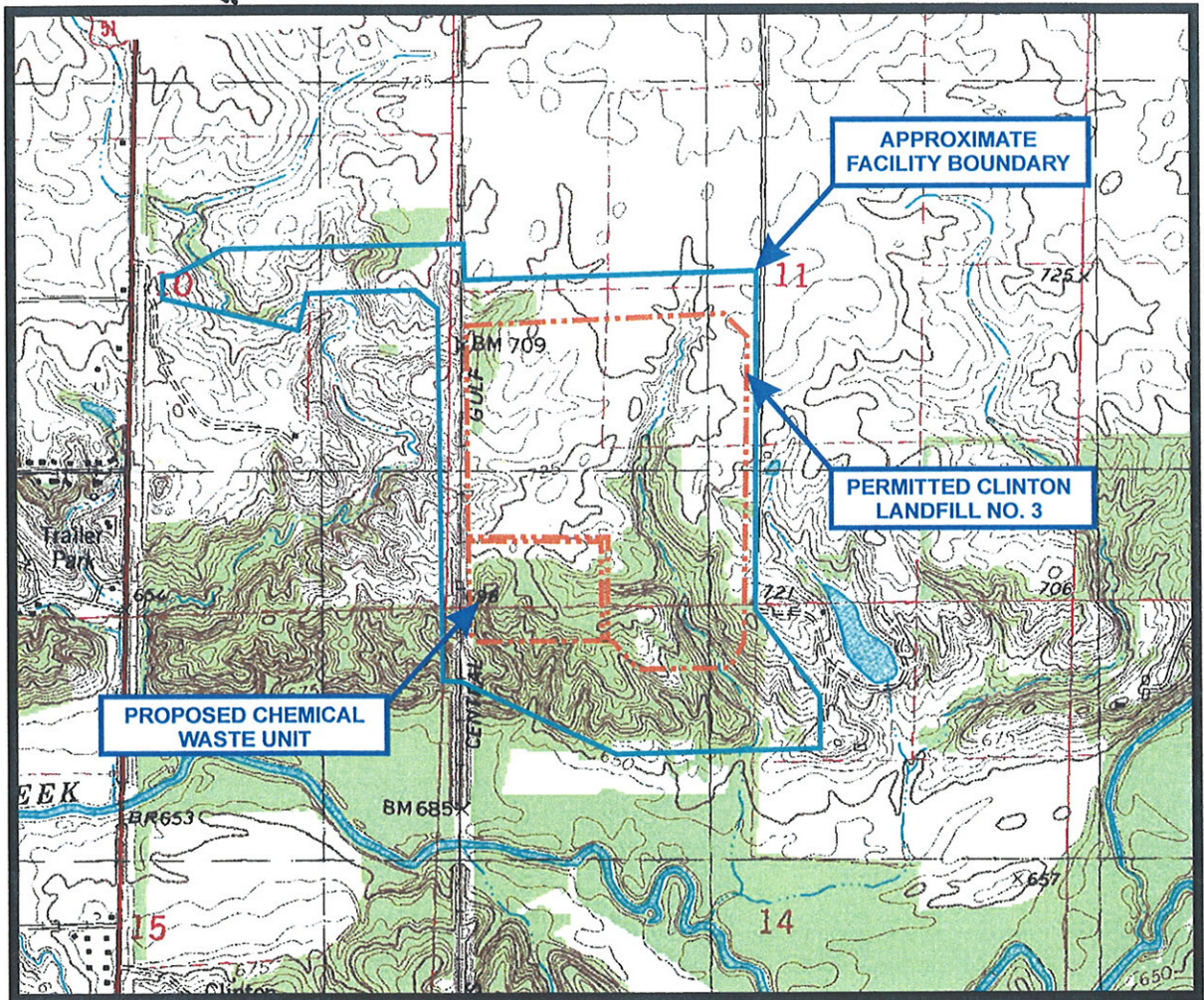
SECTION 1

LOCATION





PROJECT LOCATION



0 ft 1,500 ft



LOCATION

Introduction

Clinton Landfill No. 3 is an approximate 157.5 acre Municipal Solid Waste (MSW) landfill which received a permit from the Illinois Environmental Protection Agency (IEPA) in March 2007 (Permit No. 2005-070-LF). Presently, no portion of this facility has been constructed. This application proposes to modify a portion of the permitted landfill design so that materials which are regulated under the Toxic Substance Control Act (TSCA) may be safely accepted. The portion of the facility which is proposed for acceptance of the TSCA material (the Clinton Landfill No. 3 Chemical Waste Unit) would occupy approximately 22.6 acres of the currently permitted facility.

The proposed Clinton Landfill No. 3 Chemical Waste Unit is located so as to protect the public health, safety and welfare. This section of the application provides a brief summary of the facility and general character of the surrounding area, and demonstrates that all applicable location standards have been met or exceeded. Key findings include the following:

- ☐ The proposed Chemical Waste Unit is located within a permitted waste boundary that meets all of the location criteria specified by the Illinois landfill regulations and Federal Municipal Solid Waste Landfill Location Restrictions.
- ☐ The proposed Chemical Waste Unit is located adjacent to US Highway 51 which minimizes the use of township and county roads by landfill-related traffic.
- ☐ Adjacent properties to the proposed Chemical Waste Unit have been used for landfilling activities since 1974. Other uses in proximity to the site are primarily agricultural.
- ☐ A succession of low-permeability cohesive soil units are present beneath the proposed site which will separate the footprint of the proposed Chemical Waste Unit from the uppermost aquifer. These low permeability cohesive soil units have an average thickness of approximately 200 feet at the site (approximately 170 feet of which will remain between the bottom of the proposed liner invert and the Mahomet Sand Aquifer). Field and laboratory test results and field observations indicate that these materials will effectively restrict vertical and horizontal movement of groundwater and will serve as an additional environmental safeguard at the proposed Chemical Waste Unit.

Project Location

The Clinton Landfill No. 3 is located within DeWitt County, Illinois, and is situated within portions of Sections 10, 11, 14 and 15 of Township 19 North, Range 2 East of the Third Principal Meridian. More specifically, the facility is located approximately 2 miles south of Clinton, Illinois. The proposed Chemical Waste Unit is contained within the permitted waste boundary of the Clinton Landfill No. 3 (Figure 1-1).

In addition to landfilling activities which have been ongoing since 1974 on the west adjacent property, the general land uses around the subject property are primarily agricultural. Drawing No. D2 illustrates the location of the proposed Chemical Waste Unit in relation to the surrounding area. A topographic map of the proposed facility and surrounding area is shown on Drawing No. D3.



Site Background

On September 12, 2002, siting approval was granted for the Clinton Landfill No. 3 to be developed as a new non-hazardous MSW landfill directly to the east of the already existing Clinton Landfill No. 2. In March of 2007, Clinton Landfill Inc. received a permit to construct and operate the approximate 157.5 acre Clinton Landfill No. 3 (Pemit No. 2005-070-LF). This application proposes to modify a portion of the permitted landfill design (Phases 8 and 9) so that materials which are regulated under the TSCA may be accepted. The portion of the facility which is proposed for acceptance of the TSCA material is referred to throughout this application as the Clinton Landfill No. 3 Chemical Waste Unit (or Chemical Waste Unit). The proposed Chemical Waste Unit would occupy approximately 22.6 acres of the currently permitted facility.

Legal Description

A legal description and plat of survey for the landfill facility and waste boundaries is provided in Appendix B.

Site Location Standards

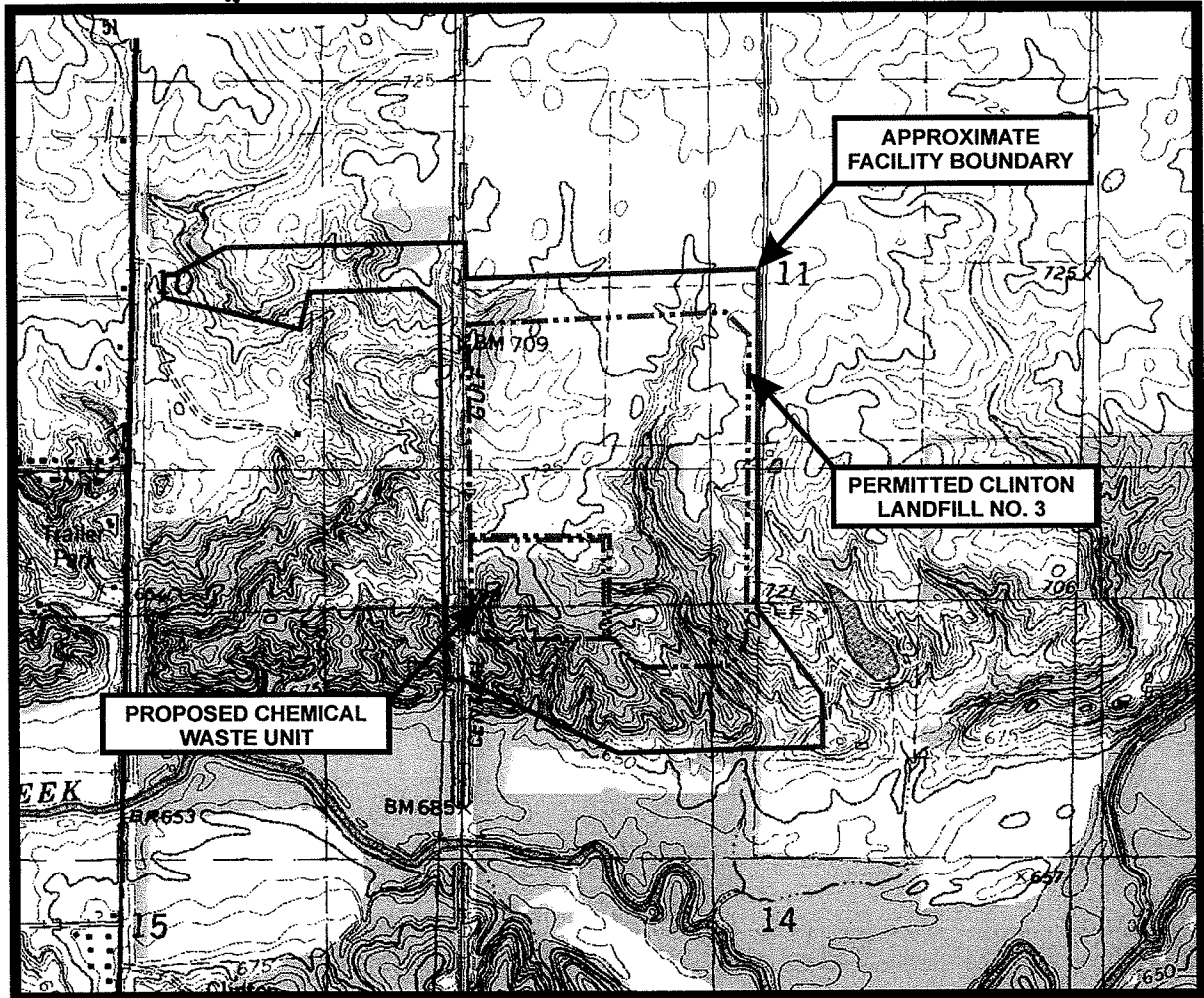
Illinois landfill regulations contain location standards that restrict where landfills may be developed (Ill. Admin. Code, Sections 811.102 and 811.302). Federal regulations and statutes contain additional location requirements. In certain cases, the standards specify a minimum setback distance between a landfill and other land uses such as airports or schools. The purpose of these location standards is to protect public health, the environment and the structural integrity of the engineered landfill.

The approved Clinton Landfill No. 3 complies with all applicable federal, state and local site location standards. The proposed Chemical Waste Unit is located within the proposed waste boundary of an IEPA approved landfill and therefore has already been proven to be in compliance with all applicable federal, state and local site location standards. Drawing No. D2 shows the location of the proposed Chemical Waste Unit and demonstrates that the landfill falls outside the applicable setback distances. Table 2.1-1 summarizes the location requirements and demonstrates the compliance of the proposed Clinton Landfill No. 3 Chemical Waste Unit. Documentation supporting the conclusions presented in this section are included in Appendix D.





PROJECT LOCATION



0 ft 1,500 ft




Shaw® Shaw Environmental, Inc.

**CLINTON LANDFILL NO. 3
CHEMICAL WASTE UNIT**

**FIGURE 1-1
SITE LOCATION MAP**

APPROVED BY: MNF PROJ. NO.: 128017 DATE: OCT. 2007

**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
A. Airport Standards			
<p>There are no public or private use air operations areas located within 10,000 feet of the proposed Clinton County Landfill No. 3 Chemical Waste Unit.</p> <p>The nearest airstrip (Martin RLA) is privately owned and is located approximately 6 miles east of the proposed Chemical Waste Unit.</p> <p>Reference:</p> <p>2006 Illinois Airport Inventory Report and IDOT Restricted Landing Area list (refer to Appendix D).</p>			<p>Title 35 Section 811.302 (c) and (f)</p> <ul style="list-style-type: none"> • The facility shall not be located within 10,000 feet of any runway used by turbojet aircraft without written permission of the FAA. • The facility shall not be located within 5,000 feet from any runway used by piston aircraft without written permission of the FAA. • The owner or operator proposing to locate a new MSWLF unit within a five mile radius of a public use airport runway must notify the airport and FAA within 7 days of a permit being filed with the IEPA. <p>49 U.S.C. § 44718 (d) as amended by Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century. FAA Advisory Circular No. 150/5200-34 dated August 26, 2000</p> <ul style="list-style-type: none"> • Prohibits the establishment of a new landfill within 6 miles of a public airport served by general aviation and regularly scheduled flights of aircraft designed for 60 passengers or less unless exempted by the state aviation agency and Federal Aviation Administration.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit		Regulatory Criteria:	
B. Floodplain			
The landfill is located outside the 100-year floodplain. References: Federal Emergency Management Agency Flood Insurance Rate Map panel numbers: 17039C0325 D, 17039C0310 D, and 17039C0190 D (refer to Appendix D).		Title 35 Section 811.102 (b) <ul style="list-style-type: none">• The facility shall not 1) restrict the flow of a 100-year flood, 2) reduce the temporary water storage capacity of the 100-year floodplain, or 3) result in washout of solid waste from the 100-year flood. Section 39.2 (a) (iv) of the Act <ul style="list-style-type: none">• The facility (landfill or waste disposal site) is located outside the boundary of the 100-year floodplain or if the facility described in subsection (b) of Section 22.19 (a), the site is flood-proofed.	
Complies and Exceeds X	Complies	Does Not Comply	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
C. Wetlands/Waters of the U.S.			
<p>The United States Army Corp of Engineers (USACE) has determined that the site is not within a jurisdictional wetlands and the Illinois Department of Natural Resources stated that they have no jurisdiction over streams with areas less than 10 square miles. Drainage areas disturbed by this site contain watersheds less than 10 square miles.</p> <p>Reference: Army Corps of Engineers and Illinois Department of Natural Resources correspondence (Appendix D).</p>			<p>Title 35 Section 811.102(e)</p> <ul style="list-style-type: none"> The facility shall not cause a violation of Section 404 of the Clean Water Act.
Complies and <u>Exceeds</u>	<u>Complies</u> X	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
D. - E. Fault Areas and Unstable Areas			
<p>Fault Areas: There are no known faults within 200 feet of the proposed Clinton Landfill No. 3 Chemical Waste Unit.</p> <p>The nearest fault zone is the Sandwich Fault Zone. It is located approximately 100 miles from the proposed Chemical Waste Unit.</p> <p>References: Section 2 Hydrogeologic Report.</p>			<p>Title 35 Sections 811.304 and 811.305</p> <ul style="list-style-type: none"> The facility shall not be located within 200 feet of faults that have displaced during the Holocene Epoch (10,000 years), without the approval of the State.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
E. Unstable Areas			
<p><u>Unstable Areas:</u> There are no documented unstable areas located beneath the proposed Clinton Landfill No. 3 Chemical Waste Unit. There are no reported karst areas beneath the facility. Site specific studies have not identified site characteristics conducive to the formation of karst features nor the presence of coal mining.</p> <p>References:</p> <p>Section 2 Hydrogeologic Report and Illinois Directory of Coal Mines (Appendix D).</p>			<p>Title 35 Sections 811.304 and 811.305</p> <ul style="list-style-type: none"> The facility shall not be located in an unstable area unless engineering measures have been incorporated to ensure the integrity of the structural components.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
F. Seismic Impact Zones			
<p>The proposed site is <u>NOT</u> located in a seismic impact zone. Over the last 200 years, the nearest area of major seismic activity has been the new Madrid Seismic Zone along the Mississippi River Valley. A seismic impact zone is defined as an area having greater than a 10% chance in 250 years exceeding a horizontal bedrock acceleration of 0.10g. The proposed Clinton Landfill No. 3 Chemical Waste Unit has a 10% chance in 250 years of having a horizontal acceleration of 0.0981g. Additionally, a seismic impact analysis has been performed for the proposed facility</p> <p>References:</p> <p>Probabilistic Earthquake Acceleration and Velocity Map (Appendix D) and Seismic Impact Analysis (Appendix H).</p>			<p>Title 35 Section 811.304</p> <ul style="list-style-type: none"> The facility shall not be located within a seismic impact zone (10% or greater chance of exceeding .10g in 250 years) unless all containment structures are designed to restrict the maximum horizontal acceleration for the site.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit		Regulatory Criteria:	
G. Wild and Scenic Rivers			
There are no rivers designated for protection under the Wild and Scenic Rivers Act within the vicinity of the proposed Clinton Landfill No. 3 Chemical Waste Unit. Reference: River Mileage Classifications for Components of the National Wild and Scenic Rivers System Table to Appendix D).		Title 35 Section 811.102(a) • The facility shall meet all requirements under the Wild and Scenic River Act.	
Complies and Exceeds X	Complies	Does Not Comply	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit		Regulatory Criteria:	
H. Historic and Natural Areas			
<p>A Phase I Archaeological Survey was performed by the Public Service Archaeology Program at the University of Illinois Anthropology Department. The survey did not find any significant archaeological sites.</p> <p>In correspondence, dated September 24, 2001 and February 5, 2002, the Illinois Historic Preservation Agency agreed with the findings of the Phase I Archaeological Survey and determined that there are no significant historic, architectural, and archaeological resources located within the project area.</p> <p>The Illinois Nature Preserves Commission stated that the site does not pose a threat to a dedicated nature preserve.</p> <p>References:</p> <p>Illinois Historic Preservation Agency and Illinois Nature Preserves Commission correspondence (Appendix D).</p>		<p>Title 35 Section 811.102(c)</p> <ul style="list-style-type: none">• The facility shall not pose a threat of harm or destruction to features for which a: 1) Historic Site, 2) Archaeological Site, 3) Natural Landmark, or 4) Natural Area was designated.	
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
I. Endangered Species			
<p>The site is located approximately 1/4 mile north of the Salt Creek Illinois natural Area. The IDNR stated that the state-threatened Spike mussel is known to occur in the nearby Salt Creek reach. The IDNR states that the landfill will not adversely impact water quality within this protected resource area.</p> <p>References: IDNR correspondence (Appendix D).</p>			<p>Title 35 Section 811.102(d)</p> <ul style="list-style-type: none"> • The facility shall not jeopardize or take any endangered species, result in the destruction of critical habitat for such species, or contribute to the taking of endangered or threatened species.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit		Regulatory Criteria:	
J. Water Quality Management Plan			
The development and operation of the proposed Clinton Landfill No. 3 Chemical Waste Unit will not violate an area-wide or state-wide water quality management (WQM) plan. The extensive stormwater management features constructed during landfill development will reduce the potential for downstream flooding and improve the quality of runoff versus existing conditions. Reference: Stormwater Management Plan, Section 4 of this application.		Title 35 Section 811.102(f) <ul style="list-style-type: none">• The facility shall not cause a violation of any area-wide or state-wide water quality management plan for non-point source pollution.	
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit		Regulatory Criteria:	
K. Water Supply Wells Setback			
<p>One well is located within the setback zone is located on the property and will be abandoned prior to cell development in that area.</p> <p>References:</p> <p>Illinois State Water Survey Private Well Database (Refer to Appendix D)</p>		<p>Title 35 Section 811.302(a)</p> <ul style="list-style-type: none">No part of a new unit shall be located within the setbacks established in Sections 14.2 and 14.3 of the Act, i.e., within 200 feet of a potable water supply well. A maximum setback zone may be established for a community water supply well in accordance with Section 14.3 of the Act.	
Complies and Exceeds X	Complies	Does Not Comply	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
L. Sole-Source Aquifers/Regulated Recharge Area			
<p>A sole source aquifer or regulated recharge area is not located within the area of the Clinton Landfill No. 3 Chemical Waste Unit. There are no sole-source aquifers located within the State of Illinois and the only regulated recharge area is the Pleasant Valley Public Water District which is located in Peoria County.</p> <p>Reference:</p> <p>Public water supply correspondence. (Refer to Appendix D).</p>			<p>Title 35 Section 811.302(b)</p> <ul style="list-style-type: none"> No part of a unit shall be located within 1,200 feet vertically or horizontally of a sole source aquifer, unless an impermeable situation exists below the unit. <p>Section 39.2(a)(ix) of the Act</p> <ul style="list-style-type: none"> If the facility will be located within a regulated recharge area, any applicable requirements specified by the Board for such areas have been met.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	
M. Roads and Highways			
<p>The waste boundary is located over 500 feet from the right-of-way of U.S. Hwy 51.</p> <p>Reference:</p> <p>Design Drawings No. D2 and D3.</p>			<p>Title 35 Section 811.302(c)</p> <ul style="list-style-type: none"> A facility that is located within 500 feet of a township or county road or state or interstate highway shall have its operations screened from view by a barrier no less than 8 feet in height.
Complies and <u>Exceeds</u> X	<u>Complies</u>	Does Not <u>Comply</u>	



**TABLE 1-1
LOCATION STANDARDS**

Clinton Landfill No. 3 Chemical Waste Unit			Regulatory Criteria:
N. Occupied Dwellings, Schools, Retirement Homes, Hospitals, etc.			
<p>The Clinton Landfill No. 3 Chemical Waste Unit will be located over 500 feet from all occupied dwellings, schools, retirement homes, hospitals, or like institutions.</p> <p>Reference:</p> <p>Design Drawing Nos. D2 and D3.</p>			<p>Title 35 Section 811.302(d)</p> <ul style="list-style-type: none"> No part of a unit shall be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the operator first applied for a permit to develop the unit or the facility containing the unit, unless the owner of such dwelling, school, or hospital provides permission to the operator, in writing, for a closer distance.
<u>Complies and Exceeds</u> X	<u>Complies</u>	<u>Does Not Comply</u>	

